LANE RENTAL
Guidelines

Introduction

Lane rental consists of charging the Contractor an hourly rental fee for occupying lanes and shoulders to do the contract work. Designers specify different rental rates for nighttime and daytime hours, peak hours and non-peak hours, single lane closures, and multiple lane closures. This encourages the Contractor to work when lane rental rates are lower and also to be more productive when lanes are closed.

UDOT uses a bid item for lane rental costs. This eliminates the necessity for the Contractor to spread the cost of lane rental fees over other items of work. Similarly, to avoid negative cash flow to the Contractor, the rental fee collection is made against the amount bid for the lane rental item and only charges in excess of the total lump sum bid are made against moneys otherwise due the Contractor.

Lane rental can be used by itself or in conjunction with A+B Bidding or I/D provisions on the same project. If the intent is to shorten the total project duration, A+B bidding should be used. If the intent is to minimize traffic flow impacts, lane rental should be used. Both may be used on the same project for different phases or operations.
Lane rental is similar to A+B bidding in that the Contractor must estimate the time it will take to complete the work during bid preparation and then bid on the time.

- For A+B, the Contractor bids consecutive days x daily user cost = B portion of the bid.

- For Lane rental, the Contractor bids the sum of lane or shoulder closure hours x hourly user cost = bid for LANE RENTAL..

For A+B, once the Contractor starts the B portion work, it must be completed within the consecutive days bid. Lane rental is only charged during the times the lanes are impacted by the contractors operation.

GUIDELINES FOR DEVELOPING LANE RENTAL PROVISIONS

1. Project Selection

Lane rental can be used when you want to encourage the contractor to minimize the length or duration of lane or shoulder closures for construction activities. It is also used to encourage the contractor to close lanes or shoulders during times of lower impact to the public. If there are times when you absolutely don't want the contractor to close lanes, specify those conditions in the limitation of operations rather than trying to use lane rental. concepts. Examples of operations that could benefit from lane rental include pavement joint repair,

paving or operations that require short lane closures at multiple sites such as replacing overhead signs on high traffic roads.

2. Project Development

Significant thought must be given to the desired goals of the project. All variations of lane closures must be considered when writing the provision. Some examples of things to consider are; single lane closures, double lane closures, shoulder closures, night time verses day time closures, closures on weekends, holidays or other special events. Designers should consider the number of lanes and/or shoulders to close, the length of each closure and the time periods when closures will be allowed. For example, Designers must consider if it is appropriate to charge a lane rental fee for a lane closure and not for a shoulder closure. Can work be performed on the shoulder without impacting traffic, or should the shoulder work be performed with the adjacent lane closed? What length lane or shoulder closure will be allowed? .

When establishing contract time, consider the hourly time restrictions placed on the Contractor to complete the work. If the Contractor is given a choice to work daily off-peak hours and nighttime hours in the contract, the contract completion date should not be set so tightly that the Contractor has to work every day and every night just to complete the work on time. If the intent is to do most of the work at night, sufficient time must be allowed. If the intention is for quick project completion, A+B bidding should be used instead of Lane Rental.

3. Determination of Lane Rental amount

It is very important to determine the proper rental rate for each configuration allowed in the contract. These rates should be less than or equal to the user costs associated with the impact. Sometimes the user cost is so great that the rental rate becomes so large that the contractor may have to bid unreasonable contingencies. This can result in an unacceptably high contract bid price. Care should be taken to adjust the rental rate down to a reasonable value in those cases.

Rental rates are typically determined by multiplying the estimated delay time by the number of vehicles delayed multiplied by an hourly value of the person and vehicle. It is necessary to complete a delay analysis for each situation. There are two programs available to assist Regions in estimating user costs. They are “Delay User Cost” (DUC), developed for UDOT by BYU and “Delay E”, written by Martin Knopp and made available for use to UDOT.

. Rental rates can be established by the day, the hour or some increment of an hour. Consider the impact on documentation efforts and administering the contract when determining the proper time increment for lane rental. Too long of increment may not provide proper incentive for contractor to open lanes timely. Too short of increment may be very difficult to administer.

There may be times when it is desirable to encourage the contractor to limit the length of the lane closures. A way to do this is to add “length” to the rental calculation. The calculation would then be number of lanes closed multiplied by the length of the closure

multiplied by the time the lanes are closed. The unit that would describe the rental rate would be lane-mile-day. This is particularly useful for projects that can extend for long distances in a given day such as paving operations etc.

4. Special Provision Consideration

If lane rental, Time plus Cost, or Incentive/Disincentive for early completion, are used in the same contract, the contract must be structured so that any damages assessed to the contractor can be justified and are not duplicating each other.

The special provisions referenced below should be carefully modified to fit the needs of the specific project and incorporated into all projects utilizing Lane Rental.

Required Special Provisions

Section 0022S (Lane Rental)
Section 00515M (Award and Execution of Contracts)
Section 00555M (Prosecution and Progress)
Section 00570M (Definitions)

SPECIAL PROVISION
(***PROJ NUM***)

SECTION 00222S

LANE RENTAL

PART 1 GENERAL:

1.1 SUMMARY

A. This contract contains Price + Lane Rental Bidding, which (1) provides for determination of the low Bidder to be based on the price of construction, plus the user costs associated with lane and shoulder closures; and (2) provides an incentive/disincentive to the Contractor for minimizing the duration of lane and shoulder closures based on durations established by the Contractor at the time of bid.

This section describes how the bid item Lane Rental is to be priced, and how Lane Rental is used to provide an incentive/disincentive to the Contractor for minimizing the duration of lane and shoulder closures. Section 00515M AWARD AND EXECUTION OF CONTRACTS describes how the Bid Item Lane Rental affects determination of the low Bidder.

There is no physical work to be accomplished under this item. Lane Rental is a bid item, but it is not a pay item. No payment will be made under the bid item Lane Rental.

1.2 RELATED SECTIONS

A. 00515 Award and Execution Of Contracts

1.3 DEFINITIONS

A. **Rental hour** – Any continuous 60 minute period or fraction thereof rounded up to the nearest 1/4 hour, beginning when a lane and or shoulder is closed or obstructed, and ending when the lane and or shoulder is open or the obstruction removed. It includes traffic control setup and takedown.

B. **Lane closure** - For the purpose of assessing lane rental charges, lane closure means denying any lane or any portion of a lane to traffic. A lane reduced to less than 11 feet is considered a lane closure.

C. **Shoulder Closure** - For the purpose of assessing lane rental charges, shoulder closure means preventing vehicles from using a shoulder or any portion of a shoulder for its intended legal use.

D. **Hourly Rental Rates** - The amount, as shown in the Special Provisions, which represents the hourly cost of interference and inconvenience to the road user for each lane and/or shoulder closure.

1.4 PRICING THE BID ITEM "LANE RENTAL"

A. Determine the lump sum price for the bid item titled Lane Rental as follows:

1. Determine the number of Lane Rental Hours required to perform the work for each roadway, direction, closure, day of week, and time of day as indicated in the table below. When determining the number of Lane Rental hours, consider all requirements of the contract.
2. Multiply the Lane Rental cost-rate in column I by the corresponding number of closure hours determined by the Contractor in column J, and record the product in column K.
3. Repeat step 3 for all CODES (column A) listed in the table.
4. The sum of all Lane Rental Costs in column K is the lump sum amount to be bid for the bid item "Lane Rental".

B. If the Bidder does not submit a bid for the Lane Rental item, the Department will consider the bid non-responsive.

C. Negative amounts are not permitted for the Lane Rental bid item.

D. Bidders are advised not to spread anticipated lane rental costs within other items of the contract, as unbalancing will occur and the bid proposal may be rejected.

E. The contractor shall maintain the minimum number of lanes open as specified in the contract.

F. The Lane Rental item has been included in the contract to allow Bidders to account for the lane rental charges that will be made in accordance with this specification. Therefore, the amount bid for this item should be based on the Bidders' estimate of rental hours and the amount charged for each rental hour specified in this Special Provision.

Key:
NB = northbound SB = southbound EB = eastbound WB = westbound
LCNA = Lane closure not allowed

TABLE 00222.1.4.a

A	B	C	D	E	F	G	H	I	J	K
CODE	ROADWAY	DIRECTION	CLOSURE	START TIME		FINISH TIME		RENTAL RATE	TOTAL DURATION	LANE RENTAL COST
				Day	Hour	Day	Hour	$ per hour	Hours	Dollars
1	I-215	Northbound	*Lane 1*	Mon	6am	Mon	10pm	$500/hr	_____hrs	$_____
2	I-215	Northbound	*Lane 1*	Mon	10pm	Tues	6am	$200/hr	_____hrs	$_____
3	I-215	Northbound	*Lane 1*	Tues	6am	Tues	10pm	$500/hr	_____hrs	$_____
4	I-215	Northbound	*Lane 1*	Tues	10pm	Wed	6am	$200/hr	_____hrs	$_____
5	I-215	Northbound	*Lane 1*	Wed	6am	Wed	10pm	$500/hr	_____hrs	$_____
6	I-215	Northbound	*Lane 1*	Wed	10pm	Thurs	6am	$200/hr	_____hrs	$_____
7	I-215	Northbound	*Lane 1*	Thurs	6am	Thurs	10pm	$500/hr	_____hrs	$_____
8	I-215	Northbound	*Lane 1*	Thurs	10pm	Fri	6am	$200/hr	_____hrs	$_____
9	I-215	Northbound	*Lane 1*	Fri	6am	Fri	10pm	$500/hr	_____hrs	$_____
10	I-215	Northbound	*Lane 1*	Fri	10pm	Sat	6am	$200/hr	_____hrs	$_____
11	I-215	Northbound	*Lane 1*	Sat	6am	Sat	10pm	$500/hr	_____hrs	$_____
12	I-215	Northbound	*Lane 1*	Sat	10pm	Sun	6am	$200/hr	_____hrs	$_____
13	I-215	Northbound	*Lane 1*	Sun	6am	Sun	10pm	$500/hr	_____hrs	$_____
14	I-215	Northbound	*Lane 1*	Sun	10pm	Mon	6am	$200/hr	_____hrs	$_____

TABLE 00222.1.4.b

A	B	C	D	E	F	G	H	I	J	K
CODE	ROADWAY	DIRECTION	CLOSURE	START TIME		FINISH TIME		RENTAL RATE	TOTAL DURATION	LANE RENTAL COST
				Day	Hour	Day	Hour	$ per hour	Hours	Dollars
15	I-215	Northbound	*Lane 1&2*	Mon	6am	Mon	10pm	$1500/hr	_____hrs	$_____
16	I-215	Northbound	*Lane 1&2*	Mon	10pm	Tues	6am	$500/hr	_____hrs	$_____
17	I-215	Northbound	*Lane 1&2*	Tues	6am	Tues	10pm	$1500/hr	_____hrs	$_____
18	I-215	Northbound	*Lane 1&2*	Tues	10pm	Wed	6am	$500/hr	_____hrs	$_____
19	I-215	Northbound	*Lane 1&2*	Wed	6am	Wed	10pm	$1500/hr	_____hrs	$_____
20	I-215	Northbound	*Lane 1&2*	Wed	10pm	Thurs	6am	$500/hr	_____hrs	$_____
21	I-215	Northbound	*Lane 1&2*	Thurs	6am	Thurs	10pm	$1500/hr	_____hrs	$_____
22	I-215	Northbound	*Lane 1&2*	Thurs	10pm	Fri	6am	$500/hr	_____hrs	$_____
23	I-215	Northbound	*Lane 1&2*	Fri	6am	Fri	10pm	$1500/hr	_____hrs	$_____
24	I-215	Northbound	*Lane 1&2*	Fri	10pm	Sat	6am	$500/hr	_____hrs	$_____
25	I-215	Northbound	*Lane 1&2*	Sat	6am	Sat	10pm	$1500/hr	_____hrs	$_____
26	I-215	Northbound	*Lane 1&2*	Sat	10pm	Sun	6am	$500/hr	_____hrs	$_____
27	I-215	Northbound	*Lane 1&2*	Sun	6am	Sun	10pm	$1500/hr	_____hrs	$_____
28	I-215	Northbound	*Lane 1&2*	Sun	10pm	Mon	6am	$500/hr	_____hrs	$_____

1.5 ASSESSMENT AND ACCRUAL OF LANE RENTAL CHARGES

A. GENERAL

Lane Rental charges will be assessed against the contractor for all times when lanes or shoulders are closed during times allowed for lane closures in the contract, and will accrue throughout the life of the contract. Lane Rental charges will be assessed for closure of lanes and shoulders that pre-existed the contract and also those that are constructed under this contract.

NOTE TO DESIGNER: For projects that have complex phasing which deletes existing lanes or traffic movements, or adds new lanes or traffic movements during the course of construction - consider the need to write specifications that address how the addition, elimination, or changing existing or newly constructed traffic lanes or movements affects Lane Rental

Planned or intentional closure of lanes outside of the hours allowed for Lane Rental is not permitted. Inadvertent closure of lanes outside of the hours provided for Lane Rental results in liquidated damages being assessed at 1.5 times the highest Lane Rental rate for that day of the week. These liquidated damages are for the recovery of increased user costs and contract administration.

B. CONDITIONS APPLICABLE DURING THE PERFORMANCE OF WORK TO WHICH LANE RENTAL APPLIES

Include any special requirements that are related to lane rental, such as (1) requirements for number of days advance notification to the department before lane closures,(2) implementation of public information campaigns and installation of diversionary/detour signage relative to the start of lane closures, (3) any special requirements that are the contractor's responsibility regarding record keeping of lane rental, (4) any conditions under which work would not be subject to lane rental charges, (5) minimum lane width of shoulder widths, or (6) other issues deemed appropriate by the Region .

C. MEASUREMENT

Document Lane Rental on a form approved by the Engineer. Submit this documentation to the Engineer for approval. These documents will be the source documents for measurement of Lane Rental accrued and assessed. The Engineer's decision shall be final in resolving disputes regarding Lane Rental.

Submit documentation to the Engineer every Monday, covering Lane Rental usage for the previous week. As a minimum, include the following:

1. Show every day of the week separately, and document every day,

whether Lane Rental is used or not.

2. For each lane rental location, show the hour and minute the lane rental began, the hour and minute the lane rental ended, the total duration of the lane closure in hours and minutes recorded to the nearest minute, the total duration of the lane closure in hours rounded up to the nearest 0.25 hours, the lane affected, the centerline designation of the roadway, the starting station of the closure, the ending station of the closure, the Lane Rental Rate, and the extended lane rental charge.
3. Measure Lane Rental by the hour, rounded up and recorded to the nearest 1/4 hour.
3. The cumulative Lane Rental accrued to date.
4. The balance of Lane Rental remaining, calculated as the difference between the Lane Rental Bid Item and the Lane Rental accrued to date.

Determine the number of lane and/or shoulder closures by counting the number of lane and/or shoulder locations subject to closure as defined above. Closures occurring in the same lane but located a distance of **one-half** mile or greater apart are considered separate closures and the rental charges applied for each separately as if they occurred on different lanes.

The distance between closures is measured from the end of the taper of one closure to the beginning of the taper for the following closure.

NOTE: The foregoing method of measurement is provided as an example only. The language regarding measurement must be developed to address the specific needs of a given project. For example, measurement by the lane-mile-hour may be more appropriate than by the hour if a project is spread over a long distance and it is desirable to minimize the distance of a lane closure. On another project, it may be appropriate to not charge lane rental for the first 5 (or so) minutes of a delay in a one-way piloted situation, in order to encourage the contractor to minimize the duration of delay to any given motorist. Or a given project may have multiple needs that require multiple measurement scenarios..

D. ASSESSMENT OF LANE RENTAL CHARGES

Lane Rental charges will be determined by multiplying the number of rental hours by the appropriate rental charge for each closure specified in the contract and summing the products. For the purpose of determining rental charges, a fraction of each 15 minute increment shall be considered a whole 15 minute increment.

E. ACCRUAL OF LANE RENTAL CHARGES

A tally of cumulative Lane Rental charges shall be kept throughout the life of

the project, and subtracted each month from the original lump sum bid for this item.

1.9 INCENTIVE/DISINCENTIVE

A. Payments/deductions to the contractor will be based on the difference between the Lane Rental bid amount and the actual lane rental charges assessed. Payment for the incentive, or a deduction for the disincentive, will be made in the project accounting system.

B. **DISINCENTIVE** - PAYMENTS DEDUCTED FROM THE CONTRACTOR – if applicable, by lump sum. If the accrued Lane Rental charges exceed the amount of Lane Rental bid by the contractor, the Department will deduct the difference from moneys due the contractor. These deductions will begin on the first progress payment when the accrued lane rental charges exceed the Lane Rental bid by the contractor.

C. **INCENTIVE** - PAYMENTS TO THE CONTRACTOR - if applicable, by lump sum. If the actual lane rental charges accrued after completion of the project are less than the Lane Rental bid amount, UDOT will pay the contractor the difference. The maximum payment shall not exceed $_____.

D. If liquidated damages are assessed to the contractor for failure to complete the project on time for the same day that lane rental charges are assessed, the contractor will be charged both.

SPECIAL PROVISION
(***PROJ NUM***)

SECTION 00515M

AWARD AND EXECUTION OF CONTRACTS

Revise the title of Article 1.2 to the following:

1.2 CONSIDERATION OF BID PROPOSALS:
PRICE + LANE RENTAL BIDDING

Delete Subsection A of Article 1.2 CONSIDERATION OF BID PROPOSALS and replace with the following:

A. This project uses a Price + Lane Rental bidding process. Price + Lane Rental bidding (1) provides for determination of the low Bidder to be based on the price of construction, plus the user costs associated with lane and shoulder closures; and (2) provides an incentive/disincentive to the Contractor for minimizing the duration of lane and shoulder closures based on durations established by the Contractor at the time of bid.

The Department opens the Bid Proposals using the most current version of EBS(electronic bid system) then compares them on the basis of the summation of the products of the quantities and unit bid prices. The low bid is determined by using a Price + Lane Rental (P+L) bidding method, as follows.

1. The bid consists of a Price component and a Lane Rental component.
2. The Price component is the sum of the products of the quantities and unit bid prices for the pay items in the contract.
3. The Lane Rental component is the lump sum dollar amount bid for the bid item titled Lane Rental.
4. The bid amount, for purposes of bid comparisons to determine the low Bidder, is determined by summing the Price component with the amount bid for Lane Rental, as shown in the following equation:

Bid Amount = Price + Lane Rental

This summation is only used to determine the successful Bidder. It is not used to determine the award amount nor final payment to the Contractor when the project is completed.

1. Department makes the results of the comparisons available to the public.
2. The unit bid prices govern if a discrepancy exists between unit bid prices and

extensions.

SPECIAL PROVISION
(***PROJ NUM***)

SECTION 00555M

PROSECUTION AND PROGRESS

PART 1 GENERAL, SECTION 1.9 LIMITATION OF OPERATIONS, is supplemented with the following:

D. LANE CLOSURES PROHIBITED

In order to provide for the efficient flow of public traffic on SR ____, there are times when the Contractor shall keep all lanes open without restrictions of any kind. Therefore, the Contractor shall not obstruct, divert, delay, detour, or in any other way hinder the flow of any lane or shoulder of SR ____at any location during the time periods shown in the following table. During the time periods listed in the table below, Lane Rental will not be allowed. Failure by the Contractor to keep all lanes open as described will result in assessment of liquidated damages in the amount of 1.5 times the maximum lane rental fee for that day of the week for every 15 minutes or fraction thereof, at each location.

	FROM	**TO**	**Occasion**
1	*This table is incomplete*	*This table is incomplete*	*Holiday*
2	*This table is incomplete*	*This table is incomplete*	*Holiday*
3	*This table is incomplete*	*This table is incomplete*	*Holiday*
4	*This table is incomplete*	*This table is incomplete*	*Holiday*
5	*This table is incomplete*	*This table is incomplete*	*Holiday*
6	*This table is incomplete*	*This table is incomplete*	*Holiday*
7	*This table is incomplete*	*This table is incomplete*	*Holiday*
8	*This table is incomplete*	*This table is incomplete*	*Holiday*

SPECIAL PROVISION
Project Number_____

SECTION 00570M

DEFINITIONS

Delete Article 1.2, A, 1 and replace with the following:

1. **P+L Bidding**: A Price Plus Lane Rental bidding procedure.

Delete Article 1.2, A, 11 and replace with the following:

10. **Calendar Day** - Every day shown on the calendar, beginning and ending at midnight. For incentive calculations, a full 24 hours will be used to determine one calendar day. For disincentive calculations any portion of a day will be considered a calendar day.

Delete Article 1.2, A, 20 and replace with the following:

20. **Contract Bid Item:** A specific unit of work for which a price is provided in the contract. For projects which include P+L bidding, Lane Rental is a bid item.

20a. **Contract Pay Item:** A specific unit of work for which a price is provided in the contract, except that no pay will be made for bid items related to Lane Rental.

Add the following to Article 1.2, A

93. **Lane Rental Cost (Lane Rental component)** A lump sum bid item for which there is no pay. The summation of the product of the hourly cost of impacts to the traveling public for the Contractor taking lanes and shoulders, multiplied by the corresponding number of hours estimated by the Contractor needed to close lanes and shoulders.