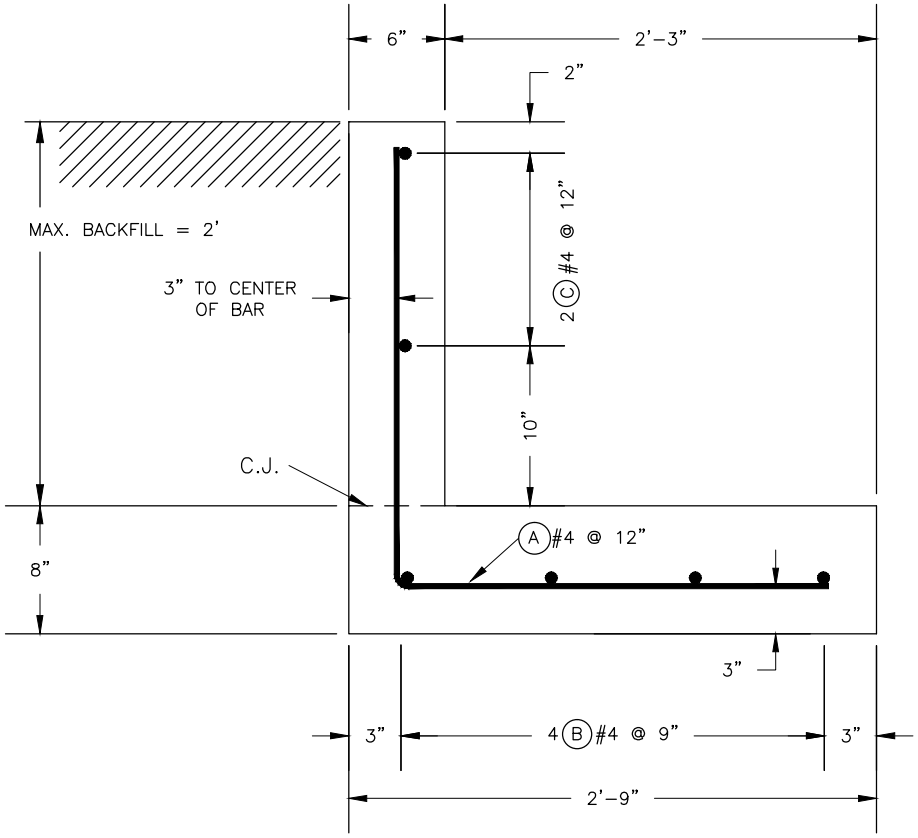
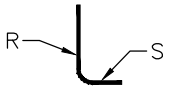
CONDITIONS OF USE
BACKFILL = 0 TO 2 FEET
NO SURCHARGE
SOIL EFP = 75

TOTAL LENGTH OF WALL_____ FT.

C.J. = CONSTRUCTION JOINT





TYPE 2 BAR

SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

STEEL SCHEDULE

MARK	SIZE	QUAN	TYPE	R	S	LENGTH	TOTAL LENGTH
A	4		2	2'-3"	2'-3"	4'-6"	
B	4		STR	---	---		
C	4		STR	---	---		
L	4		2	2'-0"	2'-0"	4'-0"	
					#4 BARS, TOTAL LENGTH		

ESTIMATED QUANTITIES

CONCRETE	(0.1049 CU.YDS./LIN.FT.)_____	CU.YDS.
STEEL #4	(0.668 LBS./FT)_____	LBS.

- CONCRETE WILL MEET WISCONSIN SPEC 4 REQUIREMENTS.
- SUBSTITUTION OF GRADE 60 BARS IS PERMITTED.
- MINIMUM SPLICE LENGTH FOR MARK (B) AND (C) BARS IS 12"
- STEEL QUANTITY DOES NOT INCLUDE SPLICE LENGTHS.

MARK L BARS NOT SHOWN – SEE WALL CORNER DETAILS ON REVERSE SIDE.

NOTES:
1. CONSTRUCTION JOINT OPTIONS – SEE REVERSE SIDE.
2. DIMENSIONS ARE TO THE REINFORCING BAR SURFACE UNLESS OTHERWISE NOTED.
3. FOR RESTRAINING SLAB REQUIREMENTS – SEE REVERSE SIDE.
4. BACKFILL TO THE TOP OF THE WALL IS RECOMMENDED FOR FROST PROTECTION.

USDA United States Department of Agriculture
Natural Resources Conservation Service

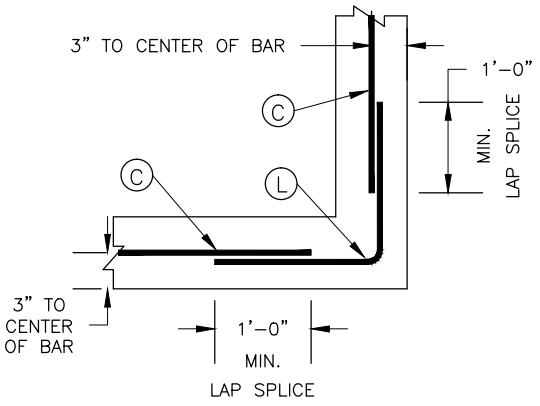
2-FOOT L WALL
6" WALL THICKNESS

CLIENT: _____
COUNTY: _____

Designed _____ Date
Drawn _____
Checked _____
Approved _____

File Name WI-521
Date 07/14
Sheet of

CORNER DETAIL (PLAN VIEW)



CONSTRUCTION JOINT OPTIONS

1. IF SLAB AND WALL ARE POURED SEPARATELY, THE SLAB SURFACE MUST BE THOROUGHLY CLEANED WITH WATER AND A WIRE BRUSH. THE SURFACE OF THE JOINT SHALL BE KEPT MOIST FOR AT LEAST 1 HOUR PRIOR TO PLACEMENT OF NEW CONCRETE.

2. THE SLAB AND WALL MAY BE POURED AT THE SAME TIME ELIMINATING THE NEED FOR A CONSTRUCTION JOINT.

SLAB CORNER DETAILS	SEE WI-571
RESTRAINING SLAB OPTIONS	SEE WI-570

GENERAL DESIGN NOTES:

- DRAINAGE SHALL BE AWAY FROM THE WALL.
- THE MINIMUM WIDTH OF THE BACKFILL AGAINST THE WALL SHALL BE EQUAL TO OR GREATER THAN THE BACKFILL HEIGHT.
- MAXIMUM FOOTING CONTACT PRESSURE IS 500 psf/ft.

DESIGN STRENGTHS: WORKING STRESS DESIGN

- CONCRETE f'_c = 3,500 psi
  f_c = 1,400 psi
- STEEL f_s = 20,000 psi (GRADE 40)

WALL DESIGN LOADING: 313 STANDARD – LATERAL EARTH PRESSURE VALUES, SEE SECTION IV OF THE FIELD OFFICE TECHNICAL GUIDE.

- MANURE LOAD INSIDE = 65 psf/ft.
- SOIL BACKFILL LOAD OUTSIDE = 75 psf/ft.
- NO SURCHARGE LOAD
- SOIL BACKFILL DENSITY = 110 pcf.

WALL RESTRAINT REQUIREMENTS:

- 5" THICK SLAB, SAFETY FACTOR AGAINST SLIDING 1.5 MIN.

BACKFILL HEIGHT (OUTSIDE LOAD)	SLAB LENGTH NO INSIDE LOAD	SLAB LENGTH FULL INSIDE LOAD
2 FEET	7 FEET	NO SLAB
1 FOOT	NO SLAB	NO SLAB
0 FEET	NO SLAB	NO SLAB

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE. IT WAS DEVELOPED IN COOPERATION WITH THE WISCONSIN DEPARTMENT OF AGRICULTURAL, TRADE AND CONSUMER PROTECTION. THE DESIGN FOLDER IS FILED AT THE NRCS STATE OFFICE, 8030 EXCELSIOR DRIVE, SUITE 200 MADISON, WI 53717-2906