



CITY OF RICHMOND

REPORT TO COMMITTEE

TO: Public Works and Transportation Committee
FROM: Paul H. Lee, P.Eng., Manager, Engineering Planning
RE: **Fraser Port Servicing**

TO PW&T - JUNE 6, 2001
DATE: May 28, 2001
FILE:
0140 - 20 - FRHA1

STAFF RECOMMENDATION

It is recommended that:

1. The "Fraser-Richmond Servicing Report" dated May 2001 be endorsed.
2. The staff be authorized to commence negotiations with the Fraser River Port Authority in the attempt to establish a signed Accord and to develop detailed servicing agreements for each development phase that will follow the servicing strategy endorsed in the above report.

for Paul H. Lee, P.Eng.
Manager, Engineering Planning

Att. (7)

FOR ORIGINATING DIVISION USE ONLY		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Sewerage & Drainage.....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Roads and Dykes	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Water Services	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Policy Planning	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Transportation.....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

STAFF REPORT

ORIGIN

The Fraser River Port Authority (FRPA) has been developing its land use strategy for its lands (see Figure 1) in southeast Richmond since the early 1990's. In order to support any proposed development, it was necessary to develop and identify the servicing requirements needed to service these lands. The FRPA subsequently retained Urban Systems Ltd. (USL) to develop a co-ordinated servicing strategy to support its land use plan.

The FRPA's land use plan has undergone much iteration over this time due to changes in the economy and partnerships with investors.

ANALYSIS

Staff has worked with the FRPA and their consultant, USL, to ensure that the long term servicing strategy can accommodate the ultimate development as permitted by the City's Official Community Plan (OCP). Variations in the proposed land use strategy will require the re-assessment of the servicing strategy.

The site is essentially divided into three main areas (see Figure 2):

- "Backlands" – area (I, II, III and LTD) north of the Canadian National Railway (CNR) right-of-way;
- "Portside" – area (A and B) south of the CNR right-of-way; and
- "Tongue" – area (IV) parallel to the Fraser River and to the southwest of the No. 7 Road canal.

The proposed land use strategy is illustrated on Figure 3. The servicing strategy recognizes that the following major infrastructure improvements are required to support the proposed land use strategy. The estimated costs of these improvements are presented in Appendix C of the Servicing Report.

1. Sanitary Sewer (see Figure 4)

- New pump station on the north side of the future Blundell Road alignment at the boundary between the FRPA site and the Kingswood property.
- New 525 mm diameter forcemain between the proposed pump station and the existing GVRD sanitary trunk sewer to the east at Gilley Road.
- New local collection systems within the Backlands and Kingswood areas, complete with connections to the proposed main pump station as development proceeds.
- New casing pipes at No. 8 Road and further to the west to facilitate possible future sewer crossings of the CNR.
- New internal sanitary systems for each lease parcel within Portside lands as development of that area proceeds.

2. Water (see Figure 5)

- New 400 mm diameter water main within the Blundell Road between Nelson Road and No. 8 Road.

- New 300 mm diameter water service from the new 400 mm diameter main in Blundell Road across the CNR corridor at No. 8 Road to the Portside area.
- New local distribution systems for each phase as development proceeds.

3. Roads (see Figure 6)

3.1 Interchange Improvements

The ultimate development of the 820-acre Fraser-Richmond site based on current I-1 zoning could potentially generate 4,000 additional trips to and from the site by 2011 during the afternoon peak hour. Upon assessment of this magnitude of site traffic, staff have concluded that the only workable option to support the proposed development with minimum traffic impacts on adjacent ALR roads is the construction of a Blundell Interchange and the extension of Blundell Road to Nelson Road. The existing Hamilton Interchange will also require upgrading to facilitate a four-lane Westminster Highway. The timing and configuration of improvements required at these interchanges should be determined through further detailed design studies and consultation with the Ministry of Transportation and Highways.

3.2 Phasing of Road Improvements

The site will be developed in three phases. Based on the preliminary analysis carried out for the Servicing Report, the road improvements anticipated to support the site in each of the three phases are summarized below (and detailed in the Servicing Report). As the actual land use, development sizes and timing within the site could vary from the current projections, each of the development applications for the Fraser-Richmond lands will be subject to a further detailed traffic impact study to confirm the scope of the improvements identified in the Servicing Report, and to determine whether or not additional road improvements will be required.

Road Infrastructure required for Initial Phase:

- Modifications at the Hamilton Interchange, which could include road widening and highway on/off ramps upgrade and signalization;
- Construction of two-lane Blundell Road from No. 6 Road to Nelson Road;
- Widening of Nelson Road to four lanes from Westminster Highway to Blundell Road;
- Widening of Westminster Highway to four lanes from Nelson Road to Hamilton Interchange;
- Improvements at Westminster Highway/Nelson Road intersection (i.e., construction of channelized northbound right-turn lane and westbound double left-turn lane);
- Installation of traffic signals at Westminster Highway/Nelson Road intersection and Blundell Road/No. 6 Road intersection; and
- Improvements at Westminster Highway/No. 6 Road intersection (i.e., construction of northbound, southbound left-turn lanes and eastbound double left-turn lane).

Road Infrastructure required for Second Phase:

- Widening of Blundell Road to four lanes from No. 6 Road to Nelson Road;
- Construction of two-lane Blundell Road from Nelson Road to Graybar Road;
- Construction of left-turn bays on all approaches at the intersection of Blundell Road/No. 6 Road; and
- Installation of traffic signals at Blundell Road/Nelson Road intersection.

Road Infrastructure required for Ultimate Phase

- Construction of a new Highway 99 interchange at Blundell Road; and
- Widening of Blundell Road to four lanes from No. 6 Road to No. 4 Road.

4. Drainage (see Figure 7)

- New storm sewer along the Blundell Road alignment through the Kingswood property and connection to the large sewer on the west side of Nelson Road.
- New storm sewers within No. 8 Road and westward within Blundell Road, from the Blundell/No. 8 Road intersection to approximately the location where Blundell Road diverges from the CNR.
- New storm sewer or open ditch from the western limit of the foregoing Blundell Road sewer across the Portside area to the Fraser River.
- New local storm water collection systems within the initial phases of the Backlands and Kingswood areas.

5. Responsibility for Infrastructure Improvements

The total cost to construct the entire-required off-site infrastructure is estimated to be around \$80.2 million (including engineering and contingency). At this time, it has not been determined how the costs will be apportioned between the various other landowners (i.e., Kingswood, Straits Lands Ltd., City of Richmond, etc.) that would benefit from the extension and excess capacity of these off-site infrastructure improvements.

Latecomers Agreement(s) may be applied for by the FRPA, which are subject to Council's approval, to recover some of its capital costs to construct the trunk sanitary sewer and pump stations, drainage system (non-trunk) and water system (non-trunk) which will benefit other adjacent landowners. It is also understood that the construction of Blundell Road, trunk drainage system and trunk water system will be constructed by the FRPA in lieu of Development Cost Charge (DCC's) payments to the City.

It is envisaged that the identification of DCC eligible costs and the apportionment of these and other costs will be established in detail within an Accord and/or servicing agreements with the FRPA. It is envisaged that the Accord with the FRPA will also detail the administration of the development of the lands (i.e., zoning, subdivision, building permits, etc.) and the provision of services (fire, rescue, policing, etc.). Staff recommend that the following guiding principles be considered when negotiating with FRPA on the Servicing Agreements:

- No significant traffic should be added onto local ALR roads. It is important that FRPA and staff work together to establish an implementation strategy for the construction of the Blundell Interchange and the widening of Blundell Road to accommodate traffic generated by the subject site.
- Latecomer agreements will not be applicable for the construction of Blundell Road or any other road improvements identified in this report.
- The FRPA should be fully responsible for the implementation of all road and traffic improvements identified within the Fraser-Richmond land and along the perimeter of the site, as well as the construction of the Blundell Road extension from No. 6 Road to Graybar Road.
- FRPA should contribute financially towards the infrastructure improvements identified in the Servicing Report that are outside the development site, including Blundell Interchange and Hamilton Interchange.

FINANCIAL IMPACT

None at this time.

CONCLUSION

The FRPA Servicing Report, dated May 2001, illustrates how the FRPA and adjacent properties can be serviced to support the overall long range FRPA land use strategy. The complete phasing of the development is somewhat unclear at this point as the FRPA intends to develop the site in accordance with market demand.

Staff understand that the FRPA currently have two offers to lease with Adesa Auctions Canada (120 acres) and Coast 2000 (85 acres). The two offers are subject to the FRPA finalizing a servicing agreement with the City.

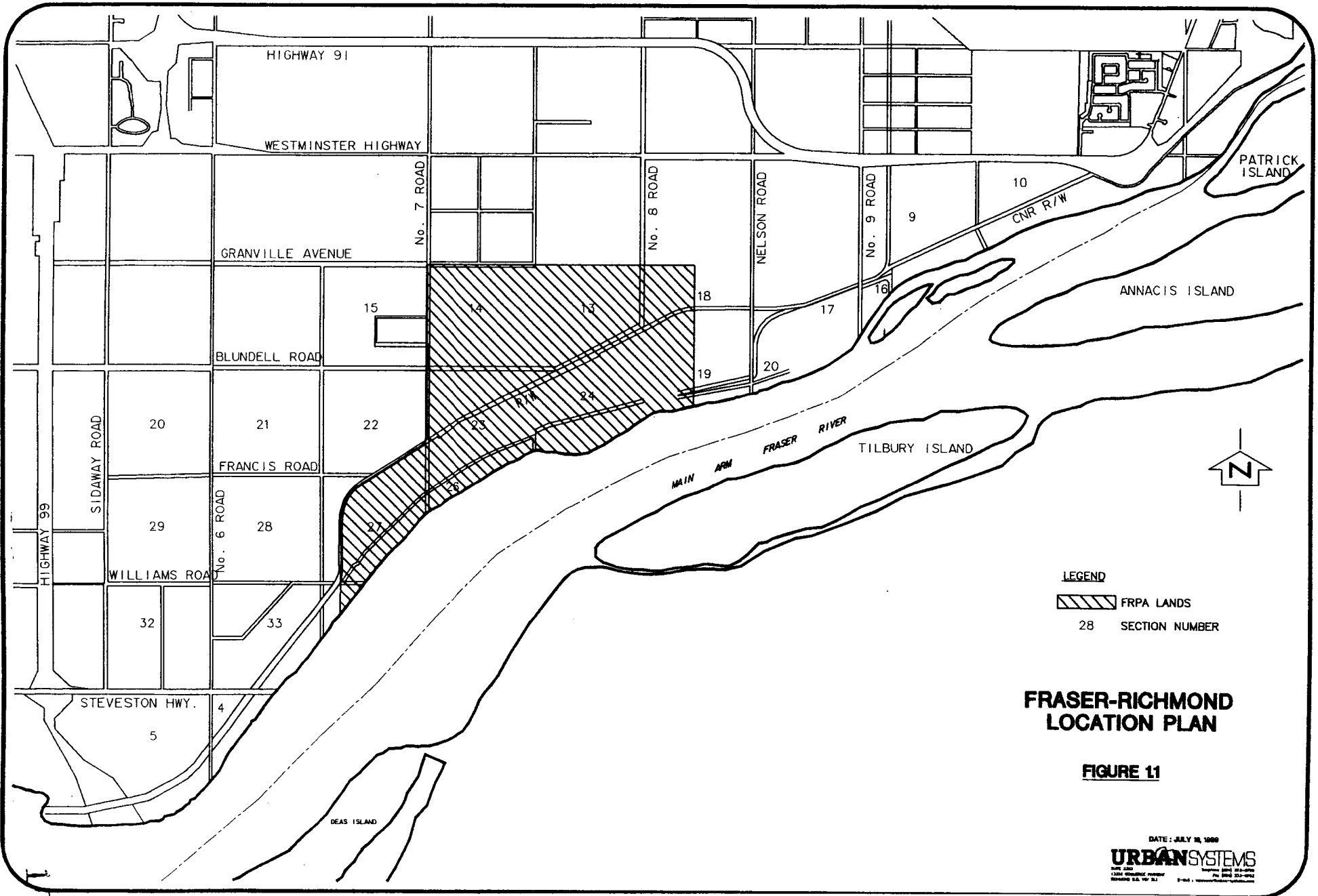
Ideally, the Accord should be in place before the endorsement of the FRPA Servicing Report and prior to any development but staff estimate that it would take at least four months to bring forward a mutually consensual agreement before Council. In order to facilitate the FRPA's closure with its prospective tenants, staff recommend that the FRPA Servicing Report dated May 2001 be endorsed and that staff be authorized to commence negotiations with the FRPA to establish a signed Accord and to develop detailed servicing agreements for each development phase.



for Paul H. Lee, P.Eng.
Manager, Engineering Planning

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ACAD14 04/27/01 08:21 U:\PROJECTS\61188\1\1\DWG\CURRENT\FIG1.DWG PLOT 14-FIT



LEGEND

- FRPA LANDS
- 28 SECTION NUMBER

**FRASER-RICHMOND
LOCATION PLAN**

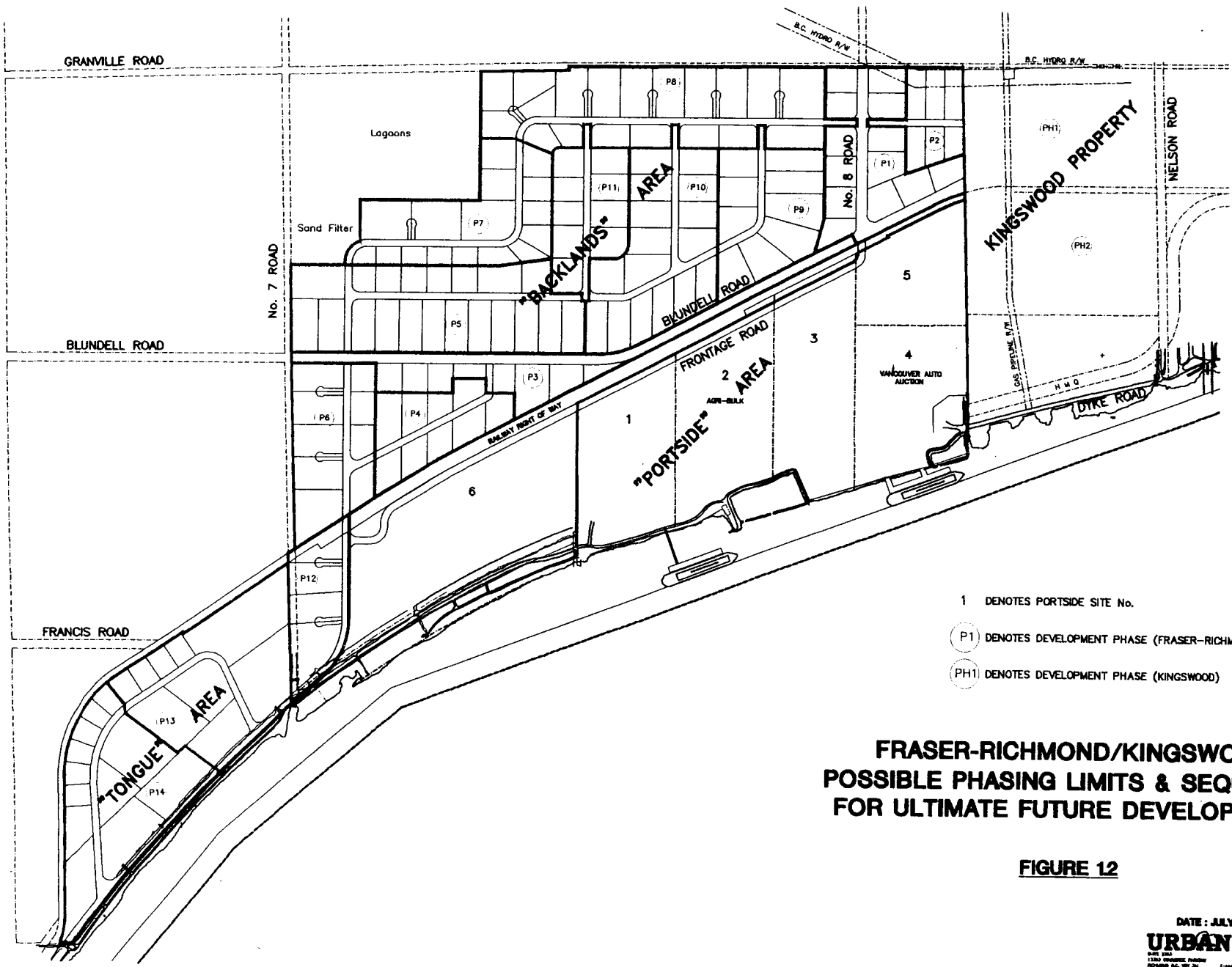
FIGURE 11

DATE: JULY 10, 1999

URBAN SYSTEMS
1234 5678
 9012 3456
 7890 1234

FIGURE 1

102

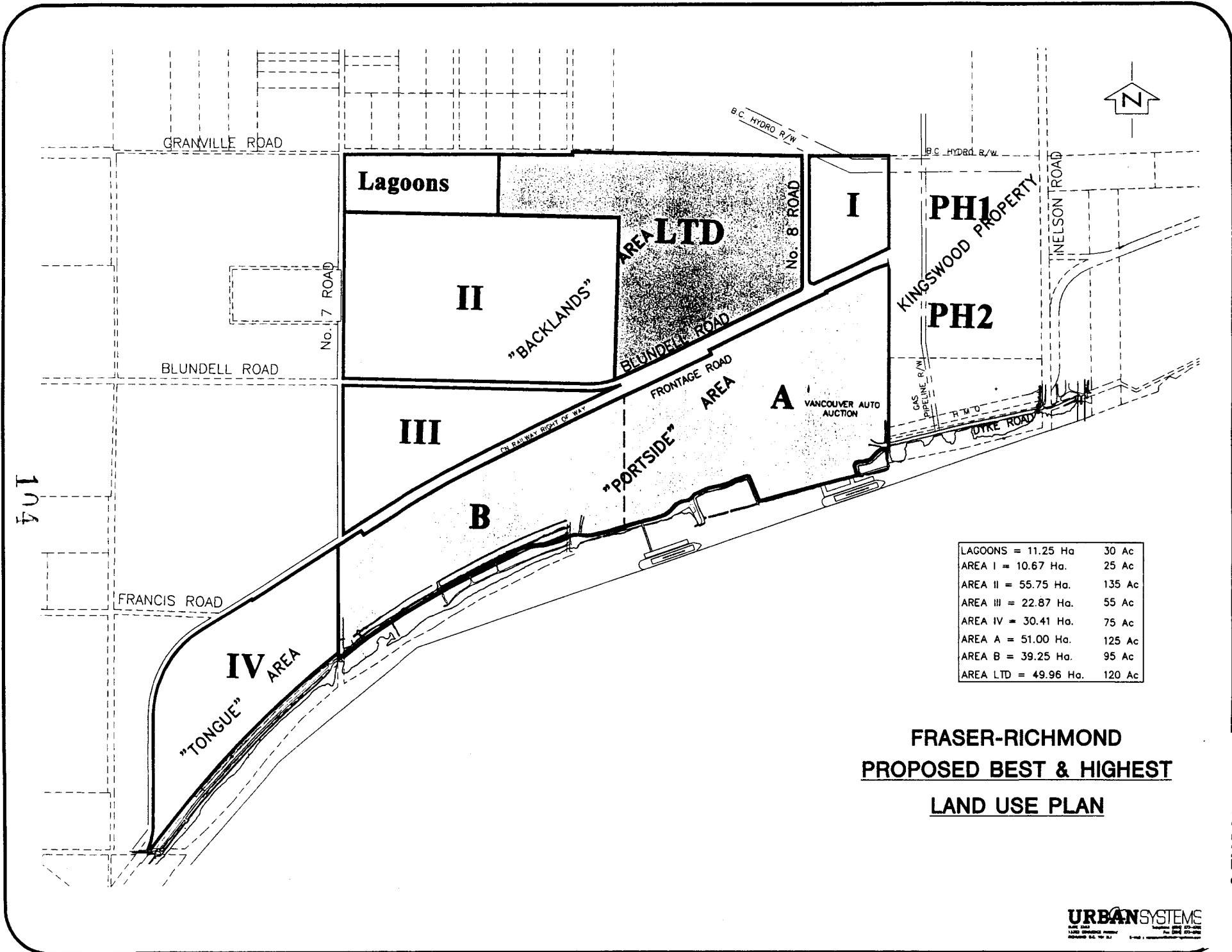


- 1 DENOTES PORTSIDE SITE No.
- (P1) DENOTES DEVELOPMENT PHASE (FRASER-RICHMOND)
- (PH1) DENOTES DEVELOPMENT PHASE (KINGSWOOD)

**FRASER-RICHMOND/KINGSWOOD
POSSIBLE PHASING LIMITS & SEQUENCE
FOR ULTIMATE FUTURE DEVELOPMENT**

FIGURE 12

101

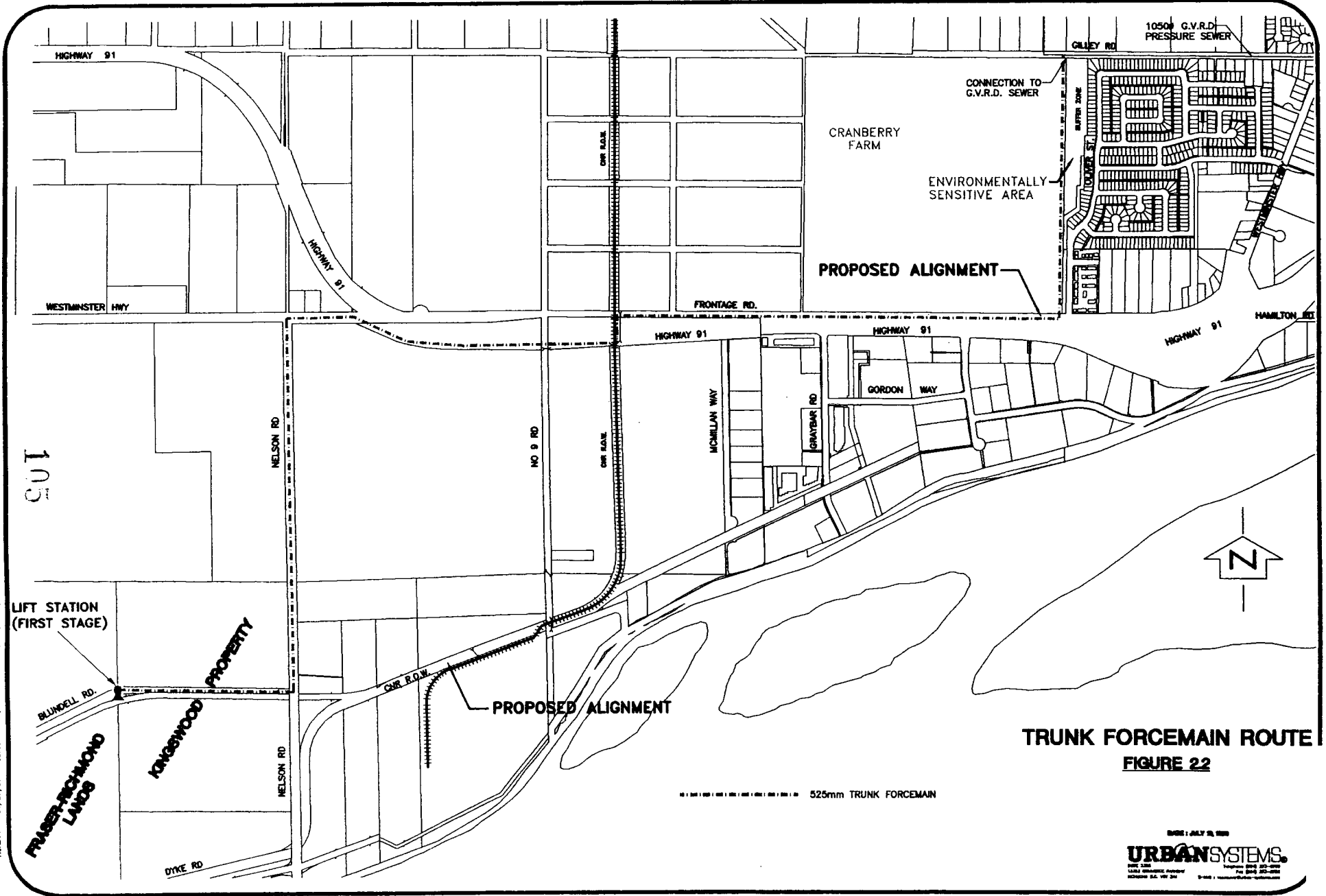


LAGOONS	= 11.25 Ha.	30 Ac
AREA I	= 10.67 Ha.	25 Ac
AREA II	= 55.75 Ha.	135 Ac
AREA III	= 22.87 Ha.	55 Ac
AREA IV	= 30.41 Ha.	75 Ac
AREA A	= 51.00 Ha.	125 Ac
AREA B	= 39.25 Ha.	95 Ac
AREA LTD	= 49.96 Ha.	120 Ac

**FRASER-RICHMOND
PROPOSED BEST & HIGHEST
LAND USE PLAN**

FIGURE 3

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105

LIFT STATION (FIRST STAGE)

FRASER-RICHMOND LANDS

KINGSWOOD PROPERTY

PROPOSED ALIGNMENT

PROPOSED ALIGNMENT

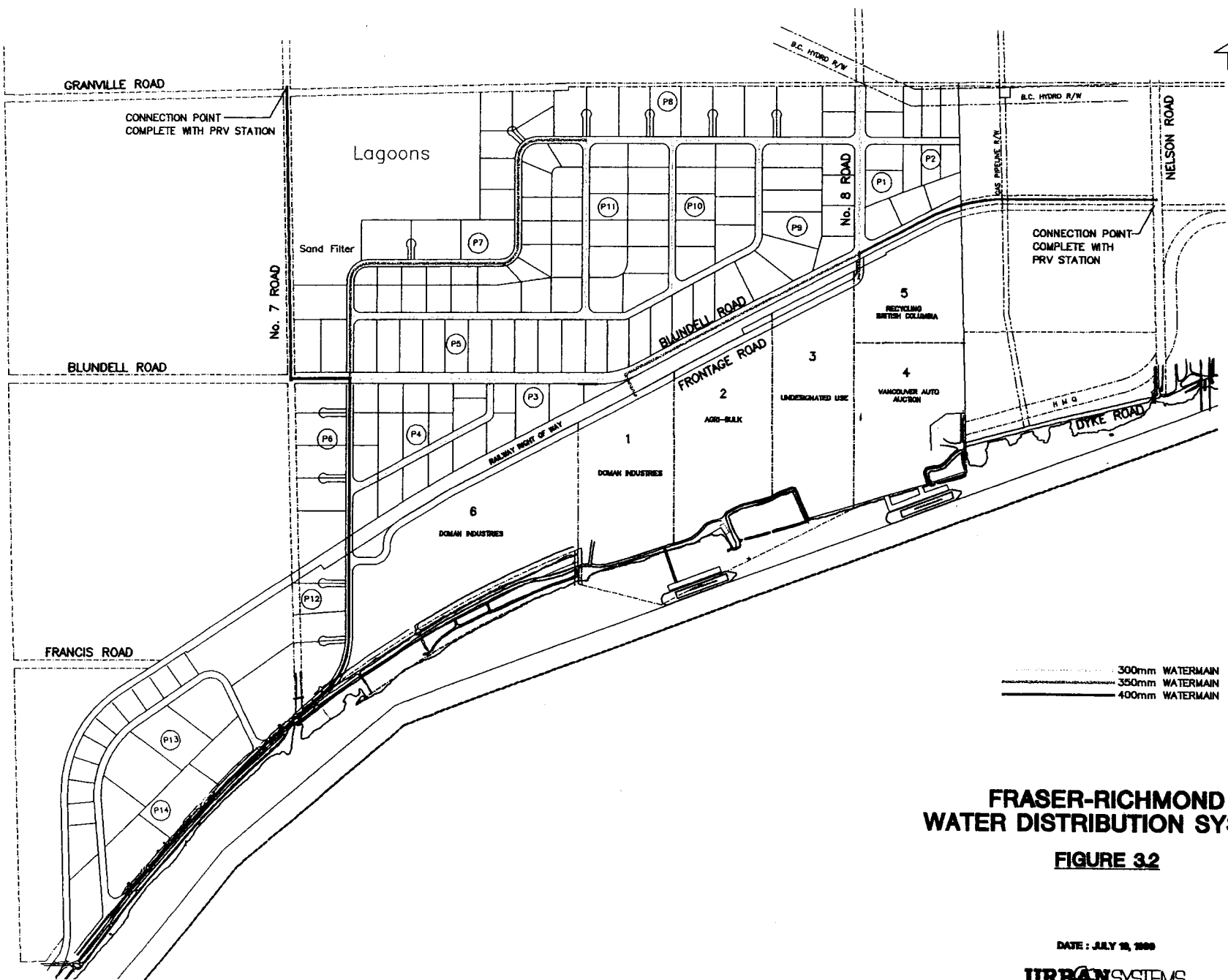
TRUNK FORCEMAIN ROUTE
FIGURE 22

-----x----- 525mm TRUNK FORCEMAIN

DATE: JULY 9, 2001
URBANSYSTEMS
 1000
 1000
 1000
 1000

FIGURE 4

106



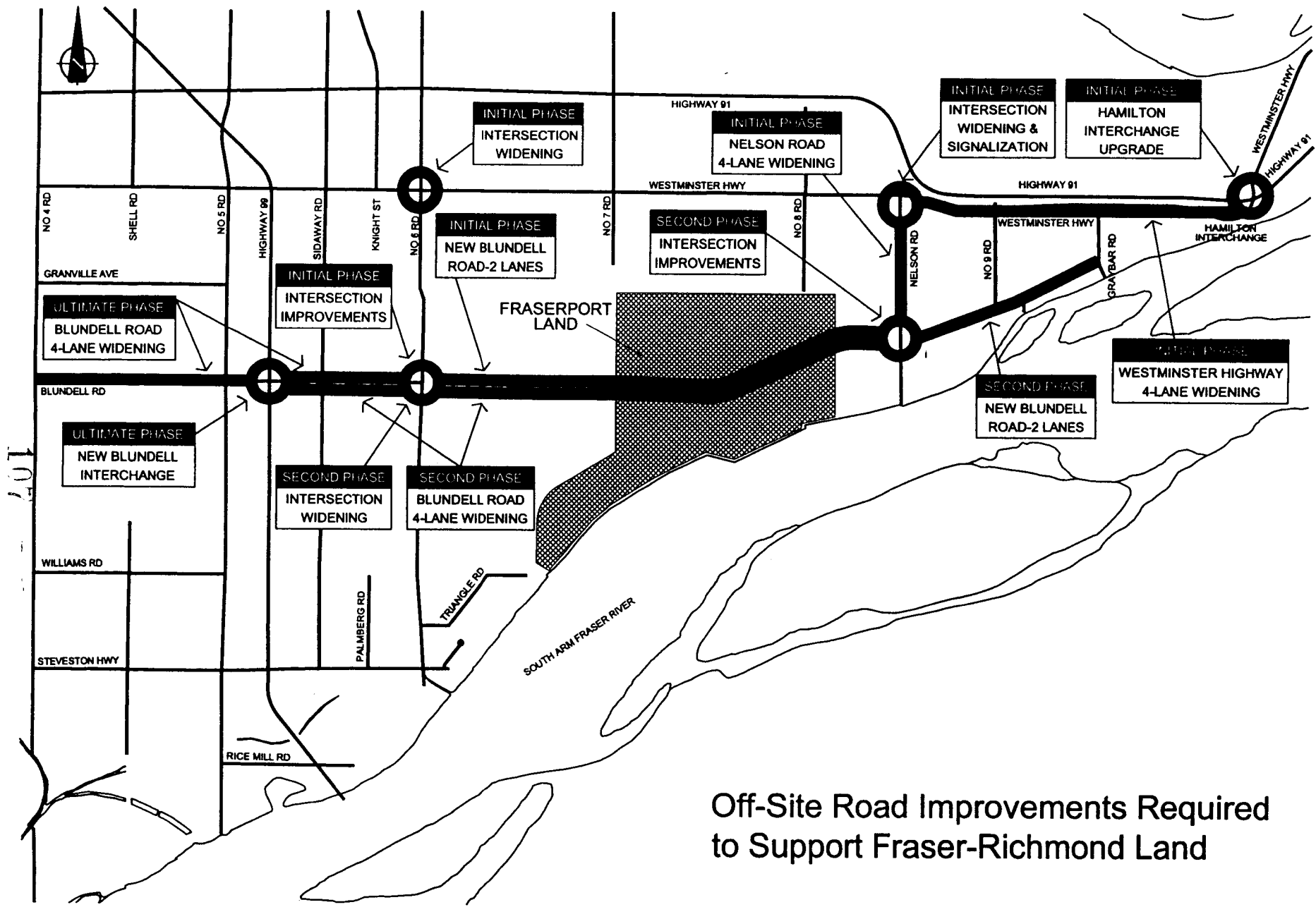
- - - - - 300mm WATERMAIN
 - - - - - 350mm WATERMAIN
 - - - - - 400mm WATERMAIN

**FRASER-RICHMOND
WATER DISTRIBUTION SYSTEM**

FIGURE 32

DATE: JULY 18, 2000

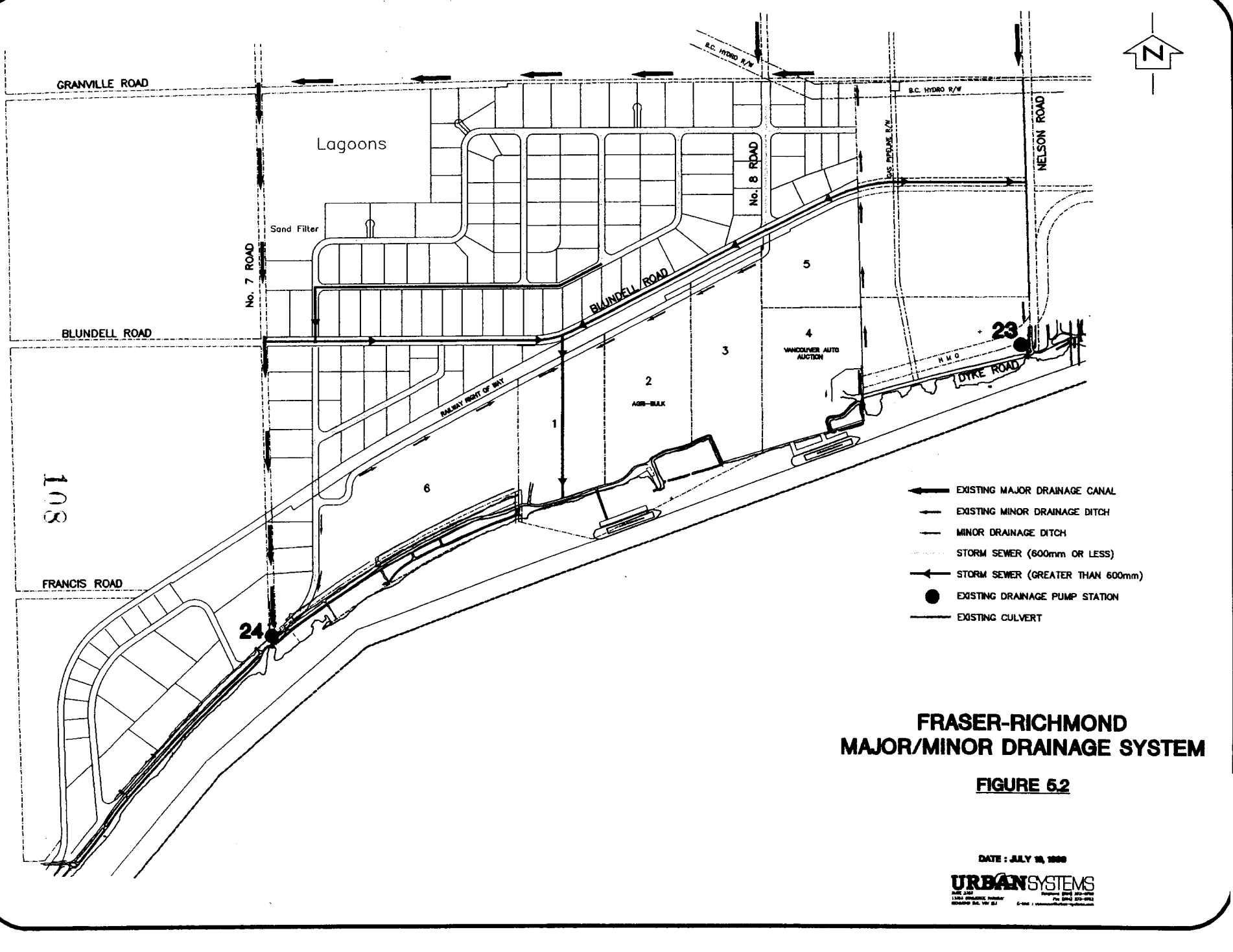
URBANSYSTEMS
 1200 GARDNER AVENUE
 VANCOUVER, BC V6C 1S7
 TEL: 604 271 2222
 FAX: 604 271 2223
 WWW.URBANSYSTEMS.COM



Off-Site Road Improvements Required to Support Fraser-Richmond Land

FIGURE 6

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- > EXISTING MAJOR DRAINAGE CANAL
- > EXISTING MINOR DRAINAGE DITCH
- > MINOR DRAINAGE DITCH
- - - - STORM SEWER (600mm OR LESS)
- - - -> STORM SEWER (GREATER THAN 600mm)
- EXISTING DRAINAGE PUMP STATION
- EXISTING CULVERT

**FRASER-RICHMOND
MAJOR/MINOR DRAINAGE SYSTEM**

FIGURE 5.2

DATE : JULY 10, 1999

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1200 10th Avenue, Suite 200
 Richmond, BC V6V 1G1

FIGURE 7