

# Complementary material for the pickup and delivery problem with alternative locations and overlapping time windows

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Table 1 provides explicit computational results for all 570 instances used in the paper ‘The pickup and delivery problem with alternative locations and overlapping time windows’. Each instance is consecutively numbered, has a ‘Type’, a size given as the number of requests ‘#req.’, a scenario to which it belongs, a computational time limit in seconds ‘time(s)’, and an objective function value ‘OFV’. For further details concerning the composition of the instances, the problem definition, the solution method, or the results, the main paper is to be consulted.

Number	Type	# req.	Scenario	time(s)	OFV
1	H	30	0	30	586
2	H+TW	30	0	30	695
4	RP+RD(100)	30	0	30	507
5	RP+RD(25)	30	0	30	661
6	RP+RD(50)	30	0	31	545
7	RP+RD(75)	30	0	30	533
8	RP+RD+AL(100)	30	0	30	444
9	RP+RD+AL(25)	30	0	30	503
10	RP+RD+AL(50)	30	0	30	465
11	RP+RD+AL(75)	30	0	31	445
12	RP+RD+AL+LB(100)	30	0	34	484
13	RP+RD+AL+LB(25)	30	0	30	507
14	RP+RD+AL+LB(25)	30	0	33	480
15	RP+RD+AL+LB(50)	30	0	32	475
16	RP+RD+AL+LB(75)	30	0	30	487
17	RP+RD+LB(100)	30	0	30	561
18	RP+RD+LB(50)	30	0	30	491
19	RP+RD+LB(75)	30	0	30	498
20	H	30	1	30	553
21	H+TW	30	1	30	646
22	H+TW+LB	30	1	30	615
23	RP+RD(100)	30	1	31	569
24	RP+RD(25)	30	1	30	620
25	RP+RD(50)	30	1	30	576
26	RP+RD(75)	30	1	30	561

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Number	Type	# req.	Scenario	time(s)	OFV
27	RP+RD+AL(100)	30	1	30	513
28	RP+RD+AL(25)	30	1	30	505
29	RP+RD+AL(50)	30	1	30	520
30	RP+RD+AL(75)	30	1	30	499
31	RP+RD+AL+LB(100)	30	1	30	510
32	RP+RD+AL+LB(25)	30	1	30	513
33	RP+RD+AL+LB(50)	30	1	30	505
34	RP+RD+AL+LB(75)	30	1	31	511
35	RP+RD+LB(100)	30	1	30	530
36	RP+RD+LB(25)	30	1	30	616
37	RP+RD+LB(50)	30	1	30	578
38	RP+RD+LB(75)	30	1	30	567
39	H	30	2	30	533
40	H+TW	30	2	30	616
41	H+TW+LB	30	2	30	570
42	RP+RD(100)	30	2	30	547
43	RP+RD(25)	30	2	30	592
44	RP+RD(50)	30	2	30	566
45	RP+RD(75)	30	2	30	562
46	RP+RD+AL(100)	30	2	31	492
47	RP+RD+AL(25)	30	2	30	486
48	RP+RD+AL(50)	30	2	30	478
49	RP+RD+AL(75)	30	2	30	495
50	RP+RD+AL+LB(100)	30	2	32	470
51	RP+RD+AL+LB(25)	30	2	30	480
52	RP+RD+AL+LB(50)	30	2	30	451
53	RP+RD+AL+LB(75)	30	2	30	485
54	RP+RD+LB(100)	30	2	31	530
55	RP+RD+LB(25)	30	2	30	548
56	RP+RD+LB(50)	30	2	30	562
57	RP+RD+LB(75)	30	2	30	518
58	H	30	3	30	543
59	H+TW	30	3	30	633
60	H+TW+LB	30	3	30	623
61	RP+RD(100)	30	3	30	494
62	RP+RD(25)	30	3	30	646
63	RP+RD(50)	30	3	30	588
64	RP+RD(75)	30	3	30	551
65	RP+RD+AL(100)	30	3	30	495
66	RP+RD+AL(25)	30	3	30	537
67	RP+RD+AL(50)	30	3	31	501
68	RP+RD+AL(75)	30	3	31	472
69	RP+RD+AL+LB(100)	30	3	34	484
70	RP+RD+AL+LB(25)	30	3	30	503
71	RP+RD+AL+LB(50)	30	3	30	532
72	RP+RD+AL+LB(75)	30	3	30	498
73	RP+RD+LB(100)	30	3	30	514
74	RP+RD+LB(25)	30	3	30	616
75	RP+RD+LB(50)	30	3	30	590
76	RP+RD+LB(75)	30	3	30	537
77	H	30	4	31	512

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Number	Type	# req.	Scenario	time(s)	OFV
78	H+TW	30	4	30	567
79	H+TW+LB	30	4	30	557
80	RP+RD(100)	30	4	30	551
81	RP+RD(25)	30	4	30	565
82	RP+RD(50)	30	4	30	560
83	RP+RD(75)	30	4	30	547
84	RP+RD+AL(100)	30	4	30	493
85	RP+RD+AL(25)	30	4	31	503
86	RP+RD+AL(50)	30	4	30	495
87	RP+RD+AL(75)	30	4	31	491
88	RP+RD+AL+LB(100)	30	4	30	478
89	RP+RD+AL+LB(25)	30	4	30	505
90	RP+RD+AL+LB(50)	30	4	30	476
91	RP+RD+AL+LB(75)	30	4	30	467
92	RP+RD+LB(100)	30	4	30	544
93	RP+RD+LB(25)	30	4	30	534
94	RP+RD+LB(50)	30	4	30	530
95	RP+RD+LB(75)	30	4	30	535
96	H	30	5	30	521
97	H+TW	30	5	30	606
98	H+TW+LB	30	5	30	572
99	RP+RD(100)	30	5	30	551
100	RP+RD(25)	30	5	30	566
101	RP+RD(50)	30	5	30	583
102	RP+RD(75)	30	5	30	558
103	RP+RD+AL(100)	30	5	30	490
104	RP+RD+AL(25)	30	5	30	537
105	RP+RD+AL(50)	30	5	30	515
106	RP+RD+AL(75)	30	5	30	489
107	RP+RD+AL+LB(100)	30	5	31	463
108	RP+RD+AL+LB(25)	30	5	30	494
109	RP+RD+AL+LB(50)	30	5	30	490
110	RP+RD+AL+LB(75)	30	5	30	430
111	RP+RD+LB(100)	30	5	30	519
112	RP+RD+LB(25)	30	5	31	542
113	RP+RD+LB(50)	30	5	30	541
114	RP+RD+LB(75)	30	5	30	515
115	H	30	6	30	554
116	H+TW	30	6	30	629
117	H+TW+LB	30	6	30	585
118	RP+RD(100)	30	6	30	553
119	RP+RD(25)	30	6	30	607
120	RP+RD(50)	30	6	30	574
121	RP+RD(75)	30	6	30	554
122	RP+RD+AL(100)	30	6	32	502
123	RP+RD+AL(25)	30	6	30	536
124	RP+RD+AL(50)	30	6	30	513
125	RP+RD+AL(75)	30	6	31	475
126	RP+RD+AL+LB(100)	30	6	30	479
127	RP+RD+AL+LB(25)	30	6	31	473
128	RP+RD+AL+LB(50)	30	6	30	484

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Number	Type	# req.	Scenario	time(s)	OFV
129	RP+RD+AL+LB(75)	30	6	30	463
130	RP+RD+LB(100)	30	6	31	557
131	RP+RD+LB(25)	30	6	30	572
132	RP+RD+LB(50)	30	6	30	570
133	RP+RD+LB(75)	30	6	31	535
134	H	30	7	30	491
135	H+TW	30	7	30	556
136	H+TW+LB	30	7	30	541
137	RP+RD(100)	30	7	30	506
138	RP+RD(25)	30	7	30	548
139	RP+RD(50)	30	7	30	542
140	RP+RD(75)	30	7	30	543
141	RP+RD+AL(100)	30	7	32	509
142	RP+RD+AL(25)	30	7	30	472
143	RP+RD+AL(50)	30	7	30	479
144	RP+RD+AL(75)	30	7	30	449
145	RP+RD+AL+LB(100)	30	7	31	455
146	RP+RD+AL+LB(25)	30	7	30	459
147	RP+RD+AL+LB(50)	30	7	30	452
148	RP+RD+AL+LB(75)	30	7	32	472
149	RP+RD+LB(100)	30	7	30	530
150	RP+RD+LB(25)	30	7	30	550
151	RP+RD+LB(50)	30	7	30	543
152	RP+RD+LB(75)	30	7	30	523
153	H	30	8	31	567
154	H+TW	30	8	30	679
155	H+TW+LB	30	8	30	602
156	RP+RD(100)	30	8	31	596
157	RP+RD(25)	30	8	30	647
158	RP+RD(50)	30	8	30	656
159	RP+RD(75)	30	8	31	586
160	RP+RD+AL(100)	30	8	30	492
161	RP+RD+AL(25)	30	8	30	506
162	RP+RD+AL(50)	30	8	30	499
163	RP+RD+AL(75)	30	8	30	487
164	RP+RD+AL+LB(100)	30	8	30	495
165	RP+RD+AL+LB(25)	30	8	30	507
166	RP+RD+AL+LB(50)	30	8	30	508
167	RP+RD+AL+LB(75)	30	8	31	514
168	RP+RD+LB(100)	30	8	32	557
169	RP+RD+LB(25)	30	8	30	612
170	RP+RD+LB(50)	30	8	30	611
171	RP+RD+LB(75)	30	8	30	578
172	H	30	9	30	574
173	H+TW	30	9	30	653
174	H+TW+LB	30	9	30	638
175	RP+RD(100)	30	9	30	576
176	RP+RD(25)	30	9	30	641
177	RP+RD(50)	30	9	30	625
178	RP+RD(75)	30	9	30	580
179	RP+RD+AL(100)	30	9	33	548

Table 1 continued from previous page

Number	Type	# req.	Scenario	time(s)	OFV
180	RP+RD+AL(25)	30	9	30	551
181	RP+RD+AL(50)	30	9	30	552
182	RP+RD+AL(75)	30	9	30	557
183	RP+RD+AL+LB(100)	30	9	30	529
184	RP+RD+AL+LB(25)	30	9	30	535
185	RP+RD+AL+LB(50)	30	9	30	531
186	RP+RD+AL+LB(75)	30	9	30	541
187	RP+RD+LB(100)	30	9	30	564
188	RP+RD+LB(25)	30	9	30	660
189	RP+RD+LB(50)	30	9	30	630
190	RP+RD+LB(75)	30	9	30	580
191	H	50	0	50	895
192	H+TW	50	0	50	980
193	H+TW+LB	50	0	50	958
194	RP+RD(100)	50	0	51	852
195	RP+RD(25)	50	0	50	980
196	RP+RD(50)	50	0	50	973
197	RP+RD(75)	50	0	51	944
198	RP+RD+AL(100)	50	0	50	699
199	RP+RD+AL(25)	50	0	51	808
200	RP+RD+AL(50)	50	0	50	854
201	RP+RD+AL(75)	50	0	51	775
202	RP+RD+AL+LB(100)	50	0	50	695
203	RP+RD+AL+LB(25)	50	0	50	789
204	RP+RD+AL+LB(25)	50	0	51	808
205	RP+RD+AL+LB(50)	50	0	51	780
206	RP+RD+AL+LB(75)	50	0	50	860
207	RP+RD+LB(100)	50	0	50	987
208	RP+RD+LB(50)	50	0	51	974
209	RP+RD+LB(75)	50	0	51	865
210	H	50	1	51	827
211	H+TW	50	1	50	934
212	H+TW+LB	50	1	51	893
213	RP+RD(100)	50	1	52	878
214	RP+RD(25)	50	1	50	931
215	RP+RD(50)	50	1	50	893
216	RP+RD(75)	50	1	51	874
217	RP+RD+AL(100)	50	1	52	815
218	RP+RD+AL(25)	50	1	50	820
219	RP+RD+AL(50)	50	1	50	865
220	RP+RD+AL(75)	50	1	50	833
221	RP+RD+AL+LB(100)	50	1	52	802
222	RP+RD+AL+LB(25)	50	1	50	891
223	RP+RD+AL+LB(50)	50	1	50	862
224	RP+RD+AL+LB(75)	50	1	51	831
225	RP+RD+LB(100)	50	1	50	877
226	RP+RD+LB(25)	50	1	50	929
227	RP+RD+LB(50)	50	1	50	874
228	RP+RD+LB(75)	50	1	52	897
229	H	50	2	51	920
230	H+TW	50	2	50	1013

Table 1 continued from previous page

Number	Type	# req.	Scenario	time(s)	OFV
231	H+TW+LB	50	2	50	925
232	RP+RD(100)	50	2	52	927
233	RP+RD(25)	50	2	51	1028
234	RP+RD(50)	50	2	51	981
235	RP+RD(75)	50	2	51	964
236	RP+RD+AL(100)	50	2	52	804
237	RP+RD+AL(25)	50	2	50	880
238	RP+RD+AL(50)	50	2	50	851
239	RP+RD+AL(75)	50	2	52	864
240	RP+RD+AL+LB(100)	50	2	55	800
241	RP+RD+AL+LB(25)	50	2	50	881
242	RP+RD+AL+LB(50)	50	2	50	827
243	RP+RD+AL+LB(75)	50	2	51	823
244	RP+RD+LB(100)	50	2	50	863
245	RP+RD+LB(25)	50	2	51	923
246	RP+RD+LB(50)	50	2	50	934
247	RP+RD+LB(75)	50	2	51	910
248	H	50	3	50	838
249	H+TW	50	3	50	1006
250	H+TW+LB	50	3	50	923
251	RP+RD(100)	50	3	51	845
252	RP+RD(25)	50	3	50	974
253	RP+RD(50)	50	3	50	924
254	RP+RD(75)	50	3	53	938
255	RP+RD+AL(100)	50	3	53	762
256	RP+RD+AL(25)	50	3	50	904
257	RP+RD+AL(50)	50	3	51	915
258	RP+RD+AL(75)	50	3	54	768
259	RP+RD+AL+LB(100)	50	3	65	818
260	RP+RD+AL+LB(25)	50	3	51	919
261	RP+RD+AL+LB(50)	50	3	51	835
262	RP+RD+AL+LB(75)	50	3	52	860
263	RP+RD+LB(100)	50	3	51	914
264	RP+RD+LB(25)	50	3	50	967
265	RP+RD+LB(50)	50	3	50	896
266	RP+RD+LB(75)	50	3	53	887
267	H	50	4	50	828
268	H+TW	50	4	50	943
269	H+TW+LB	50	4	50	908
270	RP+RD(100)	50	4	50	938
271	RP+RD(25)	50	4	50	967
272	RP+RD(50)	50	4	50	913
273	RP+RD(75)	50	4	51	963
274	RP+RD+AL(100)	50	4	51	744
275	RP+RD+AL(25)	50	4	50	832
276	RP+RD+AL(50)	50	4	50	801
277	RP+RD+AL(75)	50	4	53	871
278	RP+RD+AL+LB(100)	50	4	50	833
279	RP+RD+AL+LB(25)	50	4	50	778
280	RP+RD+AL+LB(50)	50	4	52	817
281	RP+RD+AL+LB(75)	50	4	50	773

Table 1 continued from previous page

Number	Type	# req.	Scenario	time(s)	OFV
282	RP+RD+LB(100)	50	4	52	848
283	RP+RD+LB(25)	50	4	50	888
284	RP+RD+LB(50)	50	4	50	849
285	RP+RD+LB(75)	50	4	51	891
286	H	50	5	77	729
287	H+TW	50	5	50	881
288	H+TW+LB	50	5	50	846
289	RP+RD(100)	50	5	52	739
290	RP+RD(25)	50	5	50	849
291	RP+RD(50)	50	5	51	841
292	RP+RD(75)	50	5	50	743
293	RP+RD+AL(100)	50	5	52	670
294	RP+RD+AL(25)	50	5	51	681
295	RP+RD+AL(50)	50	5	50	685
296	RP+RD+AL(75)	50	5	50	662
297	RP+RD+AL+LB(100)	50	5	51	661
298	RP+RD+AL+LB(25)	50	5	51	689
299	RP+RD+AL+LB(50)	50	5	51	673
300	RP+RD+AL+LB(75)	50	5	51	671
301	RP+RD+LB(100)	50	5	51	734
302	RP+RD+LB(25)	50	5	52	761
303	RP+RD+LB(50)	50	5	50	768
304	RP+RD+LB(75)	50	5	53	768
305	H	50	6	50	784
306	H+TW	50	6	50	839
307	H+TW+LB	50	6	50	861
308	RP+RD(100)	50	6	51	820
309	RP+RD(25)	50	6	50	839
310	RP+RD(50)	50	6	50	867
311	RP+RD(75)	50	6	51	870
312	RP+RD+AL(100)	50	6	56	725
313	RP+RD+AL(25)	50	6	51	762
314	RP+RD+AL(50)	50	6	50	784
315	RP+RD+AL(75)	50	6	50	745
316	RP+RD+AL+LB(100)	50	6	51	773
317	RP+RD+AL+LB(25)	50	6	51	786
318	RP+RD+AL+LB(50)	50	6	51	781
319	RP+RD+AL+LB(75)	50	6	50	767
320	RP+RD+LB(100)	50	6	50	806
321	RP+RD+LB(25)	50	6	51	824
322	RP+RD+LB(50)	50	6	51	873
323	RP+RD+LB(75)	50	6	50	868
324	H	50	7	52	868
325	H+TW	50	7	50	960
326	H+TW+LB	50	7	50	923
327	RP+RD(100)	50	7	50	914
328	RP+RD(25)	50	7	50	954
329	RP+RD(50)	50	7	50	964
330	RP+RD(75)	50	7	50	916
331	RP+RD+AL(100)	50	7	52	831
332	RP+RD+AL(25)	50	7	50	859

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Number	Type	# req.	Scenario	time(s)	OFV
333	RP+RD+AL(50)	50	7	54	851
334	RP+RD+AL(75)	50	7	50	876
335	RP+RD+AL+LB(100)	50	7	52	856
336	RP+RD+AL+LB(25)	50	7	50	835
337	RP+RD+AL+LB(50)	50	7	50	838
338	RP+RD+AL+LB(75)	50	7	53	831
339	RP+RD+LB(100)	50	7	52	912
340	RP+RD+LB(25)	50	7	51	942
341	RP+RD+LB(50)	50	7	51	888
342	RP+RD+LB(75)	50	7	51	890
343	H	50	8	55	903
344	H+TW	50	8	50	1053
345	H+TW+LB	50	8	51	994
346	RP+RD(100)	50	8	55	893
347	RP+RD(25)	50	8	50	1022
348	RP+RD(50)	50	8	51	978
349	RP+RD(75)	50	8	50	978
350	RP+RD+AL(100)	50	8	50	742
351	RP+RD+AL(25)	50	8	50	865
352	RP+RD+AL(50)	50	8	51	788
353	RP+RD+AL(75)	50	8	53	784
354	RP+RD+AL+LB(100)	50	8	53	781
355	RP+RD+AL+LB(25)	50	8	50	803
356	RP+RD+AL+LB(50)	50	8	51	789
357	RP+RD+AL+LB(75)	50	8	51	806
358	RP+RD+LB(100)	50	8	62	864
359	RP+RD+LB(25)	50	8	51	933
360	RP+RD+LB(50)	50	8	50	839
361	RP+RD+LB(75)	50	8	50	892
362	H	50	9	50	839
363	H+TW	50	9	50	927
364	H+TW+LB	50	9	50	880
365	RP+RD(100)	50	9	50	847
366	RP+RD(25)	50	9	50	898
367	RP+RD(50)	50	9	51	892
368	RP+RD(75)	50	9	50	890
369	RP+RD+AL(100)	50	9	50	740
370	RP+RD+AL(25)	50	9	50	781
371	RP+RD+AL(50)	50	9	50	751
372	RP+RD+AL(75)	50	9	54	792
373	RP+RD+AL+LB(100)	50	9	53	743
374	RP+RD+AL+LB(25)	50	9	50	721
375	RP+RD+AL+LB(50)	50	9	53	745
376	RP+RD+AL+LB(75)	50	9	51	691
377	RP+RD+LB(100)	50	9	59	785
378	RP+RD+LB(25)	50	9	50	825
379	RP+RD+LB(50)	50	9	50	820
380	RP+RD+LB(75)	50	9	52	855
381	H	100	0	100	1378
382	H+TW	100	0	100	1747
383	H+TW+LB	100	0	100	1638



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Number	Type	# req.	Scenario	time(s)	OFV
384	RP+RD(100)	100	0	100	1483
385	RP+RD(25)	100	0	100	1698
386	RP+RD(50)	100	0	100	1580
387	RP+RD(75)	100	0	100	1641
388	RP+RD+AL(100)	100	0	101	1377
389	RP+RD+AL(25)	100	0	100	1334
390	RP+RD+AL(50)	100	0	100	1358
391	RP+RD+AL(75)	100	0	101	1367
392	RP+RD+AL+LB(100)	100	0	101	1357
393	RP+RD+AL+LB(25)	100	0	100	1300
394	RP+RD+AL+LB(50)	100	0	100	1343
395	RP+RD+AL+LB(75)	100	0	100	1322
396	RP+RD+LB(100)	100	0	100	1509
397	RP+RD+LB(25)	100	0	100	1660
398	RP+RD+LB(50)	100	0	100	1559
399	RP+RD+LB(75)	100	0	100	1529
400	H	100	1	100	1622
401	H+TW	100	1	100	1818
402	H+TW+LB	100	1	100	1738
403	RP+RD(100)	100	1	100	1753
404	RP+RD(25)	100	1	100	1800
405	RP+RD(50)	100	1	100	1733
406	RP+RD(75)	100	1	100	1726
407	RP+RD+AL(100)	100	1	101	1462
408	RP+RD+AL(25)	100	1	100	1479
409	RP+RD+AL(50)	100	1	100	1504
410	RP+RD+AL(75)	100	1	100	1491
411	RP+RD+AL+LB(100)	100	1	100	1471
412	RP+RD+AL+LB(25)	100	1	100	1486
413	RP+RD+AL+LB(50)	100	1	100	1507
414	RP+RD+AL+LB(75)	100	1	101	1463
415	RP+RD+LB(100)	100	1	101	1708
416	RP+RD+LB(25)	100	1	100	1683
417	RP+RD+LB(50)	100	1	100	1703
418	RP+RD+LB(75)	100	1	100	1740
419	H	100	2	100	1476
420	H+TW	100	2	100	1715
421	H+TW+LB	100	2	100	1531
422	RP+RD(100)	100	2	101	1549
423	RP+RD(25)	100	2	100	1668
424	RP+RD(50)	100	2	100	1614
425	RP+RD(75)	100	2	100	1572
426	RP+RD+AL(100)	100	2	100	1380
427	RP+RD+AL(25)	100	2	100	1408
428	RP+RD+AL(50)	100	2	100	1312
429	RP+RD+AL(75)	100	2	100	1412
430	RP+RD+AL+LB(100)	100	2	100	1312
431	RP+RD+AL+LB(25)	100	2	100	1283
432	RP+RD+AL+LB(50)	100	2	100	1293
433	RP+RD+AL+LB(75)	100	2	100	1312
434	RP+RD+LB(100)	100	2	100	1460

Table 1 continued from previous page

Number	Type	# req.	Scenario	time(s)	OFV
435	RP+RD+LB(25)	100	2	–	–
436	RP+RD+LB(50)	100	2	101	1561
437	RP+RD+LB(75)	100	2	100	1459
438	H	100	3	100	1457
439	H+TW	100	3	100	1675
440	H+TW+LB	100	3	100	1595
441	RP+RD(100)	100	3	100	1586
442	RP+RD(25)	100	3	100	1675
443	RP+RD(50)	100	3	100	1681
444	RP+RD(75)	100	3	100	1647
445	RP+RD+AL(100)	100	3	100	1416
446	RP+RD+AL(25)	100	3	100	1465
447	RP+RD+AL(50)	100	3	101	1466
448	RP+RD+AL(75)	100	3	100	1462
449	RP+RD+AL+LB(100)	100	3	100	1413
450	RP+RD+AL+LB(25)	100	3	100	1457
451	RP+RD+AL+LB(50)	100	3	100	1432
452	RP+RD+AL+LB(75)	100	3	101	1376
453	RP+RD+LB(100)	100	3	100	1513
454	RP+RD+LB(25)	100	3	100	1548
455	RP+RD+LB(50)	100	3	100	1577
456	RP+RD+LB(75)	100	3	100	1535
457	H	100	4	100	1593
458	H+TW	100	4	100	1804
459	H+TW+LB	100	4	100	1660
460	RP+RD(100)	100	4	100	1686
461	RP+RD(25)	100	4	100	1795
462	RP+RD(50)	100	4	100	1804
463	RP+RD(75)	100	4	100	1706
464	RP+RD+AL(100)	100	4	102	1432
465	RP+RD+AL(25)	100	4	100	1585
466	RP+RD+AL(50)	100	4	100	1546
467	RP+RD+AL(75)	100	4	101	1509
468	RP+RD+AL+LB(100)	100	4	102	1458
469	RP+RD+AL+LB(25)	100	4	100	1468
470	RP+RD+AL+LB(50)	100	4	100	1503
471	RP+RD+AL+LB(75)	100	4	101	1480
472	RP+RD+LB(100)	100	4	100	1602
473	RP+RD+LB(25)	100	4	100	1695
474	RP+RD+LB(50)	100	4	100	1705
475	RP+RD+LB(75)	100	4	100	1594
476	H	100	5	100	1526
477	H+TW	100	5	100	1762
478	H+TW+LB	100	5	100	1712
479	RP+RD(100)	100	5	100	1663
480	RP+RD(25)	100	5	100	1722
481	RP+RD(50)	100	5	100	1706
482	RP+RD(75)	100	5	100	1655
483	RP+RD+AL(100)	100	5	100	1516
484	RP+RD+AL(25)	100	5	100	1566
485	RP+RD+AL(50)	100	5	100	1517

Table 1 continued from previous page

Number	Type	# req.	Scenario	time(s)	OFV
486	RP+RD+AL(75)	100	5	100	1537
487	RP+RD+AL+LB(100)	100	5	100	1498
488	RP+RD+AL+LB(25)	100	5	100	1538
489	RP+RD+AL+LB(50)	100	5	101	1531
490	RP+RD+AL+LB(75)	100	5	100	1492
491	RP+RD+LB(100)	100	5	100	1566
492	RP+RD+LB(25)	100	5	100	1701
493	RP+RD+LB(50)	100	5	100	1655
494	RP+RD+LB(75)	100	5	100	1631
495	H	100	6	101	1484
496	H+TW	100	6	100	1787
497	H+TW+LB	100	6	100	1687
498	RP+RD(100)	100	6	100	1541
499	RP+RD(25)	100	6	100	1732
500	RP+RD(50)	100	6	100	1737
501	RP+RD(75)	100	6	100	1643
502	RP+RD+AL(100)	100	6	100	1441
503	RP+RD+AL(25)	100	6	100	1460
504	RP+RD+AL(50)	100	6	100	1426
505	RP+RD+AL(75)	100	6	102	1443
506	RP+RD+AL+LB(100)	100	6	105	1414
507	RP+RD+AL+LB(25)	100	6	100	1446
508	RP+RD+AL+LB(50)	100	6	101	1430
509	RP+RD+AL+LB(75)	100	6	100	1374
510	RP+RD+LB(100)	100	6	100	1518
511	RP+RD+LB(25)	100	6	100	1684
512	RP+RD+LB(50)	100	6	100	1645
513	RP+RD+LB(75)	100	6	100	1506
514	H	100	7	101	1372
515	H+TW	100	7	100	1643
516	H+TW+LB	100	7	100	1502
517	RP+RD(100)	100	7	100	1572
518	RP+RD(25)	100	7	100	1583
519	RP+RD(50)	100	7	100	1605
520	RP+RD(75)	100	7	100	1555
521	RP+RD+AL(100)	100	7	100	1356
522	RP+RD+AL(25)	100	7	100	1363
523	RP+RD+AL(50)	100	7	100	1364
524	RP+RD+AL(75)	100	7	100	1347
525	RP+RD+AL+LB(100)	100	7	100	1360
526	RP+RD+AL+LB(25)	100	7	101	1340
527	RP+RD+AL+LB(50)	100	7	100	1329
528	RP+RD+AL+LB(75)	100	7	100	1348
529	RP+RD+LB(100)	100	7	100	1528
530	RP+RD+LB(25)	100	7	100	1535
531	RP+RD+LB(50)	100	7	100	1467
532	RP+RD+LB(75)	100	7	100	1541
533	H	100	8	100	1384
534	H+TW	100	8	100	1519
535	H+TW+LB	100	8	100	1500
536	RP+RD(100)	100	8	100	1504

Table 1 continued from previous page

Number	Type	# req.	Scenario	time(s)	OFV
537	RP+RD(25)	100	8	100	1533
538	RP+RD(50)	100	8	100	1504
539	RP+RD(75)	100	8	100	1531
540	RP+RD+AL(100)	100	8	100	1477
541	RP+RD+AL(25)	100	8	100	1409
542	RP+RD+AL(50)	100	8	100	1440
543	RP+RD+AL(75)	100	8	100	1372
544	RP+RD+AL+LB(100)	100	8	100	1385
545	RP+RD+AL+LB(25)	100	8	100	1394
546	RP+RD+AL+LB(50)	100	8	100	1335
547	RP+RD+AL+LB(75)	100	8	100	1379
548	RP+RD+LB(100)	100	8	100	1447
549	RP+RD+LB(25)	100	8	100	1470
550	RP+RD+LB(50)	100	8	100	1491
551	RP+RD+LB(75)	100	8	100	1491
552	H	100	9	100	1543
553	H+TW	100	9	100	1763
554	H+TW+LB	100	9	100	1641
555	RP+RD(100)	100	9	100	1647
556	RP+RD(25)	100	9	100	1759
557	RP+RD(50)	100	9	100	1758
558	RP+RD(75)	100	9	100	1726
559	RP+RD+AL(100)	100	9	101	1419
560	RP+RD+AL(25)	100	9	100	1460
561	RP+RD+AL(50)	100	9	100	1438
562	RP+RD+AL(75)	100	9	101	1436
563	RP+RD+AL+LB(100)	100	9	100	1435
564	RP+RD+AL+LB(25)	100	9	100	1443
565	RP+RD+AL+LB(50)	100	9	100	1415
566	RP+RD+AL+LB(75)	100	9	101	1467
567	RP+RD+LB(100)	100	9	101	1544
568	RP+RD+LB(25)	100	9	100	1608
569	RP+RD+LB(50)	100	9	100	1612
570	RP+RD+LB(75)	100	9	100	1623

Table 1: Explicit results for all 570 instances. Note, that instance number 435 could not be solved and was excluded from all computational evaluations.