A428 Black Cat to Caxton Gibbet improvements

TR010044

Volume 2

2.10 Engineering Section Drawings – Part 5

Planning Act 2008

Regulations 5(2)(o), 5(2)(p), 6(2)(a) and 6(2)(b)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

26 February 2021

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

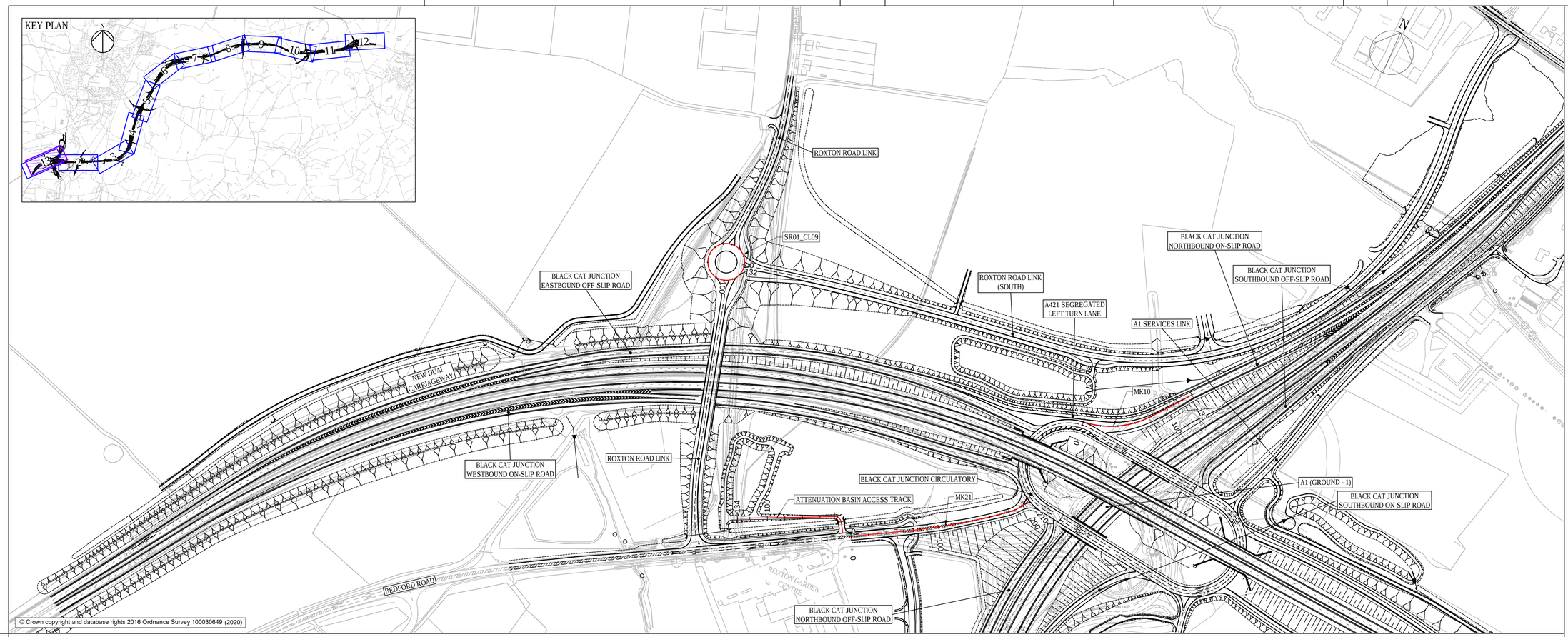
A428 Black Cat to Caxton Gibbet improvements

Development Consent Order 202[ ]

Engineering Section Drawings – Part 5

Regulation Reference:	Regulation 5(2)(o), 5(2)(p), 6(2)(a) and 6(2)(b)
Planning Inspectorate Scheme Reference	TR010044
Application Document Reference	TR010044/APP/2.10
Author	A428 Black Cat to Caxton Gibbet improvements Project Team, Highways England

Version	Date	Status of Version
Rev 1	26 February 2021	DCO Application



NOTES

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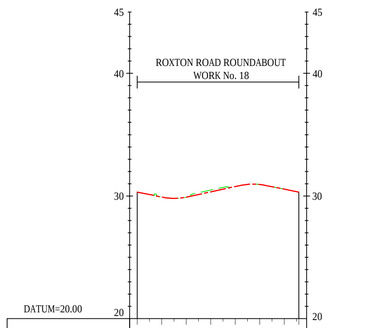
KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	30.309	30.312	0.002
20.000	29.900	29.912	0.012
40.000	29.893	29.905	0.012
60.000	30.481	30.335	-0.146
80.000	30.760	30.765	0.005
100.000	30.939	30.933	-0.006
120.000	30.553	30.551	-0.002
131.947	30.309	30.312	0.003

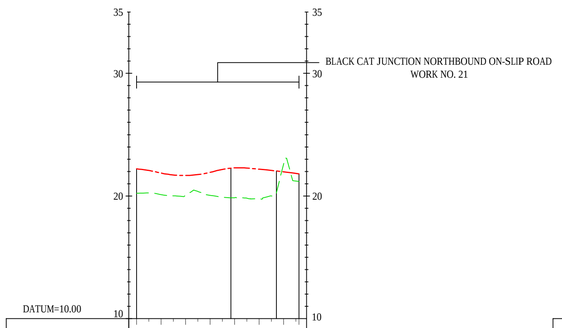
VERTICAL ALIGNMENT: G=-2.00% (1) G=2.15% (2) G=-2.00%

HORIZONTAL ALIGNMENT: R=21.00

1. K=4.82
2. K=4.82

ROXTON ROAD ROUNDABOUT
ALIGNMENT STRING NAME : SR01_CL09

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	20.213	22.208	1.995
20.000	20.114	21.866	1.752
40.000	20.038	21.671	1.633
60.000	20.053	21.921	1.867
80.000	19.855	22.290	2.435
100.000	19.767	22.186	2.419
120.000	22.593	21.969	-0.624
132.501	21.181	21.804	0.623

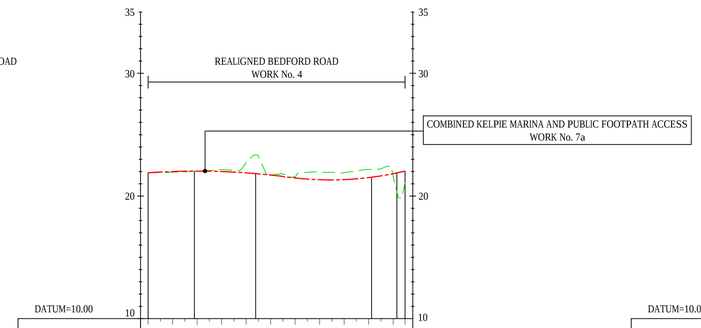
VERTICAL ALIGNMENT: (1) (2) L=46.900 K=9.00 G=2.80% L=25.46 K=7.10 (3) L=43.10 K=69.15 (4)

HORIZONTAL ALIGNMENT: R=100.00 R=720.00 (5)

1. K=10.78
2. G=-2.41%
3. G=-0.79%
4. G=-1.41%
5. L=18.340

BLACK CAT JUNCTION NORTHBOUND ON-SLIP ROAD
ALIGNMENT STRING NAME : MK10

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	21.898	21.898	0.000
20.000	21.940	21.993	0.053
40.000	22.030	22.030	0.001
60.000	22.152	21.995	-0.157
80.000	22.710	21.887	-0.823
100.000	21.747	21.706	-0.041
120.000	21.529	21.463	-0.066
140.000	21.942	21.321	-0.621
160.000	21.899	21.333	-0.566
180.000	22.154	21.498	-0.656
200.000	21.619	21.817	0.199
209.675	21.067	22.027	0.961

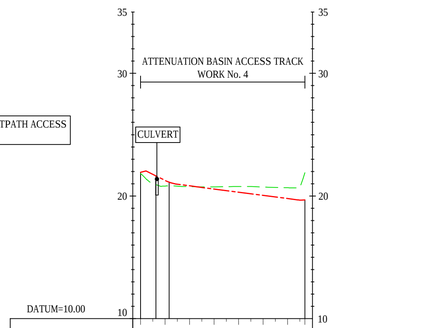
VERTICAL ALIGNMENT: (1) L=101.05 K=55.00 G=-1.05% L=95.938 K=26.00 G=-2.35%

HORIZONTAL ALIGNMENT: L=37.664 L=50.00 R=720.00 (2) (3)

1. G=0.50%
2. R=50.00
3. L=6.715

REALIGNED BEDFORD ROAD
ALIGNMENT STRING NAME : MK21

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	21.823	21.931	0.107
20.000	20.808	21.263	0.455
40.000	20.763	20.826	0.063
60.000	20.744	20.567	-0.177
80.000	20.774	20.307	-0.467
100.000	20.728	20.048	-0.680
120.000	20.671	19.789	-0.882
134.178	21.897	19.668	-2.229

VERTICAL ALIGNMENT: (1) (2) (3) G=-1.30% (4) (5)

HORIZONTAL ALIGNMENT: (6) (7) L=110.855

1. G=2.49%
2. G=-5.00%
3. K=2.70
4. K=2.00
5. G=0.11%
6. L=12.581
7. R=7.50

ATTENUATION BASIN ACCESS TRACK

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 13

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2413
Location | Type | Role | Number

Rev
P04

Plot Date: Friday, February 05, 2021 2:10:27 PM
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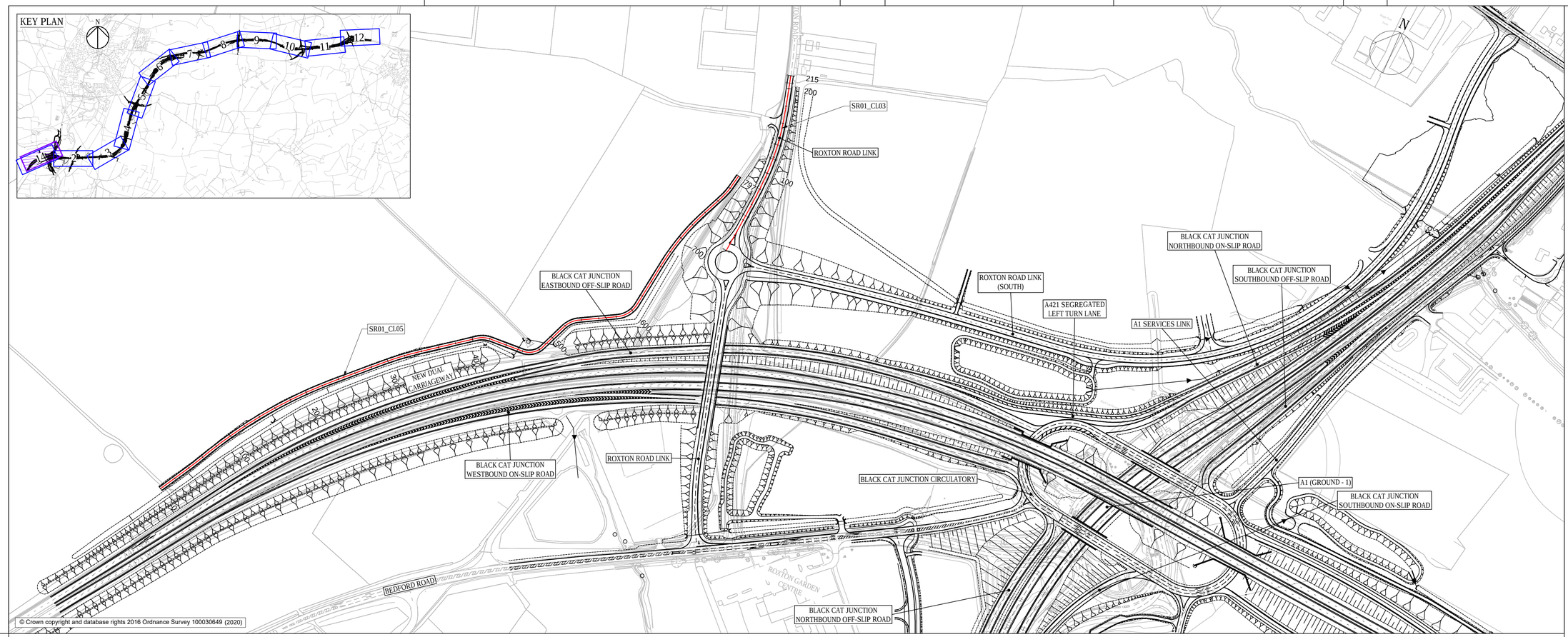

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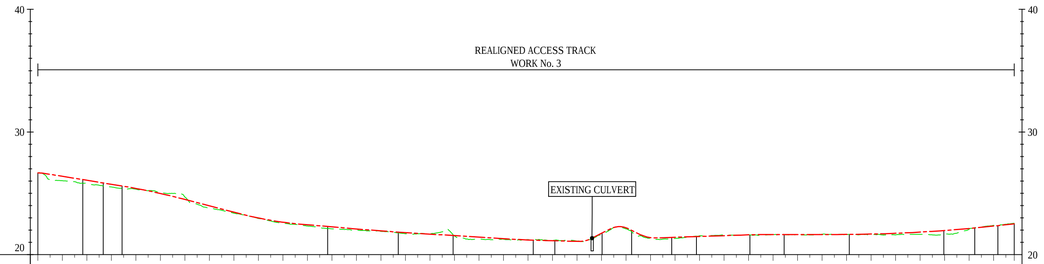


CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	26.667	26.667	0.000
20.000	26.017	26.381	0.364
40.000	25.799	26.057	0.258
60.000	25.509	25.733	0.224
80.000	25.334	25.393	0.059
100.000	25.060	24.981	-0.079
120.000	24.687	24.492	-0.195
140.000	23.787	23.974	0.188
160.000	23.371	23.456	0.086
180.000	22.945	22.980	0.035
200.000	22.572	22.638	0.066
220.000	22.325	22.429	0.104
240.000	22.094	22.258	0.165
260.000	21.997	22.087	0.091
280.000	21.893	21.929	0.036
300.000	21.697	21.790	0.092
320.000	21.708	21.665	-0.042
340.000	21.513	21.543	0.030
360.000	21.228	21.420	0.192
380.000	21.252	21.297	0.045
400.000	21.217	21.189	-0.028
420.000	21.150	21.127	-0.023
440.000	21.095	21.078	-0.017
460.000	21.652	21.732	0.080
480.000	22.095	22.180	0.085
500.000	21.332	21.380	0.048
520.000	21.315	21.407	0.091
540.000	21.526	21.474	-0.052
560.000	21.580	21.541	-0.039
580.000	21.594	21.605	0.012
600.000	21.626	21.636	0.010
620.000	21.655	21.637	-0.018
640.000	21.657	21.636	-0.021
660.000	21.648	21.639	-0.010
680.000	21.618	21.668	0.050
700.000	21.606	21.732	0.126
720.000	21.643	21.829	0.187
740.000	21.650	21.961	0.311
760.000	22.070	22.126	0.056
780.000	22.371	22.324	-0.046
796.654	22.552	22.499	-0.053

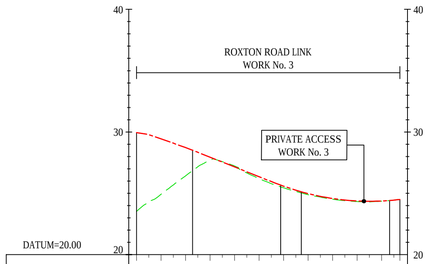
VERTICAL ALIGNMENT: G=-1.62% (1); L=50.00 K=51.61; G=-2.59%; L=50.000 K=28.83; G=-0.86%; L=50.000 K=207.39; G=-0.61%; L=30.000 K=81.41; G=-0.25% (2); (3); (4); (5); (6); G=0.33%; L=30.00 K=89.04; G=0.00%; L=123.134 K=118.13 (7)

HORIZONTAL ALIGNMENT: L=36.613; (8); (9); R=520.00; L=57.612; R=360.00; L=65.395; (10); L=38.503; (11); L=32.761; (12); L=43.668; R=30.00; L=53.249; R=273.46; (13); (14); (15)

REALIGNED ACCESS TRACK
ALIGNMENT STRING NAME : SR01_CL05

(1) G=-0.50% (5) G=-5.00% (9) L=15.336 (13) L=25.243
(2) K=1.72 (6) K=2.81 (10) R=30.00 (14) R=83.97
(3) G=5.00% (7) G=1.04% (11) R=22.25 (15) L=13.339
(4) G=1.50% (8) R=360.00 (12) R=30.00

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	23.511	29.948	6.437
20.000	24.917	29.433	4.516
40.000	26.420	28.726	2.306
60.000	27.694	27.943	0.248
80.000	27.225	27.147	-0.079
100.000	26.191	26.351	0.160
120.000	25.444	25.577	0.134
140.000	24.881	24.975	0.094
160.000	24.514	24.572	0.059
180.000	24.325	24.370	0.045
200.000	24.352	24.367	0.016
214.908	24.493	24.493	0.000

VERTICAL ALIGNMENT: (1); (2); (3); G=-3.98%; L=101.119 K=20.00; (4)

HORIZONTAL ALIGNMENT: R=4000.00; RL=72.00; (5); RL=72.00; (6)

ROXTON ROAD LINK
ALIGNMENT STRING NAME : SR01_CL03

(1) G=-1.60% (4) G=1.08%
(2) G=-3.47% (5) R=255.00
(3) K=39.20 (6) L=8.402

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
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MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 14

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume | Location | Type | Role | Number
HE551495 -ACM -LSI - ZN1_SW_Z_ZZ -DR -DC-2414
Rev P04

Plot Date: Friday, February 05, 2021 2:13:36 PM
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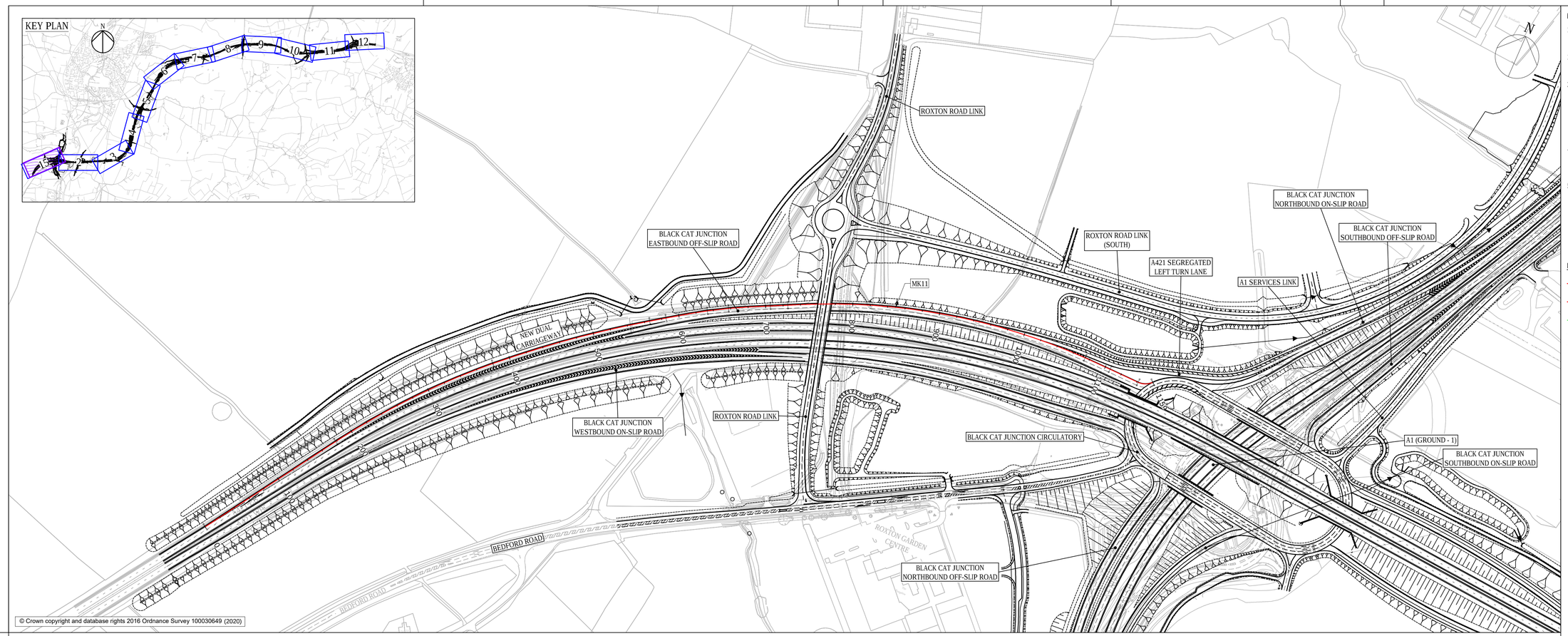

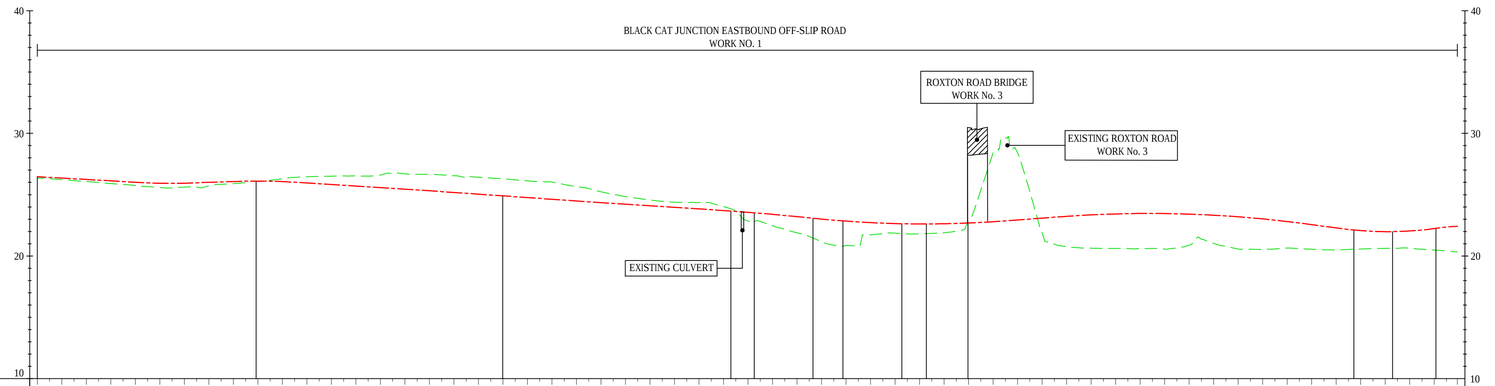

CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	26.364	26.464	0.100
20.000	26.220	26.352	0.132
40.000	26.070	26.239	0.169
60.000	25.903	26.127	0.224
80.000	25.741	26.015	0.274
100.000	25.590	25.933	0.343
120.000	25.612	25.938	0.326
140.000	25.706	26.003	0.297
160.000	25.898	26.070	0.172
180.000	26.080	26.107	0.027
200.000	26.301	26.064	-0.237
220.000	26.455	25.949	-0.506
240.000	26.512	25.822	-0.690
260.000	26.524	25.694	-0.830
280.000	26.606	25.567	-1.039
300.000	26.696	25.439	-1.257
320.000	26.660	25.311	-1.349
340.000	26.546	25.182	-1.364
360.000	26.422	25.043	-1.379
380.000	26.291	24.902	-1.389
400.000	26.121	24.762	-1.359
420.000	26.032	24.622	-1.410
440.000	25.665	24.482	-1.183
460.000	25.240	24.344	-0.896
480.000	24.839	24.218	-0.621
500.000	24.563	24.093	-0.470
520.000	24.377	23.968	-0.409
540.000	24.360	23.838	-0.522
560.000	24.019	23.701	-0.318
580.000	22.857	23.557	0.699
600.000	22.464	23.391	0.927
620.000	21.887	23.203	1.316
640.000	21.150	23.009	1.859
660.000	20.845	22.841	1.996
680.000	21.722	22.719	0.997
700.000	21.859	22.643	0.784
720.000	21.809	22.612	0.803
740.000	21.890	22.627	0.737
760.000	22.860	22.688	-0.172
780.000	28.421	22.794	-5.627
800.000	28.417	22.938	-5.478
820.000	21.878	23.086	1.208
840.000	20.760	23.233	2.473
860.000	20.630	23.352	2.722
880.000	20.616	23.429	2.813
900.000	20.593	23.464	2.871
920.000	20.562	23.458	2.897
940.000	20.885	23.411	2.526
960.000	21.036	23.322	2.286
980.000	20.566	23.192	2.626
1000.000	20.539	23.020	2.481
1020.000	20.646	22.806	2.160
1040.000	20.546	22.552	2.007
1060.000	20.493	22.285	1.793
1080.000	20.568	22.066	1.497
1100.000	20.615	21.983	1.367
1120.000	20.628	22.039	1.410
1140.000	20.479	22.233	1.754
1158.826	20.328	22.416	2.088

VERTICAL ALIGNMENT: G=-0.56%; L=40.327 K=45.00; G=0.33%; L=48.61 K=50.00; G=-0.64%; ① G=-0.70%; ② G=-0.62%; ③ G=-0.08%; L=50.00 K=174.83; G=-0.97%; L=150.000 K=87.72; G=0.74%; L=200.00 K=96.38; G=-1.36%; L=75.000 K=28.80; G=-2.7%; ④ ⑤

HORIZONTAL ALIGNMENT: L=178.595; R=850.00; R=1200.00; ⑥ L=48.00; ⑦ L=48.00; ⑧ L=34.00; R=720.00; ⑨ L=35.335; ⑩

BLACK CAT JUNCTION EASTBOUND OFF-SLIP ROAD
ALIGNMENT STRING NAME : MK11

① K=182.00 ③ K=64.00 ⑤ G=0.31% ⑦ R=510.00 ⑨ R=1440.00
② K=182.00 ④ K=9.36 ⑥ L=18.972 ⑧ L=20.056 ⑩ R=20.00

LONGSECTION
SCALE: H 1:2500,V 1:250

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- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
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Working on behalf of highways england

Development Consent Order Number
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Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 15

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2415
Location | Type | Role | Number

Rev P04

Plot Date: Friday, February 05, 2021 2:18:23 PM
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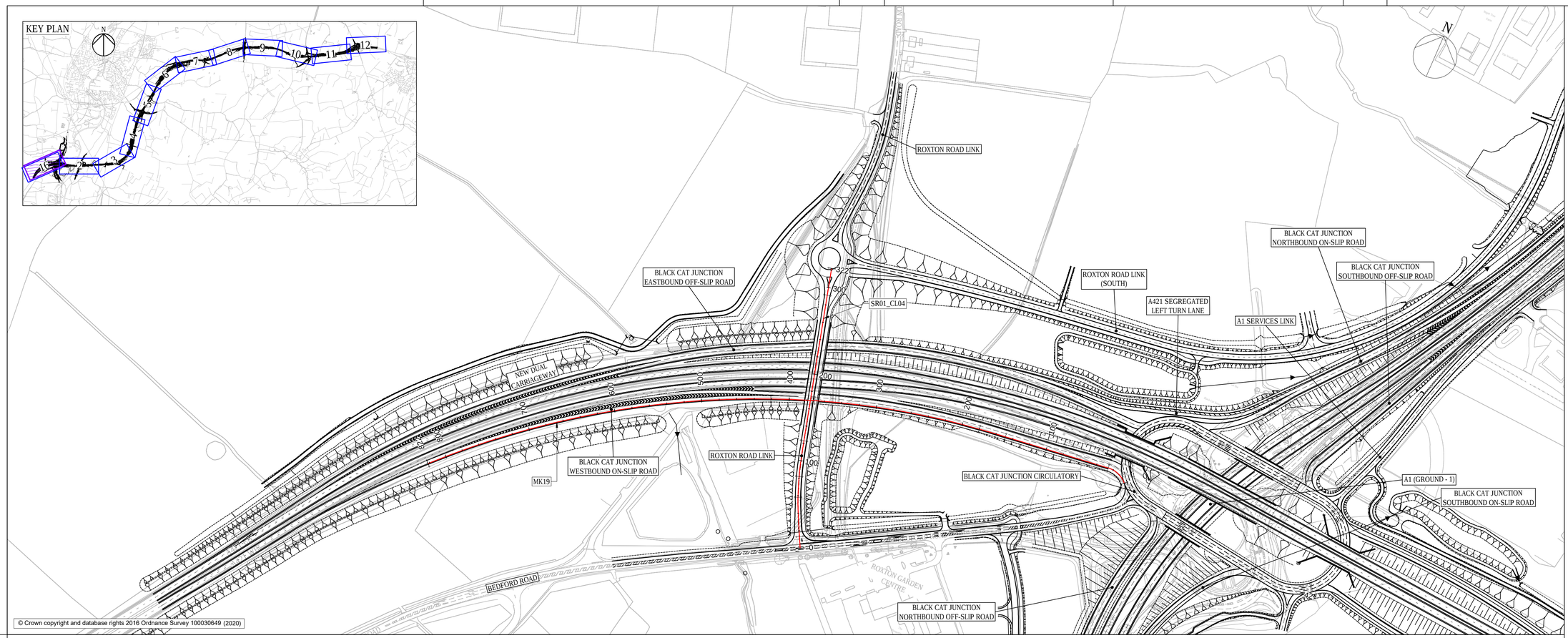
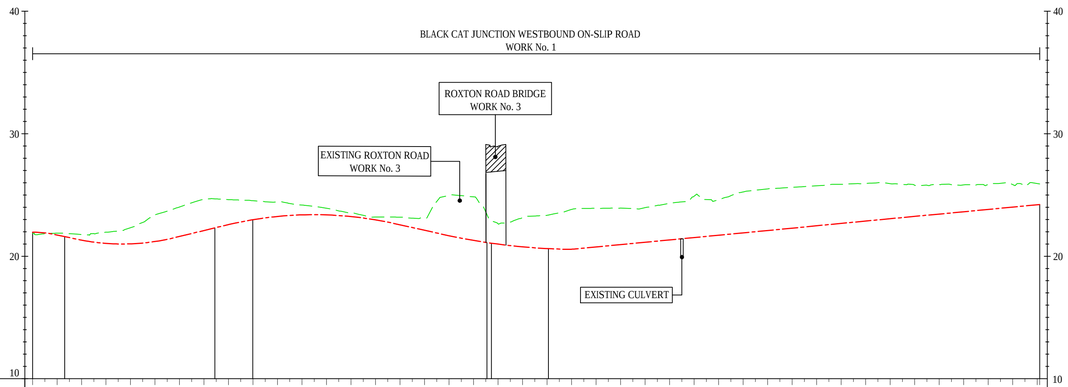




CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	21.856	21.961	0.105
20.000	21.875	21.733	-0.142
40.000	21.773	21.311	-0.462
60.000	21.967	21.046	-0.921
80.000	22.326	21.009	-1.317
100.000	23.381	21.199	-2.182
120.000	24.016	21.613	-2.404
140.000	24.628	22.098	-2.531
160.000	24.614	22.581	-2.033
180.000	24.525	22.979	-1.546
200.000	24.421	23.242	-1.178
220.000	24.170	23.373	-0.797
240.000	23.912	23.370	-0.542
260.000	23.557	23.234	-0.323
280.000	23.197	22.964	-0.233
300.000	23.181	22.562	-0.618
320.000	23.106	22.114	-0.992
340.000	24.963	21.669	-3.294
360.000	24.844	21.286	-3.558
380.000	22.630	20.985	-1.645
400.000	23.140	20.764	-2.376
420.000	23.340	20.624	-2.715
440.000	23.818	20.571	-3.247
460.000	23.910	20.755	-3.155
480.000	23.925	20.947	-2.978
500.000	23.962	21.138	-2.824
520.000	24.307	21.330	-2.977
540.000	24.903	21.521	-3.382
560.000	24.600	21.713	-2.887
580.000	25.248	21.904	-3.344
600.000	25.497	22.095	-3.402
620.000	25.614	22.287	-3.327
640.000	25.744	22.478	-3.266
660.000	25.865	22.670	-3.195
680.000	25.937	22.861	-3.076
700.000	25.923	23.053	-2.870
720.000	25.782	23.244	-2.538
740.000	25.850	23.435	-2.415
760.000	25.823	23.627	-2.196
780.000	25.867	23.818	-2.049
800.000	25.842	24.010	-1.832
820.000	25.931	24.201	-1.730
821.549	25.903	24.220	-1.683

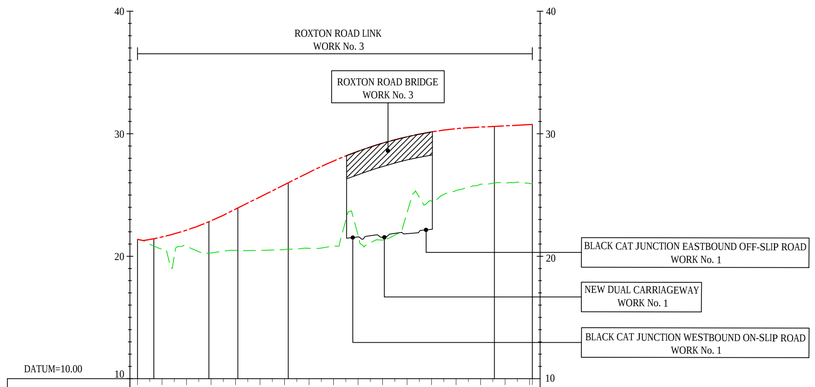
VERTICAL ALIGNMENT: ① L=80.000 K=17.55; G=2.43%; ② L=140.00 K=30.00; G=-2.24%; ③ L=90.000 K=49.33; ④ G=0.96%; ⑤

HORIZONTAL ALIGNMENT: R=28.00; L=122.615; L=31.00; R=900.00; R=1020.00; R=995.00; ⑥

BLACK CAT JUNCTION WESTBOUND ON-SLIP ROAD
ALIGNMENT STRING NAME : MK19

① G=-0.28% ③ G=-2.13% ⑤ K=7.25
② K=8.63 ④ G=-0.42% ⑥ L=3.65

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	21.358	21.358	0.000
20.000	20.572	21.572	1.001
40.000	20.799	22.132	1.332
60.000	20.270	22.891	2.621
80.000	20.478	23.842	3.364
100.000	20.485	24.842	4.356
120.000	20.546	25.842	5.296
140.000	20.641	26.842	6.201
160.000	20.840	27.769	6.928
180.000	21.679	28.562	6.883
200.000	21.314	29.223	7.909
220.000	23.566	29.749	6.183
240.000	24.505	30.143	5.638
260.000	25.363	30.403	5.040
280.000	25.867	30.536	4.669
300.000	25.960	30.636	4.676
320.000	25.935	30.736	4.801
322.199	25.911	30.747	4.836

VERTICAL ALIGNMENT: ① ② L=69.498 K=20.00; G=5.00%; L=134.98 K=30.00; G=0.50%

HORIZONTAL ALIGNMENT: ③ L=45.00; ④ L=41.00; L=168.309; L=30.991

ROXTON ROAD LINK
ALIGNMENT STRING NAME : SR01_CL04

① G=1.53% ③ L=13.232
② G=-2.38% ④ R=300.00

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 16

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2416
Location | Type | Role | Number

Rev P04

Plot Date: Friday, February 05, 2021 2:21:54 PM
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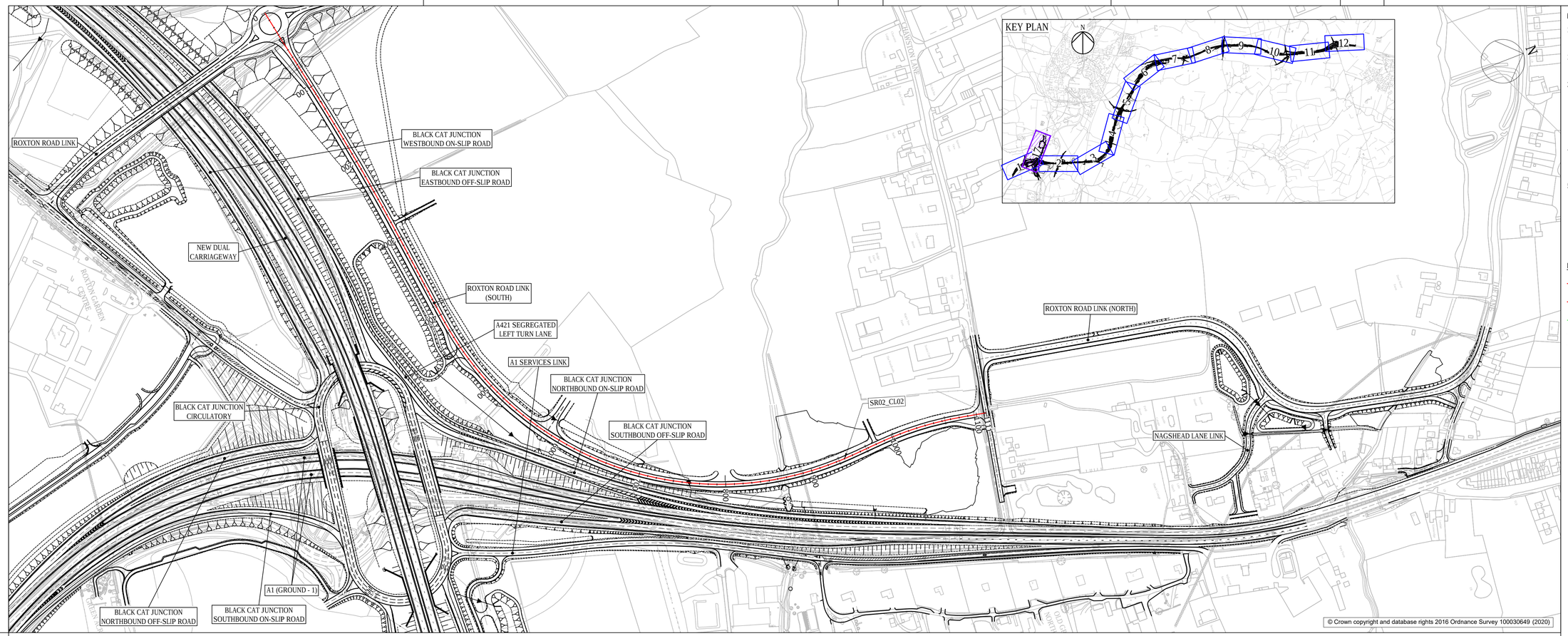

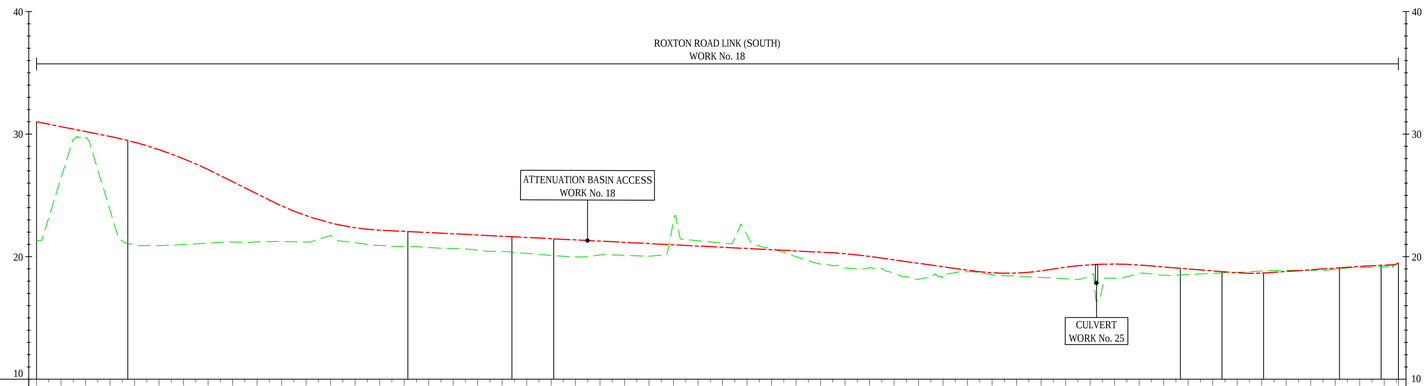

CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
-00.000	21.290	31.009	9.720
20.000	26.399	30.609	4.211
40.000	29.702	30.209	0.508
60.000	23.789	29.809	6.020
80.000	20.975	29.334	8.360
100.000	20.906	28.726	7.820
120.000	20.989	27.985	6.996
140.000	21.099	27.110	6.012
160.000	21.193	26.123	4.931
180.000	21.199	25.123	3.924
200.000	21.227	24.150	2.923
220.000	21.195	23.354	2.159
240.000	21.734	22.758	1.024
260.000	21.143	22.362	1.219
280.000	20.909	22.166	1.257
300.000	20.829	22.066	1.237
320.000	20.753	21.966	1.213
340.000	20.661	21.866	1.205
360.000	20.528	21.766	1.238
380.000	20.419	21.666	1.248
400.000	20.261	21.566	1.305
420.000	20.102	21.466	1.364
440.000	19.984	21.366	1.382
460.000	20.129	21.266	1.137
480.000	20.113	21.166	1.053
500.000	20.035	21.066	1.031
520.000	22.880	20.966	-1.914
540.000	21.295	20.866	-0.429
560.000	21.107	20.766	-0.341
580.000	21.748	20.666	-1.082
600.000	20.649	20.566	-0.083
620.000	19.992	20.466	0.474
640.000	19.385	20.366	0.981
660.000	19.061	20.239	1.178
680.000	19.090	20.014	0.924
700.000	18.631	19.734	1.104
720.000	18.158	19.454	1.297
740.000	18.510	19.174	0.665
760.000	18.769	18.894	0.125
780.000	18.519	18.686	0.167
800.000	18.401	18.667	0.266
820.000	18.301	18.840	0.539
840.000	18.195	19.143	0.947
860.000	18.447	19.334	0.887
880.000	18.240	19.393	1.153
900.000	18.615	19.318	0.703
920.000	18.479	19.159	0.680
940.000	18.542	18.999	0.457
960.000	18.636	18.839	0.203
980.000	18.722	18.682	-0.040
1000.000	18.829	18.658	-0.171
1020.000	18.884	18.788	-0.096
1040.000	18.886	18.928	0.042
1060.000	18.967	19.068	0.101
1080.000	19.100	19.203	0.103
1100.000	19.196	19.307	0.111
1111.484	19.471	19.471	0.000

VERTICAL ALIGNMENT: G=-2.00% | L=90.00 K=30.00 | G=-5.00% | L=90.000 K=20.00 | G=-0.50% | L=36.00 K=40.00 | G=-1.40% | L=64.750 K=20.83 (1) | L=75.24 K=30.00 | G=-0.80% | (2) | G=0.70% | (3) | G=0.30% (4)

HORIZONTAL ALIGNMENT: R=2880.00 | R=2880.00 | L=84.992 | L=34.00 | R=360.00 | R=360.00 | L=34.00 | L=34.00 | R=360.00 | L=34.00 (5)

(1) K=20.83 (3) K=76.24 (5) L=14.047
(2) K=20.00 (4) G=4.45%

ROXTON ROAD LINK (SOUTH)
ALIGNMENT STRING NAME : SR02_CL02

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

1. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 17

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN1

Drawing Number
Highways England PIN | Originator | Volume | Location | Type | Role | Number
HE551495 -ACM -LSI - ZN1_SW_Z_ZZ -DR -DC-2417

Rev
P04

Plot Date: Friday, February 05, 2021 2:32:40 PM
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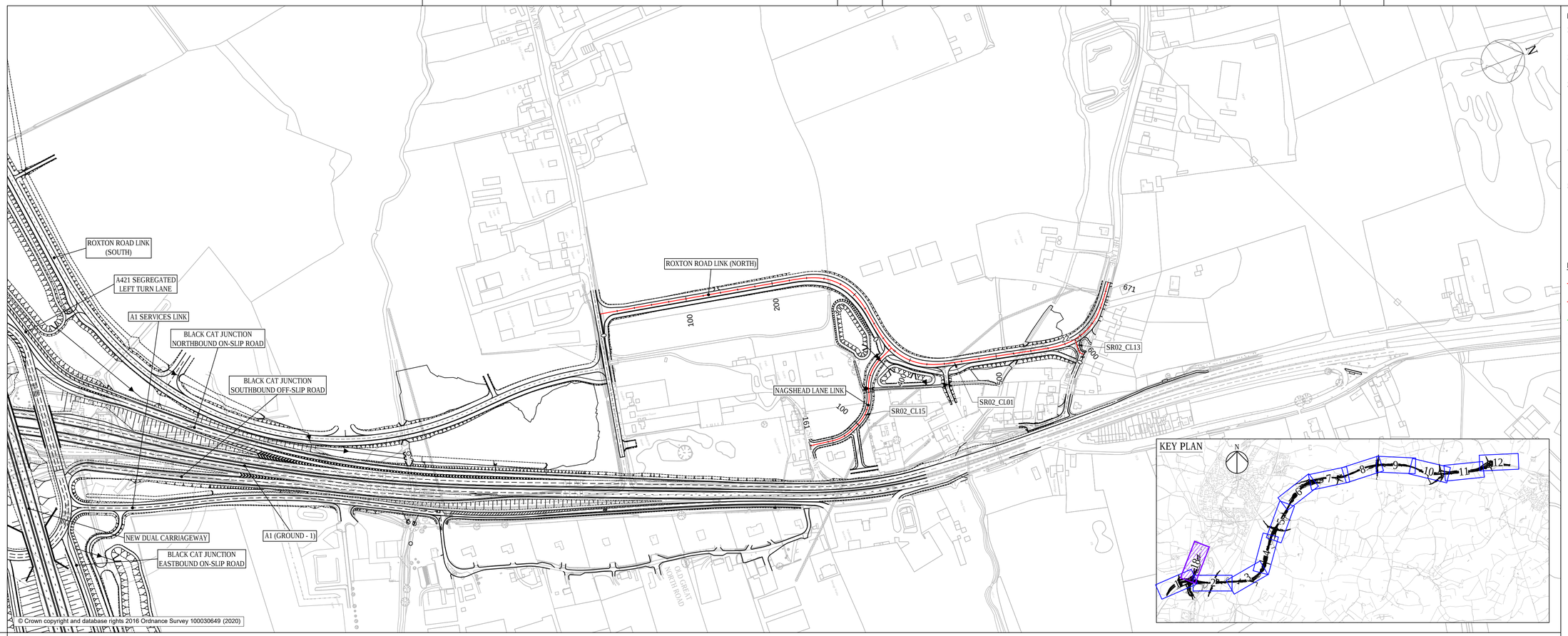

NOTES

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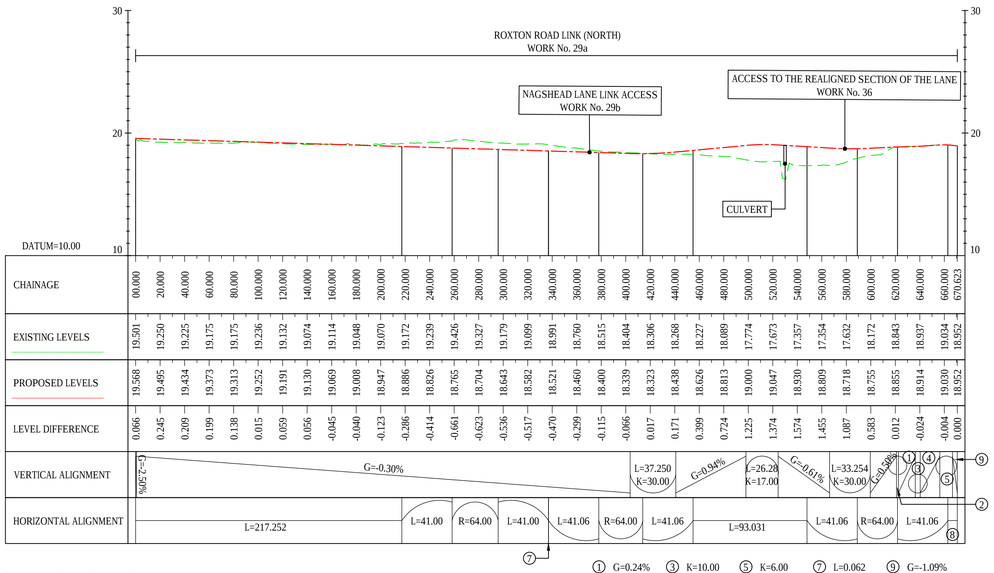
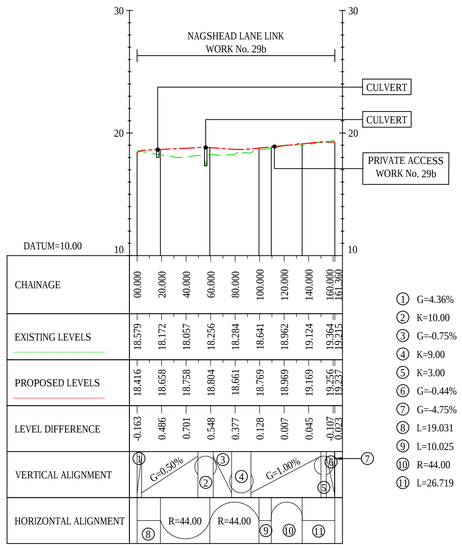
KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



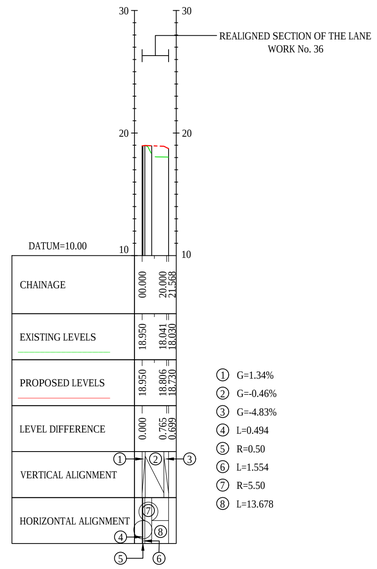
ROXTON ROAD LINK (NORTH)
ALIGNMENT STRING NAME : SR02_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250



NAGSHEAD LANE LINK
ALIGNMENT STRING NAME : SR02_CL15

LONGSECTION
SCALE: H 1:2500,V 1:250



REALIGNED SECTION OF THE LANE
ALIGNMENT STRING NAME : SR02_CL13

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 18

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume | Location | Type | Role | Number
HE551495 -ACM -LSI - ZN1_SW_Z_ZZ -DR -DC-2418
Rev P04

Plot Date : Thursday, February 04, 2021 12:28:28 PM
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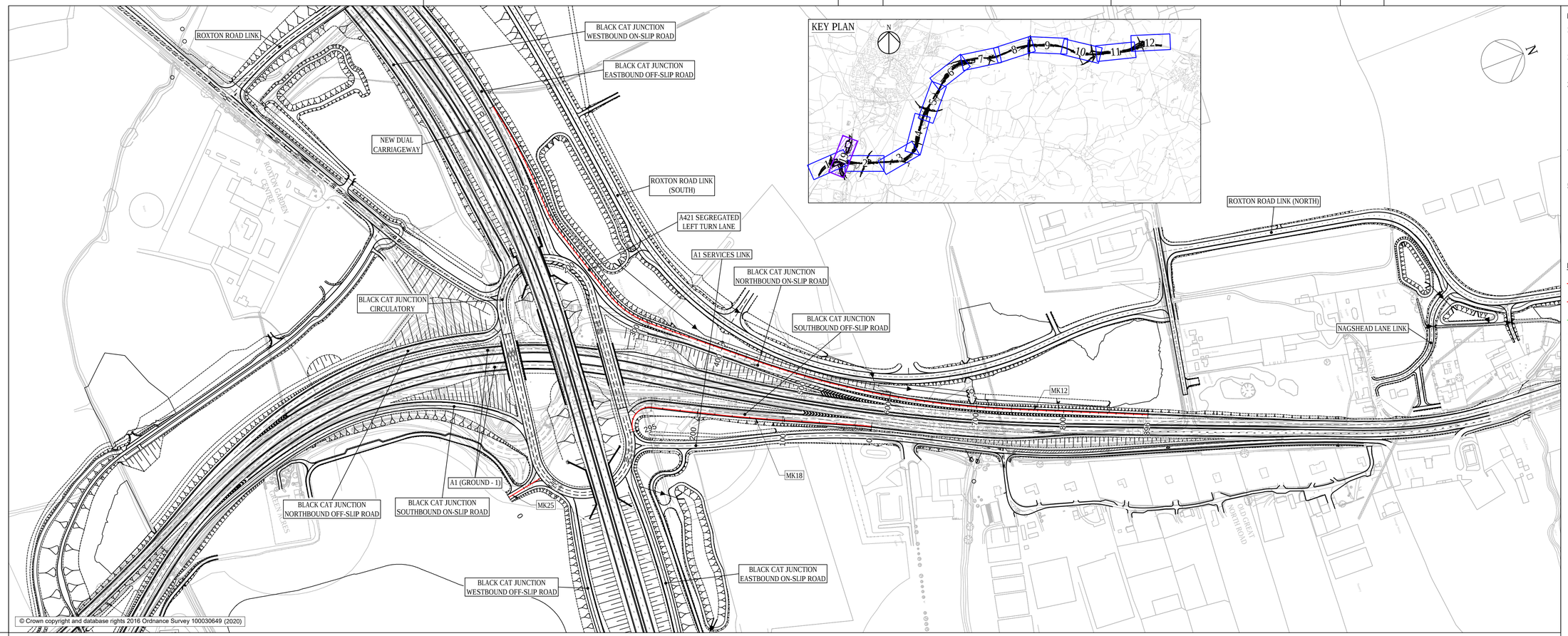

NOTES

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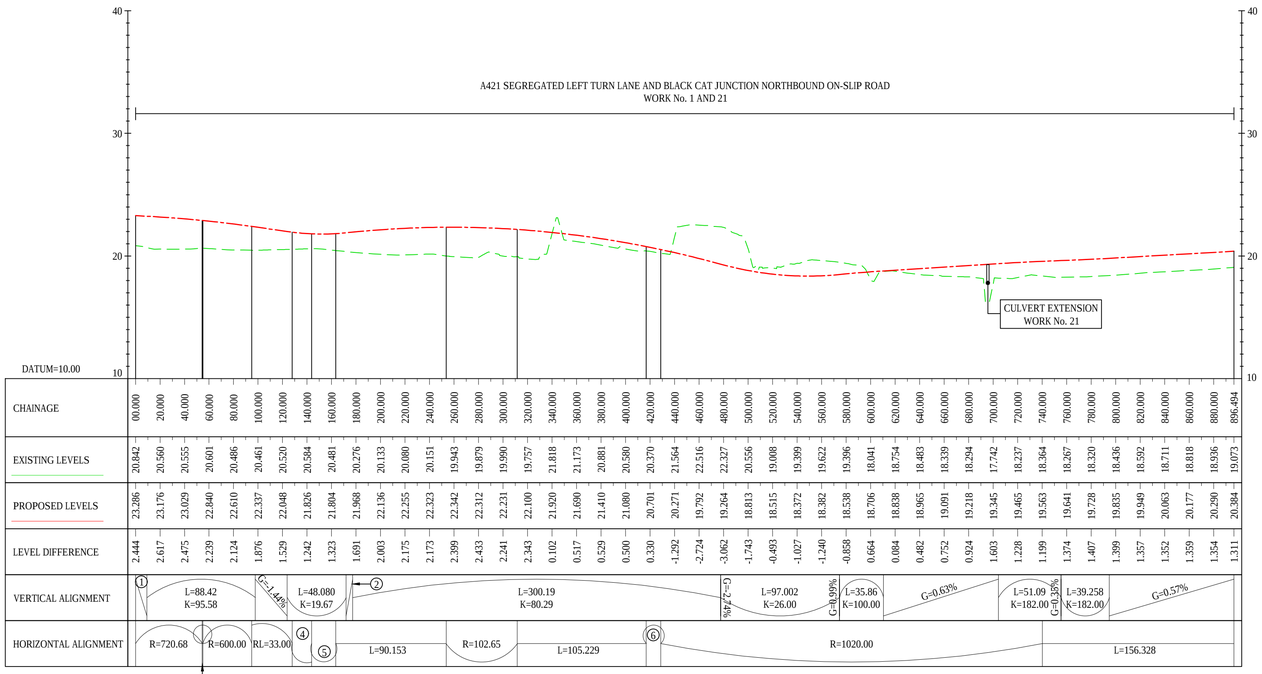
KEY

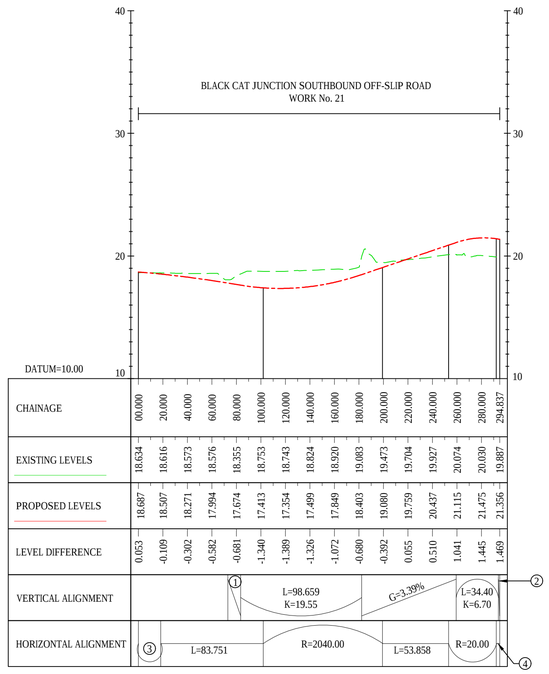
- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



A421 SEGREGATED LEFT TURN LANE AND BLACK CAT JUNCTION NORTHBOUND ON-SLIP ROAD
ALIGNMENT STRING NAME : MK12

① G=-0.52% ③ R=50.00 ⑤ R=102.65 ⑦ R=1440.00
② G=1.00% ④ L=16.00 ⑥ R=1440.00

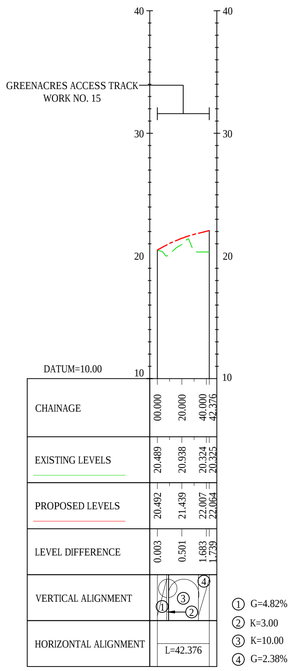
LONGSECTION
SCALE: H 1:2500,V 1:250



BLACK CAT JUNCTION SOUTHBOUND OFF-SLIP ROAD
ALIGNMENT STRING NAME : MK18

① G=-1.65% ③ R=300.00
② G=-1.74% ④ L=2.726

LONGSECTION
SCALE: H 1:2500,V 1:250



① G=4.82%
② K=3.00
③ K=10.00
④ G=2.38%

GREENACRES ACCESS TRACK
ALIGNMENT STRING NAME : MK25

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 19

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN HE551495 | Originator -ACM | Volume -LSI -
Location ZN1_SW_Z_ZZ | Type -DR | Role -DC | Number -2419
Rev P04

Plot Date: Friday, February 05, 2021 2:30:23 PM
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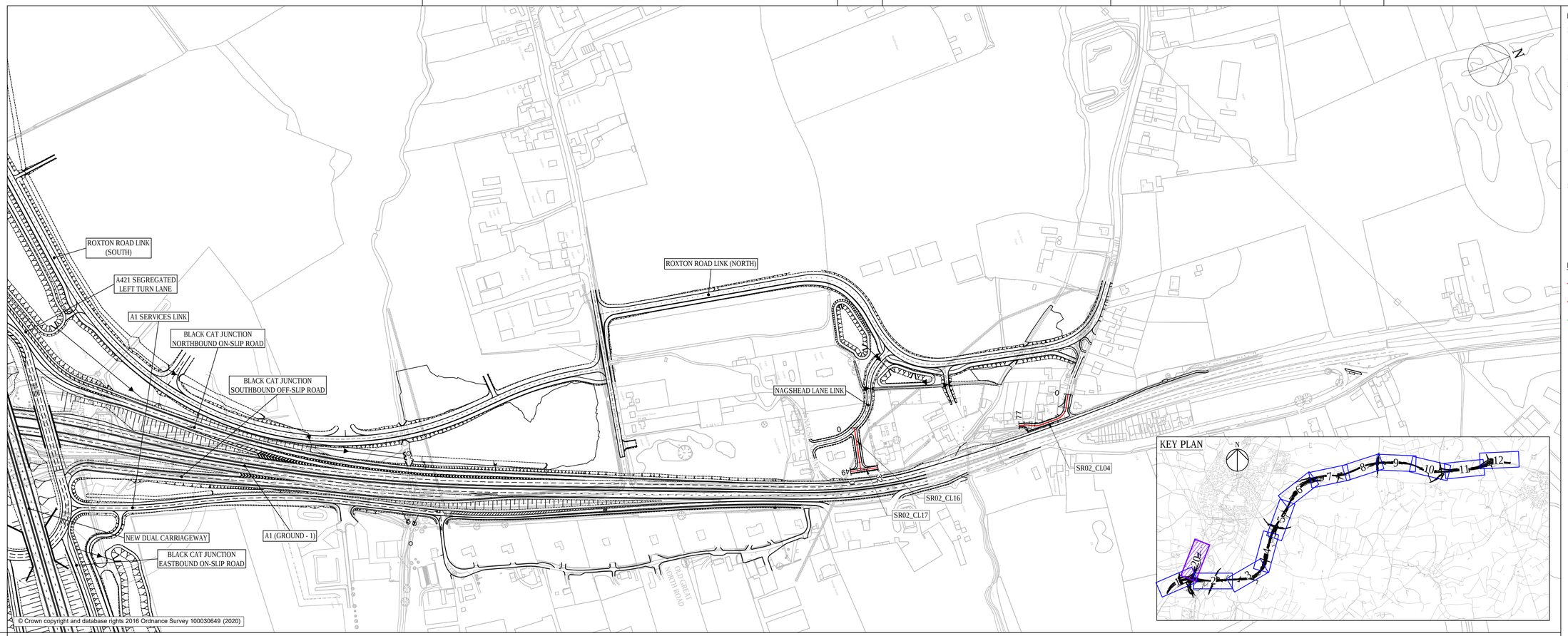
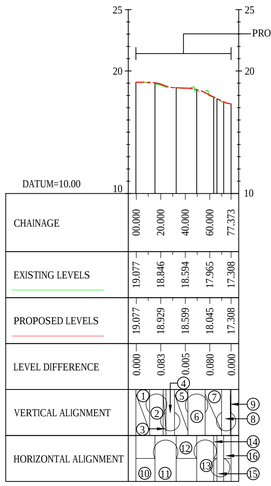




CHAINAGE	00.000	20.000	40.000	60.000	77.373
EXISTING LEVELS	19.077	18.846	18.594	17.965	17.308
PROPOSED LEVELS	19.077	18.929	18.599	18.045	17.308
LEVEL DIFFERENCE	0.000	0.083	0.005	0.080	0.000

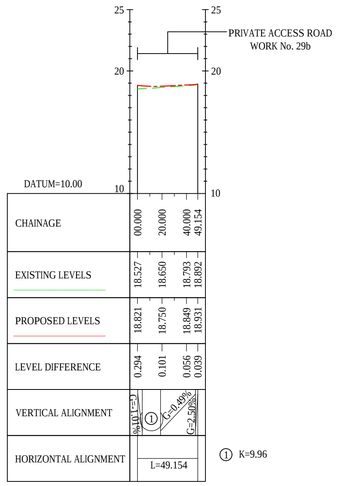
VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT

1. G=-0.09%
2. K=3.00
3. G=-3.77%
4. K=2.00
5. G=-0.30%
6. K=3.00
7. G=-5.00%
8. K=2.00
9. G=-1.45%
10. L=15.522
11. R=16.00
12. L=16.750
13. R=30.00
14. L=2.681
15. R=30.00
16. L=6.078

PROPERTY ACCESS ROAD
ALIGNMENT STRING NAME : SR02_CL04

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	00.000	20.000	40.000	49.154
EXISTING LEVELS	18.527	18.650	18.793	18.892
PROPOSED LEVELS	18.821	18.750	18.849	18.931
LEVEL DIFFERENCE	0.294	0.101	0.056	0.039

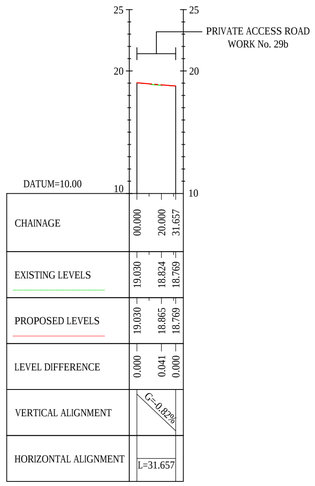
VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT

1. K=9.96

PRIVATE ACCESS ROAD
ALIGNMENT STRING NAME : SR02_CL16

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	00.000	20.000	31.657
EXISTING LEVELS	19.030	18.824	18.769
PROPOSED LEVELS	19.030	18.865	18.769
LEVEL DIFFERENCE	0.000	0.041	0.000

VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT

PRIVATE ACCESS ROAD
ALIGNMENT STRING NAME : SR02_CL17

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 20

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2420
Location | Type | Role | Number

Rev
P04

Plot Date : Thursday, February 04, 2021 12:25:54 PM
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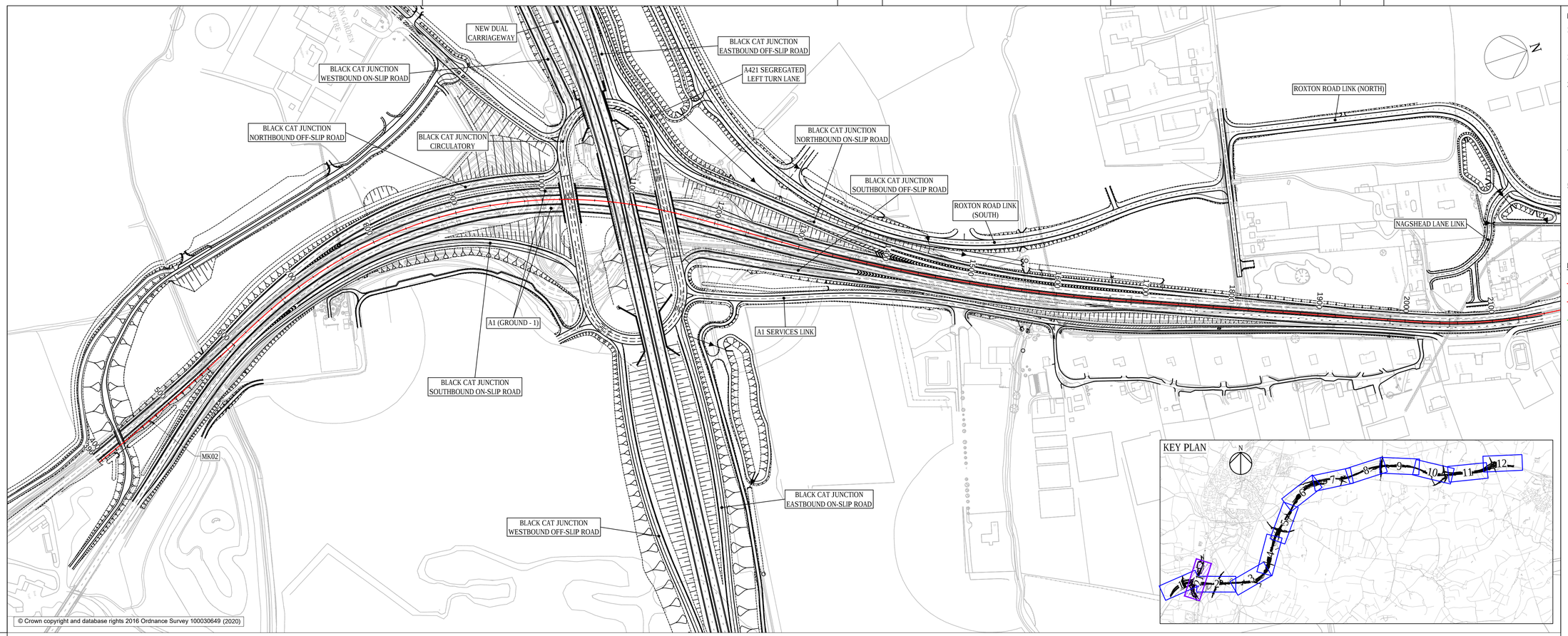

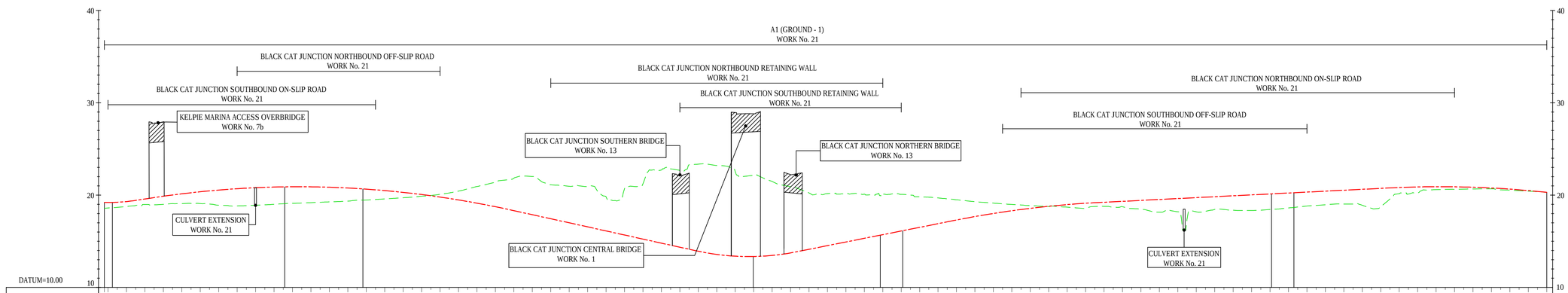

CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
396.013	18.571	19.210	0.639
400.000	18.604	19.206	0.602
420.000	18.768	19.304	0.536
440.000	18.988	19.583	0.595
460.000	18.998	19.882	0.884
480.000	19.088	20.143	1.055
500.000	19.088	20.365	1.278
520.000	18.911	20.550	1.639
540.000	18.835	20.696	1.861
560.000	18.899	20.804	1.905
580.000	19.005	20.875	1.869
600.000	19.110	20.907	1.796
620.000	19.188	20.901	1.713
640.000	19.270	20.857	1.587
660.000	19.351	20.775	1.423
680.000	19.470	20.654	1.184
700.000	19.593	20.496	0.903
720.000	19.721	20.300	0.579
740.000	19.880	20.065	0.185
760.000	20.086	19.792	-0.293
780.000	20.432	19.482	-0.951
800.000	20.932	19.133	-1.799
820.000	21.399	18.746	-2.653
840.000	21.836	18.321	-3.515
860.000	22.021	17.881	-4.139
880.000	21.129	17.442	-3.687
900.000	20.958	17.002	-3.957
920.000	20.941	16.562	-4.379
940.000	19.816	16.122	-3.694
960.000	20.681	15.683	-4.999
980.000	21.234	15.243	-5.991
1000.000	22.725	14.803	-7.922
1020.000	22.684	14.363	-8.321
1040.000	23.357	13.925	-9.432
1060.000	23.214	13.580	-9.634
1080.000	22.593	13.389	-9.203
1100.000	22.140	13.352	-8.788
1120.000	21.484	13.469	-8.015
1140.000	20.922	13.740	-7.182
1160.000	20.239	14.129	-6.110
1180.000	20.164	14.526	-5.638
1200.000	20.155	14.924	-5.231
1220.000	20.101	15.321	-4.780
1240.000	20.168	15.718	-4.450
1260.000	20.084	16.115	-3.969
1280.000	19.824	16.512	-3.311
1300.000	19.699	16.910	-2.790
1320.000	19.496	17.307	-2.190
1340.000	19.293	17.680	-1.613
1360.000	19.136	18.015	-1.122
1380.000	18.990	18.312	-0.678
1400.000	18.855	18.571	-0.285
1420.000	18.759	18.792	0.032
1440.000	18.695	18.975	0.280
1460.000	18.569	19.120	0.551
1480.000	18.787	19.229	0.441
1500.000	18.741	19.329	0.588
1520.000	18.481	19.429	0.949
1540.000	18.155	19.530	1.375
1560.000	18.199	19.630	1.431
1580.000	18.188	19.730	1.542
1600.000	18.455	19.831	1.375
1620.000	18.363	19.931	1.568
1640.000	18.338	20.031	1.694
1660.000	18.440	20.132	1.692
1680.000	18.612	20.232	1.620
1700.000	18.821	20.332	1.511
1720.000	18.963	20.433	1.470
1740.000	19.042	20.533	1.491
1760.000	18.895	20.633	1.738
1780.000	18.742	20.733	1.991
1800.000	20.155	20.828	0.673
1820.000	20.267	20.890	0.623
1840.000	20.593	20.915	0.322
1860.000	20.630	20.904	0.275
1880.000	20.670	20.857	0.187
1900.000	20.684	20.773	0.088
1920.000	20.529	20.652	0.123
1940.000	20.429	20.496	0.066
1960.000	20.200	20.202	0.002

VERTICAL ALIGNMENT: ① L=33.777 K=20.00; L=394.77 K=105.00; G=-2.20%; L=108.808 K=26.00; G=1.99%; L=156.19 K=105.21; G=0.50%; L=173.69 K=109.79

HORIZONTAL ALIGNMENT: ② R=2040.00; L=84.68; R=510.00; L=137.88; ③ R=2040.00; ④ L=297.057

① G=1.56% ③ L=24.30
② L=8.830 ④ L=24.30

A1 (GROUND - 1)
ALIGNMENT STRING NAME : MK02

LONGSECTION (PART 1 OF 2)
SCALE: H 1:2500,V 1:250

CONTINUATION - REFER TO DWG NO:2422

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 21

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2421
Location | Type | Role | Number
Rev P04

Plot Date: Friday, February 05, 2021 2:45:41 PM
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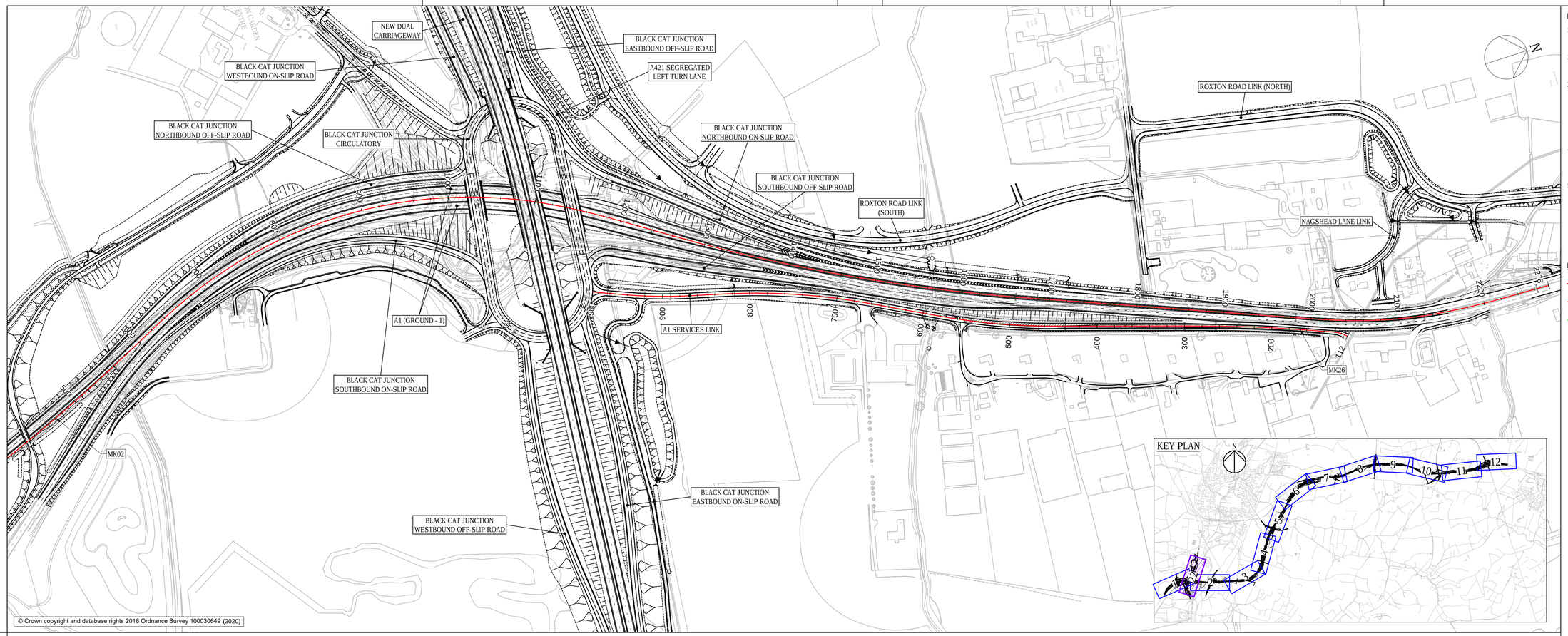

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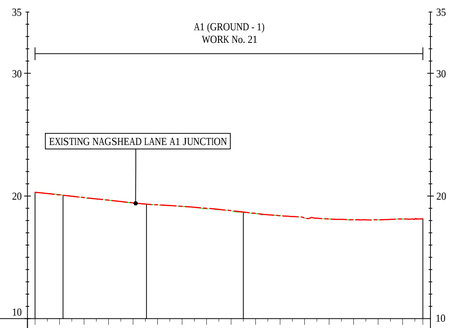
KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



CONTINUATION - REFER TO DWG NO:2421

CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
1960.000	20.300	20.302	0.002
1980.000	20.109	20.086	-0.022
2000.000	19.853	19.870	0.018
2020.000	19.653	19.654	0.002
2040.000	19.418	19.438	0.020
2060.000	19.267	19.271	0.005
2080.000	19.144	19.149	0.005
2100.000	18.951	18.995	0.044
2120.000	18.773	18.802	0.028
2140.000	18.561	18.574	0.013
2160.000	18.387	18.387	0.000
2180.000	18.201	18.201	0.000
2200.000	18.121	18.121	0.000
2220.000	18.060	18.060	0.000
2240.000	18.057	18.057	0.000
2260.000	18.115	18.115	0.000
2276.431	18.139	18.139	0.000

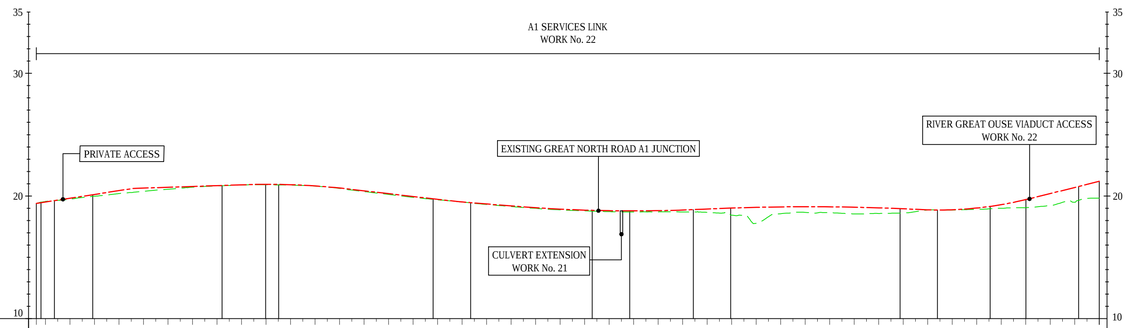
VERTICAL ALIGNMENT: G=-1.08% ① | ② L=55.44 K=100.00 ③ ④

HORIZONTAL ALIGNMENT: ⑤ L=67.98 | R=510.00 | L=133.00 ⑥

A1 (GROUND - 1)
ALIGNMENT STRING NAME : MK02

① K=30.00 ③ G=-1.15% ⑤ L=297.057
② G=-0.60% ④ K=26.00 ⑥ L=13.575

LONGSECTION (PART 2 OF 2)
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
112.418	19.387	19.387	0.000
120.000	19.551	19.505	-0.046
140.000	19.725	19.814	0.090
160.000	19.971	20.124	0.153
180.000	20.196	20.434	0.238
200.000	20.379	20.641	0.261
220.000	20.550	20.707	0.157
240.000	20.717	20.773	0.056
260.000	20.821	20.839	0.018
280.000	20.892	20.905	0.013
300.000	20.915	20.949	0.033
320.000	20.891	20.920	0.029
340.000	20.803	20.819	0.017
360.000	20.620	20.646	0.026
380.000	20.357	20.417	0.061
400.000	20.123	20.185	0.062
420.000	19.893	19.953	0.061
440.000	19.682	19.722	0.040
460.000	19.504	19.511	0.008
480.000	19.307	19.346	0.039
500.000	19.139	19.187	0.048
520.000	18.989	19.039	0.050
540.000	18.866	18.924	0.058
560.000	18.783	18.843	0.060
580.000	18.717	18.795	0.078
600.000	18.690	18.780	0.090
620.000	18.699	18.799	0.100
640.000	18.696	18.851	0.154
660.000	18.661	18.935	0.274
680.000	18.428	19.014	0.587
700.000	17.768	19.072	1.303
720.000	18.551	19.107	0.556
740.000	18.662	19.121	0.458
760.000	18.634	19.112	0.478
780.000	18.537	19.082	0.545
800.000	18.570	19.029	0.459
820.000	18.613	18.955	0.342
840.000	18.864	18.866	0.002
860.000	18.850	18.874	0.025
880.000	18.909	19.016	0.107
900.000	18.991	19.291	0.300
920.000	19.044	19.699	0.655
940.000	19.225	20.196	0.971
960.000	19.487	20.695	1.208
980.000	19.831	21.194	1.363
980.045	19.831	21.195	1.364

VERTICAL ALIGNMENT: G=1.55% | G=0.33% | L=81.97 K=55.00 | G=-1.16% | L=29.183 K=80.00 | G=-0.79% | L=152.327 K=120.00 | G=-0.47% | L=177.86 K=182.00 | G=-0.99% | L=89.918 K=30.00 | G=2.49%

HORIZONTAL ALIGNMENT: ① ⑪ L=31.274 | R=1440.00 | L=35.638 ③ | L=126.094 | L=30.50 | R=720.00 | L=30.50 | L=51.906 | L=30.50 | R=720.00 | L=30.50 | L=43.00 ④ | L=43.00 ⑤

A1 SERVICES LINK
ALIGNMENT STRING NAME : MK26

① L=3.926 ③ R=1440.00 ⑤ L=16.952
② R=30.00 ④ R=510.00

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By	Check	Date	Suffix
Final for DCO Application	WV	TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 22

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2422
Location | Type | Role | Number

Rev P04

Plot Date: Friday, February 05, 2021 5:51:13 PM
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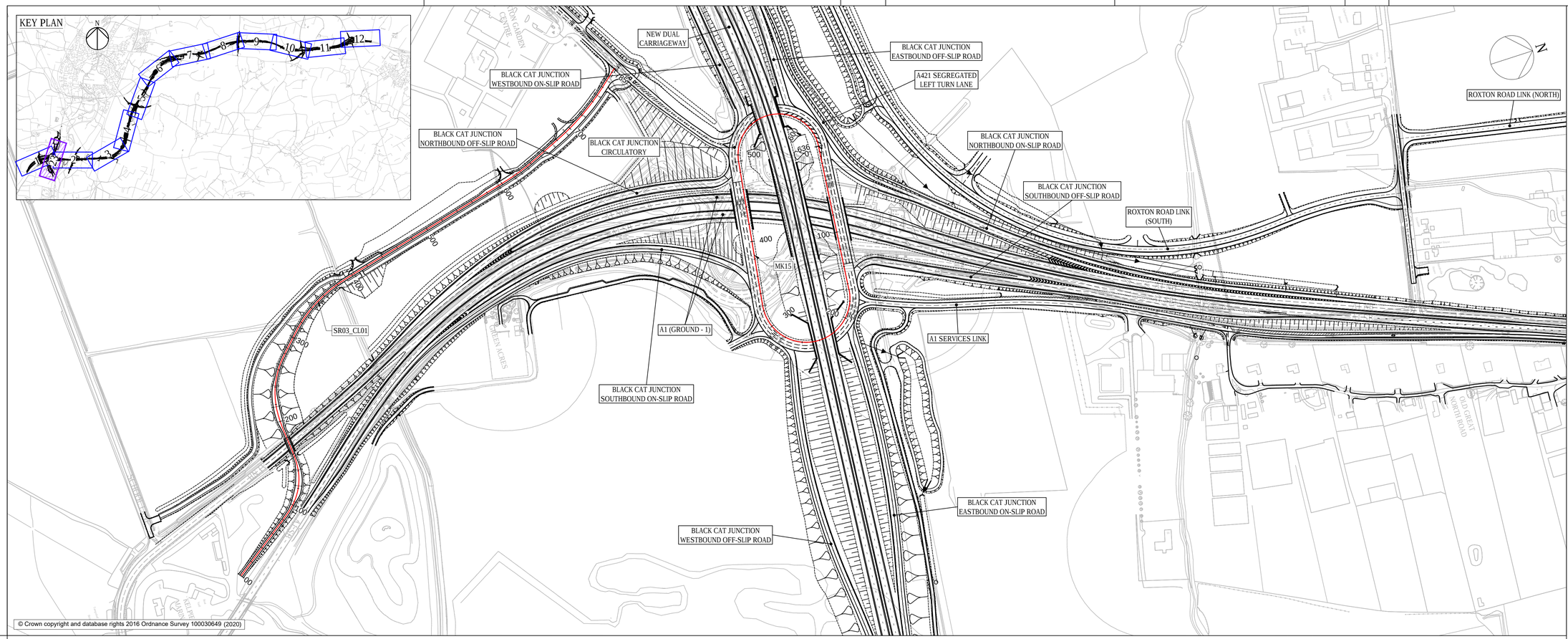

NOTES

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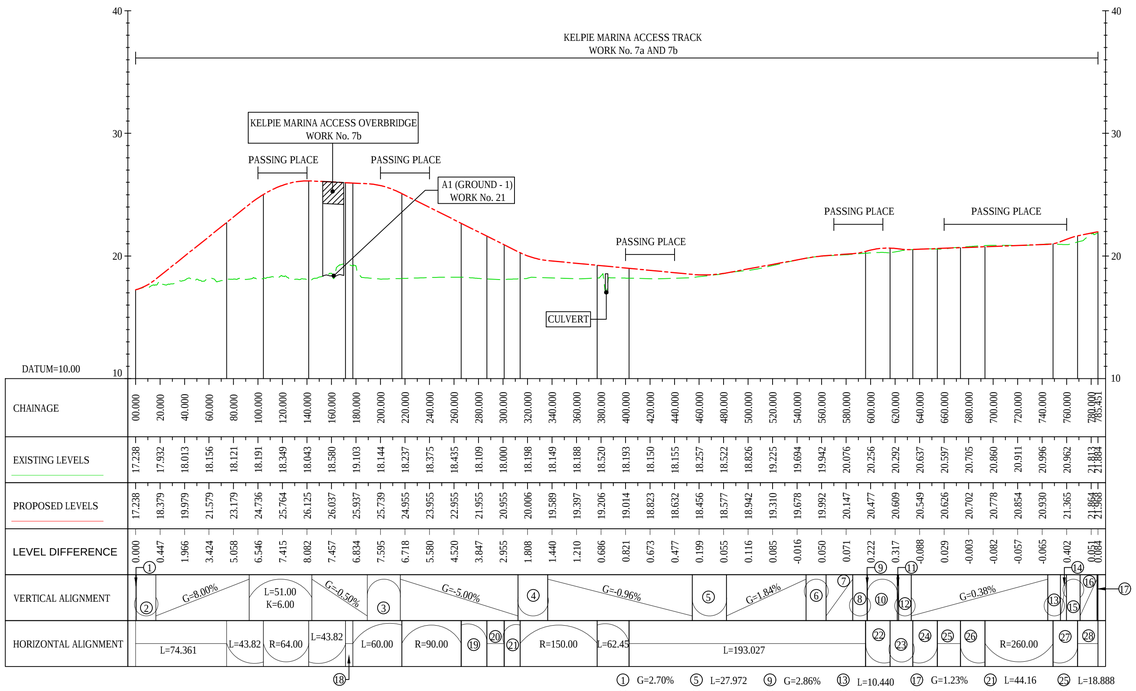
KEY

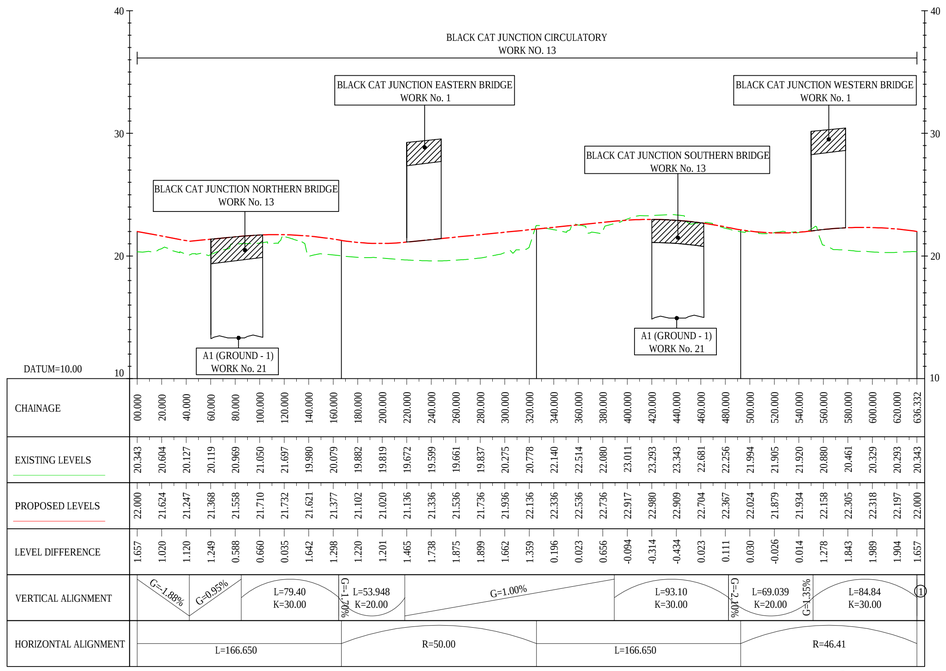
- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



KELPIE MARINA ACCESS TRACK
ALIGNMENT STRING NAME : SR03_CL01

①	G=2.70%	⑤	L=27.972	⑨	G=2.86%	⑬	L=10.440	⑰	G=1.23%	㉑	L=44.16	㉕	L=18.888
②	L=15.907	⑥	L=16.33	⑩	L=24.36	⑭	G=3.86%	⑱	L=5.929	㉒	L=67.08	㉖	L=72.11
③	L=27.00	⑦	G=0.75%	⑪	G=-1.36%	⑮	L=11.17	⑲	L=43.47	㉓	R=225.00	㉗	L=72.11
④	L=24.255	⑧	L=11.715	⑫	L=10.422	⑯	G=2.00%	⑳	L=14.033	㉔	L=67.08	㉘	L=16.581

LONGSECTION
SCALE: H 1:2500,V 1:250



① G=-1.48%

BLACK CAT JUNCTION CIRCULATORY
ALIGNMENT STRING NAME : MK15

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 23

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN1

Drawing Number
Highways England PIN | Originator | Volume | Location | Type | Role | Number
HE551495 -ACM -LSI - ZN1_SW_Z_ZZ -DR -DC-2423

Rev
P04

Plot Date: Friday, February 05, 2021 2:55:15 PM
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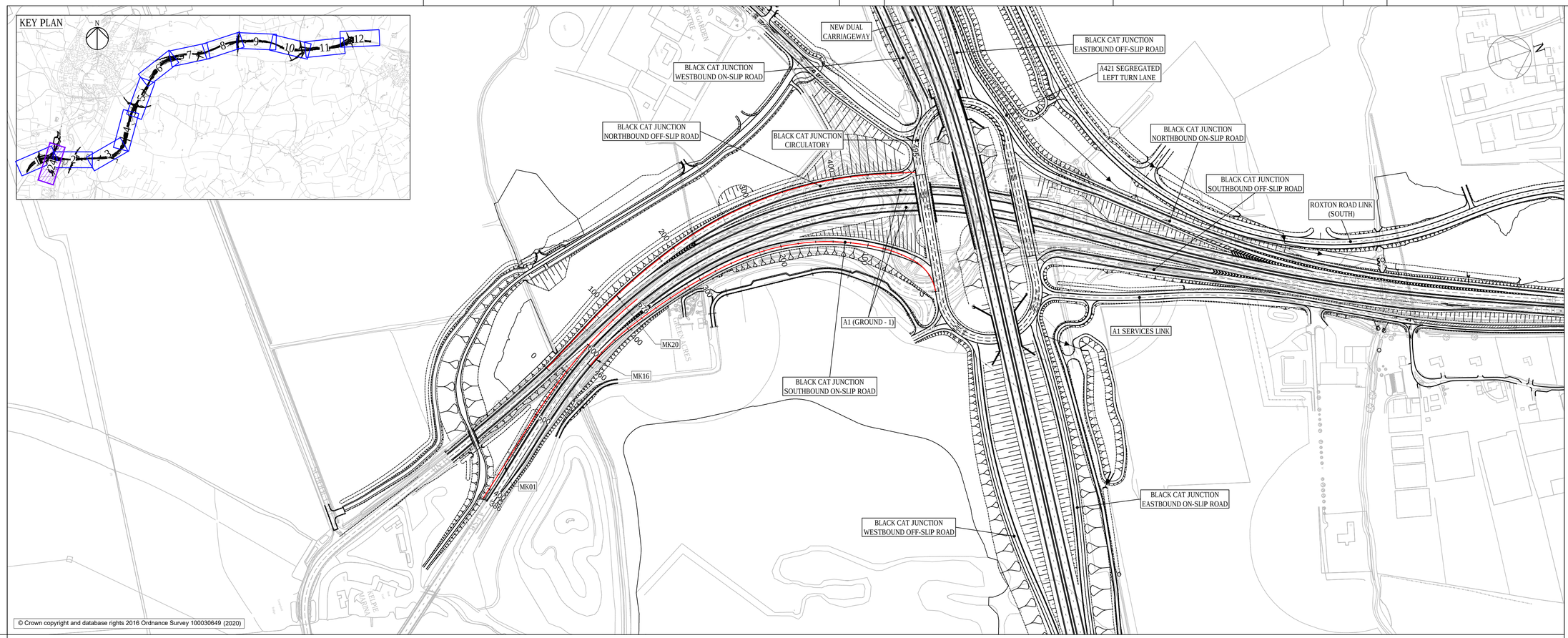
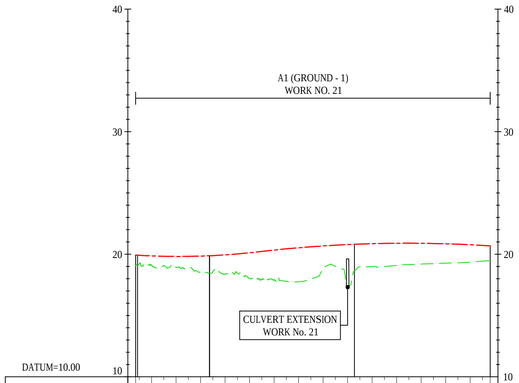




CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
386.869	19.076	19.936	0.860
400.000	19.140	19.867	0.727
420.000	18.919	19.821	0.902
440.000	18.521	19.848	1.327
460.000	18.374	19.948	1.574
480.000	18.032	20.121	2.088
500.000	17.933	20.341	2.407
520.000	17.760	20.528	2.769
540.000	18.873	20.678	1.805
560.000	17.275	20.790	3.515
580.000	18.991	20.863	1.872
600.000	19.088	20.898	1.811
620.000	19.202	20.896	1.693
640.000	19.275	20.855	1.580
660.000	19.350	20.776	1.426
676.387	19.468	20.683	1.124

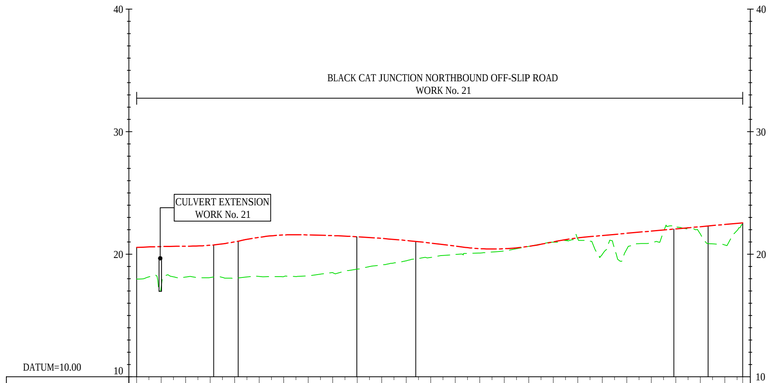
VERTICAL ALIGNMENT: L=99.620 K=55.00; G=-1.16%; L=189.90 K=105.00

HORIZONTAL ALIGNMENT: ① R=2040.00; L=118.22; R=510.00

① L=1.739

A1 (GROUND - 1)
ALIGNMENT STRING NAME : MK01

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	17.994	20.555	2.561
20.000	17.284	20.627	3.344
40.000	18.141	20.659	2.518
60.000	18.105	20.737	2.632
80.000	18.039	21.011	2.972
100.000	18.188	21.385	3.196
120.000	18.182	21.575	3.394
140.000	18.236	21.581	3.345
160.000	18.500	21.524	3.024
180.000	18.779	21.428	2.649
200.000	19.131	21.295	2.164
220.000	19.470	21.123	1.653
240.000	19.743	20.914	1.171
260.000	19.990	20.666	0.675
280.000	20.102	20.460	0.359
300.000	20.274	20.451	0.177
320.000	20.637	20.642	0.005
340.000	20.988	21.016	0.028
360.000	21.282	21.332	0.050
380.000	19.974	21.531	1.556
400.000	20.403	21.711	1.308
420.000	20.934	21.891	0.957
440.000	22.230	22.071	-0.159
460.000	21.656	22.251	0.594
480.000	20.760	22.431	1.670
494.645	22.417	22.562	0.145

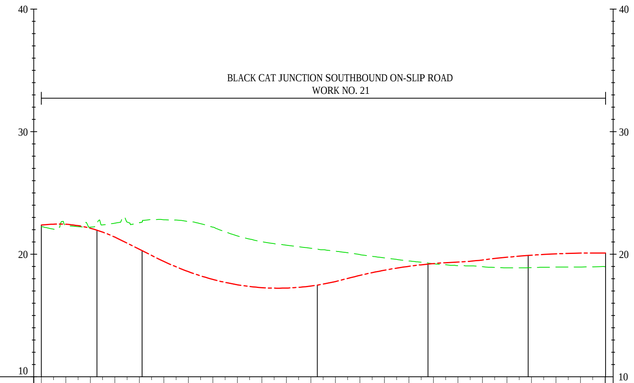
VERTICAL ALIGNMENT: L=43.25 K=105.00; G=-0.08%; L=42.557 K=20.00; G=-2.16%; L=45.41 K=20.00; %IT 0.1=-5; L=132.33 K=105.07; %IT 0.1=-5; L=69.980 K=20.00; G=-2.13%; L=36.93 K=30.00; G=0.90%

HORIZONTAL ALIGNMENT: R=3250.00; ③ R=660.00; L=48.00; R=436.60; ① ②

① L=28.00 ③ L=20.00
② L=28.184

BLACK CAT JUNCTION NORTHBOUND OFF-SLIP ROAD
ALIGNMENT STRING NAME : MK20

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	22.256	22.379	0.122
20.000	22.331	22.446	0.115
40.000	22.219	22.122	-0.098
60.000	22.538	21.397	-1.141
80.000	22.582	20.404	-2.178
100.000	22.821	19.415	-3.406
120.000	22.663	18.581	-4.082
140.000	22.212	17.946	-4.266
160.000	21.497	17.512	-3.985
180.000	21.022	17.277	-3.744
200.000	20.745	17.243	-3.502
220.000	20.493	17.409	-3.084
240.000	20.246	17.774	-2.471
260.000	19.971	18.277	-1.694
280.000	19.704	18.698	-1.006
300.000	19.454	19.019	-0.435
320.000	19.228	19.240	0.012
340.000	19.072	19.363	0.290
360.000	18.986	19.535	0.549
380.000	18.899	19.757	0.858
400.000	18.908	19.925	1.016
420.000	18.956	20.038	1.082
440.000	18.956	20.096	1.141
460.000	18.992	20.101	1.109
460.327	18.992	20.101	1.109

VERTICAL ALIGNMENT: ① L=59.80 K=10.00; G=-5.00%; L=153.595 K=20.00; G=-0.68%; L=91.05 K=40.00; G=0.40%; ③ ④ L=100.38 K=73.31; ②

HORIZONTAL ALIGNMENT: R=50.00; R=150.00; R=255.00; L=90.42; R=720.00; R=300.00

① G=0.98% ③ G=1.25%
② G=-0.12% ④ K=26.00

BLACK CAT JUNCTION SOUTHBOUND ON-SLIP ROAD
ALIGNMENT STRING NAME : MK16

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

1. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
2. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
3. THE DESIGN SHOWN ON THE ENGINEERING SECTION DRAWINGS IS ILLUSTRATIVE AND WILL BE SUBJECT TO DETAILED DESIGN DEVELOPMENT. ANY CHANGES WILL BE LIMITED TO BEING WITHIN THE ORDER LIMITS AND ANY OTHER CONSTRAINTS INCLUDED IN THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
4. WORK NO. REFERENCES ARE DESCRIBED IN SCHEDULE 1 (AUTHORISED DEVELOPMENT) TO THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
5. THESE ENGINEERING SECTION DRAWINGS SHOULD BE READ IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTATION, IN PARTICULAR THE WORK PLANS [TR01044/APP/2.3] AND SCHEDULE 1 (AUTHORISED DEVELOPMENT) TO THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].

KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 24

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2424
Location | Type | Role | Number

Rev P04

Plot Date: Friday, February 05, 2021 5:30:30 PM
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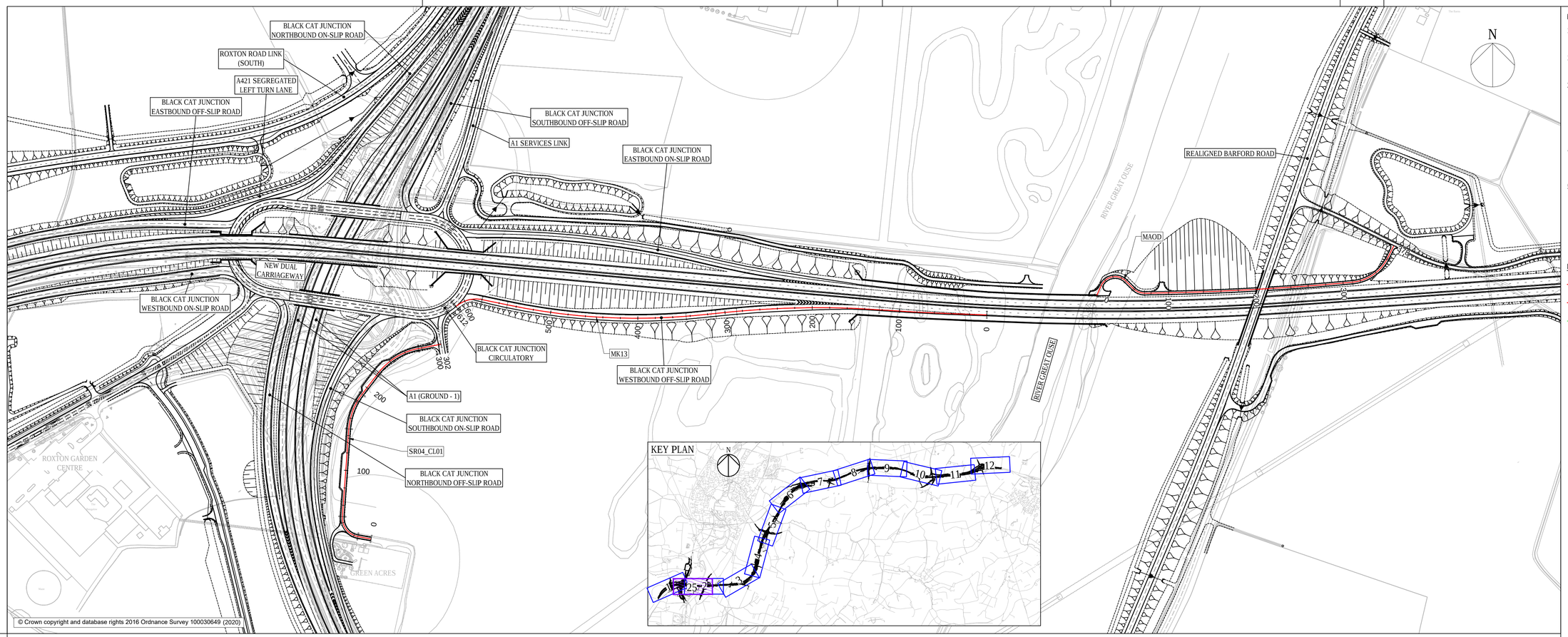
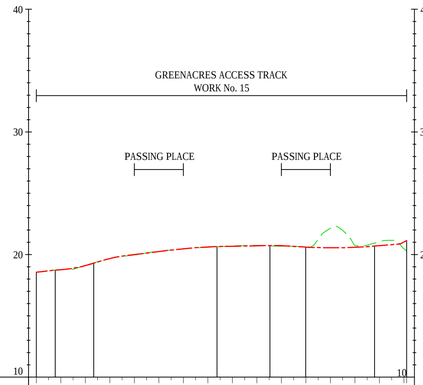


NOTES

1. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
2. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
3. THE DESIGN SHOWN ON THE ENGINEERING SECTION DRAWINGS IS ILLUSTRATIVE AND WILL BE SUBJECT TO DETAILED DESIGN DEVELOPMENT. ANY CHANGES WILL BE LIMITED TO BEING WITHIN THE ORDER LIMITS AND ANY OTHER CONSTRAINTS INCLUDED IN THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
4. WORK NO. REFERENCES ARE DESCRIBED IN SCHEDULE 1 (AUTHORISED DEVELOPMENT) TO THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
5. THESE ENGINEERING SECTION DRAWINGS SHOULD BE READ IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTATION, IN PARTICULAR THE WORK PLANS [TR01044/APP/2.3] AND SCHEDULE 1 (AUTHORISED DEVELOPMENT) TO THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].

KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	18.551	18.551	0.000
20.000	18.767	18.760	-0.008
40.000	19.114	19.087	-0.027
60.000	19.664	19.667	0.003
80.000	19.961	19.992	0.031
100.000	20.251	20.236	-0.015
120.000	20.458	20.463	0.005
140.000	20.591	20.610	0.019
160.000	20.695	20.673	-0.023
180.000	20.741	20.707	-0.034
200.000	20.675	20.716	0.041
220.000	20.582	20.603	0.021
240.000	22.133	20.546	-1.587
260.000	20.743	20.584	-0.159
280.000	21.022	20.717	-0.305
300.000	20.465	21.014	0.549
302.354	20.276	21.134	0.858

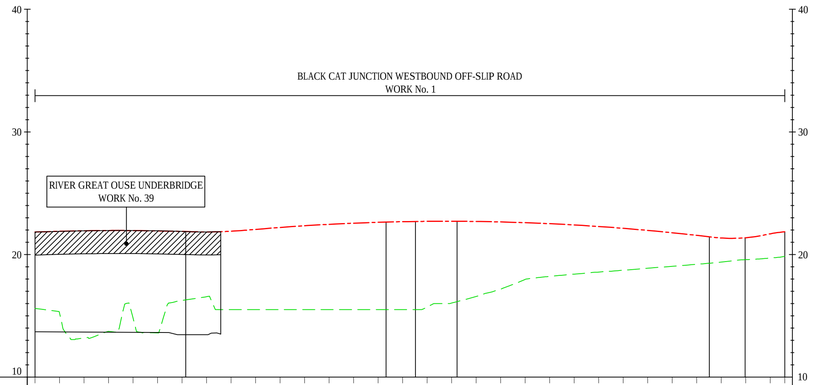
VERTICAL ALIGNMENT: ① ② ③ ④ ⑤ ⑥ G=1.22% L=48.45 K=46.32 G=0.17% ⑦ ⑧ L=60.367 K=41.65 ⑨

HORIZONTAL ALIGNMENT: ⑪ R=21.54 L=100.508 R=74.51 L=29.273 R=77.21 ⑫

GREENACRES ACCESS TRACK
ALIGNMENT STRING NAME : SR04_CL01

① G=1.14%
② K=10.00
③ G=0.69%
④ K=10.00
⑤ G=3.00%
⑥ K=10.00
⑦ K=20.45
⑧ G=-0.61%
⑨ G=0.84%
⑩ G=5.08%
⑪ L=15.423
⑫ L=26.234

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	15.599	21.828	6.229
20.000	15.222	21.893	6.670
40.000	13.182	21.935	8.752
60.000	13.730	21.954	8.224
80.000	14.837	21.952	7.115
100.000	13.606	21.927	8.321
120.000	16.252	21.879	5.627
140.000	16.555	21.839	5.284
160.000	15.500	21.894	6.394
180.000	15.500	22.045	6.545
200.000	15.500	22.205	6.705
220.000	15.500	22.343	6.843
240.000	15.500	22.459	6.959
260.000	15.500	22.553	7.053
280.000	15.500	22.625	7.125
300.000	15.500	22.675	7.175
320.000	15.711	22.703	6.992
340.000	16.035	22.709	6.674
360.000	16.568	22.693	6.125
380.000	17.172	22.655	5.483
400.000	17.959	22.595	4.636
420.000	18.209	22.514	4.305
440.000	18.396	22.410	4.014
460.000	18.565	22.284	3.719
480.000	18.712	22.136	3.424
500.000	18.874	21.967	3.092
520.000	19.037	21.775	2.738
540.000	19.201	21.561	2.361
560.000	19.380	21.345	1.966
580.000	19.578	21.366	1.789
600.000	19.707	21.683	1.976
611.944	19.849	21.852	2.003

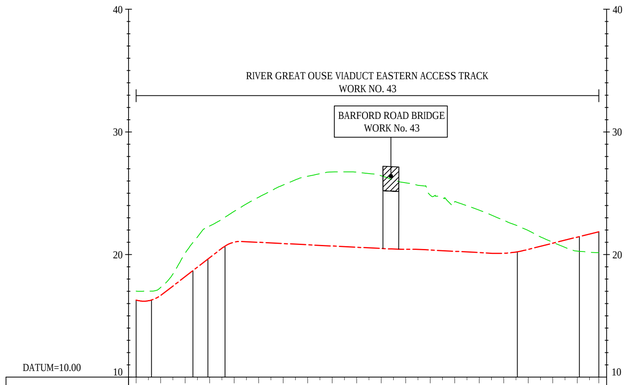
VERTICAL ALIGNMENT: L=125.88 K=178.00 C=0.33% L=48.524 K=40.00 G=0.89% L=378.69 K=182.00 C=-1.29% ① G=2.11% G=0.99% ②

HORIZONTAL ALIGNMENT: R=2900.00 R=1020.00 ③ L=34.00 R=720.00 ④ R=35.00

BLACK CAT JUNCTION WESTBOUND OFF-SLIP ROAD
ALIGNMENT STRING NAME : MK13

① K=13.00
② K=14.22
③ L=24.00
④ L=29.254

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	17.015	16.284	-0.731
20.000	17.314	16.659	-0.655
40.000	20.113	18.196	-1.918
60.000	22.321	19.740	-2.581
80.000	23.518	21.005	-2.512
100.000	24.672	20.991	-3.681
120.000	25.669	20.891	-4.778
140.000	26.376	20.790	-5.586
160.000	26.730	20.689	-6.040
180.000	26.712	20.589	-6.123
200.000	26.420	20.488	-5.932
220.000	25.848	20.426	-5.422
240.000	24.830	20.364	-4.466
260.000	24.299	20.258	-4.040
280.000	23.620	20.152	-3.468
300.000	22.779	20.095	-2.684
320.000	21.949	20.417	-1.532
340.000	20.992	20.917	-0.075
360.000	20.271	21.417	1.146
377.646	20.155	21.858	1.703

VERTICAL ALIGNMENT: ① ② G=7.72% ③ G=-0.50% ④ ⑤ G=-0.53% ⑥ G=2.50%

HORIZONTAL ALIGNMENT: ⑦ R=17.50 ⑧ ⑨ R=2850.00 R=50.00 ⑩

RIVER GREAT OUSE VIADUCT EASTERN ACCESS TRACK
ALIGNMENT STRING NAME : MAOD

① G=-2.60%
② K=2.00
③ K=2.00
④ K=30.00
⑤ K=30.00
⑥ K=9.00
⑦ L=12.471
⑧ L=12.291
⑨ R=17.50
⑩ L=15.986

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 25

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2425
Location | Type | Role | Number
Rev P04

Plot Date: Friday, February 05, 2021 3:33:23 PM
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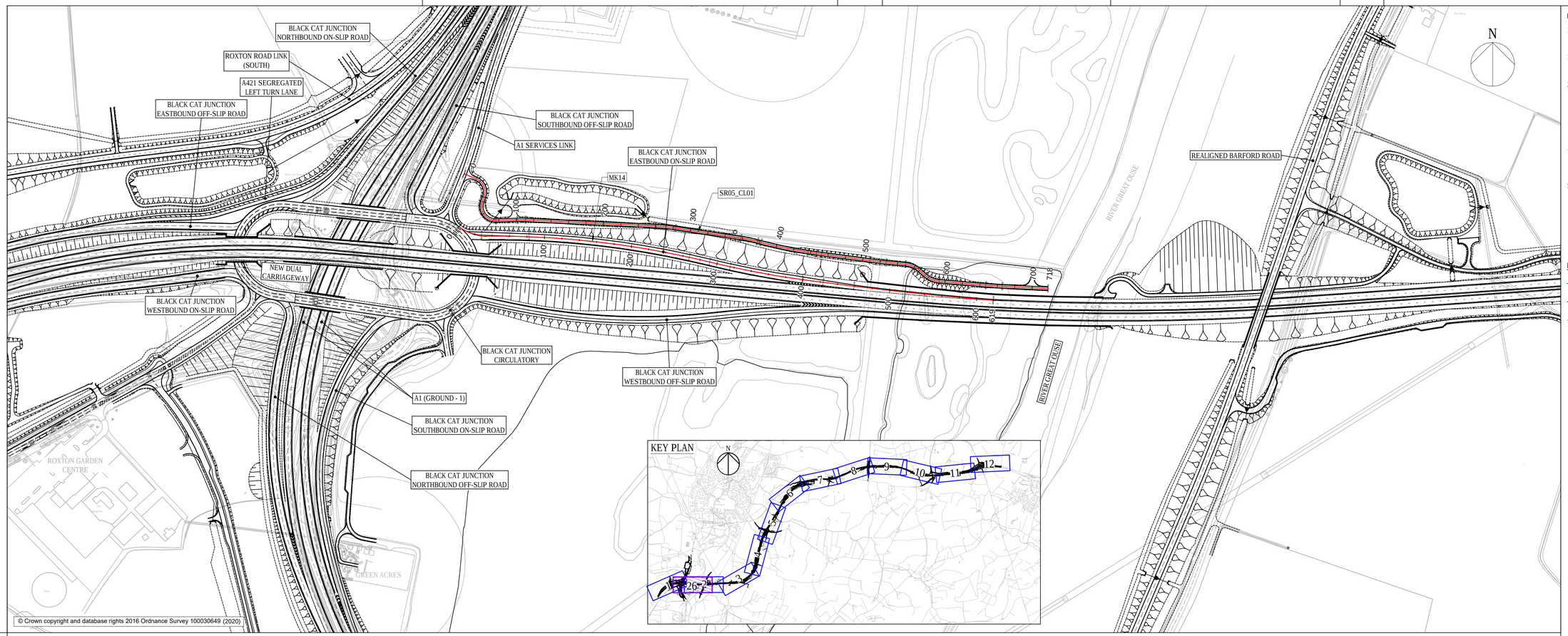
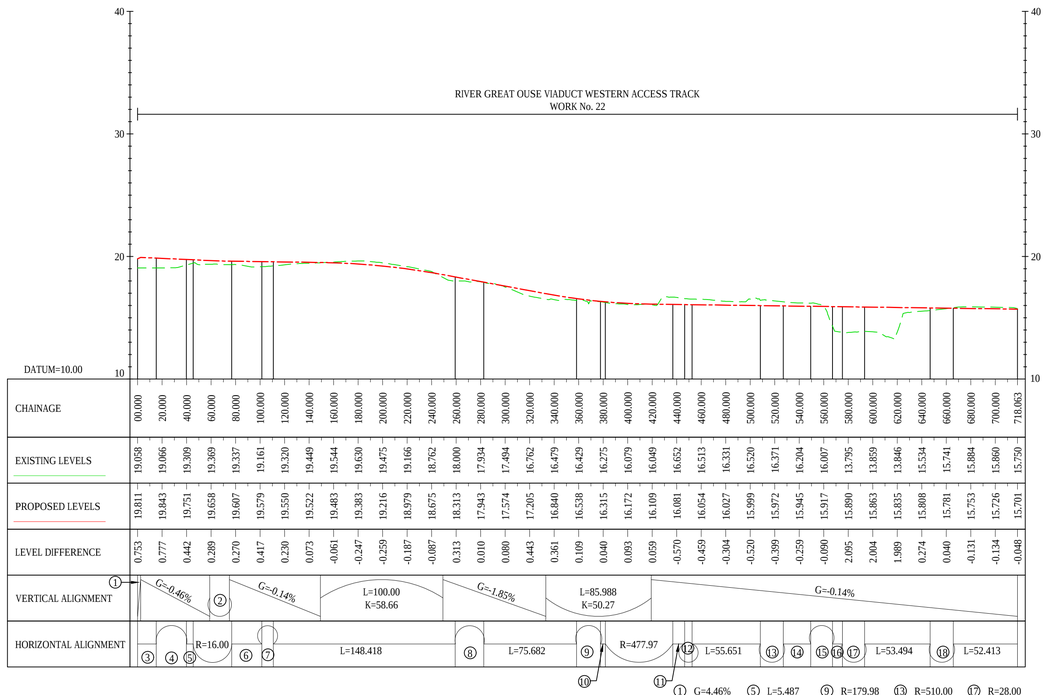


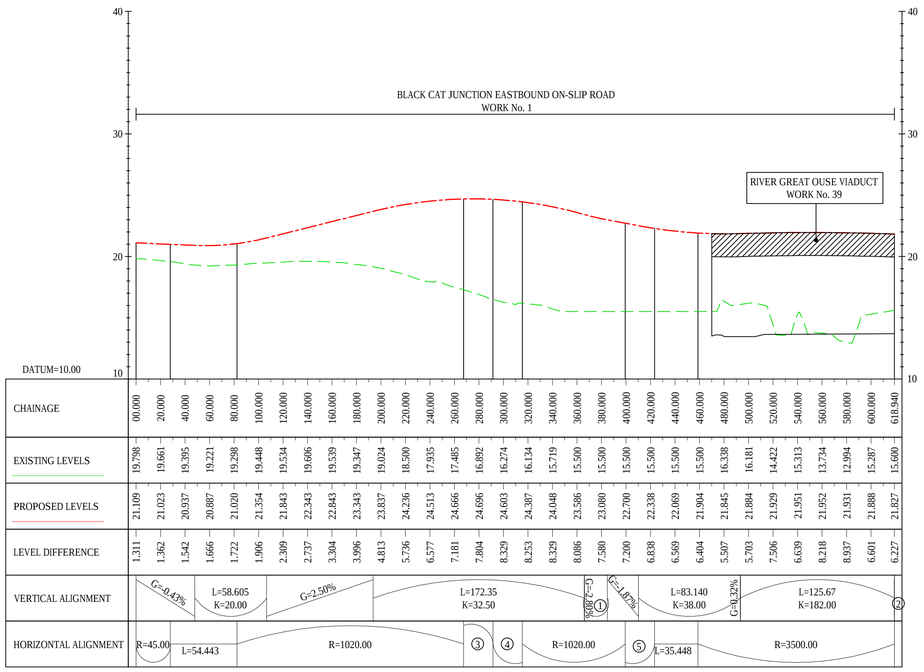


CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	19.058	19.811	0.753
20.000	19.066	19.843	0.777
40.000	19.309	19.751	0.442
60.000	19.369	19.658	0.289
80.000	19.337	19.607	0.270
100.000	19.161	19.579	0.417
120.000	19.320	19.550	0.230
140.000	19.449	19.522	0.073
160.000	19.544	19.483	-0.061
180.000	19.630	19.383	-0.247
200.000	19.475	19.216	-0.259
220.000	19.166	18.979	-0.187
240.000	18.762	18.675	-0.087
260.000	18.000	18.313	0.313
280.000	17.934	17.943	0.010
300.000	17.494	17.574	0.080
320.000	16.762	17.205	0.443
340.000	16.479	16.840	0.361
360.000	16.429	16.538	0.109
380.000	16.275	16.315	0.040
400.000	16.079	16.172	0.093
420.000	16.049	16.109	0.059
440.000	16.652	16.081	-0.570
460.000	16.513	16.054	-0.459
480.000	16.331	16.027	-0.304
500.000	16.520	15.999	-0.520
520.000	16.371	15.972	-0.399
540.000	16.204	15.945	-0.259
560.000	16.007	15.917	-0.090
580.000	13.795	15.890	2.095
600.000	13.859	15.863	2.004
620.000	13.846	15.835	1.989
640.000	15.534	15.808	0.274
660.000	15.741	15.781	0.040
680.000	15.884	15.753	-0.131
700.000	15.860	15.726	-0.134
718.863	15.750	15.701	-0.048

RIVER GREAT OUSE VIADUCT WESTERN ACCESS TRACK
ALIGNMENT STRING NAME : SR05_CL01

① G=4.46%
② K=50.00
③ L=15.194
④ R=16.00
⑤ L=5.487
⑥ L=24.588
⑦ R=127.00
⑧ R=225.00
⑨ R=179.98
⑩ L=3.966
⑪ L=9.670
⑫ R=510.00
⑬ R=510.00
⑭ L=22.344
⑮ R=28.00
⑯ L=8.183
⑰ R=28.00
⑱ R=510.00

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	19.798	21.109	1.311
20.000	19.661	21.023	1.362
40.000	19.395	20.937	1.542
60.000	19.221	20.887	1.666
80.000	19.298	21.020	1.722
100.000	19.448	21.354	1.906
120.000	19.534	21.843	2.309
140.000	19.606	22.343	2.737
160.000	19.539	22.843	3.304
180.000	19.347	23.343	3.996
200.000	19.024	23.837	4.813
220.000	18.500	24.236	5.736
240.000	17.935	24.513	6.577
260.000	17.485	24.666	7.181
280.000	16.892	24.696	7.804
300.000	16.274	24.603	8.329
320.000	16.134	24.387	8.253
340.000	15.719	24.048	8.329
360.000	15.500	23.586	8.086
380.000	15.500	23.080	7.580
400.000	15.500	22.700	7.200
420.000	15.500	22.338	6.838
440.000	15.500	22.069	6.569
460.000	15.500	21.904	6.404
480.000	16.338	21.845	5.507
500.000	16.181	21.884	5.703
520.000	14.422	21.929	7.506
540.000	15.313	21.951	6.639
560.000	13.734	21.952	8.218
580.000	12.994	21.931	8.937
600.000	15.287	21.888	6.601
618.940	15.600	21.827	6.227

BLACK CAT JUNCTION EASTBOUND ON-SLIP ROAD
ALIGNMENT STRING NAME : MK14

① K=20.00
② G=-0.37%
③ L=24.00
④ L=24.00
⑤ L=24.00

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

1. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 26

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2426
Location | Type | Role | Number

Rev
P04

Plot Date: Friday, February 05, 2021 3:45:56 PM
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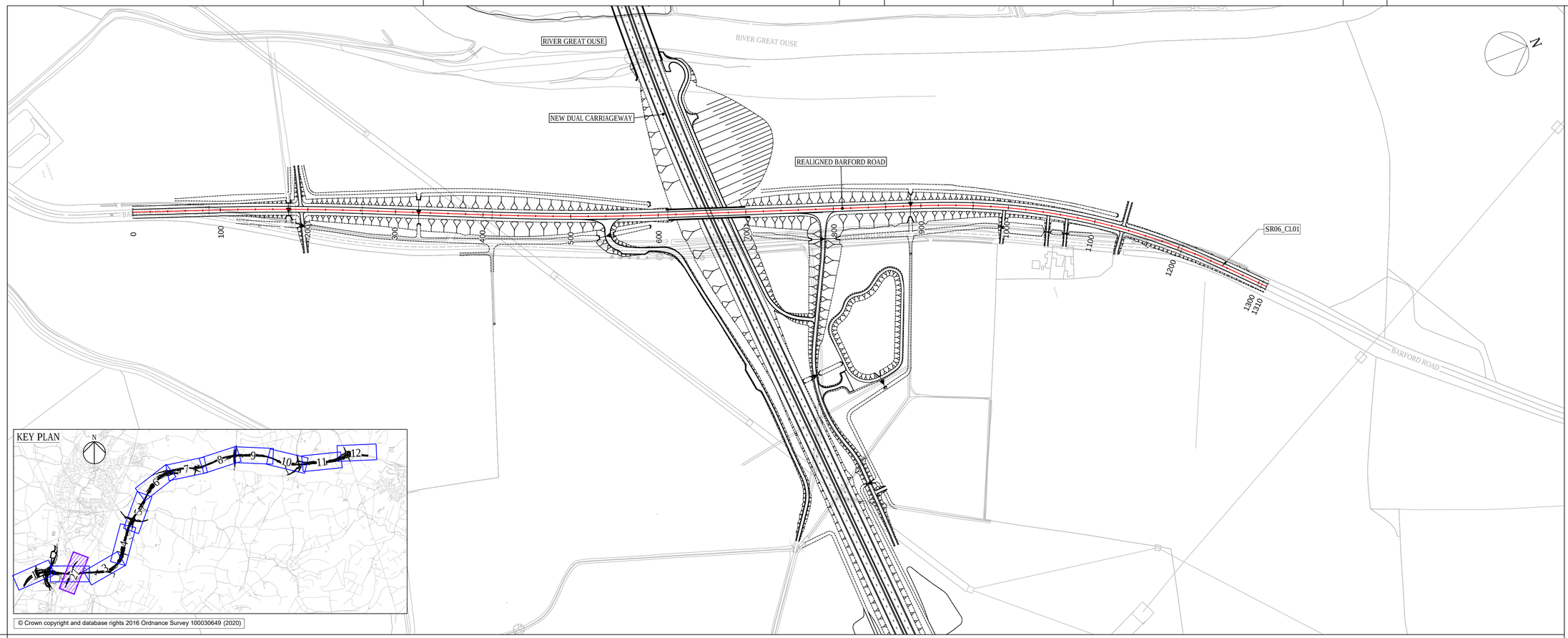

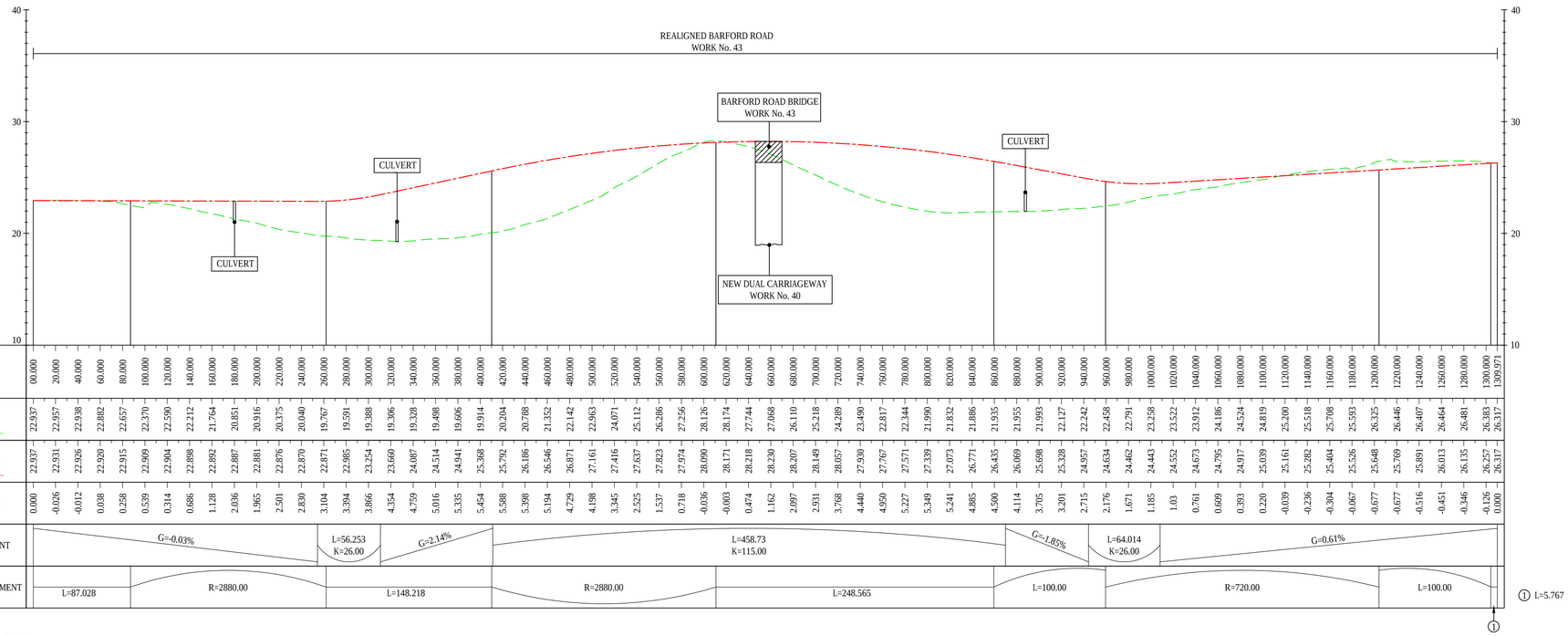

CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	22.937	22.937	0.000
20.000	22.957	22.931	-0.026
40.000	22.938	22.926	-0.012
60.000	22.882	22.920	0.038
80.000	22.657	22.915	0.258
100.000	22.370	22.909	0.539
120.000	22.590	22.904	0.314
140.000	22.212	22.898	0.686
160.000	21.764	22.892	1.128
180.000	20.851	22.887	2.036
200.000	20.916	22.881	1.965
220.000	20.375	22.876	2.501
240.000	20.040	22.870	2.830
260.000	19.767	22.871	3.104
280.000	19.591	22.985	3.394
300.000	19.388	23.254	3.866
320.000	19.306	23.660	4.354
340.000	19.328	24.087	4.759
360.000	19.498	24.514	5.016
380.000	19.606	24.941	5.335
400.000	19.914	25.368	5.454
420.000	20.204	25.792	5.588
440.000	20.788	26.186	5.398
460.000	21.352	26.546	5.194
480.000	22.142	26.871	4.729
500.000	22.963	27.161	4.198
520.000	24.071	27.416	3.345
540.000	25.112	27.637	2.525
560.000	26.286	27.823	1.537
580.000	27.256	27.974	0.718
600.000	28.126	28.090	-0.036
620.000	28.174	28.171	-0.003
640.000	27.744	28.218	0.474
660.000	27.068	28.230	1.162
680.000	26.110	28.207	2.097
700.000	25.218	28.149	2.931
720.000	24.289	28.057	3.768
740.000	23.490	27.930	4.440
760.000	22.817	27.767	4.950
780.000	22.344	27.571	5.227
800.000	21.990	27.339	5.349
820.000	21.832	27.073	5.241
840.000	21.886	26.771	4.885
860.000	21.935	26.435	4.500
880.000	21.955	26.069	4.114
900.000	21.993	25.698	3.705
920.000	22.127	25.328	3.201
940.000	22.242	24.957	2.715
960.000	22.458	24.634	2.176
980.000	22.791	24.462	1.671
1000.000	23.258	24.443	1.185
1020.000	23.522	24.552	1.03
1040.000	23.912	24.673	0.761
1060.000	24.186	24.795	0.609
1080.000	24.524	24.917	0.393
1100.000	24.819	25.039	0.220
1120.000	25.200	25.161	-0.039
1140.000	25.518	25.282	-0.236
1160.000	25.708	25.404	-0.304
1180.000	25.593	25.526	-0.067
1200.000	26.325	25.648	-0.677
1220.000	26.446	25.769	-0.677
1240.000	26.407	25.891	-0.516
1260.000	26.464	26.013	-0.451
1280.000	26.481	26.135	-0.346
1300.000	26.383	26.257	-0.126
1309.971	26.317	26.317	0.000

VERTICAL ALIGNMENT: G=-0.03% | L=56.253 K=26.00 | G=2.14% | L=458.73 K=115.00 | G=-1.85% | L=64.014 K=26.00 | G=0.61%

HORIZONTAL ALIGNMENT: L=87.028 | R=2880.00 | L=148.218 | R=2880.00 | L=248.565 | L=100.00 | R=720.00 | L=100.00

REALIGNED BARFORD ROAD
ALIGNMENT STRING NAME : SR06_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 27

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2427
Location | Type | Role | Number

Rev
P04

Plot Date : Thursday, February 04, 2021 12:38:42 PM
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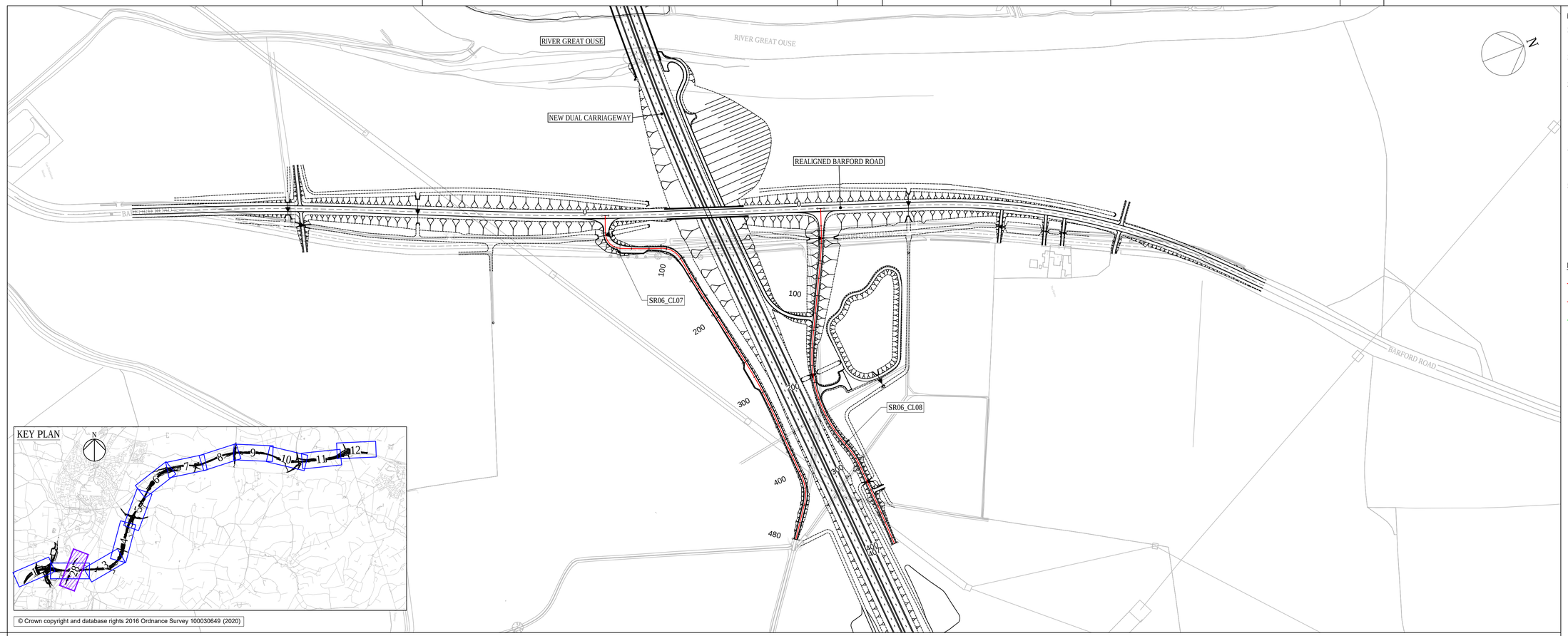
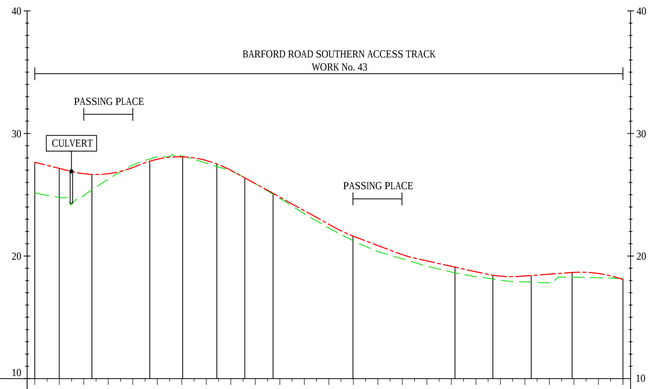




CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	25.170	27.647	2.477
20.000	24.783	27.147	2.364
40.000	24.925	26.711	1.786
60.000	26.267	26.714	0.447
80.000	27.416	27.216	-0.200
100.000	28.090	27.895	-0.195
120.000	28.170	28.092	-0.077
140.000	27.571	27.790	0.219
160.000	26.935	26.987	0.052
180.000	25.895	25.905	0.010
200.000	24.705	24.806	0.101
220.000	23.448	23.697	0.249
240.000	22.281	22.587	0.306
260.000	21.237	21.612	0.376
280.000	20.363	20.853	0.490
300.000	19.765	20.106	0.341
320.000	19.169	19.600	0.431
340.000	18.694	19.155	0.461
360.000	18.308	18.711	0.402
380.000	18.037	18.353	0.316
400.000	17.891	18.366	0.476
420.000	17.803	18.516	0.713
440.000	18.274	18.663	0.389
460.000	18.228	18.571	0.344
480.000	18.170	18.090	-0.080
480.061	18.170	18.088	-0.082

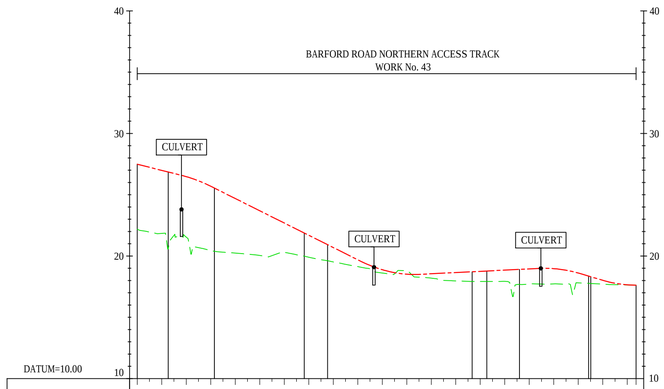
VERTICAL ALIGNMENT: G=2.30%; L=53.875 K=8.00; G=-0.23%; L=77.20 K=8.00; G=-5.32%; G=-5.55%; G=3.79%; G=-2.22%; L=29.698 K=10.00; G=0.75%; L=37.52 K=10.00

HORIZONTAL ALIGNMENT: R=17.74; R=652.91; R=25.00; L=65.191; R=544.47; L=30.862; L=31.411; R=49.99; L=41.546

1. K=10.00
2. K=10.00
3. K=10.00
4. G=-3.01%
5. R=2620514.16
6. L=27.831
7. L=22.799
8. L=23.072

BARFORD ROAD SOUTHERN ACCESS TRACK
ALIGNMENT STRING NAME : SR06_CL07

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	22.186	27.486	5.299
20.000	21.845	26.986	5.141
40.000	21.539	26.477	4.938
60.000	20.445	25.692	5.247
80.000	20.238	24.692	4.454
100.000	20.045	23.692	3.648
120.000	20.308	22.692	2.384
140.000	19.899	21.692	1.793
160.000	19.518	20.692	1.174
180.000	19.132	19.692	0.560
200.000	18.610	18.882	0.273
220.000	18.805	18.515	-0.289
240.000	18.193	18.548	0.355
260.000	17.967	18.648	0.681
280.000	17.919	18.748	0.829
300.000	17.932	18.848	0.915
320.000	17.712	18.948	1.236
340.000	17.720	18.967	1.247
360.000	17.810	18.611	0.802
380.000	17.704	18.014	0.310
400.000	17.637	17.651	0.015
407.138	17.622	17.613	-0.009

VERTICAL ALIGNMENT: G=2.50%; G=-5.00%; L=49.500 K=9.00; G=0.50%; L=35.00 K=10.00; G=-0.50%

HORIZONTAL ALIGNMENT: R=300.00; L=73.337; R=150.00; L=56.395; L=36.930

1. K=10.00
2. G=-3.00%
3. K=9.00
4. G=-0.50%
5. L=25.351
6. L=19.108
7. L=11.922
8. R=100.00
9. R=100.00

BARFORD ROAD NORTHERN ACCESS TRACK
ALIGNMENT STRING NAME : SR06_CL08

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 28

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN1

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN1_SW_Z_ZZ -DR -DC-2428
Location | Type | Role | Number

Rev P04

Plot Date : Thursday, February 04, 2021 12:20:11 PM
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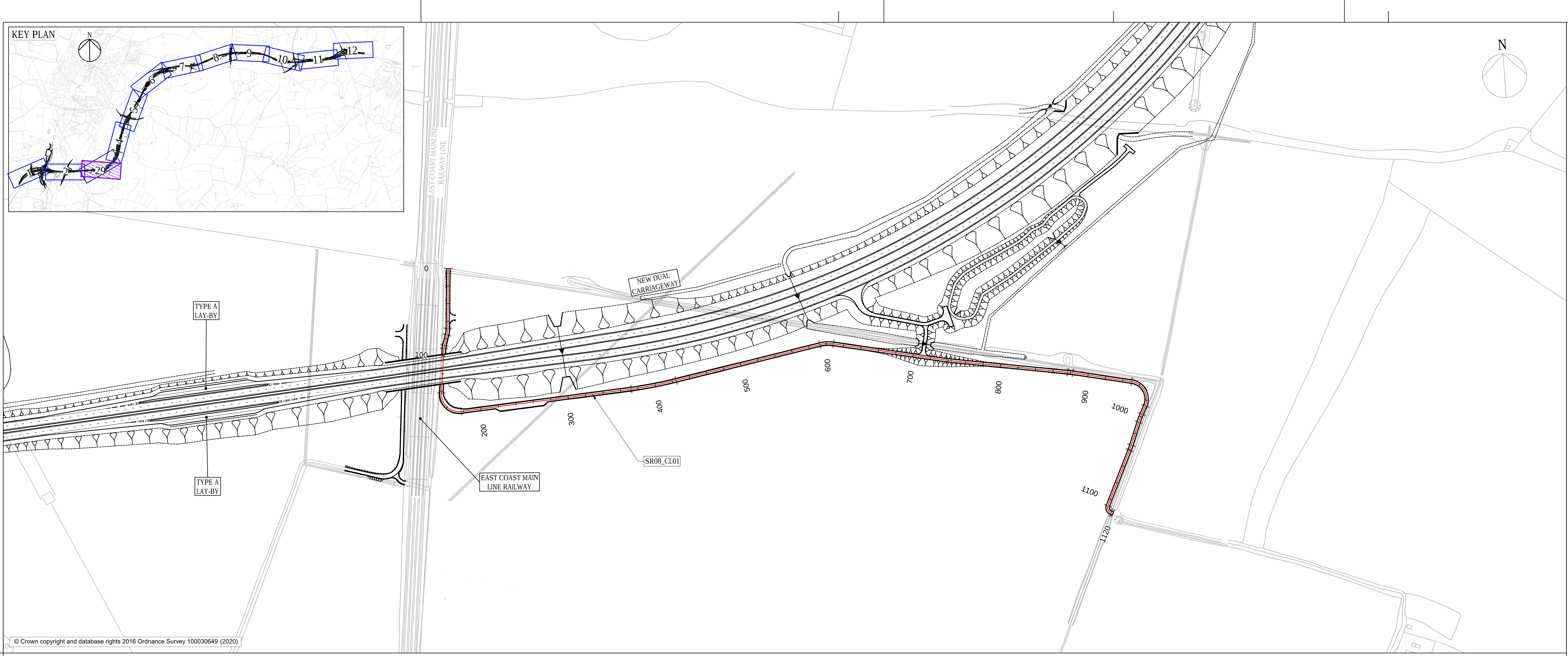
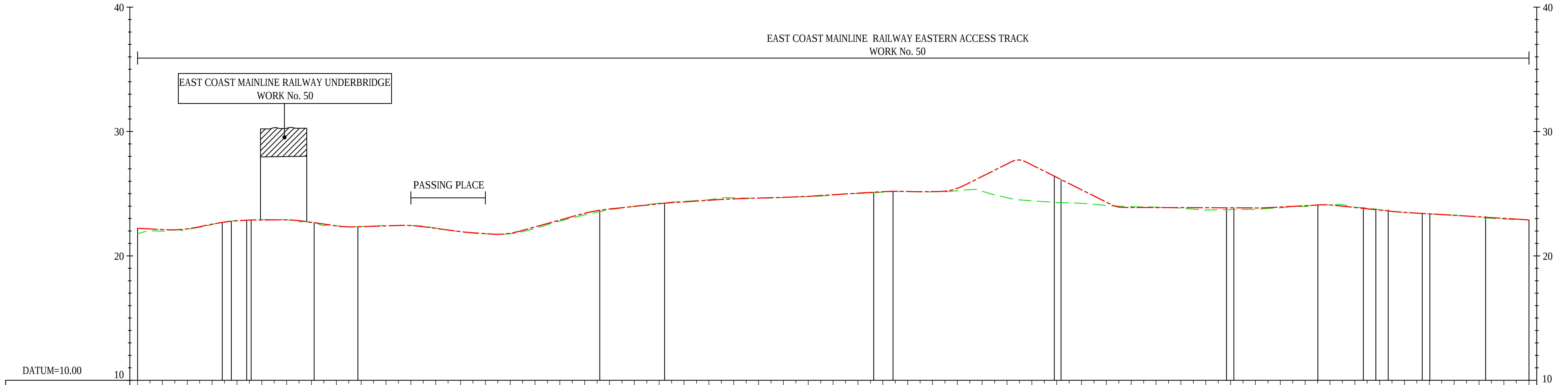




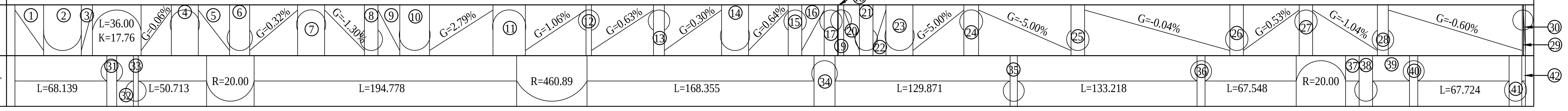
CHAINAGE	00.000	20.000	40.000	60.000	80.000	100.000	120.000	140.000	160.000	180.000	200.000	220.000	240.000	260.000	280.000	300.000	320.000	340.000	360.000
EXISTING LEVELS	21.857	21.980	22.135	22.526	22.836	22.902	22.883	22.668	22.424	22.348	22.433	22.447	22.240	21.940	21.767	21.785	22.200	22.799	23.302
PROPOSED LEVELS	22.220	22.112	22.169	22.545	22.823	22.887	22.893	22.698	22.406	22.350	22.413	22.433	22.210	21.951	21.786	21.813	22.326	22.883	23.430
LEVEL DIFFERENCE	0.363	0.132	0.035	0.019	-0.013	-0.015	0.010	0.030	-0.018	0.002	-0.020	-0.014	-0.030	0.011	0.019	0.028	0.126	0.084	0.127

CHAINAGE	380.000	400.000	420.000	440.000	460.000	480.000	500.000	520.000	540.000	560.000	580.000	600.000	620.000	640.000	660.000	680.000	700.000	720.000	740.000
EXISTING LEVELS	23.710	23.988	24.232	24.380	24.515	24.666	24.640	24.693	24.773	24.887	25.015	25.117	25.157	25.150	25.235	25.197	24.677	24.430	24.293
PROPOSED LEVELS	23.766	23.979	24.192	24.342	24.468	24.585	24.646	24.706	24.788	24.915	25.042	25.158	25.176	25.167	25.432	26.388	27.388	27.311	26.311
LEVEL DIFFERENCE	0.056	-0.009	-0.040	-0.038	-0.047	-0.081	0.006	0.013	0.014	0.028	0.027	0.042	0.018	0.017	0.197	1.191	2.711	2.881	2.018

CHAINAGE	760.000	780.000	800.000	820.000	840.000	860.000	880.000	900.000	920.000	940.000	960.000	980.000	1000.000	1020.000	1040.000	1060.000	1080.000	1100.000	1120.000
EXISTING LEVELS	24.225	24.057	23.955	23.921	23.834	23.681	23.716	23.747	23.863	23.972	24.090	23.912	23.704	23.490	23.378	23.280	23.091	22.969	22.876
PROPOSED LEVELS	25.311	24.311	23.893	23.885	23.876	23.868	23.860	23.852	23.924	24.031	24.093	23.890	23.682	23.498	23.378	23.257	23.136	23.015	22.876
LEVEL DIFFERENCE	1.086	0.254	-0.062	-0.037	0.043	0.187	0.144	0.105	0.061	0.059	0.003	-0.022	-0.022	0.009	0.000	-0.023	0.045	0.046	0.000

VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT



EAST COAST MAINLINE RAILWAY EASTERN ACCESS TRACK
ALIGNMENT STRING NAME : SR08_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250

① G=-0.54%
② K=10.65
③ G=2.09%
④ K=13.13
⑤ G=-1.46%
⑥ K=8.44
⑦ K=12.38
⑧ K=16.55
⑨ G=-0.70%
⑩ K=6.32
⑪ K=13.94
⑫ K=9.20
⑬ K=24.27
⑭ K=58.49
⑮ K=164.36
⑯ G=0.58%
⑰ K=17.55
⑱ G=0.01%
⑲ K=20.31
⑳ G=-0.19%
㉑ K=30.49
㉒ G=0.14%
㉓ K=4.12
㉔ K=1.10
㉕ K=2.02
㉖ K=17.39
㉗ K=6.36
㉘ K=18.54
㉙ K=1.00
㉚ G=1.44%
㉛ R=31.84
㉜ L=12.32
㉝ L=20.00
㉞ R=40.00
㉟ R=120.00
(36) R=120.00
(37) L=10.032
(38) R=100.00
(39) L=27.391
(40) R=100.00
(41) R=6.000
(42) L=2.635

NOTES

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KEY

🟥	CENTRELINE OF NEW ROAD
— - —	FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
— — —	TOPOGRAPHICAL SURVEY (EXISTING GROUND)
═	BRIDGE
)—(	CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of
highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 29

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541	Suitability D7
Scale @ A1 1:2500	Zone ZN2

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN2_SW_Z_ZZ -DR -DC -2429
Location | Type | Role | Number

Rev
P04

Plot Date : Thursday, February 04, 2021 12:45:32 PM
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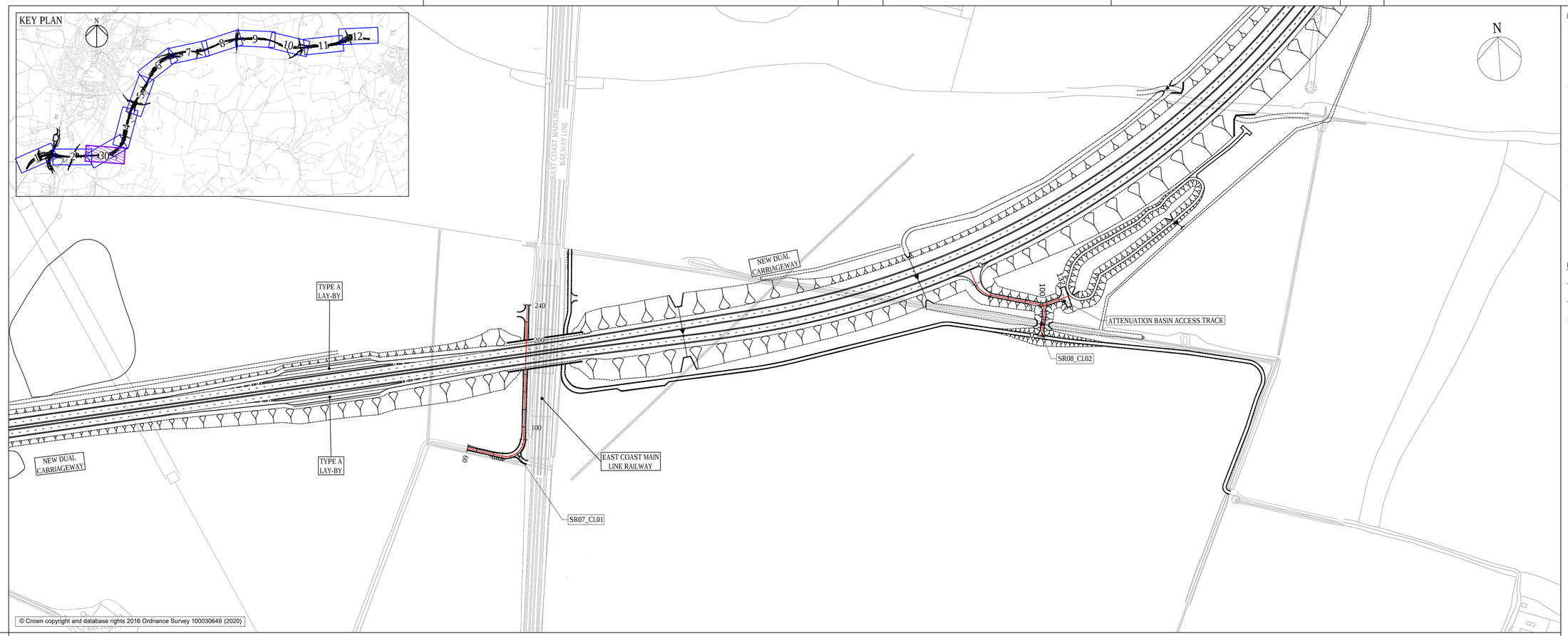
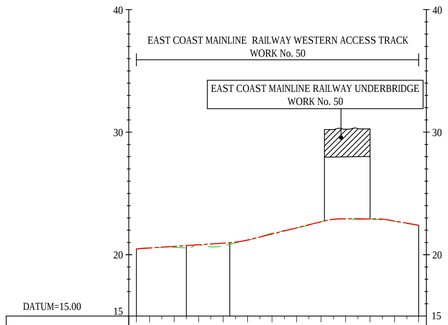




CHAINAGE	09.290	20.000	40.000	60.000	80.000	100.000	120.000	140.000	160.000	180.000	200.000	220.000	239.658
EXISTING LEVELS	20.483	20.562	20.603	20.809	20.712	21.191	21.760	22.192	22.684	22.917	22.898	22.734	22.402
PROPOSED LEVELS	20.483	20.553	20.683	20.813	20.943	21.302	21.698	22.196	22.695	22.938	22.927	22.748	22.402
LEVEL DIFFERENCE	0.000	-0.009	0.080	0.004	0.231	0.011	-0.062	0.005	0.011	0.021	0.030	0.014	0.000

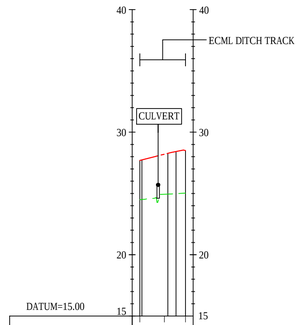
VERTICAL ALIGNMENT: G=0.65% (1) G=2.49% (2) G=-0.05% (3) G=1.70%

HORIZONTAL ALIGNMENT: L=40.710 R=20.00 L=154.242

1. K=9.97
2. K=6.09
3. K=5.68

EAST COAST MAINLINE RAILWAY WESTERN ACCESS TRACK
ALIGNMENT STRING NAME : SR07_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	00.000	20.000	37.293
EXISTING LEVELS	24.496	24.937	25.030
PROPOSED LEVELS	27.698	28.204	28.498
LEVEL DIFFERENCE	3.202	3.266	3.468

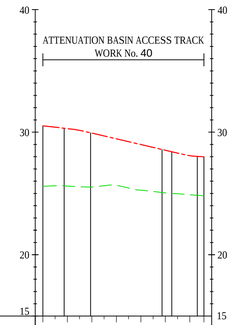
VERTICAL ALIGNMENT: (1) (2) G=2.55% G=-2.50% (3)

HORIZONTAL ALIGNMENT: (5) (6) (7) (4)

1. G=2.50%
2. G=2.55%
3. G=-2.50%
4. L=1.750
5. L=21.196
6. R=30.00
7. L=7.718

ECML DITCH TRACK
ALIGNMENT STRING NAME : SR08_CL02

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	00.000	20.000	40.000	60.000	80.000	100.000	120.000	131.538
EXISTING LEVELS	25.586	25.606	25.522	25.649	25.270	25.044	24.901	24.817
PROPOSED LEVELS	30.517	30.291	29.924	29.459	28.993	28.527	28.085	27.998
LEVEL DIFFERENCE	4.931	4.686	4.402	3.809	3.723	3.483	3.184	3.181

VERTICAL ALIGNMENT: G=-0.06% G=-1.13% (1) G=-3.33% (2) G=-0.05%

HORIZONTAL ALIGNMENT: (3) (4) L=58.332 (5) (6) (7)

1. K=10.00
2. K=6.21
3. L=17.369
4. R=22.19
5. R=15.00
6. L=20.835
7. L=5.500

ATTENUATION BASIN ACCESS TRACK

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 30

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN2

Drawing Number
Highways England PIN I Originator I Volume
HE551495 -ACM -LSI -
ZN2_SW_Z_ZZ -DR -DC-2430
Location I Type I Role I Number

Rev P04

Plot Date : Thursday, February 04, 2021 12:28:32 PM
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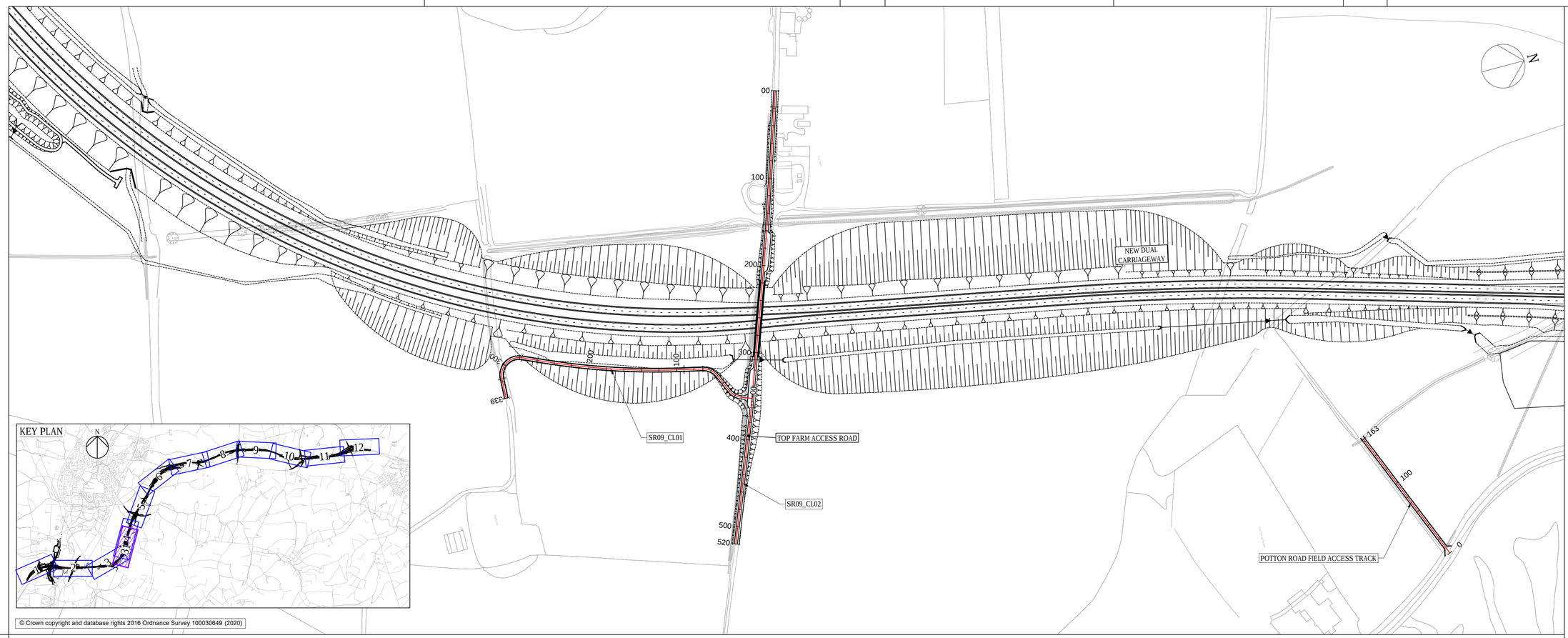

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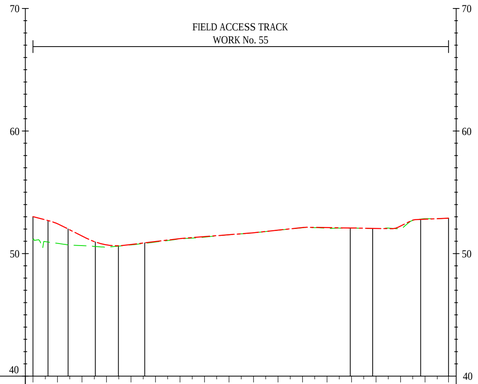
KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



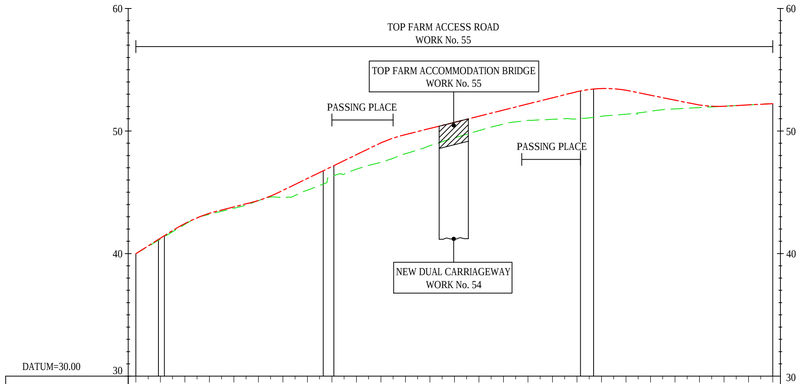
CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	51.117	53.015	1.898
20.000	50.835	52.428	1.593
40.000	50.652	51.436	0.784
60.000	50.528	50.709	0.181
80.000	50.708	50.739	0.031
100.000	50.936	50.981	0.045
120.000	51.198	51.221	0.023
140.000	51.343	51.381	0.038
160.000	51.528	51.537	0.008
180.000	51.692	51.697	0.005
200.000	51.902	51.910	0.008
220.000	52.107	52.124	0.017
240.000	52.066	52.117	0.051
260.000	52.076	52.084	0.008
280.000	52.037	52.051	0.015
300.000	52.064	52.246	0.183
320.000	52.843	52.805	-0.039
339.123	52.882	52.882	0.000

VERTICAL ALIGNMENT: 1 G=-2.61%; 2 L=9.54; 3 G=-5.00%; 4 L=4.000; 5 L=4.00; 6 L=4.00; 7 L=5.164; 8 G=5.00%; 9 L=4.60; 10 L=12.319; 11 R=20.00; 12 L=22.242; 13 R=20.00; 14 L=21.533; 15 L=18.363; 16 L=22.699

HORIZONTAL ALIGNMENT: 10 L=31.034 K=5.00; 11 G=-1.21%; 12 G=0.78%; 13 G=1.07%; 14 R=807.89; 15 G=-0.16%; 16 R=20.00; 17 G=0.40%

FIELD ACCESS TRACK
ALIGNMENT STRING NAME : SR09_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	39.987	39.987	0.000
20.000	41.176	41.248	0.072
40.000	42.380	42.446	0.066
60.000	43.203	43.281	0.078
80.000	43.696	43.806	0.110
100.000	44.317	44.331	0.014
120.000	44.566	45.158	0.593
140.000	45.172	46.129	0.957
160.000	46.304	47.098	0.795
180.000	46.885	48.069	1.184
200.000	47.442	49.028	1.586
220.000	48.147	49.707	1.560
240.000	48.798	50.207	1.409
260.000	49.434	50.707	1.273
280.000	50.032	51.207	1.175
300.000	50.560	51.707	1.147
320.000	50.865	52.207	1.342
340.000	50.959	52.707	1.748
360.000	50.994	53.205	2.211
380.000	51.202	53.465	2.263
400.000	51.366	53.325	1.959
420.000	51.610	52.925	1.315
440.000	51.803	52.519	0.716
460.000	51.910	52.126	0.216
480.000	52.025	52.022	-0.003
500.000	52.130	52.129	-0.001
519.778	52.235	52.235	0.000

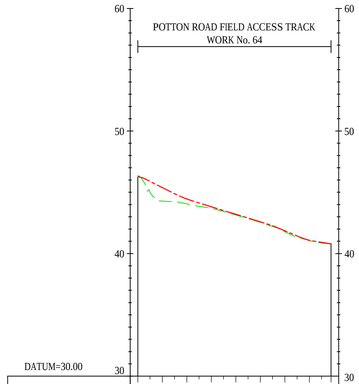
VERTICAL ALIGNMENT: 1 G=6.31%; 2 L=37.87 K=10.00; 3 G=2.52%; 4 G=4.85%; 5 G=2.50%; 6 L=45.28 K=10.00; 7 G=2.03%; 8 G=0.54%

HORIZONTAL ALIGNMENT: 4 L=129.596; 5 L=201.304; 6 L=146.204

TOP FARM ACCESS ROAD
ALIGNMENT STRING NAME : SR09_CL02

1 L=23.314; 2 L=23.50; 3 L=25.648; 4 L=18.457; 5 R=360.00; 6 R=360.00; 7 R=360.00

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	46.373	46.276	-0.097
20.000	44.283	45.386	1.103
40.000	44.062	44.454	0.392
60.000	43.687	43.822	0.135
80.000	43.148	43.204	0.057
100.000	42.544	42.587	0.043
120.000	41.780	41.859	0.079
140.000	41.066	41.086	0.020
157.680	40.788	40.788	0.000

VERTICAL ALIGNMENT: 1 G=-2.38%; 2 K=1.00; 3 G=-5.00%; 4 K=7.85; 5 K=9.23; 6 G=-4.17%; 7 K=3.91; 8 G=-1.61%

HORIZONTAL ALIGNMENT: L=163.067

POTTON ROAD FIELD ACCESS TRACK

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 31

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN2

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN2_SW_Z_ZZ -DR -DC-2431
Location | Type | Role | Number

Rev P04

Plot Date : Thursday, February 04, 2021 12:50:18 PM
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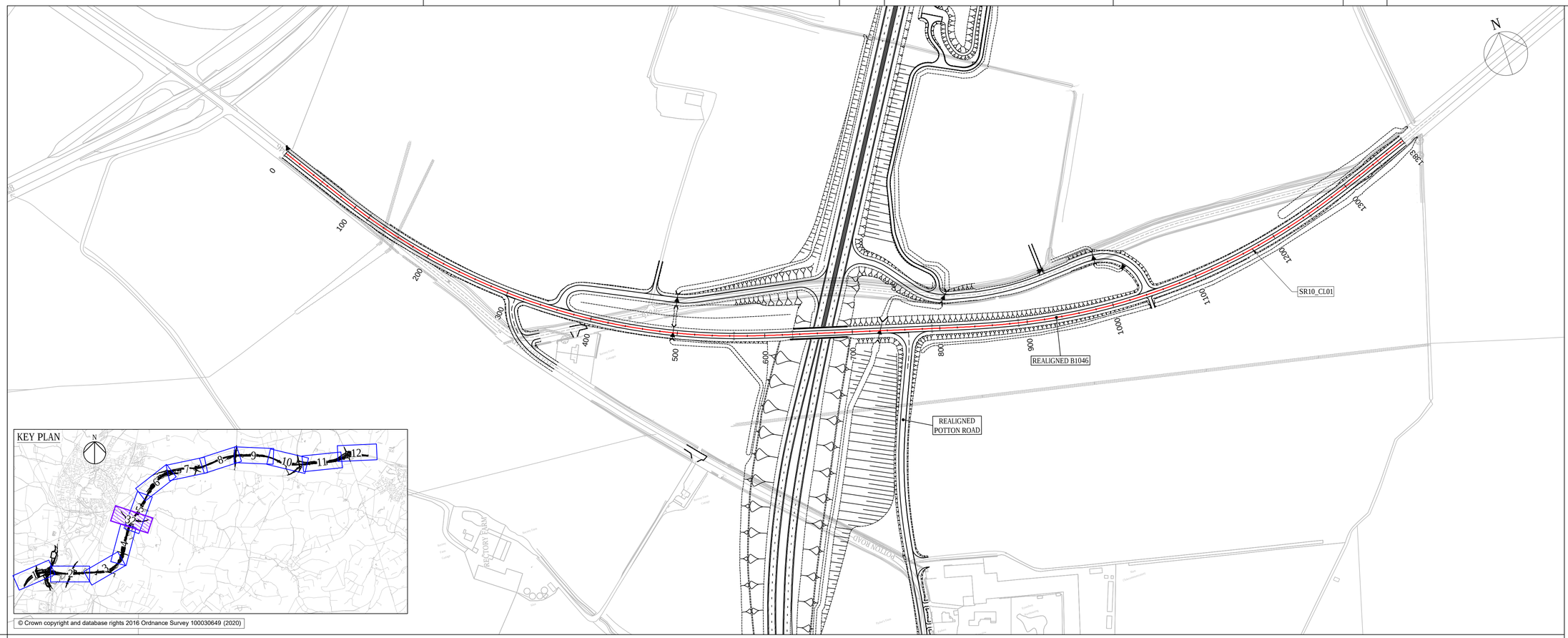

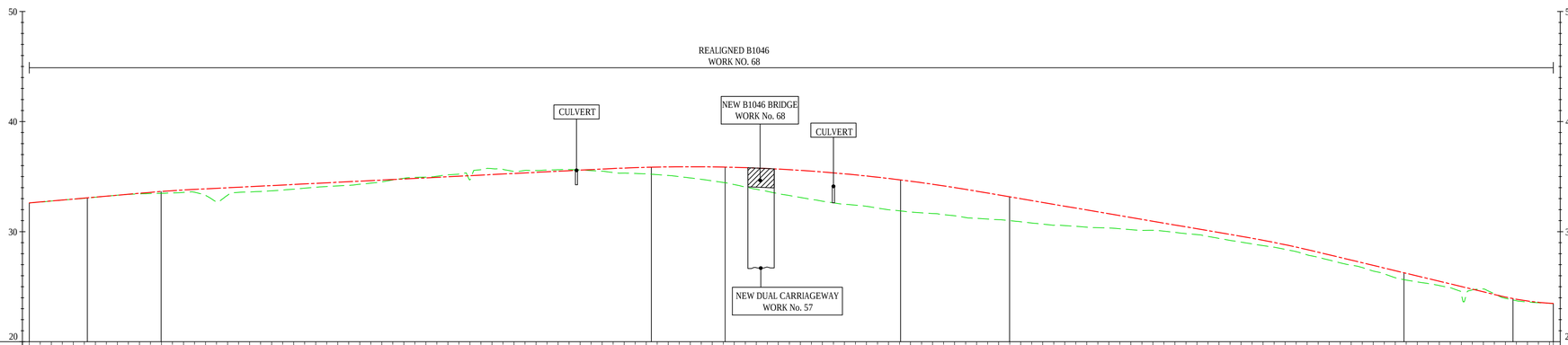

CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	32.608	32.608	0.000
20.000	32.773	32.783	0.010
40.000	32.947	32.958	0.011
60.000	33.122	33.133	0.010
80.000	33.314	33.308	-0.007
100.000	33.433	33.483	0.050
120.000	33.484	33.651	0.167
140.000	33.560	33.783	0.222
160.000	33.299	33.884	0.585
180.000	33.304	33.984	0.681
200.000	33.604	34.084	0.480
220.000	33.711	34.184	0.473
240.000	33.852	34.284	0.433
260.000	34.030	34.384	0.354
280.000	34.156	34.484	0.329
300.000	34.302	34.584	0.282
320.000	34.520	34.684	0.164
340.000	34.848	34.784	-0.064
360.000	34.951	34.884	-0.067
380.000	35.156	34.984	-0.171
400.000	34.710	35.084	0.374
420.000	35.724	35.184	-0.540
440.000	35.464	35.284	-0.180
460.000	35.552	35.384	-0.168
480.000	35.621	35.484	-0.136
500.000	35.607	35.584	-0.023
520.000	35.483	35.684	0.201
540.000	35.312	35.776	0.463
560.000	35.248	35.841	0.593
580.000	35.105	35.881	0.775
600.000	34.878	35.894	1.016
620.000	34.612	35.881	1.269
640.000	34.275	35.841	1.566
660.000	33.857	35.776	1.919
680.000	33.451	35.684	2.233
700.000	33.109	35.566	2.457
720.000	32.766	35.422	2.656
740.000	32.489	35.251	2.762
760.000	32.300	35.054	2.754
780.000	31.986	34.831	2.845
800.000	31.782	34.582	2.800
820.000	31.648	34.306	2.658
840.000	31.443	34.004	2.561
860.000	31.205	33.676	2.471
880.000	31.091	33.335	2.244
900.000	30.893	32.993	2.101
920.000	30.685	32.652	1.967
940.000	30.553	32.310	1.758
960.000	30.405	31.969	1.564
980.000	30.331	31.627	1.297
1000.000	30.179	31.286	1.107
1020.000	30.126	30.944	0.819
1040.000	29.933	30.603	0.670
1060.000	29.737	30.261	0.525
1080.000	29.387	29.920	0.533
1100.000	29.054	29.578	0.525
1120.000	28.731	29.216	0.485
1140.000	28.389	28.814	0.425
1160.000	27.892	28.372	0.480
1180.000	27.422	27.896	0.473
1200.000	26.957	27.415	0.458
1220.000	26.414	26.935	0.521
1240.000	25.816	26.455	0.639
1260.000	25.434	25.975	0.541
1280.000	25.106	25.495	0.389
1300.000	24.289	25.015	0.726
1320.000	24.789	24.535	-0.254
1340.000	23.946	24.062	0.116
1360.000	23.614	23.704	0.090
1380.000	23.489	23.499	0.010
1383.500	23.473	23.473	0.000

VERTICAL ALIGNMENT: G=0.87% | L=37.49 K=100.00 | G=0.50% | L=336.41 K=152.40 | G=-1.71% | L=69.30 K=100.00 | G=-2.40% | L=43.072 K=26.00 (1)

HORIZONTAL ALIGNMENT: L=52.727 | L=67.00 | R=720.00 | L=67.00 | L=159.179 | L=99.00 | R=720.00 | L=99.00 | L=36.602

(1) G=-0.74%

REALIGNED B1046
ALIGNMENT STRING NAME : SR10_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

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KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
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Manton Lane
Manton Industrial Estate
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MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 32

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No. 60541541
Suitability D7
Scale @ A1 1:2500
Zone ZN2

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN2_SW_Z_ZZ -DR -DC-2432
Location | Type | Role | Number

Rev P04

Plot Date : Thursday, February 04, 2021 12:56:41 PM
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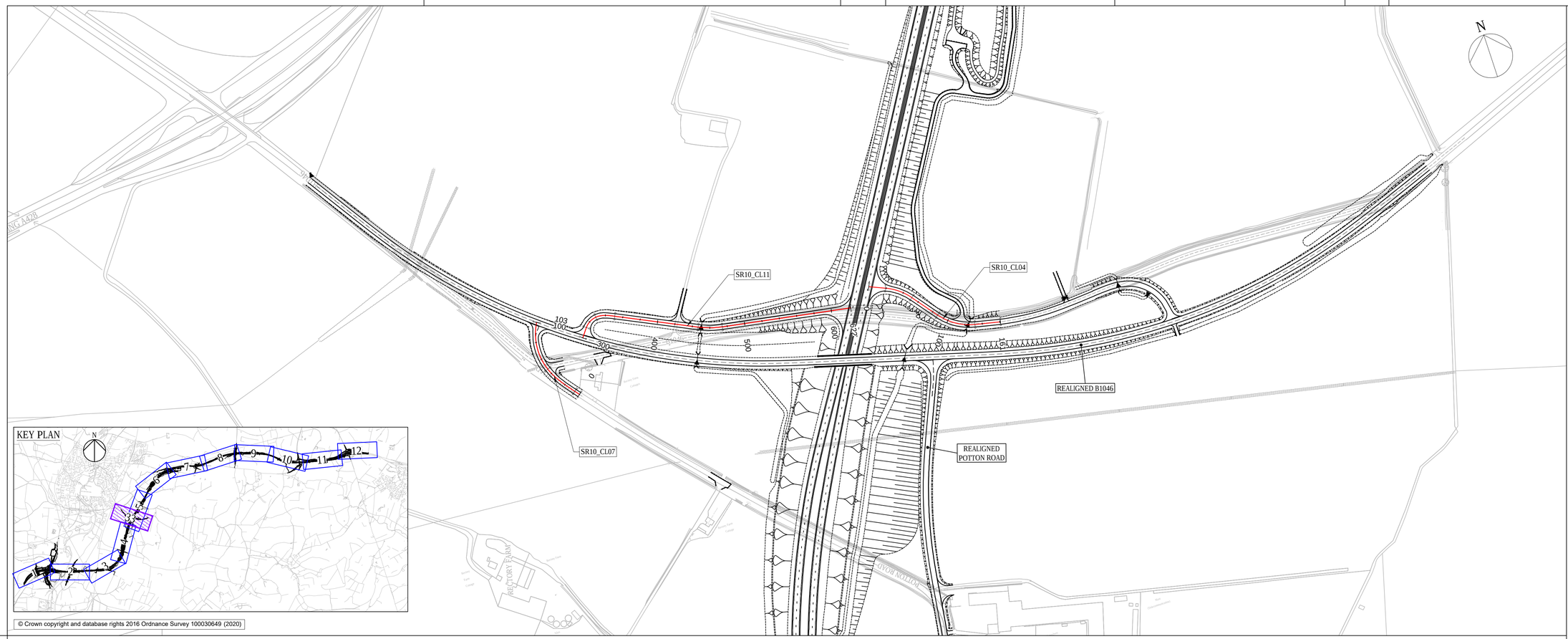
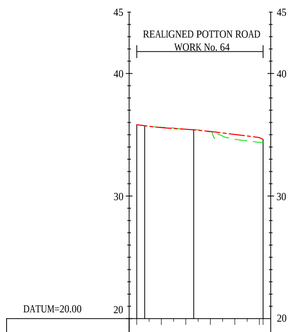




CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	35.815	35.815	0.000
20.000	35.610	35.581	-0.029
40.000	35.443	35.448	0.005
60.000	35.248	35.266	0.018
80.000	34.638	35.020	0.382
100.000	34.378	34.770	0.392
103.087	34.368	34.617	0.249

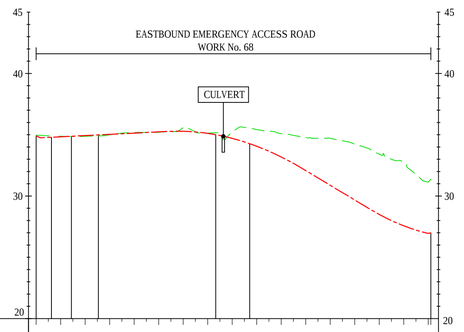
VERTICAL ALIGNMENT: ① ② ③ L=32.21 K=50.00 G=-1.26% ④

HORIZONTAL ALIGNMENT: ⑤ L=40.00 R=64.00

REALIGNED POTTON ROAD
ALIGNMENT STRING NAME : SR10_CL07

① G=-1.30%
② K=26.00
③ G=-0.61%
④ G=-5.01%
⑤ L=6.408

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
300.000	34.959	34.894	-0.065
320.000	34.875	34.830	-0.045
340.000	34.874	34.930	0.056
360.000	34.994	35.030	0.036
380.000	35.180	35.130	-0.050
400.000	35.200	35.230	0.030
420.000	35.579	35.280	-0.299
440.000	35.135	35.109	-0.026
460.000	35.220	34.702	-0.518
480.000	35.419	34.060	-1.358
500.000	35.087	33.183	-1.903
520.000	34.772	32.073	-2.699
540.000	34.700	30.873	-3.827
560.000	34.235	29.673	-4.562
580.000	33.420	28.496	-4.924
600.000	32.764	27.567	-5.197
620.000	31.129	26.956	-4.173
622.164	31.373	26.993	-4.380

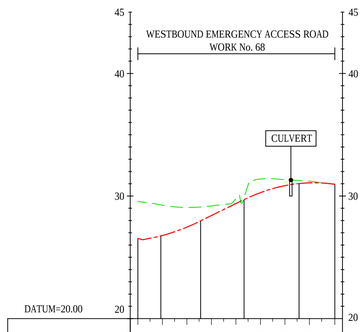
VERTICAL ALIGNMENT: ① G=0.50% L=110.50 K=17.00 G=-6.00% L=45.500 K=13.00 ② ③

HORIZONTAL ALIGNMENT: ④ ⑤ ⑥ L=95.758 ⑦ L=147.817

EASTBOUND EMERGENCY ACCESS ROAD
ALIGNMENT STRING NAME : SR10_CL11

① G=-4.26%
② G=-2.50%
③ G=1.72%
④ L=12.468
⑤ R=20.00
⑥ L=22.00
⑦ R=100.00

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	29.563	26.532	-3.031
20.000	29.249	26.775	-2.475
40.000	29.065	27.459	-1.606
60.000	29.179	28.403	-0.776
80.000	29.769	29.377	-0.392
100.000	31.381	30.271	-1.110
120.000	31.330	30.842	-0.488
140.000	31.207	31.072	-0.135
160.786	30.963	30.963	0.000

VERTICAL ALIGNMENT: ① ② L=37.173 K=12.98 G=4.87% L=68.81 K=11.73 ③

HORIZONTAL ALIGNMENT: ④ R=64.00 L=35.487 R=64.00 ⑤

WESTBOUND EMERGENCY ACCESS ROAD
ALIGNMENT STRING NAME : SR10_CL04

① G=-2.72%
② G=2.00%
③ G=-1.00%
④ L=18.796
⑤ L=29.160

LONGSECTION
SCALE: H 1:2500,V 1:250

NOTES

1. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
2. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
3. THE DESIGN SHOWN ON THE ENGINEERING SECTION DRAWINGS IS ILLUSTRATIVE AND WILL BE SUBJECT TO DETAILED DESIGN DEVELOPMENT. ANY CHANGES WILL BE LIMITED TO BEING WITHIN THE ORDER LIMITS AND ANY OTHER CONSTRAINTS INCLUDED IN THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
4. WORK NO. REFERENCES ARE DESCRIBED IN SCHEDULE 1 (AUTHORISED DEVELOPMENT) TO THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
5. THESE ENGINEERING SECTION DRAWINGS SHOULD BE READ IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTATION, IN PARTICULAR THE WORK PLANS [TR01044/APP/2.3] AND SCHEDULE 1 (AUTHORISED DEVELOPMENT) TO THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].

KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT

Revision Details	By / Check	Date	Suffix
Final for DCO Application	WV / TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 33

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	Zone
1:2500	ZN2

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN2_SW_Z_ZZ -DR -DC-2433
Location | Type | Role | Number

Rev
P04

Plot Date : Thursday, February 04, 2021 1:04:56 PM
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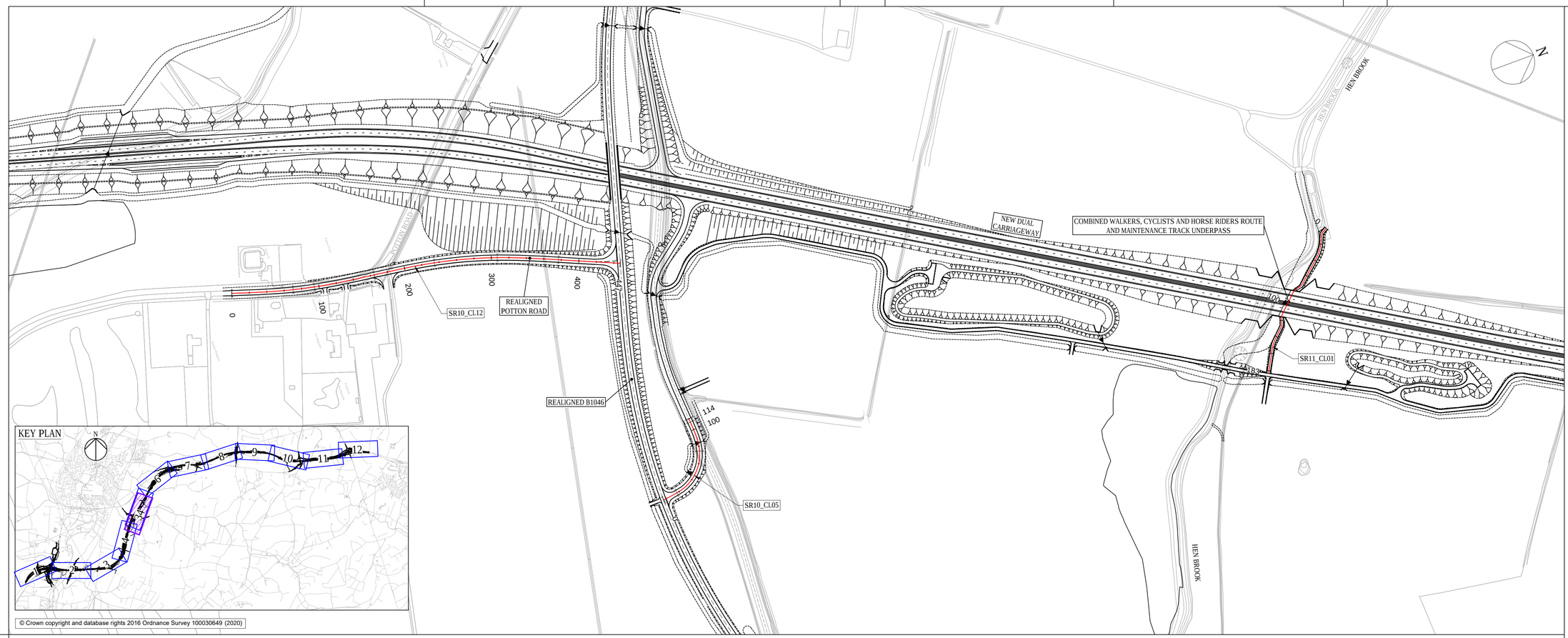

NOTES

1. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
2. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
3. THE DESIGN SHOWN ON THE ENGINEERING SECTION DRAWINGS IS ILLUSTRATIVE AND WILL BE SUBJECT TO DETAILED DESIGN DEVELOPMENT. ANY CHANGES WILL BE LIMITED TO BEING WITHIN THE ORDER LIMITS AND ANY OTHER CONSTRAINTS INCLUDED IN THE DEVELOPMENT CONSENT ORDER [TR01044/APP/3.1].
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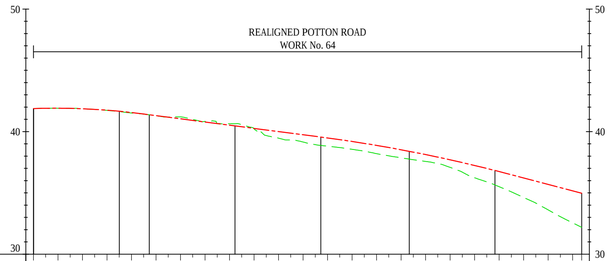
KEY

- CENTRELINE OF NEW ROAD
- FINISHED ROAD LEVEL AT CENTRELINE OF NEW ROAD
- TOPOGRAPHICAL SURVEY (EXISTING GROUND)
- BRIDGE
- CULVERT



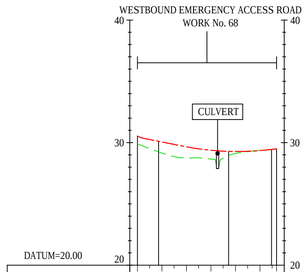
CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	41.883	41.883	0.000
20.000	41.911	41.911	0.000
40.000	41.866	41.866	-0.002
60.000	41.735	41.748	0.013
80.000	41.520	41.558	0.038
100.000	41.302	41.306	0.003
120.000	41.201	41.046	-0.156
140.000	40.833	40.786	-0.047
160.000	40.641	40.526	-0.115
180.000	40.236	40.266	0.030
200.000	39.469	40.006	0.536
220.000	39.155	39.746	0.591
240.000	38.816	39.485	0.669
260.000	38.560	39.199	0.639
280.000	38.204	38.878	0.674
300.000	37.866	38.522	0.656
320.000	37.572	38.130	0.558
340.000	37.085	37.703	0.618
360.000	36.238	37.241	1.004
380.000	35.513	36.744	1.231
400.000	34.633	36.221	1.587
420.000	33.614	35.696	2.082
440.000	32.561	35.171	2.610
447.437	32.186	34.976	2.790

VERTICAL ALIGNMENT: L=88.00 K=55.00; G=-1.30%; L=150.00 K=113.36; G=2.62%

HORIZONTAL ALIGNMENT: L=70.00; ① R=510.00; L=70.00; L=70.00; R=510.00; L=70.00; L=70.739

REALIGNED POTTON ROAD
ALIGNMENT STRING NAME : SR10_CL12

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	29.885	30.534	0.649
20.000	29.152	30.058	0.907
40.000	28.757	29.660	0.903
60.000	28.661	29.379	0.718
80.000	29.123	29.278	0.155
100.000	29.360	29.357	-0.003
113.590	29.491	29.491	0.000

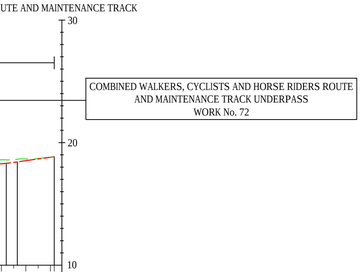
VERTICAL ALIGNMENT: ① G=-2.00%; L=66.710 K=22.19; ②

HORIZONTAL ALIGNMENT: ③ R=50.00; L=35.00; ④

① G=-4.70%
② G=1.01%
③ L=17.249
④ L=4.188

WESTBOUND EMERGENCY ACCESS ROAD
ALIGNMENT STRING NAME : SR10_CL05

LONGSECTION
SCALE: H 1:2500,V 1:250



CHAINAGE	EXISTING LEVELS	PROPOSED LEVELS	LEVEL DIFFERENCE
00.000	18.834	18.864	0.030
20.000	18.891	18.350	-0.541
40.000	18.615	18.174	-0.441
60.000	18.499	18.236	-0.262
80.000	18.454	18.175	-0.279
100.000	18.498	18.178	-0.320
120.000	18.478	18.226	-0.252
140.000	18.597	18.277	-0.319
160.000	18.669	18.529	-0.141
180.000	18.817	18.808	-0.009
183.135	18.852	18.852	0.000

VERTICAL ALIGNMENT: ① G=4.98%; ② G=-1.04%; ③ G=0.31%; ④; ⑤; ⑥ G=0.24%; ⑦; G=-1.40%

HORIZONTAL ALIGNMENT: ⑧; ⑨; ⑩; ⑪ L=32.707; ⑫; ⑬; ⑭; ⑮ L=28.480; ⑯; ⑰; ⑱; ⑲ L=30.108

① G=4.98%
② K=2.00
③ K=3.00
④ K=2.62
⑤ G=-0.49%
⑥ K=12.05
⑦ K=6.98
⑧ L=7.440
⑨ R=1.96
⑩ L=6.314
⑪ R=47.61
⑫ R=12.00
⑬ L=5.541
⑭ R=5.00
⑮ R=10.00
⑯ L=8.853
⑰ R=2.00
⑱ L=17.336
⑲ R=30.00

COMBINED WALKERS, CYCLISTS AND HORSE RIDERS ROUTE AND MAINTENANCE TRACK
ALIGNMENT STRING NAME : SR11_CL01

LONGSECTION
SCALE: H 1:2500,V 1:250

Revision Details	By	Check	Date	Suffix
Final for DCO Application	WV	TD	03/02/21	P04

Purpose of issue
DCO APPLICATION

Client
Highways England
Woodlands
Manton Lane
Manton Industrial Estate
Bedford
MK41 7LW

Working on behalf of highways england

Development Consent Order Number
TR010044

Project Title
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS

Drawing Title
ENGINEERING SECTIONS (PLAN AND PROFILES) REGULATION 5(2)(O) & 6(2) SHEET 34

Designed	Drawn	Checked	Approved	Date
GH	WV	JMW	TD	03/02/21

Internal Project No.	Suitability
60541541	D7
Scale @ A1	**Zone**
1:2500	ZN2

Drawing Number
Highways England PIN | Originator | Volume
HE551495 -ACM -LSI -
ZN2_SW_Z_ZZ -DR -DC-2434
Location | Type | Role | Number

Rev
P04

Plot Date : Thursday, February 04, 2021 1:09:50 PM
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