



234 CTH S
Green Bay, WI
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GPS Machine Guidance Work Plan
End Zone Road to Super Bowl Way
STH 92; Playoff Road
Door County

Equipment

Design:

Trimble Terramodel v. 10.43

Staking:

Base Station: Trimble SPS750

Rover: Trimble SPS780

Data Collector: Trimble TSC2

Staking Software: Trimble SCS900 v. 2.11

Machine Control:

Caterpillar D6R Dozer

Caterpillar 14 H Motor Grader

System on Machines: Trimble GCS900 v. 6.0

People

Bart Starr - Packer Country Construction

Six years of grade staking and data preparation using robot total stations, GPS instruments, and design/survey software.

Six years of teaching grade staking classes using total stations and GPS instruments at Local 139 Union School in Coloma.

Role in Specification: Primary contact for GPS Pilot Spec. He will be on-site daily, and will be handling data flow and field operations for the pilot.

Lynn Dickey - Packer Country Construction

Twelve years of construction layout, data preparation, and property surveying using total stations, GPS instruments, design/survey software, and cad software.

Role in Specification: Oversight and support to field and data operations.

Brent Favre - Packer Country Construction

Two years of grading using Trimble GPS machine control motor graders.

Role in Specification: Operator of Caterpillar 14H Motor Grader equipped with Trimble GCS900.

Reggie White - Packer Country Construction

Two years of grading using Trimble GPS machine control D6R Dozer.

Role in Specification: Operator of Caterpillar D6R Dozer equipped with Trimble GCS900.

Leroy Butler - AMC Staking

Construction Staking Contractor for the project.

Role in Specification: Create and maintain on-site control points

Project Control

For this project, the department has provided a list of control (Attachment A) that was established by Central Engineering. This control shall be used as the primary control for this project. Packer Country Construction will use these points in the site calibration. Some points will not be used in the site calibration; these points will be reserved to be used as daily checks throughout the duration of the project.

Site Calibration

Site Calibration will be performed using the calibration function in Trimble SCS900. The points used in the site calibration will envelope the site. The entire project will be included in one site calibration. Each point in the calibration will be observed statically for 15 seconds. The resulting precision of the site calibration shall fall within 0.10 ft. horizontally and 0.05 vertically. A hard copy of the resulting site calibration data from SCS900 will be given to the engineer.

Packer Country Construction will perform control check daily. Packer Country Construction's typical workweek will be 5 days per week, 50 hours per week. Packer Country Construction will perform two control checks per workday. One will be done at the start of work, and the other will be done during the last half of the work day. Those checks shall fall within 0.10 ft. horizontally and 0.50 ft. vertically. Those control checks will be recorded using SCS900. A hard copy of that record will be reported weekly to the engineer.

A list of points used in the site calibration and used as checks, and their location can be found in Attachment B.

(Attachment A)



Control point coordinates on local coordinate system

POINT	x	y	ELEVATION
100	854985.57	449051.20	741.26
101	855450.87	449505.32	680.52
102	855204.92	450256.54	699.62
103	856147.58	451179.49	701.59
104	855477.05	452135.51	656.23
105	855668.36	453699.63	745.58
106	856386.71	452681.75	722.89
107	856843.19	454068.23	717.92
108	858298.36	454307.89	678.04
109	859487.01	454484.22	729.85
110	860545.98	455092.65	714.33
111	861693.56	455038.91	786.52
112	862021.06	455434.10	801.00
113	862328.88	457551.17	823.64
114	862287.51	458344.47	805.49

(Attachment B)

