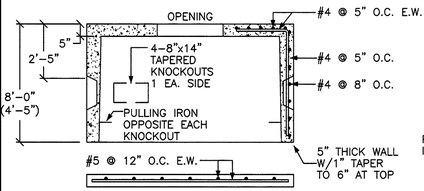
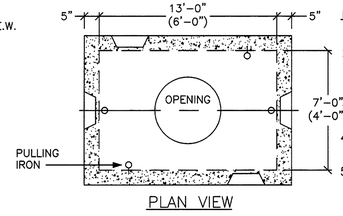
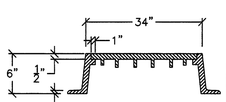


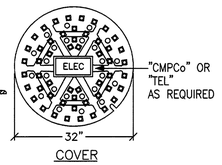
SECTION VIEW



PLAN VIEW



SECTION VIEW



COVER

NOTES (TYPICAL FOR ELEC AND TELEPHONE MANHOLES):

1. CONCRETE: 4,000 PSI @ 28 DAYS.
2. USE 32" COVER AND FRAME MARKED CMPCo OR VERIZON AS REQUIRED. MINIMUM ONE COURSE BRICK TO GRADE.
3. MOUNTINGS FOR CABLE RACKS ECT. CAST IN WALL BY FUTURE PLANS OR FIELD LOCATED.
4. MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.
5. REINFORCING: GRADE 60 REBAR:
   - REINFORCEMENT PLACED IN CENTER OF CONCRETE SLAB, WALLS, & ROOF.
   - #4 @ 5" O.C. VERTICALLY IN WALLS, CANTILEVERED OVER TOP OF OPENING.
   - #4 @ 8" O.C. HORIZONTALLY IN WALLS.
   - 4 PIECES #4 SURROUNDING OPENING.
   - #4 @ 5" O.C. EACH WAY ON TOP.
6. MANHOLE FRAMES AND COVERS ARE TO BE MACHINED TO A SMOOTH FIT AND SHALL BE OF GRAY CAST IRON.
7. COVER SHALL HAVE DIAMOND TOP SURFACE.
8. THE DIMENSIONS SHOWN IN PARENTHESIS APPLY TO ELECTRICAL MANHOLE THIS SHEET ONLY.

ELECTRICAL/TELEPHONE MANHOLE DETAIL

NOT TO SCALE

TRANSFORMER PAD DETAIL NOTES

1. "FRONT" DENOTES THE SIDE ON WHICH THE ACCESS DOORS ARE LOCATED. THE CONCRETE BASE SHALL BE SET ON A SUITABLE GRAVEL BASE AND LOCATED SO THE FRONT IS ACCESSIBLE BY TRUCK AND SUITABLY PROTECTED FROM PLOW AND TRAFFIC DAMAGE.
2. FINISH GRADE SHALL BE GRADED IN SUCH A MANOR TO ALLOW SURFACE WATER TO FLOW AWAY FROM THE PAD.
3. PROVIDE CABLE HOLES (BOND OUTS) 8" UP FROM THE WALL BASE. LOCATE ONE CABLE HOLE PER WALL, OR AS REQUIRED. LINE UP CABLE HOLES WITH TRENCHES.
4. PROVIDE A 3/4" X 96" GALVANIZED GROUND ROD SIX INCHES IN FRONT OF THE LEFT FRONT CORNER OF THE PAD. THE TOP OF THE GROUND ROD SHALL BE 6" BELOW FINAL GRADE.
5. A GROUND WIRE SHALL BE INSTALLED FROM THE GROUND ROD THROUGH THE CABLE HOLE AT THE BOTTOM OF THE PAD. ENOUGH GROUND WIRE SHALL BE PROVIDED SO THAT IT CAN BE INSTALLED THROUGH THE TWO GROUNDING LUGS AND CONNECTED TO THE NEUTRAL SPADE.
6. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI @ 28 DAYS. FOR CAST-IN-PLACE, EARLY HIGH STRENGTH MAY BE USED WITH A MINIMUM OF SEVEN DAY CURE TIME.
7. REINFORCING STEEL SHALL HAVE FY = 60 KSI.
8. FOR PRECAST UNITS: THE PRECAST SUPPLIER SHALL PROVIDE LIFTING LUGS IN THE SLAB (PAD) AND BASE; THE PRECAST SUPPLIER SHALL ASSEMBLE THE SLAB TO THE BASE PRIOR TO SHIPPING TO THE SITE TO ENSURE THAT THE SLAB AND BASE FIT PROPERLY (WITH NO ROCKING OF THE SLAB EVIDENT).
9. CMP SHALL PROVIDE A GALVANIZED STEEL PLATE TO COVER A PORTION OF THE CABLE HOLE WHEN THE TRANSFORMER DOES NOT COMPLETELY COVER IT. CUT THE STEEL PLATE TO FIT, IF NECESSARY.

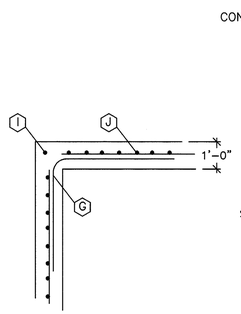
A. #5 REBAR EVENLY SPACED EACH WAY TOP TO BOTTOM (9 FOR XFMR CMP1; 7 FOR XFMR CMP2)
B. 2 – #4 CORNER DIAGONAL REBAR 2'– 0" LONG TOP AND BOTTOM.
C. 4" X 4" X 1/2" ANGLE 6" LONG WITH (2) 3/4" DIAMETER EXPANSION ANCHORS TYPICAL AT 4 PLACES (TWO PIECE PRECAST ONLY).
D. CHAMFER TYPICAL.
E. 2" CONCRETE COVER OVER TOP REBAR.
F. 3" CONCRETE COVER OVER BOTTOM REBAR.
G. #5 L-BAR @ 12" (CAST-IN-PLACE ONLY).
H. GALVANIZED STEEL PLATE.
I. 6 X 6 WWM @ CENTER OF COVER.
J. #5 REBAR ON 12" CENTERS.
K. PULLING EYE INSERT, FOR USE WITH 3/4" NATIONAL COURSE THREAD EYE-BOLT, (RICHMOND LCB-1 OR EQUIVALENT). LOCATED OPPOSITE EACH CABLE HOLE AND 2' (TWO FEET) FROM BOTTOM.
L. ALL REBAR ENDS TO BE COVERED BY 1" OF CONCRETE, MINIMUM.

ELECTRICAL SITE NOTES:

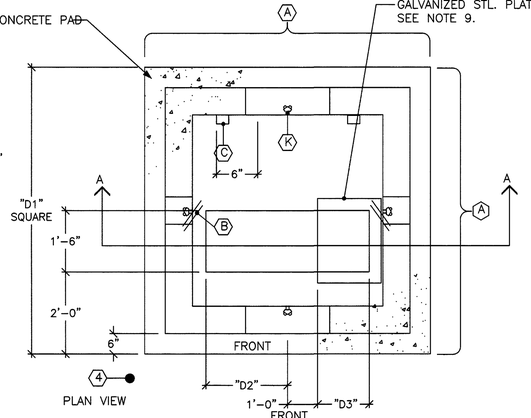
1. SEE SHEET E201 FOR ELECTRICAL SITE NOTES.

PAD DIMENSIONS

	XFMR CMP1 (RECEIVING BLDG)	XFMR CMP2 (PAINT BLDG)
D1	9'–0"	7'–0"
D2	2'–10"	2'–0"
D3	1'–10"	1'–0"
D4	8'–0"	6'–0"
D5	2'–0"	1'–0"
D6	1'–0"	0'–8"
COVER PLT	24"X24"X1/4"	16"x24"x1/4"



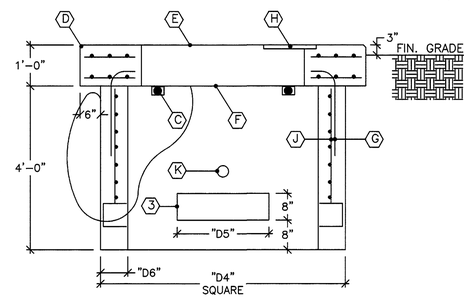
BASE: TYPICAL CORNER VIEW



PLAN VIEW

FRONT

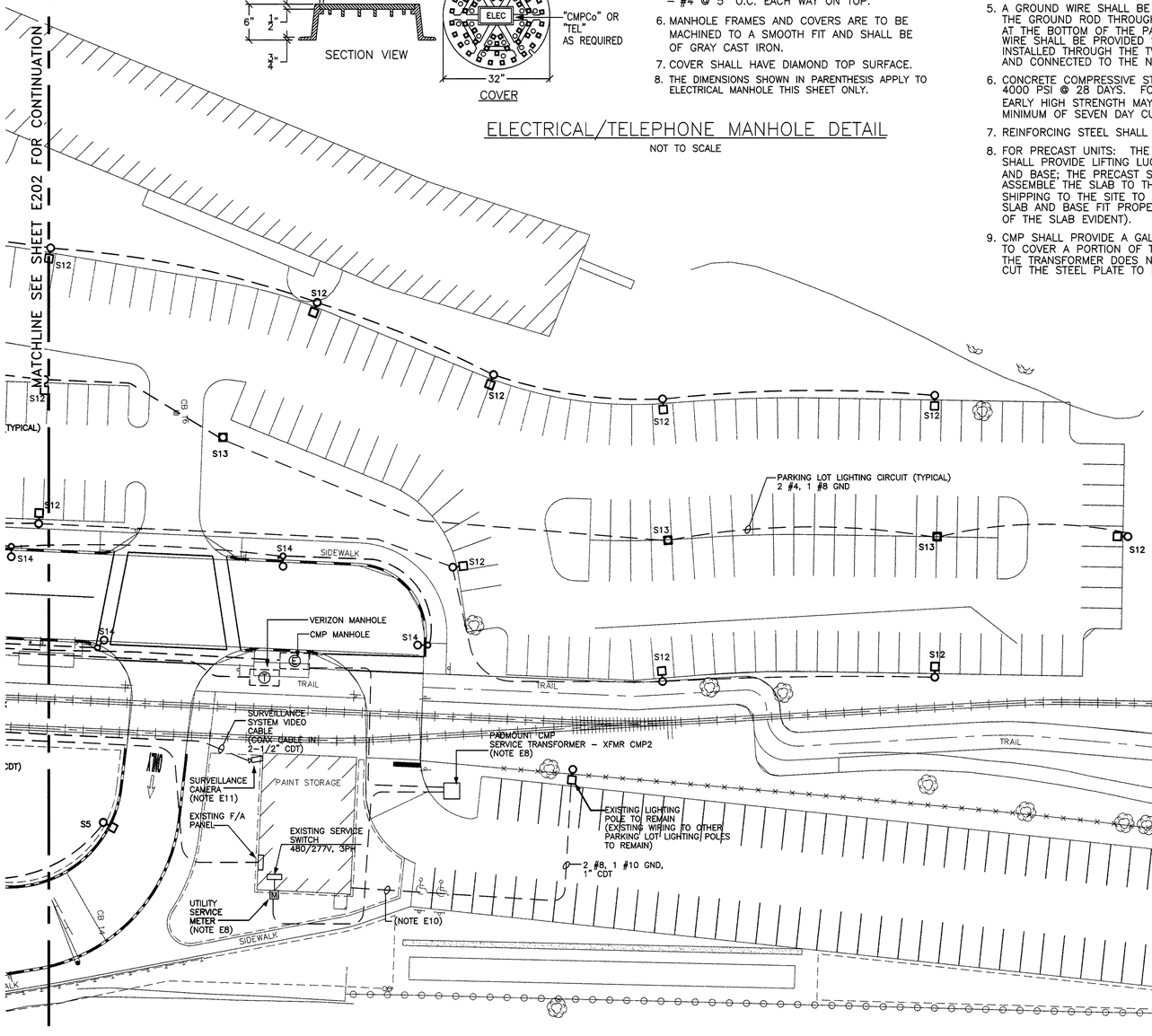
(XFMR CMP1: FACING RECEIVING BLDG; XFMR CMP2: FACING PAINT BLDG)



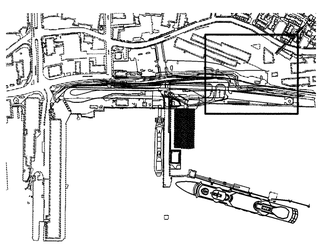
SECTION A–A

TRANSFORMER PAD DETAIL

NOT TO SCALE



KEY PLAN



30' 0 30' 60'

BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 009215.00

PIN 009215.00

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
162 MAIN STREET, SUITE 1 KENNEBUNK, MAINE 04043
TEL (207) 443-5447 FAX (207) 443-5560

STATE OF MAINE LAWRENCE BARTLETT #7928 REGISTERED PROFESSIONAL ENGINEER

Lawrence E. Bartlett

	SIGNATURE
	7928
	P.E. NUMBER
	1/7/05
	DATE

	BY	DATE
PROJ. MANAGER PAUL POTTLE		
DESIGN–DETAILED	LEB	01–07–05
CHECKED–REVIEWED	LEB	
DESIGN2–DETAILED2		
DESIGN3–DETAILED3		
REVISIONS 1		-
REVISIONS 2		-
REVISIONS 3		-
REVISIONS 4		-
FIELD CHANGES		-

CITY OF PORTLAND
OCEAN GATEWAY PHASE 1

ELECTRICAL SITE
LIGHTING/DISTRIBUTION -3

E203

Filename: C:\03-00541\12-21-04 CMP Comments\20343802-E201-E202-E203-E204.dwg, Jan 07, 2005 - 4:04pm