

REGIONAL EMERGENCY TRANSPORTATION ROUTES

PORTLAND METROPOLITAN AREA

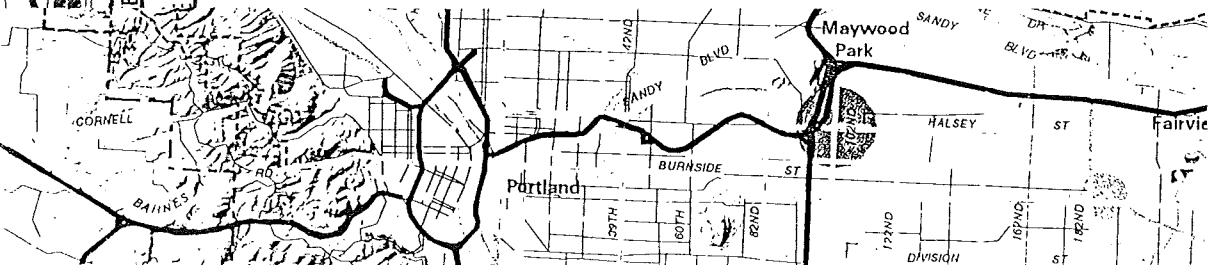
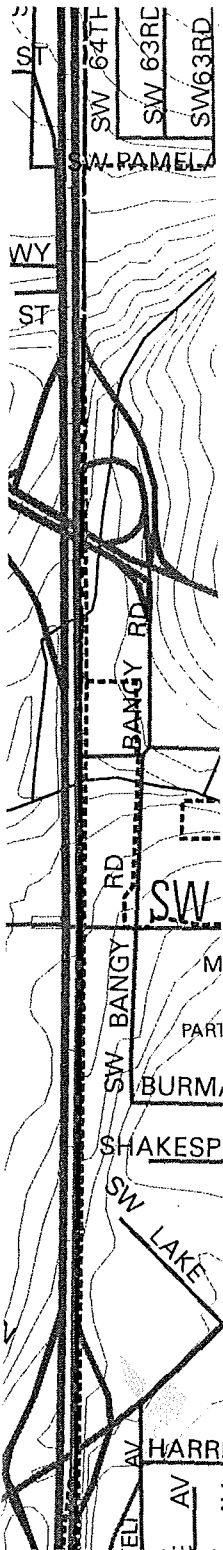
REPORT OF THE
METRO REGIONAL EMERGENCY
TRANSPORTATION ROUTES TASK FORCE

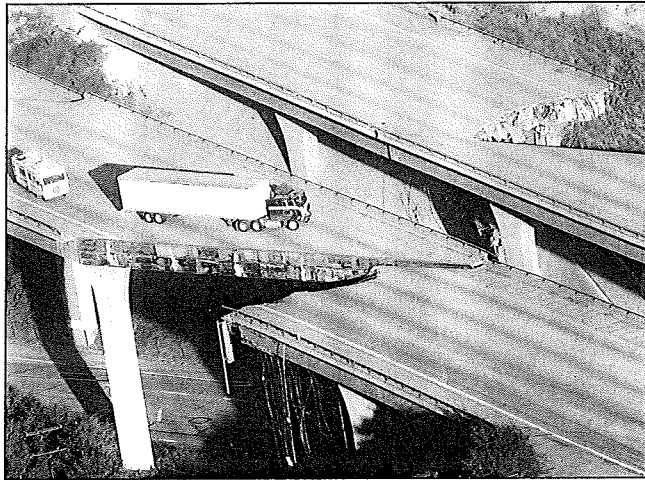
PRESENTED TO THE
REGIONAL EMERGENCY MANAGEMENT GROUP



METRO

March 1996





*Northridge Earthquake Damage
(courtesy of Los Angeles Times)*

Acknowledgments

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Metro Executive Officer

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Chair, Regional Emergency
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Definition and Purpose

A "Primary Emergency Transportation Route" is a route used after a major regional disaster to move emergency resources such as personnel, supplies and equipment to designated staging areas and subsequent deployment to heavily damaged areas. The emergency resources may be sent from agencies in the region that have not been damaged, or from other regions of the state or nation.

Rapid damage assessment of the primary emergency transportation route network described here will be a priority for public safety agencies throughout the region during the initial stages of disaster response. Based on that damage assessment, revisions to the network will be made as required to provide alternate routing around damaged segments of the network. The revised network will be distributed to emergency managers throughout the region, and to state and federal agencies for use during disaster response and the early recovery period.

These primary routes should assist in prioritizing hazard mitigation efforts in this region. Examples of mitigation activities may include efforts such as retrofit of bridges and other facilities along the corridors.

Background

The Regional Emergency Management Group (REMG) was formed in 1994 by intergovernmental agreement among the region's counties, cities, Metro and Red Cross to improve disaster preparedness, response, recovery and mitigation plans and programs.

In this effort, disaster management issues that require the attention of multiple jurisdictions have been identified, and staff from the participating jurisdictions have been assigned to facilitate task forces and committees to develop plans and programs to address those issues.

Metro facilitates the transportation element of the REMG work plan. Metro asked lifeline, critical facility and transportation system managers, Red Cross officials, emergency and transportation planners to serve as the "Regional Emergency Transportation Route (ETR) Task Force". The task force was asked to identify routes that will likely be most important to move resources from point to point within the region after a major earthquake. The task force was also asked to consider the types of procedures that may be required to better assure that the routes are functional after an earthquake.

Recommendations

Focus on disaster response requirements raised issues that should be considered prior to a disaster in the preparedness or pre-disaster mitigation phases, and in the response and recovery phases. For example, when routes have been identified as priorities in the emergency management

transportation network, where might seismic retrofit measures most improve the system's capacity to survive a major earthquake? What additional emergency operations procedures are needed to improve the capacity of the ETRs to serve public and private response personnel?

To identify alternatives for answering these and other questions, the task force recommends that the Regional Emergency Management Group:

1. Approve the Regional Emergency Transportation Routes identified on the accompanying map (Page 3).
2. Recommend that state, regional and local transportation authorities use the Regional Emergency Transportation Routes as an additional criteria when prioritizing hazard mitigation funding for transportation projects.
3. Establish a permanent REMG committee with representation from state, local and private agencies that manage the primary transportation systems in the region, i.e. roads, highways, bridges, airports, marine ports and railroads. The committee should also include representation from utility providers and the REMG Technical Committee. The committee should review ETR designations at least annually or as events require.
4. Task the standing committee to develop and coordinate standard operating procedures (SOPs) for ETR damage assessment and use following a disaster.

This report and attachments may be used by the permanent committee to develop elements necessary to implement ETRs. Suggested elements include:

- A regional emergency transportation plan that mirrors similar emergency plans at the state and federal levels, using the Federal Response Plan as model.
- Memoranda of understanding, mutual aid or other written agreements that may be required among parties required to activate and use the emergency transportation plan.
- Designation of river and railroad routes in the ETR network.
- Development of public education materials to improve understanding of the designation and use of ETRs after a disaster.

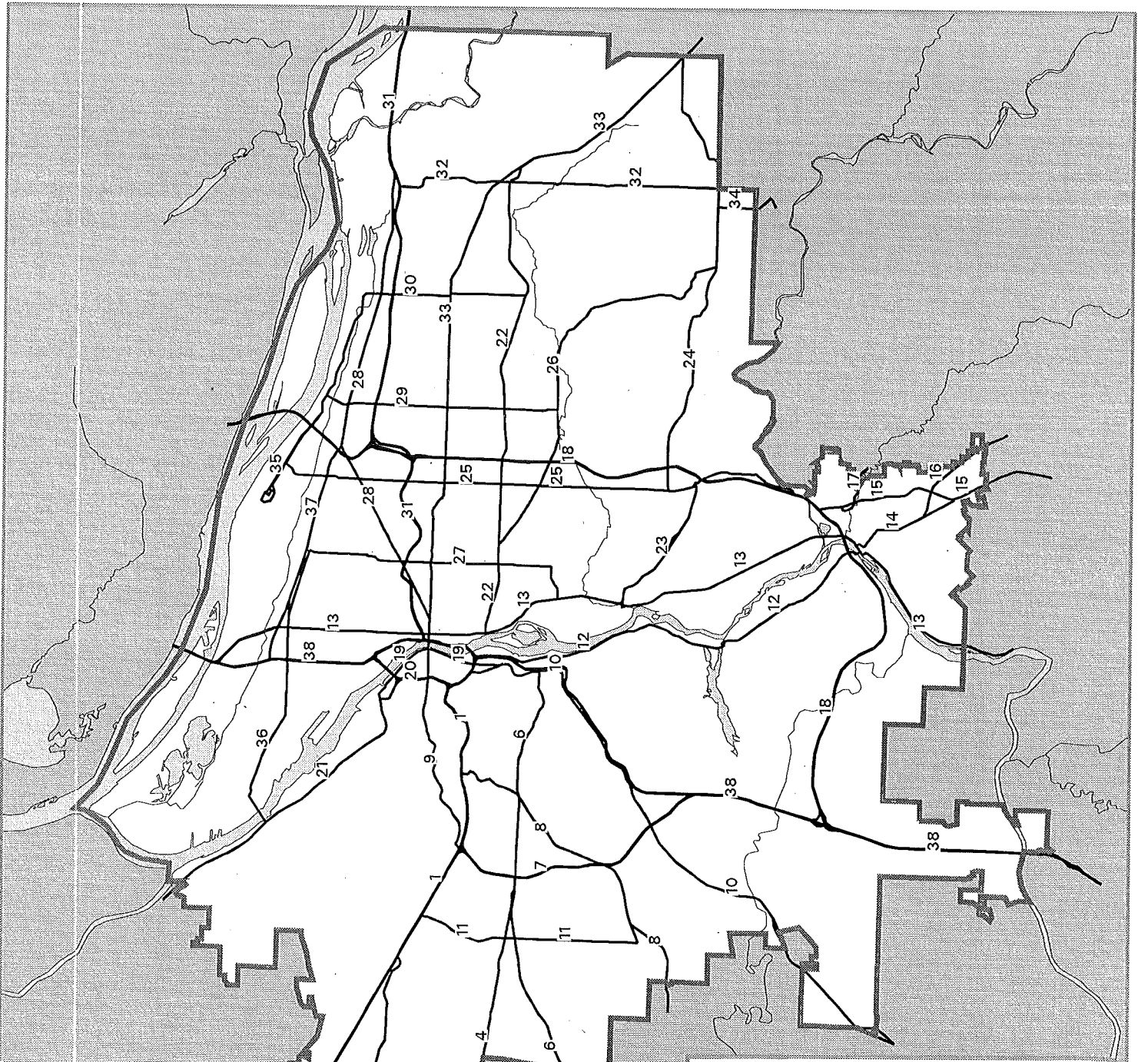
Emergency Transportation Routes in the Metro Region

600 NE Grand Ave.
Portland, OR 97232-2736
(503) 797-1742.



METRO

- (1) Hwy 26
- (2) Shute Rd.
- (3) Cornell Rd.
- (4) Hwy 8
- (5) River Rd.
- (6) Hwy 10
- (7) Hwy 217
- (8) Scholls Ferry Rd.
- (9) Burnside
- (10) 99W
- (11) Murray Blvd.
- (12) Hwy 43
- (13) 99E
- (14) Molalla Av.
- (15) Hwy 213
- (16) Beaver Creek Rd.
- (17) Redland Rd.
- (18) I-205
- (19) Front Av.
- (20) I-405
- (21) Hwy 30
- (22) Powell Blvd.
- (23) Hwy 224
- (24) Hwy 212
- (25) 82nd Av.
- (26) Foster Rd.
- (27) 39th Av.
- (28) Sandy Blvd.
- (29) 122nd Av.
- (30) 181st Av. / 182nd Av.
- (31) I-84
- (32) 242nd Av. / Hogan Rd.
- (33) Stark St. / Burnside
- (34) 232nd Av.
- (35) Airport Wy.
- (36) Lombard Blvd.
- (37) Columbia Blvd.
- (38) I-5



Framework for Regional Emergency Transportation Routes

Initial Efforts:

City of Portland emergency transportation corridors were used as the starting point for this regional discussion. In conjunction with the Oregon Department of Transportation (ODOT) and Multnomah County, city personnel defined emergency transportation corridors along east-west and north-south axes. Major arterials were used as emergency transportation corridors for the city's purposes.

Prioritization of routes for allocation of scarce road repair funds was an important stimulus to the Portland project. For example, if two bridges are equally vulnerable, the bridge on an emergency transportation corridor might receive hazard mitigation funding priority.

The City of Portland Transportation Bureau and other city bureaus who assisted in this effort focused on the first 72 hours of initial response as the criteria in selecting emergency transportation corridors.

A similar statewide effort led by ODOT evolved from Portland's initial effort. As a result of ODOT's study of bridges throughout Oregon, local agencies in many parts of the state have helped ODOT identify ETRs. About 75 percent of the state's area is completed in draft form. This effort, too, focused on the initial 72 hours after an event.

Conceptual Framework for Regional Emergency Transportation Routes:

The task force stressed that the results of its effort would not be scientifically rigorous, given the short time-frame and lack of funding for traffic or engineering studies. The task force made a "best-effort" analysis using the combined expertise of task force members who manage transportation facilities, or represent key emergency service providers that are dependent on transportation.

- Task force members gathered information from California, Louisiana and Florida related to emergency transportation corridor selection.
- Current emergency snow routes were collected from local jurisdictions in the region and Tri-Met and evaluated as potential ETRs. However, they proved to be too large a collection of roadways to serve as a base line map. Snow routes are generally designed to allow extensive movement of the local population within a jurisdiction. Tri-Met hopes to serve as many customers as possible on every route. Regional Emergency Transportation Routes, however, are intended to move emergency response resources across the region from one staging area to another and for subsequent deployment to critical facility or lifeline emergency repairs.
- Railroads and rivers will be important routes for emergency traffic. Because of the abbreviated time frame of the deliberations, the task force focused primarily on

roadways. Use of rivers and rails for ETRs will need to be analyzed and added to the recommended network by the permanent committee.

The task force recognized several factors that influence the designation of routes as emergency transportation corridors, including:

1. Major arterials could be blocked because utilities tend to congregate on those routes, causing interruption by downed wires or collapsed water or sewer mains. Perhaps a combination of freeways (which generally will not be impacted by damaged utility facilities) and major arterials will offer a partial solution.
2. The response phase lasts a short time, and one of the lessons learned from past disasters is that people who are unaffected by the event will want "normal" access to their work, playground and home restored as quickly as possible. The task force focused on primary ETRs for use during the initial response period (generally described as the first 72 hour period after an event). Future consideration of ETRs may identify secondary routes that become important during recovery.
3. Past earthquakes demonstrate that most victims are not transported by ambulance to a hospital. Injured people will generally find a way to get medical care, and a primary medical concern is getting patients distributed from overloaded or out-of-action medical centers to underutilized centers. This includes the need to move patients out of the impacted area to less affected areas.
4. Any airport could be closed as a result of damage to the airport's facilities or traffic control systems. Alternatives for airlift should be factored into emergency transportation corridor selection.

Primary Route Selection Criteria

After analysis of the information available, including the Relative Earthquake Hazard Map developed by the Oregon Department of Geology and Mineral Industries, the task force narrowed the criteria used for selecting specific routes. The criteria are:

1. State routes serving the metropolitan area are considered primary because of their high capacity and ability to handle oversized vehicles. Also, local emergency corridors are often only accessible via a state route.
2. Routes should be relatively flat and have few major gradients or potential slide areas.
3. Routes should serve a major population center.

4. Routes should offer at-grade level alternative routing at overpasses and underpasses.

Implementing the ETRs

One goal discussed by the task force was development of a regional emergency transportation plan in relation to ETR designation, and methods for testing that plan through emergency exercises. The plan will describe operating procedures and assign responsibility for emergency actions after an event. To continue this effort, the REMG will need to acquire memoranda of understanding or other written agreements among participating jurisdictions, and a mutual aid agreement among all parties

A memorandum of understanding (see Attachment) was developed by a similar task force on Emergency Transportation Response and Recovery in Los Angeles County. This example may serve as a model for implementing procedures related to use of emergency transportation routes.

Among the tasks for implementing the ETRs, the permanent committee may consider:

1. Focus on tasks related to federal Emergency Support Function One: Transportation. If a major disaster occurs in the region, committee members will likely be asked to assist in any regional Emergency Operations Center or Disaster Field Office that may be established during response to a major disaster.
2. Develop memoranda of understanding and mutual aid agreements for specific actions that may be required to assess, open and manage access to emergency transportation routes. Partners would include the State of Washington for cross-Columbia River transportation facilities and agencies that manage non-roadway transportation networks such as marine ports and airports and railroads.
3. Create standardized maps for response, recovery and mitigation activities.

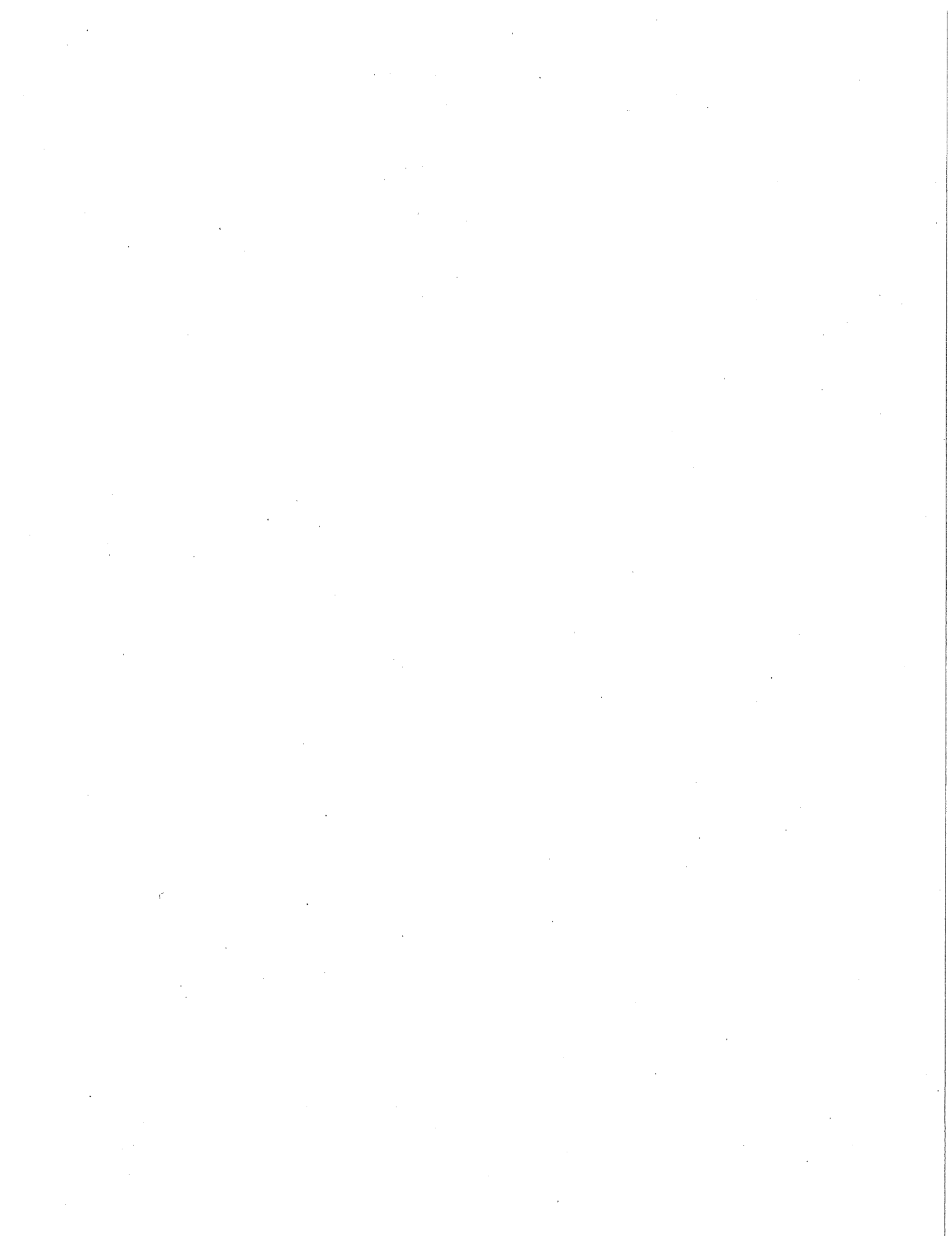
Standard Operating Procedures

The creation of draft standard operating procedures to accompany the recommended emergency transportation corridors proved beyond the scope of this task force. However, the task force agreed that the permanent committee should at a minimum develop standard operating procedures as part of the ETR implementation plan for distribution to the public and private emergency response agencies that will conduct the initial response to major disasters. The procedures should include or address:

1. Damage Assessment: Rapid Evaluation Procedures
 - Roads

- Highways
 - Bridges
 - Airports
 - Marine Ports
 - Railroads
2. Communications
 - Protocols
 - Systems
 3. Initial Emergency Transportation Route Selection During Disaster
 - Map creation displaying open and closed segments of route
 - Track and display changes to initial ETR
 4. Route Restoration
 - Determine repair requirements for closed ETR segments
 - Determine repair requirements for opened ETR segments
 - Determine need for mutual aid resources
 - Distribute changes to jurisdictions, media and public
 - Track and display route restoration progress
 5. Traffic Management
 - Prioritize ETR use
 - Establish access control procedures as required

Many jurisdictions are currently in the process of developing SOPs for transportation facility damage assessment. The consensus was that the task force should recommend to the Regional Emergency Management Group and other regional public policy committees that the permanent emergency transportation committee develop standard procedures for response, recovery, mitigation and preparedness activities related to the regional emergency transportation corridors.



ATTACHMENT

MEMORANDUM OF UNDERSTANDING
Task Force on
Emergency Transportation Response and Recovery
in Los Angeles County

DRAFT

WHEREAS, there are multiple transportation and enforcement agencies that have responsibility for various components of the transportation system in Los Angeles County, and

WHEREAS, there is continuing potential for significant damage and disruption to the transportation system due to earthquake or other natural disaster, and

WHEREAS, a functioning and safe transportation system is critical to the health, well-being and economic vitality of Southern California, and

WHEREAS, the undersigned transportation, enforcement and planning agencies desire to have a formalized structure for planning, implementing, publicizing and financing a rapid transportation response and recovery effort, and

WHEREAS, these agencies recognize the coordination roles of the County and City of Los Angeles' Emergency Operation Centers and the Standardized Emergency Management System (SEMS) and agree that a multi-agency transportation task force is needed to implement the SEMS concept,

NOW THEREFORE BE IT RESOLVED, that the undersigned agree to work cooperatively through a multijurisdictional Emergency Transportation Response and Recovery Task Force, as described in the attached plan, to effect a rapid, coordinated response to major transportation emergencies.

Caltrans

County of Los Angeles
Sheriff's Department

California Highway Patrol

Metropolitan Transportation
Authority

Los Angeles Department of
Transportation

Southern California Regional
Rail Authority

Los Angeles Police Department

County of Los Angeles
Department of Public Works

Southern California Association
of Governments

**TASK FORCE ON
EMERGENCY TRANSPORTATION RESPONSE AND RECOVERY
IN LOS ANGELES COUNTY**

The following plan is patterned after the ad hoc task force known as the Governor's Emergency Transportation Relief Task Force which was organized by State, Federal and local officials in response to the 1994 Northridge earthquake. It is generally acknowledged that this task force was effective in coordinating the transportation response and recovery plan among the many transportation and enforcement agencies in Los Angeles County and that the task force objectives and organization should be formalized to ensure a coordinated response to future emergencies.

Objective: The purpose of the Task Force shall be to provide a formalized structure for coordinating the planning, implementation, publicizing and financing of the rapid response to a major transportation emergency in Los Angeles County, including any adjacent areas that may also be affected. The Task Force will operate within the structure of the County and City of Los Angeles' Emergency Operations Plans and the State-mandated Standardized Emergency Management System (SEMS). Each agency retains its normal jurisdiction and authority, but pledges to work cooperatively and devote necessary resources to effect a timely and coordinated response. Depending on the location and nature of an actual emergency, the objectives, organization and membership of the task force may be modified, as necessary, by agreement of the affected parties.

Organization: The Task Force may be convened jointly by the State of California Secretary of Business and Transportation, the Chair of the Los Angeles County Board of Supervisors, the Mayor of Los Angeles and the chair of the Los Angeles County Metropolitan Transportation Authority. The Task Force will be convened immediately following a major disaster and will meet daily or as necessary at Caltrans or other designated locations. The Task Force will coordinate regular media briefings. The meetings and media briefings will be co-chaired by the Secretary of Business and Transportation and the Sheriff of Los Angeles County.

The Task Force will be composed of four subcommittees:

- Freeways, Highways and HOV
- Transit and Telecommute
- Public Information
- Finance and Administration

Membership on the Task Force and subcommittees will be determined jointly by the State Secretary of Business and Transportation, Chair of the County Board of Supervisors, the Mayor of Los Angeles and the chair of the Los Angeles County Metropolitan Transportation Authority. The sub-committee structure and membership may be revised according to the location, scope and nature of the emergency.

The following subcommittees and core membership are established:

Freeways, Highways and HOV Subcommittee.

The Freeways, Highways and HOV Subcommittee shall coordinate closely with the Transit and Telecommuting Subcommittee to develop and implement the immediate transportation response plan, including establishment of detour routes and temporary roadways, traffic management, traffic enforcement, parking management and establishment of High Occupancy Vehicle (HOV) facilities and priority treatments for transit. Committee Membership shall include, but not be limited to the following:

LADOT, Chair*
Caltrans, Vice Chair
County of Los Angeles Department of Public Works
Metropolitan Transportation Authority
California Highway Patrol
County of Los Angeles Sheriff's Department
Los Angeles Police Department
Southern California Association of Governments (Commuter
Transportation Services)
Federal Highway Administration

Other likely invited participants are transportation/public works departments of other affected cities, the Automobile Club of Southern California, representatives of goods movement businesses, etc.

*For emergencies primarily outside the City of Los Angeles, Caltrans will assume the position of Chair, with the County Public Works Department as Vice-Chair.

Transit and Telecommuting Subcommittee

The Transit and Telecommuting Subcommittee shall coordinate with the other subcommittees to develop and implement the transit and telecommuting components of the transportation response plan, including revision and expansion of bus and commuter rail service; connecting shuttle buses, vans, taxis and employer vehicles; coordination with Employer Transportation Coordinators (ETC) and activation or expansion of telecommute centers. This subcommittee will provide information on revised transit service to the Public Information Subcommittee for dissemination to the public and media.

Metropolitan Transportation Authority, Chair
Los Angeles Department of Transportation, Vice Chair
Southern California Regional Rail Authority
Affected Municipal Transit Operators
Southern California Association of Governments
Federal Transit Administration

Public Information Subcommittee

The Public Information Subcommittee shall coordinate the dissemination of information regarding the transportation system damage and response plan to the media and the public. Duties may include setting up telephone hotlines, preparing maps and brochures, arranging media briefings, etc. This subcommittee will coordinate the release of information closely with the Freeways, Highways, HOV and Transit, Telecommuting Subcommittees to insure accuracy and timeliness.

Caltrans, Chair
Metropolitan Transportation Authority, Vice Chair
California Highway Patrol
Southern California Regional Rail Authority
County of Los Angeles Department of Public Works
Los Angeles Department of Transportation
County of Los Angeles Sheriff's Department
Southern California Association of Governments
U.S. Department of Transportation
Federal Emergency Management Agency (FEMA)
State Office of Emergency Services (OES)

Finance and Administration

The Finance and Administration Subcommittee shall coordinate with State and local governments, the State of California Office of Emergency Services, the Federal Emergency Management Agency, the Federal Highway Administration and other local, State and federal agencies, as necessary, to assemble initial estimates of damage and to secure funding commitments for the transportation response and recovery. This subcommittee will coordinate the required submittal of information, applications and other paperwork to secure the funding commitments and will assist local jurisdictions in understanding the eligibility and documentation requirements associated with the funding sources.

Metropolitan Transportation Authority, Chair
Caltrans, Vice Chair
State Office of Emergency Services (OES)
Federal Emergency Management Agency (FEMA)
Federal Highway Administration (FHWA)
Federal Transit Administration (FTA)
County of Los Angeles Department of Public Works
City of Los Angeles Department of Public Works
Affected Municipal Transit Operators



BDA Exercise Meeting Minutes

(September 3, 1996)

1. Meeting Schedule from August plan... made one change:

Exercise Debriefing Meeting will be held September 26th 1000-1200 at Lawnfield (vs Oct 3rd)

2. Exercise Objectives... no changes.

3. Exercise Briefing to be presented at the completion of both training sessions... approved with addition of a map on how to get to Stanton Yard and where to park on arrival.

4. Exercise Damage Inputs...

Restrict inputs to basics... need to test procedures, checklists, etc. rather than certify individual assessment teams.

Provide final exercise damage inputs for each structure to Gene **no later than noon on Friday, September 6th.**

Gene will screen the exercise inputs for consistency, and prepare the evaluator packages. Additional copies will be provided to METRO (Mike McGuire) and ODOT Bridge Section (Gary Bowling).

5. Discussed Names...

Names of assessment teams and evaluators due to Gene ASAP, and **no later than Monday, September 9th.**

Key Players' names will remain as listed below unless changes are sent to Gene as they occur, but **no later than Sept 16th.**

Post-it* Fax Note	7671	Date	8-27	# of pages	4
To	Mike McGuire	From	Gene Juve		✓
Co./Dept.	EMER MGMT	Co.	ODOT		
Phone #	797-1823	Phone #	731-8285		
Fax #	797-1909	Fax #	653-5655		

6. Exercise Command Set-up will follow basic Incident Command System (ICS) tenants, using a unified command structure. For this exercise, the three jurisdictions owning structures on the exercise route will share command responsibilities. (Note: In a real situation, it is expected that all participating jurisdictions will be an integral part of the unified command structure.)

Unified Incident Command

City of Portland:	Steve Barrett
ODOT:	Dennis Carlson
Multnomah County:	John Lindenthal (Field Operations)

Liaison

Washington County:	Dean Frazier
Clackamas County:	Rod Raney
METRO:	Mike McGuire

Public Affairs

Spokesperson:	Kathy Conrad (ODOT)
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7. Draft BDA Exercise Press Release was reviewed and approved with the following changes:

Headline: "Regional Transportation Partners Train for Earthquake"

Substitute "earthquake" for "the big one"

NOTE: Kathy Conrad plans to provide a media background packet with the press release, including information about ODOT's seismic study and retrofit program, Portland area's Regional Emergency Transportation Routes, etc. It would be a good opportunity for other participants to include information regarding bridges, retrofit, earthquake mitigation, or related topics from their jurisdiction if they so desire. (Contact Kathy at 731-8264)

8. The Media Event was discussed at some length... it was suggested that Gene talk with Kathy Conrad to get more information on what she needs/recommends.

Kathy suggests that if we are serious about media coverage of our exercise, we need to provide them a photo opportunity of a BDA team in action. If not, there would likely be little interest in media coverage of the exercise...

OPTION 1: Structure a media event opportunity on the east side of the river on one of the first 3 structures. (MLK SB/Grand Ave EB over I-84 or the east approach to the Burnside Bridge) Need sufficient room to park, maneuver and interview with minimum impact on traffic flow. Specific BDA crew should be designated (from Washington/Clackamas County or ODOT) and pre-briefed. Both the BDA team and the evaluator should be prepared to field questions.

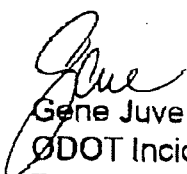
OPTION 2: Invite the media to Stanton Yard... limit their activity to that location (if we can keep them from following a BDA team if they decide to do so).

RECOMMENDATION: Option 1 with the east approach to the Burnside Bridge as the target of opportunity, using a designated, pre-briefed crew and evaluator team. Kathy Conrad to be the on-scene coordinator and spokesperson... Lou Bruneau, in coordination with Dean Frazier/Rod Raney/Dennis Edwards (as appropriate) to designate a specific BDA team and evaluator for the event... Dennis Edwards and Gene Juve to also be available for the interview portion...

WE'LL VOTE ON THIS PROPOSAL BY EXCEPTION... IF YOU DO NOT SUPPORT THE RECOMMENDATION, YOU MUST CALL GENE (731-8285) NO LATER THAN TUESDAY, SEPTEMBER 10TH.

9. Mike McGuire from METRO will continue to explore opportunities to incorporate GIS mapping and computer programming into the exercise.

10. Gary Bowling (ODOT HQs Bridge Section) will conduct a table-top exercise in Salem to test state bridge engineer response to our bridge damage assessments.


Gene Juve
ODOT Incident Response
731-8285