

PALOMAR MEDICAL CENTER - RETROFIT ESTIMATES

Questar Engineering Inc. 9/30/02

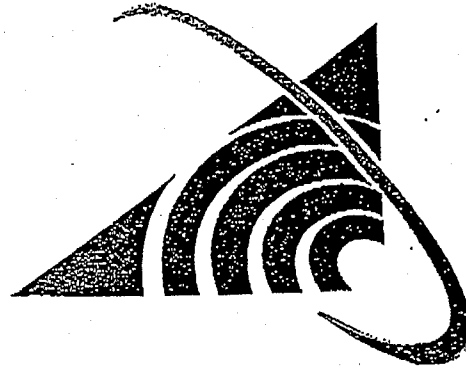
McLeod Tower		\$26,622,050
Upgrade to SPC 2		\$5,687,500
Building Upgrades, 8 floors		\$14,800,000
Contingency		\$6,134,550
McLeod East		\$12,026,249
Upgrade to SPC 2		\$2,874,711
Temp/relocated MEP		\$4,413,750
MEP Upgrades		\$1,962,500
Contingency		\$2,775,288
Adams Wing		\$10,023,000
Upgrade to SPC 2		\$135,000
Building Upgrades		\$7,575,000
Contingency		\$2,313,000
Central Plant Upgrades		\$3,485,500

Exclusions

- Design
- Furnishings
- Demolition
- Non-fixed equipment
- Permits
- Governmental fees
- Inspection costs
- Art work
- Landscaping
- Donor recognition
- Heliport
- Utility fees
- Loss of revenue
- Moving costs
- Phasing
- Staging
- Storage fees
- Temporary structures
- Services during construction
- Upgrade to non-structural building system

Note: "The building deficiencies in the McLeod Tower are too numerous for this report"

Subtotal		\$52,156,799
Escalation, 2002 to 2004	8%	\$4,172,544
Escalation, 2004 to 2006	20%	\$11,265,869
Total		\$67,595,212



QUESTAR
ENGINEERING, INC.

CONSTRUCTION COST EVALUATION REPORT

FOR:

PALOMAR MEDICAL CENTER



September 30, 2002

Mrs. Marcia Jackson
Palomar Pomerado Health System
15255 Innovation Dr. Suite 204
San Diego, CA 92128-3410

Dear Marcia,

The following constructability report was based on the conceptual seismic upgrades suggested in the Dame & Moore & Chekene Phase 1A Report dated October 25, 1999. With additional information obtained from the URS/Dames & Moore SB1953 Seismic Evaluation Report dated December 2000 and the report from Hamilton HMC dated August 30, 2000. Questar makes no opinion as to the accuracy of these reports or their suggested seismic upgrades. Due to a new code implementation since 1999, the suggested seismic upgrades would have to be updated at some time.

Questar looked at the suggested upgrades with a real world construction approach. Each area to be upgraded was physically inspected by Questar and photo documented. This included the adjacent areas affected by the upgrade, as well as any above ceiling areas that were accessible. While compiling the estimated construction costs, Questar included the relocation or replacement of these systems in order to accomplish the work.

The estimates also included remodeling costs to today's codes to replace the spaces that were demolished due to the upgrade. A separate cost is shown in order to upgrade any systems that are in need of replacement or currently failing.

Sincerely,

Jim Salomon
Principal

construction cost only

Not included: Permits, architectural, soft copy

esign
instruction &
anagement

13 32nd Street
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A 92663-3802

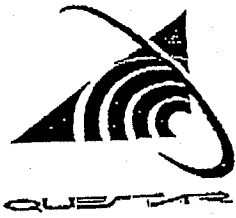
fr: 949-723-9440
ax: 949-723-9470
mail:
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@aol.com

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LOCATION: 323 525 0955



Introduction & Approach



**PALOMAR MEDICAL CENTER
SB1953 / NEW TOWER
CONSTRUCTION COST EVALUATION**

1.0 INTRODUCTION

Of the six acute care buildings on the Palomar Medical Center campus three are evaluated as SPC 1. The McLeod Tower, the McLeod Tower East Extension and the Adams Wing. Each of these buildings were evaluated for upgrade to SPC 2 based on the conceptual seismic upgrades in the October 25, 1999 report by Dames & Moore/Rutherford & Chekene. Please note that any comparison to new construction must take into consideration that an SPC 2 building may not be used beyond 2030. A new building would be usable beyond 2030.

2.0 APPROACH

Each area of upgrade was inspected and evaluated for constructability then photo documented. Ancillary areas affected were factored into the construction cost estimates. Building systems that would have to be relocated, retrofitted or replaced were also factored into the cost estimates. We also looked at building systems not affected by the required seismic upgrade. This is due to the fact that these building systems integrally support the non-conforming buildings. To provide the cost to only upgrade the non-conforming building would not accurately depict the overall cost of the upgrade.



3.0 CONCEPTUAL COST ESTIMATES

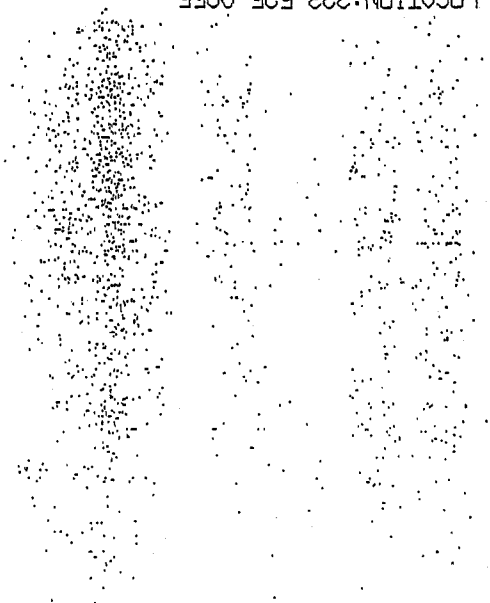
There are no construction documents in which to base a completely accurate construction cost estimate at this time. All cost estimates are based on conceptual seismic upgrades and preliminary drawings. The seismic upgrades were originally proposed in 1999, which was designed to outdated codes. Questar utilized several factors in determining accurate real world cost estimates to the extent possible; Today's updated code requirements, historical data from past or recent healthcare construction projects of similar scope, quotations from trade partners and to a lesser extent ACE construction cost guide and Means Construction Data. Anytime there was a question as to a possible ramification to an adjacent building system due to construction, it would be included into the cost estimate.

The construction cost estimates are for hard construction costs only. There are no estimates included for the following; Architectural and Engineering fees, furnishings, demolition, non-fixed equipment, permits, governmental fees, inspection costs, art work, landscaping, donor recognition, heliport, utility fees, loss of revenue, moving cost, phasing, staging, storage fees and temporary structures and services during construction.

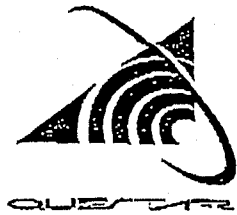
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**Existing
Building
Evaluations**



4.0 OVERALL CONSTRUCTABILITY OF BUILDINGS

4.1 McLeod Tower – 1967 – SPC –1

Upgrade of this building to SPC 2 calls for the construction of new foundation / footings approx. 800 to 1000 sq. ft. at the north end of the building, the construction of three new 12 inch concrete shear walls to the fourth floor, two new 12 inch concrete shear walls from the fourth floor to the roof, jacketing of up to 16 concrete columns or walls, detachment of bottom connections of the rigidly connected precast curtain wall panels and reconnection to accommodate movement and reconstruction of building separations between McLeod and the adjacent buildings. The foundation work will affect fire sprinkler mains on the north east side of the building. The concrete panel removal and shear wall installation will impact adjacent patient rooms at the north end of the building, work areas, nurse stations, med gas systems, HVAC, plumbing and electrical. Approximate area of inside building remodel is 17,500 sq. ft. Cost of SB1953 retrofit and adjacency area remodel is approximately: **\$5,687,500.**

The seismic upgrade of the McLeod Tower does not address the serviceability of the rest of the building systems until the year 2030. In order to appreciate the full impact of the construction cost, the overall upgrade of the building system was considered. The building deficiencies in the McLeod Tower are too numerous for this report. The following are the most important and costly to upgrade; the waste plumbing is a shared cast iron stack system servicing every two rooms, which is approximately 34 years old. Of all the waste systems inspected, all were almost completely deteriorated. After discussing this issue with hospital maintenance personnel, it is our opinion that all waste systems will need to be replaced. The electrical system is at capacity and has no separation of services between emergency and standard power.



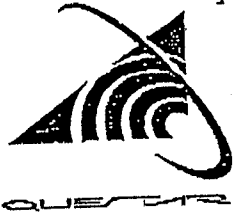
4.0 OVERALL CONSTRUCTABILITY OF BUILDINGS (Cont.)

4.1 McLeod Tower – 1967 – SPC -1

The electrical system would have to be completely redone in order to separate the emergency power and upgrade capacity. The entire building would have to be retrofitted to include a new fire sprinkler system. The heating system is a single pipe system on the 3rd and 4th floor and 1/2 kw electric re-heat zones on the remaining, which are not adequate to provide a varying control of temperature. ADA upgrades would need to be made to bring the tower into compliance. Asbestos abatement has begun in various parts of the building, approximately 60% of the building remains to be abated. We estimate to upgrade all the building systems and remodel to new codes is approximately \$1,850,000 per floor, times eight floors (ninth floor already remodeled). Total building system upgrade is approximately: \$14,800,000.

McLeod Tower Construction Cost Grand Total:

SPC 2 SIESMIC UPGRADE COST:	\$ 5,678,500
BUILDING UPGRADE COST:	<u>\$14,800,000</u>
GRAND TOTAL COST:	\$20,478,500



4.0 OVERALL CONSTRUCTABILITY OF BUILDINGS (Cont.)

4.2 McLeod East Extension 1967 - SPC -1

There were four schemes proposed in the Dames & Moore / Rutherford & Chekene report to upgrade the McLeod East Extension. The first two included the removal of the penthouse which houses a doctor's dining room and doctor's library. The other two schemes included upgrades that would retain the penthouse. The last two schemes require additional seismic upgrade work in order to correct for the deficiencies caused or aggravated by the penthouse. There are numerous problems with the performance of construction related to seismic upgrades in this building. The most problematic is the upgrades or additions of foundation and footing work. This work takes place in the basement of the McLeod East Extension. The basement of this building houses at least 50% of the central plant that services the campus. The foundation retrofit schemes call for new footings, columns, shear walls, new concrete walls, doweling and epoxy work. Most of this work would impact critical mechanical, electrical, plumbing and other building systems. Questar believes while this work is possible, it is highly unlikely. This due to the fact that these systems would have to be first relocated in order to make room for the construction to take place. Not only will this be costly, but also will require interruption of services provided by these critical systems. The actual cost of construction to perform only the seismic upgrade (without the moving of these systems) would be less costly than the relocation of the MEP systems themselves. The estimated cost to perform the upgrades (schemes 1 & 2 and adjacency area remodel) without relocating and restoring critical MEP systems is approximately: **\$2,874,711**. The estimated cost to relocate MEP systems, provide temporary services and restore upgraded systems is approximately: **\$4,413,750**.



4.0 OVERALL CONSTRUCTABILITY OF BUILDINGS (Cont.)

4.2 McLeod East Extension 1967 - SPC -1

Similar to the McLeod Tower the McLeod East Extension shares the same lack of serviceability issues. While this wing does not house patient care areas, it will still need mechanical, electrical and plumbing upgrades. Total building system upgrade is approximately: **\$1,962,500.**

McLeod East Extension Construction Cost Grand Total:

SPC 2 SIEMIC UPGRADE COST:	\$ 7,288,461
BUILDING UPGRADE COST:	<u>\$ 1,962,500</u>
GRAND TOTAL COST:	\$ 9,250,961



4.0 OVERALL CONSTRUCTABILITY OF BUILDINGS. (Cont.)

4.3 Adams Wing - 1957 - SPC - 1

Upgrade of this building to SPC 2 calls for the removal of a discontinuous rigid 10" concrete wall and replace it with a nonrigid wall on the second floor. The seismic upgrade of this building is minor compared to the other buildings. However, due to the age and construction of this building, it is not a candidate for upgrade. Most building systems must be replaced. The electrical system is under capacity and has old breaker technology. Replacement parts are not readily available for this system. The HVAC system is 100% outside air and has control problems. Some floors have under code supply air readings. The building exhaust system is vertically zoned with six fans and is not controlled properly. The heating system is an old single pipe system, with little control. The dietary department is contained in this building and also needs complete replacement. Many code issues need to be upgraded as well as equipment replaced. The HVAC system in dietary is under capacity and does not supply enough cool air and does not have any return air. The equipment in dietary is 15 to 25 years old and would need replacement. Cost of SB1953 retrofit and adjacency remodel is approximately: **\$135,000.**

A major factor in not being able to upgrade this building is due to the height of the ceiling decks. From deck to deck there is only ten feet. In order to upgrade the MEP systems it would require at least twelve feet separation from deck to deck. This will allow room for new MEP systems without having to create shafts or other non-compliant retrofitting measures. In addition to all the deficient systems a portion of the utility bridge runs through this building, further complicating upgrade. Total building system upgrade cost is approximately: **\$7,575,000.**

SPC 2 SEISMIC UPGRADE COST:	\$ 135,000
BUILDING UPGRADE COST:	<u>\$ 7,575,000</u>
GRAND TOTAL COST:	\$ 7,710,000



5.0 SUMMARY OF OVERALL EXISTING BUILDING UPGRADE COST:

5.1 Total of Three Buildings Estimated Cost Of Upgrade and Retrofit

McLeod Tower:	\$20,478,500
McLeod East Extension:	\$ 9,250,961
Adams Wing:	\$ 7,710,000

GRAND TOTAL BUILDING COST: \$ 37,439,461

5.2 Total of Three Buildings Estimated Cost Of Upgrade and Retrofit With New Code, Central Plant Upgrades and Contingency

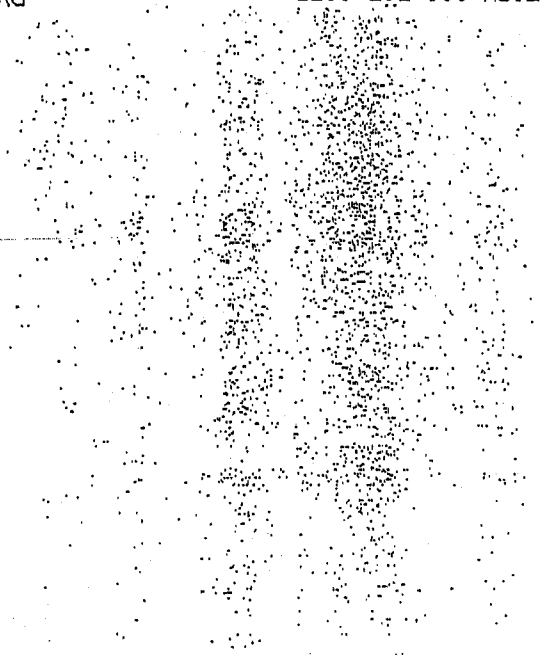
McLeod Tower:	153	\$26,622,050	
McLeod East Extension:	20	\$ 12,026,249	
Adams Wing:	20	\$ 10,023,000	
Central Plant Upgrades:		\$ 3,485,500	CHILLER NEW 16,000,000
	190,000		

GRAND TOTAL BUILDING COST: \$ 52,156,799 64,600,000

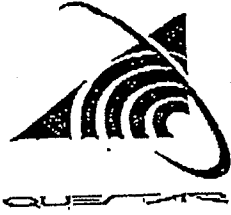
$\div 211,000 = 250/SF +$

$+ 25\%$

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New Tower Evaluations



occupancy 2007

6.0 NEW CONSTRUCTION COST ESTIMATES

6.1 New Tower Without Partner (343 beds) - 2005

New Tower Gross Square Footage:	309,386
Renovation of Vacated Space:	5,744
Expansion of Existing Space:	12,413
TOTAL BGSF:	327,543

TOTAL BUILDING COST: \$103,176,045

6.2 New Tower With Partner (441 beds) - 2005

New Tower Gross Square Footage:	397,782
Renovation of Vacated Space:	7,385
Expansion of Existing Space:	15,959
TOTAL BGSF:	421,126

TOTAL BUILDING COST: \$132,654,690

fixed equip only

no mobil

+ 25%

+ 10% contingency

"end of Day"



6.0 NEW CONSTRUCTION COST ESTIMATES (Cont.)

The existing physical plant is under capacity and most equipment needs replacement. There are two 500-horse boilers and two 300-ton absorption chillers that are vintage 1968. The newer equipment (vintage 1988) consists of two 750-ton chillers and a Trane centrifugal which all use non-compliant R-11. The two 650 kw turbo charged, natural gas co-generation units can be reused and relocated. The bulk O2 is only approximately 110 feet off the Adams Building and would have to be relocated.

6.3 New Central Plant Without Partner— 2005

Approximate Cost Of New

Central Plant With Relocated Equipment: **\$16,438,973**

6.4 New Central Plant With Partner— 2005

Approximate Cost Of New

Central Plant With Relocated Equipment: **\$21,135,822**



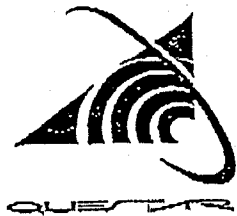
6.0 NEW CONSTRUCTION COST ESTIMATES (Cont.)

6.5 New 350 Space Parking Structure Without Partner – 2004

Approximate Cost Of New Parking Structure: \$4,725,000

6.6 New 445 Space Parking Structure With Partner – 2004

Approximate Cost Of New Parking Structure: \$6,007,500



7.0 SUMMARY OF NEW BUILDING ESTIMATED CONSTRUCTION COST:

7.1 Total Estimate Of New Building Cost W/O Partner

New 343 Bed Tower:	\$103,176,045	+ 25	+ 10	= 140
New Central Plant:	\$ 16,438,973	+ 25	+ 10	23
New 350 Space Parking:	\$ 4,725,000	+ 10		5
GRAND TOTAL BUILDING COST:	\$124,340,018			<u>168</u>

7.2 Total Estimate Of New Building Cost W/ Partner

New 441 Bed Tower:	\$132,654,690	+ 25	+ 10	178
New Central Plant:	\$ 21,135,822	+ 25	+ 10	28
New 445 Space Parking:	\$ 6,007,500	+ 10		7
GRAND TOTAL BUILDING COST:	\$159,798,012			<u>213</u>



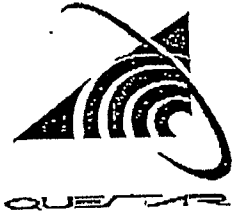
7.0 SUMMARY OF NEW BUILDING ESTIMATED CONSTRUCTION COST (Cont.):

7.3 Construction Cost Summary To Compare Retrofit With New Construction Without Partner

SB1953 Retrofit Cost

New Tower W/O Partner

Building	Cost	Building	Cost
McLeod Tower	\$26,622,050	New Tower	\$103,176,045
McLeod East	\$ 12,026,249	Central Plant	\$ 16,438,973
Adams Wing	\$ 10,023,000	Parking Structure	\$ 4,725,000
Plant Upgrades	\$ 3,485,500		
TOTAL	\$52,156,799	TOTAL	\$124,340,018



7.0 SUMMARY OF NEW BUILDING ESTIMATED CONSTRUCTION COST (Cont.):

7.4 Construction Cost Summary To Compare Retrofit With New Construction With Partner

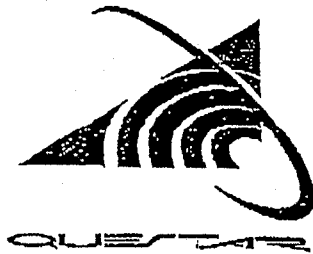
SB1953 Retrofit Cost

New Tower W/ Partner

Building	Cost	Building	Cost
McLeod Tower	\$26,622,050	New Tower	\$132,654,690
McLeod East	\$ 12,026,249	Central Plant	\$ 21,135,822
Adams Wing	\$ 10,023,000	Parking Structure	\$ 6,007,500
Plant Upgrades	\$ 3,485,500		
TOTAL	\$52,156,799	TOTAL	\$159,798,012

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Exhibits



503 32nd Street, Suite 120 Newport Beach, CA 92663
 PHONE: (949) 723-8440 FAX: (949) 723-8470

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

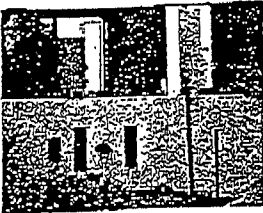
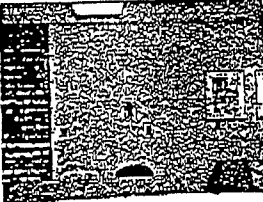

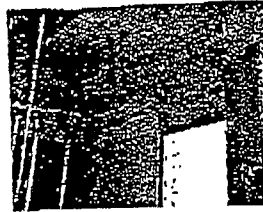


Project #: 2208

Photo	Photo # Building	Location/Floor	Area Description
	#1 McLeod	North/Outside	Upper half of tower
	#2 McLeod	North/Outside	Middle half of tower
	#3 McLeod	North/Outside	Lower half of tower
	#4 McLeod	North/Outside	Footing / Columns

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

Project #: 2208

Photo	Building	Location/Floor	Area Description
	#5 McLeod	North/ Outside	Fire Mains @ lower base
	#6 McLeod	Inside/ 2 nd Floor	North Psychiatric Unit Day Room
	#7 McLeod	Inside/ 3 rd Floor	North upper inside of wall
	#8 McLeod	Inside/ 3 rd Floor	North West upper inside of wall
	#9 McLeod	Inside/ 3 rd Floor	North West Angio Work Room
	#10 McLeod	Inside 3 rd Floor	North stairwell looking down

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

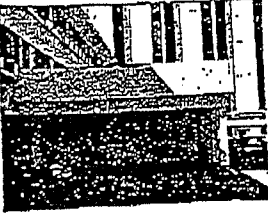



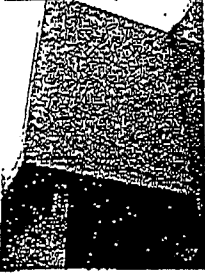
Project #: 2208

Photo	Building	Location/Floor	Area Description
	#11 McLeod	Inside 4 th Floor	North East Pediatric Care Room #414
	#12 McLeod	Inside 4 th Floor	North East Ped. Care Rm. #414 From doorway
	#13 McLeod	Inside 4 th Floor	North Room #417 from doorway
	#14 Adams	Outside 2 nd Floor	Existing shear wall
	#15 Adams	Outside Loading Dock	Below existing shear wall
	#16 McLeod East	Outside Roof	Penthouse/Drs. Dining/ Library

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation




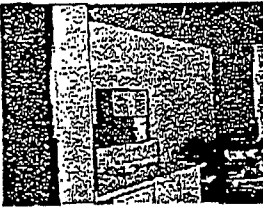
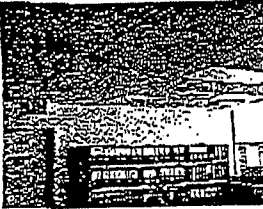
Project #: 2208

Photo	Building	Location/Floor	Area Description
	#17 McLeod East	Outside Roof	Penthouse boking West
	#18 McLeod East	Outside East	1 st Floor New Column Location
	#19 McLeod East	Outside East	1 st Floor New Column Location
	#20 McLeod East	Outside North East	1 st Floor Shot Crete Area
	#21 McLeod East	Outside North East	1 st Floor Shot Crete Area

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

Project #: 2208

Photo	Building	Location/Floor	Area Description
	#22 McLeod East	Inside 2 nd Floor	New shear wall location S.E. side
	#23 McLeod East	Inside 2 nd Floor	New shear wall location Shipping and Receiving
	#24 McLeod East	Inside Penthouse	Library
	#25 McLeod East	Inside Penthouse	Drs. Dinning South
	#26 McLeod East	Inside Penthouse	Drs. Dinning West

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation






Project #: 2208

Photo	Building	Location/Floor	Area Description
	#27 Adams	Inside 2 nd Floor	Wall up grade area
	#28 Adams	Inside 2 nd Floor	Wall up grade area
	#29 McLeod East	Outside 1 st Floor	North West up grade area
	#30 McLeod East	Outside 1 st Floor	North West up grade area
	#31 McLeod East	Outside 1 st Floor	West up grade area

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation


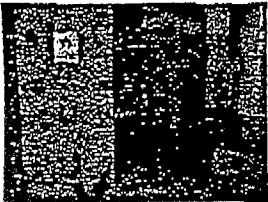
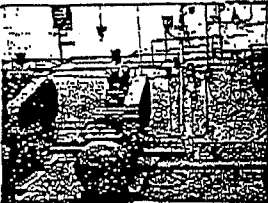


Project #: 2208

Photo	Building	Location/Floor	Area Description
	#32 McLeod East	Outside 1 st Floor	North West footing transformers
	#33 McLeod East	Outside 1 st Floor	North West fire lines
	#34 McLeod East	Inside 2 nd Floor	Sterile Supply shearwall area
	#35 McLeod East	Inside 2 nd Floor	Sterile Supply shearwal area
	#36 McLeod East	Inside 2 nd Floor	Decontamination up grade area

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

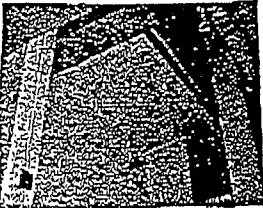




Project #: 2208

Photo	Building	Location/Floor	Area Description
	#37 McLeod East	Inside Plant	Shear wall footing area fig.14
	#38 McLeod East	Inside Plant	Shear wall footing area West side
	#39 McLeod East	Inside Plant	Shear wall footing upgrade area
	#40 McLeod East	Inside Plant	Shear wall footing area East side
	#41 McLeod East	Inside Plant	Shear wall footing area East side

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

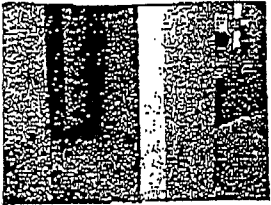

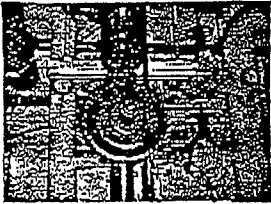

Project #: 2208

Photo	Building	Location/Floor	Area Description
	#42 McLeod East	Inside Plant	New footings at columns
	#43 McLeod East	Inside Plant	New footings at columns
	#44 McLeod East	Inside Plant	New footings at columns
	#45 McLeod East	Inside Plant	New footings at columns
	#46 McLeod East	Inside Plant	New footings at columns

PROJECT PHOTO DOCUMENTATION SHEET

Project: Palomar Medical Center / SB1953 Constructability Evaluation

Project #: 2208

Photo	Building	Location/Floor	Area Description
	#47 McLeod East	Inside Plant	New footings at columns
	#48 McLeod East	Inside Plant	New footings at electrical location
	#49 McLeod East	Inside Plant	New footings sheer wall
	#50 McLeod East	Outside Plant	East wall side upgrade