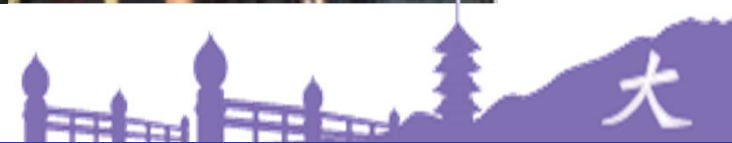


Building a Pedestrian-friendly Community where People and Public Transport Have Priority

Shijo Dori Street Sidewalk Widening Project



City of Kyoto
August 30



●The Appeal of the City of Kyoto

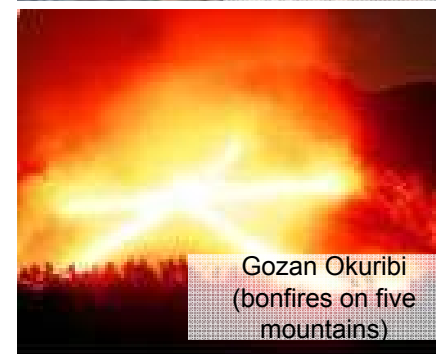
Nature and Environment

- ▶ Beautiful, picturesque scenery surrounded by mountains in three directions
- ▶ Wonderful views and landscapes, sung of in Japanese poetry since ancient times
- ▶ Birthplace of the Kyoto Protocol



Tradition and Culture

- ▶ Tradition and culture nurtured by 1200 years of history
- ▶ Elegant townscapes with shrines, temples and traditional Kyoto-style houses
- ▶ City with both traditional and cutting-edge industries



● Pedestrian-friendly City, Kyoto

● Development of City of Kyoto Basic Concepts (December 1999)

With the aim of comprehensively establishing transport systems that emphasize public transport, without an over-dependence on motor vehicles, engage in community building in which walking is enjoyable

● Development of Kyoto Basic Plan (January 2001)

To realize *peaceful lifestyles* and a *community where everybody can live with peace of mind*, promote policies to build a *pedestrian-friendly community*.

● Establishment of Pedestrian-friendly City, Kyoto Charter (January 2010)

Residents, tourists, business and government joined together to establish the Charter to promote ***the building of attractive communities where people take center stage***

A council and sub-committees participated in by resident committee members, university experts and scholars, business people, and government, as well as 400 residents gathered together at a symposium, and a questionnaire was conducted of 14,700 people. Through these and other efforts, ***debate continued, with full involvement of residents, and the Charter was developed.***

「歩くまち・京都」憲章

わたしたちの京都では、市民一人ひとり、

- 1 健康で、人と環境にやさしい、歩いて楽しい暮らしを大切にします。

そして、市民と行政が一体となって、

- 1 だれもが歩いて出かけたい道路空間と公共交通を整え、賑わいあるまちを創ります。
- 1 京都を訪れるすべての人が、歩く魅力を満喫できるようにします。

平成22年1月23日、「歩くまち・京都」憲章は、市民・観光客の積極的参加により、行政が一体となって「人びとの暮らしを大切にするまちづくり」を進めるための歩行者の権利を明確にするために制定されました。この憲章は、市民委員、大学の専門家、観光客、事業者、行政が参加する「歩行者の権利委員会」400人の市民の参加がもたらした成果です。そして、14,700人を対象としたアンケート調査を通じて市民の意見と行政の意見とをすり合わせて作成されたものです。

京都府行政評価局 京都府観光局 京都府観光局

● Pedestrian-friendly City, Kyoto

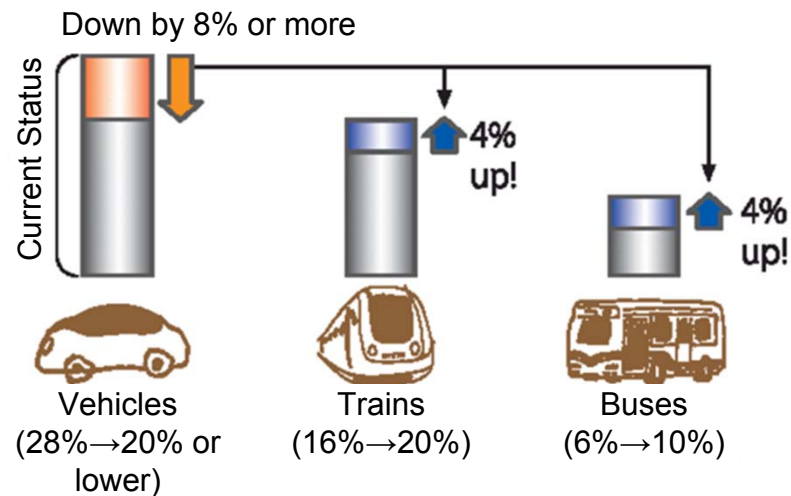
- Development of 'Pedestrian-friendly City, Kyoto' Comprehensive Transport Strategy (Established in January 2010)

Basic Principle Community and **Lifestyle where vehicles are emphasized**



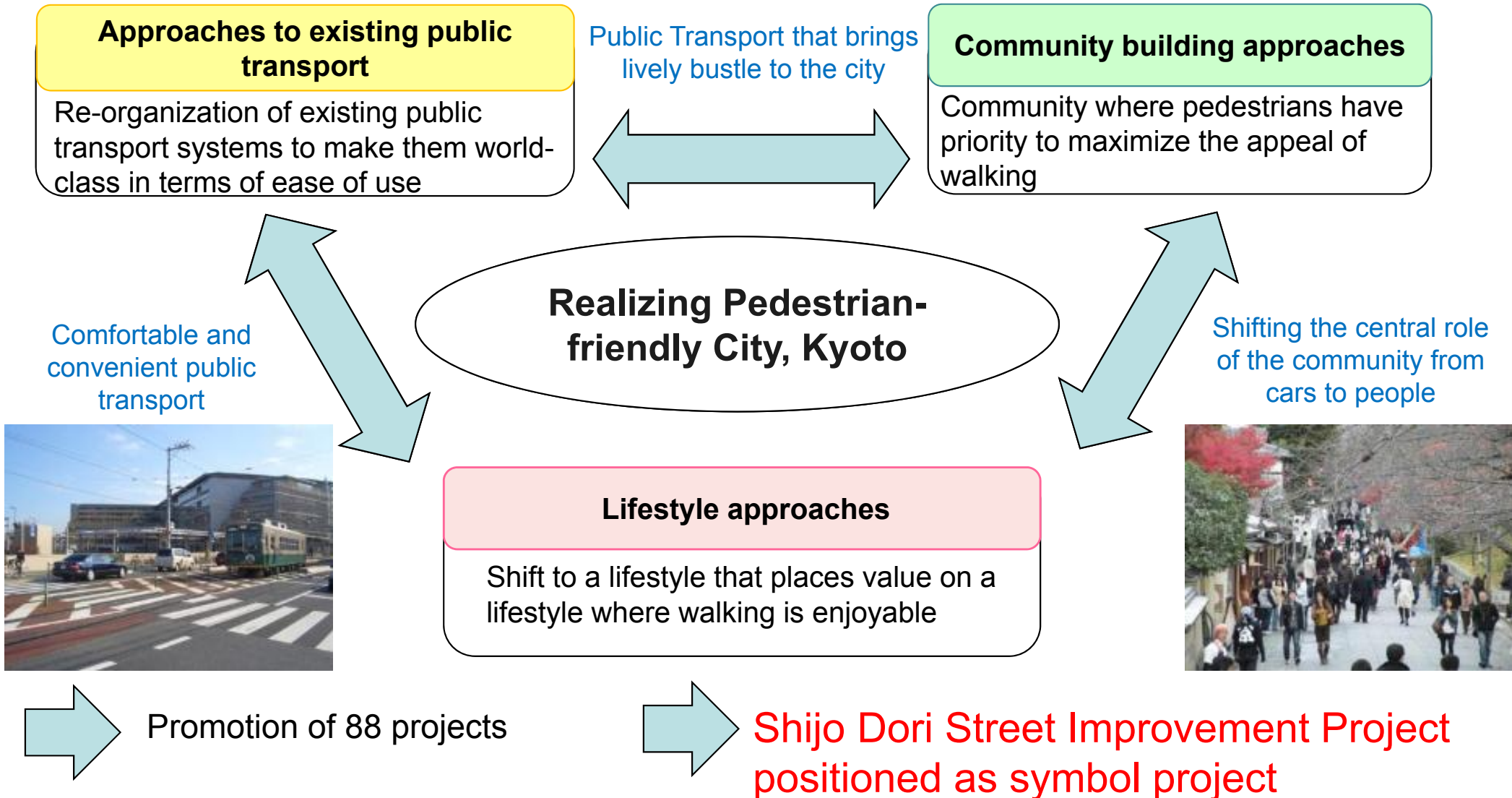
Community and Lifestyle **where walking is emphasized**

Aim to reduce motor vehicles' modal share from 28% in 2000 to 20% or less



● Pedestrian-friendly City, Kyoto

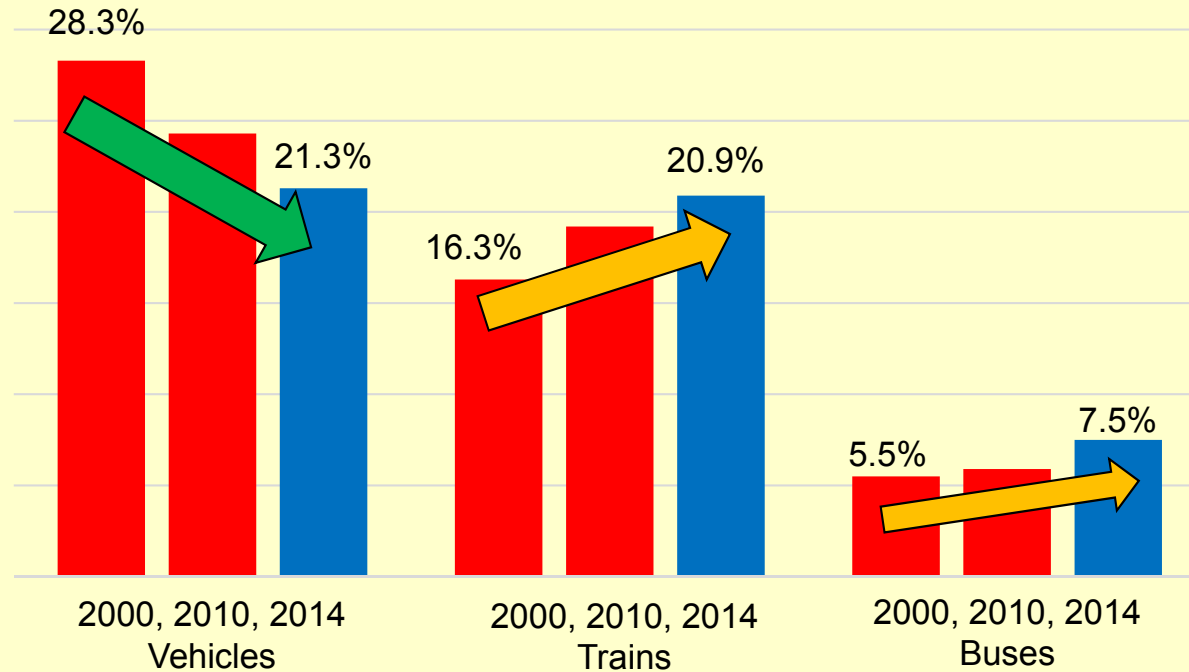
● Synergy effect of three pillars (Pedestrian-friendly City, Kyoto—Comprehensive Transport Strategy)



● Pedestrian-friendly City, Kyoto

● Achievements to date

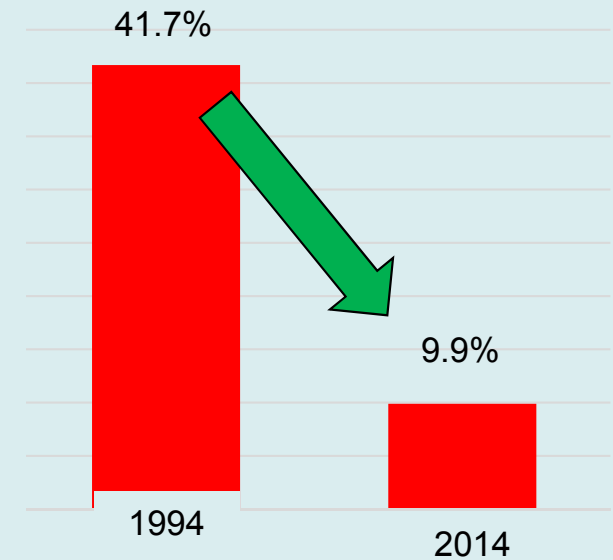
Reduction of motor vehicles' modal share.
Improvement of modal share of trains and buses



*Kyoto-Osaka-Kobe Metropolitan Areas Person-Trip Surveys of 2000 and 2010
(survey of 700,000 respondents (including people who stay at home))
City of Kyoto Survey 2014
(Internet survey of 1,000 residents. Non-resident transport figures
set as being the same figures from the Person-Trip Survey data.)

Percentage of tourists coming
to Kyoto by private car

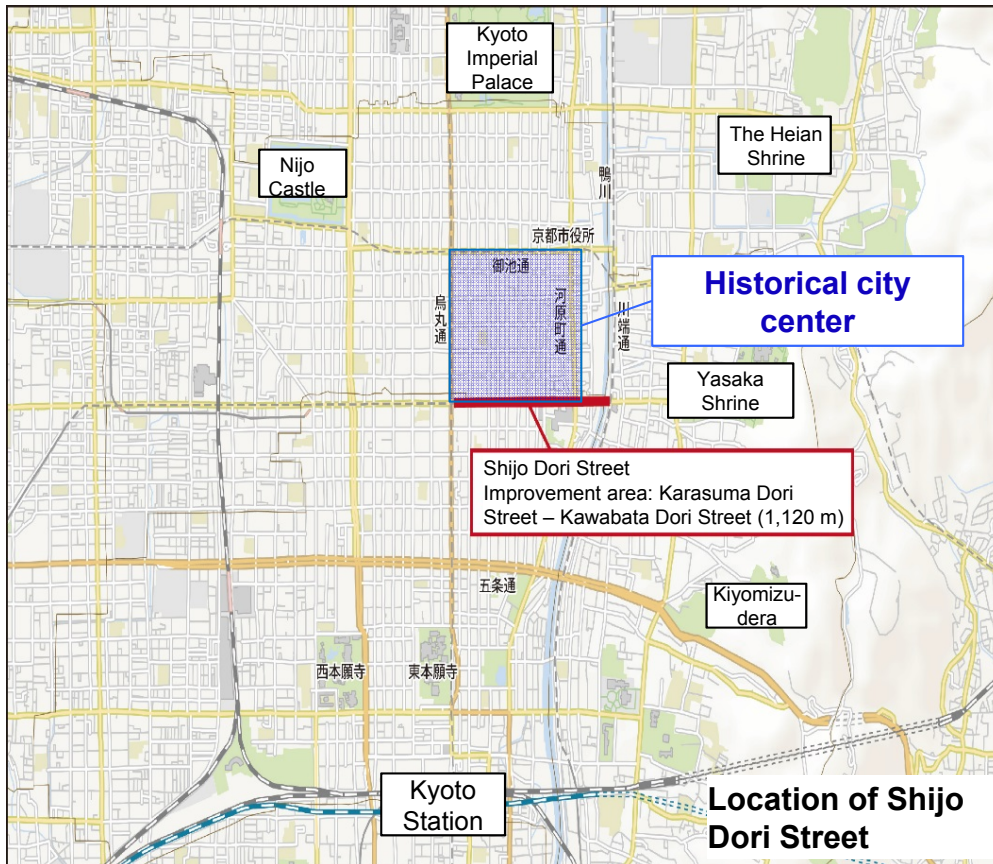
Compared to 1994, percentage of
tourists in private cars **fell by 75%**.



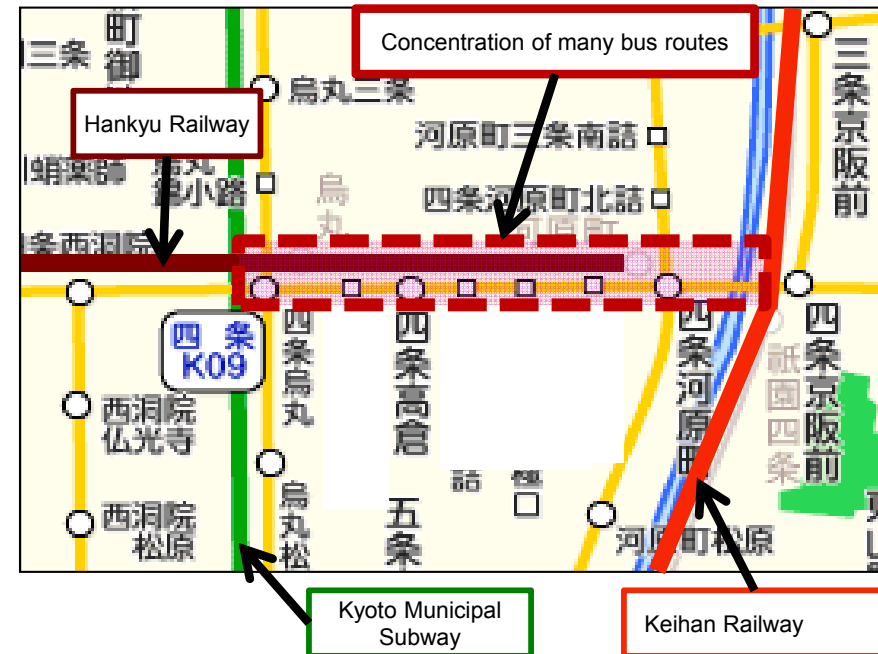
* Kyoto Tourism General Survey data

● Features of Shio Dori Street

Kyoto's largest commercial and business district



Concentration of public transport

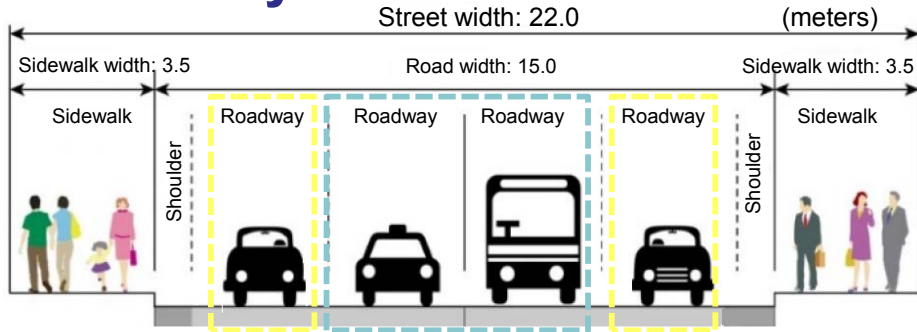


* Historical city center zone:
While a central commercial and business district, it also still retains historical townscapes such as *machiya*, the traditional Kyoto-style housing.

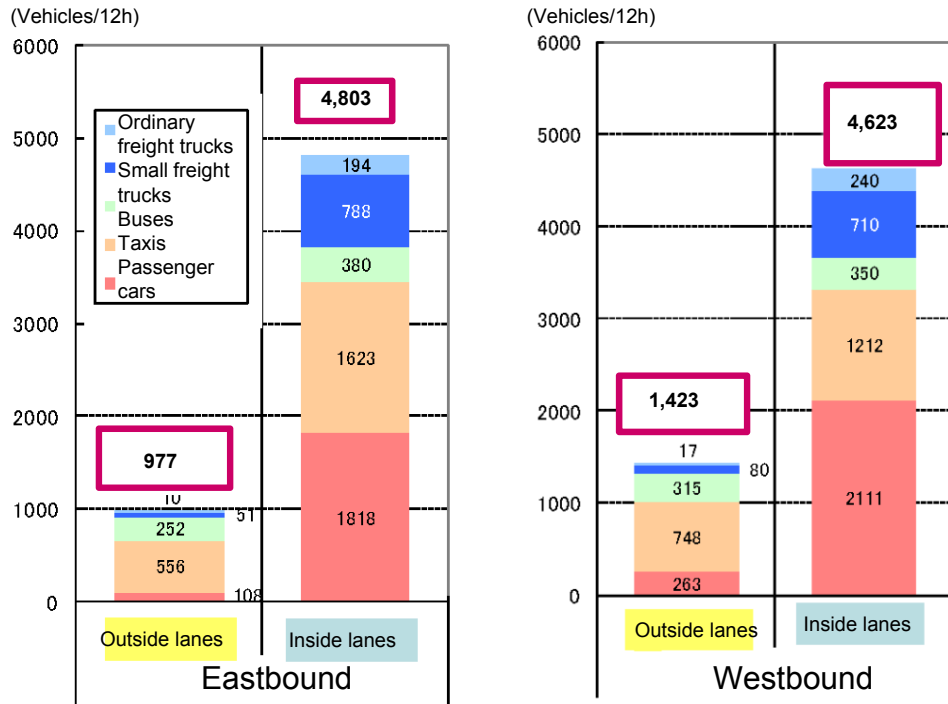
Shio Dori Street functions as a **transport terminal**. City Bus, Kyoto Bus, Keihan Bus, subway, Hankyu Railway, and Keihan Railway all service the area, with **approximately 350,000 people per day boarding or alighting these transport modes** in the area

● Condition Prior to Improvements

1. Roadway Condition

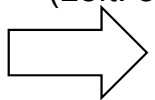


- Inside lanes
Traffic heavy in both eastbound (north side) and westbound (south side) directions
- Outside lanes
Traffic light due to parked and standing vehicles



Survey date: Tues, July 5 2011
 Survey time: 7:00 a.m. – 7:00 p.m.

Traffic volume by vehicle type over 12 hours
 (Left: eastbound; Right: westbound)



Because of parked and standing vehicles in the outside lanes, the vast majority of vehicles use the inside lanes

● Condition Prior to Improvements

2. Sidewalk Conditions

- Sidewalk is narrow, and pedestrians can run into passengers waiting for buses
- Bus stops dispersed in 16 locations, which is confusing and hard to use



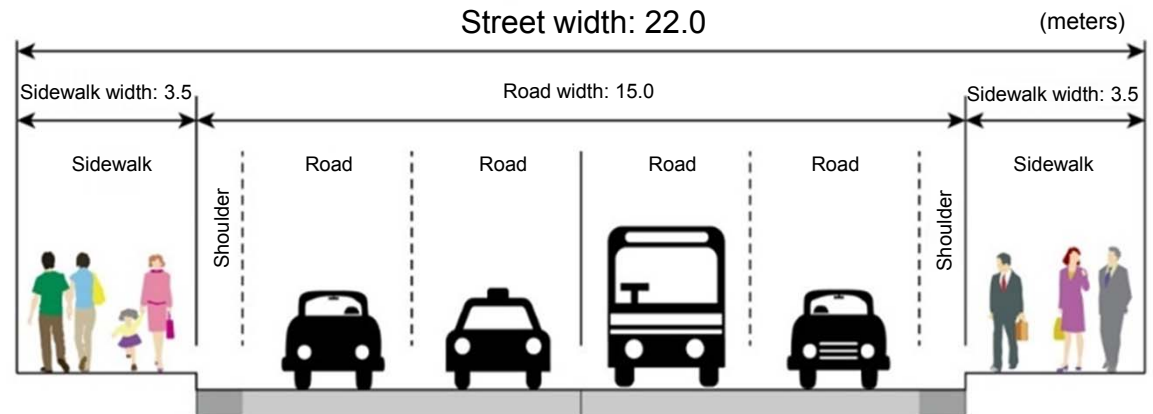
Sidewalk



Multiple bus stops lined up together

● Condition Prior to Improvements

3. Traffic volume



- **Roadway:** 15 m wide, 2 lanes in each direction

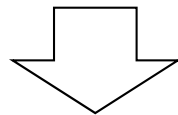
Vehicle users: Approx. 2,200 per hour (*1)

- **Sidewalks:** Total 7 m wide (3.5 m each side)

Pedestrians: Approx. 7,000 per hour (*2)

(*1) Calculated from FY2005 Road Traffic Census
• 1,154 vehicles per hour at holiday peak times
• Average of 1.9 occupants per vehicle on holidays (Kyoto City)
• Number of people traveling Shijo Dori Street by car
 $1,154 \text{ vehicles} \times 1.9 \text{ people} = 2,193 = \text{Approx. } 2,200$

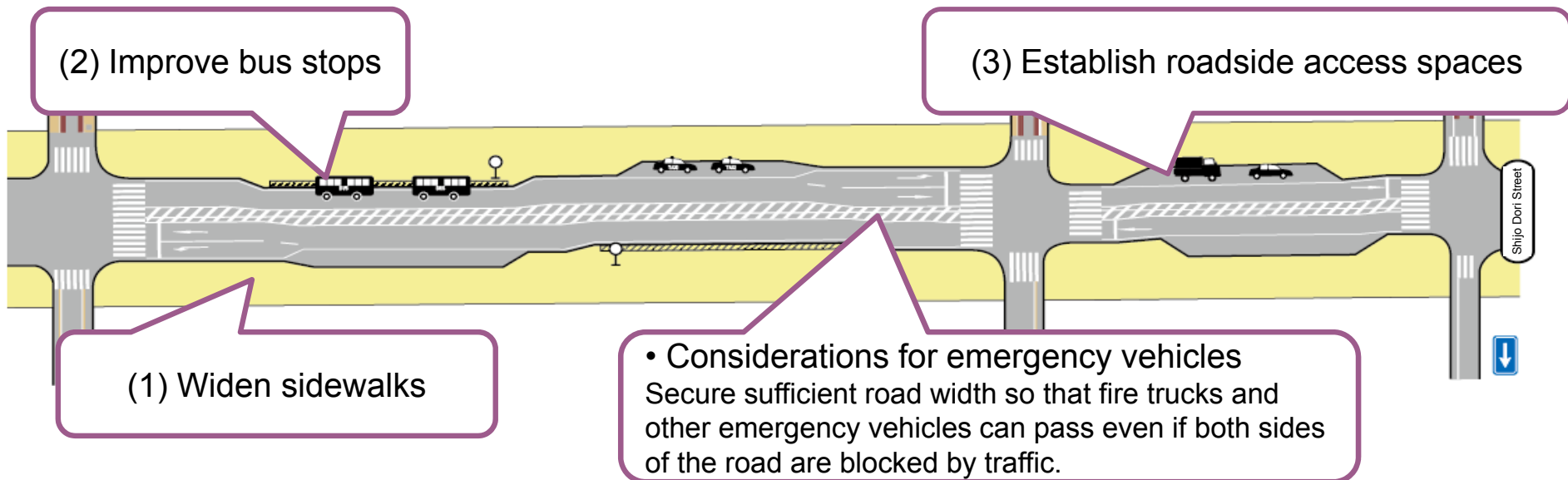
(*2) FY2005 survey



Imbalance between road and sidewalks

● Objectives and Overview of Improvements

- By redistributing existing street space, ensure a comfortable pedestrian space for everyone and improve environment for people waiting for buses
- Consider Shijo Dori Street as a transport terminal, develop an environment for ease of passage by buses and ease of use by bus patrons, thus making public transport more convenient and improving the access functions into town.

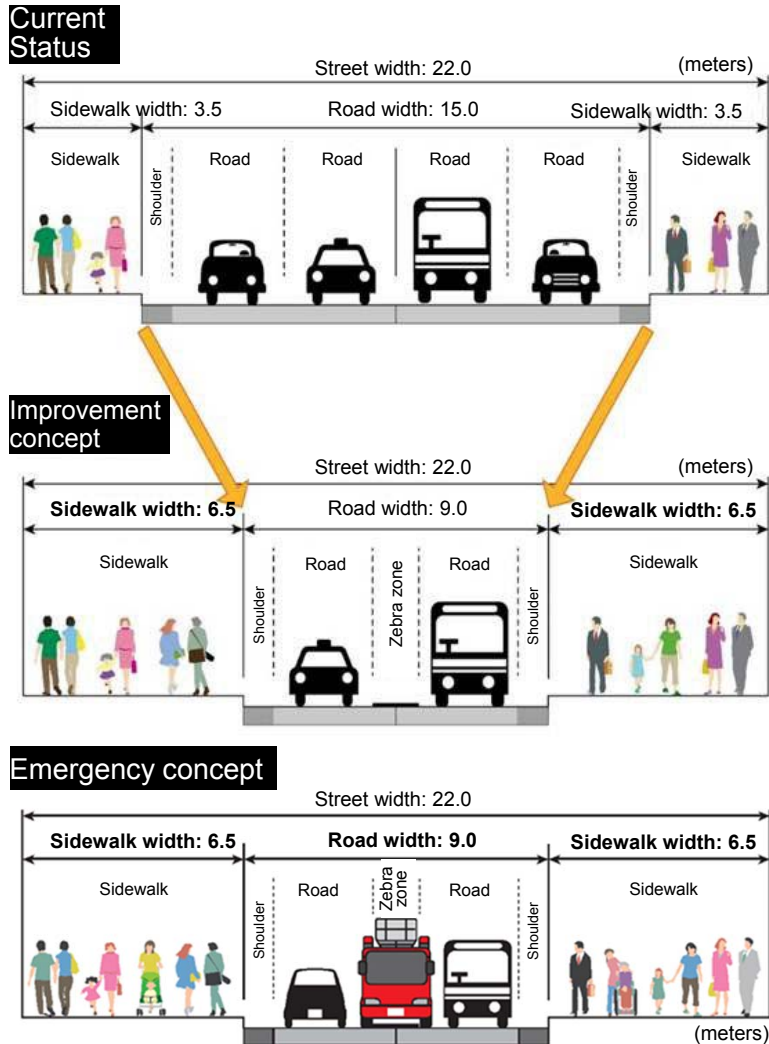


Improve **the comfort of pedestrians and the convenience of public transport**, to make it easier to go to commercial facilities, etc. in the inner city, creating a lively bustle in the town.

● Details of Improvements

(1) Widen sidewalks

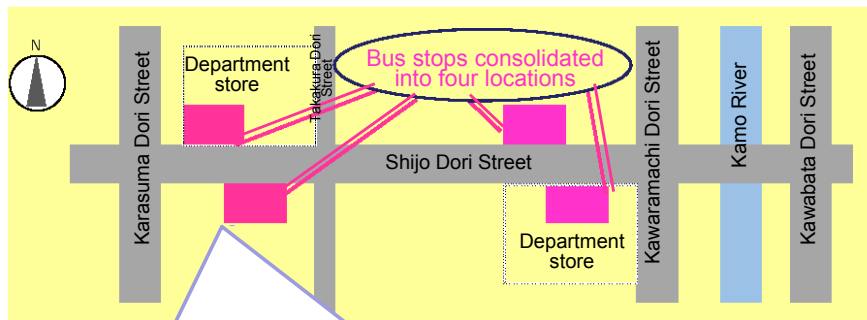
By redistributing the existing street space, ensure a pedestrian space that anyone can use comfortably and with peace of mind.



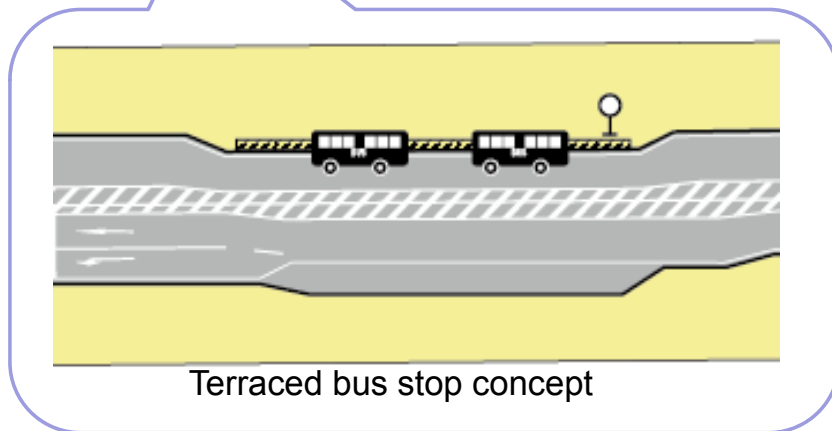
● Overview of Improvements

(2) Improve bus stops

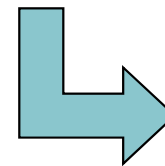
- Consolidate 16 dispersed bus stops into four locations, positioning them near railway station exits and large-scale commercial facilities, etc. thus making public transport more convenient and improving access for traveling into the city.
- By introducing terraced bus stops
 - Create more room for bus patrons to wait, making it possible to wait comfortably for buses without running into pedestrians
 - Because the bus can stop without a gap between the bus stop and the bus, it is easier to board and alight the bus



Before improvements



Terraced bus stop concept

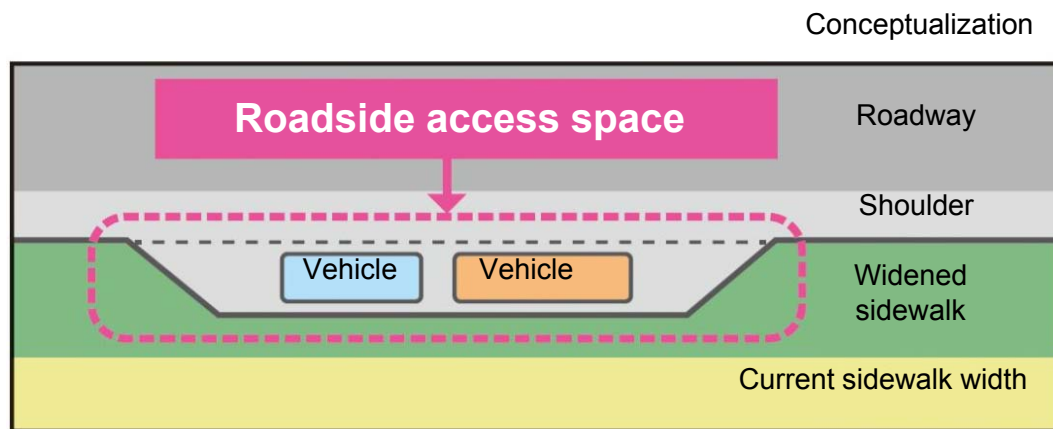


After improvements

● Overview of Improvements

(3) Establish roadside access spaces

For people with business in Shijo Dori Street, **such as freight trucks quickly loading/unloading their cargo**, dropping off and picking up shoppers at shopping streets, boarding and alighting taxis, establish 15 **spaces where vehicles can stop temporarily**.



Conceptualization of roadside access spaces



State of use of roadside access spaces

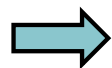
● Background to Realization of Improvements

■ Request submitted by Shijo Han'eikai Shopping Street Promotion Association (Dec 2005)

Request for Improvements to Realize a “Shijo Dori Street That Can Be Walked Comfortably”

■ Establishment of Council for Promotion of Pedestrian-friendly City, Kyoto Strategy (May 2006)

Discussions began
towards realization of
Pedestrian-friendly City



Local community (6 school districts), shopping streets, logistics and taxi operators, and other stakeholders took eight years to discuss the issues, based on which a draft Plan was developed

■ Pedestrian-friendly City, Kyoto Strategy Social Experiment (October 2007)

Sidewalk widened, road made accessible to regular route buses and taxis only, etc.

■ Development of Pedestrian-friendly City, Kyoto Charter / Comprehensive Transport Strategy (Jan 2010)

⇒ 88 projects pursued



Shijo Dori Street improvements positioned as symbol project

■ Shijo Dori Street Transport Social Experience (Nov 2010)

Consolidation of bus stops, establishment of common loading zones, consolidation of taxi ranks, etc.

■ Urban Plan decided (Jan 2012)

■ Construction starts (Nov 2014)

■ Construction completed (Oct 2015)

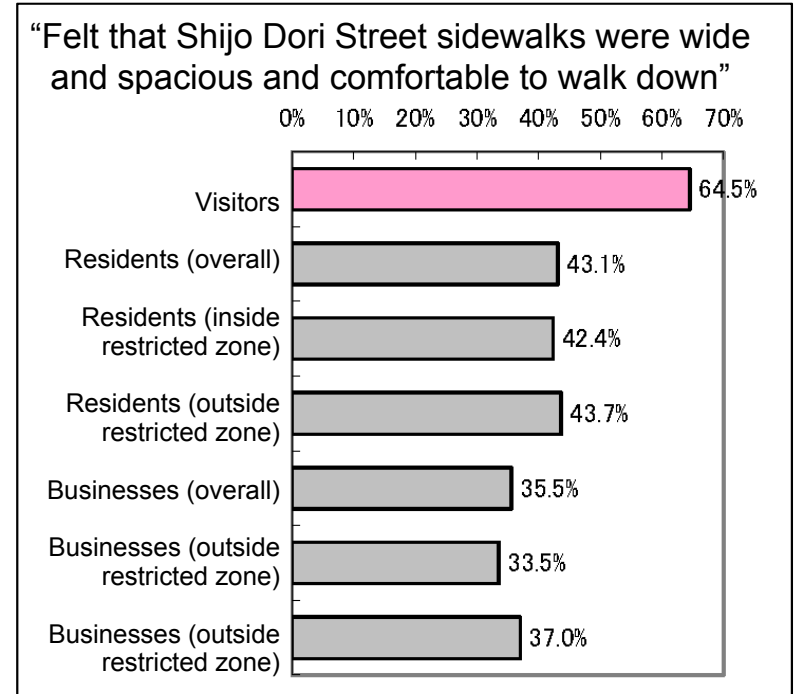
● Background to Realization of Improvements

● Social Experiment (conducted 2007)

Width of Shijo Dori Street sidewalks is doubled, and only regular route buses and taxis are allowed to access the road, creating a **transit mall**

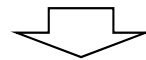


Shijo Dori Street during social experiment



Experiment Outcome

About 60% of visitors felt that Shijo Dori Street sidewalks were wide and spacious and comfortable to walk down, but there was a **major impact with traffic flowing into community roads nearby.**



Continued to **explore approaches for widening sidewalks,** without focus on transit mall concept

Traffic Congestion During Construction

Traffic congestion occurred in improvement zone during cherry blossom season (late Mar – early Apr 2015)

□ Main factors in traffic congestion

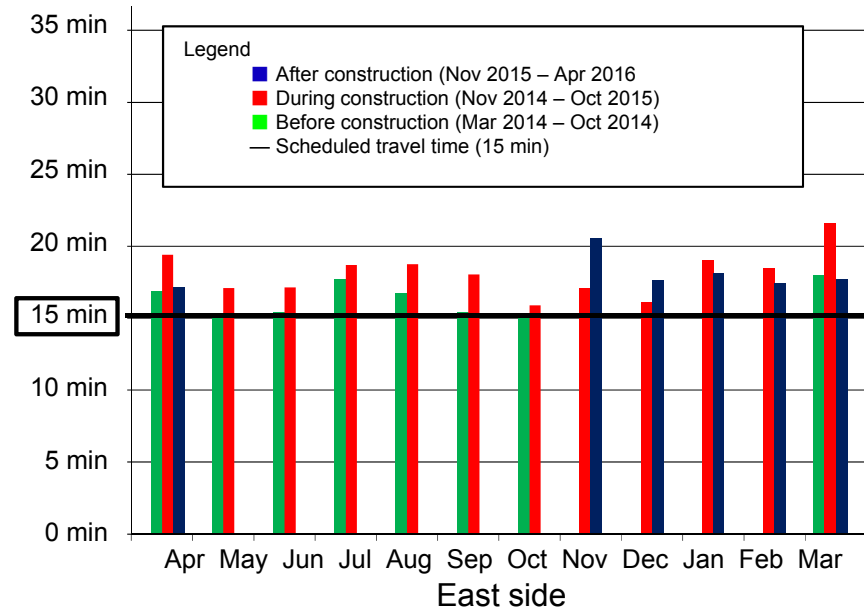
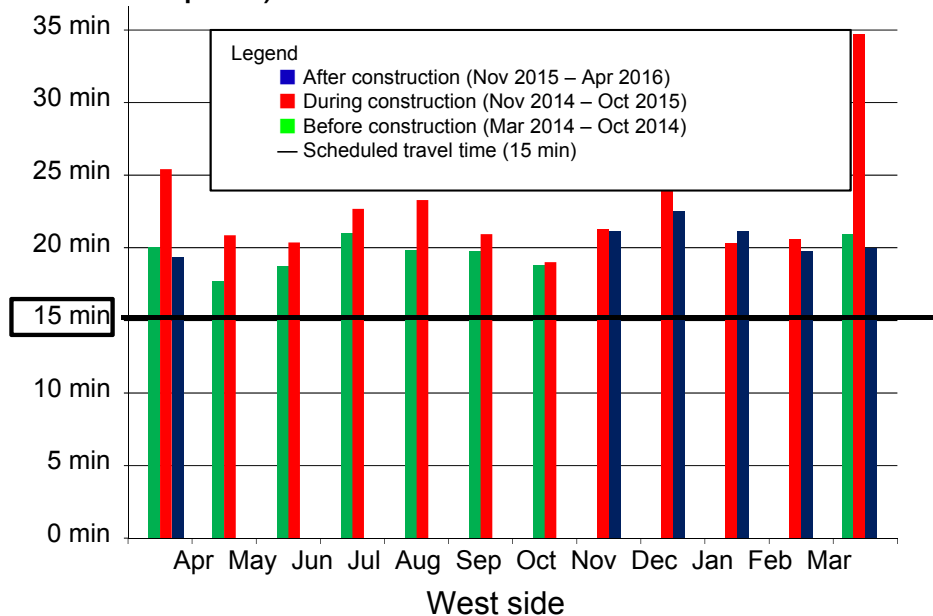
- (1) Large numbers of vehicles from other prefectures (sometimes accounting for more than 60% of general traffic at the most)
- (2) More bus patrons meant longer time taken to board and alight buses (increase in bus patron numbers, including International tourists)
- (3) Impact of reduction in left turning lanes during construction

□ Countermeasures

- (1) Set up detour guidance banners (approx. 270 locations), thorough guidance of detours (Traffic information from Japan Road Traffic Information Center, approx. 200 accommodation facilities, etc.)
- (2) Stepped up guidance and directions at bus stops, collected fares after boarding using portable fare boxes
- (3) Secure traffic lanes through provisional restoration of construction locations

 Almost back to normal

□ Status of city bus services between Horikawa and Gion (monthly average of average travel times between 3:00 p.m. and 6:00 p.m.)



● Current State

● Shijo Dori Street today

Present

Before improvements



Pedestrians and bus patrons running into each other

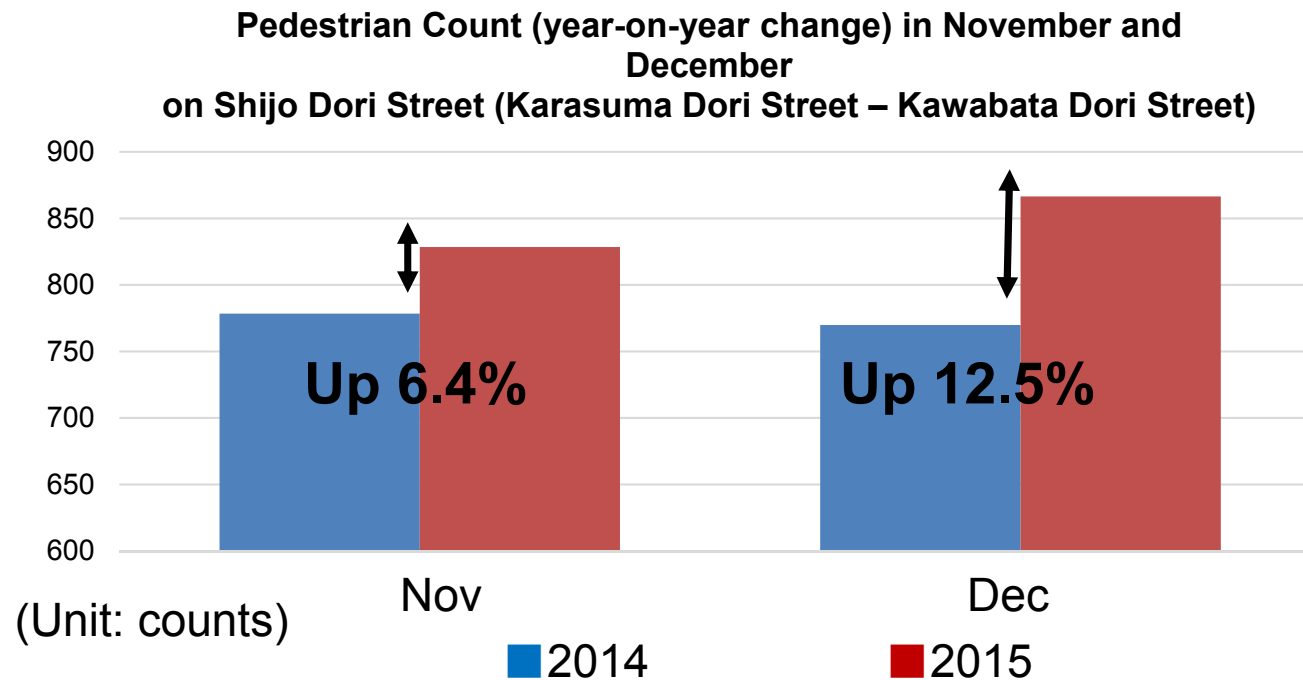


● Current State

● Changes in pedestrian traffic volume / patterns

Pedestrian traffic volume for month of Nov 2015... **Up 6.4% year-on-year**

Pedestrian traffic volume for month of Dec 2015... **Up 12.5% year-on-year**

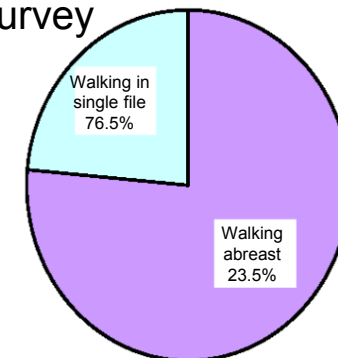


*Comparison of number of counts per counter recorded by the six counter locations set up by the Shijo Han'eikai Shopping Street Promotion Association

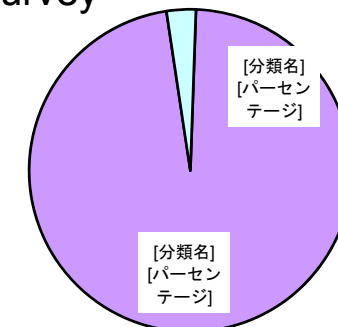
Survey of pedestrian traffic patterns

Shijo Dori Street North (Takakura Street – Sakaimachi Street)

2007 Survey



2015 Survey



* Survey by Ritsumeikan University

● Pedestrian-friendly Inner-city Zones Initiative

To reduce the number of accidents by restricting vehicle speeds on narrow streets where street improvements are difficult, and to ensure safe, comfortable pedestrian spaces, the areas surrounded by main roads have been designated as “Pedestrian-friendly Inner-city Zones.”

The City of Kyoto has painted colored lines along these streets and laid colored (semi-flexible) paving at the entrances from main roads, and the Kyoto Prefectural Police has painted speed limit (20 km/h) signs on the road surface.



KARASUMA ROKKAKU HIGASHI IRU



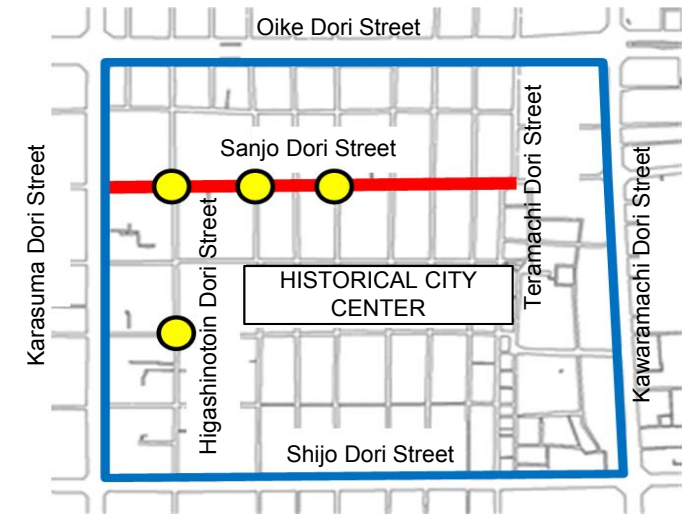
NEAR BUKKO-JI TAKAKURA

● Pedestrian-friendly Inner-city Zones Initiative

● Coordinated Approaches with Kyoto Prefectural Police in Historical City Center Zone

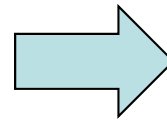
In Sanjo Dori Street, the only street in the historical city center zone with a speed limit of 30 km/hr, traffic-calming devices (durax pavement, coloring of intersections, etc.) have been employed, leading the Kyoto Prefectural Police to revise the speed limit to 20 km/hr. The four sets of traffic lights in the historical city center zone have been removed and replaced with Stop signs.

Removal of traffic lights at intersections (done by Kyoto Pref. Police)



Before improvements (Sanjo-Takakura intersection)

Grey colored pavement



Durax pavement



After improvements (Sanjo-Takakura intersection)

● Current State

● Promotion of Optimization of Outdoor Advertising



Shijo Dori Street (Jul 2009)



Removal / Alteration of
25,000 advertisements



Shijo Dori Street (Jul 2015)

● Current State

● Gion Festival

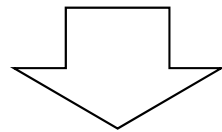


Widening of footpaths has brought spectators closer to hoko floats

● Conclusion

● Shijo Dori Street Sidewalks Widening Project

1. Leading project for realization of Pedestrian-friendly City, Kyoto
2. In the city center of a major metropolis with a population of over 1 million, reducing the number of traffic lanes and widening the sidewalks of a major main road has created a lively, bustling space where people and public transport have priority



A ground-breaking project that could become a model case for the rest of the country

(Ref) Recipient of various academic society awards

The project has received three academic society awards in recognition of its multilateral perspectives.

**International Assn. of Traffic and Safety Sciences (Achievements Division), The City Planning Institute of Japan (Ishikawa Encouragement Award)
Japan Society of Civil Engineers (Engineering Award)**

