UTILITY LEGEND

	TRANSFORMER
	TRANSFORMER C/W CONCRETE WINGS
HSG	HYDRO SWITCHGEAR
НМН	HYDRO MANHOLE
	BELL PEDESTAL
GLB	BELL GRADE LEVEL BOX (I=600mm, w=1200mm, d=750mm) C/W 1.5 x 3.0m easement
FC	BELL FIBER CABINET (I=1200mm, w=750mm, d=500mm)
CSP	BELL CENTRAL SPLITTING POINTS (I=1175mm, w=1200mm, d=500mm)
	ROGERS PEDESTAL
\boxtimes	ROGERS VAULT (I=1000mm, w=1000mm, d=1200mm) C/W 1m x 2m easement
P30	STREET LIGHT
D	STREET LIGHT DISCONNECT
— 	STREET LIGHT GROUNDING
———H/B/T/G/S———	JOINT UTILITY TRENCH
———н——	HYDRO CABLE AND DUCTS
————НН————	CONCRETE ENCASED HYDRO DUCT BANK
———В———	BELL CABLE
————BB	BELL DUCTS
т	ROGERS CABLE
TT	ROGERS DUCTS
G	GAS
s	STREET LIGHT CABLE
	UTILITY DROP LOCATIONS
10 DUOTS	
<u>10-DUCTS</u> 6-H 4 -T	CONCRETE ENCASED DUCT BANK C/W NUMBER OF DUCTS
ZCMBZ	COMMUNITY MAILBOX
	PROPOSED TREE LOCATION
(;)	ROOT MANAGEMENT BARRIER

SEDIMENT EROSION LEGEND

	HEAVY DUTY SILT FENCE
	SNOW FENCE
₩	STRAW BALE CHECK DAM
	STRAW BALE CHECK DAM WITH FILTER CLOTH
	ROCK CHECK DAM
©\$B	SEDIMENT SACK PLACED UNDER EXISTING CB COVER
	TEMPORARY MUD MAT 0.15m THICK 50mm CLEAR

STONE ON NON WOVEN FILTER CLOTH

GENERAL LEGEND

	LIMIT OF CONSTRUCTION
	PHASING LINE
	BARRIER CURB
	MOUNTABLE CURB
	DEPRESSED BARRIER CURB
	CONCRETE SIDEWALK
4	- TACTILE WALKING SURFACE INDICATOR
	ASPHALT SIDEWALK / PATHWAY
19 05	BUS STOP CONCRETE / ASPHALT

SERVICING LEGEND

MH118A	SANITARY MANHOLE		
200mmø SAN	SANITARY SEWER		
MH109 MH118	STORM MANHOLE		
825mmø STM	STORM SEWER - LESS THAN 900Ø		
900mmø STM	STORM SEWER - 900Ø AND GREATER		
200¢ WATERMAIN	WATERMAIN		
CB100	STREET CATCHBASIN C/W TOP OF GRATE		
T/G 104.10 CICB101	CURB INLET CATCHBASIN C/W GUTTER GRADE		
G/G 104.25 DCB100	DOUBLE CATCHBASIN C/W TOP OF GRATE		
T/G 104.10 DCICB101			
G/G 104.25 CBMH100	DITCH INLET CATCHBASIN C/W GUTTER GRADE		
T/G 103.59	CATCHBASIN MANHOLE C/W TOP OF GRATE		
T/G 103.59 CB100	DITCH INLET MANHOLE C/W TOP OF GRATE		
T/G 104.10	ICD LOCATION		
■ RYCB T/G 104.35	REAR YARD CATCHBASIN IN ROAD CONNECTING STRUCTURE C/W SOLID GRATE		
<u>- T</u> /G 104.35 INV 103.35	REAR YARD "TEE" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT		
oT/G 104.50 INV 103.50	REAR YARD "END" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT		
LT/G 104.35 INV 103.35	REAR YARD "CUSTOM ANGLED " CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT		
T/G 104.35 NV 103.35	REAR YARD "THREE WAY" CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT		
700 1 000	PERFORATED REAR YARD SUBDRAIN		
300mmø CSP	CSP CULVERT C/W DIAMETER		
⊗ V&VB	VALVE AND VALVE BOX		
⊗ V&VC	VALVE AND VALVE CHAMBER		
◆ HYD 104.35	FIRE HYDRANT C/W BOTTOM OF FLANGE ELEVATION		
200¢ WM RED 150¢ WM	WATERMAIN REDUCER		
2 VBENDS	VERTICAL BEND LOCATION		
\triangleleft	SINGLE SERVICE LOCATION		
\triangleleft	DOUBLE SERVICE LOCATION		
BH 12 102.00	INFERRED BEDROCK (SEE GEOTECHNICAL REPORT)		
HGL 101.79 S/T	100 YEAR STORM HYDRAULIC GRADE LINE AT MANHOLE		
HGL 101.79	STRESS TEST STORM HYDRAULIC GRADE LINE AT MANHOLE		
<u> 108</u> 102.40	UNDERSIDE OF FOOTING ELEVATION (WITH LOT #)		
***************************************	CLAY SEAL IN SEWER / WATERMAIN TRENCH		

GRADING LEGEND

\rightarrow \rightarrow \rightarrow	PROPOSED SWALE C/W FLOW DIRECTION		
	PROPOSED DITCH C/W FLOW DIRECTION AND SLOPE		
1.3%	SLOPE C/W FLOW DIRECTION		
<- □	MAJOR OVERLAND FLOW ROUTE		
×104.62	PROPOSED SPOT GRADE		
≾104.40 (s)	PROPOSED SWALE GRADE		
×104.50 (s)HP	PROPOSED SWALE HIGH POINT GRADE		
104.60 103.59×	LOT CORNER GRADE C/W EXISTING GRADE		
86.45 EX ×	TIE INTO EXISTING GRADE		
96.79	FULL STATIC PONDING GRADE		
f0000000000000000000000000000000000000	RETAINING WALL		
105.30 T/W 103 <u>150</u> 1111 B/W	TOP OF RETAINING WALL GRADE TERRACING 3:1 MAXIMUM UNLESS NOTED OTHERWISE PROPOSED BOTTOM OF RETAINING WALL GRADE PRESSURE REDUCING VALVE (Based on the higher of the sewer obverts, or hydraulic grade line)		
F.FL. 96.32 T.FND. 95.96 U.S.F. 93.36 RISERS 0 M.U.S.F M.G.G.	- FINISHED FLOOR ELEVATION - TOP OF FOUNDATION ELEVATION - UNDERSIDE OF FOOTING ELEVATION - TOTAL NUMBER OF RISERS - MINIMUM UNDERSIDE OF FOOTING - MINIMUM GARAGE GRADE		
LO	LOOKOUT UNIT		
WO	WALKOUT UNIT		
NS	NON-STANDARD FOUNDATION (Frost cover not provided for standard unit)		
BS	BACKSPLIT UNIT (1.5m frost cover on footings)		
——————————————————————————————————————	NOISE FENCE LOCATION		
——F——F—	NOISE FENCE GATE		

NOTES:

- ALL MATERIALS AND CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS & SPECIFICATIONS OR OPSD/OPSS IF CITY DRAWINGS AND SPECIFICATIONS DO NOT APPLY.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING SERVICES AND UTILITIES PRIOR TO CONSTRUCTION AND SHALL PROTECT AND ASSUME RESPONSIBILITY FOR ALL UTILITIES WHETHER OR NOT SHOW ON THESE DRAWINGS.
- 3. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL REPORT DATED JANUARY 2017 PREPARED BY GOLDER ASSOCIATES LTD.
- 4. FOR GEODETIC BENCHMARK AND GEOMETRIC LAYOUT OF STREET AND LOTS, REFER TO TOPOGRAPHICAL SURVEY AND PLAN OF SUBDIVISION PREPARED BY NOVATECH BENCHMARK BASED ON CAN--NET VIRTUAL REFERENCE SYSTEM NETWORK.
- 5. ROADWAY SECTIONS REQUIRING GRADE RAISE TO PROPOSED SUB GRADE LEVEL TO BE FILLED WITH ACCEPTABLE NATIVE EARTH BORROW OR IMPORTED OPSS SELECTED SUBGRADE MATERIAL IF NATIVE MATERIAL IS DEFICIENT AS PER RECOMMENDATION OF GEOTECHNICAL ENGINEER.
- 6. IN AREAS WHERE EXISTING GROUND IS BELOW THE PROPOSED ELEVATION OF SEWER AND WATERMAINS, GRADE RAISING AND FILLING IS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. AS PER CITY GUIDELINES ALL WATERMAINS IN FILL AREAS ARE TO BE TIED WITH RESTRAINING JOINTS AND THRUST
- 7. REFER TO DRAWING 011 FOR ROADWAY CROSS SECTIONS.
- 8. SILT FENCE TO BE ERECTED PRIOR TO EARTH WORKS BEING COMMENCED. SILT FENCE TO BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED OR UNTIL START OF SUBSEQUENT
- 9. STRAW BALE SEDIMENT TRAPS TO BE PLACED AND MAINTAINED IN EXISTING AND CONSTRUCTED ROAD SIDE DITCHES. TRAPS TO REMAIN AND BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED (IF APPLICABLE).
- 10. SILT SACK TO BE PLACED AND MAINTAINED UNDER COVER OF ALL CATCHBASINS.
 GEOTEXTILE SILT SACK IN STREET CBs TO REMAIN UNTIL ALL CURBS ARE CONSTRUCTED.
 GEOTEXTILE FABRIC IN RYCBs TO REMAIN UNTIL VEGETATION IS ESTABLISHED. ALL
 CATCHBASINS TO BE REGULARLY INSPECTED AND CLEANED, AS NECESSARY, UNTIL SOD
 AND CURBS ARE CONSTRUCTED.
- 11. ALL CONNECTIONS TO EXISTING WATERMAINS ARE TO BE COMPLETED BY CITY FORCES. CONTRACTOR IS TO EXCAVATE, BACKFILL, COMPACT AND REINSTATE.
- 12. ALL LEADS FOR STREET CB'S CONNECTED TO MAIN SHALL BE 200mmØ PVC DR35 @ MIN 2% SLOPE UNLESS NOTED OTHERWISE. ALL STREET CBS SHALL BE CONSTRUCTED WITH TWO 6m 450mmØ PERFORATED SUBDRAINS. ALL LEADS FOR RYCB'S CONNECTED TO MAIN SHALL BE 200mmØ PVC DR35 @ MIN 1% SLOPE UNLESS NOTED OTHERWISE. REARYARD DRAINAGE SYSTEMS ARE NON-STANDARD REFER TO PLANS.
- 13. THESE DRAWINGS ARE NOT TO BE SCALED OR USED FOR LAYOUT PURPOSES.
- 14. THE COMPOSITE UTILITY PLAN HAS BEEN REVIEWED BY IBI GROUP FOR CONFORMITY TO THE DESIGN CONCEPT FOR THE DEVELOPMENT AND FOR GENERAL ARRANGEMENT ONLY AND AS SUCH SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN EITHER LAYOUT OR WORKMANSHIP.
- 15. THIS DRAWING IS A COMPILATION OF OTHER UTILITY DESIGNS AND DOES NOT INDICATE IN ANY WAY THAT THE PARTY SIGNING THIS DRAWING HAS DESIGNED OR APPROVED THE RESPECTIVE UTILITY PLANTS INDICATED ON THIS DRAWING. THE DRAWING WAS PREPARED TO BE USED AS REFERENCE ONLY AS PER REQUIREMENTS OF THE CITY OF OTTAWA. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE IT HAS REVIEWED THE CURRENT AND EXISTING DESIGNS BY HYDRO, STREET LIGHTING, BELL, CANADA POST, O.C. TRANSPO, CABLE TV AND ANY OTHER PARTIES INCLUDED BUT NOT MENTIONED AND COMPLETE THE INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE STAKEHOLDER UTILITY
- 16. THE HGL PROVIDED IS BASED ON HYDRAULIC MODELING COMPLETED USING XPSWMM AND THE 100 YEAR CHICAGO STORM EVENT (C3H10010).
- 17. ALL UTILITY BOXES (i.e. PEDESTALS, TRANSFORMERS, ETS) ARE TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF OTTAWA'S "GUIDELINES FOR UTILITY PEDESTALS WITHIN
- 18. ALL MANHOLES PER OPSD 701.010 AND CATCHBASINS PER OPSD 705.010. ALL MH FRAME AND COVERS PER S24.1. ALL CBMH FRAMES AND COVERS S28.1. ALL CB FRAMES AND COVERS PER S19. ALL LANDSCAPE DRAINS TO BE HDPE COMPATIBLE WITH SPECIFIED INLET/OUTLET PIPE SIZE, TO COME WITH 300mm CAST IRON FRAME AND COVER PER S30.
- 19. INSULATE WATERMAIN AT ALL OPEN STRUCTURES PER W23.

ROADWAY STRUCTURE:

LOCAL ROAD :(615mm)

THE ROAD RIGHT OF WAY"

INLET CONTROL DEVICE (ICD) TABLE

STRUCTURE ID	ICD TYPE	FLOW RATE	HEAD	
MH5B	IPEX MHF CUSTOM 114mm DIAMETER	48.91	3.251	
CB2A	IPEX MHF 83mm DIAMETER	17.01	1.400	
CB2C	IPEX MHF 83mm DIAMETER	33.78	1.380	
CB2E	IPEX MHF 83mm DIAMETER	33.54	1.360	
CB3A	IPEX MHF 83mm DIAMETER	17.43	1.470	
RYCB3	IPEX MHF 83mm DIAMETER	16.40	1.300	
RYCB5	IPEX MHF 83mm DIAMETER	21.28	2.190	

13
12
11
10
9
8
7
6 REVISED AS PER CITY COMMENTS DGY 19:10:01
5 REVISED PER UTILITY COMMENTS DGY 19:08:14
4 REVISED PER ADDENDUM #1 DGY 19:08:13
3 ISSUED FOR TENDER DGY 19:07:29
2 REVISED AS PER CITY COMMENTS DGY 19:07:19
1 ISSUED FOR SPA DGY 19:04:01
No. REVISIONS By Date





IBI GROUP 400 – 333 Preston Street Ottawa ON K1S 5N4 Canada tel 613 225 1311 fax 613 225 9868 ibigroup.com

Project Title

BLOCK 225



)rawing Title

GENERAL NOTES, LEGEND AND ICD TABLE

Scale

N.T.S.

 Design
 Date

 RM/WZ
 APRIL 2019

 Drawn
 Checked

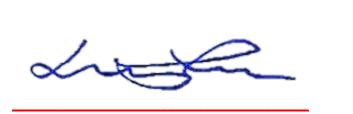
 DPS/WZ
 DGY

 Project No.
 Drawing No.

 114312
 010

APPROVED

By Lily Xu at 12:13 pm, Dec 03, 2019



LILY XU, MCIP, RPP

(A) MANAGER, DEVELOPMENT REVIEW - SOUTH
PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA