

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOBILEYE GLOBAL, INC., and
ZF ACTIVE SAFETY AND ELECTRONICS US LLC¹

Petitioners

v.

FACET TECHNOLOGY CORP.,
Patent Owner

Inter Partes Review No. IPR2024-01111
U.S. Patent No. 9,671,328

**PATENT OWNER'S REQUEST FOR DIRECTOR REVIEW
OF THE FINAL WRITTEN DECISION
(37 C.F.R. § 42.75)**

¹ ZF Active Safety and Electronics US LLC, which filed a petition in IPR2025-00749, has been joined as a petitioner in this proceeding.

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ARGUMENT	2
A.	THE BOARD FAILED TO FAITHFULLY APPLY THE DIRECTOR’S PRIOR RULING REQUIRING THE REJECTION OF SELF-CONTRADICTORY TESTIMONY AND ARGUMENTS	2
1.	Petitioner and Its Expert Made Facially Inconsistent Statements Regarding Gallagher’s Location Functionality	3
2.	The Board Abused its Discretion by Unilaterally Recharacterizing Dr. Thorpe’s Testimony	5
B.	THE BOARD DISREGARDED GALLAGHER’S FAILURE TO DISCLOSE A SYSTEM THAT DETECTS OBJECTS OF INTEREST AND MAKES A DETERMINATION AS TO WHETHER <i>EACH</i> OBJECT IS A ROAD MARKER	9
1.	Gallagher Discloses a Single-Step System for Identifying Road Markers	10
2.	The Board Failed to Find That The “determine” Steps Are Performed “for each object of interest”	11
3.	Adopting the Board’s Erroneous Claim Construction Ruling Cannot Cure Its Failure to Make any Finding Regarding the “for each object of interest” Limitation	14
III.	CONCLUSION	15

TABLE OF AUTHORITIES

Cases

<i>Bicon, Inc. v. Straumann Co.</i> , 441 F.3d 945 (Fed. Cir. 2006).....	16
<i>EmeraChem Holdings, LLC v. Volkswagen Grp. of Am., Inc.</i> , 859 F.3d 1341 (Fed. Cir. 2017)	13
<i>Graham v. John Deere Co. of Kansas City</i> , 383 U.S. 1 (1966).....	9
<i>In re Spormann</i> , 363 F.2d 444 (CCPA 1966)	7
<i>Interactive Communications International, Inc. v. Blackhawk Network Inc.</i> , IPR2024-00465, Paper 40 (Director Oct. 9, 2025).....	3, 5, 8
<i>Mantech Env't Corp. v. Hudson Env't Servs., Inc.</i> , 152 F.3d 1368 (Fed. Cir. 1998)	15
<i>SAS Institute Inc. v. Iancu</i> , 584 U.S. 357 (2018).....	12

Regulations

37 C.F.R. § 42.104(b)(4).....	12
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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Exclusive Patent License Agreement between Facet Technology Corp. and Mandli Communications, Inc. (and patent assignment coversheet), recorded at Reel No. 062371, Frame 0313
2002	Statutory Disclaimer of certain claims filed in file wrapper of U.S. Patent No. 9,671,328
2003	U.S. Provisional Patent Appl. No. 60/296,596
2004	Docket Control Order filed in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2005	Excerpts from U.S. District Court — Judicial Caseload Profile (2024 Ed.), <i>available at</i> https://www.uscourts.gov/file/78884/download
2006	Complaint Filed in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2007	Cover Pleading to Plaintiff's Disclosure Of Asserted Claims And Infringement Contentions, as served on August 26, 2024 in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2008	Cover Pleading to Defendant's Invalidity Contentions, as served on November 4, 2024 in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2009	Intentionally Omitted
2010	Intentionally Omitted
2011	Intentionally Omitted
2012	Intentionally Omitted
2013	Intentionally Omitted
2014	Intentionally Omitted

Exhibit	Description
2015	Plaintiff Facet Technology Corp.'s Opposed Motion For Leave To Join Additional Parties, filed as Dkt. No. 32 in <i>Facet Technology Corp. v. Mobileye Global, Inc.</i> , Case No. 2:24-cv-00058-RWS-RSP (E.D. Tex.).
2016	Defendant Mobileye Global, Inc.'s Opposition To Facet's Motion For Leave To Join Additional Parties, filed as Dkt. No. 35 in <i>Facet Technology Corp. v. Mobileye Global, Inc.</i> , Case No. 2:24-cv-00058-RWS-RSP (E.D. Tex.).
2017	Complaint For Declaratory Judgment Of Noninfringement And Demand For Jury Trial, filed as Dkt. No. 1 in <i>Mobileye Vision Technologies Ltd. et al v. Facet Technology Corp.</i> , Case No. 0:24-cv-04149-NEB-DLM (D. Minn.)
2018	Complaint for Patent Infringement, filed as Dkt. No. 1 in <i>Facet Technology Corp. v. General Motors LLC</i> , Case No. 2:24-cv-00035-RWS-RSP (E.D. Tex.)
2019	Docket Control Order, filed as Dkt. No. 22 in <i>Facet Technology Corp. v. General Motors LLC</i> , Case No. 2:24-cv-00035-RWS-RSP (E.D. Tex.)
2020	Mobileye, "Fact Sheet: Mobileye Advanced Driver-Assistance Systems (ADAS)" (July 19, 2020) (available at https://www.mobileye.com/blog/fact-sheet-mobileye-advanced-driver-assistance-systems-adas/)
2021	SEC, "Mobileye to Offer User-Generated Mapping for Autonomous Driving" (January 6, 2016) (available at https://www.sec.gov/Archives/edgar/data/1607310/000157104916010521/t1600008_ex99-1.htm)
2022	Joseph White, "GM Has 'Heightened Partnership' with Mobileye for Autonomous Cars" (October 1, 2015) (available at https://www.reuters.com/article/us-gm-investors-mobileye-idUSKCN0RV4ZC20151001/)

Exhibit	Description
2023	Declaration Of Nikolaos Papanikolopoulos, Ph.D. In Support Of Patent Owner's Response
2024	Curriculum Vitae of Nikolaos Papanikolopoulos, Ph.D.
2025	Transcript of Deposition of Dr. Thorpe, taken in IPR2024-01110 on May 30, 2025
2026	Transcript of Deposition of Dr. Thorpe, taken in IPR2024-01111 on May 29, 2025
2027	Definition of "photodiode," A Dictionary of Physics, Oxford University Press. (6 ed.) <i>available at</i> , https://www.oxfordreference.com/display/10.1093/oi/authority.20110803100324432?p=emailAIVd1F/alp5o2&d=/10.1093/oi/authority.20110803100324432&print
2028	National Institute of Standards and Technology, OSAC Lexicon, Definition of "Lux," <i>available at</i> https://www.nist.gov/glossary-term/26871
2029	Fiorentin, P. & Iacomussi, Paola & Rossi, Giuseppe. (2005). Characterization and Calibration of a CCD Detector for Light Engineering. Instrumentation and Measurement, IEEE Transactions on. 54. 171 - 177. 10.1109/TIM.2004.834055., <i>available at</i> https://www.researchgate.net/publication/3090945_Characterization_and_Calibration_of_a_CCD_Detector_for_Light_Engineering
2030	U.S. Patent No. 6,266,442 to Laumeyer et al.
2031	Thorpe, Chuck, et al. "Dependable perception for robots." (2001). https://kilthub.cmu.edu/articles/journal_contribution/Dependable_Perception_for_Robots/6552518/1/files/12033863.pdf
2032	Nov. 5, 2024 NHTSA Investigation Notice of Tesla, <i>available at</i> https://static.nhtsa.gov/odi/inv/2024/INIM-PE24031-27346.pdf

Exhibit	Description
2033	Transcript of Deposition of Dr. Thorpe, taken in IPR2024-01111 on Oct. 14, 2025 at 12:02 pm CST.

Patent Owner Facet Technology Corp. respectfully requests Director Review of the Board's Final Written Decision in IPR2024-01111, which erroneously found claims 1-4 and 8-13 of U.S. Patent No. 9,671,328 ("the '328 Patent") unpatentable.

I. INTRODUCTION

Director Review is necessary to correct two distinct, fundamental errors by the Board: (1) an abuse of discretion in excusing material contradictions in the Petitioner's expert testimony; and (2) misconstruing the claims and the prior art so as to wholly ignore an express requirement of the claims.

First, the Board failed to faithfully apply the Director's prior ruling in *Interactive Communications International v. Blackhawk Network*, which holds that the Board abuses its discretion by improperly crediting expert testimony containing material contradictions. In Ground 1, Petitioner and its expert, Dr. Thorpe, argued that the "Gallagher" reference expressly discloses determining the "location of the road marker" using GPS. Yet, in Ground 4 of the exact same Petition, Dr. Thorpe admitted the exact opposite: that Gallagher's GPS merely corresponds to the location of the vehicle, and therefore a POSITA "would have recognized that additional steps would have been necessary to also determine the location of the markers." When Patent Owner pointed out this fatal, facial contradiction, Petitioner simply ignored it in its Reply. Rather than holding Petitioner to its burden of proof and rejecting this unreliable testimony, the Board unilaterally

recharacterized Dr. Thorpe's testimony to excuse the contradiction—ignoring both the plain text of his declarations and his deposition testimony.

Second, the Board committed legal error by failing to apply the “for each object of interest” limitation present in claims 1 and 9. The claims require a two-step system that detects objects of interest and performs determinations “for each object of interest.” The Board failed to make any factual finding explaining how Gallagher's system discloses or suggests the “for each object of interest” limitation. Instead, the Board made factual findings mapping the “detect” and “determine” limitations to steps in Gallagher which have no connection. To the extent the Board's construction was the basis for such findings, that was clearly erroneous: claim construction cannot simply remove limitations from the claims.

Because the Board's decision rests on self-contradictory expert testimony and disregards express claim limitations, the Director should grant review, and either terminate this IPR as improvidently granted or reverse the Board's findings by finding all challenged claims to be patentable.

II. ARGUMENT

A. THE BOARD FAILED TO FAITHFULLY APPLY THE DIRECTOR'S PRIOR RULING REQUIRING THE REJECTION OF SELF-CONTRADICTORY TESTIMONY AND ARGUMENTS

In *Interactive Communications International, Inc. v. Blackhawk Network Inc.*, IPR2024-00465, Paper 40 (Director Oct. 9, 2025), the Director held that the

Board abuses its discretion by improperly crediting expert testimony that has material contradictions. *Id.*, Paper 40 at 3. The Board failed to faithfully apply that ruling in this IPR, crediting self-contradictory opinions of Petitioner's expert.

1. Petitioner and Its Expert Made Facially Inconsistent Statements Regarding Gallagher's Location Functionality

Both claims 1 and 9 of the '328 Patent recite a computer system that, among other things, "determine[s] ... a [] location of the road marker." In the Petition's arguments for those limitations, the Petitioner relied on the "GPS" and "gearbox revolution sensor" of Gallagher. Pet. at 25-26, 41. This was the sole theory for the "location" limitation of claim 1, and one of two alternative theories for the "location" limitation of claim 9. *Id.* In both cases, the Petition cited the declaration of Dr. Thorpe, who opined that Gallagher's GPS or gearbox data satisfied the "location" limitations. *Id.*; Ex. 1003 ¶ 80 (opining that Gallagher's GPS and gearbox data "corresponds to a discrete location that is within the 3-D space covered by the sensor array's field of view."), ¶ 117 (opining that "Gallagher discloses using a GPS interface or 'a vehicle gearbox revolution sensor' to 'determin[e] the location of a road marking.'").

However, in Ground 4 of the very same Petition and expert declaration, Petitioner and its expert took a directly contradictory view of Gallagher's disclosure. In particular, in Ground 4—as part of its motivation to combine

Leonard and Popovich with Gallagher—Petitioner argued that “Because the light source is in a fixed location on Gallagher’s vehicle, this GPS position of the vehicle corresponds to the location of the active sensor” and “Accordingly, a POSITA would have recognized that *additional steps would have been necessary to also determine the location of the markers.*” Pet. at 69-70 (emphasis added). Again, the Petition cited the declaration of Dr. Thorpe, where he made the same statements as Petitioner, i.e. that “a POSITA would have understood that this GPS position of the vehicle corresponds to the location of the active sensor” and “[a]ccordingly” “additional steps would have been necessary to also determine the location of the markers.” Ex. 1003 ¶ 176. Putting the testimony of Petitioner’s expert side-by-side demonstrates the inconsistency:

Dr. Thorpe’s Ground 1 Opinion	Dr. Thorpe’s Ground 4 Opinion
“[1H]: ‘ determine a location of the road marker. ’ 116. Gallagher discloses [1H]. 117. Gallagher discloses using a GPS interface or ‘a vehicle gearbox revolution sensor’ to ‘determin[e] the location of a road marking. ’ Gallagher, [0008], [0020], [0048].” Ex. 1003 ¶¶ 116-117 (emphasis added).	“Because the light source is in a fixed location on Gallagher’s vehicle, a POSITA would have understood that this GPS position of the vehicle corresponds to the location of the active sensor. Accordingly, a POSITA would have recognized that additional steps would have been necessary to also determine the location of the markers. Gallagher [0048].”

Ex. 1003 ¶ 176 (emphasis added).

Patent Owner brought this facial inconsistency of Petitioner and its expert to the Board's attention in its Patent Owner Response, noting that "in Ground 4, Petitioner admits that Gallagher's 'GPS position of the vehicle corresponds to the location of the active sensor' and accordingly, a POSITA 'would have recognized that additional steps would have been necessary to also determine the location of the markers.'" Paper 25 (POR) at 29, 33 (quoting Pet. at 70). Thus, Patent Owner argued that, by the admission of Petitioner and its expert in Ground 4, Gallagher only knows the location of the measuring *vehicle*, not the actual location of the *road marker*, as claimed. *Id.* In its Reply, Petitioner simply ignored Patent Owner's argument that Petitioner's Ground 4 arguments had admitted that Gallagher did not disclose determining the location of road markers. Paper 28 at 19. In its Sur-reply, Patent Owner noted that "Petitioner's reply fails to address this admission." Paper 34 at 9. Patent Owner's Sur-reply also cited the Director's *Interactive Communications* decision, arguing that "Petitioner's expert's unexplained, contradictory statements about Gallagher's location functionality renders all of his testimony unreliable." *Id.* at 10.

**2. The Board Abused its Discretion by Unilaterally
Recharacterizing Dr. Thorpe's Testimony**

Despite: (1) the glaring inconsistency of Petitioner and its expert regarding

Gallagher's location functionality; and (2) Petitioner's complete failure to address that inconsistency in its reply, the Board rejected Patent Owner's arguments and found that the "location" limitations were disclosed by Gallagher. In particular, the Board characterized Dr. Thorpe's Ground 4 testimony as "interpret[ing] Gallagher as disclosing using its GPS system to pinpoint the location of the markers" while "recogniz[ing] that additional steps would be needed to determine the location of the markers based on the vehicle's GPS system." Paper 39 (FWD) at 28; *see also id.* at 40-41 (applying same reasoning as to the location limitation of claim 1). The Board thus concluded that "Dr. Thorpe does not testify or 'admit' that Gallagher's system does not perform these additional steps." *Id.* at 28.

The Board's unilateral decision to recharacterize Dr. Thorpe's testimony contrary to his express statements was an abuse of discretion. Plainly, Dr. Thorpe's original declaration in Ground 4 relied on an *absence* of disclosure in Gallagher—that Gallagher does not disclose the "steps [that] would have been necessary to also determine the location of the [road] markers." Ex. 1003 ¶ 176; *see also id.* ¶ 170 (opining that "Gallagher discloses determining 'the location of each road marking' ... based on the location of the vehicle" rather than the road marker itself). Indeed, Dr. Thorpe explained *why* Gallagher does not determine the *actual* location of the road markers themselves: "Because the light source is in a fixed location on Gallagher's vehicle, a POSITA would have understood that this GPS position of the

vehicle corresponds to the location of the active sensor” *rather* than the location of the *road markers*. *Id.* ¶ 176. Dr. Thorpe used the absence of determining the actual location of *road markers* in Gallagher as the motivation to combine it with Leonard and Popovich, as “[t]he combination of Leonard and Popovich discloses the known techniques for determining the location of markers detected by a moving vehicle.” *Id.* ¶ 177; *see also id.* ¶ 172 (opining that Leonard and Popovich would have allowed Gallagher to “determine ‘the position of’ each identified road marker ‘in three dimensional space.’”). These are plainly admissions that Gallagher itself does not disclose determining the actual location of road markers, as required to render claims 1 and 9 obvious. *See In re Spormann*, 363 F.2d 444, 448 (CCPA 1966) (“obviousness cannot be predicated on what is unknown”).

The Board’s dismissal of the glaring inconsistency in Dr. Thorpe’s testimony is especially problematic because neither Dr. Thorpe nor Petitioner attempted to address such inconsistency themselves. Indeed, as Patent Owner noted, in Dr. Thorpe’s reply declaration, rather than disputing the inconsistency of his Ground 1 and Ground 4 opinions regarding Gallagher’s location functionality, Dr. Thorpe advanced an improper new reply theory. Paper 34 at 10. He opined, that “it would have been a simple matter of translation to convert the GPS location information to the location of the road marker,” without citing any disclosure in Gallagher of such a translation. Ex. 1030 ¶ 43. Plainly, Dr. Thorpe’s new reply opinion that “it would

have been a simple matter of translation” to determine the location of road markers is inconsistent with the Board’s conclusion that Dr. Thorpe’s original declaration had not admitted that Gallagher’s vehicle-mounted sensors only determine the location of the *vehicle*, rather than the location of the *road marker*. Indeed, if such a translation was disclosed in Gallagher itself, that would have defeated Dr. Thorpe’s motivation to combine it with Leonard and Popovich. Moreover, in unilaterally reinterpreting Dr. Thorpe’s testimony, the Board disregarded Dr. Thorpe’s deposition testimony. At his deposition, rather than identifying any disclosure of the location limitations in Gallagher, Dr. Thorpe stated it simply “would be obvious” to do so and that he “wouldn’t bother to disclose that.” Ex. 2026 at 74:24-77:24.

Patent Owner respectfully requests that the Director apply the holding of *Interactive Communications International v. Blackhawk Network* by terminating this proceeding as improvidently granted, or by holding that Petitioner has failed to carry its burden of proof by failing to submit credible expert testimony as to obviousness. As noted, Petitioner’s theory that Gallagher discloses determining the location of road markers was Petitioner’s sole theory for claim 1. However, Petitioner and Dr. Thorpe’s inconsistencies with respect to Gallagher’s location functionality also contaminate their theories and the Board’s findings regarding their alternative theory for claim 9. Pet. at 23-25. Assessing the obviousness of importing the purported location determination functionality from Schofield into a combination with

Gallagher would require determining what location functionality Gallagher already contains. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966) (“Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained”). But, because Dr. Thorpe’s non-credible testimony should be rejected in its entirety, Petitioner lacks an adequate basis to prevail as to any ground.

B. THE BOARD DISREGARDED GALLAGHER’S FAILURE TO DISCLOSE A SYSTEM THAT DETECTS OBJECTS OF INTEREST AND MAKES A DETERMINATION AS TO WHETHER *EACH* OBJECT IS A ROAD MARKER

Additionally and separately, the Board erred by failing to recognize that claims 1 and 9 require a system that performs a determination *for each object of interest*. Indeed, Claim 9 of the ’328 Patent recites a computer system that, *inter alia*, is “configured to *detect objects of interest* within the field of view *and for each object of interest*” “*determine* whether the object of interest includes at least one light intensity value associated with a reflective surface of *a road marker* in the field of view.” Ex. 1001, cl. 9. Similarly, claim 1 of the ’328 Patent recites a computer system that, *inter alia*, is “configured to *detect objects of interest* within the field of view and *for each object of interest*,” “determine whether the object of interest includes a reflective surface based on the light intensity values,” and also “*determine whether the reflective surface is a road marker* based on an assessment of the

reflective surface.” *Id.*, cl. 1. Notably, Petitioner admitted in its Reply that these “detect” and “determine” limitations cannot be performed by the same step in the prior art. Paper 28 at 9-10 (“Neither Petitioner nor the Board have ever contended that both steps can be satisfied with a single step”). However, as discussed below, the Board failed to make any finding as to the claims’ “for each” limitation.

1. Gallagher Discloses a Single-Step System for Identifying Road Markers

Gallagher’s system identifies road markers from the data in a single step, without the prior detection of objects. In particular, as the Petition itself stated, Gallagher “identif[ies] road markers based on ‘peak responses sensed’ by light sensors[.]” Pet. at 14 (citing Ex. 1005, [0066]). Indeed, in the Patent Owner Response, Patent Owner and its expert went through every disclosure of Gallagher cited by the Petition for these limitations and explained how they failed to satisfy the two-step “detect” and “determine” algorithm required by the claims. Paper 25 (POR) at 23-27; Ex. 2023 ¶¶ 100-103. In particular, the Petition relies on Gallagher’s step (g), paragraph [0066], as disclosing that “Gallagher uses the light intensity values from the light sensors to determine whether objects of interest (e.g., painted lines and/or raised pavement markers) include a reflective surface by distinguishing their reflectance levels from the “non-marker reflectance levels.” Pet. at 23. However, as Gallagher itself states in step (g), it merely “select[s]” “from

data obtained in step a” “which reflectance levels indicate a road marker.” Ex. 1005, [0066] (emphasis added). In particular, “the peak responses sensed are determined as the highly reflective surfaces of a road marker.” *Id.* The data collected in step (a) of Gallagher is the raw light intensity data “from the output of the ADC [analog-to-digital converter] 13 on the reflected light detected by the light sensors 6.” *Id.*, [0056]. Thus, as explained in the Patent Owner Response, because Gallagher’s step (g) simply looks for peaks in the raw light intensity data to identify road markers, Gallagher does not disclose or suggest a computer system which first detects objects of interest and then determines whether the detected objects of interest are a road marker. Paper 25 (POR) at 23-27; Ex. 2023 ¶¶ 99-103.

2. The Board Failed to Find That The “determine” Steps Are Performed “for each object of interest”

Despite being the key disputed issue between the parties, the Board’s Final Written Decision contains little analysis of this issue. However, the analysis that is present is plainly inconsistent with what the claims require. As to the “determine” limitation, the Board simply states that Gallagher discloses that its computer analyzes the measured data to select which “reflectance levels” “indicate a road marker,” citing Gallagher’s step (g). Paper 39 (FWD) at 25 (citing Ex. 1005 ¶ 66); *see also id.* at 37-38 (applying same reasoning for claim 1). The Board also noted, “Gallagher further discloses that its computer determines the reflectance level of

each road marker and determines whether it meets a predetermined minimum acceptable reflectance level,” citing Gallagher’s steps (h) and (i). *Id.* at 25 (citing Ex. 1005 ¶¶ 66-68). However, the Petition did not cite Gallagher’s steps (h) or step (i) in regards to the “determine” limitations. Pet. at 22-23, 39-41 (citing only up to paragraph [0066]). Thus, it was improper for the Board to rely on such disclosures for these limitations. 37 C.F.R. § 42.104(b)(4) (requiring identification of “where each element of the claim is found in the prior art”); *SAS Institute Inc. v. Iancu*, 584 U.S. 357, 366 (2018) (the “petition ... is supposed to guide the life of the litigation”); *EmeraChem Holdings, LLC v. Volkswagen Grp. of Am., Inc.*, 859 F.3d 1341, 1348-52 (Fed. Cir. 2017). Accordingly, Gallagher’s steps (h) and (i) cannot be relied on to provide the two-step “detect” and “determine” limitations of the claims.

Moreover, in discussing the “computer system” and “detect” limitations, the Board held that “Gallagher discloses that its computer receives measured reflectance data from the light sensors and determines which reflectance levels across test area A most likely indicate the presence of road markers” and that “the determination of which light sensor has the highest reading is detecting an object of interest.” Paper 39 (FWD) at 25. Thus, it appears that the Board credited the Petitioner’s argument that step (d) of Gallagher discloses detecting objects of interest. *Id.* at 24. But step (d) of Gallagher is merely where an “audio and/or visual indicator” of the “vehicle position on the road” is provided to the “operator of the vehicle” in order to

“maintain the vehicle 3 in a proper position on the road to allow the apparatus 1 to obtain reflectivity measurements.” Ex. 1005, [0060]. Notably, this involves identifying “which light sensor 6 is reading the highest reflectance reading and to provide the operator with that information.” *Id.* As Patent Owner argued, Gallagher’s step (d) merely outputs the currently highest reading of the light sensors. Paper 25 (POR) at 25; Ex. 2023 ¶ 102. That is not object detection, as claimed, as there will always be a sensor with a highest reading (even when there are no road markers on the road and thus no objects to detect). *Id.*

Even assuming the Board was correct in finding that Gallagher’s step (d) is a detection of objects—it was not—the Board’s decision entirely ignored the language of the claims *linking* the “detect” and “determine” steps. In particular, both claim 1 and claim 9 require that the “determine” steps be performed “*for each object of interest*” and require that the determinations that the object is a road marker be performed on each such object of interest. Ex. 1001, cl. 9 (“configured to detect objects of interest within the field of view and for each object of interest: determine whether the object of interest includes ... a road marker”), cl. 1 (“configured to detect objects of interest within the field of view and for each object of interest: determine whether the object of interest includes a reflective surface based on the light intensity values; determine whether the reflective surface is a road marker”).

As Patent Owner argued, the Petition and Petitioner’s expert’s declaration

provide no reasoning explaining how or why Gallagher's step (g) is performed "for each object of interest" that is purportedly "detected" in step (d). Paper 25 (POR) at 25-26, 30. Indeed, Gallagher cannot disclose that limitation because both step (d) and step (g) in Gallagher utilize the intensity data collected in step (a). Ex. 1005, [0060], [0066]. That is, because Gallagher's step (g) uses the data from step (a), rather than any result from step (d), Gallagher cannot disclose determining whether the objects of interest are road markers "for each object of interest" as claimed. Paper 25 (POR) at 26; Ex. 2023 ¶¶ 102-103.

3. Adopting the Board's Erroneous Claim Construction Ruling Cannot Cure Its Failure to Make any Finding Regarding the "for each object of interest" Limitation

To the extent that the Board failed to apply the "for each object of interest" limitation based on its claim construction, that was clearly erroneous. In particular, the Board rejected Patent Owner's argument that claims 1 and 9 required a sequence of first detecting objects of interest and then, subsequently, determining attributes of the detected objects of interest. Paper 39 (FWD) at 12. Patent Owner had argued that the antecedent relationship between "detect objects of interest" and the later recitation of "*the* objects of interest" in the "determine" steps required such an order. Paper 25 (POR) at 14-15; *Mantech Env't Corp. v. Hudson Env't Servs., Inc.*, 152 F.3d 1368, 1375-76 (Fed. Cir. 1998) (finding "sequential nature of the claim steps" "from the plain meaning of the claim language," which recited an antecedent

relationship). The Board concluded that the “detect” and “determine” steps require no such order and could occur concurrently. Paper 39 (FWD) at 13-14. That was erroneous because the Board ignored the antecedent basis relationship of the claims and instead relied on a passage in the '328 Patent at 5:52-60, which recites that “determin[ing] a set of color values” can occur “[e]ither concurrent with or subsequent to the identification of road signs[.]” *Id.* But, that only says when *color identification* can occur—not whether object detection can occur simultaneously with a determination that an object is a road marker. Paper 25 (POR) at 20-22.

However, even if the Board’s claim construction was correct—it was not—the Board cannot simply disregard claim language. *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950–51 (Fed. Cir. 2006). The claims require that the determinations be performed “for each object of interest.” Petitioner presented no evidence or argument why that was satisfied by the cited disclosures, and the Board’s decision contains no findings regarding that limitation. Paper 25 (POR) at 23; Paper 39 (FWD) at 24-25. Accordingly, the Director should reverse the Board’s findings of unpatentability as to claims 1 and 9 (and dependent claims 2-4, 8, and 10-13).

III. CONCLUSION

The Director should grant review and either terminate this IPR as improvidently granted, or find all challenged claims to be patentable.

Dated: February 23, 2026

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that on February 23, 2026, I will cause true and correct copies of the foregoing **PATENT OWNER'S REQUEST FOR DIRECTOR REVIEW** and all associated exhibits or appendices referred to therein, to be served electronically upon the following attorneys who have consented to service via email. Pet. at 75-76.

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