

THE CORPORATION OF THE CITY OF NEW WESTMINSTER ENGINEERING SERVICES



SITE PLAN

SCALE: 1:1000

2. 02 JUN 2022 HM AJ THIRD SUBMISSION

1. 14 MAR 2022 HM AJ SECOND SUBMISSION

0. 10 SEP 2021 HM AJ FIRST SUBMISSION

NO DATE BY CK REVISIONS DESCRIPTION



UNIT 203 - 15585 24 AVENUE, SURREY, BC, V4A 2J4

EMAIL:INFO@TERRANOBIS.COM PRACTICE NUMBER: 1000490

DEVELOPER: LAKHBIR LUDHAR

PHONE: 604.946.3007

PROJECT: 2 LOT RESIDENTIAL SUBDIVISION

SITE ADDRESS: 262 HUME STREET,

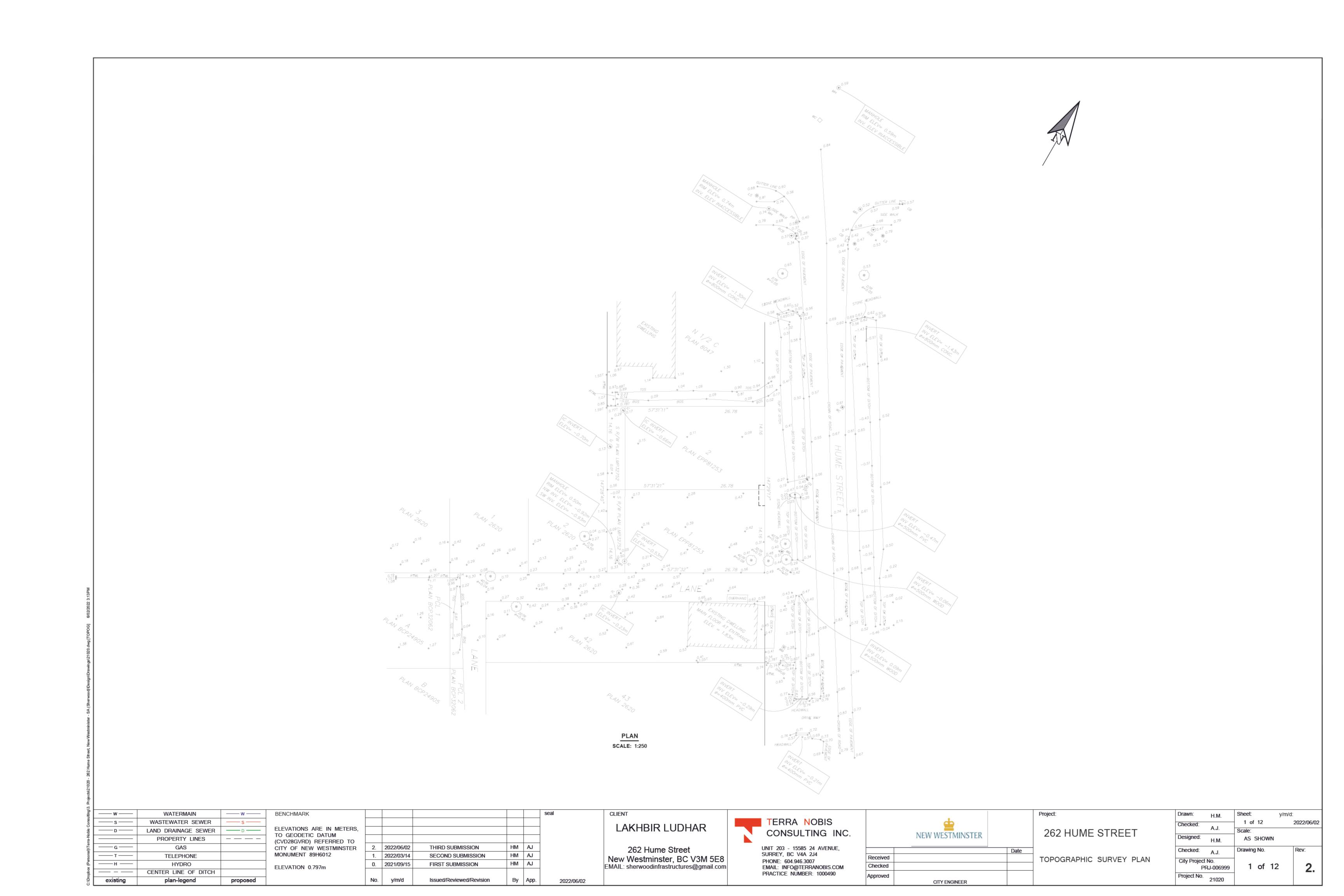
NEW WESTMINSTER, BC

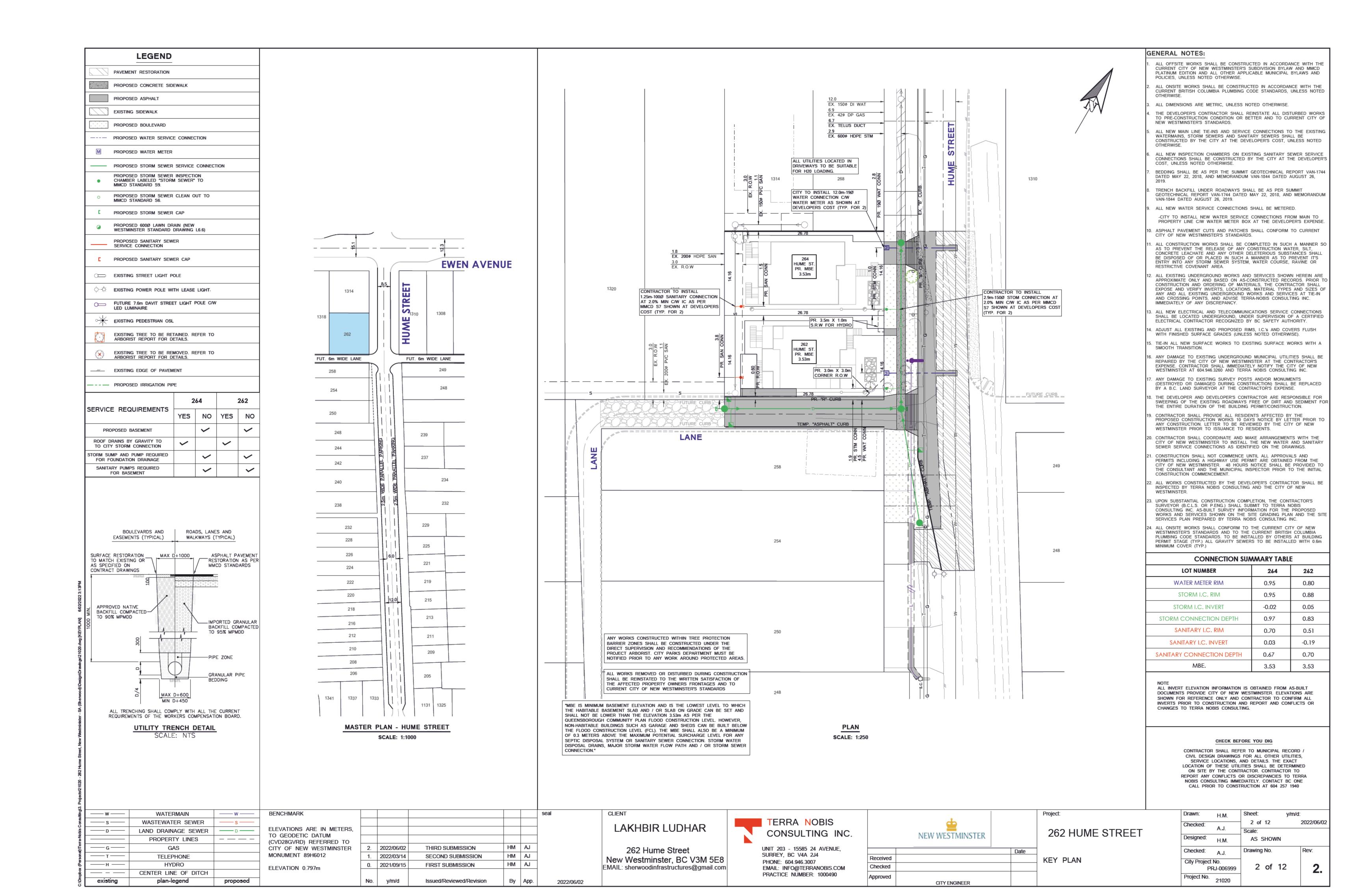
MUNICIPAL FILE: PRJ-006999

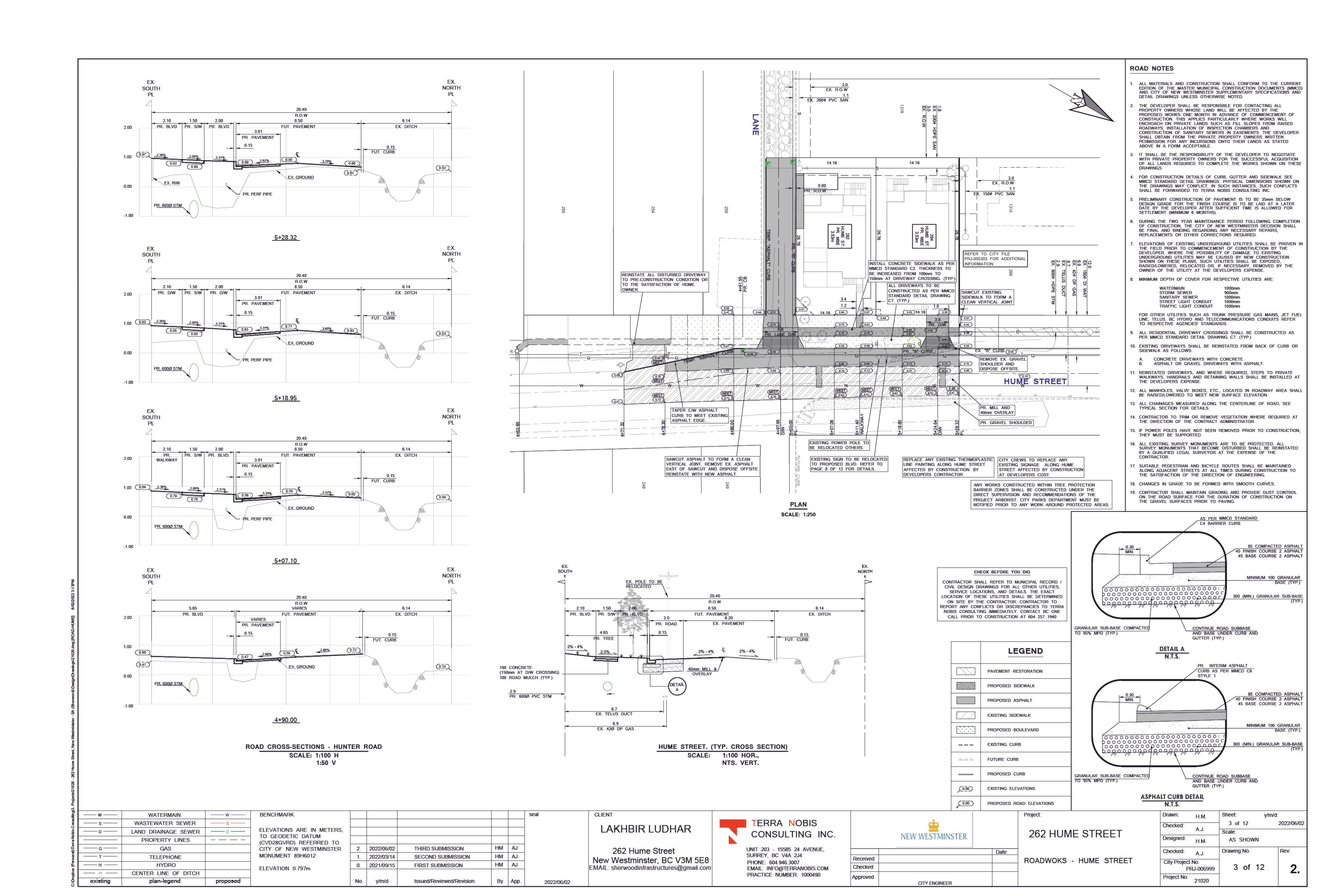
DEVELOPMENT SUMMARY					
UTILITY	QUANTITY	UNIT			
ROADS	320	m²			
SIDEWALKS	34	METRES			
STREET LIGHTS	1	UNIT			
FIRE HYDRANTS	0	UNIT			
WATERMAIN	N/A	METRES			
STORM SEWER	77	METRES			
SANITARY SEWER	N/A	METRES			
TREES	2	UNIT			
LOTS	2	UNIT			

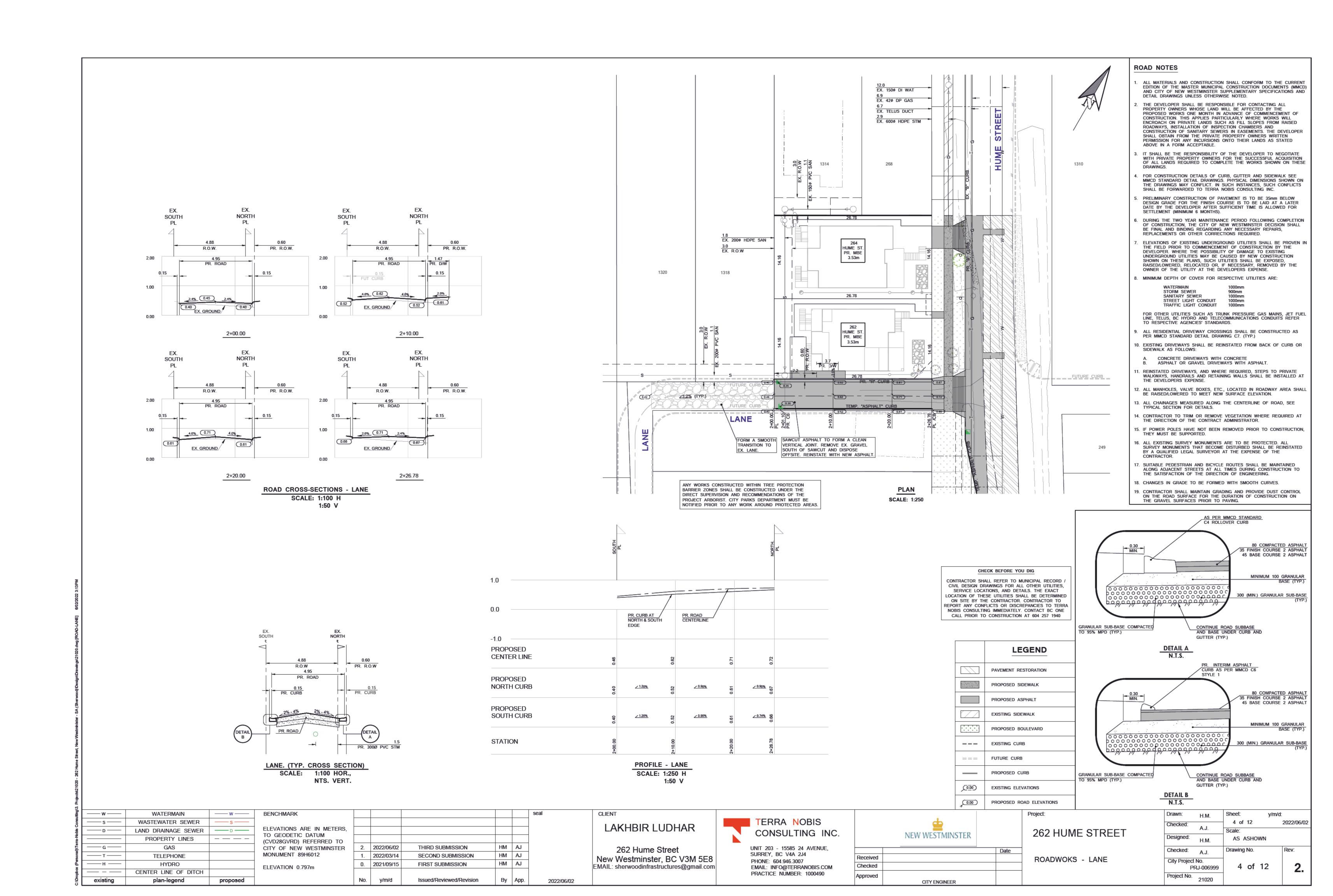
DRAWING INDEX

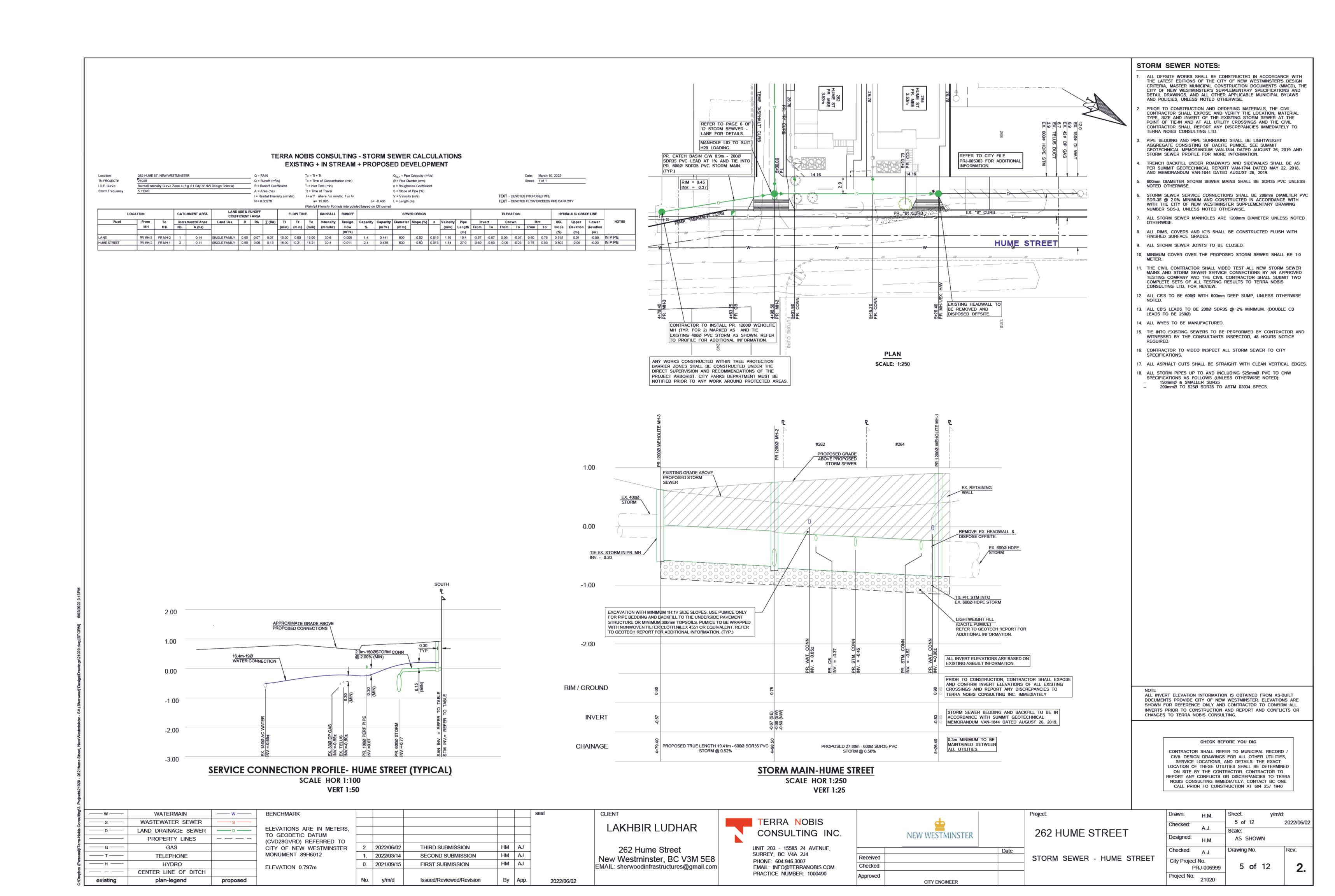
SHEET TITLE	SHEET NUMBER
TOPOGRAPHIC SURVEY PLAN KEY PLAN ROADWORKS - HUME STREET ROADWORKS - LANE STORM SEWER - HUME STREET STORM SEWER - LANE STORM ANALYSIS LOT GRADING PLAN STREET LIGHTING AND SIGNAGE PL TREE PLANTING PLAN ESC PLAN NOTES	1 OF 12 2 OF 12 3 OF 12 4 OF 12 5 OF 12 6 OF 12 7 OF 12 8 OF 12 8 OF 12 10 OF 12 12 OF 12 12 OF 12

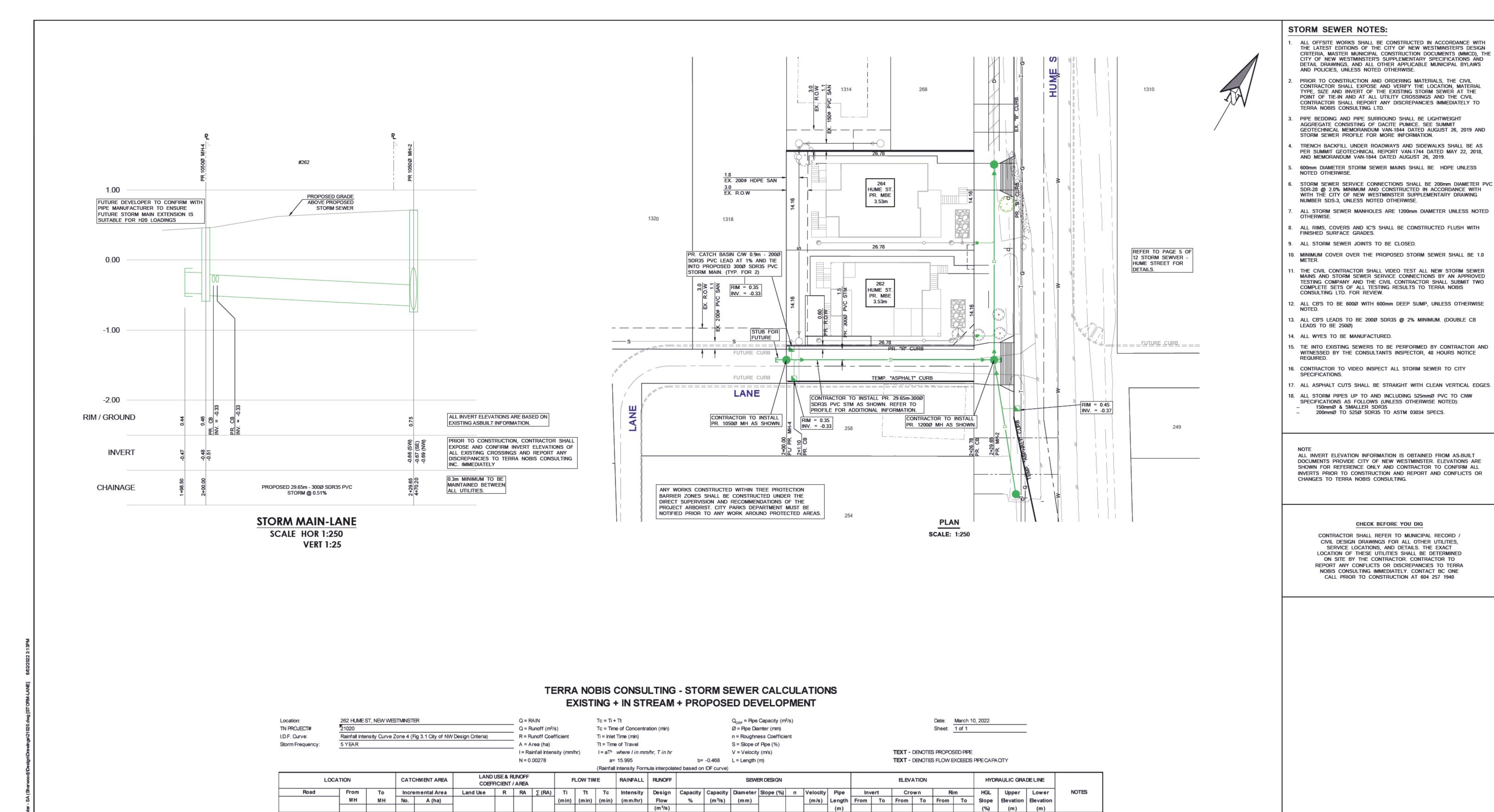












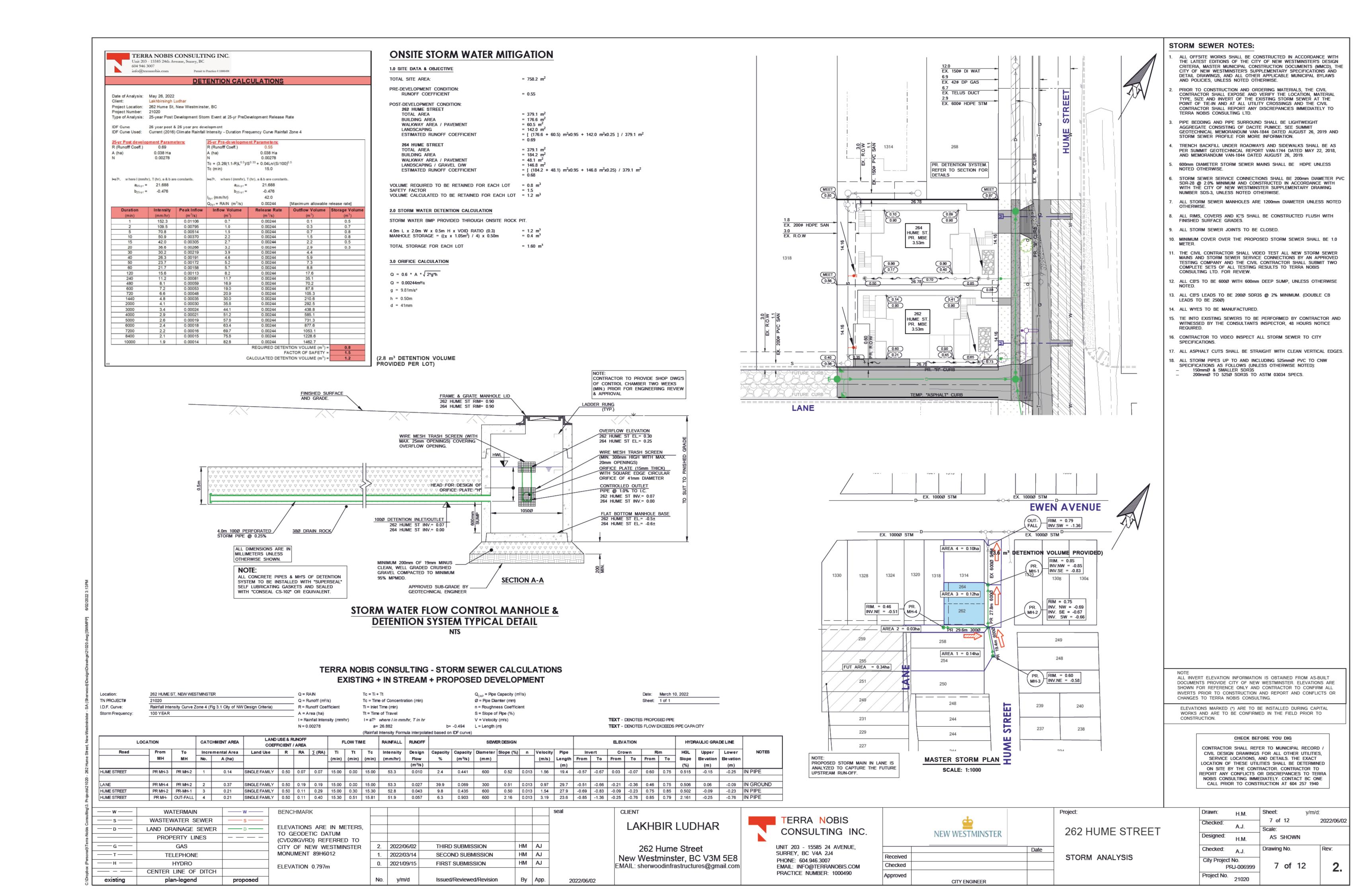
PR-MH-4 PR MH-2 2

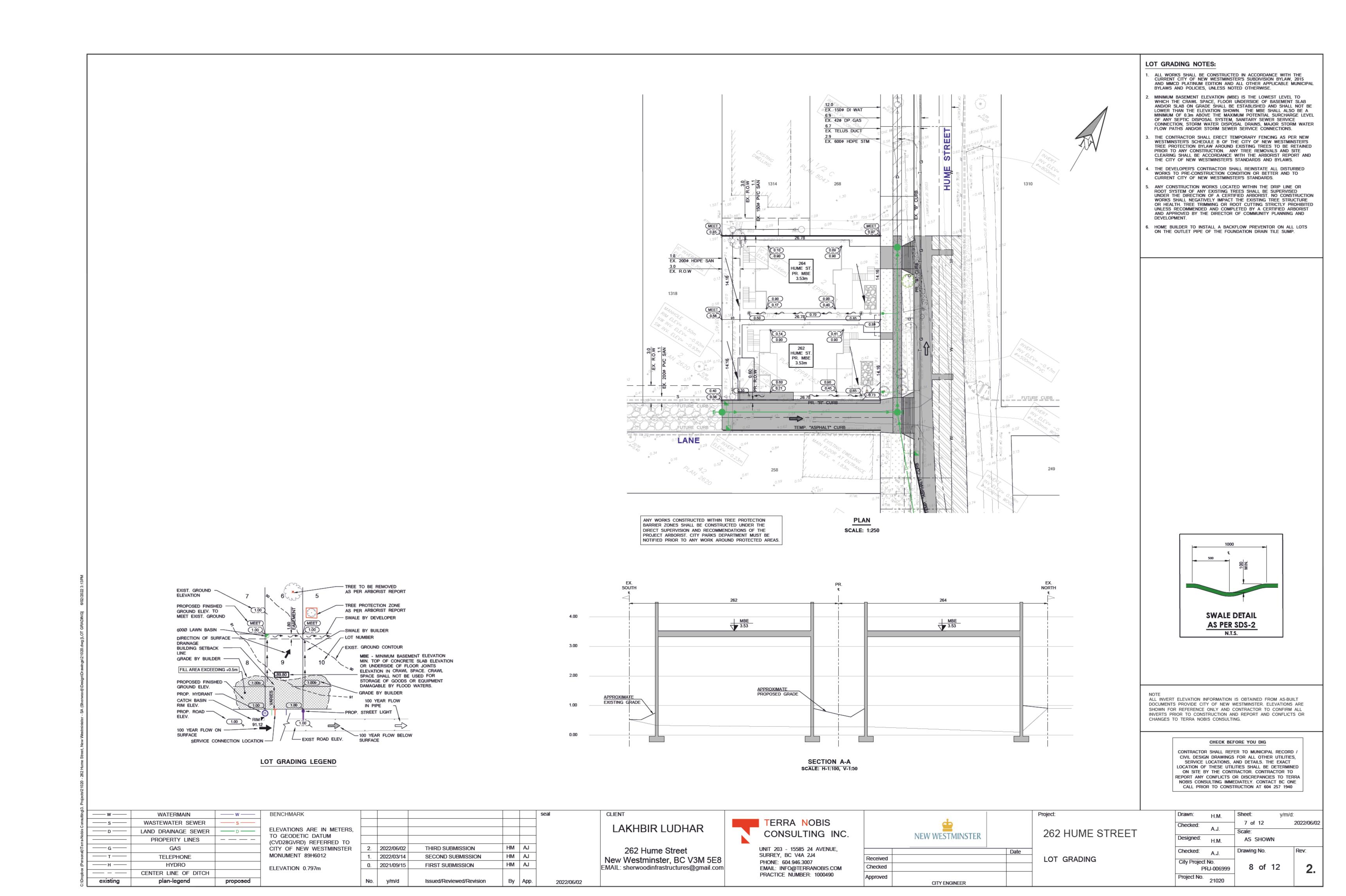
PROPOSED STORM MAIN IN LANE IS ANALYSIED TO CAPTURE THE FUTURE UPSTREAM RUN-OFF. REFER TO STORM WATER ANALYSIS FOR MORE INFORMATION 0.37

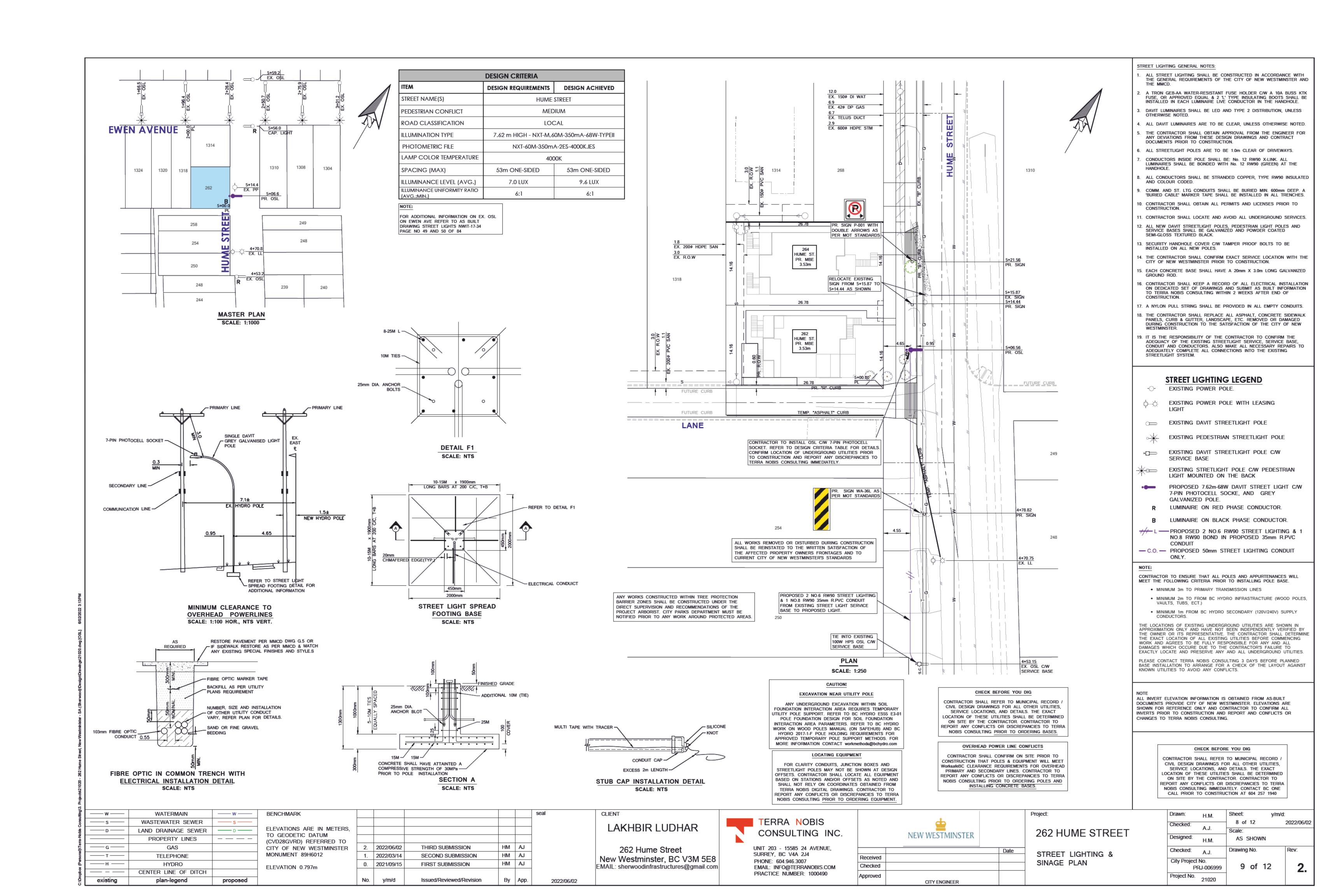
WATERMAIN BENCHMARK Project: Sheet: TERRA NOBIS WASTEWATER SEWER 6 of 12 — s — 2022/06/02 Checked: LAKHBIR LUDHAR A.J. ELEVATIONS ARE IN METERS, CONSULTING INC. 262 HUME STREET — D — LAND DRAINAGE SEWER NEW WESTMINSTER TO GEODETIC DATUM Designed: PROPERTY LINES AS SHOWN (CVD28GVRD) REFERRED TO HM AJ GAS THIRD SUBMISSION — g — CITY OF NEW WESTMINSTER 2022/06/02 UNIT 203 - 15585 24 AVENUE, 262 Hume Street Drawing No. Checked: MONUMENT 89H6012 SURREY, BC V4A 2J4 HM AJ —т— TELEPHONE 2022/03/14 SECOND SUBMISSION STORM SEWER - LANE New Westminster, BC V3M 5E8 Received City Project No. PHONE: 604.946.3007 HM AJ HYDRO 0. 2021/09/15 FIRST SUBMISSION — н — EMAIL: sherwoodinfrastructures@gmail.com Checked 6 of 12 EMAIL: INFO@TERRANOBIS.COM ELEVATION 0.797m PRJ-006999 CENTER LINE OF DITCH ___ _ __ PRACTICE NUMBER: 1000490 Approved Project No. No. Issued/Reviewed/Revision existing plan-legend y/m/d By App. proposed 2022/06/02 CITY ENGINEER

SINGLE FAMILY 0.50 0.19 0.19 15.00 0.00 15.00 30.6 0.016 22.9 0.069 300 0.51 0.013 0.97 29.7 -0.51 -0.66 -0.21 -0.36 0.46 0.75 0.506 -0.21 -0.36 IN PIPE

CHECK BEFORE YOU DIG





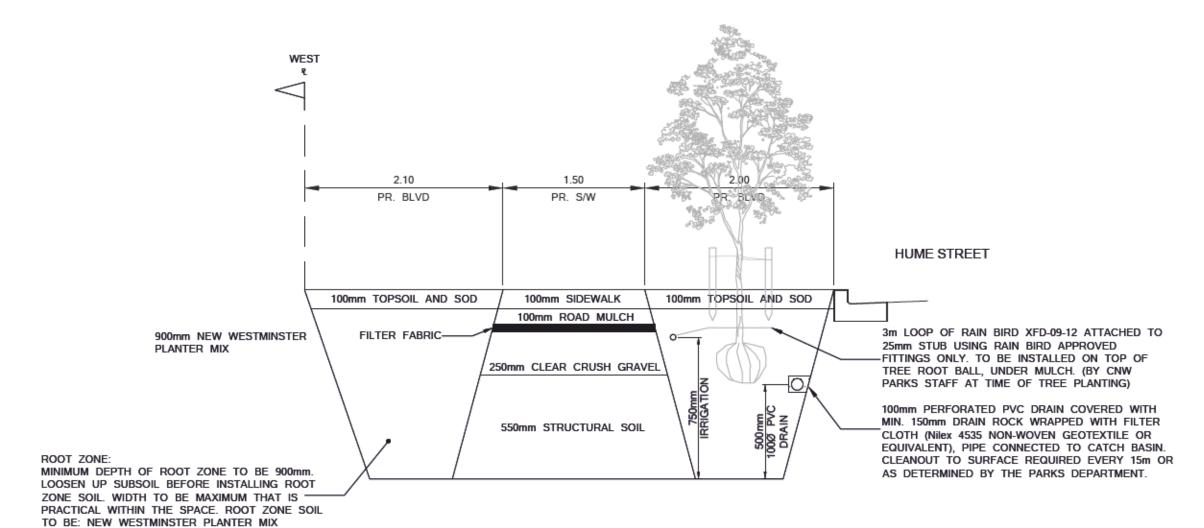




MIN. STANDARDS FOR

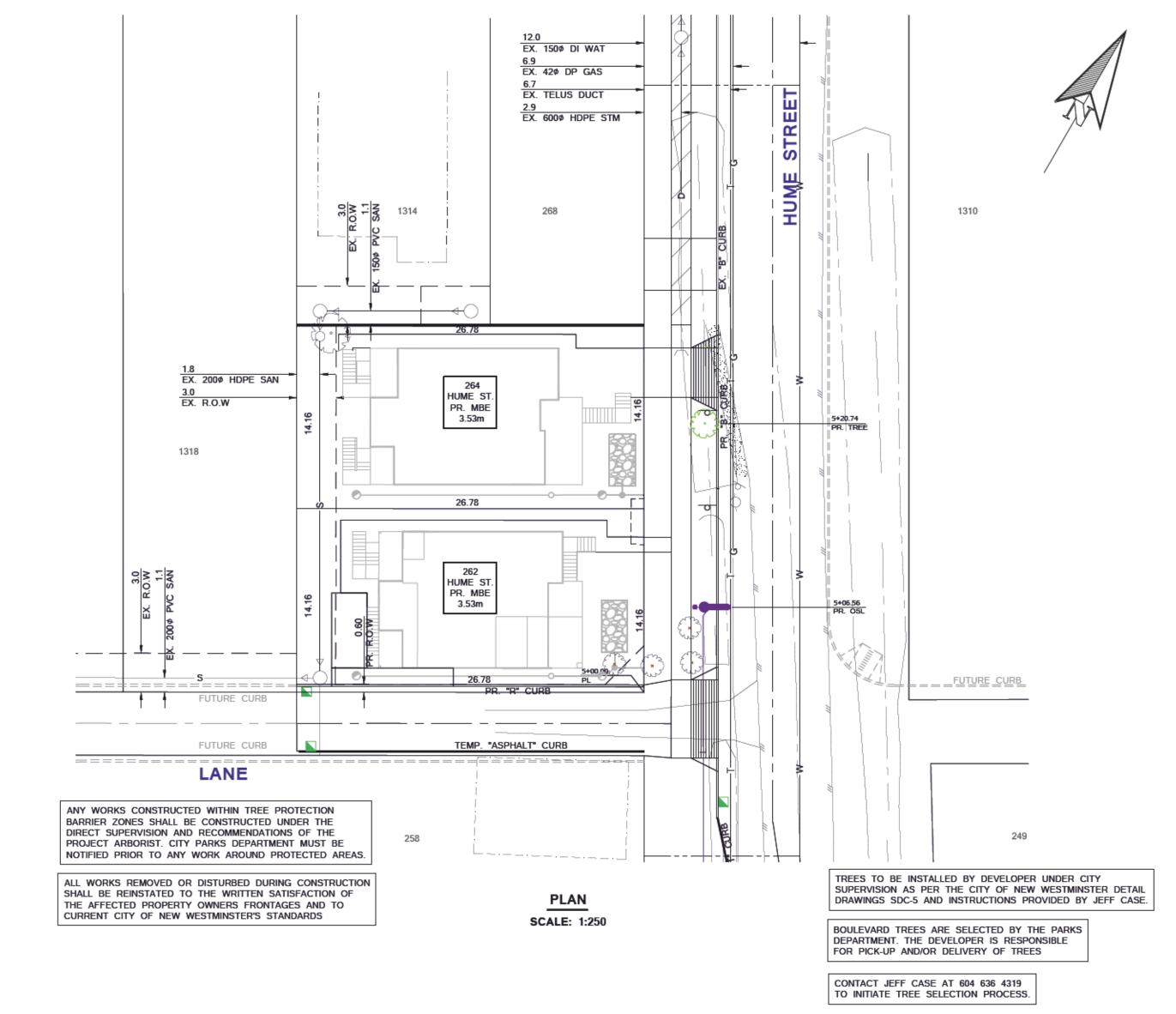
DIRECTLY UNDER ROOTBALL.

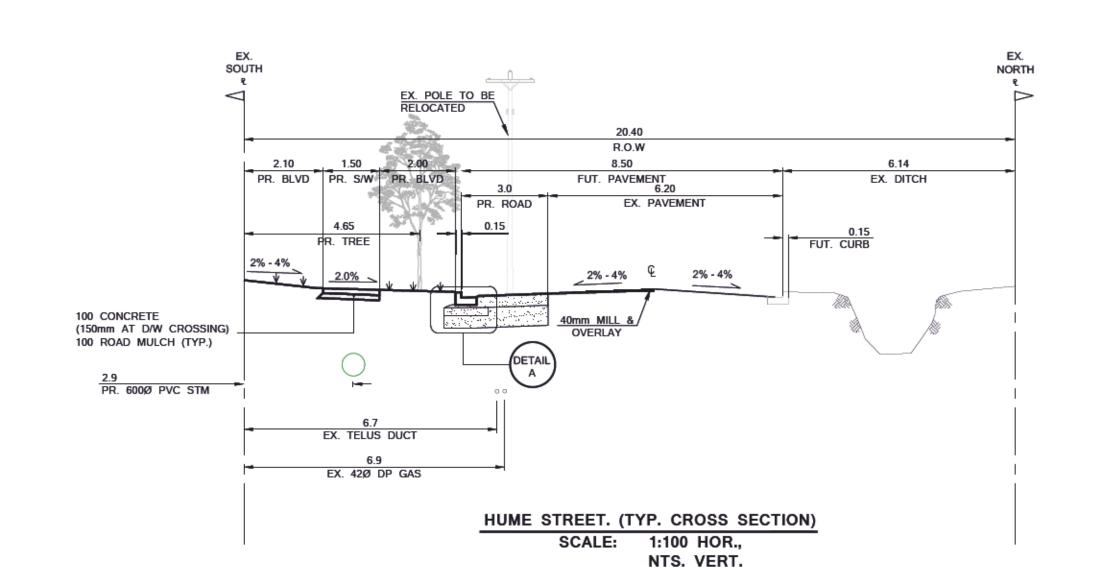
STREET TREE PLACEMENT TREES SHALL NOT BE PLANTED CLOSER THAN: 6.0M FROM STREET LIGHTS 2.0M FROM CATCH BASINS 8.0M FROM STREET INTERSECTIONS 3.0M FROM HYDRANTS 2.0M FROM MANHOLES 2.0M FROM DRIVEWAYS 3.0M FROM ELECTRICAL JUNCTION BOXES 2.0M FROM KIOSKS 2.0M FROM SERVICE CONNECTIONS NO UNDERGROUND UTILITIES TO PASS



IRRIGATION: LOCATE WIRE TO BE INSTALLED BESIDE MAIN RUN OF IRRIGATION PIPE, WITH ONE END INSIDE OF SERVICE VAULT. WIRE TO BE INSULATED 14 GAUGE SOLID COPPER. 25mm SCHEDULE 40 PVC IRRIGATION PIPE INSTALLED 250mm BELOW SIDEWALK LEVEL UNIFORM DISTANCE FROM SIDEWALK (MAX. 300mm) 25mm STUB (HORIZONTAL) TO BE TEED INTO MAIN PIPE AT EACH TREE LOCATION. GLUE CAP ON. MARK STUB LOCATION WITH UPRIGHT 25mm PVC PIE BURIED DEEP ENOUGH TO PREVENT EAST REMOVAL. PIPES CROSSING UNDER DRIVEWAYS (OR ANY PAVED SURFACE) TO BE INSTALLED IN 75mm PVC SLEEVE EXTENDED MIN. 400mm PAST DRIVEWAY PAVING. PVC SOLVENT CEMENT TO BY 712 HEAVY BODIED GREY. PRIMER TO BE P70 PURPLE PRIMER. NO WET OR DRY CEMENTS OR PRIMERS TO BE USED!

-CAP RECESSED WITH A TREE DETAIL NELSON BOX COVER (GENERIC) N.T.S. CONCRETE BLOCK ____ 400mm X 400mm 100mmØ PVC RISER CLEANOUT DETAIL





STREET LIGHTING GENERAL NOTES:

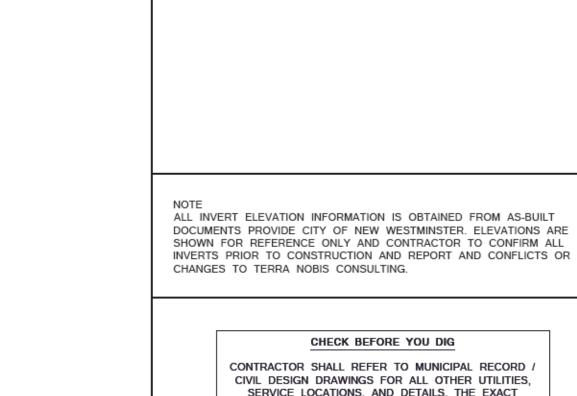
- ALL STREET LIGHTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL REQUIREMENTS OF THE CITY OF NEW WESTMINSTER AND
- A TRON GEB-AA WATER-RESISTANT FUSE HOLDER C/W A 10A BUSS KTK FUSE, OR APPROVED EQUAL & 2 'L' TYPE INSULATING BOOTS SHALL BE INSTALLED IN EACH LUMINAIRE LIVE CONDUCTOR IN THE HANDHOLE.
- DAVIT LUMINAIRES SHALL BE LED AND TYPE 2 DISTRIBUTION, UNLESS OTHERWISE NOTED.

DOCUMENTS PRIOR TO CONSTRUCTION.

- 4. ALL DAVIT LUMINAIRES ARE TO BE CLEAR, UNLESS OTHERWISE NOTED.
- . THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THESE DESIGN DRAWINGS AND CONTRACT
- ALL STREETLIGHT POLES ARE TO BE 1.0m CLEAR OF DRIVEWAYS. CONDUCTORS INSIDE POLE SHALL BE: No. 12 RW90 X-LINK. ALL
- LUMINAIRES SHALL BE BONDED WITH No. 12 RW90 (GREEN) AT THE
- . ALL CONDUCTORS SHALL BE STRANDED COPPER, TYPE RW90 INSULATED AND COLOUR CODED.
- COMM. AND ST. LTG CONDUITS SHALL BE BURIED MIN. 600mm DEEP. A 'BURIED CABLE' MARKER TAPE SHALL BE INSTALLED IN ALL TRENCHES.
- 10. CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL LOCATE AND AVOID ALL UNDERGROUND SERVICES.
- 12. ALL NEW DAVIT STREETLIGHT POLES, PEDESTRIAN LIGHT POLES AND SERVICE BASES SHALL BE GALVANIZED AND POWDER COATED SEMI-GLOSS TEXTURED BLACK.
- 13. SECURITY HANDHOLE COVER C/W TAMPER PROOF BOLTS TO BE INSTALLED ON ALL NEW POLES.
- 14. THE CONTRACTOR SHALL CONFIRM EXACT SERVICE LOCATION WITH THE CITY OF NEW WESTMINSTER PRIOR TO CONSTRUCTION.
- 15. EACH CONCRETE BASE SHALL HAVE A 20mm X 3.0m LONG GALVANIZED
- 16. CONTRACTOR SHALL KEEP A RECORD OF ALL ELECTRICAL INSTALLATION ON DEDICATED SET OF DRAWINGS AND SUBMIT AS BUILT INFORMATION TO TERRA NOBIS CONSULTING WITHIN 2 WEEKS AFTER END OF
- 17. A NYLON PULL STRING SHALL BE PROVIDED IN ALL EMPTY CONDUITS.
- 18. THE CONTRACTOR SHALL REPLACE ALL ASPHALT, CONCRETE SIDEWALK PANELS, CURB & GUTTER, LANDSCAPE, ETC. REMOVED OR DAMAGED

DURING CONSTRUCTION TO THE SATISFACTION OF THE CITY OF NEW

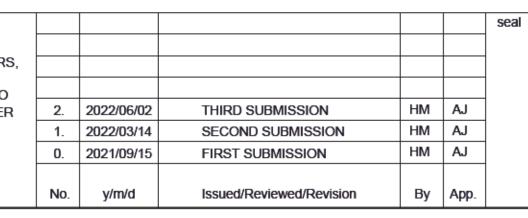
19. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE ADEQUACY OF THE EXISTING STREETLIGHT SERVICE, SERVICE BASE, CONDUIT AND CONDUCTORS. ALSO MAKE ALL NECESSARY REPAIRS TO ADEQUATELY COMPLETE ALL CONNECTIONS INTO THE EXISTING STREETLIGHT SYSTEM.



CHECK BEFORE YOU DIG CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO TERRA NOBIS CONSULTING IMMEDIATELY. CONTACT BC ONE CALL PRIOR TO CONSTRUCTION AT 604 257 1940

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	HYDRO	
—-н —-	LIVEDO	
—т—	TELEPHONE	
—— G ——	GAS	
	PROPERTY LINES	
—— D ——	LAND DRAINAGE SEWER	D
——s—	WASTEWATER SEWER	——s—
—— w ——	WATERMAIN	—— w ——

BENCHMARK
ELEVATIONS ARE IN METERS,
TO GEODETIC DATUM
(CVD28GVRD) REFERRED TO
CITY OF NEW WESTMINSTER
MONUMENT 89H6012
ELEVATION 0.797m



CLIENT LAKHBIR LUDHAR

262 Hume Street New Westminster, BC V3M 5E8 EMAIL: sherwoodinfrastructures@gmail.com

2022/06/02

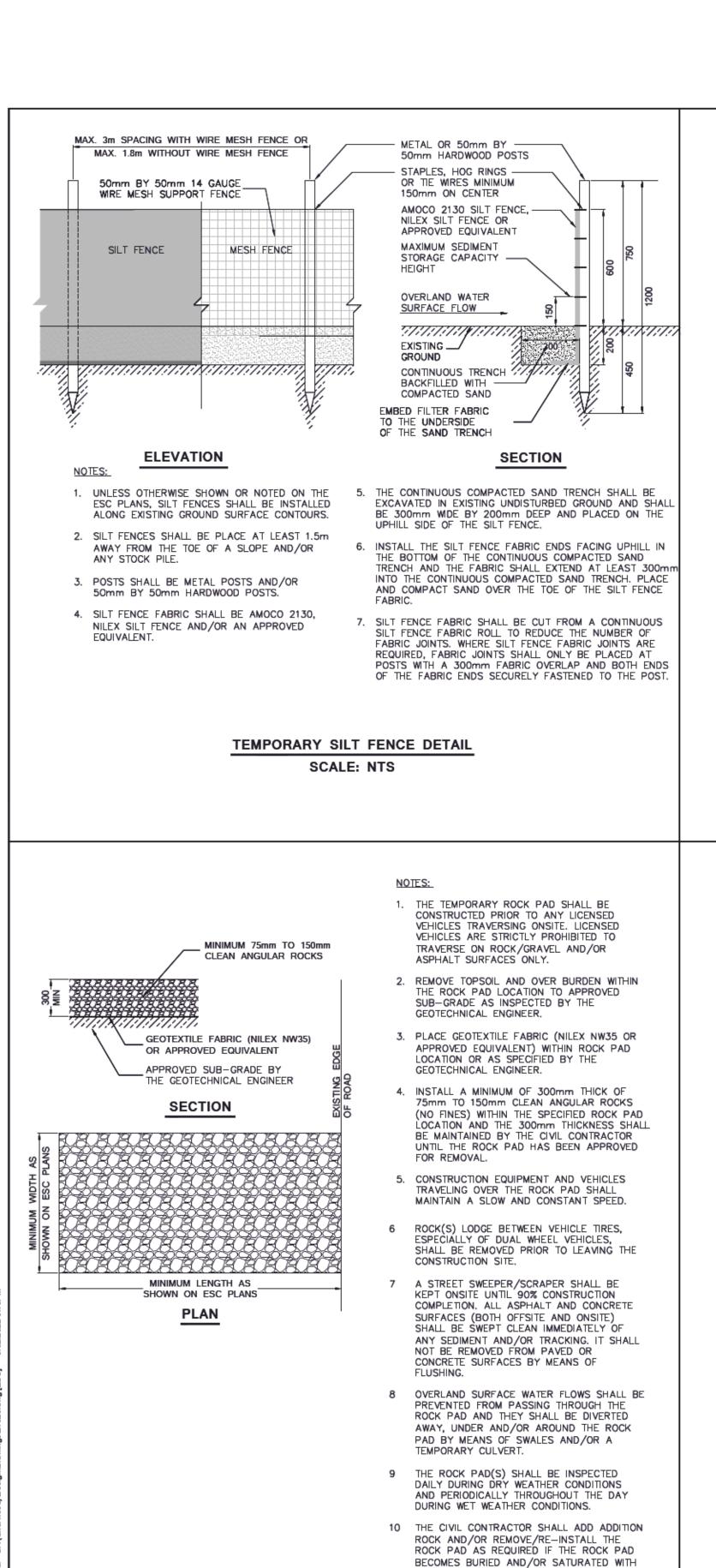


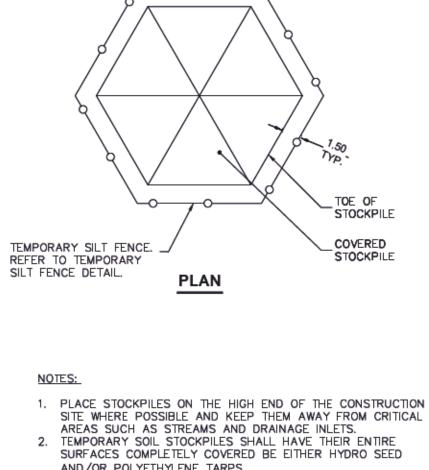
CONSULTING INC.	NEW WESTMINS
UNIT 203 - 15585 24 AVENUE, SURREY, BC V4A 2J4	Received
PHONE: 604.946.3007 EMAIL: INFO@TERRANOBIS.COM	Checked
PRACTICE NUMBER: 1000490	Approved

CITY ENGINEER

		Project:	
ISTER		262 HUME STREET	
SILK			
	Date		
		TREE PLANTING PLAN	

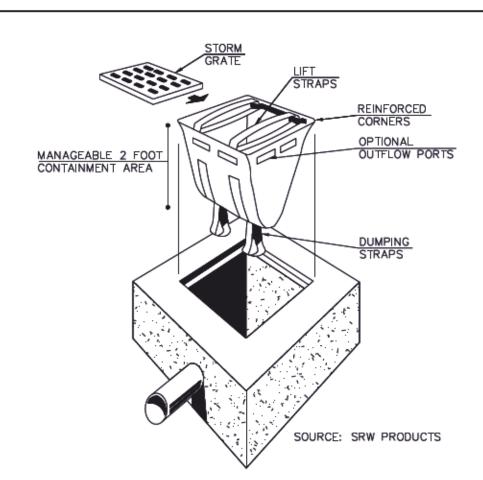
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Checked:	A.J.	9 of 12		2022/06/0
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	H.M.		N	Γ_
Checked:	A.J.	Drawing No.		Rev:
City Project	No. RJ-006999	10 of	12	2.
	KJ-000333	10 01	12	۷.
Project No.	21020			





- AND/OR POLYETHYLENE TARPS. 3. IF TARPS ARE TO BE USED, THEY SHALL BE SECURELY
- ANCHORED TO THE STOCKPILE SO AS TO PREVENT THE STOCK PILE FROM BEING UNCOVERED. TARP EDGES SHALL OVERLAP EACH OTHER BY 2.0m MINIMUM.
- 4. TARPS SHALL ONLY BE REMOVED FROM SOIL STOCKPILES DURING DRY WEATHER CONDITIONS.
- 5. INSTALL COMPLETELY AROUND THE PERIMETER A TEMPORARY SILT FENCE 1.5m AWAY FROM THE TOE OF THE TEMPORARY SOIL STOCKPILE.

TEMPORARY SOIL STOCKPILE COVER SCALE: NTS



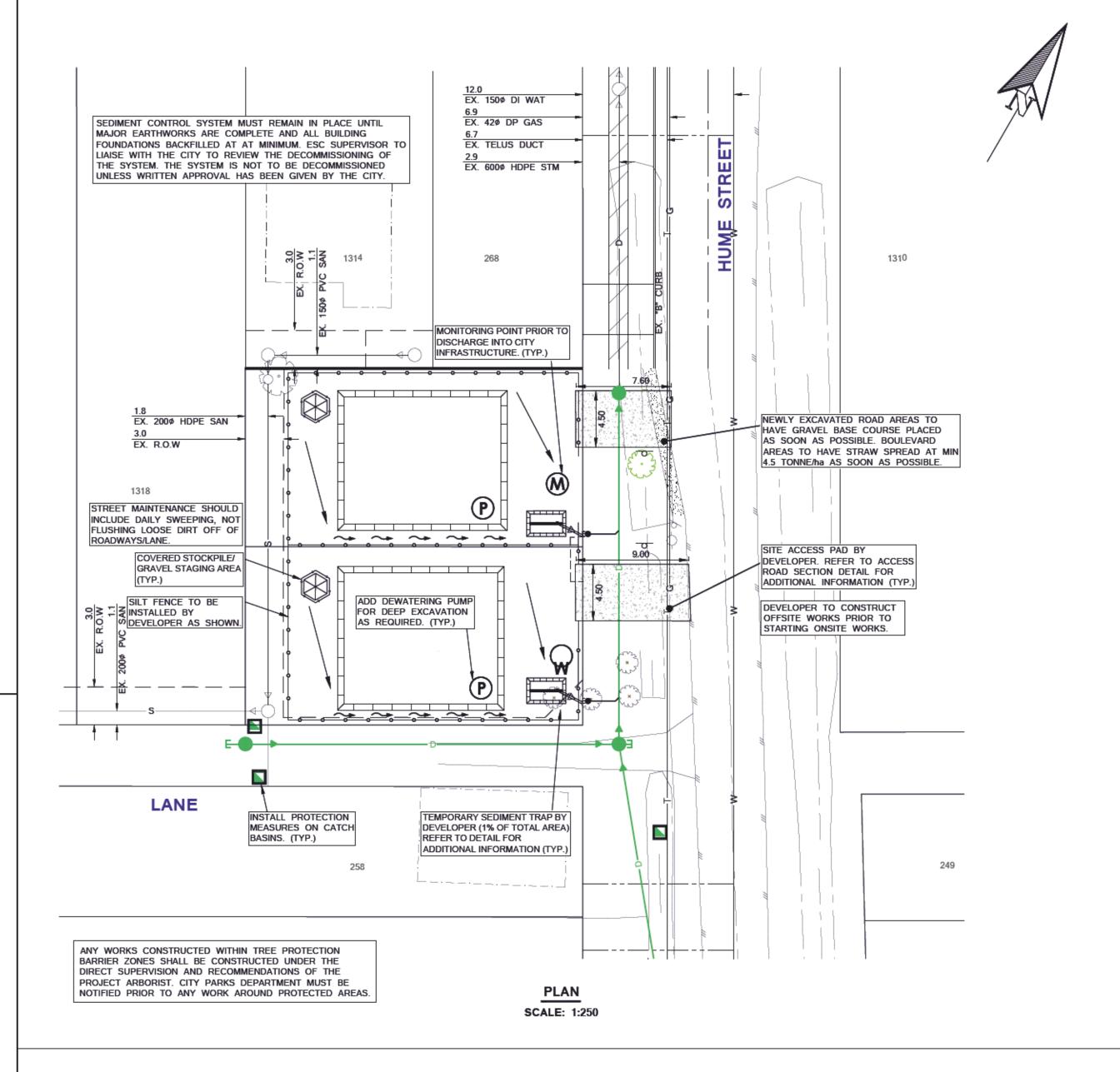
- 1. CATCH BASIN SEDIMENT TRAPS SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE GEOTEXTILE.
- 2. TO INSTALL, REMOVE GRATE, PLACE SEDIMENT TRAP IN THE CATCH BASIN OPENING, HOLD OUT APPROXIMATELY 150mm OF THE SEDIMENT TRAP OUTSIDE THE FRAME AND REPLACE GRATE TO HOLD SEDIMENT
- 3. WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE AND/OR CATCH BASIN SEDIMENT TRAP REACHES 30% SEDIMENT CAPACITY, THE CATCH BASIN SEDIMENT TRAP IS FULL AND SHALL BE EMPTIED.

4. TO REMOVE THE CATCH BASIN SEDIMENT TRAP, INSERT TWO PIECES

OF REBAR THROUGH THE LIFTING LOOPS ON EACH SIDE OF THE

- SEDIMENT TRAP TO FACILITATE IN THE LIFTING OF THE SEDIMENT 5. TO EMPTY THE SEDIMENT CONTENTS, INSERT A PIECE OF REBAR
- THROUGH THE DUMP STRAPS AND LIFT. THIS WILL TURN THE SEDIMENT TRAP INSIDE OUT. CLEAN OUT AND RINSE THE SEDIMENT TRAP AND RETURN TO ITS ORIGINAL SHAPE AND PLACE BACK IN THE CATCH BASIN FOR CONTINUED USE.
- 6. ACCUMULATED SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER AS TO PREVENT ITS RE-ENTRY INTO ANY DRAINAGE SYSTEM, STREAM, DITCH, WATERCOURSE, ETC., AND WHERE NECESSARY IT SHALL BE DISPOSED OF OFFSITE AT AN APPROVED LOCATION AT THE CIVIL CONTRACTOR'S EXPENSE.
- 7. THE USE OF FILTER FABRIC AS A CATCH BASIN SEDIMENT TRAP IS STRICTLY PROHIBITED.

TEMPORARY CATCH BASIN SEDIMENT TRAP DETAILS SCALE: NTS





- CLEARING, ROAD STRIPPING, GRAVELING AND ROUGH GRADING (STAGE 1) DEVELOPER / OWNER IS TO NOTIFY TERRA-NOBIS CONSULTING LTD.
- THAT CLEARING AND GRUBBING HAS COMMENCED. PERIMETER ESC MEASURES TO BE INSTALLED AS APPLICABLE PRIOR
- TO COMMENCEMENT OF ONSITE CLEARING AND GRUBBING. INSTALL PROTECTIVE MEASURES AT EXISTING CATCHBASINS/LAWN
- INSTALL SPECIFIED ESC ACCESS FACILITIES/MEASURES AT ENTRY/EXIT POINTS. ALL VEHICLE MOVEMENT TO AND FROM THE SITE IS TO BE
- RESTRICTED TO CONTROLLED ENTRY AND EXIT POINTS. ANY STOCKPILED MATERIAL TO BE COVERED WITH POLY SHEETS AND
- . THE DEVELOPER WILL BE RESPONSIBLE TO ENSURE THAT THE

ENCIRCLED BY SEDIMENT FENCE AS SPECIFIED.

- EXISTING ROADS ARE REVIEWED DAILY AND SWEPT REGULARLY.
- AFTER ROUGH GRADING & TRACK COMPACTING APPROXIMATELY 1000sqm, OWNER TO IMMEDIATELY SPREAD HAY OVER GRADED SECTION AT A MINIMUM 4.5 TONNE/Ha (2.0TONNE/ac)

BUILDING CONSTRUCTION STAGE (STAGE 2)

- DEVELOPER TO INSTALL ADDITIONAL SEDIMENT FENCING AS INDICATED ON THIS PLAN OR AS DIRECTED BY THE ENGINEER OF RECORD.
- ALL ACCESS TO AND FROM SITE TO BE FROM THE RESTRICTED
- ENTRY/EXIT POINTS. DEVELOPER TO ENSURE THAT ESC MEASURES ARE WELL MAINTAINED
- CLEARED, REPAIRED/REPLACED EVERY WEEK OF AFTER ANY MAJOR OFFSITE CATCH BASINS COMPLETE WITH PROTECTIVE MEASURES ARE
- OPPORTUNITY DOWNSTREAM OF DEVELOPMENT. DEVELOPER TO COORDINATE THE ELIMINATION OF TEMPORARY ESC

TO B INSTALLED BY THE BUILDER/ OWNER AT THE FIRST

- FACILITIES IF THEY ARE NO LONGER REQUIRED OR TO FACILITATE SITE OPERATIONS WITH THE ENGINEER OF RECORD. ADDITIONAL ESC FACILITIES MAY BE NEEDED TO BE INSTALLED AS PER THE DIRECTION OF THE ENGINEER OF RECORD.
- ANY STOCKPILED MATERIALS TO BE COVERED WITH POLY SHEET AND ENCIRCLED BY SEDIMENT FENCE.

FINAL GRADING THROUGH TO SUBSTANTIAL COMPLETION (STAGE 3) DEVELOPER TO ENSURE THAT STORM WATER CONVEYANCE CHANNEL AND DISCHARGE POINTS TO ADJUST STREAMS DITCHES, OR ENTRY POINTS TO PIPED NETWORKS, ARE ADEQUATELY PROTECTED.

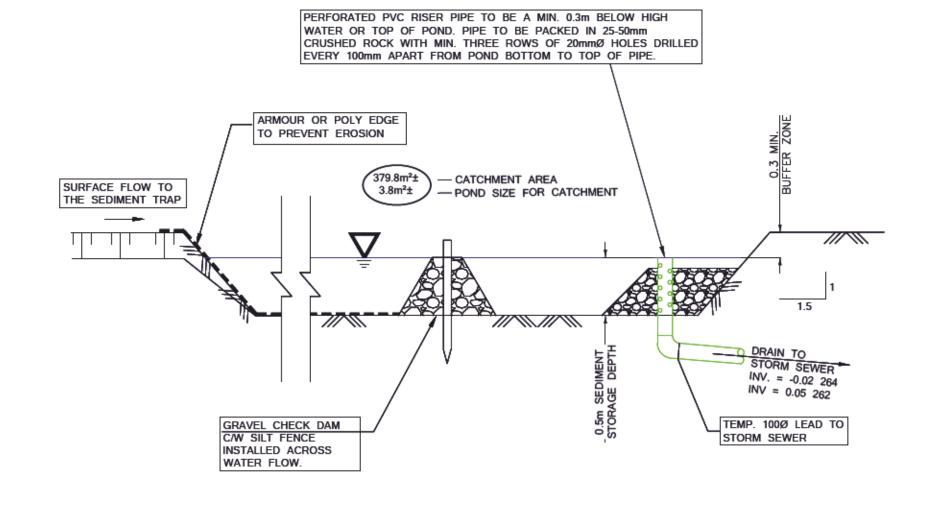
- DEVELOPER TO ENSURE THAT HE ESC FACILITIES SPECIFIED IN THE ESC PLAN OR ANY ADDENDUM'S ARE IMPLEMENTED ACCORDINGLY.
- AFTER FINAL SITE GRADING IS COMPLETED ALL DISTURBED AREAS ARE TO BE PROTECTED AS PER THE ESC PLAN.
- DEVELOPER TO COORDINATE THE ELIMINATION OF TEMPORARY ESC FACILITIES AS THEY ARE NOT LONGER REQUIRED. ADDITIONAL ESC FACILITIES MAY NEED TO BE INSTALLED AS PER THE DIRECTION OF THE ENGINEER OF RECORD.
- DEVELOPER TO ENSURE THAT ALL THE ESC FACILITIES SHOWN SHALL REMAIN IN PLACE & IN PROPER WORKING ORDER UNTIL 90% OF THE CONSTRUCTION IS COMPLETED.

DECOMMISSION & BACK FILL:

- UPON COMPLETION OF 90% OF CONSTRUCTION & APPROVAL OF ENGINEER OF RECORD DISMANTLE SILT FENCE, RESTORE BOULEVARD, REMOVE CB & LD FABRIC FILTER COVERS AND REMOVE ACCESS PAD.
- RESTORE DISTURBED AREA AND APPLY FINISHED LANDSCAPE AND PAVEMENT TREATMENT EQUIVALENT TO EXISTING OR BETTER AS SPECIFIED BY THE ENGINEER OF RECORD.

MAINTENANCE:

- DEVELOPER WILL BE RESPONSIBLE TO ENSURE THAT THE EXISTING ROADS ARE REVIEWED DAILY AND MECHANICALLY SWEPT MIN ONCE A WEEK. FLUSHING OF ROADWAYS IS PROHIBITED.
- 2. DEVELOPER TO ENSURE THAT THE SILT FILTER SOCKS & SILT FENCES TO BE INSPECTED WEEKLY, TE BE REPAIRED IF REQUIRED & CLEANED AT 40% CAPACITY MORE FREQUENTLY DURING MAJOR "ONSITE BUILDING CONSTRUCTION, AFTER ANY SIGNIFICANT STORM EVENT OR AS DIRECTED BY THE ENGINEER OF RECORD.
- GRAVEL ACCESS PAD TO BE INSPECTED DAILY TO ENSURE FUNCTIONALITY & ADDITIONAL GRAVEL'S TO BE ADDED AS REQUIRED. Y
- ALL SEDIMENT REMOVED FROM ESC CONTROL FACILITIES TO BE DISPOSED OF IN A MANNER AS NOT TO COMPOUND OR COMPROMISE THE SEDIMENT LOADING CAPACITY OF OTHER CONTROL MEASURES.
- ALL DISTURBED SOIL IS TO BE PROTECTED FROM EROSION BY SPREADING HAY OR BY APPLYING EROSION CONTROL BLANKETS OVER THE EXPOSED AREAS.



SEDIMENT TRAP / POND SECTION DETAIL

Received

Checked

Approved

ESC LEGEND

TEMPORARY CATCH BASIN SEDIMENT TRAP IN EXISTING CATCH BASIN. REFER TO TEMPORARY CATCH BASIN SEDIMENT TRAP

TEMPORARY ROCK ACCESS PAD. REFER TO TEMPORARY ROCK ACCESS PAD DETAIL.

APPROXIMATE TEMPORARY PUMP LOCATION. PUMP CONSTRUCTION WATER FROM SURFACE PONDING, FOOTING EXCAVATIONS, MANHOLES AND PIPE TRENCHES VIA FLEX HOUSE AS REQUIRED TO INFILTRATE INTO EXISTING GRASS SURFACES. RELOCATE ONSITE WHERE AND AS REQUIRED.



4.1m2±) -- POND SIZE FOR CATCHMENT

TEMPORARY SILT FENCE. REFER TO DETAIL FOR ADDITIONAL INFORMATION.

CONSTRUCTION SWALE REFER TO DETAIL FOR ADDITIONAL INFORMATION.

APPROXIMATE LOCATION OF TEMPORARY

SOIL STOCKPILE IF REQUIRED. REFER TO TEMPORARY SOIL STOCKPILE DETAIL.

APPROXIMATE LOCATION OF TEMPORARY

MONITORING POINT.

—— w ——	WATERMAIN	—— w ——
——s—	WASTEWATER SEWER	——s—
D	LAND DRAINAGE SEWER	D
	PROPERTY LINES	
—— G ——	GAS	
——т—	TELEPHONE	
——н ——	HYDRO	
	CENTER LINE OF DITCH	

plan-legend

existing

TEMPORARY ROCK ACCESS PAD DETAIL

SCALE: NTS

proposed

BENCHMARK ELEVATIONS ARE IN METERS, TO GEODETIC DATUM (CVD28GVRD) REFERRED TO CITY OF NEW WESTMINSTER MONUMENT 89H6012 ELEVATION 0.797m

seal HM AJ 2022/06/02 THIRD SUBMISSION HM AJ SECOND SUBMISSION 2022/03/14 0. 2021/09/15 HM AJ FIRST SUBMISSION y/m/d Issued/Reviewed/Revision By App. 2022/06/02

LAKHBIR LUDHAR

262 Hume Street New Westminster, BC V3M 5E8 EMAIL: sherwoodinfrastructures@gmail.com



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CITY ENGINEER

262 HUME STREET

CHECK BEFORE YOU DIG

CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT

LOCATION OF THESE UTILITIES SHALL BE DETERMINED

ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO TERRA

NOBIS CONSULTING IMMEDIATELY. CONTACT BC ONE CALL PRIOR TO CONSTRUCTION AT 604 257 1940

ESC PLAN

	Drawn:	H.M.	Sheet:		y/m/d:	
	Checked:	A.J.	2 of 9			2022/06/
	Designed:	A.J.	Scale:			
	Designed.	H.M.	AS SHO	NWC		
	Checked:	A.J.	Drawing No) .		Rev:
	City Project No. PRJ-006999		10	<u>.</u> .		_
			12	от	12	2.
	Project No.	21020				

- 1. 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 DETAIL DRAWINGS UNLESS OTHERWISE NOTED; APPLICABLE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS REFERENCED THEREIN:
- MINISTRY OF TRANSPORTATION "BC TRAFFIC CONTROL MANUAL FOR WORKS ON ROADWAYS",
- LATEST EDITION WORK SAFE BC, LATEST EDITION
- 2. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION HALL 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 WORKS.
- 3. 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 PRE-LOCATED WILL BE CONTRACTORS RESPONSIBILITY.
- 4. THE CONTRACTOR IS TO NOTIFY THE CITY OF NEW WESTMINSTER 48 HOURS IN ADVANCE OF ANY CONSTRUCTION OR UTILITY RELOCATION/CONFLICTS.
- 5. REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR A MIN 72 HOURS PRIOR TO
- 6. RESTORATION OF EXISTING DRIVEWAYS AND WALKWAYS TO CONFORM TO CITY SPECIFICATIONS.
- 7. ALL SURVEY MONUMENTS WITHIN THE PROJECT BOUNDARIES SHALL BE PROTECTED DURING THE COURSE OF THE WORKS. 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.
- 8. SURVEY PINS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED BY A B.C. LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 9. 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.
- 10. ALL PUBLIC ROADWAYS AFFECTED BY THE WORKS SHALL BE KEPT IN A CLEAN STAT AT ALL TIMES. DUST CONTROL MEASURES SHALL ALSO BE EMPLOYED DURING THE COURSE OF THE WORK.
- 11. 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.
- 12. 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.
- 13. 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.
- 14. CONTRACTOR TO MAINTAIN AN UP TO DATE SET OF AS-CONSTURCTED 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 IF THEY ARE UP TO DATE
- 15. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE PROVISIONS FOR EROSION CONTROL AND SEDIMENT AS PER THE CITY BYLAW AND AS PER THE CONTRACT DOCUMENTS.
- 16. FIGURED DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS.
- 17. GENERATOR USE WILL NOT BE PERMITTED OUTSIDE OF REGULAR WORK HOURS WITHOUT AN APPROVED NOISE VARIANCE.
- 18. TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE DEVELOPER AND THE DEVELOPER SHALL COMPLY WITH SECTION 52 OF THE INDUSTRIAL HEALTH AND SAFETY REGULATIONS OF WorksafeBC AND THE INSTRUCTIONS OUTLINED ON THE STREET-USE PERMIT ISSUED BY THE CITY. THE DEVELOPER IS TO HAVE, ON SITE, A COPY OF THE CURRENT "B.C. TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS" AS PUBLISHED BY THE MINISTRY OF TRANSPORTATION AND HIGHWAYS.
- 19. THE DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR WORK WITHIN THE CITY ROAD ALLOWANCE. A TRAFFIC MANAGEMENT PLAN IS REQUIRED TO BE SUBMITTED TO CITY ENGINEERING DEPT. AND APPROVED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 20. WHERE UTILITY OR SERVICE CROSSINGS ARE REQUIRED ACROSS EXISTING PAVEMENTS, AN UNDERGROUND METHOD OF INSTALLATION IS REQUIRED UNLESS SPECIAL APPROVAL IS GIVEN FROM THE CITY FOR AN OPEN CUT OPERATION. ALL EXISTING PAVEMENTS, BOULEVARDS, DRIVEWAYS, ETC., ARE TO BE REINSTATED TO ORIGINAL OR BETTER CONDITION AN DIN ACCORDANCE WITH CITY SPECIFICATIONS AND THE MMCD G5.
- 21. ALL STREET, TRAFFIC, AND ADVISORY SIGNS, PAVEMENT MARKINGS AND NO-POST GUARDRAILS REQUIRED BUT NOT NECESSARILY SHOWN ON THE DRAWINGS, SHALL BE INSTALLED BY THE CITY AT THE DEVELOPERS' EXPENSE.
- 22. WHERE INFILLING OF EXISTING DITCHES IS REQUIRED OR WHERE SERVICES ARE CONSTRUCTED IN A FILL SECTION, FILL MATERIAL IS TO BE IN ACCORDANCE WITH MMCD SPECIFICATIONS AND IS TO BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY.
- 23. DEVELOPER SHALL FACILITATE AND SUPPLY ALL NECESSARY SAFETY EQUIPMENT REQUIRED UNDER THE WorksafeBC REGULATIONS FOR THE CITY OR IT'S REPRESENTATIVE OR THE ENGINEER OF RECORD TO INSPECT THE SANITARY SEWER AND STORM SEWER SYSTEMS. THE EQUIPMENT SHALL BE SUPPLIED UNTIL SUCH TIME AS A CERTIFICATE OF COMPLETION IS ISSUED BY THE CITY.
- 24. THE DEVELOPER SHALL PROVIDE 48 HRS. MIN. NOTICE TO THE APPROPRIATE CITY SUPERINTENDENT TO ARRANGE FOR SUPERVISION OF TIES TO EXISTING CITY MAINS BY THE DEVELOPER'S CONTRACTOR.
- 25. ALL TESTING RECORDS ARE TO BE TRANSFERRED TO THE DEVELOPER'S ENGINEER FOR HIS CONVEYANCE TO THE CNW ENG. DEPT.
- 26. INSPECTION OF OFFSITE WORKS AND SERVICES TO BE PROVIDED BY DEVELOPER'S ENGINEER.

TRAFFIC MANAGEMENT, NOTIFICATION AND APPROVALS

THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SIGNAGE, BARRIER, 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.

- 2. 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.
- 3. 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)
- 4. 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.
- 5. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THESE WORKS AND SERVICES SHALL BY 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 ACTIVITIES ON ANY PRIVATE PROPERTY, A WRITTEN RELEASE MAY BE REQUIRED FROM THE PROPERTY OWNER AT THE DISCRETION OF THE CITY.
- 6. A TRAFFIC AND PEDESTRIAN SAFETY CONTROL PLAN SHALL BE SUBMITTED BY THE CONTRACTOR PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 7. APPROVALS FOR REQUIRED TREE CUTTING OR TRIMMING NOT INDICATED IN CONTRACTOR DRAWINGS SHALL BE OBTAINED BY THE CONTRACTOR FROM THE CITY PRIOR TO WORK BEING PERFORMED.
- 8. CONTRACTOR TO OBTAIN APPROVAL LANE CLOSURE REQUEST FORM FOR ALL WORKS. APPROVAL REQUESTS ARE CIRCULATED TO ALL EMERGENCY SERVICES.
- 9. CONTRACTOR TO SUBMIT A TRAFFIC MANAGEMENT PLAN WITH LANE CLOSURE REQUEST FOR ALL MAJOR ROADS AND ANY LOCAL ROADS WHICH REQUIRE ANY DETOURS.
- 10. ALL TRAFFIC CONTROL TO CONFORM TO THE LATEST EDITION OF THE BC TRAFFIC CONTROL
- 11. APPROVAL OF NOISE VARIANCE FOR ALL WORK OUTSIDE OF NORMAL APPROVED WORK HOURS REQUIRED BY THE CITY.
- 12. 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.
- 13. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETION OF ALL TAPED TEMPORARY AND PERMANENT PAINT AND THERMOPLASTIC PAVEMENT MARKINGS IN THE PLACE OF WORK. PERMANENT LANE MARKINGS ARE TO BE PLACED WITHIN SEVENTY-TWO (72) HOURS OF FINAL PAVING AND PERMANENT THERMOPLASTIC PAVEMENT MARKING ARE TO BE PLACED WITHIN FIVE (5) DAYS OF FINAL PAVING. ALL TEMPORARY MARKING TO BE REMOVED IMMEDIATELY FOLLOWING PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 14. 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.

TEMPORARY CONSTRUCTION SWALE NOTES:

- SWALES SHALL BE CONSTRUCTED IN NATIVE UNDISTURBED SOILS
- 2. ALL SWALE OUTLETS SHALL BE TIED INTO ANY STREAMS, DITCHES, WATERCOURSES, ETC., AT NO MORE THAN 45° TO THE DIRECTION OF FLOW IN THE STREAM/DITCH/WATERCOURSE.
- 3. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM GRAVEL CHECK DAMS PRIOR TO 50%
- ACCUMULATED SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER AS TO PREVENT ITS RE-ENTRY INTO ANY DRAINAGE SYSTEM, STREAM, DITCH, WATERCOURSE, ETC., AND WHERE NECESSARY IT SHALL BE DISPOSED OF OFFSITE AT AN APPROVED LOCATION AT THE CIVIL CONTRACTOR'S EXPENSE.

STORM NOTES:

- 1. NO CHANGES TO BE MADE TO PIPES, MANHOLES, OR ALIGNMENT WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE CONTRACTOR ADMINISTRATOR.
- 2. ASSURANCE OF PROTECTION OF THE WATER MAIN AS PER FRASER HEALTH AUTHORITY, JULY 14, 2006: PARALLEL LINES: WATER MAIN SHOULD BE LAID AT LEAST 3m HORIZONTALLY FROM ANY SANITARY OR STORM SEWER. WHERE THIS HORIZONTAL SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATER MAIN 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 WATER MAIN. IF THIS VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWERS SHOULD BE OF THE SAME SERVICE CAPABILITY AS THE WATERMAIN, WITH PRESSURE CLASS JOINTS DESIGNED TO REMAIN WATER TIGHT IF THE GROUND WATER TABLE PERIODICALLY RISES ABOVE THE SEWER. AND ARE PRESSURE TESTED BEFORE BACKFILLING. OTHER PRECAUTIONS, SUCH AS WATERMAIN WITH IMPROVED JOINTS AND HIGHER STRENGTH MAY BE NEEDED.

CROSSING: WHERE A WATER MAIN CROSSES A SANITARY OR STORM SEWER, THE LINES SHOULD BE LAID WITH THE WATERMAIN CROSSING OVER THE SEWER AND WITH THE MIDDLE OF THE 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 WATER MAIN 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

ANSI/AWWA STANDARD C209 AND C217-90. FOR SERVICE CONNECTION, WHERE EVER POSSIBLE, THE ABOVE CONSTRUCTION PRACTICES SHOULD

- LOT DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. REFER TO BCLS REGISTERED LEGAL PLAN FOR ACTUAL LOT DIMENSIONS. THE CONTRACTOR SHALL CONFIRM LOCATIONS OF LOT LIENS PRIOR TO INSTALLATION OF SERVICE CONNECTIONS.
- 4. 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 SUBSTANCE

- 1. MACHINERY IS TO ARRIVE ON SITE IN A CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS.
- 2. WASH, REFUEL AND SERVICE MACHINERY AND STORE FUEL AND OTHER MATERIALS FOR THE MACHINERY AWAY FROM WATER TO PREVENT ANY DELETERIOUS SUBSTANCES FROM ENTERING
- 3. 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.
- 4. OIL, GREASE OR ANY OTHER SUBSTANCE DELETERIOUS TO AQUATIC LIFE WILL BE PREVENTED FROM ENTERING INTO ANY WATER COURSE, DITCH OR STORM SEWER.
- 5. CONTRACTOR SHOULD DEVELOP SPILL RESPONSE PROTOCOLS PRIOR TO CONSTRUCTION.

ENVIRONMENTAL NOTES: GENERAL NOTES:

- 1. OWNER'S ENVIRONMENTAL MONITOR: TERRA NOBIS CONSULTING INC.
- 2. FISH SALVAGED ARE REQUIRED PRIOR IN STREAM WORKS AND WILL BE CONDUCTED BY TERRA NOBIS CONSULTING INC. THE CONTRACTOR SHALL CONTACT TERRA NOBIS CONSULTING INC. TO COORDINATE FISH SALVAGE A MINIMUM 5 DAYS PRIOR TO WORK.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR RETAINING A QUALIFIED ENVIRONMENTAL PROFESSIONSL FOR CONTAMINATED SOIL MANAGEMENT.
- 4. OIL GREASE OR ANY OTHER SUBSTANCE DELETERIOUS TO AQUATIC LIFE WILL BE PREVENTED FROM ENTERING INTO ANY WATER COURSE, DITCH OR STORM SEWER.
- CONTRACTOR SHOULD DEVELOP SPILL RESPONSE PROTOCOLS PRIOR TO CONSTRUCTION.

ESC PLAN GENERAL NOTES:

- 1. IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO ENSURE EFFECTIVE AND EFFICIENT INSTALLATION, OPERATION AND MAINTENANCE OF ALL ESC FACILITIES PRESCRIBED FOR THIS
- 2. THE CONTRACTOR WILL PREVENT DISTURBANCE TO THE ENVIRONMENTALLY SENSITIVE AREAS. BEYOND THAT PERMITTED BY ENVIRONMENTAL REGULATORY APPROVALS AND THE DESIGN OF
- 3. ENVIRONMENTALLY SENSITIVE AREAS ARE TO BE FREE OF CONSTRUCTION MATERIALS/STOCKPILES.
- 4. THE CONTRACTOR MUST PREVENT THE DISCHARGE OF WASTE OR DELETERIOUS SUBSTANCES TO THE CITY'S DRAINAGE SYSTEM (INCLUDING DITCHES, CATCHBASINS, SWALES AND STREAMS).
- 5. THE CONTRACTOR MUST NOT DISCHARGE WASTE OR DELETERIOUS SUBSTANCES TO PRIVATE PROPERTY UNLESS THE CONTRACTOR RECEIVES WRITTEN PERMISSION FROM THE LANDOWNER

PROHIBITIONS:

- 1. 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.
- 2. THE CONTRACTOR MUST NOT CAUSE OR PERMIT THE DISCHARGE INTO THE DRAINAGE SYSTEM, EITHER DIRECTLY OR INDIRECTLY, OF WATER WITCH: - HAS A PH VALUE OUTSIDE THE RANGE OF 6.5 TO 8.0 AT ANY TIME.

EROSION AND SEDIMENT CONTROL:

PEDESTRIANS AND WINDSHIELDS.

- 1. 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.
- 2. AVOID EARTH DISTURBING ACTIVITIES DURING SUBSTANTIAL RAIN EVENTS.
- 3. ALL CATCHBASINS IN PROXIMITY TO WORK AREA MUST BE FITTED WITH FILTER SOCK, RING SOCK OR APPROVED ALTERNATIVE.
- 4. UNDER NO CIRCUMSTANCES ARE THE CATCHBASINS TO BE FITTED WITH HAND-CUT GEOTEXTILE
- 5 IF TEMPORARY SPOIL OR SOIL STOCKPILE ARE NECESSARY MAKE SURE THEY ARE FULLY COVERED WITH POLYETHYLENE SHEETING OR TARPS WEIGHTED WITH SANDBAGS.
- 6. ROADS MUST BE SWEPT CLEAN OF SOIL, LOOSE ROAD BASE, EARTH AND SEDIMENT AS DETERMINED BY THE CONTRACT ADMINISTRATOR.
- 7. 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
- 8. DUST NUISANCE WILL BE REDUCED BY USE OF WATER SPRAYED ON THE EXPOSED SOURCE OF THE DUST. THE FREQUENCY OF TH SUPPRESSION WILL BE AS DIRECTED BY THE CONTRACT ADMINISTRATOR.

SITE STABILIZATION:

- 1. ALL DISTURBED AREAS MUST BE REGRADED AND GRASS SEEDED WITH A NATIVE GRASS SEED MIX TO PREVENT EROSION AND SUBSEQUENT SILTATION OF THE WATERCOURSE.
- 2. 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:

- 1. THE CONTRACTOR SHALL UNDERTAKE ALL CONCRETE/GROUTING WORK WITH CAUTION, AS WET CEMENT/GROUT IS HIGHLY TOXIC TO AQUATIC ORGANISMS.
- 2. THE CONTRACTOR MUST CAPTURE GROUT, AND DRILL WASTING TO PREVENT ITS ENTRY TO THE
- 3. THERE SHALL BE NO CONTACT WITH FRESHWATER STREAMS THROUGH SPILLAGE, HOSING OFF SURFACES, RAIN, OR CLEANING OF TOOLS.
- 4. COMPLETE ISOLATION OF ALL CAST-IN-PLACE CONCRETE AND GROUTING FROM FISH-BEARING WATER 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.
- 5. NO CONCRETE/GROUT WASH WATER WILL BE ALLOWED TO DISCHARGE TO ANY STORM SEWER, SWALE, STREAM OR DITCH.
- 6. ALL WASH WATER FROM CONCRETE OR GROUT WORKS SHALL BE CONTAINED AND REMOVED FROM
- 7. DISPOSE OF CONCRETE CUTTINGS AND OTHER WASTE MATERIALS AT AN APPROVED DISPOSAL
- FACILITY LOCATED AWAY FROM WATER TO PREVENT IT FROM REENTERING THE WATERCOURSE. 8. THE CONTRACTOR IS TO HAVE SODIUM THIOSULPHATE AVAILABLE ONSITE TO TREAT CHLORINATED WATER IN THE EVENT OF A WATERMAIN BREAK.

9. THE CONTRACTOR IS TO OBTAIN THE OWNER'S APPROVAL PRIOR TO DISCHARGING FLUSHING WATER

OR DISINFECTION WATER TO OWNER'S SANITARY SEWER MANHOLES.

WATERMAIN WASTEWATER SEWER — s — — s — LAND DRAINAGE SEWER — D — — p — PROPERTY LINES — G — GAS — т — TELEPHONE HYDRO —н — CENTER LINE OF DITCH ___ _ __

plan-legend

existing

BENCHMARK ELEVATIONS ARE IN METERS, TO GEODETIC DATUM (CVD28GVRD) REFERRED TO CITY OF NEW WESTMINSTER MONUMENT 89H6012 ELEVATION 0.797m

HM AJ 2022/06/02 THIRD SUBMISSION 2022/03/14 SECOND SUBMISSION HM AJ 0. 2021/09/15 FIRST SUBMISSION HM AJ Issued/Reviewed/Revision y/m/d By App.

LAKHBIR LUDHAR

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Received

Checked

Approved



CITY ENGINEER

262 HUME STREET

Project:

9 of 9 2022/06/02 Checked: A.J. Designed: Drawing No. Checked: City Project No. 12 of 12 PRJ-006999 Project No. 21020

proposed

2022/06/02

seal

CONSULTING INC.