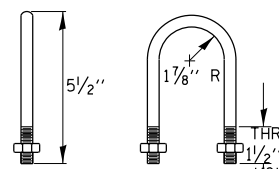


**SECTION A-A**



**1/2" DIA. U BOLT**

( 2 PER PIPE REQ'D )

**GENERAL NOTES**

ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD.

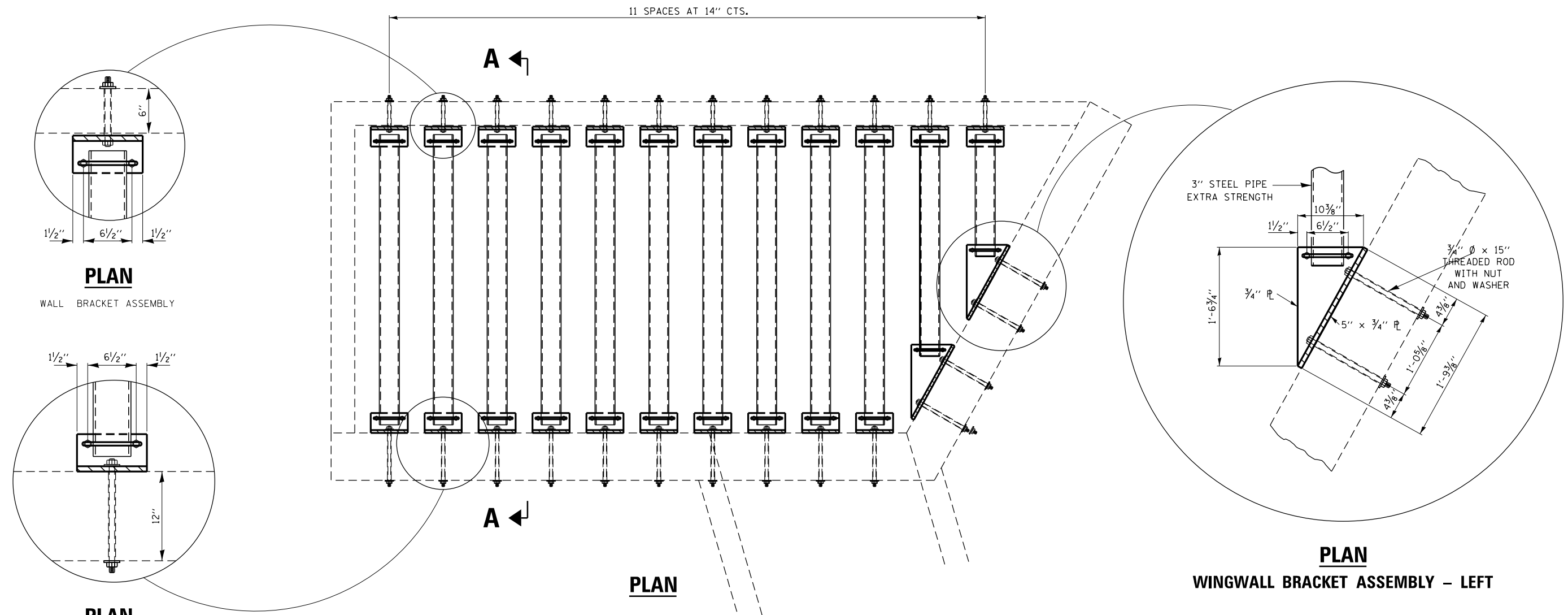
THREADED RODS AND NUTS SHALL CONFORM TO ASTM A 307.  
 ALL BOLTS SHALL HAVE WASHERS AT EACH END.  
 HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" OVERSIZE.

ANGLES AND STEEL PLATES SHALL CONFORM TO AASHTO M183.  
 STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B OR ASTM A 501.  
 STEEL PIPES, ANGLES AND PLATES SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M111.

BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M232.

CUTTING OF THE EXTRA STRENGTH PIPE AND ANGLES TO THE EXACT LENGTHS AND DRILLING HOLES IS TO BE DONE IN THE FIELD.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE "FOOT" FOR GRATING FOR CONCRETE HEADWALLS IN PLACE, AND SHALL INCLUDE FABRICATION PAINTING, CENTER SUPPORTS WHEN REQUIRED, AND INSTALLATION OF THE GRATING AS DETAILED.



**PLAN**

WALL BRACKET ASSEMBLY

**PLAN**

HEADWALL BRACKET ASSEMBLY

**PLAN**

**PLAN**

WINGWALL BRACKET ASSEMBLY - LEFT

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GRATING FOR CONCRETE HEADWALL</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw_work\pwidot\woodshankr1\d0362707\0366035-shit-details.dgn	DRAWN - RW	REVISED -	623					(01)	LASALLE	16	14	
*MODELNAME*	PLOT SCALE = 40.0000 ' / in.	CHECKED - HA	REVISED -		SCALE 20			SHEET 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 66D35	
	PLOT DATE = 7/28/2014	DATE - 7/14/2014	REVISED -		ILLINOIS FED. AID PROJECT							