Plastic Board Drain Method

The Plastic Board Drain Method is one of perpendicular drain methods using a composite material (PBD material) made of synthetic resin and felt. The PBD material is highly adaptable to consolidation settlement, thus it is more suitable for improving soft ground with high moisture content.

- Higher performance efficiency due to continuous driving operation by smaller machine
- PBD material has a high permeability ($k=10^0 \text{ to } 10^1 \text{ cm/sec.}$)
- Low noise and vibration construction due to only drilling for PBD material installation involves

**Working Procedure**

1. Setting of rolled drain material to mandrel.
3. Driving of mandrel to a predetermined depth.
4. Drawing of mandrel
5. Cutting of drain material on the ground surface.
6. Repeat the cycle for the next location

**Equipment to be Used**

- Drain Material Driving
- Drain Material
  (100mm in width and 3mm in thickness)

**Completed Projects Record**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Duration</th>
<th>Project Site</th>
<th>Client</th>
<th>Objective</th>
<th>Drain Length / Depth / Earth Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otake Port Ground Improvement</td>
<td>92.5~93.3</td>
<td>Hiroshima Prefecture</td>
<td>Consolidation acceleration and increase ground strength</td>
<td>71,000m / 10.5m / 143,200m³</td>
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<td>Tokyo Airport Ground Improvement Work</td>
<td>92.4~94.10</td>
<td>Tokyo Transport Ministry</td>
<td>Consolidation acceleration and increase ground strength</td>
<td>1,362,000m / 12.5m / 1,362,200m³</td>
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<tr>
<td>Kitakyushu City Kamikuzuhara Site Preparation</td>
<td>97.8~97.11</td>
<td>Kitakyushu Land Readjustment Association</td>
<td>Consolidation acceleration and increase ground strength</td>
<td>130,000m / 4.5m / 130,000m³</td>
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<td>Maya Quaywall Ground Improvement Work</td>
<td>97.6~97.11</td>
<td>Kobe Kobe Port Welfare Service Association</td>
<td>Consolidation acceleration and increase ground strength</td>
<td>362,000m / 12.7m / 288,300m³</td>
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