

Repair and Maintenance Final Design and Rollout Plan

February 1, 1996



Framework for New R&M Structure

2

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Agenda

- Welcome and Introductions - Vicky Sirianni
- Why change? - Bill Dickson
- Working in Teams - Joe Gifun
- The New Organization - Steve Miscowski
- How does this effect us? - Vicky Sirianni
- Questions and Answers



Background

3

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1/31/96 8:55 PM

Mission

MIT Physical Plant will provide the physical environment, utilities and support services necessary for the educational and research activities of the Institute. This will be accomplished by the Engineering, Construction, Maintenance and Operating Groups of Physical Plant. To ensure **quality service** to the MIT Community, the department will strive to improve coordination and **communication between groups**. **Training and empowerment** of all staff will promote a work environment that encourages employee initiative and development. This employee development will help move Physical Plant into a **customer-oriented** department.

Vision

We will:

- Stand "**Together in change**" for our true wealth lies in personal pride and empowerment, flexibility, innovative management practices and uncompromising honesty;
- Create an environment that enables us to **exceed our customer's expectations**;
- Encourage and maintain **total communication** within Physical Plant and with the MIT community;
- Recognize the people** of MIT's Physical Plant for their dedication, innovation, flexibility, professionalism, reliability and commitment to Customer Service.

Values

We value:

- Our **customers**; customer service is our number one priority;
- Trust, mutual respect, **relationships** that build confidence and self esteem and individuals for their dedication, attitude, innovation and contributions;
- An **empowered workforce** as it is the surest road to a healthy organization and a satisfied customer;
- Meaningful **employee participation** in the decision making process and teamwork and innovation in problem solving;
- Leadership** that demonstrates pride, respect and fairness, values and encourages diversity and acts in a responsible and professional manner. All ideas shall be heard, evaluated and responded to without fear of retribution;
- Opportunities** for personal and professional development and equality in the access to the tools necessary to do our jobs.

From the Physical Plant Strategic Plan - December 31, 1994



Problems with the Old Work Process

4

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1/31/96 8:55 PM

While customers are generally satisfied with the quality of work, they are often dissatisfied with communications and service. In addition, small jobs tend to have slow response and high cost.

- Much time is lost **waiting** to do work
 - Waiting for parts
 - Waiting for transportation to and from job sites
- Much time is spent on non-trade work (**non-wrench-time**)
 - Walking to and from the job site
 - Gaining access to rooms (key, alarms, etc.)
 - Gaining access to repair (moving furniture)
- There is significant **duplication** of work
 - 20% of work orders are duplicates of the same requests, which at times results in two responses to the same job
 - Typically, two trips are needed (MOD and/or assessing problem) before repair work begins
- There are many **handoffs and approvals**
 - Supervisors need to approve everything (work assignments, stock, tools, non-standard breaks)
 - Little can be done without a work order
 - There is excessive paperwork
- The Operations Center is **overloaded**
- Work that requires coordination (multi-trade, shutdowns, etc.) is **inefficient** and often breaks down
- Billing is done by the trade and by the month; the total cost of the work is **hard to access** and identify by both customer and plant personnel

From the R&M Redesign Report - June 12, 1995

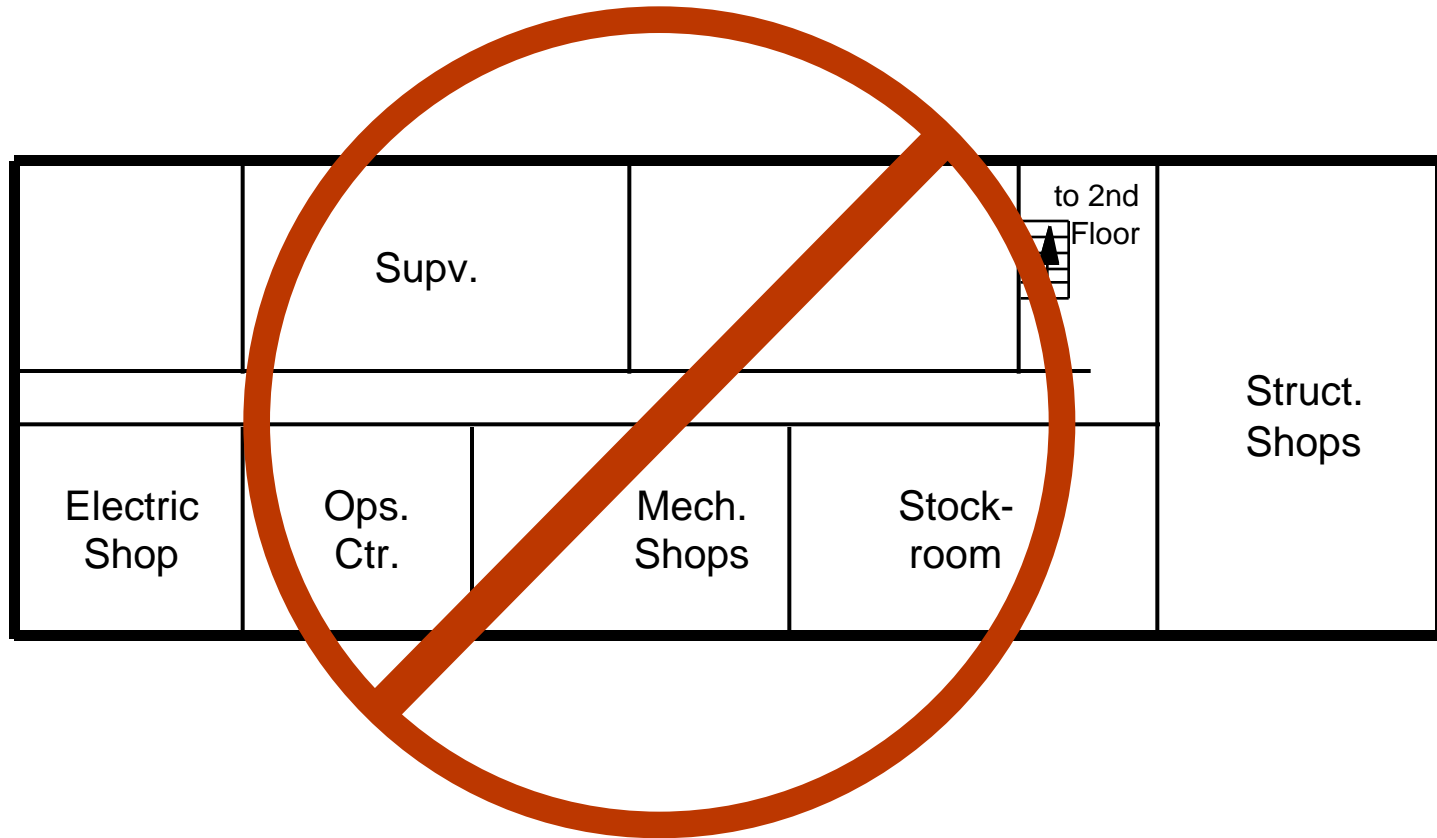
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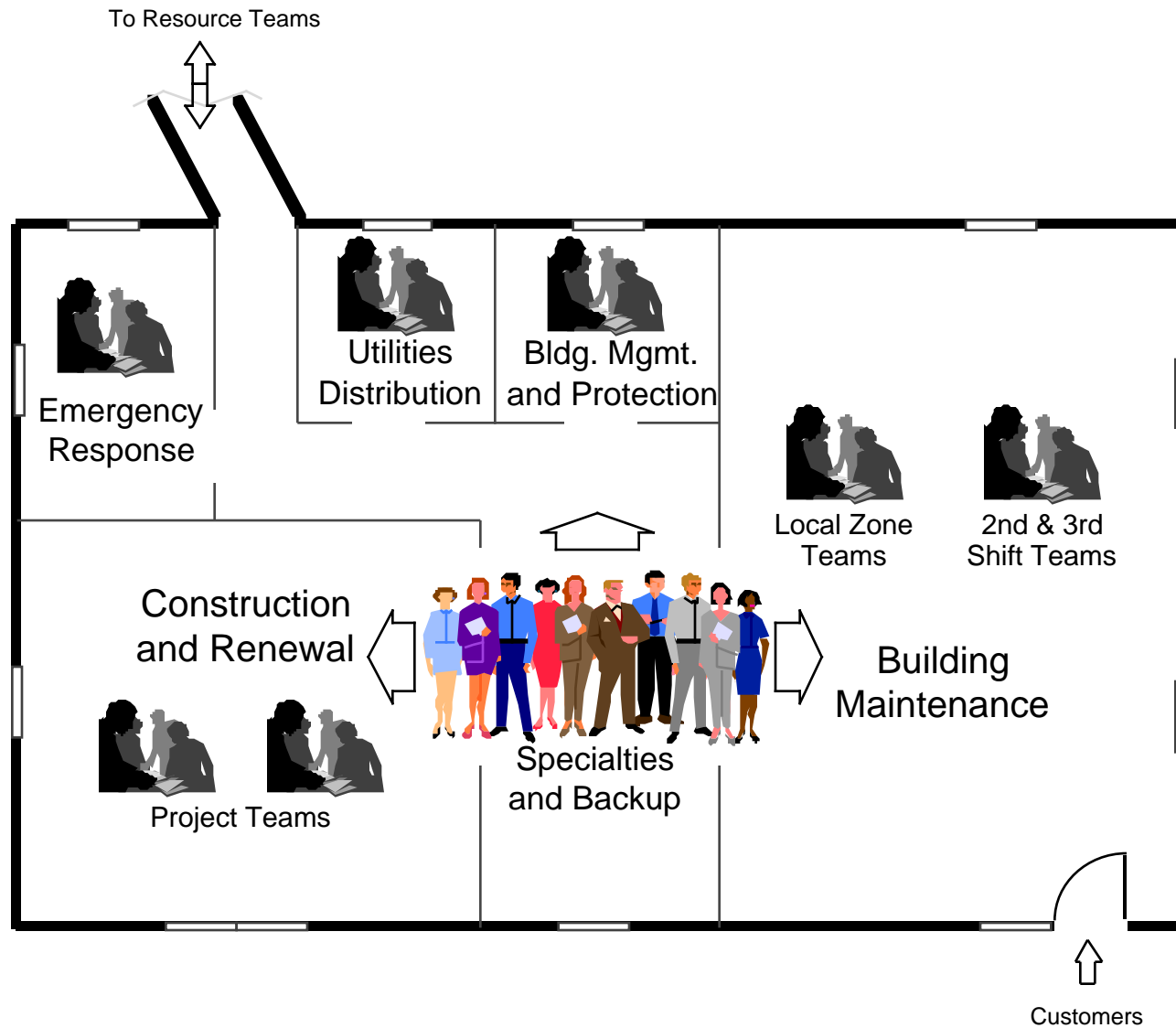
Old Repair & Maintenance Structure

5

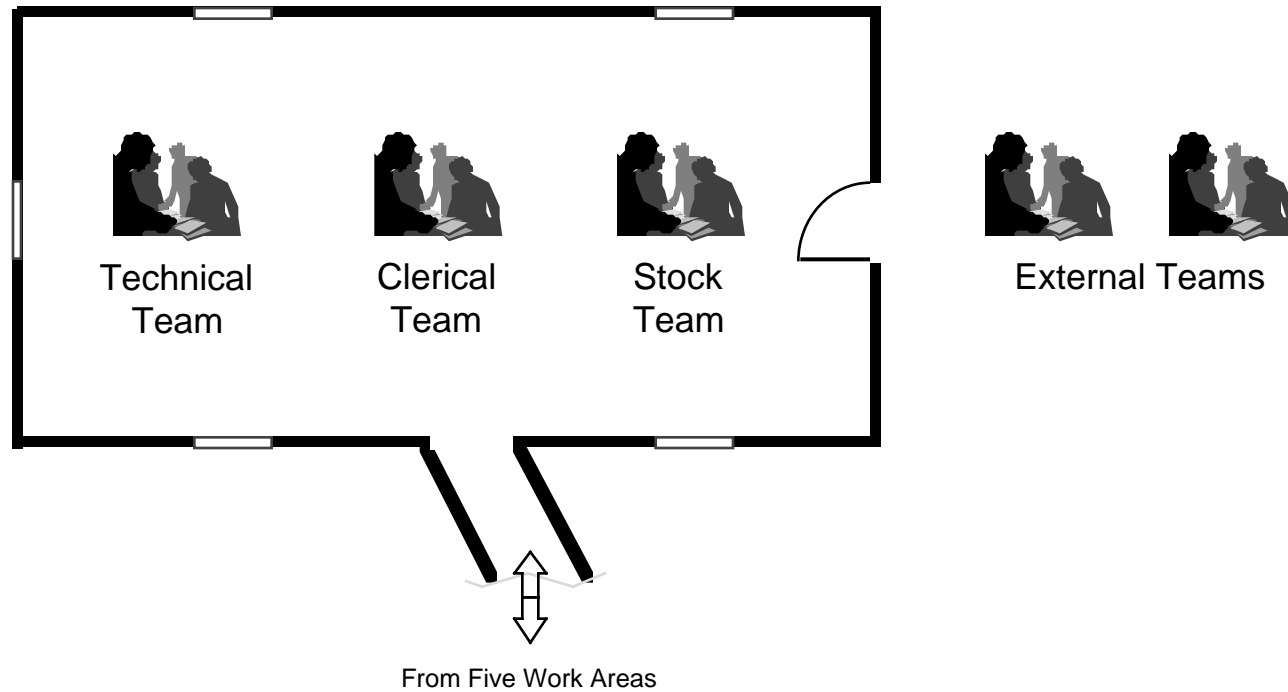
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Plan for New Work Areas



Plan for New Resource Teams



Five Major Work Areas

Building Maintenance	Construction and Renewal	Emergency Response	Utilities Distribution	Bldg. Mgmt. and Protection
<ul style="list-style-type: none"> •Building level systems –Electrical, heating, cooling, steam, water, sewerage, elevators, life safety, security, etc. •Structure –Building envelope and interior •Preventive Maintenance •Specialties and Local Zone backup –Lock, paint, boiler, generator, glass, etc. •7 day 2nd and 3rd shift coverage •Exterior Lighting •Work tracking and scheduling 	<ul style="list-style-type: none"> •New utility systems –ie: Electrical, heat, fire alarm, FCS, etc. •Customer requests –Renovations & improvements •System upgrades and building renewal –ie: MRO and capital projects (R&M) •Special events –ie: Commencement, conferences, support to CAC 	<ul style="list-style-type: none"> •First line life safety response •Coordination with Fire Dept, EMS, Campus Patrol, and other agencies •Confined Space Rescue •Knowledge of buildings and systems •Enforcement - ie: Welding Permits •Emergency planning - ie: evacuation drills •Permits •Training 	<ul style="list-style-type: none"> •Repair and maintenance of: –Electrical, steam, water, sewerage, gas, chilled water, compressed air, etc. •Meter reading 	<ul style="list-style-type: none"> •Fire alarm monitoring and dispatch •Building climate monitoring and dispatch •Test and repair systems - life safety, FCS, toxic gas, etc. •Equipment monitoring •Building environment –Short term adjustments –Special events needs •Systems programming and data backup •Diagnose system problems



New Structure (cont.)

9

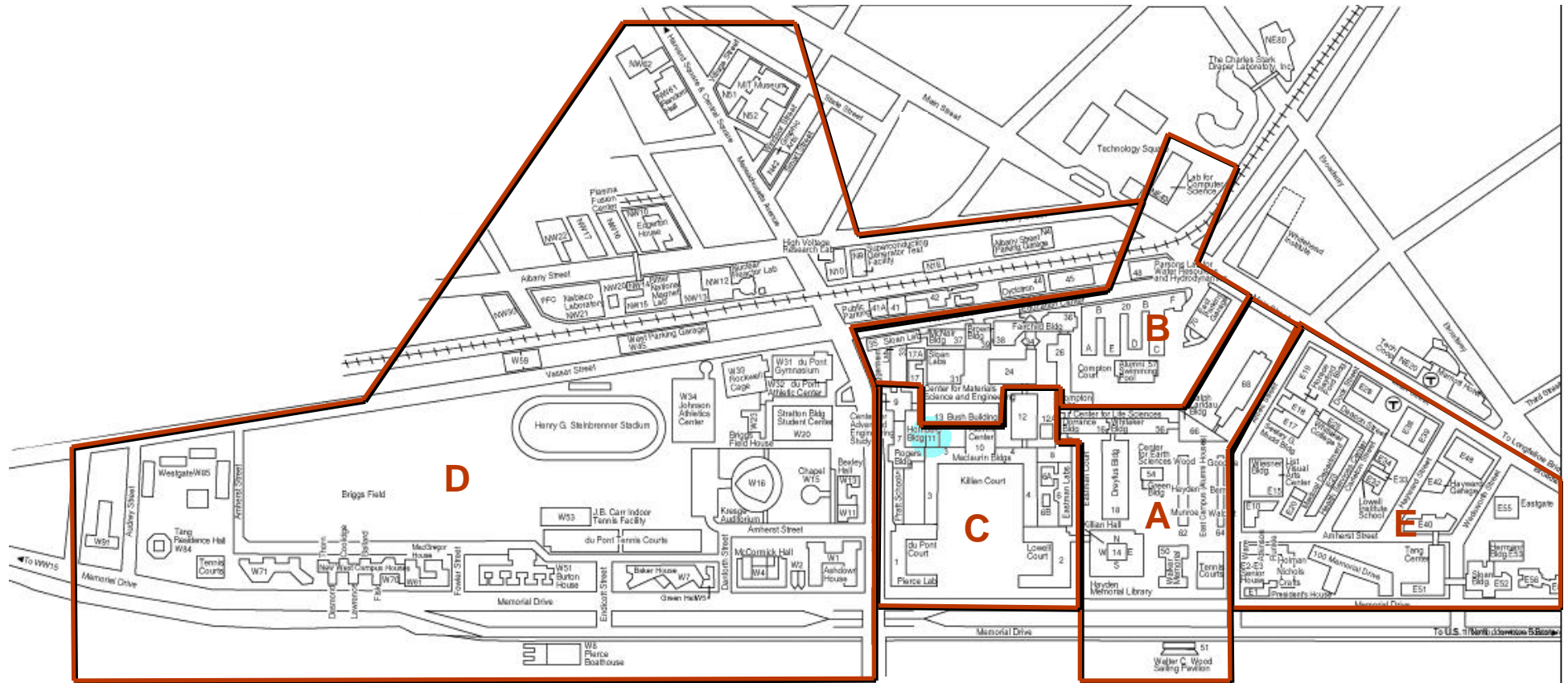
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Resource Teams

Clerical Team	Technical Team	Stock Team	External Teams
<ul style="list-style-type: none">•Responsibility - support work areas and Technical Team•Interact with Stock Team•Process information<ul style="list-style-type: none">–Electronic Clipboard–Work request coordination•Customer communications and coordination<ul style="list-style-type: none">–Internal and external•Back-up Building Management & Protection•Shutdowns•Purchasing	<ul style="list-style-type: none">•Design review•Codes and regulations•Write and interpret standards•Identify and prioritize system upgrades and building renewals•Develop technical info•Engineering - for R&M and other parts of Plant•Training and skill review•Prequalify contractors/vendors•Records - eg: project and PM docs, codes, CAD drawings•Environmental engineering	<ul style="list-style-type: none">•Best price and availability•Staging stock for pickup•Deliveries to Local Zones and job sites	<hr/> <ul style="list-style-type: none">Management Information Systems (MIS)Human ResourcesAccountingEtc. ...



Building Maintenance - Local Zones





Rollout Plan

11

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1/31/96 8:55 PM

- Information sessions 2/5 through 2/9
- “Open House” sessions 2/12 through 2/23
- Interview for Maintenance Mechanic Positions 2/28 through 3/8
- Finalize team assignments 2/26 through 3/8
- Training Starting 3/11
- Local Zone D team begins 4/22 (Tentative)
- Local Zones A,B,C teams begin May through August
- Other teams begin April through August
2nd, 3rd shift, Construction and Renewal,
Emergency Response, Utilities Distribution,
Building Management and Protection,
Technical Support, Clerical, Stock
- Renovate E18/E19 space March through May



Additional Information Sessions

<u>SHOP/SHIFT</u>	<u>DATE/TIME</u>	<u>LOCATION</u>
3rd shift Electrical Mechanical	Mon. 2/5/96 5:45AM-6:45AM	Electric Shop
Electrical 1st shift	Mon. 2/5/96 7:00AM-8:00AM	Electric Shop
R&M Supervisors	Mon. 2/5/96 8:00AM-9:00AM	E18-021
Mechanical 1st shift	Tues. 2/6/96 7:00AM-8:00AM	Pipe Shop
2nd shift Electrical Mechanical Structural	Tues. 2/6/96 3:00PM-4:00PM	Pipe Shop
Structural 1st shift	Wed. 2/7/96 7:00AM-8:00AM	Carpenter Shop
Grounds	Wed. 2/7/96 2:00PM-3:00PM	NW62
Bldg. Svcs 3rd shift	Thurs. 2/8/96 6:00AM-7:00AM	10-250
Bldg. Svcs 1st shift	Thurs. 2/8/96 8:00AM-9:00AM	B/S Training rm
Bldg. Svcs 2nd shift	Thurs. 2/8/96 4:00PM-5:00PM	4-163
Mail Services	Fri. 2/9/96 7:00AM-8:00AM	24-115
DSC, SEG, UTL, MIS, Admin.	Fri. 2/9/96 9:30AM-10:30AM	E25-202
Mail Services	Fri. 2/9/96 2:00PM-3:00PM	24-115

Ops. Center and CUP

Please attend any meeting that fits your schedules.



Questions?

13

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We plan to answer all questions we receive. We may be able to answer some of them at one or several of the scheduled follow-up meetings. If you prefer a personal and private answer, please indicate your name and how we can contact you. If you prefer to submit anonymous questions the answers will be posted. You may also send electronic mail to **rep-maint@MIT.EDU**. Or use the WWW comment form - **<http://web.mit.edu/reeng/www/rep-maint/>**.

Please write your question here, fold, and mail to E18-260.

Name: _____, Telephone No. _____,

Building and Room No. _____, Email Address _____