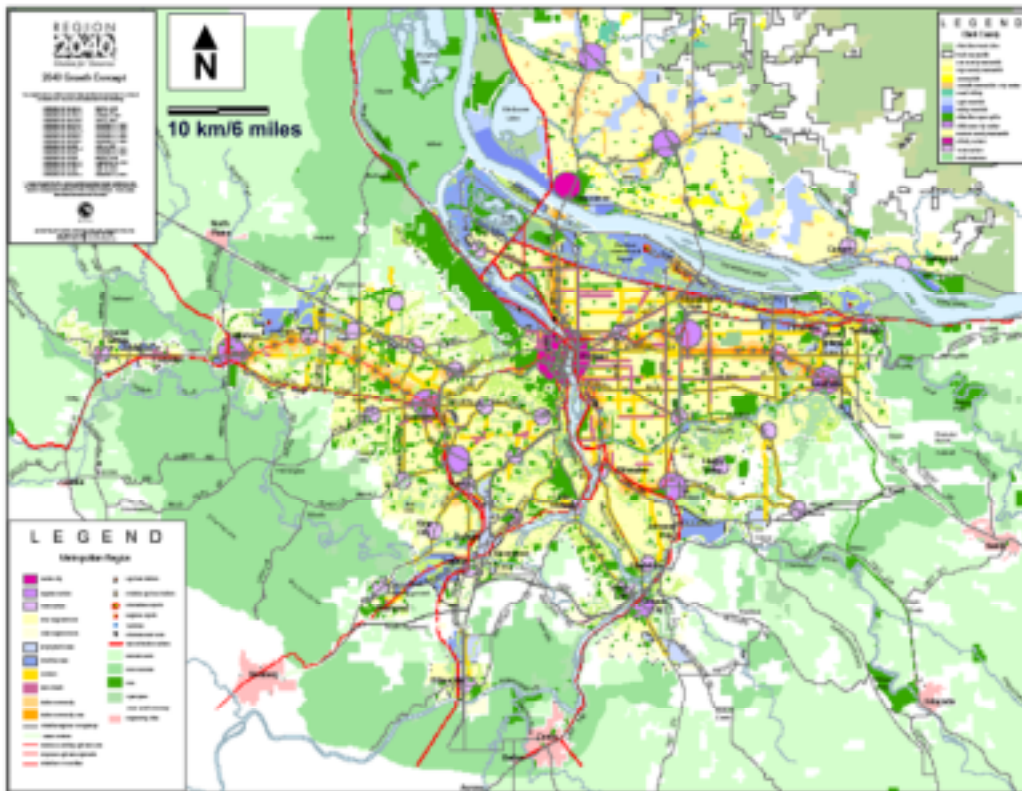


Appendix

Appendix 2.1 – Metro’s Urban Growth Boundary (UGB)¹



Appendix 2.2 – Metro’s Region 2040 Plan²



¹ <http://www.metro-region.org/article.cfm?articleID=277>, on November 22, 2004.

² <http://www.metro-region.org/article.cfm?articleID=277>, on November 22, 2004.

Appendix 2.3 – Local Improvement District (LID) and Development Activity³



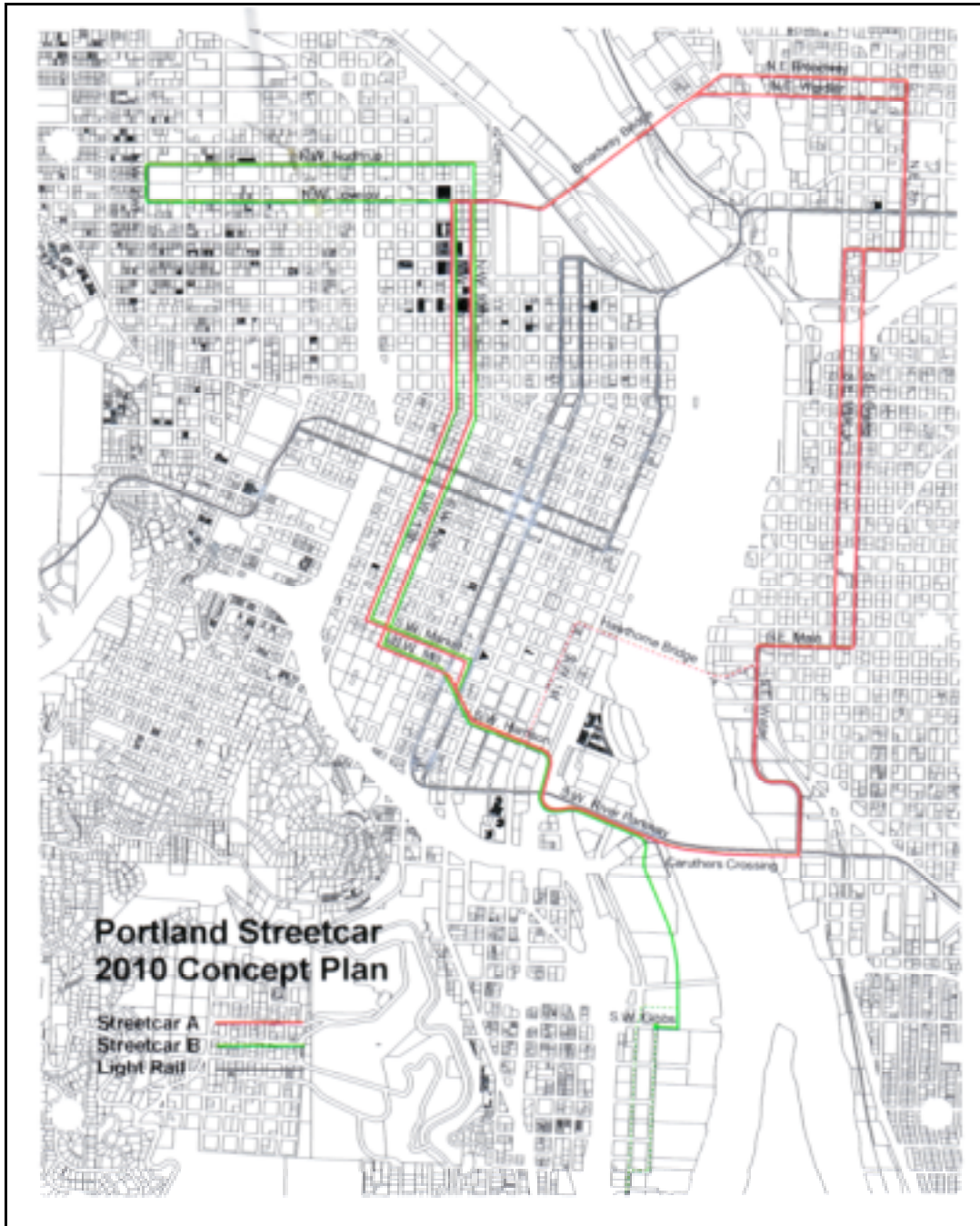
³ map received from Kay Dannen, Portland Streetcar, Inc., November 2003.

Appendix 2.4 – Streetcar Ridership Numbers⁴

RIDERSHIP	MONDAY - FRIDAY	SATURDAY	SUNDAY
JULY – AUGUST '01	Estimated at: 6,000 / 5,000	6,500 / 5,500	4,000 / 3,000
SEPTEMBER '01	3,947	3,653	2,531
OCTOBER '01	3,651	3,289	1,730
NOVEMBER '01	3,841	3,416	1,701
DECEMBER '01	3,690	2,991	2,012
JANUARY '02	4,205	2,598	1,672
FEBRUARY '02	4,304	3,352	1,849
MARCH '02	4,039	3,297	1,748
APRIL '02	4,430	3,421	1,999
MAY '02	4,569	3,812	2,074
JUNE '02	4,554	3,521	2,143
FALL '02 (Sept, Oct, Nov)	4,817	3,937	2,407
WINTER '03 (Dec '02, Jan, Feb '03)	4,668	4,545	2,597
SPRING '03 (March, April, May '03)	5,602	4,227	2,592
SUMMER '03 (June, July, August '03)	5,729	5,089	2,984
FALL '03 (Sept, Oct, Nov '03)	5,662	4,006	2,302
WINTER '04 (Dec '03, Jan, Feb '04)	5,636	4,116	2,318
SPRING '04 (March, April, May '04)	5,629	3,866	2,894

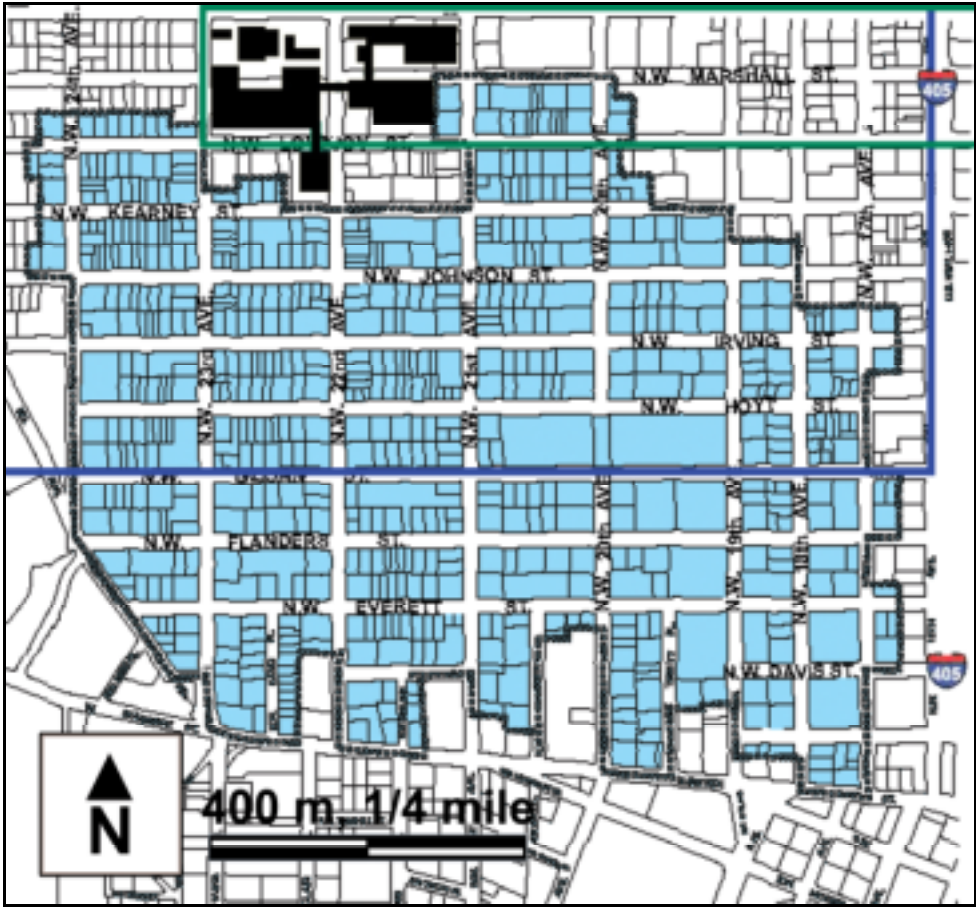
⁴ received from Kay Dannen, August 17, 2004.

Appendix 2.5 – Streetcar Expansion Concept Plan⁵



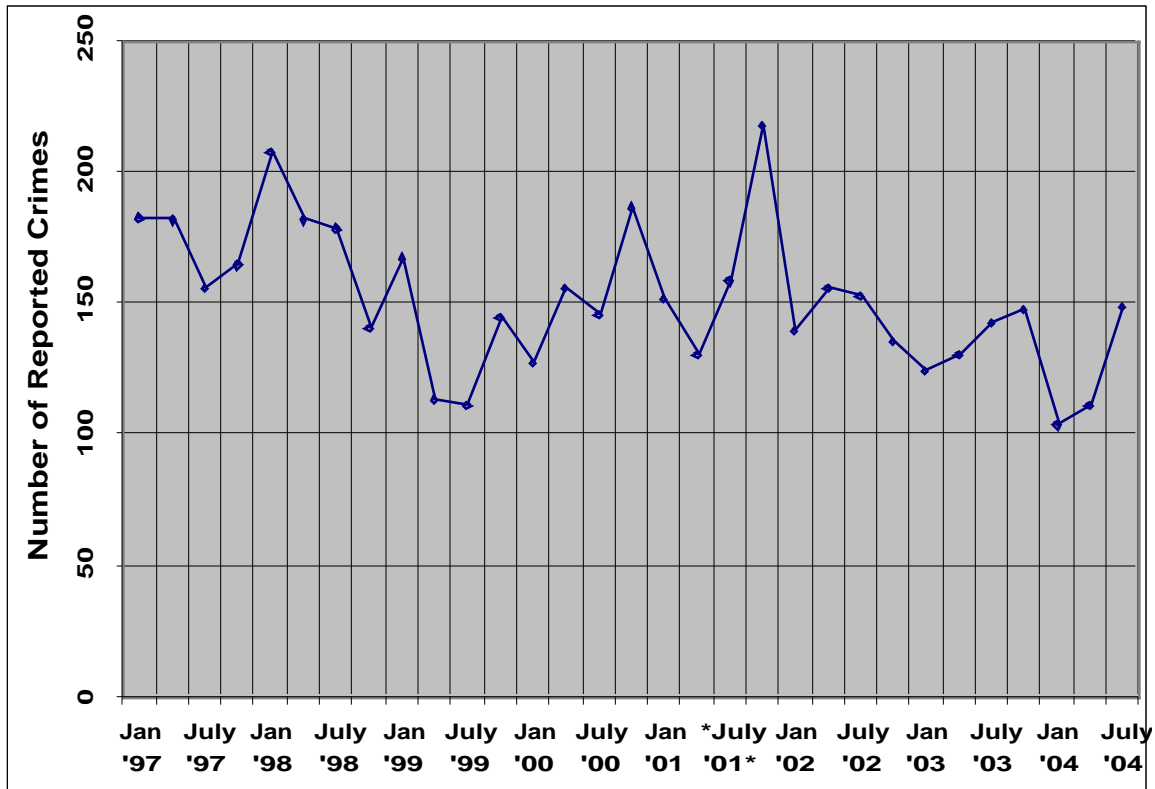
⁵ map received from Kay Dannen, Portland Streetcar, Inc., November 2003.

Appendix 2.6 – Alphabet National Historic District Map⁶



⁶ http://www.planning.ci.portland.or.us/mp_hist.html, on November 22, 2004.

Appendix 2.7 – Northwest District Reported⁷ Crimes⁸



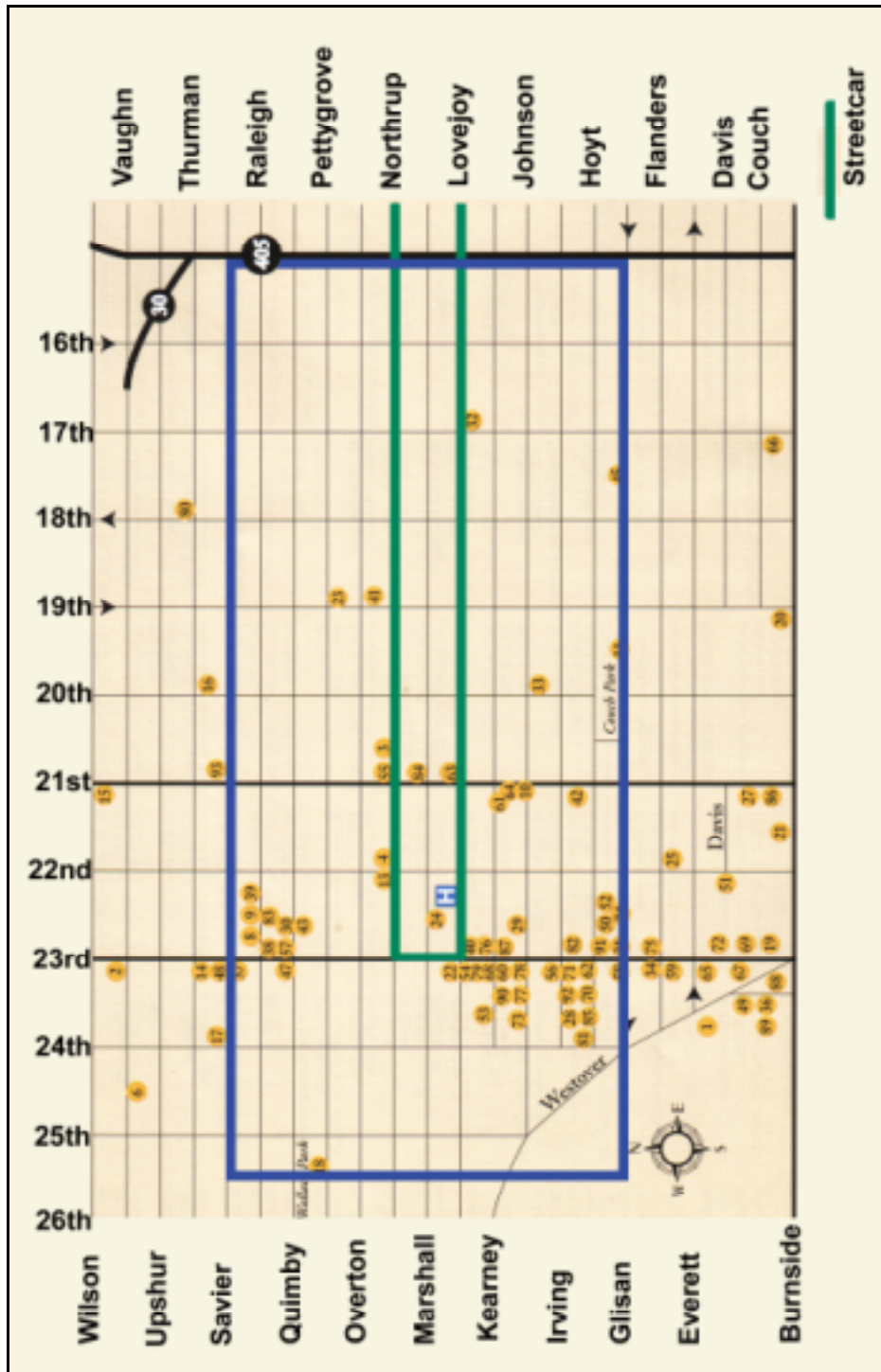
Northwest District Crime Totals (by month, every three months)
(Central Precinct, Patrol District 812*)

⁷ Note: the streetcar began operations on July 20, 2001. In 2001, Portland Police Bureau policy changes were made in the way theft from auto, vandalism and other theft reports were handled which impacted the statistics seen above.

⁸ www.portlandpolicebureau.com, on November 12, 2004.

* Patrol District 812's boundaries are NW 14th Street to the east, Burnside Street to the south, NW 23rd Avenue to the west, and the Willamette River to the north, comprising much of this study's geographical scope.

Appendix 2.8 – Nob Hill Business Association (NHBA) Map⁹



⁹ map available in shops located throughout the Northwest District neighborhood and is provided by the NHBA.

Appendix 2.9 – Portland Zoning Designations Found in the Northwest District¹⁰

RESIDENTIAL – R2, R1, RH:

- **R2 (Residential 2,000) zone**

The R2 zone is a low-density multi-dwelling zone. It allows approximately 21.8 dwelling units per acre. Density may be as high as 32 units per acre if amenity bonus provisions are used. Allowed housing is characterized by one to three story buildings, but at a slightly larger amount of building coverage than the R3 zone. The major types of new development will be duplexes, townhouses, rowhouses and garden apartments. These housing types are intended to be compatible with adjacent houses. Generally, R2 zoning will be applied near Major City Traffic Streets, Neighborhood Collector and District Collector streets, and local streets adjacent to commercial areas and transit streets.

- **R1 (Residential 1,000) zone**

The R1 zone is a medium density multi-dwelling zone. It allows approximately 43 units per acre. Density may be as high as 65 units per acre if amenity bonus provisions are used. Allowed housing is characterized by one to four story buildings and a higher percentage of building coverage than in the R2 zone. The major type of new housing development will be multi-dwelling structures (condominiums and apartments), duplexes, townhouses, and rowhouses. Generally, R1 zoning will be applied near Neighborhood Collector and District Collector streets, and local streets adjacent to commercial areas and transit streets.

- **RH (High Density Residential) zone**

The RH zone is a high-density multi-dwelling zone. Density is not regulated by a maximum number of units per acre. Rather, the maximum size of buildings and intensity of use is regulated by floor area ratio (FAR) limits and other site development standards. Generally the density will range from 80 to 125 units per acre. Allowed housing is characterized by medium to high height and a relatively high percentage of building coverage. The major types of new housing development will be low, medium, and high-rise apartments and condominiums. Generally, RH zones will be well served by transit facilities or be near areas with supportive commercial services.

COMMERCIAL – CS:

- **CS (Storefront Commercial) zone**

The Storefront Commercial (CS) zone is intended to preserve and enhance older commercial areas that have a storefront character. The zone intends that new development in these areas will be compatible with this desired character. The zone allows a full range of retail, service and business uses with a local and regional market area. Industrial uses are allowed but are limited in size to avoid adverse effects different in kind or amount than commercial uses and to ensure that they do not dominate the character of the commercial area. The desired character includes areas that are predominantly built-up, with buildings close to and oriented towards the sidewalk especially at corners. Development is intended to be pedestrian-oriented and buildings with a storefront character are encouraged.

¹⁰ <http://www.portlandonline.com/auditor/index.cfm?c=28197>, on November 22, 2003.

GENERAL EMPLOYMENT – EX:

The General Employment zones allow a wide range of employment opportunities without potential conflicts from interspersed residential uses. The emphasis of the zones is on industrial and industrially-related uses. Other commercial uses are also allowed to support a wide range of services and employment opportunities. The development standards for each zone are intended to allow new development that is similar in character to existing development. The intent is to promote viable and attractive industrial/commercial areas.

- **EX (Central Employment) zone**

This zone implements the Central Employment map designation of the Comprehensive Plan. The zone allows mixed-uses and is intended for areas in the center of the City that have predominantly industrial type development. The intent of the zone is to allow industrial, business, and service uses that need a central location. Residential uses are allowed, but are not intended to predominate or set development standards for other uses in the area. The development standards are intended to allow new development that is similar in character to existing development.

Appendix 4.1 – Resident Participants Compared to Census Data¹¹

	Resident Participants (N=50)	Census Data
Tenure % (renters / owners)	52 / 48	85 / 15
Gender % (Male / Female)	56 / 44	51 / 49
Race % (White / non-White)	96 / 4	87 / 13
Age Cohort % (18-21 / 22-39 / 40-64 / >64)	10 / 26 / 42 / 22	4.8 / 58.2 / 27.9 / 9.1
Median Income¹² % (over / equal / under)	54 / 8 / 38	50 / 0 / 50

Appendix 4.2 - Additional Retailer Participant Demographic Information

Roughly forty-two percent (N=11) of retailers own their shop, thirty-one percent (N=8) are managers, and thirty percent (N=7) described themselves as both owner and manager. The types of businesses varied considerably. Five retail types were identified among the 26 retail respondents.

¹¹ based on 2000 census data for the Northwest District neighborhood.

¹² this number (\$29,371 US) is also based on 2000 census data. It is the average of the median household incomes from census tracts 47, 48, 49, and 50, roughly corresponding with the Northwest District neighborhood of Portland, Oregon.

Understanding Perceptions of the Portland Streetcar System

Interview Questions for Local Residents:

- i) How long have you lived in your present location?
- ii) What are some of the reasons that led you to move to this neighborhood?
- iii) Do you hope to continue living in the neighborhood in the future?
- iv) Overall, describe your level of satisfaction or dissatisfaction with the neighborhood. What are some things about the neighborhood that affect this level?
- v) Generally, do you think the streetcar system has had a positive, negative, or no impact on the local area? Please explain.

=====

- 1) Do you think the streetcar system has a **noise** impact on you or your home? If so, please explain.
- 2) Do you think streetcars passing have a **vibration** impact on you or your home? If so, please explain.
- 3) Do you think the physical aspects of the streetcar system (ie: **poles, wires, stops, vehicles**) has changed the character or the “look” of the neighborhood in any way? If so, please explain.
- 4) Has the streetcar system’s presence in the area had an impact on the local **auto traffic levels**? If so, please explain.
- 5) Has the streetcar system’s presence in the area had an impact on local **parking levels**? If so, please explain.
- 6) Since the streetcar line has been constructed, has there been a change in **access** in or out of the neighborhood? If so, please explain.
- 7) Has the streetcar’s presence affected your feelings of **personal safety** regarding accidents with vehicles of any type? If so, please explain.
- 8) Do you think the local **crime level** has been impacted by the streetcar line running in the area? If so, please explain.

- 9) Do you think the streetcar system's presence is having an effect on people moving in or out of the neighborhood? Please explain.
- 10) Do you think the streetcar system's presence is having an effect on the types of buildings, stores, offices, residences, or industry moving in or out of the area? (**land use changes**) If so, please explain.
- 11) Do you think the streetcar system's presence is having an effect on the **density** of residences, shops, or offices in the area? Please explain.
- 12) Is there anything else you would like to add?

=====

- v1) Do you ever use the streetcar system? yes / no
- v2) If you use the system, how often do you use it?
 - almost never
 - less than once per month
 - monthly
 - a few times per month
 - weekly
 - more than once a week
 - daily
 - more than once a day
- v3) Previous to the streetcar's construction, how did you make most of those trips?
 - drove and parked
 - dropped off by someone
 - carpooled / vanpooled
 - rode the bus
 - bicycled
 - walked
 - other
 - I did not make this trip
- v4) On this map, approximately where is your home located?
- v5) Do you rent or own your home? rent / own
- v6) What age group do you fit into? 18-21 22-39 40-64 65 & over
- v7) Is your annual household income above or below \$29,371? above / below
- v8) M / F
- v9) W / n-W

Understanding Perceptions of the Portland Streetcar System

Interview Questions for Local Retailers:

- i) How long have you been located in your present location?
- ii) What are some of the reasons that led you to locate in this neighborhood?
- iii) Do you think your business will continue to be located in this neighborhood in the future?
- iv) Overall, describe your level of satisfaction or dissatisfaction with the neighborhood. What are some things about the neighborhood that affect this level?
- v) Generally, do you think the streetcar system has had a positive, negative, or no impact on the local area? Please explain.

* * * * *

- 1) Do you think the streetcar system has a **noise** impact on you or your building? If so, please explain.
- 2) Do you think streetcars passing have a **vibration** impact on you or your building? If so, please explain.
- 3) Do you think the physical aspects of the streetcar system (ie: **poles, wires, stops, vehicles**) has changed the character or the “look” of the neighborhood in any way? If so, please explain.
- 4) Has the streetcar system’s presence in the area had an impact on the local **auto traffic levels**? If so, please explain.
- 5) Has the streetcar system’s presence in the area had an impact on local **parking levels**? If so, please explain.
- 6) Since the streetcar line has been constructed, has there been a change in **access** in or out of the neighborhood? If so, please explain.
- 7) Has the streetcar’s presence affected your feelings of **personal safety** regarding accidents with vehicles of any type? If so, please explain.

- 8) Do you think the local **crime level** has been impacted by the streetcar line running in the area? If so, please explain.
- 9) Do you think the streetcar system's presence is having an effect on businesses moving in or out of the neighborhood? Please explain.
- 10) Do you think the streetcar system's presence is having an effect on the types of buildings, stores, offices, residences, or industry moving in or out of the area? (**land use changes**) If so, please explain.
- 11) Do you think the streetcar system's presence is having an effect on the **density** of shops, residences, or offices in the area? Please explain.
- 12) Is there anything else that you would like to add?

* * * * *

- v1) Do you ever use the streetcar system? yes / no
- v2) If you use the system, how often do you use it?
 - almost never
 - less than once per month
 - monthly
 - a few times per month
 - weekly
 - more than once a week
 - daily
 - more than once a day
- v3) Previous to the streetcar's construction, how did you make most of those trips?
 - drove and parked
 - dropped off by someone
 - carpooled / vanpooled
 - rode the bus
 - bicycled
 - walked
 - other
 - I did not make this trip
- v4) On this map, approximately where is your business located?
- v5) Do you rent, lease, or own this building? rent / lease / own
- v8) M / F v9) W / n-W v10) Type of Business v11) owner / manager

Appendix 4.5 - Fisher's Exact Chi-Square Test (FET) Results (N=76)

Qs	Res./ Ret.	Length	Future	Sat./ Dissat.	Use	Location	Tenure	Gender	Race
v	0.267	0.627	0.7	0.275	0.17	0.536	0.788	0.104	0.179
1	1	1	1	0.562	0.293	0.173	0.664	0.185	0.103
2	0.114	1	1	0.166	0.293	0.028 ¹³	0.336	1	1
3	0.802	0.809	0.136	0.22	0.007	0.986	0.898	0.772	0.286
4	0.014	0.751	0.153	0.442	0.804	0.243	<u>0.035</u>	0.166	0.518
5	0.433	0.931	0.712	0.383	0.298	0.208	0.531	0.335	0.273
6	0.251	0.211	0.21	0.778	0.156	0.851	0.444	0.948	0.219
7	0.336	0.286	0.429	0.034	1	0.406	0.848	0.14 ¹⁴	0.084
8	0.538	0.486	0.088	1	0.375	0.703	0.191	0.038	0.521
9	0.039 ¹⁵	0.703	0.196	0.608	0.219	0.283	0.051 ¹⁶	0.566	1
10	0.077	0.859	0.321 ¹⁷	0.712	1	0.042 ¹⁸	0.488	0.318	1
11	0.76	0.761	0.567	0.514	1	0.415	0.864	0.555	1

Underline = significant relationship;

Bold = strongest correlation of significant relationships, within impact

¹³ N=56 population outcome is 0.053.

¹⁴ relationship becomes significant for N=56.

¹⁵ N=56 population outcome is not significant.

¹⁶ relationship becomes significant for N=72, N=56.

¹⁷ relationship becomes significant for N=56.

¹⁸ N=72 and N=56 population outcomes are not significant.

Appendix 4.6 – Interview Schedule Multiple Responses

Qv) Responses to Perceived General Impact

Code	Resident	Retailer	Total
like the design, creates a better environment	3	0	3
confusing, dangerous	0	1	1
construction period problems	1	2	3
traffic has not slowed	1	0	1
is traffic calming, aids pedestrian environment	1	0	1
less people driving now	4	0	4
helps people get around, connects	21	20	41
lost stalls, parking is worse	1	1	2
Downtown workers park here	3	1	4
fare problems	0	2	2
increases transit frequency	3	1	4
less drinking and driving	1	0	1
influencing people to move here or stay here	1	0	1
some want to put a parkade in	1	0	1
it helps local shops	1	1	2
better than a bus	4	1	5
is too slow	2	0	2
is unnecessary	0	1	1
now do not need a (second) car	1	0	1
is compatible, well-integrated	1	0	1
parking is better	0	3	3
is bad to be behind	1	0	1
is creating spillover traffic	0	1	1
levels would be worse without it	1	0	1
now more transients	0	1	1
Total	N=52	N=36	N=88

Q1) Responses to Perceived Noise Impact

Code	Resident	Retailer	Total
is minor, helpful	2	0	2
better than a bus	3	1	4
is affecting adjacent, basement classroom	1	0	1
Total	N=6	N=1	N=7

Q2) Responses to Perceived Vibration Impact

Code	Resident	Retailer	Total
pictures need straightening	0	1	1
construction period problems	0	1	1
better than a bus	1	1	2
is affecting adjacent, basement classroom	2	0	2
Total	N=3	N=3	N=6

Q3) Responses to Perceived Visual Impact

Code	Resident	Retailer	Total
streetcar infrastructure could have been nicer	4	1	5
like the design, creates a better environment	18	10	28
confusing, dangerous	2	1	3
construction period problems	1	0	1
is traffic calming, aids pedestrian environment	3	0	3
lost stalls, parking is worse	0	1	1
influencing people to move here or stay here	1	0	1
is compatible, well-integrated	8	4	12
we were deceived	1	0	1
increasing litter	0	1	1
parking is better	0	1	1
Total	N=38	N=19	N=57

Q4) Responses to Perceived Traffic Impact

Code	Resident	Retailer	Total
confusing, dangerous	0	1	1
construction period problems	0	1	1
traffic has not slowed	2	3	5
is traffic calming, aids pedestrian environment	5	0	5
less people driving now	19	3	22
helps people get around, connects	4	2	6
Downtown workers park here	1	0	1
more 4-way stops are good	1	0	1
better than a bus	1	1	2
is too slow	1	0	1
is bad to be behind	3	5	8
is creating spillover traffic	1	0	1
levels would be worse without it	2	0	2
more pedestrians now	1	0	1
Total	N=41	N=16	N=57

Q5) Responses to Perceived Parking Impact

Code	Resident	Retailer	Total
less people driving now	2	1	3
helps people get around, connects	0	2	2
lost stalls, parking is worse	2	5	7
Downtown workers park here	7	2	9
fare problems	1	1	2
parking is better	2	1	3
levels would be worse without it	3	3	6
good in bad weather	1	0	1
Total	N=18	N=15	N=33

Q6) Responses to Perceived Access Impact

Code	Resident	Retailer	Total
helps people get around, connects	29	8	37
fare problems	0	1	1
increases transit frequency	3	0	3
better than a bus	2	2	4
is too slow	0	1	1
is bad to be behind	2	2	4
is creating spillover traffic	1	0	1
good in bad weather	4	0	4
Total	N=41	N=14	N=55

Q7) Responses to Perceived Personal Safety Impact

Code	Resident	Retailer	Total
confusing, dangerous	9	5	14
construction period problems	0	1	1
is traffic calming, aids pedestrian environment	7	4	11
more 4-way stops are good	1	0	1
less drinking and driving	1	0	1
better than a bus	1	0	1
is too slow	0	1	1
is bad to be behind	2	0	2
is too quiet	2	0	2
Total	N=23	N=11	N=34

Q8) Responses to Perceived Crime Impact

Code	Resident	Retailer	Total
is traffic calming, aids pedestrian environment	2	0	2
helps people get around, connects	3	0	3
fare problems	2	0	2
better than a bus	1	0	1
is compatible, well-integrated	1	0	1
increasing litter	0	1	1
now more transients	2	1	3
sometimes feel nervous	5	0	5
Total	N=16	N=2	N=18

Q9) Responses to Perceived Neighborhood Stability Impact

Code	Resident	Retailer	Total
like the design, creates a better environment	0	1	1
helps people get around, connects	0	3	3
Downtown workers park here	1	0	1
influencing people to move here or stay here	30	9	39
better than a bus	1	0	1
now do not need a (second) car	4	0	4
is affecting adjacent, basement classroom	1	0	1
levels would be worse without it	0	1	1
higher taxes, increased costs	0	2	2
Total	N=37	N=16	N=53

Q10) Responses to Perceived Land Use Impact

Code	Resident	Retailer	Total
helps people get around, connects	2	0	2
parking is worse	0	2	2
influencing people to move here or stay here	2	0	2
more shops, retail	11	5	16
is changing along line	3	0	3
industry is leaving	3	0	3
more industry	1	0	1
more residential	5	5	10
some want to put a parkade in	1	0	1
it helps local shops	1	0	1
now do not need a (second) car	1	0	1
higher taxes, increased costs	1	0	1
will influence changes in future	8	2	10
Total	N=39	N=14	N=53

Q11) Responses to Perceived Density Impact

Code	Resident	Retailer	Total
influencing people to move here or stay here	1	0	1
more shops, retail	1	0	1
more residential	2	0	2
densities are increasing	22	8	30
some want to put a parkade in	1	3	4
will influence changes in future	6	4	10
Total	N=33	N=15	N=48

Q12) Other Comments

Code	Resident	Retailer	Total
streetcar infrastructure could have been nicer	0	2	2
like the design, creates a better environment	8	1	9
confusing, dangerous	1	1	2
less people driving now	2	0	2
helps people get around, connects	3	2	5
parking is worse	0	1	1
Downtown workers park here	1	1	2
fare problems	2	3	5
increases transit frequency	2	0	2
more residential	0	1	1
some want to put a parkade in	1	0	1
is very fast	1	0	1
interior improvements needed	1	0	1
it helps local shops	1	1	2
better than a bus	1	1	2
wants expansion	6	0	6
is too slow	1	1	2
is unnecessary	1	0	1
we were deceived	0	1	1
increasing litter	0	2	2
is bad to be behind	0	1	1
good in bad weather	0	1	1
now more transients	0	1	1
will influence changes in future	2	0	2
Total	N=34	N=21	N=55

Overall Frequency of Multiple Responses

Code	Resident	Retailer	Total	% of Total
is minor, helpful	2	0	2	0.4
streetcar infrastructure could have been nicer	4	3	7	1.2
like the design, creates a better environment	29	12	41	7.3
confusing, dangerous	12	9	21	3.7
pictures need straightening	0	1	1	0.2
construction period problems	2	5	7	1.2
traffic has not slowed	3	3	6	1.1
is traffic calming, aids pedestrian environment	18	4	22	3.9
less people driving now	27	4	31	5.5
helps people get around, connects	62	37	99	17.6
lost stalls, parking is worse	3	10	13	2.3
Downtown workers park here	13	4	17	3
fare problems	5	7	12	2.1
increases transit frequency	8	1	9	1.6
more 4-way stops are good	2	0	2	0.4
less drinking and driving	2	0	2	0.4
influencing people to move here or stay here	35	9	44	7.8
more shops, retail	12	5	17	3
is changing along line	3	0	3	0.5
industry is leaving	3	0	3	0.5
more industry	1	0	1	0.2
more residential	7	6	13	2.3
densities are increasing	22	8	30	5.3
some want to put a parkade in	4	3	7	1.2
is very fast	1	0	1	0.2
interior improvements needed	1	0	1	0.2
it helps local shops	6	3	9	1.6
better than a bus	12	6	18	3.2
wants expansion	6	0	6	1.1

is too slow	4	3	7	1.2
is unnecessary	1	1	2	0.4
now do not need a (second) car	6	0	6	1.1
is affecting adjacent, basement classroom	4	0	4	0.7
is compatible, well-integrated	10	4	14	2.5
we were deceived	1	1	2	0.4
increasing litter	0	4	4	0.7
parking is better	2	5	7	1.2
is bad to be behind	8	8	16	2.8
is creating spillover traffic	2	1	3	0.5
levels would be worse without it	6	4	10	1.8
more pedestrians now	1	0	1	0.2
good in bad weather	5	1	6	1.1
is too quiet	2	0	2	0.4
now more transients	2	3	5	0.9
sometimes feel nervous	5	0	5	0.9
higher taxes, increased costs	1	2	3	0.5
will influence changes in future	16	6	22	3.9
Total	N=381	N=183	N=564	100.2

