Driver Awareness

Watch for Vehicles that Must Stop

Be prepared to stop when following **buses or driving behind trucks with hazardous materials placards**. Federal regulations and the laws of most states require them to stop at every highway-rail intersection, unless advised by appropriate signs.

Beware the Optical Illusion

You ***cannot accurately judge*** a train's speed or distance. Do not take chances. An optical illusion makes a train seem farther away and moving more slowly than it is. Do not take chances.

Trains Can't Stop Quickly... You Can

After ***fully applying the brakes***, a loaded freight train traveling 55 mph takes a mile or more to stop. A light rail train can take 600 feet to stop, and an 8-car passenger train traveling 80 mph requires about a mile to stop.

Be Especially Alert At Night

At night, ***judging speed and distance*** is particularly difficult. Be very cautious.

A word from Operation Lifesaver

Operation Lifesaver urges you to learn lifelong, lifesaving habits around highway-rail intersections, and to stay away from railroad rights-of-way. After you study this bulletin, pass it along to family members and friends.

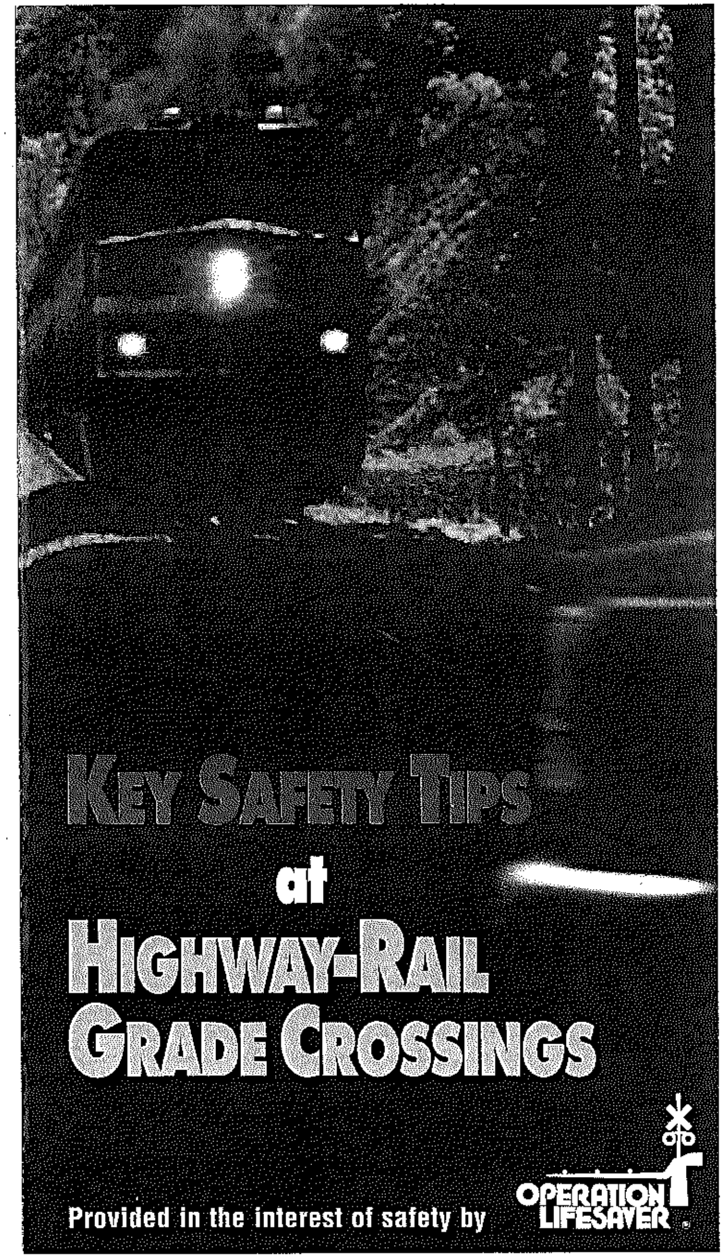
☎ Contact the Operation Lifesaver Coordinator in your state to schedule a free highway-rail safety presentation. Certified Presenters are available to speak in school classrooms, to scout groups and community service groups, for company safety programs, and to driver education students.

☎ Please also consider joining the 2,500 volunteers across the country who have been trained to deliver Operation Lifesaver's safety message. For more information on how you can become an Operation Lifesaver Presenter, call Operation Lifesaver, Inc. at 1-800-537-6224 or your State Coordinator.

Look, Listen Live!

1420 King Street, Suite 401
Alexandria, Virginia 22314-2750
1-800-537-6224 • 703-739-0308
Fax: 703-519-8267
www.oli.org/oli

10/98



Warning Signs and Devices

Public highway-rail grade crossings are places where the roadway crosses the train tracks. They are highway-rail intersections. State highway departments and railroad companies have marked them, for your safety, with one or more of the following warning devices. Learn what they are and watch for them. These warning devices advise you the road crosses train tracks. They alert you to the possible presence of a train.

Advance Warning Signs

The Advance Warning sign is usually the first sign you see when approaching a highway-rail intersection. It is located a sufficient distance ahead to allow a driver to stop before reaching the crossing. The Advance Warning sign advises you to slow down, look and listen for the train, and be prepared to stop if a train is approaching.

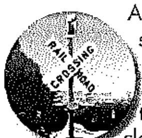
Pavement Markings

Pavement Markings, consisting of an R X R followed by a Stop Line closer to the tracks, may be painted on the paved approach to a crossing. Stay behind the Stop Line while waiting for a train to pass.

Crossbuck Signs

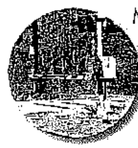
Crossbuck signs are found at highway-rail intersections. They are yield signs. You are legally required to yield the right of way to trains. Slow down, look and listen for the train, and stop if a train approaches. When the road crosses over more than one set of tracks, a sign below the Crossbuck indicates the number of tracks.

Flashing Red Light Signals



At many highway-rail grade crossings, the Crossbuck sign has flashing red lights and bells. When the lights begin to flash, *stop!* A train is approaching. You are legally required to yield the right of way to the train. If there is more than one track, make sure all tracks are clear before crossing.

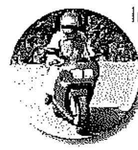
Gates



Many crossings have gates with flashing red lights and bells. Stop when the lights begin to flash and before the gate lowers across your road lane. Remain stopped until the gates go up and the lights have stopped flashing. Proceed when it is safe.

Driving Special Vehicles

Motorcycles

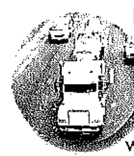


In addition to following all other guidelines in this bulletin, motorcyclists should approach all highway-rail intersections VERY slowly. Be alert to the possibility of a rough crossing. Always cross the tracks at as nearly a 90 degree angle as possible.

School Buses and Commercial Buses

In most states, school buses and commercial buses are required to stop at every highway-rail grade crossing. The driver must look and listen for trains approaching from either direction, and cross only when it is safe to do so. Before crossing be sure there is enough space to clear the tracks on the other side if a stop becomes necessary, and never change gears while crossing.

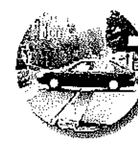
Trucks Carrying Hazardous Materials



Federal regulations and the laws of most states require trucks carrying hazardous materials to stop at all highway-rail grade crossings. Stop gradually to avoid being rear-ended. Never change gears while crossing the tracks. Wherever possible, use roads where railroad crossings are equipped with flashing red lights or gates.

Safety Tips

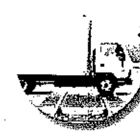
Freight trains do not travel on a predictable schedule; schedules for passenger trains change. Always expect a train at every highway-rail intersection.



Do not get trapped on a highway-rail crossing. Never drive onto a railroad crossing until you are sure you can clear the tracks on the other side without stopping.

If the gates are down, the road is closed. Stop and wait until the gates go up and the red lights stop flashing.

When you are at a multiple-track crossing and the last car of the closest train passes by, stay alert. Before crossing, look and listen carefully for another train on another track, coming from either direction.



If your vehicle stalls at the highway-rail intersection, get everyone out and far away from the tracks immediately. Then, call 911 to report the emergency situation.

Racing a train to a highway-rail intersection is a fool's game. If you lose, you may never have a second chance.

Highway Safety Workshops

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Welcome to Traffic Safety Workshops

Submitted by benedett on Tue, 04/13/2010 - 12:20pm.

NEW! Safety Handbook for Oregon's Local Roads and Streets (Click to Download)

For additional questions or comments about the content of the Handbook please contact:
Mojie Takallou, Ph.D., P.E. at
Phone: (503)943-7437
E-mail: **takallou@up.edu**

About Traffic Safety Workshops

Taught by:

Mojie Takallou, Ph.D, P.E.
Department of Civil Engineering

Sponsored by:

Oregon Department of Transportation
Transportation Safety Division
and
U.S. Department of Transportation
National Highway Traffic Safety Administration

WORKSHOPS offered in your area free of charge

Events

«November 2011

Mon	Tue	Wed	Thu	Fri	Sat	Sun
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7	8	9	10	11	12	13
14	15	16	17	18	19	20
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Highway Safety Workshops

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Highway, Local Road & Street Safety for Non-Engineers

Submitted by mhouston on Sat, 03/24/2007 - 9:42pm.

Workshop Description

This workshop is designed for persons throughout Oregon with responsibilities related to traffic and highway safety. The workshop focuses mainly on the types, causes and costs of traffic crashes, the importance of the Engineering, Enforcement, Education and Emergency medical services. The workshop also reviews proper use of traffic control devices, traffic calming and best safety practices in your region. Overall, the workshop will answer many of the questions that decision makers, traffic safety committee members, and public agencies personal may have regarding the roadway safety.

Who Should Attend and Why

The workshop will be of value to elected officials, city councilors, traffic safety committee members, county commissioners, county road supervisors, street superintendents and concerned citizens. The workshop introduces latest developments in the field and is an opportunity for all involved to exchange up-to-date information. Common road and street problems are reviewed along with practical ways to improve road and street safety.

General Topics

- Introduction to highway, local road and street safety for non-engineers
- The importance of Engineering, Enforcement, Education and Emergency medical services for improving highway safety
- Proper use of traffic control device
- Proper use of traffic calming
- Pedestrian safety and speed management
- Best roadway safety practices in Oregon

Events

«November 2011

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Traffic Safety Workshops in your area free of charge

Submitted by mhouston on Mon, 04/02/2007 - 6:50pm.

Improving Safety Features of Highways, Local Roads and Streets	Tillamook	Nov 14
	Eugene	Dec 12
	Hillsboro	Dec 15
Improving Safety Features of Local Roads and Streets	Bend	Jan10
Highway Local Road and Street Safety for Non-Engineers		
Challenges, Strategies and Obligations of Law Enforcement Agencies for the 21st Century	Madras	Jan11

Sign up for a free workshop today

For further information about sponsoring an on-site training workshop for various groups within your region and organization, please contact program director

Mojie Takallou, Ph.D., P.E.

Phone: (503)943-7437
E-mail: takallou@up.edu

Events

«November 2011

Mon	Tue	Wed	Thu	Fri	Sat	Su
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7	8	9	10	11	12	
14	15	16	17	18	19	
21	22	23	24	25	26	
28	29	30				

Memo

CITY OF ASHLAND

DATE: November 9, 2011
TO: Transportation Commission
FROM: James Olson
RE: Proposed Parking Prohibition on Highwood Drive

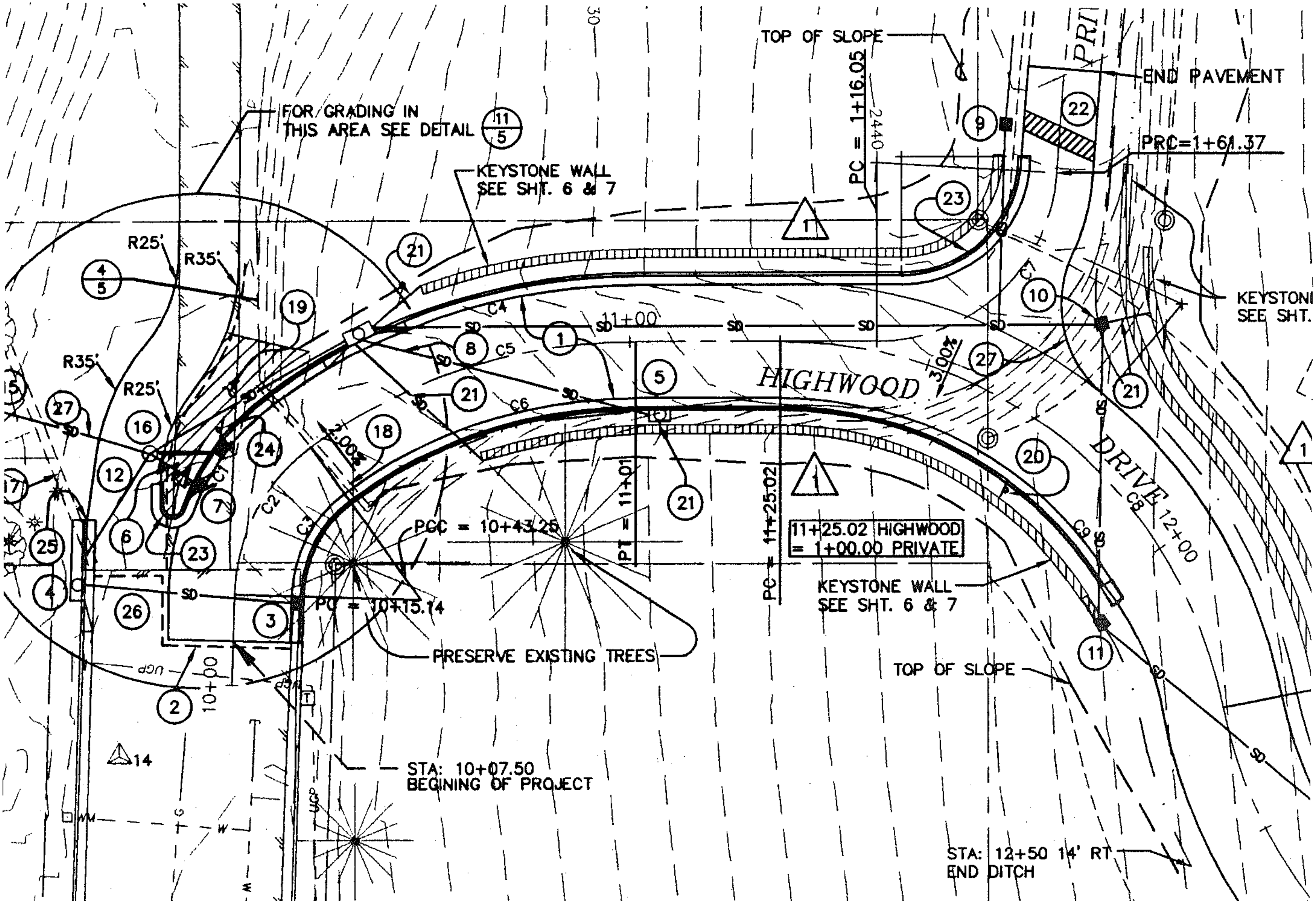
QUESTION:
Will the Commission recommend a prohibition of parking on the public portion of Highwood Drive?

STAFF RECOMMENDATION:
The public section of Highwood Drive (125 West from Timberline Terrace) is 22 feet wide and should support on-street parking on one side of the street in accordance with Ashland's approved street design handbook. However, due to the streets grade and alignment, staff is recommending that all on-street parking be prohibited.

BACKGROUND:
Highwood Drive between Timberline Terrace and the westerly city limits of Ashland was developed in 2002 with the Highwood Mountain Reserve Subdivision. The street was constructed on an existing 50 foot wide right of way which was granted in the mid 1960's. The street provides the sole access to the seven lots in the Highwood Mountain Reserve Subdivision plus several lots to the south, all located outside the city limits.

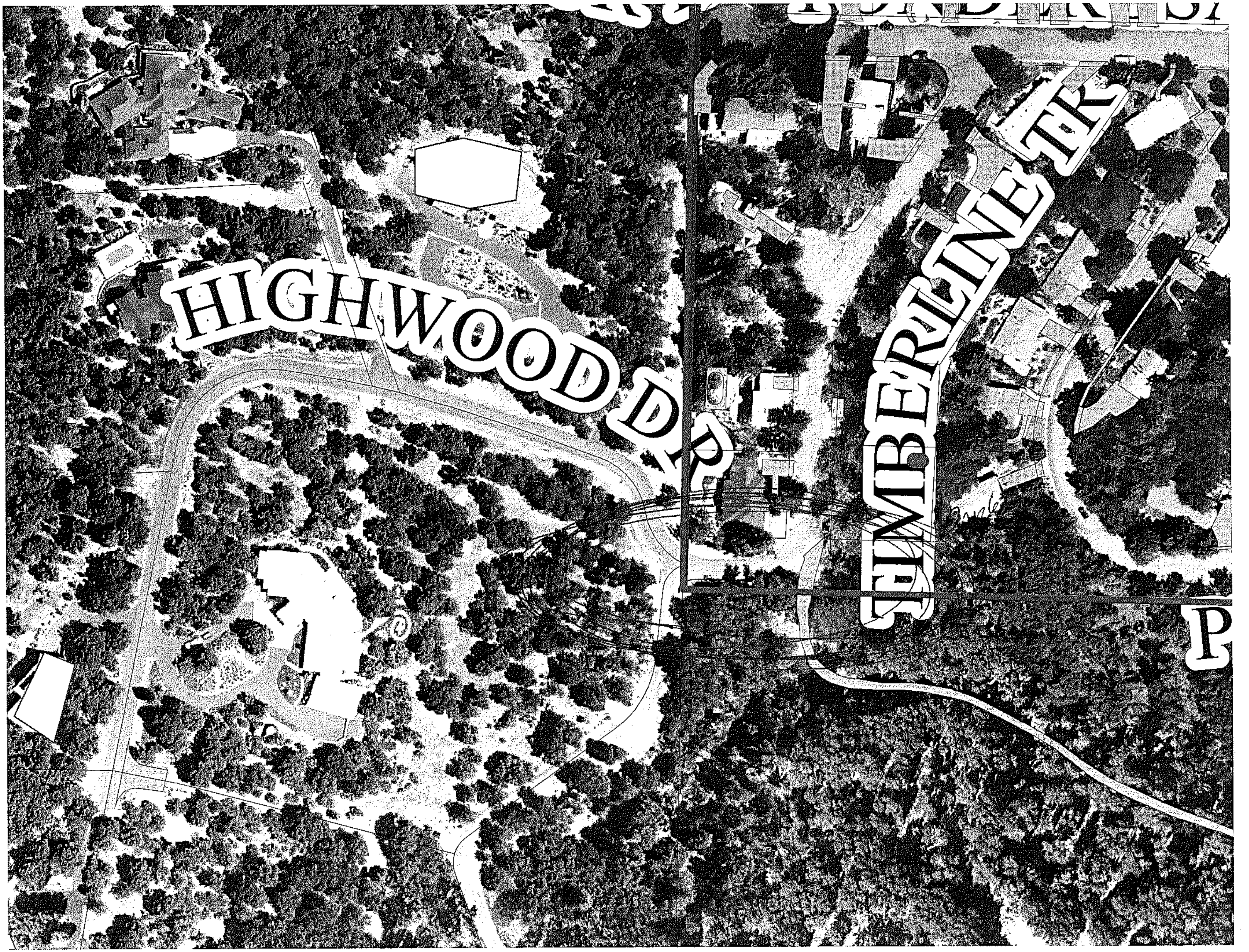
Highwood Drive is 22 feet wide and currently has no parking restrictions. It is a relatively short section of street at only 125 feet long but consists mostly of a curved alignment with a grade of 10 percent at the lower end to 19 percent at the upper end.

The combination of the steep grade and the multiple curves makes parking on either side of the street problematic both for maneuvering and for visibility. The Fire Department is recommending that all parking be prohibited on the street and the engineering staff concurs. The street is generally not heavily parked upon and should have minimal impact to the neighborhood.

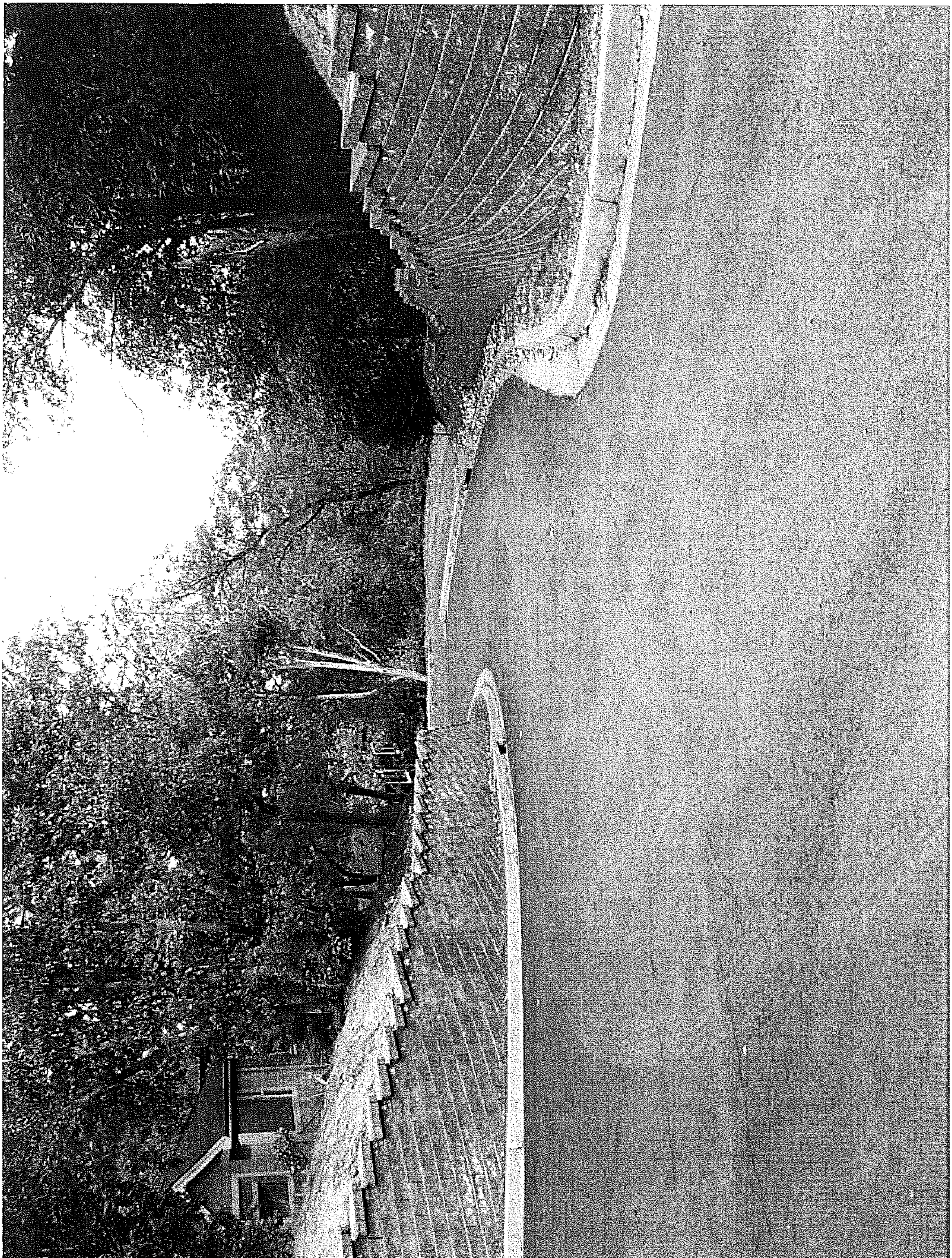


HIGHWOOD DRIVE PLAN

SCALE: 1" = 20'


HIGHWOOD DR
TIMBERLINE TR


DRIVE
PRIVATE ROAD



RESOLUTION NO. 2011-

A RESOLUTION ESTABLISHING A STREETSIDE MEMORIAL MARKER PROGRAM

RECITALS:

A. The Ashland Transportation Commission seeks to improve the safety of Ashland streets for all users through the application of the "five E's", namely Education, Enforcement, Engineering, Encouragement and Evaluation.

B. The City further seeks to develop a program where those who have died as a result of motorized or non-motorized vehicle or pedestrian crash can be memorialized.

C. The City believes that memorializing those who have died on city streets can serve as a reminder to all road users that all have an obligation to use public streets in a responsible manner, to obey the law, to be courteous and to respect the rights of all road users.

THE CITY OF ASHLAND RESOLVES AS FOLLOWS:

SECTION 1. Purpose The purpose of this program is to establish guidelines for the placement of standardized streetside memorials for people who have died as a result of a motorized or non-motorized vehicle or pedestrian crash on city maintained rights of way within the city limits of Ashland. The program will also serve as a means to enhance awareness of the need to drive safe and sober, to obey traffic laws or other similar safety messages.

SECTION 2. Policy The public works department will fabricate and install a streetside memorial sign along city-maintained street, normally for a period of two years. The entire cost of fabricating, installing and final removal of such sign must be paid by the applicant requesting the sign unless the City elects to sponsor the sign.

SECTION 3. Procedure The installation of a streetside memorial marker will be processed in accordance with the following:

A. Requests for a memorial marker shall be submitted in writing to the Ashland Transportation Commission. Requests may be made by immediate family members or friends and shall include details of the crash. Requests from friends require written permission from the deceased's immediate family.
B. Memorial markers will be designed, constructed and installed by Ashland Public Works department. Memorial markers will only be installed in residential areas where the fatality occurred with the written permission of the resident whose property is

abutting the right of way where the memorial is to be placed. Markers will be placed behind sidewalks where they are present.

C. Memorial markers shall not be placed within active construction zones and within the central business district.

D. All memorial markers shall be installed on the right side of the street in accordance with current MUTCD standards.

E. Memorial markers shall remain in place for no longer than two years after which the sign face will be removed and returned to the applicant.

SECTION 4. Design

A. The memorial marker shall be 18 inches by 24 inches in size and the sign blank will be of aluminum material.

B. Lettering shall be black on a white background and shall be of retro-reflective material.

C. Letter size will be in all capitals of approximately 3 inches in height.

D. The sign design shall contain an appropriate message such as:
"DRIVE SAFE"; "DRIVE SOBER"; "RIDE RESPONSIBILY";
"WEAR A HELMET WHEN RIDING" or other similar message. A second line shall be added stating "IN MEMORY OF". A 6 inch panel shall be added below the sign with the name of the deceased in black letters on a white background.

SECTION 5. Approval

This resolution was duly PASSED and ADOPTED this ____day of ___________, 2011, and takes effect upon signing by the Mayor.

____

Barbara Christensen, City Recorder

SIGNED and APPROVED this ____ day of ______________, 2011.

____

John Stromberg, Mayor

Reviewed as to form:

____

City Attorney

MOTOR VEHICLE CRASH SUMMARY

MONTH: OCTOBER 2011 NO. OF ACCIDENTS: 13

DATE	TIME	DAY	LOCATION	NO. VEH	PED INV.	BIKE INV.	INJ.	DUII	CITED	PROP DAM.	HIT/ RUN	CITY VEH.	CAUSE - DRIVER ERROR
3	13:18	Mon	Siskiyou W of Avery	2	Y	N	P	N	Y	Y	N	N	dV1 stopped for ped in crosswalk, was rearended by v2. dV2 cited following too close.
3	17:59	Mon	B St at Eighth St	2	N	N	P	N	Y	Y	N	N	dV1 was crashed into when dV2 failed to stop at stop sign. dV2 cited for failure to obey traffic control device
8	unk	Sat	Ashland and Siskiyou	1	N	Y	Y	N	N	U	N	N	bike/auto collision, no details listed. Bicyclist sustained a broken arm.
10	12:19	Mon	Siskiyou at Tolman Creek Rd	2	N	N	P	N	Y	Y	N	N	dV1 turning left onto Tolman Creek. dV2 tried to pass causing crash. dV2 cited for careless driving.
11	16:45	Tue	Siskiyou near Bellview	1	N	N	N	N	N	Y	N	N	driver had a sneezing fit, lost control and ran into a utility pole. No citations. Extensive damage to vehicle.
13	12:24	Thurs	Siskiyou near Harmony Ln	2	N	N	P	N	Y	Y	N	N	dV1 stopped, waiting to turn left across oncoming traffic. Rearended by v2. dV2 cited for following too close.
13	14:13	Thurs	200 block Ashland Loop Rd	1	N	N	N	N	Y	Y	N	N	dV1 lost control and ran into ditch. Cited for carelss driving and driving while suspended.
14	UNK	Fri	Access drive on SOU campus. (restricted)	1	N	N	N	U	Y	Y	Y	N	dV damaged retaining post blocking an access, left the scene. Owner of vehicle cited for Hit/Run B, property damage.
17	19:27	Mon	N Laurel St S of VanNess	2	N	N	N	U	N	Y	Y	N	hit/run parked vehicle. No leads.
19	21:34	Wed	E Main at Lithia Wy intersection	2	N	N	N	N	Y	Y	N	N	dV1 failed to stop for red light and ran into v2. Cited Failure to Obey Traffic Control Device.
23	02:30	Sun	N Main St east of Van Ness	1	N	N	Y	Y	Y	Y	N	N	DUI. Driver ran into tree at side of road at a high rate speed. Arrested for DUI. V totaled.
27	12:11	Thurs	Tolman Creek Rd south of Ashland ST intersection	2	Y	N	P	N	Y	Y	N	N	dV1 waiting for ped to cross sidewalk before turning was rearended by v2. dV2 cited following too close.
29	17:38	Sat	Hargadine at First Street "	1	N	Y	Y	N	Y	Y	N	N	bike ran into car as it exited alley into street at [illegible]

MOTOR VEHICLE CRASH SUMMARY

MONTH: SEPT 2011 NO. OF ACCIDENTS: 10

DATE	TIME	DAY	LOCATION	NO. VEH	PED INV.	BIKE INV.	INJ.	DUII	CITED	PROP DAM.	HIT/ RUN	CITY VEH.	CAUSE - DRIVER ERROR
2	11:21	Fri	N Main at W Hersey St	2	N	N	P	N	N	Y	N	N	DV1 collided with V2 during turn from N Main St onto W Hersey St
6	14:59	Tue	Ashland St, median by Great American Pizza	1	N	N	N	N	N	Y	N	N	steering became loose, driver lost control and vehicle ran into the median.
9	09:30	Fri	N Main at Wimer intersection	2	N	N	P	N	N	Y	N	N	dV1 began to make a left turn onto Wimer, changed her mind and continued. dV2 collided with v1.
14	16:57	Wed	Parking lot of 249 A St	2	N	N	N	N	Y	Y	Y	N	hit/run, v2 scraped v1 while backing out. Left scene. Suspect found and arrested 10/24/2011
16	15:30	Fri	Ashland St near southbound freeway entrance	2	N	N	N	N	N	Y	N	N	dV1 turning left across contruction traffic was struck by v2 that was continuing straight through.
21	14:57	Tue	Siskiyou inbound at Bridge St	2	Y	N	P	N	Y	Y	N	N	dV2 struck v1 while v1 was stopped for ped in crosswalk. Cited following too close.
28	17:35	Wed	Siskiyou just west of Frances	2	N	N	P	N	N	N	N	N	driver slowed for traffic ahead, was struck from behind by v2. No damage, no citations. Complaint of pain.
30	14:11	Fri	Ashland St at YMCA Wy	1	Y	N	P	N	N	N	N	N	dV1 ran into wheelchair that was traveling the wrong way in the bike lane. Wheelchair person was taken to ACH for observation.
30	16:20	Fri	Lithia Wy near N Pioneer St	1	N	Y	P	N	Y	U	N	N	dV turning right into parking lot from Lithia Wy crossed the bike lane causing bike to collide. Dv1 cited failure to yield to bike.
30	18:38	Fri	Schofield St near N Main St	1	N	N	N	N	N	Y	N	N	vehicle rolled over slowly while descending steep grade on Schofield St.

MOTOR VEHICLE CRASH SUMMARY

MONTH: AUGUST, 2011 NO. OF ACCIDENTS: 9

DATE	TIME	DAY	LOCATION	NO. VEH	PED INV.	BIKE INV.	INJ.	DUII	CITED	PROP DAM.	HIT/ RUN	CITY VEH.	CAUSE - DRIVER ERROR
1	09:49	Mon	Water St at the Beaver Slide	1	N	Y	P	N	Y	Y	N	N	dV1 coming down Beaver Slide to Water St failed to stop at sign, hit bike. Cited.
2	10:37	Tues	Siskiyou Bl between Wightman and Ashland St	2	N	N	N	N	Y	Y	N	N	dV1 rearended v2 while both were waiting for traffic to clear intersection. Dv2 cited careless driving.
2	16:27	Tues	Granite St near N Main	2	N	N	N	N	Y	Y	N	N	dV1 sidewiped parked v2. cited careless driving.
4	15:36	Thur	Tolman Crk Rd near Ashland St	2	N	N	N	N	Y	Y	N	N	dV1 stopped at stoplight began backing up, and backed into v2. Cited unsafe backing.
11	21:20	Thur	Ashland St at Tolman Creek Rd	2	N	N	P	N	Y	Y	N	N	dV1 left turn from Tolman Crk onto Ashland turned too shallow, striking v2 that was in left turn lane. Referred for driver eval. and cited careless driving.
18	15:13	Thur	Siskiyou Bl at Sherman	2	N	N	P	N	Y	Y	N	N	dV1 rearended v2 while stopped at intersection. Cited following too close.
23	07:03	Tues	Prim St south of Wiley St	1	N	N	N	N	N	Y	N	N	Driver lost control while backing. Fell off embankment into neighbors yard, striking car and various utilities in path. Referred for driver eval.
23	14:35	Tues	Ashland Loop Rd near Glenview Dr intersection	2	N	N	N	N	Y	Y	N	N	Driver lost control in gravel coming around corner too fast, over-corrected and ran off road down bank.
27	17:10	Sat	N Main St at S Laurel	2	N	N	N	N	Y	Y	N	N	dV1 failed to stop at red light on N Main St, striking v2 as it entered roadway from S. Laurel St. Cited.

Transportation Commission
Action Summary
as of October 2011

Month Year	Item Description	Status	Date Complete
October 20 TC	Crosswalk on A Street	approved TR Pending	
August 11 TC	Parking prohibitions on Almond	approved TR pending	
August 11 TC	Stop sign at 4th and A Streets	not approved	
Jul 11 TC	Parking Prohibitions on E. Nevada	approved;TR 2011-04	
Jul 11 TC	Stop Sign at Starflower	approved yield; TR 2011-05	
Jul 11 TC	A' Shared Road	approved; TR 2011-06	10/28/11
June 11 TC	N. Main Road Diet	TC recommend implementation asap, approved 8/2/11	
June 11 TC	Parking prohibition on Central	TR 2011-03, install painted centerline, only	✓
May 11 TC	Stop sign on Homes	Stop sign not approved, other improvements implemented.	
May 11 TC	Stop sign on Pinecrest	not approved	
May 11 TC	Left turn signal at Wightman	recommended review by traffic engineer	
May 11 TC	Memorial Sign Request	recommended development of a policy, approved by Legal/Planning	
Apr 11 TC	N. Main Road Diet Pilot	Approved by Council 8/2/11	
Feb 11 TC	Parking Prohibitions Meadowbrook	TR 2011-02 order sent to Street Div.	
Feb 11 TC	Parking Prohibitions on Liberty St	TR 2011-01 order sent to Street Div.	✓
Feb 11 TC	Bike Corral on Third Street	Completed & installed	✓
Dec 10 TC	Petition for ped. rail crossing	referred to TSP process	
Dec 10 TC	Siskiyou Blvd x-walk at Frances	no action required	12/16/10
Nov 10 TC	S Mountain Mid Block Crosswalk	Approved to be installed in cooperation with SOU	
Nov 10 TC	E Main @ RR Crosswalk Review	Commission asked stop sign replaced	
Oct 10 TC	A St Sharrow Designation	Commission asked for Kittleson review	
Oct 10 TSC	Safety Sleeve for Bollard @ RR Park	replaced	✓
Oct 10 TSC	Storm Drain on Bike Path @ N Mtn	staff is researching	
Oct 10 TSC	Additional Vehicle Parking Downtown	Contacted ODOT	
Oct 10 TSC	Crosswalk at Lithia and E Main	TR 2010-06, order sent to Street Division	✓
Oct 10 TSC	Stop Sign at Helman & Nevada	not approved	✓
Oct 10 TSC	Stop Sign on 'B' @ Third	not approved	✓
Oct 10 TSC	Crosswalk on Siskiyou @ Morton	not approved	✓
Aug 10 TSC	Grandview/Sunnyview/Orchard/ Wrights Crk Intersections	vegetation clearance referred to street dept for implementation	
Aug 10 TSC	15 Minute Parking on A Street	TR 2010-05, order sent to Street Division	
Aug 10 TSC	First St Parking Prohibition Change	TR 2010-04, order sent to Street Division	
Aug 10 TSC	Granite St Parking Prohibition Change	not approved, Swales will resubmit request	✓
Aug 10 TSC	Hargadine St Parking Prohibition Change	review as part of TSP update	
Aug 10 TC Jul 10 TSC	Bridge Street Parking Prohibition Change	Memo received from Fire Dept recommending against change	✓
Aug 10 TC	Truck Route Ordinance Review	Staff researching, Nov 2010 agenda item	
Jun 10 TC	2 Year Project List Goal Setting	3 goals selected	✓
Jul 10 TC	Audible Crosswalk Signals for Downtown	Vieville working w/staff to develop priority list for $27K budget	
Jul 10 TC	Shared Road Policy	review as part of TSP update	
Mar 10 TSC	Yield Sign at Terrace @ Holly	TR 2010-02	✓
Mar 10 TSC	Ashland St @ YMCA Crosswalk	not approved by ODOT	✓
Mar 10 TSC	Oak St Crosswalk at A St	included in Misc Concrete Project; bids due 11/17/10	
Jul 09 TC	Additional Downtown Bike Parking	Implementation list complete, will be installed as budget permits	
Nov 09 TC & TSC	Crosswalk for East Main @ Campus Way	Staff applying for funding through grant application	
Nov 09 TC & TSC	Grandview Shared Road Improvements	TR 2010-03, other improvements likely in future	
Aug 09 TC	Oak Street Sharrows	TR 2010-01	✓
Jul 09 TC	Will Dodge Way Improvements	Complete	9/2010
Apr 09 TC	Siskiyou Bv Pedestrian Improvements	complete	✓
Aug 09 TSC	Union/Allison and Fairview Intersection	not approved	✓
Nov 09 TSC	Yield Sign at Palmer Rd	not approved	✓
Nov 09 TSC	Stop Sign at Indiana St	not approved	✓
Dec 09 TSC	Terrace St Traffic Calming	not approved	✓
Dec 09 TSC	Ashland Village Traffic Calming	not approved	✓

CIS

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Safety Shorts

Hang Up and Drive!

Most of us wouldn't drink and drive. But talk on the phone and drive? It's a lot more common. Consider this: *a 2005 study from the University of Utah* provided evidence that driving while on a cell phone is worse than driving with a .08 blood/alcohol level. The study showed there is no statistical significance between hand-held and hands-free cell phone use. Those on the phone are three times more likely to be involved in an accident than those driving intoxicated.

Furthermore, police are increasing enforcement of Oregon's distracted driving laws. One CIS member had three employees receive citations for having their cell phones in hand while driving on official business. The fine is$146. Citations can be issued for reading e-mails, texting or holding phones without actually speaking on the phone.

Any time we stop concentrating on our driving and don't pay attention to other traffic, pedestrians, warning signs, signal lights, school zones, etc., we are not operating our vehicles in a safe manner. In fact, when traveling at 55 mph we go about 81 feet per second: that's under four seconds to travel the length of

READ MORE ON NEXT PAGE

OREGON CELL PHONE LAW

Oregon law requires motorists to employ a hands-free accessory when using cell phones, tablets, and similar electronics while driving. The law stipulates that motorists must be able to maintain both hands on the steering wheel when using their hands-free electronics. The only exception is for calls placed to 9-1-1, and for law enforcement personnel, fire department personnel, and EMT Emergency Services.

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a football field. Think about what can happen in the distance of a football field.

We have to start taking our operation of a motor vehicle more seriously and stop allowing these behavioral bad habits to interfere with our driving. It is too risky. When we take our eyes off the road, when our brains are concentrating on other things, we significantly increase our risk of having a serious accident.

Your life is precious. The lives of others also are precious. Let's all put the cell phones down and get back to driving safely.

One final thought. The 2011 Legislature enhanced the existing no-driving-with-a-cell-phone law with the passage of *HB 3186*, removing the exemption for talking on a cell phone while driving if it is within the "course and scope of the person's employment". It also removed the exemption for turning the phone on or off, or setting its functions. The change takes effect January 1, 2012. Now we have one more reason for us to hang up the phones, and put them down while driving.

- John Zakariassen
CIS Senior Risk Management Consultant

"One CIS member had three employees receive citations for having their cell phones in hand while driving on official business."

References:

2005 Study from University of Utah

- www.distraction.gov/research/PDF-Files/Comparison-of-CellPhone-Driver-Drunk-Driver.pdf

HB3186

- www.leg.state.or.us/11reg/measpdf/hb3100.dir/hb3186.en.pdf

A Comparison of the Cell Phone Driver and the Drunk Driver

David L. Strayer, Frank A. Drews, and **Dennis J. Crouch,** University of Utah, Salt Lake City, Utah

Objective: The objective of this research was to determine the relative impairment associated with conversing on a cellular telephone while driving. **Background:** Epidemiological evidence suggests that the relative risk of being in a traffic accident while using a cell phone is similar to the hazard associated with driving with a blood alcohol level at the legal limit. The purpose of this research was to provide a direct comparison of the driving performance of a cell phone driver and a drunk driver in a controlled laboratory setting. **Method:** We used a high-fidelity driving simulator to compare the performance of cell phone drivers with drivers who were intoxicated from ethanol (i.e., blood alcohol concentration at 0.08% weight/volume). **Results:** When drivers were conversing on either a handheld or hands-free cell phone, their braking reactions were delayed and they were involved in more traffic accidents than when they were not conversing on a cell phone. By contrast, when drivers were intoxicated from ethanol they exhibited a more aggressive driving style, following closer to the vehicle immediately in front of them and applying more force while braking. **Conclusion:** When driving conditions and time on task were controlled for, the impairments associated with using a cell phone while driving can be as profound as those associated with driving while drunk. **Application:** This research may help to provide guidance for regulation addressing driver distraction caused by cell phone conversations.

INTRODUCTION

Although they are often reminded to pay full attention to driving, people regularly engage in a wide variety of multitasking activities when they are behind the wheel. Indeed, data from the 2000 U.S. census indicates that drivers spend an average of 25.5 min each day commuting to work, and there is a growing interest in trying to make the time spent on the roadway more productive (Reschovsky, 2004). Unfortunately, because of the inherent limited capacity of human attention (e.g., Kahneman, 1973; Navon & Gopher, 1979), engaging in these multitasking activities often comes at a cost of diverting attention away from the primary task of driving. There are a number of more traditional sources of driver distraction. These "old standards" include talking to passengers, eating, drinking, lighting a cigarette, applying makeup, and listening to the radio (Stutts et al., 2003). However, over the last decade many new electronic devices have been developed, and they are making their way into the vehicle. In many cases, these new technologies are engaging, interactive information delivery systems. For example, drivers can now surf the Internet, send and receive E-mail or faxes, communicate via a cellular device, and even watch television. There is good reason to believe that some of these new multitasking activities may be substantially more distracting than the old standards because they are more cognitively engaging and because they are performed over longer periods of time.

The current research focuses on a dual-task activity that is commonly engaged in by more than 100 million drivers in the United States: the concurrent use of cell phones while driving (Cellular Telecommunications Industry Association, 2006; Goodman et al., 1999). Indeed, the National Highway Transportation Safety Administration

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estimated that 8% of drivers on the roadway at any given daylight moment are using their cell phone (Glassbrenner, 2005). It is now well established that cell phone use impairs the driving performance of younger adults (Alm & Nilsson, 1995; Briem & Hedman, 1995; Brookhuis, De Vries, & De Waard, 1991; I. D. Brown, Tickner, & Simmonds, 1969; Goodman et al., 1999; McKnight & McKnight, 1993; Redelmeier & Tibshirani, 1997; Strayer, Drews, & Johnston, 2003; Strayer & Johnston, 2001). For example, drivers are more likely to miss critical traffic signals (traffic lights, a vehicle braking in front of the driver, etc.), slower to respond to the signals that they do detect, and more likely to be involved in rear-end collisions when they are conversing on a cell phone (Strayer et al., 2003). In addition, even when participants direct their gaze at objects in the driving environment, they often fail to "see" them when they are talking on a cell phone because attention has been directed away from the external environment and toward an internal, cognitive context associated with the phone conversation. However, what is lacking in the literature is a clear benchmark with which to evaluate the relative risks associated with this dual-task activity (e.g., Brookhuis, 2003).

In their seminal article, Redelmeier and Tibshirani (1997) reported epidemiological evidence suggesting that "the relative risk [of being in a traffic accident while using a cell phone] is similar to the hazard associated with driving with a blood alcohol level at the legal limit" (p. 456). These estimates were made by evaluating the cellular records of 699 individuals involved in motor vehicle accidents. It was found that 24% of these individuals were using their cell phone within the 10-min period preceding the accident, and this was associated with a fourfold increase in the likelihood of getting into an accident. Moreover, these authors suggested that the interference associated with cell phone use was attributable to attentional factors rather than to peripheral factors such as holding the phone. However, there are several limitations to this important study. First, although the study established a strong association between cell phone use and motor vehicle accidents, it did not demonstrate a *causal* link between cell phone use and increased accident rates. For example, there may be self-selection factors underlying the association: People who use their cell phone while driving may be more likely to engage in risky behavior, and this increase in risk taking may be the cause of the correlation. It may also be the case that being in an emotional state may increase one's likelihood of driving erratically and may also increase the likelihood of talking on a cell phone. Finally, limitations on establishing an exact time of the accident lead to uncertainty regarding the precise relationship between talking on a cell phone while driving and increased traffic accidents.

If the relative risk estimates of Redelmeier and Tibshirani (1997) can be substantiated in a controlled laboratory experiment and there is a causal link between cell phone use and impaired driving, then these data would be of immense importance for public safety and legislative bodies. Here we report the result of a controlled study that directly compared the performance of drivers who were conversing on either a handheld or hands-free cell phone with the performance of drivers with a blood alcohol concentration at 0.08% weight/volume (wt/vol). Alcohol has been used as a benchmark for assessing performance impairments in a variety of other areas, including aviation (Billings, Demosthenes, White, & O'Hara, 1991; Klein, 1972), anesthesiology (Thapar, Zacny, Choi, & Apfelbaum, 1995; Tiplady, 1991) nonprescription drug use (Burns & Moskovitz, 1980), and fatigue (Williamson, Feyer, Friswel, & Finlay-Brown, 2001). Indeed, the World Health Organization recommended that the behavioral effects of drugs be compared with those of alcohol under the assumption that performance on drugs should be no worse than that at the legal blood alcohol limit (Willette & Walsh, 1983).

We used a car-following paradigm (see also Alm & Nilsson, 1995; Lee, Vaven, Haake, & Brown, 2001; Strayer et al., 2003) in which participants drove on a multilane freeway following a pace car that would brake at random intervals. We measured a number of performance variables (e.g., driving speed, following distance, brake reaction time, time to collision) that have been shown to affect the likelihood and severity of rear-end collisions, the most common type of traffic accident reported to police (T. L. Brown, Lee, & McGehee, 2001; Lee et al., 2001). Three counterbalanced conditions were studied using a within-subjects design: single-task driving (baseline condition), driving while conversing on a cell phone (cell phone condition), and driving with a blood alcohol concentration of 0.08% wt/vol (alcohol condition). The driving tasks were performed on a high-fidelity driving simulator.

METHOD

Participants

Forty adults (25 men, 15 women), recruited via advertisements in local newspapers, participated in the Institutional Review Board approved study. Participants ranged in age from 22 to 34 years, with an average age of 25 years. All had normal or corrected-to-normal vision and a valid driver's license with an average of 8 years of driving experience. Of the 40 participants, 78% owned a cell phone, and 87% of the cell phone owners reported that they have used a cell phone while driving. A further requirement for inclusion in the study was that participants were social drinkers, consuming between three and five alcoholic drinks per week. The experiment lasted approximately 10 hr (across the three days of the study), and participants were remunerated at a rate of $10/hr.

A preliminary comparison of male and female drivers found greater variability in following distance for female drivers, $F(1, 38) = 10.9, p < .01$; however, this gender effect was not modulated by alcohol or cell phone use. No other effects of gender were significant in the current sample. Additional analyses comparing the driving performance of participants who owned a cell phone with that of those who did not own a cell phone failed to find any significant differences (all $ps > .60$). Similarly, there was no significant difference in driving performance between participants who reported that they used a cell phone while driving and those who did not use a cell phone while driving (all $ps > .70$).

Stimuli and Apparatus

A PatrolSim high-fidelity driving simulator, illustrated in Figure 1 and manufactured by GE-ISIM, was used in the study. The simulator is composed of five networked microprocessors and three high-resolution displays providing a 180° field of view. The dashboard instrumentation, steering wheel, gas pedal, and brake pedal are from a Ford Crown Victoria® sedan with an automatic transmission. The simulator incorporates proprietary vehicle dynamics, traffic scenario, and road surface software to provide realistic scenes and traffic conditions.

A freeway road database simulated a 24-mile (38.6-km) multilane interstate with on- and off-ramps, overpasses, and two- or three-lane traffic in each direction. Daytime driving conditions with good visibility and dry pavement were used. A pace car, programmed to travel in the right-hand

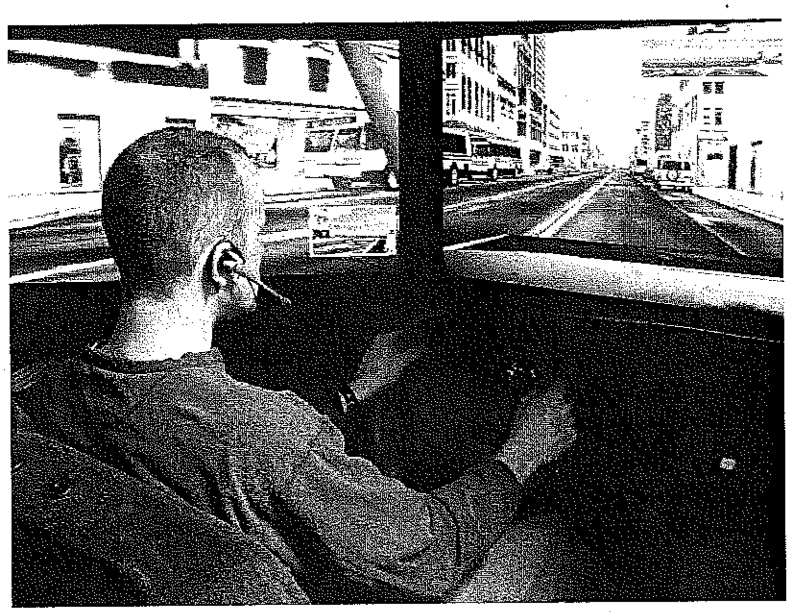

Figure 1. A participant talking on a cell phone while driving in the GE-ISIM driving simulator.

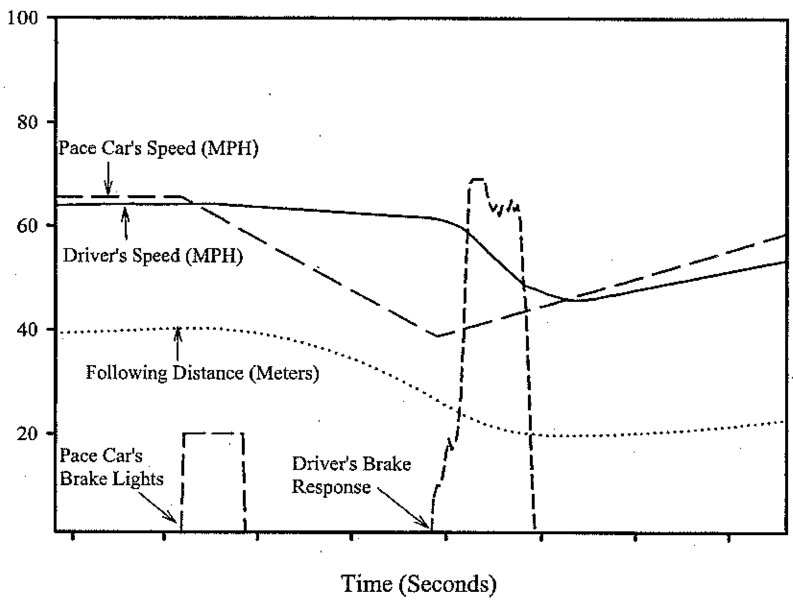

Figure 2. An example of the sequence of events occurring in the car following paradigm.

lane, braked intermittently throughout the scenario. Distractor vehicles were programmed to drive between 5% and 10% faster than the pace car in the left lane, providing the impression of a steady flow of traffic. Unique driving scenarios, counterbalanced across participants, were used for each condition in the study. Measures of real-time driving performance, including driving speed, distance from other vehicles, and brake inputs, were sampled at 30 Hz and stored for later analysis. Cellular service was provided by Sprint PCS. The cell phone was manufactured by LG Electronics Inc. (Model TP1100). For hands-free conditions, a Plantronics M135 headset (with earpiece and boom microphone) was attached to the cell phone. Blood alcohol concentration levels were measured using an Intoxilyzer 5000, manufactured by CMI Inc.

Procedure

The experiment used a within-subjects design and was conducted in three sessions on different days. The first session familiarized participants with the driving simulator using a standardized adaptation sequence. The order of subsequent alcohol and cell phone sessions was counterbalanced across participants. In these latter sessions, the participant's task was to follow the intermittently braking pace car driving in the right-hand lane of the highway. When the participant stepped on the brake pedal in response to the braking pace car, the pace car released its brake and accelerated to normal highway speed. If the participant failed to depress the brake, he or she would eventually collide with the pace car. That is, as in real highway stop-and-go traffic, the participant was required to react in a timely and appropriate manner to a vehicle slowing in front of them.

Figure 2 presents a typical sequence of events in the car-following paradigm. Initially both the participant's car (solid line) and the pace car (long-dashed line) were driving at about 62 miles/hr (mph) with a following distance of 40 m (dotted line). At some point in the sequence, the pace car's brake lights illuminated for 750 ms (short-dashed line) and the pace car began to decelerate at a steady rate. As the pace car decelerated, following distance decreased. At a later point in time, the participant responded to the decelerating pace car by pressing the brake pedal. The time interval between the onset of the pace car's brake lights and the onset of the participant's brake response defines the brake onset time. Once the participant depressed the brake, the pace car began to accelerate, at which point the participant removed his or her foot from the brake and applied pressure to the gas pedal. Note that in this example, following distance decreased by about 50% during the braking event.

In the alcohol session, participants drank a mixture of orange juice and vodka (40% alcohol by volume) calculated to achieve a blood alcohol concentration of 0.08% wt/vol. Blood alcohol concentrations were verified using infrared spectrometry breath analysis immediately before and after the alcohol driving condition. Participants drove in the 15-min car-following scenario while legally intoxicated. Average blood alcohol concentration before driving was 0.081% wt/vol and after driving was 0.078% wt/vol.

In the cell phone session, three counterbalanced conditions, each 15 min in duration, were included: single-task baseline driving, driving while conversing on a handheld cell phone, and driving while conversing on a hands-free cell phone. In both cell phone conditions, the participant and a research assistant engaged in naturalistic conversations on topics that were identified on the first day as being of interest to the participant. As would be expected with any naturalistic conversation, they were unique to each participant. The task of the research assistant in our study was to maintain a dialog in which the participant listened and spoke in approximately equal proportions. However, given that our cell phone conversations were casual, they probably underestimate the impact of intense business negotiations or other emotional conversations conducted over the phone. To minimize interference from manual components of cell phone use, the call was initiated before participants began driving.

RESULTS

In order to better understand the differences between conditions, we created driving profiles by extracting 10-s epochs of driving performance that were time locked to the onset of the pace car's brake lights. That is, each time that the pace car's brake lights were illuminated, the data for the ensuing 10 s were extracted and entered into a 32 × 300 data matrix (i.e., on the jth occasion that the pace car brake lights were illuminated, data from the 1st, 2nd, 3rd, ..., and 300th observations following the onset of the pace car's brake lights were entered into the matrix $X_{[j,1]}$, $X_{[j,2]}$, $X_{[j,3]}$,...$X_{[j,300]}$, in which j ranges from 1 to 32 reflecting the 32 occasions in which the participant reacted to the braking pace car). Each driving profile was created by averaging across j for each of the 300 time points. We created profiles of the participant's braking response, driving speed, and following distance.

Figure 3 presents the braking profiles. In the baseline condition, participants began braking within 1 s of pace car deceleration. Similar braking profiles were obtained for both the cell phone and alcohol conditions. However, compared with baseline, when participants were intoxicated they tended to brake with greater force, whereas participants' reactions were slower when they were conversing on a cell phone.

Figure 4 presents the driving speed profiles. In the baseline condition, participants began decelerating within 1 s of the onset of the pace car's brake lights, reaching minimum speed 2 s after the pace car began to decelerate, whereupon participants began a gradual return to prebraking driving speed. When participants were intoxicated they drove slower, but the shape of the speed

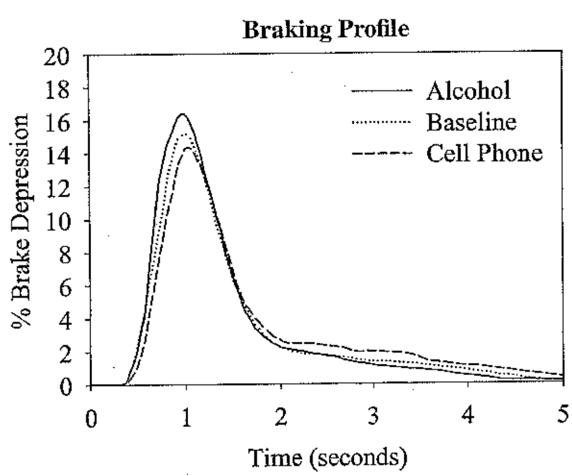

Figure 3. The braking profile.

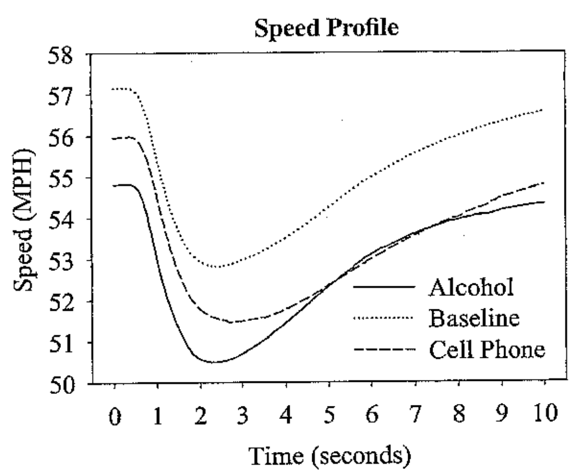

Figure 4. The speed profile.

profile did not differ from baseline. By contrast, when participants were conversing on a cell phone it took them longer to recover their speed following braking.

Figure 5 presents the following distance profiles. In the baseline condition participants followed approximately 28 m behind the pace car, and as the pace car decelerated the following distance decreased, reaching nadir approximately 2 s after the onset of the pace car's brake lights. When participants were intoxicated, they followed closer to the pace car, whereas participants increased their following distance when they were conversing on a cell phone.

Table 1 presents the nine performance variables that were measured to determine how participants reacted to the vehicle braking in front of them. *Brake reaction time* is the time interval between the onset of the pace car's brake lights and the onset of the participant's braking response (i.e., defined as a minimum of 1% depression of the participant's brake pedal). *Maximum braking force* is the maximum force that the participant applied to the brake pedal in response to the braking pace car (expressed as a percentage of maximum). *Speed* is the average driving speed of the participant's vehicle (expressed in miles per hour). *Mean following distance* is the distance prior to braking between the rear bumper of the pace car and the front bumper of the participant's car. *SD following distance* is the standard deviation of following distance.

Time to collision (TTC), measured at the onset of the participant's braking response, is the time remaining until a collision between the participant's vehicle and the pace car if the course and speed were maintained (i.e., had the participant failed to brake). Also reported are the frequency of trials with TTC values below 4 s, a level found to discriminate between cases in which the drivers find themselves in dangerous situations and those in which the driver remains in control of the vehicle (e.g., Hirst & Graham, 1997). *Half recovery time* is the time for participants to recover 50% of the speed that was lost during braking (e.g., if the participant's car was traveling at 60 mph [96.5 km/hr] before braking and decelerated to 40 mph [64.4 km/hr] after braking, then half recovery time would be the time taken for the participant's vehicle to return to 50 mph [80.4 km/hr]). Also shown in the table is the total number of collisions in each phase of the study. We used a multivariate analysis of variance (MANOVA) followed by planned contrasts (shown in Table 2) to provide an overall assessment of driver performance in each of the experimental conditions.

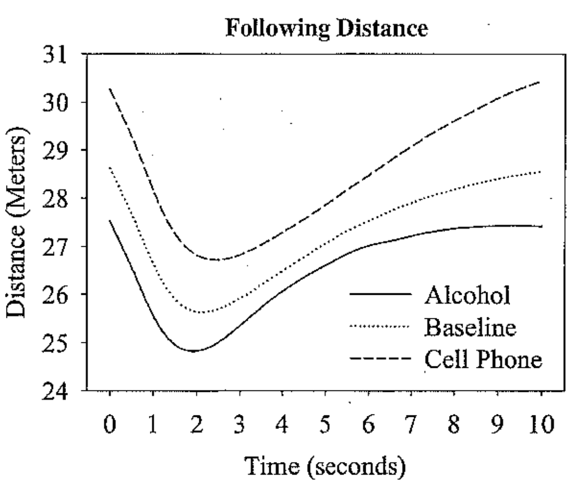

Figure 5. The following distance profile.

We performed an initial comparison of participants driving while using a handheld cell phone versus a hands-free cell phone. Both handheld and hands-free cell phone conversations impaired driving. However, there were no significant differences in the impairments caused by these two modes of cellular communication (all *ps* > .25). Therefore, we collapsed across the handheld and hands-free conditions for all subsequent analyses reported in this article. The observed similarity between handheld and hands-free cell phone conversations is consistent with earlier work (e.g., Patten, Kircher, Ostlund, & Nilsson, 2004; Redelmeier & Tibshirani, 1997; Strayer & Johnston, 2001) and calls into question driving regulations that prohibit handheld cell phones and permit hands-free cell phones.

MANOVAs indicated that both cell phone and alcohol conditions differed significantly from baseline, $F(8, 32) = 6.26$, $p < .01$, and $F(8, 32) = 2.73$, $p < .05$, respectively. When drivers were conversing on a cell phone, they were involved in more rear-end collisions, their initial reaction to vehicles braking in front of them was slowed by 9%, and the variability in following distance increased by 24%, relative to baseline. In addition, compared with baseline, participants who were talking on a cell phone took 19% longer to recover the speed that was lost during braking.

TABLE 1: Means and Standard Errors (in Parentheses) for the Alcohol, Baseline, and Cell Phone Conditions

	Alcohol	Baseline	Cell Phone
Total accidents	0	0	3
Brake reaction time (ms)	779 (33)	777 (33)	849 (36)
Maximum braking force	69.8 (3.7)	56.7 (2.6)	55.5 (3.0)
Speed (mph)	52.8 (2.0)	55.5 (0.7)	53.8 (1.3)
Mean following distance (m)	26.0 (1.7)	27.4 (1.3)	28.4 (1.7)
SD following distance (m)	10.3 (0.6)	9.5 (0.5)	11.8 (0.8)
Time to collision (s)	8.0 (0.4)	8.5 (0.3)	8.1 (0.4)
Time to collision < 4 s	3.0 (0.7)	1.5 (0.3)	1.9 (0.5)
Half recovery time (s)	5.4 (0.3)	5.3 (0.3)	6.3 (0.4)

By contrast, when participants were intoxicated, neither accident rates, nor reaction time to vehicles braking in front of the participant, nor recovery of lost speed following braking differed significantly from baseline. Overall, drivers in the alcohol condition exhibited a more aggressive driving style. They followed closer to the pace vehicle, had twice as many trials with TTC values below 4 s, and braked with 23% more force than in baseline conditions. Most importantly, our study found that accident rates in the alcohol condition did not differ from baseline; however, the increase in hard braking and the increased frequency of TTC values below 4 s are predictive of increased accident rates over the long run (e.g., T. L. Brown et al., 2001; Hirst & Graham, 1997).

The MANOVA also indicated that the cell phone and alcohol conditions differed significantly from each other, $F(8, 32) = 4.06, p < .01$. When drivers were conversing on a cell phone, they were involved in more rear-end collisions and took longer to recover the speed that they had lost during braking than when they were intoxicated. Drivers in the alcohol condition also applied greater braking pressure than did drivers in the cell phone condition.

To sharpen our understanding of the differences between the cell phone and alcohol conditions, we

TABLE 2: *T* Test Values for the Pair-Wise Comparisons

		Alcohol	Baseline
Brake reaction time (ms)	Alcohol		0.34
	Cell phone	1.74*	5.46***
Maximum braking force	Alcohol		4.40***
	Cell phone	4.13***	0.67
Speed (mph)	Alcohol		1.41
	Cell phone	0.47	1.69*
Mean following distance (m)	Alcohol		0.87
	Cell phone	1.11	1.06
SD following distance (m)	Alcohol		1.25
	Cell phone	1.59	4.18***
Time to collision (s)	Alcohol		1.18
	Cell phone	0.16	1.76*
Time to collision < 4 s	Alcohol		2.06**
	Cell phone	1.44	1.10
Half recovery time (s)	Alcohol		0.32
	Cell phone	1.96*	3.68***

Note. All comparisons have a *df* of 39 and are evaluated with a two-tailed significance level.
$^*p < .10$. $^{**}p < .05$. $^{***}p < .01$.

entered the driving performance measures obtained for each participant into a discriminant function analysis. The discriminant analysis determines which combination of variables maximally discriminates between the groups. The larger the standardized coefficient, the greater the contribution of that variable to the discrimination between the groups. Three of the obtained coefficients were negative, affected primarily by alcohol consumption: maximum braking force (–0.674), mean following distance (–0.409), and TTC less than 4 s (–0.311). Four of the obtained coefficients were positive, affected primarily by cell phone conversations: speed (0.722), *SD* of following distance (0.468), half recovery time (0.438), and brake reaction time (0.296). Average TTC did not differentiate between groups (coefficient = 0.055). Taken together, the discriminant analysis indicates that the pattern of impairment associated with the alcohol and cell phone conditions is qualitatively different.

Finally, the accident data were analyzed using a nonparametric chi-square statistical test. The chi-square analysis indicated that there were significantly more accidents when participants were conversing on a cell phone than in the baseline or alcohol conditions, $\chi^2(2) = 6.15$, $p < .05$.

DISCUSSION

Taken together, we found that both intoxicated drivers and cell phone drivers performed differently from baseline and that the driving profiles of these two conditions differed. Drivers using a cell phone exhibited a delay in their response to events in the driving scenario and were more likely to be involved in a traffic accident. Drivers in the alcohol condition exhibited a more aggressive driving style, following closer to the vehicle immediately in front of them, necessitating braking with greater force. With respect to traffic safety, the data suggest that the impairments associated with cell phone drivers may be as great as those commonly observed with intoxicated drivers.

However, the mechanisms underlying the impaired driving in the alcohol and cell phone conditions clearly differ. Indeed, the discriminant function analysis indicates that the driving patterns of the cell phone driver and the drunk driver diverge qualitatively. On the one hand, we found that intoxicated drivers hit the brakes harder, had shorter following distances, and had more trials with TTC values less than 4 s. On the other hand, we found that cell phones drivers had slower reactions, had longer following distances, took longer to recover speed lost following a braking episode, and were involved in more accidents. In the case of the cell phone driver, the impairments appear to be attributable, in large part, to the diversion of attention from the processing of information necessary for the safe operation of a motor vehicle (Strayer et al., 2003; Strayer & Johnston, 2001). These attention-related deficits are relatively transient (i.e., occurring while the driver is on the cell phone and dissipating relatively quickly after attention is returned to driving). By contrast, the effects of alcohol persist for prolonged periods of time, are systemic, and lead to chronic impairment.

Also noteworthy was the fact that the driving impairments associated with handheld and hands-free cell phone conversations were not significantly different. This observation is consistent with earlier reports (e.g., Patten et al., 2004; Redelmeier & Tibshirani, 1997; Strayer & Johnston, 2001) and suggests that legislative initiatives that restrict handheld devices but permit hands-free devices are not likely to eliminate the problems associated with using cell phones while driving. This follows because the interference can be attributed in large part to the distracting effects of the phone conversations themselves, effects that appear to be attributable to the diversion of attention away from driving. It should be pointed out that our study did not examine the effects of dialing or answering the phone on driving performance; however, Mazzae, Ranney, Watson, and Wightman (2004) compared handheld with hands-free devices and found the former to be answered more quickly, dialed faster, and associated with fewer dialing errors than the latter.

Our study also sheds light on the role that experience plays in moderating cell-phone-induced dual-task interference. Participants' self-reported estimates of the amount of time spent driving while using a cell phone averaged 14.3% with a range from 0% to 60%. When real-world usage was entered as a covariate into analyses comparing baseline and cell phone conditions, there was no evidence that practice altered the pattern of dual-task interference (i.e., all main effects and interactions associated with real-world usage had *ps* > .40). That is, practice in this dual-task combination did not result in improved performance. Given the attentional requirements of these two activities, it is not surprising that practice failed to moderate the dual-task interference. Because both naturalistic conversation and driving (at least reaction to unpredictable or unexpected events) have task components that are variably mapped, there are likely to be few benefits from practicing these two tasks in combination. Indeed, there is overwhelming evidence in the literature that performance on components of a task with a variable mapping do not benefit from practice (e.g., Shiffrin & Schneider, 1977).

Furthermore, the lack of differences in dual-task interference as a function of real-world usage suggests that drivers may not be aware of their own impaired driving. Indeed, when we debriefed participants at the end of the experiment, many of the drivers with higher levels of real-world cell phone usage while driving indicated that they found it no more difficult to drive while using a cell phone than to drive without using a cell phone. Thus, there appears to be a disconnect between participants' self-perception of driving performance and objective measures of their driving performance. Elsewhere, we have suggested that one consequence of using a cell phone is that it may make drivers insensitive to their own impaired driving behavior (Strayer et al., 2003).

One factor that is often overlooked when considering the overall impact of cell phone driving is the effect these drivers have on traffic flow. In our study, we found that drivers using a cell phone took 19% longer (than baseline) to recover the speed that was lost following a braking episode. In situations where traffic density is high, this pattern of driving behavior is likely to decrease the overall traffic flow, and as the proportion of cell phone drivers increases, these effects are likely to be multiplicative. That is, the impaired reactions of a cell phone driver make them less likely to travel with the flow of traffic, potentially increasing overall traffic congestion.

In the current study, the performance of drivers with a blood alcohol level at 0.08% differed significantly from their performance in both the cell phone and baseline conditions. In particular, when participants were in the alcohol condition, they followed the pace car more closely, had a greater frequency of trials with TTC less than 4 s, and depressed the brake with more vigor when the lead vehicle began to decelerate. However, the difference in brake onset time between the alcohol and baseline conditions was not significant in the current study. The precise reason for the lack of an effect on reaction time is unclear; although the literature on the effects of alcohol on reaction time has produced mixed results (see Moskovitz & Fiorentino, 2000). One possibility is that drivers in the alcohol condition may have reacted with alacrity out of necessity; given their shorter following distance, they may have been pressed into action sooner than in the other conditions. Indeed, an examination of the relationship between reaction time and following distance yielded significant correlations for the baseline ($r = .47, p < .01$) and cell phone ($r = .56, p < .01$) conditions, but not for the alcohol condition, ($r = .07$, *ns*). That is, for both the baseline and cell phone conditions, reaction time tended to increase with following distance, but this pattern was not observed in the alcohol condition.

No accidents were observed in the alcohol sessions of our study. Nevertheless, alcohol clearly increases the risk of accidents in real-world settings. For example, the U.S. Department of Transportation (2002) estimated that alcohol was involved in 41% of all fatal accidents in 2002; however, it is important to note that in 81% of these cases the blood alcohol level was higher than 0.08% wt/vol and that the average blood alcohol level of drivers involved in a fatal crash was twice the legal limit (i.e., 0.16% wt/vol). For cases in which the blood alcohol level was at or below the legal limit, the total number of fatalities in 2002 was 2818.

Another way to determine the effect of alcohol on driving is to estimate the risk of an accident when driving with a specific blood alcohol concentration as compared with baseline conditions when the driver is not under the influence of alcohol. Using odds ratios, Zandor, Krawchuk, and Voas (2000) estimated the relative risk of a passenger vehicle accident for drivers 21 to 34 years old. At blood alcohol concentrations between 0.05% and 0.79%, the odds ratio was estimated to be 3.76, and at blood alcohol concentrations between 0.08% and 0.99%, the odds ratio was estimated to be 6.25. Unfortunately, the precise odds ratio for a blood alcohol concentration of 0.08% is not readily discernable from the tabular information in the Zandor et al. (2000) study, but presumably it falls somewhere between 3.76 and 6.25.

By comparison, this is the third in a series of studies that we have conducted evaluating the effects of cell phone use on driving using the car-following procedure (see also Strayer & Drews, 2004; and Strayer et al., 2003). Across these three studies, 120 participants performed in both baseline and cell phone conditions. Two of the participants in our studies were involved in an accident in baseline conditions, whereas 10 participants were involved in an accident when they were conversing on a cell phone. A logistic regression analysis indicated that the difference in accident rates for baseline and cell phone conditions was significant, $\chi^2(1) = 6.1$, $p = .013$, and the estimated odds ratio of an accident for cell phone drivers was 5.36, a relative risk similar to the estimates obtained by Zandor et al. (2000) for drivers with a blood alcohol level of 0.08% wt/vol.

One factor that may have contributed to the absence of accidents in the alcohol condition of our study is that the alcohol and driving portion of the study was conducted during the daytime (between 9:00 a.m. and noon). Data from the National Highway Transportation Safety Administration (National Highway Traffic Safety Administration, 2001) indicates that only 3% of fatal accidents on U.S. highways occur during this time interval. In fact, in the real world there is a natural confounding of alcohol consumption and fatigue such that nearly 80% of all fatal alcohol-related accidents on U.S. highways occur between 6:00 p.m. and 6:00 a.m. In the current study, participants were well rested prior to the consumption of alcohol, potentially lowering the relative risk factors.

The objective of the present research was to help to establish a clear benchmark for assessing the relative risks associated with using a cell phone while driving. We compared the cell phone driver with the drunk driver for two reasons. First, there are now clear societal norms associated with intoxicated driving, and laws in the United States expressly prohibit driving with a blood alcohol level at or above 0.08%. Logical consistency would seem to dictate that any activity that leads to impairments in driving equal to or greater than the drunk driving standard should be avoided (Willette & Walsh, 1983). Second, the epidemiological study by Redelmeier and Tibshirani (1997) suggested that "the relative risk [of being in a traffic accident while using a cell phone] is similar to the hazard associated with driving with a blood alcohol level at the legal limit" (p. 456). The data presented in this article are consistent with this estimate and indicate that when driving conditions and time on task are controlled for, the impairments associated with using a cell phone while driving can be as profound as those associated with driving with a blood alcohol level at 0.08%. With respect to cell phone use, clearly the safest course of action is to not use a cell phone while driving. However, regulatory issues are best left to legislators who are provided with the latest scientific evidence. In the long run, skillfully crafted regulation and better driver education addressing driver distraction will be essential to keep the roadways safe.

ACKNOWLEDGMENTS

A preliminary version of this research was presented at Driving Assessment 2003: International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design in Park City, Utah. Support for this study was provided through a grant from the Federal Aviation Administration. We wish to thank the Utah Highway Patrol for providing the breath analyzer and GE-ISIM for providing access to the driving simulator. Danica Nelson, Amy Alleman, and Joel Cooper assisted in the data collection. Jonathan Butner provided statistical consultation. Representatives Ralph Becker and Kory Holdaway from the Utah State Legislature provided guidance on legislative issues.

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Date received: July 6, 2004
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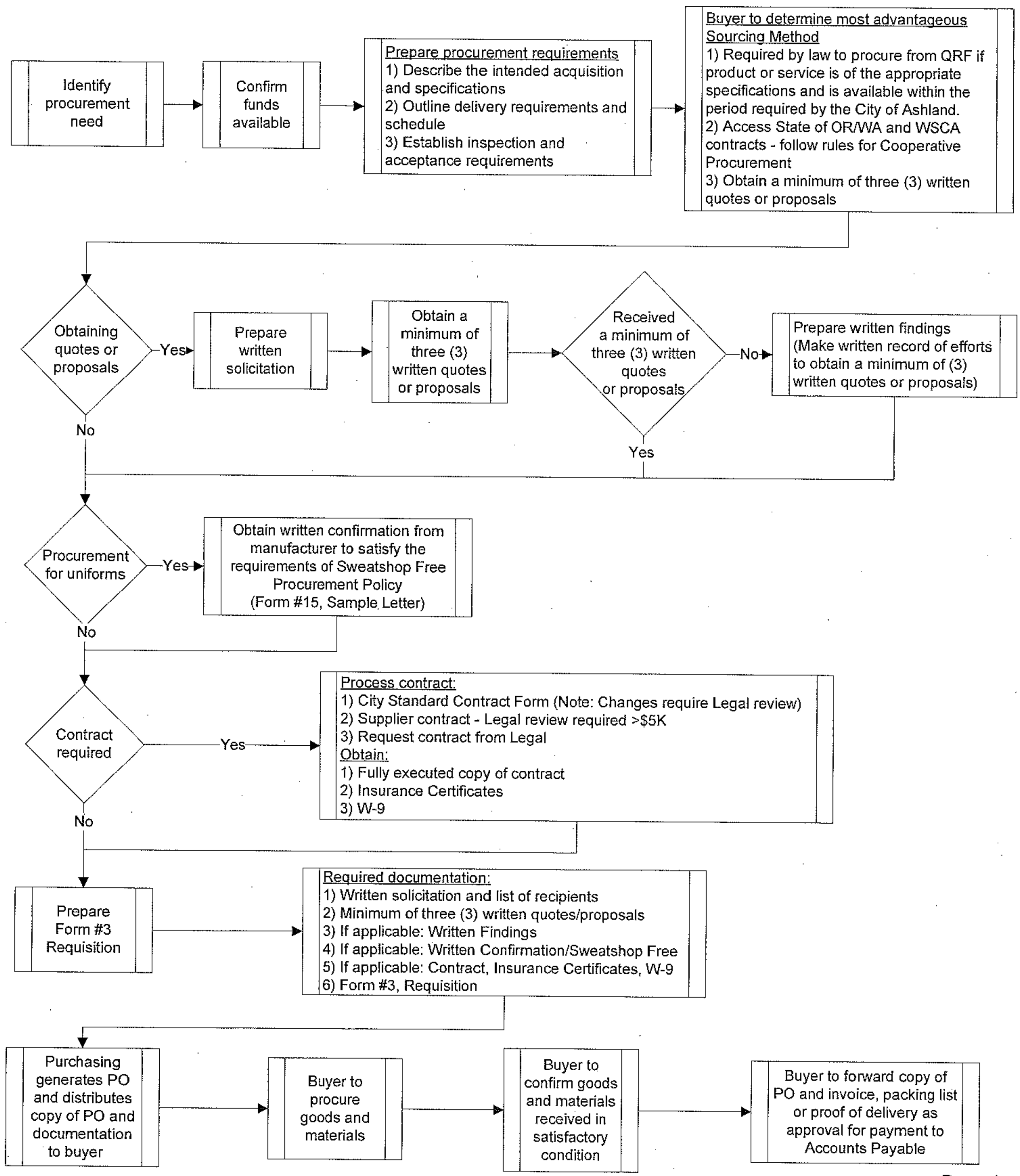
Intermediate Procurement
Goods and Materials - $5,000 to $100,000
Flow Chart
November 15, 2010



Traffic Safety Connection

Connecting Oregon's Community Traffic & Child Passenger Safety Advocates

October/November

Volume 10, Number 1

Annual Meeting 2011

On Tuesday, October 18th, ACTS Oregon Board members, associates, and staff attended our Annual Meeting. Mingling guests enjoyed coffee and refreshments with a general session highlighting activities from the 2010-2011 fiscal year.

During the general session 2011-2012 Board Members were announced. Congratulations to those who were re-elected: Tammy Franks – **Randall Children's Hospital at Legacy Emanuel**, and Jan Robertson – **AAA Oregon/Idaho**. A warm welcome goes to Therese Madrigal – **Deschutes County Health Department**, and a "Welcome back!" goes to Stephen Manning who returns to the Board.

Outgoing Board Member Ralph Browning was recognized for his time serving on the Board. Thank you for all your good work Ralph!

The 2010-2011 ACTS Oregon Annual Report summarizes the year's accomplishments. Read the report online at: *http://www.actsoregon.org/pdf/EmailNews/Annual_Report_2011_EmailVersion.pdf.*

Thank you to all who have joined as members of ACTS Oregon for 2011-2012. If you are not yet a member, please consider joining to support our organization's efforts. Visit *http://www.actsoregon.org/membership.html.*

On a Night of Fun & Frights, Pedestrian Safety Should Be the Primary Focus

Article from SafeKids.org

On a night when many children spend hours in close proximity to cars as they navigate through neighborhoods gathering candy, pedestrian safety should be a top priority for both drivers and parents. On average, twice as many fatalities occur among children while walking on Halloween compared to other days of the year.

Halloween falls on a Monday this year, and many kids will be out late trick-or-treating while it is dark - making it harder for drivers to see them. Because of this lack of visibility, it is important for drivers to take extra precautions to watch out for trick-or-treaters, especially around crosswalks.

"The simple act of slowing down on neighborhood roads will not only make Halloween more enjoyable for everyone, but also it could save lives," said Moira Donahue, Director of the *Walk This Way* program, Safe Kids' pedestrian safety program.

"Pedestrian safety is not just the responsibility of the driver. Parents can do their part to help kids stay out of the emergency room on Halloween by emphasizing safe pedestrian behaviors before they go out trick-or-treating," said Donahue. "Children younger than age 12 should not be alone crossing streets at night without an adult. If older kids are mature enough to go trick-or-treating without adult supervision, parents should make sure they go in a group and stick to a predetermined route with good lighting."

Continued on Page 4

Almost-Deadly Sippy Cup Incident Warns Against Projectiles In Car

By Christie Haskell, Images by Christina Hish; Original article at: TheStir.CafeMom.com

I know people think some things are extreme when it comes to car seat safety, often a matter of the "It won't happen to me" mindset. When mentioning clearing the car of potential projectiles, often the reaction is, "Oh, *please!* Whatever," ignoring the fact that even slamming on your brakes without impact is enough to make things go flying.

For one mom, Christina Hish of Denver, the reality of dangers from a projectile came true, in a very scary and serious way. The end result is over 400 stitches and many surgeries for her son, all from a soft-spouted sippy cup.

On October 15th, last year, Hish and her 2-1/2-year-old, JD, were going out in their family car. Only a block away from her house, as she turned left, someone who drove straight in a left-turn lane hit her going around 45 miles per hour.

Her airbags deployed, the car was smoking, and she heard her son screaming behind her. She got out and went to him, and saw blood everywhere. He had been essentially scalped by the soft spout sippy cup he had with him.

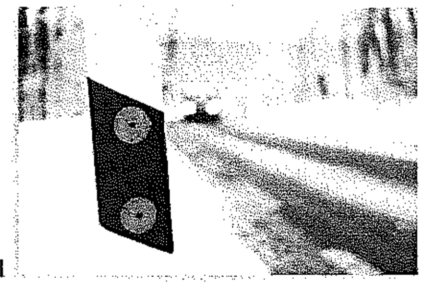
She screamed for help, and an amazing woman removed her shirt, helping her apply pressure to her son's head and they sang while waiting for emergency response.

A plastic surgeon was called in to handle JD's injuries - his skull was fractured in three places.

Continued on Page 3

Gear Up for Winter Driving

By Lynne Mutrie, ACTS Oregon Board Member



Summer is finished, kids are back at school and it's time to re-check the safety of our chosen vehicles, our route and our understanding of our chosen travel modes to ensure safe travel for all. Are all vehicle lights working? Are our brakes at their best? Are the tires properly inflated with lots of tread?

With the changes in weather, daylight length, and amount of people using the roads, our driving styles should change as well.

The following tips work for all road users; vehicle drivers, bicyclists and pedestrians:

Steer clear of wet leaves
Once those leaves start falling and get wet from rain they can become a serious travel hazard. Wet leaves are slippery and reduce traction. They can also cover pavement markings or potholes. Always keep your windshield clean of leaves and watch for wet leaves on the roads, especially as you are making turns.

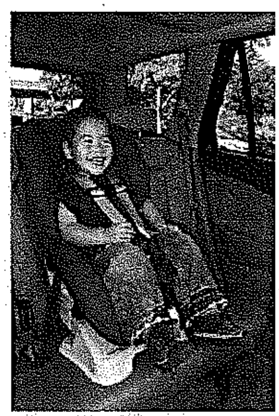
Make adjustments for the light
Shorter days mean shorter light, making it more difficult to see pedestrians, cyclists, and children playing in the late afternoon. Be on the lookout. If night vision is a problem, adjust your driving times or find alternate, well–lit routes whenever possible. Make sure all lights are working properly.

Watch for frost
Dipping nighttime temperatures bring frost to windshields and roads. Keep a windshield scraper and small broom in your car. Clean all windows and wait for defogging to occur before pulling out of your parking space. Decelerate or gently brake when slowing down: open surfaces are more prone to collect frost on the road surface. Keep alert for shaded areas that could create black ice during early morning and evening hours.

Plan ahead for Safe Routes
If you travel to or through a school zone, know that 20 miles per hour limits are in place to help children and youth be safe. The slower you travel the easier it is to stop quickly and if a collision occurs, severity of injury is lessened.

And, as always, buckle up and wear safety gear before heading out to enjoy all that fall has to offer. Be safe!

Change to Oregon Booster Seat Law - January 2012



A change to the Oregon Child Seat Law goes into effect January 2012. The current law requires children to move from a child seat to a booster after forty pounds. House Bill 3590 signed by Governor John Kitzhaber on June 9, 2011 will allow continued use of child seats up to the highest weight limit allowed by the seat manufacturer, as an alternative to boosters, for children over forty pounds but under age eight or less than 4'9" tall.

Current law states that after a child reaches forty pounds in weight, the child ***must*** be restrained in a booster to age eight or 4'9" tall. However, a child safety seat with a five-point harness will restrain a child more securely than a booster seat. The upper weight limits of harness-type seats have been steadily increasing *(beyond a former 40 pound maximum)* to accommodate much higher weights as children are getting larger, younger *(some up to 60 or 80 pounds)*. The revised law allows drivers the choice of continuing the use of the five-point harness seat beyond 40 pounds and up to the maximum weight rating allowed by the manufacturer - as an alternative to a booster. This also avoids the need to discard a perfectly good seat and purchase a booster unnecessarily.

A secondary reason for this change was to prevent officers from citing citizens for using boosters where there is a harness system available that is safer. Although this hasn't been reported to be a widespread issue, as more officers become trained as Child Passenger Safety Technicians and the public becomes better educated, the practicality of enforcement of safety belt laws and how our laws relate to national "best practice" has come under increasing scrutiny. Many states have been routinely upgrading their laws to match best practice.

Find out more about Oregon's Occupant Protection Laws on ODOT - Transportation Safety Division's Occupant Protection page at: http://www.oregon.gov/ODOT/TS/safetybelts.shtml.

National CPS Technician Certification Class in Coos Bay

Coos Bay Fire and Rescue hosted ACTS Oregon's last class of our 2011 fiscal year. The accommodations were great and the staff could not be more helpful. Thank you Fire Chief Stan Gibson – **Coos Bay Fire and Rescue**, for sharing your wonderful space with us! Congratulations to our newest CPS Technicians! Your hard work and determination paid off!

Welcome to the team of Oregon Techs: Elizabeth Craig – **Community Volunteer**, Kristina Gandy and Becky Vincent – **Bay Area Hospital**, Sharon Mason – **Confederated Tribes of Siletz Indians**, James Harrell – **Curry County Sheriff's Office**, Jessica Lowry – **Early Head Start Coos Bay**, Maria Horta – **Family Building Blocks Salem**, Bob Buckridge – **Lane County Fire District #1**, Josh Mullins – **OSP Coos Bay**, and Katie Selvog – **Sky Lakes Medical Center.**

Thank you, to a fun loving instructor team! Scott Downing – **Jackson County Fire District #3**, Bill Craig – **Skagit County Medic One**, Doris Girt, Sandy Holt, and Lead Instructor Jeff Oliver – **ACTS Oregon.**

Mini-Grant Activity Bike Safety Class Positively Impacts Klamath Falls

Bicycle Safety grantee **Shasta Elementary** in Klamath Falls prepares for fall bike riding by hosting a bike skills refresher class for 5th and 6th grade students. ACTS Oregon's Charity Sturgeon attended the class and went for a ride with the students. Shasta Elementary 6th grade teacher Tricia Polsinelli spoke about how the grant-provided bicycle safety classes have encouraged more riding, enthusiastically stating, "Students and staff are tracking their cardiovascular improvements, choosing healthier foods, and many staff members are gathering on weekends to ride.

Indeed, the grant has positively affected our school." What a great outcome from this grant program. Keep up the good work Shasta!

Infants to Seniors: Something for Everyone in Hermiston

Good Shepherd Hospital in Hermiston hosted their annual *Family Health and Safety Day* at **Hermiston High School** on September 24th. The event was attended by nearly 2000 people and offered displays and information on child passenger safety, bike safety, healthy snack choices, a rock climbing wall, vision and hearing screening, and even the local roller derby team.

It was a beautiful day in Hermiston and a great event for the families. The best part was that it was all offered to the public at no charge! Sandy Holt and Charity Sturgeon – ACTS Oregon, attended the event to support safety efforts with Good Shepherd Hospital and **Safe Kids Blue Mountain**.

New Safety Belt "Infomercial"

By Carla Levinski, TSD OP Program Manager

Transportation Safety Division's Occupant Protection Program recently produced a three-minute video designed to promote restraint use and help people understand the basics of Oregon's belt laws. The video emphasizes being "safe and comfortable" and is now available electronically in several formats, each designed for different purposes. Anyone can use them as they please.

The CD version is PC-only, appropriate for play from a laptop. This version would be a good overview to incorporate into classrooms or conferences such as those for safety belt alternative sentencing, driver education, general traffic safety, AARP 55 Alive, high school and junior highs, and child passenger safety. Other suggested venues are law enforcement roll-calls, staff meetings, and employee safety meetings.

The tradeshow version is looping, appropriate for event displays, traffic safety fairs, waiting rooms, and similar environments.

The Web version has an auto-forward-by-email feature at the end for sharing with others. That version is posted on the Transportation Safety Division webpage at: *http://www.oregon.gov/ODOT/TS/safetybelts.shtml.*

A video version has been posted on ODOT's YouTube site at: *http://www.youtube.com/user/OregonDOT* and can be synched to an iPhone or iPad by importing to iTunes.

The CD version is available for download at: *ftp://ftp.odot.state.or.us/outgoing/safetybelt-movie laptop/* and the Tradeshow version is available for download at: *ftp://ftp.odot.state.or.us/outgoing/safetybeltmovie looping/*

Please feel free to use this infomercial or pass along to help us educate others regarding Oregon safety belt and child passenger safety laws.

If you have questions or problems with any of these links please call Carla Levinski at (503) 986-4199.

Child Safety Seat Resource Center — Check Up Events and Fitting Stations

Visit www.ChildSafetySeat.org/calendar.html for current listing.

Date	City	Location	Address	Time
10/26/11	Bend	Bend Fire	1212 SW Simpson	10am – 1pm
10/26/11	Forest Grove	Forest Grove Fire	1919 Ash St	3pm – 5pm
10/27/11	Eugene	Eugene Fire	1725 W 2nd Ave	5pm – 7pm
10/27/11	Woodburn	Woodburn Fire	1776 Newberg Hwy	1pm - 4pm
10/28/11	Hermiston	Wal-Mart	1350 N 1st St	3pm – 6pm
10/29/11	Hillsboro	Kohl's Dept Store	7360 NW Butler St	10am – 1pm
11/2/11	Coos Bay	Coos Bay Fire	450 Elrod Ave	11am – 1pm
11/3/11	Redmond	Redmond Fire	341 Dogwood Ave	11am – 2pm
11/3/11	Newberg	Springbrook Fire	3100 Middlebrook Dr	9am – 11am
11/4/11	Roseburg	Douglas Co Fire	1290 NE Cedar	9am – 11am
11/5/11	Albany	Albany Fire	120 SE 34th Ave	8am – 10am
11/5/11	Lake Oswego	Lake Oswego Fire	300 B St	10am – 2pm
11/5/11	Canby	Canby Fire	221 S Pine St	10am - 1pm
11/8/11	Corvallis	Corvallis Fire	400 NW Harrison St	8am – 11:30am
11/10/11	Ontario	Ontario Fire	444 SW 4th St	4pm – 6pm
11/10/11	St. Helens	St. Helens Fire	105 S 12th St	4pm – 6pm
11/12/11	Beaverton	Beaverton City Hall	4755 SW Griffith Dr	9am – 12:30pm
11/12/11	Hillsboro	Tuality Hospital	334 SE 8th Ave	9am – 11am
11/12/11	Silverton	Silverton Fire	819 Railway St	12pm - 4pm
11/16/11	Prineville	Crook County Fire	500 NE Belknap	3pm – 6pm
11/17/11	Madras	Jefferson Co. Fire	765 SE Adams Dr	11am - 1pm
11/17/11	Eugene	Eugene Fire	1725 W 2nd Ave	5pm - 7pm
11/19/11	Salem	Keizer Fire	661 Chemawa Rd NE	11am - 3pm

Safe Routes to Schools Mini-Grants Awarded

Safe Routes to Schools (SRTS) Action Plan Mini-Grants have been awarded to 8 schools in Oregon. These grants provide up to $3000 to support schools and community organizations in creating the Oregon SRTS Action Plan - the first step for the implementation of a Safe Routes to School program.

Mini-Grants were awarded to:

Black Butte School, Cove Charter School, Irrigon Schools, Metolius Elementary, Miller Elementary, Shady Cove Elementary & Middle School, Stayton Middle School, and **Sweetbrier Elementary.**

Almost-Deadly Sippy Cup Incident

Continued from Page 1

He required more than 200 internal and 200 external stitches, and the main muscle in his forehead was severed and not able to be repaired, meaning he will never have movement of his forehead muscles.

Being autistic and non-verbal, JD's recovery was especially difficult. But with a great support system of loving family, he is now doing well. He has been through a lot, will have lasting scars, and may face future surgeries.

JD's mom is now, understandably, a major car seat safety advocate, with focus on dangers of projectiles. Many people consider it excessive or extreme but the fact is even in situations where a person merely slams on the brakes, items go flying. Everything that is loose is potentially a danger to the occupants of a vehicle (especially unrestrained passengers and pets!).

The method for determining the force at which an item flies isn't tough. Just figure that the weight of an object, times the speed you're traveling equals the force at which that item would hit something if your car comes to a sudden, complete stop *(like hitting something head on).* A 5 pound purse x 35 miles per hour = 175 pounds of force. That's actually pretty significant if it's hitting you or your child.

It may seem silly to buckle in your purse or put your water bottle in the center console that closes, but it's worth it. Only allow soft items like blankets or stuffed animals in the car with your child, and if you need a drink, check out something like an entirely soft water bladder that can be secured to something, and would break and spill before it would go flying. I think any mom would really hate to have her purse damage her child, when she figured just months before, "Whatever. It's not worth the effort."

Do you take projectiles seriously? Do you secure them?

Pedestrian Safety

Continued from Page 1

Safety tips for parents:

- Cross the street safely at corners. Use traffic signals and crosswalks. Look left, right and left again when crossing and keep looking as you cross. Walk - don't run - across the street.
- Walk on sidewalks or paths. If there are no sidewalks, walk facing traffic as far to the left as possible. Children should walk on direct routes with the fewest street crossings.
- Slow down and stay alert. Watch out for cars that are turning or backing up and never dart out into the street or cross in between parked cars.
- Decorate costumes and bags with reflective tape or stickers and choose light colors. Masks can obstruct a child's vision, so choose non-toxic face paint and make-up whenever possible. Provide glow sticks or flashlights in order to see better, as well as be seen by drivers.

Safety tips for drivers:

- Slow down in residential neighbor hoods and school zones. Remember that popular trick-or-treating hours are during the typical rush-hour period of 5:30 to 9:30 p.m.
- Be especially alert. Take extra time to look for kids at intersections, on medians and curbs. Children may move in unpredictable ways.
- Slowly and carefully enter and exit driveways and alleys.
- Reduce any distractions inside your car, such as eating, so you can concentrate on the road and your surroundings.

For more tips on how to help kids become safer pedestrians throughout the year, visit websites for WalkingInfo.org: http://www.walkinginfo.org/, ODOT-TSD Safe Routes to School: http://www.oregon.gov/ODOT/TS/saferoutes.shtml, and Safe Kids: http://www.safekids.org/safety-basics/safety-spotlight/halloween-safety/.

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October 14, 2011

Re: Bicycle Safety and Oregon Helmet Laws

Warrenton Grade School Parents and Students,

As the first quarter comes to a close I hope everyone has made a smooth transition back to school. During this quarter my officers and I have noticed quite a few students riding their bicycles to and from school as well as during non-school times. Though many students are wearing helmets quite a few are not.

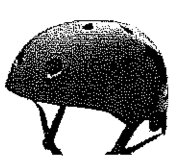
Beside the fact that not wearing a helmet is very dangerous it is also ***illegal***. As a reminder to all students and parents, here is what is required by Oregon Law:

- ORS #814.485 – All operators or riders on a bicycle under 16-years of age in a public area **MUST WEAR PROTECTIVE HEADGEAR**. The fine is **$40** in Warrenton.
- ORS #814.600 – All operators of a skateboard, scooter, or rollerblades under 16-years of age on a public area **MUST WEAR PROTECTIVE HEADGEAR**. The fine is **$40** in Warrenton.
- ORS #814.486 – If a parent or legal guardian **KNOWINGLY ALLOWS** an operator or passenger under 16-years of age to ride without protective headgear can be cited and fined **$40** in Warrenton.
- ORS #814.488 – If the violator of any of these laws is 11-years or younger the **CITATION WILL BE ISSUED TO THE PARENT OR GUARDIAN.**

Please remember that protective headgear **REDUCES THE RISK OF SERIOUS HEAD AND BRAIN INJURY BY 85-88%**! Also remember that it is not a good idea to utilize used protective headgear.

Not all protective headgear is the same:

- A traditional bicycle helmet is lighter in weight but only designed to only take one large impact, then should be replaced.



- A multi-sport helmet (skateboarder style) is heavier but designed for multiple impacts.

If you cannot afford to purchase a helmet, the police department received a donation from State Farm insurance agent Marcia Harper and will have some helmets at the police station. The helmets must be fitted to your head so you must be present to get one.

Please **only** get a helmet if you are in financial need. The helmets will be available Monday – Friday 9am to 5pm after October 24th.

I hope this review of the Oregon laws and headgear safety will help prevent unnecessary injury and unneeded citations for not complying with the law.

Mathew J. Workman
Chief of Police

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