

**To:** Carlsbad traffic commission

**From:** Steve Linke (splinke@gmail.com)

**Date:** October 2, 2023

**Subject:** Multimodal Level of Service (MMLOS) Methodology Update (10/2/2023 Agenda Item #2)

I submitted the attached letter (Attachment A) to staff in April for distribution to the commission to provide feedback on the MMLOS methodology review process. I never received any confirmation that it had been distributed, and I hope you have an opportunity to read the full letter for additional details, but below is a summary with updates:

- The Carlsbad Municipal Code defines the commission’s primary duty as implementing the 2015 General Plan Mobility Element, and the first five implementing policies in that element are related to establishing and using the MMLOS methodology.
- The MMLOS methodology was supposed to require funding of transportation improvements from developer and city projects with the promise that it would trigger a “transformation” in infrastructure for the alternative modes of travel—pedestrian, bicycle, and transit.
- Instead, in the ensuing eight years, projects have only been conditioned to fund very minimal MMLOS-based improvements, and the city also has failed to establish an MMLOS methodology or report monitoring results, even though that is required **every year** by Growth Management.
- Each year when the GMP monitoring report is presented to the commission and council, staff claims that they will do MMLOS monitoring before the end of the year and submit the results as a late supplement—and each year they have broken their promise to do that.
- Sadly, during the GMP Update committee process, for which I served as your commission’s voting representative, staff recommended abolishing any minimum standards under MMLOS.
- The staff report you received for today’s meeting is largely a copy-paste of the staff report from your March meeting with the same, seemingly anemic, proposed MMLOS systems.
- One change in the new staff report relative to the March version is staff again breaking the promise to present MMLOS monitoring in a late supplement for FY 2021-22 and, instead, they are now going to wait until FY 2022-23.

## **1. What list of MMLOS deficiencies reflects all of staff’s proposed revisions?**

Exhibit 3 of the staff report appears to show theoretical lists of MMLOS deficiencies for pedestrian (Table 1), bicycle (Table 2), and transit (Table 3), but those are based on previous committee recommendations—and not staff’s proposed revisions. Exhibit 4 appears to include a subset of the deficiencies, but it is not described well in the staff report.

***Sample question for staff: If the commission agrees to all of staff's proposed revisions, and then monitoring is done consistent with those revisions, will all of the deficiencies listed in Exhibit 4 appear in the monitoring report?***

## 2. Pedestrian LOS: Sidewalk widths

Staff has seemingly reduced the sidewalk width minimum standard by downgrading the “Essential Features” from meeting the minimum widths stated in the Mobility Element (6 to 10 feet for some street types, and at least 5 feet for all other street types, wherever feasible) down to just Americans with Disabilities Act (ADA) compliance—seemingly 4 feet in California:

The current language refers to some alleged width “recommendations” in the SMP or 5 feet, but I am unaware of any width recommendation in the SMP, and the inclusion of the word “recommendations” means that developers can only be conditioned to use the minimum ADA width of 4 feet. Thus, the following revision should be made:

**Essential Feature: Sidewalk width meets minimum width for typology according to the Mobility Element (or 5' if unspecified), wherever feasible**

*Sample questions for staff:*

- *For Identity Streets in the Village, the Mobility Element calls for minimum sidewalk widths of 6 to 10 feet. For School Streets, it calls for a minimum of 6 feet. With staff’s currently proposed sidewalk width “essential feature” language, will developers and the city be required to improve sidewalks to these widths with their projects, wherever feasible?*
- *What is the minimum ADA width? What are the minimum widths that staff alleges are in the SMP? What can actually be required with the currently proposed MMLOS language?*

## 3. Pedestrian LOS: Crosswalks

I wanted to get more crosswalks marked at busy intersection on major streets. Two examples arose with large apartment complexes that are under construction near Palomar Airport Road—one near the intersection with College Boulevard/Aviara Parkway and another near Palomar Oaks Way. None of the legs has any markings for pedestrians, despite the fact that the developments will allegedly add significant pedestrian traffic, and despite the fact that these intersections serve bus stops and business access points to which people could walk. These are only a couple of examples, but neither development was required to help fund crosswalks.

I suggested that an essential feature for these types of intersections should be high-visibility crosswalks (ones with “ladder” cross-hatches). Staff pushed back, stating that including too many of these would reduce the effectiveness. OK, then regular crosswalks (two parallel lines) should be appropriate, and many jurisdictions include these as standard at **every signalized intersection**.

However, staff is proposing eliminating installation of new crosswalks as a requirement—entirely deleting the reference to high-visibility crosswalks and limiting the regular crosswalks to only reviewing whether already-existing crosswalks meet guidelines. I urge the commission to suggest the following alternative:

**Essential Feature: All crosswalks marked according to CA-MUTCD guidelines, regular marked (transverse line) crosswalks on all legs of all signalized intersections where crossings are permitted, and additional regular or upgraded high-visibility crosswalks where warranted by high pedestrian usage**

*Sample question for staff:*

- *Under staff's proposed language, would a marked crosswalk be required at busy intersections like Palomar Airport Road/College Boulevard and Palomar Airport Road/Palomar Oaks Way?*

#### **4. Pedestrian LOS: Safety lighting**

I urge the commission to convert this to a required “essential feature” rather than just one that adds points: **Essential Feature: Street lighting locations consistent with City of Carlsbad standards for street light spacing**

#### **5. Pedestrian LOS: Countdown signals**

I urge the commission to add a criterion related to countdown signals: **Essential Feature: Pedestrian countdown signals at intersections adjacent to developments that add pedestrian traffic**

#### **6. Transit LOS: Bus/rideshare stop amenities**

Despite claims by staff at your March meeting, there are many studies that establish that adding stop amenities like benches and shelters increases transit/rideshare ridership. Staff is recommending tying amenity requirements to North County Transit District (NCTD) guidelines, which appears to be >10 boardings per day for a concrete pad/bench, and >20 for a shelter. However, as of 2018-19, only 14% of Carlsbad stops have >10 boardings per day, and only 7% have >20.

When sizable new developments are proposed, they often are located near these low-usage stops, but then they claim traffic mitigation based on their residents/employees using transit/rideshare services that could utilize these stops. Therefore, future (not just current) usage of a bus stop should be taken into account when deciding on the requirements for improvements:

**Essential Feature: If transit ridership is included among any of a development's mitigation strategies, or if the stop location is projected to meet the NCTD requirements for a “bench stop” after accounting for increased ridership from the development, then a an ADA-accessible pad, bench, trash can, and pedestrian-scale lighting shall be provided. If sufficient right-of-way does not exist, compact amenities shall be provided, where feasible.**

**Essential Feature: If transit ridership is included among any of a development's mitigation strategies, or if the stop location is projected to meet the NCTD requirements for a “shelter stop” after accounting for increased ridership from the development, then a shelter shall be provided. If sufficient right-of-way does not exist for a full-size shelter, a compact shelter shall be provided, where feasible.**

**Sample question for staff:**

- ***For developments, under staff’s proposed language, would the NCTD boarding minimums for bench and transit stops be based on current ridership (before any contributions of the development) or projected ridership after the development is built?***

## **7. Transit LOS: Transportation Demand Management (TDM) mitigation**

One promise of the MMLOS system in the Mobility Element was that it would help transform the transit system on transit-prioritized streets. On such streets with infrequent transit service, TDM (including ridesharing) has been used as an alternative to generate transit LOS points. However, staff is now declaring that lack of meaningful transit service should be addressed through the “TDM ordinance and/or Growth Management Plan mitigation requirement”—not MMLOS.

The reference to Growth Management seems bizarre, because the MMLOS performance standard is the exact mechanism by which a mitigation requirement is established under Growth Management.

**Sample question for staff:**

***Under your proposed revisions, what is the mechanism by which Growth Management will be used to establish a transit mitigation requirement—if not through MMLOS?***

And with regard to the TDM ordinance: (1) The ordinance is only mandatory and enforced for commercial developments, and nearly every recent major development has been residential. (2) The TDM Ordinance is a general citywide approach to reduce **employee** trips in order to address the city’s **Climate Action Plan**. It is not designed to address the lack of usable transit in specific transit-prioritized corridors. Some developments may fall under the general TDM ordinance, but, if they are also in a transit-prioritized area with deficient transit service, they should have additional mitigation obligations.

**Sample question for staff:**

- ***Will TDM plans under the TDM ordinance directly address the lack of usable transit in specific transit-prioritized corridors, like the transit LOS system is supposed to do?***
- ***Will TDM ordinance plans for residential projects be mandatory and enforced?***

**TDM requirement should be retained in MMLOS system:**

**The committee’s recommendations for Essential Features related to TDM mitigation (based on distance to stops and frequency of service) in Table 4 of the staff report should be retained, and staff’s recommendation to remove them should be rejected.**

## Attachment A (Linke)

**To:** Traffic and Mobility Commission

**From:** Steve Linke (splinke@gmail.com)

**Date:** April 20, 2023

**Subject:** Follow-up on Multimodal Level of Service (MMLOS) Methodology Update (3/6/2023 Item #2)

This letter is a follow-up to my 3/3/2023 letter on this topic based on additional issues that arose from your 3/6/2023 meeting, which may be of particular interest to those now serving on the MMLOS Ad Hoc Committee of which I am a former member.

## GENERAL

### Failed implementation of the MMLOS system

One of the primary duties of the Traffic and Mobility Commission is to guide implementation of the [2015 General Plan Mobility Element](#), so all commissioners should familiarize themselves with it. The first five Implementing Policies (pp. 28-29) establish that the MMLOS methodology is supposed to be used for all development and city projects to require construction of, or fair share contributions toward, the “livable streets” improvements listed in Table 3-1 (pp. 11-15), which are specific to the individual street typologies designated in Figure 3-1 (p. 17). However, rather than the promised “transformative” nature of the MMLOS system, staff has implemented anemic MMLOS point schemes and exemptions, leading to barely any meaningful multimodal improvements by developers. That is why I called for reform of the MMLOS methodology in the commission’s work plan and formation of the MMLOS Ad Hoc Committee.

### History of the MMLOS methodology update (Ad Hoc Committee)

The committee was established at the June 2020 commission meeting. It met at least five times over two years (12/3/2020, 3/18/2021, 7/28/2021, 5/26/2022, and 8/3/2022) to discuss changes to make the MMLOS methodology more robust. However, suggested changes were routinely met with logistical and legal excuses by staff, and there were long delays between meetings, although it seemed like some progress was being made.

About a week before your 3/6/2023 meeting, staff provided you with a document entitled “Multi-Modal Level of Service (MMLOS) Methodology White Paper & Technical Memorandum” prepared by Fehr & Peers (the consultant that also wrote the 2015 General Plan Mobility Element and promised its “transformative” MMLOS approach to planning). When I read the **white paper**, I thought it could have been more consistent with the Mobility Element and gone further to promote MMLOS, but it actually includes much of the committee’s input.

However, when the **staff report** was released a few days later, I was extremely disappointed to see that staff was making numerous last-minute recommendations (not reviewed by the committee) that undermine many of the pedestrian changes and virtually all of the transit changes suggested by the committee over the course of those two years. And I was even more disappointed when, in response to a question at the meeting, staff falsely implied that their presentation/recommendations were somehow the same as the white paper.

I do not understand why staff would circulate the white paper in advance without the context of their actual recommendations that drastically changed it. The appropriate way to address all of their new recommended last-minute changes should have been at another committee meeting, so I thank the commission for forcing that issue.

#### **“Essential features” and the level of service (LOS) “D” minimum standard**

At the meeting, a couple of commissioners expressed concern about the seemingly low required LOS “D” letter grade. While that is a perfectly understandable feeling (we all want A’s or B’s), it should not be a concern in this case. “D” is just the grade that was arbitrarily chosen as the minimum performance standard in Carlsbad’s Growth Management Program, and the features required to achieve that grade can be chosen to meet any reasonable goal.

I recommend treating this more like a pass-fail system. Any features you think should be a required minimum should be defined as the “essential features” necessary to get a passing “D” grade. If the city ever implements the originally envisioned “transformative” MMLOS system, funding of those essential features would be required of the development, while any additional features that raise the grade above a “D” will not be required nor will they ever be funded by the development. The city can fund such additional features to get better grades at their discretion, though.

#### **Small projects already exempt from analysis**

At the meeting, staff also used the excuse that some of the criteria are not suitable for very small development projects. However, that is irrelevant, because those projects are already exempt from having to do any mobility related analyses—the Transportation Impact Analysis (TIA) Guidelines, Vehicle Miles Traveled (VMT) Analysis Guidelines, and the Transportation Demand Management (TDM) Program all exempt small projects. Further, if staff believes any individual criterion should have an even higher size threshold, that also could be implemented, rather than staff’s “solution” of just eliminating it.

#### **MMLOS features must account for additional users introduced by developments**

When *vehicle* LOS is assessed by a development, it is based on future usage that includes new users after the development is built. The same standard needs to be applied to pedestrian, bicycle, and transit LOS for criteria to which staff wants to apply a user minimum—for example, when determining whether marked crosswalks, pedestrian countdown timers, transit stop pads, transit shelters, etc. are warranted. Unfortunately, based on staff comments at the meeting, it seems they intend only to use currently existing numbers of users—not the increased numbers introduced by developments. This fatal flaw in staff’s recommendations is also inconsistent with the premise that developments should pay for their impacts.

***Any development that cites alternative modes of travel (pedestrian, bicycle, and/or transit) as mitigating factors in its application, or that introduces significant numbers of such users, should be required to assess LOS features based on the increased users.*** This clarification needs to be directly incorporated into the MMLOS methodology. Otherwise, staff will allow developers to just use existing numbers.

# PEDESTRIAN LOS

## Sidewalk widths

Before the ad hoc committee even started working on the MMLOS update, Pedestrian LOS included the following requirement, which is fully consistent with the Mobility Element:

Essential Feature: Sidewalk width meets minimum width for typology according to the Mobility Element (or 5' if unspecified)

For most streets in Carlsbad, this requires the 5-foot minimum width. The Mobility Element specifies larger minimums for “Identity Streets” (10 feet adjacent to retail where feasible, 6 feet adjacent to residential, and 8 feet elsewhere) and “School Streets” (6 feet). It also allows exceptions to sidewalks on “Local/Neighborhood Streets” when they are “inconsistent with the existing desirable neighborhood character” (i.e., those neighborhoods that have chosen to forego sidewalks).

I do not recall the ad hoc committee ever endorsing a change in that criterion or a reduction in the minimum sidewalk widths below those stated in the Mobility Element, but staff’s proposed change would do just that, undermining the existing requirement:

Essential Feature: Sidewalk or path meets [Americans with Disabilities Act] unobstructed width based on Sustainable Mobility Plan (SMP) recommendations (Minimum recommended unobstructed width based on SMP is 5')

It is my understanding that the ADA requires only 3 feet with the California Building Code increasing that to 4 feet, and I am unaware of any language in the SMP that sets a minimum sidewalk width. Therefore, the references to the ADA and the SMP, and the inclusion of the 5’ “recommended” width make this change very ambiguous. It certainly sets a lower standard than the Mobility Element for the Identity and School Streets, and it also could be interpreted by developers to not even “require” a 5-foot sidewalk, since that is only “recommended”—resulting in only 3-foot or 4-foot sidewalks.

I am not sure why staff wants to make this last-minute change, but, if it is entirely related to feasibility (lack of land to expand the sidewalks) in some areas, then I would propose the following simple modification of the existing criterion, which remains more consistent with the Mobility Element:

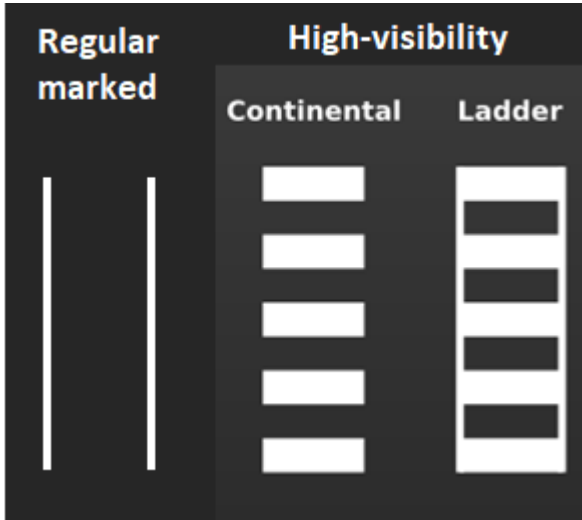
***Essential Feature: Sidewalk width meets minimum width for typology according to the Mobility Element (or 5' if unspecified), wherever feasible***

If the change is actually intended to allow developers to leave or install sidewalks at 3 feet or 4 feet in width, or to ignore the wider standard on the other streets, then the commission should not support that.

## Crosswalks/high-visibility crosswalks

Staff is rejecting the ad hoc committee’s recommendation to put high-visibility crosswalks on all legs of all signalized intersections where crossings are permitted. They also seemingly are limiting regular marked crosswalks (transverse lines) to an analysis of only whether any *existing* painted lines meet California guidelines, as opposed to exploring whether *new* marked crosswalks could be warranted with

developments. These significant reversals occurred despite the fact that staff included them during the ad hoc committee meetings.



It is reasonable to conduct an engineering analysis (warrant study) to assess whether intersections should have marked crosswalks and/or be upgraded to high-visibility crosswalks. The problem is that staff has apparently not adopted any objective standards for such a study, like they have done for stop signs and traffic signals. They certainly never presented any proposed standards to the ad hoc committee, which would have been appropriate for review and incorporation into the MMLSO methodology.

The main factors in this type of “engineering study” likely would be: vehicle speed, vehicle volume, street width (number of lanes), and pedestrian volume. However, as described above, I suspect that staff will not require developers to conduct such warrant studies, and, even if they do, the studies will focus on the pedestrian volume factor to allow avoidance of installation of crosswalks—for example, by **not accounting for the increased number of users introduced by the development and/or by setting an unreasonably high “pedestrians per hour” threshold.** Staff should be asked about those factors.

**Another question to ask staff is whether the two Palomar Airport Road intersections I included in my last letter would warrant crosswalks under their proposed engineering study** (overhead images below): College Boulevard/Aviara Parkway (Aviara Apartments) and Palomar Oaks Way (West Oaks Apartments). No marked crosswalks exist at those intersections or were deemed warranted, despite the very wide streets with very high vehicle speeds and volumes, and despite the fact that residents at the new developments there are supposed to walk to the bus stops (blue symbols) and other nearby destinations. If marked crosswalks are not warranted there, I am not sure where they would be.





Several cities install at least regular marked crosswalks (transverse lines) at *all signalized intersections*, and high-visibility crosswalks are appropriate on many, including those near schools and other crossings at heavily traveled destinations or frequented by at-risk users.

Carlsbad should really have objective Pedestrian Crosswalk Guidelines, like many other cities do. In the meantime, I recommend exploring the following language:

***Essential Feature: All crosswalks marked according to CA-MUTCD guidelines, regular marked (transverse line) crosswalks on all legs of all signalized intersections where crossings are permitted, and additional regular or upgraded high-visibility crosswalks where warranted by a mandatory engineering study***

### **Pedestrian lighting**

The committee recommended that street lighting that is consistent with City of Carlsbad standards be a required feature to improve pedestrian safety, but staff only wants to assign five extra points to that, rather than making it a requirement. Sufficient lighting is one of the main safety measures for pedestrians (both traffic safety and personal safety).

Although I understand Commissioner Penseyres' opposition to increased lighting based on the potential higher visibility of the lights on bicycles in darker areas, I think that the safety benefits to pedestrians supersedes that, and that bicycle lights should still be very visible. The following criterion should be kept:

***Essential Feature: Street lighting locations consistent with City of Carlsbad standards for street light spacing***

### **Pedestrian countdown signals**

***Upgrades to pedestrian countdown signals should be required at intersections adjacent to developments that add pedestrian traffic, consistent with the General Plan Mobility Element.***

## **TRANSIT LOS**

### **Transit stop amenities improve ridership and also can be used for flexible fleets/ride-sharing**

Staff made the false claim during the meeting that amenities like transit shelters do not increase ridership and, instead, may just inhibit pedestrians. They also have complained that ADA-compliant concrete pads and shelters may not fit in some locations. These are just excuses to rationalize their opposition to requiring improvements to transit conditions.

There are several studies that indicate that bus stop amenities like transit shelters increase ridership—and, at the very least, make things more comfortable for existing riders. For example, see the studies cited in [this article](#) and [this article](#), or look at the articles in [this Google search](#). And, if there are locations in which a full-size pad and/or shelter might not fit or might partially block a sidewalk, the MMLoS guidelines can refer to alternatives, like smaller pads, compact shelters, and/or shelters without enclosed sides—again, instead of just exempting a development from making improvements.

It also should be noted that “flexible fleets” and “ride-sharing,” which may substitute for fixed-route transit, could also use these enhanced transit stops as part of their services.

**Retain the requirement for Growth Management-based TDM mitigation in transit under-served areas**

***Staff's last-minute recommendations remove the most important criteria that affect Transit LOS—distance to the stops and the frequency of service—effectively gutting the committee's two years of progress on Transit LOS.*** Staff chose to prioritize several corridors for transit in the 2015 Mobility Element (thereby not prioritizing them for certain other modes) with the promise of improving Transit LOS. Now, ironically, they are citing the fact that transit is so unusable in many of those areas that developers effectively should not have to do anything extra to make improvements there.

To account for the city's limited control over transit routes and stop locations, the committee recommended requiring Growth Management-based TDM of developers in the under-served areas. This is analogous to the requirement that TDM be used as mitigation when Vehicle LOS is deficient on streets that have been exempted due to the impracticality of further increasing capacity.

However, staff's logic-defying rationale for the removal of all of these requirements is that TDM should be implemented instead through Growth Management and/or TDM Ordinance-based plans. **With regard to Growth Management, staff should be asked to clarify what they mean by that, because it is this exact MMLOS approach that would create the requirement for a Growth Management-based TDM plan.**

With regard to the TDM Ordinance: (1) The TDM Ordinance is only mandatory and enforced for commercial developments, and nearly every recent major development has been residential. (2) The TDM Ordinance is a general citywide approach to reduce employee trips in order to address the city's Climate Action Plan. It is not designed to address the lack of usable transit by residents in specific transit-prioritized corridors. Some developments may fall under the general TDM Ordinance, but, if they are also in a transit-prioritized area with deficient transit service, they should have additional mitigation obligations.

***Accordingly, the committee's recommendations for Essential Features related to TDM mitigation (based on distance to stops and frequency of service) in Table 4 of the staff report should be retained, and staff's recommendation to remove them should be rejected.***

**Transit stop amenity requirements need to be based on development contributions to user pool**

Staff's recommendation is to set thresholds of >10 boardings per day to require an ADA-compliant concrete pad, and >20 boardings per day to require a shelter. I did a public records request with North County Transit District for current usage of our 284 bus stops. Only 14% of stops have >10 boardings per day, and only 7% have >20 boardings per day (2018-19 data).

Now, consider three of the largest recent residential developments in Carlsbad: (1) Marja Acres on El Camino Real north of Cannon Road, (2) Aviara Apartments on Aviara Parkway and Palomar Airport Road, and (3) West Oaks on Palomar Oaks Way and Palomar Airport Road. All of the bus stops directly adjacent to these proposed developments currently average only 1 or 2 boardings per day, which would exempt them from having to install pads or shelters under staff's recommendation.

However, all of the projects include their hundreds of future residents' alleged usage of transit as a significant traffic mitigation strategy. As explained above, ***the new users of transit introduced by these developments should have triggered the need for transit stop improvements:***

***Essential Feature: If transit ridership is included among any of a development's mitigation strategies, or if the stop location is projected to meet the NCTD requirements for a "bench stop" after accounting for increased ridership from the development, then a an ADA-accessible pad, bench, trash can, and pedestrian-scale lighting shall be provided. If sufficient right-of-way does not exist, compact amenities shall be provided, where feasible.***

***Essential Feature: If transit ridership is included among any of a development's mitigation strategies, or if the stop location is projected to meet the NCTD requirements for a "shelter stop" after accounting for increased ridership from the development, then a shelter shall be provided. If sufficient right-of-way does not exist for a full-size shelter, a compact shelter shall be provided, where feasible.***