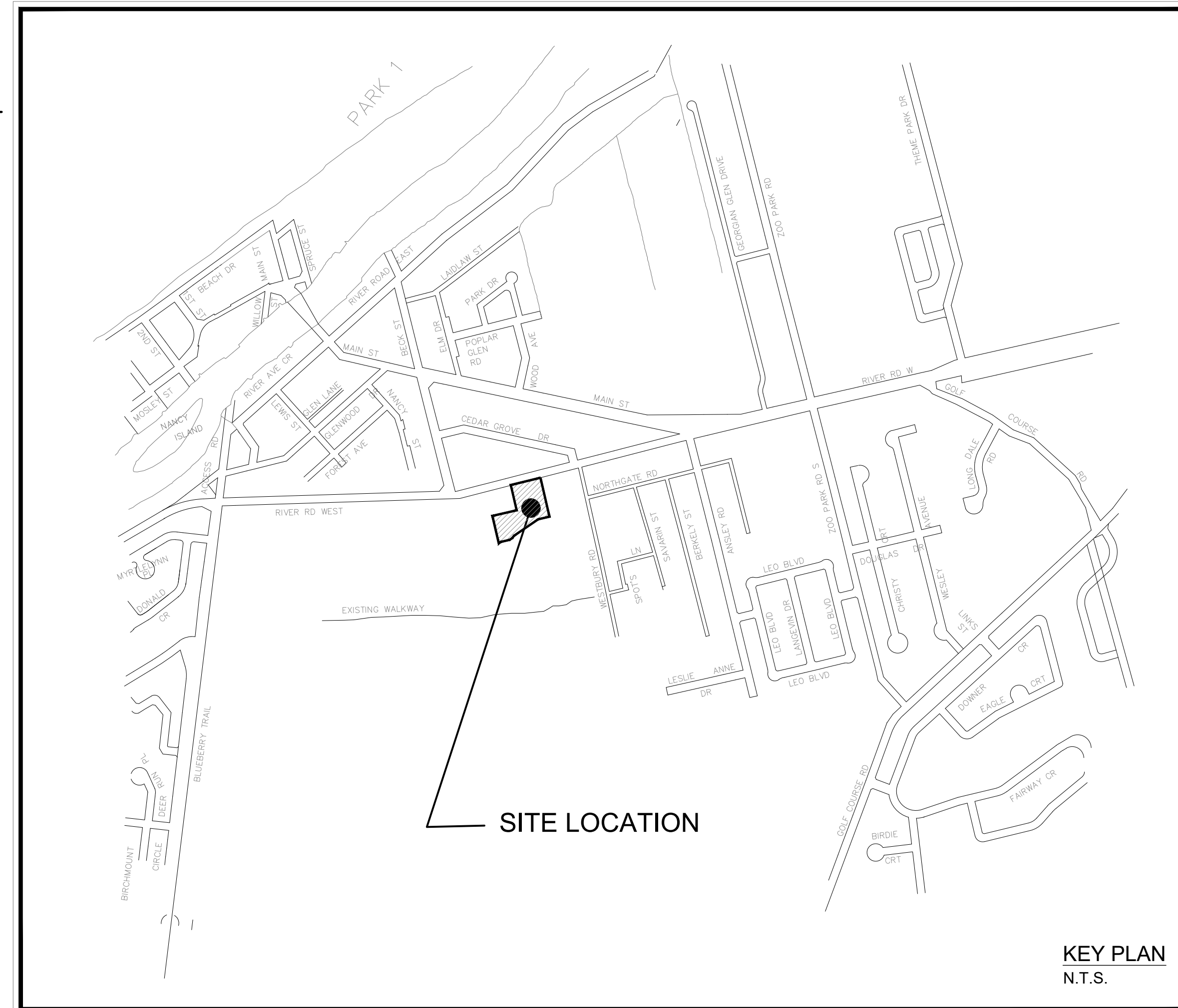


# WASAGA RIVERWOODS HOMES

## WASAGA RIVERWOODS

### DRAWING INDEX

C1	EXISTING CONDITIONS & REMOVALS	
C2	GRADING PLAN (1 OF 2)	
C3	GRADING PLAN (2 OF 2)	
C4	SITE SERVICING PLAN	
C5	PLAN AND PROFILE	RIVER ROAD WEST
C6	PLAN AND PROFILE	PARKING LOT
C7	POST DEVELOPMENT STORMWATER DRAINAGE PLAN	STA. 0+000 - STA. 0+090
C8	EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)	STA. 0+000 - STA. 0+075
C9	EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)	
C10	COMPOSITE UTILITY PLAN	
C11	STANDARD DETAILS	
C12	STANDARD DETAILS	
C13	STANDARD DETAILS	
C14	STANDARD DETAILS	

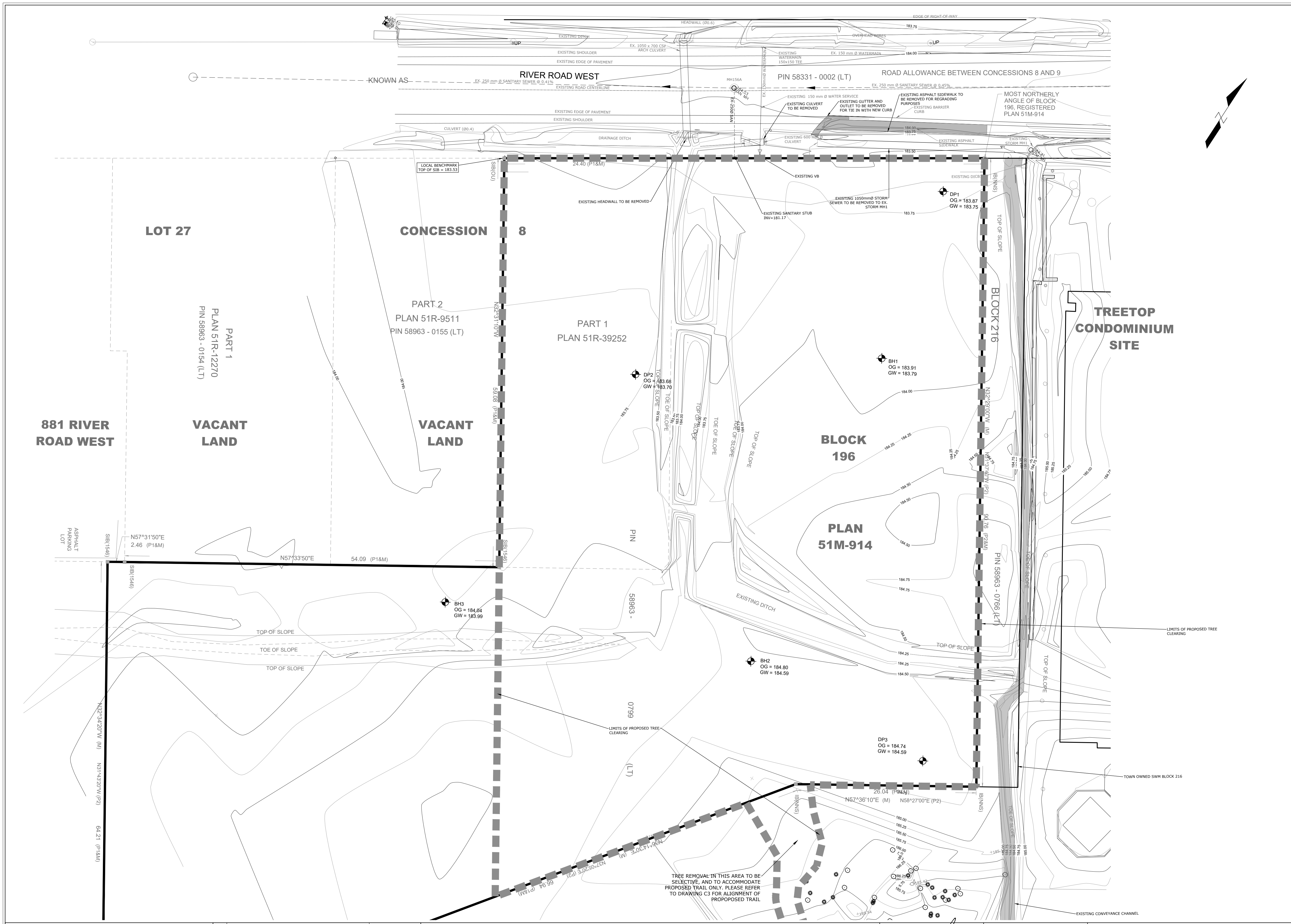
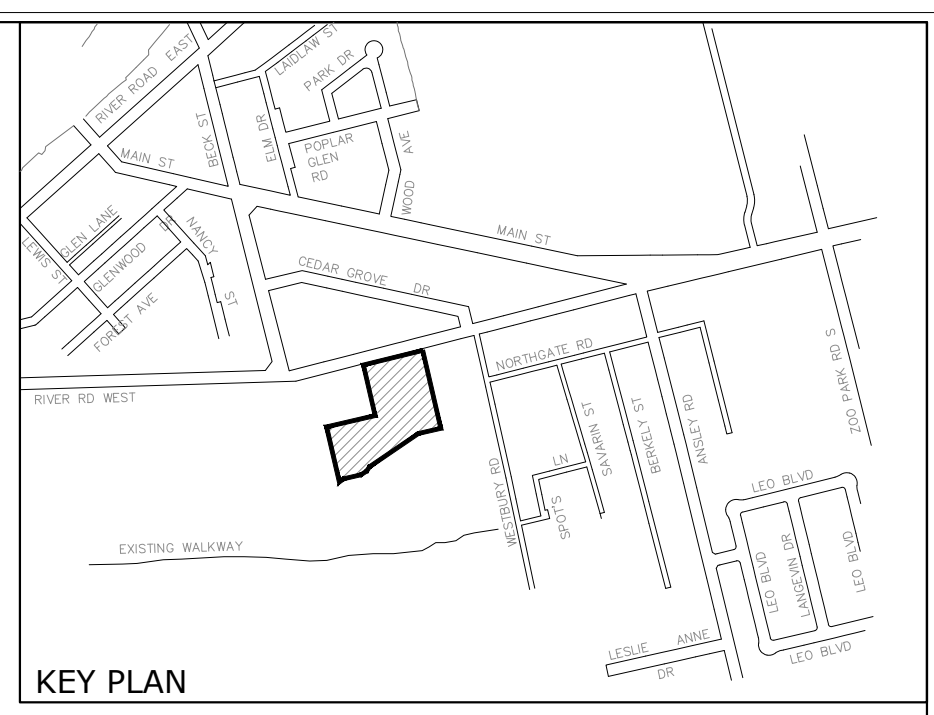


WASAGA RIVERWOODS HOMES  
30 FULTON WAY, UNIT 8  
RICHMOND HILL, ON  
L4B 1E6

Project No. 2018-012

REVISED FOR APPROVALS - 22/09/21

**CAPE**  
**ES**  
ENGINEERING



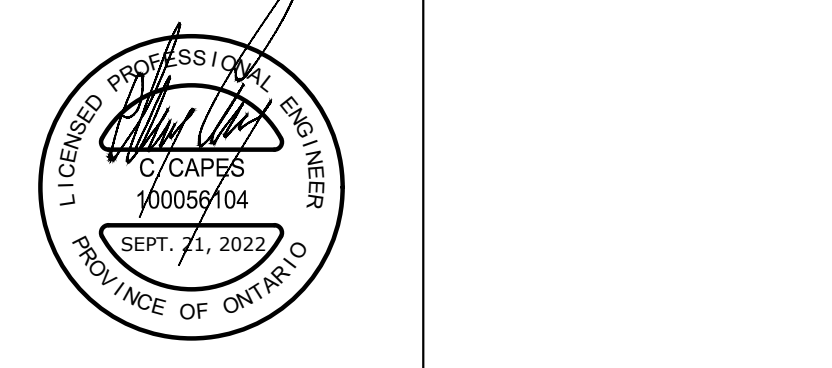
Notes

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

NOTES:  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
 BENCHMARKS  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING A ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING

LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53

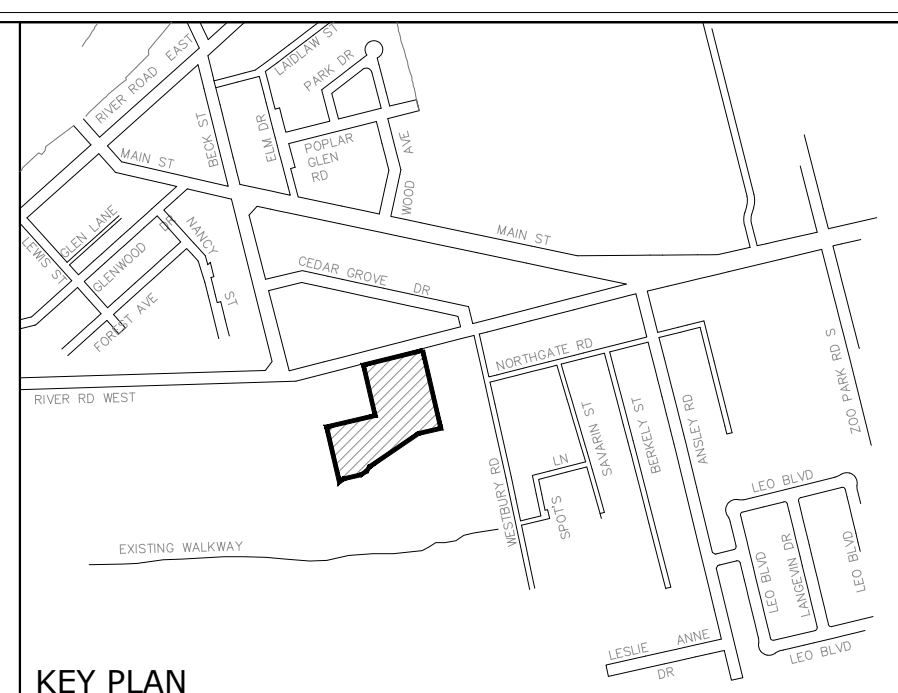
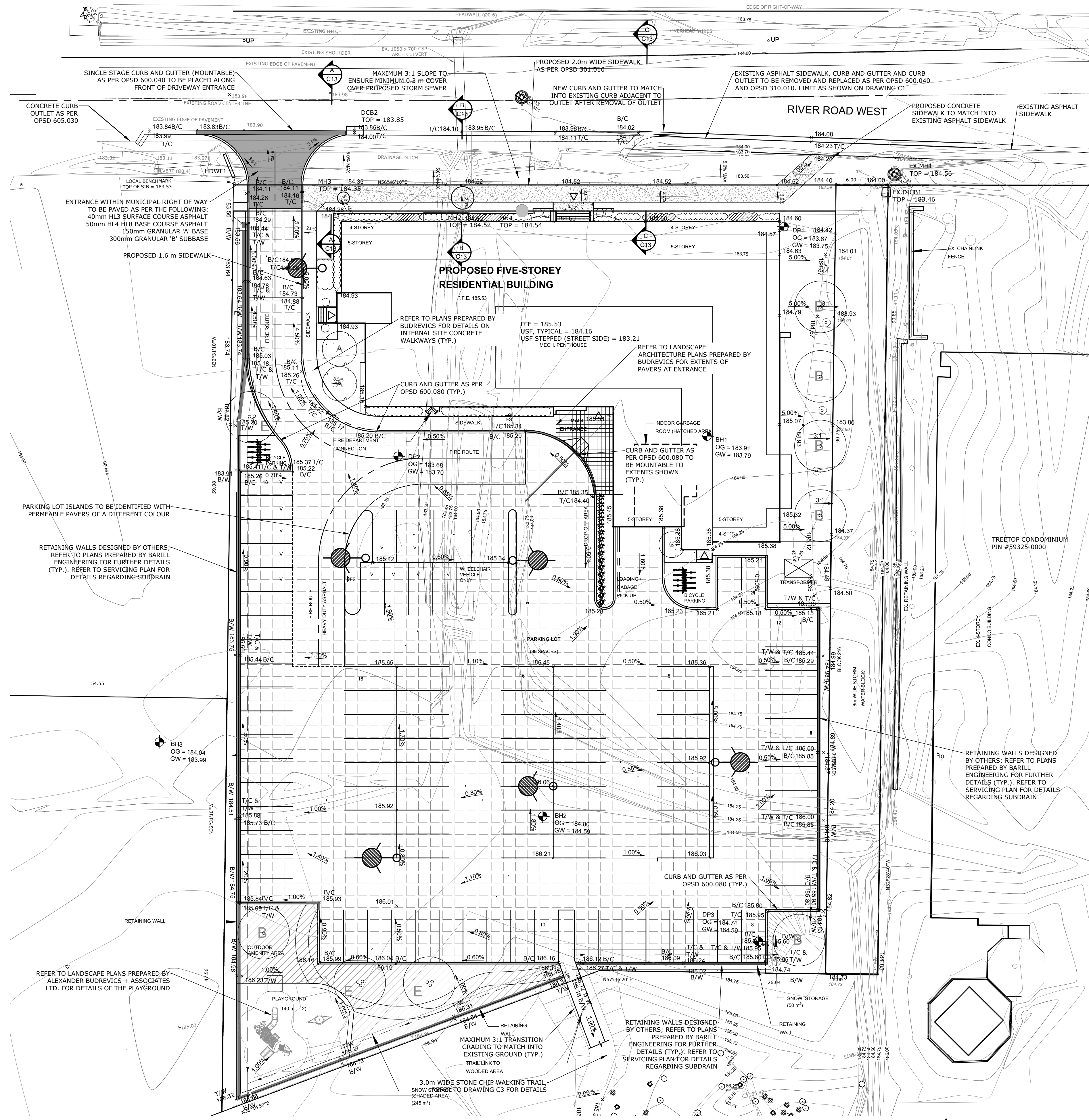


Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J0  
 TEL: 705-994-4818

Designed B. COLLINS		Checked C. CAPES		Date 20/07/20	Drawing No.
Project No. 2018-012		Rev No. 4		C1	
Scale 1:250					

File: C:\Users\capes\Engineering\Projects\2018-012\Wasaga Riverwoods\Drawings\03\_Production\0318-012\_EIST-FNS-COND-01.dwg Date Plotted: September 22, 2022 1:22 PM



**LEGEND**

- 221.21 PROPOSED ELEVATION
- 221.21 EXISTING ELEVATION
- 221.21 T/C PROPOSED TOP OF CURB
- 221.21 B/C PROPOSED BOTTOM OF CURB
- 221.21 T/W PROPOSED TOP OF RETAINING WALL
- 221.21 B/W PROPOSED BOTTOM OF RETAINING WALL
- 1.00% PROPOSED SLOPE
- ⊕ BOREHOLE LOCATION
- ▭ MAXIMUM 3:1 SLOPE UNLESS OTHERWISE NOTED
- SANITARY & STORM MANHOLE
- ▨ PERMEABLE PAVER SURFACE, REFER TO DETAILS
- ⊙ LUMINAIRE ON STEEL POLE

**BUILDING DETAILS**

FFE = 185.53  
 USF, TYPICAL = 184.16  
 USF STEPPED (STREET SIDE) = 183.21

**Notes**

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.

**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. & Mrs. ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHWEST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLET IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING

**LOCAL BENCHMARK:**  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53

Professional Engineer  
 C. CAPES  
 100099104  
 SEP. 21, 2022  
 PROVINCE OF ONTARIO

Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

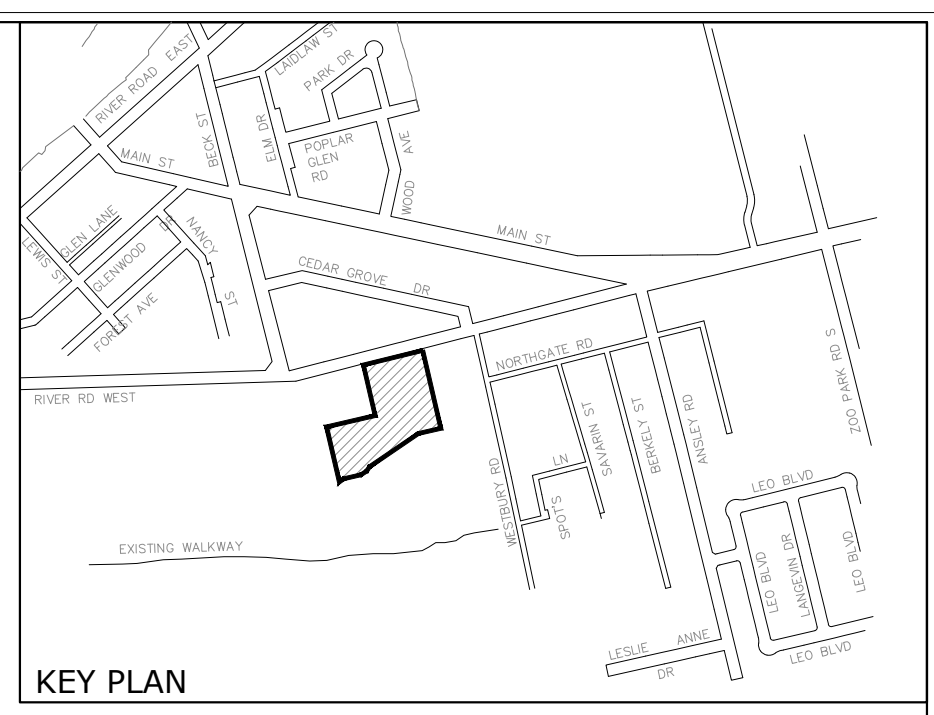
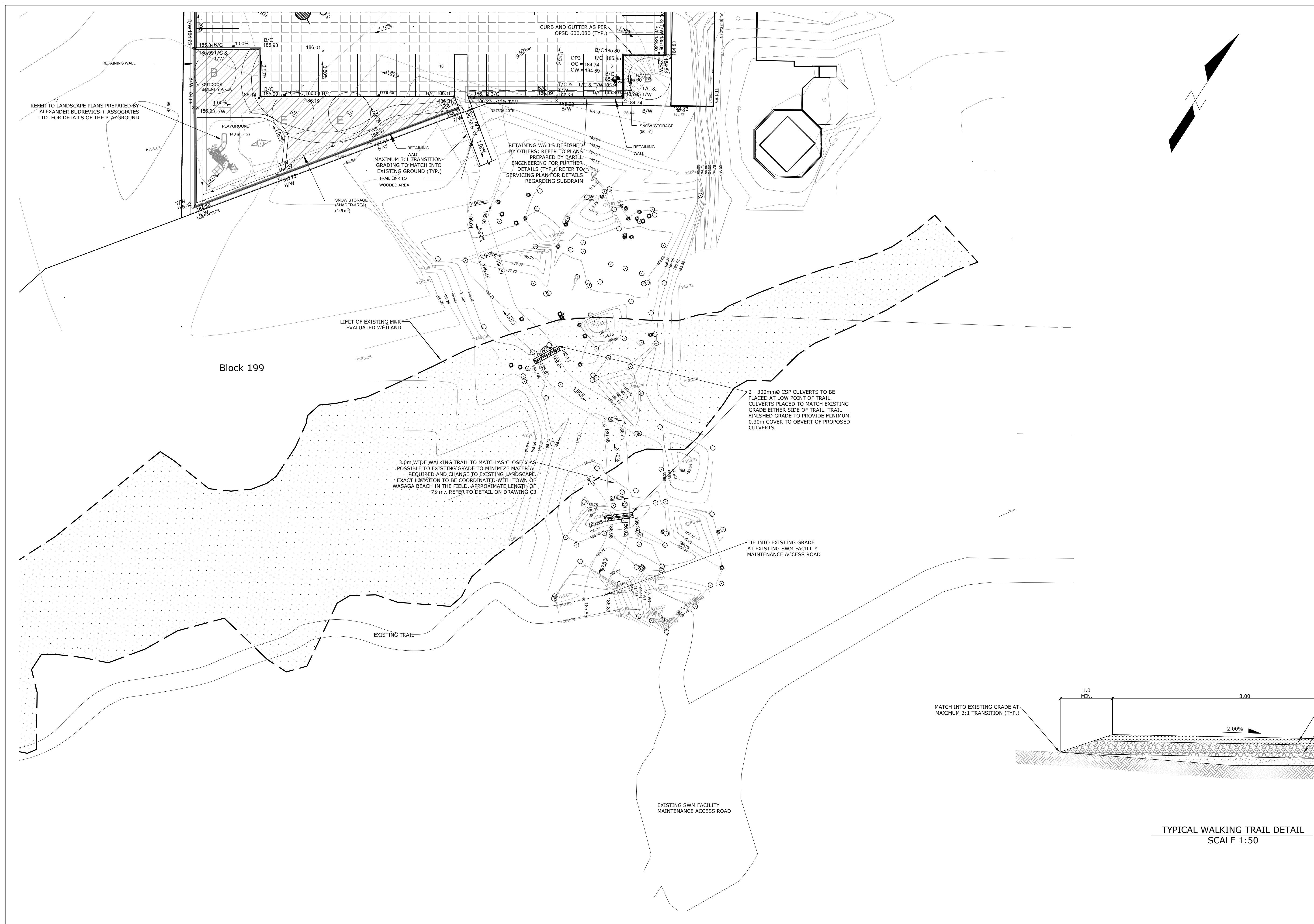
**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0W 1JX  
 TEL: 705-994-4818

**WASAGA RIVERWOODS**

GRADING PLAN (1 OF 2)

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No. C2
Project No. 2018-012	Rev No. 4	Scale 1:250	

0 5.0 10.0 15.0m

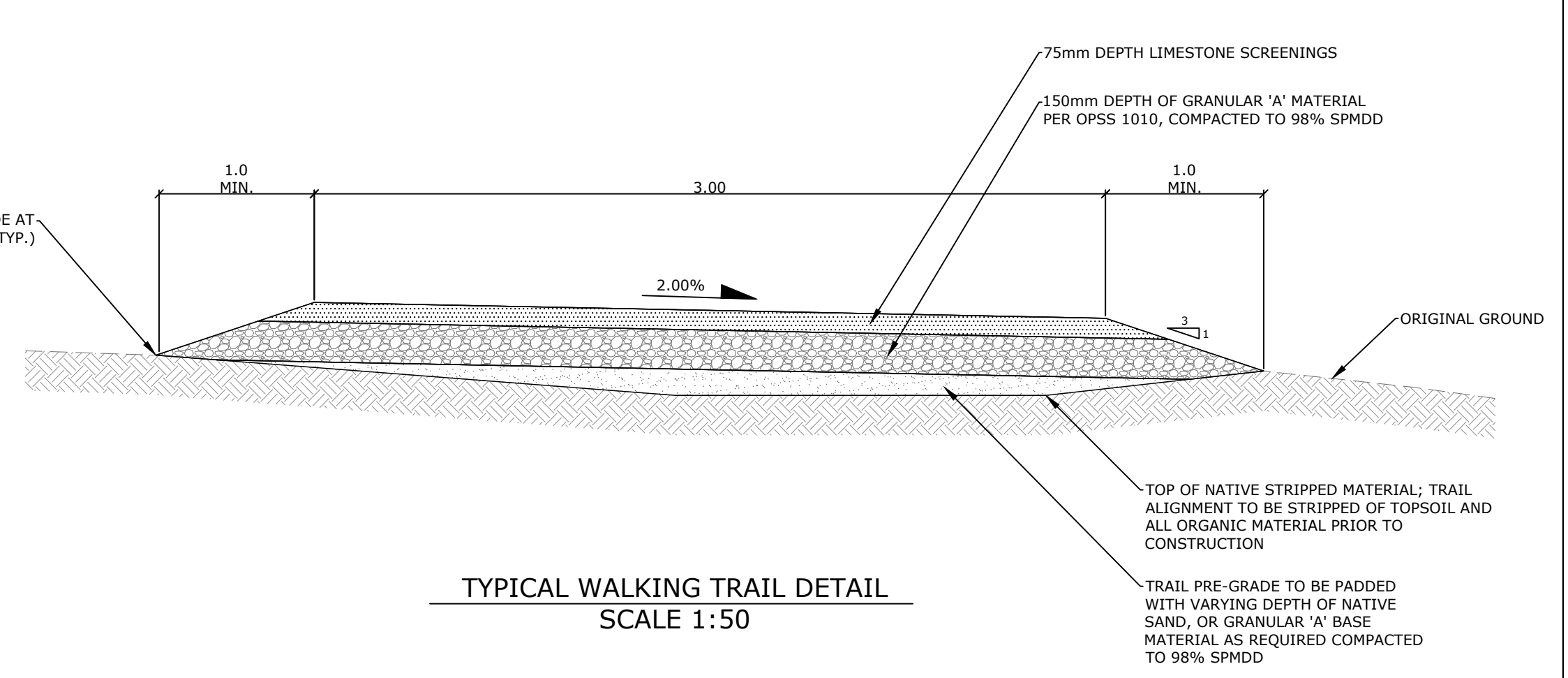


**LEGEND**

- 221.21 PROPOSED ELEVATION
- 221.21 EXISTING ELEVATION
- 221.21 T/C PROPOSED TOP OF CURB
- 221.21 B/C PROPOSED BOTTOM OF CURB
- 221.21 T/W PROPOSED TOP OF RETAINING WALL
- 221.21 B/W PROPOSED BOTTOM OF RETAINING WALL
- 1.00% PROPOSED SLOPE
- ⊕ BOREHOLE LOCATION
- ▭ MAXIMUM 3:1 SLOPE UNLESS OTHERWISE NOTED
- SANITARY & STORM MANHOLE
- ◻ PERMEABLE PAVER SURFACE, REFER TO DETAILS
- ⊕ LUMINAIRE ON STEEL POLE

**BUILDING DETAILS**

FFE = 185.53  
 USF, TYPICAL = 184.16  
 USF STEPPED (STREET SIDE) = 183.21

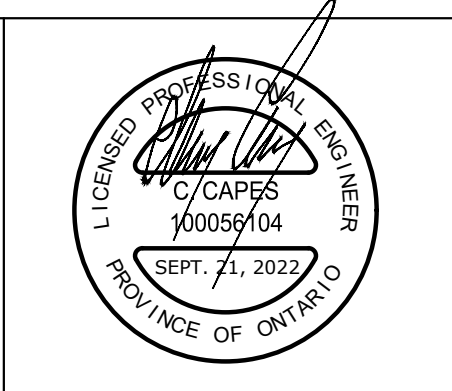


**Notes**

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLET IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
 LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53

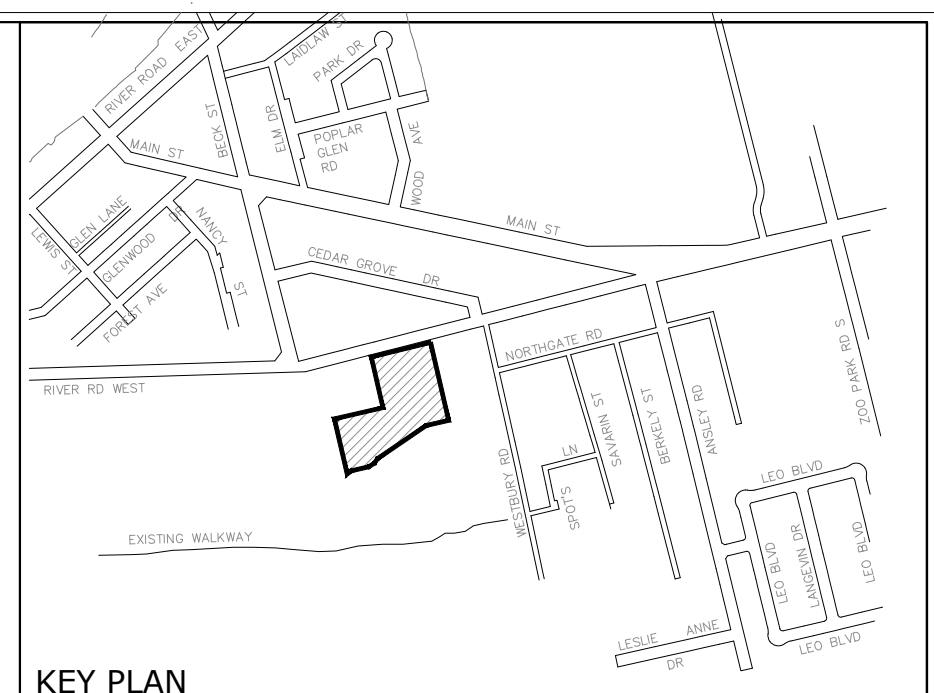
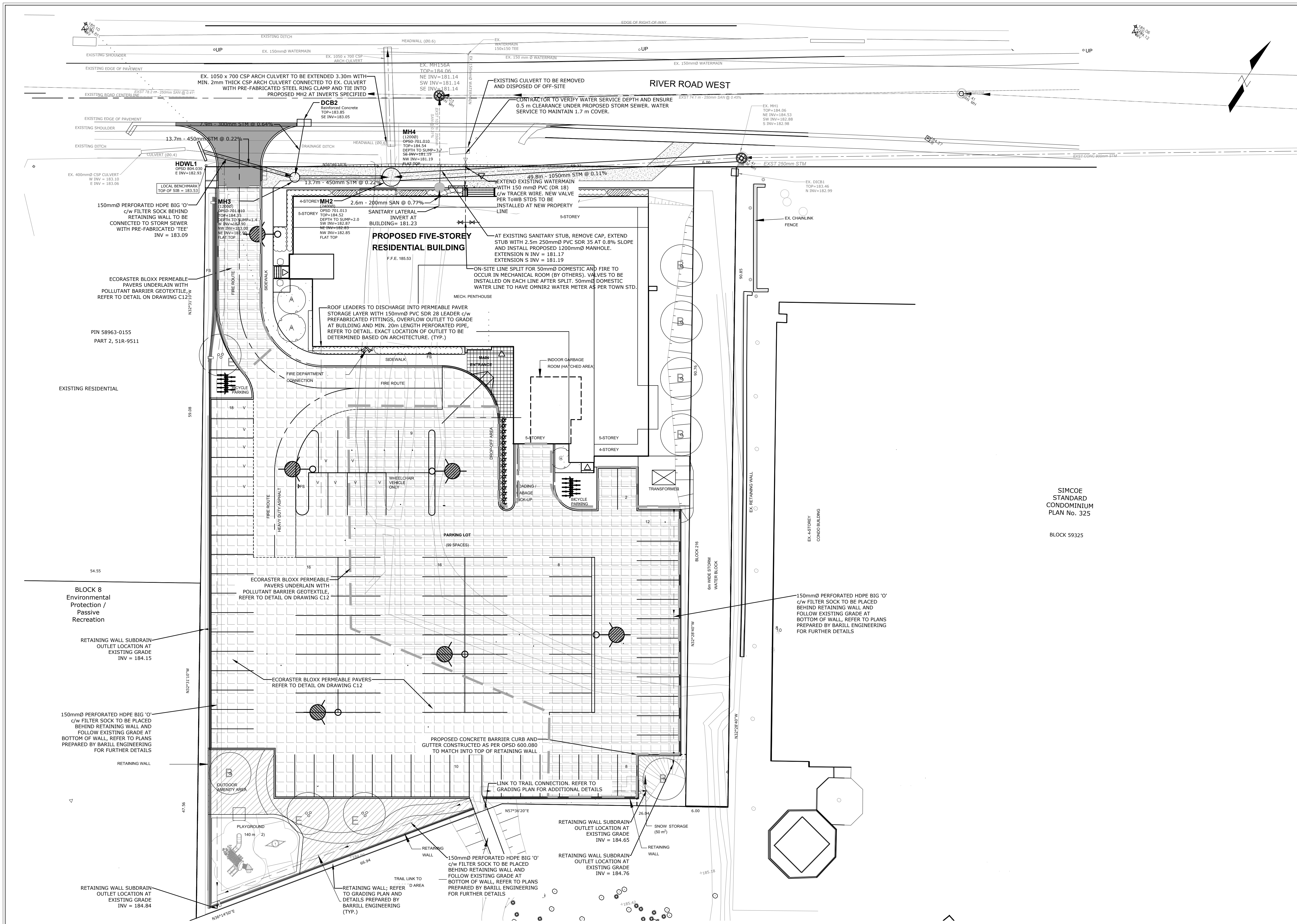


Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0W 1J0  
 TEL: 705-994-4818

**WASAGA RIVERWOODS**  
 GRADING PLAN (2 OF 2)

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No. C3
Project No. 2018-012	Rev No. 4	Scale 1:250	



**LEGEND**

- CURB DEPRESSION
- MAXIMUM 3:1 SLOPE UNLESS OTHERWISE NOTED
- SANITARY SEWER
- WATERMAIN
- HYDRANT & VALVE
- WATER VALVE
- TRANSFORMER
- UTILITY PEDESTAL
- PERMEABLE PAVER SURFACE. REFER TO DETAILS
- PERMEABLE PAVERS UNDERLAIN WITH POLLUTANT BARRIER GEOTEXTILE. REFER TO DETAILS
- STEEL POLE
- LUMINAIRE ON STEEL POLE
- UTILITY POLE
- SIGN

**BUILDING DETAILS**

FFE = 185.53  
 USF, TYPICAL = 184.16  
 USF STEPPED (STREET SIDE) = 183.21

SIMCOE STANDARD CONDOMINIUM PLAN No. 325  
 BLOCK 59325

**Notes**

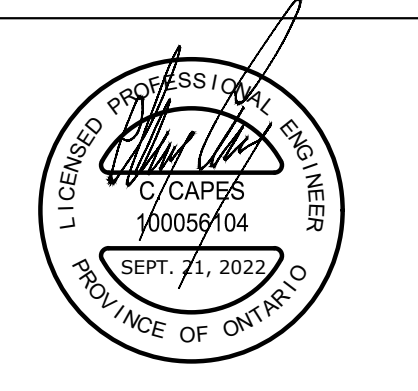
- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.

**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING A ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING

LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



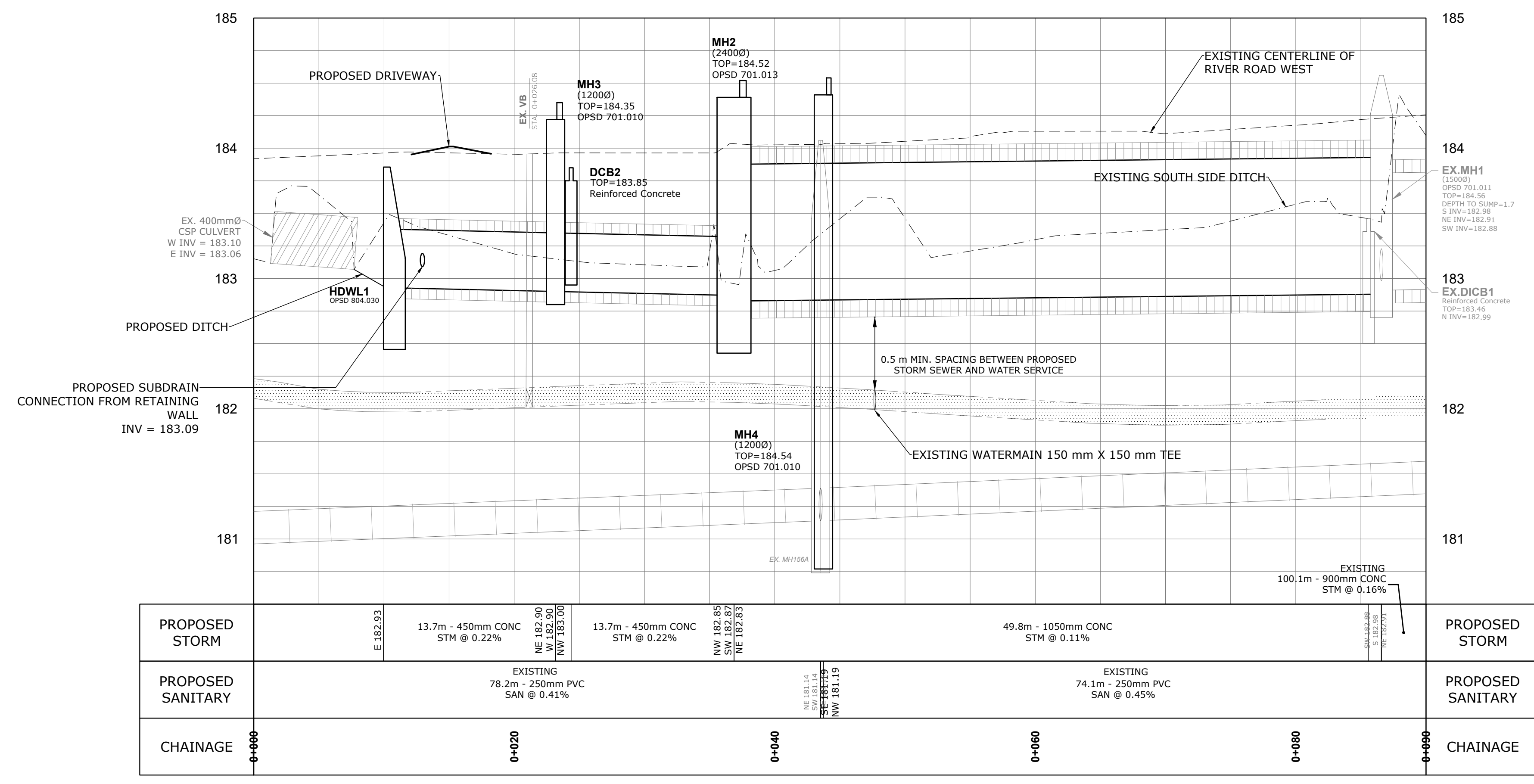
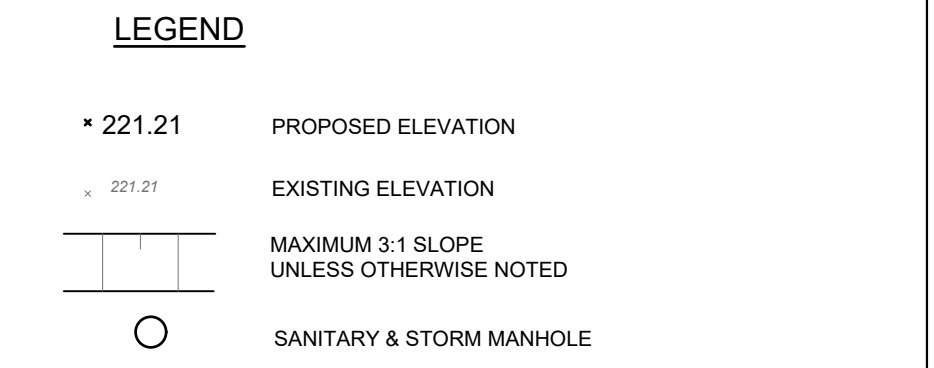
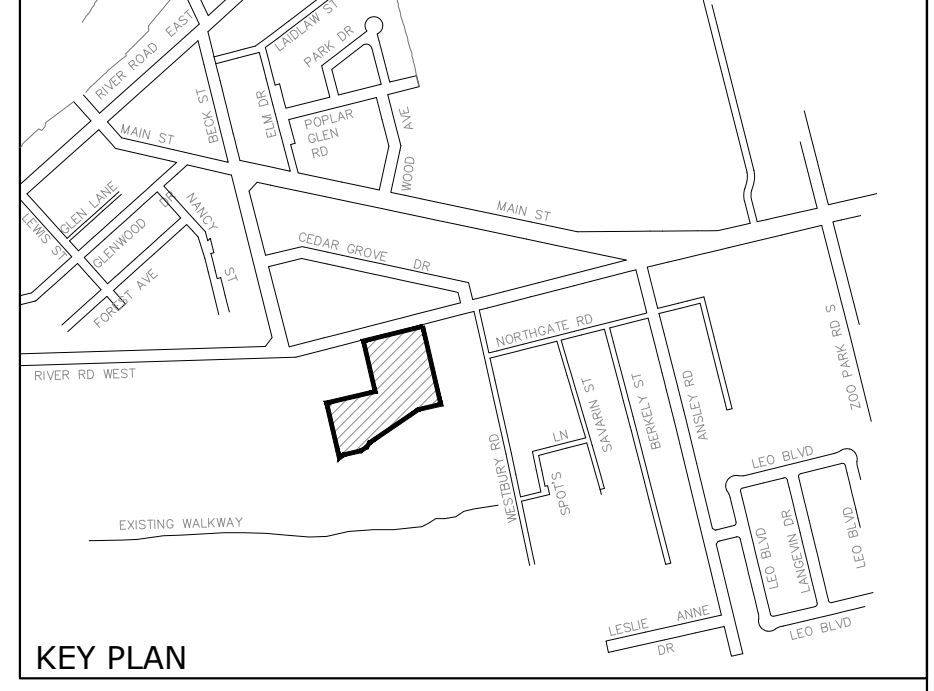
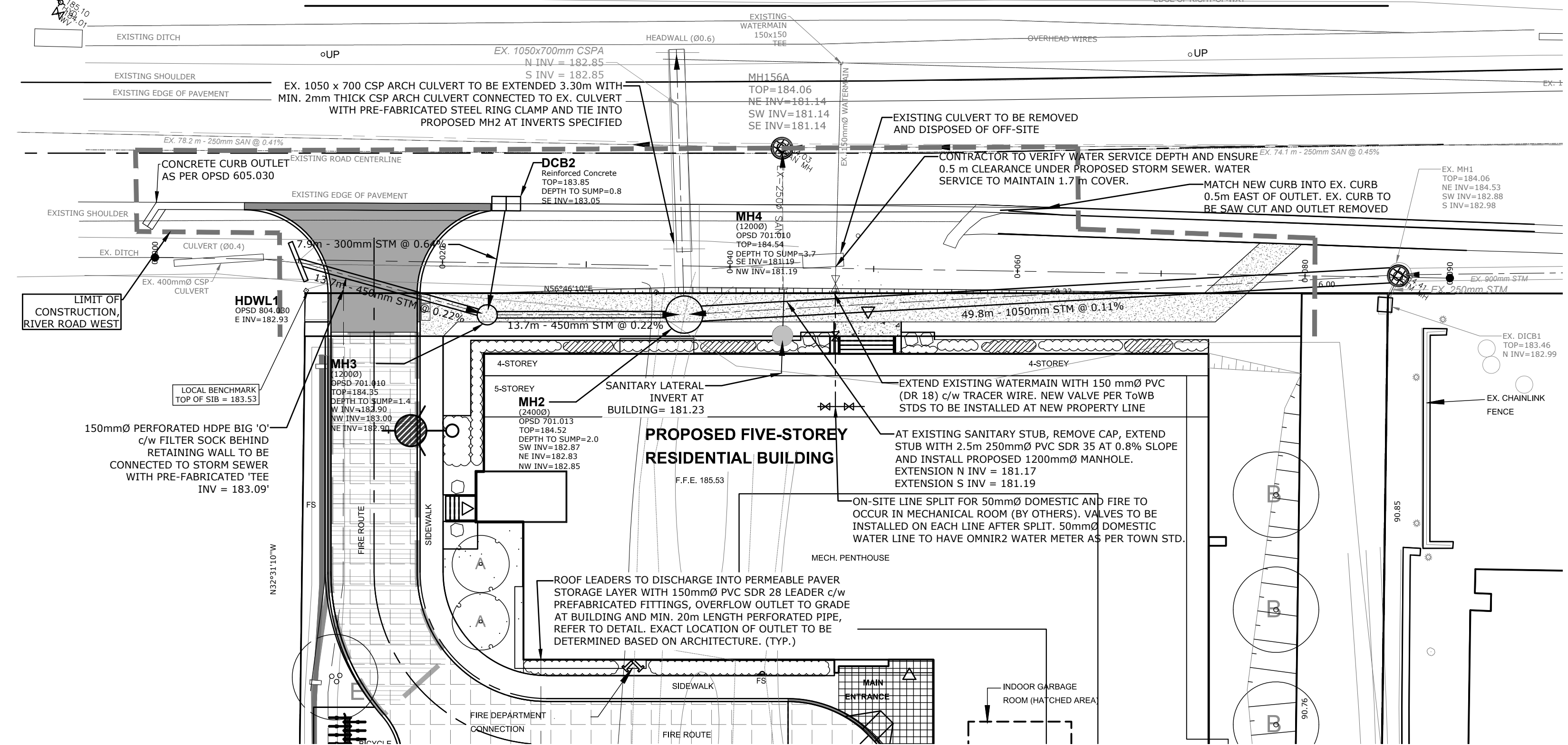
Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J0  
 TEL: 705-994-4818

**WASAGA RIVERWOODS**  
 SITE SERVICING PLAN

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No. 2018-012
Scale 1:250	Rev No. 4		<b>C4</b>

RIVER ROAD WEST

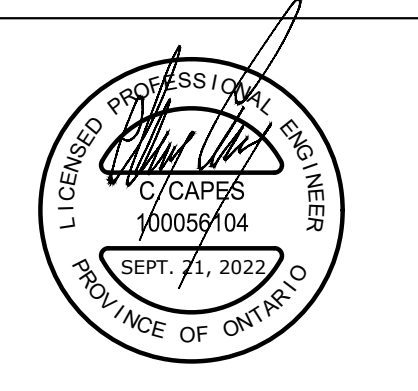


Notes

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

NOTES:  
TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. ca ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHWEST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
LOCAL BENCHMARK:  
TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



Client  
**WASAGA RIVERWOODS HOMES**  
30 FULTON WAY, UNIT 8  
RICHMOND HILL, ON  
L4B 1E6

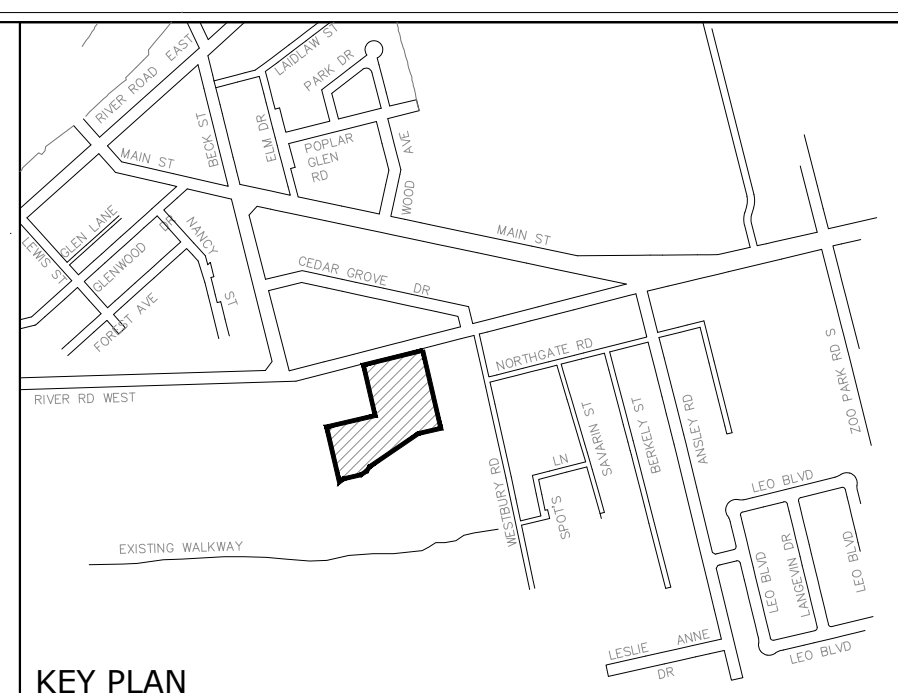
**CAPES ENGINEERING**  
355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
CLARKSBURG, ON N0M 1J0  
TEL: 705-994-4818

**WASAGA RIVERWOODS**

PLAN AND PROFILE  
RIVER ROAD WEST  
STA. 0+000 - STA. 0+090

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No. C5
Project No. 2018-012	Rev No. 4	Scale 1:250	

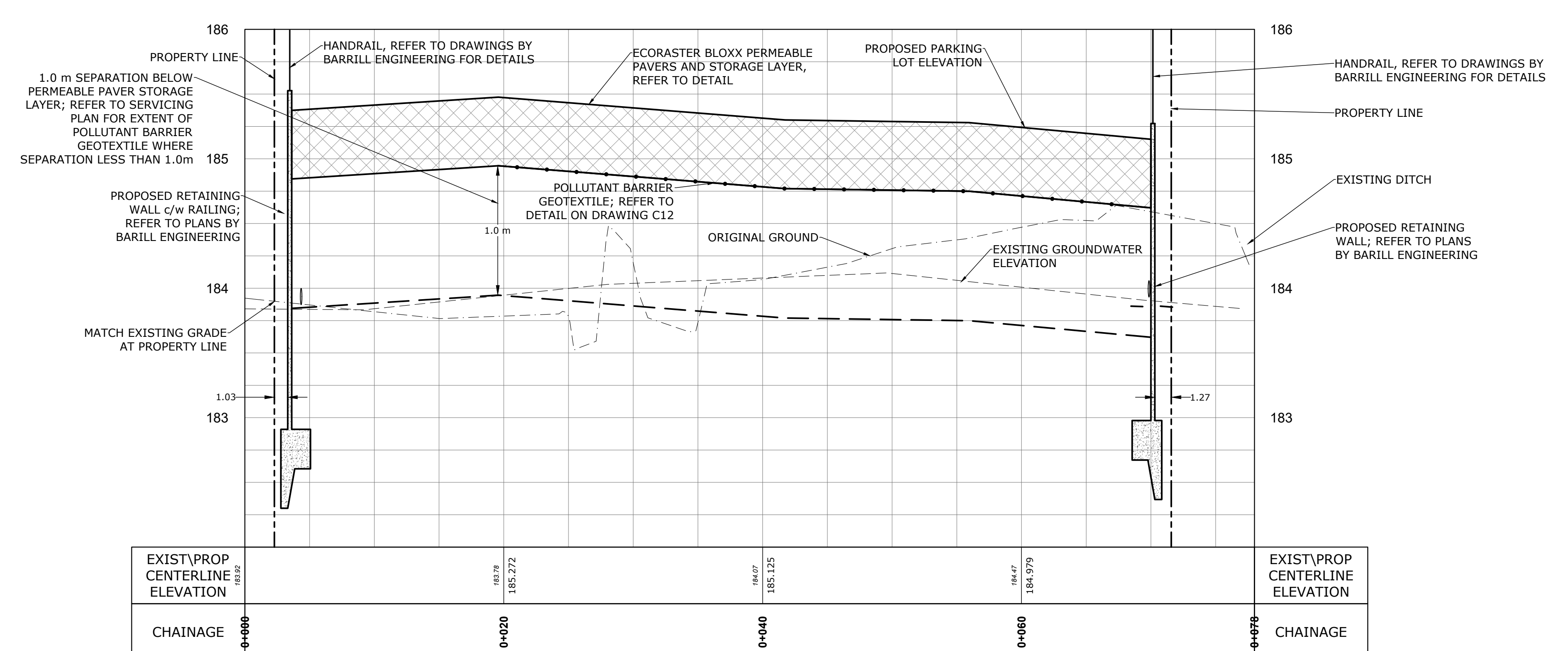
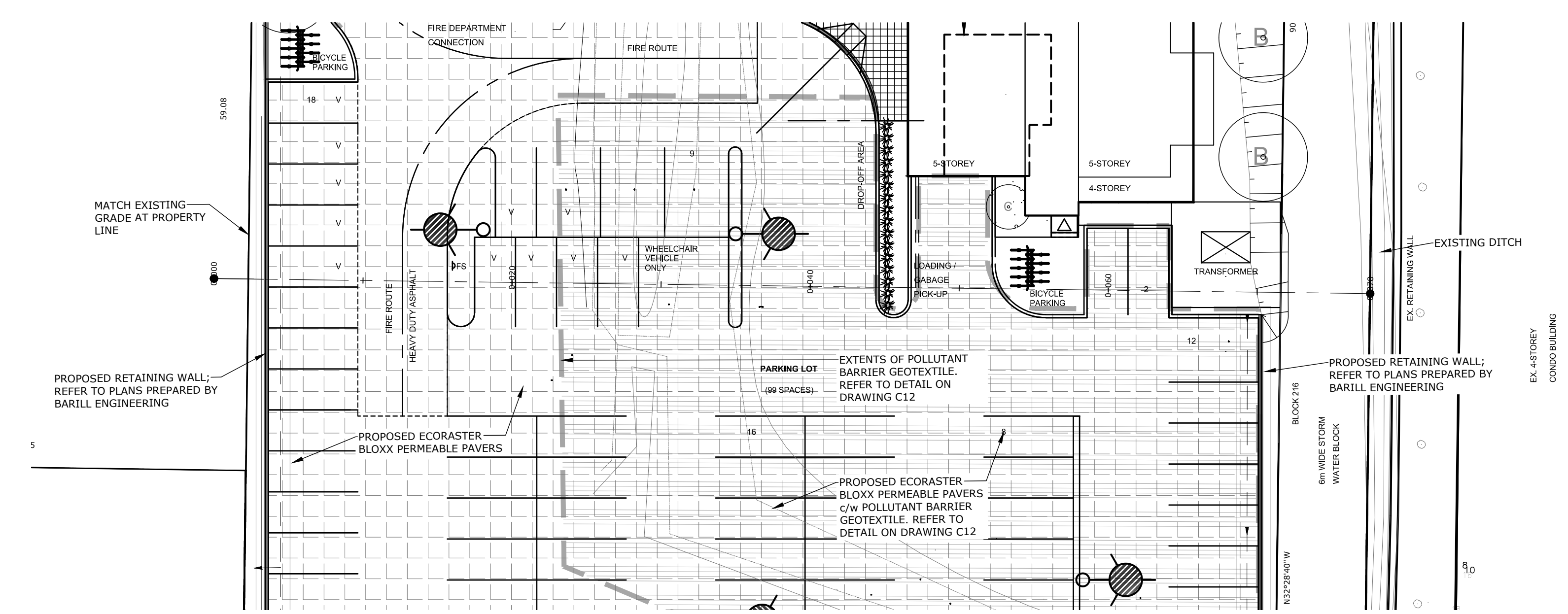
File: C:\Users\capes\Engineering\Projects\Drawings\012 - Wasaga Riverwoods\Drawings\012 - Profiles.dwg Date Printed: September 22, 2022 - 1:35 PM



KEY PLAN

**LEGEND**

- 221.21 PROPOSED ELEVATION
- ◊ 221.27 EXISTING ELEVATION
- ▨ MAXIMUM 3:1 SLOPE UNLESS OTHERWISE NOTED
- SANITARY & STORM MANHOLE

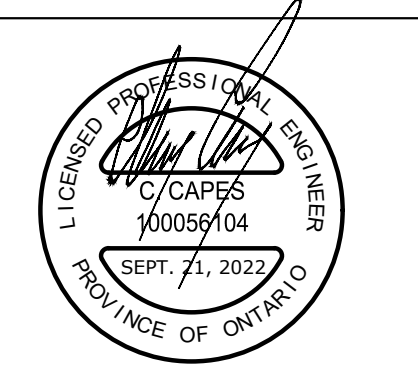


**Notes**

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC..  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING A ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. ca ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLET IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
 LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

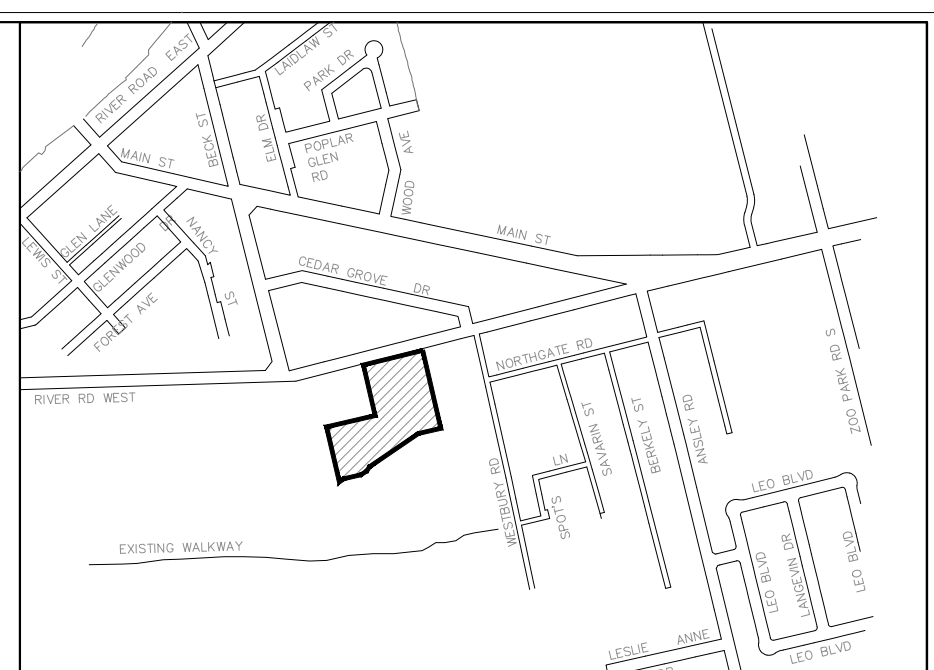
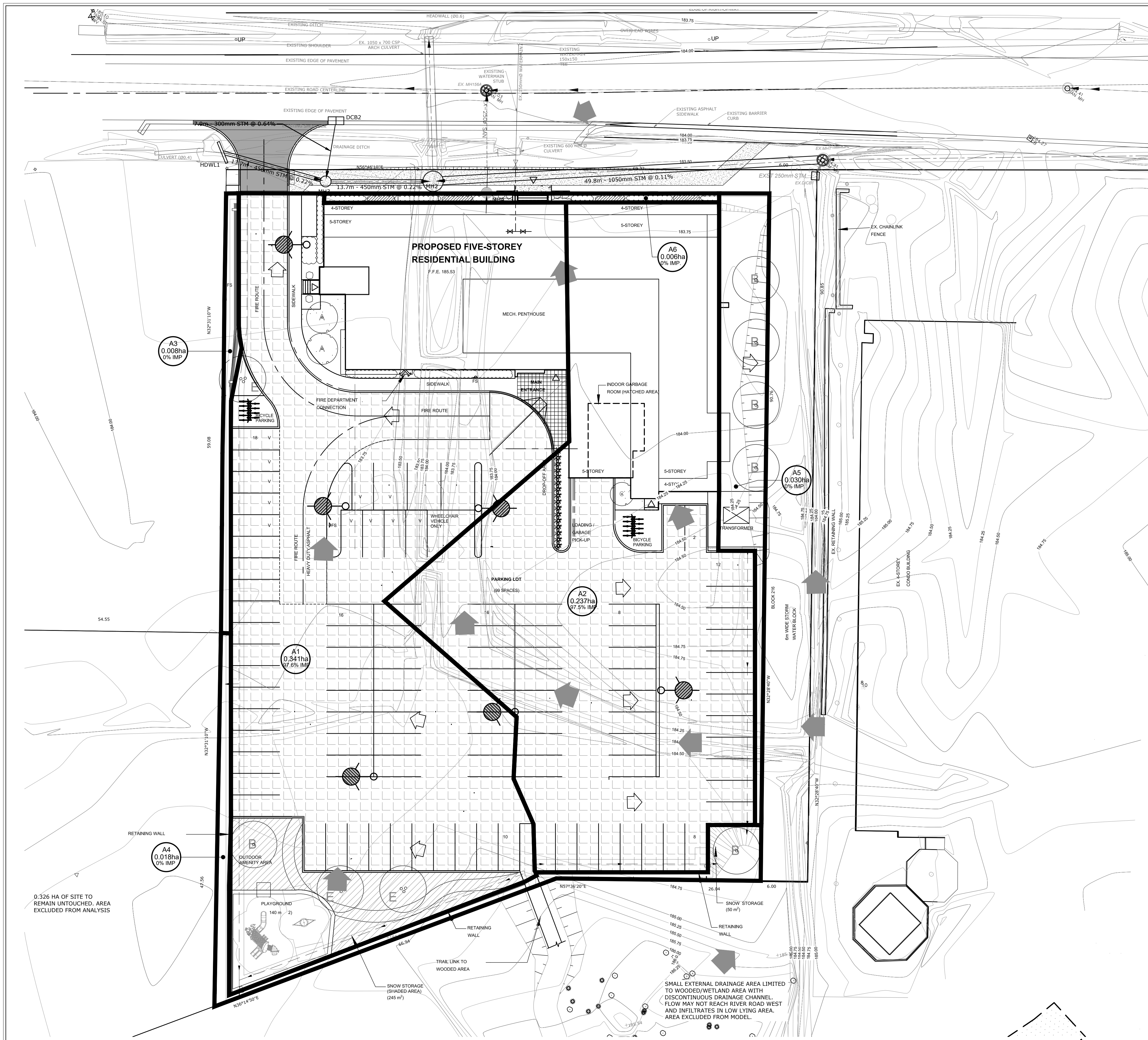
**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J0  
 TEL: 705-994-4818

**WASAGA RIVERWOODS**

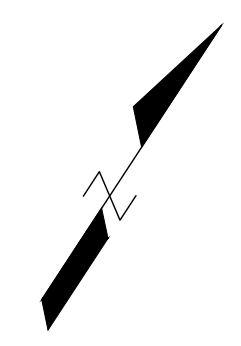
PLAN AND PROFILE  
 PARKING LOT  
 STA. 0+000 - STA. 0+075

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No.
Project No. 2018-012	Rev No. 4		<b>C6</b>

Scale: 1:250



- LEGEND**
- STORM SEWER/MANHOLE
  - STORM SEWER TRIBUTARY BOUNDARY
  - EXISTING OVERLAND FLOW ROUTE
  - PROPOSED OVERLAND FLOW DIRECTION
  - DRAINAGE AREA IN HECTARES
  - PERMEABLE PAVER SURFACE, REFER TO DETAILS



- Notes**
- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
  - The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
  - This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLET IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
 LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



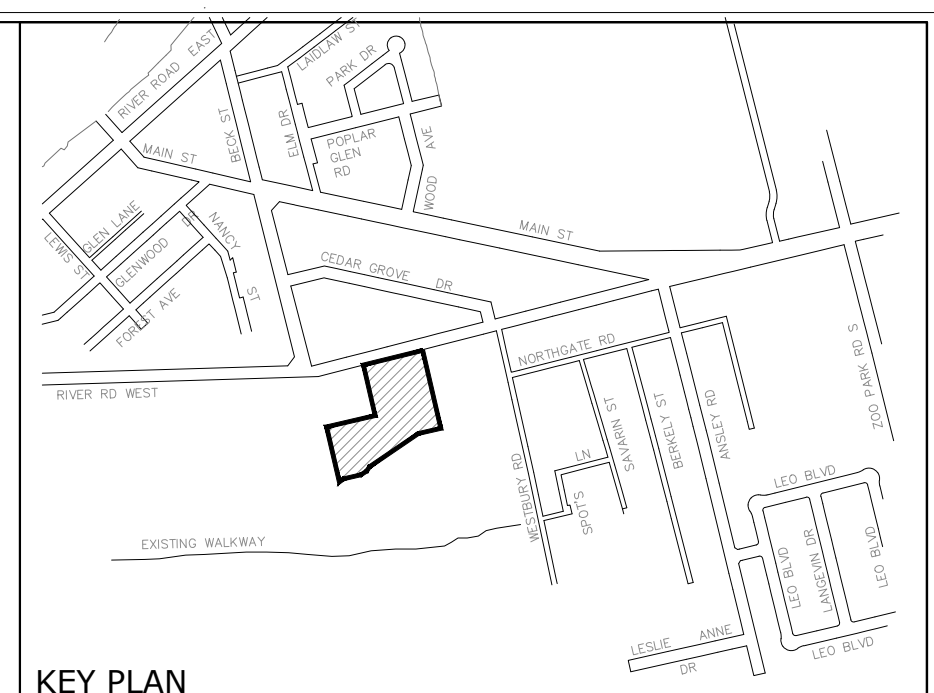
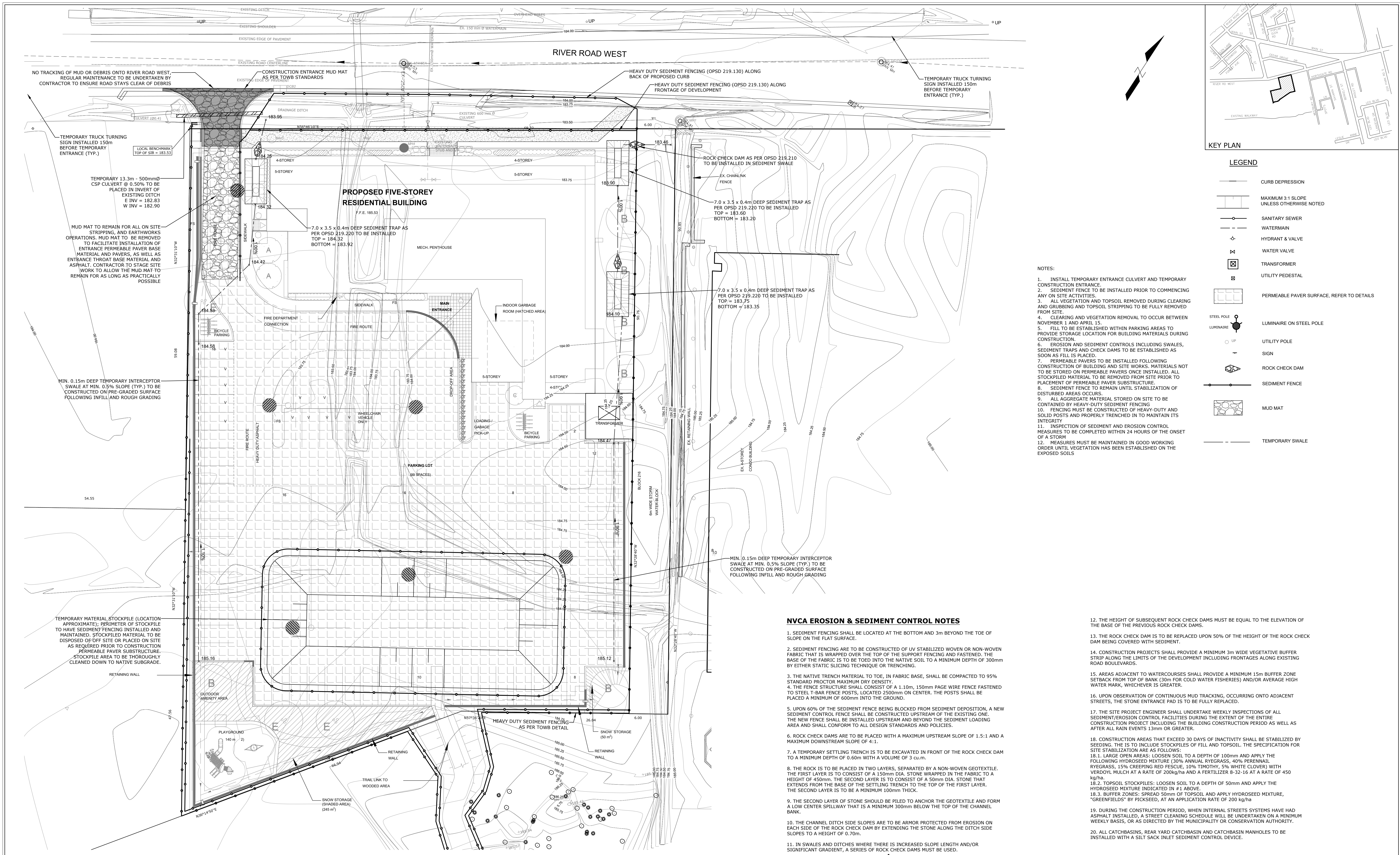
Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J0  
 TEL: 705-994-4818

**WASAGA RIVERWOODS**  
 POST DEVELOPMENT STORMWATER DRAINAGE PLAN

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No. C7
Project No. 2018-012	Rev No. 4	Scale 1:250	





**LEGEND**

	CURB DEPRESSION
	MAXIMUM 3:1 SLOPE UNLESS OTHERWISE NOTED
	SANITARY SEWER
	WATERMAIN
	HYDRANT & VALVE
	WATER VALVE
	TRANSFORMER
	UTILITY PEDESTAL
	PERMEABLE PAVER SURFACE. REFER TO DETAILS
	STEEL POLE
	LUMINAIRE ON STEEL POLE
	UTILITY POLE
	SIGN
	ROCK CHECK DAM
	SEDIMENT FENCE
	MUD MAT
	TEMPORARY SWALE

- NOTES:**
- INSTALL TEMPORARY ENTRANCE CULVERT AND TEMPORARY CONSTRUCTION ENTRANCE.
  - SEDIMENT FENCE TO BE INSTALLED PRIOR TO COMMENCING ANY ON SITE ACTIVITIES.
  - ALL VEGETATION AND TOPSOIL REMOVED DURING CLEARING AND GRUBBING AND TOPSOIL STRIPPING TO BE FULLY REMOVED FROM SITE.
  - CLEARING AND VEGETATION REMOVAL TO OCCUR BETWEEN NOVEMBER 1 AND APRIL 15.
  - FILL TO BE ESTABLISHED WITHIN PARKING AREAS TO PROVIDE STORAGE LOCATION FOR BUILDING MATERIALS DURING CONSTRUCTION.
  - EROSION AND SEDIMENT CONTROLS INCLUDING SWALES, SEDIMENT TRAPS AND CHECK DAMS TO BE ESTABLISHED AS SOON AS FILL IS PLACED.
  - PERMEABLE PAVERS TO BE INSTALLED FOLLOWING CONSTRUCTION OF BUILDING AND SITE WORKS. MATERIALS NOT TO BE STORED ON PERMEABLE PAVERS ONCE INSTALLED. ALL STOCKPILED MATERIAL TO BE REMOVED FROM SITE PRIOR TO PLACEMENT OF PERMEABLE PAVER SUBSTRUCTURE.
  - SEDIMENT FENCE TO REMAIN UNTIL STABILIZATION OF DISTURBED AREAS OCCURS.
  - ALL AGGREGATE MATERIAL STORED ON SITE TO BE CONTAINED BY HEAVY-DUTY SEDIMENT FENCING.
  - FENCING MUST BE CONSTRUCTED OF HEAVY-DUTY AND SOLID POSTS AND PROPERLY TRENCHED IN TO MAINTAIN ITS INTEGRITY.
  - INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES TO BE COMPLETED WITHIN 24 HOURS OF THE ONSET OF A STORM.
  - MEASURES MUST BE MAINTAINED IN GOOD WORKING ORDER UNTIL VEGETATION HAS BEEN ESTABLISHED ON THE EXPOSED SOILS.

**NVCA EROSION & SEDIMENT CONTROL NOTES**

- SEDIMENT FENCING SHALL BE LOCATED AT THE BOTTOM AND 3m BEYOND THE TOE OF SLOPE ON THE FLAT SURFACE.
- SEDIMENT FENCING ARE TO BE CONSTRUCTED OF UV STABILIZED WOVEN OR NON-WOVEN FABRIC THAT IS WRAPPED OVER THE TOP OF THE SUPPORT POSTS AND FASTENED. THE BASE OF THE FABRIC IS TO BE TOED INTO THE NATIVE SOIL TO A MINIMUM DEPTH OF 300mm BY EITHER STATIC SLICING TECHNIQUE OR TRENCHING.
- THE NATIVE TRENCH MATERIAL TOE, IN FABRIC BASE, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- THE FENCE STRUCTURE SHALL CONSIST OF A 1.10m, 150mm PAGE WIRE FENCE FASTENED TO STEEL T-BAR FENCE POSTS, LOCATED 2500mm ON CENTER. THE POSTS SHALL BE PLACED A MINIMUM OF 600mm INTO THE GROUND.
- UPON 60% OF THE SEDIMENT FENCE BEING BLOCKED FROM SEDIMENT DEPOSITION, A NEW SEDIMENT CONTROL FENCE SHALL BE CONSTRUCTED UPSTREAM OF THE EXISTING ONE. THE NEW FENCE SHALL BE INSTALLED UPSTREAM AND BEYOND THE SEDIMENT LOADING AREA AND SHALL CONFORM TO ALL DESIGN STANDARDS AND POLICIES.
- ROCK CHECK DAMS ARE TO BE PLACED WITH A MAXIMUM UPSTREAM SLOPE OF 1.5:1 AND A MAXIMUM DOWNSTREAM SLOPE OF 4:1.
- A TEMPORARY SETTLING TRENCH IS TO BE EXCAVATED IN FRONT OF THE ROCK CHECK DAM TO A MINIMUM DEPTH OF 0.60m WITH A VOLUME OF 3 cu.m.
- THE ROCK IS TO BE PLACED IN TWO LAYERS, SEPARATED BY A NON-WOVEN GEOTEXTILE. THE FIRST LAYER IS TO CONSIST OF A 150mm DIA. STONE WRAPPED IN THE FABRIC TO A HEIGHT OF 450mm. THE SECOND LAYER IS TO CONSIST OF A 50mm DIA. STONE THAT EXTENDS FROM THE BASE OF THE SETTLING TRENCH TO THE TOP OF THE FIRST LAYER. THE SECOND LAYER IS TO BE A MINIMUM 100mm THICK.
- THE SECOND LAYER OF STONE SHOULD BE PILED TO ANCHOR THE GEOTEXTILE AND FORM A LOW CENTER SPILLWAY THAT IS A MINIMUM 300mm BELOW THE TOP OF THE CHANNEL BANK.
- THE CHANNEL DITCH SIDE SLOPES ARE TO BE ARMOR PROTECTED FROM EROSION ON EACH SIDE OF THE ROCK CHECK DAM BY EXTENDING THE STONE ALONG THE DITCH SIDE SLOPES TO A HEIGHT OF 0.70m.
- IN SWALES AND DITCHES WHERE THERE IS INCREASED SLOPE LENGTH AND/OR SIGNIFICANT GRADIENT, A SERIES OF ROCK CHECK DAMS MUST BE USED.

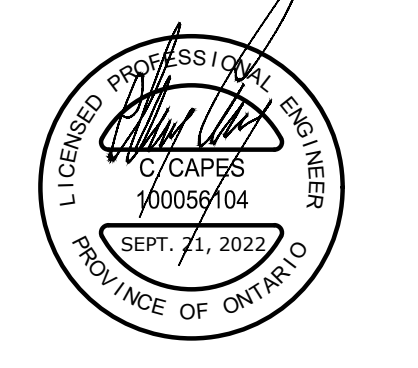
- THE HEIGHT OF SUBSEQUENT ROCK CHECK DAMS MUST BE EQUAL TO THE ELEVATION OF THE BASE OF THE PREVIOUS ROCK CHECK DAMS.
- THE ROCK CHECK DAM IS TO BE REPLACED UPON 50% OF THE HEIGHT OF THE ROCK CHECK DAM BEING COVERED WITH SEDIMENT.
- CONSTRUCTION PROJECTS SHALL PROVIDE A MINIMUM 3m WIDE VEGETATIVE BUFFER STRIP ALONG THE LIMITS OF THE DEVELOPMENT INCLUDING FRONTAGES ALONG EXISTING ROAD BOULEVARDS.
- AREAS ADJACENT TO WATERCOURSES SHALL PROVIDE A MINIMUM 15m BUFFER ZONE SETBACK FROM TOP OF BANK (30m FOR COLD WATER FISHERIES) AND/OR AVERAGE HIGH WATER MARK, WHICHEVER IS GREATER.
- UPON OBSERVATION OF CONTINUOUS MUD TRACKING, OCCURRING ONTO ADJACENT STREETS, THE STONE ENTRANCE PAD IS TO BE FULLY REPLACED.
- THE SITE PROJECT ENGINEER SHALL UNDERTAKE WEEKLY INSPECTIONS OF ALL SEDIMENT/EROSION CONTROL FACILITIES DURING THE EXTENT OF THE ENTIRE CONSTRUCTION PROJECT INCLUDING THE BUILDING CONSTRUCTION PERIOD AS WELL AS AFTER ALL RAIN EVENTS 13mm OR GREATER.
- CONSTRUCTION AREAS THAT EXCEED 30 DAYS OF INACTIVITY SHALL BE STABILIZED BY SEEDING. THIS IS TO INCLUDE STOCKPILES OF FILL AND TOPSOIL. THE SPECIFICATION FOR SITE STABILIZATION ARE AS FOLLOWS:
  - LARGE OPEN AREAS: LOOSEN SOIL TO A DEPTH OF 100mm AND APPLY THE FOLLOWING HYDROSEED MIXTURE (30% ANNUAL RYEGRASS, 40% PERENNIAL RYEGRASS, 15% CREEPING RED FESCUE, 10% TIMOTHY, 5% WHITE CLOVER) WITH VERDOYL MULCH AT A RATE OF 200kg/ha AND A FERTILIZER 8-32-16 AT A RATE OF 450 kg/ha.
  - TOPSOIL STOCKPILES: LOOSEN SOIL TO A DEPTH OF 50mm AND APPLY THE HYDROSEED MIXTURE INDICATED IN #1 ABOVE.
  - BUFFER ZONES: SPREAD 50mm OF TOPSOIL AND APPLY HYDROSEED MIXTURE, "GREENFIELDS" BY PICKSEED, AT AN APPLICATION RATE OF 200 kg/ha.
- DURING THE CONSTRUCTION PERIOD, WHEN INTERNAL STREETS SYSTEMS HAVE HAD ASPHALT INSTALLED, A STREET CLEANING SCHEDULE WILL BE UNDERTAKEN ON A MINIMUM WEEKLY BASIS, OR AS DIRECTED BY THE MUNICIPALITY OR CONSERVATION AUTHORITY.
- ALL CATCHBASINS, REAR YARD CATCHBASIN AND CATCHBASIN MANHOLES TO BE INSTALLED WITH A SILT SACK INLET SEDIMENT CONTROL DEVICE.

**Notes**

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

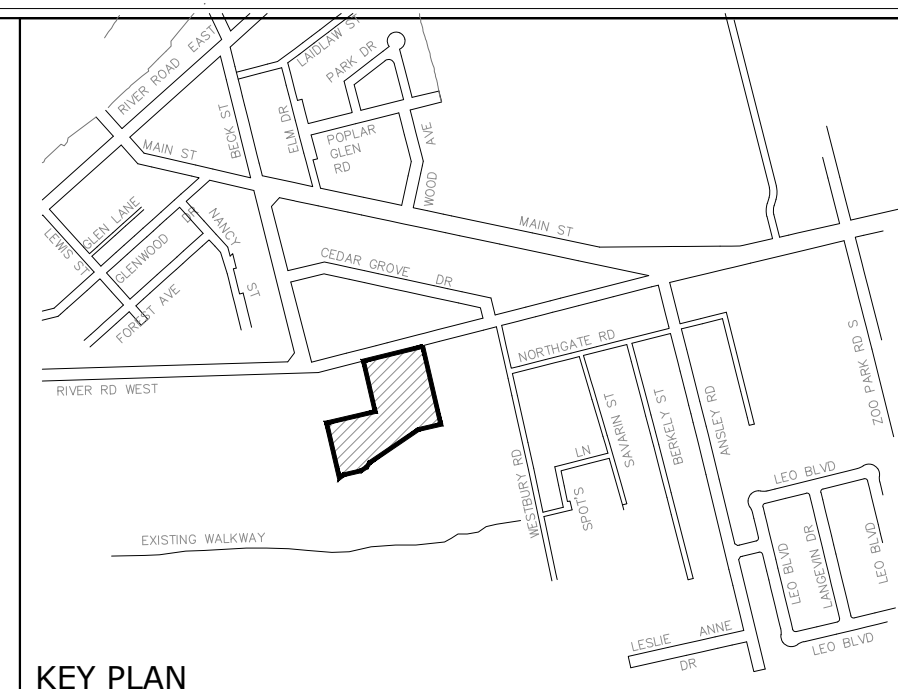
**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
 LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



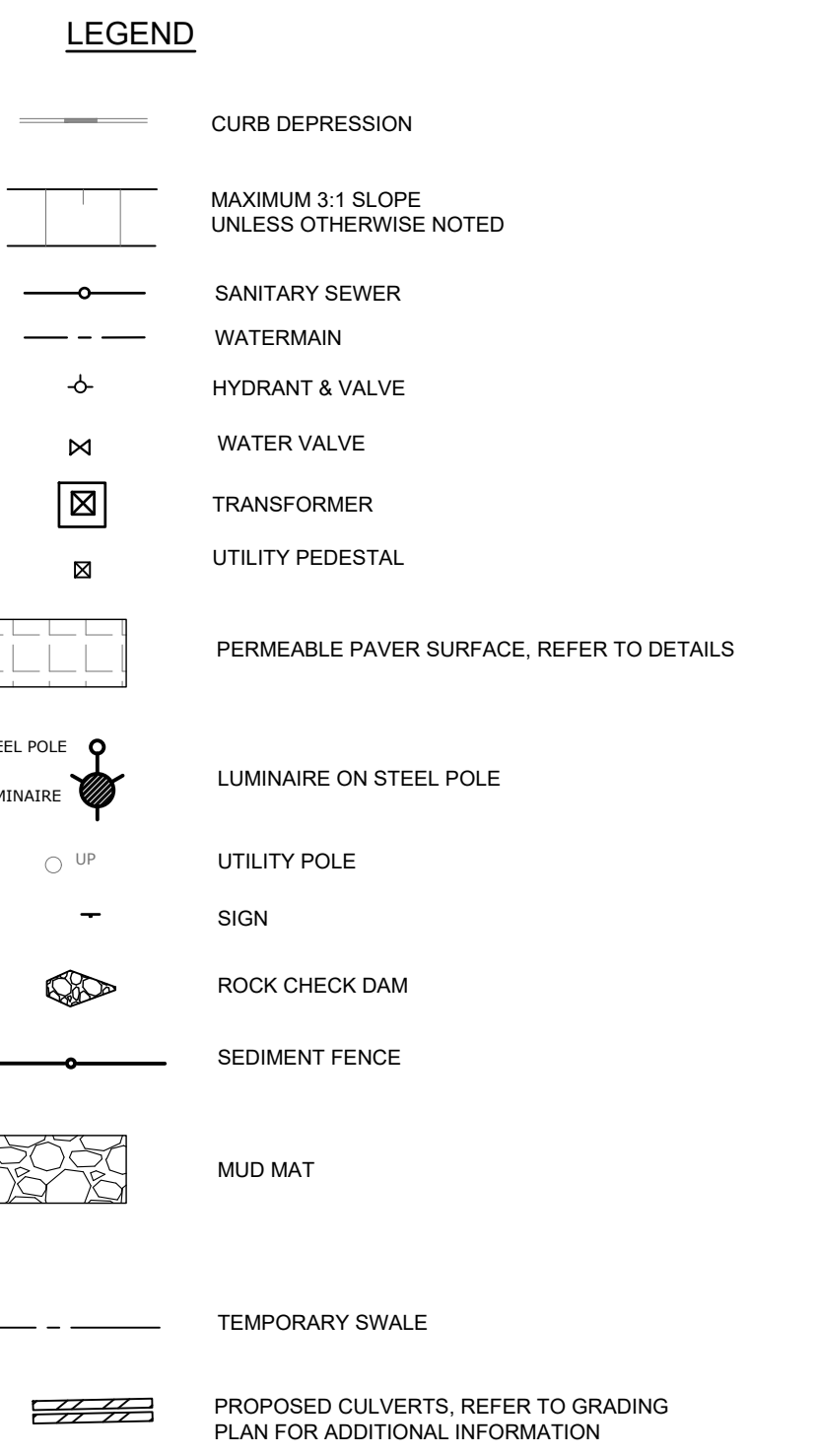
Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J6  
 TEL: 705-994-4818

<b>WASAGA RIVERWOODS</b>		EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)	
Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No.
Project No. 2018-012	Rev No. 4	Scale 1:250	<b>C8</b>



KEY PLAN



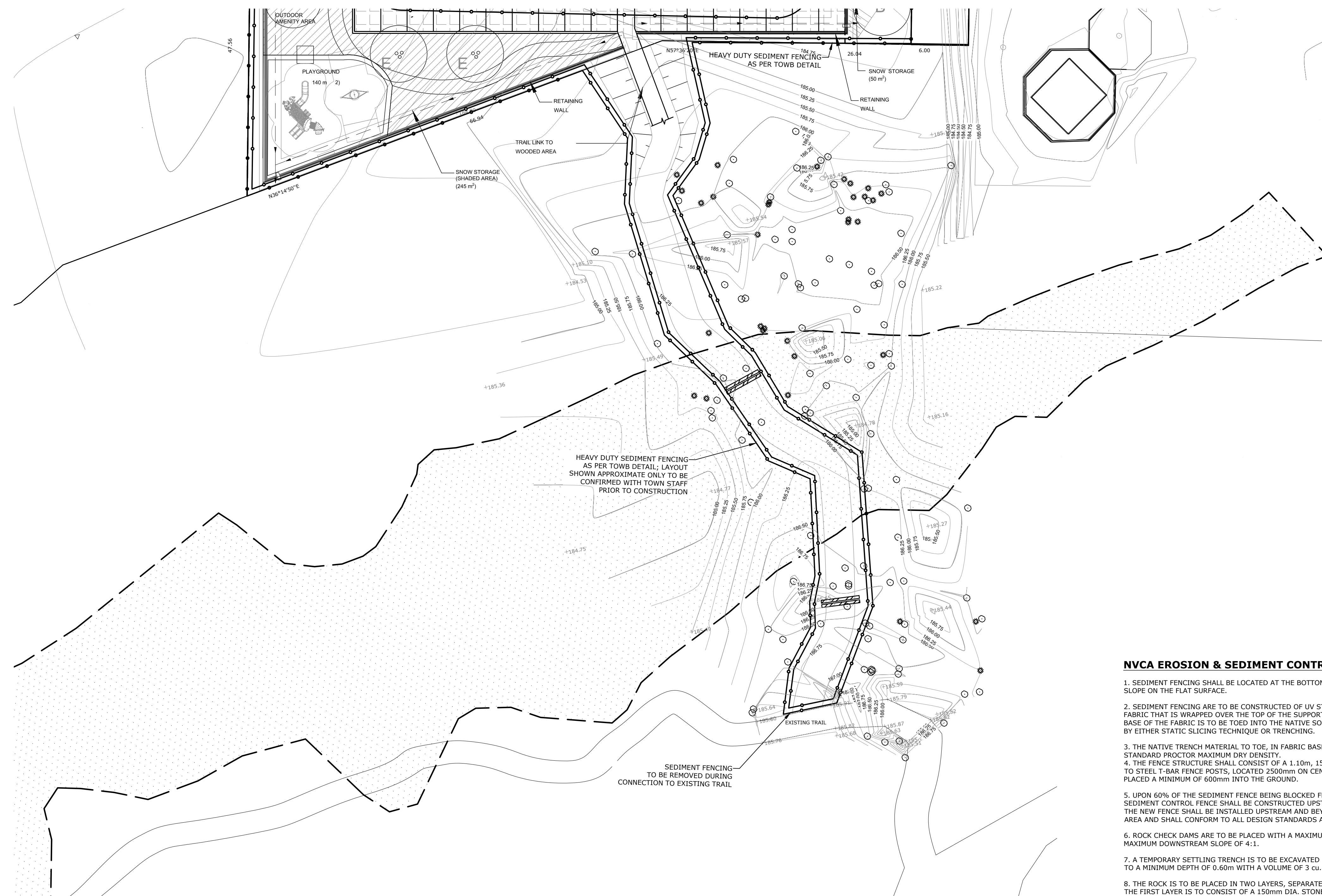
- NOTES:
- ACCESS FOR NEW TRAIL DEVELOPMENT TO BE FROM SUBJECT SITE ONLY.
  - OWNER/CONTRACTOR TO COORDINATE WITH TOWN STAFF TO CONFIRM EXACT TRAIL AND CULVERT LOCATIONS PRIOR TO INSTALLING SEDIMENT FENCE.
  - SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION EFFORTS.
  - CLEARING AND VEGETATION REMOVAL TO OCCUR BETWEEN NOVEMBER 1 AND APRIL 15.
  - CONTRACTOR TO CONSTRUCT TRAIL AND CULVERTS PER AGREED UPON LOCATION. SEDIMENT FENCE TO REMAIN UNTIL STABILIZATION OF DISTURBED AREAS OCCURS.

- NOTES:
- INSTALL TEMPORARY ENTRANCE CULVERT AND TEMPORARY CONSTRUCTION ENTRANCE.
  - SEDIMENT FENCE TO BE INSTALLED PRIOR TO COMMENCING ANY ON SITE ACTIVITIES.
  - ALL VEGETATION AND TOPSOIL REMOVED DURING CLEARING AND GRUBBING AND TOPSOIL STRIPPING TO BE FULLY REMOVED FROM SITE.
  - CLEARING AND VEGETATION REMOVAL TO OCCUR BETWEEN NOVEMBER 1 AND APRIL 15.
  - FILL TO BE ESTABLISHED WITHIN PARKING AREAS TO PROVIDE STORAGE LOCATION FOR BUILDING MATERIALS DURING CONSTRUCTION.
  - EROSION AND SEDIMENT CONTROLS INCLUDING SWALES, SEDIMENT TRAPS AND CHECK DAMS TO BE ESTABLISHED AS SOON AS FILL IS PLACED.
  - PERMEABLE PAVERS TO BE INSTALLED FOLLOWING CONSTRUCTION OF BUILDING AND SITE WORKS. MATERIALS NOT TO BE STORED ON PERMEABLE PAVERS ONCE INSTALLED. ALL STOCKPILED MATERIAL TO BE REMOVED FROM SITE PRIOR TO PLACEMENT OF PERMEABLE PAVER SUBSTRUCTURE.
  - SEDIMENT FENCE TO REMAIN UNTIL STABILIZATION OF DISTURBED AREAS OCCURS.
  - ALL AGGREGATE MATERIAL STORED ON SITE TO BE CONTAINED BY HEAVY-DUTY SEDIMENT FENCING.
  - FENCING MUST BE CONSTRUCTED OF HEAVY-DUTY AND SOLID POSTS AND PROPERLY TRENCHED IN TO MAINTAIN ITS INTEGRITY.
  - INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES TO BE COMPLETED WITHIN 24 HOURS OF THE ONSET OF A STORM.
  - MEASURES MUST BE MAINTAINED IN GOOD WORKING ORDER UNTIL VEGETATION HAS BEEN ESTABLISHED ON THE EXPOSED SOILS.

**NVCA EROSION & SEDIMENT CONTROL NOTES**

- SEDIMENT FENCING SHALL BE LOCATED AT THE BOTTOM AND 3m BEYOND THE TOE OF SLOPE ON THE FLAT SURFACE.
- SEDIMENT FENCING ARE TO BE CONSTRUCTED OF UV STABILIZED WOVEN OR NON-WOVEN FABRIC THAT IS WRAPPED OVER THE TOP OF THE SUPPORT FENCING AND FASTENED. THE BASE OF THE FABRIC IS TO BE TOED INTO THE NATIVE SOIL TO A MINIMUM DEPTH OF 300mm BY EITHER STATIC SLICING TECHNIQUE OR TRENCHING.
- THE NATIVE TRENCH MATERIAL TO TOE, IN FABRIC BASE, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- THE FENCE STRUCTURE SHALL CONSIST OF A 1.10m, 150mm PAGE WIRE FENCE FASTENED TO STEEL T-BAR FENCE POSTS, LOCATED 2500mm ON CENTER. THE POSTS SHALL BE PLACED A MINIMUM OF 600mm INTO THE GROUND.
- UPON 60% OF THE SEDIMENT FENCE BEING BLOCKED FROM SEDIMENT DEPOSITION, A NEW SEDIMENT CONTROL FENCE SHALL BE CONSTRUCTED UPSTREAM OF THE EXISTING ONE. THE NEW FENCE SHALL BE INSTALLED UPSTREAM AND BEYOND THE SEDIMENT LOADING AREA AND SHALL CONFORM TO ALL DESIGN STANDARDS AND POLICIES.
- ROCK CHECK DAMS ARE TO BE PLACED WITH A MAXIMUM UPSTREAM SLOPE OF 1.5:1 AND A MAXIMUM DOWNSTREAM SLOPE OF 4:1.
- A TEMPORARY SETTLING TRENCH IS TO BE EXCAVATED IN FRONT OF THE ROCK CHECK DAM TO A MINIMUM DEPTH OF 0.60m WITH A VOLUME OF 3 cu.m.
- THE ROCK IS TO BE PLACED IN TWO LAYERS, SEPARATED BY A NON-WOVEN GEOTEXTILE. THE FIRST LAYER IS TO CONSIST OF A 150mm DIA. STONE WRAPPED IN THE FABRIC TO A HEIGHT OF 450mm. THE SECOND LAYER IS TO CONSIST OF A 50mm DIA. STONE THAT EXTENDS FROM THE BASE OF THE SETTLING TRENCH TO THE TOP OF THE FIRST LAYER. THE SECOND LAYER IS TO BE A MINIMUM 100mm THICK.
- THE SECOND LAYER OF STONE SHOULD BE PILED TO ANCHOR THE GEOTEXTILE AND FORM A LOW CENTER SPILLWAY THAT IS A MINIMUM 300mm BELOW THE TOP OF THE CHANNEL BANK.
- THE CHANNEL DITCH SIDE SLOPES ARE TO BE ARMOR PROTECTED FROM EROSION ON EACH SIDE OF THE ROCK CHECK DAM BY EXTENDING THE STONE ALONG THE DITCH SIDE SLOPES TO A HEIGHT OF 0.70m.
- IN SWALES AND DITCHES WHERE THERE IS INCREASED SLOPE LENGTH AND/OR SIGNIFICANT GRADIENT, A SERIES OF ROCK CHECK DAMS MUST BE USED.

- THE HEIGHT OF SUBSEQUENT ROCK CHECK DAMS MUST BE EQUAL TO THE ELEVATION OF THE BASE OF THE PREVIOUS ROCK CHECK DAMS.
- THE ROCK CHECK DAM IS TO BE REPLACED UPON 50% OF THE HEIGHT OF THE ROCK CHECK DAM BEING COVERED WITH SEDIMENT.
- CONSTRUCTION PROJECTS SHALL PROVIDE A MINIMUM 3m WIDE VEGETATIVE BUFFER STRIP ALONG THE LIMITS OF THE DEVELOPMENT INCLUDING FRONTAGES ALONG EXISTING ROAD BOULEVARDS.
- AREAS ADJACENT TO WATERCOURSES SHALL PROVIDE A MINIMUM 15m BUFFER ZONE SETBACK FROM TOP OF BANK (30m FOR COLD WATER FISHERIES) AND/OR AVERAGE HIGH WATER MARK, WHICHEVER IS GREATER.
- UPON OBSERVATION OF CONTINUOUS MUD TRACKING, OCCURRING ONTO ADJACENT STREETS, THE STONE ENTRANCE PAD IS TO BE FULLY REPLACED.
- THE SITE PROJECT ENGINEER SHALL UNDERTAKE WEEKLY INSPECTIONS OF ALL SEDIMENT/EROSION CONTROL FACILITIES DURING THE EXTENT OF THE ENTIRE CONSTRUCTION PROJECT INCLUDING THE BUILDING CONSTRUCTION PERIOD AS WELL AS AFTER ALL RAIN EVENTS 13mm OR GREATER.
- CONSTRUCTION AREAS THAT EXCEED 30 DAYS OF INACTIVITY SHALL BE STABILIZED BY SEEDING. THE IS TO INCLUDE STOCKPILES OF FILL AND TOPSOIL. THE SPECIFICATION FOR SITE STABILIZATION ARE AS FOLLOWS:
  - LARGE OPEN AREAS: LOOSEN SOIL TO A DEPTH OF 100mm AND APPLY THE FOLLOWING HYDROSEED MIXTURE (30% ANNUAL RYEGRASS, 40% PERENNIAL RYEGRASS, 15% CREEPING RED FESCUE, 10% TIMOTHY, 5% WHITE CLOVER) WITH VERDOYL MULCH AT A RATE OF 200kg/ha AND A FERTILIZER 8-32-16 AT A RATE OF 450 kg/ha.
  - TOPSOIL STOCKPILES: LOOSEN SOIL TO A DEPTH OF 50mm AND APPLY THE HYDROSEED MIXTURE INDICATED IN #1 ABOVE.
  - BUFFER ZONES: SPREAD 50mm OF TOPSOIL AND APPLY HYDROSEED MIXTURE, "GREENFIELDS" BY PICKSEED, AT AN APPLICATION RATE OF 200 kg/ha
- DURING THE CONSTRUCTION PERIOD, WHEN INTERNAL STREETS SYSTEMS HAVE HAD ASPHALT INSTALLED, A STREET CLEANING SCHEDULE WILL BE UNDERTAKEN ON A MINIMUM WEEKLY BASIS, OR AS DIRECTED BY THE MUNICIPALITY OR CONSERVATION AUTHORITY.
- ALL CATCHBASINS, REAR YARD CATCHBASIN AND CATCHBASIN MANHOLES TO BE INSTALLED WITH A SILT SACK INLET SEDIMENT CONTROL DEVICE.



HEAVY DUTY SEDIMENT FENCING AS PER TOWB DETAIL; LAYOUT SHOWN APPROXIMATE ONLY TO BE CONFIRMED WITH TOWN STAFF PRIOR TO CONSTRUCTION

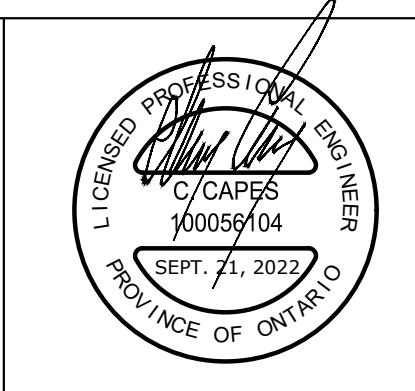
SEDIMENT FENCING TO BE REMOVED DURING CONNECTION TO EXISTING TRAIL

Notes

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

NOTES:  
TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC..  
BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLET IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
LOCAL BENCHMARK:  
TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53

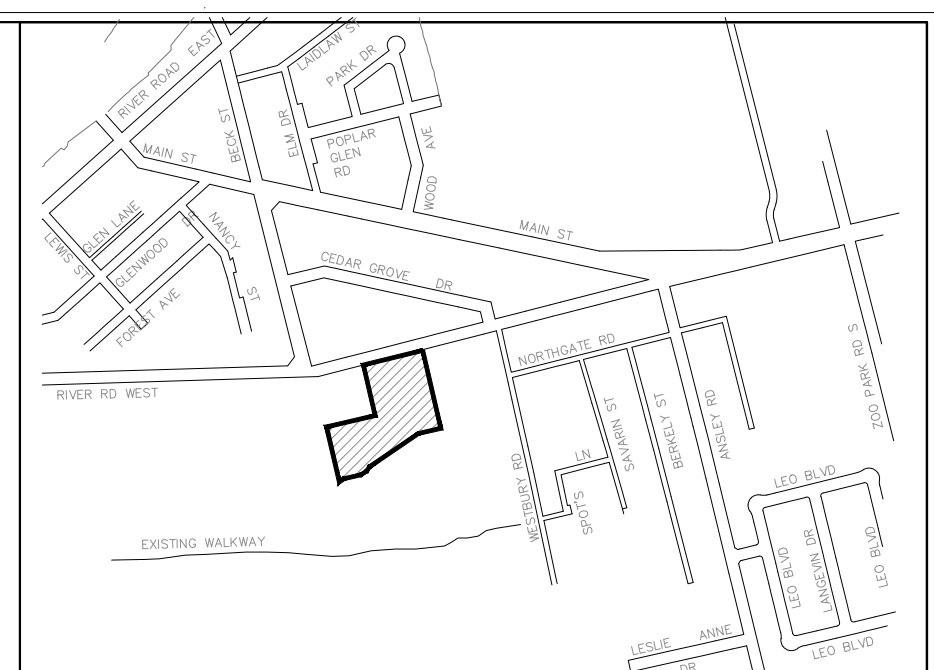
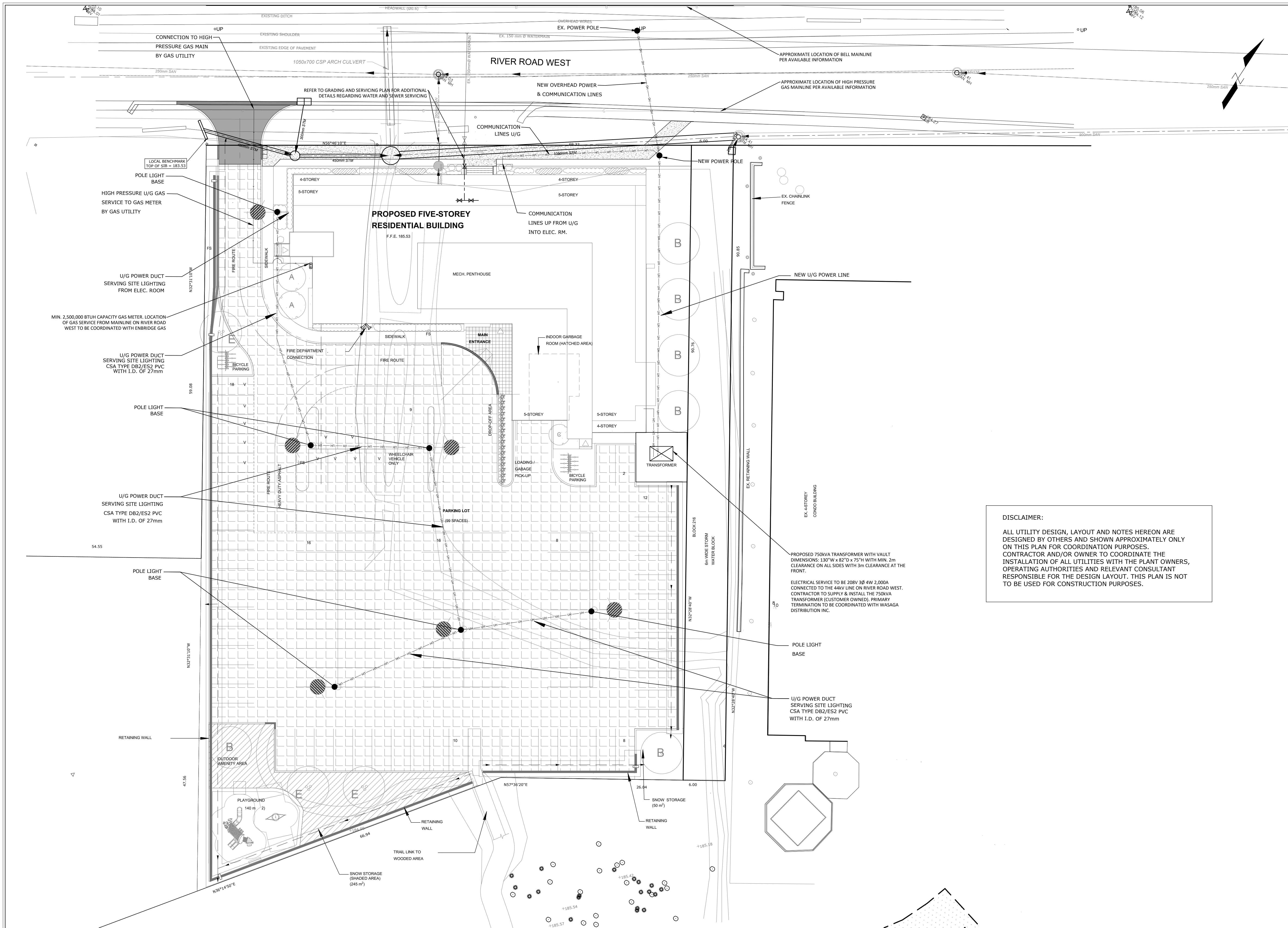


Client  
**WASAGA RIVERWOODS HOMES**  
30 FULTON WAY, UNIT 8  
RICHMOND HILL, ON  
L4B 1E6

355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
CLARKSBURG, ON N0M 1JX  
TEL: 705-994-4818

**WASAGA RIVERWOODS**  
EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No.
Project No. 2018-012	Rev No. 4	Scale 1:250	<b>C9</b>



**LEGEND**

	CURB DEPRESSION
	MAXIMUM 3:1 SLOPE UNLESS OTHERWISE NOTED
	SANITARY SEWER
	WATERMAIN
	HYDRANT & VALVE
	WATER VALVE
	TRANSFORMER
	UTILITY PEDESTAL
	PERMEABLE PAVER SURFACE. REFER TO DETAILS
	STEEL POLE
	LUMINAIRE ON STEEL POLE
	UTILITY POLE
	SIGN
	BURIED NATURAL GAS SERVICE
	BURIED HYDRO/STREETLIGHT/TELECOM CONDUIT
	OVERHEAD HYDRO/STREETLIGHT/TELECOM CONDUIT

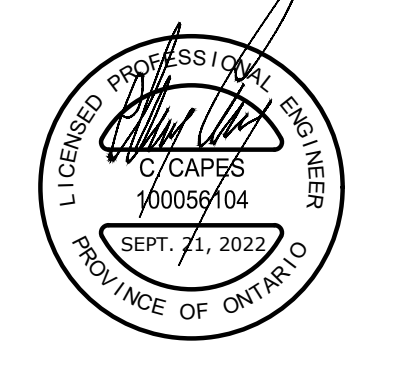
**DISCLAIMER:**  
 ALL UTILITY DESIGN, LAYOUT AND NOTES HEREON ARE DESIGNED BY OTHERS AND SHOWN APPROXIMATELY ONLY ON THIS PLAN FOR COORDINATION PURPOSES. CONTRACTOR AND/OR OWNER TO COORDINATE THE INSTALLATION OF ALL UTILITIES WITH THE PLANT OWNERS, OPERATING AUTHORITIES AND RELEVANT CONSULTANT RESPONSIBLE FOR THE DESIGN LAYOUT. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.

**Notes**

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING A ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
 LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53

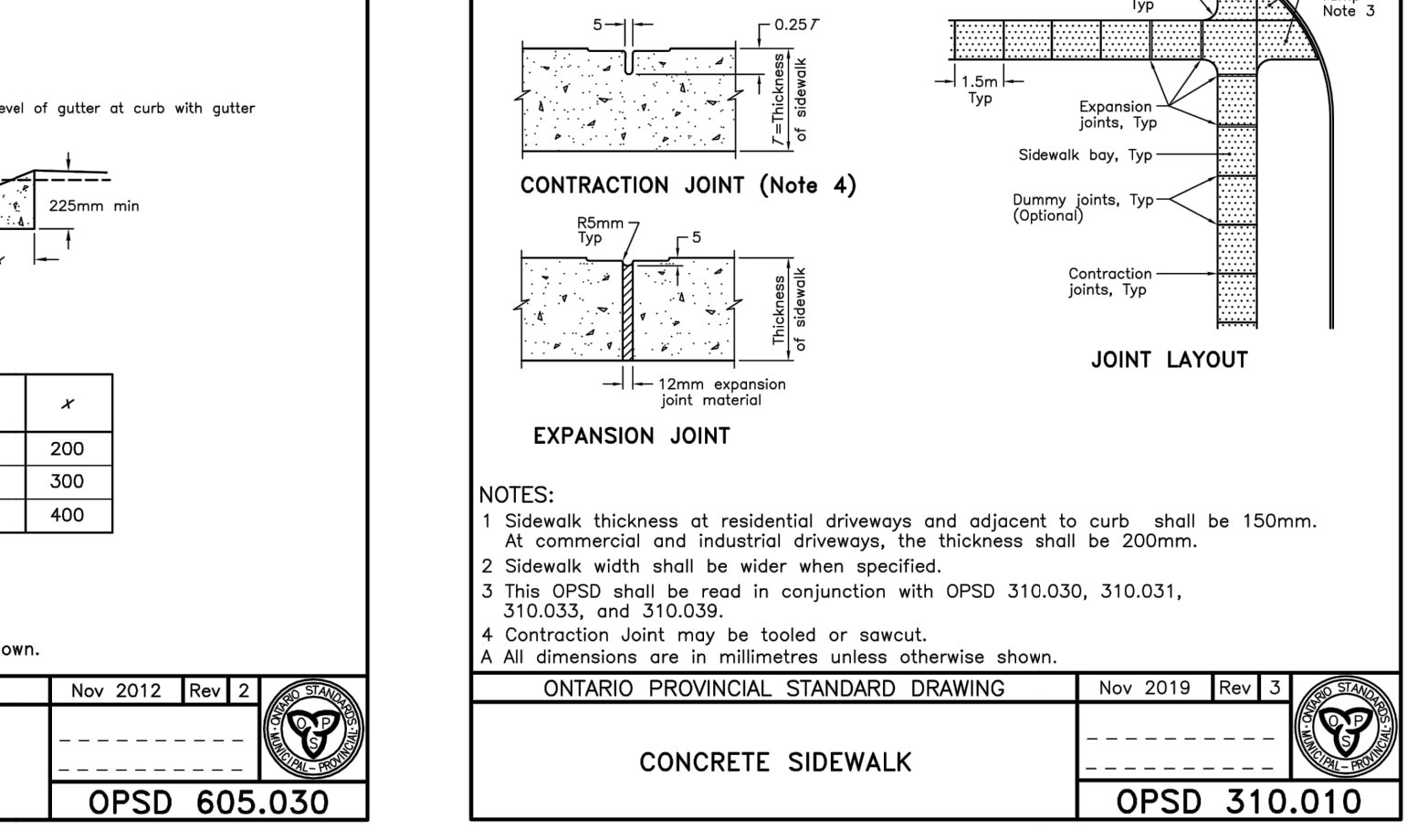
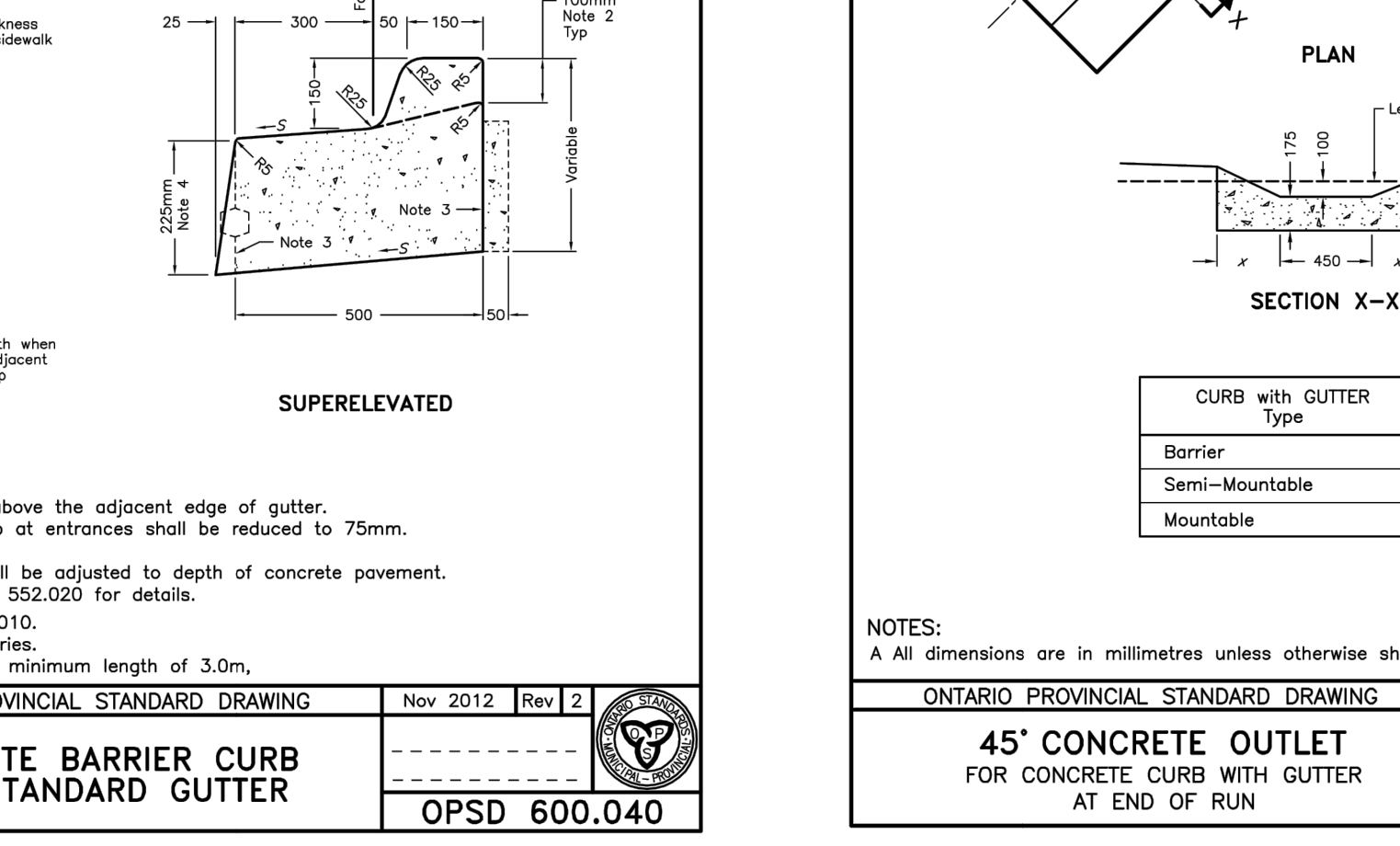
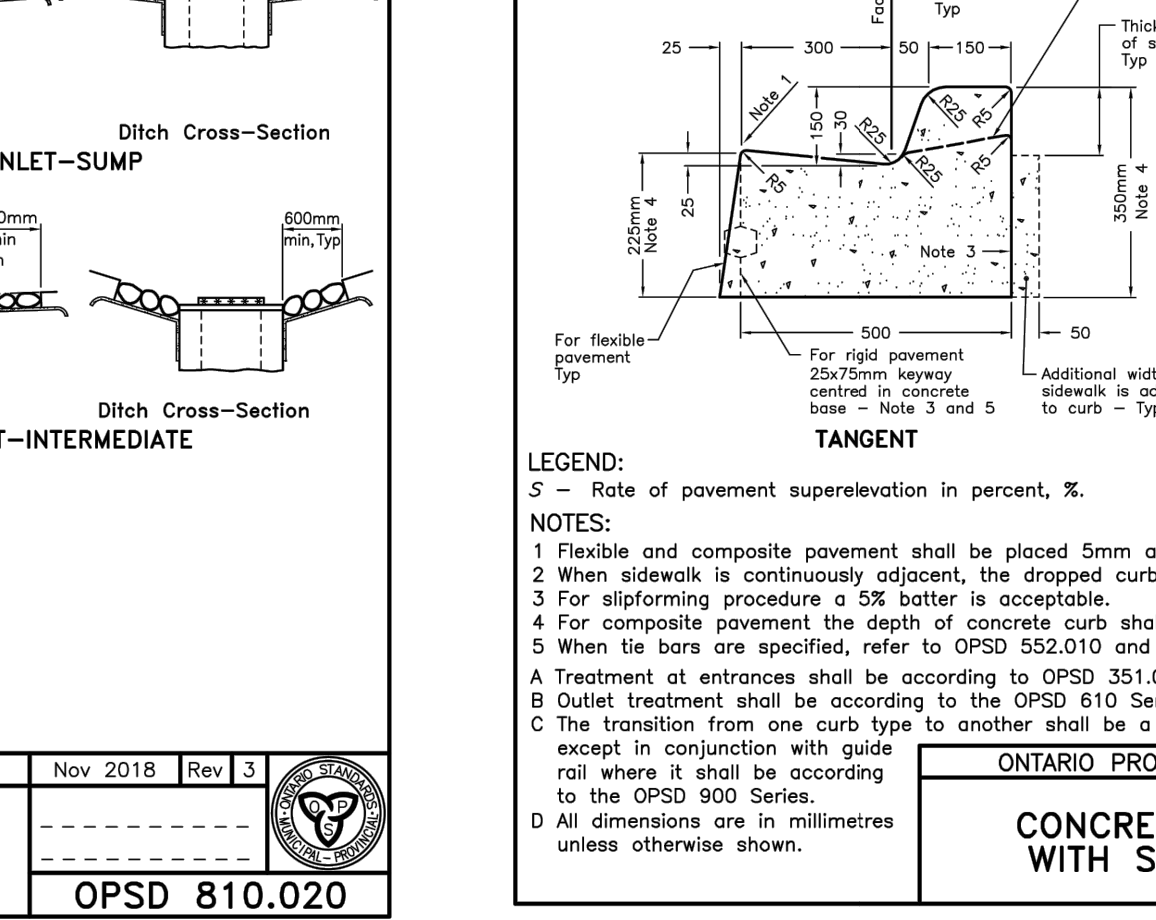
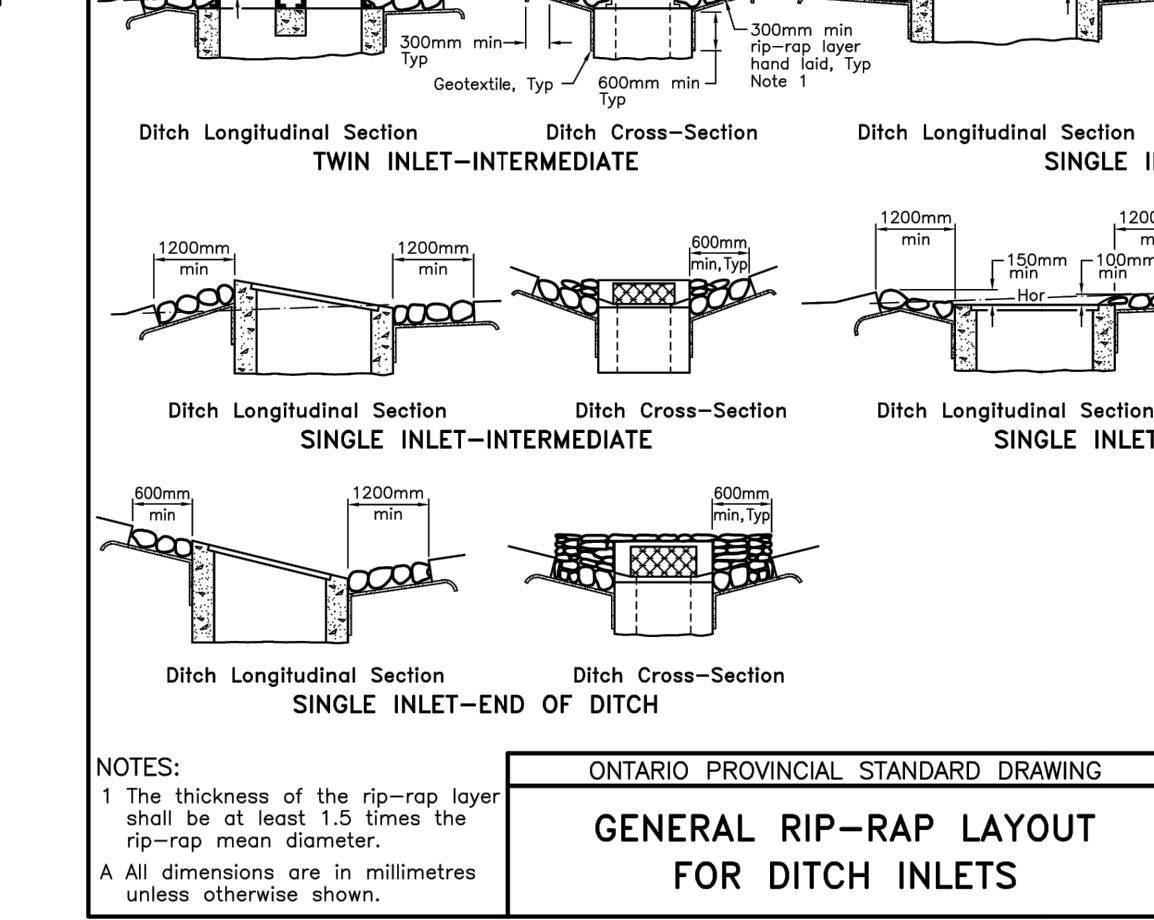
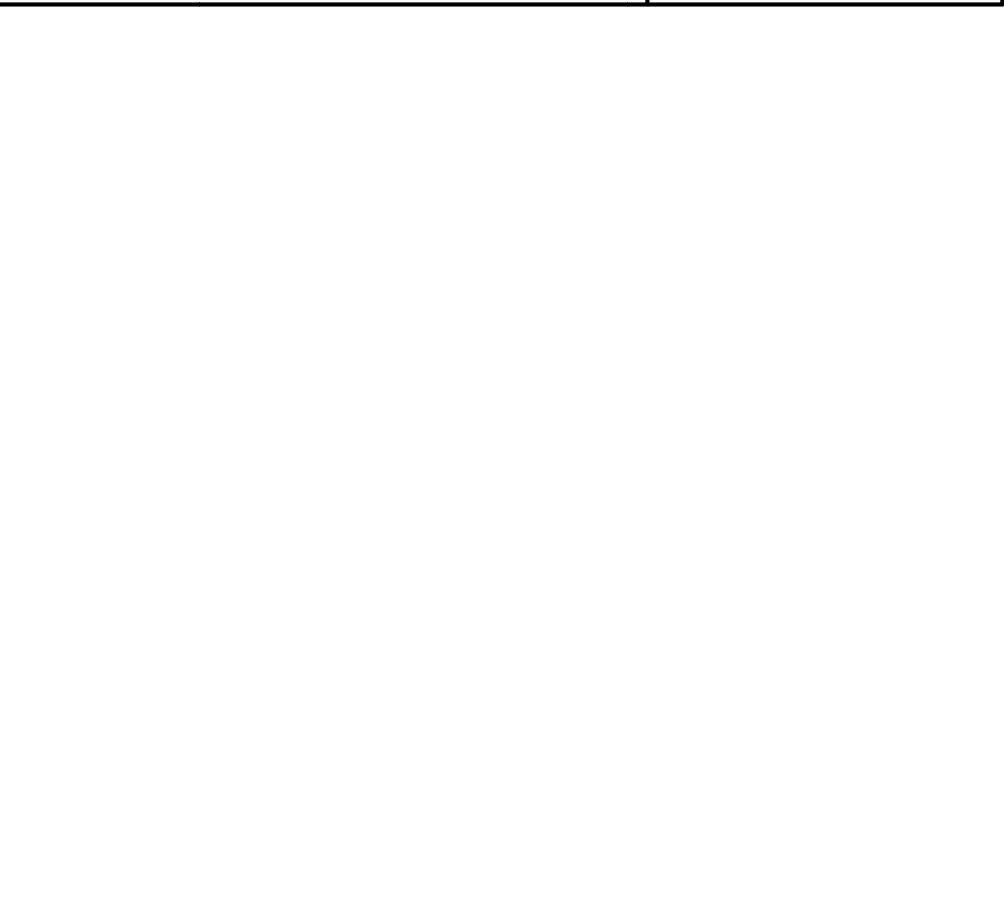
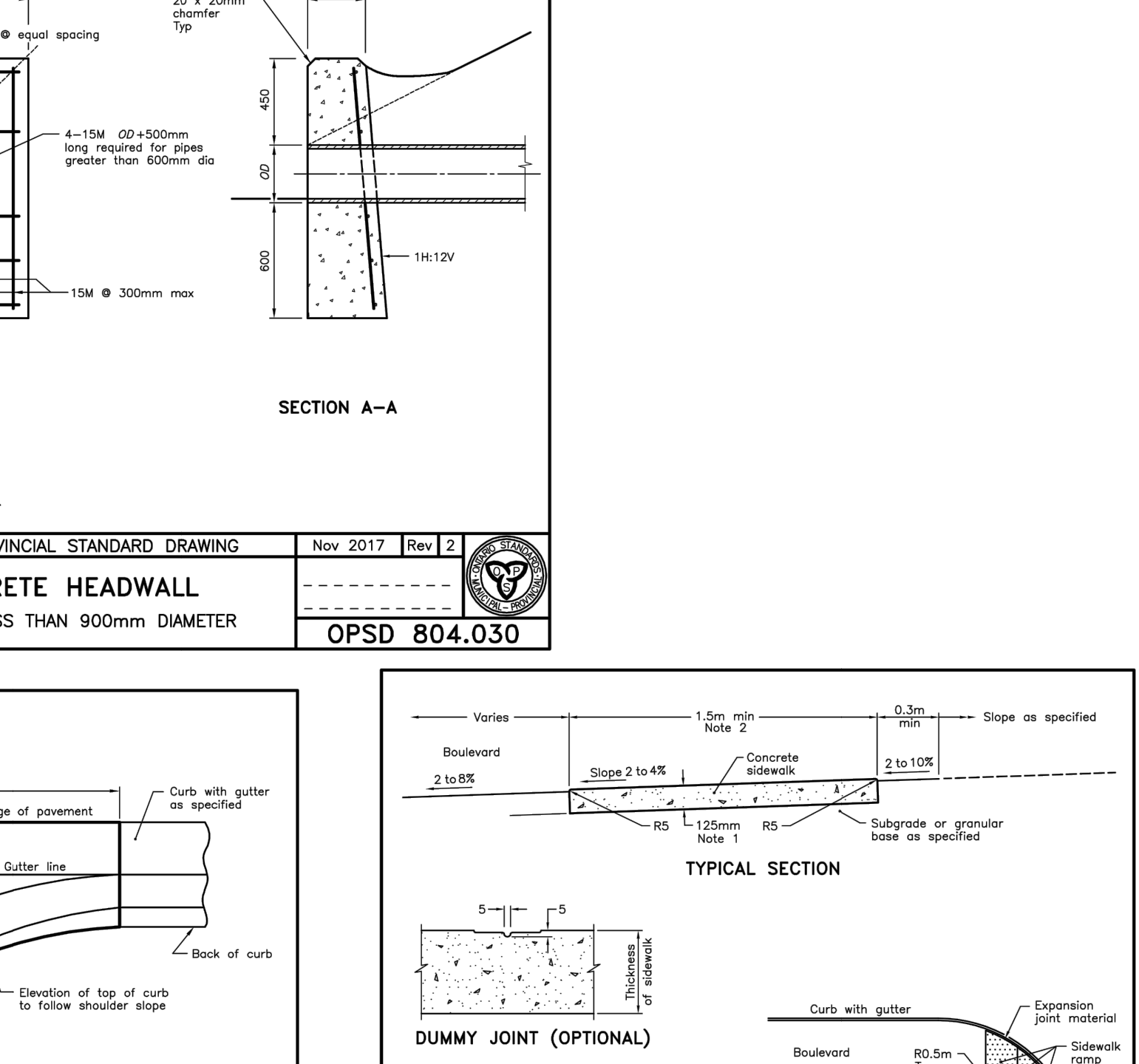
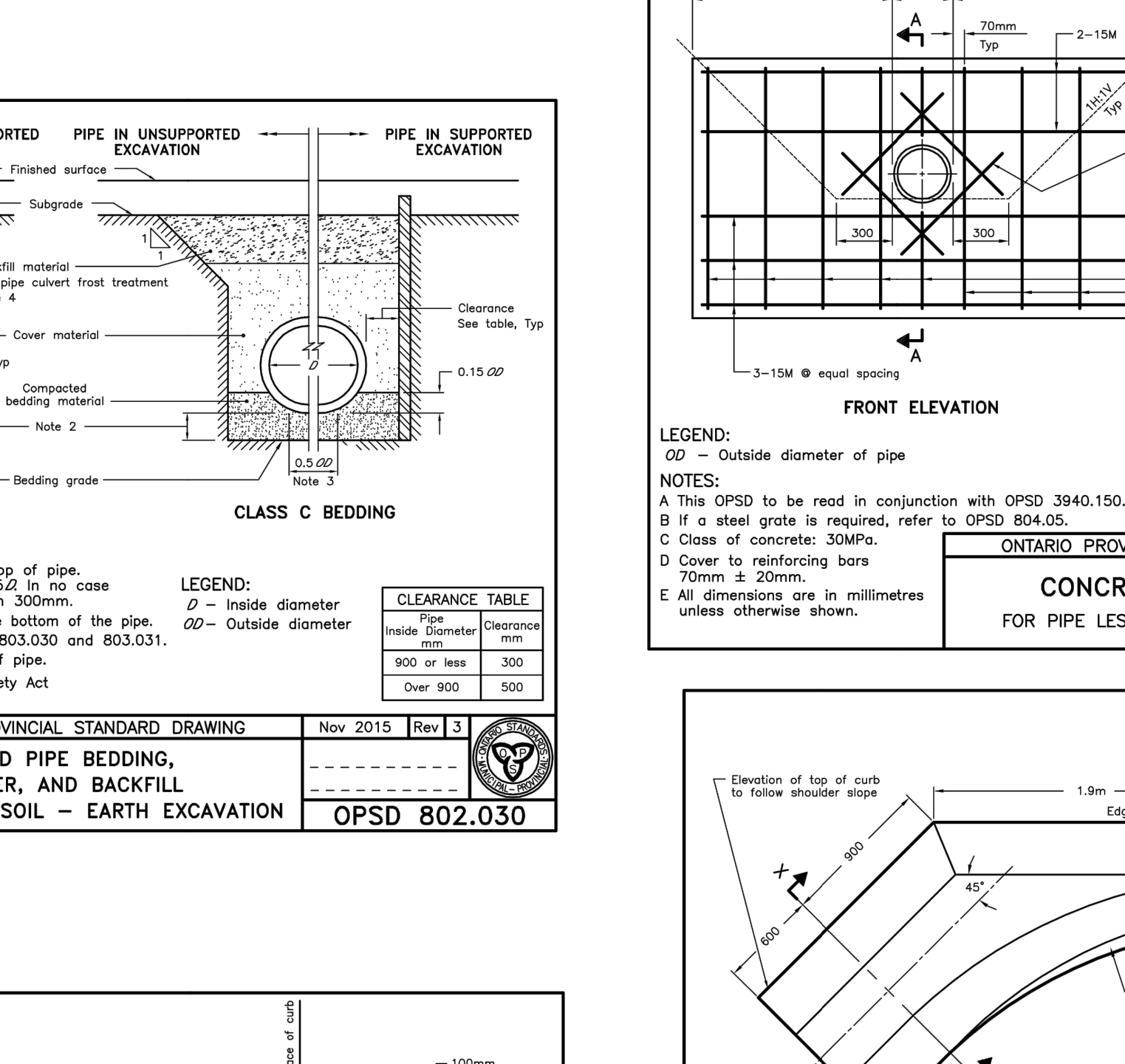
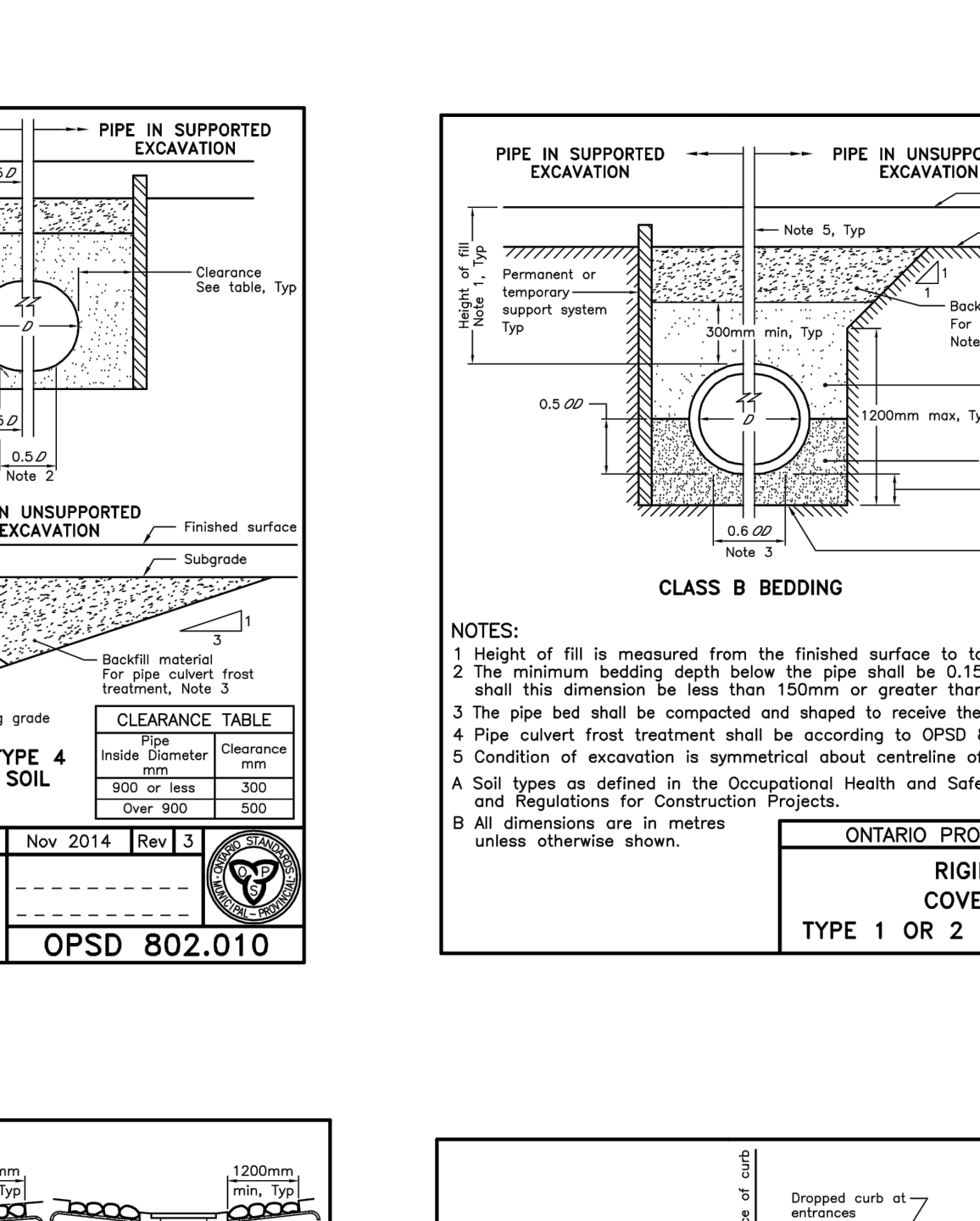
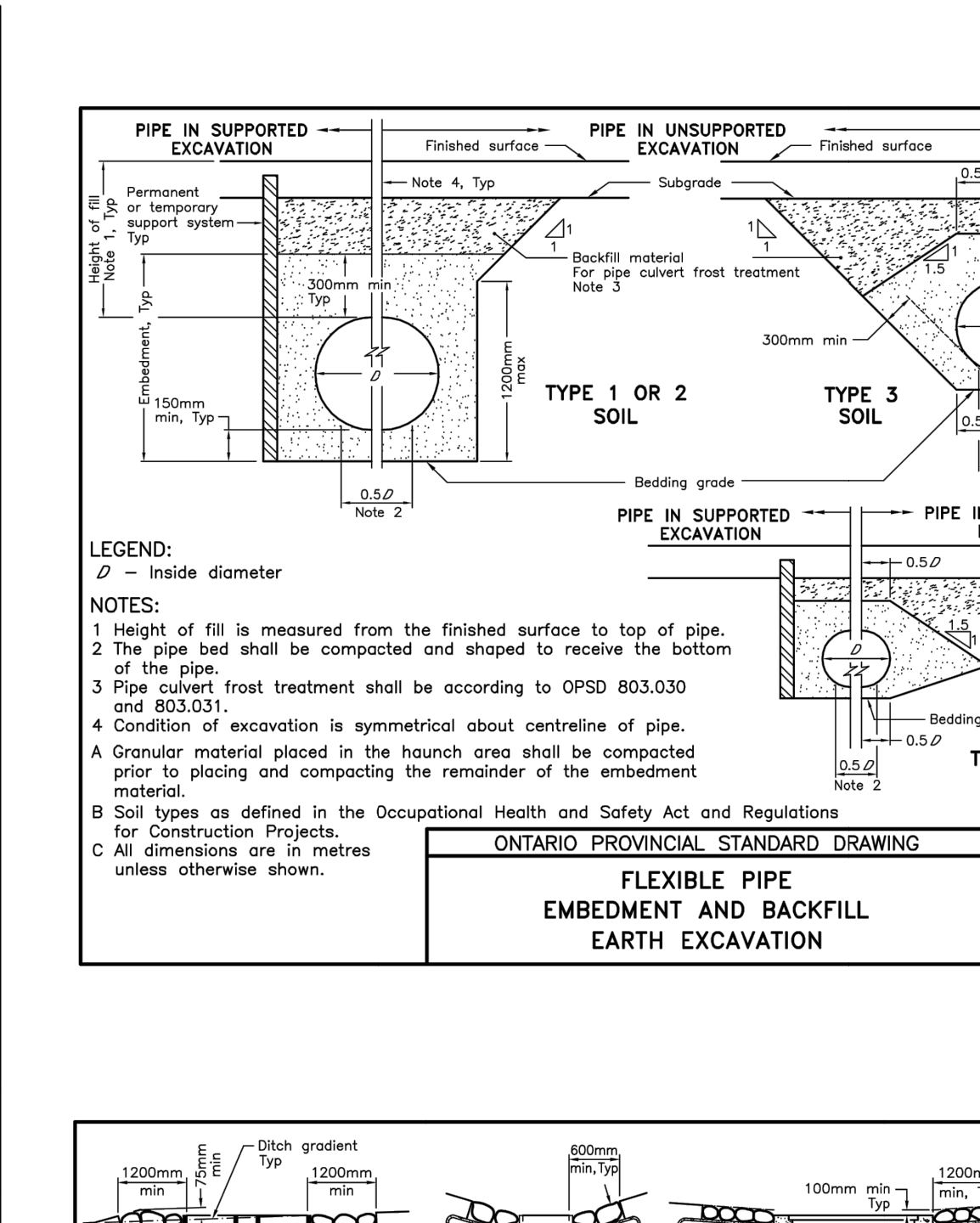
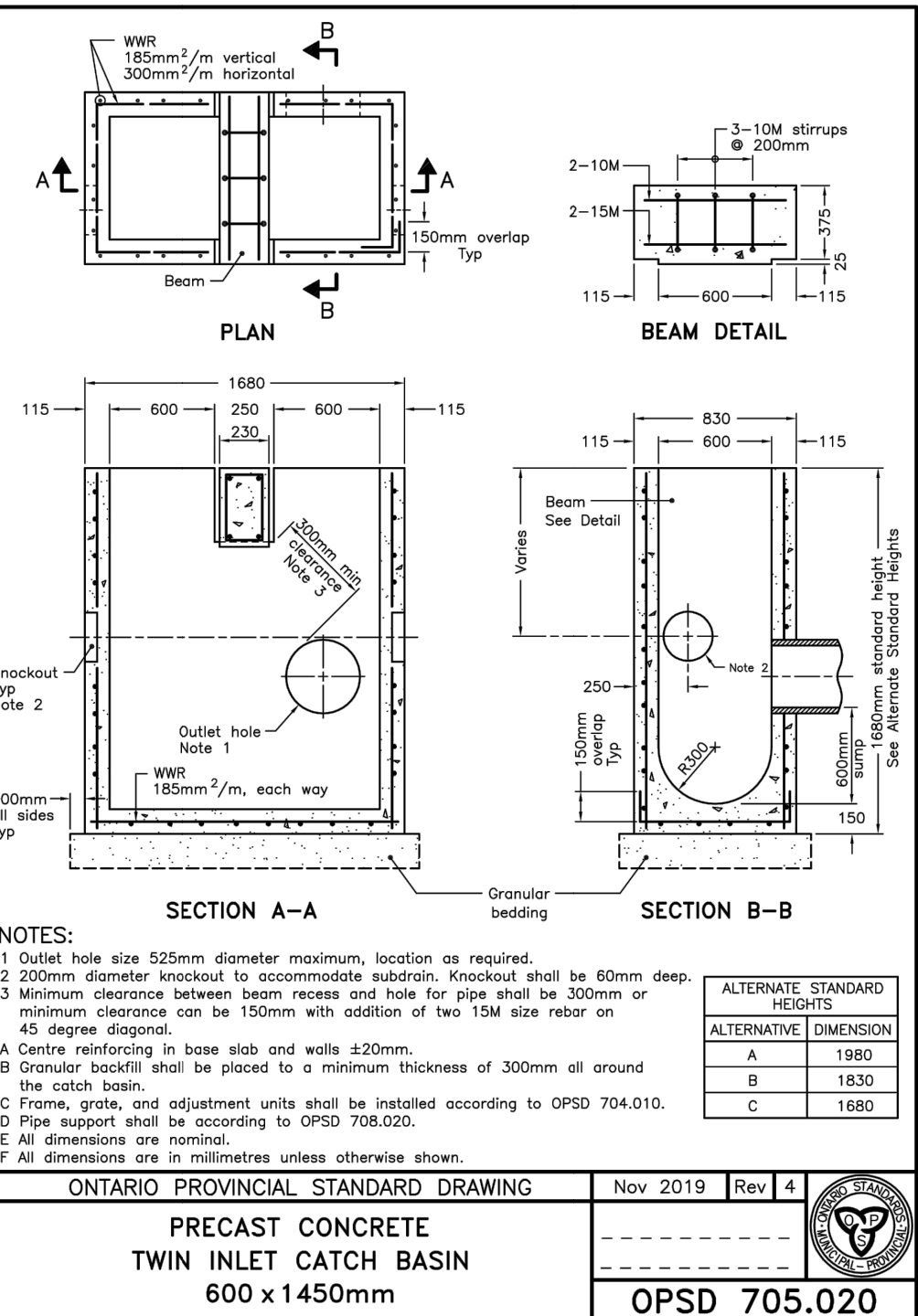
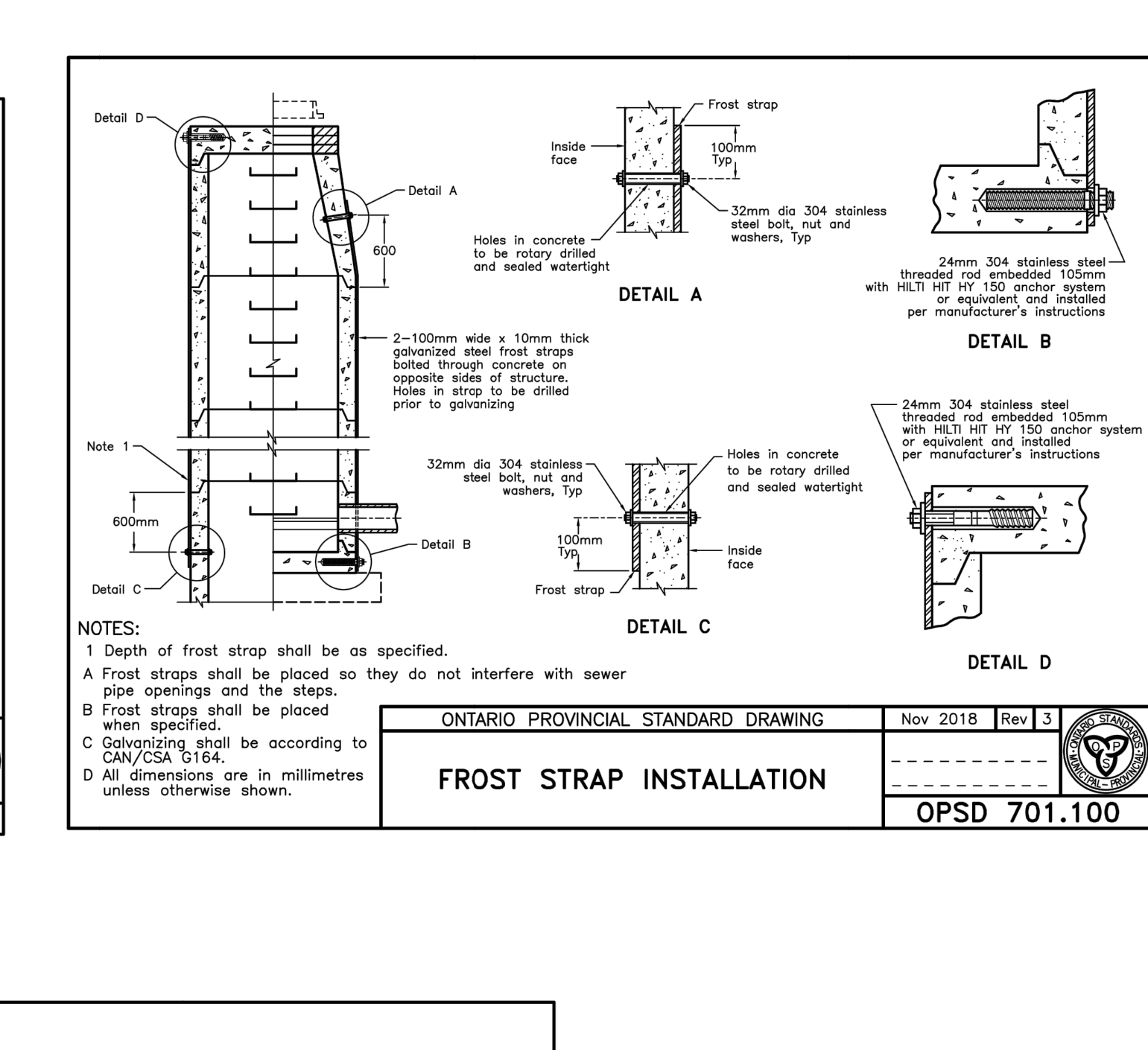
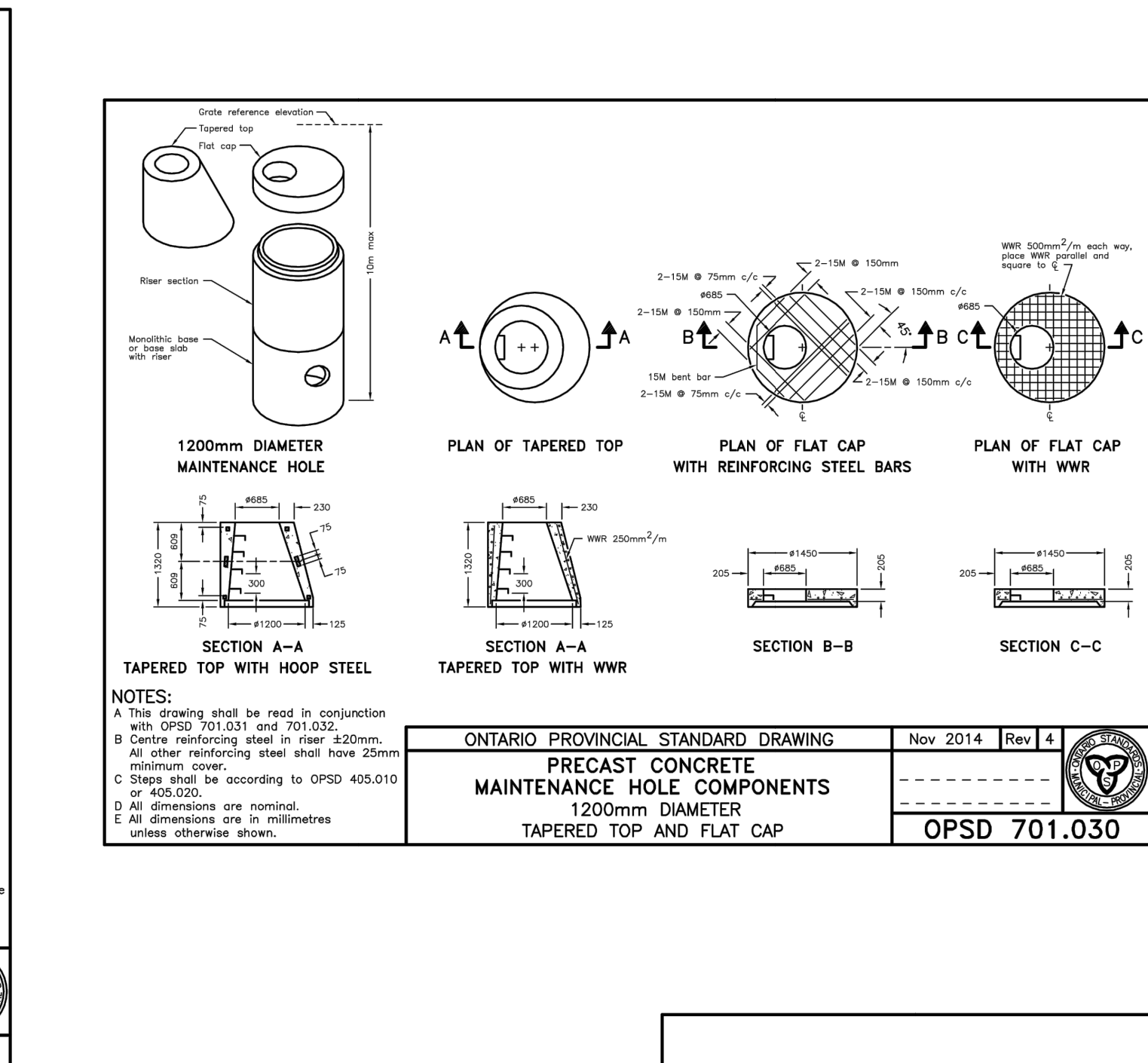
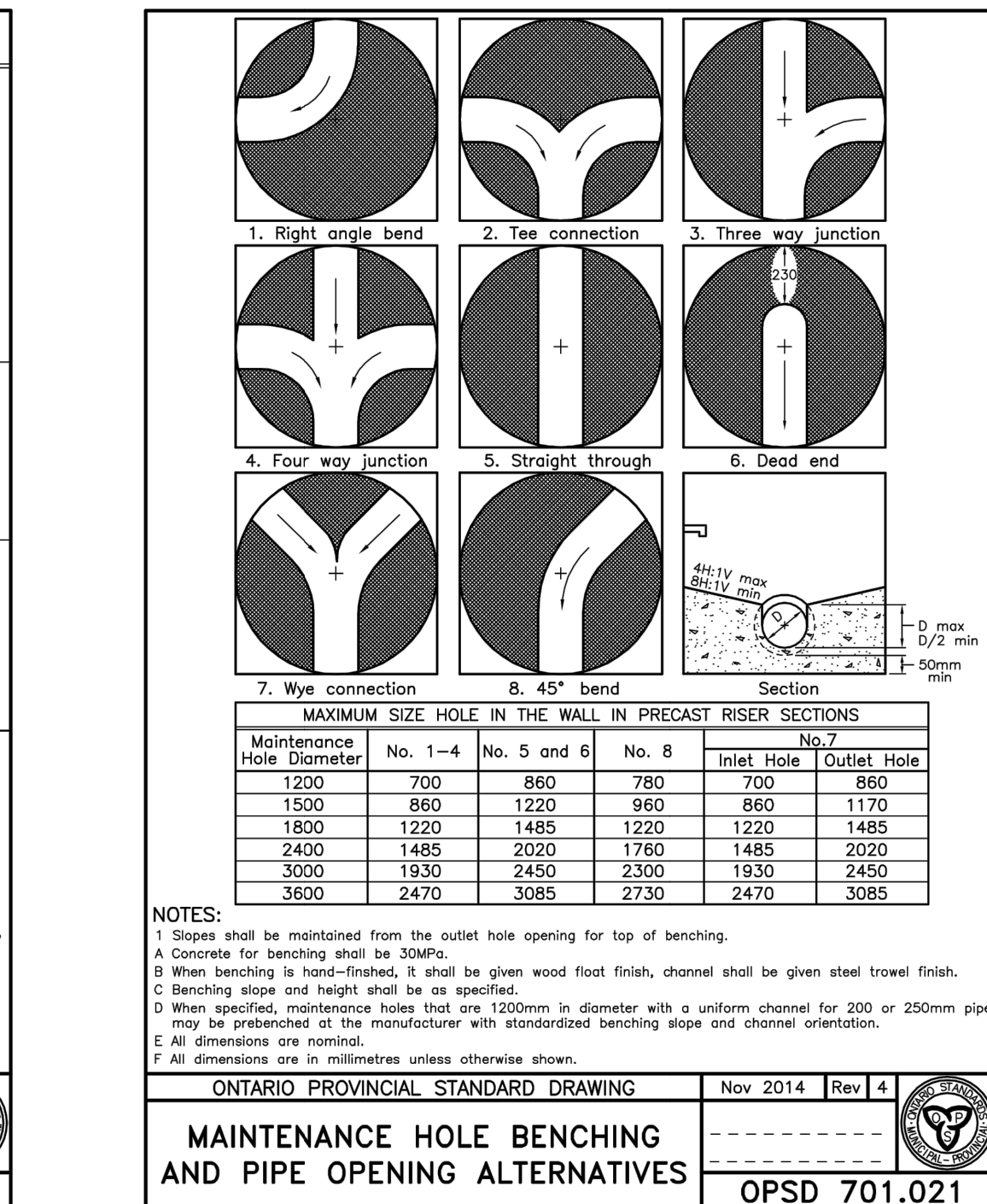
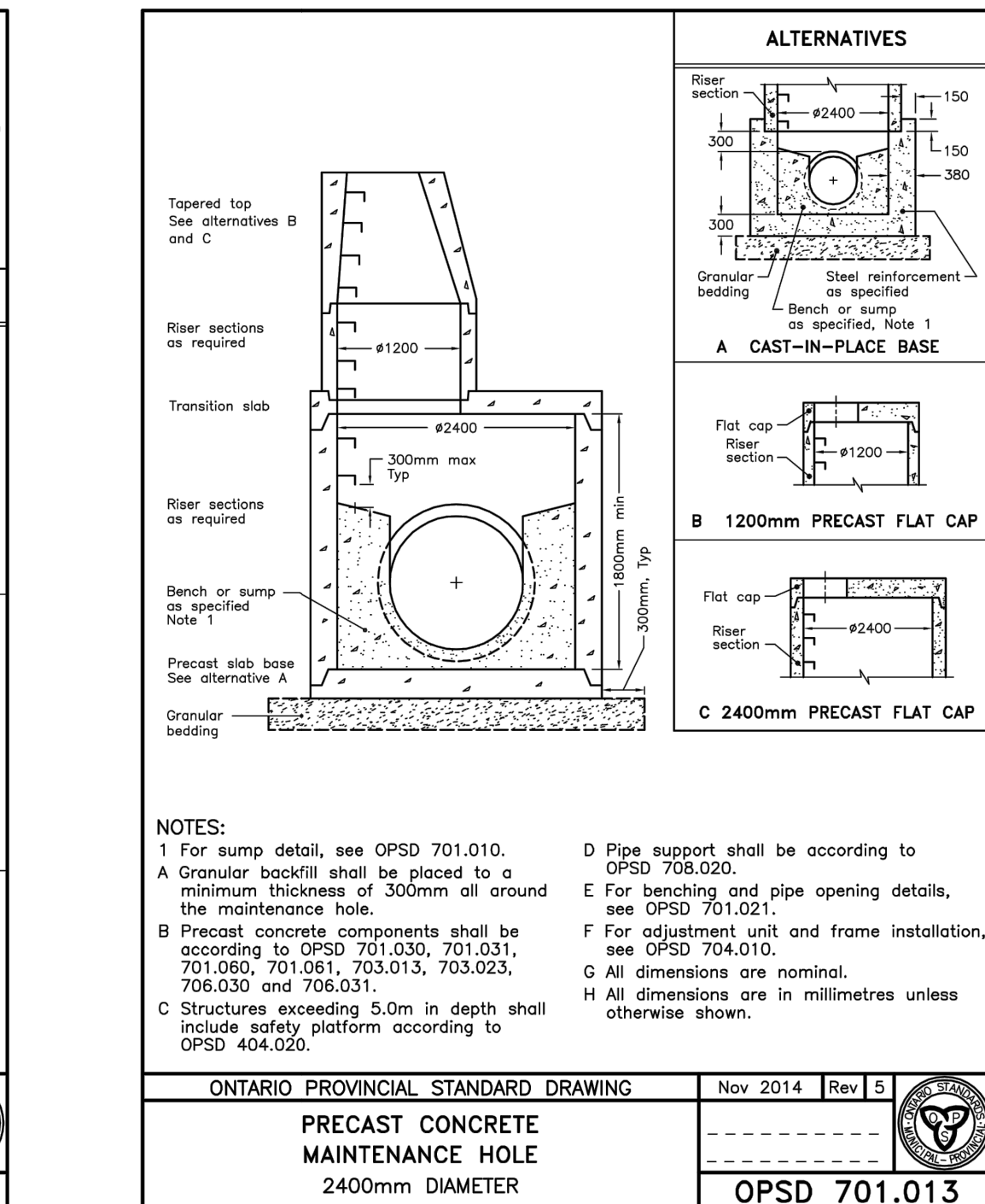
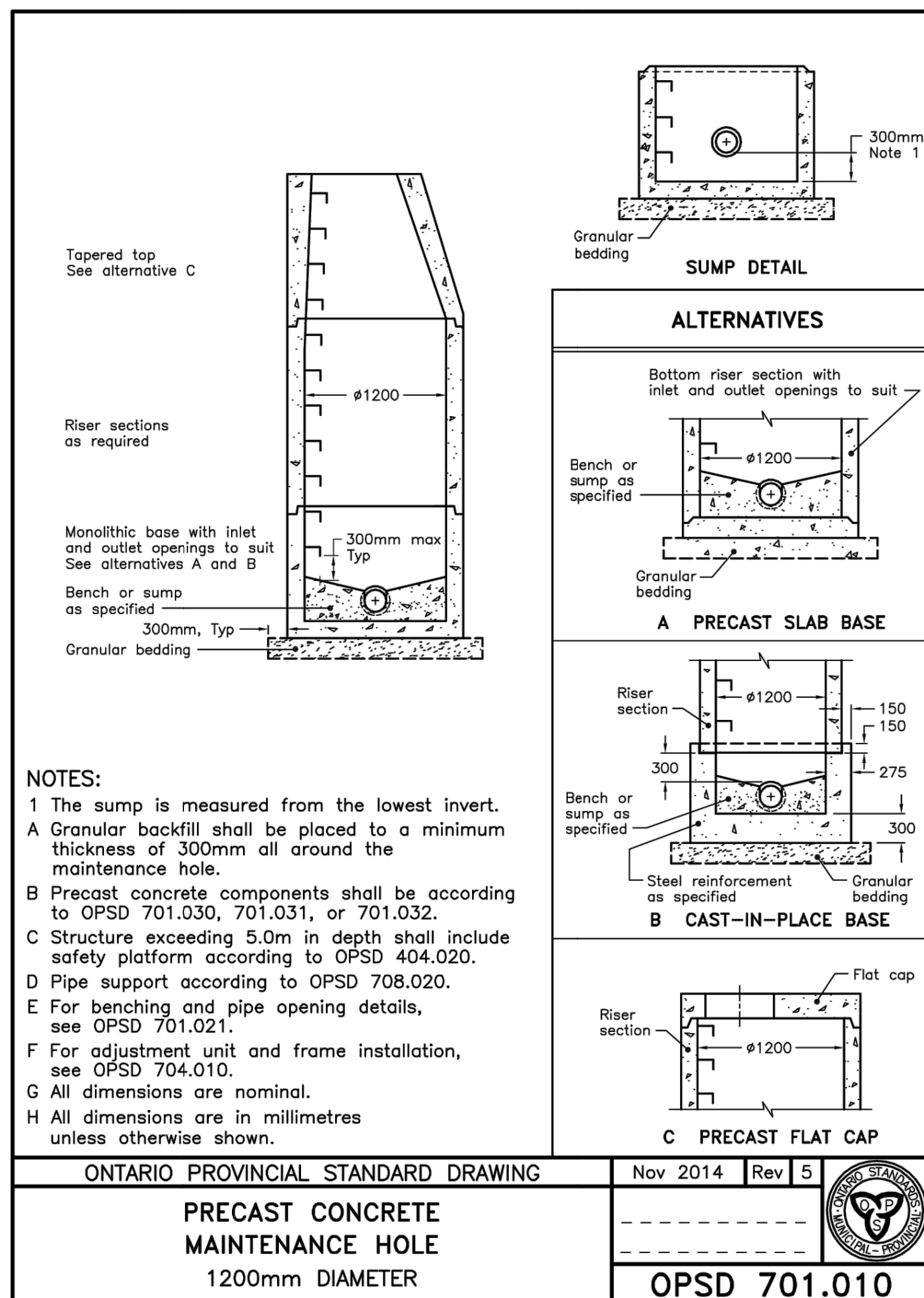


Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

**CAPES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J0  
 TEL: 705-994-4818

<b>WASAGA RIVERWOODS</b>		<b>COMPOSITE UTILITY PLAN</b>	
Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No.
Project No. 2018-012	Rev No. 4	Scale 1:250	<b>C10</b>



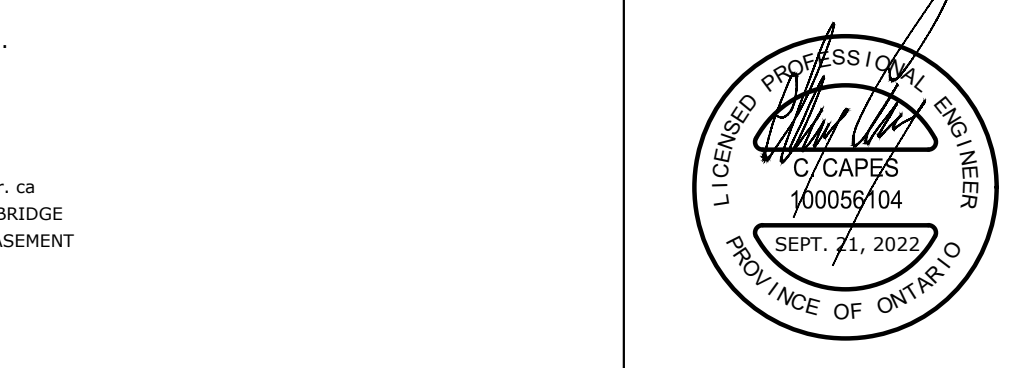


Notes

- This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
- The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
 TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETPO SURVEYS AND CADD INC.  
 BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
 ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHWEST OF BIDGE OVER NOTTAWASAGA RIVER, TABLET IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
 LOCAL BENCHMARK:  
 TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53

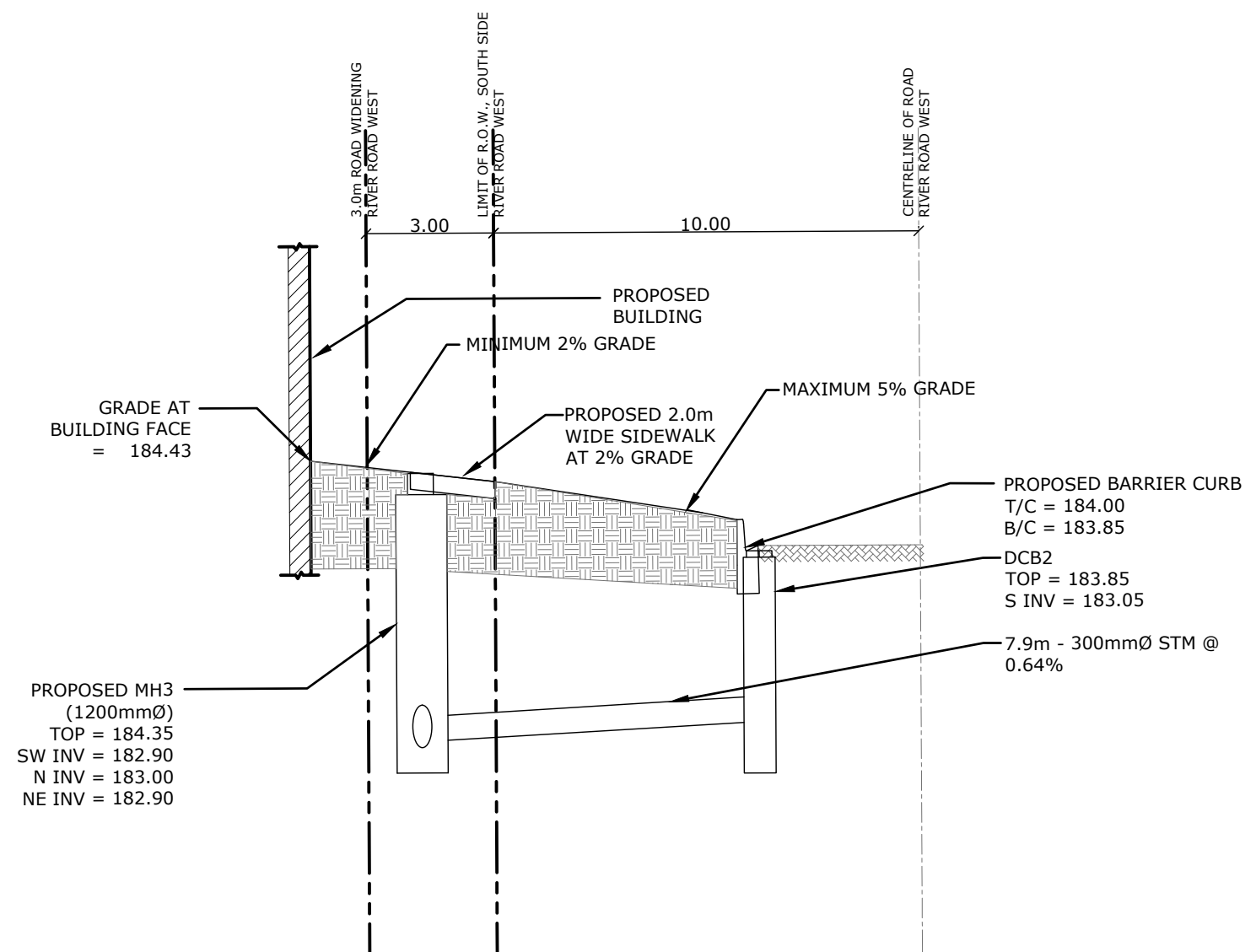


Client  
**WASAGA RIVERWOODS HOMES**  
 30 FULTON WAY, UNIT 8  
 RICHMOND HILL, ON  
 L4B 1E6

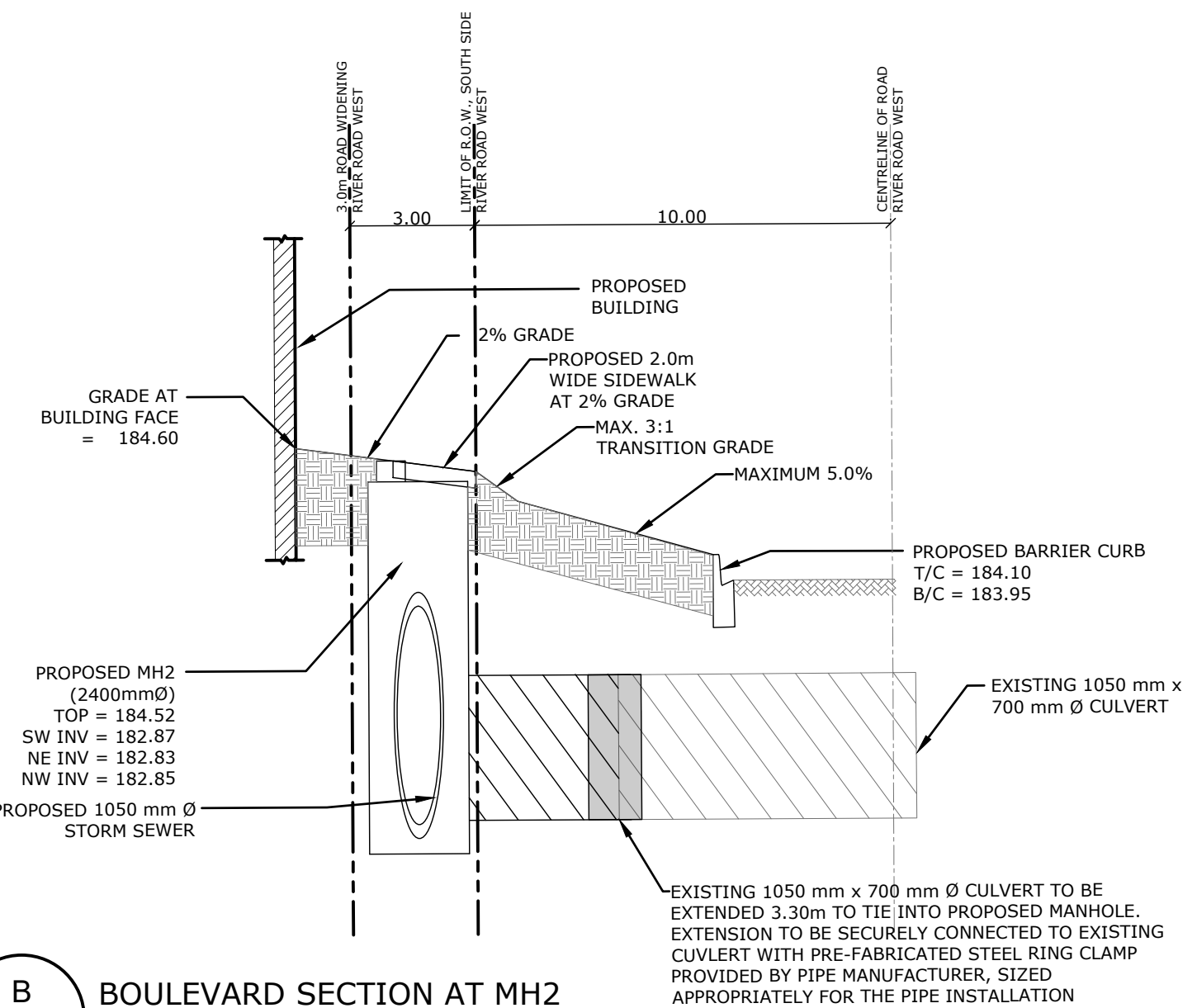
**CAVES ENGINEERING**  
 355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
 CLARKSBURG, ON N0M 1J0  
 TEL: 705-994-4818

**WASAGA RIVERWOODS STANDARD DETAILS**

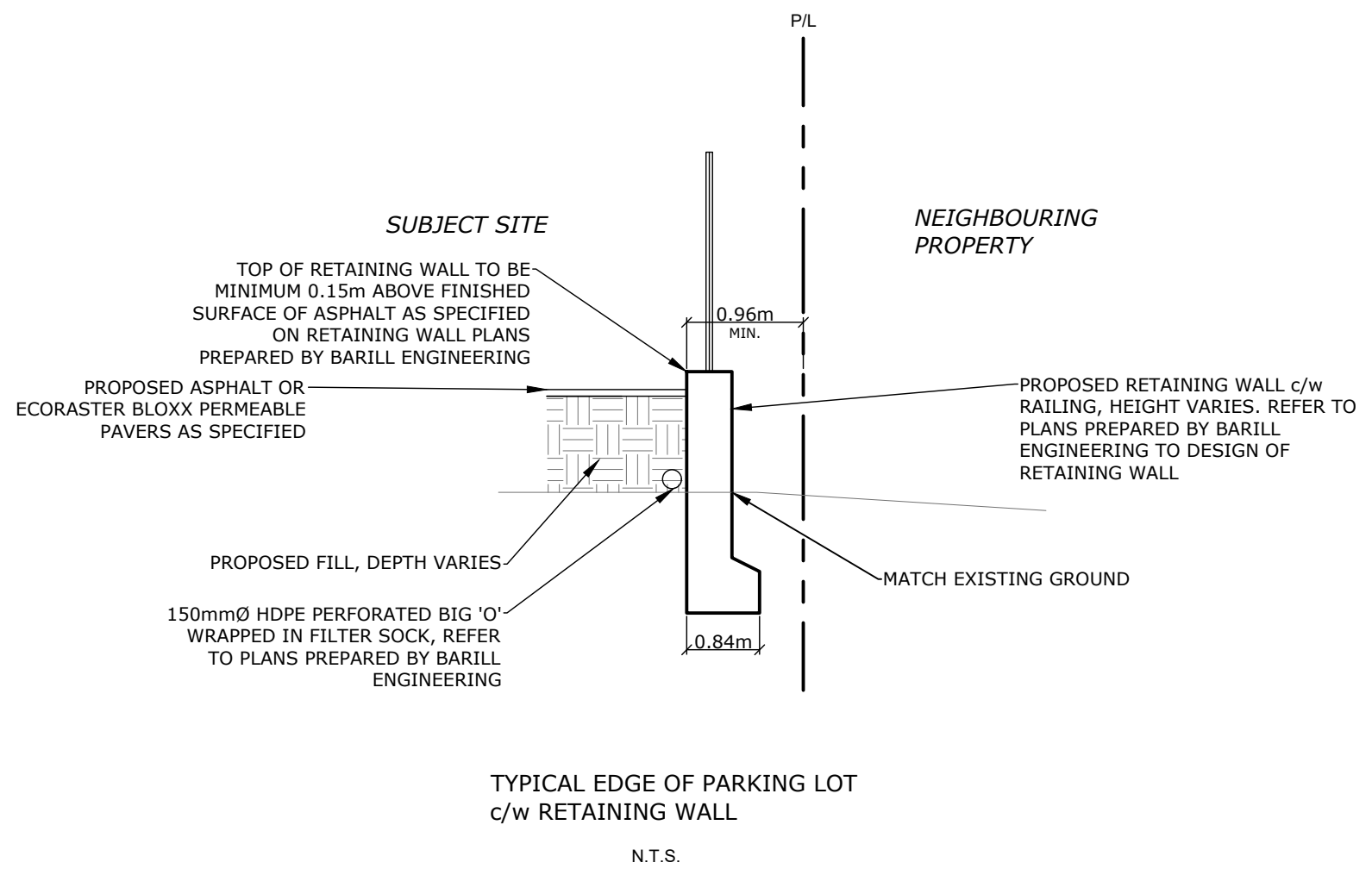
Designed	Checked	Date	Drawing No.
B. COLLINS	C. CAPES	20/07/20	
Project No.	Rev No.	Scale	
2018-012	4	1:1	<b>C12</b>



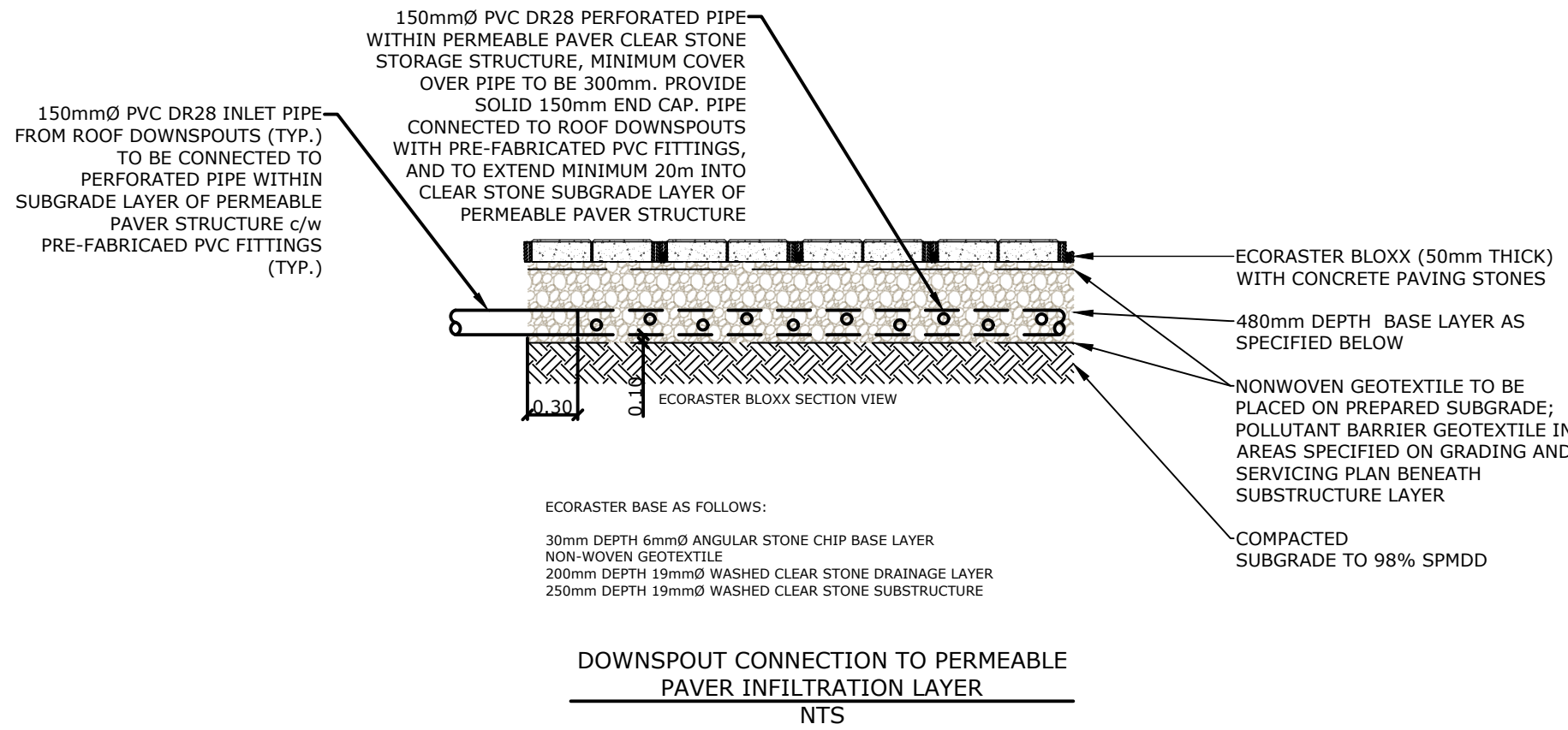
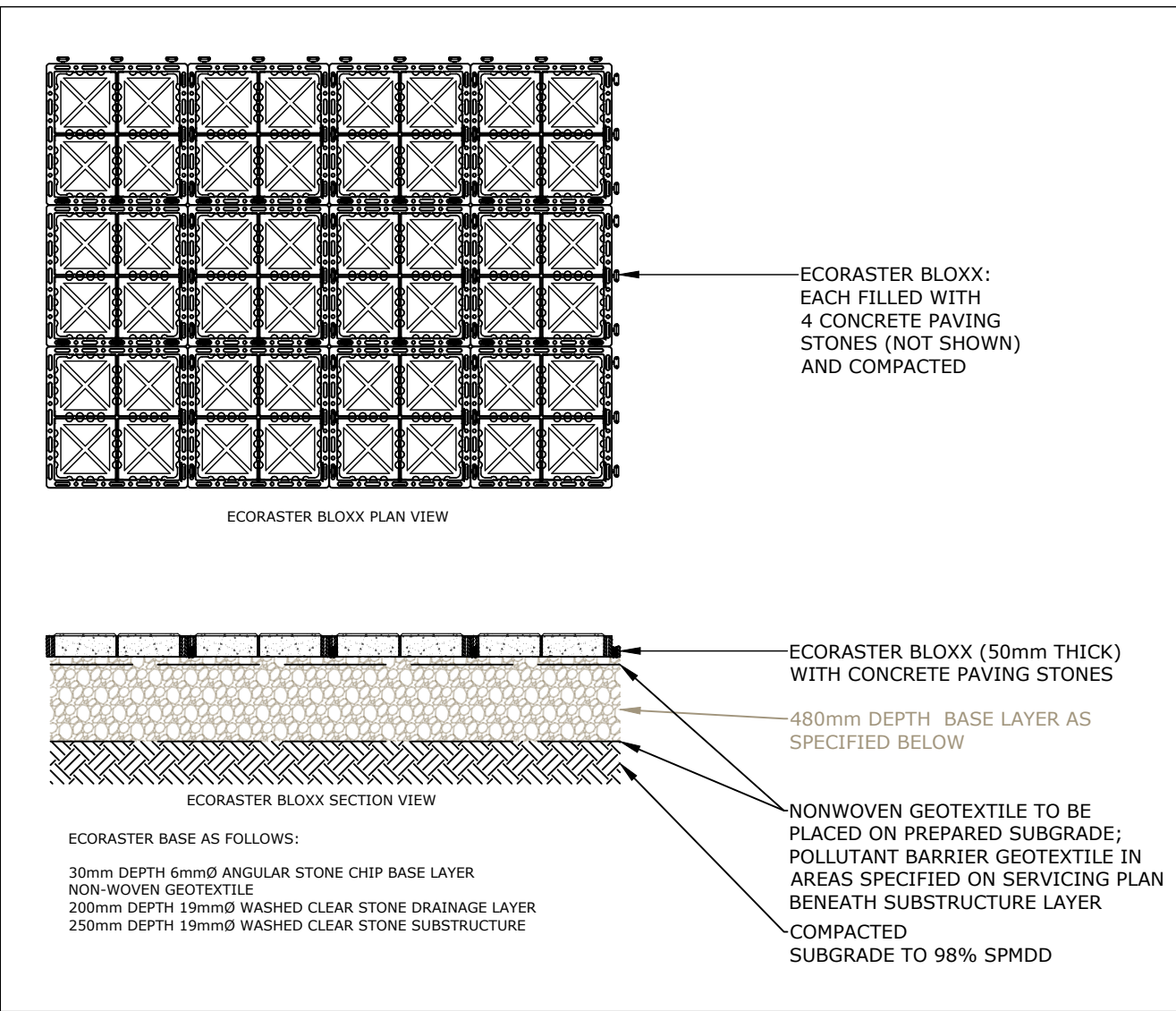
**A** BOULEVARD SECTION AT MH3  
C2 SCALE 1:150H 1:30V



**B** BOULEVARD SECTION AT MH2  
C2 SCALE 1:150H 1:30V



TYPICAL EDGE OF PARKING LOT  
c/w RETAINING WALL  
N.T.S.



DOWNSPOUT CONNECTION TO PERMEABLE  
PAVER INFILTRATION LAYER  
N.T.S.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

NOTES:  
TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING AN ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
LOCAL BENCHMARK:  
TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



Client  
**WASAGA RIVERWOODS HOMES**  
30 FULTON WAY, UNIT 8  
RICHMOND HILL, ON  
L4B 1E6

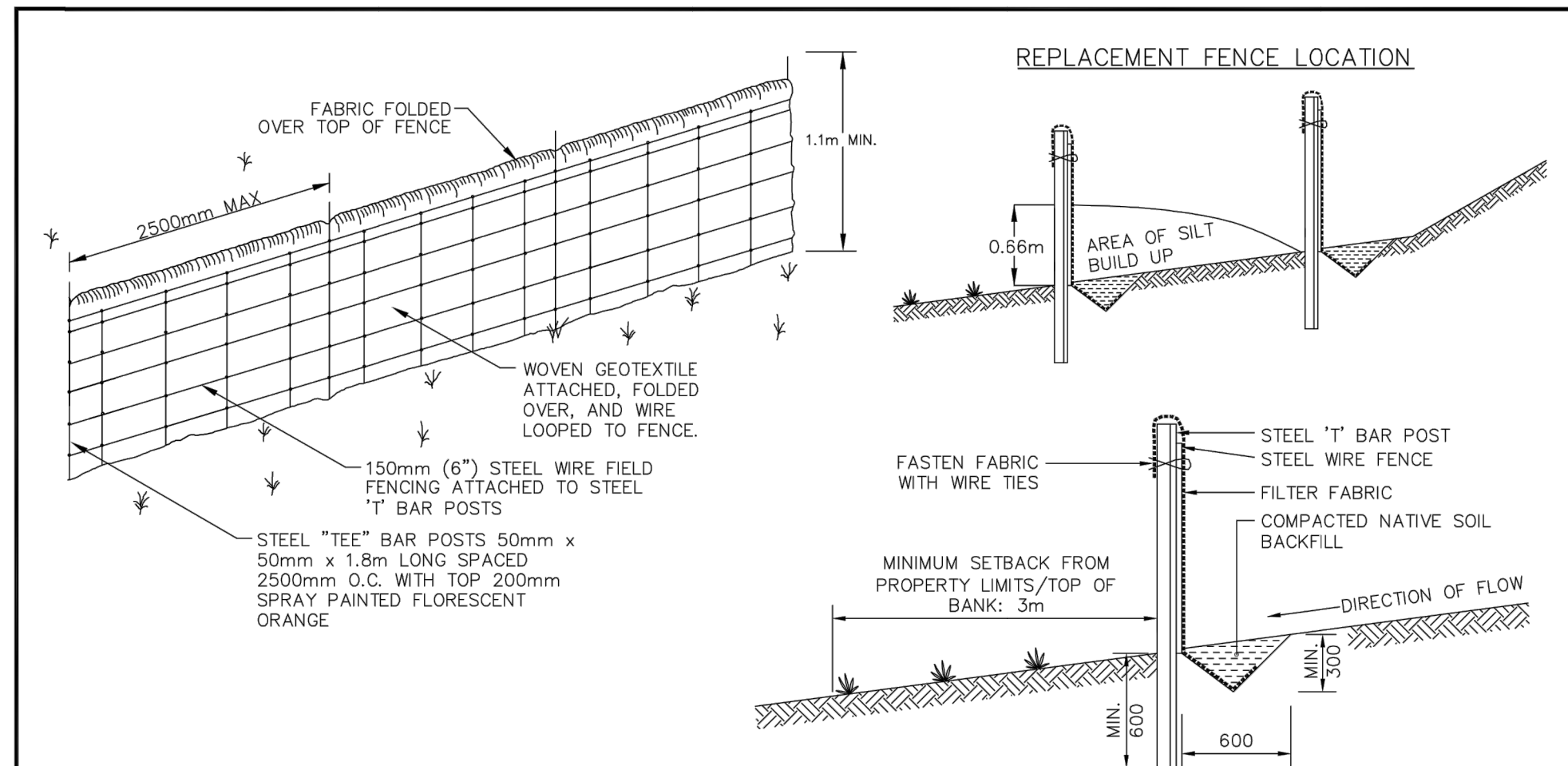
**CAPESE**  
ENGINEERING  
355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
CLARKSBURG, ON N0M 1J0  
TEL: 705-994-4818

Designed	Checked	Date	Drawing No.
B. COLLINS	C. CAPES	20/07/20	
Project No.	Rev No.	Scale	
2018-012	4	AS NOTED	

**C13**

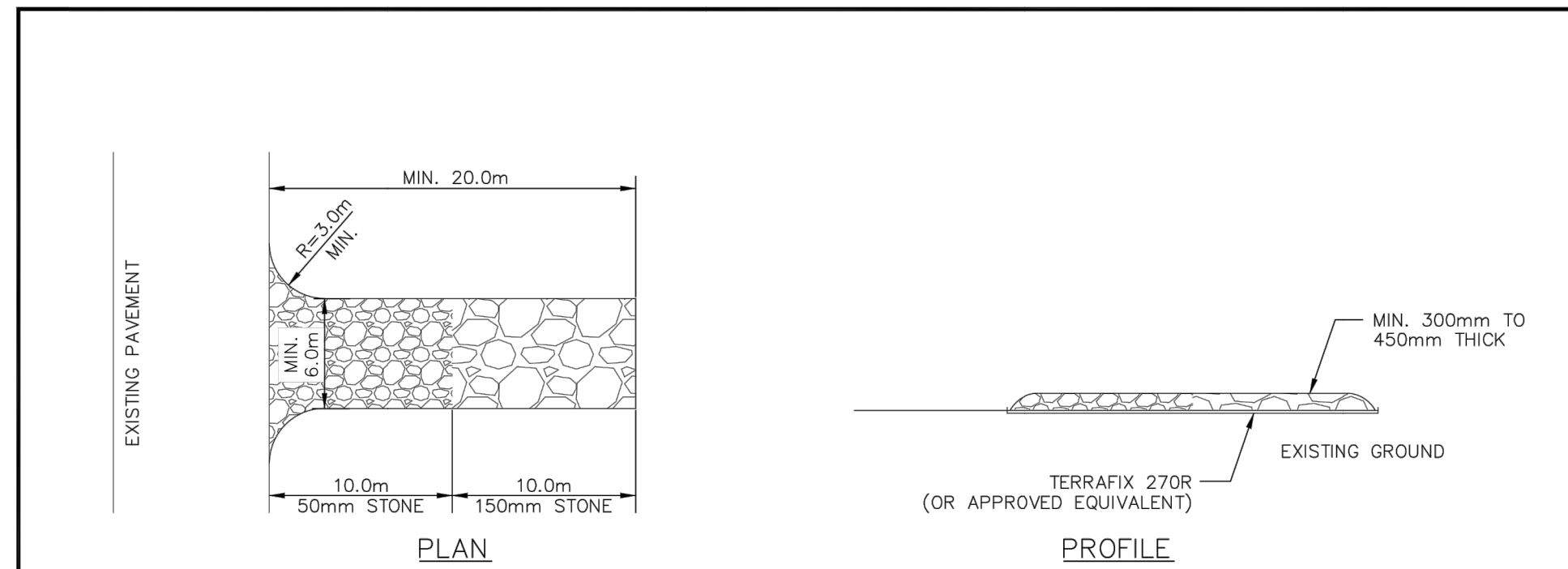
**NVCA EROSION & SEDIMENT CONTROL NOTES**

1. SEDIMENT FENCING SHALL BE LOCATED AT THE BOTTOM AND 3m BEYOND THE TOE OF SLOPE ON THE FLAT SURFACE.
2. SEDIMENT FENCING ARE TO BE CONSTRUCTED OF UV STABILIZED WOVEN OR NON-WOVEN FABRIC THAT IS WRAPPED OVER THE TOP OF THE SUPPORT FENCING AND FASTENED. THE BASE OF THE FABRIC IS TO BE TOED INTO THE NATIVE SOIL TO A MINIMUM DEPTH OF 300mm BY EITHER STATIC SLICING TECHNIQUE OR TRENCHING.
3. THE NATIVE TRENCH MATERIAL TOE, IN FABRIC BASE, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
4. THE FENCE STRUCTURE SHALL CONSIST OF A 1.10m, 150mm PAGE WIRE FENCE FASTENED TO STEEL T-BAR FENCE POSTS, LOCATED 2500mm ON CENTER. THE POSTS SHALL BE PLACED A MINIMUM OF 600mm INTO THE GROUND.
5. UPON 60% OF THE SEDIMENT FENCE BEING BLOCKED FROM SEDIMENT DEPOSITION, A NEW SEDIMENT CONTROL FENCE SHALL BE CONSTRUCTED UPSTREAM OF THE EXISTING ONE. THE NEW FENCE SHALL BE INSTALLED UPSTREAM AND BEYOND THE SEDIMENT LOADING AREA AND SHALL CONFORM TO ALL DESIGN STANDARDS AND POLICIES.
6. ROCK CHECK DAMS ARE TO BE PLACED WITH A MAXIMUM UPSTREAM SLOPE OF 1.5:1 AND A MAXIMUM DOWNSTREAM SLOPE OF 4:1.
7. A TEMPORARY SETTLING TRENCH IS TO BE EXCAVATED IN FRONT OF THE ROCK CHECK DAM TO A MINIMUM DEPTH OF 0.60m WITH A VOLUME OF 3 cu.m.
8. THE ROCK IS TO BE PLACED IN TWO LAYERS, SEPARATED BY A NON-WOVEN GEOTEXTILE. THE FIRST LAYER IS TO CONSIST OF A 150mm DIA. STONE WRAPPED IN THE FABRIC TO A HEIGHT OF 450mm. THE SECOND LAYER IS TO CONSIST OF A 50mm DIA. STONE THAT EXTENDS FROM THE BASE OF THE SETTLING TRENCH TO THE TOP OF THE FIRST LAYER. THE SECOND LAYER IS TO BE A MINIMUM 100mm THICK.
9. THE SECOND LAYER OF STONE SHOULD BE PILED TO ANCHOR THE GEOTEXTILE AND FORM A LOW CENTER SPILLWAY THAT IS A MINIMUM 300mm BELOW THE TOP OF THE CHANNEL BANK.
10. THE CHANNEL DITCH SIDE SLOPES ARE TO BE ARMOR PROTECTED FROM EROSION ON EACH SIDE OF THE ROCK CHECK DAM BY EXTENDING THE STONE ALONG THE DITCH SIDE SLOPES TO A HEIGHT OF 0.70m.
11. IN SWALES AND DITCHES WHERE THERE IS INCREASED SLOPE LENGTH AND/OR SIGNIFICANT GRADIENT, A SERIES OF ROCK CHECK DAMS MUST BE USED.
12. THE HEIGHT OF SUBSEQUENT ROCK CHECK DAMS MUST BE EQUAL TO THE ELEVATION OF THE BASE OF THE PREVIOUS ROCK CHECK DAMS.
13. THE ROCK CHECK DAM IS TO BE REPLACED UPON 50% OF THE HEIGHT OF THE ROCK CHECK DAM BEING COVERED WITH SEDIMENT.
14. CONSTRUCTION PROJECTS SHALL PROVIDE A MINIMUM 3m WIDE VEGETATIVE BUFFER STRIP ALONG THE LIMITS OF THE DEVELOPMENT INCLUDING FRONTAGES ALONG EXISTING ROAD BOULEVARDS.
15. AREAS ADJACENT TO WATERCOURSES SHALL PROVIDE A MINIMUM 15m BUFFER ZONE SETBACK FROM TOP OF BANK (30m FOR COLD WATER FISHERIES) AND/OR AVERAGE HIGH WATER MARK, WHICHEVER IS GREATER.
16. UPON OBSERVATION OF CONTINUOUS MUD TRACKING, OCCURRING ONTO ADJACENT STREETS, THE STONE ENTRANCE PAD IS TO BE FULLY REPLACED.
17. THE SITE PROJECT ENGINEER SHALL UNDERTAKE WEEKLY INSPECTIONS OF ALL SEDIMENT/EROSION CONTROL FACILITIES DURING THE EXTENT OF THE ENTIRE CONSTRUCTION PROJECT INCLUDING THE BUILDING CONSTRUCTION PERIOD AS WELL AS AFTER ALL RAIN EVENTS 15mm OR GREATER.
18. CONSTRUCTION AREAS THAT EXCEED 30 DAYS OF INACTIVITY SHALL BE STABILIZED BY SEEDING. THIS IS TO INCLUDE STOCKPILES OF FILL AND TOPSOIL. THE SPECIFICATION FOR SITE STABILIZATION ARE AS FOLLOWS:
  - 18.1. LARGE OPEN AREAS: LOOSEN SOIL TO A DEPTH OF 100mm AND APPLY THE FOLLOWING HYDROSEED MIXTURE (30% ANNUAL RYEGRASS, 40% PERENNIAL RYEGRASS, 15% CREEPING RED FESCUE, 10% TIMOTHY, 5% WHITE CLOVER) WITH VERDOYL MULCH AT A RATE OF 200kg/ha AND A FERTILIZER 8-32-16 AT A RATE OF 450 kg/ha
  - 18.2. TOPSOIL STOCKPILES: LOOSEN SOIL TO A DEPTH OF 50mm AND APPLY THE HYDROSEED MIXTURE INDICATED IN #1 ABOVE.
  - 18.3. BUFFER ZONES: SPREAD 50mm OF TOPSOIL AND APPLY HYDROSEED MIXTURE, "GREENFIELDS" BY PICKSEED, AT AN APPLICATION RATE OF 200 kg/ha
19. DURING THE CONSTRUCTION PERIOD, WHEN INTERNAL STREETS SYSTEMS HAVE HAD ASPHALT INSTALLED, A STREET CLEANING SCHEDULE WILL BE UNDERTAKEN ON A MINIMUM WEEKLY BASIS, OR AS DIRECTED BY THE MUNICIPALITY OR CONSERVATION AUTHORITY.
20. ALL CATCHBASINS, REAR YARD CATCHBASIN AND CATCHBASIN MANHOLES TO BE INSTALLED WITH A SILT SACK INLET SEDIMENT CONTROL DEVICE.



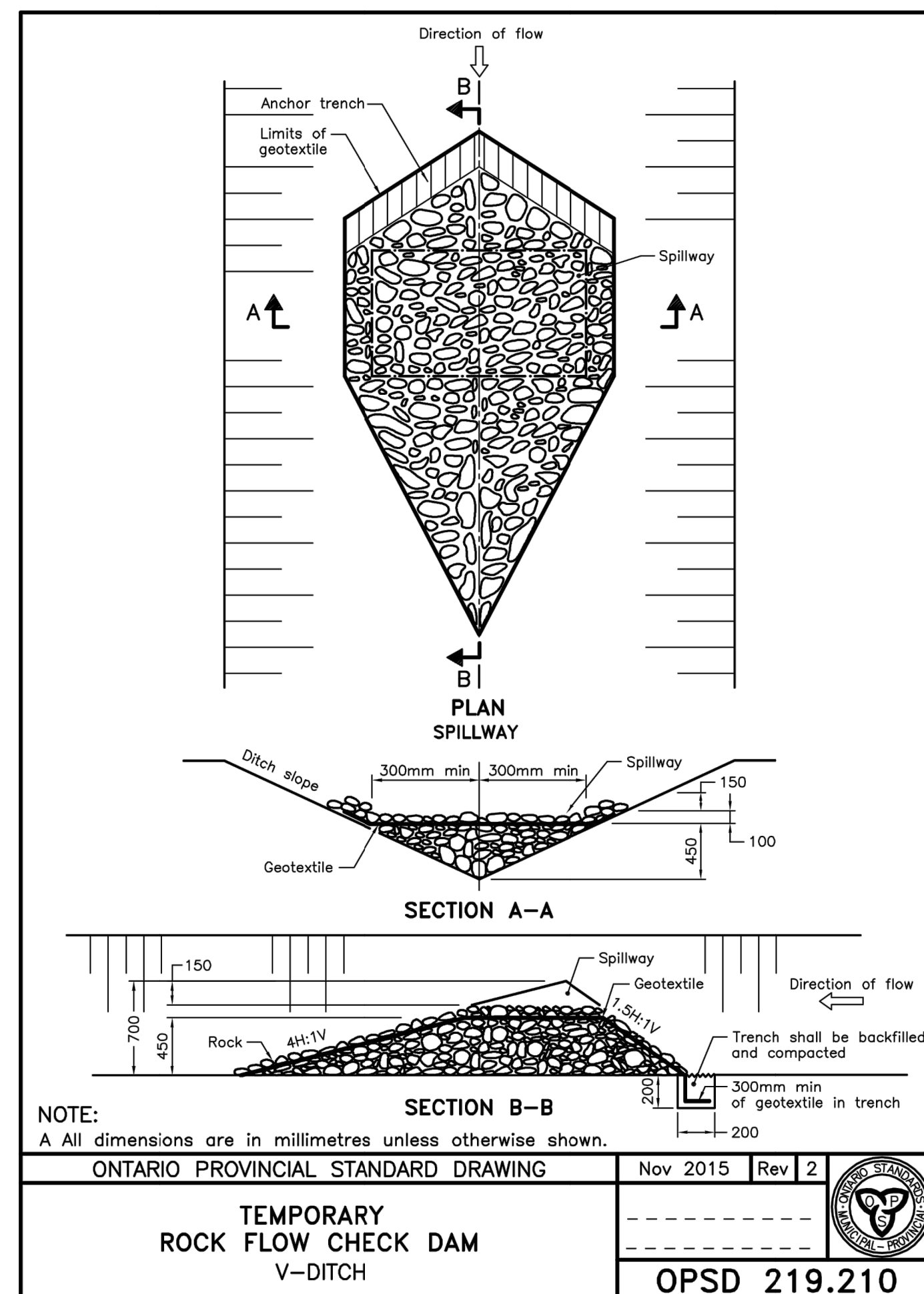
- NOTES:**
1. SILT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
  2. SILT/SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 "CHART F4-3C TOPOGRAPHIC FACTOR LS BASED ON SLOPE LENGTH AND GRADIENT."
  3. SILT/SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TOED INTO THE SOIL A MIN. OF 300mm BY EITHER STATIC SLICING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% IN SITU SOIL STRENGTH.
  4. STEEL "T" BAR POSTS ARE TO BE SPACED MAX. 2500mm ON CENTER.
  5. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
  6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
  7. GEOTEXTILE FABRIC TO BE COMPRISED OF WOVEN OR NON-WOVEN U.V. STABILIZED MATERIAL. FABRIC TO BE FOLDED OVER TOP OF FENCE MIN. 300mm AND WIRE FASTENED.

TOWN OF WASAGA BEACH		
TYPICAL DETAIL OF SILT/SEDIMENT FENCE		
DRAWN: MRT	SCALE: N.T.S.	
DESIGN: MJP	PLOT: 1=1	
CHECKED: MJP	DATE: APRIL 2021	
		STD.DWG.No.16



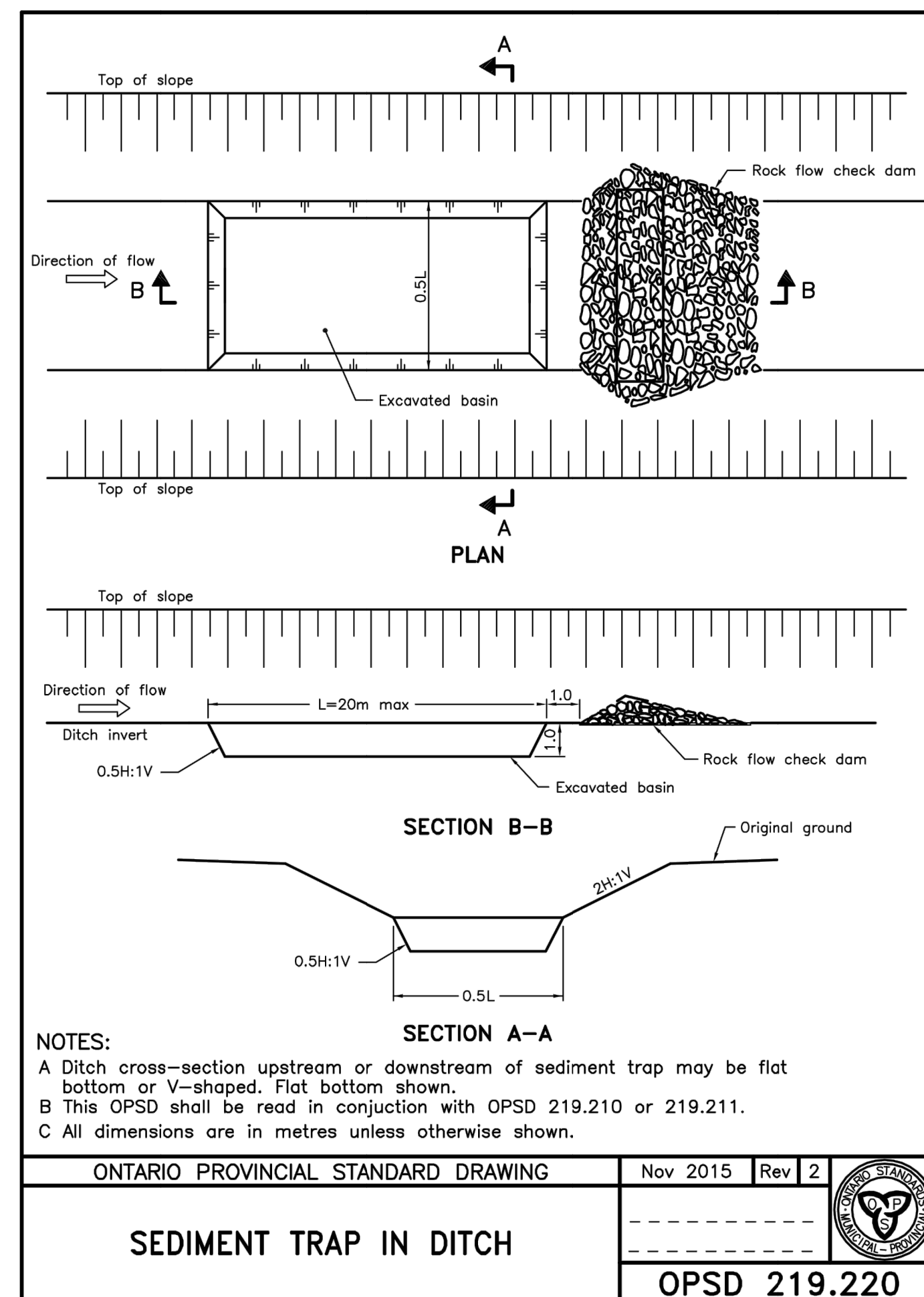
- NOTES:**
1. LENGTH AS REQUIRED BUT NOT LESS THAN 20m.
  2. WIDTH OF 6m BUT NOT LESS THAN THE WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
  3. MINIMUM 300mm TO 450mm THICKNESS OF 50mm MINIMUM STONE SIZE EXTENDING FROM THE EDGE OF ROAD FOR 10m, THEN 150mm STONE FOR THE REMAINING 10m.
  4. TERRAFIX 270R GEOTEXTILE (OR APPROVED EQUIVALENT) TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
  5. ENTRANCES SHALL BE PROVIDED WITH A CULVERT IF REQUIRED FOR ROADSIDE SURFACE DRAINAGE.
  6. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE ENTRANCE AND PROVIDE ADDITIONAL STONE TO THE SATISFACTION OF THE TOWN SUCH THAT SEDIMENT IS NOT TRACKED ONTO THE ADJACENT ROADWAY.
  7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING ANY SEDIMENT THAT IS TRACKED ONTO MUNICIPAL RIGHTS-OF-WAY TO THE SATISFACTION OF THE TOWN.
  8. INSPECTED DAILY AND REINSTATED ACCORDINGLY.

TOWN OF WASAGA BEACH		
STONE MUD MAT DETAIL		
DRAWN: MRT	SCALE: N.T.S.	
DESIGN: MJP	PLOT: 1=1	
CHECKED: MJP	DATE: APRIL 2021	
		STD.DWG.No.17



**NOTE:**  
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2015	Rev 2	
TEMPORARY ROCK FLOW CHECK DAM V-DITCH				
				OPSD 219.210



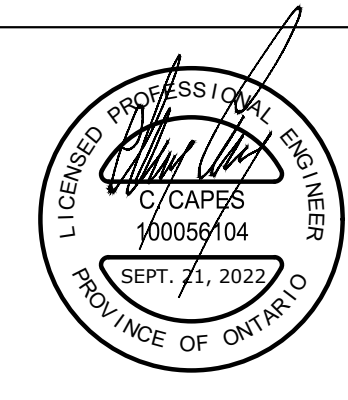
**NOTES:**  
A Ditch cross-section upstream or downstream of sediment trap may be flat bottom or V-shaped. Flat bottom shown.  
B This OPSD shall be read in conjunction with OPSD 219.210 or 219.211.  
C All dimensions are in metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2015	Rev 2	
SEDIMENT TRAP IN DITCH				
				OPSD 219.220

- Notes**
1. This drawing is the exclusive property of CAPES Engineering Ltd. The reproduction of any part without express written consent of this Corporation is strictly prohibited.
  2. The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to CAPES Engineering Ltd. prior to construction.
  3. This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No	Revision	Date
1	ISSUED FOR APPROVALS	20/08/10
2	REVISED FOR APPROVALS	21/11/16
3	REVISED FOR APPROVALS	22/03/17
4	REVISED FOR APPROVALS	22/09/21

**NOTES:**  
TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY NANFARA & NG SURVEYORS INC. AND JOETOPO SURVEYS AND CADD INC.  
BOUNDARY SURVEY INFORMATION PROVIDED BY OWNER, PREPARED BY NANFARA & NG SURVEYORS INC. AND SHOWN APPROXIMATELY HEREON. THIS IS NOT A PLAN OF SURVEY.  
**BENCHMARKS**  
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO BENCHMARK NO. 0011971U191, HAVING A ELEVATION 187.747 PER CGVD28 METRES LOCATED AT Mr. CA ANDERSON RESIDENCE, WHITE FRAME HOUSE ON NORTHWEST SIDE OF HIGHWAY 92, AT INTERSECTION WITH 200 PARK ROAD, 1.6km NORTHEAST OF BRIDGE OVER NOTTAWASAGA RIVER, TABLE IN SOUTHWEST CONCRETE FOUNDATION, 3.08m NORTHWEST OF SOUTHWEST CORNER, 51cm NORTHWEST OF A BASEMENT WINDOW AND 39cm BELOW STUCCO SIDING  
LOCAL BENCHMARK:  
TOP OF SIB AT NORTH WEST CORNER OF SUBJECT SITE. ELEV = 183.53



Client  
**WASAGA RIVERWOODS HOMES**  
30 FULTON WAY, UNIT 8  
RICHMOND HILL, ON  
L4B 1E6

**WASAGA RIVERWOODS**  
STANDARD DETAILS

Designed B. COLLINS	Checked C. CAPES	Date 20/07/20	Drawing No.
Project No. 2018-012	Rev. No. 4	Scale 1:___	<b>C14</b>

355310 BLUE MOUNTAINS - EUPHRASIA TOWNLINE  
CLARKSBURG, ON N0M 1JX  
TEL: 705-994-4818