Ontario Provincial Standards 101 Course Update

Municipal Engineers Association Workshop and AGM
Friday November 18th, 2022

Presented by Arup Mukherjee, P.Eng.

"The Foundation for Sustainable Infrastructure"

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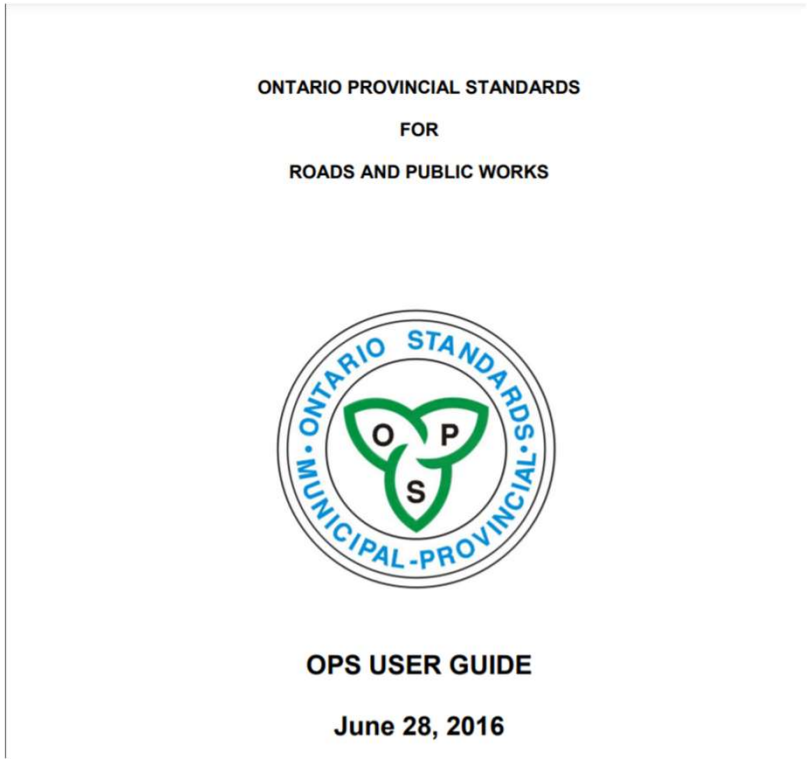
COURSE OUTLINE

- Background of OPS Structure
- Exercises to find specifications and drawings
- Outline how to read specifications and extract key information



What is OPS?

Involvement and support of many other organizations representing
contractors, **consulting engineers**, **manufacturers**, and their associations

OPS have been in use since 1984

Evolved into excellent model of construction standards development

Standardization can limit the unnecessary variety of products and components, simplifying production procedures

now characterized by consistently well built, cost-effective, safe, and dependable highways and roads in the province

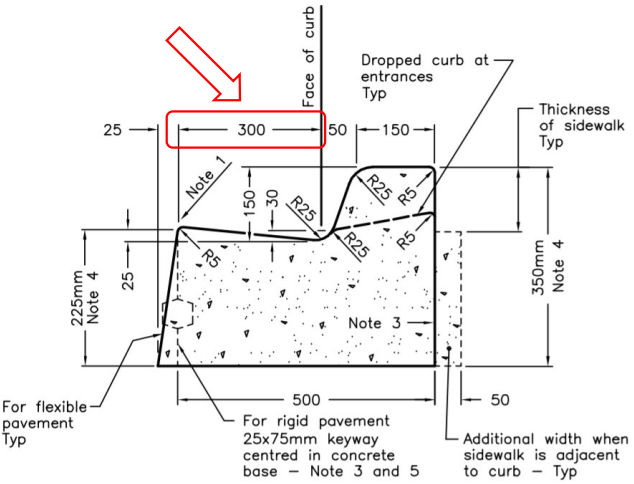
MEA/MTO Objective

- Inform stakeholders of joint ownership
- Inform stakeholder about the background and depth of information in OPS
- Promote the use of OPS
- Show the benefits of using OPS
- Encourage input on Committees for OPS

Sample OPSD

Now that you know how to navigate in OPS, this exercise will test your ability to find some typical information using specs and drawings

What is the width of the gutter of concrete barrier curb with standard gutter?



Answer: 300mm

OPSD.600.040

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Sample OPSS

ONTARIO
PROVINCIAL
STANDARD
SPECIFICATION

OPSS.MUNI 353
NOVEMBER 2019

CONSTRUCTION SPECIFICATION FOR CONCRETE CURB AND GUTTER SYSTEMS

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Sample cont'd

353.07 CONSTRUCTION

353.07.01 General

The Construction section applies equally to concrete curb and gutter, concrete spillways, and concrete gutter outlets.

353.07.02 Foundation and Backfill

Excavation and embankment construction shall be according to OPSS 206.

Granular base and granular backfill construction shall be according to OPSS 314.

353.07.03 Compaction

Compaction shall be according to OPSS 501.

353.07.04 Steel Reinforcement

Placement of steel reinforcement shall be according to OPSS 905.

353.07.05 Formwork

Formwork shall be according to OPSS 919 and shall be set true to the lines and grades specified in the Contract Documents and in direct contact with the subgrade or granular course.

353.07.06 Slipform

Slipform paving equipment is acceptable for use provided the slipform product meets the specified cross-sectional requirements.

353.07.07 Joints

When concrete curb and gutter is constructed adjacent to concrete pavement, the transverse joint spacing of the curb and gutter shall coincide with that of the concrete pavement. When concrete curb and gutter is

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Sample OPSS

Now that you know how to navigate in OPS, this exercise will test your ability to find some typical information using specs and drawings

What is the minimum air temperature for placement of hot mix asphalt (Binder Course)?

Answer:

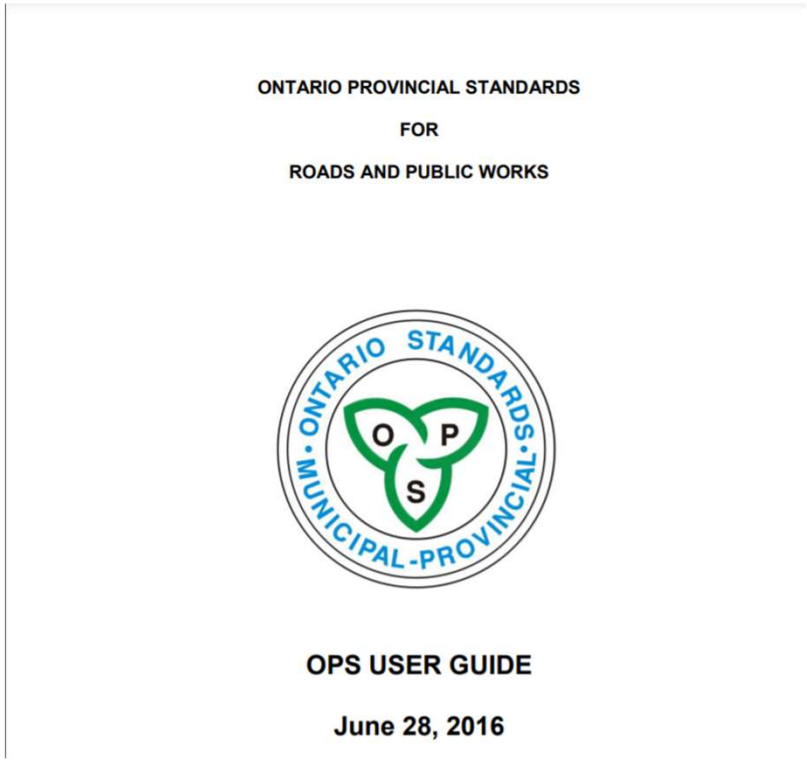
2 Degrees Celsius

OPSS.MUNI.310 under Construction / Operational Constraints

310.07.06.02

Course Highlights

- Contract structure
- Other contract elements
  - **Change Orders**
  - **CA/Inspector Roles**
  - **Amending OPS**
- Update on OPS changes



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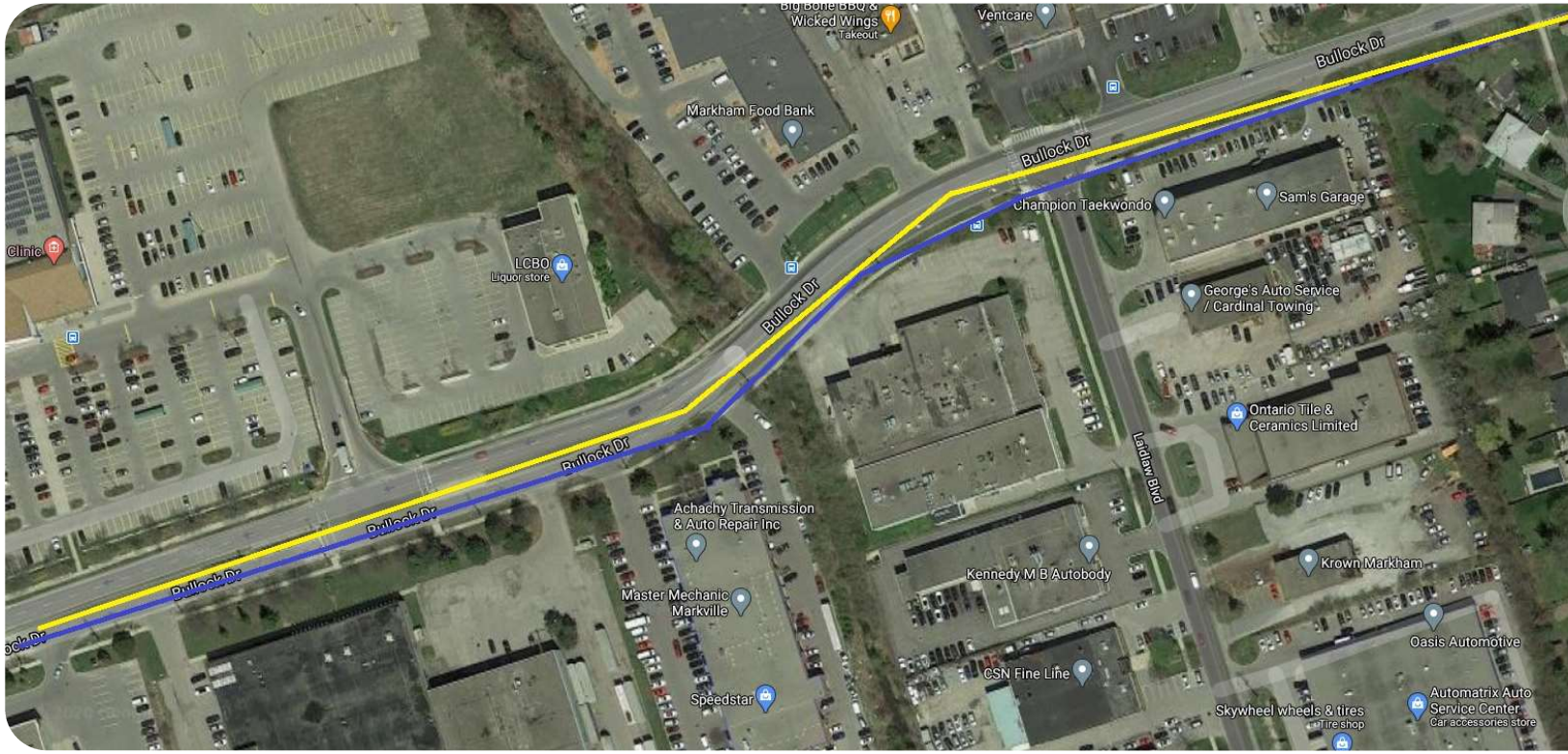
Case Study

Joe Accardi, P.Eng

Guest Speaker

Joe is a professional engineer with over 20 years of industry experience in the civil engineering field and is currently the President of Accardi Schaeffers Consulting. He graduated from the Ryerson University School of Civil Engineering in 1998. Through his career Joe spent over 10 years as the National Specification and Engineering Manager at Royal Pipe and Fittings. Most recently, before starting Accardi Schaeffers Consulting in 2014, he served as the Executive Director of both the Ontario Sewer and Watermain and Great Toronto Sewer and Watermain Construction Associations. Over his years Joe has spent time on many industry boards, from ORCGA One Call Board to OPS Advisory Board.

Case Study



Alignment as per “As-Builts” MOE 1977 – Verified by Utility Coordination and SUE D and C

Actually Alignment found on site

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Case Study

Gary Carroll, P.Eng

Guest Speaker

Oshawa®
Prepare To Be Amazed

University of Waterloo graduate with
B.Sc. In Civil Engineering. Attained a degree in
Project Management from the University of Toronto.
Served in the consulting and municipal
sectors in planning, design, construction & maintenance of Civil Infrastructure for more than 40 years.
Gary also served as the Chair of OPS General Conditions Committee and as a member of the OPS Standard Management Committee. Gary was the President of the MEA, a board member of OPWA and of ORCGA. He is now happily retired with his Last position being the Director of Engineering Services with the City of Oshawa.

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Case Study

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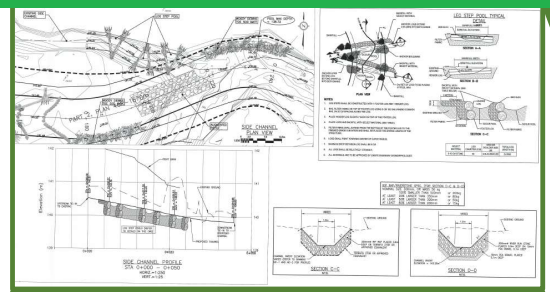

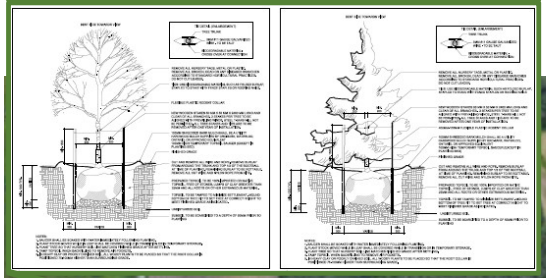

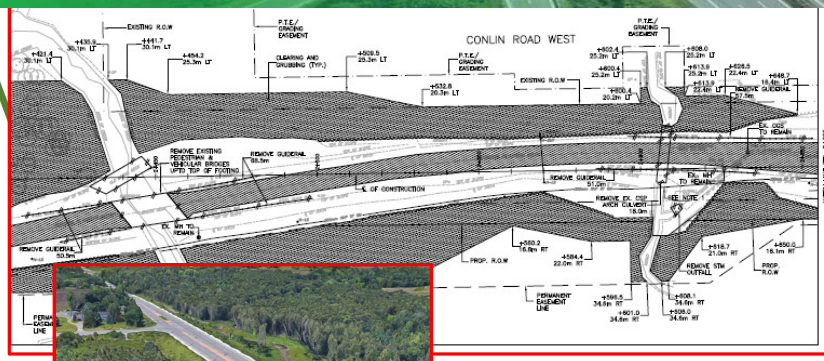

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Case Study

Enrico Stradiotto, P.Eng

Guest Speaker

CCPPA
Build on our strength

Enrico Stradiotto is a professional engineer in Ontario, with over 25 years of experience in the concrete pipe and precast industry. Before joining the Ontario Concrete Pipe Association in 2009 (and now CCPPA), he was employed with a precast manufacturer in Ontario, supporting areas in the company with Engineering, Sales and Technical Marketing of proprietary products. Enrico participates in several committees of industry groups. Enrico is a graduate from the University of Waterloo in 1995, with a Bachelor of Science in Civil Engineering.

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CCPPA

Build on our strength

Successful Launch

Held 5 sessions to date

- Nov/2020, April/2021, Nov/2021, May/2022, October/2022
- 60-70 attendees
- Range of experience – refresher for some
- Mostly Municipal staff

Want to reach out to private sector – consultants, contractors

OPS Training

OPS "101" Course/Webinar:

New course dates will be posted soon

(REGISTRATION IS COLSED!)

The **MEA** is partnering with **OGRA** in offering a course/webinar on Ontario Provincial Standards (OPS). It will be delivered in 2 modules over 2 days at approximately 2:45-hours per day.

For a detailed Course/Webinar Syllabus,

CLICK HERE

Next Course Preparation

Have set the building blocks

Potential next course - Contract Preparation

Pre-tender Preparation

Building a Tender

Contract Delivery

Dispute/Case Studies

Thank You

Questions?

www.municipalengineers.on.ca

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