



Figure 4.15 : Balcony view of a major district park.

TRANSPORTATION

CONNECTIVITY AND ACCESS

This Master Plan recommends new street alignments that would form the framework for redevelopment of the planning area into a denser, urban, mixed-use neighborhood. The new streets would be built over time as the area develops on a parcel by parcel basis. The proposed connectivity would provide opportunities for new connections to formerly isolated, or seemingly undevelopable parcels throughout the planning area. Due to existing conditions, new streets would meander slightly; though still take a reasonably direct route through the planning area. This will give the streets a more intriguing character, while also helping to calm traffic.

Figure 4.16 illustrates a conceptual plan of existing streets versus proposed new streets. Most new streets would be designed to be slow speed with on-street parallel parking lanes, which provides a desired configuration for a mixed-use, pedestrian-friendly streetscape. All new streets proposed have been specified from a palette of seven street types ranging from 120-foot right-of-ways down to 62-foot right-of-ways (see Figure 4.17). These are discussed in greater detail in the “Urban Design” section later in this chapter.

Several recommended new and existing streets would connect to existing arterials, separating the planning area into a series of smaller “city blocks.” Block

sizes should be no more than five acres. As new street segments are proposed, the resulting new blocks will be more pedestrian-friendly in scale, and provide a network for the distribution of vehicular traffic. Traffic will continue to move along the major arterials. However, an internal system of streets and alleys would absorb much of the vehicular and service circulation, by providing access to private parking garages or surface parking lots, to be located at the rear or side of newly constructed buildings.

This Master Plan also recommends a complete redesign of Burnet Road into a Transit Boulevard, a street type that accommodates high traffic volume, with wide

sidewalks, bicycle lanes and expansion room for various types of future transit. A redesigned Burnet Road would be more comfortable for pedestrians, bicyclists and transit users than the current high-speed, auto-dominated roadway.

Another goal of the new roadway network and block structure is to minimize the number of driveway cuts from arterial roads and establish a street and block structure with predictable intersection spacing along these network spines. This would improve traffic flow on the arterial roads and help internalize local traffic movements. It would also improve the aesthetic quality along the arterial road edges.

The proposed street hierarchy, as discussed, is a much more urban transportation network pattern than currently exists. Major streets carry the bulk of traffic loads, but are easily relieved by parallel, secondary streets. Connectivity becomes very important among secondary streets, which allow drivers to avoid primary streets altogether. While primary streets generally have a more commercial focus, secondary streets are narrower, slowing traffic, to more comfortably accommodate pedestrian and bicycle traffic. Parallel parking and street trees enhance the residential quality and pedestrian experience of the streetscape. Narrow street widths are generally not recommended by conventional traffic planners, as they are perceived to cause problems for fire-fighting apparatus and bus access. In an urban setting, connectivity and through-access are very important to avoid these conditions. For streets with narrow right-of-way (ROW) like RES-62, multiple access points are required, as well as interconnected streets with no dead end conditions. For detailed descriptions of each street type, see the "Street Typologies" section in this chapter.

Outlined below are the specific connectivity and access improvements

recommended for the North Burnet/Gateway area:

Recommendations

1. Create a street network grid of collector streets, local streets, and alleys as properties throughout the neighborhood are redeveloped. New roadways will provide alternate routes and take traffic pressure off of the existing arterials.

2. Convert Burnet Road into a pedestrian-friendly urban Transit Boulevard (see Figure 4.14).

3. Convert Braker Lane (from Metric west to US 183) into a high volume tree-lined parkway.

4. Limit re-developed properties to a single driveway cut along arterial streets.

5. Create a new east-west connection over MoPac. Longhorn Blvd could connect with York Blvd across MoPac as an alternative access point to the Gateway shopping center. The crossover would also connect to Stonelake Boulevard in the Gateway area, providing access to the currently undeveloped land owned by UT (the "Western Tract") near the intersection of Stonelake Blvd. and Braker Lane (see Figure 4.12).

6. Extend Rundberg Lane to Burnet Road, allowing a connection with Longhorn Blvd west of Burnet.

7. Construct a direct connection between northbound US 183 and westbound Loop 360. This would alleviate much of the frontage road congestion at this intersection.

8. Enact highway improvements to increase traffic flow and ease congestion. Add U-Turn lanes at the interchanges along MoPac (across the highway connecting the frontage roads on either side), to facilitate new turning movements into and out of the North Burnet/Gateway area, which should take some traffic volume off of the intersection of Braker Lane and MoPac.

9. Modify Duval Rd from MoPac to Burnet Rd to allow two-way traffic.

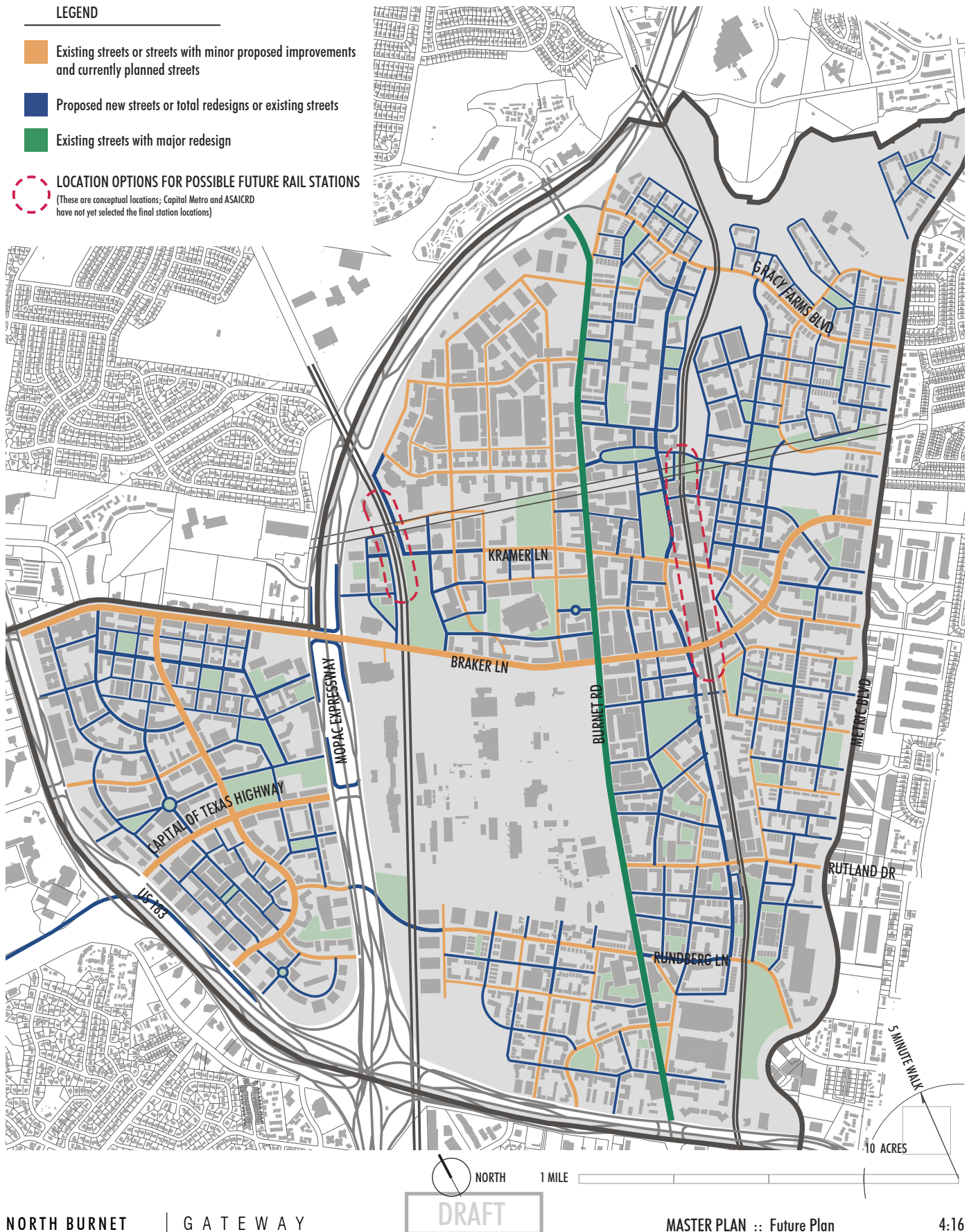
It should be noted that this Master Plan assumes that Burnet Rd and Metric Blvd do not expand to six lanes as proposed in the CAMPO 2030 plan. It is recommended that the CAMPO Plan be revised to delete its recommendation to expand the width of Burnet Road and Metric Boulevard during the next major plan update cycle which will conclude with adoption of the CAMPO 2035 Plan in June 2010. Keeping Burnet Rd. and Metric Blvd. at four lanes with the recommended redesign will create a better environment for pedestrians and cyclists movement throughout the district.

Similarly, the recommended new direct connection over MoPac would likely require an amendment to the CAMPO 2030 Plan before it could move forward to construction. The City of Austin should work directly with TxDOT to advocate for this type of improvement, identify funding, and elevate it for inclusion in the CAMPO Plan. Extensive collaboration with TxDOT is a necessity to make many of these recommendations a reality.

CONCEPTUAL STREET PLAN - EXISTING VS. PROPOSED

Figure 4.16

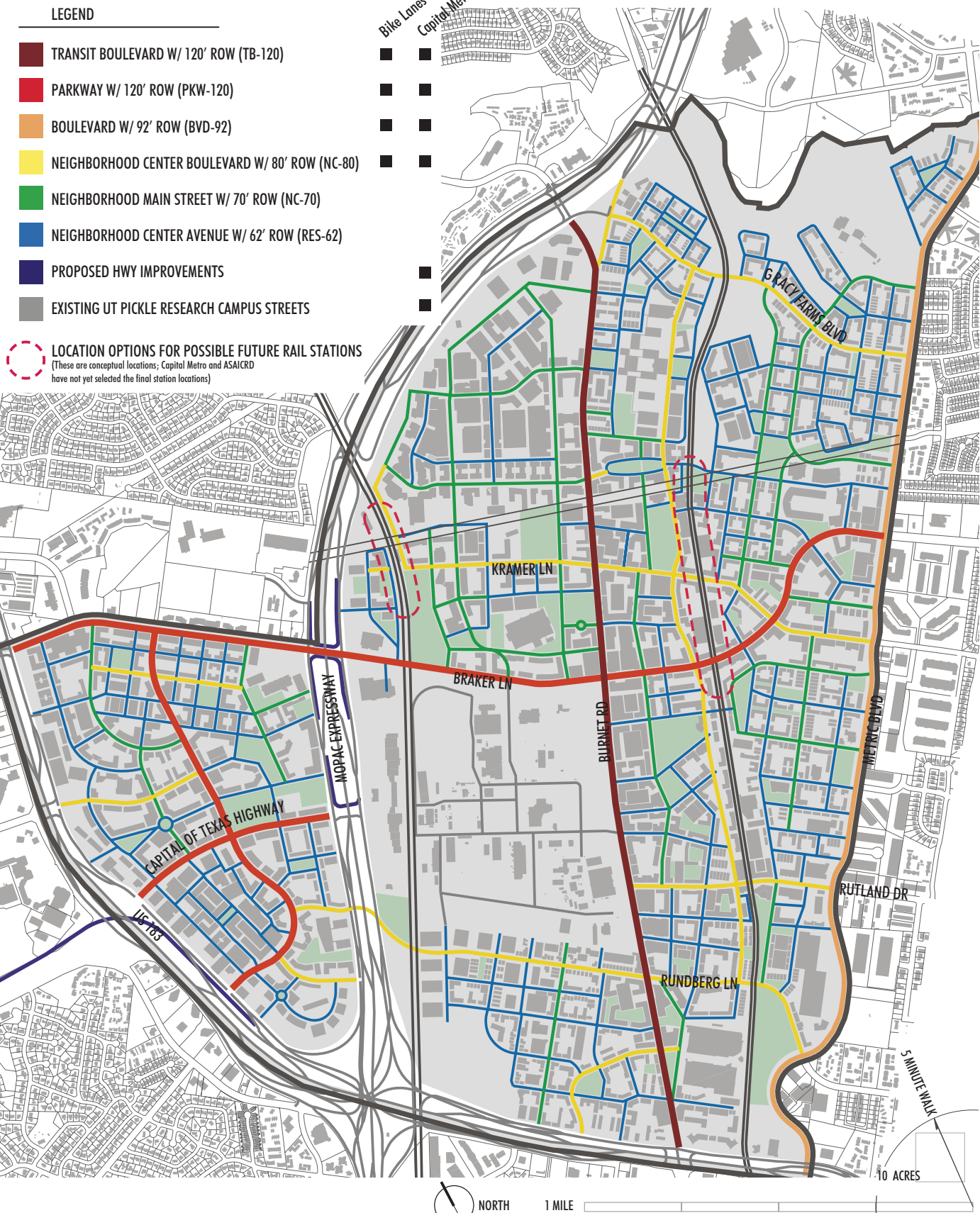
This map presents a potential redevelopment vision and does not constitute regulatory standards



CONCEPTUAL STREET HIERARCHY

Figure 4.17

This map presents a potential redevelopment vision and does not constitute regulatory standards



TRANSIT CIRCULATION

The role of transit in high density development is well documented in many research publications and other community planning resources. A highly connected, multi-modal system within the North Burnet/Gateway planning area is conceptually identified in the Conceptual Future Transit Connections diagram shown in Figure 4.18. This concept suggests a hierarchy of transit services that connect activity centers within the district and surrounding neighborhoods to the district. The goal is to create a new paradigm for transit use that is supported by and supportive of high-density mixed use development. People tend to use a transit system more when it provides quick and convenient connections for people living and working in the area, with direct routes and shorter headways (services on a more frequent basis). At the same time, when people and destinations are concentrated in nodes or activity centers with greater density, it is easier and more cost-effective to provide transit service that meets these needs.

The Capital MetroRail Red Line leads the study area's transit hierarchy and will provide service between Leander and Downtown Austin, a 32-mile route, beginning service in late 2008. Initially frequency of service is expected to be every 30 minutes during peak commute times in the morning and evening. Capital Metro has several station sites under consideration for this area but a final location has not been determined.

Another commuter rail station is planned by the Austin-San Antonio Intermunicipal Commuter Rail District (ASAICRD) along the existing Union Pacific Railroad. Initial service is projected to begin as early as 2012. This rail station is one of fifteen planned in a 110 mile corridor between Georgetown and southern San

Antonio. The conceptual rail station has been shown in this plan along MoPac, in a location that would serve the Domain development. The Domain development promotes the high density, mixed used environment that supports Transit-Oriented Development (TOD) well. This location is also conceptual and has not been finalized by ASAICRD.

Capital Metro provides a wide range of bus routes within and through the study area, and will provide future transit service. Although the existing bus routes serve the immediate needs of the area, future development as envisioned by the 2035 Master Plan will require additional transit service. In the "All Systems Go" plan, Capital Metro identified this area for special consideration. The benefit of a more connected street network is that transit routes can more easily be revised to accommodate changing needs. Capital Metro will evaluate future transit service with regards to meeting these needs as the district builds out over time. Capital Metro currently has plans to direct its future rapid bus routes through the study area which will provide access from this neighborhood to the downtown area. A district circulation study, similar to the Future Connections Study performed for Central Austin, will determine what transit services would serve this district. The circulation study has been submitted to the Capital Metro budget process for the next funding cycle; if funded, the study would likely be initiated in fiscal year 2008. The circulation study will take many factors into account, including feasibility, cost, ridership and impact on the regional network in determining the type of transit modes and routes to best serve the North Burnet/Gateway area.

Another option in the transportation hierarchy is a concept being tested in a number of cities, including Austin, called car-sharing. A car-sharing service provides a number of communal cars that are available to be checked out on an hourly basis. This allows persons to rely

more heavily on transit, knowing that if they need a car occasionally to run errands one will be available. Car-sharing could eliminate the need for a first or second car for participating families.

Multi-modal transit systems develop in various ways; however, certain components of a system may serve as a positive catalyst for transit-oriented development. Indeed, the Capital MetroRail service is one of the inspirations for this Master Plan. It is important for transit to have a sense of permanence. The lifespan and long-term commitment that a rail service implies is a valuable and concrete asset to private developers. Similarly, any fixed-route transit mode, such as streetcar, light rail, or separated, dedicated lanes for transit-only would also have a positive effect on transit-oriented development potential for the properties near the transit stops. The more flexible bus service is more demand driven and would seldom spur development on its own; however it is an integral component to a comprehensive transit system because of its flexibility to respond to changing development conditions. Regardless of the transit modes employed in the North Burnet/Gateway area in the future, the transit system is encouraged to be easy to navigate, provide frequent, direct routes to destinations, and minimize transfers and walking distances.

PEDESTRIAN & BICYCLE FACILITIES

During the early public involvement stages of this plan, a recurring desire expressed was the need for better bicycle connectivity, from both a recreational and commuter standpoint. Residents in neighborhoods adjacent to the North Burnet/Gateway area and bicycle advocates indicated a desire for better access to the Shoal Creek bike route just south of the study area. The existing bicycle routes through the area are difficult to maneuver and can be dangerous for cyclists. To address this issue, the Master Plan recommends the integration

of three forms of bike accommodations into the area (see Figure 4.19). The first are “Rails with Trails” bike throughways placed along existing rail corridors of both the Capital MetroRail Red Line and the ASACRD (MoPac) rail lines. It should be noted that neither of these trails has been authorized by the governing authorities, Capital Metro or ASACRD. However, Capital Metro is conducting a study to determine the feasibility of bike and/or pedestrian paths along portions of the Red Line where additional right-of-way exists; results are expected in 2007. It is premature for ASACRD to comment on the Union Pacific Railroad right-of-way at this time, but given the ASACRD commuter railway needs, a recreational trail could feasibly be located within portions of the existing right-of-way. The Burnet Road, Great Hills Trail, and Braker Lane underpasses should also be redesigned to accommodate a better bike route under US 183 to create safer north-south bike connections.

Bike lanes would be introduced on the Transit Boulevards, and on the largest of the secondary streets proposed. On the smaller of the secondary streets proposed, neighborhood streets and residential streets, bikes would operate in the lanes alongside autos as the design speed of the streets is intentionally kept low to accommodate mixed modes of transportation. Enhancing the pedestrian and bicycle environment is essential to transit-oriented development. The high degree of connectivity provided in the new street pattern will allow a diversity of route choices for cyclists and pedestrians as well. The major pedestrian and bike enhancement recommendations are outlined below:

Recommendations

1. Provide Rails with Trails throughways for pedestrians and cyclists along the existing rail corridors running north-south through the district.

2. Provide designated bike lanes on all primary streets and large secondary streets to encourage bike traffic throughout the district.

3. Keep design speeds low on all local streets to encourage bike traffic alongside vehicular traffic.

4. Establish sidewalk standards for all re-development to create tree-lined pedestrian friendly streets with wide shaded walkways.

5. Create a grid street pattern to improve the navigability of the neighborhood for cyclists and pedestrians.

6. Consider utilizing the space under the LCRA transmission lines for multi-use trails.

FREIGHT OPERATIONS

Freight activity is dependent on two main modes – rail and trucks. Both the Capital Metro and UP rail lines currently include freight activity. Capital Metro plans to utilize their rail line for urban commuter rail, therefore the freight operations will be moved to off-peak hours to avoid conflicts with passenger operations.

The Union Pacific Railroad line, which ASACRD would like to utilize in the future for intercity commuter rail, has a larger amount of freight activity. There are discussions in place addressing the relocation of the Union Pacific Railroad freight traffic, thus, in the future, freight could be removed entirely from this line. In the event that through freight is relocated, there would still be a need for local freight deliveries. As in the case with Capital Metro, required local deliveries would then be moved to off-peak hours of the day.

Implementation of the North Burnet/Gateway 2035 Master Plan will have an effect on the amount of trucking that utilizes this area for freight transport. The Master Plan proposes reducing the number of parcels with industrial zoning. Heavy

trucking activity is not consistent with a pedestrian-friendly environment. There is a regional need to provide for industrial land uses and trucking activity, however, this service should be concentrated in a strategic location in the southeast portion of the plan area, which will still allow for industrial use with convenient roadway access to Metric and Highway 183.

TRAFFIC CONDITIONS LEVEL OF SERVICE ANALYSIS

Traffic analysis was conducted for the North Burnet/Gateway area under two future development scenario conditions. This analysis forecast traffic conditions in 2035. The more detailed traffic analysis information can be found in Appendix 2.

For comparison purposes, the first future scenario, the “Conventional Scenario” traffic analysis, identified traffic conditions in 2035 if the North Burnet/Gateway area were to be developed with a conventional, suburban development pattern with segregated uses. In this scenario, the forecast for traffic generation was developed with existing, auto-oriented uses and the addition of five developments that have been approved or are in the permitting process: The Shops at Arbor Walk, Austin Commons, The Domain (both Simon Properties and Endeavor Real Estate planned developments) and Whole Foods. The only network improvements modeled in this scenario were the addition of u-turn lanes at the interchanges along MoPac Expressway and a connection between Rundberg Lane and Longhorn Boulevard.

The second analysis, the “NB/G Scenario,” assumed major redevelopment based on the recommendations of the Draft North Burnet/Gateway 2035 Master Plan. The performance of this system is based on a number of variables. The new street system recommended in this Master Plan would create a more grid-like network and a clear street hierarchy to disperse traffic more evenly across the district and minimize peak demand congestion points. By

CONCEPTUAL TRANSIT CONNECTIONS PLAN

Figure 4.18

This map presents a potential redevelopment vision and does not constitute regulatory standards

This map shows a concept for an interconnected multi-modal transit system to support the high-density redevelopment of the North Burnet/Gateway area, with sufficient capacity and frequency to encourage the use of transit. This concept plan has not been approved by Capital Metro, and does not identify specific routes or modes of future transit service. Specific routes, modes and frequencies would be identified as redevelopment occurs in the area over time.



BICYCLE CORRIDORS AND OPEN SPACE

Figure 4.19

This map presents a potential redevelopment vision and does not constitute regulatory standards



pairing this type of street network with a land use plan that encourages a mix of uses, the streets will be used more evenly throughout the day and a larger number of trips between uses are captured internally. One of the most important recommendations is to provide opportunity for neighborhood residents to travel from one place to another without an automobile. Whether this is implemented through the use of public transportation, bicycle trips, or walking, the effect is a reduction of the numbers of vehicles on the road. This is the only way to keep a dense urban area fully functional – by providing alternative means of transportation.

Figure 4.21 illustrates existing traffic conditions in the North Burnet/Gateway area, along with the two scenario LOS results for the 2035 PM peak period. It should be noted that, with the population of Austin expected to double in the next 20+ years, traffic in the North Burnet/Gateway neighborhood, as in most urbanized areas of central Texas will reach their current capacity very soon. As shown by comparing the “Conventional Scenario” analysis with the “NB/G Scenario” analysis, traffic congestion will continue to get worse as the region grows, with or without implementation of the North Burnet/Gateway Plan. However, under the “NB/G Scenario”, the North Burnet/Gateway Plan accommodates significantly more residential, commercial, and office uses; e.g. the Conventional Scenario assumes approximately 6,200 residential units in the North Burnet/Gateway area in 2035, while the NB/G Scenario assumes approximately 40,000 residential units.

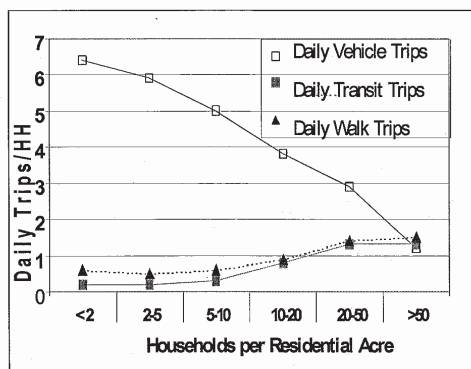
Three key factors contribute to the ability of the NB/G Master Plan scenario to accommodate more density while maintaining a similar traffic congestion Level of Service as would occur in 2035 if none of the plan’s recommendations for changes were made in the area:

1. Mix of Uses. The number of auto trips generated is less because the North

Burnet/Gateway Plan allows and encourages a mix of land uses in close proximity to one another. The location, mix of uses and density all impact the potential shift from auto to other travel modes, such as walking, biking and transit. The mix of uses can affect the internal synergy of a zone and study area. A well balanced mix of uses, such as retail, residential and office included in a zone allows for and encourages more pedestrian trips and shared vehicle trips within a zone.

2. Proximity of Transit. If the built environment is conducive to alternative transportation modes to driving, the demands for automobile travel can be reduced. Separate studies by CalTrans and Parsons Brinkerhoff revealed that as population density increases so does transit use. Figure 4.20 identifies key relationships between residential density and travel behavior.

Figure 4.20



3. More Interconnected Street Network. Even with reduction of trips due to the mix of uses and proximity of transit, the NB/G Scenario could generate approximately 15% more auto trips during the PM peak hour than the Conventional Scenario. However, because the NB/G Scenario includes a more interconnected street network, the additional auto trips are more evenly distributed, resulting in less congestion at any one intersection.

Trip reduction is best achieved through the development of urban neighborhoods or suburban town centers with compact,

higher-density, mixed use development that is walkable, bike-able and well-served by public transit. The number of auto trips the NB/G Scenario development will generate is only half of the potential trips generated if this development was in a suburban, low-density type environment that did not promote mixed use and a variety of non-vehicular modes of transportation. In addition, the study area’s proximity to Downtown Austin will reduce a commute trip length as compared to its suburban counterpart.

The North Burnet/Gateway Plan traffic analysis was conducted at a planning level to identify major transportation network improvements that could be taken to facilitate traffic movement and reduce congestion. This Plan incorporates these improvements as recommendations in the Connectivity and Access section of this report. As individual development projects are proposed, if they exceed a projected vehicular trip threshold, they will also be required to conduct a Transportation Impact Analysis (TIA). The TIA will identify ways to reduce the project’s projected traffic impacts at a site level and at nearby affected intersections, such as additional turn lanes into the site.

Below are additional steps that the City may take to further reduce auto trips:

Recommendations

1. Refine parking regulations to reduce the oversupply of parking. Currently the City parking requirements stipulate minimum parking requirements based on land use. In mixed-use, compact, walkable places, this could have the effect of requiring more parking than the market demands and could add substantial costs to development and redevelopment. Alternative parking regulations could include:

- Reducing minimum parking requirements in the North Burnet/Gateway area due to mixed-use development and the proximity to transit.

- Setting maximum limits on the number of parking spaces per square foot of new development.

- Allowing shared parking to be used to meet parking requirements. The premise is that different destinations attract customers, workers, and visitors during different times of the day. An office that has peak parking demand during the daytime can share the same pool of parking spaces with a restaurant whose demand peaks in the evening.

- Constructing centralized parking facilities and management. Centralized parking can be built and operated by a public entity or public/private partnership and reduce the costs of parking because large facilities are less expensive on a per space basis to build and maintain than small facilities. The City could charge market rates for contract and hourly parking to pay for the construction costs over 20 years. Centralized parking enables travelers to park once to visit several destinations, potentially reducing on-street congestion from short trips within an area. Developers could provide in-lieu parking fees to avoid constructing parking on site by paying the City a fee, and the City in return could provide off-site contract parking that is available for use by the development's tenants and visitors during peak hours and open to the public during off hours.

2. Encourage parking spaces to be sold or leased separately from building space. This allows tenants (residential, employment, or retail) to understand the true costs of auto use and provides another economic incentive to choose alternative methods of transportation.

3. Establish Transportation Demand Management programs that may include employer transit assistance, staggered work hours, car and van pools, bike racks and showers for bicyclists.

Figure 4.21 : Change in Traffic Conditions based on Development Type

Signalized Intersections	Existing	Conventional Scenario	TOD Scenario
	2006	2035	2035
1. US 183 Northbound Frontage Road and Braker Lane	F	F	F
2. US 183 Southbound Frontage Road and Braker Lane	F	F	F
3. US 183 Northbound Frontage Road and Great Hills Trail	D	D	D
4. US 183 Southbound Frontage Road and Great Hills Trail	C	F	F
5. US 183 Northbound Frontage Road and Loop 360	D	F	F
6. US 183 Southbound Frontage Road and Loop 360	C	F	F
7. Seton Center Pkwy and Braker Lane	A	F	F
8. Stonelake Blvd and Braker Lane	B	F	F
9. Stonelake Blvd and Great Hills Trl	C	F	F
10. Sam's Drwy/Gateway Drwy and Loop 360	B	B	B
11. Stonelake Blvd and Loop 360	B	C	D
12. MoPac Loop 1 Northbound Frontage Road and Braker Lane	C	F	F
13. MoPac Loop 1 Southbound Frontage Road and Braker Lane	D	F	F
14. MoPac Loop 1 Northbound Frontage Road and Loop 360	C	F	F
15. MoPac Loop 1 Southbound Frontage Road and Loop 360	E	F	F
16. MoPac Loop 1 Northbound Frontage Road and Duval Road	F	F	F
17. MoPac Loop 1 Southbound Frontage Road and Duval Road	E	F	F
18. Burnet Road and Gracy Farms Lane			F
19. Burnet Road and Gault Lane	E	F	F
20. Burnet Road and Stone Hollow Drive extension			C
21. Burnet Road and Kramer Lane	B	F	F
22. Burnet Road and Braker Lane	E	F	F
23. Road A and Braker Lane	A	F	C
24. Burnet Road and Rutland Drive	C	F	F
25. Burnet Road and Longhorn Blvd/Rundburg extension	B	F	F
26. US 183 Northbound Frontage Road and Burnet Road	F	F	F
27. US 183 Southbound Frontage Road and Burnet Road	E	F	F
28. Rail Alignment Road and Gracy Farms Lane			F
29. Rail Alignment Road and Stone Hollow Drive Extension			C
30. Rail Alignment Road and Kramer Road			B
31. Rail Alignment Road and Braker Lane			E
32. Rail Alignment Road and Rutland Drive			C
33. Rail Alignment Road and Rundberg Extension			C
34. Stone Hollow Drive and Gracy Farms Lane	B	B	F
35. Metric Blvd and Stone Hollow Drive	D	F	F
36. Metric Blvd and Gracy Farms Lane	C	D	F
37. Metric Blvd and Braker Lane	E	F	F
38. Braker Lane and Kramer Lane	C	F	F
39. Metric Blvd and Kramer Lane	D	D	E
40. Metric Blvd and Rutland Drive	C	C	D
41. Metric Blvd and Rundberg Lane	C	C	D