

**Notes:**

1. Bridge Railing Option to be used will be determined by the Engineer at time of construction. Option 2 is shown on this sheet. See Sheet S-13 for railing options and special provisions for additional details.
2. All temporary shoring, structural excavation and backfill material for construction of end post foundations shall be included with the bridge railing item. The Contractor may reuse suitable excavated material for backfill material as approved by the Engineer.

**BILL OF MATERIAL**

Item	Unit	Quantity
Formliner Finish	Sq. Ft.	479
Bridge Railing Option 1	L. Sum	1
Bridge Railing Option 2	L. Sum	1

FILE: L:\6681\CAD\Sheets\Roadway Structures\Bridges\10-6681-S-DK05.dgn

CONSULTANT

**KNIGHT**  
Engineers & Architects

221 North LaSalle Street  
Suite 300  
Chicago, IL 60601  
Phone: (312) 577-3300

DRAWN	BSB'				
CHECKED	SB				
SCALE	SHOWN	AS BUILT PLANS			
DATE	2-9-07	NO.	BY	DATE	
REVISIONS					

**COLLEGE AVE ROADWAY  
RECONSTRUCTION AND  
BRIDGE REPAIRS**

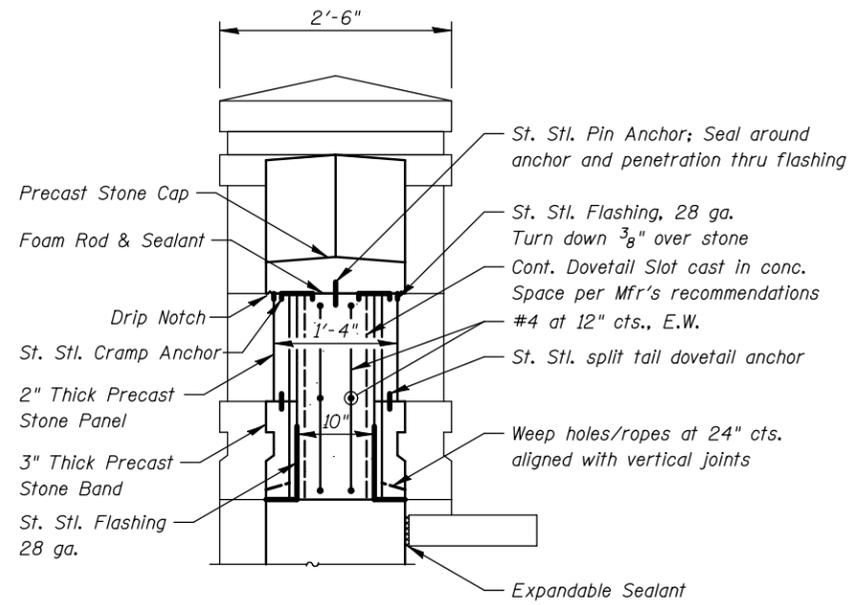
NIU PROJECT M255

**NORTHERN ILLINOIS UNIVERSITY**

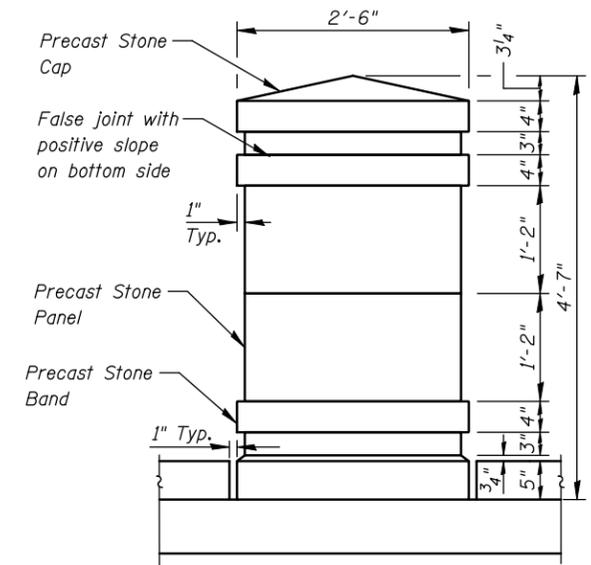
**BRIDGE RAILING PLAN  
AND ELEVATION**

SHEET NO.

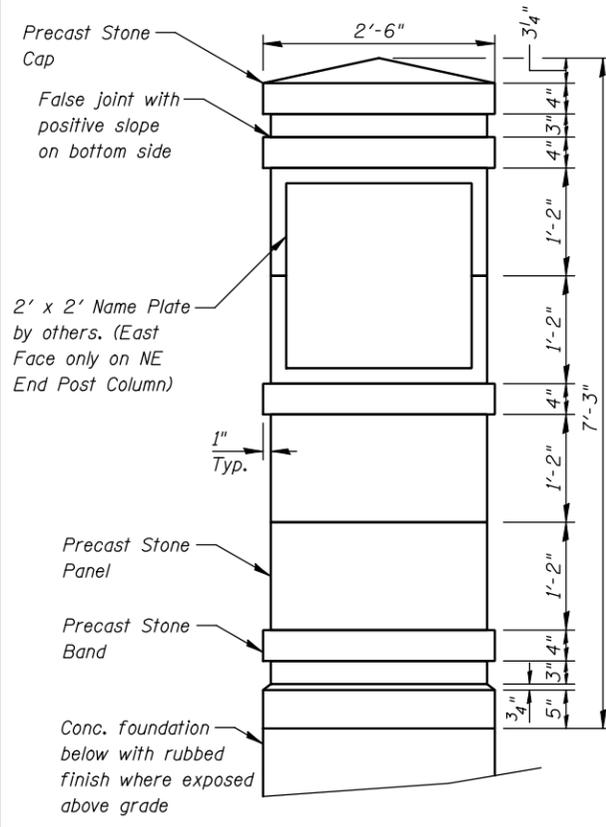
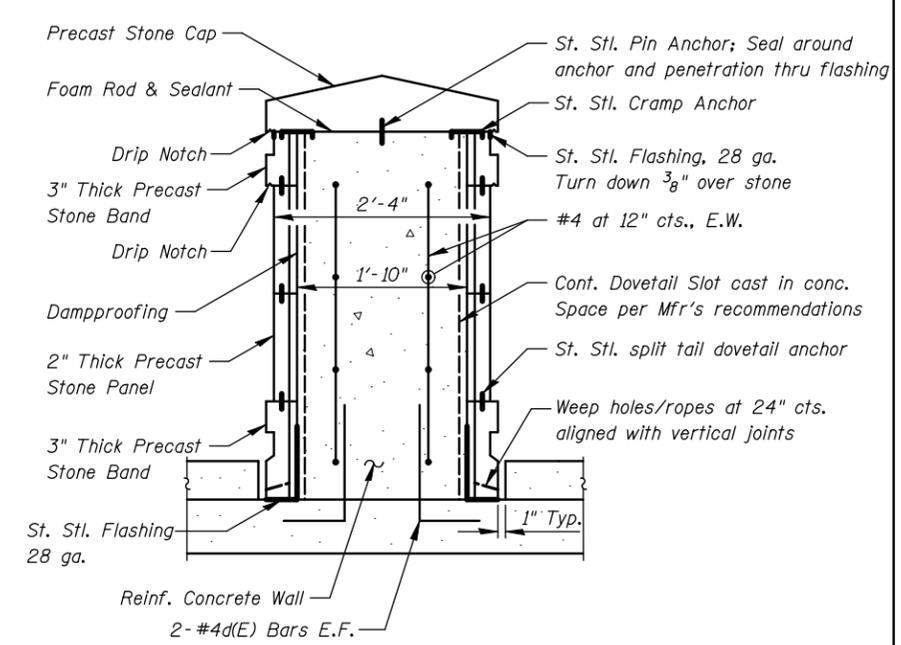
**S-11**



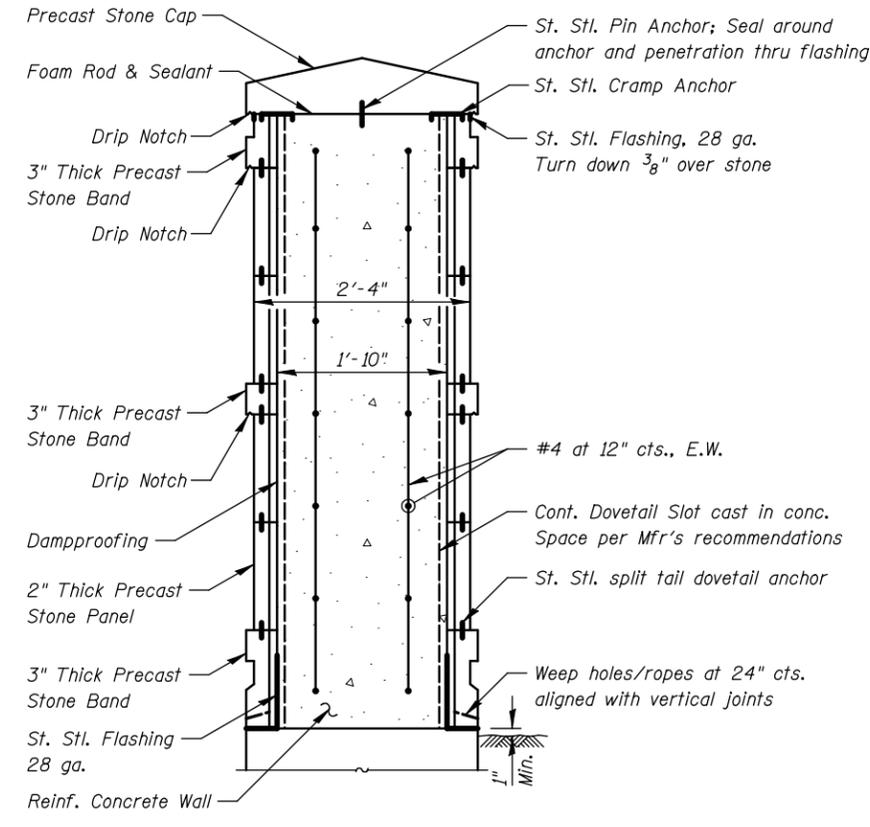
**END POST WALL SECTION**



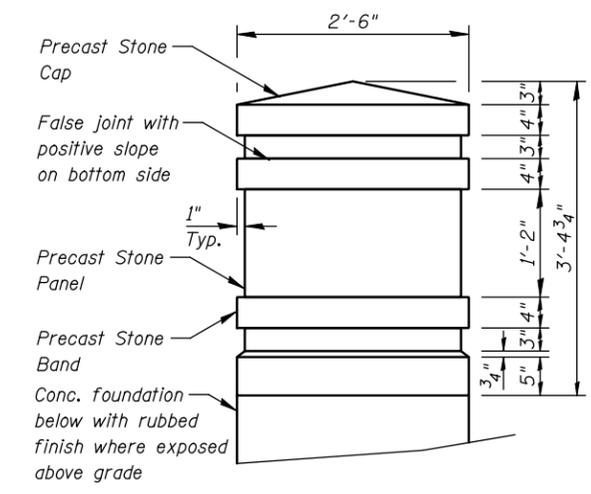
**INTERIOR COLUMN ELEVATION AND SECTION**



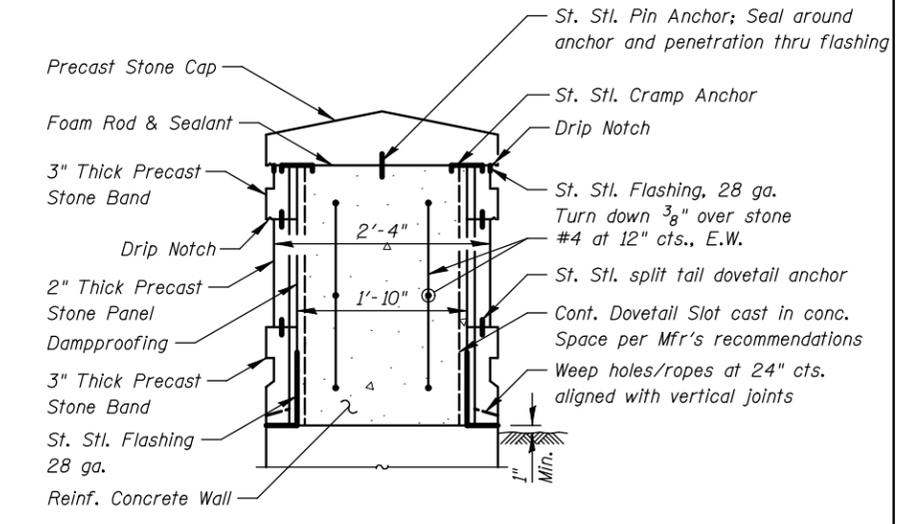
**END POST COLUMN ELEVATION AND SECTION**



- Notes:**
1. All Reinforcement Bars for Bridge Railing is not paid for separately but shall be included with the Bridge Railing items.
  2. See Sheet S-6 for Reinforcement Bar d(E) Details.

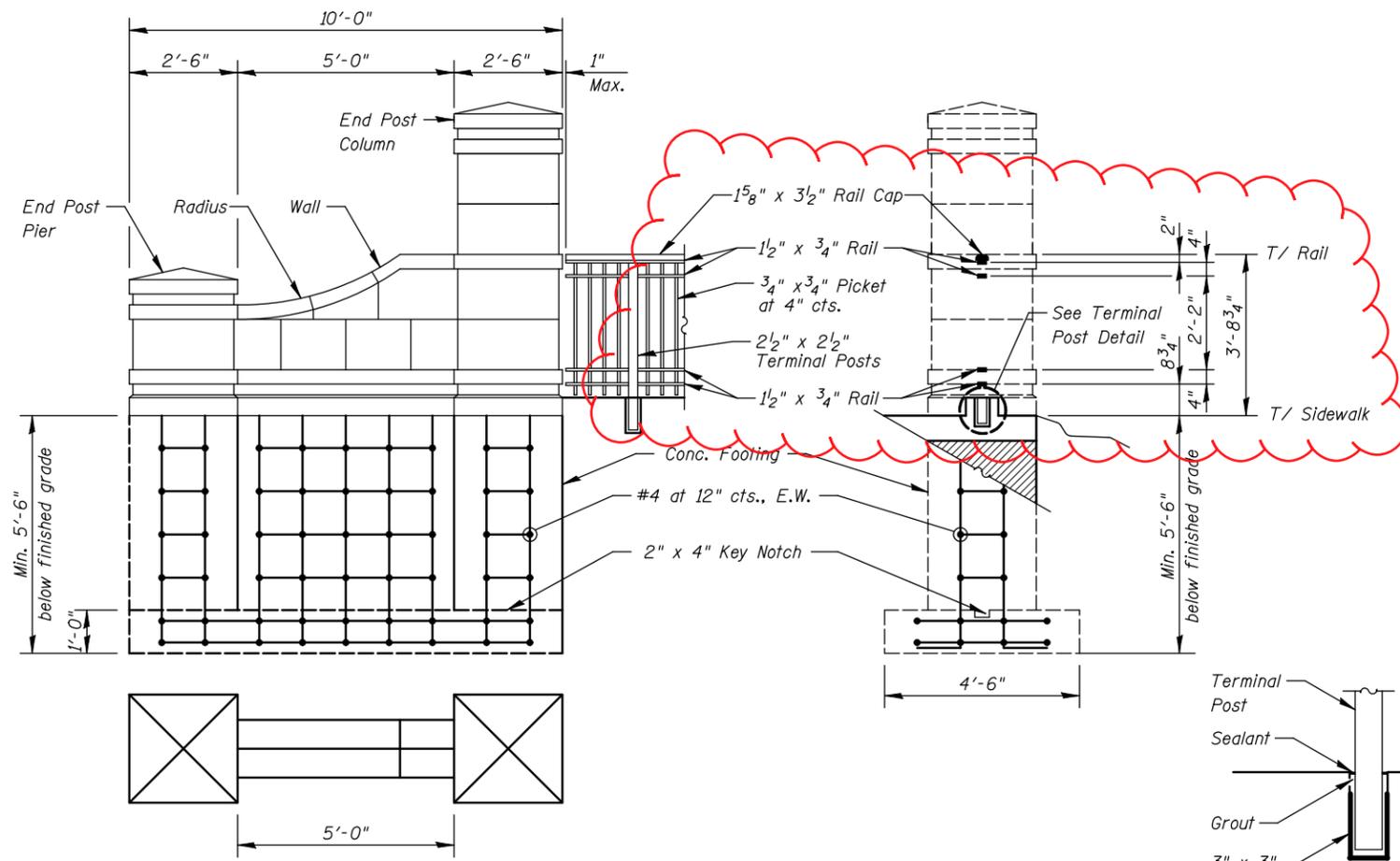


**END POST PIER ELEVATION AND SECTION**

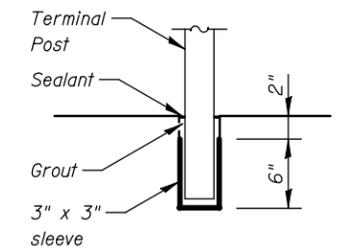


FILE: L:\6681\CAD\Structures\Roadway\_Structures\Bridges\SI-6681-S-0106.dgn

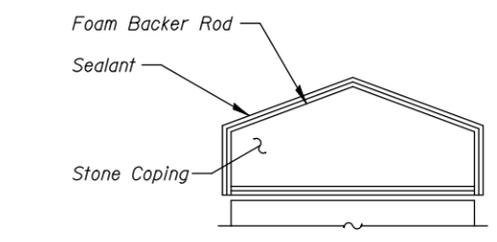
CONSULTANT <b>KNIGHT</b> Engineers & Architects 221 North LaSalle Street Suite 300 Chicago, IL 60601 Phone: (312) 577-3300	DRAWN BSB CHECKED SB SCALE SHOWN $\frac{1}{4}$ WM 4/08 DATE 2-9-07 NO. BY DATE DESCRIPTION	<b>COLLEGE AVE ROADWAY          RECONSTRUCTION AND          BRIDGE REPAIRS</b>	<b>NORTHERN ILLINOIS UNIVERSITY</b>	SHEET NO. <b>S-12</b>
	REVISIONS	NIU PROJECT M255	<b>BRIDGE RAILING DETAILS I</b>	



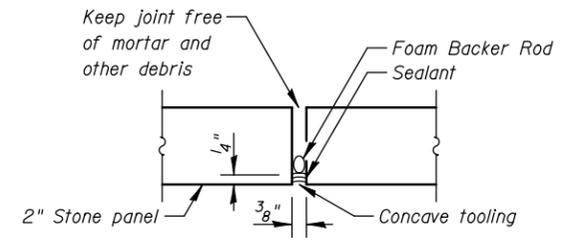
**END POST DETAIL**



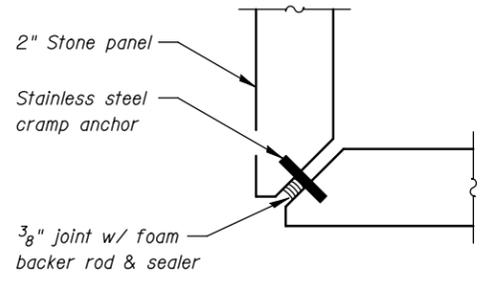
**TERMINAL POST DETAIL**



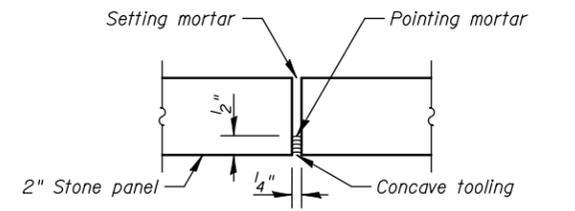
**STONE COPING JOINTS**



**TYPICAL EXPANSION JOINT**

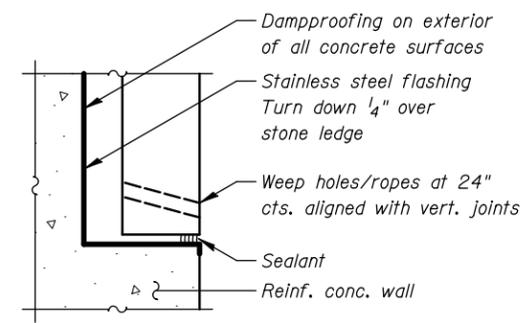


**QUIRKED CORNER JOINT**

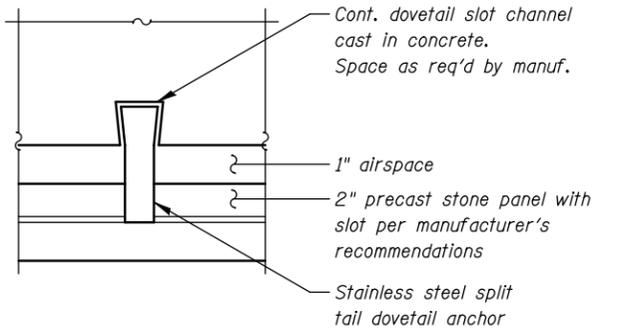


**TYPICAL MORTAR JOINT**

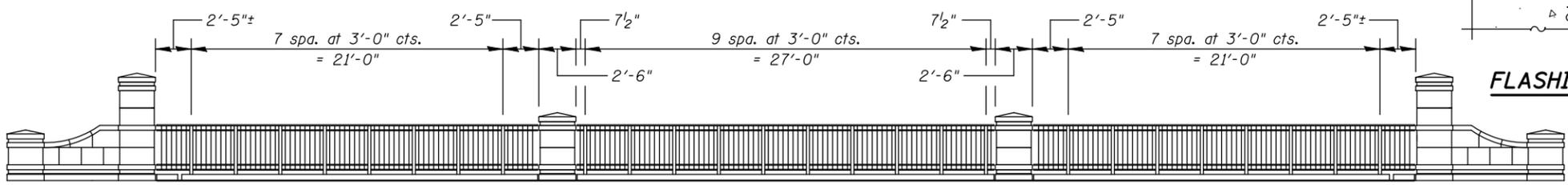
**PRECAST STONE DETAILS**



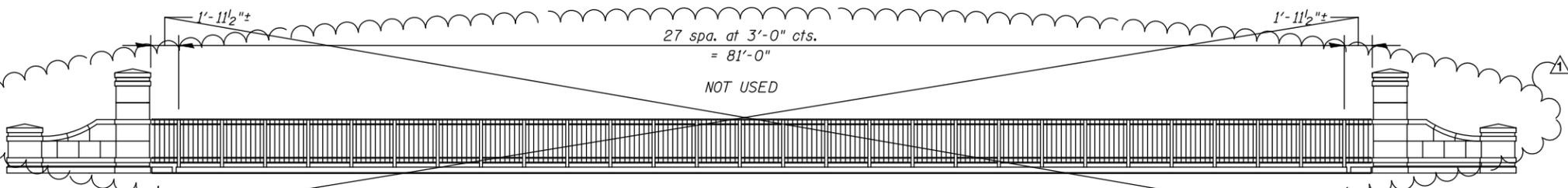
**FLASHING DETAILS**



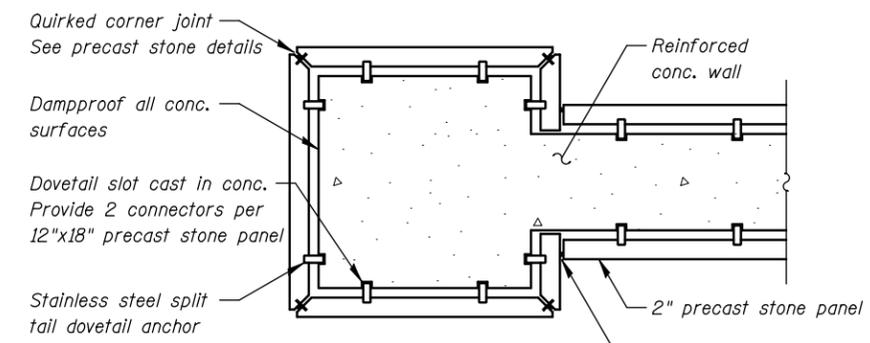
**ANCHORAGE DETAILS**



**HANDRAIL POST SPACING  
Bridge Railing Option 2 (ALT #1)**



**HANDRAIL POST SPACING  
Bridge Railing Option 1 (Base Bid)**



**PLAN DETAIL**

FILE: L:\6681\CAD\Structures\Roadway\_Structures\Bridges\312-6681-5-0107.dgn

CONSULTANT <b>KNIGHT</b> Engineers & Architects 221 North LaSalle Street Suite 300 Chicago, IL 60601 Phone: (312) 577-3300	DRAWN JFW CHECKED SB SCALE SHOWN $\Delta$ WM 4/08 DATE 2-9-07 NO. BY DATE	AS BUILT PLANS DESCRIPTION REVISIONS	<b>COLLEGE AVE ROADWAY RECONSTRUCTION AND BRIDGE REPAIRS</b> NIU PROJECT M255	<b>NORTHERN ILLINOIS UNIVERSITY</b> <b>BRIDGE RAILING DETAILS II</b>	SHEET NO. <b>S-13</b>