

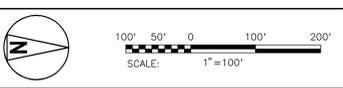
EXISTING FACILITIES LEGEND		
ID	FACILITY	
A	UNIT 1	
B	UNIT 2	
C	UNIT 3	
D	UNIT 4	
E	UNIT 2 COOLING TOWER	
F	UNIT 3 COOLING TOWER	
G	UNIT 4 COOLING TOWER	
H	DEWATERING FACILITY	
I	COAL YARD	
J	WAREHOUSE AND LOADING DOCK	
K	UNIT 1 & 2 AUX BOILER BUILDING	TO BE DEMOLISHED
L	UNIT 4 AUX BOILER BUILDING	
M	ANNEX BUILDING	
N	SAMPLE LAB	
O	AMMONIA STORAGE FACILITY	TO BE RELOCATED - SEE ITEM 1
P	UNIT 1/2 345KV OVERHEAD TRANSMISSION LINE	TO BE RELOCATED - SEE ITEM 2
Q	UNIT 3/4 345KV OVERHEAD TRANSMISSION LINE	TO BE RELOCATED - SEE ITEM 3
R	SUBSTATION	
S	UNIT 4 AQCS SWITCHGEAR BLDG	TO BE USED FOR UNIT 3
T	THICKENER BASE	FOR DEMOLISHED
U	EAST ASH SILO	FOR SALEABLE ASH
V	WEST ASH SILO	FOR WASTE ASH

NEW FACILITIES LEGEND		
ID	FACILITY	REMARKS
1	RELOCATED AMMONIA STORAGE FACILITY	
2	AMMONIA STORAGE ELECTRICAL BUILDING	
3	RELOCATED UNIT 1/2 345KV TRANSMISSION LINE	
4	RELOCATED UNIT 3/4 345KV TRANSMISSION LINE	
5	NEW WASTE ASH STORAGE SILO	

- NOTES:**
- SCALE IS APPROXIMATE. EXISTING SITE WAS TRACED FROM LG&E DRAWINGS 317295-S202, REV V, AND 317273-S201, REV G.
  - REFER TO SITE ARRANGEMENT DRAWINGS MCDS-1001 AND MCDS-1002A FOR ADDITIONAL DETAIL.
  - ITEM K (UNIT 1 AND 2 AUX BOILER BUILDING) WILL NOT BE REPLACED.

03/27/11 16:42:16  
 03/27/11 E1  
 16:18 (LMS Tech)  
 ACO

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
B	01/MAR/11	ISSUED FOR CLIENT REVIEW	PRF	MEH	MEH		
A	10/FEB/11	ISSUED FOR IN-HOUSE REVIEW	PRF	MEH	MEH		



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CORPORATION

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CHECKED: DATE

LG&E/KU - MILL CREEK STATION  
PHASE II: AIR QUALITY CONTROL STUDY

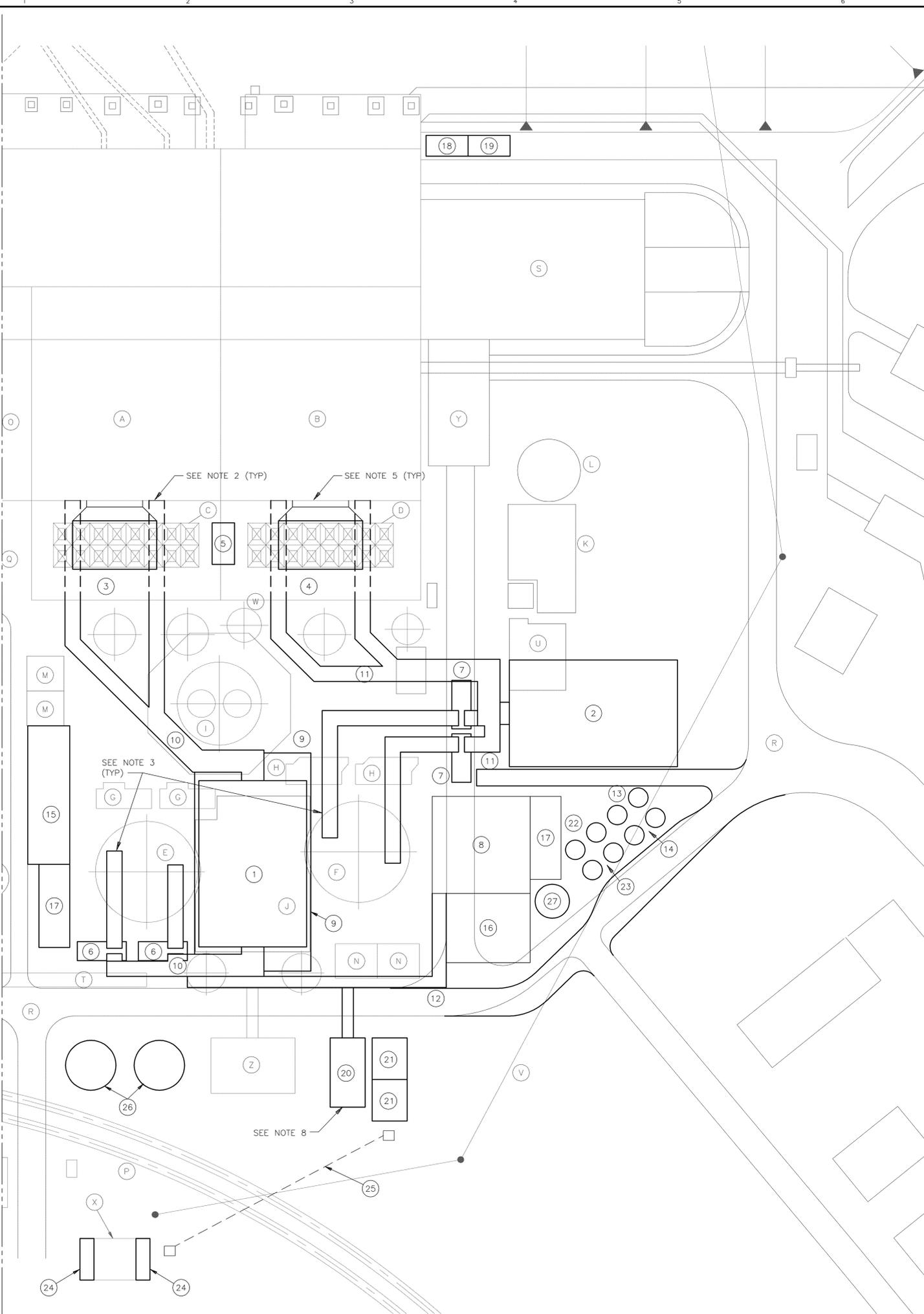
SITE PLOT PLAN  
ARRANGEMENT A

PROJECT	DRAWING NUMBER	REV
168908-MCDS-1000A		B
CODE	AREA	

**NOT TO BE USED FOR CONSTRUCTION**

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EXISTING FACILITIES LEGEND		
ID	FACILITY	REMARKS
A	UNIT 1 BOILER	
B	UNIT 2 BOILER	
C	UNIT 1 ELECTROSTATIC PRECIPITATOR	TO BE DEMOLISHED
D	UNIT 2 ELECTROSTATIC PRECIPITATOR	TO BE DEMOLISHED
E	UNIT 1 WET SCRUBBER	
F	UNIT 2 WET SCRUBBER	
G	UNIT 1 BOOSTER FANS	TO BE BYPASSED
H	UNIT 2 BOOSTER FANS	TO BE BYPASSED
I	UNIT 1 & 2 COMMON CHIMNEY	
J	SDRS BUILDING	BENEATH NEW PJFF
K	WATER TREATMENT BUILDING	
L	DEMINEALIZATION WATER TANK	
M	STATION RESERVE AUX TRANSFORMERS	
N	UNIT 1/UNIT 2 SCRUBBER TRANSFORMERS	
O	ADMINISTRATION BUILDING	
P	COAL DELIVERY RAIL LOOP	
Q	COAL CONVEYOR	
R	PLANT ROADS	
S	WAREHOUSE	
T	FLY ASH/REAGENT PIPERACK	
U	UNIT 1 & 2 AUX BOILER BUILDING	TO BE DEMOLISHED
V	UNIT 1 & 2 345KV OVERHEAD TRANSMISSION LINE	TO BE RELOCATED
W	UNIT 1 & 2 FLY ASH TRANSFER TANK	TO BE USED FOR UNIT 1
X	14KV SUBSTATION	IN SWITCHYARD, LOCATION APPROXIMATE
Y	WAREHOUSE LOADING DOCK	
Z	UNIT 1 & 2 OXIDATION BUILDING	

NEW FACILITIES LEGEND		
ID	FACILITY	REMARKS
1	UNIT 1 PULSE JET FABRIC FILTER (PJFF)	
2	UNIT 2 PULSE JET FABRIC FILTER (PJFF)	
3	UNIT 1 SCR	
4	UNIT 2 SCR	
5	UNIT 1/2 SCR POWER DISTRIBUTION CENTER	
6	UNIT 1 ID FANS	
7	UNIT 2 ID FANS	
8	UNIT 2 FLY ASH TRANSFER EQUIPMENT AREA	
9	UNIT 1 PJFF SUPPORT SUPERSTRUCTURE	SPANS SDRS BLDG
10	UNIT 1 EXHAUST DUCTWORK	
11	UNIT 2 EXHAUST DUCTWORK	
12	EXTENDED FLY ASH/REAGENT PIPERACK	
13	UNIT 1 PAC SILOS AND TRANSFER EQUIPMENT	
14	UNIT 2 PAC SILOS AND TRANSFER EQUIPMENT	
15	UNIT 1 AQC ELECTRICAL BUILDING	
16	UNIT 2 AND COMMON AQC ELECTRICAL BUILDING	
17	FAN VARIABLE FREQUENCY DRIVE	
18	UNIT 1 AQC MAIN AUXILIARY TRANSFORMER	
19	UNIT 2 AQC MAIN AUXILIARY TRANSFORMER	
20	AQC RESERVE SWITCHGEAR ENCLOSURE	
21	AQC RESERVE AUXILIARY TRANSFORMER	
22	UNIT 1 SORBENT SILOS AND TRANSFER EQUIPMENT	
23	UNIT 2 SORBENT SILOS AND TRANSFER EQUIPMENT	
24	14KV CIRCUIT BREAKER EXPANSION	
25	ELECTRICAL DUCTBANK AND MANHOLES	
26	FIRE WATER TANKS	
27	UNIT 2 FLY ASH TRANSFER TANK	

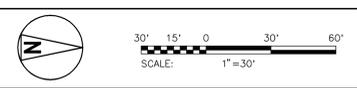
- NOTES:
- SCALE IS APPROXIMATE. EXISTING SITE WAS TRACED FROM LGE DRAWING 317295-S202, REV U.
  - EXISTING ID FANS (INSIDE POWERBLOCK) AND BOOSTER FANS WILL BE BYPASSED WITH NEW DUCTWORK EXTENDED FROM AIRHEATER TO DOWNSTREAM AQC.
  - NEW AQC'S DUCTWORK WILL BE TIED INTO EXISTING DUCTWORK INLETS AT RETURBISHED SCRUBBER.
  - NO NEW ESP IS PLANNED AT EITHER UNIT 1 OR UNIT 2.
  - AFTER NEW PJFF IS INSTALLED AT EACH UNIT, EXISTING ESP WILL BE BYPASSED AND DEMOLISHED. NEW SCR WILL BE INSTALLED IN ITS PLACE AND TIED INTO EXISTING DUCTWORK UPSTREAM OF AIRHEATER.
  - EXISTING DUCTWORK DOWNSTREAM OF SCRUBBERS INTO COMMON CHIMNEY WILL BE LEFT UNDISTURBED TO THE EXTENT PRACTICAL. EXISTING DUCTWORK DOWNSTREAM OF SCRUBBERS IS NOT SHOWN FOR CLARITY.
  - SIZE OF SCRS AND PJFFS TO BE CONFIRMED DURING DETAILED DESIGN.
  - ROUTE DUCTBANK TO EXISTING 14KV SUBSTATION ENCLOSURE.

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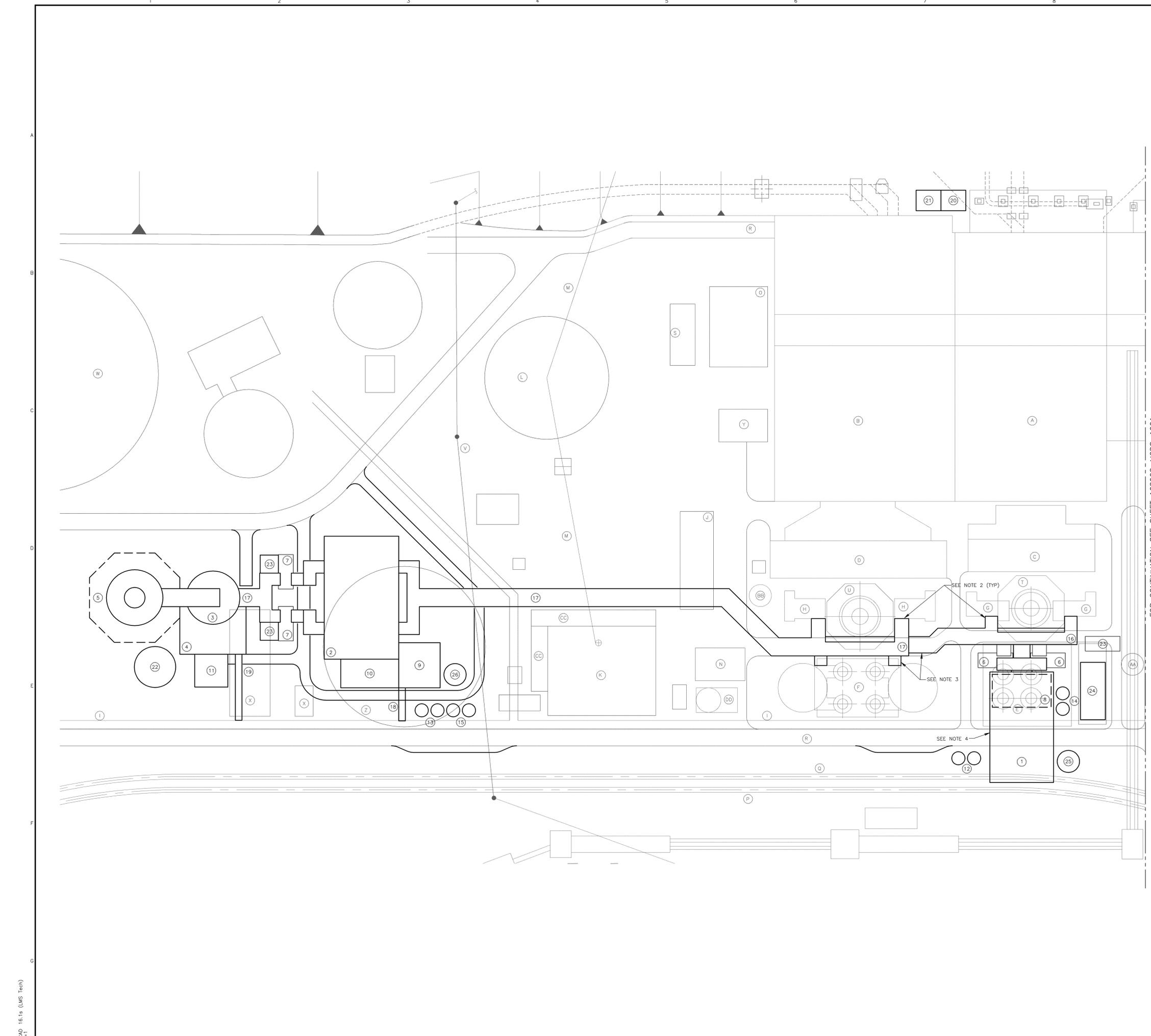
168908-MCDS-1002  
 03/10/11 16:42:05  
 E1  
 (LMS Tech)  
 16.1b  
 ACO

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
B	10/FEB/11	ISSUED FOR CLIENT REVIEW	PRF	MEH	MEH		
A	17/JAN/11	ISSUED FOR IN-HOUSE REVIEW	SRS	MEH	MEH		



<b>BLACK &amp; VEATCH CORPORATION</b>	
DRAWN	SRS
CHECKED	DATE

<b>LG&amp;E/KU - MILL CREEK STATION</b> PHASE II: AIR QUALITY CONTROL STUDY		PROJECT <b>168908-MCDS-1001</b>	DRAWING NUMBER <b>168908-MCDS-1001</b>	REV <b>B</b>
SITE ARRANGEMENT UNIT 1 AND UNIT 2		CODE	AREA	



EXISTING FACILITIES LEGEND		
ID	FACILITY	REMARKS
A	UNIT 3 BOILER	
B	UNIT 4 BOILER	
C	UNIT 3 ELECTROSTATIC PRECIPITATOR	
D	UNIT 4 ELECTROSTATIC PRECIPITATOR	
E	UNIT 3 WET SCRUBBER	TO BE DEMOLISHED
F	UNIT 4 WET SCRUBBER	TO BE USED FOR UNIT 3
G	UNIT 3 ID FANS	
H	UNIT 4 ID FANS	
I	FLY ASH/REAGENT PIPERACK	
J	UNIT 4 AQCS SWITCHGEAR BUILDING	TO BE USED FOR UNIT 3
K	REAGENT PREPARATION BUILDING	
L	LIMESTONE PILE	
M	LIMESTONE CONVEYOR	
N	OXIDATION BUILDING	
O	ANNEX BUILDING	
P	COAL DELIVERY RAIL LOOP	
Q	OUTSIDE RAIL LOOP	TO BE DEMOLISHED IF REQUIRED
R	PLANT ROADS	
S	SAMPLE LAB	
T	UNIT 3 CHIMNEY	TO BE ABANDONED IN PLACE
U	UNIT 4 CHIMNEY	TO BE USED FOR UNIT 3
V	UNIT 3 & 4 345KV OVERHEAD TRANSMISSION LINE	TO BE RELOCATED
W	UNIT 4 COOLING TOWER	
X	AMMONIA STORAGE FACILITY	TO BE RELOCATED
Y	UNIT 4 AUX BOILER BUILDING	
Z	THICKENER BASE	TO BE DEMOLISHED
AA	UNIT 3 FLY ASH TRANSFER TANK	FOR SELLABLE ASH
BB	UNIT 4 FLY ASH TRANSFER TANK	FOR SELLABLE ASH
CC	REAGENT BUILDING ADDITIONS	
DD	UNIT 4 HYDROCYCLONE AND TRANSFER TANK	TO BE USED FOR UNIT 3

NEW FACILITIES LEGEND		
ID	FACILITY	REMARKS
1	UNIT 3 PULSE JET FABRIC FILTER (PJFF)	
2	UNIT 4 PULSE JET FABRIC FILTER (PJFF)	
3	UNIT 4 WFGD MODULE	
4	UNIT 4 WFGD PUMP BUILDING	
5	UNIT 4 CHIMNEY	
6	UNIT 3 BOOSTER FANS	
7	UNIT 4 BOOSTER FANS	
8	UNIT 3 FLY ASH TRANSFER EQUIPMENT AREA	BENEATH PJFF
9	UNIT 4 FLY ASH TRANSFER EQUIPMENT AREA	
10	UNIT 4 AQC ELECTRICAL BUILDING	
11	UNIT 4 WFGD AREA ELECTRICAL BUILDING	
12	UNIT 3 SORBENT SILOS AND TRANSFER EQUIPMENT	
13	UNIT 4 SORBENT SILOS AND TRANSFER EQUIPMENT	
14	UNIT 3 PAC SILOS AND TRANSFER EQUIPMENT	
15	UNIT 4 PAC SILOS AND TRANSFER EQUIPMENT	
16	UNIT 3 EXHAUST DUCT	
17	UNIT 4 EXHAUST DUCT	
18	UNIT 4 FLY ASH PIPERACK	
19	UNIT 4 REAGENT PIPERACK	
20	UNIT 3 AQC MAIN AUXILIARY TRANSFORMER	
21	UNIT 4 AQC MAIN AUXILIARY TRANSFORMER	
22	UNIT 4 HYDROCYCLONE UNDERFLOW TRANSFER TANK	
23	FAN VARIABLE FREQUENCY DRIVE ENCLOSURE	
24	UNIT 3 AQC ELECTRICAL BUILDING	
25	UNIT 3 FLY ASH TRANSFER TANK	FOR WASTE ASH
26	UNIT 4 FLY ASH TRANSFER TANK	FOR WASTE ASH

- NOTES:
- SCALE IS APPROXIMATE. EXISTING SITE WAS TRACED FROM LGE DRAWING 317295-5202, REV U.
  - NEW DUCTWORK WILL BE TIED INTO OUTLET OF EXISTING ID FANS. DUCTWORK UPSTREAM OF EXISTING ID FANS WILL NOT BE MODIFIED AND IS NOT SHOWN FOR CLARITY.
  - NEW DUCTWORK DOWNSTREAM OF UNIT 3 ID FANS WILL BE ROUTED TO THE EXISTING INLET DUCTWORK AT UNIT 4 SCRUBBER. DUCTWORK DOWNSTREAM OF SCRUBBER TO CHIMNEY WILL NOT BE SIGNIFICANTLY MODIFIED AND IS NOT SHOWN FOR CLARITY.
  - AFTER UNIT IS TIED INTO THE UNIT 4 SCRUBBER SYSTEM, THE EXISTING UNIT 3 SCRUBBER WILL BE DEMOLISHED AND THE UNIT 3 PJFF AND BOOSTER FANS INSTALLED. TIE-IN OF THE NEW UNIT 3 PJFF AND BOOSTER FANS WILL THEN BE COMPLETED.
  - SIZE OF PJFFS AND WFGD COMPONENTS TO BE CONFIRMED DURING DETAILED DESIGN.

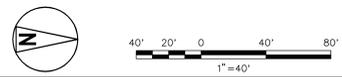
FOR CONTINUATION SEE SHEET 168908-MCDS-1001

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168908-16.1b (LMS Tech)  
 03/20/11 16.4.159

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
B	10/FEB/11	ISSUED FOR CLIENT REVIEW	PRF	MEH	MEH		
A	17/JAN/11	ISSUED FOR IN-HOUSE REVIEW	SRS	MEH	MEH		



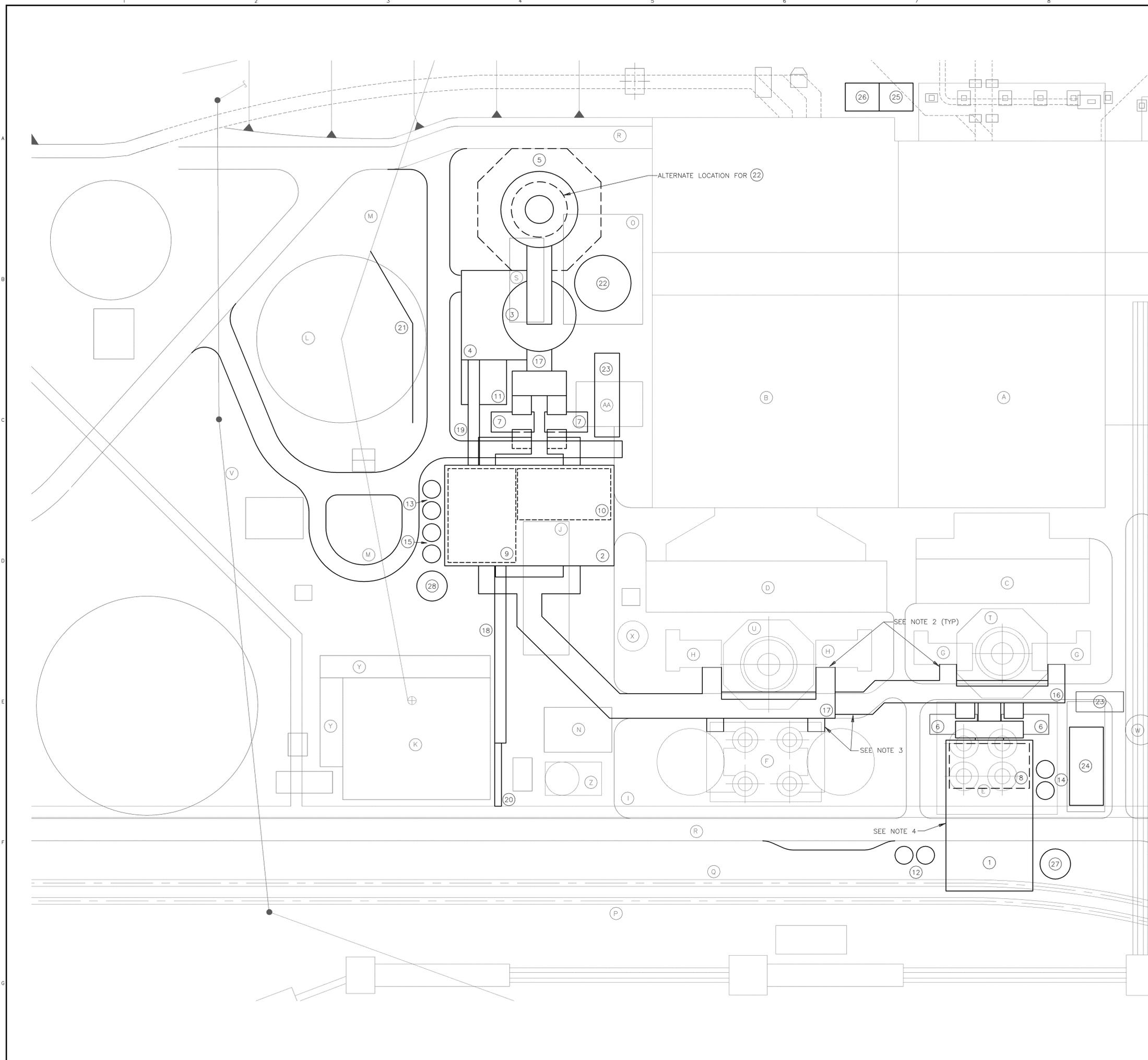
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DRAWN: SRS  
 CHECKED: DATE

**LG&E/KU - MILL CREEK STATION**  
 PHASE II: AIR QUALITY CONTROL STUDY

PROJECT: 168908-MCDS-1002A  
 DRAWING NUMBER: B

**SITE ARRANGEMENT**  
 UNIT 3 AND UNIT 4 ARRANGEMENT A



EXISTING FACILITIES LEGEND		
ID	FACILITY	REMARKS
A	UNIT 3 BOILER	
B	UNIT 4 BOILER	
C	UNIT 3 ELECTROSTATIC PRECIPITATOR	
D	UNIT 4 ELECTROSTATIC PRECIPITATOR	
E	UNIT 3 WET SCRUBBER	TO BE DEMOLISHED
F	UNIT 4 WET SCRUBBER	TO BE USED FOR UNIT 3
G	UNIT 3 ID FANS	
H	UNIT 4 ID FANS	
I	FLY ASH/REAGENT PIPERACK	
J	UNIT 4 AQC SWITCHGEAR BUILDING	TO BE USED FOR UNIT 3
K	REAGENT PREPARATION BUILDING	
L	LIMESTONE PILE	
M	LIMESTONE CONVEYOR	
N	OXIDATION BUILDING	
O	ANNEX BUILDING	TO BE DEMOLISHED OR RELOCATED
P	COAL DELIVERY RAIL LOOP	
Q	OUTSIDE RAIL LOOP	TO BE DEMOLISHED IF REQUIRED
R	PLANT ROADS	
S	SAMPLE LAB	TO BE DEMOLISHED OR RELOCATED
T	UNIT 3 CHIMNEY	TO BE ABANDONED IN PLACE
U	UNIT 4 CHIMNEY	TO BE USED FOR UNIT 3
V	UNIT 3 & 4 345KV OVERHEAD TRANSMISSION LINE	
W	UNIT 3 FLY ASH TRANSFER TANK	FOR SELLABLE ASH
X	UNIT 4 FLY ASH TRANSFER TANK	FOR SELLABLE ASH
Y	REAGENT BUILDING ADDITIONS	
Z	UNIT 4 HYDROCYCLONE AND TRANSFER TANK	TO BE USED BY UNIT 3
AA	UNIT 4 AUX BOILER BUILDING	TO BE DEMOLISHED

NEW FACILITIES LEGEND		
ID	FACILITY	REMARKS
1	UNIT 3 PULSE JET FABRIC FILTER (PJFF)	
2	UNIT 4 PULSE JET FABRIC FILTER (PJFF)	
3	UNIT 4 WFGD MODULE	
4	UNIT 4 WFGD PUMP BUILDING	
5	UNIT 4 CHIMNEY	
6	UNIT 3 BOOSTER FANS	
7	UNIT 4 BOOSTER FANS	
8	UNIT 3 FLY ASH TRANSFER EQUIPMENT AREA	BENEATH PJFF
9	UNIT 4 FLY ASH TRANSFER EQUIPMENT AREA	BENEATH PJFF
10	UNIT 4 AQC ELECTRICAL BUILDING	BENEATH PJFF
11	UNIT 4 WFGD AREA ELECTRICAL BUILDING	
12	UNIT 3 SORBENT SILOS AND TRANSFER EQUIPMENT	
13	UNIT 4 SORBENT DAY BIN	
14	UNIT 3 PAC SILOS AND TRANSFER EQUIPMENT	
15	UNIT 4 PAC SILOS AND TRANSFER EQUIPMENT	
16	UNIT 3 EXHAUST DUCT	
17	UNIT 4 EXHAUST DUCT	
18	UNIT 4 FLY ASH/REAGENT PIPERACK	
19	UNIT 4 REAGENT PIPERACK	
20	UNIT 4 FLY ASH PIPE RACK	
21	RETAINING WALL AT LIMESTONE PILE	
22	UNIT 4 HYDROCYCLONE UNDERFLOW TRANSFER TANK	
23	FAN VARIABLE FREQUENCY DRIVE ENCLOSURE	
24	UNIT 3 AQC ELECTRICAL BUILDING	
25	UNIT 3 AQC MAIN AUXILIARY TRANSFORMER	
26	UNIT 4 AQC MAIN AUXILIARY TRANSFORMER	
27	UNIT 3 FLY ASH TRANSFER TANK	FOR WASTE ASH
28	UNIT 4 FLY ASH TRANSFER TANK	FOR WASTE ASH

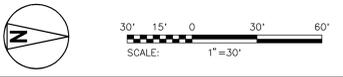
- NOTES:
- SCALE IS APPROXIMATE. EXISTING SITE WAS TRACED FROM LGE DRAWING 317295-S202, REV U.
  - NEW DUCTWORK WILL BE TIED INTO OUTLET OF EXISTING ID FANS. DUCTWORK UPSTREAM OF EXISTING ID FANS WILL NOT BE MODIFIED AND IS NOT SHOWN FOR CLARITY.
  - NEW DUCTWORK DOWNSTREAM OF UNIT 3 ID FANS WILL BE ROUTED TO THE EXISTING INLET DUCTWORK AT UNIT 4 SCRUBBER. DUCTWORK DOWNSTREAM OF SCRUBBER TO CHIMNEY WILL NOT BE SIGNIFICANTLY MODIFIED AND IS NOT SHOWN FOR CLARITY.
  - AFTER UNIT IS TIED INTO THE UNIT 4 SCRUBBER SYSTEM, THE EXISTING UNIT 3 SCRUBBER WILL BE DEMOLISHED AND THE UNIT 3 PJFF AND BOOSTER FANS INSTALLED. TIE-IN OF THE NEW UNIT 3 PJFF AND BOOSTER FANS WILL THEN BE COMPLETED.
  - SIZE OF PJFFS AND WFGD COMPONENTS TO BE CONFIRMED DURING DETAILED DESIGN.

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168908-MCDS-1001  
 03/27/11 16:41:53  
 E1  
 (LMS Tech)  
 16.1b  
 A40

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
B	10/FEB/11	ISSUED FOR CLIENT REVIEW	PRF	MEH	MEH		
A	07/JAN/11	ISSUED FOR IN-HOUSE REVIEW	SRS	MEH	MEH		



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DRAWN: SRS  
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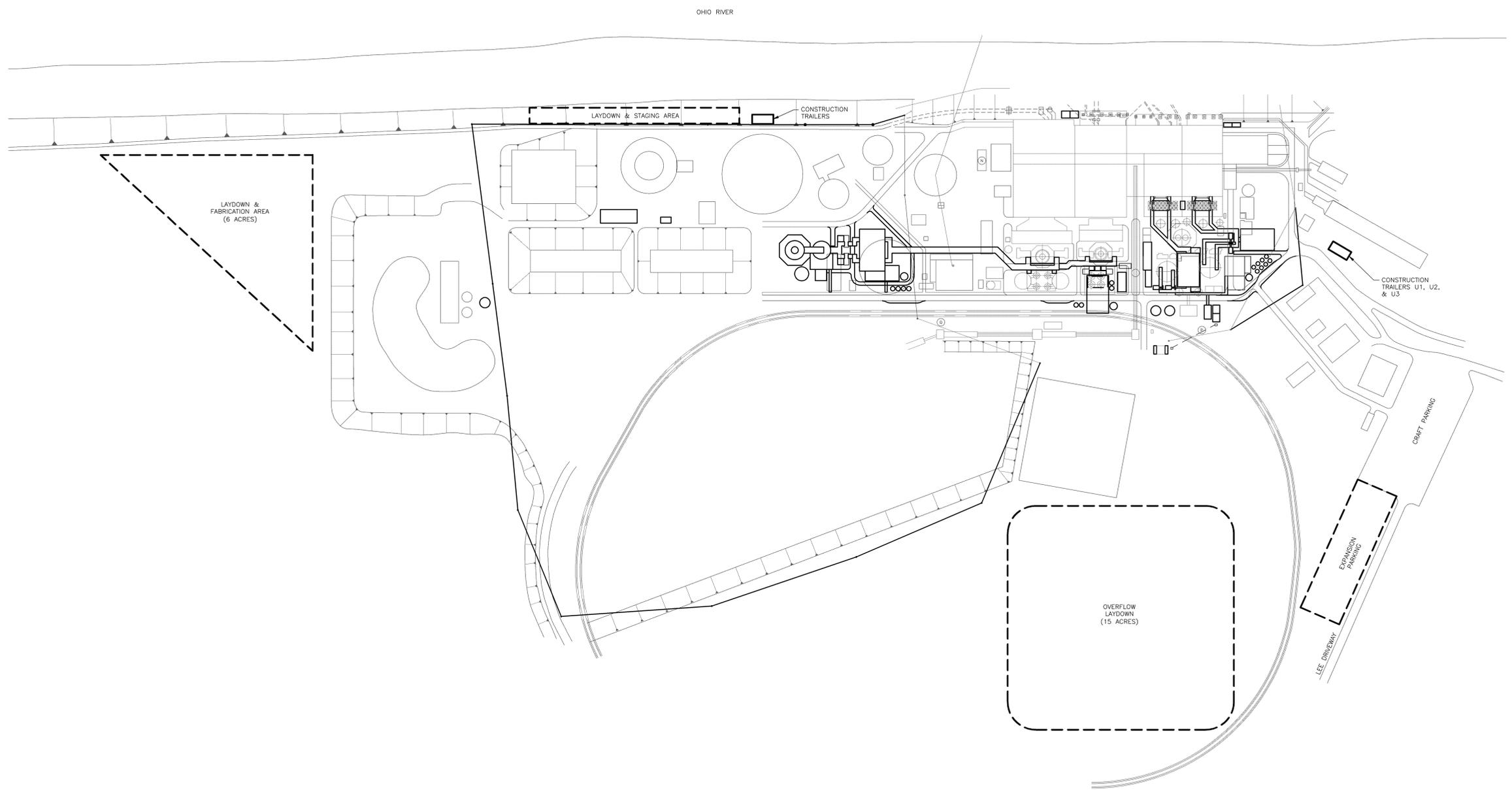
**LG&E/KU - MILL CREEK STATION**  
 PHASE II: AIR QUALITY CONTROL STUDY

PROJECT: 168908-MCDS-1002B  
 DRAWING NUMBER: B

**SITE ARRANGEMENT**  
 UNIT 3 AND UNIT 4 ARRANGEMENT B

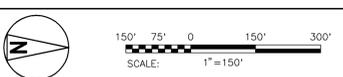
AREA: CODE:

- NOTES:
- SCALE IS APPROXIMATE. EXISTING SITE WAS TRACED FROM LG&E DRAWINGS 317295-5202, REV V, AND 317273-5201, REV G.
  - REFER TO SITE ARRANGEMENT DRAWINGS MCDS-1001 AND MCDS-1002B AND SITE PLOT PLANS MCDS-1000A AND MCDS-1000B FOR ADDITIONAL DETAIL.
  - ARRANGEMENT A SHOWN. CONSTRUCTION FACILITIES FOR ARRANGEMENT B ARE SIMILAR.



16.1b (LMS Tech)  
 03/27/11 16:41:47  
 E1

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
B	03/MAR/11	ISSUED FOR CLIENT REVIEW	PR	PR	RF	FG	
A	28/FEB/11	ISSUED FOR IN-HOUSE REVIEW	PR	PR	RF	FG	



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LG&E/KU - MILL CREEK STATION  
PHASE II: AIR QUALITY CONTROL STUDY

CONSTRUCTION FACILITIES  
PLOT PLAN

PROJECT	DRAWING NUMBER	REV
168908-MCDS-1003		B
CODE	AREA	

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