Cheonggyecheon (‘clear valley stream’) project is a freeway removal project known for its success in quality public space creation and traffic reduction in Seoul’s central business district. On an international scale this project is known as a catalyst for re-branding the city of Seoul as the forward thinking, environmentally friendly global city of the 21st century.

During the mid 1950s an increasing number of migrants into Seoul settled along the Cheonggye stream in makeshift houses. The resulting trash and waste from these informal settlements quickly became an eyesore in the city. Between 1958 and 1976, during Seoul’s rapid industrialization, the Cheonggye stream was covered and the Cheonggye Road and an elevated highway, the Cheonggye Expressway, were built over it. The roads connected downtown Seoul to the eastern part of the city and were designed to solve increasing traffic congestion in Seoul’s central district allowing cars to pass more than ten intersections without traffic lights. By 2000, the Cheonggye Area was considered one of the most congested and noisy areas of Seoul with approximately 168,000 vehicles using it per day, over half of which was through traffic.

1.1 KEYS INTERVENTIONS
In 2003 Lee Myung-bak was elected Mayor of Seoul. His key campaign promise was to remove the Cheonggye Expressway and to re-use the Cheonggyecheon. In February of 2003 a master plan for stream restoration was completed and later that year the removal of the Cheonggye Expressway was undertaken. The entire 6.4 km Cheonggye Expressway corridor covered 14.5 km BRT corridor was completed in 2004-6 at a total cost of US$385 million. In the years leading up to the Cheonggyecheon demolition the government implemented a comprehensive Transportation and Parking Demand Management program. In 1996, the city began charging private vehicles with less than three passengers along 32 US city major traffic points. In 2006 the city implemented a voluntary “No Driving Day” program rewarding participants with toll rebates and discounts. By 2006 the city reduced the public parking rates in the downtown area and increased the costs of parking on the June 2003 the 14.5 km BRT corridor was completed. This BRT corridor accommodates the drivers of the 120,000 cars that used the Cheonggye Freeway everyday. In tandem with the Cheonggyecheon restoration, the Cheonggye Freeway demolition and the government incorporated a comprehensive Transportation and Parking Demand Management program.

1.2 MEASURABLE OUTCOMES
The Cheonggyecheon removal and Cheonggyecheon stream restoration took two years from inception to completion. In total 4.6 km of long, modern public recreation space was created at a total cost of US$385 million. Within the first year of opening approximately 30% of the park site was occupied by 90,000 visitors per day, 10% of who were tourists. In the metropolitan area a 2005 study by the Seoul Development Institute found that the land values adjacent to the Cheonggyecheon increased by 25%. Furthermore as a result of the BRT success and the aggressive Transportation Demand Management, vehicular traffic passing through downtown has decreased by 9%. Environmental improvements have also been reported with the stream recreation serving to mitigate the urban heat island effect through the provision of urban parks. It has been noted that the temperatures in the park are on average 7°F lower in the summer heat than a quarter mile away from the park.

1.3 GOVERNANCE
The Seoul Metropolitan Government was well equipped to approach this project, establishing a number of sub-committees to provide oversight of the various aspects of the removal and restoration. The Cheonggyecheon Restoration Plan provided conflict mediation between Seoul Metropolitan Government and the unions of merchants, while the Cheonggyecheon Restoration Research Corp. managed the restoration and plan implementation. It was noted that although this project is successful in park creation and is a source of great pride for Seoul’s residents, because of its accelerated nature it displaced 1200 street vendors that were relocated.

CONCLUSION
The Cheonggyecheon project illustrates that the removal of a roadway even where it is a key link in a regional network, can mitigate negative economic and environmental impacts if it is paired with a comprehensive strategy of transit demand management and implementation of public transport expansion. The Cheonggyecheon project further shows evidence for increased quality-of-life for urban residents and economic and environmental benefits that can result from strategic urban design and policy.

SOURCES
The Cheongyecheon project in Seoul, South Korea was intended to create a high-quality public space while simultaneously eliminating severe traffic congestion and noise issues due to the Cheongye Expressway. The initiative was spearheaded by Mayor Lee Myung Bak as part of greater efforts to efficiently control and reduce automobile usage in the city. In addition to removing the Cheongye Expressway, policies created incentives to reduce automobile use were introduced, and Seoul’s first Bus Rapid Transit system was introduced to coincide with the removal of the highway to provide an alternate means of transportation through this route. On an international scale this project is known as a catalyst for re-branding the city of Seoul as the forward thinking, environmentally friendly global city of the 21st century.

The urban parks have mitigated the urban heat island effect. Strategic urban design and policy has increased overall quality of life for residents, and produced significant economic and environmental benefits.

**SOURCES**
1. Seoul Metropolitan Government
2. Preservenet.com
3. Planetizen.com
4. Sisul.or.kr
5. Wikimedia

**CHEONGGYE, Seoul, South Korea**

**COORDINATES**
37°33'59.53"N 126°58'40.69"E

**AREA**
(Seoul Special City) 605.28 km² (233.70 sq mi)

**POPULATION**
(Seoul Special City) 9,794,304

**DENSITY**
(Seoul Special City) 16,181/km² (41,910/sq mi)

**GDP**
(Republic of Korea) $1.01 trillion

**URBAN POPULATION**
(Republic of Korea) 82.9%