

Protection Philosophy

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Open Discussion Electrical Protection Problem

- Introduction
- Protection philosophy
- Reason for this philosophy
- Parameters
- Conclusion



The very beginning

- Need for communication between substations
- Cable left ungrounded
- Safety factor because less grounding of cable sheath
- Cost reduction in the special protection



Reason for using this philosophy

- Cable from one substation to another
- Cable sheath not grounded for a long length
- Cost reduction for special protection

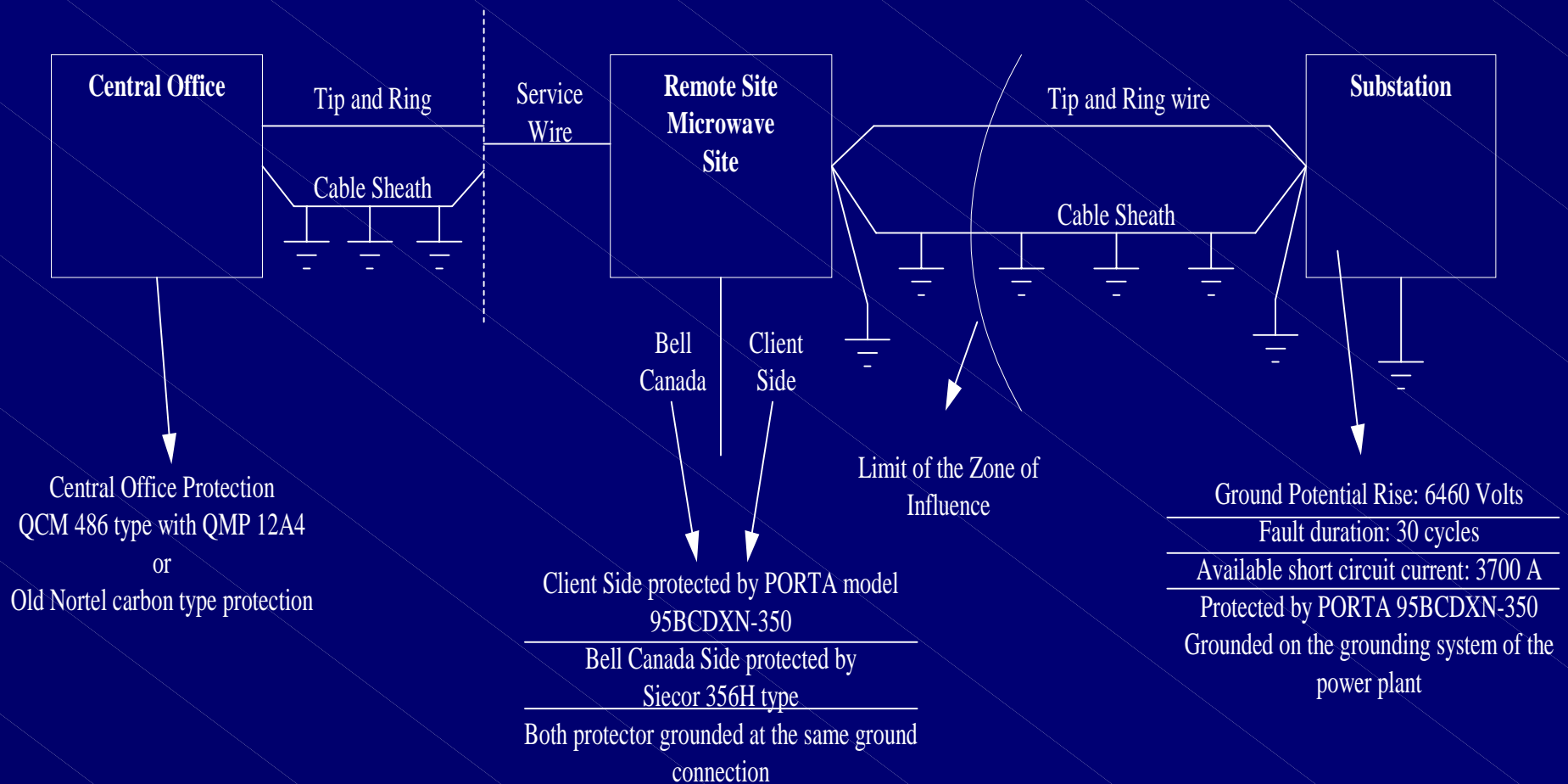


New Protection Philosophy

- Grounding vs Isolating.
- Cable from point to point.
- Cable sheath grounded in the ZOI.
- Spare pairs grounded at both ends.
- PORTA protection at both ends.
- Copper isolated cable added to reduce current on pairs and sheath.



Installation Schematic



Parameters Looked upon

- Software for calculation
- Sheath current
- Grounded spare pairs current
- Voltage difference between ground and used pairs
- Ground potential rise



Conclusion

Questions & Comments

