

DESIGN CRITERIA:

AASHTO 7th Edition LRFD with current interims
PCI Design Handbook 7th Edition

Reinforced Concrete
Class D Concrete: f'c = 4500 psi
Reinforcing Steel: fy = 60000 psi

Unit weight of concrete, γc = 150 pcf

All Reinforcing Steel shall be epoxy coated unless otherwise noted.

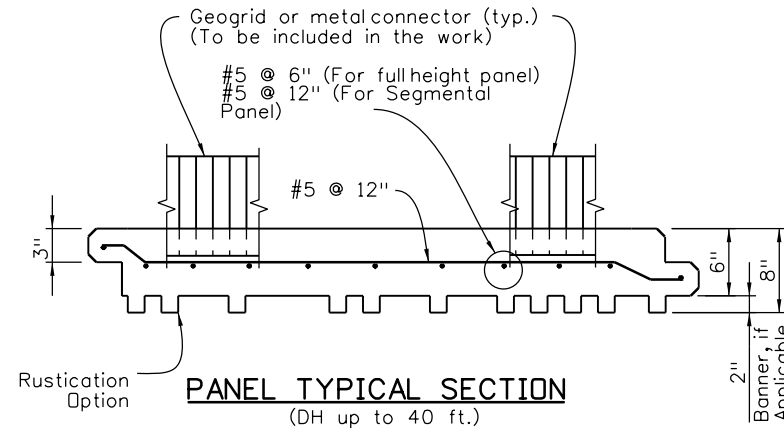
Using LTDS chart in CDOT worksheet B-504-03 as applied max factored earth pressure 4090 lb/ft on panel.

Wind load: 40 psf for setting precast panel, assumed providing temporary support shall be at around 2/3 of panel height from the ground.

Four point pick-up for stripping and yard handling is recommended.

Suggested Erection Method:

- Two Point Pick (Panel Height up to 30')
- Three Point Pick (Panel Height between 30' and 36')
- Four Point Pick (Panel Height between 36' and 40')



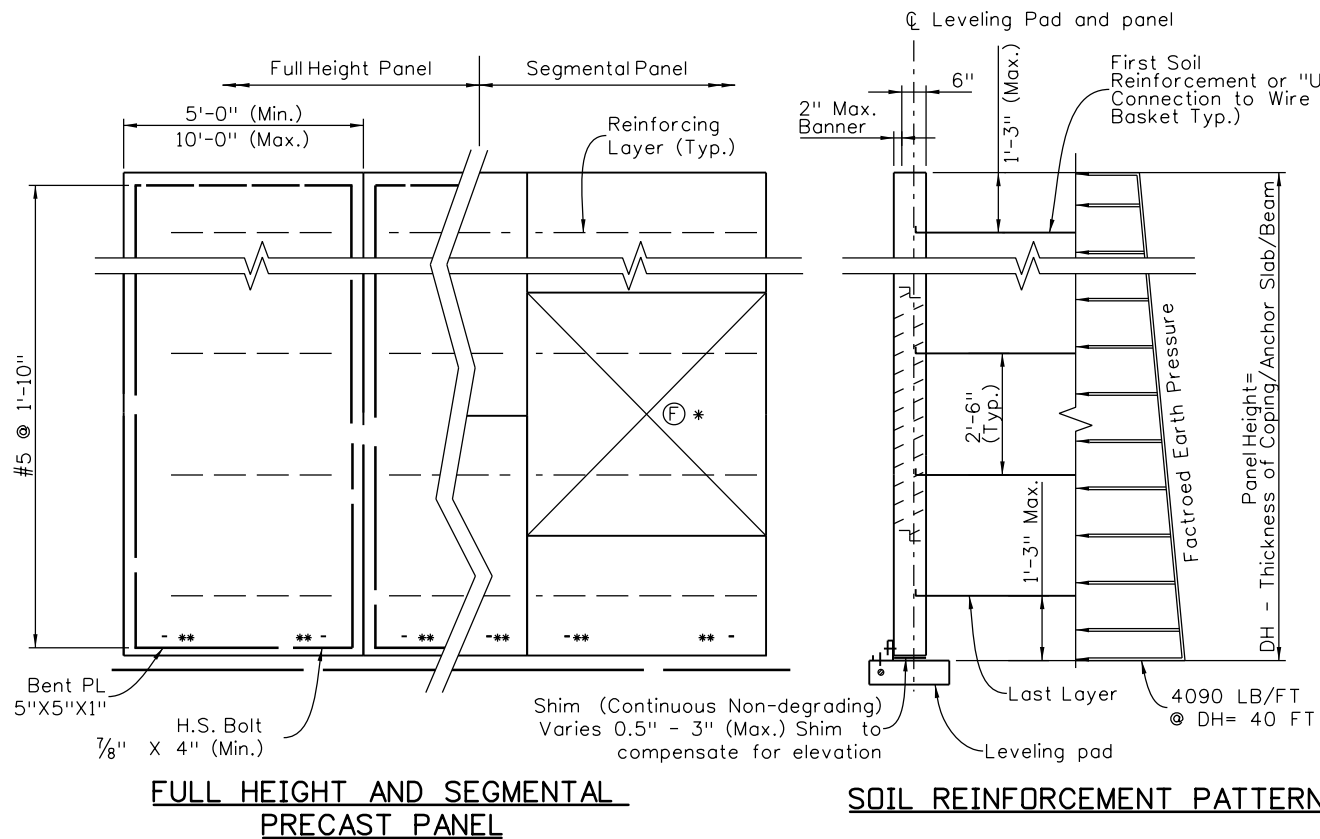
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
504 Precast Panel Facing	Concrete Class B	CY/SF	0.019
	Reinforcing Steel (Epoxy Coated) fy = 60 ksi		
	Full Height Panel (5'-0" Wide)	LB/SF	3.13
	Segmental Panel (5'-0" x 5'-0")	LB/SF	2.09

PRECAST PANEL QUANTITIES

(For information only. Per SQUARE FOOT without banner.)

NOTES:

- Panel lifting hook embedments and related hardware shall be furnished, sized, and placed by fabricator (per Contractor's design) for each individual panel.
- Each panel connection system includes bolt and angle systems at the bottom of the panel. Contractor shall submit an alternative method for restraining the panel during erection. Work to be included in Item 504 Precast Panel Facing.
- Test panels as specified in specification shall be included in cost of item 504 Precast Panel Facing provided by the Contractor.
- Entire concrete coping (front and back) shall have three layers of water resistant or repellent concrete sealer before the wall is opened to traffic. Concrete coating shall be applied before applying the three layers of concrete sealer.
- 2" clr. for rebar is typical, except at ledger and as noted.
- Sawing of panels is acceptable in areas to meet existing ground if needed with approval of the engineer.
- The tolerance on panel thickness shall not exceed ± 1/4".
- Any flexural cracks, sags, or cambers greater than 0.5" will be considered evidence of mishandling, overloading, or exceeding allowable tolerances, and may be cause for rejecting panels at the Engineer's discretion.
- Care must be taken to ensure proper cleaning of construction debris off the tops of the panels and consolidation of concrete mortar under the edges of the panels. Water, dirt or other debris on top of the panels will inhibit the bond of the cast-in-place concrete. It is also important that adequate space (min. 1" x 2") is provided for the concrete to fill the space under the panels where the slab concrete is placed. Panel lengths and width shall be determined by the Contractor and shown on the shop plans.
- The Contractor is responsible for the stability of the panels during shipping, delivery, inspection, and anytime during construction. Erected panels shall be uniformly supported along the length of the panel. The Contractor shall provide geogrid installation, lifting and erection plan to the Engineer for information only at no additional cost.
- Per stopper location, in lieu of FRP, alternative may be proposed as approved by the Engineer.
- Product shall conform to PCI MNL 117, 120, 122, and 127 or PCA/NPCA equivalent as applicable for curing, form stripping and erector requirements.
- Regardless of segmental or full height, panels shall be designed and the connection detailed according to soil reinforcement spacings for 4090 LB/FT (Ref. to B-504-03) uniformly factored earth pressure.
- All material and labor for banner (If applicable) will not be paid separately and will be included in the cost of Item 504 Precast Panel Facing.
- Alternatives for erection, delivery, stripping, and yard handling methods shall be stamped and sealed by the Contractor for approval by the Engineer. Any additional costs shall not be paid separately but shall be included in the cost of the work.
- For full height panel between 36'-40', three point pick may be used where #5 @ 6" is changed to #5 @ 4 1/4".
- For curved wall alignment the width of the panel shall be limited to 5'-0".



Revision Dates	(Preliminary Stage Only)
09-16	

Design		Detail		Quantities	
INITIAL	DATE	INITIAL	DATE	INITIAL	DATE

Print Date: 9/6/2016
File Name: Sheet_B-504-I5.dgn
Horiz. Scale: NTS Vert. Scale: As Noted
Staff Bridge Branch-Unit OXXX Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

PANEL FACING M.S.E. WALL DETAILS (Rustication and Panel Stopper)			
(3 OF 3)			
Designer:	XXXXXXXX	Structure Numbers	WALL-X-XX-XX
Detailer:	XXXXXXXX	Structure Numbers	WALL-X-XX-XX
Sheet Subset:	Wall	Subset Sheets:	WXX of XX

Project No./Code
Project Number
Code
Sheet Number