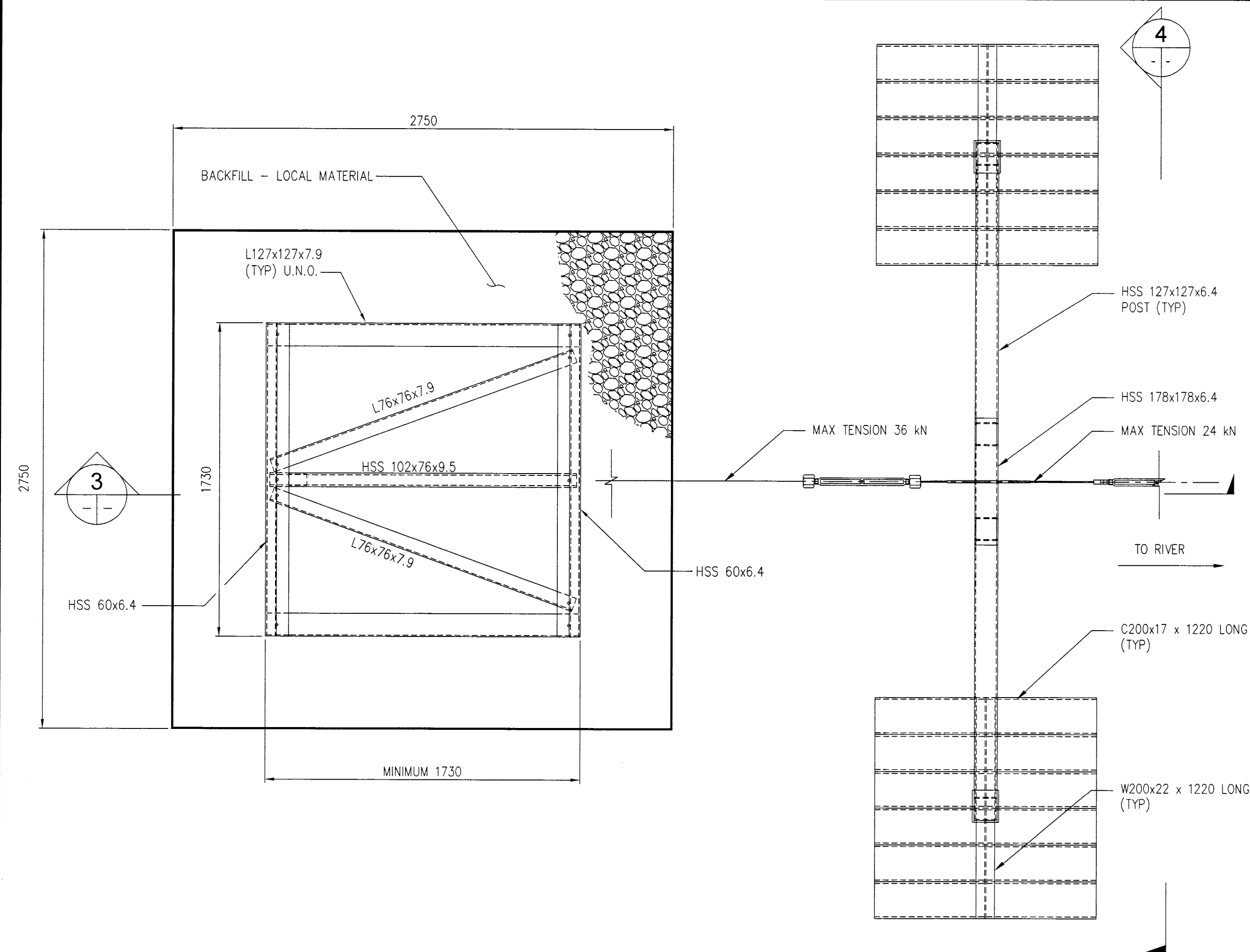


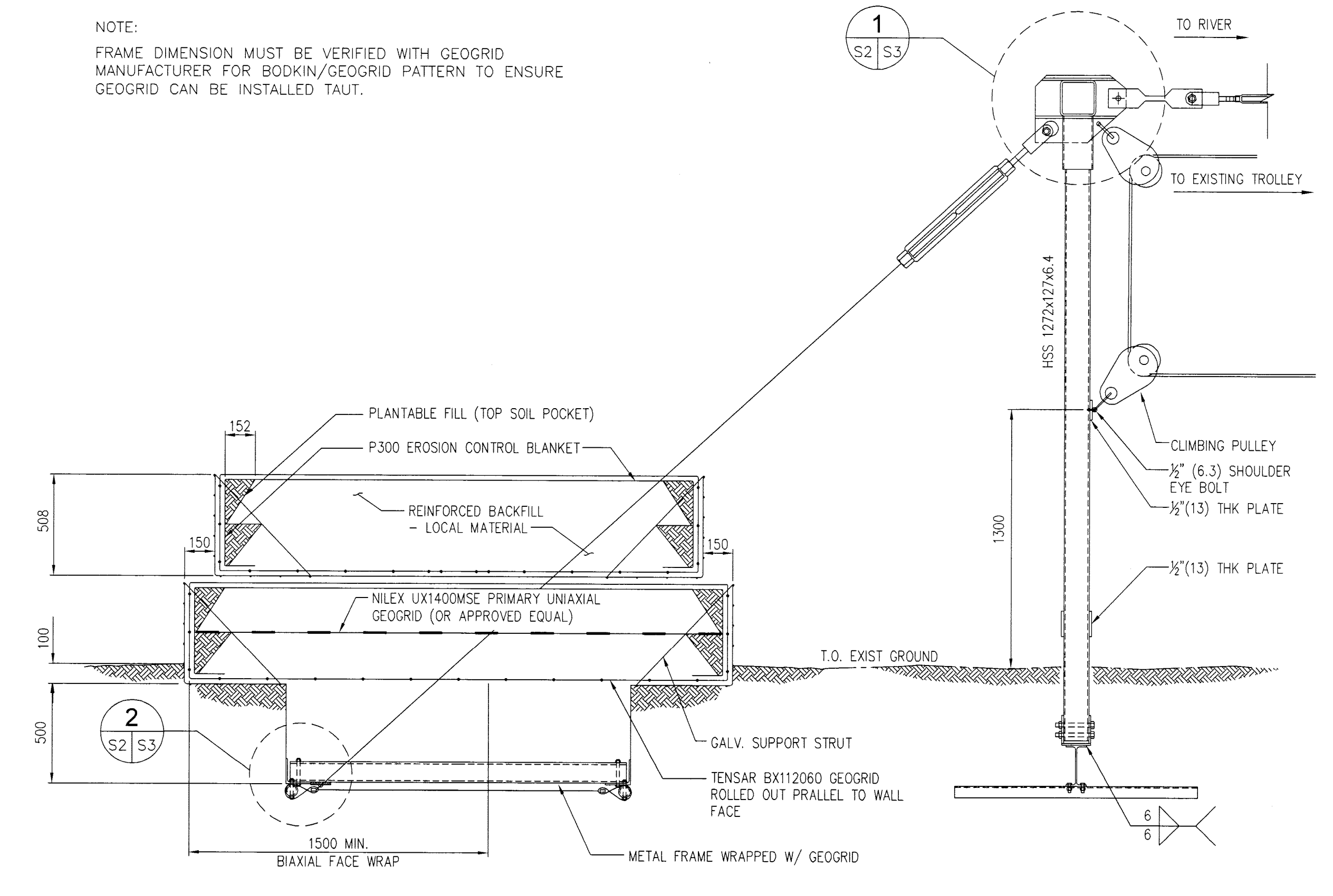
TETRA TECH REFERENCE NO. 1416290900-DWG-S0002



1 GRAVITY ANCHOR PLAN  
1:20

2 SUPPORT POST FOUNDATION PLAN  
1:20

NOTE:  
FRAME DIMENSION MUST BE VERIFIED WITH GEOGRID MANUFACTURER FOR BODKIN/GEOGRID PATTERN TO ENSURE GEOGRID CAN BE INSTALLED TAUT.



3 GRAVITY ANCHOR AND STEEL SUPPORT SECTION  
1:20

### STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL TO CONFORM TO:

- CAN3-S16-09, DESIGN OF STEEL STRUCTURES
- CSA W59-03 (R2008), WELDED STEEL CONSTRUCTION (METAL ARC WELDING)
- CSA G40.20-04 GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL
- CSA G40.21-04 STRUCTURAL QUALITY STEELS
- CSA W47.1-03, CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL STRUCTURES
- ASTM A325M-09, STANDARD SPECIFICATION FOR STRUCTURAL BOLTS

2. CHANNELS, ANGLES, TEES AND PLATES: TO G40.21-04, 300 MPA

3. W SHAPES, HSS: TO G40.21 GR 350W OR ASTM A992/A572 GR 50 (FY = 345 MPA MIN) CLASS C

4. BOLTS: TO ASTM A325, MIN TWO PER CONNECTION U.N.O

5. THREADED RODS: TO G40.21-04, 300 MPA

6. STRUCTURAL STEEL SUPPLIER TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.

7. ALL STEEL TO BE HOT DIPPED GALVANIZED TO CAN/CSA-6194-M92 (2003)

### BACKFILL IN SIERRASLOPE SOIL ANCHORS

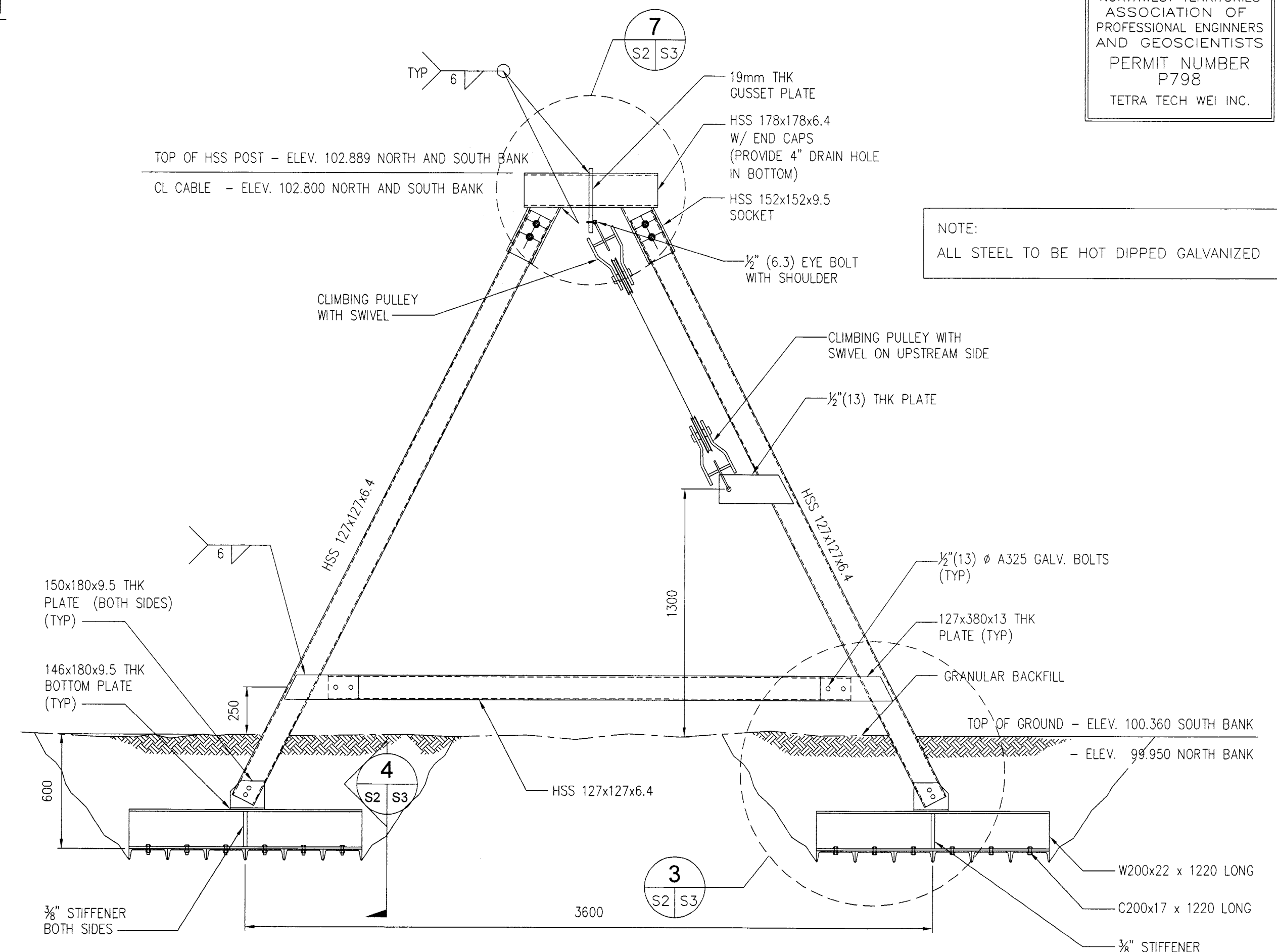
- VEGETATIVE COVER AND ORGANIC SURFACE SOILS FROM THE ANCHOR EXCAVATIONS SHOULD BE STOCKPILED AND SAVED SEPARATELY FOR FINAL COVER OVER THE ANCHOR STRUCTURES.
- SANDY SILT AND SILTY SAND SOILS SHOULD BE RESERVED IN A SEPARATE STOCKPILE FOR RE-USE AS GENERAL ENGINEERED FILL IN THE STRUCTURES.
- SILTY SAND OR SANDY SILT SOILS SHOULD BE UNIFORMLY MOISTURE-CONDITIONED TO WITHIN +/- 2% OF OPTIMUM MOISTURE CONTENT. IF/AS NEEDED, FROM THE BASE OF THE EXCAVATION AT THE GEOGRID FRAME STRUCTURE, UP TO 150 MM BELOW THE TOP OF THE FILL, THE BACKFILL SOIL SHOULD BE COMPACTED IN LIFTS OF 100 MM MAXIMUM THICKNESS, TO 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY.
- THE UPPER 150 MM OF THE FILL, AS WELL AS THE TOPSOIL INSERTS IN THE FACES OF THE SIERRASLOPE STRUCTURE SHOULD BE LIGHTLY COMPACTED TO 90% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. AS FOR LANDSCAPE FILL, THE LOWER DENSITY WILL ALLOW VEGETATION TO RE-ESTABLISH WHILE MITIGATING EXCESSIVE SETTLEMENT IN THE LANDSCAPE FILL SOILS.
- ADDITIONAL INFORMATION IS AVAILABLE IN THE GEOTECHNICAL EVALUATION REPORT BY TETRA TECH EBA INC., DATED JUNE, 2014.

### BILL OF MATERIALS FOR RIGGING

NO.	QTY.	DESCRIPTION	MASS PER UNIT kg	TOTAL MASS kg
1	1	CABLE - 5/8" (15.9mm) 6x19 IWRC EIPS GALVANIZED CABLE x 77,500 LONG	82.92	82.92
2	2	CROSBY S-421T WEDGE SOCKET (STOCK No. 1035018)	4.4	8.8
3	2	CROSBY HG-228 JAW & JAW 22.2 x 457mm GALV. TURNBUCKLE (STOCK No. 1032778)	5.34	10.68
4	2	CROSBY HG-228 JAW & JAW 25.4 x 305mm GALV. TURNBUCKLE (STOCK No. 1032812)	6.25	12.5
5	4	CLIMBING PULLEY WITH SWIVEL		
6	2	1" (25.4mm) GALVANIZED THREADED ROD		
7	2	1" (25.4mm) GALVANIZED HILLSIDE WASHER C/W NUT		
8	1	1/2" (13mm) PULLING ROPE x 160m LONG		

NORTHWEST TERRITORIES ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS  
PERMIT NUMBER P798  
TETRA TECH WEI INC.

NOTE:  
ALL STEEL TO BE HOT DIPPED GALVANIZED



4 ELEVATION OF SUPPORT  
1:20

00	2014/06/26	ISSUED OFR TENDER	HA	MS
No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
Revision / Révision				
A	Detail number Sheet number		A Numéro de détail B Numéro de la feuille	
Linear dimensions in millimetres		Dimensions linéaires en millimètres		
Consultant's Name Nom de l'expert-conseil		Eng. Stamp Sceau de l'ingénieur		
Parks Canada Asset Management Western and Northern Region		Parcs Canada Gestion des biens Région de l'Ouest et du Nord		
<h1>Canada</h1>				
Project title/Titre du projet <b>Nahanni National Park Rabbitkettle River Ferryway Design</b>				
Drawing title/Titre du dessin <b>SUPPORT DETAIL</b>				
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date		
	H. Antonio	2014-05-05		
Designed by/Concept par	Reviewed by/Révisé par	Scale/Echelle		
R. Laffin	S. Sebastian	1:20		
Client Acceptance/Acceptation du client		Approved by/Approuvé par		
Project No./N° du projet NAH13-06-056		Asset No./N° du bien STAR 1701132, AMS 08607		Sheet No./ N° de la feuille <b>S2 of 3</b>
Drawing Set No./N° de série du dessin NAH13-06-056				