



SUSTAINABILITY & TRANSPORTATION COMMITTEE

April 6, 2017

The Sustainability & Transportation Committee of the City of Mesa met in the lower level meeting room of the Council Chambers, 57 East 1st Street, on April 6, 2017 at 9:31 a.m.

COMMITTEE PRESENT

Kevin Thompson, Chairman
David Luna
Jeremy Whittaker

COMMITTEE ABSENT

None

STAFF PRESENT

Kari Kent
MaryGrace McNear

1. Items from citizens present.

See item 2-a for citizens comments.

2-a. Hear a presentation, discuss, and provide a recommendation on a reduced street lighting pilot program and the use of LED streetlights.

Transportation Director R.J. Zeder introduced Deputy Field Operations Director Gordon Haws and Street Light Systems Supervisor Nathan Curtis who displayed a PowerPoint presentation (**See Attachment 1**) related to a reduced street lighting pilot program and the use of LED streetlights.

Mr. Haws explained the historical background between High Pressure Sodium (HPS) lights and Light Emitting Diode (LED) lights and that LED is a relatively new technology for streetlights, however, the LED technology has been around longer for residential use. He pointed out that LED fixture costs continue to fall, are more energy efficient, have lower maintenance costs, and many manufacturers are phasing out HPS and moving to LED. (See Pages 2 through 4 of Attachment 1)

Mr. Haws stated that the City spends approximately \$3.1 million annually on energy for streetlights. He added that an LED fixture could save the City 50%-60% compared to the HPS fixture depending on the billing structure from the utility company. (See Page 5 of Attachment 1)

Mr. Haws highlighted the streetlight conversion (See Pages 6 and 7 of Attachment 1) as follows:

- Number HPS fixtures currently in the City of Mesa's streetlight system = 36,000

- Replacement cost of HPS with LED fixtures = \$240 to \$765 per fixture including labor and materials
- Total cost of LED conversion = Approximately \$14.6 million
- Return on investment (ROI) period = 11.5 years

Mr. Haws reviewed the Salt River Project (SRP) billing structure and stated that the City is currently billed at a flat rate, based on the actual wattage used for HPS fixtures. He explained that LED fixtures change wattages frequently and that SRP bills in wattage bands. He displayed a chart showing the effect of the utility billing structure on the ROI. (See Page 9 of Attachment 1)

Mr. Zeder remarked that the City of Phoenix has reached out to SRP regarding the rate structure, and that the City of Mesa has requested to participate in those discussions. He added that the challenge is that the wattage bands are so wide that the City will see energy savings, however, not necessarily see billing savings, due to the fact that the City falls between the broad wattage band for the price ranges.

In response to a question posed by Committeemember Whittaker, Mr. Haws responded that the ROI period could drop to seven to eight years if the kilowatt-hour (KWH) dropped to 16 KWH versus 27 KWH.

Mr. Haws remarked that the City anticipates working with other cities and SRP to discuss a possible adjustment to the billing structure. He added that during the pilot study, staff will work with the City of Mesa Energy Resources Department to determine whether the current rate and billing structure can be improved and used as a model for other utilities.

Mr. Haws reported an increased interest in LED lights, (See Pages 11 and 12 of Attachment 1) for the following reasons:

- LED streetlights installed in a number of new subdivisions throughout the City
- Desire to gain energy efficiencies
- Concern over light color
- Installation of LED streetlights along McKellips Road and Ellsworth Road adjacent to Mountain Bridge subdivision in the Desert Uplands Area
- Concern from Desert Uplands Area residents over color and amount of illumination

Mr. Haws displayed the difference in light color and perception of illumination between the HPS and LED lighting. He explained that light colors are determined by the kelvins and color correlated temperature, so a lower kelvin has a more yellow color illuminated and a higher kelvin has more of a white or blue color illuminated. (See Pages 14 through 16 of Attachment 1)

Mr. Haws pointed out that staff was given direction by Council to study LED lighting specific to the amount of light and the color of light, to solicit proposals to evaluate existing inventory to assist staff in determining lighting levels, cost effectiveness, and area appropriate lighting system ensuring that City roadways are safe for motorists and pedestrians. He requested authorization for the pilot study to be located in two areas: the Desert Uplands and the City of Mesa's Electric Service Area and displayed maps. (See pages 17 through 20 of Attachment 1)

Mr. Haws highlighted the pilot study period which would be from June 1, 2017 through December 31, 2019 and the parameters to be evaluated (See Page 21 of Attachment 1) as follows:

- Color of light (using different fixtures)
- Amount of light (using a dimming system)
- Feedback from Public Safety
- Public input

Mr. Haws reported that staff would return to Council with proposed changes to the City Code for various parts of the City, and a potential recommendation for a mass conversion from HPS to LED at the end of the pilot study period.

Mr. Haws requested that the Committee approve staff's recommendation to change the City Code and to establish a Pilot Study Period with two Pilot Study Areas (one in the Desert Uplands Area and one in the City of Mesa's Electric Service Area), and testing of LED light fixtures and forward to Council with a recommendation to approve.

In response to a question posed by Committeemember Luna, Mr. Haws responded that numerous Cities have embarked on LED conversion and in his opinion the HPS lighting will be phased out.

In response to questions from Committeemember Luna, Mr. Haws replied that the City will use a dimming system that dims up to 50% lower than the current lighting level and that the City would be unique in the use of dimming lights. He clarified that the project at Ellsworth and McKellips included a portion of frontage road by the Boulder Mountain Subdivision where HPS streetlights will remain. He added that within the project at Ellsworth and McKellips three other phases will include testing of LED fixtures with a dimming system.

In response to a question posed by Chairman Thompson, Mr. Zeder responded that the first phase of the lighting includes a Citywide Master Plan Light Study (Master Plan) to ensure a systematic approach. He stated that the two pilot areas provide staff the ability to test the LED lighting variations.

Committeemember Thompson emphasized that the Master Plan should be completed prior to the start of the of the pilot study.

In response to a question posed by Committeemember Whittaker, Mr. Curtis explained that the LED lights that were purchased have a 0-10 volt dimming system, and that the color changing LED technology is coming, however, it is only being considered for decorative purposes in downtown. He stated that he is unaware of different colors for street lights other than the LED light which can vary from white to blue, depending on the kelvin.

Discussion ensued regarding future technology of lights, adjustments in color, lumens, seeking more innovative options, and sensors on lights to track flows.

Assistant City Manager Kari Kent commented that direction was granted at a prior meeting for the Citywide Master Plan and staff is moving forward with a release of the Request for

Qualifications (RFQ) to hire a consultant. She stated that approval of an ordinance modification at the next Council meeting will be needed for the pilot study to begin and to run concurrent with the lighting level adjustments.

Chairman Thompson stated that one of the reasons for the pilot study is for the City to measure energy savings on our electric grid, so the City can begin talks with SRP.

In response to a question posed by Committeemember Whittaker, Mr. Haws explained that a wattage label is on the fixture for potential calculation, however, confirmation through independent metering gives a level of assurance to SRP and the other electric utilities that the label is correct and that the energy savings are realized.

In response to questions posed by Committeemember Whittaker, Mr. Zeder reported that the City has standard guidelines specific to the lumens which are uniform throughout the City and that Ellsworth Road had no prior streetlighting, so residents' concerns are with the lumens and the color. He stated that the proposed ordinance enables the Transportation Department Director the ability to lower the standard lighting levels within the two study areas down to 50% as required by the Lighting Standard (RP-8).

In response to questions from Committeemember Luna, Mr. Haws explained that the pilot study will include input from residents and the Public Safety Department, with discussions on dark skies and safety. He confirmed that the Master Plan and pilot study would run concurrently; that approval of the modified ordinance by Council is needed first; if approved the RFQ would be released; and then the consultant and staff would experiment with the reduced lighting levels.

In response to a question posed by Committeemember Whittaker, Mr. Haws highlighted that currently the City of Mesa's lighting standards required by RP-8 determines how many lumens or foot candles must be on the roadway. He added that the change in the ordinance would allow the City to deviate from the standard and recommends the City experiment with reduced lighting levels. He pointed out that the City of Phoenix has a pilot study, City of Scottsdale has areas without street lights, and that Sedona, Flagstaff and Tucson have reduced lighting levels.

In response to questions from Committeemember Whittaker, Mr. Zeder replied that the Master Plan Study goal is to have a recommendation to Council for consideration, however, at this point it is too early to know what that recommendation would be. He stated that recommendation possibilities could include; lighting standards, conversion of the existing street lights and look of street lights, or a onetime project or a phased project over several years.

Energy Resources Department Director Frank McRae pointed out that solar lighting is cost prohibitive, due to the fact that lines are underground and the cost to put in new conduit, etc. is expensive along with legal challenges as to where the City can provide service.

Discussion ensued relative to installing solar battery LED's, retrofitting costs, and ROI.

Greg Wingert, a Mesa resident, asked that staff consider a new light solution to be included in the pilot study, specifically south of Ellsworth where there are no lights currently. He stated that Mountain Bridge has started a new development and requested that staff consider only illuminating intersections and gave the example on Pima Road in the City of Scottsdale.

In response to question posed by Mr. Wingert, Ms. Kent replied that a time frame for the pilot program has not been set at this time, however, staff will notify him when that is available.

Mr. Wingert confirmed that Mountain Bridge residents support the pilot program.

In response to a question posed by Mr. Wingert, Ms. Kent stated that as staff works with the consultant, the consideration to lower the lighting will be discussed. She added that the Citywide Master Plan would incorporate various areas and potential lighting options since lighting needs vary throughout the City.

In response to questions from Committeemember Whittaker, Mr. Zeder responded that staff has requested an estimate of \$200,000 for the Master Plan with deliverables that include recommendations on lighting levels and an implementation strategy.

Committeemember Luna stated that the ordinance can be reverted to the original form, however, the recommendation allows the pilot study to be conducted in the two identified areas.

In response to questions posed by Committeemember Whittaker, Mr. Haws clarified that private streets in Eastmark are not required to have street lighting and that the City is responsible for public street lights, which Eastmark has.

Development Services Department Director Christine Zielonka added that the Community Plan for Eastmark had unique modifications. She stated that the City is responsible for maintenance of the streets, however, a separate maintenance agreement is in place regarding costs over and above the normal maintenance for streets or street lights; which are the responsibility of the Eastmark Community Association.

Discussion ensued relative to the goal of the pilot program, LED lighting advancements on the street light side versus consumer side, and costs.

Chairman Thompson explained that the Master Plan could be accomplished within weeks. He stated that a consultant would have a vehicle with sensors that records light levels as they drive through the City at night. He further explained that the consultant would produce an overlay map showing the areas of lighting, underlit areas, and overlit areas, and then reach out to stakeholders for input. He added that when the technology is available and the new ordinance is in place, it would allow staff the flexibility to update lighting needs in the future.

In response to a question posed by Mr. Wingert, Chairman Thompson clarified that the Engineering Department is considering placing shields on LED lights to assist in the spill over areas.

Ms. Kent stated that staff is aware of the situation at Boulder Mountain and has considered shields and a dimming system, however, the current ordinance does not allow these accommodations, so staff is prepared to add this as part of the study.

Carolyn Robertson, a Mesa resident, stated that her concern is with the cost of the survey and recalled a past meeting where it was discussed that lighting companies would come in and review lighting plans for free.

Ms. Kent clarified that the discussion was for a Citywide street light conversion to LED lighting as well as for financing.

Discussion ensued relative to the Ellsworth corridor, responsibility of light maintenance and light pole placement specific to LED lights.

It was moved by Committeemember Luna, seconded by Chairman Thompson, that staff's recommendation regarding the pilot program for reduced street lighting, and that the proposed ordinance to amend the Mesa City Code Title 9, Chapter 6 "Subdivision Regulations" be forwarded to the full Council with a recommendation for approval.

Upon tabulation of votes, it showed:

AYES – Thompson-Luna
NAYS – Whittaker

Chairman Thompson declared the motion carried by majority vote.

Chairman Thompson thanked staff for the presentation.

2-b. Hear a presentation, discuss and provide a recommendation on the City's Sign Code project.

Zoning Administrator Gordon Sheffield displayed a Power Point presentation (**See Attachment 2**) related to the City's Sign Code project.

Mr. Sheffield reviewed the Reed v. Town of Gilbert U.S. Supreme Court case and stated that, as a result a City's sign regulation cannot be based on a sign's content or message. He outlined modifications to sign ordinances from other valley cities. (See Page 2 of Attachment 2)

Mr. Sheffield presented a list of objectives for the Sign Ordinance updates (See Page 3 of Attachment 2) as follows:

- Reorganization of overall Sign Ordinance
 - Follow-up phase to Zoning Code update
- Update portable sign requirements
 - Remove message-based temporary sign classifications
 - Replace with portable sign type classifications
 - Utilize location and context-based requirements
- Update permanent sign requirements
 - Updating sign allowances by Zoning District
 - Design standards for permanent signs
 - Development of administrative sign plan option

Mr. Sheffield detailed the reorganization of the Sign Ordinance goals which is to become more user-friendly by breaking out additional topics into chapters and sections, continuation of hypertext links for the online version, increase use of tables, illustrations, and example photos to create a more “stand alone” Sign Ordinance. He added that having a content neutral Sign Ordinance eliminates exceptions, manages definitions, prohibitions, and applicability requests. (See Page 4 of Attachment 2)

Mr. Sheffield explained that portable signs may no longer be classified by message, revisions are based on sign forms, materials, and context of location. He stated that the objective is to provide rough equivalency to current options, such as present temporary signs having a similar allowance after revision and that the rough equivalency will not necessarily be an “apples to apples” comparison. (See Page 5 of Attachment 2)

Mr. Sheffield pointed out that determining allowances for portable signs focuses on measurable aspects of signs and context of placement, and to organize by using form-based code principles and concepts. He displayed pictures of the change to temporary sign classifications including the types of materials used. (See Pages 6 through 8 of Attachment 2)

Mr. Sheffield highlighted the proposed portable sign allowances (See Page 9 of Attachment 2) as follows:

- Create two sets of portable sign allowances
 - Base Allowance
 - Standard allowance assigned to each lot – determined by location and context
 - Design objective: Address daily need for portable signs
 - Permit-related allowances
 - Additions to the base
 - Temporary authorizations for activities of limited duration
 - Linked to issuance of a Permit or License
 - Design objective: Recognize temporary need for additional portable signs

Mr. Sheffield listed the proposed allowed and prohibited portable sign types. (See Pages 10 and 11 of Attachment 2) He continued by saying that proposed portable signs general base allowances are determined (See Pages 12 and 13 of Attachment 2) as follows:

- Number, height and area of signs progressively increase based on:
 - Zoning Districts
 - Lot Size
 - Number of street fronts – each street front is a separate allowance
- Height – 3-ft. when located within 15 ft of edge of pavement
 - Safety issue – impedes sight visibility for exiting vehicles
- Fabric based signs – limited allowances
 - 30-days/year in allowed areas
 - Special event licenses authorize portable signs in all areas

In response to a question posed by Chairman Thompson, Mr. Sheffield clarified that political signs are given an exception under state law during campaign season and not regulated by the sign ordinance.

Mr. Sheffield explained how to determine portable sign allowances. (See Page 14 of Attachment 2)

Mr. Sheffield displayed examples of portable signs based on the regulations for single residence districts, medium single residence lots, mid to intensive commercial, and commercial lots as well as a comparison of the effects of changes between the present allowances versus the proposed allowances. (See Pages 15 through 19 of Attachment 2)

In response to a question posed by Committeemember Whittaker, Mr. Sheffield replied that during election season, political signs placed in the Right-of-Way (ROW) on a commercial property is an exception to the sign ordinance and not classified under the proposal.

Mr. Sheffield listed the potential effects of changes for portable signs. (See Page 20 of Attachment 2)

- Possible increase in number of portable signs being used:
- Maximums changing compared to proposed form-based classification

Mr. Sheffield pointed out that as a result of the court case, the proposal is to standardize the sizes by using a basic form and allowances to establish maximum size. He explained that currently, fabric signs are authorized for a 30-day grand opening and that all other signs displayed are without permission. He reported that the use will be limited to commercial and industrial districts with a cap on the number of times the fabric sign is displayed, up to 30 days per year with regulations and without a special event license. He stated that with a special event license, a fabric sign would be allowed in all districts during the specific days of the special event. (See page 21 of Attachment 2)

Mr. Sheffield presented a rough equivalency chart displaying the current temporary sign classification (message-based) compared to the portable sign replacement options (form-based). He added that the equivalency comparison is intended to show that the current temporary sign classification can be accommodated by a more generalized form-based "portable sign type", without regulating the sign message. (See Page 22 of Attachment 2)

In response to a question posed by Committeemember Whittaker, Mr. Sheffield remarked that public outreach will begin the week of April 10, 2017 regarding the proposed sign changes.

Mr. Sheffield listed that the permanent sign objectives (See Pages 23 of Attachment 2) as follows:

- *Reed*-based revisions: message-based to content neutral language
- Revise sign allowances by Zoning District
- Revise Commercial Sign maximums
- Provide Administrative or "Standard" sign plan option
- Revise Design Standards

Mr. Sheffield explained in detail the permanent commercial sign revisions (See Pages 26 through 27 of Attachment 2) for the following:

- Commercial Sign maximums
- Design standards
- Administrative or “Standard” sign plan

Mr. Sheffield highlighted the next steps which starts with stakeholder outreach and feedback meetings and listed the stakeholders. (See Page 28 of Attachment 2)

Mr. Sheffield presented the tentative timeline for the Planning and Zoning board as well as the City Council. (See Page 29 of Attachment 2)

Chairman Thompson thanked staff for the presentation.

3. Adjournment.

Without objection, the Sustainability and Transportation Committee Meeting adjourned at 11:31 a.m.

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Sustainability & Transportation Committee meeting of the City of Mesa, Arizona, held on the 6th day of April, 2017. I further certify that the meeting was duly called and held and that a quorum was present.

DEE ANN MICKELSEN, CITY CLERK

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(Attachments – 2)



LED Streetlight Conversion Pilot Study

Presentation to the Sustainability and Transportation Committee

April 6, 2017

Past Presentations – LED Streetlights

- Presentation to Council on September 29, 2016
- Presentation to S.A.T. on November 6, 2016

Historical background



High Pressure Sodium (HPS)	Light Emitting Diode (LED)
Commercially available circa 1970	Commercially available for streetlights since 2008
Cost of fixtures nearly level or constant	Cost of fixtures continues to fall
Less energy efficient	More energy efficient
Standard maintenance costs	Lower maintenance costs
Yellow light	White light
Many manufacturers are phasing out HPS	Many manufacturers are moving toward LED

Conversion

HPS

LED

Increasing

Energy

Efficiency



**Current yearly energy cost for streetlights =
Approx. \$3.1M**

LED fixtures use less energy

**Maintenance costs are also lower for LED
lights due to longer bulb/fixture life**

Streetlight Conversion

- Number HPS fixtures currently in City of Mesa's streetlight system = 36,000 fixtures
- Replacement cost of HPS with LED fixtures = \$240 to \$765 per fixture including labor & materials

Streetlight Conversion

- Total cost of LED conversion = Approx. \$14.6 million
- Return on investment period = 11.5 years



Effect of Utility Billing Structure on Return on Investment:

SRP Billing Structure:



- HPS fixtures billed at actual wattage used
- LED fixtures billed within certain wattage bands

Effect of Utility Billing Structure on Return on Investment:

Wattage Range for LED Billing Purposes	SRP Billed Wattage	SRP Billed KWH
1-75	75	27
76-139	139	50
140-208	208	75
209-278	278	100
279-347	347	125
Example Luminaires		
100 Watt HPS fixture		Billed at 46 KWH (Actual energy used)
Equivalent 4600 Lumen LED (41 Watts)		Billed at 27 KWH (Actually uses 16 KWH)

- We anticipate working with other cities and SRP to discuss and possibly adjust their billing structure.
- During the pilot study, we will also work with the City of Mesa Energy Resources Department to determine whether the current rate and billing structure can be improved and used as a model for other utilities.

Increased Interest in LED Lights Lately...

- LED streetlights installed in a number of new subdivisions throughout City
- Desire to gain energy efficiencies
- Concern over light color

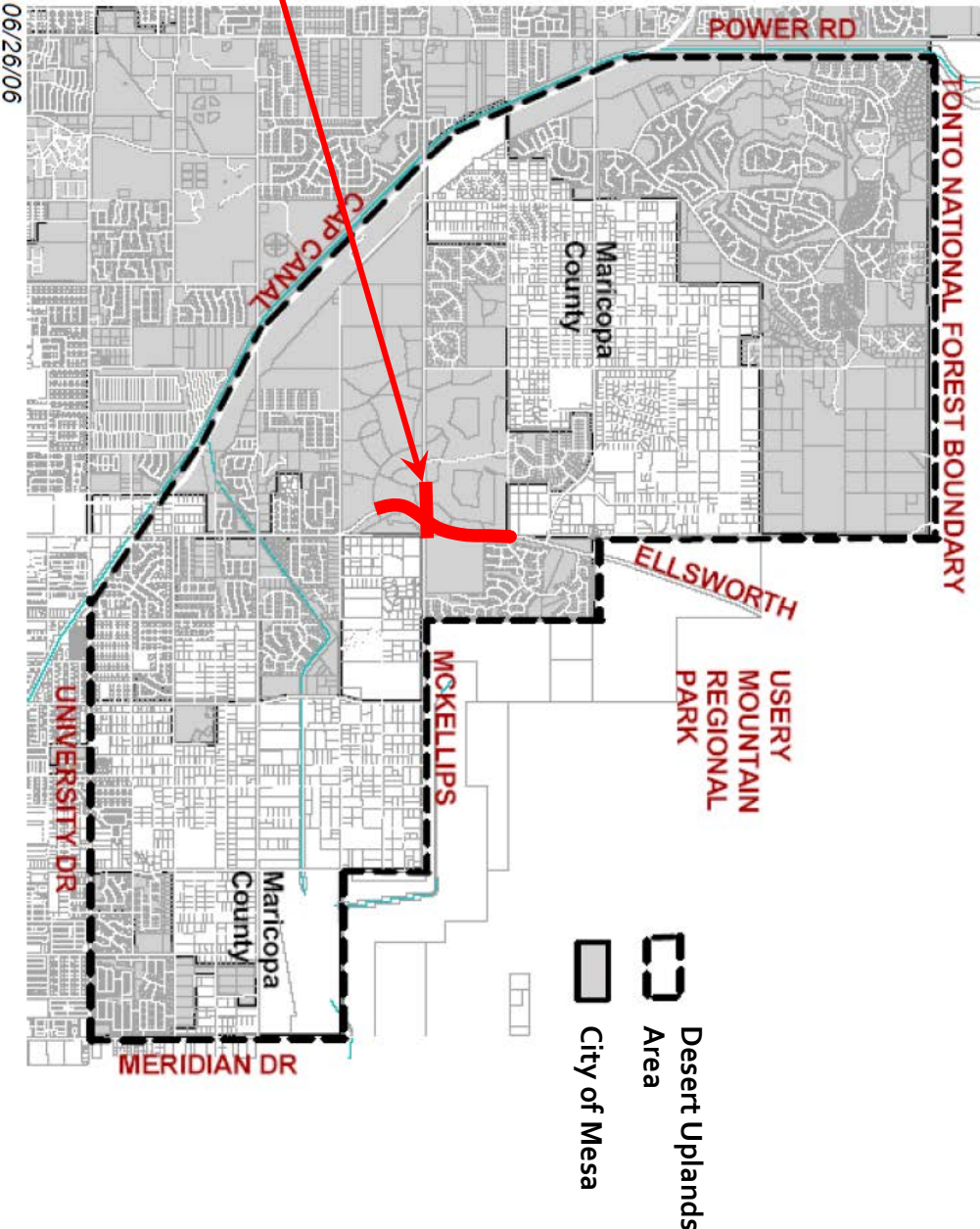
Another factor for...

Increased Interest in LED Lights...

- Installation of LED streetlights along McKellips Road and Ellsworth Road adjacent to Mountain Bridge subdivision in Desert Uplands Area
- Concern from Desert Uplands Area residents over color and amount of illumination

Desert Uplands Area

McKellips and
Ellsworth project



Difference in light color



HPS lighting



LED lighting

Light Colors



Lower kelvin = more yellow

Higher kelvin = more white or blue

Source	Color Correlated Temperature
HPS	1900-2200 kelvin
LED full range	2700-6200 kelvin
LED's used by City of Mesa	3000-4000 kelvin
Natural Daylight	5500-6500 kelvin

Perception of More Illumination with White Light



HPS lighting



LED lighting

City Council Direction

- Study LED lighting
 - Amount of light
 - Color of light
- Citywide Lighting Study
 - Solicit proposals to evaluate existing inventory and assist staff in determining lighting levels to ensure a cost effective and area appropriate lighting system that ensures that our roadways are safe for motorists and pedestrians

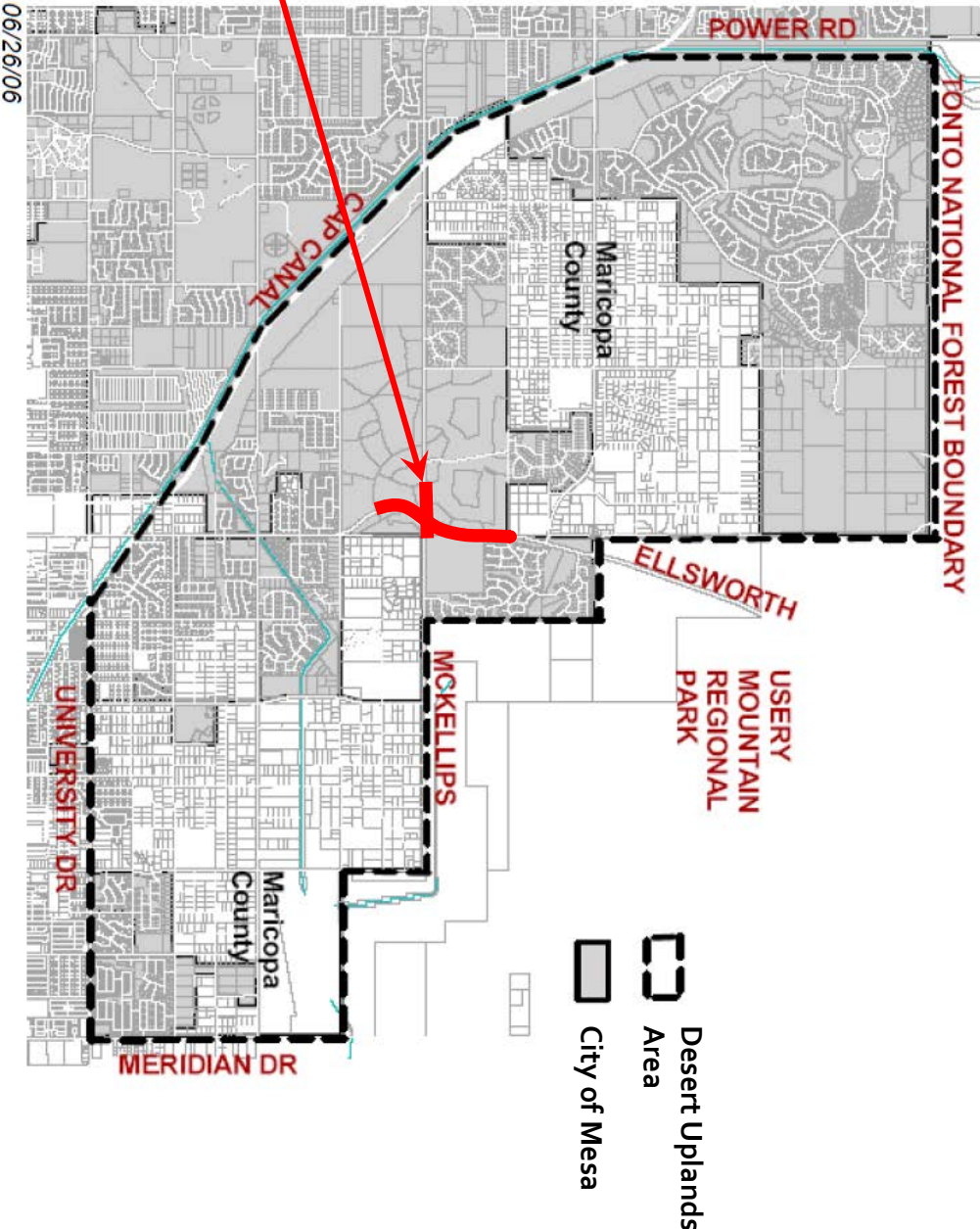


Seek Authorization for Pilot Studies in Two Areas

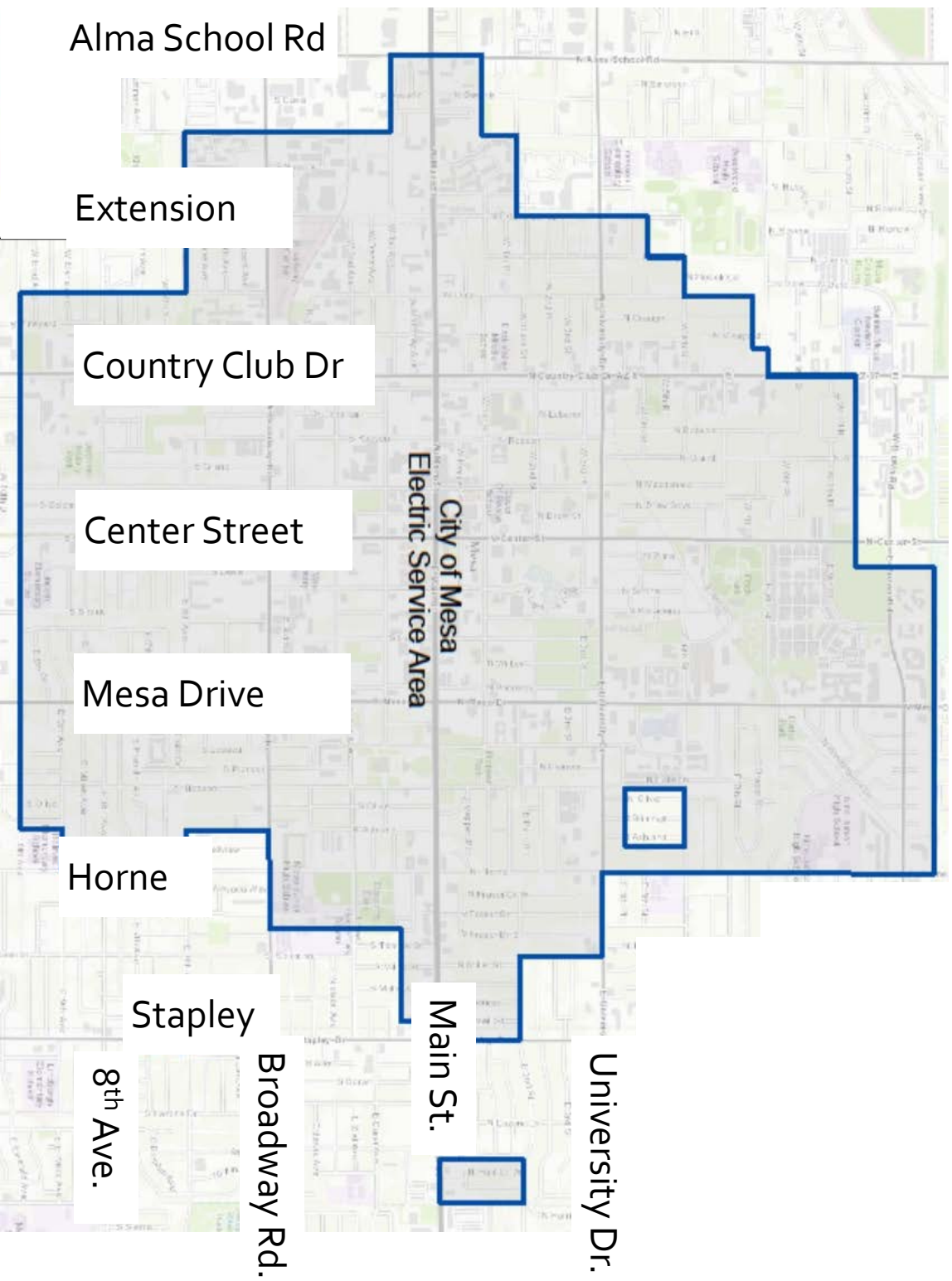
- Desert Uplands Area
- City of Mesa Electric Service Area

Desert Uplands Area

McKellips and
Ellsworth project



City of Mesa Electric Service Area



Parameters That Will Be Evaluated:

- Color of light (using different fixtures)
- Amount of light (using a dimming system)
 - Test different levels over time
 - Test time-of-night dimming
- Feedback from Public Safety
- Public Input

Pilot Study Period

- June 1, 2017 through December 31, 2019



At End of Pilot Study Period...

Staff return to Council with the following...

- Potential proposed changes to City code to modify required light color or illumination levels for various parts of the City
- Potential recommendation for mass conversion from HPS to LED

Staff Recommendation:

“The Sustainability and Transportation Committee recommends that the full Council approve changes to the City code to allow establishment of a Pilot Study Period with two Pilot Study Areas (one in the Desert Uplands Area and one in City of Mesa Electric Service Area) for the testing of LED light fixtures.”

Questions?



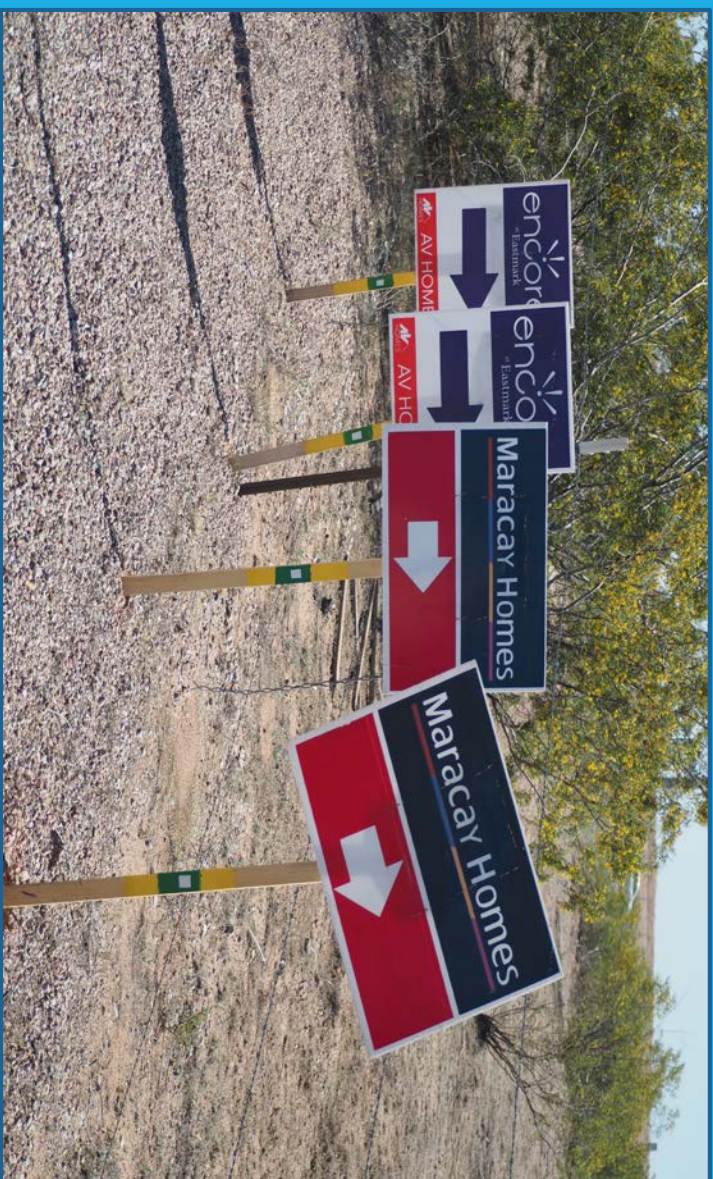


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Sign Code Update

Reorganization, Portable Signs & Permanent Signs

Sustainability &
Transportation Committee
April 6, 2017



Practical Effect of Reed v. Town of Gilbert

□ Reed v. Town of Gilbert (issued June 2015)

- U.S. Supreme Court: Sign regulation **cannot** be based on Sign’s Content or Message.

□ Sign Ordinance Modifications are Needed

- Most Cities’, including Mesa, classify **portable signs** by message type
- Flagstaff recently removed message content references.
- Tempe adopted changes based on ‘content neutral’ principles. This concept removes message content classifications and any distinctions between on-site and off-premise signs.
- Draft changes circulated by Phoenix, Gilbert and Chandler remove references to message type.

Sign Ordinance Update: Objectives

- **Reorganization of Overall Sign Ordinance**
 - Follow up Phase to Zoning Code Update
- **Update Portable Sign Requirements**
 - Remove Message-based Temporary Sign Classifications
 - Replace with Portable Sign Type Classifications
 - Utilize Location and Context-based Requirements
- **Update Permanent Sign Requirements, including:**
 - Updating Sign Allowances by Zoning District
 - Design Standards for Permanent Signs
 - Development of Administrative Sign Plan Option

Reorganization of Sign Ordinance

- **Objective: Become More User-Friendly**
 - Break Out Additional Topics into Chapters and Sections
 - Continue Use of Hypertext Links for Online Version
 - Most Frequently Used Topics in Earlier Chapters
 - Increase Use of Tables, Illustrations and Example Photos
 - ‘Stand Alone’ Sign Ordinance
- **Objective: Content Neutral Sign Ordinance**
 - Eliminate Exceptions
 - Carefully Manage Definitions, Prohibitions and Applicability Reqs.

Portable Signs - Basic Organizing Principles

- ❑ Portable Signs May No Longer be Classified by Message
- ❑ Revisions Based on Sign Forms, Materials & Context of Location
- ❑ Objective: Provide **Rough Equivalency** to Current Options
 - Present Temporary Signs Will Have a Similar Allowance after Revision
 - Paradigm Shift: Rough Equivalency is not necessarily 'Apples to Apples'

Portable Signs - Determining Allowances: Sign Forms, Context & Setting Standards

- ❑ Focus on Measurable Aspects of Signs and Context of Placement
- ❑ Organize Using Form-Based Code Principles and Concepts
 - 1. Classify Sign Form**
 - Based on Materials, Structure Type, and Method of Anchoring to Ground
 - 2. Location and Context of Placement**
 - Zoning District
 - Parcel Size
 - Length of Street Front
 - Number of Street Fronts
 - 3. Set Standards**
 - Number
 - Sign Height
 - Sign Area
 - Sight Distance Triangles
 - Setback Distance from Street
 - Spacing Between Signs

Change to Temporary Sign Classifications

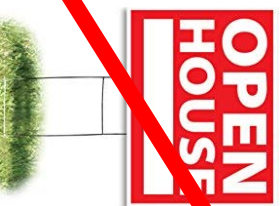
Ignore Message and Classify by Portable Sign Form

example

Current Classifications



**Weekend
Directional Signs**



**Real Estate
Open House Signs**



Proposed Classification



- Post Anchors Sign to Ground
- Uses Less Durable Materials (Index Paper, Cardboard, Foam Core)

Yard Sign

Change to Temporary Sign Classifications

Ignore Message and Classify by Portable Sign Type

example

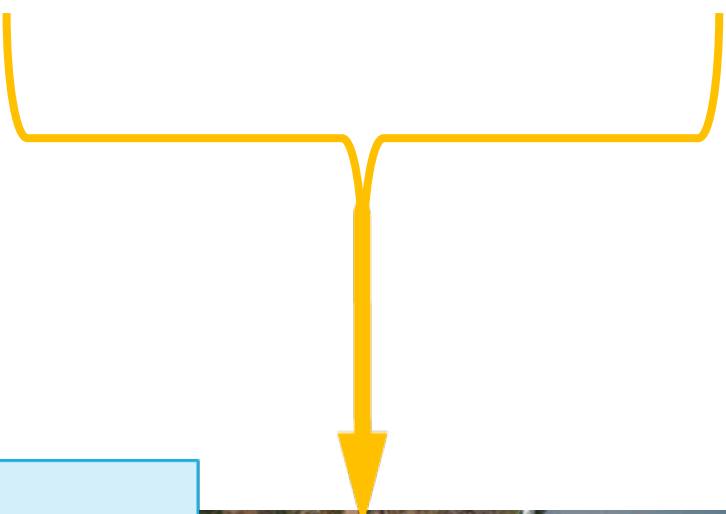
Current Classifications



Real Estate Sign



Subdivision Marketing Sign



Proposed Classification



Detached Rigid Sign

- Post Anchors Sign to Ground
- Uses Rigid, Durable Materials (Wood, Sheet Metal, Thick Plastic)

Proposed Portable Sign Allowances

- Create Two Sets of Portable Sign Allowances
 - **Base Allowance**
 - Standard Allowance Assigned to Each Lot – Determined by Location and Context
 - Design Objective: Address Daily Need for Portable Signs
 - **Permit-Related Allowances**
 - Additions to the Base
 - Temporary Authorizations for Activities of Limited Duration
 - Linked to Issuance of a Permit or License
 - Design Objective: Recognize Temporary Need for Additional Portable Signs

Allowed Portable Sign Types



- Attached Rigid
(ex: Plywood Attached to Building)



- Detached Rigid
(ex: Plywood Attached to Posts)



- Yard
(ex: Foamcore Attached to Lath Stake)



- Detached Banners



- Wall Banners



- A-frame or T-frame

Prohibited Portable Sign Types



- Air Activated Graphics

(ex: Animated by blowing air)



- Balloons and Similar Inflatable Devices



- Pennants, Streamers and Similar



- Portable Message Centers

(ex: Mounted on parked trailers)



- Stationary Vehicles

(ex: Signs on vehicles that remain permanently parked in the same place)

Portable Signs: How General Base Allowances are Determined

- **Number, Height and Area of Signs Progressively Increase Based on:**
 - **Zoning Districts:**
 - Residence (generally - fewer, smaller)
 - Commercial and Industrial (generally - more, larger)
 - **Lot Size:**
 - Smaller Lots (generally - fewer, smaller)
 - Larger Lots (generally - more, larger)
 - **Number of Street Fronts – Each Street Front is Separate Allowance**

Portable Signs: How General Base Allowances are Determined

- Height: 3-ft when located within 15-ft of Edge of Pavement
 - Safety Issue – Impedes Sight Visibility for Exiting Vehicles
- Fabric Based Signs – Limited Allowances
 - 30-days/year in Allowed Areas
 - **Detached Banners:** Limited to Commercial & Industrial Districts
 - **Wall Banners** - Limited to:
 - Commercial and Industrial Districts
 - Downtown or ‘Main Street’ Urban Transects
 - Special Event Licenses Authorize Portable Signs in all Areas

Summary of Assumptions for Determining Portable Sign Allowances

- Each Lot has a Specified Allowance for Portable Signs:**
 - Maximum Number of Signs
 - Maximum Aggregate Sign Area
 - Max. Individual Sign Area, which is Less than Aggregate
 - Maximum Detached Sign Height
 - Minimum Separation Distance Between Signs
 - List of Allowed Sign Forms
- Choice: Whatever Combination Works** within Requirements
- No Portable Signs may be Placed within the Right-of-Way

Portable Signs: Single Residence Districts - RS, RSL, DR-1, T3N, and AG Districts

Based on Relationship of Sign to Site, Including:

- Sign Type
- Zoning
- Street Frontage
- Acreage
- Spacing
- Type of Permit

Standard Requirement	Maximum Aggregate Sign Area	Maximum Individual Sign Area	Maximum Number of Signs, Per Street Front	Maximum Height	Allowed Sign Types	Minimum Separation
1-Acre or Less	12-sqft	8-sqft	2	6-ft	Attached Rigid Detached Rigid Yard	30-ft
Between 1-Acre and 5-Acres	32-sqft	32-sqft	2 for first acre, and 1 per each additional acre Max: 4	6-ft		30-ft
5-Acres or More	32-sqft of sign area per 500-ft of street frontage, per street front	32-sqft	4	6-ft		30-ft

Portable Signs:

Example - Medium Single Residence Lot (RS-15)

- Portable Sign Requirements for 15,000-sqft Single Residence Lot, One Street Front:

Maximum Aggregate Area	12-sqft
Max. Individual Sign Area	8-sqft
Max. Number of Signs	2
Max. Sign Height	6-ft Placed behind 15-ft setback 3-ft when within 15-ft setback
Allowed Sign Forms	Attached Rigid Detached Rigid Yard Sign
Min. Separation	30-ft

- Within these Parameters, Combinations Include:
 - One 6-sqft Attached Rigid Signs & One 3-sqft Yard Sign
 - Two 6-sqft Detached Rigid Signs Spaced 30-ft Apart
 - Two 3-sqft Yard Signs Spaced 30-ft Apart

Portable Signs: Mid to Intensive Commercial: LC, GC, DB-2, & PEP Districts; And LI Districts with Council Use Permit for Large Format Retail

Based on Relationship of Sign to Site, Including:

- Sign Type
- Zoning
- Street Frontage
- Acreage
- Spacing
- Type of Permit

Standard Requirement	Maximum Aggregate Sign Area	Maximum Individual Sign Area	Maximum Number of Signs	Maximum Height	Allowed Sign Types	Minimum Separation
1-Acre or Less	32-sqft	32-sqft	3	8-ft	Attached Rigid Detached Rigid A-frame/T-frame	50-ft
Between 1-Acre and 5-Acres	64-sqft	32-sqft	4	8-ft		50-ft
5-Acres or More	32-sqft of sign area per 150-ft of street frontage, per street front	32-sqft	4, plus 1 per 5-acres	8-ft		50-ft

Portable Signs: Example - Commercial Lot (zoned LC)

☐ Requirements for 2-ac. Commercial Lot

Max Aggregate Sign Area	64-sqft
Max. Individual Sign	32-sqft
Max. Number of Signs	4
Max. Sign Height	8-ft placed behind 15-ft setback 3-ft placed within 15-ft setback
Allowed Sign Forms	Attached Rigid Detached Rigid A-frame/T-frame
Minimum Separation Between Signs	50-ft

☐ Combinations include:

- One 32-sqft Attached Rigid Signs & Two 16-sqft Detached Rigid Signs
- Two 32-sqft Detached Rigid Signs
- Three 20-sqft Detached Rigid Signs
- One 32-sqft Attached Rigid, and One 16-sqft sign & Two 8-sqft signs
- Four 16-sqft Detached Rigid Signs

Portable Signs: Effects of Changes - Examples

SINGLE RESIDENCE LOT – 7,000 SqFt



Present Allowances:
 Contractor Sign: 8-sqft
 Political Sign: 8-sqft
Sale/Lease: 6-sqft
 Aggregate: 20-sqft



Proposed Allowances:
Aggregate: 12-sqft
 Max. Number: 2
 Max. Ind. Area: 8-sqft
 Sign Forms: 3 options



- Attached Rigid
- Detached Rigid
- Yard

VACANT INDUSTRIAL LOT – 20 Acres



Present Allowances:
 Development Sign: 80-sqft
 Sale/Lease: 24-sqft
 Political Sign: 32-sqft
Contractor: 8-sqft
 Aggregate: 144-sqft



Proposed Allowances:
Aggregate: 128-sqft (600-ft of Street front)
 Maximum Number: 4
 Sign Forms: 3 Options
 Allowance for Vacant Lot > 1-ac: Max. 80-sqft
 Detached Rigid: Max. 32-sqft
 Attached Rigid: Max. 32-sqft
 A-frame/T-frame: Max. 6-sqft

Portable Signs: Potential Effects of Changes

- ❑ **Possible Increase in Number of Portable Signs Being Used**
 - ❑ Due to Allowance of Any Message on the Sign
 - ❑ What May have been Limited to Just a Real Estate Sale Sign, or a Contractor Sign, or Some Other Temporary Sign May Now be Used for Any Message
- ❑ **Maximums Changing Compared to Proposed Form-based Classifications**
 - ❑ Some Form-based Signs are Smaller and Others Larger When Compared to Message-based Classification System Due to Standardization of Sizes

Portable Signs: Proposed Allowances for Fabric Signs

- ❑ **Without Special Event License:**
 - ❑ Limit to Commercial & Industrial Districts Only
 - ❑ Maximum Cap on Number of ‘Occurrences’ Based on 30 Total Days per Year
 - Maximum Height and Area Standards:
 - 8-ft high and 16-sqft
 - Detached Fabric Required to be setback a minimum of 15-ft from face of curb
 - Maximum of two per street front
 - ❑ Examples:
 - 2 times for 15-days each
 - 3 times for 10-days each
 - 15-times for 2-days each
- ❑ **With Special Event License:** Allowed in All Districts During Days of Special Event

'Rough' Equivalency to Existing Classification

Current Temporary Sign Classification (Message-Based)	Portable Sign Replacement Options (Form-Based)					
	Rigid Attached	Rigid Detached	Detached Banner	Wall Banner	A-frame/T-frame	Yard Sign
Real Estate Sale/Lease/Rent	X	X	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Real Estate Open House Directional	X	X	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Development	X	X Vacant Lot Allowance	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Contractor	X	X	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Subdivision	X	X	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
On-site Marketing	X	X Commercial Use in Residential District	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Political	X	X	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Grand Opening	X	X	30-day Limit Commercial & Industrial	Commercial & Industrial Urban Transects, 30-day Limit	X	X
Special Events	X	X	X	Commercial & Industrial Urban Transects, 30-day Limit	X	X

Note: Equivalency Comparison is intended only to show that current temporary sign classifications can be accommodated by more generalized form-based 'portable sign type' regulation, without regulating sign message.

Permanent Signs: Objectives

- ❑ *Reed* Revisions: from Message-based to Content Neutral Language
 - Remove all references to Message-based requirements
- ❑ *Revise Sign Allowances by Zoning District*
 - Downtown Core and Downtown Transect Areas
 - Office Commercial and Neighborhood Commercial districts
- ❑ *Revise Commercial Sign Maximums*
 - Recognize Changes to Scale of Commercial Projects
- ❑ *Provide Administrative or ‘Standard’ Sign Plan Option*
- ❑ *Revise Design Standards*

Permanent Signs: *Reed-based Revisions*

- Allowances now based on generalized land use descriptions
 - **Example 1:**
 - Rather than ‘Churches and Places of Worship’ or ‘Schools’, the Classification Defines ‘Non-Residential Uses in Residential Districts’
 - Addresses Other Issues such as Farmer’s Sales Stands in RS districts
 - **Example 2:**
 - Residential Subdivision Entry Signs become Subdivision Entry Signs

Permanent Signs: Revisions to Sign Allowances by Zoning District

- ❑ **Address Multiple Tenant Projects in Office Commercial zoning districts**
 - ❑ Currently Only Allow 2 Signs/Street Front – Total for Project
 - ❑ Address Minimum for Multiple Tenant (two or more) Projects
 - ❑ Create Equivalency in Allowance in Office Commercial and Neighborhood Commercial districts
- ❑ **Update Urban-oriented Zoning Districts**
 - ❑ Update Downtown Core and Urban Community Character Designators
 - ❑ ‘Normalize’ Downtown Business and Downtown Residential Districts
 - ❑ Develop Urban-based allowances Form-based Code Districts: T4, T5 and T6

Permanent Signs: Commercial Sign Maximums

- Last Change to Maximums was 1986
- At that time, a large grocery store was approximately 35k to 50k GFA*
- Presently, a typical grocery store ranges from 50k to 135k GFA
- Other 'big box' retailers range from 100k to 250k GFA
- Update will recognize increase in building scale by increasing maximum aggregate allowances for sign area and number of signs
- Increased allowances based on building size increments

* 'k' – 1,000 sqft; GFA – Gross Floor Area

Permanent Signs: Design Standards & Administrative Sign Plans

- ❑ **Design Standards**
 - ❑ Build Stronger Tie-in with Project Architecture Theme
 - ❑ Create Minimum Material and Illumination Standards
- ❑ **Administrative or 'Standard' Sign Plans**
 - ❑ Provides Predictable Set Standards for What is Commonly Requested through Comprehensive Sign Plans
 - ❑ Increase Quality of Signs and Overall Quality of Sign Plan
 - ❑ Incentive: Increase to Maximum Allowances for Increase in Quality

NEXT STEPS: STAKEHOLDER OUTREACH

Stakeholder Outreach and Feedback Meetings—April, 2017

- Southeast Valley Regional Association of Realtors
- National Association of Industrial and Office Properties
- International Sign Association
- Valley Partnership
- Sloan Lyons Public Affairs (has been representing Phoenix on sign code updates)
- Arizona Food Marketing Alliance and Walgreens
- Home Builders Association of Central Arizona
- Arizona Multi-housing Association
- Arizona Retailers Association
- Mesa Chamber of Commerce
- Downtown Mesa Property Owners
- Resident Meetings: East and West Side

NEXT STEPS

PZ AND COUNCIL

1. Summarize Stakeholder Input – modifications to proposals as appropriate
2. Council Study Session Presentation: 5/4/17 tentative
3. Additional Study Sessions with Planning and Zoning Board as appropriate: May, 2017
4. Preparation of Draft Zoning Ordinance: May-June, 2017
5. Planning and Zoning Board Consideration of Sign Ordinance: May-June as appropriate
6. Additional Council Study Session: as appropriate
7. Council consideration of Proposed Sign Code Ordinance: June-July, 2017 tentative
8. Council Action on Final Sign Code: July, 2017 tentative

Summary & Questions

Development Services Department

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