Comment #	Name	Vote	Category	Page	Subclause	Line	Comment	Must be Satisfied	Proposed Change	Disposition Status	Disposition Detail
I-12	Gilb, James	Disapprove	Technical	2		10	"protocol development" is not part of the draft.	No	Change "protocol development" to "protocol identifcation".	REVISED	Change "protocol development" to "protocol identification".
I-11	Gilb, James	Disapprove	Technical	2		3	It's problematic to say that the standard "provides a standard for" since it IS a standard. Better to say "specifies," echoing the language on lines 5 and 6.	No	In both lines 3 and 4, replace "provides a standard for" with "specifies".	ACCEPTED	
I-5	Ran, Adee	Approve	General	20	2	13	The reference to ISO/IEC 8802-2:1998 states that it is the ISO/IEC version of withdrawn standard IEEE Std 802.2. However, looking at https://standards.ieee.org/ieee/8802-2/2349, it appears as an active standard and is available for purchase. There is an indication that 802.2 has been withdrawn in the web page of the disbanded 802.2 WG (https://www.ieee802.org/2). But it does not seem to make this standard inactive or unavailable. If the IEEE standard is available it is preferable to use it as the normative reference instead of the ISO/IEC one. This would make footnotes 3 and 4 apply to this reference too. Alternatively, if ISO/IEC 8802-2:1998 is not required as a reference (it is used only in B.3.1 and perhaps the text there can be rephrased to avoid this reference), the reference would better be removed.	No	Briefly explain EUI-48 and EUI-64.	REVISED	On p. 20, l 13, change the title of the standard to be "ISO/IEC/IEEE 8802-2-1998, International Standard for Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements — Part 2: Logical Link Control" Delete "(ISO/IEC version of withdrawn standard IEEE Std 802.2)". The current standard is not just an IEEE standard, but an ISO/IEC/IEEE standard. Delete "In addition, IEEE Std 802.2 has been withdrawn." in the note on page 32, l 27.
I-39	Gilb, James	Disapprove	Technical	21	3.1	15	The definition of "canonical format" is problematic. It specifies the order in which the bits are "conveyed" as "the same bit ordering as in the hexadecimal representation." However, the hexadecimal representation is NOT an indication of bit ordering at all. Hexadecimal representation (per 8.1) specifies how a bit string in represented in a string of hexadecimal digits. That doesn't limit the order in which bits may be transmitted. 8.6 decribes the bits of an octet being transmitted either LSB-first or MSB-first; that's a separate issue from how the set of bits is transcribed in hexadecimal characters. Furthermore, 8.6 confuses issues by referring to LSB as "canonical order"; here the intent seems to be that "canonical order" may represent a different concept from "canonical format", but readers are likely to be confused. Likewise, the draft refers to both "bit-reversed representation" and bit-reversed order"; with some confusion. And, yet furthermore, the relevance of some of this "bit-reversed" material is obsolete; consider, for example, this note in 8.1: "The bit-reversed representation is of historical interest only and is no longer applicable to any active IEEE 802 standard." It is appropriate to review the entire draft, unifying the language and removing obsolete material, considering also Annex C ("Examples of bit ordering for addresses").	Yes	Adopt remedies in "Proposal to revise bit-ordering material in P802REVc D2.0" <https://mentor.ieee.org/802.1/documents?is_dcn=0034&is_group=Mntg&is_year=2024>	REVISED	Make the changes indicated in https://mentor.ieee.org/802.1/dcn/24/1-24-0034-01-Mntg-proposal-t
I-1	Housley, Russell	Disapprove	Technical	21	3.1	20	Please add a definition for Extended Unique Identifier.	Yes	Briefly explain EUI-48 and EUI-64.	REVISED	Add to 3.1, in appropriate alphabetical location: "Extended Unique Identifier (EUI): A 48-bit or 64-bit identifier intended to be globally unique and subassigned, by the assignee of a block of such identifiers assigned by the IEEE Registration Authority, to a hardware device instance or other object that requires unique identification." Add to the end of the paragraph on p. 42, l 8, following footnote mark 20. "In an EUI-48 or EUI-64 both U/L and I/G bits, as shown in Figure 8, are equal to zero"
I-41	Rolfe, Benjamin	Disapprove	Technical	21	3.1	28	More information than appropriate to clause 3: ". Different types of handover are specified based on the way facilities for supporting traffic flows are preserved." It is technical detail about handovers and edging towards requirements discussion.	Yes	Delete " Different types of handover are specified based on the way facilities for supporting traffic flows are preserved."	REVISED	Change the first sentence from "The process" to be "A process" and delete "Different types of handover are specified based on the way facilities for supporting traffic flows are preserved."
I-13	Gilb, James	Disapprove	Technical	21	3.1	4	The use of the word "defined" here is appropriate, since it refers to the Defintions of 3.1. However, none of the other uses of the word are referring to defintions; each isreferring to specifcation.	Yes	Change "defined" to "specified" in each of 27 instances in the draft, excluding this one. Change "defines" to "specifies" in each of 2 instances in the draft,	ACCEPTED	
I-40	Rolfe, Benjamin	Disapprove	Technical	21	3.1	8	Clause 3 is defining Terms. Not the technical characteristics of the things to which the terms apply. This text tells us a LOT about what bridges DO. While this is very good to haec, it is way too much for Clause 3.	Yes	change to: bridge: A functional unit that interconnects two or more access domains.	REJECTED	The definition is used to introduce the concept of a generic bridge as well as how an IEEE bridge is different from a generic bridge. Absent this distinction in the definition, the use of bridge in the rest of the document does not make sense.
I-18	Gilb, James	Disapprove	Technical	22	3.1	23	The term "very limited geographical area" is not ideal. I can understand "llimited", if a limit is specified, but I don't understand "very limited". Also, "geographical area" indicates a two-dimensional domain, but a PAN should not be limited to a surface. Also the word "geographical" generally implies a domain large enough to show up in, for example, a map of a city. Typically, the domain of a room, for example, is not described in geographical terms. "Geography" may be defined as "study of the physical features of the earth and its atmosphere".	No	Change "very limited geographical area" to "region generally smaller than about ten meters" or something similar.	REVISED	Change "very limited geographical area" to "region generally smaller than about ten meters"
I-17	Gilb, James	Disapprove	Technical	22	3.1	25	The term "protocol data unit" is used in the draft and should be defined. Note that "service data unit" is defined.	Yes	Define "protocol data unit".	REVISED	Add to 3.1, in appropriate alphabetical location: "protocol data unit: A unit of information transmitted among peer instances of a layer or sublayer comprising protocol-specific control information and user data."

I-15	Gilb, James	Disapprove	Technical	22	3.1	34	3.1 defines "access domain" and "single access domain". How does a "single access domain" differ from a single "access domain"? "Access domain" appears 25 times in the draft, but only 7 times with "single".	No	Delete the defintion of "single access domain"; merge elements into the definition of "access domain" if useful.	REVISED	Delete the definition of "single access domain", change the definition of access domain to read "access domain: A set of stations in an IEEE 802® network together with interconnecting data transmission media and functional units (e.g., repeaters), in which the stations using the same medium access control (MAC) protocol access a common communications channel to exchange information." , change "a single access domain" to be "one access domain" on p. 22, l 31, change "single access domain" to be "access domain" on p. 34, l 4, change "single access domain" to be "one access domain" on p. 34, l 10, change "a single access domain" to be "an access domain" on p. 38, l 13, and p38, l 20.
I-43	Rolfe, Benjamin	Disapprove	Technical	22	3.1	6	If we're going to define one type of MAC frame we should have MAC frame defined.	Yes	Add: medium access control (MAC) data frame: A data structure constructed by the MAC in accordance with a MAC protocol	REVISED	Make the changes indicated in https://mentor.ieee.org/802.1/dcn/24/1-24-0045-01-Mntg-mac-frame
I-42	Rolfe, Benjamin	Disapprove	Technical	22	3.1	6	More technical information about how frames are formed rather than the meaning of the term.	No	change to: medium access control (MAC) data frame: A data structure consisting of fields in accordance with a MAC protocol,intended for the communication of data.	REVISED	Make the changes indicated in https://mentor.ieee.org/802.1/dcn/24/1-24-0045-01-Mntg-mac-frame
I-14	Gilb, James	Disapprove	Technical	22	3.1	6	Per 5.2.3, a MAC frame is a frame, and "frame" is already defined. So this definition is too complex; it's trying to define a frame again. Also, it's confusing because it says that a data frame can carry "user data and control information" and that "one of the fields contains a sequence of octets of user data." If a data frame can carry control information, it's a little hard to understand why we need such a term. Since the term does not seem to be used outside of the Definitions clause, maybe we do not.	Yes	Change to: "data frame: a frame containing user data". Alternatively, delete the definition.	REVISED	Make the changes indicated in https://mentor.ieee.org/802.1/dcn/24/1-24-0045-01-Mntg-mac-frame
I-53	Hamilton, Mark	Approve	Editorial	23	3.2	21	The acronyms "EPD" and "LPD" are not needed and refer to terms that are no longer included/defined here.	No	Delete the acronym rows for EPD and LPD.	ACCEPTED	
I-24	Gilb, James	Disapprove	Technical	23	3.1	3	SLAP does not "assign" addresses.	Yes	Change "assign locally administered" to "differentiate local".	ACCEPTED	
I-6	Ran, Adee	Approve	Technical	24	3.2	34	The acronym PHY appears twice with different content - one is a physical layer, and the other is a physical layer device/entity. Understanding that this term has different technical meanings, but the acronym list is not supposed to include detailed definitions. Also, 802 does not defined the term "physical layer" (as the expanded abbreviation of PHY) anywhere. The difference would be better addressed by adding a definition of the term Physical layer (PHY) in 3.1, and noting the difference inside it that. Then the abbreviation PHY can refer to the definition. A possible definition can be "Physical layer (PHY): a layer in the IEEE 802 reference model matching the physical layer in the Open Systems Interconnection (OSI) reference model, which connects between the MAC sublayer and the media. NOTE-within the IEEE 802.3 reference model, the abbreviation PHY is used to denote a physical layer device, which is a specific portion of the physical layer in this definition". Alternatively, merge the two abbreviations into one such as "physical layer (OSI reference model and IEEE 802 ® reference model); physical layer device (IEEE 802.3™ reference model)".	No	Preferably, add a definition for "Physical layer (PHY)" in 3.1 as suggested in the comment, modifying it as necessary.	REJECTED	The WG consulted with IEEE editorial staff, and for an acronym with two different meanings in the document, using two entries in the acronym list is the correct method to reference the two meanings.
I-21	Gilb, James	Disapprove	Technical	25	3.2	18	"LMSC" is used but is not in the abbreviation list.	No	Add abbreviation for "LMSC" .	ACCEPTED	
I-19	Gilb, James	Disapprove	Technical	25	3.2	18	"LPDU" and "MSDU" are used but not defined and are not in the abbreviation list.	Yes	Add defintions and abbreviations for "LPDU" and "MSDU" .	REVISED	In 3.1, delete the definition of "service data unit." Add to 3.1, in appropriate alphabetical location: "MAC service data unit (MSDU): Data sent within a frame by a MAC entity for delivery to one or more other MAC entities." Add to 3.1, in appropriate alphabetical location: "LLC protocol data unit (LPDU): An LLC PDU carried in the data field of a frame as an MSDU" Add to 3.2, in appropriate alphabetical location: "LPDU: logical link control protocol data unit" "MSDU: medium access control service data unit" In 5.2.3 lines 31-32, change "The MAC sublayer provides a data transfer service to the LLC sublayer; a data unit received by the MAC sublayer from the LLC sublayer is transferred to a peer MAC sublayer for delivery to its LLC sublayer." to be"The MAC sublayer provides a data transfer service to the LLC sublayer; a data unit received by a MAC entity from its associated LLC entity is transferred to zero or more peer MAC entities for delivery to each peer MAC entity's associated LLC entity."
I-47	Rolfe, Benjamin	Disapprove	Technical	26	4.1	10	"By contrast, cell-based communication transmits data in fixedlength units in specified time intervals while isochronous communication transmits data as a steady stream of octets, or groups of octets, at equal time intervals." seems to suggest we don't do cell-based or isichronous. uhm…the thing is, we have somethings that look like cell based (fixed PHY frame length). We also have MAC (and PHY?) features (e.g. 15.3) that are specifically optimized to support isochronous communications. isonchronous does not require fixed cells.	No	Delete "By contrast, cell-based communication transmits data in fixedlength units in specified time intervals while isochronous communication transmits data as a steady stream of octets, or groups of octets, at equal time intervals. "	REVISED	Delete the paragraph "The basic communications capability … asynchronous frame transmissions." In the previous sentence, starting on line 6, change it to read "IEEE 802 networks use frame-based communications with source and destination addressing over a variety of media to connect various digital apparatus regardless of computer technology and data type."

I-22	Gilb, James	Disapprove	Editorial	26	4.1	4	This is a run-on sentence	No	Change "LMSC," to LMSC; ".	ACCEPTED	
I-71	Bims, Harry	Approve	Editorial	26	4.1	41	some IEEE 802 wireless networks allow multipoint-to-point communication, in addition to the ones listed in the standard. For example, 802.11be added MLDs with MLO operation allowing multiple AP MLDs to simultaneously transmit to a non-AP MLD.	No	add "multipoint-to-point" after "point-to-multipoint"	REJECTED	Point-to-multipoint inherently includes multipoint-to-point because communications is bidirectional.
I-20	Gilb, James	Disapprove	Editorial	26	4.1	8	"frame based" needs a hyphen. Note: "frame-based" is used in three other places.	No	Add a hyphen.	REJECTED	The usage on line 8 is correct as frame based is used as a noun and not an adjective. In the other location, frame-based modifies another noun and the hyphen is required to indicated that the word "frame" applies to "based" and both together modify the noun.
I-3	Housley, Russell	Disapprove	Technical	27	4.1	1	Since BAN is listed in the keywords for this document, BAN should be explained somewhere in lines 1-22.	Yes	Please add a discussion of BANs (body area networks).	REVISED	Add to 4.1, following PAN "A body area network (BAN) is a short-range, wireless communication network in the vicinity of, or inside, a body (typically a human body). BANs are used for a variety of uses, including entertainment, medical and other healthcare services. Considerations for the design of BAN devices typically include effects on antenna patterns due to the presence of the wide variety of bodies, changes in the RF channel due to user motions, and radiation pattern shaping to minimize specific absorption rate into the body.", add BAN to the list of acronyms as "BAN body area network"
I-73	Bims, Harry	Approve	Editorial	27	4.1	10	It would be nice to order the paragraphs in this clause from smallest to largest geographical area.	No	Please consider moving the Personal area networks (PAN) paragraph before the IEEE 802 LAN paragraph at page 26, line 40.	REVISED	Move PAN paragraph before IEEE 802 LAN paragraph and change that paragraph to start "A LAN is a peer-to-peer" to match the usage in the rest of the paragraphs.
I-46	Rolfe, Benjamin	Disapprove	General	27	4.1	23	There's a couple of common uses for 802 standards that are beyond PAN or LAN, and less than RAN, and different than the description we have for MAN (which fits 802.16). E.g. Field Area Networks (a billion or two such devices exist based on 802.15.4). An exampe are smart city and smart utility networks that often have similar geographic areas as MAN (or maybe RAN) but typically use multi-hop (mesh) topologoies to reach large areas rather than a hub and spoke that requires substantial TX power. Might be worth mentioning.	No	Add: Wireless Field Area Networks are another type of network that use 802 standards. A FAN may cover an area mich larager than a LAN, but unlike a MAN or RAN, typically use distributed multi-hop topologies such as mesh to cover an area. FAN requires modest data rates and often must be optimized for very limited available spectrum. FAN devices might need meet low energy consumption requirements, may be cost constrained and need to coexist with many devices in range of their radio. A few examples of FANs include Smart City and Smart Utility Networks, which may include monitoring and control applications such as metering, environmental monitoring, and control of street lights.	REJECTED	The term FAN does not appear in IEEE 802 standards. The list of types of networks in this subclause is intended to be descriptive of networks that are covered by IEEE 802 standards.
I-48	Rolfe, Benjamin	Disapprove	Editorial	27	4.1	25	"IEEE 802 standards for wireless networks include wireless LANs, MANs, RANs, and PANs. " We should include FAN to the list (if we're calling ourselves network standards anyway)	No	add "FANs" to the list.	REJECTED	The comment requesting the addition of FAN to the draft was rejected. Therefore, the term FAN does not occur in the draft and so it should not be in the acronyms list.
I-23	Gilb, James	Disapprove	Technical	27	4.2	44	"Handover services" is not an environment or application and is out of place in this list.	No	Delete the line "Handover services".	ACCEPTED	
I-72	Bims, Harry	Approve	Editorial	27	4.1	5	grammar fix	No	change "than is a LAN" to "than the area of a LAN"	ACCEPTED	
I-74	Bims, Harry	Approve	Editorial	28	4.3	19	would be nice to order the presentation of terms with PAN at the beginning of the list, because it has the smallest geographical area.	No	rearrange the order of the terms to "PAN, LAN, MAN, and RAN"	ACCEPTED	
I-2	Housley, Russell	Disapprove	Technical	28	4.3	19	Since BAN is listed in the keywords for this document, BAN should be listed here.	Yes	Please add BAN to the list.	ACCEPTED	
I-45	Rolfe, Benjamin	Disapprove	General	29	4.4	6	Figure 1 is out of date (thus wrong): has the wrong titles for several standards.	Yes	802.15.3 s/b Wireless MultiMedia Networks 802.15.4 s/b Low-Rate Wireless Networks 802.15.7 s/b Short-Range Optical Wireless Communications 802.15.9 s/b Transport of Key Management Protocol (KMP) Datagrams	ACCEPTED	
I-44	Rolfe, Benjamin	Disapprove	General	29	4.4	6	This history, and the figure, is a bit out of date. It might be more helfpul to update to show the 2020 revision + ammendments = 2024. Then the name of the standard would match the current standards (WPAN was dropped for obvious reasons).	Yes	Update figure 2: 802.15.4-2020 is was followed by four amendments and one corrigendum subsequent to the 2020 revision: 802.15.4w-2020, 802.15.4z-2020, 802.15.4y-2021, 802.15.4-2020/Cor 1-2022 which produces (RSN) 802.15.4-2024	REJECTED	The purpose of the figure is to show approved standards without dates. Adding the amendments as well would grow the figure significantly and ensure that it is out of date as of the publication of this standard as new amendments are in constant development within IEEE 802.
I-25	Gilb, James	Disapprove	Technical	31	5.1	0	The column of abbreviations in the right of Figure 4 is inappropriate. Abbreviations belong in 3.2. Some of these conflict with the expansions in 3.2.	No	Delete the column of abbreviations; alternatively, delete those that duplicate or conflict with those in 3.2.	REVISED	Delete the column of abbreviations and add any missing ones, e.g., CGMII, to the acronyms list.
I-7	Ran, Adee	Approve	Technical	31	5.1		Figure 4 is titled "IEEE 802 RM and an example of an end-station IM (100 Gb/s)" but the figure is generally applicable to many data rates, not just to 100 Gb/s (the term "CGMII" is the only thing specific to 100 Gb/s). The whole IM is, however, specific to 802.3.	No	Change the title to "Figure 4—IEEE 802 RM and an example of an end-station IM (802.3)".	REVISED	Change the title to "Figure 4- An IEEE 802.3 IM and its relation to the IEEE 802 RM"
I-26	Gilb, James	Disapprove	Technical	32	5.2.2	16	The sentence "In IEEE 802, the functions in the LLC are defined in IEEE 802.1 standards." fails to include ISO/IEC 8802-2:1998, which specifies LLC and is a normative reference.	Yes	Change to "Within IEEE 802 standards, the functions of the LLC are specified in IEEE 802.1 standards and in aspects of ISO/IEC 8802-2:1998."	ACCEPTED	
I-27	Gilb, James	Disapprove	Technical	32	5.2.3	42	A function of the MAC is missing.	Yes	Add a line: "Delivery to the LLC sublayer of user data from, and only from, frames received with a suitable destination address"	REVISED	Change "Transparent data transfer of PDUs from the next higher sublayer" to be "Transparent data transfer of PDUs between peer next higher sublayers" and add a new list item "Delivery to the next higher sublayer of data frames received with suitable destination addresses"
I-28	Gilb, James	Disapprove	Technical	33	5.2.4	23	"Particularly at speeds of 100 Mb/s and above or for wireless transmission," is archaic and provides no useful insight.	Yes	Change "Particularly at speeds of 100 Mb/s and above or for wireless transmission," to "In many cases".	ACCEPTED	
I-16	Gilb, James	Disapprove	Technical	34	5.3.1	4	There is no need to specify the italicized term "single access domain"; it's simply a single "access domain".	No	De-italicize "single".	ACCEPTED	

I-29	Gilb, James	Disapprove	Technical	34	5.3.1	6	This should not reference a "set of MACs." Per 5.2.3, "The functions listed are those of the MAC sublayer as a whole. Responsibility for performing them is distributed across the transmitting and receiving end stations and any interconnection devices such as bridges." So it's a MAC, not a set of MACs.	Yes	Change "the set of MACs" to "the MAC".	REVISED	Change "the set of MACs" to be "the set of MAC entities." Add to 3.1, in appropriate alphabetical location: "medium access control (MAC) entity: The instantiation of an active element embodying MAC-specific capabilities at a single station." "logical link control (LLC) entity: The instantiation of an active element embodying LLC-specific capabilities at a single station." In B[20] of Annex A, change "IISO to "ISO."
I-30	Gilb, James	Disapprove	Editorial	35	5.3.2.5	22	The section includes more than indicated in the title; in particular, VLAN bridging.	Yes	Change title to "Virtual and provider bridging"	ACCEPTED	
I-77	Specht, Johannes	Disapprove	Technical	36	5.3.2.6	21	and terms with "TSN" have several issues (see comment 18 in https://mentor.ieee.org/802.1/dcn/24/1-24-0018-00-Mntg-p802-revc-comments-dis.pdf).	Yes	b) page36, line 6: Change "Some TSN network protocols and mechanisms are the following" to "Some network protocols and mechanisms specified in IEEE 802 standards for these applications are the following"	REVISED	mechanisms are the following" to "Network protocols and mechanisms specified in IEEE 802 standards for applications that need TSN capabilities include the following:"
I-4	Housley, Russell	Disapprove	Technical	37	5.3.2.8	15	Please show an IEEE 802.11s mesh network be included in Figure 7.	Yes	Please add a mesh network where one node passes the traffic of another.	REJECTED	Subclause 5.3.2.8 "Bridging example" and its associated figure, Figure 7, illustrates the use of bridging in IEEE 802 networks. Mesh networking is a separate feature from bridging.
I-34	Gilb, James	Disapprove	Technical	41	8.2.1	36	"Mars helicopter" is "NASA's Ingenuity Mars Helicopter". However, the example is faulty and misleading unless that device used a global MAC address.	No	Without evidence that this device made use of a global MAC address, delete this footnote. With such evidence, change "Mars helicopter" to "NASA's Ingenuity Mars Helicopter".	REVISED	Delete the footnote. Absent proof that global MAC addresses were used, the footnote should not be present.
I-32	Gilb, James	Disapprove	Technical	41	8.1	4	What is different about the sentence "A MAC address may also be used to identify a MAC SAP" from the prior sentence?	Yes	Clarify this sentence to distinguish it from the prior sentence. Don't delete the concept, though, because nowhere else does the draft indicate that a MAC SAP has a MAC address.	REVISED	Change "A MAC address may also be used to identify a MAC SAP." to be "More specifically, the MAC address identifies the MAC SAP provided by the MAC entity for data transfer."
I-31	Gilb, James	Disapprove	Technical	41	8.1	4	The sentence says "In this standard, the term MAC address is used to refer to a 48-bit or 64-bit number that is used to identify the source and destination MAC entities." But not all addresses can do both; e.g., multicast addresses cannot be source addresses.	Yes	Change "source and destination MAC entities" to "source or destination MAC entities".	ACCEPTED	
I-69	Hernandez, Marco	Approve	Technical	41	8.1	8	Clarification for standards using 64-bit MAC addresses. The first sentence addresses interoperability through bridges. The 2nd sentence is not clear if it conveys the same message of interoperability. Currently, some IEEE 802.15 standards (.6,.8,.13), perhaps new ones, may be argued that only require routed connectivity, and yet these use 48-bit MAC addressing. Currently, no standard addresses the interconnectivity between 64-bit MAC addressing networks and 48-bit addressing networks. The 1st sentence is good enough for new standards that target interoperability via bridges to use 48-bit MAC addressing. Until there is a standard that addresses such interoperability with 64-bit MAC addresses.	No	To avoid misunderstandings, please delete the sentence "New IEEE 802 standards that only require routed connectivity should use 64-bit MAC addressing."	REVISED	Change the sentence to: "IEEE 802 standards that do not require bridged connectivity may use 64-bit MAC addressing. To avoid exhausting the 48-bit global address space, 64-bit MAC addressing or the local address space, as described in 8.4, may be used."
I-33	Gilb, James	Disapprove	Technical	41	8.1	8	"only require routed connectivity" is not the right limitation. It doesn't matter if they require routed connectivity or require anything else.	Yes	Change "only require routed connectivity" to "do not require bridged connectivity".	ACCEPTED	
I-59	Thomas, Angela	N/a	Technical	42	8.2.2	18	Once the caption of Fig 8 is changed to "First three bytes of a MAC address", the first sentence at line 18 is unaligned with the figure.	Yes	Change the first sentence to "Figure 8 illustrates the structure of the first three octets of a MAC address".	ACCEPTED	
I-60	Thomas, Angela	N/a	Technical	42	8.2.2	19	Once the caption of Fig 8 is changed to "First three bytes of a MAC address", the second sentence at line 19 is unaligned with the figure. Also "for all 802 network address" is too informal and is grammatically incorrect.	Yes	Change the second sentence to "These ocets have the same structure for all IEEE 802 MAC addresses, so this structure applies to all address block assignments (MA-S, MA-M and MA-L), and also to 48-bit or 64-bit MAC addresses, including universal and local addresses as well as individual and group addresses."	REVISED	Change the second sentence to "These octets have the same structure for all IEEE 802 MAC addresses, so this structure applies to all address block assignments (MA-S, MA-M and MA-L), and also to 48-bit or 64-bit MAC addresses, including universal and local addresses as well as individual and group addresses."
I-61	Thomas, Angela	N/a	Technical	42	8.2.2	21	The RAC EUI tutorial [B2] refers to the two bits as the M and X bits and (for MAC addresses the I/G and U/L bits).	Yes	Change the third sentence to "The least significant bit (LSB) of the first octet is the individual/group (I/G) address bit, also known as the M bit."	REVISED	Change the third sentence to "The least significant bit (LSB) of the first octet is the individual/group (I/G) address bit, also known as the M bit in an OUI."
I-62	Thomas, Angela	N/a	Technical	42	8.2.2	22	The RAC EUI tutorial [B2] refers to the two bits as the M and X bits and (for MAC addresses the I/G and U/L bits).	Yes	Change the fourth sentence to "The next-to-lsb of the first octet for the MAC address is the universal/local (U/L) address bit, also known as the X bit."	REVISED	Change the fourth sentence to "The next-to-lsb of the first octet for the MAC address is the universal/local (U/L) address bit, also known as the X bit in an OUI."
I-54	Thomas, Angela	N/a	Technical	42	8.2.2	5	"the IEEE Registration Authority Committee, which is chartered by the IEEE Standards Association Board of Governors" does not reflect the correct relationship.	Yes	Change to "the IEEE Registration Authority Committee, which is a standing committee of the IEEE Standards Association Board of Governors".	ACCEPTED	
I-55	Thomas, Angela	N/a	Technical	42	8.2.2	6	It's a bit confusing to say that "The IEEE RA assigns universal addresses", even though "in various address block sizes" follows in the sentence. It's not exactly wrong, but the text could be clearer, to avoid the mistaken impression that a universal address might be assigned to a device by the IEEE RA.	Yes	Change "The IEEE RA assigns universal addresses" to "The IEEE RA assigns blocks of universal addresses to assignee applicants".	ACCEPTED	
I-57	Thomas, Angela	N/a	Technical	43	8.2.2	0	Once the caption of Fig 8 is changed to "First three bytes of a MAC address", the text above is needlessly confusing in discussing addresses and protocol IDs. The RAC EUI tutorial [B2] refers to these bits as the M and X bits and (for MAC addresses the I/G and U/L bits).	Yes	Change "Application dependent: e.g., U/L bit in addresses, X bit in protocol IDs" to "U/L (X) bit". Change "Application dependent: e.g., I/G bit in addresses, M bit in protocol IDs" to "I/G (M) bit".	ACCEPTED	
I-56	Thomas, Angela	N/a	Technical	43	8.2.2	0	The figure title needs revision. The title "Structure of an OUI" is not optiimal, because a key point of the figure is to illustrate the meaning of the U/L and I/G bits. In an OUI, both of those bits are fixed as 0. Therefore, talking about an OUI is too limiting for a discussion of nonzero values.	Yes	Change the caption to "First three bytes of a MAC address". Make other corresponding revisions as proposed in other comments.	ACCEPTED	
I-58	Thomas, Angela	N/a	Technical	43	8.2.2	1	It's misleeading to say "The U/L bit indicates whether the MAC address has been assigned by a local or universal administrator." because the specific address is never assigned to a device by a universal administrator. The RA assigns a block of addresses to an assignee but is not responsible for assigning an address to a device.	Yes	Change to "The U/L bit indicates whether the MAC address is universal or has been assigned by a local administrator."	ACCEPTED	

I-63	Thomas, Angela	N/a	Technical	43	8.2.2	26	"one or more" is too restrictive, because 0 is also an option; that is, some group MAC addresses have no associated recipient devices in the network.	Yes	Change "one or more" to "zero or more".	ACCEPTED	
I-64	Thomas, Angela	N/a	Technical	43	8.2.2	4	Because the proposed changes to Figure 8 are for general addresses, it's important to call out the special cases of EUI and OUI.	Yes	Add a paragraph: "In an OUI and in an EUI, the I/G (M) bit and U/L (X) bit both have the value 0."	ACCEPTED	
I-65	Thomas, Angela	N/a	Technical	43	8.2.2	5	"U/L bit set to zero" is complete because it fails to mention the I/G bit.	Yes	Change "U/L bit set to zero" to "M and X bits set to zero".	REVISED	Change "U/L bit set to zero" to "both the U/L bit and the I/G bit set to zero".
I-35	Gilb, James	Disapprove	Technical	50	8.6	22	It seems that the intended citation is to Figure 8, which seems more suitable.	Yes	Change "Figure 9" to "Figure 8".	REVISED	Change “e.g., see Figure 9” to be “see Figure 8”
I-37	Gilb, James	Disapprove	Technical	50	8.6	26	What is an "information field"?	No	Change "information field" to "MSDU".	ACCEPTED	
I-8	Ran, Adee	Approve	Editorial	50	8.6	27	"It is strongly recommended that the historical problems observed with different serial bit transmission orders are best avoided by only transmitting the LSB of octets first" This seems to be a malformed sentence - a mixture of history, a statement of fact (how to avoid problems) and a recommendation. The historical problems have already been mentioned in the previous paragraphs. "However, if MSB (bit-reversed) serial transmission order is used" Seems to mean "MSB first".	No	Change the first sentence to "To avoid the problems mentioned above, It is strongly recommended that MAC standards use the LSB-first bit order". In the second sentence, change "MSB" to "MSB-first".	REVISED	Make the changes indicated in https://mentor.ieee.org/802.1/dcn/24/1-24-0034-01-Mntg-proposal-f
I-36	Gilb, James	Disapprove	Technical	50	8.6	28	The word "only" is unneeded and possibly confusing; the text suggests "transmitting the LSB of octets first" and doing nothing else.	Yes	Delete "only"	ACCEPTED	
I-38	Gilb, James	Disapprove	Technical	50	8.6	30	What is an "information field"?	No	Change "information field" to "MSDU".	ACCEPTED	
I-68	Thomas, Angela	N/a	Technical	50	8.5	32	The text of Footnote 23 should reflect the content of Footnote 22, and the URL should point to the web page of the registry.	Yes	Change Footnote 23 to '23 See the “Standardized Group MAC addresses” at: https://standards.ieee.org/products-programs/regauth/grpmac/"	ACCEPTED	
I-66	Thomas, Angela	N/a	Technical	50	8.5	5	This subclause needs to introduce group addresses generally before describing Standardized group MAC addresses specifically.	Yes	Change the title from "Standardized group MAC addresses" to "Group MAC addresses". Move the footnote anchor into the text at the point where "Standardized group MAC addresses" are introduced.	ACCEPTED	
I-67	Thomas, Angela	N/a	Technical	50	8.5	6	The entire subclause should be replaced. It needs to present some key issues regarding group addresses, particularly regarding how the IEEE RA assigns group address blocks along with individual address blocks.	Yes	Change the subclause to: "Subclause 8.2 primarily describes EUIs, which are universal individual addresses assigned in blocks by the IEEE RA. In some cases, the assignee of an address block may need to make use of group addresses as well as individual ones. Such addresses are included in the IEEE RA assignment. An IEEE RA tutorial [B2] states that “The assignee of an OUI or OUI-36 is exclusively authorized to assign group MAC addresses, with I/G=1, by extending a modified version of the assigned OUI or OUI-36 in which the M bit is set to 1. Such addresses are not EUIs and do not globally identify hardware instances, even though U/L=0.” In some cases, group MAC addresses are designated for use in standardized protocols; these are known as standardized group MAC addresses [22]. These may be created by the procedure described in [B2], based on an OUI or OUI-36 assigned for use in a standard. For example, many standardized group MAC addresses are derived from an OUI that has been assigned by the IEEE 802.1 Working Group. In other cases, a group address may be assigned by the IEEE RA for use in a standard. The administration of such standardized group MAC addresses, including the procedure for application, is described by the IEEE RA [23]. The IEEE RA also provides a list of a list of currently assigned values; some of the items listed are simply informative, since the assignments are specified by the assignee of the OUI and not by the IEEE RA. The IEEE RA also lists some standardized group addresses that, because the U/L bit is set to 1, are not assigned uniquely to the standard. "	REVISED	Change the subclause to: "Subclause 8.2 describes universal individual addresses assigned in blocks by the IEEE RA. In some cases, the assignee of an address block may need to make use of group addresses as well as individual ones. Such addresses are included in the IEEE RA assignment. An IEEE RA tutorial [B2] states that “The assignee of an OUI or OUI-36 is exclusively authorized to assign group MAC addresses, with I/G=1, by extending a modified version of the assigned OUI or OUI-36 in which the M bit is set to 1. Such addresses are not EUIs and do not globally identify hardware instances, even though U/L=0.” In some cases, group MAC addresses are designated for use in standardized protocols; these are known as standardized group MAC addresses(22). These may be created by the procedure described in [B2], based on an OUI or OUI-36 assigned for use in a standard. For example, many standardized group MAC addresses are derived from an OUI that has been assigned by the IEEE 802.1 Working Group. In other cases, a group address may be assigned by the IEEE RA for use in a standard. The administration of such standardized group MAC addresses, including the procedure for application, is described by the IEEE RA(23). The IEEE RA also provides a list of a list of currently assigned values; some of the items listed are simply informative, since the assignments are specified by the assignee of the OUI and not by the IEEE RA. The IEEE RA also lists some standardized group addresses that, because the U/L bit is set to 1, are not assigned uniquely to the standard. "
I-70	Hernandez, Marco	Approve	Editorial	51	9.1	36	Clarification in the use of PIF by the LLC or MAC in a shorter sentence.	No	Please replace "In principle, the LPDU is carried as a MAC service data unit and is opaque to the MAC; use of the LPDU structure is limited to the LLC endpoints of the IEEE 802 network. Some exceptions to this opaqueness are specified in IEEE 802 standards; for example, the first two octets of the LPDU are exposed to the Ethernet MAC of IEEE Std 802.3." with "The LPDU is encapsulated in the MSDU. However, in some IEEE 802.3 standards, the first two octets of the PIF are appended to the MPDU."	REVISED	Replace "In principle, the LPDU is carried as a MAC service data unit and is opaque to the MAC; use of the LPDU structure is limited to the LLC endpoints of the IEEE 802 network. Some exceptions to this opaqueness are specified in IEEE 802 standards; for example, the first two octets of the LPDU are exposed to the Ethernet MAC of IEEE Std 802.3." with "The LPDU transferred between LLC entities is encapsulated in the MDSU and is not exposed at the MAC sublayer. Some exceptions to this are specified in IEEE 802 standards; for example, the first two octets of the LPDU are exposed to the MAC sublayer of IEEE Std 802.3.."

I-10	Gilb, James	Disapprove	Technical	53	9.2.3	35	The text in the box reading "(see Figure 18)" is incomplete. As indicated above the box, the size of this field is either 0 or 6. In the case of Fig. 18, the length is 6. The uncited case, per Fig. 20, provides the example of length 0.	Yes	Replace "(see Figure 18)" with "(see Figs. 18 and 20)".	REVISED	Replace "(see Figure 18)" with "(see Figure 18 and Figure 20)".
I-52	Hamilton, Mark	Approve	Technical	71	B.3.1	9	Text says 802.15.3 specified an FCSL for connection to the "ISO/IEC 8802-2 LPD". There is no "LPD" in 8802-2.	No	Either delete "LPD" (so it is just connection to ISO/IEC 8802-2), or perhaps change LPD to LLC if that is what was meant.	REVISED	Delete “LPD”
I-50	Rolfe, Benjamin	Disapprove	General	82	D	11	"IEEE Std 802.15.4™, IEEE Standard for Local and metropolitan area networks—Part 15.4: Low-Rate Wireless Personal Area Networks (LR-WPANs)." is out of date. To align with reality, the name was changed with the 2020 revision.	Yes	Use the correct title of the standard: "Standard for Low-Rate Wireless Networks"	ACCEPTED	
I-51	Rolfe, Benjamin	Disapprove	General	82	D	15	Title of 802.15.7 is wrong.	No	Use correct title of the standard: "IEEE Standard for Local and metropolitan area networks--Part 15.7: Short-Range Optical Wireless Communications"	ACCEPTED	
I-49	Rolfe, Benjamin	Disapprove	General	82	D	7	Title of 802.15.3 is wrong.	No	Use the correct title of the standard: "IEEE Standard for High Data Rate Wireless Multi-Media Networks"	ACCEPTED	
I-76	Parsons, Glenn	Disapprove	Technical	84	E.3	29	A future looking statement on a PAR activity should not be included, even if it is informative.	Yes	Delete paragraph. Or reword to indicate that such a method is not in scope for this standard.	REVISED	Delete the paragraph “In February 2016, the IEEE SA initiated a project, P802.1CQ [B1], regarding multicast and local MAC address assignments to specify protocols, procedures, and management objects for locally unique assignment of 48-bit and 64-bit addresses in IEEE 802 networks.”
I-75	Seaman, Michael	Disapprove	Technical	84	E.3	29	The draft should not reference projects in progress, as these are by no means certain to meet approval criteria and complete. In particular it seems unlikely that P802.1CQ will complete - PAR expiry is imminent. An important related issue that Std 802, in common with many networking standards has historically focused on packet formats as opposed to protocol semantics. A protocol ‘address’ field of sometimes represents the *Identity* of a communicating party, sometimes the *Address* proper (where physically the party is to be found), sometimes a *Route* (dictating the decisions to be made by intermediate systems for frames to be routed to the party). Each of these concepts, if used, has to be associated with some level of persistence - dictating how the “address” can be used. Historically the assignment of an address at device manufacturing time supported its use as a permanent device *Identity*. However in some protocol use cases the use of such a persistent identity is not required, e.g. in pre-association exchanges for service discovery. In other cases non-disruptive use requires the address to be permanent for the lifetime of a connection/association (and IEEE Std 802.1Q allows network reconfiguration to occur without disrupting the communication - which would not be possible if the address field contained as Route). When the “address” needs to be used to support system behavior debugging or otherwise associated with a service record it may need persist over many associations/connections, and if it is not the network administrator/service provider has to maintain some record of the association between the contents of the address field and the system or service user identity. The notion of a "structured address" plan would appear to indicate a shift from the "Identity" interpretation to a location (or location region) "Address" interpretation , or even to a "Route". A reference to an incomplete project that does not spell out the issues and their consequences for network use and administration is a disservice to users who may find themselves committed to design choices for which we appear to have promised future support, only to encounter with unexpected network deployment issues.	Yes	Remove the paragraph referencing P802.1CQ.	ACCEPTED	
I-9	Ran, Adee	Approve	Technical	85	F.2		Table F.1 lists IEEE 802 as the reference for the 08-42 EtherType (WoL). However, Annex G states that WoL is not standardized in any 802 standard. The only detail in Annex G is the specific EtherType used by WoL, 08-42, which does not provide any additional information over the table. The annex is informative so it isn't a normative specification of the EtherType. Using a standard that declares that WoL is not standardized by it as the reference is inadequate. The WoL function seems to have been defined by the "IBM/Intel Advanced Manageability Alliance" in 1997 (see https://web.archive.org/web/20121012155338/http://www-03.ibm.com/press/us/en/pressrelease/2705.wss or the Wikipedia article on Wake-on-LAN). This can be used as the reference in Table F.1 and the YANG model instead. As an alternative to the proposed change below, Annex G can be made normative to specify the EtherType for WoL as 08-42, and possibly mention the "IBM/Intel Advanced Manageability Alliance". It can state that further specifications of the WoL protocol are beyond the scope of the 802 standard. If this direction is taken, the references in Table F.1 and the YANG model can remain unchanged.	No	In the 08-42 row of Table F.1, change the reference to "IBM/Intel Advanced Manageability Alliance". Update the YANG model accordingly. Delete annex G.	REJECTED	The referenced link does not include the EtherType that is specified in Annex F. None of the other documents that have been found regarding WoL reference the EtherType value. The current EtherType is assigned to IEEE 802.1 Working Group.