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STREETSCAPE DESIGN GUIDELINES

1. Wide sidewalks of concrete with exposed aggregate banding along each side are required along Marine Drive, Pemberton Avenue and Capilano Road frontages.

2. Extend a complementary paving scheme into entries, courtyards, and hard landscaping areas on private property to complement and reinforce the established streetscape identity.

3. Use contrasting paving materials wherever foot traffic may be shared with vehicle traffic including pedestrian crossings, driveway crossings and pedestrian routes through parking lots.

4. Drain sidewalks toward street gutters. Sidewalks should have a cross slope of 2%.

5. All street furnishings and above ground utilities including benches, litter receptacles, bike racks, luminaire poles, hydrants, utility covers, and road signs should be located in the areas designated for furnishings.

6. Locate benches near building entrances, bus stops or other pedestrian nodes. Provide benches in groupings of two or more where possible. Locate at least two benches on each block. A minimum of one bench per block should have back and arm rests.

7. Install a minimum of two litter receptacles or recycling receptacles on each block, located near benches or bus shelters.

8. Install a minimum of two bike racks on each block or adjacent side street, located near building entrances.

9. Luminaire poles should be located minimum 0.75m from the front of curb where possible. Poles may be located closer to curb if required to maintain minimum 1.2m sidewalk clear width.

10. Space street trees 6 to 10 metres apart. Trees shall be a minimum of 8 metres from street corners and parking bays, 6 metres from luminaires, and 2 metres from hydrants. Confirm tree species and spacing with District of North Vancouver staff.

11. Private landscaping should be complementary and integrated with the street trees and other landscaping elements in the public realm.

12. Where visibility and sightlines are a concern, shrubs in planting areas should not exceed 0.6 metres height.

13. A master drawing of the hardscape shall be included as an individual sheet in drawing sets submitted for all new developments along Marine Drive. Include proposed utility alignment and laterals, and utility access vaults on the drawings.

14. Expansion and control jointing patterns to align with planter edges and luminaire pole bases. Remainder of joints to meet minimum jointing requirements and aesthetics.

15. Isolation jointing to be installed around all luminaire pole bases, utility vaults, and pedestrian bases. On curved or circular surfaces, use CERAMAR flexible foam expansion joint material, or approved equivalent.

16. All hard surface work to conform to MMCD, latest edition.

17. All landscape work to conform to BC Landscape Standard, latest edition.

18. All furnishings to be installed according to manufacturer’s specification. Align furnishings with jointing pattern where possible.

19. Exceptions to these guidelines must be approved by the District of North Vancouver.

Title: MARINE DRIVE STREETSCAPE DESIGN AND CONSTRUCTION STANDARDS

NORTH VANCOUVER DISTRICT MUNICIPAL ENGINEERING DEPARTMENT

Drawn By: BM
Approved By: EG
Date: Dec. 2013
SURFACE

1. **S1** CONCRETE WITH MEDIUM BROOM FINISH (SEE DETAIL ON SHEET 10)
2. **S2** EXPOSED AGGREGATE CONCRETE (SEE DETAIL ON SHEET 10)
3. **S3** CONCRETE WITH MEDIUM BROOM FINISH OR APPROVED SUBSTITUTION (SEE DETAIL ON SHEET 10)

FURNISHINGS

1. **F4** LUMINAIRE (SEE DETAIL ON SHEET 12)
2. **F6** LITTER RECEPTACLE (SEE DETAIL ON SHEET 13)

Title: TYPICAL SIDEWALK - NARROW (2m)
SURFACE

- S1: CONCRETE WITH MEDIUM BROOM FINISH (SEE DETAIL ON SHEET 10)
- S2: EXPOSED AGGREGATE CONCRETE (SEE DETAIL ON SHEET 10)
- S3: CONCRETE WITH MEDIUM BROOM FINISH OR APPROVED SUBSTITUTION (SEE DETAIL ON SHEET 10)

FURNISHINGS

- F1: BENCH (SEE DETAIL ON SHEET 11)
- F2: BIKE RACK (SEE DETAIL ON SHEET 11)
- F4: LUMINAIRE (SEE DETAIL ON SHEET 12)
- F6: LITTER RECEPTACLE (SEE DETAIL ON SHEET 13)
- F7: RECYCLING RECEPTACLE (SEE DETAIL ON SHEET 13)

Title: TYPICAL SIDEWALK - WIDE (4m - 5.4m)
SURFACE

- S1: Concrete with medium broom finish (see detail on sheet 10)
- S2: Exposed aggregate concrete (see detail on sheet 10)
- S3: Concrete with medium broom finish or approved substitution (see detail on sheet 10)

FURNISHINGS

- F1: Bench (see detail on sheet 11)
- F5: Combined pedestrian pushbutton and traffic signal pole (see detail on sheet 12)
- F6: Litter receptacle (see detail on sheet 13)
- F7: Recycling receptacle (see detail on sheet 13)

NOTES:

1. Trowel dummy joints on curb ramp to line up with direction of travel and be parallel with the crosswalk. Six [6] score lines 15cm apart. Use 9.5mm (3/8") trowel.
2. Curb ramp to have 1.2m minimum landing at top, clear of obstructions to the ramp. Ramp slopes to be 5.9% minimum to 8.3% maximum.
3. View triangle to be 8m minimum. Tree location shall not interfere with vehicle sight lines. Confirm tree locations with municipal engineer.

TYPICAL CORNER
SURFACE

S1  CONCRETE WITH MEDIUM BROOM FINISH (SEE DETAIL ON SHEET 10)
S2  EXPOSED AGGREGATE CONCRETE (SEE DETAIL ON SHEET 10)
S3  CONCRETE WITH MEDIUM BROOM FINISH OR APPROVED SUBSTITUTION (SEE DETAIL ON SHEET 10)

NOTES:

1. PARKING BAY TO BE 12m MINIMUM FROM CORNER.
2. PROVIDE UNIVERSAL ACCESS TO PARKING BAY IF SPACE ALLOWS.

TYPICAL PARKING BAY
STOP FOR TWO BUSES

SURFACE

51. CONCRETE WITH MEDIUM BROOM FINISH (SEE DETAIL ON SHEET 10)
52. EXPOSED AGGREGATE CONCRETE (SEE DETAIL ON SHEET 10)
53. CONCRETE WITH MEDIUM BROOM FINISH OR APPROVED SUBSTITUTION (SEE DETAIL ON SHEET 10)

FURNISHINGS

F3. BUS SHELTER (SEE DETAIL ON SHEET 11)
F6. LITTER RECEPTACLE (SEE DETAIL ON SHEET 13)

NOTES:
1. BUS STOP TO BE 12m MINIMUM FROM CORNER, MEASURED FORWARD OR BACKWARD FROM THE DESIGNATED CLEAR ZONE.
2. CLEAR ZONE SHALL BE KEPT FREE OF STREET FURNISHINGS AND SHALL HAVE OVERHEAD CLEARANCE OF 2.7m MINIMUM.
3. TYPICAL BUS SHELTER LENGTH IS 4m; 6m LONG BUS SHELTERS MAY BE USED WHERE APPROPRIATE. CONFIRM WITH MUNICIPAL ENGINEER.
4. SHELTER OVERHANG SHALL BE 0.6m MINIMUM FROM FACE OF CURB.
5. SHELTERS AND SEATING SHALL BE 6m MINIMUM FROM HYDRANTS.

TYPICAL BUS STOP

NORTH VANCOUVER DISTRICT
MUNICIPAL ENGINEERING DEPARTMENT

Drawn By
BM
Approved By
EG
Date
Dec. 2013
UTILITIES

P1 PEDESTAL - TYPICAL SMALL (500 mm X 650mm)
V1 UTILITY VAULT - TYPICAL SMALL (660mm X 991mm)
V2 UTILITY VAULT - TYPICAL LARGE (1105mm X 2880mm)

LEGEND
- EXPANSION JOINT - 10m MAX. SPACING (SEE DETAIL S4 ON SHEET 10)
- CONTROL JOINT - 3m MAX. SPACING
- PROPERTY LINE

NOTES:
1. UTILITY VAULTS AND PEDESTALS SHOULD NOT BE INSTALLED ON NARROW SIDEWALKS IF POSSIBLE. WHERE UTILITIES ARE NECESSARY, FOLLOW THE DESIGN AND CONSTRUCTION STANDARDS HEREBIN.
2. ALL CIVIL WORK TO CONFORM TO MMCD. LATEST EDITION UNLESS OTHERWISE NOTED.
3. ALL UTILITIES TO BE INSTALLED ACCORDING TO UTILITY PROVIDER'S SPECIFICATION; PROVIDE CLEARANCE AROUND UTILITY AS REQUIRED BY UTILITY PROVIDER.
4. USE TEXTURED, NON SLIP MATERIAL FOR UTILITY VAULT COVER.
5. DO NOT LOCATE UTILITIES IN FRONT OF BUILDING ENTRANCES, IF POSSIBLE.
6. UTILITIES TO BE LOCATED WITHIN SIDEWALK BETWEEN BANDING AND ABUTTED TO CURB EDGE BANDING WHERE POSSIBLE; SPACE FOR PEDESTAL UTILITIES AND HYDRANTS IS LIMITED, MAINTAIN 1.2m PEDESTRIAN CLEAR WIDTH BETWEEN BUILDING EDGE AND UTILITY.
7. UTILITIES TO BE SQUARE TO CURB AND SIDEWALK BANDING.
8. USE VAULTS AND PEDESTAL BASES WITH EXPANSION AND CONTROL JOINTING PATTERNS.
9. CONCRETE PEDESTAL PADS TO BE FLUSH WITH ADJACENT FINISHED GRADE UNLESS OTHERWISE REQUIRED, AS PER UTILITY PROVIDER'S REQUIREMENTS; PAD EDGES TO BE FINISHED WITH 13mm TOOLED TROWEL EDGE.
10. VAULTS TO BE INSTALLED LEVEL AND FLUSH WITH ADJACENT FINISHED GRADE.
ALIGN WITH CURB AND JOINTING PATTERN WHERE POSSIBLE UTILITIES MAY ABRID PLANTING AREAS IF NECESSARY

UTILITY

P1 PEDESTAL - TYPICAL SMALL [500 mm X 650mm]

P2 PEDESTAL - TYPICAL LARGE [850mm X 1050mm]

V1 UTILITY VAULT - TYPICAL SMALL [660mm X 991mm]

V3 UTILITY VAULT - TYPICAL LARGE [1105mm X 2880mm]

NOTES:

1. ALL CIVIL WORK TO CONFORM TO MMCD, LATEST EDITION, UNLESS OTHERWISE NOTED.
2. ALL UTILITIES TO BE INSTALLED ACCORDING TO UTILITY PROVIDER'S SPECIFICATION; PROVIDE CLEARANCE AROUND UTILITY AS REQUIRED BY UTILITY PROVIDER.
3. USE TEXTURED, NON SLIP MATERIAL FOR UTILITY VAULT COVER.
4. DO NOT LOCATE UTILITIES IN FRONT OF BUILDING ENTRANCES, IF POSSIBLE.
5. LOCATE UTILITIES TO MAXIMIZE THE SOIL ADJACENT TO THE PLANTING BEDS, AND MAXIMIZE THE CONTINUOUS CHANNEL OF SOIL BETWEEN TREES.
6. PEDESTAL UTILITIES AND HYDRANTS TO BE LOCATED WITHIN HARD SURFACE BOULEVARD AREA ONLY; ALIGN WITH LIGHT STANDARDS WHERE POSSIBLE; TO BE LOCATED MIN 0.75m FROM FACE OF CURB; MAY BE LOCATED CLOSER TO CURB IF REQUIRED TO MAINTAIN MINIMUM SIDEWALK CLEAR WIDTH.
7. VAULT UTILITIES TO BE LOCATED WITHIN HARD SURFACE BOULEVARD AREAS ONLY.
8. UTILITIES TO BE SQUARE TO CURB AND SIDEWALK BANDING.
9. ALIGN VAULTS AND PEDESTAL BASES WITH EXPANSION AND CONTROL JOINTING PATTERNS.
10. CONCRETE PEDESTAL PADS TO BE FLUSH WITH ADJACENT FINISHED GRADE, AS PER UTILITY PROVIDER'S REQUIREMENTS; PAD EDGES TO BE FINISHED WITH 13mm TOOLED TROWEL EDGE.
11. VAULTS TO BE INSTALLED LEVEL AND FLUSH WITH ADJACENT FINISHED GRADE.
NOTES:
1. 15 CUBIC METRES OF GROWING MEDIUM, AT MAXIMUM DEPTH OF 1m, IS REQUIRED PER TREE. GROWING MEDIUM VOLUMES CAN BE ACHIEVED THROUGH CONTINUOUS PLANTING BEDS AND STRUCTURAL SOIL. STRUCTURAL SOIL TO EXTEND TO PROPERTY LINE; EXTEND TO BUILDING WHERE POSSIBLE. GROWING MEDIUM CELLS MAY BE EMPLOYED IN PLACE OF STRUCTURAL SOIL WHERE THERE IS NO CONFLICT WITH UTILITIES, CONFIRM WITH MUNICIPAL ENGINEER.
2. IF SOIL VOLUMES ARE UNACHEIVABLE DUE TO BOULEVARD WIDTH, UTILITY CONFLICT, OR OTHER, REVIEW WITH MUNICIPAL ENGINEER.
3. ROOT BARRIER AS SPECIFIED ON CONTRACT DRAWINGS; TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. GEOTEXTILE FABRIC AS SPECIFIED ON CONTRACT DRAWINGS; TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
5. TREES TO BE PLACED WITH MINIMUM CLEARANCE OF 2m FROM HYDRANTS.
6. TREES TO BE PLACED WITH MINIMUM CLEARANCE OF 8m FROM CORNERS. SEE SHEET 03.
7. TREE SPECIES AND PLANTINGS AROUND TREES AS SPECIFIED ON CONTRACT DRAWINGS.
NOTES:

1. REFER TO DISTRICT OF NORTH VANCOUVER DEVELOPMENT SERVICING BY-LAW NO. 7388 SUPPLEMENTARY STANDARD DRAWING SSD-P18 TREE PLANTING WITH STRUCTURAL SOIL & PLANTING MEDIUM FOR HARD SURFACE BLVD'S. FOR ADDITIONAL INFORMATION.

2. 1.5 CUBIC METRES OF GROWING MEDIUM, AT MAXIMUM DEPTH OF 1 M, IS REQUIRED PER TREE. GROWING MEDIUM VOLUMES CAN BE ACHIEVED THROUGH CONTINUOUS PLANTING BEDS AND STRUCTURAL SOIL. STRUCTURAL SOIL TO EXTEND TO PROPERTY LINE; EXTEND TO BUILDING WHERE POSSIBLE. GROWING MEDIUM CELLS MAY BE EMPLOYED IN PLACE OF STRUCTURAL SOIL WHERE THERE IS NO CONFLICT WITH UTILITIES. CONFIRM WITH MUNICIPAL ENGINEER.

3. IF SOIL VOLUMES ARE UNACHIEVABLE DUE TO BOULEVARD WIDTH, UTILITY CONFLICT, OR OTHER, REVIEW WITH MUNICIPAL ENGINEER.

4. ROOT BARRIER AS SPECIFIED ON CONTRACT DRAWINGS; TO BE INSTALLED ACCORDING TO MANUFACTURER’S SPECIFICATIONS.

5. GEOTEXTILE FABRIC AS SPECIFIED ON CONTRACT DRAWINGS; TO BE INSTALLED ACCORDING TO MANUFACTURER’S SPECIFICATIONS.

6. TREES TO BE PLACED WITH MINIMUM CLEARANCE OF 2M FROM HYDRANTS.

7. TREES TO BE PLACED WITH MINIMUM CLEARANCE OF 8M FROM CORNERS. SEE SHEET 03.

8. TREE SPECIES AND PLANTINGS AROUND TREES AS SPECIFIED ON CONTRACT DRAWINGS.
**S1** CONCRETE WITH MEDIUM BROOM FINISH

- 100mm Layer of Concrete with Medium Broom Finish
- 100mm Layer of 3/4" minus Crushed Compacted Gravel
- Compacted Subgrade

**S4** CONCRETE EXPANSION JOINT

- 13mm Tooled Trowel Joint
- 10mm Bituminous Impregnated Fibre Board
- 100mm Layer of Concrete with Medium Broom Finish

**S2** EXPOSED AGGREGATE CONCRETE

- 100mm Layer of Exposed Aggregate Concrete
- 100mm Layer of 3/4" minus Crushed Compacted Gravel
- Compacted Subgrade

**S5** EXPOSED AGGREGATE CONCRETE BAND

- 6mm Tooled Trowel Joint (Typ.)
- 100mm Layer of Exposed Aggregate Concrete
- 100mm Layer of Concrete with Medium Broom Finish (Typ.)

**S3** UNIT PAVERS (IF APPROVED)

- Unit Pavers
- 35mm Mortar Base
- 100mm Concrete Base
- 100mm Layer of 3/4" minus Crushed Compacted Gravel
- Compacted Subgrade
BENCH

NOTES:
1. BENCHES SHALL BE VICTOR STANLEY, MODEL RB-28; STEELSITE RB SERIES BENCH OR MODEL RB-12; STEELSITE RB BACKLESS BENCH AS ILLUSTRATED ABOVE. COLOUR SHALL BE BLACK. TO BE SURFACE MOUNT INSTALLED ACCORDING TO MANUFACTURER’S SPECIFICATION.
2. SUPPLIER IS VICTOR STANLEY: http://www.victorstanley.com/products/?mode=prodListing&catid=1
3. ALTERNATE PRODUCTS REQUIRE APPROVAL BY THE DISTRICT OF NORTH VANCOUVER

BIKE RACK

NOTES:
1. BIKE RACKS SHALL BE CORA EXPO SERIES AS ILLUSTRATED ABOVE. COLOUR SHALL BE BLACK. CAPACITY SHALL BE SITE SPECIFIC, TO BE APPROVED BY THE DISTRICT OF NORTH VANCOUVER. TO BE SURFACE MOUNT INSTALLED ACCORDING TO MANUFACTURER’S SPECIFICATION.
2. SUPPLIER IS CORA BIKE RACKS: http://www.cora.com/bikeparking.htm
3. ALTERNATE PRODUCTS REQUIRE APPROVAL BY THE DISTRICT OF NORTH VANCOUVER.

BUS SHELTER

NOTES:
1. BUS SHELTERS SHALL BE DAYTECH MFG. LTD. MODEL ABC384(ABC05X13D) STANDARD SHELTER C/W DISPLAY CASE, AS ILLUSTRATED ABOVE. COLOUR SHALL BE BLACK. TO BE INSTALLED ACCORDING TO MANUFACTURER’S SPECIFICATION.
2. SUPPLIER IS PATTISON OUTDOOR ADVERTISING, 4180 LOUGHEED HIGHWAY, SUITE 200, BURNABY, BC, V5C 6A7, TEL. 604-235-2703
3. ALTERNATE PRODUCTS REQUIRE APPROVAL BY THE DISTRICT OF NORTH VANCOUVER
F4 LUMINAIRE

NOTES:

1. STREET LIGHT SHALL BE 250W SDL ALLEGRA 7202 FLAT LENS LUMINAIRE FIXTURE.
2. ARM ASSEMBLY SHALL BE 7200 ETNA-01, POWDER COATED TEXTURED BLACK [BK70XPT385]
3. POLE SHALL BE OCTAGONAL, GALVANIZED AND POWDER COATED TEXTURED BLACK [BK70XPT385]
4. BASE SHALL BE PRINCETON 1 DECORATIVE BASE POWDER COATED TEXTURED BLACK [BK70XPT385]
5. SHALL HAVE DUPLEX RECEPTACLE
6. BANNER ARM SHALL BE 915mm (0.9m x 1.5m MAXIMUM BANNER SURFACE AREA)
7. PEDESTRIAN LIGHT SHALL BE 70W SDL ALLEGRA 7202 FLAT LENS LUMINAIRE FIXTURE.
8. ARM ASSEMBLY SHALL BE 7200 ETNA-01 POWDER COATED TEXTURED BLACK [BK70XPT385]
9. POLE SHALL BE OCTAGONAL, GALVANIZED AND POWDER COATED TEXTURED BLACK [BK70XPT385]
10. BASE SHALL BE PRINCETON 1 DECORATIVE BASE POWDER COATED TEXTURED BLACK [BK70XPT385]
11. SHALL HAVE RECEPTACLE
12. LUMINAIRE SUPPLIED BY SDL LIGHTING, 440, AVE. DES CORDILLES, SUITE 10, QUE, CANADA, G1C 5C4,
   http://www.sdlighting.com/c-12880.html
13. LUMINAIRE POLE SUPPLIED BY VALMONT WEST COAST ENGINEERING, 7984 RIVER ROAD, DELTA, BC, CANADA, V4G 1E3,
    http://www.wceng.com/home.php
14. TO BE INSTALLED ACCORDING TO MANUFACTURER’S SPECIFICATION.
15. SIGNAL POST AND POLE TOP LUMINAIRE POLE CONCRETE BASE TO BE AS PER STRUCTURAL AND SIMILAR TO MMCD STANDARDS
    DETAIL DRAWING CE 1.2 AND/OR BC MoT SPECIFICATION DRAWING NO. SP635-1.1.2, ENGINEERED ROUND CONCRETE BASES FOR
    STREET LIGHT AND TRAFFIC SIGNAL POLES.
16. ALTERNATE PRODUCTS REQUIRE APPROVAL BY THE DISTRICT OF NORTH VANCOUVER.
17. REFER TO DISTRICT OF NORTH VANCOUVER UF 8090 AND UF 8091 FOR MARINE DRIVE CONCEPTUAL STREET LIGHT LAYOUT.

F5 COMBINED PEDESTRIAN PUSHBUTTON AND TRAFFIC SIGNAL POLE

NOTES:

1. PEDESTRIAN PUSHBUTTON AND TRAFFIC SIGNAL POLE SHALL BE AS PER MMCD SECTION 34 41 13 AND RELATED STANDARD DETAIL
   DRAWINGS
NOTE:

1. LITTER RECEPTACLE SHALL BE VICTOR STANLEY STEEL, SERIES A-24 AS ILLUSTRATED ABOVE. COLOUR SHALL BE BLACK. RECEPTACLES SHALL HAVE KEWED LOCK, FEET AT THE BOTTOM, AND NO ASHTRAY. TO BE SURFACE MOUNT INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATION.
2. SUPPLIER IS VICTOR STANLEY: http://www.victorstanley.com/products/?mode=prodListing&catId=3
3. ALTERNATE PRODUCTS REQUIRE APPROVAL BY THE DISTRICT OF NORTH VANCOUVER.

NOTE:

1. RECYCLING RECEPTACLE SHALL BE HAZLETON, 3 STREAM RECYCLING UNIT EL-003 AS ILLUSTRATED ABOVE. COLOUR SHALL BE BLACK. TO BE SURFACE MOUNT INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATION.
2. SUPPLIER IS ENVIROZONE: http://www.envirozone.com
3. ALTERNATE PRODUCTS REQUIRE APPROVAL BY THE DISTRICT OF NORTH VANCOUVER.