Brookhaven National Laboratory
Plant Engineering - E&CS Division
Engineering Change Notice Form

PROJECT: CCWF II **JOB No.** 11705

ECN Title: Condenser Water Bleed **ECN No.** 39

Affected Documents: M-611, MP-105, MP-301, MP-501, MP-604

Requested Change (Attach sketch if applicable): Do not install (3) ¾" copper pipes from the future condenser water risers. Install the taps on the 14" blind flanges along with the ball valves, nipples, and caps.

Requested by: A. Raphael Date: 06/10/10

Resolution: See the attached sketches

Approvals: A/E or Proj. Eng.: B. Kimble B. Kimble Date: 06/15/10

Project Coordinator: A. Raphael AR Date: 06/15/10

Manager: Date:

Contractor shall take the following action:

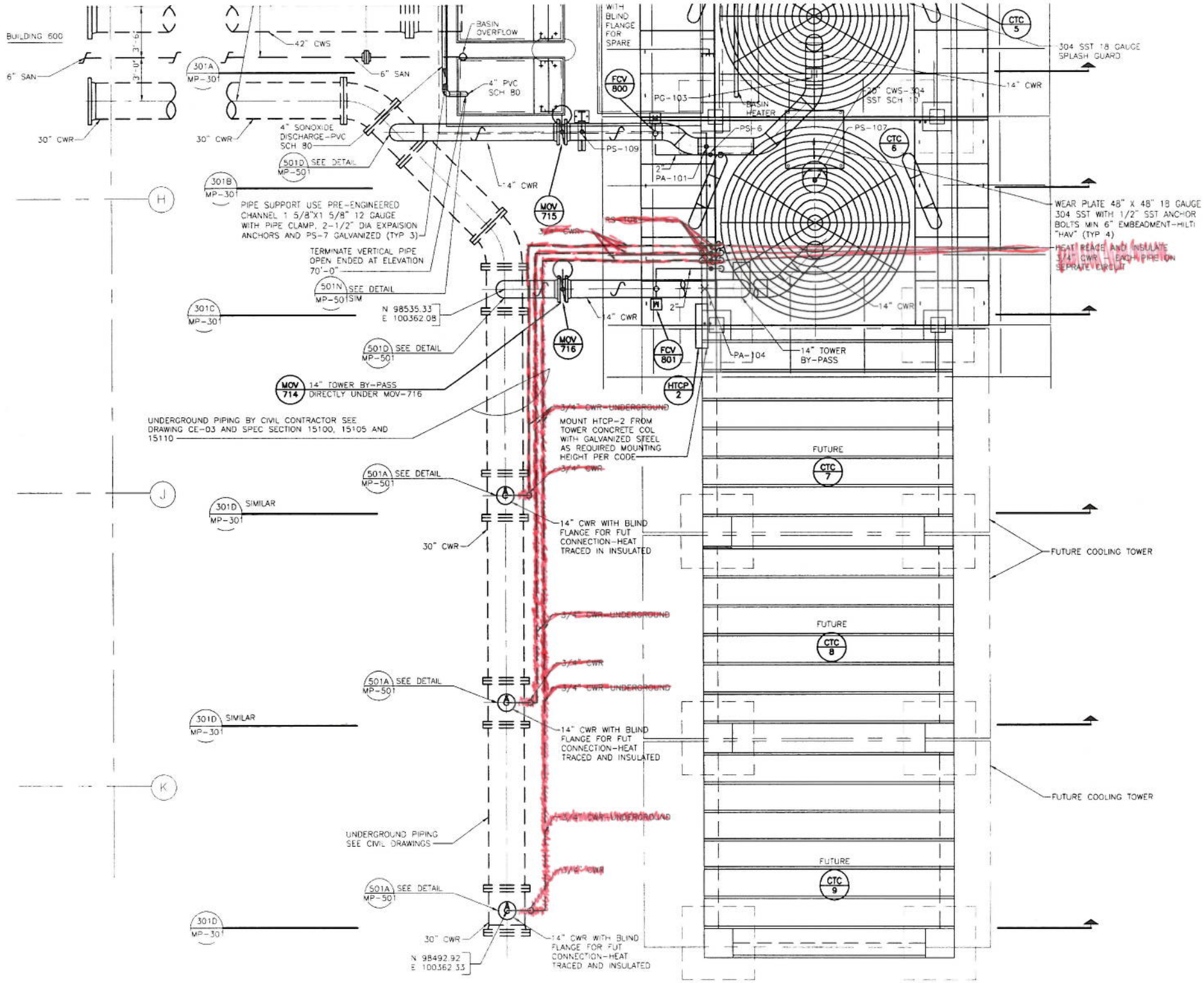
- ☐ Await change order from P&PM
- ☒ Proceed with change as described
- ☒ Provide cost proposal for change as described

Distribution:

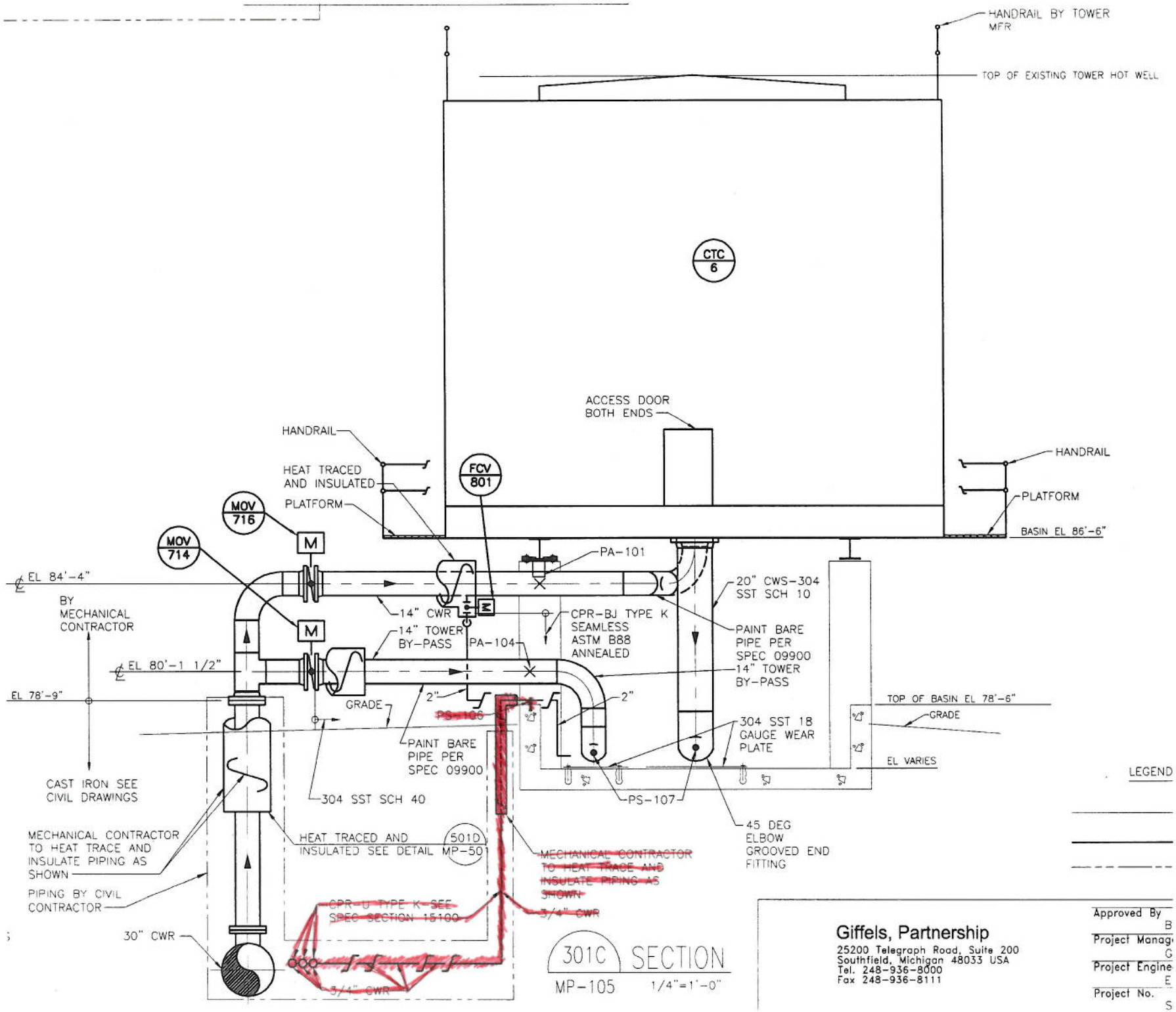
E. W. Howell	Giffels	PPM
E&U	MPO	
O&M	DOE	
NSLS II	ECN File	

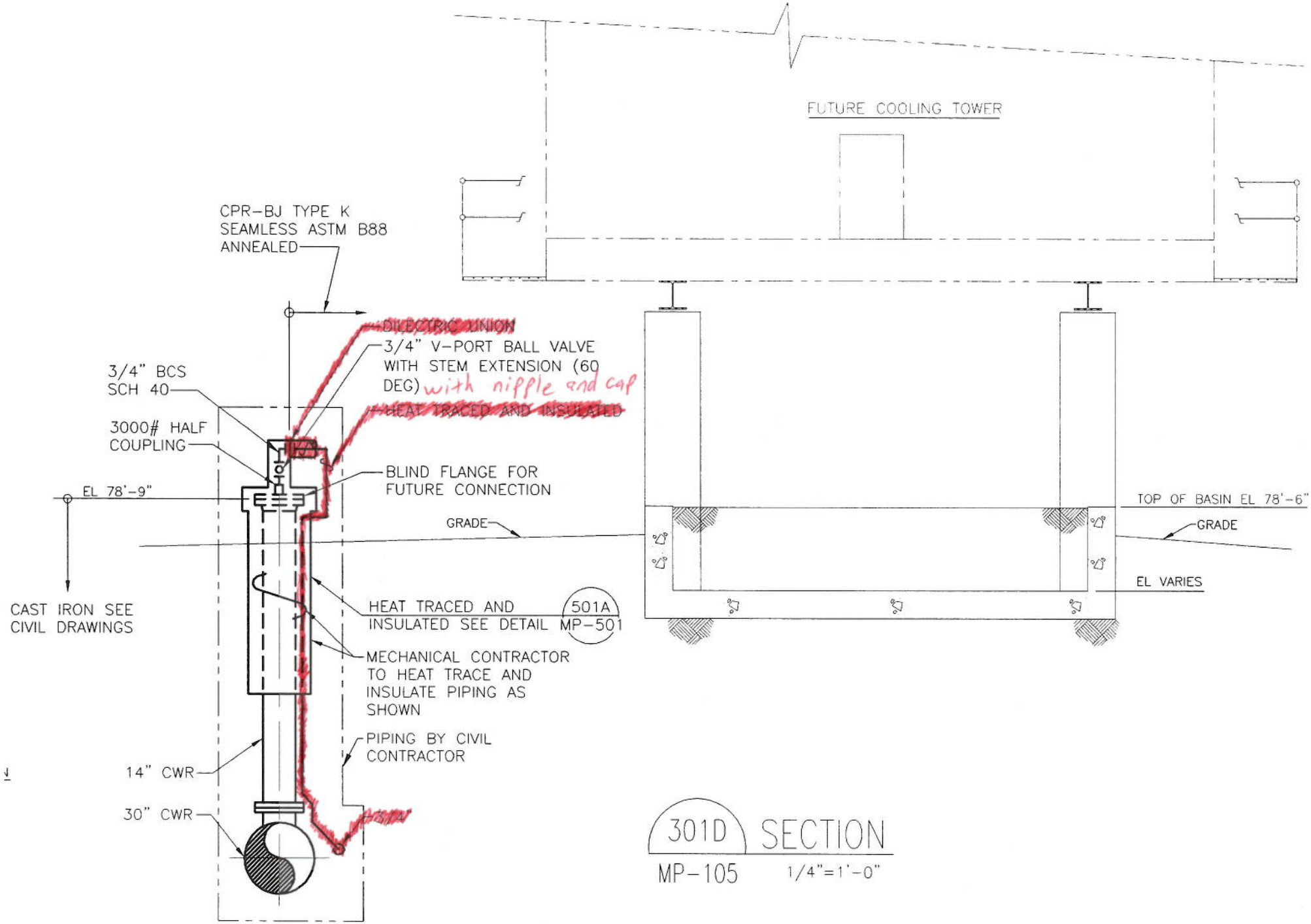
MECHANICAL HEAT TRACING SCHEDULE

SERVICE / PIPE SYSTEM ID	ABBREVIATION	LOCATION	NOMINAL PIPE SIZE (IN)	PIPE MATERIAL	THERMAL INSULATION THICKNESS (IN)	INSULATION TYPE	TEMP TO MAINTAIN (°F)	HEAT LOSS (W/FT)	HAZARD AREA	HTCP CONTROL PANEL NO.	REFERENCE DRAWING NUMBER	REMARKS
CONDENSER WATER ABOVE GRADE	CWR	COOLING TOWER	14	CARBON STEEL	1.0	PHENOLIC FOAM	50	12.84	ORDINARY	HTCP-2	MP-301	
CONDENSER WATER BELOW GRADE	CWR	COOLING TOWER	14	CARBON STEEL	1.0	PHENOLIC FOAM	50	12.84	ORDINARY	HTCP-2	MP-301	
~~CONDENSER WATER BLEED~~	~~CWR~~	~~COOLING TOWER~~	~~3/4~~	~~COPPER~~	~~1.0~~	~~PHENOLIC FOAM~~	~~50~~	~~1.62~~	~~ORDINARY~~	~~HTCP-2~~	~~MP-301~~	



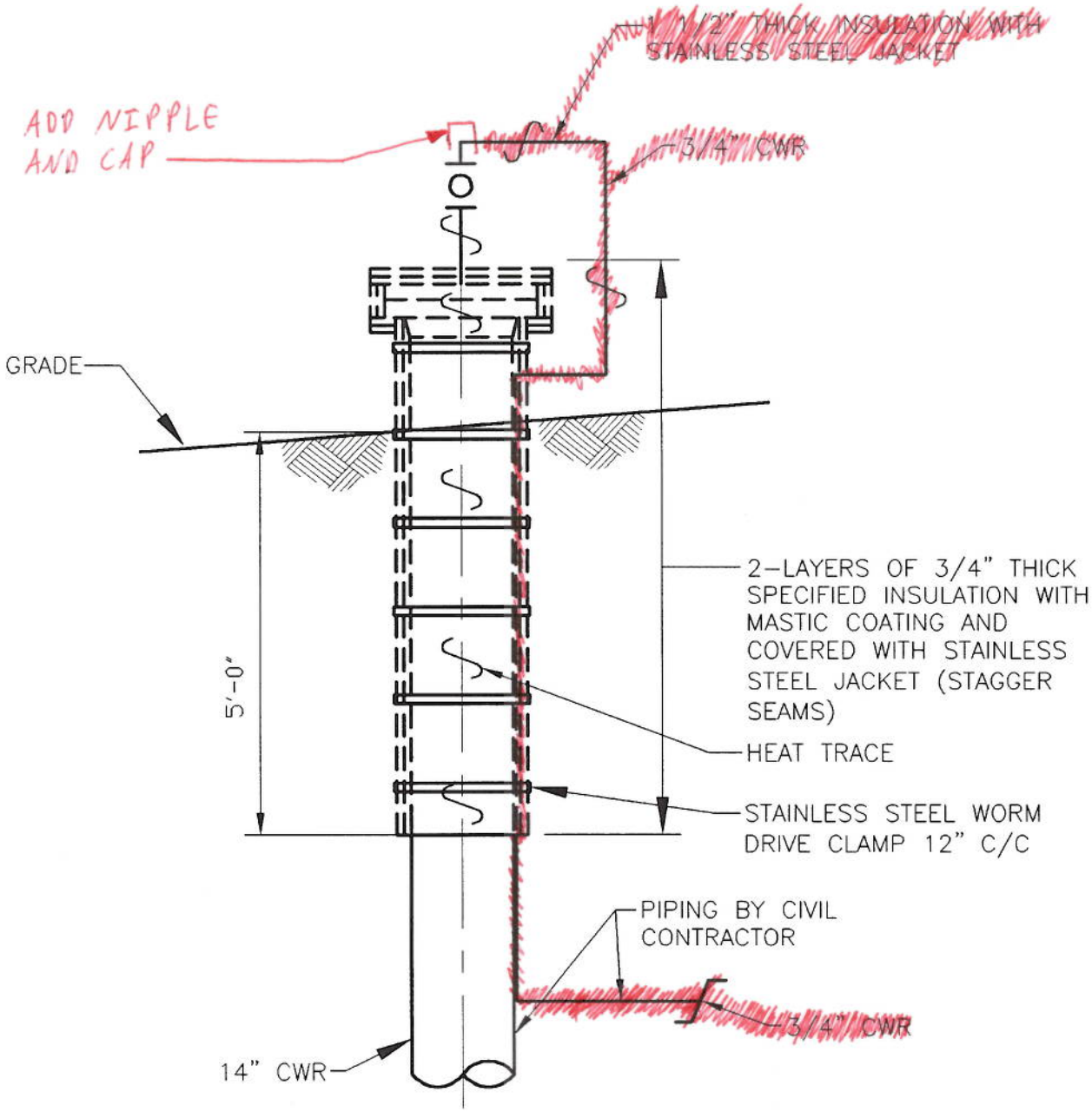
BUILDING 600
6" SAN
30" CWR
42" CWS
301A MP-301
6" SAN
30" CWR
4" SONOXIDE DISCHARGE-PVC SCH 80
501D SEE DETAIL MP-501
301B MP-301
PIPE SUPPORT USE PRE-ENGINEERED CHANNEL 1 5/8"X1 5/8" 12 GAUGE WITH PIPE CLAMP, 2-1/2" DIA EXPAISION ANCHORS AND PS-7 GALVANIZED (TYP 3)
TERMINATE VERTICAL PIPE OPEN ENDED AT ELEVATION 70'-0"
501N SEE DETAIL MP-501 SIM
301C MP-301
N 98535.33 E 100362.08
501D SEE DETAIL MP-501
MOV 714 14" TOWER BY-PASS DIRECTLY UNDER MOV-716
UNDERGROUND PIPING BY CIVIL CONTRACTOR SEE DRAWING CE-03 AND SPEC SECTION 15100, 15105 AND 15110
501A SEE DETAIL MP-501
301D SIMILAR MP-301
30" CWR
501A SEE DETAIL MP-501
301D SIMILAR MP-301
UNDERGROUND PIPING SEE CIVIL DRAWINGS
501A SEE DETAIL MP-501
301D MP-301
30" CWR
N 98492.92 E 100362.33
14" CWR WITH BLIND FLANGE FOR FUT CONNECTION-HEAT TRACED AND INSULATED
BASIN OVERFLOW
4" PVC SCH 80
14" CWR
MOV 715
MOV 716
3/4" CWR
14" CWR
WITH BLIND FLANGE FOR SPARE
FCV 800
PG-103
BASIN HEATER
PS-6
PS-109
2"
PA-101
PS-107
CTC 6
CTC 5
304 SST 18 GAUGE SPLASH GUARD
14" CWR
20" CWS-304 SST SCH 10
WEAR PLATE 48" X 48" 18 GAUGE 304 SST WITH 1/2" SST ANCHOR BOLTS MIN 6" EMBEADMENT-HILTI "HAV" (TYP 4)
HEAT REACE AND INSULATE 3/4" CWR - EACH PIPE ON SEPRATE CIRCUIT
14" CWR
2"
FCV 801
PA-104
14" TOWER BY-PASS
HTCP 2
3/4" CWR-UNDERGROUND
MOUNT HTCP-2 FROM TOWER CONCRETE COL WITH GALVANIZED STEEL AS REQUIRED MOUNTING HEIGHT PER CODE
3/4" CWR
14" CWR WITH BLIND FLANGE FOR FUT CONNECTION-HEAT TRACED IN INSULATED
3/4" CWR-UNDERGROUND
3/4" CWR
3/4" CWR-UNDERGROUND
14" CWR WITH BLIND FLANGE FOR FUT CONNECTION-HEAT TRACED AND INSULATED
3/4" CWR-UNDERGROUND
3/4" CWR
FUTURE
CTC 7
FUTURE COOLING TOWER
FUTURE
CTC 8
FUTURE COOLING TOWER
FUTURE
CTC 9
H
J
K


HANDRAIL BY TOWER MFR
TOP OF EXISTING TOWER HOT WELL
CTC 6
ACCESS DOOR BOTH ENDS
HANDRAIL
HEAT TRACED AND INSULATED
PLATFORM
FCV 801
MOV 716
MOV 714
M
HANDRAIL
PLATFORM
BASIN EL 86'-6"
PA-101
EL 84'-4"
BY MECHANICAL CONTRACTOR
14" CWR
CPR-BJ TYPE K SEAMLESS ASTM B88 ANNEALED
20" CWS-304 SST SCH 10
14" TOWER BY-PASS
PA-104
PAINT BARE PIPE PER SPEC 09900
EL 80'-1 1/2"
14" TOWER BY-PASS
EL 78'-9"
GRADE
2"
2"
TOP OF BASIN EL 78'-6"
GRADE
304 SST 18 GAUGE WEAR PLATE
PAINT BARE PIPE PER SPEC 09900
EL VARIES
CAST IRON SEE CIVIL DRAWINGS
304 SST SCH 40
PS-107
45 DEG ELBOW GROOVED END FITTING
MECHANICAL CONTRACTOR TO HEAT TRACE AND INSULATE PIPING AS SHOWN
HEAT TRACED AND INSULATED SEE DETAIL MP-50
501D
PIPING BY CIVIL CONTRACTOR
30" CWR
301C SECTION
MP-105 1/4"=1'-0"
LEGEND
Giffels, Partnership
25200 Telegraph Road, Suite 200
Southfield, Michigan 48033 USA
Tel. 248-936-8000
Fax 248-936-8111
Approved By
Project Manag
Project Engine
Project No.



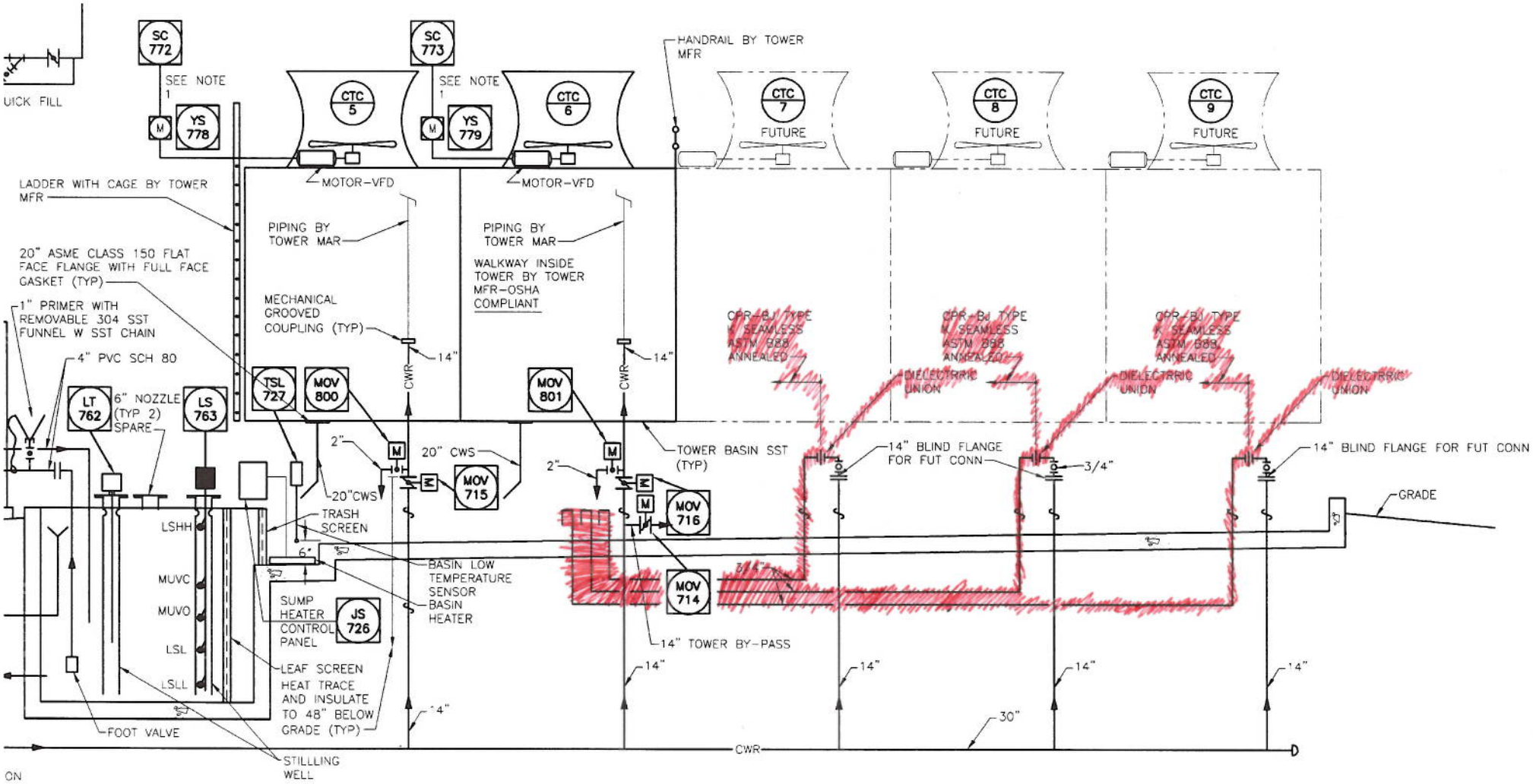
301D SECTION

MP-105 1/4"=1'-0"



501A DETAIL

MP-105 1/2" = 1'-0"


UICK FILL
SC 772
SEE NOTE 1
YS 778
SC 773
SEE NOTE 1
YS 779
CTC 5
CTC 6
CTC 7
FUTURE
CTC 8
FUTURE
CTC 9
FUTURE
HANDRAIL BY TOWER MFR
MOTOR-VFD
MOTOR-VFD
LADDER WITH CAGE BY TOWER MFR
PIPING BY TOWER MAR
PIPING BY TOWER MAR
WALKWAY INSIDE TOWER BY TOWER MFR-OSHA COMPLIANT
20" ASME CLASS 150 FLAT FACE FLANGE WITH FULL FACE GASKET (TYP)
1" PRIMER WITH REMOVABLE 304 SST FUNNEL W SST CHAIN
MECHANICAL GROOVED COUPLING (TYP)
4" PVC SCH 80
LT 762
6" NOZZLE (TYP 2) SPARE
LS 763
TSL 727
MOV 800
MOV 801
14"
CWR
CPR-BJ TYPE W SEAMLESS ASTM 888 ANNEALED
DIELECTRIC UNION
2"
20" CWS
MOV 715
MOV 716
MOV 714
TOWER BASIN SST (TYP)
14" BLIND FLANGE FOR FUT CONN
3/4"
GRADE
20"CWS
TRASH SCREEN
LSHH
MUVC
MUVO
LSL
LSLL
6"
BASIN LOW TEMPERATURE SENSOR
BASIN HEATER
SUMP HEATER CONTROL PANEL
JS 726
14" TOWER BY-PASS
LEAF SCREEN
HEAT TRACE AND INSULATE TO 48" BELOW GRADE (TYP)
FOOT VALVE
STILLLING WELL
30"
ON