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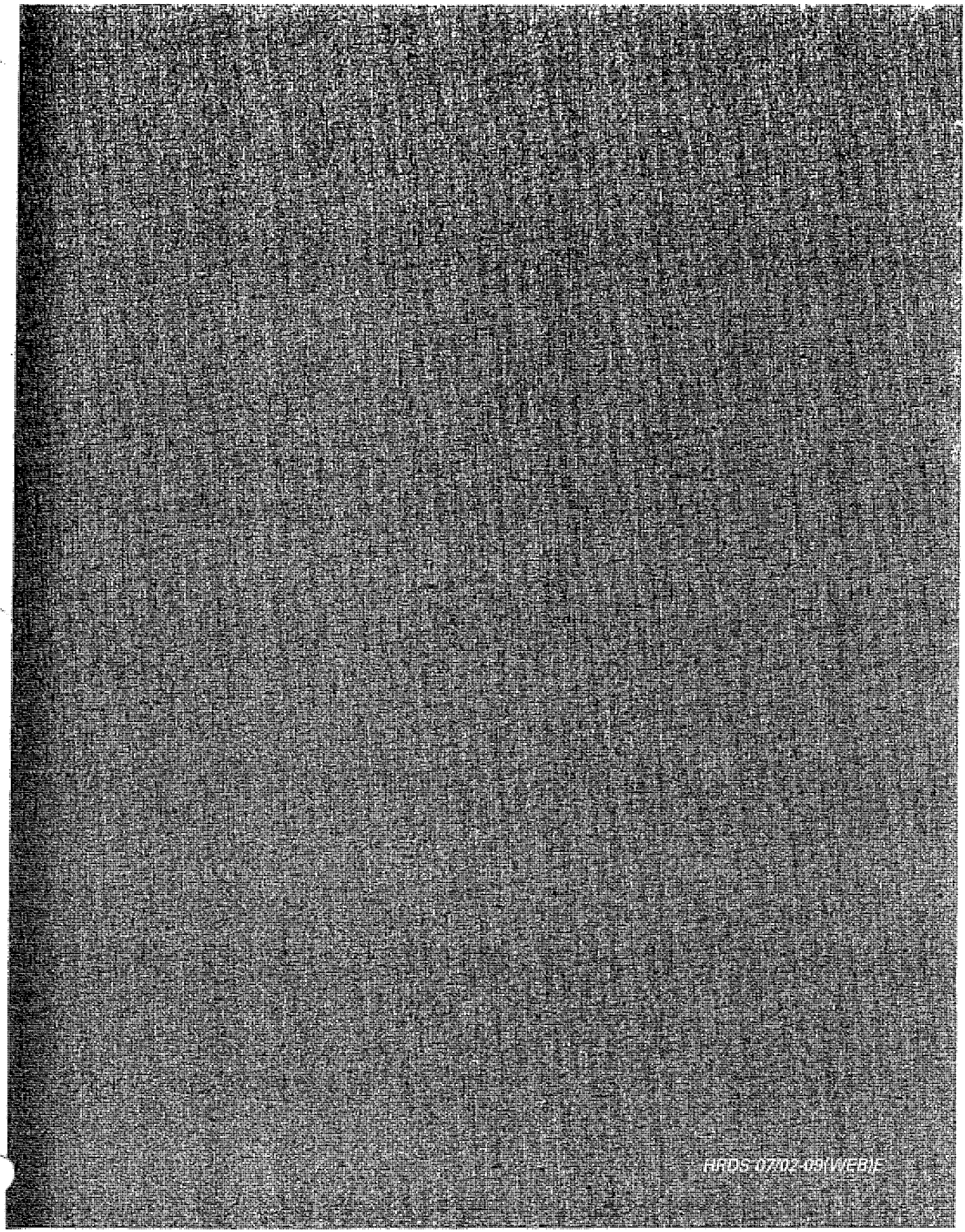
HRDS-07/02-08/WEB/E

Adjourned 8:25 pm

Don Cook, City Clerk
(1/01)
Full

AGENDA
REGULAR SESSION
RENO CITY COUNCIL
Tuesday
January 8, 2002
12:00 P.M.

Begin w/
Bill #5830 (4)
Ord #5294 (2)
Res #5924 (7)

RENO CITY COUNCIL CHAMBERS
490 SOUTH CENTER STREET
RENO, NEVADA 89501

Mayor Jeff Griffin
Toni Harsh, Council Member, Ward 1
David Rigdon, Council Member, Ward 2
Jessica Sferrazza-Hogan, Council Member, Ward 3
Sherrie Doyle, Council Member, Ward 4
David Aiazzi, Council Member, Ward 5
Pierre Hascheff, Council Member, At-Large

THIS AGENDA IS POSTED AT CITY HALL, THE WASHOE COUNTY CENTRAL LIBRARY, CITY OF RENO COMMUNITY DEVELOPMENT BUILDING AT 450 SINCLAIR STREET, AND THE CITY OF RENO PUBLIC WORKS DEPARTMENT, 4TH FLOOR, LIBERTY CENTER, 350 SOUTH CENTER STREET.

A time listed next to a specific agenda item indicates that the specific item will not be heard before that time - it does not indicate the time schedule of any other item. Agenda items may be considered out of order.

ALL ITEMS ARE FOR CITY COUNCIL ACTION UNLESS OTHERWISE NOTED WITH AN ASTERISK (*).

We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend meetings. If you should require special arrangements for a any Council meeting, please contact our offices at 334-2002 24 hours prior to the date of the meeting.

An Agenda **CAUCUS** Meeting will be held in Room 211, Redevelopment Wing of Reno City Hall (490 South Center Street, Reno) on **Monday, January 7, 2002** at **10:00 A.M.** in order to review agenda items for the regular session of the Reno City Council as described in the agenda below. Said review, if requested by the Council, is limited to brief staff presentation of issues and may include review of background information and questions to be answered at the regular session.

ITEM

1. *PLEDGE OF ALLEGIANCE

2. A. *ROLL CALL

   B. APPROVAL OF THE AGENDA - January 8, 2002

3. *Public Comment - Limited to No More Than three (3) Minutes And Limited to Items That Do Not Appear on The Agenda. Comments to Be Addressed to The Council as a Whole. The public may comment on agenda items by submitting a Request to Speak form to the City Clerk. Comment on agenda items is limited to no more than three minutes.

4. A. APPROVAL OF MINUTES - DECEMBER 11, 2001 and OCTOBER 16, 2001 JOINT MEETING OF THE RENO CITY COUNCIL AND WASHOE COUNTY COMMISSION.

   B. CASH DISBURSEMENTS - December 9, 2001 through December 29, 2001.

Payless "bank card" charges.

item tried to come back < joint mtg. mins postponed to be heard w/ 10A

5. CONSENT AGENDA

A. **Supplemental Application - Liquor**
1. Bains Mini Mart
Supplemental Application - Upgrade
2. Java Jungle
New License - Privileged
3. CJ'S Casino Emporium
4. Old Dolls

B. Staff Report: Creation of and Appointments to Regional Planning Committee.

C. Staff Report: Improvement Agreement and Security for Somersett Parkway Phase 2A Street Improvements (Case No. LDC02-00233).

D. Staff Report: Improvement Agreement and Security for Somersett Parkway Phase 2B Street Improvements (Case No. LDC02-00234).

E. Staff Report: Improvement Agreement and Security for Offsite Sewer for the Somersett Development (Case No. LDC02-00166).

F. Staff Report: Agreement with Artown to conduct an arts facility feasibility study for the Reno Arts and Culture District.

G. Staff Report: Amendments to Existing Leases for Public Works and Internal Affairs.

H. Staff Report: Release of Excess Street Rights of Way - Old Virginia Road.

I. Staff Report: Reversion to Acreage for Civic Center Condominiums (Case No. LDC02-00239).

J. Staff Report: Acceptance of donated Armored Truck to be used by the Police Department's SWAT Team.

K. Staff Report: Interlocal Agreement to Establish a Multi-Jurisdictional Gang Unit.

L. Staff Report: Reversion to Acreage for J. Brian Allman and Julienne Allman (Case No. LDC02-00221).

M. Staff Report: Emergency Service Contract between the Nevada Division of Environmental Protection and the Reno-Sparks Regional Hazardous Materials Response Team.

6. **RESOLUTIONS [Other RESOLUTIONS may be found under the Finance and Public Works Section of this Agenda]**

A. Resolution No. 5927 Resolution authorizing the filing of an application with the State of Nevada Department of Conservation and Natural Resources for the 2002 Nevada Recreational Trails Program.

B. Resolution No. 5928 Resolution Directing the Regional Transportation Commission and Lumos and Associates Inc., through the City Engineer, to prepare and submit plans and cost estimates for the 2002 Special Assessment District No.1.

C. Resolution No. Resolution Honoring the life of Moya Olsen Lear. postpone until full Council

7. **ORDINANCES, INTRODUCTION [Other Ordinances, Introduction may be found in the Public Hearing Section of this Agenda]** 5837

A. Staff Report: Bill No. Ordinance amending Title 2, Chapter 2.08 of the Reno Municipal Code entitled "Administration" pertaining to the Board of Massage Examiners to amend the requirements regarding reinstatement of a massage therapist license after more than twelve months has expired.

B. Staff Report: Bill No. A request for final approval of the SPD Handbook and Ordinance to amend Chapter 18.06, of the Reno Municipal Code entitled "Zoning" rezoning to Specific Plan District a ±6.1 acre site located at the southeast corner of Plumb Lane and Arlington Avenue. **Case No. LDC01-00363 (Plumgate).** cont. for 2 wks to allow staff to meet w/residents to discuss issues Staff to provide # 5294 and developer; a "red-lined" draft w/ matrix summary [2:30 pm]

8. **ORDINANCE ADOPTION**

A. Staff Report: Bill No. 5829 Ordinance to amend Title 18, Chapter 18.06, entitled "Zoning" of the Reno Municipal Code regarding the definition of Single Room Occupancy (SRO), providing standards for SROs and congregate care facilities and permitting congregate care facilities in an NC zone; together with other matters properly relating thereto. #5290 cont. for 2 weeks

B. Staff Report: Bill No.5825 Ordinance to amend Ordinance No. 5271 which amended Title 2, Chapter 2.10, Article III Sections 2.10.200 and 2.10.230 of the Reno Municipal Code Entitled Room Tax by amending the boundaries of the area within which the additional one and one half percent room tax will be collected. staff to address boundary distance issues

9. **CITY CLERK**

A. **Boards and Commission Appointments**

1. Financial Advisory Board Marcia Martin Wm. Bowers Wm Thomas

10. **FIRE**

A. Staff Report: Direction to staff regarding participation in the Washoe County Committee regarding formation of a Regional Fire Protection Agency. & other agencies direct staff to work w/WCO on dual track to evaluate contract and review possibility of alternate methods of service delivery

A motion regarding this item ended in a tie vote at the Joint Meeting of the Reno City Council, Washoe County Commission and the Sparks City Council on December 18, 2001. Tie Vote

11. **PUBLIC WORKS**

A. Staff Report: Office Space Improvements for City Hall. approve; Consensus of Council if costs need to be made, cut expenses for Council offices first.

B. Staff Report: Lease of Office Space for Information Services. approve

C. Staff Report: Contract for Design Services for Office Space Improvements at City Hall.

12. **CITY MANAGER** approve, as amended, changing indemnity provisions as discussed by Clerk

A. Presentation and potential direction to staff regarding recession planning. direct staff to ~~report~~; provide additional detail info. ensure C/S positions will be filled (public safety)

13. **FINANCE** Pigeon would like to have ability to do budget augmentations when item returns. Recess Council. open positions

A. Staff Report: Selection of the Financing Plan for the Downtown Events Center [3:30 pm]

Doyle wants "buyout program" to return.

Council directed staff to negotiate completion design for phase 2

13. FINANCE (Continued)

A.1 Resolution No. 5926 Resolution authorizing the sale of capital improvement revenue bonds in the maximum principal amount of $120,000,000 for the purposes of financing capital improvement projects in the City and providing other matters properly relating thereto. **(Downtown Events Center)** direct staff (to discuss reserve fund issue at next RDA mtg.)

A.2 Resolution No. Resolution of intent proposing the issuance of and authorizing the publication of notices relating to the general obligation (limited tax) capital improvement bonds (additionally secured by pledged revenues) with the maximum principal amount of $120,000,000 for the purposes of financing capital improvement projects in the City and providing other matters properly relating thereto. **(Downtown Events Center)** no action

accept rept; direct P/W Dir. to work w/ Health Dept. Region would like to know costs assoc. for City to obtain indemnity from WCO Health to regs. for change to regs.

14. MAYOR AND COUNCIL

A. Presentation by District Health Department on Street Sweeping/De-icing. **[12:45 pm]**

B. Presentation regarding Cell Towers. P. Smith to meet w/ Headcliff J. Hogan **[1:00 pm]**

C. Recommendation from the Historical Resources Commission regarding the City's Historic Preservation Ordinance. approve recommendations of HRC; direct staff to implement where possible **[1:30 pm]**

D. Recommendation from the Historical Resources Commission regarding the relocation of the Lake Mansion. approve HRC's #1 location; direct staff to work w/ all interested parties **[1:30 pm]**

E. Discussion and status of purchase of 2001 Crown Victorias for Reno Police Department. accept rpt. S. Doyle

F. ADDENDUM - ~~None~~

15. PUBLIC HEARINGS - 2:00 P.M.

A. Staff Report: Amendment to Chapter 18.06 of the Reno Municipal Code entitled "Zoning" regarding regulations related to Off-premises Advertising Displays. **Case No. AT-1-01 (Billboard Ordinance)** approve; include 50' height limitation; allow relocation

A.1 **ORDINANCE, INTRODUCTION** Bill No. Ordinance amending Title 18, Chapter 18.06 of the Reno Municipal Code entitled "Zoning" by adding language to and deleting language from Sections 18.06.910-18.06.914 entitled 'Off-Premises Advertising Displays" which govern how off-premises advertising displays are regulated; together with other matters properly relating thereto. 5830

The Planning Commission recommends approval of the ordinance by a vote of four (4) in favor of the proposed ordinance; none (0) opposed; one (1) abstain; two (2) absent.

This item was continued from the December 18, 2001 City Council Meeting

included in motion 15A
- Billboards positioning to be more acute
- Aiazzi would like separate height limitations dependent upon location
- Address downlighting issues in rural areas
- ~~no motion~~ amend gateway locations ~~(from Verdi to Idaho)~~
- would like a "hard #" of billboards (Idaho at issue)

staff direction

15. **PUBLIC HEARINGS - 2:00 P.M. (Continued)**

B. Staff Report: - Request for: (1) a Master Plan amendment from Urban Residential/Commercial (≥21 units/acre) to Mixed Residential; (2) a zoning map amendment from MF30 (Multi-Family) and CC (Community Commercial) to MF14 (Multi-Family); (3) a tentative map to develop a 15 lot single family subdivision on a ±1.80 acre site located on the east side of Mt. Charleston Street approximately 300 feet north of Echo Avenue. **Case No. LDC02-00101 (Habitat for Humanity/ Mt. Charleston).**

The Reno City Planning Commission voted seven (7) in favor; none (0) opposed; none (0) absent for approval, subject to conditions.

5924

B.1 **RESOLUTION** Resolution to amend Resolution No. 5673 by adopting a change to the Land Use Guide of the Reno Master Plan as approved in Case No. LDC02-00101. **(Habitat for Humanity/Mt. Charleston).**

5831

B.2 **ORDINANCE, INTRODUCTION** Bill No. Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±1.80 acre site located on the east side of Mt. Charleston Street approximately 300 feet north of Echo Avenue from MF30 (Multi-Family) and CC (Community Commercial) to MF14 (Multi-Family) together with other matters properly relating thereto. **Case No. LDC02-00101 (Habitat for Humanity/Mt. Charleston).**

C. Staff Report: Request for a zoning map amendment from IB (Industrial Business) to IC (Industrial Commercial) on ±9 acres of a ±12.7 acre site to allow the construction of a warehouse on a parcel located on both sides of the northern terminus of Standard Street and wrapping around in an L-shape to Western Road. **Case No. LDC02-00128 (Puliz/1095 Standard).**

The Reno City Planning Commission voted seven (7) in favor; none (0) opposed; none (0) absent for approval.

5832

C.1 **ORDINANCE, INTRODUCTION** Bill No. Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning" rezoning ±9 acres of a ±12.7 acre site located on both sides of the northern terminus of Standard Street and wrapping around in an L-shape to Western Road from IB (Industrial Business) to IC (Industrial Commercial); together with other matters properly relating thereto. **Case No. LDC02-00128 (Puliz/1095 Standard).**

D. Staff Report: Request for a zoning map amendment from IB (Industrial Business) to IC (Industrial Commercial) on a ±6.35 acre site which is comprised of five (5) adjacent parcels on a site located on the southeast corner of Matley Lane and Mill Street. **Case No. LDC02-00154 (Matley Lane Properties)**

The Reno City Planning Commission voted seven (7) in favor; none (0) opposed; none (0) absent for approval.

5833

D.1 **ORDINANCE, INTRODUCTION** Bill No. Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±6.35 acre site which is comprised of five (5) adjacent parcels located on the southeast corner of Matley Lane and Mill Street from IB (Industrial Business) to IC (Industrial Commercial); together with other matters properly relating thereto. **Case No. LDC02-00154 (Matley Lane Properties).**

15. **PUBLIC HEARINGS - 2:00 P.M. (Continued)**

E. Staff Report: Petition by Lakemont Homes for creation of a Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

E.1 **ORDINANCE, INTRODUCTION** Bill No. 5834 Ordinance creating a Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

F. Staff Report: Petition by Braddock and Logan for creation of a Landscape Maintenance District for Mayberry Place.

F.1 **ORDINANCE, INTRODUCTION** Bill No. 5835 Ordinance creating a Landscape Maintenance District for Mayberry Place.

G. Staff Report: Request for: (1) a Master Plan amendment from Mixed Residential to Urban Residential Commercial; (2) a zoning map amendment from NC (Neighborhood Commercial) to CC (Community Commercial); and (3) a special use permit to allow (a) a bar; and (b) 24 hour businesses within the center on a ±10.4 acre site located on the north side of North Hills Boulevard approximately 900 feet west of Golden Valley Road. **Case No. LDC02-00131 (North Hills Shopping Center/1075 North Hills Boulevard).** approve; ~~no operation between 2 AM & 6 AM~~

The Reno City Planning Commission voted five (5) in favor; two (2) opposed; none (0) absent for approval of the Master Plan amendment, zoning map amendment and special use permit for a bar and denial of the special use permit for 24 hour businesses.

G.1 **RESOLUTION NO.** 5925 Resolution to amend Resolution No. 5673 by adopting a change to the Land Use Guide of the Reno Master Plan as approved in Case No. LDC02-00131. **(North Hills Shopping Center/1075 North Hills Boulevard).**

G.2 **ORDINANCE, INTRODUCTION** Bill No. 5836 Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±10.4 acre site located on the north side of North Hills Boulevard approximately 900 feet west of Golden Valley Road from NC (Neighborhood Commercial) to CC (Community Commercial); together with other matters properly relating thereto. **Case No. LDC02-00131 (North Hills Shopping Center/1075 North Hills Boulevard).**

16. **ADJOURNMENT**

ADDENDUM
REGULAR SESSION
RENO CITY COUNCIL
Tuesday
January 8, 2002
12:00 P.M.

RENO CITY COUNCIL CHAMBERS
490 SOUTH CENTER STREET
RENO, NEVADA 89501
Mayor Jeff Griffin
Toni Harsh, Council Member, Ward 1
David Rigdon, Council Member, Ward 2
Jessica Sferrazza-Hogan, Council Member, Ward 3
Sherrie Doyle, Council Member, Ward 4
David Aiazzi, Council Member, Ward 5
Pierre Hascheff, Council Member, At-Large

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ITEM

14. MAYOR AND COUNCIL

E. Request to schedule closed personnel session to consider character and professional competence of Charles McNeely, Reno City Manager.

S. Doyle

1/18/02 after Fitzgerald's

(23)

Meeting Type: ☒ Regular
☐ Special
☐ Joint with _____

Date: JANUARY 8, 2002

Item: 15. A. PUBLIC HEARING

Notes: 2:00 P.M.

Staff Report: Amendment to Chapter 18.06 of the Reno Municipal Code entitled "Zoning" regarding regulations related to Off-premises Advertising Displays. Case No. AT-1-01 **(Billboard Ordinance)**

Ed Lawson –

Chris Wicker –

John Frankovich –

Doyle absent 3:50 pm, present 3:55 pm

Harsh absent 3:55 pm; present via teleconference 4:10 pm

Moved	Sec'd.	Councilmember	Yes	No
		Hascheff		
		Harsh		
		Rigdon		
		Sferrazza-Hogan		
		Doyle		
		Aiazzi		
		Griffin		
		COUNT		

Motion:

approve; provide for 50' height limit for

CARRIED? YES NO

COR-00339

Office of the City Clerk

MEMORANDUM

Date: January 8, 2002

To: Laura Tuttle, Planning Manager

From: Donald J. Cook, City Clerk

Subject: Item No. 15A - Amendment to Chapter 18.06 of the RMC entitled "Zoning" regarding regulations related to Off-premises Advertising Displays. Case No. AT-1-01 (Billboard Ordinance)

Item No. 15A1 - Ordinance regarding the same

At a regular meeting held January 8, 2002, and following a public hearing thereon, the City Council approved Case No. AT-1-01 (Billboard Ordinance), and referred Bill No. 5830 to the Committee of the Whole, as amended; including a 50 foot maximum height limitation, billboard positioning to be more acute, provide for possibility of separate height limits dependent upon location, address issue of "downlighting" within rural areas, allow for relocation and amend gateway locations. Council also directed staff to look at the issue of providing a "hard number" for allowable billboard locations. The second reading of the ordinance is scheduled for January 22, 2002.

Donald J. Cook
City Clerk

DJC:cdg

xc: Marilyn Craig, Chief Deputy City Attorney

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- Carmi Gunderson
- PO Box 7
- Reno, NV 89510

PROOF OF PUBLICATION

STATE OF NEVADA
COUNTY OF WASHOE

ss Tana Ciccotti

Being first duly sworn, deposes and says: That as the legal clerk of the RENO GAZETTE-JOURNAL, a daily newspaper published in Reno, Washoe County, State of Nevada, that the notice:

public hearing

has published in each regular and entire issue of said newspaper on the following dates to wit:

Dec. 28, 2001

Signed T Ciccotti

Subscribed and sworn to before me this
JAN 02 2002

Susan V. Dummar
Notary Public

SUSAN V DUMMAR
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 96-4006-2 - Expires August 17, 2002

NOTICE OF PUBLIC HEARINGS

NOTICE IS HEREBY GIVEN that the City Council of the City of Reno will hold the below listed public hearings in the Council Chambers of the Reno City Hall, 490 South Center Street, on January 8, 2002, commencing at the times indicated:

2:00 p.m. AT-1-01 (Billboard Ordinance) - Request for approval of an ordinance amending Chapter 18.06 of Title 18 of the Reno Municipal Code entitled "Zoning" by adding language to and deleting language from sections 18.06.910 - 18.06.914 which govern how off-premises advertising displays will be regulated; together with other matters properly relating thereto.

All interested persons are invited to present testimony.

DONALD L. COOK, CITY CLERK AND CLERK OF THE CITY COUNCIL

No.4417 Dec.28, 2001

X

RENO CITY COUNCIL
ATTENDANCE CARD

BILL BOARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

DATE: 1/8/2 AGENDA ITEM NO. _____

NAME: SAM DEHNE

ADDRESS: RENO

I REPRESENT: SELF

I AM IN ATTENDANCE CONCERNING: BILLBOARDS

DO YOU WISH TO MAKE A STATEMENT: YES: ✓ NO: _____

IN FAVOR _____ IN OPPOSITION ____

NOTE: GENERAL POLICIES FOR ADDRESSING COUNCIL:

**LIMIT COMMENTS TO 3 MINUTES OR LESS*
**15 MINUTES PER SIDE ON ITEMS WITH OPPOSITION*
**AVOID REPETITIVE REMARKS*

THE MAYOR AND CITY COUNCIL REQUEST THAT ALL CONCERNS BE EXPRESSED IN A COURTEOUS MANNER, AND THANK YOU FOR YOUR COOPERATION AND PARTICIPATION.

(Over)

TESTIMONY DECLARATION

Definition of "lobbyist":

"Lobbyist" is any person who appears before the Reno City Council for pay or for any other consideration, including reimbursement for expenses incurred, for the purpose of influencing action by the City Council. The term includes a person who is regularly employed by a person, business, committee, association or any other organization and, as part of that employment, appears before the City Council for the purpose of influencing action by the City Council.

Please mark each box that is appropriate and print the requested information.

☐ I am the applicant/applicant's representative

☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☐ I am speaking on behalf of (name of group)_____

_____

Item number on which you are testifying:_____

Your name: _____

Your company/organization (if applicable): _____

_____

Address: _____

_____

I hereby declare that the information contained in this declaration is true and correct.

Your signature: _____

K

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

DATE: 1-8-02 AGENDA ITEM NO. _____

NAME: Steve Eaper

ADDRESS: 4945 Joule; Reno

I REPRESENT: Clear Channel

I AM IN ATTENDANCE CONCERNING: _____

Billboard ordinance

DO YOU WISH TO MAKE A STATEMENT: YES: ✓ NO: _____

IN FAVOR _____ IN OPPOSITION ____

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☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☐ I am speaking on behalf of (name of group)_____

_____

Item number on which you are testifying:_____

Your name: _____

Your company/organization (if applicable): _____

_____

Address: _____

_____

I hereby declare that the information contained in this declaration is true and correct.

Your signature: _____

X

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

DATE: 1-8-02 AGENDA ITEM NO. 15 A.1

NAME: Buffy Jo Dreiling (Pronounced Dryling)

ADDRESS: [redacted] P.O. Box 2311 Reno, NV 89505

I REPRESENT: Citizens for Scenic Northern Nevada

I AM IN ATTENDANCE CONCERNING: billboards

DO YOU WISH TO MAKE A STATEMENT: YES: X NO: _____

IN FAVOR _____ IN OPPOSITION X

NOTE: GENERAL POLICIES FOR ADDRESSING COUNCIL:

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(Over)

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Please mark each box that is appropriate and print the requested information.

☐ I am the applicant/applicant's representative

☐ I am speaking as an individual

☒ I am a lobbyist representing: Citizens for Scenic Northern Nevada

☒ I am speaking on behalf of (name of group) Same

Item number on which you are testifying: 15A.1

Your name: Biff Jo Dreiling

Your company/organization (if applicable): Woodburn and Wedge

Address: P.O. Box 2311 Reno, NV 89505

I hereby declare that the information contained in this declaration is true and correct.

Your signature: Biff Jo Dreiling

X

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

DATE: 8 JAN 02 AGENDA ITEM NO. 15A

NAME: JOHN FRANKOVICH

ADDRESS: _____

I REPRESENT: Clear Channel

I AM IN ATTENDANCE CONCERNING: BillBoards

_____

DO YOU WISH TO MAKE A STATEMENT: YES: ✓ NO: _____

IN FAVOR ✓ IN OPPOSITION ____

NOTE: GENERAL POLICIES FOR ADDRESSING COUNCIL:

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Please mark each box that is appropriate and print the requested information.

☐ I am the applicant/applicant's representative

☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☐ I am speaking on behalf of (name of group)_____

_____

Item number on which you are testifying:_____

Your name: _____

Your company/organization (if applicable): _____

_____

Address: _____

_____

I hereby declare that the information contained in this declaration is true and correct.

Your signature: _____

X

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

15A

DATE: JAN 8 2002 AGENDA ITEM NO. AT 1-1-01

NAME: Neil Brown

ADDRESS: 1332 Forest Reno 89509

I REPRESENT: self

I AM IN ATTENDANCE CONCERNING: Billboard Ordinance.

DO YOU WISH TO MAKE A STATEMENT: YES: ____ NO: X

IN FAVOR ____ IN OPPOSITION X

THE VOTERS OF RENO ASKED THAT RENO NOT BUILD NEW BILLBOARDS

NOTE: GENERAL POLICIES FOR ADDRESSING COUNCIL:

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(Over)

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☐ I am the applicant/applicant's representative

☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☐ I am speaking on behalf of (name of group)_____

_____

Item number on which you are testifying:_____

Your name: _____

Your company/organization (if applicable): _____

_____

Address: _____

_____

I hereby declare that the information contained in this declaration is true and correct.

Your signature: _____

X

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

DATE: 1/8/02 AGENDA ITEM NO. 15 A.1

NAME: Chris Wicker

ADDRESS: Reno, Nv

I REPRESENT: Citizens for a Scenic N. Nevada

I AM IN ATTENDANCE CONCERNING: Billboard Ordinance

DO YOU WISH TO MAKE A STATEMENT: YES: X NO: _____

IN FAVOR _____ IN OPPOSITION X

NOTE: GENERAL POLICIES FOR ADDRESSING COUNCIL:

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THE MAYOR AND CITY COUNCIL REQUEST THAT ALL CONCERNS BE EXPRESSED IN A COURTEOUS MANNER, AND THANK YOU FOR YOUR COOPERATION AND PARTICIPATION.

(Over)

TESTIMONY DECLARATION

Definition of "lobbyist":

"Lobbyist" is any person who appears before the Reno City Council for pay or for any other consideration, including reimbursement for expenses incurred, for the purpose of influencing action by the City Council. The term includes a person who is regularly employed by a person, business, committee, association or any other organization and, as part of that employment, appears before the City Council for the purpose of influencing action by the City Council.

Please mark each box that is appropriate and print the requested information.

☐ I am the applicant/applicant's representative

☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☒ I am speaking on behalf of (name of group) Citizens for Scenic N. Nevada

Item number on which you are testifying: 15A.1

Your name: Chris Wicker

Your company/organization (if applicable): Woodburn + Wedge law firm

Address: 6100 Neil Rd, Reno, NV 89511

I hereby declare that the information contained in this declaration is true and correct.

Your signature: Chris Wicker

X

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

DATE: 8/8/02 AGENDA ITEM NO. 15A-1

NAME: ED LAWSON

ADDRESS: 775 E. GLENDALE SPARKS, NV

I REPRESENT: YESCO

I AM IN ATTENDANCE CONCERNING: BILLBOARD ORD.

DO YOU WISH TO MAKE A STATEMENT: YES: X NO: _____

IN FAVOR X IN OPPOSITION ____

NOTE: GENERAL POLICIES FOR ADDRESSING COUNCIL:

**LIMIT COMMENTS TO 3 MINUTES OR LESS*
**15 MINUTES PER SIDE ON ITEMS WITH OPPOSITION*
**AVOID REPETITIVE REMARKS*

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☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☒ I am speaking on behalf of (name of group) YESCO

_____

Item number on which you are testifying: _____

Your name: _____

Your company/organization (if applicable): _____

_____

Address: _____

_____

I hereby declare that the information contained in this declaration is true and correct.

Your signature: _____

X

RENO CITY COUNCIL
ATTENDANCE CARD

ALL FORMS MUST BE FILLED OUT COMPLETELY

2:00 P.M.

DATE: 01-08-02 AGENDA ITEM NO. ~~15~~ 15 A.1.

NAME: CATHY S. BRANDHORST U.S.P.

ADDRESS: 255 E. Grove Street APT 53 Reno, NV 89502

I REPRESENT: U.S. Government U.S. President

I AM IN ATTENDANCE CONCERNING: MEXICO Language

DO YOU WISH TO MAKE A STATEMENT: YES: X NO: _____

IN FAVOR _____ IN OPPOSITION _____

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(Over)

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Please mark each box that is appropriate and print the requested information.

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☐ I am speaking as an individual

☐ I am a lobbyist representing: _____

☐ I am speaking on behalf of (name of group)_____

_____

Item number on which you are testifying:_____

Your name: _____

Your company/organization (if applicable): _____

_____

Address: _____

_____

I hereby declare that the information contained in this declaration is true and correct.

Your signature: _____

(24)

Meeting Type: ☒ Regular
☐ Special
☐ Joint with _____

Date: JANUARY 8, 2002

Item: 15. A. 1.

Notes: FIRST READING ORDINANCE

Bill No. Ordinance amending Title 18, Chapter 18.06 of the Reno Municipal Code entitled "Zoning" by adding language to and deleting language from Sections 18.06.910-18.06.914 entitled 'Off-Premises Advertising Displays" which govern how off-premises advertising displays are regulated; together with other matters properly relating thereto.

The Planning Commission recommends approval of the ordinance by a vote of four (4) in favor of the proposed ordinance; none (0) opposed; one (1) abstain; two (2) absent.

This item was continued from the December 18, 2001 City Council Meeting

Moved	Sec'd.	Councilmember	Yes	No
		Hascheff		
		Harsh		✓
✓		Rigdon		
		Sferrazza-Hogan		✓
	✓	Doyle		
		Aiazzi		
		Griffin		
		COUNT	5	2

Motion:

refer to c/w, as amended 5830 (p.7)

CARRIED? (YES) NO

15A.1

EXPLANATION: Matter underlined is new; Matter in brackets [] is material to be omitted.

BILL NO. _____

ORDINANCE NO. _____

AN ORDINANCE AMENDING CHAPTER 18.06 of TITLE 18 OF THE MUNICIPAL CODE ENTITLED "ZONING" BY ADDING LANGUAGE TO AND DELETING LANGUAGE FROM SECTIONS 18.06.910-18.06.914 WHICH GOVERN HOW OFF-PREMISES ADVERTISING DISPLAYS WILL BE REGULATED; TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

PREAMBLE

WHEREAS, a majority of the voters of the City of Reno ("City") approved an initiative regarding off-premises advertising displays/billboards on November 8, 2000;

WHEREAS, NRS 295.220 provides, in part, "[i]f a majority of the registered voters voting on a proposed initiative ordinance vote in its favor, it shall be considered adopted upon certification of the election results ...";

WHEREAS, the City certified the election results on November 14, 2000;

WHEREAS, the City wishes to incorporate the initiative into Chapter 18.06;

WHEREAS, the City wishes to reduce advertising distractions, which may contribute to traffic accidents;

WHEREAS, the City wishes to provide an improved visual environment for the inhabitants of and visitors to the City;

WHEREAS, the City wishes to protect its esthetic qualities;

WHEREAS, the City's civic identity is associated with its surrounding mountains and the Truckee River as well as its recreational, gaming, and tourist activities;

WHEREAS, the City, in its desire to preserve its visual environment and esthetic qualities, has examined the gateways to

the City as well as certain other streets, such as McCarran Boulevard, to determine which gateways and/or streets or portions thereof are especially linked to the City's visual environment and esthetic qualities;

WHEREAS, the City desires to amend sections 18.06.910-18.06.914 and add and delete language thereto to make the Reno Municipal Code consistent with the initiative and to more fully recognize the role of the City's visual environment and esthetic qualities and set out other matters relating thereto;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

Section 1: Chapter 18.06 of Title 18 of the Reno Municipal Code is hereby amended to add and delete language from sections 18.06.910-914 to read as follows:

Sec. 18.06.910	Off-premises advertising displays[.]; purpose
[18.06.911	Moratorium established
18.06.912	Exemption to moratorium
18.06.913	Effective period of moratorium
18.06.914	Severability]
Sec. 18.06.915	Off-premises advertising displays; definitions
Sec. 18.06.920	Restrictions on permanent off-premises advertising displays
Sec. 18.06.922	Continued use of permanent off-premises advertising displays
Sec. 18.06.925	Permanent off-premises advertising displays; permitted locations
Sec. 18.06.930	General standards for permanent off-premises advertising displays
Sec. 18.06.935	Permanent off-premises advertising displays; prohibited locations
Sec. 18.06.940	Prohibited permanent off-premises advertising displays; types
Sec. 18.06.950	Relocation of permanent off-premises advertising displays
Sec. 18.06.955	Permanent off-premises advertising display; reporting
Sec. 18.06.960	Temporary off-premises advertising displays
Sec. 18.06.965	Off-premises advertising displays; special events
Sec. 18.06.970	Abandoned off-premises advertising displays
Sec. 18.06.975	Time limitations on review of applications for off-premises advertising displays;
Sec. 18.06.980	Off-premises advertising displays; judicial

review
Sec. 18.06.985 Interpretation and severability

Sec. 18.06.910. Off-premises advertising displays[.]; purpose.

[A. PURPOSE] Recognizing that the City of Reno is a unique city in which [outdoor advertising] public safety, maintenance, and enhancement of the City's esthetic qualities [is] are important and effective in promoting quality of life for its inhabitants and the City of Reno's twenty-four[-]hour gaming/entertainment/recreation/tourism economy; [and also] recognizing that the promotion of tourism generates a commercial interest in the environmental attractiveness of the community; and recognizing that the visual landscape is more than a passive backdrop in that it shapes the character of our city, community, and region, the purpose of [these provisions] this Chapter is to establish[ment] a comprehensive system for the regulation of the commercial use of off-premises [signs] advertising displays.
It is intended that these regulations impose reasonable standards on the number, size height and location of off-premises [signs] advertising displays [,and facilitate the removal or replacement of nonessential signs in order] to prevent and [relieve] alleviate needless distraction and clutter resulting from excessive and confusing off-premises advertising displays; to safeguard and enhance property values; and to promote the general welfare and public safety of the City's inhabitants and to promote the maintenance and enhancement of the City's esthetic qualities [and the general welfare] and improve the character of our City. It is further intended that these regulations provide one of the tolls essential to the preservation and enhancement of the environment, thereby protecting an important aspect of the economy of the city which is instrumental in attracting those who come to visit, vacation, live, and trade.

Sec. 18.06.915. Off-premises advertising displays; definitions.

In addition to the definitions set forth in Section 18.06.1202, the following definitions apply to off-premises advertising displays:

1. Animated Sign: A sign which meets the definition of changeable sign as contained in 18.06.1200 or a tri-vision display.

2. Building Wrap: A sign applied to or painted on, all or a portion of a building exterior wall(s). Building wraps include the application of a flexible material to a building containing an off-premises advertising display.

3. Conforming permanent off-premises advertising display: Any sign, display, billboard, or other device that is designed, intended, or used to advertise or inform readers about services rendered or goods produced or sold on property other than the property upon which the sign, display, billboard or other device is erected and which is constructed or erected in conformance with all applicable local ordinances and codes in effect on the date a building permit is issued for the off-premises advertising display.

4. Cut-out: A cut-out is an extension of the display beyond the primary surface display area which shall not exceed ten (10) percent of the primary surface area of the off-premises display.

5. Off-premises advertising display: An off-premises advertising display includes its structure in addition to the definition set forth in Section 18.06.1202, "Sign," paragraph (qq); Off-premises advertising displays are commonly called billboards.

6. Final action: Final action means that action which could not be subjected to any further discretionary action by the City or the County of Washoe, as applicable.

7. Freeway: A freeway is the portions of Interstate 80 and U.S. 395 within the City or Reno or its sphere of influence.

8. Highway: A highway means a highway as defined in NRS 484.065.

9. Maintain: Maintain means to keep in a state of repair provided there is no increase in the movement of any visible portion of the off-premises advertising display nor any increase in the illumination emitted by the off-premises advertising display or any other characteristic beyond that allowed by the permit or law under which it exists.

10. Non-conforming permanent off-premises advertising display: Any sign, display, billboard, or other device that is designed, intended, or used to advertise or inform readers about services rendered or goods produced or sold on property other than the property upon which the sign, display, billboard or other device is erected and which is constructed or erected in conformance with all applicable local ordinances and codes in effect on the date a building permit is issued for the off-premises advertising display and which does not conform subsequently because of a change to the local ordinances or codes.

11. Person: A person is a corporation, firm, partnership, association, individual, executor, administrator, trustee, receiver, or other representative appointed according to law.

12. Residentially zoned parcel: A parcel contained in a Residentially Zoned District, as defined under Section 18.06.1200, "Residentially Zoned District."

Sec. 18.06.920. Restrictions on permanent off-premises advertising displays.

[(a)] A. [Off-premises advertising displays shall be permitted in only the M-1 (industrial and C-3(commercial) districts.] The construction of new off-premises advertising displays/billboards is prohibited, and the City of Reno may not issue permits for their construction. (Approved by the voters at the November 7, 2000, General election, Question R_1 - The results were certified by Reno City Council on November 14, 2000).

[(b)] B. In no event shall the number of off-premises advertising displays exceed the number of existing off-premises advertising displays located within the City on November 14, 2000. This number shall include all applications for off-premises advertising displays approved in final action by the City on or before November 14, 2000 but unbuilt as well as those applications approved by a court of competent jurisdiction. In the event the City annexes property in another governing body's jurisdiction on or after November 14, 2000, the number of off-premises advertising displays

located on such annexed property shall be included in the calculation of the number of existing off-premises advertising displays provided they were legal and existing in the governing body's jurisdiction when annexed to the City. For purposes of annexation, an application for a permanent off-premises advertising display approved in final action by the governing body, although unbuilt, shall be included in the calculation of the number of existing off-premises advertising displays as of November 14, 2000.

Sec. 18.06.922. Continued use of permanent off-premises advertising displays.

A. All existing, legally established permanent off-premises advertising displays, whether identified as conforming or non-conforming, are deemed conforming and may be continued and maintained at their current location.

B. All existing, legally established, off-premises displays may be replaced in situ with a new structure provided the area of the display surface is not increased and all requirements of 18.06.930 A-C and E-L are met.

C. For purposes of the Chapter, an application for a permanent off-premises advertising display approved in final action by City Council, although unbuilt, is an existing permanent off-premises advertising display.

Sec. 18.06.925. Permanent Off-premises advertising displays; permitted locations.

[D. *Permitted locations.*] Off-premises advertising displays shall be permitted only in the I (Industrial), IB (Industrial Business, IC (Industrial Commercial), AC (Arterial Commercial), CC (Community Commercial) and HDC (Hotel/Casino Downtown) district when within two hundred (200) feet of a major or minor arterial road or freeway unless otherwise prohibited.

Sec. 18.06.930. General standards for permanent off-premises advertising displays.

[C. GENERAL STANDARDS]

[1.] A. The area of display surface shall be the sum total square feet of geometric area of display surfaces which comprise the total off-premises advertising display, except the structure. The computation of display surface of a back-to-back off-premises advertising display shall be limited to one display surface.

amend by CM (delete)

[2.] B. No off-premises advertising display shall have a primary display surface, not including allowed cut-outs, greater than [800] six hundred seventy-two (672) square feet.

[3.] C. No off-premises advertising display [may] shall exceed [50] forty (40) feet, or thirty-five (35) feet in height as measured from the surface of the road grade in which the sign is oriented to the highest point of the off-premises advertising display, whichever is greater. [except as provided in section 18.06.910(F) entitled "Off-premises advertising displays requiring a special use permit."] If the off-premises advertising display is oriented to more than one road grade, the highest road grade shall be the reference point.

[4.] D. No off-premises advertising display [having a display surface of 300 square feet or greater may] shall be located closer than seven hundred fifty (750) feet to the next off-premises advertising display on [the] either [same] side of the same street. No animated off-premises advertising display shall be located closer than one-thousand (1,000) feet to the next animated off-premises advertising on either side of the same street. [,except as provided in Section 18.06.910(F) entitled "Off-premises advertising displays requiring a special use permit."]

[5. No advertising display having a display surface smaller than three hundred (300) square feet may be located closer than five hundred (500) to the next off-premises advertising display on the same side of the street, except as provided in Section 18.06.910(F) entitled "Off-premises advertising displays requiring a special use permit."

6. No off-premises advertising display may be located within three hundred (300) feet of the right-of-way line of a freeway, except as provided in Section 18.06.910 (F) entitled "Off-premises advertising displays requiring a special use permit."]

[7.] E. All off-premises advertising displays[, as well as supporting structures,] shall be maintained in a [safe and] clean and workmanlike condition [state of repair and preservation. Display s] Surface shall be neatly painted [or posted]. [Premises] Property immediately surrounding [such structures or] off-premises advertising displays shall be [kept in a clean,] maintained and kept free of litter, rubbish, weeds and debris. Any off-premises display deemed to be a nuisance as defined in section 8.22.100 shall be enforced as provided for in Chapter 1.05.

[8.] F. The permit number [and address], as assigned by the building official[,] or the identity of the owners and [the] his address shall be displayed [painted] on every permanent off-premises advertising display [erected in accordance with the provisions of this section. The display shall also identify its owners.]

[9.] G. The reverse side of a cut-out shall be [pointed so as to be compatible with the background surrounding it] dull and non-reflective.

[10.]H. The reverse side of a single-face [sign] off-premises advertising display shall be [painted so as to be compatible with the background surrounding it] dull and non-reflective [Single-face, off-premises advertising displays which were erected prior to the adoption of this section shall comply with this requirement within one year from the date of adoption of this section.]

[11.]I. [No tree may be removed for the purpose of erecting an off-premises advertising display unless an application for a variance, pursuant to Section 18.06.1112, has been first filed with the zoning administrator and denied. When such a variance is approved by the zoning administrator it shall be unlawful to remove the tree in order to erect an off-premises advertising display.] No tree may be removed for the purpose of erecting an off-premises advertising display. If an existing tree would impact the visibility of a site which otherwise meets the requirements sections 18.06.925 and 18.06.930, a variance to the spacing requirements may be requested. If the variance to the spacing requirements is denied as a final action, the tree may removed. If the variance to spacing requirements is approved, the tree may not be removed.

J. Off-premises advertising displays shall be of monopole design.

K. All lighting shall be directed toward the off-premises advertising display.

L. An off-premises advertising display may not contain more than two (2) faces and one face may not be angled from the other face by more than twenty (20) degrees as measured from the back of the structure supporting the face.

Sec. 18.06.935. Permanent off-premises advertising displays; prohibited locations.

[E *Prohibited locations.*]

[1] A. No off-premises advertising display shall be [established] erected closer to [the] a street than the right-of-way line. No portion of any [outdoor] off-premises advertising display may be placed on or extend over the right-of-way line of any street [or highway].

[2] B. No off-premises advertising display, or part thereof, shall be located on any property without the consent of the owner, holder, lessee, agent, or trustee.

[3] C. No off-premises advertising display shall be located within three hundred (300) feet of the center line of the Truckee River or within three hundred (300) feet of the outer boundary of any areas designed in this Chapter as the Truckee River Corridor [,] or its successor, or as open space adjacent to the Truckee River.

[4.] D. No off-premises advertising display shall be [located] erected within three hundred (300) lineal feet of a [park, school or public building, or house of worship] residentially zoned parcel on the same side of the street.

E. The number of permanent off-premises advertising displays located within three hundred feet (300) of the center line of the following areas shall not exceed the number of legally existing off-premises advertising displays on November 14, 2001 as set forth in section 18.06.920(B):

1. Interstate 80 from McCarran Boulevard to Keystone Avenue; and

2. U.S. 395 from Panther Drive to North McCarran Boulevard;

3. No off-premises advertising displays shall be located within two hundred (200) of the right-of-way of McCarran Boulevard except within the following locations:

(1). Talbot Lane east to Mill Street;

(2). Northtowne Lane west to Sutro Street; and

(3). Sierra Highlands Drive south to Summit Ridge Drive.

4. This subsection does not prohibit relocation of existing off-premises displays within the above locations nor reconstruction of an existing off-premises advertising display provided that the reconstructed off-premises advertising display conforms with sections 18.06.910-18.06.985.

F. The number of off-premises advertising displays within three hundred (300) feet of the center line of U.S. 395 from Patriot Boulevard to Del Monte Lane shall not exceed ten (10) off-premises advertising displays. This subsection does not prohibit relocation of existing off-premises displays within the above location nor reconstruction of an existing off-premises advertising display provided that the reconstructed off-premises advertising display conforms with sections 18.06.910-18.06.985.

[5. No off-premises advertising display shall be erected over residential structures or mobile homes.

F. Off-premises advertising displays requirement a special use permit. Erection of the following off-premises advertising displays shall first require the approval of a special use permit:

1. Any advertising display which exceeds 50 feet in height as measured from the surface of the ground to the highest point of the sign.

2. Any advertising display having a display surface equal to or greater than 300 square feet which is to be located closer than 750 feet to the next off-premises advertising display on the same side of the street.

3. Any advertising display having a display surface smaller than 300 square feet which is to be located closer than 500 feet to the next off-premises advertising display on the same side of the street.

4. Any advertising display which is to be located within 300 feet of the right-of-way line of a freeway.]

Sec. 18.06.940. [G *Prohibited off-premises advertising displays*] Prohibited off-premises advertising displays; types.

The following off-premises advertising displays are prohibited:

[1. Canvas signs, banners, pennants, streamers, balloons or other temporary or wind signs except as provided in Section 18.06.910(L) entitled "special events signs".

2. Mobile, A-frame, and portable signs except as provided in Section 18.06.910(L) entitled "Special events signs".

3.] 1. Signs which emit noise via artificial devices.

[4.] 2. Roof signs.

[5. Signs which resemble any official marker erected by the city, state, or any governmental agency, or which, by reason of position, shape, color or illumination would conflict with the proper functioning of any traffic sign or signal.

6.] 3. Signs which produce odor, sound, smoke, fire or other such emissions.

[7.] 4. Stacked signs.

[8.] 5. Temporary signs except as otherwise provided in sections 18.06.960 and 18.06.965. [section 18.06.910(L), "Special events sign."]

[9.] 6. Wall signs.

7. Signs with more than two faces.

8. Building wraps.

[H. *Continued use of nonconforming signs.*

1. An off-premises advertising display which becomes nonconforming as the result of the adoption may be continued and maintained except as follows:

a. A nonconforming display destroyed to an extent greater than 50 percent of the cost of advertising display or device new shall not be reestablished.

b. A nonconforming display which is determined to be abandoned shall be removed.

2. *Right to maintain.* Any off-premises advertising display erected prior to the effective date of this section which becomes nonconforming as the result of this section, may continue in existence, except that any enlargement 9excluding cut-outs of 50 square feet or less), alternation or relocation shall make said sign subject to the provisions of this section.

3. *Changes to nonconforming sign.* Nothing contained herein shall prohibit changes which bring a display into conformance with the provisions of this section reduce its size.

4. *Safety hazard.* Notwithstanding any other provision of this subsection, the right to use any nonconforming advertising display ceases when ever the city council determines that the advertising display constitutes a safety hazard.]

Sec. 18.06.950. Relocation of permanent off-premises advertising displays.

A. Except as otherwise provided in this chapter, a legally established, permanent off-premises advertising display may be relocated to a permitted location as described in section 18.06.925 provided that such display complies with all requirements of Chapter 18.06.

B. Two permits shall be required prior to relocation of a legally established, permanent off-premises advertising display, one for removal of an existing sign and one for relocation of the existing off-premises advertising display.

1. A person who is granted a permit for the removal of an off-premises advertising display proposed to be relocated under this section shall remove the off-premises advertising display in all respects from the original location and return the site to a condition consistent with immediately surrounding area within the time set by the permit and prior to installation of a relocated off-premises advertising display. A letter of credit may be required to guarantee removal of the existing off-premises advertising display.

2. Off-premises advertising displays which have a display area less than the maximum allowed under section 18.06.930 and are proposed to be increased in display area, shall require a two (2) for one (1) removal to relocation ratio prior to issuance of the permit for relocation. The number of allowed off-premises advertising displays under section 18.06.920(B) will be reduced accordingly.

18. A person who requests a permit for the relocation of an existing off-premises advertising display shall:

1. Identify the off-premises advertising display that has been removed, by address and building permit number that the relocated off-premises advertising display will replace.

2. Present to the Community Development Department a notarized statement from the off-premises advertising display owner that he has removed, or caused to be remove, the off-premises advertising display under subsection (B)(3)(1) of this section, authorizing the relocation of the off-premises display.

C. The owners of an off-premises display that has been removed has ten (10) years in which to apply for and secure a permit to relocate the off-premises display. The ten (10) years shall run from the date the City approves all work performed under section (B), in writing, and/or releases the letter of credit. The permit to relocate an off-premises advertising display may be sold or otherwise conveyed at the discretion of

the owner.

D. Nothing in this section shall be construed to mandate relocation of any off-premises advertising display.

Sec. 18.06.955. Permanent off-premises advertising displays; reporting.

[J *Reporting*] Each sign company licensed to do business in the City must report to the z[Z]oning a[A]dministrator the size, height, location and location and building permit number of each off-premises advertising display owned by a [the] company and located within the City on July first by July fifteenth of each year.

Sec. 18.06.960. Temporary off-premises advertising displays.

[K *Off-premises temporary commercial advertising displays.*] Off-premises temporary advertising [commercial] displays are allowed without permit on private property in any zoning district with the permission of the owner(s), holder(s) [leasee] lessee(s), agent(s), or trustee(s) as applicable, when the temporary off-premises advertising commercial advertising displays [are]:

1. Are located i[I]n any zoning district within one-half radial mile of the site on which the activity will take place;

2. Shall be a maximum of six (6) square feet;

3. Shall be designed to be stable under all weather conditions, including high winds;

4. Shall not obstruct the [sight distance] vision triangle as defined set forth in section 18.06.501(I) nor traffic control device or impair access to a sidewalk, street, [or] driveway, [traffic control sign] bus stop, or fire hydrant; and

5. Displayed for less than twelve (12) hours each day, no earlier than 6:00 a.m. nor later than 9:00 p.m.

Sec. 18.06.965. Off-premises advertising displays; special events.

[L.*Off-premises advertising displays for special events.*] A holder of a special event's permit may apply for a building

permit pursuant to RMC Chapter 14 to erect a temporary off-premises advertising display promoting the special event provided [Upon application, the administrator may permit temporary off-premises advertising displays promoting a special event if] the temporary off-premises advertising display:

1. Complies with sections 18.06.910 through 18.06.985 as applicable; [will not conflict with the general purpose of Section 18.06.910(A) such as aesthetics and traffic safety because of its size or location;

2. The applicant has obtained a permit to hold a special event;

3. The proposal complies with City policies if the applicant seeks to use City owned improvements such as poles designed for temporary signs or buildings;

4. Such off-premises advertising displays, when permitted shall not be installed prior to thirty (30) days before and shall be removed with ten (10) after the special event advertised; [and]

5. The [sign may] temporary off-premises advertising display shall not exceed 100 square feet[.];

6. The temporary off-premises advertising display shall be designed to be stable under all weather conditions, including high winds; and

7. The temporary off-premises advertising display shall not obstruct the sight distance triangle as defined in section 18.06.501(I) nor a traffic control device or impair access to a sidewalk, street, highway, driveway, bus stop or fire hydrant.

[B. *Building permit required.*

It shall be unlawful for any person to erect, construct, install, enlarge (excluding cut-outs of 50 square feet or less), or to place an off-premises advertising display without first having obtained a building permit issued by the City.]

Sec. 18.06.970. Abandoned off-premises advertising displays.

[I. *Abandoned signs.*]

[1.] A. Abandonment is the cessation of the right to continue the [use] existence of a permanent off-premise advertising display:

1. under existing law;

2. when a state of disrepair exists because of substantial tearing, chipping, or missing material thirty (30) days after receipt of notice sent pursuant to Chapter 1.05;

3. when there is no current business license in existence for the owner(s) of the off-premises advertising display; or

4. when there has been no display for a period of one (1) year with respect to a permanent off-premises advertising display.

2. Any off-premises advertising display determined to be abandoned shall reduce the number of off-premises advertising displays allowed under section 18.06.920(B).

[The right of a person to continue to use an abandoned, nonconforming, off-premises advertising display shall terminate following receipt of notification that the zoning administrator has deemed the sign abandoned.]

Sec. 18.06.975. Time limitations on review of applications for off-premises advertising displays.

[M. *Time limitations on review of applications for permanent off-premises advertising displays.*]

[Unless continued with the consent of the applicant,] The following are time limitations on the pertinent decision-maker to [the] review [of] applications for off-premises advertising displays as applicable:

1. The zoning administrator or his duly authorized designee shall review and make a decision regarding an application for an off-premises display within five (5) working days of the date the application is filed-stamped by the Community Development Department, on the appropriate form and with payment of the appropriate fee, if any.

1. The zoning administrator or his duly authorized designee shall review and make a decision regarding an application for a temporary or special events off-premises advertising display within two (2)working days of the date the application is filed-stamped by the Community Development Department, on the appropriate form and with the appropriate fee, if any.

[2] 3. If the Board of Adjustment or the Planning Commission [will] review the application, the Board of Adjustment or the Planning Commission shall hold a public hearing within sixty-five (65) days of the date the application is [complete and in conformance with this Chapter] filed-stamped with the Community Development Department.

[3] 4. The Board of Adjustment or Planning Commission shall make its decision within thirty (30) days from the date of the opening of the public hearing.

5. The City Council shall make its decision within thirty (30) days of the date the appeal [was] is filed-stamped with the City Clerk on the appropriate form and payment of the appropriate fee.

6. If the applicant requests a continuance or a specified time or date for the matter to be hear, the time lines provided herein are deemed waived.

Sec. 18.06.980. Off-premises advertising displays; judicial review.

[N. *Off-premises advertising displays; judicial review.*]
A. Judicial review may be sought may be sought in accordance with Chapter 34 of the NRS.

B. If the City denies a "First Amendment" application, the City will institute legal proceedings within ten (10) working days of its final action to determine in an adversarial proceeding the constitutionality of the denial on prior restrain grounds, unless other waived by the applicant. For purposes of this subsection, a "First Amendment" application is one in which the applicant has inserted the words " First Amendment" in the caption of the application.

Sec. 18.06.985. Interpretation and severability.

[O *Interpretation and severability.*1] A. This ordinance amending Chapter 18.06. relates to and is to be integrated with the Reno Municipal Code then in effect at the time of adoption and will be read consistently with any future adopted ordinances.

[2.] B. Should any section, subsection, clause or provision of Chapter 18.06[this Ordinance] be declared by a court of competent jurisdiction to be unconstitutional or invalid, that decision shall not affect the validity shall not affect validity of the [Ordinance] Chapter 18.06 as a whole or any part thereof other than the part declared to unconstitutional or invalid.

[P. *Moratorium established.* From and after the effective date of this ordinance, the city shall not file not accept nay applications nor issue use or building permits for off-premises advertising displays made pursuant to Reno Municipal code section 18.06.910 for applications for off-premises advertising displays in the commercial zoning districts of Arterial Commercial (AC), Community Commercial (CC), and Central Business (CB).

1. *Exemption to moratorium.* Applications which are legally vested as of the effective date of Ordinance 5208 shall continue to be processed by the city according to the regulations in effect on the date of vesting.

2. *Effective period of moratorium.* The moratorium set forth by section 18.06.910 shall becomes effective upon adoption of Ordinance 5208 and remain in effect for three (3) months thereafter.

3. *Severability of moratorium ordinance.* If any section, sentence, clause or phase of the Ordinance 5208 should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phase.

18.06.911 Moratorium established.

From and after the effective date of this ordinance, the city shall not file nor accept any application s nor issue use or building permits for off-premises advertising displays made pursuant to Reno Municipal code section 18.06.500(d), now 18.06.910D, for applications for off-premises advertising displays in the commercial zoning districts of arterial

commercial (AC), community commercial (CC), and central business (CB).

18.06.912. Exemption to moratorium.

Applications which are legally vested as of the effective date of Ordinance 5229 shall continue to be processed by the city according to the regulations in effect on the date of vesting.

18.06.913. Effective period of moratorium. The moratorium set forth by section 18.06.911 shall become effective upon the adoption of Ordinance 5229 and remain in effect for three months thereafter.

18.06.914. Severability of moratorium ordinance.

If any section, sentence, clause or phase of the Ordinance 5229 should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phase.]

PASSED AND ADOPTED this ___ day of _____, 2002, by the following vote of the Council:

AYES: _____

NAYS: _____

ABSTAIN: _____

ABSENT: _____

APPROVED this ____ day of _____, 2002.

_____
MAYOR OF THE CITY OF RENO

ATTEST:

_____
CITY CLERK AND CLERK OF THE
COUNCIL OF THE CITY OF RENO, NEVADA

EFFECTIVE DATE:

RENO CITY COUNCIL
BRIEF OF MINUTES
JANUARY 8, 2002
(Official Minutes in City Clerk's Office)

The Regular Meeting of the Reno City Council was called to order at 12:15 p.m. on January 8, 2002 in the Council Chambers at City Hall.

PRESENT: Council Members Hascheff, Harsh, Rigdon, Sferrazza-Hogan, Doyle, Aiazzi and Griffin.

ABSENT: Council Member Aiazzi.

ALSO PRESENT: City Manager McNeely, City Attorney Lynch and City Clerk Cook.

Agenda Item No.

2B Approval of the Agenda - January 8, 2002.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to approve the Agenda as submitted.

Motion carried with Councilperson Aiazzi absent.

3 (1) *Public Comment - Limited to No More Than three (3) Minutes And Limited to Items That Do Not Appear on The Agenda. Comments to Be Addressed to The Council as a Whole. The public may comment on agenda items by submitting a Request to Speak form to the City Clerk. Comment on agenda items is limited to no more than three minutes.

COUNCILPERSON AIAZZI PRESENT 12:20 P.M.

Rev. Onie Cooper, no address given, addressed the Council concerning the intersection of Castle and Montello.

Mr. Sam Dehne, Reno Citizen, indicated that he is concerned about the future of Reno.

Mr. Robert Price, 719 Cornwall, stated that he would like to see the homeless shelter on Sage Street.

Ms. Shirley Allen, P.O. Box 41096, expressed her concern over the Police Department handling of her purse theft.

Ms. Cathy Brandhorst, no address given, expressed her views to the Council.

NO ACTION WAS TAKEN ON THIS ITEM.

Agenda Item No.

4A Approval of Minutes - December 11, 2001 and October 16, 2001 Joint Meeting of the Reno City Council and Washoe County Commission.

Councilperson Rigdon requested that approval of the October 16, 2001 Minutes be postponed until after Item 10A.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to approve the December 11, 2001 Minutes with a correction on Page Eleven to indicate that Councilpersons Harsh and Rigdon voted Nay on Item 7C.

Motion carried.

4B CASH DISBURSEMENTS - December 9, 2001 through December 29, 2001.

It was moved by Councilperson Rigdon, seconded by Councilperson Doyle to approve the Cash Disbursements as submitted.

Motion carried.

5 **CONSENT AGENDA**

5A Staff Report re: Business License Applications.

Recommended: Council approve the business license applications as follows:

5B Staff Report: Creation of and Appointments to Regional Planning Committee.

Recommended: Council appoint a seven member Regional Planning Committee comprised of the Four City Council appointees to the Regional Planning Governing Board and the three City Planning Commissioners that the City Council appointed to the Regional Planning Commission, with the same alternates as appointed respectively.

5C Staff Report: Improvement Agreement and Security for Somersett Parkway Phase 2A Street Improvements (Case No. LDC02-00233).

Recommended: Council approve the Improvement Agreement and Security for Somersett Parkway Phase 2A Street Improvements.

5D Staff Report: Improvement Agreement and Security for Somersett Parkway Phase 2B Street Improvements (Case No. LDC02-00234).

Recommended: Council approve the Improvement Agreement and Security for Somersett Parkway Phase 2B Street Improvements.

Agenda Item No.

5E (8) Staff Report: Improvement Agreement and Security for Offsite Sewer for the Somersett Development (Case No. LDC02-00166).

Recommended: Council approve the Improvement Agreement and Security for Offsite Sewer for the Somersett Development.

5F (9) Staff Report: Agreement with Artown to conduct an arts facility feasibility study for the Reno Arts and Culture District.

Recommended: Council approve the agreement with Artown and the $35,000 contribution and authorize the Mayor to sign.

5G (10) Staff Report: Amendments to Existing Leases for Public Works and Internal Affairs.

Recommended: Council approve the lease agreements and authorize the Mayor to sign.

5H (11) Staff Report: Release of Excess Street Rights of Way - Old Virginia Road.

Recommended: Council approve the quitclaim deed releasing the City's interest in the excess street right of way and authorize the Mayor to sign.

5I (12) Staff Report: Reversion to Acreage for Civic Center Condominiums (Case No. LDC02-00239).

Recommended: Council approve the reversion to acreage map.

5J (13) Staff Report: Acceptance of donated Armored Truck to be used by the Police Department's SWAT Team.

Recommended: Council accept the donation from Armored Truck.

5K (14) Staff Report: Interlocal Agreement to Establish a Multi-Jurisdictional Gang Unit.

Recommended: Council approve the Interlocal Agreement as written.

5L (15) Staff Report: Reversion to Acreage for J. Brian Allman and Julienne Allman (Case No. LDC02-00221).

Recommended: Council approve the reversion to acreage map.

5M (16) Staff Report: Emergency Service Contract between the Nevada Division of Environmental Protection and the Reno-Sparks Regional Hazardous Materials Response Team.

Recommended: Council approve the agreement and authorize the Mayor to sign.

It was moved by Councilperson Rigdon, seconded by Councilperson Aiazzi to approve Consent Agenda Items 5A through 5M.

Motion carried with Councilperson Hascheff abstaining on Item 5L.

JA 920

Agenda Item No.

14F Request to schedule closed personnel session to consider character and professional competence of Charles McNeely, Reno City Manager - S. Doyle.

Rev. Don Butler, 1995 Carville, expressed his support for the performance of the City Manager.

Mr. Rhen Bass, 4565 Great Fall Loop, stated that he has recently relocated to Reno and has experienced nothing but professionalism and dedication by Mr. McNeely.

Mr. Lonnie Jackson, 3310 Lodestar Ln., spoke in support of Mr. McNeely and stated that as a former City employee he worked for seven City Managers and believes Mr. McNeely to be the most exemplary.

Mr. Tisto Chapman, 2185 Platora Way, voiced his support for the actions of Mr. McNeely regarding youth in the community.

Mr. Sam Dehne, Reno Citizen, stated that he believes the City Council is micro-managing with respect to this issue and should address other issues that have more importance.

Mr. Lonnie Feemster, NAACP, stated that he believes Mr. McNeely has done a fine job over the past six years and does not think a personnel session is necessary.

Ms. Mary Wilson, NAACP, expressed her support for the City Manager.

The Council discussed the procedures that must be followed to hold a closed personnel session and whether or not a personnel session is necessary.

Councilperson Aiazzi asked Councilpersons Doyle and Sferrazza-Hogan to outline the issues that would be the topic of discussion in the closed session.

Councilperson Haschеff pointed out that he does not believe the public should be suspicious of a closed personnel session on Mr. McNeely, since, in the past when the regularly scheduled evaluations were held, Mr. McNeely was highly evaluated and given merit increases.

Councilperson Sferrazza-Hogan stated that she does have issues with the City Manager and added that her constituents have expressed concerns about the Manager's performance.

Mayor Griffin stated that he would not support scheduling a "special" personnel session because a "regular" evaluation is scheduled in two months.

It was moved by Councilperson Doyle, seconded by Councilperson Sferrazza-Hogan to schedule a closed personnel session to consider character and professional competence of Charles McNeely, Reno City Manager on January 18, 2002.

Motion carried with Councilperson Aiazzi and Mayor Griffin absent.

Agenda Item No. 14

MAYOR AND COUNCIL

14A Presentation by District Health Department on Street Sweeping/De-icing.

(18) Mr. Andy Goodrich, Director of Air Quality Management Division for the District Health Department, provided a presentation regarding the Air Quality Status in the Truckee Meadows, what regulations are being proposed , the new technologies that have been discussed and the Federal assistance that is available to implement these technologies.

Mr. Goodrich responded to questions from the Council with respect to the financial implications, anti-icing technology and traffic safety.

Councilperson Hascheff pointed out that one of his clients may be involved in the issue so he would abstain on this issue.

It was moved by Councilperson Rigdon, seconded by Councilperson Sferrazza-Hogan to accept the report and direct the Public Works Director to attend the discussions with the Health Department to determine the impact on the City of Reno, if any.

Motion carried with Councilperson Hascheff abstaining.

14B Presentation regarding Cell Towers - J. Hogan

(19) Mr. Doug Smith, of Citizens for a Scenic Northern Nevada, provided the Council with a presentation on cell towers and encouraged the Council to take a proactive approach to the increasing number of cell towers that are being installed all over Reno.

Councilperson Rigdon indicated that less than three years ago, a committee was created and examined the cell tower issues for almost two years

Councilperson Aiazzi suggested that Mr. Smith review the information that was gathered by the cell tower committee and return to Council with any recommended changes.

Council directed Mr. Smith to meet with Councilperson Hascheff and a staff member to discuss his concerns.

14C Recommendation from the Historical Resources Commission regarding the City's Historic Preservation Ordinance.

(20) Councilperson Harsh commended the Historical Resources Commission for their diligence in creating this ordinance.

Ms. Mella Harmon responded to questions regarding the ordinance.

It was moved by Councilperson Harsh, seconded by Councilperson Rigdon to approve the recommendation of the Historical Resources Commission with the understanding that any financial implications associated with this ordinance will be brought back to the Council.

Councilperson Aiazzi suggested that the Planner that serves as the staff liaison from the Community Development Department have a background in Historic Preservation.

Motion carried.

14D Recommendation from the Historical Resources Commission regarding the relocation of the Lake Mansion.

(21) Mayor Griffin disclosed that his wife is on the Board of Directors for Very Special Arts which is the non-profit organization that is the caretaker for the Lake Mansion.

It was moved by Councilperson Harsh, seconded by Mayor Griffin to approve the recommendation of the Historical Resources Commission's No. 1 site location at Arlington and Court Street and directed staff to work with all interested parties.

Motion carried.

-0-0-0-0-0-0-0-

A recess was called at 2:40 p.m. and upon reconvening at 2:58 p.m., roll was taken with the following Council members present: Hascheff, Harsh, Rigdon, Sferrazza-Hogan, Doyle, and Aiazzi Absent: Mayor Griffin.

-0-0-0-0-0-0-0-

ASSISTANT MAYOR RIGDON PRESIDING.

14E Discussion and status of purchase of 2001 Crown Victorias for Reno Police Department - S. Doyle.

(22) Councilperson Doyle explained her frustration with the purchase of these vehicles and the fact that the cars were not immediately put to use but rather sitting at the car dealership for almost a year.

Mr. Steve Varela, Director of Public Works, indicated that 60 cars were ordered at one time and once they were received, each vehicle had to be retrofitted in order to comply with the Police Department's specifications. He stated that in hindsight, these vehicles should not have been purchased all at once, but rather in several different orders.

Mr. Tom Heck, Deputy Director of Public Works, outlined the items that were contained in the police package for the cars.

Councilperson Hascheff addressed the issue noting that a mistake was made, people learn from mistakes and he is very comfortable that staff will correct this in the future.

Councilperson Aiazzi stated he believes the City of Reno has an excellent work force and part of that is allowing that work force to think for themselves. He added that the purchase of these 60 vehicles all at one time was approved by this City Council.

MAYOR GRIFFIN PRESENT 3:10 P.M.

Agenda Item No.

14E Discussion and status of purchase of 2001 Crown Victorias for Reno Police Department, continued:

Mr. Charles McNeely, City Manager, stated that this issue started because the former fleet manager wanted to provide the best level of service possible to the Police Department by getting as many cars in as possible thinking that they could all be processed in a timely manner. There was an error made because the sub-contractor was unable to equip all 60 cars quickly and he assured the Council that it would not happen again.

It was moved by Councilperson Doyle, seconded by Councilperson Sferrazza-Hogan to accept the report.

Motion carried.

COUNCILPERSON HARSH ABSENT 3:25 P.M.

15 **PUBLIC HEARINGS**

15A Staff Report: Amendment to Chapter 18.06 of the Reno Municipal Code entitled "Zoning" regarding regulations related to Off-premises Advertising Displays. Case No. AT-1-01 (Billboard Ordinance).

(23) Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received. The Mayor declared the public agreement open and asked if anyone cared to speak.

Ms. Cathy Brandhorst, no address given, spoke about the language used on billboards.

Mr. Ed Lawson, of YESCO, indicated that he is very angry because all of the meetings that have taken place with Citizen's for a Scenic Northern Nevada has been wasted because they will not adhere to the agreement they made just two weeks ago.

Mr. Chris Wicker, of Citizen's for a Scenic Northern Nevada, addressed the relocation issue and the height restrictions.

COUNCILPERSON HARSH PRESENT VIA TELECONFERENCE 4:05 P.M.

Mr. John Francovich, representing Clear Channel, stated that productive meetings were held with the Billboard Industry and the Citizen's group and until 20 minutes ago he believed an agreement was reached.

Ms. Buffy Jo Dryling, of Citizen's for a Scenic Northern Nevada, addressed the issue of billboards in the City's Gateways.

Mr. Steve Raper, of Clear Channel Outdoor, stated that he believes the billboard industry has tried to compromise does not believe the opponents are willing to agree.

Lengthy discussion took place with respect to the past restrictions placed on the billboard industry and how those restrictions could be fully enforced to address the concerns of the Citizen's for a Scenic Northern Nevada and to comply with the spirit of the ballot question that passed regarding billboards.

Mayor Griffin asked if anyone else cared to speak on this matter. Hearing no one he closed the public hearing.

Agenda Item No.

15A1 Bill No. 5830 - Ordinance amending Title 18, Chapter 18.06 of the Reno Municipal Code entitled "Zoning" by adding language to and deleting language from Sections 18.06.910-18.06.914 entitled 'Off-Premises Advertising Displays" which govern how off-premises advertising displays are regulated; together with other matters properly relating thereto.

(24)

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to refer Bill No. 5830 to the Committee of the Whole as amended, changes included a 50'maximum height limitation, billboard positioning to be more acute, provide for possibility of separate height limits dependent upon location, address issue of "downlighting" within rural areas, allow for relocation and amend gateway locations. Council also directed staff to look at the issue of providing a "hard-number" for allowable billboard locations.

Motion carried with Councilpersons Harsh and Sferrazza-Hogan absent.

15 **PUBLIC HEARINGS**

15B Staff Report: - Request for: (1) a Master Plan amendment from Urban Residential/Commercial (≥21 units/acre) to Mixed Residential; (2) a zoning map amendment from MF30 (Multi-Family) and CC (Community Commercial) to MF14 (Multi-Family); (3) a tentative map to develop a 15 lot single family subdivision on a ±1.80 acre site located on the east side of Mt. Charleston Street approximately 300 feet north of Echo Avenue. Case No. LDC02-00101 (Habitat for Humanity/ Mt. Charleston).

(25)

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Doyle, seconded by Councilperson Rigdon to uphold the recommendation of the Planning Commission and approve the requests in Case No. LDC02-00101.

Motion carried.

15B1 Resolution No. 5924 - Resolution to amend Resolution No. 5673 by adopting a change to the Land Use Guide of the Reno Master Plan as approved in Case No. LDC02-00101. (Habitat for Humanity/Mt. Charleston).

(26)

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to pass and adopt Resolution No. 5924.

Motion carried.

Agenda Item No.

15B2 Bill No. 5831 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±1.80 acre site located on the east side of Mt. Charleston Street approximately 300 feet north of Echo Avenue from MF30 (Multi-Family) and CC (Community Commercial) to MF14 (Multi-Family) together with other matters properly relating thereto. Case No. LDC02-00101 (Habitat for Humanity/Mt. Charleston).

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to refer Bill No. 5831 to the Committee of the Whole.

Motion carried.

15 **PUBLIC HEARING**

15C Staff Report: Request for a zoning map amendment from IB (Industrial Business) to IC (Industrial Commercial) on ±9 acres of a ±12.7 acre site to allow the construction of a warehouse on a parcel located on both sides of the northern terminus of Standard Street and wrapping around in an L-shape to Western Road. Case No. LDC02-00128 (Puliz/1095 Standard).

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to uphold the recommendation of the Planning Commission and approve Case No. LDC02-001128.

Motion carried.

15C1 Bill No. 5832 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning" rezoning ±9 acres of a ±12.7 acre site located on both sides of the northern terminus of Standard Street and wrapping around in an L-shape to Western Road from IB (Industrial Business) to IC (Industrial Commercial); together with other matters properly relating thereto. Case No. LDC02-00128 (Puliz/1095 Standard).

COUNCILPERSON HARSH ABSENT 4:35 P.M.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to refer Bill No.5832 to the Committee of the Whole.

Motion carried with Councilperson Harsh absent.

Agenda Item No. 15

PUBLIC HEARING

15D Staff Report: Request for a zoning map amendment from IB (Industrial Business) to IC (Industrial Commercial) on a ±6.35 acre site which is comprised of five (5) adjacent parcels on a site located on the southeast corner of Matley Lane and Mill Street. Case No. LDC02-00154 (Matley Lane Properties)

(31)

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Sferrazza-Hogan, seconded by Rigdon to uphold the recommendation of the Planning Commission and approve Case No. LDC 02-00154.

Motion carried with Councilperson Harsh absent.

15D1 Bill No. 5833 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±6.35 acre site which is comprised of five (5) adjacent parcels located on the southeast corner of Matley Lane and Mill Street from IB (Industrial Business) to IC (Industrial Commercial); together with other matters properly relating thereto. Case No. LDC02-00154 (Matley Lane Properties).

(31)

It was moved by Councilperson Sferrazza-Hogan, seconded by Councilperson Rigdon to refer Bill No. 5833.

Motion carried with Councilperson Harsh absent.

15

PUBLIC HEARINGS

2:00 P.M.

15E Staff Report: Petition by Lakemont Homes for creation of a Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

(32)

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Hascheff, seconded by Councilperson Doyle to approve the Landscape Maintenance District for Morningstar at Northgate. Units 2 and 3.

Motion carried with Councilperson Harsh absent.

Agenda Item No.

15E1 Bill No. 5835 - Ordinance creating a Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

33

It was moved by Councilperson Hascheff, seconded by Councilperson Rigdon to refer Bill No. 5835 to the Committee of the Whole.

Motion carried with Councilperson Harsh absent.

15 **PUBLIC HEARINGS**

2:00 P.M.

15F Staff Report: Petition by Braddock and Logan for creation of a Landscape Maintenance District for Mayberry Place.

34

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Hascheff, seconded by Councilperson Doyle to approve the Landscape Maintenance District for Mayberry Place.

Motion carried with Councilperson Harsh absent.

15F1 Bill No. 5835 - Ordinance creating a Landscape Maintenance District for Mayberry Place.

35

It was moved by Councilperson Hascheff, seconded by Councilperson Rigdon to refer Bill No. 5835.

Motion carried with Councilperson Harsh absent.

15 **PUBLIC HEARING**

15G Staff Report: Request for: (1) a Master Plan amendment from Mixed Residential to Urban Residential Commercial; (2) a zoning map amendment from NC (Neighborhood Commercial) to CC (Community Commercial); and (3) a special use permit to allow (a) a bar; and (b) 24 hour businesses within the center on a ±10.4 acre site located on the north side of North Hills Boulevard approximately 900 feet west of Golden Valley Road. Case No. LDC02-00131 (North Hills Shopping Center/1075 North Hills Boulevard).

36

Mayor Griffin asked if proper notice had been given. City Clerk Cook stated that proper notice was given and no correspondence was received.

Ms. Teri Glasny, owner of The Diner, 1075 North Hills Boulevard, expressed her concerns regarding this proposed business. She stated that there is an elementary school and a new high school very near by and she pointed out that she does not believe a bar should be located so close. Mr. Glasny further pointed out that she has traffic safety concerns for the children in this area if alcoholic beverages are served.

Agenda Item No.

Ms. Kristin Shields, Associate Planner, discussed the hours of operation at the existing shopping center and the affect of the zone change from NC to CC.

Councilperson Doyle indicated that she could make all the findings for the Master Plan amendment, zoning map amendment and the special use permit. She asked the applicant to agree to operating only between the hours of 6 a.m. to 12:00 a.m.

Mr. John Krmpotic, representing the applicant, indicated that he cannot agree to those hours of operation, since the Pour House, which is located in the shopping center, is allowed to operate 24 hours a day.

It was pointed out that this item was not appealed and if the Planning Commission conditions are going to be amended, the Council could continue this item and instruct staff to re-notice the residents in this area.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to approve the Master Plan amendment, zoning map amendment and special use permit for a bar and deny of the special use permit for 24 hour businesses.

Motion carried with Councilperson Sferrazza-Hogan and Aiazzi voting Nay and Councilperson Harsh absent.

15G1 Resolution No. 5925 - Resolution to amend Resolution No. 5673 by adopting a change to the Land Use Guide of the Reno Master Plan as approved in Case No. LDC02-00131. (North Hills Shopping Center/1075 North Hills Boulevard).

37

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to pass and adopt Resolution No. 5925.

Motion carried with Councilperson Sferrazza-Hogan and Aiazzi voting Nay and Councilperson Harsh absent.

15G2 Bill No. 5836 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±10.4 acre site located on the north side of North Hills Boulevard approximately 900 feet west of Golden Valley Road from NC (Neighborhood Commercial) to CC (Community Commercial); together with other matters properly relating thereto. Case No. LDC02-00131 (North Hills Shopping Center/1075 North Hills Boulevard).

38

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to refer Bill No. 5836 to the Committee of the Whole.

Motion carried with Councilperson Sferrazza-Hogan and Aiazzi voting Nay and Councilperson Harsh absent.

13 **FINANCE**

13A Staff Report: Selection of the Financing Plan for the Downtown Events Center.

39

Ms. Donna Kristaponis, Assistant City Manager, outlined the actions that were taken by the Stakeholders Group at their meeting on January 7, 2002.

Agenda Item No.

13A Staff Report: Selection of the Financing Plan for the Downtown Events Center, continued:

Mr. Andy Green, Finance Director, highlighted the recommended financing plan for the center.

Mr. Jeff Holt, of Goldman, Saks, outlined the structure of the financing plan. He stated that under this structure the construction fund will be funded at 63.6 million; All existing debt of the RSCVA for the Bowling Stadium will be paid; the City of Reno will be provided with 7.7 million to repay loans on the previous bowling stadium; and a reserve fund of 10 million will be established.

Mr. Sam Dehne, Reno Citizen, asked the Council to build a huge events center.

Mr. John Francovich, representing NEWCO, urged the Council to approve the financing package that is being recommended.

Councilperson Sferrazza-Hogan indicated that she could not support the plan unless there was 5 million in the City's reserve fund.

13A1 Resolution No. 5926 - Resolution authorizing the sale of capital improvement revenue bonds in the maximum principal amount of $120,000,000 for the purposes of financing capital improvement projects in the City and providing other matters properly relating thereto. (Downtown Events Center).

40

It was moved by Councilperson Aiazzi, seconded by Councilperson Hascheff to uphold the recommendation and pass and adopt Resolution No. 5926.

Motion carried with Councilpersons Rigdon and Sferrazza-Hogan voting Nay and Councilperson Harsh voting Nay.

13A2 Resolution No. Resolution of intent proposing the issuance of and authorizing the publication of notices relating to the general obligation (limited tax) capital improvement bonds (additionally secured by pledged revenues) with the maximum principal amount of $120,000,000 for the purposes of financing capital improvement projects in the City and providing other matters properly relating thereto. (Downtown Events Center)

41

NO ACTION WAS TAKEN ON THIS ITEM.

MAYOR GRIFFIN ABSENT 6:20 P.M.

ASSISTANT MAYOR RIGDON PRESIDING.

7 **FIRST READING ORDINANCES**

7A Bill No. 5837 - Ordinance amending Title 2, Chapter 2.08 of the Reno Municipal Code entitled "Administration" pertaining to the Board of Massage Examiners to amend the requirements regarding reinstatement of a massage therapist license after more than twelve months has expired.

42

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to refer Bill No. 5837 to the Committee of the Whole.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

Agenda Item No.

6

RESOLUTIONS

6A Resolution No. 5927 - Resolution authorizing the filing of an application with the State of Nevada Department of Conservation and Natural Resources for the 2002 Nevada Recreational Trails Program.

It was moved by Councilperson Aiazzi, seconded by Councilperson Doyle to pass and adopt Resolution No. 5927.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

6B Resolution No. 5928 - Resolution Directing the Regional Transportation Commission and Lumos and Associates Inc., through the City Engineer, to prepare and submit plans and cost estimates for the 2002 Special Assessment District No.1.

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to pass and adopt Resolution No. 5928.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

6C Resolution No. Resolution Honoring the life of Moya Olsen Lear.

THIS ITEM WAS DEFERRED TO THE NEXT REGULAR MEETING.

8

SECOND READING ORDINANCES

8A Bill No. 5829 - Ordinance to amend Title 18, Chapter 18.06, entitled "Zoning" of the Reno Municipal Code regarding the definition of Single Room Occupancy (SRO), providing standards for SROs and congregate care facilities and permitting congregate care facilities in an NC zone; together with other matters properly relating thereto.

It was moved by Councilperson Aiazzi, seconded by Councilperson Hascheff to pass and adopt Bill No. 5829, Ordinance No. 5294.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

8B Bill No. 5825 - Ordinance to amend Ordinance No. 5271 which amended Title 2, Chapter 2.10, Article III Sections 2.10.200 and 2.10.230 of the Reno Municipal Code Entitled Room Tax by amending the boundaries of the area within which the additional one and one half percent room tax will be collected.

Ms. Roberta Ross, representing Ross Manor, indicated that although at prior meetings on this issue, she had asked that Ross Manor be exempt from the new Room Tax, she is no longer requesting the exemption. Ms. Ross continued that compromise has been reached with the RSCVA and her issues will be addressed at that level.

Ms. Ruth Wheeler, 53 High Street, agreed with Ms. Ross and also withdrew her request for an exemption from the additional Room Tax ordinance.

Discussion ensued with respect to the Truckee River Lodging House property owner by Mr. Bob Rusk and whether or not his property should be excluded from the boundaries of the additional room tax.

Agenda Item No.

8B Bill No. 5825 - Ordinance to amend Ordinance No. 5271 which amended Title 2, Chapter 2.10, Article III Sections 2.10.200 and 2.10.230 of the Reno Municipal Code Entitled Room Tax by amending the boundaries of the area within which the additional one and one half percent room tax will be collected, continued:

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to continue this item for two weeks to allow staff the opportunity to address the boundary distance issue with respect to Mr. Rusk's property.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

7B Staff Report: Bill No. A request for final approval of the SPD Handbook and Ordinance to amend Chapter 18.06, of the Reno Municipal Code entitled "Zoning" rezoning to Specific Plan District a ±6.1 acre site located at the southeast corner of Plumb Lane and Arlington Avenue. Case No. LDC01-00363 (Plumgate).

Ms. Particia Davis, Dartmouth Drive resident, requested a delay in any final action on the recent changes made to this case to allow the neighboring residents the opportunity to review those amendments.

Mr. Roderick Sage, Dartmouth Drive, pointed out that he does not believe the proper discrepancies in the handbook have been addressed and he requested this item be postpones.

Mr. David Mousel, representing the area residents, concurred with the previous speakers and asked that this item be deferred until all of the contested issues can be resolved.

Mr. John Webster Brown, area resident, stated that he the individual who originally appealed this case and he is not in agreement with the amendments that are being proposed. He asked the Council to defer action on approval of the handbook.

Ms. Cheryl Ryan, Senior Planner, explained the changes that have been made to the original layout of the plan.

Councilperson Aiazzi suggested that this item be continued for two weeks to allow the neighbors to meet with the developer to discuss the changes and perhaps reach an agreement prior to Council approving the handbook.

Councilperson Hascheff requested a red-line draft of this project at the next meeting.

It was moved by Councilperson Aiazzi, seconded by Councilperson Hascheff to continue this item to the January 22, 2002 Meeting at 1:00 p.m. with direction to staff to return with a red-line draft of the changes being made to this project and how it differs from what was previously approved.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

Agenda Item No.

9

CITY CLERK

9A | Appointments to Boards and Commission - Financial Advisory Board.

(49)

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to appoint Marcia Martin, William Thomas and William Bowers to the Financial Advisory Board.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

COUNCILPERSON HARSH PRESENT 7:10 P.M.

10

FIRE

10A Staff Report: Direction to staff regarding participation in the Washoe County Committee regarding formation of a Regional Fire Protection Agency.

(50)

In response to Councilperson Doyle, Councilperson Hascheff restated the intent of the motion he made at the December 18, 2001 joint meeting: The City of Reno staff should work with Washoe County on the evaluation of the present contract and review the formation of a Regional Fire Protection Agency on a dual track mode.

Councilperson Doyle stated that she believes the intent of the Regional Fire Board was to determine whether not the financial implications of the of the consolidated contract would warrant the formation of a Regional Fire Protection Agency.

It was moved by Councilperson Hascheff, seconded by Councilperson Sferrazza-Hogan to direct staff to work with Washoe County and other agencies to evaluate the present contract and review the possibility of alternate methods of service delivery on a dual track mode.

The motion resulted in a tie with Councilpersons Rigdon, Doyle and Aiazzi voting Nay and Mayor Griffin absent.

12

CITY MANAGER

12A Presentation and potential direction to staff regarding recession planning.

(51)

Mr. Charles McNeely, City Manager, explained that he had asked each department to prepare for a recession by proposing a 5% budget savings. He added that this planning is simply precautionary and it will be based on the 2nd quarter numbers as to whether or not the plan would be implemented.

Councilperson Rigdon pointed out that he would like an item placed on the next agenda so that budget augmentations can be done. He would also like the Municipal Court on notice to let them know that the unfilled security positions may be put on hold and he would also like a report on the percentage of growth by each department over the past two years.

Councilperson Doyle requested that the employee "buyout program" be drafted and submitted to Council for review.

Agenda Item No.

12A Presentation and potential direction to staff regarding recession planning, continued:

It was the determination of the Council to accept the report and direct staff to ensure civil service position will be filled for public safety and return with the issues brought forward by Councilpersons Rigdon and Doyle.

COUNCILPERSON DOYLE ABSENT 8:05 P.M.

11 **PUBLIC WORKS**

11A Staff Report: Office Space Improvements for City Hall.

52 Mr. Steve Varela, Director of Public Works, outlined the proposal for converting the Redevelopment Agency space in the west wing of City Hall into City Council Offices. He responded to questions from the Council with respect to the remodel of those offices and the new entrance into the west side of City Hall.

It was moved by Councilperson Aiazzi, seconded by Councilperson Sferrazza-Hogan to approve the recommendation as outlined in the staff report with the understanding that if cost cuts are necessary, expenses for Council office space should be decreased first.

Motion carried with Councilperson Doyle and Mayor Griffin absent.

11B Staff Report: Lease of Office Space for Information Services.

53 It was moved by Councilperson Aiazzi, seconded by Councilperson Haschefff to approve the lease agreement.

Motion carried with Councilperson Doyle and Mayor Griffin absent.

11C. Staff Report: Contract for Design Services for Office Space Improvements at City Hall.

54 Councilperson Haschefff pointed out that indemnity clause in the contract and the indemnity clause in Attachment A are different.

Mr. Randall Edwards, Chief Deputy City Attorney, stated that the clause contained in the contract would be correct.

It was moved by Councilperson Aiazzi, seconded by Councilperson Haschefff to approve the contract with Barada-Fuetsch Architects for $100.000.00 as amended to address the indemnity clause.

Motion carried with Councilperson Doyle and Mayor Griffin absent.

The Meeting was adjourned at 8:25 p.m.

RENO CITY COUNCIL
BRIEF OF MINUTES
JANUARY 8, 2002
(Official Minutes in City Clerk's Office)

The Regular Meeting of the Reno City Council was called to order at 12:15 p.m. on January 8, 2002 in the Council Chambers at City Hall.

PRESENT: Council Members Hascheff, Harsh, Rigdon, Sferrazza-Hogan, Doyle, Aiazzi and Griffin.

ABSENT: Council Member Aiazzi.

ALSO PRESENT: City Manager McNeely, City Attorney Lynch and City Clerk Cook.

Agenda Item No.

2B Approval of the Agenda - January 8, 2002.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to approve the Agenda as submitted.

Motion carried with Councilperson Aiazzi absent.

3 *Public Comment - Limited to No More Than three (3) Minutes And Limited to Items That Do Not Appear on The Agenda. Comments to Be Addressed to The Council as a Whole. The public may comment on agenda items by submitting a Request to Speak form to the City Clerk. Comment on agenda items is limited to no more than three minutes.

COUNCILPERSON AIAZZI PRESENT 12:20 P.M.

Rev. Onie Cooper, no address given, addressed the Council concerning the intersection of Castle and Montello.

Mr. Sam Dehne, Reno Citizen, indicated that he is concerned about the future of Reno.

Mr. Robert Price, 719 Cornwall, stated that he would like to see the homeless shelter on Sage Street.

Ms. Shirley Allen, P.O. Box 41096, expressed her concern over the Police Department handling of her purse theft.

Ms. Cathy Brandhorst, no address given, expressed her views to the Council.

NO ACTION WAS TAKEN ON THIS ITEM.

Agenda Item No.

4A Approval of Minutes - December 11, 2001 and October 16, 2001 Joint Meeting of the Reno City Council and Washoe County Commission.

Councilperson Rigdon requested that approval of the October 16, 2001 Minutes be postponed until after Item 10A.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to approve the December 11, 2001 Minutes with a correction on Page Eleven to indicate that Councilpersons Harsh and Rigdon voted Nay on Item 7C.

Motion carried.

4B CASH DISBURSEMENTS - December 9, 2001 through December 29, 2001.

It was moved by Councilperson Rigdon, seconded by Councilperson Doyle to approve the Cash Disbursements as submitted.

Motion carried.

5 **CONSENT AGENDA**

5A Staff Report re: Business License Applications.

Recommended: Council approve the business license applications as follows:

5B Staff Report: Creation of and Appointments to Regional Planning Committee.

Recommended: Council appoint a seven member Regional Planning Committee comprised of the Four City Council appointees to the Regional Planning Governing Board and the three City Planning Commissioners that the City Council appointed to the Regional Planning Commission, with the same alternates as appointed respectively.

5C Staff Report: Improvement Agreement and Security for Somersett Parkway Phase 2A Street Improvements (Case No. LDC02-00233).

Recommended: Council approve the Improvement Agreement and Security for Somersett Parkway Phase 2A Street Improvements.

5D Staff Report: Improvement Agreement and Security for Somersett Parkway Phase 2B Street Improvements (Case No. LDC02-00234).

Recommended: Council approve the Improvement Agreement and Security for Somersett Parkway Phase 2B Street Improvements.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

5E Staff Report: Improvement Agreement and Security for Offsite Sewer for the Somersett Development (Case No. LDC02-00166).

Recommended: Council approve the Improvement Agreement and Security for Offsite Sewer for the Somersett Development.

5F Staff Report: Agreement with Artown to conduct an arts facility feasibility study for the Reno Arts and Culture District.

Recommended: Council approve the agreement with Artown and the $35,000 contribution and authorize the Mayor to sign.

5G Staff Report: Amendments to Existing Leases for Public Works and Internal Affairs.

Recommended: Council approve the lease agreements and authorize the Mayor to sign.

5H Staff Report: Release of Excess Street Rights of Way - Old Virginia Road.

Recommended: Council approve the quitclaim deed releasing the City's interest in the excess street right of way and authorize the Mayor to sign.

5I Staff Report: Reversion to Acreage for Civic Center Condominiums (Case No. LDC02-00239).

Recommended: Council approve the reversion to acreage map.

5J Staff Report: Acceptance of donated Armored Truck to be used by the Police Department's SWAT Team.

Recommended: Council accept the donation from Armored Truck.

5K Staff Report: Interlocal Agreement to Establish a Multi-Jurisdictional Gang Unit.

Recommended: Council approve the Interlocal Agreement as written.

5L Staff Report: Reversion to Acreage for J. Brian Allman and Julienne Allman (Case No. LDC02-00221).

Recommended: Council approve the reversion to acreage map.

5M Staff Report: Emergency Service Contract between the Nevada Division of Environmental Protection and the Reno-Sparks Regional Hazardous Materials Response Team.

Recommended: Council approve the agreement and authorize the Mayor to sign.

It was moved by Councilperson Rigdon, seconded by Councilperson Aiazzi to approve Consent

Agenda Items 5A through 5M.

Motion carried with Councilperson Hascheff abstaining on Item 5L.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

14F Request to schedule closed personnel session to consider character and professional competence of Charles McNeely, Reno City Manager - S. Doyle.

Rev. Don Butler, 1995 Carville, expressed his support for the performance of the City Manager.

Mr. Rhen Bass, 4565 Great Fall Loop, stated that he has recently relocated to Reno and has experienced nothing but professionalism and dedication by Mr. McNeely.

Mr. Lonnie Jackson, 3310 Lodestar Ln., spoke in support of Mr. McNeely and stated that as a former City employee he worked for seven City Managers and believes Mr. McNeely to be the most exemplary.

Mr. Tisto Chapman, 2185 Platora Way, voiced his support for the actions of Mr. McNeely regarding youth in the community.

Mr. Sam Dehne, Reno Citizen, stated that he believes the City Council is micro-managing with respect to this issue and should address other issues that have more importance.

Mr. Lonnie Feemster, NAACP, stated that he believes Mr. McNeely has done a fine job over the past six years and does not think a personnel session is necessary.

Ms. Mary Wilson, NAACP, expressed her support for the City Manager.

The Council discussed the procedures that must be followed to hold a closed personnel session and whether or not a personnel session is necessary.

Councilperson Aiazzi asked Councilpersons Doyle and Sferrazza-Hogan to outline the issues that would be the topic of discussion in the closed session.

Councilperson Hascheff pointed out that he does not believe the public should be suspicious of a closed personnel session on Mr. McNeely, since, in the past when the regularly scheduled evaluations were held, Mr. McNeely was highly evaluated and given merit increases.

Councilperson Sferrazza-Hogan stated that she does have issues with the City Manager and added that her constituents have expressed concerns about the Manager's performance.

Mayor Griffin stated that he would not support scheduling a "special" personnel session because a "regular" evaluation is scheduled in two months.

It was moved by Councilperson Doyle, seconded by Councilperson Sferrazza-Hogan to schedule a closed personnel session to consider character and professional competence of Charles McNeely, Reno City Manager on January 18, 2002.

Motion carried with Councilperson Aiazzi and Mayor Griffin absent.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.
14

MAYOR AND COUNCIL

14A Presentation by District Health Department on Street Sweeping/De-icing.

Mr. Andy Goodrich, Director of Air Quality Management Division for the District Health Department, provided a presentation regarding the Air Quality Status in the Truckee Meadows, what regulations are being proposed , the new technologies that have been discussed and the Federal assistance that is available to implement these technologies.

Mr. Goodrich responded to questions from the Council with respect to the financial implications, anti-icing technology and traffic safety.

Councilperson Hascheff pointed out that one of his clients may be involved in the issue so he would abstain on this issue.

It was moved by Councilperson Rigdon, seconded by Councilperson Sferrazza-Hogan to accept the report and direct the Public Works Director to attend the discussions with the Health Department to determine the impact on the City of Reno, if any.

Motion carried with Councilperson Hascheff abstaining.

14B Presentation regarding Cell Towers - J. Hogan

Mr. Doug Smith, of Citizens for a Scenic Northern Nevada, provided the Council with a presentation on cell towers and encouraged the Council to take a proactive approach to the increasing number of cell towers that are being installed all over Reno.

Councilperson Rigdon indicated that less than three years ago, a committee was created and examined the cell tower issues for almost two years

Councilperson Aiazzi suggested that Mr. Smith review the information that was gathered by the cell tower committee and return to Council with any recommended changes.

Council directed Mr. Smith to meet with Councilperson Hascheff and a staff member to discuss his concerns.

14C Recommendation from the Historical Resources Commission regarding the City's Historic Preservation Ordinance.

Councilperson Harsh commended the Historical Resources Commission for their diligence in creating this ordinance.

Ms. Mella Harmon responded to questions regarding the ordinance.

It was moved by Councilperson Harsh, seconded by Councilperson Rigdon to approve the recommendation of the Historical Resources Commission with the understanding that any financial implications associated with this ordinance will be brought back to the Council.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

Councilperson Aiazzi suggested that the Planner that serves as the staff liaison from the Community Development Department have a background in Historic Preservation.

Motion carried.

14D Recommendation from the Historical Resources Commission regarding the relocation of the Lake Mansion.

Mayor Griffin disclosed that his wife is on the Board of Directors for Very Special Arts which is the non-profit organization that is the caretaker for the Lake Mansion.

It was moved by Councilperson Harsh, seconded by Mayor Griffin to approve the recommendation of the Historical Resources Commission's No. 1 site location at Arlington and Court Street and directed staff to work with all interested parties.

Motion carried.

-0-0-0-0-0-0-0-

A recess was called at 2:40 p.m. and upon reconvening at 2:58 p.m., roll was taken with the following Council members present: Hascheff, Harsh, Rigdon, Sferrazza-Hogan, Doyle, and Aiazzi Absent: Mayor Griffin.

-0-0-0-0-0-0-0-

ASSISTANT MAYOR RIGDON PRESIDING.

14E Discussion and status of purchase of 2001 Crown Victorias for Reno Police Department - S. Doyle.

Councilperson Doyle explained her frustration with the purchase of these vehicles and the fact that the cars were not immediately put to use but rather sitting at the car dealership for almost a year.

Mr. Steve Varela, Director of Public Works, indicated that 60 cars were ordered at one time and once they were received, each vehicle had to be retrofitted in order to comply with the Police Department's specifications. He stated that in hindsight, these vehicles should not have been purchased all at once, but rather in several different orders.

Mr. Tom Heck, Deputy Director of Public Works, outlined the items that were contained in the police package for the cars.

Councilperson Hascheff addressed the issue noting that a mistake was made, people learn from mistakes and he is very comfortable that staff will correct this in the future.

Councilperson Aiazzi stated he believes the City of Reno has an excellent work force and part of that is allowing that work force to think for themselves. He added that the purchase of these 60 vehicles all at one time was approved by this City Council.

MAYOR GRIFFIN PRESENT 3:10 P.M.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

14E Discussion and status of purchase of 2001 Crown Victorias for Reno Police Department, continued:

Mr. Charles McNeely, City Manager, stated that this issue started because the former fleet manager wanted to provide the best level of service possible to the Police Department by getting as many cars in as possible thinking that they could all be processed in a timely manner. There was an error made because the sub-contractor was unable to equip all 60 cars quickly and he assured the Council that it would not happen again.

It was moved by Councilperson Doyle, seconded by Councilperson Sferrazza-Hogan to accept the report.

Motion carried.

COUNCILPERSON HARSH ABSENT 3:25 P.M.

15 **PUBLIC HEARINGS**

15A Staff Report: Amendment to Chapter 18.06 of the Reno Municipal Code entitled "Zoning" regarding regulations related to Off-premises Advertising Displays. Case No. AT-1-01 (Billboard Ordinance).

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received. The Mayor declared the public agreement open and asked if anyone cared to speak.

Ms. Cathy Brandhorst, no address given, spoke about the language used on billboards.

Mr. Ed Lawson, of YESCO, indicated that he is very angry because all of the meetings that have taken place with Citizen's for a Scenic Northern Nevada has been wasted because they will not adhere to the agreement they made just two weeks ago.

Mr. Chris Wicker, of Citizen's for a Scenic Northern Nevada, addressed the relocation issue and the height restrictions.

COUNCILPERSON HARSH PRESENT VIA TELECONFERENCE 4:05 P.M.

Mr. John Francovich, representing Clear Channel, stated that productive meetings were held with the Billboard Industry and the Citizen's group and until 20 minutes ago he believed an agreement was reached.

Ms. Buffy Jo Dryling, of Citizen's for a Scenic Northern Nevada, addressed the issue of billboards in the City's Gateways.

Mr. Steve Raper, of Clear Channel Outdoor, stated that he believes the billboard industry has tried to compromise does not believe the opponents are willing to agree.

Lengthy discussion took place with respect to the past restrictions placed on the billboard industry and how those restrictions could be fully enforced to address the concerns of the Citizen's for a Scenic Northern Nevada and to comply with the spirit of the ballot question that passed regarding billboards.

Mayor Griffin asked if anyone else cared to speak on this matter. Hearing no one he closed the public hearing.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

15A1 Bill No. 5830 - Ordinance amending Title 18, Chapter 18.06 of the Reno Municipal Code entitled "Zoning" by adding language to and deleting language from Sections 18.06.910-18.06.914 entitled 'Off-Premises Advertising Displays" which govern how off-premises advertising displays are regulated; together with other matters properly relating thereto.

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to refer Bill No. 5830 to the Committee of the Whole as amended, changes included a 50'maximum height limitation, billboard positioning to be more acute, provide for possibility of separate height limits dependent upon location, address issue of "downlighting" within rural areas, allow for relocation and amend gateway locations. Council also directed staff to look at the issue of providing a "hard-number" for allowable billboard locations.

Motion carried with Councilpersons Harsh and Sferrazza-Hogan voting Nay.

15 **PUBLIC HEARINGS**

15B Staff Report: - Request for: (1) a Master Plan amendment from Urban Residential/Commercial (≥21 units/acre) to Mixed Residential; (2) a zoning map amendment from MF30 (Multi-Family) and CC (Community Commercial) to MF14 (Multi-Family); (3) a tentative map to develop a 15 lot single family subdivision on a ±1.80 acre site located on the east side of Mt. Charleston Street approximately 300 feet north of Echo Avenue. Case No. LDC02-00101 (Habitat for Humanity/ Mt. Charleston).

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Doyle, seconded by Councilperson Rigdon to uphold the recommendation of the Planning Commission and approve the requests in Case No. LDC02-00101.

Motion carried.

15B1 Resolution No. 5924 - Resolution to amend Resolution No. 5673 by adopting a change to the Land Use Guide of the Reno Master Plan as approved in Case No. LDC02-00101. (Habitat for Humanity/Mt. Charleston).

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to pass and adopt Resolution No. 5924.

Motion carried.

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Agenda Item No.

15B2 Bill No. 5831 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±1.80 acre site located on the east side of Mt. Charleston Street approximately 300 feet north of Echo Avenue from MF30 (Multi-Family) and CC (Community Commercial) to MF14 (Multi-Family) together with other matters properly relating thereto. Case No. LDC02-00101 (Habitat for Humanity/Mt. Charleston).

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to refer Bill No. 5831 to the Committee of the Whole.

Motion carried.

15 **PUBLIC HEARING**

15C Staff Report: Request for a zoning map amendment from IB (Industrial Business) to IC (Industrial Commercial) on ±9 acres of a ±12.7 acre site to allow the construction of a warehouse on a parcel located on both sides of the northern terminus of Standard Street and wrapping around in an L-shape to Western Road. Case No. LDC02-00128 (Puliz/1095 Standard).

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to uphold the recommendation of the Planning Commission and approve Case No. LDC02-001128.

Motion carried.

15C1 Bill No. 5832 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning" rezoning ±9 acres of a ±12.7 acre site located on both sides of the northern terminus of Standard Street and wrapping around in an L-shape to Western Road from IB (Industrial Business) to IC (Industrial

Commercial); together with other matters properly relating thereto. Case No. LDC02-00128 (Puliz/1095 Standard).

COUNCILPERSON HARSH ABSENT 4:35 P.M.

It was moved by Councilperson Doyle, seconded by Councilperson Haschefff to refer Bill No.5832 to the Committee of the Whole.

Motion carried with Councilperson Harsh absent.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

15 **PUBLIC HEARING**

15D Staff Report: Request for a zoning map amendment from IB (Industrial Business) to IC (Industrial Commercial) on a ±6.35 acre site which is comprised of five (5) adjacent parcels on a site located on the southeast corner of Matley Lane and Mill Street. Case No. LDC02-00154 (Matley Lane Properties)

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Sferrazza-Hogan, seconded by Rigdon to uphold the recommendation of the Planning Commission and approve Case No. LDC 02-00154.

Motion carried with Councilperson Harsh absent.

15D1 Bill No. 5833 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±6.35 acre site which is comprised of five (5) adjacent parcels located on the southeast corner of Matley Lane and Mill Street from IB (Industrial Business) to IC (Industrial Commercial); together with other matters properly relating thereto. Case No. LDC02-00154 (Matley Lane Properties).

It was moved by Councilperson Sferrazza-Hogan, seconded by Councilperson Rigdon to refer Bill No. 5833.

Motion carried with Councilperson Harsh absent.

5 **PUBLIC HEARINGS**

2:00 P.M.

15E Staff Report: Petition by Lakemont Homes for creation of a Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Haschеff, seconded by Councilperson Doyle to approve the Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

Motion carried with Councilperson Harsh absent.

(DRAFT COPY - MINUTES NOT APPROVED BY CITY COUNCIL)

Agenda Item No.

15E1 Bill No. 5835 - Ordinance creating a Landscape Maintenance District for Morningstar at Northgate, Units 2 and 3.

It was moved by Councilperson Haschеff, seconded by Councilperson Rigdon to refer Bill No. 5835 to the Committee of the Whole.

Motion carried with Councilperson Harsh absent.

15 **PUBLIC HEARINGS**

2:00 P.M.

15F Staff Report: Petition by Braddock and Logan for creation of a Landscape Maintenance District for Mayberry Place.

Mayor Griffin asked if proper notice was given. City Clerk Cook stated that proper notice was given and no correspondence was received.

The Mayor declared the public hearing open and asked if anyone cared to speak. Hearing no one he closed the public hearing.

It was moved by Councilperson Haschеff, seconded by Councilperson Doyle to approve the Landscape Maintenance District for Mayberry Place.

Motion carried with Councilperson Harsh absent.

15F1 Bill No. 5835 - Ordinance creating a Landscape Maintenance District for Mayberry Place.

It was moved by Councilperson Hascheff, seconded by Councilperson Rigdon to refer Bill No. 5835.

Motion carried with Councilperson Harsh absent.

15 **PUBLIC HEARING**

15G Staff Report: Request for: (1) a Master Plan amendment from Mixed Residential to Urban Residential Commercial; (2) a zoning map amendment from NC (Neighborhood Commercial) to CC (Community Commercial); and (3) a special use permit to allow (a) a bar; and (b) 24 hour businesses within the center on a ±10.4 acre site located on the north side of North Hills Boulevard approximately 900 feet west of Golden Valley Road. Case No. LDC02-00131 (North Hills Shopping Center/1075 North Hills Boulevard).

Mayor Griffin asked if proper notice had been given. City Clerk Cook stated that proper notice was given and no correspondence was received.

Ms. Teri Glasny, owner of The Diner, 1075 North Hills Boulevard, expressed her concerns regarding this proposed business. She stated that there is an elementary school and a new high school very near by and she pointed out that she does not believe a bar should be located so close. Mr. Glasny further pointed out that she has traffic safety concerns for the children in this area if alcoholic beverages are served .

Ms. Kristin Shields, Associate Planner, discussed the hours of operation at the existing shopping center and the affect of the zone change from NC to CC.

Councilperson Doyle indicated that she could make all the findings for the Master Plan amendment, zoning map amendment and the special use permit. She asked the applicant to agree to operating only between the hours of 6 a.m. to 12:00 a.m.

Mr. John Krmpotic, representing the applicant, indicated that he cannot agree to those hours of operation, since the Pour House, which is located in the shopping center, is allowed to operate 24 hours a day.

It was pointed out that this item was not appealed and if the Planning Commission conditions are going to be amended, the Council could continue this item and instruct staff to re-notice the residents in this area.

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to approve the Master Plan amendment, zoning map amendment and special use permit for a bar and deny of the special use permit for 24 hour businesses.

Motion carried with Councilperson Sferrazza-Hogan and Aiazzi voting Nay and Councilperson Harsh absent.

15G1 Resolution No. 5925 - Resolution to amend Resolution No. 5673 by adopting a change to the Land Use Guide of the Reno Master Plan as approved in Case No. LDC02-00131. (North Hills Shopping Center/1075 North Hills Boulevard).

It was moved by Councilperson Doyle, seconded by Councilperson Hascheff to pass and adopt Resolution No. 5925.

Motion carried with Councilperson Sferrazza-Hogan and Aiazzi voting Nay and Councilperson Harsh absent.

15G2 Bill No. 5836 - Ordinance to amend Chapter 18.06 of the Reno Municipal Code, entitled "Zoning", rezoning a ±10.4 acre site located on the north side of North Hills Boulevard approximately 900 feet west of Golden Valley Road from NC (Neighborhood Commercial) to CC (Community Commercial); together with other matters properly relating thereto. Case No. LDC02-00131 (North Hills Shopping Center/1075 North Hills Boulevard).

It was moved by Councilperson Doyle, seconded by Councilperson Haschеff to refer Bill No. 5836 to the Committee of the Whole.

Motion carried with Councilperson Sferrazza-Hogan and Aiazzi voting Nay and Councilperson Harsh absent.

13 FINANCE

13A Staff Report: Selection of the Financing Plan for the Downtown Events Center.

Ms. Donna Kristaponis, Assistant City Manager, outlined the actions that were taken by the Stakeholders Group at their meeting on January 7, 2002.

Agenda Item No.

13A Staff Report: Selection of the Financing Plan for the Downtown Events Center, continued:

Mr. Andy Green, Finance Director, highlighted the recommended financing plan for the center.

Mr. Jeff Holt, of Goldman, Saks, outlined the structure of the financing plan. He stated that under this structure the construction fund will be funded at 63.6 million; All existing debt of the RSCVA for the Bowling Stadium will be paid; the City of Reno will be provided with 7.7 million to repay loans on the previous bowling stadium; and a reserve fund of 10 million will be established.

Mr. Sam Dehne, Reno Citizen, asked the Council to build a huge events center.

Mr. John Francovich, representing NEWCO, urged the Council to approve the financing package that is being recommended.

Councilperson Sferrazza-Hogan indicated that she could not support the plan unless there was 5 million in the City's reserve fund.

13A1 Resolution No. 5926 - Resolution authorizing the sale of capital improvement revenue bonds in the maximum principal amount of $120,000,000 for the purposes of financing capital improvement projects in the City and providing other matters properly relating thereto. (Downtown Events Center).

It was moved by Councilperson Aiazzi, seconded by Councilperson Haschеff to uphold the recommendation and pass and adopt Resolution No. 5926.

Motion carried with Councilpersons Rigdon and Sferrazza-Hogan voting Nay and Councilperson Harsh voting Nay.

.3A2 Resolution No. Resolution of intent proposing the issuance of and authorizing the publication of notices relating to the general obligation (limited tax) capital improvement bonds (additionally secured by pledged revenues) with the maximum principal amount of $120,000,000 for the purposes of financing capital improvement projects in the City and providing other matters properly relating thereto. (Downtown Events Center)

NO ACTION WAS TAKEN ON THIS ITEM.

MAYOR GRIFFIN ABSENT 6:20 P.M.

ASSISTANT MAYOR RIGDON PRESIDING.

7 **FIRST READING ORDINANCES**

7A Bill No. 5837 - Ordinance amending Title 2, Chapter 2.08 of the Reno Municipal Code entitled "Administration" pertaining to the Board of Massage Examiners to amend the requirements regarding reinstatement of a massage therapist license after more than twelve months has expired.

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to refer Bill No. 5837 to the Committee of the Whole.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

Agenda Item No.

6 **RESOLUTIONS**

6A Resolution No. 5927 - Resolution authorizing the filing of an application with the State of Nevada Department of Conservation and Natural Resources for the 2002 Nevada Recreational Trails Program.

It was moved by Councilperson Aiazzi, seconded by Councilperson Doyle to pass and adopt Resolution No. 5927.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

6B Resolution No. 5928 - Resolution Directing the Regional Transportation Commission and Lumos and Associates Inc., through the City Engineer, to prepare and submit plans and cost estimates for the 2002 Special Assessment District No.1.

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to pass and adopt Resolution No. 5928.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

6C Resolution No. Resolution Honoring the life of Moya Olsen Lear.

THIS ITEM WAS DEFERRED TO THE NEXT REGULAR MEETING.

SECOND READING ORDINANCES

8A Bill No. 5829 - Ordinance to amend Title 18, Chapter 18.06, entitled "Zoning" of the Reno Municipal Code regarding the definition of Single Room Occupancy (SRO), providing standards for SROs and congregate care facilities and permitting congregate care facilities in an NC zone; together with other matters properly relating thereto.

It was moved by Councilperson Aiazzi, seconded by Councilperson Haschеff to pass and adopt Bill No. 5829, Ordinance No. 5294.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

8B Bill No. 5825 - Ordinance to amend Ordinance No. 5271 which amended Title 2, Chapter 2.10, Article III Sections 2.10.200 and 2.10.230 of the Reno Municipal Code Entitled Room Tax by amending the boundaries of the area within which the additional one and one half percent room tax will be collected.

Ms. Roberta Ross, representing Ross Manor, indicated that although at prior meetings on this issue, she had asked that Ross Manor be exempt from the new Room Tax, she is no longer requesting the exemption. Ms. Ross continued that compromise has been reached with the RSCVA and her issues will be addressed at that level.

Ms. Ruth Wheeler, 53 High Street, agreed with Ms. Ross and also withdrew her request for an exemption from the additional Room Tax ordinance.

Discussion ensued with respect to the Truckee River Lodging House property owner by Mr. Bob Rusk and whether or not his property should be excluded from the boundaries of the additional room tax.

8B Bill No. 5825 - Ordinance to amend Ordinance No. 5271 which amended Title 2, Chapter 2.10, Article III Sections 2.10.200 and 2.10.230 of the Reno Municipal Code Entitled Room Tax by amending the boundaries of the area within which the additional one and one half percent room tax will be collected, continued:

It was moved by Councilperson Haschеff, seconded by Councilperson Aiazzi to continue this item for two weeks to allow staff the opportunity to address the boundary distance issue with respect to Mr. Rusk's property.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

7B Staff Report: Bill No. A request for final approval of the SPD Handbook and Ordinance to amend Chapter 18.06, of the Reno Municipal Code entitled "Zoning" rezoning to Specific Plan District a ±6.1 acre site located at the southeast corner of Plumb Lane and Arlington Avenue. Case No. LDC01-00363 (Plumgate).

Ms. Particia Davis, Dartmouth Drive resident, requested a delay in any final action on the recent changes made to this case to allow the neighboring residents the opportunity to review those amendments.

Mr. Roderick Sage, Dartmouth Drive, pointed out that he does not believe the proper discrepancies in the handbook have been addressed and he requested this item be postpones.

Mr. David Mousel, representing the area residents, concurred with the previous speakers and asked that this item be deferred until all of the contested issues can be resolved.

Mr. John Webster Brown, area resident, stated that he the individual who originally appealed this case and he is not in agreement with the amendments that are being proposed. He asked the Council to defer action on approval of the handbook.

Ms. Cheryl Ryan, Senior Planner, explained the changes that have been made to the original layout of the plan.

Councilperson Aiazzi suggested that this item be continued for two weeks to allow the neighbors to meet with the developer to discuss the changes and perhaps reach an agreement prior to Council approving the handbook.

Councilperson Hascheff requested a red-line draft of this project at the next meeting.

It was moved by Councilperson Aiazzi, seconded by Councilperson Hascheff to continue this item to the January 22, 2002 Meeting at 1:00 p.m. with direction to staff to return with a red-line draft of the changes being made to this project and how it differs from what was previously approved.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

Agenda Item No.

9 **CITY CLERK**

9A Appointments to Boards and Commission - Financial Advisory Board.

It was moved by Councilperson Hascheff, seconded by Councilperson Aiazzi to appoint Marcia Martin, William Thomas and William Bowers to the Financial Advisory Board.

Motion carried with Councilperson Harsh and Mayor Griffin absent.

COUNCILPERSON HARSH PRESENT 7:10 P.M.

0 **FIRE**

10A Staff Report: Direction to staff regarding participation in the Washoe County Committee regarding formation of a Regional Fire Protection Agency.

In response to Councilperson Doyle, Councilperson Hascheff restated the intent of the motion he made at the December 18, 2001 joint meeting: The City of Reno staff should work with Washoe County on the evaluation of the present contract and review the formation of a Regional Fire Protection Agency on a dual track mode.

Councilperson Doyle stated that she believes the intent of the Regional Fire Board was to determine whether not the financial implications of the of the consolidated contract would warrant the formation of a Regional Fire Protection Agency.

It was moved by Councilperson Hascheff, seconded by Councilperson Sferrazza-Hogan to direct staff to work with Washoe County and other agencies to evaluate the present contract and review the possibility of alternate methods of service delivery on a dual track mode.

The motion resulted in a tie with Councilpersons Rigdon, Doyle and Aiazzi voting Nay and Mayor Griffin absent.

12 **CITY MANAGER**

12A Presentation and potential direction to staff regarding recession planning.

Mr. Charles McNeely, City Manager, explained that he had asked each department to prepare for a recession by proposing a 5% budget savings. He added that this planning is simply precautionary and it will be based on the 2nd quarter numbers as to whether or not the plan would be implemented.

Councilperson Rigdon pointed out that he would like an item placed on the next agenda so that budget augmentations can be done. He would also like the Municipal Court on notice to let them know that the unfilled security positions may be put on hold and he would also like a report on the percentage of growth by each department over the past two years.

Councilperson Doyle requested that the employee "buyout program" be drafted and submitted to Council for review.

12A Presentation and potential direction to staff regarding recession planning, continued:

It was the determination of the Council to accept the report and direct staff to ensure civil service position will be filled for public safety and return with the issues brought forward by Councilpersons Rigdon and Doyle.

COUNCILPERSON DOYLE ABSENT 8:05 P.M.

11 **PUBLIC WORKS**

11A Staff Report: Office Space Improvements for City Hall.

Mr. Steve Varela, Director of Public Works, outlined the proposal for converting the Redevelopment Agency space in the west wing of City Hall into City Council Offices. He responded to questions from the

Council with respect to the remodel of those offices and the new entrance into the west side of City Hall.

It was moved by Councilperson Aiazzi, seconded by Councilperson Sferrazza-Hogan to approve the recommendation as outlined in the staff report with the understanding that if cost cuts are necessary, expenses for Council office space should be decreased first.

Motion carried with Councilperson Doyle and Mayor Griffin absent.

11B Staff Report: Lease of Office Space for Information Services.

It was moved by Councilperson Aiazzi, seconded by Councilperson Haschеff to approve the lease agreement.

Motion carried with Councilperson Doyle and Mayor Griffin absent.

11C. Staff Report: Contract for Design Services for Office Space Improvements at City Hall.

Councilperson Haschеff pointed out that indemnity clause in the contract and the indemnity clause in Attachment A are different.

Mr. Randall Edwards, Chief Deputy City Attorney, stated that the clause contained in the contract would be correct.

It was moved by Councilperson Aiazzi, seconded by Councilperson Haschеff to approve the contract with Barada-Fuetsch Architects for $100,000.00 as amended to address the indemnity clause.

Motion carried with Councilperson Doyle and Mayor Griffin absent.

The Meeting was adjourned at 8:25 p.m.

IN THE SUPREME COURT OF THE STATE OF NEVADA

SCENIC NEVADA, INC.

Appellant,

Case No. 65364

v.

CITY OF RENO, a Political Subdivision of the State of Nevada,

Respondent.

_____/

JOINT APPENDIX

VOL. 4

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SCENIC NEVADA, INC.

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CITY OF RENO
Planning Commission
January 4, 2012
Staff Report

Agenda # VIII-1
Ward # All

CASE NO.: AT-32-07 (Digital Off-premise Advertising Display including Light-Emitting Diode)

APPLICANT: City of Reno

REQUEST: This is a request for an amendment to the Reno Municipal Code Title 18 (Annexation and Land Development) by adding certain wording to and deleting certain wording from Chapter 18.16, "Signs", Article IX "Off-Premise Advertising Displays and Chapter 18.24 Article II (Definition of Words, Terms, and Phrases) to establish additional standards regarding Digital Off-premises Advertising Displays, including Light-Emitting Diode (LED), together with other matters properly relating thereto.

LOCATION: City-wide

PROPOSED MOTION: Based upon compliance with the applicable findings, I move to recommend that City Council approve the text amendment to the Reno Municipal Code by ordinance.

BACKGROUND: Regulations regarding the placement and frequency of off-premises advertising displays, or billboards, were first developed in the 1960's with the national Highway Beautification Act of 1965. This federal regulation was designed to reduce the visual impact and overexposure of billboards along the nation's federally funded highways. Similar laws have been passed by states and localities to further mitigate the negative impact of outdoor advertising on other roadways within their jurisdictions while upholding First Amendment guarantees to commercial and non-commercial advertisers.

Currently, four states have an outright ban on billboards and many municipalities have passed laws limiting or reducing the number of billboards allowed within city limits.

The citizens of Reno passed a voter referendum in 2000 which prohibits the construction of new billboards within the city (General Election, Question R-1; certified 11-14-2000). Ordinances passed by the City Council have defined where billboards are appropriate within the city. (Ord. No. 5295, § 1, 1-22-02; Ord. No. 5189, § 1, 9-26-00; Ord. No. 5195, § 1, 10-10-00; Ord. No. 5208, § 1, 11-14-00; Ord. No. 5215, § 1, 1-23-01; Ord. No. 5595, § 1, 9-8-04; Ord. No. 5821, § 1, 4-5-06; Ord. No. 5864, § 2, 8-23-06; Ord. No. 5461, § 1, 6-11-03; Ord. No. 5534, § 1, 1-14-01; Ord. No. 5729, § 8, 9-16-05).

Billboard technology continues to evolve. Original billboards were hand painted messages designed to catch the eye of a passing motorist or pedestrian. Reductions in supply costs along with a greater durability of new materials such as vinyl and plastic replaced hand-painted billboards. The addition of mechanical devices has increased the number of messages that can be displayed at one location. All of these methods result in a static message that does not create the illusion of movement but are designed to present a quick message to the viewer. Technological advances have now moved billboards into the digital age with light-emitting diodes (LEDs) displaying messages that are controlled by an on-site or off-site computer. This technology looks to replace the paint, vinyl and plastic on billboards. Paint, vinyl, or plastic messages require the use of materials that are limited in how they can be recycled. Digital Off-premises advertizing displays (digital billboards) have the advantage of reducing the amount of landfill waste that is produced by billboard advertisement. However, the amount of electricity required to operate a digital billboard is considerably greater than a standard billboard.

On May 24, 2011 Community Development staff held a workshop at 450 Sinclair, Community Development office, to discuss possibilities for a draft ordinance to allow electronic billboards within the City of Reno. Representatives from Scenic Nevada and the sing industry were in attendance. The minutes from that workshop are attached (Exhibit 1).

On September 20, 2011 Planning Commission held a workshop to discuss the issues surrounding electronic billboards in the City of Reno. Location, brightness, technology, the 2000 referendum, and duration of messages (flip-time) were all discussed. The minutes from that workshop are attached (Exhibit 2).

On October 5, 2011 the Planning Commission discussed potential wording for a draft ordinance to allow electronic billboards within the City of Reno. Planning Commission also requested that an item be placed on the November agenda to discuss and take action on allowing or not allowing electronic billboards with the City of Reno. The minutes from this item are attached (Exhibit 3).

On November 2, 2011 the Planning Commission discussed the possibility to continue to not allow electronic billboards with the City of Reno. It was decided through a vote to move forward with an ordinance to allow and regulate electronic billboards with the City of Reno. Discussion continued regarding the elements of the proposed draft ordinance. The draft minutes from this item are attached (Exhibit 4).

On December 7, 2011 the Planning Commission discussed additional thoughts and questions regarding electronic billboards. The draft minutes from this item are attached (Exhibit 5).

DIGITAL (LED) BACKGROUND: LEDs are tiny lights that when placed together in a large group can display a coherent message to the viewer. This technology provides outdoor advertisers the ability to sell multiple messages or display times per billboard as the digital billboards can display any number of messages that are loaded onto the computer. Digital billboards also have a greater opportunity to reach viewers because the illuminated message can be discernable from a greater distance than the typical vinyl or plastic message. Other technologies other than LED are also under development which may fit into the category of digital billboards.

A workshop on potential regulations regarding digital billboards was held on April 25, 2008. Members of the planning staff, sign industry and Scenic Nevada were present. At this meeting, staff presented the participants with some proposed guidelines for the use of digital billboards within the city in order to create a dialogue regarding how to best move forward with allowing digital billboards which balances the needs of the industry with those who have environmental and aesthetic concerns.

The industry group focused on their need to upgrade their facilities in order to remain competitive in the outdoor advertising market as well as to try and attract new business. Digital technology is an emerging technology that increases the ability of sign companies to compete.

Scenic Nevada, an interest group wanting to protect the environmental and aesthetic beauty of Reno, cited their concerns regarding the use of illuminated billboards and their impact on residents and future development, especially in the urban core and MU zoning districts. They are opposed to converting indirectly illuminated billboards to digital billboards due to the potential for light pollution and negative effects on the aesthetic qualities afforded to the citizens of Reno. Scenic Nevada also contends that the referendum on new billboards passed by the citizens of Reno in November, 2000 expressly prohibits the construction of new billboards and that the conversion of existing billboards to digital billboards violates that ban.

The City's interpretation of the 2000 referendum on billboards is that while it capped the total number of billboards allowed within the city, it does not preclude the repair, relocation, or upgrading of the existing billboard stock within the city. The proposed regulation is in response to that interpretation and will provide guidance for billboard owners who wish to modify their current billboard inventories with the new digital technology. Digital billboards will be required to meet all the requirements contained in Article IX: Off-premise Advertising Display.

ANALYSIS:

Location Criteria: Current off-premises advertising displays are regulated for land use compatibility by determining the distance from specific zoning designations or restriction

to certain types of roadways within the city. The proposed digital regulations would also address these areas of compatibility to minimize conflicts between incompatible uses.

The proposed regulation sets the minimum distance to those currently in code. In previous drafts of this ordinance, staff recommended that the placement criteria be increased for digital billboards as compared to changeable face (tri-vison) advertising displays and non-animated off premises advertising displays. This is due to the increased distance of legibility, increased number of advertizing faces, and increased brightness. Following discussion at previous Planning Commission meetings staff has amended this spacing requirement to match that of the "Tri-Vision" type signs which would be to have them spaced no closer than 1,000 feet from each other.

Billboards are currently restricted as to their distance to adjacent residentially zoned property. Current regulations restrict standard billboards to be located at least 300 feet from a residentially zoned property. In this draft, spacing from primary and secondary classroom buildings and residentially zoned and used parcels is proposed to increase to 1,000 lineal feet. This is due to the impact from brightness and increased distance of legibility of a digital billboard. It is proposed that this distance could be reduced through the approval of a special use permit.

Billboards are currently restricted on various roadways within the city. City Council directed staff to consider protecting high volume gateways and dark skies areas when considering where to propose allowing digital billboards. Digital billboards will meet all the current standards contained in Article IX: Off-premises Advertising Display. Staff recommends that the digital billboards only be located where there is an existing significant amount of ambient light. The proposed ordinance prohibits digital billboards north and west of McCarran Boulevard and south of Damonte Ranch Parkway.

Display Criteria: There is no commonly accepted standard for the minimum "dwell time" or time in which a message stays in place. The dwell times vary from jurisdiction to jurisdiction. St. Paul, Minnesota, has an ordinance that requires messages to stay in place for 12 seconds. Seattle, Washington has set 10 seconds as the minimum dwell time. The shortest dwell time surveyed was in Albuquerque, New Mexico which sets a minimum of 5 seconds. The longest dwell time surveyed was in Salt Lake City, UT which has 24 hours as the minimum dwell time. The Federal Highway Administration has identified between 4 and 10 seconds as acceptable with a recommendation of 8 seconds. The proposed regulation requires that the message remain fixed for at least 8 seconds.

The proposed maximum time allowed for the message display to change is 1 second. This is in line with current Reno Municipal Code regulations regarding animated signs, industry standards and other jurisdictions' regulations. Just as the current regulations in the Reno Municipal Code prohibit moving or full motion video displays on off-premise advertising, the proposed regulation would also prohibit this type of display. The

proposed ordinance includes a requirement that digital billboards contain a default design that will freeze the device in one position if a malfunction occurs.

The proposed ordinance prohibits the digital billboards from imitating official road signs and warning signs which are for the safety of motorists. This is consistent with current Reno Municipal Code restrictions for off-site and on-site advertising displays.

Luminance: The proposed regulations regarding sign luminance are intended to limit the impact of the brightness of the sign and increase the level of safety for motorists and pedestrians where digital billboards would be present. Under the proposed ordinance digital displays would not operate at a brightness level of more than 0.3 foot candles above ambient light at a pre-set distance outlined in the draft ordinance. This requires the signs to adjust brightness depending on the changing ambient light throughout the day.

Removal Requirements: In conformance with the ballot initiative passed by the voters in November, 2000 (approved by the voters November 7, 2000, General Election, Question R-1 – the results were certified by the City Council on November 14, 2000), no new billboards will be allowed without the removal of current existing or banked billboards. In order to be granted a permit for the construction of a digital billboard, the proposed regulation requires the removal of the equivalent of eight times the square footage of the proposed digital billboard. Up to 50% of the square footage can be obtained from banked receipts of removed billboards. This ratio further supports the ballot initiative by reducing the number of billboards within the City at a ratio equal to the number of messages that would be available per digital display structure.

Maintenance: The maintenance section requires the good up-keep of digital billboards in order to reduce the potential impact on the surrounding area and to maintain the billboard stock in a safe manner. The face of each permitted digital billboard shall contain a discernable message or graphic at all times.

Public Improvements: All public improvements will be addressed when a specific permit is requested.

Text Amendment: The proposed regulations would be applicable city-wide. This text amendment is in conformance with the Regional Plan and the City's Master Plan. The proposal is also in conformance with the November 7, 2000 General Election, Question R-1 and certified by Reno City Council on November 14, 2000.

In February, 2009 The Federal Highway Administration (FHWA) released The Effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update. A copy of this publication is attached to this staff report (Exhibit 6). The conclusion of that update "is that the current body of knowledge represents an inconclusive scientific result with regard to demonstrating detrimental driver safety

effects due to CEVMS exposure. This outcome points toward the importance of conducting carefully controlled and methodologically sound future research on the issue." Staff will continue to monitor future studies on this topic and report back to Planning Commission and City Council as new information becomes available.

At the December 8 Planning Commission meeting the Planning Commission requested that the City Attorney's office bring back information regarding *Scenic Arizona v. Board of Adjustment*, 2011 Ariz. App. LEXIS 193 (Nov. 17, 2011). Marilyn Craig's response is attached to the report (Exhibit 7).

LEGAL REQUIREMENTS:

RMC 18.06.302 Amendments to Text of Title 18

FINDINGS:

Amendments to Text of Title 18: In order to adopt an amendment to the text of Title 18, the planning commission and city council shall find the following:

(1) Text amendments shall be in substantial conformance with the statement of purpose and intent of this Title 18, as set forth Section 18.02.103.

(2) Text amendments shall be in substantial conformance with the Master Plan.

Staff: Claudia C. Hanson, AICP
Planning & Engineering Manager

EXPLANATION: Matter underlined is new; matter in brackets [ ] is material to be omitted.

BILL NO. _____

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE RENO MUNICIPAL CODE TITLE 18, "ANNEXATION AND LAND DEVELOPMENT", BY ADDING CERTAIN WORDING TO AND DELETING CERTAIN WORDING FROM CHAPTER 18.16, "SIGNS", OFF-PREMISE ADVERTISING DISPLAYS, AND SECTION 18.24.203.4570 (DEFINITION OF SIGN) TO ESTABLISH ADDITIONAL STANDARDS REGARDING DIGITAL OFF-PREMISES ADVERTISING DISPLAYS, INCLUDING LIGHT-EMITTING DIODE (LED), TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. Chapter 18.16 of the Reno Municipal Code is hereby amended by adding certain wording to and deleting certain wording from Chapter 18.16, the same to read as follows:

OFF-PREMISE ADVERTISING DISPLAYS

Section 18.16.901. Purpose and Intent.

(a) Recognizing that the City of Reno is a unique city in which public safety, maintenance, and enhancement of the city's esthetic qualities are important and effective in promoting quality of life for its inhabitants and the City of Reno's 24-hour gaming/ entertainment/ recreation/ tourism economy; recognizing that the promotion of tourism generates a commercial interest in the environmental attractiveness of the community; and recognizing that the visual landscape is more than a passive backdrop in that it shapes the character of our city, community, and region, the purpose of this article is to establish a comprehensive system for the regulation of the commercial use of off-premises advertising displays. It is intended that these regulations impose reasonable standards on the number, size, height, and location of off-premises advertising displays to prevent and alleviate needless distraction and clutter resulting from excessive and confusing off-premises advertising displays; to safeguard and enhance property values; and to promote the general welfare and public safety of the city's inhabitants and to promote the maintenance and enhancement of the city's esthetic qualities and improve the character of our city. It is further intended that these regulations provide one of the tools essential to the preservation and enhancement of the environment, thereby protecting an important aspect of the economy of the city which is instrumental in attracting those who come to visit, vacation, live, and trade and to permit noncommercial speech on any otherwise permissible sign.

(Ord. No. 5189, § 1, 9-26-00; Ord. No. 5195, § 1, 10-10-00; Ord. No. 5208, § 1, 11-14-00; Ord. No. 5215, § 1, 1-23-01; Ord. No. 5295, § 1, 1-22-02)

Section 18.16.902. Restrictions on Permanent Off-Premises Advertising Displays.

(a) The construction of new off-premises advertising displays/billboards is prohibited, and the City of Reno may not issue permits for their construction. (Approved by the voters at the November 7, 2000, General Election, Question R_1 - The results were certified by the city council on November 14, 2000).

(b) In no event shall the number of off-premises advertising displays exceed the number of existing off-premises advertising displays located within the city on November 14, 2000. This number shall include all applications for off-premises advertising displays approved in final action by the city on or before November 14, 2000 but unbuilt as well as those applications approved by a court of competent jurisdiction. In the event the city annexes property in another governing body's jurisdiction on or after November 14, 2000, the number of off-premises advertising displays located on such annexed property shall be included in the calculation of the number of existing off-premises advertising displays provided they were legal and existing in the governing body's jurisdiction when annexed to the city. For purposes of annexation, an application for a permanent off-premises advertising display approved in final action by the governing body, although unbuilt, shall be included in the calculation of the number of existing off-premises advertising displays as of November 14, 2000.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.903. Continued Use of Permanent Off-Premises Advertising Displays.

(a) All existing, legally established, permanent off-premises advertising displays, whether identified as conforming or nonconforming, are deemed conforming and may be continued and maintained at their current location.

(b) An existing, legally established, off-premises display[s] may be replaced in its original position with a new structure provided the area of the display surface is not increased and all requirements of Section 18.16.905(a)--(d) and (f)--(h) are met.

(c) For purposes of the chapter, an application for a permanent off-premises advertising display approved in final action by the city council, although unbuilt, is an existing permanent off-premises advertising display.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.904. Permanent Off-Premises Advertising Displays--Permitted and Prohibited Locations.

(a) Permitted Locations.

(1) Permanent off-premises advertising displays shall be permitted only in the I (Industrial), IB (Industrial Business), IC (Industrial Commercial), AC (Arterial Commercial), and CC (Community Commercial) District when within 100 feet of the edge of the right-of-way line of a major or minor arterial road or freeway

unless otherwise prohibited by this section.

(2) Off-premises advertising displays shall be permitted in the MU (Mixed Use) zoning district where off-premises advertising displays were permitted in the zoning district immediately preceding the Mixed Use zoning district and when within 100 feet of the edge of the right-of-way line of a major or minor arterial road or freeway unless other[-]wise prohibited by this section.

(b) Prohibited Locations.

(1) No permanent off-premises advertising display shall be erected closer to a street than the right-of-way line. No portion of any permanent off-premises advertising display may be placed on or extend over the right-of-way line of any street.

(2) No permanent off-premises advertising display, or part thereof, shall be located on any property without the consent of the owner, holder, lessee, agent, or trustee.

(3) No permanent off-premises advertising display shall be located within 300 feet of the centerline of the Truckee River or within 300 feet of the outer boundary of any areas designated~~[ed]~~ in this title as the Truckee River Corridor or its successor, or as open space adjacent to the Truckee River.

(4) No permanent off-premises advertising display shall be erected within 300 lineal feet of a residentially zoned parcel on the same side of the street. No permanent off-premises digital display shall be erected within 1,000 lineal feet of a primary or secondary school classroom building or a residentially zoned and used parcel without the approval of a special use permit.

(5) The number of permanent off-premises advertising displays located within 300 feet of the centerline of the following areas shall not exceed the number of legally existing permanent off-premises advertising displays in that location on November 14, 2000, as set forth in Section 18.16.902(b):

a. Interstate 80 from Robb Drive to Keystone Avenue.

b. U.S. 395 from Panther Drive to North McCarran Boulevard.

c. This subsection neither prohibits relocation of existing off-premises displays within the above locations nor reconstruction of existing off-premises advertising displays provided that the relocated and/or reconstructed permanent off-premises advertising display conforms with Article IX (Off-Premise Advertising Displays) of this chapter.

(6) No permanent off-premises advertising displays shall be located within 200 feet of the right-of-way of McCarran Boulevard except within the following locations:

a. Talbot Lane east to Mill Street.

b. Northtowne Lane west to Sutro Street.

c. This subsection neither prohibits relocation of existing off-premises displays within the above locations nor reconstruction of existing off-premises advertising displays provided that the relocated and/or reconstructed permanent off-premises advertising display conforms with Article IX (Off-Premise Advertising Displays) of this chapter.

(7) The number of permanent off-premises advertising displays within 300 feet of the centerline of U.S. 395 from Patriot Boulevard to Del Monte Lane shall not exceed seven permanent off-premises advertising displays. This subsection neither prohibits relocation of existing permanent off-premises displays within the above location nor reconstruction of existing off-premises advertising displays provided that the relocated and/or reconstructed permanent off-premises advertising display conforms with Article IX (Off-Premise Advertising Displays) of this chapter.

(8) The number of permanent off-premises advertising displays located within the following cooperative planning areas of the City of Reno that are regulated by Washoe County specific plans shall not exceed the number of legally existing off-premises permanent advertising displays as of their respective effective dates of annexation, as set forth in Section 18.16.920(b):

a. If permanent off-premises advertising displays are not specifically listed as an allowed use in the pertinent specific plan, permanent off-premises advertising displays shall be prohibited.

b. Reconstruction of an existing off-premises advertising display is allowed provided that the reconstructed off-premises advertising display conforms with Article IX (Off-Premise Advertising Displays) of this chapter.

(9) No permanent off-premises digital advertising display, or part thereof, shall be located within a Historic or Conservation District.

(10) No permanent off-premises digital advertising display, or part thereof, shall be located on a parcel which is adjacent to a collector or local street.

(11) No permanent off-premises digital advertising display, or part thereof, shall be located within the Residential/Mount Rose Interface area as defined within the Redfield Regional Center Plan.

(12) No off-premises digital advertising displays shall be located north of North McCarran, west of West McCarran or south of Damonte Ranch Parkway/Arrowcreek Parkway.

(13) All permanent off-premises digital displays shall meet all required spacing requirements.

(Ord. No. 5295, § 1, 1-22-02; Ord. No. 5595, §1, 9-8-04; Ord. No. 5821, § 1, 4-5-06; Ord. No. 5864, § 2, 8-23-06; Ord. No. 6155, § 1, 7-7-10)

Section 18.16.905. General Standards for Permanent Off-Premises Advertising Displays.

(a) The area of display surface shall be the sum total square feet of geometric area of display surfaces which comprise the total off-premises advertising display, except the structure. The computation of display surface of a back-to-back off-premises advertising display shall be limited to one display surface.

(b) No off-premises advertising display shall have a primary display surface, not including allowed cut-outs, greater than 672 square feet.

(c) A cut-out shall not exceed ten percent of the primary surface area of the off-premises display.

(d) No off-premises advertising display shall exceed 35 feet in height as measured from the surface of the road grade to which the sign is oriented to the highest point of the off-premises advertising display. If the off-premises advertising display is oriented to more than one road grade, the lowest road grade shall be the reference point.

(e) No off-premises advertising display shall be located closer than 750 feet to the next off-premises advertising display on either side of the same street. No animated off-premises advertising display shall be located closer than 1,000 feet to the next animated off-premises advertising on either side of the same street.

(f) All off-premises advertising displays shall be maintained in a clean and workmanlike condition. Surface shall be neatly painted. Property immediately surrounding off-premises advertising displays shall be maintained and kept free of litter, rubbish, weeds and debris. Any off-premises display deemed to be a nuisance as defined in RMC Section 8.22.100 shall be enforced as provided for in RMC Chapter 1.05.

(g) The permit number, as assigned by the administrator or the identity of the owners and his address shall be displayed on every permanent off-premises advertising display.

(h) The reverse side of a cut-out shall be dull and non-reflective.

(i) The reverse side of a single-face off-premises advertising display shall be dull and non-reflective.

(j) No tree may be removed for the purpose of erecting an off-premises advertising display. If an existing tree would impact the visibility of a site which otherwise meets the requirements of Sections 18.16.904 and 18.16.905, a variance to the spacing requirements may be requested. If the variance to the spacing requirements is denied as a final action, the tree may removed. If the variance to spacing requirements is approved, the tree may not be removed.

(k) Off-premises advertising displays shall be of monopole design.

(l) Excluding off-premises digital advertising displays, [A]all lighting shall be directed toward the off-premises advertising display.

(m) An off-premises advertising display may not contain more than two faces and one face may not be angled from the other face by more than 20 degrees as measured from the back of the structure supporting the face.

(n) In addition to the other standards indentified in Chapter 18.16 for off-premises advertising displays, off-premises digital displays shall comply with the following standards:

(1) Each message or copy shall remain fixed for a minimum of eight seconds.

(2) Maximum time allowed for transition between message displays shall be one second.

(3) Displays shall not be presented in motion, appear to be in motion or video.

(4) Illumination shall not change during a display period.

(5) Displays shall not flash or move.

(6) Displays shall not imitate or resemble any official traffic signal, traffic sign or other official warning signs.

(7) Displays shall contain a default design that will freeze the device in one position or solid black if a malfunction occurs.

(8) No cutouts shall be permitted.

(9) No display shall cause a glare or other condition that impairs the vision of the driver of any motor vehicle or obstructs or interferes with a driver's view of surrounding traffic situations.

(10) No display shall emit sounds, pyrotechnics, or odors.

(11) The face of each digital off-premises advertising display shall contain a discernable message or graphic at all times, excluding periods during which any of the following occur: repairs, replacement of parts, cleaning, regular maintenance, associated utility outage, natural disaster, or severe weather.

(12) Displays shall conform to the requirements for other Off-Premises Advertising Displays as established in Chapter 18.16. If there is a conflict between standards contained in other portions of Section 18.16 and this section, the more restrictive shall prevail.

(13) Luminance. Displays shall have a light sensing device that will adjust the brightness of the display as ambient light conditions change. Each application for a digital off-premises advertising display shall include a photometric plan. The photometric plan shall demonstrate the digital display's maximum light intensity, in foot candles above ambient light. Displays shall not operate at brightness levels of more than 0.3 foot candles above ambient light, as measured using a foot candle meter at a pre-set distance. Pre-set distances to measure the foot candles impact vary with the expected viewing distances of each size sign as follows:

TABLE 18.16-2 DISTANCE TO MEASURE LIGHT INTENSITY	
Face Size	Distance From Which to be Measured
12 feet x 25 feet (300 square feet)	150 feet
10.5 feet x 36 feet (378 square feet)	200 feet
14 feet x 48 feet (672 square feet)	250 feet

(14) Removal Requirements: Prior to the approval of any Digital Off-Premises Advertising Display application, documentation shall be provided demonstrating the removal of existing off-premises advertising displays, at a rate of eight times the square footage of the proposed display. A maximum of 50% of the square footage may be obtained through banked receipts. If the off-premises advertising displays which are proposed to be removed are located adjacent to South Virginia Street between California Avenue and Plumb Lane the removal rate shall be two times the square footage of the proposed display. No banked receipts shall be used for this exchange ratio. The removed off-premises advertising displays shall not be replaced or banked and the maximum number of signs allowed within the city shall be reduced by the number of signs exchanged.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.906. Reserved.

Section 18.16.907. Prohibited Types of Off-Premises Advertising Displays.

The following off-premises advertising displays are prohibited:

(a) Signs which emit noise via artificial devices.

(b) Roof signs.

(c) Signs which produce odor, sound, smoke, fire or other such emissions.

(d) Stacked signs.

(e) Temporary signs except as otherwise provided in Sections 18.16.910 and 18.16.911.

(f) Wall signs.

(g) Signs with more than two faces.

(h) Building wraps.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.908. Relocation of Existing, Legally Established Permanent Off-Premises Advertising Displays.

(a) Except as otherwise provided in this chapter, an existing, legally established, permanent off-premises advertising display may be relocated to a permitted location as described in Section 18.16.904 provided that such existing, legally established, permanent off-premises advertising display complies with all requirements of this chapter and Chapter 18.08, as amended.

(b) Two permits shall be required prior to relocation or banking of an existing, legally established, permanent off-premises advertising display, one to remove the existing off-premises advertising display from its current physical location and one to relocate the existing off-premises advertising display to a different physical location or to a bank of currently not erected but previously existing, legally-established, permanent off-premises advertising displays which are eligible to be erected on a physical location at a later date provided they comply with all requirements of this chapter, as amended.

(c) A person who is granted a permit to remove an off-premises advertising display proposed to be relocated under this section shall remove the existing, legally established, permanent off-premises advertising display in all visual respects from the original location and return the site to a condition consistent with immediately surrounding area, unless otherwise required by the permit, within the time set by the permit and prior to the issuance of the permit to relocate the existing, legally established, permanent off-premises advertising display. A letter of credit may be required to guarantee removal of the existing off-premises advertising displays, including any parts located below ground, on property in which any governmental entity has a property interest.

(d) Existing, legally established, permanent off-premises advertising displays which have a display area less than the maximum allowed under Section 18.16.905 and are proposed to be increased in display area, shall require a two for one removal to relocation ratio prior to issuance of the permit for relocation. The number of allowed off-premises existing, legally established, permanent advertising displays under Section 18.16.902(b) will be reduced accordingly.

(e) A person who requests a permit to relocate an existing, legally established, permanent off-premises advertising display shall:

(1) Identify the existing, legally established, permanent advertising display to be relocated, by number assigned by the City of Reno.

(2) Present to the community development department a notarized statement from the owner(s) of the existing, legally established, permanent advertising display to be relocated that he/they has/have removed, or caused to be removed, the existing, legally established, permanent off-premises advertising display in accordance with subsection (c) above.

(3) The owner of an existing, legally established, permanent advertising display that has been removed and banked pursuant to subsection (b) has fifteen years in which to apply for and obtain a permit to relocate the existing, legally established, permanent advertising display. The fifteen years shall run from the date the city approves all work performed under subsection (c), in writing, and/or releases the letter of credit. The permit to relocate an existing, legally established, permanent off-premises advertising display may be sold or otherwise conveyed at the discretion of the owner. If the banked advertising displays are not used within the fifteen years they will become unrelocatable.

(4) Nothing in this section shall be construed to mandate relocation of any existing, legally established, permanent off-premises advertising display.

(f) From and after the effective date of this ordinance and for a period of 120 days, the city shall not file nor accept any applications nor issue permits to relocate any off-premises advertising display onto or off of property annexed subject to the stipulation in the "Verdi" litigation or the settlement agreement in the "Verdi" litigation or any interim stipulations in the Reno-Stead Corridor Plan or newly annexed properties subject to the settlement agreement in the regional planning litigation. Copies of these stipulations and/or settlement agreements shall be maintained by the city clerk.

(Ord. No. 5295, § 1, 1-22-02; Ord. No. 5461, § 1, 6-11-03; Ord. No. 5534, § 1, 1-14-04)

Section 18.16.909. Permanent Off-Premises Advertising Displays-Reporting.

Each sign company licensed to do business in the city must report to the administrator the size, height, location and location and building permit number of each off-premises advertising display owned by a company and located within the city on July first by July fifteenth of each year.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.910. Temporary Off-Premises Advertising Displays

(a) Off-premises temporary advertising displays are allowed without permit on private property in any zoning district with the permission of the owner(s), holder(s) lessee(s), agent(s), or trustee(s) as applicable, when the temporary off-premises advertising displays:

(1) Are located in any zoning district within one-half radial mile of the site on which the activity will take place;

(2) Shall be a maximum of six square feet;

(3) Shall be designed to be stable under all weather conditions, including high winds;

(4) Shall not obstruct the vision triangle as defined set forth in Section 18.12.902 nor traffic control device or impair access to a sidewalk, street, driveway, bus stop, or fire hydrant; and

(5) Displayed for less than 12 hours each day, no earlier than 6:00 a.m. nor later than 9:00 p.m.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.911. Temporary Off-Premises Advertising Displays–Special Events.

A holder of a special event's permit may apply for a building permit pursuant to RMC Chapter 14 to erect a temporary off-premises advertising display promoting the special event provided the temporary off-premises advertising display:

(a) Complies with Article IX (Off-Premise Advertising Displays) of this chapter, as applicable;

(b) The applicant has obtained a permit to hold a special event;

(c) The proposal complies with city policies if the applicant seeks to use city owned improvements such as poles designed for temporary signs or buildings;

(d) Such off-premises advertising displays, when permitted shall not be installed prior to 30 days before and shall be removed within ten after the special event advertised;

(e) The temporary off-premises advertising display shall not exceed 100 square feet;

(f) The temporary off-premises advertising display shall be designed to be stable under all weather conditions, including high winds; and

(g) The temporary off-premises advertising display shall not obstruct the sight distance triangle as defined in Section 18.12.902 nor a traffic control device or impair access to a sidewalk, street, highway, driveway, bus stop or fire hydrant.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.912. Reserved.

Section 18.16.913. Abandoned Off-Premises Advertising Displays.

(a) Abandonment is the cessation of the right to continue the existence of a permanent off-

premise advertising display:

(1) Under existing law;

(2) When a state of disrepair exists because of substantial tearing, chipping, or missing material 30 days after receipt of notice sent pursuant to RMC Chapter 1.05;

(3) When there is no current business license in existence for the owner(s) of the off-premises advertising display; or

(4) When there has been no display for a period of one year with respect to a permanent off-premises advertising display.

(b) Any off-premises advertising display determined to be abandoned shall reduce the number of off-premises advertising displays allowed under section 18.16.902(b).

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.914. Time Limitations on Review of Applications for Off-Premises Advertising Displays.

The following are time limitations on the pertinent decision-maker to review applications for off-premises advertising displays as applicable:

(a) The administrator shall review and make a decision regarding an application for an off-premises display within five working days of the date the application is filed-stamped by the community development department, on the appropriate form and with payment of the appropriate fee, if any.

(b) The administrator shall review and make a decision regarding an application for a temporary or special events off-premises advertising display within two working days of the date the application is filed-stamped by the community development department, on the appropriate form and with the appropriate fee, if any.

(c) If the hearing examiner or the planning commission review the application, hearing examiner or the planning commission shall hold a public hearing within 65 days of the date the application is filed-stamped with the community development department.

(d) The hearing examiner or planning commission shall make its decision within 30 days from the date of the opening of the public hearing.

(e) The city council shall make its decision within 30 days of the date the appeal is filed-stamped with the city clerk on the appropriate form and payment of the appropriate fee.

(f) If the applicant requests a continuance or a specified time or date for the matter to be hear, the time lines provided herein are deemed waived.

(Ord. No. 5295, § 1, 1-22-02; Ord. No. 5729, § 8, 9-16-05)

Section 18.16.960. Appeal of Administrator's Decision.

(a) Aggrieved persons may appeal the administrator's decision to the City Council by filing a written appeal setting forth how they are aggrieved and the reasons for the appeal within five days of the administrator's written decision.

(b) The City Clerk shall set the hearing before the City Council at the next available City Council meeting at least 15 days in the future.

Section 18.16.965. Judicial Review.

(a) Judicial review may be sought may be sought in accordance with Chapter 34 of the NRS.

(b) If the city denies a "First Amendment" application, the city will institute legal proceedings within ten working days of its final action to determine in an adversarial proceeding the constitutionality of the denial on prior restrain grounds, unless otherwise waived by the applicant. For purposes of this subsection, a "First Amendment" application is one in which the applicant has inserted the words "First Amendment" in the caption of the application.

(Ord. No. 5295, § 1, 1-22-02)

Section 18.16.970. Decisions regarding Off-Premises Advertising Display.

(a) Decisions shall be in writing.

(b) Decisions shall include an explanation setting forth the reasons for the decisions.

Section 18.16.995. Noncommercial Speech is allowed whenever Commercial Speech is allowed.

(a) Speech which proposes a commercial transaction and no more or expression related solely to the economic interests of the speaker and its audience is commercial speech.

(b) Any noncommercial speech is allowed wherever commercial speech is permitted.

Section 18.16.1000. Regulated Off-Premises Advertising Display.

All off-premises signs erected or located in the city, which are not exempted by federal or state law, are subject to the provisions of this Article of Chapter 18 and Chapter 14.

Section 18.16.1010. Permit Required.

Except as otherwise provided, no person may erect, enlarge, alter, (except for normal maintenance) or relocate within the city, any sign without first having obtained a sign permit.

SECTION 2. Chapter 18.24 of the Reno Municipal Code is hereby amended to establish additional standards regarding Digital Off-premises Advertising Displays, including Light-Emitting Diode (LED) from Section 18.24.203.4570, the same to read as follows:

Section 18.24.203.4570. Sign.

A design or device displayed to the public for the purpose of identifying, advertising or promoting the interests of any person, persons, firm, corporation or other entity by conveying an advertising message, a non-commercial message or attracting the attention of the public. This definition shall include all parts of such a device, including its structure and supports and shall also include balloons, flags, banners, building wrap, pennants, streamers, canopies, or other devices which are used to attract the attention of the public, whether or not they convey a specific advertising message.

The definition of "sign" above includes the following specific sign types, which are further defined below:

1. Abandoned sign means a sign which has not been maintained in accordance with the provisions of this ordinance for a period in excess of 90 days following legal notice from the zoning administrator to the owner of property and the owner of the advertising display that said sign does not meet minimum maintenance standards or the cessation of the right to continue the use of an off-premises advertising display.

2. Advertising display means any arrangement of material or symbols erected, constructed, carved, painted, shaped or otherwise created for the purpose of advertising or promoting the commercial interests of any person, persons, firm, corporation, or other entity, located in view of the general public. This definition shall include signs, billboards, posters, graphic advertising messages, flags, banners, balloons, building wrap, canopies, pennants, streamers, or other devices which used to attract attention, advertising copy, accessory signs and similar displays, but shall not include courtesy bus benches bearing advertising placed in public rights-of-way and covered by the City of Reno/Regional Transportation Commission Franchise Agreement. Advertising structure means any structure or device erected for the purpose of supporting any sign or other advertising display, and the framework of the sign. For the purposes of sign or advertising display removal, the removal shall include advertising structures.

3. Animated sign. A sign which meets the definition of changeable sign as contained in this chapter or a tri-vision display.
(Ord. No. 5295, § 1, 1-22-02)

4. Architectural graphic means a painted design, mural, relief, mosaic or similar feature of an artistic nature which is incorporated into the architectural design of a building and conveys no advertising message.

5. Area identification sign means a permanent, decorative sign used to identify a neighborhood, subdivision, commercial or office complex, industrial district or similar distinct area of the community.

6. Awning. (See canopy).

7. Back-to-back sign means a structure with two parallel and directly opposite signs with their faces oriented in opposite directions. A back-to-back sign shall constitute one off-premises sign or billboard.

8. Banner means a temporary sign made of any on-rigid fabric-like material that is mounted to a pole at one or more edges. National flags, state or municipal flags shall not be considered banners.

9. Billboard. (See off-premises advertising display).

10. Building wrap. A sign applied to or painted on, all or a portion of a building exterior wall(s). Building wraps include the application of a flexible material to a building containing an off-premises advertising display.
(Ord. No. 5295, § 1, 1-22-02)

11. Canopy sign means a sign affixed or applied to the exterior facing surface or surfaces of a building or freestanding canopy. Canopy signs may not project above the roof line. Signs attached to a canopy will be considered a wall sign when flashed back to the canopy.

12. Changeable sign means a sign whose informational content can be changed or altered by manual or electric, electro-mechanical, or electronic means. Changeable signs include the following types:

a. Manually activated. Signs whose alphabetic, pictographic, or symbolic informational content can be changed or altered by manual means. A common example of this type of manually changeable sign would be a Tri-Vision type display.

b. Electrically activated. Signs whose alphabetic, pictographic, or symbolic informational content can be changed or altered on a fixed display surface composed of electrically illuminated or mechanically driven changeable segments. Includes the following two types:

[e.] 1. Fixed message electronic signs. Signs whose basic informational content has been preprogrammed to include only certain types of information projection, such as time, temperature, predictable traffic conditions, or other events subject to prior programming.

[d.] 2. Computer controlled variable message electronic signs. These are [S]signs whose informational content can be changed or altered by means of computer-driven electronic impulses. A common example of this type of sign would be a Digital display.

13. Community directory sign means a sign, or a group of signs designed as a single display, which gives information.

14. Directional sign means a permanent sign which directs the flow of traffic or pedestrians on private property

15. Directory sign means a sign, or a group of signs designed as a single display, which gives information about the location of businesses, buildings or addresses within a residential, office, commercial or industrial complex.

16. Electronic readerboard. (See changeable signs, electrically activated).

17. Facing or surface. The surface of a sign upon, against, or through which the message is displaced or illustrated.

18. Flashing sign means a sign which uses blinking, flashing or intermittent illumination, either direct, or indirect or internal.

19. Freestanding sign means a sign which is supported by its own structure apart from a building.

20. Inflatable sign means any device which is supported by air pressure or inflated with air or gas which is used to attract the attention of the public, whether or not it displays any specific advertising message.

21. Mobile sign means a sign attached to or suspended from any type of vehicle, other than normal identification of the business owned and served by the vehicle. Mobile signs shall not include those normally painted on or attached permanently to a franchised mass-transit vehicle or taxicab, nor shall mobile signs include special events signs.

22. Official sign means any sign erected by or at the direction of a governmental agency.

23. Off-premises advertising display. Any arrangement of material, words, symbols or any other display erected, constructed, carved, painted, shaped or otherwise created for the purpose of advertising or promoting the commercial interests of any person, persons, firm, corporation or other entity, located in view of the general public, which is not principally sold, available or otherwise provided on the premises on which the display is located. Any display which is composed of at least 80 percent of on-premises display is an on-premises sign. An off-premises advertising display includes its structure. Off-premises advertising displays are commonly called billboards.

(Ord. No. 5295, § 1, 1-22-02)

24. Off-premises advertising display, permanent. A permanent off-premises advertising display is a sign displayed for more than 12 hours in a day and for longer than 30 consecutive days, except signs for special events.

25. Off-premises advertising display, conforming permanent. An off-premises advertising device that is constructed or erected in conformance with all applicable local ordinances and codes in effect on the date a building permit is issued for the off-premises advertising display.

(Ord. No. 5295, § 1, 1-22-02)

26. Off-premises advertising display, temporary. A temporary off-premises advertising display is a sign displayed only temporarily and is not permanently mounted.

27. On-premises sign. Any arrangement of material, words, symbols or any other display erected, constructed, carved, painted, shaped or otherwise created for the purpose of advertising or promoting the commercial interests of any person, persons, firm, corporation or other entity, located in view of the general public, which is principally sold, available or otherwise provided on the premises on which the display is located. Any display which is composed of at least 80 percent of on-premises display is an on-premises sign.

28. Pennant means a temporary sign made of any lightweight plastic, fabric, or other material, whether or not containing a message of any kind, suspended from a rope, wire, string, or other similar device usually in series, designed to move in the wind.

29. Permanent sign means any sign which is designed, constructed and affixed at the site in such a manner that it cannot be conveniently moved from place to place.

30. Pole sign means any sign that is supported by a pole (sometimes more than one) and otherwise separated from other structures, buildings, and the ground by air.

31. Portable sign means any sign which is designed and constructed in such a manner that it can conveniently be moved from place to place. This definition shall include cardboard, paper, fabric, canvas and plastic banners and signs.

32. Projecting sign other than a wall sign, which projects from and is supported by a wall of a building or structure.

33. Roof sign means any sign located on the roof, of a building and either supported by the roof or by an independent structural frame. A sign which is attached flat against the wall of a penthouse or other similar roof structure or architectural blade shall not be considered a roof sign that does not extend above the roof line.

34. Stacked sign means two or more off-premises signs affixed to the same standards which are not back-to-back signs and which vary in height from the ground.

35. Temporary sign means a sign which is which is not permanently mounted and is designed and constructed in such a manner that it can be conveniently moved from place to place and is allowed by Chapter 18.16 to remain in use for a limited time only.

36. Wall sign means a sign attached to or erected against the wall of a building or structure with the exposed face of the sign in a parallel plane to the plane of the wall.

37. Wind sign means any display or series of displays, banners, flags, balloons or other objects designed and fashioned in such a manner as to move when subjected to wind pressure.

(Ord. No. 5189, § 1, 9-26-00; Ord. No. 5195, § 3, 10-10-00; Ord. No. 5242, § 8, 5-22-01; Ord. No. 5294, § 2, 1-8-02; Ord. No. 5729, § 11, 9-14-05; Ord. No. 5762, § 3, 11-16-05)

SECTION 3: Should any section, clause, or provision of this Ordinance be declared by a court of competent jurisdiction to be unconstitutional or invalid, that decision shall not affect the validity of the ordinance as a whole or any part thereof other than the part declared to be unconstitutional or invalid.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this ___ day of _____, ___, by the following vote of the Council:

AYES:_____

NAYS:_____

ABSTAIN:_____ABSENT:_____

APPROVED this _____ day of _____, ___.

_____
MAYOR OF THE CITY OF RENO

ATTEST:

_____
CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA

EFFECTIVE DATE:

AT-32-07 (Digital Off-Premise Advertising Display including Light-Emitting Diode) - ord - CCH.doc

any improvement or replacement, it has to comply with new spacing requirements and he believes the industry is on board with that.

Ms. Brekhus has observed that it seems like the City has a difficult time administering the existing code and keeping an accurate inventory of billboards. She thinks this ordinance applies another layer of administrative activity and concentration. With the reduced staffing level, the City does not have the capacity to do it and doesn't think CD has the capacity or staff to verify or to move forward.

The last billboard survey that Ms. Wray received was in July 2009, almost three years ago. Ms. Hanson advised that we are in the process of contacting all owners of billboards. We are trying to get information from individual owners and catching up with those few. We should have a new survey in the near future.

Ms. Hanson referred to school separation and spacing. Mr. West has seen a lot of digital ordinances around the country and very rarely sees any reference to schools. Ms. Hanson stated that this was brought up by Scenic Nevada at the last hearing with angles, and if visible from classrooms and outdoor recreation areas. Ms. Wray added and also when kids drop off their kids at school and streets they are driving on. Mr. West stated that Clear Channel just entered into an agreement with the school district in Albuquerque, New Mexico where they are installing signs on school district property for purposes of generating revenue for the school district. Mr. Schulte, Yesco, stated that there are several communities across the country which have done that. Mr West doesn't know if the billboards are that big of a distraction but would hate for an opportunity for school districts to be eliminated by this.

Ms. Hanson had a question about zoning. Mr. Schulte asked that when that came up regarding school districts, how was that worded? Scenic NV brought up that they didn't want it visible or distractions to students if they were sitting in a classroom and being able to see the sign changing. Also included were drop off areas and recreation areas from the campus, but basically distracting students from doing what they are supposed to be doing when they are at school. Mr. Schulte asked if the PC commented and Ms. Hanson replied yes, they did discuss the angles of the signs and the degree. They discussed 45 degree angle from the property, if near school, what angle would it be directed to or away from the school property. The PC decided it was not going to be solved that night and ended the discussion.

Ms. Hanson thinks everyone is in agreement on Historical Conservation Districts and scenic byways.

Mr West pointed out a technical issue on Item L regarding NDOT approval. An NDOT permit application requires a City of Reno signature so it is a chicken and egg. In the City of Sparks, technically it goes through the planning approval and review and essentially, then it comes back to planning for signature. Ms. Hanson stated that there are other NDOT issues like that. Mr. West stated even if said that it is required where applicable, but it is not applicable in every situation.

Ms. Hanson discussed #3–Section A–Display Criteria. This section was the most detailed one. It would be very difficult to enforce this level of detailed requirement. The main issue would be flip time. Hours of operation keeps coming up from various people. She has seen it in various cities in ordinances where billboards are shut off from midnight - 4:00. It is based on light

intrusion. Ms. Hanson threw in 11:00 - 6:00 because those are the hours of operation required for Special Use Permits. We could put it in a special use permit also for 11:00 - 6:00 in certain areas. That is another option. Mr. West's understanding of the SUP requirement is that it is for a 24 hour operation that is typically associated with a retail center or more importantly with gaming or a food/beverage location that turns into a bar. The idea of a SUP is to let folks know that people may be there late, getting rowdy, making noise, potentially creating issues, etc. These signs don't make noise, create issues or get into fights. These are two totally separate issues. Ms. Hanson advised that on the SUP, in most cases it would be okay, but in certain cases it may not be. In certain areas it may not be because of location or lighting in that certain area. Maybe it would be allowed from 11-6, but we need to look at it on a case by case basis.

Mr. West stated that there are other ways to look at the light intrusion side of it. He believes that NITS is an antiquated system of measuring the output of the sign. The more modern and appropriate means is the foot candle standard. This is recommended by AAA and everyone else. It is in our operating criteria based on .3 foot candles over ambient light so that photo cells that are real time are reading what is going on every couple of minutes with outside light and adjusting the output accordingly. One of the more recent ideas catching on is the use of photo metric plans. We work with lighting professionals and prepare a photo metric plan prior to installation that would provide the necessary assurances so you won't get the light spillage that folks are concerned about.

Ms. Wray has been on the NAB for 8 years, and there are complaints other than about the lighting about the billboards being intrusive. People don't know why they are approved and don't know about Special Use Permits.

Ms. Brekhus had a question about the first sentence in A. Is it the City and industry's position that a minimum of 15 seconds...is it not regulated? Mr. West stated we have some concerns about 15 seconds. Ms. Brekhus questioned if it is an unnecessary restriction on speech. Mr. West stated no, not from a speech perspective, but it is an interference with business practices and business models. It is the equivalent of having a restaurant open up and telling them that they can only charge $6 for a steak sandwich. We work on a national scale and have digitals in 37 markets. We go to national advertisers and say we can without question put your message up in 37 markets and here are the parameters. You will receive an 8 second flip for this time period and these are the impressions. It is more of an interference of the business model.

Mr. West stated that there is actually a memo from the Federal Highway Administration dated September 25, 2007 that actually indicates that digital billboards are in compliance with the Federal Highway Beautification Act. Also, in response to the message duration, it indicates that the duration of each display is generally bet 4 and 10 seconds, but 8 seconds is recommended. Ms. Hanson did see that and Mr. West gave Ms. Hanson a copy.

Ms. Hanson wondered why 8 seconds is recommended, and why not more? Less is obvious, but why not more? Mr. West stated that we often hear about the FHWA and their involvement in this process, and in some cases, we like to refer to them as the experts. Ms. Hanson stated that one Councilperson said that he wanted the flip on digital signs to be between 30 seconds and one minute. Mr. Schulte stated correct me if I'm wrong but NDOT recognizes that the flip time that is allowed at 6 seconds or longer allowed by State. Under our operating parameters, we work at 8 second intervals. Ms. Hanson stated that it is not less safe if it is longer. It is a business model and not a safety issue if it is longer. I would say there is a safety issue if less but not longer.

Mr. West – we can argue that fact also. There is lots of data that support the fact that they are not unsafe regardless. Mr. Schulte stated that we have had trivisions in the existing ordinance since its inception and allowed six second changes supported by the State of Nevada.

Ms. Hanson stated that they require a certain font size on the letters because if you have the small font, people have more difficult time reading. There is one state that had safety concerns if fonts are too small for people to read and people are staring at it too long because they can't figure out what the words say on the bottom. They had a minimum font size. We cannot get into content, but it has to be a good ad that people can actually read.

Mr. West stated that it's a challenge and we have very specific guidelines that we work under. Susan can speak to it more. As one of the leaders in the industry, it has been kind of an education process with our advertisers. They tend to think I have this message up over here and it worked great, and we are going to throw it onto digital, and it is not always apples to apples. There are different standards for requirements, size of lettering, things like that. Whether that is something that needs to be codified or put into operating parameters is open for debate.

Ms. Hanson would be open to suggestions. We don't want to regulate copy in any way, but if you think there is anything that would be appropriate to require certain letter size or contrast or whatever it is, you are the experts on what makes it more readable and what would be the standards that would potentially go into the code. Mr. West can send over creative guidelines on text. Basically, use large text, bold fonts, stick to one message or idea. Be short and sweet and avoid white backgrounds. Ms. Hanson requested a copy of the guidelines.

Regarding the font issue, Ms. Holthouser thinks it would be difficult for the City to regulate, but the reality is that if clients come up with wanting something that is too small, the ad is not going to work with them. What we have been doing with some advertisers is put on single copy and tell the advertisers that this is what it is going to look like. Usually that is the story right there, and they get it and they revise the artwork. They did that for the River Festival that was downtown. They made recommendations that they should make the logo bigger and take away some copy and the client didn't want to do that. They saw it up the first day, and didn't like it. That is the beauty of digital; you can fix it right then.

Mr. Schulte stated that another outside force that they don't have a lot of control over, especially with Clear Channel, is dealing with consistency in national advertisers and multiple markets. They want the same ad consistent ad across the country. They want it to look the same. When I drive through Missouri, Nebraska, Nevada and California, it has got to look the same. We are dealing with ad agencies which can be very insistent because it is their creation. There is some truth to that in terms of consistency of the ad itself. I saw it here and there, and it has an impact because I saw it multiple times.

Mr. West asked what section we are working down through. Ms. Hanson stated that we are going through the points, but if you need to jump to something else, that is fine. Mr. West – Regarding Section 3D, such advertising device will contain a default design that will freeze the device in one position if a malfunction occurs. We were just thinking if you added "or black" after "in one position". Ms. Hanson agreed.

Mr. West stated that in 6 where it has maintenance requirements, because it claims that the advertising display shall contain a discernable message or graphic at all times. We need to have some provision for repairs to be able to essentially be able to shut it down. I think I have some language that I proposed on that. It is ambiguous; it doesn't provide timeframes. Ms. Hanson advised that if you have some wording, that would be okay.

Ms. Craig requested a remedy for that section If not in compliance and not being repaired and not being maintained, what is the remedy? There is no remedy listed.

Ms. Brekhus asked where they are all deemed conforming and Ms. Hanson responded 86903A.

Ms. Craig asked if anybody had a remedy language they wanted to throw in. Mr. West thinks there are a couple of places in the code where the City needs remedy language. One area that is vague is the inventory. Inventory shall be submitted or what? It does not provide the "or what" or specific timeframes. We are all on board with providing and making sure everyone understands clearly what inventory is and what banked inventory is and providing a little more detail.

Mr. Schulte stated that part of the remedy is in itself controlled by the billboard companies because we have controls that look at this inventory on a weekly basis. But, our biggest controller is our advertiser. If it isn't working, they want a credit and we don't want to give credits. So we want them working as often as possible. So, we are self controlled from a remedy standpoint. But, that doesn't solve your legal issue that you are thinking about, Marilyn. Ms. Hanson stated that it is your best interest to keep them working. Mr. Schulte added and to the customer and community. We put up a lot of public service announcements, and we want to make sure they are displayed properly and equally as the other advertisers are.

Ms. Craig asked for Mr. Schulte to clarify are you saying that we don't need a section on maintenance requirements? Mr. Schulte doesn't think that we do, but I am just saying that there is already a built in remedy, but not a legal remedy. Ms. Craig added you know very well that I am looking at legal, what can we do to you? Mr. Schulte stated that unfortunately, I have run into this in other areas and with other contractors. It is not the guys sitting around this table that you need to worry about. There are some remote operators, not necessarily in this area, who don't keep an eye on their products. I understand your need to protect yourself.

Ms. Hanson asked if there was anything before 4C. Mr. West stated that regarding Item 4 in its entirety, I want to thank Scenic Nevada because they gave a really good example in their PowerPoint presentation. By industry standards, this is a poor example of digital. This is what happens when you regulate the output by NITS and not by foot candles based on ambient light. This was set to a maximum daytime setting, and then it got overcast and it severely affected the ambient light, and what happens is you get a blown board. You have been working on this since 2007, and this is very dynamic since the technology is changing and a lot of new stuff is going on.

Mr. West just brought a copy of a proposed replacement for section 4 that would really just change that standard. Also from an enforcement standpoint, you can get a foot candle measuring device for a couple of hundred dollars where a NIT device is a couple of thousand. A lot of the complaints and consternation has to do with that intrusion of light and if we can control it

relative to the ambient light. Ms. Hanson thinks that PC would like to discuss how signs can actually adjust through the day. Mr. West can bring that in and the necessary technical folks.

Ms. Hanson asked if there was anything else on 4. Lori? Jenny? Then let's move onto 5. At Council, the discussion on the replacement or removal ratio was all over the place. Ms. Hanson had very wide direction from Council. The Mayor wanted to look at the ratio of regular compared to digital. Ms. Sferrazza wanted to take down the ones that don't meet spacing requirements. Ms. Hanson asked if there were any comments on proposed ratios.

Mr. West already expressed concerns about the use of flat square footage and thinks six to one is excessive. Regarding the removal of one existing non-conforming, his concern is if looking at entirely new location, idea is to take one structure down and put up new structure and have a trade in on banked credits. There are a lot of instances where existing structures do meet various requirements for installation of digital and we could do it on structure that is there. Obviously, we would have to be conforming, meeting setbacks and things of that nature. He is hoping to see is the use of existing structures or banked credits to satisfy that requirement.

Mr. West stated that the whole intent of the 2001 vote by Scenic Nevada was to cap the number of boards at that time. Or maybe that wasn't their intent, but it was how everything was interpreted at the end of the day by the time it went to the Supreme Court and came back. It fairly clearly states that we set that number based on what it was and from there it was the intent of the City of Reno to reduce that number going forward. CCO has been very aggressively taking down structures where they need to be taken down and trying to do our part to clean up the areas. At the end of the day, if we have some kind of ratio for banked credits for digital installation, that is the best assurance we can provide that at the end of the day we are going to reduce the overall number of boards. I would say with digital we can be very effective in reducing the overall number of boards in the community and the impact that you guys are worried about. I just think six to one is a little excessive.

Ms. Wray - Features and characteristics are different. I don't understand the last statement about the bank and I don't see how that is reducing the number of signs on the street by taking credits out of the bank. Mr. West – At the end of the day, as long as the bank receipt is sitting there, it has the potential of becoming a sign within the community, and my understanding is that you are trying to reduce the overall number of signs. And, if through this mechanism, if we can provide a more efficient, more modern product and reduce the overall liability, it seems like it would be a win for both sides.

Ms. Wray stated that the vote was about putting a ban on it, and then having attrition when the billboard comes down so it does not go into the bank. It just never existed again. So eventually we would get fewer and fewer billboards. I don't see his approach reducing the number of signs. Mr. West stated that the legal interpretation he read puts a cap in place with the bank credit system based on wording of the ballot question. We are not going to re-open what happened in 2000/2001.

Ms. Hanson – one item that we can bring in is what happens after the 10 years? Code says that the bank receipt is effective for 10 years, and I have discussed this with people from the sign industry and Scenic Nevada. And from what I gather, it is everybody's understanding, that it goes away after 10 years.

Ms. Craig will write a legal interpretation because she believes miscommunication has occurred on all of this. Council can change how it stands now. Ms. Hanson agreed. Ms. Craig stated that because I don't know want I think right now, if you want some adjustments, you guys can talk about that and how you want to proceed from there. Ms. Hanson stated that we will come up with a recommendation and will need that interpretation before we come to an ultimate recommendation on the exchange rate because that will make a difference on the exchange rate. If a banked receipt is nine years old and in the 10th year it goes away or becomes a free agent, for lack of a better term, then that is going to change.

Ms. Craig stated that she can appreciate that. She thinks we have gone beyond that in resolving the legal interpretations and issues as we have worked through that. So, Ms. Craig just needs to write that out and work through that and make sure everyone has the same understanding. Ms. Wray added she I would enjoy talking rather than just in generalities. Outside of planning and zoning regulations, what is the government's responsibility to implement? We are also listening very carefully to the non-conformance issues, what is non-conforming and who is in non-conformance. She would like to touch on those two issues. Ms. Craig stated that we will keep it to what happens at the end of 10 years and then proceed in that fashion. There are a myriad of questions and thousands of legal questions.

Ms. Hanson thinks those are the main issues of the draft ordinance. She just wanted to touch on those issues so we are all focused on the same issues. The question that PC came up with was who is conducting the safety study and Ms. Hanson has that. The other question was who negotiated the original ordinance and Ms. Hanson advised that we can have that. Ms. Craig recalled that it was a major discussion that went on for some period of time and she remembers considerable participation.

Ms. Brekhus asked for clarification on whether the Supreme Court ruled on the ordinance or the initiative. She believes they just ruled on the validity of the initiative itself, not on the City's implementation of it. Mr. West believes that Ms. Brekhus is correct and then that language was used in various forms. Ms. Craig asked how the City interprets the language if it is ambiguous. She doesn't think there are any settlement agreements. The Supreme Court spoke and Council made its decision. Obviously, there were disagreements and everyone had a chance to persuade Council. Ms. Hanson can track down how the ordinance was written, but is not sure if it was a working group, City staff or PC, but we can do the research on that.

Ms. Hanson stated that we discussed before the comparison of energy used for electronic signs versus traditional signs. I would appreciate any information either side has for me on the amount of electricity used on electronic signs, and then materials that would be put into landfills, and the balance of the energy efficiencies of those items. Mr. West sought that information, but unfortunately the power consumption is proprietary by the manufacturers, at least Yesco and Techtronics. They won't share that information. I can tell you that it is becoming amazingly efficient. There are numerous claims by their opponents that billboards consume power equivalent to 14 houses. All this stuff is dynamic, and it is very old and antiquated information. Four years ago, when digital billboards were installed, a 400 amp meter service was required, which was the equivalent of 2 homes. The newer units are down to 80 amps, considerably less than one house to power that unit. Since we are paying that power bill, it is in our best interests to become more efficient and to reduce those bills. That is the best reference I can give you, but I think it is substantial.

Ms. Wray has some current information that an LED expert gave them, and she thinks the information is available on the website.

Mr. West stated that we have gone from 400 amps to 80 amps. Ms. Hanson will check with our environmental specialist on staff and see if he has any information. Mr. Hara asked if you guys get a power bill, wouldn't you know the power usage? That should be easy to figure out. Mr. West replied that he wishes it was that easy. There are multiple boards linked together on one bill. We have static and digital on one bill, and we are not getting a bill for just that one unit.

Ms. Hanson has covered everything that was brought up in past meetings, with PC, Council and these meetings. Are there any questions at this time? Our next step is to have a more technical and educational workshop with PC probably toward the end of summer to give them a background and some data to make them more knowledgeable on the topic in general.

Mr. Hara had one question as to the rationale for Point 3 – foot candles over ambient. Mr. West advised that it is essentially what has been developed in the industry as an industry standard.

Ms. Craig asked if there are signs around town, not necessarily billboards, on premises that are brighter than that? There are those that tend to stand out. Mr. West stated that there are a considerable amount of them. Unfortunately, he doesn't believe there is a luminescence standard within the on premise code and that can be a challenge. Ms. Hanson confirmed that there is not a luminescence standard yet.

Ms. Brekhus asked if the on premise ordinance in on the work program and if we would tackle that after this is tackled. Ms. Hanson stated that it is on the work program, but these are two separate issues that we have been asked to keep separate.

Ms. Hanson stated that the technical workshop is open to the public.

Ms. Hanson stated that the issues that we will be presenting to PC are known, so if you have any information that you want to share with us, please feel free to send that in, and we will put together some sort of presentation.

The meeting was adjourned at 5:10 p.m.

Exhibit 2

Reno City Planning Commission

WORKSHOP

MINUTES

Tuesday, September 20, 2011 ~ 5:00 p.m.

Reno City Hall – Council Chambers

One East First Street, Reno, Nevada

MEMBERS

Kevin Weiske, Chair
Dennis Romeo, Vice-Chair
Doug Coffman
Patrick Egan
Max Haltom
Dagny Stapleton
Jason Woosley

I. PLEDGE OF ALLEGIANCE

Chair Weiske led the Pledge of Allegiance.

II. ROLL CALL

Chair Weiske called the meeting to order at 5:03 p.m. A quorum was established

PRESENT: Doug Coffman, Patrick Egan, Max Haltom, Dennis Romeo, Dagny Stapleton, Kevin Weiske and Jason Woosley.

ABSENT: None.

Marilyn Craig – Deputy City Attorney, was also present.

Chair Weiske stated the purpose of this workshop is for the Planning Commission and the City of Reno Planning Staff to gather information regarding the future of electronic billboards in the City of Reno. It is not to make a recommendation to the City Council or to take a vote. It is not to discuss on-site building or property signage.

III. PUBLIC COMMENT - This item is for either general public comment or for public comment on an action item. If commenting on an action item, please place the Agenda Item number on the Request to Speak form.

None.

Chair Weiske asked if there was a common spokesman for the billboard industry.

Aaron West – Clear Channel Outdoor, stated that he would be speaking on Item No. VII of the agenda and would be the only one presenting.

Lori Wray – Scenic Nevada, stated that Chris Wicker and Mark Wray would be speaking on behalf of Scenic Nevada.

Chair Weiske stated that he would allow 30 minutes from each group to make their presentations combined or individual. Public Comments will be allowed after the break. The general public will be allowed 3 minutes each for their comments. The meeting will be stopped at 8:00 p.m. Another meeting will be scheduled if more time is needed.

IV. DISCUSSSION OF GENERAL ELECTION, QUESTION R-1 OF NOVEMBER, 2000 RELATING TO BILLBOARDS.

Marilyn Craig,.Deputy City Attorney, explained that there is litigation regarding billboards. Ms. Craig explained that in 2000 the initiative for billboards stated "that the construction of new, off-premises advertising displays/billboards is prohibited and the City of Reno may not issue permits for their construction." Subsequent to that time, there was a challenge to the initiative as to whether it was an appropriate topic for an initiative that ultimately went to the Supreme Court. The Supreme Court decided that it was an appropriate topic for the initiative and thereafter was codified into our code. Subsequent to that time, City Council allowed billboards to be banked, removed from a physical location and then put into a virtual location called a bank and moved to a new physical location. The same billboard in original position. That was essentially the code in 2000 for off premises advertising displays and billboards. As you know, a new sign code was adopted as of September 14th of this year.

Chair Weiske – we will go through the presentations and write down any questions and then at the end, we will bring those back to the Planning Commission and go through the list individually.

V. EXPLANATION AND DISCUSSION REGARDING EXISTING OFF-PREMISE ADVERTISING DISPLAY ORDINANCE AND POSSIBLE SECTIONS TO BE AMENDED.

Ms. Hanson will give a brief overview of why we are here and what we want you to think about until we bring back an ordinance. In 2009 staff received direction to bring through an ordinance through processes that considers allowing electronic billboards in the City of Reno. Currently they are not allowed within the City of Reno. There are some around town. The Indian Colony and Sparks do allow them. Washoe County does not allow them.

In 18.16.905(a) it states that "all lighting should be directed toward the off premise advertising display". It couldn't have the LED type of lighting. As Chairman Weiske stated, we are looking at off premise advertising and not on premise advertising. If you have questions about The Wild Orchid, Atlantis, Peppermill and car dealers on Kietzke, they are on premise signs.

Ms. Hanson has been going over some questions over last couple of months. There are 234 standing billboards and approx 50 in the bank. There is still one owner that we are debating, and we are finishing the inventory, so it might change by one. We have existing billboard ordinance 18.16.901 and we have copies outside. This portion of title 18 relates to off premises advertising. This is the section we are amending. We have added in portions amended by Council on Sept 14th.

Before you are minutes from the 2009 City Council meeting with discussion the last time this went to City Council regarding electronic billboards and their direction to staff. We were told to bring an ordinance back through the process addressing locations, exchange ratios and dark sky areas. Items to think about:

Do we want electronic billboards? Yes or no? If yes, then we need to go further into the ordinance to determine how to regulate.
Where and where do we not want to have electronic billboards? There are a number of theories. Some people think we shouldn't go into downtown and others think since downtown is the 24 hour portion of town, we should put them downtown.
South Virginia Street – this is where most people expect to see them or do we relocate them someplace else? Others believe S. Virginia is too cluttered as it is.
Are the two highways, 395 and 80, appropriate?
There is the distraction issue near the Spaghetti Bowl.
Should we have them in more remote darker areas to the south and the west and Verdi and Mogul? There are very limited signs there, just Terribles and Boomtown have on premise signs but there is not much lighting out there.
How about the North Valleys and the Reno Stead corridor joint plan? We did not allow billboards in the past, because Washoe County didn't allow them. That was changed with the last update of the plan, and they are now allowed in the joint plan area.

Dark skies areas – we don't know if they have dedicated ones. There are some neighborhoods that have dedicated themselves as dark sky areas. Where would you want them to relocate – where lighting is now or it is not now. That is a consideration.

Spacing is also an issue we want you to consider. On standard billboards, 750 feet is standard. Tri vision or animated is 1000 feet spacing from each other, but would 2000 feet be more appropriate?

How many electronic billboards should we allow? Should there be a cap or ratio to other billboards or population per square miles or miles of freeway? Do we want a cap? Do we want a specific number of them and the reason for that number?

The exchange rate has been a hot topic. If a company puts up an electronic billboard, what would they give up? They currently have to take down one or have one in the bank to exchange before putting up new one. How many would they give up to obtain an electronic billboard? Five, eight and ten were the options of what the exchange rates could be.

Should it be a standing billboard or a banked billboard to obtain the right to put up an electronic billboard?

The flip time is how long a message stays up. The minimum industry standard is 8-10 seconds, and it needs to flip immediately with no blending of messages. How long does each message appear on the screen? We are looking at various ordinances across the country. Eight to ten seconds is the standard but it is up to 20 minutes in Bloomington, MN. In Lincoln, Nebraska, they have a 10 second minimum, but they are turned off at midnight and turned back on at 5 am. Any of these options we can look into.

These are the key issues and topics. Listen to the following presentations and review the ordinances. You can bring back issues at future meetings for more discussion and direction.

VI. **PRESENTATION AND DISCUSSION FROM SCENIC NEVADA ON HOW TECHNOLOGY HAS REVOLUTIONIZED THE SIGN INDUSTRY SINCE VOTERS RESTRICTED NEW BILLBOARDS IN THE CITY OF RENO IN 2000 AND THE NEED FOR DETERMINING COMMUNITY PREFERENCES REGARDING SIGNAGE, ALONG WITH A PRESENTATION ON THE IMPACTS OF ELECTRONIC BILLBOARDS ON DRIVER DISTRACTION; AND INFORMATION ON DIGITAL SIGNS AND ENERGY USAGE.**

Chair Weiske: Scenic Nevada will have 30 minutes as a whole.

Chris Wicker will be speaking on behalf of Scenic Nevada. He will address primarily the ordinance that was passed as a result of the ballot question. In 2000 citizens came to the Planning Commission and made a strong case. The way things stood, billboards were out of control in the City Of Reno along new highways and blocking wonderful scenic views. Many people considered them a blight on our community and that they took away the beauty of the city, particularly with Reno being a tourist city, and they added clutter to the landscape and driver distraction.

Mr. Wicker added that the Planning Commission did not pay attention to the concerns of citizens, so their concerns were taken to the City Council, who did not pay attention to the concerns of the citizens at that time. So, the citizens of Reno put forth a ballot question to limit billboards in this community which was challenged vigorously by the billboard industry. They tried to circulate a deceptive competing ballot question, but it was withdrawn. The ballot question went to election. The billboard industry outspent Citizens for Scenic Reno something to the order of a couple hundred thousand dollars to a thousand dollars. The ballot question won by a significant majority with the citizens of Reno.

This was Passed and subsequently enacted into law of the City of Reno: "The construction of new off premise advertising displays/billboards is prohibited and the City of Reno may not issue permits for their construction.

After ballot questions survived the courts and the Nevada Supreme Court upheld its validity as a ballot question, it was required by law and enacted as an ordinance by the City of Reno 18.16.902(a). After it became law of the City of Reno, the City Council went about subverting the will of the voters. One instance was relocation of billboards, so the City Council enacted an inconsistent ordinance and allowed the billboard companies to relocate billboards. For example, there is a billboard on old Highway 40 and they were permitted to relocate that billboard say on new sections of Highway 395 as long as the maximum number of billboards did not increase.

Going back to the language of the ballot issue passed by the citizens "Construction of new off premises advertising displays/billboards is prohibited". It is difficult to explain to anybody

when someone asks about construction of new billboards going up behind my business when there was a ballot question prohibiting construction of off premises advertising displays/billboards. That is the relocation policy enacted by City Council. If the Scenic Nevada group had funds, we would have taken it to court at that time, but we don't have unlimited funds as the billboard industry seems to have.

Marilyn mentioned that these billboards would be relocated and the same billboard reconstructed somewhere else. With all due respect, that is not true. A new billboard is constructed at the new location. You have all seen the new billboards go up with sturdy single pillar steel structures that require a structural permit and a permit from the City of Reno. They were put in place where no billboards were ever put before. It is a clear violation of the ordinance.

Digital billboards were prohibited because it requires lighting of sign to be oriented toward the display. The more important restriction on the construction of billboards is back in the ballot question "Construction of new off premises advertising displays/billboards is prohibited and the City may not issue permits for their construction".

If somebody comes before this board and asks to construct a digital billboard, and they are going to tear down an existing billboard and construct a digital billboard, how is that not a new off premises advertising display? It becomes a completely different type of advertising display which defies logic and the English language. City ordinance 18.16.902(a) absolutely prohibits construction of digital billboards. If the Planning Commission was to devise an ordinance that would allow construction of digital billboards, setting forth all of the different conditions, such as flip times, lumens of light, exchange rate and size of display, that is going to be a new off premises advertising display/billboard, and that is prohibited by Reno city ordinances.

I am here to ask you and give you my opinion that digital billboards should be a non starter unless you change the ordinance that was enacted by the City of Reno. If you are going to do that, the Planning Commission should be honest, and say well this is a new time and we are going to go against the will of the voters and enact a new ordinance and throw out the one passed by the citizens in 2000. The City Council should take the same bull by the horns. I think it is a travesty for the Planning Commission or the City Council to try to pretend that digital billboards are not new off premise advertising displays/billboards because they are prohibited under current law by ordinance as voted by the citizens of Reno.

Mark Wray, attorney by profession in Reno, spoke next. He is a civil business lawyer and also a member of Scenic Nevada. He has attended workshops with billboard industry reps and Scenic Nevada and others. Questions by city staff by Ms. Hanson was series of questions, such as do we want electronic billboards, where, spacing, caps, exchange rates, standing or banked ones that get exchanged, flip time? Her first question is the controlling one, "Do we want electronic billboards"? Who is we? You know what the voters want – no new billboards. They said it in their ordinance.

You have material in your packet which includes a more recent poll in which the question was asked as you may know, except for land designated to Native Americans, digital billboards are not allowed in the Reno City limits. The City of Reno is considering changing the law to allow new construction of digital billboards. Do you think the City of Reno should change the law and allow billboards in the City of Reno? A scientific poll was done. 600 people were polled with 28% yes, 55% no and 17% not sure. The attitude of the people who live in Reno has not changed. Not only the existing law but the ordinance has not changed.

We are now talking about a quantum leap. We are not talking about a board that displays an advertisement for a month or so. We are talking about multiple advertisements in a repeating fashion, digitally emblazoning. You have seen what they are like, and I hope you have seen our presentation. They are bright and intrusive, and the fact is that they use so much energy. New billboards are a whole new type of billboard. I amplify the comments made by Mr. Wicker and say that this is way beyond what the people of Reno would have allowed if they knew the new billboards were not only not going to be the kind we had before but the kind proposed now. In the poll of 600 respondents, the clearest question is "if you were looking outside your window from your home or workplace, would you object to seeing a digital billboard"? 66% said yes, 28% said no and 6% were not sure.

People in the billboard industry have to recognize that they don't want a billboard in their block or in front of their business blocking their view. They don't want that any more than you do. The billboard industry says it is economics and I don't care what the people want. Nobody wants them in front of them, even people in the billboard industry.

We also submitted a petition from many people. We set up a booth about whether they believed the ordinance that prohibited off premise advertising displays/billboards should continue to be prohibited? 350 signatures were collected in a few hours. The answer has to be no.

On this ballot question where it says "construction of new off premises advertising displays/billboards is prohibited and the City may not issue permits, that is in the conjunctive. Not only is the construction prohibited, but the issuance of permits is also prohibited. Voters wanted to say we can't even consider issuing a permit. There has been litigation involving billboards that went to the Supreme Court, and the law remains the same. Mr. Wray doesn't see any reason why it should be changed. The Planning Commission should follow the law that exists that people said should be the law. Sparks and the Native American tribe allow them, but they don't have that law.

Issues about where they should be, spacing, how many, exchange rate, flip time, all of those questions are questions that should not be addressed. By addressing those questions, you are saying you have gotten past the law.

Chair Weiske requested that Ms. Fournier jot down 14 minutes and 56 seconds in case Scenic Nevada would like rebuttal time. We will do the same for Clear Channel.

VII. EXPLANATION AND DISCUSSION REGARDING TECHNICAL ASPECTS OF ELECTRONIC BILLBOARDS INCLUDING BUT NOT LIMITED TO LIGHTING STANDARDS, SPACING, FLIP TIMES, AND SAFETY STUDIES.

Next on our agenda are the technical aspects from the billboard industry. You will have 30 minutes

Aaron West, Clear Channel Outdoor, spoke next. Ms. Fournier restarted the clock. We heard about the absolute wording of the ballot question and how it related to possible injustices against everyone based on how they are interpreted and implemented into the ordinance. Ballot questions are tricky. They are an initiative question. As function of preparing an initiative, proponents of the initiative drafted the following arguments for passage and this argument was exactly what was used by the City Attorney's office to provide information to the City Council whether they should go forward in the manner as they did.

"There are 278 off premise billboards existing in the City. This initiative petition prohibits any increase in the present number of billboards. This initiative does not ban existing billboards, but it does place a cap on their numbers. The voters' approval of the initiative would therefore have no significant affect on the current level of business on the billboard industry in the City of Reno. The logic for the City Attorney's office going forward was that the argument for passage speaks in terms of a cap on the number of billboards, the actual number of billboards is provided in the argument, speaks to stopping the growth of new billboards and that the initiative will provide that an increased number of billboards will be prohibited and not that it is anticipated that the number will decrease. It further states that passage will have no significant affect on the current level of business of the billboard industry. The meaning of new billboard would not relate to location of the billboard.

Regarding public opinion polls, I have never seen a poll that didn't provide the results of the person paying for the poll. When the RGJ ran a story about the Scenic Nevada poll and offered their own online version, the results came back very different and over 64% were in favor of digital billboards.

What are digital billboards? They are changeable message displays and nothing new. They are currently allowed under the City of Reno sign ordinance and in place throughout the community. They are Trivisions, a mechanical system that alternates through three separate and distinct messages at eight second intervals. They are just modernization of this technology. There are many misconceptions and false impressions about digital billboards and many do not make the distinction between them and on premises signage. They think digital billboards have animation, flashing lights, rolling texts, when in fact they are static messages with no movement, no motion and no video.

Are they legal? There was a memo from the FHA in 2007 clarifying they are not a violation of the Lady Bird Johnson Act. There was operating criteria in this memo about the duration of messages and eight seconds was recommended.

This is not something unique to our area. There are 37 markets for Clear Channel with 650 locations nationwide. This is a modern way of changing copy. Currently a plastic vinyl wrap is printed on and there you go. The conversion to LED face eliminates land fill waste because those signs that are pulled down have to go somewhere. We are reducing vehicle use because we no longer have to send people out in their trucks and there is no climbing which increases safety. All changes are done via satellite link. LED technology for digital billboards consists of groupings of LEDs essentially size of pencil erasers in colors of blue, red and green. They are in rows, and there are louvers that reduce sky glow and light trespass. There are louvers over each row of LEDs, shielding that light that could venture up. LEDs are manufactured with refracting lens at the end of the diode focusing on the light into a directed beam. The focal point is 300 feet in front of the LED board. If you go 200 feet out in front of board and step out 20 feet, there is no impact on the ambient light.

Dimming capabilities of digital billboards is huge. The units installed in our community feature dimming capabilities. The data is fed to software and the brightness actually changes throughout the day and night. During midday, the bright sunlight display must operate at higher output level just to be able to be read. At 10 PM it is running at about 10% of capacity. This is the standard by the OAAA, our national industry association, and Clear Channel standards.

We use the nit standard or foot candle. Nits measure the maximum output at any one time. I feel the foot standard is much more applicable as interested in output of sign relative to ambient light. The lighting standards will not measure more than 0.3 foot candles over ambient light. At 250 feet, you should not exceed 0.3 foot candles over ambient light. Boards adjust within seconds.

Regarding the concerns of our opponents, Aaron showed a video to clarify. It included different locations and dates and distance from the camera. The video was shown again with lights off in chambers. One was at night with dimming capabilities. Left is the vinyl and right is the digital. It was a static message and the flips are so fast that you don't even recognize them. Then, at night time, it shows the affects of the dimming capabilities.

Another concern of opponents was traffic safety. Opponents would have you believe that billboards and especially digital billboards are a huge distraction. We should focus on those that lead to accidents. Use of phones while driving leads to accidents and thus that use has been regulated. We knew the information had to be unbiased information and above reproach, so five studies were done. The outdoor industry had no input on how the information was compiled. Accident data was documented and more than 160,000 accident records and approx. 69 digital billboard faces were analyzed. Study was done over course of time, 2007 through 2011, and the results were the same. They took sections of roads that had digitals installed and took accident data for three years prior to installation and 3 years after installation. Conclusion of every one of the evaluations was that there was no statistically significant relationship between accidents and digital billboards. They are safety neutral.

Unfortunately, the energy consumption is a function of proprietary information. The LED is a modernization. It is no different than going from a rotary phone compared to a mini computer in our pockets now. They have made amazing strides in efficiency. Yesco announced that digital billboards use one fourth of the power required just 6 years ago, and they anticipate another 25% decrease in 2011. The latest digital billboards only require a 60 amp power service whereas the average home runs on a 200 amp power service.

What we can do for you? Digital billboards are used for emergency messaging during natural disasters. This is an image in Oakland in response to the Japan earthquake. The content is relayed via satellite, so it is relayed in minutes and not days. In Tuscaloosa after a tornado destroyed the city, we immediately put messaging up on how to contact FEMA. They are such effective tools that Homeland Security directed FEMA to use digital billboards whenever possible.

Clear Channel Outdoors is committed to working with the regional Emergency Operations Center at the joint dispatch center so any situation of regional significance is routed through the REOC. If there is a situation, such as a flood downtown or a fire that closed down Geiger Grade, we let the public know how to avoid an area or what routes to take to stay out of harms way, and we are working to implement that right now. We still do have several initiatives that we work with daily, such as the Amber Alert, where they provide preemption of existing advertising. In order for Amber alert to be issued, we have to have certain pieces of information, such as names and vehicle descriptions. We work with local jurisdictions and get the message out there and help track down missing persons. Clear Channel will work with local jurisdictions and get the information.

Catching criminals – they have had tremendous success through a partnership with the FBI and recently the northeast rapist was caught within three weeks of digital billboards going up. An FBI spokesman stated that electronic billboard messages outpace the internet and rivals America's Most Wanted in catching criminals. They are so successful that they received the FBI Director's Reward for Excellence in Catching Criminals.

That is what Clear Channel can bring to the community. If the goal is to reduce the number of billboards, then digital billboards are the best bet. I hope you will consider the offer from the industry to remove three conventional faces for each digital installed.

Mr. Weiske requested Ms. Fournier to put 10 minutes and 30 seconds on her notepad for Clear Channel. Mr. Weiske asked if Mr. Wray or Mr. Wicker would like to use their rebuttal time. Ms. Fournier put their remaining time up.

Chris Wicker of Scenic Nevada was pleased to see Mr. West did not try to claim that construction of dig billboard is not construction of a new billboard because it obviously is. Also, I am glad that he did not claim that they would not need a permit issued by the City of Reno for construction of new digital billboards.

What he did say is in the past the City has justified circumventing voters choices by pointing to one sentence in the arguments for passages that this initiative places a cap on billboards.

Yes, it does place a cap on billboards, but you have to look at the language of the initiative because the language of the initiative is the law, not the arguments for or against passage. Scenic Nevada never dreamed that the City Council would come up with a relocation plan to circumvent the will of the voters.

I suspect some of you are familiar with the ballot process, where you have arguments for and against passage and reply by the proponents and reply by the opponents. Reply by opponents is put together by the billboard industry. These are the words of the billboard industry "proponents of this initiative are incorrect when they state that the initiative will merely place a cap on the number of billboards allowed in the City of Reno. The wording on this initiative specifically prohibits building permits for any new billboards". So back then the billboard industry realized what this initiative does. Now that they have this relocation policy approved by the City of Reno and now that they are before you asking for new digital billboards, they ignore how they originally interpreted what the ballot language said. It is not subject to interpretation. Mr. Wicker doesn't think you can get any clearer than what the initiative says. No new billboards and no permits for their construction.

Mark Wray wanted to address democracy and the reference by Mr. West. He said what our opponents say about this and that. Our opponents are the citizens of Reno. As a lawyer, I deal with law all the time and accept law because legislature has passed it or people adopted an initiative. Regardless whether position, voted for or against, I accept that people voted on it. The question raised here was "Are the people smart enough to know what the initiative meant? Once law is the law, it is the law. The Poll that the billboard industry refers to in the RGJ was one of those polls that you click the button whether you are for or against it. As the poll went on, we noticed a strange thing that happened. In the very early hours before dawn in Reno, a large number of votes came from nowhere and the vote switched from 2/3 against billboards to being in favor of billboards. All of a sudden, there was unscientific flood of votes. We are not saying anyone is directly responsible for trying to influence vote, but when you have that sort of thing going on, that happens.

When people are viewing outside their homes or offices, they are still saying no new billboards.

Mr. Weiske asked if Mr. West would like rebut. Mr. Weiske asked Ms. Fournier to reset the clock for Mr. West's rebuttal.

Mr. West would like to address not arguing the point on the new billboards. We haven't jumped into that. They consider these to be conversions of existing structures and not new permits. The billboard face is actually personal property and not permitted. The structure itself is the permitted item. A permit is not required to change the display, but maybe an electric permit is required to wire the board. They are still willing to work with the City to reduce the overall number of boards in the community. South Virginia was brought up and multiple structures that create a cluttered effect. This could be an opportunity to do something about that. We do have a business to run. Out of the goodness of our hearts, we cannot mow down 10 structures, but if we could mow down 10 and put up two or convert to digital, then I think it is a win for the City. We can come to the table with offers to make

this right and look forward to discussing more of that in detail, but there is a tremendous community benefit and we can build on that.

Mr. Weiske closed the meeting to take a 10 minute break and to re-adjourn at 6:25.

We will leave it open and just take a break.

Upon return to the meeting, Mr. Weiske asked for disclosures from the Commissioners.

Commissioner Coffman has received numerous emails on this topic.
Chairman Weiske added the same with me.
Vice Chair Romeo has had numerous emails also and met with Scenic Nevada for coffee and met with Clean Channel also.
Commissioner Stapleton has received numerous emails.
Commissioner Egan has received numerous emails
Commissioner Haltom has received numerous emails and met with the Clear Channel rep.

Chairman Weiske advised that there is an agendized item which is public comment. He would like to hold public comment until the very end for general public comments from anybody who would still like to speak. Right now going to ask anybody here in the audience who would like to speak in favor of and in opposition to add additional information to presentations heard to fill out a request to speak form and to make their way up to the microphone after introducing yourself and speaking and then drop your card off to Ms. Fournier.

VIII. **PUBLIC COMMENT – This public comment item is to allow the public to provide general public comment and not for comment on individual action items contained on this Agenda.**

Chairman Weiske opened the meeting to public comment. Hearing and seeing none, Chairman Weiske closed that part of the public comment. He brought it back to the Planning Commission for questions of any of the presenters we have heard from this evening including staff and legal.

Commissioner Coffman asked Ms. Hanson "what is the Sparks ordinance"? Ms. Hanson tried to get to their webpage earlier but couldn't access their ordinance but will get that to you. Commissioner Coffman felt that we received the Reader's Digest version of the ordinance and requested the total ballot question. Ms. Hanson will get that wording.

Commissioner Coffman asked Mr. Wray about the poll. Mr. Wray responded that it was a survey. It was a Scenic Nevada Reno billboard survey and the were done by MJ Ross Group that does surveys. There is a couple page summary of what the survey was like, and it has demographics and percentages of responses, and that is what he is quoting from. If it is not in the packet, Mr. Wray can make more copies.

Vice Chair Romeo asked Mr. Wray "is it the position of Scenic Nevada that it is an all or nothing proposition"? There is no leeway and no room for negotiation? Is there some room to negotiate because I know when I had coffee it seemed like there was some willingness to do some talking.

Mr. Wray – i speak as a member and not as an attorney for Scenic Nevada. Yes, it is an all or nothing proposition. The law is the law, just exactly what you said.

Mr. Romeo asked Mr. West if the proposal from the industry is a 3 to 1 ratio for digital to conventional for retirement. I have an email from a former commissioner that there should be a start on the reduction, and I am looking at the number of banked boards and my question is how many advertisements can you put on a digital board with the best control technology? Mr. West answered eight spots. Recognizing if you have an advertiser who is only getting one eighth of the time, they are not willing to spend the same money. Vice Chair Romeo asked if there would be a willingness on the part of the industry to negotiate different numbers on that ratio? Is 3 to 1 that the first step of the bargaining process? Mr. West answered yes.

Vice Chair Romeo asked what would be a reasonable flip time for the industry?

Mr. West – the Federal High Administration recommends an eight second flip. Other side is from a business model perspective where we have 37 jurisdictions, 650 faces. When national sales folks go into a Pepsi and say we can take you into these markets and so many flips in so many days, it really starts to mess with the business model and I think it is minutia and don't think you want to get into legislating business. Mr. West will fall back on the FHA recommendation of eight seconds.

Vice Chair Romeo asked how far a car travels at 8 seconds at 65 MPH and would it be the same for interstate highway systems as for downtown? Vice Chair Romeo requested that Mr. West come back with that information.

Mr. West - if there were different results from crash test information that indicated electronic billboards were a distraction, they might have rethought if there was accident impact due to the billboards. There is zero negative impact so didn't cause them to look at that. Every situation is different and every board has a distinct read, where it sits, what other obstructions are in the way. There are several signs where NDOT signage is in the way, and they get excited if they can see 2 or 3 flips.

Vice Chair Romeo asked if there would be a willingness from the industry to give up some of the banked boards to go with ratio somewhere between 3 and 8.

Mr. West – because of the way the code is currently structured, it is all based on the banked so what he would propose is that whatever number that is times the square footage of structure to be put up and not just the number of faces. He doesn't want a situation where someone has five poster units and wants to put up a bulletin. The square footage side of it needs to be clarified.

Vice Chair Romeo asked if 4 or 5 smaller boards could be used to replace one larger board.

Mr. West – what happens if you take down one board? The code already clarifies that. If five banked receipts are required for square footage, then it implies that if you don't have banked receipts that you are going to take down a board and create a banked receipt and then use the banked receipt to satisfy that requirement.

Vice Chair Romeo – the argument for passage in the 2000 initiative was the number of boards was 278. The number he is now hearing is 234 existing and 50 in the bank. Ms. Hanson responded that it is different because of annexations. Mr. West can provide numbers on Sparks code. It provides for construction of billboards within industrial zones, with 1500 spacing between boards and 35 foot maximum height. Only caveat that allows digital in Sparks is the one sentence in the code that says the light shall shine onto the face.

Commissioner Woosley – It was brought up earlier new construction versus existing. You are just re facing an existing structure, so wouldn't you have to pull a permit to convert from vinyl to digital?

Ms. Hanson – it would be considered the same board. If switching from vinyl to electronic, it would still be the same structure. The electrical and support would be different. You would need a permit to adjust the existing structure.

Commissioner Woosley asked what is the industry recommending on the exchange rate? Ms. Hanson would like to revisit all aspects of it, but in previous drafts, there have been anywhere from the five to ten range from old draft ordinances.

Commissioner Woosley – asked Scenic Nevada about new construction of billboards and not wanting to look out your window at new billboards that weren't previously there. What is your stance if the same structure was converting to digital billboards?

Mr. Wicker – The structure would not be the same. Digital is frequently a lot heavier because of electronics. If it is the same foundation but build a new structure, how can face not be part of the billboard? Ordinance says itself "construction of new off premises advertising displays/billboards". If changing the billboard, how can you say it is not a new billboard? There are several things at work. If you are looking out your window and there is a billboard there already and they take it down and build a digital billboard, you still see a billboard out your window. I don't think that addresses the issue under the law if that is a new billboard for which you need to pull a permit. The ordinance as passed by the people of the City of Reno doesn't limit it to special use permit, construction permit, or electrical permit or business permit. It says no permits.

Commissioner Woosley asked Ms. Craig what is the intent of the law and are we getting too close to litigation? Ms. Craig replied that if you are asking Scenic Nevada, unless actually a member of it, they may have difficult time telling you what the intent was. We don't know

the intent of the people who voted for it, but I think you can ask the question of Scenic Nevada. Commissioner Woosley will hold that question.

Commissioner Woosley asked Mr. West if he agreed with Scenic Nevada that you would have to completely redo the structure to put up a digital billboard going back to exchange or construction or repurpose of existing billboard at an existing location. Mr. West replied that there are several situations where structures are suitable for installation for an LED face. To clarify, the industry perspective is this. Once you have a structure, whether it is a bulletin face or two poster faces or an LED face, those are the personal property side of it. I can appreciate where the City wants to get the revenue from building permits from installing that LED. There can be some minor modifications, but three months later, if we decide that business model is not working and we pull off faces and go back to bulletin faces, we are not going to get a refund.

As far as our opponents take on it, for 10 years Clear Channel Outdoor has been working under the current criteria. Within that 10 years, we have actually removed and relocated 36 structures, with new permits, new sites, new structures, under the current system. Where have they been over the past 10 years fighting these new structures and just now coming up as it relates to digital? The benefit of the system as it exists is you were comprehensive to say where you are willing to accept billboards. We know we don't want them in certain areas, such as at McCarran and Caughlin Ranch. We don't want them in certain sections of town. The code is very clear where they are allowed and what circumstances such as zoning and spacing requirements. The benefit to the community is that by allowing for relocation, we have a structure that doesn't currently comply with the code as it is written, but we can take that one down and go to another location where it does comply and relocate it there.

Commissioner Stapleton asked in terms of the current language in the ordinance, it says that lights should only shine onto the face, and this prohibits digital billboards because they are lit from behind? Ms. Hanson replied yes, that is correct.

Commissioner Egan asked Mr. West how many of the 284 billboards Clear Channel has control over and Mr. West replied that they have control over all of them. Typically billboard companies have a land lease in place for the site and then the structure is built and fully owned by the billboard company.

Commissioner Egan asked Mr. West if you were able to take 3 or 5 banked billboards and put up a dig billboard, would that require the consent of the land owner of that property? Mr. West's responded that our lease language is vague enough to allow for it, however, we prefer to have an ounce of caution and rewrite those leases and specifically include the language to allow for digital.

Commissioner Egan – you are familiar with Sparks city code and language. The lights facing the image, wasn't that the one discrepancy? Is there anything in the ordinances that discusses the issuance of permits? Mr. West is not aware of any in Sparks. He hasn't run into a situation in Sparks where we have just swapped out a face. There are times when a

structure is not suitable for retrofit and we build a new structure. It has been the latter and we have paid full permit fees to the City of Sparks. They are pretty significant.

Commissioner Haltom wanted to know the expression for selling advertising space as far as the number of impressions or viewings. Mr. West informed him that they are actually switching to a new standard called izons, based on DCS which takes into account primarily traffic counts and looks at the number of cars going by and they have some formula.

Mr. Haltom asked if there are two identical campaigns on two identical billboards, the price might vary depending on the number of izons and where is the izon data coming from? Clear Channel Outdoor's corporate office brings in consultants that go into different markets and evaluate that. And usually if we do a new structure that needs to be added into inventory, they ask for traffic counts. The analysis is site specific.

Commissioner Haltom asked staff in the future to provide areas where electronic billboards might be considered and he requested traffic counts or izons for these different locations, be it 395 or South Virginia or 4th and Mayberry. If that is a standard and that information is available, he thinks that would be an interesting piece of data for discussing exchange rates. Ms. Hanson may have some existing counts or may look at the capacity of streets.

Commissioner Haltom was wondering if there might be something more consistent that we could rely on instead of pulling data out of thin air and throwing out numbers, 3, 5, 8, 10 exchange rates in the areas that Claudia mentioned earlier.

Commissioner Haltom advised Commissioner Mr. Romeo that you would travel 762.67 feet in 8 seconds at 65 MPH.

Commissioner Coffman asked how long some of the structures have been up in Reno. According to Mr. West, he can go back to some leases in their files that date back to the 50s. Commissioner Coffman asked if there is a safety issue with some of these structures? Mr. West had shown slides with hurricanes where the structure withstood the wind. What is the advantage or is there an advantage of changing out a billboard from a two pole structure to one pole? What do they put up today? That's where Mr. West gets nervous. Ideally we would remove the existing structures that are less sightly and are lacking. We have a lot more flexible design to current codes that we can guarantee will sit there for next 30 years without issues.

Commissioner Coffman asked if there is a safety issue due to the weight of LED vs. the current billboards, and Mr. West advised him that we still have to go through all the structural engineering to make sure it works. Ms. Hanson advised that mono poles are required by new codes. If updating structures, it needs to become a single pole, which is required by code.

Mr. West advised Chairman Weiske that the billboards where the face is in multiple pieces and it rotates and has two or three faces is called trivision. There are six in Reno.

From an ordinance perspective, they are referred to as changeable or animated and per Ms. Hanson that is the correct language and there are six in the inventory. They rotate at eight second flips and can handle three messages and are allowed within the code. There is no exchange on a three to one. They are considered single face. Ms. Hanson added that the only difference is the spacing requirement on those which is 1000 instead of 750.

Chairman Weiske asked Mr. Wray as far as being a member of Scenic Nevada, is their position that this is an all or nothing proposition? But with new ordinance, if there was a way to start permanently reducing the number of billboards by allowing an LED lit sign, wouldn't that help the community by reducing the number of signs permanently?

Mr. Wray – whatever we enact if there were less billboards, would we be happy? The City of Reno defended itself through Marilyn Craig and we were not the primary party, that is why we believe the intent of the ordinance is that billboards will disappear over time and we will have less of them. It was not to replace them and therefore have a static number or a certain number. We want none more. Once they go away, they go away. That's what this law is about. No permits for any more new construction of billboards. It's construction and it's new.

Chairman Weiske stated that if a new billboard stands up for another 50 years, we have a billboard for another 50 years. But, if billboard operator wanted to come in and do an LED sign and was willing to give up 10 never to be built again, wouldn't that reduce the number quicker? Mr. Wray answered that it would reduce that number during that period of time while they didn't build more because we are trading one for three, but what you are basically asking people to agree to is to let them violate the law because this violation will make up for another one. That is contrary to my way of thinking. People said no new billboards. If your billboard is replaced because it is non-conforming, and there are many on South Virginia by my office, it should go away because the lease was lost or whatever and it should not be replaced at another location. What you are saying is that we can get rid of some by putting up new ones, and I am saying it violates the law to put up new one. And you are saying yes it does, it violates the law, but we are doing something better because of it. I don't think that justification works. If the goal was to have less and to replace them, the law would have said something different. That is my opinion, and I haven't asked Chris Wicker what he thinks about that. As a member, that's what our association believes the law says clearly. No new permits. How can you construe that any other way, Mr. Chairman? Any new permit violates the law.

Chairman Weiske – there are currently 284 and those 284 could remain for another 50 years or until they blow down or until a lease is gone or something kicks in to take it down. Mr. Wray added that we lost 50.

Chairman Weiske added that they are banked, so let's not talk about the banked ones. Let's not go there. Let's deal with 234 of them. If there was a way to reduce that number permanently and never to go back to it, wouldn't that be better for this community because we would have less in the air? Mr. Wray - yes, because less billboards are better. It's not our position that it is the thing to do for public policy reasons and it's the law. Chairman

added that he respects that, but he won't take one side of your statement without using the other side. I promise because I understand what you are saying.

Mr. Wray – I appeared to you all talking about billboards at specific sites. Remember the ones at the Spaghetti Bowl about 100 feet tall and Interstate 80 where they were filling in drainage way and putting in a new development for commercial, and the developer agreed to no new billboards. We have fought many battles over billboards over the past 10 years, and meanwhile, billboards have been disappearing. We are happy to see that. We don't want to see a new law coming in that allows all the billboards that can be built by this industry to the number they say it can be.

Chairman Weiske asked Mr. Wray when a law is voted on or an ordinance is enacted, over period of time, is it ever modified? Mr. Wray stated that once it is on the books, it becomes a law that is subject to being amended by the City Council, and I admit that laws do get changed over time. This is an example of a change in the law. The City Council has to say to the people in the community we understand what you want, but we are going to change the law. That's what has to happen. I think that's what should be understood.

Chairman Weiske – before moving on, I would like to say thank you to everyone who has addressed us this evening, staff, legal, the general public, the emails that I got, and I got a lot of them over the last week. I felt they were quality emails, respectful emails just the same as our testimony this evening. What is taking place tonight is information gathering so we can make a better decision and start to gain an opinion on how this issue before us will be dealt with in the very near future. Without the information and time that everybody has put into this right now, we wouldn't be able to make a quality decision down the road.

Staff has not put together a draft ordinance at this time, although that is what City Council has asked them to do. This is part of that process. This will be coming to the Planning Commission before long to make a recommendation and take a vote to City Council. That date has not been set yet and I know you will stay up on your emails and agendas. Conversation and emails between now and then are wonderful. If you hear something different or new information out there, send it to us. It is important because that will help us create our opinion down the road once a new draft ordinance is brought before the Planning Commission. Thank you everybody who has participated up to this point.

Ms. Hanson asked that Chairman Weiske add discussion for these items to the next agenda where we can bring back more information. Chairman Weiske asked staff to put this on our next Planning Commission agenda for October 5 so that can continue conversation and have an update of where we are. If commissioners feel we should have another workshop after and have time to digest what was brought before us tonight, let's have that discussion with me and Claudia and staff. We will talk about it as a group at our open meeting on October 5th or to re-agendize something or update of staff when we can look for the draft ordinance. Ms. Hanson will put that on the 5th agenda.

Chairman Weiske moved onto Item 8 – public comment. This item allows the public to provide general public comment and not for comment on individual action items contained

on this agenda. Is there anybody here that would like to speak anymore this evening? I have four requests to speak forms or public comment forms and they are all in opposition. They have some handwritten comments on them but no one wants to speak tonight.

Ms. Craig asked that those comments and names be read into the record.

Vice Chair Romeo read the public comment forms as follows:

Sue Smith does not wish to make a statement, but is in opposition. She is opposed to the proliferation of billboards. They are garbage on a stick and they decrease our scenic beauty.

Lori Wray does not wish to speak, but is in opposition. She is opposed to digital billboards. They are ugly, intrusive, distracting and a blight on our neighborhood and also are not permitted under law

John Harrah does not wish to make a statement, but is in opposition. Digital billboards represent new construction and are simply against the existing law already in place. Talking about criteria and ratio for digital billboards vs. standard billboards should not even be a point of discussion and should be reconsidered in the context of the existing law.

John Walker does not wish to make a statement, but is in opposition. Voting is voting, and the law is the law. The judicial review has been concluded. The rights of the voters have been withheld, yet we are here today. Why is that?

Chairman Weiske closed public comment.

IX. ADJOURNMENT (For Possible Action)

Chair Weiske adjourned the meeting at 7:13 p.m.

AS APPROVED BY THE RENO CITY PLANNING COMMISSION IN SESSION ON NOVEMBER 2, 2011.

Exhibit 3

Excerpts of the Reno City Planning Commission Meeting Minutes
October 5, 2011
Page 1

VII. UPDATE, DISCUSSION AND POSSIBLE DIRECTION TO STAFF REGARDING ELECTRONIC BILLBOARD ORDINANCE. (For Possible Action)

Chair Weiske opened the public hearing.

Claudia Hanson – Planning and Engineering Manager, stated that at the workshop a couple of weeks ago information regarding electronic billboards was presented. This item was agendized to give the Planning Commission an opportunity to discuss, ask questions, and to voice any ideas that they might have for this draft ordinance.

Mark Wray – 2802 Outlook Drive, Reno, stated he was there primarily due to this item having information and possible action and didn't understand what action would be taken. He stated the Planning Commission already knew his position regarding billboards. In reviewing the DVD of the previous proceedings a couple of weeks ago, there was some clarification needed regarding a survey that was taken asking if the citizens wanted digital billboards. This survey was made up of Reno Gazette Polls which in his opinion are un-scientific. The polls showed 72% of the people didn't want them but the other poll showed 62% of the people were in favor. Mr. Wray stated that the survey they took that was provided to the Planning Commission in a packet, was commissioned by a professional survey company that concluded that 55% of the people were opposed to digital billboards, which mirrored the 57% vote in 2000. Mr. Wray stated that the question was whether or not people wanted new electronic billboards and the answer was no.

Lori Wray – Scenic Nevada, stated she wanted to talk a little bit about trades, which had a lot of emphasis at the workshop. She stated that Aaron West had talked about a 3:1 trade. Scenic Nevada's position is that trade is not a good idea because you're trading more blight and dangerous driving conditions. She stated that the survey Mr. Wray was talking about also showed 66% of the voters believed that they would not like to see digital billboards outside their home or office window. So, the City of Reno is asking the people to choose which neighborhood to protect from blight and dangerous driving conditions. The second issue she had with trades is how to decide which billboards to bring down. In her opinion, the one that brings in the least amount of revenue is the one that will be brought down. Those bring less revue because people don't drive by them as often. The net result is that the areas most traveled, is where digital billboards will be seen. Ms. Wray stated there is an unknown tax liability. When local governments widen roads or do any kind of infrastructure, billboards will have to be taken down if they are in the way. The Nevada Supreme Court states that if a billboard is taken down the landowner must be paid for the lease and lost revenue, the billboard industry must be paid for the construction of the billboard, and the billboard industry must be paid for the lost revenue from the ads on the billboard. An example of this is happening on the Moana Lane Widening Project. There are 4 billboards that are affected. One is going to be banked and 3 must be relocated. The cost of removing a standard billboard is approximately $40,000-$50,000. It costs approximately $110,000 to relocate a standard billboard. Ms. Wray states that if the Planning

Commission were to recommend digital billboards they are handing the billboard industry a win-win situation by allowing one to be put up guarantees them income no matter what happens in the future. Scenic Nevada feels like they are taking roads hostage, they don't pay for the privileges, and they are guaranteed income from anyone that tries to remove it even if it's for a public road improvement. She states that the digital billboards use too much energy, they will fill up our landfills, causes driver distraction, financial liability, community appearance and natural scenic beauty has to be considered, as well as democracy and the right for their vote to be upheld.

John Hara, stated he wanted to clarify some of the things that Mr. West had pointed out about energy, just because of the fact that billboards and digital billboards with energy usage seems to be a little confusing. Mr. Hara quoted Mr. West as saying "I really wish I could tell you how much energy these consume but unfortunately the consumption is a function of proprietary patent information as it relates to YESCO and Datronics, the primary manufactures of digitals in the country." Mr. Hara stated that digital billboards are not a way for eliminating landfill waste. He stated that was from techno waste is not currently monitored and is not standardized. Mr. Hara stated that per NV Energy the typical residential customer uses 740 kilowatts per month, approximately 9,000 kilowatts annually, in Nevada. Other studies show the average household usage is approximately 11,000 kilowatts per year, while a digital billboard uses approximately 163,000 kilowatts per year which is an actual reading from a billboard in Florida. One digital billboard would equate to 14.8 households nationally or 18.1 households if using the numbers from NV Energy. Mr. Hara made reference to another comment by Mr. West which states, "The new technology for digital billboards is that they use one quarter of the power than they did a year ago." Mr. Hara states that is approximately 475,000 kilowatts per year compared to a traditional billboard which uses approximately 7,000 kilowatts per year. According to those numbers one digital billboard would use the same amount of energy as 5.8 traditional billboards or 3.7 households per year. He stated that a larger carbon footprint will be left by going digital. Mr. Hara said the sustainability issue with digital billboards is that it is new technology; however, a lot of the issues with digital billboards have not been solved in terms of recycling and disposing of the waste. A digital billboard has a traditional life span of approximately 100,000 hours. Once the lifespan has been reached, it operates at 50% efficiency from how it was operating before. He states that the City of Reno is committed to the Green Initiative. By moving to digital there really isn't a benefit over and above traditional billboards due to higher energy usage.

Aaron West – Clear Channel, stated that he has never seen a poll that didn't provide results of the person paying for the poll. Mr. West stated they have business partners that recycle up to 90% of the billboards that are being taken out of service and are very efficient from the recycling perspective. There is much less of an impact compared to the traditional vinyl signs that are disposed. Typically one board would generate 6-7 of those a year. Regarding the energy efficiency, he appreciated the information provided by NV Energy regarding actual energy

usage. Mr. West provided a statement from their National Industry Organization that reviewed the document that Scenic Nevada prefers to use when attaching LEDs from an energy consumption perspective. The statement read as follows: "The statements in the paper of the energy usage of LED signs are gross exaggerations based on out-of-date information that does not take into account the dramatic gains in energy efficiency of newer models. Digital billboards use ¼ of the power required just 6 years ago. One manufacturer expects another decrease of 25% in power consumption in the next year." From a safety perspective, they have traffic accident data going back 8 years prior and 8 years since the installation of digital billboards that show there was no appreciable increase is traffic accidents. They have six studies over great spans of time, in all different locations using highways and surface streets that show no implication for accidents.

Chair Weiske closed the public hearing and asked for comments.

Commissioner Romeo wanted to know what happened to the billboards that were removed when the train trench was done.

Ms. Hanson stated that some were relocated and some were banked but she didn't have specific numbers available.

Commissioner Romeo wanted to know if the City of Reno received a copy of the study done by the National Transportation Safety Board regarding the flip times.

Ms. Hanson stated that last report she received was inconclusive on a recommendation for what the flip times should be.

Mr. West stated there isn't a study available that dictates the flip times. A memo was issued by the Federal Highway Administration through the U.S. Department of Transportation on September 25, 2007, that clarified to local and state governments that the implementation of LEDs did not violate Ladybird Johnson Act and were allowed. In that memo they provided recommendation for duration of message generally between 4-10 seconds, 8 seconds is recommended. For transition time 1-2 seconds is recommended.

Commissioner Romeo wanted to know what the exchange rate would be, including banked boards, for a digital message center.

Mr. West stated that originally 3 billboards were proposed for 1 digital billboard. Given opportunities and flexibility within the code, and the right circumstances and consideration in other areas, the number could possibly go up to 5 billboards.

Commissioner Romeo wanted to know if there were 300 billboards in the inventory were converted to digital, the industry would be happy with 60 digital billboards with the same square footage.

Mr. West stated that the numbers for the billboard inventory doesn't include the square footage. He stated they have 207 bulletin faces and 259 poster faces. By using LED, they can pull down 10 poster faces.

In response to Commissioner Romeo's question regarding flip time and transition time, Mr. West stated it's instantaneous (less than 1 second). From Clear Channels perspective, the billboards that were banked from the train trench project were not compensated for and there was a settlement agreement that was entered into that actually provided those banked receipts. The financial liability to the City of Reno was transferred into the banked receipts.

Chair Weiske asked legal if financial liability would be considered when making the findings for a text amendment.

In response to Chair Weiske's questions, Marilyn Craig – Deputy City Attorney, stated that they only need to make the findings for a text amendment and that financial would not be considered.

Commissioner Romeo wanted to know if 100,000 hours is the lifespan for a digital billboard.

Mr. West stated he hasn't seen it related to hours. When installing a digital billboard they anticipate it lasting at least 15 years.

Commissioner Woosley had a question regarding banked billboards, location and spacing requirements. He also wanted to know if there was a competition between companies as to where to aggressively place billboards, whether it replaces an existing billboard with digital or a new billboard at a new location.

Ms. Hanson stated the banked billboards are listed and available to the company that owns them. Ms. Hanson stated that multiple companies can bid for one single location. The Planning Commissioners do not need to take the banked inventory into consideration; they only need to consider the affect the digital billboards will have on the community. Whatever ordinance comes forward, the Planning Commission needs to consider the findings. The Planning Commission does not need to take the financial portion of it into consideration when making a final decision.

Chair Weiske asked if there was anything in the ordinance regarding the distance between the signs and a residence or signs and an existing building.

Ms. Hanson stated there are setback requirements that need to be met for residential areas. Current code states the spacing between billboards is 750 feet, 1000 feet for animated (tri-visions), and 300 feet from residential.

Chair Weiske wanted to know if this is the time for suggestions from the Planning Commission of what they may want to see or if that would create a biased when writing the ordinance.

Ms. Hanson stated it would depend on how it was presented. Planning Commission could request consideration for ranges, flip times, or other information from other jurisdictions. A draft ordinance can be prepared and brought back to the Planning Commission for comments.

Commissioner Egan requested clarification regarding which billboards are being controlled by Clear Channel.

Ms. Hanson stated that Clear Channel does not control all of the billboards in Reno. There are a number of sign companies in the area that have existing and banked billboards.

Commissioner Stapleton wanted to know the breakdown and the percentage of control that Clear Channel has.

Ms. Hanson stated they are the largest holder of signs and banked receipts. Many billboards have different situations and a few are on separate parcels where they would own the land as well. Some are on lease agreements. There are a few individuals that have signs on the sides of buildings.

Commissioner Stapleton wanted to know how many signs were owned by Clear Channel and if they contracted with YESCO.

Chair Weiske asked how that would pertain to what would be coming forward in an ordinance.

Commissioner Stapleton wanted to know how other cities have addressed this issue.

Ms. Hanson stated that she would have to research that information and get back to her with some examples. Some cities have completely banned digital billboards, some have banned billboards outright, some have allowed digital billboards, and the flip times are varied.

Chair Weiske stated there are other communities similar in size to Reno that are dealing with trying to and working to removing billboards and wanted to know how they are dealing with switching over sign for sign. He wanted to know if these cities have a banking system like Reno. He would like to get more information from communities that want to eliminate billboards and how they are going about it. Others are saying status quo is fine but won't allow anymore. To

him it doesn't matter if it's the City of Las Vegas or the City of San Francisco. He wants to know how they are doing it.

Commissioner Haltom wanted to know if current code and if future codes could allow owners of banked signs to trade or sell them.

Ms. Hanson stated that can be done and no changes will be made in regards to that.

Commissioner Haltom stated he struggled with how the exchange rate is calculated. The idea that 3 signs were taken down from the train trench project and 2 signs on a side road that maybe made 50,000 impressions on people and replace that with a digital billboard on 395 that make over a million impressions per day. Even though the net number of impressions made on the community were greatly increased in the impression on the public. In his opinion if signs are taken down that makes little to no impression on people and replace them with gigantic, sophisticated sign that makes a lot of impressions, he feels like they are doing the 2000 ballot initiative a great disservice and greatly increase the impressions upon people. He would like to see some sort of structure to support that idea, that they aren't creating a win-win situation for the billboard industry and not really serving the people's initiative. He would like to see a more robust analysis as to where that exchange rate comes from. In his opinion he feels a traffic analysis for every sign is not necessary.

Ms. Hanson stated she inquired about the traffic numbers in various parts of the city and they are not available to that level of detail as there are so many areas where they are existing or potential areas that they could go. One thing that staff can look at is the level of street, meaning freeway, major or minor arterial, collector or local streets. They are not allowed on local or collector streets. The streets are designed to carry a certain number of trips. It would be easier to do this than an actual traffic study for each and every location.

Commissioner Haltom stated that opponents have stated that the City of Reno has misinterpreted the 2000 ballot initiative and that the text amendment shouldn't provide any allowances for digital billboards. He wanted to know if there was discussion to be had and a decision to be made as to whether or not digital billboards should be allowed.

Ms. Hanson stated that the Planning Commission can make any recommendation to City Council that they feel is appropriate.

Commissioner Coffman asked if there was a map showing the locations and spacing of all of the billboards. He also asked if billboards are permitted today. Part of the concern of the Planning Commission is where the billboards are going to go. He stated the ordinance was changed so that the billboards were not permitted in certain areas.

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Ms. Hanson concurred. There are certain areas that billboards are not allowed. She also stated that there are many existing billboards that do not meet the current standards. She said that information can be provided showing the existing billboards and where they are currently allowed.

Commissioner Woosley stated he is always in favor of a map and would like it to include the primary roads that are suspect or preferred for billboards. He also concurred with Commissioner Haltom's statements regarding the exchange rate to include not only the square footage of the sign but to take into consideration where the sign was taken from and where it is being relocated.

Commissioner Romeo stated he had an issue with the traffic count. When something was put up on a main road 30 years ago but is now not considered a main road because the freeway was built. The way the law reads the sign cannot be moved to the new area. The zoning code states where signs are allowed. The road construction and gateways are prime areas to place signs due to high traffic. By doing a traffic count today an artificial value is being created for potential sign locations based on today's traffic not when the board was placed there. A decision needs to be made as to whether or not digital billboards will be allowed and also to decide on a fair exchange rate.

Commissioner Haltom disagreed with Commissioner Romeo's statement and stated that a savvy business person saw I-80 coming and bought land position along the freeway as soon as it was approved for development. In his opinion, the businesses on Highway 40 should not be rewarded by giving them choice locations along Interstate 80 just because the freeway was moved and shouldn't influence business that way. In 2000, the initiative stated no more billboards. He asked what the definition of "more" meant, if it means the quantity of structures/sites or the size and nature of those sites.

Commissioner Coffman asked legal if a complete ordinance is needed in order to vote.

Ms. Craig stated that the Planning Commission can ask Staff to bring that question to them, they can give that direction.

Commissioner Woosley agreed with not doing a traffic count. It needs to be based on what the area is being used for now and what is forecasted 30 years from now.

Commissioner Stapleton states the number of impressions and messaging is one of the central defining ideas of a billboard and should be taken into consideration.

Commissioner Haltom stated that if they continue to direct staff to bring forward a completed digital billboard text amendment, that they have then given their implied support of digital

billboards. He would like the Planning Commission to vote on whether or not digital billboards should be allowed in the City of Reno.

Chair Weiske stated a motion to direct staff can be made on this item as it is an action item and can be brought back to the November meeting.

Ms. Hanson stated can list it as two separate agenda items and a draft ordinance with options.

Chair Weiske asked if this will be a recommendation that is being sent forward to Council that can be appealed.

Ms. Craig stated that staff would probably bring forward proposed ordinances to the Planning Commission. It may be one small ordinance requiring a yay or nay, then another ordinance to fill in the details. The Planning Commission is making a recommendation to City Council. City Council can always send it back to Planning Commission if they want the ordinance more defined.

Commissioner Romeo asked if they can use the existing ordinance but eliminate the section that states the sign shall be illuminated from out, shining up on the billboard.

Ms. Hanson stated by doing that it would allow electronic billboards everywhere where currently tri-visions are allowed with a 1,000 foot spacing.

Commissioner Romeo stated we would already have an ordinance in place, with spacing from residential and other billboards but there would not be an exchange ratio.

Ms. Hanson concurred.

Commissioner Coffman stated we wouldn't have the 8 second flip time. Part of being a Commissioner is traveling to other jurisdictions, other than Sparks or the Indian Colony, to see how things are being done.

Chair Weiske stated that he traveled to Santa Monica and noticed the digital billboard from the presentation that was done at the Workshop. He also suggested that the Planning Commission should be looking at these things during their travels to different communities.

Chair Weiske asked for a motion or direction to staff.

Ms. Craig stated the Planning Commission has already given direction to staff and a motion is not required.

Ms. Hanson stated she has a lot of good comments and direction and will bring this information back and will include a draft ordinance to the Planning Commission at the November meeting.

Exhibit 4

AT-32-07 (Digital Off-premise Advertising Display including Light-Emitting Diode)- This is a request for an amendment to the Reno Municipal Code Title 18 (Annexation and Land Development) by adding certain wording to and deleting certain wording from Chapter 18.16. "Signs", Off-Premise Advertising Displays, and Section 18.24.203.4570 (Definition of Sign) to establish additional standards regarding Digital Off-premises Advertising Displays, including Light-Emitting Diode (LED), together with other matters properly relating thereto.

Chair Weiske opened the public hearing.

Claudia Hanson, Planning and Engineering Manager, stated this is a continuation of the ongoing discussion for digital billboards within the City of Reno. During the last discussion, the Planning Commission had asked for a staff report to be brought forward with two options. One option would be to move forward with an ordinance to allow electronic billboards within the City of Reno or not. Option number two would be based on the attached ordinance which includes elements from comments and discussion from previous meetings. Ms. Hanson asked the Planning Commission if they had anything they wanted added or removed let her know as this ordinance is still in a draft format.

Chair Weiske stated that there are two different proposed motions. The first proposed motion is to make a recommendation to City Council to allow or not allow digital billboards in the City of Reno. If the Planning Commission decides to go with the first motion, then they do not have to go to the second proposed motion. If proposed motion number 1 does not pass, then they can continue the discussion to help recommend the best ordinance possible. He asked legal if they choose option 2 can they continue this item to another meeting.

Ms. Hanson and Marilyn Craig – Deputy City Attorney stated this item could be continued.

Chair Weiske asked for disclosures.

Commissioner Haltom disclosed he received emails and spoke to the applicant's representative and one of the major opponents.

Commissioner Stapleton disclosed she received emails, spoke to the applicant's representative and had conversations and one email exchange with concerned members of the public.

Ms. Craig clarified that the applicant in this case is the City of Reno.

Commissioners Haltom and Stapleton clarified by stating they spoke to a representative from the billboard industry.

Commissioner Woosley and Chair Weiske disclosed they received emails in favor and opposition.

Commissioner Coffman disclosed he received emails and spoke to a representative from the billboard industry.

Guy Day stated he is resident of Reno for 30 years and has been in the outdoor on-premise industry most of his life. He stated that Scenic Reno has damaged the industry by setting a limit to the number of signs that can be erected in the City. Now they are trying to take the message change on an existing billboard and trick people into thinking it's a new billboard. With electronics, the sign face can be changed in a blink of an eye and has a clear, crisp image that will allow more advertisers in the community. He stated a copy change should not require a permit despite what Scenic Reno says. Electronic billboards or LED's is technology that is keeping up with the industry. In his opinion it amazes him that a small number of citizens can seek damage against a business that has served this area and the nation for a long time. He thinks that the City of Reno should continue billboards to progress and to use electronic media.

Lori Wray – Scenic Nevada, stated that she is a small business owner that is opposed to digital billboards. She thinks they are intrusive, distracting energy hogs that diminish the appearance of our city and hurt our property values and our local economy. She stated that the staff report says changes to the ordinance can be made later, but feels that Clear Channel will not allow changes if they are more restrictive. She stated that Clear Channel has numerous lawsuits with other jurisdictions.

Sue Smith - Scenic Nevada, concerned that if digital billboards are allowed, it is taking away the ability to enhance our scenic beauty. She made reference to a comment made by Mr. Day who stated that it took 6 people to change out a sign and now with the new technology she feels they are trying to eliminate jobs.

Mark Wray – 608 Lander Street, Scenic Nevada, stated the law regarding the billboards. He stated that in 2000 the people voted for no new billboards and no new construction of billboards. He made reference to the staff report in regards to the City of Reno's interpretation of the law. He asked the Planning Commission to honor the law that was passed by the people.

Tray Abney – Chamber of Commerce, stated the Chamber of Commerce supports allowing the digital billboard technology within the City of Reno. The members of the Chamber of Commerce that utilize the sign industry to advertise their goods and services are an important part of our economy. His members rely on advertising to attract business. He feels this industry should be allowed to evolve with the changing times and to keep up with their customers and demand. He believes the proposed option number 2 is overreaching too restrictive.

Justin McIlvain – Clear Channel Outdoor, made reference to a PowerPoint presentation (copy on file). He stated that digital billboards play an important role for businesses to achieve their marketing objectives. These objectives can be met without having to print and install new billboard copy.

Lindsey Kern – Clear Channel Outdoor, continued the PowerPoint presentation. She stated that Clear Channel Outdoor is committed to charities and non-profit organizations. Clear Channel dedicates their space to charities so they can advertise their cause and events to the local community. Services for the digital billboards are provided in a timely fashion and without the additional need to order materials. Ms. Kern read statements from customers in support of the project.

Dave Scott – Clear Channel Outdoor, stated that their company partners with the FBI, FEMA, and the National Center for Missing and Exploited Children to help capture fugitives and warn residents of issues that are affecting their communities. In pairing with these organizations, they have received endorsements from Homeland Security and the FBI. As a direct result with their partnership with the FBI, as of 2007, 39 of some of the most wanted and dangerous criminals have been captured. Their partnership with the National Center for Missing and Exploited Children, who issue AMBER Alerts nationwide, are received via email to the staff members of Clear Channel. With the digital networks, they have the ability to immediately post these threats alerting authorities or having citizens alerting authorities if these vehicles are spotted.

Roger Brown – Daktronics, stated that his company is the largest manufacturer of digital signs. He stated that he was in support of the proposed option number 2 that the signs should be allowed with appropriate regulations. The industry has worked very hard to help produce a brightness standard by which cities could regulate these signs. The current standard is that a LED sign cannot put out more than .3 foot candles above the ambient light level. He did see a problem with the standards regards to the testing phase to make sure the sign is operating within the legal limits. There are specific distances in this study in which to measure the operation of the signs. In the original study it is based on the size of the sign. In the language being proposed, it is a set distance of 200 feet. What this does is it forces the larger signs to be dimmer than they should be. As for the smaller signs, they could be meeting the brightness standards, but they would seem too bright to the human eye. He would like the City of Reno to go back to the original study and use their standard.

John Frankovich – Legal Council for Clear Channel Outdoors, made reference to the 2000 Initiative. He was involved in the initiative as an opponent. He brought the lawsuit forward that challenged the initiative. A committee was formed, consisting of elected officials, members from Scenic Nevada and members from the billboard industry, worked on implementing the initiative. The committee decided that this initiative was a cap and release program. He defined "cap" as the number of signs allowed, but you can replace, repair and relocate. This committee

also came up with rules for spacing and height requirements, numbers and how many signs have to be taken down to replace with a new billboard. Also, the locations for billboards were restricted. In these meetings Scenic Nevada initially agreed. Later they opposed that approach after agreeing to it with the committee. After hearing all the testimony, City Council adopted the ordinance to allow cap and replace approximately 10 years ago. In his opinion, this decision if the question was going to be challenged by Scenic Nevada, it should have been done 10 years ago, not 10 years later. The industry has been banking billboards based on the existing ordinance. The issue with billboards is utilizing new technology to improve their product. In his opinion, the initiative should not be an issue in consideration of this ordinance. What should be considered is the appropriate restrictions or limitations on digital billboards, if any.

Daniel Schulte – YESCO Outdoor Media, made comments regarding the ordinance that has been in place in 2000, specifically cap and replace. They started with 300 billboards, there are currently 250 and some are in the banked program which are extremely difficult to be placed because of spacing, zoning and mixed use zoning changes that have taken place. By allowing digital billboards it would help bring the cap back to where it originally was. Mr. Schulte stated he is in favor of proposed motion 2; however, he is not in favor of the language that goes along with it. The staff report states that in order to replace a billboard, the equivalent of 672 square feet or 2 non-conforming billboards would need to be removed. Under the current ordinance for off-premise signs, it states that all billboards in the City of Reno are conforming. He feels that this is a contradiction. In the language for proposed motion 2 states that no permanent off-premise display or part thereof shall be located within a historic or conservation district and should be placed adjacent to a collector or local street. He stated that the billboard industry isn't talking about off-premise displays, they are talking about digital displays and feels this shouldn't be a part of the ordinance.

Michelle Nichols – started National Hug your Kids Day, stated that she was in favor of digital billboards. Clear Channel donated billboards in every state to get her message out.

Tom Weatherby – YESCO, Outdoor Media, stated he was in favor of the digital billboards but not in favor of the ordinance because it is too restricted with the spacing requirements, only being allowed within the McCarran loop, the 8:1 ratio, and the 12 second flip time rather than the industry standard of 6-8 seconds. He stated that with this ordinance it is economically and geographically prohibited digital billboards. The only way new businesses and new advertisers can reach the community is to allow multiple users on the existing billboard structures. Most of his customers are requesting locations outside the McCarran loop. In his opinion, all existing billboards should be allowed to convert. He also stated that a study has not been done that shows digital billboards are more legible than a standard billboard.

Aaron West – Clear Channel, continued the PowerPoint presentation. He stated that he is support of the digital ordinance but there are concerns with the current language. He stated they

would like to see an 8 second dwell time. There is a standard from the Federal Highway Administration in a memo from 2007 that recommends 8 seconds. He stated he has provided data to support their claims regarding energy efficiency and digital billboards do not cause a distraction that causes accidents. In his opinion, there are some sections of the ordinance that are overreaching. There are current billboards that do not meet the spacing requirements. By imposing stricter standards on existing structures, there will be more boards that no longer meet the spacing standards. They have gone to great efforts to work with Staff regarding the industry standards for lighting. The boards will dim and fluctuate with the ambient lighting and they do not have light spillage or glare and feels that the 1,000 foot spacing from residential is not needed.

Susan Schulte – Suanders Outdoor Advertising, stated they are in favor of digital billboards but they are not in favor of the proposed text amendment.

John Hara – 65 Woodchuck Court, stated he was in favor of digital billboard in Las Vegas not Reno. He read a section of the state law regarding the purpose and intent of the off-premise advertising display for the City of Reno. He stated there are ±700 communities across the country that are currently trying to prohibit the construction of new billboards because they are considered blight. He stated the more a community does to enhance its unique historic and architectural assets, the more tourists it attracts. He also made reference to a staff report from Durham County which was forwarded to the Planning Commission.

Marilyn Melton – area resident, asked the Planning Commission to vote against digital billboards. She stated that the money collected from the billboards is not staying here locally.

The following people were in favor but did not wish to speak:

Chip Lindloff – 110 Bishop Manogue Drive, Reno, is in favor of digital billboards but opposed to the ordinance because it's too restrictive.

Danny Selby – 6578 Chula Vista Drive, Reno
Benjamin Cossio – 1529 Delucchi Lane, Reno
Lupe McIlvain
James Barnes – 12525 Clearwater Drive, Reno – in favor of proposed Motion #1
Shaenci Cossio – 1529 Delucchi Lane, Reno
Amy Tupper – P.O. Box 2916, Reno
David McWalters – 4945 Joule, Reno
Sarah McDaniel – 14165 Chamy Drive
Sabrina Absher – 75 Eric Avenue, Sparks
Susan Holshouser – 4825 Rock Wren Circle, Reno
Sam Kuhlman – 4887 Lakeridge Terrace West, Reno

The following people were opposed but did not wish to speak:

Doug Smith – 2845 Idlewild Drive, Reno
Penny Roskoski – 1930 Manzanita Lane, Reno
Nan Lethrop – P. O. Box 50471, Sparks

Tom Weatherby – 5586 St. Andrews Court, Reno – in favor of digital billboards but ordinance is too restrictive.

Sau Wong – 1830 Arboleda Court, Reno – in favor of digital billboards but ordinance is too restrictive.

H.W. "Budd" Hickey – 14215 Riata Circle – ordinance is too restrictive.

Chair Weiske closed the public hearing and asked for discussion or a motion.

Commissioner Coffman had questions regarding the flip times, banked receipts, and the illumination.

Ms. Hanson stated that after researching ordinances from other jurisdictions, the flip time was in the 8 – 20 second range so she chose something in the middle. In regards to the banked billboards, if the banked billboards were depleted, it could be supplemented by removing an existing billboard. She explained that banked receipts are created by the removal of an existing billboard. They would have to identify which banked receipts they were going to use, whether they are existing banked receipts or ones they are creating by the removal of existing signs. The 8:1 ratio was discussed at the Planning Commission Workshop. Mr. West had stated that they could put up to 8 advertisements one digital billboard. There was also discussion at a previous City Council meeting where they had requested consideration of removing the clutter and bringing existing signs closer into conformance with spacing requirements within the code. The illumination is based on the distances and size of the sign.

Commissioner Woosley made reference to the Committee that was created after the elections to look at the billboard. He wanted to know if they had to interpret what was passed.

Marilyn Craig – Deputy City Attorney, stated there was considerable discussion about it.

Chair Weiske had a question regarding Ballot Question R-1. He wanted to know who puts ballot questions together.

Ms. Craig stated there is a process identified under state law. The pros and cons are done by the respective groups. The ballot question is the initiative which could be any group of people that come together.

Chair Weiske read the Arguments for Passage and asked if there was an explanation to new billboards.

Ms. Craig stated that normally when you look at a law and it is ambiguous then you would look to the legislative history and you would discern, among other things, the intent of the body that adopted it. It this case it is the people that adopted it.

Chair Weiske wanted to remind the Planning Commission there were two different motions. Proposed Motion #1 is to not allow digital off-premise advertising. If Motion #1 does not pass then they have the option for proposed Motion #2 which they will be able to provide information to staff to forward to City Council.

Chair Weiske asked for discussion and/or a motion for proposed Motion #1.

Commissioner Haltom stated that digital billboards are unsightly and unaesthetic and provide additional safety hazards and distractions to drivers. He also feels they have a long-term negative impact on our economy. He is in support of Motion #1.

Commissioner Stapleton stated that billboards are a form of communication. This is an issue of aesthetics and digital billboards takes it up a notch and it increases the type of aesthetics that people don't want.

Commissioner Coffman stated he could not support the first motion.

Commissioner Haltom stated that billboards (standard or digital) are an archaic form of advertising. It throws a message up blindly hoping that 1 in 1,000 people will find that message appropriate. He stated there are billboards advertising for companies out of the state by making fun of Reno and driving businesses away from our area.

Commissioner Stapleton stated that she disagrees with Commissioner Coffman's statement. She stated that this is an aesthetic the people do not want and is a further exaggeration of clutter.

Commissioner Woosley stated the can see the use for digital billboards. However, he doesn't want them everywhere. They are appropriate in certain locations and do have their use. He wants to control where they are located. He cannot support Motion #1.

Chair Weiske stated he is not opposed to digital billboards. He is opposed to the number of billboards we have. R-1 states there will be 278 billboards plus banked boards. If they work towards proposed Motion #2, they can possibly reduce the number and overall clutter of signs in the City of Reno which is a benefit to the citizens. The only way they can do this and control it is by making suggestions and recommendations for future ordinances to reduce the number of signs, location, and brightness. He has seen digital billboards in Sparks, the Indian Colony and throughout his travels. He doesn't find them anymore offensive than any other billboards. In his opinion, the only way to beautify our area is to minimize what we already have, the number of digital billboards and slower flip times. He stated he would not be voting in favor of proposed Motion #1 but is in favor of proposed Motion #2.

Chair Weiske asked for a motion on proposed Motion #1.

It was moved by Commissioner Stapleton, seconded by Commissioner Haltom, to continue to not allow digital off-premise advertising displays within the City of Reno. Commissioners Haltom and Stapleton assenting; Commissioners Coffman, Woosley and Chair opposed; and Commissioners Romeo and Egan absent.

Chair Weiske asked for a motion on proposed Motion #2.

It was moved by Commissioner Haltom, seconded by Commissioner Woosley, to recommend that the City Council approve the text amendment by ordinance to allow off-premise advertising displays under certain standards.

Ms. Hanson asked if they were going to discuss what the standards were going to be.

Chair Weiske stated that they should work on the recommendations to the City Council prior to approving the ordinance. He stated that Commissioners Haltom and Woosley should withdraw their motion and continue discussion and/or at a future meeting for modification for recommendation for the ordinance.

Commissioner Haltom stated he will withdraw his motion but does not have a problem with how the ordinance is written.

Commissioner Woosley stated he is withdrawing his motion.

Chair Weiske stated that if they pass this motion then it goes to City Council as written.

Commissioner Woosley stated that the 200 foot arching distance needs to be reevaluated. In his opinion, it should be distance sensitive depending on the size of the sign. He stated that he is in support of the 12 second flip time, but would be in favor of something higher.

Ms. Hanson stated she would bring that item back.

There was extensive discussion regarding the proposed spacing requirements.

In response to Commissioner Stapleton's comment regarding the location requirements, Ms. Hanson stated that the signs would be limited to the McCarran ring, which has the most intense development, the lighting already exists, and has existing 24 hour use. There has been discussion from past meetings that a special use permit could be required to be on between the hours of 11:00 p.m. and 6:00 a.m. A large portion of the parcels within this area are zoned MU or Commercial. Most of the residential within the McCarran ring is on the west side which will require a 1,000 foot buffer in that area.

There was more discussion regarding spacing requirements and location for digital signs.

Ms. Hanson stated that signs are currently prohibited on collector and local streets. They are only allowed on arterials and freeways.

In response to Commissioner Stapleton's question regarding the number of signs located outside of the McCarran loop, Ms. Hanson stated that 6 signs are allowed within certain portions of U.S. 395 and a certain number are allowed on I-80 east of McCarran. To remove existing signs that don't meet current spacing standards are located within the McCarran loop.

There was discussion regarding the proposed flip times. The Planning Commissioners were in agreement with the 12 second flip time.

Commissioner Haltom asked for an explanation of Item No. 5 regarding the illumination.

Ms. Hanson stated the brightness of an advertisement will change with the ambient light and will not remain constant.

Mr. Brown stated the signs do have an automatic dimmer for the ambient light level. He explained that if a sign was on a dark rural highway and headlights hit the sign, the light meter would instantly see that and make the sign brighter.

There was discussion regarding Item No. 3 – Maximum time for change display is one second.

The Planning Commissioner concurred with Item No. 4 – Displays shall not be presented in motion, appear to be in motion or video.

The Planning Commissioner concurred with Item No. 6 – Displays shall not flash or move.

There was some discussion on Item No. 7 – Displays shall not imitate or resemble any official traffic signal, traffic sign or other official warning signs. Ms. Hanson stated that they wouldn't want them putting up official traffic warning devises, they could put up messages directing traffic or something similar.

The Planning Commissioner concurred with Item No. 8 – Digital changeable off-premise advertising signs shall contain a default design that will freeze the device in one position or solid black if a malfunction occurs.

There was discussion regarding Item No. 9 – No cutouts shall be permitted. Ms. Hanson explained that a cutout would be something outside the standard rectangle shape. Ms. Hanson stated a definition could be added.

The Planning Commissioner concurred with Item No. 10 – No display shall cause a glare or other condition that impairs the vision of the driver of any motor vehicle or obstructs or interferes with a driver's view of surrounding traffic situations.

The Planning Commissioner concurred with Item No. 11 – No display shall emit sounds, pyrotechnics, or odors.

There was discussion regarding Item No. 12 – Digital changeable off-premises advertising displays shall conform to the requirement for other Off-Premises Advertising Displays as established in Chapter 18.16. If there is a conflict between standards contained in other portions of Section 18.16 and this section, the more restrictive shall prevail. Ms. Craig stated that typically the ordinance that is more specific is the one that is controlling and this kind of language would not be used. She stated that she and Ms. Hanson would work on item and bring it back to the Planning Commission.

Ms. Hanson stated that Item No. 13 was already covered and will be brought back with the options for the different sizes.

There was some discussion on Item No. 14 – Each application for a Digital off-premises advertising display shall include a photometric plan. The photometric plan shall demonstrate the Digital display's maximum light intensity, in foot candles above ambient light at 200 feet. Ms. Hanson stated this item will be amended and brought back to Planning Commission.

There was discussion on Item No. 15 – Removal Requirements: Prior to the approval of any Digital Off-Premises Advertising Display documentation shall be provided demonstrating the removal of existing off-premises advertising displays, which do not meet current location criteria, of twice the square footage of the proposed display AND the exchange of banked receipts totaling six times the square footage of the proposed display. The removed off-premises

advertising displays shall not be replaced or banked. Chair Weiske stated the last sentence of this item is as important as the ratio for eliminated banked billboards along with regular billboards.

There was discussion regarding banked receipts. Mr. West stated the code as it is currently written provides for removal of an existing structure will create a banked receipt. He stated that it should be decided how many billboards are to be removed or eliminated to put up one digital billboard.

Ms. Wray stated that the City Council did not want any banked receipts originally. In order to eliminate clutter, at least two or more billboards have to be removed from the streets and/or the banked receipts.

Chair Weiske stated that what is being proposed is the removal of physical billboards along with additional square footage of banked signs. He asked staff to clean up this item so there is no confusion as to what needs to be removed, both physical and banked.

Ms. Hanson asked if the Planning Commission was in agreement with the 8:1 ratio – 2 existing and 6 banked.

Chair Weiske stated he would like to see more than 2 signs removed from the field.

Commissioner Haltom concurred. He would like to see the removal of 4 existing and 4 banked.

Mr. Weatherby made reference to the staff report regarding the removal of non-conforming billboards with an 8:1 ratio which includes the removal of 2 comparable signs plus 6 banked receipts. He stated that based on the current code which will allow 8 advertisers per digital board. However, if the 12 second flip time is approved, then there will only be 5 advertisements allowed per digital billboard. He stated that if all of his signs are conforming then he wouldn't be eligible for a digital sign.

Ms. Hanson concurred. She stated that City Council had a large discussion about getting the existing billboards to meet the existing standards. It would be an incentive to remove the billboards that do not meet current standards.

Ms. Craig stated that a second tier could be created if the first tier cannot be met. She noted that the discussion at City Council was to only have one alternative to eliminate what they perceived to be non-conforming and said Mr. Schulte had stated that all billboards were deemed to be conforming at some point. She stated the language needed to be cleaned up and her recommendation would be to not use the words "conforming" or "non-conforming."

There was more discussion regarding the flip times, the number of advertisements that would be allowed and conformance issues. Chair Weiske stated that when the ordinance comes back to the Planning Commission for review, a two tiered system will be included.

The Planning Commission concurred with Item No. 16 – The face of each Digital Changeable off-premises advertising display shall contain a discernable message or graphic at all times, excluding periods during which any of the following occur: repairs, replacement of parts, cleaning, regular maintenance, associated utility outage, natural disaster, or severe weather.

Commissioner Coffman asked if this item would be continued and if the ordinance would be modified if a proposed Motion #2 was not acted on.

Ms. Craig stated these are proposed motions and the motion can be changed any way the Planning Commission sees fit. Staff has been given direction to come back with a re-written proposal.

Commissioner Woosley inquired about a comment that was received from the audience. It was stated that this might open the door for videos and recordings to be posted online from digital billboards. He wanted to know if this needs to be considered at this time.

Ms. Hanson states that in the proposed ordinance it is prohibited (Item n-4).

Chair Weiske inquired about face recognition and license plate recognition.

Mr. West stated that they do not have those capabilities and would be an invasion of privacy.

Ms. Wray made reference to an article from American Planning Association which states that digital billboard technology is advancing faster than policy makers can deal with it. Until recently these advancements were limited to sign size, brightness, and image fidelity. The newest technologies focus on capturing the motorist's attention. Among the new technologies are personalized messages which can extend personalized messages to drivers. A message will flash as soon as a certain car approaches the billboard. The article also mentions license plate recognition.

Chair Weiske agreed with what Ms. Wray was saying, but stated that this kind of message could be sold as advertising. He asked Ms. Hanson if personalized messages are included in the proposed ordinance.

Ms. Hanson stated that it is not addressed because it has to do with content, which cannot be regulated by the City of Reno.

Ms. Craig stated the code can be changed at a later date to keep up with technology. She stated that she is concerned about the content issue and stated that the City of Reno will not enforce it.

Chair Weiske asked staff to research license plate recognition. He also requested someone from the sign industry to provide information regarding this item for the next meeting. He had a question regarding possibly requiring a special use permit.

Ms. Hanson stated this was mentioned at the Workshop as an option. Currently, businesses that operate after 11:00 p.m. and before 6:00 a.m., requires an approval of a special use permit. She stated there is another city that requires the signs to be turned off at midnight. She had mentioned the special use permit as another idea, but has not been added to the draft ordinance.

Commissioner Stapleton and Chair Weiske stated they would like more information regarding this option at the next meeting.

Commissioner Haltom stated that the locations of adult oriented businesses can be limited and special precautions are made for selling adult oriented merchandise in convenient stores. He wanted to know why a condition cannot be placed to require the messaging and content be appropriate for all audiences.

Ms. Craig stated that this is content and generally the First Amendment does not allow an entity to regulate content in that fashion. It can be regulated content on in respect to off-premises and on-premises. If it is not obscene, the City of Reno will not regulate content. In response to Commissioner Stapleton's comment, Ms. Craig stated that she could not recall another instance where content could be regulated other than being obscene.

Ms. Hanson stated she had a few minor changes that need to be made to the ordinance prior to bringing it back for review. Ms. Hanson stated this item could be brought back to either the December 2011 or January 2012 meetings.

Chair Weiske asked for a motion to continue this item.

It was moved by Commissioner Haltom, seconded by Commissioner Stapleton, to continue this item to the December 8, 2011 meeting. The motion carried: Commissioners Coffman, Haltom, Stapleton, Woosley and Chair Weiske assenting; and Commissioner Egan and Romeo absent.

Exhibit 5

VII. UPDATE, DISCUSSION AND POSSIBLE DIRECTION TO STAFF REGARDING ELECTRONIC BILLBOARD ORDINANCE. (For Possible Action)

Claudia Hanson – Planning and Engineering Manager, stated that Planning Commission asked for this item to be brought back for discussion, additional questions and/or direction to staff regarding the draft ordinance that will be presented at the next meeting. Ms. Hanson provided the ballot question R-1 regarding billboards to the Planning Commission.

Lori Wray – Scenic Nevada, stated there is a new issue regarding intermittent lighting which is currently prohibited by Federal and State Law. The Arizona Court of Appeal has ruled that digital billboards that use intermittent lighting are illegal along highways now. She stated that this isn't only a text amendment; they are abandoning a State and Federal agreement that has been in place for 40 years to protect the citizens. This agreement is meant to enforce the Highway Beautification Act and to protect the public's investment in highways, to promote safety and recreational value of public travel, and to preserve natural beauty. The McCarran ring is where the digital billboards are supposed to go. This will include Hwy 395 and I-80. Scenic Nevada is asking the Planning Commission not to abandon the State and Federal agreement and not to abandon the vote of 2000. She stated that one of the reasons the City of Reno wants to do this is to get rid of the clutter and in her opinion there are other ways to reduce clutter. She discussed the bank receipts and stated that as long as there is a bank, billboards can be placed in that bank to be relocated at a later date. She stated that there are unresolved issues with technology that the City of Reno hasn't considered or addressed.

Danny Schulte – YESCO Outdoor Media, stated there is a billboard ordinance that has been in place since 2000. They have operated under this ordinance for more than 11 years without any problems. They have taken boards down that were banked and have found new locations that were allowed by the current ordinance. In the current ordinance there is spacing requirements of 750 feet and changeable message signs/billboards. It's the same type of changeable message that the new LED technology provides, is recognized by NDOT which allows a minimum 6 second turn. YESCO has one digital billboard in Sparks which allows 6 advertisers with an 8 second turn. They have 12 seconds for public service and any other public service item needed. The AMBER alert is automatic.

Mark Wray stated that he hopes they have heard the last of the industry arguing for public service on the digital billboard, especially in an area that caters to tourists. He stated that the Federal and State agreement, which has been in effect for 40 years, says intermittent lighting illegal. He urges the City of Reno follow the mandates set forth by the people and say no to digital billboards.

Chair Weiske closed the public comment.

Commissioner Romeo asked if legal reviewed the Arizona decision and what ramifications it may or may not have for the State of Nevada, particularly the City of Reno.

Marilyn Craig – Deputy City Attorney, stated she had seen the case and had read it. She still has questions that need answers regarding it; therefore, she does not have definitive advice for the Planning Commission. She will have the information for the January meeting and will be making a recommendation at the January meeting.

Commissioner Egan stated that they are in no position to discuss until the foundation has been set.

Chair Weiske concurred with Commissioner Egan.

Ms. Hanson stated she would work with legal regarding the Arizona case and will bring the information back to Planning Commission in January.

In response to Commissioner Romeo's questions, Ms. Hanson stated options would be available and brought forward if there is a favorable decision made. Ms. Hanson stated a motion was not required since this item is a discussion item. The draft ordinance will be on the January 2012 agenda.

Exhibit 6

The Effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update

PUBLICATION NO. FHWA-HRT-09-018 FEBRUARY 2009

U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2296

FOREWORD

The Highway Beautification Act of 1965 outlined control of outdoor advertising, including removal of certain types of advertising signs, along the Interstate Highway System and the existing Federal-aid primary roadway system. Since that time, most States have evolved a body of legislation and/or regulations to control off-premise outdoor advertising (billboards), and many local governments have developed similar rules.

The advent of new electronic billboard technologies, in particular the digital Light-Emitting Diode (LED) billboard, has necessitated a reevaluation of current legislation and regulation for controlling outdoor advertising. In this case, one of the concerns is possible driver distraction. In the context of the present report, outdoor advertising signs employing this new advertising technology are referred to as Commercial Electronic Variable Message Signs (CEVMS). They are also commonly referred to as Digital Billboards (DBB) and Electronic Billboards (EBB).

The present report reviews research concerning the possible effects of CEVMS used for outdoor advertising on driver safety, including possible attention and distraction effects. The report consists of an update of earlier published work, an investigation of applicable research methods and techniques, recommendations for future research, and an extensive bibliography. The report should be of interest to highway engineers, traffic engineers, highway safety specialists, the outdoor advertising industry, environmental advocates, Federal policy makers, and State and local regulators of outdoor advertising.

Michael F. Trentacoste
Director, Office of Safety
Research and Development

Gerald Solomon
Director, Office of Real Estate
Services

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. FHWA-HRT-09-018	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle The Effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update		5. Report Date February 2009 6. Performing Organization Code:
7. Author(s) John A. Molino, Jerry Wachtel, John E. Farbry, Megan B. Hermosillo, Thomas M. Granda		8. Performing Organization Report No.
9. Performing Organization Name and Address Human Centered Systems Team Office of Safety Research and Development Federal Highway Administration 6300 Georgetown Pike McLean, VA 22101-2296		10. Work Unit No. 11. Contract or Grant No.
12. Sponsoring Agency Name and Address Office of Real Estate Services Federal Highway Administration 1200 New Jersey Avenue, SE Washington, DC 20590		13. Type of Report and Period Covered Final Report, Phase I January 2008–October 2008 14. Sponsoring Agency Code

15. Supplementary Notes

FHWA Contracting Officer's Technical Representative (COTR): Thomas M. Granda, Safety Research and Development, FHWA

16. Abstract

The present report reviews research concerning the possible effects of Commercial Electronic Variable Message Signs (CEVMS) used for outdoor advertising on driver safety. Such CEVMS displays are alternatively known as Electronic Billboards (EBB) and Digital Billboards (DBB). The report consists of an update of earlier published work, a review of applicable research methods and techniques, recommendations for future research, and an extensive bibliography. The literature review update covers recent post-hoc crash studies, field investigations, laboratory investigations, previous literature reviews, and reviews of practice.

The present report also examines the key factors or independent variables that might affect a driver's response to CEVMS, as well as the key measures or dependent variables which may serve as indicators of driver safety, especially those that might reflect attention or distraction. These key factors and measures were selected, combined, and integrated into a set of alternative research strategies. Based on these strategies, as well as on the review of the literature, a proposed three stage program of research has been developed to address the problem.

The present report also addresses CEVMS programmatic and research study approaches. In terms of an initial research study, three candidate methodologies are discussed and compared. These are: (1) an on-road instrumented vehicle study, (2) a naturalistic driving study, and (3) an unobtrusive observation study. An analysis of the relative advantages and disadvantages of each study approach indicated that the on-road instrumented vehicle approach was the best choice for answering the research question at the first stage.

17. Key Words	18. Distribution Statement
Commercial Electronic Variable Message Signs, CEVMS, Digital Billboards, DBB, Electronic Billboards, EBB, Driver Attention, Driver Distraction, Driver Safety, Outdoor Advertising	No restrictions. This document is available through the National Technical Information Service, Springfield, VA 22161.

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	94	N/A

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SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	square millimeters	mm^2
ft^2	square feet	0.093	square meters	m^2
yd^2	square yard	0.836	square meters	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	square kilometers	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
		NOTE: volumes greater than 1000 L shall be shown in m^3		
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
		TEMPERATURE (exact degrees)		
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
		ILLUMINATION		
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m^2	cd/m^2
		FORCE and PRESSURE or STRESS		
lbf	poundforce	4.45	newtons	N
lbf/in^2	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	square millimeters	0.0016	square inches	in^2
m^2	square meters	10.764	square feet	ft^2
m^2	square meters	1.195	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	square kilometers	0.386	square miles	mi^2
		VOLUME		
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	cubic meters	35.314	cubic feet	ft^3
m^3	cubic meters	1.307	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
		TEMPERATURE (exact degrees)		
°C	Celsius	1.8C+32	Fahrenheit	°F
		ILLUMINATION		
lx	lux	0.0929	foot-candles	fc
cd/m^2	candela/m^2	0.2919	foot-Lamberts	fl
		FORCE and PRESSURE or STRESS		
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in^2

*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
(Revised March 2003)

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1.0 INTRODUCTION

The present report reviews research concerning the possible effects of Commercial Electronic Variable Message Signs (CEVMS) used for outdoor advertising on driving safety. The report consists of an update of earlier published work by Farbry et al., which consists of an investigation of applicable research methods and techniques, recommendations for future research, and an extensive bibliography.[1] The Federal Highway Administration (FHWA) has evaluated possible safety effects of CEVMS in two previous studies. The first study was completed in 1980 and the second in 2001.[1,2] Since then, CEVMS technology has evolved, in particular the expanded use of digital Light Emitting Diode (LED) arrays, as well as the implementation of new programmable formats and messages. The present report concentrates on identifying potential factors that may contribute to determining whether there are any significant safety concerns or distraction effects with regards to CEVMS used for outdoor advertising. Throughout the present report, the acronym CEVMS will be employed to refer to both the singular and plural case.

1.1 BASIC RESEARCH QUESTION

The basic research question being addressed in this report is whether the presence of CEVMS along the roadway is associated with a reduction in driving safety for the public. Increases in vehicle crashes along a certain portion of the roadway are generally regarded as an indication of a possible safety concern. Thus, the measurement of crash rates in the vicinity of CEVMS in comparison with crash rates at matched control locations without CEVMS is one possible way to determine possible safety impacts. But, the crashes are rare multicausal events which are difficult to measure. Therefore, measurements of driving behavior in near-crash situations are sometimes taken as a substitute for crashes. These safety surrogate measures may then be generalized to other driving behaviors that represent possible precursors of crashes—like sudden braking, sharp swerving, or traffic conflicts—even though no crash occurs. Usually, because these safety surrogate measures are more frequent and easier to measure, they are often employed instead of or in addition to crashes. Thus, determining the frequency of occurrence of certain relevant safety surrogate driving behaviors in the vicinity of CEVMS in comparison with the frequency of occurrence of such behaviors at matched control locations without CEVMS is another possible way to determine possible safety impacts. The validity of using such safety surrogate measures rests on the assumption that they are related to actual vehicle crashes, which seems intuitively reasonable but has not been conclusively demonstrated.

There is another approach to determining the possible safety impact of CEVMS. This approach is based upon the abstract psychological constructs of driver attention and distraction. A driver must devote a certain amount of attention to the driving task at hand, and sufficient distraction from that driving task could be associated with the higher risk of a crash. The measurement of driver eye glance behavior is often taken as an indirect indicator of attention. Thus, the driver's eye glances should be concentrated in the region of the roadway ahead, and any frequent or long eye glances away from this region toward other objects, including CEVMS, could be regarded as an indication of possible driver distraction. If the eye glances toward a certain object and away from the roadway ahead are sufficiently frequent or sufficiently long to exceed criteria established for safe driving, this outcome can be taken as an indication of a possible safety impact. The validity of using eye glance behavior measures in this manner rests on two

assumptions: that eye glances are related to attention and/or distraction and that there are generally accepted safety criteria for excessive eye glances away from the roadway ahead. These assumptions are not universally accepted.

In summary, the basic research question is whether the presence of CEVMS along the roadway is associated with a reduction in driving safety for the public. The three fundamental methods for answering this question include if there is an increase in crash rates in the vicinity of CEVMS, if there is an increase in near-crashes or safety surrogate measures in the vicinity of CEVMS, and if there are excessive eye glances away from the roadway ahead in the vicinity of CEVMS.

1.2 SCOPE

In this report, a CEVMS will be defined as a self-luminous advertising sign which depicts any kind of light, color, or message change which ranges from static images to image sequences to full motion video. The CEVMS may also be referred to as an Electronic Billboard (EBB) or a Digital Billboard (DBB). The present report concentrates on the possible effects of CEVMS on driver attention, driver distraction, and roadway safety. The report is divided into 10 sections: Introduction, Literature Review Update, Key Factors and Measures, Research Strategies, Future Research Program, Recommended First Stage Study, Conclusions, References, Bibliography, and Appendices.

Investigating the possible safety effects of CEVMS is sufficiently complex so that no single experiment will answer all of the relevant scientific and engineering questions. The present report outlines a top-level broad program of potential future research, and it defines in greater detail three possible studies, any one of which could serve as a possible first step. After these discussions, a course of action is recommended. Although off-premise advertising signs constitute the main focus of FHWA attention, the influence of on-premise advertising signs will also be considered to create a more comprehensive and consistent research approach.

In parallel with the present project, a related study is being performed under National Cooperative Highway Research Program (NCHRP) Project 20-7 (256), titled "Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs." Both the present project and the NCHRP study begin with the understanding that, despite years of research, there have been no definitive conclusions about the presence or strength of adverse safety impacts from CEVMS. The two projects differ in three significant ways. First, the NCHRP study is undertaking a broad, critical review of the research literature in this field. The present project is more focused on literature update oriented toward the identification of suitable independent and dependent variables for future research. Second, the NCHRP study is reviewing current regulations and guidelines for the control of roadside advertising that may exist in foreign countries to assess their applicability to U.S. highways and streets. Aside from mention in the literature review update portion, the present report does not directly address regulations and guidelines. Third, the NCHRP study will synthesize current research results and current regulations and guidance to recommend how State and local governments might enact reasonable temporary guidance for the control of CEVMS within their own jurisdictions. Such guidance may be applicable on an interim basis pending the outcome of future, more conclusive research outlined in the present project. As a result, such interim guidance may need to change as new

technical information is developed. The present report does not provide guidance to States on the control of CEVMS.

2.0 LITERATURE REVIEW UPDATE

2.1 BACKGROUND

The research that addresses the possible safety and distraction effects of outdoor advertising billboards has been extensive and long standing. Dating back to the 1930s, this research reached a peak in the 1950s and 1960s. Research continued at low ebb through the 1980s, and then all but ceased. With the advent of newer billboard technologies (e.g., lamp matrix, rotating disc, tri-vision, and, most recently, LED) and with the corresponding questions raised by regulators, safety researchers, and the public, research has increased again since the turn of the century. These newer billboard technologies, especially the LED technology, ushered in the increasing use of CEVMS for on-premise and off-premise advertising. The current research focuses on information that has become available since the publication of the most recent FHWA report, but it also includes earlier relevant studies not previously identified.[1] The present review is organized into five major categories according to the research context for the study: post-hoc crash studies, field investigations, laboratory investigations, previous literature reviews, and reviews of practice. The categories that contain empirical data have a brief discussion of potential methodological problems inherent in the types of studies characteristic of that category.

2.2 POST-HOC CRASH STUDIES

Post-hoc crash studies review police traffic collision reports or statistical summaries of such reports to understand the causes of crashes that have taken place in the vicinity of some change to the roadside environment. In the present case, the change of concern is the introduction of CEVMS to the roadside or the replacement of conventional billboards with CEVMS.

A number of studies have been conducted over the years using the crash methodology. Three such studies were not reviewed in prior FHWA studies. In a study similar to that conducted in the 1970s in Massachusetts, the Freeway Operations Unit of the Wisconsin Department of Transportation (WisDOT) analyzed bidirectional crashes on I-94 near an electronic billboard with a 5.0 s message dwell time.[3,4] Crash rate data were collected for 3 years prior to and 3 years after sign operation began. For eastbound traffic, total crashes increased 36 percent over the 3 year post operational period compared to the baseline preoperational condition. In addition, side-swipe crashes increased 8 percent, and rear-end crashes increased 21 percent. For westbound traffic, total crashes increased 21 percent, sideswipe crashes increased 35 percent, and rear-end crashes increased 35 percent. The authors of the WisDOT study concluded that, "it is obvious that the variable message sign has had an effect on traffic, most notably in the increase of the side-swipe rate" (p. 3).[4]

Stutts et al. conducted an analysis of several crash data reporting systems to identify major sources of driver distraction and the relative importance of different types of distraction as contributing factors in motor vehicle crashes.[5] Distraction was described as one form of inattention, and it has been implicated as a factor in more than half of the police reported inattention crashes identified by the National Highway Transportation Safety Administration.[6] In this study, 8.3 percent of drivers involved in police-reported crashes were identified as distracted, but 35.9 percent of these crashes were coded as "unknown." For this and other

reasons, it is believed that the reported percentage of distraction-related crashes substantially under-represents the true statistics.[5] Among the types of distractions coded in the database, the largest contributor (29.4 percent) was "outside person, object, or event," and the second largest (25.6 percent) was "other."

Smiley et al. studied the relationship between video advertising signs and motor vehicle crashes at downtown intersections and on the freeway.[7] Crash data were analyzed from three intersections before and after the introduction of video advertising signs. When the three intersections were evaluated individually, two demonstrated increases in both total and rear-end crashes; the third showed no significant increase in such crashes. The authors believe that the lack of statistical significance may be due to the small number of crashes identified. For the freeway environment, crash data on the video approach was compared to crash data for three non-video approaches, one of which was deemed the most comparable (control) segment. For this comparison, the authors report a negligible increase in injury collision crash frequencies on the video approach.

Following the design of their earlier study on conventional billboards, Tantala and Tantala analyzed police accident reports in the vicinity of seven digital billboards on interstate highways near Cleveland, OH.[8] Both their current and earlier studies were sponsored by the outdoor advertising industry. Reported crashes were analyzed for a period of 18 months prior to and after the conversion of these billboards from conventional to digital. They found essentially no statistically significant differences in crash rates before and after the conversion.

Unfortunately, all post-hoc crash studies are subject to certain weaknesses, most of which are difficult to overcome. For example, the vast majority—more than 80 percent in one study—of accidents are never reported to police; thus, such studies are likely to underreport crashes. Also, when crashes are caused by factors such as driver distraction or inattention, the involved driver may be unwilling or unable to report these factors to a police investigator. Another weakness is that police, under time pressure, are rarely able to investigate the true root causes of crashes unless they involve serious injury, death, or extensive property damage. Furthermore, to have confidence in the results, researchers need to collect comparable data in such studies before and after the change and in the after phase at equivalent but unaffected roadway sections. Last, since crashes are infrequent events, data collection needs to span extended periods of time, both before and after introduction of the change. Few studies are able to obtain such extensive data. For a more specific analysis of some possible design and methodological concerns with the study by Tantala and Tantala, see Wachtel.[8,9]

2.3 FIELD INVESTIGATIONS

The spectrum of field investigations related to roadway safety is broad. It includes unobtrusive observation, naturalistic driving studies, on-road instrumented vehicle investigations, test track experiments, driver interviews, surveys, and questionnaires. Klauer et al., in one of several papers to emerge from a National Highway Traffic Safety Administration (NHTSA) project known as the "100-Car Naturalistic Driving Study," provides preliminary information about the role of driver inattention in crashes and near-crashes.[10] Although the study did not specifically address CEVMS, it represents an important methodology for investigating driver distraction. Their results show that 78 percent of crashes and 65 percent of near-crashes included driver

inattention and/or distraction as a contributing factor. This contribution from inattention and distraction is larger, by a factor of three, than previous research has indicated. The authors believe that the "100-Car Naturalistic Driving Study" provides the first direct link (i.e., without reliance on crash surrogate measures) showing distraction/inattention as a contributing factor to motor vehicle crashes. In another variant of the "100-Car Naturalistic Driving Study," Klauer et al. identifies four specific unsafe behaviors that contributed to crashes and near-crashes.[11] One of these, inattention and/or distraction, is of direct relevance to the present project. This term is operationally defined by Klauer et al. as a driver looking away from the forward roadway for greater than 2.0 s. Under these conditions, the odds of a crash or near-crash are nearly twice those than when the driver attends to the forward roadway. The study stresses the importance of including near-crashes in the database for two reasons. First, the kinematics of crashes and near-crashes are similar, meaning they involved comparable levels of driver emergency actions, such as swerving and hard braking. Second, 83 percent of the crashes in this study were not reported to the police. Thus, the study indicates that relying on crash statistics alone will substantially underreport crashes due to inattention and/or distraction.

Lee, McElheny, and Gibbons undertook an on-road instrumented vehicle study on interstate and local roads near Cleveland, OH.[12] The project, conducted on behalf of the outdoor advertising industry, looked at driver eye glance behavior toward digital billboards, conventional billboards, comparison sites (sites with buildings and other signs, including digital signs), and control sites (those without similar signage). Performance measures, such as speed maintenance and lane keeping, were also recorded. Although the major data collection was done in daylight, a small pilot study was conducted at night. One of the key questions that the study sought to answer was whether longer glances consisting of over 1.6 s were associated more with any of the event types.[12] This question is based on findings from various studies, including the "100-Car Naturalistic Driving Study," which indicates that longer glances away from the road are associated with higher crash rates.[13] In discussing their results, the authors state, "...the distributions of glance duration were similar across all event types, and there was no obvious pattern of longer glances being associated with any of the event types" (p. 59).[13] The findings from the nighttime pilot study led to, "the overall conclusion, supported by both the eye glance results and the questionnaire results, that the digital billboards seem to attract more attention than the conventional billboards and baseline sites (as shown by a greater number of spontaneous comments regarding the digital billboards and by longer glances in the direction of these billboards" (p. 10).[13] However, in view of the small number of participants, these data were not analyzed. The authors suggest that at least some of these findings, "would show statistical significance" if a larger study were to be conducted (p. 64).[13]

Beijer, Smiley, and Eizenman, working on behalf of the Government of Toronto, Canada, evaluated driver eye glances toward four different types of roadside advertising signs on roads in the Toronto, Canada area.[14] The study employed an on-road instrumented vehicle approach with a head-mounted eye-tracking device. Active signs—all but traditional billboards—consistently received longer glances and more total glances than fixed signs. The study found that 22 percent of all glances were defined as long or greater than 0.75 s. Since 22 of the 25 subjects made at least one long glance at an advertising sign, the authors conclude that, "distraction...was not just an isolated incidence" (p. 101).[14] The authors suggest that active signs may result in greater distraction than past studies of the effects of commercial signing might indicate.

After a previous study raised concerns about the number and duration of glances made to video advertising signs along an expressway in Toronto, Canada, Smiley et al. conducted another study at the request of the city government.[7,15] Five different measures were taken, including eye movements, traffic conflicts, traffic speed and headway, crash data, and public surveys. The crash data results were described earlier. The results from the other measures were mixed. All of the video signs attracted attention; the probability of a driver's looking at such a sign upon approach was nearly 50 percent. The average glance duration was 0.5 s, similar to those for official traffic signs. However, one-fifth of the video sign glances lasted longer than 0.75 s, and some lasted as long as 1.47 s, which were considered unsafe amounts of time. About 38 percent of glances at the video billboards were made when headways were 1.0 s or less, and 25 percent of the glances took place when the signs were more than 20 ° off the line-of-sight. These glances were also considered to be unsafe. According to the study, glances at static billboards and bus shelter ads were made at even greater angles and shorter headways.

It is noteworthy that the earlier study that led to this research, also evaluating a video billboard on an expressway in Toronto, Canada, produced dramatically different results. This study found five times the number of glances per subject and three times the glance duration than did the later 2004 study.[15] Smiley et al. attribute these differences to the longer sight distance available for the sign in the earlier study, the uninterrupted view, and the location of this sign on a curve.[7]

Smiley et al. also employed safety surrogate measures of conditions which might be precursors of a possible crash.[7] The study measured these safety surrogate indicators by means of the unobtrusive observation method. The drivers of the vehicles were not aware that they were being observed. In this context, the study measured traffic conflicts, vehicle speed, and vehicle headway. When comparing video and non-video approaches at the same intersection, at one intersection the authors found no differences in traffic conflicts; however, at the other, they found a significant increase in drivers who applied their brakes without cause on the video approach. Given the comparability of sites, they concluded, "the only reason that could be found for increased braking…was the presence of the video sign" (p. 108).[7] The speed and headway data were inconclusive.

In addition, Smiley et al. employed a "public" survey method to determine whether video advertising might be considered to have "a negative effect on traffic safety" (p. 110).[7] Participants in the survey were approached at three intersection sites which had video advertising. Of the 152 persons surveyed at the 3 locations, 65 percent felt that video advertising signs had a negative effect on the ability of a driver to attend to pedestrians and cyclists. Furthermore, 59 percent of the people said that as drivers, their attention was drawn to such signs, while 49 percent of those felt that such signs had a negative effect on traffic safety. A surprisingly large number of people—9 out of 152—stated that they personally had experienced near-crashes, and 2 had experienced actual rear-end crashes that they associated with video advertising signs. In addition, 86 percent of the respondents suggested that restrictions should be placed on those types of signs, such as their locations and brightness.

Three of the field investigations of CEVMS effects mentioned earlier employ indirect measures of driver attention (eye glances) in the context of an on-road instrumented vehicle experimental approach. Although CEVMS stimuli are real, the experimental approach suffers from a degree of artificiality in its implementation. The research participants usually drive in an experimental

vehicle along a route which is contrived for experimental purposes, and the route does not serve a useful purpose in their daily lives. The research participants sometimes drive with an experimenter present in the instrumented vehicle, and they sometimes wear a head-mounted eye-tracking device. Two of the three studies cited used a somewhat intrusive but more accurate head-mounted eye-tracking device. One study used a less obtrusive but also less accurate vehicle-mounted eye-tracking device, where cameras were mounted in the vehicle cab. Although the research participants were not told the purpose of the investigation, the participants were definitely aware that they were participating in a driving experiment of some kind, and they may not have exhibited entirely natural behaviors as a result. Furthermore, eye glance behavior is difficult to measure, and it is not easy to relate directly to attention and distraction. For a more specific analysis of some further design and methodological concerns with the Lee et al. study cited above, see Wachtel.[12,9]

The unobtrusive observation method employed in the field by Smiley et al. to collect safety surrogate measures of potential crashes (e.g., sudden braking, inadequate headway, etc.) does not create an artificial environment for the driver.[7] Usually, the sensing devices (loop detectors, remote cameras, or posted human observers) are hidden in the environment, and they are not noticed by the drivers. There is no problem of artificiality; the drivers in the study are not even aware that they are part of a study. However, the safety surrogate variables being measured are usually infrequent, often multicausal, comparatively subtle, and difficult to measure. For CEVMS, these variables can also occur over great distances, adding to the difficulty in accurately and reliably capturing data relating to these variables.

Finally, the public survey method employed by Smiley et al. collected the opinions, attitudes, and feelings of passersby at intersections with video advertising signs.[7] The results, while interesting as a measure of public sentiment, are difficult to relate to the basic research question of determining whether there are any significant distraction effects or concrete safety concerns with regards to CEVMS used for outdoor advertising.

2.4 LABORATORY INVESTIGATIONS

Laboratory investigations related to roadway safety can be classified into several categories: driving simulations, non-driving simulator laboratory testing, and focus groups.

For one such investigation, a non-driving simulator laboratory testing environment was used.[16] For this study, researchers filmed a 27 minute drive and had 200 licensed drivers view the film while their eye movements were recorded. Billboards generated greater levels of visual attention than suggested by measures of recall. Billboards were viewed by individuals whether they were in the "target" audience or not and regardless of whether the billboard was of high or low interest. In addition, billboards located close to official highway signs received more attention than those that were farther away.

In a driving simulation laboratory, Crundall et al. compared street level advertisements (SLAs), such as those on bus shelters, to raised level advertisements (RLAs), which include elevated ads on poles or streetlights.[17] The study was based on the understanding that, in undemanding situations, drivers have spare attentional capacity; however, when cognitive demands increase, spare capacity diminishes. As a result, eye movements must focus on the driving task at hand.

Based on their prior research, Crundall et al. believe that if an advertisement is within the driver's visual field during a search for hazards, it will attract visual fixations and distract attention needed to safely perform the driving task.[17] Because the most relevant information for hazard detection is distributed along a horizontal plane, the authors believe that the majority of visual fixations will fall within this plane when the driver is looking for driving-relevant information. Thus, if an advertisement is located within this window, it will receive more fixations than will advertisements located outside this window. The principal research hypotheses tested were that during conditions when drivers were looking for hazards, SLAs would receive the most attention. When spare capacity was greater, the attention given to RLAs would increase. The results supported these hypotheses. A post-drive survey showed that SLAs were judged more hazardous than RLAs.

Young and Mahfoud used a driving simulator in which subjects drove three routes in the presence and absence of billboards.[18] The presence of billboards adversely affected driving performance in terms of lateral control and crashes. Billboards also had an adverse impact on driver attention in terms of the number of glances made to them, and they were associated with a higher subjective mental workload. In addition, the recall of official road signs was adversely affected by billboards, which the authors interpreted to mean that drivers were attending to billboards instead of relevant road signs. The authors reached a "persuasive overall conclusion that advertising has adverse effects on driving performance and driver attention" (p. 18).[18]

In a recent study using a driving simulator, Chan and her colleagues compared the impacts of in-vehicle versus external-to-vehicle distractors on performance of inexperienced versus experienced drivers.[19] The authors were particularly concerned with young, novice drivers because of the elevated crash risk for this segment of the driving population. They were also concerned because the researchers believed that distraction could adversely affect the novice drivers' poorly developed hazard detection and avoidance skills. Chan et al. theorized that external distraction may be more harmful than internal distraction because when drivers are looking within the vehicle, it should be obvious to them that they are not processing relevant roadway information. However, when drivers are looking at sources outside the vehicle, it is likely that the forward roadway is still somewhere within the field of view. Thus, it may not be obvious to drivers (particularly inexperienced drivers) that this important information is not being fully processed since it is peripheral, unattended, or both.

Chan et al. were primarily interested in the longest glances away from the forward roadway since these have been implicated in prior studies (e.g., Horrey and Wickens[20]) as major contributors to crashes. Thus, they used as their dependent measure the maximum time that drivers spent continuously looking away from the forward roadway during a specific distraction task. In terms of in-vehicle distractors, as hypothesized, inexperienced drivers showed a consistent pattern of looking away from the roadway for longer periods of time than experienced drivers. However, the findings about external distractions were quite different and unexpected in two key ways. There was very little difference in the duration of distraction episodes between the experienced and inexperienced drivers, and the maximum distraction durations were significantly longer for the out-of-vehicle tasks than for the in-vehicle tasks. The two experience groups showed little differences in the percentage of distraction episodes longer than 2.0 s, 2.5 s, and 3.0 s, in all cases longer for the external than for the in-vehicle distractors. The study also demonstrated that, "drivers are more willing to make extended glances external to the vehicle than internal to the

vehicle" (p. 17).[19] Chan et al. conclude that, "it is likely that our out-of-vehicle tasks (which not only engage attention but also draw the eyes and visual attention away from in front of the vehicle) would have quite significant detrimental effects on processing the roadway in front of the vehicle" (p. 22).[19]

Three of the laboratory investigations of possible distraction effects mentioned above employ indirect measures of driver attention (eye glances) in the context of a driving simulation experimental approach. The interactive driving simulator approach offers considerable experimental control over stimulus parameters, like the size, number, proximity, and change rate of CEVMS or other advertising display. The simulator is also well suited for executing parametric studies of the effects of these variables on possible driver distraction. However, the approach suffers from all of the sources of artificiality found in the on-road instrumented vehicle approach for conducting field research mentioned earlier. Also, the approach adds the important source of virtual driving as opposed to real driving. Although the vehicle cab of the driving simulator may have certain degrees of motion (pitch, roll, heave, etc.) to enhance the sense of virtual driving, the vehicle cab does not move down the roadway. The visual scene passes by while the driver and vehicle remain stationary. This degree of artificiality requires considerable adaptation on the part of the research participants, most of whom need some amount of training to become accustomed to the differences between driving in a simulator and driving on a real road. Moreover, in the case of CEVMS, present driving simulators do not have sufficient visual dynamic range, image resolution, and contrast ratio capability to produce the compelling visual effect of a bright, photo-realistic LED-based CEVMS on a natural background scene.

One laboratory investigation had research participants watch films of driving scenes containing billboards while their eye movements were being recorded.[16] This study represents an example of a non-driving simulator laboratory method. It suffers from all of the aforementioned limitations of laboratory CEVMS or billboard research. In addition, it does not measure the participants' response while engaged in a driving task.

2.5 PREVIOUS LITERATURE REVIEWS

Garvey summarizes the literature on sign visibility, legibility, and conspicuity on behalf of the advertising industry.[21] One of his recommendations bears on the issue of distraction from billboards. He suggests that signs need not be detectable at distances greater than the minimum required legibility distance. Specifically, he states, "if a sign is detected before it is legible, the driver will take numerous glances at the sign in attempts to read it" before it becomes legible, and "these momentary diversions are inefficient and potentially dangerous" (p. 1).[21]

Cairney and Gunatillake, working on behalf of the Government of Victoria, Australia, undertook a review of the literature with the goal of generating recommendations for guidelines for the control of outdoor advertising in that State.[22] They cited two prior reviews by Wachtel and Netherton in the United States and by Andreassen in Australia as the basis of their review.[2,23] Since these earlier studies, the technology used for the display of roadside advertising and the addition of in-vehicle distractors has changed. Cairney and Gunatillake conclude that the principal concern remains the effects that a sign may have on a driver's visibility of other road users, the roadway, and traffic control devices, particularly at high-demand locations, such as interchanges. They suggest several research approaches, including case studies, site

investigations, and laboratory simulations to address these newer technologies. They conclude that the best of the studies conducted to date demonstrate that when all confounding variables are controlled statistically, sites with advertising signs have higher crash rates than sites without them. However, large, well-controlled studies will be required to detect significant effects because the effect size is small. They further conclude that changeable message signs may have a more direct bearing on crash rate than static signs. The findings of the study suggest that unregulated roadside advertising has the capability of creating a significant safety problem. The conclusions from their review run counter to Andreassen's conclusion that, "there is no current evidence to say that advertising signs, in general, are causing accidents" (p. 4).[23]

On behalf of the Scottish government, Wallace undertook the most extensive and critical review of the literature since the two earlier FHWA studies.[24] The study concludes that driver distraction from attention-getting sources can occur even when the driver is concentrating on the driving task. Furthermore, there is abundant evidence that billboards can function as distractors, particularly in areas of visual clutter. Billboards can distract in "low information" settings, and distraction from external factors is likely to be underreported and underrepresented in crash databases.

The Dutch National Road Safety Research Institute reviewed the recent literature for the Dutch authorities and emphasized some of the stronger, more consistent points made in other studies, such as billboards should not be placed near challenging road settings, especially at or near intersections. Also, they should not resemble official traffic signs in pattern or color.[25] Furthermore, dynamic signs that display motion or include moving parts should not be permitted. A key conclusion was that, "precisely in a dangerous situation it is important for the driver to have his attention on the road; an advertising billboard can slow the driver's reaction time, which increases the chance of a crash" (p. 2).[25]

The WisDOT sponsored a study which summarizes available information about the safety impacts of outdoor electronic billboards and tri-vision signs.[26] Similar to Crundall, et al. and Wallace, the authors of this study determined that greater visual complexity associated with a high-volume location, such as intersections, required drivers to search the environment more than at lower-volume locations.[17,26] The authors stated, "it can be conjectured that additional visual stimuli such as billboards may add additional demand to driver workload in high-volume intersections" (p. 6).[26]

Bergeron, on behalf of the Government of Quebec, Canada, re-reviewed many of the studies originally examined by Wachtel and Netherton and added reviews of several studies conducted subsequent to 1980.[2,27] His findings and conclusions, similar to those of other researchers, indicate that attentional resources needed for the driving task are diverted by the irrelevant information presented on advertising signs. This distraction leads to degradation in oculomotor performance, which adversely affects reaction time and vehicle control capability. The study concludes that when the driving task imposes substantial attentional demands that might occur on a heavily traveled, high-speed urban freeway, billboards can create an attentional overload that can have an impact on micro and macroperformance requirements of the driving task.

2.6 REVIEWS OF PRACTICE

Bergeron also performed a site review at a major elevated expressway in Montreal, Canada, which was proposed for two future billboards.[28] By reviewing the scene and considering various parameters such as traffic volumes, road geometry, and traffic control devices, Bergeron concludes that this 1.1 km section was already causing excessive cognitive demands, particularly for the many unfamiliar drivers. He concluded that the billboards would be inadvisable for several reasons. First, the location creates a substantial demand on drivers' mental workloads because of its complex geometry, heavy traffic, high traffic speeds, merging and diverging traffic, and the presence of signs and signals that require drivers to make rapid decisions. Also, at the perceptual level, the billboards would add confusion to the visual environment, thus impairing drivers' visual search, tracking, and reaction time. In addition, at an attention level, billboards could distract drivers. Last, the billboards could add to a driver's mental workload in a setting where workload is already quite high. In a road situation such as this one, Bergeron concludes that the billboard is a "useless drain on limited attentional resources" (p. 5), and it could lead to reduced performance through inattention errors by overloading the driver's information processing abilities.[28]

du Toit and Coetzee address the current regulatory process for advertising signs visible from national roads.[29] The authors report that the South African government engages in careful scrutiny of proposed advertising signs before they are approved for use. All applications receive a desktop review followed by a site visit. If a decision cannot be made at this point, the authorities evaluate crash statistics for the proposed location to determine that if it is hazardous. Key questions asked as part of the review include the following:

- Will the proposed sign obscure the view of an official road sign?
- Will the sign cause a disruption of information flow to the driver?
- Will the sign's location distract the driver's attention at merge/diverge areas, curves, and interchanges?

A clear system exists in South Africa that requires certain spacing between road signs, particularly those that are close to interchanges; proposed advertising signs must fit within the parameters. This system, as codified in the South African Road Traffic Signs Manual (SARTSM), is intended, "to allow adequate time for the driver to read, interpret and react on the information on the road sign" (p. 7).[29] The authors report that for a recent review period, 86.7 percent of all applications were rejected. Of those, 40.8 percent were rejected because the advertisement was too close to existing road signs, 20 percent were rejected because the sign disrupted the flow of information to the driver, and 7.5 percent were rejected because the sign was too close to a ramp gore.

As a result of his work cited immediately above, Coetzee reviewed literature, performed a regulatory analysis, and recommended changes to regulations for outdoor advertising control in South Africa.[30] Although superficially similar to regulations in the United States, billboard control in South Africa goes much further, regulating the design and amount of information (in bits) that can be displayed on a given sign, as well as the proximity of two or more advertising

signs to one another and to road features, such as official signs and interchanges. In South Africa, message sequencing, visual clutter, and sign size are restricted for different display technologies. This document includes a description of the terms *critical event* and *critical zone*, and it demonstrates how regulations would control advertising signs in these applications. Coetzee finds support from the earlier work of Ogden and the experiments of Johnston and Cole, concluding that, whereas drivers may be able to ignore advertisements when the driving task requires attention, it is possible that an attention-getting sign can assume primary importance and interfere with not only any spare capacity that a driver might have but also the information processing capacity reserved for primary task performance.[31,32] The danger arises, according to Coetzee, when processing the information on the advertisement interferes with the driver's principal vehicle control task in situations that demand attention and rapid reactions.[30] The Coetzee report is the only work in the present review of the literature that has attempted to establish the parameters of billboard location and content based on theories of information processing and cognitive demand.

2.7 CONCLUSIONS FROM LITERATURE REVIEW

2.7.1 Basic Research Question

The basic research question being addressed in the present report is whether the presence of CEVMS used for outdoor advertising is associated with a reduction in driving safety for the public. When regarded from a scientific perspective, the present literature review does not provide an adequate answer to this question. The studies reviewed are inconclusive.

The present literature review reveals a disjointed array of isolated studies revealing sometimes contradictory and inconclusive results. Some studies show statistically significant driver safety concerns or distraction effects, but not all levels of distraction have negative safety impacts. Some studies go one step further and compare a statistically significant distraction with a criterion level of distraction claimed to represent the threshold of negative safety performance. This approach represents a substantial improvement, but it depends heavily upon the veridicality of the chosen criterion level of distraction. Other studies show no statistically significant safety or distraction effects at all, or they show mixed results. Some studies which show no statistically significant safety or distraction effects have been demonstrated to have serious flaws in their experimental and/or statistical designs. These studies are often plagued with two intrinsic methodological problems. First, they may not have sufficient measurement accuracy and precision to distinguish CEVMS distraction from noise in the data. Second, they may not have sufficient statistical power to reveal a small but important distraction effect which may really exist; i.e., they have not sampled enough events, drivers, or conditions to demonstrate an effect which may be obscured by variability due to sampling. In summary, from the perspective of strict statistical hypothesis testing, the present literature review is inconclusive with regard to demonstrating a possible relationship between driver safety and CEVMS exposure. From this perspective, the more stringent restrictions on the placement of billboards found in other countries might be regarded as a conservative precautionary measure, erring on the side of protecting public health from a possible but unproven threat and not as a response to an established driving safety hazard. That is not to say that such a conservative approach is inappropriate, but it should be acknowledged as such.

The present literature review does reveal a preponderance in the number of studies (5:1) which show some driver safety effects due to traditional billboards and CEVMS in comparison with the number of studies that show no driver safety effects at all due to these stimuli. In addition, four other studies show mixed results. Three lists were prepared below to demonstrate this outcome. These lists included only empirical research studies, regardless of the methodology employed. Studies that reviewed literature or practice were not included unless they also contained an original research component. Studies previously reviewed in the earlier FHWA projects were also not included.

The following research studies reported potential adverse safety effects for all dependent measures:

- Wisconsin Department of Transportation.[4]
- Young.[16]
- Crundall, et al.[17]
- Young and Mahfoud.[18]
- Chan, et al.[19]

The research study by Tantala and Tantala[8] reported no adverse safety effect on any dependent measure.

The following research studies reported potential adverse safety effects using some dependent measures and no effects using other dependent measures:

- Lee, McElheny, and Gibbons.[12]
- Beijer, Smiley, and Eizenman.[14]
- Beijer.[15]
- Smiley et al.[7]

Such an outcome could lead one to conclude that there is more evidence for a possibly meaningful negative safety impact than evidence against such an impact. This conclusion is not warranted for at least two reasons. First, a simple tally of the number of studies which support a given research hypothesis compared with the number of studies which do not support the hypothesis may be misleading. Such a tally neglects to weigh the various studies for their intrinsic strength of experimental design, statistical power, and care of execution. One strong landmark study with a robust experimental design and a sufficiently large sample of cases or drivers can topple a host of weaker investigations with fewer credentials. Yet, credentialing and weighting studies can become a subtle and subjective matter. It is difficult to judge studies on their relative strengths because it requires experience and judgment. While it may be relatively

easy to identify the champion study and give that study a strong weighting, it is more difficult to evaluate the weaker studies at the middle and bottom of the list.

Second, there is a strong propensity in scientific research to search for differences. The current Western model of reductionist scientific inquiry, coupled with its reliance on the paradigm of parametric statistics, is aligned against supporting the null hypothesis. This hypothesis states that there are no observed differences between two or more different treatments, i.e., that matters under scientific scrutiny are due to chance. This propensity to search for differences is so strong that when anticipated results are small or subtle, researchers often seek out conditions in nature that are worst case examples to find any affect at all. This causes the results to suffer from a lack of generalization when the entire population becomes the frame of reference. Thus, the present literature review acknowledges a possible natural and intrinsic bias toward including more studies that show a possible distraction effect of CEVMS exposure than studies that do not. Once these two considerations are recognized—a lack of weightings for comparing studies and a propensity to emphasize differences—the present literature review realigns to its original inconclusive outcome. In summary, present scientific techniques are not adapted to providing proof that CEVMS do not distract drivers; they only afford opportunities to demonstrate that they do distract drivers and possibly to what extent. If the demonstrated extent of distraction is minor and below the accepted criterion to interfere with safe driving, then the safety impact may be considered negligible.

2.7.2 Methodological Implications

The inconclusive literature review findings suggest the need for carefully controlled and methodologically sound investigations of the relationships between CEVMS, driver distraction, and safety. The review also suggests several factors that need to be considered in future research. One plausible model posits that drivers often have spare attentional capacity, and they can afford to divert their visual attention away from the driving task to look at objects irrelevant to the driving task, such as CEVMS. According to this model, when driving demand increases because of fixed hazards (such as dangerous roadway geometry or complex interchanges) or transient hazards (such as slowing traffic, vehicle path intrusion, or adverse weather), spare capacity is reduced or eliminated, and the driver devotes more capacity to the driving task. In this model, driver workload emerges as an important issue. By applying this model, in some countries, outdoor advertisements are not allowed in areas where known fixed hazards exist. Such locations include, but are not limited to, sharp horizontal or vertical curves and areas where high cognitive demand is imposed by the roadway, traffic, or environment, like intersections, interchanges, and locations of merging or diverging traffic. In some countries, billboards are also not allowed where they might interfere with the processing of important information from official road signs. These prohibitions do not in themselves prove that distraction is worse in high driver workload situations. However, they do point to the need to consider conditions of differing driver workload in an effective future research program on possible safety effects from CEVMS exposure.

When scanning for hazards, drivers' eye movements tend to fall within a horizontal window centered on the focus of expansion in the forward view. This focus of expansion is related to the visual flow of the moving scene where points and objects all emerge from a single point. Because an attention-getting billboard may be able to attract a driver's glance even unintentionally, a CEVMS that falls within this scanning pattern can interrupt the pattern and

cause a distraction at an inopportune time. Furthermore, research suggests that the distraction from a roadside billboard may be unconscious. Consequently, drivers may not be aware that they are being distracted, and they are unable to verbalize that any distraction occurred. Although where someone's eyes look may not be the same as where his or her attention is focused, a theoretical connection may be implied. Through this connection, measurements of eye glance behavior permit the researcher to gain potential entrance into this realm of unconscious allocation of attention. This allocation of attention should play an important role in an effective program for future research.

In addition, it cannot be assumed that all CEVMS are equal, even those of the same size, height, and LED technology to display their images. The impact of a CEVMS in an undeveloped area with relatively low levels of nighttime ambient lighting may be quite different from that of a CEVMS in a more urban context among other buildings and structures in an area with high nighttime illumination levels. Furthermore, characteristics of the CEVMS displays may, in and of themselves, lead to measurable differences in distraction, such as information density, colors of figure and background, character size and font, and message content. These characteristics cannot be assumed to be equivalent for purposes of comparisons. One possible solution to this problem may be for future research studies to exercise a certain degree of experimental control over the CEVMS message itself. This may require a deeper level of cooperation with the billboard industry than has been encountered in previous studies. Such increased cooperation could be beneficial in establishing a collaborative research environment among industry, government, and university stakeholders.

Finally, a frequently changing CEVMS, which can generally be seen long before it can be read, raises a particular concern for distraction. This is because drivers may continue to glance at the CEVMS to observe changes in varying content with various sizes of lettering until the sign content can be read. The implication here is that future studies may need to embrace longer viewing distances.

3.0 KEY FACTORS AND MEASURES

The study of possible CEVMS effects on driver safety represents a complex research endeavor. There are numerous key factors affecting a driver's response to CEVMS. Many of these influential factors may be designated as independent research variables in need of specification or control within a given research design. Likewise, there are numerous inferred measures of driver safety which may serve as possible dependent variables for observation and measurement. Depending upon the specific research design, some of these independent and dependent variables may swap places.

3.1 KEY FACTORS (INDEPENDENT VARIABLES)

For classification purposes, the key factors, or major independent variables, may be categorized into various types. The list of key factors shown below gives some of the independent variables which might be considered in the study of possible safety effects of CEVMS. These key independent variables were selected from a more comprehensive analysis by means of a process to be described later. This analysis grouped all of the independent variables into five major categories according to source as follows:

- Billboard.
- Roadway.
- Vehicle.
- Driver.
- Environment.

After this initial analysis, a subsequent evaluation selected only the most important, or key, factors or variables. Each category lists the key independent variables which belong to that category. The lists below contain independent variables from four of the five above mentioned categories. The vehicle category is missing because all of the variables belonging to that category were eliminated in the selection process. For cross reference purposes, the decimal number shown in brackets to the right of each variable gives the outline number from the more detailed analysis upon which the selection was based (see table 1 in appendix A). In parentheses to the right of certain variables are given some examples and explanations which serve to clarify that particular variable.

The following are the key factors relating to the billboard:

- Location [1.1] (lat./long., GPS, mile marker, survey location, reference location).
- Sight distance [1.1.3].
- Resolution [1.2.3] (dpi, LEDs/inch, crispness).

- Luminance [1.2.4] (brightness).
- Contrast ratio [1.2.4].
- Day/night settings [1.2.4].
- Change rate [1.3.2] (image changes).
- Dwell time [1.3.2].
- Change time [1.3.2].
- Sequencing [1.3.2] (apparent motion).
- Full motion video [1.3.4].
- Engagement value [1.3.5] (ability to hold attention).
- Message [1.4].

The following are the key factors relating to the roadway:

- Category [2.1.1] (two-lane rural, collector, arterial, freeway).
- Geometry [2.2.2] (curve radius: horizontal, vertical).
- Intersection [2.2.3] (signalized, stop controlled).
- Interchange [2.2.4].
- Exit [2.2.4].
- Entrance [2.2.4].
- Merge [2.2.4].
- Gore [2.2.4].
- Traffic [2.3] (average daily traffic, peak traffic, level of service).

The following are the key factors relating to the driver:

- Age [4.1].
- Gender [4.1].
- Demographics [4.1].

- Years driving [4.2].
- Route familiarity [4.2].
- State [4.3] (alert, fatigue, alcohol, drugs).

The following are the key factors relating to the environment:

- Visual clutter [5.1.1].
- Nearby billboards [5.1.1].
- Ambient lighting [5.1.1].
- Official signs [5.2] (illuminated, luminous (VMS), retro-reflective).
- On-premise signs [5.3] (conventional, tri-vision, digital, full motion video).

The combined list of key factors given above represents a subset of the most influential independent variables in terms of importance to a future program of research. This subset of variables was selected from a more extensive list of the major independent variables which might play a role. As mentioned previously, the list of all major independent variables may be found in outline form in table 1 in appendix A. The bracketed decimal numbers in the list of key factors refer to the corresponding outline numbers in table 1. In addition, the table cites some of the advantages and disadvantages of employing that particular variable. The combined list of key factors presents the 32 variables which were judged to be the most influential variables from table 1.

The more comprehensive and detailed analysis represented in table 1 identifies considerably more possible independent variables. The approximately 60 types of variables listed in the table are further broken down into 185 specific subtypes or levels of independent variables which could play an important role in studying the possible effects of CEVMS on driver distraction and roadway safety. It is encouraged to carefully examine the many independent variables and their advantages and disadvantages, as described in table 1 in appendix A, to gain a greater appreciation of the complexity of the research problem. With such a profusion of important factors affecting the study of CEVMS effects, no single experiment could possibly answer all of the relevant scientific or engineering questions.

The key independent variables were selected from the expanded list represented in table 1 by three senior research psychologists, all coauthors of the present report and familiar with CEVMS research. The criterion for selection was the importance of that factor in conducting research on CEVMS effects. Thus, the list of key factors indicates critical independent variables which need to be considered in any proposed program of research. The brightness and crispness, or photo realism, of the CEVMS images are extremely important. Any image changes, apparent motion or video motion in the CEVMS, and location parameters are also critical factors. The next level of importance relates to environmental factors. Two distinct classes of variables must be taken into account: general visual clutter and the presence of other off-premise commercial CEVMS

(nearby billboards). In particular, compelling information from CEVMS used for advertising may conflict with important roadway safety information conveyed by nearby traffic control devices (official signs). The question should also be raised concerning possible enhanced distraction caused by the urgency of Amber Alerts and other public safety messages displayed on CEVMS. Any contextual links among the messages from several sequential CEVMS, as well as any specific user interactions with the CEVMS must be taken into account. Factors to consider for drivers include their familiarity with the driving route and the expected presence or absence of CEVMS. Lastly, the complexity of the roadway geometry and the volume of traffic are likely to play significant roles.

3.2 KEY MEASURES (DEPENDENT VARIABLES)

The study of driver safety is a complex area of investigation. There are numerous objective, inferred, and subjective measures of driver behavior which might serve as dependent variables in a program of proposed research on the possible safety effects of CEVMS. As demonstrated in the discussion concerning independent variables, the key measures or dependent variables may be categorized into types. The list of key measures shown below gives 28 key measures, or dependent variables, which might be considered possible safety effects of CEVMS. As was the case for the list of key factors (independent variables), the list of key measures represents a down selection from a more extensive list of the major dependent variables of interest (see table 2 in appendix A). The dependent variables are grouped into the following four major categories:

- Vehicle behavior.
- Driver and vehicle interactions.
- Driver attention and distraction.
- Crashes.

The structure of the list of key measures for dependent variables is similar to that for the list of key factors for independent variables. In the case of dependent variables, the major variable categories of driver and vehicle interactions and crashes found in table 2 are missing from the list of key measures below because all of the variables belonging to these two categories were eliminated in the selection process.

Key measures relating to vehicle behavior are as follows:

- Speed [1.1] (continuous, exceeding speed, speed variance).
- Lane position [1.2] (continuous, lane excursions, lane variance).
- Acceleration [1.3] (longitudinal, lateral, heave).
- Other vehicle interactions [1.4].
- Headway [1.4.1] (time to collision).

- Gap acceptance [1.4.2] (merge, passing).
- Conflicts [1.4.3] (near-crashes).
- Violations [1.4.4] (red light running, failure to yield, failure to stop).
- Errors [1.4.5] (missed exit, wrong lane).
- Timing [1.4.6] (late movements, premature movements).
- Infrastructure interactions [1.5].
- Response to roadway geometry [1.5.1] (swerves, sudden braking).
- Response to traffic control devices [1.5.2] (misses, delays).
- Pedestrian interactions [1.5.3] (yields).

Key measures relating to driver attention/distraction are as follows:

- Eye glance behavior [3.1.1] (number and duration of glances, glance object).
- Distractor performance [3.1.2] (secondary task).
- Visual occlusion [3.1.3].
- Feature detection [3.1.4].
- Feature recognition [3.1.5].
- Driver workload [3.1.6] (task performance).
- Head turning [3.1.7].
- Driver errors [3.1.8].
- Reaction time [3.1.9] (perception-reaction time).
- Surprise [3.2.1] (orienting response).
- Conspicuity [3.2.2] (attention grabbing).
- Search patterns [3.2.3].
- Capacity [3.2.4] (self-regulated attention, spare capacity).
- Subjective measures [3.3].

As mentioned above, the more detailed analysis underlying the combined list of key measures shown above may be found in table 2 in appendix A. Table 2 for the dependent variables has the same general structure as table 1 for the independent variables. The approximately 65 types of dependent variables listed in table 2 are further broken down into 105 specific subtypes or levels of variables which could play an important role in measuring the possible effects of CEVMS on driver distraction. As noted before, it is encouraged to carefully examine the many dependent variables and their advantages and disadvantages, as described in table 2 in appendix A, to gain a greater appreciation of the wide variety of ways that driver safety can be measured as they relate to possible influences from CEVMS. With so many potential measurement techniques available, care must be taken in selecting appropriate dependent variables for any proposed program of research.

Only the key dependent variables are listed in the combined list of 28 key measures given above. They were selected by the same process used to select the key independent variables in the list of key factors. As indicated before, the criterion for selection was importance in conducting research on CEVMS effects. Thus, the list of key measures indicates critical measures which need to be considered in future research. Eye glance behavior can serve as a particularly important potential indicator of specific visual distractions. The concept of self-regulated attention is very important for establishing excessive levels of distraction, despite difficulties in establishing a criterion threshold. This concept refers to attention that is under the driver's conscious control, as opposed to involuntary attention, which may compel the driver to glance away from the road for an excessive amount of time. Increases in driving conflicts and errors are likewise effective measures of safety. The next level of importance relates to other observations of vehicle behaviors, including determinations of acceleration, lane position, and speed. Similarly important infrastructure interactions, such as driver responses to roadway geometry and traffic control devices, need to be considered.

4.0 RESEARCH STRATEGIES

To successfully investigate the potential safety effects of CEVMS, the key factors (independent variables) and key measures (dependent variables) described in the previous section need to be selected, combined, and integrated into an effective research strategy. There are a number of possible research strategies that could address the basic research question. The list of recommended research strategies shown below lists eight key research approaches that might be considered. This list was generated from a more comprehensive and detailed analysis of the research strategies which might be of interest. This comprehensive analysis of research strategies was divided into six major groups (see table 3 in appendix A). The first group focuses on observing or counting actual motor vehicle crashes as they might occur or have occurred in the field. This field portion includes retrospective crash data base studies. The second group entails observing motor vehicle crashes as they might occur in a driving simulator. The third group involves observing safety surrogate measures as they might actually occur in the field. The fourth group focuses on observing safety surrogate measures as they might occur in a driving simulator. The fifth and sixth groups relate to social surveys and analytical studies. In this instance, the down-selection process eliminated all research strategies concerning crashes, social surveys, and analytical studies. Within the parentheses next to each strategy are some selected advantages and disadvantages associated with using that type of strategy in conducting research.

Only the key strategies are shown in the list of recommended research strategies. They were selected by the same process used to select the key independent and dependent variables, with one important exception. This exception involves the incorporation of several assumptions which were derived from the antecedent analysis of potential independent and dependent variables. First, the brightness, sharpness, photo realism, and visual context of the CEVMS are extremely important. Since these characteristics are difficult to reproduce in a laboratory, laboratory methods tended to be judged low. In addition, certain participant-related variables, in particular eye glance behavior, are highly effective measures of distraction and workload. Any research method that supported the measurement of such variables tended to be judged high. Last, crash data involve rare events with multiple causal factors; making them difficult to measure. The CEVMS technology is too new to have an adequate crash heritage. In general, crash estimation methods tended to be judged low.

After incorporation of the above assumptions, the following final list of recommended research strategies was developed. This final list included strategies from only two of the original six groups of strategies.

The recommended research strategies for the safety surrogate field group include the following:

- Unobtrusive observation [3.1] (natural driving context/no eye glance data, expensive).
- Naturalistic driving [3.2] (natural driving context/insensitive eye glance data, expensive).
- On-road instrumented vehicle [3.3] (experimental control, sensitive eye glance data, efficient, cost effective/artificial drive purpose).

- Closed-course test track [3.4] (stimulus control, efficient, cost effective/out of context driving).

- Commentary driving [3.5] (easy/artificial response, interfere with driving).

- Non-vehicle based field testing [3.6] (easy/artificial, out of context).

The recommended research strategies for the safety surrogate laboratory group include the following:

- Driving simulator [4.1] (experimental control, sensitive eye glance data, efficient/limited stimulus, artificial).

- Non-simulator laboratory [4.2] (relatively easy/artificial, out of context).

The more detailed analysis underlying the above combined list of recommended research strategies may be found in table 3 in appendix A. In the table, the more comprehensive analysis of research strategies is further broken down into approximately 55 specific categories and 165 subtypes or levels of these categories. The reader is encouraged to carefully examine the many strategies and their advantages and disadvantages, as described in the table, to gain a greater appreciation of the wide variety of potentially relevant research methods which might be employed to study possible CEVMS effects.

Table 3 can be used to discriminate among potential candidate research strategies. Certain research strategies can be eliminated from further consideration. Analytical studies cannot fill knowledge gaps and consequently often fall prey to reliance on unfounded assumptions. Social surveys are based on memory and opinion, and they are generally administered far from the event of interest both in terms of time and space. Crash rates, whether observed in the field or in the laboratory, represent extremely rare events, which are often the result of multiple complex causes and thereby difficult to evaluate. CEVMS technology has not been deployed long enough to accumulate a sufficient number of proximal motor vehicle crashes to make reliable estimates concerning population crash statistics in the field. Driving simulators used to measure safety surrogates have the advantage of careful control over stimulus parameters and testing conditions, but they suffer the disadvantage of being unnatural and artificial. More importantly, driving simulators have difficulty reproducing the luminance contrast and bright photorealism of the new CEVMS technology. In a similar manner, the closed-course test track and non-vehicle based field testing techniques represent a comparatively artificial and out-of-context experimental environment even though they are conducted in the field. Finally, commentary driving also affords natural billboard stimuli, but the driving task becomes somewhat artificial.

The three research strategies which were judged to be the most effective were the on-road instrumented vehicle, the naturalistic driving, and the unobtrusive observation method, which were all used to measure driver distraction and safety surrogates. Thus, the outcome of the present investigation of research strategies recommends three primary candidates for consideration in any program of future research to study the possible effects of CEVMS on driver distraction and roadway safety. Each of the three study methods represented has its own unique advantages and disadvantages. All three of these top candidate research strategies should

be considered in developing any future research program on CEVMS effects. They provide the basis for selecting a recommended first stage study in such a program.

This is not to say that other research strategies do not have a significant role to play in a comprehensive research program directed toward a common goal. For example, if significant negative CEVMS safety effects have already been found using one of the primary research strategies, subsequent driving simulator experiments might be employed to systematically vary certain billboard location, timing, or spacing parameters in a controlled and consistent manner to establish billboard placement guidance. In addition, combinations of research strategies can result in synergistic efficiency. For example, both the unobtrusive observation and the naturalistic driving methods naturally support the simultaneous collection of crash, near-crash, or safety surrogate data. The analysis of crash data will also be needed to relate measures of driver distraction to more direct determinants of roadway safety.

5.0 FUTURE RESEARCH PROGRAM

As stated previously, it is not possible to answer all of the critical questions concerning possible attention, distraction, and safety impacts from CEVMS in a single experiment. Instead, a carefully crafted program of research needs to be conceived and implemented to embrace a series of interrelated experiments and studies directed at answering different facets of this complex issue. This section describes the important elements of a recommended research program. This research program is broadly defined to provide a background and context for more concrete alternative first stage studies outlined in section 6.0. This section describes a long-range multistudy research program covering a number of years. Section 6.0 will outline three methods for implementing the first stage of that program.

5.1 STAGES

The proposed research program would have the following three stages:

- Stage 1—The attention and distraction effects of CEVMS would be investigated to determine whether any observed or measured distractions due to CEVMS is sufficient to interfere with attentional criteria for safe driving. This stage is directed at discovering whether or not distraction from CEVMS represents a potential driving hazard. Initial CEVMS parameters must be chosen carefully so as not to bias the result from the outset.

- Stage 2—If potential interfering distraction is observed, it would be necessary to investigate the relationship between the observed distraction and various CEVMS parameters (e.g., luminance, change rate, distance, CEVMS spacing, engagement level of sign content, and road geometry) to determine possible limitations on CEVMS deployment and operation which might reduce distraction to noninterfering levels. This stage is directed at developing empirical data to support the development of possible restrictions or regulation of CEVMS to reduce potential driving hazards.

- Stage 3—As related to CEVMS, researchers would have to investigate the relationship between distraction, defined in terms of eye glance behavior and safety surrogate measures (driving conflicts, errors, etc.), and safety, defined more directly in terms of crashes, fatalities, injuries, and property damage. This stage focuses on validating the eye glance and safety surrogate measures used to infer attention and distraction effects of CEVMS through the primary safety criterion of protecting life, health, and property.

The above stages of the proposed research program are to be pursued sequentially. The initial stage is directed at determining whether or not a potentially harmful CEVMS distraction effect exists. To demonstrate such a distraction effect, an independent and objective threshold criterion of excessive distraction must be employed. If no potentially harmful distraction is shown, at least as far as driving safety is concerned, there would be little need to pursue the second stage of developing a basis for regulating CEVMS or the third stage of relating CEVMS distraction to more direct measures of safety (crashes). If potentially harmful distraction is shown in the first stage, the second and third stages would be implemented in order. The order of the last two stages may appear to be reversed. Normally, it would seem desirable to establish a relationship

between CEVMS distraction and crashes before developing a basis for regulation. However, in this instance, the LED-based digital CEVMS technology is so new that it will not be possible to reliably measure crashes for some time. Meanwhile, if possible distraction is shown, the community of practitioners engaged in outdoor advertising control will need near-term technical information on the luminance, contrast, change rates, and spacing of CEVMS to minimize that distraction. For this reason, the stages have been proposed in the order given above.

5.2 APPROACH

The literature review update in section 2.0 points to some important principles that should be incorporated into the proposed program of research to enhance the probability that the program can successfully achieve its goals. These principles can be regarded as lessons learned from the experience of previous research. First, empirical studies should employ CEVMS stimuli, as well as a variety of comparison stimuli, including standard (non-digital) billboards, built objects of casual visual interest (e.g., houses, barns), and natural background control scenery (e.g., trees, fields). This principle establishes a relevant visual context against which to contrast CEVMS stimuli. Next, empirical studies should be constructed so as to compare the effects of CEVMS and the effects of the various comparison stimuli. This principle implies that some measurable (statistically significant) effect should be demonstrated for as many of the comparison stimuli as possible, at least for the standard billboards. It is necessary to show some distraction effect for both CEVMS and standard billboards relative to a baseline to be sure that the study is not just measuring random noise in the data. In addition, for the case of distraction and safety surrogate performance measures, the measured effects of CEVMS and standard billboards need to be compared with each other and with an independently determined criterion of potentially harmful consequences. The application of this criterion needs to incorporate the concept of self-regulated attention, as indicated in section 3.0. Last, to the degree possible, direct experimental control should be exerted over the CEVMS stimuli. In the first stage of determining a meaningful distraction effect, this control can be limited to turning the CEVMS on and off for predetermined periods according to a strict experimental protocol. In the second stage of establishing possible parameter limitations, this control may need to be expanded to changing the luminance, message change rate, or some other CEVMS characteristic according to an experimental protocol.

These four principles define the basic approach for implementing the proposed research program. They provide guidance and direction to the proposed program. It should be emphasized that only a systematic multiyear broad program of research can adequately answer the important questions posed by the community interested in outdoor advertising control concerning the possible distraction effects and safety implications of CEVMS. No single experiment can provide the solution. it should also be emphasized that all stages of the research program must be sensitive to the practical needs of the outdoor advertising community, which includes highway engineers, traffic engineers, the outdoor advertising industry, environmental advocates, and outdoor advertising regulators. Even though the second stage is where most of these practical needs are addressed, at all stages of the research, investigators need to try to provide practical information on the luminance, contrast, change rate, display size, display spacing, or other parameters over which the outdoor advertising community could possibly exert some control. Administrators concerned with issuing permits for billboards need practical engineering results to assist them in there daily jobs.

5.3 STRUCTURE

As outlined above, the proposed research program consists of three stages. The first stage focuses on determining the potential existence of harmful distraction effects due to CEVMS. The second stage involves determining limitations or restrictions to CEVMS parameters which could reduce or eliminate the implied potentially harmful distracting effects. The third stage focuses on relating the reduction in implied potentially harmful distraction to actual safety benefits of decreasing crashes, fatalities, injuries, and property damage on the roadway. The sections below describe these stages in more detail.

5.3.1 Stage 1—Determination of Distraction

The first stage, to determine the potential existence of harmful CEVMS distraction, may be implemented in many different ways. According to the analysis of research strategies in section 4.0, the three most effective approaches are the on-road instrumented vehicle, the naturalistic driving, and the unobtrusive observation methods.

The on-road instrumented vehicle method is sensitive to a wide range of variables, including accurate eye glance measurements. It affords the opportunity to ensure that the test participants drive by many CEVMS and comparison sites in a structured and reproducible manner.

The naturalistic driving method is similar to the on-road instrumented vehicle technique, but it has less control since the test participants drive their own vehicles according to their own personal daily schedules. As a result, the participants may pass few, if any, billboards. Furthermore, the naturalistic driving method has difficulty supporting accurate eye glance measurements, and it requires considerably more effort and expense. However, the naturalistic driving method is less artificial and has a high degree of face validity.

Although the unobtrusive observation method also involves considerable effort and expense, the data collected are based on the observation of vehicles rather than individual drivers. The unobtrusive observation method is the least artificial of the three because with this technique, research participants are generally unaware of being observed.

This first stage of the research program would employ one or more of these study approaches as a first step. A single method could be selected, or more than one approach could be combined. For example, the on-road instrumented vehicle and the unobtrusive observation method could make an effective combination, but the cost would be high. In either case, this first stage should also be designed to answer, at least in a preliminary manner to whatever degree possible, some of the practical questions of interest to the community concerned with outdoor advertising control.

5.3.2 Stage 2—Basis for Regulation

If the results of the first stage reveal a CEVMS driver distraction effect sufficient for public concern, then the second stage of the proposed research program would be implemented to provide an initial technical basis for possible regulation. This stage would consist of a series of eye glance and safety surrogate evaluations in the field and in the laboratory designed to investigate the various parameters of CEVMS which contribute to driver distraction. Although field methods can capture the realism of the CEVMS stimulus, they do not allow the researcher

to independently vary a variety of CEVMS parameters one at a time so as to isolate the effect of that variable, as some of the laboratory techniques would. For example, this second stage might begin with attempts to estimate the gross effects of certain salient CEVMS parameters in the field. Throughout this section, the brightness of the CEVMS will be used as an example, but the approach can be adapted to many other relevant CEVMS characteristics. For example, many current CEVMS displays adjust their brightness for day and night. If the outdoor advertising industry would agree to adjust the brightness of several installations both during the day and at night for the purposes of experimentation, partial estimates of the effects of brightness on eye glance behavior might be elaborated for selected luminance levels.

To obtain a more complete functional relationship between eye glance distraction and CEVMS luminance, a test track or driving simulator experiment might be devised. If it were possible to erect an experimental CEVMS installation at a test track location, the test track experiment would have realistic brightness and contrast levels, as well as controlled exposure conditions. However, it would suffer from a highly constrained and unnatural driving environment. The driving simulator experiment could easily portray a wide variety of driving environments with realistic contexts, but it would suffer from a severely restricted range of luminance and contrast ratios. Nonetheless, to overcome these disadvantages, correction factors or transformations might be applied to the test track data to account for discrepancies in level of attention and to the driving simulator data to account for photometric discrepancies. The incorporation of such correction factors or transformations to relate test track and laboratory data to driving data on real roads underscores the necessity of conducting a combination of field and laboratory testing environments in this stage of the proposed research program. Some degree of field validation needs to be a part of any laboratory component of the research during this stage.

This second stage of the research program must be designed to answer, to the degree possible, the practical questions of the community interested in outdoor advertising control. This is the stage of research which addresses functional relationships regarding the effects of CEVMS luminance (brightness), change rates, size, display spacing, and other variables on driver distraction and roadway safety. These functional relationships could subsequently be translated by outdoor advertising administrators and regulators into concrete rules which protect the safety of the driving public while at the same time allowing commercial growth and the rights of the outdoor advertising industry. To be fully successful, this stage of the research program must be pursued with active participation from all stakeholders, which include industry, environmentalists, researchers, and regulators alike.

5.3.3 Stage 3—Relationship to Crashes

The third stage of the proposed research program relates changes in potentially harmful distraction effects due to various CEVMS parameters to changes in actual roadway safety (crashes and their consequent fatalities, injuries, and property damage). This stage is directed at validating the earlier findings with regard to CEVMS distraction based on eye glance and safety surrogate measures in the context of retrospective crash data. This stage of the program would likely employ the Empirical Bayes, or Bayesian, method of analyzing crash statistics. The Bayesian approach formally incorporates prior knowledge into the process of current research, and it translates probabilistic calculations into statements of belief concerning statistical hypotheses in place of the classical confidence interval concept employed in parametric

statistics. The Empirical Bayes method also incorporates the crash history of other control sites with similar traits to account for extraneous factors which may be influencing the crash data at the site of interest. In short, the Empirical Bayes method possesses distinct statistical advantages over the naïve before/after technique and even the before/after technique with a simple control. The Empirical Bayes method is well suited for the task of estimating vehicle crash rates along different stretches of roadway, including those stretches with CEVMS. The prediction of baseline crash rates, and their potential increase or decrease with the introduction of CEVMS, is essential to this final stage of the proposed research program. This final stage should also be designed to answer, to whatever degree possible based on crash statistics, some of the practical questions of interest to the community concerned with outdoor advertising control. Because of the low numbers of crashes and their susceptibility to multiple determining causes, considerable effort, time, and expense will likely have to be expended on this final stage.

6.0 RECOMMENDED FIRST STAGE STUDY

The first stage of the research program, determination of distraction, provides the context for selecting the recommended next study. The first goal of this stage of the program is to determine whether any observed or measured distraction due to CEVMS is sufficient to interfere with attentional criteria for safe driving. The second goal is to provide some preliminary practical technical information that could be of help to the community interested in outdoor advertising control. This goal could consist of furnishing initial indications of the possible distraction effects produced by one or more of the concrete variables over which the community might exert some control, such as luminance (brightness), change rate, display size, and display spacing. According to the analysis summarized in section 4.0, to provide an initial answer to these types of questions, the three most effective research strategies are the on-road instrumented vehicle, the naturalistic driving, and the unobtrusive observation methods. In the present section, one possible preliminary study is briefly described using each of these three approaches. A more detailed description of each study approach is given in appendix B. This detailed description includes more specific information on the general method, factors and measures employed, advantages and disadvantages, and budgetary cost. After project initiation, a more comprehensive work plan and more in-depth budget will need to be developed. That comprehensive work plan should receive inputs from all of the important stakeholders in CEVMS research, which include industry, environmentalists, researchers, and regulators alike. After careful and thorough deliberation, the final details of that comprehensive work plan and budget may differ considerably from what is suggested in this section or in appendix B.

6.1 SUMMARY OF STUDY APPROACHES

6.1.1 On-Road Instrumented Vehicle

The on-road instrumented vehicle method employs an instrumented vehicle which is brought to the study site. The study site is a location where there are one or more CEVMS installations along a public access roadway. Each research participant drives the instrumented vehicle along a prescribed route, which includes CEVMS installations, standard (non-digital) billboards, objects of casual visual interest (e.g., houses and barns), and natural background control scenery (e.g., trees and fields). Each participant completes several such drives. The instrumented vehicle is capable of measuring vehicle speed, vehicle lane position, longitudinal acceleration, lateral acceleration, GPS time and position, and driver eye glance direction and duration. The instrumented vehicle is also equipped with accurate vehicle-mounted or head-mounted eye-tracking equipment, video cameras (forward and cab views), and a voice recorder. The major independent variable in the study is the presence or absence of CEVMS and other comparison visual stimuli along the driving path. If possible, the CEVMS should be capable of being turned off and on or changing along some other dimension like luminance or change rate, according to a prearranged experimental design. Other important independent variables are the time of day (day/night), traffic conditions (peak, nonpeak) and driver variables (age, gender, and route familiarity). The primary dependent variables are the frequency, direction, and duration of driver eye glances. Secondary dependent measures are safety surrogate indicators associated with driver errors and other measures of driver performance, such as speed changes, headway, lane

deviation, and traffic conflicts. A rough budgetary estimate for conducting such an on-road instrumented vehicle study is between $400,000 and $800,000 (see appendix B for more details).

6.1.2 Naturalistic Driving

The naturalistic driving method employs a standardized instrument package which is installed in each participant's own private vehicle or in a vehicle loaned to the participant. The participant's vehicle appears and performs as it normally would. Participants drive their vehicles as part of their daily life routines, making control of CEVMS exposure difficult. The instrument package is capable of measuring speed, lane position, acceleration, GPS time and position, driver eye glance frequency, direction, and duration. However, because of the unobtrusive nature of the experimental technique, this method cannot support the use of accurate head-mounted or vehicle-mounted eye-tracking equipment. Once the participant's vehicle has been instrumented, data are collected by means of automatic wireless downloads without participant awareness or involvement. The major independent variable is the presence or absence of CEVMS and other comparison visual stimuli (standard billboards, buildings, control settings, etc.) along the driven path. If possible, the CEVMS should be controlled according to a prearranged experimental protocol. Secondary independent variables could include the type of vehicle (sedan, pickup, or SUV) and driver characteristics (age, gender, and route familiarity). The primary measures or dependent variables are the frequency, direction, and duration of the driver's eye glances. However, as a result of the lower degree of accuracy in eye movement recording, this study method depends more heavily on secondary dependent variables. Safety surrogate measures associated with driver errors and other measures of driver performance (headway, lane deviation, conflicts, and erratic maneuvers) are of increased importance in this method. Additional dependent variables may include the time of day (day/night), traffic conditions (peak, nonpeak), in-vehicle distractions (eating, cell phone use), state of fatigue, etc. A rough budgetary estimate for conducting such a naturalistic driving study is between $2 million and $4 million (see appendix B for more details).

6.1.3 Unobtrusive Observation

The unobtrusive observation method employs an array of static cameras or other sensors mounted near the locations of the CEVMS and other comparison stimuli. The cameras are capable of recording the behavior of vehicles passing the various relevant visual stimuli as a part of the natural flow of traffic. The drivers are usually completely unaware that their vehicles are being observed. Post-hoc analysis of the video recordings from these cameras can yield data similar to some of that obtained by the on-road instrumented vehicle and naturalistic driving methods including vehicle speed, lane position, acceleration, and time. However, the data from distal video cameras are usually far less accurate and reliable than what can be collected by instruments on board the vehicle. Moreover, with present measurement technology, such video recordings cannot yield any data concerning driver eye glance movements. The major independent variable is the presence or absence of CEVMS and other comparison visual stimuli (standard billboards, buildings, etc.) along the driving path. If possible, the CEVMS should be controlled according to a prearranged experimental protocol.

Some secondary independent variables might include the time of day (day/night) and traffic conditions (peak, nonpeak). This study method depends completely on safety surrogate measures

associated with driver errors and other measures of driver performance (headway, lane deviation, and erratic maneuvers), and it requires a large camera array over a long distance recording for extended periods, as well as extensive data analysis. A rough budgetary estimate for conducting such an unobtrusive observation study is between $1 million and $3 million (see appendix B for more details).

6.2 COMPARISON OF STUDY ALTERNATIVES

This section has introduced and described three different candidate approaches for the recommended next study, which include the on-road instrumented vehicle method, the naturalistic driving method, and the unobtrusive observation method. Each study method would be capable of addressing the two-part basic research question to determine whether any observed or measured distraction due to CEVMS is sufficient to interfere with attentional criteria for safe driving, and to provide some preliminary practical technical information that could be of help to the community interested in outdoor advertising control. However, each method has certain advantages and disadvantages with regard to its ability to address these two questions.

The on-road instrumented vehicle method was judged the best, having the advantage of being sensitive to a wide range of participant variables, including accurate eye glance measurements with real CEVMS stimuli in natural settings. The degree of experimental control afforded by this method makes it the most productive of the three. Driving scenarios can be selected with a number of CEVMS and standard billboard stimuli along a single drive, which can be repeated both within and across research participants. To the degree that accurate measurements of visual distraction and eye glance behavior are pivotal dependent variables, the on-road instrumented vehicle method has the clear advantage. The high degree of experimental control ensures that exposure to CEVMS and to comparing visual stimuli is uniform and consistent. The on-road instrumented vehicle approach is the most productive research method for producing quality data in the shortest amount of time for the least cost.

The naturalistic driving method was judged the second best, offering some similar advantages to the on-road instrumented vehicle method. However, it suffered from less experimental control over CEVMS exposure, less ability to capture participant-related variables, and more logistical complication and expense. Both of these methods are somewhat related from the perspective of the research participant. In both cases, the research participant is driving in an instrumented vehicle on a real road. Both allow the determination of driver eye glance behavior to some degree, but the increased level of experimental control exercised in the on-road instrumented vehicle method gives this technique a distinct advantage, both in terms of more accurate eye glance measurements and more consistent driver exposure.

Finally, unobtrusive observation of safety surrogate measures involves no direct contact with the driver, thus preserving a completely natural driving environment. However, this method is not sensitive to participant variables. In particular, it is not possible to measure eye glance behavior with this method. This method depends solely on safety surrogate measures. Furthermore, since these safety surrogate measures are relatively subtle to detect at a distance, this method can be costly and time-consuming to implement.

The on-road instrumented vehicle method has a strong advantage in productivity and efficiency. The major advantage of the other two methods is the natural and unobtrusive nature of the study procedure from the perspective of the research participants. However, some degree of artificiality may be a small price to pay to gain the cost effectiveness of the on-road instrumented vehicle method. In the final analysis, the present report recommends the on-road instrumented vehicle method as the best choice for the first stage study. This recommendation is made on the basis of scientific merit, timeliness of producing a meaningful result, and cost.

7.0 CONCLUSIONS

The present report reviews the possible safety effects of CEVMS. The report consists of an update of earlier published work, an investigation of applicable research methods and techniques, recommendations for future research, and an extensive reference list and bibliography. The literature review update covers recent post-hoc crash studies, field investigations, laboratory investigations, previous literature reviews, and reviews of practice. The conclusion of the literature review is that the current body of knowledge represents an inconclusive scientific result with regard to demonstrating detrimental driver safety effects due to CEVMS exposure. This outcome points toward the importance of conducting carefully controlled and methodologically sound future research on the issue.

The present report also analyzes the key factors or independent variables affecting a driver's response to CEVMS and the key measures or dependent variables which serve as indicators of driver safety. These key factors and measures are selected, combined, and integrated into a set of optimal research strategies. Based on these strategies, as well as on lessons learned from the literature review update, a proposed long-term program of research has been developed to address the problem. This research program consists of three stages, which include determination of distraction, basis for possible regulation, and relationship of distraction to crashes.

The present report only addresses the first stage of the proposed research program in detail. For this first stage, three candidate studies, which are an on-road instrumented vehicle study, a naturalistic driving study, and an unobtrusive observation study, have been introduced and compared. An analysis of the relative advantages and disadvantages of each study indicate that the on-road instrumented vehicle study is the best choice as the recommended first stage in answering the basic research question.

APPENDIX A—EXPANDED TABLES

A.1 KEY FACTORS (INDEPENDENT VARIABLES)

Table 1. Expanded key factors (independent variables).

Variable	Ref. #	Advantages	Disadvantages
1.0 Billboard			
1.1 Location	8, 129, 38, 15, 44, 32		
1.1.1 Lat./long.; GPS; mile marker; survey location; reference location; mobile	13, 53, 160	Important to define stimulus; Easy to measure.	Likely to require travel expenses.
1.1.2 Distance from roadway; setback			Less important.
1.1.3 Sight distance; visual occlusions; distance first detected	13, 53	Determines exposure time.	
1.1.4 Orientation; angle to road; side of road; two-sided	144		Less important.
1.2 Display	144		
1.2.1 Type: Conventional; Digital; Tri-vision	125, 48	Digital type stands out.	Tri-vision likely to disappear.
1.2.2 Size; length; height; visual angle; mounting height	129, 32	Off-premise sizes somewhat standard.	On-premise sizes variable.
1.2.3 Resolution; dpi; LEDs/in	95, 48, 53	Crispness (sharpness) of image important.	
1.2.4 Luminance; contrast ratio; day/night settings	48, 53, 144	Brightness (luminance) extremely important.	Night setting may depend upon background illumination.
1.3 Dynamics	31		

Variable	Ref. #	Advantages	Disadvantages
1.3.1 Type: static; changing	158, 129, 26	Changing images extremely important. Static serves as control.	
1.3.2 Change rate; dwell time; change time; sequencing	48, 50, 158, 94	Change pattern important. Easy to measure.	
1.3.3 Special effects: wipe, dissolve, scintillate		Adds to uniqueness and conspicuity.	More difficult to measure.
1.3.4 Full motion video	125, 126	Full motion video extremely compelling.	Difficult to specify exact content seen.
1.3.5 Engagement value: ability to hold attention		Important overall distraction variable	Difficult to measure; requires subjective rating.
1.3.6 Sound			
1.4 Message	129, 44, 144, 53		
1.4.1 Type: text; graphics; mixed; targeted	32, 31	Particular message may be secondary.	
1.4.2 Text: word count; font size; color; content; legibility; affect	32, 48		Many variations. Less important.
1.4.3 Graphics: size; complexity; color; content; affect	31, 50		Difficult to specify. Many varieties.
1.4.4 Public safety alerts		Social benefit.	May be more distracting than advertising.
1.4.5 Interactive: encourages driver response		Interactive may require more attention.	
2.0 Roadway			
2.1 Type			

Variable	Ref. #	Advantages	Disadvantages
2.1.1 Category: two-lane rural; collector; arterial; freeway	13, 15 71, 54	Important determinate of driver workload.	Many variations even in single category.
2.1.2 Lanes: number; width; markings; medians; shoulders; rumble strips			Less important.
2.1.3 Speed: posted; advisory; 85th percentile; median	50	Changes urgency of correct driving responses.	
2.1.4 Condition: dry, wet, ice, rain; oil slick		Important to driver control over vehicle.	
2.1.5 Traction: coefficient of friction			
2.2 Complexity	15		
2.2.1 Tangent: level; grade			Less important.
2.2.2 Curve: horizontal; vertical	13, 44, 118	May place sudden demand on driver attention.	
2.2.3 Intersection: signalized; stop controlled	129, 38, 48	Increased driver workload.	Wide variety of intersection complexities.
2.2.4 Interchange: exit, entrance, merge, gore	26, 44, 32, 48	Controlled access. More carefully engineered.	
2.2.5 Driveway; entrance			Less important.
2.2.6 Lane change: merge; diverge; lane drop		May place sudden demand on driver attention.	
2.2.7 Other: bicycle lane; fire house			Less important.
2.3 Traffic	158, 38, 15, 113,		

Variable	Ref. #	Advantages	Disadvantages
2.3.1 Average daily traffic; peak traffic; level of service	118	Likely to increase driver workload.	
2.3.2 Traffic mix: cars, trucks, buses, motorcycles			Less important.
2.3.3 Pedestrians			Mainly only in urban settings.
3.0 Vehicle	59		
3.1 Type: automobile; SUV; truck; motorcycle		Motorcycle has least obstructed view.	
3.2 Condition: response; vehicle dynamics			Hard to determine in field.
3.3 Windshield: size; tinting; field of view		Defines some stimulus exposure characteristics.	
4.0 Driver	10		
4.1 Characteristics: age; gender; demographics	53, 23, 12, 54		Less important.
4.2 Experience: years driving; route familiarity	15, 100	Route familiarity extremely important.	
4.3 State: alert; fatigue; alcohol; drugs			Difficult to measure.
4.4 Distractions: conversation; eating; cell phone	24, 90, 25		
5.0 Environment			
5.1 Visual—general	113		
5.1.1 Visual clutter; nearby billboards; ambient lighting	160, 15, 32, 44	Complexity of visual environment extremely important.	Difficult to specify.

Variable	Ref. #	Advantages	Disadvantages
5.1.2 Day/night viewing: dawn; dusk; sun-glare	53	Nighttime viewing of bright images important.	
5.1.3 Visual flow			Less important.
5.2 Official signs	160, 2, 26, 100		
5.2.1 Type: regulatory, advisory, navigational	94	Regulatory most important.	
5.2.2 Location: left, right, overhead	44, 15	Billboard can conflict with sign.	
5.2.3 Lighting: illuminated; luminous (VMS); retro-reflective		Luminous (VMS) signs most important.	
5.2.4 Density: number in view, type mix	15		Many variations in urban settings.
5.2.5 Dynamics: change rate; motion; video		Extremely important point of possible conflict.	Motion and video not yet allowed.
5.2.6 Message: text; graphics			Less important
5.3 On-premise signs			
5.3.1 Type: conventional; Tri-vision; digital; full motion video	144	Digital and video most important.	Tri-vision likely to disappear.
5.3.2 Location: left, right, high, low	144		
5.3.3 Lighting: illuminated; luminous; LED	144	Bright, high resolution very compelling.	Difficult to measure.
5.3.4 Density: number in view, type mix		Can add to visual clutter.	Many variations possible.
5.3.4 Dynamics: change rate; motion; video; sound	144	Extremely important variable.	

Variable	Ref. #	Advantages	Disadvantages
5.3.5 Message: text; graphics; interactive		Interactive important.	Text and graphics less important.
5.4 Geographic	15		
5.4.1 Population: urban; suburban; rural	13, 71	Can affect visual clutter.	Many variations.
5.4.2 Terrain: mountain; valley; desert; hilly; near water		Can affect driver workload.	Many variations.
5.4.3 Area: city; state; region			Less important.
5.5 Meteorological			
5.5.1 Temperature; humidity; cloud cover	53		Less important.
5.5.2 Precipitation: rain; snow; fog; ice; visibility	53	Can affect driver workload.	

A.2 KEY MEASURES (DEPENDENT VARIABLES)

Table 2. Expanded key measures (dependent variables).

Variable	Ref. #	Advantages	Disadvantages
1.0 Vehicle Behavior	48		
1.1 Speed	125, 50		
1.1.1 Continuous		More accurate profile.	Large amounts of data. Expensive.
1.1.2 Discrete locations		Less data.	Cheaper.
1.1.3 Speed exceedances: high; low		Distraction indicator.	
1.1.4 Speed variance		Distraction indicator.	Best with continuous data.
1.2 Lane position	161, 48, 54		
1.2.1 Continuous		More accurate profile.	Large amounts of data. Expensive.
1.2.2 Discrete locations		Less data.	Cheaper.
1.2.3 Lane excursions: right; left	23	Distraction indicator.	More difficult to measure.
1.2.4 Lane variance		Distraction indicator.	Best with continuous data.
1.3 Acceleration	48, 54		
1.3.1 Longitudinal: hard braking; delayed acceleration; braking without cause		Excellent surrogate for distraction.	
1.3.2 Lateral: swerves	39	Good surrogate for distraction.	
1.3.3 Heave: bumps	125, 48		Not important.
1.4 Other vehicle interactions	39		

Variable	Ref. #	Advantages	Disadvantages
1.4.1 Headway (car following); time to collision	125, 48, 118	Good surrogate for distraction.	
1.4.2 Gap acceptance: merge; passing		Good surrogate for distraction.	Difficult to measure.
1.4.3 Conflicts; near-crashes	125	Extremely important measure.	
1.4.4 Violations: red light running; failure to yield; failure to stop			Low probability events.
1.4.5 Errors: missed exit; wrong lane		Good surrogate for distraction.	
1.4.6 Timing: late movements; premature movements			Difficult to measure.
1.5 Infrastructure interactions			
1.5.1 Response to roadway geometry: swerves; sudden braking	118, 15	Surrogate for distraction.	
1.5.2 Response to traffic control devices: misses, delays	15	Surrogate for distraction.	
1.5.3 Pedestrian interactions; yields			Only in urban settings.
1.6 Signals	39		
1.6.1 Brake light	125	Indication of sudden deceleration.	
1.6.2 Turn signals			Less important.
1.6.3 Other: backup lights			Not important.

Variable	Ref. #	Advantages	Disadvantages
2.0 Driver/Vehicle Interactions			
2.1 Steering			
2.1.1 Gross movements: curves; turns		Surrogate for distraction.	
2.1.2 Fine movements: lane keeping	60		Difficult to measure.
2.2 Throttle			
2.2.1 Pedal press; pedal position; duration			Less important.
2.2.2 Pedal release; duration			Less important.
2.3 Brake	125		
2.3.1 Pedal press; duration; excursion		Surrogate for distraction.	
2.3.2 Pedal release			Less important.
2.4 Shift (manual only)			
2.4.1 Gear selection (speed)			Not important.
2.4.2 Gear transitions (shifts)			Not important.
2.5 Displays	154		
2.5.1 Speedometer		Secondary visual distractor.	
2.5.2 Other: gauges; radio			Less important.
2.6 Other controls	154, 25		
2.6.1 Safety: windshield wipers; instrument lights; horn; turn signals	54		Less important, except turn signals.

Variable	Ref. #	Advantages	Disadvantages
2.6.2 Entertainment: radio; CD player	48, 24, 54	Secondary distractor.	
2.6.3 Auditory/vocal: voice actuated	154		Low probability of occurrence.
3.0 Driver Attention / Distraction	79, 113, 32, 146, 145		
3.1 Objective measures	129		
3.1.1 Eye glance behavior: eye movements; number of glances; duration of glances; glance object	129, 42, 125, 53, 160, 83, 161, 78	Excellent measure of unconscious attention / distraction.	Delicate, expensive equipment. Difficult to calibrate. Expensive to analyze data.
3.1.2 Distractor performance; secondary task	83, 53	Excellent measure of distraction.	Can increase risk in field experiments. Can be artificial.
3.1.3 Visual occlusion	15	Good measure of distraction.	Can increase risk in field experiments. Unnatural driving task.
3.1.4 Feature detection	48		
3.1.5 Feature recognition	48	Good measure.	
3.1.6 Driver workload; task performance	38, 15, 113	Excellent indicator of distraction.	Complicated to measure.
3.1.7 Head turning	78	Easy to measure.	Less important.
3.1.8 Driver errors	83	Excellent measure of distraction.	Many varieties. Low probability of occurrence.
3.1.9 Reaction time; perception-reaction time	15	Good indicator of distraction.	Difficult to measure.
3.2 Inferred measures			
3.2.1 Surprise; orienting response			Difficult to measure.

Variable	Ref. #	Advantages	Disadvantages
3.2.2 Conspicuity; attention grabbing			Difficult to measure.
3.2.3 Search patterns	15	Indicative of visual hypotheses.	
3.2.4 Capacity: self-regulated attention; spare capacity	15	Extremely important concept.	Hard to establish criterion threshold.
3.3 Subjective measures	161		
3.3.1 Conversational drive		Good possible method.	Lots of extraneous data.
3.3.2 Rating scale		Inexpensive.	Imprecise.
3.3.3 Questionnaire		Inexpensive.	Imprecise.
3.3.4 Survey	125	Relatively inexpensive.	Sampling frame difficult.
3.3.5 Focus group		Small sample. Lots of data.	Confounding social variables.
4.0 Crashes	158, 125, 26, 44, 128, 161, 95, 121		
4.1 Type: head-on; sideswipe; rear-end; backing; run-off-road; pedestrian	39	Very important discriminator variable. Related to ultimate goal.	Rare events. Many contributing factors. Difficult to estimate statistically.
4.2 Severity: fatal; injury; property damage; unreported		Important to determine impact.	Rare events. Many factors. Difficult to estimate statistically.
4.3 Method of measurement			Rare events. Hard to estimate.
4.3.1 Direct observation: simulator; field camera	42	Best studied in simulator. No chance of injury.	
4.3.2 Before/after study	39, 158	Most common study type.	No control site. Regression toward mean.

Variable	Ref. #	Advantages	Disadvantages
4.3.3 Before/after with control		Control adds rigor.	Regression toward mean.
4.3.4 Before/after/before		More convincing causal effect.	Regression toward mean.
4.3.5 Regression model		Directly account for multiple factors	Large amounts of data on many variables
4.3.6 Empirical Bayes		Control for regression toward mean.	More complicated statistical model.
4.3.7 Full Bayes		More complete treatment of conditional probabilities.	Not widely used.

A.3 KEY RESEARCH STRATEGIES

Table 3. Expanded key research strategies.

Method	Ref. #	Advantages	Disadvantages
1.0 Crashes: Field	97, 95, 21		
1.1 Unobtrusive observation			
1.1.1 Participant: random, uncontrolled; usually unknown	49	No sampling bias.	Do not know participant sample.
1.1.2 Experimenter: usually absent; remote observation; unknown to participant	49	No artificial participant behaviors due to experimenter.	
1.1.3 Stimuli: natural, ordinary, in context; variable, uncontrolled	49	Natural stimuli.	Stimuli not uniform; e.g., weather effects.
1.1.4 Responses: crashes; antecedent vehicle behaviors; rare; few participant variables	49	Directly related to the safety goal.	Extremely rare events; insensitive to participant variables.
1.1.5 Scenario: natural route and purpose; uses own vehicle	49	Completely natural experimental context; uses own vehicle.	Long-term monitoring required.
1.2 Naturalistic driving			
1.2.1 Participant: selected, sampled	79, 78, 42	Know participant sample.	Possible sampling bias.
1.2.2 Experimenter: absent; remote observation; known to participant	79, 78, 42		Possible artificial participant behaviors.
1.2.3 Stimuli: natural, ordinary, in context; variable, uncontrolled	79, 78, 64, 42	Natural stimuli.	Stimuli not uniform; e.g., weather effects.
1.2.4 Responses: crashes; antecedent vehicle and participant behaviors; rare	79, 78, 64, 42	Directly related to ultimate goal; sensitive to some participant variables.	Extremely rare events; difficult to collect adequate sample of crashes.

Method	Ref. #	Advantages	Disadvantages
1.2.5 Scenario: natural route and trip purpose; uses own vehicle	79, 78, 64, 42	Mostly natural experimental context; uses own or borrowed vehicle.	Participant aware of test status; may be injured or killed; vehicle may be damaged or destroyed; expensive.
1.3 Retrospective database: fatal, injury, property damage	87, 49, 128, 14, 58,	Directly related to ultimate goal.	Crashes are rare events; difficult to estimate.
1.3.1 Before-after study	158, 1, 130	Most common study type.	No control site; regression toward mean.
1.3.2 Before-after study with control	120	Control adds rigor.	Regression toward mean.
1.3.3 Before-after-before study		More convincing causal effect.	Regression toward mean.
1.3.4 Regression model		Directly account for multiple factors.	Large amounts of data on many variables.
1.3.5 Empirical Bayes		Control for regression toward mean.	More complicated statistical model.
1.3.6 Full Bayes		More complete treatment of conditional probabilities.	Not widely used.
2.0 Crashes: Laboratory			
2.1 Driving simulator			
2.1.1 Participant: selected, sampled	70	Know participant sample.	Possible sampling bias.
2.1.2 Experimenter: remotely present, unobtrusive observation	70	More experimenter control.	Possible artificial participant behaviors.
2.1.3 Stimuli: simulated, artificial; consistent, controlled	70	Extremely repeatable stimulus conditions.	Artificial stimuli; hard to simulate conspicuity and legibility.

Method	Ref. #	Advantages	Disadvantages
2.1.4 Responses: programmed crashes; antecedent participant and vehicle behaviors; can be more frequent crashes	70	Some control over crashes; can program more frequent crash opportunities.	Lack of negative consequences can unnaturally alter frequency of crashes.
2.1.5 Scenario: contrived route, artificial; unnatural vehicle and environment; safe from harm	70	Control over driving scenario; participant safe from harm.	Unnatural vehicle and environment; artificial scenario; simulator sickness.
2.2 Non-simulator laboratory	87		
2.2.1 Crash scenarios: movies, pictures, acting out		Relatively easy; less resources.	Artificial, out-of-context testing environment.
2.2.2 Crash reconstructions: questionnaires, focus groups		Relatively easy; focus groups more expensive.	Artificial, out-of-context testing environment; focus group social biases.
3.0 Safety Surrogate: Field	34, 85		
3.1 Unobtrusive observation			
3.1.1 Participant: random, uncontrolled; usually unknown	15	No sampling bias.	Do not know participant sample.
3.1.2 Experimenter: usually absent; remote observation; unknown to participant	15	No artificial participant behaviors due to experimenter.	
3.1.3 Stimuli: natural, ordinary, in context; variable, uncontrolled	15	Natural stimuli.	Stimuli not uniform; e.g., weather effects.
3.1.4 Responses: crash precursors; antecedent vehicle behaviors; more frequent; few participant variables	15	More frequent events than crashes; can collect more data with less risk.	Crash precursors only indirect indicators; insensitive to participant variables.
3.1.5 Scenario: natural route and trip purpose; uses own vehicle	15	Completely natural experimental context; uses own vehicle.	
3.2 Naturalistic driving			

Method	Ref. #	Advantages	Disadvantages
3.2.1 Participant: selected, sampled	79, 78, 42	Know participant sample.	Possible sampling bias.
3.2.2 Experimenter: absent; remote observation; known to participant	79, 78, 42		Possible artificial participant behaviors.
3.2.3 Stimuli: natural, ordinary, in context: variable, uncontrolled	79, 78, 42	Natural stimuli.	Stimuli not uniform; e.g., weather effects.
3.2.4 Responses: crash precursors; antecedent vehicle and participant behaviors; more frequent events	79, 78, 42	More frequent events than crashes: can collect more data with less risk.	Crash precursors only indirect indicators.
3.2.5 Scenario: natural route and trip purpose; uses own vehicle	79, 78, 118, 42	Mostly natural experimental context; uses own or long-term borrowed vehicle.	Participant aware of test status; may be injured or killed; vehicle may be damaged or destroyed; expensive.
3.3 On-road instrumented vehicle	14		
3.3.1 Participant: selected, sampled	54, 18	Know participant sample.	Possible sampling bias.
3.3.2 Experimenter: present; direct observation and interaction	83	More experimenter control; increased experiment safety.	Possible artificial participant behaviors.
3.3.3 Stimuli: selected; natural, in context	83, 18	Natural stimuli.	Stimuli not uniform; e.g., weather effects.
3.3.4 Responses: crash precursors; antecedent vehicle and participant behaviors; more frequent	54, 18	More frequent events than crashes; can collect more data with less risk.	Crash precursors only indirect indicators.
3.3.5 Scenario: natural route, artificial trip purpose; uses experimental vehicle	54, 83, 18	Semi-natural experimental context; more safe.	Artificial trip purpose; unfamiliar vehicle.
3.4 Closed-course test track			

Method	Ref. #	Advantages	Disadvantages
3.4.1 Participant: selected, sampled	136	Know participant sample.	Possible sampling bias.
3.4.2 Experimenter: present; direct observation and interaction	136	More experimenter control; increased experiment safety.	Possible artificial participant behaviors.
3.4.3 Stimuli: selected; out of context	136	Semi-natural stimuli.	Stimuli not uniform; some possible control.
3.4.4 Responses: crash precursors; antecedent vehicle and participant behaviors; more frequent	136	More frequent events than crashes; can collect more data with less risk.	Crash precursors only indirect indicators.
3.4.5 Scenario: unnatural route, artificial trip purpose; uses experimental vehicle	136	Low probability of harm to participant or vehicle.	Unnatural experimental context.
3.5 Commentary driving			
3.5.1 Participant: selected, sampled	36	Know participant sample.	Possible sampling bias.
3.5.2 Experimenter: present; direct observation; extensive interaction	36	More experimenter control; increased experiment safety.	Possible artificial participant behaviors.
3.5.3 Stimuli: selected; natural, in context	36	Natural stimuli.	Stimuli not uniform; e.g., weather effects.
3.5.4 Responses: extensive driver commentary; running verbal description; crash precursors observable		Collect large amounts of data; direct observation of gross attention.	Commentary could interfere with driving task; artificial task.
3.5.5 Scenario: natural route, artificial trip purpose		Semi-natural experimental context; more safe.	Artificial trip purpose.
3.6 Non-vehicle based field testing			
3.6.1 Roadside interviews	14, 125, 85	Relatively easy; less resources.	Artificial, distal testing environment.

Method	Ref. #	Advantages	Disadvantages
3.6.2 Fuel station, nearby mall interviews		Relatively easy; less resources.	Artificial, out-of-context testing environment.
4.0 Safety Surrogate: Laboratory	36		
4.1 Driving simulator			
4.1.1 Participant: selected, sampled	161, 4, 70, 82	Know participant sample.	Possible sampling bias.
4.1.2 Experimenter: remotely present, unobtrusive observation	161, 4, 70, 82	More experimenter control.	Possible artificial participant behaviors.
4.1.3 Stimuli: simulated, artificial; consistent, controlled	161, 4, 70, 82	Extremely repeatable stimulus conditions.	Artificial stimuli; hard to simulate conspicuity and legibility.
4.1.4 Responses: programmed crash precursors; antecedent participant and vehicle behaviors; can have more frequent events	10, 82, 4	Some control over near-crashes; can program more frequent near-crash opportunities.	Lack of negative consequences can unnaturally alter frequency of near-crashes.
4.1.5 Scenario: contrived route, artificial: unnatural vehicle and environment; safe from harm	161, 4, 70, 82	Control over driving scenario; participant safe from harm.	Unnatural vehicle and environment; artificial scenario; simulator sickness.
4.2 Non-simulator laboratory	75		
4.2.1 Pre-crash scenarios: movies, pictures, acting out	160, 36	Relatively easy; less resources.	Artificial, out-of-context testing environment; weak response measure.
4.2.2 Pre-crash reconstructions: questionnaires, focus groups	36	Relatively easy; focus groups more expensive.	Artificial, out-of-context testing environment: weak response measure; focus group social biases.
5.0 Social Survey	14, 125		
5.1 Telephone survey		Less resources; personal interviewer; more flexible.	Out of context; opinions only; more labor intensive; smaller scale.

Method	Ref. #	Advantages	Disadvantages
5.2 Mail survey		Less resources; standardized; larger scale.	Out of context; opinions only.
5.3 E-mail survey		Less resources; standardized; large scale.	Out of context; opinions only; internet user bias.
6.0 Analytical Study			
6.1 Literature review	53, 38, 26, 129, 52	Benefit from previous knowledge and mistakes.	Based on old information; abstract; hard to apply.
6.2 Review of practice	15, 44	Socially oriented, practical, legal.	Based on old information; not scientific; possibly misleading.
6.3 Deductive-inductive reasoning study	26	Less resources; no need for new data.	Must often make dangerous assumptions; cannot fill in knowledge gaps.

APPENDIX B—DETAILED DESCRIPTION OF STUDIES

B.1 ON-ROAD INSTRUMENTED VEHICLE APPROACH

The most effective research strategy to emerge from the analysis undertaken in section 6.0 is the on-road instrumented vehicle method. The following describes one possible study which might be conducted using this method.

B.1.1 Method

The on-road instrumented vehicle method employs an instrumented vehicle which is brought to the study site, along with a crew of about two or three researchers. The study site is a location where there is at least one CEVMS installation along a public access roadway. Preferably, there would be several CEVMS installations at the location so that a single test driving scenario might pass a few different CEVMS in the course of about half an hour of driving. The investigation should include at least two or three study sites which already have CEVMS in place. At each study site, approximately 20 to 30 research participants would be recruited from the local area.

Each research participant would drive the instrumented vehicle along a prescribed route, which includes CEVMS installations, standard (non-digital) billboards, human-constructed objects of casual visual interest (houses, barns, etc.), and natural background control scenery (trees, fields, etc.). Each drive takes less than 1 hour (preferably about 30 minutes), and each participant would return for several drives on different days. Other aspects would vary as well, such as the time of day, traffic density, and CEVMS conditions (e.g., CEVMS turned on versus CEVMS turned off). Each participant would complete between three and six such drives. The instrumented vehicle and crew would usually remain at a given study site for about 1 to 2 months. The crew would consist of an experimenter and a safety observer, who would both be present in the instrumented vehicle. The safety observer would also serve as a research assistant or technician. The instrumented vehicle is capable of measuring vehicle speed, vehicle lane position, longitudinal acceleration, lateral acceleration, GPS time and position, and driver eye glance direction and duration. The instrumented vehicle is also equipped with accurate vehicle-mounted or head-mounted eye-tracking equipment, video cameras (forward and cab views) and a voice recorder.

B.1.2 Factors and Measures

The major factors or independent variables in the study are the presence or absence of CEVMS and other comparison visual stimuli (standard billboards, buildings, etc.) along the driving path. If possible, the CEVMS should be capable of being turned off and on or changed along some other dimension like luminance or change rate, according to a prearranged experimental design. The period of time that the CEVMS is off or changed could be kept relatively brief and carefully controlled since the study will follow a strict protocol. Other important independent variables are the time of day (day/night), traffic conditions (peak and nonpeak), and driver variables (age, gender, and route familiarity). One or more of the primary CEVMS variables of interest to the community concerned with outdoor advertising control should be represented by varying levels along the driving route (e.g., different degrees of luminance, change rate, or display spacing) as much as possible. Direct experimental control would be preferable to site selection in this regard.

The primary measure or dependent variable in this study is the frequency, direction, and duration of driver eye glances, which serves as an indication of visual attention and distraction. The fundamental hypothesis is that drivers have limited attention; they self-regulate their attention to perform demanding tasks. In the case of the driving task, a certain proportion of their attention needs to be concentrated on the roadway scene ahead. To the degree that eye glance behavior can serve as a measure of visual attention, eye glances need to be concentrated on the roadway ahead. If the frequency and duration of eye glances away from the roadway ahead exceed accepted norms or criteria for keeping a driver's eyes on the road, then driver safety may be compromised. Thus, eye glance behavior is the primary dependent variable in the study. Eye glance behavior has an intuitive connection to visual attention and is sensitive to subtle visual search strategies, including those which are below the level of conscious awareness (see section 2.7.2). Depending upon the type of eye glance measuring instrumentation selected, the act of measuring eye glance behavior may prove to be a more or less significant distraction to the driver in itself. This experimentally-induced artifact can be controlled by selecting a minimally intrusive measurement method or by ensuring adequate adaptation to the instrumentation on the part of the research participant.

This study includes another class of secondary dependent variables. These are safety surrogate measures associated with driver errors and other measures of driver performance, such as speed changes, headway, lane deviation, and traffic conflicts. These secondary variables can be measured by instrumentation in the vehicle in terms of speed, acceleration, and lane position. These secondary variables can also be directly observed and noted by the experimenter and/or safety observer in the instrumented vehicle for later analysis in terms of sudden braking, inadequate headway, swerving, and conflicts. Thus, events indicative of possible driver error or other maladaptive behavior can be flagged by human observers. Also, for these events, only objective vehicle performance data needs to be analyzed, saving considerable effort and expense by eliminating the need to analyze large amounts of continuous vehicle performance data.

B.1.3 Advantages/Disadvantages

One advantage of this method is its ability to implement accurate eye-tracking measurements which afford the opportunity to observe subtle and often unconscious eye movements. This ability to measure unconscious eye movements correlates with unconscious distraction facilitates incorporation of the notion of self-regulated attention into the experimental paradigm. When a driver is attempting to concentrate on the roadway ahead, a distractor, which unconsciously diverts attention away from the roadway against the driver's will, may have a more severe safety consequence than a distractor which can be maintained under conscious and voluntary control. Thus, in addition to being able to measure distraction which is both conscious and voluntary, accurate eye-tracking determinations have the potential to probe other phenomena, such as unconscious and involuntary distraction as they relate to CEVMS exposure.

Another advantage of this method is the ability to structure driving scenarios to have an appropriate number of CEVMS, standard billboard, and other visual stimuli all located on a controlled course, which all research participants drive in a consistent manner. The ability to choose and structure the test drive assures adequate and uniform exposure to CEVMS and other relevant visual stimuli. The ability to exert experimental control is a valuable asset to this method. It facilitates a clean and robust statistical analysis of the data because all of the

participants are exposed to all of the experimental conditions the same number of times in a relatively controlled manner. Experimental control ensures a high level of CEVMS exposure, thereby contributing to the productivity and cost effectiveness of this technique.

However, examined from a different perspective, such a degree of experimental control may also be regarded as a disadvantage. A certain amount of artificiality is introduced into the driving situation thereby. Research participants are definitely aware that they are participating in a controlled experiment, driving someone else's car on a contrived route which does not serve a personal purpose related to daily life. In addition, with the experimenter riding along with the participants in the vehicle, there may be a tendency for the participants to try to please the experimenter and to drive in some unnatural way. The introduction of eye-tracking equipment adds to the artificiality of the situation. Wearing head-mounted eye-tracking gear definitely represents unnatural driving attire. However, most research participants rapidly adapt to the gear with time, and they often report that they are unaware of its presence after a short drive. Vehicle-mounted eye-tracking equipment can be far less intrusive, although the tedious calibration procedures and the presence of the cameras in the car remind participants that their head and eye movements are constantly being monitored. These are all valid experimental concerns; however, none of these interventions is likely to profoundly alter the driving behavior, much less the eye glance movements, of the research participants, as long as they are not informed of the purpose of the study. The enhanced experimental efficiency that this approach has to offer far outweighs its artificiality drawbacks.

B.1.4 Budgetary Cost

A rough budgetary estimate for conducting such an on-road instrumented vehicle study is between $400,000 and $800,000. The main cost drivers for this method are the eye glance measuring technology and the crew needed to implement the experiment at the study sites. The range in this estimate relates to the number of study sites, adequacy of the sites, length of the experimental drive, number of experimental drives, number of research participants, difficulty in obtaining research participants, ability to turn the CEVMS off and on, and numerous other factors which cannot be determined without further planning.

B.2 NATURALISTIC DRIVING APPROACH

The naturalistic driving method is similar to the on-road instrumented vehicle method. The major difference is that the participants drive their own vehicles (or loaned vehicles) for their own personal purposes. The method typically employs a large number of such vehicles. The following describes one possible study which might be conducted using this method.

B.2.1 Method

The naturalistic driving method employs a standardized instrument package which is installed in the participant's own private vehicle or in a vehicle loaned to the participant. The installation is made as unobtrusive as possible so that the participant's vehicle appears and performs as it normally would. The instrument package is capable of measuring many of the same variables as the on-road instrumented vehicle, such as speed, lane position, acceleration, GPS time and position, driver eye glance frequency, direction, and duration. The instrument package is also

connected to the vehicle data bus so-that additional vehicle-related measures of engine, braking, and steering performance are also recorded. However, because of the unobtrusive nature of the experimental technique, this method cannot support the use of extremely accurate head-mounted or vehicle-mounted eye-tracking equipment. In the present state of technology, these accurate eye movement instruments involve careful calibration procedures with the driver. With this method, the eye-tracking system is mounted in the dashboard in a manner which involves little or no driver interaction. Once the participant's vehicle has been instrumented, data are collected by means of automatic wireless downloads without participant awareness or involvement. The instrumentation is left in the vehicle for a period of 3 to 6 months, during which time the participant drives the vehicle for normal personal or business use.

The fact that participants drive their own vehicles for their own use reduces control and adds uncertainty to the study. It is difficult to control where the participants are going to drive and when. The study site must be selected carefully so that participants are likely to drive by at least some of the target CEVMS installations. The participants must be selected carefully so that they are likely to take the selected roadway with some reasonable frequency. As a result of this increased uncertainty, the number of study sites must be increased to 4 and 5, the number of research participants selected at each site must be increased to 50 and 75, and the duration of measurement for each participant must be increased to 3 and 6. In this study, it is even more important that there are several CEVMS installations at each study site. As was the case for the on-road instrumented vehicle study, each study site needs to include CEVMS installations, standard (non-digital) billboards, objects of casual visual interest (houses, barns, etc.), and natural background control scenery (trees, fields, etc.).

B.2.2 Factors and Measures

As with the on-road instrumented vehicle study, the major factors or independent variables are the presence or absence of CEVMS and other comparison visual stimuli (standard billboards, buildings, control settings, etc.) along the driven path. If possible, the CEVMS should be turned off and on or changed in some other way, according to a prearranged experimental design. However, in this instance, the CEVMS would have to be turned off or changed for longer periods of time because it is not certain when the instrumented test vehicles might pass. These are the primary independent variables. Secondary independent variables could include the type of vehicle (sedan, pickup, or SUV) and driver characteristics (age, gender, and route familiarity). In addition, as much as possible, one or more of the primary CEVMS variables of interest to the community concerned with outdoor advertising control should be represented by varying levels in the selection of CEVMS stimuli.

As in the on-road instrumented vehicle study, the primary measure or dependent variable is the frequency, direction, and duration of driver eye glances. The fundamental hypothesis of self-regulated attention which needs to be concentrated on the roadway scene ahead remains the same. As before, if the frequency and duration of eye glances away from the roadway ahead exceed accepted norms or criteria, then driver safety is assumed be compromised. Thus, eye glance behavior is the primary dependent variable in this study, as well. However, the particular unobtrusive and disengaged dashboard-mounted eye-tracking device may not be capable of making as accurate measurements of eye-movements as can other more delicate vehicle-mounted or head-mounted devices which require periodic participant calibration. Consequently, this study

method depends more heavily on secondary dependent variables. Safety surrogate measures associated with driver errors and other measures of driver performance (headway, lane deviation, conflicts, and erratic maneuvers) become increasingly important in this method. Since the participants will be driving according to their own personal schedules, additional dependent variables may include the time of day (day/night), traffic conditions (peak and nonpeak), in-vehicle distractions (eating and/or cell phone use), and state of fatigue.

3.2.3 Advantages/Disadvantages

The naturalistic driving method possesses one major advantage over the on-road instrumented vehicle method: the driving scenario, driving task, and driving purpose are all completely natural. The research participants drive their own vehicles (or ones loaned to them) on their own personal schedules along personally selected routes to meaningful destinations. Although to a lesser degree, the naturalistic driving method shares another advantage with the on-road instrumented vehicle method: its ability to implement eye-tracking measurements. In fact, the dashboard-mounted eye-tracking device is far less intrusive to the driver than the head-mounted eye-tracking device sometimes employed in the on-road instrumented vehicle method.

Unfortunately, some dashboard-mounted eye-tracking devices may not be as sensitive and accurate as a head-mounted device. Also, they may not be able to track extensive head movements or measure subtle eye glances indicative of unconscious distraction. The useful field of view can also be an issue with certain unobtrusive vehicle-mounted eye-tracking equipment. Consequently, this experimental method may be less effective in its ability to probe the subtle phenomena of unconscious and involuntary distraction as they relate to CEVMS exposure.

Another disadvantage of this method is its inherent lack of structured driving scenarios. Since participants drive whenever and wherever they want, it is difficult to ensure adequate and uniform exposure to CEVMS and other relevant visual stimuli. This lack of experimental control and higher degree of uncertainty necessitate an increase in the number of study sites, research participants, and duration of the study, which negatively impacts the productivity and cost effectiveness of the technique. For example, this method typically requires the instrumentation of a relatively large number of vehicles at any given study site instead of the instrumentation of just one vehicle which is shared by many research participants. Another minor disadvantage is that research participants are aware that they are participating in an experiment, even if the study is minimally intrusive in terms of daily life routine.

3.2.4 Budgetary Cost

A rough budgetary estimate for conducting such a naturalistic driving study is between $2 million and $4 million. The main cost drivers for this method include increasing the number of study sites, installing instruments in a large number of vehicles at a single site, and collecting and analyzing data covering a long period of time. The range in this budgetary estimate relates to the number of study sites, adequacy of the sites, number of vehicles which need to be instrumented at one time, number of research participants, difficulty in obtaining research participants, driving patterns of the research participants, length of the study at any given site, ability to turn the CEVMS off and on, and numerous other factors which cannot be determined without further planning.

B.3 UNOBTRUSIVE OBSERVATION APPROACH

The unobtrusive observation method is different from the on-road instrumented vehicle method and the naturalistic driving method. The major distinction is that no study participants are selected, and all data are obtained from the natural flow of traffic past the CEVMS and other comparison stimuli. The following describes one possible study which might be conducted using this method.

B.3.1 Method

The unobtrusive observation method employs an array of static cameras or other sensors mounted near the locations of the CEVMS and other comparison stimuli. The other sensors may include loops, tubes, or radar to measure vehicle passes and driving parameters. The present report will focus on video recording of traffic. The cameras are capable of recording the behavior of vehicles passing the various relevant visual stimuli as a part of the natural flow of traffic. The drivers are usually completely unaware that their vehicles are being observed. Post-hoc analysis of the video recordings from these cameras can yield data similar to some of that obtained by the on-road instrumented vehicle and naturalistic driving methods, which include vehicle speed, lane position, acceleration, and time. However, the data from distal video cameras are usually far less accurate than what can be collected by instruments onboard the vehicle. Moreover, with present measurement technology, such video recordings cannot yield any data concerning driver eye glance frequency, direction, and duration. The camera arrays are usually left in place for a period of several months to 1 year at each study site. There would typically be three to four such sites in the study. At each study site, separate camera arrays would need to be installed at the locations of all selected CEVMS displays, standard (non-digital) billboards, objects of casual visual interest (houses, barns, etc.), and natural background control scenery (trees, fields, etc.).

B.3.2 Factors and Measures

As in the on-road instrumented vehicle and naturalist driving studies, the major independent variables are the presence or absence of CEVMS and other comparison visual stimuli (standard billboards, buildings, etc.) along the driving path. If possible, the CEVMS should be controlled according to a prearranged experimental protocol. However, in this instance, the CEVMS would have to be changed for longer durations because it is possible to predict when vehicles might pass. In addition, one or more of the primary CEVMS variables of interest to the community concerned with outdoor advertising control should be represented by varying levels in the selection of CEVMS stimuli. These constitute the primary independent variables. Since continuous video recording will be employed, the experimenter can decide to select different times of data collection for further analysis. This capability can provide insight into some secondary independent variables such as time of day (day/night) and traffic conditions (peak, nonpeak).

In contrast to the on-road instrumented vehicle and naturalistic driving studies, the primary dependent variable is not driver eye glance behavior. Instead, this study method depends completely on safety surrogate measures associated with driver errors and other measures of driver performance (headway, lane deviation, and erratic maneuvers). These are subtle driving behaviors to measure by means of distal cameras mounted along the roadway. Unless the

cameras are mounted very high, multiple vehicle images may occlude each other. For a long stretch of roadway, such as might required for CEVMS exposure, a relatively large array of cameras may be needed. Thus, a large amount of data needs to be collected and analyzed in such a study. Automatic machine vision video analysis algorithms can help in the data analysis process, but such algorithms are not yet sufficiently sensitive and robust to reliably identify all of the subtle indicators of driver errors, conflicts, or maladaptive performance which might accompany CEVMS exposure. The use of other sensors instead of or in addition to cameras may mitigate some of these data analysis problems to a certain extent.

B.3.3 Advantages/Disadvantages

The unobtrusive observation method possesses one major advantage over the other two methods: the data are derived from the natural flow of traffic. Other than erecting camouflaged camera arrays at various locations along the roadway, the experimenter does not disturb the natural flow of human driving. As opposed to the other two methods, the vast majority of drivers are completely unaware that they are part of a study depending on how well the camera camouflage works. Other sensors used for this application can also be hidden and made extremely hard to detect. This is the major advantage of the unobtrusive observation method. Another strong advantage is the large number of vehicles which pass by the CEVMS and other comparison stimuli every day. Sample sizes can be relatively large.

Like the other techniques, the unobtrusive observation method has disadvantages as well. First, with present technology, it is not possible to implement eye-tracking measurements in such a study. The inability to measure eye glance behavior makes it difficult to investigate important constructs, like self-regulated attention and unconscious distraction as they relate to CEVMS exposure. The method is left to rely on safety surrogate measures, such as driver errors and maladaptive maneuvers. These relatively subtle pre-crash and near-crash driving behaviors are difficult to measure by means of distal video cameras. Such driving behaviors also occur very seldom and need to be observed over great distances, leading to the necessity to collect large amounts of video data from extended camera arrays over long periods of time. The collection, reduction and analysis of such large amounts of data tend to make this method time-consuming and expensive.

B.3.4 Budgetary Cost

A rough budgetary estimate for conducting such an unobtrusive observation study is between $1 million and $3 million. The main cost drivers for this method include designing camera arrays which can measure subtle vehicle maneuvers, installing camera arrays to record a large extent of roadway for all CEVMS and comparison stimuli, and collecting and analyzing data covering a long period of time. The range in this budgetary estimate relates to the number of study sites, adequacy of the sites, number and location of cameras in an array, method of recognizing safety surrogate measures, length of the study at any given site, ability to turn the CEVMS off and on, and numerous other factors which cannot be determined without further planning.

ACKNOWLEDGEMENTS

The present project benefited from the contributions of many people. Vaughan Inman, Stephen Fleger, Jason Kennedy, and Erin Dagnall provided valuable research, editorial, and technical input. From FHWA Research and Development, Paul Tremont made significant technical and editorial suggestions. From the FHWA Office of Real Estate Services, Catherine O'Hara, Janis Gramatins, Edward Kosola, and Gerald Solomon provided essential stewardship and guidance for the overall effort. Members of the Transportation Research Board (TRB) Subcommittee on Digital Signage graciously provided outside technical review. Members of the National Alliance of Highway Beautification Agencies (NAHBA) furnished helpful background, context, and perspective for the project. Appreciated contributions came from representatives of the outdoor advertising industry, including the Outdoor Advertising Association of America, Inc.; representatives of environmental advocacy groups, including Scenic America; and from various State and local officials engaged in outdoor advertising control. Inputs from the broad community interested in outdoor advertising control, including industry, environmental advocates, and regulators, were especially helpful in ensuring that the present research effort was directed at serving the needs of the user community for such research. The authors are grateful to these and many other unmentioned individuals and organizations who directly or indirectly provided support.

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