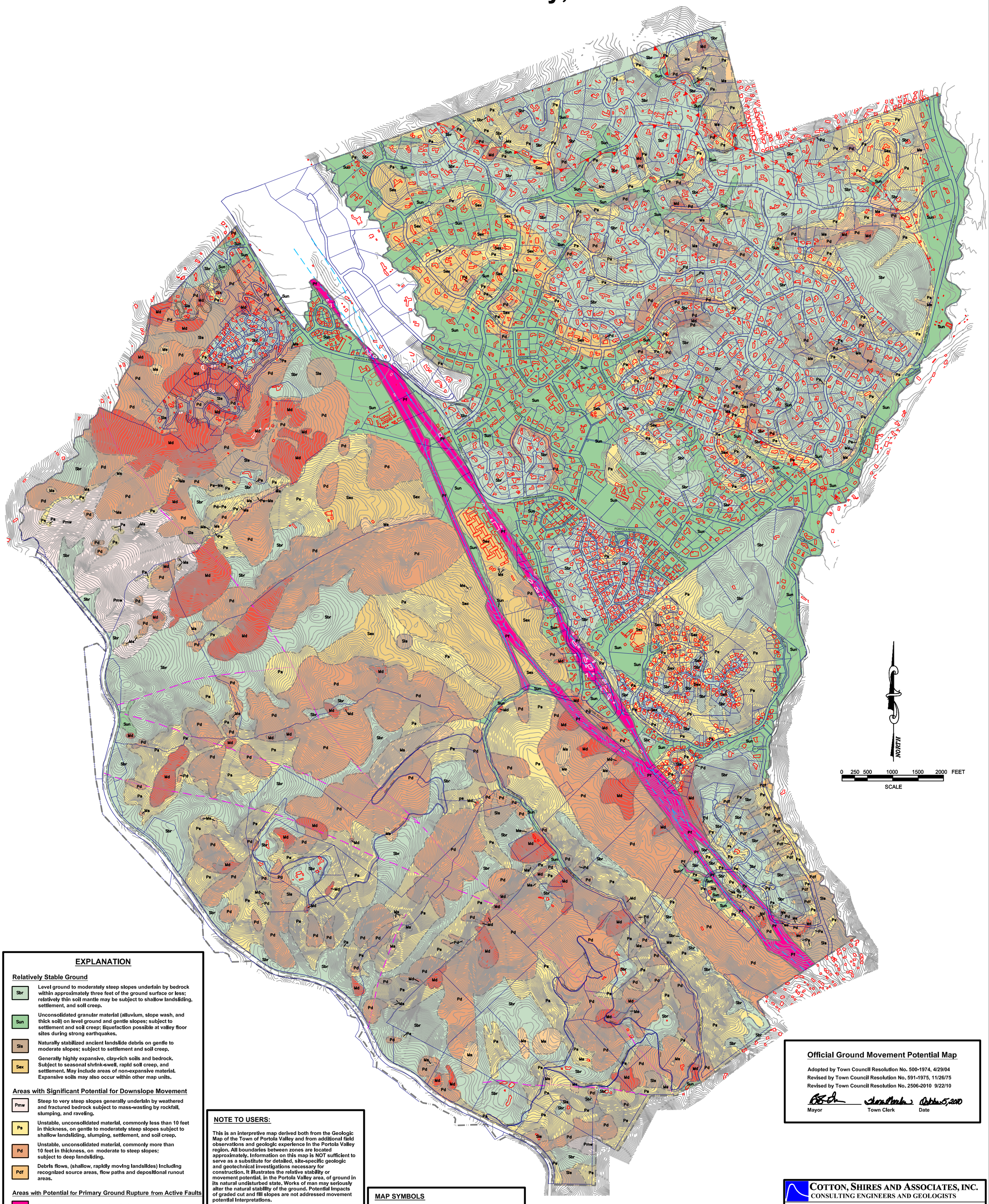
# GROUND MOVEMENT POTENTIAL MAP

## Town of Portola Valley, California




### EXPLANATION

**Relatively Stable Ground**

- **Sbr** — Level ground to moderately steep slopes underlain by bedrock within approximately three feet of the ground surface or less; relatively thin soil mantle may be subject to shallow landsliding, settlement, and soil creep.
- **Sun** — Unconsolidated granular material (alluvium, slope wash, and thick soil) on level ground and gentle slopes; subject to settlement and soil creep; liquefaction possible at valley floor sites during strong earthquakes.
- **Sls** — Naturally stabilized ancient landslide debris on gentle to moderate slopes; subject to settlement and soil creep.
- **Sex** — Generally highly expansive, clay-rich soils and bedrock. Subject to seasonal shrink-swell, rapid soil creep, and settlement. May include areas of non-expansive material. Expansive soils may also occur within other map units.

**Areas with Significant Potential for Downslope Movement**

- **Pmw** — Steep to very steep slopes generally underlain by weathered and fractured bedrock subject to mass-wasting by rockfall, slumping, and raveling.
- **Ps** — Unstable, unconsolidated material, commonly less than 10 feet in thickness, on gentle to moderately steep slopes subject to shallow landsliding, slumping, settlement, and soil creep.
- **Pd** — Unstable, unconsolidated material, commonly more than 10 feet in thickness, on moderate to steep slopes; subject to deep landsliding.
- **Pdf** — Debris flows, (shallow, rapidly moving landslides) including recognized source areas, flow paths and depositional runout areas.

**Areas with Potential for Primary Ground Rupture from Active Faults**

- **Pf** — Zone of potential primary surface fault rupture.

**Unstable Ground Characterized by Seasonally Active Downslope Movement**

- **Ms** — Moving shallow landslides, commonly less than 10 feet in thickness.
- **Md** — Moving deep landslides, commonly more than 10 feet in thickness.

### NOTE TO USERS:

This is an interpretive map derived both from the Geologic Map of the Town of Portola Valley and from additional field observations and geologic experience in the Portola Valley region. All boundaries between zones are located approximately. Information on this map is NOT sufficient to serve as a substitute for detailed, site-specific geologic and geotechnical investigations necessary for construction. It illustrates the relative stability or movement potential, in the Portola Valley area, of ground in its natural undisturbed state. Works of man may seriously alter the natural stability of the ground. Potential impacts of graded cut and fill slopes are not addressed movement potential interpretations.

This map is an update of the Initial Movement Potential of Undisturbed Ground Map prepared by J.D. Rodine (1975) and revised by William Cotton and Associates, Inc. (1984). For additional information about this map and the Geologic Map of the Town of Portola Valley, see: Geology and Movement Potential within the Town of Portola Valley, California, February 1975, by J.D. Rodine.

Please see Town website at www.portolavalley.net for latest map revisions.

### MAP SYMBOLS

- Traces of the San Andreas fault, dashed where approximate. En-echelon rupture behavior depicted by series of diagonal slashes.
- Fault (other than San Andreas) of undetermined activity, dashed where approximate, barbs are located on upthrown side of fault
- Inactive Fault

### Official Ground Movement Potential Map

Adopted by Town Council Resolution No. 500-1974, 4/29/04
Revised by Town Council Resolution No. 591-1975, 11/26/75
Revised by Town Council Resolution No. 2506-2010 9/22/10

Mayor | Town Clerk | Date October 5, 2010

**COTTON, SHIRES AND ASSOCIATES, INC.**
CONSULTING ENGINEERS AND GEOLOGISTS

**GROUND MOVEMENT POTENTIAL MAP**
**Town of Portola Valley**
**San Mateo County, California**

| GEO/ENG BY | SCALE | PROJECT NO. |
|---|---|---|
| TS | 1"=500' | G0088 |
| APPROVED BY | DATE | SHEET NO. |
| JW | SEPTEMBER, 2010 | 1 OF 1 |