

P6 2009

Examiners' Comments

General

The P6 Paper for 2009 related to a car park building with simple structural features. The pass rate was 39%.

Candidates were required to identify the more important points for discussion and to apportion their time appropriately. As in previous years, those who were able to see the broader picture, the main contentious issues and their effect on the interplay between construction, validity and infringement, scored well. Those who plunged into the detail without pausing to determine the bigger picture generally did not do so well.

Candidates are advised to attempt a reasonably broad selection of past papers in their preparation for this examination, so as to gain experience of the differing kinds of problems raised and to practice the different techniques needed to tackle them.

Many candidates chose to provide diagrams in their answers and this can be very helpful. However, any drawings should preferably be labelled directly to reflect labels or terminology in a relevant document.

Overall, the construction, novelty and infringement aspects were reasonably well dealt with. However, a large number of candidates lost some relatively easy marks when they had found novelty or lack of infringement for claim 1 and then did not proceed to consider the sub-claims.

In general the inventive step and advice sections were particularly poor this year. Many candidates produced acceptable construction, novelty and infringement sections only to fail due to picking up no or only minimal marks for inventive step and advice. Problems with time management in some cases may have contributed to incomplete discussion of obviousness, and a hurried or absent advice section.

In a few cases the handwriting was so poor it could not be read. It is very difficult for Examiners to award marks in these cases.

As an indication of some possible pitfalls and how to avoid them, a selection of the Examiners' summaries of individual answer scripts is provided in an annex. (The Examiners mark according to a detailed schedule, but often provide comments summarising each answer script).

Construction (26.5 marks)

Although a separate construction section is used by most candidates (and the Courts), candidates were still awarded marks if the points of construction were included in the analysis of validity/infringement (or indeed elsewhere). A separate construction section may, however, assist in fostering a thorough and consistent approach.

Some candidates are still selecting terms, rather than construing them all. Each part of the claims must be interpreted; but some parts of the claims require more construction than others. Candidates who divided the complete claims into small phrases, identifying the many issues, generally gave the best answers.

Some candidates considered multiple constructions and, when done properly, this can demonstrate an appreciation of complex issues. Ultimately, however, candidates are encouraged to reach conclusions and to carry these conclusions through the remainder of the paper. Not doing so can lead the Examiner to think that the candidate does not have the required skills to evaluate the options and reach a conclusion. The best answers achieve an appropriate balance, which also saves valuable time in the exam room.

Many candidates construed the term "roadways" as not being part of claim 1. The best candidates worked out that what was required was for them consider not what the skilled man would think per se, but what the skilled man would think the patentee intended the claim to mean, i.e. to exclude roadways from claim 1 is not a sensible construction.

The best candidates kept in mind an appreciation of the potentially infringing articles and the prior art whilst writing the construction section, so as to be able to identify and devote the appropriate time to the contentious issues; but without allowing this knowledge to skew their construction. The following were possible points for discussion.

Claim 1 (19 marks)

"A parking garage"

A building or part of a building providing parking spaces for [road] vehicles. E.g. P7, LL17-20: "An ascending vehicle ... passes... until the vehicle reaches the desired floor/parking space." P6, LL6-7: "The parking garage of this invention minimises the distance travelled by vehicles within the garage building in order to reach or leave each parking space."

"including"

The following features must be present, without excluding the possibility of other features also being present

"at least two superimposed floors,"

At least two: exactly two, or more than two. Superimposed: one floor is above (and immediately next to, c.f. "superposed"?) another, and overlaps it to some extent in plan view: P6L15; Fig.2. "Floor" appears to be used in the sense of "storey", rather than "thing beneath your feet in a building" – see e.g. brief description of drawings and following paragraph. A "floor" may therefore be regarded as one of a number of substantially identical parts into which the building is divided along its vertical axis: see e.g. P5L9, "typical floor". The building therefore has a repeating pattern of "floors" in the vertical direction. The vertical start and end points for each floor might therefore be somewhat arbitrary, provided that they encompass substantially one repeat length. The claims may therefore accommodate division of the building of the specific embodiment into floors at points other than those shown in the drawings.

“each having traffic lanes”

Paths for movement of vehicles within the building. In the kind of parking garage described in Doc. B, vehicles are driven to and from the parking spaces under their own power, and there are therefore traffic lanes which extend over several floors [storeys]. The “traffic” is these moving vehicles.

“with parking spaces distributed along them,”

With parking spaces along their lengths: e.g. P6, LL27-28: “The galleries, roadways and crossover links are all provided with a one way lane for traffic movement, with parking spaces 26 leading off from it on one or both sides.” “Distributed” = spread out, apportioned more or less evenly.

“the lanes extending along three sides of a quadrilateral,”

Hence must there also be parking spaces along these three sides?

Can there be lanes along more than three sides of the quadrilateral, i.e. can there be lanes extending along the fourth side? In the specifically described embodiment, there are lanes on the fourth side of the quadrilateral, connecting with the floors above and below, i.e. lanes on the “roadways”, see below.

“and bounding a space for roadways”

The lanes form boundaries to a space in which the roadways are situated. Apparently, the boundaries need not be all that exact, as there are parking spaces between the traffic lane on the crossover link 20 and the adjacent space for roadways 18, 22. “Bounding” therefore means more like “surrounding” and not “exactly delimiting”. The traffic lanes define edge lines with respect to the roadway space, but not a complete envelope. The space is 3 dimensional (i.e. has a vertical dimension), as the roadways allow vehicles to ascend and descend between floors (see below).

In the specific description at P6LL23-25 it is the galleries and crossover link which are said to form three sides of a quadrilateral bounding a space for the roadways. However the galleries and crossover link are each shown as having a traffic lane along them, which also form three sides of a quadrilateral and surround a space for roadways leading from floor to floor (P6L27-P7L8 and Fig. 1).

This space could also include the region immediately adjacent to the fourth side of the quadrilateral: see claim 2 and P7LL6-7: one of the roadways may be located on the fourth side of the quadrilateral. Claim 2 also specifies a further roadway parallel to this, "within the rectangle" [which is probably a more specific form of the quadrilateral of claim 1: P7L8], but of itself this does not preclude the roadway on the fourth side from being within the space.

"Space for roadways" suggests roadways are not part of the claimed subject matter. But this conflicts with the dependent claims, e.g. 2 and 4 and roadways appear to be a necessary integer in allowing vehicles to move from floor to floor (see below).

"extending between opposite sides of the quadrilateral, allowing vehicles to ascend and descend from floor to floor."

Is it the roadways or the space which extends between opposite sides of the quadrilateral? Perhaps of little significance, as the roadways are contained within the space ("a space for roadways"). The purpose of the arrangement is to allow vehicles to ascend and descend from floor to floor. The vehicles travel from floor to floor on the roadways, and the roadways are in a space bounded by traffic lanes extending along three sides of a quadrilateral.

The opposite sides need not be opposite extremities of the quadrilateral, since in the illustrated embodiment the roadways terminate at the inner edges of the galleries. "Opposite sides" could therefore mean opposed parts of the quadrilateral on either side of an arbitrary dividing line, e.g. a centreline.

Roadways could be ascending and descending lanes in a single carriageway extending between floors/storeys.

The roadways must slope, for the vehicles to ascend or descend from floor to floor. Whether or not other parts of the floor slope is unspecified, and thus claim 1 arguably covers both possibilities. In the specifically described embodiment, only the roadways slope. The remaining parts of each floor (galleries, crossover link) are substantially level. Is this, together with the fact that only the roadways in claim 1 are specified as allowing any ascent/descent of vehicles, sufficient to support an inference that all other parts of the floor are substantially level? Is there a general

presumption that floors in buildings are substantially level unless there is a particular reason to make them sloping? Expert evidence.

As claimed, the roadways need not accommodate any parking spaces. In the illustrated embodiment, the roadways do have parking spaces and have traffic lanes along which these parking spaces are distributed.

Thus it is arguable that, at broadest, claim 1 covers and would be anticipated by a multi-storey car park structure having four cornered storeys or storey portions, and providing a generally spiral shaped path for vehicles to pass from storey to storey. Such a path can traverse three sides of each storey and transition between storeys on the fourth side. It is however also possible to argue for a narrower interpretation of claim 1.

Claim 2 – dependent on Claim 1 (3.5 marks)

“in which on each floor i) the traffic lanes form three sides of a rectangle,”

As noted above, the rectangle appears to be a more specific form of the quadrilateral defined in claim 1. The traffic lanes also *form* (i.e. make up) the three sides of this rectangle, rather than merely extending along those sides.

“and ii) there are two such roadways, one being located on the fourth side of the rectangle”

On each floor there are two such roadways [parts of the building storey allowing movement of vehicles between storeys], one on the fourth side.

“and the other being parallel thereto within the rectangle.”

The other of the two roadways is parallel to the one on the fourth side of the rectangle, but positioned inwardly of it so as to be within the rectangle.

Claim 3 – dependent on Claim 1 or Claim 2 (1.5 marks)

“in which each floor comprises a pair of parallel, level galleries connected by a level crossover link.”

As these parts are level, they apparently cannot comprise the roadways. Note, corresponding description “substantially level”, P6L21; “substantially horizontal and at the same level”, P8LL6-7. Their specified interconnection means that they could for example be C, H or Z shaped in plan view. In the specifically described embodiment they form a C shaped arrangement surrounding the space for the roadways and carrying the traffic lanes extending along the three sides of the quadrilateral, as defined in claim 1.

“Connected” does not necessarily imply directly connected, but “crossover link” points in this direction. Vehicles must at least be able to move from one gallery to the other across the link.

Claim 4 – dependent on Claim 3 (2.5 marks)

“in which one of the galleries is connected to one of the roadways extending towards it for ascending traffic and to another of the roadways extending towards it for descending traffic;”

Thus (at least) two roadways are connected to this gallery. “Towards” describes the direction of movement ascending and descending traffic relative to this gallery.

“the other gallery being connected to an outgoing roadway for descending traffic and an outgoing roadway for ascending traffic.”

Thus (at least) two roadways are connected to this gallery - “outgoing” describes the direction of movement ascending and descending traffic relative to this gallery (opposite to that of the other gallery). “Outgoing” with respect to the gallery, not (necessarily) car park.

Infringement (23 marks)

It is important that candidates give a conclusion as to whether a feature is present or not, and that sufficient reasoning is given to explain why the conclusion has been reached.

Surprisingly few candidates recognised that the “mirror image” embodiment described by the client requires consideration.

Claim 1 (13 marks)

“A parking garage”

Feature present. Client's design provides a building, or a part of the shopping centre building, providing parking spaces for road vehicles. A multi-storey car park (Doc A title) is a parking garage. E.g. final paragraph, P4, LL21-25 refers to parking spaces and parking of cars.

“including”

Feature present implicitly.

“at least two superimposed floors,”

Feature present. The drawings show several stories one above the other. P3, L9: “In our multi-storey car park design...” P3, L17 “Each floor...” => there are several. [There are also multiple floor slabs, i.e. things beneath your feet in the building, one above another]. The structure described and illustrated has identical floors one exactly above another.

“each having traffic lanes”

Feature present, e.g. P4, LL11-12: “Line 48 shows the general path cars would follow from floor to floor;”. The drawings also show paths (“traffic lanes”) allowing cars to reach all of the parking spaces on each floor. Also P3L17, P4L13.

“with parking spaces distributed along them,”

Feature present. Both the path defined by line 48 and the remaining paths shown in the drawings have parking spaces spread out along them.

“the lanes extending along three sides of a quadrilateral,”

The floors shown in the drawings form a quadrilateral (a rectangle) in plan view and as three of their edges are level (page 4, lines 6 and 7) these edge portions 15, 15a, 15b likewise form three sides of a quadrilateral. These edge portions have paths along them by which cars may reach or leave parking spaces – see Fig. 2 & e.g. P4LL22-23.

It is less clear that the path defined by the line 48 extends along three sides of a rectangle, although this is not beyond the bounds of possibility: the rectangle being defined by the parking areas on either side of the edges 29 and 44, the three sides then being the part of path 48 extending along the edge 15 and the two parts parallel in plan beside the central parking areas 56. [Note - clue to possible design around].

“and bounding a space for roadways”

The traffic paths along edges 15, 15a, 15b do bound a space in which floor areas are situated that allow cars to travel from one floor to the next [17, 17a, 17b; 20A, 20B.

It is difficult to see how the path 48 may bound a space for roadways as claimed, since it itself fulfils the requirement of the claimed roadways, in allowing traffic to pass from one floor to the next.

“extending between opposite sides of the quadrilateral, allowing vehicles to ascend and descend from floor to floor.”

The sloping edge portions 17 of each floor might satisfy the claimed requirements to be roadways (and indeed the warped areas 20A, 20B and traffic path defined by line 48), in that they extend between opposite sides of the quadrilateral constituted by each floor and they can play a part in allowing traffic to pass from floor to floor.

Conclusions

Claim 1 infringed by the illustrated embodiment. Claim 1 also infringed by the described alternative embodiment with mirror image addition (P3LL9-11)? The edges 15 (both of them), 15a, 15b would then be four sides of a quadrilateral and bounding a space for roadways. Hence infringement if "three" considered to mean "three or more". Also each floor can be broken down into two quadrilaterals, each of which satisfies claim 1.

Claim 2 (5 marks)

"in which on each floor i) the traffic lanes form three sides of a rectangle,"

Feature i) present. There are traffic lanes ("paths") on the edge portions 15, 15a, 15b which form three sides of a rectangle: see Fig. 2.

"and ii) there are two such roadways, one being located on the fourth side of the rectangle"

Sloping edge portions 17 arguably do form a roadway as defined in claim 1 (see above) and are located on the fourth side of the rectangular floor areas with respect to the three edge portions 15, 15a, 15b.

"and the other being parallel thereto within the rectangle."

However there is no second roadway within the rectangle parallel to the sloping edge portions 17. The central paths through the parking areas 55 shown in Fig. 2 (although parallel to sloping floor section 17 [and its traffic path]) do not extend between opposite sides of the quadrilateral defined by the edge portions 15, 15a, 15b [and their traffic paths] and therefore do not constitute roadways as defined in claim 1.

What if sloping floor area 17 carries two-way traffic? Two-way traffic is possibly suggested at P4LL12-13. Each lane of traffic might therefore constitute a "roadway", allowing vehicles to ascend and descend from floor to floor, and extending between opposite sides of each quadrilateral floor plan. These traffic lanes (if present) are parallel to each other, one at the fourth edge of the quadrilateral, and one inwardly

of that edge in a rectangular space bounded on three sides by traffic lanes on the edge portions 15, 15a, 15b. Hence this feature possibly present.

Conclusions

Claim 2 not infringed by the illustrated embodiment? Could be infringement if sloping edge portion carries two-way traffic. In the "mirror image addition" embodiment, it might be argued that there two parallel roadways on the adjacent sloping floor areas 17, one within a rectangle bounded on three sides by the level areas 15, 15a, 15b and their traffic paths, and the other forming the fourth side of that rectangle. Thus there is an argument that this embodiment infringes claim 2.

Claim 3 (3 marks)

"in which each floor comprises a pair of parallel, level galleries connected by a level crossover link."

The floor areas 15a, 15b (and their traffic paths) are parallel and level and are connected by floor area 15 (and its traffic path), which is also level: see Fig. 2 and e.g. page 4, lines 6 and 7.

Conclusions

Claim 3 is infringed to the same extent as claim 1 when dependent on claim 1, and to the same extent as claim 2 when dependent on claim 2.

Claim 4 (2 marks)

"in which one of the galleries is connected to one of the roadways extending towards it for ascending traffic and to another of the roadways extending towards it for descending traffic;"

Feature not present in the illustrated embodiment, as there is only one roadway. In the "mirror image addition" embodiment, the floor areas 15a, 15b (and their traffic paths) would constitute galleries as claimed. However, one gallery (floor area 15a, LHS Fig. 2, as modified) has a roadway 17 extending towards it for ascending traffic,

and another roadway 17 extending away from it for descending traffic. Hence feature not present.

Similarly if roadway 17 carries 2-way traffic, descending and ascending traffic will move in opposite directions with respect to a given gallery (edge area 15a or 15b).

“the other gallery being connected to an outgoing roadway for descending traffic and an outgoing roadway for ascending traffic.”

Likewise in the mirror image embodiment, the other floor area 15b (RHS Fig. 2, as modified) has an *incoming* roadway for descending traffic and an outgoing roadway for ascending traffic. Hence feature not present.

Conclusions

Claim 4 not infringed by either embodiment.

Novelty (24.5 marks)

Some candidates considered novelty and inventive step claim-by claim. This is perfectly acceptable, but the more thorough approach (used by the majority) is to consider novelty first and then inventive step. The order in which prior art documents C and D are considered does not matter. Another approach (used below) is to consider the claims element-by-element against documents C and D together. The two approaches can be combined in tabular form but, when doing so, candidates should still ensure that sufficient reasons are given as to whether or not a given element is or is not disclosed by the document concerned.

When discussing novelty, selecting the main points for discussion does not mean only commenting on any single feature of a claim that is missing from the cited art. This risks missing out on the majority of allocated marks.

In order to obtain the maximum number of marks all features of the claims should be considered, rather than stopping as soon as one feature have been found not to be present.

A surprising number of candidates construed the parking garage of claim 1 to include the cargo ship of Doc D. On a reasonable construction this cannot be what the patentee intended. Even to assert that the warehouse of Doc D is a parking garage is controversial; although similarities between the two will be relevant when discussing inventive step.

Below is a table summarising the points for consideration with regard to novelty.

CLAIM 1 (13 marks)

| | Doc C | Doc D |
|-----------------------------------|--|---|
| A parking garage | Disclosed. E.g. P11L5. A multi-storey car park is a car park building, i.e. parking garage. | Not disclosed. Relates to cargo ships and warehouses: P13LL5-6. |
| including | Implicit | Implicit |
| at least two superimposed floors, | Disclosed. <i>Id.</i> "Multi-storey" suggests superimposed floors, and these are indeed shown in the drawings. | Disclosed. Decks or floors at different levels, yes – see P13,L8 and LL13-17, for example: "upper" and "lower". The decks/floors are mostly shown and described as being in stepped relation, i.e. one next to the other in plan view, with their edges juxtaposed: P13LL17-19. P13LL21-22 states that the flat portion of the deck 2 may continue forwardly to overhang the flat portion of the deck 1; i.e. these flat deck portions are superimposed. P14L1: the decks may form part of a larger series, but it is not clear how this series is formed. E.g. all decks might be stepped, like 1 and 2; in which case not "superimposed". |
| each having traffic lanes | Disclosed. P9LL18-19: tracks on floor portions. | Cargo handling vehicles such as forklifts or pallet trucks are disclosed (P13L28) which perhaps makes traffic lanes on the decks implicit, to allow the cargo handling vehicles to move amongst the cargo. The disclosed ramp structure itself arguably carries a traffic lane having parts present in each of the disclosed floors/decks. No fixed or permanently demarcated lanes for the cargo handling vehicles are |

| | | |
|---|--|--|
| | | disclosed, though. |
| with parking spaces distributed along them, | Probably disclosed: P11L21: "Parking spaces are provided both within the tracks and outside them". Not explicitly shown/stated, but the parking spaces are likely to be spread out along the lengths of the tracks. | Parking spaces not disclosed. Flat and gently sloping area may be used for parking (space for parking) even if no parking spaces designated/demarcated as such? |
| the lanes extending along three sides of a quadrilateral, | Probably disclosed. The building is generally rectangular in plan, as shown in Fig. 1. The lanes do extend next to three sides of the rectangle on a given storey, and transition between storeys on the fourth side. Only the portions 2, 3, 4 of these lanes are level (P11LL16-18). So if claim 1 is construed as implicitly requiring parts of each storey other than the roadways to be substantially level, this feature is not disclosed. | Not explicitly disclosed, although if the deck areas 1, 2 are each generally rectangular with a network of traffic lanes for movement of cargo handling vehicles, those lanes could extend along three sides of a quadrilateral. |
| and bounding a space for roadways | Probably disclosed. The tracks around three sides of each storey bound a space for further tracks. | Traffic lanes on the flat deck parts are not explicitly disclosed: see above. |
| extending between opposite sides of the quadrilateral, allowing vehicles to ascend and descend from floor to floor. | The further tracks in this space (e.g. on the floor portions 1, 7 shown in solid lines in Fig. 2 and the part of floor portion 4 connecting these) do allow vehicles to ascend from and descend to an adjacent storey. These interconnected floor portions do extend to either side of a centre line of the storey concerned, and indeed from one side of the storey to the other between the level portions 2, 3, in similar manner to the roadways 16, 18, 22, 24 between the galleries 12, 14 in the illustrated embodiment in Doc. B. Thus this feature is arguably disclosed. | However the ramp structure does form a space for roadways extending between opposite sides of a quadrilateral formed by the two decks 1, 2 and allows vehicles to ascend and descend between the decks 1, 2. |

Conclusion - Claim 1 arguably old in view of Doc. C, unless construed narrowly such that only the roadways slope. Claim 1 new in view of Doc D (which does not relate to car parks) but there are a number of similarities between the ramp structure disclosed in D and

- i) the parking garage structure defined in claim 1 of Doc. B
- ii) the parking garage structure described in Doc. A.

CLAIM 2 (4.5 marks)

Dependent on claim 1.

| | | |
|---|---|-------------------------------|
| <p>in which on each floor i) the traffic lanes form three sides of a rectangle,</p> | <p>The tracks as shown are only very approximately rectangular, being more like a figure of eight in plan view. Feature probably not disclosed.</p> <p>But figure may be schematic. In practice, parking spaces could be laid out in a rectangular grid, making the traffic lanes more rectangular than shown. Evidence of car parks actually built to this design before priority date of Doc B?</p> | <p>Feature not disclosed.</p> |
| <p>and ii) there are two such roadways, one being located on the fourth side of the rectangle</p> | <p>There is a roadway located generally parallel to the fourth side of the rectangular floor plan (and therefore perhaps on one side of a notional rectangle),</p> | <p>Feature not disclosed.</p> |
| <p>and the other being parallel thereto within the rectangle.</p> | <p>But there is no other roadway parallel to this. Feature not disclosed.</p> | <p>Feature not disclosed.</p> |

Conclusion - Claim 2 new in view of Doc. C. New in view of Doc D by dependency and by added features.

CLAIM 3 (3 marks)

Dependent on claim 1 or 2.

| | | |
|---|---|---|
| <p>in which each floor comprises a pair of parallel, level galleries connected by a level crossover link.</p> | <p>The floor spaces 2, 3 do form parallel, level galleries, but there is no level crossover link. The only other level part on each storey is the floor space 4, which does not connect spaces 2 and 3.</p> | <p>Feature disclosed? P13L31-P12L1: galleries are opposite sides of the flat part of each deck the crossover links being the flat edge regions at A and B respectively; Unless features construed narrowly as requiring demarcated traffic lanes as described P6LL28-29 with respect to the drawings.</p> |
|---|---|---|

Conclusion - Claim 3 is new with respect to Doc. C. New with respect to Doc D (by dependency).

CLAIM 4 (4 marks)

Dependent on claim 3.

| | | |
|---|---|-------------------------------|
| <p>in which one of the galleries is connected to one of the roadways extending towards it for ascending traffic and to another of the roadways extending towards it for descending traffic;</p> | <p>Claim 4 new by virtue of its dependency on claim3. Floor space 4 is connected to a floor portion 7 extending towards it for ascending traffic and to a floor portion 1 (at the top right hand side of Fig. 2) extending towards it for descending traffic,</p> | <p>Feature not disclosed.</p> |
| <p>the other gallery being connected to an outgoing roadway for descending traffic and an outgoing roadway for ascending traffic.</p> | <p>but there are no other level floor parts with more than one track either leading towards it or away from it. Floor spaces 2, 3 each just have one track leading towards them, and one away.</p> | <p>Feature not disclosed.</p> |

Conclusion - Claim 4 new over Docs. C and D by virtue of its dependency and in its own right.

Inventive Step (15 marks)

There were marks available for discussion of inventive step of each of the claims. Marks are awarded for selecting a suitable starting point and applying the analysis.

One should exhibit extreme caution before advising a client that a patent is invalid because the subject matter is obvious over prior art. It is very easy, with the wisdom of hindsight, to miss counter-arguments. One should put oneself in the position of the patentee and consider what arguments might be put forward to support patentability. However technically simple the subject matter may appear, a finding of obviousness should seldom be reached without consultation with a skilled person.

In general inventive step was very poor this year. Many candidates wrote several pages stating that the skilled man would not have any motivation to combine Doc C and Doc D, but without any logical arguments as to why not. This is formulaic and not likely to be awarded many marks.

The following discusses points for consideration.

If claim 1 is considered new over C because there are no lanes extending along three sides of a quadrilateral [tracks figure-of-eight shaped with rounded ends and crossover section in the middle, not quadrilateral; tracks centred on two rectilinear wall structures 5, 6, not around anything quadrilateral]:

A car park floor plan is dictated by the size of the site. Is there any evidence that doc C car parks have been built on various different sites e.g. a "shorter, fatter" site, making the walls 5, 6 shorter and the tracks more rectangular/quadrilateral? Or larger, squarer sites where there will be more than one row of cars on one or both sides of the tracks, where they run parallel to the wall structures 5, 6; perhaps necessitating more than one track section to either side of the wall structures, running parallel to each other and to the wall structures? Again the outermost of these tracks could more closely follow three sides of the quadrilateral floor plan, with tracks at the fourth side still connecting with adjacent floors. Therefore obvious to modify the Doc C structure to provide track configuration and storey configuration as defined in claim 1? This could also provide the parallel-roadways-within-space-bounded-along-3-sides-by-traffic- lanes structure of claim 2; however all somewhat speculative without further evidence.

There is nothing in C to suggest a level crossover link directly connecting parallel level galleries as required by claim 3. The sloping portions 1, 7 between the "galleries" 2, 3, 4 appear fundamental to the structure of C in providing the "adjacent, interconnected, ascending and descending one-way helicoidal tracks", P11LL6-7.

Would a designer of car parks be expected to be aware of Doc D? Possibly – architects design many types of buildings, perhaps extending to car parks and warehouses. There are similarities between the two in terms of function: a car park is a warehouse for cars. As a sanity check, ask client about the breadth of his practice and that of his peers.

Also under problem and solution approach to inventive step, client is concerned "to provide gently sloping ramps for traffic. The shallow gradients avoid the need for narrow ramps connecting the floors and make driving and manoeuvring easy. This is important as a large number of drivers damage their cars on narrow ramps in car parks" P3LL10-13. Hence he would look to disclosures concerning the design of ramps in buildings for the solution to his problems of efficient space utilisation and easy ramp navigability, leading him to Doc D: "This invention concerns inclined ramp-like structures for connecting together decks or floors at different levels in the cargo hold of a ship or in a warehouse." P13LL5-6; "Cargo handling vehicles such as forklifts or pallet trucks may enter or exit the ramp structure in substantially any direction, as indicated by the arrows 5, 5'... Shallow slopes also allow cargo to be stacked on the ramp structure itself, making efficient use of the hold or warehouse space." P13LL28-34.

Doc D discusses stepped decks or floors, e.g. P13L13, and that is what is shown in the drawings. It also states that the two decks or floors illustrated may form part of a larger series: P14L1. A straightforward way of producing such a series is to add another ramp and deck/floor to one or other or both of the free floor edges opposite to the ramp shown in the drawings. This will produce a larger series of stepped floors. However such a series is not very compact, and therefore perhaps not all that useful in a warehouse or cargo ship (or even a car park).

Doc D also discloses that "Although such is not shown in the drawings, the flat portion of the deck 2 may continue forwardly to overhang the flat portion of the deck 1" (P13LL21-22). Such a deck portion could be provided with a further ramp structure identical to and directly above the one illustrated, connecting to a third deck directly

above deck 2. This would provide a more compact structure than the “stepped” series of floors previously described. However, is such a structure obvious from the disclosure of D? If it is a simple modification of the structures actually described, with clear advantages over these, why did the authors of D not describe it? Too trivial to bother with, or beyond their comprehension? Is there evidence (e.g. from client's uncle or other expert) that compact structures with multiple superimposed decks or floors have in fact been used?

If such warehouses are in fact previously known or disclosed by or obvious from D, then they cannot be validly covered by the claims of B, since what is old or obvious cannot be patented. The compact structure just described, is substantially identical to the client's design with mirror image addition as specifically described and illustrated in Doc. A, apart from the parking space and traffic lane markings. The half on either side of the centre lines AB, in Fig.1 of Doc D, is almost identical to the client's illustrated design. Because all floors would be accessible by wheeled traffic (see D P13LL28-30), it is arguably obvious to use such a warehouse building as a car park. As traffic must pass from floor to floor, arguably it would be routine to provide lane markings on the ramp structures, were such a warehouse building to be used as a car park. Similarly, there must be access to all parking spaces. So if there are parking spaces distributed around the edges of each floor of the building, it is arguably obvious to mark out traffic lanes next to these around the edges of each floor. The resulting car park building would be almost identical to the client's mirror image addition design, which is arguably therefore an obvious development from the disclosure of Doc D and thus unpatentable. So each of the steps from the disclosure of D to the client's designs might be seen as obvious, but there are several of them... greater risk that a Court might not agree with this analysis.

The ramp structures of D could be used in the car park of C in place of the floor portions 1 and 7. But the resulting building would not resemble the illustrated embodiment of B any more closely than the unmodified disclosure of C. E.g. still no [separate] parallel roadways per B claim 2; no level galleries connected by a level crossover link per B claim 3 (or substantially level traffic lane along tree sides of a quadrilateral if such is considered an implicit requirement of B claim 1), and no roadway/gallery connections and traffic flow directions per B claim 4.

C does not strongly suggest providing superimposed (rather than stepped) decks/floors when constructing the “larger series” mentioned at D P14L1. Although the floor portions 2 (and 3, 4) in C are vertically aligned, the sets of level floor portions

2, 4 and 3, 4 making up the two helicoidal traffic tracks are stepped relative to each other.

Amandment (2 marks)

One possible amendment is to combine claims 1 and 3 as this provides novelty and arguably inventive step over C, whilst still being infringed by car parks described in A.

Combining claims 1 and 4 also gives novelty over C, but is less clearly infringed.

Neither amendment improves patentee's position against the client's possible "Gillette defence" based on D.

Sufficiency (1 mark)

No issues.

Advice (8 marks)

In this section of the paper marks are awarded for summarising conclusions and giving general advice.

In many cases advice was formulaic, generally revolving around advising that the client might be sued, so a licence should be taken as a first action; this was despite stating that Doc B was invalid.

Only a small number of candidates realised the possible relevance of Doc D as a Gillette defence.

Many candidates were not sure whether Doc D was the arrangement referred to by the client in his letter. All conclusions are accepted if supported by reasoned argument.

Many candidates suggested filing a patent application for the client's design, even though it appears the information has already been disclosed.

The following could/should be mentioned to the client:

Design-around. Change traffic lane layout to avoid lanes along three sides of a quadrilateral. Building is not complete, so no direct infringement yet. Putting paint in a different place is not expensive and is easy to do, although the resulting traffic circulation arrangement might not be as user-friendly e.g. lanes right next to the edges 29, 44 and a radial layout serving the rest of each floor.

Who is a direct infringer? As a project manager, is A Tech performing an infringing act?

Talk to Mr Hall, pointing out invalidity over A, non-infringement of modified lane layout and Gillette defence based on D.

Declaration of non-infringement of modified layout, if Mr Hall will not back down.

The letter from Albert Hall is not a threat. "Mere notification"

Request IPO opinion for infringement and/or validity. What benefit would this give?

Annex – the “real” Examiners’ Comments

Good pass.

Ran out of time. Infringement excellent – one of the few to do mirror image embodiment.

Very good all-round. Would have been even higher but for one point of constructions that affected infringement and novelty. Advice good.

Good construction, but seemed to rush the rest.

Difficult to read. Infringement OK. Construction poor, especially dependent claims.

Shame – good construction and infringement, but ran out of time on other sections.

Construed quadrilateral as “square” so subsequently got into a pickle. Advice very poor and flip-flopping.

Construction and novelty good. Infringement patchy. Inventive step just waffle.

Generally just too many mistakes.

Confused novelty of Doc C and lost a lot of marks.

Good construction, but everything else rushed.

Infringement really good. Ran out of time from inventive step onwards, but good overall.

Didn't construe all terms, leading to problems with infringement and novelty.

Excellent – even inventive step done well!

Good. Construction great. Infringement and novelty good. Inventive step waffly.

Most sections OK. Inventive step poor and advice section light on advice.

Construction of C&D not consistent with construction of A. Inventive step and advice poor.

Good construction and infringement. No real inventive step arguments. Advice very woolly and non-committal.

Good but muddled with C&D at times. Great pics though!

Brilliant!

Lost marks for not considering sub-claims. Not enough detail about the important points.

Clearly ran out of time. Pretty good otherwise.

Missed out on sub-claim marks.

Picked up marks almost everywhere.

Handwriting very difficult to read. Missed out on consideration of Claim 4.

Construction lacked detail.

Overall was OK but took curious decision re lanes in construction. Was consistent though.
