

BILL OF MATERIAL
(Per HMLT Foundation in Fluted Knee Wall)

Bar	No.	Size	Length	Shape
s (E)	20	#5	10'-7"	□
s ₁ (E)	40	#5	4'-2"	□
s ₂ (E)	40	#5	3'-11"	□
sp (E)	1	#5	34'-6"	
v(E)	12	#10	34'-6"	—
v ₁ (E)	6	#8	12'-10"	L
v ₂ (E)	12	#8	12'-3"	L
v ₃ (E)	3	#7	11'-2"	□
v ₄ (E)	6	#7	10'-8"	□

Reinforcement Bars, Epoxy Coated	POUND	3,650
Structure Excavation	CU YD	18
Concrete Structures	CU YD	8
Protective Coat	SQ YD	9
Rustication Finish	SQ FT	8

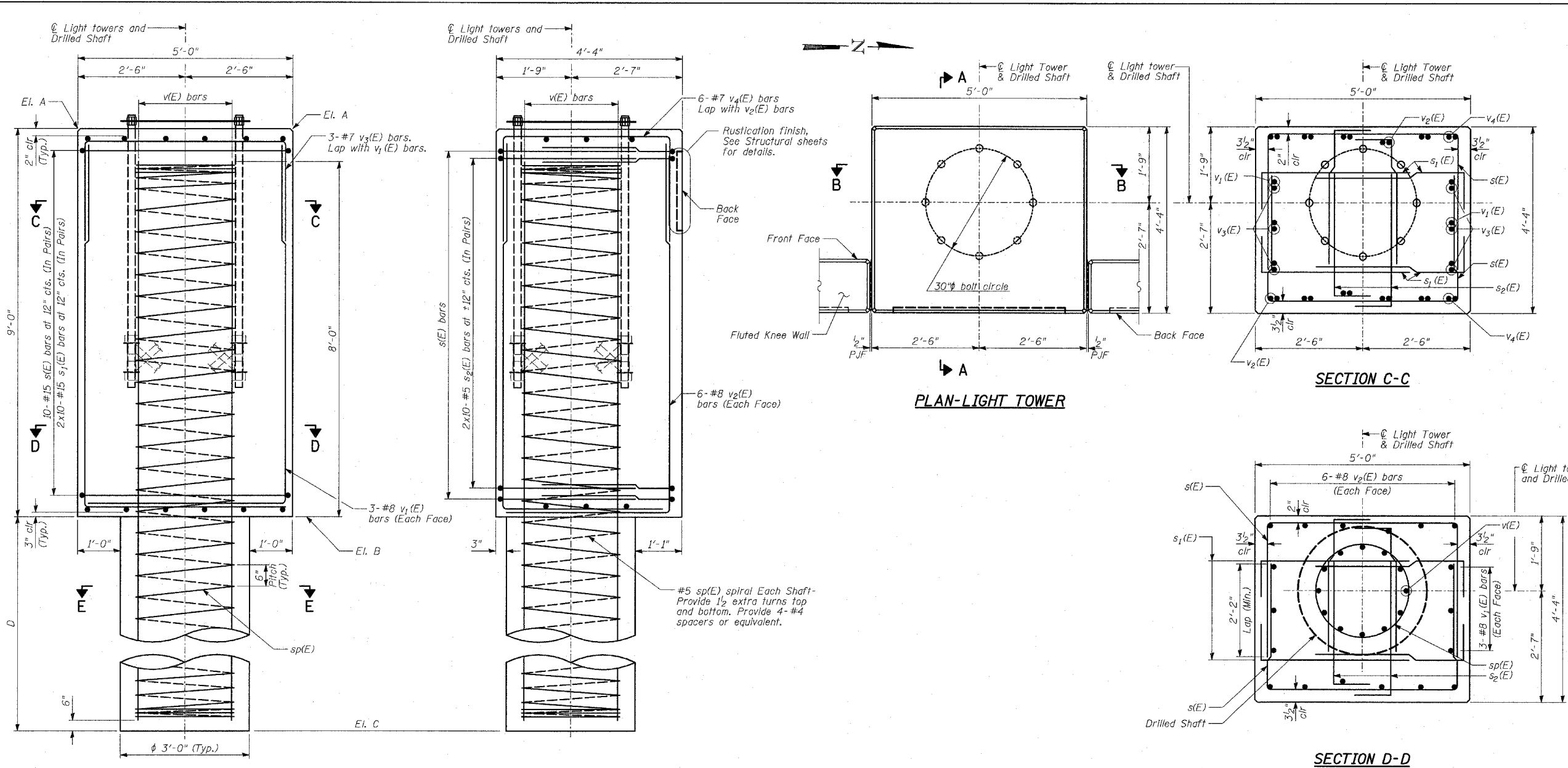
Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provisions for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
- At all locations where reinforcement bar laps are not in direct contact, the Contractor shall provide sufficient spacing between the vertical bars, equal to the size of the largest concrete aggregate plus 1/2 inch.
- Conduit is not shown for clarity. For location of conduit, see Sheet 3 of 3.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"

BILL OF MATERIAL

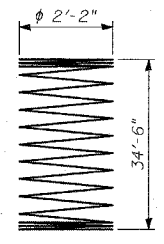
Item	600P2	600P3	50GH1	5PEF4
Drilled Shaft in Soil 36"	24	23	27	27
Drilled Shaft in Rock 36"	3	4	--	--



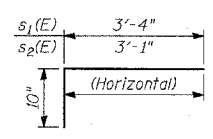
TOTAL BILL OF MATERIAL

HMLT	EL. A	EL. B	EL. C	D
6 OOP2	12.17	3.17	-23.83	27.00
6 OOP3	11.74	2.74	-24.26	27.00
6 OGH1	10.44	1.44	-25.56	27.00
5 PEF4	12.21	3.21	-23.79	27.00

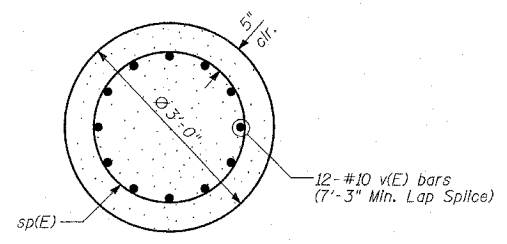
ITEM	UNIT	TOTAL
Structure Excavation	CU YD	86
Concrete Structures	CU YD	37
Protective Coat	SQ YD	43
Rustication Finish	SQ FT	38
Reinforcement Bars, Epoxy Coated	POUND	18,060
Drilled Shaft in Soil 36"	FOOT	128
Drilled Shaft in Rock 36"	FOOT	7



BAR sp(E)



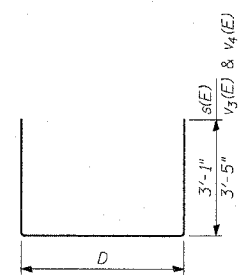
BARS s₁(E) & s₂(E)



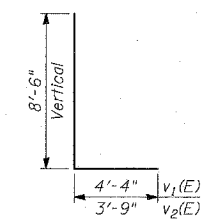
SECTION E-E

MARK TABLE

Bar	D
s (E)	4'-5"
v ₃ (E)	4'-4"
v ₄ (E)	3'-10"



BARS s(E), v₃(E) & v₄(E)



BARS v₁(E) & v₂(E)

DESIGN SPECIFICATION

AASHTO 2002 Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

TYLIN INTERNATIONAL



Signed *Phillip D. Frey*
Phillip D. Frey, S.E., 11, Lic. No. 081-004826
Expires 11-30-2006.
Date 3/18/05
For drawings 1 thru 3 of 3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
HMLT FOUNDATION DETAILS AT FLUTED KNEE WALLS
S.N. 016-W
SCALE: N.T.S.
DATE: MARCH 18, 2005
DESIGNED BY: TD, MAF
DRAWN BY: MAF, DJR
CHECKED BY: MI