

## **Appendix A**

This appendix presents the results of the factor analysis. Factor analysis for the raw built environment variables outside and within the toll area are provided in Table 7 and Table 8, respectively.

**Table 7.** Factor analysis for the raw built environment variables outside the toll area

Raw built environment variables	Factor loadings						
	CBD accessibility	Retail job	Industrial job	Population	Street design & bus	Government job	Infrastructure accessibility
Distance to the central business district (CBD)	0.84						
Regional size	0.77						
Distance to commercial centers	0.75						
Number of retail jobs		0.91					
Retail size		0.91					
Retail jobs density		0.87					
Number of industrial jobs			0.80				
Industrial size			0.80				
Industrial jobs density			0.75				
Population				0.77			
Population density				0.75			
Residential size				0.75			
Density of street					0.26		
Length of street					0.54		
Number of intersections					0.88		
Number of bus stations					0.66		
Government jobs density						0.91	
Number of government jobs						0.67	
Distance to school							0.31
Distance to hospital							0.89
Cumulative (%)	22.91	36.73	48.44	59.50	68.85	75.99	81.76

Note: The relatively small values in each column have been deleted.

**Table 8.** Factor analysis for the raw built environment variables within the pricing area

Raw built environment variables	Factor loadings						
	Regional size	Industrial job	Retail job and bus	Population	Government job	Street design	Infrastructure accessibility
Length of street	0.91						
Regional size	0.80						
Number of industrial jobs		0.95					
Industrial size		0.95					
Industrial jobs density		0.94					
Number of retail jobs			0.88				
Retail size			0.88				
Retail jobs density			0.86				
Number of bus stations			0.60				
Population				0.85			
Residential size				0.85			
Population density				0.82			
Government jobs density					0.91		
Number of government jobs					0.89		
Density of street						0.95	
Number of intersections						0.42	
Distance to CBD							0.27
Distance to hospital							0.87
Distance to school							0.47
Distance to commercial centers							-0.40
Cumulative (%)	15.62	30.54	44.76	58.08	68.99	77.80	84.45

Note: The relatively small values in each column have been deleted.