



CONSTRUCTION SUPPLEMENTARY SPECIFICATIONS

This schedule contains supplementary specifications to be applied in conjunction with the Specifications of the Master Municipal Construction Documents, dated 2009, both of which shall apply to all Works and Services constructed within the City of Courtenay.

Supplementary Specifications contained within this Schedule supplement or supersede the Master Municipal Construction Document (MMCD). Where the City of Courtenay Supplementary Specifications are in conflict with the MMCD, the City of Courtenay Supplementary Specifications shall take precedence.

Section number and clause numbers in the City of Courtenay Supplementary Specifications coincide with the MMCD numbering protocol.

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MMCD Section 01 55 00S TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING

1.0 GENERAL

Add 1.0.6

The Contractor is responsible for all temporary traffic control required to complete the Work. The Contractor will be responsible to provide a Traffic Management Plan (TMP) for review and acceptance by the City (10) ten working days prior to any travel lane closures taking place. TMP is to be prepared by a qualified professional.

The TMP shall outline the approach to traffic management, show recognition and minimization of risks indicates signing locations, identify Traffic Control Persons (TCP) stations, show lane shifting and proposed closures.

The TMP is to be revised and resubmitted as required during the progress of the work



MMCD Section 01 57 01S

ENVIRONMENTAL PROTECTION

1.0 GENERAL

1.2 Temporary Erosion
and Sediment
Controls

Add 1.2.1.4

An Erosion & Sediment Control (ESC) Plan must be prepared by a Certified Professional in Erosion and Sediment Control. The ESC Plan is to be reviewed by the City prior to the start of construction. Protection of the site and watercourses to which it drains, directly or indirectly, against erosion and siltation must be maintained in accordance with the ESC Plan until the *Works* are completed or as directed by the *Contract Administrator*.

The *Contractor* is responsible for all damage that may be caused by water backing up or flowing over, through from or along any part of the *Work* or otherwise resulting from their operations.

Add 1.2.1.5

Keep existing culverts, drains, ditches and watercourses affected by the Work clear of excavated material at all times. When it is necessary to remove or alter any existing drainage structure, provide suitable alternative measures for handling the drainage. Adequately support culverts and drainpipes across trenches to prevent displacement and interference with the proper flow of water due to trench settlement.

Add 1.2.1.6

Sweep streets, and clean catch basins, manhole sumps, detention tanks, and maintain siltation controls as often as the Contract Administrator deems necessary.

Add 1.2.1.7

Follow all Federal and Provincial regulations and guidelines respecting protection of fish, fish habitat, and watercourses.

1.4 Environmental
Protection

Add 1.4.3.5

Immediately contain and clean up any leaks and spills of prohibited materials at the Place of Work.



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| | | Add 1.4.3.6 | <p>The <i>Contractor</i> shall report any leaks or spills of prohibited materials to the BC Provincial Emergency Program.</p> <p>Following the report to the Province, the <i>Contractor</i> shall then immediately notify the <i>Contract Administrator</i> of the Spill and all other actions taken.</p> |
| | | Add 1.4.3.7 | <p>Ensure that no equipment fueling or servicing is conducted within 15 metres of a stream and spill provisions are in place prior to fueling and/or servicing.</p> |
| 1.9 | Archaeological /
Historical Resources | Add 1.9.1 | <p>Immediately cease work and inform the Contract Administrator, if any archaeological or historical resources are encountered during construction. Leave these resources in place and do not disturb them in any way.</p> |



MMCD Section 26 56 01S

ROADWAY LIGHTING

2.0 PRODUCTS

2.1	General	Delete 2.1.2 and replace with the following	All products supplied to be new, in accordance with Contract Documents. All products are to meet Canadian Electrical Code requirements and be certified by either CSA, ULC, or Intertek Testing Systems (Warnock Hersey) and be supplied with the certifier's label.
2.8	Conductors and Cables	Delete 2.8.1 and replace with the following	Single Conductors: 600V, conductor size (AWG) as noted on contract drawings, stranded copper or aluminum type with RW90 polyethylene insulation, to conform to CSA C22.2 No. 38, 90 °C and colour coded per CEC.
		Add 2.8.5	Minimum conductor size to be as follows, unless specified otherwise on Contract Drawings: .1 No 8 AWG copper or No 6 AWG aluminum for feeder conductors in conduit. .2 No 8 AWG copper or No 6 AWG aluminum for bond conductors in conduit. .3 No 12 AWG copper for luminaire conductors in poles.
2.14	Luminaires	Delete 2.14.1 and replace with the following	LED luminaires shall be listed on the current edition of the City of Courtenay Approved Products list.
		Delete 2.14.2	
		Delete 2.14.5 and replace with the following	Decorative luminaires to have: .1 Vandal resistant features .2 Photo-control receptacle .3 Powder coat finish .4 Quick disconnect terminations
2.19	Service Panels	Add 2.19.1	Type 40A 120/240V, 60A 120/240V roadway lighting and 100A 120/240V combination roadway lighting / traffic signal, per Contract Drawings to include items listed within the Section 34 41 13 - Traffic Signals - 2.11.2 and Standard Detail Drawing E7.1 to E7.9



3.0 EXECUTION

3.3	Concrete Bases	Add 3.3.7	All concrete bases shall be pre-cast concrete only, unless noted on Contract Drawings or directed by the Contract Administrator.
3.4	Junction Boxes and Vaults	Add 3.4.5	All junction boxes shall be provided with RPVC bars to support electrical connections and fuse holders. The RPVC bars shall be attached into the junction box side walls with the electrical connections/fuse holders tie-wrapped in place and installed in the up-right position.
3.5	Underground Conduit	Add 3.5.6	Conduits shall be blown out with compressed air, from both ends if necessary, then swabbed with the appropriate size mandrel to remove stones, dirt, water and other material which may have entered during installation.
		Add 3.5.7	Conduit shall not be bent in the field. Only factory bends will be accepted.
3.8	Wiring	Delete 3.8.11 and replace with the following	Bond all luminaires and receptacles with No. 12 RW90 copper green conductor, and steel junction box lids with No. 8 RW90 copper green conductor.
		Add 3.8.12	Aluminum conductors shall be spliced with H-Tap compression connections or equivalent. Spliced connections shall be completed using an anti-oxidant compound complete with split bolt connector. Spliced connections shall be wrapped with self-fusing rubberized tape and then completely covered with PVC tape.
3.13	Pole Finish Application	Delete 3.13 and replace with the following	.1 Pole finish: Hot dip galvanized or powder coat .2 Power coat colour to be confirmed with City



MMCD Section 31 05 17S AGGREGATES AND GRANULAR MATERIALS

2.0 PRODUCTS

- 2.11 Recycled Aggregate Material Delete 2.11.1 and replace with the following Aggregates containing recycled material may be utilized if approved by the Contract Administrator. A maximum of 25% recycled aggregate may be used in sub-base gravel, and a maximum of 15% recycled aggregate is permitted in base gravel. In addition to meeting all other conditions of this specification, recycled material should not reduce the quality of construction achievable with quarried materials. Recycled material shall consist only of aggregates, crushed portland cement concrete, or asphalt that is free of impurities.

- 2.13 Path Chip Add Clause 2.13.1: To be crushed gravel conforming to following gradations:

Sieve Designation	Percent Passing		
9.5mm		100	
4.75mm	80	–	100
2.36mm	40	–	60
1.18mm	20	–	40
0.6mm	10	–	30
0.3mm	8	–	20
0.15mm	5	–	15
0.075mm	3	–	10



MMCD Section 33 11 01S

WATERWORKS

1.0 GENERAL

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| 1.7 | Scheduling of Work | Delete 1.7.5 and replace with the following | Notify Contract Administrator, fire department and City of Courtenay Public Works Office of any planned or accidental interruption of water supply. After hours phone number to be identified at the project initiation meeting. |
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2.0 PRODUCTS

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| 2.1 | General | Delete 2.1.1 and replace with the following | Pipe material as shown on Contract Drawings, excluding main pipe within chambers or structures, which shall be stainless steel, and leads to fire hydrants which shall be PVC. |
| 2.2 | Mainline Pipe, Joints and Fittings | Delete 2.2.4.8.1 and replace with the following | Flange gaskets to be manufactured from black natural rubber 3.175mm thick. |
| | | Delete 2.2.4.14.1.8 and replace with the following | Tapping machine must have provision for pressure testing. |
| 2.3 | Valves and Valve Boxes | Delete 2.3.6.2 and replace with the following | Valve box riser to be 150mm diameter PVC C900. |
| 2.5 | Service Connections, Pipe, Joints and Fittings | Delete 2.5.5 and replace with the following | Copper tubing joints to be compression type suitable for 1100 kPa working pressure. |
| 2.6 | Hydrants | Delete 2.6.1.6.3 and replace with the following | Pump nozzle shall be "quick connect" STORZ type. |
| | | Delete 2.6.2 and replace with the following | Colour: As specified in the approved products list |



3.0 EXECUTION

3.17	General Procedure Flushing, Testing, and Disinfection	Add 3.17.7	Contractor shall record locations of installed testing point locations as per paragraph 1.7.2.2 under Section 01 33 01 Project Record Documents.
3.18	Cleaning and Preliminary Flushing	Delete 3.18.2 and replace with the following	Isolation of existing water system where required will be performed by the City. Do not operate any existing valves.
3.23	Connection to Existing Mains	Delete 3.23.1 and replace with the following	Connections to the existing waterworks system will be made by the City or by the Contractor under supervision of the City. Contractor to make all necessary scheduling arrangements with the City to prevent construction delays.
		Add 3.23.2	Isolation of existing water system where required will be performed by the City. The Contractor shall not operate any existing valves.
		Add 3.23.3	The contractor is to schedule a "pre-construction" meeting to occur a minimum of one (1) week prior to connection to the existing waterworks system. This meeting will include, at minimum, the Contractor, Contract Administrator, and City of Courtenay Public Works in attendance. The purpose of this meeting is to review all pre-connection documentation, public notifications, and works to be completed by both the Contractor and City of Courtenay.



MMCD Section 33 30 01S

SANITARY SEWERS

1.0 GENERAL

- 1.1 Related Work Add the following .5 CCTV Inspection of Pipelines Section 33 01 30.1
to 1.1

2.0 PRODUCTS

- 2.3 Service Delete 2.3.8.2
Connections

3.0 EXECUTION

- 3.8 Connections to Delete 3.8.3 Connection to existing PVC mainline sewers to be as
Existing Mainline and replace with shown on Contract Documents or approved by
Pipes the following Contract Administrator. Coring of pipe to be done
with the proper size and type of coring bit. Use
saddle for connections more than two sizes smaller
than mainline. For less than two sizes, manufactured
wye shall be used.
- 3.18 Video Inspection Add the following The Contractor shall complete CCTV video inspection
to 3.18.1 prior to completing paving works and again prior to
the expiry of the maintenance period. CCTV Video
inspection shall be completed for all gravity mains
including service connections.



MMCD Section 33 40 01S

STORM SEWERS

2.0 PRODUCTS

2.6	Service Connections	Delete 2.6.1 and replace with the following	Storm sewer service connections to be 150 mm minimum diameter; maximum diameter as specified on Contract Drawings
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3.0 EXECUTION

3.12	Inspection and Testing	Add 3.12.4	The Contractor shall complete CCTV video inspection prior to completing paving works and again prior to the expiry of the maintenance period. CCTV Video inspection shall be completed for all gravity mains including service connections.
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MMCD Section 33 44 01S

MANHOLES AND CATCHBASINS

1.0 GENERAL

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| 1.1 | Related Work | Add 1.1.6 | Hot Mix Asphalt Concrete Pavement Section 32 12 16 |
| | | Add 1.1.7 | Portland Cement Concrete Pavement Section 32 13 13 |

3.0 EXECUTION

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| 3.3 | Manhole Installation | Delete 3.3.15 and replace with the following | Install drop structures where required to Standard Detail Drawings S3. Inside drop structure shall not be permitted. |
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MMCD Section 34 41 13S

TRAFFIC SIGNALS

2.0 PRODUCTS

2.1	General	Delete 2.1.2 and replace with the following	All products supplied to be new, in accordance with Contract Documents. All products are to meet Canadian Electrical Code requirements and be certified by either CSA, ULC, or Intertek Testing Systems (Warnock Hersey) and be supplied with the certifier's label.
2.16	Traffic and Pedestrian Signals	Delete 2.16.2 and replace with the following	Yellow as indicated on the contract drawings, complete with 50 mm wide ASTM VI retro-reflective tape around the outer edge.
2.20	Audible Signals	Delete 2.20.1 and replace with the following	The City utilizes APS audible signals which are specified in the current edition of the City's Approved Product list.
2.22	Luminaires	Delete 2.22.1 and replace with the following Delete 2.22.2 Delete 2.22.5 and replace with the following	LED luminaires are specified in the current edition of the City's Approved Products list. Decorative luminaires to have: 1. Vandal resistant features 2. Photo-control receptacle 3. Powder coat finish 4. Quick disconnect terminations
2.27	Video Detection System	Delete 2.27	
3.0	EXECUTION		
3.3	Concrete Bases	Add 3.3.7	All concrete bases shall be pre-cast concrete only, unless noted on Contract Drawings or directed by the Contract Administrator.
3.4	Junction Boxes and Vaults	Add 3.4.5	All junction boxes shall be provided with RPVC bars to support electrical connections and fuse holders. The RPVC bars shall be attached into the junction box side walls with the electrical connections/fuse holders tie-wrapped in place and installed in the up-right position.



3.5	Underground Conduit	Add 3.5.6	Conduits shall be blown out with compressed air, from both ends if necessary, then swabbed with the appropriate size mandrel to remove stones, dirt, water and other material which may have entered during installation.
		Add 3.5.7	All conduits entering traffic controller cabinets shall be sealed with "Duct Seal".
		Add 3.5.8	Conduit shall not be bent in the field. Only factory bends will be accepted.
3.7	Traffic and Pedestrian Signal Head Mounting	Delete 3.7.4 and replace with the following	Completely cover all traffic and pedestrian signal heads with dark coloured pre-manufactured signal cover bags from the time they are installed until system startup.
3.16	Traffic Controller	Add 3.16.8	Traffic cabinet interior shall be kept dry during inclement weather.
3.22	Pole Finish Application	Delete 3.22.1 and replace with the following	Pole finish: Hot dip galvanized or powder coat. Powder coat colour to be confirmed with the City