

City of La Crosse Standard Bid Specifications

By: City of La Crosse Engineering

SECTION 1: GENERAL REMOVALS

SECTION 2: GENERAL INSTALLATIONS

SECTION 3: STORM SEWER

SECTION 4: WATER

SECTION 5: SANITARY SEWER

SECTION 6: STREETSCAPING/LIGHTING

800. DISMANTLE & SALVAGE LIGHTING EQUIPMENT

800.1. Description

This section describes the dismantling and salvaging of existing lighting equipment and cabinet components.

800.2. Material

Vacant

800.3. Construction

Items for removal are as shown on plans, by notes on the plans, or as directed by the engineer in the field. All equipment will be either handed over to the City of La Crosse for inspection or the City Electrician will make the determination in the field of what can be salvaged. All wire will be removed by the city prior to the start of the project if possible or given to the city upon removal. All equipment and materials are to be disposed of as per all regulations.

This Item shall include the following but not limited to:

- 1) Equipment to dismantle lighting equipment
- 2) Equipment to transport equipment to city street department or offsite for proper disposal

800.4. Measurement

The department will measure this item by Lump Sum (LS) for all work.

800.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
800	Dismantle & Salvage Lighting Equipment	LS

801. REMOVE CONCRETE BASES

801.1. Description

This section describes the removal of existing concrete bases regardless of size.

801.2. Material

Bases are Portland cement based and may contain steel reinforcement.

801.3. Construction

Items for removal are as shown on plans, by notes on the plans, or as directed by the engineer in the field. All concrete to be disposed of in the proper manner.

This item shall include the following but not limited to:

- 1) Equipment needed to dig out and or straight remove base.
- 2) Equipment and material to fill and compact the resulting hole to within four (4) inches of final grade. Last four inches to be paid by restoration.

801.4. Measurement

The department will measure this item by a quantity of Each (EA).

801.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
801	Remove Concrete Base	EA

802. REMOVE, PALLETIZE & DELIVER BRICKS

802.1. Description

This section describes the removal, palletizing and delivery of streetscaping bricks from the project site to the City of La Crosse Street Department located on Isle La Plume.

802.2. Material

Pavers are Portland based concrete pavers.

802.3. Construction

Areas for removal will be shown and/or noted on plans as well as marked in the field by the project engineer. Bricks to be palletized are to full and half size intact bricks. All cut and broken bricks are to be disposed of properly. Multiple colors may be placed on one pallet as long as they are separated into their respective colors on said pallet. Separation shall be vertical and not by layer.

This item shall include the following but not limited to:

- 1) Equipment to move loaded and empty pallets around.
- 2) Equipment to transport pallets to Isle La Plume
- 3) Any labor needed to stack bricks on pallets.
- 4) Provide necessary pallets for removal.

802.4. Measurement

The department will measure this item by a quantity of Square Foot (SF).

802.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
802	Remove, Palletize, and Deliver Bricks	SF

820. 2" CONDUIT EMPTY

820.1. Description

This section describes the installation of new conduit for lighting electrical, signal electrical, or fiber optic cable within the City of La Crosse.

820.2. Material

Conduit shall be schedule 40 for trenched (T) or equivalent strength HDPE smooth wall conduit for directional boring (DB). Contractor is to provide the project manager with a product cut sheet for verification. Typical conduit size is 2" diameter and a minimum of 1 1/2" inside diameter unless specified otherwise by plans or approved by the project engineer. Electrical conduit shall be standard gray color. Fiber conduit shall be same material but orange in color and a tracer wire included in the price.

820.3. Construction

All conduits shall be installed at a depth of 30 inches below surface elevation. Conduits shall be connected using proper fittings and adhesives. Trenched conduit must be backfilled and compacted using a vibratory compactor. Conduits shall be free of joints, splices, or connections preventing safe, snag-free, non-damaging pulling of wire throughout. Directionally bored conduit shall be installed in the front half of the sidewalk unless shown on plans or approved the project engineer. All conduit end shall be carefully reamed and/or bushings to protect the wires

This item shall include the following but not limited to:

- 1) Equipment and tools to trench or bore conduit
- 2) Conduit and fittings

820.4. Measurement

The department will measure this item by a quantity of Linear Foot (LF).

820.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
820.01	2" Conduit Empty (DB)	LF
820.02	2" Conduit Empty (T)	LF

821. INSTALL NEW WIRE COLOR CODED

821.1. Description

The section describes the installation of new wire installed in the City of La Crosse.

821.2. Material

All conductor wire shall be Underground Service Entrance (USE) designated. The wire shall be 600 volt, 90 degrees C., Type XLP (62 mils crosslink polyethylene insulation) copper conductor and shall be in accordance with the latest edition of "I.P.C.E.A. General Specifications". Wire sheathing must be a solid color. Colored tape will not be acceptable.

821.3. Construction

All wiring shall be continuous with no splices underground and all connections shall be made in the cabinet or bases. All connections shall be electrically and mechanically secure without solder. Wiring will follow the following schemes unless notes otherwise on plans and/or Section 16 in the special specifications.

821.3.1. 7L Wiring

7L wiring will consist of a total of seven (7) wires and be No. 12 wire. The wire will follow the following color scheme:

- 1) Black, Red, and Blue two wires each – alternating light circuit conductor
- 2) Green-ground conductor

821.3.2. 7LF Wiring

7LF wiring will consist of a total of seven (7) wires. The wire will follow the following color scheme:

- 1) Black No.2 A.W.G. – festoon outlet conductor
- 2) Red, and Blue two wires each No. 10 A.W.G. (240V)– alternating light circuit conductor
- 3) Green-ground conductor
- 4) White No.2 A.W.G. – Neutral conductor

Ground wire shall be sized by the contractor appropriately for the application.

821.3.3. 5L Wiring

5L wiring will consist of a total of five (5) wires and be No. 12 wire. The wire will follow the following color scheme:

- 1) Red and Blue two wires each – alternating light circuit conductor
- 2) Green-ground conductor

821.3.4. 5H Wiring

5H wiring will consist of a total of five (5) wires and follow the following color scheme:

- 1) Black No.4 A.W.G. – festoon outlet conductor
- 2) Red and Blue No.4 A.W.G. – alternating light circuit conductor
- 3) Green-ground conductor
- 4) White No.2 A.W.G. – Neutral conductor

Ground wire shall be sized by the contractor appropriately for the application.

821.3.5. 4H Wiring

4H wiring will consist of a total of four (4) wires and follow the following color scheme:

- 1) Red and Blue No.4 A.W.G. – alternating light circuit conductor
- 2) Green-ground conductor

3) White No.2 A.W.G. – Neutral conductor

Ground wire shall be sized by the contractor appropriately for the application.

821.4. Measurement

The department will measure this item by a quantity of Linear Foot (LF). The items linear footage will be determined by the total length of conduit plus 22 feet per pull box installed and eight feet per base installed.

821.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
821.01	Install New Wire Color Coded (7L)	LF
821.02	Install New Wire Color Coded (7LF)	LF
821.03	Install New Wire Color Coded (5L)	LF
821.04	Install New Wire Color Coded (5H)	LF
821.05	Install New Wire Color Coded (4H)	LF

830. ASSEMBLE, WIRE, AND INSTALL POLES COMPLETE

830.1. Description

The section describes the assembly and installation of light poles in the City of La Crosse.

830.2. Material

All poles in the city are either steel or aluminum.

830.3. Construction

The City of La Crosse will provide all poles, complete luminaries, and hardware need to assemble the lights. All lights are to be installed with the hand hole on the side closest to the sidewalk. Assembly drawings and/or cut sheets are available upon request.

This item shall include the following but not limited to:

- 1) Labor to assemble the lights.
- 2) Equipment to set poles.
- 3) Wire from base to luminaire and all necessary connectors.

830.3.1. Acorn Light (AC)

The acorn light will consist of the following items:

- 1) An overall height of approximately 27' tall.
- 2) A transformer base
- 3) A 22'-4" pole with festoon outlet except at corners.
- 4) A 6' mast arm.
- 5) A 150 watt HPS lamp or Led.

830.3.2. Matchstick (MS)

The matchstick light will consist of the following items:

- 1) An overall height of approximately 16' tall.
- 2) A transformer base
- 3) A 13'-6" pole with festoon outlet unless specified otherwise
- 4) A 18" globe optic.
- 5) A 150 watt HPS lamp or LED.

830.3.3. 5 Globe (5G)

The 5 globe light will consist of the following items:

- 1) An overall height of approximately 18' tall.
- 2) A 13'-6" pole with Festoon outlet.
- 3) Four 12" Diameter and one 18" diameter optic globes.

- 4) Four 50 watt HPS Lamps and one 70 watt HPS Lamp

830.3.4. 3 Globe (3G)

The 3 globe light will consist of the following items:

- 1) An overall height of approximately 15' tall.
- 2) A 12' pole with festoon outlet.
- 3) Three 18" globes.
- 4) Three 150 watt HPS lamps.

830.3.5. 2 Globe (2G)

The 2 globe light will consist of the following items:

- 1) An overall height of approximately 15' tall.
- 2) A 12' pole with festoon outlet.
- 3) Two 18" globes.
- 4) Two 150 watt HPS lamps.

830.3.6. Area (AR)

The cree light will consist of the following items:

- 1) An overall height of approximately 16' tall.
- 2) A 14' tall beehive base pole.

830.3.7. Postop or Washington (PT & W)

The postop light will consist of the following items:

- 1) An overall height of approximately 15' tall.
- 2) A 12' pole height
- 3) May also include festoon outlet.

830.4. Measurement

The department will measure this item by a quantity of Each (EA).

830.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
830.01	Assemble, Wire, and Install Poles Complete (AC)	EA
830.02	Assemble, Wire, and Install Poles Complete (MS)	EA
830.03	Assemble, Wire, and Install Poles Complete (5G)	EA
830.04	Assemble, Wire, and Install Poles Complete (3G)	EA
830.05	Assemble, Wire, and Install Poles Complete (2G)	EA
830.06	Assemble, Wire, and Install Poles Complete (AR)	EA
830.07	Assemble, Wire, and Install Poles Complete (PT & W)	EA

840. MODIFIED CONCRETE BASE COMPLETE

840.1. Description

The section describes the installation of new concrete light and signal bases.

840.2. Material

The bases shall conform to City of La Crosse Standard Procedures Section 2 and Section 3 unless specified or written approval by the project engineer.

840.3. Construction

The City of La Crosse will provide the required anchor bolts with the proper exposure and bolt circle for all bases needed. Bases shall have two (2) conduits installed to 24 inches down with 90 degree elbows. Conduits shall have bell ends installed to protect the wires.

840.3.1. Beehive Base (BB)

The beehive base shall consist of but not limited to:

- 1) Bases can be precast or cast in place.
- 2) 15" in diameter
- 3) 48" tall
- 4) See detail A on page D-6

840.3.2. Beehive Base Alt (BBA)

The beehive base alt shall consist of but not limited to:

- 1) Bases can be precast or cast in place.
- 2) 15" in diameter
- 3) 48" tall
- 4) See detail B on page D-6

840.3.3. Postop Base (PT)

The postop base shall consist of but not limited to:

- 1) Bases can be precast or cast in place.
- 2) 20" diameter
- 3) 48" tall
- 4) See detail C on page D-6

840.3.4. Type 1 (T1)

The type 1 base shall consist of but not limited to:

- 1) Bases can be precast or cast in place.
- 2) 20" in diameter
- 3) 60" tall
- 4) See detail D on page D-6

840.3.5. Matchstick Base (MS)

The matchstick base shall consist of but not limited to:

- 1) Bases must be cast in place.
- 2) 22" in diameter
- 3) 60" tall
- 4) Top 12" is a 26" X 26" square cap
- 5) See detail E on page D-6

840.3.6. Acorn Base (AC)

The acorn base shall consist of but not limited to:

- 1) Bases must be cast in place.
- 2) 20" in diameter
- 3) 84" tall
- 4) Top 12" is a 26" X 26" square cap
- 5) Base has reinforcement cage
- 6) See detail F on page D-6

840.3.7. Type 2 (T2)

The type 2 base shall consist of but not limited to:

- 1) Bases can be precast or cast in place.
- 2) 20" in diameter
- 3) 84" tall
- 4) Base has reinforcement cage
- 5) See detail G on page D-6

840.4. Measurement

The department will measure this item by a quantity of Each (EA).

840.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
840.01	Modified Concrete Base Complete (BB)	EA
840.02	Modified Concrete Base Complete (BBA)	EA
840.03	Modified Concrete Base Complete (PT)	EA
840.04	Modified Concrete Base Complete (T1)	EA
840.05	Modified Concrete Base Complete (MS)	EA
840.06	Modified Concrete Base Complete (AC)	EA
840.07	Modified Concrete Base Complete (T2)	EA

850. CUT, COUPLE, AND/OR CONNECT CONDUIT AT BASES

830.1. Description

This section describes the connection from conduit into the light bases.

830.2. Material

All connectors and conduit shall be schedule 40 or equivalent.

830.3. Construction

The contractor is to cut the conduit and connect into the conduits in the light base. All joints are to be watertight.

All connectors shall be schedule 40 or be able to transition to schedule 40 from the HDPE conduit.

This item shall include the following but not limited to:

- 1) All necessary connectors
- 2) Any cleaners and glue needed
- 3) 6' of schedule 40 conduit

830.4. Measurement

The department will measure this item by a quantity of Each (EA).

830.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
850	Cut, Couple, and/or Connect Conduit at Bases	EA

851. LIGHTING CONTROL CABINET, COMPLETE

851.1. Description

This section describes the installation of a lighting cabinet and components in it.

851.2. Material

The cabinet shall be a EL-702 size M NEMA control cabinet of type 5052-H32 aluminum and a Type 3060 cabinet. The cabinet exterior shall be finished with a black finish and an interior surface with a high gloss white enamel rust inhibiting paint. Electrical components must have cut sheets submitted for approval by the project engineer.

851.3. Construction

The contractor will be responsible for all permits and arranging for inspection of the cabinet by the City of La Crosse Building & Inspections Department Electrical Inspector. The contractor shall also be responsible for contacting and coordinating with Xcel Energy to get power to the cabinet.

The cabinet shall have $\frac{3}{4}$ " thick plywood backing mounted in the cabinet for securing all components and painted white or gray. The service and control components shall be as follows unless specified in section 16 or 17 of the contract:

851.3.1. LED

- 1) One (1) 200 amp meter socket
- 2) One (1) 100 amp electrical panel containing one (1) 2 –pole 100 amp main breaker, three (3) 2-pole 20 amp breakers and one (1) 15 amp breaker
- 3) Three (3) 2-pole 20 amp control relays
- 4) Three Lighting suppressors for each contactor
- 5) One (1) bypass switch
- 6) One (1) photo eye (11/16 diameter Tork 3000 or equal) located on the north-northeast side of cabinet or under drip lip
- 7) Ground rods
- 8) Terminal blocks/ distribution blocks for outgoing circuit wires
- 9) Wire from cabinet to pull box

851.3.2. HID

- 1) One (1) 200 amp meter socket
- 2) One (1) 100 amp electrical panel containing one (1) 2 –pole 100 amp main breaker, three (3) 1-pole 70 amp breakers and one (1) 20 amp breaker
- 3) Two (2) 2-pole 70 amp control relays
- 4) Two (2) Lighting suppressors for each contactor
- 5) One (1) bypass switch
- 6) One (1) photo eye (11/16 diameter Tork 3000 or equal) located on the north-northeast side of cabinet or under drip lip
- 7) Ground rods
- 8) Terminal blocks/ distribution blocks for outgoing circuit wires
- 9) Time clock for festoons
- 10) Wire from cabinet to pull box

851.4. Measurement

The department will measure this item by a quantity of Each (EA).

851.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
851.01	Lighting Control Cabinet, Complete(LED)	EA
851.02	Lighting Control Cabinet, Complete (HID)	EA

852. LIGHTING CABINET BASE

852.1. Description

This section describes the installation of the lighting cabinet base.

852.2. Material

The bases shall conform to City of La Crosse Standard Procedures Section 2 or written approval by the project engineer.

852.3. Construction

The concrete base shall be 24”W x 34”L x 30”H. The cabinet base shall follow detail H on page D-6. Maintenance apron must be installed when the cabinet base cannot be placed right next to the sidewalk and connect the base to the sidewalk this shall be incidental if needed. The base shall contain the following items and be incidental to the base:

- 1) Two (2) 3” conduits connected to pull box
- 2) One (1) 2” conduit connected to pull box

3) One (1) 1" conduit used for grounding rod

852.4. Measurement

The department will measure this item by a quantity of Each (EA).

852.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
852	Concrete Control Cabinet Base	EA

853. PULL BOX

853.1. Description

This section describes the installation of a standard pull box.

853.2. Material

The corrugated steel culvert pipe shall conform to AASHTO M36.

Pull box covers shall be one of the following grounded cast iron lids:

Regular: R-5900-E, NF-0810 235

Locking: R-5900-E W/ Type G lock, NF-0810 235

853.3. Construction

Pull boxes shall be 24" diameter by 42" tall and constructed per detail C on page D-7. All holes shall be cut by either a circular hole saw or hydraulic conduit punch. Hole size shall be no more than 1/4" of the outside diameter of the conduit.

This item shall include the following but not limited to:

- 1) Equipment to dig pull box in and haul away excess material
- 2) NO. 2 course aggregate
- 3) Lid and frame as specified
- 4) Steel culvert
- 5) All grounding wire, connectors, and hardware
- 6) Bell ends for conduit and sealant to seal the pull box

853.4. Measurement

The department will pay this item by the quantity of Each (EA).

853.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
253.01	Pull Box (R)	EA
253.02	Pull Box (L)	EA

854. ELECTRICAL CONNECTIONS WITH EXISTING EQUIPMENT

854.1. Description

This section describes the connections to existing equipment in the field,

854.2. Material

Conduit shall be schedule 40 or equivalent strength HDPE smooth wall conduit.

854.3. Construction

The connections made must follow spec 850 and 853 pending on connection type. Connections will be labeled on plans with the appropriate type.

The connection types include:

- 1) Tie conduit into stub out from an existing light base
- 2) Tie conduit end into existing pull box
- 3) Plug wires into existing cabinet terminal blocks

This item shall include but is not limited to:

- 1) Tools and material needed
- 2) Excavating to expose stubs as needed
- 3) labor

854.4. Measurement

The department will pay this item by a quantity of Each (EA).

854.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
854	Electrical Connections with Existing Equipment	EA

855. INSTALL V-LOC SIGN SUPPORT

855.1. Description

This section describes the installation of a V-LOC sign support system.

855.2. Material

The V-LOC support bases shall conform to City of La Crosse Standard Procedures Section 2 or written approval by the project engineer. City will provide the V-LOC unit to the contractor.

855.3. Construction

The supports shall be one foot by one foot by eight inches tall. V-LOC support shall be installed level and plumb. Installation shall follow detail J on page D-6. Locations of L-LOC's will be marked by project engineer in the field prior to installation.

This item shall include the following but not limited to:

- 1) Material to form & pour support area
- 2) Tools to finish concrete
- 3) Level to level and plumb V-Loc

855.4. Measurement

The department will measure this item by a quantity of Each (EA).

855.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
855	Install V-Loc Sign Support	EA

856. INSTALL VALVE BOX TOP

856.1. Description

This section describes the installation of a valve box top.

856.2. Material

The concrete shall conform to City of La Crosse Standard Procedures Section 2 or written approval by the project engineer. The cast valve box top will be supplied by the city.

856.3. Construction

The valve box top shall follow detail K on page D-6. The valve box top will be supplied by the city and may or may not have fingers welded on. The top is 16 inches long with a one foot by one foot by four inch collar poured.

This item shall include the following but not limited to:

- 1) Material to form and pour collar
- 2) Tools to finish concrete
- 3) Labor to dig out and install top over curb box.

856.4. Measurement

The department will pay this item by the quantity of Each (EA).

856.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
856	Install Valve Box Top	EA

857. 1' CONCRETE EDGEING

857.1. Description

This section describes the different one foot concrete edging used in the City of La Crosse.

857.2. Material

The edging shall conform to City of La Crosse Standard Procedures Section 2 unless specified or written approval by the project engineer. Concrete ties and reinforcement shall conform to City of La Crosse Standard Procedures Section 3.

857.3. Construction

Concrete edging shall be constructed in accordance to one of the following:

857.3.1. Flat Edging

The flat edging shall follow detail B on page D-7. It shall be one foot wide and eight inches thick. The edging shall run from the top of curb to the front of the sidewalk. The edging shall be tied to the sidewalk a minimum of six inches embedment.

This item shall include but is not limited to:

- 1) Material to form and pour Edging
- 2) Tools to insert ties and finish concrete

857.3.2. Tree Edging

The tree edging shall follow detail A on page D-7. It shall be one foot wide and vary from ten to eight inches thick. It shall have four inches cutouts if it runs parallel with the sidewalk following Section A-A for spacing. All edging shall be tied to the sidewalk with a minimum of six inches embedment. There shall also be a single number four rebar ran centered the entire length of the edging.

This item shall include but not limited to:

- 1) Material to form and pour edging
- 2) Tools to insert ties and finish concrete

857.4. Measurement

The department will pay this item by the quantity of Linear Foot (LF).

857.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
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857.01	1' Concrete Edging (F)	LF
857.02	1' Concrete Edging (TR)	LF

858. SAW CUT V-SHAPE TOOL JOINT

858.1. Description

This section describes the procedure of saw cutting the V-shape tool joint into existing sidewalk

858.2. Material

The sidewalk shall conform to City of La Crosse Standard Procedures Section 2 unless specified or written approval by the project engineer.

858.3. Construction

The joint shall be placed according to detail L on page D-6. Joint shall be placed 12 inches from the front of walk. Contractor shall have a saw capable of duplicating the profile of a tooled joint. Project engineer shall give the final approval of the depth of the sawn joint before all is cut in.

858.4. Measurement

The department will pay this item by the quantity of Linear Foot (LF).

858.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
858	Saw Cut V-Shape Tool Joint	LF

859. BRICK PAVER SYSTEM COMPLETE

859.1. Description

This section describes the installation of brick paver system

859.2. Material

All materials shall conform to City of La Crosse Standard Procedures Section 4 unless specified or written approval by the project engineer.

859.3. Construction

All brick shall be installed per detail L on page D-6 and according to section 4.F of the City of La Crosse Standard procedures.

Brick Pavers shall be installed in accordance to one of the following patterns:

859.3.1. La Crosse

The La Crosse pattern includes the charcoal and La Crosse blend bricks. The charcoal bricks will be a one brick wide border around the entire perimeter. The La Crosse blend shall fill in the remainder of the area in a herringbone pattern.

859.3.2. Desert

The Desert pattern includes the desert bricks. The bricks are to be laid in a running bond pattern in the entire area.

859.3.3. Permeable La Crosse

The Permeable La Crosse pattern includes the charcoal and La Crosse blend bricks. The charcoal bricks will be a one brick wide border around the entire perimeter. The La Crosse blend shall fill in the remainder of the area in a herringbone pattern.

The brick joints shall be filled with a 1/4" granite material and not a sand material.

859.3.4. Permeable Desert

The Permeable Desert pattern includes the desert bricks. The bricks are to be laid in a running bond pattern in the entire area.

The brick joints shall be filled with a 1/4" granite material and not a sand material.

859.4. Measurement

The department will pay this item by the quantity of Square Foot (SF) laid.

859.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
859.01	Brick Paver System, Complete (LC)	SF
859.02	Brick Paver System, Complete (D)	SF
859.03	Brick Paver System, Complete (PLC)	SF
859.04	Brick Paver System, Complete (PD)	SF

860. BRICK PAVER REPAIR

860.1. Description

This section describes the installation of brick paver system

860.2. Material

All materials shall conform to City of La Crosse Standard Procedures Section 4 unless specified or written approval by the project engineer.

860.3. Construction

Brick repair shall include the following but not limited to:

- 1) Removal of the existing bricks
- 2) Addition and compaction of sand to relevel bricks
- 3) Relaying of existing bricks

If existing bricks are too disintegrated to reuse, replacements can be retrieved from the street department on Isle La Plume. If all existing bricks are used the City of La Crosse will work with the contractor on getting more brick.

Brick Pavers shall be installed in accordance to one of the following patterns:

860.3.1. La Crosse

The La Crosse pattern includes the charcoal and La Crosse blend bricks. The charcoal bricks will be a one brick wide border around the entire perimeter. The La Crosse blend shall fill in the remainder of the area in a herringbone pattern.

860.3.2. Desert

The Desert pattern includes the desert bricks. The bricks are to be laid in a running bond pattern in the entire area.

860.3.3. Permeable La Crosse

The Permeable La Crosse pattern includes the charcoal and La Crosse blend bricks. The charcoal bricks will be a one brick wide border around the entire perimeter. The La Crosse blend shall fill in the remainder of the area in a herringbone pattern.

The brick joints shall be filled with a 1/4" granite material and not a sand material.

860.3.4. Permeable Desert

The Permeable Desert pattern includes the desert bricks. The bricks are to be laid in a running bond pattern in the entire area.

The brick joints shall be filled with a 1/4" granite material and not a sand material.

860.4. Measurement

The department will pay this item by the quantity of Square Foot (SF) laid.

860.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
860.01	Brick Paver Repair (LC)	SF
860.02	Brick Paver Repair (D)	SF
860.03	Brick Paver Repair (PLC)	SF
860.04	Brick Paver Repair (PD)	SF

861. MULCH

861.1. Description

This section describes the installation of mulch

861.2. Material

Mulch shall be of shredded bark type of mulch. Finely divided, granular type, and freshly chipped wood clippings will be acceptable.

861.3. Construction

The mulch is to be placed at to a depth of 4". Contractor shall take care with stock pile of material onsite as to prevent unwanted migrating of material within the project boulevard area or entire flow line of curb. Contractor during installation shall not install excess amounts of material above placement are or mounding around tree. This bid item is not considered for payment for mulch installed as part of new tree planting.

This item shall include but not limited to:

- 1) Labor and equipment to place material
- 2) Stockpiling protection efforts
- 3) All necessary materials

861.4. Measurement

The department will pay this item by the quantity of Square Foot (SF) placed.

861.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
861	Mulch	SF

SECTION 7: TRAFFIC

900. 6" MEDIAN SIDEWALK

900.1. Description

This section describes the installation of a 6" thick median sidewalk section.

900.2. Material

The sidewalk shall conform to City of La Crosse Standard Procedures Section 2 unless specified or written approval by the project engineer. Concrete ties shall conform to City of La Crosse Standard Procedures Section 3.

900.3. Construction

Area where sidewalk shall go will be marked in the field by the project engineer prior to the start of the project.

This item shall include the following but are not limited to:

- 1) Material to form sidewalk section as needed
- 2) Tools to drill into existing concrete pavement to a depth half the length of tie bar length
- 3) Tie bar sleeve may be use if approved by project engineer for joining sidewalk section to the individual islands.
- 4) Tools and labor to install and finish concrete
- 5) Labor to install two Detectable Warning Fields per field inspector or project engineer's

900.4. Measurement

The department will measure this item by a quantity of Square Foot (SF).

900.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
900	6" Median Sidewalk	SF

901. EXPOSED CONCRETE ISLAND

901.1. Description

This section describes the installation of an exposed concrete island on any street.

901.2. Material

The island shall conform to City of La Crosse Standard Procedures Section 2 unless specified or written approval by the project engineer. Concrete ties shall conform to the City of La Crosse Standard Procedures Section 3.

901.3. Construction

The Island will be installed as shown on the approved plans. The approved area where the island shall go will be marked in the field by the project engineer prior to the start of the project. Any area outside of this area without prior approval will not be paid for. Island thickness shall be as shown in cross-section detail and priced according to thickness. Thickness can range from 6" to 14" but not to exceed 14" thick unless approved in advance by the project engineer.

This item shall include the following but not limited to:

- 1) Material to form the island
- 2) Tools and labor to install and finish concrete
- 3) Tools to drill tie bar into existing concrete pavement to secure island to pavement if on concrete pavement
- 4) Expansion material to place around concrete bases to prevent cracking if in island

901.4. Measurement

The department will measure this item by a quantity of Square Foot (SF).

901.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM CODE	DESCRIPTION	UNIT
901.01	Exposed Concrete Island (6")	SF
901.02	Exposed Concrete Island (8")	SF

902. MODIFIED TYPE 1 BASE PLAIN

902.1. Description

This section describes the installation of modified Type I concrete base.

902.2. Material

The bases shall conform to City of La Crosse Standard Procedures Section 2 unless specified or written approval by the project engineer.

902.3. Construction

The bases may be cast in place or precast. The base dimensions shall be 20 inches in diameter, five feet in length or depth, and have a one inch chamfer around the top edge. Anchor bolts shall be provided by the City of La Crosse. Quantity of bolts and bolt pattern shall be verified with the project engineer and equipment vendor cut sheets prior to casting to ensure proper placement.

This item shall include the following but are not limited to:

- 1) Material to form bases in place or precast
- 2) Tools and labor to finish the concrete bases if cast in place
- 3) Equipment to auger and place bases if precast

902.4. Measurement

The department will measure this item by a quantity of Each (EA).

902.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
902	Modified Type 1 Base Plain	EA

920. PAINT REMOVAL

920.1. Description

This section describes the standards for pavement marking removal used in the limits of the City of La Crosse.

920.2. Material

Markings may be removed from both asphalt and concrete pavement.

920.3. Construction

All marking shall be removed completely as shown on plans or as the engineer directs. The markings may be removed by either a truck-mounted unit or a hand held unit. A vacuum system needs to sufficiently and completely collect dust and debris from the removal

This item shall include the following but not limited to:

- 1) equipment and labor to remove markings

920.4. Measurement

A. The department will measure the LINEAR FOOT (LF) bid items under this section as follows:

-The department will measure all long line markings by the linear foot.

B. The department will measure the SQUARE FOOT (SQ) bid items under this section as each individual unit as follows:

-The department will measure all lettering by the square foot of the lettering

C. The department will measure the EACH (EA) bid items under this section as each individual unit as follows:

-The department will measure all symbols by the each item.

D. The department will measure the LUMP SUM (LS) bid items under this section as each individual unit as follows:

-The department will measure a removal plan by the lump sum for all work

920.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
920.01	Paint Removal (LL)	LF
920.02	Paint Removal (LT)	SF
920.03	Paint Removal (S)	EA
920.04	Paint Removal (PL)	LS

921. PAVEMENT MARKINGS

921.1. Description

This section describes the standards for pavement markings used in the limits of the City of La Crosse.

921.2. Material

All material shall conform to section 646.2 in the current Wisconsin DOT Specification.

921.3. Construction

Material shall be applied in accordance of Section 646.3 in the current Wisconsin DOT Specifications. All markings shall follow page D-5. The markings shall follow the attached plans unless approved otherwise by the project engineer. Latex (L) markings shall be applied to the surface of the pavement. Epoxy (EP) markings shall be grooved in the pavement surface.

This item shall include the following but not limited to:

- 1) All material and equipment to apply materials
- 2) Grooving machine if epoxy

921.4. Measurement

The department will measure this item by a quantity of Lump Sum (LS).

921.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
921.01	Pavement Markings (EP)	LS
921.02	Pavement Markings (L)	LS

922. BIKE SYMBOL

922.1. Description

This section describes the standards for bike symbol markings used in the limits of the City of La Crosse.

922.2. Material

All material shall conform to section 646.2 in the current Wisconsin DOT Specification.

922.3. Construction

Material shall be applied in accordance of Section 646.3 in the current Wisconsin DOT Specifications. The markings shall match up with existing road markings or match the approved plans. The symbol must follow figure 9C-3A of the MUTCD and detail D on page D-5. No extra compensation will be given if arrow is installed. Latex (L) markings shall be applied to the surface of the pavement. Epoxy (EP) markings shall be grooved in the pavement surface.

This item shall include the following but not limited to:

- 1) All material and equipment to apply materials
- 2) Grooving machine if epoxy

922.4. Measurement

The department will measure this item by a quantity of Each (EA).

922.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
922.01	Bike Symbol (EP)	EA
922.02	Bike Symbol (L)	EA

923. SHARROW SYMBOL

923.1. Description

This section describes the standards for the sharrow symbol markings used in the limits of the City of La Crosse.

923.2. Material

All material shall conform to section 646.2 in the current Wisconsin DOT Specification.

923.3. Construction

Material shall be applied in accordance of Section 646.3 in the current Wisconsin DOT Specifications. The markings shall match up with existing road markings or match the approved plans. The symbol must follow figure 9C-9 of the MUTCD and detail E on page D-5. Latex (L) markings shall be applied to the surface of the pavement. Epoxy (EP) markings shall be grooved in the pavement surface.

This item shall include the following but not limited to:

- 1) All material and equipment to apply materials
- 2) Grooving machine if epoxy

923.4. Measurement

The department will measure this item by a quantity of Each (EA).

923.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
923.01	Sharrow Symbol (EP)	EA
923.02	Sharrow Symbol (L)	EA

924. SPEED TABLE SYMBOL

924.1. Description

This section describes the standards for speed table symbol markings used in the limits of the City of La Crosse.

924.2. Material

All material shall conform to section 646.2 in the current Wisconsin DOT Specification.

924.3. Construction

Material shall be applied in accordance of Section 646.3 in the current Wisconsin DOT Specifications. The markings shall match up with existing road markings or match the approved plans. The symbol must follow figure 3B-29 option B of the MUTCD and detail Q on page D-5. Latex (L) markings shall be applied to the surface of the pavement. Epoxy (EP) markings shall be grooved in the pavement surface.

This item shall include the following but not limited to:

- 1) All material and equipment to apply materials

- 2) Grooving machine if epoxy

924.4. Measurement

The department will measure this item by a quantity of Each (EA) for each double arrow. Each speed table will have a quantity of four of these double arrows per speed table.

924.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
924.01	Speed Table Symbol (EP)	EA
924.02	Speed Table Symbol (L)	EA

925. CONTINENTAL BAR CROSSWALK

925.1. Description

This section describes the standards for continental bar crosswalk markings used in the limits of the City of La Crosse.

925.2. Material

All material shall conform to section 646.2 in the current Wisconsin DOT Specification.

925.3. Construction

Material shall be applied in accordance of Section 646.3 in the current Wisconsin DOT Specifications. The markings shall match up with existing road markings or match the approved plans. The crosswalk bars must follow detail F on page D-5. Latex (L) markings shall be applied to the surface of the pavement. Epoxy (EP) markings shall be grooved in the pavement surface.

This item shall include the following but not limited to:

- 1) All material and equipment to apply materials
- 2) Grooving machine if epoxy

925.4. Measurement

The department will measure this item by a quantity of Each (EA) for each bar within the crosswalk.

925.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
925.01	Continental Bar Crosswalk (EP)	EA
925.02	Continental Bar Crosswalk (L)	EA

926. YIELD LINE TRIANGLE

926.1. Description

This section describes the standards for yield line triangle symbol markings used in the limits of the City of La Crosse.

926.2. Material

All material shall conform to section 646.2 in the current Wisconsin DOT Specification.

926.3. Construction

Material shall be applied in accordance of Section 646.3 in the current Wisconsin DOT Specifications. The markings shall match up with existing road markings or match the approved plans. The symbol must follow figure 3B-16b of the MUTCD and detail G on page D-5. Latex (L) markings shall be applied to the surface of the pavement. Epoxy (EP) markings shall be grooved in the pavement surface.

This item shall include the following but not limited to:

- 1) All material and equipment to apply materials
- 2) Grooving machine if epoxy

926.4. Measurement

The department will measure this item by a quantity of Each (EA) for each triangle within the line.

926.5. Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM CODE	DESCRIPTION	UNIT
926.01	Yield Line Triangle (EP)	EA
926.02	Yield Line Triangle (L)	EA