

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"	[Shape]
h ₁₄ (E)	1	#5	18'-11"	[Shape]
h ₁₅ (E)	1	#5	13'-7"	[Shape]
h ₁₆ (E)	1	#5	8'-4"	[Shape]
h ₁₇ (E)	1	#4	22'-1"	[Shape]
h ₁₈ (E)	1	#4	17'-9"	[Shape]
h ₁₉ (E)	1	#4	12'-9"	[Shape]
h ₂₀ (E)	1	#4	7'-10"	[Shape]
n ₂ (E)	25	#6	5'-10"	[Shape]
t ₁ (E)	25	#6	5'-1"	[Shape]
v ₃ (E)	7	#4	3'-10"	[Shape]
v ₄ (E)	7	#4	3'-2"	[Shape]
w ₁ (E)	1	#5	24'-4"	[Shape]
w ₂ (E)	1	#5	21'-7"	[Shape]
w ₃ (E)	1	#5	18'-10"	[Shape]
w ₄ (E)	1	#5	15'-5"	[Shape]
w ₅ (E)	1	#5	11'-6"	[Shape]
Concrete Structures		Cu. Yd.	2.2	
Reinforcement Bars, Epoxy Coated		Pound	150	
Protective Coat		Sq. Yd.	24	
Rustication Finish		Sq. Ft.	32	

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"	[Shape]
h ₂ (E)	1	#5	20'-10"	[Shape]
h ₃ (E)	1	#5	17'-8"	[Shape]
h ₄ (E)	1	#5	14'-6"	[Shape]
h ₅ (E)	1	#5	11'-4"	[Shape]
h ₆ (E)	1	#5	8'-2"	[Shape]
h ₇ (E)	1	#4	22'-1"	[Shape]
h ₈ (E)	1	#4	19'-7"	[Shape]
h ₉ (E)	1	#4	16'-7"	[Shape]
h ₁₀ (E)	1	#4	13'-7"	[Shape]
h ₁₁ (E)	1	#4	10'-8"	[Shape]
h ₁₂ (E)	1	#4	7'-8"	[Shape]
n ₁ (E)	25	#6	7'-4"	[Shape]
t ₁ (E)	25	#6	5'-1"	[Shape]
v ₁ (E)	7	#4	5'-0"	[Shape]
v ₂ (E)	8	#4	4'-8"	[Shape]
w ₁ (E)	1	#5	24'-4"	[Shape]
w ₂ (E)	1	#5	21'-7"	[Shape]
w ₃ (E)	1	#5	18'-10"	[Shape]
w ₄ (E)	1	#5	15'-5"	[Shape]
w ₅ (E)	1	#5	11'-6"	[Shape]
Concrete Structures		Cu. Yd.	3.0	
Reinforcement Bars, Epoxy Coated		Pound	210	
Protective Coat		Sq. Yd.	26	
Rustication Finish		Sq. Ft.	53	

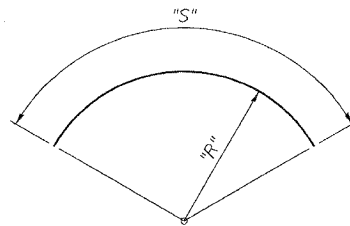
TOTAL BILL OF MATERIAL

Item	Unit	Total
Light Tower Service Pad, 6"	Sq. Ft.	136
Light Tower Service Pad, Special	Sq. Ft.	1,768
Structure Excavation	Cu. Yd.	
Concrete Structures	Cu. Yd.	32.6
Reinforcement Bars, Epoxy Coated	Pound	2,250
Rustication Finish	Sq. Ft.	521
Protective Coat	Sq. Yd.	322

HMLT SERVICE PAD/RETAINING WALL SCHEDULE

HMLT I.D.	Service Pad/Retaining Wall Requirements
7 UCD1	Light Tower Service Pad w/ 3'-6" Wall,
7 VIJ2	Light Tower Service Pad w/ 3'-6" Wall
7 VIJ1	Light Tower Service Pad, No Wall
7 VAB4	Light Tower Service Pad w/ 5'-0" Wall
7 VAB3	Light Tower Service Pad w/ 3'-6" Wall
7 VAB2	Light Tower Service Pad w/ 5'-0" Wall
7 VAB1	Light Tower Service Pad w/ 5'-0" Wall
7 VCD1	Light Tower Service Pad w/ 3'-6" Wall
7 VCD2	Light Tower Service Pad w/ 3'-6" Wall
7 VCD3	Light Tower Service Pad w/ 3'-6" Wall
7 VCD4	Light Tower Service Pad w/ 5'-0" Wall
7 WCD1	Light Tower Service Pad w/ 3'-6" Wall
7 WCD4	Light Tower Service Pad w/ 5'-0" Wall
7 WCD5	Light Tower Service Pad w/ 3'-6" Wall

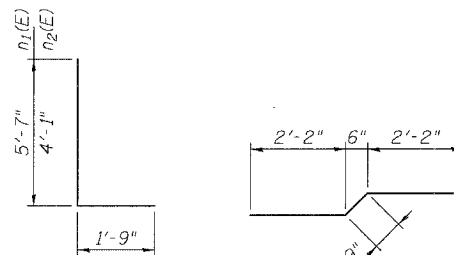
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbandainc.com



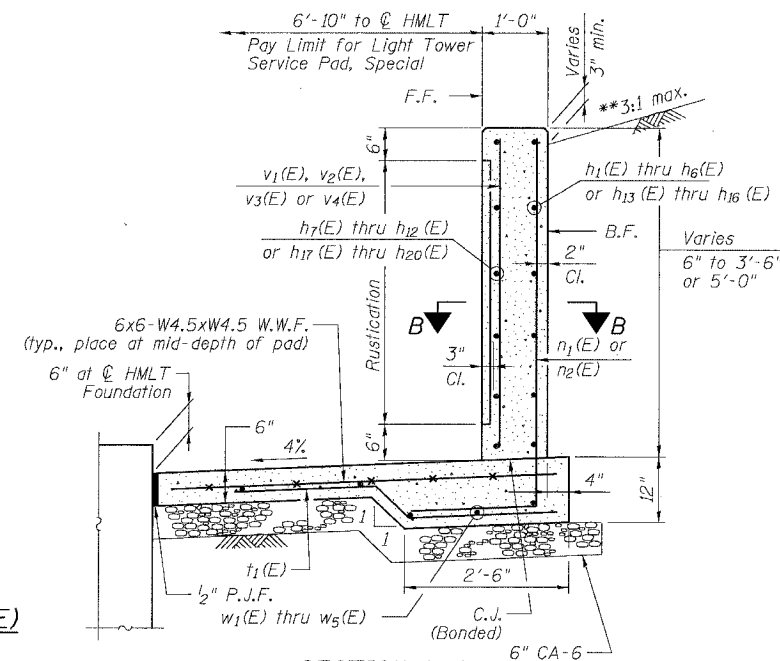
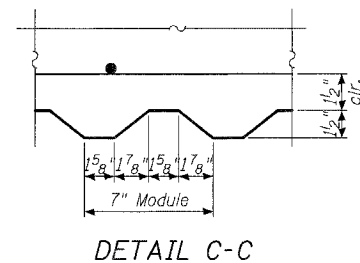
Bar	"R"	"S"	Bar	"R"	"S"
h ₁ (E)	7'-7"	23'-6"	h ₁₄ (E)	7'-7"	18'-11"
h ₂ (E)	7'-7"	20'-10"	h ₁₅ (E)	7'-7"	13'-7"
h ₃ (E)	7'-7"	17'-8"	h ₁₆ (E)	7'-7"	8'-4"
h ₄ (E)	7'-7"	14'-6"	h ₁₇ (E)	7'-1 1/2"	22'-1"
h ₅ (E)	7'-7"	11'-4"	h ₁₈ (E)	7'-1 1/2"	17'-9"
h ₆ (E)	7'-7"	8'-2"	h ₁₉ (E)	7'-1 1/2"	12'-9"
h ₇ (E)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

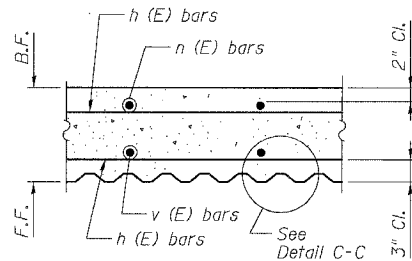
NOTES

- 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.

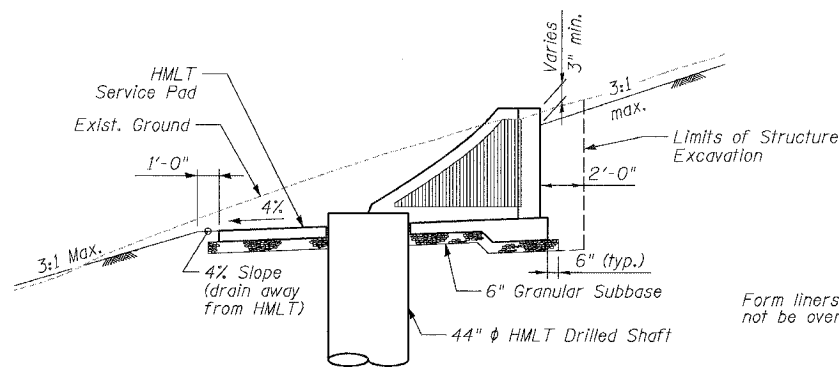
***CUTTING DIAGRAM**

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.

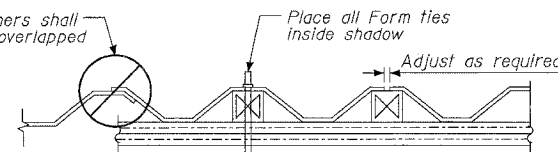


SECTION B-B



SECTION THRU EMBANKMENT

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



SUGGESTED FORMWORK DETAIL

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	588	459
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62303	(2021-922 PT2 ETC 2324.6-1P)	R-11		

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (SB LOCAL LANES)

HIGH MAST LIGHT TOWER SERVICE PAD & RETAINING WALL DETAILS 2

SCALE: NTS
DATE: JUNE 9, 2006

DRAWN BY: MTR
CHECKED BY: BLU

16600000V09V9RET WALL660_055HMLT_02.rvt

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