

## 1.5 Verification of Surveying Instruments

The surveying instruments used in 1999, as listed below in Table 8, have been verified and calibrated by the authorized verification bodies listed in Table 9, prior to the survey. (Refer to “3. Reference Materials” for the details regarding the results of the verification.)

Table 8 Surveying instruments used

Model type	S/N	Performance of the instrument
Total Station NET2B : Sokkia	31481  31788	Precision of the surveying range: 0.8mm+1ppm * observation range Precision of the surveying angle: 2 seconds (Minimum readable unit: 1 second)
Total Station TC2002 : Leica	359698	Precision of the surveying range: 1.0mm+1ppm * observation range Precision of the surveying angle: 0.5 seconds (Minimum readable unit: 0.1 seconds)
Level DiNi11:Carl Zeiss	100312	First class level Verified by Japanese Association of Surveyors
Staff Invar staff : Carl Zeiss	12562 12564	First class staff Verified by Japanese Association of Surveyors
GPS receivers 4000SSI : Trimble	01693 01741 01746 06732	First class GPS receivers Precision of the surveying range: 5mm+1ppm * range Verified by Japanese Association of Surveyors

Table 9 Verification method

instrument type	Verification method	Verification body
NET2B	Measuring apparatus : Laser length-measuring instrument SL-2000 Base line : 100m underground base line	Sokkia Co. Ltd
TC2002	Base line : 1km outdoor base line	Sokkia Co. Ltd
DiNi11	Observation value check Compensator functional check	Japanese Association of Surveyors
Invar staff	Scale error check	Japanese Association of Surveyors
GPS receivers	Base line GPS relative base line field at Geographical Survey Institute	Japanese Association of Surveyors