

Separate SE Licensing Strategy Workshop Washington's Experience

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Washington's Experience

An Ad Hoc Committee for Scope of Practice for Structural Engineers was convened by the Washington Board of Registration for Professional Engineers and Land Surveyors in 1993



Washington's Experience

Ad Hoc Committee Makeup - 17 Members

Two Structural Members of the Board

One Civil Member of the Board

Executive Director of the Board

Registered Structural Engineers

Registered Civil Engineers – Structural

Registered Civil Engineers – Non Structural

Washington DOT

Building Officials

Engineers from both sides of the Cascades



Washington's Experience

Washington examines and registers engineers by discipline, - mechanical engineering, civil engineering, structural engineering

RCW 18.43 permits any registered engineer to practice in any discipline, including structural engineering, provided that the registrant has attained sufficient experience and competence in that field



Washington's Experience

Public agencies, such as WashDOT limit the practice of structural engineering to registered structural engineers

Some building departments limit the practice of structural engineering on some projects to registered structural engineers

This creates an inconsistent set of regulations



Washington's Experience

The Ad Hoc Committee met several times.

They discussed:

- Reasons for limiting practice to SE's
- Which structures should require an SE
- Partners and Opponents
- Communication and Implementation
- Grandparenting



Reasons for limiting practice

- Seismicity
 - Magnitude 6 or greater every 12 years
 - Gaps in the record
 - Significant damage to buildings and bridges
 - Loss of life
- High winds
 - 1962 Columbus Day and 1993 Inauguration Day
 - Significant damage to buildings and bridges
 - Loss of life



Reasons for limiting practice

- Increased complexity of design
- Increased complexity of design codes
- Use of more efficient design methods produce structures that are less forgiving of overloads or design errors
- Use of increasingly sophisticated software
- Expansion of knowledge in the field
 - Implications of this on graduates
- Notable structural failures



Reasons for limiting practice

When things go wrong, people are at risk

1970 Commonwealth Ave - 4 killed, 20 injured

1973 Bailey's Crossroads Building - 14 killed

1976 Teton Dam - 11 killed

1979 Kemper Arena - No casualties

1981 Coca Beach - 11 killed, 23 injured

1981 Hyatt Regency - 113 killed, 188 injured



Which structures should require an SE

- Assembly occupancies
- Institutions – Hospitals, Prisons
- Education – Schools and Colleges
- Most essential facilities
- Seismic upgrades of structures
- Structures over 3 stories or 36' in height
- Public Bridges over 50' in length
- Public piers



Possible Partners

- Architects and Engineers Legislative Council
- Consulting Engineers Council of WA
- WA State Department of Transportation
- County Roads Engineers
- WA Department of General Administration
- WA Association of Building Officials
- Association of Washington Cities
- ASCE
- Architects



Possible Opponents

- NSPE
- ASCE
- Architects
- Current registrants who are not registered SE's
- Legislators



Implementation

- Board Policy
 - Adopts state law without legislation
- Board rule
 - Adopts state law without legislation
 - Lack of statutory authority
- Legislation



Communication

- Open dialogue with partners
 - Who will support
 - Who will testify
- Open dialogue with opponents
- Identify politically connected SE's
- Identify the workers
- Identify the “heavy lifters”
- Identify the legislative sponsors
 - Both parties, both houses



Grandparenting

- It's vital
- Currently and continuously licensed for 10 years
- Documented competent experience with the range of structures requiring an SE
- Not currently under Board sanction
- Six month window after implementation



The minority report

- It should be all structures
- Grandparenting is a threat to public safety
- If we are going to register by discipline, it should be all branches of engineering
- Let the Building Officials do it
- (One of the structural members of the Board thought the Civil member of the Board was trying to get himself an SE license)

