

# TECHNICAL PROPOSAL

## POP2 ABAB028 SEKOLAH KEBANGSAAN SUNGAI BATANG (D-SIDE)

**Company Name** : KNZ Engineering Sdn. Bhd.  
**Company Address** : NO 60 & 60 A JALAN KLEBANG INDAH 1 MEDAN KLEBANG INDAH 30010 IPOH PERAK  
**Prepared By** : FARHAH AFIQAH BINTI AMDON  
**Date** : 28/11/2024



**Starting Point**

Site / Boundary Name : Selekoh  
 Address : SK Sungai Batang, 36200 Selekoh  
 District : Teluk Intan  
 Postcode : 36200  
 State : Perak  
 GPS Coordinate : 3.88002637649741, 100.789091206407  
 LRD : A

**End Point**

Site / Boundary Name : Selekoh  
 Address : SK Sungai Batang, 36200 Selekoh  
 District : Teluk Intan  
 Postcode : 36200  
 State : Perak  
 GPS Coordinate : 3.87989131294132, 100.788820835954  
 LRD : B



PROJEK PENYEDIAAN DAN PENYELENGGARAAN POINT OF PRESENCE (POP) FASA 2: HAB INFRASTRUKTUR GENTIAN OPTIK BERHAMPIRAN DENGAN SEKOLAH, KAWASAN PERINDUSTRIAN, PREMIS KERAJAAN DAN KOMUNITI SEKITARNYA OLEH KEMENTERIAN KOMUNIKASI MALAYSIA – ZON UTARA (KKMM.400-11/17/132(1))



## 1.0 WORK SUMMARY

NO	PROPOSED DISTANCE AND METHOD	UNIT	QUANTITY
1	Horizontal Directional Drilling (HDD)	m	0
2	Carriage Way Open Trench (CW)	m	0
3	Grass Verge Open Trenching (GV)	m	0
4	Micro Trenching (MT)	m	0
Total			0

NO	OTHER INFORMATION	UNIT	QUANTITY
1	Installation of Short Span ADSS Fibre Cables	m	7,150
2	Install New Pole	ea	167
3	Install New JRC7 Manhole	ea	0
4	Install GI Riser 100mm	ea	0
5	Install Fiber Distribution Point	ea	13
6	Install Closure	ea	2
7	Estimated Time Required for Completion	days	30

## 2.0 LOCAL AUTHORITY SUMMARY

Daerah Teluk Intan

Bil	Items	Owner	Quantity	Distance
1	HDD	JKR	-	-
		Majlis	-	-
		Estate / Private Land	-	-
2	New Pole	JKR	26	980m
		Majlis	149	5,960m
		Estate / Private Land	-	-
3	Existing TNB Pole	JKR	-	-
		Majlis	-	-
		Estate / Private Land	-	-
Total				6,940m

Site Plan – KMZ (Overview site area)

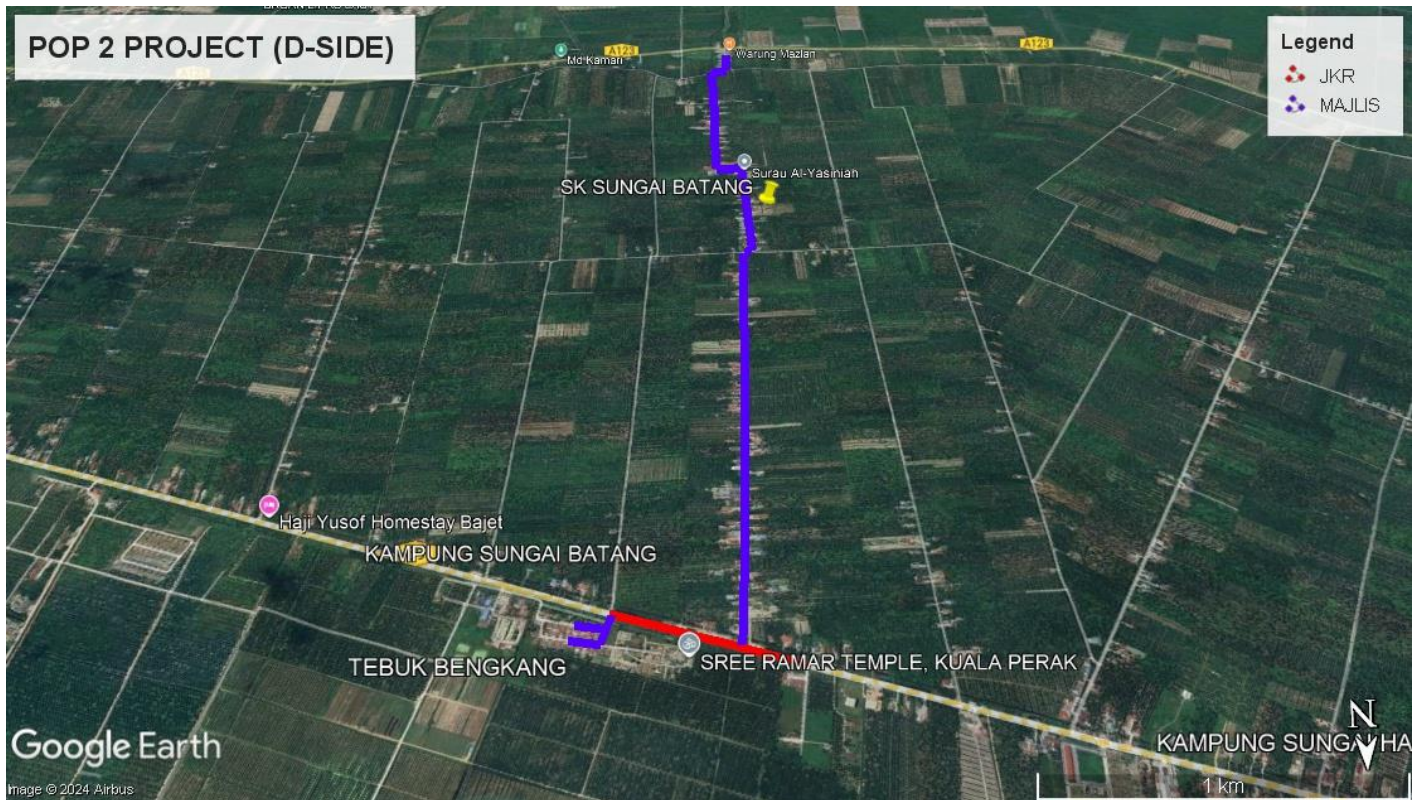
Proposed FDP and Closure



Proposed New Pole



**Site Plan – KMZ Routing (All Local Authority)**

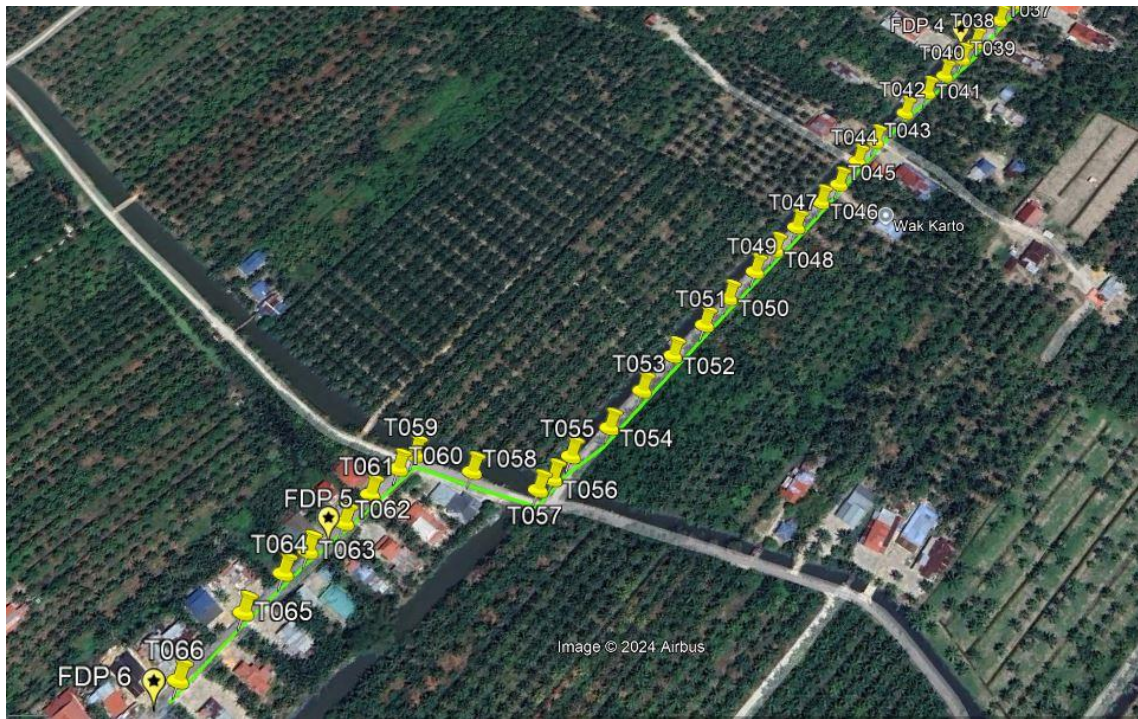


**Red Colour – JKR Road**

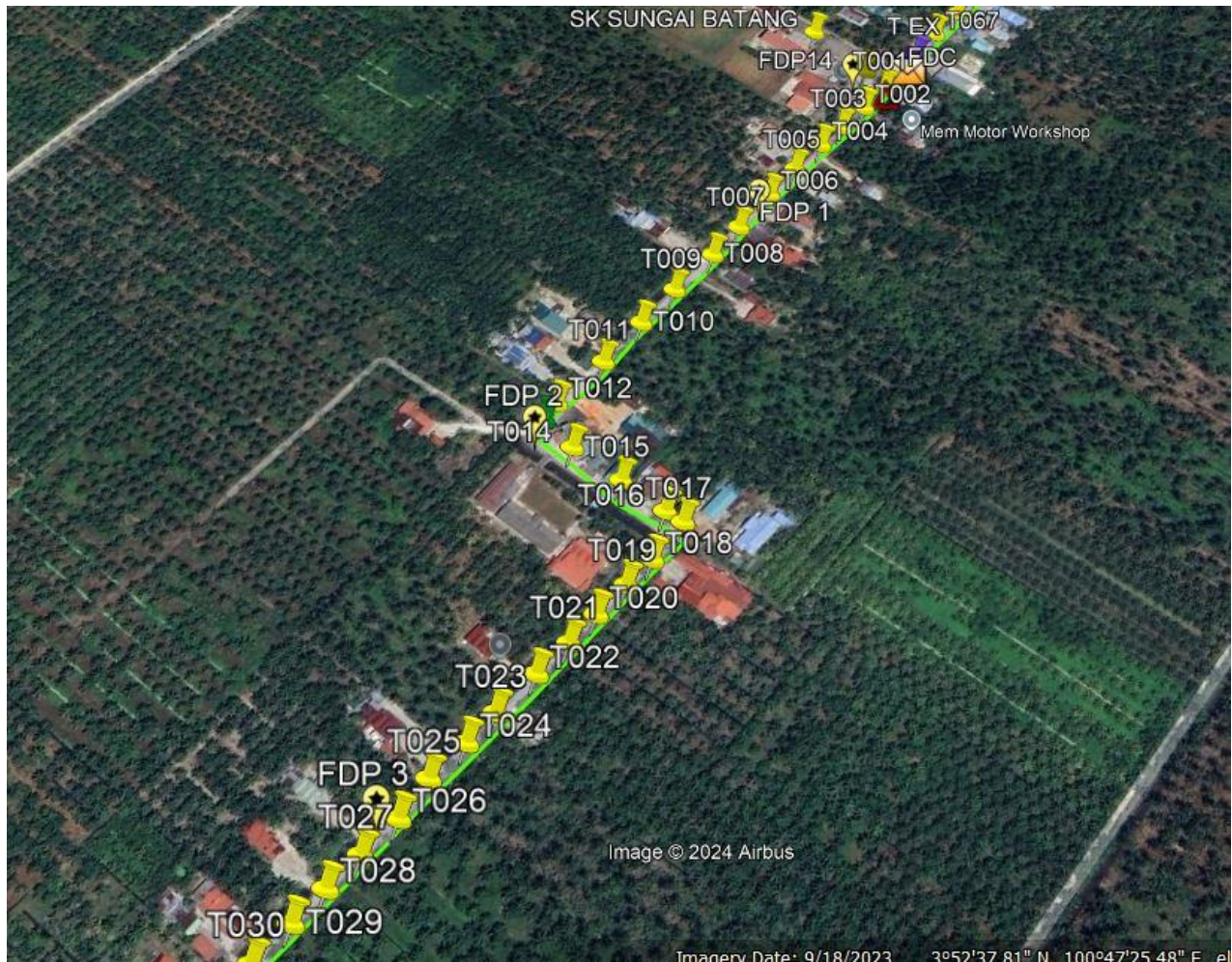
**Blue Colour - Majlis Road**

Site Plan – KMZ Routing (All site area)

Route 1

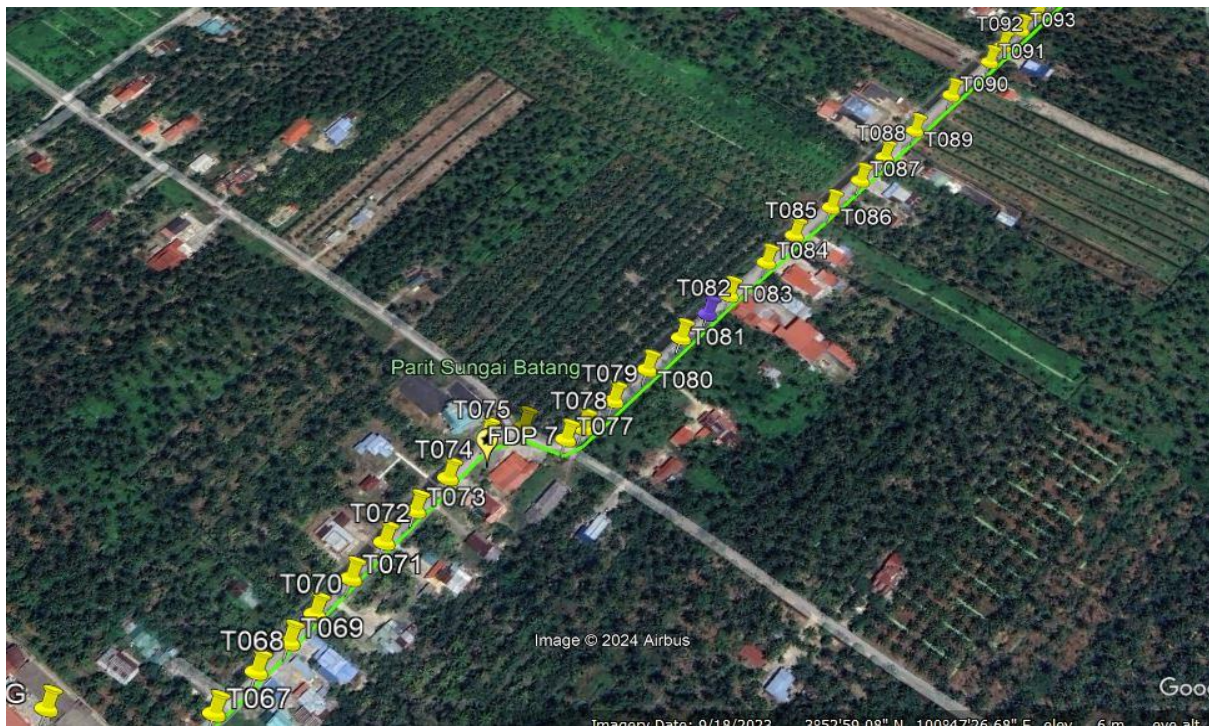
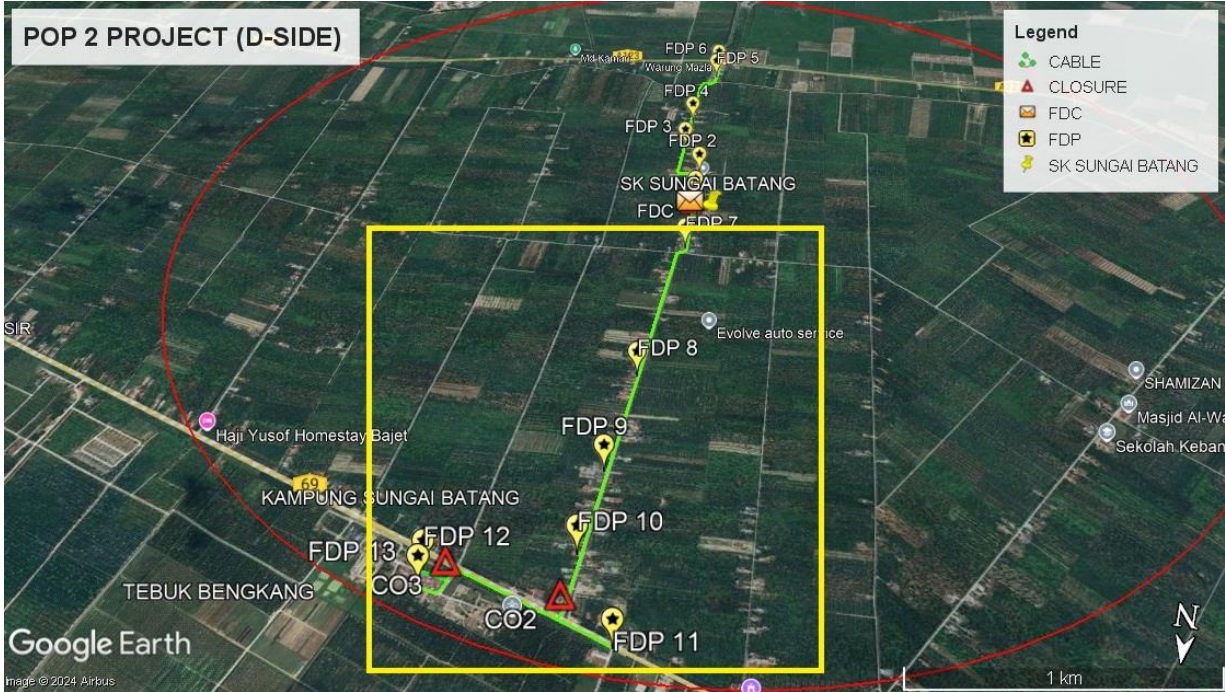


Route 1.1

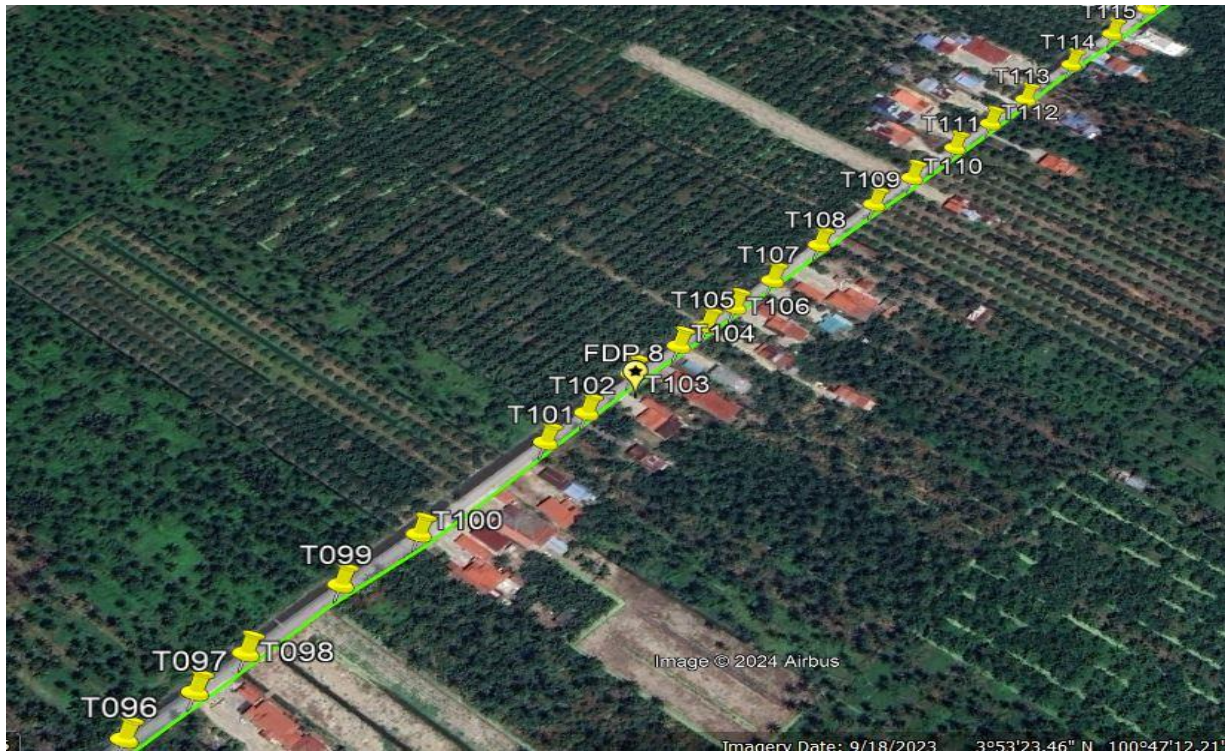


Route 1.2

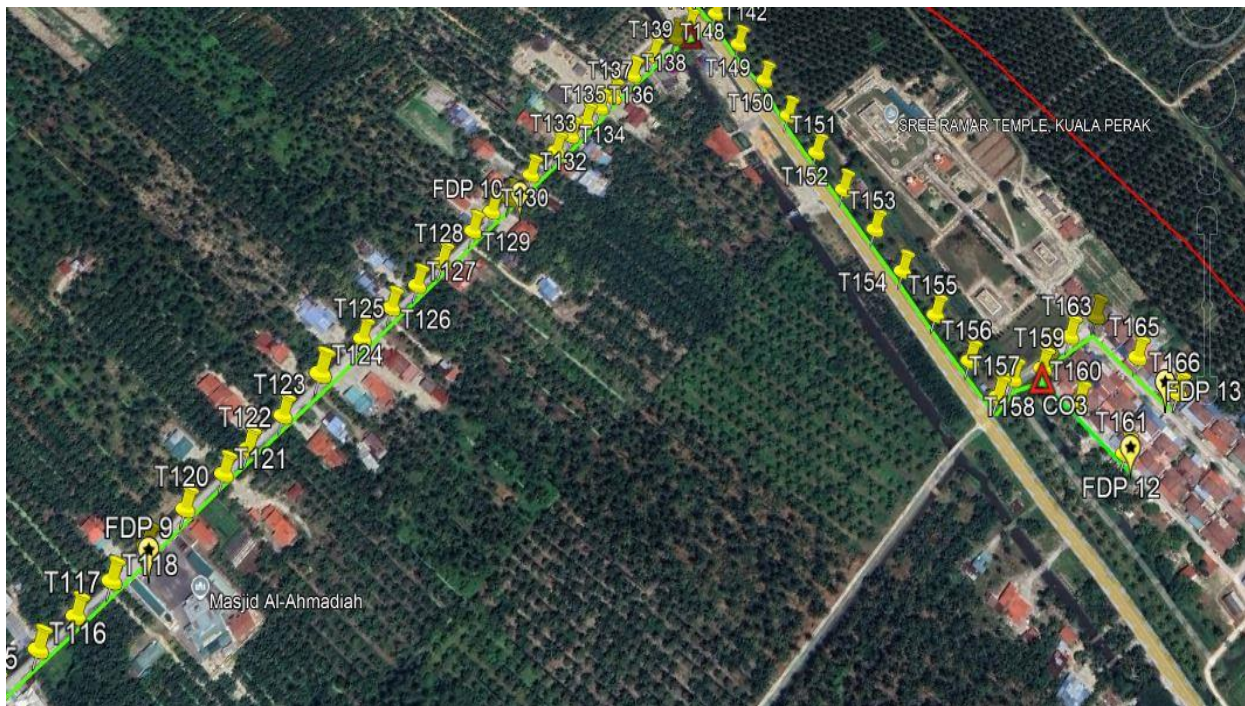
**Route 2**



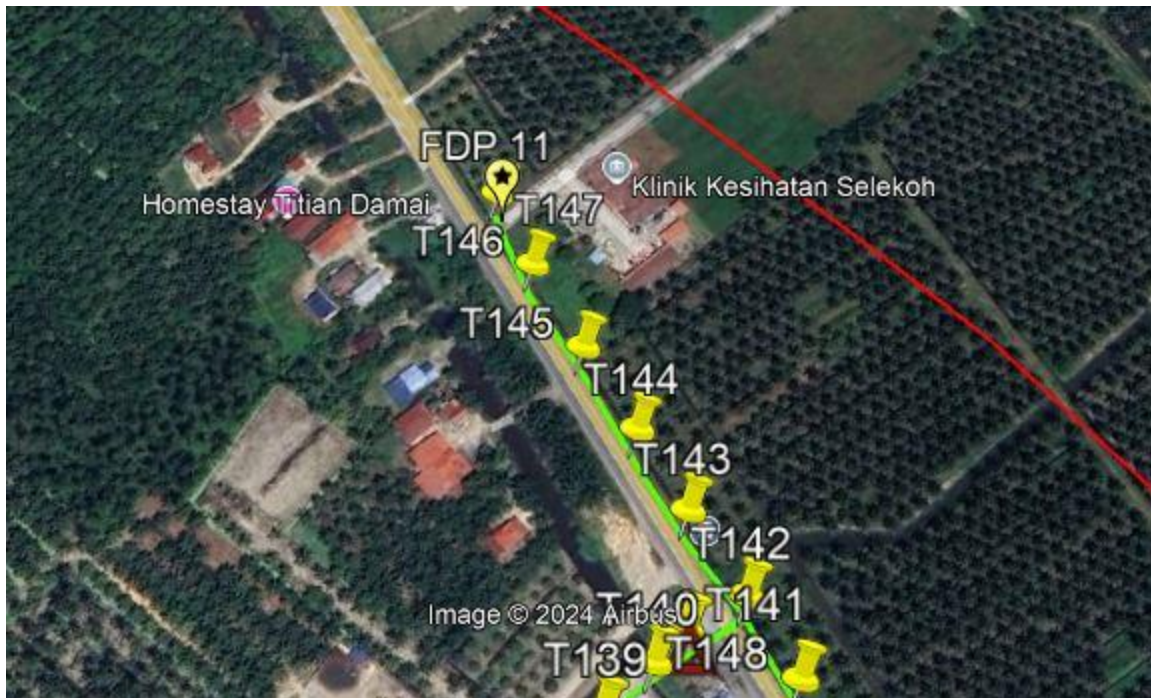
**Route 2.1**



**Route 2.2**



**Route 2.3**



Route 2.4

### 3.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
1	T EX	40	3.880072	100.7890103	Majlis Road
2	T EX	40	3.880207	100.7890016	Majlis Road
3	T001	40	3.879828	100.7890098	Majlis Road
4	T002	40	3.879628	100.7890012	Majlis Road
5	T003	40	3.879407	100.788985	Majlis Road
6	T004	40	3.879199	100.7889783	Majlis Road
7	T005	40	3.878935	100.7889753	Majlis Road
8	T006	40	3.87867	100.7889803	Majlis Road
9	T007	40	3.878359	100.7889899	Majlis Road
10	T008	40	3.8781	100.7889978	Majlis Road
11	T009	40	3.877754	100.7889888	Majlis Road
12	T010	40	3.877446	100.7889957	Majlis Road
13	T011	40	3.877102	100.7890053	Majlis Road
14	T012	40	3.876726	100.7889852	Majlis Road
15	T013	40	3.876599	100.789003	Majlis Road
16	T104	40	3.876575	100.7892375	Majlis Road
17	T015	40	3.876587	100.7895779	Majlis Road
18	T016	40	3.876583	100.7898926	Majlis Road
19	T017	40	3.876588	100.7900113	Majlis Road
20	T018	40	3.876313	100.7900293	Majlis Road
21	T019	40	3.876116	100.7900194	Majlis Road
22	T020	40	3.875895	100.790006	Majlis Road
23	T021	40	3.875692	100.7900006	Majlis Road
24	T022	40	3.875463	100.7899831	Majlis Road
25	T023	40	3.875183	100.7899666	Majlis Road
26	T024	40	3.874978	100.7899648	Majlis Road
27	T025	40	3.874731	100.789954	Majlis Road

#### 4.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
28	T026	40	3.8745	100.7899799	Majlis Road
29	T027	40	3.874265	100.7899682	Majlis Road
30	T028	40	3.874052	100.789956	Majlis Road
31	T029	40	3.873843	100.7899499	Majlis Road
32	T030	40	3.873605	100.7899417	Majlis Road
33	T031	40	3.873378	100.7899377	Majlis Road
34	T032	40	3.873138	100.7899315	Majlis Road
35	T033	40	3.872902	100.7899256	Majlis Road
36	T034	40	3.872754	100.7899312	Majlis Road
37	T035	40	3.872567	100.7899311	Majlis Road
38	T036	40	3.872421	100.7899236	Majlis Road
39	T037	40	3.872224	100.7899133	Majlis Road
40	T038	40	3.871959	100.7898935	Majlis Road
41	T039	40	3.871795	100.7898969	Majlis Road
42	T040	40	3.871612	100.7898836	Majlis Road
43	T041	40	3.871427	100.7898732	Majlis Road
44	T042	40	3.871203	100.789855	Majlis Road
45	T043	40	3.870901	100.7898373	Majlis Road
46	T044	40	3.870711	100.7898369	Majlis Road
47	T045	40	3.870503	100.7898454	Majlis Road
48	T046	40	3.870331	100.7898361	Majlis Road
49	T047	40	3.870096	100.7898266	Majlis Road
50	T048	40	3.869888	100.7898261	Majlis Road
51	T049	40	3.869698	100.7898257	Majlis Road
52	T050	40	3.869463	100.7898162	Majlis Road
53	T051	40	3.869246	100.7898158	Majlis Road
54	T052	40	3.868993	100.7897972	Majlis Road

#### 4.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
55	T053	40	3.868731	100.7897967	Majlis Road
56	T054	40	3.86846	100.7897961	Majlis Road
57	T055	40	3.868215	100.7897416	Majlis Road
58	T056	40	3.868062	100.7897503	Majlis Road
59	T057	40	3.867971	100.7897321	Majlis Road
60	T058	40	3.867836	100.7893987	Majlis Road
61	T059	40	3.86772	100.7891014	Majlis Road
62	T060	40	3.867611	100.7890921	Majlis Road
63	T061	40	3.867421	100.7890827	Majlis Road
64	T062	40	3.867231	100.7890913	Majlis Road
65	T063	40	3.867014	100.7890639	Majlis Road
66	T064	40	3.866861	100.7890545	Majlis Road
67	T065	40	3.866607	100.789054	Majlis Road
68	T066	40	3.8662	100.7890622	Majlis Road
69	T067	40	3.880443	100.788984	Majlis Road
70	T068	40	3.880705	100.7889846	Majlis Road
71	T069	40	3.880904	100.788994	Majlis Road
72	T070	40	3.881085	100.7889854	Majlis Road
73	T071	40	3.881329	100.7889859	Majlis Road
74	T072	40	3.881573	100.7889774	Majlis Road
75	T073	40	3.881799	100.7889779	Majlis Road
76	T074	40	3.882043	100.7889784	Majlis Road
77	T075	40	3.882351	100.7889611	Majlis Road
78	T076	40	3.882531	100.7890695	Majlis Road
79	T077	40	3.882612	100.7892947	Majlis Road
80	T078	40	3.882721	100.789322	Majlis Road
81	T079	40	3.882956	100.7893405	Majlis Road

#### 4.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
82	T080	40	3.883227	100.789359	Majlis Road
83	T081	40	3.883507	100.7893776	Majlis Road
84	T082	40	3.883724	100.7893961	Majlis Road
85	T083	40	3.883905	100.7894145	Majlis Road
86	T084	40	3.88423	100.7894422	Majlis Road
87	T085	40	3.884502	100.7894517	Majlis Road
88	T086	40	3.884818	100.7894974	Majlis Road
89	T087	40	3.885107	100.789516	Majlis Road
90	T088	40	3.885361	100.7895256	Majlis Road
91	T089	40	3.885668	100.7895532	Majlis Road
92	T090	40	3.886066	100.7895721	Majlis Road
93	T091	40	3.886482	100.789609	Majlis Road
94	T092	40	3.886662	100.7896003	Majlis Road
95	T093	40	3.88687	100.7896188	Majlis Road
96	T094	40	3.887087	100.7896283	Majlis Road
97	T095	40	3.887304	100.7896377	Majlis Road
98	T096	40	3.887612	100.7896654	Majlis Road
99	T097	40	3.887928	100.789702	Majlis Road
100	T098	40	3.888181	100.7897116	Majlis Road
101	T099	40	3.888661	100.7897486	Majlis Road
102	T100	40	3.889059	100.7897913	Majlis Road
103	T101	40	3.889785	100.7898421	Majlis Road
104	T102	40	3.890031	100.7898617	Majlis Road
105	T103	40	3.890342	100.7898602	Majlis Road
106	T104	40	3.890617	100.7899032	Majlis Road
107	T105	40	3.890803	100.7899165	Majlis Road
108	T106	40	3.890986	100.7899361	Majlis Road

#### 4.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
109	T107	40	3.891241	100.7899589	Majlis Road
110	T108	40	3.891575	100.7899822	Majlis Road
111	T109	40	3.891982	100.7900099	Majlis Road
112	T110	40	3.892274	100.790031	Majlis Road
113	T111	40	3.892619	100.7900542	Majlis Road
114	T112	40	3.89291	100.7900774	Majlis Road
115	T113	40	3.893198	100.790105	Majlis Road
116	T114	40	3.893591	100.7901343	Majlis Road
117	T115	40	3.89396	100.7901571	Majlis Road
118	T116	40	3.894295	100.7901748	Majlis Road
119	T117	40	3.894568	100.7902042	Majlis Road
120	T118	40	3.89485	100.7902164	Majlis Road
121	T119	40	3.895134	100.7902304	Majlis Road
122	T120	40	3.895449	100.7902591	Majlis Road
123	T121	40	3.895768	100.7902933	Majlis Road
124	T122	40	3.895985	100.7903016	Majlis Road
125	T123	40	3.896291	100.7903271	Majlis Road
126	T124	40	3.896643	100.7903355	Majlis Road
127	T125	40	3.897033	100.7903786	Majlis Road
128	T126	40	3.897333	100.7903834	Majlis Road
129	T127	40	3.89758	100.7904109	Majlis Road
130	T128	40	3.897829	100.7904329	Majlis Road
131	T129	40	3.898161	100.7904475	Majlis Road
132	T130	40	3.898373	100.7904516	Majlis Road
133	T131	40	3.898542	100.7904987	Majlis Road
134	T132	40	3.898805	100.7904811	Majlis Road
135	T133	40	3.899087	100.7905028	Majlis Road

#### 4.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
136	T134	40	3.899262	100.7905128	Majlis Road
137	T135	40	3.899431	100.7905291	Majlis Road
138	T136	40	3.899595	100.7905434	Majlis Road
139	T137	40	3.899732	100.7905709	Majlis Road
140	T138	40	3.899986	100.7905789	Majlis Road
141	T139	40	3.90024	100.7905961	Majlis Road
142	T140	40	3.900504	100.7906289	Majlis Road
143	T141	40	3.900676	100.7906473	JKR Road
144	T142	40	3.90092	100.7907468	JKR Road
145	T143	40	3.901047	100.790378	JKR Road
146	T144	40	3.901184	100.7900272	JKR Road
147	T145	40	3.90132	100.7896493	JKR Road
148	T146	40	3.901475	100.7892625	JKR Road
149	T147	40	3.901638	100.7889387	JKR Road
150	T148	40	3.900793	100.7910797	JKR Road
151	T149	40	3.900665	100.7914395	JKR Road
152	T150	40	3.900529	100.7917724	JKR Road
153	T151	40	3.900393	100.7921412	JKR Road
154	T152	40	3.900265	100.7924831	JKR Road
155	T153	40	3.900147	100.7928519	JKR Road
156	T154	40	3.900002	100.7931937	JKR Road
157	T155	40	3.899874	100.7935626	JKR Road
158	T156	40	3.899747	100.7939314	JKR Road
159	T157	40	3.899647	100.7942193	JKR Road
160	T158	40	3.899826	100.794241	Majlis Road
161	T159	40	3.900026	100.7943732	Majlis Road
162	T160	40	3.899979	100.7946935	Majlis Road



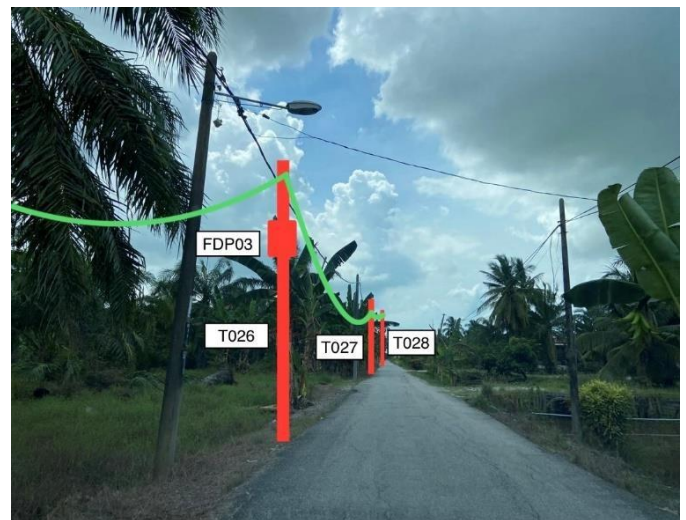
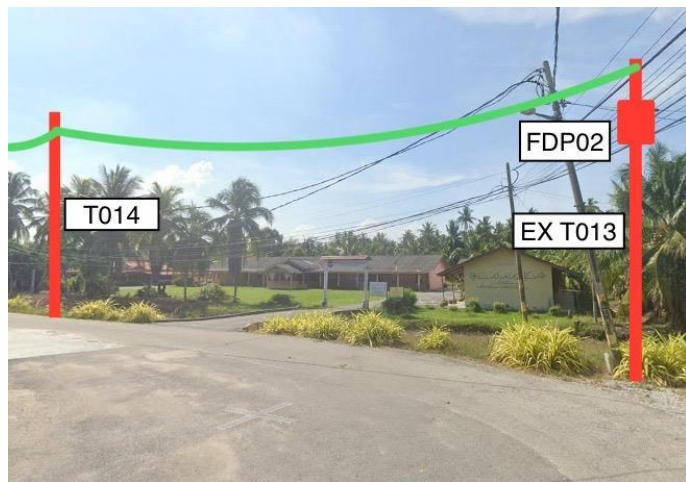
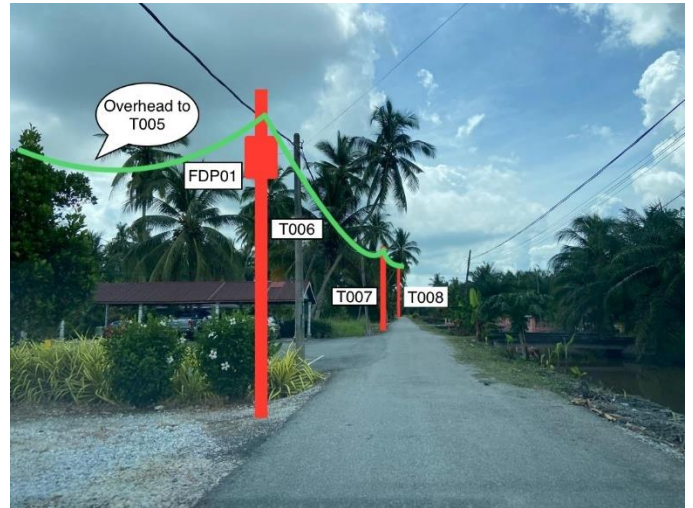
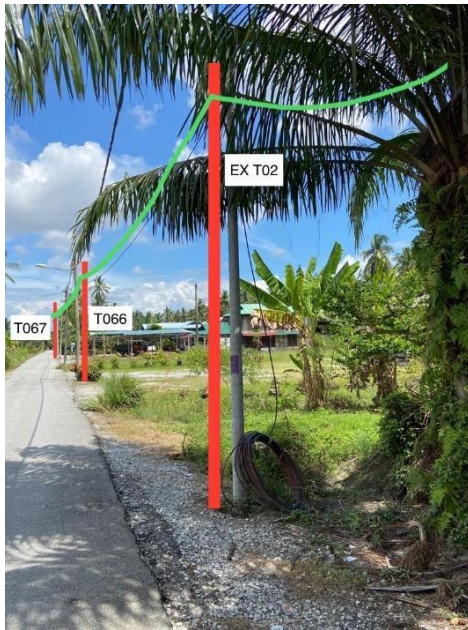
PROJEK PENYEDIAAN DAN PENYELENGGARAAN POINT OF PRESENCE (POP) FASA 2: HAB INFRASTRUKTUR GENTIAN OPTIK BERHAMPIRAN DENGAN SEKOLAH, KAWASAN PERINDUSTRIAN, PREMIS KERAJAAN DAN KOMUNITI SEKITARNYA OLEH KEMENTERIAN KOMUNIKASI MALAYSIA – ZON UTARA (KKMM.400-11/17/132(1))



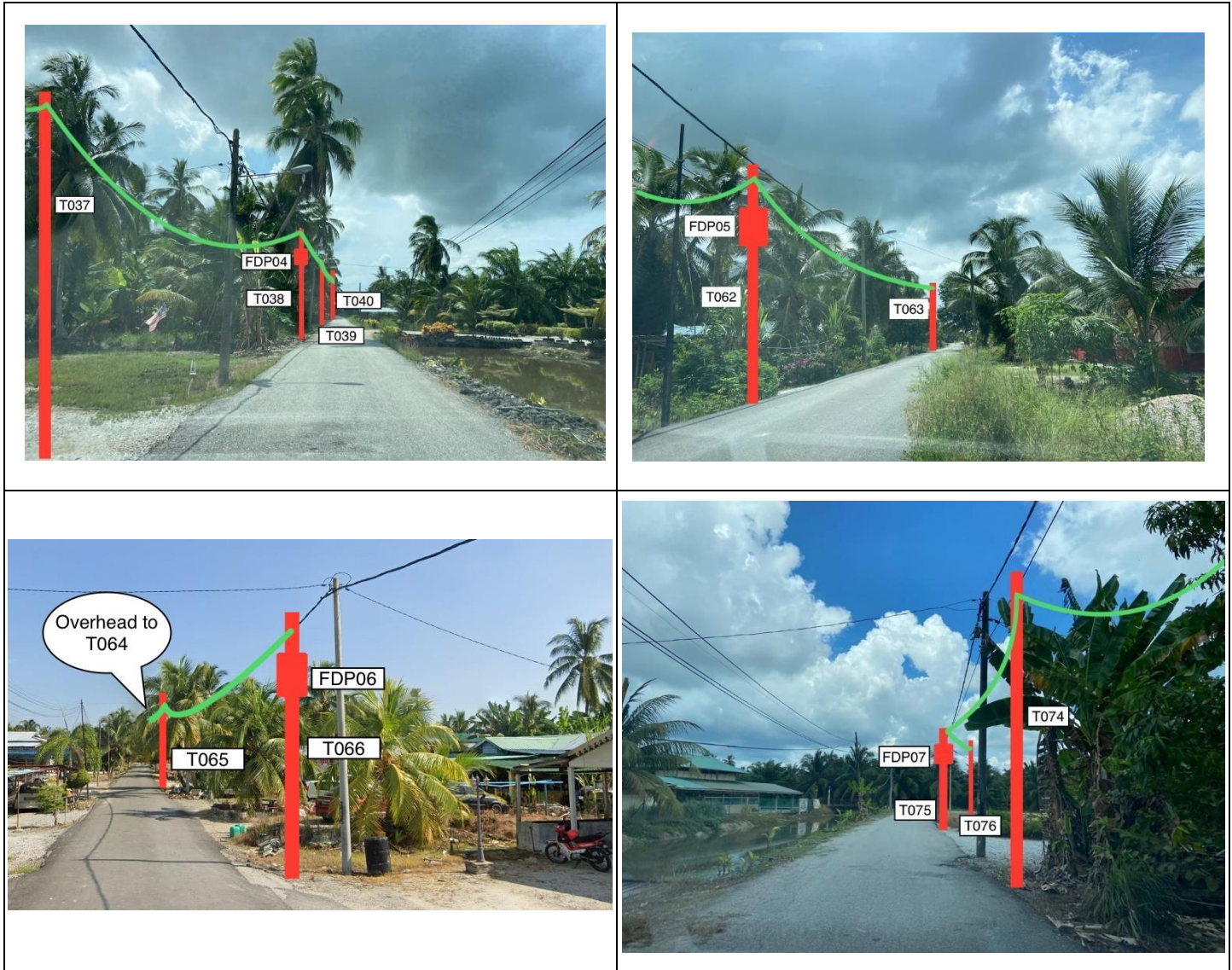
#### 4.0 PROPOSED NEW POLE

Proposed New Pole Coordinate					
No.	Pole Number	Distance (m)	Latitude	Longitude	Local Authority
163	T161	40	3.899862	100.7951111	Majlis Road
164	T162	40	3.900171	100.7943555	Majlis Road
165	T163	40	3.900361	100.7944189	Majlis Road
166	T164	40	3.900623	100.7945005	Majlis Road
167	T165	40	3.90054	100.7948785	Majlis Road
168	T166	40	3.900476	100.7952204	Majlis Road
169	T167	40	3.879891	100.7888208	Majlis Road

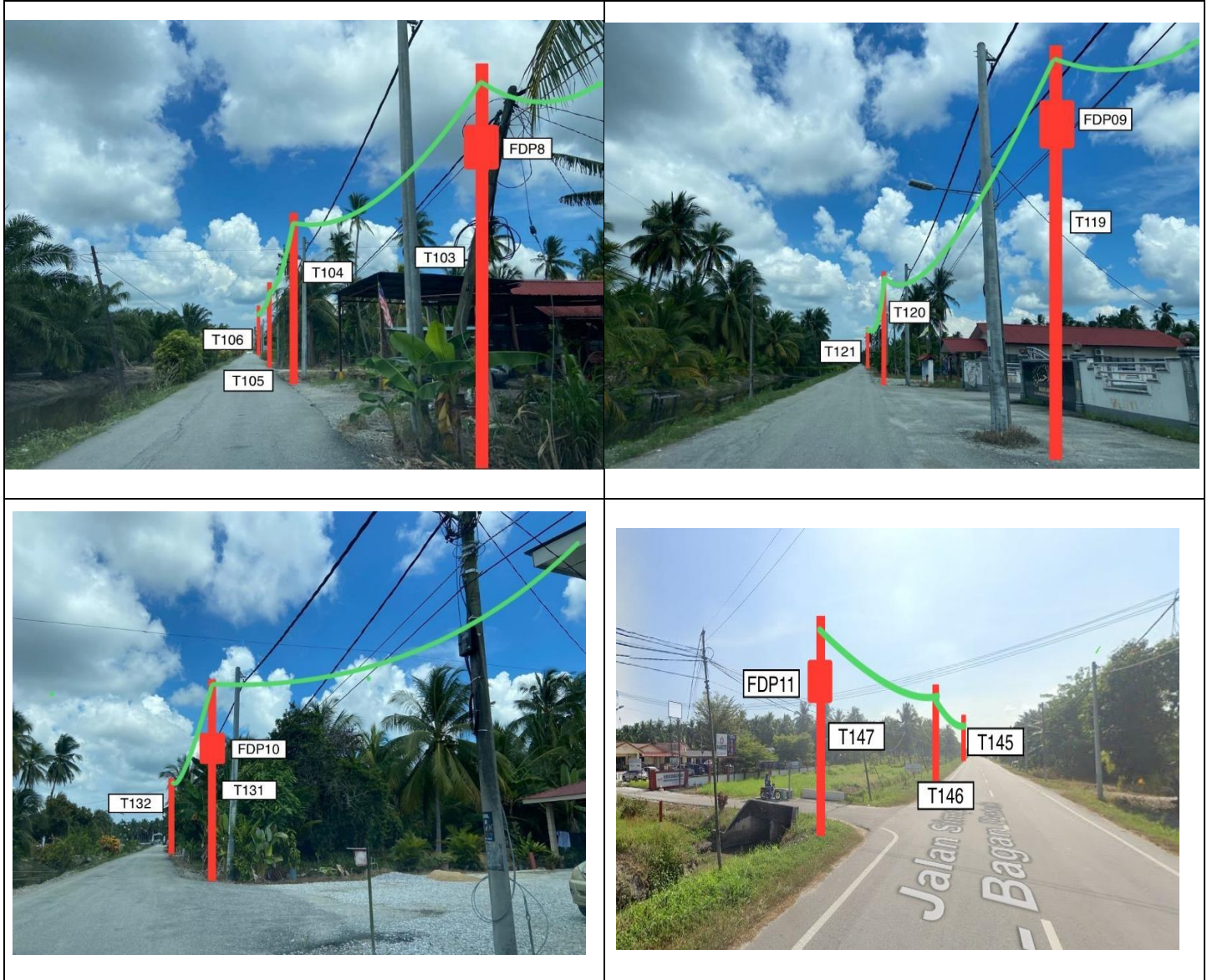
5.0 SITE PHOTOS - PROPOSED NEW POLE



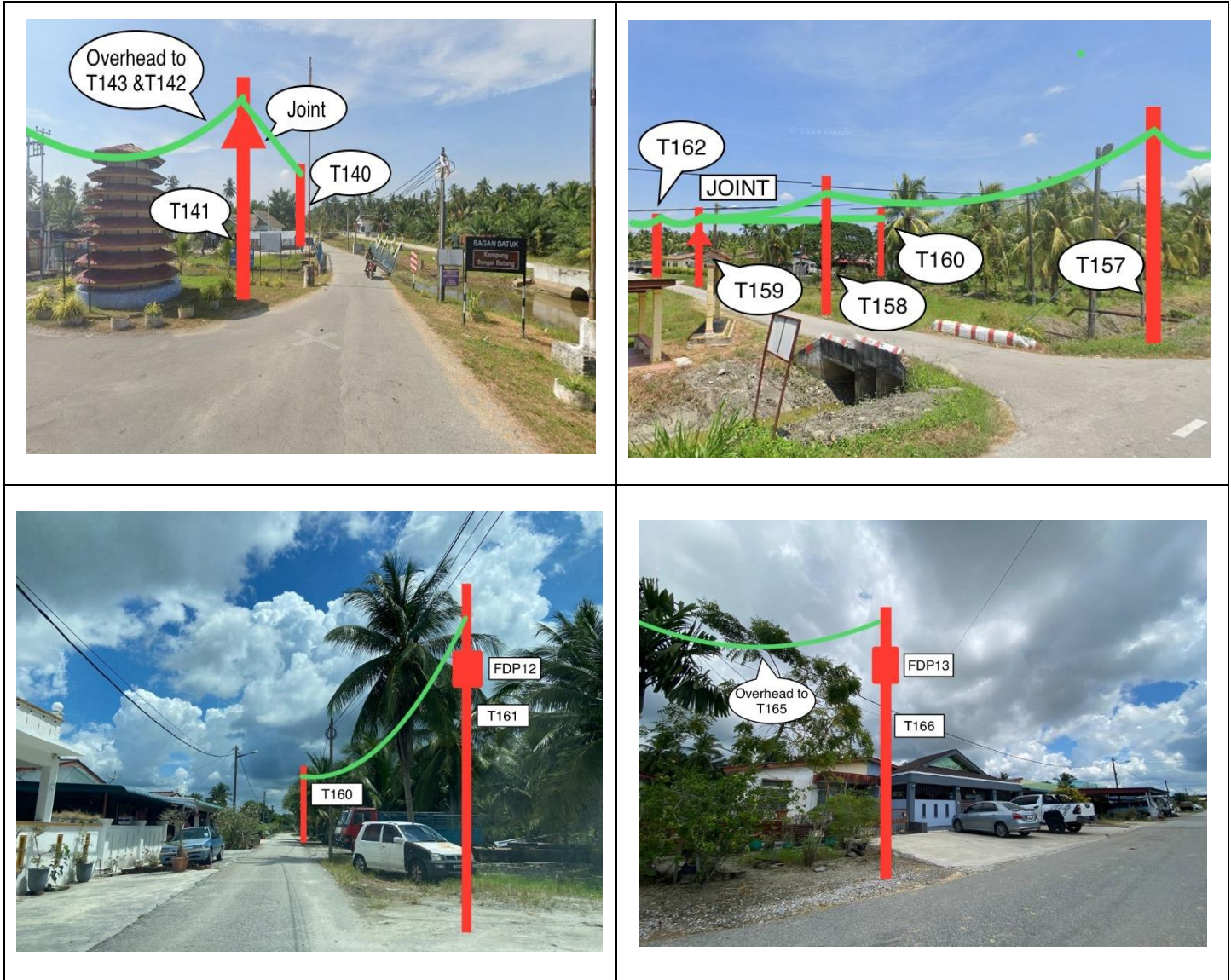
**5.0 SITE PHOTOS - PROPOSED NEW POLE**



5.0 SITE PHOTOS - PROPOSED NEW POLE



**5.0 SITE PHOTOS - PROPOSED NEW POLE**



### 5.0 SITE PHOTOS - PROPOSED NEW POLE



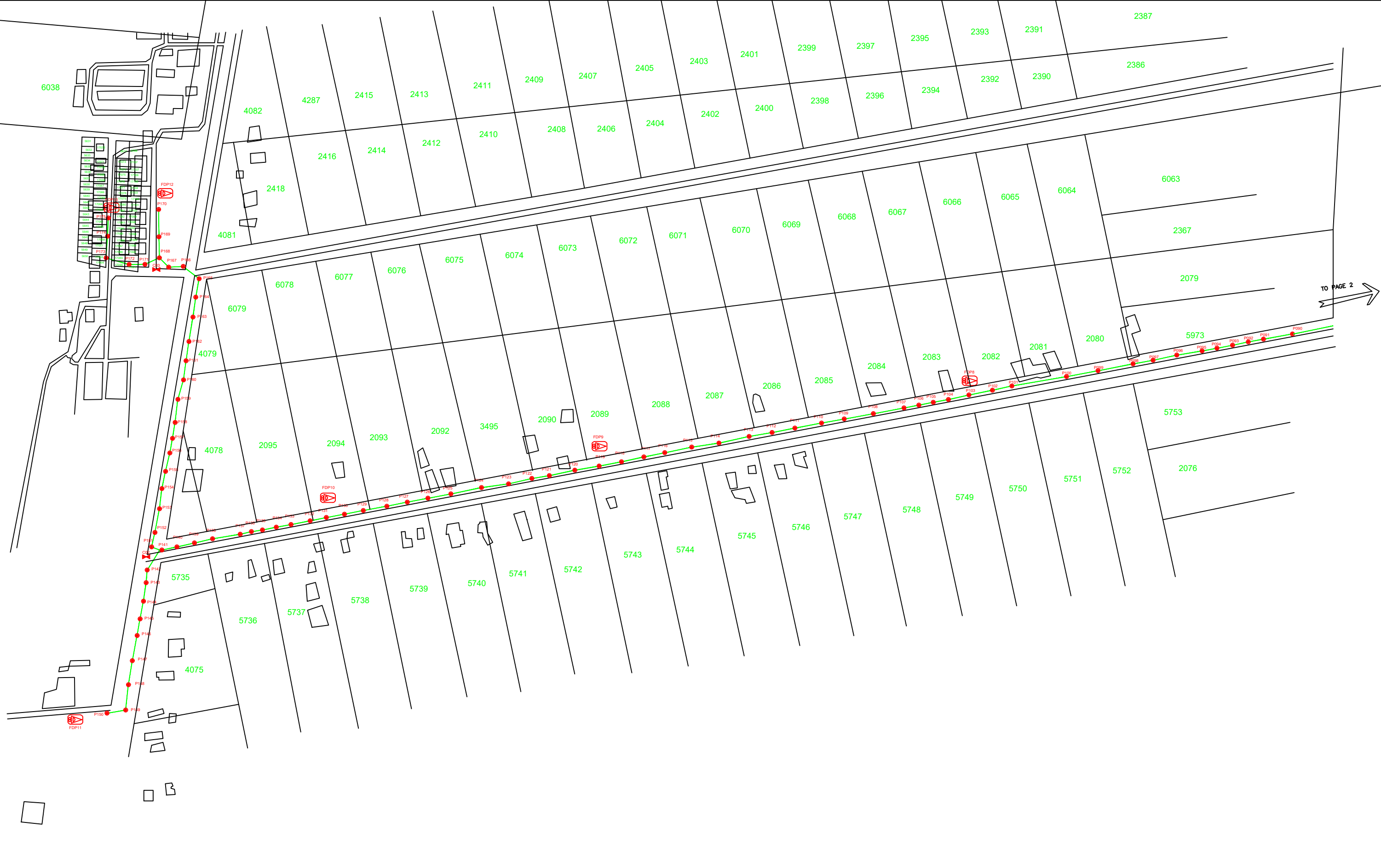


PROJEK PENYEDIAAN DAN PENYELENGGARAAN POINT OF PRESENCE (POP) FASA 2: HAB INFRASTRUKTUR GENTIAN OPTIK BERHAMPIRAN DENGAN SEKOLAH, KAWASAN PERINDUSTRIAN, PREMIS KERAJAAN DAN KOMUNITI SEKITARNYA OLEH KEMENTERIAN KOMUNIKASI MALAYSIA – ZON UTARA (KKMM.400-11/17/132(1))



## 6.0 3<sup>rd</sup> PARTIES DEPENDENCIES

NO	LOCAL COUNCIL / AUTHORITY	REMARK
1	Majlis Perbandaran Teluk Intan	5,960m
2	JKR Hilir Perak	980m



LEGEND					
	12C FOC		Installed 1:4 splitter in FDC		INSTALLED POLE (9M)
	24C FOC		FDP		NEW MANHOLE
	48C FOC		CLOSURE		EXISTING MANHOLE
	90C FOC		NEW MANHOLE (PT)		EXISTING ALLO POLE
	144C FOC		INSTALLED POLE		LOOP
			SUSPENSION BIG		FDP BOUNDARY
			SUSPENSION SMALL		FDP NO.
			FDC		FDC NO.
					MH NO.
					EXISTING TNB POLE NO.
					NEW POLE NO.
					SEE SHEET XXX
					SEE SHEET XXX

KEY PLAN

KEPENTERIAN KOMUNIKASI DAN DIGITAL

PROJECT OWNER

APEX COMMUNICATIONS SDN BHD

PRIVASAT

MAIN CONTRACTOR

KNZ Engineering

SUB-CONTRACTOR

KNZ ENGINEERING SDN BHD  
 NO. 60 & 60A, Jalan Klebang Indah 1, Medan Klebang Indah, 30100 Ipoh, Perak  
 No Tel: 019-3695071  
 Email: admin@knzengineering.com.my  
 Website: www.knzengineering.com.my

PROJECT TITLE

SEKOLAH KEBANGSAAN SUNGAI BATANG

DRAWING TITLE

TP DRAWING POP 2 AT SEKOLAH KEBANGSAAN SUNGAI BATANG

PROJECT PHASE

PROJECT PHASE 2

DESIGN BY	NABIL	DATE	14/11/2024
DRAWN BY	NABIL	SCALE	NOT TO SCALE
CHECKED BY	AZHAN HARIS	JOB NUMBER	ABAB028
DRAWING NUMBER	ABAB028		1/3
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A3



LEGEND					
	12C FOC		Installed 1:4 splitter in FDC		INSTALLED POLE (9M)
	24C FOC		FDP		NEW MANHOLE
	48C FOC		CLOSURE		EXISTING MANHOLE
	90C FOC		NEW MANHOLE (PT)		EXISTING ALLO POLE
	144C FOC		INSTALLED POLE		LOOP
			FDP BOUNDARY		TENSION SMALL / TENSION BIG
			FDP NO.		CLOSURE NO.
			FDC NO.		FDP NO.
			FDC NO.		MH NO.
			MH NO.		TKS-1 EXISTING TNB POLE NO.
			NEW POLE NO.		NEW POLE NO.
			NEW POLE NO.		NEW POLE NO.

KEY PLAN

PROJECT OWNER



PROJECT OWNER



PRIVASAT

MAIN CONTRACTOR



KNZ Engineering

SUB-CONTRACTOR

KNZ ENGINEERING SDN BHD  
 NO. 60 & 60A, Jalan Kiebang Indah 1, Medan Kiebang Indah, 30100 Ipoh, Perak  
 No Tel: 019-3695071  
 Email: admin@knzengineering.com.my  
 Website: www.knzengineering.com.my

PROJECT TITLE

SEKOLAH KEBANGSAAN SUNGAI BATANG

DRAWING TITLE

TP DRAWING POP 2 AT SEKOLAH KEBANGSAAN SUNGAI BATANG

PROJECT PHASE

PROJECT PHASE 2

DESIGN BY	NABIL	DATE	14/11/2024
DRAWN BY	NABIL	SCALE	NOT TO SCALE
CHECKED BY	AZHAN HARIS	JOB NUMBER	ABAB028
DRAWING NUMBER	ABAB028		
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LEGEND		NEW MANHOLE		TENSION SMALL / TENSION BIG		MH NO.	
12C FOC	Installed 1:4 splitter in FDC	CG1	NEW MANHOLE	TS/TB	TENSION SMALL / TENSION BIG	MH1	MH NO.
24C FOC	FDP	#	HOUSE NUMBER	□	EXISTING MANHOLE	TKS-1	EXISTING TNB POLE NO.
48C FOC	CLOSURE	SB	EXISTING ALLO POLE	CP1	CLOSURE NO.	P001	NEW POLE NO.
90C FOC	NEW MANHOLE (PT)	SS	LOOP	FDP1	FDP NO.	SEE PLAN SHEET	SEE SHEET XXX
144C FOC	INSTALLED POLE	SS	FDP BOUNDARY	FDC	FDC NO.	SEE SHEET XXX	SEE SHEET XXX

KEY PLAN

PROJECT OWNER



PROJECT OWNER



PRIVASAT

MAIN CONTRACTOR



KNZ Engineering

SUB-CONTRACTOR

KNZ ENGINEERING SDN BHD  
 NO. 60 & 60A, Jalan Kiebang Indah 1, Medan Kiebang Indah, 30100 Ipoh, Perak  
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PROJECT TITLE

SEKOLAH KEBANGSAAN SUNGAI BATANG

DRAWING TITLE

TP DRAWING POP 2 AT SEKOLAH KEBANGSAAN SUNGAI BATANG

PROJECT PHASE

PROJECT PHASE 2

DESIGN BY	NABIL	DATE	14/11/2024
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