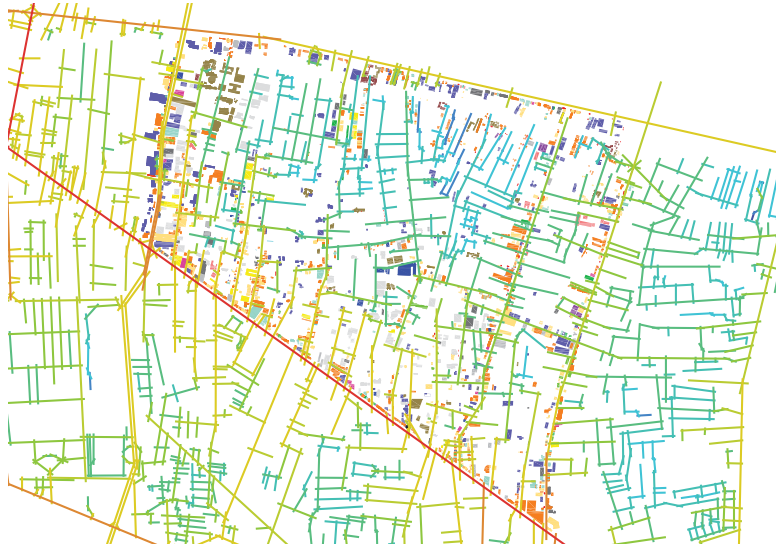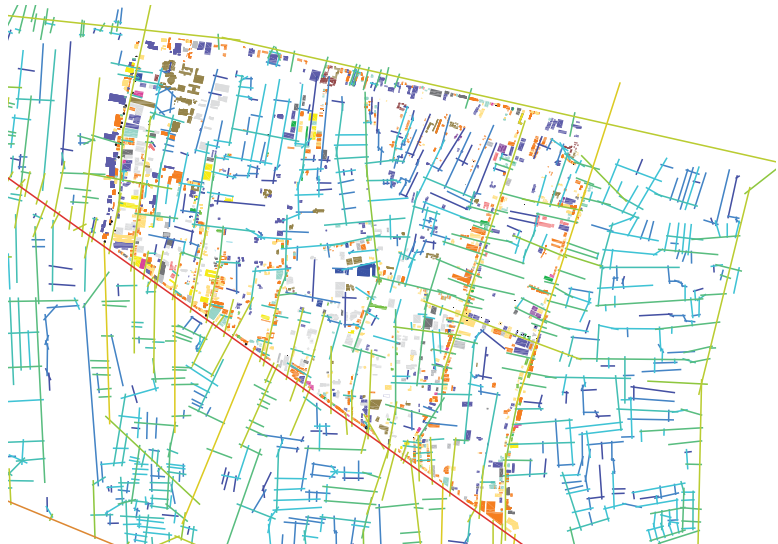a: Global Integration

b: Local Integration

c: Connectivity

Figure 4.9: Map showing the 1974 integration patterns of the embedded system analysis being superimposed with the land-use distribution

a: Global Integration
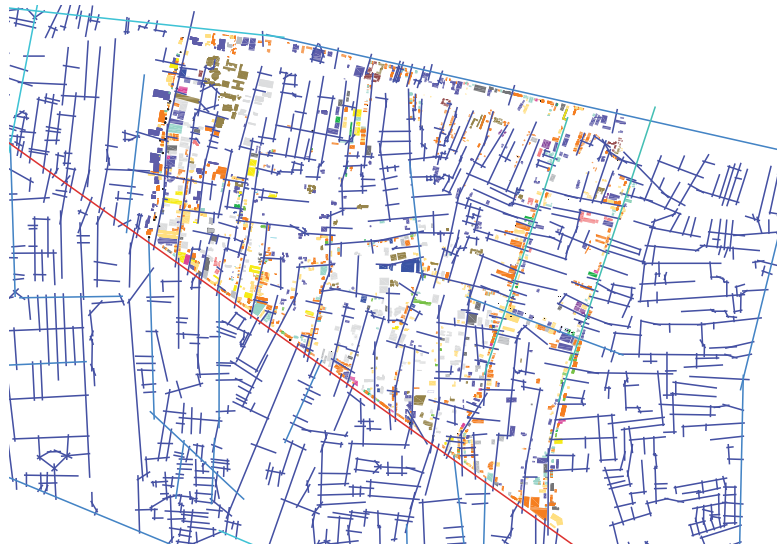
b: Local Integration

c: Connectivity

Figure 4.10: Map showing the 1974 integration patterns of the independent system analysis being superimposed with the land-use distribution

When the land-use distribution was superimposed on the integration maps of 1987 and 1974 (Figures 4.7 – 4.10), the superimposed maps show that most of the lines that have spatial changes to be more integrated whether by being extended to the edge lines or by being connected to form the sequential links also have some land-use types developed. However, the variety of them may be of some limited types. In contrast, quite a number of the segregated lines without any spatial changes have no land-use types developed along them at all, except for house/resident. This is an evidence of the spatial change that induce the development of land use types along the integrated lines.

4.2.2 The relationships based on the segment pattern

The study of the relationships between the segment pattern and the micro-distribution of land-use types was carried out based on the segment analysis of the 2009 spatial structure. Distances of 1000 and 1500 choices were selected to study with the micro-distribution of land-use types. Figure 4.11 is a map showing the micro-distribution of land uses superimposing on the segment pattern. It shows three significant findings. First, segments along the edge roads tend to have a high clustering of land-use development, whether these segments may be integrated or not. For example, the slightly integrated segments of Sukhumwit Road within the studied area have a variety of land-use types and a vast number of premises, as similar to the segregated segments of Petchaburi Road.

Second, the integrated segments of the internal area were markedly occupied with land-use types and premises. This is even more apparent for the segments of the axial lines which sequentially link Sukhumwit Road, Petchaburi Road, Nana Road, Asokamontri Road, Thonglor Road, Ekkamai Road and Klong Ton Road one way or another. They form the internal core. On the contrary, some integrated segments, which located further away from the internal core though may link to it, may not have any land-use types or premises being developed at all.

Third, it is quite obvious that there were very few numbers of land-use types and premises being developed along the segregated segments within the internal area. This is not the cases for fresh markets and some planned shopping areas. Nevertheless, a clear clustering of land-use premises can be found where the segments intersect and whether or not the segments are integrated.

Asokamontri Road

Petchaburi Road

(a) 1000 meters

Thonglor Road

Sukhumwit Road

Ekkamai Road

(b) 1500 meters

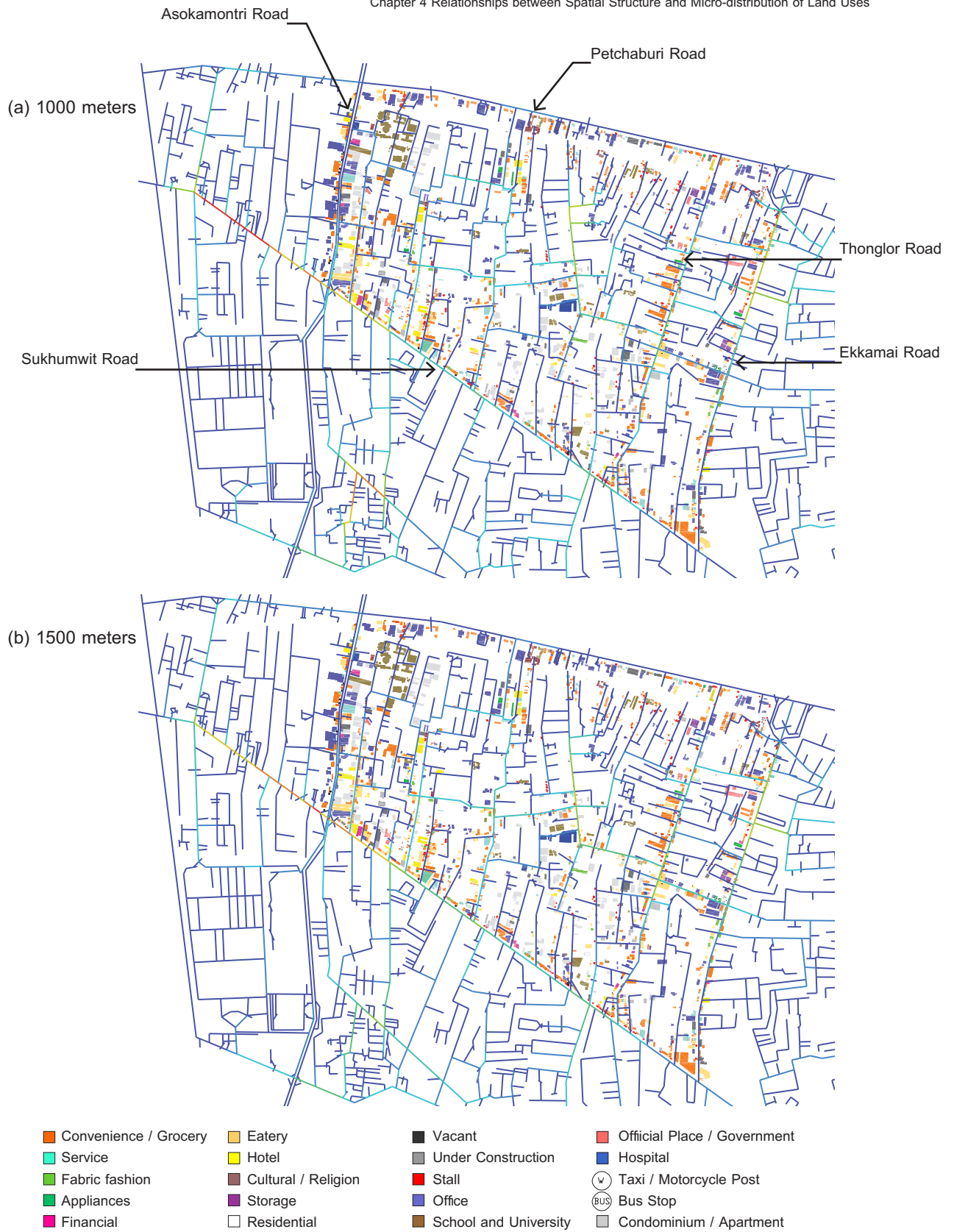|			
🟧 Convenience / Grocery	🟨 Eatery	⬛ Vacant	🟥 Official Place / Government
🟦 Service	🟨 Hotel	⬜ Under Construction	🟦 Hospital
🟩 Fabric fashion	🟫 Cultural / Religion	🟥 Stall	ⓦ Taxi / Motorcycle Post
🟩 Appliances	🟪 Storage	🟦 Office	🚌 Bus Stop
🟪 Financial	⬜ Residential	🟫 School and University	⬜ Condominium / Apartment

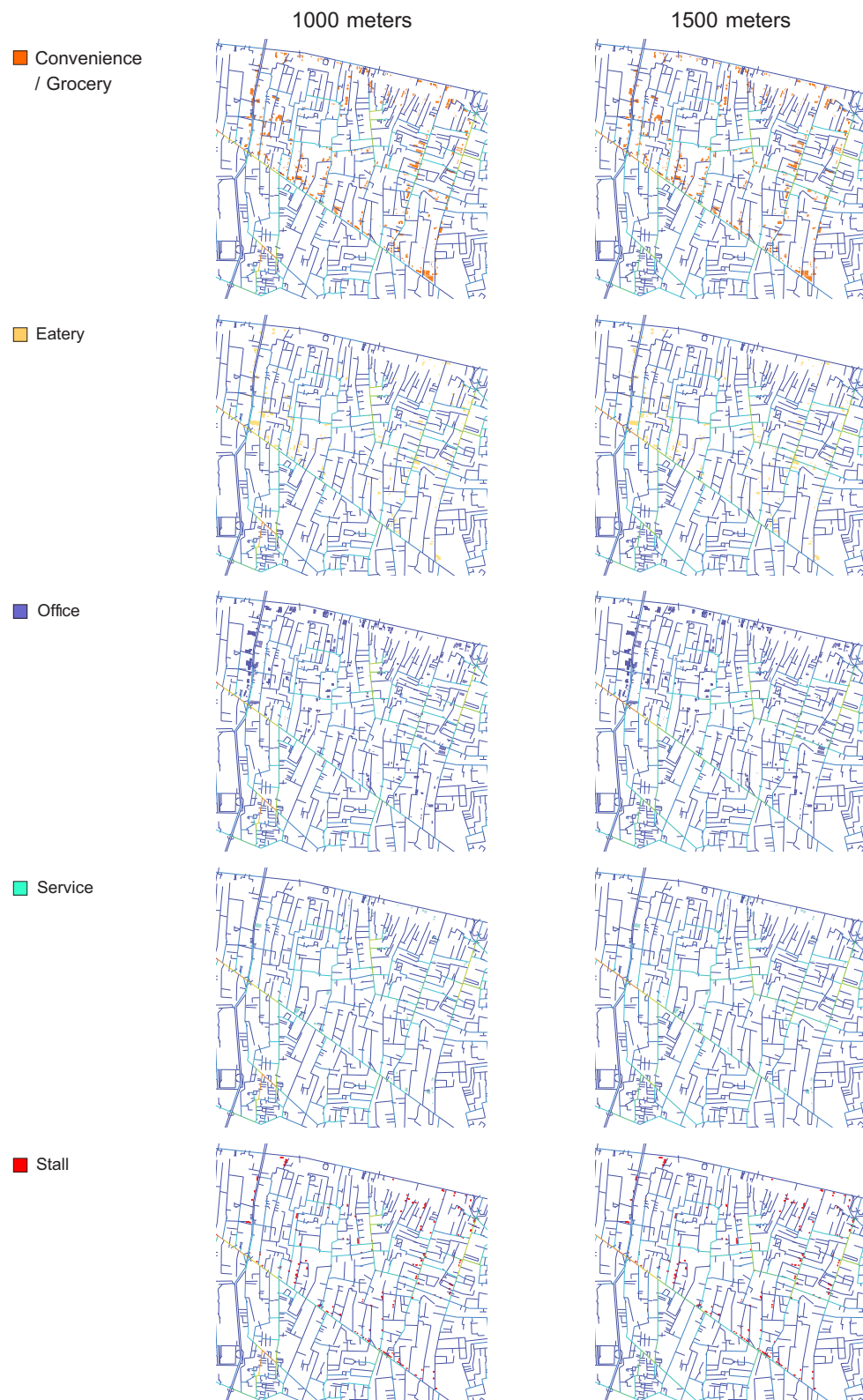Figure 4.11: Map showing the 2009 segment patterns being superimposed with the land-use distribution

Figure 4.12: Map showing the 2009 segment patterns being superimposed with the five selected land uses

When five selected land uses were examined in relation to segment pattern as shown in Figure 4.12, the relationship patterns found are similar to those the integration pattern. Convenience/ grocery, eatery and service types and premises were found throughout the area. However, they tended to cluster along the integrated segments more than the segregated ones, except the segregated segments are those of the edges or internal core. This is not the case for business offices, majority of them were found to locate or cluster along the segregated segments, particularly those locating within the internal area. This indicates that office may be less needed to locate along the integrated segments than the other three land-use types mentioned. As for stalls, they were mainly found to cluster at the intersections of the segments. This pattern is similar for the intersections of the integrated or the segregated segments.

The integration and the segment pattern studied in relation to the micro-distribution of land-use types allow us to establish some relationships between spatial structure and land-use distribution. Variety of land-use types as well as the number of premises tended to be found along the integrated lines or segments. There are some cases that the land-use variety and the number of premises clustered along the segregated lines and segments. In that case, the land-use types developed are of those being beneficial on both the movement economy of the grid and the tributary serving area. The internal core will have a variety of land uses developed, and premises tend to cluster along the lines or segments the sequentially link to the edges, particularly at the intersections of the segments.

4.3 The spatial factor most associated with the micro-distribution of land uses (The multivariate analysis)

The findings from the last section indicate that the relationships between the spatial patterns and the micro-distribution of land uses can be established. In this section, the attempt is to try to pinpoint the spatial factor that is most associated with the land uses. The multivariate analysis then was carried out to try to find that spatial factor. The spatial variables were assigned as independent variables. There were seven of them and their values were obtained from the integration analyses of the embedded and the independent analysis. They are: embedded connectivity; embedded global integration; embedded local integration; independent connectivity; independent global integration; independent local integration; and, independent mean lengths. This means that the multivariate analysis was carried on the scale of the line.

For the land-use variables, there were four of them: total premises, total premises and stalls, total floors of premises and total types of land use. The first three were designed to investigate the quantities of the land-use premises in relation to the spatial variable. The last one was designed to examine the variety of the land uses in order to establish the liveability indicator instigating by the spatial factor of the area. The values of each land-use variables, again, were summed as the values of the lines. The table showing all the spatial and the land-use values of the variables is included in the Appendix.

The analysis shows a number of interesting findings. First, the spatial values of the independent analysed system were better correlated with the land-use values in general. Second, all the spatial values were positively correlated with the values of the four land-use variables in general. Third, connectivity of the independent analysed system was found to be the spatial variable most correlated with all the four land-use variables shown by the linear regression analysis. It was also constantly selected from the stepwise regression analysis for the first step as well. The second and the third variable most selected from the stepwise analysis were line length and connectivity of the embedded analysed system, which were alternated of the selected step sometimes.

Fourth, as we divided the land-use variables into two groups, a quantity indicative and a quality indicative, the linear regression analyses pointed out that the associations between the spatial and land-use variables is stronger for the quantity indicative than that of the quality indicative. Figures 4.13-4.16 are scattergrams showing correlations between seven spatial variables and each land-use variable. For the quantity group, the scattergrams show that r-squared values are over .5, for example, r-squared value of independent connectivity and total number of premises of all land-use types is at .667 (Figure 4.13). As for the quality group, the r-squared values are much lower. The highest r-squared value given is from independent connectivity and number of land-use types found at .322 (Figure 4.16).
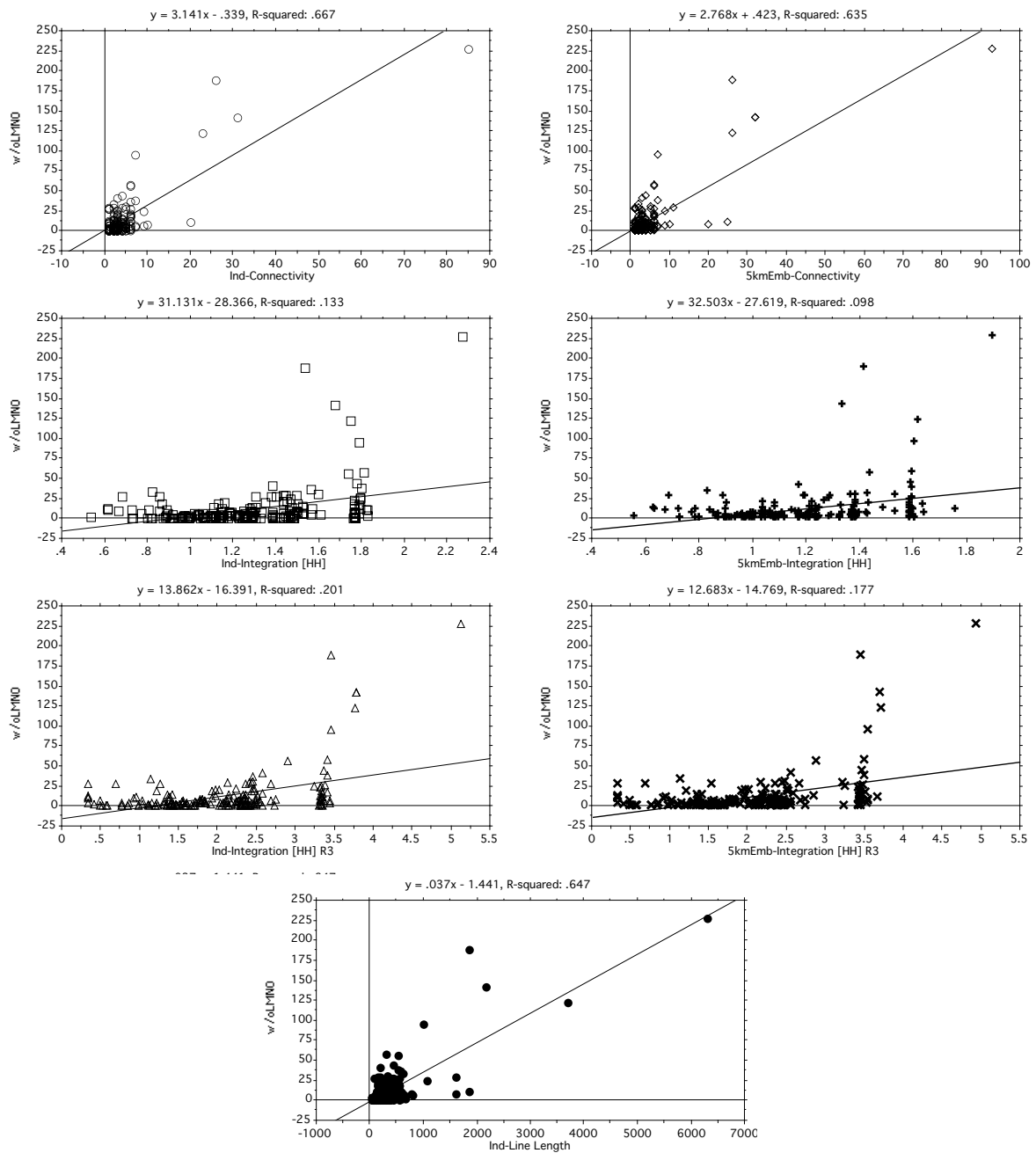
Figures 4.13: Scattergrams showing correlations between seven spatial variables and total number of premises of all land-use types, except vacant and under-construction
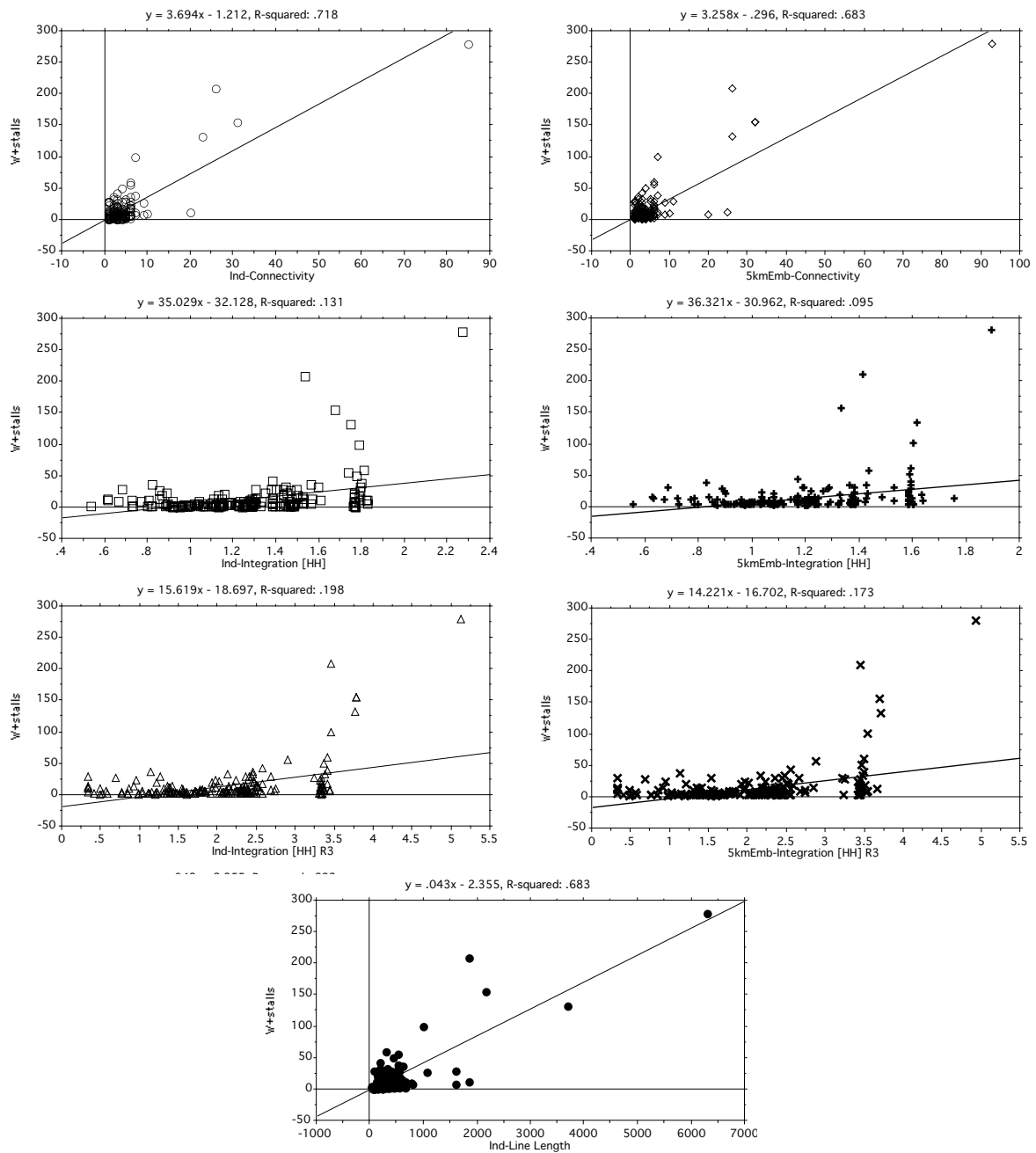
Figures 4.14: Scattergrams showing correlations between seven spatial variables and total number of premises of all land-use types and stalls
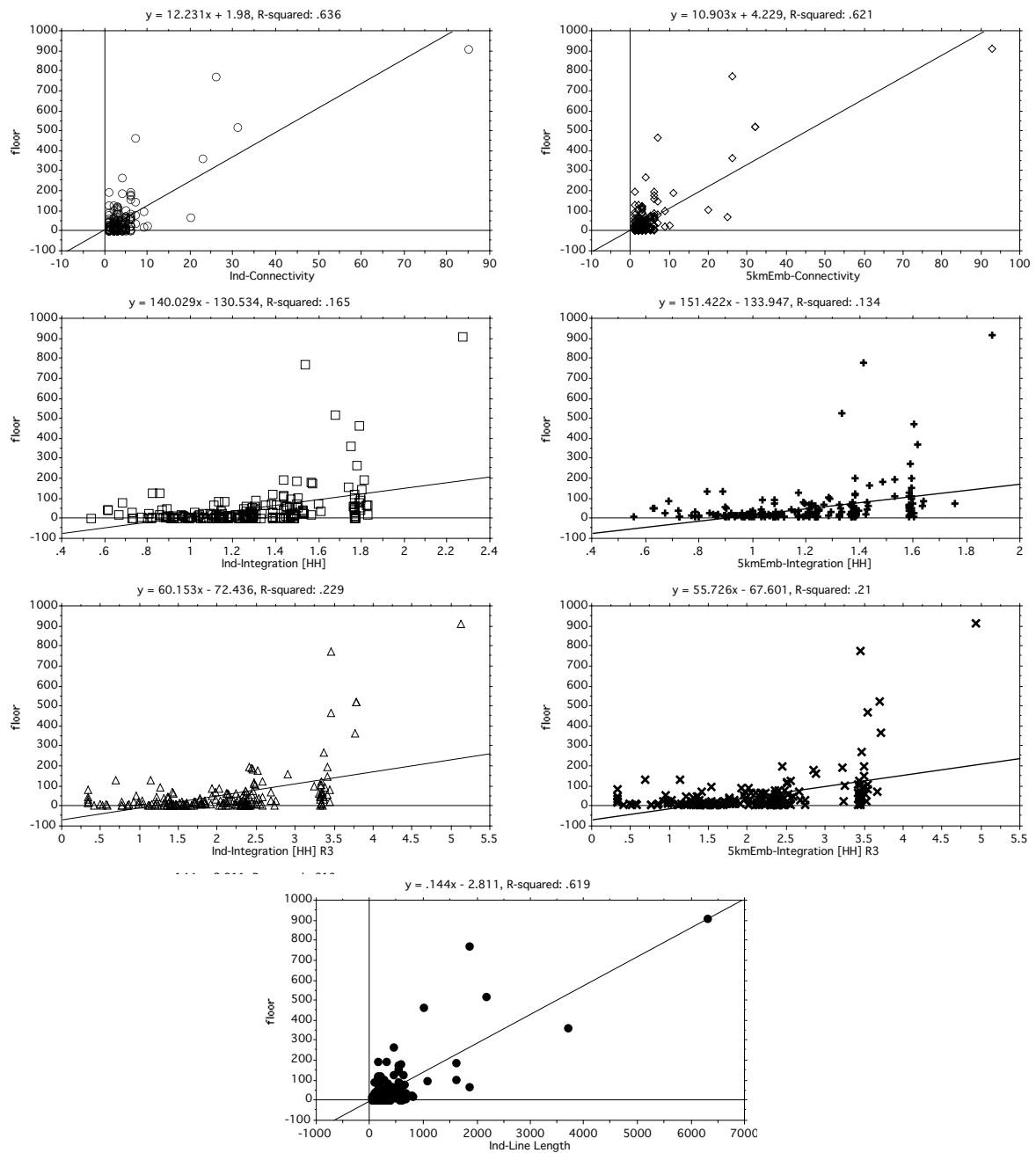
Figures 4.15: Scattergrams showing correlations between seven spatial variables and total number of floor
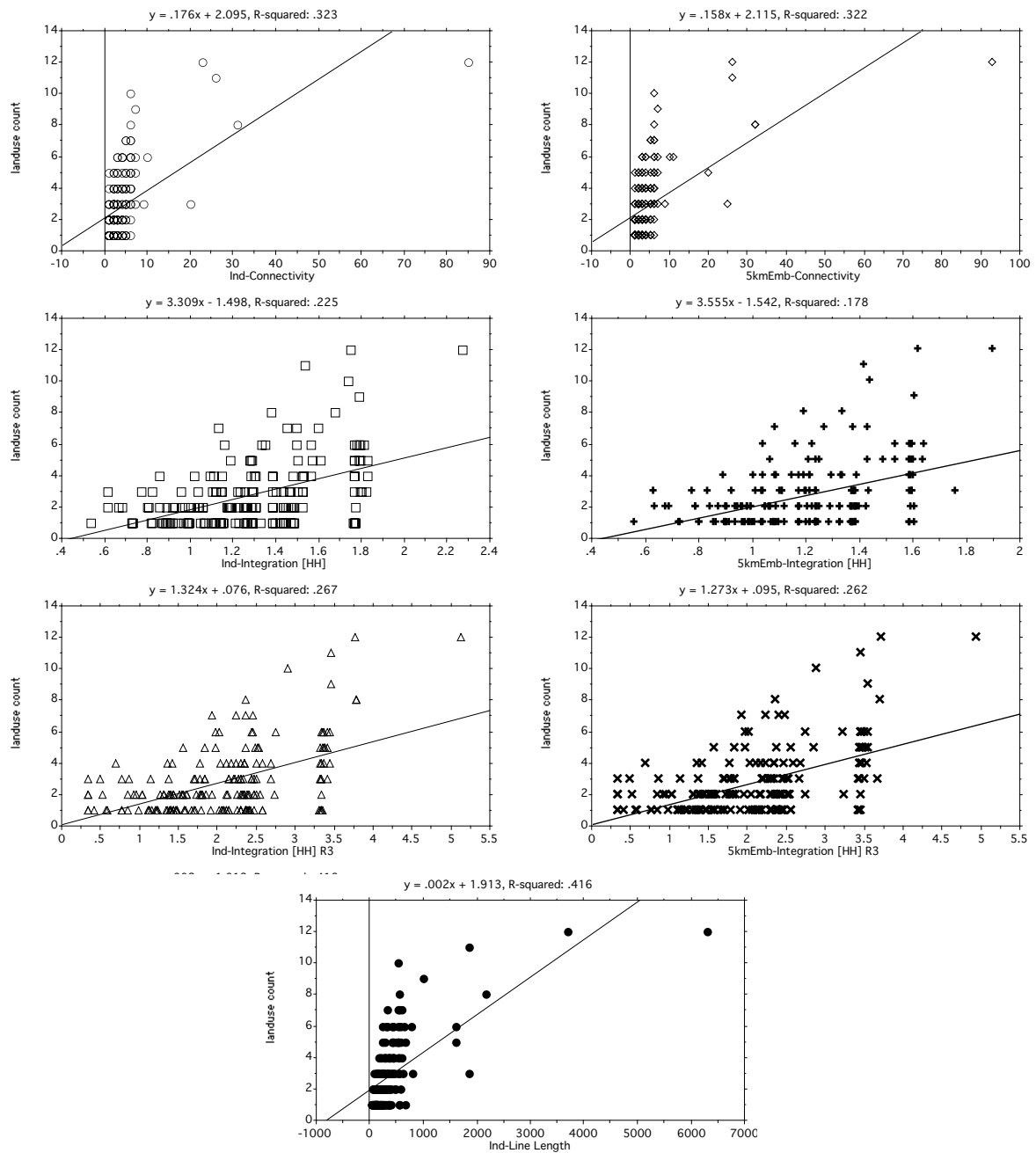
Figures 4.16: Scattergrams showing correlations between seven spatial variables and total number of land-use types found

When the linear regression analysis was applied to examine the total number of premises of each land-use type in order to try to understand the detail of each land-use distribution, it was found that not all the land-uses' values are positively correlated with spatial values.

For some land uses, their all or almost all their spatial variables were negatively correlated with the total number of premises of all land uses, for example, cultural/religion, hospital, government office and storage. The others may have some spatial variables negatively correlated with the total number of premises such as hotel and appliances (Table 4.3).

Among the seven spatial variables, independent connectivity was most correlated with majority of the total premises of land uses. There were six types of them: convenience/grocery, office, service, school/university, under-construction and stall. All have a strong association, except school/university (Table 4.3).

The second most correlated spatial variable with total premises of land uses is global integration. Two land uses' total premises associated with embedded global integration, while the other two associated with independent global integration. Interestingly, three of them had negatively strong associations: cultural/religion, storage, government office (Table 4.3). The other one that had positive correlation is fabric/fashion.

The third most correlated spatial variable with total premises of land uses is local integration. It strongly and positively and associated with financial premises. In contrast, it strongly and negatively associated with government office (Table 4.3). In addition, vacant premises also positively correlated with local integration as well.

Land use	5kmEmb-Connectivity	5kmEmb-Integration [HH]	5kmEmb-Integration [HH] R3	Ind-Connectivity	Ind-Integration [HH]	Ind-Integration [HH] R3	Ind-Line Length
convenience/grocery	0.804	0.311	0.423	0.827	0.358	0.46	0.774
eatery	0.574	0.289	0.429	0.604	0.354	0.466	0.586
office	0.432	0.241	0.354	0.442	0.259	0.391	0.578
service	0.547	0.186	0.302	0.556	0.21	0.329	0.538
school/university	0.13	0.055	0.147	0.162	0.052	0.152	0.033
fabric fashion	0.262	0.243	0.367	0.272	0.4	0.378	0.2
financial	0.862	0.538	0.644	0.89	0.588	0.71	0.759
hotel	-0.18	0.199	0.155	-0.195	0.13	0.113	-0.093
appliances	0.243	-0.012	-0.099	0.235	-0.072	-0.081	0.273
cultural/religion	-0.272	-0.397	-0.326	-0.171	-0.34	-0.287	-0.297
hospital	-0.1	-0.162	-0.034	-0.095	-0.076	0.019	-0.103
office place/governme	-0.569	-0.645	-0.91	-0.591	-0.897	-0.876	-0.411
storage	-0.447	-0.746	-0.691	-0.447	-0.735	-0.686	0.869
vacant	0.257	0.274	0.295	0.241	0.248	0.309	0.477
under construction	0.913	0.434	0.581	0.925	0.557	0.66	0.926
taxi/motorcycle	0.498	0.335	0.399	0.441	0.209	0.264	0.556
stall	0.915	0.316	0.38	0.913	0.347	0.417	0.86

Table 4.3: A table showing r-values of the matrix correlation of spatial variables and total number of premises of all land-use types

To summarise, we can establish that land-use development and distribution have a tendency to associate with connectivity whether in terms of quantity of land-use premises or variety of land-use type. Second most associated spatial variable with land-use variable was line length. However, it should be noted that both connectivity and line length may affected by the global-scale characteristic of the lines, being the lines forming the major roads of the city. This means that the spatial values of these lines can be of significant different from the other lines in the studied area in general. When each the development of each land-use type was concerned, connectivity continued to be the spatial variable associated with most of each land-use development. However, global and local integrations began to show a strong association with some land uses' development.

Chapter 5

Discussion and Conclusion

Let us now discuss the findings from the analyses in relation to the research questions and objectives set out in the beginning.

How has the former peripheral area of Bangkok developed with a special reference to Sukhumwit area?

The peripheral area of Bangkok with regards to Sukhumwit area has spatially been developed with two cases. First is the construction of arterial roads. Some arterial roads were just added into the area; in the case of Sukhumwit area this is the construction of Petchaburi Road. The other arterial roads were the extension of the main roads within the area to connect with the arterial roads, normally the edges. In addition, when the internal main roads were extended, they were often enlarged. The second case is the construction of the internal roads. This can be the construction of the new roads and the extension of the existing roads to directly or sequentially connect to the internal main roads or the edges. Roads enlarged could also occur, but normally when the internal roads were extended to the edges.

Has the centrality process involved within the development?

With reference to Sukhumwit area, the spatial changes from the two cases were meant to create the accessibility. Most often, they were carried out to complete the block, i.e., creating the grid structure. In the first case, the road construction and extension produces the large-scale grid structure. In the second case, it makes the small-scale grid structure. These two-scale grid structures are the indication of the centrality process. The presence of the grid points out that the centrality process involves with the area development through creating the accessibility 'to' the area and 'within' the area. As a result, the movement economy can be generated for the through-movement through the area and the through-movement within the area.

However, as the twp-scale grid structures are of different patterns. One is of the orthogonal, and the other of the quasi orthogonal almost to the extent of broken-grid pattern. In the other words, the internal grid structure of the area will be weak. This suggests that the movement economy within the area would be weaker than that of the edges. Consequently, giving that grid structure

associates with land-use development and distribution, the spatial patterns and changes found in Sukhumwit area indicate that land-use development within the area should be weaker than the edge or the main roads composting the large-scale grid. This conjecture has been confirmed by the micro-distribution of the land-use types and their variety within the area.

And, has the navigational purpose been concerned when the area has developed?

As for navigational purpose, the two types of spatial changes do generate a more intelligible grid structure. We see evidence from the increase in intelligibility value of the spatial structure in 1987 from that of 1974. Nevertheless, as the value of the spatial structure in 2009 drops from that of 1987, it could be said that to some extents the small changes in spatial structure may have some limit to make the area more intelligible for the navigational purpose.

Perhaps, this limited intelligible structure may be specific for Sukhumwit area. This is because the spatial structure of the whole area is very weak, as seen from the low integration values when compared with the other areas of Bangkok as discussed in Chapter 3. To create a more intelligible structure for Sukhumwit area would need a big change in the spatial system. The construction of the BTS into the area has no effect on the spatial system of the area, except for the traffic which would need to help from the spatial system of the road network, nonetheless, to assist or feed the BTS.

Does the micro distribution of land-use types associate with the internal grid structure?

The research's findings have clearly demonstrated the association between the grid structure and the micro-distribution of land-use types. Spatial factors more likely to associate with land-use variables can be identified, for the land-use premises and the number of types. They are: connectivity, line length and global integration respectively. Giving that connectivity and line length of the area are of the global properties, this reflects that the strong edge is dominant for Sukhumwit area. However, this is the effect of Sukhumwit Road being the arterial road, which has a significantly long length compared to all the other lines within the studied area.

The association between spatial and land-use variables was clearer when the integration and segment patterns and the micro-distribution of land-use types were examined. The findings from the visual inspection and comparison indicate details of the association. For the integration lines and the segments, the integrated one will have strong clustering of land uses and many land-

use types, whether the lines and segments were of the edge or the internal area. In contrast, the segregated one will have dispersed land uses' premises and few types. The segment pattern seems to be better in picking up the clustering of land uses, while the integration is better for indicating the variety of land-use types. This is the evidence of the association between the internal grid structure and the micro-distribution of land-use types in a fine detail.

If so, to what extent do the spatial structure and land uses help consolidate the urban areas, suggesting to the urban consolidation process?

It seems that the urban consolidation process work likes these. First, there occur the spatial changes within the area. Some of the changes may have the strong impact on the grid structure of the area as a whole; the other may have the impact on the internal grid and of the less degree. If both types of change shape the grid structure to have an orthogonal or quasi-orthogonal grid structure, then the centrality process will start. On the one hand, the quasi-orthogonal grid structure of the internal area initiates the spreading of land-use development from the strong and perhaps too dense edges into the internal area. When these spreading reach the internal core, they distribute and clustering around the integrated segment. On the other hand, the internal grid structure discriminate the types of land use which favour the degree of movement economy the grid generates. This results in the variety of land-use types within the internal area.

With the number of land-use premises and the variety of their types coupled with the accessibility provided by the grid, they both instigate some kinds of a social process to shape the area's characteristics. They make the area to be more accessible and usefulness. In short, together they help make the area liveability.

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Appendix A

Research Appendix

I. Table of Spatial and Land-use Variables' Values

II. Maps of Land Use Pattern in Sukhumwit Area

Table of Spatial and Land-use Variables' Values

Ind-line-no.	5kmEmb-line-no.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	Total-Premises	Total-Premises + Under-construction	Total-Premises +stalls	Total-Premises + Under-construction +stalls	landuse-count	floor	Ind-Connectivity	Ind-Integration [HH]	Ind-Integration [HH] R3	Ind-Line-Length	Ind-Mean-Depth	5kmEmb-Connectivity	5kmEmb-Integration-[HH]	5kmEmb-Integration [HH] R3	5kmEmb-Line-Length	5kmEmb-Mean-Depth
0	0	57	6	14			53				1			13	11						3	142	142	155	155	8	519	31	1.675065	3.791959	2162.835	5.691251	32	1.337802	3.705498	2162.835	8.31569
6	6	98	25	2		4	33					1		20	21				2	4	3	185	185	205	205	11	769	26	1.536522	3.465273	1853.349	6.114244	26	1.420616	3.460512	1853.349	7.889225
7	7	2													1	1						4	4	4	4	3	3	1	1.285372	2.298792	115.1265	7.113521	1	1.240576	2.315761	115.1265	8.889036
10	10	1				3								5	1				1			2	2	7	7	4	5	6	1.381093	2.343064	593.4259	6.689805	6	1.19568	2.351867	593.4259	9.185255
11	11		2				5								1	1						9	9	9	9	4	39	4	1.284157	2.345715	346.1114	7.119306	4	1.148723	2.354864	346.1114	9.519849
12	12	3	1		2		10						3	2	9				1			25	28	27	30		97	9	1.467038	3.251507	1069.373	6.356472	9	1.290838	3.265991	1069.373	8.581853
16	16													4	1							1	1	5	5	2	2	6	1.385495	2.737086	373.1423	6.671728	6	1.177648	2.751825	373.1423	9.310586
23	23													2								0	0	2	2	1	0	2	1.287809	2.365681	284.7703	7.101952	2	1.241052	2.379922	284.7703	8.886011
29	29		1										4									5	5	5	5	2	6	2	1.382323	2.550174	273.3382	6.684743	2	1.177166	2.53356	273.3382	9.313989
30	30	9					18							2								27	27	29	29	3	69	5	1.400131	2.690074	391.9954	6.612437	5	1.200087	2.676756	391.9954	9.155198
31	31	-													1	1						3	3	3	3	3	17	5	1.11671	1.844359	128.242	8.036877	5	1.103501	1.844359	128.242	9.868999
33	33	1			1										2							4	4	4	4	3	13	2	1.290562	2.439448	202.9738	7.088937	2	1.241587	2.451545	202.9738	8.882608
40	40	5					5															10	10	10	10	2	22	1	1.285372	2.298792	254.7596	7.113521	1	1.240576	2.315761	254.7596	8.889036
41	41														1							1	1	1	1	1	4	2	0.9873554	1.119194	134.1078	8.958785	2	0.9937416	1.119194	134.1078	10.84858
42	42				1									2					1	1		2	2	4	4	5	18	2	1.287809	2.362191	289.7633	7.101952	2	1.241052	2.376325	289.7633	8.886011
45	45				14																	14	14	14	14	1	56	2	1.287809	2.362191	231.8224	7.101952	2	1.241052	2.376325	231.8224	8.886011
46	46														2							2	2	2	2	1	8	2	1.112936	1.464872	357.7065	8.060738	2	1.102725	1.464872	357.7065	9.875237
56	56														1							1	1	1	1	1	2	2	0.8168837	0.8491229	107.6432	10.61967	2	0.8039027	0.8491229	107.6432	13.17429
62	62		1				2															3	3	3	3	2	10	5	1.037204	1.728888	118.4809	8.576283	5	0.9630026	1.728888	118.4809	11.16295
63	63						2								1							3	3	3	3	2	12	2	1.179362	1.609216	268.0172	7.663051	2	1.065462	1.609216	268.0172	10.18563
64	64	10	6	2	1		5							1	3				1			27	27	28	28	8	74	6	1.37899	2.369202	546.1978	6.698482	6	1.194273	2.369202	546.1978	9.194896
66	66	1																				1	1	1	1	1	2	1	1.285372	2.298792	119.8503	7.113521	1	1.240576	2.315761	119.8503	8.889036
67	67													2								0	0	2	2	1	0	1	1.285372	2.298792	121.9811	7.113521	1	1.240576	2.315761	121.9811	8.889036
68	68	2																				2	2	2	2	1	6	1	1.285372	2.298792	184.1783	7.113521	1	1.240576	2.315761	184.1783	8.889036
70	70														3							3	3	3	3	1	12	5	1.152595	2.067832	277.3906	7.817788	5	1.041521	2.067832	277.3906	10.39679
74	74										1											1	1	1	1	1	18	2	1.137753	1.710445	191.6938	7.906724	2	1.03895	1.710445	191.6938	10.42004
76	76						2								2	4						8	8	8	8	3	40	2	1.14026	1.770222	253.7915	7.89154	2	1.039388	1.770222	253.7915	10.41607
77	77		2		1	1									1							5	5	5	5	4	8	5	1.147969	2.240151	518.2645	7.845264	5	1.040725	2.240151	518.2645	10.40397
79	79	1	1																			2	2	2	2	2	8	1	1.056873	1.040526	94.3642	8.435286	1	0.9993619	1.040526	94.3642	10.79319
83	83													1	1							1	1	2	2	2	2	1	0.7988695	0.5279905	59.18358	10.83659	1	0.7891616	0.5279905	59.18358	13.4017
85	85	3	1				1							1	3				1			8	8	9	9	6	24	10	1.329885	2.756728	764.9313	6.908894	10	1.162262	2.756728	764.9313	9.420605
86	86	14	1	2			3	1						2					1			21	21	23	23	7	61	6	1.451947	2.242224	526.309	6.412148	6	1.271407	2.242224	526.309	8.697732
87	87	1													1							2	2	2	2	2	5	1	1.225648	1.30688	143.5731	7.411425	1	1.125254	1.30688	143.5731	9.697542
90	90											1										0	0	0	0	2	4	4	1.132065	1.60081	226.4269	7.941432	4	1.086206	1.60081	226.4269	10.01021
91	91	1																				1	1	1	1	2	5	2	1.065577	1.198155	100.24	8.374548	2	1.010224	1.198155	100.24	10.6879
92	92	1																				1	1	1	1	1	5	2	1.22828	1.485036	82.89999	7.397686	2	1.125719	1.485036	82.89999	9.693951
96	96		2																			2	2	2	2	1	4	3	1.121434	1.398851	115.2499	8.007231	3	1.084137	1.398851	115.2499	10.02741
97	97															1						1	1	1	1	1	5	3	1.142778	1.486466	339.4796	7.876356	3	1.088261	1.486466	339.4796	9.993195
98	98														1							1	1	1	1	1	3	3	1.286285	2.397404	311.6471	7.109183	3	1.240754	2.409255	311.6471	8.887901
100	100	7	3	4			5					2		1	1							20	20	21	21	6	86	3	1.157752	2.025026	329.3184	7.787419	3	1.042401	2.025026	329.3184	10.38885
105	105	154	14	6	12	5	27	1				4	7	52	7				1	4	1	227	234	279	286	12	907	85	2.271227	5.135136	6313.413	4.45987	93	1.901949	4.944037	6313.413	6.145747
213	577													2								0	0	2	2	1		1	1.380918	2.464949	104.3403	6.690528	1	1.176952	2.433604	104.3403	9.315501
219	583	1													1							2	2	2	2	2	7	1	1.380918	2.464949	191.0628	6.690528	1	1.176952	2.433604	191.0628	9.315501
220	584														1							1	1	1	1	2	2	2	1.396354	2.585907	353.9863	6.627621	2	1.179499	2.566579	353.9863	9.297543
260	635	18	5	16	1	1	10	1							2	2						56	56	56	56	10	160	6	1.736906	2.89843	519.5901	5.524223	6	1.442103	2.893638	519.5901	7.786579
268	643	1													2							3	3	3	3	1	12	2	1.444613	2.085733	559.2953	6.439624	2	1.370634	2.138898	559.2953	8.140453
269	644	1					2							1	2							5	5	6	6	4	20	3	1.56349	2.304273	284.9193	6.026031	3	1.391708	2.343979	284.9193	8.032325
271	646	9					4								1				1			14	14	14	14	3	24	3	1.522317	2.142849	346.9062	6.161967	3	1.384711	2.192221	346.9062	8.067863
272	647	20	1				2						1	2	1				1			24	25	26	27	6	104	3	1.794554	3.341131	236.8022	5.378887	3	1.59798	3.453851	236.8022	7.124575
274	649	7	1				4															12	12	12	12	3	44	2	1.793962	3.327577	258.3047	5.380332	2	1.597881	3.443273	258.3047	7.124953
275	650														1							1	1	1	1	1	1	1	1.484269	2.054763	63.402	6.294288	1	1.377966	2.109903	63.402	8.102457
276	651	6													1							7	7	7	7	2	32	4	1.524666	2.38561	336.8562	6.154013	4	1.401086	2.420812	336.8562	7.985255
278	653	1																	1			1	1	1	1	1	2	3	1.32826	1.125785	208.7658	6.916124	1	1.249257	1.125785	208.7658	8.834215
282	657															1						1	1	1	1	1	3	3	1.28598	2.374785	159.0758	7.110629	3	1.240695	2.387568	159.0758	8.88828
287	662	1		2			2							6					1			5	5	11	11	5	36	7	1.607904	2.532727	674	5.887202	7	1.433637	2.561271	674	7.826654
288	663	1		2							9		2	2								4	4	6	6	4	18	5	1.824991	3.440953	366.8072	5.305857	5	1.602977	3.536074	366.8072	7.105482
289	664	14	3		1		10							1	2	1						31	31	32	32	7	77	5	1.598209	2.458542	330.7538	5.916847	5	1.432011	2.490544	330.7538	7.834404
290	665		1				3							2					1			4	4	6	6	4	26	3	1.478213	2.045368	361.5513	6.31598	3	1.30024	2.045368	361.5513	8.527032
294	669		1				3								1	1	1					7	7	7	7	5	49	2	1.763684	3.328374	433.4562	5.455532	2	1.592769	3.444079	433.4562	7.144612
300	680	5	1			1	3								3	2						15	15	15	15	6	55	4	1.76483	3.355489	527.0786	5.452639	4	1.592965	3.46524	527.0786	7.143857
301	681		1			1								3	5				1			7	7	10	10	5	46	5	1.764543	3.361009	472.1409	5.453362	5	1.592916	3.469113	472.1409	7.144045
304	684	29												4								29	29	33	33	2	64	2	1.442886	2.135604	180.2405	6.446132	2	1.370307	2.185555	180.2405	8.142155
305	685		4		14									3								18	18	21	21	-	125	3	1.763398	3.333572	151.6082	5.456254	3	1.59272	3.447764	151.6082	7.144802
306	686													2								0	0	2	2	1		2	1.465456	2.142045	71.40659	6.362256	2	1.374527	2.191556	71.40659	8.120227
401	1158	6					4					1	1	3	3							13	14	16	17	4	56	3	1.76483	3.341877	341.709	5.452639	3	1.592965	3.454627	341.709	7.143857
495	1331	32					21				1			2	3				1			57	57	59	59	6	195	6	1.807688	3.406618	295.2172	5.347072	6	1.600153	3.506116	295.2172	7.116257
748	2079	1												1								1	1	2	2	2	3	1	0.9223306	0.8461539	111.21	9.519884	1	0.9100056	0.8461539	111.21	11.75482
749	2080		1				1	1							2	1						6	6	6	6	5	29	6	1.281583	1.832828	424.9469	7.131598	6	1.214273	1.832828	424.9469	9.059924
750	2081														1							1	1	1	1	2	2	1	1.480831	2.255641	128.7478	6.30658	2	1.377343	2.298093	128.7478	8.105671
751	2082														1							1	1	1	1	2	4	4	1.044882	1.578518	237.7065	8.520607	4	1.003274	1.578518	237.7065	10.75501
752	2083														1							1	1	1	1	1	4	4	0.9077699	1.471094	364.2216	9.656544	4	0.9015907	1.471094	364.2216	11.8552
757	2088				1								-									1	1	1	1	2	5	3	0.9860117	1.384559	324.7875	8.969631	3	0.9769771	1.384559	324.7875	11.01758
758	2089			1																		1	1	1	1	2	4	2	0.9881634	1.238816	123.1657	8.952277	2	0.9774197	1.238816	123.1657	11.01304

*note: a=convenience/grocery, b= service, c= fabric fashion, d= appliances, e= financial, f= eatery, g= hotel, h= cultural/religion, i= storage, j= residential, k= vacant, l= under construction, m= stall, n= office, o= school/university, p=government office, q= hospital, r= taxi/ motorcycle, s= bus stop, t= police check point

Table of Spatial and Land-use Variables' Values (Cont.)

Ind-line-no.	5kmEmb-line-no.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	Total-Premises	Total-Premises + Under-construction	Total-Premises +stalls	Total-Premises +Under-construction +stalls	landuse-count	floor	Ind-Connectivity	Ind-Integration [HH]	Ind-Integration [HH] R3	Ind-Line-Length	Ind-Mean-Depth	5kmEmb-Connectivity	5kmEmb-Integration-[HH]	5kmEmb-Integration- [HH] R3	5kmEmb-Line-Length	5kmEmb-Mean-Depth
760	2091	5	1				1						1									8	8	8	8	4	61	5	1.300134	2.11039	406.8088	7.044107	5	1.217728	2.11039	406.8088	9.037051
761	2092	-											1									1	1	1	1	1	2	3	1.153207	1.571762	140.9496	7.814172	3	1.090232	1.571762	140.9496	9.976937
762	2093	2					2															4	4	4	4	2	8	3	1.169589	1.559824	220.017	7.718728	3	1.093271	1.559824	220.017	9.951984
765	2096	12		3			2					2	3					1				20	20	22	22	6	71	6	1.348867	1.980574	419.9105	6.825741	6	1.22644	1.980574	419.9105	8.979962
766	2097	3	1		1																	5	5	5	5	3	17	5	1.220966	1.839104	411.8949	7.436008	5	1.11299	1.839104	411.8949	9.793384
767	2098	4	2																			6	6	6	6	2	24	1	1.056873	1.040526	95.32072	8.435286	1	0.9993619	1.040526	95.32072	10.79319
769	2100	4	2				5						3									14	14	14	14	4	42	2	1.304504	1.359221	247.9401	7.023861	2	1.218531	1.359221	247.9401	9.031758
770	2101	4	1				1															6	6	6	6	3	37	2	1.52488	2.277181	154.7777	6.15329	2	1.385155	2.31841	154.7777	8.065596
771	2102	1																				1	1	1	1	1	2	1	1.465061	2.117978	112.6471	6.363702	1	1.374454	2.168962	112.6471	8.120605
772	2103	4	2																			6	6	6	6	2	24	1	1.465061	2.117978	99.37048	6.363702	1	1.374454	2.168962	99.37048	8.120605
774	2105						3															3	3	3	3	1	15	2	1.486706	2.112819	269.014	6.285611	2	1.378406	2.164041	269.014	8.100189
775	2106	5	3										1									9	9	9	9	3	59	3	1.462891	2.154754	154.7006	6.371656	3	1.374053	2.203406	154.7006	8.122684
776	2107	1									6	2										3	3	9	9	3	7	2	1.233718	0.8619656	213.5	7.369487	2	1.204975	0.8619656	213.5	9.122117
778	2109	8	10				5															23	23	23	23	3	105	2	1.762826	3.320021	248.6265	5.457701	2	1.592622	3.437188	248.6265	7.14518
784	2115	30	1				10	1			2		6									44	44	50	50	6	268	4	1.778985	3.365049	440.1835	5.417209	4	1.59537	3.473506	440.1835	7.134593
785	2116	4		1							1											5	5	5	5	3	21	3	1.479622	2.254295	272.688	6.310918	3	1.377123	2.296843	272.688	8.106805
790	2121										2	1	1									2	2	4	4	3	8	4	1.465851	2.226342	145.0097	6.36081	4	1.3746	2.270552	145.0097	8.119849
793	2124	1					4	1					1									6	6	7	7	4	31	4	1.7677	3.363009	306.8047	5.445408	4	1.593455	3.471303	306.8047	7.141966
795	2126	10					13	2			6	1										26	26	32	32	5	95	3	1.795444	3.391108	533.1177	5.376717	3	1.598128	3.495693	533.1177	7.124008
796	2127	2					1			4	2		1	5	1				1			10	10	15	15	7	75	5	1.492833	2.369534	594.6852	6.263919	5	1.379508	2.405615	594.6852	8.094518
798	2129	-		2								1	1									2	3	2	3	1		1	1.069246	1.108778	245.3214	8.349241	1	1.073504	1.108778	245.3214	10.11682
799	2130	1																				1	1	1	1	1	3	1	0.9412628	0.5817041	76.47115	9.348517	1	0.9674112	0.5817041	76.47115	11.11664
800	2131	-										1										0	0	0	0		20	1	1.241327	0.9909774	73.14228	7.330441	1	1.213305	0.9909774	73.14228	9.066352
801	2132	3					11															14	14	14	14	2	57	4	1.474002	2.330626	280.2145	6.331164	4	1.38497	2.368896	280.2145	8.066541
804	2135	-									2	1	1									1	2	1	2	1	63	1	1.762254	3.306579	243.8258	5.459147	1	1.592524	3.426677	243.8258	7.145558
806	2137	5					1						1	1								8	8	8	8	4	30	2	1.763398	3.327577	185.8123	5.456254	2	1.59272	3.443273	185.8123	7.144802
807	2138	18	9				11															38	38	38	38	3	148	7	1.8005	3.409353	523.5983	5.364425	7	1.598967	3.509372	523.5983	7.120794
809	2140	6											2									8	8	8	8	2	15	3	1.772602	3.341877	575.7319	5.433116	3	1.594289	3.454627	575.7319	7.138752
811	2142		2																			2	2	2	2	1	4	2	1.762826	3.320021	108.9031	5.457701	2	1.592622	3.437188	108.9031	7.14518
828	2159												1									1	1	1	1	1	1	3	1.771735	3.353072	110.8387	5.435286	3	1.610857	3.464514	110.8387	7.075614
830	2161	2				1	2				1		1				1		1			7	7	7	7	6	78	7	1.786295	3.44666	639.4346	5.399132	7	1.644473	3.549211	639.4346	6.951418
832	2163	49	8	1		1	27		1		23		9	32	1	2		2				122	122	131	131	12	360	23	1.749207	3.763841	3703.021	5.492408	26	1.621045	3.719234	3703.021	7.037429
833	2228				1																	1	1	1	1	1	2	2	1.431295	2.428397	140.2641	6.490239	2	1.390811	2.474049	140.2641	8.036862
835	2230	15													4							19	19	19	19	2	119	3	1.432049	2.4703	146.085	6.487346	2	1.390961	2.516104	146.085	8.036106
836	2231	9	3												9							21	21	21	21	2	112	3	1.432049	2.4703	144.1273	6.487346	2	1.390961	2.516104	144.1273	8.036106
840	2235	24	5																			29	29	29	29	2	194	1	1.430918	2.403617	152.4023	6.491685	1	1.390736	2.448932	152.4023	8.03724
845	2240														6							6	6	6	6	1	42	1	1.430918	2.403617	108.3001	6.491685	1	1.390736	2.448932	108.3001	8.03724
847	2242														3							3	3	3	3	1	21	1	1.210899	1.227736	37.00933	7.489516	1	1.217786	1.294392	37.00933	9.036673
848	2243						1															1	1	1	1	1	3	1	1.430918	2.403617	136.0881	6.491685	1	1.390736	2.448932	136.0881	8.03724
881	2276		2																			2	2	2	2	1	10	2	1.28598	2.358737	125.25	7.110629	2	1.240695	2.372751	125.25	8.88828
882	2277		3																			3	3	3	3	1	12	2	1.28598	2.358737	102.8311	7.110629	2	1.240695	2.372751	102.8311	8.88828
883	2278		4																			4	4	4	4	1	16	1	0.9692162	0.3333333	43.09572	9.107737	1	0.9898279	0.3333333	43.09572	10.88752
884	2279				1																	1	1	1	1	1	4	2	1.105464	1.366819	53.24749	8.108459	1	1.101177	1.366819	53.24749	9.887712
885	2285						1		6					6								0	0	6	6	2	9	1	0.8698432	0.5660819	353.9573	10.03398	1	0.9005087	0.5660819	353.9573	11.86824
887	-			2									1									3	3	3	3	2	11	2	1.188519	1.559014	204.1283	7.611714	1	1.069026	1.573531	204.1283	10.15501
892	2287	11												12								11	11	23	23	2	49	2	0.8897839	0.9571087	489.9854	9.831526	1	0.9049158	0.9571087	489.9854	11.81531
893	2288										3											3	3	3	3	1	11	2	0.8900754	1.15614	397.223	9.828633	2	0.9049791	1.15614	397.223	11.81456
895	2290	2					4							4								6	6	10	10	3	11	3	0.7696212	0.4986036	324.4002	11.21041	1	0.7794783	0.4986036	324.4002	13.55577
896	2291	10												3								10	10	13	13	2	23	2	0.8529802	0.9216888	230.4745	10.21258	1	0.8468903	0.9216888	230.4745	12.55633
897	2292										1	1							1			1	2	2	2	3	21	4	0.9567586	1.692666	447.3111	9.213305	4	0.9270995	1.692666	447.3111	11.55652
915	2310	4	6				3															13	13	13	13	3	43	1	0.61424441	0.3333333	200.7705	13.7932	1	0.6359141	0.3333333	200.7705	16.39036
916	2311	11																				11	11	11	11	1	33	1	0.7250531	0.3333333	112.6333	11.83803	1	0.7302558	0.3333333	112.6333	14.40208
917	2312	1									1											2	2	2	2	2	8	2	1.001735	1.438096	59.114	8.844541	2	0.9407105	1.438096	59.114	11.40378
920	2315	4	7				2															13	13	13	13	6	26	6	1.147242	2.215306	543.6621	7.849602	1	1.040599	2.215306	543.6621	10.4051
921	2316	26					2															28	28	28	28	2	78	1	0.6798761	0.3333333	155.7305	12.55821	1	0.6921147	0.3333333	155.7305	15.14064
923	2318	1																				1	1	1	1	1	10	1	0.8218877	0.9855802	87.3364	10.5611	1	0.8060806	0.9855802	87.3364	13.1414
924	2319	5												5								5	5	10	10	2	12	3	0.9175028	1.305726	135.2896	9.564714	3	0.8783561	1.305726	135.2896	12.14234
925	2320				5									5								5	5	10	10	2	22	4	1.037897	1.540548	131.4608	8.571222	4	0.9647971	1.540548	131.4608	11.14405
926	2321												1									0	1	0	1	1	7	3	0.9173479	1.206386	144.8926	9.56616	3	0.8783263	1.206386	144.8926	12.14272
928	2323	6					2															8	8	8	8	2	7	3	1.190994	1.8097	366.5757	7.597975	1	1.069446	1.819367	366.5757	10.15142
929	2324	2					2				1	1	1									6	6	7	7	5	8	5	1.188519	1.559014	226.5779	7.611714	1	1.069026	1.573531	226.5779	10.15501
930	2325												1									1	1	1	1	1	8	5	1.141098	2.025748	196.5793	7.886479	5	1.039534	2.025748	196.5793	10.41474
931	2326										1											1	1	1	1	1	3	2	0.9981467	1.345503	62.57813	8.872741	2	0.9400444	1.345503	62.57813	11.41115
945	2340	6																				6	6	6	6	1	14	2	0.89425	1.785223	165.8811	9.787418	1	0.8593448	1.785223	165.8811	12.38885
946	2341	7					3															10	10	10	10	2	22	2	0.6668193	0.3333333	304.682	12.78453	1	0.6802116	0.3333333	304.682	15.38809
949	2344	1																				1	1	1	1	1	4	2	0.7286016	0.7661917	60.69714	11.78525	1	0.7310085	0.7661917	60.69714	14.38828
954	2349	8					3															11	11	11	11	2	25	4	0.8032982	1.387368	252.1258	10.78236	4	0.7900648	1.387368	252.1258	13.38752
957	2352					1																1	1	1	1	1	4	2	0.7288458	0.7661917	36.08472	10.78163	1	0.7310601	0.7661917	36.08472	14.38733
958	2353			2																		2	2	2	2	1	4	2	0.532658	0.4223924	65.3306	15.75271	1	0.5631228	0.4223924	65.3306	18.37977
959	2354	9					2															11	11	11	11	2	42	3	0.6160547	1.379145	159.8633	13.7556	3	0.6363205	1.379145	159.8633	16.38053
979	2375	1											1									2	2	2	2	2	7	2	1.453695	2.507261	312.5754	6.40564	2	1.395196	2.549754	312.5754	8.014745
980	2376	1																				1	1	1	1	1	2	4	0.9183556	1.666667	156.9771	9.556761	4	0.9151691	1.666667	156.9771	11.69414
981	2377	8					2															10	10	10	10	4	49	4	1.248744	1.93548	395.9028	7.292841	4	1.225627	1.958725	395.9028	8.985255

*note: a=convenience/grocery, b= service, c= fabric fashion, d= appliances, e= financial, f= eatery, g= hotel, h= cultural/religion, i= storage, j= residential, k= vacant, l= under construction, m= stall, n=office, o= school/university, p=government office, q= hospital, r= taxi/motorcycle, s= bus stop, t= police check point

Table of Spatial and Land-use Variables' Values (Cont.)

Ind-line-no.	5kmEmb-line-no.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	Total-Premises	Total-Premises + Under-construction	Total-Premises +stalls	Total-Premises + Under-construction +stalls	landuse-count	floor	Ind-Connectivity	Ind-Integration [HH]	Ind-Integration [HH] R3	Ind-Line-Length	Ind-Mean-Depth	5kmEmb-Connectivity	5kmEmb-Integration [HH]	5kmEmb-Integration [HH] R3	5kmEmb-Line-Length	5kmEmb-Mean-Depth
983	-																						0	0	0	0			1	0.9479128	0.4986036	59.14062	9.289949	1	0.9802141	0.4986036	59.14062	9.9845
984	2380		1		22		2	2															27	27	27	27	4	129	1	0.8558013	0.6895725	445.4745	10.18221	1	0.8932684	0.6895725	445.4745	11.95633
987	2383	1	2																				3	3	3	3	2	8	5	0.9718162	1.790909	251.0855	9.086045	5	0.9854756	1.790909	251.0855	10.93119
990	2386													2									2	2	2	2	1	7	3	0.8848576	1.41359	211.6716	9.880694	3	0.8667249	1.41359	211.6716	12.29187
991	2387			2			2																4	4	4	4	2	10	4	0.990144	1.84898	172.9789	8.93637	4	0.9495964	1.84898	172.9789	11.30643
1000	2396	1											1										2	2	2	2	2	17	3	0.9626059	1.51108	460.474	9.163413	3	0.9834725	1.51108	460.474	10.95142
1001	2397	2		2			2												1				6	6	6	6	4	35	4	1.015494	1.782198	557.0507	8.73825	4	1.004656	1.782198	557.0507	10.74159
1006	2402	1		1							3	1											3	3	6	6	4	25	6	1.091914	2.178528	439.7776	8.196674	6	1.092279	2.178528	439.7776	9.960114
1018	2414												1										1	1	1	1	1	4	4	1.09887	1.588708	556.261	8.151121	4	1.085091	1.588708	556.261	10.01947
1025	2421	3		1									1										5	5	5	5	3	17	5	1.037501	1.721789	314.1122	8.574114	5	1.015156	1.721789	314.1122	10.64083
1033	2429	2											1										3	3	3	3	2	10	3	1.256686	1.402843	164.1336	7.253073	3	1.209507	1.402843	164.1336	9.091682
1037	2433		2	2	1		3	1					8			2							19	19	19	19	7	89	6	1.129946	1.932924	559.4254	7.954447	6	1.085796	1.932924	559.4254	10.01361
1040	2436	5					7						1	1									14	14	14	14	4	67	2	1.108057	1.425533	160.0373	8.091829	2	1.086959	1.425533	160.0373	10.00397
1042	2438	5	1				2	1					3										12	12	12	12	5	33	3	1.273921	1.97875	415.7574	7.168474	3	1.255771	1.97875	415.7574	8.793572
1049	2445	3	2				1																6	6	6	6	3	16	3	1.255235	1.374621	452.138	7.260303	3	1.21607	1.374621	452.138	9.048016
1050	2446												2		1								3	3	3	3	2	15	2	1.267828	1.600986	192.3626	7.19812	2	1.331095	2.377281	192.3626	8.352552
1057	2453												1										1	1	1	1	1	5	5	1.25451	2.145622	375.7009	7.263919	5	1.215927	2.145622	375.7009	9.048961
1058	2454	3											1	3									7	7	7	7	3	21	9	1.105015	2.296286	796.3153	8.111352	9	1.114859	2.296286	796.3153	9.778639
1061	2457	8	1				10																19	19	19	19	3	58	6	1.501495	2.441556	339.2339	6.23355	6	1.43702	2.531067	339.2339	7.810586
1066	2462	5					4			1			2										11	12	11	12	3	71	20	1.822237	3.335529	1844.035	5.312365	25	1.760925	3.673461	1844.035	6.557845
1075	2472	63	1				24	3			1		4	2	1	1				1			95	95	99	99	9	467	7	1.789531	3.466545	996.7208	5.391179	7	1.609105	3.555409	996.7208	7.082231
1077	2474	19					9																28	28	28	28	2	95	1	1.305915	1.263957	77.29883	7.017354	1	1.293903	1.537567	77.29883	8.563894
1078	2475				1								1										2	2	2	2	2	36	2	1.261061	1.308879	82.97079	7.231381	2	1.253127	1.308879	82.97079	8.810019
1079	2476	7	1				1	2			1		2										13	13	13	13	5	176	6	1.565968	2.51063	538.1294	6.018076	6	1.490984	2.860744	538.1294	7.564083
1122	2839	2			1	1		1					3										8	8	8	8	5	103	5	1.50378	2.488496	1596.115	6.225596	20	1.538892	3.56075	1596.115	7.359735
1123	2870														1								1	1	1	1	1	8	1	1.262379	1.430414	115.6913	7.224874	1	1.32983	2.305038	115.6913	8.359547
1124	2871				1																		1	1	1	1	1	5	1	1.262379	1.430414	81.58671	7.224874	1	1.32983	2.305038	81.58671	8.359547
1125	2881	14	4				6	2			3		3						7	0	0		29	29	29	29	6	190	4	1.497151	2.442425	1615.224	6.248734	11	1.536654	3.224882	1615.224	7.368998
1138	3306						1						1										2	2	2	2	2	61	2	1.257995	1.440218	160.9226	7.246565	2	1.328227	2.053858	160.9226	8.368431
1140	3308	1																					1	1	1	1	1	5	1	1.257704	1.38587	105.1439	7.248012	1	1.328158	2.022739	105.1439	8.368809
1150	3501	22	1				10						3				1					1	36	36	36	36	6	185	6	1.560124	2.455043	564.015	6.036876	-	-	-	-	-
1151	3502	11					1						5				1		1				17	17	17	17	5	58	6	1.789826	3.41721	523.2804	5.390456	6	1.641605	3.520497	523.2804	6.961815
1152	3503		1				1						1										3	3	3	3	3	20	2	1.117399	0.7661917	88.95421	8.032538	2	1.38216	1.799693	83.96487	8.080908
1162	3515												1						1				1	1	1	1	2	20	2	1.484269	2.322376	201.8678	6.294288	5	1.611158	3.240849	430.1478	7.07448
1163	3514														1								0	0	0	0	1		1	1.772891	3.344138	89.76025	5.432394	3	1.203714	1.551724	165.1963	9.130624
1273	4003	4					2																6	6	6	6	2	14	3	1.484878	2.350824	224.1441	6.292119	3	1.431022	2.418707	224.1441	7.83913
1329	5228	3	4				2				1						2						11	11	12	12	5	71	4	1.829599	3.358306	570.6451	5.295011	4	1.603722	3.468235	570.6451	7.102646
1332	5231	3					4						1										8	8	8	8	3	28	2	1.285676	2.336171	135.3537	7.112075	2	1.240635	2.351116	135.3537	8.888658
1334	5233					2																	2	2	2	2	1	10	3	1.763398	3.333572	140.5601	5.456254	3	1.59272	3.447764	140.5601	7.144802
1335	5234	13			1		2				1									1			16	16	16	16	4	46	4	1.52317	2.585705	270.7308	6.159074	4	1.337008	2.593331	270.7308	8.320038
1337	5236								1														1	1	1	1	1	4	3	1.281129	1.702803	256.5383	7.133767	3	1.177246	1.702803	256.5383	9.313421
1338	5237	3	1		1		2																7	7	7	7	4	26	6	1.529602	2.693324	436.1423	6.137383	6	1.338044	2.692718	436.1423	8.314366
1352	5252						1					5											1	1	6	6	2	2	2	1.304504	2.394192	314.3155	7.023861	2	1.244273	2.407781	314.3155	8.865596
1358	5258	19								1													19	19	19	19	2	47	2	0.8641028	1.2196	186.5228	10.094	2	0.908377	1.2196	186.5228	11.7741
1361	5261	26	8						3	2													34	34	36	36	3	129	3	0.8225719	1.136567	611.2665	10.55315	3	0.836978	1.136567	611.2665	12.69319
1365	5265		2				1		1				11										4	4	15	15	4	9	2	1.381269	2.495381	208.2405	6.689082	2	1.177006	2.470759	208.2405	9.315123
1366	5266						5		3				1	6									8	8	14	14	3	30	2	1.381269	2.495381	230.0687	6.689082	2	1.177006	2.470759	230.0687	9.315123
1367	5267						1						2										1	1	3	3	2	3	2	1.175154	1.440044	90.64471	7.686913	2	1.050715	1.457192	90.64471	10.31456
1368	5268	41																					41	41	41	41	1	123	3	1.382674	2.581464	181.2155	6.683297	3	1.17722	2.571948	181.2155	9.313611
1369	5269	7											1										8	8	8	8	2	10	3	1.179362	1.815166	209.1905	7.663051	3	1.051419	1.825023	209.1905	10.30832
1379	5293	2											1										3	3	3	3	2	11	2	1.280526	1.771489	220.424	7.13666	2	1.177139	1.771489	220.424	9.314178
1380	5294													2									2	2	2	2	1	7	6	1.41748	1.909035	668.7935	6.543746	6	1.289231	1.909035	668.7935	8.591305

*note: a=convenience/grocery, b= service, c= fabric fashion, d= appliances, e= financial, f= eatery, g= hotel, h= cultural/religion, i= storage, j= residential, k= vacant, l= under construction, m= stall, n=office, o= school/university, p=government office, q= hospital, r= taxi/motorcycle, s= bus stop, t= police check point

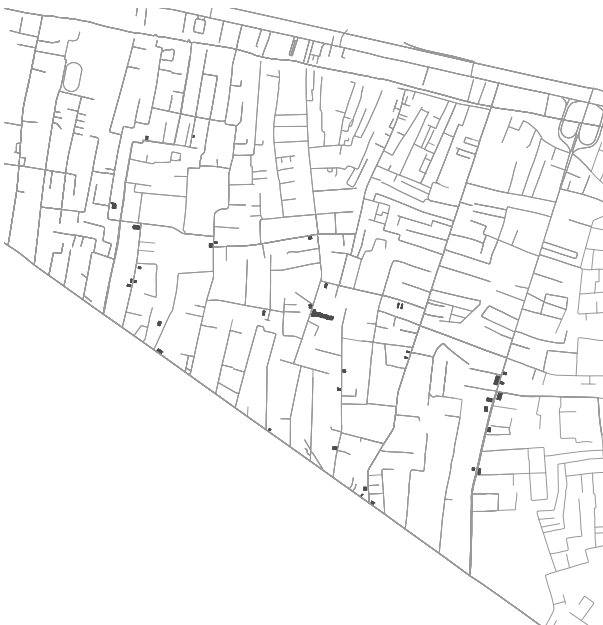# Maps of Land Use Pattern in Sukhumwit Area

Convenience / Grocery

Service

Fabric Fashion

Appliances

Maps of Land Use Pattern in Sukhumwit Area (Cont.)

Financial

Eatery

Hotel

Cultural / Religion

Maps of Land Use Pattern in Sukhumwit Area (Cont.)

Storage

Vacant

Under Constuction

Stall

Maps of Land Use Pattern in Sukhumwit Area (Cont.)
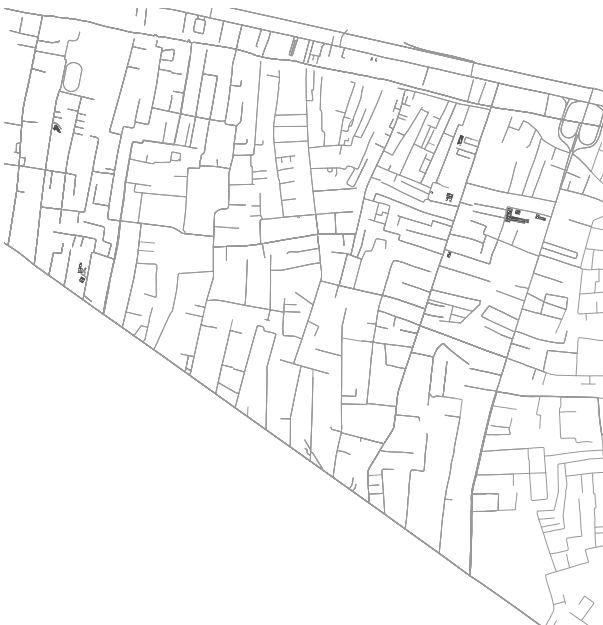
Office

School and University

Official Place / Government

Hospital