

**PART CH30W****MARINE SURVEY****CONTENTS**

1. EMPLOYMENT OF SURVEYOR
2. SURVEY CONTROL
3. SURVEY DUTIES - GENERAL
4. PROTECTION AND MAINTENANCE OF SURVEY MARKS
5. VERIFICATION OF ELECTRONIC DISTANCE MEASURING EQUIPMENT
6. PAYMENT
7. HOLD POINTS

**1. EMPLOYMENT OF SURVEYOR**

- .1 The Contractor shall employ a Surveyor to personally carry out the duties specified herein
- .2 The Surveyor shall:
  - (a) be eligible for the grade of Member of the Institution of Surveyors, Australia or be eligible for the grade of member of the Institution of Engineering and Mining Surveyors, Australia.
  - (b) be accredited by completion of a Work Zone Traffic Management course with a trainer approved by DPTI,
  - (c) have a minimum of 3 years' experience as a survey party leader on works (as appropriate for this project) since gaining qualification.
  - (d) be able to demonstrate competence in carrying out the required surveying tasks.

**2. SURVEY CONTROL**

- .1 For horizontal control only survey stations numbered S001 to S799 shall be used.
- .2 The S300 series of survey stations are permanent survey marks.
- .3 If deep bench marks (prefixed BM) are provided by the Principal they shall be used for vertical control. If deep bench marks are not provided by the Principal, survey stations numbered S001 to S099 and S300 to S399 shall be used for vertical control.
- .4 The deep bench marks are registered with the Surveyor General.

**3. SURVEY DUTIES - GENERAL**

- .1 Prior to construction commencing, the Contractor shall:
  - (a) Arrange a site meeting which shall be attended by the Contractor, the Principal and the Principal's Surveyor. At the site meeting the Principal's Surveyor will locate, if requested, all survey marks as shown on the Contract Control Diagram or listed on the Survey Stations Summary in the Geometric Details Document. This meeting shall constitute a **HOLD POINT**.
  - (b) Obtain location details of all permanent survey marks registered with the Surveyor General within the construction area.
  - (c) Give the Surveyor General a minimum of 10 working days' notice in writing of:
    - .1 the commencement date of construction activities,
    - .2 the possible destruction of a permanent survey mark registered with the Surveyor General.
  - (d) A copy of these notifications shall be submitted to the Principal.
- .2 If the above requirements are met, the Surveyor General will relocate any such marks considered necessary to a suitable location at no cost to the Contractor. The Surveyor General reserves the right to claim any expenditure associated with the replacement of a disturbed registered survey mark if the Contractor fails to notify the Surveyor General.
- .3 The Contractor shall:
  - (a) Provide a certificate verifying the survey coordinate information supplied by the Principal.
  - (b) Seek direction from the Principal if any survey stations are missing or disturbed

- .4 Where there is disagreement with the Principal's co-ordinates and/or levels, the Contractor and the Principal shall agree on the values to be adopted before any setting out is commenced.
- .5 The Surveyor shall set out and provide verification certificates for the implemented works.

#### **4. PROTECTION AND MAINTENANCE OF SURVEY MARKS**

- .1 The Contractor is responsible for preserving and maintaining the Principal's marks. If marks placed by the Principal are jeopardised by the Works or the Contractor's activities, the Contractor shall, at the Contractor's expense, relocate such marks in positions clear of construction.
- .2 Attention is drawn to the possible existence of survey marks other than those placed by the Principal and permanent survey marks registered with the Surveyor General, in the vicinity of the works. Where the Contractor becomes aware of any such marks, the Contractor shall advise the Principal before they are disturbed. The Principal will arrange to have the marks relocated if considered necessary. In the event of damage to the marks, the cost associated with their replacement shall be borne by the Contractor.

#### **5. VERIFICATION OF ELECTRONIC DISTANCE MEASURING EQUIPMENT**

- .1 Prior to commencement of any survey work the Contractor shall submit evidence that any Electronic Distance Measuring equipment used by the Survey Officer has been tested over the EDM test base at the University of South Australia, Levels Campus within the last 12 months. Submission of this evidence shall constitute a **HOLD POINT**.

#### **6. PAYMENT**

- .1 Separate payment will not be made for other survey work which shall be deemed to be included in the rates for items requiring survey.

#### **7. HOLD POINTS**

- .1 The following is a summary of Hold Points referenced in this Part:

<b>CLAUSE REF.</b>	<b>HOLD POINT</b>	<b>RESPONSE TIME</b>
3.1 (a)	Survey meeting	1 working day
5.1	Survey equipment	1 working day