



MINISTRY OF WORKS AND TRANSPORT

Traffic Management Branch
Licensing Office Headquarters
Level II
South Bank Road, Frederick Settlement
Caroni, Trinidad, W.I.
Phone: 612 - 0378 Ext. 56000

Wednesday, 17 April 2024

TENDERERS

Dear Sir/Madam,

Re: Addendum to Upgrade of Obsolete Traffic Signal Control Equipment.

The following addendum to the Solicitation Documents for **Upgrade of Obsolete Traffic Signal Control Equipment** Contract is required. The purpose of this Addendum is to make changes, clarifications and additions to the Solicitation Document for the project referenced above.

ADDENDUM #1

CHANGES/ CLARIFICATIONS

- 1) Revision on pages 72,73,74,75,76,77,79,80,81,82,83,84,85 and 86 of 106

BILL OF QUANTITIES

Items 2.04, 3.04, 4.04, 5.04, 6.04, 7.04, 9.04, 10.04, 11.04, 12.04, 13.04, 14.04, 15.04 and 16.04.

QTY. "4"

to be replaced with:

QTY. "3"

- 2) Revision on pages 72,73,74,75,76,77,78,79,80,81,82,83,84,85 and 86 of 106

BILL OF QUANTITIES

Items 2.08, 3.08, 4.08, 5.08, 6.08, 7.08, 8.08, 9.08, 10.08, 11.08, 12.08, 13.08, 14.08, 15.08 and 16.08.

Supply and Installation of 25ft aesthetically pleasing decorative mast arm

to be replaced with:

Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm base

3) Revision on pages 72,73,74,75,76,77,78,79,80,81,82,83,84,85 and 86 of 106

BILL OF QUANTITIES

Items 2.09, 3.09, 4.09, 5.09, 6.09, 7.09, 8.09, 9.09, 10.09, 11.09, 12.09, 13.09, 14.09, 15.09, 16.09.

Supply and Installation of 24" x 4" Galvanized Iron Pole

to be replaced with:

Supply and Installation of 24' x 4" Galvanized Iron Pole

4) Revision on pages 72,73,74,75,76,77,78,79,80,81,82,83,84,85 and 86 of 106

BILL OF QUANTITIES

Items 2.11, 3.11, 4.11, 5.11, 6.11, 7.11, 8.11, 9.11, 10.11, 11.11, 12.11, 13.11, 14.11, 15.11 and 16.11.

Supply and Installation of Accessible XAV 2 LED Pushbutton

to be replaced with:

Supply and Installation of Accessible Pedestrian Push-button

5) Revision on page 78 of 106

BILL OF QUANTITIES

Items 8.07

QTY. "5"

to be replaced with:

QTY. "4"

6) Revision on page 38 of 106

APPENDIX TO TENDER

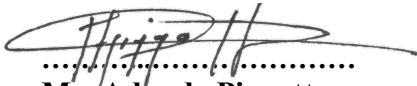
Times for Completion of Works Clause 1.1.3.3 Ninety (90) Calendar Days

to be replaced with:

Times for Completion of Works Clause 1.1.3.3 One Hundred and Twenty
(120) Calendar Days

7) Addition to the DRAWINGS

The drawings of all the locations, splice box and drilled pier foundation for the mast arm attached in the Appendix should be included as part of the Solicitation Document.



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Mr. Adande Piggott
Chief Traffic Engineer

APPENDIX

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 200 -L1 – Duke Street / Richmond Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
2	Traffic Signal Control Equipment at L1				
2.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
2.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
2.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
2.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
2.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
2.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
2.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
2.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
2.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
2.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
2.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
2.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
2.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
2.14	Supply and Installation of weather proof bell	1	NO.		\$
2.15	Supply and Installation of Splice Box	2	NO.		\$
2.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
2.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 200				
	Total of Bill 200 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 300 - L2 – Duke Street / Edward Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
3	Traffic Signal Control Equipment at L2				
3.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
3.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
3.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
3.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
3.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
3.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
3.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
3.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
3.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
3.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
3.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
3.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
3.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
3.14	Supply and Installation of weather proof bell	1	NO.		\$
3.15	Supply and Installation of Splice Box	2	NO.		\$
3.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
3.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 300				
	Total of Bill 300 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 400 -L3 – Duke Street / St. Vincent Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
4	Traffic Signal Control Equipment at L3				
4.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
4.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
4.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
4.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
4.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
4.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
4.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
4.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
4.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
4.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
4.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
4.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
4.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
4.14	Supply and Installation of weather proof bell	1	NO.		\$
4.15	Supply and Installation of Splice Box	2	NO.		\$
4.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
4.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 400				
	Total of Bill 400 Carried Forward to Summary				

**BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH**

UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT

Bill 500 -L4 – Duke Street / Abercromby Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5	Traffic Signal Control Equipment at L4				
5.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
5.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
5.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
5.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	4	NO.		\$
5.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
5.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
5.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
5.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
5.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
5.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
5.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
5.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
5.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
5.14	Supply and Installation of weather proof bell	1	NO.		\$
5.15	Supply and Installation of Splice Box	2	NO.		\$
5.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
5.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 500				
	Total of Bill 500 Carried Forward to Summary				

**BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH**

UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT

Bill 600 - L5 – Duke Street / Frederick Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
6	Traffic Signal Control Equipment at L5				
6.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
6.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
6.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
6.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
6.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
6.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
6.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
6.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
6.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
6.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
6.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
6.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
6.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
6.14	Supply and Installation of weather proof bell	1	NO.		\$
6.15	Supply and Installation of Splice Box	2	NO.		\$
6.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
6.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 600				
	Total of Bill 600 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 700 - L6 – Duke Street / Charlotte Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
7	Traffic Signal Control Equipment at L6				
7.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
7.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
7.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
7.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
7.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
7.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
7.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
7.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
7.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
7.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
7.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
7.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
7.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
7.14	Supply and Installation of weather proof bell	1	NO.		\$
7.15	Supply and Installation of Splice Box	2	NO.		\$
7.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
7.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 700				
	Total of Bill 700 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 800 -L7 – Duke Street / Picadilly Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
8	Traffic Signal Control Equipment at L7				
8.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
8.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
8.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
8.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	4	NO.		\$
8.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
8.06	Supply and Installation of 12x12x12 LED Vehicular Signals	6	NO.		\$
8.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	4	NO.		\$
8.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
8.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
8.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
8.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
8.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
8.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
8.14	Supply and Installation of weather proof bell	1	NO.		\$
8.15	Supply and Installation of Splice Box	3	NO.		\$
8.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
8.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 800				
	Total of Bill 800 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 900 -L8 – Charlotte Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
9	Traffic Signal Control Equipment at L8				
9.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
9.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
9.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
9.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
9.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
9.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
9.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
9.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
9.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
9.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
9.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
9.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
9.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
9.14	Supply and Installation of weather proof bell	1	NO.		\$
9.15	Supply and Installation of Splice Box	2	NO.		\$
9.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
9.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 900				
	Total of Bill 900 Carried Forward to Summary				

**BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH**

UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT

Bill 1000 -L9 – Henry Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
10	Traffic Signal Control Equipment at L9				
10.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
10.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
10.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
10.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
10.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
10.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
10.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
10.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
10.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
10.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
10.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
10.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
10.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
10.14	Supply and Installation of weather proof bell	1	NO.		\$
10.15	Supply and Installation of Splice Box	2	NO.		\$
10.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
10.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1000				
	Total of Bill 1000 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 1100 -L10 – Frederick Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
11	Traffic Signal Control Equipment at L10				
11.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
11.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
11.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
11.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
11.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
11.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
11.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
11.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
11.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
11.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
11.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
11.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
11.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
11.14	Supply and Installation of weather proof bell	1	NO.		\$
11.15	Supply and Installation of Splice Box	2	NO.		\$
11.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
11.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1100				
	Total of Bill 1100 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 1200 -L11 – Pembroke Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
12	Traffic Signal Control Equipment at L11				
12.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
12.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
12.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
12.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
12.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
12.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
12.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
12.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
12.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
12.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
12.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
12.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
12.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
12.14	Supply and Installation of weather proof bell	1	NO.		\$
12.15	Supply and Installation of Splice Box	2	NO.		\$
12.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
12.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1200				
	Total of Bill 1200 Carried Forward to Summary				

**BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH**

UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT

Bill 1300 -L12 – Abercromby Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
13	Traffic Signal Control Equipment at L12				
13.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
13.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
13.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
13.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
13.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
13.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
13.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
13.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
13.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
13.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
13.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
13.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
13.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
13.14	Supply and Installation of weather proof bell	1	NO.		\$
13.15	Supply and Installation of Splice Box	2	NO.		\$
13.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
13.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1300				
	Total of Bill 1300 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 1400 - L13 – St. Vincent Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
14	Traffic Signal Control Equipment at L13				
14.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
14.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
14.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
14.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
14.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
14.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
14.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
14.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
14.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
14.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
14.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
14.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
14.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
14.14	Supply and Installation of weather proof bell	1	NO.		\$
14.15	Supply and Installation of Splice Box	2	NO.		\$
14.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
14.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1400				
	Total of Bill 1400 Carried Forward to Summary				

BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT
Bill 1500 -L14 – Edward Street / Park Street

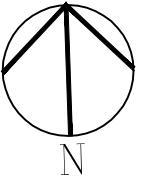
ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
15	Traffic Signal Control Equipment at L14				
15.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
15.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
15.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
15.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
15.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
15.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
15.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
15.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
15.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
15.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
15.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
15.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
15.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
15.14	Supply and Installation of weather proof bell	1	NO.		\$
15.15	Supply and Installation of Splice Box	2	NO.		\$
15.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
15.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1500				
	Total of Bill 1500 Carried Forward to Summary				

**BILL OF QUANTITIES
TRAFFIC MANAGEMENT BRANCH**

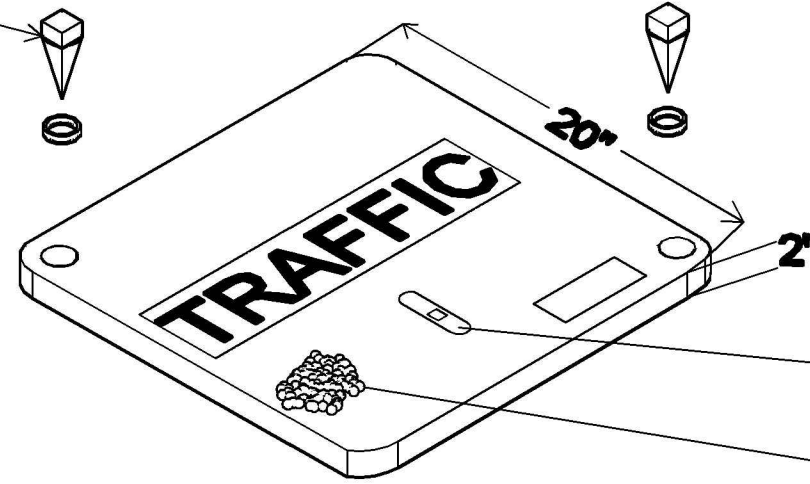
UPGRADE OF OBSOLETE TRAFFIC SIGNAL CONTROL EQUIPMENT

Bill 1600 -L15 – Richmond Street / Park Street

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
16	Traffic Signal Control Equipment at L15				
16.01	Excavation of roadway to an average 305mm W x 560mm D trench.	7	cu m		\$
16.02	Supply and Place 4"schedule 40 PVC encased in 3000 PSI reinforced concrete, topped off by 4" asphalt	40	m		\$
16.03	Supply and Installation of 36"x48"x20" Concrete Plinth Cabinet inclusive of rebar cage	1	NO.		\$
16.04	Supply and Installation of Concrete Pole Base with 19" L x 5/8" diameter bolts and rebar cage	3	NO.		\$
16.05	Supply and Installation of 8 phase fully loaded TS2 Type 2 NEMA standard cabinet coordination ready inclusive of controller and 8 hour runtime UPS	1	NO.		\$
16.06	Supply and Installation of 12x12x12 LED Vehicular Signals	4	NO.		\$
16.07	Supply and Installation of 10' x 4" Aluminum Pole and Square Aluminum Breakaway Base	3	NO.		\$
16.08	Supply and Installation of 21'x 25'-30'ft aesthetically pleasing decorative mast arm inclusive of mast arm concrete base	1	NO.		\$
16.09	Supply and Installation of 24' x 4" Galvanized Iron Pole	1	NO.		\$
16.10	Supply and Installation of Countdown Pedestrian Signals	8	NO.		\$
16.11	Supply and Installation of Accessible Pedestrian Push-button	4	NO.		\$
16.12	Supply and Installation of 3x16sq Armoured Cable	12	m		\$
16.13	Supply and Installation of 2.5mm sq 4 core rhino cable	3	Coils		\$
16.14	Supply and Installation of weather proof bell	1	NO.		\$
16.15	Supply and Installation of Splice Box	2	NO.		\$
16.16	Supply and Installation of 2mx4m Sensor	4	NO.		\$
16.17	Supply and Installation of all Aluminum Mounting Hardware required		L.S.		\$
	TOTAL FOR BILL 1600				
	Total of Bill 1600 Carried Forward to Summary				



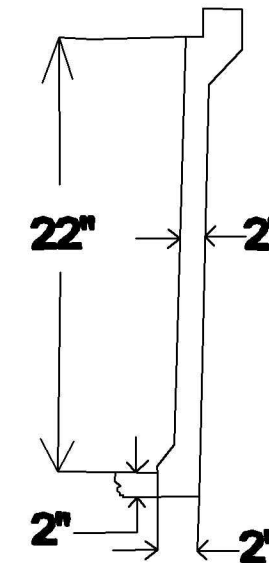
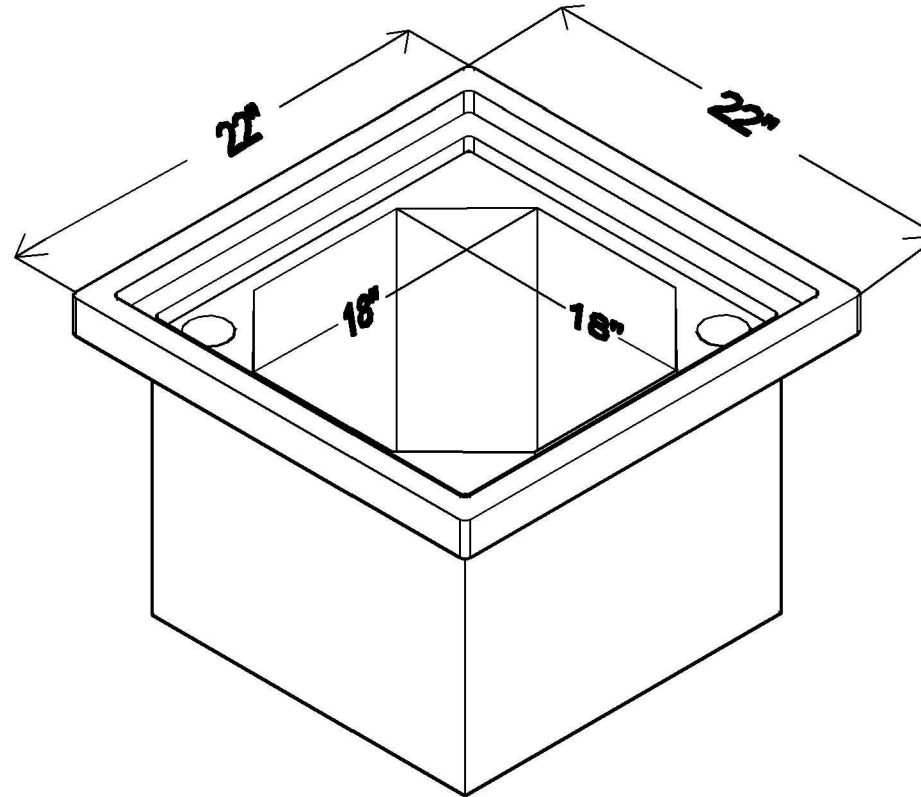
**.3/8 - 16 UNC
STAINLESS
STEEL HEX
HEAD BOLT
W/WASHER
(2)**




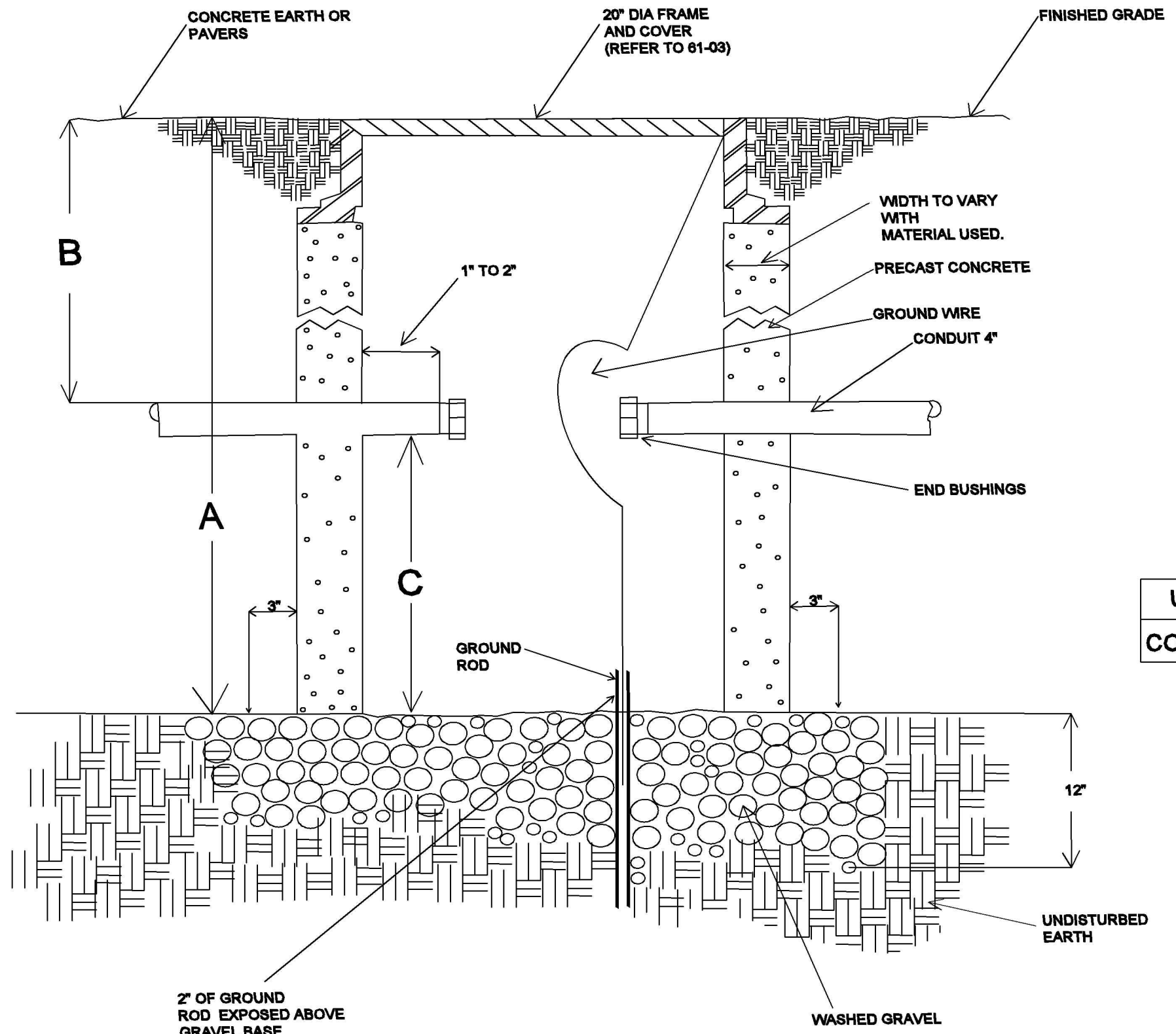
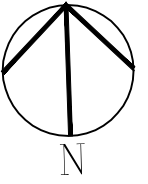
.PULL SLOT.

.5 COF SKID RESISTANT SURFACE


1. THE INNER DIAMETER OF THE SPLICE BOX IS 18".
2. ALL CONDUITS SHALL BE 4" SCHEDULE 40 PVC UNLESS SPECIFIED ON THE PLAN .
3. ALL CONDUITS SHALL HAVE MINIMUM OF 2" spacing.
4. Junction box shall have a min of 6" clearance near the curb.
5. logo text on cover shall say "traffic"

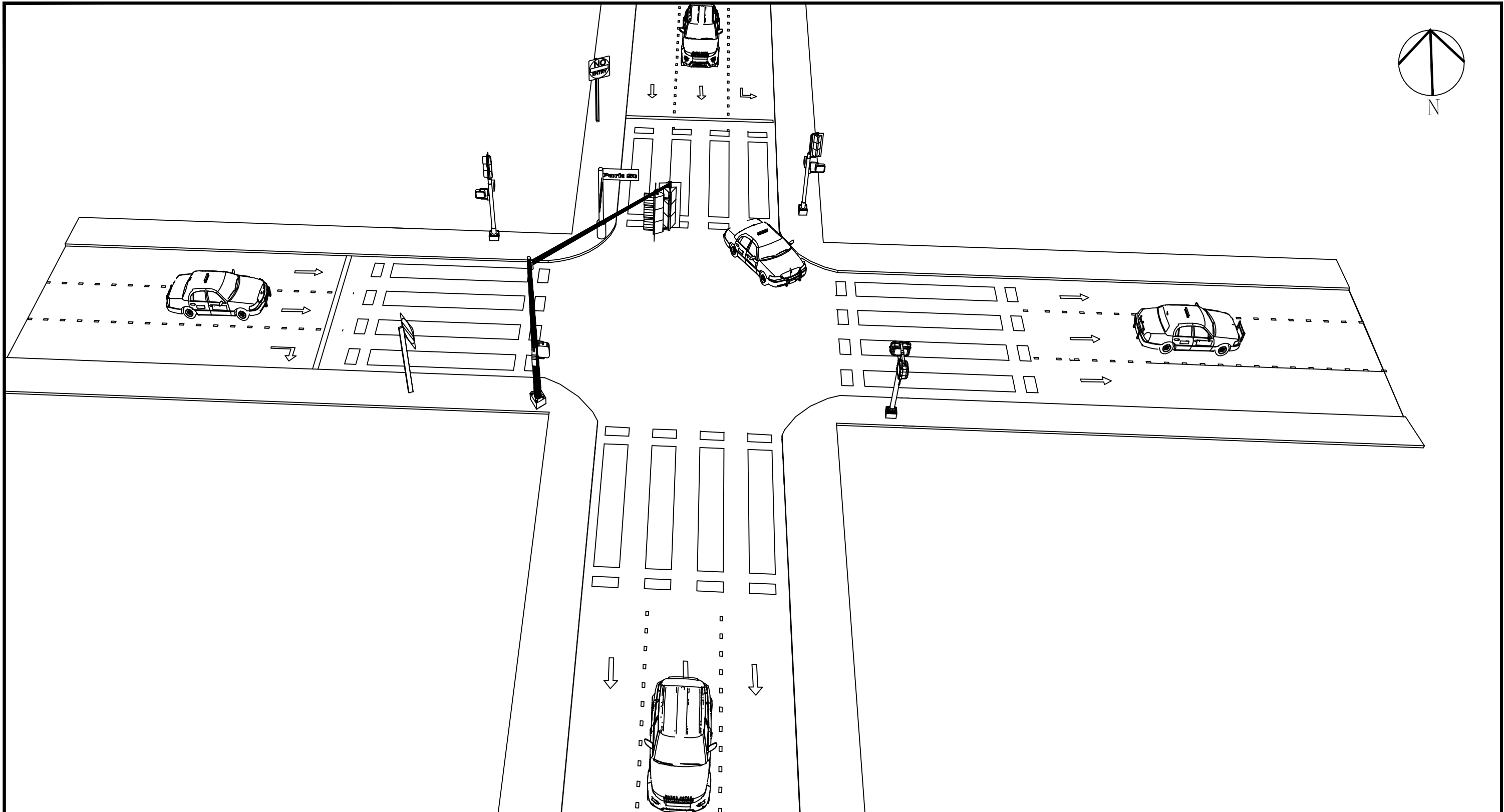
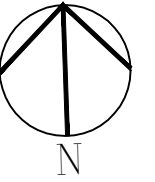


	GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO MINISTRY OF WORKS AND TRANSPORT		DRAWING TITLE: <u>SMALL JUNCTION BOX</u>		
	PROJECT TITLE: <u>TRAFFIC JUNCTION BOX</u>		DESIGN BY: TMB	DRAWN BY: KL	CHECKED BY:
		DATE: 16/10/2019	SCALE: N.T.S.	DRAWING No. -	REV.



USE	DIMENSION		
	A	B	C
COMM. JB	36" MIN	18" MIN	12" MIN

 <p>GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO MINISTRY OF WORKS AND TRANSPORT</p>	DRAWING TITLE: JUNCTION BOX			
	PROJECT TITLE: TRAFFIC JUNCTION BOX	DESIGN BY: TMB	DRAWN BY: KL	CHECKED BY: JOB No.
	DATE: 16/10/2019	SCALE: N.T.S.	DRAWING No. -	REV.

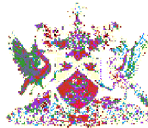
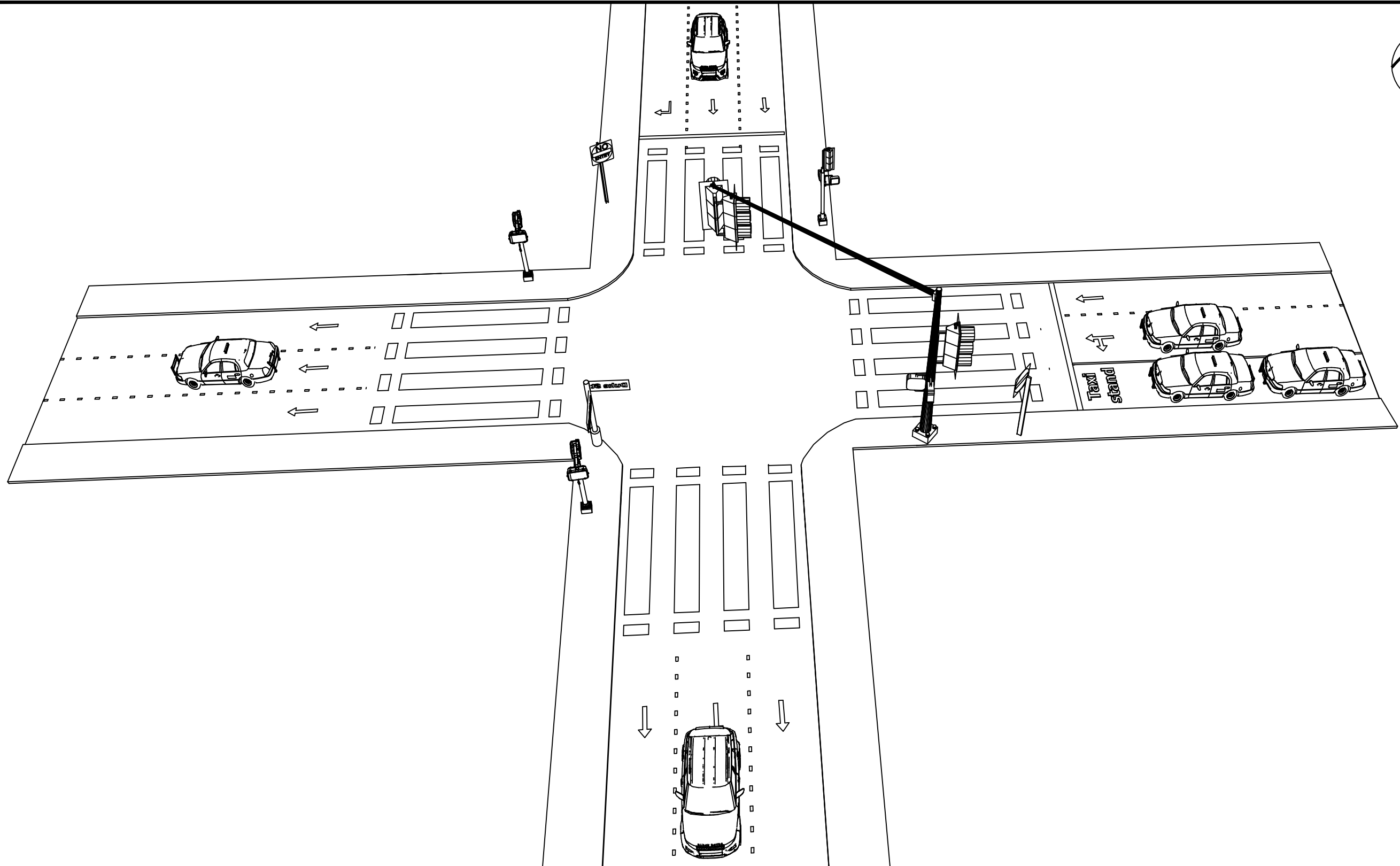
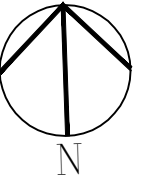


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
CHARLOTTE & PARK ST

PROJECT TITLE:
UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY: TMB	DRAWN BY: KL	CHECKED BY:	JOB No.
DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.



GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:

DUKE & CHARLOTTE

PROJECT TITLE:

UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY:

TMB

DRAWN BY:

KL

CHECKED BY:

JOB No.

DATE:

28/03/2024

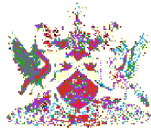
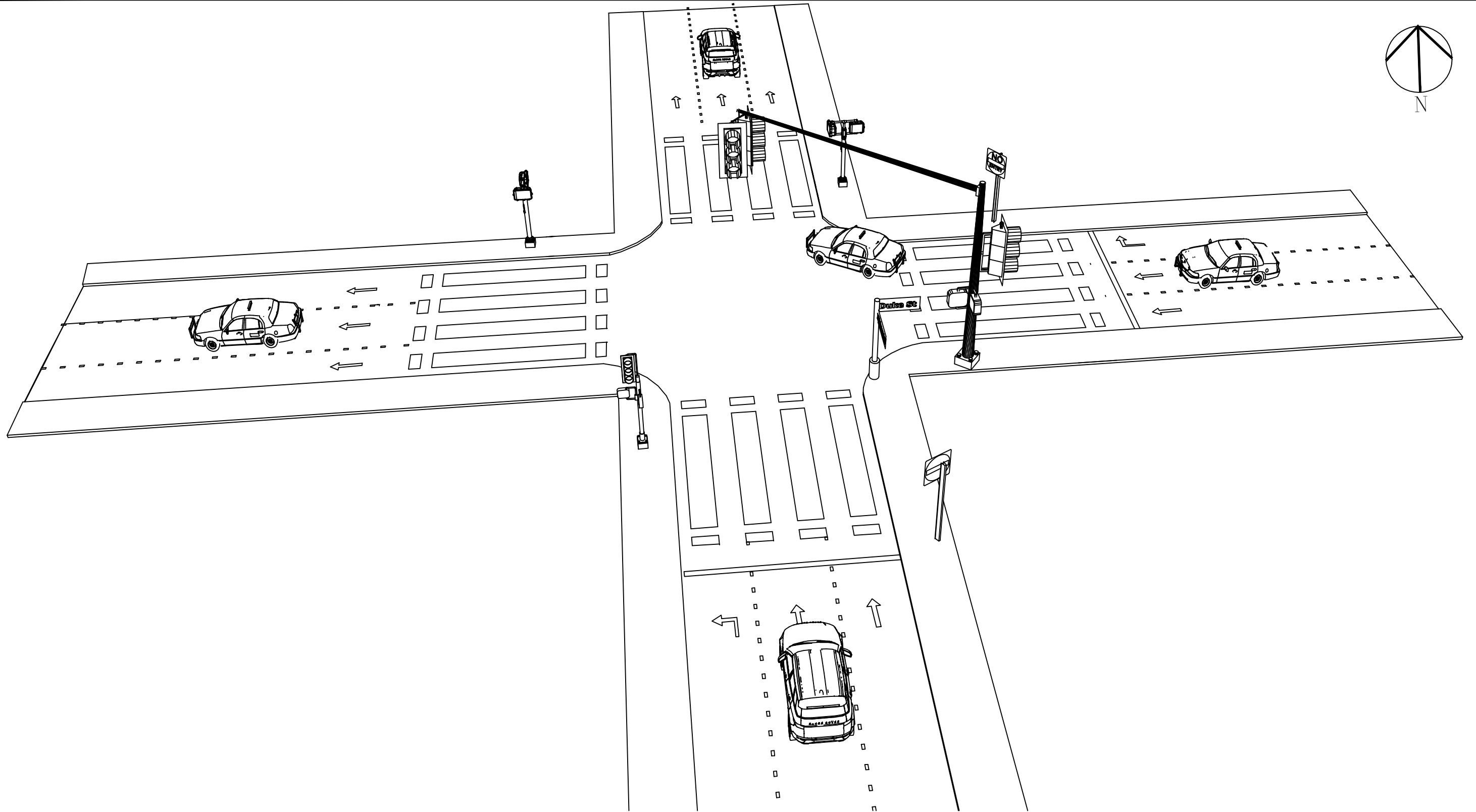
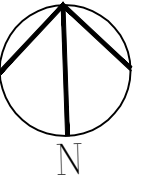
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GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:

EDWARD & DUKE ST

PROJECT TITLE:

UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY:

TMB

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KL

CHECKED BY:

JOB No.

DATE:

28/03/2024

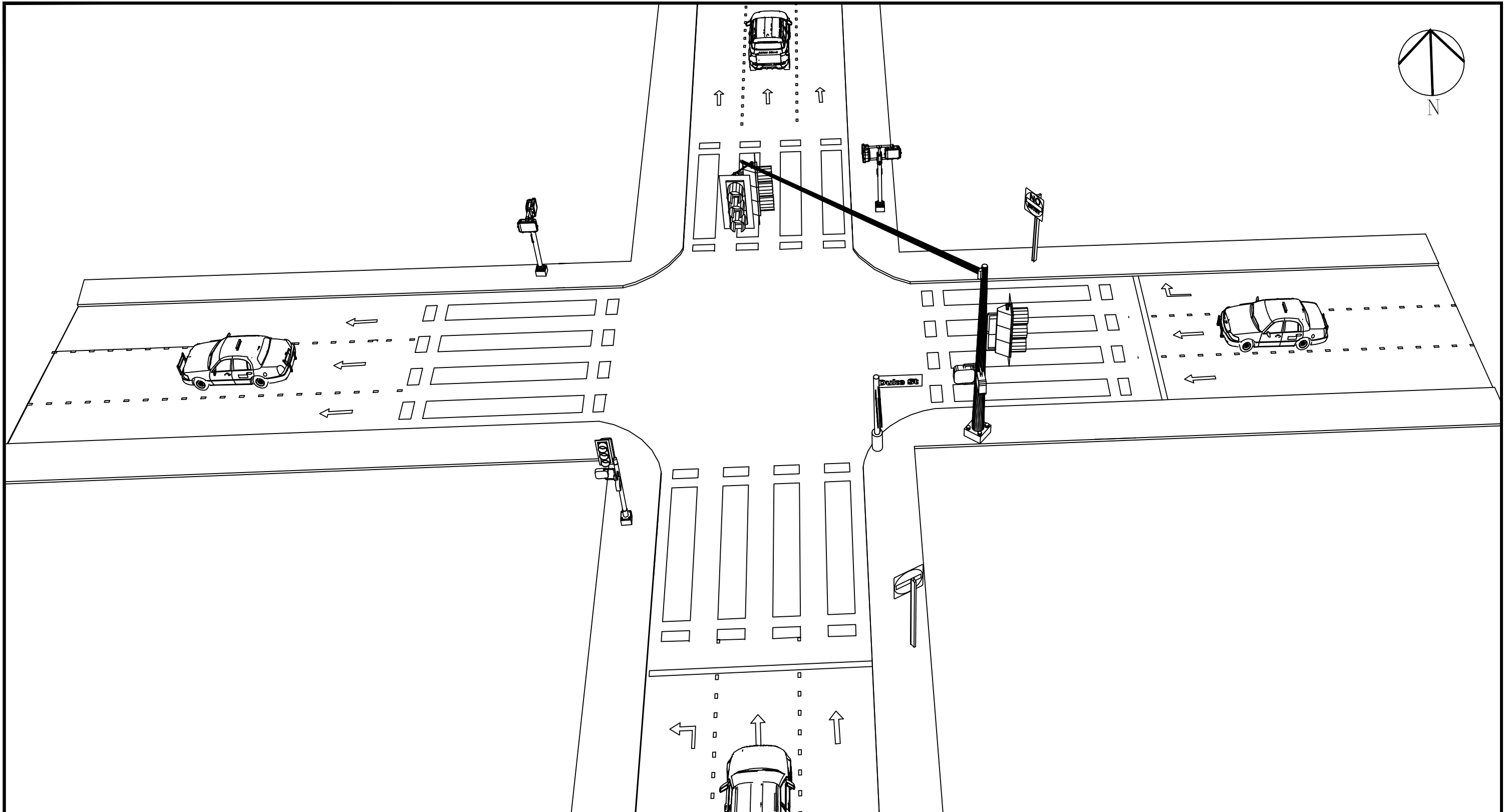
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REV.

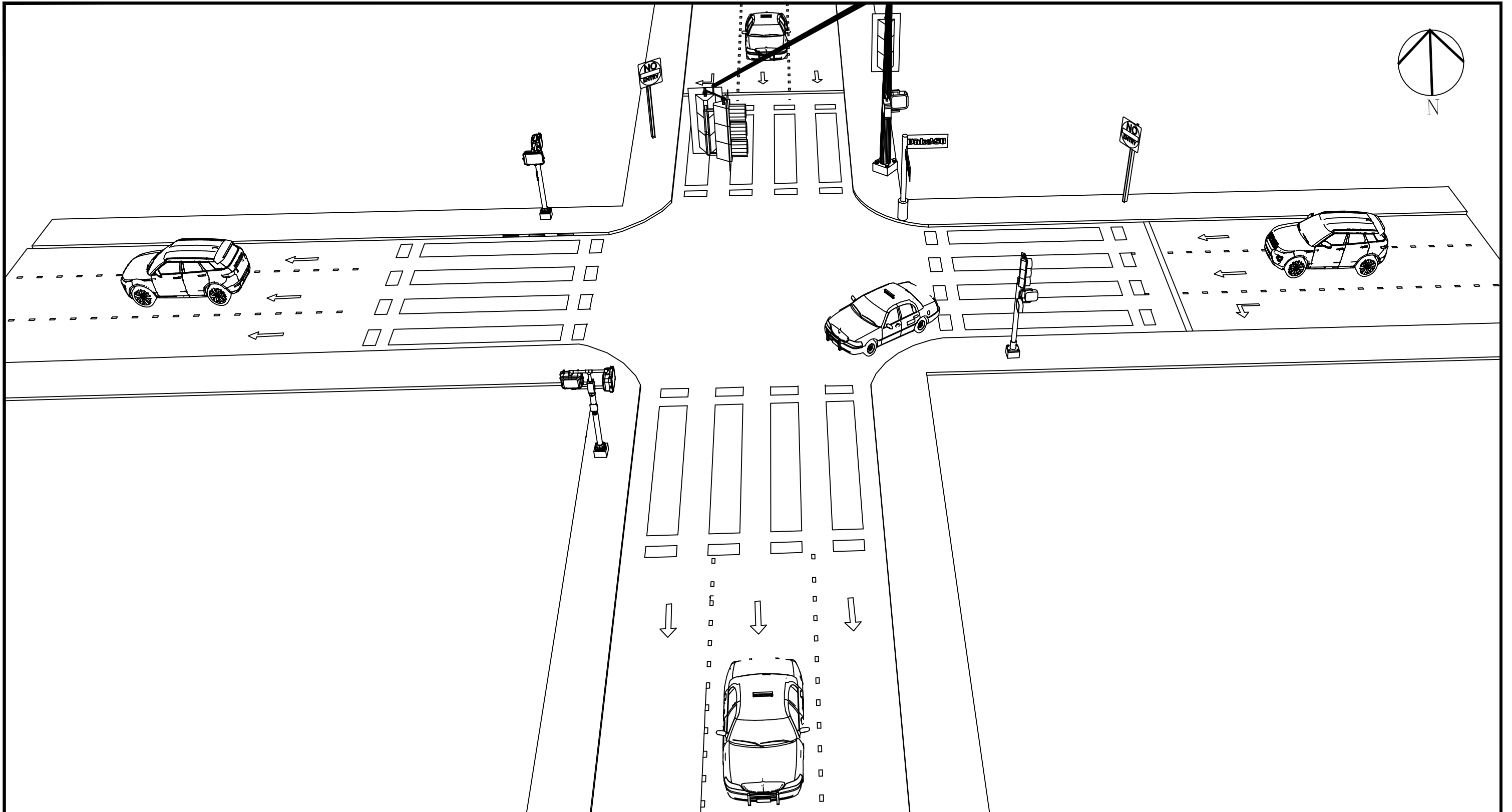


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 DUKE & ABERCROMBY ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

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DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.

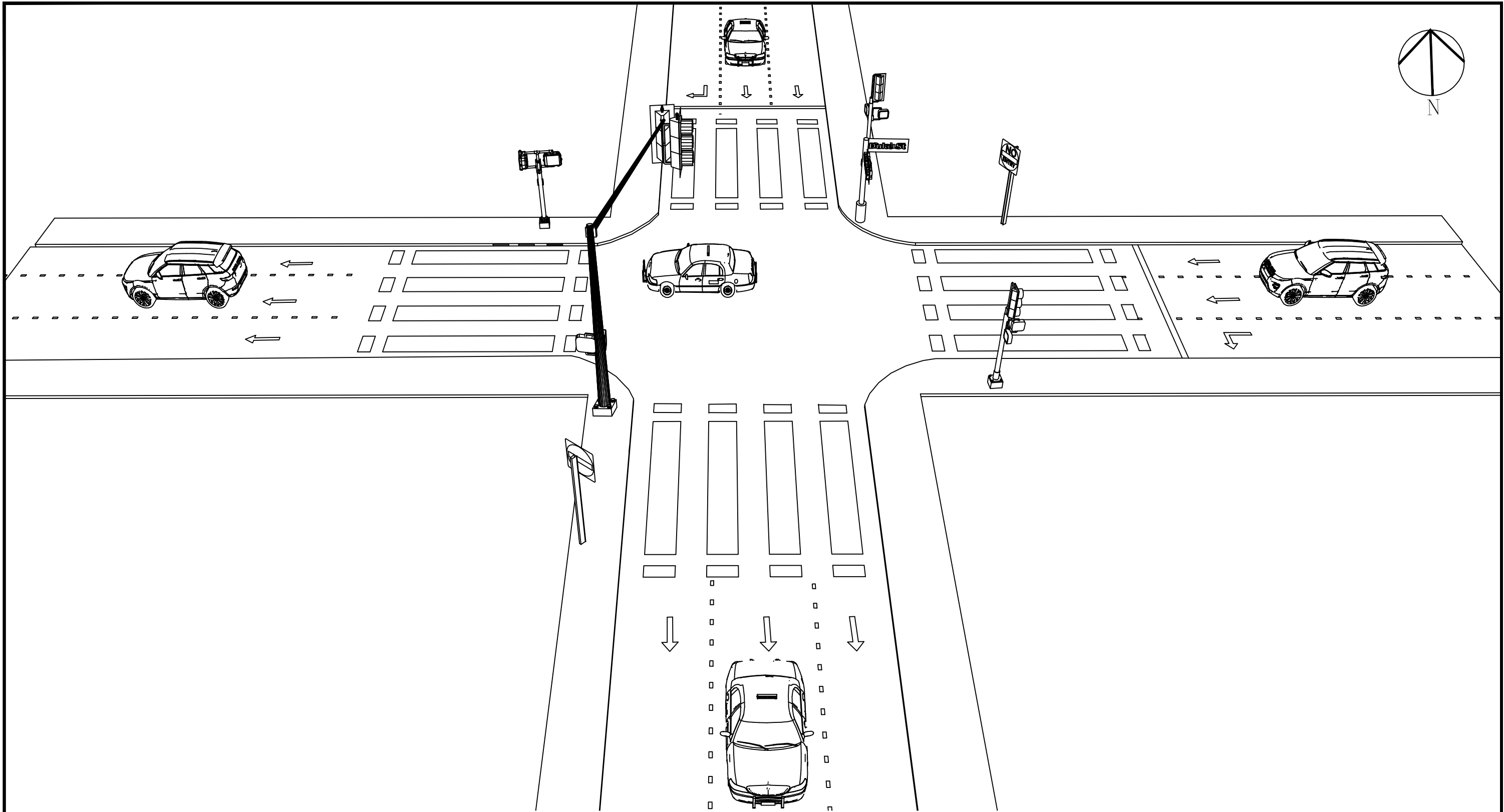


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 DUKE & FREDERICK ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

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DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.

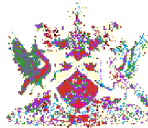
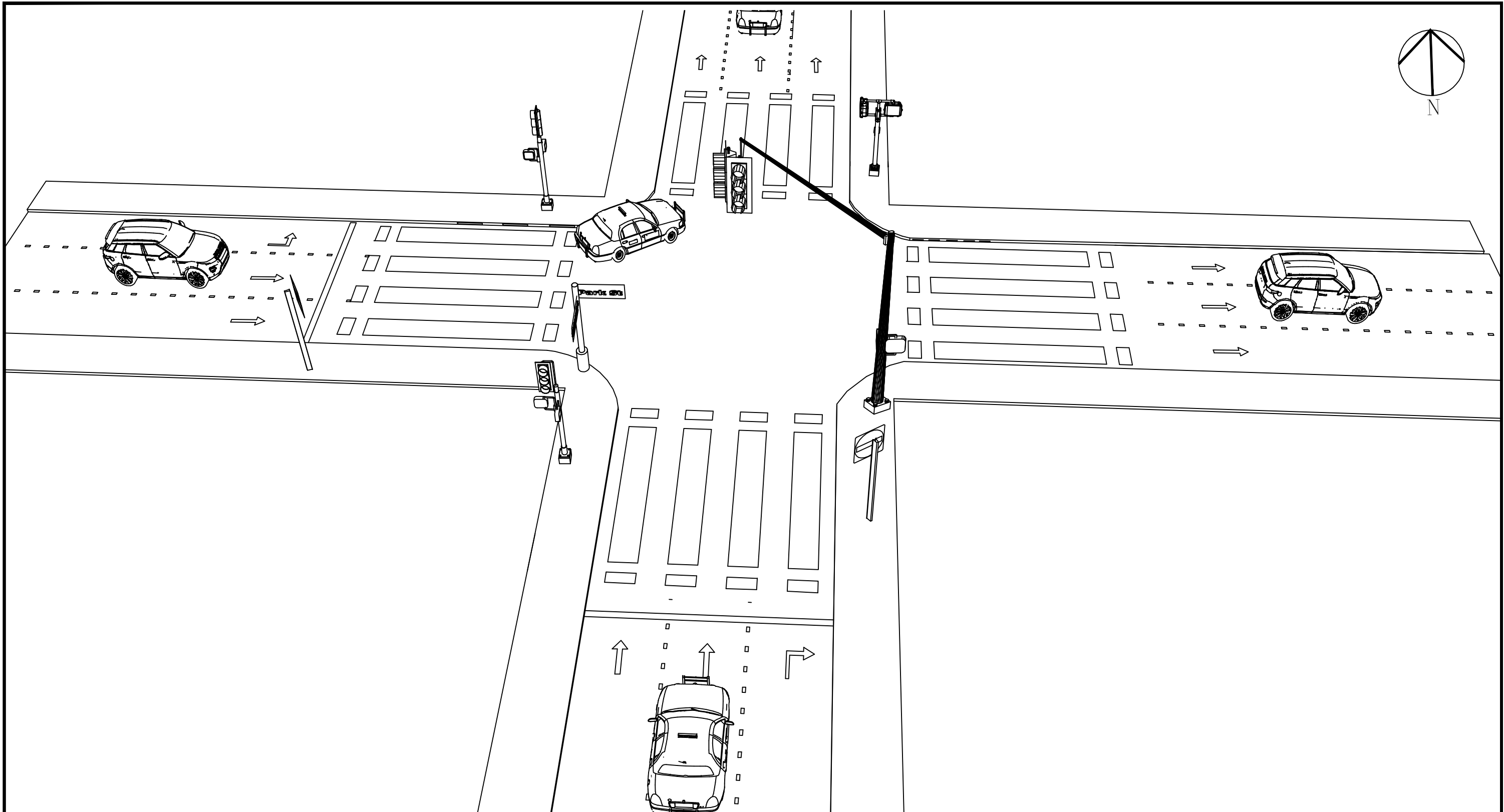


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 DUKE & ST VINCENT ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

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DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.

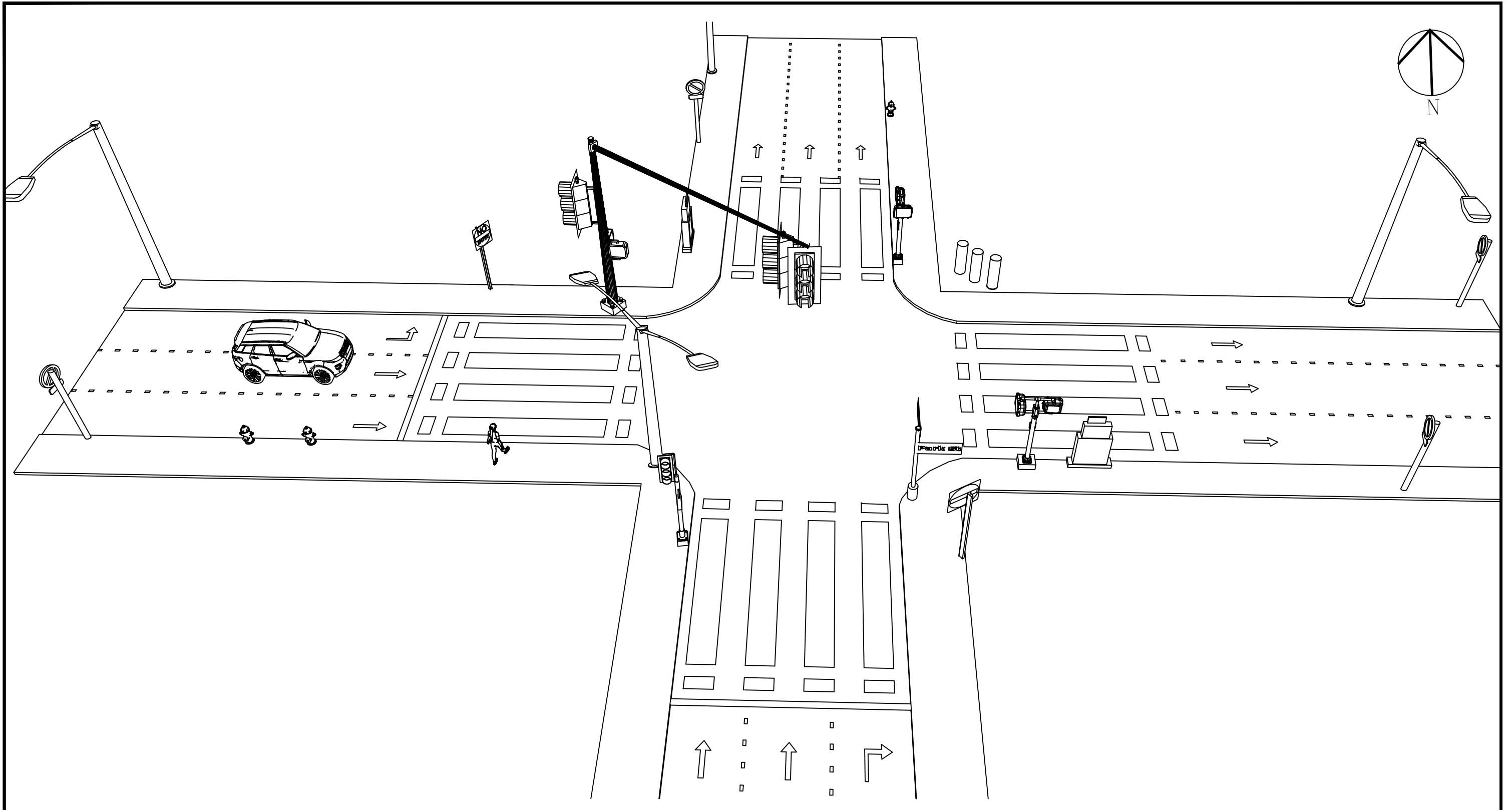


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 EDWARD & PARK ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

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DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.

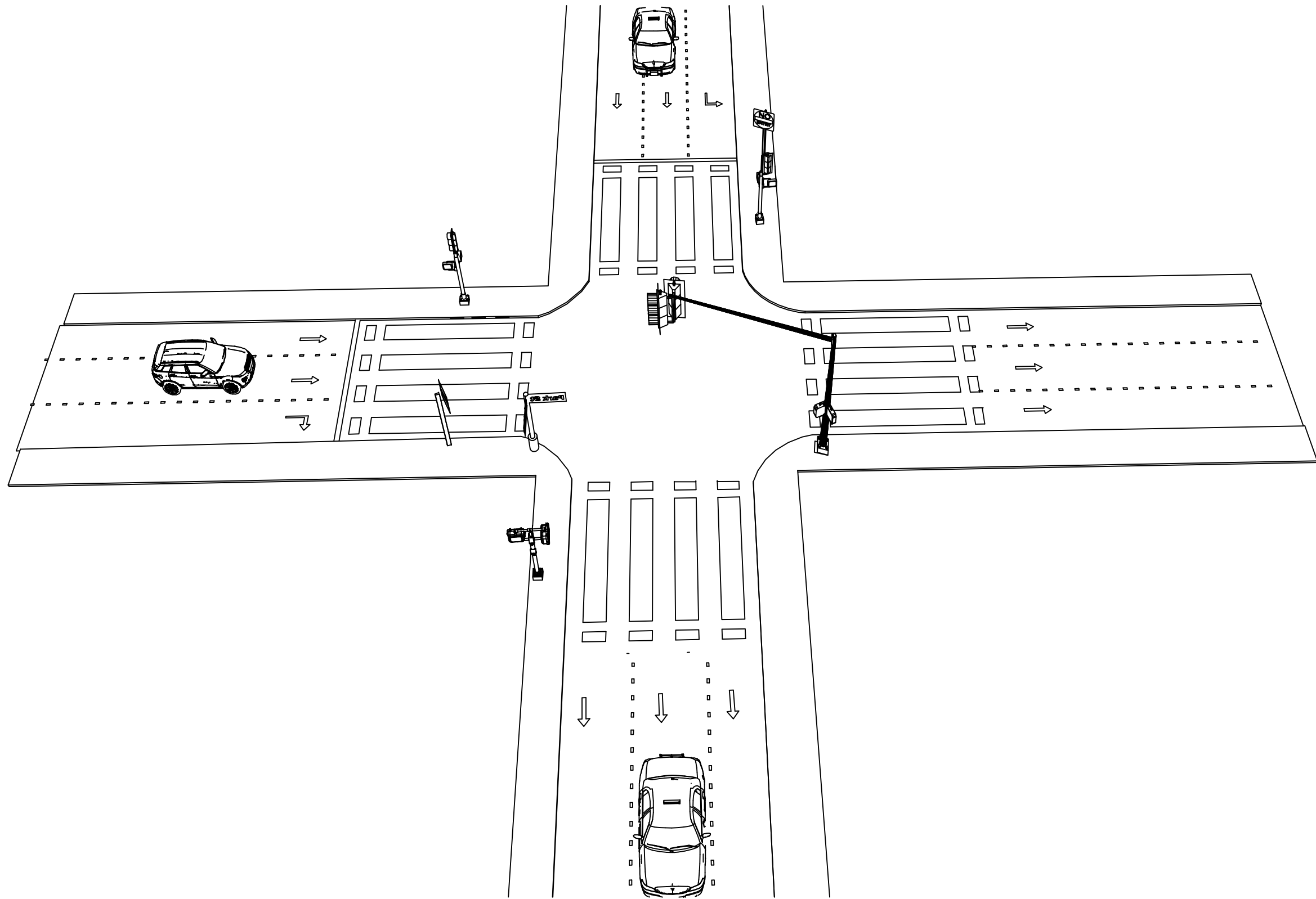
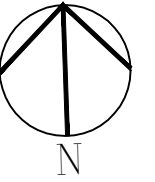


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 PARK & ABERCROMBY ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY: TMB	DRAWN BY: KL	CHECKED BY:	JOB No.
DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.



GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:

FREDERICK & PARK ST

PROJECT TITLE:

UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY:

TMB

DRAWN BY:

KL

CHECKED BY:

JOB No.

DATE:

28/03/2024

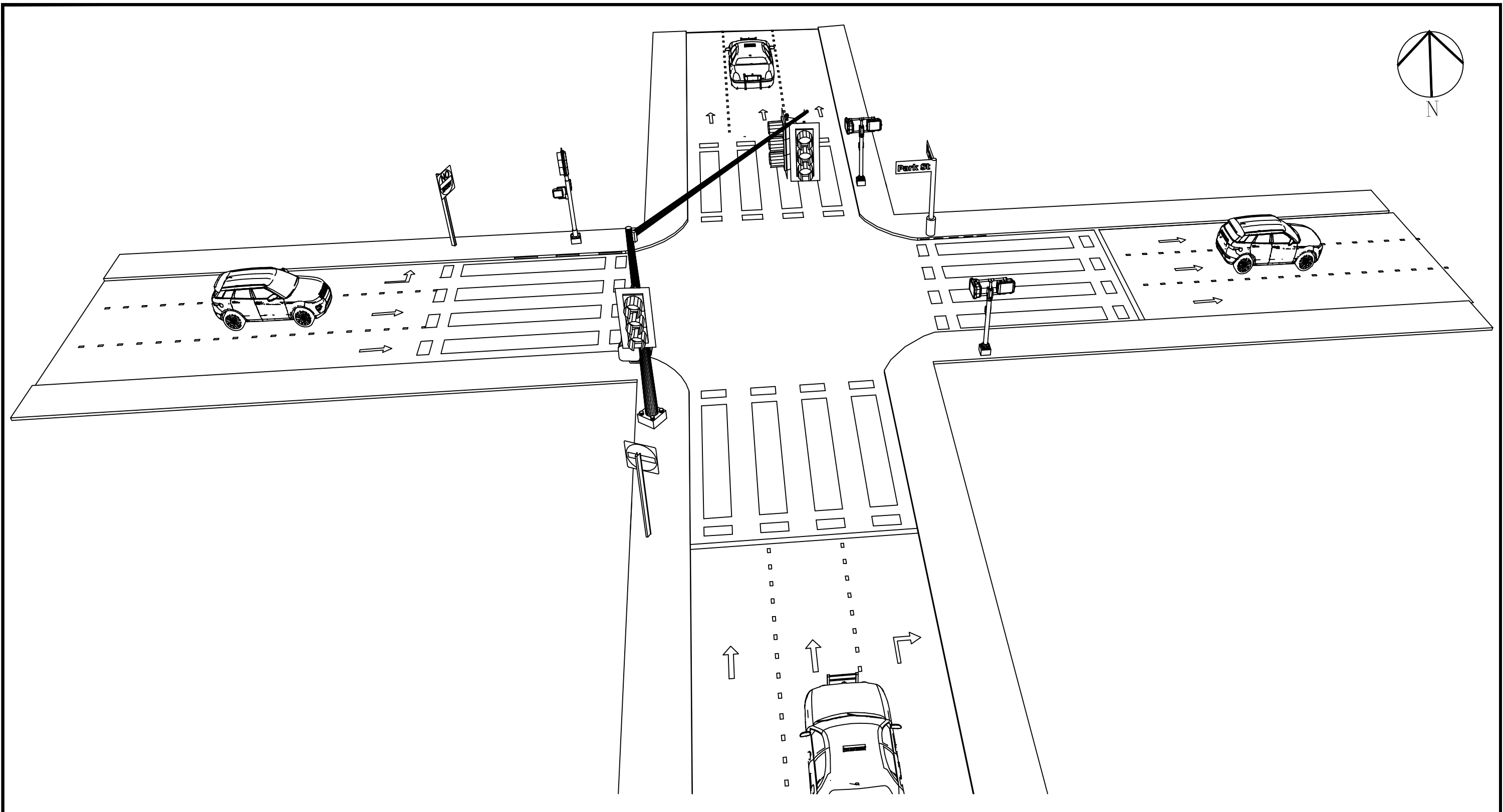
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DRAWING No.

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REV.



GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:

HENRY & PARK ST

PROJECT TITLE:

UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY:

TMB

DRAWN BY:

KL

CHECKED BY:

JOB No.

DATE:

28/03/2024

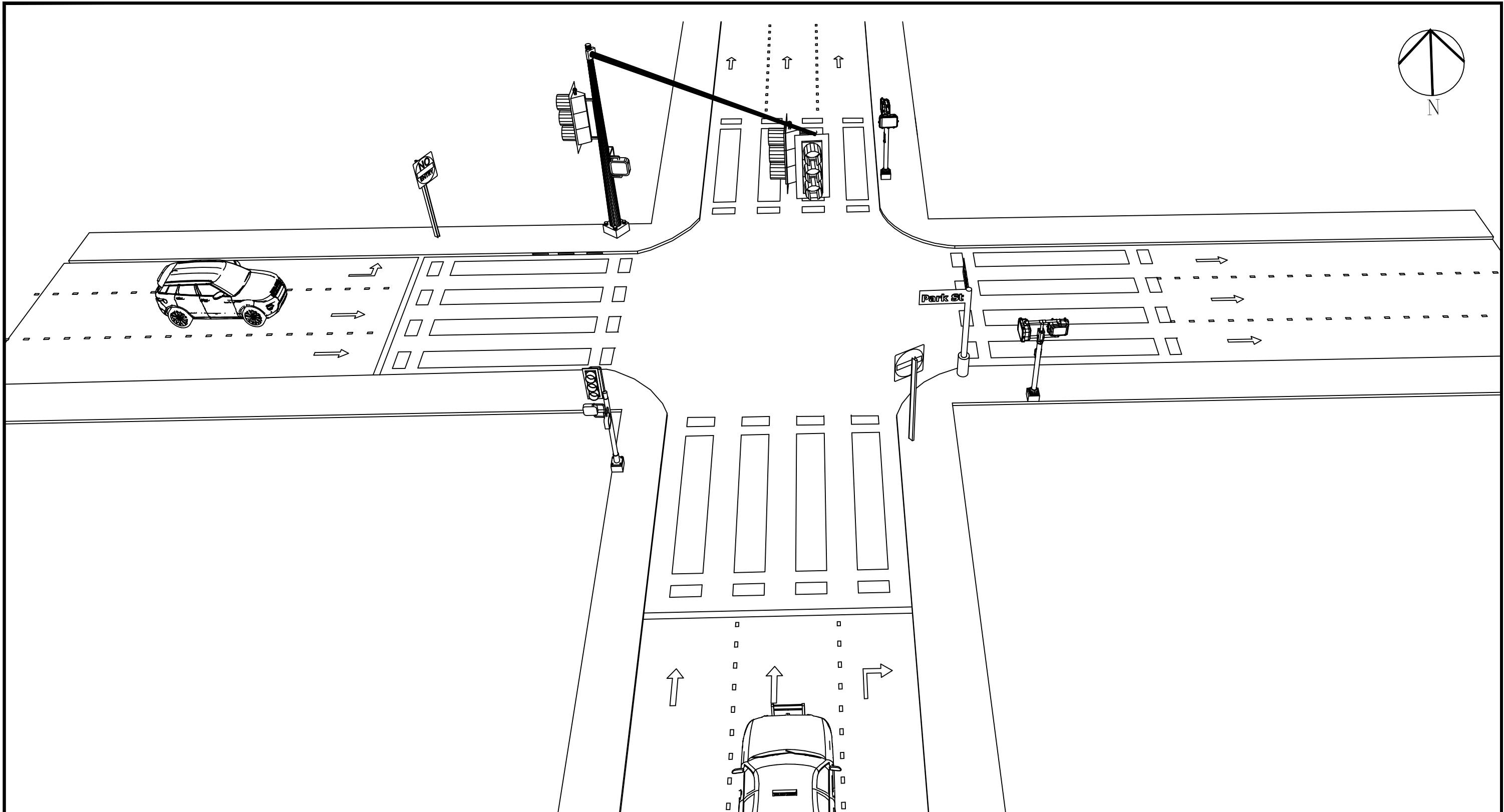
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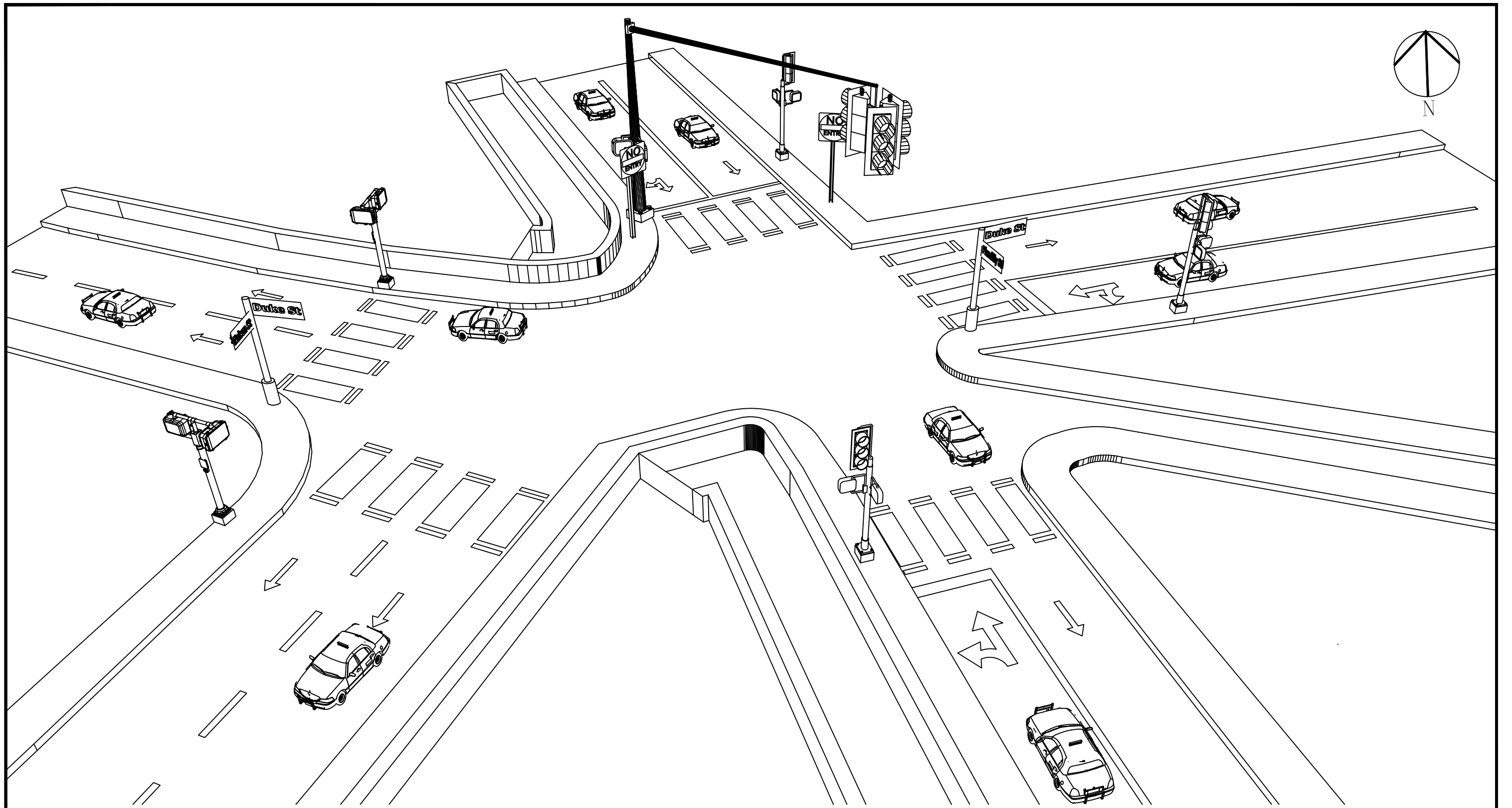


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 PEMBROKE & PARK ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

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DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.

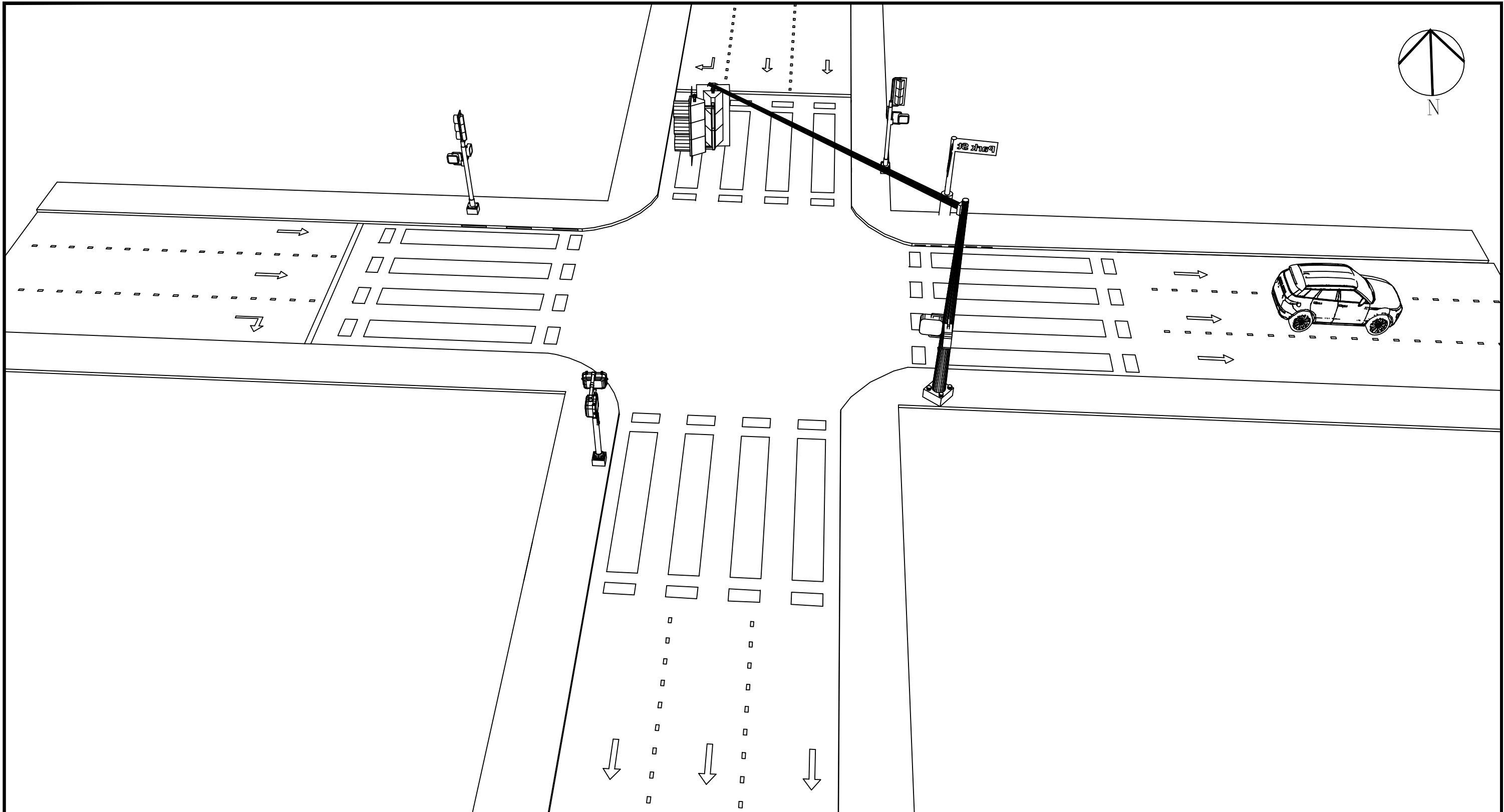


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 PICADILLY & DUKE ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

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DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.

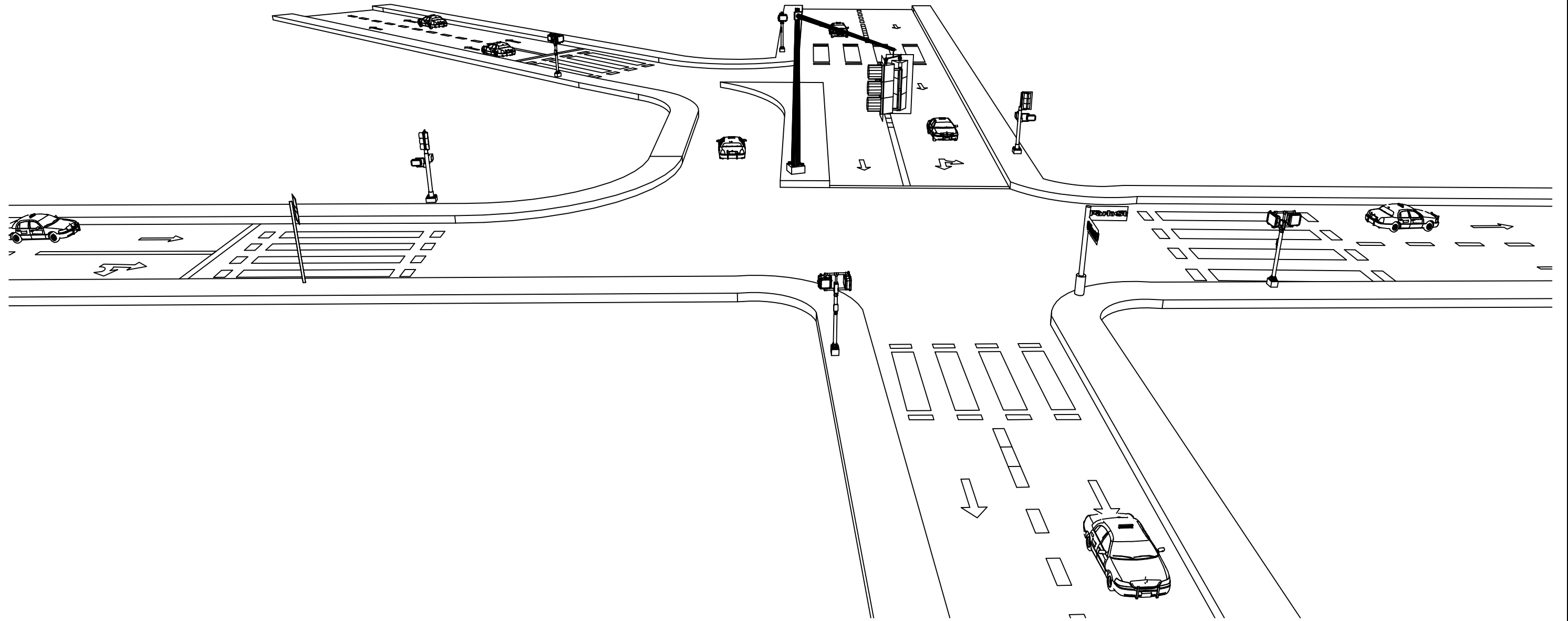
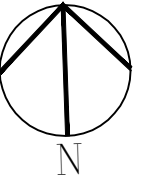


GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 RICHMOND & PARK ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY: TMB	DRAWN BY: KL	CHECKED BY:	JOB No.
DATE: 28/02/2024	SCALE: N.T.S.	DRAWING No. -	REV.



GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:

ST VINCENT & PARK ST

PROJECT TITLE:

UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY:

TMB

DRAWN BY:

KL

CHECKED BY:

JOB No.

DATE:

28/03/2024

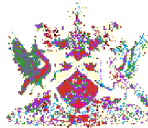
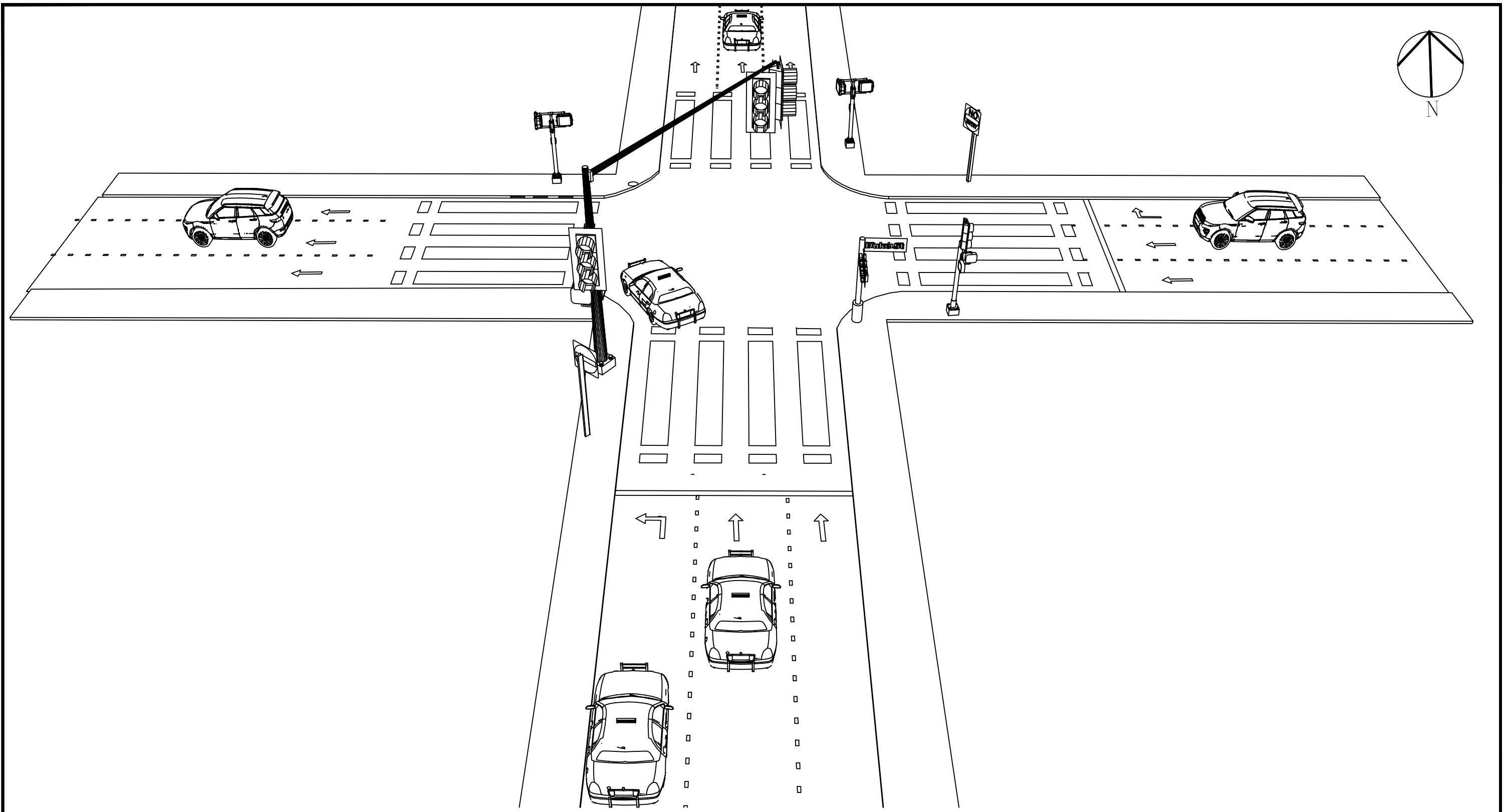
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N.T.S.

DRAWING No.

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REV.



GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
 MINISTRY OF WORKS AND TRANSPORT

DRAWING TITLE:
 RICHMOND & DUKE ST

PROJECT TITLE:
 UPGRAD OF OBSOLETE TRAFFIC SIGNAL EQUIPMENT

DESIGN BY: TMB	DRAWN BY: KL	CHECKED BY:	JOB No.
DATE: 28/03/2024	SCALE: N.T.S.	DRAWING No. -	REV.