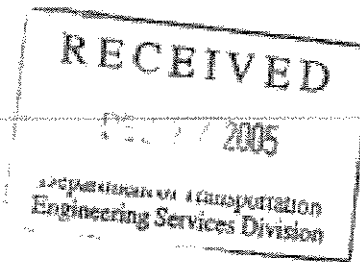


# **APPENDIX E**

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## **GREENBRIAR MASTER AQ/TSM PLAN**



December 21, 2005

Ms. Elizabeth Hughes  
660 J Street, Suite 444  
Sacramento, CA 95814

**Subject: GREENBRIAR AQ PLAN**

Dear Ms. Hughes:

Thank you for providing this project for review by the Sacramento Metropolitan Air Quality District (District) staff. District staff comments follow.

The provisions of the air quality plan meet the expectations of District staff. As a smart growth project located along the proposed Downtown Natomas Airport (DNA) Light Rail Line, many of the goals for a responsive air quality plan are met by the design and strategic location of the project. Since the DNA Line does not yet exist, the greatest air quality impacts will be realized once that RT project is completed.

In staff comments to the project proponents we highlighted the recent guidance provided by the California Air Resources Board regarding the potential hazards of projects located near freeways. In that guidance ARB noted that there are possible toxic hazards for sensitive receptors residing near major freeways. Lacking specific details for what those hazards will be, District staff met with representatives of Greenbriar to discuss possible mitigation measures. At that meeting, Greenbriar proponents agreed to plant trees and other physical/natural barriers between the few homes that would be impacted and the I-5 freeway. They further agreed to place the latest technology in windows design. If the District receives further guidance from ARB, we will send it to you.

If you have questions, please contact Jean Borkenhagen at 874-4885 or [jborkenhagen@airquality.org](mailto:jborkenhagen@airquality.org) as I will be retiring from the District effective January 6, 2006. It has been my privilege to work with you on this project and many others during my tenure at the District.

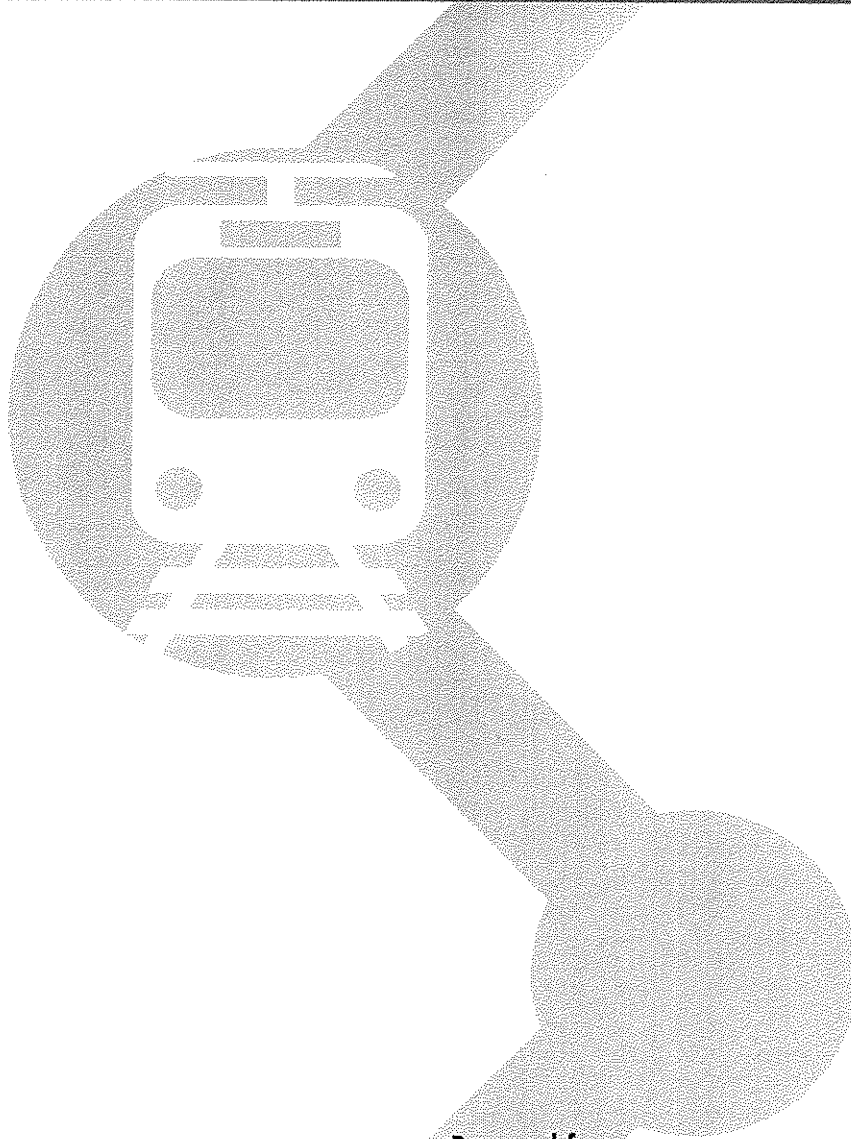
Sincerely,

Art Smith, Associate Air Quality Planner Analyst

cc: Ed Cox, City of Sacramento, Ron Maertz, SMAQMD

LMSO/Land Use & Transportation/Land Use/SAC900400004 AQ Plan

# GREENBRIAR MASTER AQ/TSM PLAN



Prepared for:  
North Natomas 575 Investors, LLC

CITY OF SACRAMENTO &  
SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

 THE HOYT COMPANY    October 5, 2005

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- Air Quality Information Contacts
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## 1.0 PROJECT DESCRIPTION (#29 - 1.0%, #26 - 1.5%, #31 - 0.5%)

North Natomas 575 Investors, LLC proposes to develop Greenbriar, a 577-acre mixed use transit oriented development in the North Natomas community. Greenbriar consists of low, medium and high density housing. Increased density directly relates to improved air quality. The higher the density, the more likely one is to meet a neighbor to form a carpool or walking/bicycling group, or to take transit. Greenbriar has a diversity of housing with 12 different proposed housing types. The overall average residential density of 12 dwelling units per acre.

The Greenbriar community will serve as a focal point with 9 parks, an elementary school, retail and commercial uses. A pedestrian paseo surrounds an extensive water feature that runs through the project. The project is a true suburban infill TOD in keeping with the SACOG Blueprint project. Unique for a suburban development, the project has been strategically designed around a future light rail station on the DNA line. This light rail line will connect the Natomas area to jobs at Metro Air Park, the Sacramento International Airport, and key activity centers in Natomas such as Arco Arena and the Town Center area, as well as downtown Sacramento.

Greenbriar is bound by I-5 to the south, Highway 99 to the east, and Elkhorn Boulevard to the north and Lone Tree Road to the west. Metro Air Park, a master planned commercial and industrial development with an estimated 35,000 jobs at build out, lies immediately to the west of Greenbriar.

A schematic plan for the project is located on page 2.

The Smart Growth design of Greenbriar supports the air quality and trip reduction goals described in the North Natomas Community Plan<sup>1</sup> and those of the City of Sacramento.

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<sup>1</sup> *North Natomas Community Plan*, May 1994.



## 2.0 BACKGROUND ON SACRAMENTO AIR QUALITY

Ground-level ozone, a primary ingredient in smog, is formed when volatile organic compounds (VOCs) and NO<sub>x</sub> react chemically in the presence of sunlight. Cars, trucks, power plants and industrial facilities are primary sources of these emissions. Ozone pollution is a concern during the summer months when weather conditions are suitable for the formation of ground-level ozone. Ozone also aggravates asthma, damages the lining of the lungs and makes breathing more difficult.

Sacramento has been designated as a nonattainment area for ozone pollution. The region is not in compliance with standards set forth in either the Federal or State Clean Air Acts (does not meet the 8-hour ozone standard: 0.08 parts per million (ppm), averaged over eight hours). Sacramento must meet the federally mandated deadlines established by the 1990 Amendment to the Clean Air Act to be compliant with the national ambient air quality standards. In the interim, the nonattainment area must demonstrate to the EPA that they are making reasonable progress toward improving their air quality. The deadline for meeting the 8-hour ozone standard for Sacramento is 2013. Federal monies received for roadways and other transportation improvements may be reduced significantly if attainment is not met.

In order to meet the requirements of the Clean Air Act, most 8-hour ozone nonattainment areas will be required to submit a state implementation plan to the EPA by April 2007. Through this plan, states will design their approach to reducing the ozone level in the air and emissions of ozone precursors. Working with the EPA, nonattainment areas will also implement programs to further reduce emissions of ozone precursors from sources such as cars, fuels, and consumer/commercial products and activities.<sup>2</sup>

## 3.0 INTRODUCTION TO TRANSPORTATION MANAGEMENT

Transportation management is a combination of services, incentives, facilities, and actions that reduce single occupancy vehicle (SOV) trips to help relieve traffic congestion and air pollution especially during peak periods. Transportation management also encourages more efficient use of alternative transportation systems.

The basic premise of transportation management is the maximum utilization of existing transportation resources. The Sacramento region, as is typical of urban areas in the United States, has billions of dollars invested in roadway infrastructure and hundreds of millions of dollars invested in public transit infrastructure. The goal of transportation management is to more efficiently and economically take advantage of these major capital investments.

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<sup>2</sup> U.S. Environmental Protection Agency, 2005, [www.epa.gov/ozonedesignations](http://www.epa.gov/ozonedesignations)  
Sacramento Metropolitan Area Management District, 2005, [www.airquality.org/news.html#8hourdesignation](http://www.airquality.org/news.html#8hourdesignation).



The four basic goals that can be achieved through effective utilization of transportation management measures are:

1. Converting SOV trips to an alternative mode of transportation (i.e., transit, carpools, vanpools, bicycles or walking)
2. Reducing air pollution (i.e. technological solutions such as high-efficiency HVAC systems)
3. Reducing energy consumption (i.e., purchasing less gasoline)
4. Eliminating trips (i.e., telecommuting)

The concept is very similar to what private industry has done for decades. Private businesses have always managed their assets to produce the maximum output of a fixed capital investment. For example, if an automobile manufacturer experiences more demand for their product than can be produced at an existing plant, they do not build another expensive plant, they add a second and eventually a third shift. The manufacturer utilizes its existing resources (capital investment in machinery) over a longer period of time (asset management).

Until recently in the United States, the answer to relieving congestion on roads and in parking structures has been to build more roads and parking structures (similar to building another automobile manufacturing plant). Current economics, limited resources, and the need to reduce air pollution affect the ability to build and maintain more roads or parking structures. This reality necessitates better utilization of the existing transportation infrastructure (similar to adding a second shift). Transportation management measures support this transition to a greater use of existing alternative transportation options.

Transportation management can be the solution, or at least one element of the solution, to three basic concerns:

1. Air pollution
2. Traffic congestion
3. Energy consumption

The Sacramento Metropolitan area, as a growing urban area, needs to address all three of these concerns. The Greenbriar project has the opportunity to be part of the solution through the transportation management programs identified in this plan.

#### 4.0 AQ/TSM PLAN GOAL

To reduce air quality pollution and traffic resulting from development in North Natomas, the City of Sacramento and the Sacramento Metropolitan Air Quality Management District (SMAQMD) require new development in North Natomas to mitigate air pollution and automobile trips. The City of Sacramento and the SMAQMD have developed a listing of different Air Quality Mitigation Measures and Transportation Systems Management (TSM) measures that, when incorporated into new development, will reduce air pollutants and automobile trips.

The City of Sacramento and North Natomas Community Plan require an AQ/TSM Plan for major projects:

*The property owner of every Major Project shall be required to obtain a Transportation Management Plan (TSM Plan) permit subject to approval by the Planning Director and the Traffic Engineer.... Major Project defined as...any development proposal which is expected to be the primary place of business of 100 or more employees.<sup>3</sup>*

*Each non-residential project shall comply with the Citywide Transportation Management (TSM) ordinance and a Transportation Management Plan shall be required.<sup>4</sup>*

Separate specific AQ/TSM Plans for SC and C-2 uses will be created and submitted as the project develops. The plan will follow the guidelines set forth in this Master Plan.

The following sections provide details of the mitigation measures included in the Greenbriar development which support the required 35% mitigation for commercial land uses and 15% for residential land uses. Specifics for commercial development regarding actual number of required carpool spaces, bicycle storage spaces, etc. will be provided in a subsequent AQ/TSM Plan.

**Sacramento has the 7th worst air quality in the nation.** However, our region's air quality is improving in part from compliance of these requirements by projects, such as Greenbriar. Implementation of TSM and air pollution reducing strategies will continue to be an important component of cleaning up the air for a healthier economy and lifestyle.

**Section 17.184.060 of the City of Sacramento zoning code states that the plan obligations shall either be included in the covenants, conditions, and restrictions prepared for the development and recorded as part of that document, or separately recorded. The filing fee for this permit shall be in an amount specified by resolution of the city council. At any time after the original plan has been approved, the property owner may request modification of the plan by filing an application and processing fee in the amount specified by resolution of the city council. (Ord. 99-015 § 6-1-F)**

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<sup>3</sup> City of Sacramento Zoning Ordinance.

<sup>4</sup> *North Natomas Community Plan*, May 1994, Pg. 47.

## 5.0 TMA MEMBERSHIP (#51 - 2.5%)

Transportation Management Associations (TMA)s are private, nonprofit organizations run by a voluntary board of directors with typically a small staff. They help businesses, residents, developers, building owners, local government representatives, and others to work together to collectively establish policies, programs and services to address local transportation problems. The key to TMAs lies in the synergism of multiple groups banding together to address and accomplish more than any employer, resident, building operator or developer could do alone.

Currently Greenbriar is not served by a TMA. The TMA closest to Greenbriar is the North Natomas Transportation Management Association (NNTMA). The NNTMA offers its employee and residential members services such as shuttle service, Guaranteed Ride Home Program, transportation fairs, ridematching assistance, and vanpool assistance. Membership fees are automatically paid by residents and tenants through annual assessments to the Community Facilities District.

The NNTMA also provides the following programs:

**Bicycle Incentive** - The NNTMA has a program geared towards increasing bicycle usage. They offer rebates toward the purchase of a new bicycle.

**Save Money and Air by Reducing Trips (SMART)** - Transportation options and information will be provided to those who join the SMART club. Prizes are offered as incentives to keeping informed.

**School Program** - The NNTMA can help set up an all-volunteer "Walk-to-School" program at the elementary school within Greenbriar. This program provides students an organized, safe and healthy option for their trip to school.

Greenbriar will join a TMA and participate in programs and services offered by the TMA. Greenbriar's Transportation Coordinator (see Section 6.0) will work with the TMA to promote TMA programs for the purpose of reducing employee commute trips. The TMA will also promote programs to residents through marketing, transportation fairs, and through their Web site and publications.

The TMA will also work with the Transportation Coordinator to provide information to new residents.

### 5.1 Vanpool Assistance Program

Greenbriar's TC will work directly with the TMA and residents, with the purpose of forming vanpools. Typically, vanpools are created and used by employees who live 25 miles or more from their worksite. The North Natomas TMA has found that targeting employees who live closer to their worksites has been successful in the formation of vanpools.

## 6.0 TRANSPORTATION COORDINATOR (#57 - 0.2%)

Greenbriar will provide a Transportation Coordinator (TC) who will have the primary responsibility for implementing the measures found in this Master Plan.

This position will be temporarily filled by:

Name: Ms. Elizabeth Hughes, The Hoyt Company  
Address: 660 J Street, Suite 444  
Sacramento, CA 95814  
Phone: (916) 448-2440  
Email: elizabeth@thehoytco.com

If land is sold, the new property owner(s) will provide a TC. The land owner will inform the City with the name(s) of the TC(s). The TC will provide the following services and functions in coordination with the TMA:

1. Implement programs found in the Master AQ/TSM Plan for Greenbriar.
2. Develop and maintain liaison with the TMA serving Greenbriar.
3. Coordinate and manage various aspects of the Master Plan that require periodic updates or monitoring such as Guaranteed Ride Home Program registration, carpool registration, parking assignment and enforcement, locker assignment and enforcement.
4. Coordinate the transportation needs of the project specifically related to alternative modes of transportation such as shuttles or vanpooling.
5. Provide information and resource materials on the full range of transportation choices available (update the kiosk/centers of information).
  - Transit information (when RT implements and modifies service)
  - Bicycle information such as bicycle maps, new routes, etc. (available from Sacramento Area Council of Governments (SACOG), the TMA, and Sacramento Area Bicycle Advocates)
  - Carpooling/vanpooling information
6. The TC will be responsible for informational items provided at the sales/rental office for potential home buyers/lessors to review. A display will contain transit schedules, maps, bicycle and rideshare information, and the new resident transportation flyer. In addition, the TC will give each new homeowner/lesor a packet containing these materials at the close of escrow/lease signing. The TC will

update the information at least once per year until the project has been sold out. The TC will also work with the rental office(s) to keep an updated display in the common areas of the apartment complex(es)/senior living area

7. Develop relationship with tenant employees by on-site visits, transportation fairs and emails; promoting TSM and AQ programs.
8. Conduct an annual survey of tenant employee commute methods for the entire development and distribute summarized results to the tenant and to the City of Sacramento Department of Planning Department and the SMAQMD as part of the annual report process. (Please refer to Section 16.0 Expiration of Plan, page 18.)
9. Evaluate survey results for alternative transportation use and potential.
10. Promote telecommuting (working from home, which eliminates trips) and flextime (work schedules are flexible to accommodate carpooling or taking transit) where appropriate.

The TC will coordinate with TMA staff for program implementation such as the Guaranteed Ride Home Program and for information dissemination such as current bicycle maps, shuttle schedules, promotional incentives, and when appropriate, RT schedules. The TC must be provided with this Master AQ/TSM Plan so that the TC will know what the responsibilities are for this project. If there are any TC training opportunities provided by the TMA or other local agency, the TC must attend. The TC will also coordinate with the TMA staff to occasionally attend TMA board meetings or other regional meetings having to do with TSM or air quality.

If the person performing the duties of the TC changes, the City of Sacramento Transportation Department must be informed.

References to various air quality agencies are attached and are provided for benefit of the TC.

## 7.0 INFORMATION KIOSK (#8 - 0.5%)

Prior to occupancy, all tenants and residents will have available to them information that promotes improved air quality. The leasing/sales office will display information such as shuttle information, transit schedules (when appropriate), regional ridesharing programs, bicycle commuting programs, and other TMA or SMAQMD programs.

A permanent display will be provided in an employee common area with pertinent alternative mode information (see example on following page). Two outdoor kiosks will also be provided for the benefit of visitors to Greenbriar. The information will be updated as necessary (at a minimum annually) by the TC. This information will also be

distributed to employees when they are newly hired. The following are the types of information that will be provided:

- Maps and schedules for shuttles, Regional Transit bus routes and light rail, and transit pass subsidy program (when appropriate);
- Regional ridesharing programs (i.e., Rideshare Week, SACOG Rideshare's 511 rideshare matching program)
- Bicycle commuting programs (i.e., SACOG Rideshare's bicycle buddy matching, Bike to Work Day)
- Sacramento Metropolitan Air Quality Management District and TMA programs (i.e., GRH Program, Spare the Air)
- Commute alternative allowance program
- TC contact information

## **8.0 BICYCLE/PEDESTRIAN IMPROVEMENTS**

### **8.1 Project Located Within 1/2 Mile of Class I or Class II Bikeway (#5 - 1.0%)**

Bicycle lanes are planned throughout Greenbriar and along Elkhorn Boulevard. Five foot (5') to six foot (6') bicycle lanes are designed to connect residents to all uses including the school and parks. Please refer to page 2 to view the project's street sections.

Please refer to the bikeways map on page 11 to view the project in relation to the City's planned and existing bikeways.

Through bicycle commuting assistance offered by SACOG Rideshare, Greenbriar can provide safety and bicycle matching information to residents and employees who bicycle to work or for recreation.

### **8.2 Pedestrian Pathways (#6 - 1.0%)**

Five foot (5') sidewalks will be constructed throughout Greenbriar. All sidewalks (with the exception of a portion of Meister Way, will have additional "buffer" landscaping to separate pedestrians from the roadways. Please refer to page 2 to view the project's street sections for exact dimensions.

### **8.3 Separate Bicycle/Pedestrian Path (#32 - 2.0%)**

A fifteen foot (15') pedestrian paseo is designed to surround the water feature. The paseo will feature landscaping, lighting and benches. The paseo will also serve as a connector to the different uses within Greenbriar including the school and parks.

In addition to the fifteen foot paseo, land for a 100 ft. buffer will be dedicated to the City of Sacramento for construction along the freeway and the project property line. The buffer area will be landscaped and will make possible for a future twelve foot (12') off-street bikeway.

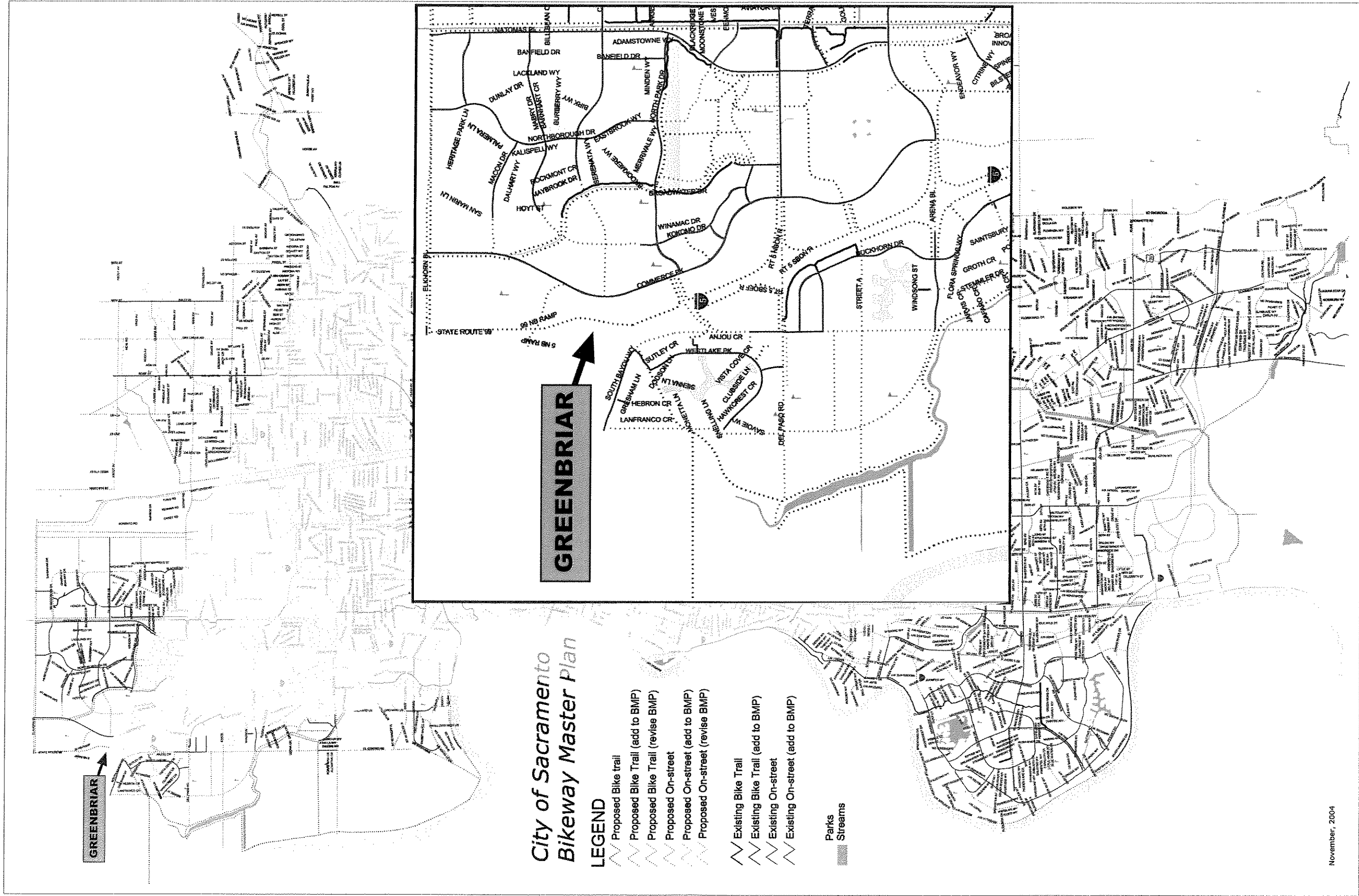
### **8.4 Eliminates Residential Uses that Impede Bicycle/Pedestrian Circulation (#33 - 1.0%)**

This project will be designed to maximize bicycle and pedestrian connectivity between residential uses and commercial/retail land uses. Any uses that may impede pedestrian or bicycle circulation, such as berms, gates, walls, or other structures will not be constructed.

### **8.5 Bicycle Storage (1.0%)**

Having a secure place to store bicycles is a concern for those who would like to bicycle to work. Class I lockers, fully enclosed and locked units, provide the optimum storage for bicycles. In a locker a bicycle is completely protected from the elements and theft. Class II racks are those that one would chain a bicycle to and are usually in front of building entrances. Frame locking racks are convenient and deter from theft.

Greenbriar will provide Class I and Class II bicycle parking throughout the commercial area of the project at a ratio one (1) bicycle storage space for every 20 required parking spaces. Fifty Percent (50%) of the storage spaces will be Class I with the remaining spaces Class II (frame locking style).





## 9.0 TRANSIT (#10 - 0.5%, #29 - 1.0, 5.0%, 5.0%)

Greenbriar is a transit oriented **mixed-use** project with high-density uses within 1/4 mile of planned transit. Greenbriar has **dedicated land** along Meister Way for the purposes of a light rail station. Additional land has been reserved for a Regional Transit sub-station as well as a **park-n-ride lot**. The lot will include spaces for cars as well as Class I lockers for bicyclists.

The Greenbriar development plan embodies several planning strategies aimed at optimizing the potential for transit ridership when the planned RT Light Rail line from downtown to the Sacramento International Airport is built and a station is established at the center of Greenbriar:

- Higher density housing near the station site
- Mixed-use development adjacent to the station site
- Residential block sizes that encourage pedestrian and bicycle activity
- Open space/park network for easier pedestrian/bicycle trips

Initially Greenbriar will not be directly served by public transit, as the community is in the initial stages of infrastructure development. However, the NNTMA does provide shuttle services that will serve this project as it builds out (see Section 9.1). As the new residents begin to occupy homes and as commercial areas develop in North Natomas, residents and employees will be served by increased bus service and ultimately, light rail provided by Regional Transit.

### 9.1 Shuttle Service (10.0%)

Because transit service is not readily available, the NNTMA has developed a shuttle program that serves the residents in the North Natomas community.

Shuttle service will adjust as development occurs; however, current service provides residents in North Natomas with three types of service: commuter, shopper, and dial-a-ride. The following information details shuttle service.<sup>5</sup>

#### **Commuter Subscription**

Operates from 5:30 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m., Monday through Friday. Provides service for North Natomas residents to workplaces and transportation connections in North Natomas, South Natomas business corridor and downtown Sacramento. Currently commuter service is free and seats are filled on a first come first serve basis. The NNTMA is anticipating an expansion in this service and a cost of \$1 per ride.

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<sup>5</sup> NNTMA Web site, <http://www.northnatomastma.org>, 2005.

**Dial-A-Ride**

This service is for the occasional rider. \$1 each way; free to destinations in North Natomas. Residents will need to call the shuttle line at (916) 429-2667 to schedule a ride (reservations accepted between 9:30 a.m. and 2:30 p.m.). Limited to space available.

**Shopper's Shuttle**

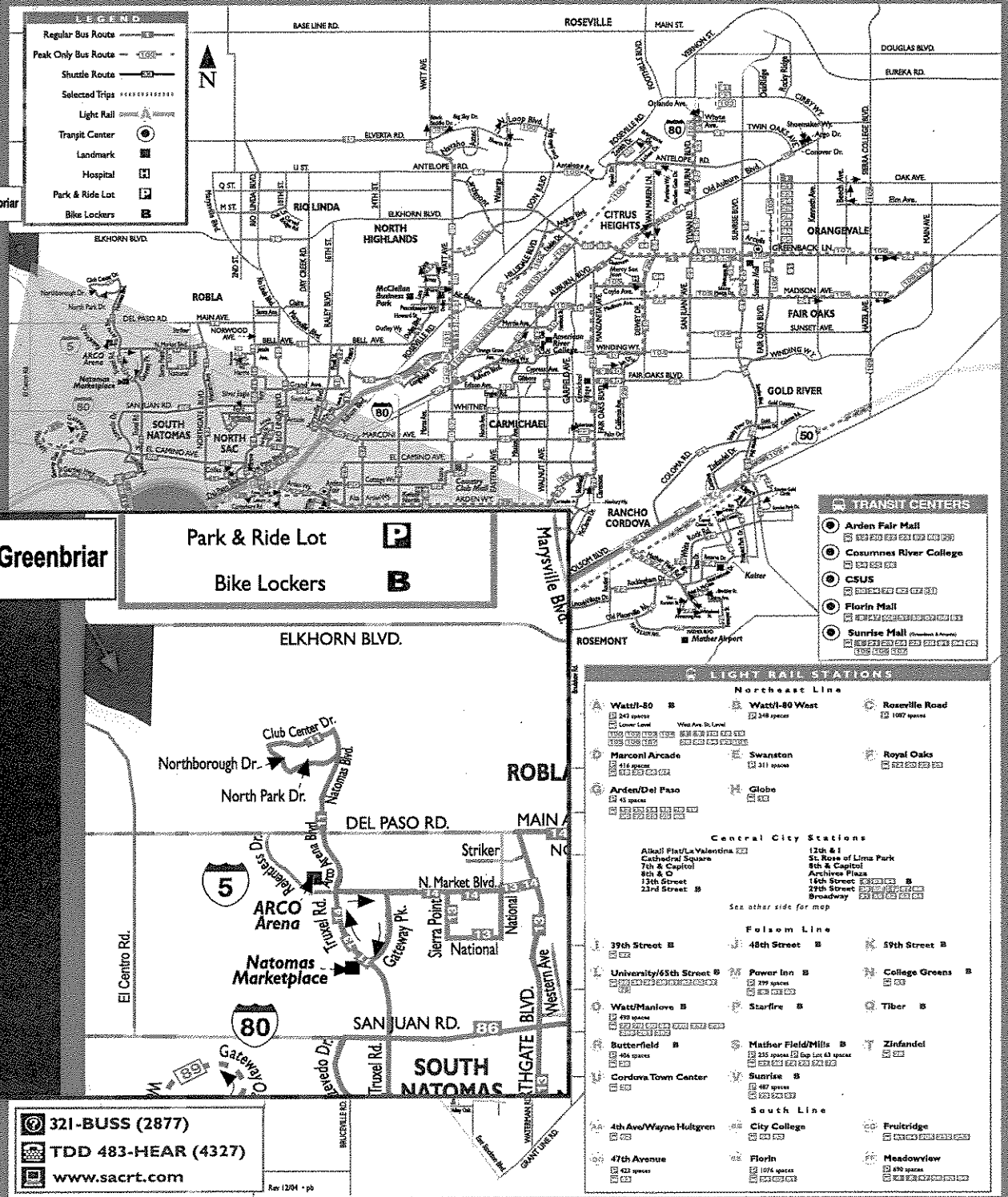
Operates from 10:00 a.m. to 4:00 p.m., Monday through Friday. Provides shuttle service on a fixed route to shopping and recreational facilities within the North Natomas community. Free to all users.

All service will be provided by shuttle bus or by taxicab. Residents will be notified what vehicle to expect when they schedule their rides.

Greenbriar is aware that until RT transit service is readily available, shuttle service is an important component in their alternative mode program. Greenbriar will provide their community with shuttle service that will include a commuter line as well as other midday service. Greenbriar is currently in negotiations including the NNTMA to procure this kind of service.

# BUS & LIGHT RAIL SYSTEM MAP

EFFECTIVE JUNE 19, 2005



**Greenbriar**

Park & Ride Lot **P**

Bike Lockers **B**

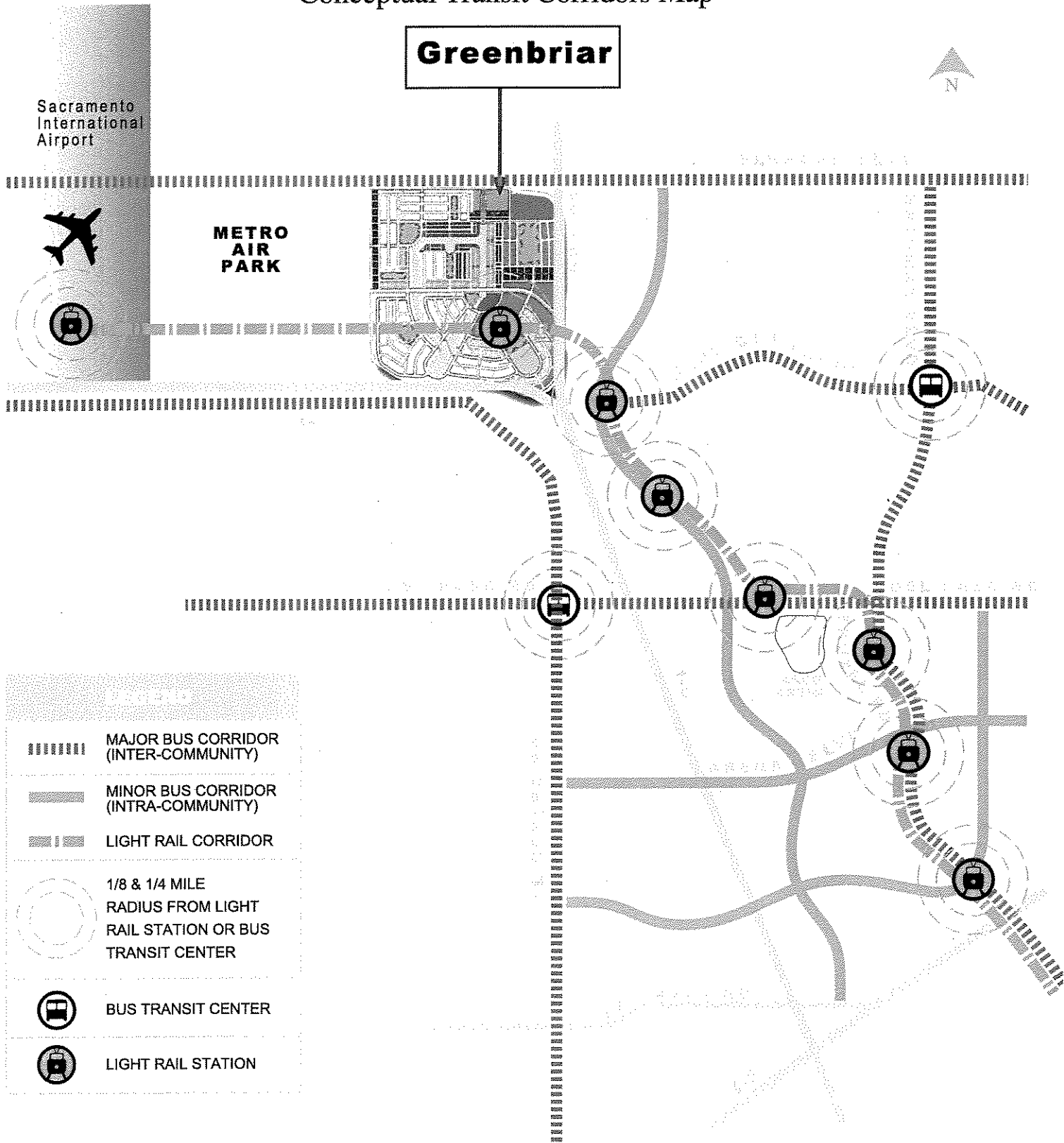
**321-BUSS (2877)**

**TDD 483-HEAR (4327)**

**www.sacrt.com**

Rev 1204 - pb

### Conceptual Transit Corridors Map



## **10.0 PREFERENTIAL PARKING FOR CARPOOLS/VANPOOLS (5.0%)**

As an incentive to rideshare, one effective measure is to reserve the most preferred parking spaces for exclusive use by carpools. Preferential parking not only provides the direct benefit of convenience to employees, but also provides a certain degree of prestige as reserved, prime parking spaces are normally only given to upper management.

Ten percent (10%) of all employee parking spaces at Greenbriar's commercial areas will be reserved for carpools (exact numbers and locations will be provided in a subsequent AQ/TSM Plan). These spaces will be located as close to the building entrances as possible to provide maximum benefit and convenience to those who use an alternative mode of transportation.

The TC will promote carpooling and spaces, if necessary, and be responsible for assigning the spaces.

## **11.0 PARKING (#12 - 0.5%)**

The amount of parking provided at a site is directly related to the amount of alternative mode use. If there is an abundance of parking it makes it easier to drive to work. However, limiting the amount of parking provides an incentive to carpool, bicycle, or walk to work.

Greenbriar will provide the minimum amount of parking spaces required by the City of Sacramento (1 space/400 s.f. for EC; 1 space/250 s.f. for HC; and 1.5 spaces/d.u. + 1 space/15 d.u. for HD).

### **11.1 Parking Lot Shading (#15 - 0.5%)**

The City of Sacramento requires that a certain percentage of a development's parking lot be shaded by 50% within 15 years of the establishment of the parking lot. To improve air quality conditions, Greenbriar will provide an additional 10% of parking lot shading by adding more trees.

## **12.0 GUARANTEED RIDE HOME (2.0%)**

All employees or residents who commute to work using transit or in a carpool or vanpool will be guaranteed a ride home in the case of a personal emergency or when they unexpectedly have to work late, thereby missing the last bus or their normal carpool home.

The program will be provided by the TMA and be available to employees and residents of the project as a membership benefit. This program has proven very successful elsewhere in California. It removes one of the major objections employees have to giving up their private automobiles (i.e., not being able to get home in case of an emergency), especially for those with young families.

### **13.0 PERSONAL MATCHING ASSISTANCE (2.0%)**

Forming carpools is an important step in reducing the number of commute trips into and out of the Sacramento area. Carpools help reduce traffic congestion on surface streets and, typically, reduce commute time (especially on freeways with High Occupancy Vehicle lanes - carpool lanes). The Personal Matching Assistance (PMA) program will provide assistance to employees wishing to carpool.

SACOG has partnered with the California Department of Transportation (Caltrans) to launch a 511 transportation information system for the six-county Sacramento region that will assist in the formation of carpools.

The 511 telephone number is accompanied by a Web site, [www.sacregion511.org](http://www.sacregion511.org). The number and Web site will give commuters the information they need to make better choices when planning trips. By calling in or logging on, commuters can get up-to-the-minute information about traffic conditions, public transportation options, ridesharing, and bicycling anytime, anywhere throughout the Greater Sacramento area and Northern California.

The six-county Sacramento system will be the second 511 service to go on-line in California. It will provide links to 511 systems in the Bay Area, Oregon and Nevada and will be available from any phone, provided the carrier supports 511. Most counties in the region will have wireless and landline access to the service through the major carriers.

Residents and employees will be provided with information on this program, and, if necessary, personal assistance from the TC in order to register their commute information or to find/form carpools with employees within Greenbriar. The TC will work with the TMA to promote this program and to utilize their assistance if required.

### **14.0 LANDSCAPING (#58 - 2.0%)**

Most small-engine landscape maintenance equipment is very 'dirty' in air quality terms. These small internal combustion engines often have very high pollutant emissions. Since landscaping companies use the equipment almost continuously throughout a workday, the cumulative impacts of these machines becomes a moderate source of air pollutants in the Sacramento Valley.

The project proponent will contract with commercial landscapers who use either 50% electric or low-emission equipment certified by the California Air Resources Board (CARB).

Contractors will provide documentation (a one-page letter) confirming use of new equipment. The letter will include date of purchase and kind of equipment used. This letter will then be forwarded to the City's Planning Department and the SMAQMD.

#### 15.0 FURNACE (#42 - 0.5%)

Natural gas burners, used in furnaces, are the primary energy source for manufacturing, industrial processing and space heating, and commercial and residential space heating and hot water. U.S. homes, businesses, industry, and power generators burned nearly 23 trillion cubic feet of natural gas in 2000, generating 22.6 quadrillion British Thermal Units (BTUs) of energy and emitting nearly 22 million metric tons of NO<sub>x</sub>.<sup>6</sup>

In an effort to reduce NO<sub>x</sub> pollution, Greenbriar will be installing the lowest emitting commercially available furnaces in their buildings.

#### 16.0 EXPIRATION OF PLAN

All measures in this Master Plan shall continue to be implemented by the applicant. Informational promotions, such as displaying flyers or transit schedules at the information kiosk, will continue to be provided and updated as necessary. Updated information may be obtained by the Executive Director of the TMA, SACOG, the SMAQMD, and/or any other relevant agency.

Periodic monitoring will be conducted by the City of Sacramento by telephone or by on-site visits, to ensure that measures in this Master Plan are being implemented.

#### *Annual Report*

Each year an annual report will be carried out by the TC as follows:

1. Conduct a survey representing all employees within the Greenbriar project. The survey must determine the employee commute mode split (how employees are getting to and from work).
2. Collect data and summarize the results including progress toward attainment of the alternative commute mode goal of the city. If alternative commute mode goal has not been attained, a plan for additional TSM measures shall be implemented.

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<sup>6</sup> Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory, 2003.

3. The TSM Plan Annual Report Summary will be forwarded to the City of Sacramento, Transportation Department and the SMAQMD for review and processing at the one year occupancy anniversary and thereafter annually.

**Failure to comply with reporting is a violation and shall be enforced pursuant to Section 18.12.060 of the Zoning Ordinance.**

## 17.0 CONCLUSION

The Greenbriar proposed transit oriented mixed-use development is consistent with the emission reduction goals contained in the North Natomas Community Plan and trip reduction goals of the City of Sacramento. For a suburban development, it is unusual in terms of its higher density and pedestrian/bicycle/transit oriented design. This Plan is designed to improve air quality and traffic through emission and trip reducing mitigation measures.

As future commercial projects are developed, specifics regarding actual number of parking spaces, bicycle storage facilities, and preferential parking spaces, etc., will be provided through subsequent AQ/TSM Plans.

Please see the following pages for the required forms that summarize the proposed measures contained in this Plan: Compliance, Project Profile, and City of Sacramento. Also attached is a listing of air quality contacts, sample survey questions and an example of a kiosk of information.



# COMPLIANCE FORM

**AIR QUALITY PLAN COMPLIANCE FORM  
GREENBRIAR**

A total of 35% trip reduction and 15% air pollution reduction is required for this project.

<b>A. TSM Measures</b>	<b>Credit</b>
Preferential parking	5.0%
Land dedication for transit	5.0%
Bicycle storage	1.0%
Community Shuttle	10.0%
PMA	2.0%
GRH	2.0%
Vanpool assistance program	5.0%
Park-n-ride lot	5.0%
<b>Subtotal</b>	<b>35.0%</b>

<b>B. Air Quality Mitigation Measures</b>	<b>Credit</b>
5 Located within 1/2 mile of existing Class I or Class II bike lane	1.0%
6 Provides pedestrian improvements	1.0%
8 Provide a display case/kiosk displaying transportation information	0.5%
10 Residential use within 1/4 mile of planned transit	0.5%
12 Minimum amount of parking	0.5%
15 Increase parking lot shading by 10%	0.5%
26 Average residential density 7 d.u. per acre or greater	1.5%
29 Mixed use	1.0%
31 Neighborhood serves as focal point	0.5%
32 Separate & safe bicycle & pedestrian paths connecting residential, commercial & office uses	2.0%
33 Provide development pattern that eliminates physical barriers that impede ped./bike activity	1.0%
42 Install low emitting furnaces	0.5%
51 Permanent TMA membership	2.5%
57 Transportation Coordinator	0.2%
58 Contract with landscapers complying w/CARB standards	2.0%
<b>Subtotal</b>	<b>15.2%</b>

Greenbriar  
Project Name

Applicant Name

Applicant Signature

Approved By:

City of Sacramento Transportation Department

City of Sacramento Planning Department

**ATTACHMENT**

**AIR QUALITY INFORMATION  
CONTACTS**

## INFORMATION CONTACTS

### **American Lung Association Sacramento Emigrant Trails chapter**

909 12th Street  
Sacramento, California 95814  
Phone: (916) 444-5864 (LUNG) or (800) LUNG-USA  
Fax: (916) 444-6661  
Email: [staff@alaset.org](mailto:staff@alaset.org)  
Website: <http://www.alaset.org>

### **North Natomas Transportation Management Association (TMA)**

Mr. Bill Fairbairn  
2101 Arena Boulevard, Suite 200  
Sacramento, CA 95834  
Phone: (916) 808-7735 ext. 4  
Website: <http://www.northnatomastma.org>

### **California Air Resource Board (CARB)**

1001 I Street  
Sacramento, California 95814  
Phone: (916) 322-2990  
Website: <http://www.arb.ca.gov>

### **Sacramento Regional Transit District (RT)**

P.O. Box 2110  
Sacramento, California 95812-2110  
Customer Relations Phone: (916) 321-2850 or (916) 321-2877 (BUSS)  
Customer Relations Fax: (916) 444-0502  
Website: <http://www.sacrt.com>

### **Sacramento Area Council of Government (SACOG)**

1415 L Street, Suite 300  
Sacramento, California 95816-7056  
Phone: (916) 321-9000  
Fax: (916) 321-9551  
Website: <http://www.sacog.org>

### **Sacramento Metropolitan Air Quality Management District (SMAQMD)**

777 12th Street, 3rd Floor  
Sacramento, California 95814  
Community Education Phone: (916) 874-4888  
Community Education Fax: (916) 874-4899  
Website: <http://www.airquality.org>

# **SURVEY QUESTIONS**



Please complete the following questionnaire. Your company is developing a transportation program for employees and the information you provide will help determine the facilities and services that would be most valuable to you. All of your answers are strictly confidential.

1. Based on the definitions at the right, how did you get to work today?  
(Check only one space)

- |  |  |
|--|--|
| <input type="checkbox"/> Drove alone                 | <input type="checkbox"/> Transit           |
| <input type="checkbox"/> Carpool driver              | <input type="checkbox"/> Carpool passenger |
| <input type="checkbox"/> Vanpool driver              | <input type="checkbox"/> Vanpool passenger |
| <input type="checkbox"/> Walked                      | <input type="checkbox"/> Bicycled          |
| <input type="checkbox"/> Buspool driver              | <input type="checkbox"/> Buspool passenger |
| <input type="checkbox"/> Telecommuted/Worked at home | <input type="checkbox"/> Other _____       |

2. Counting the trip to work as one trip and the trip home as a second trip, how many commute trips do you make Monday through Friday?  
\_\_\_\_\_ trips per week

3. Of the weekly trips noted in Question 2, how many are by:  
 \_\_\_\_\_Carpool                      \_\_\_\_\_Vanpool                      \_\_\_\_\_Buspool  
 \_\_\_\_\_Transit                      \_\_\_\_\_Bicycle                      \_\_\_\_\_Walking  
 \_\_\_\_\_Telecommuting\*

\* Indicate the number of trips you did not take because you used this option

4. Do you normally come to work either between the hours of 6:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:30 p.m.?  Yes  No

5. Do you normally go home from work either between the hours of 3:30 p.m. and 6:30 p.m. or between 6:00 p.m. and 9:00 a.m.?  Yes  No

6. How far from work do you live (one way only)?  
(Check one box only)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> 0 - 0.9 miles     | <input type="checkbox"/> 1.0 - 2.9 miles   | <input type="checkbox"/> 3.0 - 5.0 miles   |
| <input type="checkbox"/> 5.1 - 9.9 miles   | <input type="checkbox"/> 10.0 - 14.9 miles | <input type="checkbox"/> 15.0 - 19.9 miles |
| <input type="checkbox"/> 20.0 - 24.9 miles | <input type="checkbox"/> 25 or more miles  |  |

7. If you drive a car or motorcycle: a) Where do you normally park?  
(Check the most appropriate box)

- |  |
|--|
| <input type="checkbox"/> In the company (including county, state, or federal) lot.     |
| <input type="checkbox"/> On the street: <input type="checkbox"/> 10 hour parking meter |
| <input type="checkbox"/> 2 hour parking meter  |
| <input type="checkbox"/> No time restrictions  |
| <input type="checkbox"/> Permits required  |
| <input type="checkbox"/> In a lot with company provided space.                         |
| <input type="checkbox"/> In a public or private lot open to everyone.                  |
| <input type="checkbox"/> In a vacant field.  |
| <input type="checkbox"/> Other: specify _____  |

## DEFINITIONS

### Driving alone:

Driving your car or motorcycle to work without a passenger.

### Carpooling:

Riding or driving to work in a car carrying at least one passenger. This includes being dropped off if the driver goes to work at another site.

### Vanpooling:

Riding or driving to work with 6 or more passengers in the same vehicle.

### Transit:

Riding a bus or using light rail to get to work.

### Buspooling:

Riding a bus that does not return home until the end of a work day.

### Bicycling:

Riding a non-motorized bicycle to work.

### Walking:

Traveling from home to work on foot (walking from a transit stop or a parking lot does not count).

### Telecommuting:

Working at home or at a satellite office instead of at your employer's normal worksite.

b) How much do you pay for parking each month?  
(Check the appropriate box)

- |  |
|--|
| <input type="checkbox"/> Nothing: Free Parking |
| <input type="checkbox"/> Employer pays         |
| <input type="checkbox"/> \$1 - 20              |
| <input type="checkbox"/> \$21 - 40             |
| <input type="checkbox"/> \$41 - 60             |
| <input type="checkbox"/> \$61 - 80             |
| <input type="checkbox"/> \$81 - 100            |
| <input type="checkbox"/> Over \$100 per month  |

Thank you for completing this survey. Please return it today to \_\_\_\_\_.

**SAMPLE KIOSK**



### 10 FACTS ABOUT THE ALTERNATIVE COMMUTE PROGRAM

1. **FREE Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
2. **Transit 40% Voucher** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
3. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
4. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
5. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
6. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
7. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
8. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
9. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
10. **Monthly Guaranteed Ride Home Program** is available to 22,000 transit users in the Washington Metropolitan Area. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

# STOP!

CONSIDER AN ALTERNATIVE COMMUTE OPTION

- 1. 80% TRANSIT & VAPOOL SUBSIDIES**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
- 2. ONPARK TRANSIT**  
12 months membership starts at just \$14.95. For more information, visit [www.onpark.com](http://www.onpark.com).
- 3. CONVERT AT A TRANSIT/VAPOOL SALES**  
Purchase 12 months of transit or va pool membership for just \$14.95. For more information, visit [www.onpark.com](http://www.onpark.com).
- 4. FREE GUARANTEED RIDE HOME**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
- 5. FREE BICYCLE LOCKERS**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
- 6. FREE PREFERENTIAL CARPOOL SPACES**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
- 7. FREE BICYCLE LOCKERS**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
- 8. ONPARK ADVANTAGES**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).
- 9. FREE PREFERENTIAL CARPOOL SPACES**  
Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### TRY TRANSIT!

Free Trial Transit Passes

For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### 80% TRANSIT & VAPOOL SUBSIDIES

Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### ONPARK TRANSIT

12 months membership starts at just \$14.95. For more information, visit [www.onpark.com](http://www.onpark.com).

### FREE BICYCLE LOCKERS

Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### FREE PREFERENTIAL CARPOOL SPACES

Monthly transit and va pool costs are eligible for a 80% subsidy. For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

## Save the Date!

# TRANSPORTATION FAIR

Wednesday, July 9, 2003  
Courtyard between Raven Ho and Tolantik  
10:30 a.m. to 12:30 p.m.

Learn about and try out the latest in transit, va pool, bicycle, walk, and food options.

Transit • Carpool • Bicycle • Walk • Food • Va Pool

### Bicycle Commute Guide

For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### Rideshare Guide

For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### Your Driving Costs 2004

For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### Rideshare Your Commute To Work

For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

### CONTACT ELIZABETH WILLIAMS FOR MORE INFORMATION

For more information, visit [www.wmata.com/commute](http://www.wmata.com/commute).

