

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE OFFICE OF THE UNDER SECRETARY OF COMMERCE
FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE
UNITED STATES PATENT AND TRADEMARK OFFICE

NEARMAP US, INC.,
Petitioner,

v.

EAGLE VIEW TECHNOLOGIES, INC.,
Patent Owner.

IPR2022-00734
Patent 9,135,737 B2

Before KATHERINE K. VIDAL, *Under Secretary of Commerce for
Intellectual Property and Director of the United States Patent and
Trademark Office.*

DECISION
Vacating the Final Written Decision and
Remanding to the Patent Trial and Appeal Board Panel
for Further Proceedings

I. INTRODUCTION

Nearmap US, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1, 6, 7, 9, 10, 16, 17, 25, 26, and 34 (“the challenged claims”) of U.S. Patent No. 9,135,737 B2 (Ex. 1001, “the ’737 patent”). On November 1, 2022, the Board instituted an *inter partes* review (Paper 10), and on October 27, 2023, the Board issued a Final Written Decision (Paper 39, “Final Dec.”). The Final Written Decision determined that, based on the strength of Patent Owner’s evidence of secondary considerations of nonobviousness (“secondary considerations”)¹, Petitioner failed to show by a preponderance of the evidence that the challenged claims were unpatentable as obvious. Final Dec. 17.

On November 27, 2023, Petitioner filed a request for Director Review. Paper 40 (“Request” or “Reh’g Req.”). In the Request, Petitioner argues that the Board failed to resolve disputed claim constructions, which affected the Board’s analysis of secondary considerations. Reh’g Req. 2–12. Petitioner also argues that the Board addressed secondary considerations only, and failed to “explain *how* it weighed the other *Graham* factors and *why* secondary considerations purportedly outweighed them.” *Id.* at 14–15.

On December 21, 2023, I granted Director Review. Paper 42.

¹ In adopting the parties’ use of the term “secondary considerations of nonobviousness” (also used in both *Graham v. John Deere Co.*, 383 U.S. 1 (1966) (“*Graham*”) and *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007)) as opposed to the alternative “objective indicia of nonobviousness,” I am not suggesting that the considerations be given any less weight than that demanded by *Graham*, *KSR*, and their progeny. It is not that I believe the considerations were given too much weight here; it is merely that the opinion lacked sufficient analysis.

For the reasons set forth below, I vacate the Board's Final Written Decision and remand to the Board for further proceedings consistent with this Decision.

II. BACKGROUND

The '737 patent relates to a roof estimation system that provides a user interface configured to facilitate roof model generation based on one or more aerial images of a building roof. Ex. 1001, code (57). Of the challenged claims, claims 1, 16, and 26 are independent. The Board noted that independent claim 1 is representative and it is reproduced below:

1. A computer-implemented method in a roof estimate report system including at least one processor and a memory coupled to the at least one processor, the method comprising:

displaying, by the at least one processor of the roof estimate report system, a plurality of aerial images of a roof at the same time, each of the aerial images providing a different view, taken from a different angle of the same roof;

displaying, by the at least one processor of the roof estimate report system, respective line drawings representing features of the roof, the respective line drawings overlying a first and a second aerial image of the plurality of aerial images of the roof, the line drawing overlying the first aerial image of the roof having features in common with the line drawing overlying the second aerial image of the roof;

in response to user input, changing, by the at least one processor of the roof estimate report system, the line drawing representing a feature of the roof that overlies the first aerial image of the roof;

in response to the changing, making corresponding changes, by the at least one processor of the roof estimate report system, to the line drawing overlying the second aerial image; and

generating and outputting a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building.

Ex. 1001, 23:55–24:19; Final Dec. 4.

The Petition raised two grounds of unpatentability. Final Dec. 5. First, Petitioner asserted that the challenged claims would have been obvious over the combination of Heller² and Quam³ – two individual references that describe the same RADIUS system. *See, e.g.*, Pet. 12–19. Second, Petitioner asserted that the challenged claims would have been obvious over the combination of Heller, Quam, and Deaton.⁴ *See, e.g.*, Pet. 50–52.

Petitioner asserts these two grounds in the alternative to account for the possibility that the Board might give patentable weight to the claim language “wherein the roof estimate report includes numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building,” as recited in independent claim 1 and as similarly recited in other independent claims. *See id.* at 53 (“[T]o the extent this limitation is found to

² Heller, “The Site-Model Construction Component of the RADIUS Testbed System,” in Proceedings: ARPA Image Understanding Workshop (1997) (Ex. 1004, “Heller”).

³ Quam, “The RADIUS Common Development Environment,” in RADIUS: Image Understanding for Imagery Intelligence (1997) (Ex. 1005, “Quam”).

⁴ Deaton et al., US 2006/0235611 A1, published Oct. 19, 2006 (Ex. 1006, “Deaton”).

be entitled to patentable weight, it is nonetheless rendered obvious by the Heller-Quam-Deaton combination.”).

Petitioner argued that this limitation should not be given patentable weight, consistent with the Board’s prior construction of this claim language in an earlier proceeding. *See* Pet. 6–11 (citing *Xactware Solutions, Inc. v. Eagle View Technologies, Inc.*, IPR2016-00592, Paper 50 at 15–18 (PTAB Aug. 25, 2017)). Petitioner submitted that, if the phrase is *not* given patentable weight, then the combination of Heller and Quam teaches or suggests all of the claim limitations. In the alternative, Petitioner argues that if the limitation is given patentable weight, then Deaton teaches or suggests this portion of claim 1 above. *See id.* at 33–35 (no patentable weight), 50–55 (patentable weight).

In its response, Patent Owner argued the claim language “generating and outputting a roof estimate report using a report generation engine” and “wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building,” as recited in independent claim 1 and in other independent claims, should be afforded patentable weight. Patent Owner’s Response (Paper 15) 11, 13, 15. Patent Owner argued that neither of the asserted combinations of prior art discloses the disputed portions of claim 1 under Patent Owner’s proposed construction. *See id.* at 11–15, 25–30.

Patent Owner did not make any further argument regarding the challenge based on the combination of Heller and Quam. *Id.* at 21–27. As for the combination that includes Deaton, Patent Owner further argued that there would have been no motivation to combine Heller and Quam with Deaton. *Id.* at 30–35. Finally, Patent Owner also presented evidence of secondary considerations of nonobviousness. *See id.* at 36–63.

In the Final Written Decision, the Board did not address the parties' claim construction disputes. Rather, the Board summarized Petitioner's arguments and evidence regarding both asserted grounds of unpatentability and indicated that it considered them. Final Dec. 8–9. The Board did not otherwise discuss or evaluate Petitioner's unpatentability showing under either combination of prior art references. *Id.*

The Board then analyzed Patent Owner's arguments and evidence of secondary considerations of nonobviousness. Final Dec. 10–16. The Board found that Patent Owner was entitled to a presumption of a nexus and that Petitioner had failed to rebut that presumption. *Id.* at 10–13. The Board considered Patent Owner's evidence of commercial success and industry praise and found that both weighed against Petitioner's obviousness challenge. *Id.* at 13–15. The Board stated:

Even accepting Petitioner's contentions regarding what the prior art teaches and why one skilled in the art would have combined the references in the way Petitioner proposes, we are persuaded that Patent Owner's contentions as to secondary considerations of nonobviousness outweigh Petitioner's obviousness contentions. Thus, Petitioner has not met its burden given the strength of Patent Owner's contentions as to secondary considerations of non-obviousness.

Id. at 16. The Board also explained that it was “unnecessary to address” the parties' arguments regarding the prior art because “we find secondary considerations are decisive as to obviousness, even accepting Petitioner's contentions regarding what the prior art teaches and why one skilled in the art would have combined the references in the way Petitioner proposes.” *Id.*

III. ANALYSIS

Obviousness is a question of law based on underlying findings of fact. *In re Kubin*, 561 F.3d 1351, 1355 (Fed. Cir. 2009). The underlying factual

inquiries include: (1) the scope and content of the prior art, (2) the differences between the prior art and the claims at issue, (3) the level of ordinary skill in the art, and (4) any relevant secondary considerations, such as commercial success, long felt but unsolved needs, and the failure of others. *Graham*, 383 U.S. at 17–18. “[T]he strength of *each* of the *Graham* factors must be weighed in every case and must be weighted en route to the final determination of obviousness or non-obviousness.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016).

Certainly, the case law is clear that evidence of secondary considerations of nonobviousness *must* be considered when present. *See WBIP*, 829 F.3d at 1328 (citing *Transocean Offshore Deepwater Drilling Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012)). Secondary considerations “serve to guard against slipping into use of hindsight, and to resist the temptation to read into the prior art the teachings of the invention in issue.” *Graham*, 383 U.S. at 36 (internal citations omitted). Although secondary considerations must be considered, they do not alone control the obviousness conclusion. *See Asyst Techs., Inc. v. Emtrak, Inc.*, 544 F.3d 1310, 1316 (Fed. Cir. 2008) (citing *Newell Cos. Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988)). “A determination of whether a patent claim is invalid as obvious under § 103 requires consideration of all four *Graham* factors, and it is error to reach a conclusion of obviousness until all those factors are considered.” *WBIP*, 829 F.3d at 1328.

I determine that the Board did not provide adequate reasoning to support its conclusion of nonobviousness, nor did it adequately address the disputed issues. In its Final Written Decision, the Board presented a summary of Petitioner’s contentions and indicated that the Board considered

Petitioner's contentions and evidence in reaching the ultimate conclusion of nonobviousness. However, the Board did so without providing any analysis or explanation to convey its reasoning. Final Dec. 8–9, 15–16. For example, the decision states that, “[e]ven accepting Petitioner’s contentions,” the Board was “persuaded that Patent Owner’s contentions as to secondary considerations of nonobviousness outweigh Petitioner’s obviousness contentions.” Final Dec. 16. However, I find that the Board insufficiently explains and supports its determination because it does not make appropriate findings as to the weight given to secondary considerations and does not explain the claim construction underlying the obviousness analysis. *See id.*

In particular, Petitioner contended that the following portion of claim 1 (and related claims) was not entitled to patentable weight: “wherein the roof estimate report includes numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building.” *See* Pet. 6–11. I agree with Petitioner that it is unclear whether the Board “accept[ed]” the construction proposed by Petitioner and whether the Board applied that same construction in its analysis of secondary considerations. Final Dec. 16; Reh’g Req. 2–8. Importantly, whether to give patentable weight to this claim language was disputed by the parties, as summarized above, and resolution of this claim construction issue is necessary to further resolve the asserted grounds of unpatentability and Patent Owner’s argued secondary considerations. *See Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (“In order to accord substantial weight to secondary considerations in an obviousness analysis, ‘the evidence of secondary

considerations must have a “nexus” to the claims, i.e., there must be “a legally and factually sufficient connection” between the evidence and the patented invention.”).

Here, the Board’s decision is incomplete because it credits Patent Owner’s evidence of secondary considerations as “outweigh[ing] Petitioner’s obviousness contentions” without resolving necessary and disputed issues that impact this determination. Final Dec. 16. Because the Board did not resolve disputes between the parties over the scope of the claims, and did not explain the reasoning it applied in reaching its ultimate conclusion of nonobviousness, the Board’s decision sets forth an insufficient analysis of the *Graham* factors.⁵

Further, when the Board weighs evidence of secondary considerations of nonobviousness against the other *Graham* factors, it should explain how and why it assigns a weight to each component of its analysis. *See Volvo Penta of the Americas, LLC v. Brunswick Corp.*, 81 F.4th 1202, 1213 (Fed. Cir. 2023) (“[T]he Board’s analysis of objective indicia of nonobviousness, including its assignments of weight to different considerations, was overly vague and ambiguous.”). The Board’s decision lacks such an explanation.

Accordingly, I vacate the Board’s Final Written Decision and remand for further proceedings. On remand, the Board shall set forth the claim construction it applies to the claim language argued by the parties⁶ and shall provide a full analysis sufficient to satisfy all *Graham* factors.

⁵ The Board need not reach an express claim construction every time the parties raise a claim construction dispute. But where that dispute materially affects the Board’s determinations, it is necessary to resolve the dispute.

⁶ The Board is free to adopt a construction different from that in the earlier *inter partes* review challenging the ’737 patent but, if it does, it must provide reasoning to explain why.

IV. CONCLUSION

I vacate the Board's Final Written Decision and remand to the Board to proceed consistent with this Decision.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Board's Final Written Decision is vacated; and

FURTHER ORDERED that the case is remanded to the Board for further proceedings consistent with this Decision.

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