

Junctions 11											
PICADY 11 - Priority Intersection Module											
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Filename: J27.j11

Path: \\uk-lon-fas02\projects\UNIF\Projects\BESP0016 Kent Countywide Model\KCC Model Custodian Framework\Call-off Tasks\Tonbridge & Malling and Sevenoaks LP\15 Local Modelling\July 2025 Modelling\J27 Tonbridge Road_Hildenborough Road_Back Lane

Report generation date: 30/07/2025 07:32:34

- »D1 - 2019 | Base | AM
- »D2 - 2019 | Base | PM
- »D3 - 2040 | T&M LP_High | AM
- »D4 - 2040 | T&M LP_High | PM
- »D5 - 2042 | Forecast Baseline | AM
- »D6 - 2042 | Forecast Baseline | PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2019 - Base											
Stream B-ACD	D1	0.1	11.76	0.12	B	75 % [Stream D-ABC]	D2	0.0	8.93	0.02	A	54 % [Stream D-ABC]
Stream A-BCD		0.8	7.13	0.32	A			0.2	5.73	0.09	A	
Stream D-ABC		0.4	10.78	0.25	B			0.7	11.98	0.43	B	
Stream C-ABD		0.0	0.00	0.00	A			0.0	0.00	0.00	A	
	2040 - T&M LP_High											
Stream B-ACD	D3	0.1	15.71	0.05	C	20 % [Stream D-ABC]	D4	0.0	12.48	0.04	B	15 % [Stream D-ABC]
Stream A-BCD		2.0	10.22	0.54	B			0.3	5.08	0.12	A	
Stream D-ABC		0.7	19.50	0.39	C			1.5	21.03	0.60	C	
Stream C-ABD		0.0	0.00	0.00	A			0.0	0.00	0.00	A	
	2042 - Forecast Baseline											
Stream B-ACD	D5	0.2	12.48	0.17	B	56 % [Stream D-ABC]	D6	0.0	9.66	0.02	A	40 % [Stream D-ABC]
Stream A-BCD		0.7	6.90	0.30	A			0.2	5.79	0.12	A	
Stream D-ABC		0.5	12.89	0.30	B			0.9	14.01	0.47	B	
Stream C-ABD		0.0	0.00	0.00	A			0.0	0.00	0.00	A	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

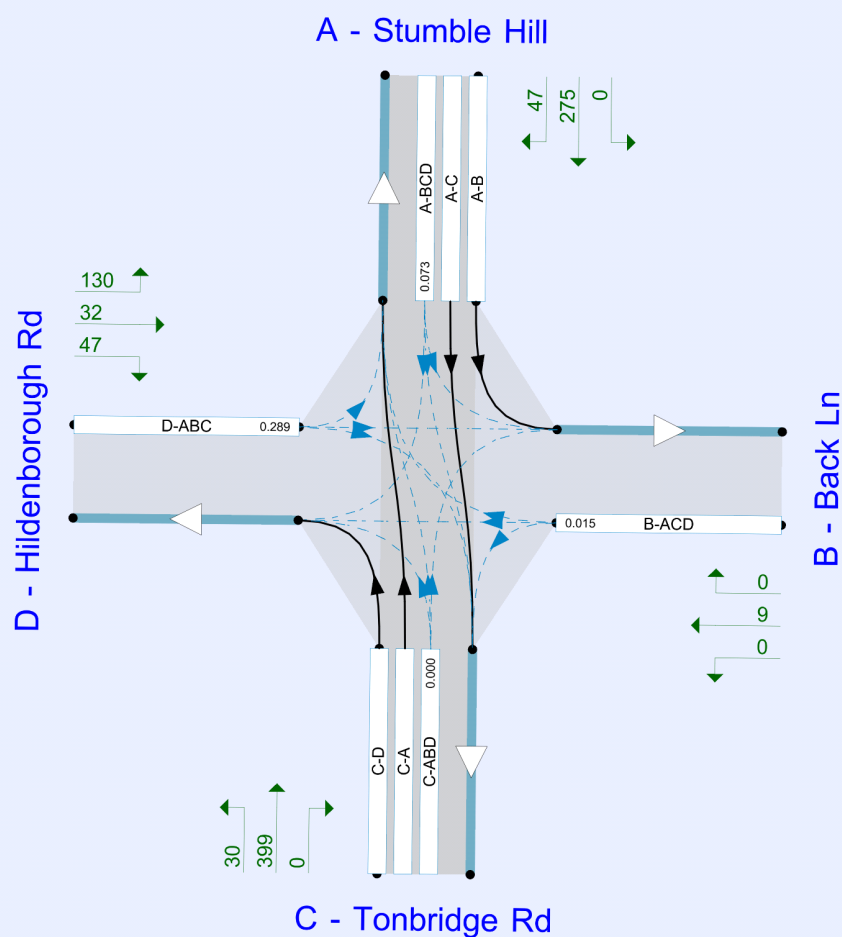
File summary

File Description

Title	
Location	
Site number	
Date	24/07/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JEGINTLSIUDZIS
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr)
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
JUNCTIONS 11.1	5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019	Base	AM	ONE HOUR	08:00	09:30	15	✓
D2	2019	Base	PM	ONE HOUR	17:00	18:30	15	✓
D3	2040	T&M LP_High	AM	ONE HOUR	08:00	09:30	15	✓
D4	2040	T&M LP_High	PM	ONE HOUR	17:00	18:30	15	✓
D5	2042	Forecast Baseline	AM	ONE HOUR	08:00	09:30	15	✓
D6	2042	Forecast Baseline	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

D1 - 2019 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tonbridge Road	Crossroads	Two-way	Two-way	Two-way	Two-way		3.26	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	75	Stream D-ABC	3.26	A

Arms

Arms

Arm	Name	Description	Arm type
A	Stumble Hill		Major
B	Back Ln		Minor
C	Tonbridge Rd		Major
D	Hildenborough Rd		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - Stumble Hill	6.33			93.0	✓	0.00
C - Tonbridge Rd	6.33			141.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Back Ln	One lane	3.40	22	140
D - Hildenborough Rd	One lane	3.90	39	62

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	628	-	-	-	-	-	-	0.240	0.343	0.240	-	-	-
B-A	576	0.103	0.261	0.261	-	-	-	0.164	0.373	-	0.261	0.261	0.131
B-C	741	0.112	0.283	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	576	0.103	0.261	0.261	-	-	-	0.164	0.373	0.164	-	-	-
B-D, offside lane	576	0.103	0.261	0.261	-	-	-	0.164	0.373	0.164	-	-	-
C-B	656	0.250	0.250	0.358	-	-	-	-	-	-	-	-	-
D-A	723	-	-	-	-	-	-	0.276	-	0.109	-	-	-
D-B, nearside lane	568	0.162	0.162	0.368	-	-	-	0.258	0.258	0.102	-	-	-
D-B, offside lane	568	0.162	0.162	0.368	-	-	-	0.258	0.258	0.102	-	-	-
D-C	568	-	0.162	0.368	0.129	0.258	0.258	0.258	0.258	0.102	-	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019	Base	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Stumble Hill		ONE HOUR	✓	445	100.000
B - Back Ln		ONE HOUR	✓	40	100.000
C - Tonbridge Rd		ONE HOUR	✓	365	100.000
D - Hildenborough Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	322	123
	B - Back Ln	0	0	0	40
	C - Tonbridge Rd	321	0	0	44
	D - Hildenborough Rd	68	13	29	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	9	2
	B - Back Ln	0	0	0	10
	C - Tonbridge Rd	10	0	0	3
	D - Hildenborough Rd	9	10	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.12	11.76	0.1	B	37	55
A-BCD	0.32	7.13	0.8	A	190	285
A-B					0	0
A-C					219	328
D-ABC	0.25	10.78	0.4	B	101	151
C-ABD	0.00	0.00	0.0	A	0	0
C-D					40	61
C-A					295	442

D2 - 2019 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tonbridge Road	Crossroads	Two-way	Two-way	Two-way	Two-way		3.34	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	54	Stream D-ABC	3.34	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019	Base	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Stumble Hill		ONE HOUR	✓	278	100.000
B - Back Ln		ONE HOUR	✓	6	100.000
C - Tonbridge Rd		ONE HOUR	✓	362	100.000
D - Hildenborough Rd		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	239	39
	B - Back Ln	0	0	0	6
	C - Tonbridge Rd	356	0	0	6
	D - Hildenborough Rd	139	34	32	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
From		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
	A - Stumble Hill	0	0	5	2
	B - Back Ln	0	0	0	5
	C - Tonbridge Rd	6	0	0	5
	D - Hildenborough Rd	0	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.02	8.93	0.0	A	6	8
A-BCD	0.09	5.73	0.2	A	53	79
A-B					0	0
A-C					202	303
D-ABC	0.43	11.98	0.7	B	188	282
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	8
C-A					327	490

D3 - 2040 | T&M LP_High | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tonbridge Road	Crossroads	Two-way	Two-way	Two-way	Two-way		4.46	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	20	Stream D-ABC	4.46	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2040	T&M LP_High	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Stumble Hill		ONE HOUR	✓	583	100.000
B - Back Ln		ONE HOUR	✓	13	100.000
C - Tonbridge Rd		ONE HOUR	✓	657	100.000
D - Hildenborough Rd		ONE HOUR	✓	126	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	420	163
	B - Back Ln	0	0	0	13
	C - Tonbridge Rd	513	0	0	144
	D - Hildenborough Rd	63	11	52	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
From		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
	A - Stumble Hill	0	0	6	2
	B - Back Ln	0	0	0	19
	C - Tonbridge Rd	5	0	0	6
	D - Hildenborough Rd	22	20	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.05	15.71	0.1	C	12	18
ABCD	0.54	10.22	2.0	B	313	469
AB					0	0
AC					222	333
D-ABC	0.39	19.50	0.7	C	116	173
C-ABD	0.00	0.00	0.0	A	0	0
C-D					132	198
C-A					471	706

D4 - 2040 | T&M LP_High | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tonbridge Road	Crossroads	Two-way	Two-way	Two-way	Two-way		4.41	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	15	Stream D-ABC	4.41	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2040	T&M LP_High	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Stumble Hill		ONE HOUR	✓	494	100.000
B - Back Ln		ONE HOUR	✓	12	100.000
C - Tonbridge Rd		ONE HOUR	✓	504	100.000
D - Hildenborough Rd		ONE HOUR	✓	234	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	456	38
	B - Back Ln	0	0	0	12
	C - Tonbridge Rd	457	0	0	47
	D - Hildenborough Rd	125	31	78	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
From		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
	A - Stumble Hill	0	0	3	2
	B - Back Ln	0	0	0	14
	C - Tonbridge Rd	3	0	0	3
	D - Hildenborough Rd	1	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.04	12.48	0.0	B	11	17
ABCD	0.12	5.08	0.3	A	74	111
AB					0	0
AC					379	569
D-ABC	0.60	21.03	1.5	C	215	322
C-ABD	0.00	0.00	0.0	A	0	0
C-D					43	65
C-A					419	629

D5 - 2042 | Forecast Baseline | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tonbridge Road	Crossroads	Two-way	Two-way	Two-way	Two-way		3.43	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	56	Stream D-ABC	3.43	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2042	Forecast Baseline	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Stumble Hill		ONE HOUR	✓	451	100.000
B - Back Ln		ONE HOUR	✓	56	100.000
C - Tonbridge Rd		ONE HOUR	✓	430	100.000
D - Hildenborough Rd		ONE HOUR	✓	125	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	341	110
	B - Back Ln	0	0	0	56
	C - Tonbridge Rd	356	0	0	74
	D - Hildenborough Rd	74	12	39	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
From		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
	A - Stumble Hill	0	0	8	2
	B - Back Ln	0	0	0	6
	C - Tonbridge Rd	9	0	0	4
	D - Hildenborough Rd	17	17	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.17	12.48	0.2	B	51	77
A-BCD	0.30	6.90	0.7	A	177	265
A-B					0	0
A-C					237	356
D-ABC	0.30	12.89	0.5	B	115	172
C-ABD	0.00	0.00	0.0	A	0	0
C-D					68	102
C-A					327	490

D6 - 2042 | Forecast Baseline | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tonbridge Road	Crossroads	Two-way	Two-way	Two-way	Two-way		3.55	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	40	Stream D-ABC	3.55	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2042	Forecast Baseline	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Stumble Hill		ONE HOUR	✓	322	100.000
B - Back Ln		ONE HOUR	✓	9	100.000
C - Tonbridge Rd		ONE HOUR	✓	429	100.000
D - Hildenborough Rd		ONE HOUR	✓	209	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
From	A - Stumble Hill	0	0	275	47
	B - Back Ln	0	0	0	9
	C - Tonbridge Rd	399	0	0	30
	D - Hildenborough Rd	130	32	47	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
From		A - Stumble Hill	B - Back Ln	C - Tonbridge Rd	D - Hildenborough Rd
	A - Stumble Hill	0	0	5	2
	B - Back Ln	0	0	0	6
	C - Tonbridge Rd	5	0	0	2
	D - Hildenborough Rd	2	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.02	9.66	0.0	A	8	12
ABCD	0.12	5.79	0.2	A	68	102
AB					0	0
AC					227	341
D-ABC	0.47	14.01	0.9	B	192	288
C-ABD	0.00	0.00	0.0	A	0	0
C-D					28	41
C-A					366	549