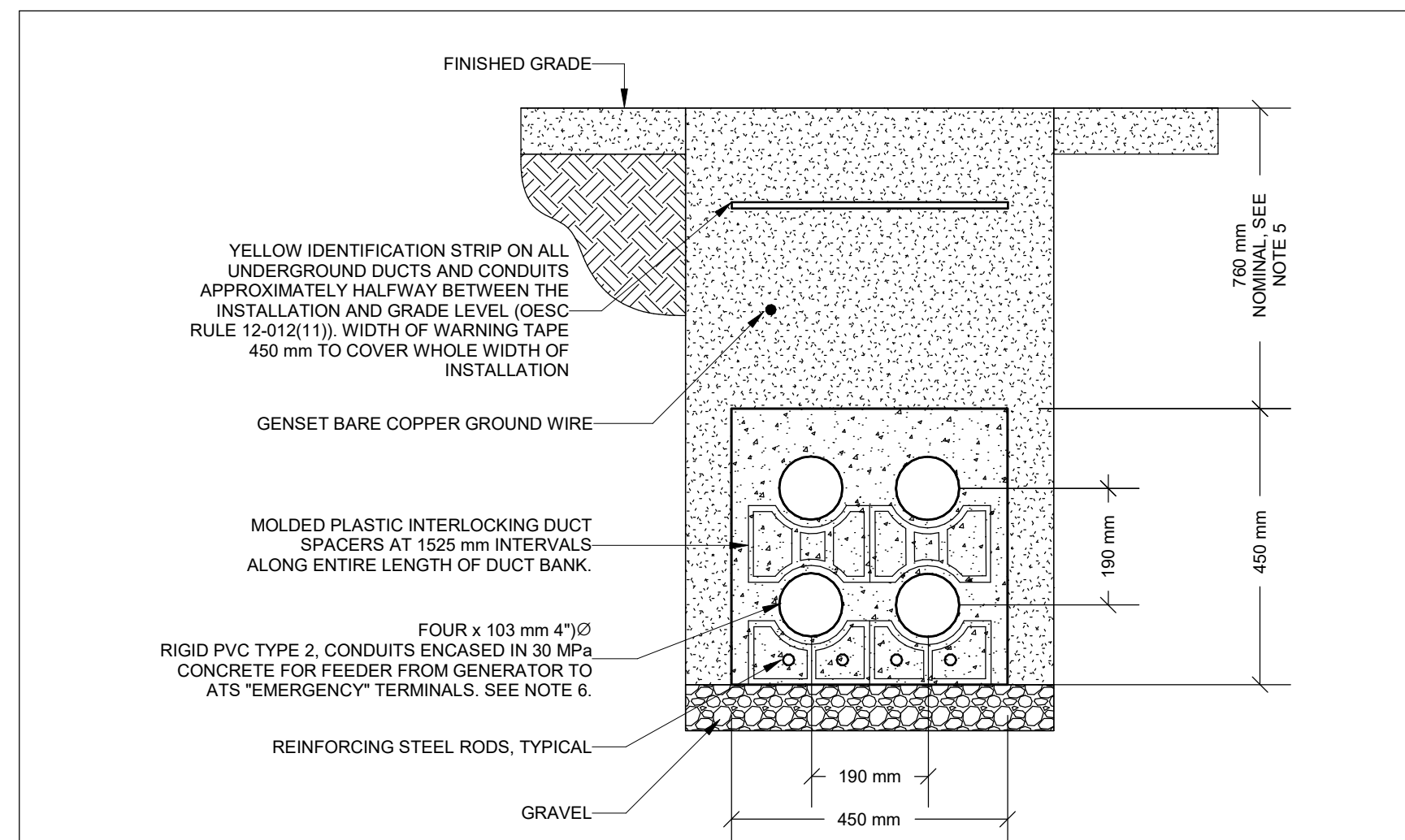


LOW VOLTAGE (BELOW 750 VOLT) TRANSFORMER DUCT BANK SECTION

NOTES:

- DUCT BANK TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), DIAGRAM D11, DETAIL 4, OR LATEST EDITION. WHERE ANY CONTRADICTION EXISTS BETWEEN THIS DETAIL AND THE OESC, THE OESC DIMENSIONS GOVERN.
- DUCT BANK TO BE INSPECTED PRIOR TO POURING OF CONCRETE AND PRIOR TO BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION AND RECEIVE ALL NECESSARY APPROVALS.
- AMPACITY OF FEEDER BASED ON OESC TABLES LISTED BELOW. LOWER OF TWO VALUES: REQUIRED: 1200 A CAPACITY. FEEDER: FOUR CONDUCTORS PER PHASE (3-PHASE), PLUS NEUTRAL, PLUS GROUND
 - TABLE D11A, "4PHASE DETAIL 4", SIZE 500 MCM: 4 x 537 AMPS = 1428 AMPS.
 - TABLE 2, SIZE 500 MCM: 4 x 380 AMPS = 1520 AMPS.
- ALTERNATE DUCT BANK CONFIGURATION MAY ONLY BE CONSIDERED BY THE CONSULTANT IF THE SAME FEEDER METHODOLOGY ABOVE IS CONSIDERED, OR AN AMPACITY CALCULATION IS PROVIDED IN ACCORDANCE WITH IEEE 835.
- GREATER DEPTH THAN THE NOTED DIMENSION WILL RESULT IN A DECREASE IN THE DUCT BANK AMPACITY. REDUCTION IN THE DEPTH REQUIRES COORDINATION WITH OESC TABLE 53.
- CONDUIT FILL IN ACCORDANCE WITH OESC TABLE 6D.
- UPPER 53 mm DUCTS (120 VOLT ACCESSORIES, AND MONITORING/CONTROL, LOW VOLTAGE) INSTALLATION PER OESC RULE 12-012(3)(d).

3Wx2H x 4in CONCRETE ENCASED DUCT BANK.
SCALE:N.T.S.

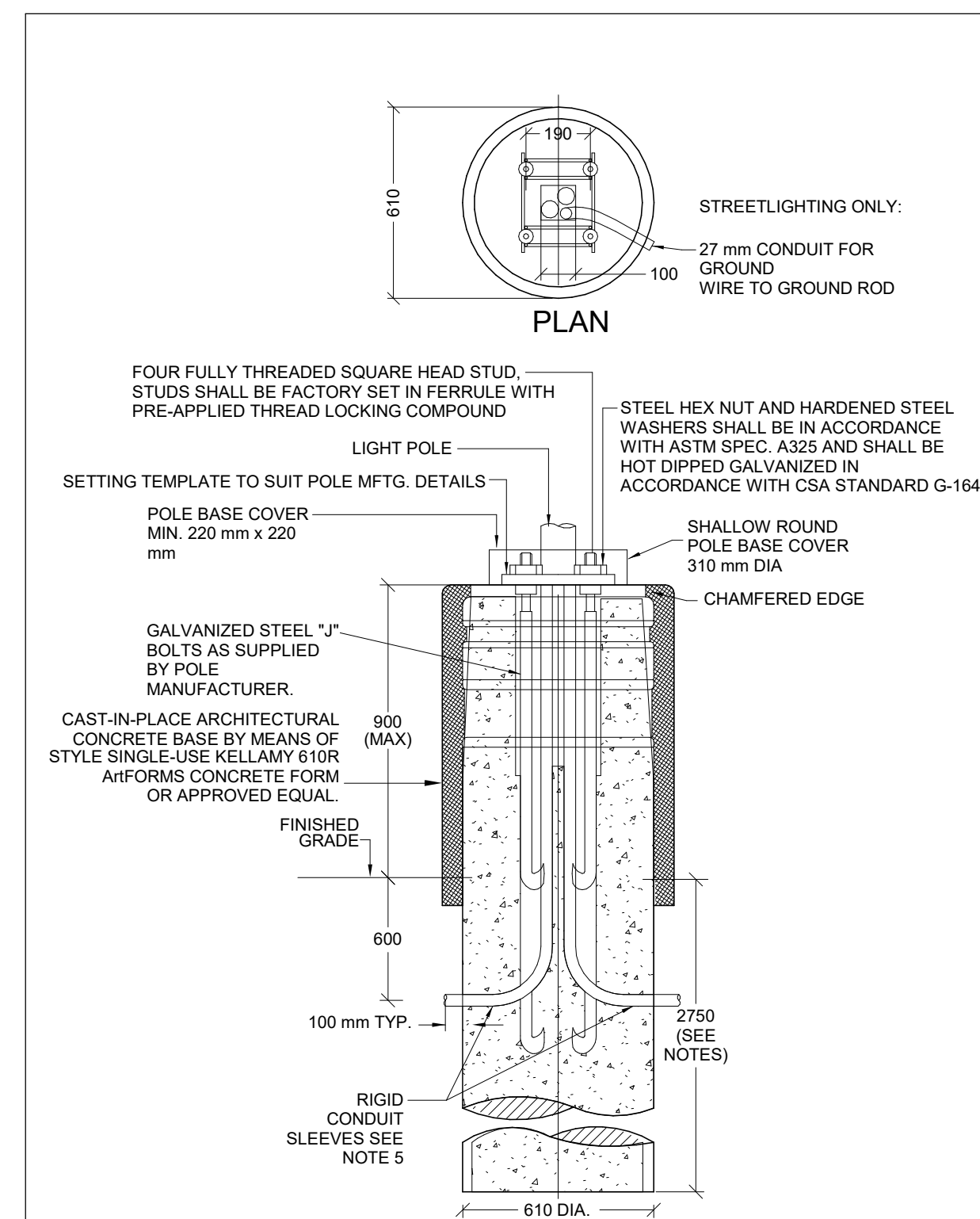


LOW VOLTAGE (BELOW 750 VOLT) GENERATOR DUCT BANK SECTION

NOTES:

- DUCT BANK TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), DIAGRAM D11, DETAIL 4, OR LATEST EDITION. WHERE ANY CONTRADICTION EXISTS BETWEEN THIS DETAIL AND THE OESC, THE OESC DIMENSIONS GOVERN.
- DUCT BANK TO BE INSPECTED PRIOR TO POURING OF CONCRETE AND PRIOR TO BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION AND RECEIVE ALL NECESSARY APPROVALS.
- AMPACITY OF FEEDER BASED ON OESC TABLES LISTED BELOW. LOWER OF TWO VALUES: REQUIRED: 1200 A CAPACITY. FEEDER: FOUR CONDUCTORS PER PHASE (3-PHASE), PLUS NEUTRAL, PLUS GROUND
 - TABLE D11A, "4PHASE DETAIL 4", SIZE 500 MCM: 4 x 537 AMPS = 1428 AMPS.
 - TABLE 2, SIZE 500 MCM: 4 x 380 AMPS = 1520 AMPS.
- ALTERNATE DUCT BANK CONFIGURATION MAY ONLY BE CONSIDERED BY THE CONSULTANT IF THE SAME FEEDER METHODOLOGY ABOVE IS CONSIDERED, OR AN AMPACITY CALCULATION IS PROVIDED IN ACCORDANCE WITH IEEE 835.
- GREATER DEPTH THAN THE NOTED DIMENSION WILL RESULT IN A DECREASE IN THE DUCT BANK AMPACITY. REDUCTION IN THE DEPTH REQUIRES COORDINATION WITH OESC TABLE 53.
- CONDUIT FILL IN ACCORDANCE WITH OESC TABLE 6D.
- UPPER 53 mm DUCTS (120 VOLT ACCESSORIES, AND MONITORING/CONTROL, LOW VOLTAGE) INSTALLATION PER OESC RULE 12-012(3)(d).

2Wx2H x 4in CONCRETE ENCASED DUCT BANK.
SCALE:N.T.S.



ELEVATION DIMENSION

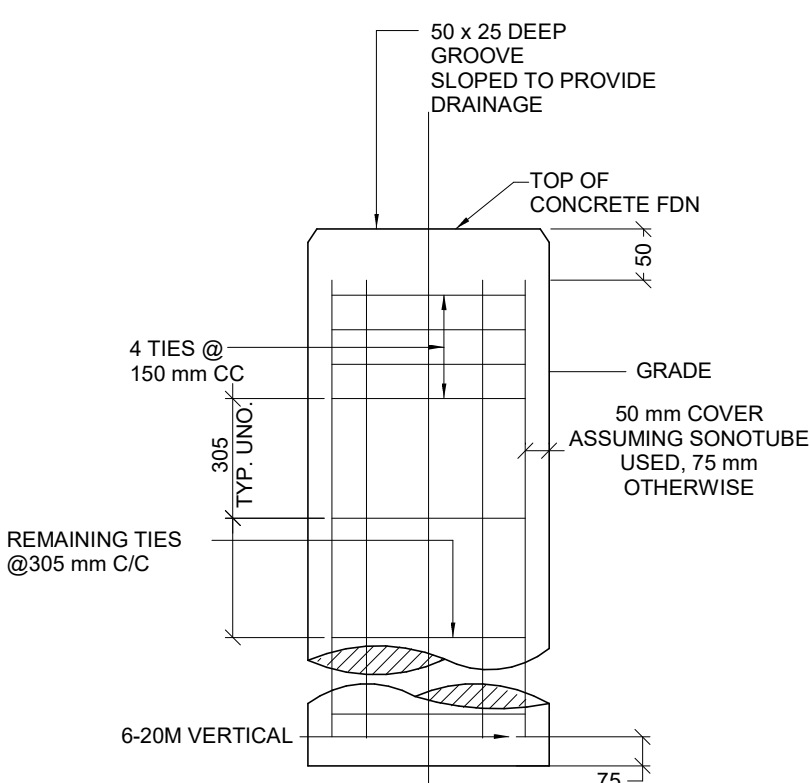
NOTES:

- ALL DIMENSIONS SHOWN ARE IN MILLIMETRES, UNLESS OTHERWISE NOTED.
- CONCRETE IN FOUNDATION SHALL BE PLACED AGAINST UNDISTURBED GROUND.
- TOP OF FOUNDATION TO BE TRULY LEVELED.
- RIGID CONDUIT SLEEVES SHALL BE 41 mm Ø INTERNAL DIAMETER, 90 DEGREE BENDS RIGID PVC OR PLASTICS POLYMERIC. MINIMUM OF TWO SLEEVES REQUIRED FOR EACH CONCRETE FOUNDATION UNLESS OTHERWISE INDICATED.
- RUN THE GROUND INTO A CONDUIT AND FASTEN IT TO THE INSIDE OF POLE.
- CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER TO REVIEW BASE HEIGHT AND FOUNDATION DETAIL BASED ON THE REVIEWED LIGHTING FIXTURE SHOP DRAWINGS AND SOIL REPORT. SOIL REPORT BY CONTRACTOR.
- SMOOTH CONCRETE FINISH FOR THE EXPOSED SURFACE.
- AT INTERFACE OF NEW CONCRETE BASE AND EXISTING ADJACENT ASPHALT SURFACE PROVIDE ASPHALT EXPANSION JOINT OF ± 12 mm.

- CONCRETE FOUNDATION**
- CONCRETE STRENGTH TO BE MIN. 35 MPa (CLASS C-1).
 - VERTICAL REINFORCEMENT: 8-20 M BARS
 - TIE REINFORCEMENT: 10 M TIES AT 300 mm + ADD TWO TIES AT TOP FIRST SPACE AT 150 mm.
 - PILE DEPTH TO BE MINIMUM AS SHOWN IN SECTION. INCREASE DEPTH BELOW GRADE IF REQUIRED AS DIRECTED BY GEOTECHNICAL ENGINEER.

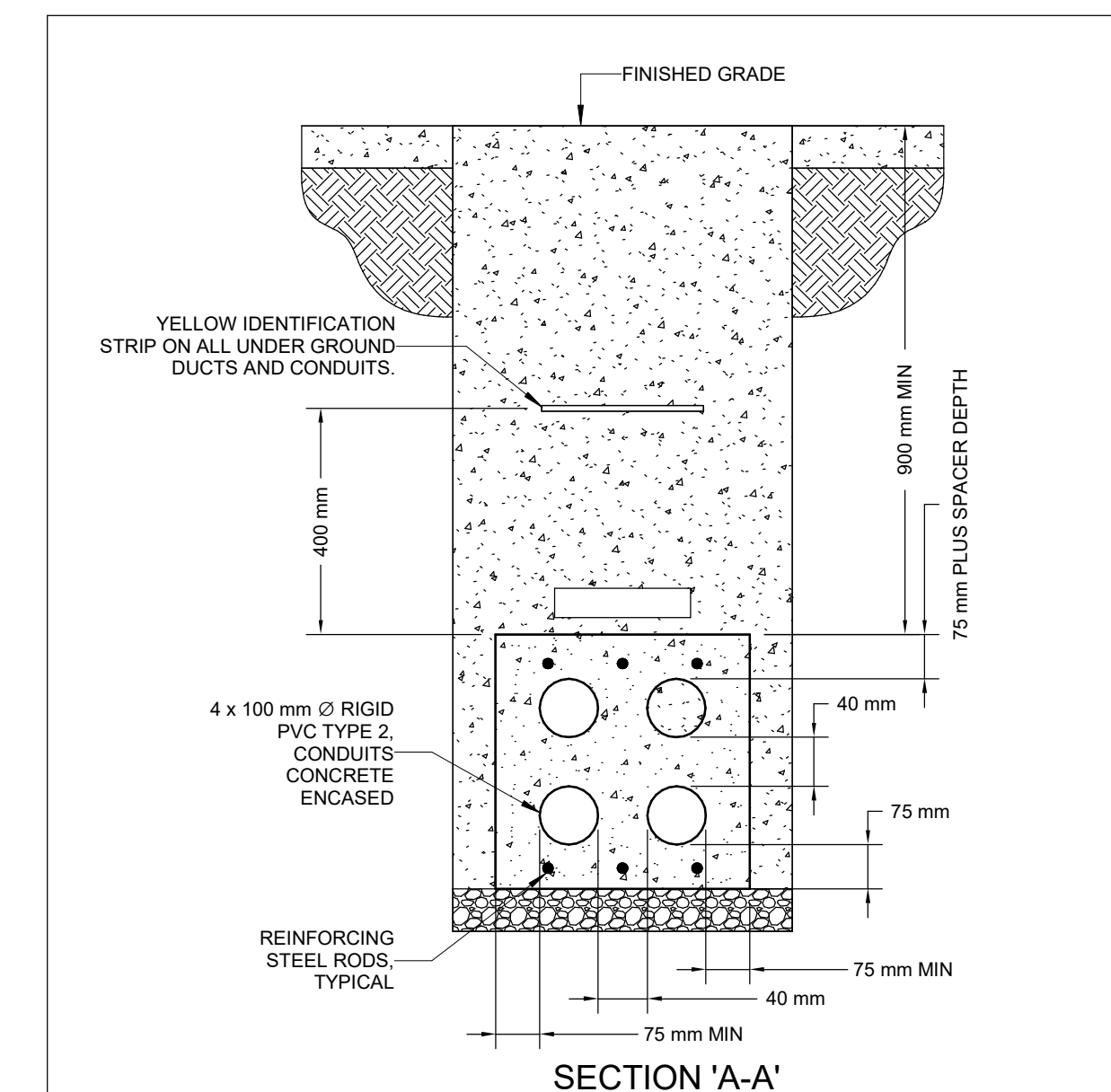
- ASSUMED SOIL PROPERTIES**
- THE CONTRACTOR IS TO RETAIN A GEOTECHNICAL ENGINEER TO REVIEW THE SOIL CONDITIONS ON-SITE WITH REFERENCE TO THE ASSUMED SOIL DESIGN PROPERTIES. GEOTECHNICAL ENGINEER SHALL CONFIRM IN WRITING OR PROVIDE FURTHER RECOMMENDATIONS TO ACHIEVE ASSUMED SOIL PROPERTIES.
 - SOIL BEARING CAPACITY AT UNDERSIDE OF FOOTING MINIMUM 125 kPa (SL) TO BE CONFIRMED IN WRITING BY GEOTECHNICAL ENGINEER.
 - MINIMUM SOIL LATERAL RESISTANCE PROPERTIES:
 - COHESIVE SOILS:
 - Cu = 20 kPa
 - Kp = 3.0
 - COHESIONLESS SOILS:
 - φ = 30°
 - DESIGN HAS BEEN COMPLETED ASSUMING TOP 457 mm OF SOIL SHOULD BE IGNORED FOR LATERAL CAPACITY. GEOTECHNICAL ENGINEER TO SPECIFY IF A DEEPER DEPTH REDUCTION IS REQUIRED FOR SOIL LATERAL CAPACITY. RE-DESIGN MAY BE REQUIRED.

- DESIGN LOADS**
- THE FOUNDATION HAS BEEN DESIGNED ACCORDING TO THE 2012 ONTARIO BUILDING CODE.
 - MAX SUPPORTED LUMINAIRE WEIGHT = 45 kg
 - q 150 = 0.48 kPa (MISSISSAUGA/PORT CREDIT).



ELEVATION REINFORCEMENT

LIGHTING POLE BASE (25 foot).
SCALE:N.T.S.

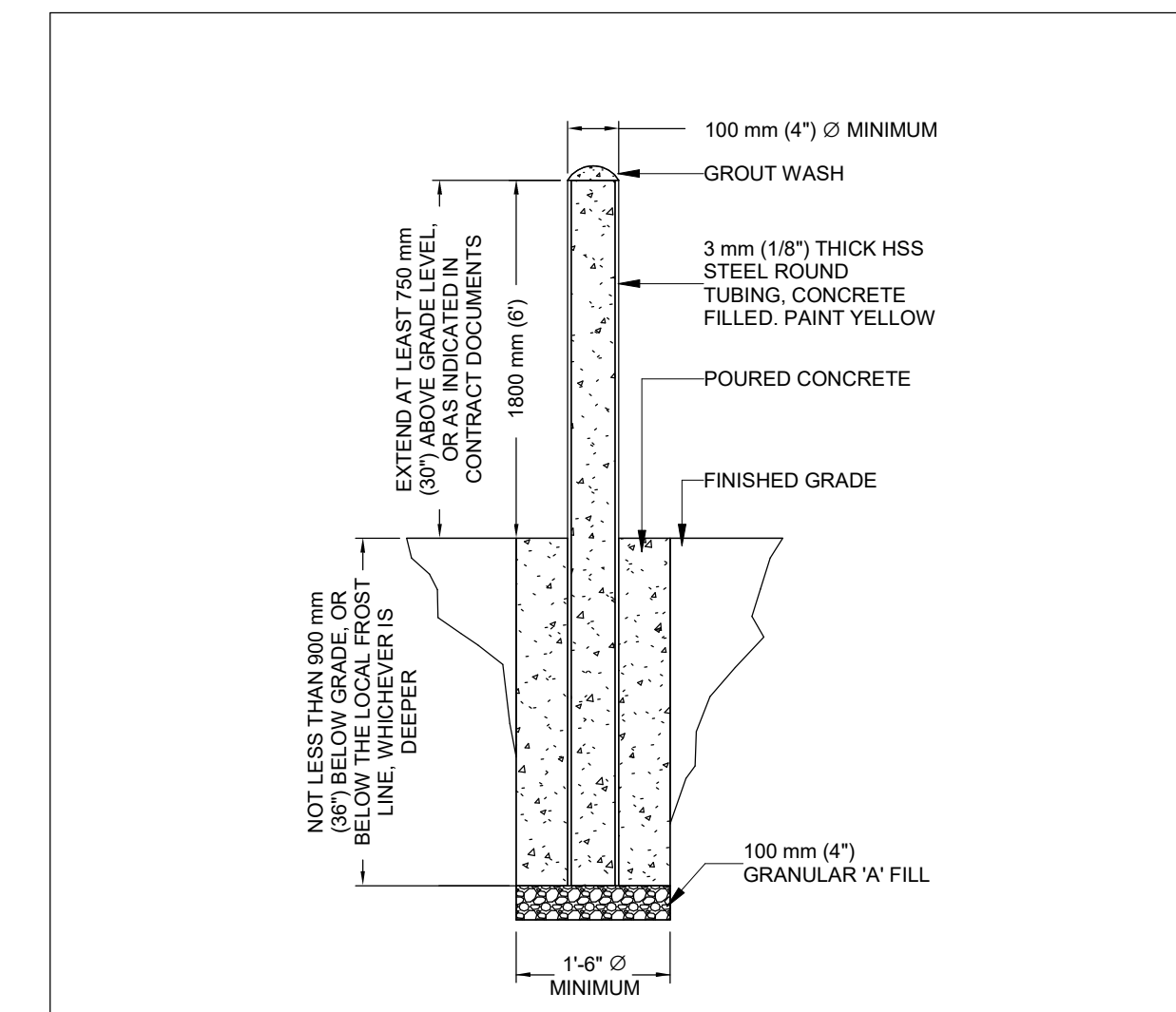


SECTION 'A-A'

NOTES:

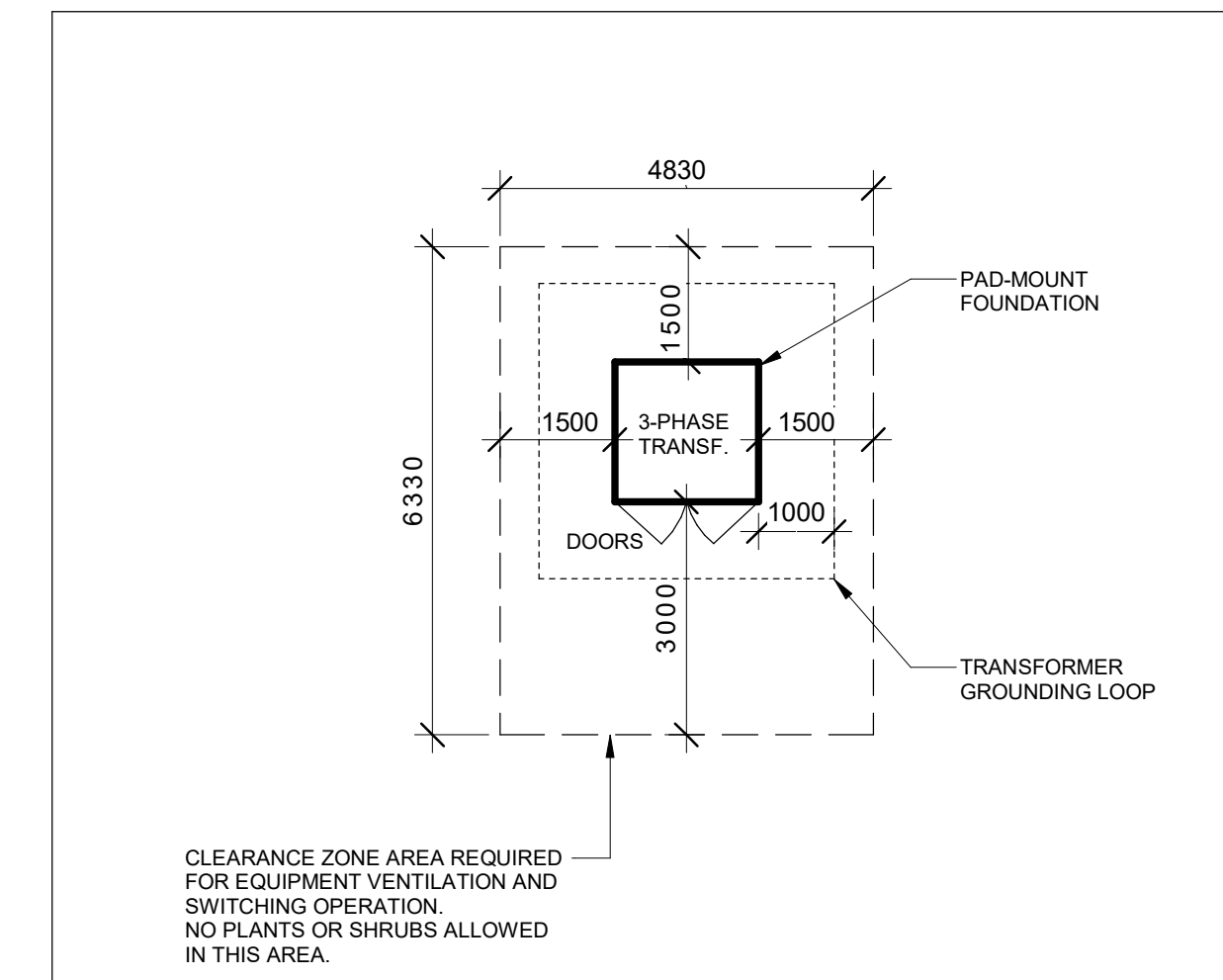
- DIMENSIONS MILLIMETRES.
- DUCT BANK TO BE INSPECTED PRIOR TO POURING OF CONCRETE AND PRIOR TO BACKFILL. COORDINATE WITH THE ELECTRICAL UTILITY, ELECTRICAL SAFETY AUTHORITY INSPECTOR AND RECEIVE ALL NECESSARY APPROVALS.
- PROVIDE THIS DUCT BANK WITH CONDUITS AND SPACERS AS PER ELECTRICAL UTILITY STANDARD DETAILS.
- REFER TO UTILITY STANDARDS FOR EXACT DUCT BANK CONFIGURATION AND DIMENSIONS.

2Wx2H - HV Underground Duct Bank.
SCALE:N.T.S.



CONCRETE FILLED BOLLARDS DETAILS.

SCALE:N.T.S.



PAD-MOUNTED TRANSFORMER CLEARANCE.
SCALE:N.T.S.



2	2022-08-19	RE-ISSUED FOR SITE PLAN CONTROL APPLICATION & ZONING BY-LAW AMENDMENT	FB
1	2021-11-19	ISSUED FOR SITE PLAN CONTROL APPLICATION	FB
#	date:	revision:	by:
revisions			



All drawing and specifications are the property of the architect. The contractor shall verify all dimensions and information on site and report any discrepancy to architect before proceeding.

Arch Corp - Orleans

1161 OLD MONTREAL RD,
ORLEANS ON, K4A 3N6

**ELECTRICAL SITE PLAN -
DETAILS**

scale: As indicated
drawn by: FB
reviewed by: JG
job number: HC-21-055
plot date: Issue Date
drawing number:

E-100-2.