

ASTORIA CITY COUNCIL AND TRAFFIC SAFETY ADVISORY COMMITTEE JOINT WORK SESSION

Astoria City Hall
January 22, 2013

CALL TO ORDER:

Mayor Van Dusen called the meeting to order at 5:30 p.m.

ROLL CALL:

Councilors Present: Councilor Warr, Councilor Mellin, Councilor Herzig, Councilor LaMear, and Mayor Van Dusen

Commissioners Present: President Zetty Nemlowill, Commissioner Cary, Commissioner Innes, Commissioner Tollefson, Commissioner Pearson and Commissioner Norgaard

Staff Present: City Manager Benoit, Community Development Director Estes, Police Chief Curzon, Deputy Chief Johnston, Police Sergeant Aydt, Officer Hord, Public Works Director Ken Cook, City Engineer Harrington, and Planner Johnson. The meeting is recorded and will be transcribed by ABC Transcription Services, Inc.

REGULAR AGENDA ITEMS

Item 3(a): Pedestrian Safety Discussion

City Manager Benoit explained that over the past few months, the Planning Commission, acting in its role as the Traffic Safety Committee (TSC), has been discussing the issue of pedestrian safety. Representatives from the Public Works, Police, and Community Development Departments have been addressing questions and issues raised by the TSC. Chris Maciejewski from DKS & Associates, the firm working on Astoria's Transportation System Plan (TSP) update, will present information and discuss issues regarding pedestrian safety within the City of Astoria.

Chris Maciejewski, Traffic Engineer, DKS & Associates, presented an overview of the pedestrian safety issues within the city via PowerPoint, reviewing statistics and information about pedestrian related accidents over the last ten years and noting key factors that lead to such incidents. He also reviewed a toolbox of pedestrian safety improvements used by communities around the country to generate ideas about what tools would fit well for Astoria and help improve pedestrian safety. He explained that his goal is to get a good dialogue started about pedestrian safety and what changes people are interested in seeing. His key comments and responses to questions from Council and the Commission included:

- Pedestrian crash statistics are generated by a report being filed with the police or the DMV, which are copied to ODOT. There could be more close calls or unreported incidents.
- Lighting seems to be a leading factor in pedestrian related accidents, as more accidents occur during the winter months, when there is less light each day, and around dusk during most of the year.
- Most accidents occur in Astoria's downtown core, where most pedestrian traffic occurs. Accidents have also been occurring on the highway west of downtown, which is currently being discussed at the TSP meetings as crossing that four-lane section of highway is difficult.
- The majority of crashes occur at unsignalized crossing locations in the downtown area with the key contributing factors being lack of driver visibility and motorists failing to yield to pedestrians.
 - Pedestrian accidents on the highway west of town occurred at both unsignalized and signalized intersections and as a result of jaywalking, again, lack of visibility and failure to yield to pedestrians were the key causes. A couple accidents resulted from excessive speed.
- In the downtown core area, improvements at signalized intersections could include countdown timers, leading pedestrian intervals and a pedestrian scramble.
 - Countdown timers that tell pedestrians how long they have to get across the intersection. Due to the number of reduced crashes, Manual on Uniform Traffic Control Devices standards now require that all traffic signals have a countdown timer installed. ODOT may decide to programmatically upgrade signals region wide with the timers over the next few years.

- Leading pedestrian intervals give pedestrians an additional three to five seconds before drivers are given a green light, which improves visibility of pedestrians. This is an effective, low-cost option and could be discussed with ODOT for the highway.
- A pedestrian scramble stops all vehicles while allowing pedestrian traffic in all directions to cross an intersection. This reduces the efficiency of vehicle traffic flow and is most effective in areas where moving large numbers of pedestrians is the priority. This option would be used at specific times, like when the cruise ships are in Astoria. It might not be practical year round.
- Improvements at unsignalized intersections include:
 - Curb extensions, which help improve the visibility of both drivers and pedestrians and the chance that drivers will yield to pedestrians. Curb extensions are relatively expensive and can affect storm water drainage, reduce parking space, and impact the turning movements of large vehicles at intersections.
 - Installing waist-high, metal tubes or markers in areas where on-street parking reduces visibility. These markers are installed diagonally across the parking space closest to the pedestrian crosswalk, providing better visibility at a lower cost than curb extensions without impacting storm water drainage
 - Astoria may have parking spaces closer than the required 25 feet distance from intersections. Curb extension and metal tube markers could help improve compliance and safety.
 - Each intersection could lose up to eight parking spots, depending on the street configuration, so the City will need to consider the parking supply downtown and whether to mitigate the loss of parking.
- Improvements that may improve driver yielding behavior include:
 - In-pavement flashers, which are lights installed in the pavement that light up when a pedestrian pushes the crosswalk button. The lights are visible during the day and night. Jurisdictions using the flashers have replaced them with other treatment options as installation can be tricky and maintenance can be expensive. Snow plows and water can damage the lights.
 - A sign placed in the center of the road instructing drivers to watch for pedestrians, which can improve yielding behavior from 13 percent to 46 percent. While a low-cost option, the signs can be easily hit by vehicles, increasing maintenance costs.
 - Median refuge islands, which allow pedestrians to cross a road in two stages. The intersection must be large enough to accommodate an island, where signs and landscaping can be installed. Refuge islands work well at T intersections where no left turn pocket exists.
- Enhancing intersections with signs, stripped crosswalks, and street lighting are effective overall treatments.
- The described improvement methods should only be used at certain intersections, otherwise the improvements tend to be ignored. The City needs to be selective when deciding which method to use at which intersection. Federal guidelines can help the City determine which method is best at each intersection. Improvements inappropriate for a given intersection can decrease pedestrian safety.
- Improvements that address the problem of speeding include:
 - Driver speed feedback signs, which are placed near speed limit signs and tell drivers how fast they are going. Studies show these to be as effective as speed bumps in neighborhoods; however, once the feedback sign is removed, speeding increases. A permanently installed feedback sign may cost less than the mobile option.
 - A road diet involves narrowing the road by reducing the number of lanes in a specific location. This allows space to install bike lanes, median islands, and center turn lanes. In areas with heavy through traffic, a road diet can increase congestion.
- General, citywide improvements include:
 - Improved street lighting, including the location and type of street lighting used. LED lighting allows for more control of lighting levels and patterns to help eliminate shadows and reduce visibility.
 - Rectangular rapid flashing beacons at pedestrian crosswalks are a low cost option and research shows them to be effective at improving driver yielding behavior.
 - High-intensity activated crosswalk beacons flash lights when a pedestrian is present and stops traffic in both directions. These are typically used at major pedestrian crossings like at a school and more expensive option than the rapid flashing beacon. High-intensity activated crosswalk beacons are only used on city streets and are not approved for highways.
 - Flags or paddles can be carried across the intersection by pedestrians to increase visibility. Limited research shows the flags improve driver compliance by an average of 65 percent. While inexpensive, theft is a big issue. Seattle discontinued using the flags because pedestrians were not using them.
 - Coordinating with the Police Department about changes to the system is recommended so that spot enforcement can magnify that a different behavior is required. Costs for enforcement can be high depending on the strategy or programs implemented.

- Education campaigns can be low cost. ODOT has materials available for the City to utilize and the City can work with the school district and other agencies to implement an education program.
- He clarified he has not seen any studies about diagonal versus parallel parking and pedestrian safety. That discussion usually comes up with bicycle safety rather than pedestrian safety.

Comments and questions from the Councilors and Commissioners were as follows with responses by Staff and ODOT representatives as noted:

- It is unfortunate that the blinking lights that extend across the intersection are so difficult to maintain because they increase visibility, especially at night and in fog. The flags are an inexpensive way to increase visibility.
- At one time, Uniontown seemed to have a high number of pedestrian accidents where an older version of the rectangular rapid flash beacon (RRFB) is installed. It is expected that upgrades will be done on that existing beacon to match the unit used at 36th Street when sufficient funds are available. That existing beacon was requested by Uniontown Association after a pedestrian was struck. Adding LED lights will be more effective in this area because they are brighter and focused better. High intensity signals are typically used at fire stations where a red light is used to stop traffic. The beacon in Uniontown uses a flashing yellow light to warn drivers.
- Center lane signs seem to be a good idea. The flags may not be practical, but are cost effective.
- This presentation gives the City many site specific tools to consider. Some tools may work in one area and another tool may work best in another area.
- Director Estes explained the TSP process began more than a year ago and has involved gathering data. This next year will include more analysis in order to plan for pedestrian and bike needs and vehicular traffic flow. This will include more public meetings to get feedback about the ideas presented. A draft of the TSP should be presented for review by the Planning Commission and City Council by fall of 2013.
- Trends in pedestrian-related accidents have been difficult to determine. Some immediate action should be taken to increase pedestrian safety because measures in the TSP will take time to implement. Gathering data will not solve the problem.
- Visibility is a real problem when pedestrians step out from behind parked cars. Reducing parking spaces is a small price to pay compared to losing a pedestrian.
- As indicated on Slides 3 and 4, November and January have the largest number of accidents, which is when the sun blinds drivers at sunset.

Mayor Van Dusen called for public comment.

Pamela Mattson McDonald, 687 14th Street, Astoria stated that many of the public trails maintained by the Parks Department are dangerous for pedestrians. While well-constructed, many public trails are not well maintained and are hazardous. She identified several public trails that need attention and is concerned someone would be hurt.

Jeff Daily, 2380 Ocean Vista Drive, suggested using a reflective paddle that is carried across the intersection by pedestrians, as flags are more expensive and lights can be ignored. Studies have shown that non-typical visual aids increase driver compliance. He urged the City to experiment with using the paddles on any intersection in Astoria to see if the concept would work. Sponsors could advertise to decrease cost on the paddles. He did not believe theft would be an issue, especially with businesses advertising placed on the inexpensive paddles. He demonstrated how a pedestrian might carry the paddle across an intersection. He chose using paddles versus flags for several reasons, including the wind, price per flag and overall expenses involved. He agreed using flags or paddles, combined with an education program, could result in changes in both driver and pedestrian behaviors.

Dane Jacoenetti, 1594 4th Street, Astoria said he wears a bright green vest or neon green jacket when he walks around town. He also carries a 6-foot pole that he uses when walking in slippery conditions. Motorists avoid the pole, even when cutting him off as he crosses an intersection. The pole keeps the vehicle about two feet from him. He recently began using a crutch and wearing a black jacket, which has actually resulted in more motorists stopping to allow him to cross an intersection. Just being visible does not promote yielding behavior. Most accidents occur at dusk because people are in a hurry to get home after work and school, so yielding behavior needs to be addressed.

- To address pedestrian safety now, he believed KMUN would air public service announcements on pedestrian safety immediately.

- Tinted windows make eye contact between pedestrians and motorists difficult, especially for children and seniors. One cannot see which way the driver is looking. The behavior of the motorist must be addressed.
- Perhaps ODOT could do a campaign like "Click-it or Ticket" that promotes, "Stop Merging with Pedestrians."
- When merging with traffic, drivers aim for the empty spot and keep moving to avoid being hit. Drivers do the same thing in crosswalks, aiming for the empty spot where the pedestrian will not be by the time they get there. Accidents occur when the driver is distracted, their timing is off or the pedestrian moves in an unexpected manner. KMUN could make Stop Merging announcements on the radio to help these behaviors.

Suzanna Gladwin did not believe trucks should be allowed in the downtown area. She suggested developing a truck route with a 30 mph speed limit on Wicks Road from John Day to the fairgrounds, which should be included in the County's TSP. She confirmed that the City of Astoria favors such a truck route and noted ODOT has found that a truck route would not decrease visitors to Astoria. She explained that the Clatsop County Planning Commission has been discussing the possibility of a truck route.

Mayor Van Dusen noted that having a truck route has been a City Council goal for 30 years. ODOT Area Manager Larry McKinley noted a draft environmental statement was completed for the project and at that time, the State told ODOT that further funding was not available.

Councilor Herzig believed the leading pedestrian interval would be easy and quick to implement at a couple signaled intersections on Commercial with cooperation from ODOT. He suggested moving two, on-street parking spaces on a temporary basis using pylons at certain unsignalized intersections on Commercial Street. The flags could be made by high school students at Tongue Point as part of their senior project, which could be part of a community education event as well.

Jerry Wilson, 1445 Duane, Astoria, stated it is important that motorists look at the pedestrian's background because pedestrians wearing dark clothing against a dark background are hard to see.

City Manager Benoit suggested the City immediately begin implementing some low cost options, which could probably happen quickly, such as adjusting the signals, which will have to be discussed with ODOT, and using flags or paddles. Removing parking is a big issue for downtown, but it could be done experimentally.

Following a brief discussion, City Council and Planning Commission directed Staff to research the various options for increasing pedestrian safety at intersections and consented to implement the use flags or paddles with reflective material at certain intersections.

Councilor Mellin noted jaywalking is also a problem. Chief Johnson explained the City's Ordinance prohibiting jaywalking in specific areas, and noted that sting operations do occur, but determining when a pedestrian is jaywalking can be difficult. Most pedestrian accidents occur at intersections, which is the problem with delaying traffic signals because crashes occur when a driver is attempting to make a right turn. The driver is looking for oncoming traffic rather than pedestrians. The delayed signals can give a false sense of security. He suggested allowing pedestrians to cross on certain sides of the intersection to avoid conflicts with drivers making a right turn.

Larry McKinley, 350 W. Marine Drive, ODOT Area Manager, agreed to follow up and review several of the suggestions made, including the flexible markers on the centerline, delayed traffic signals, and lighting. He noted candlesticks placed along the center line leading to work zones are effective for ODOT. Some traffic signals may not have been engineered to hold additional lighting. Illumination could be installed separately from the traffic signal to increase visibility. He used the intersection on 33rd at Safeway as an example and suggested that lighting be installed in the parking lot.

Officer Hord agreed visibility is poor on Commercial Street near downtown and shared his experiences and ideas regarding pedestrian safety in Astoria.

Mr. McKinley noted the speed to get through the signals using the east and west through lanes on Commercial and Marine is set at about 21 miles per hour. The white time displayed at the crosswalk tells pedestrians how many more seconds they have to safely step out off of the curb. Pedestrians still have sufficient time to get to the other side of the intersection if they are in the crosswalk when the signal turns orange or red.

Mayor Van Dusen announced that Director Brett Estes and his wife, Tiffany Estes, were just awarded the George Award for Outstanding Volunteerism by the Astoria Chamber of Commerce.

Item 3(b): Solar Power Presentation

City Manager Benoit noted the Planning Commission has been working for more than a year to develop a land use ordinance to govern the installation of solar facilities on buildings. During the Commission's work, questions were raised about the direction of solar technology and the need for more information on the future of solar technology to aid in developing the Code. Robert Delmar, a State expert on solar technology, has been invited to update the Council and Commission on solar technology trends.

Robert Delmar, Senior Solar Project Manager, Energy Trust of Oregon described various solar technologies and displayed pictures via PowerPoint to show recent developments, trends, and the direction solar technology is taking. His key comments and responses to questions were as follows:

- Germany has installed solar more than any other country and their solar resource is about the same as Astoria. The cost of installing solar systems in Germany is half the cost in the United States due to the permitting, taxes, overhead and labor costs in the U.S. Permitting and ordinances can help the industry have straightforward guidelines about how to install solar on buildings and help reduce these soft costs.
 - Rather than increasing efficiencies, new technologies are focused specifically on reducing the overall installation cost and time for solar.
- Welding flexible panels to flat roof membranes reduces efficiency when puddles form that collect dust and pollen. Panels should be installed at a 15 degree angle to allow the rain to clean the panels and alleviate problems with shading, which can be caused even by pollen accumulating on the panels.
 - Understanding the hazards of perfectly flat installations is the purchaser's responsibility. Property owners taking advantage of performance based financial incentives can be assured that panels are mounted at a slope.
- Ballasted systems are installed without any roof penetrations, which preserves the integrity of the roof. However, these systems are designed for lower wind loads and would be challenging to install on the coast. Ballasted systems are typically installed inland on commercial buildings.
 - Standing seam metal roofs last about 50 years on the coast when installed correctly. Peel and stick solar collectors are installed in between the ribs, however, this is half as effective as installing panels with clips that grab the seam to provide a mounting base for panels.
- Panels should face within 30 degrees of south for maximum efficiency, and shadows throughout the day need to be considered when deciding where to place a solar system on a roof. Proper placement of solar panels on buildings that face north and south depends on whether the property is east or west of the Cascades. Properties east of the Cascades get more sun in the morning and thunderstorms in the afternoon so solar systems are placed on the east facing roof. Properties on the coast generally place solar systems on the west facing roof.
- Installing solar systems on the south facing roof is best, as 20 percent is lost when placed on the west facing roof. Prohibiting people from placing solar on a south facing roof, due to visibility from the street for example, is essentially prohibiting them from having solar at all.
- Shading is another big impact. A tree shading just one or two collectors could eliminate 90 percent of production.
- In the next session, a bill before the State legislature will allow solar gardens where people without good solar roofs can buy shares in a central solar installation. States that allow solar gardens refer to this as virtual net metering where residents receive the benefits of a solar system not installed on their properties.
 - Solar gardens may be a good solution for communities on the coast where mature trees or poor building orientation would prevent roof mounting. The concept is also worth considering in areas with many historic properties.
- Solar water heating on breweries is popular because breweries use a lot of gas and electricity, even Wet Dog, a coastal brewery, has experienced tremendous savings.
- Solar shingles, while aesthetically pleasing, are difficult to install and have not taken off.
- He described the various equipment options used for residential solar systems, adding that commercial installations can also require a myriad of equipment. Code regulates how this equipment is used. As the equipment gets less expensive, labor costs will also decrease.
- Most all residential installations use conventional, photovoltaic (PV) modules mounted on an aluminum frame flush against the roof. This type of installation reduces wind loads and looks nice. Oregon's Solar

Installation Specialty Code gives a prescriptive structural solution for mounting these collectors flush on the roof, which reduces soft costs.

Solar water heating systems have a small visual impact and look like a skylight when installed. The industry has come a long way to make these installations meet professional roofing standards.

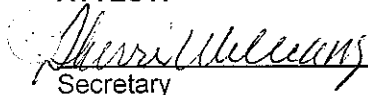
- Solar Rating and Certification Corporation (SRCC) gives credibility to the industry and provides a third party test for performance. Third party certifications make approving the systems easier for jurisdictions.
- Traditionally, about 250 Oregon residences install a solar water heating system each year and about 1,200 residential PV systems are installed.
- Good tools, guides, and resources are available for planners. Technical specs have been created for putting solar on National Park properties and a guide is available for installing solar on historic buildings.
- Each study on the effect of solar energy systems on property values has found that solar energy improves property values.
- Financial incentives offered by the State will remain in effect through 2018 and have been extended every year since about 1978. At this time, Federal tax credits are available until 2016, but could be eliminated before that, which will have a big impact on the industry. The Energy Trust of Oregon is offering incentives for at least another five years; hopefully the technology will become cheap enough that incentives are not needed.
- Commercial properties have struggled with State and Federal incentives. The Federal tax credit has been extended for one more year. The State tax credit, once defunct, is now back, but difficult to use so commercial properties are struggling to install solar. Residential properties are the real market for solar.
- A residential PV system installation would take approximately 30 years to pay back with no financial incentives. With incentives, residential systems can take less than 10 years to pay back. Solar water heating systems are cheaper to install, but they do not have as generous of incentive package. Compared to PV systems with about a six year payback with incentives, solar water heating is about eight or ten years with incentives. Without incentives, both systems would take more than 20 years to pay back.
- PV systems come with a 25-year warranty and will still produce 80 percent of their original power production after 25 years. The systems will fail if hit with a rock, tree branch or baseball, but the laminated glass prevents shattering. PV systems will withstand hail storms in Oregon.
 - Solar water heating systems are made of glass and copper and typically come with a 20-year warranty.
- With regard to concerns about rooflines and visibility, he confirmed that angled panels do not significantly improve the energy produced as originally believed. A flat mounted panel will produce 85 to 90 percent of what a south facing panel angled at an ideal 30 degree slope can achieve.
- The State Installation Code has addressed issues concerning firefighter safety by requiring access paths for firefighters to ensure the roof can be vented on either the north or south side. The Code mandates having walkways at the side of the panel and along the ridge of the roof.
 - The State Fire Marshall and the firefighting community helped develop the State Installation Code.
 - Installing systems according to this State Code would be required if the local jurisdiction has adopted that code as its local requirement.
- The electricity production per panel is measured in watts per square meter. Efficiencies are improving; a conventional-sized panel, approximately 30-inches wide by 5-feet tall, produces about 250 watts. Five years ago, that same panel would have been a 220-watt panel.
- Improved efficiency enables a property owner to install a certain amount of solar in a smaller footprint. Most of the time, standard efficiency systems are installed because the price is lower, and more panels are added to get receive more efficiency, resulting in a bigger footprint. High efficiency technologies are only being used in areas where space is limited.

Commissioner Innes thanked Mr. Delmar for the information. She believed the presentation has provided a lot of ideas to consider as the Commission focuses on residential solar power installation code.

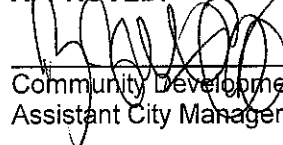
ADJOURNMENT

There being no further business, the work session was adjourned at 7:30 p.m.

ATTEST:


Secretary

APPROVED:


Community Development Director /
Assistant City Manager