

## CHINA EXPERIENCE

### Harbin, 2008, for City of Harbin

In 2008 Nelson\Nygaard, on a team with the Guangzhou Municipal Technology Development Corp. and the Institute for Transportation and Development Policy under contract to the City of Harbin (China) refined the design of the basic roadway network for the new district of Qunli. This new district will have a total land area of 27 square kilometers with an expected population of 320,000. Previous consultants had proposed super-blocks averaging 800 meters square and 40-70 meter wide roadways with 10 motor vehicle lanes and limited pedestrian or non-motorized vehicle facilities.

Our team took the basic network and:

- Reviewed the existing traffic analysis
- Established design concepts intersections, crosswalks, bus stops, and BRT stations
- Established cross-sections for all major roadways
- Designed the three major boulevards
- Designed a Bus Rapid Transit network
- Developed sketch designs for an internal street network (inside the super-blocks)
- Reviewed the parking analysis and developed a parking management system



### Harbin & Changzhou, 2007, for Asian Development Bank

In 2007 The Asian Development Bank (ADB), in cooperation with the Ministry of Construction (MC), undertook sustainable urban transport case studies for Harbin and Changzhou. Projects to be developed in the study will among other things add a regional dimension to ADB's urban transport investment portfolio.

The study objectives were to develop: (i) a strategic framework for sustainable urban transport; (ii) investment programs to support efficient urban transport; and (iii) innovative financing options. The development framework will focus on: (a) institutional capacity for policy, planning and programming; (b) road space allocation and operation; (c) traffic management, enforcement and regulation; (d) energy-efficient, environmentally-friendly transport to reduce emissions; (e) transport safety; (f) sectoral reform of public transport, management and maintenance, and institutions; (g) good governance; and (h) addressing the needs of the poor and those without access to transport in planning and programming.



Nelson\Nygaard worked on plan development for Harbin and Changzhou, with a focus on transit, non-motorized transport, urban design, city structure, and parking issues.

## CHINA EXPERIENCE (CONTINUED)

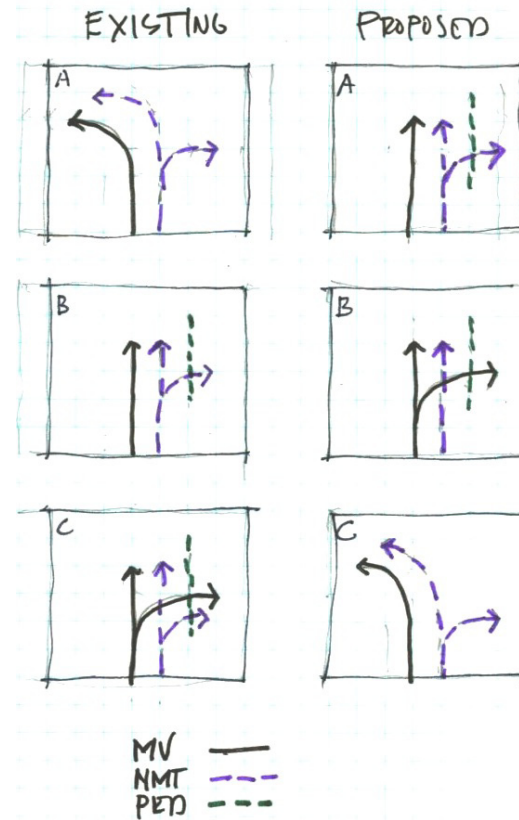
### Guangzhou, 2006, for City of Guangzhou

In 2007 Guangzhou, a city of 10 million, carried out the detailed engineering design and some preliminary road works of a Bus Rapid Transit system which was due to begin operation late in 2008.

Planned by ITDP together with the Guangzhou Municipal Technology Development Corporation, Guangzhou's BRT system stands to rival the renowned TransMilenio system of Bogotá, Colombia by delivering average bus speeds of more than 25 kilometers (15.5 miles) per hour, and carrying more than 25,000 riders per hour in one direction at peak periods. As part of the system development team, Nelson\Nygaard provided technical expertise regarding pedestrian and bicycle facilities along the corridor, and station access.

This is more than double the passenger capacity, delivered at a higher speed and under better service conditions, than any other existing or planned BRT system in Asia. In contrast to TransMilenio, Guangzhou's BRT buses will also operate outside the busway, eliminating the time and inconvenience of transfers.

The first corridor will be 23 kilometers long (14.3 miles) with 29 stations, starting from the city center and extending eastward along Zhongshan Avenue. More than 600,000 daily passengers will use the first BRT corridor. Commuters traveling along the full corridor into the city center in the morning and returning in the evening will save one hour in travel time each day. Total passenger time savings from the new system will exceed 100,000 hours each day, or more than 36 million passenger-hours each year.



### Guangzhou, 2000 & 2004, for ITDP ([www.itdp.org](http://www.itdp.org))

In 2000 and 2004 Nelson\Nygaard staff visited Guangzhou in China and provided technical assistance with pedestrian safety issues. On the first trip six problematic intersections were visited, proposals offered, and a seminar on pedestrian safety and traffic calming was given. Simultaneously contributions were made to the Guangzhou Pedestrian Master Plan. On the second trip stations along the new Metro line were visited and recommendations for improved station access were given. In addition, recommendations for pedestrian safety and access at the central train station and new airport were made. The work was presented in a workshop for city officials.

