

Memo



Stantec

To: Jim Radford
City of Vernon

From: Marnie Skobalski

File: 116-30104

Date: 28 February 2003



Reference: Anderson Subdivision Pathway/Sidewalk System

Further to our meeting last week, I have prepared 3 route options for the Anderson Subdivision pathway/sidewalk system.

Assumptions Common to all Options

The 3 route options are prepared on the understanding that the City intends to integrate a meandering 2.8m asphalt pathway suitable for cyclists and pedestrians within the 10m landscape buffer strip which will border the east side of Highway 97 between 48th Avenue and the overpass. The buffer area is intended to provide an attractive landscaped border along the highly visible Highway 97 frontage.

It is anticipated that ditching and stormwater detention areas will be constructed as necessary and may be partially accommodated within the 10m buffer. Ditching may be constructed within the highway right of way however it is my understanding that the Ministry of Transportation would prefer that stormwater detention areas be constructed outside of the highway right of way.

The buffer area is proposed to be on private land with a statutory right of way registered which would provide for the Greater Vernon Services Commission to be responsible for maintenance of the public path, landscaping and drainage works. Fencing is proposed to be installed along the east boundary of the buffer in order to provide security for businesses which will locate in the area. (See attached Figures 1, 2, and 3).

The attached route options suggest that the 10m landscaping buffer be extended as far as the west boundary of Lot 1, Plan 2630 as this is the approximate location where the highway right of way widens and rises on its approach to the overpass. The current plan for the Anderson Way alignment provides for buildable area on Lot 1, Plan 2630 between Anderson Way and the highway right of way. A 10m landscaped buffer within and along the northern boundary of Lot 1, Plan 2630 would compromise the viability of this portion of the lot as a potential building site.

Each option proposes that a pathway be provided within and along the east side of the existing Anderson Road right of way. It is suggested this portion of the path be designed in such a way that the westerly portion of this road right of way could be closed once alternate access is provided to properties fronting Anderson Road. Where Anderson Road turns northward, the path is proposed to cross into the railway right of way where it would extend as far north as the 58th Avenue intersection.

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Each option also shows a pathway (shown as Path "B" on the attachments), which is proposed to extend northward, under the overpass in order to continue on towards Swan Lake. Given that the railway line passes within a metre or two of the toe of the overpass fill slope, there is no room to safely accommodate a trail at grade level between the rail line and the base of the overpass. Figure 4, attached, illustrates how the trail may be routed "upslope" in order to distance it from the train tracks. It is suggested the trail could be properly designed, engineered, constructed and fenced across the fill slope (including the concrete covered area) forming the western base of the overpass. Ideally this trail would be sloped back down to grade level towards the north side of the overpass without the need for stairs. Preliminary discussion with Ministry of Transportation staff indicate that this route may be acceptable subject to review of detailed designs.

The 3 pathway route options differ at the north end of the area where the proposed new Anderson Way approaches and intersects with the rail corridor and 27th Street at 58th Avenue.

Option 1

Whereas it is suggested the 10m landscape buffer be terminated at the west boundary of Lot 1, Plan 2630, Option 1 proposes that the 2.8m cycle/pedestrian path continue within this property, aligned close to the north property line, to a point where it turns south within a statutory right of way (to be provided as part of the underground storm drainage system) and connects with Anderson Way. Within Lot 1, the statutory right of way should be narrowed and the path design may become more "urban" in character. For example, the path may be accommodated within future on-site paved access/parking areas.

At Anderson Way, a marked crossing is proposed which would allow path users to cross the road and travel a short distance east to connect with a pathway proposed to be incorporated within the railway right of way as described in the "Ribbons of Green" plan.

Option 2

If it is not considered safe to designate a pedestrian crossing of Anderson Way west of the 58th Avenue intersection (as proposed in Option 1), pedestrians and/or cyclists would be required to use the sidewalk and crosswalk system at the 58th Avenue intersection in order to access the "Ribbons of Green" path in the railway right of way.

This is a safe but rather complex route (see attached detail of Option 2 showing intersection crossing) and pathway users may be more inclined to simply dash across Anderson Way during a break in traffic.

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Reference: Anderson Subdivision Pathway/Sidewalk System

Option 3

Option 3 is very similar to Option 1 except the path route is angled into the highway right of way allowing for more developable area in the north portion of Lot 1, Plan 2630.

I trust this meets your needs at this time and will enable the City to advance towards more detailed path system design.

STANTEC CONSULTING LTD.

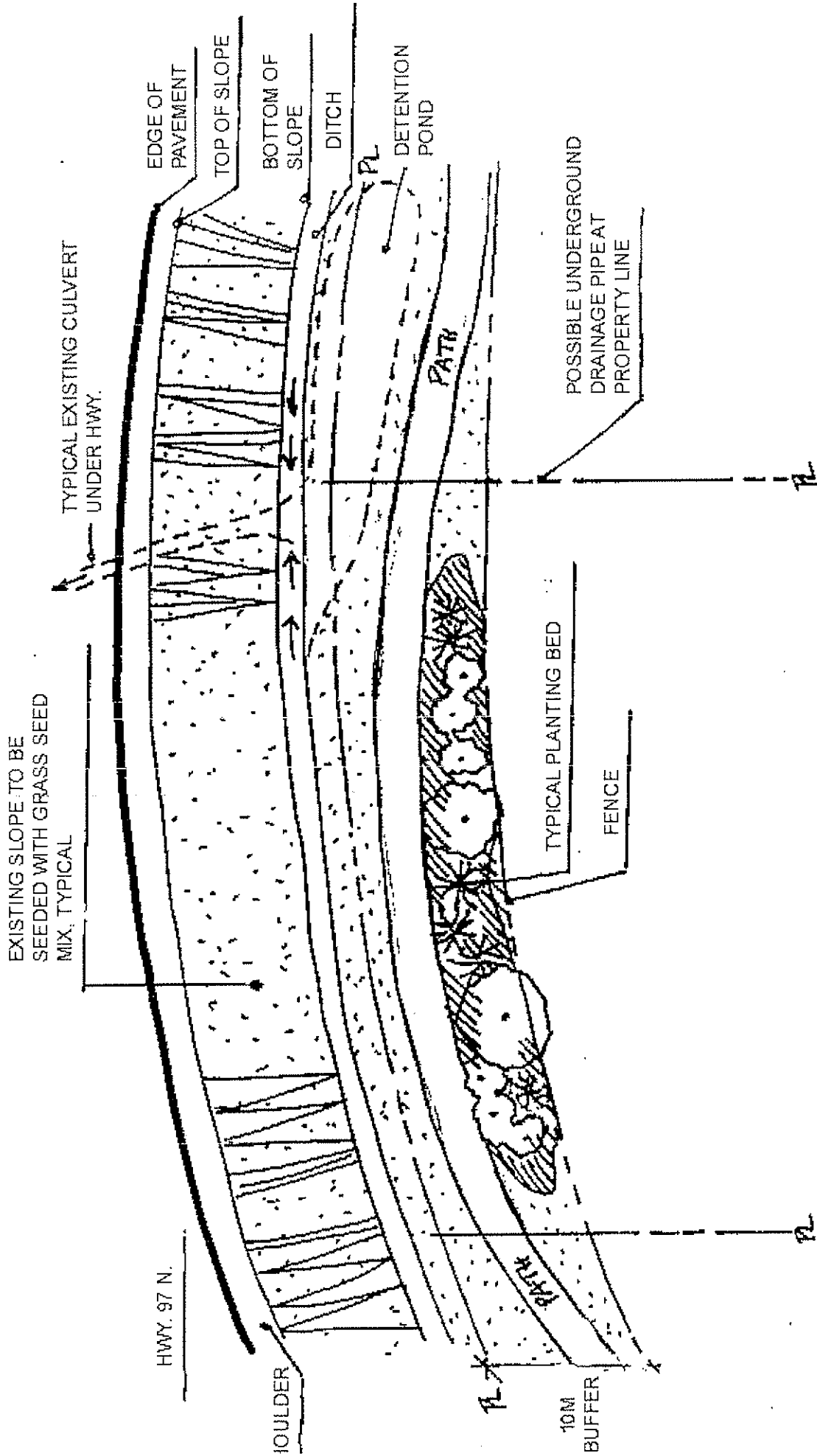


Marnie Skobalski, MCIP
Planner

mskobalski@stantec.com

Attachment

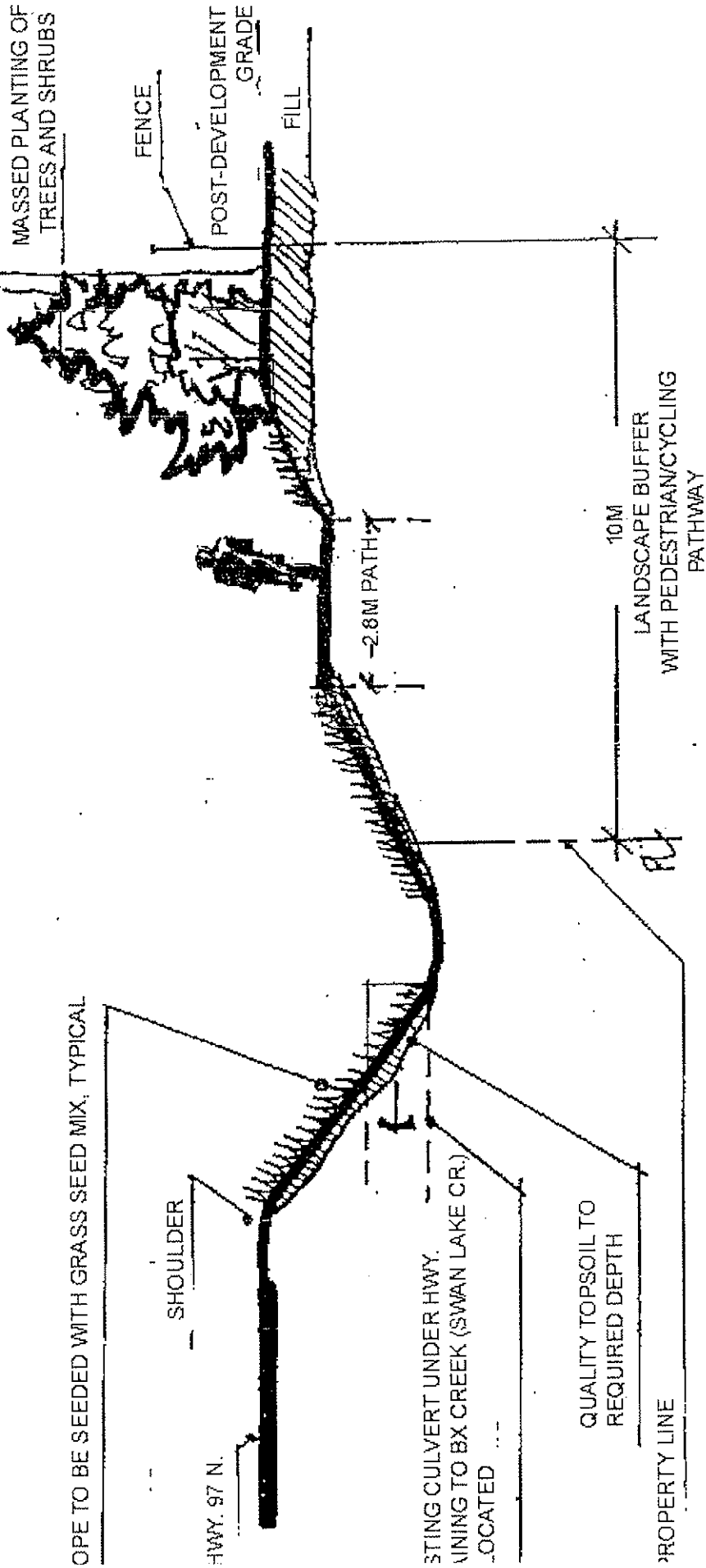
DRAFT



PLAN VIEW - 10m LANDSCAPE BUFFER WITH 2.8m PATHWAY EASTSIDE HWY. 97 N. NORTH OF 48th AVENUE

Figure 1

DRAFT



TYPICAL SECTION 1 - EASTSIDE HWY. 97 N. NORTH OF 48TH AVENUE

Figure 2

(N.T.S.)

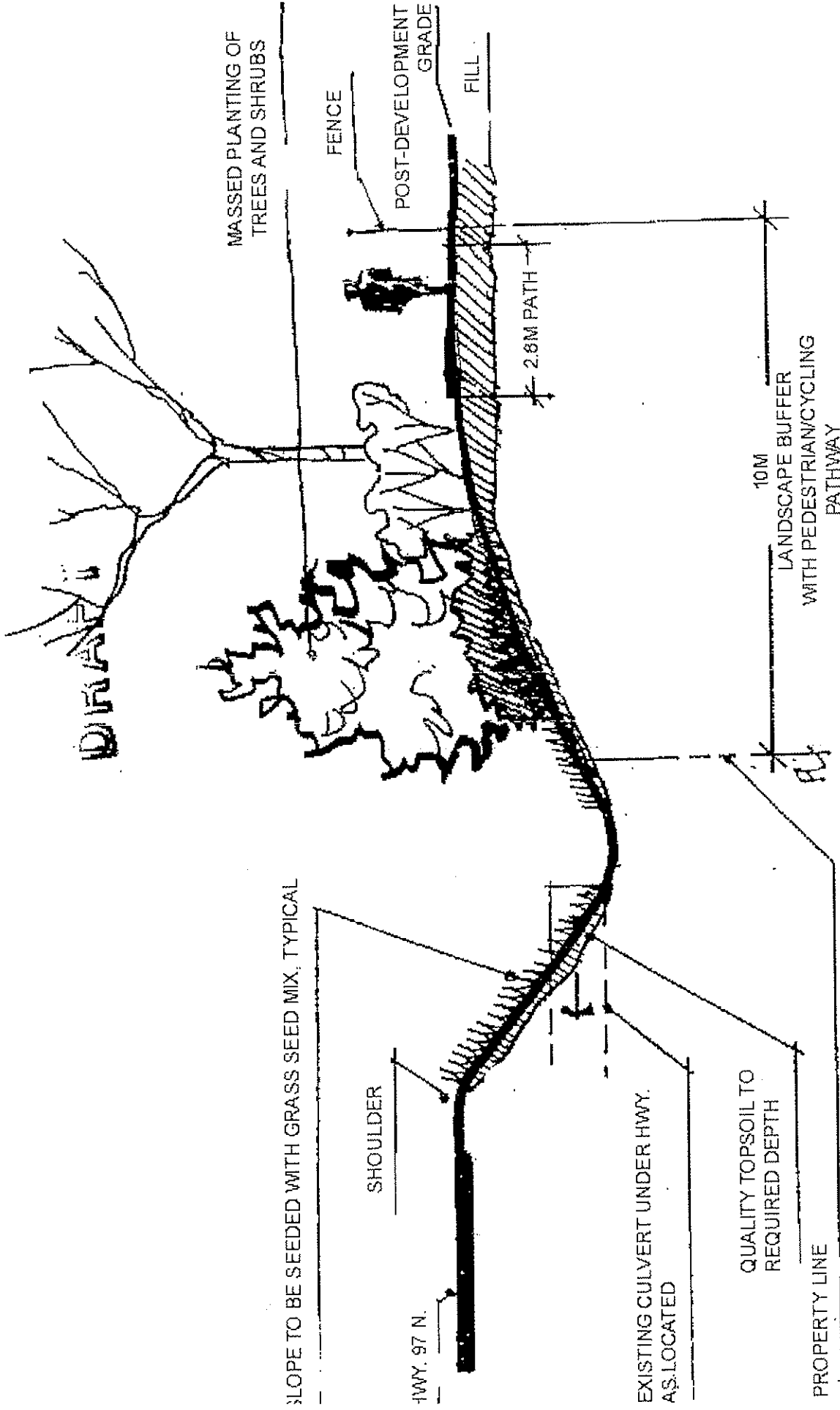
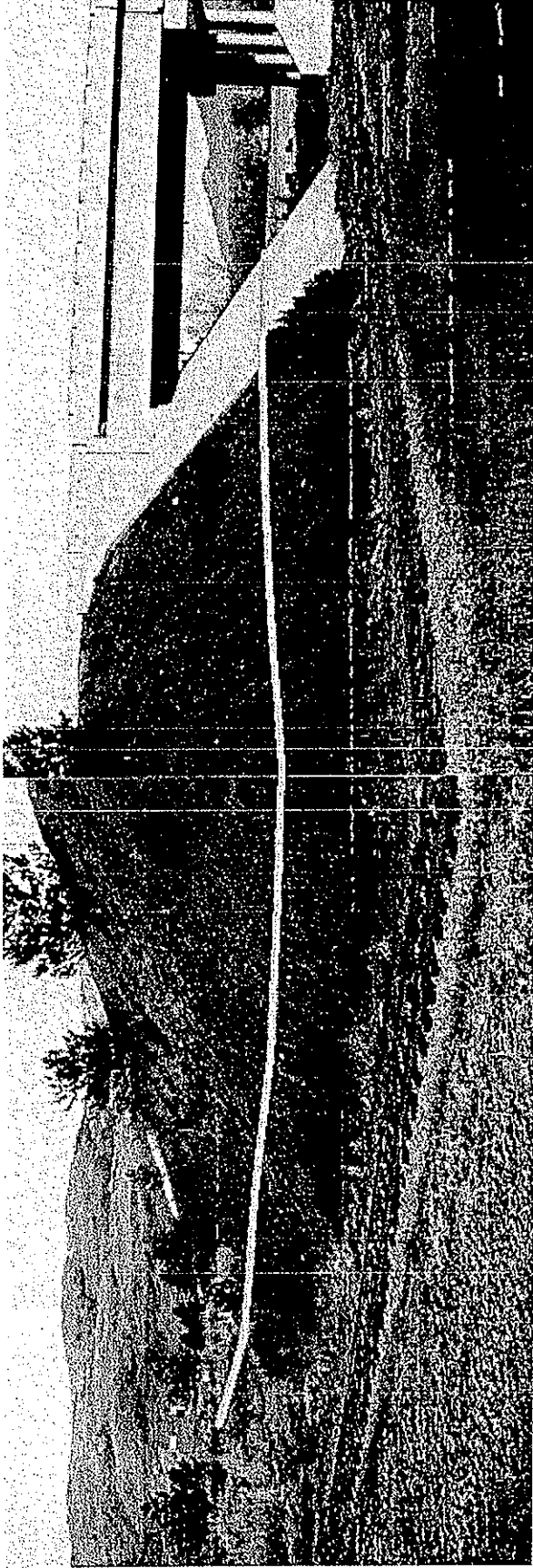



Figure 3
(N.T.S.)

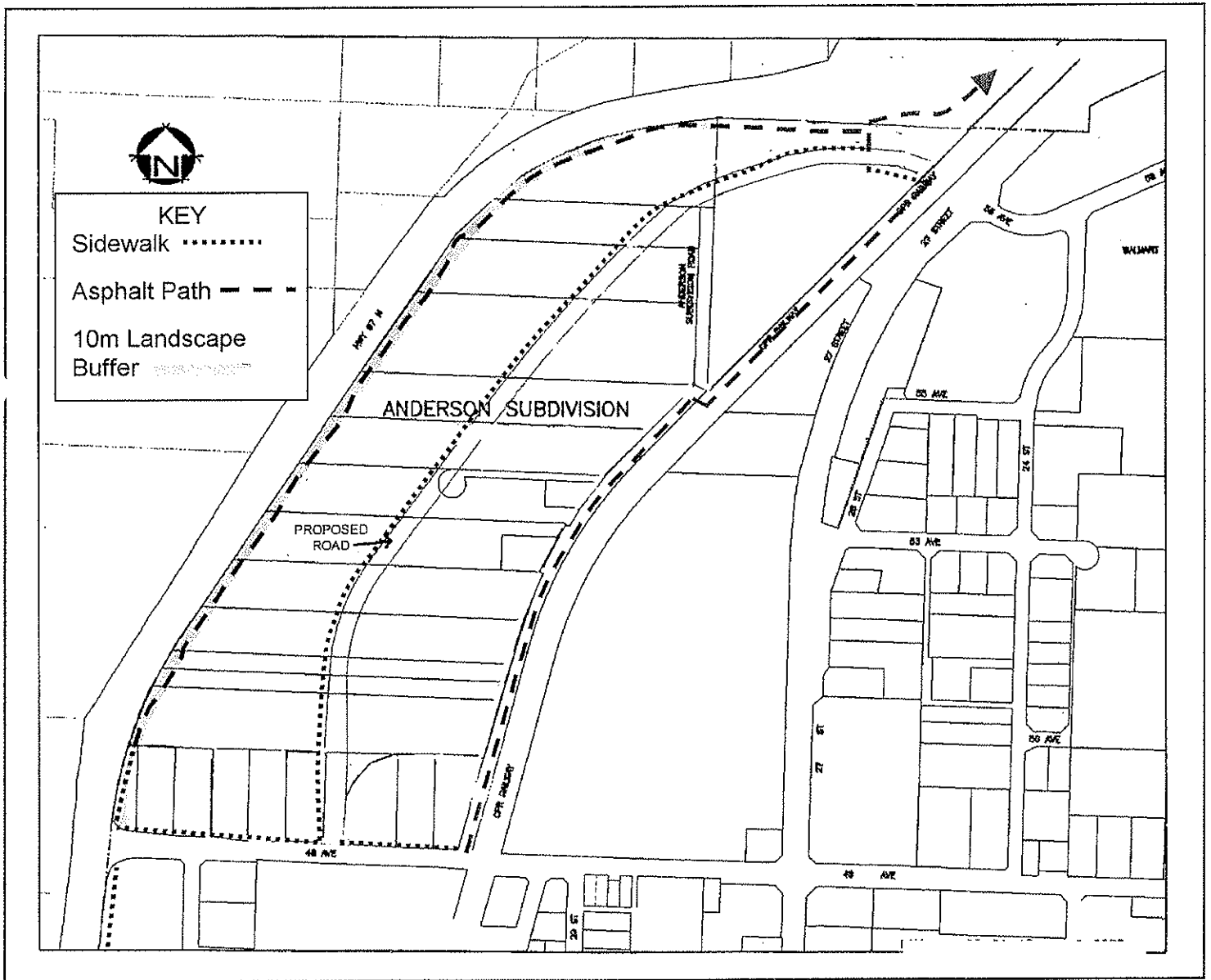
TYPICAL SECTION 2 - EASTSIDE HWY. 97 N. NORTH OF 48TH AVENUE



Conceptual Alignment of Path "B" 

OPTION 1

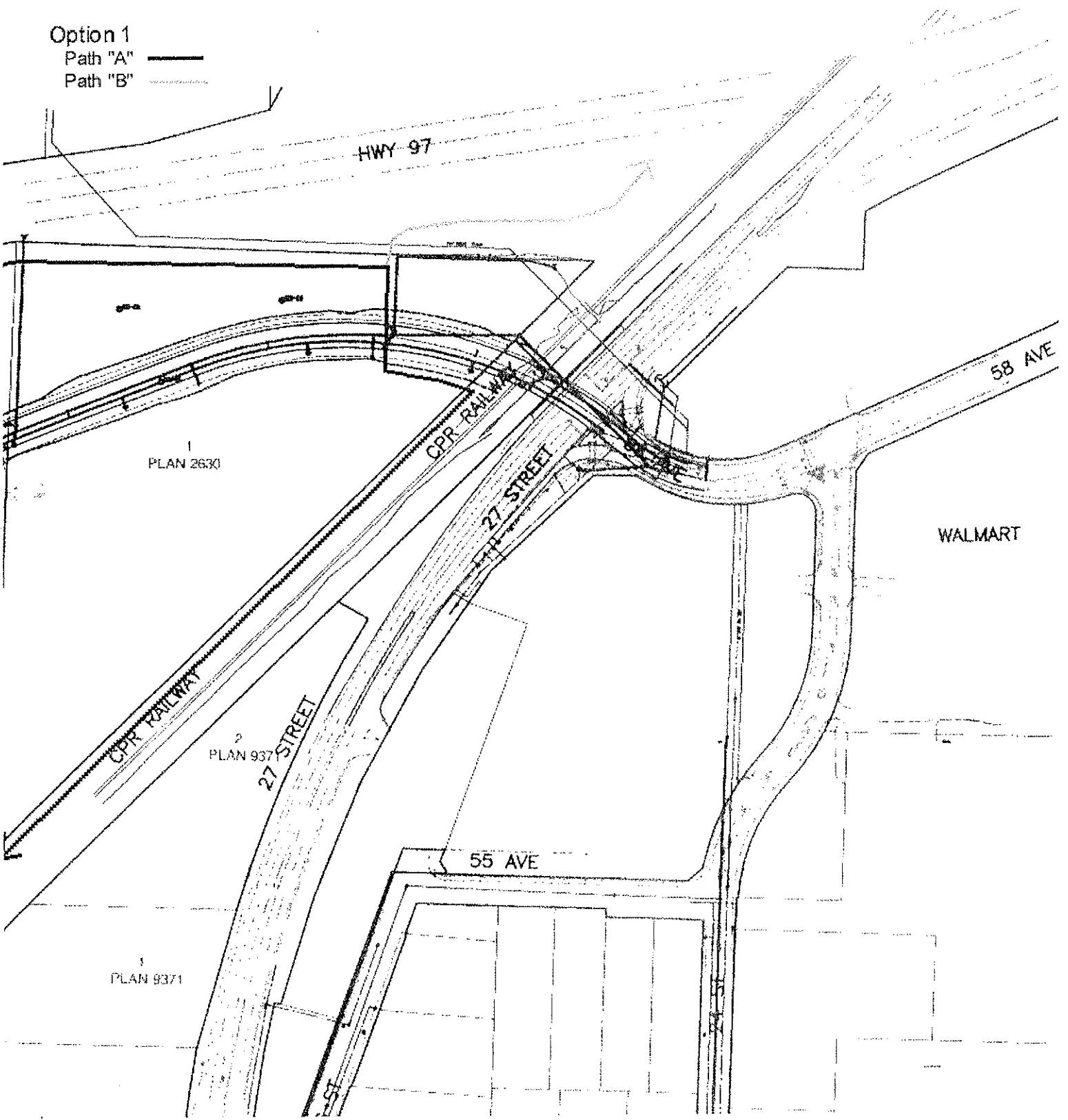
Anderson Subdivision – Proposed Path and Sidewalk Plan – Option 1



Option 1

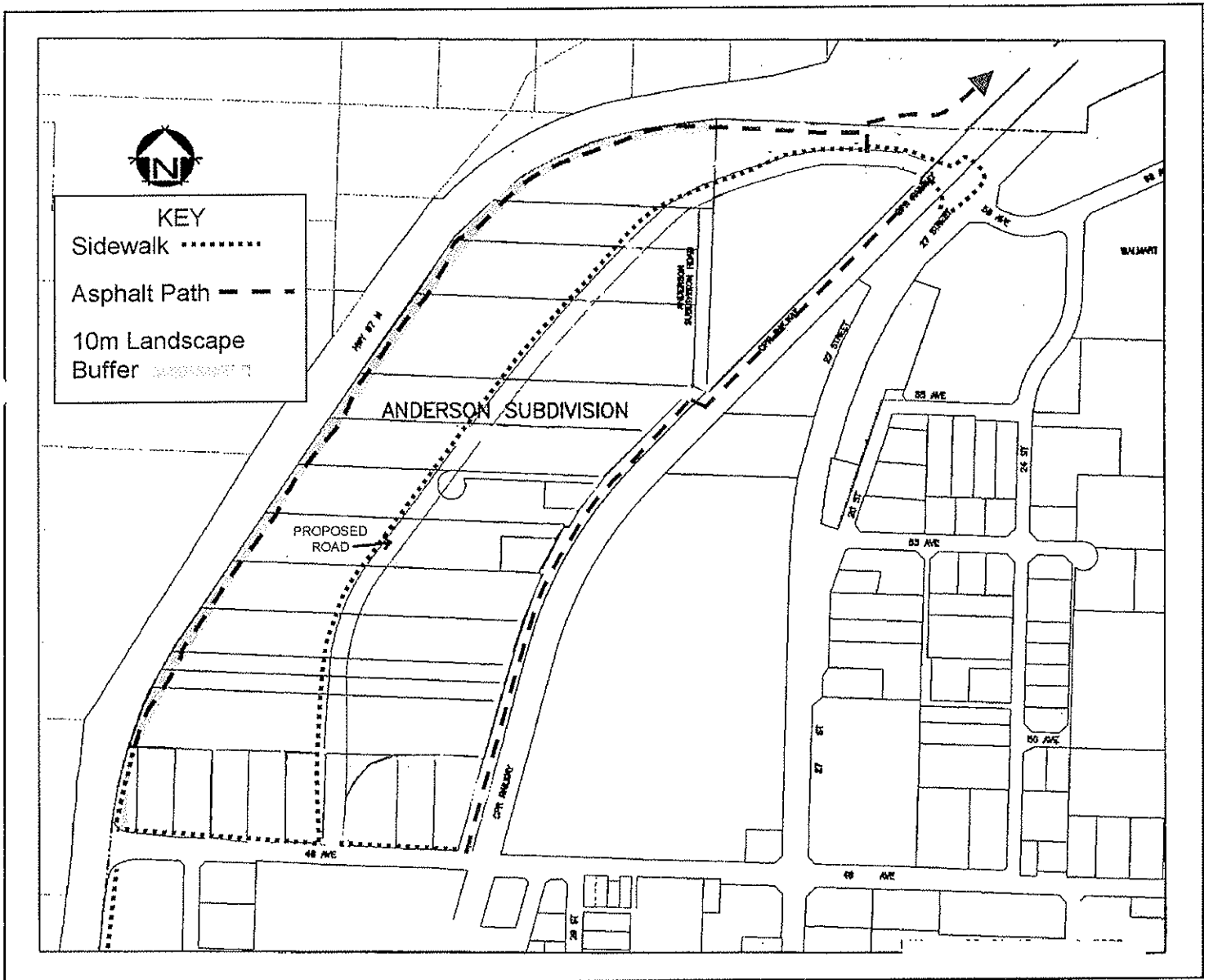
Path "A" ———

Path "B" - - - - -



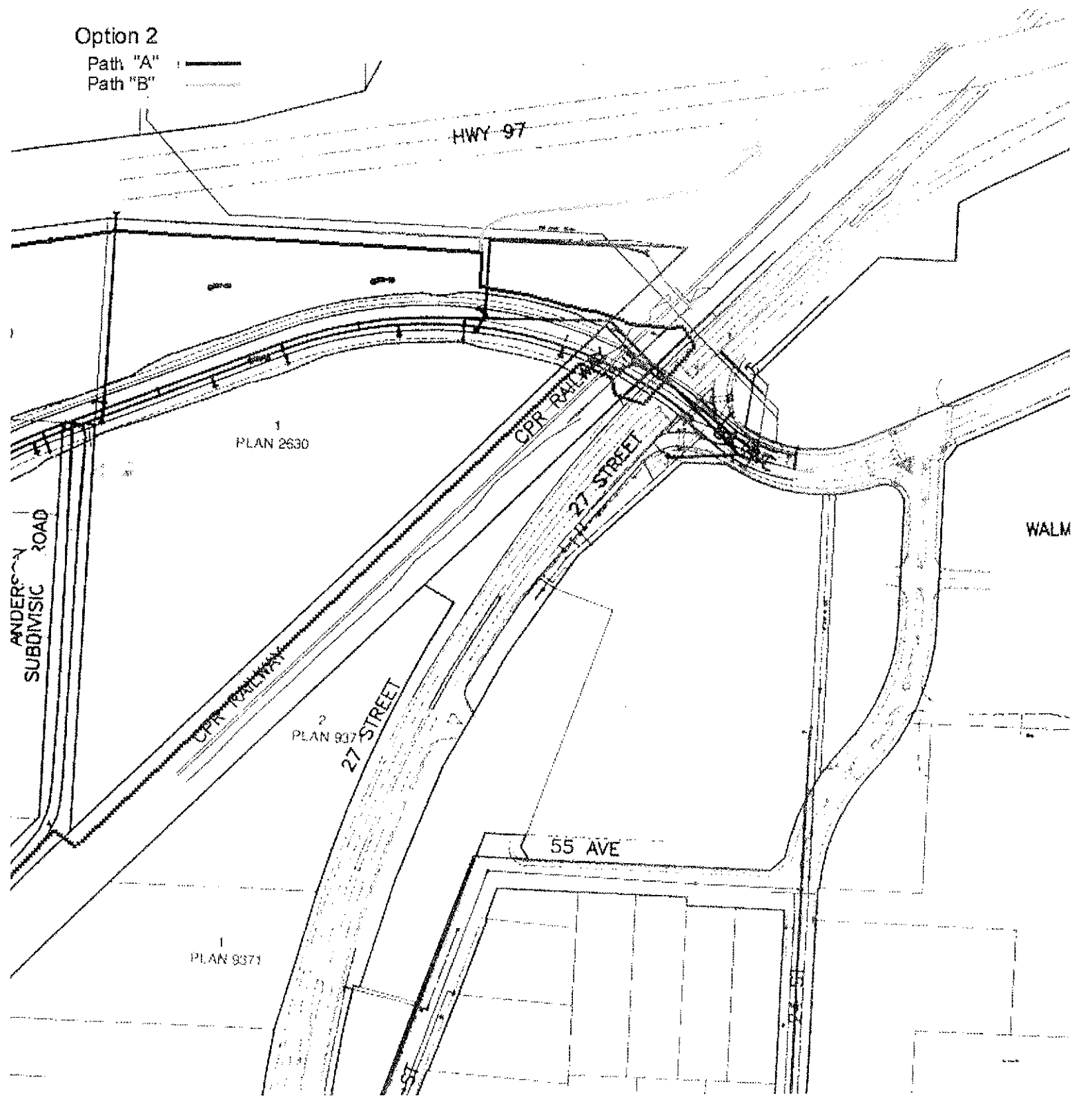
OPTION 2

Anderson Subdivision – Proposed Path and Sidewalk Plan – Option 2

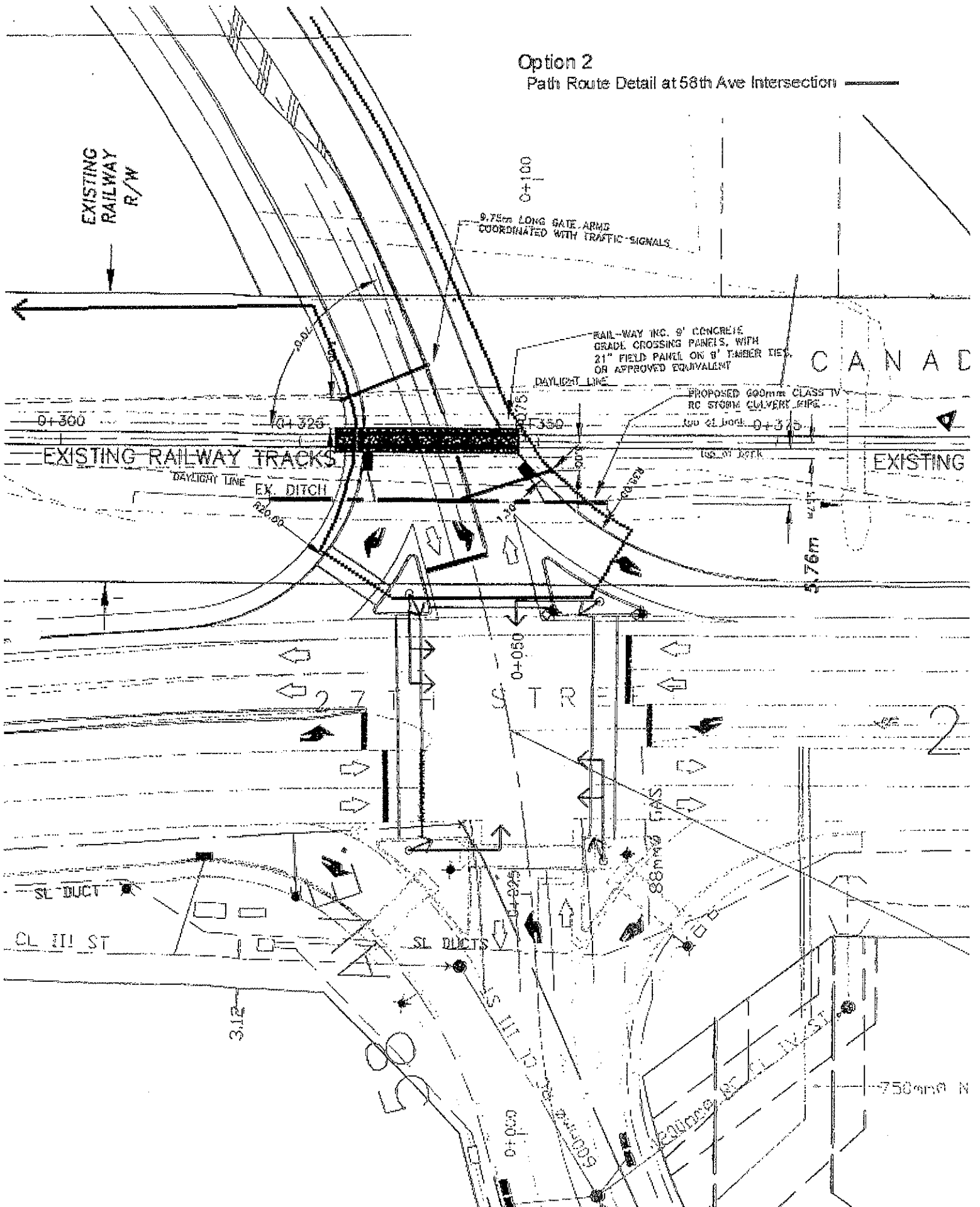


Option 2

Path "A" ———
Path "B" - - - - -

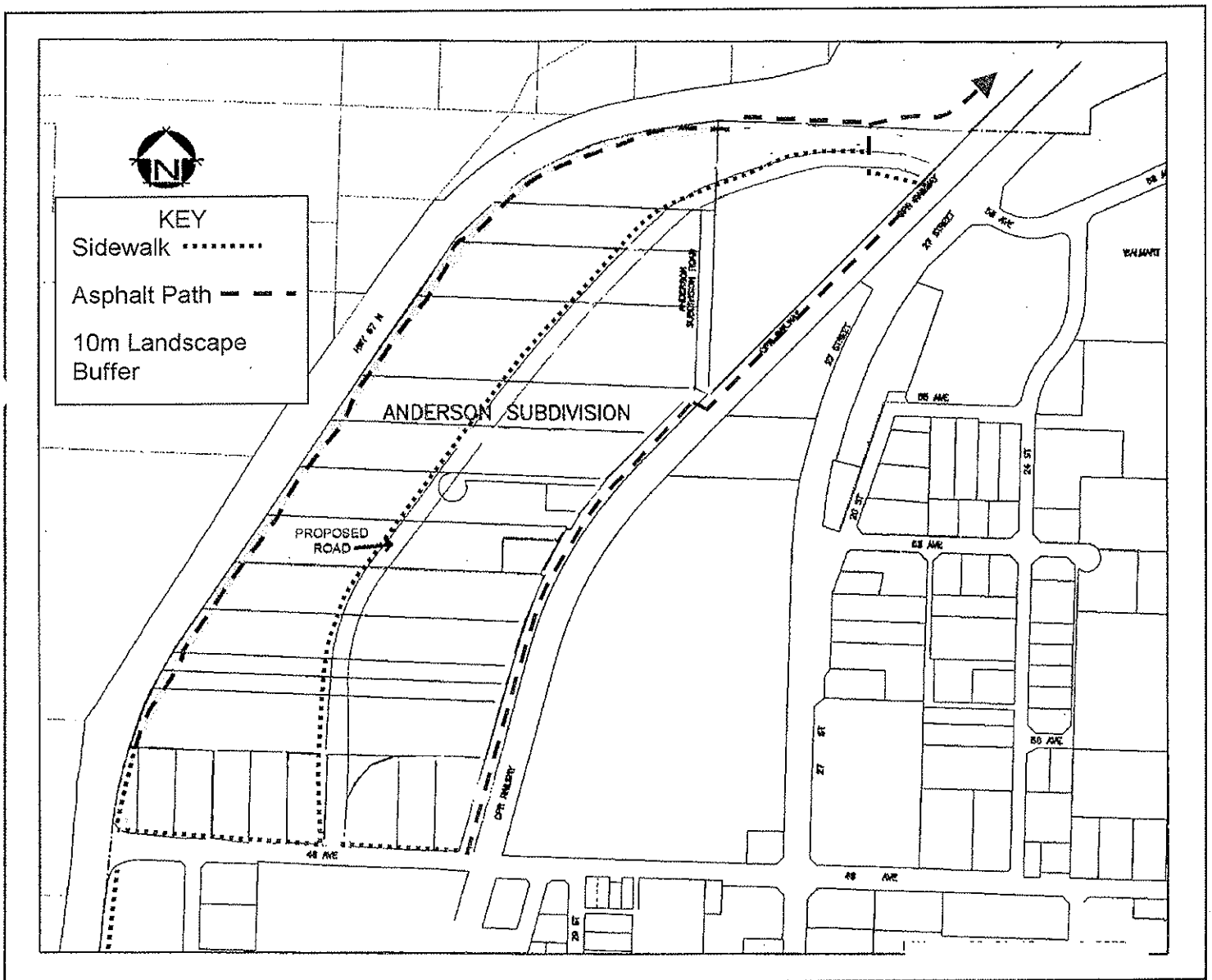


Option 2
Path Route Detail at 58th Ave Intersection



OPTION 3

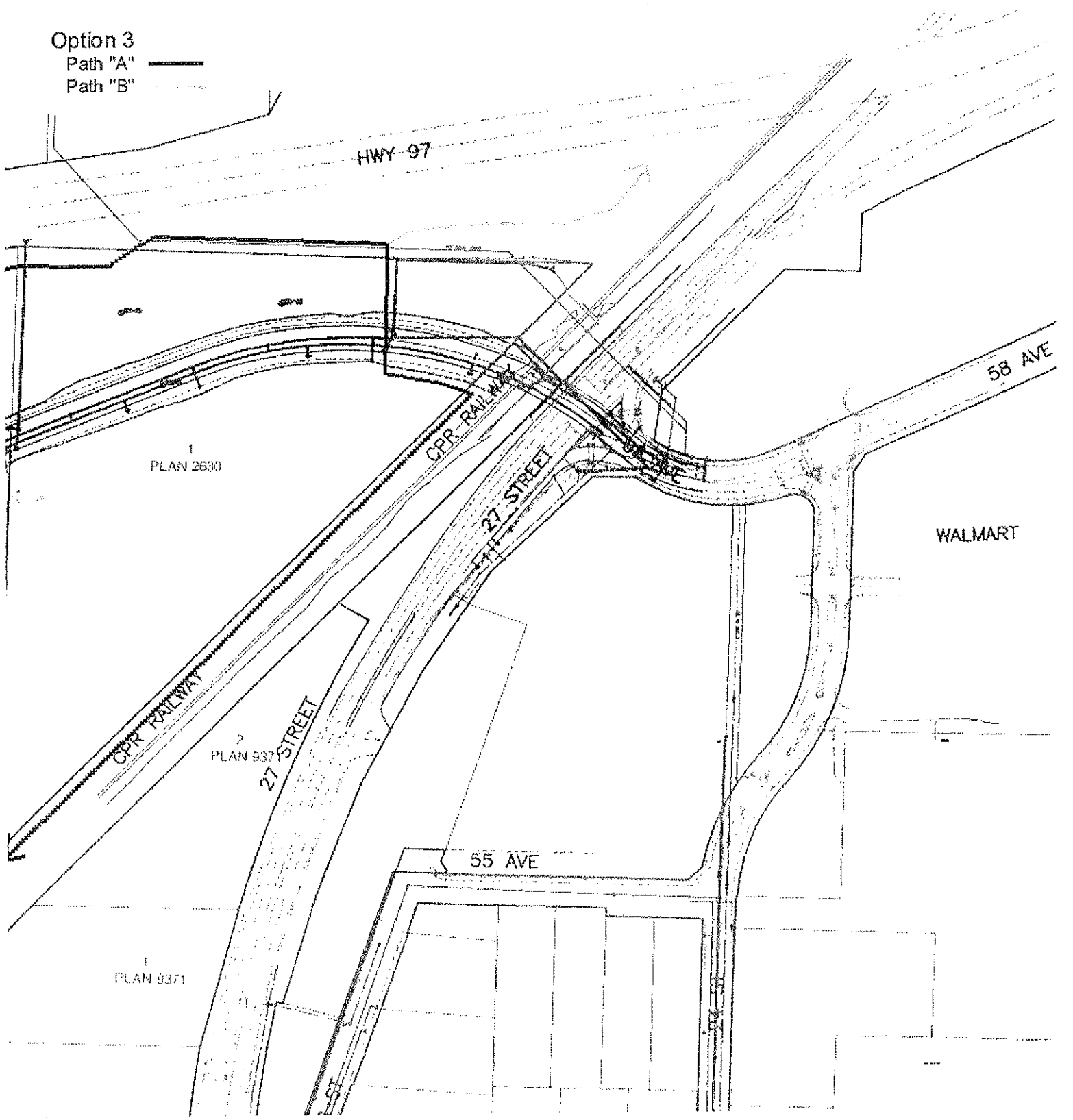
Anderson Subdivision – Proposed Path and Sidewalk Plan – Option 3



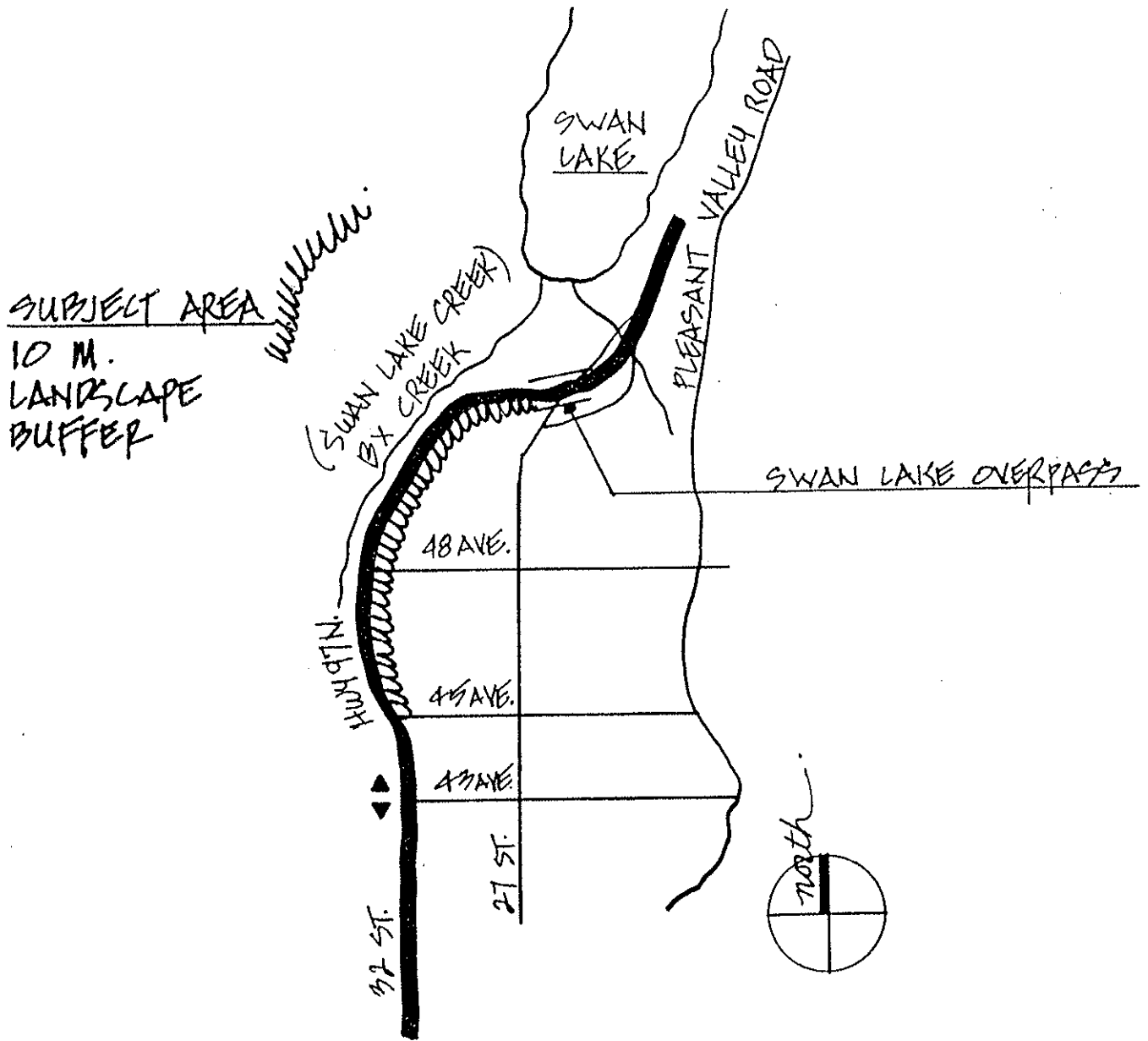
Option 3

Path "A" ———

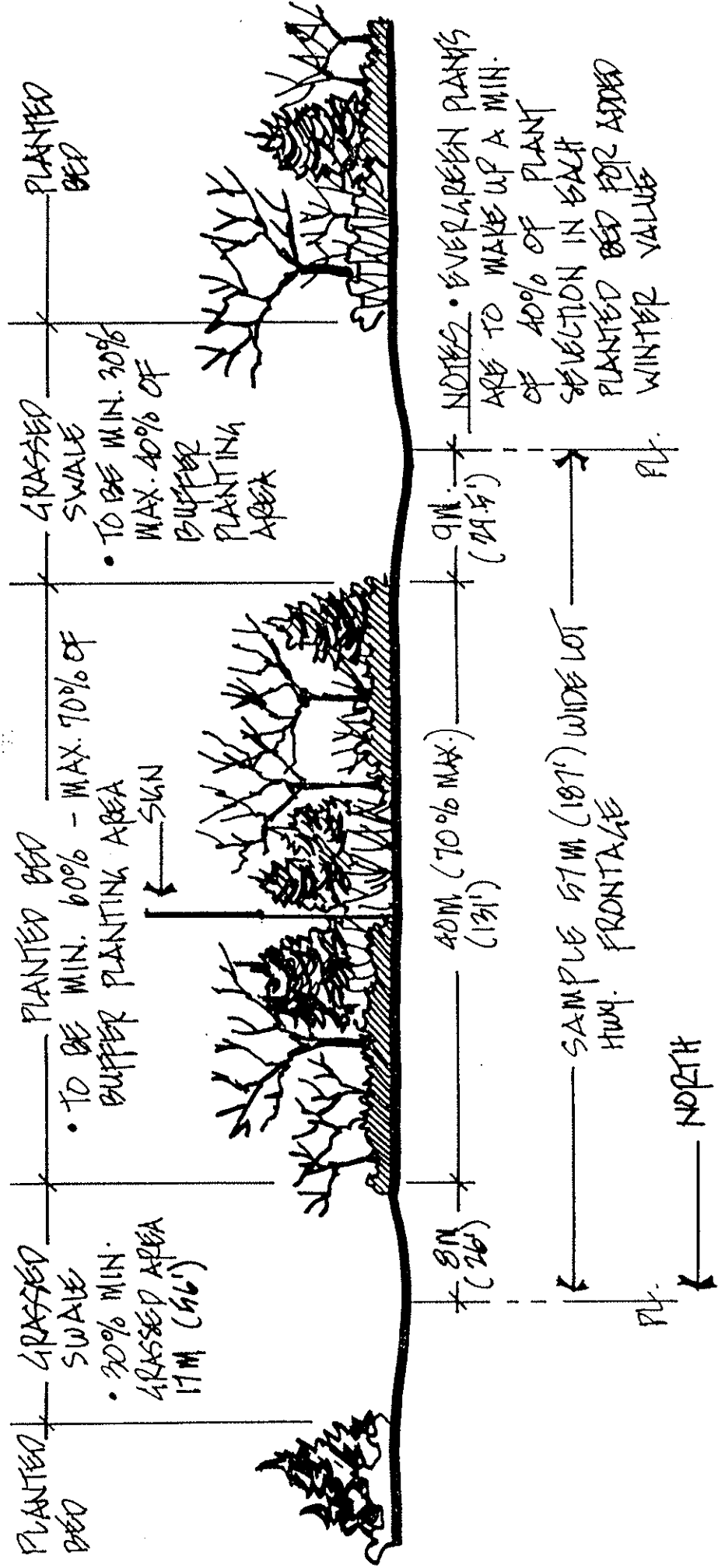
Path "B" - - - - -



LANDSCAPE BUFFER DESIGN CRITERIA
ALONG EASTSIDE HWY. 97 N. FROM 46th AVE.
TO SWAN LAKE OVERPASSES

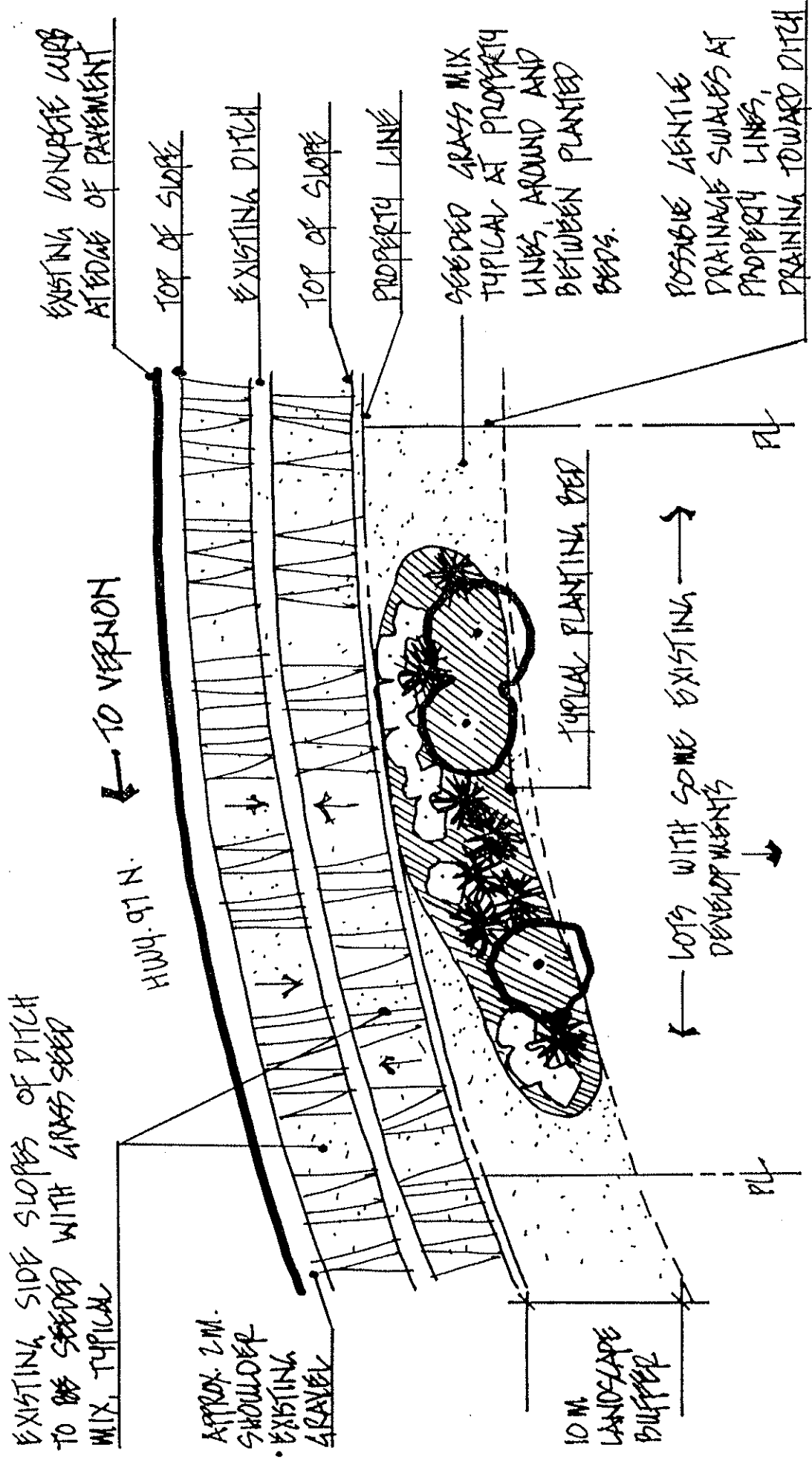


CORPORATION OF THE CITY OF VERNON.
JANUARY 1996



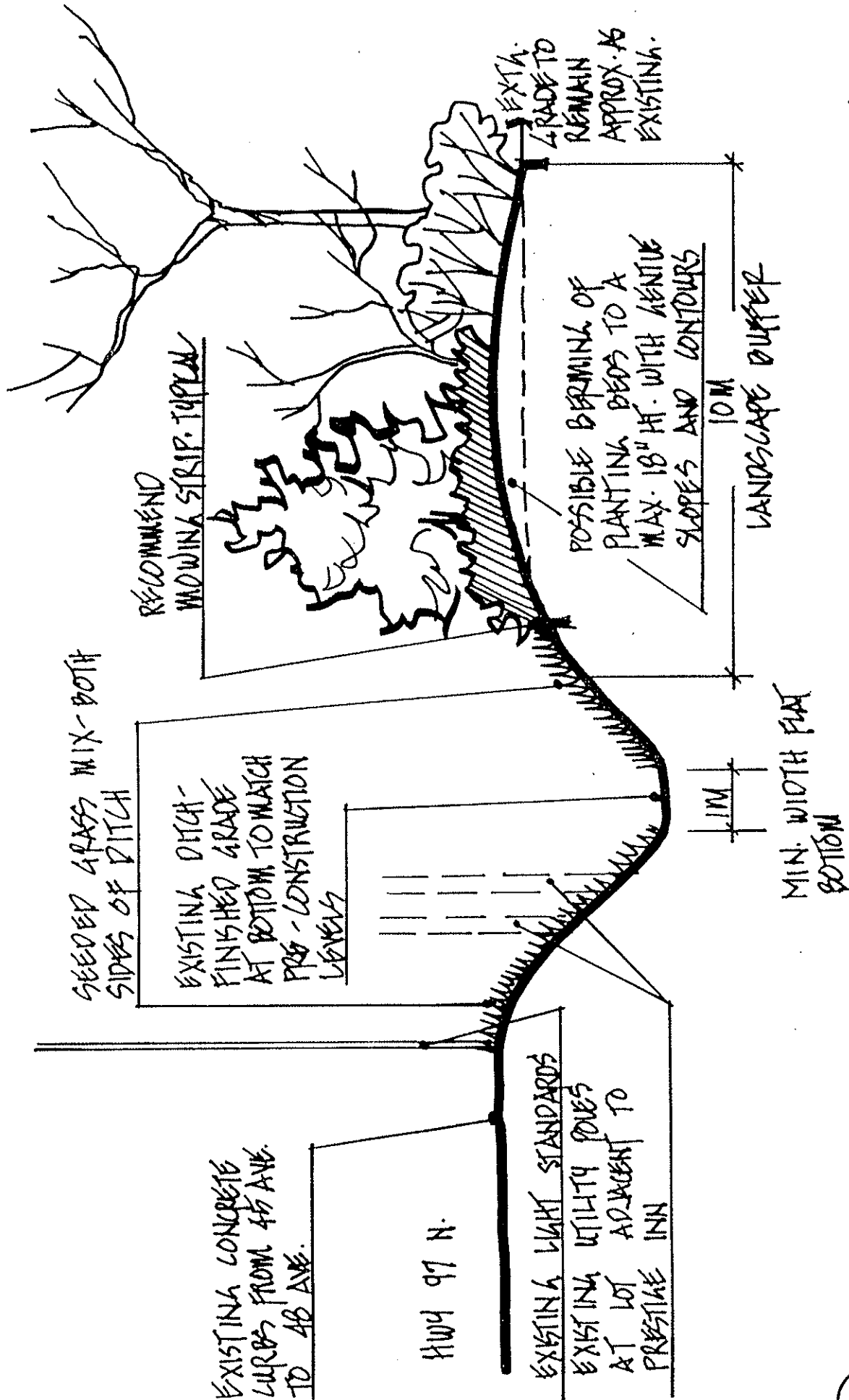
A GENERAL LANDSCAPE DESIGN CONCEPT • SAMPLE ELEVATION AS SEEN FROM HWY. 97 N. SCALE 1:400

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M LANDSCAPE BUFFER ALONG EAST SIDE HWY. 97 N. FROM 45 AVE. TO SWAN LAKE OVERPASS, VERNON



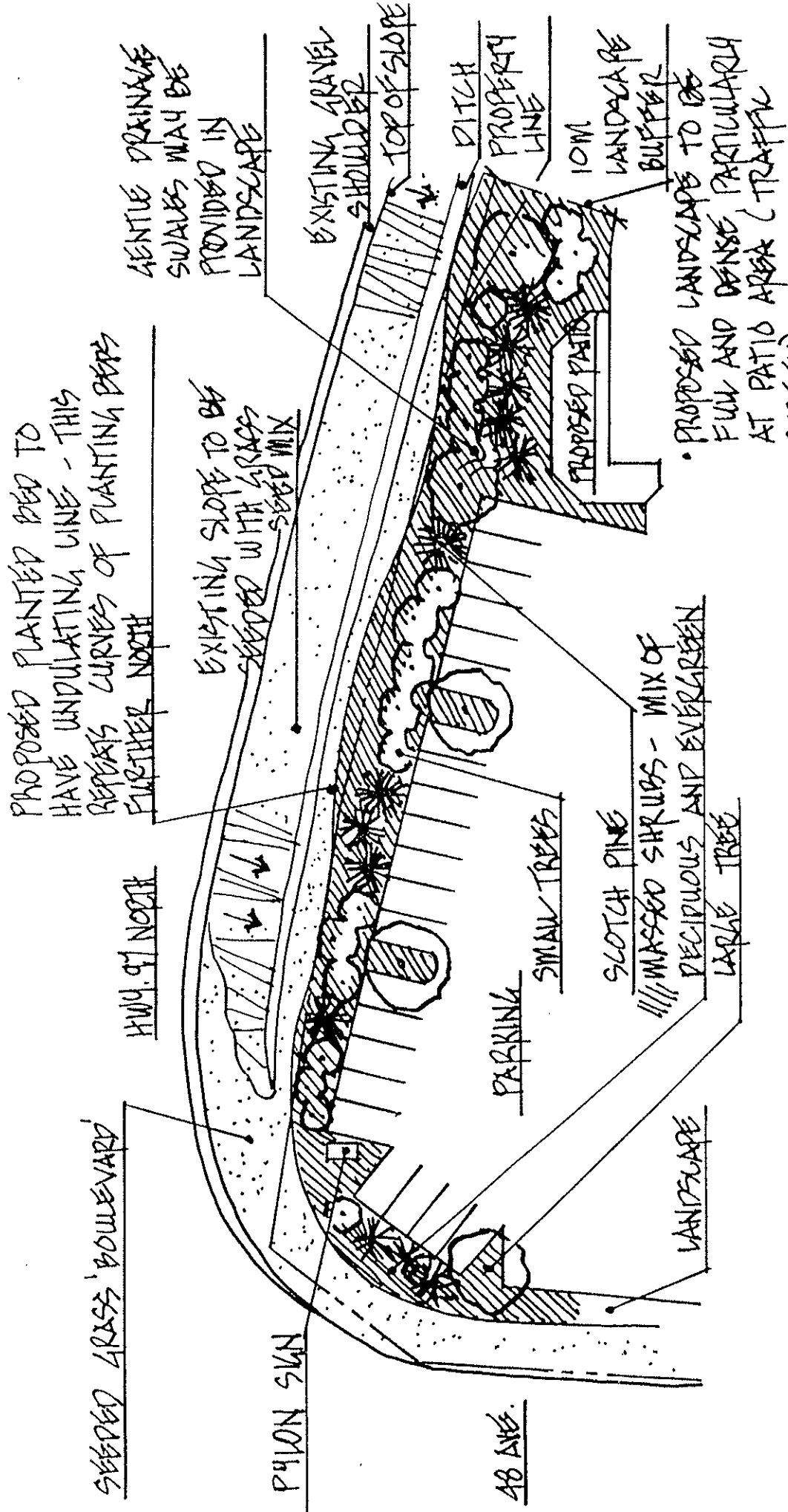
(1) LANDSCAPE CONCEPT - PLAN VIEW
 TYPICAL BETWEEN 47th AVE. AND 48th AVE (N.T.S.)

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M LANDSCAPE BUFFER ALONG
 EAST SIDE HWY. 97 N. FROM 47th AVE. TO SWAN LAKE OVERPASS, VERNON



172 LANDSCAPE CONCEPT - SECTION TYPICAL BETWEEN 45 AVE. AND 48 AVE. (N.T.S.)

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M LANDSCAPE BUFFER ALONG EASTSIDE HWY. 97 N. FROM 45 AVE. TO SWAN LAKE OVERPASS, VERNON



PROPOSED PLANTED BED TO HAVE UNDULATING LINES - THIS REPEATS CURVES OF PLANTING BEDS FURTHER NORTH

GENTLE DRAINAGE SWALES MAY BE PROVIDED IN LANDSCAPE

EXISTING SLOPE TO BE SEEDER WITH GRASS SEED MIX

PROPOSED LANDSCAPE TO BE FULL AND DENSE PARTICULARLY AT PATIO AREA (TRAFFIC SCREEN)

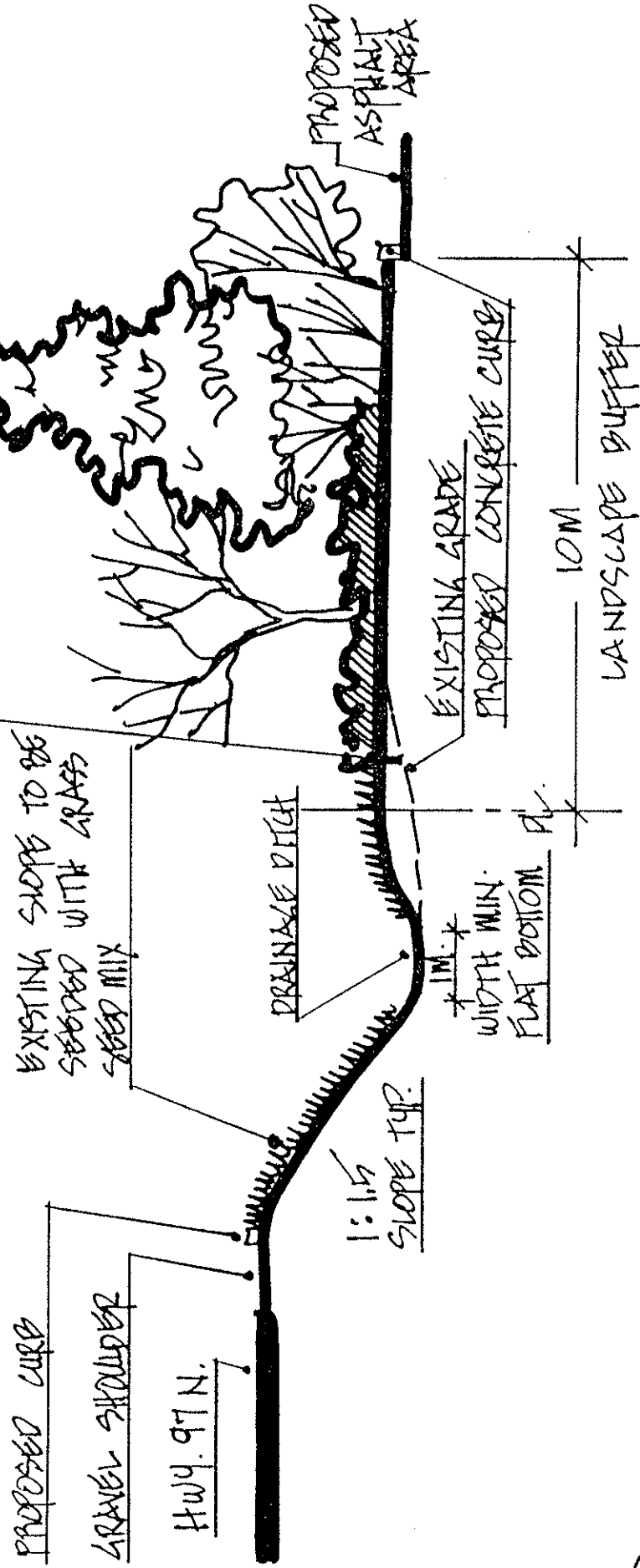
C-1 LANDSCAPE CONCEPT. PLAN VIEW AT 48 AVE. AND HWY. 97 N. (N.T.S.)

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M LANDSCAPE BUFFER ALONG EASTSIDE HWY. 97 N. FROM 48 AVE. TO SWAN LAKE OVERPASS, VERNON.

NOTE. THIS DRAWING IS BASED ON THE ASSUMPTION THAT GRADES AT THIS SITE WILL REMAIN AS EXISTING AT THE PROPERTY LINES.

NOTE. OPTION - LANDSCAPED AREAS TO BE GENTLY BERMED

RECOMMEND MOWING STRIP THROUGHOUT FOR EASE OF MAINTENANCE



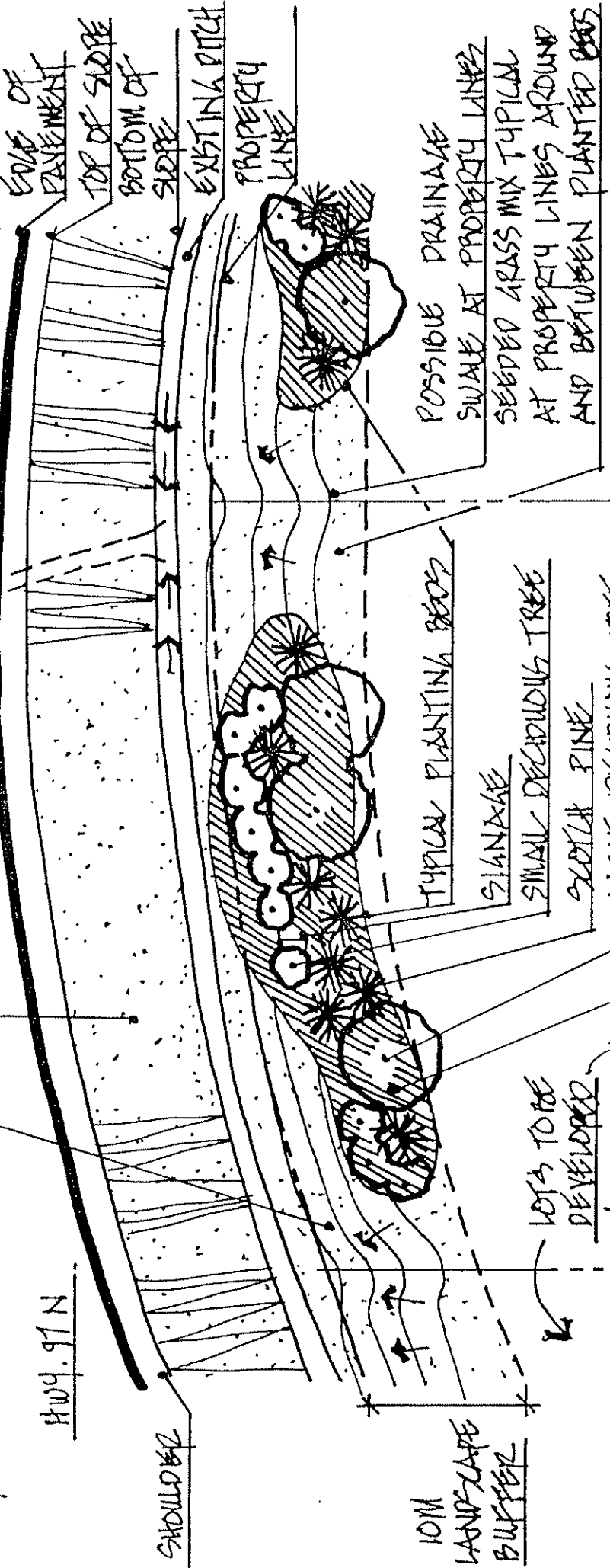
C-2 LANDSCAPE CONCEPT · SECTION AT 48 AVE. AND HWY. 97 N. (N.T.S.)

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M. LANDSCAPE BUFFER ALONG EASTSIDE HWY. 97 N. FROM 45 AVE. TO SWAN LAKE OVERPASS VERNON.

WHERE APPLICABLE: TYPICAL EXISTING CULVERT UNDER HWY. DRAINING TO BX CREEK (SWAN LAKE CREEK). LOCATE AS PER CITY OF VERNON ENGINEERING DEPT. ANDERSON SUBDIVISION DRAWS.

EXISTING SLOPE TO BE SEDED WITH GRASS SEED MIX, TYPICAL

GRADE TO BE RAISED FROM PROPERTY LINE BACK - REFER TO ELEVATION DRAWING & PAGES FOR DETAILS



Hwy. 91 N

SHOULDER

10M LANDSCAPE BUFFER

LOTS TO BE DEVELOPED

TYPICAL PLANTING BEDS

SIGNAGE

SMALL DECIDUOUS TREE

SCOTCH PINE

LARGE DECIDUOUS TREE

MIXED EVERGREEN AND PL

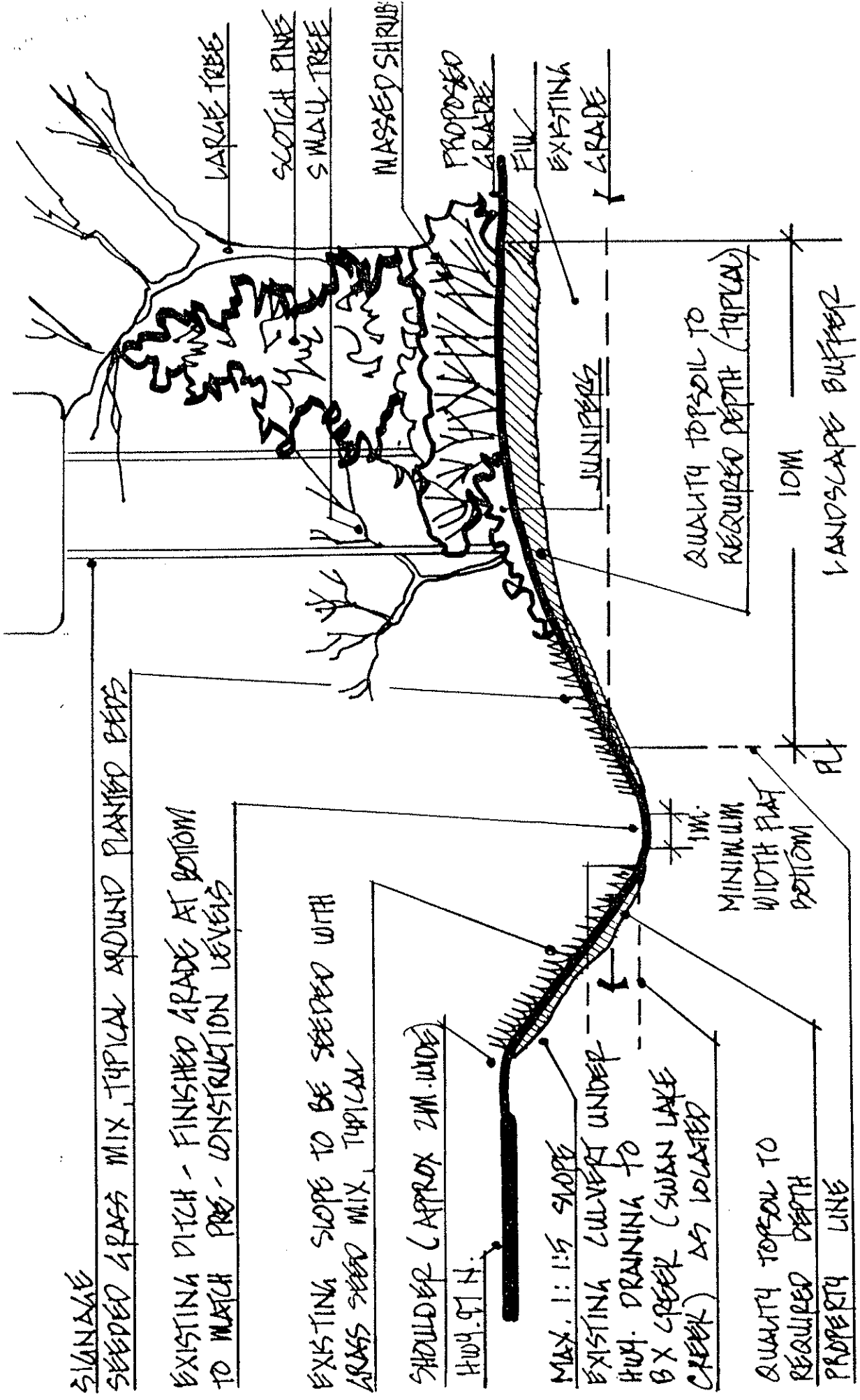
DECIDUOUS SHRUBS

POSSIBLE DRAINAGE SWALE AT PROPERTY LINE SEDED GRASS MIX TYPICAL AT PROPERTY LINES AROUND AND BETWEEN PLANTED BEDS

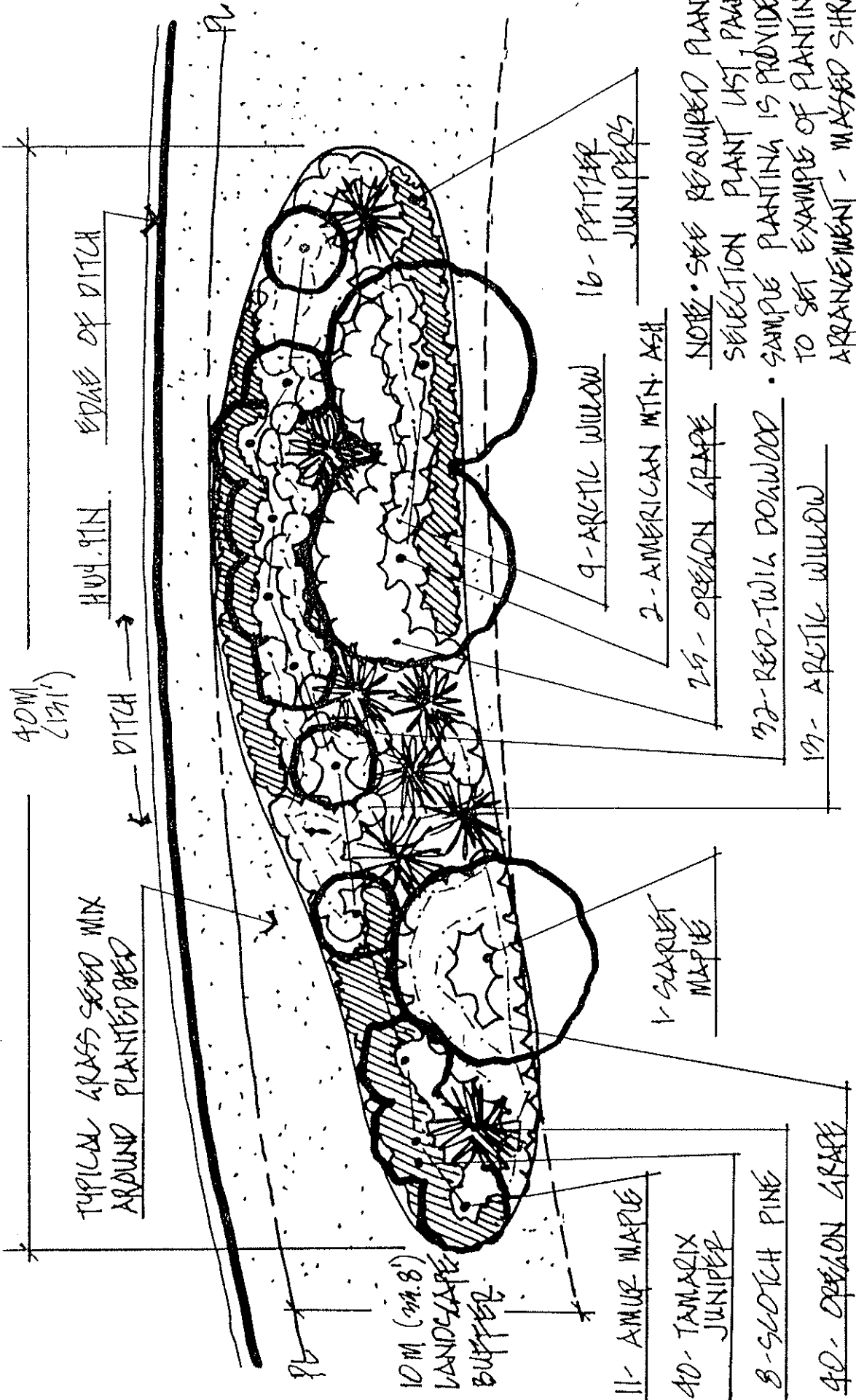
EDGE OF PAVEMENT
TOP OF SLOPE
BOTTOM OF SLOPE
EXISTING PITCH
PROPERTY LINE

D-1 LANDSCAPE CONCEPT - PLAN VIEW BEYOND 48 AVE. TO SWAN LAKE OVERPASS (N/S)

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M. LANDSCAPE BUFFER ALONG EASTSIDE HWY. 91 N. FROM 45 AVE. TO SWAN LAKE OVERPASS, VERNON



D-2 LANDSCAPE CONCEPT - SECTION BEYOND 48 AVE. TO SWAN LAKE OVERPASS (N.E.)
 LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M LANDSCAPE BUFFER ALONG
 EASTSIDE HWY. 97 N. FROM 48 AVE. TO SWAN LAKE OVERPASS, VERNON



NOTE: SEE REQUIRED PLANT SELECTION PLANT LIST, PAGE SAMPLE PLANTING IS PROVIDED TO SET EXAMPLE OF PLANTING ARRANGEMENT - MIXED SHRUBS AND PROPORTION OF EVERGREEN TO DECIDUOUS PLANTS.

④ SAMPLE PLANTED BED LANDSCAPE PLAN
SCALE 1:200 (TO BE ADAPTED TO SPECIFIC SITE)

LANDSCAPE BUFFER DESIGN CRITERIA FOR 10M LANDSCAPE BUFFER ALONG EASTSIDE HUY. 97N. FROM 45 AVE. TO SWAN LAKE OVERPASS, VERNON

(F)

REQUIRED PLANT SELECTION: PLANT LIST

LEGEND

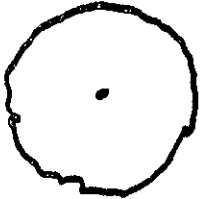
COMMON NAME
BOTANICAL NAME

SITE AND REMARKS

TREES

SCARLET RED MAPLE
ACER RUBRUM

MIN. 50 mm. (2") CAL., SELECT FROM LOCALLY AVAIL. CULTIVARS
20' O.L.



AMERICAN MOUNTAIN ASH
SORBUS AMERICANA

MIN. 50 mm. (2") CAL., PLANT 20' O.L.

LITTLE LEAF LINDEN
TILIA CORDATA

MIN. 50 mm. (2") CAL., PLANT 20' O.L.

PAPER BIRCH
BETULA Papyrifera

MIN. 50 mm. (2") CAL., OPTION SELEC SINGLE TRUNK OR CLUMP



SCOTCH PINE
PINUS SYLVESTRIS

VARY SITE FOR NATURAL EFFECT
MIN. SIZE 1.8 M. (6')

SMALL TREES

AMUR MAPLE
ACER GINNALA

BL. (2 LAL) 3M - 4.5M (10-15') O.L.
PLANTED IN GROVES



SMOOTH SUMAC
RHUS GLABRA

BL. (2 LAL) 1.2 - 1.8 M (4-6') O.L.
PLANTED IN GROVES

SHRUBS -

DECIDUOUS AND EVERGREEN - ALL MASSED, STAGGERED PLANTING

WINGED BURNING BUSH
KILONUMUS ALATA

BL (2 LAL) 1.8 M (6') O.L.

REDTWIN DOGWOOD
CORNUS STOLONIFERA

BL (2 LAL) 1.2 - 1.5 M (4-5') O.L.

BROOM
GENISTA LYDIA

BL (2 LAL) .6 M (2') O.L. LOOP BANK STABILIZING PLANT

FROEBELI SPIREA
SPIRAEA x BUNALDA 'FROEBELI'

BL (2 LAL) .6 M (2') O.L.

ARCTIC WILLOW
SALIX PURPUREA 'ARALIS'

BL (2 LAL) 1.2 - 1.5 M (4-5') O.L.

PFITZER JUNIPER

BL. (2 LAL) 1.5 - 1.8 M (5-6') O.L.

JUNIPERUS CHINENSIS 'PFITZERIANA' TO 4' HT. AT MATURITY

ARCADIA JUNIPER

BL (2 LAL) 1.2 - 1.5 M (4-5') O.L.

JUNIPERUS SABINA 'ARCADIA'

GROWS TO .3 M (12") HT.

TAMARIX JUNIPER

BL (2 LAL) 1.2 - 1.5 M (4-5') O.L.

JUNIPERUS SABINA 'TAMARISCIFOLIA'

GROWS TO .5 M (18") HT.

GRASS SEED MIX

TO BE SELECTED TO SUIT LOCAL GROWING CONDITIONS

GRASSED AREAS

