Municipality of Anchorage

Community Development Department
Planning Division

MEMORANDUM

Date: June 15, 2012

To: Planning and Zoning Commission

From: Jerry T. Weaver, Jr., Director

Subject: Case 2011-104 – Proposed Amendments to Provisionally Adopted Title 21: Public Comment Issue-Response for Chapter 7

This memorandum provides responses and recommendations as to issues raised by the public about the provisionally adopted **Chapter 21.07, Development and Design Standards**. These issues were raised at the March 12 and 19, 2012 public hearings and in written public comments on Case 2011-104.

This memorandum covers most sections of 21.07, however not the landscaping section or the residential or commercial building design standards sections toward the end of the chapter. A follow up memorandum will discuss these and several remaining issues from other chapters.

Some of the comments regarding the development standards have been previously reviewed and addressed by the Department and the Administration. The responses to such issues in this memorandum refer to the relevant pages of the following Exhibits:

Exhibit A. August 23, 2011 memorandum from the Department to the Mayor in response to issues raised by a consultant hired by the Mayor to review the provisionally adopted Title 21; and

Exhibit B. October 19, 2011 memorandum from the Department to the Mayor, which summarizes the Administration's decisions and direction regarding issues raised by the consultant.

The issue-responses in this memorandum also reference the following:

- Provisionally Adopted Title 21 with Technical Edits, dated 12-12-2011, and Consolidated Table of Proposed Amendments, dated 3-12-2012
- The applicable public comments are in **Exhibit D**, Comments Received for PZC Case 2011-104. References to public comments in this memorandum use the page number(s) the comment appears in Exhibit D. There is also a public comment separately in Exhibit D-1.
- **Exhibit E,** which updates Economic Impact Analysis (EIA) cost comparison tests.

All exhibits including A through M are available at
http://www.muni.org/Departments/OCPD/Planning/Projects/t21/Pages/Title21Rewrite.aspx .

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Chapter 21.07 Issue-Response

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7-1. Expanding the Applicability of Alternative Equivalent Compliance

► Section 21.07.010D. of Provisionally Adopted Title 21

Issue: Should the alternative equivalent compliance provision be amended to expand how many site plan elements it may apply to?

Public comment: Alternative processes are essential to ensure design flexibility and accommodate unique sites. The Alternative Equivalent Compliance (AEC) provision provides needed flexibility. It should be expanded to cover more than building design standards. It should cover site development standards such as sidewalks and private open space. For example, Loussac Place provides a sidewalk on one side of the street, but adds pathways through the center and along the sides of the development for additional pedestrian and bike access. We would argue that this meets the intent of the code and should be an allowed alternative (Cook Inlet Housing Authority, page 306).

Response: The Alternative Equivalent Compliance provision, which is essentially a kind of administrative discretionary design review, was developed specifically in response to the building design standards new to title 21. The AEC provision supplements the new building design standards in sections 21.07.120, 21.07.130, and 21.07.140A., by ensuring flexibility in architectural design. It was an important objective of the rewrite project to avoid the inadvertent prohibition of beautiful, creative, and functional architecture as it introduced the concept of building design standards for building orientation and massing. The AEC provides significantly greater administrative flexibility that does not exist in current title 21.

While there have been periodic proposals over the years to expand the AEC provision beyond its building design purpose, the community decision as reflected in the provisionally adopted title 21 is to avoid over-extending AEC to the detriment of other objectives of the rewrite to streamline administrative review procedures and costs; and to ensure for the community clear and predictable minimum standards for site development. If AEC is too broadly applied, it takes away from the predictability of regulation that is sought by the development community.

This new procedure has the potential to be time-consuming to administer per each code provision it covers, relative to nondiscretionary standards that prevail in the rest of the site development standards. At least initially, it is prudent to limit the pilot program for use of AEC to its intended scope. Successful title 21 implementation depends on retaining objective by-right regulations which are custom made to match the streamlined municipal review resources. Making AEC generally applicable to all development standards would open the Director and his/her review designees to a much broader potential array of AEC requests, each demanding a negotiation and discretionary review. It would also be difficult to keep track of approved alternative site designs.

Secondly, in a way AEC is a kind of discretionary design review. However, communities with successful design reviews have strong design guidelines that document some kind of community consensus on desirable development qualities. AEC would not have this guidance. So, for example, the commenter may argue that an alternative site plan feature meets the intent of the sidewalks requirement, however, agreement is debatable. Others may argue it is fundamental

that a complete street in an urban environment features walkways on both sides. A walkway elsewhere on the site may or may not make up for the loss of the complete street function. There is no accepted guidance as to whether this does meet the community need.

Broad, general application of AEC has the potential to undermine the integrity of the minimum development standards in the land use regulations. The administrative staff is given the authority—and the pressure by applicants—to waive any site development standard in return for other features for which there are no design guidelines or performance standards to meet community expectations and policies. If there is need for flexibility in a particular standard or section, it has been more in character with the rewrite to address that need in that section. Menus, alternatives, non-discretionary reductions and incentives have been used, for example, and could be considered.

Recommendation: Forward the provisionally adopted title 21 retaining the focus of Alternative Equivalent Compliance on the new building design standards, and the integrity of minimum development standards for existing required site features such as open space, walkways, and landscaping, at least for the initial implementation program for the title 21 rewrite.

7-2. Retaining Stream Protection Setbacks

- ► Sections 21.07.020B.4 and B.6., pages 284-7 of the Provisionally Adopted Title 21
- ► Proposed Amendments 57, 58, and 59 in Consolidated Table

Issue: Should the provisionally adopted stream protection setbacks be retained or, alternatively, be reduced back to current title 21. What development should be permitted in the setback?

Public comments (by agencies): MOA Watershed & Natural Resources Advisory Commission recommends that the MOA retain the provisionally adopted new setback distance of 50 feet. The Commission understands that the provisionally adopted title 21 resulted from extensive public dialogue, professional and technical expertise, and deliberations by municipal boards, commissions, and Assembly. The Commission supports the August 2011 staff findings [Exhibit A, pages 48-50] for retaining the provisionally adopted 50 foot setback distance, which reflects a public dialogue and understanding that the benefits of this expansion outweigh the negatives, and that private property and nonconformity concerns have been adequately evaluated and addressed (MOA Watershed & Natural Resources Advisory Commission, page 60).

ADF&G supports the provisionally adopted 50-foot setback. The benefits of riparian habitat are well-documented: Setbacks provide stream bank stability and in-stream erosion control; filters pollutants; controls sedimentation; maintains water quality and fish and wildlife habitat; and provides urban storm water runoff control and treatment, and flood and icing control. However, to function properly, buffers must have effective vegetation cover, sufficient width, and continuity along the stream. Vegetative cover filters sediment and pollutants, provides input to the base of the aquatic food web; reduces the rate of erosion, and provides shade to moderate

habitat temperatures and prevent algae blooms. Reduced shade increases water temperatures, which damages salmon health and affects the population. Literature sources conclude that buffers less than 16 to 30 feet wide provide little protection of aquatic resources, and that buffers to protect wetlands and streams should be a minimum of 50 to 100 feet in width. The proposed amendment to retain the 25-foot setback is contradictory to the Campbell Creek Watershed Management Plan (MOA 2007) and the Hillside District Plan (MOA 2010). Most of Little Campbell Creek's watershed contains highly impacted impervious surfaces, which are found nationally to be detrimental for channel stability and biodiversity. Faster peak flows have increased with periods of urban growth in the Municipality, and sedimentation following rain events has had a documented effect on salmon mortality (Alaska Department of Fish and Game).

ADF&G also opposes reducing the existing 100 foot buffer in R-10 residential alpine/slope district to a 50 foot buffer. Streams located in this district are first-order headwater streams. Both the physical environment and the flora and fauna of the aquatic system are largely determined by conditions on the surrounding land in first-order streams. Protection of the riparian zone with stable, vegetated buffers helps insure the integrity of the stream and its banks, and provides a long-term supply of woody debris for desirable habitat features. Steep slopes increase the stormwater runoff rate from development. Less vegetation has less time to slow and trap sediment before entering a stream. Land clearing activity is more likely to result in sheet erosion, rill erosion, and mass wasting. Because of these factors, wider buffers are needed on steep slopes that characterize the R-10 alpine areas. (Alaska Department of Fish and Game)

ADF&G also opposes proposed amendment 59 which would allow on-site snow storage within a 50-foot stream setback buffer. Plowed snow contains solid waste, sand, deicing salt, oil, grease, metals, antifreeze, and animal waste. Disposal close to a stream will limit any dilution or retention of pollutants, especially for high concentrations of salt (chlorides) released in the early phases of snowmelt. The Alaska Department of Environment Conservation (ADEC) recommends a minimum 50 foot wide vegetated buffer zone from streams, and states this distance could be decreased if adequate stormwater catchment methods are used to control pollutants. ADEC classified snow-entrained debris as solid waste storage, which would be a violation of AS 16.05.871 if placed below the OHW of a specified water body. Because of these concerns, ADF&G recommends no snow storage within 50 feet of a stream (Alaska Department of Fish and Game).

Public comments (by organizations): ACC recommends MOA to retain the provisionally adopted 50 foot stream setbacks. The support for stream protection in Anchorage's adopted plans is clear. Anchorage Bowl Comprehensive Plan (Anchorage 2020) policies 66, 67, 68, and 70 call for maintaining fish and wildlife habitats, riparian corridors, and the ecological and drainage functions of Anchorage's aquatic resources. The Hillside District Plan states that minimum setbacks for watercourses shall be fifty feet. If title 21 rewrite reduces setbacks to 25 feet, the Hillside District Plan must first be amended (Anchorage Citizens Coalition, page 25).

The Anchorage Waterways Council supports the 50-foot setback. AWC stated that setback areas, or riparian zones, provide a variety of important protective and ecological functions for streams and lakes. Per MOA staff discussion [in Exhibit A] the current 25-foot setback was a result of compromise and political pressure in the mid-1980's, and was not based on scientific or

practical findings. Also, provisionally adopted subsection 21.07.020B.6.a may not be necessary because these items are already addressed in permitting through the COE, ADF&G, USFWS, the MOA SWPPP requirements, and MOA flood hazard and other programs. Lastly, AWC supports proposed amendment 59 deletion of provisionally adopted subsection 21.07.020B.6.b.ii.(D) which would allow new permitted uses that could be problematic. Fences and patios could preclude natural vegetation in the full 50-foot setback which would interfere with the functions of such riparian areas. Lawns are the biggest problem because of fertilizers and pesticides (Anchorage Waterways Council, page 56).

Cook Inletkeeper requests the MOA to adopt salmon habitat protection requiring at least 50-foot setbacks on all anadromous fish streams under its jurisdiction. Salmon contribute more than a billion dollars and countless jobs yearly to local economies in Southcentral Alaska. Wild salmon are an important food source, economic generator and an integral part of Alaska's unique social and cultural fabric. Significant warming trends in salmon streams in Southcentral are known to make salmon more susceptible to pollution, predation and disease. Riparian habitat shades streams, holds back sediment, and provides a food base for salmon. Polling in 2011 found 82 percent of Alaskans believe it is as important to protect riparian araeas around salmon streams as it is to protect the stream itself. The Kenai Pensinsula Borough recently conducted a review of the importance of riparian habitat to salmon sustainability, and in response, enacted ordinance 2011-12 requiring stream setbacks of at least 50 feet on all salmon streams in the Kenai Borough (Cook Inletkeeper, page 58).

The Area G Home and Landowners Organization (HALO) recommends maintaining the provisionally adopted 50-foot stream setback, to conform with the Hillside District Plan. In its goals and implementation steps, the plan frequently cites the importance of streams and specifically states that setbacks shall be 50-feet, implemented through title 21. The plan also documents extensive public support for protecting the natural environment, and specifically calls out existing regulations as inadequate to address drainage problems on Hillside (HALO, pages 4-5).

Three Hillside Anchorage Community Councils recommend retaining the 50-foot setbacks and other stream protection language of the provisionally adopted title 21, for reasons summarized as follows: The Hillside District Plan's policies for fifty-foot setbacks must be adhered to. This policy includes grandfather rights for existing development. Fifty-foot setbacks are a fiscal measure that protects all taxpayers by limiting the severity and frequency of stream damage to infrastructure, property erosion, flooding, and glaciation. Lowering the provisionally adopted stream protection setbacks would be a major step backwards for the protection of our natural resource. The issue has been researched thoroughly, showing the 25-foot setback is inadequate to maintain stream quality. They suggest following the guidance of the Hillside District Plan, which is a part of the Comprehensive Plan, to provide 50-foot setbacks. (Mid Hillside and Hillside East Community Councils, Rabbit Creek Community Council).

Three other Anchorage Bowl community councils also commented. Airport Heights supports the preservation of the 50 foot stream setback in the provisionally adopted title 21. This will ensure less flooding events and the protection of natural habitat. Rogers Park opposes the proposed decrease of stream setbacks to 25 feet from the provisionally adopted 50-feet, and 100-

feet in R-10. Turnagain states that Anchorage's water resources provide aesthetics, recreational opportunities, wildlife habitat, and ecological functions, and that protection of water body setbacks is important to water quality and the wellbeing of our aquatic ecosystem.

Outside of the Bowl, the Girdwood Board of Supervisors (GBOS) recommends keeping the stream setbacks at their existing dimensions (25 feet), to allow development consistent with existing uses and development patterns. Increasing the setback to 50 feet may make several lots in Girdwood unbuildable (GBOS, page 63).

Protect Title 21 Coalition stated they oppose the Mayor's proposal to decrease stream setbacks to 25-feet from the provisionally adopted title 21. After considerable research, discussion, review and compromise, the provisionally adopted 50-foot setback is lower than the minimum recommended in scientific literature. Stream setbacks average 100 feet nationwide. In Alaska, Soldotna, Mat-Su Borough, Juneau, and Homer have setbacks ranging from 50 to 100 feet. Anchorage's existing setback came about because of political compromises and what was deemed acceptable in the 1980s, not from scientific or practical findings. The economic benefits of streamside protection are well documented. Setbacks reduce flooding, erosion, and sedimentation, and protect property, infrastructure, and habitat (Protect Title 21 Coalition, page 46; Diamond, pages 281-2).

Nathan Bosch, an APU natural resources major, testified on March 19 that a 50 foot buffer is a bare minimum. Stream setbacks are a significant part of flood control. Trees within stream buffers reduce flooding and water velocity, and also provide services to fish populations. He also supports public access to healthy streams for their family recreation value.

Several individual commenters supported a 25-foot setback. One stated that, although it is critical that our natural resources be protected, the provisionally adopted 50-foot stream setback would have made hundreds of properties nonconforming (Coffey, page 181). Another observed that a 50-foot setback would double the amount of setback area on a lot, and existing lots have been designed considering the 25 foot setback, not 50 (Dreyer, Exhibit D-1). Another commented that stream setbacks should be no greater than 25-feet with a reduction to 15-feet for small streams less than four feet across (Vaughn, page 78).

Response: This response which continues on the following pages consists of:

1. A brief history of the stream setbacks and the recent proposed changes by the Administration;

2. A consideration of key points made by the public comments about the proposed changes;

3. Research as to possible impacts of a 50-foot setback on existing lots and development;

4. A review of economic impacts of smaller setbacks on MOA and property owners; and

5. A discussion of ways to implement 50-foot stream protection buffering in context of the established lotting pattern and avoiding economic impacts on individual properties.

The response concludes with recommendations advisory to the public and policymakers.

1. Brief History and Review

After considerable research, discussion, public review and compromise, the provisionally adopted title 21 would increase the stream protection setback from 25- to 50-feet. A 50-foot setback would be lower than what is recommended in scientific literature, best management practices, and used in other cities—both nationally and in Alaska, and it was accompanied by some increased leniency toward nonconformities. It was a compromise in attempt to:
a) implement Comprehensive Plan goals and policies for adequate stream protection and
b) address existing and nonconforming lots and structures and other impacts on property.

Last year a consultant recommended to the Administration to lower the provisionally adopted stream protection setback from 50-feet back to 25-feet, and increase the number of allowed uses, i.e., trails and lawns, closer to the streams (to within 10 feet). The Department disagreed with the consultant's proposals, and recommended that stream setbacks be increased from 25-feet to 50-feet (and reduced from 100-feet to 50-feet in the R-10 district) as provisionally adopted. The Department presented findings including:

- Wider stream buffers with healthy vegetation are essential for flood and erosion control, water quality and treatment, maintaining stream stability, and fish/wildlife habitat.
- Stream protection has economic benefits including higher property values, better quality of life rankings and recreational opportunity, lower flood insurance rates, as well as economic benefits from fishing and tourism.
- Most Anchorage area streams are listed as impaired waterbodies by the State, because the existing stream setback is inadequate to protect from urban land uses and pollutants.
- Impacts associated with inadequate stream setbacks are cumulative, more widespread, and would increase costs over time for the MOA, it taxpayers, and property owners, from flooding, erosion, water pollution and turbidity, unstable channels, utility and infrastructure maintenance and re-locates, compromised habitat.
- Policies of the Comprehensive Plan call for riparian corridor protection.

For the Department's discussion of this issue, a set of maps, and a setbacks comparison illustration, reference **Exhibit A** (item #28, pages 48-50).

The Administration considered the issue and raised concerns regarding impacts to existing properties in context of Anchorage's established lotting patterns. It has proposed (through amendments 57, 58, and 59) to retain current title 21 stream setback regulations, except to reduce stream setbacks from 100 feet to 50 feet in the R-10 residential alpine/slope district, until concerns regarding nonconformities and setback widths can be addressed in a separate stream setbacks amendment. The Administration's amendments also continue current title 21 regulations regarding what is allowed in the stream setbacks, rather than allowing such uses as lawns to be closer to streams. (Refer to **Exhibit B**, item #24, page 10)

2. Some Points Made by 2012 Public Comments

The Administration directed that its proposals be submitted for public comment at PZC. Through the public review process at PZC, the public brought additional arguments and information to the discussion, and demonstrated a relatively high level of public interest and concern. Following are considerations regarding some key points made in favor of wider setbacks:

- Comprehensive Plan elements throughout the Municipality set a high community value of natural resources and call for protection of stream buffers, water quality, and fish and wildlife habitat. The Anchorage Bowl Comprehensive Plan (Anchorage 2020) in policies 66, 67, and 68 calls for protection of stream corridors and fish and wildlife habitats as natural open spaces. Anchorage 2020 in policy 70 states, "The ecological and drainage functions of Anchorage's aquatic resources shall be protected and, where appropriate, restored." Anchorage 2020 implementation strategies include "Waterbody Setbacks": "Revisions to the Land Use Regulations (Title 21) and the creation of incentives for landowners are the most likely sources for expanding the setback program." The Hillside District Plan (2010) specifically directs that minimum setbacks for watercourses shall be increased to fifty feet on each side of streams, and anticipates a near-term timeframe for implementation. Commenters remind MOA of its obligation to honor the public process and to implement.

- More scientific information supports the value of stream protection and increasing the setbacks. The comments documented research findings of impacts occurring locally in Anchorage and Southcentral watersheds, compounding previous research and national literature available to planners and policymakers. These include significant warming trends, sedimentation, peak water flows, and damage to salmon runs. There is already State listing of Anchorage streams as being impaired. Most of Little Campbell Creek's watershed contains highly impacted impervious surfaces that are found nationally to be detrimental to channel stability and biodiversity. Faster peak flows have increased with periods of urban growth in the Municipality, and sedimentation following rain events has had a documented effect on salmon mortality. These comments add to the evidence that falling back to a 25-foot stream buffer would impede and contradict implementation of the Comprehensive Plan, and lead to further economic costs community-wide and degradation of natural resources and local character.

- There is a raised level of public awareness and concern for this issue. Some are focused on Anchorage's Hillside. Other comments are citywide in nature or from other parts of town. Statewide polling results that four out of five Alaskans believe it is as important to protect riparian areas around salmon streams as it is to protect the stream itself.

- There is additional information regarding prevailing stream protection values and practices in Alaska. Kenai Peninsula Borough recently conducted a review of the importance of riparian habitat to salmon sustainability and enacted ordinance 2011-12 requiring stream setbacks of at least 50-feet on all salmon streams in the Kenai Borough. The Alaska Department of Environment Conservation recommends a minimum 50-foot wide vegetated buffer zone from streams in general.

- There are reasons to reconsider reducing the existing 100 foot buffer in R-10 residential alpine/slope district to a 50-foot buffer: Streams located in this district are first-order headwater streams where conditions on the surrounding alpine slope areas will largely determine physical environment and the flora and fauna of the aquatic system downstream. Steep slopes such as in R-10 increase the runoff rate of development giving vegetation less time to slow and trap sediment. Wider buffers are needed on steep slopes that characterize the R-10 alpine areas.

- Lastly, there are state agency concerns regarding the part of amendment 59 which would allow on-site snow storage within a 50-foot stream setback buffer. Plowed snow contains solid waste, sand, deicing salt, oil, grease, metals, antifreeze, and animal waste. Disposal close to a stream will limit any dilution or retention of pollutants, especially for high concentrations of salt (chlorides) released in the early phases of snowmelt.

3. Impacts of a 50-foot Stream Setback on Existing Properties and Development

On the other hand, public comments in support of going back to a 25-foot setback raised concerns about impacts on existing lots, including nonconformities and reducing development potential of individual lots that would be subject to a larger protection area. Many if not most urban lots along stream corridors in Anchorage were platted and structures built assuming a setback of 25-feet or less. Previous investment expectations could be impeded.

Researching the potential impacts of a 50-foot stream setback, the Department found that approximately 1,922[1] urban residential properties in the Anchorage Bowl would be affected—some portion of the lot is within 50 feet of a stream. Approximately 334 commercial or industrial zoned lots would also contain some portion of the setback area. Out of a total of 67,756 properties in the Bowl, approximately 3,383, or five percent, contain all or a portion of the 50-foot setback:

Table 1: Lots within **50 feet** of a stream, Anchorage Bowl (2011)

Generalized Zoning	Number of Lots	% of total lots in Anchorage Bowl
Commercial	177	0.26
Industrial	157	0.23
Park/Open Space	260	0.38
Urban Residential	1,922	2.84
Rural Residential	857	1.26
Other (PC and T)	10	0.01
Total	3,383	4.99

Today, approximately 1,453 urban residential properties and 226 commercial/industrial parcels are affected by the existing 25-foot stream setback in current title 21 (Table 2). Out of 67,756

[1] Approximately 12 lots are split-zoned and counted as two lots, which slightly inflates the numbers in each table.

total parcels in the Bowl, approximately 2,691, or four percent, contain all or a portion of the 25-foot setback. When compared, the 50-foot setback increases the number of properties affected by a stream setback by 692 lots, or **one (1) percent** of total lots in the Anchorage Bowl.

Table 2: Lots within **25 feet** of a stream, Anchorage Bowl (2011)

Generalized Zoning	Number of Lots	% of total lots in Anchorage Bowl
Commercial	116	0.17
Industrial	110	0.16
Park/Open Space	243	0.36
Urban Residential	1,453	2.14
Rural Residential	759	1.12
Other (PC and T)	10	0.01
Total	2,691	3.97

Area-specific impacts were also researched:

- Hillside impacts: Further researching the effects of the provisionally adopted 50-foot stream setback in the Hillside District Plan (HDP) area, the Department found that, out of a total of 8,535 residential properties, approximately 106 have an existing home or accessory structure that is located within 50 feet of a stream. However, 21 of these 106 properties already have structures within the existing 25 foot setback. So the provisionally adopted 50-foot setback would make 85 residential properties nonconforming in the HDP area that were not already out of conformance with current title 21.

- Impacts on PLI and parklands: Research by aerial imagery indicates that lots in the PLI District and parcels in dedicated parks are much less likely to be impacted by a 50-foot stream setback. These areas are characterized by large, relatively undeveloped parcels with a low density of structures and impervious surfaces. Many are also extensive public lands, rather than private investments on limited property areas. Public lands could set a positive example by adhering to the recommended setbacks, with relatively little impact if any on public finance or previously laid development plans by institutions occupying extensive tracts of land.

Exhibit M provides a series of digital imagery maps illustrating the provisionally adopted 50-ft setback. Anchorage Bowl area streams that are visualized include: Little Campbell, Chester, Fish, Ship, and Rabbit Creeks. NOTE: Stream segments in culverts are not subject to the stream setback, but these segments are not distinguished on the maps.

4. Economic Impacts of Smaller Setbacks on Taxpayers and Property Owners:

- The Municipality has already incurred high costs (estimated in the millions of dollars) to rectify flooding and erosion issues associated with insufficient setbacks. Recent examples include: winter flooding on Chester Creek from icing; Little Campbell Creek culverts requiring regular thawing; and Furrow Creek flooding during winter icing events.

- In order to rectify eroding stream banks, the Municipality provides staff and matching grant funds for stream bank re-vegetation projects primarily in the Anchorage Bowl. Matching funds are also provided for stream rehabilitation projects aimed at repairing broken and aging culverts, which provide adequate flow capacity and fish passage.

- The Risk Management Department regularly fields inquiries regarding damage from flooding. It has had to settle on only a few claims in the past 15-20 years, where infrastructure failed to convey flood flows. The MOA should remain diligent with this issue to reduce potential costs.

- The Street Maintenance Department deals with many incidents of flooding each year due primarily to frozen or blocked culverts. Increased development of impervious surfaces within the upper reaches of stream watersheds sends more stormwater runoff downstream, exacerbating an already taxed storm drain system. Many segments of our urban streams and tributaries are contained within culverts; Fish Creek is a prime example. Without natural vegetation buffers and stream banks elsewhere in the watershed to absorb and hold the runoff, these storm drain systems are easily overburdened. Street Maintenance must respond to incidents of blocked culverts and maintain an aggressive maintenance program to address this issue, at a cost of $400,000 annually to the Municipality in terms of personnel time and equipment.

- Relocating infrastructure due to eroding and shifting stream banks incurs costs to the MOA. Trail, infrastructure and utility relocates have been required regularly to accommodate shifting stream banks.

- Impacts to property owners and property values from flooding, erosion, water pollution and turbidity, unstable channels, utility and infrastructure maintenance and re-locates, and compromised or lower value vegetated stream buffers and habitat. Also, economic losses to visitor, fishing, and outdoor recreation sectors locally, and potential dampening effects on local competitive advantages that help attract investment, businesses, and residents.

5. Ways to Implement a 50-foot Setback Avoiding Impacts on Individual Properties:

In summary, an additional one (1) percent of all parcels in the Anchorage Bowl would be influenced by increasing from a 25- to 50-foot stream setback. A total of five (5) percent of all parcels would contain a 50-foot stream setback, including an increased stream protection setback area over the area encumbered by current title 21. In the Hillside District Plan area, the provisionally adopted 50-foot setback would make an estimated 85 residential properties nonconforming that were not already nonconforming before.

Each of the approximately five percent of properties in the Bowl subject to the 50-foot setback would have an increased stream setback protection area relative to the developable portion of the lot. The extent of the impact on use and development potential would vary lot by lot.

By providing flexibility with the provisionally adopted nonconforming provisions to the affected lots, and additional amendments such as discussed below, impacts to individual lots could be minimized and the overall benefits to stream health could outweigh remaining burdens to a proportionately few property owners. If the existing lots can be addressed, then the benefits of increased stream setbacks to the community as a whole lead to the conclusion that increasing the stream setbacks from 25- to 50-feet would be the best policy for Anchorage.

Following are ways to implement a 50-foot setback avoiding impacts on individual properties:

- Gradual Compliance: Over time the goal of a wider setback can be achieved with minimal burden to individual parcels. Existing uses have 'grandfather rights', and the 50-ft setback is applied primarily to vacant and redevelopment properties.

  As proposed in the provisionally adopted Chapter 21.12, *Nonconformities*, lawfully erected single-family, two-family, and mobile home structures would be exempt from being considered nonconforming for encroaching in a stream setback. This means that such structures could expand as long as they don't increase the encroachment, and could rebuild in the same location and to the same dimensions if completely destroyed. This benefits structures that are nonconforming under the current code: if such a structure were completely destroyed today, any new structure would have to be constructed outside of the current 25-foot stream setback. Adjustments could be proposed to this section that would allow such structures to expand into the stream setbacks by a certain amount; in order to increase the flexibility for lawfully erected single-family, two-family, and mobile home structures.

  For other types of structures (multi-family, commercial, industrial, institutional), the nonconforming structures regulations (21.12.040) would apply. Maintenance and repair of such structures without triggering any nonconforming provisions are expanded from current code (per upcoming Issue-Response memorandum regarding Chapter 12, Nonconformities). Only if the structure was damaged or destroyed to an extent of more than 50 percent of the replacement cost would the property owner need to consider moving out of the stream setback. In the provisionally-adopted code, there are also two methods (administrative and conditional use) to apply for replicating the damaged/destroyed structure in its original location. Adjustments could be proposed that would address allowing such structures to expand in the setback by a limited amount.

  The nonconforming provisions of the provisionally adopted code have been significantly relaxed in order to accommodate situations such as those that would be created by increasing the stream setback.

- Greenbelt Acquisition: Acquire greenbelt when economically feasible, using grants and other mechanism not taxing to municipal resources. Recent examples: the Municipality had the chance to purchase a stream easement on an I-1 zoned property, and in another case a parcel highly subject to flooding was offered to the administration for purchase. In both

cases, no action was taken due to the fact that the Municipality has no formal mechanism for setback acquisition. Until a formal procedure can be outlined, there are other mechanisms that can be used such as the pending HLB Mitigation Bank, private donors, local land trust organizations, and grant funding, as potential avenues to greenbelt acquisition.

- Buffer Education and Enforcement: Utilize municipal GIS capabilities to map stream buffers and provide the information on-line to the public. Maps can be made available in various forms to inform not only the public but, municipal employees. Goals are to increase awareness of the setback and to encourage stewardship among adjacent parcel owners. Enforcement generally reflects ignorance of the setback rather than contempt; thus, an educational campaign would reduce the need for enforcement.

- Flexible Zoning Provisions: A variety of approaches are used nationwide to implement stream setbacks to ensure that property owners can achieve maximum economic use of their parcel while protecting stream values: *Buffer averaging* (allowing small encroachments while providing larger buffers to achieve an average setback), *density compensation* (increasing density over allowable zoning limits on the portion of property outside of the setback), and *cluster development* (site development concentrated outside of setbacks and other environmentally sensitive lands). Elaboration on several zoning provisions follows.

- Reasonable Use Exceptions. Local authorities may grant relief from code requirements where compliance leaves no reasonable use of the property. In addition to exceptions that assure that a restricted property retains some reasonable economic use, some communities have gone beyond this legal standard. These communities are incorporating other exemptions and provisions to assure that codes are not unduly burdensome and that property owners are treated fairly.

  Many communities have anticipated a number of specific situations under which strict application of new environment regulations may create difficulties for existing property owners. Code can exempt some uses and activities from critical areas regulation, and specify conditions under which these activities may be conducted. Many communities have provisions that allow minor alterations within critical areas provided that the values and functions of the critical areas are protected.

- Continuation and Expansion of Nonconformities. Allows retention of nonconforming structures and to permit continued investment, upgrades, and expansion to existing buildings and sites made nonconforming solely as a result of the adoption of a new protection setback.

- Flexible Buffer (Setback) Widths. Because of variations in slopes, soils, vegetative cover, mitigation measures or other conditions, buffers (setbacks) may sometimes be reduced without compromising their functions. Variations in buffer widths may also be possible. These provisions address buffer modifications, including averaging of buffer widths, and reduction of standard buffer widths when buffer functions are maintained and certain criteria are met. Options to reduce or average setback widths can also be offered in exchange for other measures that maintain or improve buffer functions (e.g., removal of impervious surfaces or installation of biofiltration/infiltration mechanisms).

- Density Compensation. Increase density over allowable zoning limits on the portion of property outside of the setback. For example, *Onsite Density Transfer* provisions allow density to be transferred from a constrained portion of a site to an unconstrained area on the same site. Such density transfers achieve protection of critical areas while permitting the property owner to retain some or all development rights. These provisions generally include some criteria to assure that density in receiving area doesn't exceed what that area can accommodate. Some jurisdictions use a sliding scale that specifies how much density may be transferred, based on the percentage of the site that is constrained.

Recommendation: As documented in Exhibit A, the Department recommended forwarding the provisionally adopted 50-foot stream protection setback. However, upon reviewing the issue and concerns about nonconformities and other impacts to existing lots, the Administration has proposed (through amendments 57, 58, and 59) to retain current title 21 stream setback regulations, except to reduce stream setbacks from 100 feet to 50 feet in the R-10 residential alpine/slope district, until concerns regarding nonconformities and setback widths can be addressed in a separate stream setbacks amendment. The Administration's amendments also continue current title 21 regulations regarding what is allowed in the stream setbacks, rather than allowing such uses as lawns to be closer to streams.

New information from the 2012 public comments and additional research findings discussed in this issue-response document the following realities:

- Simply falling back to current regulations would conflict with the Comprehensive Plan;
- There is a raised level of public concern and support for vegetated stream protection buffers;
- The stream setback should be increased if Anchorage is to maintain viable streams, wildlife habitat, flood control, and other values as the city continues to grow;
- There are demonstrated economic benefits of protecting streams, and negative impacts of not doing so; and
- There would be impacts of wider setback on individual properties unless further amendments to the provisionally adopted title 21 are provided.

The Department recognizes that this is a significant public policy issue, the 50-foot distance is technically the more appropriate stream protection setback, and there is need for continued discussion and resolution of these issues. The challenge boils down to nonconformities and other impacts on existing individual urban lots. Additional forms of relief for individual properties is prerequisite to a wider setback, but developing the forms of relief appropriate for Anchorage will require more expertise and resources than are available in the title 21 rewrite process.

Therefore, the Department supports forwarding the Mayor's recommended amendments, and development of a stream protection setbacks ordinance for title 21 in a collaborative public process separate from the title 21 rewrite project.

7-3. Reduction of Required Private Open Space

- ► Section 21.07.030. of Provisionally Adopted Title 21
- ► Proposed Amendments R21, R22, R23, R24, and 61 in Consolidated Table

Issue: Should the provisionally adopted private open space requirements be retained or reduced? What standards for open space should apply to each district or development type?

Public comments: Anchorage Citizens Coalition recommends to not reduce the provisionally adopted provision for private open space. Private open spaces complement the community's need for public open space and parks and serve similar purposes, maintaining quality of life, improved quality of new development, sunlight penetration, scenic views, space for recreation and relaxation, and public health. However, the draft provisions to ensure that homes and businesses have adjacent or nearby open space has been whittled away over the years of the title 21 rewrite process. Figures are provided showing how the successive draft rounds of the rewrite diminished the proposed requirement. Now the latest round of amendments whittle it even further. They propose a cap on the total square feet of open space a business development must provide, and would allow residential common open space to be apportioned and used exclusively by individual dwellings, thus eliminating shared places to play. Private common open space is a basic building block in a city that is growing more dense and beginning to provide urban amenities that allow people to relax and recreate outdoors near their homes. But the standard is being squeezed down damaging the quality of life for people who will live in these new, more dense residential developments. The Comprehensive Plan in policy 12 calls for new higher density residential development to be accompanied by adequate public or private open space (Anchorage Citizens Coalition, pages 25-27).

Rogers Park, Mid Hillside, Hillside East, and Turnagain Community Councils; Adopt Title 21 Coalition; Joan Diamond; Johanna Eurich each recommend rejecting the proposal to reduce private open space requirements. Airport Heights Community Council also supports the private open space requirements in the provisionally adopted title 21, and states that reducing these requirements would go against the concerns expressed by community participants during the rewrite process regarding the lack of quality open space in multifamily residential developments.

The provisionally adopted private open space requirement is different for townhomes versus multifamily. Furthermore, the code requires that townhomes reserve open space for the exclusive use of each dwelling unit. The private open space requirements should be consistent across building styles. Requiring townhouse style rental units raises operational complexity and cost, and is unnecessary in a rental environment. Allow the townhouse developer / owner to determine what type of open space—e.g., common spaces versus individual spaces exclusive to each unit—is best suited for the type of development (Cook Inlet Housing Authority, page 305).

Cook Inlet Housing Authority also comments that the development standards for required open space should be more flexible to meet unique site characteristics and project design. Specifically, interior space should not be limited to 25 percent, nor should it only count if the

interior space has a certain amount of windows. Additionally, wetlands and drainage areas, while not appropriate for active use, can serve as quality open space within a development site.

Limit any requirements for private open space to development in the R-3, R-4, and RO Districts, and evaluate the appropriate amounts to require there. The market and the big box ordinance both address commercial development without MOA imposing arbitrary requirements. A new replacement section entitled "usable open space" is proposed (Coffey, pages 181-182, 188-191).

Eliminate private open space in commercial development. Requiring private open space of commercial development even when the market may not want it is a taking of land, adds cost, and decreases density (Don Dwiggins, page 91).

Response: After years considerable research, discussion, public review and compromise at the Assembly Title 21 Committee, the provisionally adopted private open space section established minimum ground rules for the quality of usable outdoor spaces while avoiding substantially increasing the residential area requirement over current title 21. The Department and PZC in 2010 recommended minor adjustments and clarifications (proposed amendments R21 – R24), and the Department has proposed to cap the maximum non-residential area requirement (proposed amendment 61).

Last year the Mayor's consultant proposed significantly reducing and eliminating the private open space requirements and counting indoor rooms for half of the required open space area, among other changes. The Department disagreed and provided a policy discussion of this issue in Exhibit A, pages 51-52. The Administration considered the issue, and has supported moving forward with the provisionally adopted private open space section, with the Department's proposed minor adjustments (mentioned in the paragraph above).

A major objective of the rewrite and a concern expressed by community participants during the process was to address a lack of quality open space in some multifamily residential developments. The provisionally adopted section replaces the current title 21 "usable yard" regulations with a "private open space" requirement that focuses on improvements in quality and usability.

As Table 3 below indicates, the provisionally adopted title 21 is not a substantial increase in the amount of area required, and it allows reductions in the amount of area required by incentivizing higher quality spaces. The provisionally adopted code also explicitly allows rooftops, balconies, and atriums to count as well.

Table 3. Comparison of Current Usable Yard and Provisionally Adopted Private Open Space Area Requirements (square feet)

Zoning District	Current Title 21	Provisionally Adopted Title 21	
		without reductions	with 25% reduction
R-2M	400	480	360
R-3	400	400	300
R-4	100	120[2]	90
RO / B-3 (residential)	100	120	90

One of the commenters is revisiting the consultant's proposal from last year to eliminate the residential private open space requirement in the R-2M and B-3 districts, and reduce it to significantly less than current standard in the R-3 district. Reducing these provisionally adopted standards would reverse the course of the rewrite project, move the community backward from current code minimum standards, and conflict with the policies of the Comprehensive Plan.

Residential buildings constructed in these districts have easily complied with these area requirements for decades, and the provisionally adopted requirements are not a significant departure, except that they require more forethought as to placement and usability on the part of the designer.

The Cook Inlet Housing Authority commented that it is problematic for the R-4, R-4A and non-residential districts to have a different open space area requirement for townhouse style structures versus multifamily buildings, and to require that the townhouses must reserve the open space for the exclusive use of each dwelling unit. After reviewing the issue the Department agrees with the commenter that the private open space requirements in all districts should be consistent across these building styles. Some development projects actually mix the two building styles, or produce a hybrid of the two styles where it is difficult visually or functionally to tell the two apart. A consistent requirement will be simpler for designers and reviewers, and allow the designer of the townhouse-style structure the same flexibility given to the designer of the multifamily building to decide what portion of the required private open space be common space shared among units versus individual spaces exclusive to each unit.

However, one commenters' proposed reduction of the minimum size of common open spaces to a 10' space would undermine usability and attractiveness of the common space shared among multifamily dwellings. Site visit examples can drive home the reality that this dimension isn't sufficient (and less desirable to potential urban residents) for an outdoor space for even a single dwelling unit, much less for multiple units.

[2] Staff has proposed 120 square feet in a technical amendment, from the provisionally adopted 125 feet.

Two commenters proposed allowing more (e.g., up to half) of the private open space to be indoors in a room. The room could be 10'x10' and/or not necessarily visually connected to outdoor spaces. Such a change would undermine the objectives of the open space requirement for outdoor space and green common areas for recreation and relaxation. A small room in a building does not achieve the strong community objective of the rewrite project to provide for outdoor usable open spaces around the buildings. The provisionally adopted atrium standard already increases flexibility over current code while ensuring strong visual outdoor connections and daylight access.

Similarly, wetlands and drainage areas do not meet the objective to provide a usable space for outdoor recreation and enjoyment. The amount of open space required by the provisionally adopted section is small because it does not anticipate the inclusion of unusable slopes, wetlands, and other spaces that cover much land area however do not, for example, offer the minimum quality of usable play space expected within the small amount of area required by title 21.

These proposed changes are unnecessary and counterproductive if their objective is to improve economic impacts. Site testing by the Title 21 Economic Impact Analysis (Exhibit E) indicates that private open space is a minor fraction of the direct costs and land area requirements related to complying with title 21 site development standards—under both the current and provisionally adopted code. With all requirements of title 21 factored in, the overall costs and land area requirements of multifamily residential development is less under the provisionally adopted code than current code.

Furthermore, the Municipality has also recently received the results of the Anchorage Housing Market Analysis (Exhibit H), which corroborates on the high value of private open space in residential projects. It included a case study research of eleven selected compact housing examples in order to support a dialogue about housing preferences related to compact housing, and found that

> Incorporating common space, such as green spaces or areas for socializing, was an important factor to the success of the developments. Where possible, developers incorprorated green space into the developments, including using roof-top gardens or play areas. In other common spaces, outdoor amenities (e.g., fire pits, picnic tables, or fountains provided attractive areas for socializing. (Exhibit H Appendix A, page A-6)

The analysis' summary of lessons learned from the case studies states that the design of the development is crucial to project success, and this includes the design of common spaces. Creating a sense of place and making the development fit with its surroundings—including incorporating existing natural areas into the development—can make the development more attractive to potential residents and more acceptable to the surrounding neighborhood (Exhibit H, Appendix A, pages A-5 and A-6).

Good development practices also reflect a local awareness of the utility of non-residential pedestrian space in commercial districts. They help achieve Comprehensive Plan policies to facilitate a transition toward higher urban density. The non-residential open space requirement for commercial uses is intended to improve the pedestrian environment, improve the function and quality of public entrance areas, and provide employees and customers with outdoor public space.

The non-residential standard is not difficult to meet, as documented in the test case scenarios in Exhibit E. The standard is exemplified by the outdoor patio seating at Sagaya City Market, pictured below. This and the other existing commercial developments tested using the Economic Impact Analysis (EIA) cost comparison model were shown in Exhibit E to meet or nearly meet the provisionally adopted private open space requirement, even though they were not even trying or aware of the draft standard. For example, the MGM Medical Office entrance plaza was shown to exceed the provisionally adopted private open space requirement.

City Market's seating area and MGM Medical Office's entry plaza both comply

The EIA tests also demonstrated that private open space would not be a significant share of the costs or land area requirements related to title 21 compliance. The bar graphs in Exhibit E show that little of the development cost or land area of MGM Medical Office test site, for example, would be due to private open space. That development already provided the space anyhow. These plaza spaces depicted in the photographs above improve the pedestrian environment to facilitate a transition toward more efficient use of land in higher density commercial centers and districts.

Recommendation: Forward the provisionally adopted private open space section, with the proposed amendments R21-24 and 61 from the Administration, except to make the following additional change to make the townhouse private open space standards requirements consistent with those of multifamily structures, as suggested by a commenter:

21.07.030B. Applicability and Open Space Requirement

…

1. R-4 and R-4A districts: [FOR A MULTIFAMILY USE WITH TOWNHOUSE-STYLE CONSTRUCTION, 225 SQUARE FEET OF PRIVATE OPEN SPACE PER DWELLING UNIT, TO BE PROVIDED FOR THE EXCLUSIVE USE OF EACH DWELLING UNIT PER C.2. BELOW; FOR NON-TOWNHOUSE-STYLE MULTIFAMILY USES,] 120 [125] square feet of private open space per dwelling unit, and at least half of the private open space shall be shared in common among the units. Group living uses and nonresidential development shall provide an area equal to five percent of the gross floor area for open space.

…

Secondly, delete the part of proposed amendment #61 which had added new language to the end of subsection 21.07.030B.4.b.

7-4. Public Open Space: Requiring Set-asides or Impact Fees

Issue: Should the title 21 rewrite require residential development to pay an impact fee for its anticipated additional demand for public open spaces, or directly set aside public open space?

Public comment: In the Comprehensive Plan approval process, the public expressed the importance of natural resource protection and Anchorage's open spaces. As the city grows through infill and redevelopment, more open space will be needed to maintain our quality of life, including recreational opportunities, sunlight access, scenic views, and quality of development. Developers benefit from public infrastructure, however they are not paying their fair share of the costs. Municipal taxpayers shoulder the costs when new construction increases demand on this infrastructure. Most cities require developers to pay impact fees when new construction creates demands that increase capital costs. The first public review draft of title 21 rewrite included a requirement for public open space set-asides or a fee-in-lieu for public open space acquisition. During the years of the title 21 rewrite impact fees fell by the wayside and were replaced with requirements to provide public or private open space. With every draft, the requirement diminished. Anchorage Citizens Coalition seeks to ensure that developments pay their fair share of costly impacts on Anchorage's infrastructure, in part by either providing a modest amount of private open space or pay an impact fee in lieu of that open space. In that way, local government will have sufficient resources to provide additional open space as the community becomes more dense. Comprehensive Plan policy 77 states that new development should be required to pay a portion of public infrastructure that it needs, and identifies impact fees as an implementation strategy. Recommended amendment language is suggested from the June 2004 Module 3 public review draft of title 21 rewrite (Anchorage Citizens Coalition, pages 34-35).

Response: The draft requirement for a public open space set-aside was eliminated during the early years of the public process. There are a number of concerns with a public open space set-aside requirement, which include:

- Some areas of the city are well-served by parks, and others are not. A blanket requirement for a park with every subdivision might not adequately discriminate between well-served and under-served areas.

- Many subdivisions are small. Requiring a public park from each subdivision could result in a proliferation of very small parks, which may not be the best situation for the community—sometimes a larger park may be more appropriate.

- Funding is inadequate to maintain the parks that already exist. Before a multitude of new parks are created, the mechanism for maintenance funding should be identified.

- The Municipality has recently received the findings of the Housing Market Analysis (Exhibit H), which documents that financial feasibility and affordability of housing has become more difficult. Requiring a public open space set aside with each subdivision means the developer increases the cost of the lots/homes to recoup the cost of the undevelopable park land, impacting the affordability of homes. Requiring a public open space set aside could

undermine the feasibility of townhouse projects on the margin, and exacerbate the documented gap in financial feasibility for stacked multifamily housing.

- Exhibits H also documents a residential land supply deficit in the Anchorage Bowl. The amount and placement of parks should be carefully balanced with plans to accommodate future population growth, and be consistent with efficient use of strategically located lots.

A system of impact fees would be more efficient than project-by-project public open space set-asides, and could address most of the concerns above. Given the costs of providing housing in Anchorage, the impact fee would need to be calibrated to avoid unintentionally discouraging housing types that are most difficult to finance without incentives and assistance. The production of townhouses and stacked multifamily housing are examples.

According to the American Planning Association, a system of impact fees should also be built atop a strong capital facilities improvement plan, and linked to the planned improvements.

The Housing Market Analysis (Exhibit H, pages 51-52) finds that Anchorage's incomplete system of infrastructure is a barrier to developing compact urban housing, and suggests consideration of "system development charges", a form of impact fee, as a policy option. SDCs can provide a stable revenue stream to fund infrastructure development that can support efficient residential development.

Recommendation: The Department recognizes that this is a significant public policy issue, and supports continued discussion and resolution of these issues separate from the Title 21 rewrite process. The Department supports the Housing Market Analysis' suggestion for future exploration of system development charges, and recognizes the need for the concept of impact fees (a strategy of Anchorage 2020) but developing such a system will require more expertise and resources than are available for the title 21 rewrite process.

7-5. Street Connectivity and Sidewalks

► Section 21.07.060D.3. of Provisionally Adopted Title 21

► Proposed Amendments 62.1, 62.2, 62.3 and 63 in Consolidated Table

Issue: Should the "street connectivity index" be replaced by a simpler street connectivity standard, and should cul-de-sacs be exempted from required sidewalks?

Public comments: Proposed amendments to replace the "connectivity index" are acceptable if they do not diminish the ability to walk and shorten driving trips. However, proposed amendment 63 to eliminate sidewalks on cul-de-sac bulbs contradicts the clear direction of the Anchorage 2020 Comprehensive Plan, because in practical terms it would create discontinuous sidewalks in cases where there is an intended connection between cul-de-sacs. Anchorage 2020 in policies 37, 38, 54, 55 provides strong guidance for improving streets to accommodate

pedestrians, ensure safe pedestrian movement and neighborhood connectivity, and provide pedestrian connections within and between residential subdivisions in new plats. Anchorage 2020 includes the "Street Connectivity Standards" implementation strategy, the objective of which is to amend the municipal subdivision standards to ensure a continuous network of streets and pathways (Anchorage Citizens Coalition, pages 27-28).

Reject the proposal to decrease sidewalks on cul-de-sacs (Mid Hillside and Hillside East Community Councils, page 11). Retain the section's provision for pedestrian connectivity when a cul-de-sac is created. Pedestrian connectivity reduces traffic congestion and promotes personal health, both of which are municipal goals. Support proposed amendment 63 with the following revision: "…sidewalks are not required around cul-de-sac bulbs except for cul-de-sacs which have a pedestrian connection leading between lots to an adjoining path or road, in which case the sidewalk must be installed around a portion of the cul-de-sac to provide a continuous pathway. (Rabbit Creek Community Council, page 9).

Multiple commenters support the provisionally adopted connectivity index, including Airport Heights, Rogers Park and Turnagain Community Councils; the Adopt Title 21 Coalition; and individuals (Diamond; Eurich). They reject the proposal to delete the street connectivity index for various reasons: it is needed for easier walking and biking; it can be approved as provisionally adopted now and supplemented with a clearly written alternative later; connectivity encourages more walking, better health, and a greater sense of community; the connectivity index provides flexibility, adequate administrative relief, adequate vehicle routes in and out of neighborhoods, and it seems simple enough to use.

Dan Coffey comments that the connectivity index is not easy to comply with or comprehend, nor a familiar concept to the MOA traffic department (Coffey, page 183). Don Dwiggins comments that street connectivity is a convoluted concept that usurps the developer's control of the design. The only consideration should be the ability of public safety vehicles having more than one access, and the existing review process already allows for this. Why implement a through-block connection requirement and then state that it may be waived in the review process? (Dwiggins, pages 91-92).

Response: Last year a consultant recommended to the Administration to delete the street connectivity index, and proposed a series of revisions which would reduce the number and location of sidewalks and walkways. The Department disagreed with the consultant's proposals, and provided reasons for supporting the provisionally adopted title 21 (**Exhibit A**, pages 53-54).

The Administration considered this issue and has proposed to delete the connectivity index requirement and create a simpler standard in its place to provide for vehicular and pedestrian connectivity. The Administration otherwise supported retaining the provisionally adopted sidewalk and walkway provisions, except to propose that sidewalks not be required on the bulb portion of cul-de-sacs. (**Exhibit B**, items #30 and #32, page 11).

These changes, as implemented by the Department in proposed amendment 62, are intended to replace the connectivity requirements with simpler vehicular and pedestrian connectivity standards, while essentially leaving the substantive objectives of the provisionally adopted title 21

essentially intact. Amendment 63 would establish that a sidewalk not be required around the bulb of a cul-de-sac. Rabbit Creek Community Council points out that in some cases even the bulb forms part of a pedestrian trail connection between nearby streets. Proposed amendment 63 is suggested because the bulb usually has little traffic, and any sidewalk around its perimeter would the longer way around and be frequently interrupted by driveways.

Recommendation: Although the connectivity index arguably provided a flexible means of implementing the Comprehensive Plan, the Department supports the Administration's proposed amendments, as providing for connectivity in a simpler form and retaining the integrity of the provisionally adopted title 21.

7-6. Neighborhood Protection Standards

Issue: Should the neighborhood protection review apply only to properties directly abutting residential lots, and should the provisionally adopted examples of issues to address be retained?

Public comment: Requiring an adjacent commercial use within 300 feet of any residential use to meet any one of the 11 conditions of this section could amount to a substantial reduction in the value of the commercial property. This could amount to a taking. The MOA has never required an adjacent property to be limited in this fashion. Recommend applying this section only to commercial property that is directly abutting the residential property, and deleting subsection 21.07.070C. which contains the 11 conditions of approval. (Coffey, page 184).

Response: The Neighborhood Protection section applies only to reviews that are discretionary already. These include conditional uses, variances, and site plan reviews. These are discretionary processes by which applicants gain a waiver or entitlement not allowed by-right. Their approval criteria are already more generalized, open-ended, and discretionary than the Neighborhood Protection section. Therefore, despite the commenter's claim, these procedures in both current and provisionally adopted title 21 can already result in case-by-case conditions of approval as or more demanding than anything in this new section.

Neighborhood Protection helps to focus and clarify the kinds of issues of concern to address in these reviews to implement the neighborhood protection policies of the Comprehensive Plan. This reduces neighbor to neighbor conflicts and protects the lasting value of existing neighborhoods and properties. The provisionally adopted title 21 also provides a more standardized, formalized, and well-documented pre-application meeting for the review procedures. Between the stronger review process and the list of site compatibility issues to be considered, applicants will learn of community expectations and agency concerns earlier in the review process, in a more consistent manner than historical experience.

Discretionary processes reflect that every project site is different, so the issues involved will vary. Given the earlier heads-up in the review process regarding site issues to be aware of, the professional design team on a proposed project should be able to address site specific concerns and issues.

To limit applicability to only nonresidential uses abutting or adjacent to a residential use would be inadequate. A new commercial or industrial development could have noise or lighting impacts (for example) that affect residential development at least 300 feet away. To be consistently effective in protecting residential areas, the provisions must apply to all non-residential developments within a certain distance of the residential lots (e.g., 200 or 300 feet), and not arbitrarily based on whatever happens to be the configuration of lot lines (e.g., adjacent). The comment's proposal is doubly inadequate because "abutting" does not even cover the effects of a commercial development right across a street, dedicated walkway, or alley.

Recommendation: Do not support the proposed changes, forward the provisionally adopted section.

7-7. Deletion of Dumpster Screening Amortization

- ► Section 21.07.080G, Pages 339 – 341 of Provisionally Adopted Title 21
- ► Proposed Amendment #70 of Consolidated Table of Proposed Amendments

Issue: Should the provisionally adopted title 21 dumpster screening section and extended amortization schedule be revised?

Public comments: One community council recommends rejecting the proposed amendment (#70) that would increase the amortization period for complying with the new dumpster provisions from five to seven years (Turnagain Community Council, page 55).

The Anchorage School District (ASD) commented that it has about 57 school facilities that will require screening dumpster enclosures; many of those, visible from abutting streets, will require gates. While the increase in amortization period from 5 to 7 years is helpful, the screening will cost $750,000 in current dollars. Since ASD regularly undertakes site improvement projects, it would prefer to combine dumpster screening with those projects. In the meantime, ASD intends to work with dumpster vendors to move units to least visually objectionable locations while not impeding the vendors' access and operations (ASD, page 288).

A commenter states that refuse screening will not be allowed in the front yard setback (21.07.080G.2.d). Refuse collection is done with vehicles where the driver does not leave the vehicle. As such, the truck must be capable of removing and re-setting the dumpster without leaving the truck. If the refuse container is located away from the front, it may cause the loss of parking to provide the maneuvering space needed. This will kill small lot development (Dwiggins, page 96).

Another commenter recommends all existing dumpsters should be "grandfathered" rather than having to be screened within seven years, and dumpster screening only required for new developments. He states that while some commercial and residential developments can accommodate dumpster screening on existing sites, many (most) cannot, and the draft amortization and variance requirements are bureaucratic, arbitrary and costly. While dumpsters

are not particularly attractive, screening as an aesthetic consideration should probably not drive the MOA's requirements. The commenter also provides an Exhibit Q which is a possible replacement of subsections 21.07.080G.1 and 2. The alternate provisions of Exhibit Q primarily remove the requirement for screening dumpsters on existing properties, including the amortization schedule. Its removal of the amortization schedule also includes removing an 18-month timeframe that had been provided as a grace period for removing dumpsters from single-family, two-family, townhouse, and tri-plex dwellings. (Coffey, page 186, and his Exhibit Q – pages 201-202)

Response: The eight year public process for the title 21 rewrite identified dumpster screening as an important issue early on and citizen testimony throughout that period has been supportive of more attractive streets and neighborhoods, including the screening of dumpsters. Currently, many dumpsters are located partially or completely within public street rights-of-way. Other sites have an unscreened dumpster in full view on the edge of the site. In either case, unscreened dumpsters lining a street contribute to an unattractive city for residents and visitors. The amortization provisions are intended to phase in standards which will move the dumpsters out of the public street rights-of-way and take measures to screen the dumpsters from view along these streets. Although the alternate section provided by a commenter would still require dumpster screening in new developments, older developed areas would be able to keep unscreened dumpsters indefinitely.

The provisionally adopted draft provides a means to address the screening of existing dumpsters by establishing an administrative variance process. This process allows owners of existing sites with dimensional constraints to apply for a variance to locate the dumpster and its screening structure within a required landscaping bed and/or within several parking spaces.

The Administration reviewed this issue and supported retaining the amortization provisions in general, with a proposed amendment (#70) that adds two years to the amortization timeline to allow more time for property owners to deal with screening requirements and the costs that will be involved.

If the amortization provisions were deleted, the most likely way that existing dumpsters will be screened is by waiting for years and decades for older properties to be redeveloped, at which time they would need to come into compliance with dumpster screening standards. By not dealing with the issue of existing dumpsters, roadways lined with dumpsters could remain in Anchorage for decades to come.

Recommendation: The Department recommends retaining the dumpster screening provisions of the provisionally adopted draft and forwarding the Administration's proposed amendment #70 which extends the amortization period from five to seven years.

The above images are of Anchorage streetscapes lined with dumpsters. If amortization provisions are deleted from the code, dumpster-lined streetscapes could potentially remain for decades.

7-8. Off-site Parking and Shared Parking in a Commercial District

► Sections 21.07.090F16. and 21. 07.090H.10. of Provisionally Adopted Title 21

Issues: Should Title 21 allow the separation of an establishment and its required parking spaces by an arterial street? Secondly, should title 21 more specifically address the dimensions of on-street parking spaces, including back-in diagonal parking?

Public comment: The Spenard Chamber of Commerce (comments, page 67) states that its mission is to cultivate Spenard's status as Anchorage's vibrant shopping, dining, and entertainment district in a safe and fun environment. The shopping environment on north Spenard Road is largely dependent on the condition of the roadway and sidewalks. There is local support for two locations for shared parking and the use of back-in diagonal parking. The provisionally adopted title 21 does not address back-in diagonal parking and does not allow shared parking where it is across a minor arterial road (ie., Spenard Road). Therefore,

- Add to section 21.07.090F.16.f (page 360) to allow shared parking across a minor arterial where there is a clear and safe pedestrian crossing as presented in 21.07.090.F.16.e.; and
- Add to a presentation on the design of back-in diagonal parking with recognition of the decreased or eliminated need for a parking aisle.

Response: The provisionally adopted title 21 allows shared parking or off-site parking facilities to count toward the parking requirements. Shared parking is shared by several establishments that do not need the spaces during the same peak parking times. Off-site parking is where an establishment simply locates its own required parking on a separate lot nearby. The shared parking facilities provision (21.07.090F.16.) carries forward current title 21 language that prohibits separation of a use and its shared parking facility used to meet the parking requirements by a higher classification street than a collector. By contrast, the off-site parking language (21.07.090F.17.) comes from the title 21 rewrite process and leaves the traffic engineer with the power to approve separation by a collector, minor arterial, or arterial. It would be more consistent and flexible to update the shared parking language to be consistent with the off-site parking section. The amendment could also provide more guidance that approval be based at least in part on pedestrian safety and access. Another consideration is granting flexibility where an area-specific or institutional master plan, such as is possible in the U-MED District, calls for sharing of parking facilities across a street.

The dimensions of a back-in diagonal parking space would be the same as established for angled parking in provisionally adopted section 21.07.090H.10. This section includes a table of parking space dimensions, diagrams that clarify the elements in the table, and supplementary standards regarding overhang allowances, obstructions, and clearance in subsections a. through i. The bottom illustration on page 371 addresses angled parking spaces. Although the diagram shows a front-in scenario, the parking space elements that it depicts, relative to the required dimensions of those elements in Table 21.07-9, are equally applicable back-in diagonal parking. The addition of a note could clarify this.

Reduction of the "aisle width" dimensions specifically for back-in diagonal parking would not be appropriate or consistent. Parking spaces in a parking facility will need the aisle width regardless of its angle or configuration. However, if it is on-street parking, then the roadway's moving traffic lane completely replaces the parking aisle, and street lane widths apply instead.

Recommendation: Amend the shared parking and off-site parking facility provisions to improve consistency, flexibility, and clarity as to separation by a street. Amend the dimensions for parking spaces and aisles to address on-street and back-in diagonal parking. Language:

21.07.090F.16. Shared Parking

…

f. ***Separation by Streets***

Separation of a use and its shared parking facility by a local street is allowed. Shared parking spaces shall not be separated from the use served by a collector or greater class right-of-way, unless approved by the traffic engineer in consideration of the ease and safety of pedestrian access, and/or a municipally approved specific plan for the area.[SEPARATION BY A COLLECTOR STREET SHALL BE SUBJECT TO APPROVAL BY THE TRAFFIC ENGINEER. SEPARATION BY A STREET DESIGNATED IN THE *OFFICIAL STREETS AND HIGHWAYS PLAN* AS A HIGHER CLASSIFICATION STREET THAN A COLLECTOR IS PROHIBITED.]

21.07.090F.17. Off-Site Parking

…

b. ***Location***

The maximum distance between off-site parking spaces and the use(s) served shall be the same as provided in subsection 21.07.090F.16.d. for sharing parking spaces (measured along the shortest legal pedestrian route). Separation of a use and its off-site parking spaces by a street shall be subject to subsection 21.07.090F.16.f.[OFF-SITE PARKING SPACES SHALL NOT BE SEPARATED FROM THE USE SERVED BY A COLLECTOR OR GREATER CLASS RIGHT-OF-WAY, UNLESS APPROVED BY THE TRAFFIC ENGINEER.]

21.07.090H.10. Dimensions of Parking Spaces and Aisles

…

c. ***Parking Angle***

Parking angles between zero and 45 degrees and between 75 and 90 degrees are not permitted, except as approved by the traffic engineer. Angles between 45 and 75 degrees are permitted. The dimensions for such angles shall be calculated by the applicant using a method prescribed by the traffic engineer. The angle parking spaces diagram above, including the elements of a parking space that it depicts relative to the required parking space dimensions in Table 21.07-9, are equally applicable to either front-in or back-in angle parking spaces.

d. ***Parking Aisle Width***

Where the parking angle differs across a one-way parking aisle, the greater required parking aisle width shall be provided. In the case of on-street parking, the parking aisle width is replaced by the street's travel lane and municipal street standards for street lane widths apply.

7-9. Exterior Lighting Standards

► Section 21.07.100, Page 380 of Provisionally Adopted Title 21

Public comments: A commenter stated that new "lighting zones" are required. He stated further that this has not actually been written but stems from the 'Dark Sky' mentality whose requirements are unattainable: a) No lighting of facades, apparently (No lights visible from the sky.) No Chrysler or Empire State Buildings here! b) No light trespassing! This means you cannot see light from another property. c) Must turn lights off after 10:00 PM. That's safe! (Dwiggins, page 101)

Response: A draft exterior lighting section had been included in the Title 21 rewrite public hearing draft in 2007. The draft section had been prepared through the assistance of a nationally known lighting consulting firm, Clanton and Associates, and a committee from the local chapter of the Illuminating Engineering Society (IES) (Northern Lights Chapter). The draft section was reviewed by the Planning and Zoning Commission and then forwarded to the Assembly Title 21 Committee for review. In 2009, the draft exterior lighting section was withdrawn and a placeholder reserve section (21.07.100) provided for it in the provisionally adopted Title 21. The reasons for withdrawing the section were based on recommendations from committee members of the IES Northern Lights Chapter to wait for an approved model lighting ordinance from the national IES and also to conduct additional site lighting tests.

In 2011, the national IES approved a model lighting ordinance and the Planning Division hired a private consultant to conduct several site lighting tests. The Division is now waiting for funding to conduct additional site lighting tests and to meet with the IES Northern Lights Chapter to discuss revisions to the draft Title 21 exterior lighting section. Once further testing results are obtained and a revised draft section is prepared which receives support from the IES Northern Lights Chapter, the Planning Division will forward this draft and an accompanying draft lighting zone map to the Planning and Zoning Commission for review and recommendations as a separate ordinance from the title 21 rewrite project. A public hearing process will be conducted as part of the Commission's review.

Recommendation: The Department recommends retaining the reserve section placeholder for the exterior lighting section in the provisionally adopted Title 21. Once the overall Title 21 rewrite is adopted, the Department recommends moving forward with a revised exterior lighting section subject to additional site lighting tests being completed and work sessions being held with the IES Northern Lights Chapter.