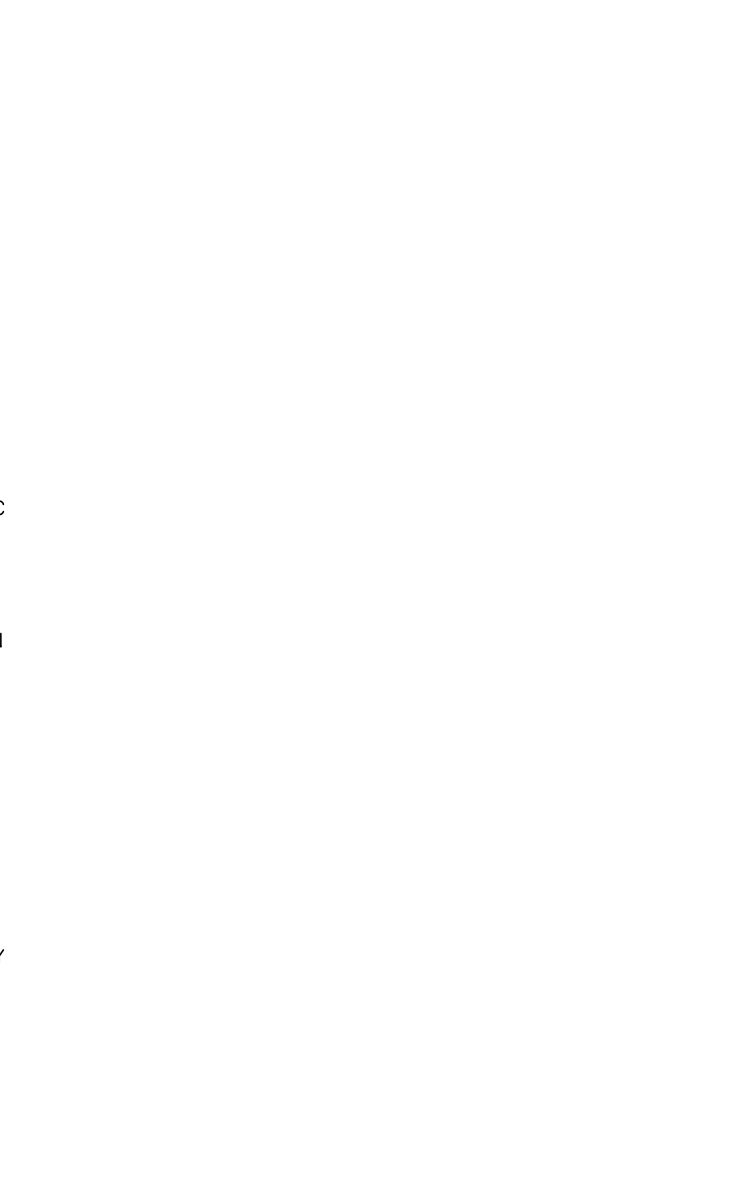


**DRAWING NOTES**

- REFER TO MECHANICAL DRAWINGS FOR CLEAN OUT DETAILS FOR ROOF DRAIN CONNECTION WITH THE EXTERIOR STORM SEWER NETWORK. PROVIDE WATER TIGHT CLEAN OUT CAPS AND FITTINGS FOR ALL PIPING CONNECTED TO ROOF DRAINS WITHIN BUILDING ENVELOPE.
- REFER TO MECHANICAL DRAWINGS FOR BUILDING WEeping TILE CONNECTION WITH EXTERIOR STORM SEWER NETWORK. SEWER BACK-UP VALVES MUST BE INSTALLED AT ALL WEeping TILE CONNECTIONS.
- REFER TO SITE PLAN AND/OR DEMOLITION PLAN FOR ALTERATION TO THE EXISTING BUILDINGS, CURBS, SIDE WALKS, FIRE ROUTES, DRIVEWAYS, PARKING, ETC.
- REFER TO SITE PLAN FOR TYPICAL DETAILS FOR CURBS, SIDEWALKS, DRIVEWAY, PARKING STALLS ETC. AND ALL OTHER SITE FURNITURE DETAILS.
- REFER TO SITE PLAN AND/OR GEO-TECHNICAL REPORT FOR ASPHALT AND ALL OTHER PAVEMENT STRUCTURE RECOMMENDATIONS.
- REFER TO LANDSCAPE DRAWINGS FOR TOPSOIL THICKNESS IN GRASS/SOD AREAS AND OTHER LANDSCAPE ISLANDS ON PRIVATE PROPERTY.
- THIS DEVELOPMENT APPLICATION DOES NOT PROPOSE ANY ALTERATION TO THE ROAD FURNITURE AND OTHER ELEMENTS SHOWN ON THIS SET OF DRAWINGS OUTSIDE THE PRIVATE PROPERTY LINE UNLESS NOTED. REFER TO DESIGN DRAWINGS FOR ADJOINING AREA DEVELOPMENT OUTSIDE THE PRIVATE PROPERTY LINE.
- CONTRACTOR IS RESPONSIBLE TO FLUSH THE PROPOSED STORM AND SANITARY SYSTEM AT THE COMPLETION OF CONSTRUCTION TO THE SATISFACTION OF GOVERNING AUTHORITY PRIOR TO FINAL CERTIFICATION.
- CONTRACTOR IS RESPONSIBLE FOR AS-BUILT SITE SURVEY SHOWING ALL TOPOGRAPHIC AND INVERT ELEVATIONS AND TO PREPARE AS-BUILT SITE GRADING AND SITE SERVING DRAWINGS AFTER COMPLETION OF WORK. DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL BEFORE FILING IT WITH THE AS-BUILT PROJECT RECORDS.
- CONTRACTOR IS RESPONSIBLE TO ENGAGE A QUALIFIED VIDEO PRODUCTION COMPANY SPECIALIZING IN PIPE INSPECTION TO INSPECT PIPE PRIOR TO BACKFILLING AND AGAIN AFTER COMPLETION OF BASE COAT ASPHALT AND SUBMIT VIDEO RECORDS TO THE OWNER AND ENGINEER PRIOR TO FINAL CERTIFICATION.
- CONTRACTOR IS RESPONSIBLE FOR FLUSHING, DISINFECTING AND TESTING OF DOMESTIC WATER AND FIRE MAINS AS OUTLINED IN O.B.C. AND MPA 13 LATEST EDITION. SHALL BE IN COMPLIANCE WITH THE LOCAL GOVERNING AUTHORITY STANDARDS.
- CONTRACTOR IS RESPONSIBLE TO MAKE COMPLETE ARRANGEMENTS WITH THE GOVERNING AUTHORITIES FOR INSPECTIONS, AND PAY ALL FEES AND CHARGES TO INSTALL THE STORM SEWER, SANITARY SEWER AND WATER MAINS INCLUDING SERVICE CONNECTIONS AS SHOWN ON THIS SET OF DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR ALL KIND OF SHORING/WIDE TRENCH EXCAVATION AND/OR ANY OTHER MEANS OF CONSTRUCTION PROCEDURE/TEMPORARY WORKS AS REQUIRED FOR THE CONSTRUCTION OF DEEP SEWERS/WATERMANS/STRUCTURES AS SHOWN ON THIS SET OF DRAWINGS. ALL THE COST ASSOCIATED WITH THIS TEMPORARY WORKS AND RESTORATION OF THE DISTURBED AREA TO ORIGINAL AND/OR BETTER CONDITION PER THE GOVERNING AUTHORITY STANDARDS MUST BE INCLUDED IN THE CONTRACT PRICE.
- CONTRACTOR IS RESPONSIBLE TO COLLECT INSPECTION AND TEST REPORTS FOR INSTALLATION OF SEWERS/WATERMANS/STRUCTURES INCLUDING COMPACTION AND MATERIAL TEST REPORTS FOR BEDDING AND BACKFILLING FROM FIELD REVIEW CONSULTANT. CONTRACTOR MUST PROVIDE THIS REPORTS TOGETHER WITH PHOTOGRAPHIC EVIDENCE OF EACH STAGE OF CONSTRUCTION TO THE DESIGN ENGINEER PRIOR TO PLACEMENT OF FINISH COAT ASPHALT.

- ADDITIONAL DRAWING NOTES**
- THIS DEVELOPMENT APPLICATION DOES NOT PROPOSE ROOFTOP STORAGE OR ANY OTHER TYPE OF RAINWATER CONTROL ABOVE PROPOSED BUILDING ROOFS.
  - RETAIN ALL EXISTING CB, MANHOLES, STORM SEWER, SANITARY SEWER AND WATERMANS UNLESS NOTED TO REMOVE.
  - KEEP ALL EXISTING STORM SEWER INFRASTRUCTURE MARKED AS REMOVE UNTIL THE CONSTRUCTION OF STORM SEWER ALTERATIONS AS PROPOSED IN THIS DRAWING ARE COMPLETE. CONTRACTOR IS RESPONSIBLE TO PUMP WATER AS REQUIRES AS UNTIL STORM SEWER ALTERATION IS COMPLETE.
  - THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR LOCATES, EXPOSING, SUPPORTING AND PROTECTING OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF CONSTRUCTION IN THE AREA OF HIS WORK, WHETHER SHOWN ON THE PLANS OR NOT, AND FOR ALL REPAIRS AND CONSEQUENCES RESULTING FROM DAMAGE TO THE SAME.



**Design Specific Geometric Information**

Retaining Wall System	DuraHold w/ Geogrid	Geogrid Type and Manufacturer	See Notes
Maximum Height (m) (ft)	18.30 (72)	Geogrid L105 (40x70)	See Notes
Minimum Slope Above Wall	Horizontal	Maximum Slope Below Wall	None
Max. Surcharge (kPa) (lb./sq.ft)	Traffic Surcharge 12 kPa (250 lb./sq.ft)	Depth of Embedment (mm) (ft)	305 (12)
Factor of Safety	1.12	Compacted Base Dimension (mm) (ft)	1228 x 305 (48 x 12)

**Design Specific Soil Information**

Description (by USCS)	Soil Region				see Ref
	Infill	Retained	Foundation	Base	
Drainage (by USCS)	Well Graded	Well Graded	Well Graded	Well Graded	
Effective Internal Friction Angle (φ)	35°	28°	28°	29°	NR
Unit Weight (kN/m <sup>3</sup> ) (lb./ft <sup>3</sup> )	22 (140)	20 (127)	20 (127)	22 (140)	NR
Effective Cohesion (kPa) (lb./sq.ft)	NR	NR	NR	NR	NR
Notes	Found in 150mm (6") fill and compacted to 95%	Undisturbed (same soil as well graded)	Always bearing (top must exceed 100kPa (2100 lbs/ft <sup>2</sup> ))	Crushed Stone (see drawing)	Gravel fill must be well graded, 100% passing 75mm (3") sieve.

**NOTES:**

- The design meets or exceeds the minimum factors of safety required by Retaining Wall Systems based on the design parameters listed above. The analysis was performed as outlined in the National Concrete Masonry Association Design Manual for Segmental Retaining Walls, Second Edition. This is a typical, not a specific, design.
- No analysis of global stability, local or differential settlement, or seismic effects has been performed.
- This design is only intended to facilitate the general arrangement of the DR structure for preliminary costing and feasibility purposes only. This drawing is not for construction. A qualified Engineer must be retained to provide the final design prior to construction.
- Structures such as handrails, guardrails, fences, terraces, and site conditions such as water applications, drainage and soil conditions, additional soil and dead loads, etc. have significant effects on the wall design and have not been taken into account in this typical section. When accounted for in the final design, other conditions and elements may result in additional design measures (spacing, drainage, etc.) and shall be designed in accordance with applicable design codes and standards. Contact your manufacturer or Retaining Wall Systems for a full list of approved geogrid reinforcements.

**TYPICAL DETAIL - NOT FOR CONSTRUCTION**  
**CONTACT MANUFACTURER FOR DETAILED DESIGN AND VERIFICATION OF DESIGN ASSUMPTIONS INCLUDING SOIL PARAMETERS AND ACTUAL TRAFFIC LOADING**



**RisiStone**  
 retaining wall systems  
 8300 Leslie Street, Suite 200  
 Thornhill, ON Canada L3T 7W8  
 Phone: 905.882.8888 Fax: 905.882.4998  
 www.risistone.com  
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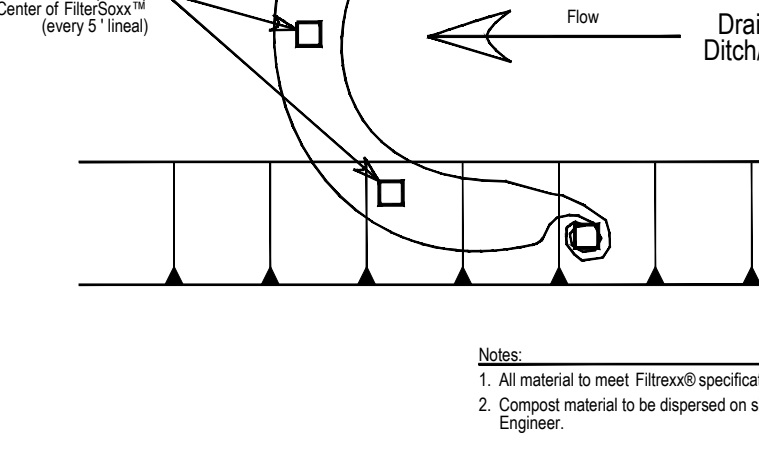
**BASE INFORMATION TAKEN FROM DRAWING(S) BY OTHERS.**  
 FLORA DESIGNS INC. DOES NOT ASSUME ANY RESPONSIBILITY FOR ERRORS, OMISSIONS OR ACCURACY OF THE INFORMATION. DRAWINGS SHALL ONLY BE USED FOR GUIDELINE PURPOSES.



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H410	15860CSP	7001-110-207
STANDARD	MEETS H400	15860CS	7001-110-208
SOLID COVER	MEETS H400	15860CS	7001-110-208
RECREATION/BROUZE	N/A	15860CPS	7001-110-211
DOCK	N/A	15860CD	7001-110-211
CRACK IN GRATE	LIGHT DUTY	15810R	7001-110-213

**TOWN OF CALEDON**

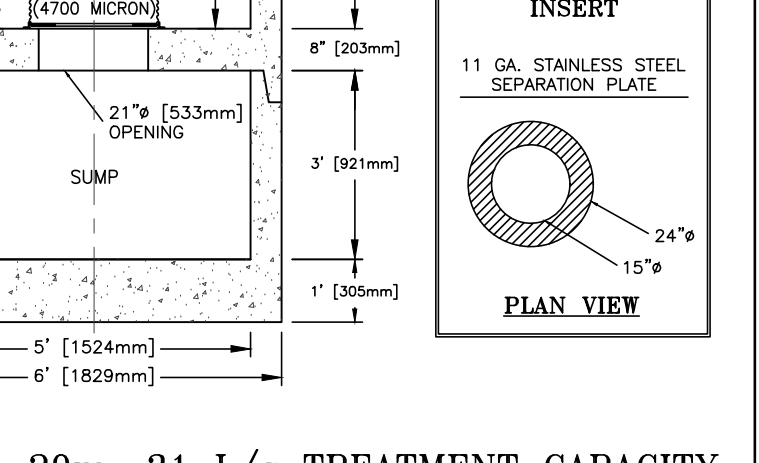
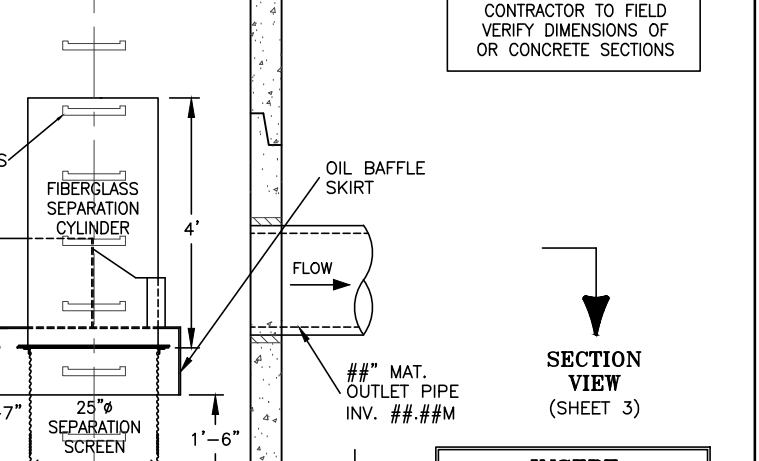
NO.	REVISION	APPRD.	DATE	SCALE	NTS
1	STANDARD No. 320.02 NOW 303	JUNE 08			STANDARD No. 303



- NOTES:**
- CATCH BASIN LIFT HOLES TO BE PARGED WITH CONCRETE.
  - WOVEN GEOTEXTILE TO HAVE A MINIMUM EQUIVALENT OPENING SIZE OF 0.15mm AND A MAXIMUM OPENING SIZE OF 0.25mm.

**Notes:**

- All material to meet Filtrix specifications.
- Compact material to be dispersed on site, as determined by Engineer.



**CDS MODEL PMSU20\_20m, 31 L/s TREATMENT CAPACITY STORM WATER TREATMENT UNIT**

NO.	REVISION	APPRD.	DATE	SCALE	NTS
1	STANDARD No. 320.02 NOW 303	JUNE 08			STANDARD No. 303

**CONTECH SOLUTIONS**  
 NE CORNER OF KING STREET & HURONTARIO STREET  
 TOWN OF CALEDON, ONTARIO  
 Echelon Environmental 505 Hood Road, Unit 26, Markham, Ontario L3R 5V6 Tel: (905) 948-0000 Fax: (905) 948-0577  
 CONTECH Stormwater Solutions Inc. 930 Woodcock Road, Suite 101, Orlando, Florida 32803 Tel: (800) 848-9955

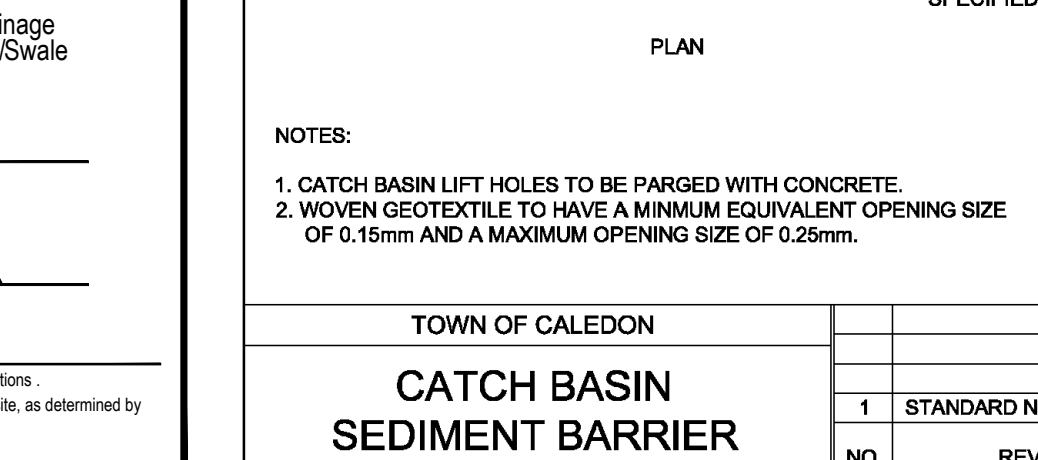


- NOTES:**
- The insulation material shall be extruded polystyrene according to OPSD 1605 with a minimum compressive strength of 275 kPa.
  - Pipe embedment or bedding, cover, and backfill shall be according to:
    - Flexible OPSD 802.010, 802.013, 802.020, and 802.023.
    - Rigid - OPSD 802.030, 802.031, 802.032, 802.033, 802.050, 802.051, 802.052, and 802.053.
  - A minimum insulation thickness shall be 50mm.
  - Joints shall be staggered for multiple insulation sheets.
  - All dimensions are in millimetres unless otherwise shown.

**ONTARIO PROVINCIAL STANDARD DRAWING**

NO.	REVISION	APPRD.	DATE	SCALE	NTS
1	STANDARD No. 320.02 NOW 303	JUNE 08			STANDARD No. 303

**INSULATION FOR SEWERS AND WATERMANS IN SHALLOW TRENCHES**  
 OPSPD 1109.030



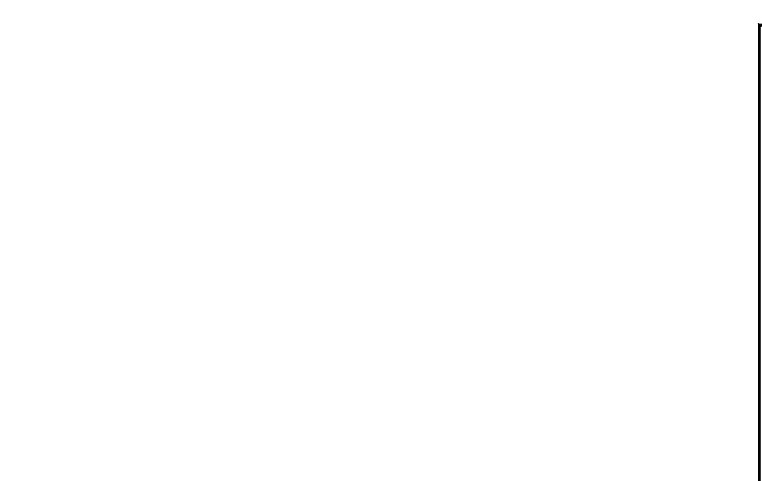
**NOTES:**

- WOVEN GEOTEXTILE TO HAVE A WEAVE DENSITY OF 270R OR EQUIVALENT
- WOVEN GEOTEXTILE TO HAVE A HORIZONTAL OVERLAP OF 100mm AT JOINTS.
- END RUNS SHALL BE TURNED UPSTREAM AT 30°

**TOWN OF CALEDON**

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**TEMPORARY ROCK FLOW CHECK DAM FLAT BOTTOM DITCH**  
 OPSPD 219.211



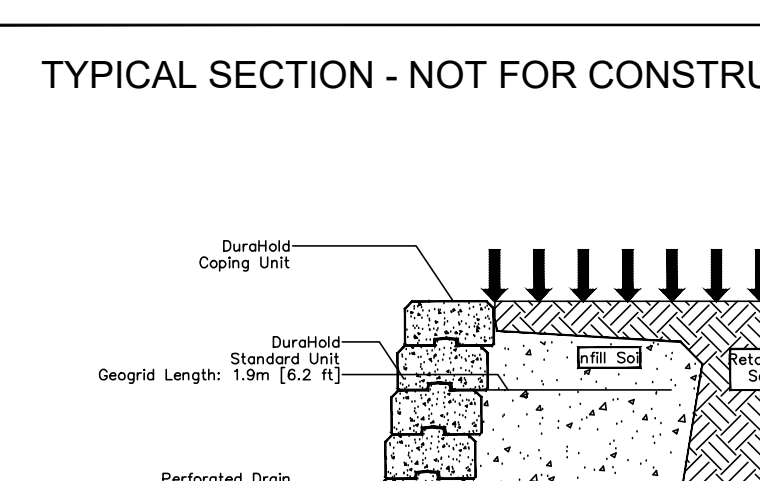
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**SEDIMENT CONTROL FENCE**  
 STANDARD No. 304



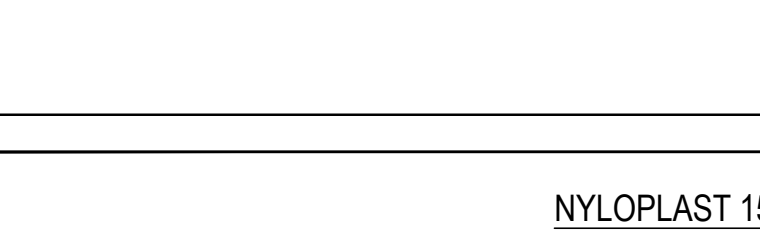
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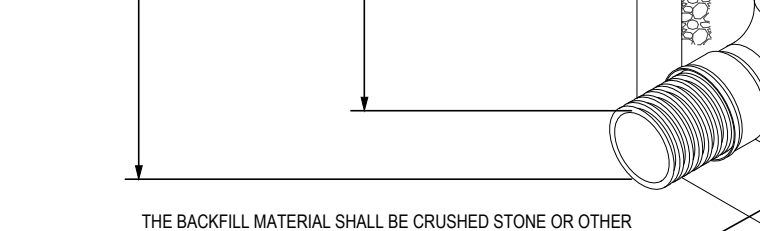
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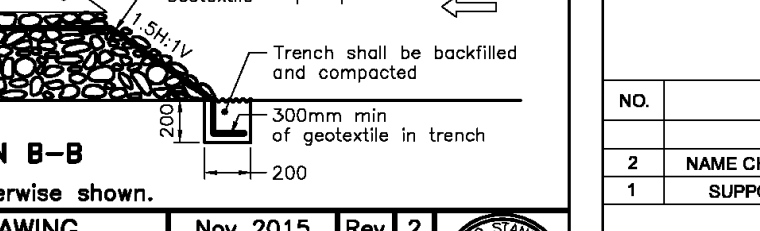
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