

# GENERAL NOTES:

- DO NOT SCALE DRAWINGS.
- ALL MEASUREMENTS FOR THIS PROJECT ARE IN METRES UNLESS OTHERWISE NOTED. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES, OMISSIONS, OR ERRORS TO THE SITE MANAGER (ENGINEER). NO WORK IS TO PROCEED BEFORE CLARIFICATION OF THE DISCREPANCIES, OMISSIONS, OR ERRORS ARE RECEIVED FROM SITE MANAGER (ENGINEER).
- LOCATIONS PROVIDED FOR EXISTING SERVICES AND UTILITIES ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY UTILITY LOCATES PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL INFORM THE TOWNSHIP OF MULMUR AND THE SITE MANAGER (ENGINEER) A MINIMUM OF 48HRS IN ADVANCE OF THE INTENTION TO COMMENCE WORK.
- THE CONTRACTOR SHALL AT ALL TIMES, PROVIDE SUITABLE TEMPORARY BARRICADES AND FLAGGING PROTECTION IN ACCORDANCE WITH MINISTRY OF LABOUR POLICIES AND THE OCCUPATIONAL HEALTH AND SAFETY ACT.
- ALL BROKEN CONCRETE, BRICK, EARTH EXCAVATION AND NON-SALVAGEABLE MATERIAL SHALL BE DISPOSED OF AT AN APPROVED LOCATION.
- ONLY THE LATEST APPROVED DRAWINGS AND SPECIFICATIONS ARE TO BE USED FOR CONSTRUCTION.
- ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF THE CONSULTANT, AND SHALL BE RETURNED TO THE CONSULTANT UPON REQUEST. IN NO WAY SHALL THE DRAWINGS AND/OR SPECIFICATIONS, IN WHOLE OR IN PART, BE REPRODUCED OR DISTRIBUTED WITHOUT THE PERMISSION OF THE CONSULTANT.
- THESE NOTES ARE GENERAL IN NATURE. FOR SPECIFIC DETAILS REFER TO TOWNSHIP OF MULMUR STANDARDS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.

# ENGINEERING NOTES:

- UNLESS OTHERWISE NOTED ON THE DRAWINGS, THE FOLLOWING REQUIREMENTS SHALL APPLY TO THE WORKS.
- PROVIDE AND INSTALL ALL WORK AS REQUIRED FOR A COMPLETE AND FUNCTIONING INSTALLATION.
- ALL MECHANICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES STANDARDS, RULES AND REGULATIONS. THE WORK SHALL MEET THE REQUIREMENT OF ALL AUTHORITIES HAVING JURISDICTION, AND SHALL MEET THE DESIGN INTENT.
- ALL WORK AND MATERIALS WITHIN THE PROPERTY BOUNDARIES SHALL CONFORM TO THE LATEST EDITION OF THE ONTARIO BUILDING CODE, WHERE THERE IS A CONFLICT BETWEEN THE FOLLOWING NOTES AND SPECIFICATIONS AND THE ONTARIO BUILDING CODE, THE DECISION OF THE CHIEF BUILDING OFFICIAL WILL GOVERN.
- FOR ALL SWALE CONSTRUCTION GRADING DETAILS, REFER TO THESE DRAWINGS.
- FOR ALL SITE GRADING DESIGN REFER TO DWG. SG-1. FOR ALL SITE SERVICING DESIGN, REFER TO DWG. SS-1.
- SEWER PIPE MATERIAL (IF APPLICABLE)  
POLYVINYL CHLORIDE PIPE SHALL CONFORM TO CSA-B-128.1 AND WITH CSA-B-182.2 AND CSA-B-182.3, PIPE SHALL BE SDR-35 AND ALL SANITARY SERVICE LATERAL TO BE SDR-28.
- SEWER BEDDING WILL CONFORM TO OPSD 802.03 FOR RIGID PIPE INSTALLATION AND OPSD 802.010 FOR FLEXIBLE PIPE INSTALLATION. NATIVE MATERIAL USED FOR BACKFILL SHALL BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER.
- ALL TRENCHES ARE TO BE BACK FILLED WITH NATIVE MATERIAL AND COMPACTED TO AT LEAST 95% STANDARD PROCTOR DENSITY. IN ADDITION, ALL STRUCTURES WITHIN TRAVELLED PORTION OF THE ROAD AND PARKING AREAS SHALL HAVE NATIVE 1:4 FROST TAPERS FROM FROST LINE TO SUB-GRADE.
- THE PROPOSED YARD/DRIVEWAY/PARKING TO REQUIRE THE REMOVAL OF ALL ORGANICS, PROVISION OF ENGINEERED FILL TO UNDERSIDE OF SUB-GRADE AND PLACEMENT OF GRANULAR MATERIAL AS FOLLOWS:
  - STRIP ORGANICS
  - ENGINEERED FILL TO 98% SPD COMPACTION TO UNDERSIDE OF GRANULARS
  - PLACEMENT OF 300mm GRANULAR 'B' MATERIAL
  - PLACEMENT OF 150mm GRANULAR 'A' MATERIAL
  - 40mm HL3 COMPACTED TOP COURSE ASPHALT
  - 50mm HL4 COMPACTED BASE COURSE ASPHALT
- ALL MATERIALS SHALL BE COMPACTED TO 98% OF THE MAXIMUM DRY DENSITY. CONTRACTOR TO COMPLETE ALL COMPACTION TESTING AND SUBMIT SUCH TO SITE ENGINEER FOR REVIEW AND APPROVAL/ACCEPTANCE.
- THE GRANULAR PARKING AREA AND DRIVEWAYS SHALL BE MAINTAINED WITH A STABLE SURFACE WHICH IS TREATED SO AS TO PREVENT THE RAISING OF DUST OR LOOSE PARTICLES.
- ALL DRAINAGE WORKS REQUIRE SEDIMENT AND EROSION CONTROL SATISFACTORY TO THE APPROVAL AGENCIES DURING CONSTRUCTION PERIODS. PRIOR TO CONSTRUCTION PROCEDURE, SEDIMENT AND EROSION CONTROLS NEED TO BE IN PLACE FOR THE MINIMIZATION OF EROSION AND CONTROL OF ANY EROSION WHICH MIGHT OCCUR DURING CONSTRUCTION. THE OWNER SHALL ENSURE ROUTINE INSPECTIONS FOR THE SEDIMENT AND EROSION CONTROL DEVICES TO MAINTAIN THEIR EFFICIENCY AS PER DESIGN AND FIELD CONDITIONS. THE CONTRACTOR IS TO ADHERE TO THE BEST CONSTRUCTION PRACTICES AND THE EROSION AND SEDIMENT CONTROL GUIDELINE FOR URBAN CONSTRUCTION.
- THE UNDERSIDE OF FLOOR SLAB AND ASSOCIATED DRAINS SHALL BE ENTIRELY LOCATED A MIN. OF 0.4m ABOVE THE SEASONAL HIGH GROUND WATER LEVELS. IF HIGHER GROUND WATER CONDITIONS ARE EVIDENT AT THE TIME OF CONSTRUCTION, FINISHED FLOOR ELEVATIONS MAY REQUIRE MODIFICATIONS ACCORDINGLY. THE HIGH GROUND WATER ELEVATION SHALL BE THE HIGHEST DOCUMENTED GROUNDWATER OBSERVED.
- PRIOR TO WORKS WITH HIGHWAY 89 R.O.W. A FORMAL R.O.P. IS TO BE ISSUED BY MTO.
- REGULATORY AND HAZARD SIGNS AS PER THE OTM BOOK 5 AND BOOK 6, SHALL BE PROVIDED AS REQUIRED BY THE TOWNSHIP AND MTO AND IN ACCORDANCE WITH THE R.O.P.

# INSPECTION AND MONITORING PLAN

- THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS MEASURES WEEKLY AND/OR FOLLOWING RAINFALL EVENTS AND COMPLETE ALL NECESSARY REPAIRS AND MAINTENANCE IMMEDIATELY. THE CONTRACTOR OR SITE ENGINEER SHALL SUPPLY THE ENGINEER AND THE TOWNSHIP A COPY OF THESE REPORTS DOCUMENTING THE STATE OF THE ESC CONTROLS AND ANY REPAIRS COMPLETED.
- THE CONTRACTOR SHALL MAINTAIN A SURPLUS SUPPLY OF MATERIALS, INCLUDING BUT NOT LIMITED TO, SILT FENCE, GEOTEXTILE FABRIC AND QUARRY STONE IN SUFFICIENT QUANTITIES TO MAKE IMMEDIATE REPAIRS AND/OR CONSTRUCT ADDITIONAL MEASURES AS MAY BE DETERMINED NECESSARY.
- THE CONTRACTOR SHALL MAINTAIN A 24 HOUR EMERGENCY CONTACT AND SHALL INITIATE AN IMMEDIATE RESPONSE TO REPAIR AND FOR OTHER RELATED MAINTENANCE ISSUES.

# STORMWATER MANAGEMENT POND PLANTING NOTES

## 1. (INSIDE SLOPES OF POND)

- NO MOW ZONE
- #7107- SEASONALLY FLOODED ANNUAL/PERENNIAL MIXTURE  
 5% NODDING BUR MARGOLD (BIDDENS CERUHA)  
 22% FOX SEDGE (CAREX VULPINOIDEA)  
 25% CANADA WILD RYE (ELYMUS CANADENSIS)  
 25% SWITCHGRASS (PANICUM VIRGATUM)  
 23% FOWL MEADOWGRASS (POA PALUSTRIS)

## 2. INFILTRATION/WETLAND POND

- (POND BOTTOM AND BIO-SWALE BOTTOM)
- #8195 - WET MEADOW MARSH MIX  
 5% BLUE VERVAIN (BAEBA HASTASA)  
 5% BLUNT BROOM SEDGE (CAREX SCOPARIS)  
 1% FLAT TOPPED ASTER (ASTER UMBELLATUS)  
 30% FOX SEDGE (CAREX VULPINOIDEA)  
 5% FRINGED SEDGE (CAREX CRINATA)  
 8% GREEN BULRUSH (SCIRPUS ATROVIRENS)  
 1% NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE)  
 1% SOFT RUSH (JUNCUS EFFUSUS)  
 1% SPOTTED JOE FLY WEED (EUPATORIUM MACULATUM)  
 1% SQUARE STEMMED MONKEY FLOWER (MIMULUS RINGENS)  
 1% SWAMP MILKWEED (AECLEPIAS INCARNATA)  
 35% VIRGINIA WILD RYE (ELYMUS VIRGINICUS)  
 3% WOOL GRASS (SCIRPUS CYPERINUS)  
 1% RICE CUTGRASS (LEERSA ORYZOIDAS)

## 3. UPLAND PLANTING ZONE

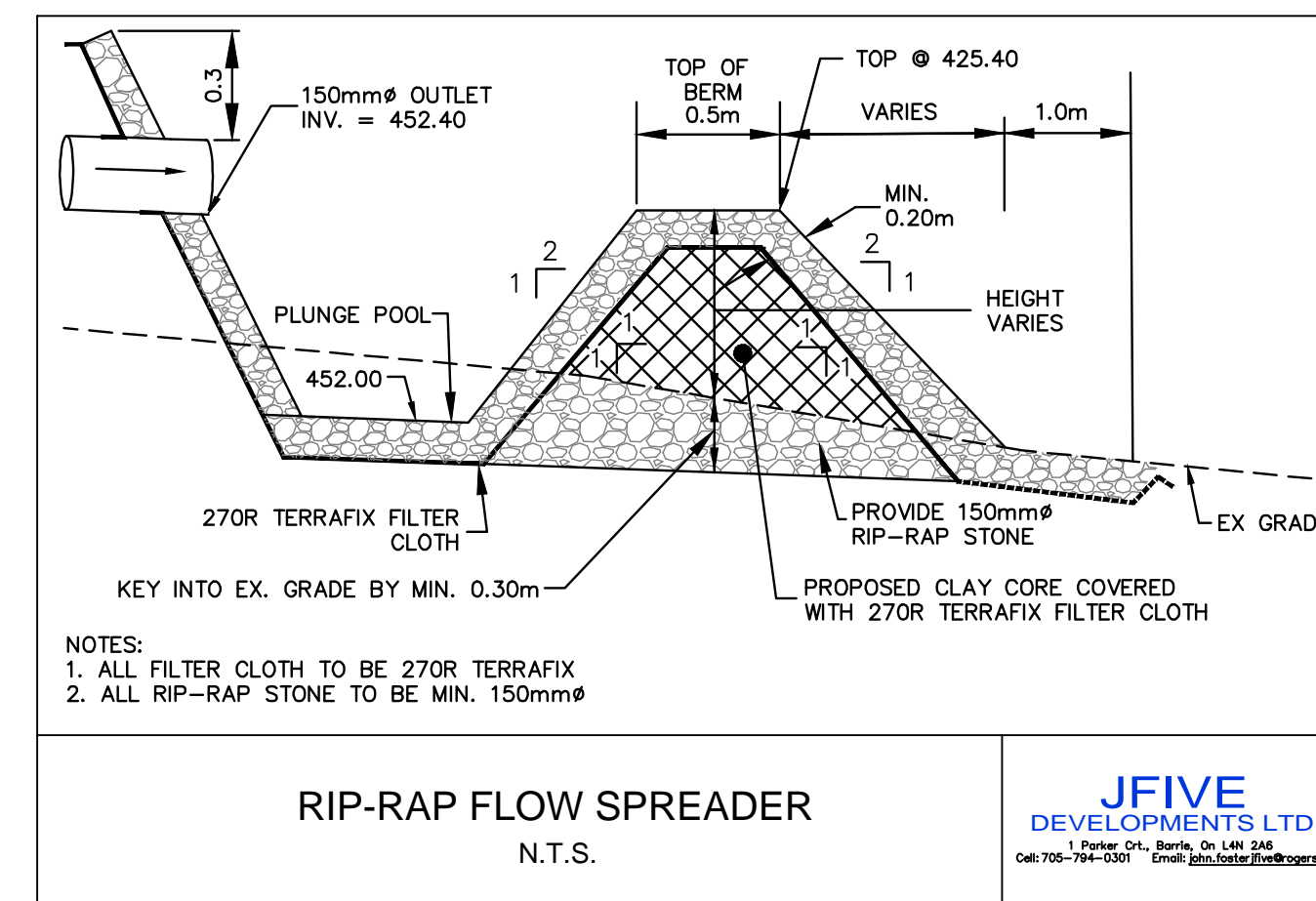
- (BERM SIDE SLOPES AND TOPS)  
 NO MOW ZONE
- SIMCOE COUNTY NATIVE UPLAND PLANTING MIX  
 2% NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE)  
 12% BLACK EYED SUSAN (RUBEOCKIA HIRTA)  
 20% CANADA WILD RYE (ELYMUS CANADENSIS)  
 4% CANADA GOLDEN ROD (SOLIDAGO OCNACLENSIA)  
 1% WILD BERGAMONTE (MONARDA FISTULOSA)  
 1% SMOOTH BLUE ASTER (ASTER IAENIA)  
 20% LITTLE BLUE STEM (ANDROPOGON SCOPARIUS)  
 20% INDIAN GRASS (SARGHASTRUM NUTANS)  
 20% SAND DROPSEED (SPOROBOOLUS CRYTANDRUS)

## 4. SEEDING RATE

- 20KG PER HECTARE
- SUPPLIED BY - OSC SEEDS 1-519-886-0557 (OR APPROVED EQUIVALENT)  
 ANNUAL RYE NURSE CROP TO BE APPLIED AT TIME OF NATIVE PRAIRIE MEADOW MIXTURE AT A RATE OF 11.25 KG PER HECTARE. REFER TO HYDRO SEEDING NOTES AND MULCH APPLICATION SPECIFICATIONS IN THIS BOX FOR FURTHER DETAILS.

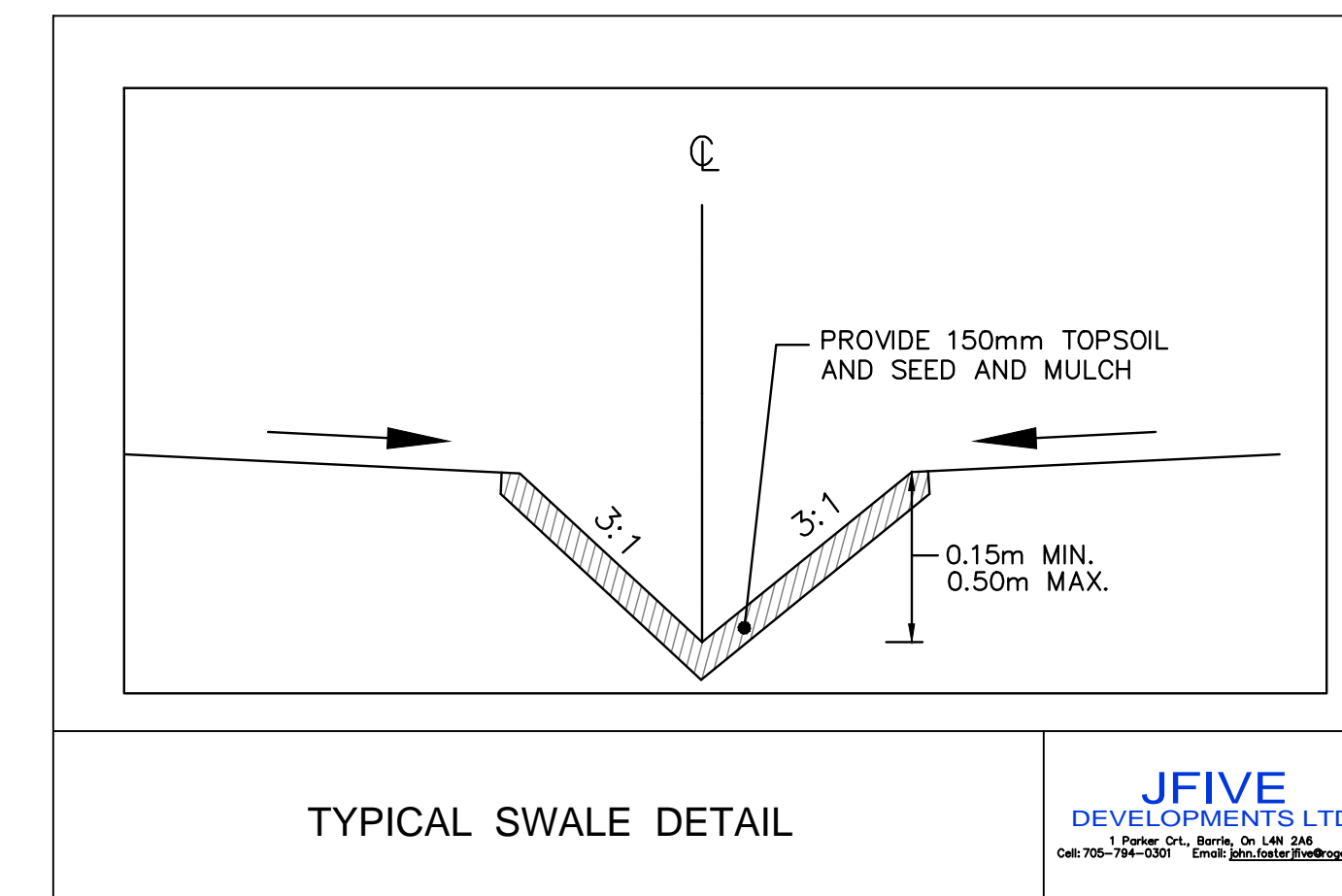
## 5. HYDRO-SEEDING AND MULCH APPLICATION SPECIFICATIONS

- STRAW MULCH**  
 STRAW MULCH SHALL BE IN THE FORM OF RECTANGULAR BALES SHREDDED AND BLOWN INTO PLACE AFTER SEEDING OR IN THE FORM OF HYDRO-SEEDING. THE STRAW MULCH SHALL FORM A CONTINUOUS BLANKET OVER THE ENTIRE AREA TO BE SEEDING. FOR SLOPES GREATER THAN 30% AN APPROVED EROSION CONTROL BLANKET OR HYDRO-SEEDING TAFTIFIER SHALL BE APPLIED AS PER MANUFACTURER'S SPECIFICATIONS.
- TOPSOIL**  
 TOPSOIL SHALL BE PROVIDED TO A MIN. DEPTH OF 300mm FOR TERRESTRIAL AREAS AND MINIMUM 300mm FOR UNDERWATER AREAS. TOPSOIL QUALITY SHALL BE AS PER OPSD 570. IT SHALL BE TESTED BY AN INDEPENDENT LABORATORY PRIOR TO INSTALLATION.



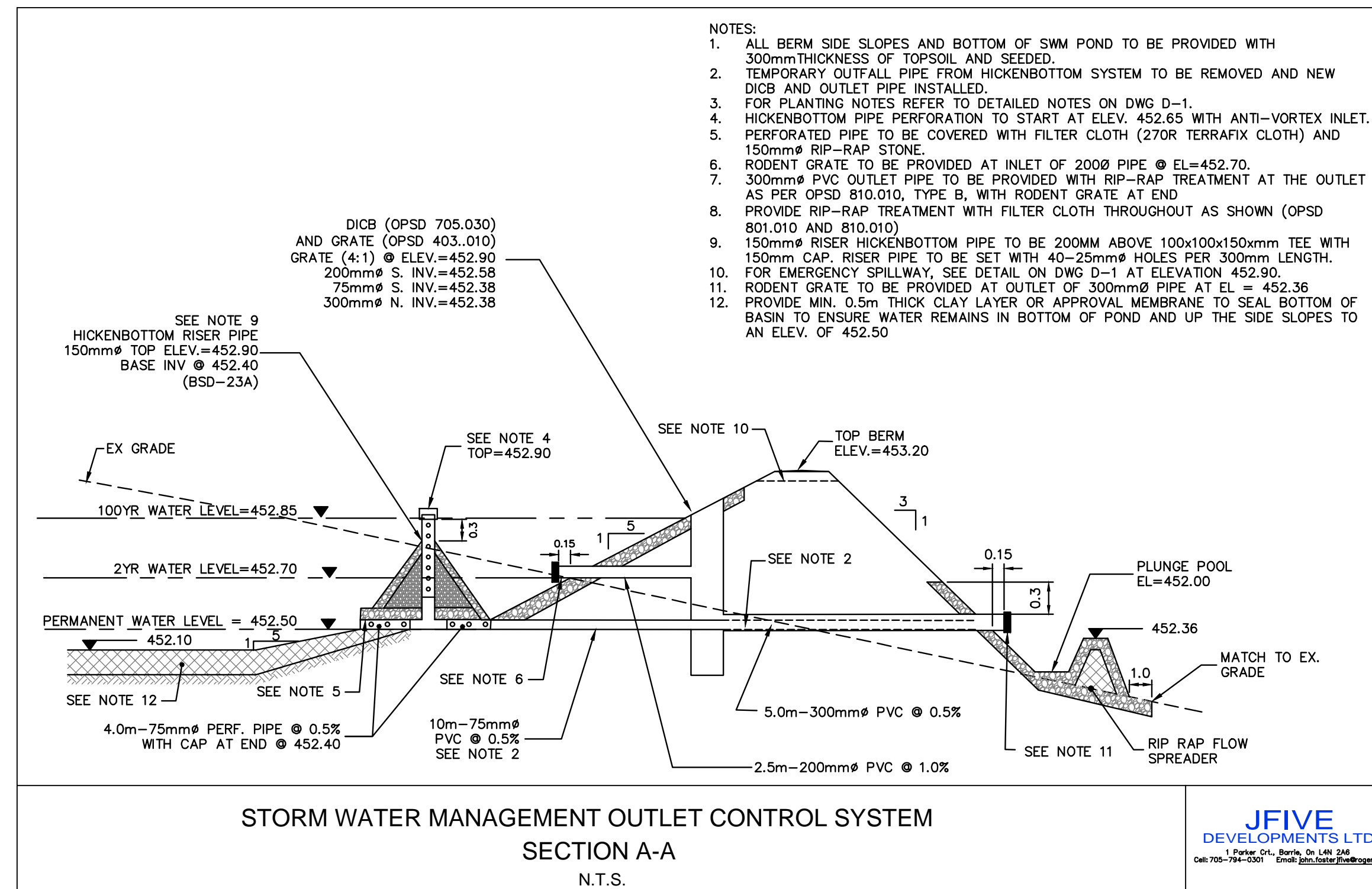
RIP-RAP FLOW SPREADER  
N.T.S.

JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Call 705-794-0301 Email: john.foster@jfive.com



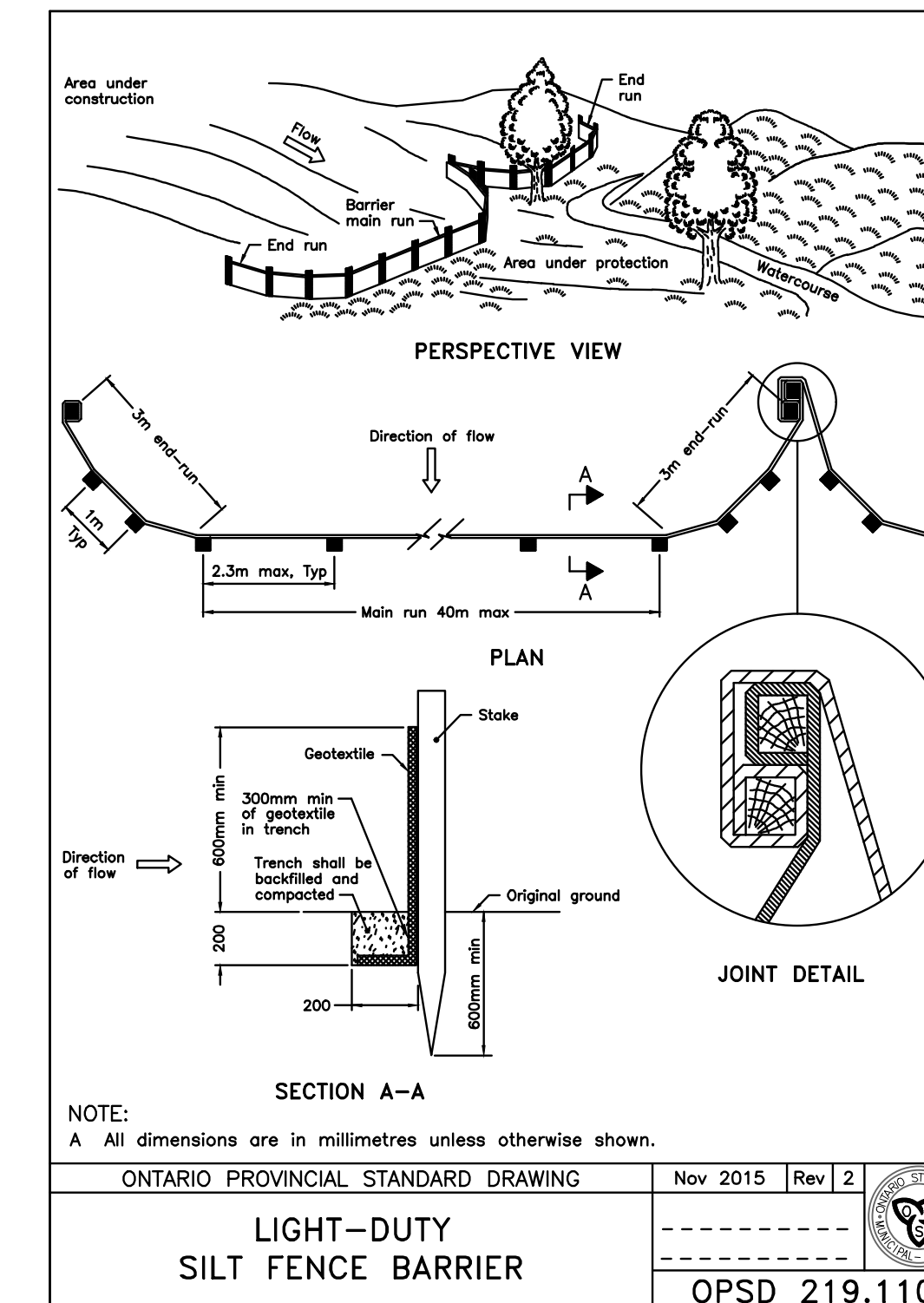
TYPICAL SWALE DETAIL

JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Call 705-794-0301 Email: john.foster@jfive.com



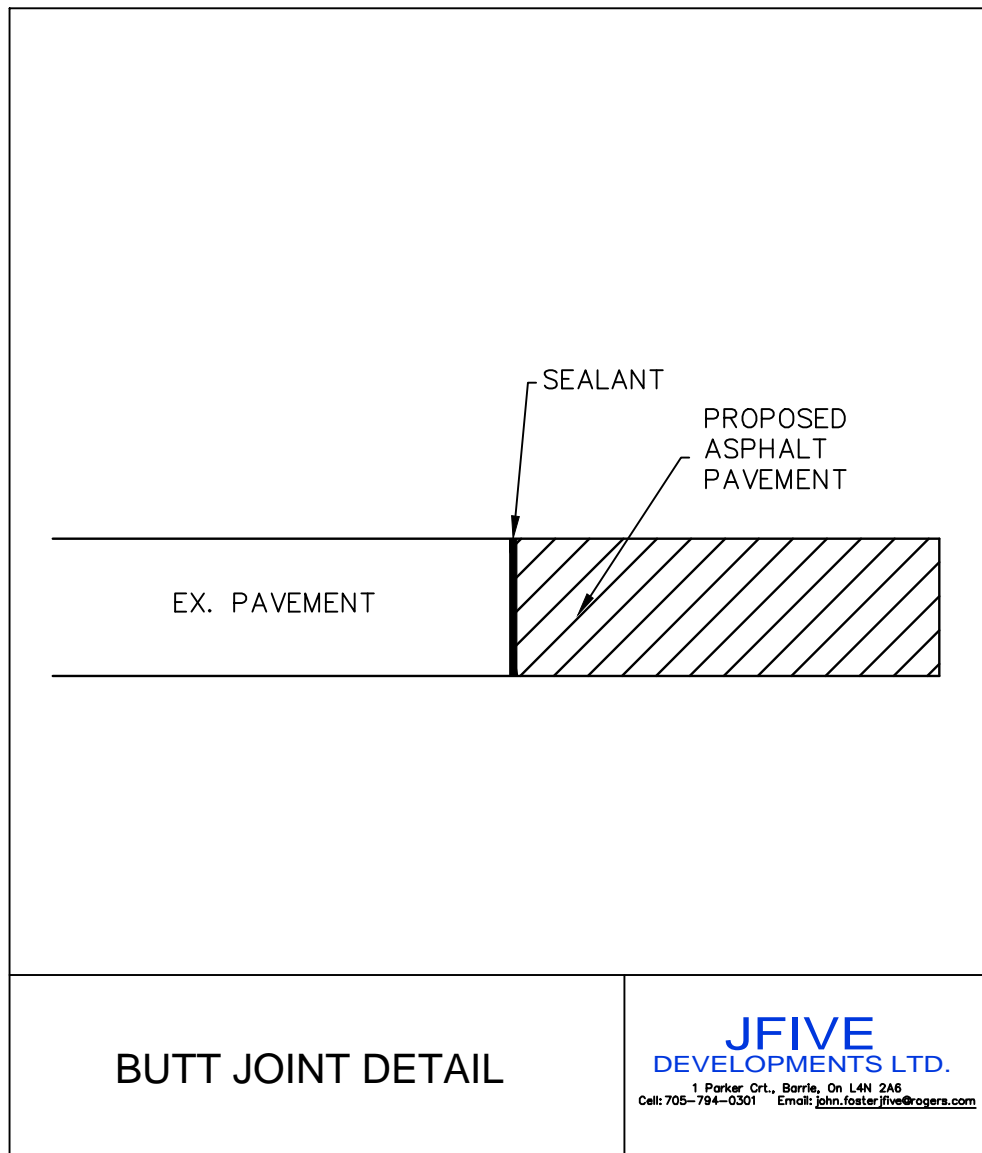
STORM WATER MANAGEMENT OUTLET CONTROL SYSTEM  
SECTION A-A  
N.T.S.

JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Call 705-794-0301 Email: john.foster@jfive.com



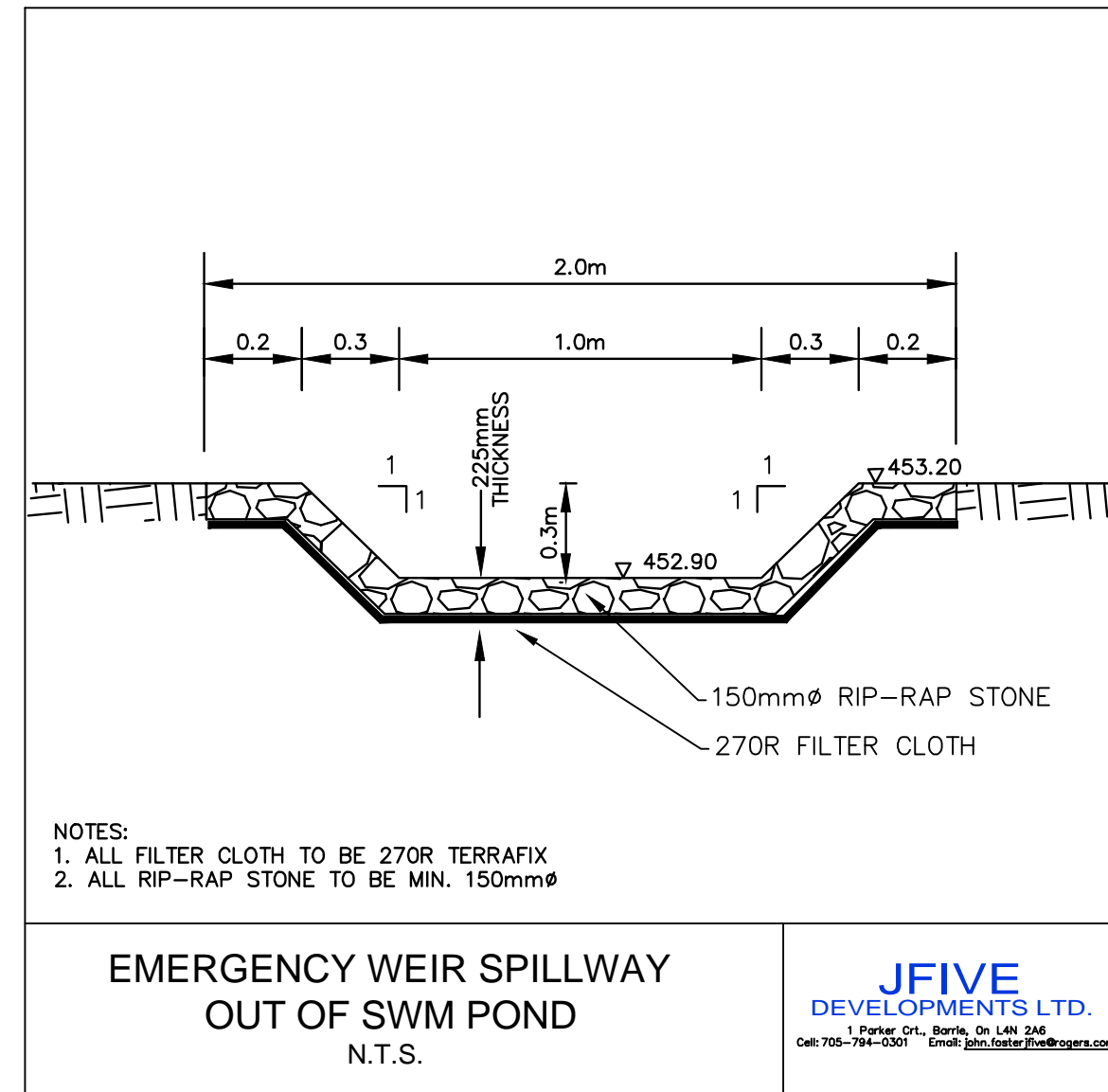
SECTION A-A  
LIGHT-DUTY SILT FENCE BARRIER  
OPSD 219.110

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2



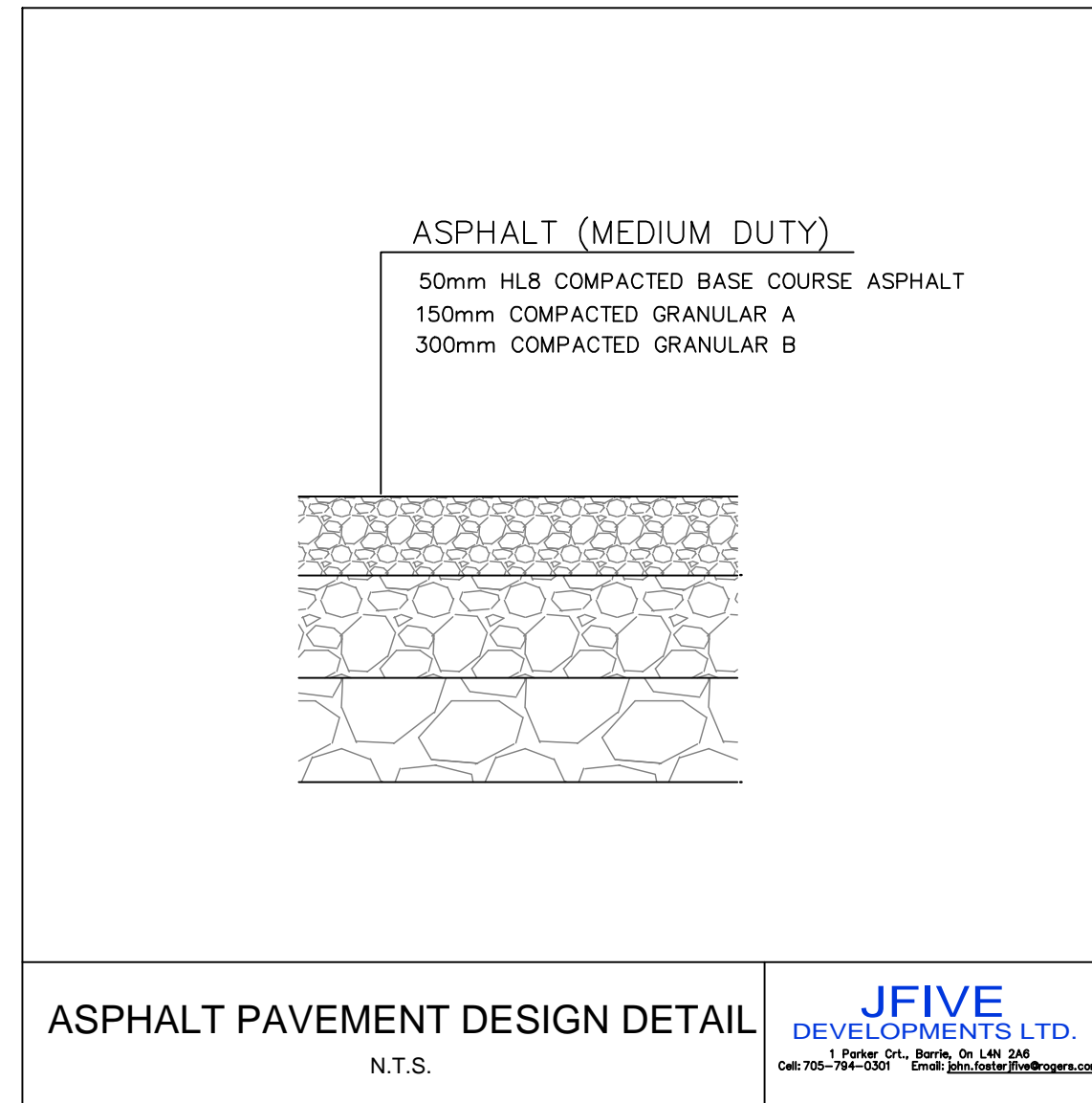
BUTT JOINT DETAIL

JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Call 705-794-0301 Email: john.foster@jfive.com



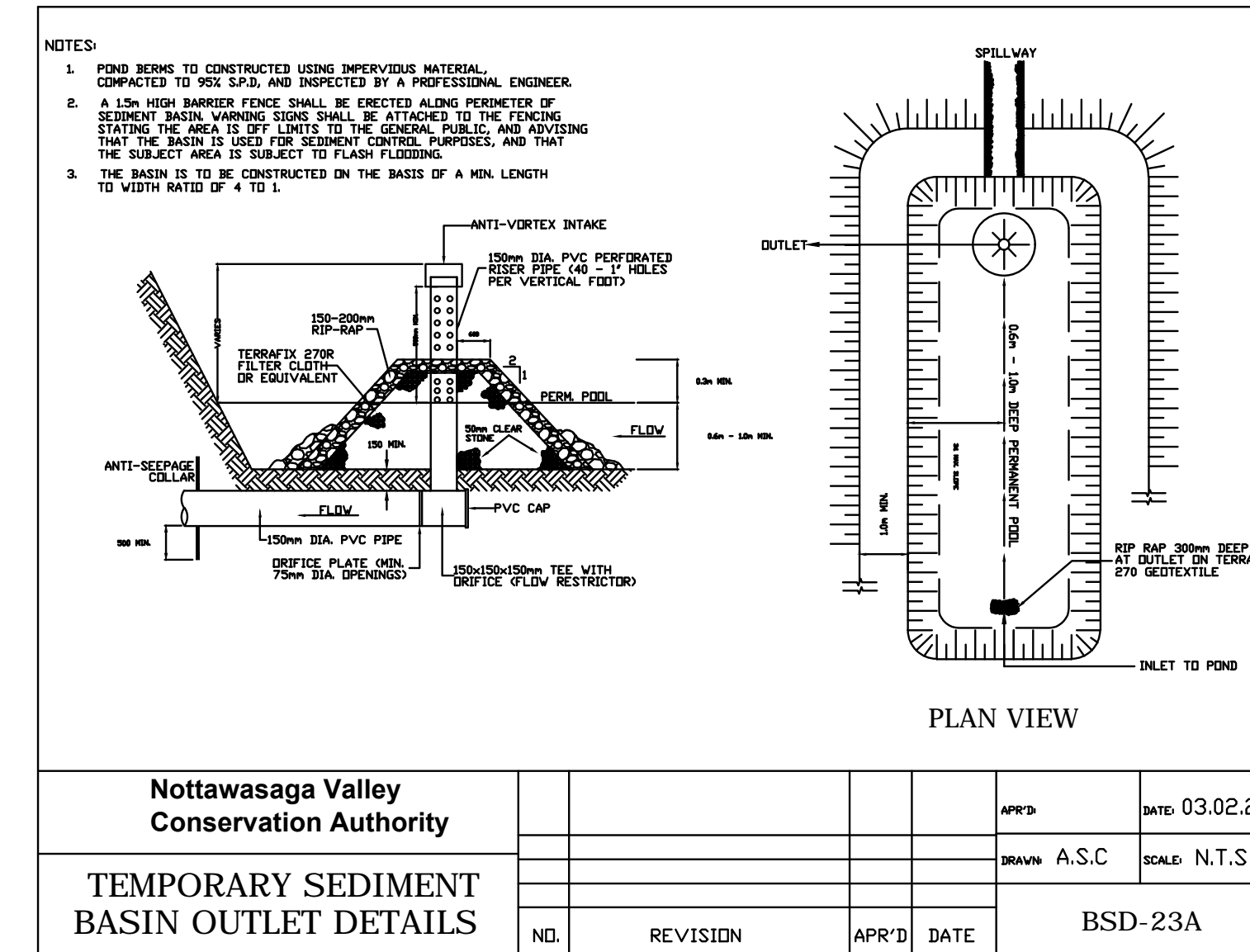
EMERGENCY WEIR SPILLWAY  
OUT OF SWM POND  
N.T.S.

JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Call 705-794-0301 Email: john.foster@jfive.com



ASPHALT PAVEMENT DESIGN DETAIL  
N.T.S.

JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Call 705-794-0301 Email: john.foster@jfive.com



Nottawasaga Valley  
Conservation Authority  
TEMPORARY SEDIMENT  
BASIN OUTLET DETAILS

PLAN VIEW

APPROVED DATE: 03.02.20  
DRAWN A.S.C. SCALE: N.T.S.

NO.	REVISION	APPR'D	DATE	BSD-23A

1	1ST SUBMISSION	MAY 22/19	J.F.	J.F.
ITEM	DESCRIPTION	DATE	BY	APPRVD

### SCHEDULE OF REVISIONS

ENGINEER'S SEAL

PROJECT: Primrose Project  
Part of Lot 1, Concession 2

TITLE: DETAILS

CONSULTING ENGINEER: JFIVE DEVELOPMENTS LTD.  
1 Parker Cr., Barrie, ON L4N 2A6  
Cell: 705-794-0301 Email: john.foster@jfive.com

TOWNSHIP OF MULMUR

DRAWN	SCALE:	DWG. No.	PROJECT No.
DESIGNED: J.F.	HOR: AS NOTED	D-1	105
CHECKED: J.F.	DATE: DEC 17/18		









