

GENERAL NOTES

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- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH:
 - THE MASTER MUNICIPAL CONSTRUCTION DOCUMENT AND STANDARD DETAIL DRAWINGS (MMCD 2009), LATEST EDITION (PLATINUM EDITION) AND CITY OF NEW WESTMINSTER SUPPLEMENTARY SPECIFICATIONS AND DETAILED DRAWINGS UNLESS OTHERWISE NOTED;
 - APPLICABLE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS REFERENCED THEREIN;
 - MINISTRY OF TRANSPORTATION 'BC TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS', LATEST EDITION; AND
 - WORKSAFEBC, LATEST EDITION
- RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION SHALL BE GIVEN AT LEAST 10 DAYS NOTICE PRIOR TO THE START OF CONSTRUCTION. IF CONSTRUCTION ENTERS ONTO PRIVATE PROPERTY, THE CONTRACTOR WILL REQUIRE WRITTEN AUTHORIZATION FROM THE PROPERTY OWNER PRIOR TO UNDERTAKING ANY WORK.
- THE LOCATION OF EXISTING UTILITIES IS COMPILED FROM OWNER AND UTILITY SUPPLIED RECORD DRAWINGS AND ARE CONSIDERED APPROXIMATE ONLY. THE EXACT LOCATION AND EXTENT OF UTILITIES SHOULD BE DETERMINED BY CONSULTING THE LOCAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND INVERT ELEVATION BY HAND OR HYDROVAC EXCAVATION BEFORE CONSTRUCTION OF UTILITY CROSSINGS AND SHALL BE RESPONSIBLE FOR RESTORATION OF ANY DAMAGE TO EXISTING UTILITIES. ANY COSTS ASSOCIATED WITH UTILITY CONFLICTS THAT WERE NOT PRELOCATED WILL BE THE CONTRACTORS RESPONSIBILITY.
- THE CONTRACTOR IS TO NOTIFY THE CITY OF NEW WESTMINSTER 48 HOURS IN ADVANCE OF ANY CONSTRUCTION OR UTILITY RELOCATION/CONFLICTS.
- REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR A MIN 72 HOURS PRIOR TO CONSTRUCTION.
- RESTORATION OF EXISTING DRIVEWAYS AND WALKWAYS TO CONFORM TO CITY SPECIFICATIONS.
- ALL SURVEY MONUMENTS WITHIN THE PROJECT BOUNDARIES SHALL BE PROTECTED DURING THE COURSE OF THE WORK. SHOULD ANY SURVEY MONUMENT REQUIRE RAISING OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEERING AND OPERATIONS DEPARTMENT AT LEAST 72 HOURS IN ADVANCE OF SCHEDULING WORK. ALL DISTURBED MONUMENTS WILL BE REPLACED BY A B.C. LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- SURVEY PINS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED BY A B.C. LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SIGNAGE, BARRIERS, FLASHING INDICATORS, ETC. AT ALL TIMES TO ENSURE THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL COMPLY WITH ALL TRAFFIC REQUIREMENTS AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS.
- ALL PUBLIC ROADWAYS AFFECTED BY THE WORKS SHALL BE KEPT IN A CLEAN STATE AT ALL TIMES. DUST CONTROL MEASURES SHALL ALSO BE EMPLOYED DURING THE COURSE OF THE WORK.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR COORDINATING THE VARIOUS PARTS OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THERE IS NO DISRUPTION TO SERVICE, AND IF DISRUPTION IS ANTICIPATED, TO NOTIFY THE CONTRACT ADMINISTRATOR A MINIMUM OF 72 HOURS PRIOR, AND OBTAIN APPROVAL FOR THE DISRUPTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCAVATED MATERIAL UNSUITABLE FOR REUSE AT A SUITABLE OFF-SITE DISPOSAL AREA, IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY UTILITY POLE SUPPORTS NECESSARY TO COMPLETE THE WORKS AS AN INCIDENTAL ITEM TO GENERAL CONTRACT REQUIREMENTS WHERE AND AS REQUIRED.
- CONTRACTOR TO MAINTAIN AN UP TO DATE SET OF AS-CONSTRUCTED DRAWINGS AT ALL TIMES. AS-CONSTRUCTED DRAWINGS TO BE DELIVERED TO THE CONTRACT ADMINISTRATOR AT SUBSTANTIAL PERFORMANCE FOR PREPARATION OF FINAL RECORD DRAWINGS. THE CONTRACT ADMINISTRATOR SHALL BE PROVIDED ACCESS TO REVIEW THE AS-CONSTRUCTED DRAWINGS AT ALL TIMES TO CONFIRM THEY ARE UP TO DATE.
- THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE PROVISIONS FOR EROSION CONTROL AND SEDIMENT AS PER THE CITY BYLAW AND AS PER THE CONTRACT DOCUMENTS.
- FIGURED DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS.
- GENERATOR USE WILL NOT BE PERMITTED OUTSIDE OF REGULAR WORK HOURS WITHOUT AN APPROVED NOISE VARIANCE

TRAFFIC MANAGEMENT, NOTIFICATION AND APPROVALS

NOTES:

- THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SIGNAGE, BARRIERS, FLASHING INDICATORS, ETC. AT ALL TIMES TO ENSURE THE SAFETY OF THE PUBLIC. TRAFFIC CONTROL WILL BE REQUIRED FOR ALL CONSTRUCTION WORKS WITHIN THE TRAVELED PORTION OF THE ROAD. NO ROAD SHALL BE CLOSED WITHOUT THE WRITTEN CONSENT OF THE DIRECTOR OF ENGINEERING AND OPERATIONS.
- THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORKS HAVE BEEN OBTAINED FROM ALL AUTHORITIES AND AGENCIES PRIOR TO COMMENCING THE WORK.
- THE CONTRACTOR SHALL ARRANGE FOR, AND COORDINATE THE WORKS DONE BY:
 - CITY OF NEW WESTMINSTER; AND
 - FRANCHISE UTILITIES (BC HYDRO, FORTIS, BC TRANSMISSION CORP., SHAW CABLE, TELUS AND METRO VANCOUVER).
- THE CONTRACTOR SHALL CONTACT THE APPROPRIATE PERSONNEL AT LEAST 72 HOURS PRIOR TO THE WORK. SCHEDULING AND OTHER CONSTRUCTION CONSTRAINTS IMPOSED BY THESE WORKS SHALL BE TAKEN INTO ACCOUNT.
- RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THESE WORKS AND SERVICES SHALL BE GIVEN 5 DAYS WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION. THE CONTRACTOR IS TO DISTRIBUTE A NOTICE OF CONSTRUCTION LETTER TO ALL AFFECTED RESIDENTS AND BUSINESSES. LETTER TO DIRECT INQUIRIES TO CONTRACT ADMINISTRATOR. FOLLOWING CONSTRUCTION ACTIVITY ON ANY PRIVATE PROPERTY, A WRITTEN RELEASE MAY BE REQUIRED FROM THE PROPERTY OWNER AT THE DISCRETION OF THE CITY.
- A TRAFFIC AND PEDESTRIAN SAFETY CONTROL PLAN SHALL BE SUBMITTED BY THE CONTRACTOR PRIOR TO THE PRE-CONSTRUCTION MEETING.
- APPROVALS FOR REQUIRED TREE CUTTING OR TRIMMING NOT INDICATED IN CONTRACT DRAWINGS SHALL BE OBTAINED BY THE CONTRACTOR FROM THE CITY PRIOR TO WORK BEING PERFORMED.
- CONTRACTOR TO OBTAIN APPROVED LANE CLOSURE REQUEST FORM FOR ALL WORKS. APPROVED REQUESTS ARE CIRCULATED TO ALL EMERGENCY SERVICES.
- CONTRACTOR TO SUBMIT A TRAFFIC MANAGEMENT PLAN WITH LANE CLOSURE REQUEST FOR ALL MAJOR ROADS AND ANY LOCAL ROADS WHICH REQUIRE ANY DETOURS.
- ALL TRAFFIC CONTROL TO CONFORM TO THE LATEST EDITION OF THE BC TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS.
- APPROVAL OF NOISE VARIANCE FOR ALL WORK OUTSIDE OF NORMAL APPROVED WORK HOURS REQUIRED BY THE CITY.
- NOTICE OF CONSTRUCTION SIGNS TO BE INSTALLED AT ALL PROJECT LIMITS AND PREFERRED DETOUR ROUTE. NOTIFY CONTRACT ADMINISTRATOR WITH CONSTRUCTION SCHEDULE AND LOCATIONS. SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETION OF ALL TAPED TEMPORARY AND PERMANENT PAINT AND THERMOPLASTIC PAVEMENT MARKINGS IN THE PLACE OF THE WORK. PERMANENT LANE MARKINGS ARE TO BE PLACED WITHIN SEVENTY-TWO (72) HOURS OF FINAL PAVING AND PERMANENT THERMOPLASTIC PAVEMENT MARKINGS ARE TO BE PLACED WITHIN FIVE (5) DAYS OF FINAL PAVING. ALL TEMPORARY MARKINGS TO BE REMOVED IMMEDIATELY FOLLOWING PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY WARM MIX ASPHALT PATCHING TO MMCD REQUIREMENTS AT LOCATIONS SPECIFIED IN THE CONTRACT DOCUMENTS. TEMPORARY ASPHALT PATCHING THICKNESS SHALL MATCH THE EXISTING ASPHALT THICKNESS WITH A MINIMUM OF 150mm AND SHALL MEET THE EXISTING ASPHALT SURFACE. USE OF COLD MIX IS NOT ACCEPTABLE. TEMPORARY PATCHING OF SIDEWALKS AND CURBS AND GUTTERS IS ALSO TO BE MADE WITH HOT MIX AND MEET THE EXISTING SURFACE.
- UPON THE CITY'S WRITTEN APPROVAL OF THE CONTRACTOR'S TMP, THE CONTRACTOR WILL BE PERMITTED A FULL ROAD CLOSURE OF EWEEN AVENUE FOR A MAXIMUM OF 14 CONSECUTIVE CALENDAR DAYS DURING THE TWIN CULVERT REMOVALS/ INSTALLATIONS. SINGLE LANE ALTERNATING WILL BE REQUIRED AT A MINIMUM UNLESS OTHERWISE APPROVED.

STORM NOTES:

- NO CHANGES TO BE MADE TO PIPES, MANHOLES, OR ALIGNMENT WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE CONTRACT ADMINISTRATOR.
- ASSURANCE OF PROTECTION OF THE WATERMAIN AS PER FRASER HEALTH AUTHORITY, JULY 14, 2006: PARALLEL LINES: WATERMAINS SHOULD BE LAID AT LEAST 3m HORIZONTALLY FROM ANY SANITARY OR STORM SEWER. WHERE THIS HORIZONTAL SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATERMAIN SHOULD BE AT LEAST 45cm ABOVE THE TOP OF THE SEWER AND SUFFICIENTLY TO ONE SIDE OF THE SEWER TO ALL FOR SEWER REPAIRS WITHOUT DISTURBING THE WATERMAIN. IF THIS VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER SHOULD BE OF THE SAME SERVICE CAPABILITY AS THE WATERMAIN, WITH PRESSURE CLASS JOINTS DESIGNED TO REMAIN WATERTIGHT IF THE GROUNDWATER TABLE PERIODICALLY RISES ABOVE THE SEWER, AND ARE PRESSURE TESTED BEFORE BACKFILLING. OTHER PRECAUTIONS, SUCH AS A WATERMAIN WITH IMPROVED JOINTS AND HIGHER STRENGTH MAY BE NEEDED.

CROSSINGS: WHERE A WATERMAIN CROSSES A SANITARY OR STORM SEWER, THE LINES SHOULD BE LAID WITH THE WATERMAIN CROSSING OVER THE SEWER AND WITH THE MIDDLE OF PIPE LENGTHS LOCATED AT THE CROSSING POINT, TO MAXIMIZE THE SEPARATION BETWEEN JOINTS. WHERE A MINIMUM 3m JOINT SEPARATION AND/OR A MINIMUM 45cm CLEAR VERTICAL SEPARATION IS NOT POSSIBLE AT THE CROSSING, PRECAUTIONS TO IMPROVE WATER TIGHTNESS OF THE SEWER JOINTS AND STRUCTURAL IMPROVEMENTS SUCH AS HIGHER STRENGTH WATERMAIN AND/OR SEWER AT THE CROSSING AREA MAY BE NEEDED. SLEEVING, PIPE BRIDGING OR OTHER SUITABLE MEASURES MAY BE CONSIDERED. ALL JOINTS WITHIN 3m OF THE CROSSING SHOULD BE:

 - WRAPPED WITH HEAT SHRINK PLASTIC OR
 - PACKED WITH INERT PETROLATUM COMPOUND AND WRAPPED IN TAPE IN ACCORDANCE WITH ANSII/AWWA STANDARDS C209 AND C217-90.

FOR SERVICE CONNECTIONS, WHEREVER POSSIBLE, THE ABOVE CONSTRUCTION PRACTICES SHOULD ALSO BE APPLIED.
- LOT DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. REFER TO BCLS REGISTERED LEGAL PLAN FOR ACTUAL LOT DIMENSIONS. THE CONTRACTOR SHALL CONFORM LOCATIONS OF LOT LINES PRIOR TO INSTALLATION OF SERVICE CONNECTIONS.
- ALL WEHOLITE HDPE TO HAVE PRE-INSTALLED RUBBER GASKETS AT JOINTS. JOINTS ARE TO BE SURROUNDED WITH NON-WOVEN GEOTEXTILE - 500mm WIDE - PRIOR TO BACKFILL.

CONTROL OF HYDROCARBONS, HYDRAULIC FLUIDS AND OTHER DELETERIOUS SUBSTANCES

- MACHINERY IS TO ARRIVE ON SITE IN A CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS.
- WASH, REFUEL AND SERVICE MACHINERY AND STORE FUEL AND OTHER MATERIALS FOR THE MACHINERY AWAY FROM WATER TO PREVENT ANY DELETERIOUS SUBSTANCES FROM ENTERING WATER.
- AN EMERGENCY SPILL KIT (INCLUDING BOOMS, ABSORBENT PADS, ABSORBENT SOCKS, HAZMAT DISPOSAL BAGS, SPILL INSTRUCTION SHEETS, ETC.) MUST BE KEPT ONSITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
- OIL, GREASE, OR ANY OTHER SUBSTANCE DELETERIOUS TO AQUATIC LIFE WILL BE PREVENTED FROM ENTERING INTO ANY WATERCOURSE, DITCH OR STORM SEWER.
- CONTRACTOR SHOULD DEVELOP SPILL RESPONSE PROTOCOLS PRIOR TO CONSTRUCTION.

ENVIRONMENTAL NOTES:

GENERAL NOTES:

- OWNER'S ENVIRONMENTAL MONITOR: ISL ENGINEERING
 - FISH SALVAGES ARE REQUIRED PRIOR IN STREAM WORK AND WILL BE CONDUCTED BY ISL ENGINEERING. THE CONTRACTOR SHALL CONTACT ISL ENGINEERING TO COORDINATE FISH SALVAGES A MINIMUM OF 5 DAYS PRIOR TO THE WORK.
 - THE CONTRACTOR SHALL ENGAGE A QUALIFIED ENVIRONMENTAL PROFESSIONAL FOR CONTAMINATED SOIL MANAGEMENT AS NECESSARY TO PERFORM THE WORK.
- ESC PLAN GENERAL NOTES:**
- IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO ENSURE EFFECTIVE AND EFFICIENT INSTALLATION, OPERATION AND MAINTENANCE OF ALL ESC FACILITIES PRESCRIBED FOR THIS PROJECT.
 - THE CONTRACTOR WILL PREVENT DISTURBANCE TO THE ENVIRONMENTALLY SENSITIVE AREAS, BEYOND THAT PERMITTED BY ENVIRONMENTAL REGULATORY APPROVALS AND THE DESIGN DRAWINGS.
 - ENVIRONMENTALLY SENSITIVE AREAS ARE TO BE FREE OF CONSTRUCTION MATERIALS/STOCKPILES.
 - THE CONTRACTOR MUST PREVENT THE DISCHARGE OF WASTE OR DELETERIOUS SUBSTANCES TO THE CITY'S DRAINAGE SYSTEM (INCLUDING DITCHES, CATCHBASINS, SWALES AND STREAMS).
 - THE CONTRACTOR MUST NOT DISCHARGE WASTE OR DELETERIOUS SUBSTANCES TO PRIVATE PROPERTY UNLESS THE CONTRACTOR RECEIVES WRITTEN PERMISSION FROM THE LANDOWNER.

PROHIBITIONS:

- THE CONTRACTOR MUST NOT PLACE, STORE, TRANSPORT OR DISPOSE OF ANY WASTE OR DELETERIOUS SUBSTANCE IN SUCH MANNER, SO AS TO PERMIT THE LIKELY ESCAPE OF THE MATERIALS INTO THE DRAINAGE SYSTEM OR ANY PART OF IT.
- THE CONTRACTOR MUST NOT CAUSE OR PERMIT THE DISCHARGE INTO THE DRAINAGE SYSTEM, EITHER DIRECTLY OR INDIRECTLY, OF WATER WHICH:
 - HAS A PH VALUE OUTSIDE THE RANGE OF 6.5 TO 8.0 AT ANY TIME.

EROSION AND SEDIMENT CONTROL

- INSTALL EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES (I.E. CATCHBASIN INLET PROTECTION, SILT-SOCKS, SILT FENCE, POLYETHYLENE SHEETING) BEFORE STARTING WORK TO PREVENT THE ENTRY OF SEDIMENT INTO THE WATERCOURSE. NECESSARY REPAIRS WILL BE MADE BY THE CONTRACTOR IMMEDIATELY IF ANY DAMAGE OCCURS SUCH THAT EROSION AND SEDIMENT CONTROL IS COMPROMISED.
- AVOID EARTH DISTURBING ACTIVITIES DURING SUBSTANTIAL RAIN EVENTS.
- ALL CATCHBASINS IN PROXIMITY TO WORK AREA MUST BE FITTED WITH FILTER SOCK, RING SOCK OR APPROVED ALTERNATIVE.
- UNDER NO CIRCUMSTANCES ARE CATCHBASINS TO BE FITTED WITH HAND-CUT GEOTEXTILE SHEATHS
- IF TEMPORARY SPOIL OR SOIL STOCKPILE ARE NECESSARY, MAKE SURE THEY ARE FULLY COVERED WITH POLYETHYLENE SHEETING OR TARPS WEIGHTED WITH SANDBAGS.
- ROADS MUST BE SWEEPED CLEAN OF SOIL, LOOSE ROAD BASE, EARTH AND SEDIMENT AS DETERMINED BY THE CONTRACT ADMINISTRATOR.
- TRACKING OF SEDIMENT, SOIL AND ROADBASE FROM WORKSITE TO VEHICLE TRAVEL LANES MUST BE PREVENTED DUE TO RISK OF TRANSPORT TO CATCHBASINS AND THE RISK OF FLY ROCK TO PEDESTRIANS AND WINDSHIELDS.
- DUST NUISANCE WILL BE REDUCED BY USE OF WATER SPRAYED ON THE EXPOSED SOURCE OF THE DUST. THE FREQUENCY OF THE SUPPRESSION WILL BE AS DIRECTED BY THE CONTRACT ADMINISTRATOR.

SITE STABILIZATION

- ALL DISTURBED AREAS MUST BE REGRADED AND GRASS SEEDING WITH A NATIVE GRASS SEED MIX TO PREVENT EROSION AND SUBSEQUENT SILTATION OF THE WATERCOURSE.
- MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL VEGETATION OF DISTURBED AREA IS COMPLETED.

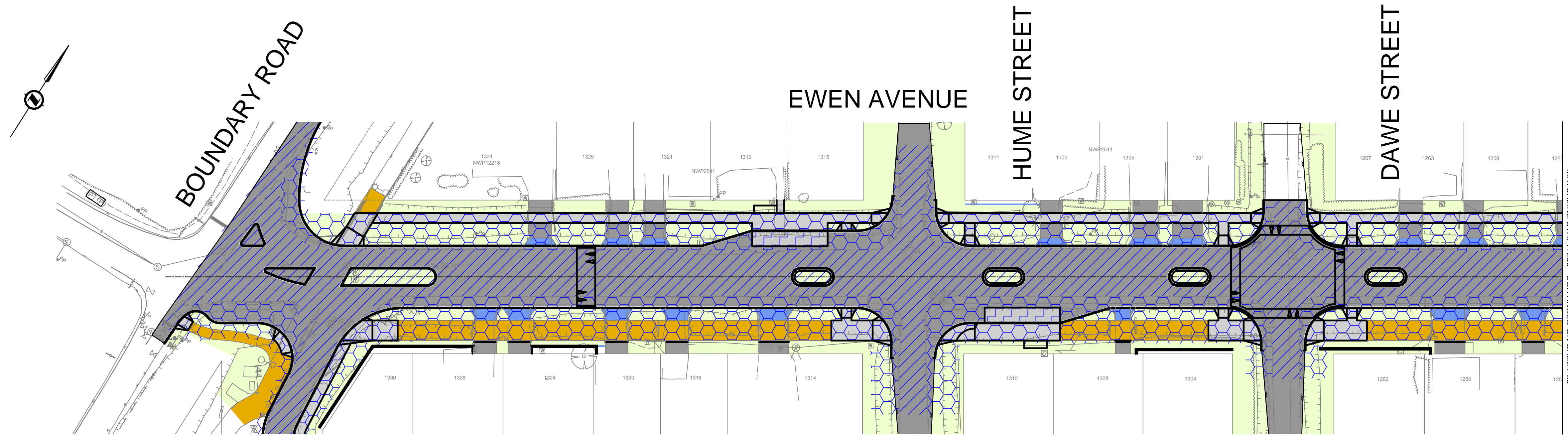
VEGETATION MANAGEMENT

- MINIMIZE DISTURBANCE TO RIPARIAN AREAS

CONTROL OF CONCRETE, GROUTS AND HAZARDOUS WASTES

- THE CONTRACTOR SHALL UNDERTAKE ALL CONCRETE/GROUTING WORK WITH CAUTION, AS WET CEMENT/GROUT IS HIGHLY TOXIC TO AQUATIC ORGANISMS.
- THE CONTRACTOR MUST CAPTURE GROUT, AND DRILL WASTING TO PREVENT ITS ENTRY TO THE AQUATIC ENVIRONMENT.
- THERE SHALL BE NO CONTACT WITH FRESHWATER STREAMS THROUGH SPILLAGE, HOSING OFF SURFACES, RAIN, OR CLEANING OF TOOLS.
- COMPLETE ISOLATION OF ALL CAST-IN-PLACE CONCRETE AND GROUTING FROM FISH-BEARING WATERS FOR A MINIMUM OF 72 HOURS. ANY WATER THAT CONTACTS UNCURED OR PARTLY CURED CONCRETE SHALL BE ISOLATED AND HELD, OR TREATED, UNTIL THE PH IS BETWEEN 6.5 AND 8.5.
- NO CONCRETE/GROUT WASH WATER WILL BE ALLOWED TO DISCHARGE TO ANY STORM SEWER, SWALE, STREAM OR DITCH.
- ALL WASH WATER FROM CONCRETE OR GROUT WORKS SHALL BE CONTAINED AND REMOVED FROM SITE.
- DISPOSE OF CONCRETE CUTTINGS AND OTHER WASTE MATERIALS AT AN APPROVED DISPOSAL FACILITY LOCATED AWAY FROM WATER TO PREVENT IT FROM REENTERING THE WATERCOURSE.
- THE CONTRACTOR IS TO HAVE SODIUM THIOSULPHATE AVAILABLE ONSITE TO TREAT CHLORINATED WATER IN THE EVENT OF A WATERMAIN BREAK.
- THE CONTRACTOR IS TO OBTAIN THE OWNER'S APPROVAL PRIOR TO DISCHARGING FLUSHING WATER OR DISINFECTION WATER TO OWNER'S SANITARY SEWER MANHOLES.

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SURFACE TREATMENT

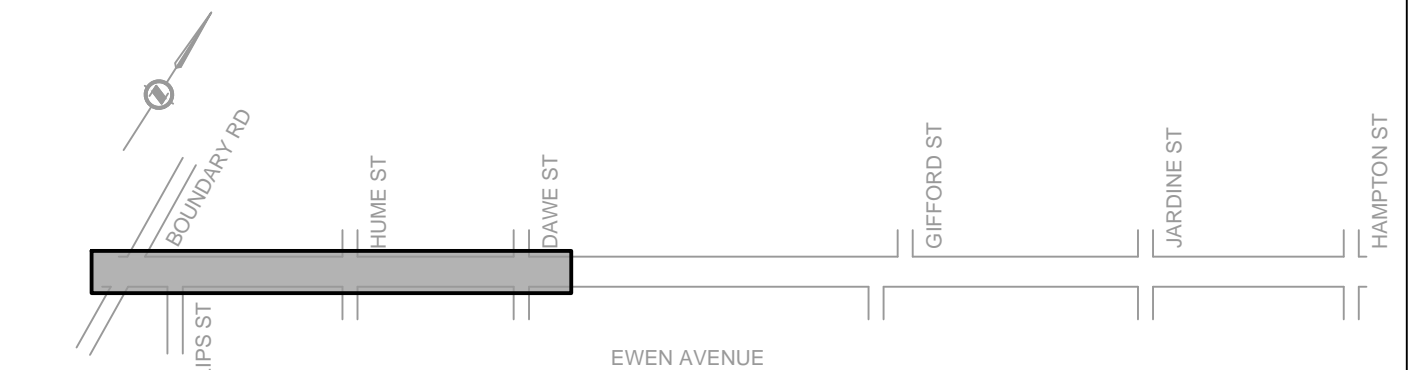
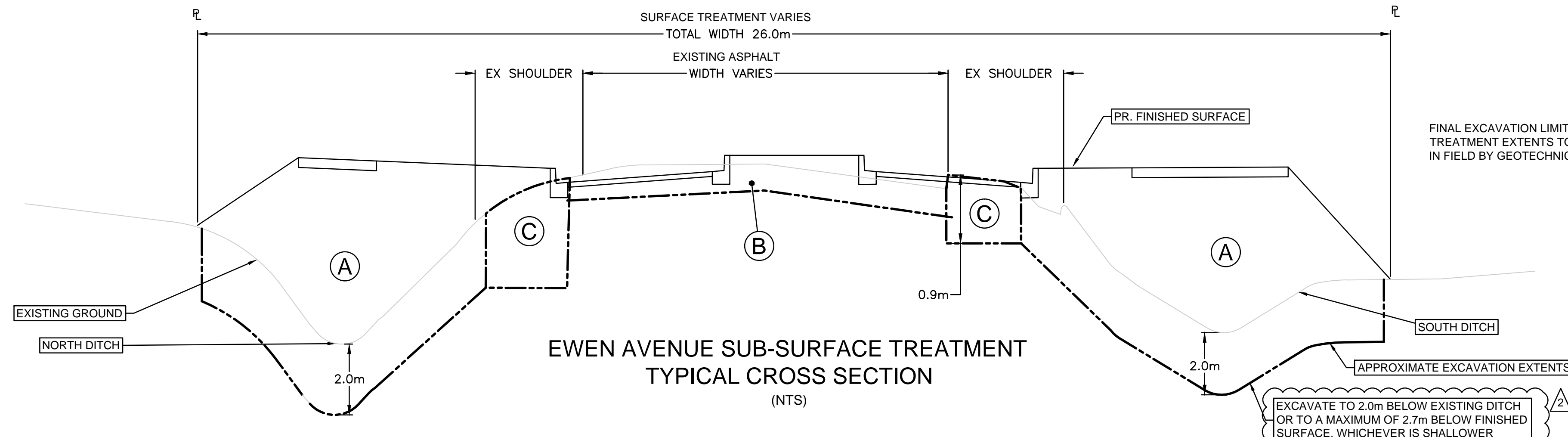
- ROAD - BASE STABILIZATION / ASPHALT**
 - 35 mm MMCD UPPER COURSE #1 ASPHALTIC SURFACE, COMPACTED TO 97% BLOW MARSHALL
 - 75 mm MMCD LOWER COURSE #1 ASPHALTIC BASE, COMPACTED TO 97% BLOW MARSHALL
 - 250 mm BASE STABILIZATION, REGARDING AND COMPACTION OF STABILIZED BASE AS PER SUPPLEMENTAL SPECIFICATION MMCD 32 01 16.8
- DRIVEWAY - ASPHALT**
 - 50 mm MMCD UPPER COURSE #2 ASPHALTIC SURFACE COMPACTED TO 97% BLOW MARSHALL
 - 100 mm - 19 mm MINUS CRUSHED GRANULAR BASE, COMPACTED TO 95% MPD
- MULTI-USE PATHWAY - ASPHALT**
 - 50 mm MMCD UPPER COURSE #2 ASPHALTIC SURFACE COMPACTED TO 97% BLOW MARSHALL
 - 100 mm - 19 mm MINUS CRUSHED GRANULAR BASE, COMPACTED TO 95% MPD
- LANDSCAPING - REFER TO LANDSCAPING DRAWINGS**
- LANDINGS, SIDEWALK, LETDOWNS - CONCRETE**
 - 100 mm BRUSHED CONCRETE SURFACE
 - 100 mm - 19 mm MINUS CRUSHED GRANULAR BASE, COMPACTED TO 95% MPD
- BUS BAY - CONCRETE**
 - 200mm 32MPA CONCRETE SLAB AS PER MMCD 32 13 13
 - 100X100 - 10M STEEL WIRE MESH 50mm FROM SURFACE AND OUTSIDE EDGES

SUB-SURFACE TREATMENT

- (A) DEEP EXCAVATION / LIGHTWEIGHT FILL (EPS)**
 - EXCAVATE -2m BELOW EXISTING GRADE OR 2.7m BELOW FINISHED GRADE, WHICHEVER IS SHALLOWER, WITH A SMOOTH BUCKET AT SUBGRADE LEVEL
 - 200mm THICK MMCD RIVER SAND LEVELING COURSE
 - PLACE LIGHTWEIGHT FILL - EPS BLOCKS FULLY WRAPPED IN UV RESISTANT 10 MIL POLYETHYLENE SHEETING (MIN. 900mm OVERLAP AT JOINTS)
 - COVER EPS AND POLYETHYLENE SHEETING WITH 100mm THICK MMCD RIVER SAND UNDER PAVED ROADS. USE 1.1m THICK RIVER SAND ELSEWHERE AND ELIMINATE ITEMS 5 AND 6 BELOW. COMPACT TO 90% MPD WITH LIGHT COMPACTION EQUIPMENT.
 - 460mm THICK 75mm MINUS CRUSHED GRANULAR SUB-BASE, COMPACTED IN 2 LIFTS TO 95% MPD.
 - 230mm THICK 19mm MINUS CRUSHED GRANULAR BASE, COMPACTED TO 95% MPD.
- (B) MILL AND RECLAMATION**
 - MILL EXISTING ASPHALT WITHIN PROJECT EXTENTS TO 110mm DEPTH. DISPOSE OF MILLINGS OFFSITE.
 - RECLAIM ASPHALT AND BASE GRAVELS TO 400mm DEPTH.
- (C) SHALLOW EXCAVATION**
 - EXCAVATE SHOULDER AND BOULEVARD AREAS TO 900mm DEPTH. DISPOSE OF EXCAVATED MATERIAL OFFSITE.
 - 560mm THICK 75 MINUS CRUSHED GRANULAR SUB-BASE, COMPACTED IN 2 LIFTS TO 95% MPD.
 - 230mm THICK 19mm MINUS CRUSHED GRANULAR BASE, COMPACTED TO 95% MPD.

EXPANDED POLYSTYRENE SPECIFICATIONS (EPS)

- EPS SHALL BE SUPPLIED IN THE FORM OF BLOCKS. IT SHALL BE CLASSIFIED AS TO SURFACE BURNING CHARACTERISTICS IN ACCORDANCE WITH CAN/ULC-S102.2-03-EN, HAVING A FLAME SPREAD RATING NOT GREATER THAN 500.
- THE MINIMUM COMPRESSIVE STRENGTH, MEASURED IN ACCORDANCE WITH ASTM D 1621 SHALL BE 125 kPa AT A STRAIN OF NOT MORE THAN 5%.
- THE DENSITY OF EPS SHALL BE 25kg/m³
- EPS BLOCKS SHALL BE FULLY WRAPPED WITH UV RESISTANT 250 µm (10-mil) BLACK POLYETHYLENE SHEETING THAT MEETS ASTM D3020 STANDARDS SPECIFICATION FOR TYPE 1 SHEETING. POLYETHYLENE SHEETING JOINTS SHALL BE OVERLAPPED BY A MINIMUM OF 0.5m.
- EPS BLOCKS SHALL HAVE A 0.9m GRANULAR COVER VERTICALLY AND HORIZONTALLY UNDER PAVED TRAVEL LANES OF ROADS, MINIMUM 1.1m ELSEWHERE. EPS SHALL BE FABRICATED USING VIRGIN FEEDSTOCK MANUFACTURED INTO BLOCKS HAVING NO MORE THAN 15% RE-GRIND CONTENT.
- ALL EPS BLOCKS SHALL BE TREATED WITH A TESTED AND PROVEN TERMITICIDE TREATMENT FOR BELOW GRADE APPLICATIONS, THREE-YEAR MINIMUM FIELD EXPOSURE. THE TERMITICIDE TREATMENT AGENT SHALL BE REGISTERED WITH THE APPROPRIATE GOVERNMENT ENVIRONMENTAL AGENCY.
- THE BLOCK SHALL BE PLACED ON A LEVELING COURSE CONSISTING OF A 200mm THICK MMCD RIVER SAND. SUPPLY AND LAY UV RESISTANT 250 µm (10-mil) BLACK POLYETHYLENE SHEETING THAT MEETS ASTM D3020 STANDARDS SPECIFICATION FOR TYPE 1 SHEETING.
- THE EPS AND POLYETHYLENE SHEETING SHOULD BE COVERED WITH 100mm OF RIVER SAND FOR PROTECTION, COMPACTED TO 90% MPD, FOLLOWED BY 460mm OF MMCD CRUSHED GRANULAR SUB-BASE UNDER PAVED ROADS. USE 1.1m THICK RIVER SAND ELSEWHERE.
- THE STATIC OR DYNAMIC PRESSURE ON THE EPS SURFACE FROM ANY EQUIPMENT AND OVERLYING FILL SHOULD NOT EXCEED 100 kPa.



WATERMAIN	- W -	BENCHMARK	7	-	-	-	-	seal
WASTEWATER SEWER	- S -		6	-	-	-	-	
LAND DRAINAGE SEWER	- D -		5	-	-	-	-	
PROPERTY LINES	- P -		4	-	-	-	-	
GAS	- G -		3	17/09/20	ADDENDUM #2	IAM	IAM	
TELEPHONE	- T -		2	17/08/23	ISSUED FOR TENDER	AS	IAM	
HYDRO	- UE -		1	17/08/15	PRE-TENDER REVIEW	AS	IAM	
CENTER LINE OF DITCH	- C -		No.	y/m/d	Issued/Reviewed/Revision	By	App.	
existing	plan - legend	proposed						

7	-	-	-	-	seal
6	-	-	-	-	
5	-	-	-	-	
4	-	-	-	-	
3	17/09/20	ADDENDUM #2	IAM	IAM	
2	17/08/23	ISSUED FOR TENDER	AS	IAM	
1	17/08/15	PRE-TENDER REVIEW	AS	IAM	
No.	y/m/d	Issued/Reviewed/Revision	By	App.	

Consultant Card

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NEW WESTMINSTER

Received _____ Date _____
Checked _____
Approved _____ CITY ENGINEER

Project

EWEN AVE RECONSTRUCTION

TREATMENT - STA. 1+000 TO 1+280

Drawn	CTM	Sheet	y/m/d
Checked	IAM	38 of 77	2016/10/27
Designed	CTM	Scale	H = 1:250 V = 1:25
Checked		Drawing No.	Rev.
City Project No.		T-01	02
Project No.	31633		