

GENERAL NOTES AND SPECIFICATIONS

- ALL MATERIALS AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH OPS AND CITY OF OTTAWA STANDARD SPECIFICATIONS & DRAWINGS AND OPSD SUPPLEMENT, ONTARIO PROVINCIAL STANDARDS WILL APPLY WHERE NO CITY STANDARDS ARE AVAILABLE.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF SAME INCLUDING WATER PERMIT AND ASSOCIATED COSTS.
- SERVICE AND UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING SERVICES AND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATES FROM ALL UTILITY COMPANIES TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND REINSTATEMENT.
- ALL DISTURBED AREAS SHALL BE REINSTATED TO EQUAL OR BETTER CONDITION TO THE SATISFACTION OF THE ENGINEER & THE CITY. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R10, AND OPSD 509.010, AND OPS5 310.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATION FOR CONSTRUCTION PROJECTS". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DERIVED IN THE ACT.
- THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENTATION CONTROL PLAN WHICH WILL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE PROTECTION FOR RECEIVING STORM SEWERS OR DRAINAGE DURING CONSTRUCTION ACTIVITIES. THE PLAN SHALL INCLUDE BUT NOT BE LIMITED TO FILTER CLOTH ON CATCH BASINS, STRAW BALE CHECK DAMS AND SEDIMENT CONTROLS AROUND ALL DISTURBED AREAS. DEWATERING SHALL BE PUMPED INTO SEDIMENT TRAPS.
- DRAFT PLAN OF SUBDIVISION PREPARED BY ANNIS O'SULLIVAN VOLLEBEKK LTD., DATED FEBRUARY 25, 2025
- TOPOGRAPHIC SURVEY SUPPLIED BY ANNIS O'SULLIVAN VOLLEBEKK LTD., DATED SEPTEMBER 9, 2011
- LANDSCAPE ARCHITECT PLAN PREPARED BY XXX, DATED XXX. REFER TO ORIGINAL LANDSCAPE ARCHITECT PLAN FOR ALL LANDSCAPING FEATURES (ie. TREES, WALKWAYS, PARK DETAILS, NOISE BARRIERS, FENCES etc.)
- GEOTECHNICAL INVESTIGATION PG3062-1 REV 4 PREPARED BY PATERSON GROUP INC., DATED MAY 24, 2019. GEOTECHNICAL INFORMATION PRESENTED ON THESE DRAWINGS MAY BE INTERPOLATED FROM THE ORIGINAL REPORT. REFER TO ORIGINAL GEOTECHNICAL REPORT FOR ADDITIONAL DETAILS AND TO VERIFY ASSUMPTIONS MADE HEREIN.
- STREET LIGHTING TO CITY OF OTTAWA STANDARDS.
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED. DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO ENGINEER.
- THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL BY THE CONTRACT ADMINISTRATOR AND DIRECTOR OF ENGINEERING HAS BEEN OBTAINED.
- HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE TO BE NOTIFIED IF DEEP BURIED ARCHEOLOGICAL REMAINS ARE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES.

ROADWORKS

- ALL TOPSOIL AND ORGANIC MATERIAL TO BE STRIPPED FROM WITHIN THE FULL RIGHT OF WAY PRIOR TO CONSTRUCTION.
- SUB-EXCAVATE SOFT AREAS & FILL WITH GRANULAR "B" COMPACTED IN 0.30m LAYERS.
- ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDJ).
- ROAD SUBDRAINS SHALL BE CONSTRUCTED AS PER CITY OF OTTAWA STANDARD R1.
- ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE CONSULTANT.
- CONTRACTOR TO OBTAIN A ROAD OCCUPANCY PERMIT 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL ROAD ALLOWANCE IF REQUIRED BY THE MUNICIPALITY. ALL WORK ON THE MUNICIPAL RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE MUNICIPALITY PRIOR TO BACKFILLING.
- PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R10, AND OPSD 509.010, AND OPS5 310.
- CONCRETE CURBS SHALL BE CONSTRUCTED AS PER CITY STANDARD SCT.1 AND SCT.1.3 (BARRIER OR MOUNTABLE CURB AS SHOWN ON DRAWINGS).
- CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PER CITY STANDARDS SC3 AND SCT.4.
- PAVEMENT CONSTRUCTION AS PER GEOTECHNICAL INVESTIGATION PG3062-1 REV 4 PREPARED BY PATERSON GROUP INC., DATED MAY 24, 2019.

DRIVEWAYS
50mm HL3 OR SUPERPAVE 12.5
150mm OPSS GRANULAR A BASE
300mm OPSS GRANULAR B TYPE II

LOCAL ROADS
40mm SUPERPAVE 12.5
50mm SUPERPAVE 19.0
150mm OPSS GRANULAR A BASE
400mm OPSS GRANULAR B TYPE II

ROADS WITH BUS TRAFFIC
40mm SUPERPAVE 12.5
50mm SUPERPAVE 19.0
50mm SUPERPAVE 19.0
150mm OPSS GRANULAR A BASE
600mm OPSS GRANULAR B TYPE II

WATER SUPPLY SERVICING

- THE CONTRACTOR SHALL CONSTRUCT WATERMAINS, WATER SERVICES, CONNECTIONS & APPURTENANCES AS PER CITY OF OTTAWA SPECIFICATIONS & DRAWINGS AND PAY ALL RELATED COSTS INCLUDING THE COST OF CONNECTION, INSPECTION & DISINFECTION BY CITY PERSONNEL.
- WATERMAIN PIPE MATERIAL SHALL BE PVC CL 150 DR18. DEFLECTION OF WATERMAIN PIPE IS NOT TO EXCEED 1/2 OF THAT SPECIFIED BY THE MANUFACTURER. PVC WATERMAINS TO BE BE INSTALLED WITH TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W36.
- WATER SERVICES AS BE PEX PIPE AS PER CITY OF OTTAWA STANDARD W26 (UNLESS OTHERWISE NOTED). WATER SERVICE TO EXTEND 2.0m BEYOND PROPERTY LINE. STAND POST TO BE INSTALLED AT PROPERTY LINE.
- FIRE HYDRANTS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W18 AND W19.
- WATER VALVES TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W24.
- PROPOSED UNITS TO BE EQUIPPED WITH PRESSURE REDUCING VALVES (PRVs) AS PER THE ONTARIO BUILDING CODE.
- WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W17 UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL TO BE SPECIFIED BY PROJECT GEOTECHNICAL CONSULTANT, WHERE BEDDING IS LOCATED WITHIN THE FIRM GREY SILTY CLAY. THE THICKNESS OF THE BEDDING MATERIAL SHOULD BE INCREASED TO A MINIMUM OF 300mm.
- SERVICE CONNECTIONS SHALL BE INSTALLED A MINIMUM OF 2400mm FROM ANY CATCHBASIN, MANHOLE, OR OBJECT THAT MAY CONTRIBUTE TO FREEZING. THERMAL INSULATION SHALL BE INSTALLED ON ALL PROPOSED CURBS ON THE W/M STREET SIDE WHERE 2400mm SEPARATION CANNOT BE ACHIEVED (AS PER CITY OF OTTAWA W22 & W23)
- CATHODIC PROTECTION TO BE SUPPLIED ON METALIC FITTINGS AS PER CITY OF OTTAWA W40 AND W42.
- THRUST BLOCKS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W23 AND W25 & FOR SOILS 100 kPa OR GREATER. FOR SOILS LESS THAN 99 kPa THRUST BLOCKS SHALL BE DETERMINED BY THE GEOTECHNICAL CONSULTANT AT THE TIME OF CONSTRUCTION.
- WATERMAIN TO HAVE MIN. 2.4m COVER. WHERE WATERMAIN COVER IS LESS THAN 2.4m, INSULATION TO BE SUPPLIED IN ACCORDANCE WITH CITY STANDARD W22.
- WATERMAIN CROSSINGS ABOVE AND BELOW SEWERS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W25 AND W25.2.

STORM AND SANITARY SEWERS

- SANITARY SEWERS 375mm DIA. OR SMALLER SHALL BE PVC SDR35. SANITARY SEWERS LARGER THAN 375mm SHALL BE CONCRETE CSA A 257.2 CLASS 100-D AS PER OPSD 807.010 UNLESS OTHERWISE SPECIFIED.
- STORM SEWERS 375mm DIA. OR SMALLER SHALL BE PVC SDR 35. STORM SEWERS LARGER THAN 375mm DIA. SHALL BE CONCRETE CSA A 257.2 CLASS 100-D AS PER OPSD 807.010 UNLESS OTHERWISE SPECIFIED.
- ALL STORM AND SANITARY SEWER BEDDING SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARDS S6 AND S7, CLASS "B" BEDDING, UNLESS OTHERWISE NOTED. SUITABLE BEDDING AND COVER MATERIAL TO BE SPECIFIED BY GEOTECHNICAL CONSULTANT. WHERE BEDDING IS LOCATED WITHIN THE FIRM GREY SILTY CLAY, THE THICKNESS OF THE BEDDING MATERIAL SHOULD BE INCREASED TO A MINIMUM OF 300mm.
- STORM AND SANITARY MANHOLES SHALL BE 1200mm DIAMETER IN ACCORDANCE WITH OPSD-701.01 (UNLESS OTHERWISE NOTED) c/w FRAME AND COVER AS PER CITY OF OTTAWA S24, S24.1 AND S25.
- ALL STORM MANHOLES WITH 900mm DIA SEWERS AND OVER IN SIZE SHALL BE BENCHED. ALL OTHERS SHALL BE COMPLETED WITH 300mm SUMPS AS PER CITY STANDARDS. SANITARY MANHOLES SHALL NOT HAVE SUMPS.
- ALL PLACEMENT FOR MANHOLES WITH 900mm DIA SEWERS AND OVER IN SIZE SHALL BE AS PER CITY OF OTTAWA S12.2.
- ALL SEWERS CONSTRUCTED WITH GRADES 0.50% OR LESS. TO BE INSTALLED WITH LASER AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
- FOR STORM SEWER INSTALLATION (EXCLUDING C8 LEADS) THE MINIMUM DEPTH OF COVER OVER THE CROWN OF THE SEWER IS 2.0m. FOR SANITARY SEWERS THE MINIMUM DEPTH OF COVER IS 2.5m OVER PIPE OBVERT. WHERE MINIMUM COVER IS NOT PROVIDED, INSULATION TO BE SUPPLIED IN ACCORDANCE WITH CITY STANDARD W22.
- SAFETY PLATFORMS SHALL BE INSTALLED IN ACCORDANCE WITH OPSD 404.02.
- DROP STRUCTURES TO BE INSTALLED AS PER CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.010
- ALL STORM AND SANITARY SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
- STORM AND SANITARY SERVICE LATERALS TO BE SDR 28 INSTALLED AT MIN. 1.0% SLOPE. SINGLE STORM SERVICES TO BE 100mmØ, SINGLE SANITARY SERVICES TO BE 135mmØ. SERVICES TO EXTEND 2.0m BEYOND PROPERTY LINE.
- CATCH BASINS SHALL BE IN ACCORDANCE WITH CITY STANDARDS c/w FRAME AND GRATE. REAR YARD CBS SHALL BE AS PER S19.1, STREET CBS AS PER S2 AND S19, AND CURB INLET CBS AS PER S3, S22 AND S23. PROVIDE 150mm ADJUSTED SPACERS. ALL CATCH BASINS SHALL HAVE SUMPS (600mm DEEP). STREET CATCH BASIN LEADS SHALL BE 200mm DIA. (MIN) PVC SDR 35 AT 1.0% GRADE WHERE NOT OTHERWISE SHOWN ON PLAN. CATCH BASINS WILL BE INSTALLED WITH INLET CONTROL DEVICES (ICD) AS PER ICD SCHEDULE ON STORM DRAINAGE PLAN.
- STREET CATCH BASINS TO BE INSTALLED c/w 150mmØ SUBDRAINS 3m LONG IN FOUR ORTHOGONAL DIRECTIONS OR LONGITUUDINALLY WHEN PLACED ALONG A CURB, AND AT AN ELEVATION OF 300mm BELOW SUBGRADE LEVEL.
- REAR LOT PERFORATED PIPE TO BE INSTALLED AS PER CITY OF OTTAWA STANDARDS S29. REAR LOT STRUCTURES TO BE INSTALLED AS PER CITY OF OTTAWA STANDAR S30 AND S31.
- CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD DRAWING NO. S8. THE SEALS SHOULD BE AT LEAST 1.5m LONG (IN THE TRENCH DIRECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS

SHOULD EXTEND FROM THE FROST LINE AND FULLY PENETRATE THE BEDDING, SUBBEDDING AND COVER MATERIAL. THE BARRIERS SHOULD CONSIST OF RELATIVELY DRY IMPERVIOUS MATERIAL PLACED IN MAXIMUM 225mm THICK LOOSE LOCKS LIFTS AND COMPACTED TO A MINIMUM OF 98% OF THE SPMDJ. THE CLAY SEALS SHOULD BE PLACED AT THE SITE BOUNDARIES AND AT STRATEGIC LOCATIONS AT NO MORE THAN 60m INTERVALS IN THE SERVICE TRENCHES. FOR DETAILS REFER TO GEOTECHNICAL INVESTIGATION PG3062-1 REV 4 PREPARED BY PATERSON GROUP INC., DATED MAY 24, 2019.

- GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300 mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA AND COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.

- CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR DEEP SANITARY SEWERS IN ACCORDANCE WITH OPS5 410 AND OPS5 407.07.25. MAINTENANCE HOLES FAILING THE INITIAL TEST SHALL HAVE THE LEAKS REPAIRED AND BE RE-TESTED UNTIL THE LEAKAGE IS BELOW THE ALLOWABLE LIMIT.

- CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL STORM AND SANITARY SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE CONSULTANT AND THE CITY WASTEWATER BRANCH FOR REVIEW.

- ALL DEEP SANITARY SEWER SERVICE CONNECTIONS TO BE MADE AT A 45° ANGLE OR LESS, ANY VERTICAL PORTIONS TO BE LOCATED BACK FROM THE MAIN SUCH THAT THE SERVICE IS FULLY SUPPORTED BY THE GROUND AND NOT THE SEWER PIPE. AN ELBOW SUPPORTED BY A THRUST BLOCK OR CONCRETE CRADLE MAY BE NEEDED TO AVOID PROBLEMS WITH THE LATERALS.

- WHEN THE BEDDING AND COVER MATERIAL IS PLACED WITHIN THE CONFINES OF A TRENCH BOX AND STEEL PLATES WITHIN DEEP SERVICES TRENCHES, IT IS GENERALLY RECOMMENDED THAT THE TRENCH BOX BE PLACED TIGHT AGAINST THE OUTSIDE OF THE TRENCH WALLS AND REMAIN APPROXIMATELY 300mm ABOVE THE OBVERT LEVEL OF THE SERVICE PIPE. THE VERTICAL EXCAVATION SIDEWALLS WITHIN THE LOWER PORTION OF THE TRENCH (BELOW THE OBVERT LEVEL OF THE PIPE) CAN BE SUPPORTED USING STEEL PLATES EXTENDED DOWN TO THE BOTTOM OF THE TRENCH. THE STEEL PLATES CAN BE EXTEND BELOW THE BASE OF THE EXCAVATION TO PREVENT BASAL HEAVE IF NECESSARY. TO MINIMIZE THE DISTURBANCE OF THE BEDDING AND COVER MATERIAL AND SUBSEQUENT MOVEMENT OF THE SERVICE PIPE DURING THE REMOVAL OF THE STEEL PLATES, IT IS RECOMMENDED THAT THE STEEL PLATES BE VERTICALLY REMOVED STRATEGICALLY AFTER THE PLACEMENT AND COMPACTION OF THE BEDDING AND COVER MATERIAL.

- PROPOSED IPEX TEMPEST HF ICDS ARE TO HAVE CIRCULAR ORICES AS SPECIFIED AND ARE REQUIRED TO BE VERTICAL SLIDING TYPE WITH FLOATABLE TRAP.

- CONTROLLED SETTLEMENT JOINTS BE USED ON EACH BUILDING SERVICE CONNECTION AS PER CITY STANDARD S11

- PROPOSED REAR YARDS AS INDICATED ON THE DWGS TO BE EQUIPPED WITH BIOSWALES ALONG THE LENGTH OF THE PROPOSED SUBDRAIN AS PER THE DETAILS SHOWN ON DWG DS-3.

GRADING

- ALL GRANULAR BASE & SUB BASE COURSE MATERIALS SHALL BE COMPACTED TO 98% STANDARD PROCTOR MAX. DRY DENSITY.
- SUB-EXCAVATE SOFT AREAS & FILL WITH GRANULAR "B" COMPACTED IN 0.15m LAYERS.
- ALL DISTURBED GRASSED AREAS SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER, WITH SOD ON MIN. 100mm TOPSOIL. THE RELOCATION OF TREES AND SHRUBS SHALL BE SUBJECT TO APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT OR ENGINEER.

- 100 YEAR PONDING DEPTH TO BE 0.35m (MAXIMUM).

- EMBANKMENTS TO BE SLOPED AT MIN. 3:1, UNLESS OTHERWISE SPECIFIED.

- ALL SWALES TO BE MIN. 0.15m DEEP WITH MIN. 3:1 SIDE SLOPES UNLESS OTHERWISE NOTED. PERFORATED SUBDRAIN IS TO BE INSTALLED IN SWALES WHERE THE LONGITUDINAL SLOPE IS LESS THAN 1.5%.

- ALL ROOF DOWNSPOUTS TO DISCHARGE TO THE GROUND ONTO SPLASH PADS AND SHALL NOT BE DIRECTED TO THE STORM SEWER, OR THE BUILDING FOUNDATION DRAIN.

- TOP OF GRATE (T/G) ELEVATIONS FOR ALL STREET CATCHBASINS SHOWN ON PLANS REFER TO THE ELEVATION AT EDGE OF PAVEMENT, OR GUTTERLINE WHERE APPLICABLE.

- ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT ARE TO BE DESIGNED, APPROVED, AND STAMPED BY STRUCTURAL ENGINEER.

- FENCES OR RAILINGS ARE REQUIRED FOR RETAINING WALLS GREATER THAN 0.60m IN HEIGHT.

- EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.

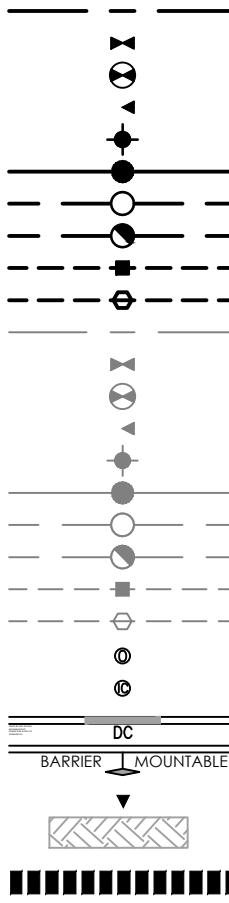
- ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO TREE CUTTING.

- REFER TO DRAWING EC-1, EC-2 AND EC-3 FOR EROSION AND SEDIMENT CONTROL DETAILS.

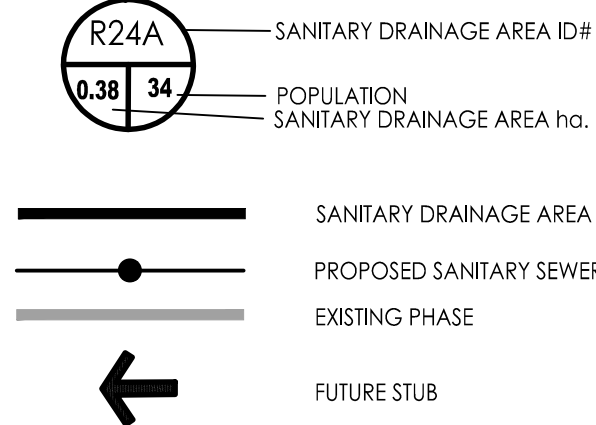
- REFER TO GEOTECHNICAL MEMO PG3062-MEMO.19 REV 1 PREPARED BY PATERSON GROUP INC., DATED JUNE 29, 2021 FOR LIGHTWEIGHT FILL AND SURCHARGE RECOMMENDATIONS.

LEGEND

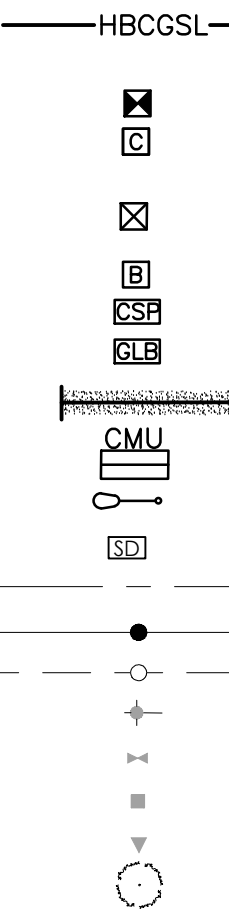
SERVICING



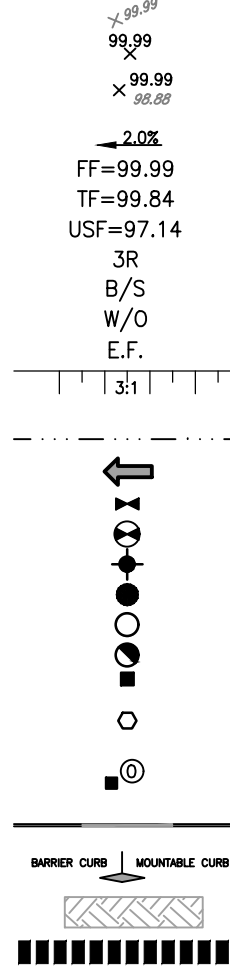
SANITARY DRAINAGE



COMPOSITY UTILITY



GRADING



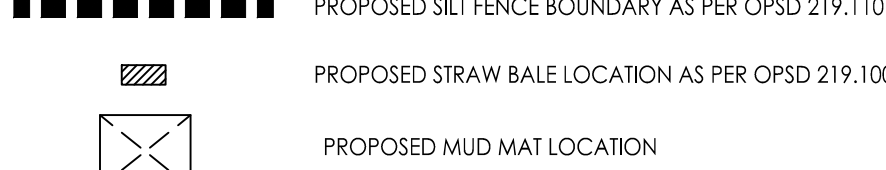
PONDING



STORM DRAINAGE



EROSION CONTROL



Proposed Second Registration Phase /CD Schedule

Catchbasin ID	Tributary Area ID	Minor System Node	ICD Type	2yr Head (m)	100yr Head (m)	2yr Flow (L/s)	100yr Flow (L/s)
CB 205 A-1	C205A	205	IPEX TEMPEST HF (127mm ORIFICE)	0.31	1.65	15.8	40.4
CB 205 A-2	C205A	205	IPEX TEMPEST HF (152mm ORIFICE)	0.31	1.65	22.1	57.7
CB 219 A-1	C219A	219	IPEX TEMPEST HF (102mm ORIFICE)	0.46	1.52	13.3	25.1
CB 220 A-1 & 2	C220A	220	IPEX TEMPEST HF (159mm ORIFICE)	0.30	1.66	31.2	80.7
CB 220 A-1 & 2	C220A	220	IPEX TEMPEST HF (199mm ORIFICE)	0.30	1.66	33.2	90.7
CB 222 A-1 & 2	C222A	222	IPEX TEMPEST HF (203mm ORIFICE)	0.41	1.66	45.4	102.3
CB 222 A-1 & 2	C222A	222	IPEX TEMPEST HF (203mm ORIFICE)	0.41	1.66	45.4	102.3
CB 223 A-1	C223A	223	IPEX TEMPEST HF (152mm ORIFICE)	0.38	1.58	25.1	56.4
CB2M 234A	G234C	234	IPEX TEMPEST HF (102mm ORIFICE)	1.58	4.35	18.3	24.3
CB 116 A-1 & 2	L116A	116	IPEX TEMPEST HF (95mm ORIFICE)	0.91	1.66	16.7	22.8
CB 202 A-1 & 2	L202A	202	IPEX TEMPEST HF (83mm ORIFICE)	0.86	1.67	12.4	17.5
CB 202 A-1 & 2	L202A	202	IPEX TEMPEST HF (83mm ORIFICE)	0.86	1.67	12.4	17.5
CB 202 A-1 & 2	L202A	202	IPEX TEMPEST HF (108mm ORIFICE)	1.82	2.11	30.9	39.3
CB 204 A-1 & 2	L204A	204	IPEX TEMPEST HF (127mm ORIFICE)	1.20	1.63	34.2	40.2
CB 204 A-1 & 2	L204A	204	IPEX TEMPEST HF (127mm ORIFICE)	1.20	1.63	34.2	40.2
CB 204 B-1 & 2	L204B	204	IPEX TEMPEST HF (127mm ORIFICE)	0.73	1.63	26.2	40.2
CB 204 B-1 & 2	L204B	204	IPEX TEMPEST HF (127mm ORIFICE)	0.73	1.63	26.2	40.2
CB 204 C-1	L204C	202	IPEX TEMPEST HF (108mm ORIFICE)	1.15	2.40	24.3	35.5
CB 205 B-1	L205B	205	IPEX TEMPEST HF (127mm ORIFICE)	1.32	2.26	35.9	47.4
CB 206 A-1 & 2	L206A	206	IPEX TEMPEST HF (108mm ORIFICE)	1.23	1.63	25.2	29.2
CB 206 A-1 & 2	L206A	206	IPEX TEMPEST HF (108mm ORIFICE)	1.23	1.63	25.2	29.2
CB 206 B-1	L206B	206	IPEX TEMPEST HF (148mm ORIFICE)	0.51	1.51	26.2	46.7
CB 207 A-1 & 2	L207A	207	IPEX TEMPEST HF (152mm ORIFICE)	0.85	1.69	40.3	58.5
CB 207 A-1 & 2	L207A	207	IPEX TEMPEST HF (152mm ORIFICE)	0.85	1.69	40.3	58.5
CB 209 A-1 & 2	L209A	209	IPEX TEMPEST HF (127mm ORIFICE)	0.74	1.45	26.4	37.7
CB 209 A-1 & 2	L209A	209	IPEX TEMPEST HF (127mm ORIFICE)	0.74	1.45	26.4	37.7
CB 209 B-1	L209B	209	IPEX TEMPEST HF (102mm ORIFICE)	1.12	1.42	21.4	24.2
CB 209 C-1	L209C	209	IPEX TEMPEST HF (108mm ORIFICE)	1.92	2.04	31.7	32.7
CB 210 A-1	L210A	210	IPEX TEMPEST HF (108mm ORIFICE)	0.96	1.58	22.1	28.7
CB 210 A-2	L210A	210	IPEX TEMPEST HF (127mm ORIFICE)	0.96	1.58	30.4	39.6
CB 211 A-1 & 2	L211A	211	IPEX TEMPEST HF (127mm ORIFICE)	1.06	1.61	32.0	39.9
CB 211 A-1 & 2	L211A	211	IPEX TEMPEST HF (127mm ORIFICE)	1.06	1.61	32.0	39.9
CB 212 A-1 & 2	L212A	212	IPEX TEMPEST HF (83mm ORIFICE)	0.24	1.41	6.1	16.0
CB 212 A-1 & 2	L212A	212	IPEX TEMPEST HF (83mm ORIFICE)	0.24	1.41	6.1	16.0
CB 212 A-1 & 2	L212A	212	IPEX TEMPEST HF (83mm ORIFICE)	0.24	1.41	6.1	16.0
CB 213 A-1 & 2	L213A	213	IPEX TEMPEST HF (95mm ORIFICE)	0.83	1.56	15.9	22.1
CB 213 A-1 & 2	L213A	213	IPEX TEMPEST HF (95mm ORIFICE)	0.83	1.56	15.9	22.1
CB 214 A-1 & 2	L214A	214	IPEX TEMPEST HF (152mm ORIFICE)	0.97	1.61	43.4	57.0
CB 214 A-1 & 2	L214A	214	IPEX TEMPEST HF (152mm ORIFICE)	0.97	1.61	43.4	57.0
CB 217 A-1 & 2	L217A	217	IPEX TEMPEST HF (127mm ORIFICE)	0.92	1.57	29.7	39.5
CB 217 A-1 & 2	L217A	217	IPEX TEMPEST HF (127mm ORIFICE)	0.92	1.57	29.7	39.5
CB 218 B-1	L218B	218	IPEX TEMPEST HF (95mm ORIFICE)	2.04	2.15	25.4	26.1
CB 219 B-1	L219B	219	IPEX TEMPEST HF (127mm ORIFICE)	0.72	1.69	26.1	40.9
CB 219 B-2	L219B	219	IPEX TEMPEST HF (152mm ORIFICE)	0.72	1.69	37.0	58.4
CB 220 A-1	L220A	220	IPEX TEMPEST HF (178mm ORIFICE)	1.14	2.09	44.7	89.2
CB 225 A-1	L225A	225	IPEX TEMPEST HF (108mm ORIFICE)	1.38	1.66	26.8	29.5
CB 225 A-2	L225A	225	IPEX TEMPEST HF (108mm ORIFICE)	1.38	1.66	26.8	29.5
CB 225 C-1	L225C	225	IPEX TEMPEST HF (127mm ORIFICE)	1.32	1.59	36.0	39.6
CB 225 C-2	L225C	225	IPEX TEMPEST HF (108mm ORIFICE)	1.32	1.59	26.1	28.7
CB 228A-1	L228A	228	IPEX TEMPEST HF (127mm ORIFICE)	1.08	1.60	31.4	39.8
CB 228A-2	L228A	228	IPEX TEMPEST HF (152mm ORIFICE)	1.08	1.60	46.1	56.8
CB 229A-1	L229A	229	IPEX TEMPEST HF (108mm ORIFICE)	1.29	1.59	25.8	28.8
CB 229A-2	L229A	229	IPEX TEMPEST HF (108mm ORIFICE)	1.29	1.59	25.8	28.8
CB 234 A-1 & 2	L234A	234	IPEX TEMPEST HF (95mm ORIFICE)	1.20	1.63	19.3	22.6
CB 234 B-1 & 2	L234B	234	IPEX TEMPEST HF (95mm ORIFICE)	0.96	1.65	17.1	22.7
CB 234 B-1 & 2	L234B	234	IPEX TEMPEST HF (95mm ORIFICE)	0.96	1.65	17.1	22.7
CB 234D-1	L234D	234	IPEX TEMPEST HF (152mm ORIFICE)	1.39	2.12	52.8	65.7
CB 235 A-1 & 2	L235A	235	IPEX TEMPEST HF (178mm ORIFICE)	0.88	1.69	55.9	79.9
CB 235 A-1 & 2	L235A	235	IPEX TEMPEST HF (178mm ORIFICE)	0.88	1.69	55.9	79.9
CB 240 A-1 & 2	L240A	240	IPEX TEMPEST HF (83mm ORIFICE)	1.01	1.55	13.5	1