

BILL OF MATERIAL

Light Tower Service Pad, Special with 3'-6" Wall (Note 4)

Bar	No.	Size	Length	Shape
h ₁₃ (E)	1	#5	23'-6"	
h ₁₄ (E)	1	#5	18'-11"	
h ₁₅ (E)	1	#5	13'-7"	
h ₁₆ (E)	1	#5	8'-4"	
h ₁₇ (E)	1	#4	22'-1"	
h ₁₈ (E)	1	#4	17'-9"	
h ₁₉ (E)	1	#4	12'-9"	
h ₂₀ (E)	1	#4	7'-10"	
n ₂ (E)	25	#6	5'-10"	
t ₁ (E)	25	#6	5'-1"	
v ₃ (E)	7	#4	3'-10"	
v ₄ (E)	7	#4	3'-2"	
w ₁ (E)	1	#5	24'-4"	
w ₂ (E)	1	#5	21'-7"	
w ₃ (E)	1	#5	18'-10"	
w ₄ (E)	1	#5	15'-5"	
w ₅ (E)	1	#5	11'-6"	
Concrete Structures		Cu. Yd.	2.1	
Reinforcement Bars, Epoxy Coated		Pound	140	
Protective Coat		Sq. Yd.	25	
Rustication Finish		Sq. Ft.	34	

BILL OF MATERIAL

Light Tower Service Pad, Special with 5'-0" Wall (Note 4)

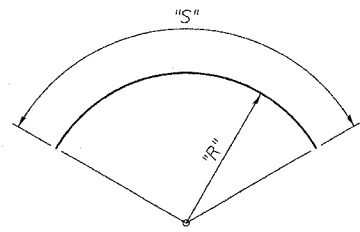
Bar	No.	Size	Length	Shape
h ₁ (E)	1	#5	23'-6"	
h ₂ (E)	1	#5	20'-10"	
h ₃ (E)	1	#5	17'-8"	
h ₄ (E)	1	#5	14'-6"	
h ₅ (E)	1	#5	11'-4"	
h ₆ (E)	1	#5	8'-2"	
h ₇ (E)	1	#4	22'-1"	
h ₈ (E)	1	#4	19'-7"	
h ₉ (E)	1	#4	16'-7"	
h ₁₀ (E)	1	#4	13'-7"	
h ₁₁ (E)	1	#4	10'-8"	
h ₁₂ (E)	1	#4	7'-8"	
n ₁ (E)	25	#6	7'-4"	
t ₁ (E)	25	#6	5'-1"	
v ₁ (E)	7	#4	5'-0"	
v ₂ (E)	8	#4	4'-8"	
w ₁ (E)	1	#5	24'-4"	
w ₂ (E)	1	#5	21'-7"	
w ₃ (E)	1	#5	18'-10"	
w ₄ (E)	1	#5	15'-5"	
w ₅ (E)	1	#5	11'-6"	
Concrete Structures		Cu. Yd.	2.9	
Reinforcement Bars, Epoxy Coated		Pound	210	
Protective Coat		Sq. Yd.	28	
Rustication Finish		Sq. Ft.	54	

TOTAL BILL OF MATERIAL

Item	Unit	Total
Light Tower Service Pad, 6"	Sq. Ft.	816
Light Tower Service Pad, Special	Sq. Ft.	1,496
Structure Excavation	Cu. Yd.	298
Concrete Structures	Cu. Yd.	27.1
Reinforcement Bars, Epoxy Coated	Pound	1,950
Rustication Finish	Sq. Ft.	474
Protective Coat	Sq. Yd.	290

HMLT SERVICE PAD/RETAINING WALL SCHEDULE

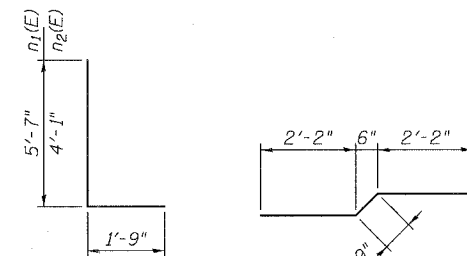
HMLT I.D.	Service Pad/Retaining Wall Requirements
7 UGH1	Light Tower Service Pad w/ 5'-0" Wall
7 UGH3	Light Tower Service Pad, No Wall
7 VMN3	Light Tower Service Pad, No Wall
7 VMN2	Light Tower Service Pad w/ 3'-6" Wall
7 VEF3	Light Tower Service Pad w/ 5'-0" Wall
7 VEF2	Light Tower Service Pad w/ 5'-0" Wall
7 VEF1	Light Tower Service Pad w/ 5'-0" Wall
7 VGH1	Light Tower Service Pad w/ 5'-0" Wall
7 VGH2	Light Tower Service Pad, No Wall
7 VGH3	Light Tower Service Pad, No Wall
7 VGH4	Light Tower Service Pad w/ 3'-6" Wall
7 WEF6	Light Tower Service Pad, No Wall
7 WEF4	Light Tower Service Pad, No Wall
7 WEF2	Light Tower Service Pad w/ 3'-6" Wall
7 WGH3	Light Tower Service Pad w/ 3'-6" Wall
7 WGH4	Light Tower Service Pad w/ 3'-6" Wall
7 WGH5	Light Tower Service Pad w/ 3'-6" Wall



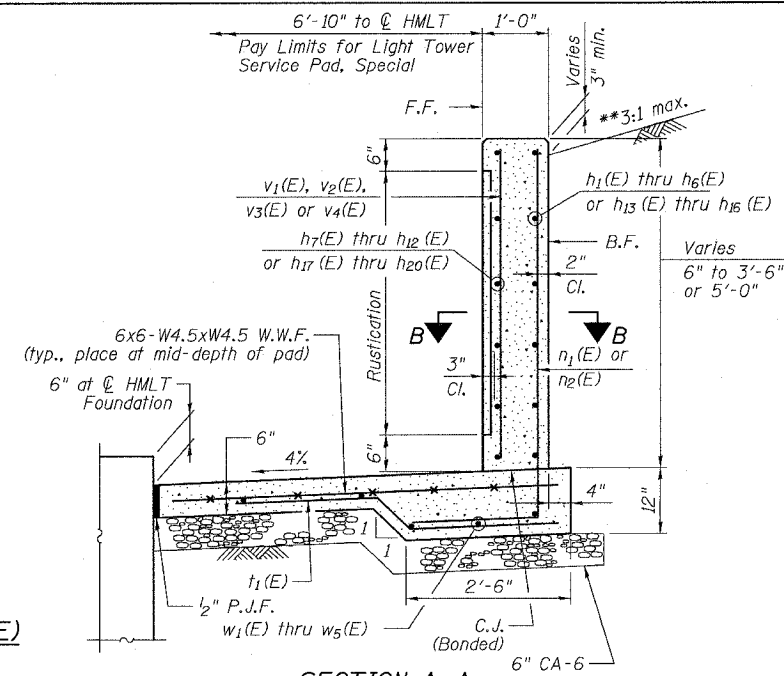
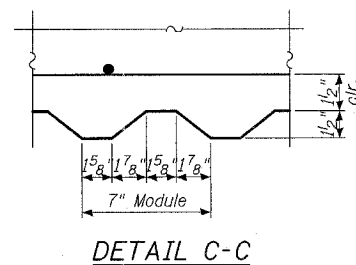
Bar	"R"	"S"
h ₁ (E)	7'-7"	23'-6"
h ₂ (E)	7'-7"	20'-10"
h ₃ (E)	7'-7"	17'-8"
h ₄ (E)	7'-7"	14'-6"
h ₅ (E)	7'-7"	11'-4"
h ₆ (E)	7'-7"	8'-2"
h ₇ (E)	7'-7"	22'-1"
h ₈ (E)	7'-7"	19'-7"
h ₉ (E)	7'-7"	16'-7"
h ₁₀ (E)	7'-7"	13'-7"
h ₁₁ (E)	7'-7"	10'-8"
h ₁₂ (E)	7'-7"	7'-8"
h ₁₃ (E)	7'-7"	23'-6"
h ₁₄ (E)	7'-7"	18'-11"
h ₁₅ (E)	7'-7"	13'-7"
h ₁₆ (E)	7'-7"	8'-4"
h ₁₇ (E)	7'-1 1/2"	22'-1"
h ₁₈ (E)	7'-1 1/2"	17'-9"
h ₁₉ (E)	7'-1 1/2"	12'-9"
h ₂₀ (E)	7'-1 1/2"	7'-10"
w ₁ (E)	7'-7"	24'-4"
w ₂ (E)	6'-8"	21'-7"
w ₃ (E)	5'-10"	18'-10"
w ₄ (E)	4'-9"	15'-5"
w ₅ (E)	3'-6"	11'-6"

Note: "R" and "S" measured along bar @

BARS w₁(E) thru w₅(E) & h₁(E) thru h₂₀(E)

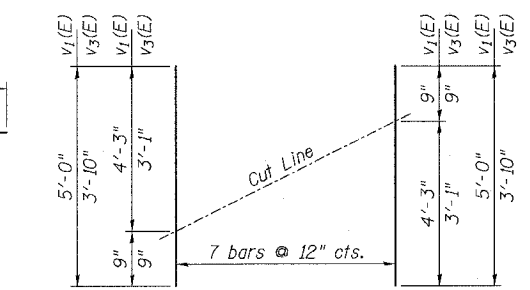


BARS n₁(E) & n₂(E) BAR t₁(E)



SECTION A-A

**See Roadway Cross Section Shts.



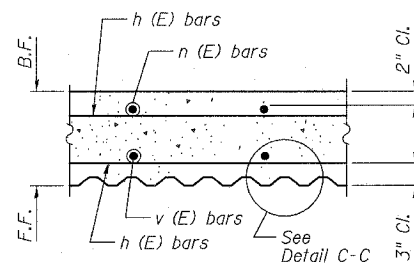
CUTTING DIAGRAM

Bars v₁(E) & v₃(E)

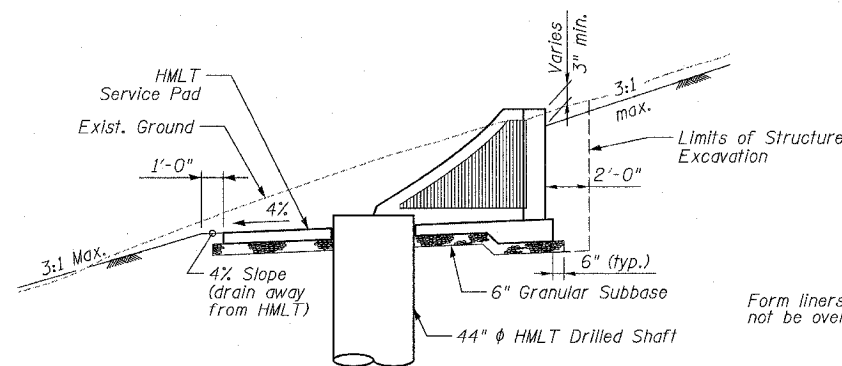
Order v₁(E) & v₃(E) bars full length and cut to fit as shown. Use remainder of bars as indicated on plans.

NOTES

1. F.F. and B.F. denote Front Face and Back Face, respectively.
2. HMLT denotes High Mast Light Tower.
3. For location of High Mast Light Tower Foundations, see Roadway Lighting Plan sheets.
4. Bars n₁(E), n₂(E), t₁(E) and w₁(E) thru w₅(E) will not be measured and paid separately but will be included in the cost of Light Tower Service Pad, Special. See Special Provisions.
5. See IDOT Standard Drawing BE501 for additional High Mast Light Tower foundation and ground well details.
6. Reinforcement Bars designated (E) shall be epoxy coated.
7. Refer to High Mast Light Tower Service Pad & Retaining Wall Details 1 for location and orientation of conduit sleeves and grounding wells.
8. Contractor shall maintain integrity of Frontage Roads as may be required in excavating for HMLT service pad walls.
9. Provide Protective Coat to top, front face and ends of walls and to the top of the concrete service pad.

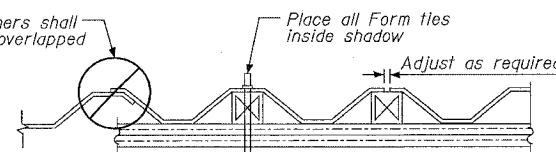


SECTION B-B



SECTION THRU EMBANKMENT

(At Typ. Tower Location)
HMLT not shown for clarity



SUGGESTED FORMWORK DETAIL

SHEET SD7 OF SD11

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
HIGH MAST LIGHT TOWER SERVICE PAD & RETAINING WALL DETAILS 2

SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: MTR
CHECKED BY: BLU

REVISIONS	
NAME	DATE
ADDENDUM 2	8/04/06

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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12/5/06 8/4/2006