C-Span and High Readiness Training at 4 CES

4 Construction Engineering Squadron has been training successive rotations of High Readiness (HR) Construction Engineers (CE) for several years now. Originally driven by the need to send ready trained personnel off to the mission in Camp Mirage or Kandahar, MSE Construction Engrs continue with this training in line with an RCAF wide mandate for all mission support personnel to be ready for deployments anywhere at anytime. This past week 81 CEF from Trenton conducted Level 2 training at 4 CES with 20 personnel joining the unit for ten days of training. The Level 2 training program, currently mandated by A4 CE, is designed to provide CE pers with camp bed knowledge and to gain practical experience on a wide array of deployable equipment they can expect to operate and maintain in theatre. The visiting 8 Wg CE tradesmen were made up of pers from across all CE trades as well as military Fire Fighters. They arrived on 13 Feb and spent the next ten days receiving lectures and training hands on with the bed down equipment assets, many of which are only available here at 4 CES. These included the Reverse Osmosis Water Purification Units (ROWPU), the Fuel Supply and Distribution System (FSDS), High Pressure Aircraft Refuelling (HPAR), power generation and distribution systems, refrigeration and cooling systems, and deployed fire fighting equipment. In addition, refresher training was also provided on various deployable large and small shelter systems, expedient concrete surface repairs, and laundry & bath facilities.

Sheet metal formed and seamed into 5’ sections are lifted into position onto a concrete pony wall.

On this Level 2 training, 4 CES was augmented by 5 pers from 17 Wg Winnipeg who assisted in building the foundations for a practice C-Span that would be completed by the visiting 8 Wg personnel during the course. In addition to the normal challenges of erecting this atypical structure, a 50’x50’ steel arch building made from rolls of thin sheet metal, the staff and students also had to overcome the added challenge of building during very challenging winter conditions. This one-time add-on to the course was meant to test students and staff alike due to the less than optimal weather and the complexity of this unique structure which most have never seen. The construction exposed the students to minor earthworks, cutting and bending steel rebar, re-useable aluminum forms, concrete placement and finishing, and the use of the specialized automated bending machine which transforms thin gauge rolled sheet metal into high strength flanged metal arches that seam together into an impressive steel structure. A crane was used for the installation and final placement of the steel arches, necessitating the use of fall arrest equipment and practical training for working from heights. By the end of their time at Cold Lake, the students had successfully completed over half the overall building construction, completing the two main concrete walls and the barrel roof of the

building. It is planned that the completion of the building ie. front and back walls, will be taken on during future training opportunities. All in all, there were many lessons learned on what went well and what could be improved. This will undoubtedly translate into a greater capacity to take on a similar task during an actual operation in the future. Well done to all and CHIMO!

The barrel shaped roof of the practice C-Span, 50'x50', is completed and shown after the pouring of the concrete pony walls which need to be heated and protected from the cold.