The guidelines developed in Chapter 3 can be applied to the long range planning process. However, the goals of long-term planning for value pricing are different from those described in Chapter 4, where the purpose of applying the evaluation criteria was to select a demonstration project. The goal for the long-term is to achieve a paradigm shift in the way the region incorporates value pricing in its planning process. Instead of considering occupancy based managed lanes as the predominant solution for improving mobility, value pricing could become the principal tool for relieving traffic congestion, while also generating revenue.

In general, facilities considered in the long range planning process would require more than five years for planning, design, and construction and would not be limited to what is currently recommended in the MTP as an HOV or managed lane. In addition, projects that were considered to be potential short-term projects but were not implemented would become part of the long-term plan for value pricing in the region. Essentially, this means that any existing or planned facility could be considered for value pricing in the future. In fact, NCTCOG and its partners will continue to use the guidelines established for this Regional Value Pricing study to make recommendations for future Metropolitan Transportation Plans.

As discussed in Chapter 3, the 10 evaluation criteria would be applied like they were for the short-term process, but with some differences. For example, the traffic needs would be investigated using the regional model instead of using the MOBLOS data. In addition, elements such as enforcement, toll collection, lane separation, and access and design exceptions, would be considered in the planning and design processes. Also, the financial feasibility of implementing value pricing is a much more important factor for future projects. Public policies related to legal constraints or regional guidelines would play an important role in selecting implementation strategies. Most importantly, lessons learned from value pricing demonstration project in the Dallas-Fort Worth Region would be applied to the development of future value pricing projects.

The value pricing strategies presented in the guidelines in Chapter 3 were defined as follows:

- Pricing HOV Lanes: Selling excess capacity on existing HOV facilities
- Applying Value Pricing on Tollways: Implementing variable tolls (by time of day, vehicle classification, congestion level, etc.) on an existing toll facility or designing a new tollway with variable tolls
- Pricing New Capacity on Freeways: Adding new priced lanes to existing freeways or constructing a partially managed new roadway.

### 5.1 THE “UNIVERSE” OF FACILITIES IN THE DALLAS-FORT WORTH REGION

The range of facilities to be considered for the long-term includes nearly all existing or planned facilities in the region. However, the existing interim HOV lanes, due to their lack of physical lane separation, and the existing toll roads, due to their bond covenant restrictions, would likely not be considered in the long-term. However, they are included in the universe of potential facilities because it is possible that in the future they can be modified, either geometrically or legally, to accommodate value pricing. Figure 5-1 below represents the potential facilities that could be considered in the long range planning of value pricing.
5.2 APPLYING THE 10 EVALUATION CRITERIA

5.2.1 Facility Main Lanes Exceed LOS E

For all three types of value pricing strategies, use of the region’s transportation model is key to analyzing the effect of value pricing on the priced facility as well as on the surrounding roadway network. The projected traffic volumes, temporal shifts, diversions to other roadways, and mode choice shifts that can be shown by the model will help planners calculate the usage of the facility as well as projected revenues. Travel demand modeling would be used to evaluate the operations of the managed facility and to determine the impacts to the general purpose lanes and the adjacent non-tolled facilities. The overall evaluation process would focus on the change in travel time and vehicle trips within the area of influence of the proposed managed lane facility. As an initial step, the model would be used to determine the impacted area using time savings for individual origin-destination zonal pairs as a mechanism to identify the area of influence. This analysis would be conducted separately by time period (peak, off-peak, or shoulder periods) so that the impacts can be quantified for both the peak period and overall daily levels of travel.
a travel time savings of 7 to 20 minutes, which corresponds to the general HOV time savings rule.

If enough motorists can be shifted from the peak period or buy into the managed lane, congestion during the peak period could be measurably reduced. The temporal shift is most effective on facilities that have a pronounced peak period, with significant excess capacity in the “shoulder” periods before and after the peak. For facilities where the cost to implement value pricing is low, a smaller number of users would be needed to justify the project. However, for more complex projects, where costs are higher, a larger number of users would be needed to justify and support the project.

### 5.2.2 Facility Subject to Legal Considerations

As discussed in Chapter 3, legal considerations range from statutes that encourage or prohibit value pricing to those regulations that would be considered during the project development process. In addition, equity is an important issue related to the public’s acceptance of value pricing. An evaluation of transportation and social equity is needed to ensure that parallel free choices are available for drivers not wishing to pay a toll, and that lower income or minority users and communities are not adversely affected by value pricing. Lessons learned from the I.H. 30 project as well as other value pricing projects nationwide should guide the equity analysis.

### 5.2.3 Design Features of Value Pricing Projects

The design features noted in the guidelines – enforcement, toll collection, lane separation, and access – are required to successfully implement value pricing. The complexity and right-of-way associated with incorporating them into the design of a facility determines the schedule, cost, availability of funding, and a project’s priority in terms of the needs of the region.

For example, most HOV facilities and tollways include some form of stationary enforcement, so incorporating this as a new feature may not be necessary. Likewise, in the case of new HOV lane construction, incorporating a full concrete barrier could require additional widening, but this design feature would be relatively simple to include. The electronic toll collection system could also be incorporated into the roadway by installing new toll gantries or using existing overpass structures to support the toll readers. Tollways would already have this feature in place.

For freeways where new toll lanes within the median of an existing freeway would be constructed, enforcement areas and toll collection equipment would not already exist. And while access from the “right lane” is provided on access controlled freeways, access to and from the median would have to be designed to allow merging and diverging traffic in coordination with the existing and planned access locations. In addition, bridge piers are generally located in the median and require a clear zone buffer for safety. The median toll lanes would need to account for this safety buffer. I.H. 30, which was selected as a demonstration project, is an example of such a freeway in the Dallas-Fort Worth Region.

For facilities that would generally be new major construction, such as new HOV lanes added to the outside of a facility or new tollway construction, where the toll would be set to generate revenues as well as manage congestion, the value pricing design features would be developed with all of the other highway design features.

Incentive programs would provide another innovative component to value pricing. While value pricing has been proven in many states to improve mobility in highly congested areas, additional public education is a key factor in its success. Incentive based pricing is yet another way to encourage support for the concept of value pricing.

Recent changes to transportation policies have altered the way in which the agencies in the Dallas-Fort Worth Region can consider value pricing as a congestion management or revenue generating tool. Specifically, in 2003, the Regional Transportation Council (RTC) made the decision to consider value pricing on all HOV, tollway, and freeway facilities, opening the door to consideration of pricing on nearly every facility in the region.

### 5.2.4 Other Considerations for Value Pricing

In addition to congestion management and revenue producing benefits, value pricing can provide benefits in the form of other programs. Called collateral actions, these programs have been established to enhance the pricing program by funding new services, such as alternative work hour programs, neighborhood telecommuting centers, and transit system improvements. National experience indicates that revenues from successful value pricing projects have also yielded system application of the 10 criteria for the long-term consideration of value pricing.
enhancements. One of the best examples is in San Diego, where excess revenues from the I-15 HOT lane were used to fund a new and expanded transit service, called the Inland Breeze, which improved transit service along I-15.

Other benefits of value pricing have been documented, such as on SR-91 in California, where some drivers choose to pay the toll even when there is no congestion. This suggests that some drivers experience a higher level of security, safety, and reliability in a priced lane, even during non-peak hours. Another benefit from the I-15 project was the significant reduction in SOV violators on the HOV lanes, which was the result of increased California Highway Patrol (CHP) enforcement funded by the project. The LeeWay system in Lee County, Florida realized benefits related to improved traffic flow on adjacent facilities, such as I-80 north of the toll plaza, I-880 to the south, and US 101 in the West Bay.

NCTCOG’s use of innovative methods to manage congestion could provide additional benefits for the Dallas-Fort Worth Region, simply by exposing the operators and users of the transportation system to alternate methods of congestion relief. This increased awareness of the benefits of value pricing could strengthen the public’s commitment to changing travel behaviors – by increasing occupancy, combining trips, or driving off-peak. Consequently, public understanding is one of the key elements that will influence the success of a value pricing program. If early value pricing demonstration programs in the region were to be unsuccessful because of public misconceptions and lack of proper education, it is possible that future pricing programs would have a reduced chance of being implemented in other corridors. In addition to public workshops and other outreach tools used during the planning process, a marketing campaign should be developed that would advertise the value as well as the logistics of value pricing, such as features of the program (hours, costs, and restrictions) and future plans for the program.

Although the public outreach and marketing program does not need to begin during the metropolitan transportation planning phase, it is important to think about when and how such efforts will need to be incorporated (and how much they will cost). Nonetheless, it would be beneficial to build local support from elected officials, community and opinion leaders, and the media, even during the planning phases. It is important to frame the project’s message before the opponents do and for the project to be aligned with the public’s needs. One way to accomplish this is to identify a champion (or champions) to publicly support the concept of value pricing in the region.

5.2.5 Incorporating Value Pricing Decision Points into the Project Development Process

Value pricing presents a unique opportunity for NCTCOG and its transportation partners to study the potential for implementing an innovative concept to help manage congestion on some of the most heavily traveled roadways in the region. The success of value pricing on any of the corridors in the region could open doors for widespread implementation of pricing on a system of corridors in the future. Results from operational projects around the country show that travelers are willing to pay for improvements in transportation service, and that pricing can lead to more efficient use of existing highway capacity. Given choices, drivers will make cost-based decisions for transportation, just as they do in other parts of their economic lives. The response to value pricing in the Dallas-Fort Worth Region will serve as an important guide for transportation planners and policy makers throughout Texas.

Therefore, it is important to understand how the implementation of value pricing should be incorporated into the project development process in the Dallas-Fort Worth Region. The project development process is shown in the flowchart in Figure 5-2, and includes the stages of project development, estimated time frames, and key decision points for value pricing decisions. This flowchart is intended to serve as a guide for developing value pricing projects within the much larger project development process.
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 years</td>
<td>National Environmental Policy Act (NEPA) Planning Study</td>
</tr>
<tr>
<td>2-4 years</td>
<td>Design Phase</td>
</tr>
<tr>
<td>2-5 years</td>
<td>Construction</td>
</tr>
<tr>
<td>on-going</td>
<td>Project opening</td>
</tr>
<tr>
<td>on-going</td>
<td>Begin project monitoring</td>
</tr>
<tr>
<td>on-going</td>
<td>Monitor toll rate/revenue flow</td>
</tr>
<tr>
<td>on-going</td>
<td>Monitor Operations &amp; Management and Enforcement Plans</td>
</tr>
<tr>
<td>on-going</td>
<td>Monitor toll structure Operations &amp; Maintenance</td>
</tr>
</tbody>
</table>

**Figure 5-2: Value Pricing Key Decision Points**

- Determine basic concept of project
- Check applicability of trust agreements and bond covenants
- Check for any legal or legislative roadblocks
- Check for consistency with regional policy positions
- Begin to identify project champion
- First level traffic and revenue studies (Sketch Level Analysis)
- Grant application (if applicable)
- Inclusion of project in regional MTP
- Inclusion of project for continued project development and NEPA process
- Comprehensive Development Agreement interest
- Initial development with potential partner agencies
- If CDA interest, TxDOT receives unsolicited bid
- For CDA, TxDOT Commission seeks formal bids (competitive process)
- Preliminary design of the project (schematic design)
- Determine level of enforcement that can be provided
- Determine any incentive-based programs that are applicable
- Determine what collateral actions could be provided
- Develop interagency agreements for the participation/roles in the project
- Second level traffic and revenue studies (Preliminary Analysis)
- Identify Operations & Management Plan component (toll structure, time of day, toll collection, occupancy, etc.)
- Environmental clearances for the project (NEPA process: FONSI/ROD)
- Develop partnering agreements for funding and Operations & Management
- Develop marketing plan
- Investment grade/bond market studies
- Final design plans for project (TxDOT Austin Approval)
- Review and refine Operations & Management and Enforcement Plans
- TxDOT seeks competitive bids
- TxDOT lets project to go to construction
- Project proceeds to construction
- Begin implementation of marketing plan
- Toll rate studies (upgrade/freshening of Investment Grade Study)
- Finalize Maintenance & Operations and Enforcement Plans

**Post Construction Operations and Maintenance**

application of the 10 criteria for the long-term consideration of value pricing