

APPENDIX “B” - OPERATING AUTHORITY UTS STANDARD DRAWINGS

<u>Standard</u>	<u>Rev.</u>	<u>Description</u>
<u>Electrical Chambers</u>		
UTS 602.010	0	Precast Concrete Electrical Handwell with 460mm Diameter Cover
UTS 602.020	0	Electrical Handwell Cast in Place with 460mm Diameter Cover
UTS 602.025	0	Precast Concrete Maintenance Hole, 600mm x 600mm
UTS 602.026	0	Precast Concrete Maintenance Hole, 675mm Diameter
UTS 602.030	0	Prefabricated Underground Enclosures
UTS 602.040	0	Prefabricated Junction Box Installation for Loops
UTS 602.050	0	Electrical Handwell General Installation Requirements
UTS 602.060	0	Typical Median Island Electrical Chamber/ Junction Box Installation
UTS 602.070	0	Electrical Chamber Concrete Collar in Median
UTS 602.080	0	Local Grading at Electrical Chambers
UTS 602.090	0	Electrical Handwell Entry of Direct Buried Ducts
<u>Ducts</u>		
UTS 603.010	0	Typical Underground Conduit Details
<u>Cable</u>		
UTS 604.010	0	M.T.O. Cable Assignment for Traffic Control Signals
UTS 604.011	0	Typical Traffic Signal Pole Wiring Schematic (MTO Cable)
UTS 604.015	0	Typical Traffic Signal Wiring Schematic (MTO 19/C Cable) – One to Four Phase
UTS 604.016	0	Typical Traffic Signal Wiring Schematic (MTO 19/C Cable) – Five to Eight Phase
UTS 604.020	0	I.M.S.A. Specification #19-1C-2001 Cable Assignment for Traffic Control Signals
UTS 604.021	0	Typical Traffic Signal Pole Wiring Schematic (I.M.S.A. #19-1C-2001 Cable)
UTS 604.025	0	Typical Traffic Signal Wiring Schematic (I.M.S.A. #19-1C-2001 - 19/C Cable)

Uniform Traffic Control Specifications and Standards for
Operating Authorities Within the Region of Halton

<u>Standard</u>	<u>Rev.</u>	<u>Description</u>
<u>Secondary Power Supply</u>		
UTS 614.010	0	Isolated Meter Application for Secondary Supply Facility
UTS 614.011	0	Isolated Stack for Secondary Supply to Pedestal Facility
UTS 614.020	0	Overhead Power Supply, Wood/Concrete Pole Mounted - Traffic Signal & Streetlight Application
UTS 614.021	0	Metered Overhead Power Supply, Wood/Concrete Pole Mounted - Traffic Signal & Streetlight Application
UTS 614.022	0	Combination Underground & Metered Overhead Supply Control Cabinet Wood/Concrete Pole Mounted
UTS 614.025	0	Underground Supply Control Cabinet Wood/Concrete Pole Mounted - Traffic Signal & Streetlight Application
UTS 614.026	0	Metered Underground Feed Supply Control Cabinet Wood/Concrete Pole Mounted - Traffic Signal & Street Lighting Application
UTS 614.027	0	Metered Underground Feed Supply Control Cabinet Base Mounted Pole - Traffic Signal & Street Lighting Application
UTS 614.030	0	Traffic Signal Supply Control Cabinet Assembly Equipment Layout and Wiring Schematic, 120/240V, 100A, 1Ø, 3 Wire
UTS 614.031	0	Street Lighting Supply Control Cabinet Assembly Equipment Layout and Wiring Schematic – 120/240V, 100A, 1Ø, 3 Wire
UTS 614.042	0	Power Supply Pedestal with Breaker Panel - Traffic Signal & Street Lighting Application
UTS 614.043	0	Street Lighting Pedestal Supply Control Cabinet Assembly Equipment Layout and Wiring Schematic, 120/240V, 100A, 1Ø, 3 Wire
UTS 614.045	0	Traffic Signal Pedestal Supply Control Cabinet Assembly Equipment Layout and Wiring Schematic, 120/240V, 60A, 1Ø, 3 Wire with Surge Arrestor
UTS 614.046	0	Metered Traffic Signal Power Supply Pedestal c/w Load Centre and Meter Base
UTS 614.047	0	Metered Streetlighting Power Supply Pedestal c/w Load Centre and Meter Base

Uniform Traffic Control Specifications and Standards for
Operating Authorities Within the Region of Halton

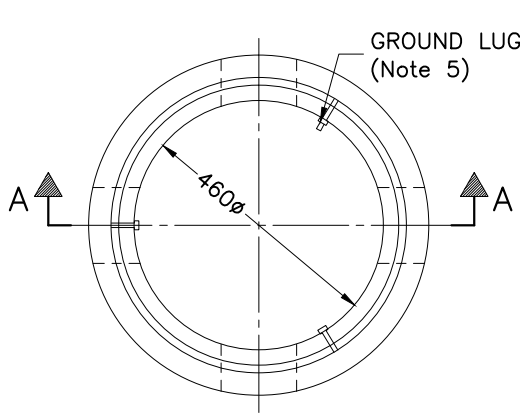
<u>Standard</u>	<u>Rev.</u>	<u>Description</u>
<u>Pole Erection</u>		
UTS 615.010	0	Galvanized Steel Octagonal Pole, Base Mounted
UTS 615.015	0	Traffic Pole Extension
UTS 615.020	0	Aluminium Traffic Signal Pole, Base Mounted
UTS 615.021	0	Aluminium HOV Support Pole, Base Mounted
UTS 615.025	0	Aluminium Streetlight or Combination Streetlight / Signal Pole, Base Mounted
UTS 615.026	0	Aluminium Pole for Pedestrian Pushbuttons, Base Mounted
UTS 615.030	0	Pole Mounting Details for Base Mounted Metal Pole
UTS 615.035	0	Metal Lighting Pole, Base Mounted
<u>Footings And Pads</u>		
UTS 616.010	0	Concrete Footing for Base Mounted Pole Elevation Details
UTS 616.011	0	Concrete Footing for Base Mounted Pole Dimension Details
UTS 616.012	0	Concrete Footing for Base Mounted Power Pedestal
UTS 616.013	0	Pole Spread Footing in Median for Footing Conflicts
UTS 616.014	0	Concrete Footing for Base Mounted Pedestrian Pushbutton Pole
UTS 616.015	0	Local Grading at Pole Foundations
UTS 616.020	1	Anchorage Assembly with Studs for Traffic and Luminaire Poles
UTS 616.021	1	Anchorage Assembly with Bolts for Traffic and Luminaire Poles
UTS 616.025	0	Anchorage Assembly with Studs for Median Sign Pole – 151mm B.C.D.
UTS 616.026	0	Anchorage Assembly with Bolts for Pedestrian Pushbutton Pole - 190mm B.C.D.
UTS 616.030	0	Traffic Controller Base, “M” Series and “P44” Cabinets, One Pedestal
UTS 616.031	0	Communication “M” Series Cabinet Foundation
UTS 616.035	0	Traffic Controller Base, “M” Series and “P44” Cabinets with Power Pedestal (406mm B.C.D.)
UTS 616.036	0	Traffic Controller Base, “M” Series and “P44” Cabinets with Metered Power Pedestal (539mm B.C.D.)
UTS 616.040	0	Traffic Controller Base, “M” Series and “P44” Cabinets, Two Pedestals

Uniform Traffic Control Specifications and Standards for
Operating Authorities Within the Region of Halton

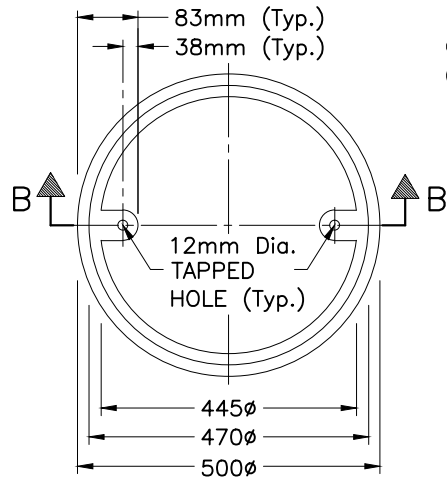
<u>Standard</u>	<u>Rev.</u>	<u>Description</u>
<u>Roadway Luminaires</u>		
UTS 617.010	0	1.8m or 2.4m Aluminum Tapered Elliptical Bracket For Metal / Concrete Pole
UTS 617.015	0	3.6m Aluminum Tapered Elliptical Bracket For Metal / Concrete Pole
UTS 617.016	0	3.6m Aluminum Tapered Elliptical Bracket For Wood Pole
UTS 617.020	0	Aluminum Tapered Elliptical Bracket On Aluminum Poles Mounting Detail
<u>Traffic Signal Equipment and Electrical Traffic Control Devices</u>		
UTS 620.010	0	Plumbizer - Adjustable Mid-Section Signal Head Hanger
UTS 620.020	0	Dual End Signal Head Mounting Bracket
UTS 620.030	0	Double Signal Head Mounting Bracket
UTS 620.050	0	Extruded Aluminum Signal Arm Bracket
UTS 620.051	0	Pedestrian Signal Head Mounting Configurations
UTS 620.055	0	Wooden Post Stand for Temporary Pedestrian Signals
UTS 620.056	0	Wooden Post Stand for Temporary Pedestrian Push-Button
UTS 620.060	0	Fibreglass Insulating Rod Installation On Overhead Signal Spans
UTS 620.061	0	Aerial Traffic Signal Installation
UTS 620.070	0	Advanced Warning Flashers and Signs Direct Buried
UTS 620.071	0	Advanced Warning Flashers and Signs Concrete Base
UTS 620.072	0	Advanced Flasher, Wiring Schematic
UTS 620.075	0	Island Marker
UTS 620.076	0	Flasher Beacon, Wiring Schematic
UTS 620.080	0	Loop Detector Installation Details - I
UTS 620.081	0	Loop Detector Installation Details - II
UTS 620.083	0	Audible Pedestrian Pushbutton Assembly
UTS 620.084	0	Audible Pedestrian Pushbutton Signs
UTS 620.085	0	Pedestrian Pushbutton / Sign Assembly and Information Sign
UTS 620.086	0	Pedestrian Crossing Information Sign
UTS 620.090	0	Optical Pre-emption Detector Head Mounting
UTS 620.096	0	Mounting of Wavetronix Radar Detection Unit

Uniform Traffic Control Specifications and Standards for
Operating Authorities Within the Region of Halton

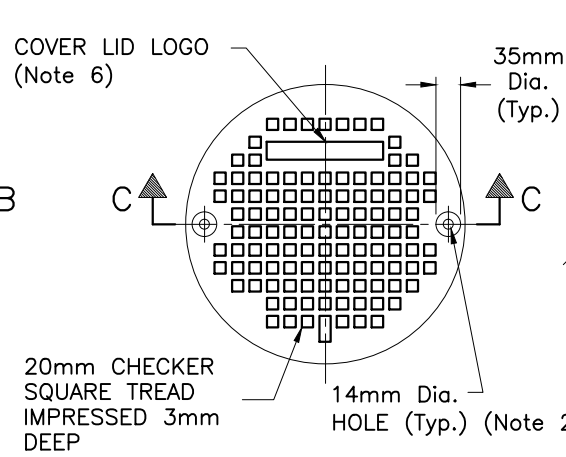
<u>Standard</u>	<u>Rev.</u>	<u>Description</u>
<u>Signing Applications</u>		
UTS 999.010	0	Advance Street Name Sign, Ground Mount
UTS 999.020	0	Arterial Street Name Sign, Mast Arm Mount
UTS 999.025	0	Route Marker & Extruded Street Name Signs
UTS 999.030	0	Lane Designation Sign Support Bracket
UTS 999.031	0	Aerial Suspension Mounting Bracket For Arterial Street Name
UTS 999.035	0	Arterial Street Name Sign Blade Support Bracket
UTS 999.040	0	Ornamental Arterial Street Name Sign
UTS 999.045	0	Ornamental Arterial Street Name Sign Bracket
UTS 999.050	0	Advance Overhead Lane Designation Signs For Dual Left Turn Lanes
UTS 999.055	0	Overhead Lane Designation Signs On Centre Median Signal Pole
UTS 999.060	0	Overhead HOV Lane Designation Signs – 5.5m Horizontal Single Member Arm
UTS 999.062	0	Overhead HOV Lane Designation Signs – 6.7m to 7.3m Horizontal Single Member Arms



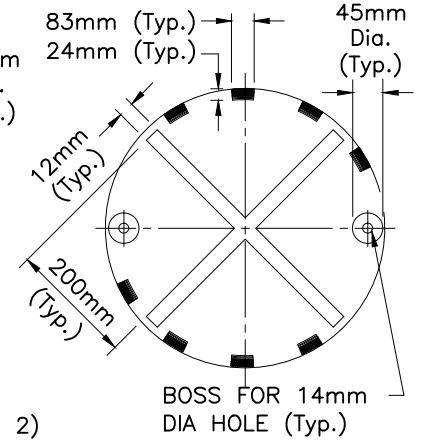
PLAN - HANDHOLE



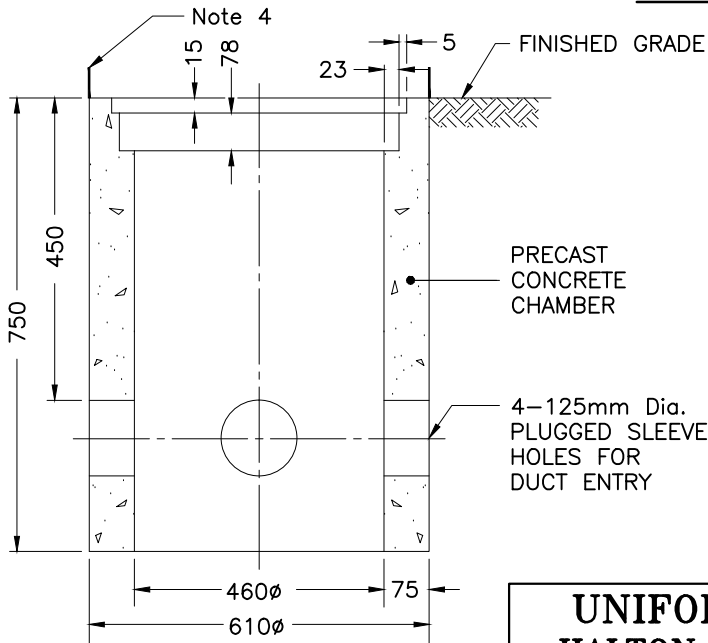
PLAN - FRAME



PLAN - COVER



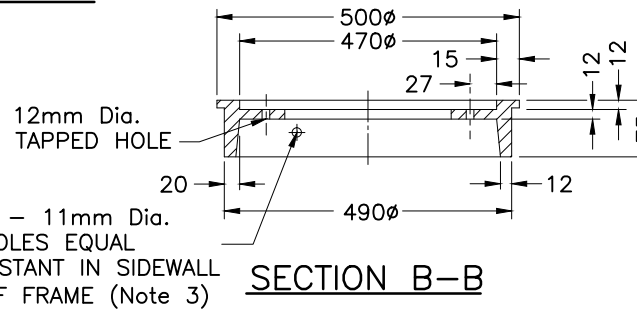
UNDERSIDE OF COVER



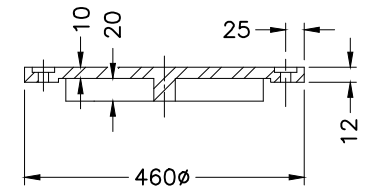
SECTION A-A

DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

(OPSD 2112.02M)



SECTION B-B



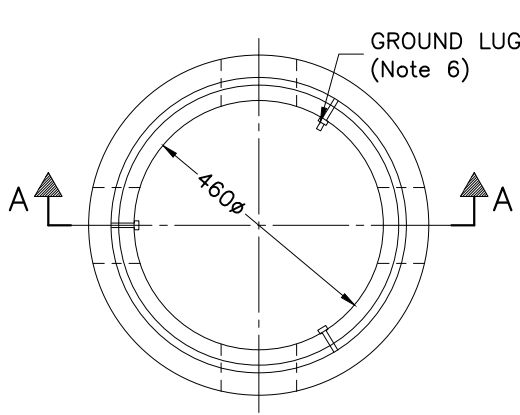
SECTION C-C

- NOTES:**
1. FOR GENERAL INSTALLATION DETAIL REFER TO UTS 602.050 AND UTS 602.090.
 2. COVER TO BE RETAINED WITH 12mm DIA x 20mm LONG STAINLESS STEEL HEX HEAD MACHINE BOLTS TO BE FLUSH WITH TOP OF COVER WHEN FASTENED.
 3. FRAME TO BE ATTACHED USING 3-10mm DIA x 38mm LONG MACHINE BOLTS ANCHORED IN CONCRETE WALL.
 4. LIFTING HOOKS TO BE REMOVED AFTER HANDHOLE INSTALLATION.
 5. POINT OF CONNECTION OF #6 GROUND WIRE FROM GROUND ELECTRODE/SYSTEM.
 6. COVER LID TO HAVE "TRAFFIC", "LIGHTING" OR "COMMUNICATION" LOGO

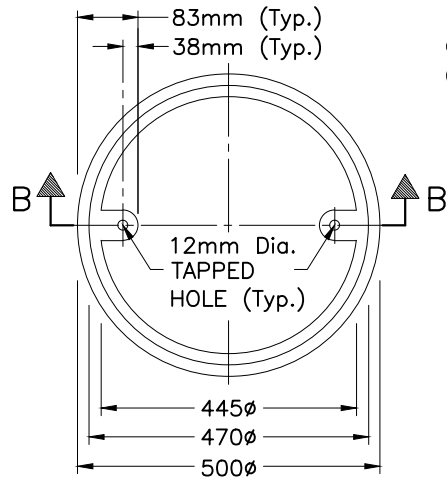
**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**PRECAST CONCRETE
 ELECTRICAL HANDWELL WITH
 460mm DIAMETER COVER**

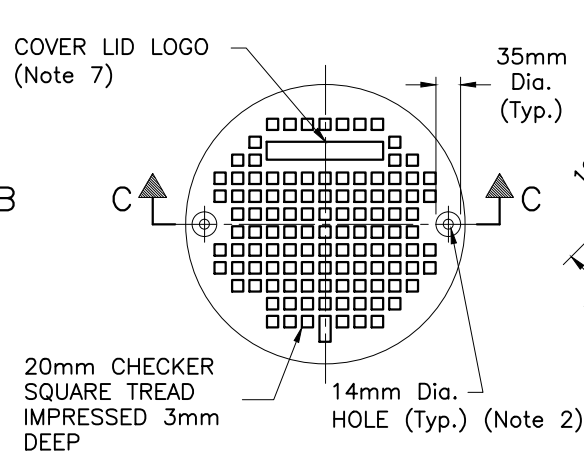
Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY 2014</u>	
STANDARD No. <u>UTS 602.010</u>	



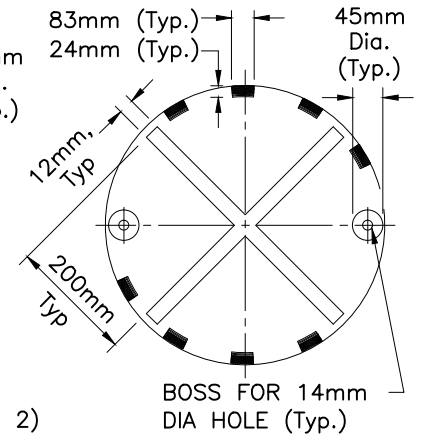
PLAN - HANDHOLE



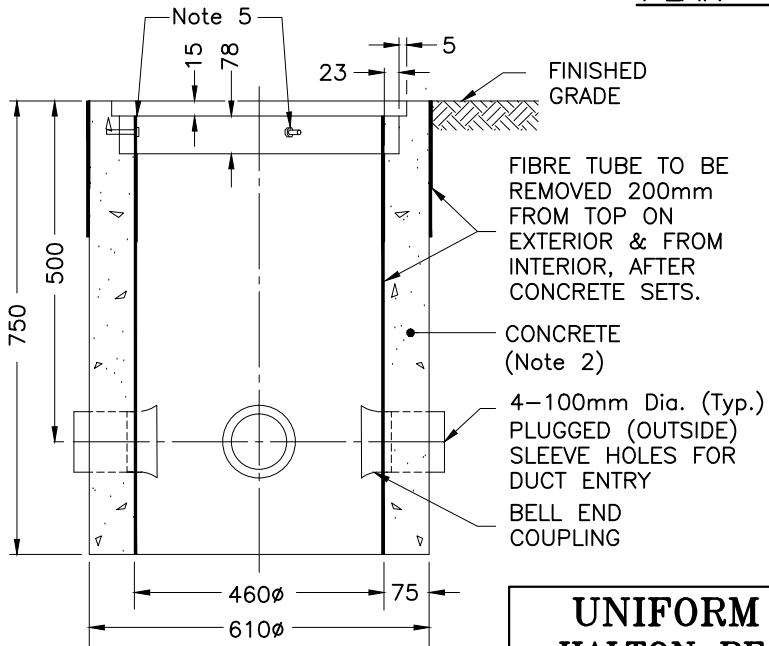
PLAN - FRAME



PLAN - COVER



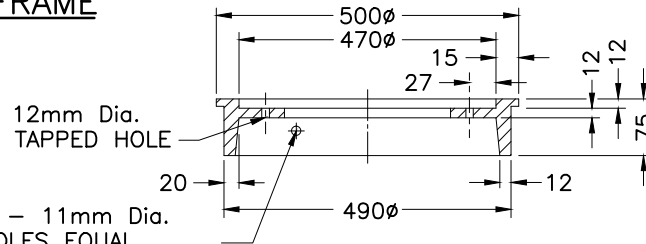
UNDERSIDE OF COVER



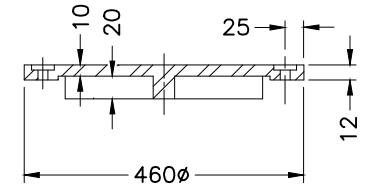
SECTION A-A

DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

(OPSD 2112.02M)



SECTION B-B



SECTION C-C

- NOTES:**
1. FOR GENERAL INSTALLATION DETAIL REFER TO UTS 602.050 AND UTS 602.090.
 2. CONCRETE TO BE CSA 23.1 OF EXPOSURE CLASS C-1, 35 MPa
 3. COVER TO BE RETAINED WITH 12mm DIA x 20mm LONG STAINLESS STEEL HEX HEAD MACHINE BOLTS TO BE FLUSH WITH TOP OF COVER WHEN FASTENED.
 4. FRAME TO BE ATTACHED USING 3-10mm DIA x 38mm LONG MACHINE BOLTS ANCHORED IN CONCRETE WALL.
 5. CUT SLOT 40mm x 12mm IN FIBRE AT EACH BOLT LOCATION TO ALLOW FOR VERTICAL ADJUSTMENT OF CASING.
 6. POINT OF CONNECTION OF #6 GROUND WIRE FROM GROUND ELECTRODE / SYSTEM.
 7. COVER LID TO HAVE "TRAFFIC", "LIGHTING" OR "COMMUNICATION" LOGO.

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**CAST IN PLACE CONCRETE
 ELECTRICAL HANDWELL WITH
 460mm DIAMETER COVER**

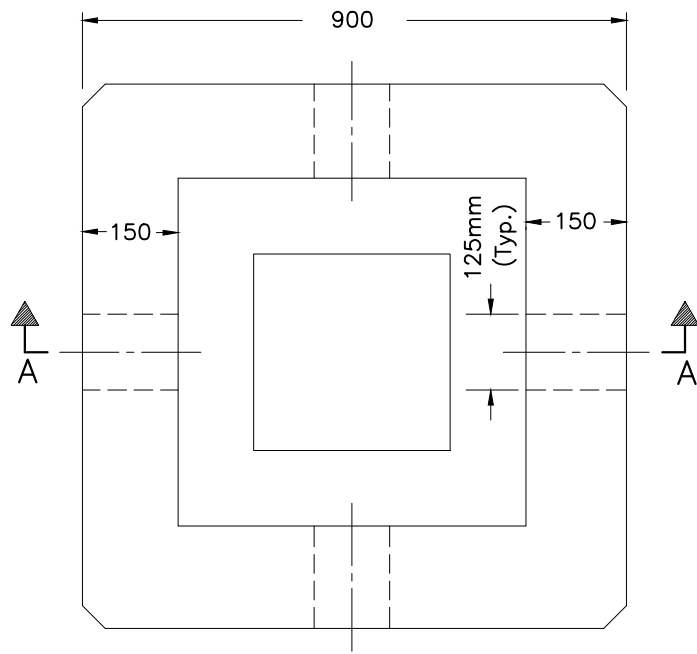
Rev. Date _____ Rev. No. 0

Modification: _____

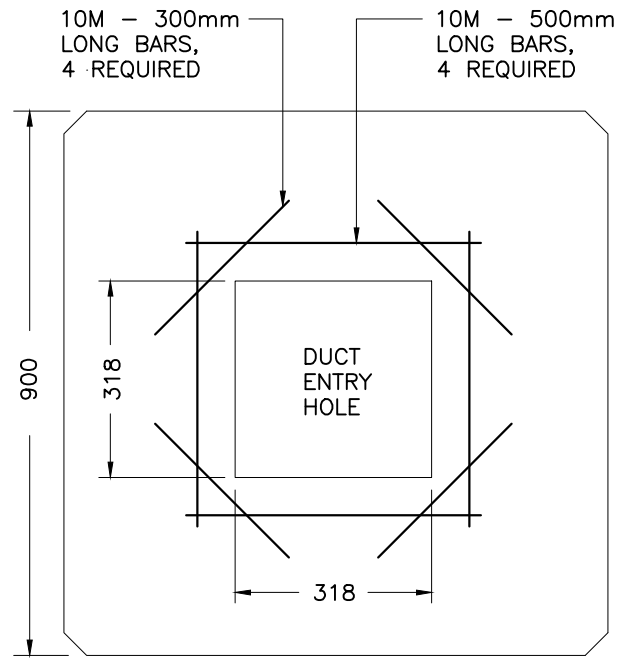
Modified By: McCORMICK RANKIN

Date: FEBRUARY 2014

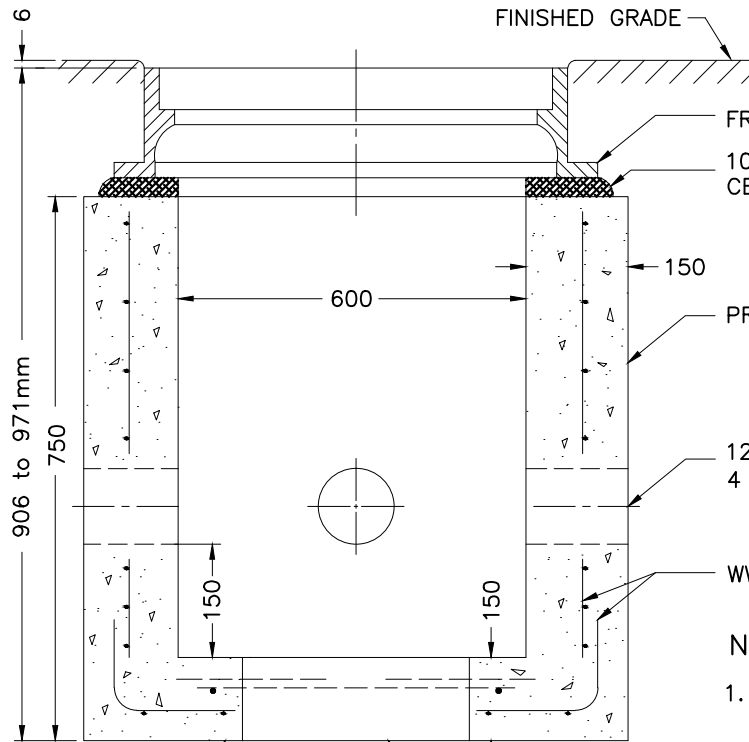
STANDARD No. UTS 602.020



PLAN



BOTTOM-DUCT ENTRY REINFORCING



SECTION A-A

FRAME WITH COVER OPSD 401.010 (TYPE A)
10mm MIN / 75mm MAX
CEMENT MORTAR FOR ADJUSTMENT

PRECAST CONCRETE RISER

125mm Dia. HOLE FOR DUCT ENTRY,
4 REQUIRED (Note 1)

WWF CIRCULAR STEEL 250mm² /m

NOTES:

1. FOR DUCT INSTALLATION DETAILS REFER TO UTS 602.090.
2. FOR GENERAL INSTALLATION DETAILS REFER TO UTS 602.050.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

(OPSD 2112.040M)

FILE LOCATION: \\K:\7101 CONSOLIDATION OF UNIFORM TRAFFIC SIGNAL CONTROL SPECS\2014 UTS FINAL.DWG
 DRAWING NAME: 602025 _R0_UTS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED: 14/02/03 09:33:18
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

PRECAST CONCRETE
MAINTENANCE HOLE
600mm x 600mm

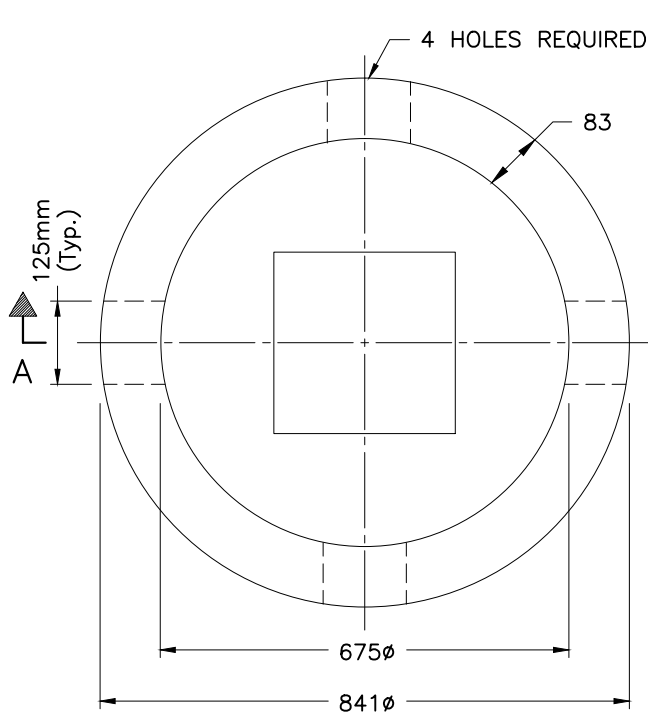
Rev. Date _____ Rev. No. 0

Modification: _____

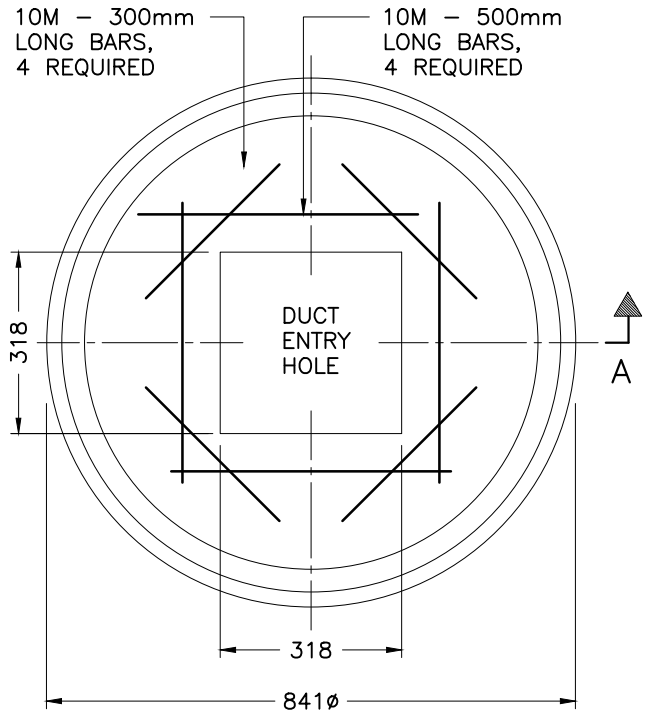
Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

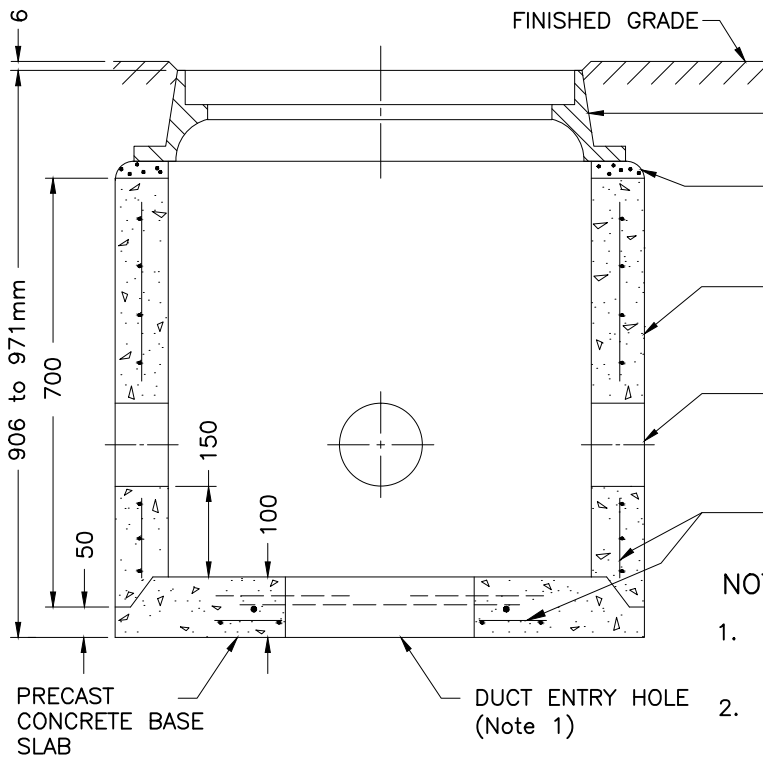
STANDARD No. UTS 602.025



PLAN



BOTTOM - DUCT ENTRY REINFORCING



SECTION A-A

- FRAME WITH COVER OPSD-401.010 (TYPE A)
- 10mm MIN / 75mm MAX CEMENT MORTAR FOR ADJUSTMENT
- PRECAST CONCRETE RISER
- 125mm Dia. HOLE FOR DUCT ENTRY, 4 REQUIRED (Note 1)
- WWF CIRCULAR STEEL 250mm²/m

NOTES:

1. FOR DUCT INSTALLATION DETAILS REFER TO UTS 602.090.
2. FOR GENERAL INSTALLATION DETAILS REFER TO UTS 602.050.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

(OPSD 2112.030M)

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTS5 FINAL.DWG
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 DRAWN BY: D. THOMPSON
 REVISED BY: K.MISTRY
 14/02/03 09:33:14 Modified

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**PRECAST CONCRETE
MAINTENANCE HOLE
675mm DIAMETER**

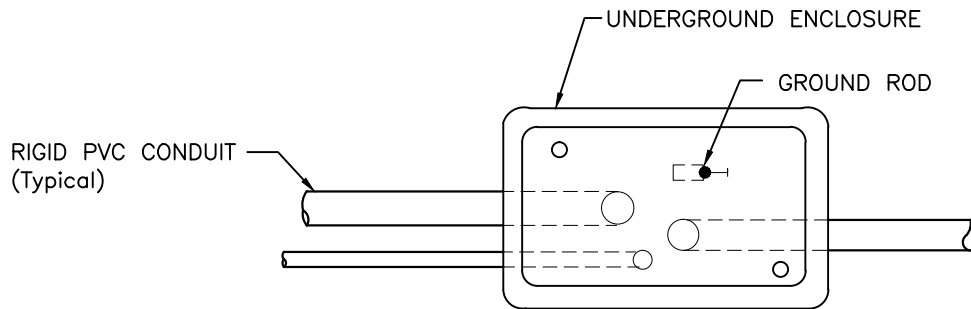
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 602.026



PLAN

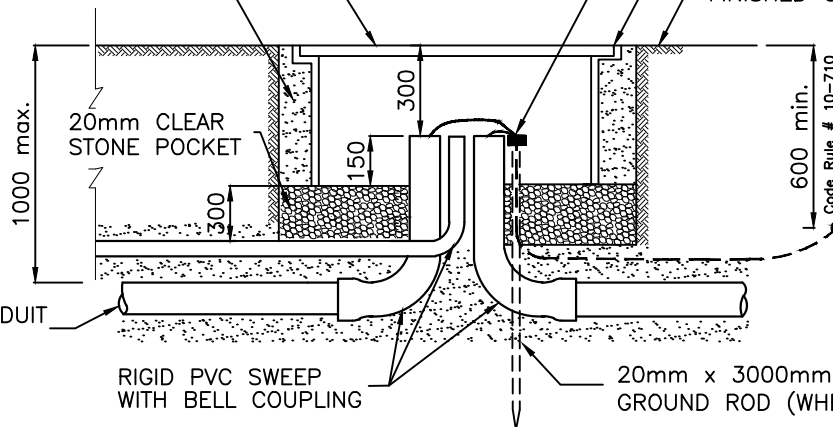
ENCLOSURE COVER WITH "TRAFFIC SIGNAL" OR "COMMUNICATION" LOGO

BACKFILL WITH NATIVE MATERIAL IN BOULEVARDS, GRANULAR 'A' UNDER SIDEWALKS

COMPRESSION CONNECTION TO SYSTEM GROUND ROD

UNDERGROUND ENCLOSURE AND COVER ASSEMBLY

FINISHED GRADE



MOULDED-TYPE CONNECTION

ALTERNATE 254 x 406 x 6.3 (Min.) HOT DIPPED GALVANIZED STEEL GROUND PLATE (WHERE REQUIRED)

SECTION

		SYNERTECH (OLDCASTLE)		QUAZITE (HUBBELL)	
SIZE	TYPE	BOX	COVER	BOX	COVER
330 x 610	1	S1324B18FA	S1324HBBOA	PT1324BA18	PX1324CA00
432 x 762	2	S1730B18FA	S1730HBBOA	PT1730BA18	PX1730CA00

NOTES:

1. TOP OF UNDERGROUND ENCLOSURE SHALL BE LEVEL TO CONFORM TO FINISHED GRADE.
2. ALL DUCTS USED IN OPEN CUT INSTALLATION TO BE RIGID PVC CONDUIT.
3. END OF ALL DUCTS MUST BE CAPPED UNTIL CABLE PULLED.
4. BACKFILL TRENCH UNDER ROAD AND IN ISLAND TO BE GRANULAR.
5. BACKFILL TRENCH IN BOULEVARD TO BE SELECTED EXCAVATED MATERIAL AS SPECIFIED IN SPECIFICATIONS.
6. ALL DUCTS MUST BE FREE AND CLEAR OF ALL DEBRIS AND OBSTRUCTIONS (DIRT, STONE, ETC.)
7. CONTRACTOR TO SUPPLY AND PLACE POLYPROPYLENE FISH LINE IN ALL DUCTS.
8. CONTRACTOR TO SUPPLY AND INSTALL GROUND ROD/PLATE AND CONNECTOR IN ALL NEW UNDERGROUND ENCLOSURE WHERE INDICATED IN CONTRACT.

DIMENSIONS IN mm EXCEPT AS NOTED

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date _____ Rev. No. 0

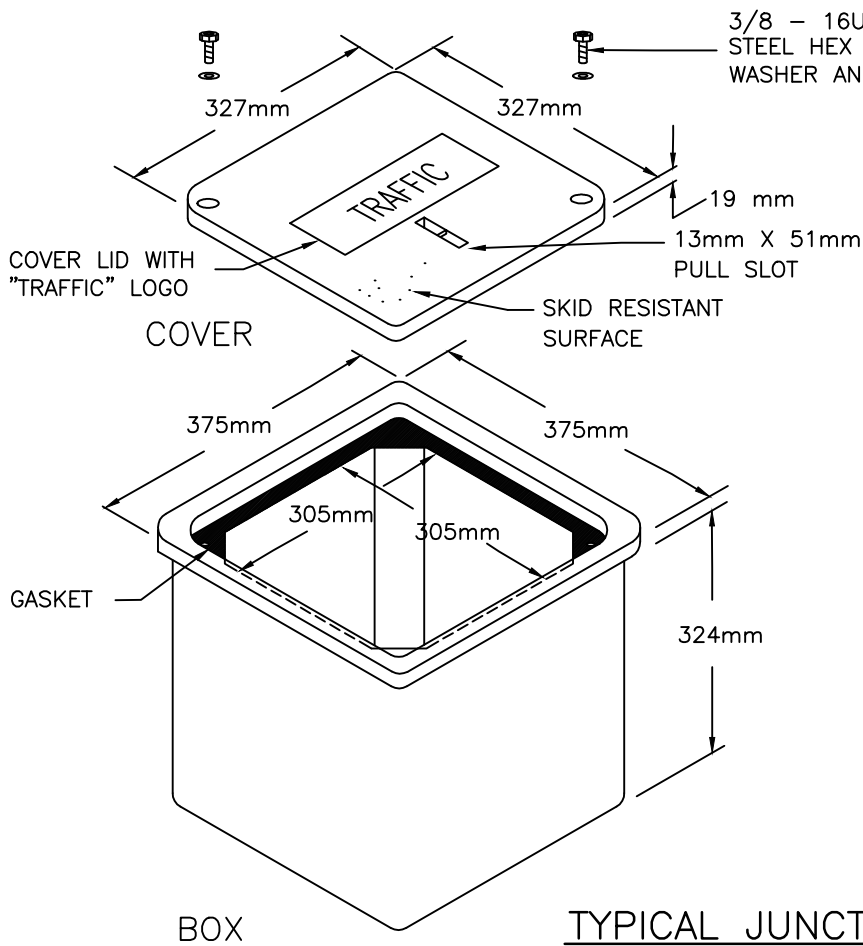
Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

**PREFABRICATED
UNDERGROUND ENCLOSURE**

STANDARD No. **UTS 602.030**



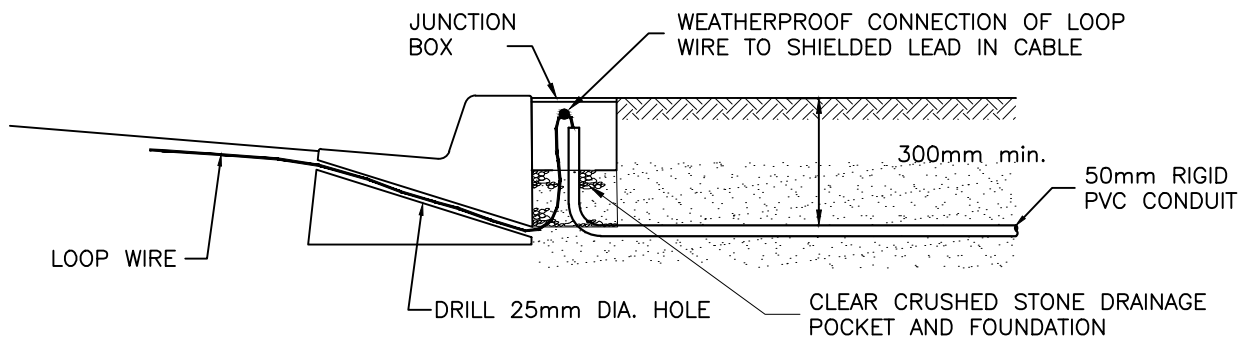
BOX (Stackable)
WITH NO BASE

MANUFACTURER	PART NO.
QUAZITE (HUBBELL)	PC1212BG12
SYNERTECH (OLDCASTLE)	S1212B12FA

COVER WITH 2 BOLTS

MANUFACTURER	PART NO.
QUAZITE (HUBBELL)	PC1212HA00-46
SYNERTECH (OLDCASTLE)	S1212HFAOA-13

(LOGO TO INDICATE "TRAFFIC" UNLESS SPECIFIED TO BE BLANK)



INSTALLATION

NOTES

1. BACKFILL UNDER ROAD AND IN ISLAND TO BE GRANULAR MATERIAL.
2. BACKFILL IN BOULEVARD TO BE SELECTED EXCAVATED MATERIAL UNLESS OTHERWISE SPECIFIED.

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES

PREFABRICATED JUNCTION BOX INSTALLATION FOR DETECTION LOOPS

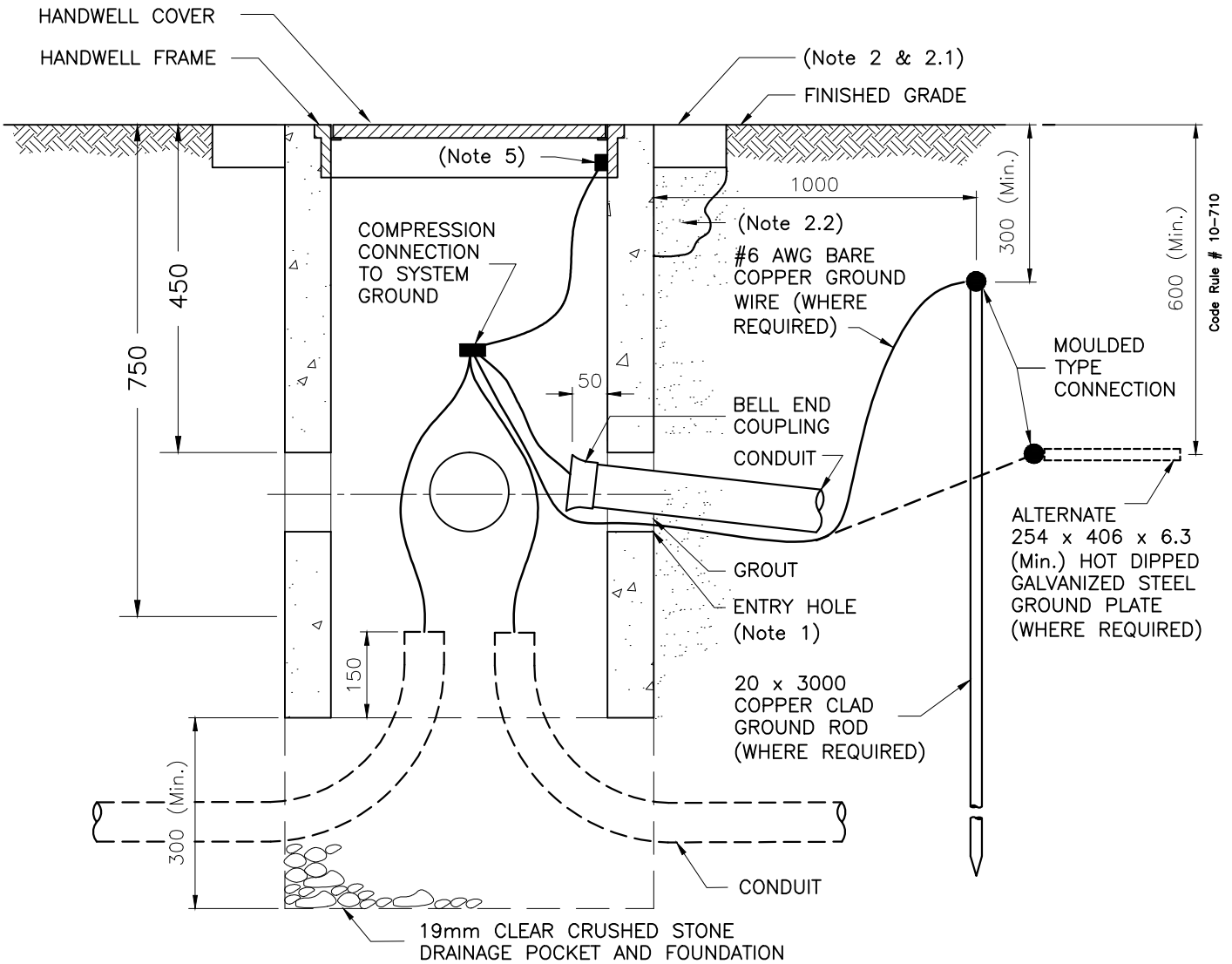
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 602.040



NOTES:

1. FOR DUCT ENTRY DETAILS REFER TO UTS 602.090.
2. BOX OUT REQUIRED FOR HARD SURFACE TREATMENT.
 - 2.1. BITUMINOUS FIBREBOARD TO BE INSTALLED 50mm FROM ELECTRICAL CHAMBER FOR BOX OUT. REFER TO UTS 602.070.
 - 2.2. UNSHRINKABLE FILL TO BE PLACED AS BACKFILL IN EXCAVATED VOID AREA AROUND ELECTRICAL CHAMBERS.
3. FOR SPECIFIC HANDWELL DETAILS REFER TO UTS 602.010, UTS 602.020, UTS 602.025 OR UTS 602.026.
4. HANDWELL AND COVER SHALL CONFORM TO FINISHED GRADE.
5. ATTACH GROUND WIRE TO ELECTRICAL CHAMBER COVER USING GROUND LUG SUITABLE FOR #6 AWG COPPER WIRE.

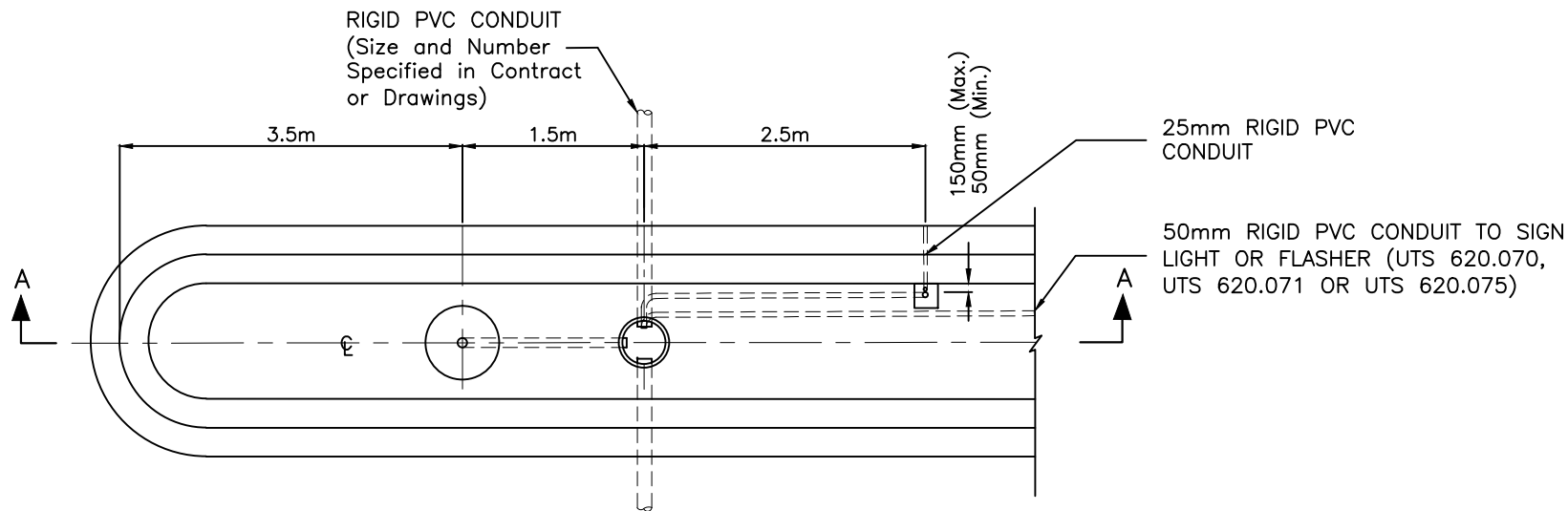
ALL DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

(OPSD 2117.02M)

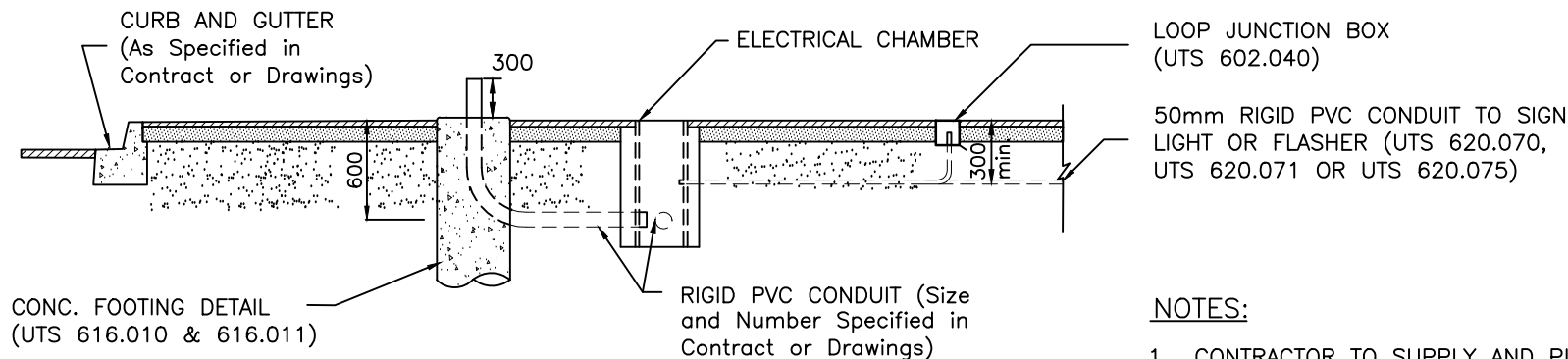
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ELECTRICAL HANDWELL
GENERAL INSTALLATION
REQUIREMENTS**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>MCCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 602.050</u>	



MEDIAN ISLAND



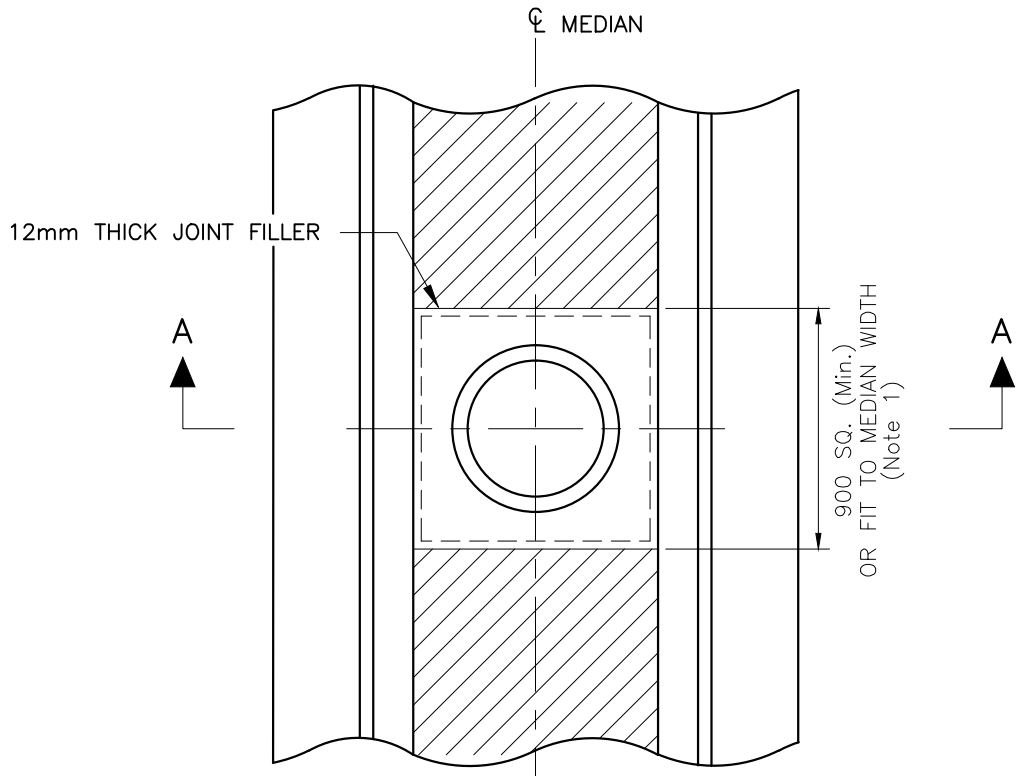
SECTION A-A

NOTES:

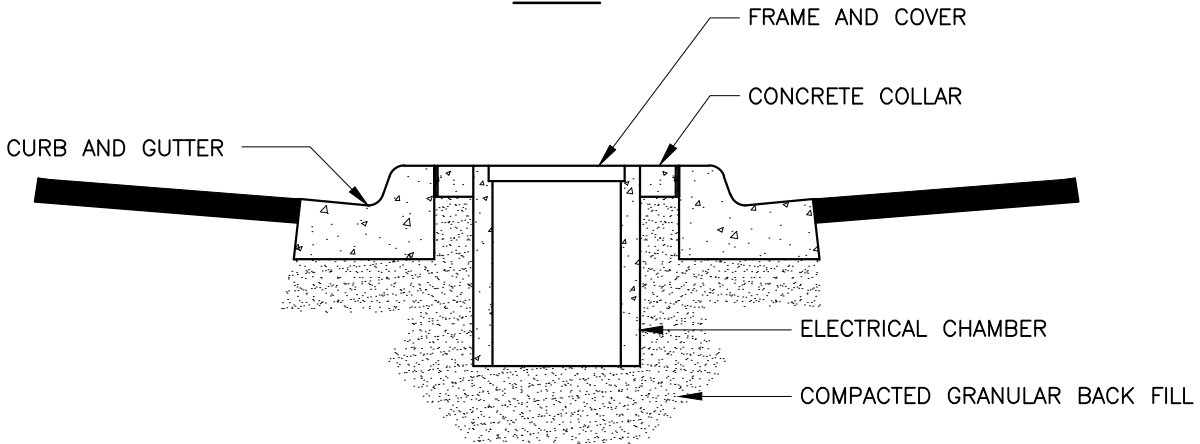
1. CONTRACTOR TO SUPPLY AND PLACE POLYPROPYLENE FISH STRING IN ALL CONDUITS.

DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES TYPICAL MEDIAN ISLAND ELECTRICAL CHAMBER / JUNCTION BOX INSTALLATION	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
STANDARD No. UTS 602.060		



PLAN



SECTION A-A

NOTE:

- 1. USE CONCRETE COLLAR WHEN MEDIAN SURFACE CAPPED WITH PAVING STONE, CONCRETE OR ASPHALT.
- DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

(OPSD 2118.01M)

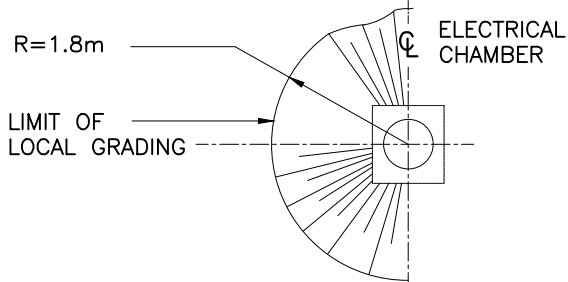
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ELECTRICAL CHAMBER
CONCRETE COLLAR
IN MEDIAN**

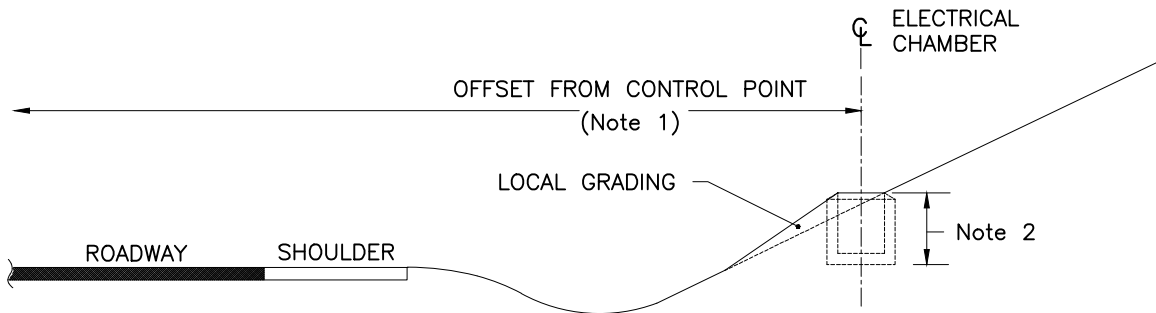
Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 602.070 </u>	

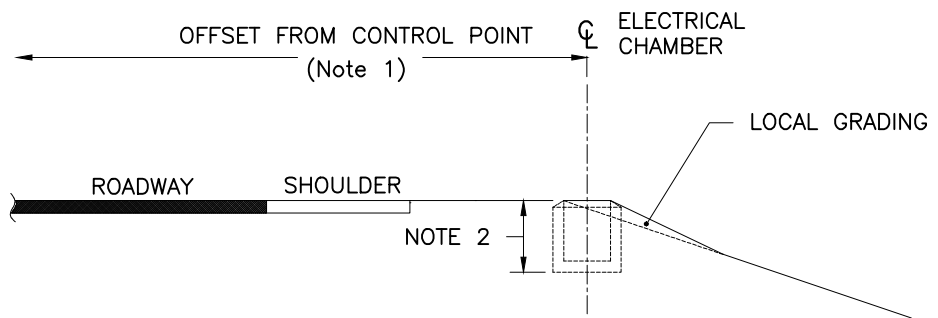
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 DRAWING NAME: 602070 _R0_UTS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 14/02/03 09:32:56
 Modified



TYPICAL PLAN



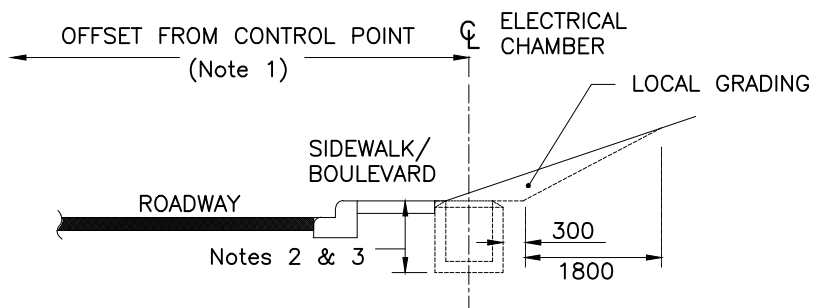
CHAMBER IN CUT



CHAMBER IN FILL

NOTES:

1. FOR LOCATION AND OFFSET, SEE CONTRACT DRAWINGS.
2. TOP ELEVATION OF CHAMBER SHALL BE MEASURED FROM THE HIGHEST GRADE ELEVATION.
3. SIDEWALK LOCATIONS SHALL HAVE FRAME FLOATED LEVEL INTO BOXED OUT AREA IN SIDEWALK CONCRETE WITHIN A 900mm x 900mm BOXED OUT AREA.



CHAMBER ADJACENT TO SIDEWALK

ALL DIMENSIONS ARE IN MILLIMETRES OR METRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**LOCAL GRADING FOR
ELECTRICAL CHAMBERS**

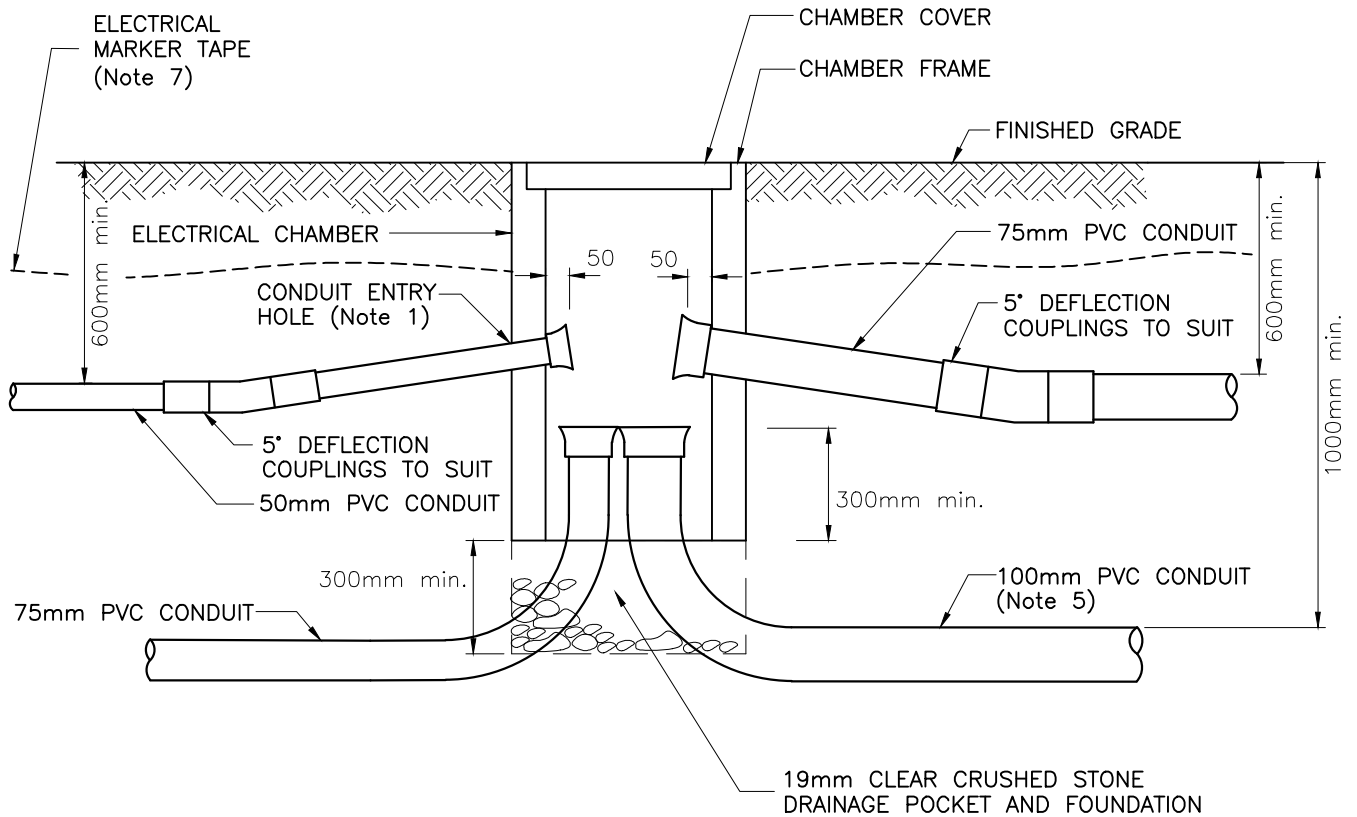
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 602.080



NOTES:

1. DUCTS IN ENTRY HOLES TO BE LEFT FREE FOR MOVEMENT.
2. ALL DUCTS MUST BE CLEAN AND FREE OF ALL DEBRIS AND OBSTRUCTIONS.
3. CONTRACTOR TO SUPPLY AND INSTALL POLYPROPYLENE FISH STRING IN ALL CONDUITS.
4. ENDS OF ALL CONDUITS MUST BE CAPPED UNTIL WIRE PULLED.
5. ALL DUCTS USED IN DIRECTIONAL BORING TO BE HIGH DENSITY POLYPIPE.
6. TRANSITIONS FROM HIGH DENSITY POLYPIPE TO RIGID PVC CONDUIT SHALL BE DONE WITH RIGID PVC CONDUIT OR SWEEPS WITH BELL COUPLING END.
7. MARKER TAPE (POLY) SHALL BE PLACED AT MID POINT DEPTH OF OPEN CUT INSTALLATION.

DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

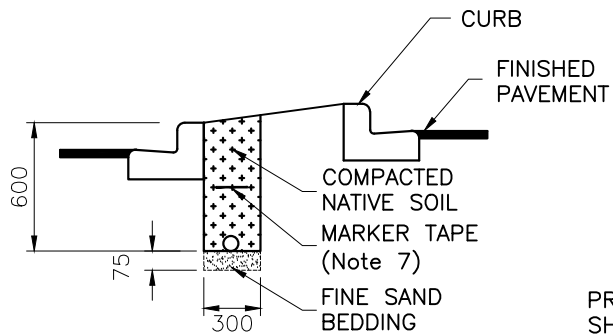
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 REVISED BY: K. MISTRY
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 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

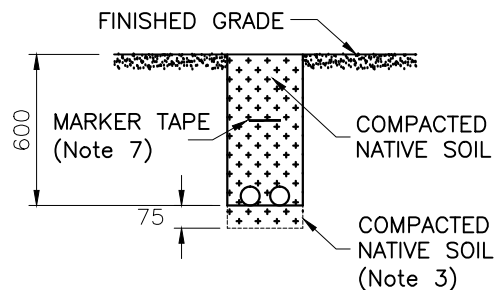
**ELECTRICAL CHAMBER ENTRY
OF DIRECT BURIED DUCTS**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

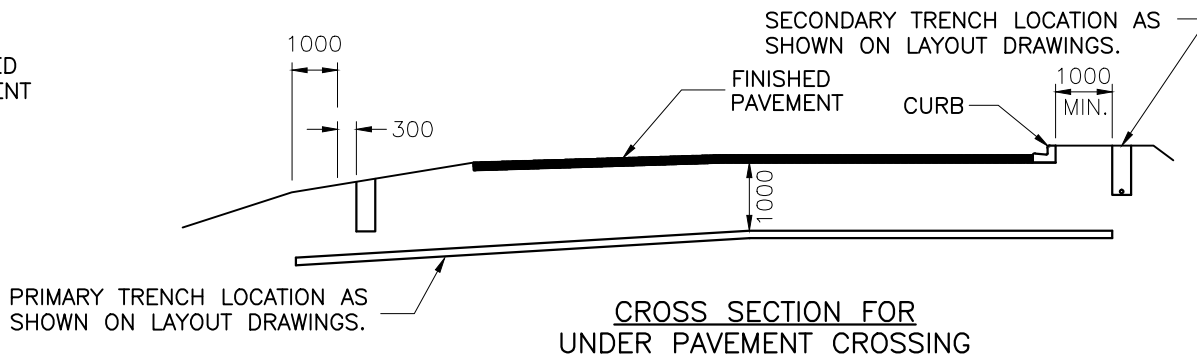
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Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 602.090 </u>	



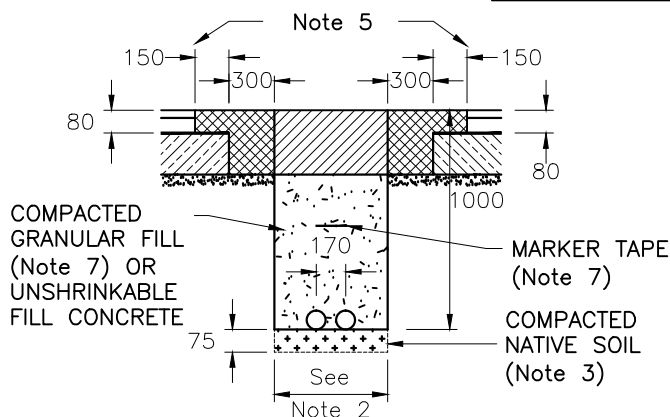
**MEDIAN ISLAND TRENCH
 DIRECT BURIED**



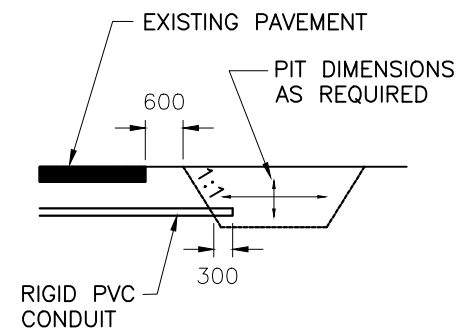
**SECONDARY TRENCH
 RIGID PVC CONDUIT
 DIRECT BURIED**



**CROSS SECTION FOR
 UNDER PAVEMENT CROSSING**



**PRIMARY TRENCH
 RIGID PVC CONDUIT
 DIRECT BURIED**



**TYPICAL SECTION AT
 AUGURING PIT**

NOTE:

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE CONDITIONS STIPULATED IN THE OPERATING AUTHORITY ROAD OCCUPANCY PERMIT.
2. TRENCHES SHALL BE 300mm (Typ.) WIDE AND 1m DEEP (EXCEPT SECONDARY TRENCH) WITH VERTICAL WALLS. SAW CUT ASPHALT FULL DEPTH TO GRANULAR BASE PRIOR TO REMOVAL.
3. INSTALL SAND BASE IN STONE OR ROCK SOIL CONDITIONS.
4. CONDUIT SIZE AND TYPE AS PER LAYOUT DRAWINGS AND DOCUMENTS.
5. PRIOR TO BACKFILLING TRENCH, REMOVE ASPHALT FULL DEPTH FOR 300mm AND STEP JOINT 150mm WIDE, 80mm DEPTH ON EACH SIDE OF TRENCH. COMPACT DISTURBED AREA AND RESURFACE WITH ASPHALT MATERIAL.
6. ALL DUCT SYSTEMS SHALL HAVE A POLYPROPYLENE FISH STRING PULLED WITH CABLES OR LEFT IN SPARE DUCTS, FOR FUTURE USE. SINGLE SPARE CONDUIT SYSTEMS SHALL HAVE 1-#14 AWG CONDUCTOR FOR LOCATING PURPOSES.
7. MARKER TAPE (POLY) SHALL BE PLACED AT MID POINT DEPTH OF OPEN CUT INSTALLATION WITH GRANULAR FILL.

<p>UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES</p> <p>TYPICAL UNDERGROUND CONDUIT DETAILS</p>	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 603.010 </u>		

ALL DIMENSIONS IN mm EXCEPT AS NOTED.

19 CONDUCTOR CABLE (OPSS 2409)

M.T.O. Conductor #	Insulator Colour	Lettering	Abv. Colour Ref.	Conductor Assignment to Signal Indication	
				Cable Group 1	Cable Group 2
1	WHITE	White One	W1	Main Street – Neutral	Main Street – Neutral
2	WHITE	White Two	W2	Side Street – Neutral	Side Street – Neutral
3	BLACK	–	–	Spare	Spare
4	ORANGE	–	–	Spare	Spare
5	RED	Red One	R1	Main Street – Red – Phase 2 or 6	Main Street – Red – Phase 2 or 6
6	RED	Red Two	R2	Side Street – Red – Phase 4 or 8	Side Street – Red – Phase 4 or 8
7	RED	Red Three	R3	Left Red – Phase 1, 3, 5 or 7	Left Red – Phase 1, 3, 5 or 7
8	RED	Red Four	R4	Main Street – Don't Walk – Phase 2 or 6	Main Street – Don't Walk – Phase 2 or 6
9	RED	Red Five	R5	Side Street – Don't Walk – Phase 4 or 8	Side Street – Don't Walk – Phase 4 or 8
10	YELLOW	Amber One	A1	Main Street – Amber – Phase 2 or 6	Main Street – Amber – Phase 2 or 6
11	YELLOW	Amber Two	A2	Side Street – Amber – Phase 4 or 8	Side Street – Amber – Phase 4 or 8
12	YELLOW	Amber Three	A3	Left Amber (Arrow) – Phase 1, 3, 5, or 7	Left Amber (Arrow) – Phase 1, 3, 5 or 7
13	YELLOW	Amber Four	A4	Spare	Spare
14	YELLOW	Amber Five	A5	Spare	Spare
15	BLUE	Green One	G1	Main Street – Green – Phase 2 or 6	Main Street – Green – Phase 2 or 6
16	BLUE	Green Two	G2	Side Street – Green – Phase 4 or 8	Side Street – Green – Phase 4 or 8
17	BLUE	Green Three	G3	Left Green (Arrow) – Phase 1, 3, 5 or 7	Left Green (Arrow) – Phase 1, 3, 5 or 7
18	BLUE	Green Four	G4	Main Street – Walk – Phase 2 or 6	Main Street – Walk – Phase 2 or 6
19	BLUE	Green Five	G5	Side Street – Walk – Phase 4 or 8	Side Street – Walk – Phase 4 or 8

7 CONDUCTOR RISER CABLE (OPSS 2409)

M.T.O. Conductor #	Insulator Colour	Lettering	Abv. Colour Ref.	Conductor Assignment to Vehicle Signal Indication (Multi-Sectional)
1	WHITE	–	W	Neutral
2	RED	Red One	R1	Red
3	RED	Red Two	R2	Spare
4	YELLOW	Amber One	A1	Amber
5	YELLOW	Amber Two	A2	(Amber Arrow)
6	BLUE	Green One	G1	Green
7	BLUE	Green Two	G2	(Green Arrow)

4 CONDUCTOR RISER CABLE (OPSS 2409)

M.T.O. Conductor #	Insulator Colour	Abv. Colour Ref.	Lettering	Conductor Assignment to Pedestrian Signal Indication
1	WHITE	W	–	Neutral
2	RED	R	–	Don't Walk (DW)
3	YELLOW	Y	–	Spare
4	BLUE	Blu	–	Walk (W)

NOTE:

- THIS DRAWING TO BE READ IN CONJUNCTION WITH THE DRAWINGS UTS 604.021 AND UTS 604.025.
- TYPICALLY USED IN CITY OF BURLINGTON MAINTENANCE AREA. DESIGNER TO CONFIRM APPLICATION.
- REFER TO MANUFACTURER STANDARDS FOR ALL PERIPHERAL DEVICE CABLING.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**M.T.O. CABLE ASSIGNMENT
FOR TRAFFIC SIGNAL
CONTROL**

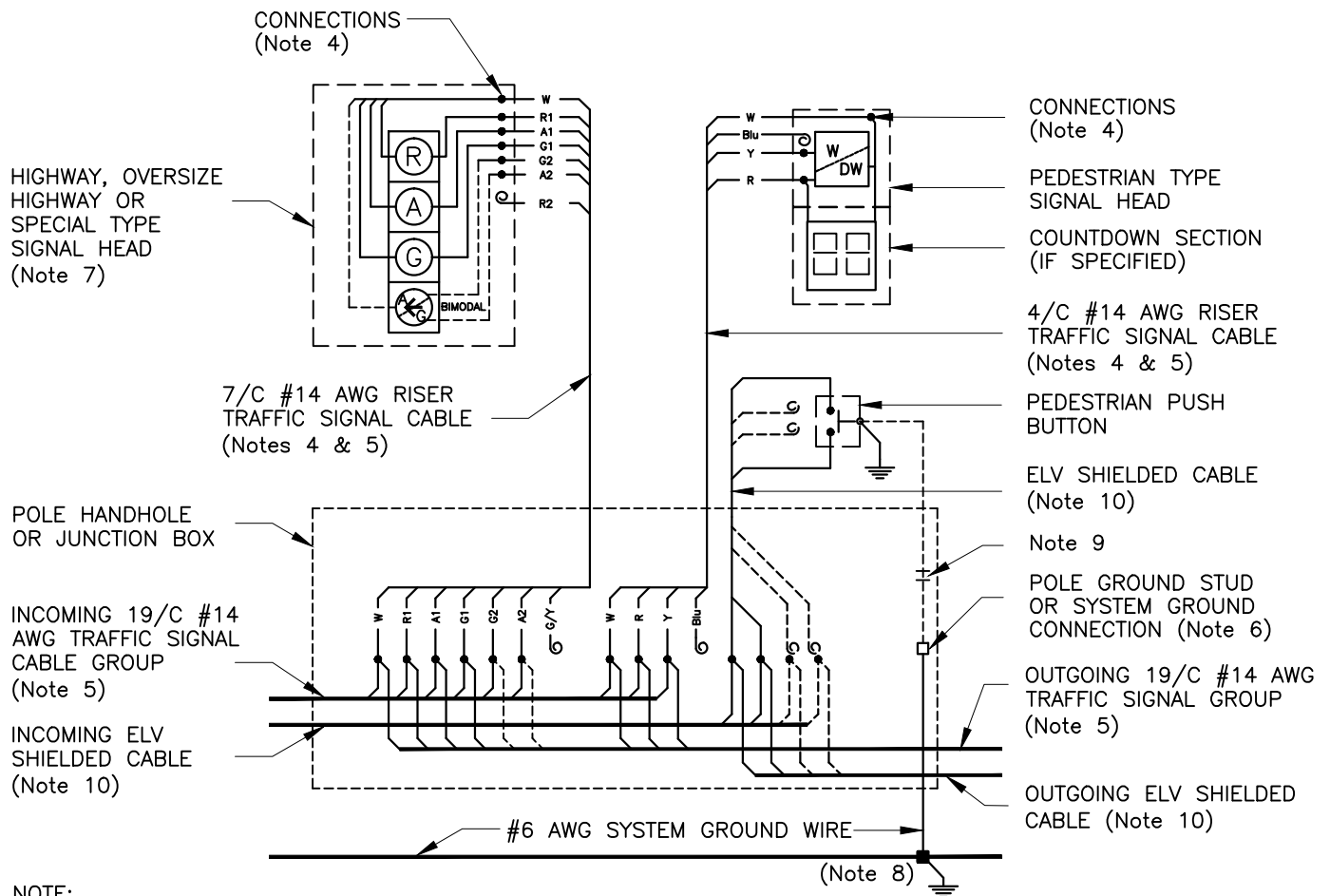
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 604.010



NOTE:

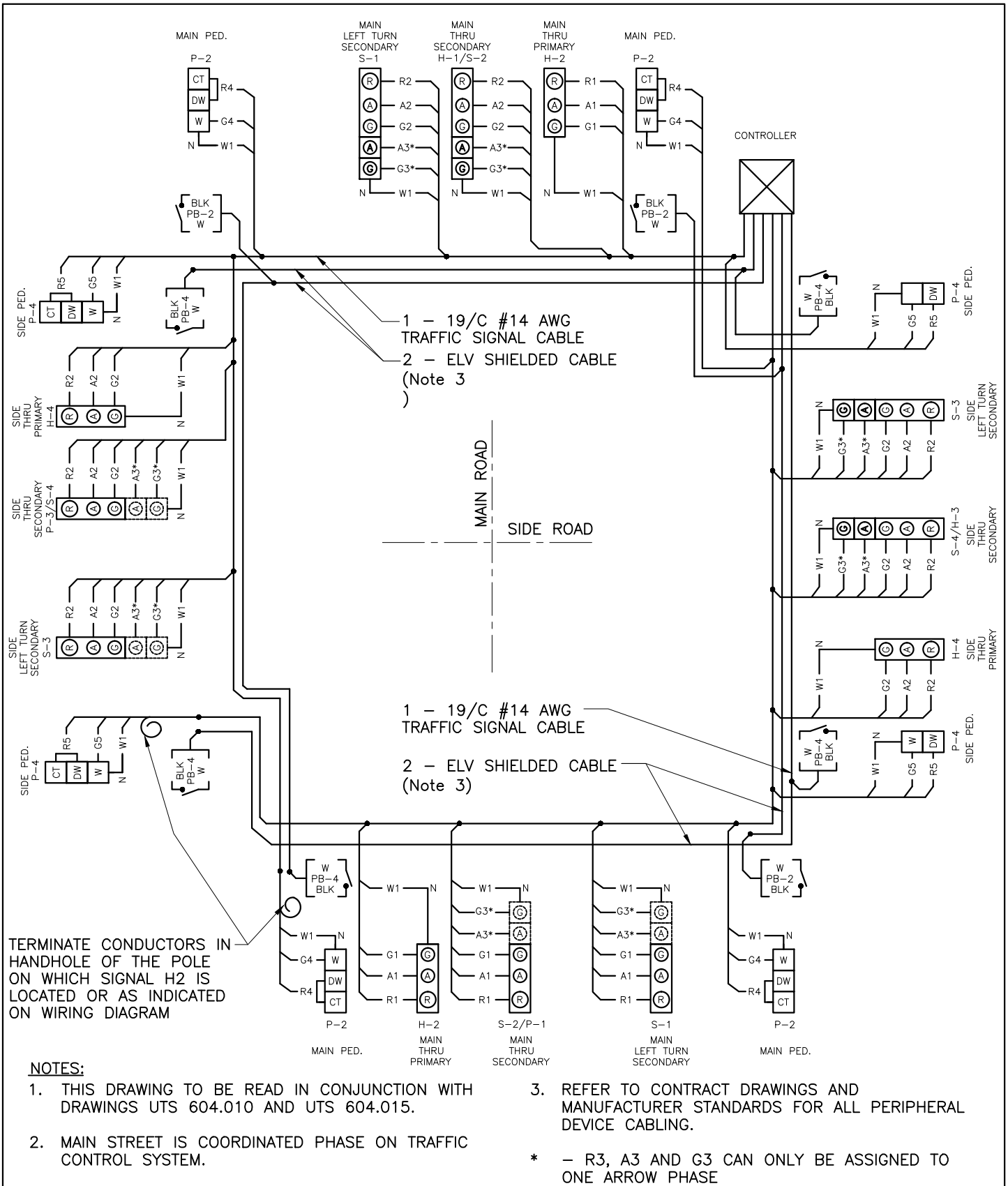
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS UTS 604.010, UTS 604.015 AND UTS 604.016.
2. TRAFFIC SIGNAL CABLE SHALL BE RUN COMPLETELY AROUND THE INTERSECTION AND SHALL BE BROUGHT UP INTO THE HANDHOLE OF EACH POLE. ALL CONNECTIONS TO BE MADE ABOVE GROUND ELEVATION AT THE POLE HANDHOLE.
3. SIGNAL HEAD SHALL BE MADE AS SHOWN IN DETAIL.
4. ALL CONDUCTORS OF SIGNAL HEAD RISER CABLES (FROM THE POLE HANDHOLE) SHALL BE SOLID CONDUCTORS AND TERMINATED.
5. ALL POLE HANDHOLE CONNECTIONS AND TERMINATION OF CABLE SHALL BE MADE WITH INSULATED SPRING TYPE CONNECTORS. BUNDLE AND TAPE GROUPS OF CABLES LEAVING CONNECTORS EXPOSED NEATLY IN THE POLE HANDHOLE. LEAVE A 1.5m LOOP OF EACH CABLE COILED IN THE NEAREST ELECTRICAL CHAMBER AND A 0.5m LOOP IN EACH POLE HANDHOLE.
6. ALL CONDUCTORS DESIGNATED AS GROUND SHALL BE GROUNDED AT THE POLE GROUND STUD. A #6 AWG INSULATED (GREEN) SYSTEM GROUND WIRE SHALL BE RUN CONTINUOUSLY THROUGH THE SYSTEM AND CONNECTED TO EACH POLE GROUND STUD AS PER WIRING DIAGRAM.
7. THE GREEN/AMBER ARROW DISPLAY OF A FOUR SECTION HEAD SHALL CONSIST OF A SINGLE SECTION WITH A LED BIMODAL ARROW.
8. SYSTEM GROUND WIRE SHALL BE RUN CONTINUOUSLY AROUND THE INTERSECTION AND CONNECTED TO A GROUND ELECTRODE AT EACH QUADRANT ELECTRICAL CHAMBER.
9. INSTALL A 1/C #14 IGRD FROM HOUSING TO NEAREST COMMON GROUND POINT WHEN PEDESTRIAN PUSH BUTTON IS MOUNTED ON CONCRETE OR WOOD POLE.
10. REFER TO CONTRACT DRAWINGS AND MANUFACTURER STANDARDS FOR ALL PERIPHERAL DEVICE CABLING.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**TYPICAL TRAFFIC SIGNAL
POLE WIRING SCHEMATIC
(MTO CABLE)**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 604.011 </u>	

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
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 DRAWN BY: D. THOMPSON
 REVISED BY: K.MISTRY
 MODIFIED 14/02/03 09:34:20

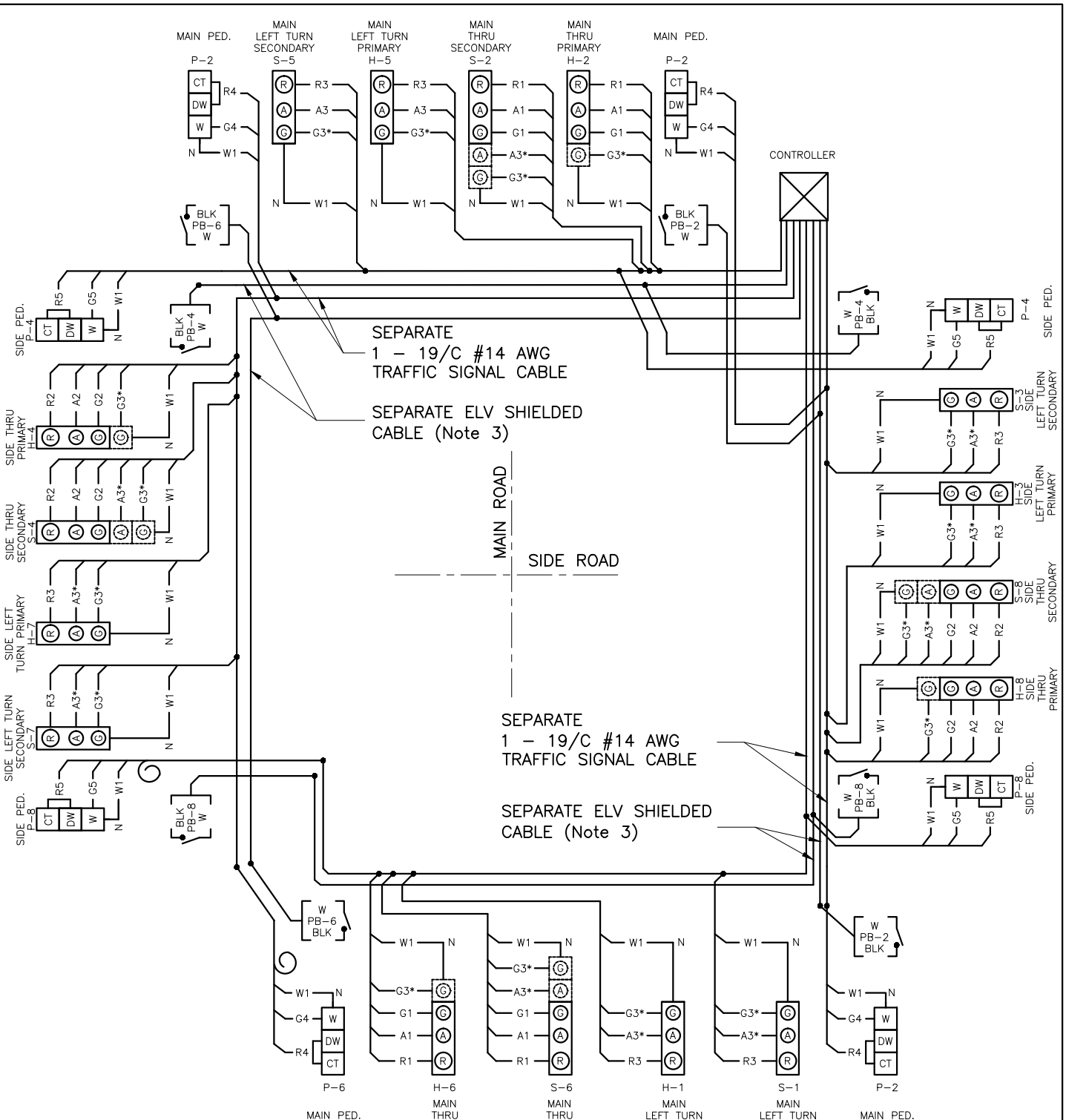


**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**TYPICAL TRAFFIC SIGNAL
 WIRING SCHEMATIC
 (MTO 19/C CABLE) - TWO TO FOUR PHASE**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 604.015</u>	

FILE LOCATION: \\W:\7\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
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 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED 11/02/03 09:34:18
 Revised



NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS UTS 604.010 AND UTS 604.015.
 2. MAIN STREET IS COORDINATED PHASE ON TRAFFIC CONTROL SYSTEM.
 3. REFER TO CONTRACT DRAWINGS AND MANUFACTURER STANDARDS FOR ALL PERIPHERAL DEVICE CABLING.
- * - R3, A3 AND G3 CAN ONLY BE ASSIGNED TO ONE ARROW PHASE

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**TYPICAL TRAFFIC SIGNAL
 WIRING SCHEMATIC
 (MTO 19/C CABLE) – FIVE TO EIGHT PHASE**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 604.016</u>	

19 CONDUCTOR (SOLID) CABLE (20) 2 GROUPS FOR 4 PHASE / 4 GROUPS FOR 8 PHASE OPERATIONS				
Insulator Colour/Tracer		Abv. Colour Ref.	Wire Colour Conductor #	Conductor Assignment to Signal Indication
1	PURPLE	P	4	Main Street Through Green
2	ORANGE	O	5	Main Street Through Amber
3	RED	R	3	Main Street Through Red
4	PURPLE/BLACK	P/Bik	9	Side Street Through Green
5	ORANGE/BLACK	O/Bik	10	Side Street Through Amber
6	RED/BLACK	R/Bik	8	Side Street Through Red
7	PURPLE/WHITE	P/W	14	Left Turn Green
8	ORANGE/RED	O/R	18	Left Turn Amber
9	RED/WHITE	R/W	13	Left Turn Red
10	BLUE	Blu	6	Walk - Main Street
11	BLUE/BLACK	Blu/Bik	11	Walk - Side Street
12	BLUE/WHITE	Blu/W	15	Spare
13	BLUE/RED	Blu/R	19	Don't Walk - Main Street
14	BLACK	Blk	1	Spare
15	BLACK/WHITE	Blk/W	12	Spare
16	BLACK/RED	Blk/R	16	Don't Walk - Side Street
17	WHITE	W	2	Neutral
18	WHITE/BLACK	W/Bik	7	Spare
19	WHITE/RED	W/R	17	Spare
20	RED/GREEN	R/G	20	Spare (If Used)

7 CONDUCTOR (SOLID) RISER CABLE (VEHICLE SIGNALS)				
Insulator Colour/Tracer		Abv. Colour Ref.	Wire Colour Conductor #	Conductor Assignment to Vehicle Signal Indication (Multi-Sectional)
1	PURPLE	P	4	Green
2	ORANGE	O	5	Amber
3	RED	R	3	Red
4	BLUE	Blu	6	(Green Arrow)
5	BLACK	Blk	1	(Amber Arrow)
6	WHITE	W	2	Neutral
7	WHITE/BLACK	W/Bik	7	Spare

NOTE:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE DRAWINGS UTS 604.021 AND UTS 604.025.
2. TYPICALLY USED IN TOWN OF OAKVILLE, TOWN OF MILTON, TOWN OF HALTON HILLS. DESIGNER TO CONFIRM APPLICATION.
3. REFER TO MANUFACTURER STANDARDS FOR ALL PERIPHERAL DEVICE CABLING.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

I.M.S.A. SPECIFICATION #19-1C-2001
CABLE ASSIGNMENT FOR TRAFFIC
CONTROL SIGNAL INSTALLATIONS

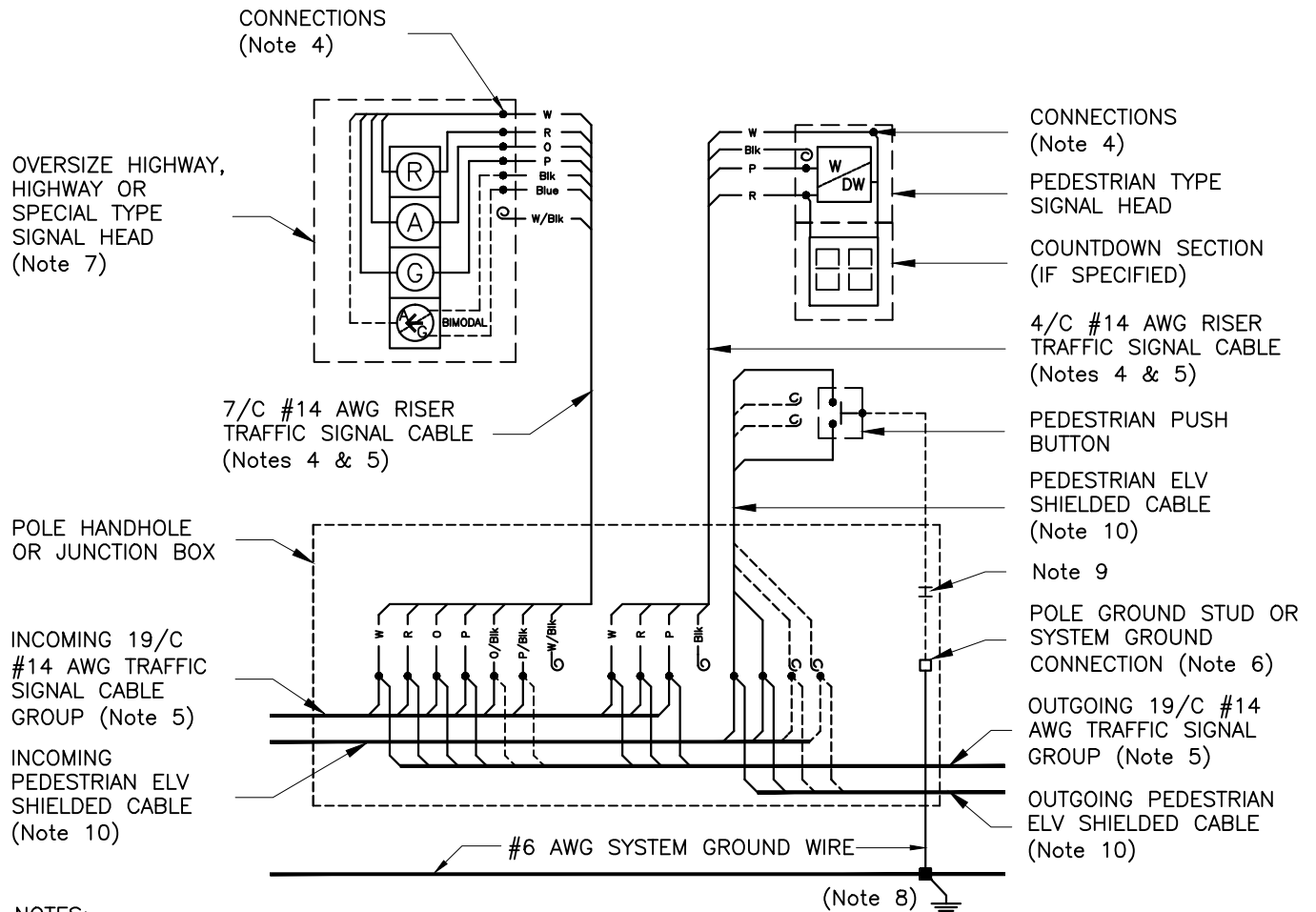
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 604.020



NOTES:

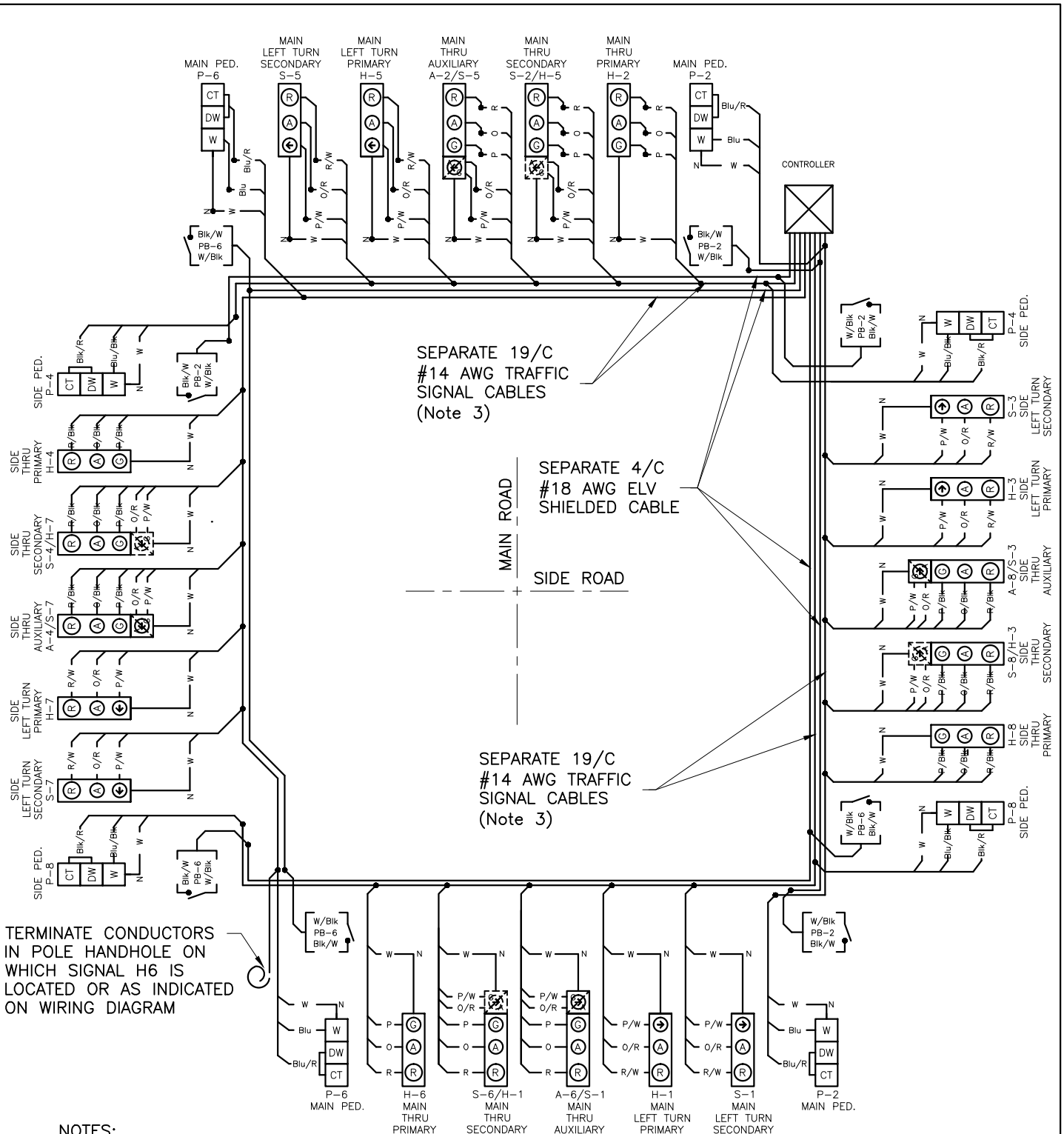
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS UTS 604.020 AND UTS 604.025.
2. TRAFFIC SIGNAL CABLE SHALL BE RUN COMPLETELY AROUND THE INTERSECTION AND SHALL BE BROUGHT UP INTO THE HANDHOLE OF EACH POLE. ALL CONNECTIONS TO BE MADE ABOVE GROUND ELEVATION AT THE POLE HANDHOLE.
3. SIGNAL HEAD AND PUSH BUTTON CONNECTIONS SHALL BE MADE AS SHOWN IN DETAIL.
4. ALL CONDUCTORS OF SIGNAL HEAD RISER CABLES (FROM THE POLE HANDHOLE) SHALL BE SOLID CONDUCTORS AND TERMINATED.
5. ALL POLE HANDHOLE CONNECTIONS AND TERMINATION OF CABLE SHALL BE MADE WITH INSULATED SPRING TYPE CONNECTORS. BUNDLE AND TAPE GROUPS OF CABLES LEAVING CONNECTORS EXPOSED NEATLY IN THE POLE HANDHOLE. LEAVE A 1.5m LOOP OF EACH CABLE COILED IN THE NEAREST ELECTRICAL CHAMBER AND A 0.5m LOOP IN EACH POLE HANDHOLE.
6. ALL CONDUCTORS DESIGNATED AS GROUND SHALL BE GROUNDED AT THE POLE GROUND STUD. A #6 AWG INSULATED (GREEN) SYSTEM GROUND WIRE SHALL BE RUN CONTINUOUSLY THROUGH THE SYSTEM AND CONNECTED TO EACH POLE GROUND STUD AS PER WIRING DIAGRAM.
7. THE GREEN/AMBER ARROW DISPLAY OF A FOUR SECTION HEAD SHALL CONSIST OF A SINGLE SECTION WITH A LED BIMODAL ARROW.
8. SYSTEM GROUND WIRE SHALL BE RUN CONTINUOUSLY AROUND THE INTERSECTION AND CONNECTED TO A GROUND ELECTRODE AT EACH QUADRANT ELECTRICAL CHAMBER.
9. INSTALL A 1/C #14 IGRD FROM HOUSING TO NEAREST COMMON GROUND POINT WHEN PEDESTRIAN PUSH BUTTON IS MOUNTED ON CONCRETE OR WOOD POLE.
10. REFER TO CONTRACT DRAWINGS AND MANUFACTURER STANDARDS FOR ALL PERIPHERAL DEVICE CABLING.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**TYPICAL TRAFFIC SIGNAL
POLE WIRING SCHEMATIC
(I.M.S.A. #19-1C-2001 CABLE)**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 604.021</u>	

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
 DRAWING NAME: 604025_19C_UTSS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K.MISTRY
 MODIFIED: 14/02/03 09:34:11
 Revised



TERMINATE CONDUCTORS IN POLE HANDHOLE ON WHICH SIGNAL H6 IS LOCATED OR AS INDICATED ON WIRING DIAGRAM

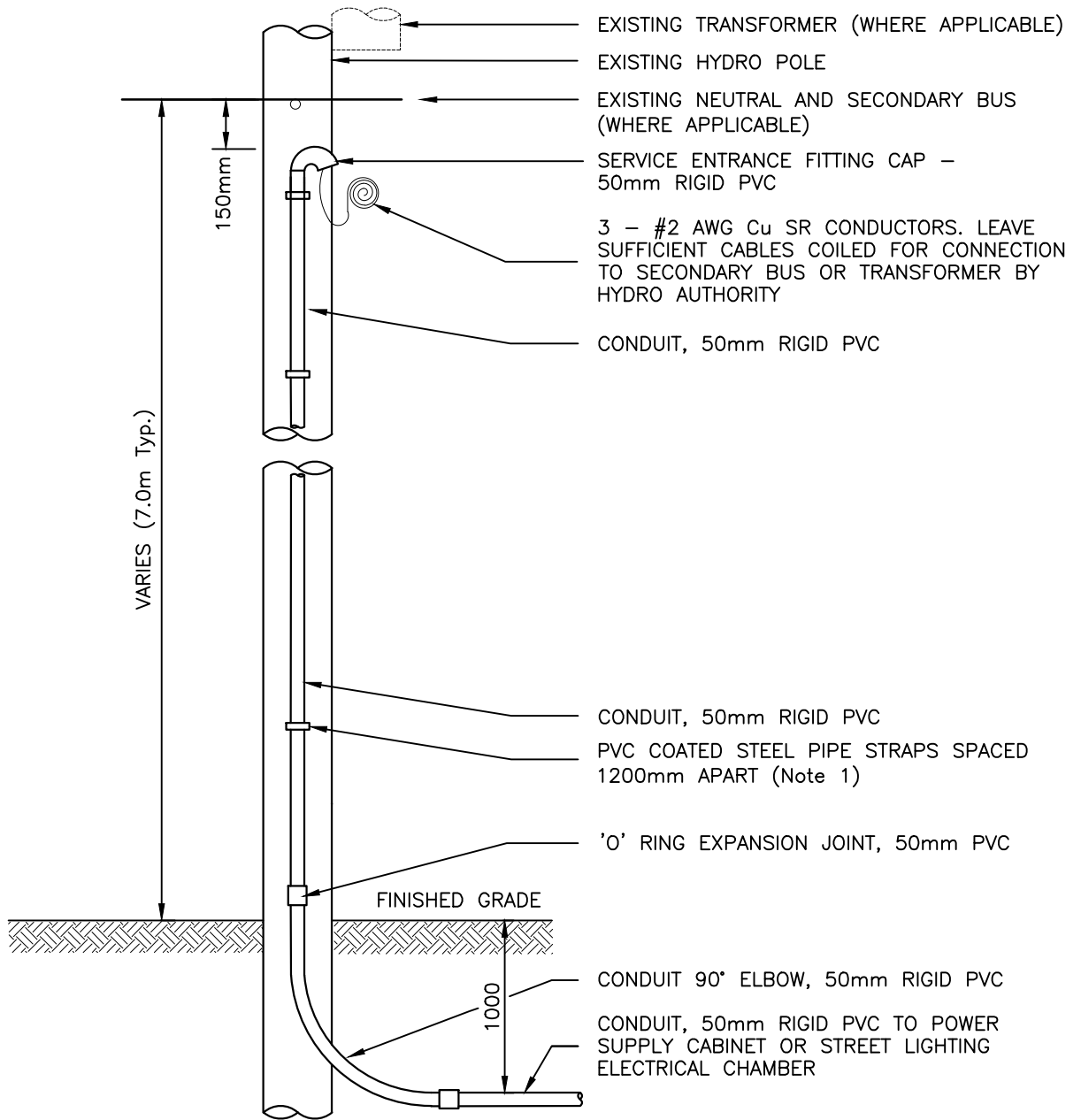
NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING UTS 604.020 AND UTS 604.021
2. MAIN STREET IS COORDINATED PHASE ON TRAFFIC CONTROL SYSTEM.
3. THE 19/C CAN BE SUBSTITUTED WITH 20/C CABLE.
4. USE TWO CABLE GROUPS FOR 4-PHASE OPERATION. REFER TO CONTRACT DRAWINGS.

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**TYPICAL TRAFFIC SIGNAL
 WIRING SCHEMATIC
 (I.M.S.A. #19-1C-2001 - 19/C CABLE)**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 604.025</u>	



EXISTING TRANSFORMER (WHERE APPLICABLE)
 EXISTING HYDRO POLE
 EXISTING NEUTRAL AND SECONDARY BUS (WHERE APPLICABLE)
 SERVICE ENTRANCE FITTING CAP – 50mm RIGID PVC
 3 – #2 AWG Cu SR CONDUCTORS. LEAVE SUFFICIENT CABLES COILED FOR CONNECTION TO SECONDARY BUS OR TRANSFORMER BY HYDRO AUTHORITY
 CONDUIT, 50mm RIGID PVC

CONDUIT, 50mm RIGID PVC
 PVC COATED STEEL PIPE STRAPS SPACED 1200mm APART (Note 1)
 'O' RING EXPANSION JOINT, 50mm PVC
 FINISHED GRADE
 CONDUIT 90° ELBOW, 50mm RIGID PVC
 CONDUIT, 50mm RIGID PVC TO POWER SUPPLY CABINET OR STREET LIGHTING ELECTRICAL CHAMBER

NOTES:

- A. WORK ON HYDRO POLE SHALL BE DONE ONLY IN THE PRESENCE OF OR WITH THE PERMISSION OF THE LOCAL HYDRO AUTHORITY.
- B. COORDINATE THIS WORK WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
- C. MOUNTING DETAILS SHOWN ARE TYPICAL ONLY AND SHALL BE ADAPTED TO SUIT SITE CONDITIONS AND THE LOCAL HYDRO AUTHORITY.

- 1. 16mm STAINLESS STEEL BANDING TO BE USED IN LIEU OF PVC STRAPS ON CONCRETE OR STEEL POLES.

DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

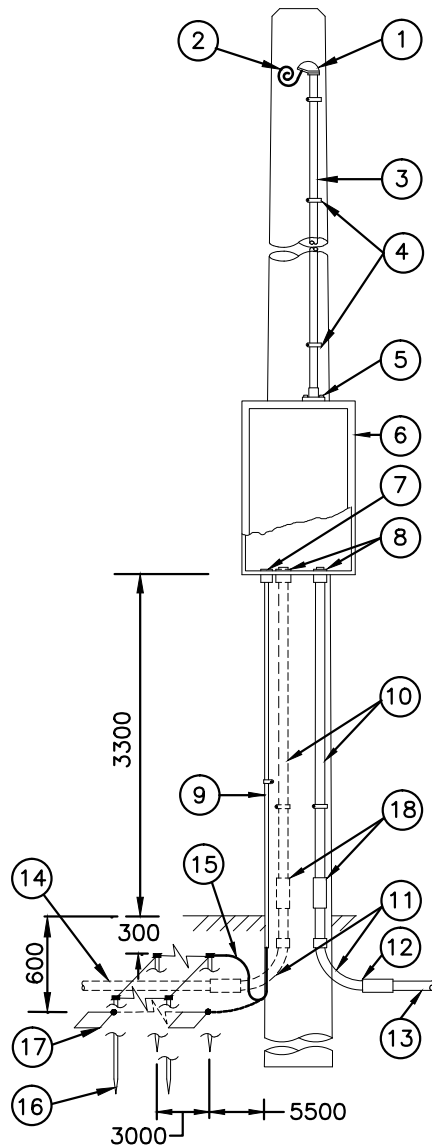
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 14/02/03 09:34:07
 Modified

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**ISOLATED STACK FOR
 SECONDARY SUPPLY TO
 PEDESTAL FACILITY**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By:	McCORMICK RANKIN
Date:	FEBRUARY, 2014
STANDARD No.	UTS 614.011



**OVERHEAD SUPPLY
INSTALLATION**

A. INDEPENDENT POLE INSTALLATION OWNED BY OPERATING AUTHORITY

ALL DIMENSIONS ARE MILLIMETRES UNLESS OTHERWISE NOTED.

- ① SERVICE ENTRANCE FITTING CAP, 32mm, RIGID PVC
- ② 3 - #2 AWG Cu SR CONDUCTORS. LEAVE SUFFICIENT CABLES COILED FOR CONNECTION TO SECONDARY BUSS OR TRANSFORMER BY LOCAL HYDRO AUTHORITY.
- ③ CONDUIT, 32mm RIGID PVC
- ④ PVC COATED STEEL PIPE STRAPS SPACED 1.2m (Note 5)
- ⑤ FEMALE ADAPTER & METALLIC CONDUIT NIPPLE (POLYMER TAPE OR TEFLON TAPE TO BE USED FOR NIPPLE ATTACHMENT) IN METER HUB, 32mm RIGID STEEL, C/W GASKET
- ⑥ SUPPLY CONTROL CABINET ASSEMBLY (UTS 614.030 OR UTS 614.031)
- ⑦ TERMINAL ADAPTER AND LOCK NUT, 25mm RIGID PVC
- ⑧ TERMINAL ADAPTER AND LOCK NUT, 50mm RIGID PVC
- ⑨ CONDUIT, 25mm RIGID PVC
- ⑩ CONDUIT, 50mm RIGID PVC (IF REQUIRED)
- ⑪ 90° ELBOW, 50mm RIGID PVC
- ⑫ ADAPTER COUPLING, 50mm
- ⑬ CONDUIT, 50mm RIGID PVC, AS INDICATED IN CONTRACT DRAWINGS TO TRAFFIC SIGNAL CONTROLLER OR ELECTRICAL CHAMBER.
- ⑭ CONDUIT, 50mm RIGID PVC, IF REQUIRED TO ELECTRICAL CHAMBER FOR STREETLIGHTING.
- ⑮ GROUND WIRE (Note 1)
- ⑯ 20mm x 3000mm COPPER CLAD GROUND RODS (Note 1)
- ⑰ 254mm x 406mm x 6.3mm (Min.) HOT DIP GALVANIZED STEEL GROUND PLATE (Note 1)
- ⑱ 'O' RING EXPANSION JOINT, 50mm RIGID PVC

NOTES:

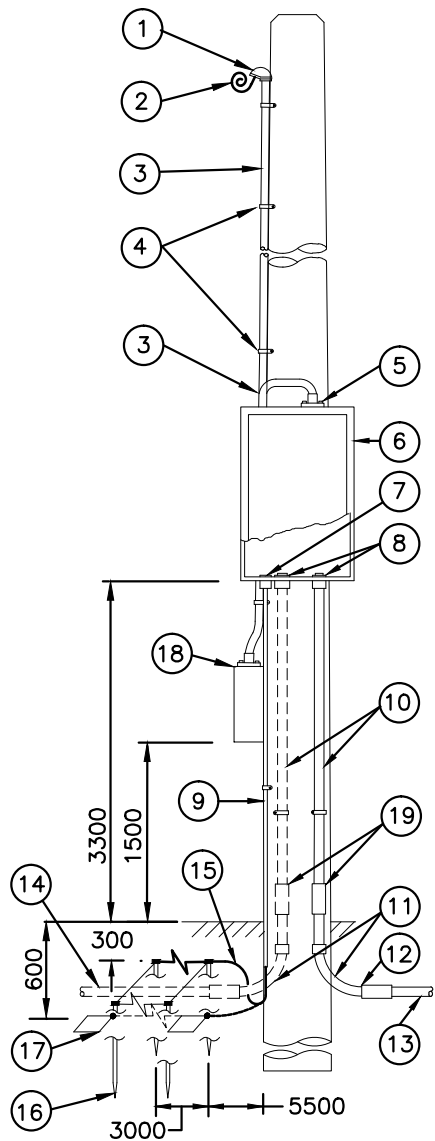
1. 3.0m x 3.0m GROUND GRID CONSTRUCTED USING #2/0 AWG BARE STRANDED COPPER WIRE, COPPER CLAD GROUND ELECTRODES (4 RODS FOR TRAFFIC SIGNALS OR 2 RODS FOR STREETLIGHTING) AND MOULDED TYPE CONNECTION. IN AREAS OF PROPERTY CONSTANT RODS TO BE INSTALLED IN STRAIGHT LINE, 3.0m APART.
2. WORK ON HYDRO POLES BE DONE ONLY IN THE PRESENCE OF OR WITH THE PERMISSION OF THE LOCAL HYDRO AUTHORITY.
3. CO-ORDINATE CONNECTION OF SERVICE CENTRE WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
4. MOUNTING DETAILS SHOWN ARE TYPICAL ONLY AND SHALL BE ADAPTED TO SUIT SITE CONDITIONS AND THE LOCAL HYDRO AUTHORITY.
5. 16mm STAINLESS STEEL BANDING TAPE TO BE USED IN LIEU OF PVC STRAPS ON CONCRETE OR STEEL POLES.

FILE LOCATION: W:\YK\7101 CONSOLIDATION OF UNIFORM TRAFFIC SIGNAL STANDARDS\2014 UTS FINAL.DWG
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 DRAWN BY: D. THOMPSON
 MODIFIED: 14/02/03 09:34:05
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 REVISOR: K.MISTRY

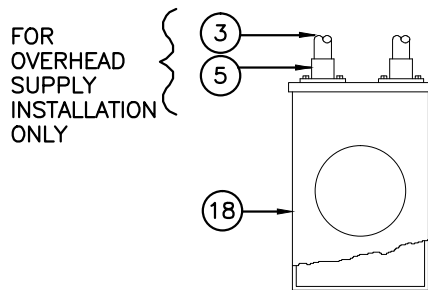
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**OVERHEAD POWER SUPPLY
WOOD/CONCRETE POLE MOUNTED
TRAFFIC SIGNAL & STREETLIGHT APPLICATION**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 614.020 </u>	



**OVERHEAD SUPPLY
INSTALLATION**



**DETAIL OF METER
BASE INSTALLATION**

- ① SERVICE ENTRANCE FITTING CAP, 32mm, RIGID PVC
- ② 3 - #2 AWG Cu SR CONDUCTORS. LEAVE SUFFICIENT CABLES COILED FOR CONNECTION TO SECONDARY BUSS OR TRANSFORMER BY LOCAL HYDRO AUTHORITY.
- ③ CONDUIT, 32mm RIGID PVC
- ④ PVC COATED STEEL PIPE STRAPS SPACED 1.2m (Note 5)
- ⑤ FEMALE ADAPTER & METALLIC CONDUIT NIPPLE (POLYMER TAPE OR TEFLON TAPE TO BE USED FOR NIPPLE ATTACHMENT) IN METER HUB, 32mm RIGID STEEL, C/W GASKET
- ⑥ SUPPLY CONTROL CABINET (LOAD CENTRE) (UTS 614.030 OR UTS 614.031)
- ⑦ TERMINAL ADAPTER AND LOCK NUT, 25mm RIGID PVC
- ⑧ TERMINAL ADAPTER AND LOCK NUT, 50mm RIGID PVC
- ⑨ CONDUIT, 25mm RIGID PVC
- ⑩ CONDUIT, 50mm RIGID PVC (IF REQUIRED)
- ⑪ 90° ELBOW, 50mm RIGID PVC
- ⑫ ADAPTER COUPLING, 50mm
- ⑬ CONDUIT, 50mm RIGID PVC, AS INDICATED IN CONTRACT DRAWINGS. TO TRAFFIC SIGNAL CONTROLLER OR ELECTRICAL CHAMBER
- ⑭ CONDUIT, 50mm RIGID PVC, IF REQUIRED TO ELECTRICAL CHAMBER FOR STREETLIGHTING.
- ⑮ GROUND WIRE, (Note 1)
- ⑯ 20mm x 3000mm COPPER CLAD GROUND RODS (Note 1)
- ⑰ 254mm x 406mm x 6.3mm (Min.) HOT DIP GALVANIZED GROUND PLATE (Note 1)
- ⑱ METER BASE, 100A, 600V (INDICATED IN THE CONTRACT)
- ⑲ 'O' RING EXPANSION JOINT, 50mm RIGID PVC

NOTES:

1. 3.0m x 3.0m GROUND GRID CONSTRUCTED USING #2/0 AWG BARE STRANDED COPPER WIRE, 4-GROUND ELECTRODES (RODS OR PLATES) AND MOULDED TYPE CONNECTION. IN AREAS OF PROPERTY CONSTANT RODS TO BE INSTALLED IN STRAIGHT LINE, 3.0m APART.
2. CO-ORDINATE CONNECTION OF SERVICE CENTRE WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
3. 16mm STAINLESS STEEL BANDING TAPE TO BE USED IN LIEU OF PVC STRAPS ON CONCRETE OR STEEL POLES.
4. INDEPENDENT POLE INSTALLATION OWNED BY THE OPERATING AUTHORITY

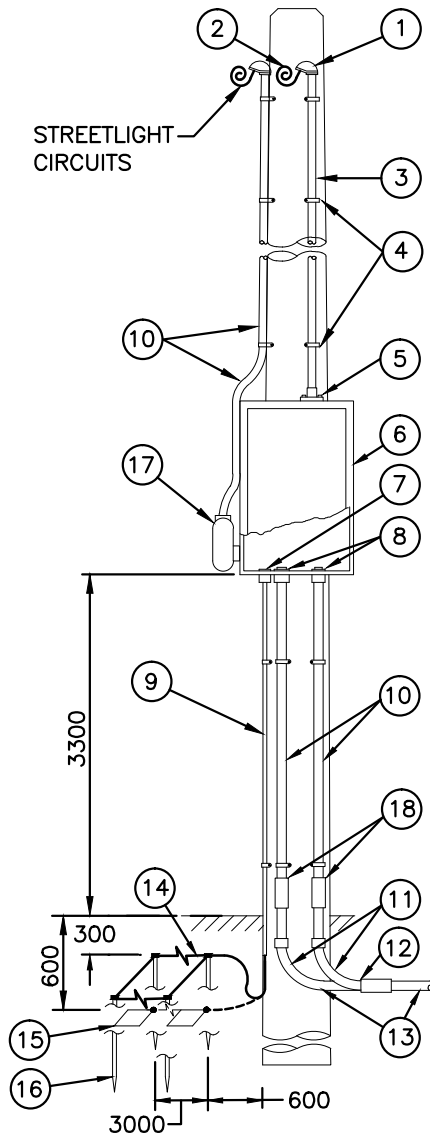
ALL DIMENSIONS ARE MILLIMETRES UNLESS OTHERWISE NOTED.

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 DRAWN BY: D. THOMPSON
 MODIFIED: 14/02/03 09:34:03
 REVISED BY: K.MISTRY
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**METERED OVERHEAD POWER SUPPLY
WOOD/CONCRETE POLE MOUNTED
TRAFFIC SIGNAL & STREETLIGHT APPLICATION**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 614.021 </u>	



**OVERHEAD SUPPLY
INSTALLATION**

A. INDEPENDENT POLE INSTALLATION OWNED BY OPERATING AUTHORITY

- ① SERVICE ENTRANCE FITTING CAP, 32mm, RIGID PVC
- ② 3 - #2 AWG Cu SR CONDUCTORS. LEAVE SUFFICIENT CABLES COILED FOR CONNECTION TO SECONDARY BUSS OR TRANSFORMER BY LOCAL HYDRO AUTHORITY.
- ③ CONDUIT, 32mm RIGID PVC
- ④ PVC COATED STEEL PIPE STRAPS SPACED 1.2m (Note 5)
- ⑤ FEMALE ADAPTER & METALLIC CONDUIT NIPPLE (POLYMER TAPE OR TEFLON TAPE TO BE USED FOR NIPPLE ATTACHMENT) IN METER HUB, 32mm RIGID STEEL, C/W GASKET
- ⑥ SUPPLY CONTROL CABINET (LOAD CENTRE) (UTS 614.030 OR UTS 614.031)
- ⑦ TERMINAL ADAPTER AND LOCK NUT, 25mm RIGID PVC
- ⑧ TERMINAL ADAPTER AND LOCK NUT, 50mm RIGID PVC
- ⑨ CONDUIT, 25mm RIGID PVC
- ⑩ CONDUIT, 50mm RIGID PVC
- ⑪ 90° SWEEP, 50mm RIGID PVC
- ⑫ ADAPTER COUPLING, 50mm PVC
- ⑬ CONDUIT, 50mm, RIGID PVC, AS INDICATED IN CONTRACT DRAWINGS TO ELECTRICAL CHAMBER.
- ⑭ GROUND WIRE, (Note 1)
- ⑮ 20mm x 3000mm COPPER CLAD GROUND RODS (Note 1)
- ⑯ 254mm x 406mm x 6.3mm (Min.) HOT DIP GALVANIZED STEEL GROUND PLATE (Note 1)
- ⑰ LB COUPLING, 50mm PVC
- ⑱ 'O' RING EXPANSION JOINT, 50mm RIGID PVC

NOTES:

- 1. 3.0m x 3.0m GROUND GRID CONSTRUCTED USING #2/0 AWG BARE STRANDED COPPER WIRE, COPPER CLAD GROUND ELECTRODES (4 FOR TRAFFIC SIGNALS, 2 FOR STREETLIGHTING) AND MOULDED TYPE CONNECTION. IN AREAS OF PROPERTY CONSTANT RODS TO BE INSTALLED IN STRAIGHT LINE, 3.0m APART.
- 2. WORK ON HYDRO POLE SHALL BE DONE ONLY IN THE PRESENCE OF OR WITH THE PERMISSION OF THE LOCAL HYDRO AUTHORITY.
- 3. CO-ORDINATE THIS WORK WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
- 4. MOUNTING DETAILS SHOWN ARE TYPICAL ONLY AND SHALL BE ADAPTED TO SUIT SITE CONDITIONS AND THE LOCAL HYDRO AUTHORITY.
- 5. 16mm STAINLESS STEEL BANDING TO BE USED IN LIEU OF PVC STRAPS ON CONCRETE OR STEEL POLES.

DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED

FILE LOCATION: \\YK\7101 CONSOLIDATION OF UNIFORM TRAFFIC SIGNAL STANDARDS\2014 UTS FINAL.DWG
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 REVISIONS BY: K. MISTRY
 Revised

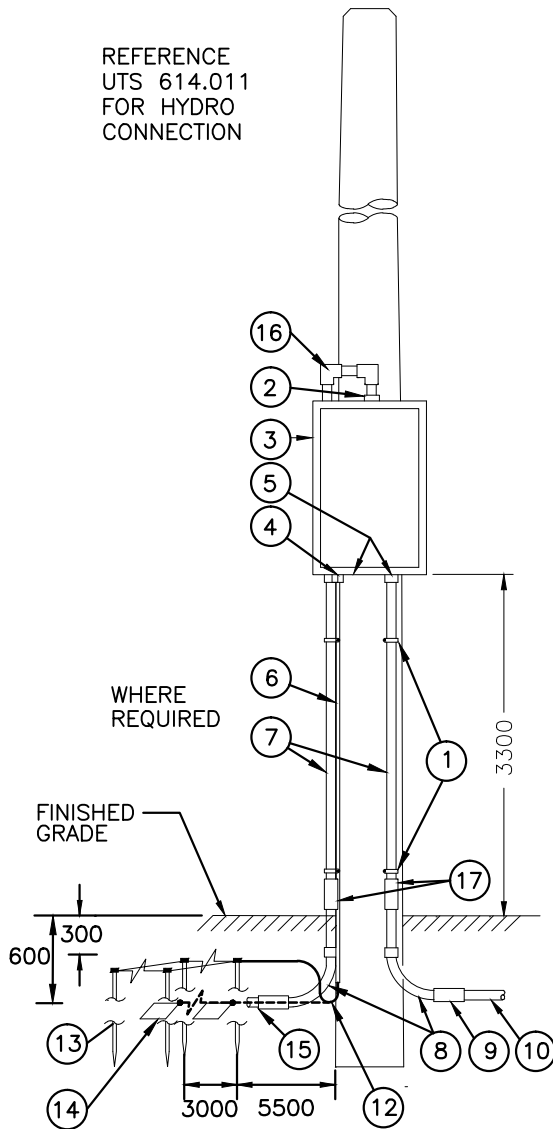
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**COMBINATION UNDERGROUND &
OVERHEAD SUPPLY CONTROL CABINET
WOOD/CONCRETE POLE MOUNTED**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By:	McCORMICK RANKIN
Date:	FEBRUARY, 2014
STANDARD No. UTS 614.022	

REFERENCE
UTS 614.011
FOR HYDRO
CONNECTION



- ① PVC COATED STEEL PIPE STRAPS SPACED 1.2m (Note 3)
- ② FEMALE ADAPTER & METALLIC CONDUIT NIPPLE (POLYMER TAPE OR TEFLON TAPE TO BE USED FOR NIPPLE ATTACHMENT) IN METER HUB, 32mm RIGID STEEL, C/W GASKET
- ③ SUPPLY CONTROL CABINET (LOAD CENTRE) (UTS 614.030 OR UTS 614.031)
- ④ TERMINAL ADAPTER AND LOCK NUT, 25mm RIGID PVC
- ⑤ TERMINAL ADAPTER AND LOCK NUT, 50mm RIGID PVC
- ⑥ CONDUIT, 25mm RIGID PVC
- ⑦ CONDUIT, 50mm RIGID PVC
- ⑧ 90° SWEEP, 50mm RIGID PVC
- ⑨ ADAPTER COUPLING, 50mm
- ⑩ CONDUIT, 50mm, RIGID PVC, AS INDICATED IN CONTRACT DRAWINGS, TO TRAFFIC SIGNAL CONTROLLER OR ELECTRICAL CHAMBER.
- ⑪ CONDUIT, 50mm RIGID PVC TO ELECTRICAL CHAMBER, FOR STREETLIGHTING, IF REQUIRED.
- ⑫ GROUND WIRE, (Note 1)
- ⑬ COPPER CLAD GROUND ELECTRODE, (Note 1)
- ⑭ 254mm x 406mm x 6.4mm (Min.) HOT DIP GALVANIZED STEEL GROUND PLATE (Note 1)
- ⑮ CONDUIT, 50mm, RIGID PVC TO POWER SUPPLY POINT (UTS 614.011)
- ⑯ "LB" ELBOW, 50mm RIGID PVC
- ⑰ 'O' RING EXPANSION JOINT, 50mm RIGID PVC

**UNDERGROUND SUPPLY
INSTALLATION**

A. INDEPENDENT POLE INSTALLATION
OWNED BY OPERATING AUTHORITY

NOTES:

1. 3.0m x 3.0m GROUND GRID CONSTRUCTED USING #2/0 AWG BARE STRANDED COPPER WIRE, 4-GROUND ELECTRODES (RODS OR PLATES) AND MOULDED TYPE CONNECTION. IN AREAS OF PROPERTY CONSTANT RODS TO BE INSTALLED IN STRAIGHT LINE, 3.0m APART.
2. CO-ORDINATE CONNECTION OF SERVICE CENTRE WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
3. 16mm STAINLESS STEEL BANDING TAPE TO BE USED IN LIEU OF PVC STRAPS ON CONCRETE OR STEEL POLES.

ALL DIMENSIONS ARE MILLIMETRES UNLESS OTHERWISE NOTED.

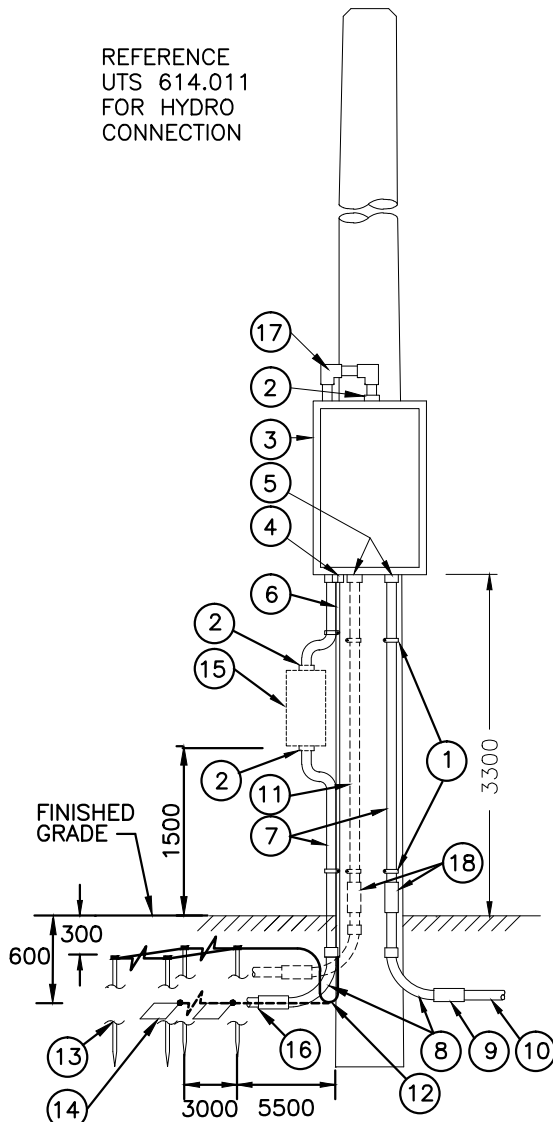
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 MODIFIED: 14/02/03 09:35:25
 REVISED BY: K.MISTRY
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

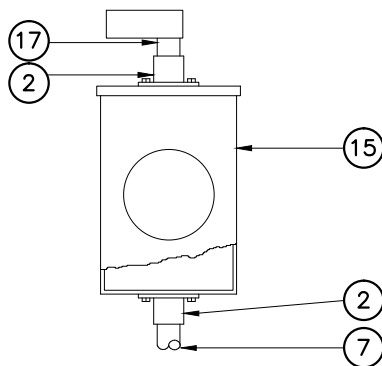
**UNDERGROUND SUPPLY CONTROL CABINET
WOOD/CONCRETE POLE MOUNTED
TRAFFIC SIGNAL & STREETLIGHT APPLICATION**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 614.025 </u>	

REFERENCE
UTS 614.011
FOR HYDRO
CONNECTION



**UNDERGROUND
FEED INSTALLATION**



**DETAIL OF METER
BASE INSTALLATION**

- ① PVC COATED STEEL PIPE STRAPS SPACED 1.2m (Note 5)
- ② FEMALE ADAPTER & METALLIC CONDUIT NIPPLE (POLYMER TAPE OR TEFLON TAPE TO BE USED FOR NIPPLE ATTACHMENT) IN METER HUB, 32mm RIGID STEEL, C/W GASKET
- ③ SUPPLY CONTROL CABINET (LOAD CENTRE) (UTS 614.030 OR UTS 614.031)
- ④ TERMINAL ADAPTER AND LOCK NUT, 25mm RIGID PVC
- ⑤ TERMINAL ADAPTER AND LOCK NUT, 50mm RIGID PVC
- ⑥ CONDUIT, 25mm RIGID PVC
- ⑦ CONDUIT, 50mm RIGID PVC
- ⑧ 90° SWEEP, 50mm RIGID PVC
- ⑨ ADAPTER COUPLING, 50mm
- ⑩ CONDUIT, 50mm, RIGID PVC, AS INDICATED IN CONTRACT DRAWINGS, TO TRAFFIC SIGNAL CONTROLLER OR ELECTRICAL CHAMBER.
- ⑪ CONDUIT, 50mm RIGID PVC TO ELECTRICAL CHAMBER, FOR STREETLIGHTING, IF REQUIRED.
- ⑫ GROUND WIRE, (Note 1)
- ⑬ 20mm x 3000mm COPPER CLAD GROUND RODS (Note 1)
- ⑭ 254mm x 406mm x 6.3mm (Min.) HOT DIP GALVANIZED GROUND PLATE (Note 1)
- ⑮ METER BASE, 100A, 600V (INDICATED IN THE CONTRACT)
- ⑯ CONDUIT, 50mm, RIGID PVC TO POWER SUPPLY POINT (UTS 614.011)
- ⑰ "LB" ELBOW, 50mm RIGID PVC
- ⑱ 'O' RING EXPANSION JOINT, 50mm RIGID PVC

NOTES:

1. 3.0m x 3.0m GROUND GRID CONSTRUCTED USING #2/0 AWG BARE STRANDED COPPER WIRE, 4-GROUND ELECTRODES (RODS OR PLATES) AND MOULDED TYPE CONNECTION. IN AREAS OF PROPERTY CONSTANT RODS TO BE INSTALLED IN STRAIGHT LINE, 3.0m APART.
2. CO-ORDINATE CONNECTION OF SERVICE CENTRE WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
3. 16mm STAINLESS STEEL BANDING TAPE TO BE USED IN LIEU OF PVC STRAPS ON CONCRETE OR STEEL POLES.
4. INDEPENDENT POLE INSTALLATION OWNED BY THE OPERATING AUTHORITY

ALL DIMENSIONS ARE MILLIMETRES UNLESS OTHERWISE NOTED.

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 MODIFIED: 14/02/03 09:35:22
 REVISED BY: K.MISTRY
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**METERED UNDERGROUND FEED
SUPPLY CONTROL CABINET
WOOD/CONCRETE POLE MOUNTED
TRAFFIC SIGNAL & STREETLIGHT APPLICATION**

Rev. Date _____ Rev. No. 0

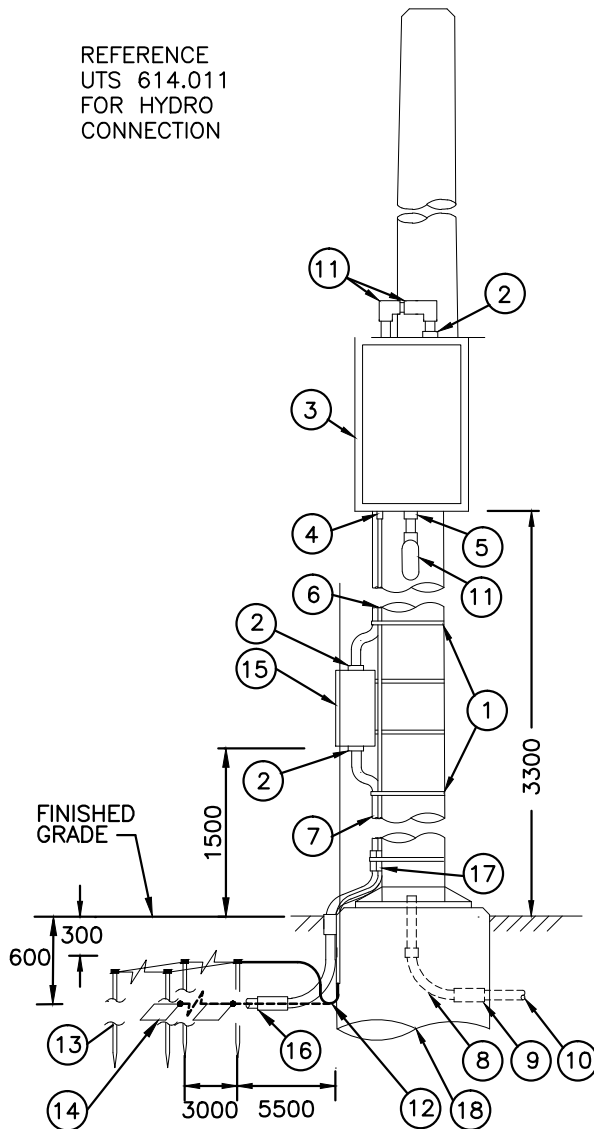
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Modified By: McCORMICK RANKIN

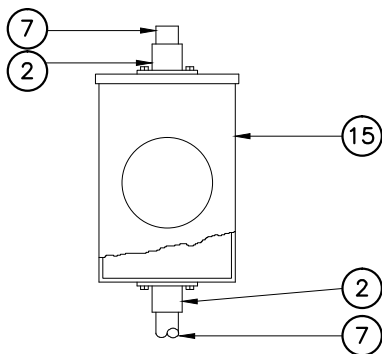
Date: FEBRUARY, 2014

STANDARD No. UTS 614.026

REFERENCE
UTS 614.011
FOR HYDRO
CONNECTION



**UNDERGROUND
FEED INSTALLATION**



**DETAIL OF METER
BASE INSTALLATION**

- ① 16mm STAINLESS STEEL BANDING TAPE
- ② FEMALE ADAPTER & METALLIC CONDUIT NIPPLE (POLYMER TAPE OR TEFLON TAPE TO BE USED FOR NIPPLE ATTACHMENT), C/W GASKET
- ③ SUPPLY CONTROL CABINET (LOAD CENTRE) (UTS 614.030 OR UTS 614.031)
- ④ TERMINAL ADAPTER AND LOCK NUT, 25mm RIGID PVC
- ⑤ TERMINAL ADAPTER AND LOCK NUT, 50mm RIGID PVC
- ⑥ CONDUIT, 25mm RIGID PVC
- ⑦ CONDUIT, 50mm RIGID PVC
- ⑧ 90° SWEEP, 50mm RIGID PVC
- ⑨ ADAPTER COUPLING, 50mm
- ⑩ CONDUIT, 50mm, RIGID PVC, AS INDICATED IN CONTRACT DRAWINGS, TO TRAFFIC SIGNAL CONTROLLER OR ELECTRICAL CHAMBER.
- ⑪ "LB" ELBOW, 50mm RIGID PVC
- ⑫ GROUND WIRE, (Note 1)
- ⑬ 20mm x 3000mm COPPER CLAD GROUND RODS (Note 1)
- ⑭ 254mm x 406mm x 6.3m (Min.) HOT DIP GALVANIZED GROUND PLATE (Note 1)
- ⑮ METER BASE, 100A, 600V (INDICATED IN THE CONTRACT)
- ⑯ CONDUIT, 50mm, RIGID PVC TO POWER SUPPLY POINT (UTS 614.011)
- ⑰ 'O' RING EXPANSION JOINT, 50mm RIGID PVC
- ⑱ POLE FOUNDATION (REFER TO UTS 616.010 & UTS 616.011)

NOTES:

1. 3.0m x 3.0m GROUND GRID CONSTRUCTED USING #2/0 AWG BARE STRANDED COPPER WIRE, 4-GROUND ELECTRODES (RODS OR PLATES) AND MOULDED TYPE CONNECTION. IN AREAS OF PROPERTY CONSTANT RODS TO BE INSTALLED IN STRAIGHT LINE, 3.0m APART.
2. CO-ORDINATE CONNECTION OF SERVICE CENTRE WITH THE LOCAL HYDRO AUTHORITY, GIVING TWO WEEKS ADVANCE NOTICE AND INCORPORATING ANY MINOR CHANGES REQUIRED.
3. INDEPENDENT POLE INSTALLATION OWNED BY THE OPERATING AUTHORITY

ALL DIMENSIONS ARE MILLIMETRES UNLESS OTHERWISE NOTED.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**METERED UNDERGROUND FEED
SUPPLY CONTROL CABINET
BASE MOUNTED POLE**

TRAFFIC SIGNAL & STREETLIGHT APPLICATION

Rev. Date _____ Rev. No. 0

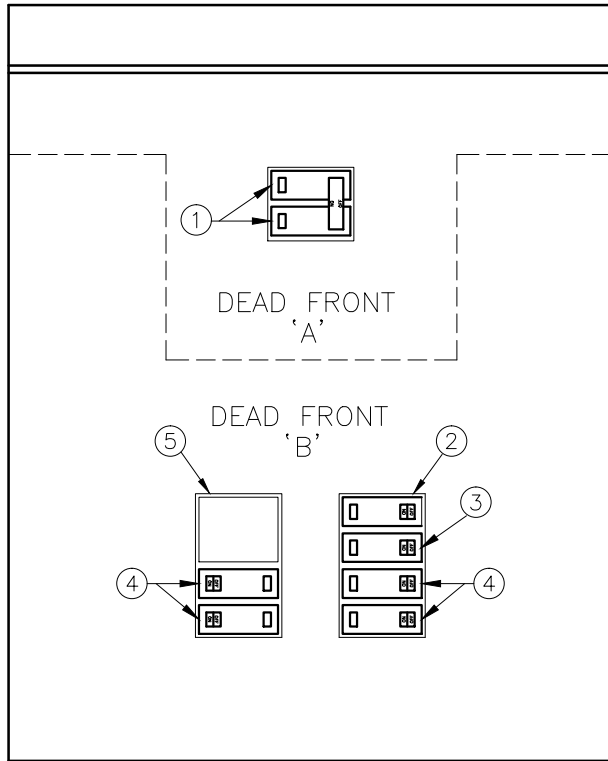
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Modified By: McCORMICK RANKIN

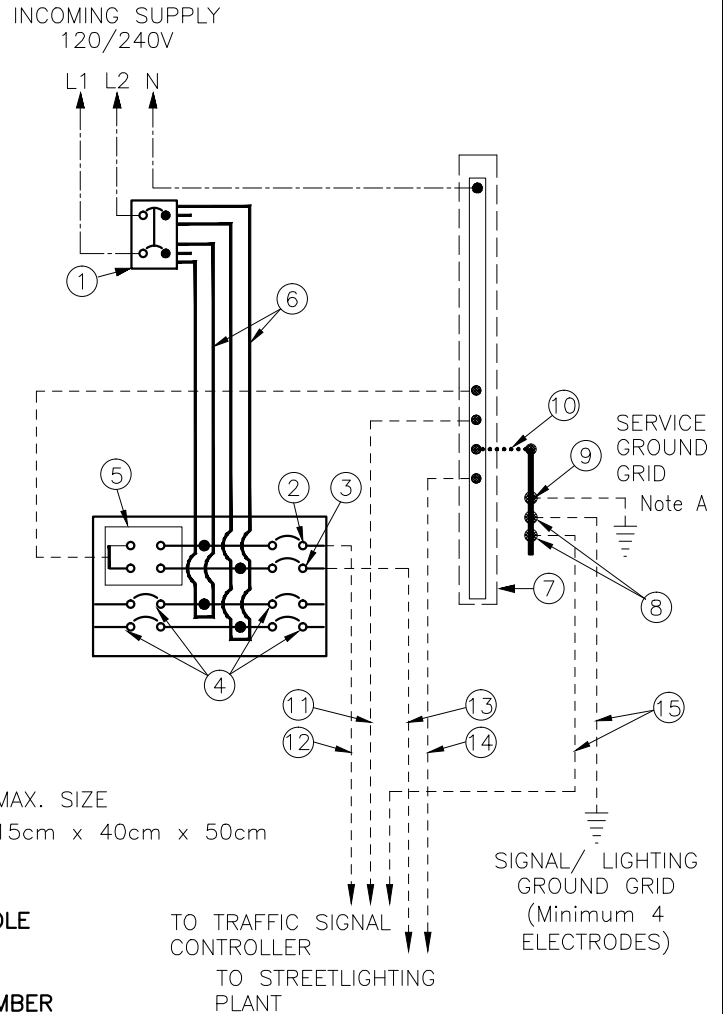
Date: FEBRUARY, 2014

STANDARD No. UTS 614.027

EQUIPMENT LAYOUT
FOR SQUARE 'D' UNIT
CQ018M100RB60



SCHEMATIC WIRING DIAGRAM



ELECTRICAL EQUIPMENT LIST

- ① MAIN CIRCUIT BREAKER – 240V, 60A, 2–POLE.
- ② TRAFFIC SIGNAL CIRCUIT BREAKER – 120V, 50A 1–POLE
- ③ LIGHTING CIRCUIT BREAKER – 120V, 30A, 1–POLE.
- ④ BRANCH CIRCUIT BREAKERS – 120V – TYPE AND NUMBER OF BREAKERS AS INDICATED IN THE CONTRACT
- ⑤ SECONDARY SURGE ARRESTOR, 650V, 2–POLE (IF REQUIRED)
- ⑥ SECONDARY BUS
- ⑦ SOLID NEUTRAL BUS – 100A Minimum
- ⑧ GROUND LUG FOR #6 AWG STRANDED Cu INSULATED GROUND (SIGNAL/LIGHTING GROUND AND CONTROLLER GROUND).
- ⑨ GROUND LUG FOR #2/0 AWG STRANDED BARE Cu GROUND (HYDRO SERVICE GRID)
- ⑩ GREEN #4 AWG STRANDED Cu
- ⑪ WHITE #6 AWG STRANDED Cu
- ⑫ BLACK #6 AWG STRANDED Cu
- ⑬ WHITE #8 AWG STRANDED Cu
- ⑭ RED #8 AWG STRANDED Cu
- ⑮ GREEN #6 AWG STRANDED Cu

NOTE:

- A. 2/0 AWG Cu CABLE WITH MINIMUM TWO GROUND ELECTRODES (RODS OR PLATES) AT SERVICE. (ESA Bulletin 2–12)
- B. LOAD CENTRE USED FOR POLE MOUNTED AND METERED PEDESTAL APPLICATIONS

LEGEND:

- DENOTES TERMINAL CONNECTION
- DENOTES #2 AWG Cu RWU90 SR WIRE
- DENOTES FIELD WIRING (SIZES AS INDICATED ON CONTRACT DRAWINGS)
- GROUND BUS.

UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES

TRAFFIC SIGNAL SUPPLY CONTROL
CABINET ASSEMBLY EQUIPMENT
LAYOUT AND WIRING SCHEMATIC

120/240V, 60A, 1 ϕ , 3 WIRE

Rev. Date

Rev. No. 0

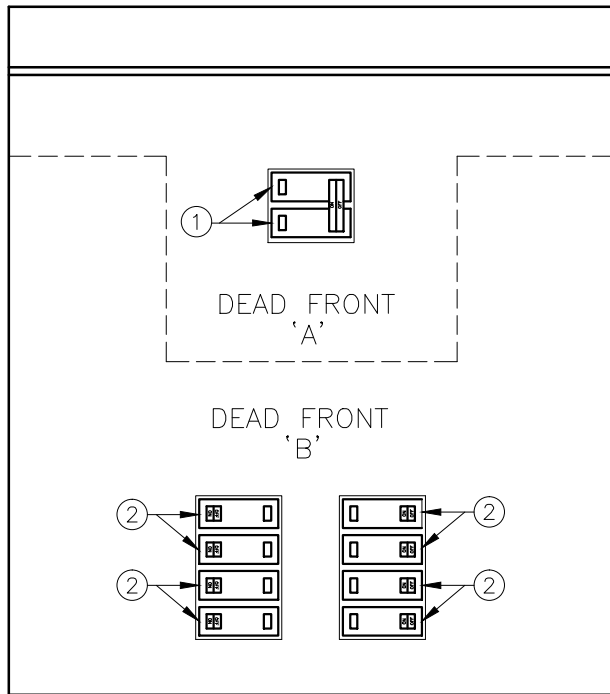
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Modified By: McCORMICK RANKIN

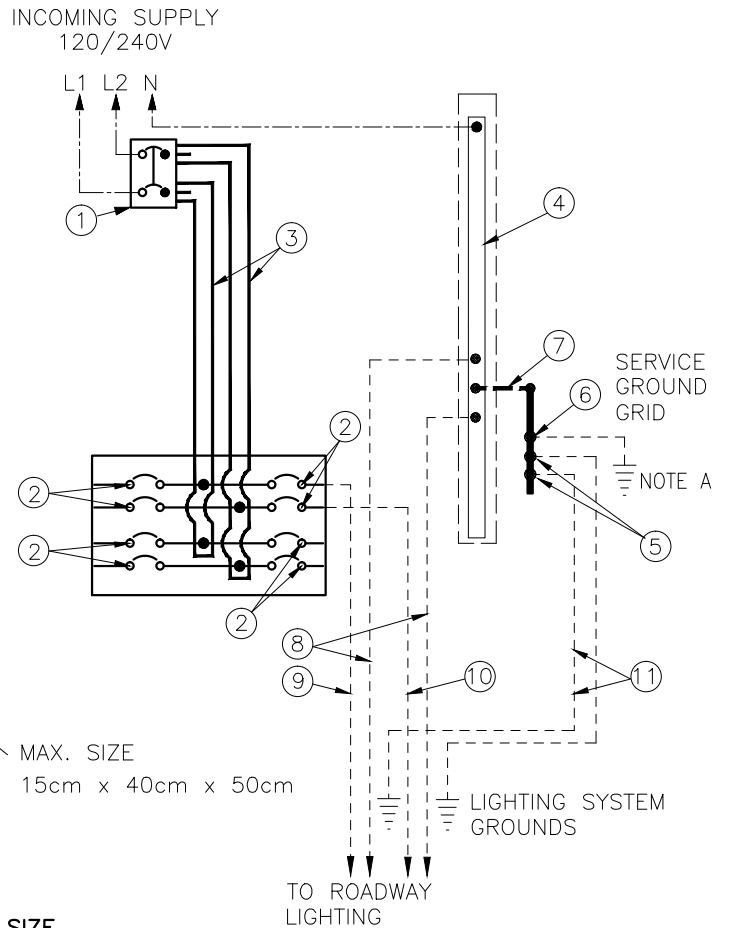
Date: FEBRUARY, 2014

STANDARD No. UTS 614.030

EQUIPMENT LAYOUT
FOR SQUARE 'D' UNIT
CQ018M100RB100



SCHEMATIC WIRING DIAGRAM



ELECTRICAL EQUIPMENT LIST

- ① MAIN CIRCUIT BREAKER - 120/240V, 100A, 2-POLE
- ② BRANCH CIRCUIT BREAKERS - 120/240V, 2 POLE - SIZE AND NUMBER OF BREAKERS AS INDICATED IN THE CONTRACT
- ③ SECONDARY BUS
- ④ SOLID NEUTRAL BUS - 100A Minimum
- ⑤ GROUND LUG FOR #6 AWG STRANDED Cu INSULATED GROUND (SIGNAL/LIGHTING GROUND AND CONTROLLER GROUND).
- ⑥ GROUND LUG FOR #2/0 AWG STRANDED BARE Cu GROUND (HYDRO SERVICE GRID)
- ⑦ GREEN #4 AWG STRANDED Cu
- ⑧ WHITE STRANDED Cu (SIZE INDICATED IN CONTRACT DOCUMENTS)
- ⑨ RED STRANDED Cu (SIZE INDICATED IN CONTRACT DOCUMENTS)
- ⑩ BLACK STRANDED Cu (SIZE INDICATED IN CONTRACT DOCUMENTS)
- ⑪ GREEN STRANDED Cu (SIZE INDICATED IN CONTRACT DOCUMENTS)

NOTE:

- A. 2/0 AWG Cu CABLE WITH MINIMUM TWO GROUND ELECTRODES (RODS OR PLATES) AT SERVICE. (ESA Bulletin 2-12)
- B. LOAD CENTRE USED FOR POLE MOUNTED AND METERED PEDESTAL APPLICATIONS

LEGEND:

- ⊙— DENOTES TERMINAL CONNECTION
- DENOTES #2 AWG Cu RWU90 SR WIRE
- DENOTES FIELD WIRING (SIZES AS INDICATED ON CONTRACT DRAWINGS)
- GROUND BUS.

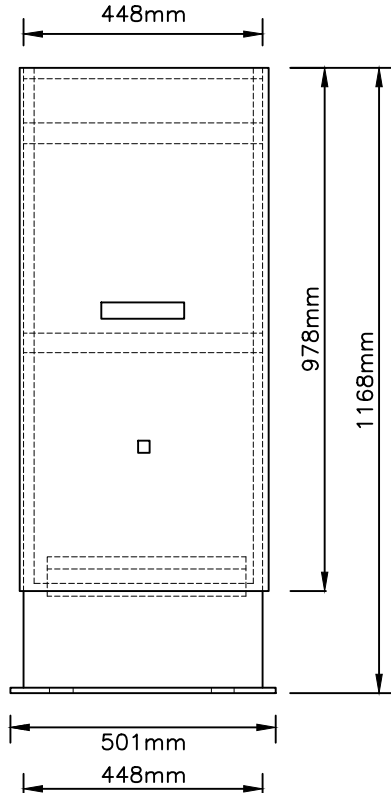
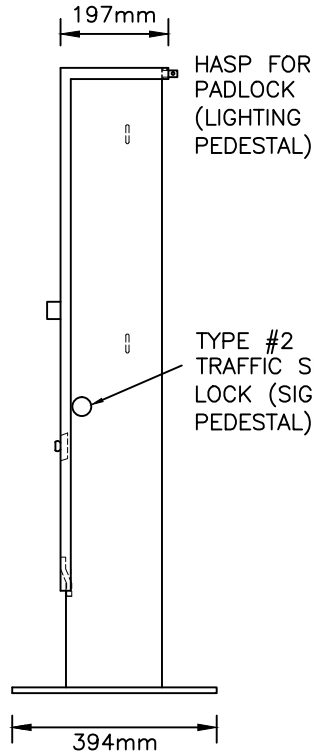
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 MODIFIED: 14/02/03 09:35:06
 REVISION BY: K.MISTRY
 Revised

UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES

STREETLIGHTING SUPPLY CONTROL
CABINET ASSEMBLY EQUIPMENT
LAYOUT AND WIRING SCHEMATIC

120/240V, 100A, 1ϕ, 3 WIRE

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No.	<u>UTS 614.031</u>

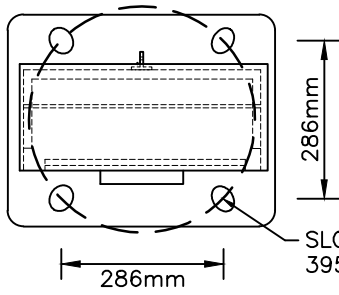
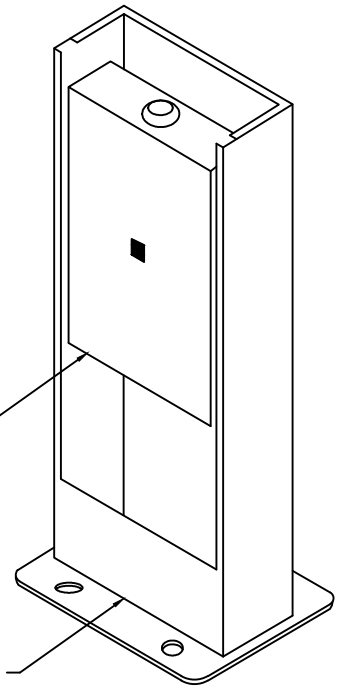


MATERIAL GAUGE
 - BOX 3.0mm
 - BASE PLATE 9.5mm
 - COVER 3.2mm

ENCLOSURE SHOWN WITHOUT DOOR PANEL

ENCLOSED PANEL WITH BREAKERS (NOTE 1 & 2)

BOTTOM ACCESS OPENING (SIZE 448mm X 187mm)



SLOTTED HOLES FOR 395mm TO 406mm B.C.D.

NOTES:

1. PEDESTAL FOR TRAFFIC SIGNAL & STREETLIGHTING TO BE SUPPLIED WITH SQUARE "D", 8 CIRCUIT, 60 AMP. RATED MAIN BREAKER AND SURGE ARRESTOR. (REFER TO UTS 614.043)
2. PEDESTAL FOR STREETLIGHTING TO BE SUPPLIED WITH SQUARE "D", 8 CIRCUIT, 100 AMP. RATED MAIN BREAKER. (REFER TO UTS 614.044)
3. SIZE OF BRANCH BREAKERS SPECIFIED IN CONTRACT AND FIELD SUPPLIED.
4. PEDESTAL TO BE MOUNTED ON EITHER CONCRETE FOOTING (UTS 616.012) OR CONTROLLER PAD (UTS 616.035).

SENTINEL POLE & TRAFFIC			
MODEL	INSTALLATION	CIRCUIT PANEL	TYPE OF LOCK
TCL60-8	TRAFFIC SIGNAL	8	TYPE #2 TRAFFIC
TCL100-8	STREET LIGHTING	8	HASP/PADLOCK

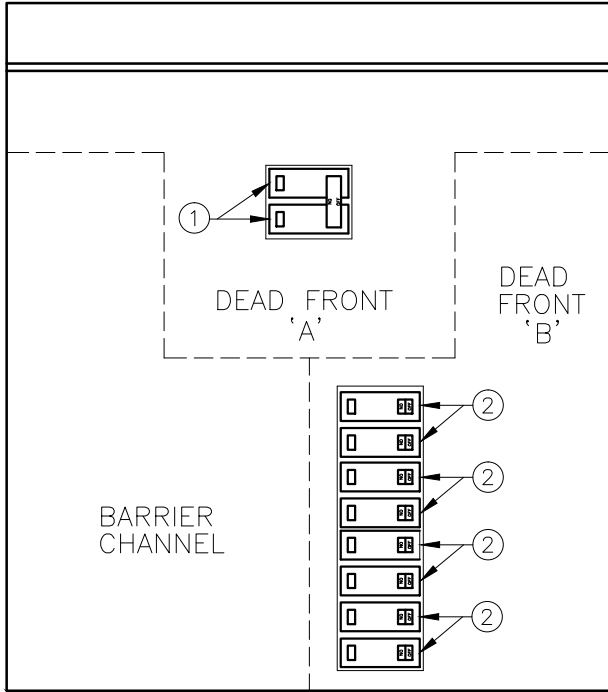
ALL DIMENSION IN MILLIMETRES UNLESS OTHERWISE NOTED

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

POWER SUPPLY PEDESTAL
 WITH BREAKER PANEL
 TRAFFIC SIGNAL & STREETLIGHTING

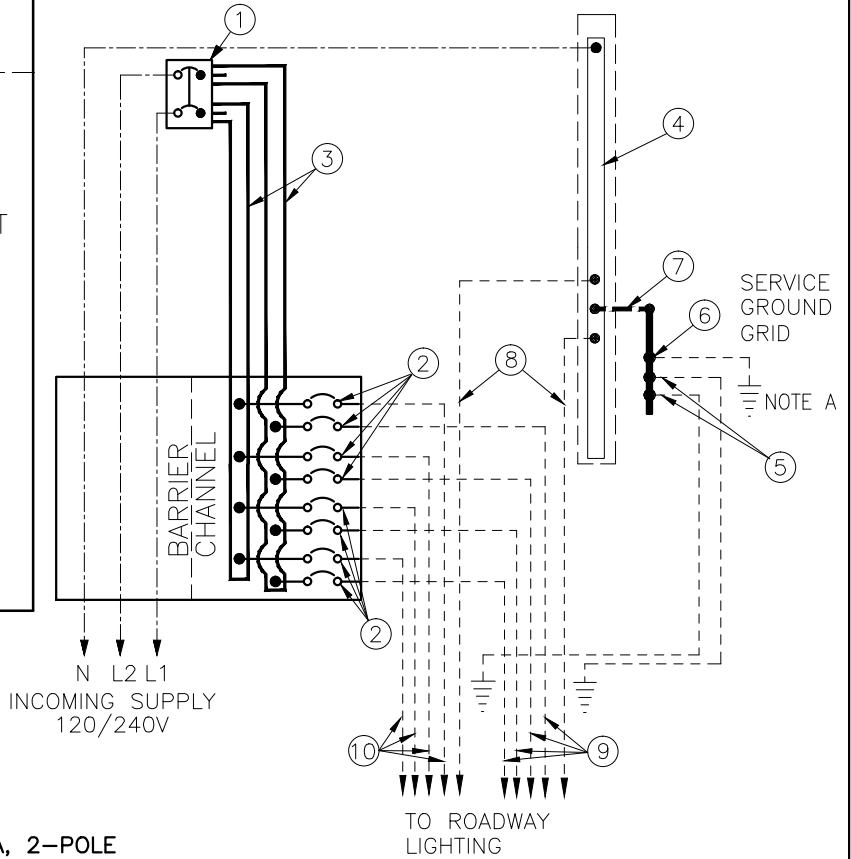
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Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 614.042 </u>	

EQUIPMENT LAYOUT
FOR SQUARE 'D'
"CQO116M100RB100" UNIT



MAX. SIZE
15cm x 40cm x 60cm

SCHEMATIC WIRING DIAGRAM



ELECTRICAL EQUIPMENT LIST

- ① MAIN CIRCUIT BREAKER - 120/240V, 100A, 2-POLE
- ② BRANCH CIRCUIT BREAKERS - 120/240V, 2 POLE - SIZE AND NUMBER OF BREAKERS AS INDICATED IN THE CONTRACT
- ③ SECONDARY BUS
- ④ SOLID NEUTRAL BUS - 100A MINIMUM
- ⑤ GROUND LUG FOR #6 AWG STRANDED Cu INSULATED GROUND (LIGHTING CIRCUITS)
- ⑥ GROUND LUG FOR 2/0 AWG STRANDED Cu (GROUND GRID)
- ⑦ GREEN #4 AWG STRANDED Cu
- ⑧ WHITE STRANDED Cu
- ⑨ BLACK CIRCUIT STRANDED Cu
- ⑩ RED CIRCUIT STRANDED Cu

NOTE:

A. MINIMUM TWO GROUND RODS AT SERVICE.
(Latest ESA Bulletin 2-12)

LEGEND:

- ⊕— DENOTES TERMINAL CONNECTION.
- DENOTES #2 AWG RWU90 SR Cu
- DENOTES FIELD WIRING (SIZES AS INDICATED ON THE CONTRACT DRAWINGS)
- GROUND BUS.

UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES

STREETLIGHTING PEDESTAL SUPPLY
CONTROL CABINET ASSEMBLY EQUIPMENT
LAYOUT AND WIRING SCHEMATIC

120/240V, 100A, 1 ϕ , 3 WIRE

Rev. Date

Rev. No. 0

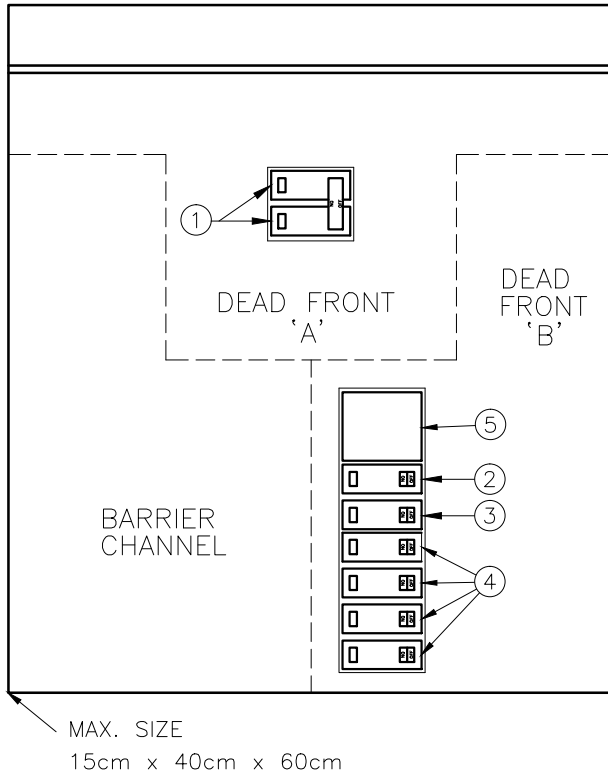
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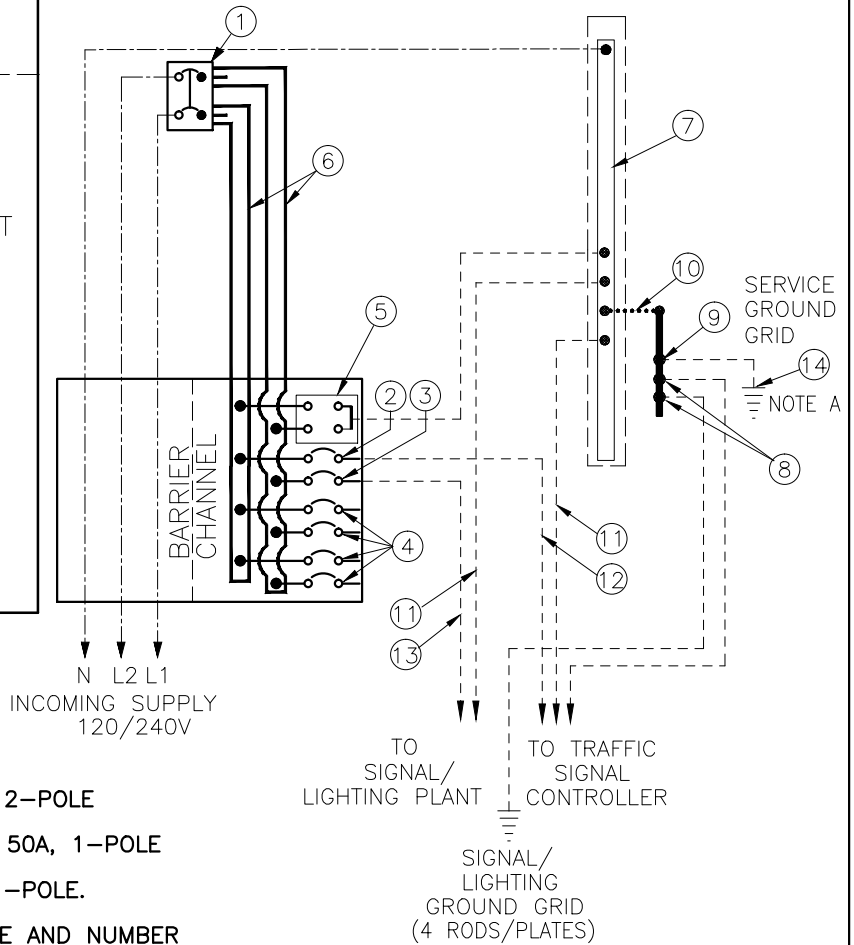
Date: FEBRUARY, 2014

STANDARD No. UTS 614.043

EQUIPMENT LAYOUT
FOR SQUARE 'D'
"CQO116M10RB60" UNIT



SCHEMATIC WIRING DIAGRAM



ELECTRICAL EQUIPMENT LIST

- ① MAIN CIRCUIT BREAKER – 120/240V, 60A, 2-POLE
- ② TRAFFIC SIGNAL CIRCUIT BREAKER – 120V, 50A, 1-POLE
- ③ LIGHTING CIRCUIT BREAKER – 120V, 30A, 1-POLE.
- ④ BRANCH CIRCUIT BREAKERS – 120V – TYPE AND NUMBER OF BREAKERS AS INDICATED IN THE CONTRACT
- ⑤ SECONDARY SURGE ARRESTOR, 650V, 2-POLE
- ⑥ SECONDARY BUS
- ⑦ SOLID NEUTRAL BUS – 100A MINIMUM
- ⑧ GROUND LUG FOR 2-#6 AWG STRANDED Cu INSULATED GROUND (SIGNAL / LIGHTING GROUND AND CONTROLLER GROUND)
- ⑨ GROUND LUG FOR #2/0 AWG BARE Cu (GROUND GRID)
- ⑩ GREEN #4 AWG STRANDED Cu
- ⑪ WHITE STRANDED Cu (#6 AWG TYP.)
- ⑫ BLACK CIRCUIT STRANDED Cu (#6 AWG TYP.)
- ⑬ RED CIRCUIT STRANDED Cu (#8 AWG TYP.)
- ⑭ 2/0 AWG STRANDED Cu BARE GROUND (HYDRO GRID) (TYP.)

NOTE:

A. MINIMUM FOUR GROUND RODS AT SERVICE FOR TRAFFIC SIGNAL (Latest ESA Bulletin 2-12)

LEGEND:

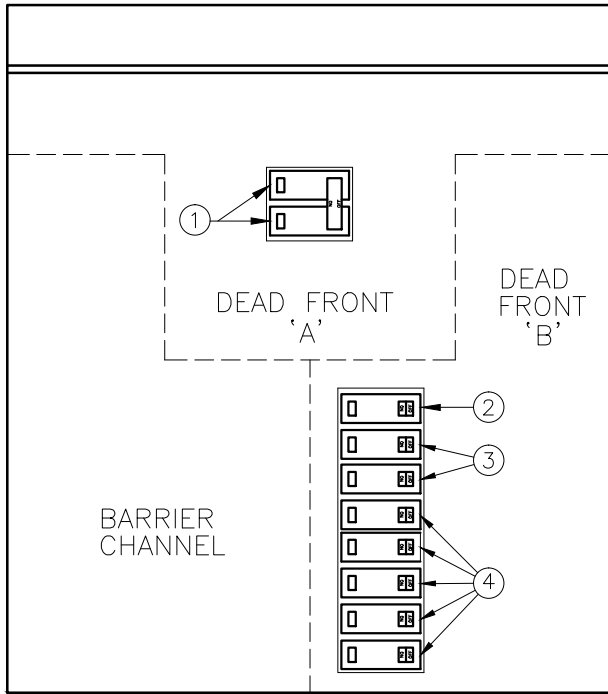
- DENOTES TERMINAL CONNECTION.
- DENOTES #2 AWG RWU90 SR Cu
- DENOTES FIELD WIRING (SIZES AS INDICATED ON THE CONTRACT DRAWINGS)
- GROUND BUS.

UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES

TRAFFIC SIGNAL PEDESTAL SUPPLY
CONTROL CABINET ASSEMBLY EQUIPMENT
LAYOUT AND WIRING SCHEMATIC
120/240V, 60A, 1 ϕ , 3 WIRE

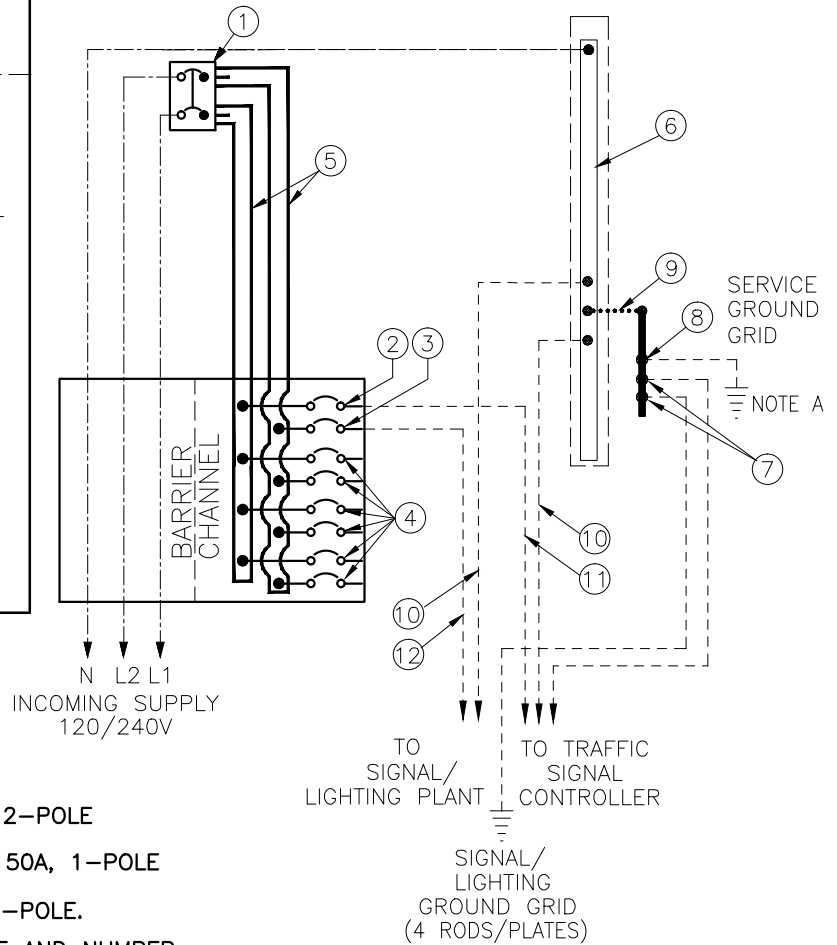
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Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 614.044</u>	

EQUIPMENT LAYOUT FOR SQUARE 'D' UNIT



MAX. SIZE
15cm x 40cm x 60cm

SCHEMATIC WIRING DIAGRAM



ELECTRICAL EQUIPMENT LIST

- ① MAIN CIRCUIT BREAKER – 120/240V, 60A, 2-POLE
- ② TRAFFIC SIGNAL CIRCUIT BREAKER – 120V, 50A, 1-POLE
- ③ LIGHTING CIRCUIT BREAKER – 120V, 30A, 1-POLE.
- ④ BRANCH CIRCUIT BREAKERS – 120V – TYPE AND NUMBER OF BREAKERS AS INDICATED IN THE CONTRACT
- ⑤ SECONDARY BUS
- ⑥ SOLID NEUTRAL BUS – 100A MINIMUM
- ⑦ GROUND LUG FOR 2-#6 AWG STRANDED Cu INSULATED GROUND (SIGNAL / LIGHTING GROUND AND CONTROLLER GROUND)
- ⑧ GROUND LUG FOR #2/0 AWG STRANDED BARE Cu (GROUND GRID)
- ⑨ GREEN #4 AWG STRANDED Cu
- ⑩ WHITE STRANDED Cu (#8 AWG TYP.)
- ⑪ BLACK STRANDED Cu (#8 AWG TYP.)
- ⑫ RED STRANDED Cu (#8 AWG TYP.)

NOTE:

A. MINIMUM FOUR GROUND RODS AT SERVICE FOR TRAFFIC SIGNAL (Latest ESA Bulletin 2-12)

LEGEND:

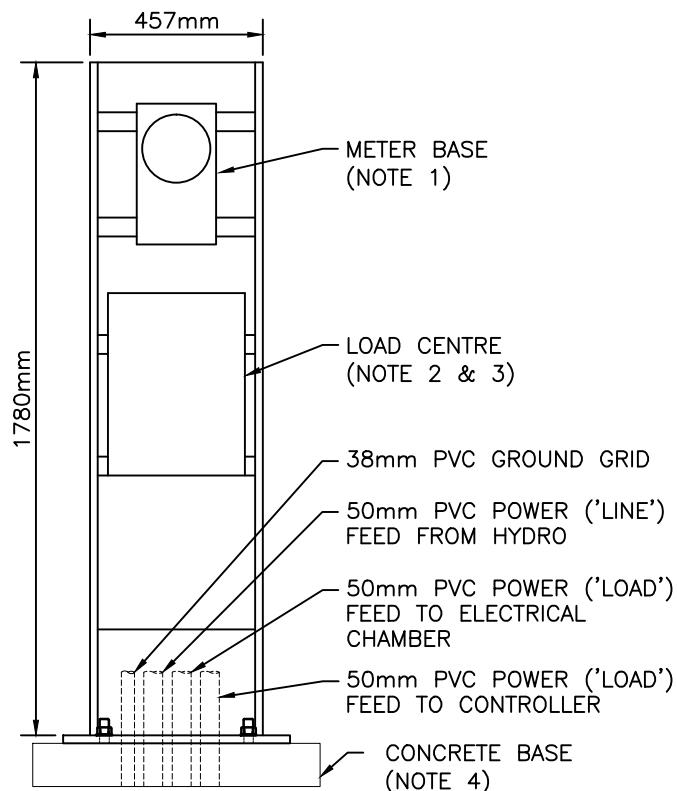
- ◆— DENOTES TERMINAL CONNECTION.
- DENOTES #2 AWG RWU90 SR Cu
- DENOTES FIELD WIRING (SIZES AS INDICATED ON THE CONTRACT DRAWINGS)
- DENOTES GROUND BUS

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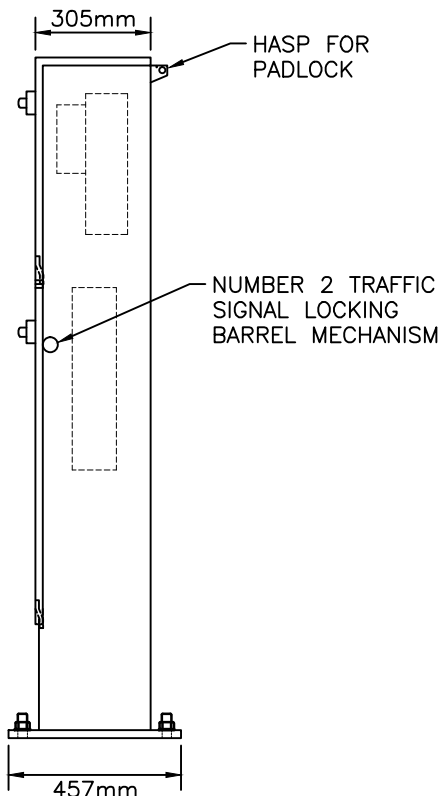
UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES

TRAFFIC SIGNAL PEDESTAL SUPPLY
CONTROL CABINET ASSEMBLY EQUIPMENT
LAYOUT AND WIRING SCHEMATIC
120/240V, 60A, 1 ϕ , 3 WIRE

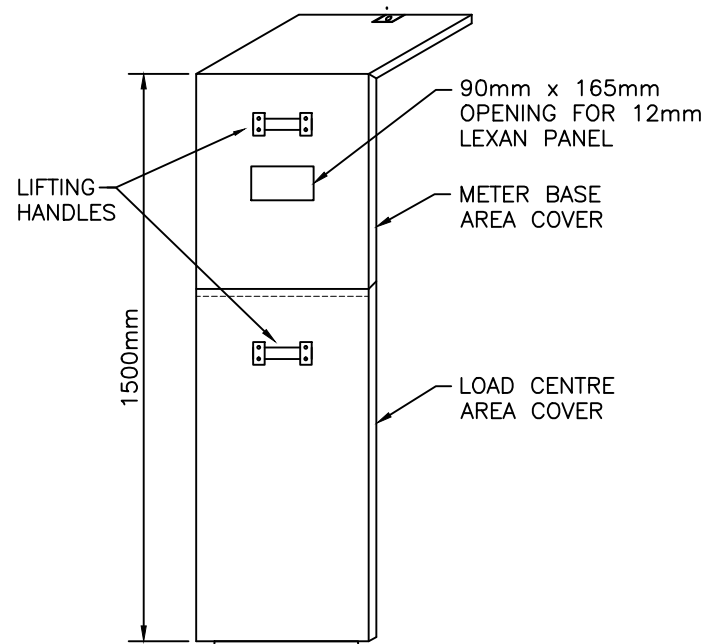
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Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 614.045</u>	



FRONT VIEW



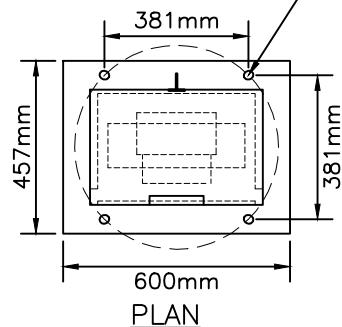
SIDE VIEW



NOTES:

1. MICROELECTRIC METER BASE (CATALOGUE # BE1-TCV) TO BE SUPPLIED WITH PEDESTAL.
2. SQUARE "D" 100 AMP RATED, 8 CIRCUIT, 100 AMP RATED LOAD CENTRE (CATALOGUE # CQ018M100RB100) C/W 2 POLE, 60 AMP MAIN BREAKER TO BE SUPPLIED WITH PEDESTAL. (REFER TO UTS 614.030)
3. SIZE AND NUMBER OF BRANCH BREAKERS SPECIFIED IN CONTRACT AND FIELD SUPPLIED.
4. PEDESTAL TO BE MOUNTED ON EITHER CONCRETE FOOTING (UTS 616.012) OR CONTROLLER PAD (UTS 616.036).

HOLES FOR 25mm DIA. BOLTS AND WASHERS (539mm BCD)



PLAN

SENTINEL POLE & TRAFFIC EQUIPMENT		
MODEL	INSTALLATION	TYPE OF LOCK
MTL100-8	TRAFFIC SIGNAL	HASP/PADLOCK FOR METER BASE COVER TYPE #2 FOR LOAD CENTRE COVER

ALL DIMENSION IN MILLIMETRES UNLESS OTHERWISE NOTED

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**METERED TRAFFIC SIGNAL
 POWER SUPPLY PEDESTAL C/W
 LOAD CENTRE AND METER BASE**

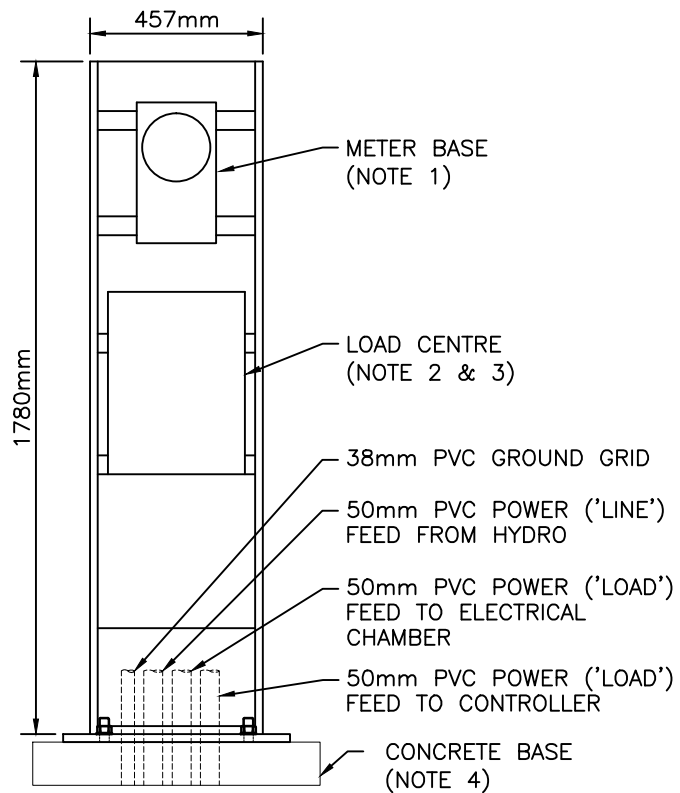
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Modification: _____

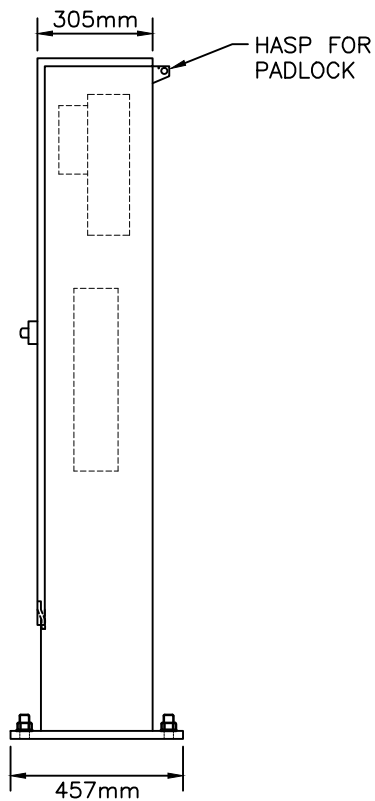
Modified By: McCORMICK RANKIN

Date: FEBRUARY 2014

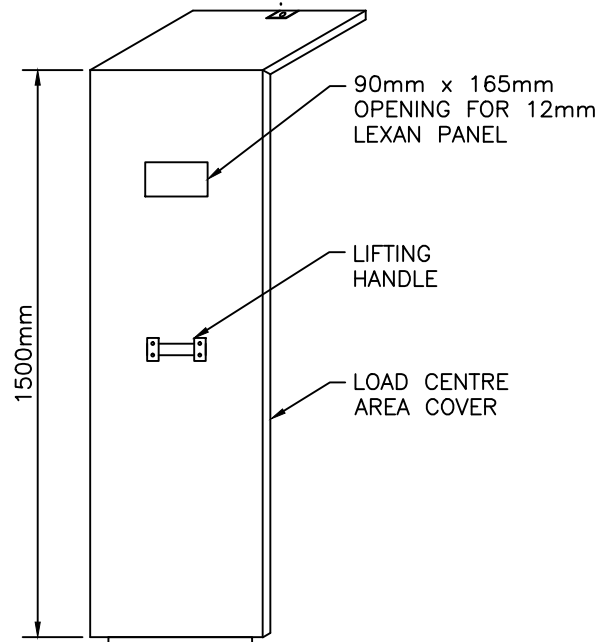
STANDARD No. UTS 614.046



FRONT VIEW



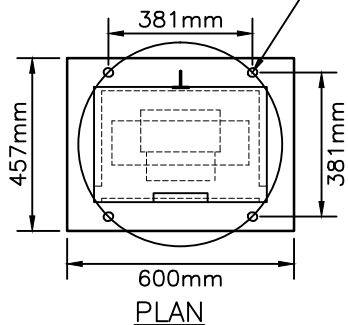
SIDE VIEW



NOTES:

1. MICROELECTRIC METER BASE (CATALOGUE # BE1-TCV) TO BE SUPPLIED WITH PEDESTAL.
2. SQUARE "D" 100 AMP RATED, 8 CIRCUIT, 100 AMP RATED LOAD CENTRE (CATALOGUE # CQ018M100RB100) C/W 2 POLE, 100 AMP MAIN BREAKER TO BE SUPPLIED WITH PEDESTAL. (REFER TO UTS 614.031)
3. SIZE AND NUMBER OF BRANCH BREAKERS SPECIFIED IN CONTRACT AND FIELD SUPPLIED.
4. PEDESTAL TO BE MOUNTED ON CONCRETE FOOTING. (REFER TO UTS 616.012)

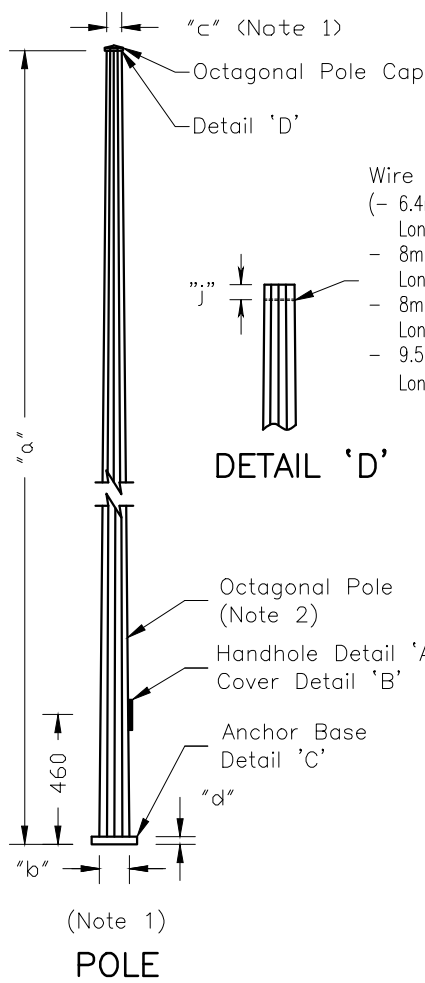
HOLES FOR 25mm DIA. BOLTS AND WASHERS (539mm BCD)



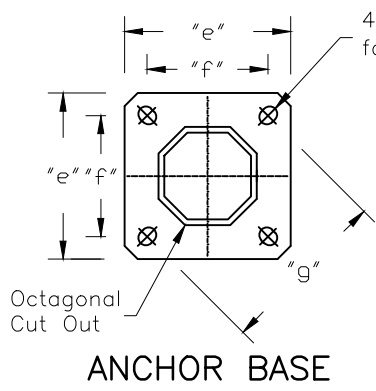
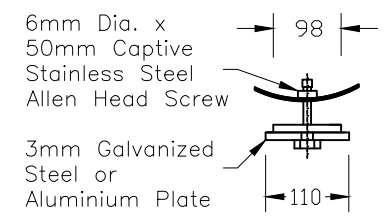
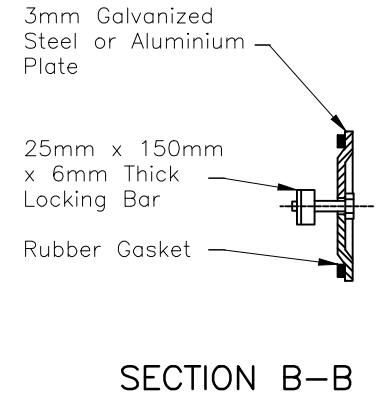
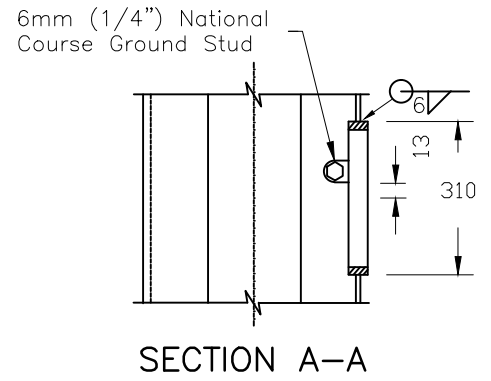
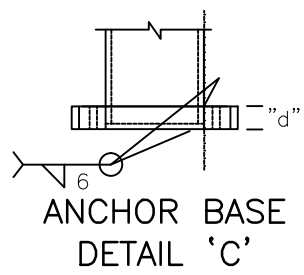
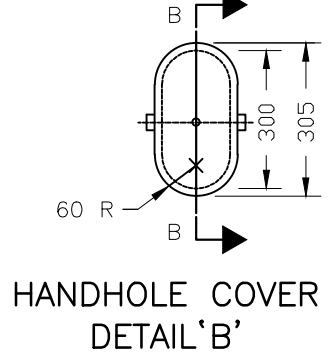
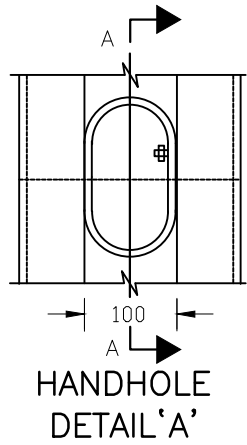
SENTINEL POLE & TRAFFIC EQUIPMENT		
MODEL	INSTALLATION	TYPE OF LOCK
MSL100-8	STREETLIGHTING	HASP/PADLOCK FOR COVER

ALL DIMENSION IN MILLIMETRES UNLESS OTHERWISE NOTED

<p>UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES</p> <p>METERED STREETLIGHTING POWER SUPPLY PEDESTAL C/W LOAD CENTRE AND METER BASE</p>	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 614.047 </u>		



Wire Support Rod
 (- 6.4mm Dia. x 98mm Long in 4.6m Pole,
 - 8mm Dia. Rod x 140mm Long in 6.1m HD Pole,
 - 8mm Dia. Rod x 92mm Long in 10.7m Pole &
 - 9.5mm Dia. Rod x 92mm Long in 12.2m Pole)



FABRICATION DATA											
Pole Length "a" m	Bottom O.D. "b" mm	Top O.D. "c" mm	Plate Depth "d" mm	Plate Size "e" mm	Bolt Spacing "f" mm	Bolt Circle Diameter "g" mm	Bolt Slot "h" mm	Stud/ Bolt Size "i" mm	Wire Support Rod "j" mm	Handhole Frame	
										Height "k" mm	Width "l" mm
4.6	159	100	16	279	203	287	32X50	22	38	178	102
6.1LD	173	100	16	406	279	406	38X45	32	50	300	102
6.1HD	251	146	22	406	279	406	38X45	32	50	300	102
10.7	248	100	32	406	279	406	38X45	32	50	300	102
12.2	257	100	32	406	279	406	38X45	32	50	300	102

HD = HEAVY DUTY LD = LIGHT DUTY

NOTES

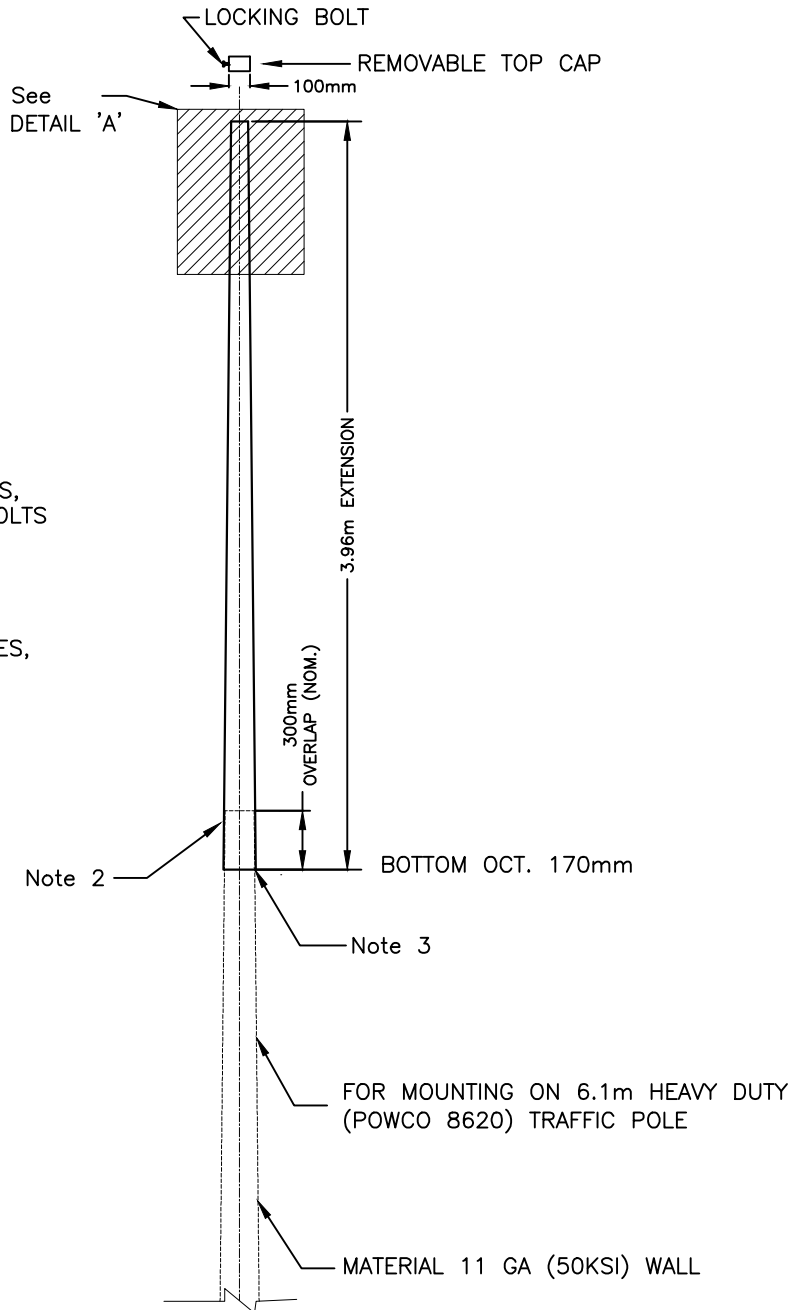
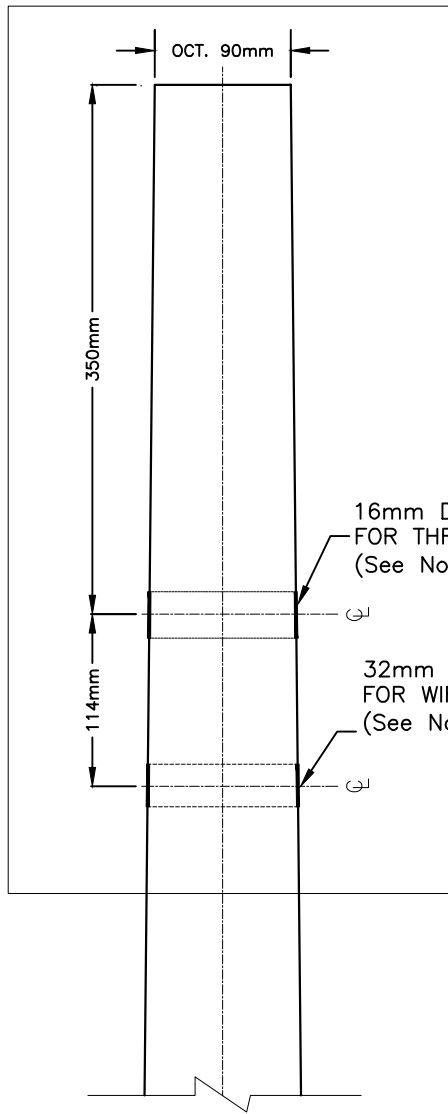
1. The diameter shall be measured across the flats.
2. All shafts shall be 3mm wall thickness, except 4.5mm for 10.7m and 12.2m poles.
3. All dimensions are in millimetres or metres unless otherwise shown.

UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES

GALVANIZED STEEL
 OCTAGONAL POLE
 BASE MOUNTED

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 615.010</u>	

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 REVISION BY: K.MISTRY
 Revised



DETAIL 'A'

DIMENSIONS IN mm EXCEPT AS NOTED

NOTES:

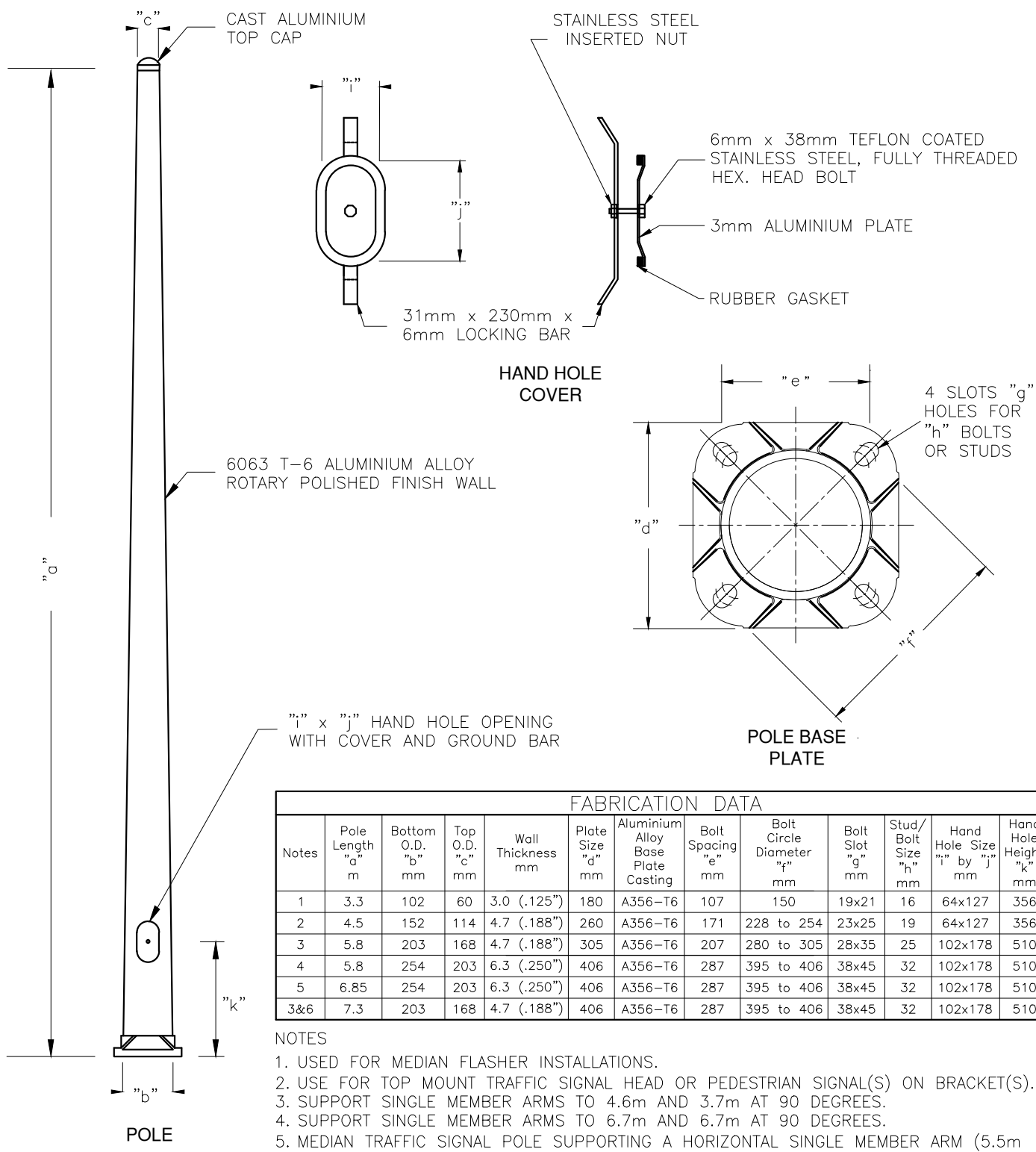
- 1) HOLES TO BE DRILLED BEFORE POLE EXTENSION IS GALVANIZED.
- 2) ALL ACROSS THE FACE MEASUREMENTS AT THE TOP OF THE POLE MUST NOT BE LESS THAN 140mm OR GREATER THAN 142mm.
- 3) ALL ACROSS THE FACE MEASUREMENTS AT THE BOTTOM OF THE POLE EXTENSION MUST NOT BE LESS THAN 160mm OR GREATER THAN 145mm.
- 4) POLES AND/OR EXTENSIONS NOT MEETING THESE TOLERANCES WILL NOT BE ACCEPTED.

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 REVISED BY: K.MISTRY
 MODIFIED 14/02/03 09:36:22
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

TRAFFIC POLE EXTENSION

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 615.015 </u>	



FABRICATION DATA												
Notes	Pole Length "a" m	Bottom O.D. "b" mm	Top O.D. "c" mm	Wall Thickness mm	Plate Size "d" mm	Aluminium Alloy Base Plate Casting	Bolt Spacing "e" mm	Bolt Circle Diameter "f" mm	Bolt Slot "g" mm	Stud/Bolt Size "h" mm	Hand Hole Size "i" by "j" mm	Hand Hole Height "k" mm
1	3.3	102	60	3.0 (.125")	180	A356-T6	107	150	19x21	16	64x127	356
2	4.5	152	114	4.7 (.188")	260	A356-T6	171	228 to 254	23x25	19	64x127	356
3	5.8	203	168	4.7 (.188")	305	A356-T6	207	280 to 305	28x35	25	102x178	510
4	5.8	254	203	6.3 (.250")	406	A356-T6	287	395 to 406	38x45	32	102x178	510
5	6.85	254	203	6.3 (.250")	406	A356-T6	287	395 to 406	38x45	32	102x178	510
3&6	7.3	203	168	4.7 (.188")	406	A356-T6	287	395 to 406	38x45	32	102x178	510

- NOTES
1. USED FOR MEDIAN FLASHER INSTALLATIONS.
 2. USE FOR TOP MOUNT TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL(S) ON BRACKET(S).
 3. SUPPORT SINGLE MEMBER ARMS TO 4.6m AND 3.7m AT 90 DEGREES.
 4. SUPPORT SINGLE MEMBER ARMS TO 6.7m AND 6.7m AT 90 DEGREES.
 5. MEDIAN TRAFFIC SIGNAL POLE SUPPORTING A HORIZONTAL SINGLE MEMBER ARM (5.5m to 7.3m) PERPENDICULAR TO TRAVELLED ROADWAY.
 6. TO BE EQUIPPED WITH VIBRATION DAMPENER WHEN NO SIGNAL HEAD ATTACHED.
- All dimensions are in millimetres or metres unless otherwise shown.

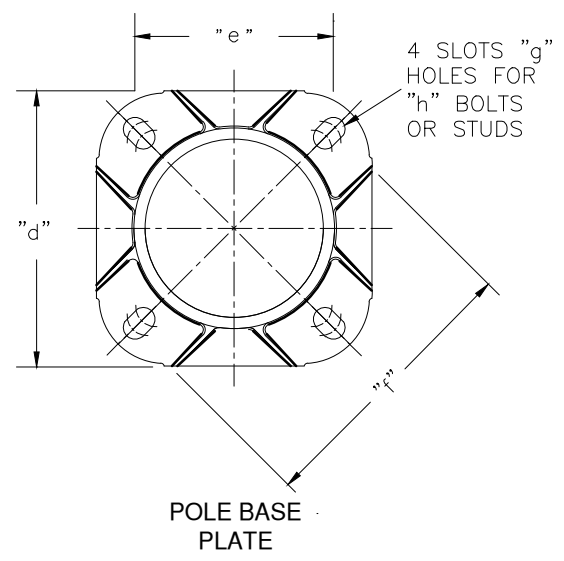
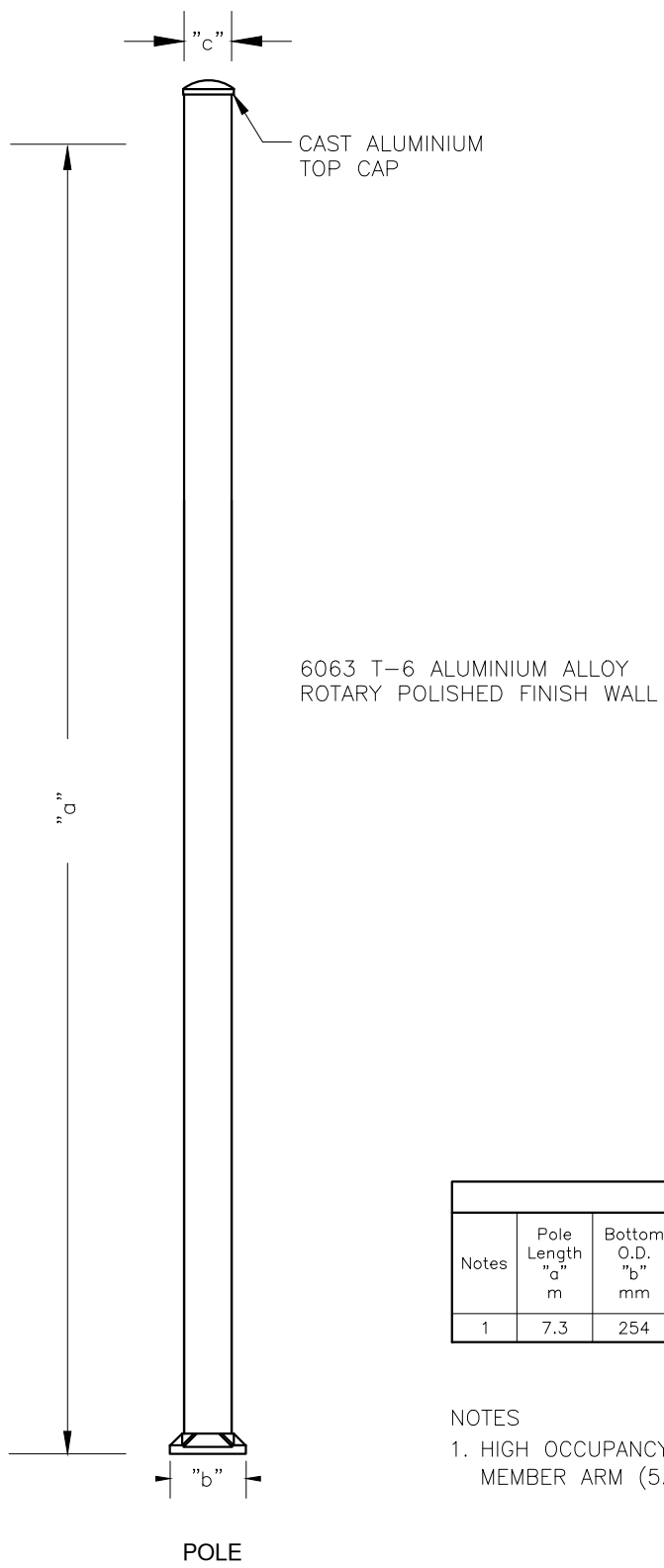
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ALUMINIUM TRAFFIC SIGNAL
POLE, BASE MOUNTED**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 615.020</u>	

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
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 DRAWN BY: D. THOMPSON
 REVISED BY: K.MISTRY
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 DRAWING NAME: 615021_HO_S.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED: 14/02/03 09:36:18
 Revised



FABRICATION DATA										
Notes	Pole Length "a" m	Bottom O.D. "b" mm	Top O.D. "c" mm	Wall Thickness mm	Plate Size "d" mm	Aluminium Alloy Base Plate Casting	Bolt Spacing "e" mm	Bolt Circle Diameter "f" mm	Bolt Slot "g" mm	Stud/Bolt Size "h" mm
1	7.3	254	254	6.3 (.250")	406	6063-T6	287	395 to 406	38x45	32

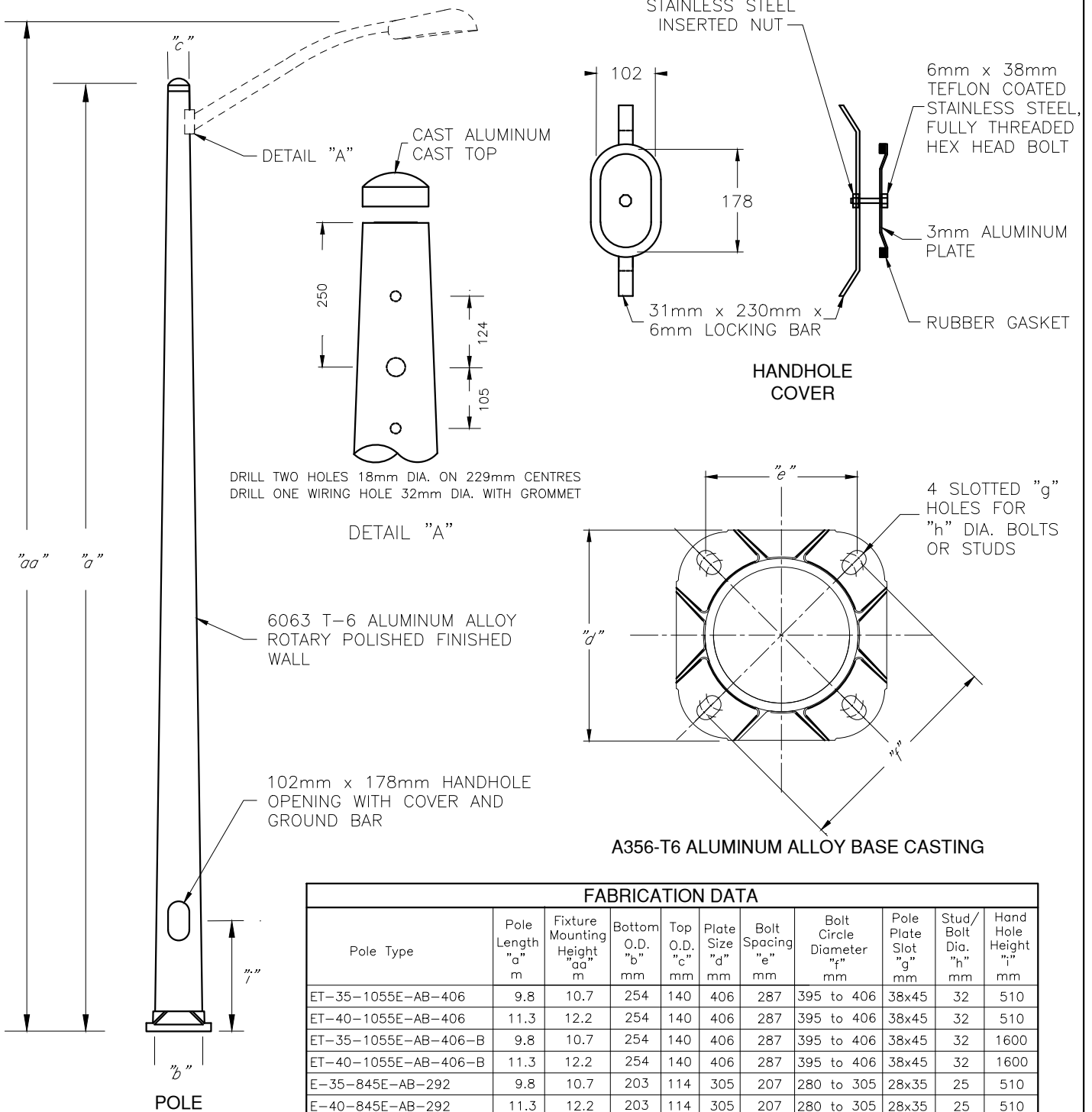
NOTES
 1. HIGH OCCUPANCY VEHICLE SIGN SUPPORT POLE WITH HORIZONTAL SINGLE MEMBER ARM (5.5m to 7.3m) PERPENDICULAR TO TRAVELLED ROADWAY.

All dimensions are in millimetres or metres unless otherwise shown.

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**ALUMINIUM HOV SIGN
 SUPPORT POLE,
 BASE MOUNTED**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 615.021</u>	



DRILL TWO HOLES 18mm DIA. ON 229mm CENTRES
 DRILL ONE WIRING HOLE 32mm DIA. WITH GROMMET

DETAIL "A"

A356-T6 ALUMINUM ALLOY BASE CASTING

FABRICATION DATA										
Pole Type	Pole Length "a" m	Fixture Mounting Height "aa" m	Bottom O.D. "b" mm	Top O.D. "c" mm	Plate Size "d" mm	Bolt Spacing "e" mm	Bolt Circle Diameter "f" mm	Pole Plate Slot "g" mm	Stud/Bolt Dia. "h" mm	Hand Hole Height "i" mm
ET-35-1055E-AB-406	9.8	10.7	254	140	406	287	395 to 406	38x45	32	510
ET-40-1055E-AB-406	11.3	12.2	254	140	406	287	395 to 406	38x45	32	510
ET-35-1055E-AB-406-B	9.8	10.7	254	140	406	287	395 to 406	38x45	32	1600
ET-40-1055E-AB-406-B	11.3	12.2	254	140	406	287	395 to 406	38x45	32	1600
E-35-845E-AB-292	9.8	10.7	203	114	305	207	280 to 305	28x35	25	510
E-40-845E-AB-292	11.3	12.2	203	114	305	207	280 to 305	28x35	25	510

NOTES

1. ALL SHAFTS SHALL BE 6.3mm (.250") WALL THICKNESS.
2. POLES TO BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENER.
3. HANDHOLE TO BE IN LINE WITH STREETLIGHTING BRACKET ONLY ON THE BRIDGE MOUNTED POLES.

REFERENCE TO POLE NUMBERING

Letters Starting With:

- ET - Streetlighting and Combination Signal Pole; or Streetlighting Pole on Bridge Structure (-B)
- E - Streetlighting Pole

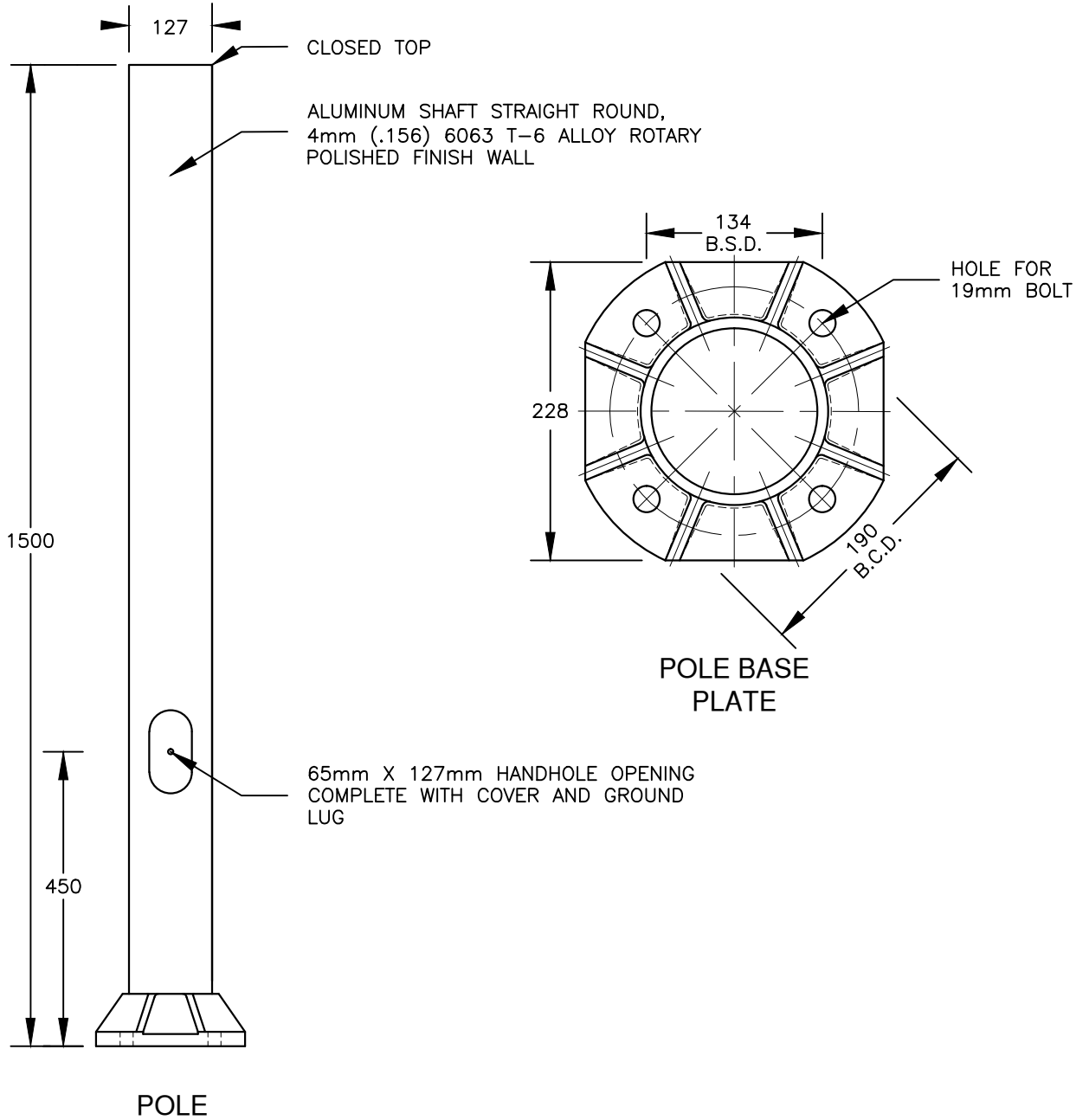
All dimensions are in millimetres or metres unless otherwise shown.

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 REVISIONS BY: K.MISTRY
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**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**ALUMINIUM STREETLIGHT OR
 COMBINATION STREETLIGHT/SIGNAL
 POLE, BASE MOUNTED**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
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STANDARD No. <u>UTS 615.025</u>	



NOTES

- A. ANCHOR ASSEMBLY SHALL HAVE 190mm B.C.D. WITH 19mm (3/4") BOLTS.
- B. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

ALUMINIUM POLE FOR
PEDESTRIAN PUSHBUTTONS,
BASE MOUNTED

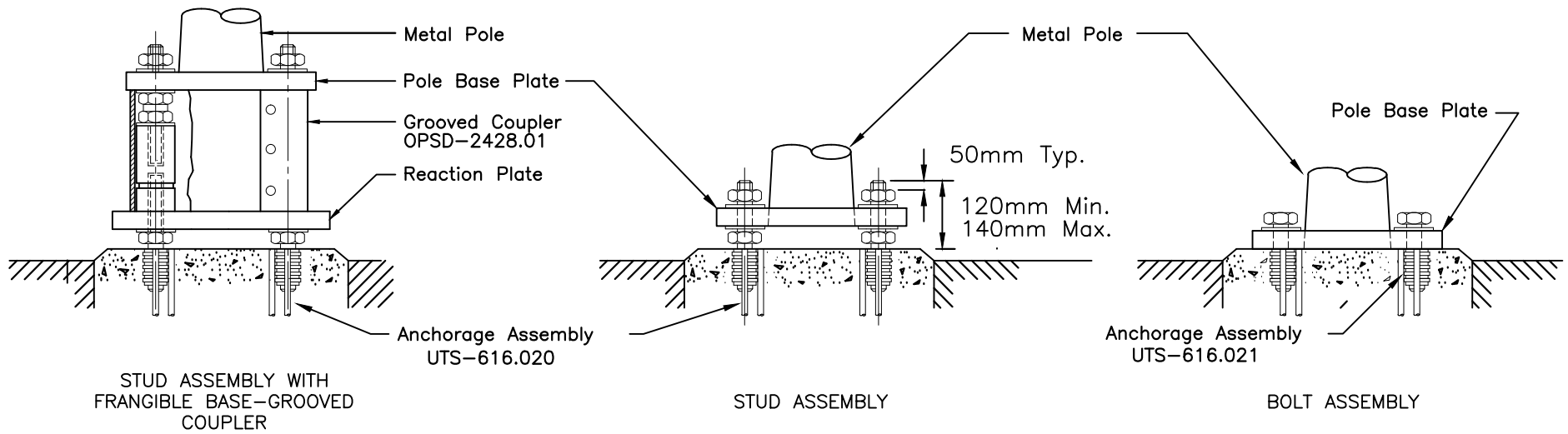
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

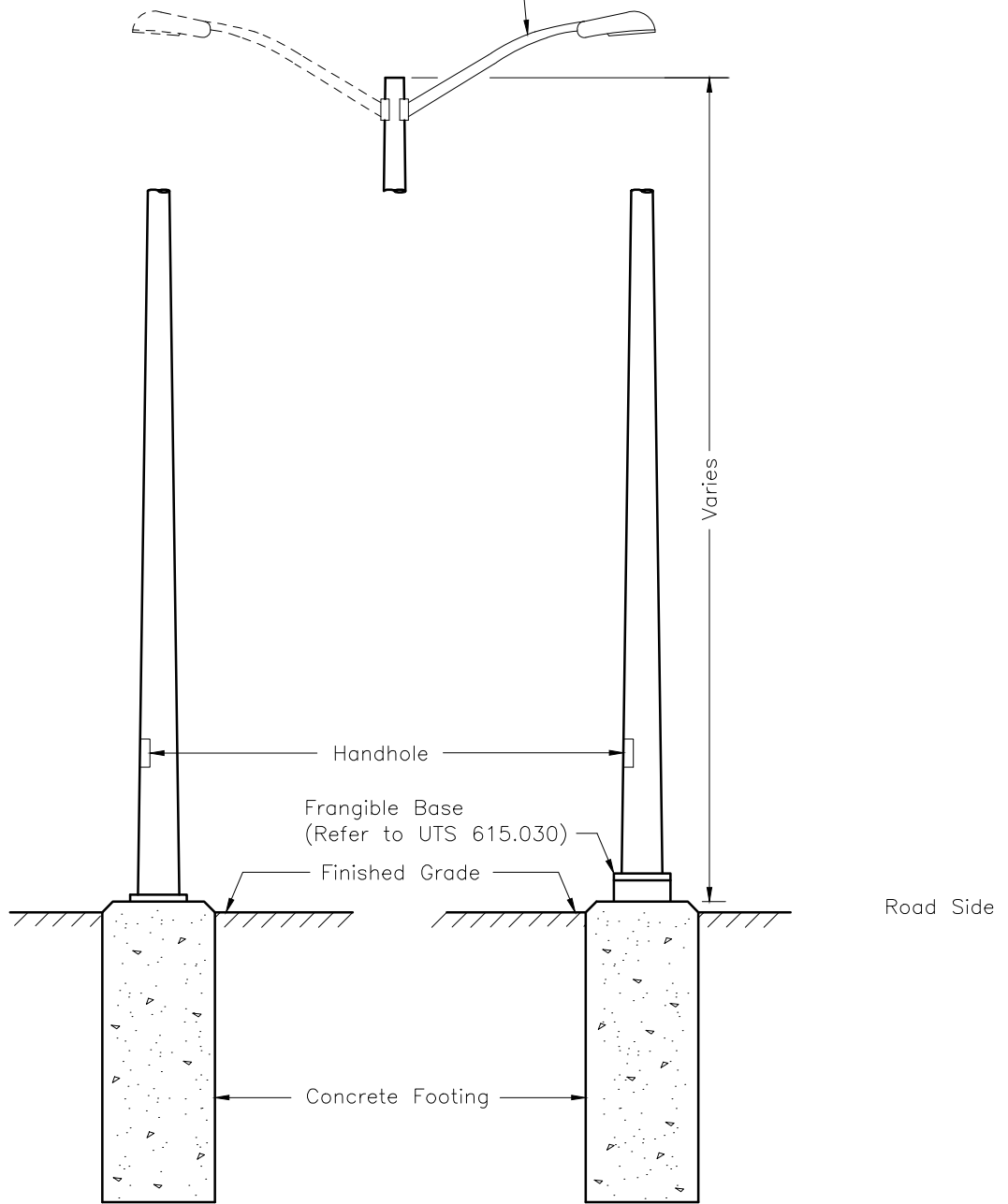
STANDARD No. UTS 615.026



All Dimensions are in millimetres unless otherwise shown.

<p>UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES</p> <p>POLE MOUNTING DETAILS FOR BASE MOUNTED METAL POLE</p>	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 615.030 </u>	

Tapered Elliptical Bracket
(Refer to UTS 617.010
or UTS 617.015)



BASE MOUNTING

FRANGIBLE BASE
MOUNTING

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date

Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

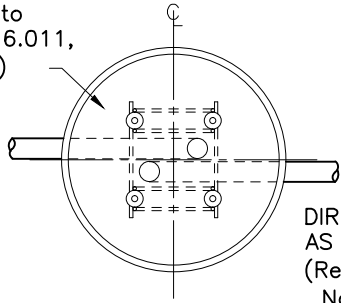
Date: FEBRUARY, 2014

STANDARD No. UTS 615.035

METAL LIGHTING POLE
BASE MOUNTED

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DRAWING NAME: 615035_FR_UTSS.DWG
DRAWN BY: D. THOMPSON
REVISED BY: K. MISTRY
MODIFIED: 14/02/03 09:36:09
Revised

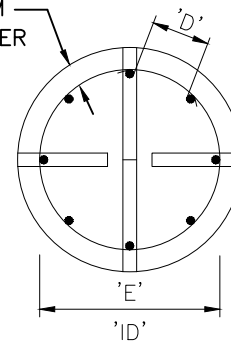
CONCRETE
(Refer to
UTS 616.011,
Note 6)



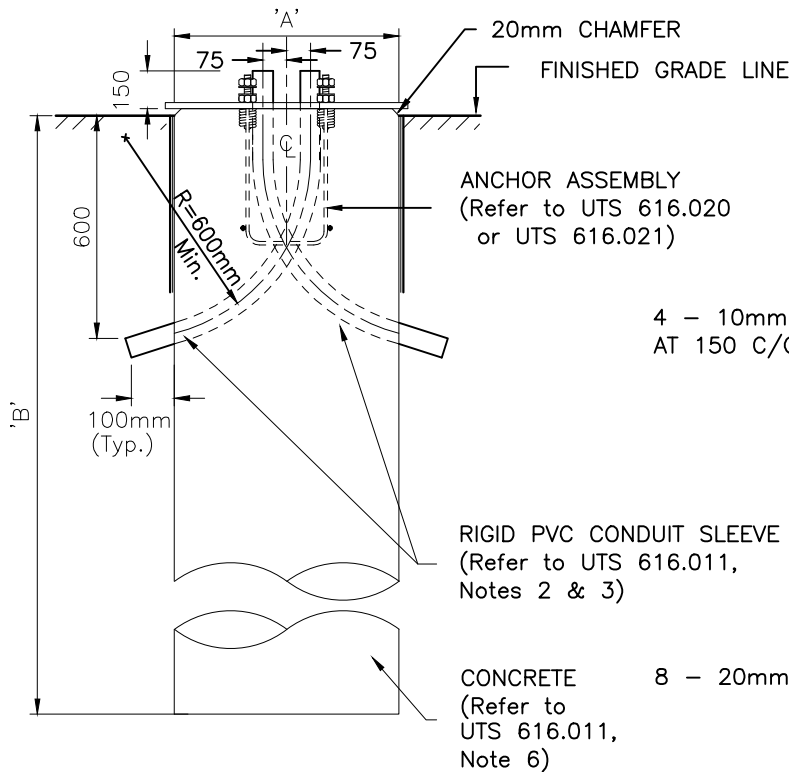
DIRECTION OF CONDUITS
AS SHOWN IN CONTRACT
(Refer to UTS 616.011
Notes 2 & 3)

PLAN

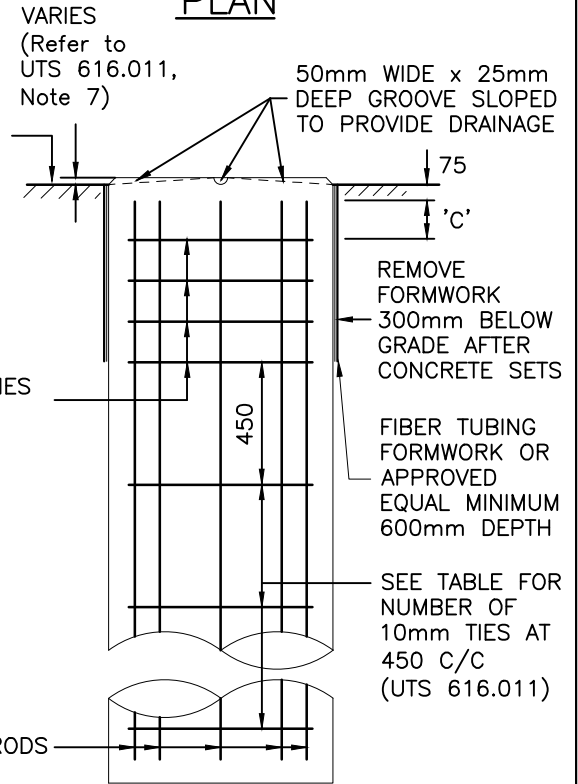
55mm MINIMUM
CONCRETE COVER



PLAN



ELEVATION
DIMENSIONS



ELEVATION
REINFORCEMENT

REINFORCEMENTS ARE SHOWN
IN SOLID LINES FOR CLARITY

REFERENCE UTS 616.011 FOR NOTES, TABLE AND DIMENSIONS.
ALL DIMENSION IN MILLIMETRES UNLESS OTHERWISE NOTED

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**CONCRETE FOOTING FOR
BASE MOUNTED POLE
ELEVATION DETAILS**

Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 616.010

REFERENCE UTS 616.010 FOR
FOOTING ELEVATION DETAILS

POLE		FOUNDATION				CAGE					ANCHOR ASS. B.C.D.	REMARKS
TYPE S - STEEL AL - ALUMINIUM	LENGTH	DIA. 'A'	DEPTH 'B'	ROD LENGTH	NO. OF TIES			LAP	DIA.			
					'C'	AT 150	AT 450	'D'	'E'			
	m	mm	mm	mm	mm	c/c	c/c	mm	mm	mm	Note 2	
S	8315	4.6	600	2150	2000	100	4	3	176	460	242	Note 2
S	8520M	6.1	600	2150	2000	100	4	3	176	460	406	Notes 1 & 2
S	8520M	6.1	760	2150	2000	100	4	3	214	560	406	Note 2
S	8620M	6.1	600	2150	2000	100	4	3	176	460	406	Notes 1 & 2
S	8620M	6.1	760	2150	2000	100	4	3	214	560	406	Note 2
S	8535M	10.7	760	2600	2450	100	4	4	214	560	406	Note 2
S	8540M	12.2	760	2750	2600	150	4	4	214	560	406	Note 2
AL	TP10-423A-AB-150	3.3	300	1200	N/A	N/A	N/A	N/A	N/A	N/A	151	Note 2
AL	TP15-645C-AB-242	4.5	600	2150	2000	100	4	3	176	460	242	Note 2
AL	TP19-866C-AB-292	5.8	600	2150	2000	100	4	3	176	460	292	Note 2
AL	TP19-1080E-AB-406	5.8	600	2150	2000	100	4	3	176	460	406	Notes 1 & 2
AL	TP19-1080E-AB-406	5.8	760	2150	2000	100	4	3	214	560	406	Note 2
AL	TP22.5-1080E-AB-406	6.85	600	2150	2000	100	4	3	176	460	406	Notes 1 & 2
AL	TP22.5-1080E-AB-406	6.85	760	2150	2000	100	4	3	214	560	406	Note 2
AL	TP24-866C-AB-406	7.3	600	2150	2000	100	4	3	176	460	406	Notes 1 & 2
AL	TP24-866C-AB-406	7.3	760	2150	2000	100	4	3	214	560	406	Note 2
AL	TP24-1010E-AB-406	7.3	760	2750	2600	150	4	4	214	560	406	No Sleeves
AL	ET35-1055E-AB-406	9.8	760	2600	2450	100	4	4	214	560	406	Note 2 or 3
AL	ET40-1055E-AB-406	11.3	760	2750	2600	150	4	4	214	560	406	Note 2 or 3
AL	E35-845E-AB-292	9.8	760	2600	2450	100	4	4	214	560	292	Note 3
AL	E40-845E-AB-292	11.3	760	2750	2600	150	4	4	214	560	292	Note 3

NOTES:

- REDUCE THE DIAMETER 'A' OF FOUNDATION TO 600mm IF CONFLICTS EXIST WITH UNDERGROUND UTILITIES AND APPROVED BY CONTRACT ADMINISTRATOR.
- ALL TRAFFIC SIGNAL AND COMBINATION TRAFFIC SIGNAL/STREET LIGHTING POLES SHALL HAVE 1-100mm CONDUIT SLEEVE PER CONCRETE FOOTING.
- INDEPENDENT STREET LIGHTING POLE INSTALLATIONS SHALL HAVE 2 - 75mm CONDUIT SLEEVES PER CONCRETE FOOTING.
- CONTRACTOR SHALL INSTALL 50mm FLEXIBLE PVC ENT CONDUITS WITHIN 75mm SLEEVES FOR INDEPENDENT STREET LIGHTING APPLICATIONS, CUTTING THE SLEEVES OFF AT TOP OF THE FOOTING. GROUND WIRE SHALL PASS THROUGH THE 75mm SLEEVE TO GROUND ELECTRODE ADJACENT TO POLE.
- ANCHOR ASSEMBLY AND CONDUITS ARE TO BE PLACED IN CENTRE OF FOOTING.
- CONCRETE SHALL BE ACCORDING TO OPSS MUNI 1350 WITH PERFORMANCE REQUIREMENTS IN CONFORMANCE WITH CSA A23.1 OF EXPOSURE CLASS C-1 AND A NOMINAL MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 35 Mpa. THE CONCRETE SHALL BE POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, FINISHED, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
- TOP OF FOOTING TO BE INSTALLED FLUSH WITH FINISHED GRADE OF PAVED OR CONCRETE SIDEWALK / BOULEVARD OR 50mm ABOVE GRADE IN EARTH OR GRANULAR BOULEVARD.
- DIRECTION OF CONDUIT SLEEVE ENTRY TO BE MARKED WITH INDENTATION ON TOP OF FOOTING.
- FIBRE BOARD TO BE INSTALLED AROUND CIRCUMFERENCE OF BASE IN CONCRETE SIDEWALK OR MEDIAN AREAS.

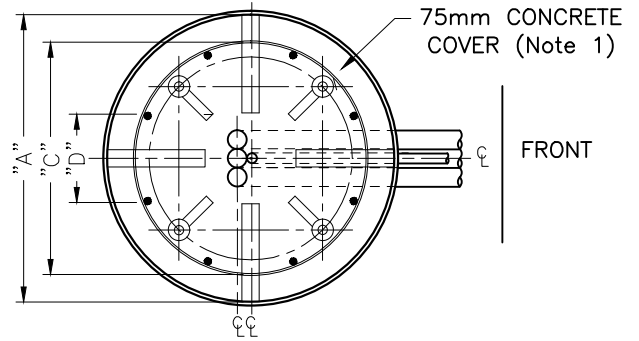
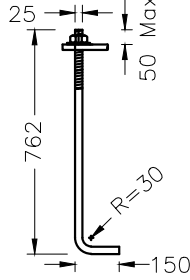
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**CONCRETE FOOTING FOR
BASE MOUNTED POLE
DIMENSION DETAILS**

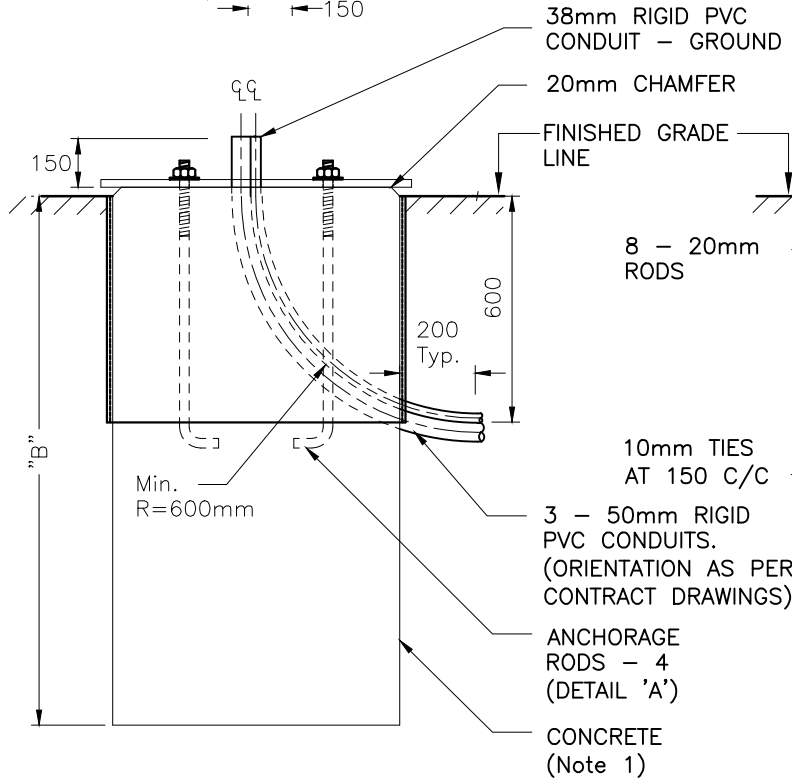
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Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 616.011 </u>	

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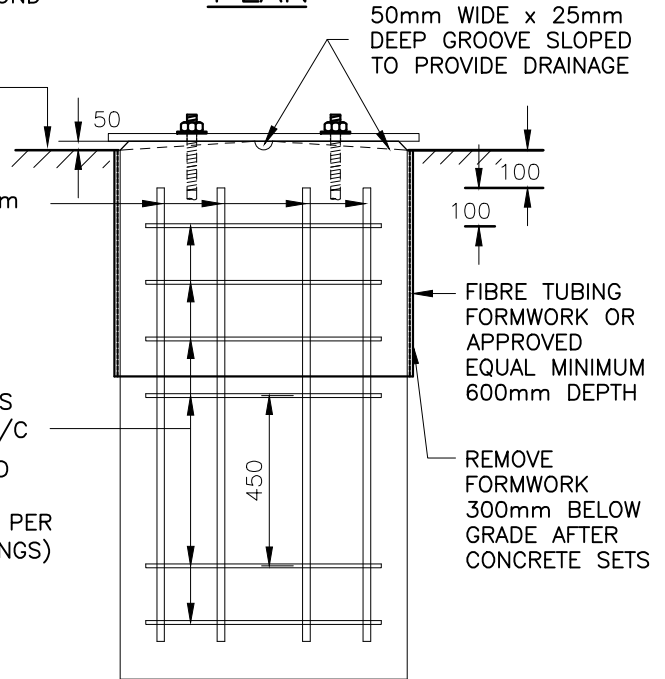
**DETAIL 'A'
ANCHOR BOLT**



PLAN



**ELEVATION
DIMENSIONS**



**ELEVATION
REINFORCEMENT**

REINFORCEMENTS ARE SHOWN IN SOLID LINES FOR CLARITY

TYPE (SENTINEL POLE & EQUIPMENT)	PEDESTAL HEIGHT mm	FOUNDATION		CAGE					ANCHOR RODS BCD mm	
		DIA. 'A' mm	DEPTH 'B' mm	ROD LENGTH mm	NO. OF TIES			ID DIA. 'C' mm		LAP 'D' mm
					AT 100 c/c	AT 150 c/c	AT 450 c/c			
POWER SUPPLY PEDESTAL	1168	600	1400	1200	1	4	1	460	176	406
METERED POWER SUPPLY PEDESTAL	1780	760	1400	1200	1	4	1	612	235	539

NOTES:

- CONCRETE SHALL BE ACCORDING TO OPSS MUNI 1350 WITH PERFORMANCE REQUIREMENTS IN CONFORMANCE WITH CSA A23.1 OF EXPOSURE CLASS C-1 AND A NOMINAL MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 35 Mpa. THE CONCRETE SHALL BE POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, FINISHED, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
- DIRECTION OF CONDUIT SLEEVE ENTRY TO BE MARKED WITH INDENTATION ON TOP OF FOOTING.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**CONCRETE FOOTING
FOR BASE MOUNTED
POWER PEDESTAL**

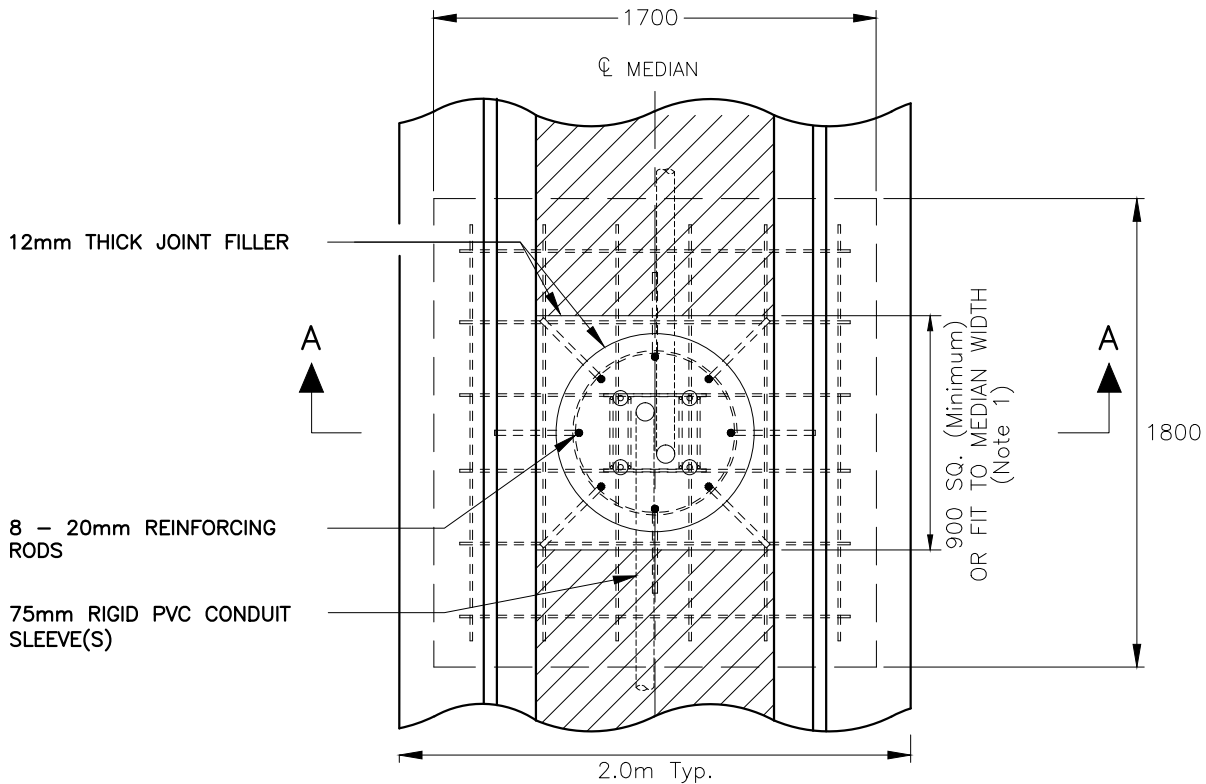
Rev. Date _____ Rev. No. 0

Modification: _____

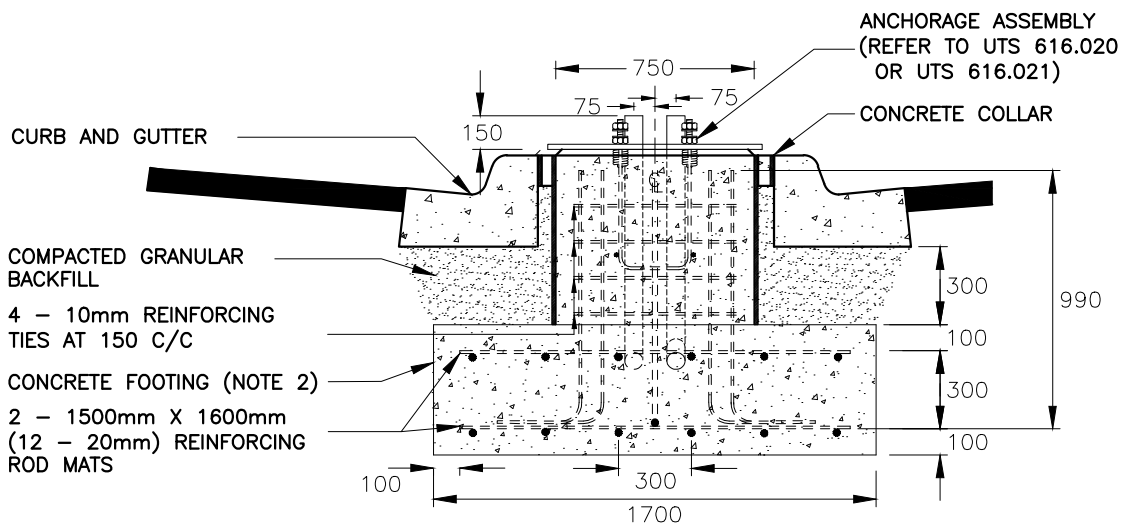
Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 616.012



PLAN



SECTION A-A

DIMENSIONS IN mm EXCEPT AS NOTED

NOTE:

1. USE CONCRETE COLLAR WHEN MEDIAN SURFACE CAPPED WITH PAVING STONE, CONCRETE OR ASPHALT.
2. CONCRETE SHALL BE ACCORDING TO OPSS MUNI 1350 WITH PERFORMANCE REQUIREMENTS IN CONFORMANCE WITH CSA A23.1 OF EXPOSURE CLASS C-1 AND A NOMINAL MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 35 Mpa. THE CONCRETE SHALL BE POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, FINISHED, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
3. SPREAD FOOTING TO ONLY BE USED WHERE UTILITY CONFLICT IDENTIFIED AND AT THE DISCRETION OF THE PROJECT MANAGER.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**POLE SPREAD FOOTING
IN MEDIAN FOR
FOOTING CONFLICTS**

Rev. Date

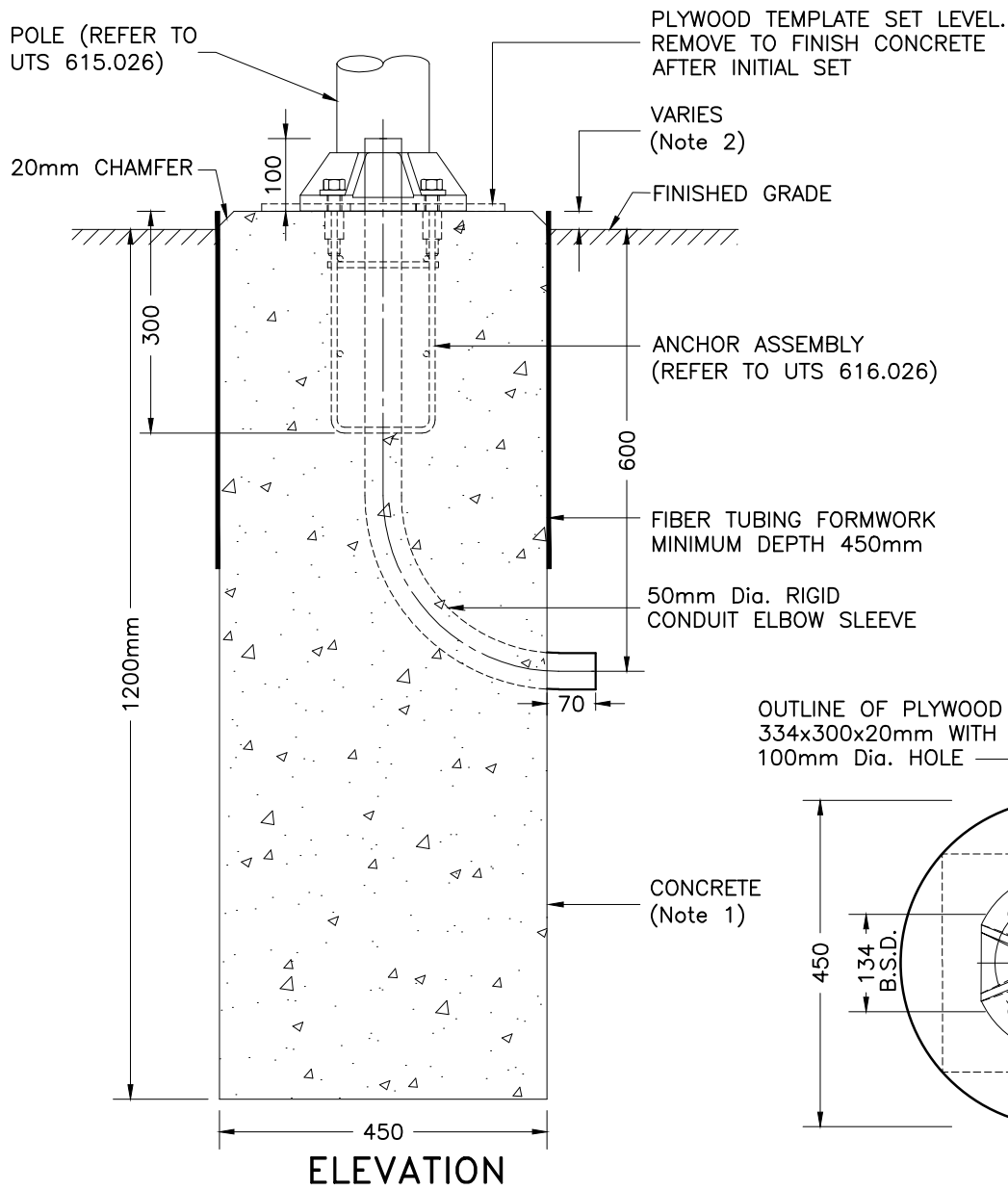
Rev. No. 0

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Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 616.013



NOTES:

1. CONCRETE SHALL BE ACCORDING TO OPSS MUNI 1350 WITH PERFORMANCE REQUIREMENTS IN CONFORMANCE WITH CSA A23.1 OF EXPOSURE CLASS C-1 AND A NOMINAL MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 35 Mpa. THE CONCRETE SHALL BE POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, FINISHED, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
2. TOP OF FOOTING SHALL BE INSTALLED AT 40mm ±15mm ABOVE FINISHED GRADE IN PAVED OR CONCRETE AREAS AND 75mm ±25mm ABOVE FINISHED GRADE IN EARTH OR GRANULAR AREAS.
3. DIRECTION OF CONDUIT SLEEVE ENTRY TO BE MARKED WITH INDENTATION ON TOP OF FOOTING.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**CONCRETE FOOTING FOR
BASE MOUNTED PEDESTRIAN
PUSHBUTTON POLE**

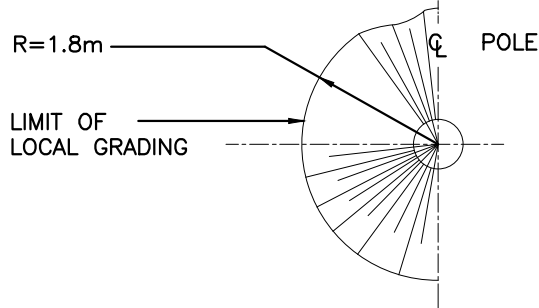
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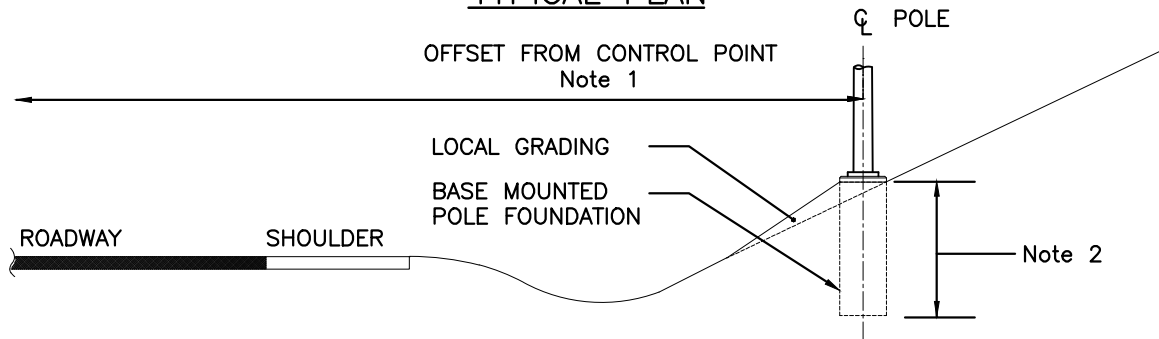
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Date: FEBRUARY, 2014

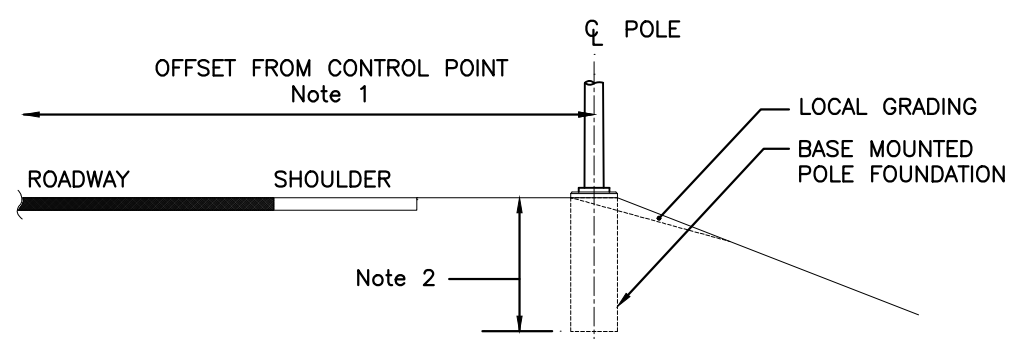
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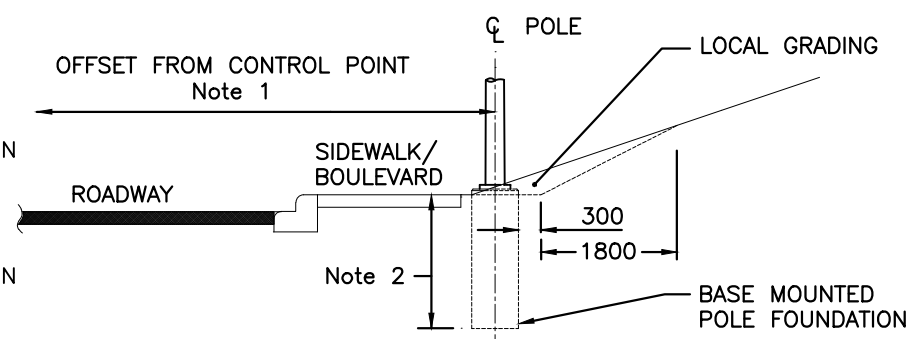
TYPICAL PLAN



POLE FOUNDATION CUT



POLE FOUNDATION FILL



POLE ADJACENT TO SIDEWALK

NOTES:

1. FOR FOUNDATION, POLE TYPE AND STATION, SEE CONTRACT DRAWINGS. REFER TO UTS 616.010 & UTS 616.011 FOR FOOTING REQUIREMENTS.
2. TOP ELEVATION OF FOUNDATION SHALL BE MEASURED FROM THE HIGHEST GRADE ELEVATION.
3. TOP ELEVATION OF FOUNDATION IN SIDEWALK AREAS SHALL BE LEVEL AND MAXIMUM 25mm ABOVE THE HIGHEST SIDEWALK GRADE ELEVATION.

ALL DIMENSIONS ARE IN MILLIMETRES OR METRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**LOCAL GRADING AT
POLE FOUNDATIONS**

Rev. Date _____ Rev. No. 0

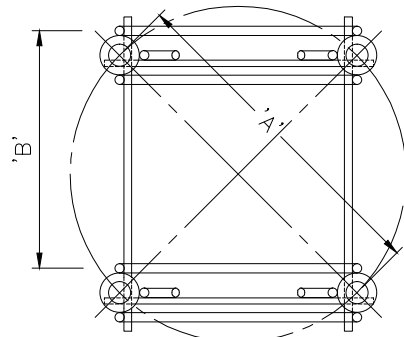
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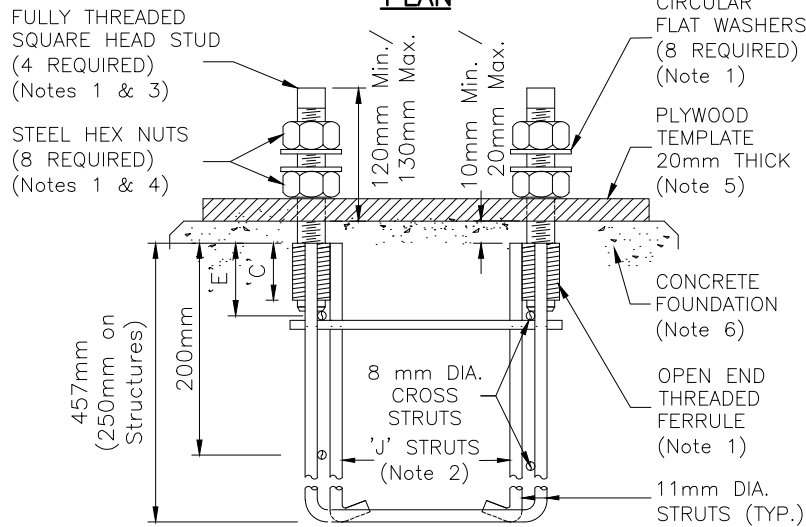
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STANDARD No. UTS 616.015

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 REVISED BY: K.MISTRY
 Revised



PLAN



ELEVATION

NOTES:

1. ANCHORAGE ASSEMBLY:
 - STRUTS – GRADE SAE 1030-C STEEL, THREADED STEEL FERRULES – GRADE AISI C12L14 ROTOPROBED BAR,
 - STUDS – GRADE SAE C1541 STEEL, ALL ACCORDING TO SAE J403H,
 - NUTS – GRADE "B" ASTM A563 STEEL,
 - WASHERS – GRADE ANSI B18.22.1 STEEL.
 - ALL STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED ACCORDING TO ASTM A123/A123M.
2. ALL ASSEMBLIES SHALL HAVE 'J' STRUTS.
3. STUDS TO BE FACTORY SET IN FERRULES WITH PREAPPLIED THREAD LOCKING COMPOUND.
4. ASSEMBLY NUTS TO BE SHIPPED HAND TIGHTENED.
5. THE SETTING TEMPLATE SHALL BE USED FOR ACCURATE POSITIONING OF ANCHOR WITHIN FORM AND SHALL BE REATTACHED TO ASSEMBLY FOLLOWING FINISHING OF CONCRETE.
6. CONCRETE FOUNDATION FOR ANCHOR ASSEMBLY TO BE IN ACCORDANCE WITH UTS 616.010 AND UTS 616.011.
7. ASSEMBLY TO BE MANUFACTURED BY NATIONAL CONCRETE ACCESSORIES, AMG METALS OR APPROVED EQUIVALENT.
8. TYPICALLY INSTALLED ON REGION OF HALTON AND CITY OF BURLINGTON INSTALLATIONS.

POLE			ANCHOR ASSEMBLY			TEMPLATE DIMENSIONS		FERRULE LENGTH	STUD LENGTH	STRUT LOCATION
TYPE	LENGTH	STUD DIA.	BOLT CIRCLE DIA.	BOLT DISTANCE	SQUARE	HOLE DIA.	'C' mm	'D' mm	'E' mm	
S – STEEL AL – ALUMINIUM	m	mm	'A' mm	'B' mm	mm	mm max.				
S	8415	4.6	22	287	203	600	152	38	200	N/A
S	8520M	6.1LD	32	406	287	600	305	76	230	92
S	8620M	6.1HD	32	406	287	600	305	76	230	92
S	8535M	10.7	32	406	287	600	305	76	230	92
S	8540M	12.2	32	406	287	600	305	76	230	92
AL	TP15-645C-AB-242	4.5	19	242	171	600	152	38	200	N/A
AL	TP19-866C-AB-292	5.8LD	25	292	207	600	203	50	200	67
AL	TP19-1080E-AB-406	5.8HD	32	406	287	600	305	76	230	92
AL	TP22.5-1080E-AB-406	6.85	32	406	287	600	305	76	230	92
AL	TP24-866C-AB-406	7.3LD	32	406	287	600	305	76	230	92
AL	TP24-1010E-AB-406	7.3HD	32	406	287	600	305	76	230	92
AL	ET35-1055E-AB-406	9.8	32	406	287	600	305	76	230	92
AL	ET35-1055E-AB-406-B	9.8	32	406	287	600	305	76	230	92
AL	ET40-1055E-AB-406	11.3	32	406	287	600	305	76	230	92
AL	ET40-1055E-AB-406-B	11.3	32	406	287	600	305	76	230	92
AL	E35-845E-AB-292	9.8	25	292	207	600	203	50	200	67
AL	E40-845E-AB-292	11.3	25	292	207	600	203	50	200	67

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ANCHORAGE ASSEMBLY
WITH STUDS
FOR TRAFFIC, SIGN AND LUMINAIRE POLES**

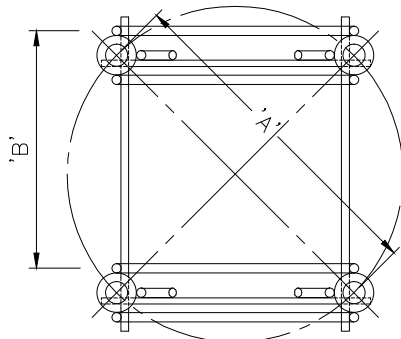
Rev. Date SEPT. 2014 | Rev. No. 1

Modification: REVISE STUD LENGTHS

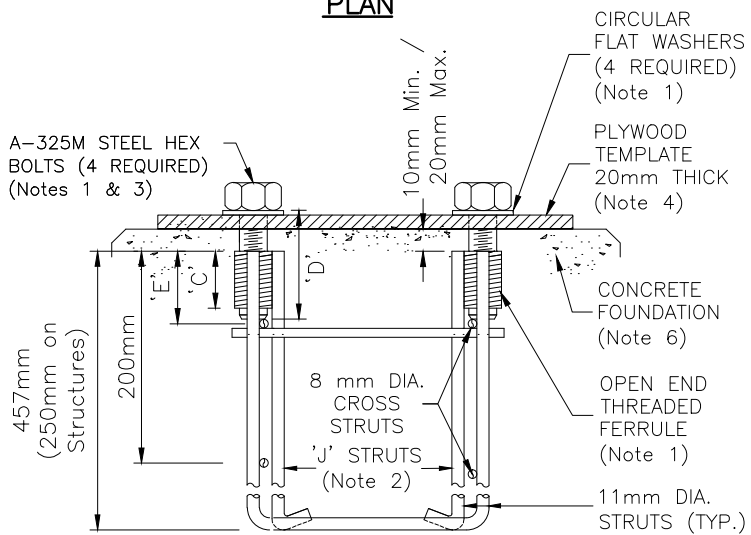
Modified By: MCCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 616.020



PLAN



ELEVATION

NOTES:

1. ANCHORAGE ASSEMBLY:
 - STRUTS – GRADE SAE 1030-C STEEL, THREADED STEEL FERRULES – GRADE
 - AISI C12L14 ROTOPROBED BAR,
 - HEX. BOLTS – ASTM A325M STEEL AND HEAT TREATED TENSILE STRENGTH,
 - WASHERS – GRADE ANSI B18.22.1 STEEL.
 - ALL STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED ACCORDING TO ASTM A123/A123M.
2. ALL ASSEMBLIES SHALL HAVE 'J' STRUTS.
3. BOLTS TO BE SHIPPED HAND TIGHTENED IN FERRULES.
4. THE SETTING TEMPLATE SHALL BE USED FOR ACCURATE POSITIONING OF ANCHOR WITHIN FORM AND SHALL BE REATTACHED TO ASSEMBLY FOLLOWING FINISHING OF CONCRETE.
5. CONCRETE FOUNDATION FOR ANCHOR ASSEMBLY TO BE IN ACCORDANCE WITH UTS 616.010 AND UTS 616.011.
6. ASSEMBLY TO BE MANUFACTURED BY NATIONAL CONCRETE ACCESSORIES, AMG METALS OR APPROVED EQUIVALENT.
7. TYPICALLY INSTALLED ON TOWN OF OAKVILLE, TOWN OF MILTON AND TOWN OF HALTON HILLS INSTALLATIONS.

POLE			ANCHOR ASSEMBLY			TEMPLATE DIMENSIONS		FERRULE LENGTH	BOLT LENGTH	STRUT LOCATION
TYPE	S – STEEL AL – ALUMINIUM	LENGTH m	STUD DIA. mm	BOLT CIRCLE DIA. 'A' mm	BOLT DISTANCE 'B' mm	SQUARE	HOLE DIA.	'C' mm	'D' mm	'E' mm
						mm	mm max.			
S	8415	4.6	22	287	203	600	152	38	102	N/A
S	8520M	6.1LD	32	406	287	600	305	76	125	92
S	8620M	6.1HD	32	406	287	600	305	76	125	92
S	8535M	10.7	32	406	287	600	305	76	125	92
S	8540M	12.2	32	406	287	600	305	76	125	92
AL	TP15-645C-AB-242	4.5	19	242	171	600	152	38	102	N/A
AL	TP19-866C-AB-292	5.8LD	25	292	207	600	203	50	102	67
AL	TP19-1080E-AB-406	5.8HD	32	406	287	600	305	76	125	92
AL	TP22.5-1080E-AB-406	6.85	32	406	287	600	305	76	125	92
AL	TP24-866C-AB-406	7.3LD	32	406	287	600	305	76	125	92
AL	TP24-1010E-AB-406	7.3HD	32	406	287	600	305	76	125	92
AL	ET35-1055E-AB-406	9.8	32	406	287	600	305	76	125	92
AL	ET35-1055E-AB-406-B	9.8	32	406	287	600	305	76	125	92
AL	ET40-1055E-AB-406	11.3	32	406	287	600	305	76	125	92
AL	ET40-1055E-AB-406-B	11.3	32	406	287	600	305	76	125	92
AL	E35-845E-AB-292	9.8	25	292	207	600	203	50	102	67
AL	E40-845E-AB-292	11.3	25	292	207	600	203	50	102	67

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ANCHORAGE ASSEMBLY
WITH BOLTS
FOR TRAFFIC, SIGN AND LUMINAIRE POLES**

Rev. Date SEPT. 2014 | Rev. No. 1

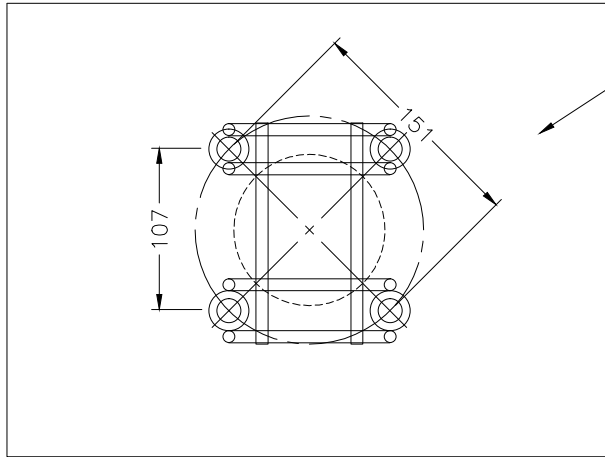
Modification: REVISE BOLT LENGTHS

Modified By: MCCORMICK RANKIN

Date: FEBRUARY, 2014

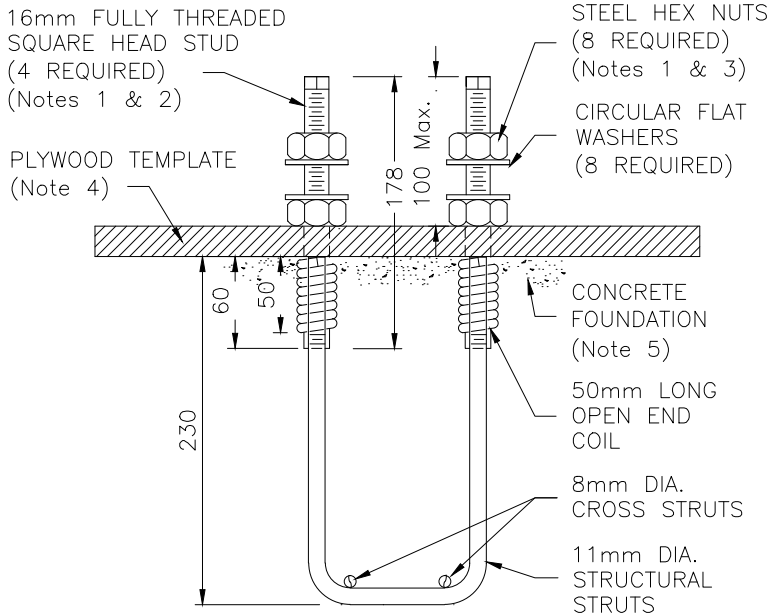
STANDARD No. UTS 616.021

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 DRAWING NAME: 616021_1_UJS MMM 090314.DWG
 REVISED BY: K.MISTRY
 DRAWN BY: D. THOMPSON
 MODIFIED: 05/28 14:30:00
 Revised



OUTLINE OF PLYWOOD TEMPLATE
400mmx300mmx20mm WITH
100mm Dia. HOLE
(Note 4)

PLAN



ELEVATION

NOTES:

1. ANCHORAGE ASSEMBLY:
 - STRUTS – GRADE SAE 1030–C STEEL, THREADED STEEL FERRULES – GRADE AISI C12L14 ROTOPROBED BAR,
 - STUDS – GRADE SAE C1541 STEEL, ALL ACCORDING TO SAE J403H,
 - NUTS – GRADE "B" ASTM A563 STEEL,
 - WASHERS – GRADE ANSI B18.22.1 STEEL.
 - ALL STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED ACCORDING TO ASTM A123/A123M.
2. STUDS TO BE FACTORY SET IN COILS WITH PREAPPLIED THREAD LOCKING COMPOUND.
3. ASSEMBLY NUTS TO BE SHIPPED HAND TIGHTENED.
4. THE SETTING TEMPLATE SHALL BE USED FOR ACCURATE POSITIONING OF ANCHOR WITHIN FORM AND SHALL BE REATTACHED TO ASSEMBLY FOLLOWING FINISHING OF CONCRETE.
5. CONCRETE FOUNDATION FOR ANCHOR ASSEMBLY TO BE IN ACCORDANCE WITH UTS 616.010 AND UTS 616.011.
6. ASSEMBLY TO BE MANUFACTURED BY NATIONAL CONCRETE ACCESSORIES, AMG METALS OR APPROVED EQUIVALENT.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

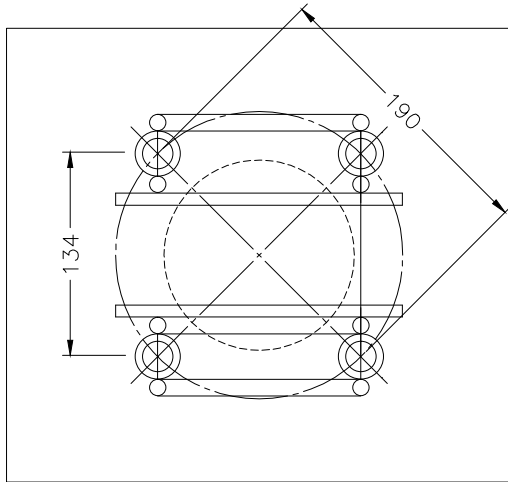
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 DRAWING NAME: 616025_RD_UTS.DWG
 DRAWN BY: D. THOMPSON
 MODIFIED: 14/02/03 09:37:37
 REVISIONS:
 REVISED BY: K. MISTRY
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ANCHORAGE ASSEMBLY
WITH STUDS
FOR MEDIAN SIGN POLE – 151mm B.C.D.**

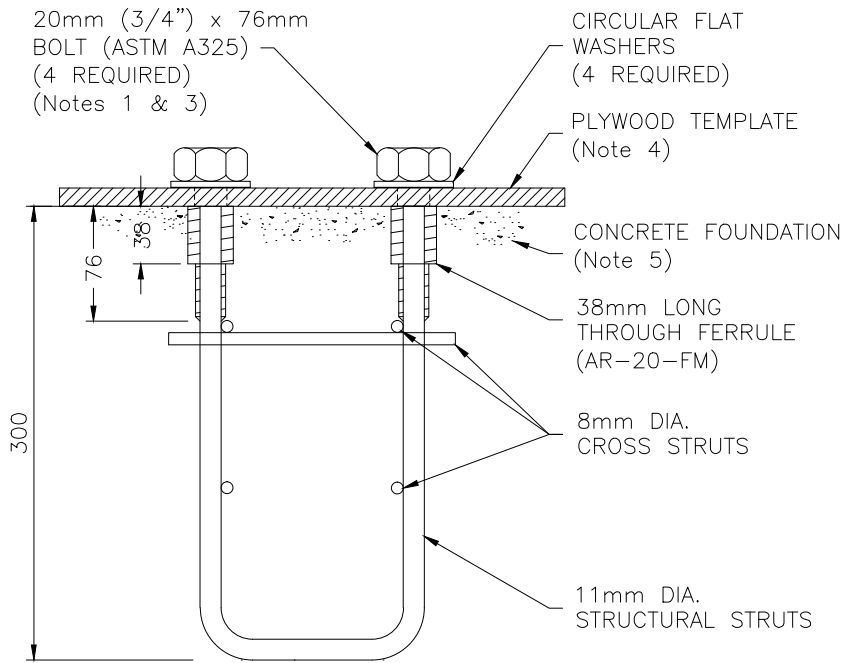
Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By:	McCORMICK RANKIN
Date:	FEBRUARY, 2014
STANDARD No.	UTS 616.025



OUTLINE OF PLYWOOD TEMPLATE
334mmx300mmx20mm WITH
100mm Dia. CENTRE HOLE
(Note 4)

PLAN



ELEVATION

NOTES:

1. ANCHORAGE ASSEMBLY:
 - STRUTS – GRADE SAE 1030–C STEEL, THREADED STEEL FERRULES – GRADE AISI C12L14 ROTOPROBED BAR,
 - STUDS – GRADE SAE C1541 STEEL, ALL ACCORDING TO SAE J403H,
 - NUTS – GRADE "B" ASTM A563 STEEL,
 - WASHERS – GRADE ANSI B18.22.1 STEEL.
 - ALL STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED ACCORDING TO ASTM A123/A123M.
2. STUDS TO BE FACTORY SET IN COILS WITH PREAPPLIED THREAD LOCKING COMPOUND.
3. ASSEMBLY NUTS TO BE SHIPPED HAND TIGHTENED.
4. THE SETTING TEMPLATE SHALL BE USED FOR ACCURATE POSITIONING OF ANCHOR WITHIN FORM AND SHALL BE REATTACHED TO ASSEMBLY FOLLOWING FINISHING OF CONCRETE.
5. CONCRETE FOUNDATION FOR ANCHOR ASSEMBLY TO BE IN ACCORDANCE WITH UTS 616.013.
6. ASSEMBLY TO BE MANUFACTURED BY NATIONAL CONCRETE ACCESSORIES, AMG METALS OR APPROVED EQUIVALENT.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
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 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED 14/02/03 09:37:31
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ANCHORAGE ASSEMBLY
WITH STUDS**

FOR PEDESTRIAN PUSHBUTTON POLE – 190mm B.C.D.

Rev. Date	Rev. No. <u> 0 </u>
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Modification: _____

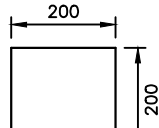
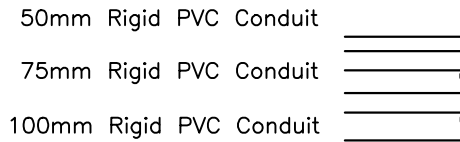
Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 616.026

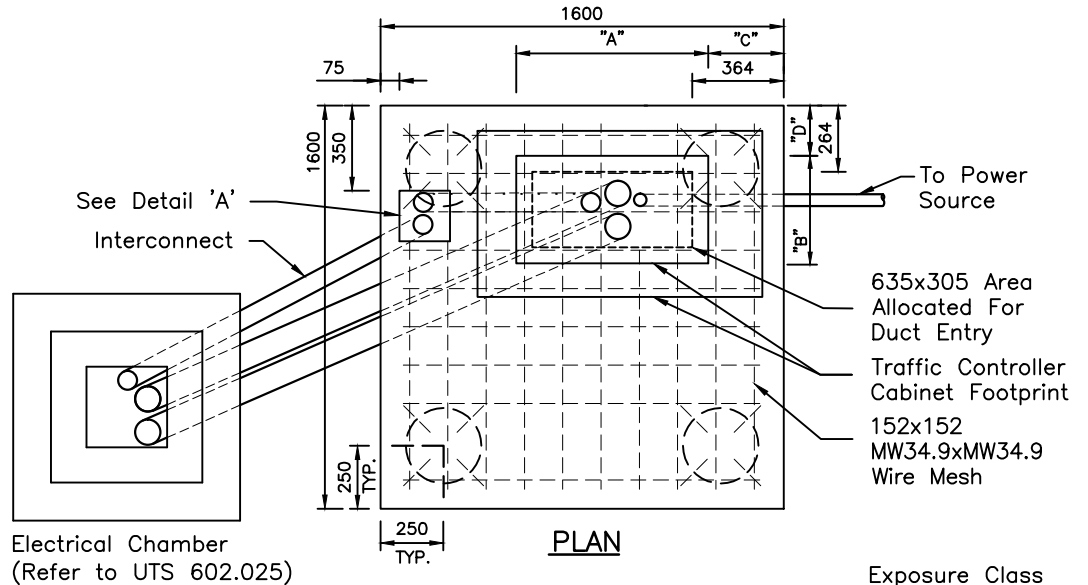
CABINET				DISTANCE "FROM CONCRETE PAD EDGE TO CONTROLLER CABINET"	
TYPE	HEIGHT	WIDTH "A"	DEPTH "B"	SIDE "C"	BACK "D"
"M"	1270	762	432	300	200
"MSX"	1473	762	432	300	200
"MXX"	1930	762	432	300	200
"P44"	1397	1118	660	100	85

Conduit Legend



DETAIL 'A'

Terminal Pedestal
(Note 6)



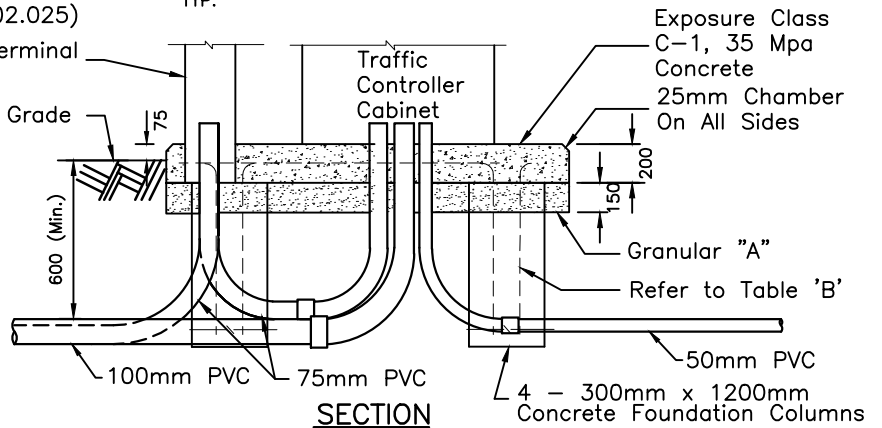
Electrical Chamber
(Refer to UTS 602.025)

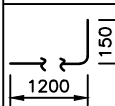
Single Terminal
Pedestal

Finished Grade

75

SECTION



REBAR TABLE 'B' *		
SHAPE	SIZE	No REQ.'D
	20mm	16

* Reinforcing steel to be
Grade 400

NOTES

1. CONCRETE TO BE CSA 23.1 OF EXPOSURE CLASS C-1, 35 MPa POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, WITH CLASS "A" FINISH, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
2. RIGID PVC CONDUITS ARE TO BE PLACE TOGETHER IN PEDESTAL AND CABINET, WITHIN THE ALLOCATED AREA.
3. CONTRACTOR TO SUPPLY AND PLACE 5mm POLYPROPYLENE FISH WIRE IN ALL CONDUITS.
4. TOP OF TRAFFIC CONTROLLER BASE TO BE MIN. 75mm ABOVE FINISH GRADE AND LEVEL.
5. REFER TO DETAIL ON TRAFFIC SIGNAL DRAWING FOR CONDUIT SIZES AND LOCATION OF COMMUNICATION CABINET BASE.
6. INSTALL TERMINAL PEDESTAL UNLESS OTHERWISE SHOWN ON CONTRACT DRAWINGS.
7. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

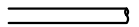
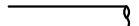
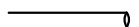
Date: FEBRUARY, 2014

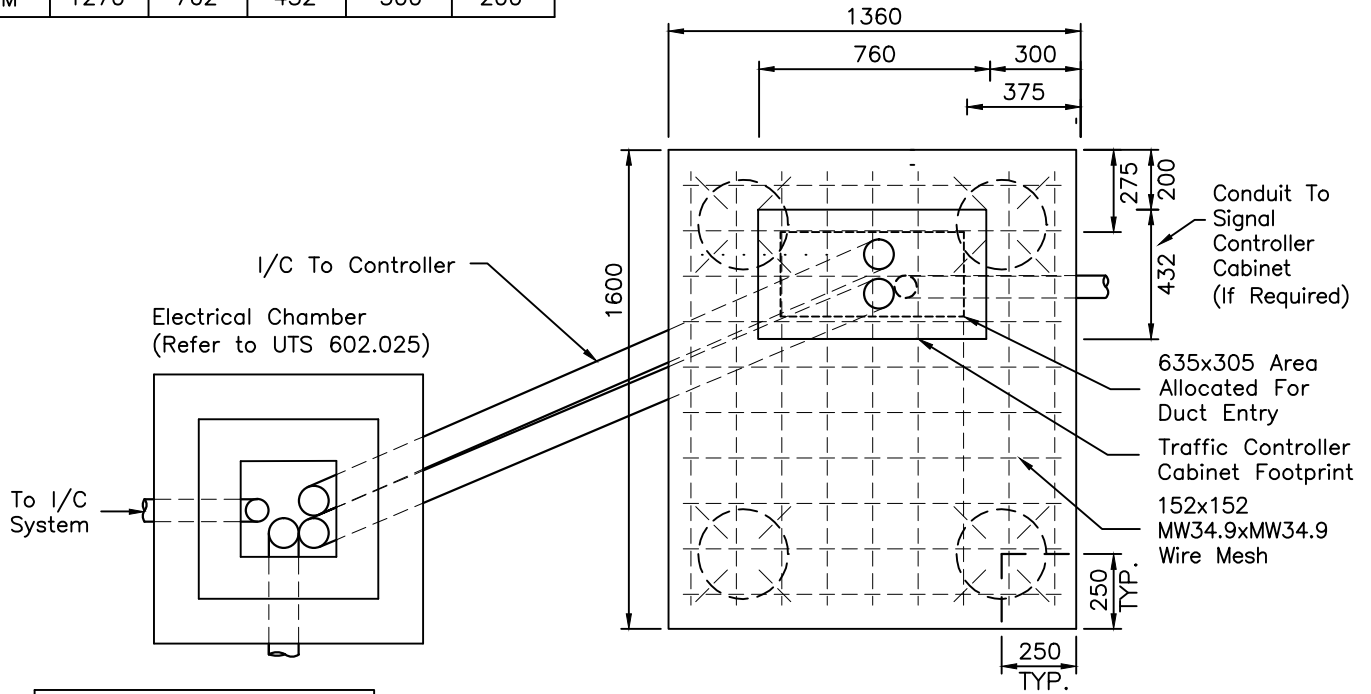
STANDARD No. UTS 616.030

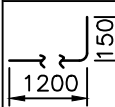
**TRAFFIC CONTROLLER "M" AND
"P44" SERIES CABINET FOUNDATION
ONE PEDESTAL**

CABINET				DISTANCE "FROM CONCRETE PAD EDGE TO CABINET"	
TYPE	HEIGHT	WIDTH "A"	DEPTH "B"	SIDE "C"	BACK "D"
"M"	1270	762	432	300	200

Conduit Legend

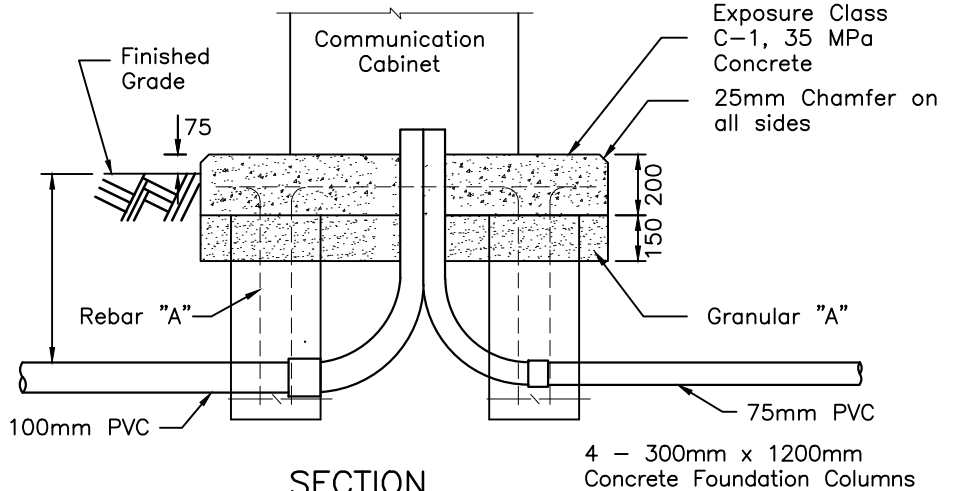
- 50mm Rigid PVC Conduit 
- 75mm Rigid PVC Conduit 
- 100mm Rigid PVC Conduit 



SHAPE	SIZE	No REQ.'D
	20mm	16

* Reinforcing steel to be Grade 400

PLAN



SECTION

NOTES

- CONCRETE TO BE CSA 23.1 OF EXPOSURE CLASS C-1, 35 MPa WITH CLASS "A" FINISH.
- RIGID PVC CONDUITS ARE TO BE PLACE TOGETHER IN PEDESTAL AND CABINET, WITHIN THE ALLOCATED AREA.
- CONTRACTOR TO SUPPLY AND PLACE 5mm POLYPROPYLENE FISH WIRE IN ALL CONDUITS.
- TOP OF TRAFFIC CONTROLLER BASE TO BE MIN. 75mm ABOVE FINISH GRADE AND LEVEL.
- REFER TO DETAIL ON TRAFFIC SIGNAL DRAWING FOR CONDUIT SIZES AND LOCATION OF COMMUNICATION CABINET BASE.
- ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date	Rev. No. <u> 0 </u>
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Modification: _____

Modified By: McCORMICK RANKIN

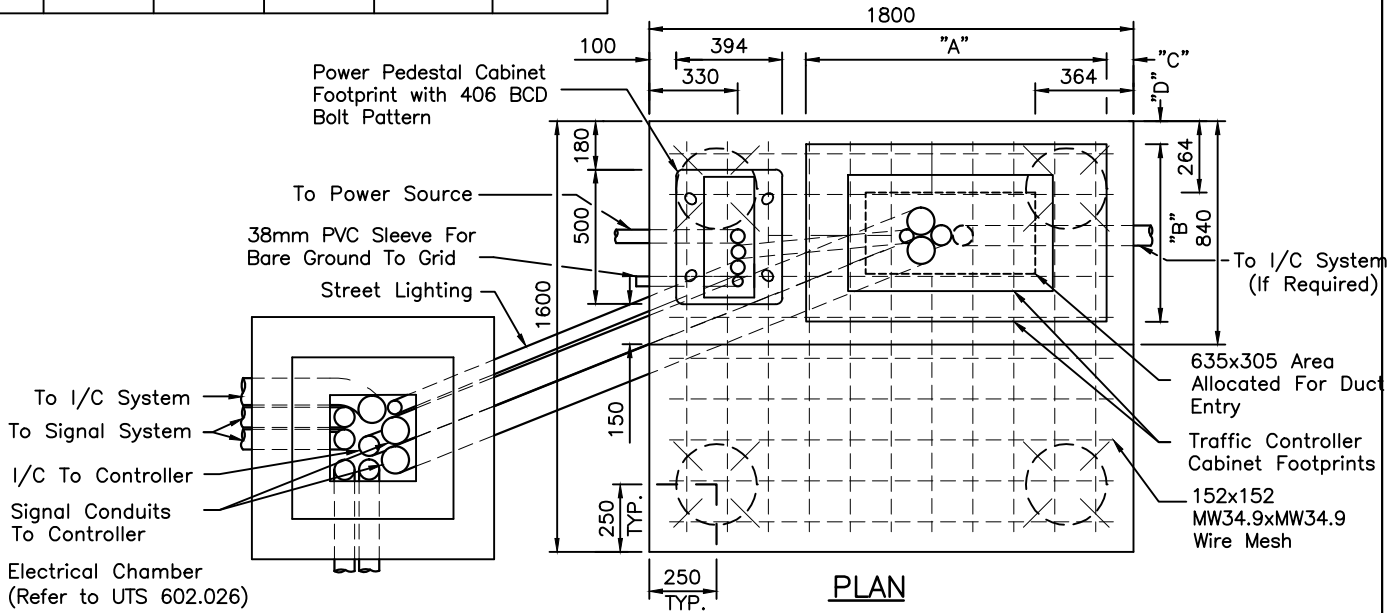
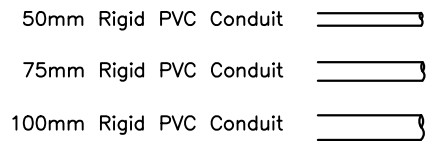
Date: FEBRUARY, 2014

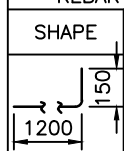
STANDARD No. UTS 616.031

COMMUNICATION
"M" SERIES CABINET
FOUNDATION

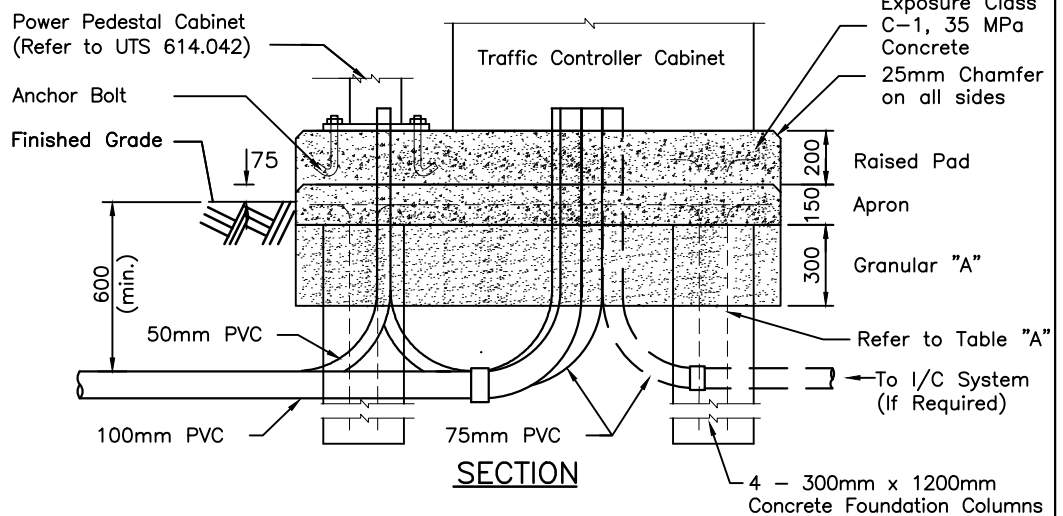
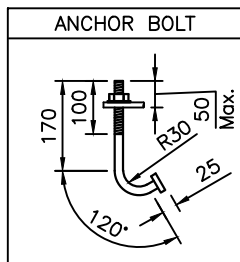
CABINET				DISTANCE "FROM CONCRETE PAD EDGE TO CONTROLLER CABINET"	
TYPE	HEIGHT	WIDTH "A"	DEPTH "B"	SIDE "C"	BACK "D"
"M"	1270	762	432	300	200
"MSX"	1473	762	432	300	200
"MXX"	1930	762	432	300	200
"P44"	1397	1118	660	100	85

Conduit Legend



SHAPE	SIZE	No REQ.'D
	20mm	16

* Reinforcing steel to be Grade 400



NOTES

1. CONCRETE TO BE CSA 23.1 OF EXPOSURE CLASS C-1, 35 MPa WITH CLASS "A" FINISH.
2. RIGID PVC CONDUITS ARE TO BE PLACE TOGETHER IN PEDESTAL AND CABINET, WITHIN THE ALLOCATED AREA.
3. DIRECTION OF CONDUIT ENTRY TO BE MARKED WITH INDENTATION ON TOP OF BASE.
4. CONTRACTOR TO SUPPLY AND PLACE 5mm POLYPROPYLENE FISH WIRE IN ALL CONDUITS.
5. TOP OF TRAFFIC CONTROLLER BASE TO BE MIN. 75mm ABOVE FINISH GRADE AND LEVEL.
6. REFER TO DETAIL ON TRAFFIC SIGNAL DRAWING FOR CONDUIT SIZES AND LOCATION OF NEW TRAFFIC CONTROLLER BASE.
7. GROUND ELECTRODES TO BE INSTALLED MIN. 5.5m FROM EDGE OF FOUNDATION.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date	Rev. No. <u>0</u>
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Modification: _____

Modified By: McCORMICK RANKIN

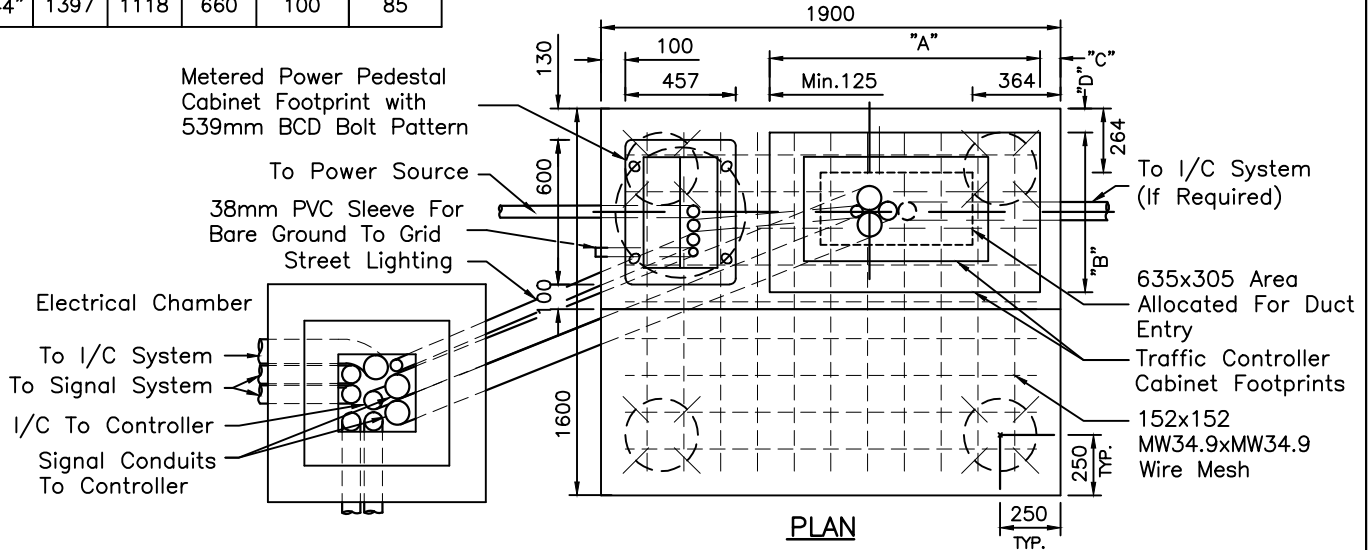
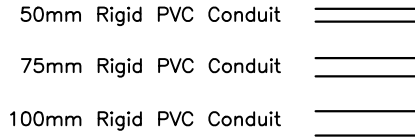
Date: FEBRUARY, 2014

STANDARD No. UTS 616.035

TRAFFIC CONTROLLER BASE
"M" SERIES AND "P44" CABINETS WITH
POWER PEDESTAL (406mm B.C.D.)

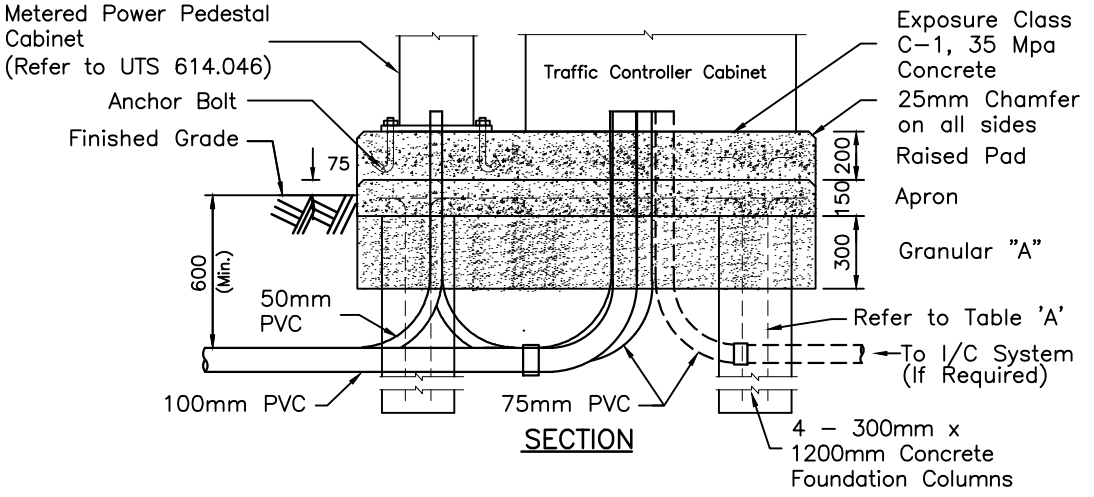
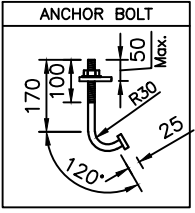
CABINET				DISTANCE FROM EDGE OF CONCRETE PAD TO CABINETS	
TYPE	HEIGHT	WIDTH "A"	DEPTH "B"	SIDE "C"	BACK "D"
"M"	1270	762	432	300	200
"MSX"	1473	762	432	300	200
"MXX"	1930	762	432	300	200
"P44"	1397	1118	660	100	85

Conduit Legend



SHAPE	SIZE	No REQ'D
	20mm	16

* Reinforcing steel to be Grade 400



NOTES

1. CONCRETE TO BE CSA 23.1 OF EXPOSURE CLASS C-1, 35 MPa POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, WITH CLASS "A" FINISH, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
2. RIGID PVC CONDUITS ARE TO BE PLACE TOGETHER IN PEDESTAL AND CABINET, WITHIN THE ALLOCATED AREA.
3. CONTRACTOR TO SUPPLY AND PLACE 5mm POLYPROPYLENE FISH WIRE IN ALL CONDUITS.
4. TOP OF TRAFFIC CONTROLLER BASE TO BE MIN. 75mm ABOVE FINISH GRADE AND LEVEL.
5. REFER TO DETAIL ON TRAFFIC SIGNAL DRAWING FOR CONDUIT SIZES AND LOCATION OF COMMUNICATION CABINET BASE.
6. INSTALL POWER PEDESTAL UNLESS OTHERWISE SHOWN ON CONTRACT DRAWINGS.
7. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date	Rev. No. <u>0</u>
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Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

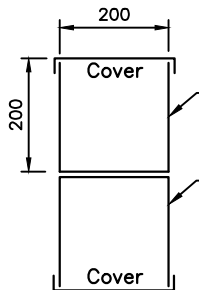
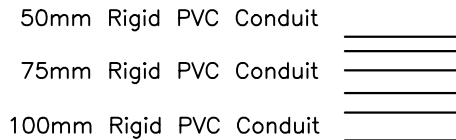
STANDARD No. UTS 616.036

**TRAFFIC CONTROLLER BASE
"M" SERIES AND "P44" CABINETS WITH
METERED POWER PEDESTAL (539mm B.C.D.)**

FILE LOCATION: W:\YK\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 HALTON REGION UTSS FINAL\FEBRUARY 10, 2014 - REVISED\DWG
DRAWING NAME: 616036_RD_UTS.DWG
DRAWN BY: D. THOMPSON
MODIFIED: 14/02/10 15:57:40
Revised

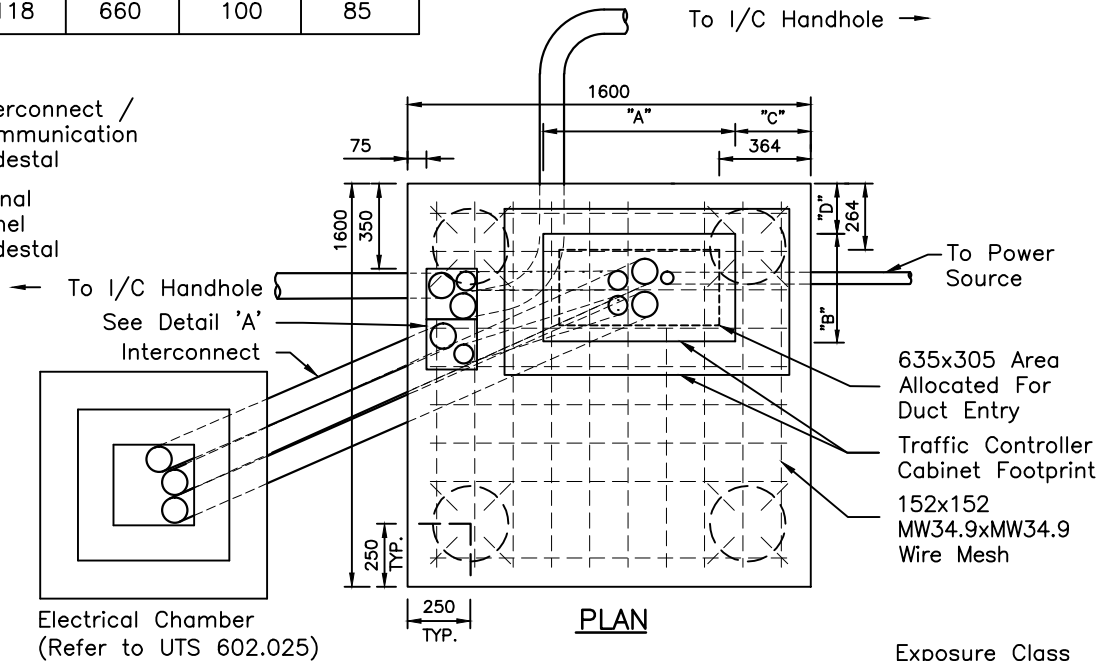
CABINET				DISTANCE "FROM CONCRETE PAD EDGE TO CONTROLLER CABINET"	
TYPE	HEIGHT	WIDTH "A"	DEPTH "B"	SIDE "C"	BACK "D"
"M"	1270	762	432	300	200
"MSX"	1473	762	432	300	200
"MXX"	1930	762	432	300	200
"P44"	1397	1118	660	100	85

Conduit Legend

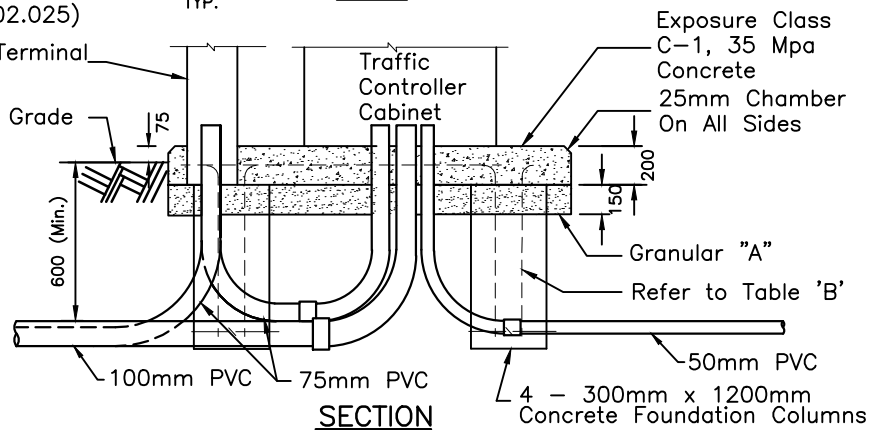


DETAIL 'A'

Terminal Pedestal
(Note 6)



PLAN



SECTION

SHAPE	SIZE	No REQ.'D
	20mm	16

* Reinforcing steel to be
Grade 400

NOTES

1. CONCRETE TO BE CSA 23.1 OF EXPOSURE CLASS C-1, 35 MPa POURED AS ONE MONOLITHIC SLAB AND FORMED, PLACED, VIBRATED, WITH CLASS "A" FINISH, CURED AND PROTECTED IN ACCORDANCE WITH OPSS MUNI 904.
2. RIGID PVC CONDUITS ARE TO BE PLACE TOGETHER IN PEDESTAL AND CABINET, WITHIN THE ALLOCATED AREA.
3. CONTRACTOR TO SUPPLY AND PLACE 5mm POLYPROPYLENE FISH WIRE IN ALL CONDUITS.
4. TOP OF TRAFFIC CONTROLLER BASE TO BE MIN. 75mm ABOVE FINISH GRADE AND LEVEL.
5. REFER TO DETAIL ON TRAFFIC SIGNAL DRAWING FOR CONDUIT SIZES AND LOCATION OF COMMUNICATION CABINET BASE.
6. INSTALL TERMINAL PEDESTAL UNLESS OTHERWISE SHOWN ON CONTRACT DRAWINGS.
7. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date _____ Rev. No. 0

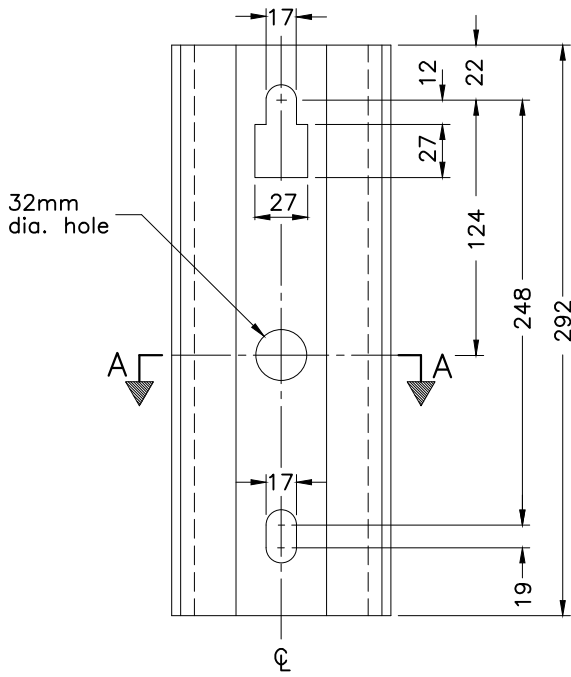
Modification: _____

Modified By: McCORMICK RANKIN

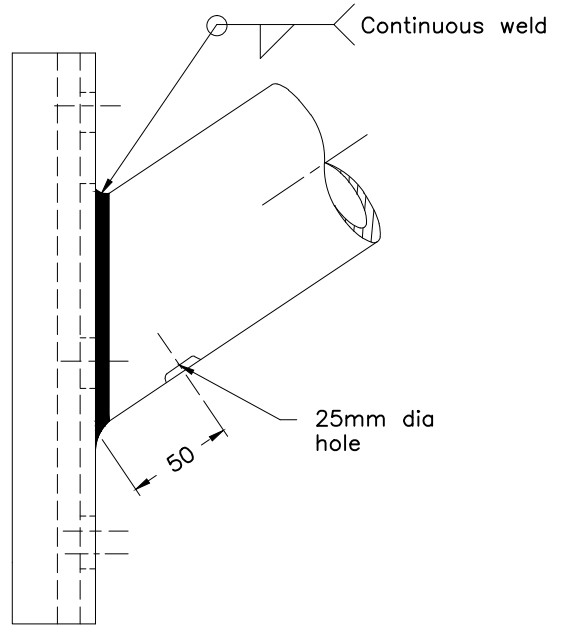
Date: FEBRUARY, 2014

STANDARD No. UTS 616.040

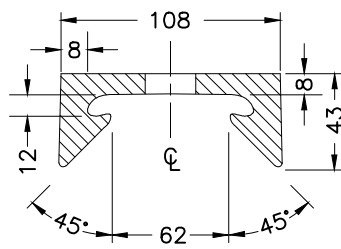
**TRAFFIC CONTROLLER "M" AND
"P44" SERIES CABINET FOUNDATION
TWO PEDESTALS**



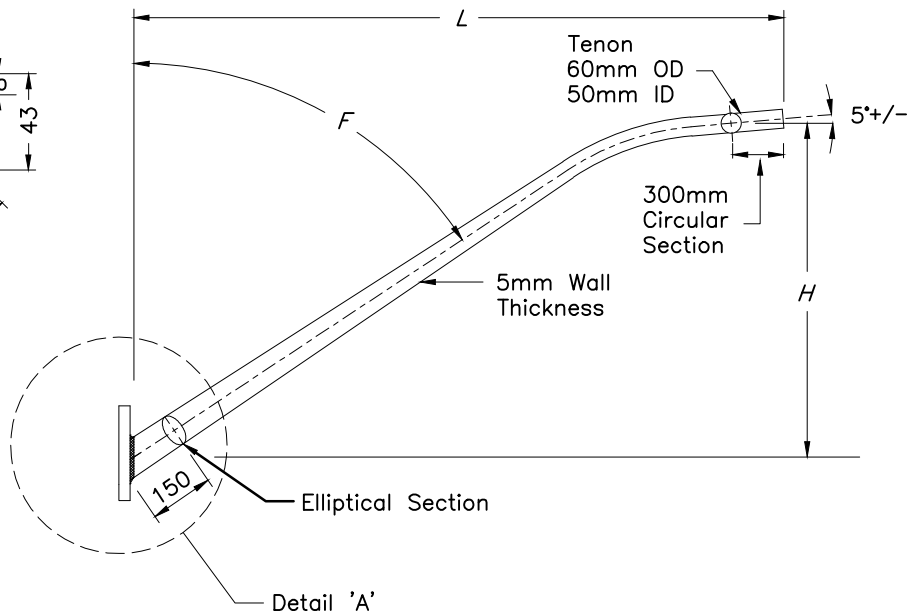
BRACKET BASE PLATE



DETAIL 'A'



SECTION A-A



DIMENSION	BRACKET	
	1.8m	2.4m
<i>L</i>	1.8m	2.4m
<i>H</i>	0.9m	1.2m
<i>F</i>	56°	56°
Elliptical section	64mm x 108mm OD	70mm x 125mm OD
Circular section	60mm OD	60mm OD

NOTES:

- A. BRACKET TO BE CONSTRUCTED FROM 100mm DIAMETER TUBE MATERIAL.
- B. FOR MOUNTING DETAILS, REFER TO UTS 617.020.
- C. WELDS TO BE IN ACCORDANCE WITH CSA W59.2
- D. EXTERNAL FINISH TO BE ROTARY POLISHED.
- E. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**1.8m or 2.4m ALUMINUM
TAPERED ELLIPTICAL BRACKET
FOR METAL / CONCRETE POLE**

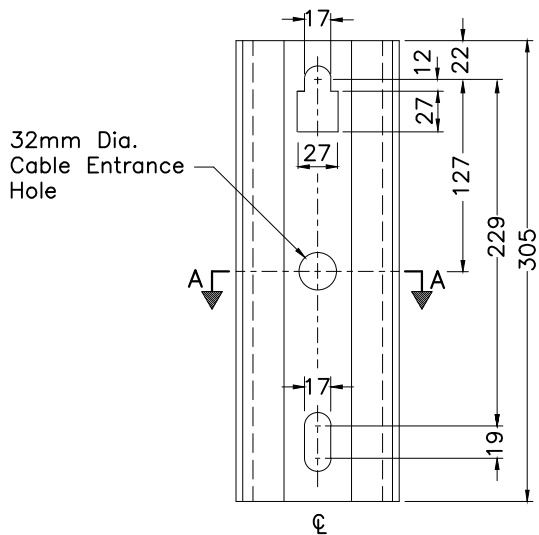
Rev. Date _____ Rev. No. 0

Modification: _____

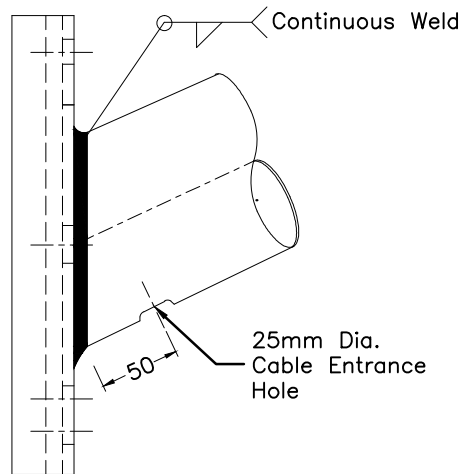
Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

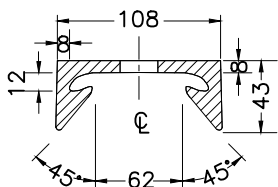
STANDARD No. UTS 617.010



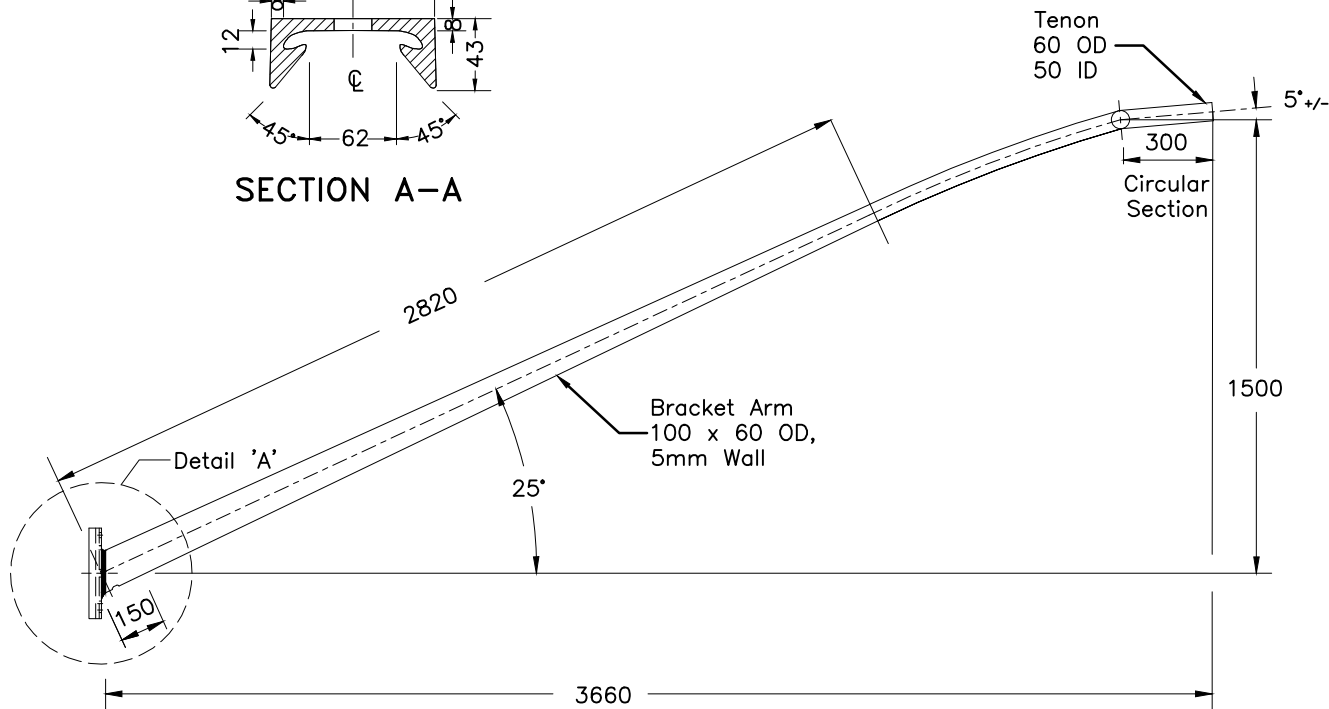
BRACKET BASE PLATE



DETAIL 'A'



SECTION A-A



NOTES:

- A. BRACKET TO BE CONSTRUCTED FROM 100mm DIAMETER TUBE MATERIAL.
- B. FOR MOUNTING DETAILS, REFER TO UTS 617.020.
- C. WELDS TO BE IN ACCORDANCE WITH CSA W59.2.
- D. EXTERNAL FINISH TO BE ROTARY POLISHED.
- E. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**3.6m ALUMINUM TAPERED
ELLIPTICAL BRACKET
FOR METAL / CONCRETE POLE**

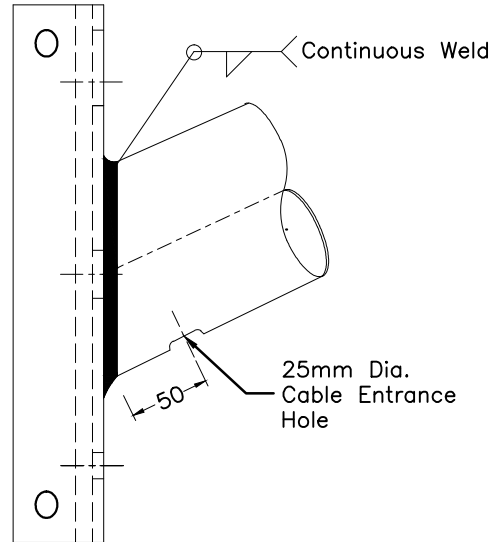
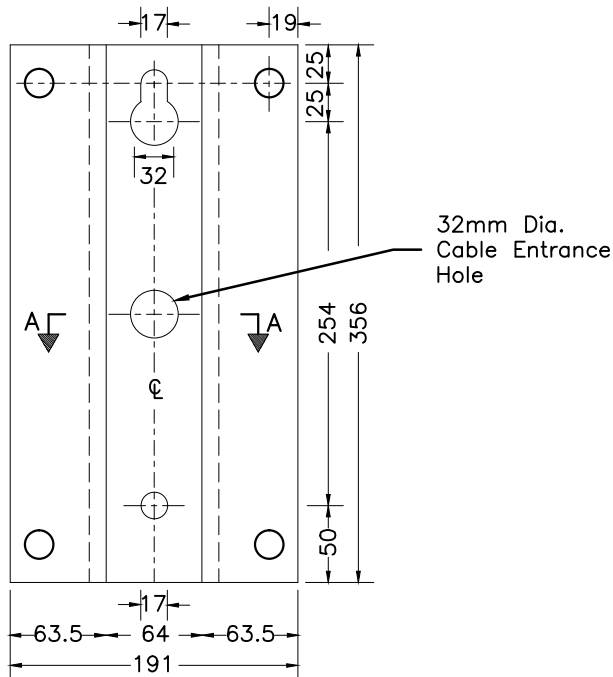
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

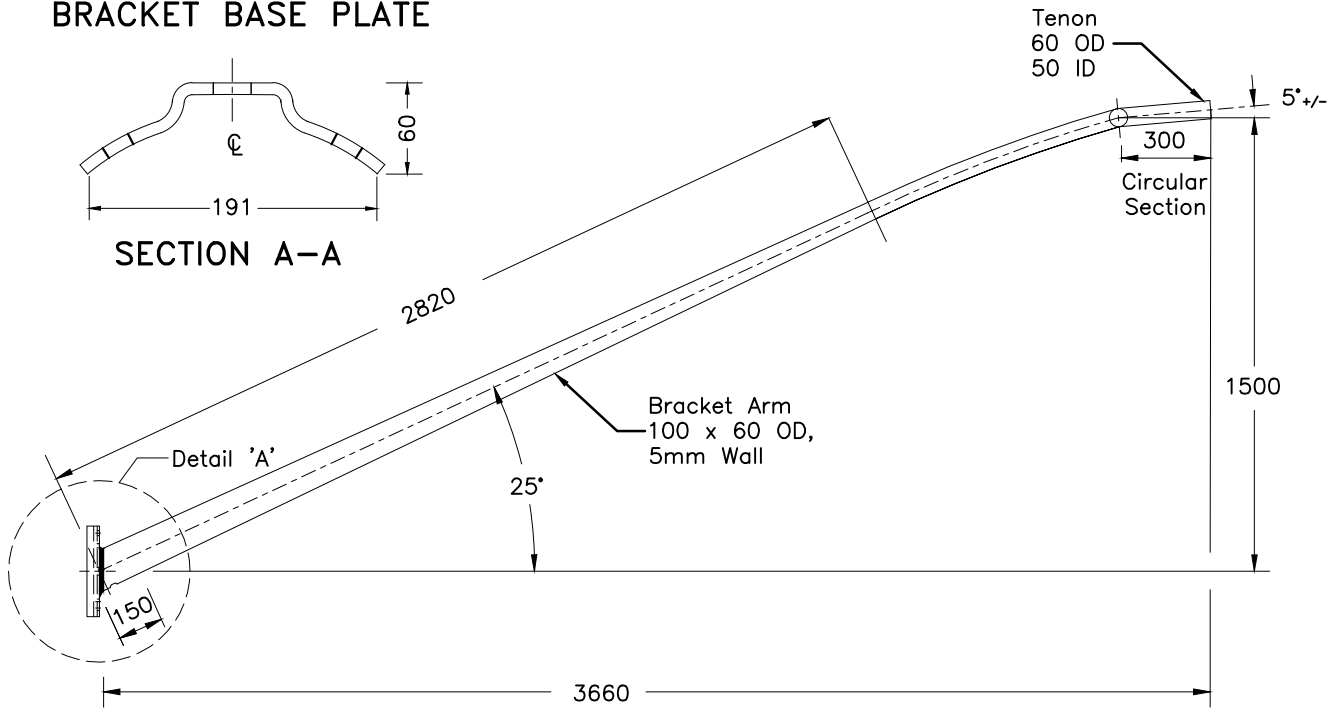
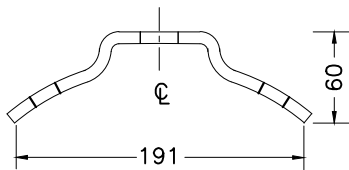
Date: FEBRUARY, 2014

STANDARD No. UTS 617.015



DETAIL 'A'

BRACKET BASE PLATE



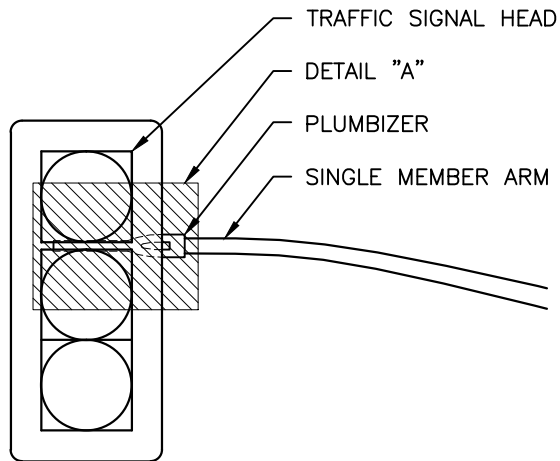
NOTES:

- A. BRACKET TO BE CONSTRUCTED FROM 100mm DIAMETER TUBE MATERIAL.
- B. WELDS TO BE IN ACCORDANCE WITH CSA W59.2.
- C. EXTERNAL FINISH TO BE ROTARY POLISHED.
- D. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

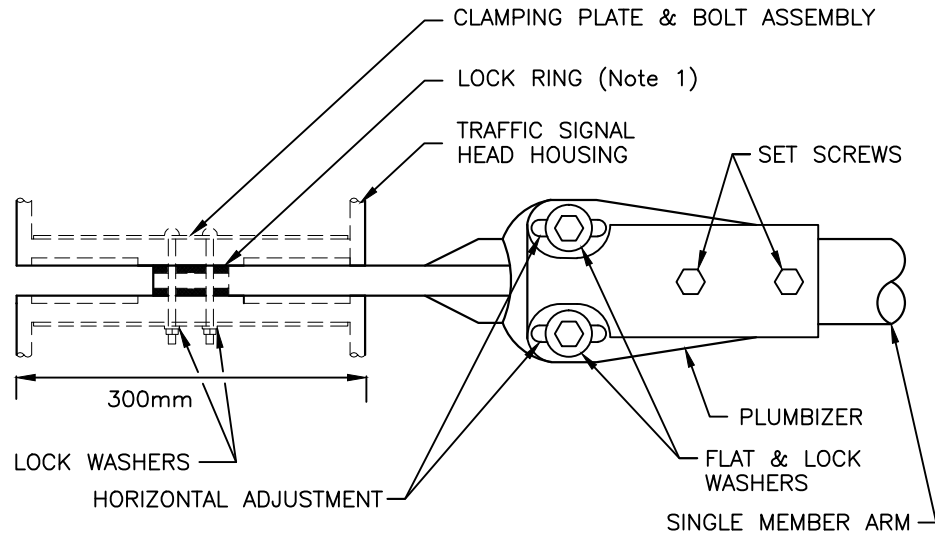
UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES

3.6m ALUMINUM TAPERED
ELLIPTICAL BRACKET
FOR WOOD POLE

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 617.016</u>	



FRONT VIEW

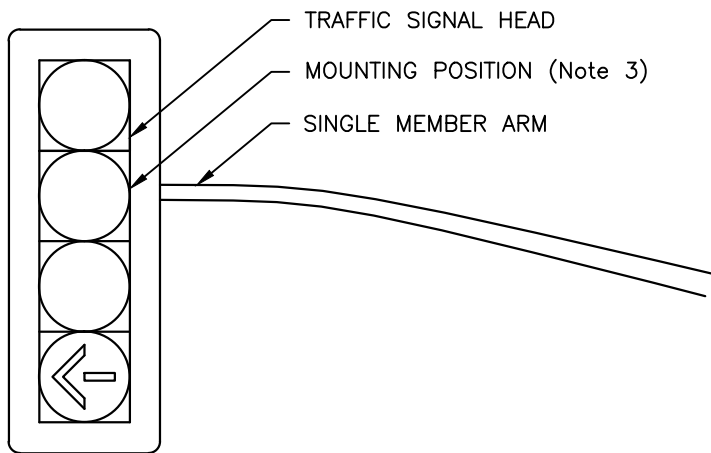


DETAIL "A"

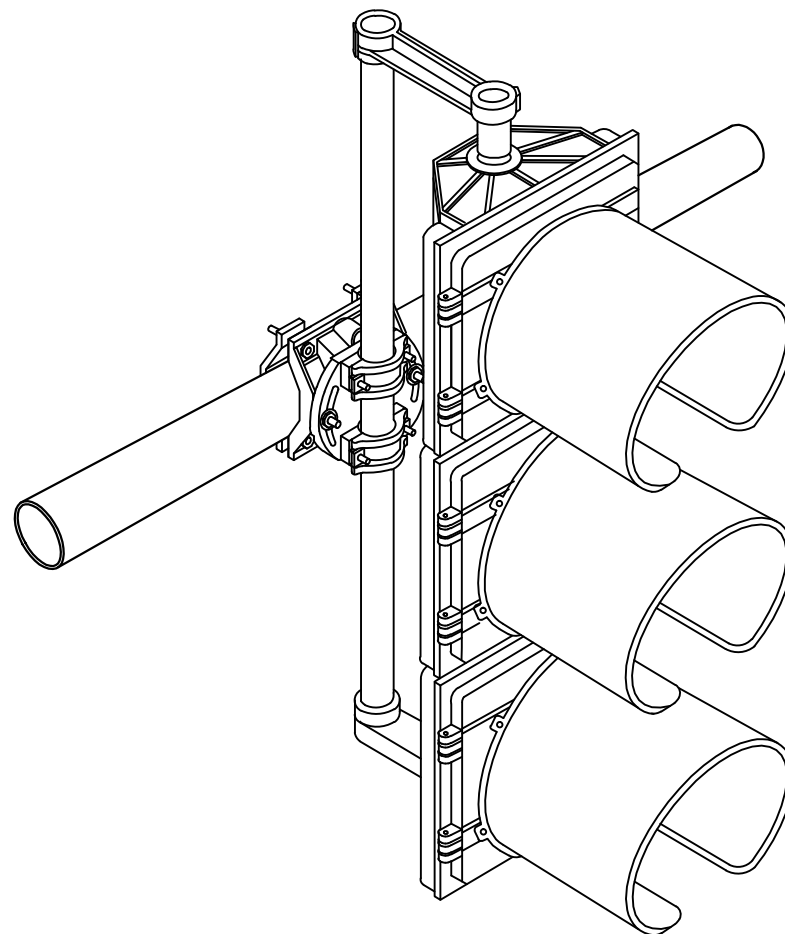
NOTES:

1. LOCK RING OR ADAPTER SHALL BE USED WITH HEADS WITHOUT INTEGRALLY CAST MATCHING SERRATIONS. RINGS ARE TO BE OF BRASS OR BRONZE, WITH SUFFICIENT CONTACT AREA TO COVER FLANGE ON SIGNAL HOUSING.
2. THE PLUMBIZER IS TO BE INSTALLED BETWEEN THE RED AND AMBER SECTIONS OF THE TRAFFIC SIGNAL HEAD, UNLESS OTHERWISE SPECIFIED.

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES PLUMBIZER – ADJUSTABLE MID-SECTION SIGNAL HEAD HANGER	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 620.010 </u>	



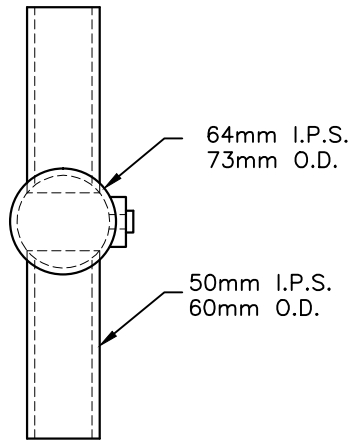
FRONT VIEW



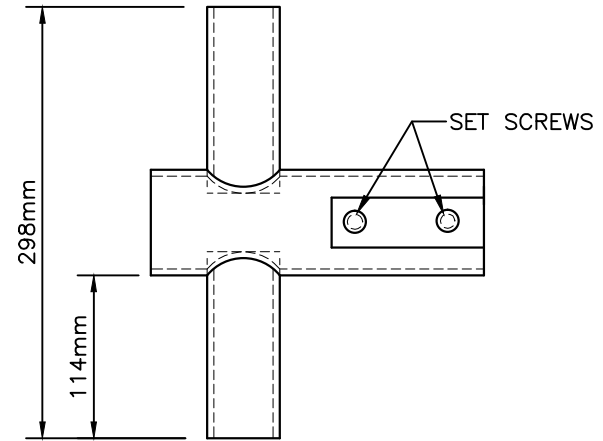
NOTES:

1. STANDARD 1168mm LONG TUBE WILL FIT SIGNAL COMBINATIONS FROM ONE 200mm SECTION UP TO 300mm HEAD SECTIONS. LONGER TUBE REQUIRED FOR ADDITIONAL SECTION HEAD ASSEMBLIES.
2. LOCATION OF SIGNAL HEAD MOUNTING ON MAST ARM SPECIFIED ON THE CONTRACT DRAWINGS.
3. TRAFFIC SIGNAL HEAD TO BE INSTALLED ON MOUNTING BRACKET AT CENTRE OF THE AMBER SECTION, UNLESS OTHERWISE SPECIFIED.

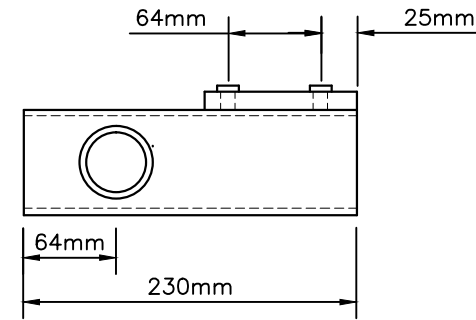
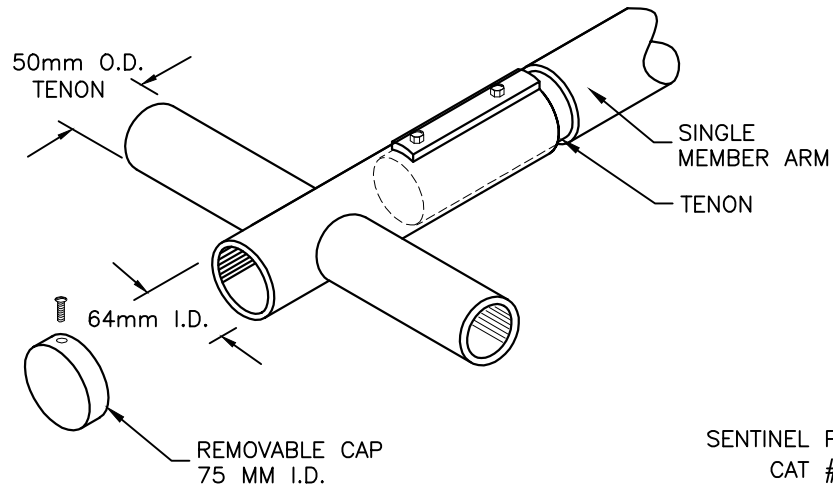
<p>UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES</p> <p>DUAL END SIGNAL HEAD MOUNTING BRACKET</p>	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 620.020 </u>	



END VIEW



TOP VIEW



SIDE VIEW

SENTINEL POLE AND EQUIPMENT
 CAT # STE 4022

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**DOUBLE SIGNAL HEAD
 MOUNTING BRACKET**

I.P.S. - IRON PIPE STEEL

ALL DIMENSIONS IN MILLIMETRES
 UNLESS OTHERWISE SHOWN.

Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY 2014

STANDARD No. UTS 620.030

16mm STAINLESS
STEEL STRAPPING
AND BUCKLE
(2 PER BRACKET)

No. 8 SELF TAPPING
STAINLESS SET
SCREW

⌀

ALUMINIUM NUT RETAINER

RUBBER & METAL
WASHER TYPICAL

SIGNAL HEAD HOUSING
TYPICAL

38mm HEXAGONAL
LOCKNUT

38mm SHORT ALUMINIUM
NIPPLE

LOWER ARM MAY BE OMITTED
ON SINGLE SECTION HEAD
WHEN SPECIFIED IN CONTRACT

16mm STAINLESS
STEEL STRAPPING
AND BUCKLE

SENTINEL POLE & TRAFFIC EQUIPMENT LTD.

- BRACKET MODEL # EDA-300
- # EDA-450
- # EDA-600
- # EPA-300 - PRE-EMPTION
- # ERA-300 - RADIO SPECTRUM

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**EXTRUDED ALUMINIUM
SIGNAL ARM BRACKET**

Rev. Date

Rev. No. 0

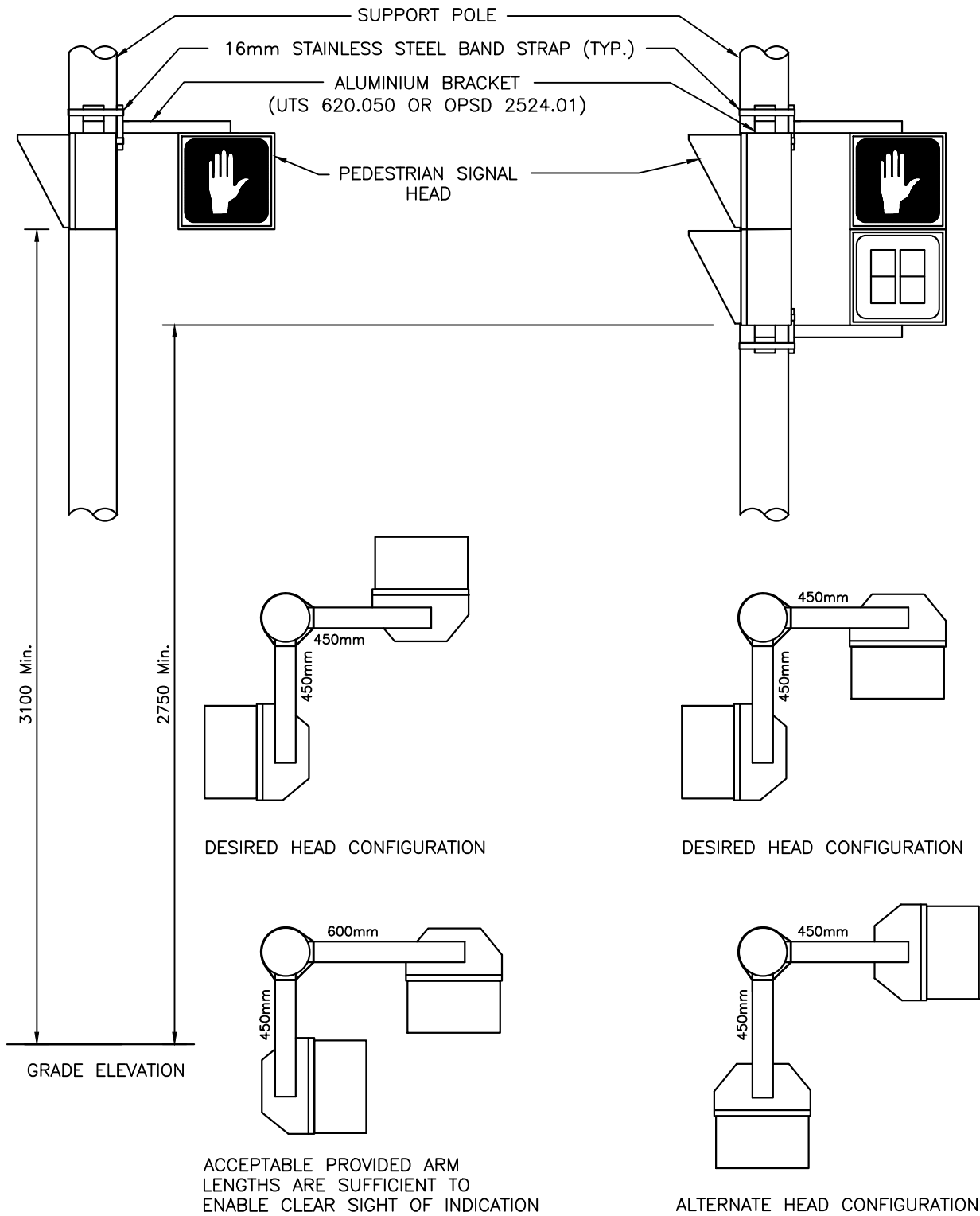
Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 620.050

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 DRAWN BY: D. THOMPSON
 MODIFIED: 14/02/03 09:38:36
 REVISIONS:
 REVISED BY: K. MISTRY
 Revised



NOTES:

1. PEDESTRIAN SIGNAL HEAD SHALL BE POSITIONED PERPENDICULAR TO AND WITHIN CROSSWALK.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**PEDESTRIAN SIGNAL HEAD
MOUNTING CONFIGURATIONS**

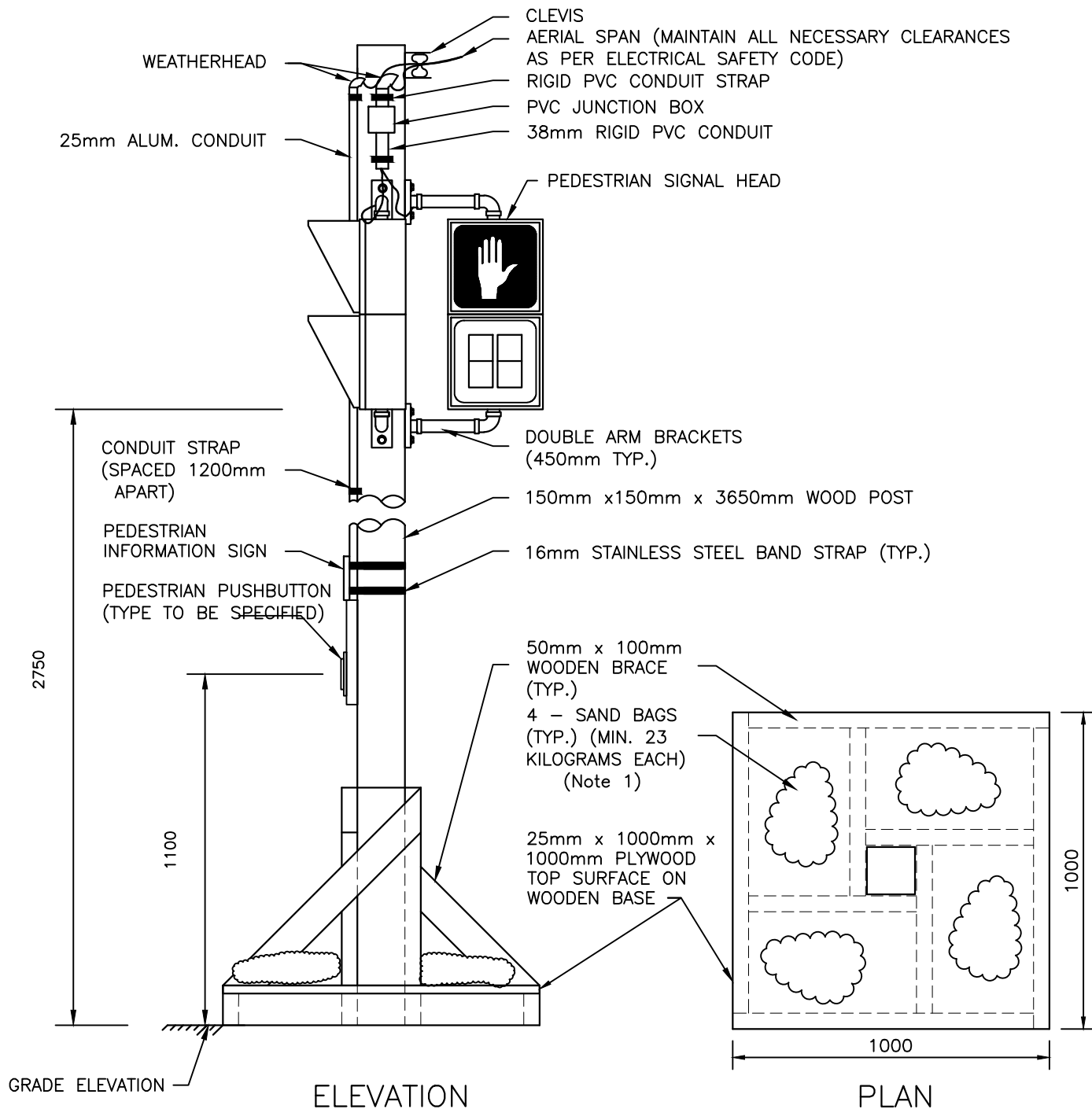
Rev. Date	Rev. No. <u> 0 </u>
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Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 620.051



- NOTES:**
- CONTRACTOR RESPONSIBLE TO ADD ADDITIONAL WEIGHT AS REQUIRED TO STABILIZE STAND IN ALL WEATHER CONDITIONS.

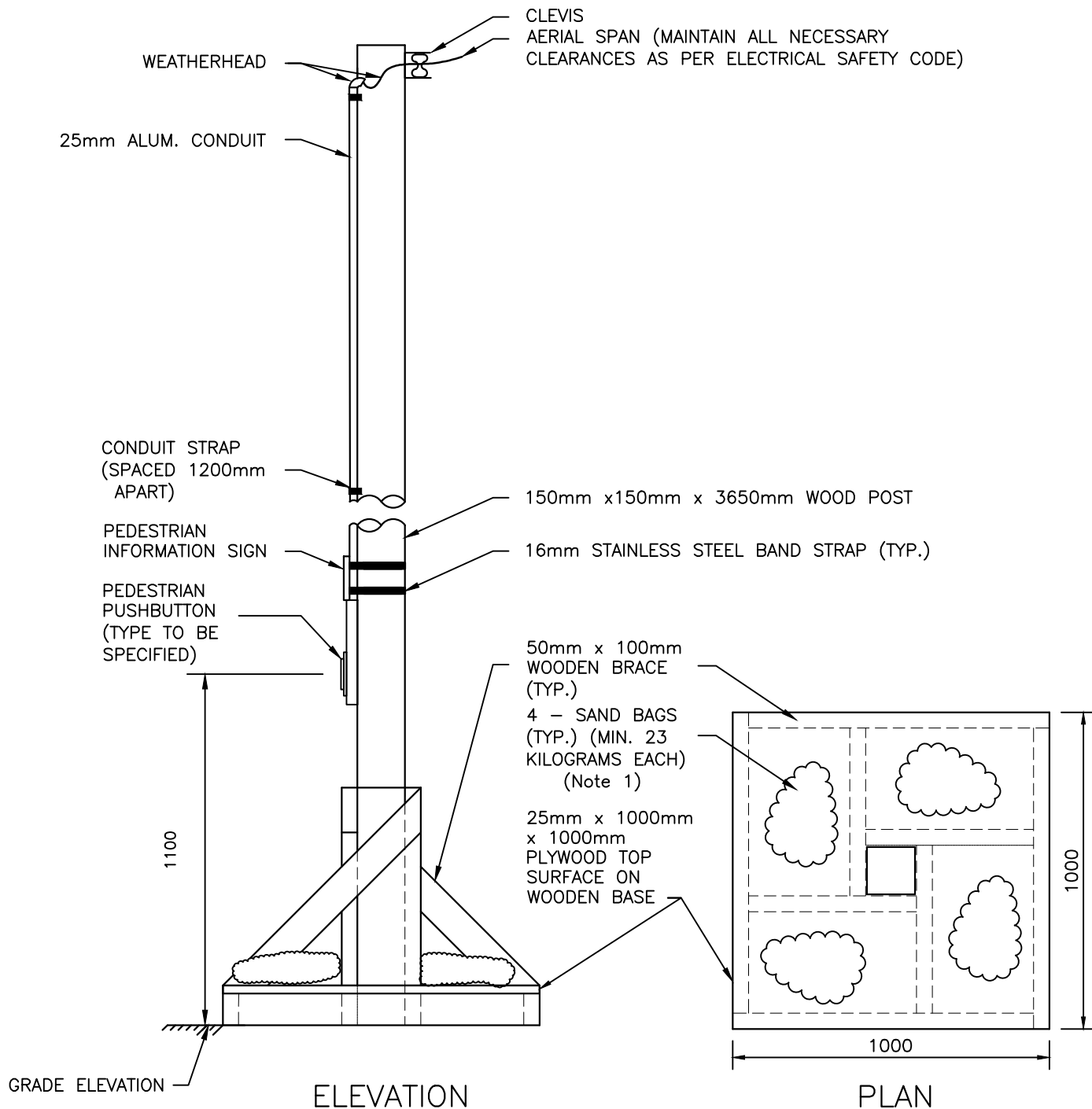
DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**WOODEN POST STAND
FOR TEMPORARY
PEDESTRIAN SIGNALS**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 620.055</u>	

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 DRAWN BY: D. THOMPSON
 MODIFIED 14/02/03 09:38:29
 REVISIONS BY: K. MISTRY
 Revised



- NOTES:**
- CONTRACTOR RESPONSIBLE TO ADD ADDITIONAL WEIGHT AS REQUIRED TO STABILIZE STAND IN ALL WEATHER CONDITIONS.

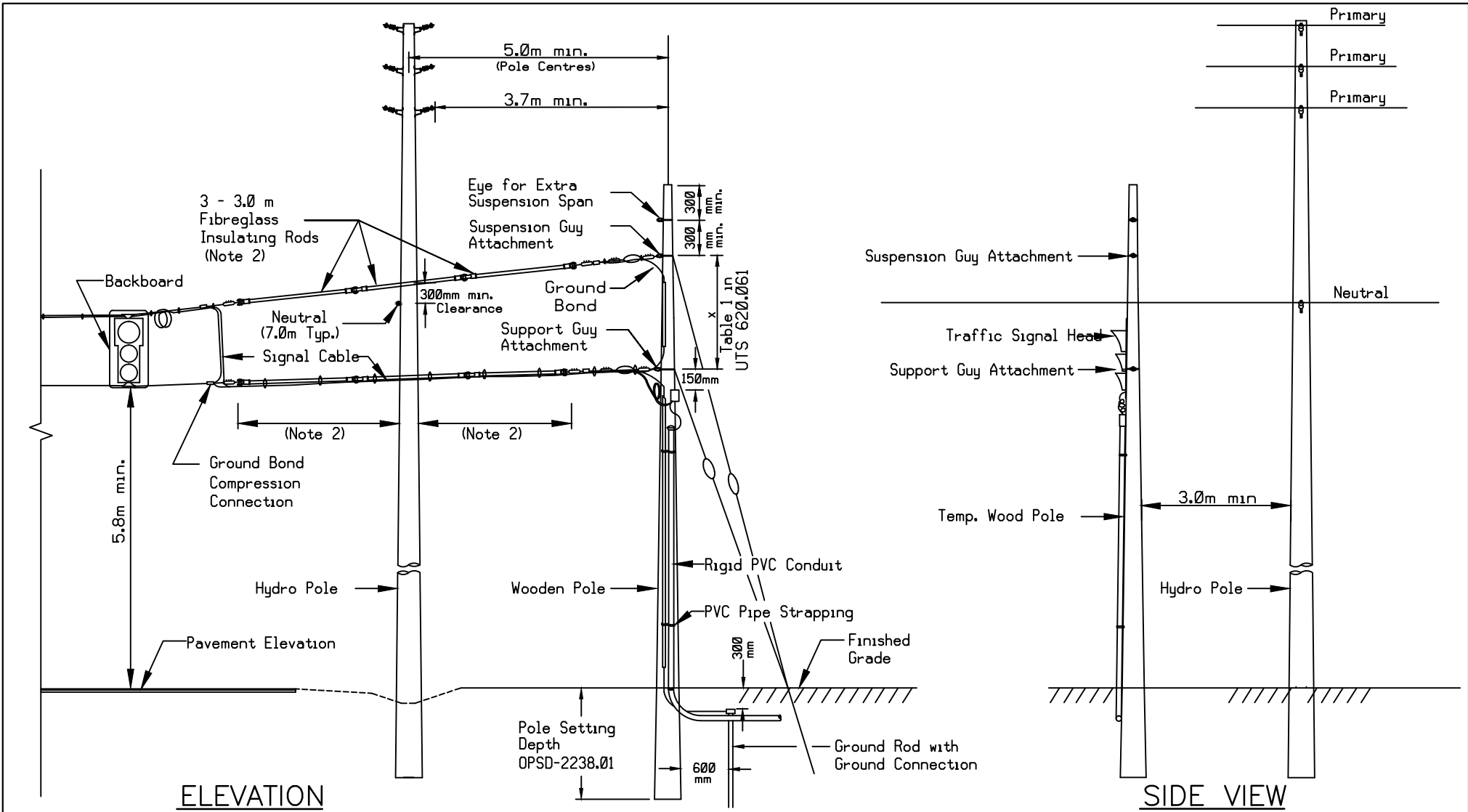
DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**WOODEN POST STAND
FOR TEMPORARY
PEDESTRIAN PUSH-BUTTON**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>MCCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 620.056</u>	

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 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED: 14/02/03 09:38:26
 Revised



ELEVATION

SIDE VIEW

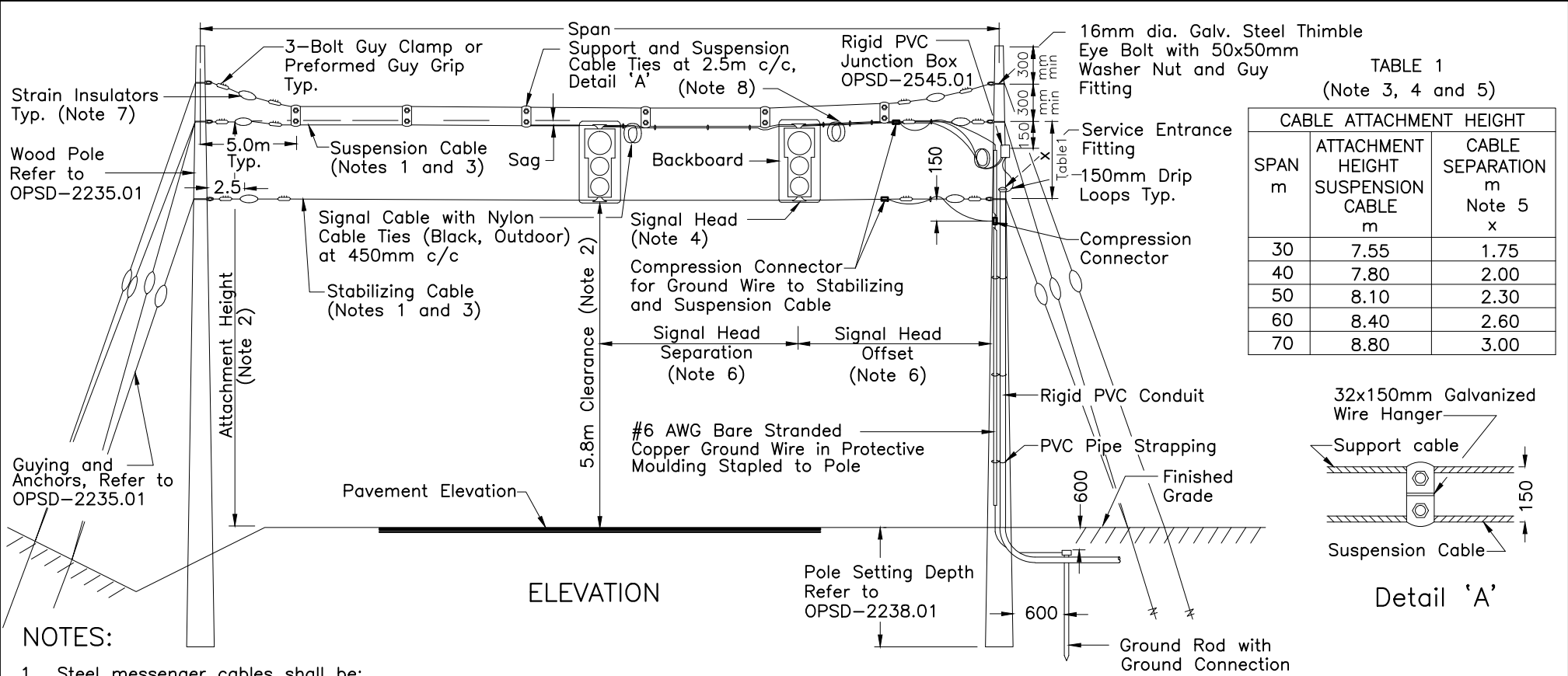
NOTES:

1. THIS DETAIL TO BE READ IN CONJUNCTION WITH UTS 620.061.
2. INSTALL FIBREGLASS INSULATING RODS ON THE SUSPENSION AND SUPPORT SIGNAL SPANS, EXTENDING MIN. 3.0M EACH SIDE OF PRIMARY CONDUCTORS.

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**FIBREGLASS INSULATING ROD
 INSTALLATION ON OVERHEAD
 SIGNAL SPANS**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 620.060 </u>	



NOTES:

- Steel messenger cables shall be:
 - Support cable (required only on spans greater than 60m) - 9mm dia. Grade 160
 - Suspension cable 9mm dia. Grade 160
 - Stabilizing cable 7mm dia. Grade 110
- Attachment height is to be set to obtain the clearance height shown under CSA heavy loading conditions. Install suspension cable attachment height according to Table 1 and allow for deviations between pavement elevation and finished grade elevation at pole. Install stabilizing cable at cable separation height according to Table 1.
- Cable to be installed using the tension corresponding to the installation temperature as shown in OPSD-2245.01.
- Details shown are for 'Highway' type signal heads. For larger signal heads increase the cable separation and suspension cable attachment height accordingly.
- Values shown in table to be interpolated to obtain intermediate values.
- For orientation and location of signal heads and poles, refer to layout drawings.
- Where required, provide sufficient length of cable coils to allow signal head.

A All dimensions are in millimetres unless otherwise shown.

<p>UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES</p> <p>AERIAL TRAFFIC SIGNAL INSTALLATION</p>	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 620.061 </u>		

"SIGNALS AHEAD" Wb-102 SIGN
(750mm x 750mm)

DOUBLE ARM BRACKET
OPSD 2524.01 OR
UTS 620.050

200mm LED AMBER
FLASHING BEACON C/W
SOLID STATE FLASHER

50mm PVC
ENTRANCE CAP

COWL VISOR

16mm STAINLESS
STEEL STRAPPING
4.5KN ULTIMATE
OR LAG BOLTS

DOUBLE ARM BRACKET
(LENGTH VARIES)

50mm RIGID
PVC CONDUIT

"PREPARE TO STOP
WHEN FLASHING"
Wb-102At SIGN

38mm X 38mm
TELESPAR SQ.
TUBE (TYP)

PVC COATED STEEL
STRAPS SPACED
1.2m APART

PVC COATED STEEL STRAPS
150mm FROM END EVERY
1200mm IN APART

25mm RIGID
PVC CONDUIT

O-RING EXPANSION

#6 AWG BARE
STRANDED COPPER
GROUND WIRE

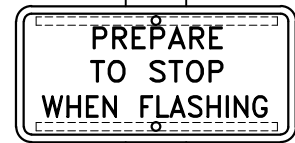
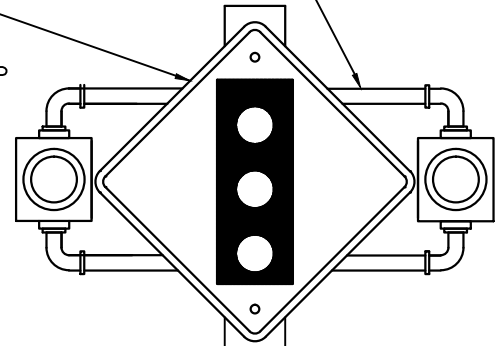
FINISHED GRADE

50mm RIGID PVC
CONDUIT TO POWER
OR CONTROLLER AS
INDICATED ON
DRAWING

50mm
90° RIGID PVC
SWEEP

20mm x 3000mm
COPPER CLAD GROUND
ROD (OR 254mm x 406mm x
6.3mm HOT DIP GALVANIZED
GROUND PLATE) WITH THERMIT
WELD CONNECTION

ELEVATION
SIDE VIEW



150mm x 150mm x
4900mm PRESSURE
TREATED POST (NOTE 1)

FRONT VIEW

NOTE:

1. POST TO BE BURIED 1000mm MIN. DEPTH.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ADVANCE WARNING
FLASHERS AND SIGNS
DIRECT BURIED**

Rev. Date

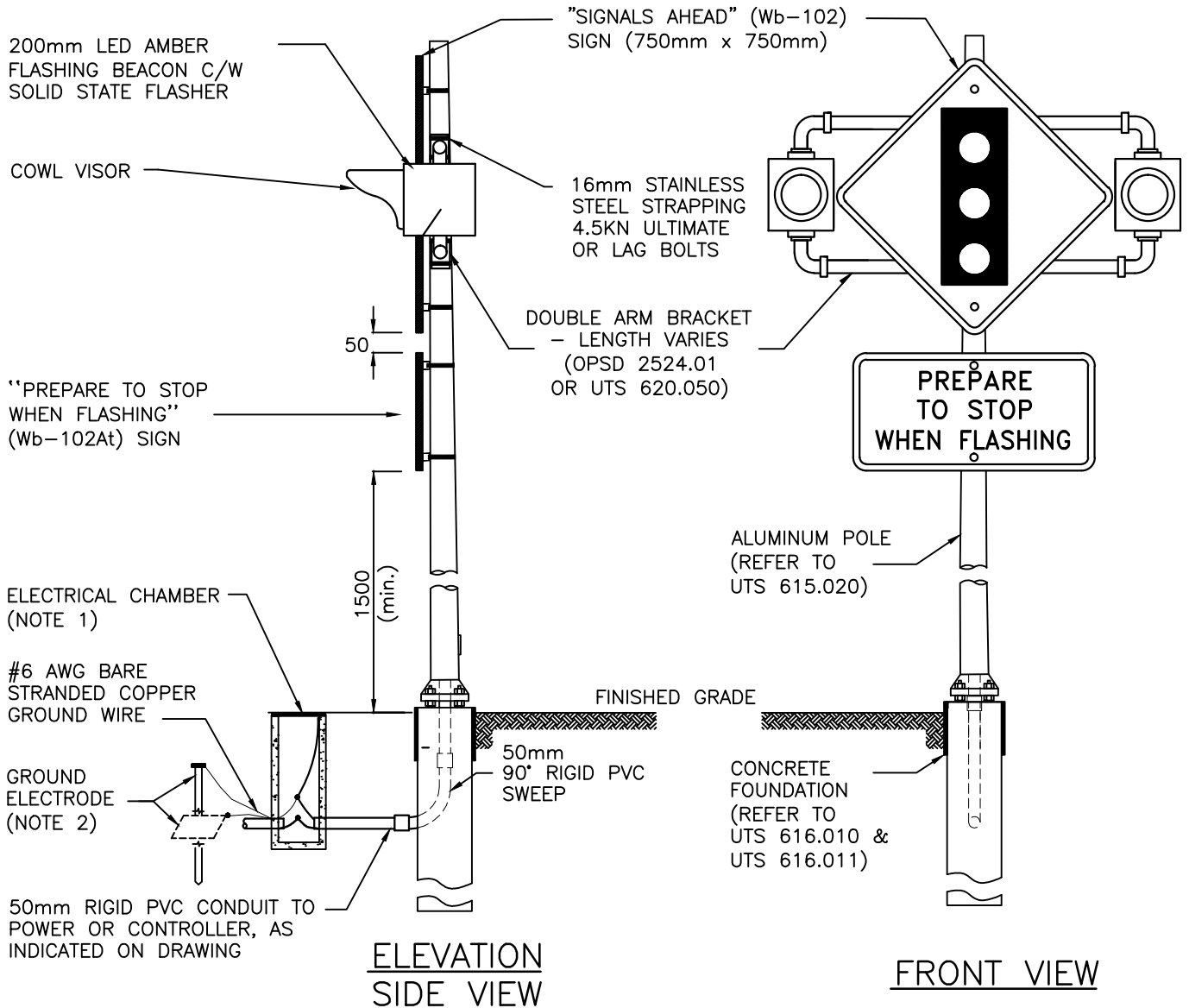
Rev. No. 0

Modification: _____

Modified By: MCCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 620.070



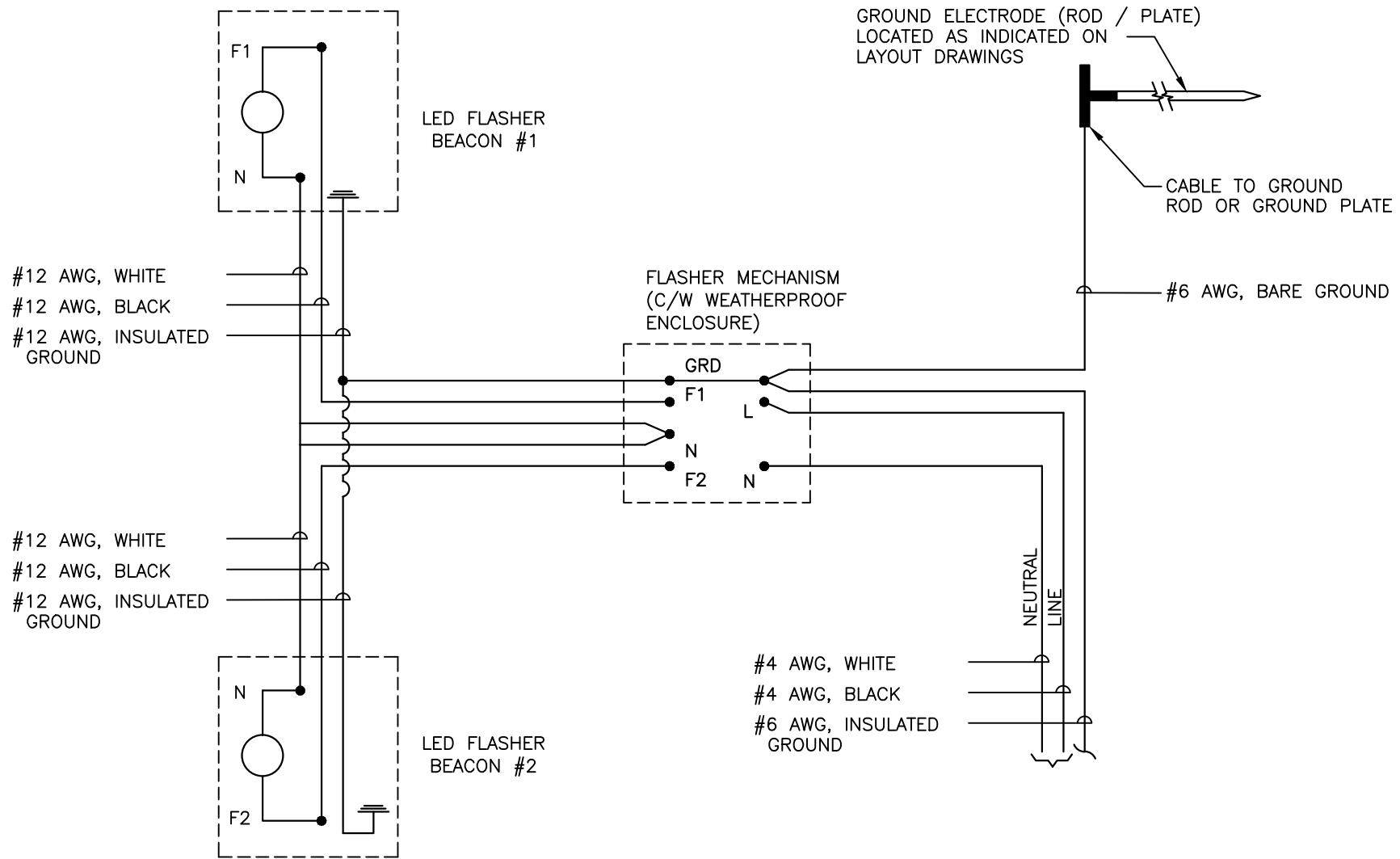
- NOTES:
1. REFER TO UTS 602.010, UTS 602.020, UTS 602.030 OR AS INDICATED ON DRAWINGS)
 2. GROUND ELECTRODE TO BE 20mm x 3000mm COPPER CLAD GROUND ROD OR 254mm x 406mm x 6.3mm HOT DIP GALVANIZED GROUND PLATE WITH THERMIT WELD CONNECTION.
- DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ADVANCE WARNING
FLASHERS AND SIGNS
CONCRETE BASE**

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>MCCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 620.071</u>	

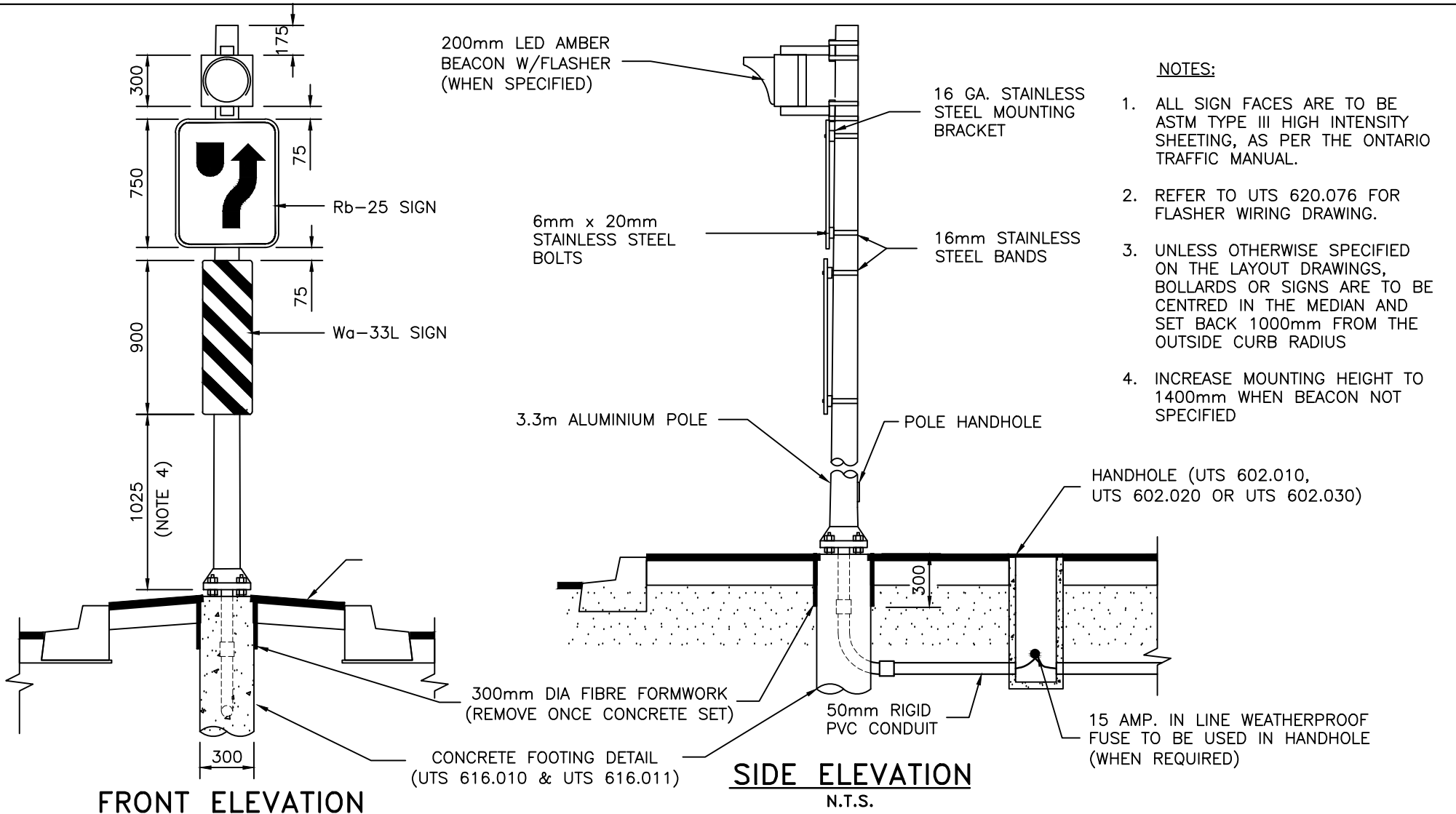
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 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED 14/02/03 09:39:53
 Revised



**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**ADVANCE FLASHER
 WIRING SCHEMATIC**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 620.072 </u>	



NOTES:

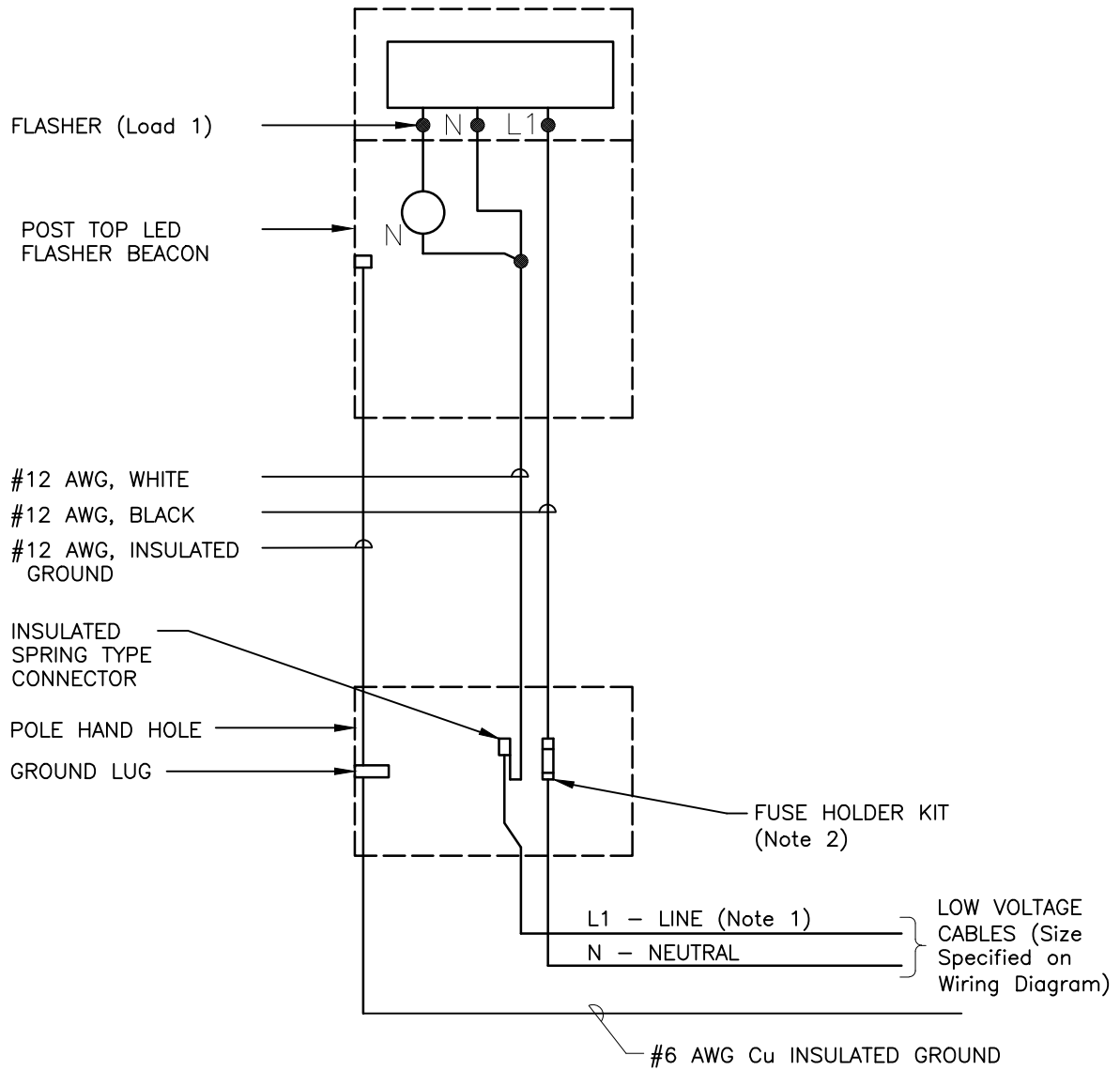
1. ALL SIGN FACES ARE TO BE ASTM TYPE III HIGH INTENSITY SHEETING, AS PER THE ONTARIO TRAFFIC MANUAL.
2. REFER TO UTS 620.076 FOR FLASHER WIRING DRAWING.
3. UNLESS OTHERWISE SPECIFIED ON THE LAYOUT DRAWINGS, BOLLARDS OR SIGNS ARE TO BE CENTRED IN THE MEDIAN AND SET BACK 1000mm FROM THE OUTSIDE CURB RADIUS
4. INCREASE MOUNTING HEIGHT TO 1400mm WHEN BEACON NOT SPECIFIED

DIMENSIONS IN mm EXCEPT AS NOTED

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

ISLAND MARKER

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY 2014 </u>	
STANDARD No. <u> UTS 620.075 </u>	



NOTES:

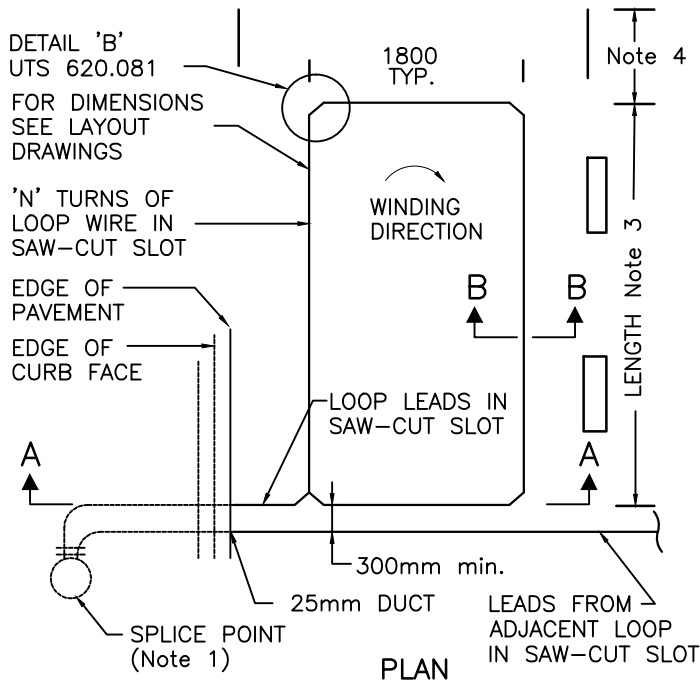
1. LINE L1 TO BE CONNECTED TO 120V CIRCUIT OF POWER SUPPLY.
2. FUSE HOLDER TO BE IN-LINE TYPE, 600V, COMPLETE WITH 15A KTK FUSE AND INSULATED KIT.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

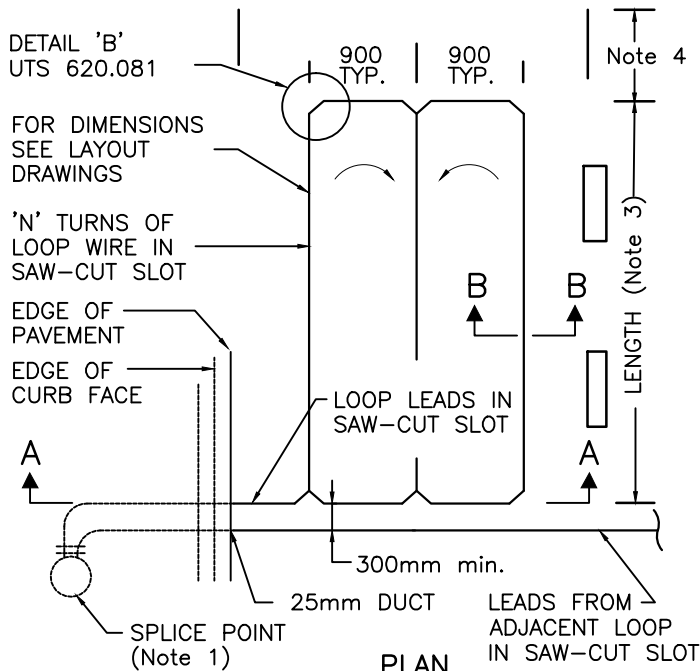
**FLASHER BEACON
WIRING SCHEMATIC**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 620.076 </u>	

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
 DRAWING NAME: 620076_HAL_UTS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED: 14/02/03 09:39:43
 Revised



SIMPLE LOOP

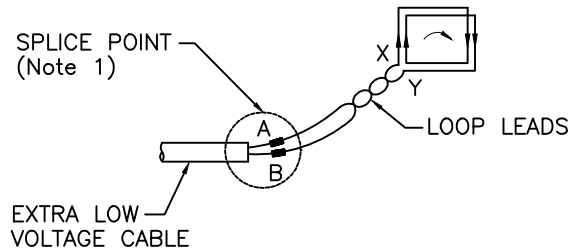


DUPLEX LOOP

NOTES:

- A. DRAWING TO BE READ IN CONJUNCTION WITH UTS 620.081
- B. ALL DIMENSIONS ARE IN MILLIMETRES OR METRES UNLESS OTHERWISE SHOWN.

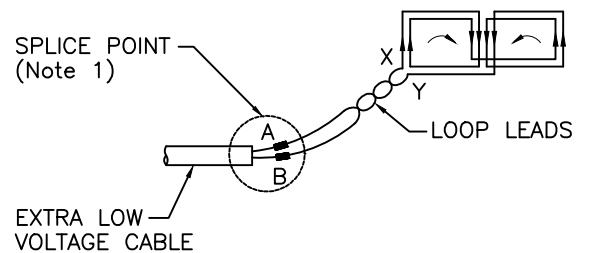
LOOP SIZE	NUMBER OF TURNS
LONG DISTANCE	4
DUPLEX	2-4-2
SIMPLE	3



SIMPLE LOOP CONNECTIONS

NO. OF LOOPS	LOOP	LEAD CONNECTION TO 4 CONDUCTOR ELV CABLE				
		LEAD	GREEN	RED	BLACK	WHITE
2	1	A	X	-	-	-
	2	B	-	X	-	-
1	1	A	-	-	X	-
	2	B	-	-	-	X

LEAD CONNECTED TO TWO CONDUCTORS ON SINGLE LOOP



DUPLEX LOOP CONNECTIONS

NOTES:

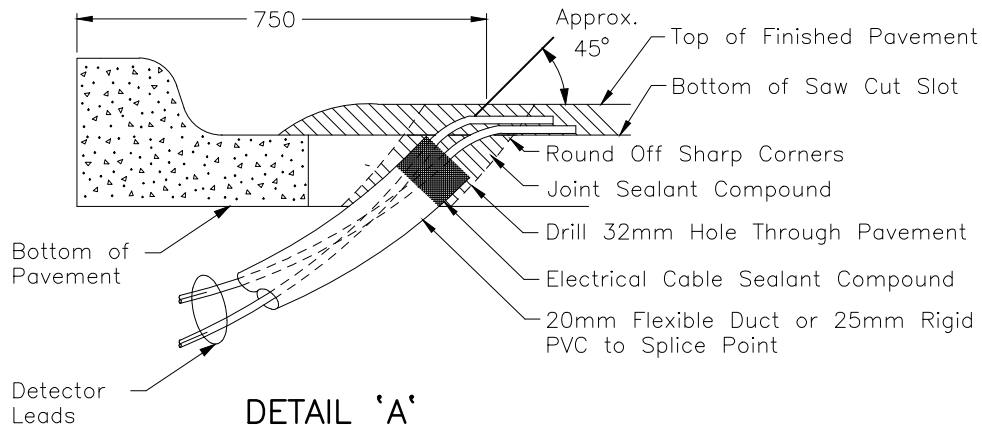
1. SPLICE TO BE MADE IN ELECTRICAL CHAMBER OR POLE HANDHOLE. REFER TO LAYOUT DRAWINGS.
2. FOR SECTIONS A-A & B-B, REFER TO UTS 620.081.
3. LENGTH AND NUMBER SPECIFIED IN CONTRACT.
4. HEAD OF LOOP TO BE SET:
 - a. 1.0m AHEAD OF THE STOP BAR; OR
 - b. 1.0m WITHIN PEDESTRIAN CROSSWALK LINE; OR
 - c. 15.0m BEHIND THE STOP BAR FOR LEFT TURN PROTECTIVE PERMISSIVE GREEN PHASE.

FILE LOCATION: \\N:\7\K\7101 CONSOLIDATION OF UNIFORM TRAFFIC SIGNAL CONTROL SPECS\2014 UTSS FINAL.DWG
 DRAWING NAME: 620080_RD_UTSS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED: 14/02/03 09:39:40
 Revised

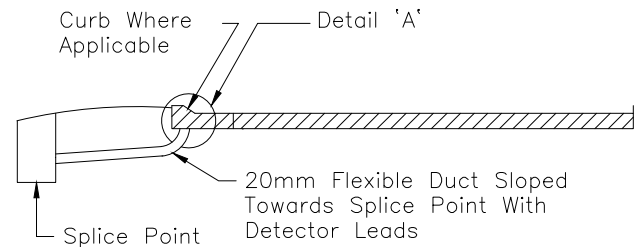
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**LOOP DETECTOR
INSTALLATION DETAIL - 1**

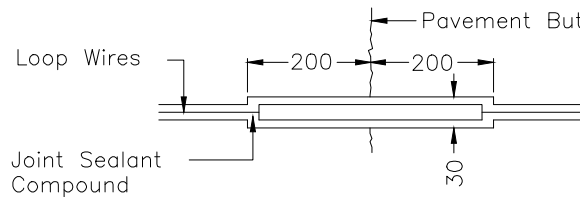
Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 620.080</u>	



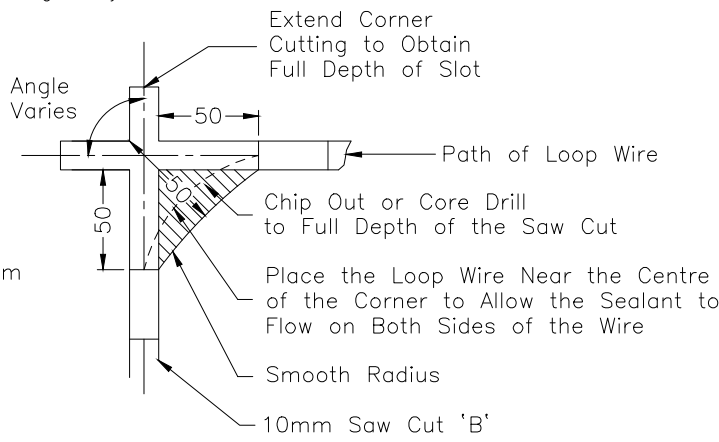
DETAIL 'A'



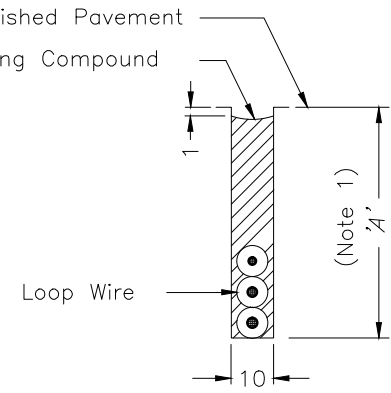
SECTION A-A
OF UTS 620.080



PLAN

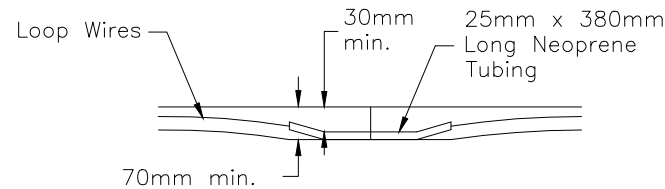


DETAIL 'B' AT 90° BEND



SECTION B-B
OF UTS 620.080

Number of Loop Wire	'A' mm min.
1	60
2	60
3	65
4	70
5	75
6	80



ELEVATION

DETAIL-PAVEMENT BUTT OR IRREGULARITY

NOTES:

1. Where cable is installed prior to the finished top course paving, the maximum depth of cover shall be 100mm.
- A. This drawing shall be read in conjunction with UTS 620.080.
- B. All dimensions are in millimetres or metres unless otherwise shown

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES	Rev. Date	Rev. No. <u> 0 </u>
LOOP DETECTOR INSTALLATION DETAILS – II		
Modification: _____		
Modified By: <u> McCORMICK RANKIN </u>		
Date: <u> FEBRUARY 2014 </u>		
STANDARD No. <u> UTS 620.081 </u>		

AUDIBLE PEDESTRIAN PUSHBUTTON

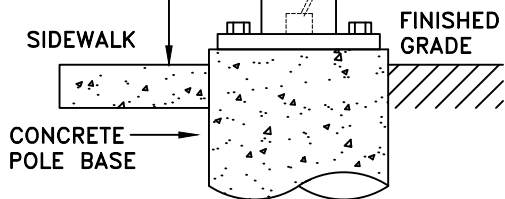
POLE DRILLED AND ASSEMBLY ATTACHED WITH SELF TAPPING SCREW

4/C #18 ELV SHIELDED CABLE W/ DRAIN WIRE INSIDE POLE

APERTURE & GROMMET (Note 1)

MARRETT & TAPE CONNECTIONS IN POLE HANDHOLE

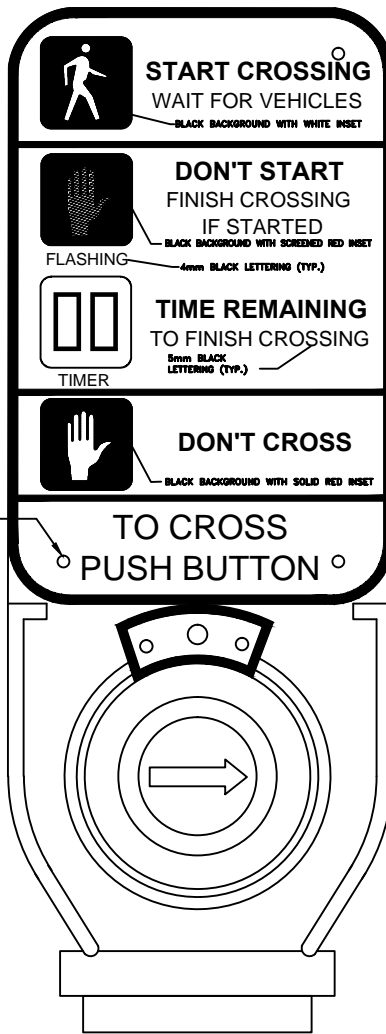
1.1m (TYP.)



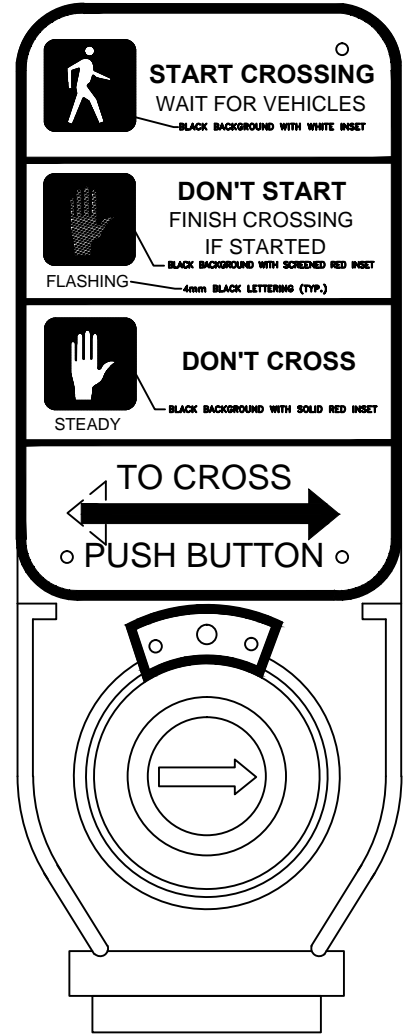
AUDIBLE PEDESTRIAN PUSHBUTTON INSTALLATION

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

NOTE 4



PEDESTRIAN COUNTDOWN / WALK / DON'T WALK INDICATION APPLICATION



PEDESTRIAN WALK / DON'T WALK INDICATION APPLICATION

PEDESTRIAN BUTTON & INFORMATION SIGNING

(POLARA BUTTON ILLUSTRATED) - (NOTE 3)

NOTES

1. ALL WIRING APERTURES ARE TO BE DE-BURRED & PROTECTED WITH RUBBER GROMMET. APERTURES ON STEEL POLES SHALL BE PROTECTED WITH GREY ZINC RICH PAINT.
2. THE CONTRACTOR SHALL REVIEW THE LAYOUT DRAWINGS FOR THE ORIENTATION AND LOCATION OF THE AUDIBLE PEDESTRIAN SIGNAL STATION TO THE APPROPRIATE DIRECTION OF THE PEDESTRIAN CROSSWALK.
3. DIRECTION OF ARROW ON PUSH BUTTON AND INFORMATION SIGN (UTS 620.084) TO COINCIDE WITH PEDESTRIAN CROSSING.
4. SIGNS TO BE ATTACHED WITH VANDAL PROOF SCREWS.

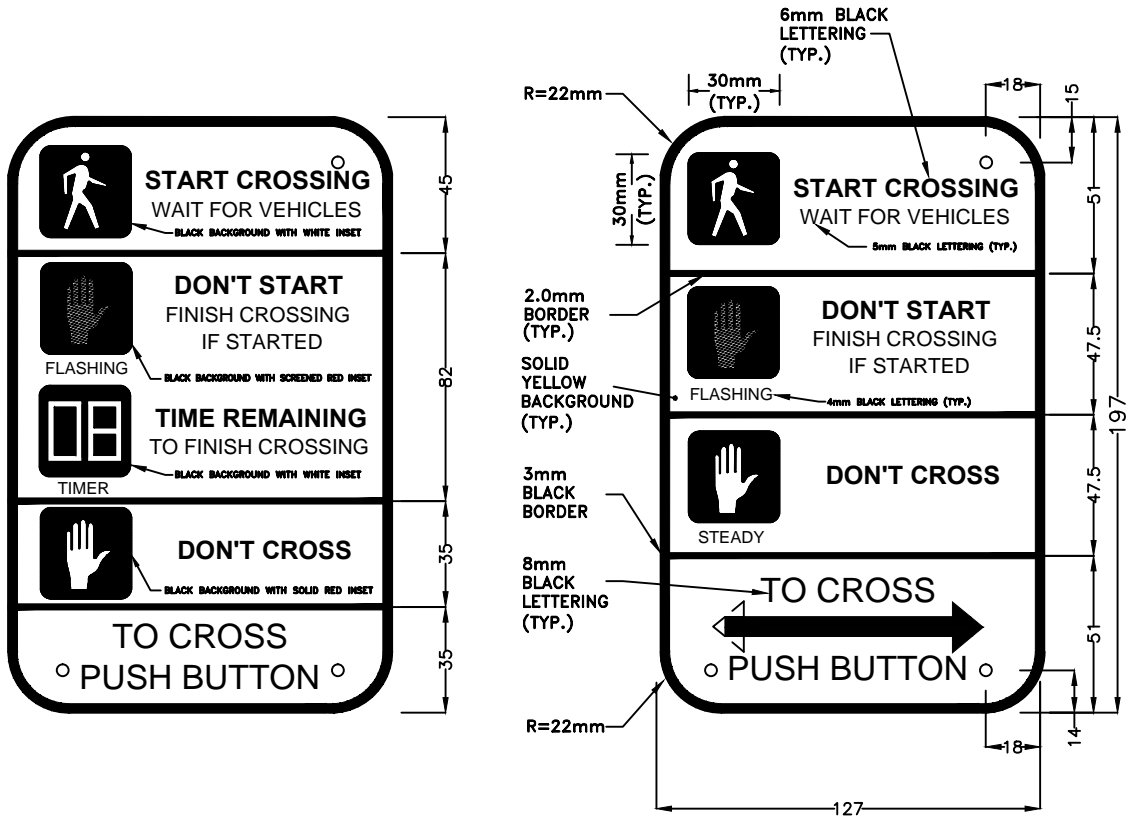
FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
 DRAWING NAME: 620083_RD_UTSS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K.MISTRY
 MODIFIED 14/02/03 09:39:34
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**AUDIBLE PEDESTRIAN
 PUSHBUTTON ASSEMBLY**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 620.083 </u>	

FILE LOCATION: \\N:\7\101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL\DWG\
 DRAWING NAME: 620084_R0_UTS.DWG
 DRAWN BY: D. THOMPSON
 MODIFIED: 14/02/03 09:39:30
 REVISED BY: K. MISTRY
 Revised



NOTES

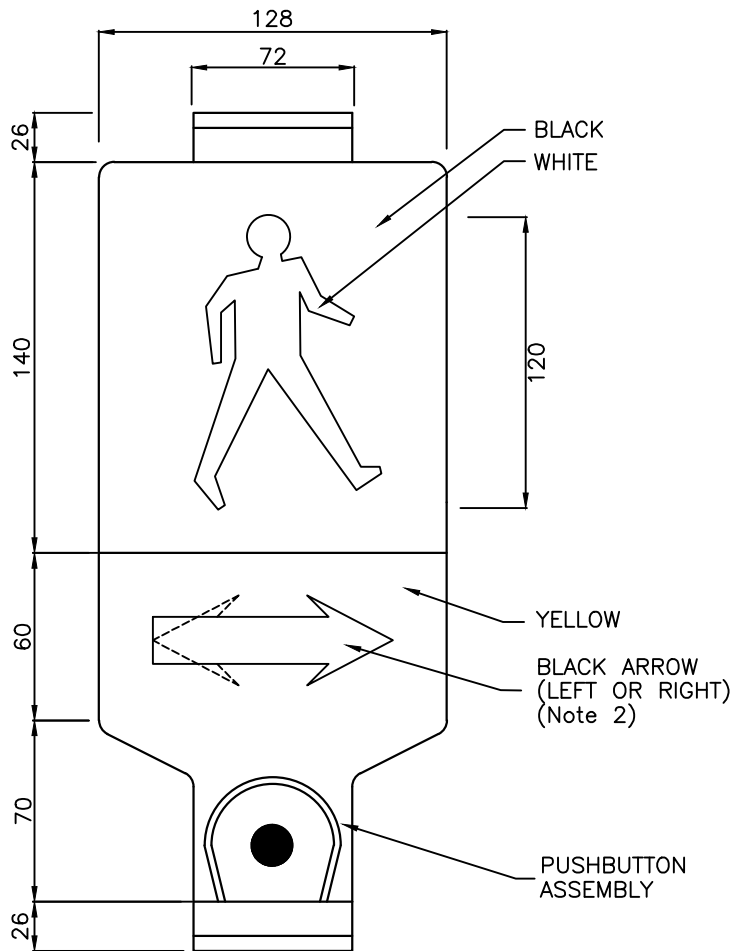
1. MATERIAL TO BE 1.6mm GAUGE ALUMINUM.
2. SIGN BLANKS CAN BE ACQUIRED THROUGH TACEL LIMITED.

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**AUDIBLE PEDESTRIAN
 PUSHBUTTON
 INFORMATION SIGN**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 620.084 </u>	



PEDESTRIAN BUTTON

NOTES

1. ALL WIRING APERTURES ARE TO BE DE-BURRED & PROTECTED WITH RUBBER GROMMET. APERTURES ON STEEL POLES SHALL BE PROTECTED WITH GREY ZINC RICH PAINT.
2. THE CONTRACTOR SHALL REVIEW THE LAYOUT DRAWINGS FOR THE ORIENTATION AND LOCATION OF THE AUDIBLE PEDESTRIAN SIGNAL STATION TO THE APPROPRIATE DIRECTION OF THE PEDESTRIAN CROSSWALK.
3. MOUNT PEDESTRIAN INFORMATION SIGN ON SAME FACE AS PUSH BUTTON ASSEMBLY. DIRECTION OF ARROW ON PUSH BUTTON AND INFORMATION SIGN (UTS 620.086) TO COINCIDE WITH PEDESTRIAN CROSSING.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

PEDESTRIAN CROSSING INFORMATION SIGN
UTS 620.086.
(Notes 2 & 3)

16mm STAINLESS STEEL STRAP

APERTURE & GROMMET
(Note 1)

WEATHERPROOF BUTTON

PUSHBUTTON ASSEMBLY

1100mm TO FINISHED GRADE
UNLESS OTHERWISE SPECIFIED

1 - 4/C #18 ELV SHIELDED CABLE INSIDE POLE

16mm STAINLESS STEEL STRAP

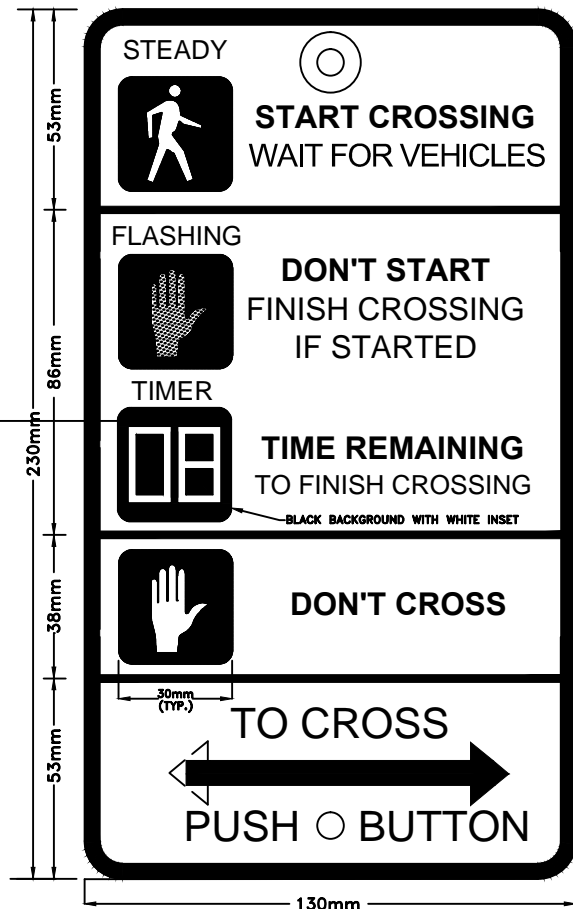
MARRETT & TAPE CONNECTIONS IN POLE HANDHOLE

FILE LOCATION: \\N:\7\101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
 DRAWING NAME: 620085_RD_UTS.DWG
 REVISED BY: K.MISTRY
 MODIFIED: 14/02/03 09:39:27
 DRAWN BY: D. THOMPSON

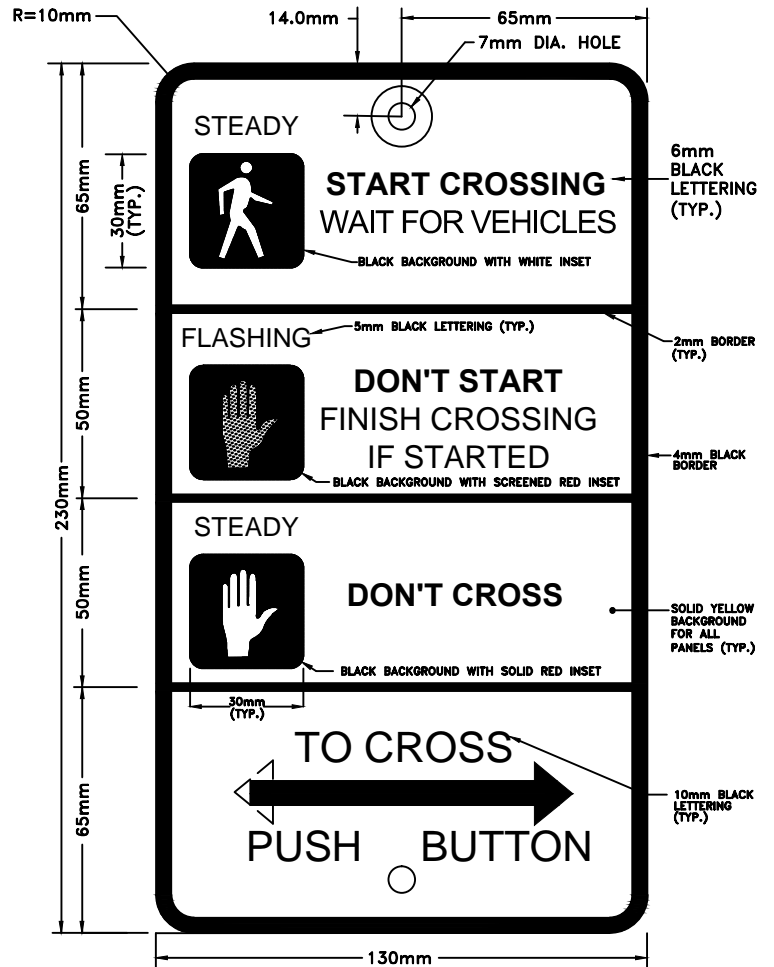
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**PEDESTRIAN PUSHBUTTON/
SIGN ASSEMBLY
AND INFORMATION SIGN**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 620.085</u>	



PEDESTRIAN COUNTDOWN /
WALK / DON'T WALK
INDICATION APPLICATION



PEDESTRIAN WALK /
DON'T WALK INDICATION
APPLICATION

NOTES

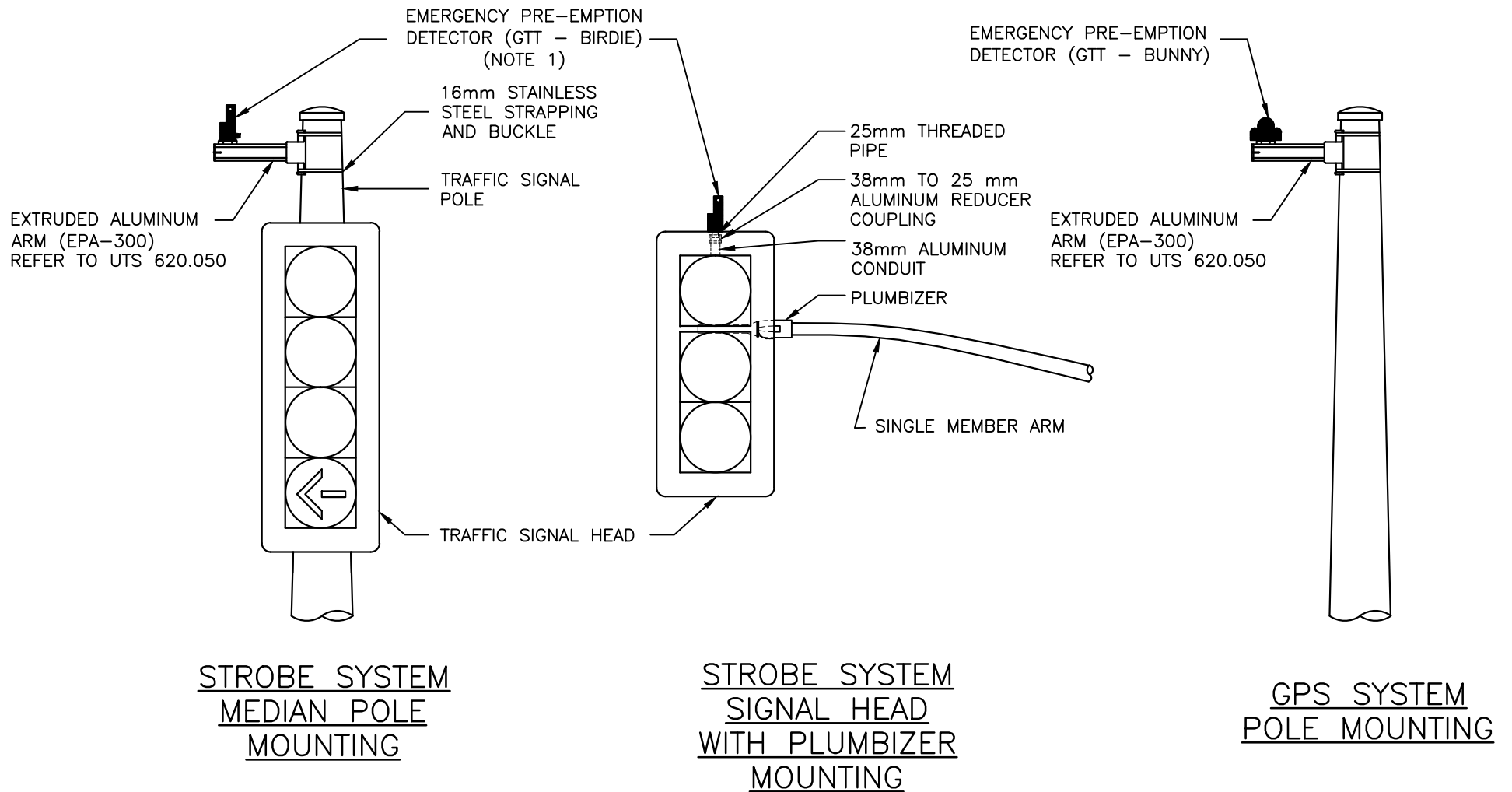
1. MATERIAL TO BE 1.6mm GAUGE ALUMINUM.

FILE LOCATION: \\K:\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTSS FINAL.DWG
DRAWING NAME: 620086_RD_UTS.DWG
DRAWN BY: D. THOMPSON
MODIFIED: 14/02/03 09:39:25
REVISED BY: K.MISTRY
Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**PEDESTRIAN PUSHBUTTON
INFORMATION SIGN**

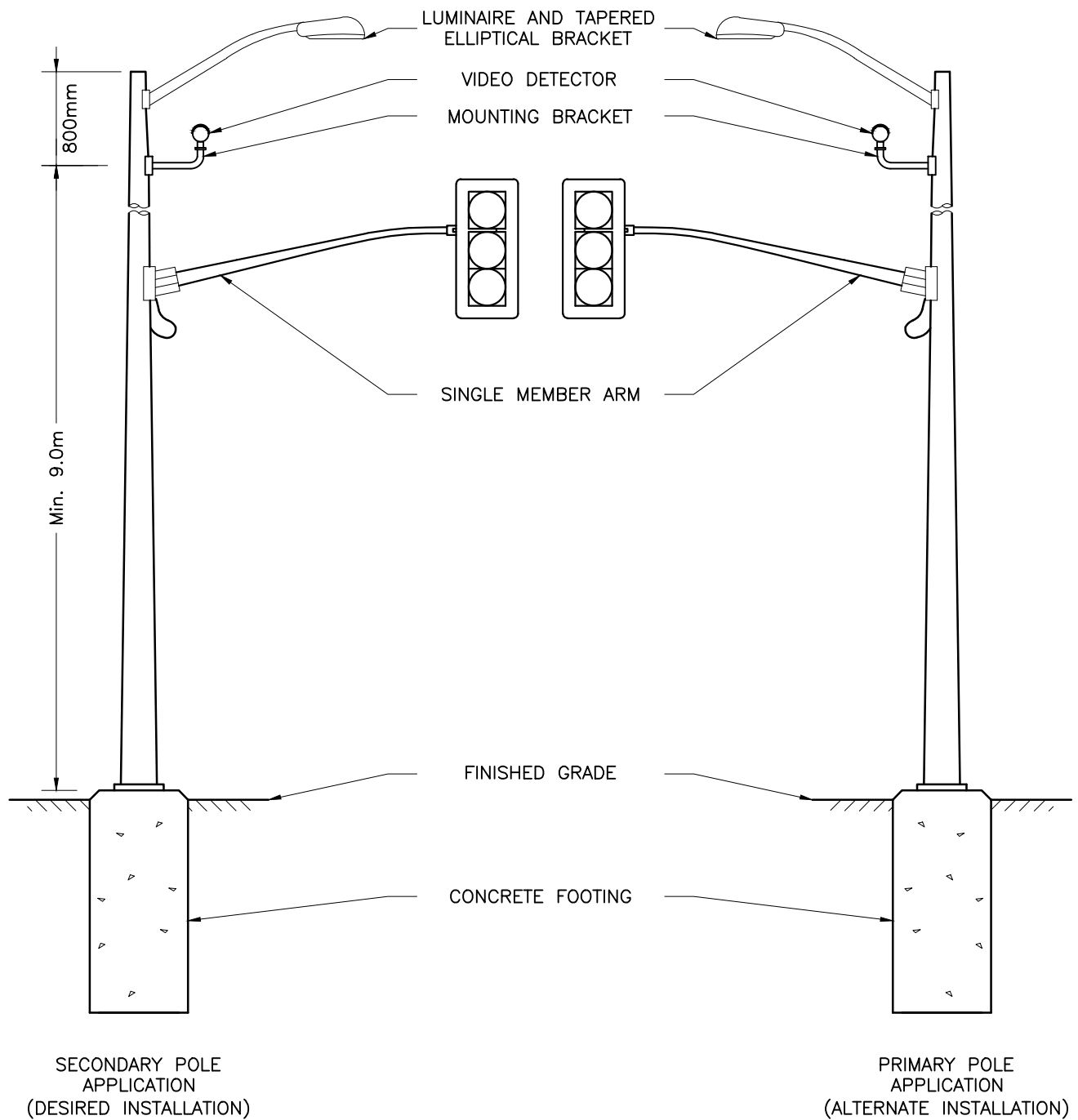
Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 620.086</u>	



NOTES :

- CONTRACTOR SHALL OPEN THE DRAIN HOLE IN DETECTION UNIT DURING INSTALLATION

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
OPTICAL PRE-EMPTION DETECTOR HEAD MOUNTING	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 620.090 </u>	

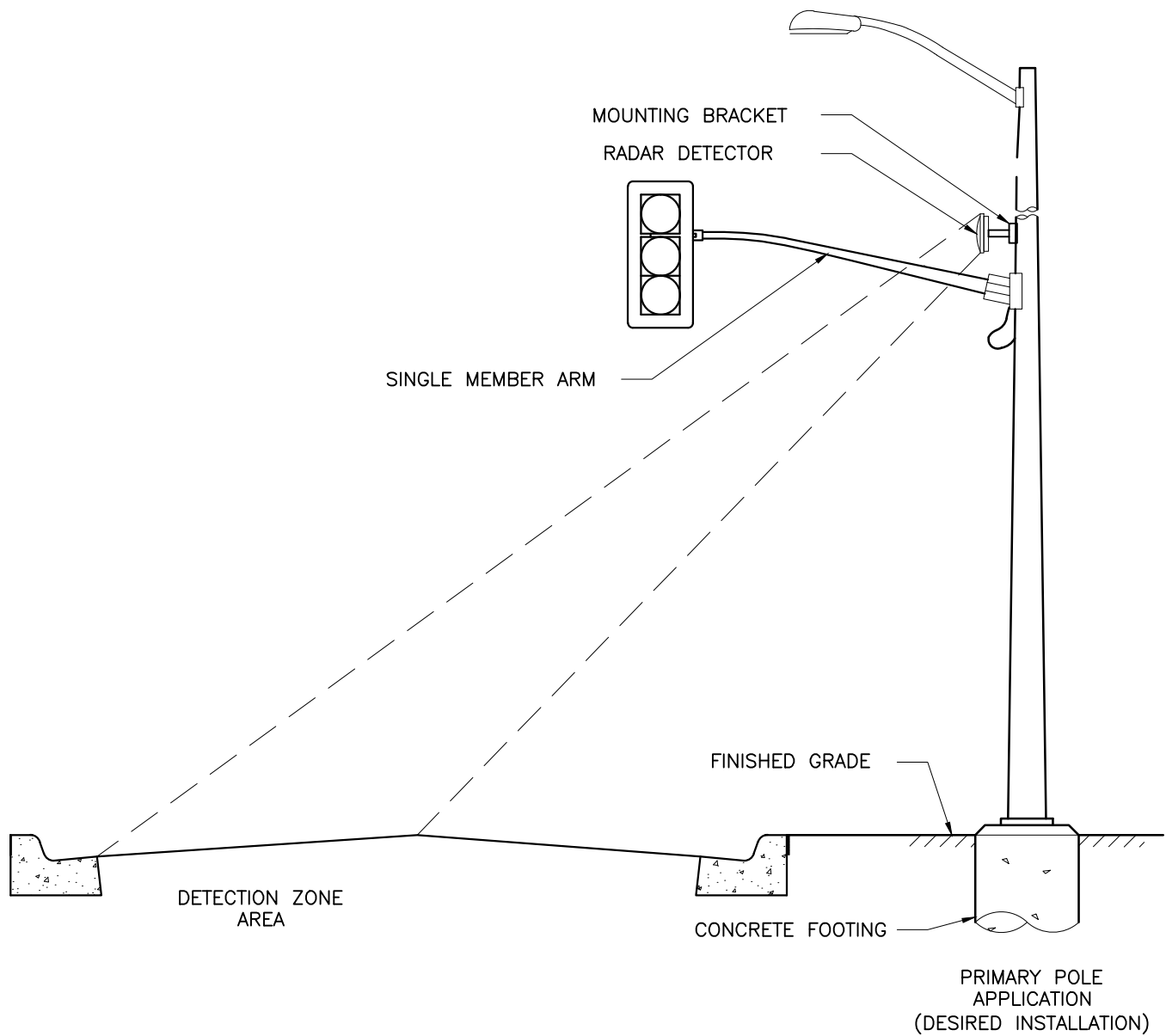


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 DRAWING NAME: 620095_RD_UTSS.DWG
 DRAWN BY: D. THOMPSON
 MODIFIED 14/02/03 09:41:15
 REVISED BY: K. MISTRY
 Revised

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**MOUNTING OF VIDEO
 DETECTION UNIT**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 620.095 </u>	



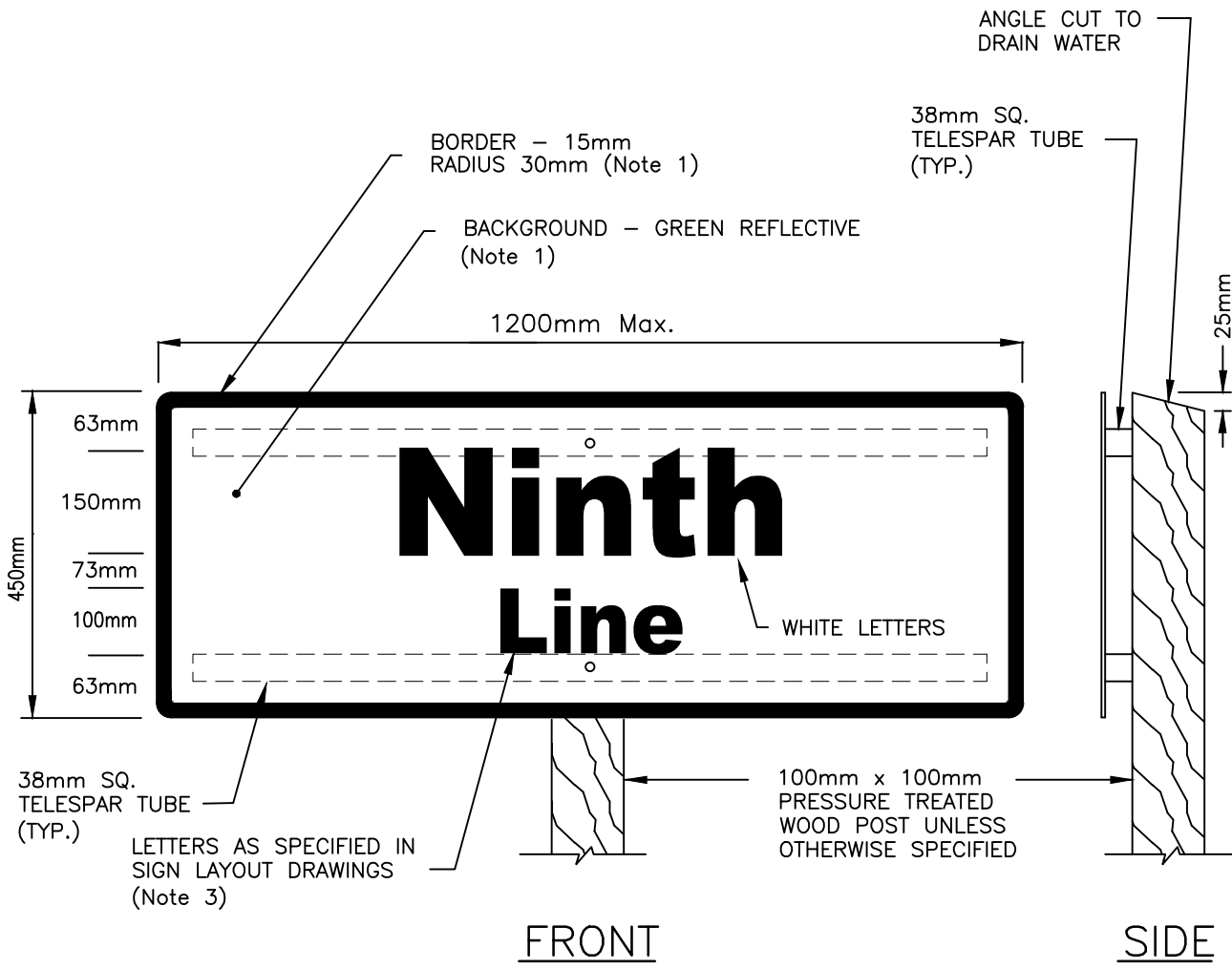
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 DRAWN BY: D. THOMPSON
 MODIFIED: 14/02/03 09:41:13
 REVISIONS:
 REVISOR: K. MISTRY
 REVISION: 0

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**MOUNTING OF WAVETRONIX
 RADAR DETECTION UNIT**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By:	McCORMICK RANKIN
Date:	FEBRUARY, 2014
STANDARD No. UTS 620.096	



NOTES

1. ALL SIGNS TO BE MANUFACTURED WITH "3M" SCOTCHLITE, HIGH INTENSITY GRADE REFLECTIVE SHEETING.
2. ALL SIGNS TO BE MANUFACTURED FROM 3.18mm ALUMINUM SHEET STOCK.
3. CONTACT OPERATING AUTHORITY FOR SIGN LAYOUT TABLE PRIOR TO MANUFACTURING.
4. THIS SIGN MUST NOT BE COMBINED OR STACKED WITH OTHER TRAFFIC CONTROL SIGNS UNLESS DIRECTED OTHERWISE BY THE CONTRACT DRAWINGS OR THE ENGINEER.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

ADVANCE STREET
NAME SIGN
GROUND MOUNT

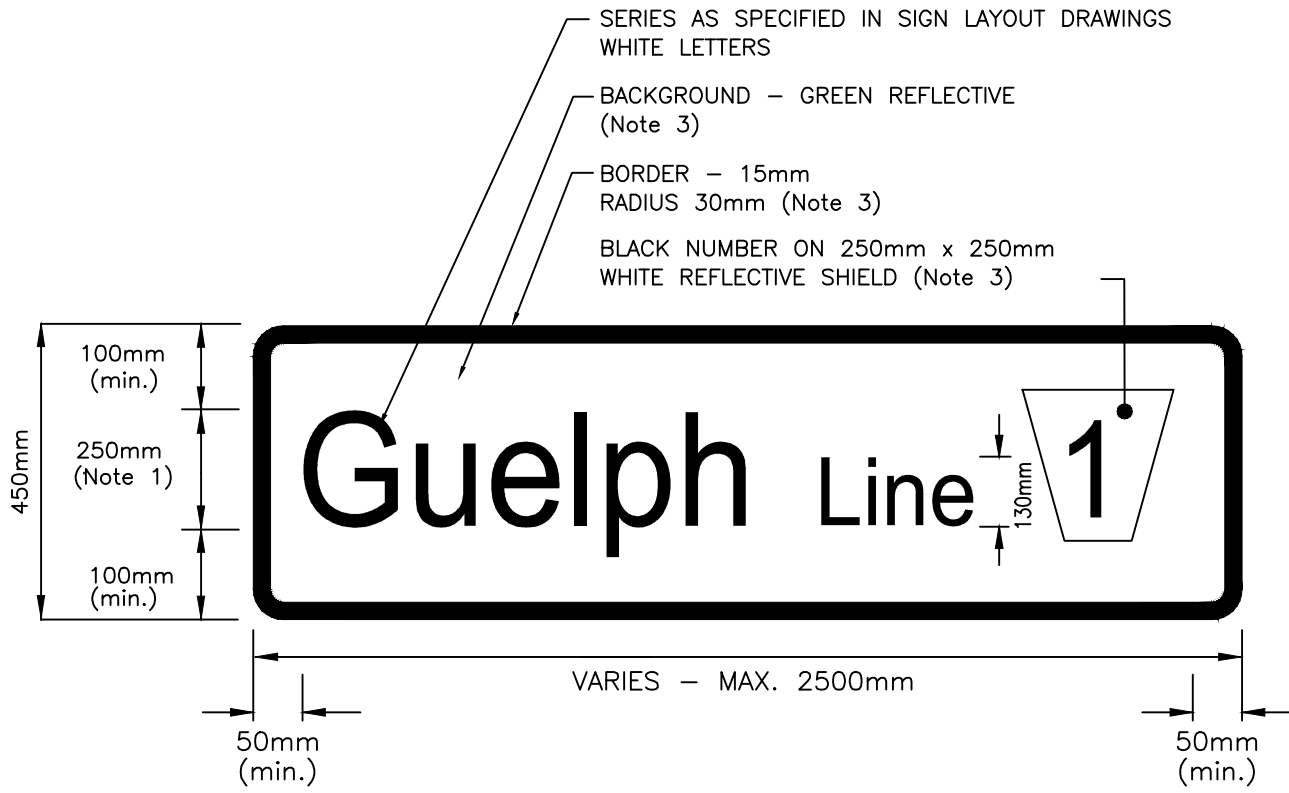
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

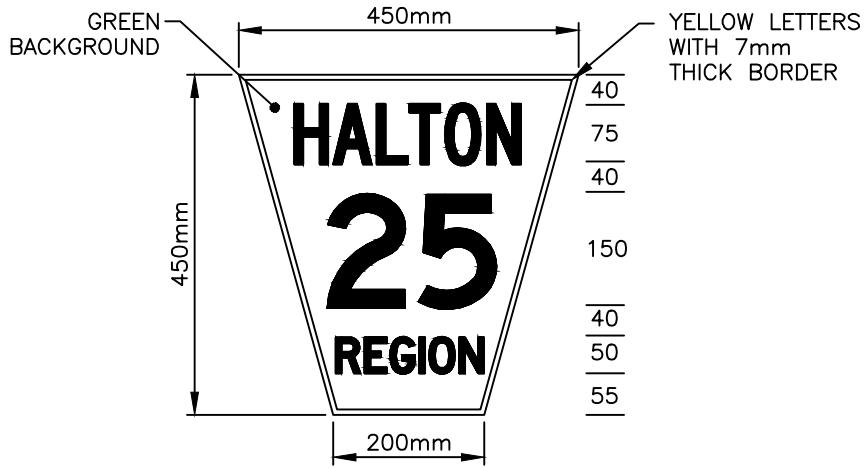
STANDARD No. UTS 999.010



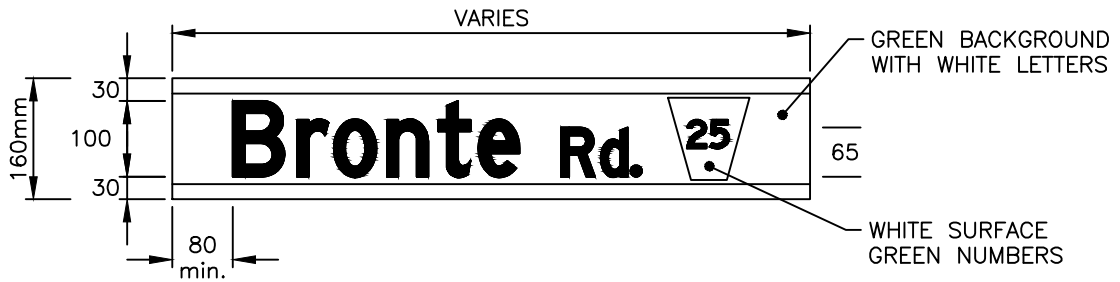
NOTES:

1. IN URBAN AREAS LETTER HEIGHT CAN BE REDUCED TO 200mm WITH 125mm TOP AND BOTTOM SPACING.
2. ALL SIGNS TO BE MANUFACTURED FROM 3.18mm ALUMINUM SHEET STOCK.
3. ALL SIGNS TO BE MANUFACTURED WITH "3M" SCOTCH LITE, HIGH INTENSITY GRADE REFLECTIVE SHEETING.
4. SIGNS GREATER THAN 2500mm NOT TO BE MOUNTED ON MAST ARMS.
5. CONTACT THE OPERATING AUTHORITY FOR SIGN LAYOUT TABLE PRIOR TO MANUFACTURING.

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES ARTERIAL STREET NAME SIGN MAST ARM MOUNT	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 999.020 </u>	



ROUTE MARKER



SMALL STREET NAME



LARGE STREET NAME

NOTES

1. ALL SIGNS TO BE MANUFACTURED WITH "3M" SCOTCHLITE-REFLECTIVE SHEETING-HIGH INTENSITY GRADE.
2. STREET NAME SIGNS TO BE MANUFACTURED FROM EXTRUDED ALUMINUM WITH A 2mm WEB AND 6mm EXTRUDED FLANGE. ROUTE MARKER TO BE MANUFACTURED FROM 2mm THICK ALUMINUM.
3. CONTACT OPERATING AUTHORITY FOR SIGN LAYOUT TABLE PRIOR TO MANUFACTURING.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

Rev. Date _____ Rev. No. 0

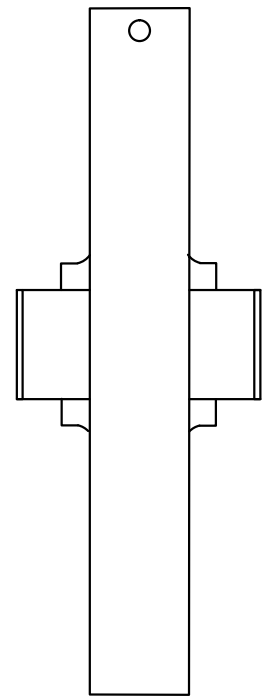
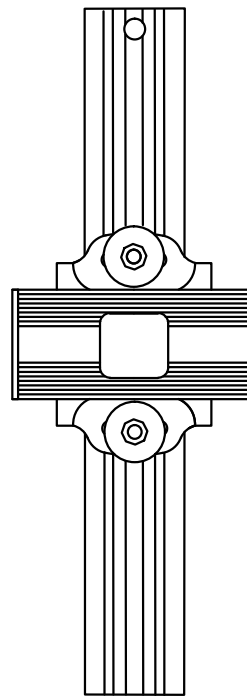
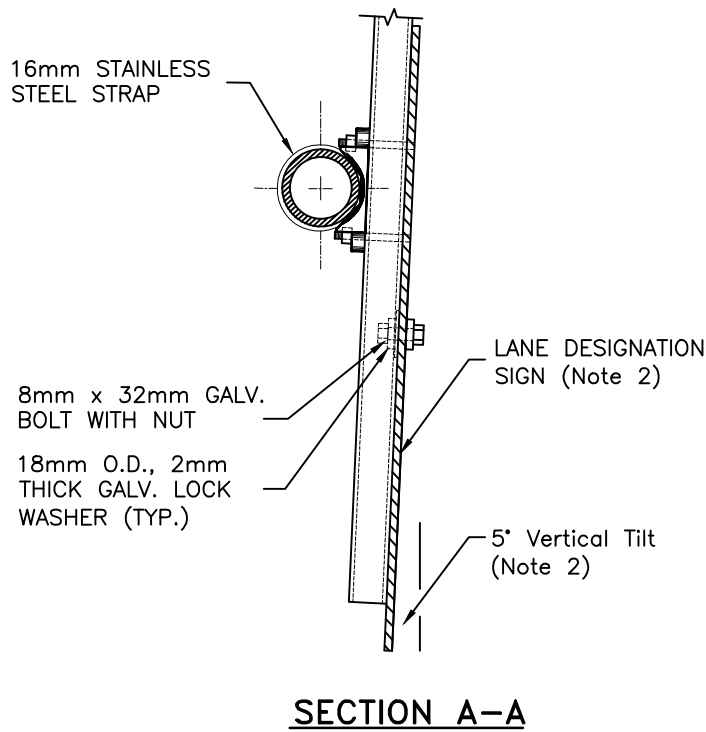
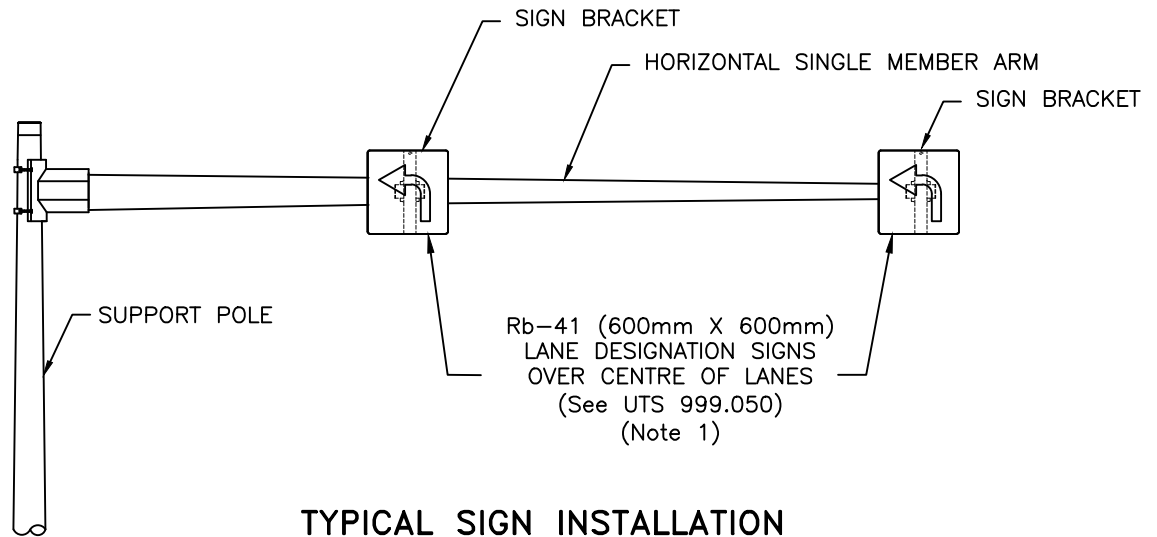
Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 999.025

**ROUTE MARKER
AND EXTRUDED
STREET NAME SIGNS**



SUPPORT SIGN BRACKET MANUFACTURED BY SENTINEL POLE AND TRAFFIC EQUIPMENT.

NOTES

1. MOUNTING HOLES FOR BRACKET & SIGN TO BE FIELD DRILLED.
2. PLACE 5° VERTICAL DOWNWARD TILT ON SIGN.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**LANE DESIGNATION
SIGN BRACKET**

Rev. Date

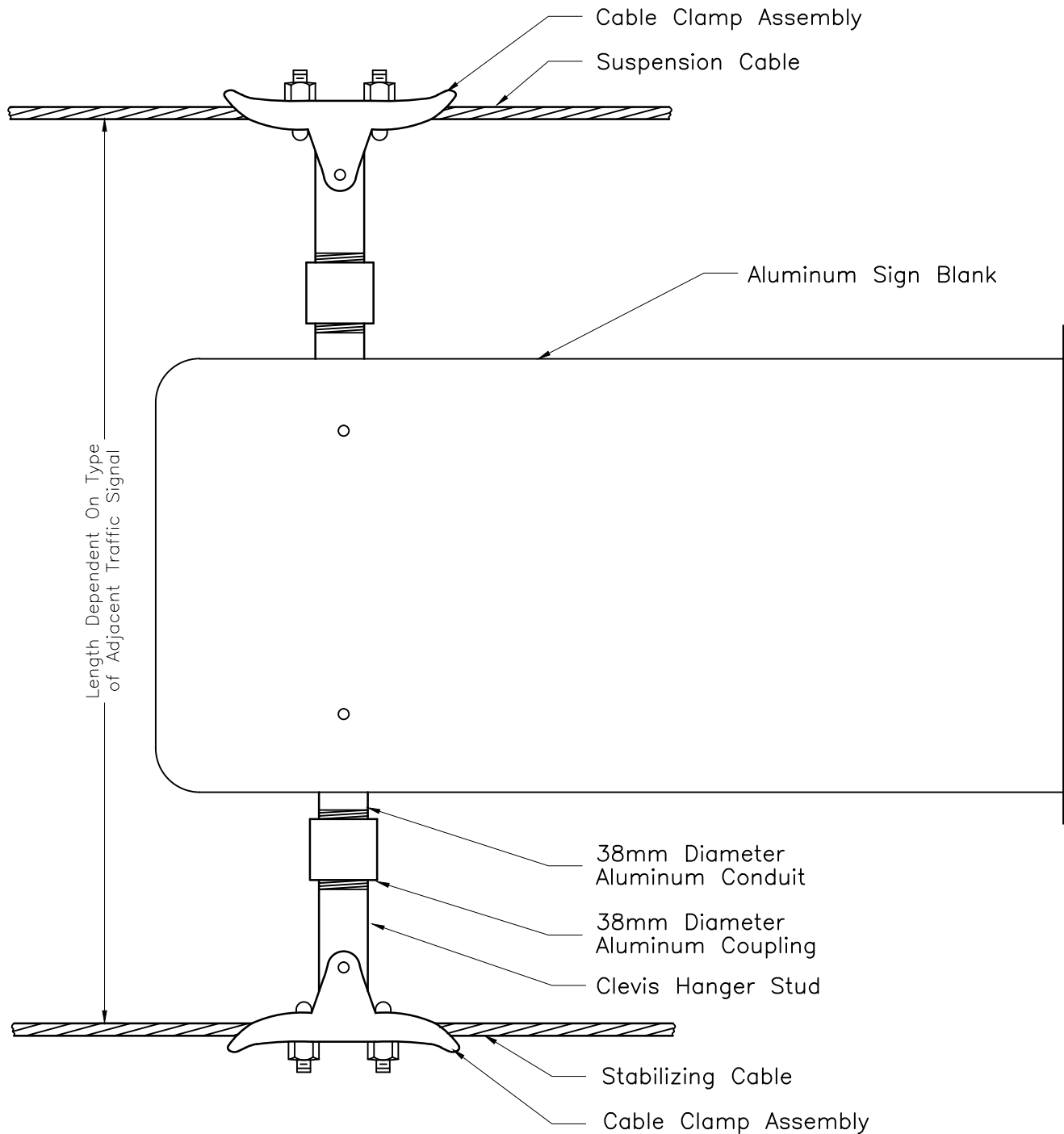
Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 999.030



NOTES:

- 1. Two mounting bracket to be mounted on span cables per sign, over top of roadway adjacent to traffic signal as per signal layout.
- A. This standard to be used in conjunction with OPSD 2540.01 and OPSD 2540.02.

NTS

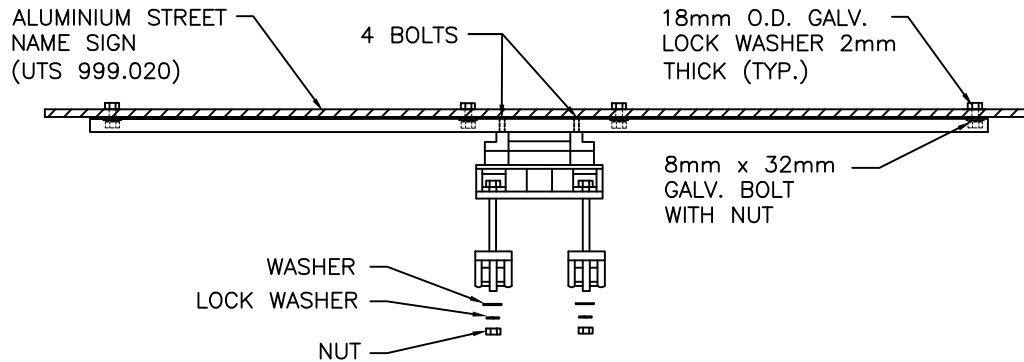
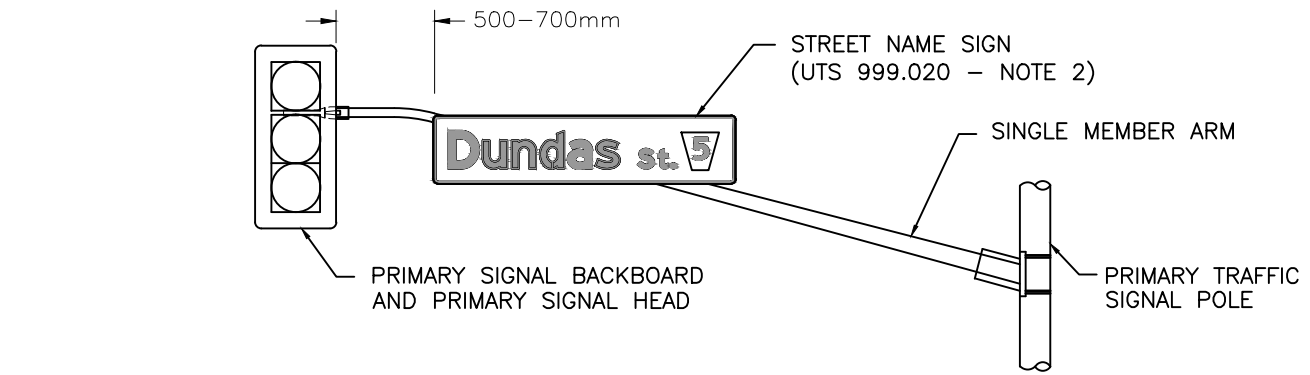
**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**AERIAL SUSPENSION MOUNTING
BRACKET FOR ARTERIAL
STREET NAME SIGN**

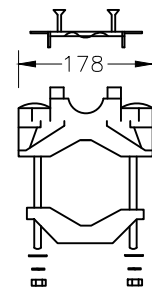
Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	

Modified By: <u> McCORMICK RANKIN </u>	
Date: <u> FEBRUARY, 2014 </u>	
STANDARD No. <u> UTS 999.031 </u>	

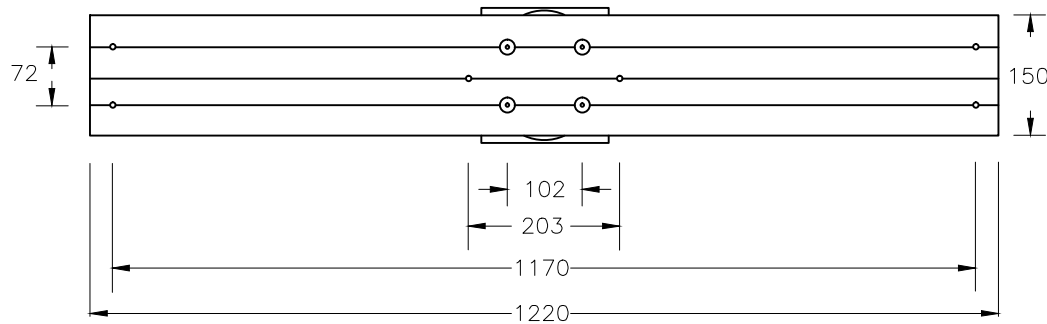
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 DRAWING NAME: 999031_RO_UTSS.DWG
 DRAWN BY: D. THOMPSON
 MODIFIED 14/02/03 09:41:01
 REVISED BY: K. MISTRY
 Revised



TOP VIEW



SIDE VIEW



FRONT VIEW

SUPPORT SIGN BRACKET MANUFACTURED BY SENTINEL POLE AND TRAFFIC EQUIPMENT.
 - MODEL # VSB-4 - FOR 2.0 M SIGN
 - MODEL # VSB-6 - FOR 2.0M TO 2.4 M SIGN

DIMENSIONS IN mm EXCEPT AS NOTED

NOTES

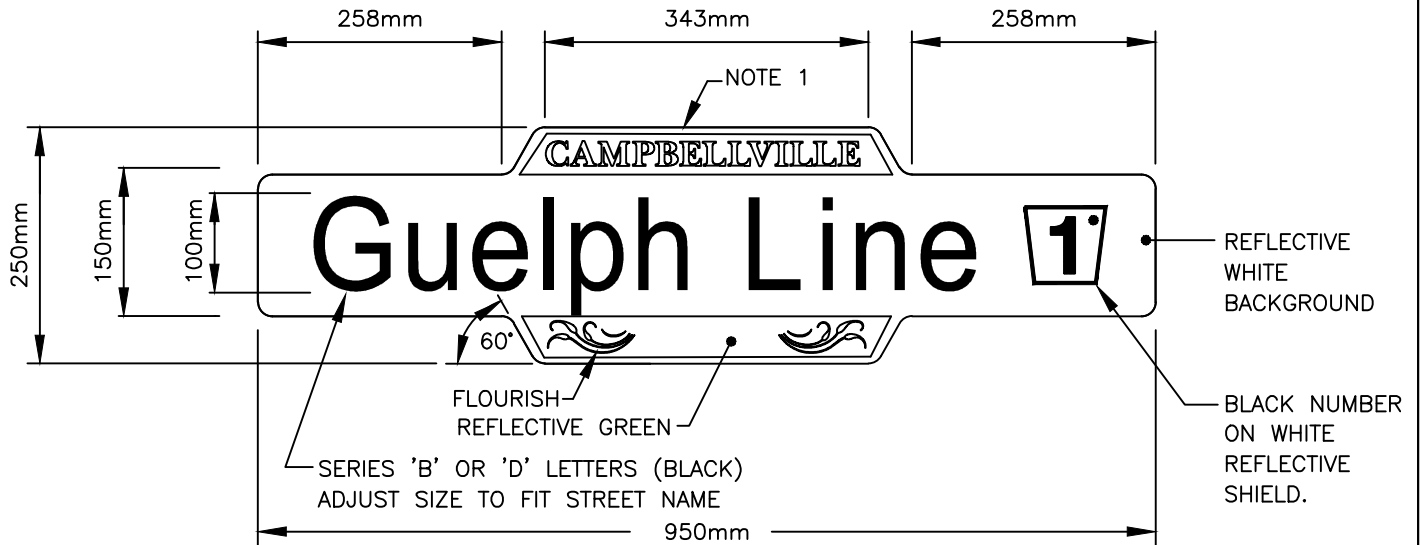
1. POLE PLATE BOLTS TO BE ADJUSTED SO THAT HORIZONTAL PORTION OF ARM IS LEVEL.
2. SET TOP OF SIGN LEVEL WITH TOP OF AMBER INDICATION WHEN PLUMBIZER IS USED OR TOP OF RED INDICATION WHEN CUSHION HANGER IS USED.
3. MOUNTING HOLES FOR BRACKET AND SIGN TO BE FIELD DRILLED.
4. PLACE 5° VERTICAL TILT ON SIGN.
5. ON NON-DIVIDED ROADWAYS, ADJUST SIGNS POSITION ALONG MAST ARM TO ENSURE OPPOSING SECONDARY SIGNAL INDICATIONS ARE NOT OBSTRUCTED.

**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**ARTERIAL SIGN BLADE
 SUPPORT BRACKET**

Rev. Date	Rev. No. <u> 0 </u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY, 2014</u>	
STANDARD No. <u>UTS 999.035</u>	

FILE LOCATION: W:\7K\7101 CONSOLIDATION OF UNIFORM TRAFFIC CONTROL SPECS\2014 UTS FINAL.DWG
 DRAWING NAME: 999035_RD_UTS.DWG
 DRAWN BY: D. THOMPSON
 REVISED BY: K. MISTRY
 MODIFIED 14/02/03 09:40:58
 Revised



**ORNAMENTAL ARTERIAL WITH
CONVENTIONAL LETTERING**

NOTES

1. SIGN TO BE MANUFACTURED FROM 4.75mm THICK ALUMINIUM SHEETING. FACE BOTH SIDES.
2. CONTACT HALTON REGION PUBLIC WORKS FOR REGIONAL ROAD ROUTE NUMBER TO BE USED.
3. ALL SIGNS TO BE MANUFACTURED WITH "3M" SCOTCHLITE-REFLECTIVE SHEETING-HIGH INTENSITY GRADE.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

ORNAMENTAL ARTERIAL
STREET NAME SIGN

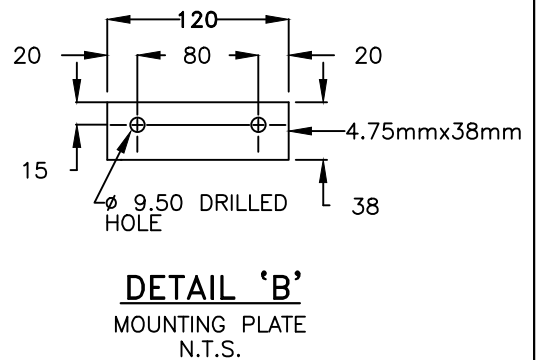
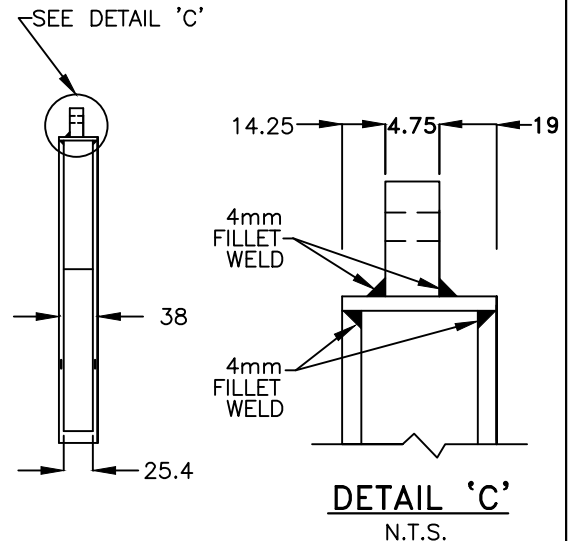
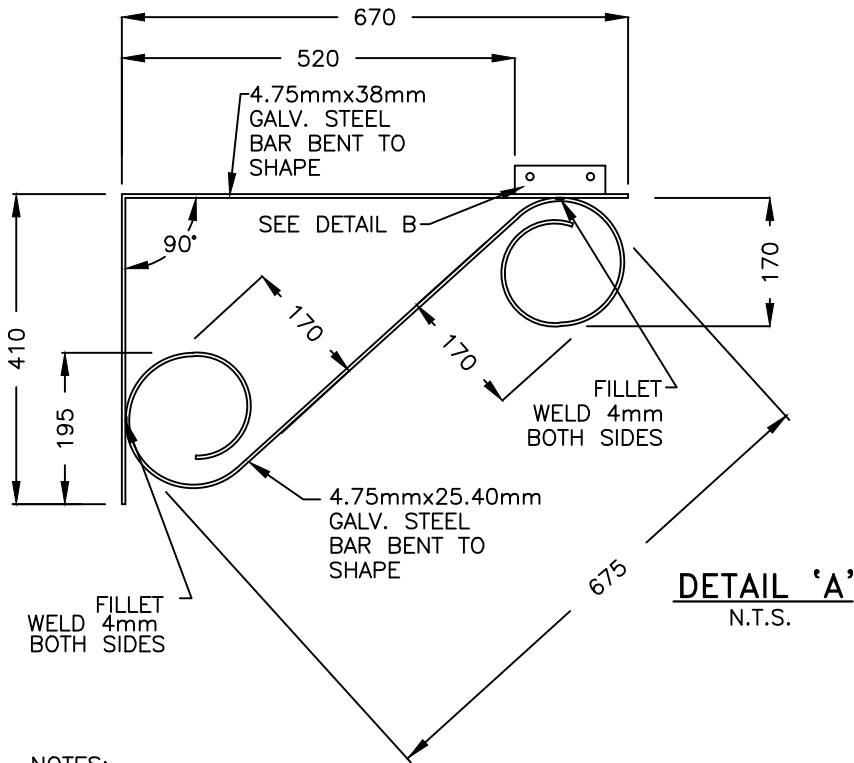
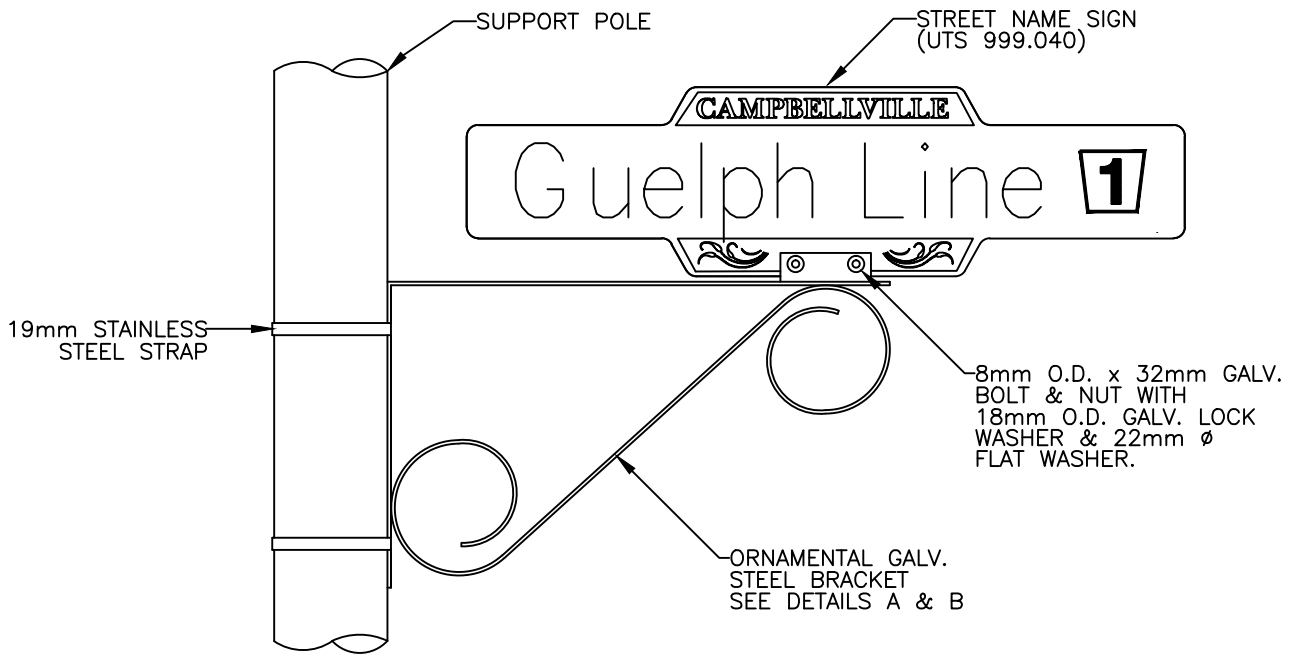
Rev. Date	Rev. No. <u> 0 </u>
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Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 999.040



NOTES:

1. BRACKET TO BE DOUBLED PRIME AND ENAMELLED GLOSS BLACK.
2. SEE CONTRACT DRAWING, FOR MOUNTING HEIGHT AND LOCATION.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**UNIFORM TRAFFIC SIGNAL STANDARD
HALTON REGION AND LOCAL MUNICIPALITIES**

**ORNAMENTAL STREET
NAME SIGN BRACKET**

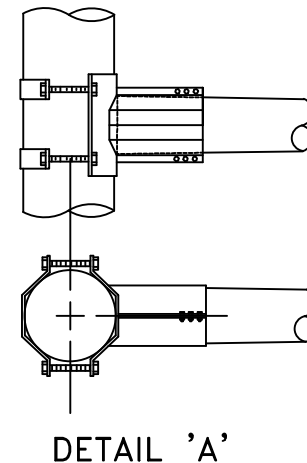
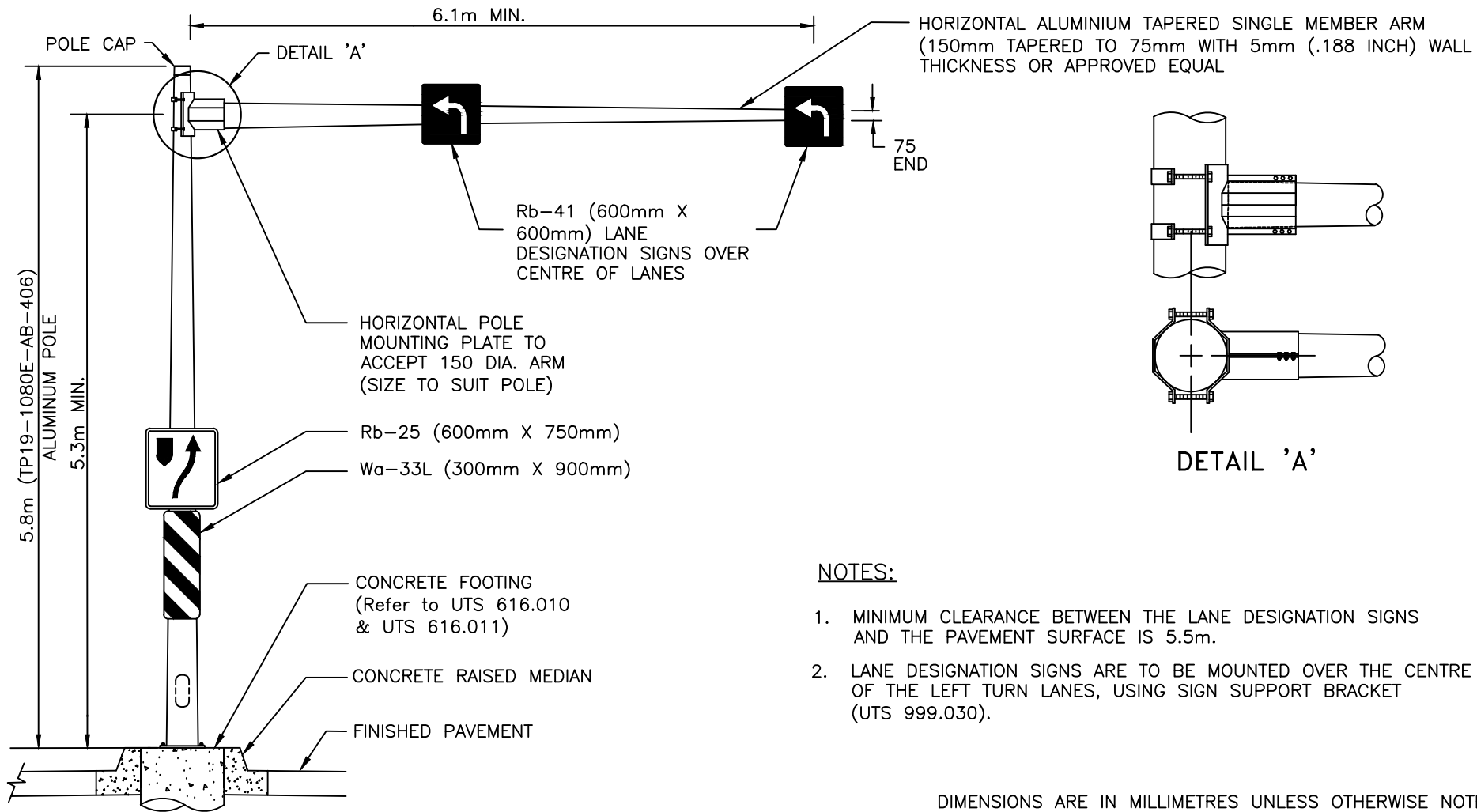
Rev. Date _____ Rev. No. 0

Modification: _____

Modified By: McCORMICK RANKIN

Date: FEBRUARY, 2014

STANDARD No. UTS 999.045

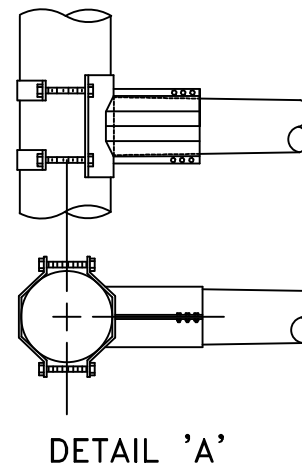
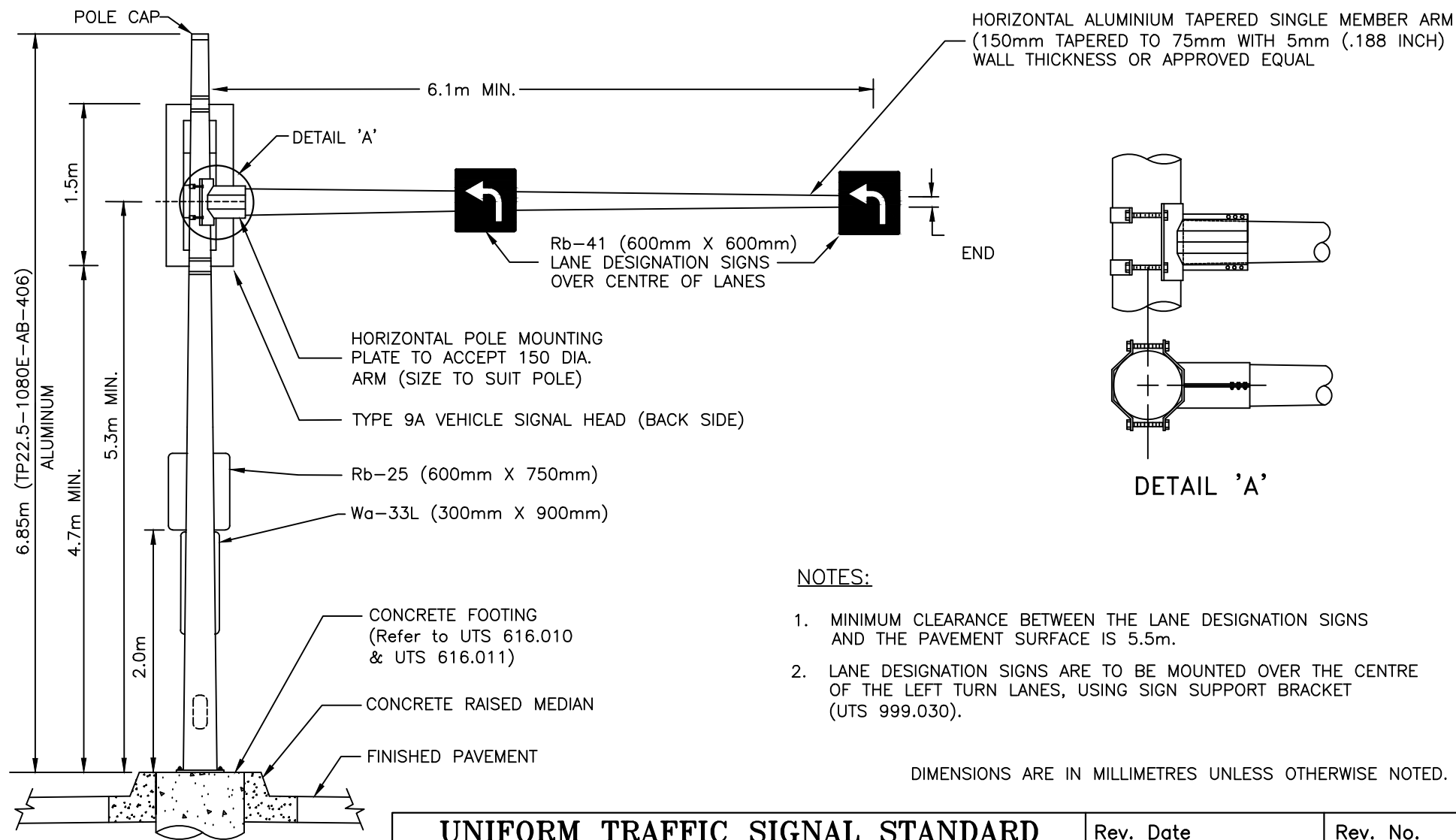


NOTES:

1. MINIMUM CLEARANCE BETWEEN THE LANE DESIGNATION SIGNS AND THE PAVEMENT SURFACE IS 5.5m.
2. LANE DESIGNATION SIGNS ARE TO BE MOUNTED OVER THE CENTRE OF THE LEFT TURN LANES, USING SIGN SUPPORT BRACKET (UTS 999.030).

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
ADVANCE OVERHEAD LANE DESIGNATION SIGNS FOR DUAL LEFT TURN LANES	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 999.050 </u>	

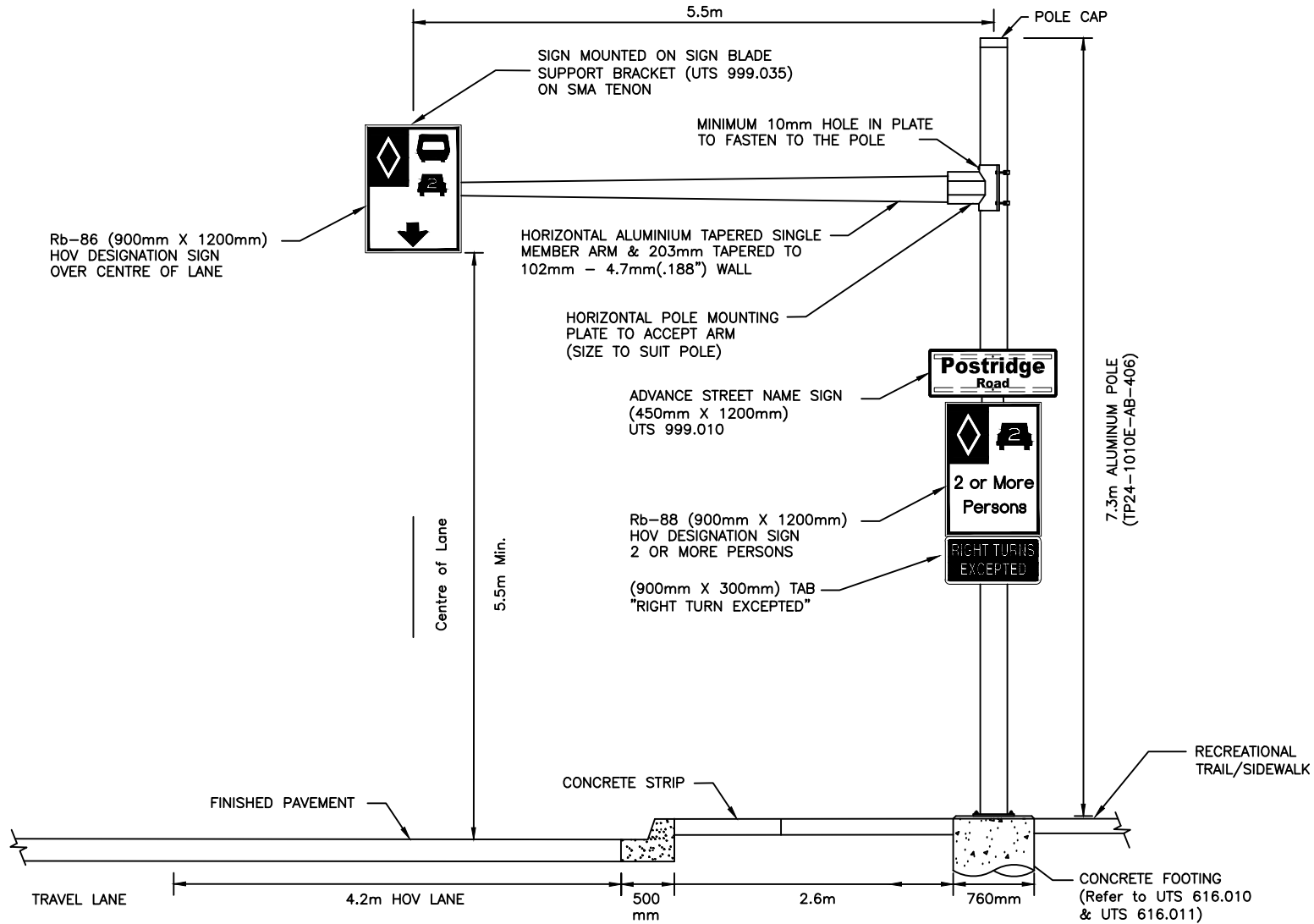


NOTES:

1. MINIMUM CLEARANCE BETWEEN THE LANE DESIGNATION SIGNS AND THE PAVEMENT SURFACE IS 5.5m.
2. LANE DESIGNATION SIGNS ARE TO BE MOUNTED OVER THE CENTRE OF THE LEFT TURN LANES, USING SIGN SUPPORT BRACKET (UTS 999.030).

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

UNIFORM TRAFFIC SIGNAL STANDARD HALTON REGION AND LOCAL MUNICIPALITIES OVERHEAD LANE DESIGNATION SIGNS ON CENTRE MEDIAN SIGNAL POLE	Rev. Date	Rev. No. <u> 0 </u>
	Modification: _____	
	Modified By: <u> McCORMICK RANKIN </u>	
	Date: <u> FEBRUARY 2014 </u>	
	STANDARD No. <u> UTS 999.055 </u>	

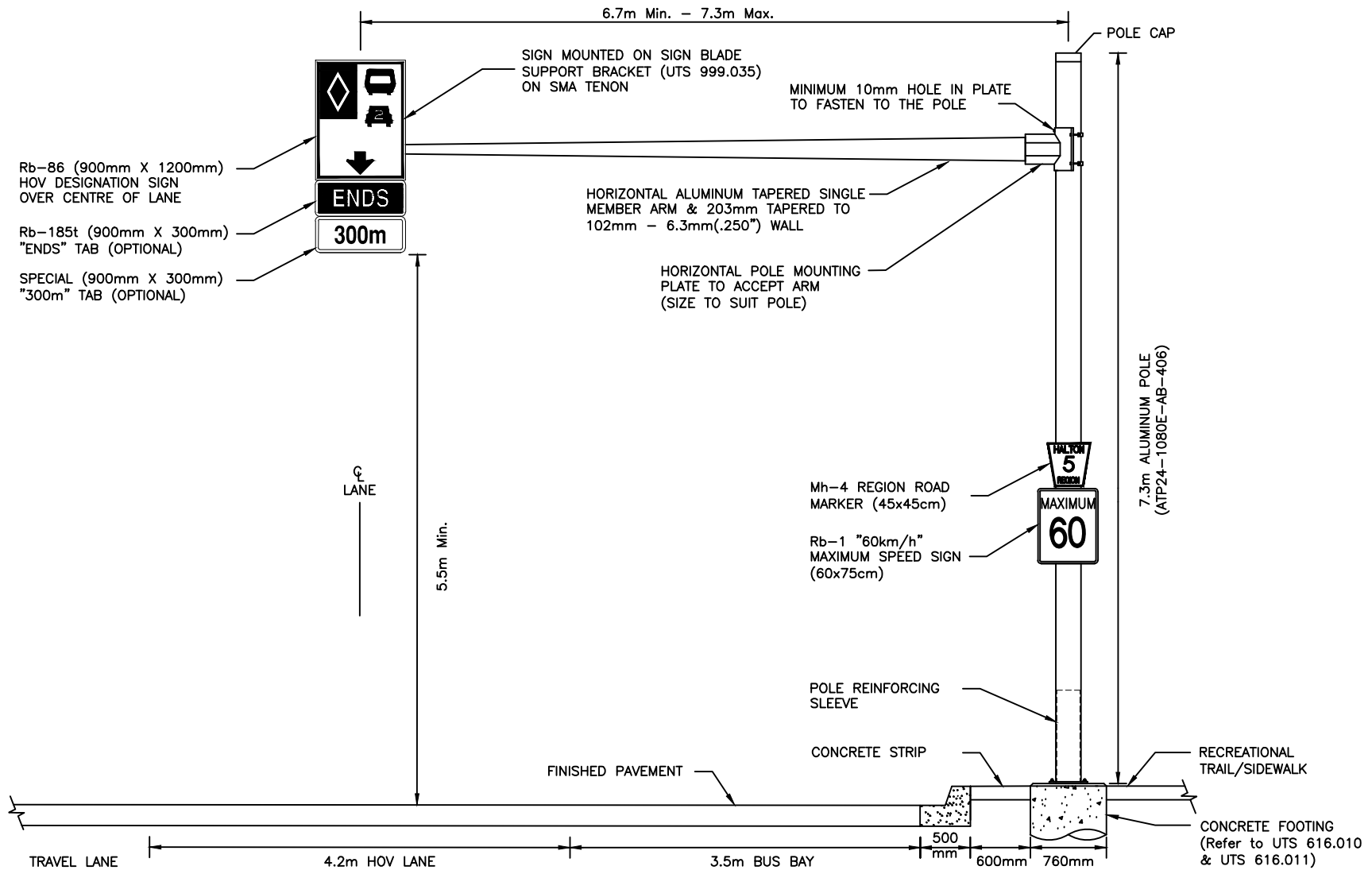


**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**OVERHEAD HIGH OCCUPANCY
 VEHICLE LANE DESIGNATION SIGNS**

5.5m HORIZONTAL SINGLE MEMBER ARM

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY 2014</u>	
STANDARD No. <u>UTS 999.060</u>	



**UNIFORM TRAFFIC SIGNAL STANDARD
 HALTON REGION AND LOCAL MUNICIPALITIES**

**OVERHEAD HIGH OCCUPANCY
 VEHICLE LANE DESIGNATION SIGNS**
 6.7m to 7.3m HORIZONTAL SINGLE MEMBER ARMS

Rev. Date	Rev. No. <u>0</u>
Modification: _____	
Modified By: <u>McCORMICK RANKIN</u>	
Date: <u>FEBRUARY 2014</u>	
STANDARD No. <u>UTS 999.062</u>	