

OFFICE DEVELOPMENT  
800 PALLADIUM DR

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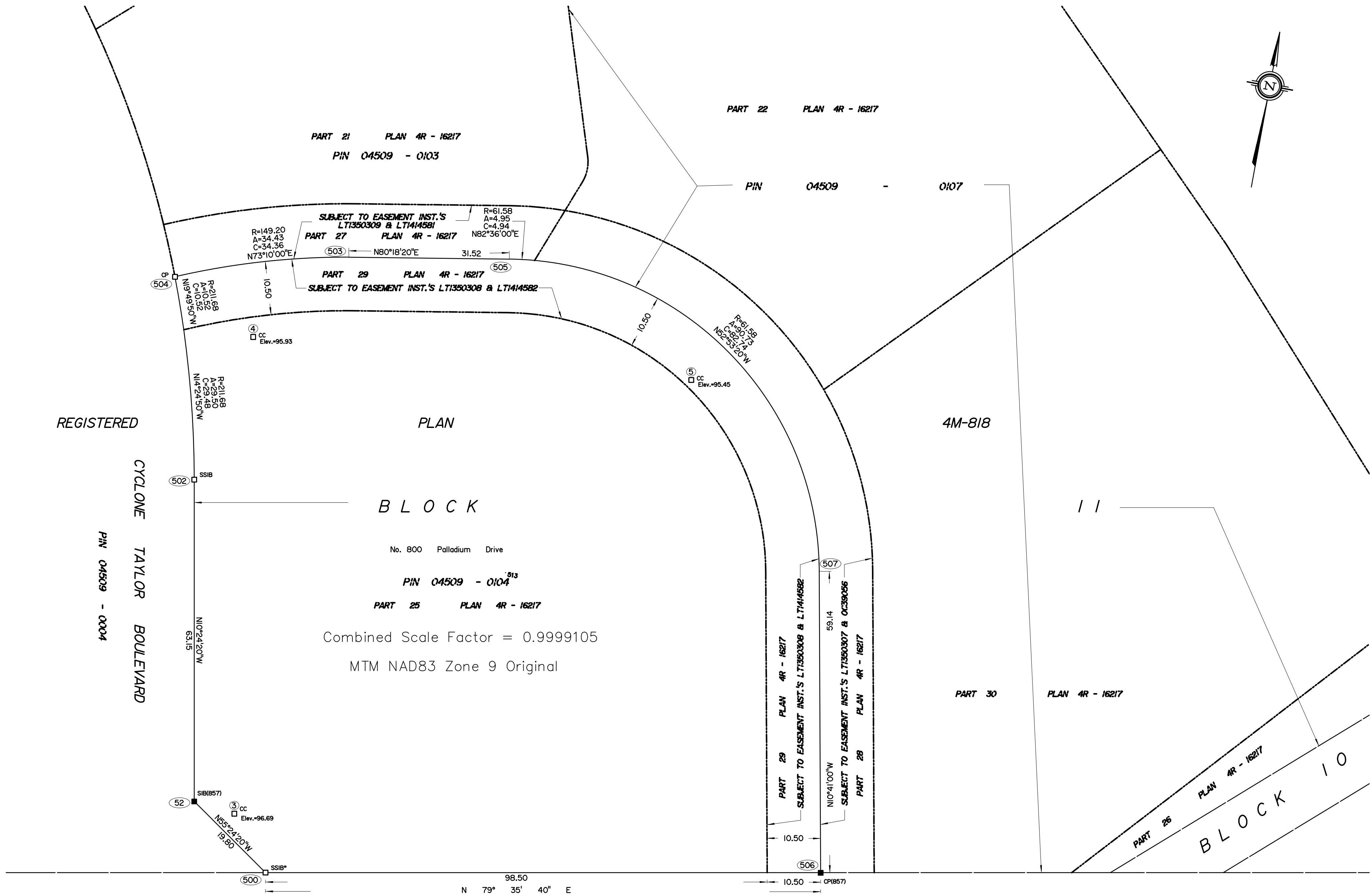
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14 mars 2019 Jonathan Hamel



OFFICE DEVELOPMENT  
800 PALLADIUM DR.  
SITE PLAN APPROVAL - MARCH 8th, 2019



110-360 Québec Street, Ottawa, ON K1P 5G8 CANADA  
T: 613 566-1000



Notes & Legend

Denotes	
□	Survey Monument Planted
■	Survey Monument Found
•	Survey Monument 0.3 metres Long
SIB	Standard Iron Bar
SSIB	Short Standard Iron Bar
IB	Iron Bar
CC	Cut Cross
CP	Concrete Pin

NOTES

INSTRUMENTS OC39056, LT1350307, LT1350308, LT1350309, LT1414581 AND LT1414582 ARE EASEMENTS FOR THE PURPOSES OF VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS.

Bearings are grid and are referred to the Central Meridian of MTM Zone 9 ( 76°30' West Longitude ) NAD-83 (original).

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the control points have not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.
3. Elevations derived from GPS observation only and have not been verified to actual published control monuments.



PROFESSIONAL ADVISORS

Architecture :

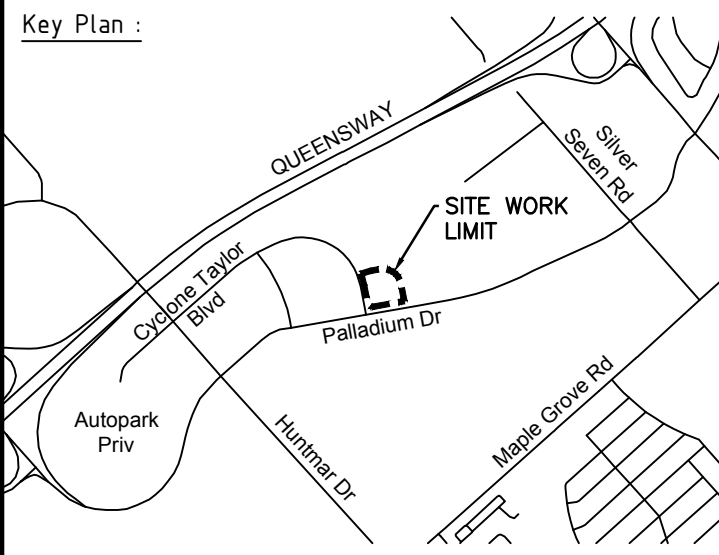


Structure / Civil :



Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

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CONSTRUCTION

Project :

OFFICE DEVELOPMENT  
800 PALLADIUM DR.

Drawing :

LEGAL PLAN

Designed By :		Drawn By :	
-		JEAN-PHILIPPE PHARAND	
Approved By :	File name .DWG	Scale :	
C.L.-L.	C002 - Legal Plan.DWG	1:500	
Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C002	



PROFESSIONAL ADVISORS

Architecture :



Structure / Civil :



Mechanical / Electricity :

Key Plan :



REVISIONS

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1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

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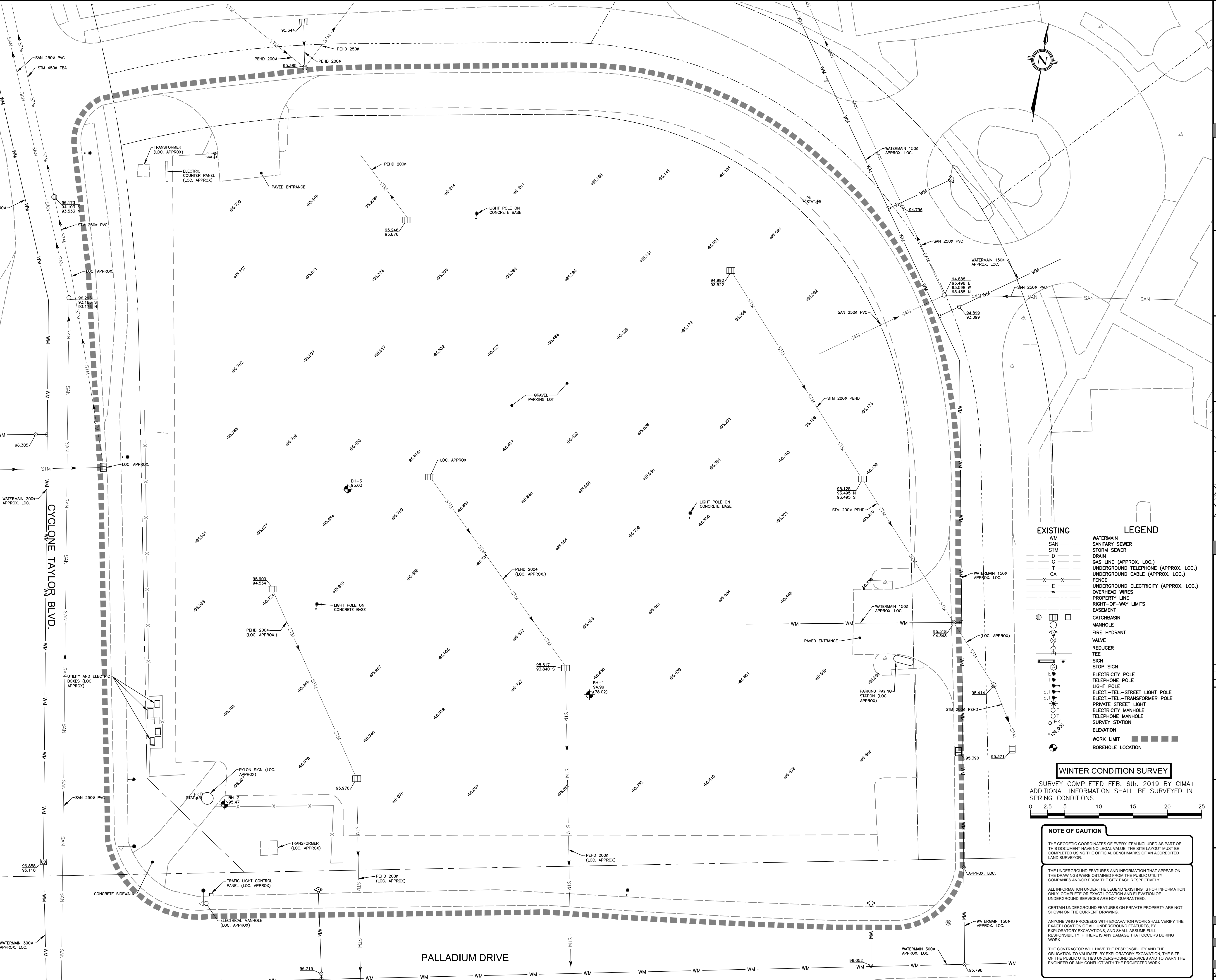
Project :

**OFFICE DEVELOPMENT  
800 PALLADIUM DR.**

Drawing :

**TOPOGRAPHICAL SURVEY  
PLAN**

Designed By :	Drawn By :
-	JEAN-PHILIPPE PHARAND
Approved By :	File name .DWG
C.L.-L.	C003 - Topographical Survey Plan.DWG
Date :	Project Number :
2019/03/08	A000919
Sheet :	Number :
C003	



**LEGEND**

EXISTING	WATERMAIN
WM	SANITARY SEWER
SAN	STORM SEWER
STM	DRAIN
D	GAS LINE (APPROX. LOC.)
G	UNDERGROUND TELEPHONE (APPROX. LOC.)
T	UNDERGROUND CABLE (APPROX. LOC.)
CA	FENCE
X	UNDERGROUND ELECTRICITY (APPROX. LOC.)
E	OVERHEAD WIRES
---	PROPERTY LINE
---	RIGHT-OF-WAY LIMITS
---	EASEMENT
⊞	CATCHBASIN
⊞	MANHOLE
⊞	FIRE HYDRANT
⊞	VALVE
⊞	REDUCER
⊞	TEE
⊞	STOP SIGN
⊞	ELECTRICITY POLE
⊞	TELEPHONE POLE
⊞	LIGHT POLE
⊞	ELECT.-TEL.-STREET LIGHT POLE
⊞	ELECT.-TEL.-TRANSFORMER POLE
⊞	PRIVATE STREET LIGHT
⊞	ELECTRICITY MANHOLE
⊞	TELEPHONE MANHOLE
⊞	SURVEY STATION
⊞	ELEVATION
⊞	WORK LIMIT
⊞	BOREHOLE LOCATION

**WINTER CONDITION SURVEY**

- SURVEY COMPLETED FEB. 6th. 2019 BY CIMA+  
ADDITIONAL INFORMATION SHALL BE SURVEYED IN  
SPRING CONDITIONS

0 2.5 5 10 15 20 25

**NOTE OF CAUTION**

THE GEOEOTIC COORDINATES OF EVERY ITEM INCLUDED AS PART OF THIS DOCUMENT HAVE NO LEGAL VALUE. THE SITE LAYOUT MUST BE COMPLETED USING THE OFFICIAL BENCHMARKS OF AN ACCREDITED LAND SURVEYOR.

THE UNDERGROUND FEATURES AND INFORMATION THAT APPEAR ON THE DRAWINGS WERE OBTAINED FROM THE PUBLIC UTILITY COMPANIES AND/OR FROM THE CITY EACH RESPECTIVELY.

ALL INFORMATION UNDER THE 'LEGEND EXISTING' IS FOR INFORMATION ONLY. COMPLETE OR EXACT LOCATION AND ELEVATION OF UNDERGROUND SERVICES ARE NOT GUARANTEED.

CERTAIN UNDERGROUND FEATURES ON PRIVATE PROPERTY ARE NOT SHOWN ON THE CURRENT DRAWING.

ANYONE WHO PROCEEDS WITH EXCAVATION WORK SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND FEATURES, BY EXPLORATORY EXCAVATIONS, AND SHALL ASSUME FULL RESPONSIBILITY IF THERE IS ANY DAMAGE THAT OCCURS DURING WORK.

THE CONTRACTOR WILL HAVE THE RESPONSIBILITY AND THE OBLIGATION TO VALIDATE, BY EXPLORATORY EXCAVATION, THE SIZE OF THE PUBLIC UTILITIES UNDERGROUND SERVICES AND TO WARN THE ENGINEER OF ANY CONFLICT WITH THE PROJECTED WORK.



OF THE PUBLIC UTILITIES UNDERGROUND SERVICES AND TO WARN THE ENGINEER OF ANY CONFLICT WITH THE PROJECTED WORK.



1. GRADING - GENERAL

- 1.1. The Contractor must conform to all laws, codes, ordinances, and regulations adopted by federal, provincial or municipal government councils and government agencies, applying to work to be carried out.
- 1.2. Unless otherwise indicated, all general conditions, materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD). Furthermore the requirements of the the Ontario Ministry of the Environment, Conservation and Parks (MECP), the Ontario Ministry of Natural Resources and Forestry (MNRF), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities must be adhered to as they apply.
- 1.3. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.
- 1.4. The boreholes and test pits shown on the plan are for information purposes only. Their location on the plan is approximate. The Contractor shall refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.
- 1.5. Contractor is responsible for obtaining all permits required to complete all works and bear cost of same, including but not limited to road cut permit, sewer discharge permit, Permit to Take Water/EASR, etc. and their associated costs.
- 1.6. The Contractor is responsible for the coordination of his activities with others on-site.
- 1.7. The location of existing underground municipal services and public utilities as shown on the plans are approximate. The Contractor must determine the exact location, size, material and elevation of all existing utilities (on-site and off-site) prior to any excavation work. Damage to any existing services and/or existing utilities during construction, whether or not shown on the drawings must be repaired by the Contractor at his own expense.
- 1.8. Site preparation includes clearing, grubbing, stripping of topsoil, demolition, removal of unsuitable materials, cut, fill and rough grading of all areas to receive finished surfaces.
- 1.9. All material shall be compacted as per the requirements of the governing authority and be approved by the Consultant prior to delivery to the site.
- 1.10. Compaction shall conform to the following requirements:

- Exposed subgrade:  
95% Standard Proctor maximum dry density (SPMDD)
- Granular foundations:  
98% Standard Proctor maximum dry density (SPMDD)
- Asphalt Pavement (Performance Graded (PG) 58-34 asphalt cement):  
As per OPSS 310
- Subgrade fill (pavement areas - Either acceptable fill, in situ soil, or OPSS Granular B Type I or II material placed over in situ soil or fill):  
95% Standard Proctor Maximum Dry Density (SPMDD)
- Structural fill (building and light standard footprints OPSS Granular 'A' or Granular 'B' Type II Material):  
98% Standard Proctor Maximum Dry Density (SPMDD)

- 1.11. If groundwater is encountered during construction, dewatering of excavations could be required as per OPSS 519. It is assumed that groundwater may be controlled by sump and pumping methods. As required under the "Ontario Water Resources Act (OWRA)", the Contractor must register all water taking activities on Ontario's "Environmental Activity and Sector Registry (EASR)" if water taking exceeds 50,000 l/day, and obtain a "Permit to Take Water (PTTW)" if water taking exceeds 400,000 l/day.
- 1.12. Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements and as follows:
- 1.12.1. Provide flocculation tanks, settling basins, or other treatment facilities to remove suspended solids or other materials to within the required parameters of the receiving body before discharging to storm sewers, watercourses or drainage areas.
- 1.12.2. Before discharging to storm sewers, watercourses or drainage areas, discharge water must be sampled and tested to ensure quality requirements in accordance with City of Ottawa Sewer Use By-Law No. 2003-514 and the Ministry of Environment and Conservation and Parks (MECP) are adhered to. The Contractor is to perform all additional sampling and testing as required by City of Ottawa. All associated fees to be paid by the Contractor.
- 1.12.3. Where water is not suitable for discharge into the adjacent storm sewers, watercourses or drainage areas it must be discharged into the on-site sanitary sewer collection system, or disposed off-site at an approved disposal facility.
- a. When discharging to the sanitary sewer the Contractor must obtain a Sanitary Sewer Agreement for Dewatering from the City of Ottawa in accordance with City of Ottawa Sewer Use By-Law No. 2003-514 and pay all associated fees.
- A copy of the signed Sanitary Sewer Agreement for Dewatering must be provided to the Client Representative in advance of dewatering and discharge.
- The Contractor must ensure all requirements of the Discharge Agreement are adhered to and all prerequisite requirements of the Agreement are in place prior to commencing dewatering.
- Provide flow meter and record discharge rate in accordance with City of Ottawa requirements.
- Dewatering discharge rate to sanitary sewer not to exceed rate specified by City.
- b. For off-site disposal of dewatering effluent, Contractor to provide Client Representative proof of receipt that dewatering effluent was received at a licensed landfill facility and pay all associated disposal fees.
- Contractor must provide name of proposed licensed disposal facility to Client Representative in advance of any dewatering waste leaving the site.
- Contractor is responsible for paying all costs associated with any water quality sampling and testing required.
- 1.13. The Contractor must maintain benchmarks and landmark references as is. Otherwise these references will be repositioned by a certified land surveyor at the Contractor's expense.
- 1.14. The Contractor is the only person in charge of safety on the building site. The Contractor is responsible for providing adequate protection of the workers, other personnel and the general public, protection of materials, as well as maintaining in good condition the completed works and works to be completed.
- The Contractor must supply, install and maintain an appropriate safety fence along the work perimeter until the work is complete.
- The Contractor must provide at any time:
- A sufficient number barriers, posters, guards and others to ensure safety;
- 1.15. Temporary excavations in the overburden must be completed as per the requirements of the Occupational Health and Safety Act (OHSA), O. Reg. 213/91. That is, side slopes must extend 1 horizontal and 1 vertical from the base of the excavation. If excavations extend below the water table then side slopes of 3 horizontal to 1 vertical, or gentler, may be required to maintain stability of the side slopes.
- Where these slopes are not practical due to obstacles or space restrictions, shoring must be implemented according to the OHSA, O. Reg. 213/91.
- The subsoil at this site is considered to be mainly a Type 2 and Type 3 soil according to the Occupational Health and Safety Act and Regulations for Construction Projects.
- 1.16. The Contractor must pace deliveries and removals in order to minimize and control stockpiles.

- 1.17. Stockpile material must be stored away from excavations at a distance at least equal to the depth of the excavation. Construction traffic should be limited near open excavation.
- 1.18. Cleanliness on the site:
- The Contractor shall clean roadways at his own cost as directed by the Client representative;
  - All site roads and walkways to and from the construction zone must be kept clean at all times, from mud, dirt, granular material, debris, etc.;
  - The Contractor must leave work area clean at end of each day;
  - Materials and equipment must be laid out in an organized and safe manner;
  - All material, equipment and temporary structures which are no longer necessary for the execution of the Contract must be removed from the site;
  - If required the Contractor must use screens, bulkheads, or any other recognized means in order to reduce noise, dust, interference, obstruction, etc., in conformity with the requirements of the provincial and municipal authorities having jurisdiction.
- 1.19. During the construction period the Contractor is responsible for installing and maintaining temporary traffic signage, including traffic signs, traffic markings and temporary traffic lights, and flagmen, as required by the Client, the Consultant, the Municipality, the MTO, and other governing authorities.
- 1.20. The Contractor must control surface runoff from precipitation during construction.
- 1.21. The Contractor must ensure the following mitigation measures are implemented in order to reduce the risk of ground contamination from petroleum products:
- The list of persons and agencies to contact in the event of an emergency must be posted in plain sight on the work site for the duration of the construction period;
  - Machinery must be clean and kept clean to limit any grease or oil deposits inside the work area;
  - Frequent inspections must be performed to detect any oil, fuel, grease or other leaks. If a leak is detected, the necessary corrective action must be taken immediately;
  - An emergency kit for the recovery of petroleum products must be kept on site at all times. The kit must include at least 30 m of absorbent booms, a box of absorbent pads and solid absorbent material (powder or granules). The kit must be stored near the location of work and machinery, and kept within easy reach at all times to ensure a rapid response;
  - In the event of a spill the Contractor must immediately report to the Spills Action Centre of the Ministry of Environment, Climate and Parks at 1-800-268-6080. Hydrocarbons and contaminated soils will be recovered by a specialized firm.

- 1.22. The Contractor must ensure the following measures are implemented regarding the handling of concrete:
- Concrete should either be mixed away from the site or should be prepared on paved surfaces if on-site quantities are required (i.e. minor repairs);
  - Excess concrete must be disposed off-site at a location that meets all regulatory requirements;
  - The washing of concrete trucks and other equipment used for mixing concrete should not be carried out within 30 m of a watercourse or wetland and should take place outside of the work site;
  - All concrete trucks should collect their wash water and recycle it back into their trucks for disposal off-site at a location meeting all regulatory requirements.

2. SEDIMENT AND EROSION CONTROL

- 2.1. Specifically, sediment and erosion control measures to be constructed as per OPSS 805.
- 2.2. The Contractor must implement best management practices and provide adequate sediment and erosion control measures during construction in order to:
- Prevent soil erosion which can result from stormwater runoff or wind erosion during construction;
  - Prevent sediment deposits in the storm sewer and/or collecting streams and;
  - Prevent air pollution from dust and particulate matter.
- 2.3. Provisions must be made for sediment and erosion control measures prior to stripping the site of vegetation and other deleterious materials. Measures such as phase stripping, vegetation buffer zones, silt fences, straw bales, sediment traps/basins, rock checks, etc. must be constructed and maintained in order to control sediment, as required by the provincial and municipal governing authorities.
- 2.4. The Contractor must set up the measures indicated in/on the plan, inspect them frequently and clean and repair or replace the deteriorated structures.
- 2.5. When the sediment and erosion control measures must be removed in order to complete a portion of the work, these same measures must be reinstated.
- 2.6. When storing soil on site in piles the Contractor must cover each pile with tarps, straw or a geotextile fabric to avoid fine particle transport by wind and/or streaming rain water.
- 2.7. During the construction period, catchbasin inserts must be installed and maintained between the frame and cover of all catchbasins and catchbasin/manholes to minimize sediments entering the storm sewer system. All landscaping areas must be completed prior to the removal of the inserts.
- 2.8. The light duty silt fence barrier must be installed as per OPSD 219.110.
- 2.9. At all times the Contractor must maintain the municipal access roads clean and free of sediments. When cleaning the access roads, the Contractor must take the necessary precautions to clear the surfaces covered with sediment prior to cleaning with water.
- 2.10. For dust control, Contractor to apply calcium chloride (Type I - OPSS 2501 and CAN/CGSB-15-1) and water with equipment approved by the Client representative at rate in accordance to OPSS 506 when directed by the Client representative.
- 2.11. At the end of the construction period, the Contractor is responsible for removal of the temporary sediment and erosion control measures and reconditioning the affected areas.
- 2.12. This Sediment and Erosion Control Plan is a "Living Document" which may be revised in the event that the control measures are not sufficient.

3. DEMOLITION AND REMOVALS

- 3.1. The Contractor must visit the premises in order to be fully aware of existing conditions on site, including all elements to be removed and demolished. No claim will be accepted due to a poor evaluation of the work to be completed.
- 3.2. The Contractor must protect and maintain in service the existing works which must remain in place. If they are damaged, the Contractor must immediately make the replacements and necessary repairs to the satisfaction of the Client representative and without additional expense to the Client.
- 3.3. The Contractor must carry out necessary saw cuts.
- 3.4. The Contractor must entirely remove the demolition wreckage from the construction site in accordance with the requirements of the Ministry of Environment, Conservation and Parks (MECP).
- The Contractor must discard recyclable demolition materials in collaboration with a regional recycling company. The Contractor must provide proof to the Client representative that the materials were properly recycled and that the chosen recycling company is recognized in the recycling field.
  - All other demolition materials must be disposed off-site at authorized licensed landfills and in conformity with the applicable laws and regulations. The Contractor must be able to provide, upon request, copies of the disposal tickets to the Client representative.
- 3.5. The Contractor is responsible for locating existing public utilities and (if required) submit a request for the interruption of public utility services, such as gas, telephone, power, cable, sewers, watermain, etc.

- 3.6. Sewer / watermain pipes to be abandoned must be cut, filled with unshrinkable concrete conforming to OPSS 1359, and capped.
- 3.7. The Contractor must complete all removals as shown on the drawings and as required to make the work complete.
- 3.8. All materials, products and others coming from the demolition belong to the Contractor, unless specified otherwise.
- 3.9. Surfaces and works located outside of the construction work limit must be reinstated as they were before beginning of work.

4. GENERAL SUBGRADE PREPARATION

- 4.1. Earth removal shall be inspected by an experienced Geotechnical Engineer to ensure that all unsuitable materials are removed prior to the placement of fill, including concrete and/or others, and to confirm the compaction degree and condition of the founding soils. All unsuitable materials must be hauled off site and disposed as per provincial and municipal regulations.
- 4.2. Subgrade must be approved by experienced geotechnical personnel before proceeding with placement of fill.
- 4.3. All soft, wet or disturbed areas revealed under surface compaction must be removed to a minimum depth of 500 mm and replaced with compacted suitable subgrade fill (OPSS Granular B Type II) as directed by the Geotechnical Engineer and/or an approved non-woven Class 1 geotextile, as per OPSS 1860. Transition around sub-excavation, where backfill and native material are not of similar nature, shall be sloped at 5 horizontal to 1 vertical, within 1.8 m of finished surface.
- 4.4. All granular fill must be placed in maximum 300 mm thick loose lifts and compacted using suitable methods as per the requirements.
- 4.5. All heavy equipment shall not operate directly on the clay subgrade. A minimum of 500 mm of fill/granulars shall be used to allow traffic over the underlying clay subgrade. Clay subgrade surfaces will be prone to disturbance by weather and traffic, therefore preparation of the subgrade/granular infrastructure shall be scheduled such that the granular materials are placed as quickly as possible. A lean concrete slab may also be used in lieu of a granular pad to stabilize the subgrade upon approval from the Geotechnical Consultant.
- 4.6. If contaminated material is encountered during the work, the Contractor must dispose off-site all materials from the contaminated area in accordance with the requirements of the Ontario Ministry of the Environment, Conservation and Parks (MECP). Prior to the start of work the Contractor must provide the name and location of landfill(s) where the contaminated materials will be disposed to the Client Representative. The Contractor must obtain from the landfill Owner documents confirming that he has the right to accept the contaminated material. During the work, the contractor must provide to the Client Representative a copy of all check-in receipts issued by the landfill Owner.
- 4.7. The Contractor is responsible to provide a confirmation that the imported material used as subgrade fill is free of any contaminants such as Petroleum Hydrocarbons (C<sub>10</sub>-C<sub>25</sub>), PAH (Polycyclic Aromatic Hydrocarbons), MAH (Monocyclic Aromatic Hydrocarbons) and metals like mercury, silver, arsenic, cadmium, cobalt, chromium, copper, tin, manganese, molybdenum, nickel, lead and zinc.

5. EXCAVATION AND BACKFILL - PARKING AREAS, ACCESS ROADS, AND LANDSCAPED AREAS

- 5.1. The parking and access road subgrade preparation shall be completed as per Section "4.0 General Subgrade Preparation".
- 5.2. Beneath the proposed parking, access roads and landscaped areas, all surface vegetation, surface water, rootmat, organics, underlying topsoil, frozen soils, existing fill, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed. Organic soils below 1.8 m of finished grade and existing fill may remain beneath proposed pavement areas provided they are proven competent by proof rolling and approved by the Geotechnical Engineer.
- 5.3. Subgrade fill used for grading beneath asphalt or concrete pavement must consist of either acceptable fill, in situ soil, or OPSS Granular B Type I or II material placed over in situ soil or fill, approved by the Geotechnical Consultant prior to delivery to the site. Subgrade fill used below rigid surfaces, such as concrete sidewalks and concrete slabs, must not contain more than 25% silt.
- 5.4. Non-specified fills and on-site excavated soils may be used in landscaping areas and beneath parking areas where settlement of the ground surface is of minor concern. In landscaped areas the fill must be spread in thin lifts and compacted by the tracks of spreading equipment to minimize voids. When used to build up subgrade level in areas to be paved fill should be compacted in thin lifts to a minimum density of 95% SPMDD.
- 5.5. Existing engineered fill is also suitable for re-use as backfill material under pavement structures. Site excavated materials for re-use must be approved by the Geotechnical Consultant at the time of construction and stored on site in a way to avoid water infiltration and freezing.
- 5.6. The Contractor is responsible for constructing all temporary access roads, as required to complete the work. The Contractor must also maintain all temporary access roads in good and tidy condition at all times to the satisfaction of the Owner and/or Consultant.
- All temporary access roads shall consist of approved Subgrade Material to allow heavy equipment traffic. If the building is constructed during the winter period, the Contractor is responsible for snow removal and spreading of abrasive throughout construction work by the building Contractor and his sub-contractors.

6. EXCAVATION AND BACKFILL - BUILDING FOOTPRINT

- 6.1. The building subgrade preparation shall be completed as per Section "4.0 General Subgrade Preparation".
- 6.2. Beneath the proposed footings of buildings, signs, light standards and their influence zones all surface vegetation, surface water, rootmat, organics, underlying topsoil, frozen soils, existing fill, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed. The influence zone is defined as a line drawn at 1 horizontal to 1 vertical outward and downward from the edge of footings, down to the competent native soil. All loose or disturbed materials must be removed and replaced with compacted structural fill.
- 6.3. Existing engineered fill is suitable for re-use as backfill material against foundation walls in combination with a perimeter drainage system (weeping tile).
- 6.4. Backfill against the exterior sides of the foundation walls must consist of free-draining non frost susceptible granular materials. Imported granular materials, such as clean sand or OPSS Granular B Type I granular material, must be used for this purpose. The greater part of the site excavated materials will be frost susceptible and, as such, are not recommended for re-use as backfill against the foundation walls unless a composite drainage system, such as Miradrain G100N, is provided.
- 6.5. Structural fill used for grading beneath the footings of buildings, signs and light standards must consist of OPSS Granular 'A' or Granular 'B' Type II Material and be approved by the Geotechnical Consultant prior to delivery to the site.
- 6.6. With the removal of all deleterious materials within the footprint of the proposed building, the native surface is considered an acceptable subgrade surface on which to commence backfilling the floor slab. The upper 150 mm of sub-slab fill must consist of OPSS Granular A material for slab on grade construction. All backfill within the footprint of the proposed building must be placed in maximum 300 mm thick loose lifts and compacted to a minimum density of 98% SPMDD.
7. PAVEMENT STRUCTURES, CONCRETE PADS, CURBS, AND SIDEWALKS
- 7.1. Construction of granular foundation must conform to OPSS 314.
- 7.2. Granular materials used on site must conform to the requirements of OPSS 1010.
- 7.3. Light duty and heavy duty asphalt pavements to be constructed as per Details #201, #202, and #205.
- 7.4. Road cut reinstatement as per City of Ottawa Detail R10. Reinstatement to match existing. Thickness and materials in accordance with detail #202 to be assumed.

- 7.5. Transition between existing and proposed pavement shall be constructed as per Detail #206.
- 7.6. Construction of asphalt must conform to OPSS 310.
- 7.7. Asphalt concrete material shall conform to OPSS 1151 for Superpave and Stone Mastic Asphalt Mixtures. Minimum Performance Graded (PG) 58-34 asphalt cement must be used for this project.
- 7.8. Asphalt mix design shall be reviewed and approved by the Geotechnical Consultant prior to start of paving.
- 7.9. Concrete curbs and gutter must conform to OPSS 353.
- 7.10. Concrete curbs to be constructed as per City of Ottawa Detail SC1.1.
- 7.11. Elevation at top of concrete curbs to be 150 mm above the asphalt, unless otherwise indicated on the drawings.
- 7.12. Concrete sidewalks must conform to OPSS 351.
- 7.13. Concrete sidewalks to be constructed as per Detail 106 and City of Ottawa Details SC2 and SC4, with joints in accordance with SC5.
- 7.14. Concrete slab for garbage enclosure as per Detail 115.

8. CONTRACT RESPONSIBILITIES AT THE PERIMETER OF BUILDING

- 8.1. Included in the site works contract:
- Cut or fill up to 300 mm below finished floor elevation for sidewalks and for all other concrete slabs around building.
  - All landscaping around the building.

- 8.2. Included in the building contract:

- All necessary excavation to subgrade, granular materials, compaction and concrete work for sidewalks and all other concrete slabs around building area.

9. BUILDING PAD PREPARATION

- 9.1. In excavation areas, cut to 300 mm below finished floor elevation. In fill areas, structural fill to be placed to 300 mm below finished floor elevation.



PROFESSIONAL ADVISORS

Architecture :

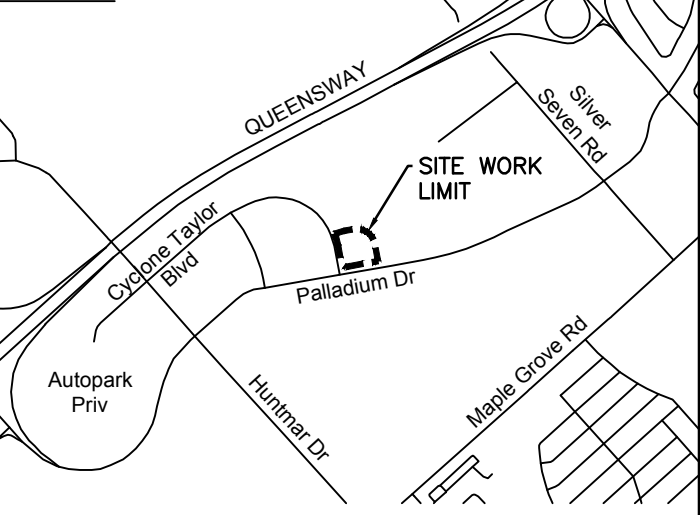


Structure / Civil :



Mechanical / Electricity :

Key Plan :



REVISIONS



1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.
No	yy/mm/dd	Description	By

Stamps :

THIS DOCUMENT  
SHALL NOT BE  
USED FOR  
CONSTRUCTION

Project :

OFFICE DEVELOPMENT  
800 PALLADIUM DR.

Drawing :

NOTES PLAN

Designed By :		Drawn By :	
TIM KENNEDY		JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :	
C.L-L.	C005 - Notes Plan.DWG	NO SCALE	
Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C005	



1. MUNICIPAL SERVICES - GENERAL

1.0. The Contractor must conform to all laws, codes, ordinances, and regulations adopted by federal, provincial or municipal government councils and government agencies, applying to work to be carried out.

1.1. Unless otherwise indicated, all general conditions, materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSPD). Furthermore the requirements of the the Ontano Ministry of the Environment, Conservation and Parks (MECP), the Ontario Ministry of Natural Resources and Forestry (MNRFF), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities must be adhered to as they apply.

1.2. Terminate and plug all service connections at 1.0 meter from edge of the building.

1.3. The Contractor must complete compaction as per OPSS 501 and note the following requirements for service trenching:

MATERIALS	COMPACTION
Pipe bedding	95% Standard Proctor Maximum Dry Density
Trench backfill and pipe cover	95% Standard Proctor Maximum Dry Density

1.4. The Contractor is responsible for making or arranging all connections to the existing sewers as per municipal requirements. Prior to connection, the Contractor must provide, to the Engineer and the City for approval, all test results performed on the internal services. Test results must include C.C.T.V. inspection of sewers, infiltration/exfiltration tests for sewers and manholes, deformation tests of sewers, watermain hydrostatic leakage tests, flushing and disinfecting operations, and bacteriological water analysis.

1.5. Advise the City Public Works at least 72 hours in advance before any connection to the City services. Coordinate with City as required.

1.6. The Contractor shall determine the exact invert (geodetic elevation), diameter and construction material of the existing conduits at the proposed connections. He shall also carry out, if necessary, exploratory excavations in order to determine the exact location and inverts of existing duck banks. This information shall immediately be provided to the Client Representative prior to undertaking any municipal services work and a 48 hour period must be allocated to the Client Representative for design review.

1.7. The Contractor is responsible for all excavation, backfill and reinstatement of all areas disturbed during construction to existing conditions or better and all associated works to the satisfaction of the Engineer and municipal authorities.

- Asphalt reinstatement must be in accordance with OPSS 310.
- Landscape areas to be reinstated with 150 mm of topsoil and sod in accordance with OPSS 802 and OPSS 803.

1.8. Trenching, backfilling and compacting must conform to OPSS 401.

1.9. At least 150 mm of OPSS Granular A must be used for bedding for sewer and water pipes when placed on soil subgrade. The bedding should extend to the spring line of the pipe. Cover material, from the spring line to at least 300 mm above the obvert of the pipe should consist of OPSS Granular A. The bedding and cover materials should be placed in maximum 225 mm thick lifts compacted to a minimum of 95% of the material's SPMDD.

1.10. Within landscaping areas, it should generally be possible to re-use the moist, not wet, silty excavated material or silty sand above the cover material if the excavation and filling operations are carried out in dry weather conditions. It may not be practical to re-use wet silty clay as compacting this material without an extensive drying period may be impractical.

1.11. Where hard surfaces are considered above the trench backfill, the trench backfill material within the frost zone (about 1.8 m below the finished grade) should match the soils exposed at the trench walls to reduce differential frost heaving. The trench backfill should be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of the material's SPMDD.

1.12. To reduce long term lowering of the groundwater level at this site, clay seals must be provided in the service trenches. Per City of Ottawa Detail S8. The seals must be at least 1.5 m long (in the trench direction), as compared to the 1 m minimum in the detail, and extend from trench wall to trench wall. Generally, the seals must extend from the frost line and fully penetrate the bedding, subbedding and cover material. The barriers must consist of relatively dry and compactable brown silty clay placed in maximum 225 mm thick loose layers compacted to a minimum of 95% of the material's SPMDD. The clay seals must be placed at the site boundaries and at strategic locations at no more than 60 m intervals in the service trenches.

1.13. Watertight frame and covers are required as per OPSPD 401.030 for all storm and sanitary maintenance holes located within the ponding areas. Refer to drawings for location of manholes within ponding areas.

2. WATERMAIN

2.1. Watermain, water service connections and associated appurtenances must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment, Conservation and Parks. Specifically watermains must conform to OPSS 441.

2.2. Watermain must be constructed as per OPSS 441 and specifically OPSPD 802.010. Bedding and cover material to be OPSS Granular 'A' compacted to 95% Standard Proctor Maximum Dry Density.

2.3. Watermain pipe materials must be class 150 PVC DR 18 or approved equivalent, unless otherwise shown on the Drawings. Materials must conform to OPSS 441.

2.4. All watermain must be installed with a minimum of 2.40 meters cover from finished grade. Where a minimum of 2.40 meters cover is not reached, thermal insulation is required as per City of Ottawa Details W21, W22 and W23.

2.5. Watermain service connections must be installed a minimum of 2.40 meters from any catchbasin, manhole or object that may contribute to freezing. Thermal insulation must be installed as per City of Ottawa Details W22 and W23 where 2.40 meters of separation cannot be achieved.

2.6. Cathodic protection (if required) must be installed as per City of Ottawa Details W40 and W42.

2.7. Thrust block and restraints must be as per City of Ottawa Details W25.3, W25.4, W25.5 and W25.6.

2.8. Hydrant installation to be as per OPSS 441 and City of Ottawa Detail W19. Hydrants will comply with AWWA C502.

Hydrants must have three exits (two 65.5 mm and one 100.0 mm 'storz' of stainless steel) without drain. Fire hydrants must be installed such that the 'storz' exit points are oriented as directed by the local fire department. The Contractor must ensure that the breakaway flange is located above the finished ground (approximately 150 mm).

Fire flow tests followed by colour coding of hydrants (as per NFPA-291) shall be carried out prior to substantial completion of the work.

2.9. Valves to be installed as per OPSS 441 and City of Ottawa Detail W24.

2.10. A continuous 12 gauge copper tracer wire must be installed over all watermains. Tracer wire shall be tied to all fire hydrants.

2.11. When a watermain pipe crosses a sewer pipe, installation shall be as per City of Ottawa Details W-25 and/or W-25.2.

2.12. Watermains must be thoroughly flushed and cleaned to remove all dirt and debris prior to the disinfection process.

2.13. All watermains shall be hydrostatically and bacteriologically tested as per provincial and municipal regulations. It is the Contractor's responsibility to ensure that all requirements are followed.

2.14. The Contractor must make arrangements with and give a minimum of 24 hours' notice to the City for the closing off of necessary valves in the water distribution system. The City will operate valves at the time of tie-ins, etc. at no expense to the Contractor under normal conditions; however the Contractor will be responsible for all costs associated with emergency shutdowns if they occur outside of the normal working hours of the City forces (Monday to Friday, 7:00 a.m. to 5:00 p.m.)

2.15. Hydrostatic testing to be completed as per OPSS 441.07.24. Testing must be completed under the supervision of the Contract Administrator. The test section will be either a section between valves or the completed watermain. Test pressure to be 1035 kPa.

2.16. Flushing and Disinfecting to be completed as per OPSS 441.07.25 under the supervision of the Contract Administrator.

2.17. The Contractor must obtain a permit from the City before using an existing fire hydrant located within the City's territory.

2.18. The Contractor must coordinate and pay the cost of connection, inspection and disinfection by municipal personnel.

2.19. Contractor must coordinate the supply and installation of water meter and remote water meter for the building with the mechanical engineer.

3. STORM SEWER

3.1. Storm sewers, laterals and storm service connections must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment, Conservation and Parks. Specifically storm sewers must conform to OPSS 410.

3.2. Concrete storm sewer material to conform to OPSS 1820. Concrete storm sewers to be installed as per OPSPD 802.031 (Class B Bedding). Bedding and cover material to be OPSS Granular 'A'.

3.3. PVC storm sewer material to conform to OPSS 1841. PVC storm sewers to be installed as per OPSPD 802.010. Bedding and cover material to be OPSS Granular 'A'.

3.4. The allowable deflected pipe diameter when using flexible pipe is as follows:  
- Pipes 100 to 750 mm: 7.5% of the base inside diameter of the pipe  
- Greater than 750 mm: 5.0% of the base inside diameter of the pipe

3.5. All storm sewer pipes shall be as follows:

PIPE DIAMETER (mm)	TYPE OF PIPE
≤ 150	PVC SDR-28
> 150 and ≤ 375	PVC SDR-35
> 375	Concrete Pipes (CSA A257)

3.6. All storm sewers to be C.C.T.V. inspected by the Contractor as per OPSS 409. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

3.7. Storm manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be installed as per OPSS 407.

3.8. Adjustment or rebuilding of manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be completed as per OPSS 408.

3.9. Excavating, backfilling, and compacting for manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be completed as per OPSS 402.

3.10. Storm manhole, manhole/catchbasin and catchbasin excavations to be backfilled with OPSS Granular 'A' compacted to 98% Standard Proctor Maximum Dry Density (SPMDD). Joints between sections shall be wrapped in a non-woven geotextile.

3.11. Storm manholes and manhole/catchbasins to be as per OPSPD 701.010 to 701.015 (sizes specified on drawings) and shall be equipped with safety platform as per OPSPD 404.020 when exceeding 5.0 m to the lowest invert. Additional knockouts needed for connection of subdrains to manhole/catchbasins where required.

3.12. Storm manhole frame and cover to be as per OPSPD 401.010 Type 'A' closed cover outside of ponding areas. Watertight frame and covers as per OPSPD 401.030 required within ponding areas. Refer to Municipal Services Plan for location of manholes within ponding areas.

3.13. Storm manhole/catchbasin frame and cover to be as per OPSPD 401.010 Type 'B' open cover.

3.14. All catchbasins (excluding 'T' and 'elbow' type catchbasins) to be as per OPSPD 705.010 complete with frame and grate as per OPSPD 400.020.

3.15. All 'T' and 'elbow' type catchbasins to be as per City of Ottawa Details S30 and S31 respectively.

3.16. All catchbasin leads to be 200 mm diameter, PVC SDR-35 with a minimum slope of 2.0% unless otherwise noted. The Contractor may use long radius bends as per City of Ottawa Details S11 and S11.1.

3.17. All catchbasins shall have sumps (600 mm deep).

3.18. A maintenance hole drop structure tee is to be used as per OPSPD 1003.010 when the drop from the inlet invert to the outlet invert is greater than 600 mm and less than 1200 mm. A drop structure wye is to be used as per OPSPD 1003.020 when the drop exceeds 1200 mm.

3.19. Storm service connections to rigid main sewer pipe to be as per City of Ottawa Detail S11. Connections to flexible main sewer pipe to be as per City of Ottawa Detail S11.1.

3.20. Perforated pipe installation for landscaping applications to be as per City of Ottawa Detail S29.

3.21. The Contractor shall implement best management practices to provide for protection of receiving storm sewer or drainage during construction activities (i.e. catchbasin inserts (or approved equivalent), straw bale check dams, any other sediment control measures required around all disturbed areas). Dewatering shall be sumped into sediment traps.

3.22. Inlet control devices (ICD's) to be installed on catchbasin and manhole outlets. Type, allowable flow, maximum head and location of ICD's specified on the Municipal Services Plan.

3.23. For building roof drain sizes and location refer to architectural and mechanical drawings. Maximum allowable release flow and retention requirements are provided on the Municipal Services Plan.

3.24. A perimeter foundation drainage system (weeping tile) must be provided for the proposed building to ensure that frost heave sensitive sidewalks adjacent to the building have adequate drainage for the sub-soils. The system must consist of a 150 mm diameter perforated corrugated plastic pipe, surrounded on all sides by 150 mm of 10 mm clear crushed stone, placed at the sub-grade level around the exterior perimeter of the structure. The pipe must have a positive outlet, such as a gravity connection to the storm sewer.

4. SANITARY SEWER

4.1. Sanitary sewers, laterals and service connections must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment, Conservation and Parks. Specifically sanitary sewers must conform to OPSS 410.

4.2. PVC sanitary sewer pipe material to type PVC SDR-35, conforming to OPSS 1841. PVC sanitary sewers to be installed as per OPSPD 802.010 (Class B Bedding). Bedding and cover material to be OPSS Granular 'A'.

4.3. The allowable deflected pipe diameter when using flexible pipe is as follows:

- Pipes 100 to 750 mm: 7.5% of the base inside diameter of the pipe
- Greater than 750 mm: 5.0% of the base inside diameter of the pipe

4.4. All sanitary sewers to be C.C.T.V. inspected by the Contractor as per OPSS 409. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

4.5. Sanitary manholes to be installed as per OPSS 407.

4.6. Adjustment or rebuilding of sanitary manholes to be completed as per OPSS 408.

4.7. Excavating, backfilling, and compacting for sanitary manholes to be completed as per OPSS 402.

4.8. Sanitary manholes to be backfilled with OPSS Granular 'A' compacted to 98% Standard Proctor Maximum Dry Density (SPMDD). Joints between sections shall be wrapped in a non-woven geotextile.

4.9. Sanitary manholes to be as per OPSPD 701.010 to 701.015 (sizes specified on drawings) and shall be equipped with safety platform as per OPSPD 404.020 when exceeding 5.0 m to the lowest invert.

4.10. Sanitary manhole frame and cover to be as per OPSPD 401.010 Type 'A' closed cover outside of ponding areas. Watertight frame and covers as per OPSPD 401.030 required within ponding areas. Refer to Municipal Services Plan for location of manholes within ponding areas.

4.11. A maintenance hole drop structure tee is to be used as per OPSPD 1003.010 when the drop from the inlet invert to the outlet invert is greater than 600 mm and less than 1200 mm. A drop structure wye is to be used as per OPSPD 1003.020 when the drop exceeds 1200 mm.

4.12. Sanitary service connections to rigid main sewer pipe to be as per City of Ottawa Detail S11. Connections to flexible main sewer pipe to be as per OPSPD City of Ottawa Detail S11.1.

4.13. Benching is required inside the concrete bottom of sanitary manholes as per OPSPD 701.021.



PROFESSIONAL ADVISORS

Architecture :



Structure / Civil :



Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
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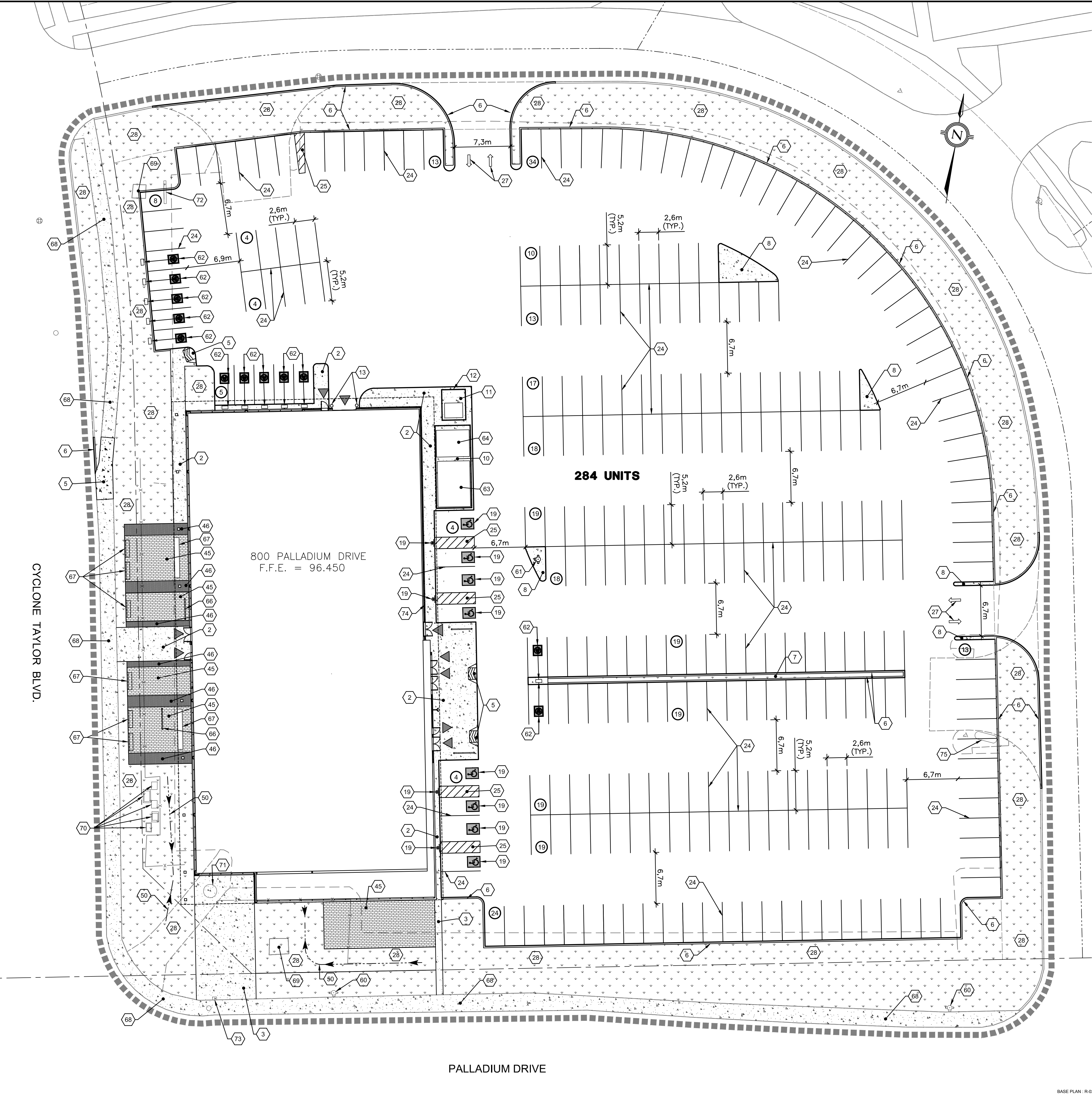
OFFICE DEVELOPMENT  
800 PALLADIUM DR.

Drawing :

NOTES PLAN

Designed By :		Drawn By :	
TIM KENNEDY		JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :	
C.L.-L.	C005 - Notes Plan.DWG	NO SCALE	
Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C006	





LEGEND

- WORK LIMIT AREA
- CONCRETE
- NUMBER OF PARKING SPACES
- PAINTED ISLAND
- BUILDING ENTRY
- COLUMN
- PROPERTY LIMIT
- RIGHT-OF-WAY LIMITS
- EASEMENT
- ROOF OVERHANG
- FINISHED FLOOR ELEVATION

SITE STATISTICS

TOTAL SITE AREA	13 700m² / 3.39 acre
WORK LIMIT AREA	14 867m² / 3.67 acre
BUILDING AREA	1 996m² / 0.49 acre
TOTAL PARKING SPACES	284 UNITS
ACCESSIBLE PARKING SPACES	8 UNITS
ELECTRICAL VEHICLE PARKING SPACES	12 UNITS

GENERAL NOTES :

- ALL WORK BY SITEWORK CONTRACTOR UNLESS OTHERWISE NOTED.
- FOR EXACT LANDSCAPING EXTENT AND DETAILS SEE DRAWING ??.

SEE DETAIL

106/SC5	CONCRETE SIDEWALK AT BUILDING
SC2/SC4/SC5	CONCRETE SIDEWALK
	DEPRESSED CONCRETE SIDEWALK (AS PER CITY OF OTTAWA STANDARD)
SC1.1	CONCRETE CURB
120/SC1.1	LANDSCAPED ISLAND (CONCRETE CURB)
410/SC2	CONCRETE ISLAND
115	TRANSFORMER AND GENERATORS PAD (SEE ELECTRICAL)
115	GARBAGE ENCLOSURE (SEE ARCHITECT)
	GARBAGE ENCLOSURE SCREEN WALL (SEE ARCHITECT)
403	BOLLARD
401/405/409B	ACCESSIBLE PARKING SPACE MARKING AND SIGN (FREE STANDING)
409B	90 DEGREE PARKING STRIPING
410	PAINTED AREA (115mm PAINTED YELLOW STRIPES 750mm O.C. AT 45 DEGREE)
405	TRAFFIC FLOW ARROWS
120	LANDSCAPED AREA
	CONCRETE PAVER TYPE 1 (SEE LANDSCAPING)
	CONCRETE PAVER TYPE 2 (SEE LANDSCAPING)
L20	NEW SWALE
	EXISTING FIRE-HYDRANT
401/405/409B	NEW FIRE-HYDRANT
	ELECTRICAL VEHICLE PARKING SPACE MARKING AND CHARGING STATION (SEE ELECTRICAL)
115	GENERATOR WITH VISUAL SCREEN (SEE ELECTRICAL)
115	TRANSFORMER WITH VISUAL SCREEN (SEE ELECTRICAL)
	BIKE RACK (SEE LANDSCAPING)
	BENCH (SEE LANDSCAPING)
	EXISTING CONCRETE SIDEWALK (TO REMAIN)
	EXISTING TRANSFORMER TO BE RELOCATED (BY OTHERS)
	EXISTING UTILITY AND TELECOM PEDESTALS TO BE RELOCATED (BY OTHERS)
	EXISTING PYLON SIGN TO BE RELOCATED (BY OTHERS)
	EXISTING ELECTRIC COUNTER PANEL TO BE RELOCATED (BY OTHERS)
	EXISTING TRAFFIC LIGHT CONTROL BOX TO BE RELOCATED (BY OTHERS)
	SIAMESE (BY BUILDING CONTRACTOR)
	EXISTING PAY STATION TO BE RELOCATED (BY OTHERS)



NOTE OF CAUTION

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THE CONTRACTOR WILL HAVE THE RESPONSIBILITY AND THE OBLIGATION TO VALIDATE, BY EXPLORATORY EXCAVATION, THE SIZE OF THE PUBLIC UTILITIES UNDERGROUND SERVICES AND TO WARN THE ENGINEER OF ANY CONFLICT WITH THE PROJECTED WORK.



PROFESSIONAL ADVISORS

Architecture :



Structure / Civil :



Mechanical / Electricity :

Key Plan :



REVISIONS

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Project :

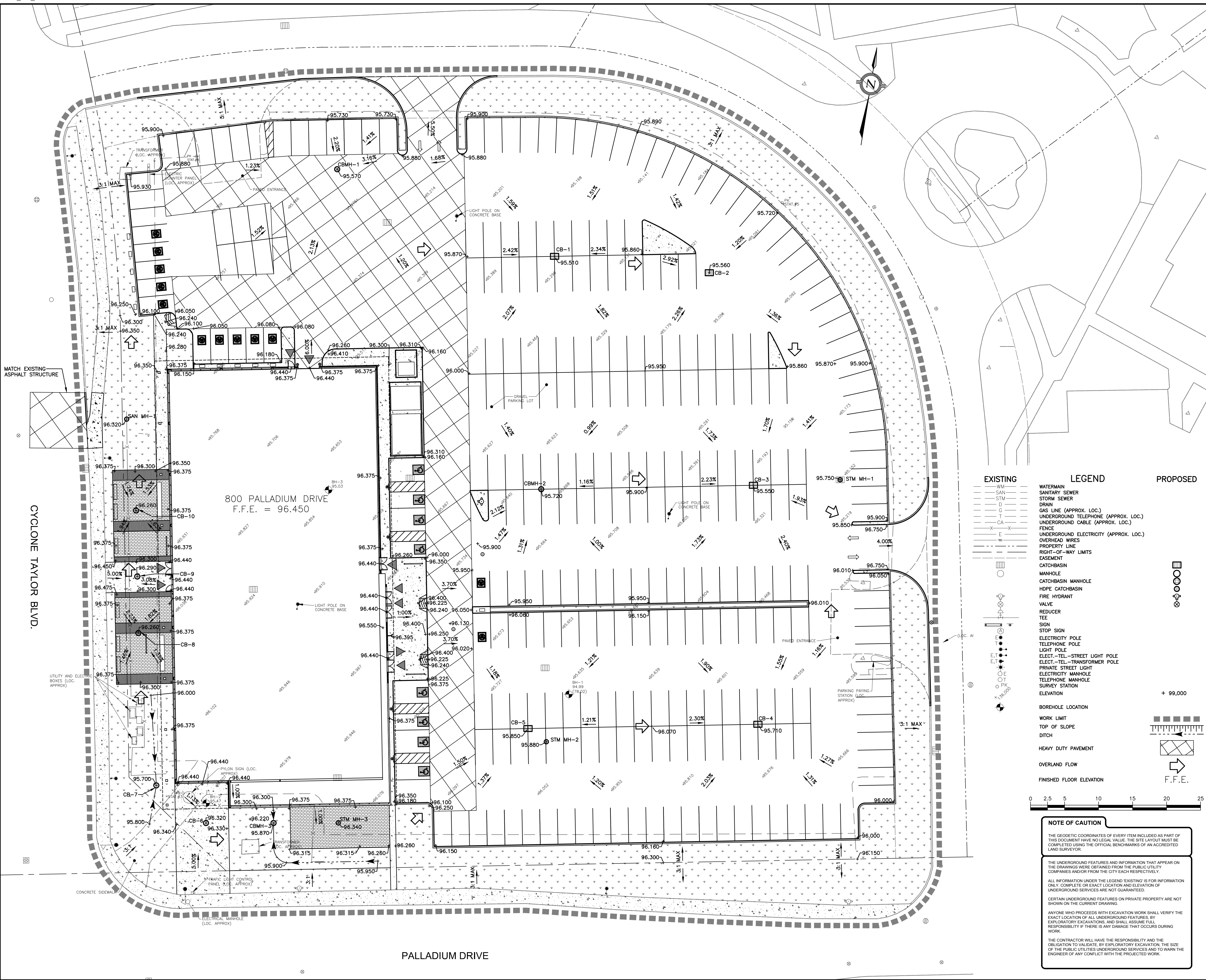
OFFICE DEVELOPMENT  
800 PALLADIUM DR.

Drawing :

SITE PLAN

Designed By :	JEAN-PHILIPPE PHARAND	Drawn By :	JEAN-PHILIPPE PHARAND
Approved By :	File name .DWG	Scale :	
C.L.-L.	C007 - Site Plan.DWG	1:250	
Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C007	





PROFESSIONAL ADVISORS

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Key Plan :

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Project : **OFFICE DEVELOPMENT 800 PALLADIUM DR.**

Drawing : **GRADING PLAN**

Designed By :	Drawn By :		
BENJAMIN TARDIOLI	JONATHAN HAMEL		
Approved By :	File name .DWG	Scale :	
C.L.-L.	C008 - Grading Plan.DWG	1:250	
Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C008	



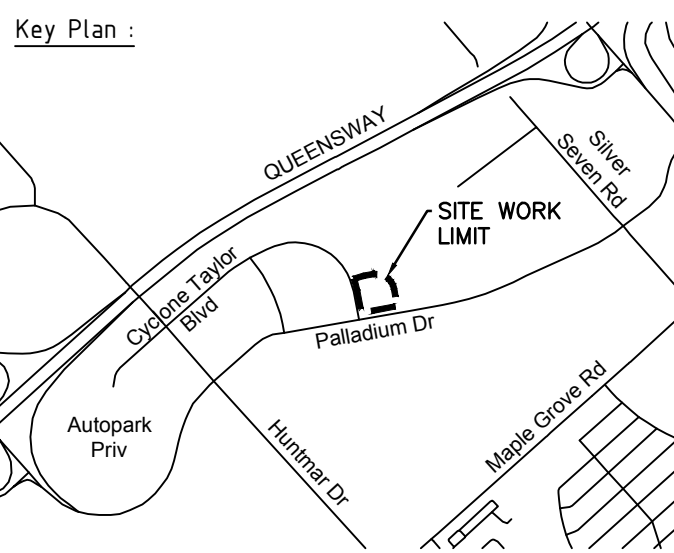
## PROFESSIONAL ADVISORS

Architecture :

Structure / Civil :

Mechanical / Electricity :

Key Plan :



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Project :

**OFFICE DEVELOPMENT**  
**800 PALLADIUM DR.**

Drawing :

**SERVICING PLAN**

Designed By :

BENJAMIN TARDIOLI

Drawn By :

JONATHAN HAMEL

Approved By :

File name .DWG

Scale :

C.L.-L.

C009 - Servicing Plan.DWG

1:250

Date :

2019/03/08

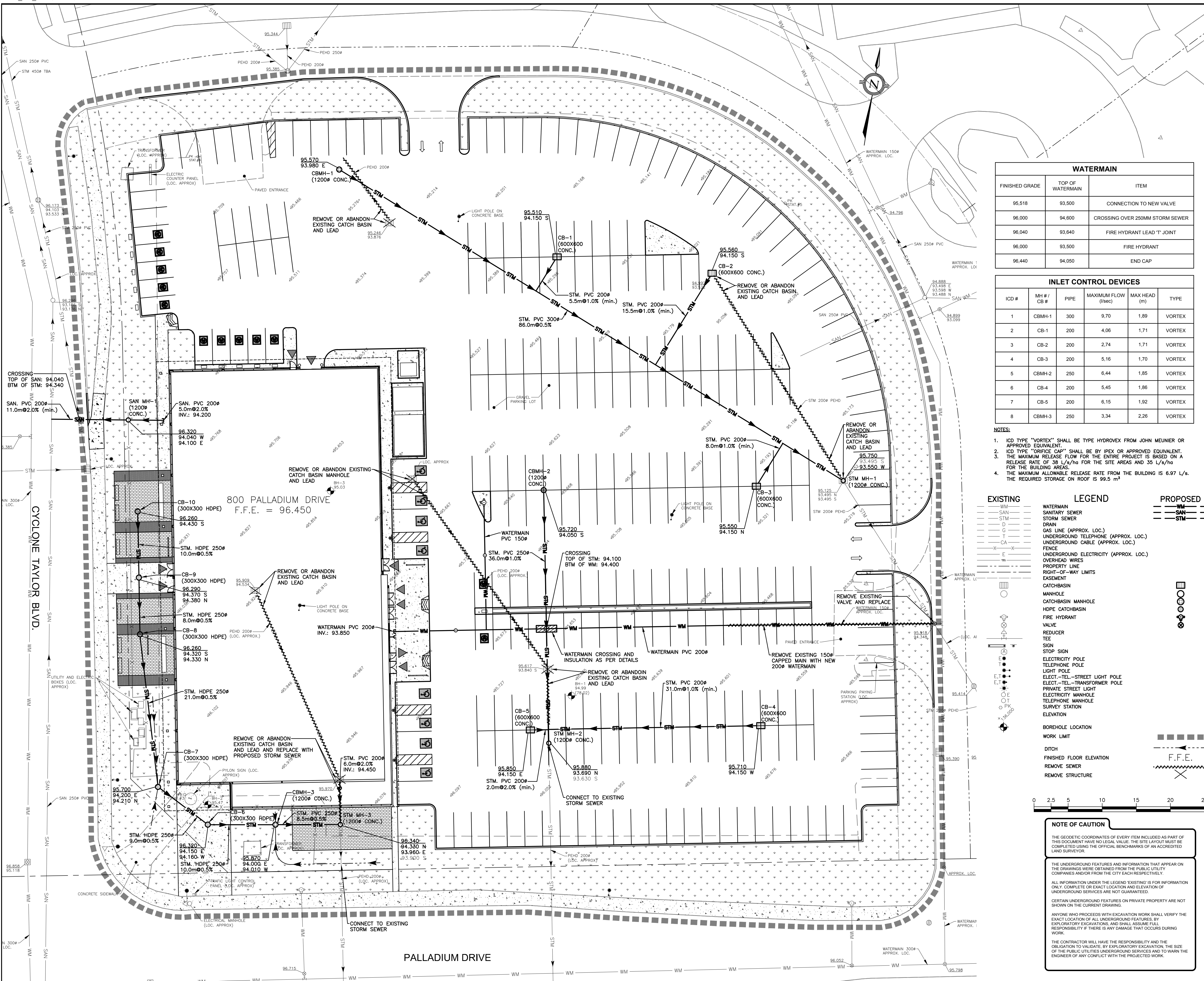
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Number :

C009



WATERMAIN		
FINISHED GRADE	TOP OF WATERMAIN	ITEM
95.518	93.500	CONNECTION TO NEW VALVE
96.000	94.600	CROSSING OVER 250MM STORM SEWER
96.040	93.640	FIRE HYDRANT LEAD T' JOINT
96.000	93.500	FIRE HYDRANT
96.440	94.050	END CAP

INLET CONTROL DEVICES					
ICD #	MH # / CB #	PIPE	MAXIMUM FLOW (l/sec)	MAX HEAD (m)	TYPE
1	CBMH-1	300	9.70	1.89	VORTEX
2	CB-1	200	4.06	1.71	VORTEX
3	CB-2	200	2.74	1.71	VORTEX
4	CB-3	200	5.16	1.70	VORTEX
5	CBMH-2	250	6.44	1.85	VORTEX
6	CB-4	200	5.45	1.86	VORTEX
7	CB-5	200	6.15	1.92	VORTEX
8	CBMH-3	250	3.34	2.26	VORTEX

## NOTES:

- ICD TYPE "VORTEX" SHALL BE TYPE HYDROVEX FROM JOHN MEUNIER OR APPROVED EQUIVALENT.
- ICD TYPE "ORIFICE CAP" SHALL BE BY IPEX OR APPROVED EQUIVALENT. THE MAXIMUM RELEASE FLOW FOR THE ENTIRE PROJECT IS BASED ON A RELEASE RATE OF 36 L/s/ha FOR THE SITE AREAS AND 35 L/s/ha FOR THE BUILDING AREAS.
- THE MAXIMUM ALLOWABLE RELEASE RATE FROM THE BUILDING IS 6.97 L/s. THE REQUIRED STORAGE ON ROOF IS 99.5 m³

## EXISTING

WM

SAN

STM

D

G

T

CA

FENCE

UNDERGROUND ELECTRICITY (APPROX. LOC.)

OVERHEAD WIRES

PROPERTY LINE

RIGHT-OF-WAY LIMITS

EASEMENT

CATCHBASIN

MANHOLE

CATCHBASIN MANHOLE

HDPE CATCHBASIN

FIRE HYDRANT

VALVE

REDUCER

TEE

STOP SIGN

ELECTRICITY POLE

TELEPHONE POLE

LIGHT POLE

ELECT.-TEL.-STREET LIGHT POLE

ELECT.-TEL.-TRANSFORMER POLE

PRIVATE STREET LIGHT

ELECTRICITY MANHOLE

TELEPHONE MANHOLE

SURVEY STATION

ELEVATION

BOREHOLE LOCATION

WORK LIMIT

DITCH

FINISHED FLOOR ELEVATION

REMOVE SEWER

REMOVE STRUCTURE

## LEGEND

WM

SAN

STM

D

G

T

CA

FENCE

UNDERGROUND ELECTRICITY (APPROX. LOC.)

OVERHEAD WIRES

PROPERTY LINE

RIGHT-OF-WAY LIMITS

EASEMENT

CATCHBASIN

MANHOLE

CATCHBASIN MANHOLE

HDPE CATCHBASIN

FIRE HYDRANT

VALVE

REDUCER

TEE

STOP SIGN

ELECTRICITY POLE

TELEPHONE POLE

LIGHT POLE

ELECT.-TEL.-STREET LIGHT POLE

ELECT.-TEL.-TRANSFORMER POLE

PRIVATE STREET LIGHT

ELECTRICITY MANHOLE

TELEPHONE MANHOLE

SURVEY STATION

ELEVATION

BOREHOLE LOCATION

WORK LIMIT

DITCH

FINISHED FLOOR ELEVATION

REMOVE SEWER

REMOVE STRUCTURE

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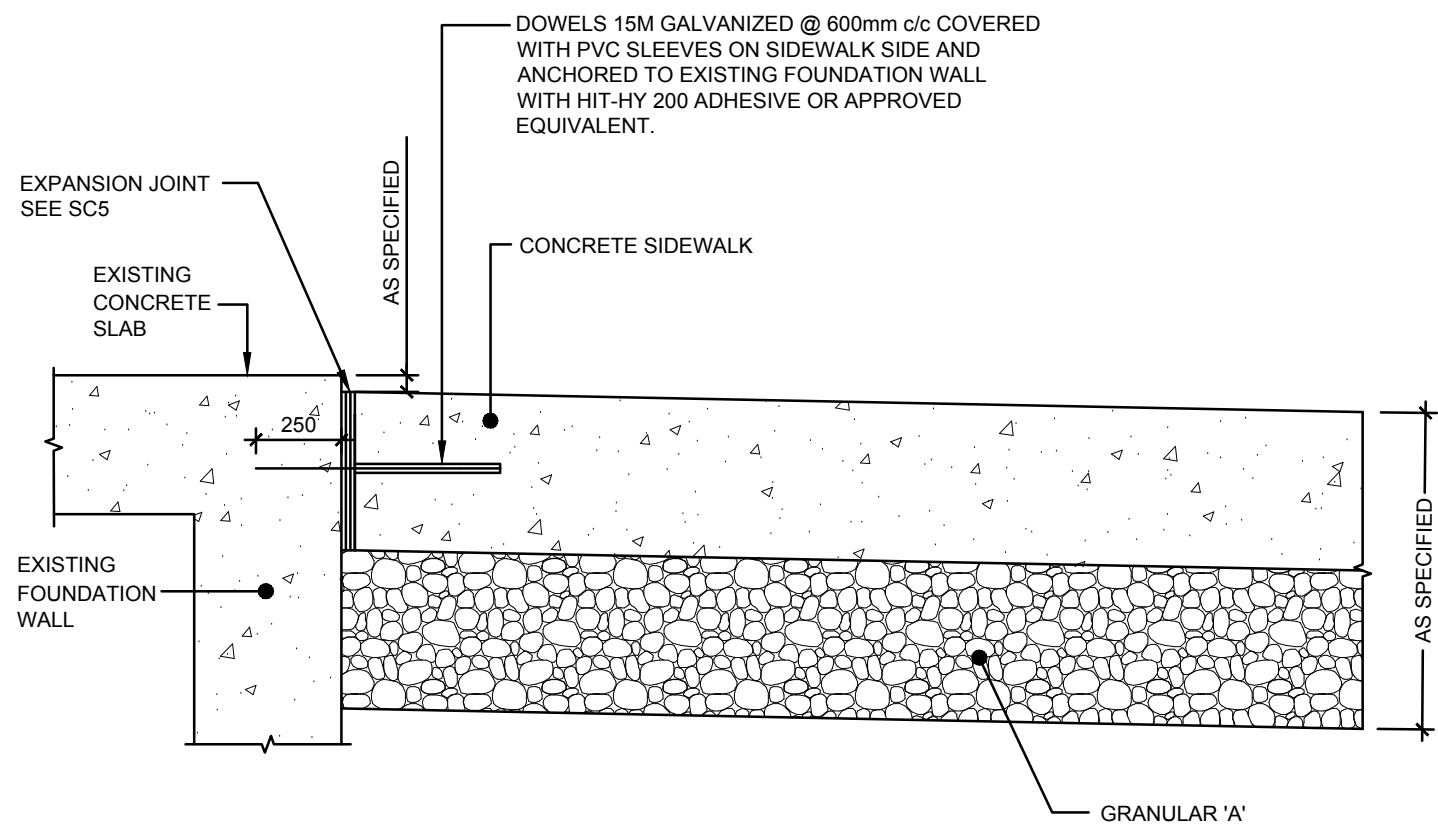
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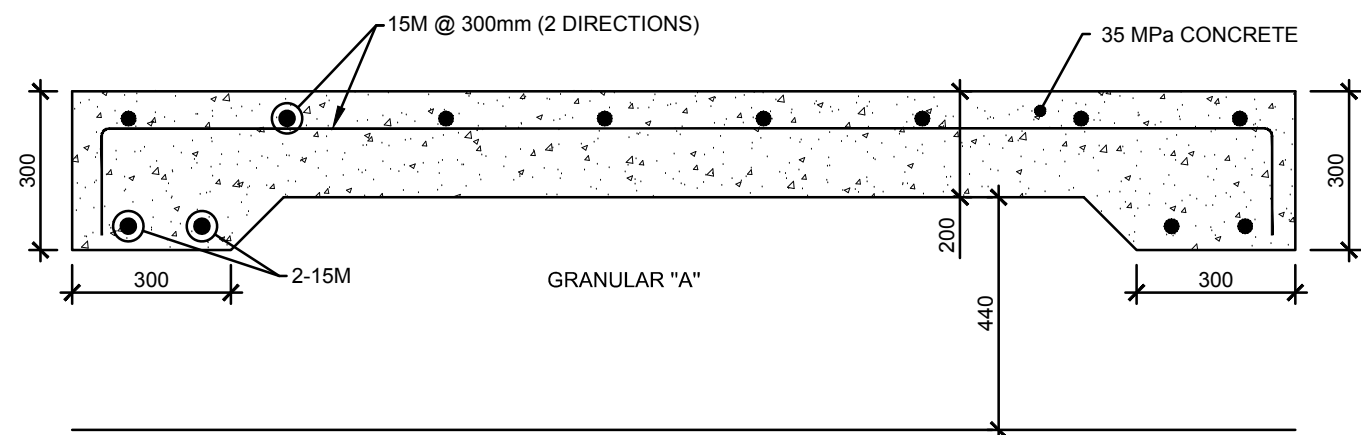
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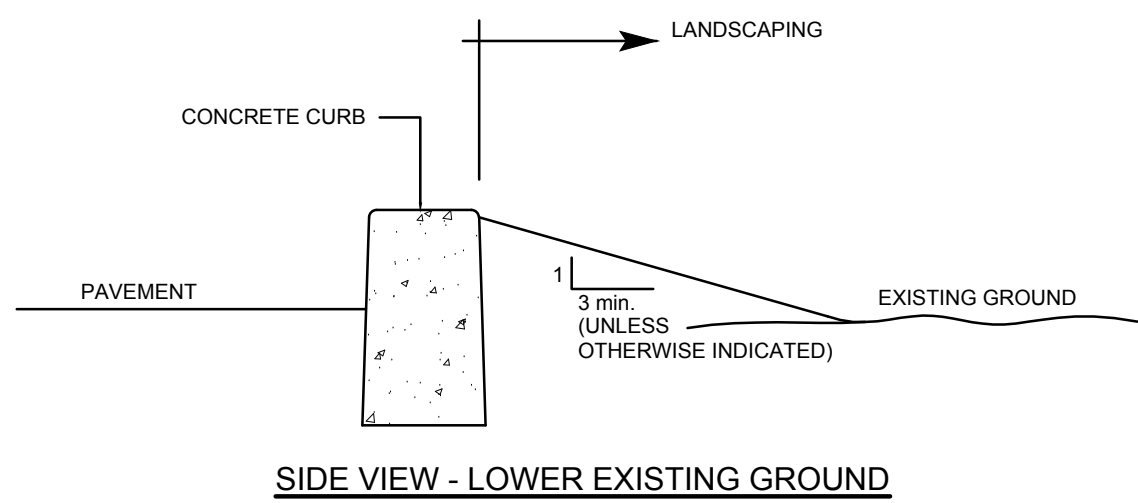


106 SIDEWALK ADJACENT TO BUILDING

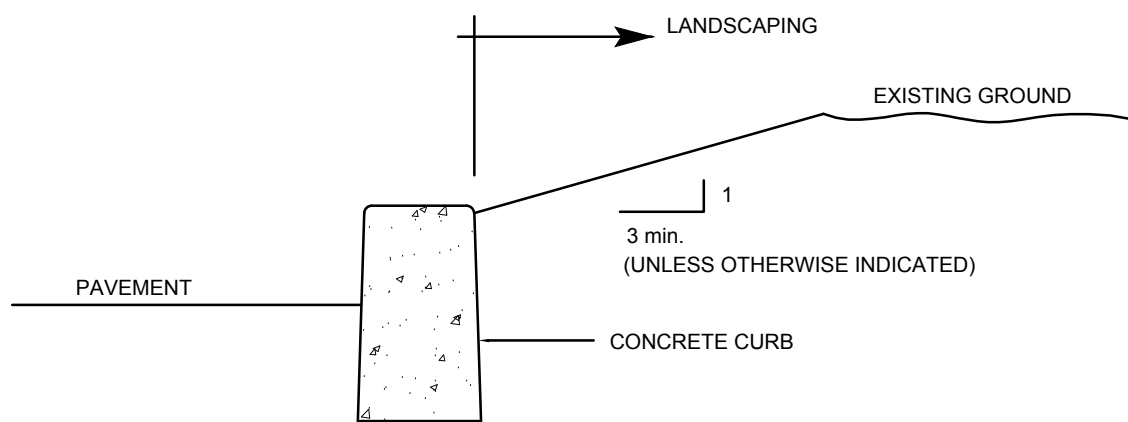
- NOTE :
- 1. DOWELS ONLY REQUIRED AT DOORWAYS
  - 2. CONSTRUCTION OF DOWELS SHALL BE IN ACCORDANCE WITH OPSS 904



115 GARBAGE ENCLOSURE-CONCRETE SLAB

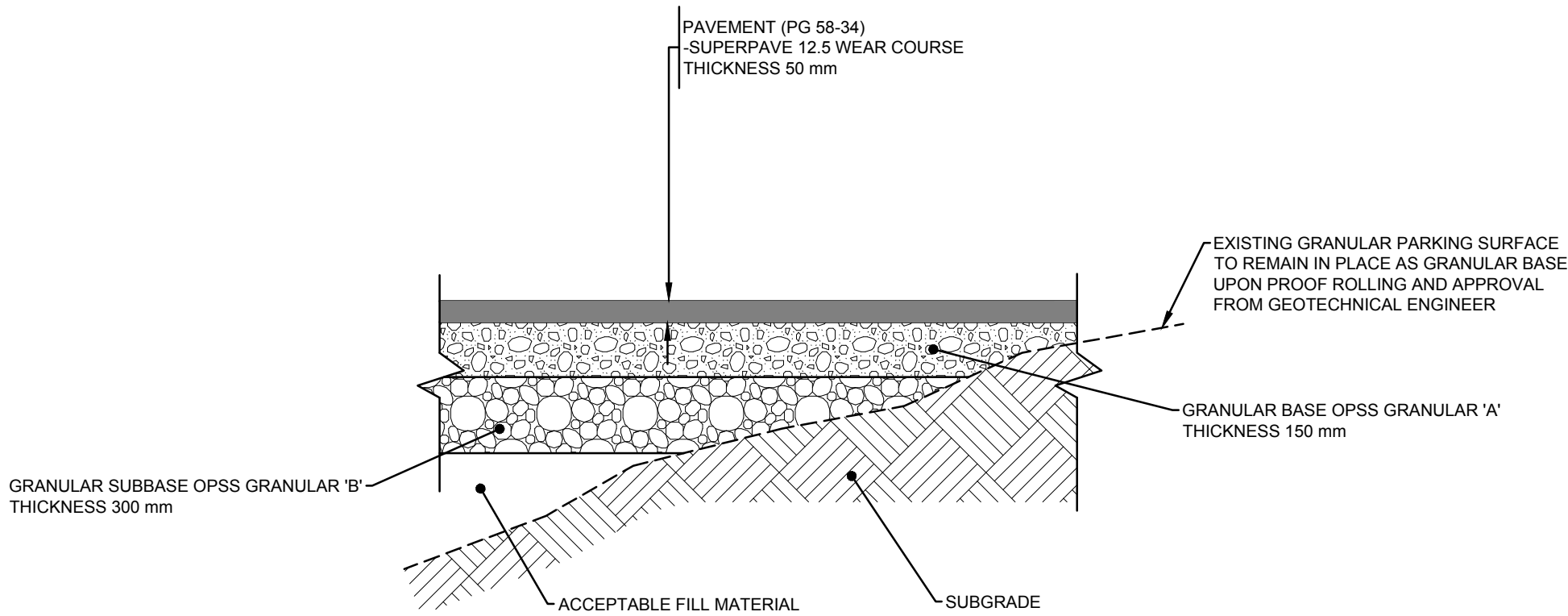


SIDE VIEW - LOWER EXISTING GROUND

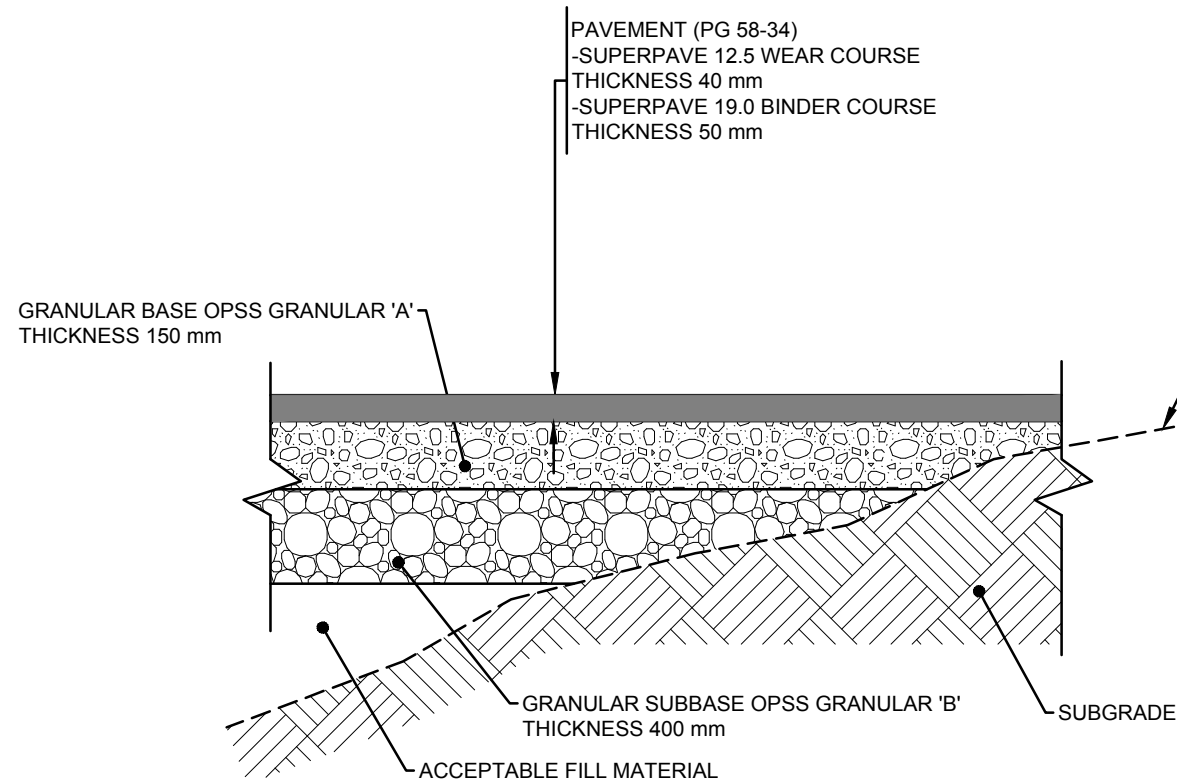


SIDE VIEW - UPPER EXISTING GROUND

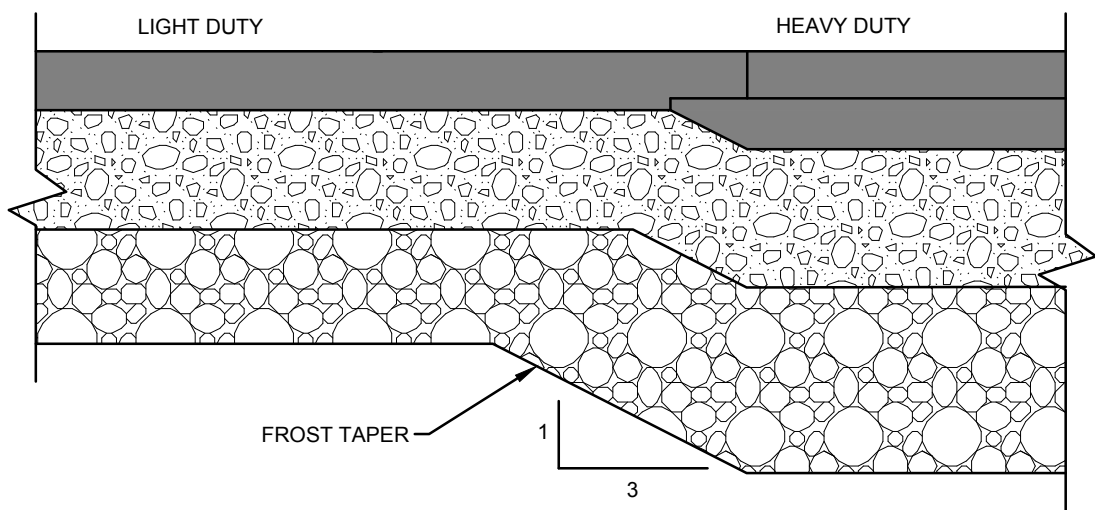
120 LANDSCAPING ADJACENT TO CONCRETE CURB (TYPICAL)



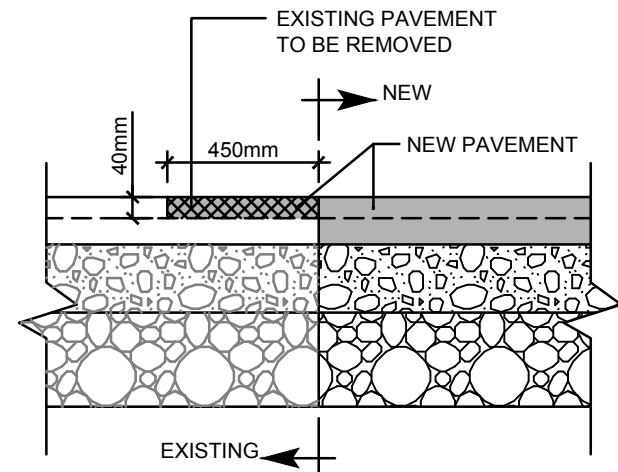
201 TYPICAL SECTION - GRANULAR FOUNDATION AND ASPHALT PAVEMENT (LIGHT DUTY)



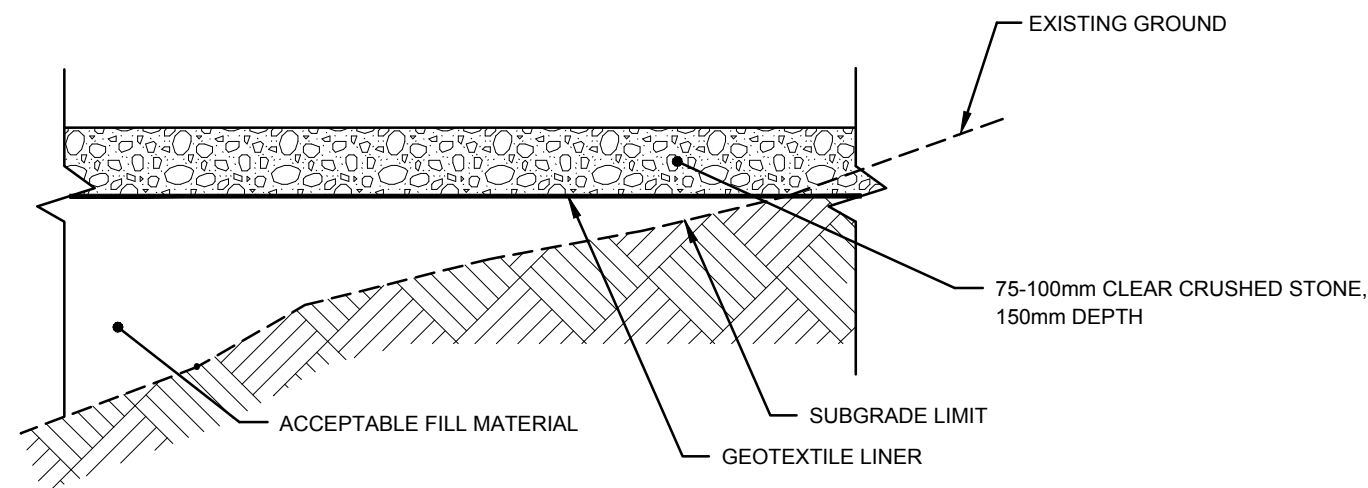
202 TYPICAL SECTION - GRANULAR FOUNDATION AND ASPHALT PAVEMENT (HEAVY DUTY)



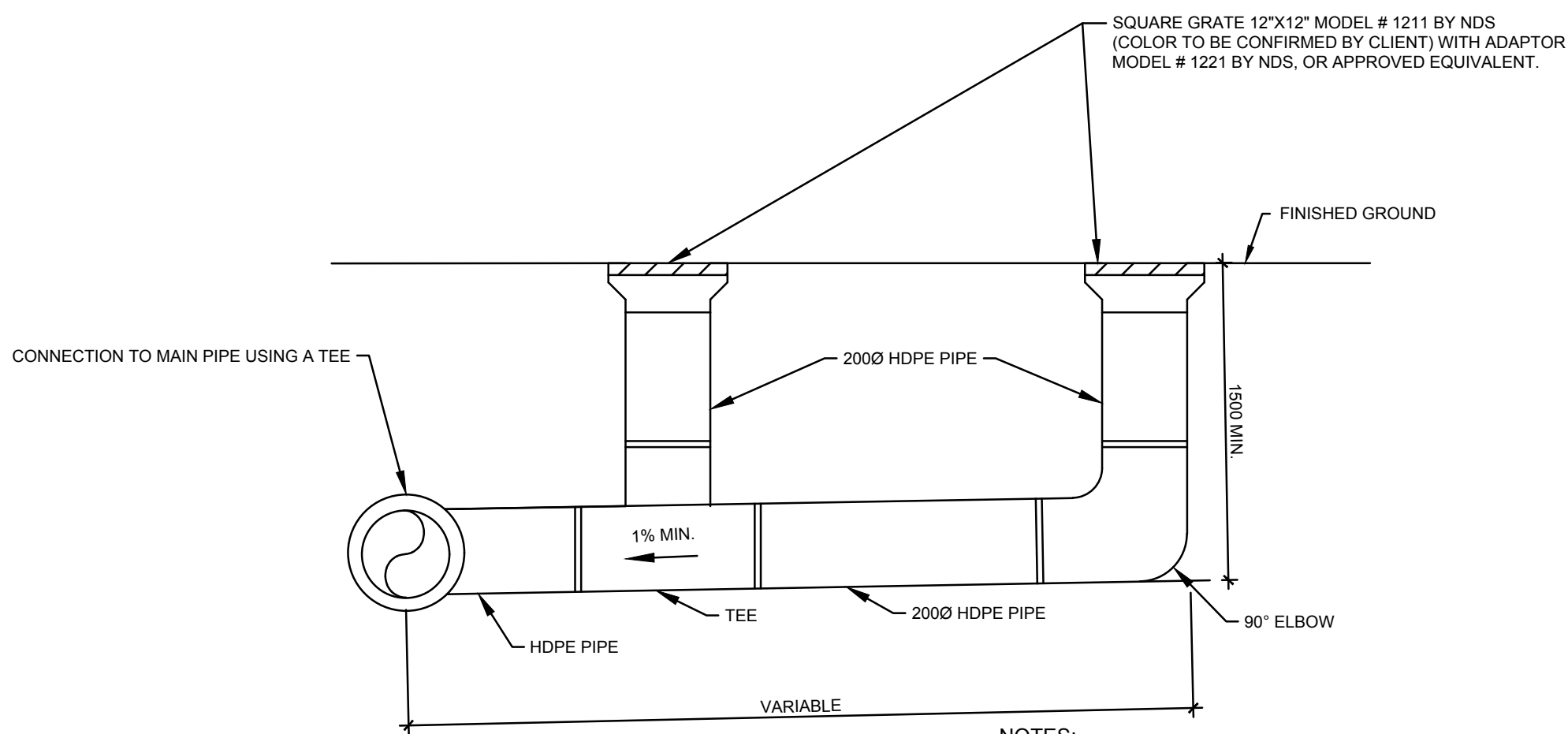
205 TYPICAL SECTION - TRANSITION BETWEEN DIFFERING PAVEMENT STRUCTURES



206 TYPICAL SECTION - TRANSITION BETWEEN EXISTING AND NEW PAVEMENT



212 TYPICAL SECTION - TEMPORARY CONSTRUCTION ENTRANCE



315 INLINE DRAIN DETAIL

PROFESSIONAL ADVISORS

Architecture :



Structure / Civil :



Mechanical / Electricity :

Key Plan :



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OFFICE DEVELOPMENT  
800 PALLADIUM DR.

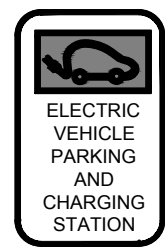
Drawing :

DETAILS PLAN

Designed By :		Drawn By :	
BENJAMIN TARDIOLI		JONATHAN HAMEL	
Approved By :		File name .DWG	Scale :
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CHARGING STATION SIGN

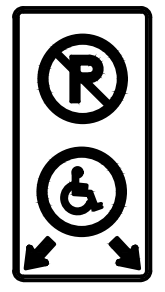


FIRE LANE SIGN



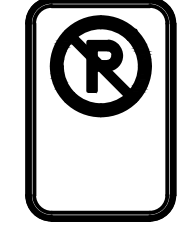
P-18

ACCESSIBLE PARKING SIGN

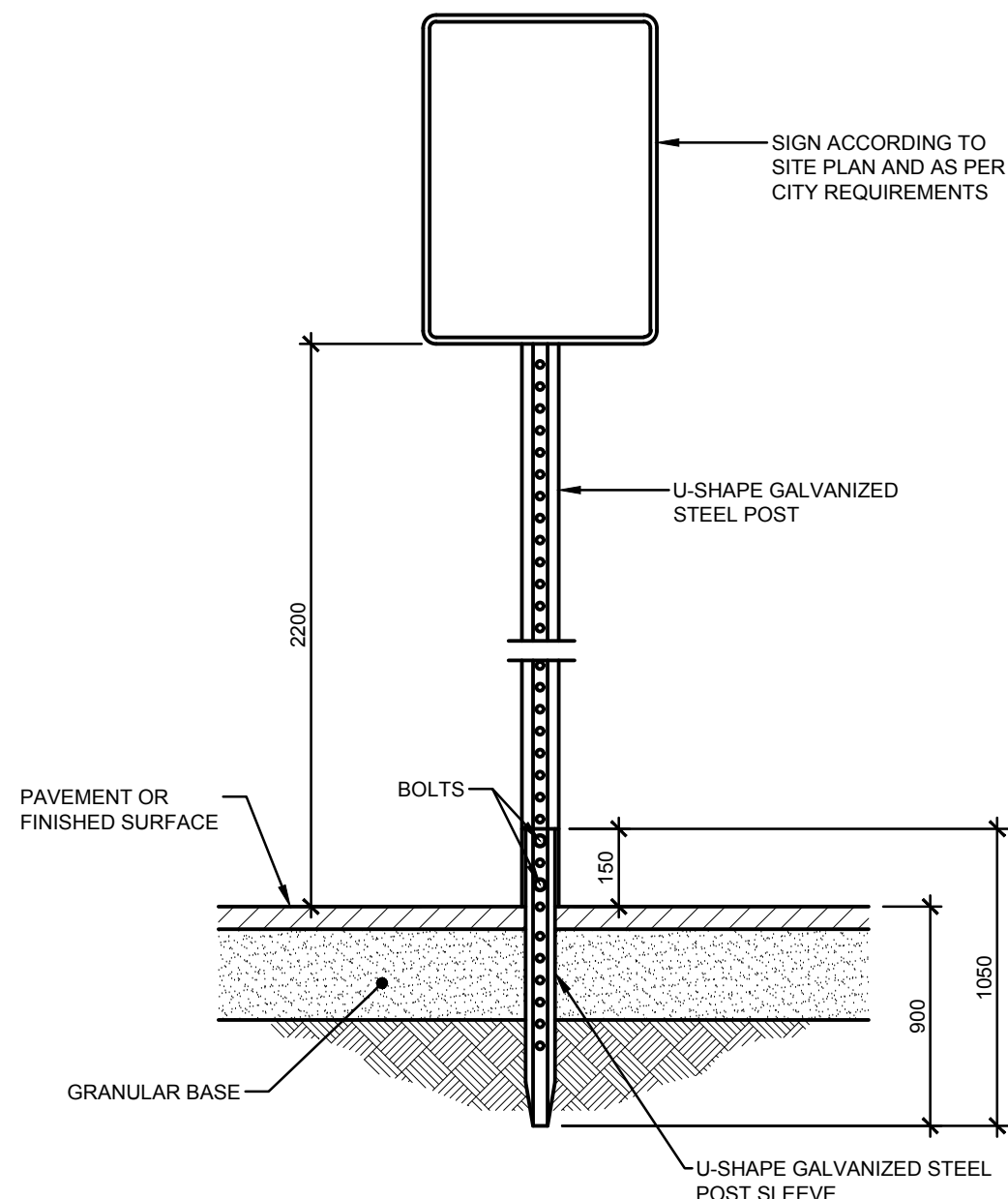


P-150-5

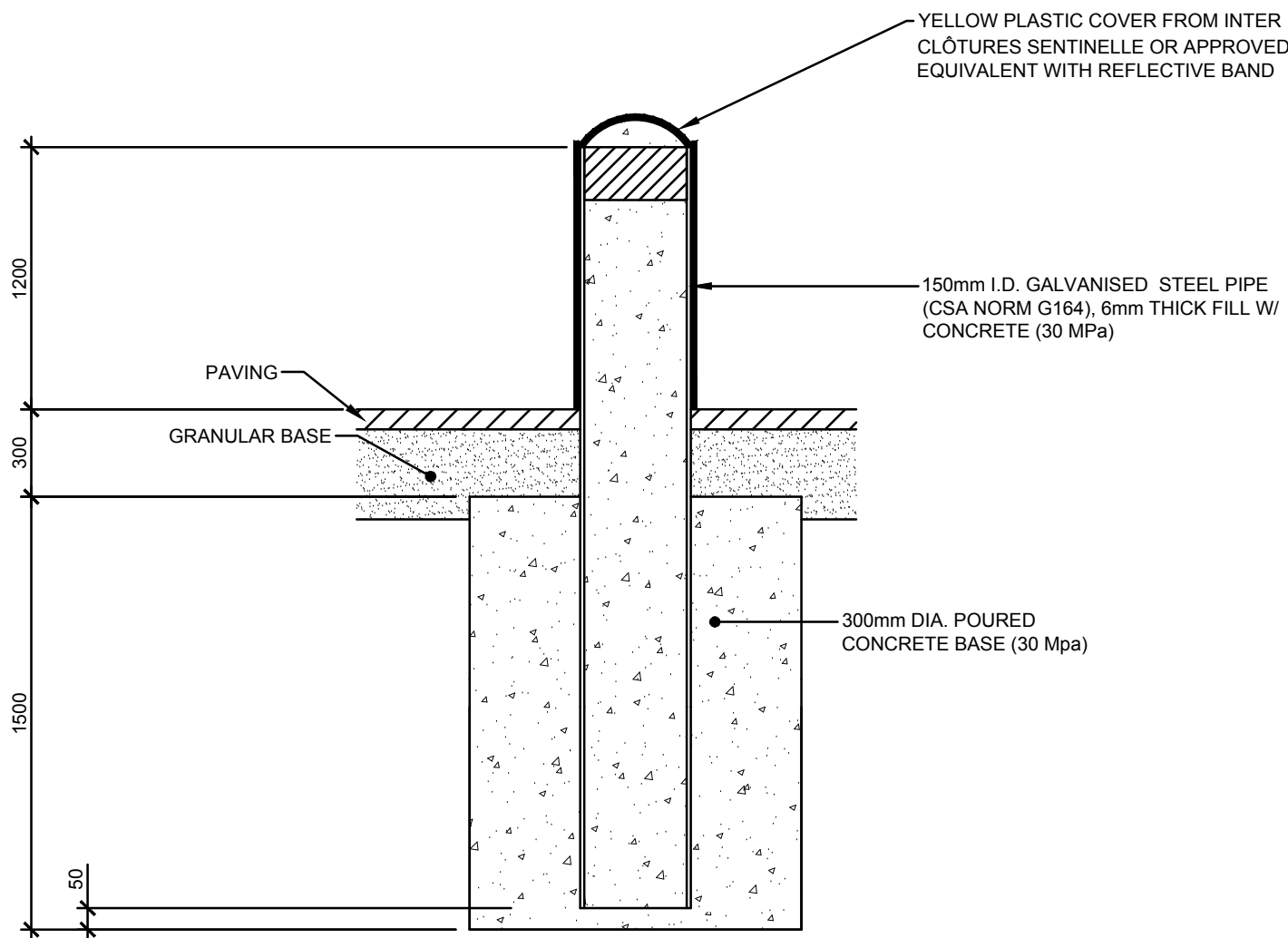
NO PARKING SIGN



P-150-2-G-D

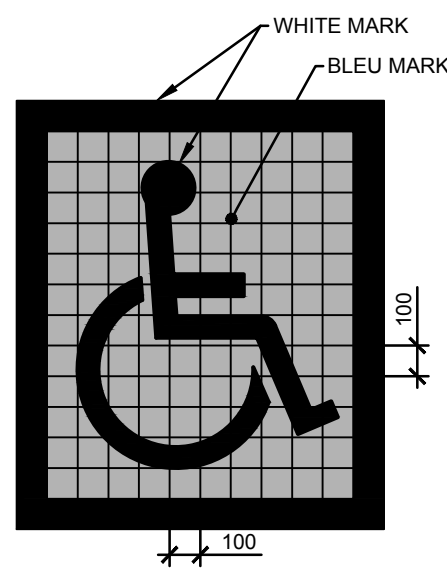
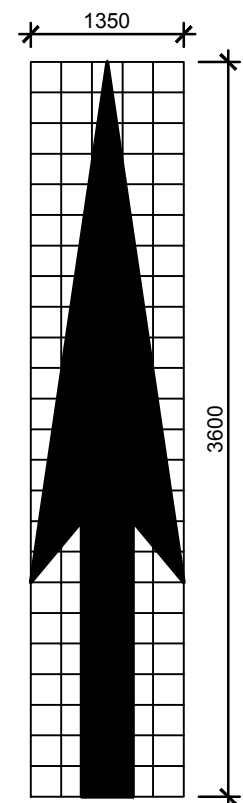
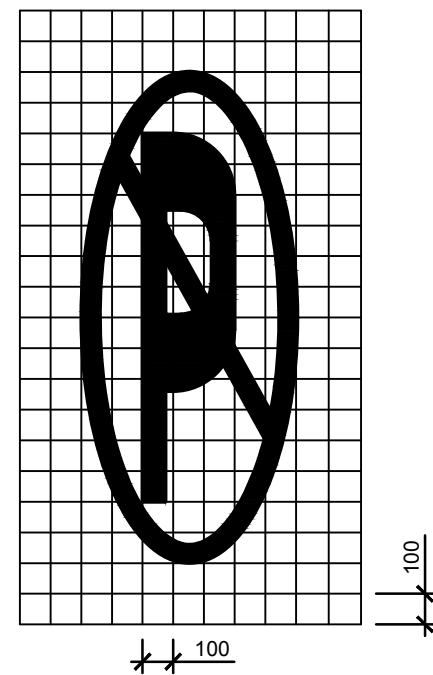
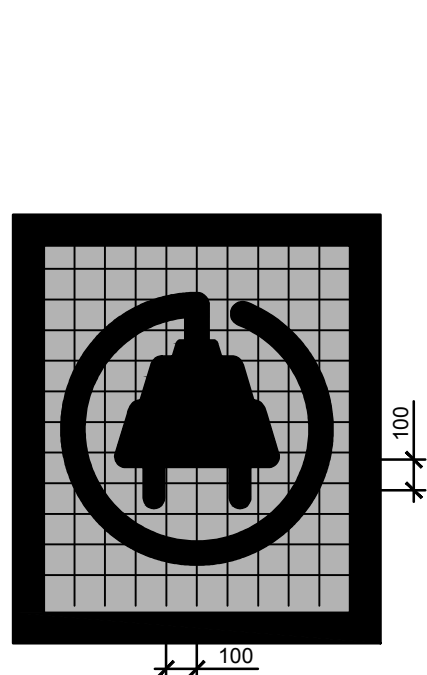


401 FREE STANDING SIGN

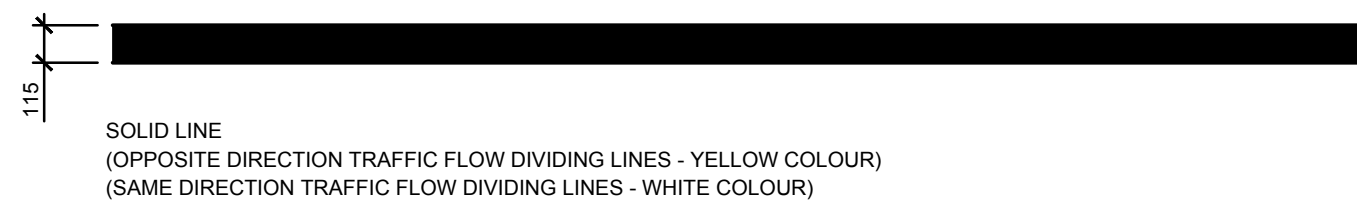


NOTE:  
ALL BOLLARD INSTALLED IN SIDEWALKS SHALL BE 915mm  
HIGHER THAN THE TOP OF THE SIDEWALK.

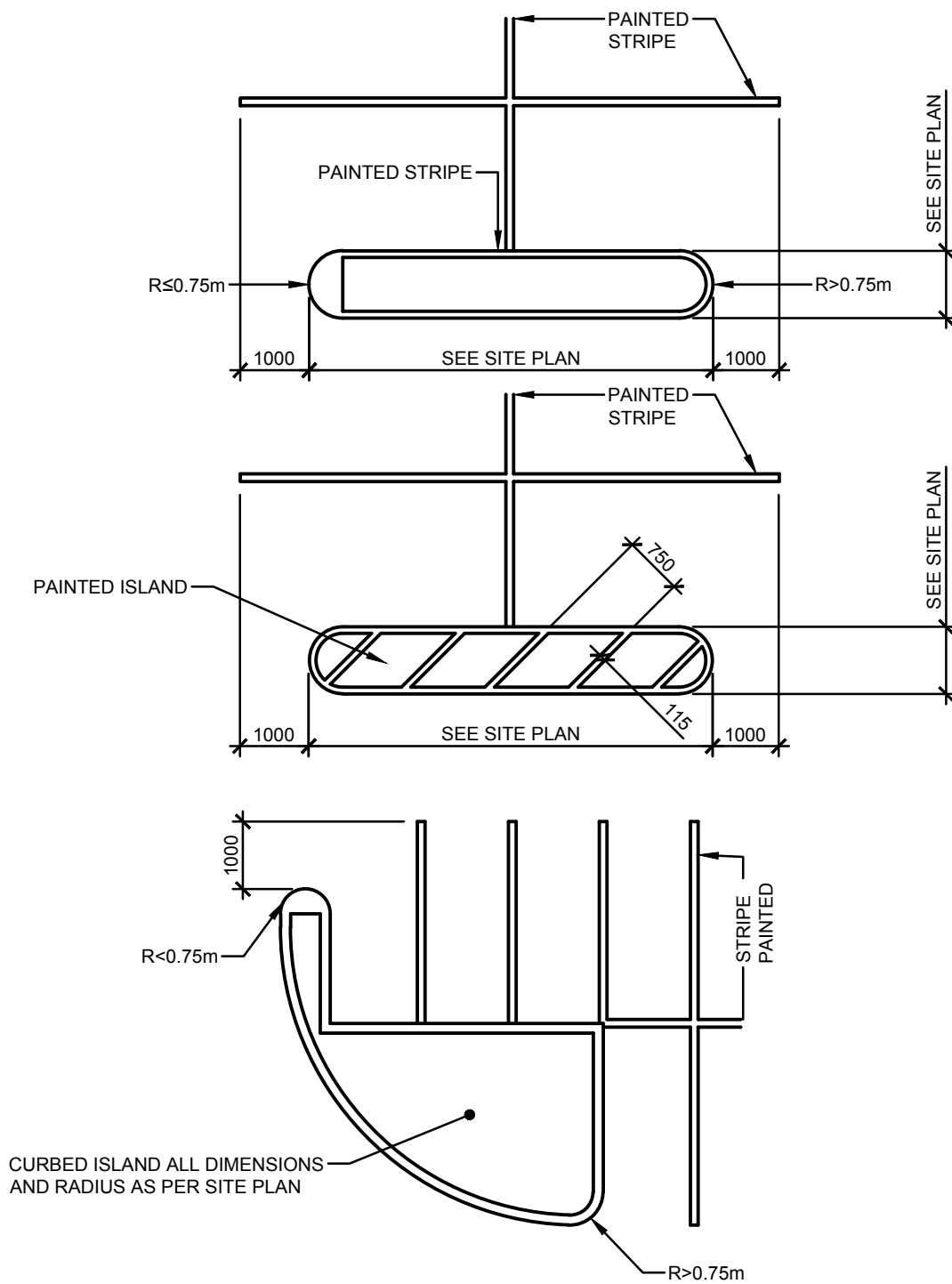
403 STANDARD BOLLARD



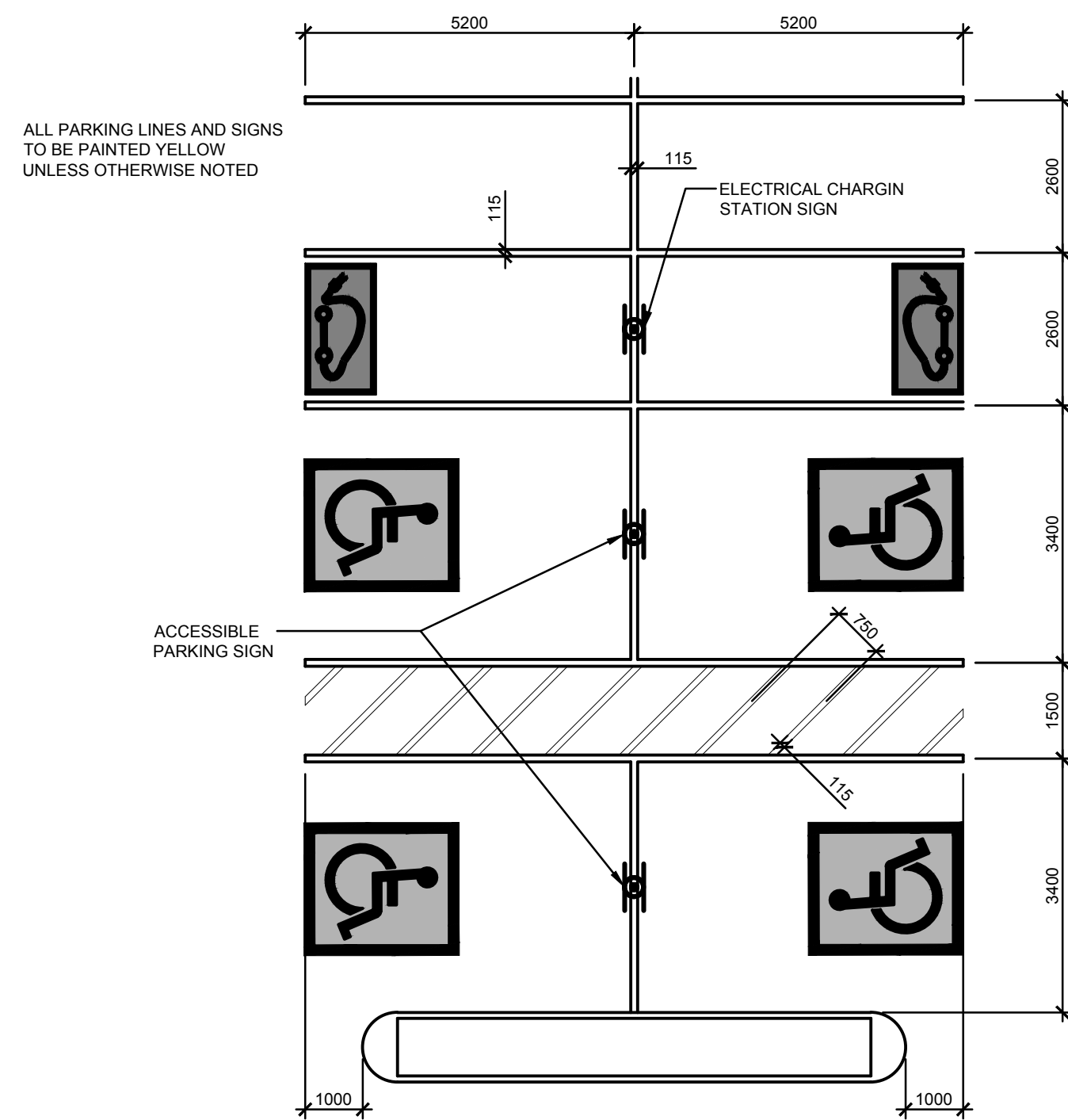
405 TRAFFIC ARROWS AND SYMBOLS



407 PAVEMENT MARKINGS (PAINTED LINES)



410 TYPICAL ISLANDS



409B PARKING STALLS

PROFESSIONAL ADVISORS

Architecture :

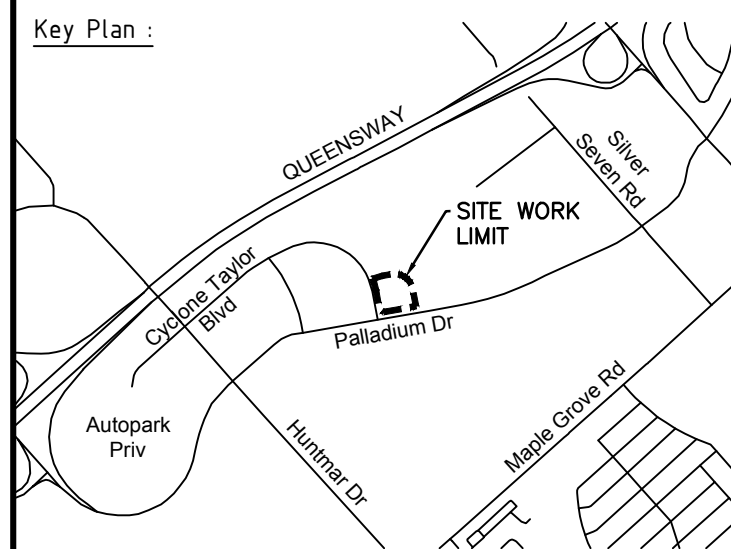


Structure / Civil :



Mechanical / Electricity :

Key Plan :



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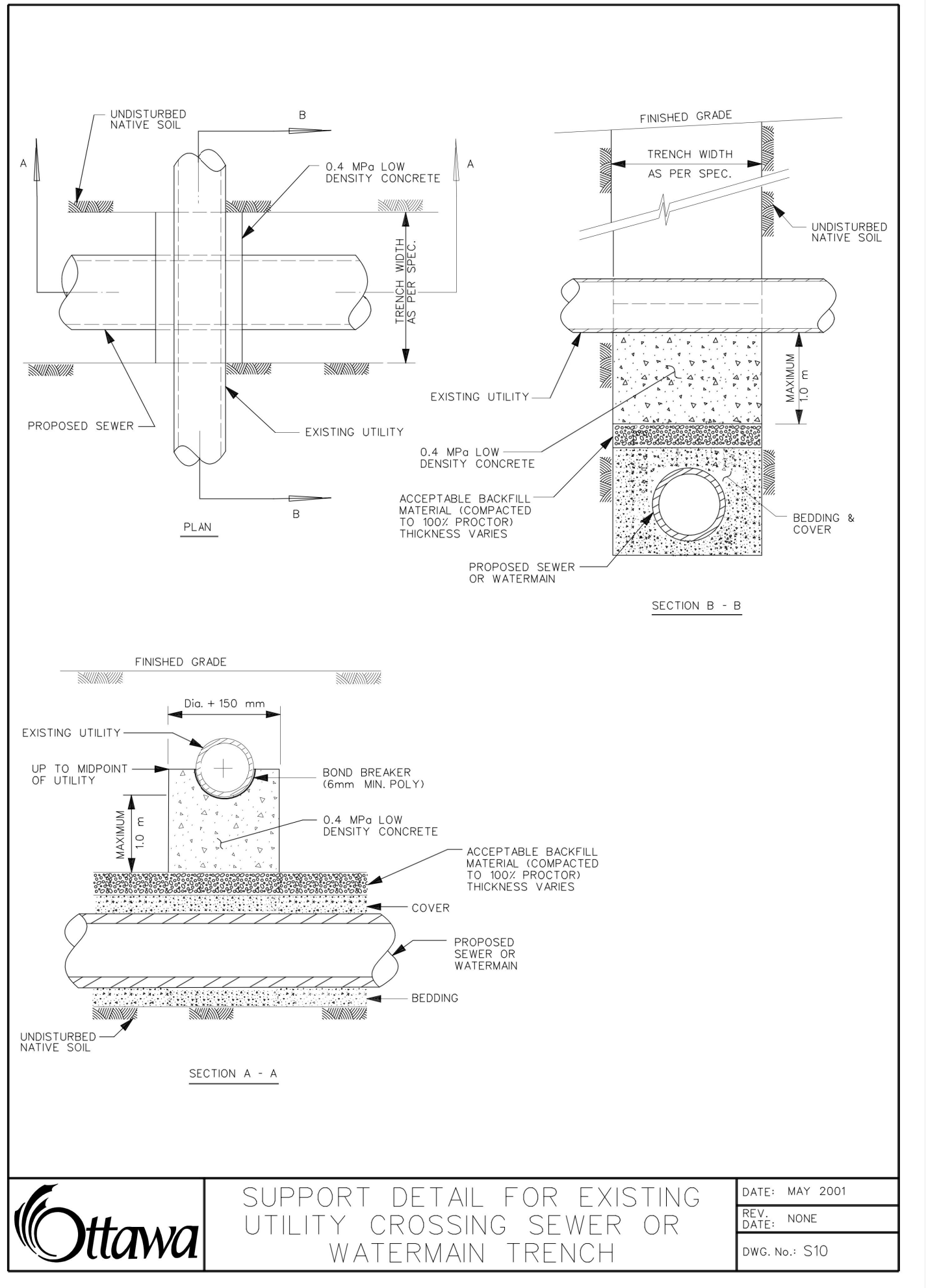
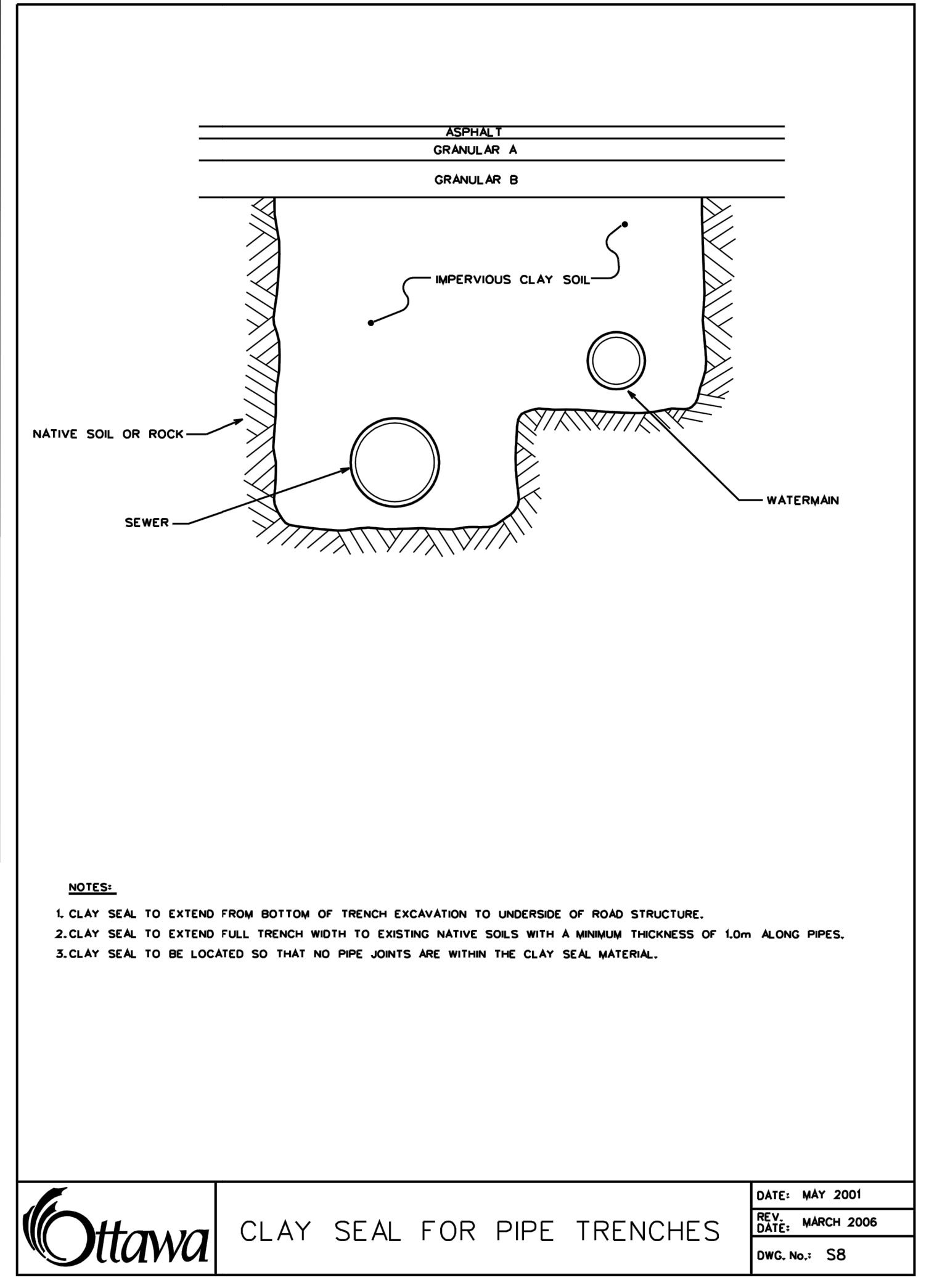
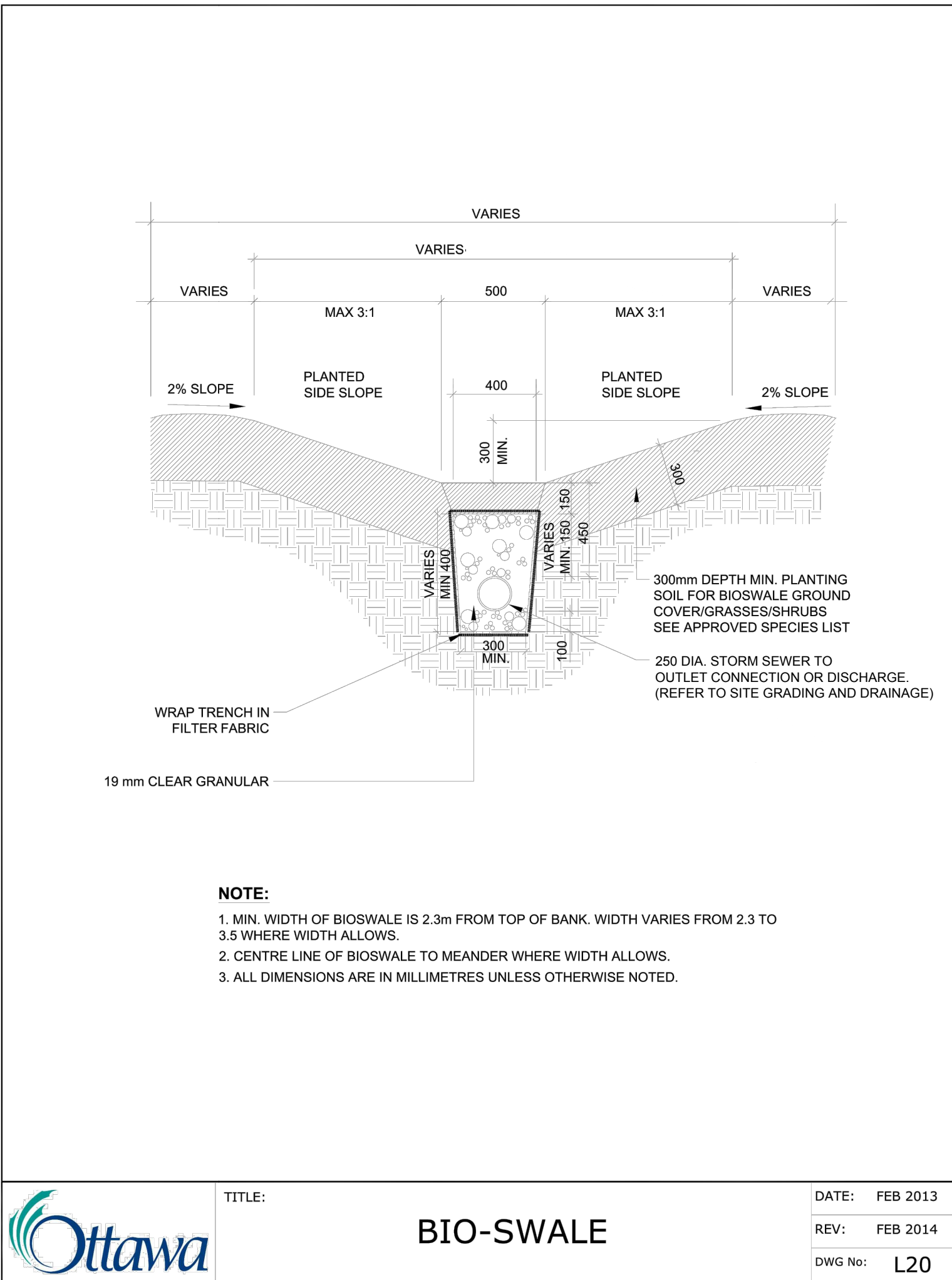
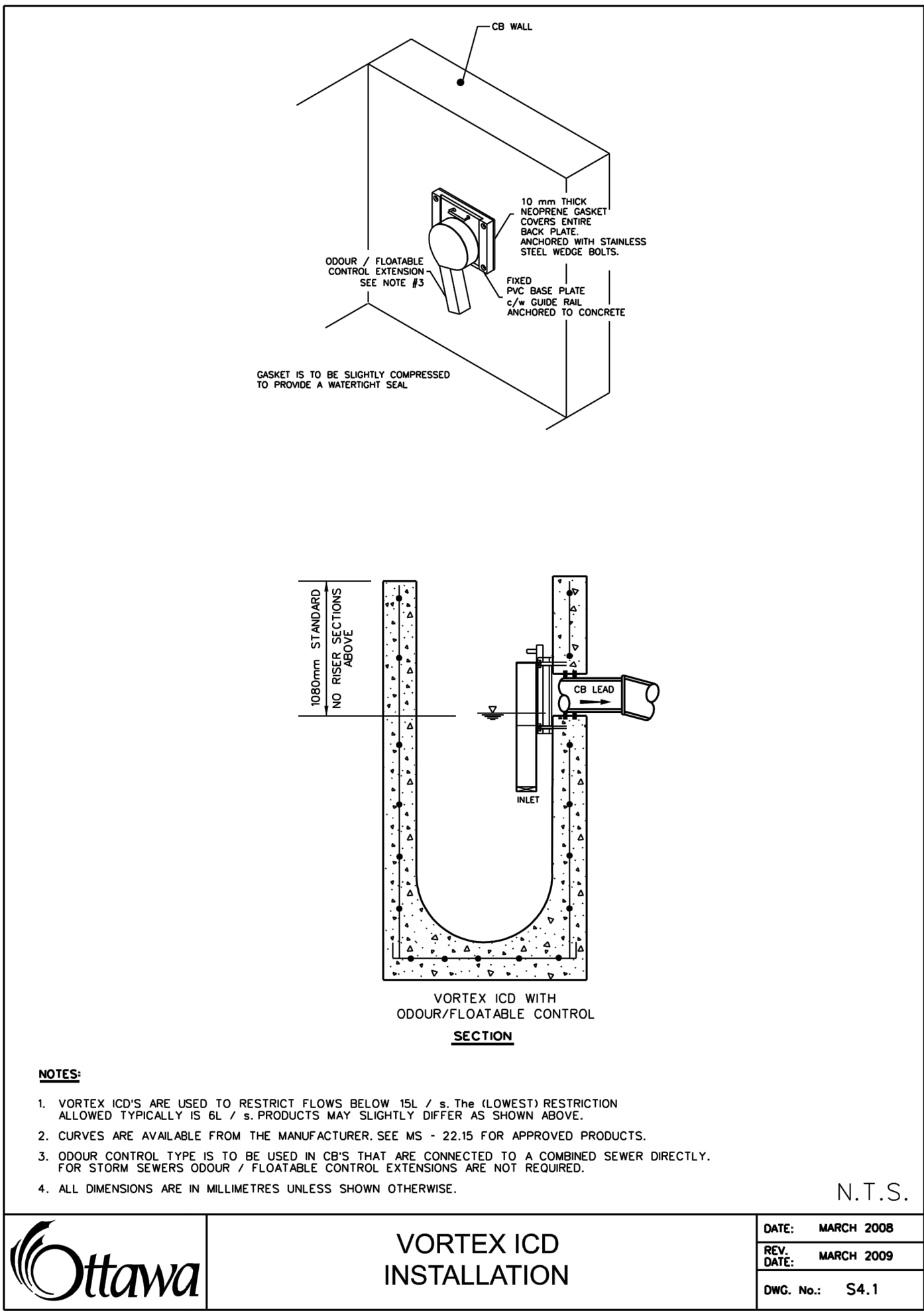
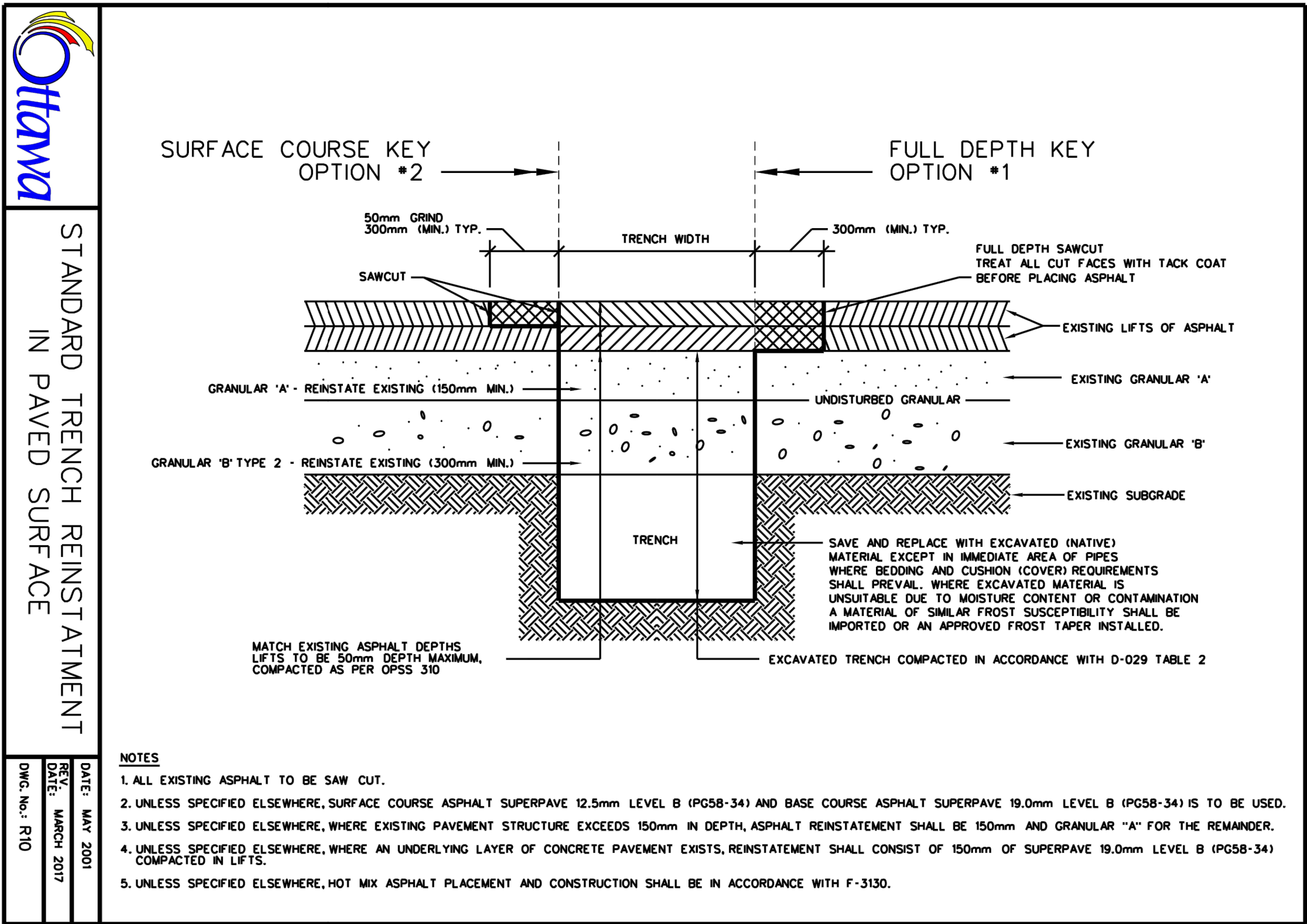
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800 PALLADIUM DR.

Drawing :

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BENJAMIN TARDIOLI		JONATHAN HAMEL	
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Architecture :

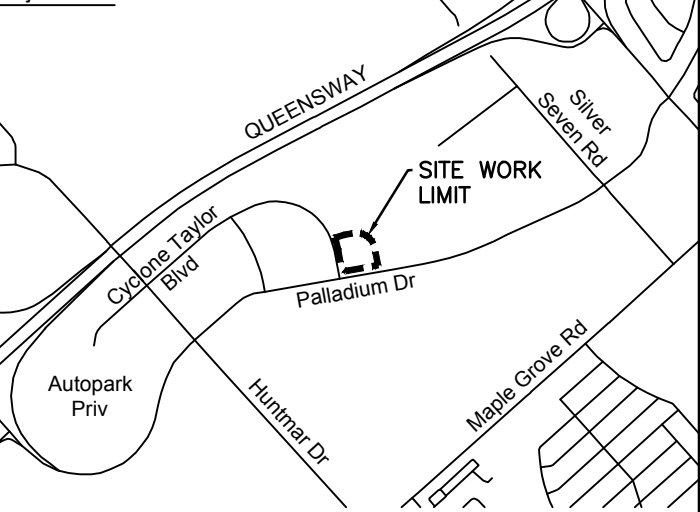


Structure / Civil :



Mechanical / Electricity :

Key Plan :



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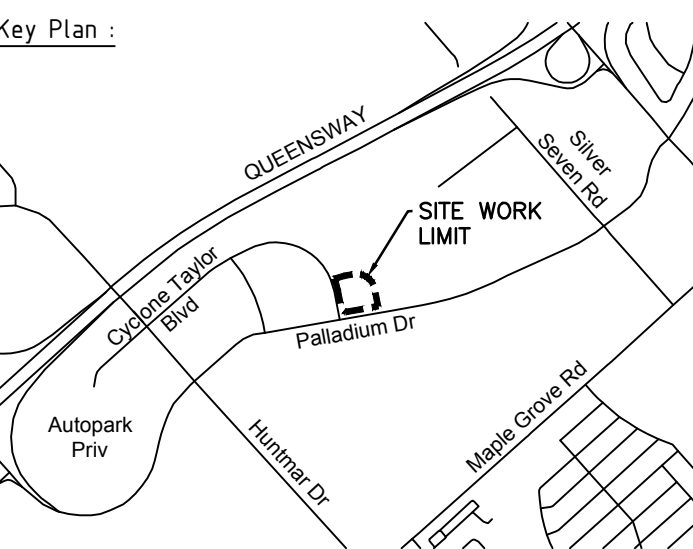
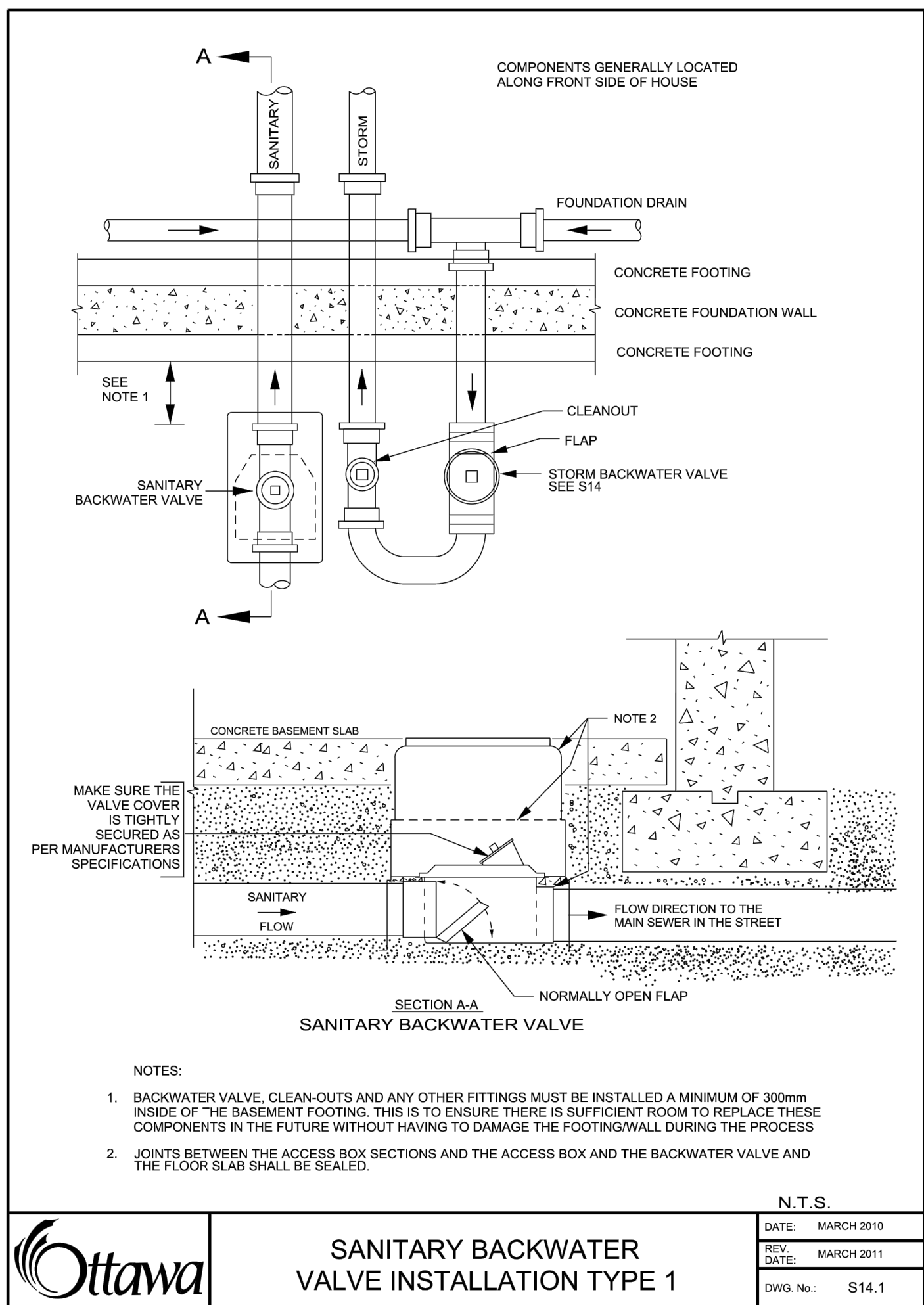
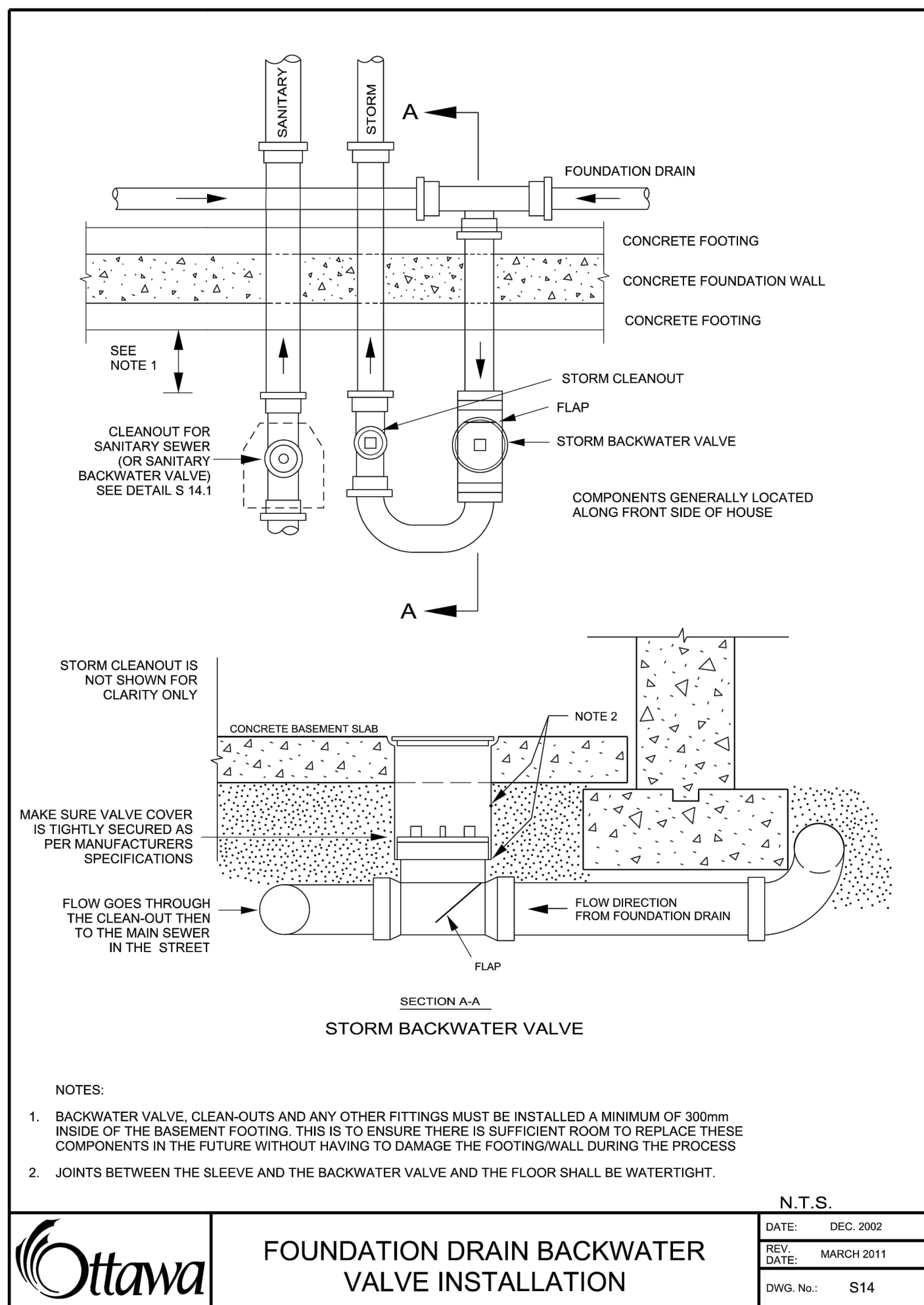
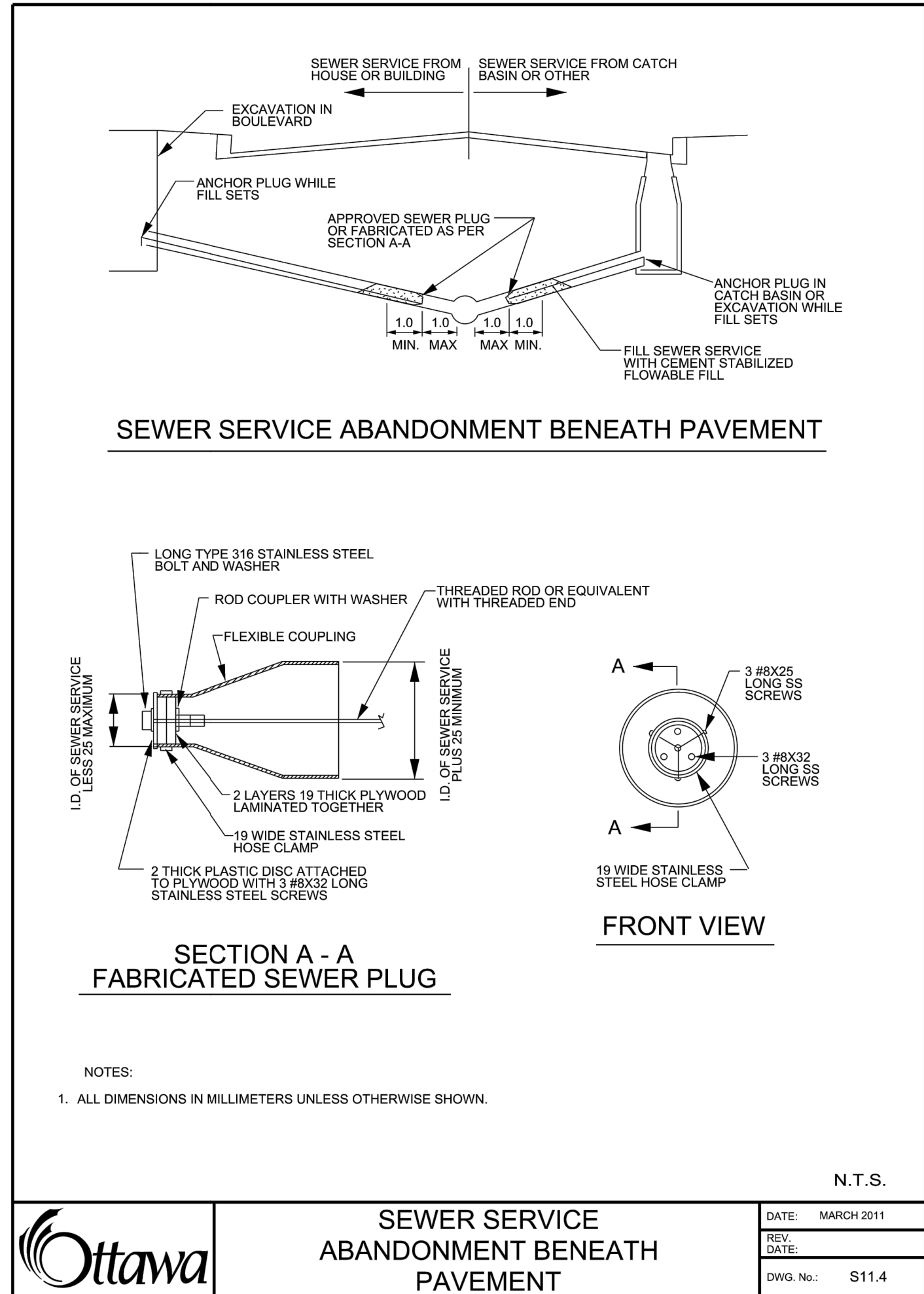
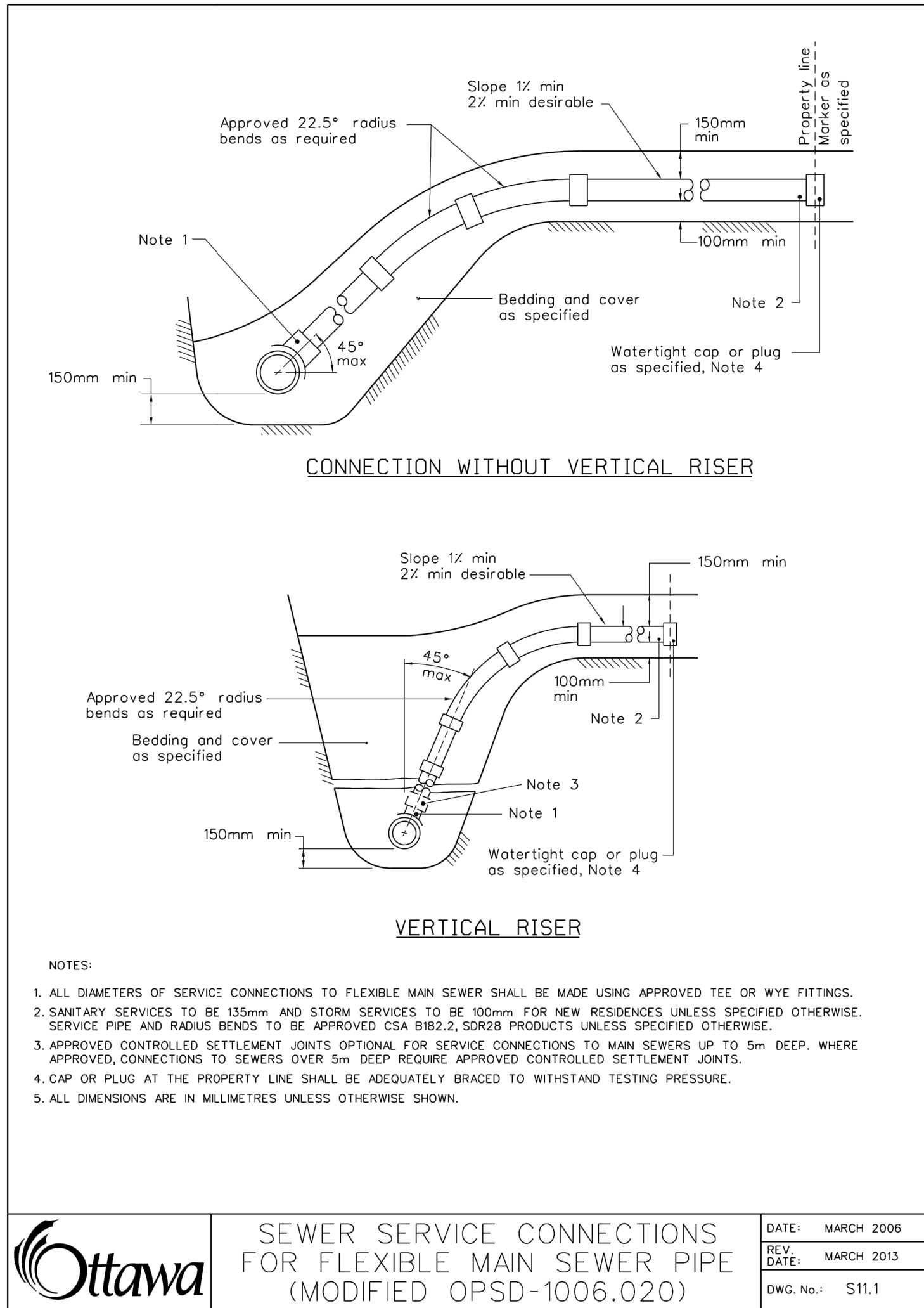
OFFICE DEVELOPMENT  
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Drawing :

DETAILS PLAN

Designed By :		Drawn By :	
BENJAMIN TARDIOLI		JONATHAN HAMEL	
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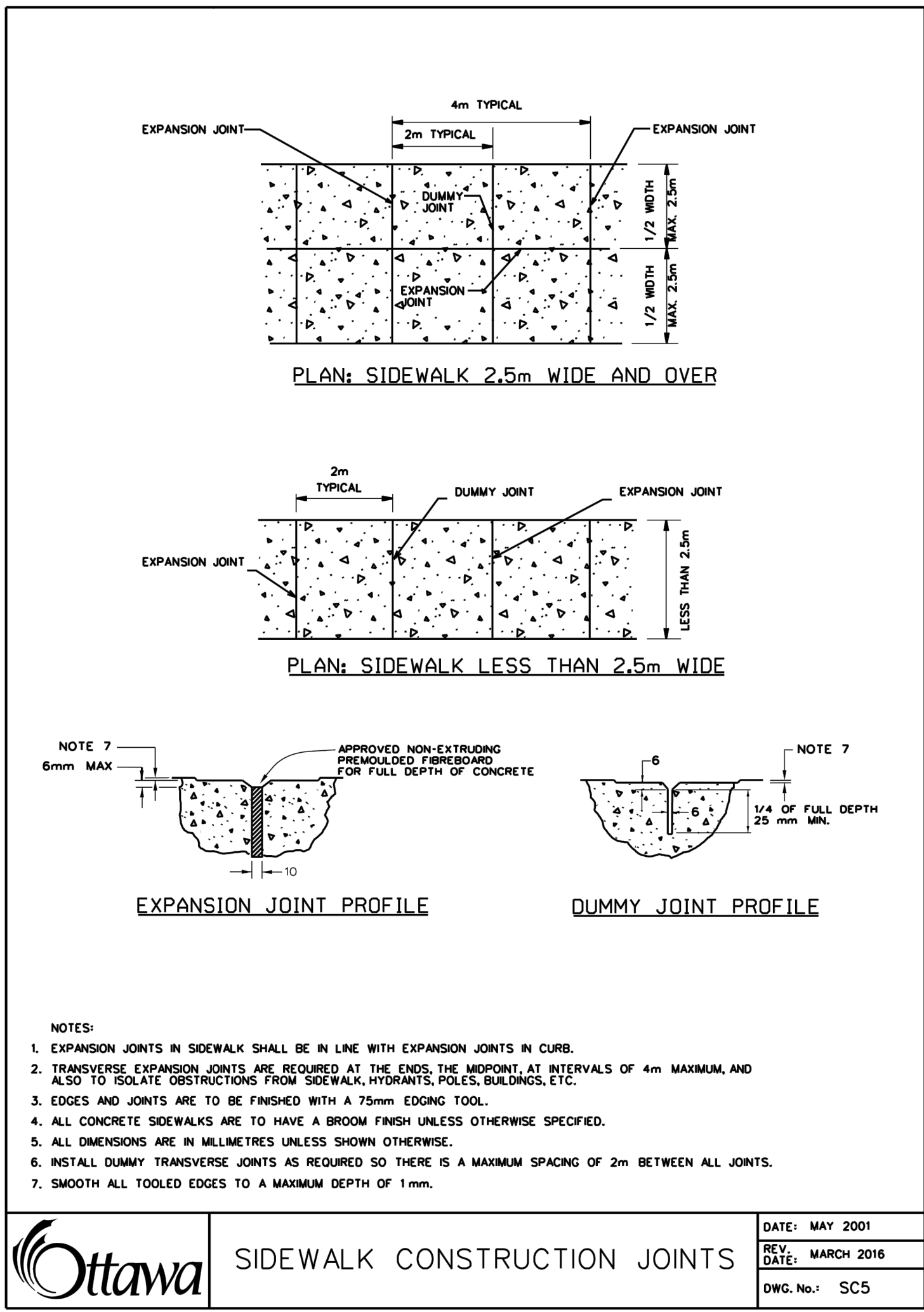
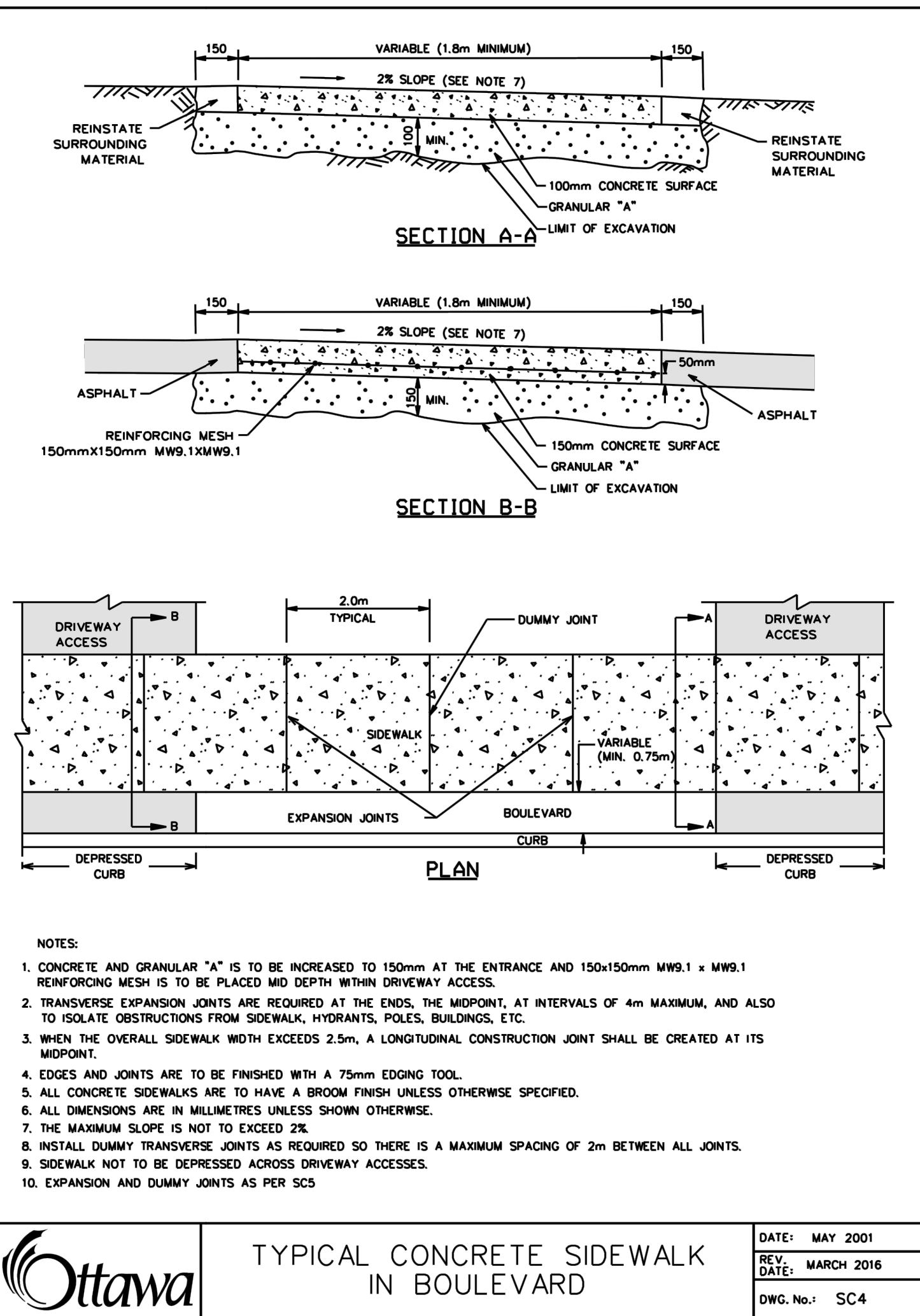
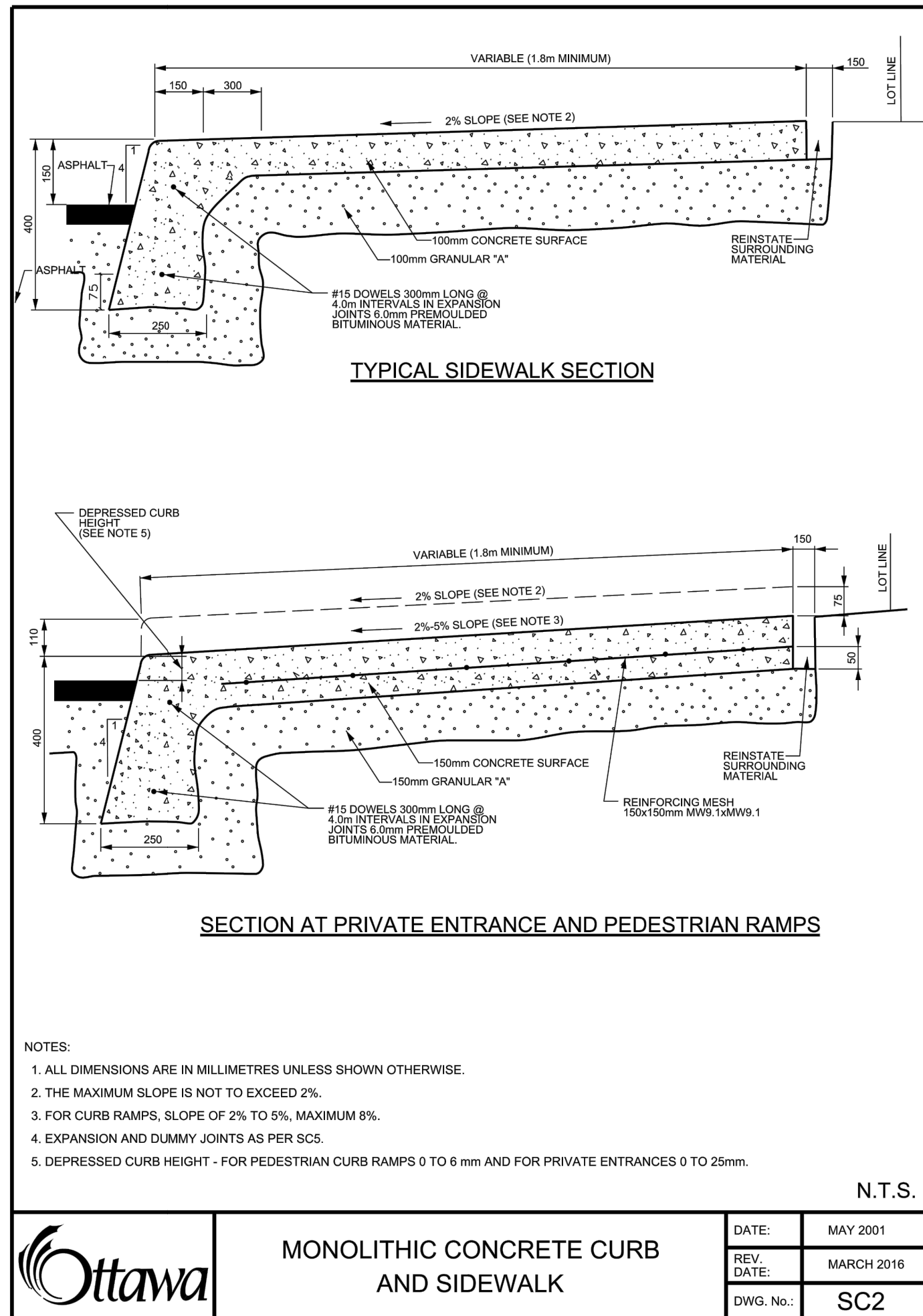
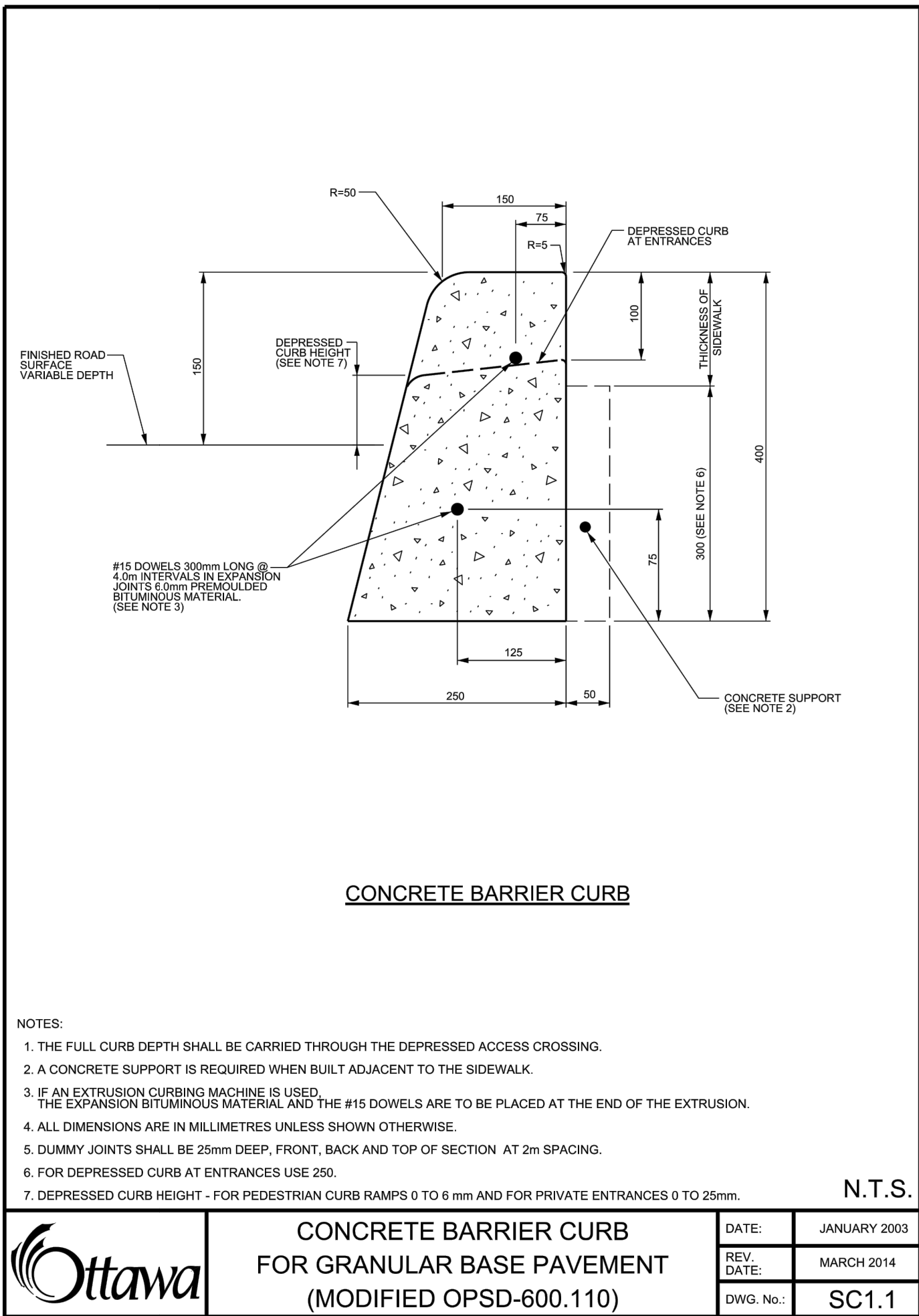
**OFFICE DEVELOPMENT  
800 PALLADIUM DR.**

### Drawing

## DETAILS PLAN

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### Architecture :



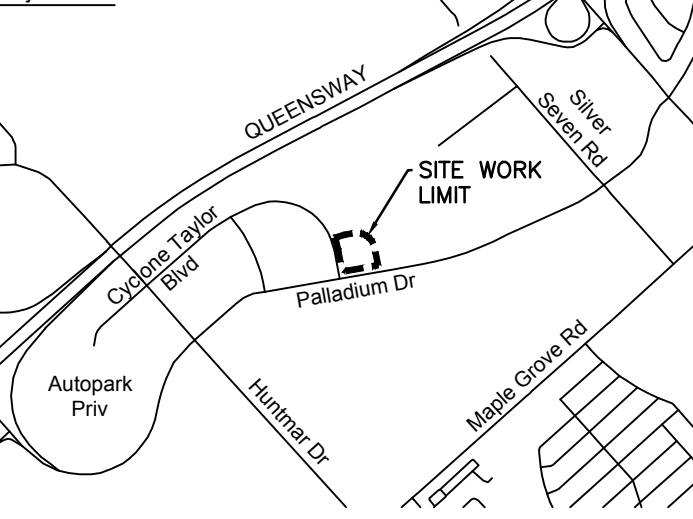
stgmarchitectes

Structure / Civil :



Mechanical / Electricity :

Key Plan :



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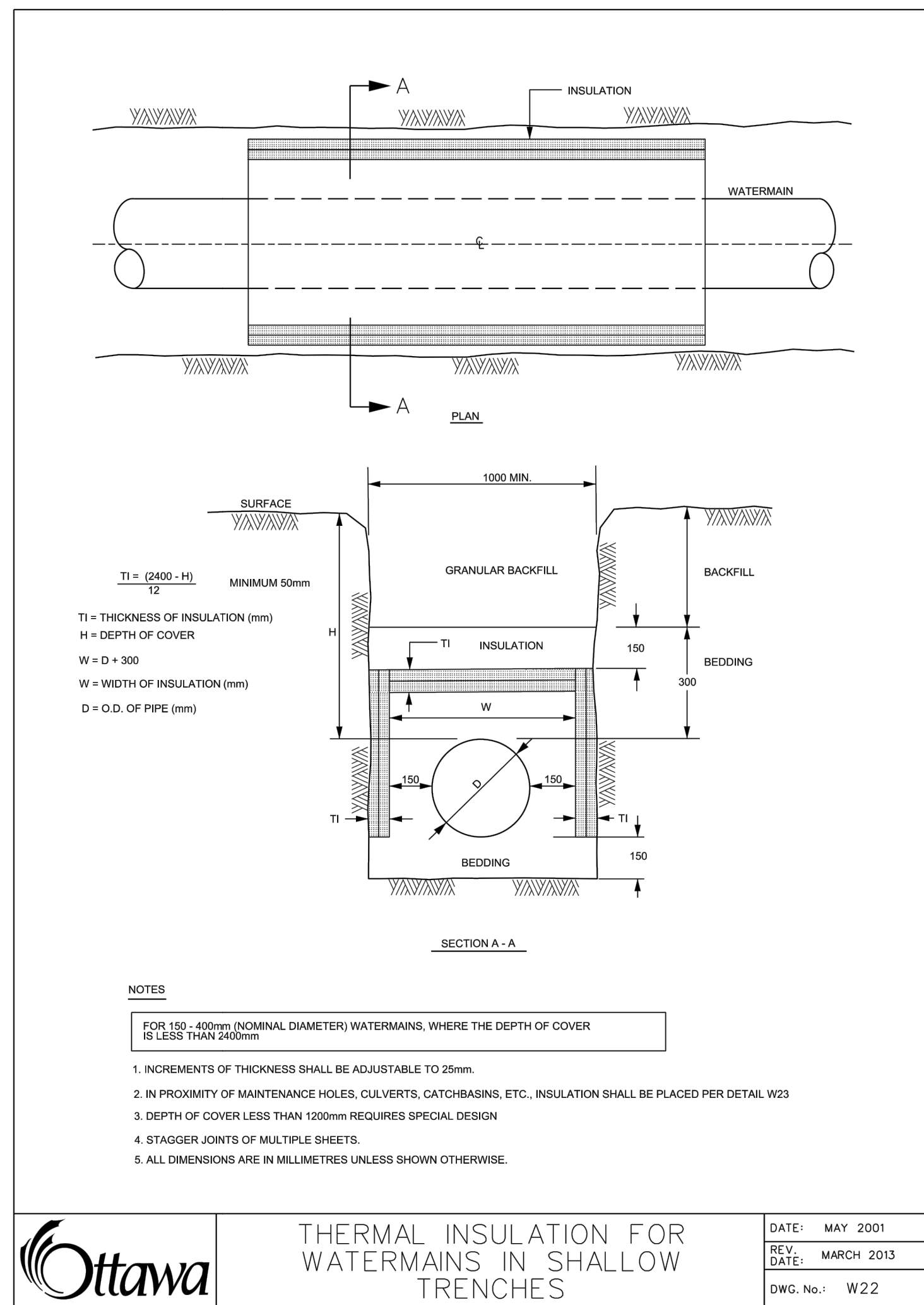
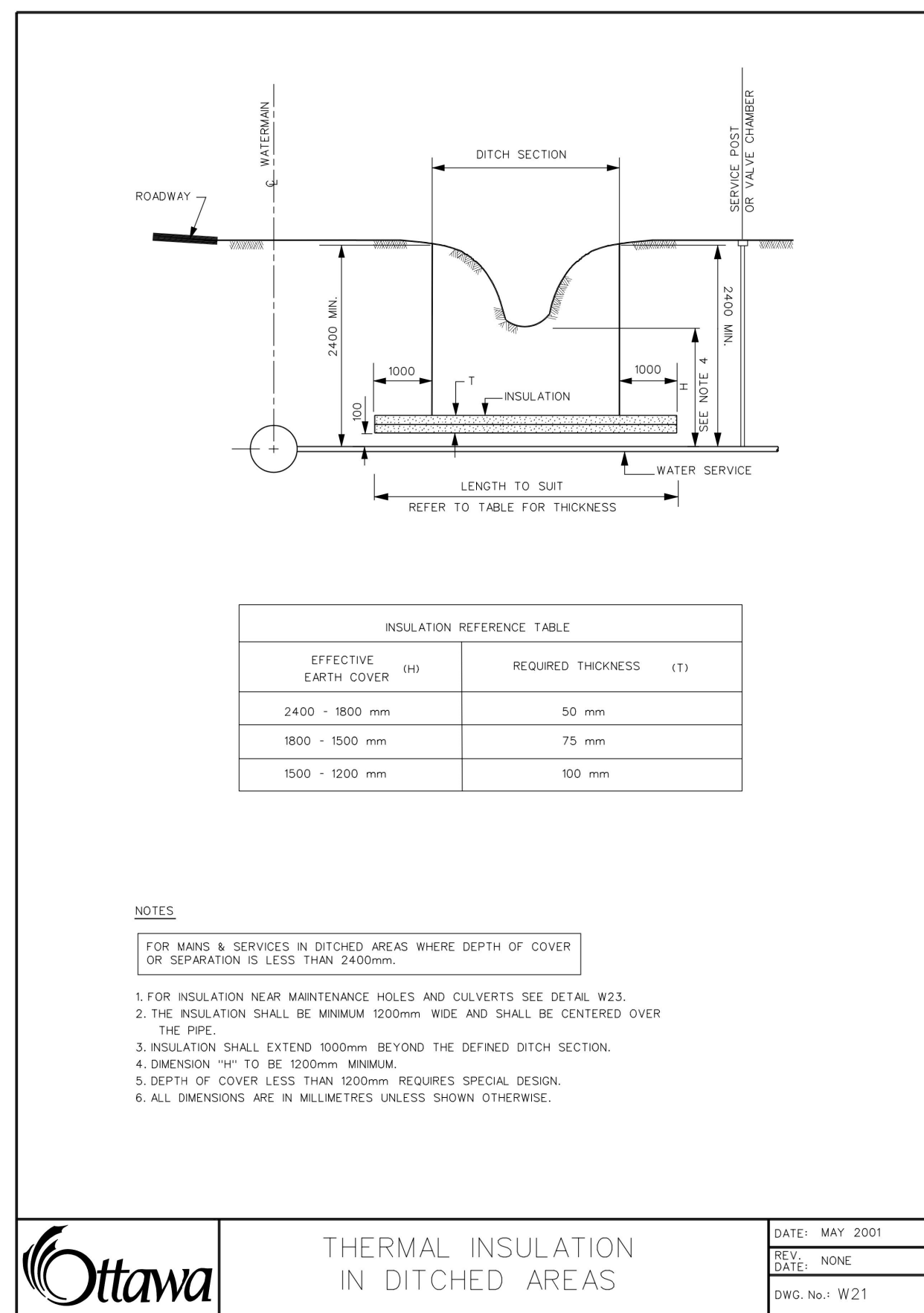
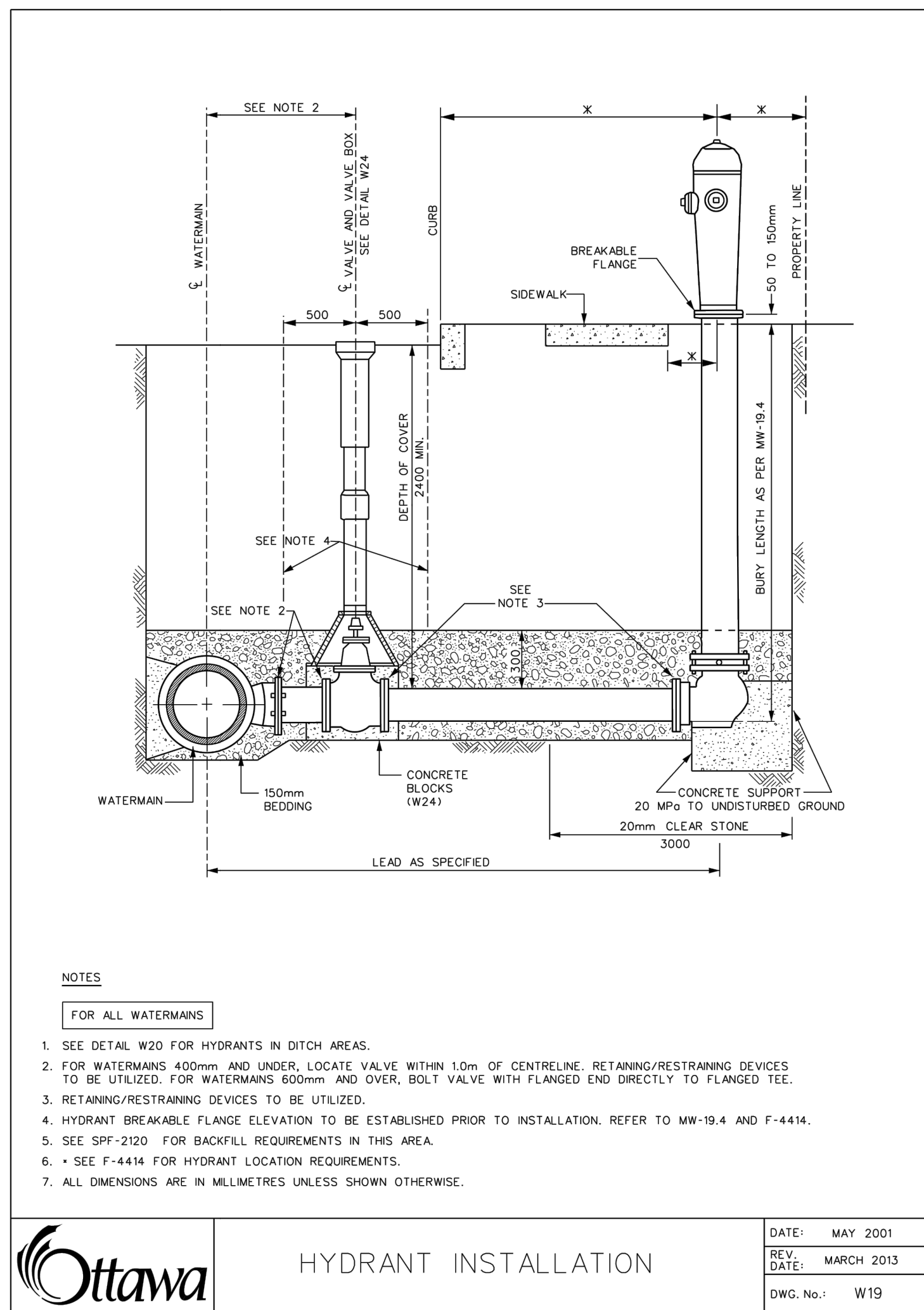
**OFFICE DEVELOPMENT**  
**800 PALLADIUM DR.**

### Drawing

## DETAILS PLAN

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BENJAMIN TARDIOLI		JONATHAN HAMEL	
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## PROFESSIONAL ADVISORS

Architecture :



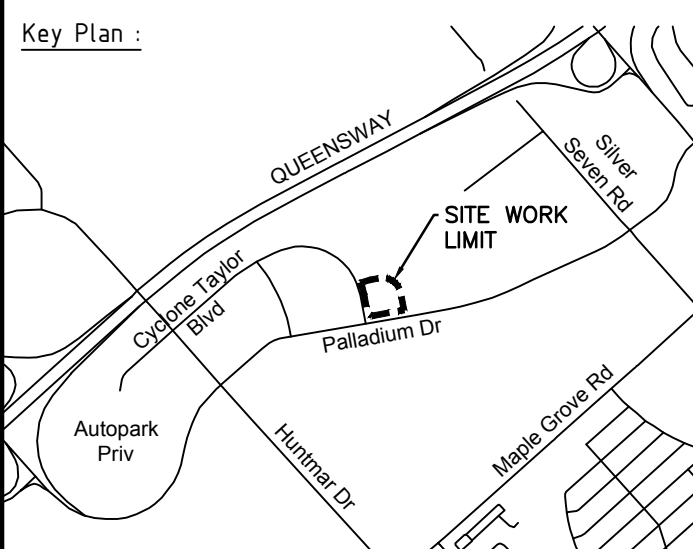
stgmarchitectes

Structure / Civil :



Mechanical / Electricity :

Key Plan :



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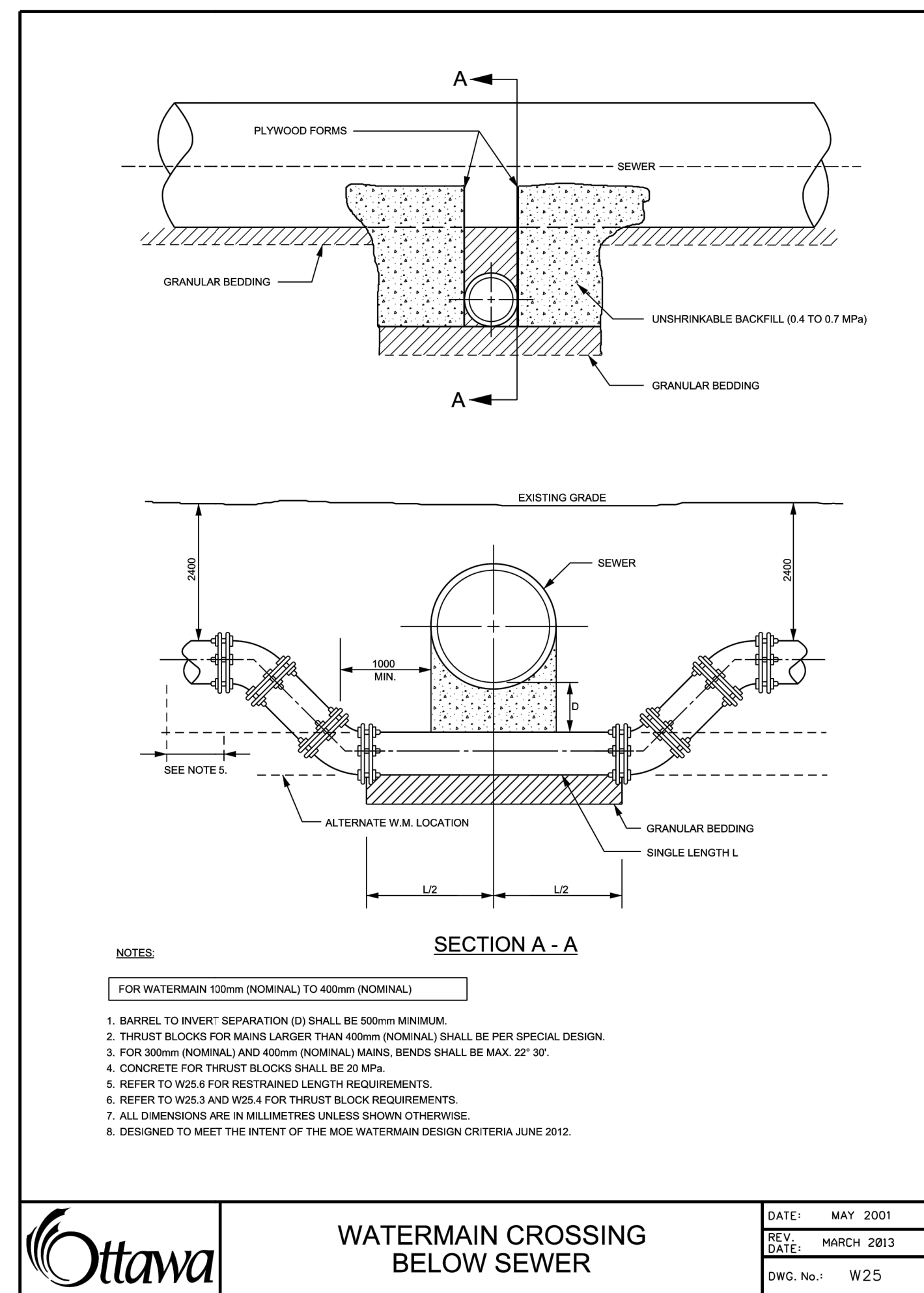
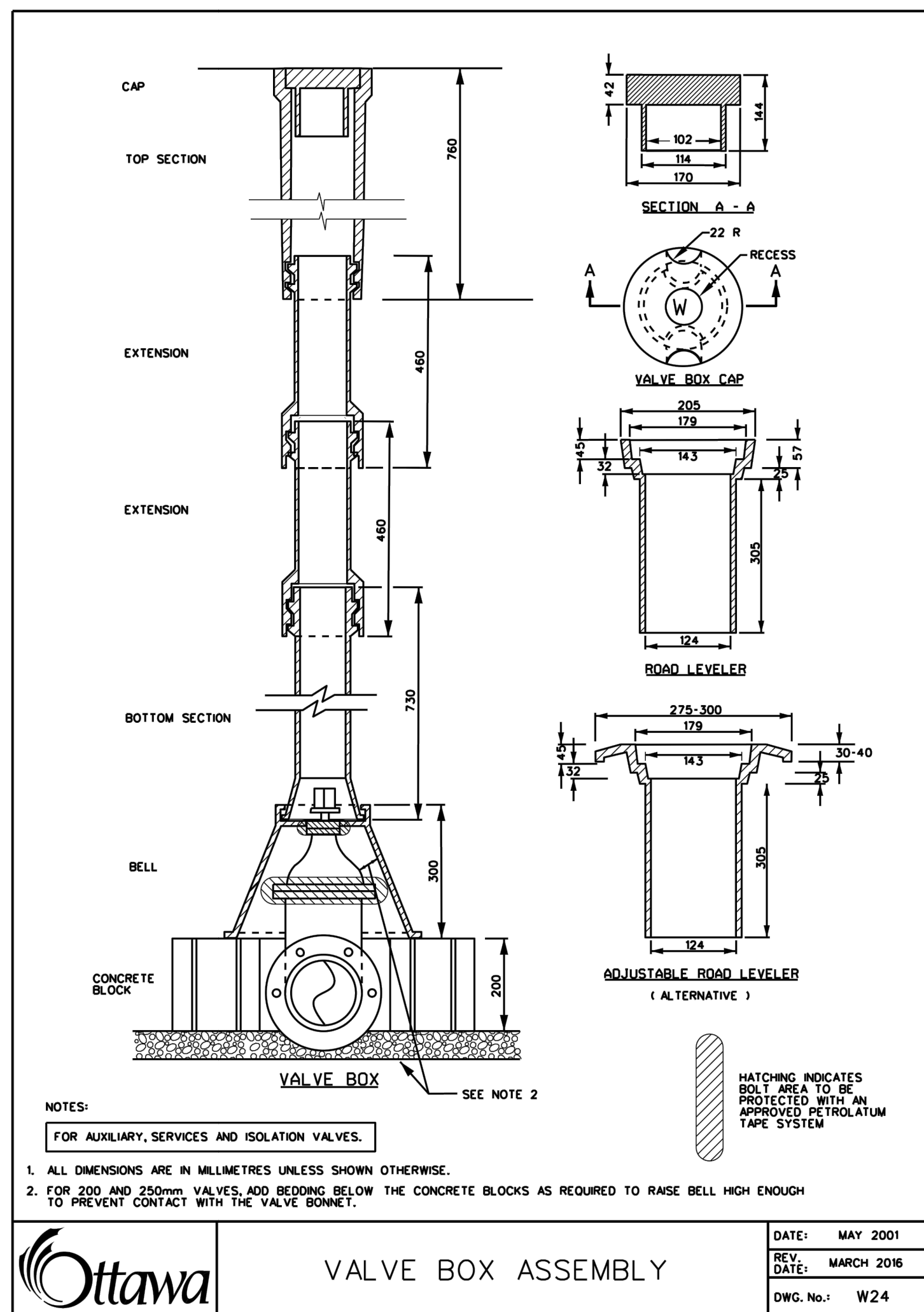
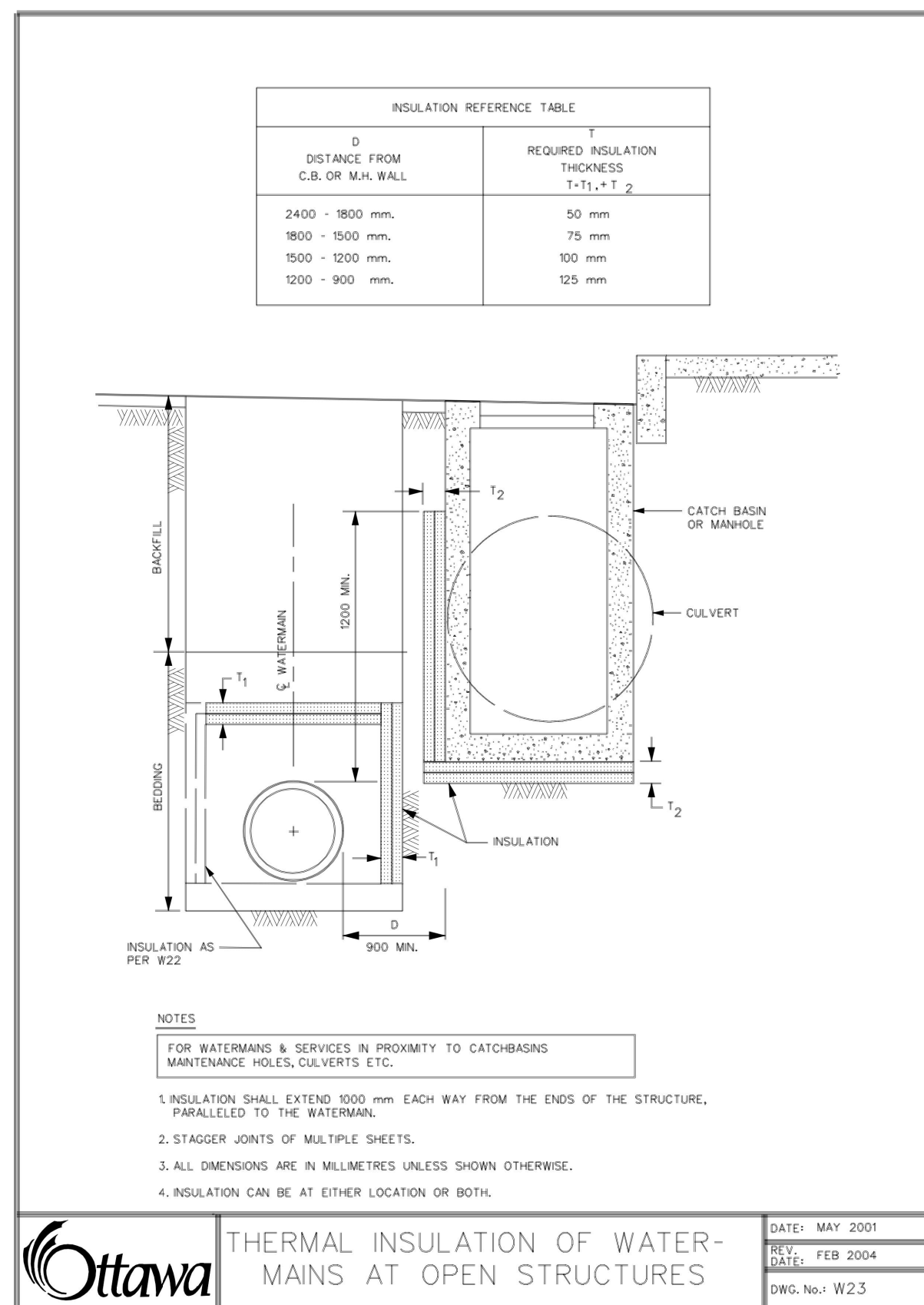
Project :

**OFFICE DEVELOPMENT**  
**800 PALLADIUM DR.**

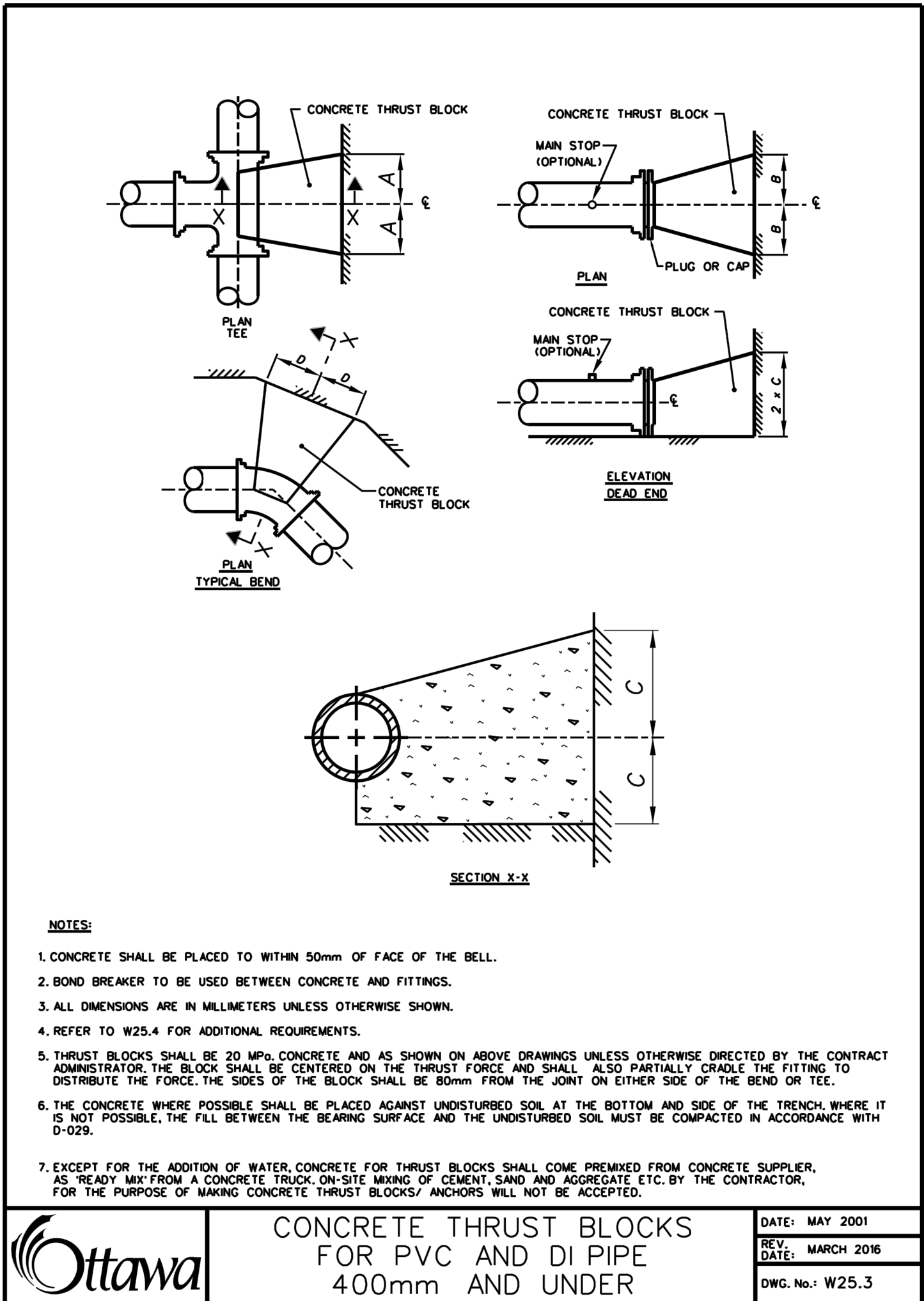
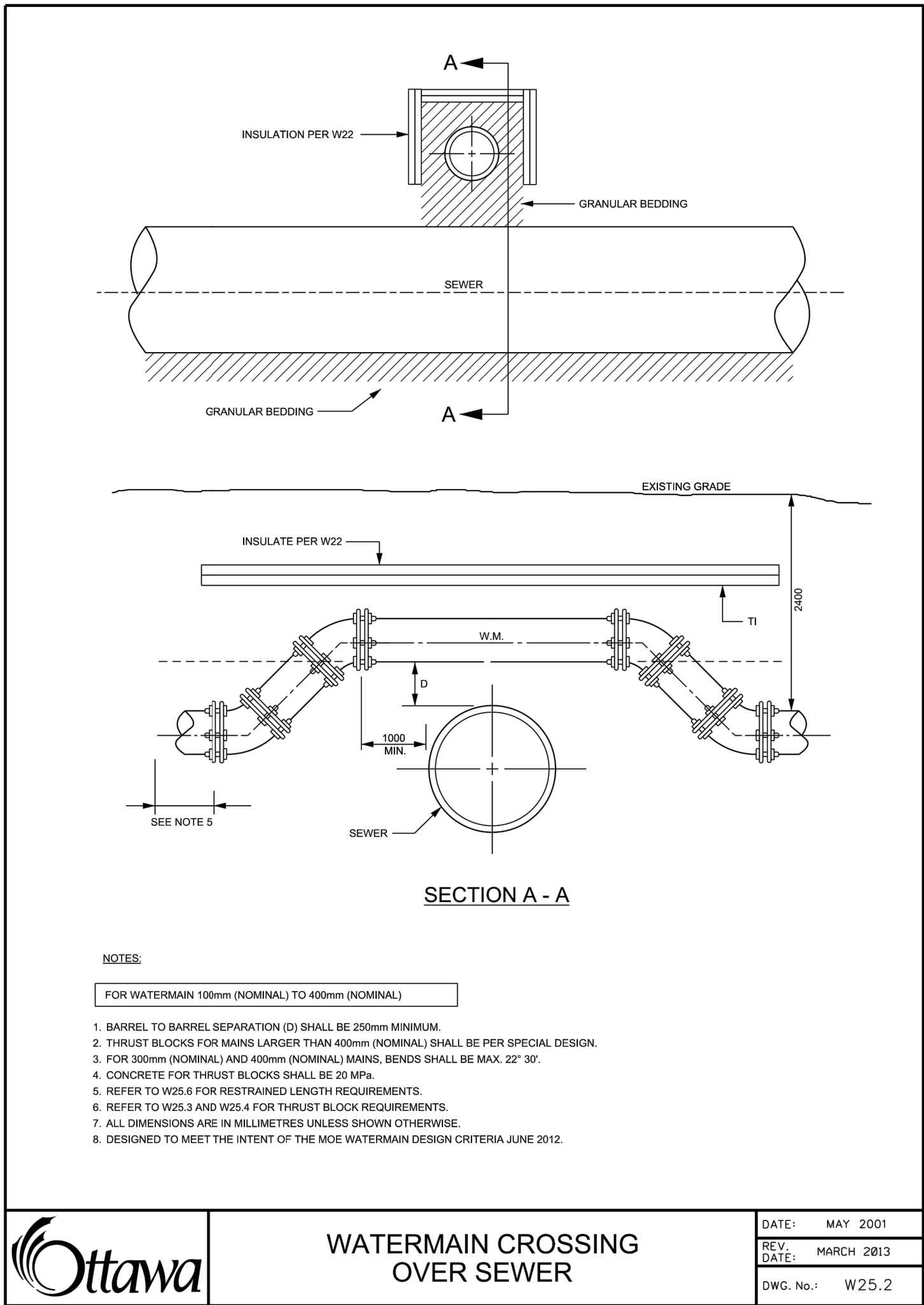
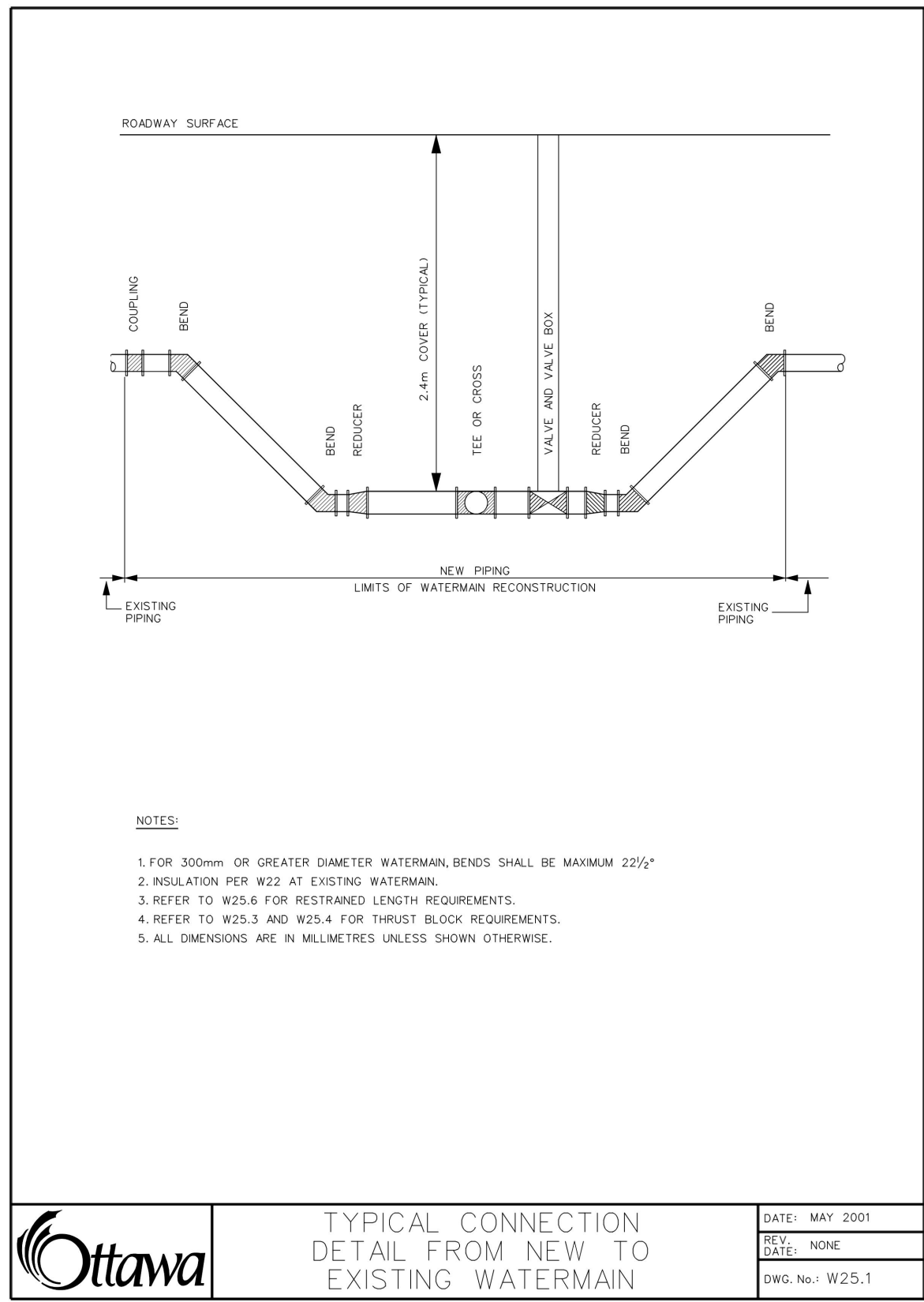
Drawing :

## DETAILS PLAN

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BENJAMIN TARDIOLI		JONATHAN HAMEL	
Approved By :	File name .DWG		Scale
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2019/03/08	A000919	<b>C015</b>	







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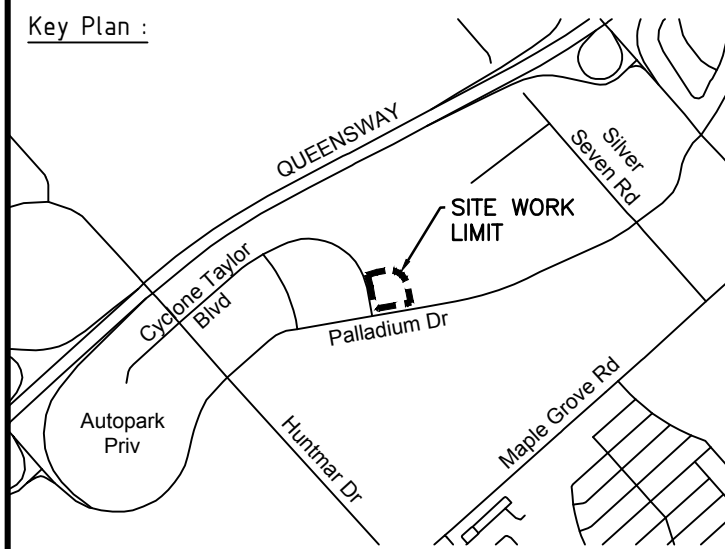
sgmarchitectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



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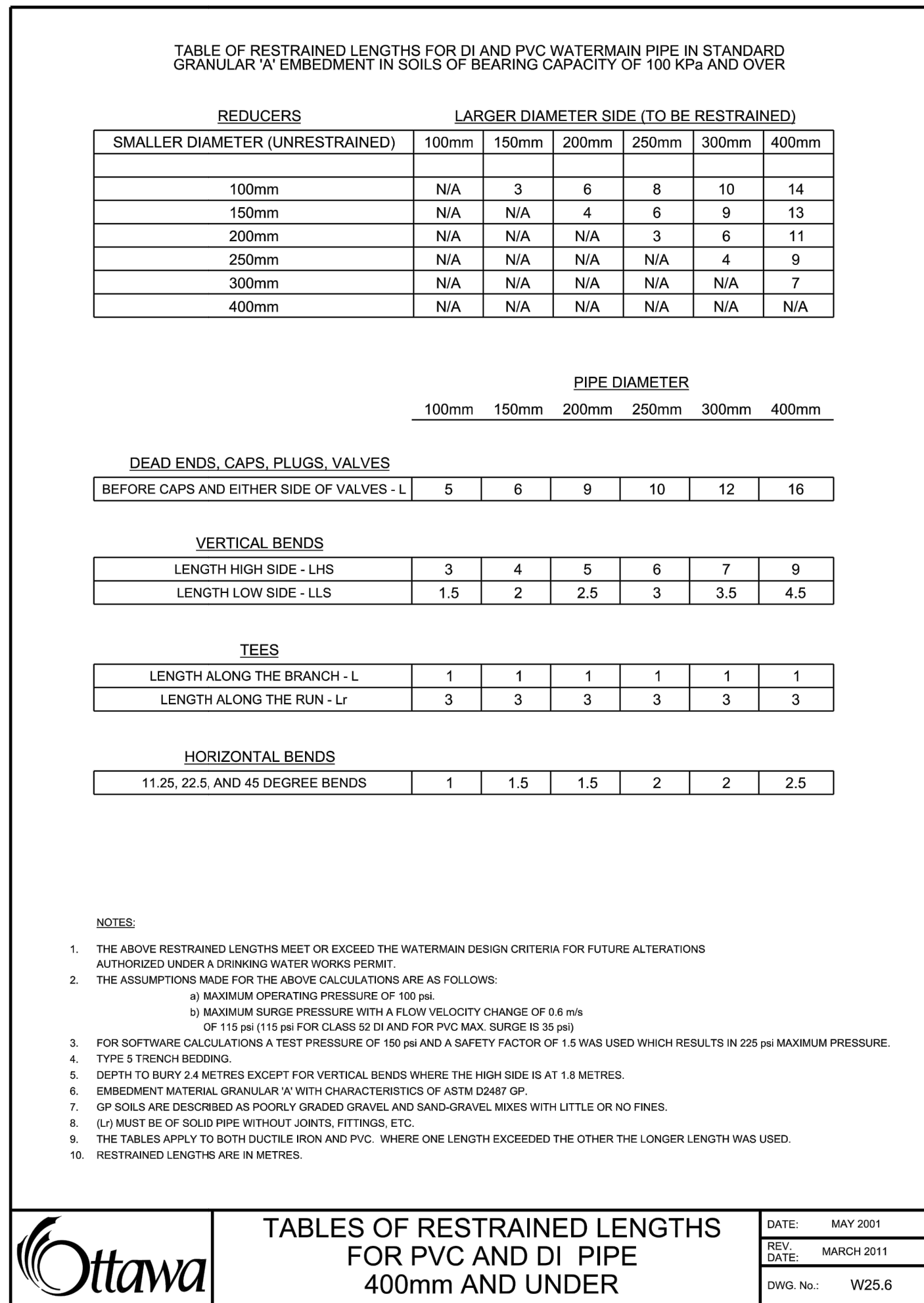
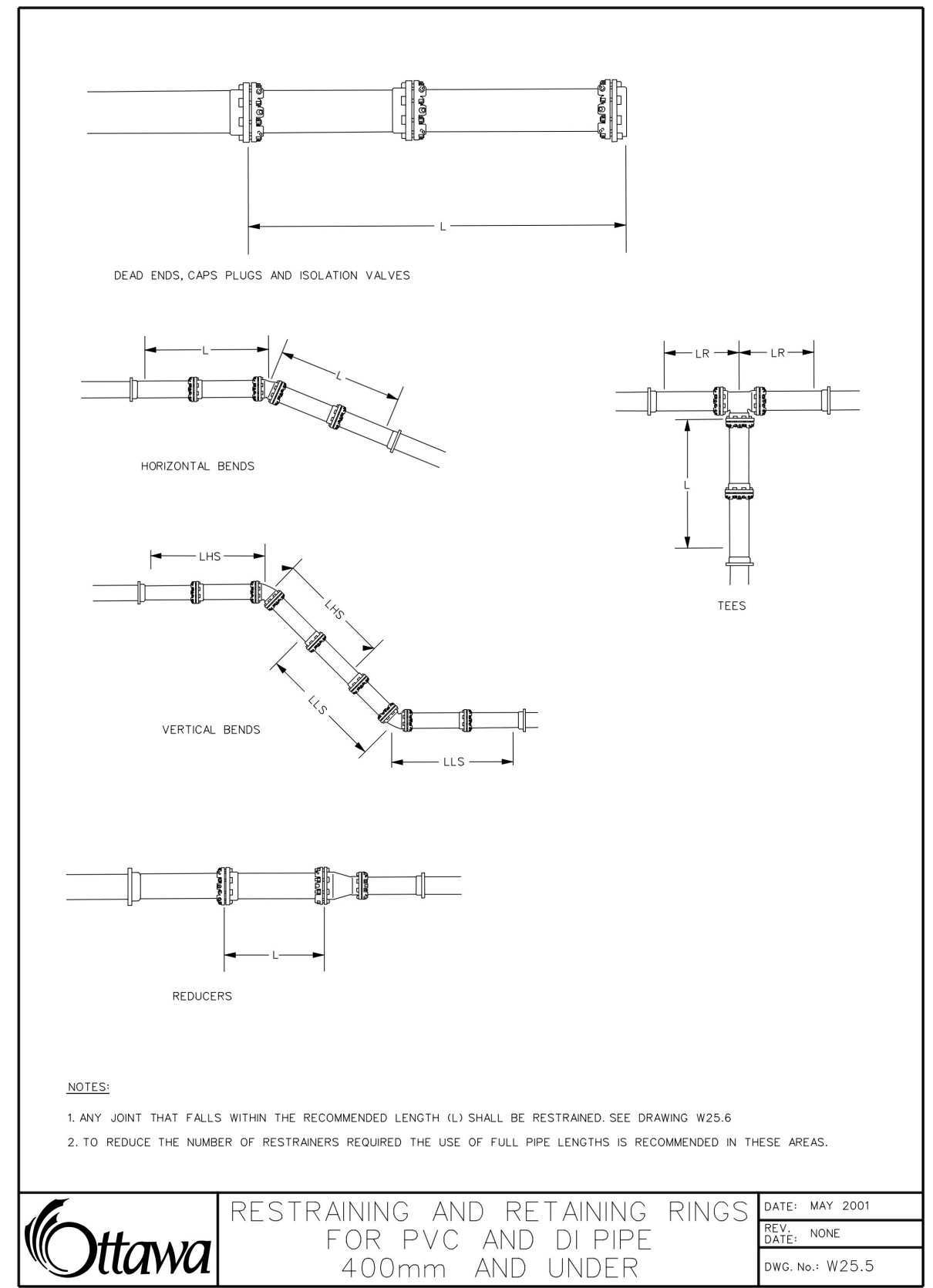
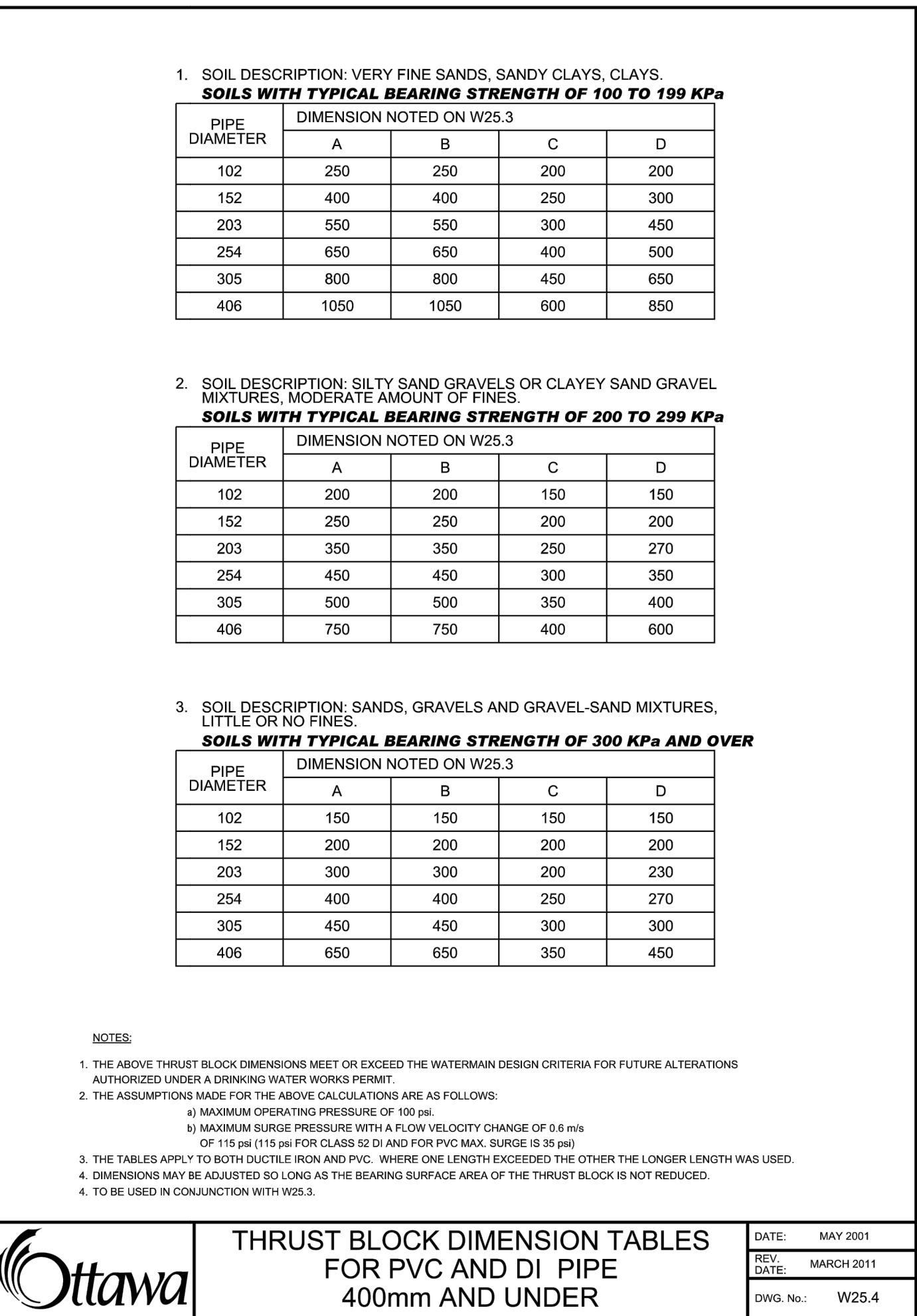
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800 PALLADIUM DR.

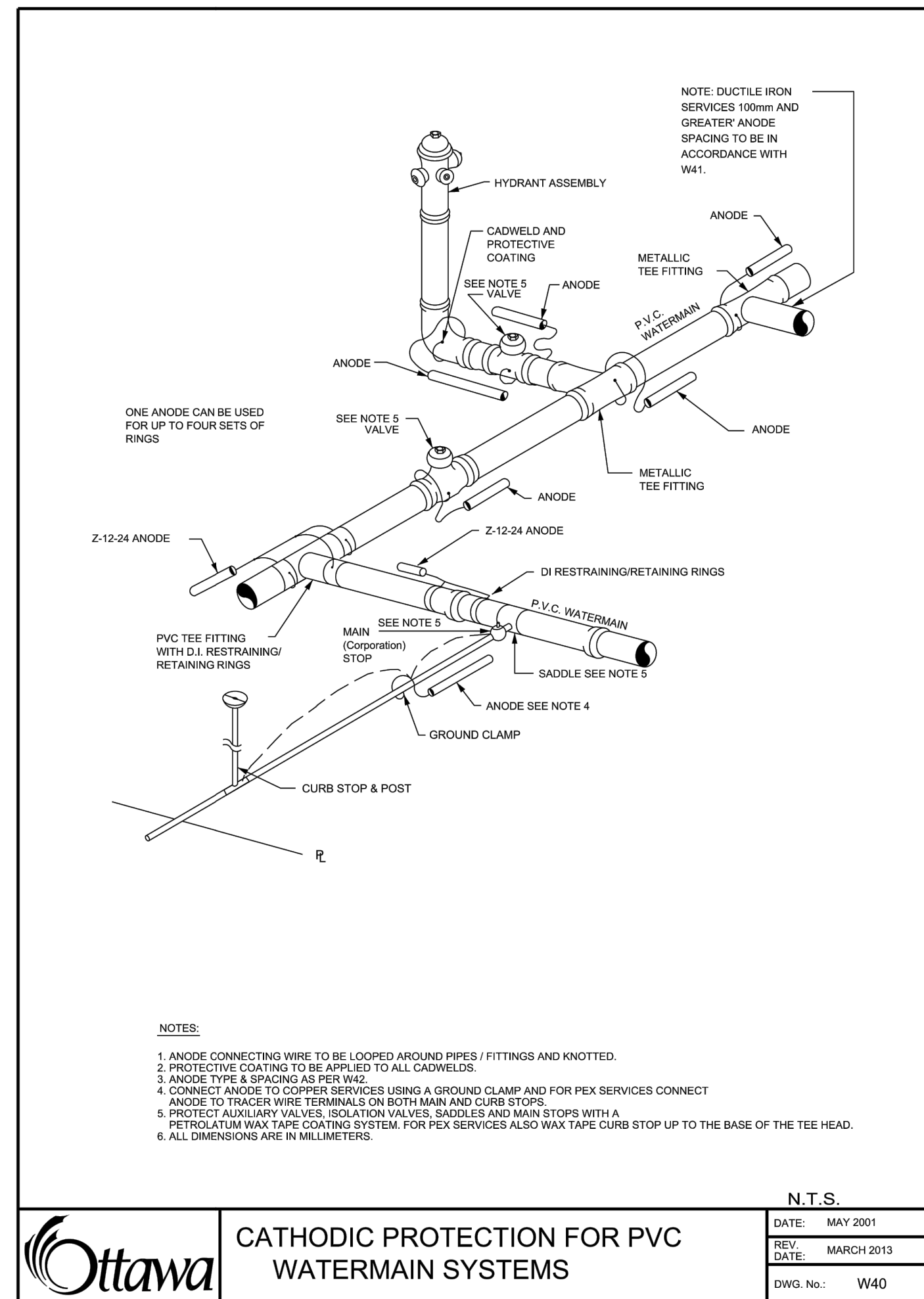
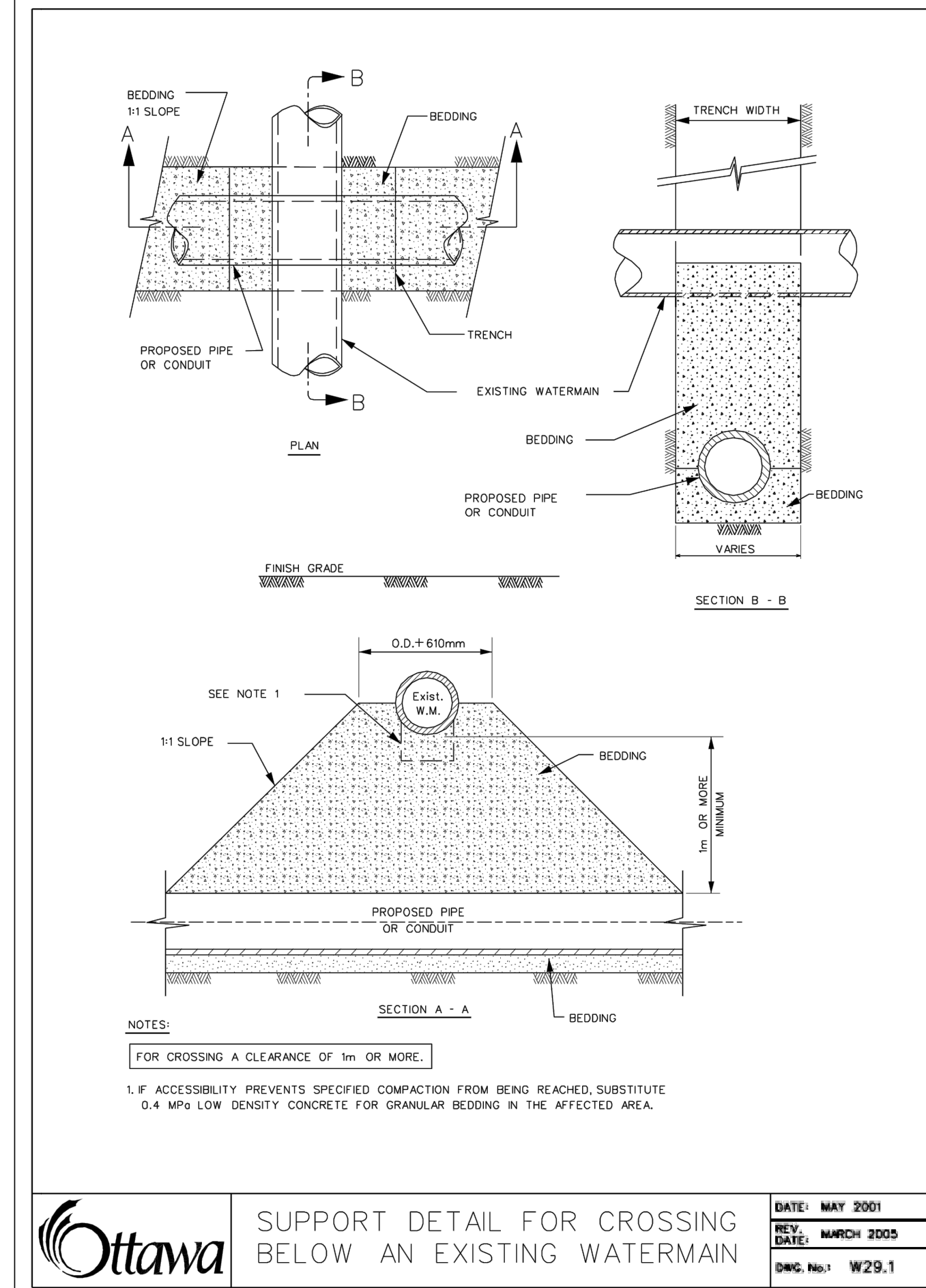
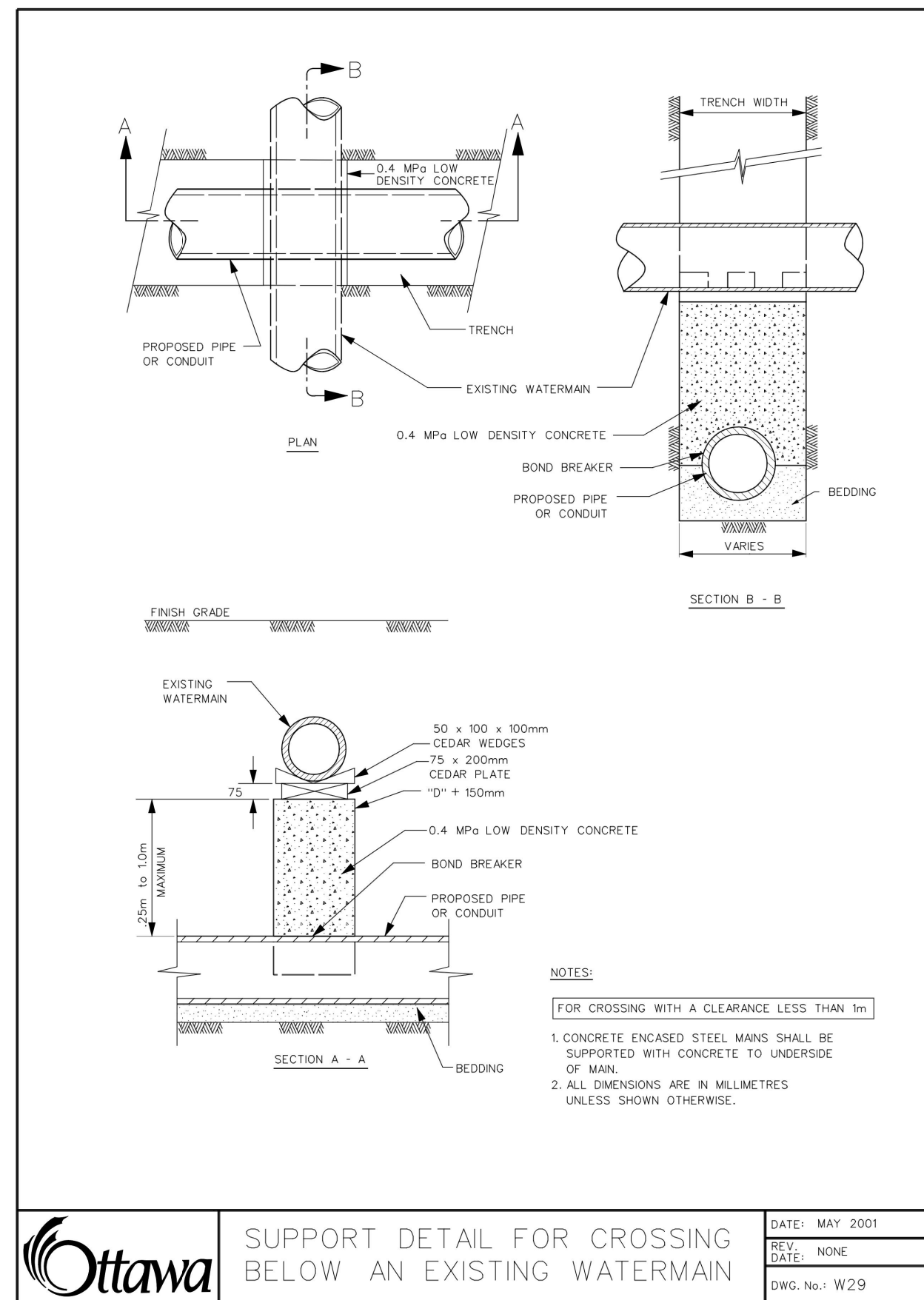
Drawing :

DETAILS PLAN

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BENJAMIN TARDIOLI		JONATHAN HAMEL	
Approved By :		File name .DWG	Scale :
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## PROFESSIONAL ADVISORS

Architecture :

Structure / Civil :

Mechanical / Electricity :

Key Plan :



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**OFFICE DEVELOPMENT  
800 PALLADIUM DR.**

Drawing :

**DETAILS PLAN**

Designed By :

BENJAMIN TARDIOLI

Drawn By :

JONATHAN HAMEL

Approved By :

C.L.L.

Date :

2019/03/08

Project Number :

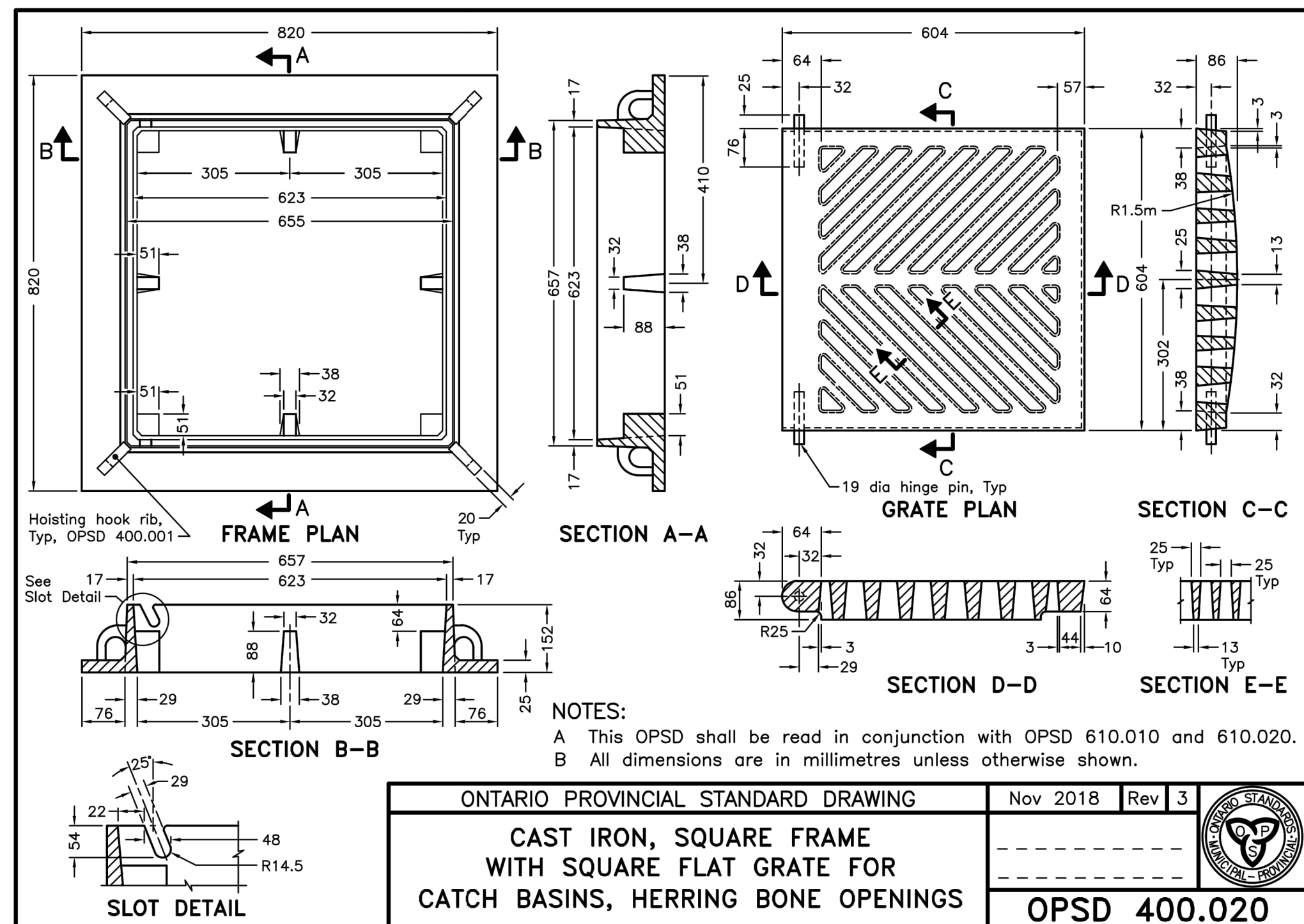
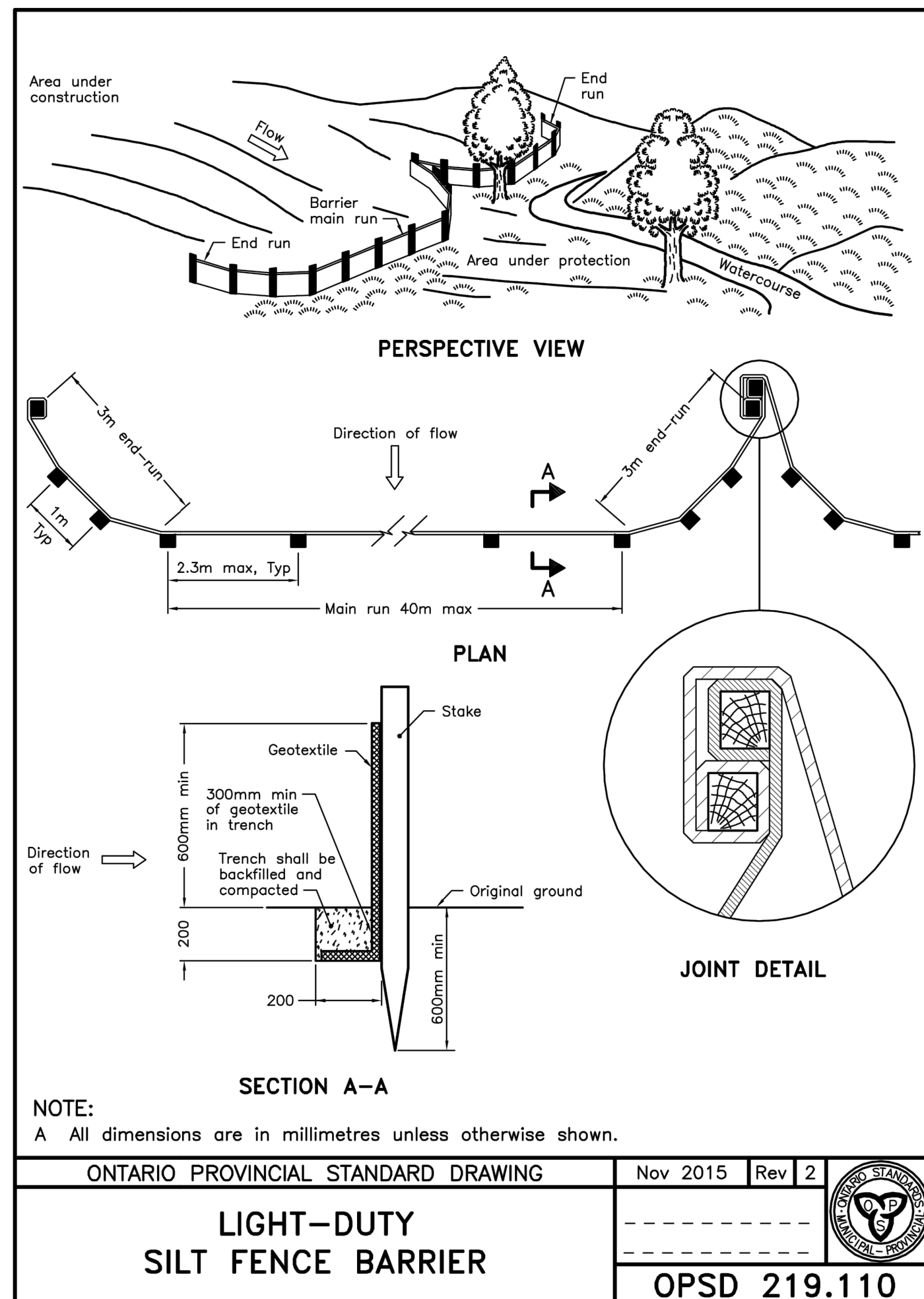
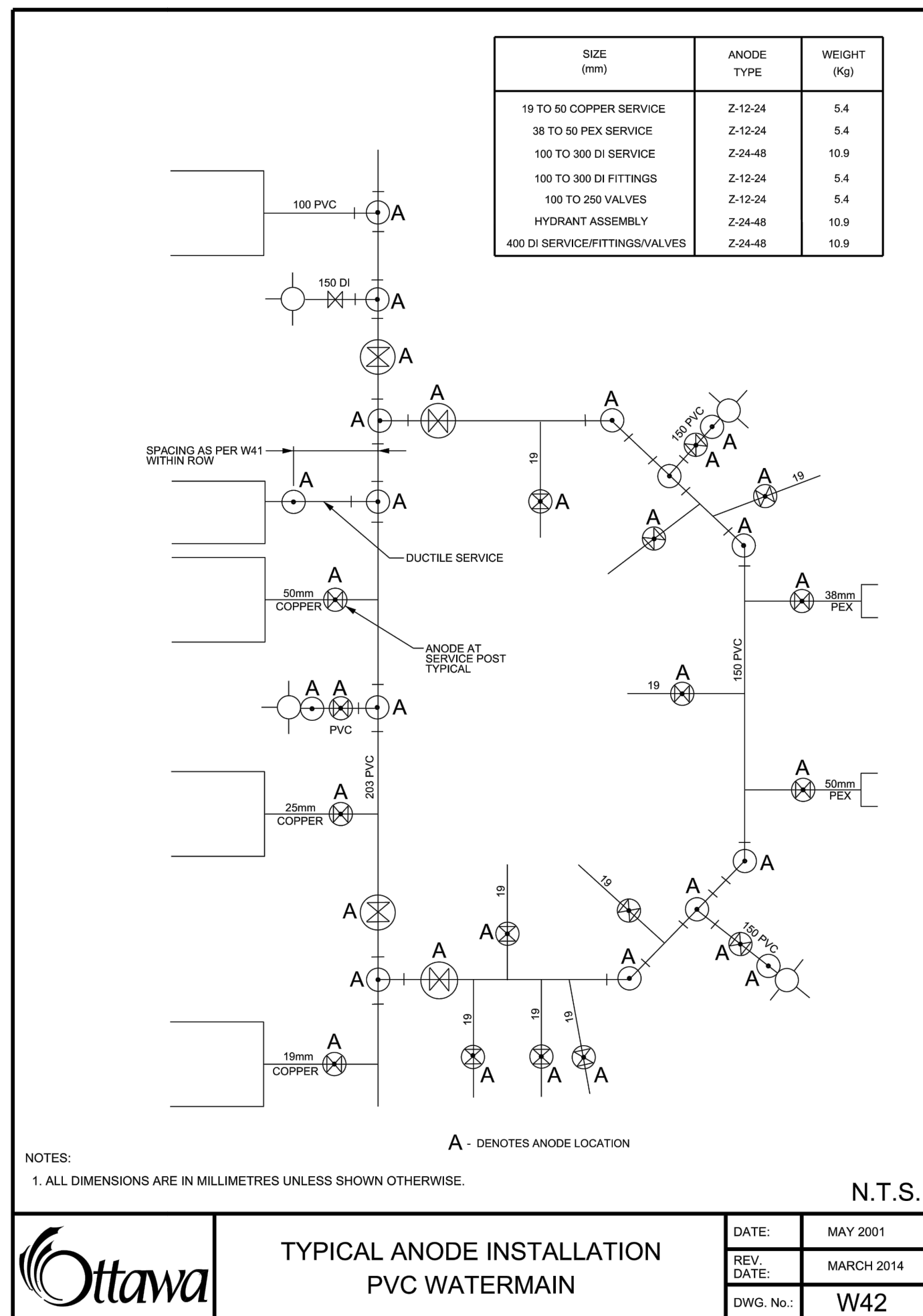
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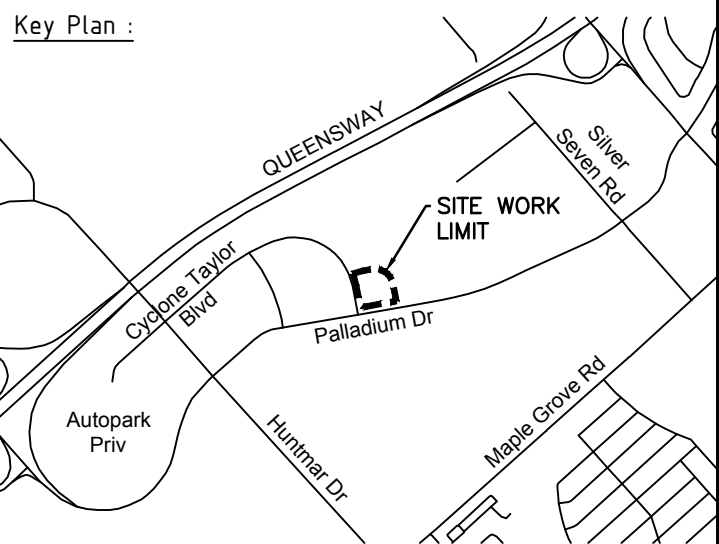
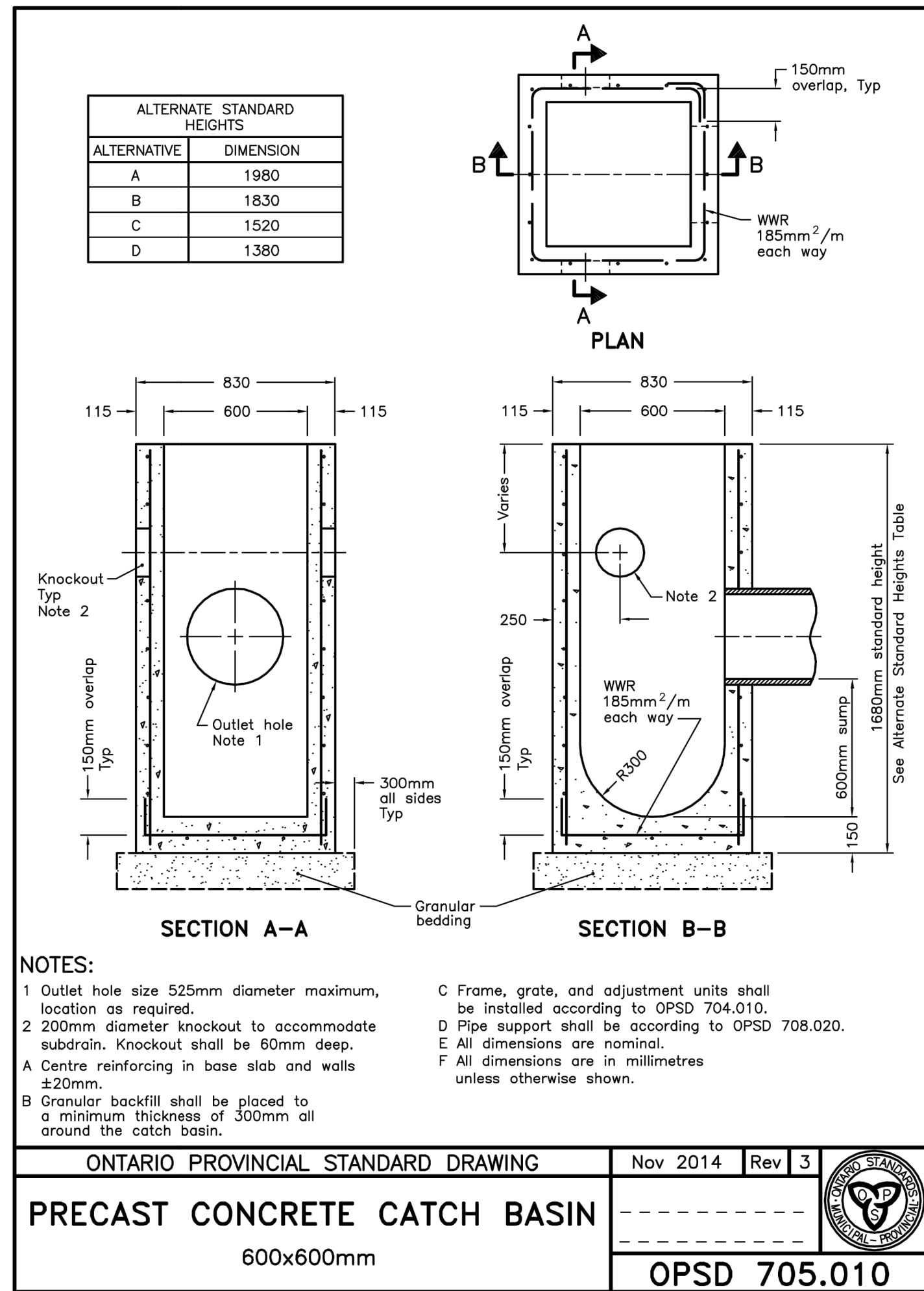
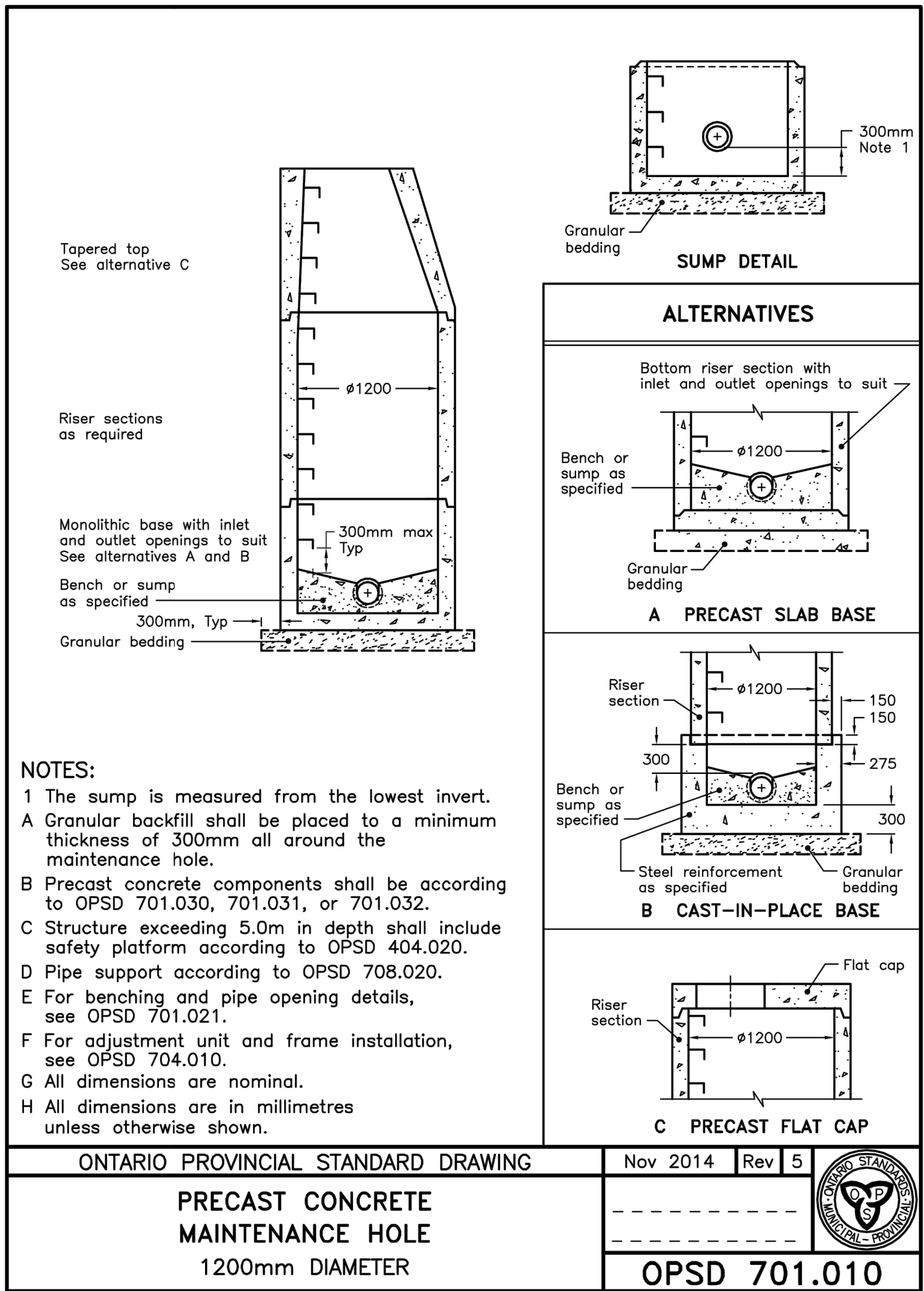
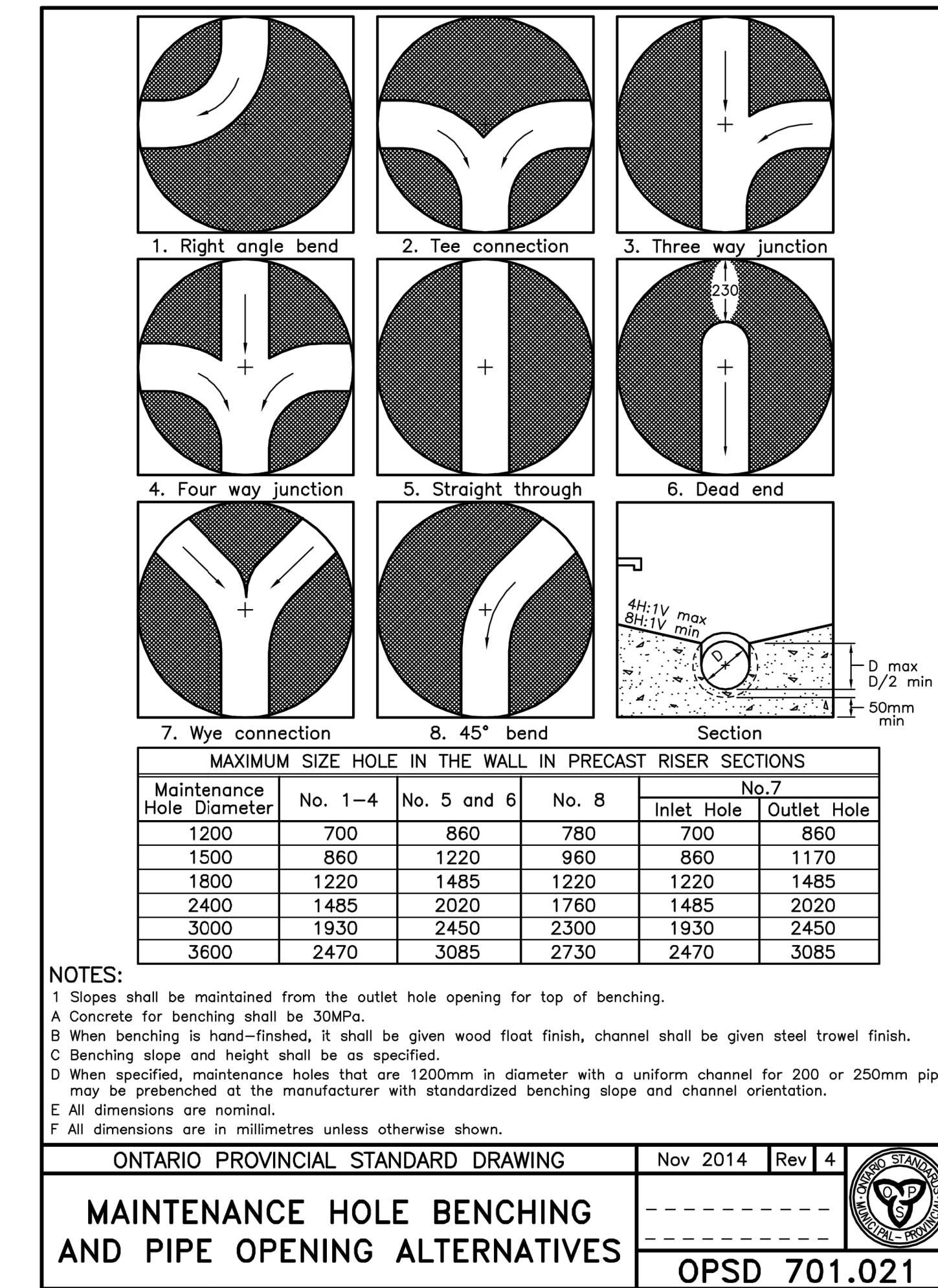
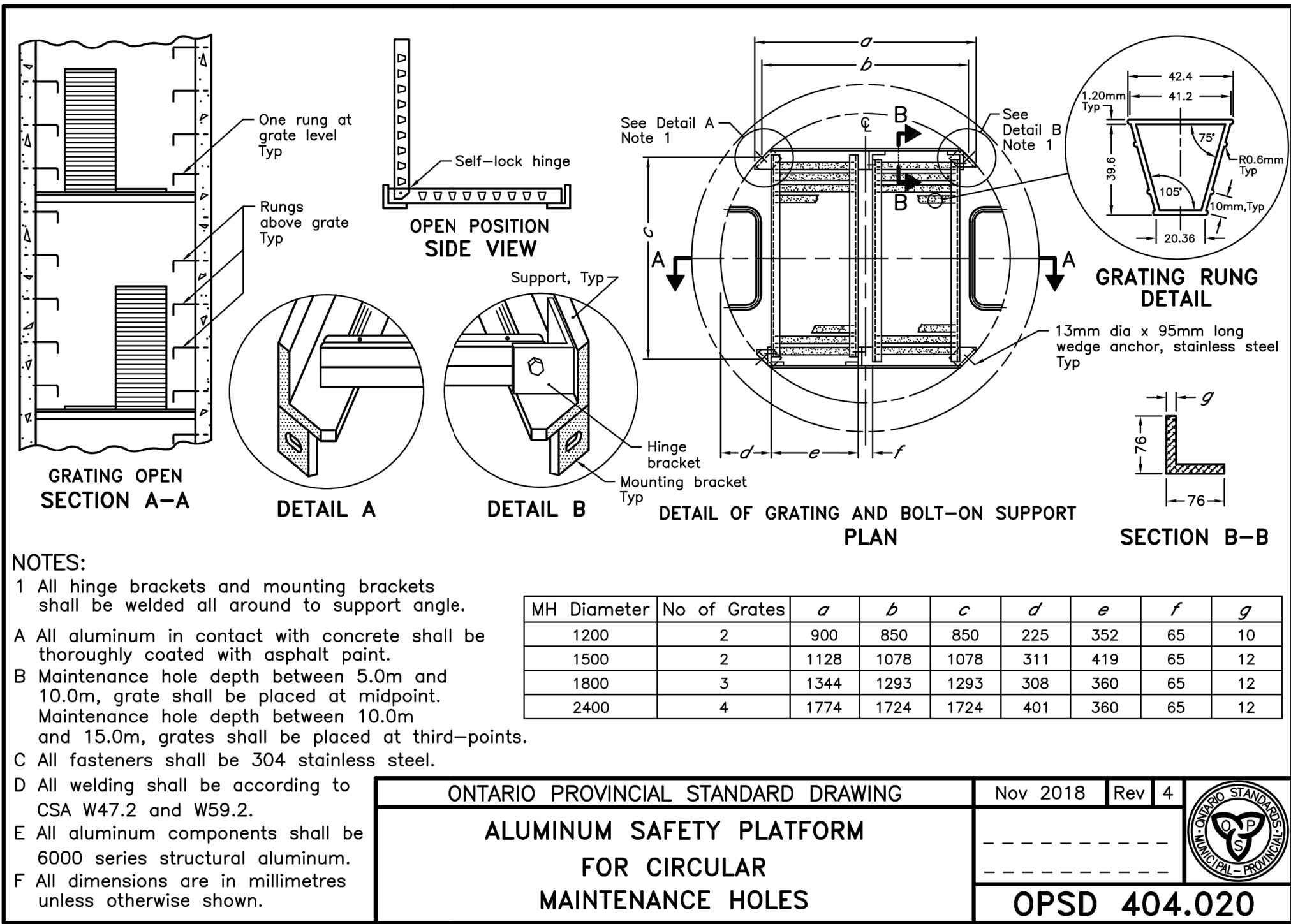
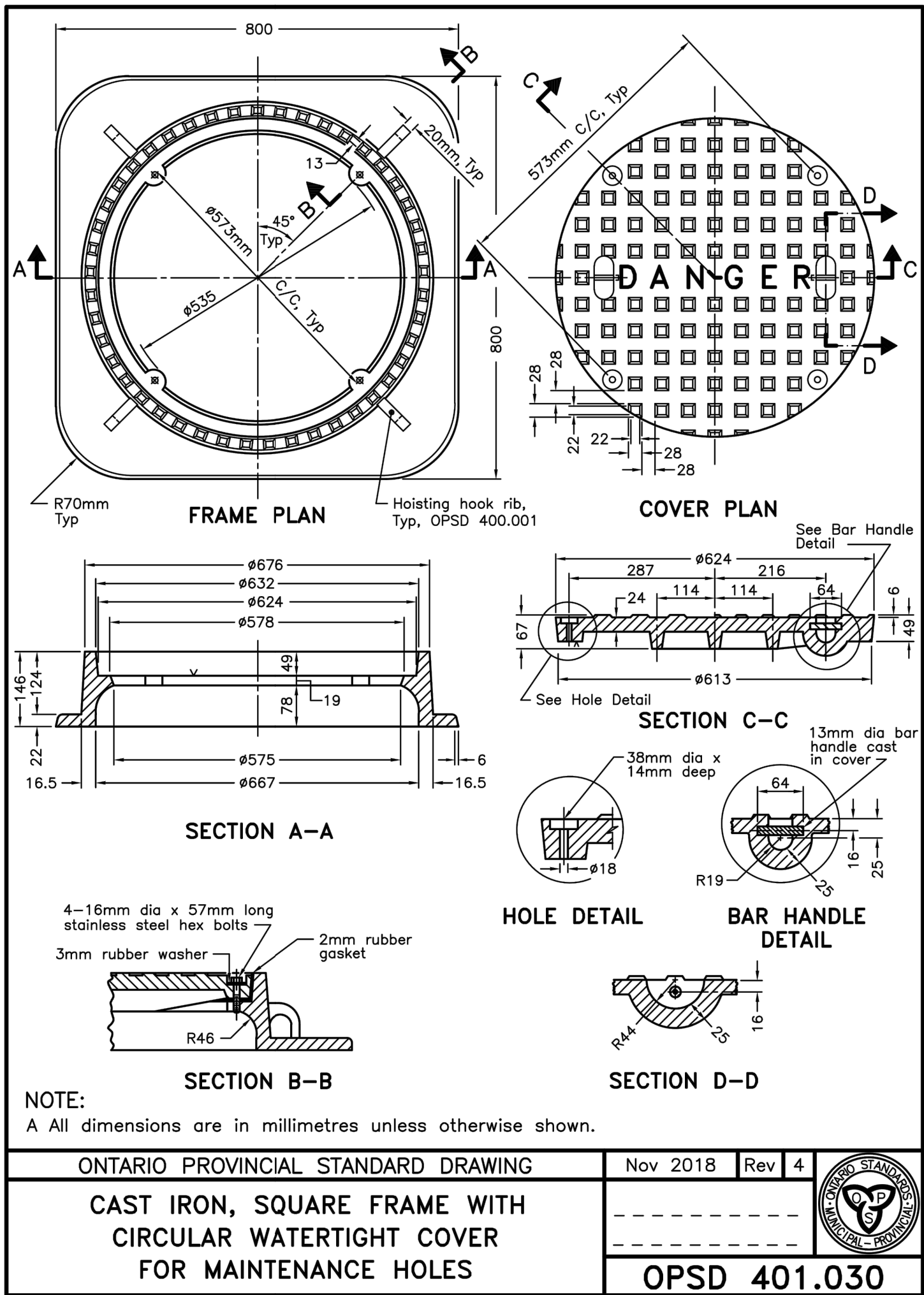
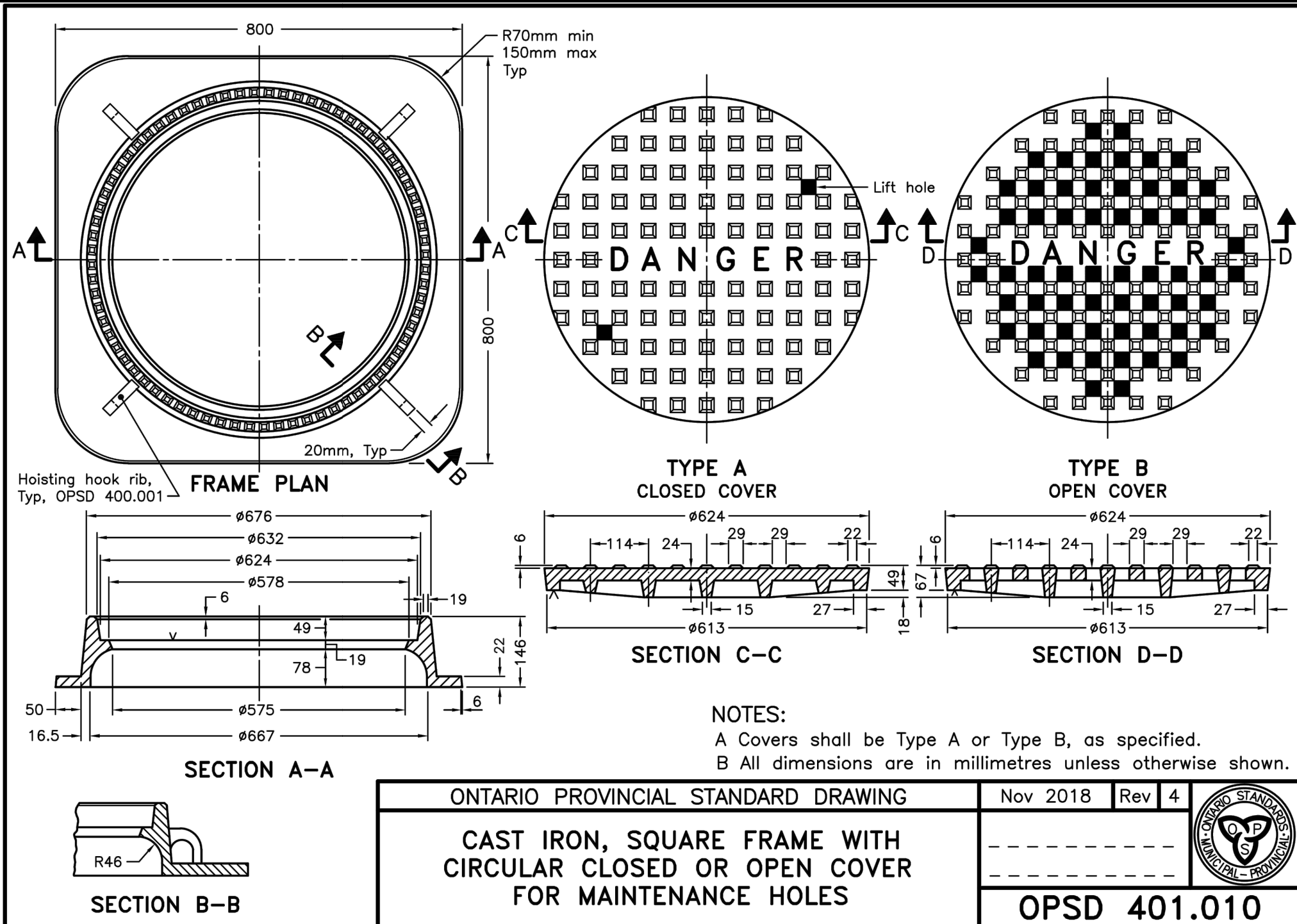
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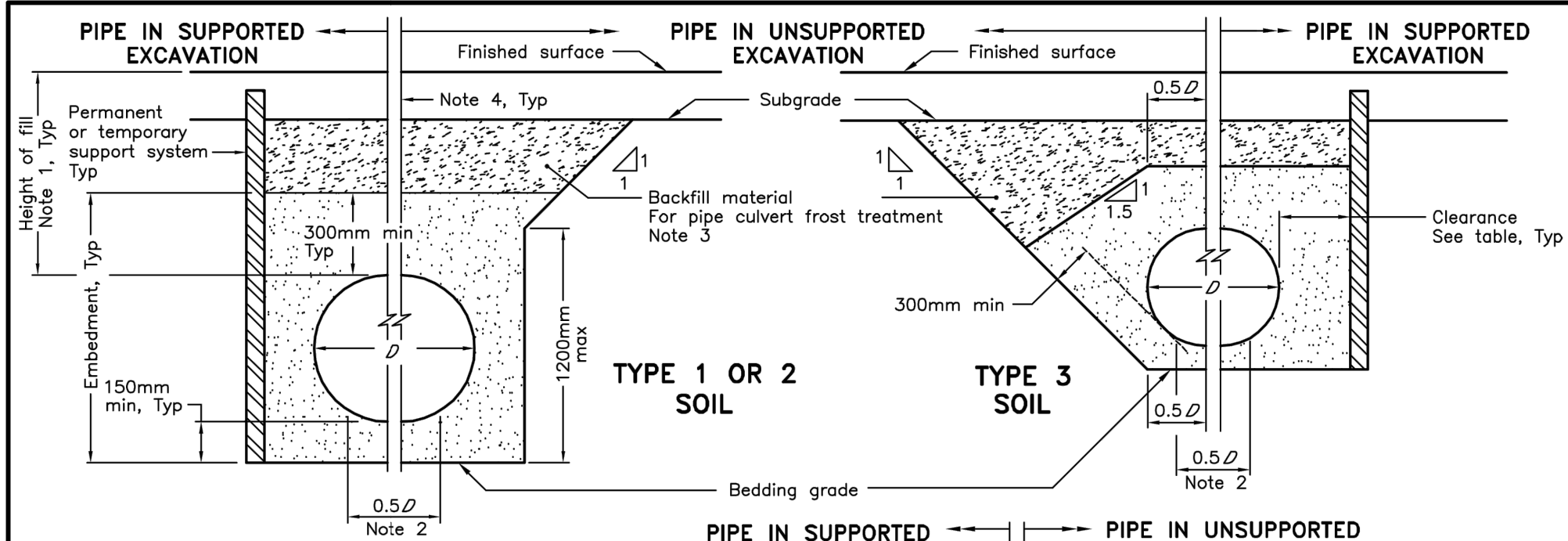
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800 PALLADIUM DR.

DETAILS PLAN

Designed By :		Drawn By :	
BENJAMIN TARDIOLI		JONATHAN HAMEL	
Approved By :	File name .DWG		Scale :
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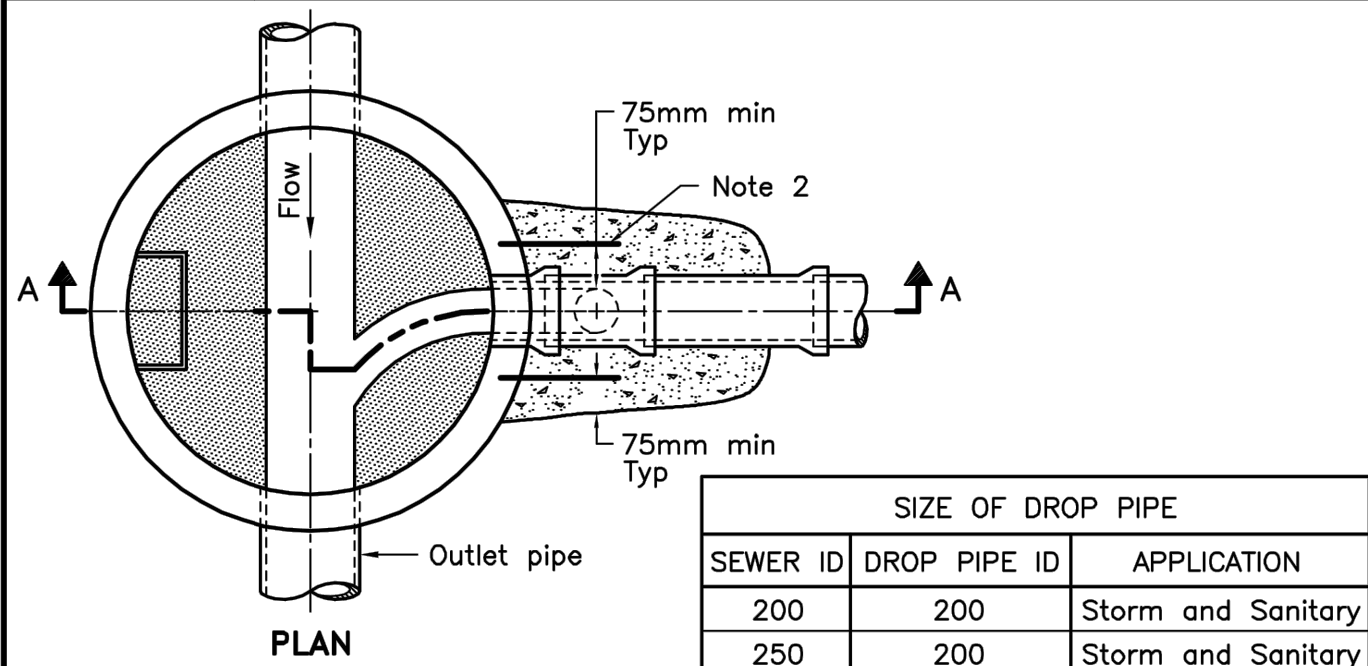


**LEGEND:**  
 $D$  – Inside diameter

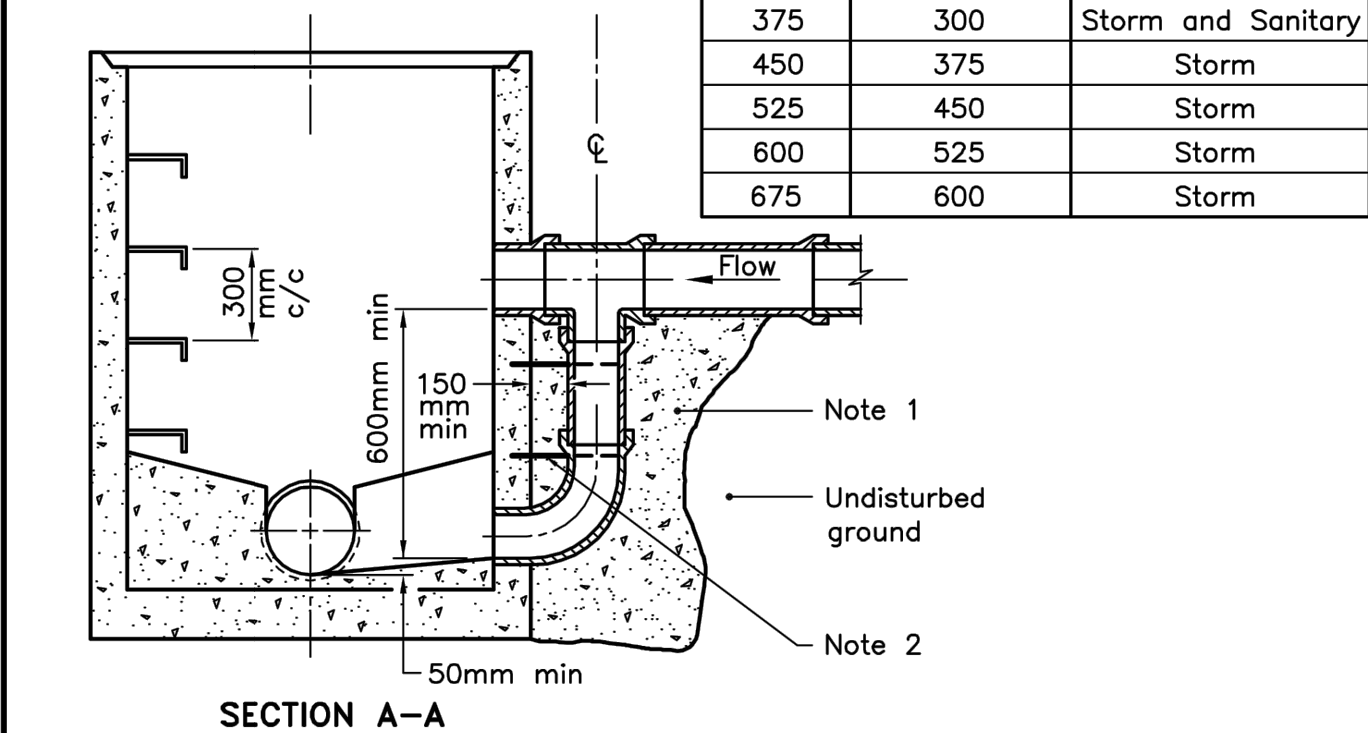
**NOTES:**  
1 Height of fill is measured from the finished surface to top of pipe.  
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.  
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.  
4 Condition of excavation is symmetrical about centreline of pipe.

**A** Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.  
**B** Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.  
**C** All dimensions are in metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3	
<b>FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION</b>	-----	-----	-----
<b>OPSD 802.010</b>			

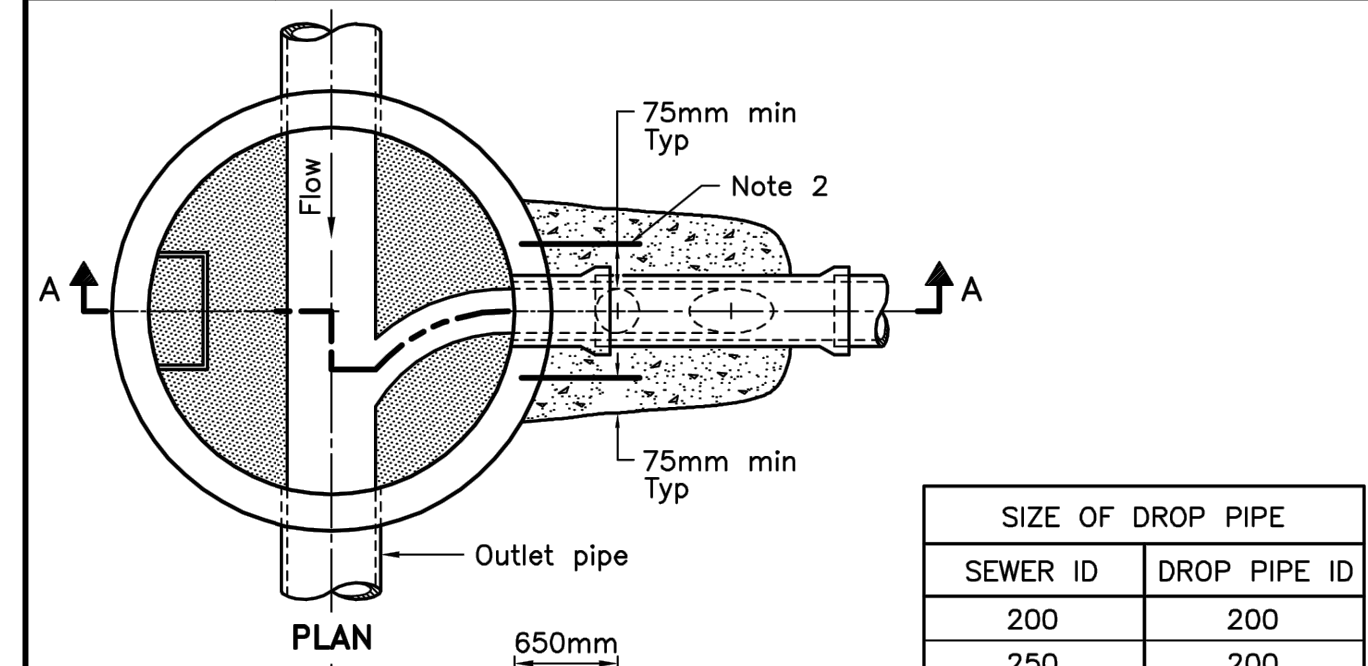


SIZE OF DROP PIPE		
SEWER ID	DROP PIPE ID	APPLICATION
200	200	Storm and Sanitary
250	200	Storm and Sanitary
300	250	Storm and Sanitary
375	300	Storm and Sanitary
450	375	Storm
525	450	Storm
600	525	Storm
675	600	Storm

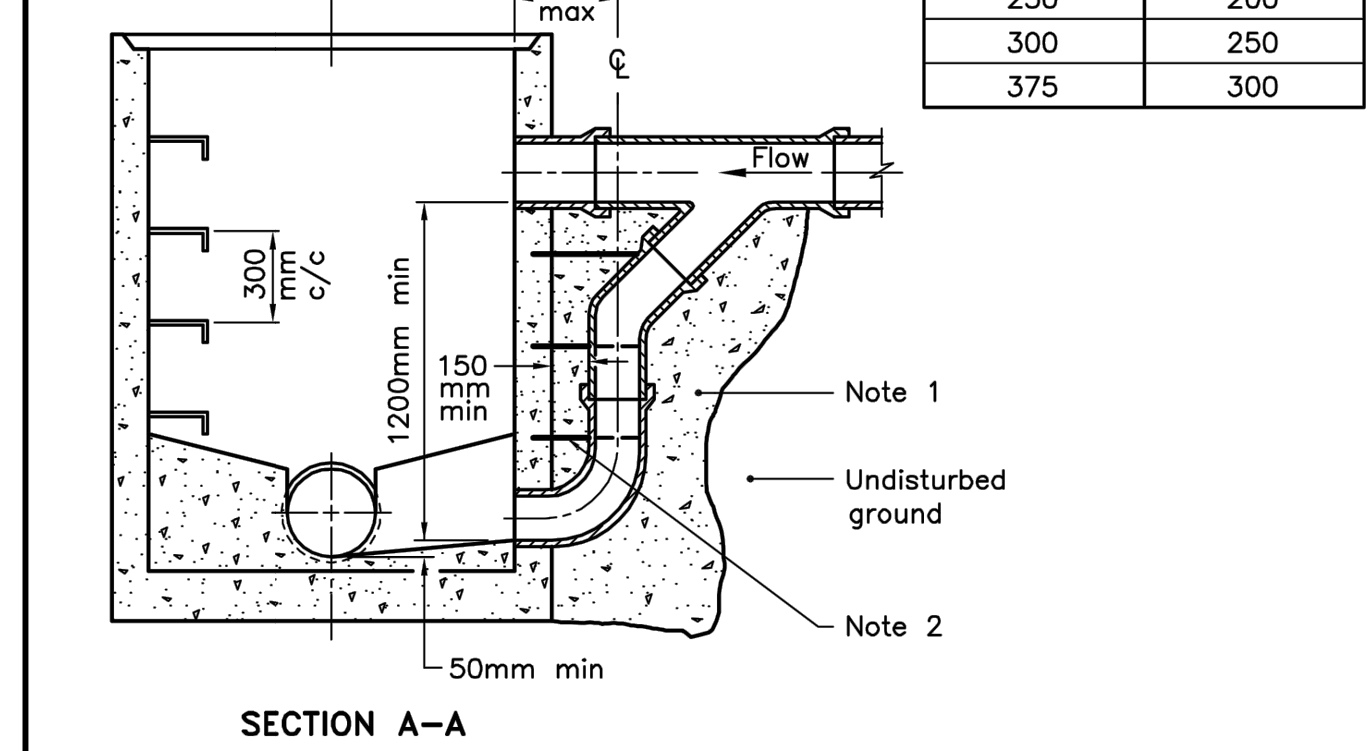


**NOTES:**  
1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.  
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.  
**A** All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3	
<b>CAST-IN-PLACE MAINTENANCE HOLE DROP STRUCTURE TEE</b>	-----	-----	-----
<b>OPSD 1003.010</b>			

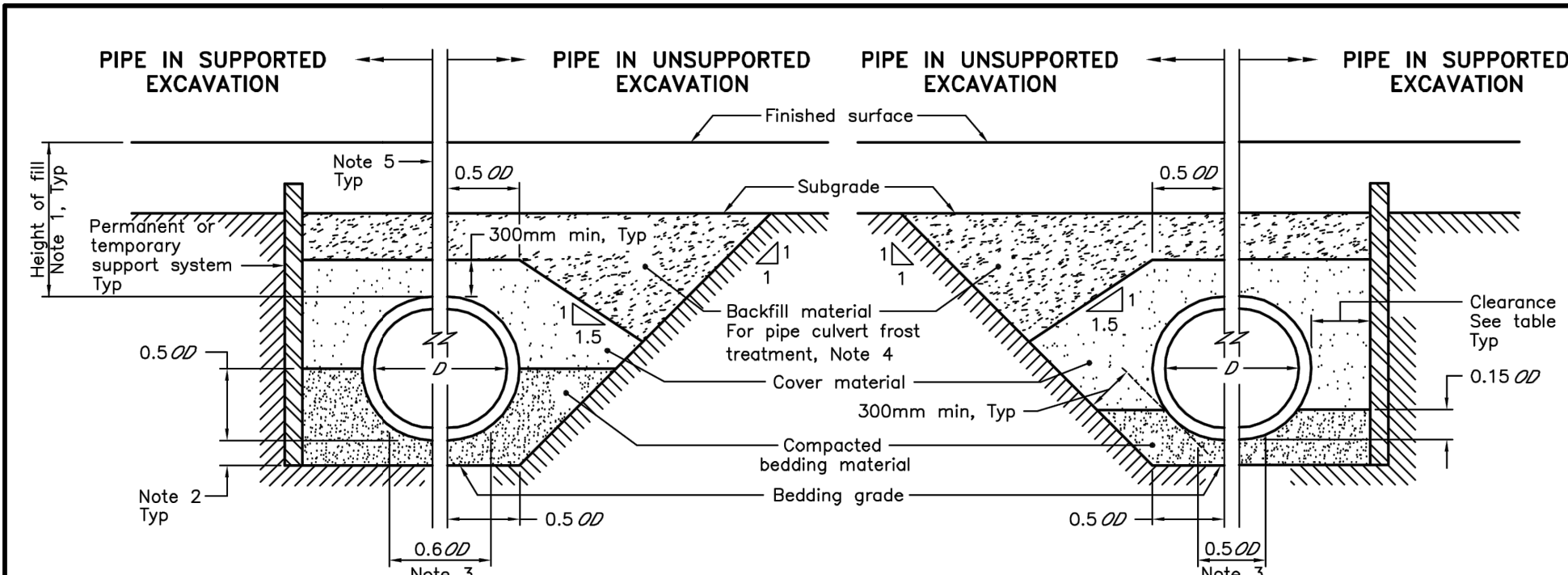


SIZE OF DROP PIPE	
SEWER ID	DROP PIPE ID
200	200
250	200
300	250
375	300



**NOTES:**  
1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.  
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.  
**A** All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3	
<b>CAST-IN-PLACE MAINTENANCE HOLE DROP STRUCTURE WYE</b>	-----	-----	-----
<b>OPSD 1003.020</b>			



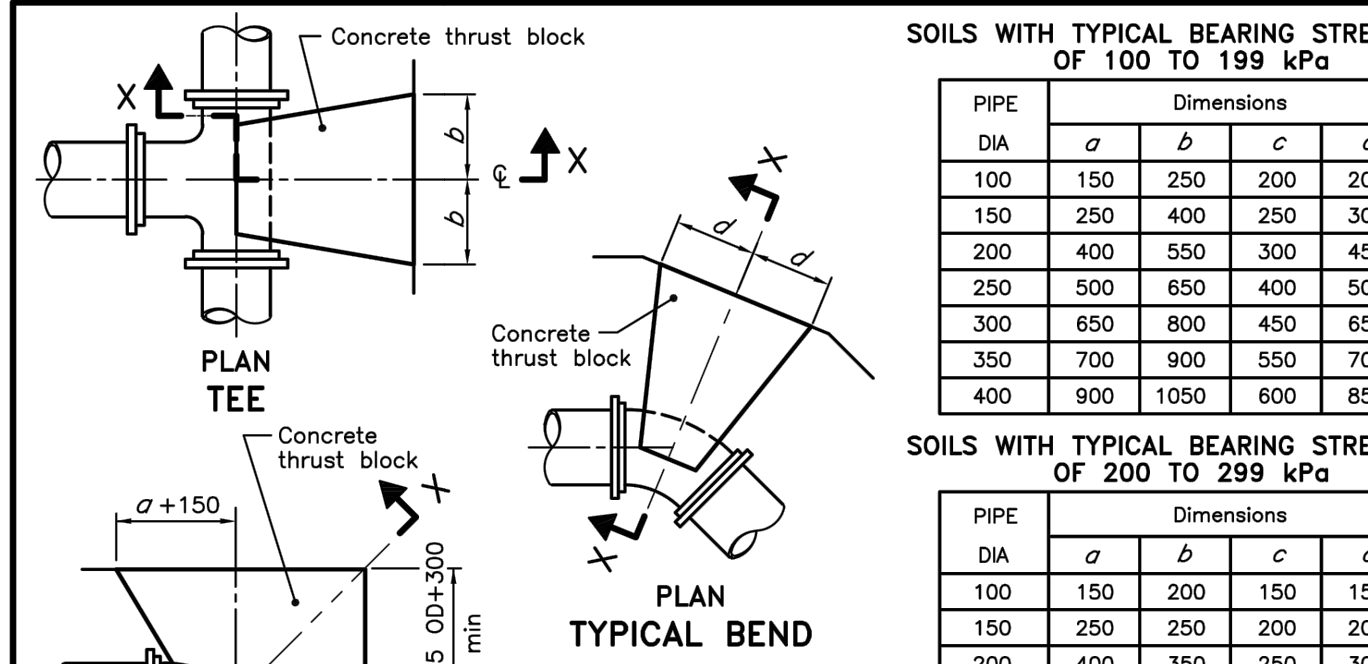
**LEGEND:**  
 $D$  – Inside diameter  
 $OD$  – Outside diameter

**NOTES:**  
1 Height of fill is measured from the finished surface to top of pipe.  
2 The minimum bedding depth below the pipe shall be 0.15D. In no case shall this dimension be less than 150mm or greater than 300mm.  
3 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.  
4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.  
5 Condition of excavation is symmetrical about centreline of pipe.

**A** Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.  
**B** All dimensions are in metres unless otherwise shown.

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 3	
<b>RIGID PIPE BEDDING, COVER, AND BACKFILL TYPE 3 SOIL – EARTH EXCAVATION</b>	-----	-----	-----
<b>OPSD 802.031</b>			



**SOILS WITH TYPICAL BEARING STRENGTH OF 100 TO 199 kPa**

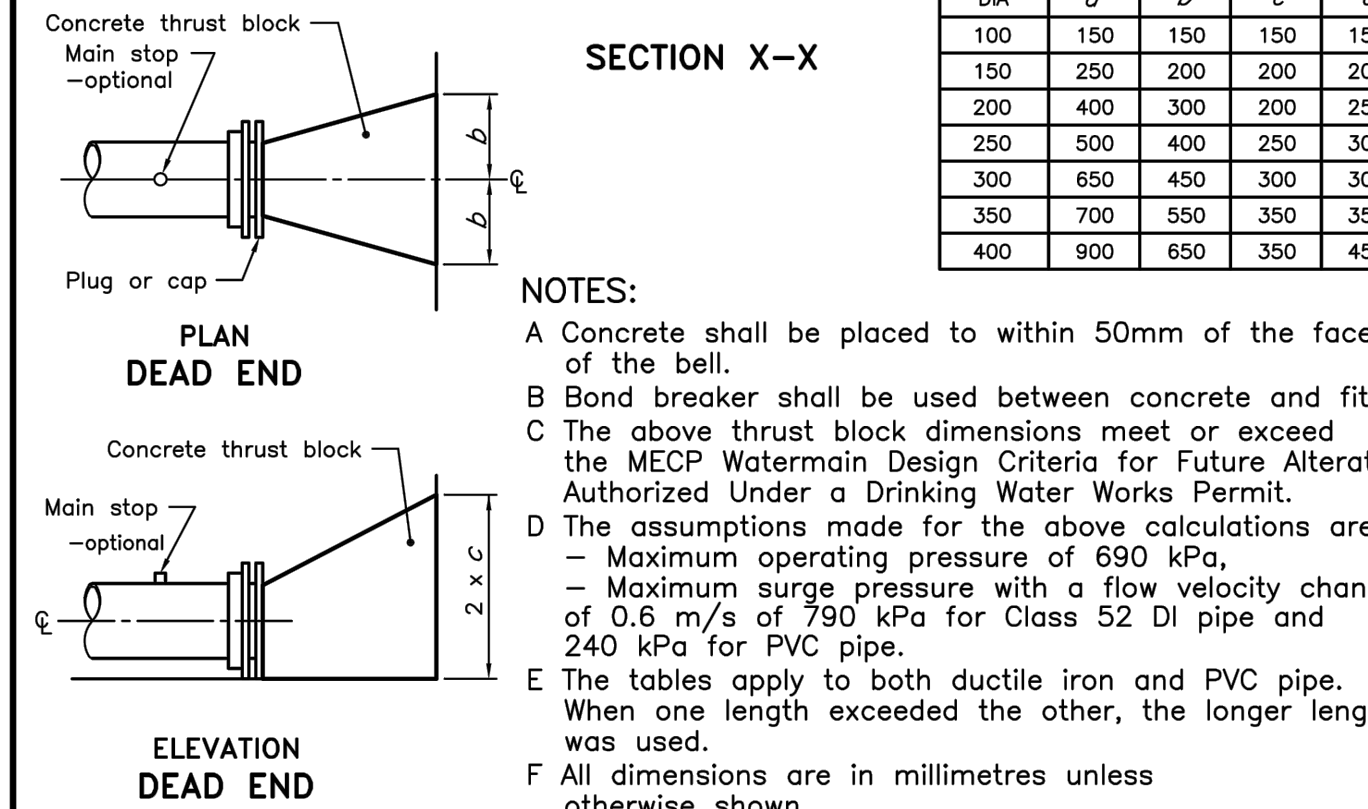
PIPE DIA	Dimensions			
	a	b	c	d
100	150	250	200	200
150	250	400	250	300
200	400	550	300	450
250	500	650	400	500
300	650	800	450	650
350	700	900	550	700
400	900	1050	600	850

**SOILS WITH TYPICAL BEARING STRENGTH OF 200 TO 299 kPa**

PIPE DIA	Dimensions			
	a	b	c	d
100	150	200	150	150
150	250	250	200	200
200	400	350	250	300
250	500	450	300	350
300	650	500	350	400
350	700	600	400	500
400	900	750	400	600

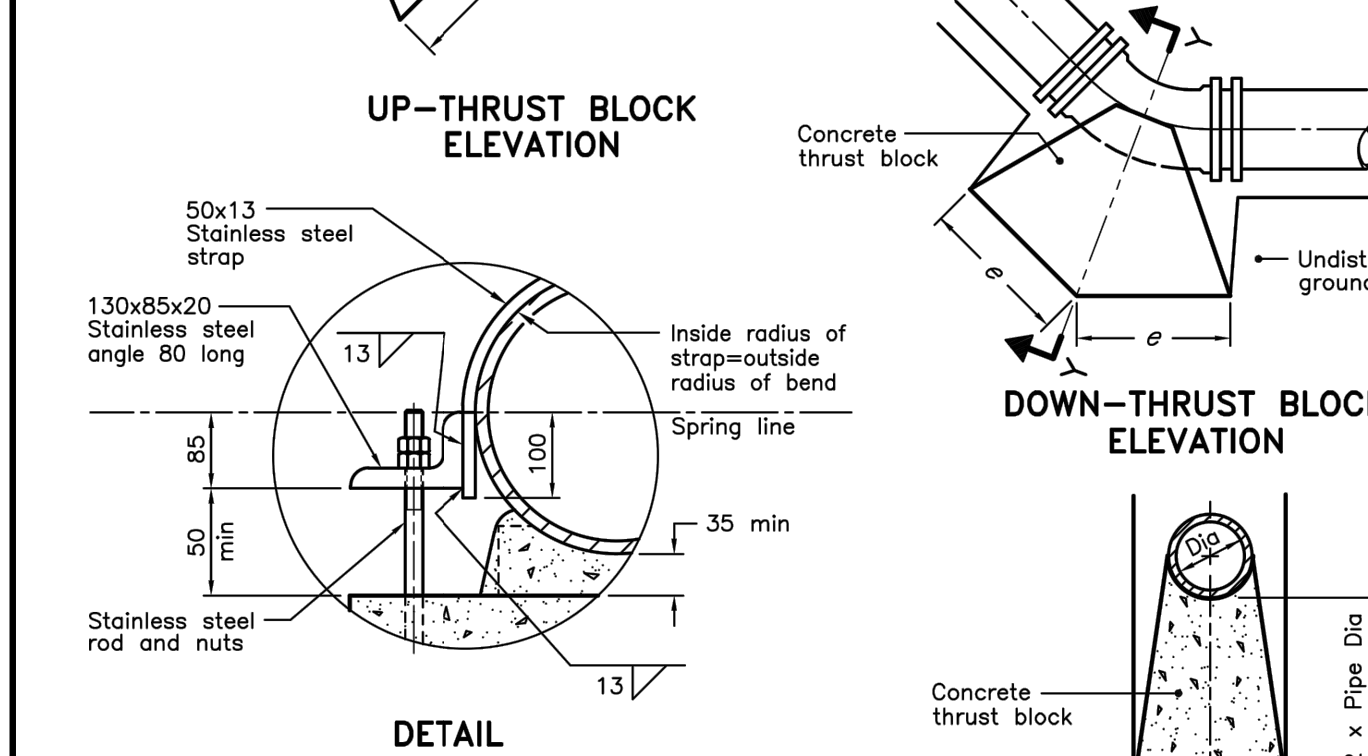
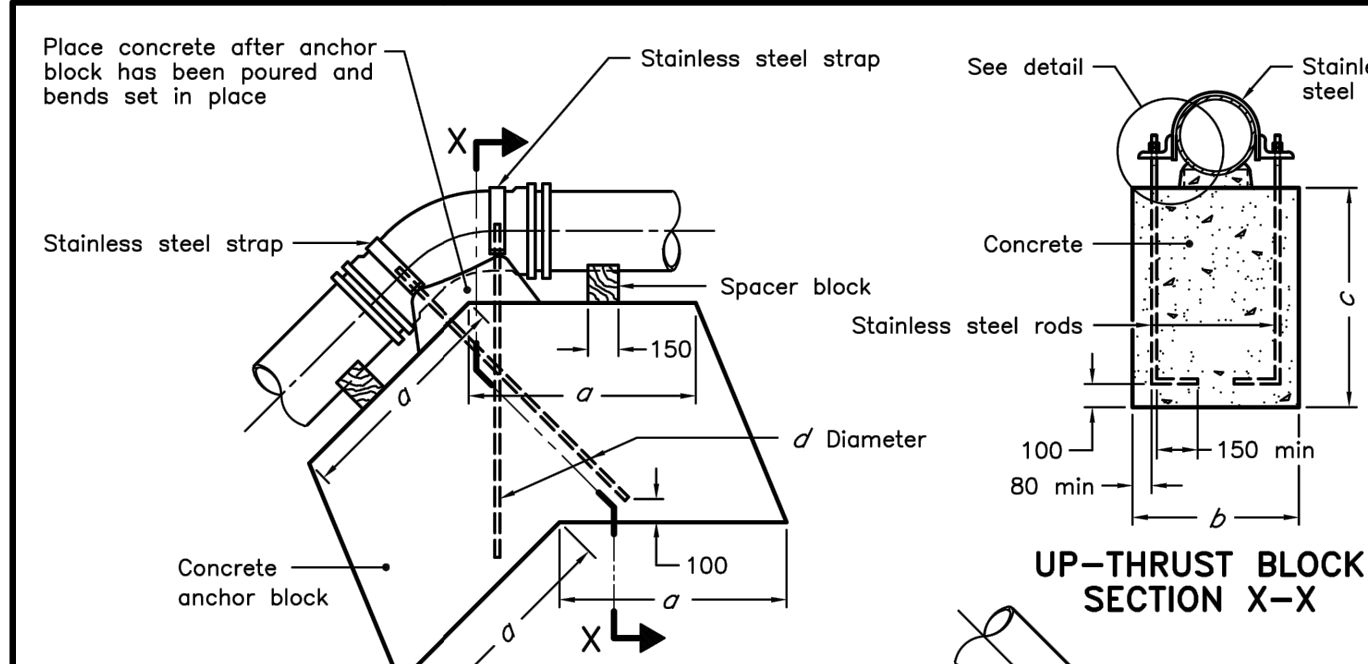
**SOILS WITH TYPICAL BEARING STRENGTH OF 300 kPa AND OVER**

PIPE DIA	Dimensions			
	a	b	c	d
100	150	150	150	150
150	250	200	200	200
200	400	300	200	250
250	500	400	250	300
300	650	450	300	300
350	700	550	350	350
400	900	650	350	450



**NOTES:**  
**A** Concrete shall be placed to within 50mm of the face of the bell.  
**B** Bond breaker shall be used between concrete and fittings.  
**C** The above thrust block dimensions meet or exceed the MECP Watermain Design Criteria for Future Alterations Authorized Under a Drinking Water Works Permit.  
**D** The assumptions made for the above calculations are:  
– Maximum operating pressure of 690 kPa,  
– Maximum surge pressure with a flow velocity change of 0.6 m/s of 790 kPa for Class 52 DI pipe and 240 kPa for PVC pipe.  
**E** The tables apply to both ductile iron and PVC pipe. When one length exceeded the other, the longer length was used.  
**F** All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3	
<b>CONCRETE THRUST BLOCKS FOR TEES, PLUGS, AND HORIZONTAL BENDS</b>	-----	-----	-----
<b>OPSD 1103.010</b>			



**NOTES:**  
**A** Concrete shall be placed to within 50mm of the face of the bell.  
**B** Bond breaker shall be used between concrete and fittings.  
**C** This blocking is for bends up to 45° for up-thrust and 90° for down-thrust.  
**D** This OPSD shall be read in conjunction with OPSD 1103.021.  
**E** All stainless steel to be type 316.  
**F** Stainless steel rods and nuts to be designed based on actual watermain diameter and surge pressure.  
**G** All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 4	
<b>CONCRETE THRUST BLOCKS FOR VERTICAL BENDS</b>	-----	-----	-----
<b>OPSD 1103.020</b>			



**PROFESSIONAL ADVISORS**

Architecture :

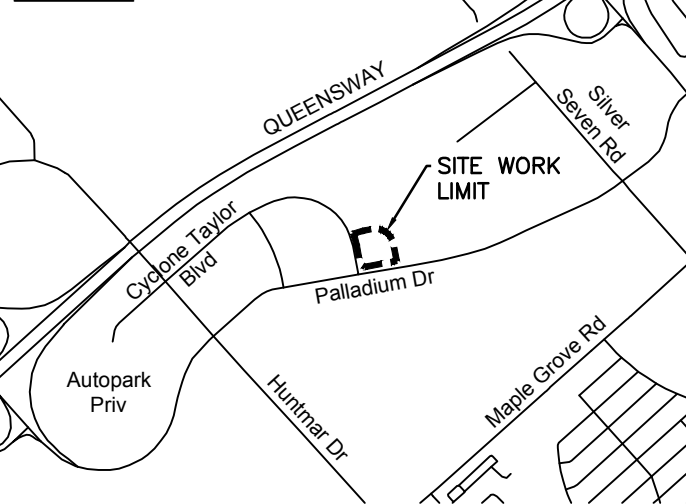


Structure / Civil :



Mechanical / Electricity :

Key Plan :



**REVISIONS**

No	yy/mm/dd	Description	By
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

THIS DOCUMENT SHALL NOT BE USED FOR CONSTRUCTION

Project :

**OFFICE DEVELOPMENT  
800 PALLADIUM DR.**

Drawing :

**DETAILS PLAN**

Designed By :		Drawn By :	
BENJAMIN TARDIOLI		JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :	
C.L.L.	C010 - DETAILS PLAN.DWG	AS SHOWN	
Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C019	