Schedule WPD-29

Schumacher Consulting LLC,

Area Labor Study

02/15/08

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INDUSTRIAL CONSTRUCTION & TURNAROUND CONSULTANT

Prepared for:

Burns & McDonnell Engineering

Area Labor Study for KCPL Iatan Unit 2 Project

February 15th, 2008

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KCPL Iatan Unit 2 Project
Area Labor Study
Revised February 2008
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1.0 Purpose

The purpose of this report is to provide information used to support management decisions on contracting strategy and techniques for attracting and retaining sufficient critical manpower levels to meet project schedules.

The information which has been assembled herein concludes there is a significant probability that skilled manpower shortages will impact the Iatan project.

Recommendations are suggested in Section 7 in the event certain crafts experience problems with manning.

Information on the following issues is provided;

- Competing projects in the KC local unions jurisdiction
- Total manpower estimated on projects for critical crafts of BM, PF, IW and ELECT
- Craft productivity
- Union craft wage and fringe packages with contract durations
- Total KC union locals membership
- Review of the NMAPC agreement
- Comments concerning jobsite safety

1.1 Competing Projects

A time scheduled bar chart with critical manpower loading is shown on attachment 1. Projects for power, oil refining, auto, ethanol, major commercial are shown that affect the KC local unions.

Also major industrial projects in the St. Louis area are listed for 2008-2010.

The KC metro area has $4.7 billion in major building projects from 2008-mid 2010. This would require 4500 construction crafts on average. A reasonable rule of thumb for peak manpower required increases this by 50%. In addition, other middle market commercial is $2-$3 billion per year with 50% of that total non union. This equates to another 2800 union crafts at the $1.5 billion spending level.

The boilermakers union will not be affected by the commercial projects. It is estimated that the other critical crafts will be affected as follows for commercial work;

Pipefitters (construction fitters)	7300 total avg. x 6% = 438 avg. to 660 peak
Ironworkers	7300 total avg. x 16% = 1168 avg. to 1750 peak
Electricians (construction)	7300 total avg. x 12% = 880 avg. to 1320 peak

Expected spending for industrial facilities in the United States is $270 billion in the next 2 years.

Peak spending in the gulf coast alone is $40 billion in 2008 and $50 billion in 2009 with a peak of $100 billion in 2011. As reported by Fails Management Institute, a construction information and research group, this equates to a national craft shortfall in non residential construction in 2008 as follows;

Boilermakers - 20%
Ironworkers - 10%
Pipefitters - 21%
Electricians - 14%

The top three busiest states for industrial construction are California, Texas, and Illinois. California and Texas are major non union users. However, Illinois is mostly union and competes for IATAN manpower. Illinois has more than 340 industrial projects totally $37 billion planned to start in 2008 and beyond. The power industry in Illinois accounts for 64% of the project spending or $23 billion.

1.2 Critical Craft Manpower

Critical crafts for the purpose of this report are boilermakers, pipefitters, ironworkers and electricians. Histograms showing the critical craft loading are shown on attachment 2. Totals are only for the KC locals. For example, pipefitters on Thomas Hill come out of the St. Louis local and are not included in the histogram totals.

1.2.1 Boilermaker L83 requirements peak out at approximately 1500 in September and October of 2008 and 1300 in March and April of 2009. Local 83's membership is 555 journeymen plus 215 apprentices. Local 83 increased its membership by 220 members, from 550 to 770, between 2006 and 2007. In 2007, they had 400 travelers and 2006 they had 700 travelers. They have exceeded full employment since 2004.

Nationally in 2007 there were 15 boilermaker locals who had full employment. This totaled 6100 local members and an additional 2500 travelers working in these locals. There were 39 boilermaker locals who did not have full employment with a membership of 13,700. It is estimated that 3500-4500 of these members would travel.

Local 83's wage of $31 per hour and total package of $49.76 is higher than the locals in various areas as followed;

South central (TX, LA, OK)	by $7hr wage and $11 total pkg.
Southeast	by $5hr wage and $10 total pkg.
Mountain states	by $5hr wage and $ 6 total pkg.

There are 9000 members in locals without full employment. Therefore, we could conclude that 50% or 4500 of these members would travel. Illinois and Indiana will compete with IATAN for boilermakers requiring an estimated 2000- 2500 more boilermakers than the local membership has.

1.2.2 Pipefitters L533 has 1130 members made up of 963 journeymen and 167 apprentices. Service truck fitters number about 400 thus leaving construction pipefitters and welders of 730. 250 of the 730 are heavy industrial experienced fitters and welders.

Presently, there are 100 Pipefitters on the out of work list. However, they are working 50 travelers now. The local KC contractors keep 600-700 members employed on a steady basis. This includes the 400 service fitters. Loading breakdown for Feb 2008 is as followed;

Power plants other	100
Power plants IATAN	130
Project commercial (KC constr.)	170
Service (KC constr.)	400
Commercial/Lt.Ind. (mostly KC constr.)	200
Off Work	100
Total =	1100

Supply breakdown is as follows;

Service fitters	400
Construction fitters	480
Industrial fitters/welder	250
Total=	1130

L 533 has averaged 60-120 members out of work for the past four years.

When considering the KC contractors steady employment of 600-700, this leaves approximately 300 available for hire in the hall.

The peak loading will occur 4th quarter of 2008 and most of 2009 at approximately 1300 average and a peak at 1500.

The local 533 wage rate of $35.28 is one of the highest in the Midwest and exceeds rates in the south and southeast by $10.00 per hour. The local business manager has reported a steady flow of calls from travelers wanting work in KC. Local 533 covers counties in west central MO and 4 in east central Kansas.

1.2.3 Ironworkers Local 10 Covers work in western MO and eastern Kansas with 1200 members made up of 900 Journeymen and 300 apprentices. Presently they have full employment with an additional 150 travelers.

The make up is as follows;

Re-Bar	400
Cert. Welders	200
Connectors/Riggers	600
Total =	1200

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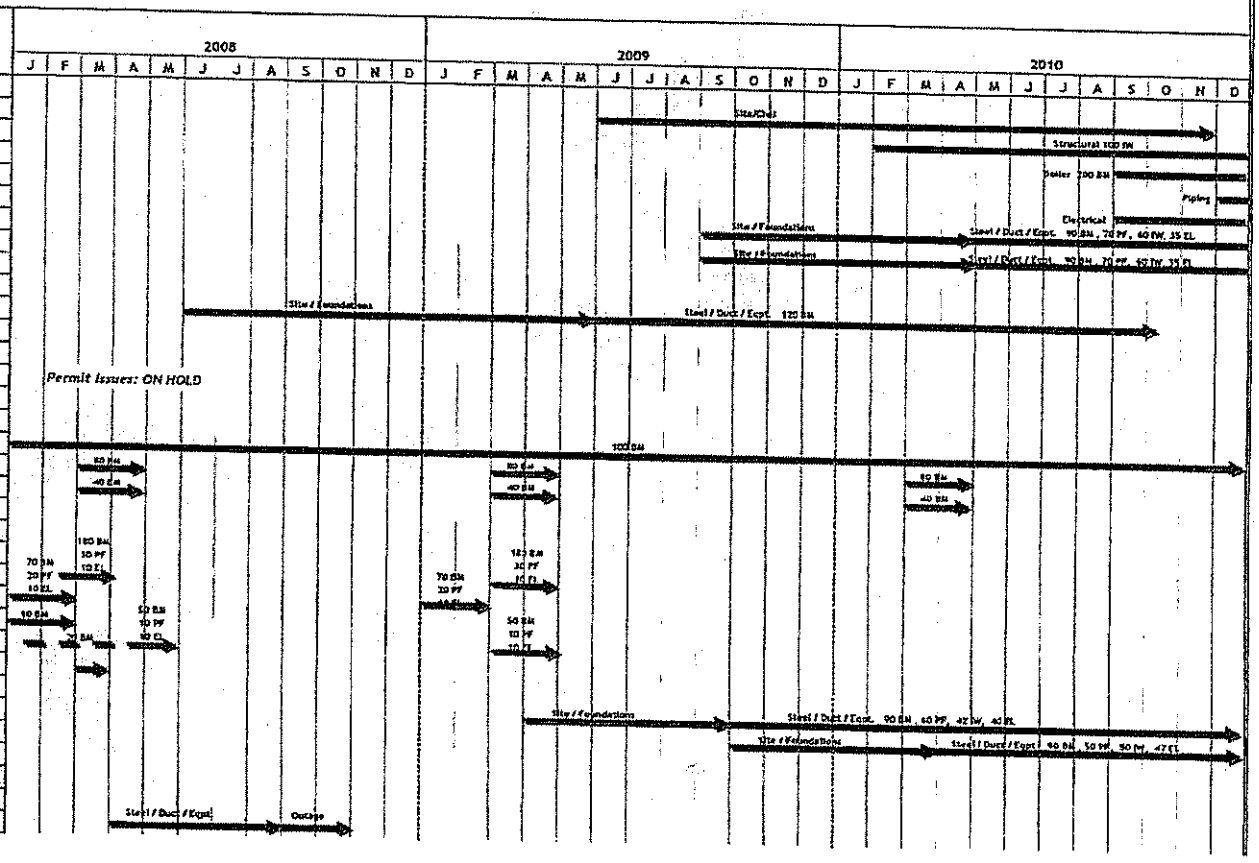
ATTACHMENT 1
KANSAS CITY / MIDWEST
CURRENT AND FUTURE WORKLOAD

Project	Location / Budget
Alliant	
New 600 Coal fired boiler	Southerland, NE
AQCS - 300 MW	Burlington, IA
AQCS - 800 MW	Ottumwa, IA
City of Hastings, NE	
New 300 MW coal fired boiler	Hastings, NE
Tri-State Sunflower Energy	
New 2 x 700 MW Coal Fired Plant	Holcomb, KS
Various Plants	
Ongoing Maintenance	KS, IA, MO, NE
Outages	Iowa
Outages	Kansas
Other KCPSL Work	
Kansas City Power & Light	
Outage 2x7x10's	Hawthorne
Outage 2x7x10's	Montrose
Outage 2x7x10's	Northeast Station
Outage 2x7x10's	La Cygne
Outage 2x7x10's	Wolf Creek
Unit 1 - 840 MW FGD	La Cygne
Unit 2 - 840 MW FGD/Baghouse	La Cygne
Iatan Station	
Unit 1 - AQCS	



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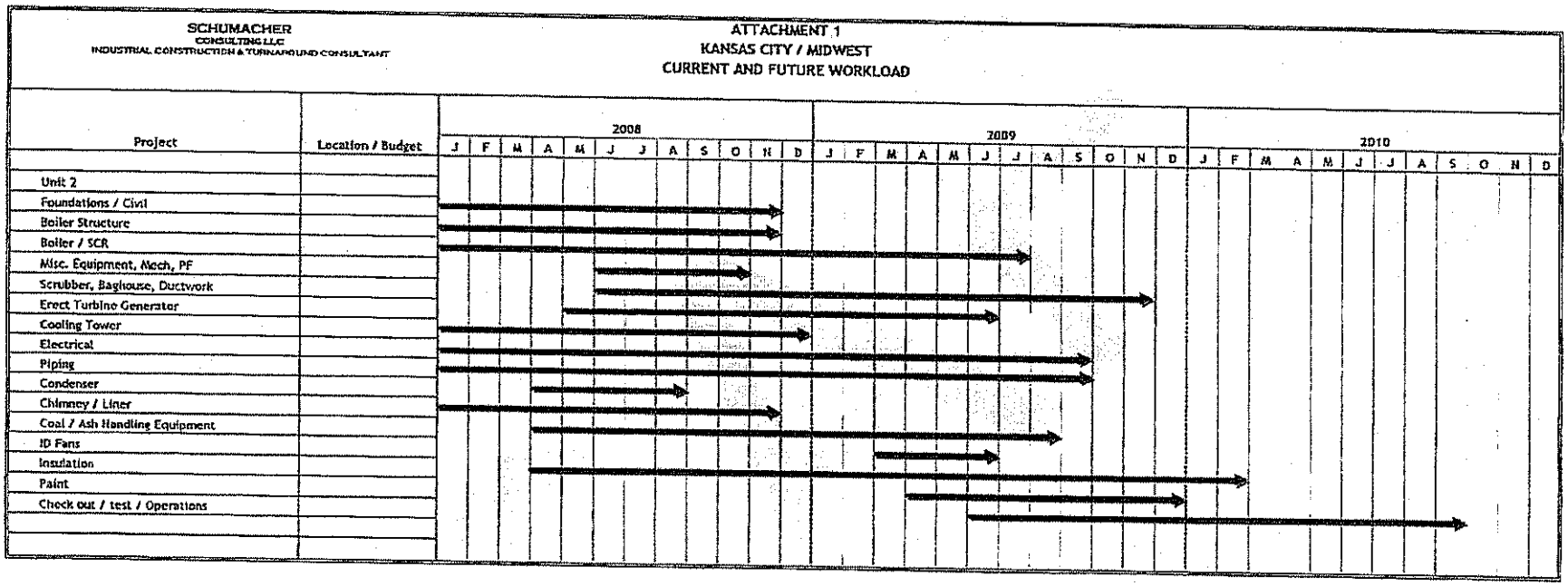
ATTACHMENT 1
KANSAS CITY / MIDWEST
CURRENT AND FUTURE WORKLOAD



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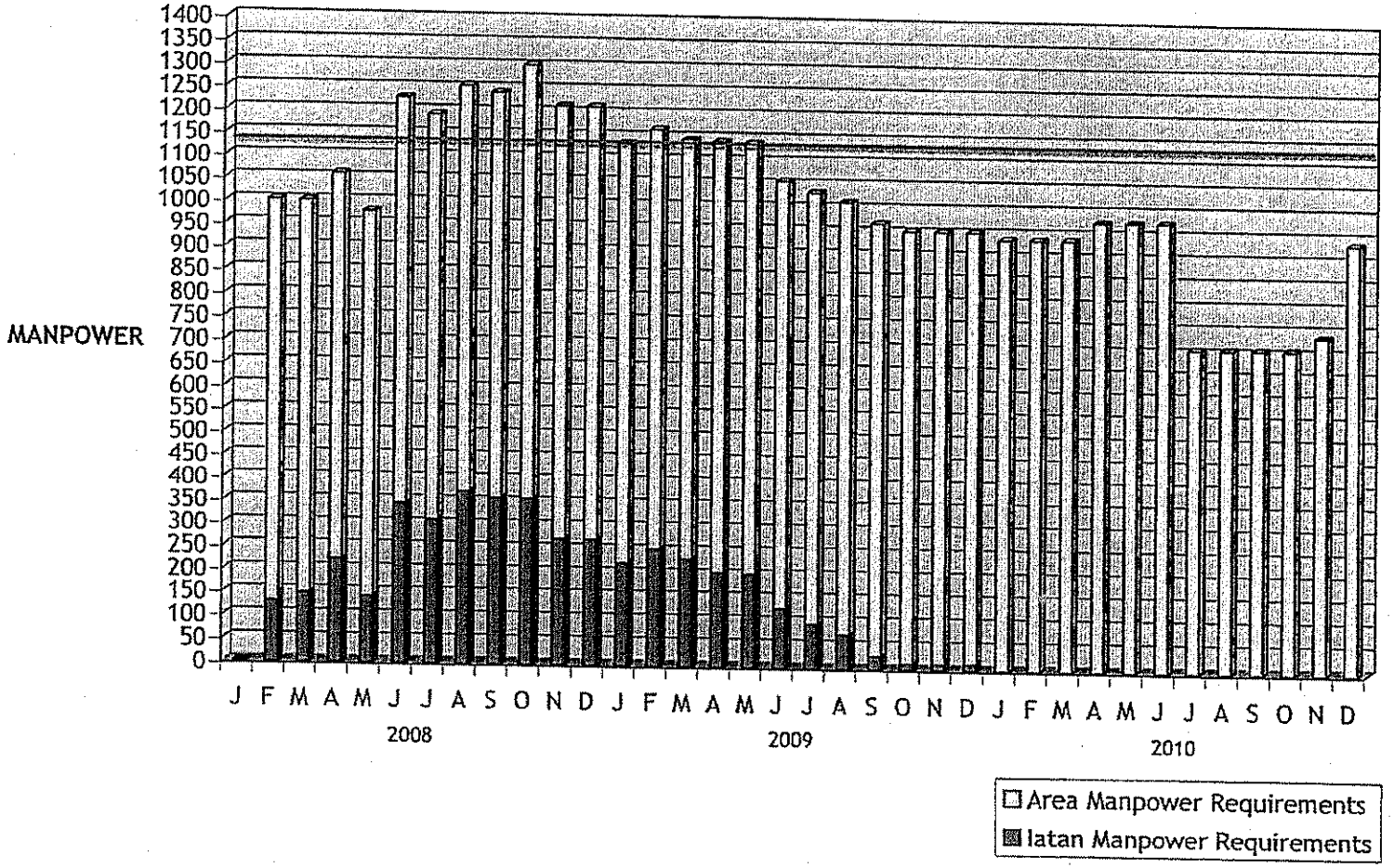
Attachment 2

PIPEFITTERS L533

1130 Active members available w/o travelers



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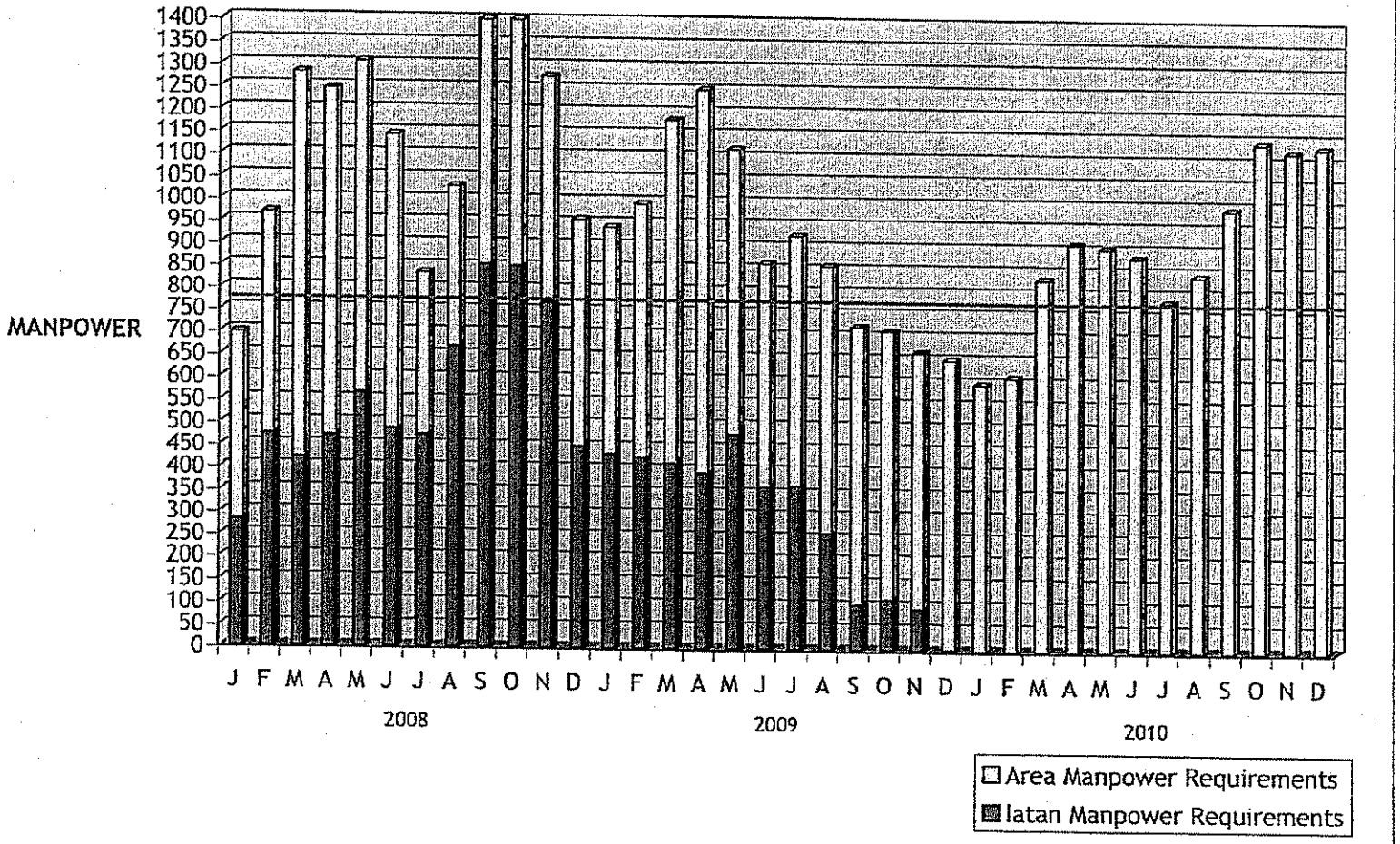
Attachment 2

BOILERMAKERS L83

770 Active members available w/o travelers



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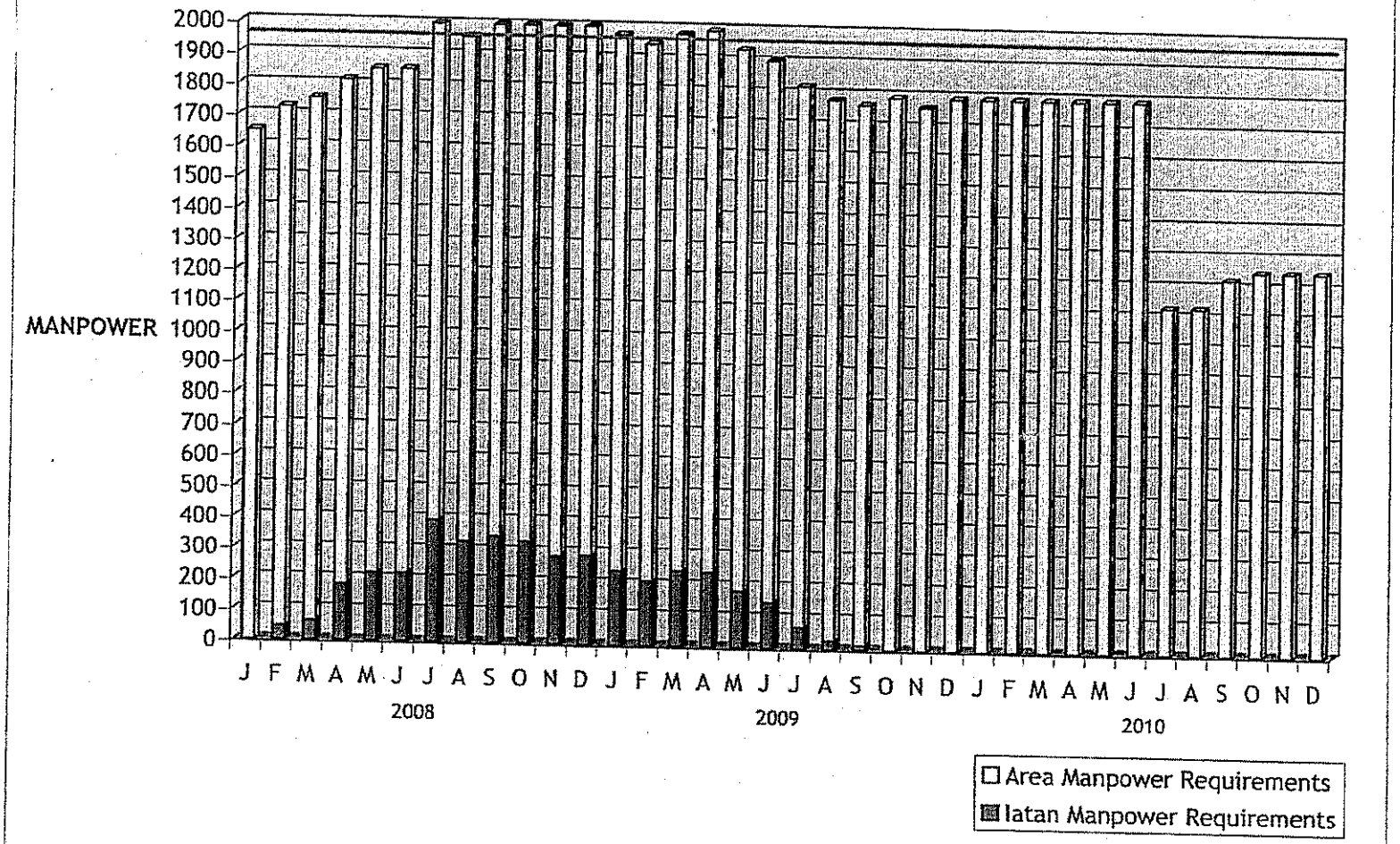
ELECTRICIANS L124

Attachment 2

1987 Active members available w/o travelers



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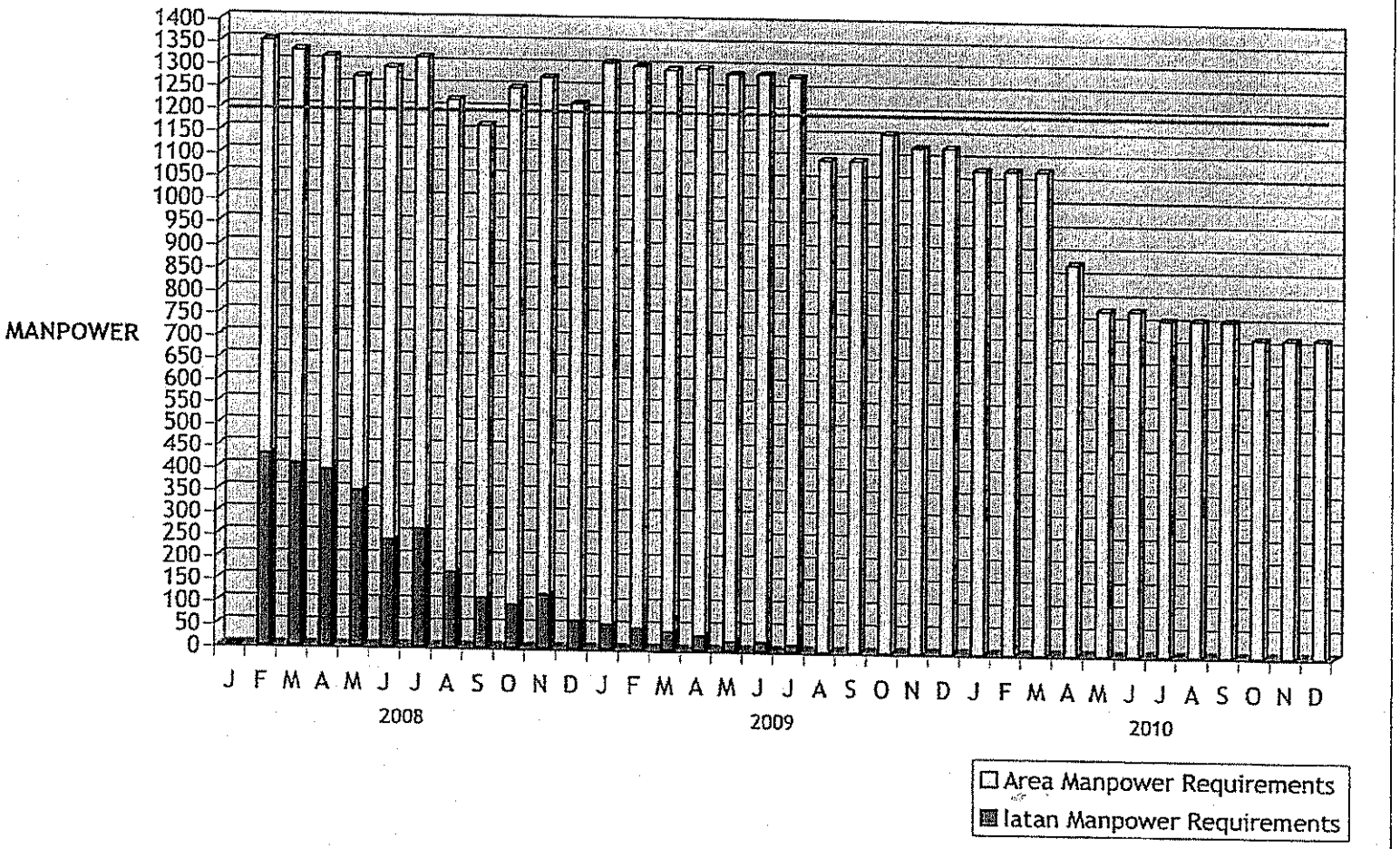
IRONWORKERS L10

Attachment 2

1197 Active members available w/o travelers



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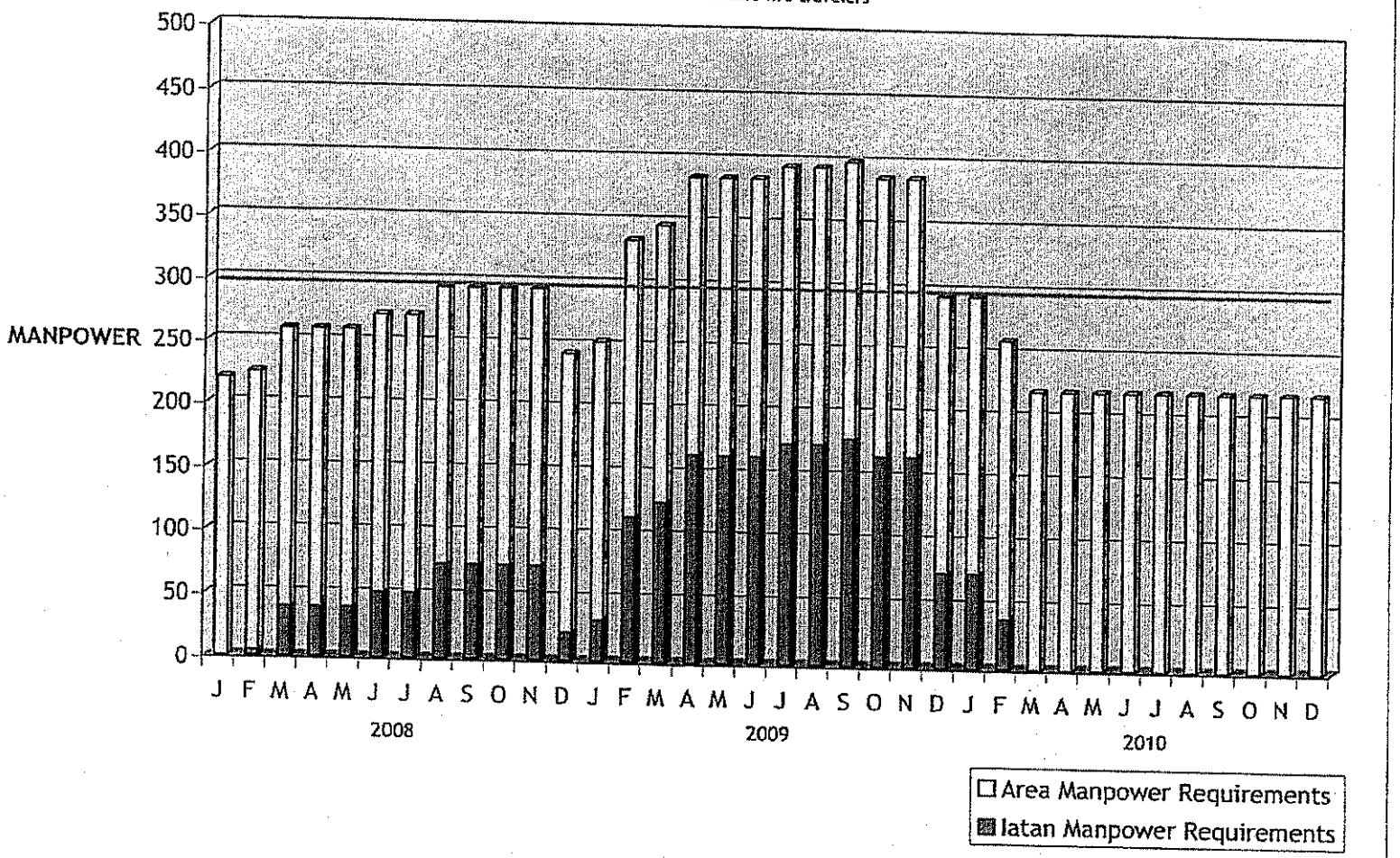
INSULATORS L27

Attachment 2

300 Active members available w/o travelers



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Attachment 3
Craft Labor Rates

Craft	JM Wage	Fringes	Through	JM Wage	Fringes	Through	Contract Term
Insulator	31.64	18.80	9/30/08				9/30/08
Boilermaker	31.00	18.76	12/31/08	32.00	19.86	12/31/09	+2.15 through 12/31/10
Carpenter / MW	32.00	11.38	4/1/08	33.85	11.38	3/31/09	3/31/09
Cement Finisher	25.58	14.62	4/1/08	27.18	14.62	3/31/09	3/31/09
Electrician	32.18	17.37	9/1/08	33.68	17.37	9/1/09	+1.55 through 8/31/10
Operators	33.00	12.11	4/1/08	34.80	12.11	4/1/09	+1.80 yr through 3/31/09
Ironworkers	26.10	19.38	3/31/08	27.95	19.38	3/31/09	3/31/09
Laborer	23.25	11.05	3/31/08	24.75	11.05	3/31/09	1.50 & 1.40 through 3/31/11
Pipefitter	35.28	16.63	5/31/08				5/31/08
Sheetmetal	36.18	15.08	6/31/08	38.23	15.08	6/30/09	+1.90 through 6/30/10
Teamster	28.19	9.70	3/30/08	29.70	9.70	3/30/09	1.50 & 1.40 through 3/31/11

** Some Fringes calculated on paid hours

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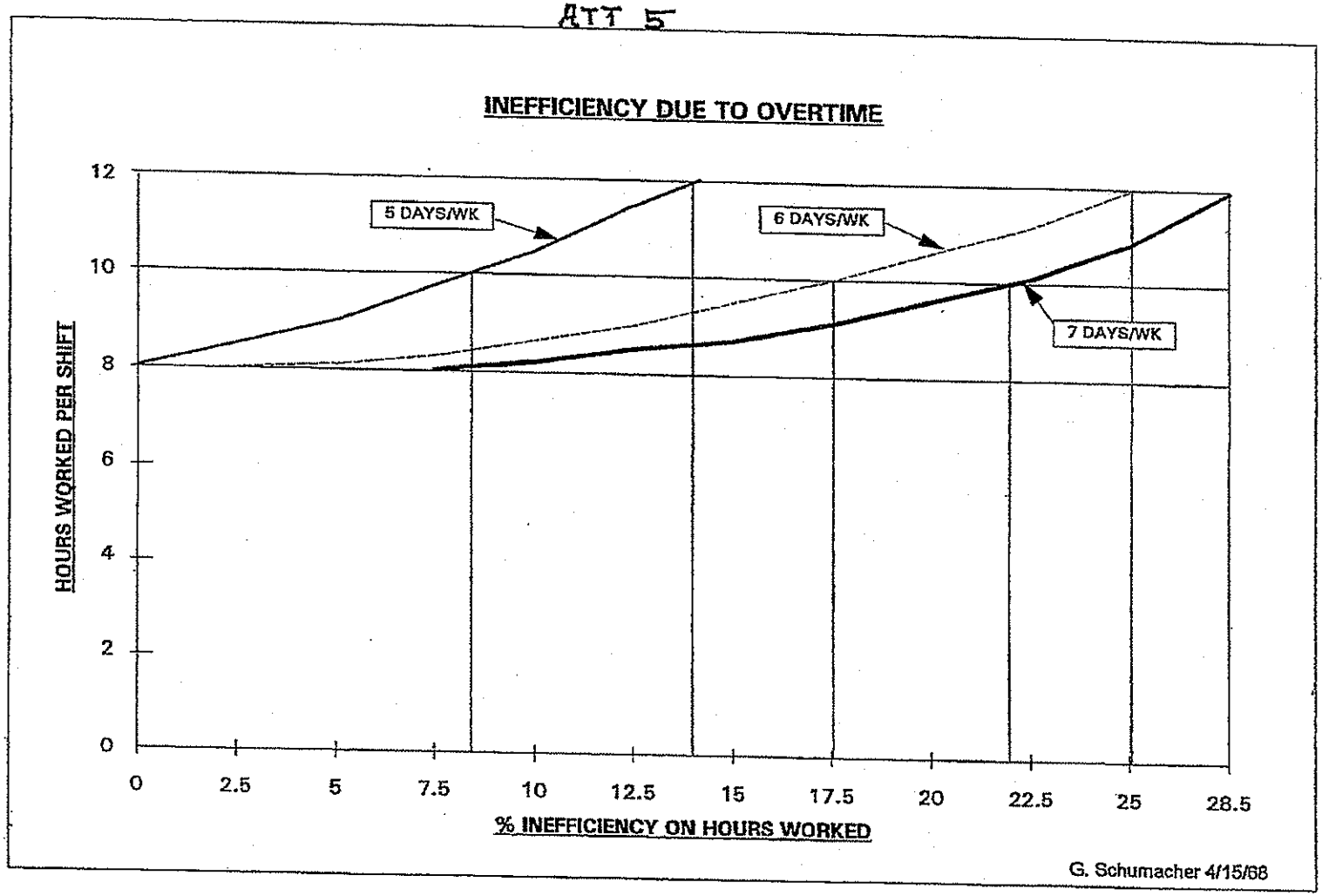
Attachment 4
Kansas City Union Membership

Craft / Local	Journeymen	Apprentice	Total
Cement Masons L518	595	45	640
Boilermakers L83	555	215	770
Bricklayers L15	591	116	707
Insulators L27	240	60	300
IBEW L124	1740	247	1987
Ironworkers L10	913	300	1213
Operating Engineers L101	2900	100	3000
Pipefitters L533	963	167	1130
Plumbers L8	546	122	668
Sheetmetal L2	856	178	1034
Sprinklerfitter L314	140	50	190

ATT 5



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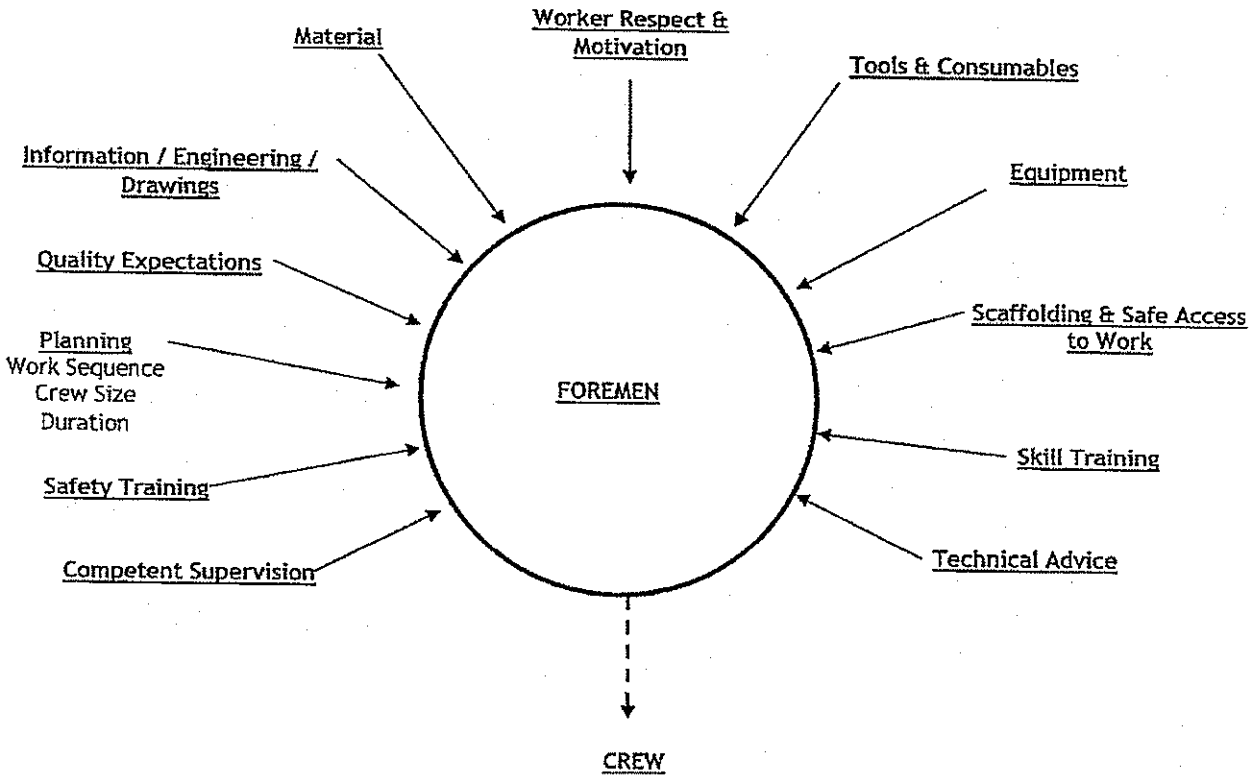
Attachment 6
Labor Productivity Circle



They are actively organizing for new members and apprentices. Presently the loading breakdown for Feb. 2008 is as follows;

Power	100
IATAN	430
Project Commercial	260
Light Industry	50
Commercial	280
Infrastructure	230
Total=	1350

The Norborne Power Project, State of Missouri bridge rebuild program, and Kansas City commercial projects will have the local at full employment plus travelers thru 2010, with peaks exceeding 1500 ironworkers. A business agent with the union told me IATAN is not as attractive for the local men due to the travel versus the considerable amount of work available in the immediate metro area.

All ironworker locals in the Midwest have full employment with many projects on 6-10's with per diem pay. The wage rates for all these locals is comparable to local 10. However, Local 10 has a $6.25 per hour annuity fringe benefit which is an attraction for travelers.

Approximately 600-700 of the members work steady for local contractors.

1.2.4 Electricians Local 124 Covers work in western MO east to Booneville and 6 Eastern Kansas counties. This includes La Cygne.

L124 has 1740 Journeymen and 247 apprentice members.
The make up of the members is as follows;

Residential	200
Service truck	400
Wiremen	1380
Total=	1980

Presently the loading breakdown for Feb 2008 is as follows;

Residential	200
Service Truck	400
Power	30
Project Commercial	600
Mid Commercial	420
IATAN	46
Out of work	280
Total=	1980

The major commercial projects and latan's build up will peak requirement at 2200 electricians.

The local KC contractors employ 1600 electricians on a steady basis, thus leaving 380 for hire out of the hall.

Local 124 has had reasonable success in attracting travelers.

A local contractor's opinion regarding productivity against their own standards places the 1600 captive hire electricians at a 1.0. However, those remaining on the union's out of work list would be at a .6 or 40% inefficiency. Therefore, the out of town contractor is at a big disadvantage trying to compete with the local contractors.

1.2.5 Insulators Local 27 manpower could become an issue during 2009 for Iatan requiring a peak of 180 insulators. Local #27 has 240 journeymen and 60 apprentices.

Most members work for local contractors with approximately 80 available at the hall.

2.0 Union Craft Rates

The following unions have contracts terminating during the IATAN project.

- Insulators on 9/30/08. I would assume a 2 year contract with a $2.00 raise each year
- Pipefitters on 5/31/08. I would assume a 2 year contract with a $2.50 raise each year
- Ironworkers on 3/31/09. I would assume a 2 year contract with a $2.00 raise each year
- Carpenters and cement finishers on 3/31/09. I would assume a 2 year contract with a $2.00 raise each year

Supply and demand is going to dictate the higher than past settlements. Likewise, the unions may not go for the extended contracts beyond 2 years due to the volatile economics we are presently experiencing.

The NMAPC agreement allows work to continue if there is a strike and settlement pay is usually retroactive.

3.0 Refer to Attachment #4 for Kansas City Union membership totals.

4.0 NMAPC Agreement

I recommend that a formal request be made to the NMA office to have article XIV, Travel and Subsistence, be suspended. NMA Bulletin XIV-2 allows the contractor to apply for an addendum which would allow for the selective payment of travel and subsistence benefits at a designated site without incurring any " me too " liability.

I urge all parties to participate in monthly tri-partite meetings between the unions, owner, and contractors with a serious agenda addressing the problems collectively.

5.0 Productivity

5.1
The critical crafts of pipefitter, ironworker, electrician and insulators have 50%-80% of their members working steady with local contractors. The boilermakers work under exclusive referral by the union for various national contractors. Therefore, the out of town contractor is

at a disadvantage when hiring pipefitters, ironworkers, electricians and insulators from the out of work list at the union hall.

The quality first line foremen will be in short supply.

You could expect reduced productivity rates for those workers out of the hall during times of full employment, versus those employed full time with local contractors. This is fairly typical of large city union halls for most of the crafts.

5.2 Best Practices

Approximately 35% to 40% of this projects costs will be construction labor, therefore productivity enhancement is critical

The ability to attain good productivity results requires the following practices at a minimum;

1). The contractor must be committed to the zero injury culture and techniques.

2). Detailed planning and scheduling by the contractor. This must be a serious effort. The plan must run the job. The contractor must have these resources.

3). Timely delivery of materials and equipment.

4). Minimize engineering and fabrication changes.

5). Substance abuse testing, including random.

6). Timely delivery of engineering and technical information.

7). The contractors must provide ample tools and equipment.

8). The contractor must have experienced and competent staff and supervision.

9). The contractor must control the labor on site. Utilize and understand the labor agreement management article to its fullest extent.

10). Control work jurisdiction between the crafts.

11). Negotiate a crew mix within the crafts using apprentices.

12). Avoid saturated manning and high work density.

13). Avoid shift work and overtime.

14). Promote craft ownership in the project. This begins with the safety initiative.

15). Minimize worker turnover. A 10% increase in turnover results in a 2.5% increase in labor costs plus productivity and safety impacts.

5.3 Sample Estimating Standards

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In the early 1980's several national contractors developed the " Gulf Coast Estimating Standards" to measure productivity for cost control and prepare estimates for work in the petrochemical industry.

Construction companies today use their own standards for preparing bids but some do track against the Gulf Coast Standard.

The best productivity on industrial projects in recent years is 20% over the GC Standard or a .8 P/A.

The following are standards for direct manhours from my projects history which are considered acceptable productivity, @ 1.2 times Gulf Coast;

5.3.1 Piping (field)

Carbon steel Std. Wt. piping to include activities of welding, erect/handle, valves, bolt ups.

Large bore piping is supplied as shop fabricated spools.

6" dia.	.76 mh/ft
8" dia.	.93 mh/ft
10" dia.	1.23 mh/ft
12" dia.	1.64 mh/ft
16" dia.	2.33 mh/ft
24" dia.	3.75 mh/ft

Small bore 2" and under field fab and install = .95 mh/ft

Hydro testing, supports, alloy pipe, NDE, PWHT, and contingencies are additive.

5.3.2 Structural Steel for SCR's, Scrubbers, Power Plt.

Piperacks-	15 mh/ton
SCR Support steel	18 mh/ton
Boiler Modification	80-120 mh/ton
Boiler Steel selective Demo	40-60 mh/ton

5.3.3 Carbon Steel Platework for SCR's, Scrubbers, Power Plt.

Ductwork (includes welding)	52 to 54 mh/ton
SCR Reactor Box (includes welding)	42 to 48 mh/ton

(All pieces shipped to the construction site by truck)

5.3.4 Multipliers

As an out of town contractor, I would use an area factor multiple on manhours for Kansas City Labor on the above rates as follows during a normal market (without full employment);

Piping	plus 20%
Struct. Steel	plus 10%
Platework	plus 20%

As an out of town contractor in today's market, I would use the following factors;

Piping	plus 30%-35%
Struct. Steel	plus 15%-20%
Platework	plus 20%

5.4 Overtime Inefficiency

The overtime factor is applied to all manhours estimated to be worked during the scheduled time frame.
See attached curves in Attachment 5.

5.5 Productivity Review

A very simple tool used to evaluate crew performance is shown in Attachment 6.

I would address first all the items which management is to provide to a foreman and his crew.

If I was satisfied that these were not an issue driving poor productivity, then crew members would be terminated for lack of productive work. Care must be taken to ensure against wrongful dismissal and the ensuing grievance procedure to follow.

6.0 Safety

6.1 The CII (Construction Industry Institute) has recognized a correlation between poor productivity, and poor safety performance.

The zero injury task force has identified the following high impact techniques as;

- Pre-task planning
- Orientation and quality training
- Incentive and recognition programs
- Substance abuse testing
- Staffing for safety
- Accident investigation
- Worker participation
- A demonstrated management commitment

6.2 Zero injury rates can be achieved. Over 9 million manhours were worked by NMAPC contractors in 2006 with zero OSHA recordables.

Other examples of recent contractor projects with zero recordables:

HB Zachary	Shell Chemical	1,200,000 mh's
Fluor	Citgo	2,080,000 mh's
Cherne	Various	2,500,000 mh's
S&B	Houston	1,000,000 mh's
Day & Zimmerman	Phila	1,000,000 mh's
CTI	BP Whiting	1,200,000 mh's

Most contractors today must have a 3 year OSHA recordable rate of 1.8 or less to be allowed on an oil refinery bid list.

7.0 Conclusions and Recommendations

The manpower levels for area competing projects are only indicative and based upon ratio estimates for average manpower levels. The exact data for the projects is just not available.

I believe this data is sufficient to support certain management decisions regarding contracting strategy and competing for craft manpower.

The CII research in 1995 identified the top 5 criteria to attract and maintain a skilled workforce as;

1) wages, incentive, bonus pay
2) fringe benefits
3) continuous work
4) safe work site
5) worker respect and treatment shown by owner and employer management

All unions now have a job hot line looking for workers in the U.S.

Craftsmen when inquiring about job opportunities ask;

- What's the scale?
- What overtime is being worked?
- Is there any subsistence or per diem?
- Are there any bonuses paid?
- How about fringe like annuities and vacation pay?
- How long is the job?

As a point of interest, non union packages today in the Midwest are;

Wage	$25.00 helper	$37.00 welder
Fringe	$3.50	$3.50
Incentives	$3.00	$5.00
Per Diem	$10.00	$10.00
	Total= $41.50	Total= $55.50

Their standard work is 6-10's. Escalation has been 10% per year.

7.1 Overtime

A 5- 10's schedule must be worked to attract crafts at Iatan. You may need to work a scheduled 6- 10's at some point, however, I would look to incentive bonus pay and per diems before going to 6 days per week due to the overtime inefficiency of 18% on mh's and additional 7% in premium time cost.

7.2 Per Diems / Travel / Subsistence

I suggest a days worked per diem to offset the travel and living costs in order to attract and retain workers as follows;

If incentives are adopted I would decrease the Per Diem.

Workers would qualify based upon the distance from Iatan to the workers permanent residence.

	Without Incentives	With Incentives
60-80 miles	$40.00 per day worked	$20.00 per day worked

over 80 miles $75.00 per day worked $55.00 per day worked

A request must be made to the NMA office to suspend Article XIV.

This would be offered only to select crafts who have problems manning Iatan (i.e., Boilermakers)

These rates are based on other projects in the Midwest.

7.3 Incentives

I suggest the following to attract and retain workers;

Safety: $.75 per hour to be accrued for each month the entire workforce works a zero recordable month.

Pay to Stay: $15.00 per day to be accrued until a reduction of force lay off for that worker. Unexcused absences will penalize the amount for the week of an occurrence.

Absenteeism Lotto: Every man who works a full week (50 hrs on 5-10's) will have his name go into a pot for a weekly drawing of a $1000.00 check.

7.4 General Comments

The package incentives listed above are necessary to attract and retain a skilled workforce in today's market

Lodging in the area is limited and expensive due to IATAN being so close to KCI.

I believe the high OSHA RIR of 4.5 on site is an indicator of workmen who are not totally familiar or trained with heavy industrial work. Working with the unions to set up a criteria for pre-hires would be effective.

A substance abuse policy with pre-employment and random is a must. The owner can dictate this to each contractor as a condition to be on their site. This policy is placed on file with the NMA office.

Safety excellence is "Top Driven" . The executives of the owner and contractors must actively support its commitment to a zero injury culture. The employees must see management "walking the talk" on a regular basis.

Intense planning and scheduling must be used to provide acceptable productivity numbers. In particular, it is extremely valuable during times of full employment because first line supervision, such as craft foremen, tend to be inexperienced and lack effectiveness.

The schedule must be in a format that can be used as a tool by the foremen. If it's too complex, they refuse to use it.

I've had experiences by implementing intense planning and scheduling and removing the crews restrictions shown on Attachment 6, increase from a P/A of .65 to .95 with in a 3 month period on a new oil refinery unit. I published the productivity numbers, their increase or decrease, weekly by each foreman to create a competitive culture and it didn't take long for each

foreman to be in line waiting for his score. The very few that showed no interest were soon terminated.

Remember, if you can't "change the people " then it's time to " change the people" .

It has been my experience that poor productivity can mostly be caused by mismanagement. Poor productivity extends the project schedule. Adding manpower to compensate for the lost manhours will not improve productivity, but rather decrease it.

Continue to have monthly tri-partite meetings and have the "hard questions" on the agenda.

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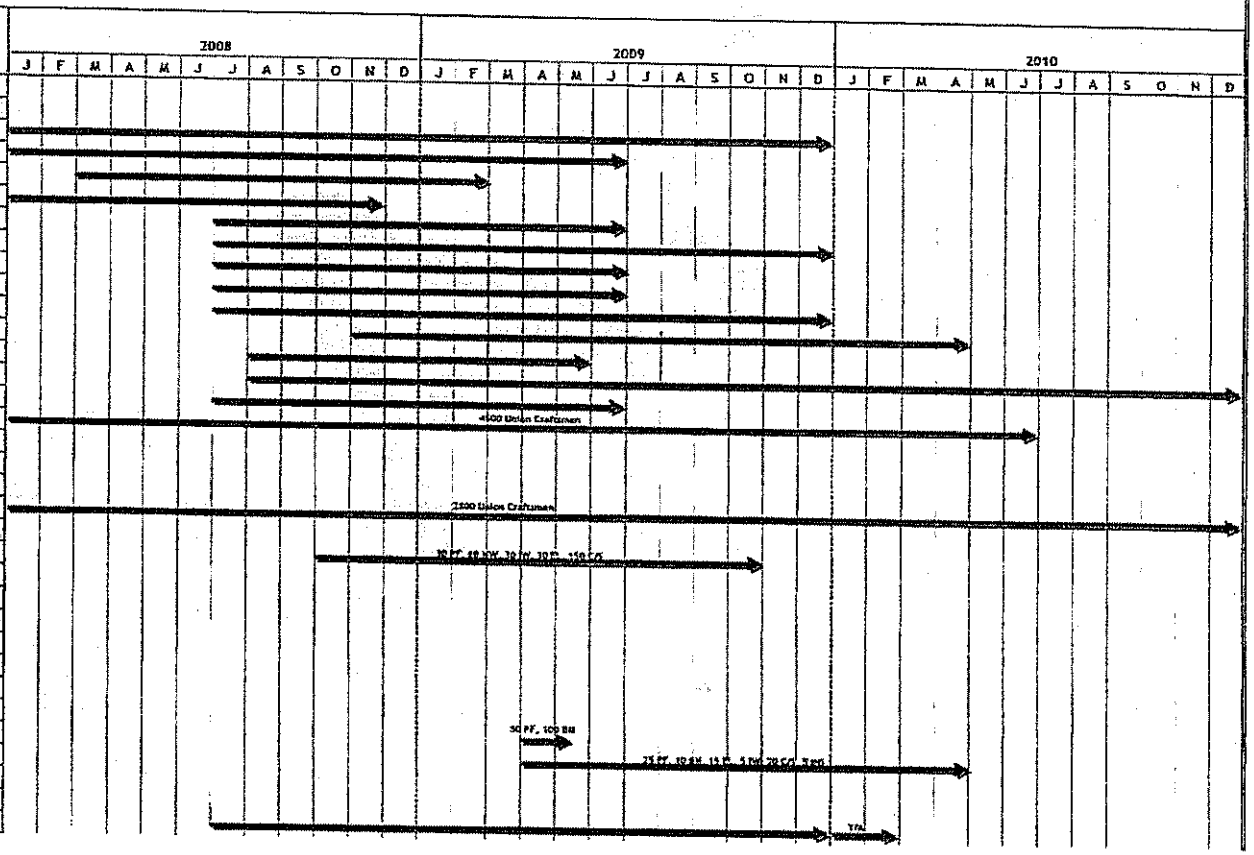
ATTACHMENT 1
KANSAS CITY / MIDWEST
CURRENT AND FUTURE WORKLOAD

Project	Location / Budget
Kansas City Major Project Commercial Work	
Stadium Renovation	$700 Million
Kauffman Center	$326 Million
Federal Building Renovation	$200 Million
Childrens Hospital	$120 Million
Bolender Center	$285 Million
East Village	$357 million
JE Dunn Building	$60 Million
Center Point Industrial Center	$200 Million
Wyandotte County Gaming	$700 Million
Schlitterbahn	$300 Million
Independence Arena	$50 Million
Wizards Stadium Complex	$900 Million
Cass County Hospital	$55 Million
Kansas City Commercial / Middle Market Work	
Identified	$2 Billion
Proposed	$1 Billion
50% Union / 50% Non-Union	
Kansas City Automotive Plant Work	
Ford - Capital Projects	$180 Million
General Motors - Minor Maintenance	
Midwest Refineries (Local 83 Area)	
CVR Energy	Coffeyville, KS
Turnaround	*Non-Union*
NCRA	McPherson, KS
FCC Turnaround	
Benzene Reduction Project	
Frontier Refining	El Dorado, KS
New Hydrotreater	*Non-Union*



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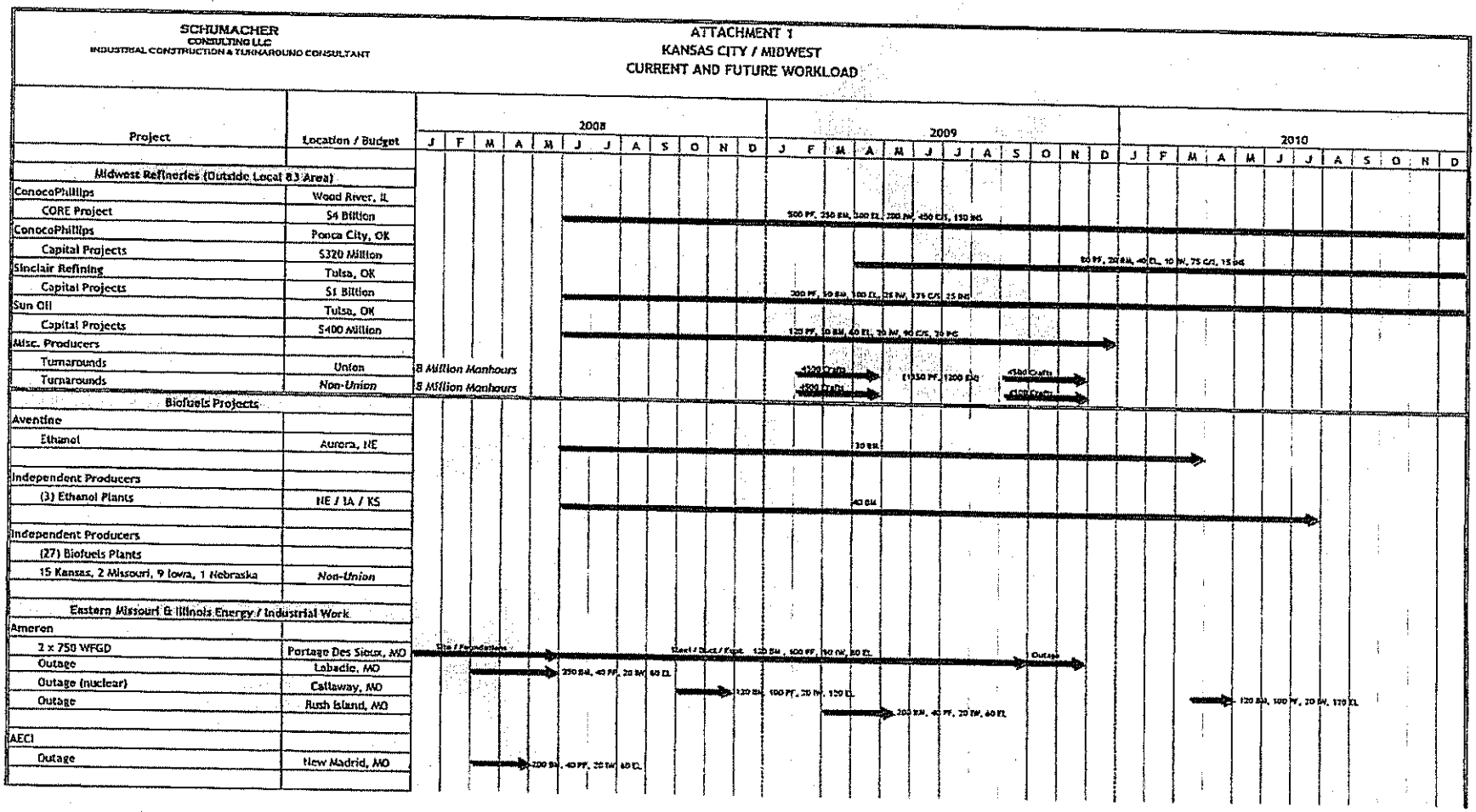
ATTACHMENT 1
KANSAS CITY / MIDWEST
CURRENT AND FUTURE WORKLOAD

Project	Location / Budget
Midwest Refineries (Outside Local 83 Area)	
ConocoPhillips	Wood River, IL
CORE Project	$4 Billion
ConocoPhillips	Ponca City, OK
Capital Projects	$320 Million
Sinclair Refining	Tulsa, OK
Capital Projects	$1 Billion
Sun Oil	Tulsa, OK
Capital Projects	$400 Million
Misc. Producers	
Turnarounds	Union
Turnarounds	*Non-Union*
Biofuels Projects	
Aventine	
Ethanol	Aurora, NE
Independent Producers	
(3) Ethanol Plants	NE / IA / KS
Independent Producers	
(27) Biofuels Plants	
15 Kansas, 2 Missouri, 9 Iowa, 1 Nebraska	*Non-Union*
Eastern Missouri & Illinois Energy / Industrial Work	
Ameren	
2 x 750 WFGD	Portage Des Sioux, MO
Outage	Labadie, MO
Outage (nuclear)	Callaway, MO
Outage	Rush Island, MO
AECI	
Outage	New Madrid, MO



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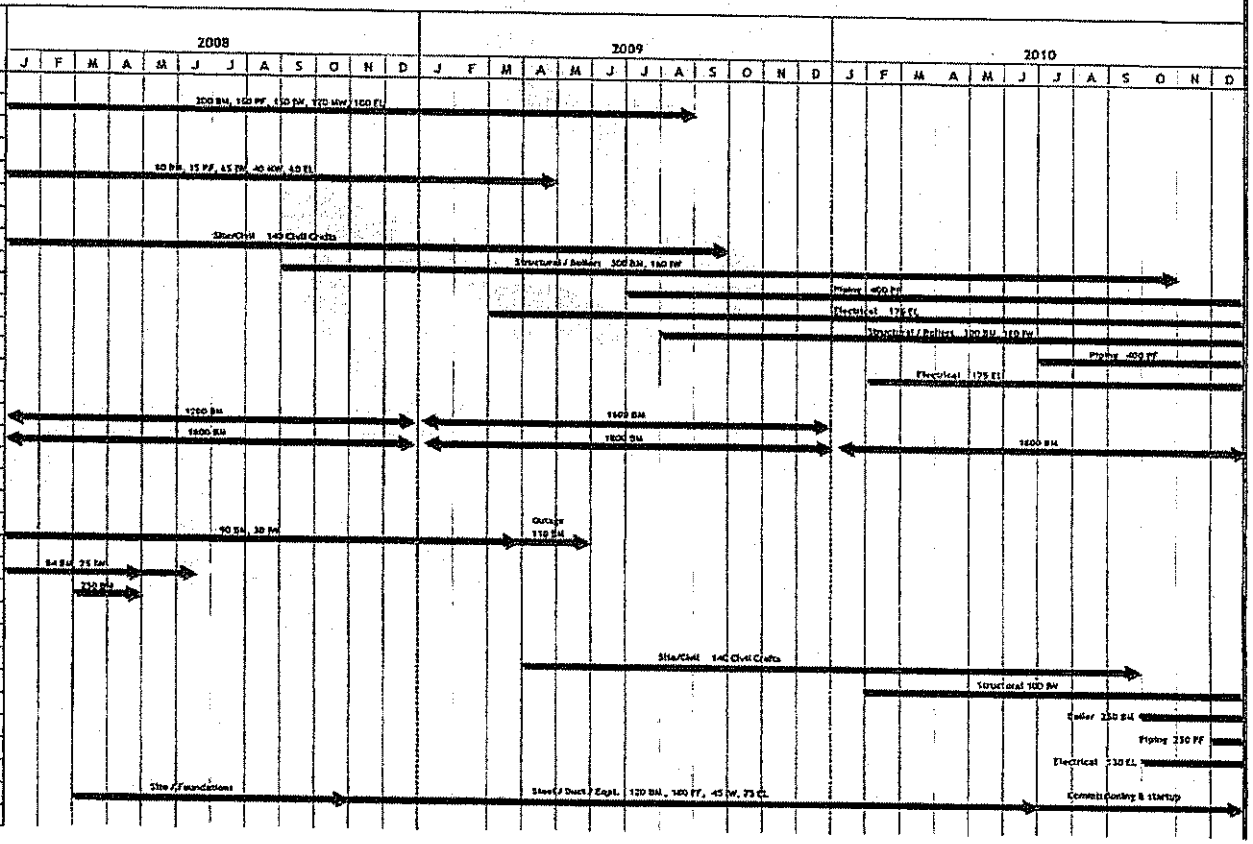
KANSAS CITY / MIDWEST
CURRENT AND FUTURE WORKLOAD

Project	Location / Budget
Holcim	
New Cement Plant	Ste. Genevieve, MO
River Cement	
New Cement Plant	Festus, MO
Prairie States Energy	
New 2 x 750 Coal Fired plant	Marissa, IL
	Unit 1
	Unit 1
	Unit 1
	Unit 2
	Unit 2
	Unit 2
So. Illinois Boilermaker Work (L#363)	400 Members
Indiana Boilermaker Work (L#374)	850 Members
Western Missouri / Kansas / Iowa / Nebraska Energy Work	
Associated Electric	
Unit 1 SCR - Enerfab	Thomas Hill
Unit 2 SCR - Enerfab	Thomas Hill
Unit 3 SCR / Precip - Graycor	Thomas Hill
Unit 2 Outage	Thomas Hill
New 600 MW Coal Fired Plant	Norborne, MO
City of Springfield Missouri	
New 300 MW CFB	



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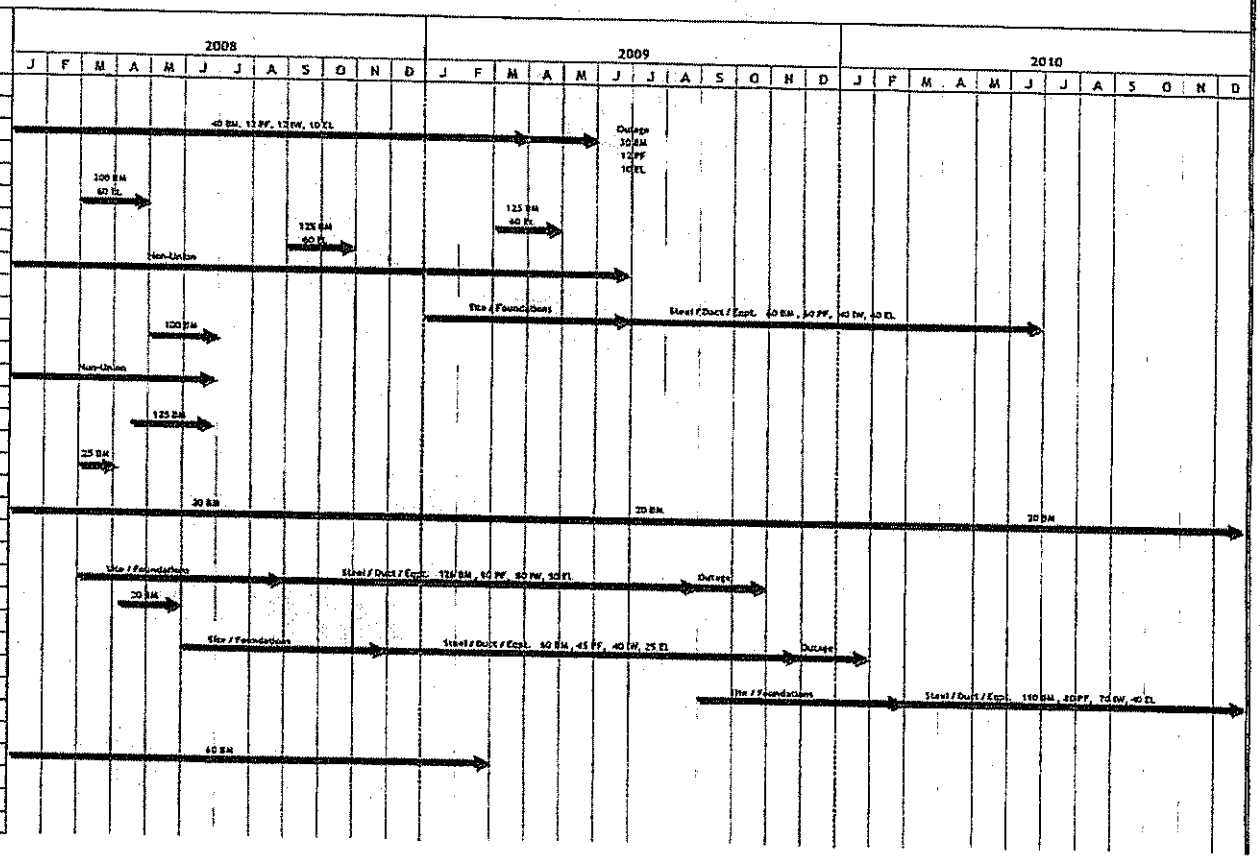
ATTACHMENT 1
KANSAS CITY / MIDWEST
CURRENT AND FUTURE WORKLOAD

Project	Location / Budget
Aquila	
400 MW SCR	Sibley, MO
Westar	
Unit 1 Outage	St. Mary's, KS
Unit 2 Outage	St. Mary's, KS
Unit 3 Outage	St. Mary's, KS
AQCS	St. Mary's, KS
3 Units - AQCS	Lawrence, KS
Outage	Lawrence, KS
Simple Cycle Plant	Emporia, KS
Outage	Tecumseh, KS
Outage	Wichita, KS
Ongoing Maintenance	All plants
Mid-America Energy	
Unit 3 675 MW AQCS SCR/FGD	Council Bluffs, IA
Unit 2 Outage	Council Bluffs, IA
AQCS	Muscatine, IA
AQCS	Neal, IA
Archer Daniels Midland	
(2) new boilers	Columbus, NE



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