

MIDLAND PROJECT

July 23, 1982  
J. Kane  
18/B5

CP Co  
Project Office

Bechtel  
Project Management

Soil Project

Soils Remedial	
Mooney	Boos
Schaub	

Cook ----- Rutgers -----

Bauman ----- Curtis -----

Miller ----- Davis -----

Marguglio -----

Daniels -----

Engineering  
Swanberg

*John Schaub  
Resident Engineer*

CP Co  
Design  
Review

Construction  
Fisher

CP Co  
Construction  
Review

Quality  
Meisenheimer

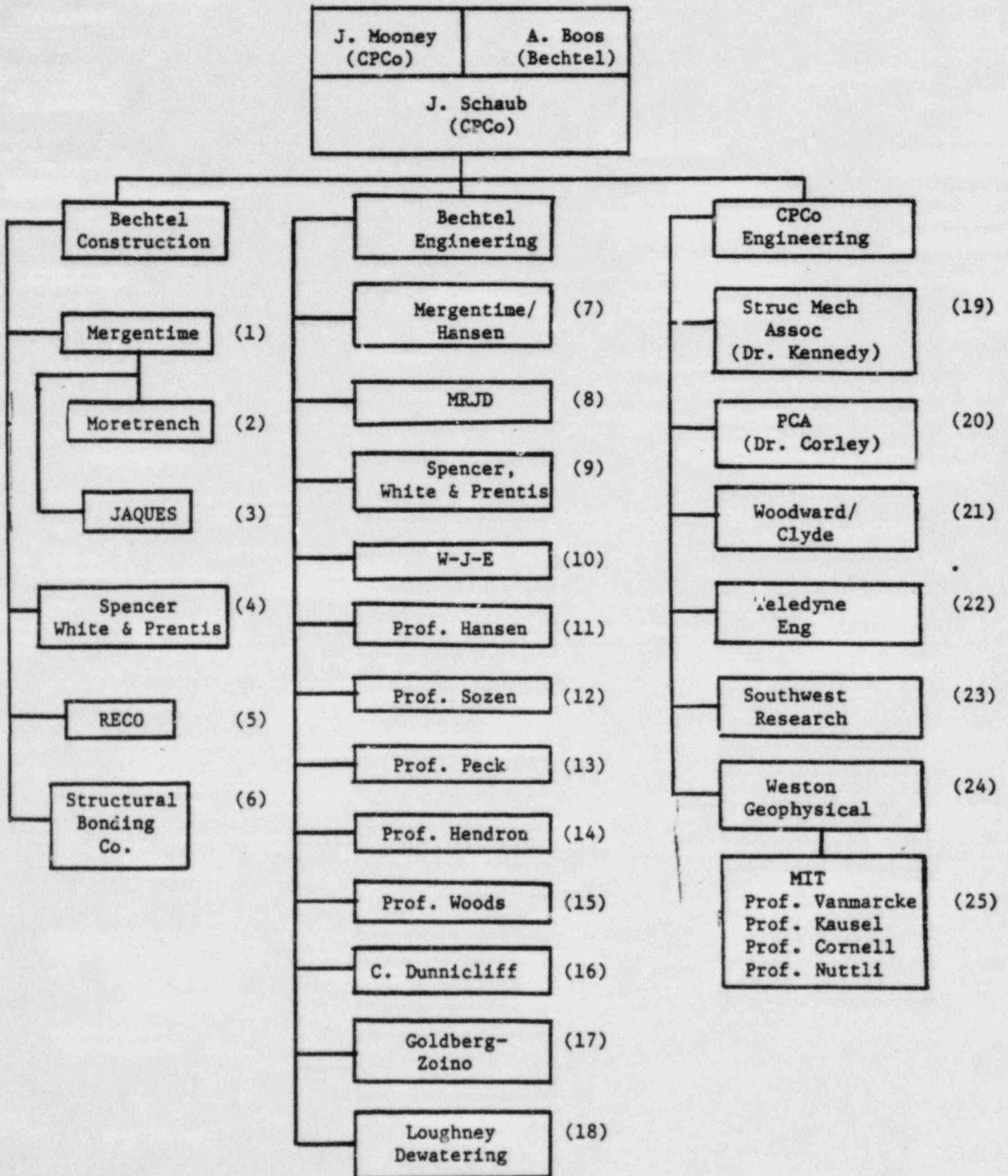
Quality  
Control  
Blendy

Quality  
Assurance  
Horn

- Project Direction
- Technical and Administrative
- - - - Project Coordination

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PDR FOIA PDR  
RICE84-96

LIST OF SPECIALTY CONSULTANTS  
AND SUBCONTRACTORS FOR  
MIDLAND REMEDIAL SOILS WORK



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1. Subcontractor Performing underpinning of auxiliary building and FIVP foundation material replacement
2. Subcontractor Responsible for groundwater control in support of auxiliary building underpinning
3. Subcontractor Responsible for soils stabilization (if necessary)
4. Subcontractor Performing service water pump structure underpinning; also providing system for temporary support of utilities during fill replacement north of SWPS and CWIS
5. Subcontractor Has developed a proposal for and will relevel borated water storage tank 1T-60
6. Subcontractor Performed crack repair on BWST foundations
7. Consultant Providing input for design of auxiliary building underpinning and review major underpinning details of auxiliary building
8. Consultant Providing input for design of service water pump structure underpinning and review major underpinning details of auxiliary building and SWPS; also providing overview of construction at the Midland jobsite
9. Consultant Providing input for integrating SWPS underpinning and removal of soil in designated part of service water piping
10. Consultant Providing instrumentation of auxiliary building and SWPS to detect movement and measure strain of selected points; also developed procedures and performed crack mapping in auxiliary building and SWPS
11. Consultant Bechtel chief civil engineer's staff; reviews structural model, analytical technique and results of analysis for auxiliary building, SWPS, and BWST
12. Consultant Provides input to Bechtel regarding behavior of concrete, including variation of stiffness due to cracking in concrete

13. Consultant            Provided recommendations on remedial action for the diesel generator building and the general approach to permanent plant dewatering and underpinning
14. Consultant            Provided recommendations on remedial action for the diesel generator building and the general approach to permanent dewatering and underpinning; provided testimonies on static and seismic stability, ECWR dikes, and the BWST soils aspects
15. Consultant            Made dutch cone and shear wave velocity measurements; performed dike stability calculations and settlement calculations
16. Consultant            Provided consulting services on instrumentation for diesel generator building
17. Subcontractor        Performed laboratory and field soil tests and installed and monitored instrumentation
18. Consultant and Subcontractor    Provided consulting and subcontract service on site temporary dewatering; subcontractor to SW&P on SWPS temporary dewatering
19. Consultant            Provided overview of design basis, seismic criteria, and dynamic models for seismic analyses; separately performed seismic margin review for site specific response spectra earthquake
20. Consultant            Performed evaluation of cracks in concrete structures, specifically, auxiliary building, FIVP, SWPS, and DGB under existing conditions, their effects on structural integrity and serviceability; will also be responsible for evaluation of concrete cracks during underpinning
21. Subcontractor        Performed soil investigation through boring programs and developed laboratory test results
22. Consultant            Overall consultant on underground piping; developed acceptance criteria for same
23. Consultant            Performed pipe profile measurements
24. Consultant            Developed site specific response spectra; performed seismic hazard analysis and soil amplification studies through fill material
25. Consultants           Provide consulting services to Weston Geophysical for soil amplification, studies, seismic hazard analysis and seismology