

DEFLECTION DATA ~ INCHES

LOCATION	Δ P PRESTRESS	Δ G SLAB	Σ Δ * P + Δ G	Δ 1 ** 1.55 Δ P + 1.65 Δ G	Δ BARRIER NON COMP DL	Δ POLYESTER NON COMP DL	Δ 2 Δ BARRIER + Δ POLYESTER
	↑	↓	↑	↑	↓	↓	↓

* ESTIMATED DEFLECTION OF PRESTRESSED SLAB AT RELEASE
 ** ESTIMATED DEFLECTION OF PRESTRESSED SLAB AT ERECTION

REINFORCEMENT DIAGRAM
 AASHTO M31 GRADE 60 TYPE S

MARK	SIZE	GRADE	SKETCH
G1A*	#4(E)	60	VAR. 3'-5" VAR.
G1B*	#4(E)	60	VAR. 3'-5" VAR.
G2	#4(E)	60	Ⓐ - 4"
G3*	#4(E)	60	VAR. 2'-3"
G4*	#4(E)	60	2'-3" 3'-4" 2'-3"
G5*	#4(E)	60	2 1/2" RAD. 2'-3" 6"
G6	#4(E)	60	3'-9"
G7	#4(E)	60	1'-1"

BEND DETAILS IN ACCORDANCE WITH LATEST ACI STANDARD PRACTICE.

* STIRRUP AND TIE HOOK BEND DIMENSIONS.

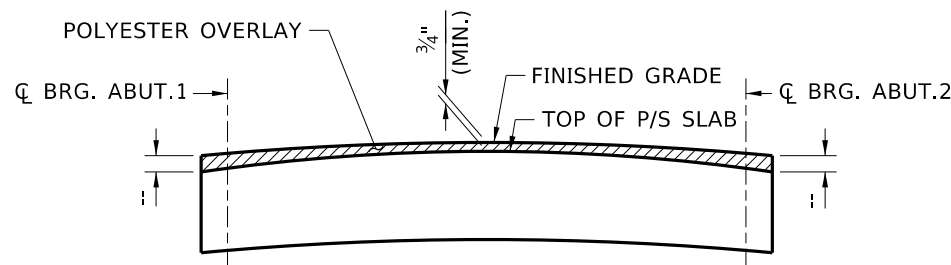
STIRRUPS AND TIES MUST HAVE A MINIMUM 1" COVER OUTSIDE OF BARS.

CONSTRUCTION SEQUENCE

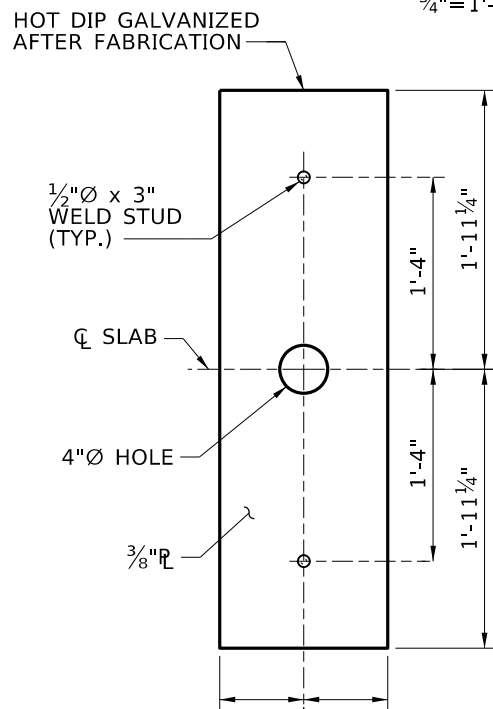
1. SET SLABS.
2. ENSURE THAT SHEAR KEYS, KEYWAYS AND SURROUNDING SURFACES TO RECEIVE UHPC ARE FREE FROM DIRT, OIL, GREASE, RUST AND OTHER FOREIGN MATERIAL.
3. PLACE BACKER ROD AND UHPC IN SHEAR KEYS AND KEYWAYS.
4. GROUT 4" DIA. VERTICAL DOWEL HOLE AT THE ABUTMENTS.
5. DIAMOND GRIND TOP SURFACE OF UHPC.

NOTES

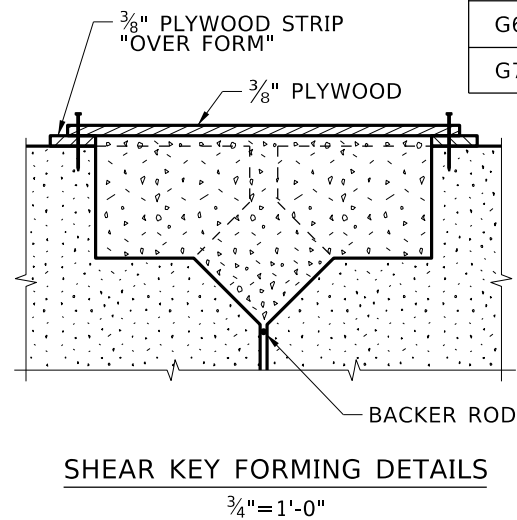
- CONCRETE**
1. PROVIDE CONCRETE STRENGTH AS SHOWN ON THE PLANS.
 2. PROVIDE CONCRETE THAT CONFORM TO 502 EXCEPT THAT ENTRAINED AIR WILL BE 5% ±1%. SELF CONSOLIDATING CONCRETE MAY BE USED IN ACCORDANCE WITH 502.
- STRAND**
3. DESIGN IS BASED ON 0.6" DIA. AASHTO M203 LOW RELAXATION STRAND.
- GROUT**
4. PROVIDE GROUT FOR 4" DIA. HOLES THAT CONFORM TO TYPE "B" CLASS I NON-METALLIC NON-SHRINK AS SPECIFIED IN 705.02.
- ULTRA HIGH PERFORMANCE FIBER REINFORCED CONCRETE (UHPC)**
5. FILL SHEAR KEYS AND KEYWAYS WITH UHPC.
 6. PROVIDE UHPC THAT CONFORM TO THE REQUIREMENTS OF S501-40A.
 7. NO TRAFFIC IS ALLOWED ON THE SLAB UNTIL FOUR DAYS AFTER UHPC PLACEMENT AND UNTIL UHPC HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 14,000 PSI.
- SHEAR KEYS AND KEYWAYS**
8. INTENTIONALLY ROUGHEN INTERFACES OF SHEAR KEYS AND KEYWAYS THROUGH THE USE OF A CHEMICAL RETARDER APPLIED TO THE PRECAST COMPONENT FORMWORK TO PRODUCE AN EXPOSED AGGREGATE SURFACE. SUBMIT THE MATERIAL SPECIFICATIONS OF THE CHEMICAL RETARDER FOR APPROVAL.
 9. PROVIDE AN AMPLITUDE OF ETCH AT LEAST 0.25" AND NO LARGER THAN 1/2 OF THE NOMINAL COARSE AGGREGATE SIZE OF THE PRECAST COMPONENT CONCRETE.
 10. DO NOT SANDBLAST, ABRASE, OR USE A FORM LINER TO CREATE AN EXPOSED AGGREGATE SURFACE.
 11. PLACE A BACKER ROD AT THE BOTTOM OF SHEAR KEYS AND KEYWAYS FOR CONTAINING THE UHPC.
- SHOP DRAWINGS**
12. PROVIDE SHOP DRAWING DETAILS THAT CONFORM TO CURRENT AASHTO SPECIFICATIONS. SHOW DETENSIONING SEQUENCE AND LIFT POINTS ON THE SHOP DRAWINGS.
 13. SUBMIT SHOP DRAWINGS ACCORDANCE WITH 506.03 AND 105.02.
 14. KEEP THE PRESTRESSED SLABS IN A FLAT POSITION (TOP SURFACE UPWARD) DURING TRANSPORTATION AND ERECTION AND LIFT ONLY BY THE MEANS OF THE LIFTING DEVICES PROVIDED. SUBMIT THE PROVISION FOR SUPPORT POINTS TO BE USED DURING TRANSPORTATION TO THE JOB SITE.
- MISCELLANEOUS SLAB DETAILS**
15. DIMENSIONS ARE HORIZONTAL DIMENSIONS. CORRECT THE FINISHED SLAB LENGTH FOR GRADE AND PROVIDE AN ALLOWANCE FOR BEAM SHORTENING.
 16. FABRICATE IN ACCORDANCE WITH 506.
 17. FINISH THE TOP SURFACE OF THE SLAB IN ACCORDANCE WITH 502.03, PART 1, PARAGRAPH 3d.
 18. SLAB ERECTION IS ASSUMED TO OCCUR 60-90 DAYS AFTER FABRICATION.
 19. DIAMOND GRIND THE TOP OF THE UHPC FLUSH WITH THE SURFACE OF THE SLAB AFTER UHPC HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 10,000 PSI.
- FOR SLABS RECEIVING POLYESTER OVERLAYS**
20. PROVIDE A PPC OVERLAY SYSTEM TO THE TOP SURFACE OF THE SLAB FROM FACE OF CURB TO FACE OF CURB AND FROM BEGINNING TO END OF BRIDGE IN ACCORDANCE WITH 551. ADJUST THE OVERLAY THICKNESS AS REQUIRED TO MATCH FINISH GRADE PROFILE. DETERMINE THE AMOUNT OF ADJUSTMENT BASED ON SURVEYED ELEVATIONS ALONG THE GIRDERS AND SUBMIT FOR APPROVAL.
- FOR SLABS RECEIVING AC OVERLAYS**
- 20A. PROVIDE A SPRAY-APPLIED WATERPROOFING SYSTEM (TYPE E) TO THE TOP OF THE SLAB FROM FACE OF CURB TO FACE OF CURB AND FROM BEGINNING TO END OF BRIDGE IN ACCORDANCE WITH 511.
- GIRDER SHIPPING**
21. DO NOT SHIP PRESTRESSED CONCRETE MEMBERS UNTIL TESTS ON CONCRETE CYLINDERS MANUFACTURED FROM THE SAME CONCRETE AND CURED UNDER THE SAME CONDITIONS AS THE SLABS INDICATE THAT THE CONCRETE OF THE PARTICULAR MEMBER HAS ATTAINED A COMPRESSIVE STRENGTH EQUAL TO THE SPECIFIED DESIGN 28 DAY COMPRESSIVE STRENGTH.
- BASIS OF PAYMENT**
22. PRESTRESSING CONCRETE MEMBERS IS INCIDENTAL TO THE PRECAST AND PRESTRESSED PAY ITEMS IN 502.



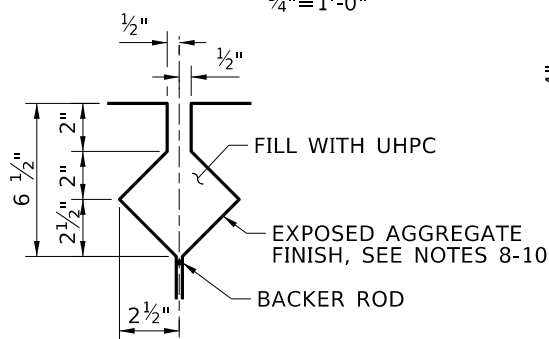
CAMBER DETAIL
 3/4" = 1'-0"



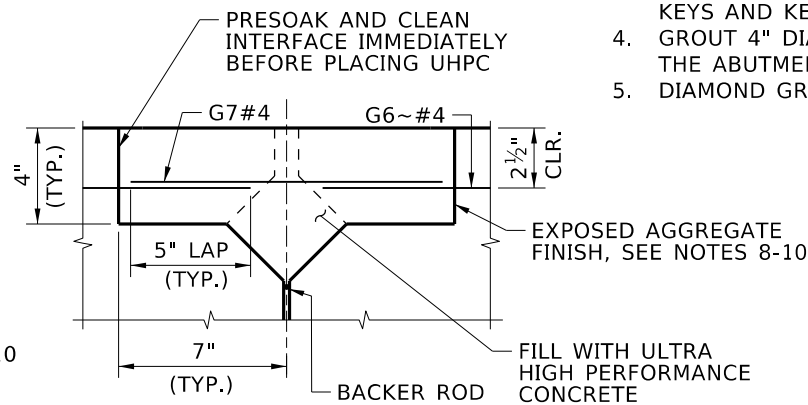
SLAB BEARING PLATE
 3/4" = 1'-0"



SHEAR KEY FORMING DETAILS
 3/4" = 1'-0"



KEYWAY DETAIL
 1 1/2" = 1'-0"



SHEAR KEY DETAIL
 1 1/2" = 1'-0"

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED
DESIGN CHECKED
DETAILED
DWG. CHECKED
CORRECTIONS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME
Standards/Bridge Standard Drawings
B05_6G.DGN
DRAWING DATE: DEC 2024

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

APPROVED BY: BRIDGE ENGINEER **MICHAEL T. JOHNSON** DATE: _____

ENGLISH
PROJECT NO.

TYPICAL PRESTRESSED SLAB DETAILS
STATE SYSTEM
BRIDGE LRFD DESIGN MANUAL B5.6G

BRIDGE PLANS	
BRIDGE KEY NO.	
COUNTY	KEY NO.
BRIDGE DWG. NO.	SHEET OF