



Addendum # 1

**ITB # 16-33: OVERHEAD STREET NAME SIGNS
LED INTERNALLY ILLUMINATED
October 27, 2016**

ITB #16-33 is hereby amended as follows:

1. The Detailed Technical Specifications have been revised to further emphasize that the contractor is to provide the materials, equipment and installation of the overhead street name signs and required appurtenances. The attached revised Detailed Specifications (sheets 9 – 12) supersede those in the original bid document.
2. The Location Details for several locations have been revised to clarify mounting configuration or proper alignment orientation. The attached revised details for locations 1, 3, 5, 7, 9, 12, and 13 supersede those in the original bid document.
3. The Contract Term shall be modified on all Bidding- Contract Document references to 5 months from Notice to Proceed.

4. Below are responses to questions raised during the pre-bid meeting:

A. Question: What is the Anticipated Notice to Proceed date for this project?

Answer: It is anticipated that the NTP will be given by December 31, 2016, but no later than the 90 day bid hold period.

B. Question: Will new borings be required to run wiring at any of the intersections?

Answer: No. Existing conduit is to be used.

C. Question: Will signal heads need to be moved to install the new signs?

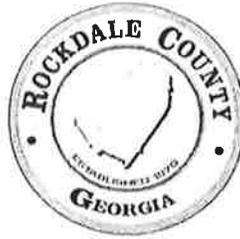
Answer: It is not anticipated that moving signal heads will be necessary.

D. Question: Is night work and/or weekend work allowed?

Answer: Yes, provided the work does not generate objectionable noise and complies with the noise ordinance.

E. Question: Are there work-hour restrictions?

Board of Commissioners
Richard A. Oden, Chairman
Oz Nesbitt, Sr., Commissioner
Dr. Doreen Williams, Commissioner



Department of Finance
Telephone: 770-278-7555
Facsimile: 770-278-8910

Answer: Yes; lane closures will not be allowed between the hours of 7 AM to 9 AM; and between 4 PM to 6 PM. Contractor may perform signal work during those hours so long as it does not interfere with traffic flow.

F. Question: Will existing overhead street name signs be removed?

Answer: Yes. The existing street name signs are to be removed by the contractor.

G. Question: Will the contractor need to maintain the traffic signals during the contract term or warrantee period?

Answer: No. Unless the signal items are damaged by the contractor during installation of the signs and appurtenances, the contractor is only responsible for maintenance of items related to the sign installation for a period of 12 months from final acceptance by the county, and for maintenance of the sign assembly for a period of 5 years from final acceptance by the county.

5. All other conditions remain in full force and effect.

6. If a proposal has been submitted and anything in this Addendum causes the bidder to change the item offered or to increase or decrease the proposal price, the new price and/or changes will be inserted below:

7. All bidders under this Invitation to Bid are kindly requested to acknowledge receipt of this Addendum on Page 14, Part II of the Bid Form.

Tina Malone

Tina Malone, CPPB CPPO
Procurement Officer
Department of Finance, Purchasing Division

Detailed Technical Specifications

925.2.53 Internally Illuminated Street Sign Assemblies and Installation Appurtenances

A. Requirements

The contractor shall provide and install the sign assembly, mounting brackets, wiring, grounding, and all other appurtenances necessary for a complete installation of fully functional internally illuminated LED street name signs at the locations indicated in the plans and details. Contractor shall remove existing overhead street name signs to facilitate installation. The assembly shall include the lighted street name signs, the termination panel sub-assembly, the photo cell sub-assembly, clamps, extender connector or other mounting brackets for span wire or mast arm installation depending on the location, wiring, grounding, and any other appurtenances necessary for a complete installation and proper sign operation. All sign installations shall meet the height and minimum clearance requirements of the Manual on Uniform Traffic Control Devices (MUTCD).

1. Internally Illuminated Street Signs (Lighted Street Name Signs)

a. Mechanical

- 1) The outer dimensions of the assembly (excluding the mounting bosses) shall be standard height of 18 or 24 inches, and standard widths of 48 - 96 inches at 6 inch increments. Signs may be single or double faced depending on location.
- 2) The maximum thickness of the sign shall be 2 inches for single sided signs, and 3 inches for double-sided signs, excluding the end caps.
- 3) The long edges of the sign shall be made from a single section of aluminum extrusion. The ends caps shall be affixed to the frame with stainless screws. The end caps shall be removable to enable replacing panels and components. The signs shall be designed in such a way as to prevent water intrusion into the internal electrical components without the use of silicone or other similar sealants.
- 4) The overall weight, excluding mounting hardware, shall not exceed 7 pounds per square foot for single sided signs, and 8 pounds per square foot for double sided signs.
- 5) The sign shall have a polycarbonate panel that is UV, weather, abrasion and impact resistant. The front panel shall be replaceable to allow for installation of agency - produced reflectivity-compliant sign faces.
- 6) Sign frames and attached termination boxes shall have a powder coat paint applied in accordance with Military Standard MIL-C-24712. Finish shall meet the requirements of ASTM D3359, ASTM D3363 and ASTM D552.
- 7) The sign assembly shall include a rain-tight termination box on the end of the assembly. The termination box shall provide signal/sign power cable entry and cable strain relief through the bottom of the box, and a touch-safe tubular compression terminal block shall be provided for direct termination of stripped signal cable conductors. The termination box shall provide for cable entry, strain relief, and sign power conductor termination of a minimum 7-conductor #14 AWG stranded IMSA 20-1 signal cable. The termination box cover shall be manufactured of the same material and finish as the sign frame and shall include a lanyard to prevent the cover from falling during signal cable installation.
- 8) For mast arm installation locations the sign must be supplied with rigid back brace mounting brackets on two positions on the back of the sign. The rigid back brace mounting brackets will be powder-coat painted to match the sign extrusions meeting the same specifications as the sign assembly finish. The rigid back brace mounting brackets shall be such as Pelco AS-3004 or AS-3009 or approved equal and shall not extend more than ½" above or below the sign.
- 9) For span wire installation locations the signs must be supplied with two underhang mounting brackets which shall be powder-coat painted to match the sign extrusions and meet the finish requirements as the sign frames. The underhang mounting brackets shall be designed to connect to the approved underhang hardware such as Pelco SE-5146 or Pelco SE-5015, or approved equal.

b. Environmental

- 1) The sign shall be designed and constructed to withstand 140 mph wind loads in conformance with the requirements of the AASHTO publication, "Standard Specifications for Structural Supports of Highway Signs, Luminaries and Traffic Signals", 4th Edition 2001.
- 2) The sign and power supply should be able to withstand and operate at temperature extremes of -20 deg. F to +140 deg. F (-29 C to 60 C).

c. Luminance

- 1) The entire surface of the sign panel must be evenly illuminated with a minimum average brightness reading at the letters of 500 lux and a variation of no more than 20% between maximum and minimum.
- 2) The light transmission factor of the sign panel must provide a letter to background ratio of a minimum of 4:1.

d. Light Source

- 1) The light source for the sign shall be LEDs (light emitting diodes). LEDs shall be mounted along both the top and bottom edges of the sign. The LEDs shall evenly illuminate a light panel that is the same dimensions of the sign face.
- 2). The LEDs shall have a minimum projected life of 50,000 hours.

e. Sign Power Supply

The power supply shall be fully-encapsulated, constant-current design built to withstand 300VAC surge input for 5 seconds and have inherent short circuit/over current/over voltage protection. Power supply shall be accessible for maintenance and shall be UL 1310 Class 2 limited output voltage, current plus isolation for safe operation, and UL Outdoor damp location rated. Power supply shall be IP66 Outdoor Rated and fully isolated in a plastic case to prevent water intrusion. Sign shall be UL listed and approved. The sign's LED Single Output Switching Power Supply shall be rated for a 1450 mA rated current, a DC voltage range of 9-34 V, a power rating of 59W, an AC current of 0.7/230 VAC and voltage range of 127-370 VDC.

f. Energy Requirements

The overall power required by the sign shall not exceed 5 Watts per square foot of sign.

2. Photo Cell Sub-Assembly

The photocell sub-assembly shall follow GDOT's 925 specifications.

a. Photocell

1). Mechanical

- a). The case shall be constructed of Lexan® or approved equal and shall be UV stabilized to screen out ultraviolet rays.
- b). The sensor head shall have a swivel base which can swing through 180°.
- c). The sensor shall be mounted in a 1/2 inch knock-out or in a 7/8 inch opening with a gasket.

2). Electrical

- a). The operational voltage 120 Vac.
- b). Sensor shall use a cadmium sulphide light sensing element.
- c). The output contacts shall be normally closed (on) between dusk and dawn.
- d). The normal failure mode is to fail in the closed (on) position.
- e). The control wiring shall be 2C # 16 AWG.
- f). The control wiring color code is:

Power in (Line) - Black,
Common (Neutral) - White
Output - Red.

- 3). Environmental
 - a). Operate over temperatures of -40° to +140°.
 - b). Water tight

b. Junction Box

1). Mechanical

- a). The junction box size shall be nominally 6"X6"X4" .
- b). The junction box shall have a NEMA 3R rating.
- c). The junction box shall be constructed of #16 carbon steel.
- d). The junction box shall have a drip shield top and smooth seamless front and sides.
- e). There shall be a strain relief clamp sized for 7C #14 AWG cable in the junction box.
- f). Drill as required for connections.

2). Electrical

- a). The terminal block inside the junction box shall have a minimum of two terminals.
- b). The terminal block shall have two mounting screws.
- c). The terminal block shall have a metallic wire protector to physically isolate the conductors from the terminal screws.
- d). The terminal block shall be for size 18 to 10 AWG.
- e). The terminal block shall be UL rated for 600V, 10 amps.

3). Mounting

- a). The size of the mounting strut shall be 3" X 1.5"X 1/4".
- b). The mounting strut shall be made of aluminum.
- c). The mounting strap shall be 1/2" stainless steel.
- d). Paint mounting strut to match junction box.
- e). Drill and tap as required
- f). Mount junction box to mounting strut with 1/4" x 20 -1 inch bolts, flat washer and 1/4" inch standoff spacer.

3. Lighted Street Name Sign Termination Panel Sub-Assembly

The termination panel shall be of nominal thickness 0.125" aluminum and drilled and bent as required. Mount a circuit breaker, two surge protectors, and terminal blocks on the panel. The terminal panel shall be fastened to DIN Rail and then mounted in the cabinet.

a. Circuit Breaker -Thermal Magnetic Circuit Breaker (TMCP)

1). Electrical

- a). The nominal rated trip current shall be 5 A.
- b). The nominal voltage rating shall be 120 VAC.

2). Mechanical

- a). The device shall mount on standard 35 mm DIN rail
- b). The circuit breaker or the circuit breaker's terminal block must be mounted on a standard 35 mm DIN rail.
- c). The maximum width of the device is 13 mm (0.512 inch).
- d). The circuit breaker can be reset after tripping.
- e). The device shall accept # 14 A W G wire.

3). Environmental

The circuit breaker shall operate as specified within the temperature range of-34 to 165 F.

b. Over Voltage Surge Protector

1). Electrical

- a). The nominal voltage rating shall be 120VAC .
- b). The device shall be rated for 20 A.

- c). The device shall be rated to sink a minimum discharge surge current for 10 kA when tested with the IEEE C62.41. 8/20 micro second wave form.
- d). The over voltage protection level shall meet UL 1449 (6 kV, 500A) (L-N) 500V.
- e). The surge protector shall include integral monitoring of protection status with an LED indicator for faults.

2). Mechanical

- a). The device shall mount on standard 35 mm DIN rail.
- b). The maximum width of the device is 18 mm. (0.7 inch)
- c). The device shall accept #14 AWG wire.

3). Environmental

Operating Temperature -13F to 185 F.

c. Terminal Blocks

1). Electrical

- a). The maximum nominal voltage rating is 600 V
- b). The surge voltage rating is 8 kV
- c). The terminal block is rated for a maximum load capacity of 20 A.

2). Mechanical

- a). Mount on standard 35 mm DIN rail.
- b). The maximum width of the device is 10.2 mm (0.402 inches).
- c). The device shall accept #6 through #20 A W G wire.
- d). The device shall accept dual strip jumpers to connect adjacent terminal blocks together.
- e). The metal parts shall be made of high grade, strain-crack and corrosion proof, high grade copper alloy.
- f). The insulation material shall be inflammability class in accordance with UL 94.
- g). The terminal blocks shall be provided in the following colors:
 - Black
 - White
 - Green-ground

d. DIN Rail

Provide DIN Rail with current rating of 65 A (Ground current). The DIN Rail shall be steel which is zinc electroplated with yellow chromate passivation and be in accordance with CENELEC EN50022 DIN Standard 46277/3. The DIN Rail shall be 1.38 inch (35 mm) wide by 3 inches (75mm) height by 39 inches (1 meter) length. The DIN Rail shall be cut to proper size based on installation. The DIN Terminal Strip shall be provided with end covers to match the terminal blocks provided under this specification. DIN terminal strip jumpers shall also be provided with center jumper compatible with terminal strip provided. Provide terminal strip spacers which match the terminal strip provided.

e. Fastener, Fastener Hardware and Mounting Hardware

All fasteners and fastener hardware shall be stainless steel unless indicated otherwise.

B. Electrical Standards

Signs shall be listed and approved to UL 48 standards by a nationally recognized testing laboratory and shall be marked with a certification mark for electric signs UL 48.

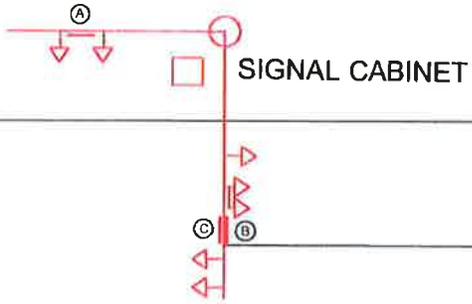
C. Materials & Installation Warranty

Signs must be guaranteed for a minimum of 5 years. Installation must be guaranteed for 12 months from completion and acceptance of the project by the County.

OVERHEAD STREET NAME SIGNS
(MAST ARM MOUNTED)

LOCATION ①
PLEASANT HILL RD
@
LENORA CHURCH RD

- Ⓐ PLEASANT HILL RD
- Ⓑ ← LENORA CHURCH RD
- Ⓒ LENORA CHURCH RD →

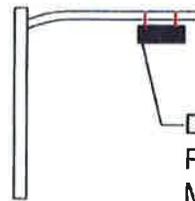


PLEASANT HILL RD

LENORA CHURCH RD



MOUNT



NOT TO SCALE

DOUBLE SIDED
PENDANT SIGN
MOUNT



ROCKDALE COUNTY
DEPARTMENT OF TRANSPORTATION

2570 OLD COVINGTON HWY, CONYERS, GA 30012
PHONE: 770-278-7200 FAX: 770-785-6909

DATE: SEPTEMBER 2016

DATE
10-13-2016

REVISION 1

REVISIONS

OVERHEAD STREET NAME SIGNS
SPAN WIRE MOUNTED

LOCATION ③
SIGMAN RD
@
OLD COVINGTON HWY

- Ⓐ SIGMAN RD
- Ⓑ OLD COVINGTON HWY

OLD COVINGTON HWY

SIGMAN RD

□ SIGNAL CABINET



NOT TO SCALE



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REVISIONS

DATE	REVISION
10-13-2016	REVISION 1

OVERHEAD STREET NAME SIGNS

MAST ARM MOUNTED

LOCATION ⑤
SIGMAN RD
@
FARMER RD

- Ⓐ SIGMAN RD
- Ⓑ FARMER RD

FARMER RD

SIGNAL CABINET



SIGMAN RD

NOT TO SCALE



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MAST ARM MOUNTED

LOCATION ⑦
SIGMAN RD
@
CONYERS MIDDLE
SCHOOL

Ⓐ SIGMAN RD

SIGNAL CABINET

CONYERS MIDDLE
SCHOOL

DRIVEWAY

DRIVEWAY

DRIVEWAY
NORTHSIDE VILLAGE
SHOPPING CENTER

SIGMAN RD



NOT TO SCALE



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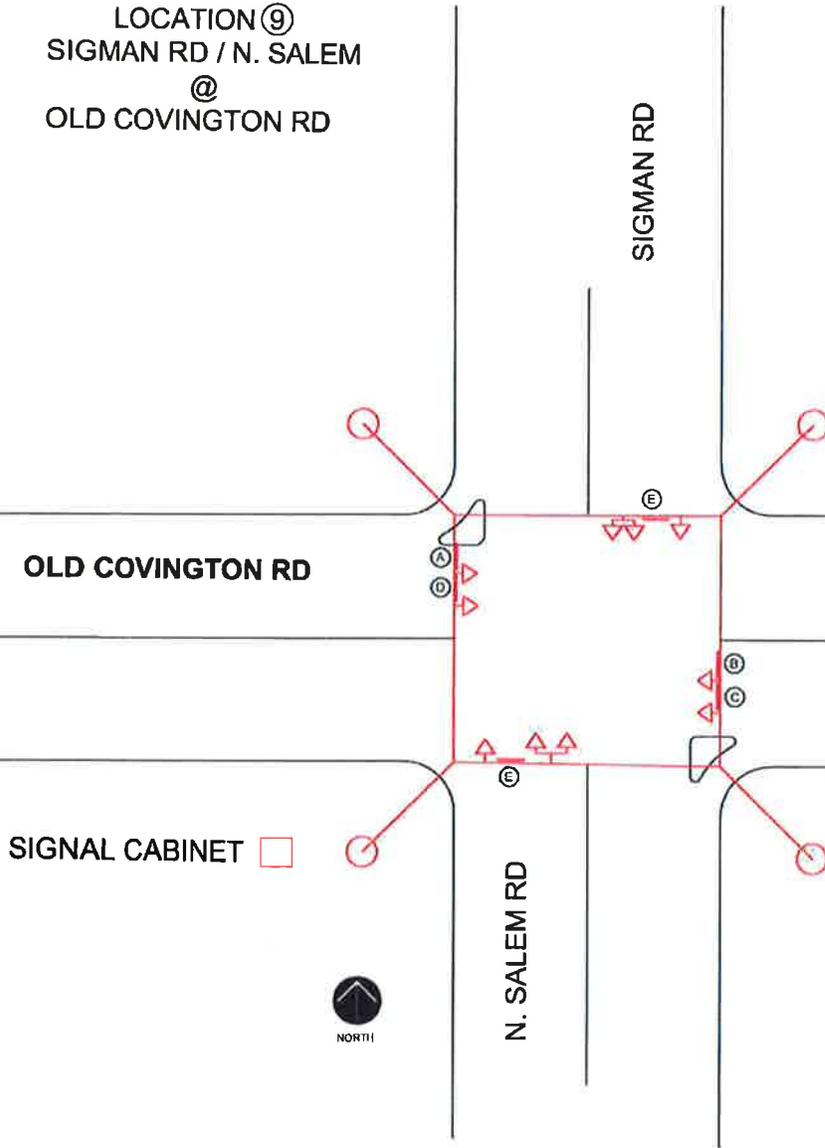
DATE
10-13-2016

REVISION 1

OVERHEAD STREET NAME SIGNS
SPAN WIRE MOUNTED

LOCATION ⑨
SIGMAN RD / N. SALEM
@
OLD COVINGTON RD

- Ⓐ SIGMAN RD →
- Ⓑ ← SIGMAN RD
- Ⓒ N. SALEM RD →
- Ⓓ ← N. SALEM RD
- Ⓔ OLD COVINGTON RD



NOT TO SCALE



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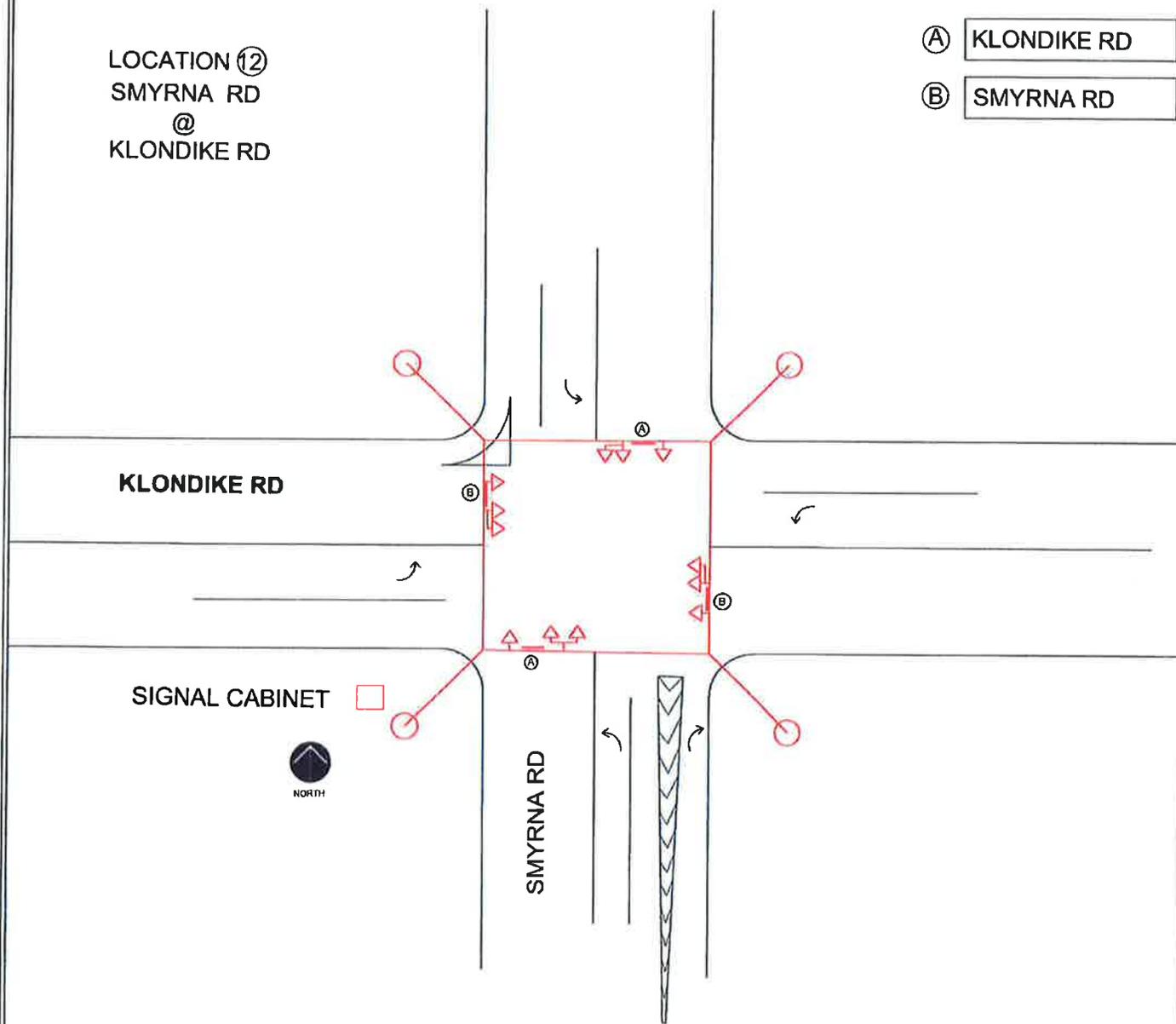
REVISION 1

REVISIONS

OVERHEAD STREET NAME SIGNS
SPAN WIRE MOUNTED

LOCATION 12
SMYRNA RD
@
KLONDIKE RD

- (A) KLONDIKE RD
- (B) SMYRNA RD



NOT TO SCALE



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REVISIONS	
DATE 10-13-2016	REVISION 1

OVERHEAD STREET NAME SIGNS
SPAN WIRE MOUNTED

LOCATION 13
SMYRNA RD
@
EBENEZER RD

- (A) SMYRNA RD →
- (B) ← SMYRNA RD
- (C) ← HILL DR
- (D) HILL DR →
- (E) EBENEZER RD

SIGNAL CABINET

SMYRNA RD

HILL DR

EBENEZER RD



NOT TO SCALE



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