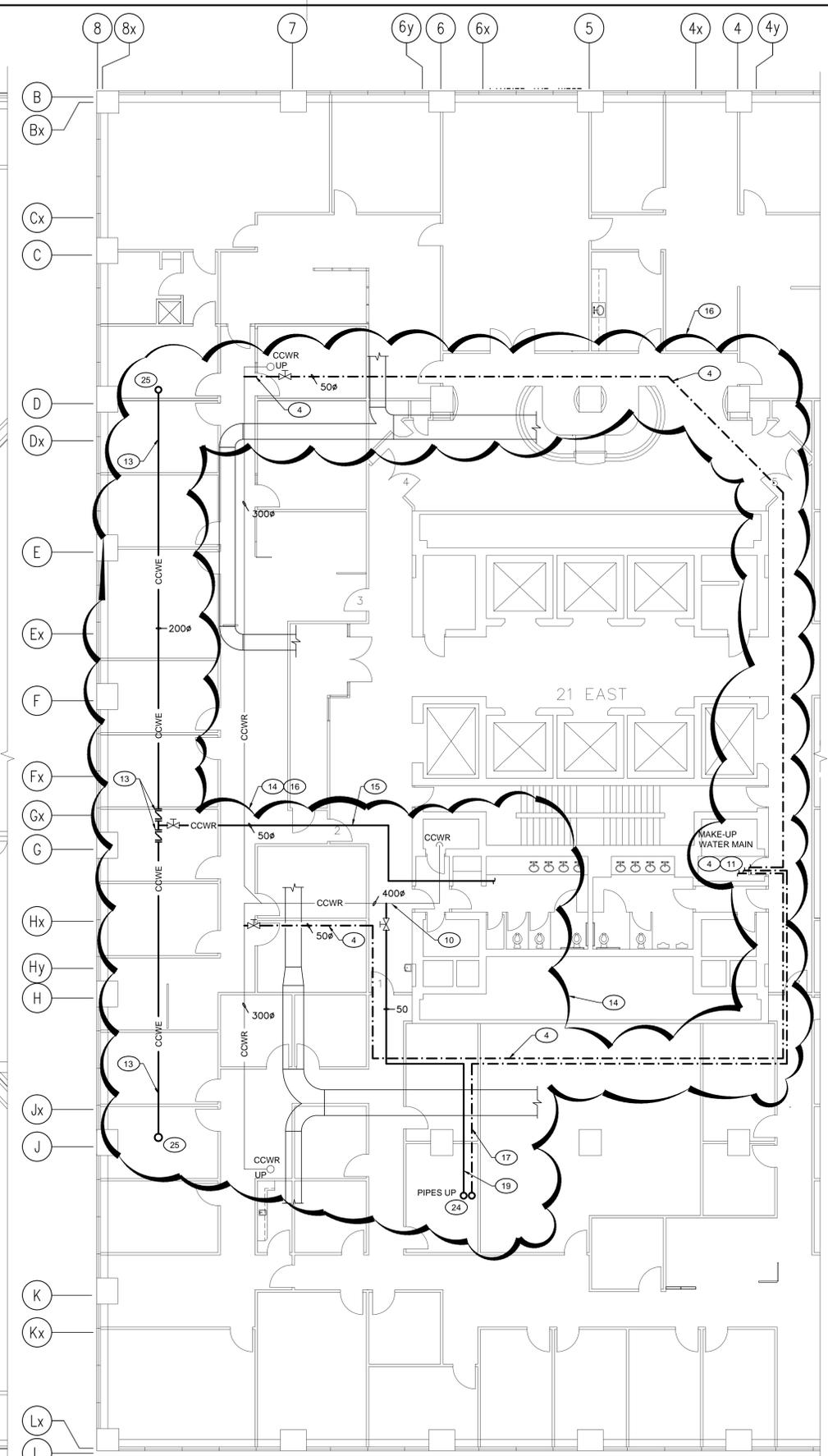


1 NORTH AND SOUTH COOLING TOWERS WELLS - 22nd FLOOR - NEW
M03 SCALE 1:100



2 PIPING LAYOUT - PARTIAL 21st FLOOR PLAN - NEW
M03 SCALE 1:100

GENERAL NOTES

- FOR PIPE SIZES, VALVES AND TRIM LOCATION, REFER TO DETAIL '1' OF DRAWING 'M04' FOR DETAILS.

DRAWING NOTES

- NEW COOLING TOWERS CT-1, CT-1A, CT-2 AND CT-2A. PAY ATTENTION TO STRUCTURAL CONCRETE BEAMS ABOVE DURING HOISTING PROCEDURE. TEMPORARY EQUIPMENT SETTING AND RELOCATION WILL BE REQUIRED TO ACCOMMODATE EQUIPMENT WITHIN THE SPACE. PROVIDE FOR REVIEW SITE SPECIFIC SKETCHES AND PROCEDURE FOR EQUIPMENT PLACING. CONNECT CONDENSER COOLING WATER SUPPLY AND RETURN PIPING. MAKE-UP WATER PIPING AS RECOMMENDED BY MANUFACTURER. EXTEND POWER SUPPLY AND CONNECT ALL COMPONENTS. SEE ELECTRICAL DRAWINGS FOR DETAILS. TYPICAL.
- SEE STRUCTURAL DRAWINGS FOR COOLING TOWERS SUPPORT AND OVERHEAD PIPING SUPPLEMENTARY SUPPORT SYSTEM. TYPICAL.
- EXTEND CONDENSER COOLING WATER SUPPLY AND RETURN LINE FROM BUTTERFLY VALVES INSTALLED DURING EXISTING TOWERS DEMOLITION STAGE. FOR PIPE SIZES, VALVES AND TRIM ARRANGEMENT, SEE DETAIL '1' OF DRAWING 'M04' FOR DETAILS.
- EXTEND AND CONNECT TO NEW TOWERS EXISTING MAKE-UP WATER PIPE. FOR PIPE SIZES, VALVES AND TRIM ARRANGEMENT, SEE DETAIL '1' OF DRAWING 'M04' FOR DETAILS.
- REFER TO ARCHITECTURAL DRAWINGS FOR COMPLETE ROOF WORK AND GENERAL SCOPE OF WORK. TYPICAL.
- APPROXIMATE LOCATION OF FILTER, CHEMICAL TREATMENT AND MAKE-UP WATER STATION. ALONG WITH EQUIPMENT SHOP DRAWINGS SUBMITTAL PROVIDE SITE SPECIFIC PROPOSED EQUIPMENT LAYOUT AND PIPING ARRANGEMENT FOR REVIEW AND APPROVAL.
- WATER FEED PIPE SUPPLY TO THE COOLING TOWERS.
- CONDENSER COOLING WATER FEED PIPE RETURN FROM COOLING TOWERS.
- CONFIRM SITE CONDITIONS AND EQUIPMENT MEASUREMENTS TO ASSURE SAME WATER LEVEL IN ALL COOLING TOWERS. PERFORM ANY CORRECTIVE MEASURES BEFORE PLACEMENT AND INSTALLATION OF COOLING TOWERS. AFTER COOLING TOWERS ARE POSITIONED, PIPE INSTALLATION COMPLETED AND WATER LEVEL IN SUMPS ESTABLISHED, PROVIDE SITE SPECIFIC ELEVATION AND WATER LEVEL DATA FOR ALL TOWERS. CONFIRM WATER LEVEL IS EQUAL IN ALL TOWERS. INCLUDE DATA RECORDS IN O&M MANUALS.
- 400Ø MAIN 'CCWR' AND 'CCWS'. PROVIDE 50mm Ø PIPE TAKE-OFF CONNECTIONS WITH VALVE AND EXTEND TO FILTER AND CHEMICAL SYSTEM.
- EXISTING WATER MAIN WITH WATER METER ASSEMBLY AND BRANCH LINES WITH MOTORIZED VALVES FOR MAKE-UP WATER. RE-ARRANGE PIPE ASSEMBLY. PROVIDE 75mm DIAMETER 'BPP' AND PIPE HEADER WITH COOLING TOWER MAKE-UP WATER TAKE-OFFS, (INCLUDING MOTORIZED VALVE, SHUT-OFF VALVE AND BY-PASS LINE) FOR COOLING TOWER MAKE-UP WATER TAKE-OFF INCLUDING SHUT-OFF VALVE FOR FILTRATION BACKWASH.
- DROP PIPE (CCWE) DOWN THROUGH SLAB. PROVIDE PIPE SLEEVE. MAINTAIN CONTINUOUS WEATHER / WATER SEAL AT ROOF PENETRATION.
- RUN EQUALISATION LINE (CCWE) BETWEEN NORTH AND SOUTH TOWERS. PIPE AND ISOLATING VALVES INSTALLED IN CEILING SPACE OF 21st FLOOR.
- REMOVE AND REINSTATE EXISTING CEILING TO ALLOW, SERVICE AND EQUALISATION PIPES INSTALLATION.
- SERVICE DRAIN LINE AND VALVE. EXTEND PIPE TO WOMEN'S WASHROOM CEILING SPACE. PROVIDE EXPLORATORY OPENING APPROXIMATELY 600 x 1500mm IN PIPE CHASE AND CONNECT DRAIN TO SANITARY STACK.
- ALL WORK ON 21st FLOOR AND IN CEILING SPACE TO BE DONE BETWEEN FRIDAY 18:00 AND SUNDAY MIDNIGHT. CONTRACTOR TO BE RESPONSIBLE FOR OFFICE FURNITURE RELOCATION AND PROTECTION DURING THE WORK. SPACE HAS TO BE VACANT AND IN SAME CONDITION AFTER COMPLETION OF WORK SHIFT.
- EXTEND 25mm WATER LINE FROM MAIN, THIS FLOOR, AND CONNECT TO FILTER BACKWASH PORT. APPROXIMATELY 60 METERS.
- 50mm FILTRATION AND CHEMICAL TREATMENT LINES. RUN PIPE ROUTING AS SHOWN IN CEILING SPACE.
- PROVIDE A NEW 50mm DISCHARGE PIPE FROM FILTER AND CHEMICAL TREATMENT TO CONDENSER COOLING WATER RETURN MAIN, ROUTING AS SHOWN.
- PIPES DOWN THROUGH SLAB. REUSE EXISTING SLEEVE.
- EXTEND 50mm PIPE FROM NEW FILTER UNIT. PROVIDE BRANCH-OFF TO CHEMICAL FEED SYSTEM. REPLACE ALL 'PVC' PIPES FOR CHEMICAL TREATMENT.
- APPROXIMATE LOCATION FOR COOLING TOWER 'VFD' AND CONTROL PANEL. PROVIDE STRUCTURAL ALL WELDED FRAME FOR SUPPORT.
- 50mm PIPE FOR FILTRATION AND CHEMICAL TREATMENT AND 25mm MAKE-UP WATER. PROVIDE NEW SHUT-OFF VALVES. (QUANTITY OF 3). SHUT-OFF VALVES ARE APPROXIMATE DEMARCATION POINTS FOR TERMINATION OF 'TURN KEY' FILTER AND CHEMICAL TREATMENT PACKAGE.
- PIPE UP THROUGH SLAB TO FILTER AND CHEMICAL TREATMENT SYSTEM.
- EQUALISATION LINE PIPE UP TO COOLING TOWER WELL.
- OUTLINE OF CONCRETE STRUCTURAL BEAMS ABOVE. PAY ATTENTION TO OVERHEAD OBSTRUCTION DURING NEW EQUIPMENT HOISTING. TYPICAL.
- RUN ON THE FLOOR DRAIN PIPE FROM FILTER UNIT. TERMINATE DRAIN IN EXISTING 100mm FUNNEL FLOOR DRAIN.



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Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

revisions	description	date
01	ISSUED FOR TENDER	30-07-13

L'ESPLANADE LAURIER COOLING TOWERS REPLACEMENT

140 O'CONNOR ST., OTTAWA (ONTARIO)

NEW WORK, NORTH AND SOUTH TOWER WELLS

Designed By	C.MODRAK	Conçu par
Date	2012/12/12	(yyyy/mm/dd)
Drawn By	G.TREMBLAY	Dessiné par
Date	2012/12/12	(yyyy/mm/dd)
Reviewed By	D.ROY	Examiné par
Date	2013/01/30	(yyyy/mm/dd)
Approved By	D.ROY	Approuvé par
Date	2013/01/30	(yyyy/mm/dd)
Tender	DAVID RUETER	Soumission
Project Manager	Administrateur de projets	
Project no.	No. du projet	

R.049987.003
 Drawing no. No. du dessin
M03

Drawing name: K:\A\000135 - L'Esplanade Laurier - Cooling Tower Replacement\M00135 - Cooling Towers\M03 - New.dwg Jul 30, 2013 - 4:24pm