

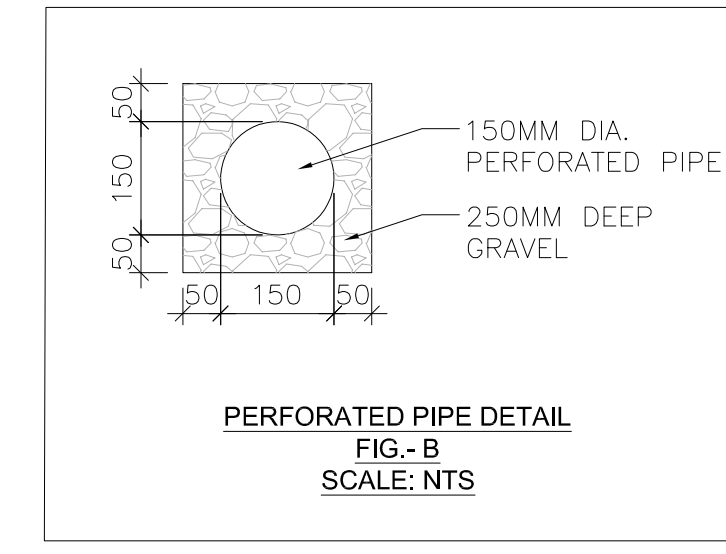
KEY PLAN
SCALE: NTS

- GENERAL NOTES**
1. READ THIS DRAWING IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL AND LANDSCAPING PLANS.
 2. ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE APPLICABLE HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
 3. ALL WORK, MATERIALS AND CONSTRUCTION METHODS TO CONFORM WITH THE LATEST STANDARDS, SPECIFICATIONS, POLICES, REGULATIONS, GUIDELINES AND LAWS FOR THE CITY, THE ONTARIO BUILDING CODE (OBC), MINISTRY OF THE ENVIRONMENT (MOE), ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS (OPSD AND OPS), THE ENVIRONMENTAL PROTECTION ACT AND THE WATER RESOURCES ACT, THE MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
 4. THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS COMPILED FROM LOCATES INFORMATION AND RECORD DRAWINGS FROM THE CITY. THE INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND THE ACCURACY OR COMPLETENESS OF THE PROVIDED INFORMATION HAS NOT BEEN CONFIRMED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
 5. THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROADS, PARKING, CURBING, BUILDING LOCATION AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE ARCHITECT.
 6. ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
- INSPECTIONS:**
7. ALL WORK IN THE CITY'S RIGHT OF WAY AND EASEMENTS IS TO BE INSPECTED BY THE CITY PRIOR TO BACKFILLING ALL WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY THE CITY AS PER THE SITE PLAN AGREEMENT.
 8. ALL DISTURBED GRASSED AREAS TO BE RESTORED WITH MINIMUM 200MM TOPSOIL AND NO. 1 NURSERY SOD.
 9. THE CONTRACTOR AGREES NOT TO MAKE A MATERIAL CHANGE OR CAUSE A MATERIAL CHANGE TO BE MADE TO A PLAN, SPECIFICATION, DOCUMENT OR OTHER INFORMATION, ON THE BASIS OF WHICH THIS DRAWING WAS APPROVED BY THE CITY, WITHOUT NOTIFYING, FILING DETAILS WITH AND OBTAINING WRITTEN AUTHORIZATION OF THE MUNICIPAL AND PROJECT ENGINEER.
 10. SITE SPECIFIC DETAILED DESIGN AND PLAN PREPARED BY TEAM OF EXPERT ARCHITECTS AND ENGINEERS FROM N ENGINEERING INC. BASED ON THROUGH CONSULTATION WITH ALL AUTHORITIES OF JURISDICTION. IT IS MANDATORY THE PROJECT CONSTRUCTION BE SUPERVISED BY N ENGINEERING INC TO ENSURE THE ACCURACY, QUALITY OF EXECUTION OF THE PLAN AND ENSURE THE COMPLETION OF THE PROJECT
 11. THE DEVELOPER/OWNER AGREES ALL STORMWATER MANAGEMENT WORK, WATER SERVING WORK AND SANITARY SEWER WORK INSIDE THE BOUNDARY OF THE SITE IS TO BE INSPECTED BY N ENGINEERING INC. PRIOR TO BACKFILLING.
 12. ALL WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY N ENGINEERING AS PER APPROVED PLANS BY THE CITY.

LEGEND

	PROPERTY LINE
	DEVELOPMENT LIMIT
	PROPOSED CONCRETE CURB
	PROPOSED DEPRESSED CONCRETE CURB
	LANDSCAPED AREA
	CONCRETE WALKWAY/SIDEWALK
	PAINTED LINE
	BARRIER FREE PARKING
	MAIN ENTRANCE
	OVER HEAD DOOR
	RETAINING WALL / CONCRETE
	FINISHED FLOOR ELEVATION
	EX. HYDRO POLE
	UTILITY POLE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN MANHOLE
	PROPOSED DOUBLE CATCH BASIN MANHOLE
	PROPOSED CATCH BASIN MANHOLE
	EXISTING STORM MANHOLE
	PROPOSED STORM MANHOLE
	EXISTING SANITARY MANHOLE
	PROPOSED SANITARY MANHOLE
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING WATER VALVE
	PROPOSED WATER VALVE
	OVERLAND FLOW ROUTE
	EXISTING ELEVATION TO REMAIN
	EXISTING ELEVATION
	PROPOSED TOP/CURB ELEVATION
	PROPOSED ELEVATION
	PROPOSED SURFACE SLOPE
	HIGH POINT (DRAINAGE DIVIDE)
	100 YRS. STORM HWL AREA

CAUTION:
CONTRACTOR TO DETERMINE LOCATION AND INVERTS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.



LEGAL DESCRIPTION
PART OF LOT 7, CONCESSION 4 (FORMERLY IN THE TOWNSHIP OF SOUTH ORILLIA) CITY OF ORILLIA COUNTY OF SIMCOE

BEARING NOTE
BEARINGS ARE UTM GRID, BY REAL TIME NETWORK (TOPNET) OBSERVATIONS, UTM ZONE 17, NAD83 (ORIGINAL) (1997.0).

BENCHMARK NOTE
ELEVATIONS HEREON ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM FIRE HYDRANT NO. 212 HAVING A VALUE OF 275.647 FROM INFORMATION SUPPLIED BY THE CITY OF ORILLIA ENGINEERING DEPARTMENT.

SURVEYOR INFORMATION
SURVEYOR INFORMATION TAKEN FROM YOUNG & YOUNG SURVEYING INC. 2 HOLLAND DRIVE, UNIT 5, BOLTON ON. L7E 1E1
Email: info@youngsurveying.ca
www.youngsurveying.ca

APPLICANT
n Engineering Inc
9120 Leslie Street, Suite-208,
Richmond Hill, Ontario, L4B 3J9
T: 416.303.4821
E: info@nengineering.com
www.narchitecture.com

RECOMMENDED PAVEMENT STRUCTURE

PAVEMENT LAYER	COMPACTION REQUIREMENTS	LIGHT DUTY PAVEMENT (PARKING FOR CARS)	HEAVY DUTY PAVEMENT (ACCESS ROAD, FIRE ROUTES & PARKING FOR DELIVERY TRUCKS)
ASPHALTIC CONCRETE	92.0% MAXIMUM RELATIVE DENSITY(MRD)	40MM HL 3 80MM HL 8	40MM HL 3 80MM HL 8
OPSS GRANULAR 'A' BASE (OR 20MM CRUSHER RUN LIMESTONE)	100% SPMD*	150MM	150MM
OPSS GRANULAR 'B' BASE (OR 50MM CRUSHER RUN LIMESTONE)	100% SPMD*	250MM	350MM

n Engineering Inc
9120 Leslie Street, Suite-208
Richmond Hill, Ontario, L4B 3J9
T : 4 1 6 . 2 5 6 . 9 7 4 1
E : info@narchitecture.com
www.narchitecture.com

PROJECT NORTH

No.	Date	Version	Dwn.
2.	30 SEPT 2022	ISSUED FOR SPA-1	EH
1.	17 JUNE 2022	DRAFT FOR REVIEW	EH

This drawing is copyright property of 'n Engineering Inc'. Not to be reproduced. Contractor must verify all job dimensions, drawings, details and specifications and report any discrepancies to the architect before proceeding with work.

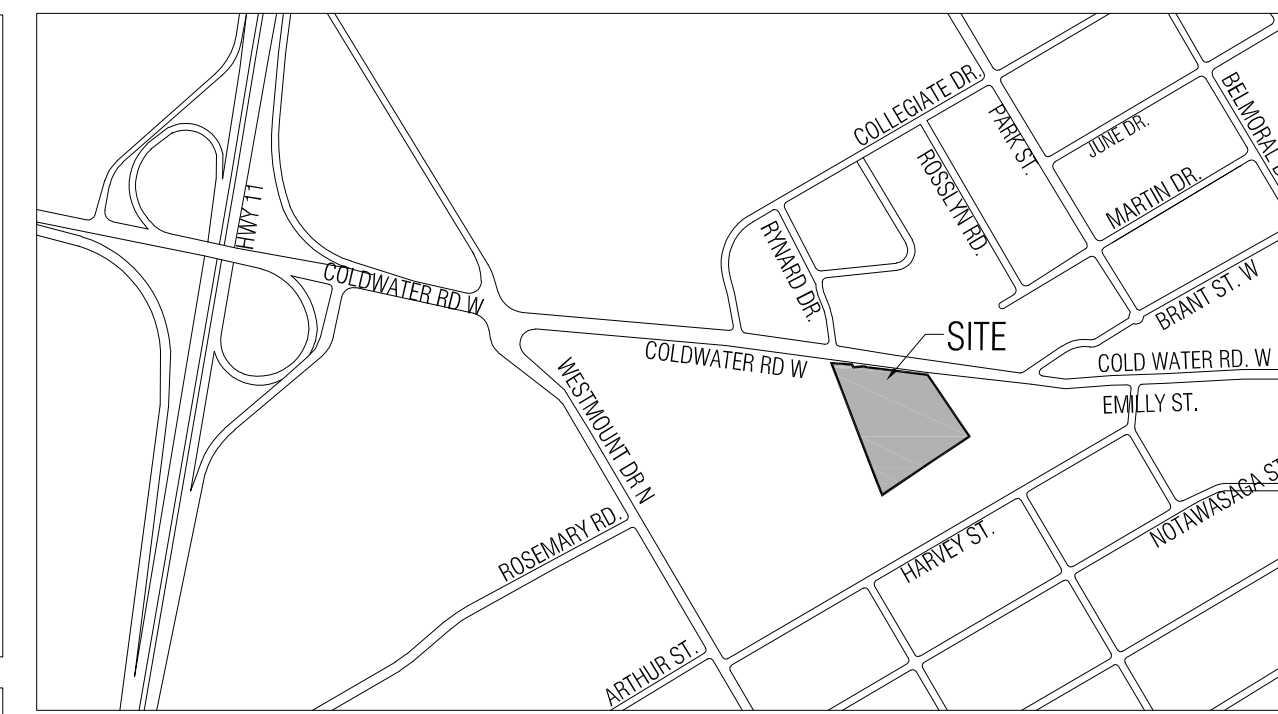
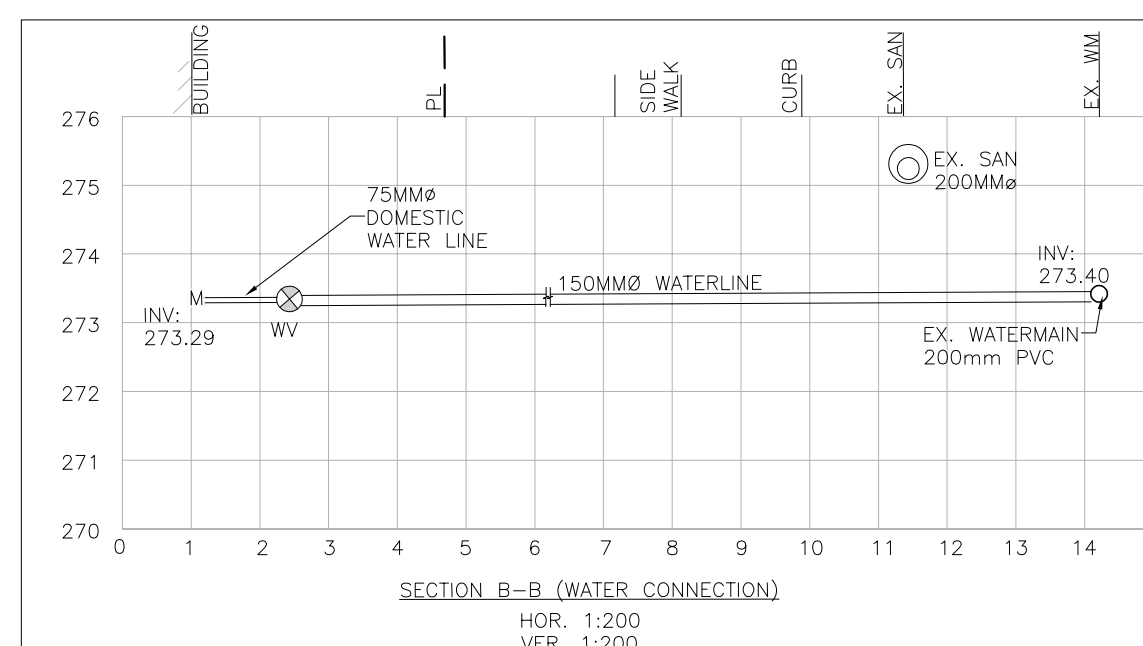
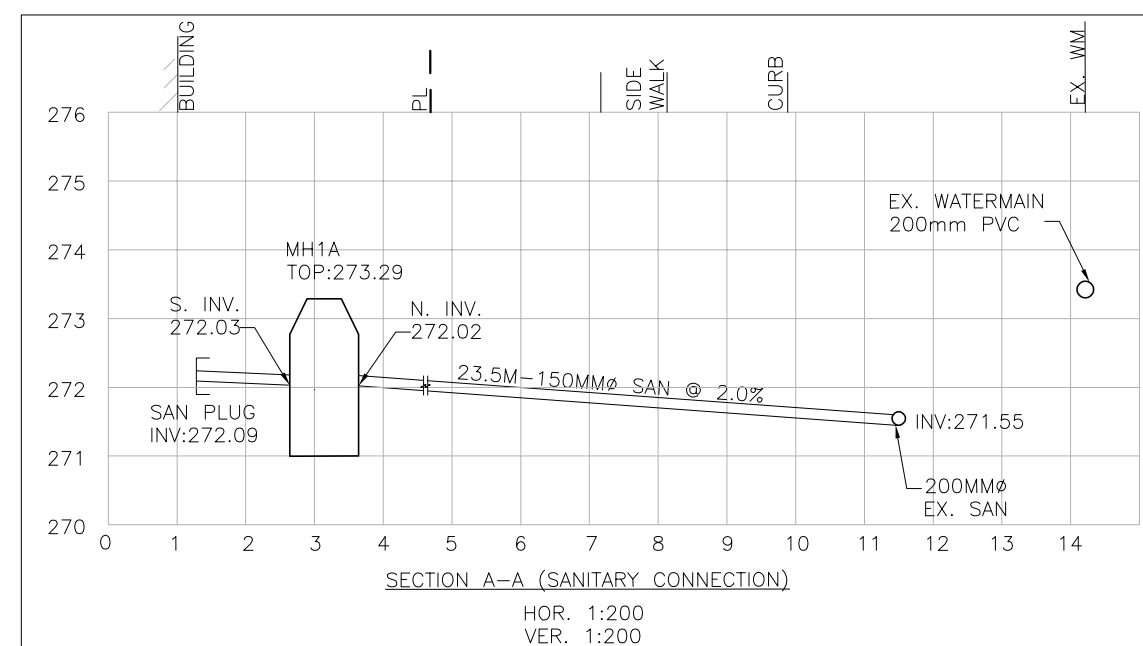
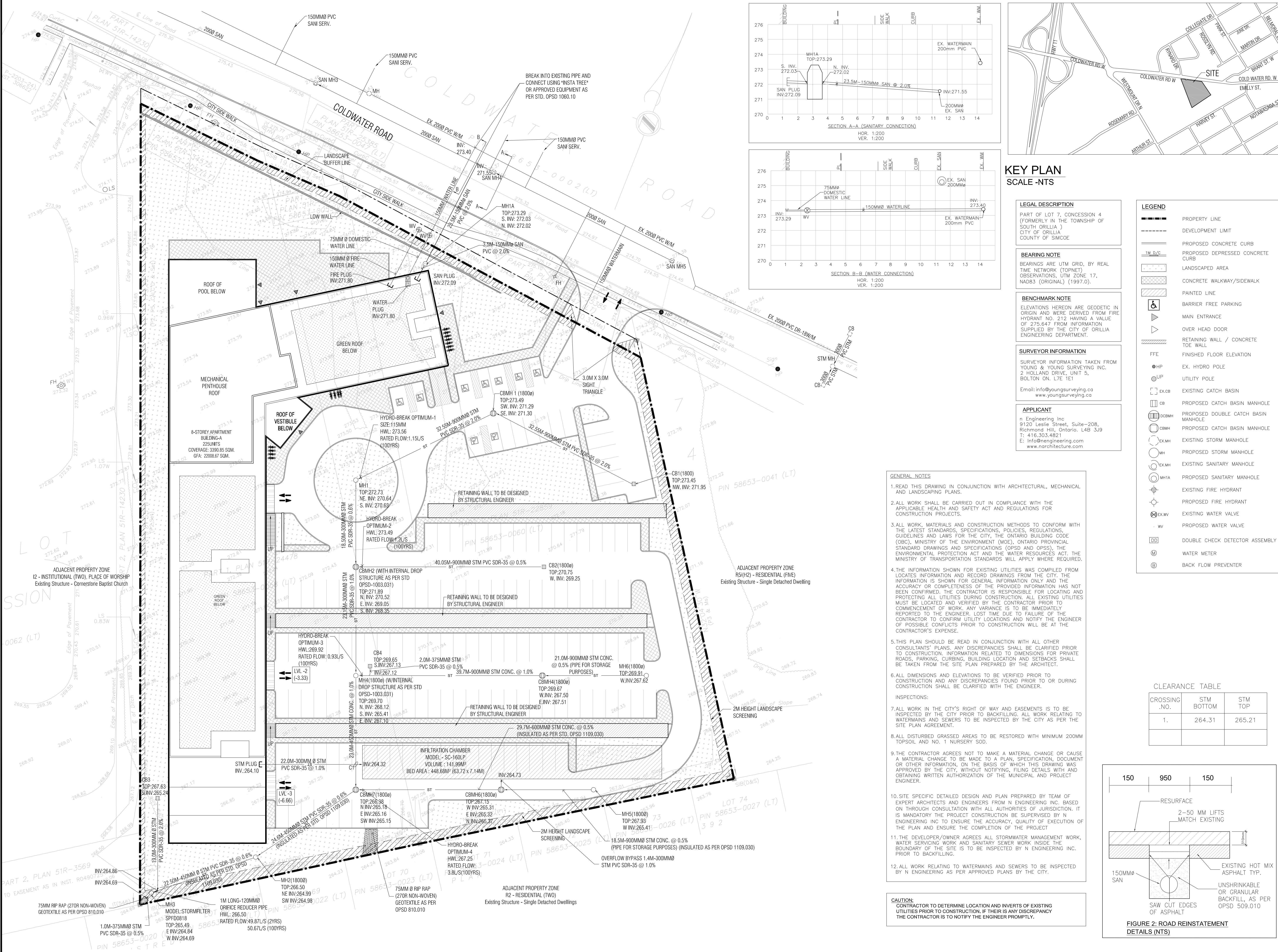
PROJECT:
CONDOMINIUM
233,249,261
COLDWATER ROAD,
WEST, ORILLIA

DRAWING TITLE:
SITE GRADING
PLAN

DRAWN BY: EH **DATE:** 29 MAR. 2022

CHECKED BY: AZ **SCALE:** 1:350

PROJECT NO.: **21-23** **DRAWING NO.:** **C1**



**KEY PLAN
SCALE-NTS**

LEGAL DESCRIPTION
PART OF LOT 7, CONCESSION 4 (FORMERLY IN THE TOWNSHIP OF SOUTH ORILLIA) CITY OF ORILLIA COUNTY OF SIMCOE

BEARING NOTE
BEARINGS ARE UTM GRID, BY REAL TIME NETWORK (TOPNET) OBSERVATIONS, UTM ZONE 17, NAD83 (ORIGINAL) (1997.0).

BENCHMARK NOTE
ELEVATIONS HEREON ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM FIRE HYDRANT NO. 212 HAVING A VALUE OF 275.647 FROM INFORMATION SUPPLIED BY THE CITY OF ORILLIA ENGINEERING DEPARTMENT.

SURVEYOR INFORMATION
SURVEYOR INFORMATION TAKEN FROM YOUNG & YOUNG SURVEYING INC. 2 HOLLAND DRIVE, UNIT 5, BOLTON ON. L7E 1E1
Email: info@youngsurveying.ca
www.youngsurveying.ca

APPLICANT
n Engineering Inc
9120 Leslie Street, Suite-208, Richmond Hill, Ontario, L4B 3J9
T: 416.303.4821
E: Info@nengineering.com
www.narchitecture.com

LEGEND

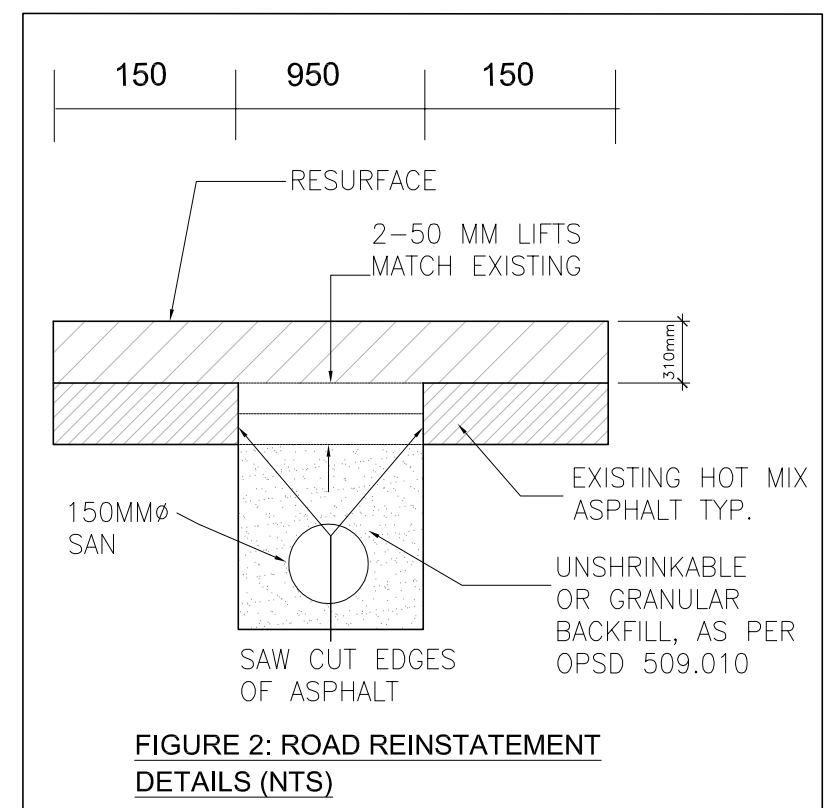
---	PROPERTY LINE
- - - -	DEVELOPMENT LIMIT
---	PROPOSED CONCRETE CURB
---	PROPOSED DEPRESSED CONCRETE CURB
---	LANDSCAPED AREA
---	CONCRETE WALKWAY/SIDEWALK
---	PAINTED LINE
---	BARRIER FREE PARKING
---	MAIN ENTRANCE
---	OVER HEAD DOOR
---	RETAINING WALL / CONCRETE TOE WALL
---	FINISHED FLOOR ELEVATION
HP	EX. HYDRO POLE
UP	UTILITY POLE
CB	EXISTING CATCH BASIN
CB	PROPOSED CATCH BASIN MANHOLE
CBMH	PROPOSED DOUBLE CATCH BASIN MANHOLE
CBMH	PROPOSED CATCH BASIN MANHOLE
EXMH	EXISTING STORM MANHOLE
MH	PROPOSED STORM MANHOLE
EXMH	EXISTING SANITARY MANHOLE
MH1A	PROPOSED SANITARY MANHOLE
EXHV	EXISTING FIRE HYDRANT
EXHV	PROPOSED FIRE HYDRANT
EXV	EXISTING WATER VALVE
VV	PROPOSED WATER VALVE
DD	DOUBLE CHECK DETECTOR ASSEMBLY
W	WATER METER
B	BACK FLOW PREVENTER

GENERAL NOTES

1. READ THIS DRAWING IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL AND LANDSCAPING PLANS.
2. ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE APPLICABLE HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
3. ALL WORK, MATERIALS AND CONSTRUCTION METHODS TO CONFORM WITH THE LATEST STANDARDS, SPECIFICATIONS, POLICIES, REGULATIONS, GUIDELINES AND LAWS FOR THE CITY, THE ONTARIO BUILDING CODE (OBC), MINISTRY OF THE ENVIRONMENT (MOE), ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS (OPSD AND OPS), THE ENVIRONMENTAL PROTECTION ACT AND THE WATER RESOURCES ACT, THE MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
4. THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS COMPILED FROM LOCATES INFORMATION AND RECORD DRAWINGS FROM THE CITY. THE INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND THE ACCURACY OR COMPLETENESS OF THE PROVIDED INFORMATION HAS NOT BEEN CONFIRMED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
5. THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROADS, PARKING, CURBING, BUILDING LOCATION AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE ARCHITECT.
6. ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
7. ALL WORK IN THE CITY'S RIGHT OF WAY AND EASEMENTS IS TO BE INSPECTED BY THE CITY PRIOR TO BACKFILLING. ALL WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY THE CITY AS PER THE SITE PLAN AGREEMENT.
8. ALL DISTURBED GRASSED AREAS TO BE RESTORED WITH MINIMUM 200MM TOPSOIL AND NO. 1 NURSERY SOD.
9. THE CONTRACTOR AGREES NOT TO MAKE A MATERIAL CHANGE OR CAUSE A MATERIAL CHANGE TO BE MADE TO A PLAN, SPECIFICATION, DOCUMENT OR OTHER INFORMATION, ON THE BASIS OF WHICH THIS DRAWING WAS APPROVED BY THE CITY, WITHOUT NOTIFYING, FILING DETAILS WITH AND OBTAINING WRITTEN AUTHORIZATION OF THE MUNICIPAL AND PROJECT ENGINEER.
10. SITE SPECIFIC DETAILED DESIGN AND PLAN PREPARED BY TEAM OF EXPERT ARCHITECTS AND ENGINEERS FROM N ENGINEERING INC. BASED ON THROUGH CONSULTATION WITH ALL AUTHORITIES OF JURISDICTION. IT IS MANDATORY THE PROJECT CONSTRUCTION BE SUPERVISED BY N ENGINEERING INC TO ENSURE THE ACCURACY, QUALITY OF EXECUTION OF THE PLAN AND ENSURE THE COMPLETION OF THE PROJECT.
11. THE DEVELOPER/OWNER AGREES ALL STORMWATER MANAGEMENT WORK, WATER SERVICING WORK AND SANITARY SEWER WORK INSIDE THE BOUNDARY OF THE SITE IS TO BE INSPECTED BY N ENGINEERING INC. PRIOR TO BACKFILLING.
12. ALL WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY N ENGINEERING AS PER APPROVED PLANS BY THE CITY.

CLEARANCE TABLE

CROSSING NO.	STM BOTTOM	STM TOP
1.	264.31	265.21



n Engineering Inc
9120 Leslie Street, Suite-208
Richmond Hill, Ontario, L4B 3J9
T : 4 1 6 . 2 5 6 . 9 7 4 1
E : info@narchitecture.com
www.narchitecture.com

PROFESSIONAL ENGINEER
A.S. ZIAUDDIN
1002.334.32
30SEP.2022
PROVINCE OF ONTARIO

N
PROJECT NORTH

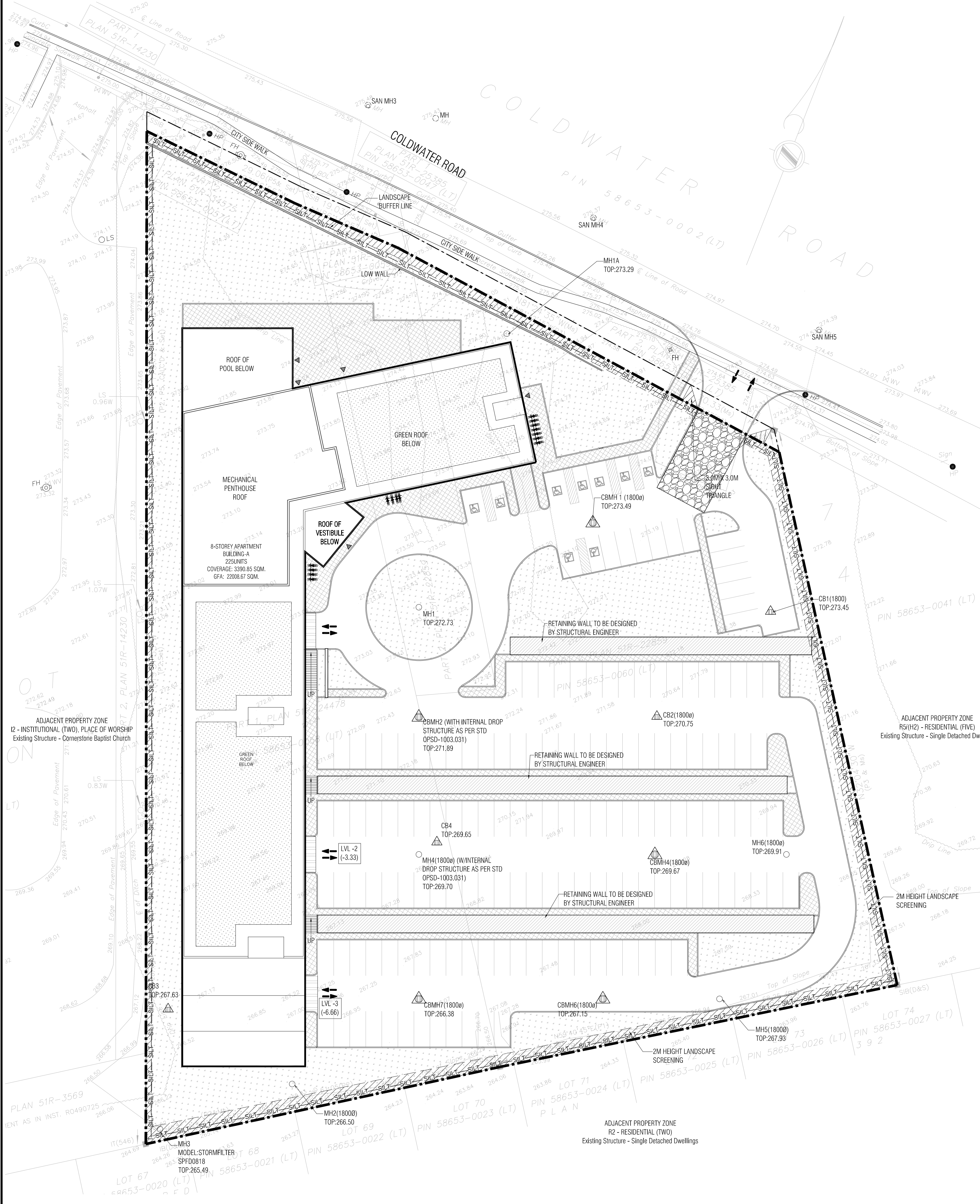
No.	Date	Version	Dwn.
2.	30 SEPT 2022	ISSUED FOR SPA-1	EH
1.	17 JUNE 2022	DRAFT FOR REVIEW	EH

This drawing is copyright property of 'n Engineering Inc'. Not to be reproduced. Contractor must verify all job dimensions, drawings, details and specifications and report any discrepancies to the architect before proceeding with work.

PROJECT:
**CONDOMINIUM
233,249,261
COLDWATER ROAD,
WEST, ORILLIA**

DRAWING TITLE:
**SITE
SERVICING PLAN**

DRAWN BY: EH	DATE: 29 MAR. 2022
CHECKED BY: AZ	SCALE: 1:350
PROJECT NO.:	DRAWING NO.:
21-23	C2



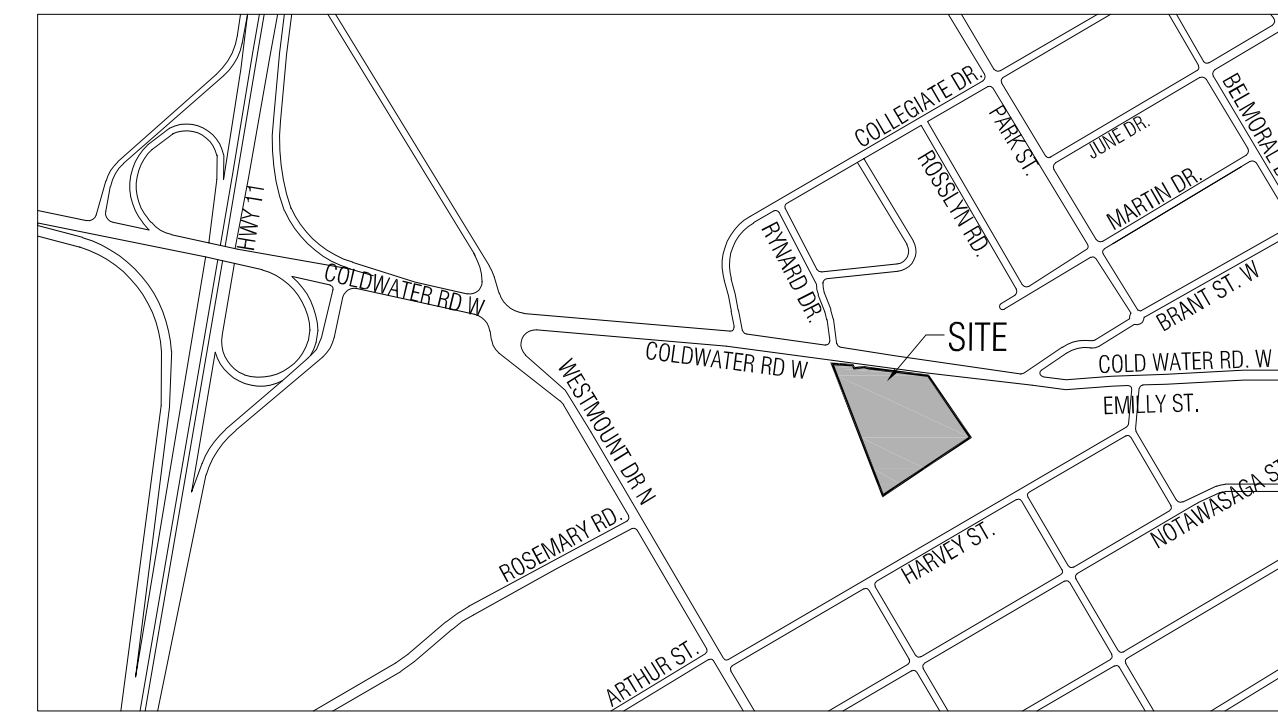
SURVEYOR INFORMATION
 SURVEYOR INFORMATION TAKEN FROM
 YOUNG & YOUNG SURVEYING INC.
 2 HOLLAND DRIVE, UNIT 5,
 BOLTON ON. L7E 1E1
 Email: info@youngsurveying.ca
 www.youngsurveying.ca

APPLICANT
 n Engineering Inc
 9120 Leslie Street, Suite-208,
 Richmond Hill, Ontario, L4B 3J9
 T: 416.303.4821
 E: info@nengineering.com
 www.narchitecture.com

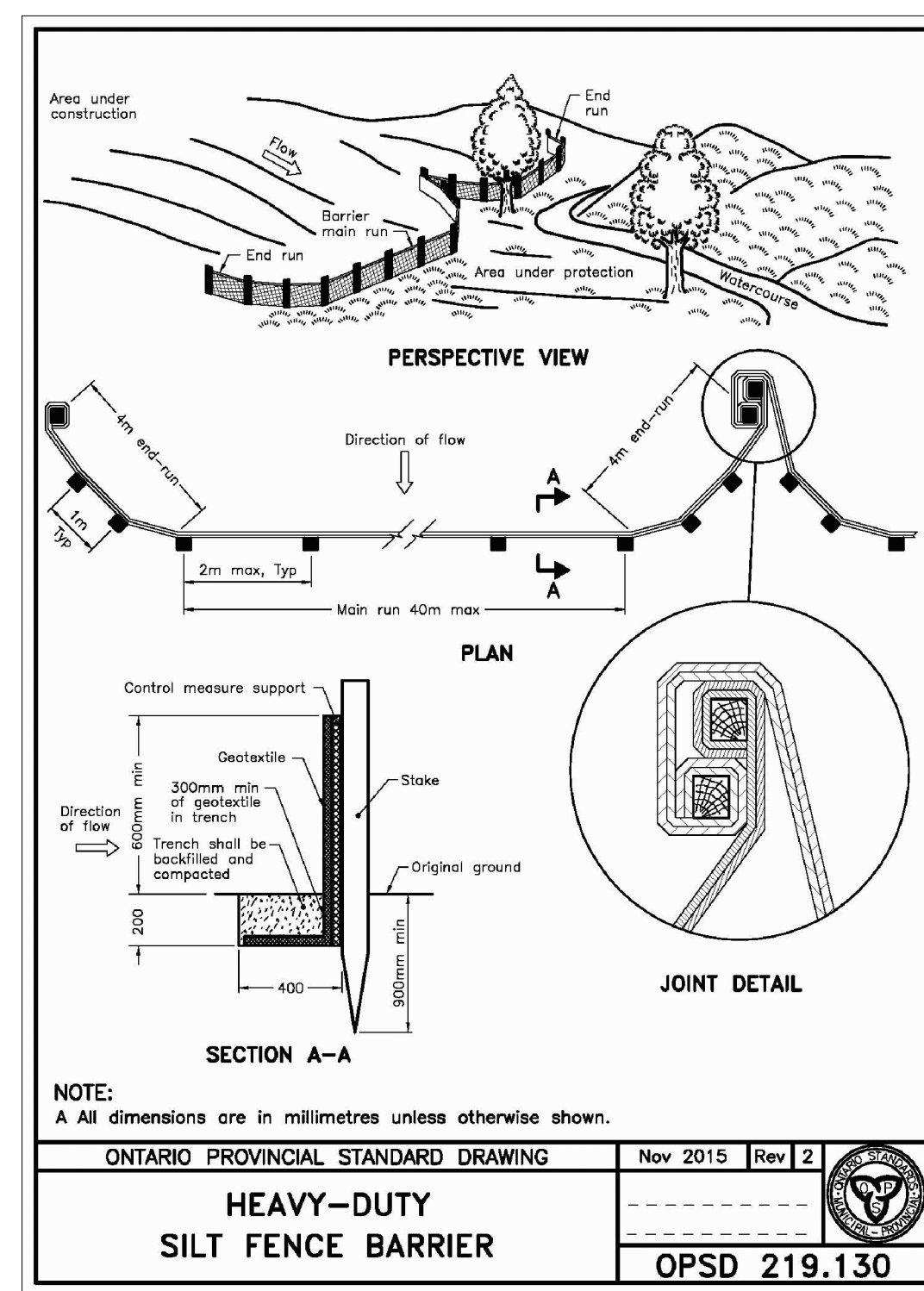
LEGAL DESCRIPTION
 PART OF LOT 7, CONCESSION 4
 (FORMERLY IN THE TOWNSHIP OF
 SOUTH ORILLIA)
 CITY OF ORILLIA
 COUNTY OF SIMCOE

BEARING NOTE
 BEARINGS ARE UTM GRID, BY REAL
 TIME NETWORK (TOPNET).
 OBSERVATIONS, UTM ZONE 17,
 NAD83 (ORIGINAL) (1997.0).

BENCHMARK NOTE
 ELEVATIONS HEREON ARE GEODETIC IN
 ORIGIN AND WERE DERIVED FROM FIRE
 HYDRANT NO. 212 HAVING A VALUE
 OF 275.647 FROM INFORMATION
 SUPPLIED BY THE CITY OF ORILLIA
 ENGINEERING DEPARTMENT.



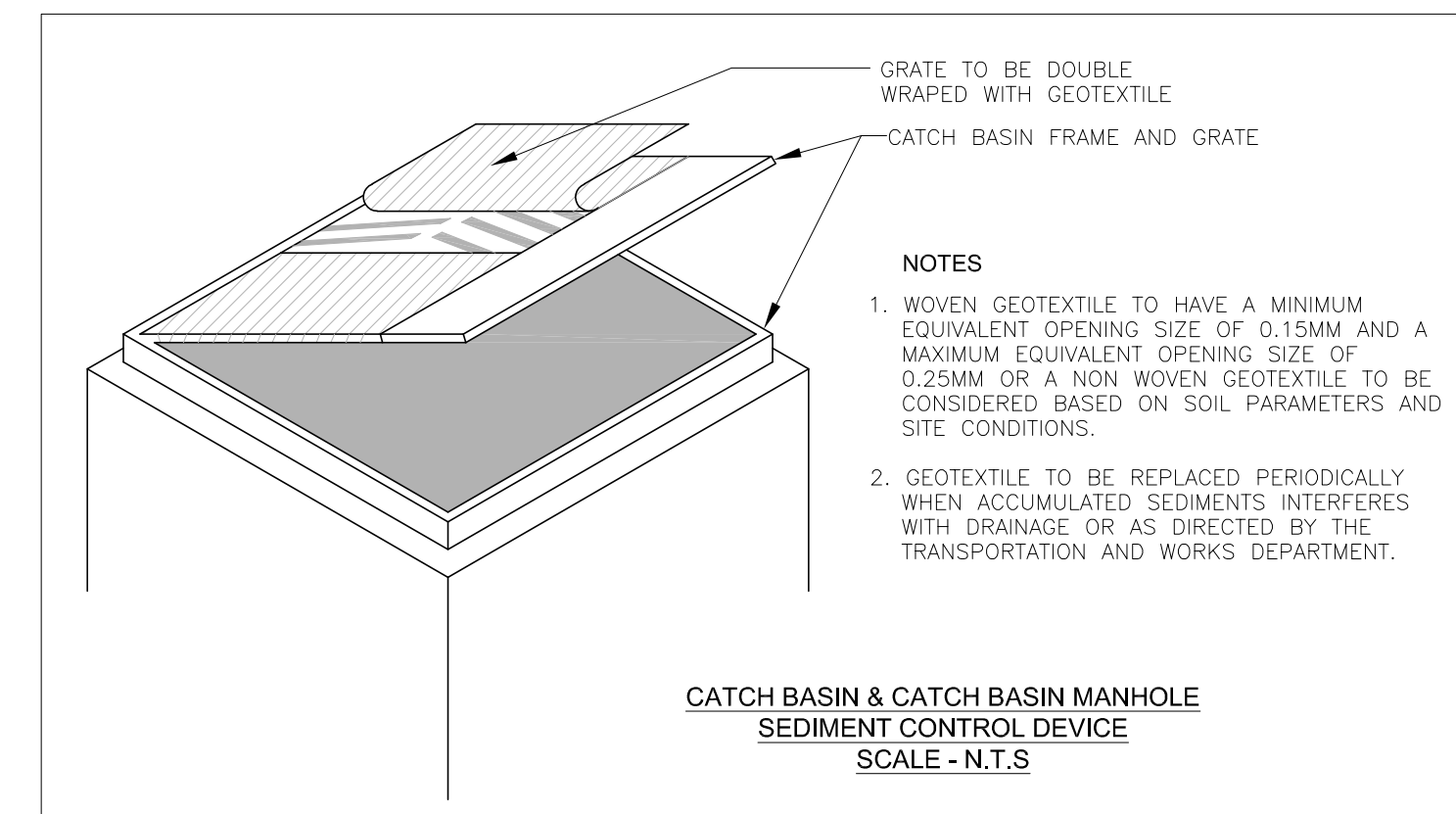
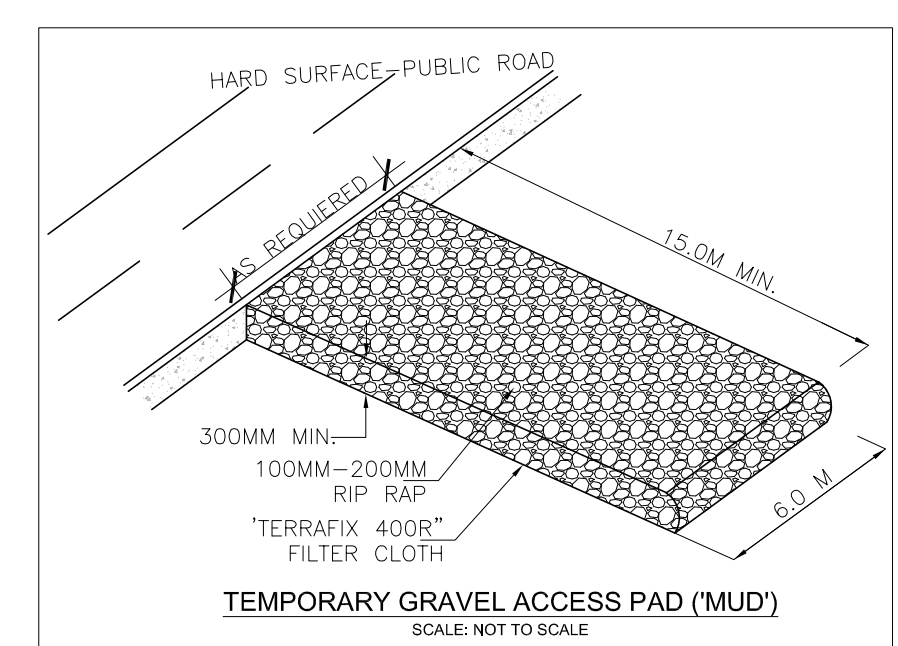
KEY PLAN
 SCALE - NTS



- LEGEND**
- PROPERTY LINE
 - - - DEVELOPMENT LIMIT
 - PROPOSED CONCRETE CURB
 - PROPOSED DEPRESSED CONCRETE CURB
 - LANDSCAPED AREA
 - CONCRETE WALKWAY/SIDEWALK
 - PAINTED LINE
 - ♿ BARRIER FREE PARKING
 - MAIN ENTRANCE
 - OVER HEAD DOOR
 - RETAINING WALL / CONCRETE TOE WALL
 - FFE FINISHED FLOOR ELEVATION
 - HP EX. HYDRO POLE
 - UP UTILITY POLE
 - Ex.CB EXISTING CATCH BASIN
 - △ CB PROPOSED CATCH BASIN MANHOLE
 - △ CBMH PROPOSED DOUBLE CATCH BASIN MANHOLE
 - CBMH PROPOSED CATCH BASIN MANHOLE
 - EX.MH EXISTING STORM MANHOLE
 - MH PROPOSED STORM MANHOLE
 - EX.MH EXISTING SANITARY MANHOLE
 - MHA PROPOSED SANITARY MANHOLE
 - EX.FH EXISTING FIRE HYDRANT
 - PROPOSED FIRE HYDRANT
 - EX.WV EXISTING WATER VALVE
 - WV PROPOSED WATER VALVE
 - SILT FENCE
 - STONE PAD CONSTRUCTION ENTRANCE

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

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2
HEAVY-DUTY SILT FENCE BARRIER
 OPSD 219.130



n Engineering Inc
 9120 Leslie Street, Suite-208
 Richmond Hill, Ontario, L4B 3J9
 T : 4 1 6 . 2 5 6 . 9 7 4 1
 E : info@narchitecture.com
 www.narchitecture.com

PROJECT NORTH

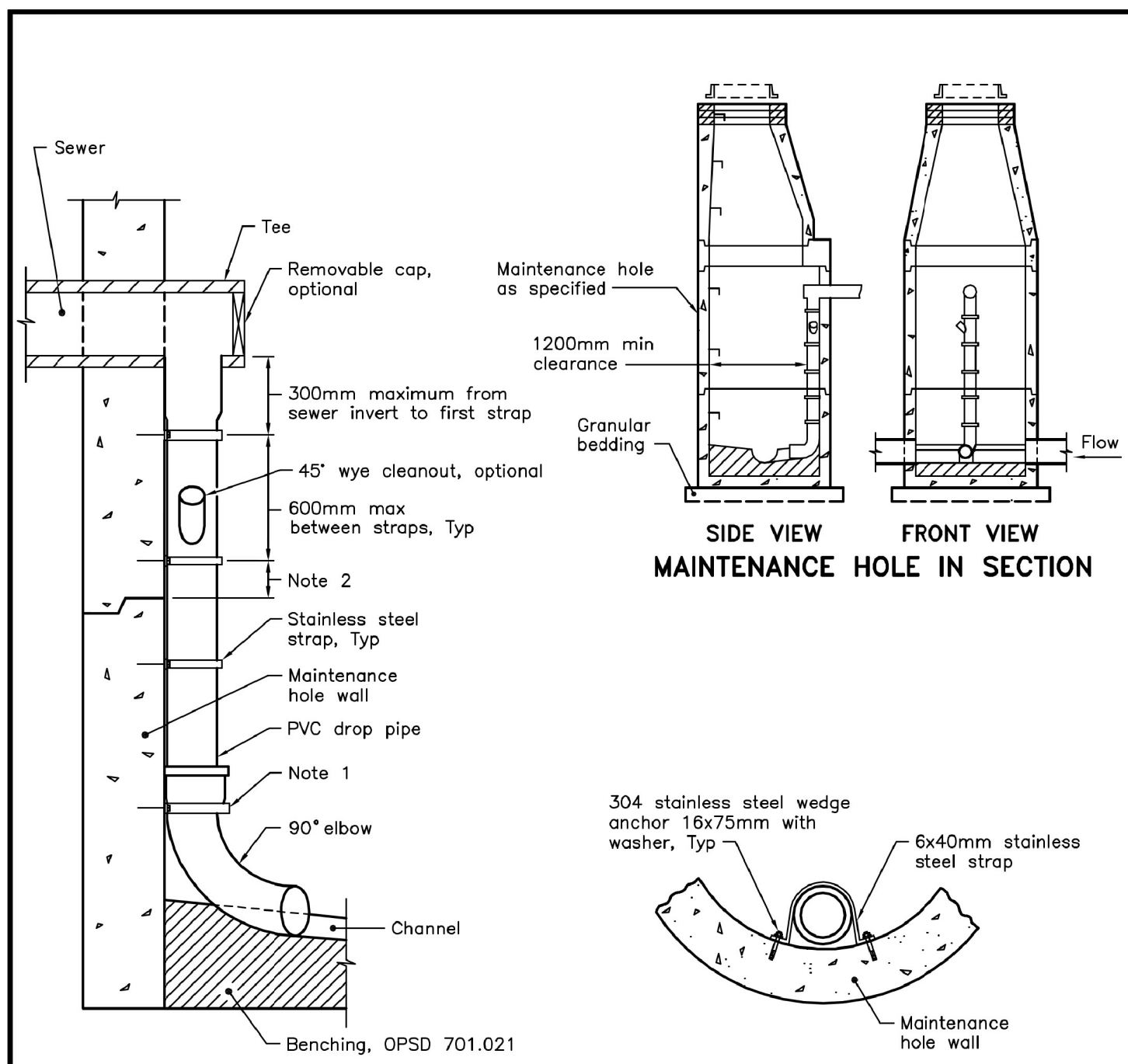
No.	Date	Version	Dwn.
2.	30 SEPT 2022	ISSUED FOR SPA-1	EH
1.	17JUNE2022	DRAFT FOR REVIEW	EH

This drawing is copyright property of 'n Engineering Inc'. Not to be reproduced. Contractor must verify all job dimensions, drawings, details and specifications and report any discrepancies to the architect before proceeding with work.

PROJECT:
CONDOMINIUM
233,249,261
COLDWATER ROAD,
WEST, ORILLIA

DRAWING TITLE:
EROSION & SEDIMENT CONTROL PLAN

DRAWN BY: EH	DATE: 29 MAR. 2022
CHECKED BY: AZ	SCALE: 1:350
PROJECT NO.:	DRAWING NO.:
21-23	C3

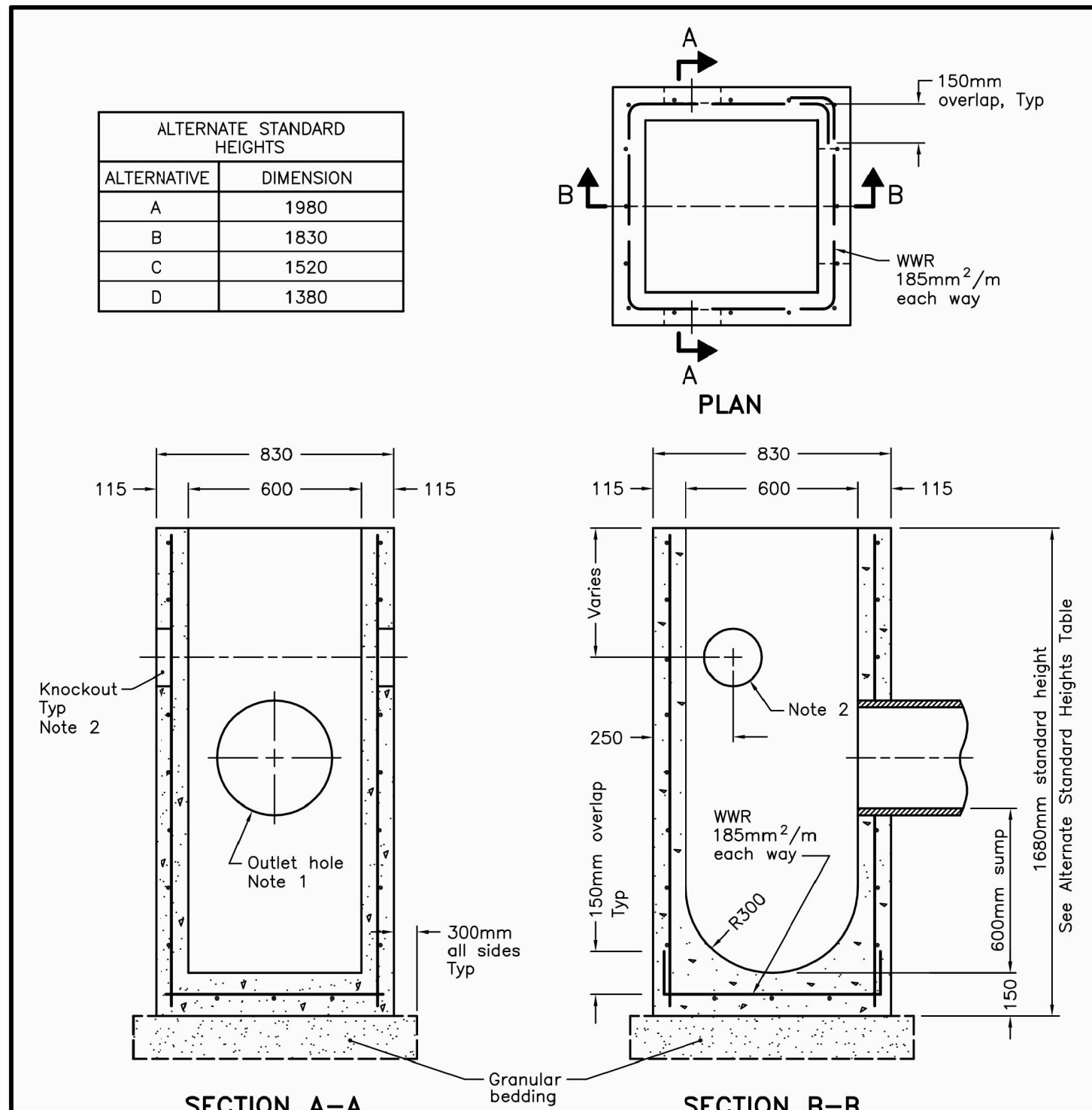


INTERNAL DROP STRUCTURE DETAIL

FASTENER DETAIL

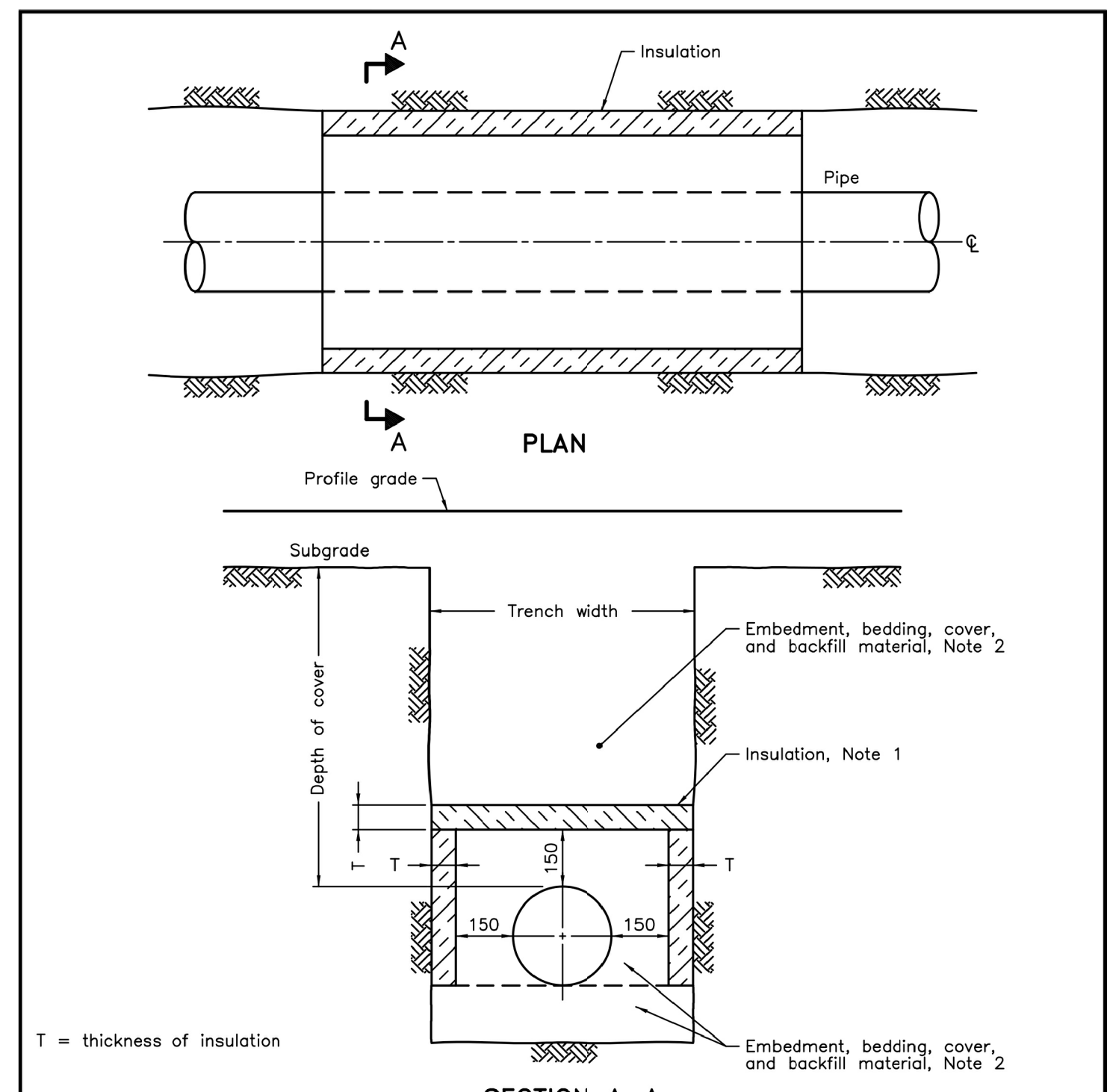
NOTES:
 1 At the elbow, a stainless steel strap is required at bottom of bell.
 2 Straps shall not be placed within 150mm of any maintenance hole section joint.
 A Internal drop structure shall be used in maintenance holes 1500mm diameter and larger with a minimum height of 600mm from the inlet pipe invert to the bottom of channel.
 B Drop pipe shall be one size smaller than the incoming sewer with a minimum 150mm diameter and maximum of 375mm diameter. A maximum of 300mm diameter for 1500mm maintenance holes.
 C All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3	
INTERNAL DROP STRUCTURE FOR NEW MAINTENANCE HOLES			
		OPSD 1003.031	



NOTES:
 1 Outlet hole size 525mm diameter maximum, location as required.
 2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
 A Centre reinforcing in base slab and walls ±20mm.
 B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
 C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
 D Pipe support shall be according to OPSD 708.020.
 E All dimensions are nominal.
 F All dimensions are in millimetres unless otherwise shown.

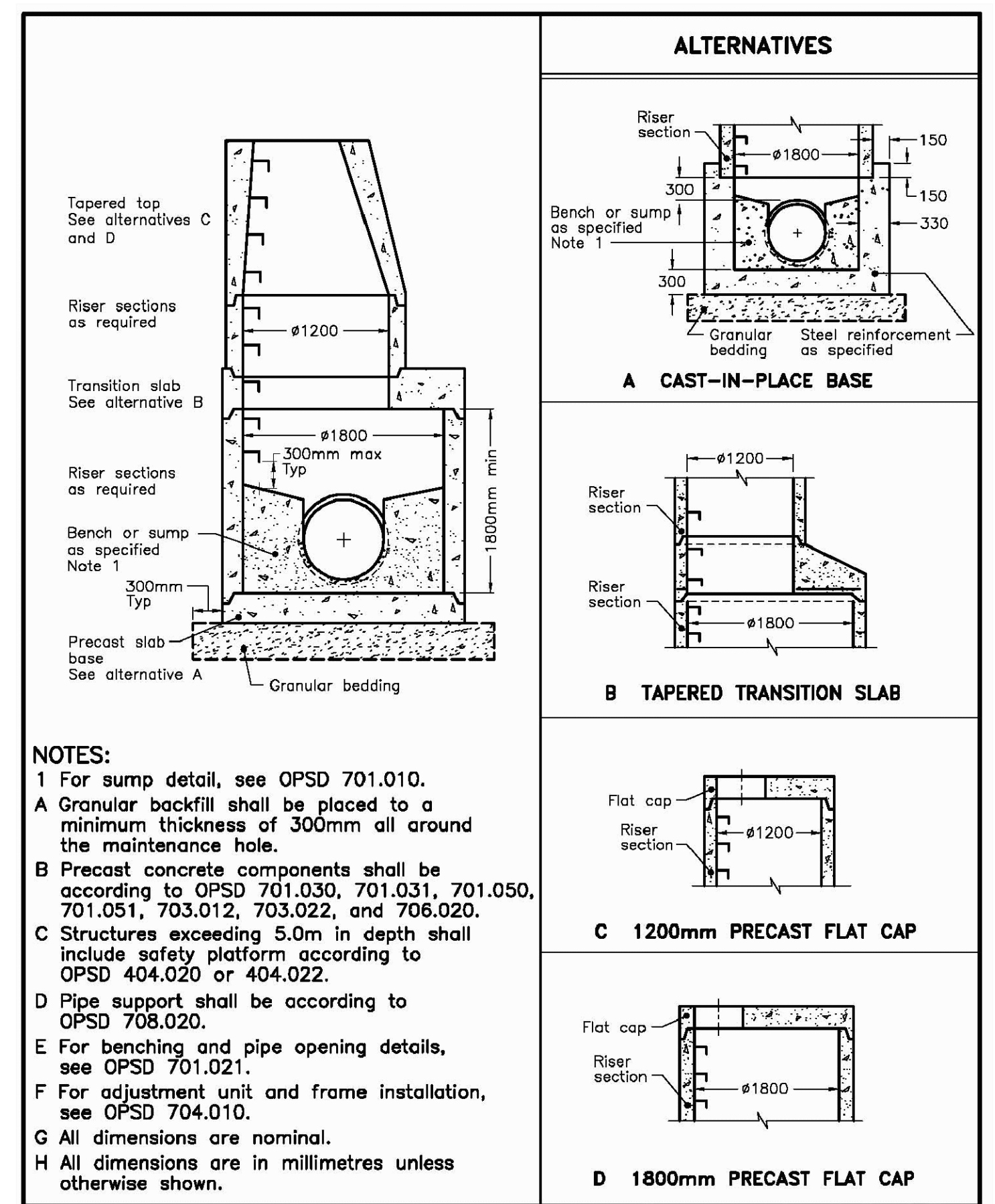
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2019	Rev 4	
PRECAST CONCRETE CATCH BASIN 600x600mm			
		OPSD 705.010	



SECTION A-A TYPICAL PIPE INSULATION DETAIL

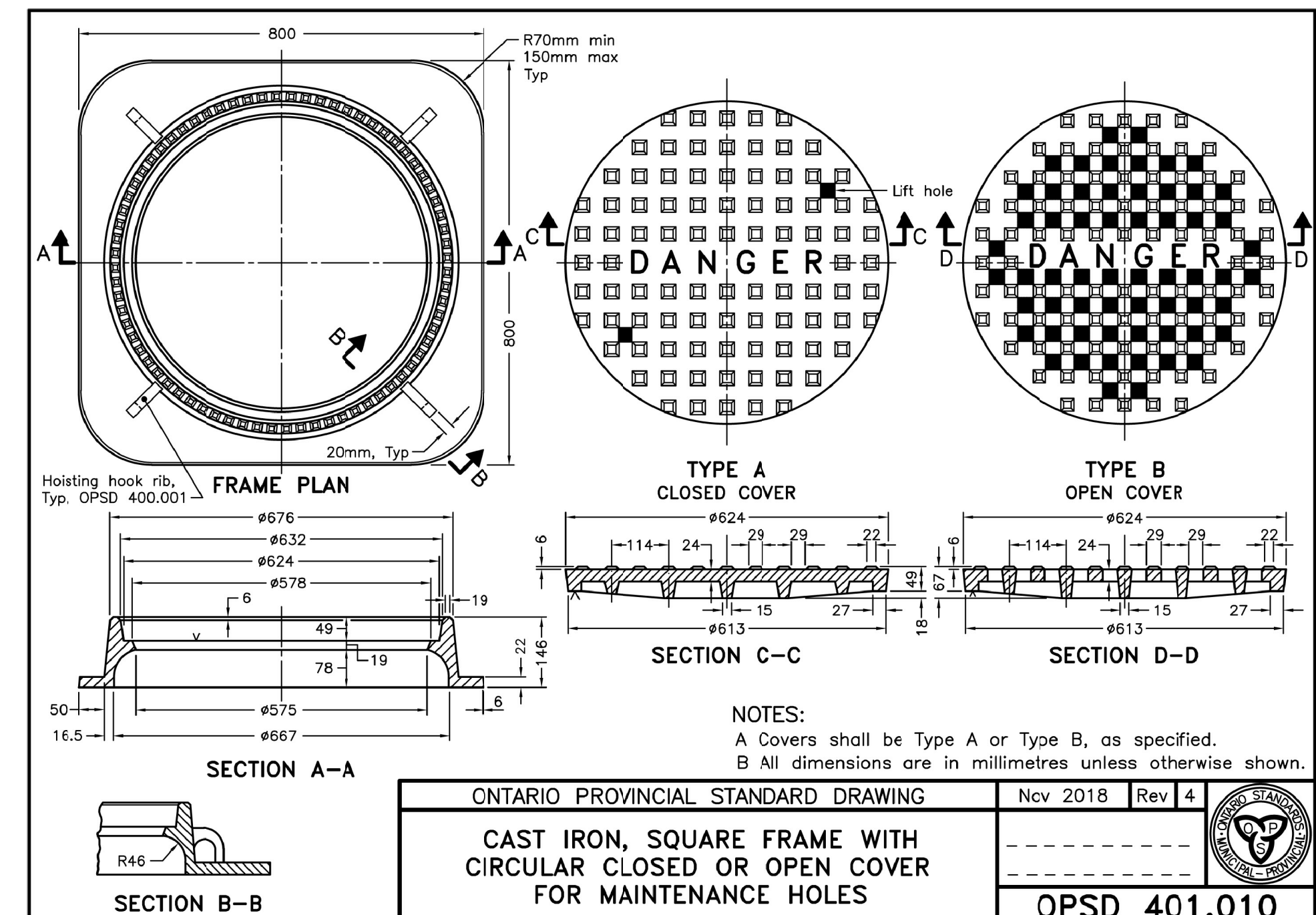
NOTES:
 1 The insulation material shall be extruded polystyrene according to OPSS 1605 with a minimum compressive strength of 275 kPa.
 2 Pipe embedment or bedding, cover, and backfill shall be according to:
 a) Flexible OPSD 802.010, 802.013, 802.020, and 802.023.
 b) Rigid - OPSD 802.030, 802.031, 802.032, 802.033, 802.050, 802.051, 802.052, and 802.053.
 A Minimum insulation thickness shall be 50mm.
 B Joints shall be staggered for multiple insulation sheets.
 C This OPSD is to be read in conjunction with OPSD 3090.100 and 3090.101.
 D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2020	Rev 1	
INSULATION FOR SEWERS AND WATERMAINS IN SHALLOW TRENCHES			
		OPSD 1109.030	



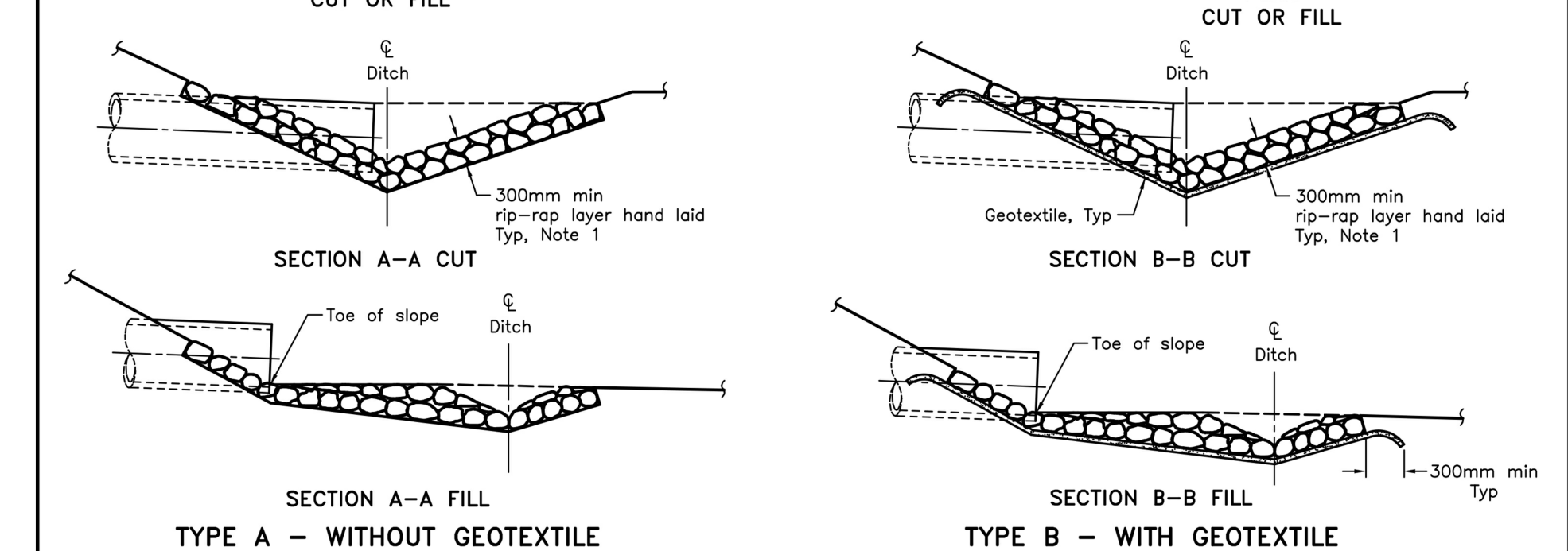
NOTES:
 1 For sump detail, see OPSD 701.010.
 A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
 B Precast concrete components shall be according to OPSD 701.030, 701.031, 701.050, 701.051, 703.012, 703.022, and 706.020.
 C Structures exceeding 5.0m in depth shall include safety platform according to OPSD 404.020 or 404.022.
 D Pipe support shall be according to OPSD 708.020.
 E For benching and pipe opening details, see OPSD 701.021.
 F For adjustment unit and frame installation, see OPSD 704.010.
 G All dimensions are nominal.
 H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 5	
PRECAST CONCRETE MAINTENANCE HOLE 1800mm DIAMETER			
		OPSD 701.012	



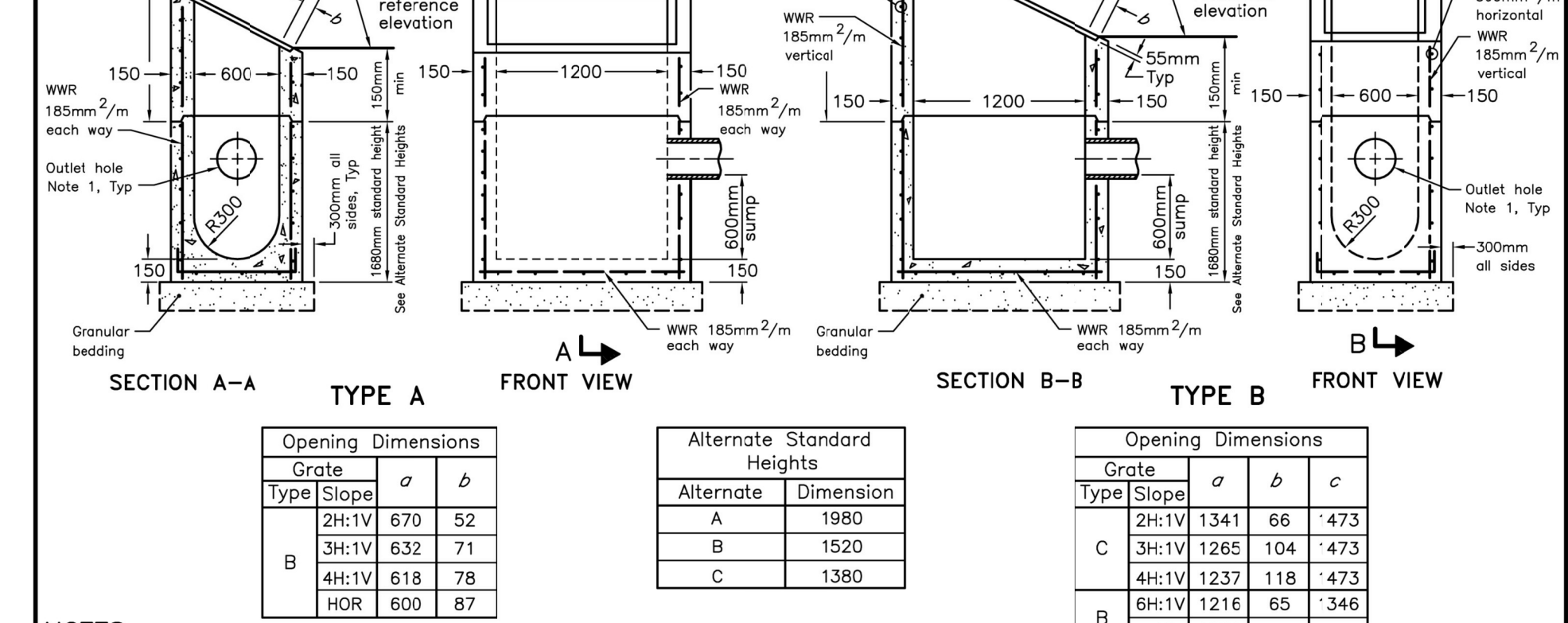
NOTES:
 A Covers shall be Type A or Type B, as specified.
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 4	
CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES			
		OPSD 401.010	



NOTES:
 1 The thickness of the rip-rap layer shall be at least 1.5 times the rip-rap mean diameter.
 A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3	
GENERAL RIP-RAP LAYOUT FOR SEWER AND CULVERT OUTLETS			
		OPSD 810.010	



NOTES:
 1 Outlet hole size 525mm max diameter.
 A Where inlet is placed across ditch and is accessible to vehicular traffic, grate slope shall be 6H:1V or flatter.
 B Center reinforcing in wall and base slab ±25mm.
 C Lap riser horizontal wires 300mm. Laps shall be placed at corners.
 D Granular backfill shall be placed to a minimum thickness of 300mm all around the ditch inlet.
 E Grating shall be according to OPSD 403.010.
 F Pipe support shall be according to OPSD 708.020.
 G All dimensions are nominal.
 H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2019	Rev 4	
PRECAST CONCRETE DITCH INLETS 600 x 1200mm			
		OPSD 705.040	

n Engineering Inc
 9120 Leslie Street, Suite-208
 Richmond Hill, Ontario. L4B 3J9
 T : 4 1 6 . 2 5 6 . 9 7 4 1
 E : info@architecture.com
 www.architecture.com

No.	Date	Version	Dwn.
2.	30 SEPT 2022	ISSUED FOR SPA-1	EH
1.	17 JUNE 2022	DRAFT FOR REVIEW	EH

This drawing is copyright property of 'n Engineering Inc'. Not to be reproduced. Contractor must verify all job dimensions, drawings, details and specifications and report any discrepancies to the architect before proceeding with work.

PROJECT:
CONDOMINIUM 233,249,261 COLDWATER ROAD, WEST, ORILLIA

DRAWING TITLE:	
STANDARD DETAILS	
DRAWN BY: EH	DATE: 29 MAR. 2022
CHECKED BY: AZ	SCALE: N.T.S
PROJECT NO.:	DRAWING NO.:
21-23	C4