

DESERT REGIONAL MEDICAL CENTER

Seismic Regulatory Compliance – PHASE 1

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Senior Principal
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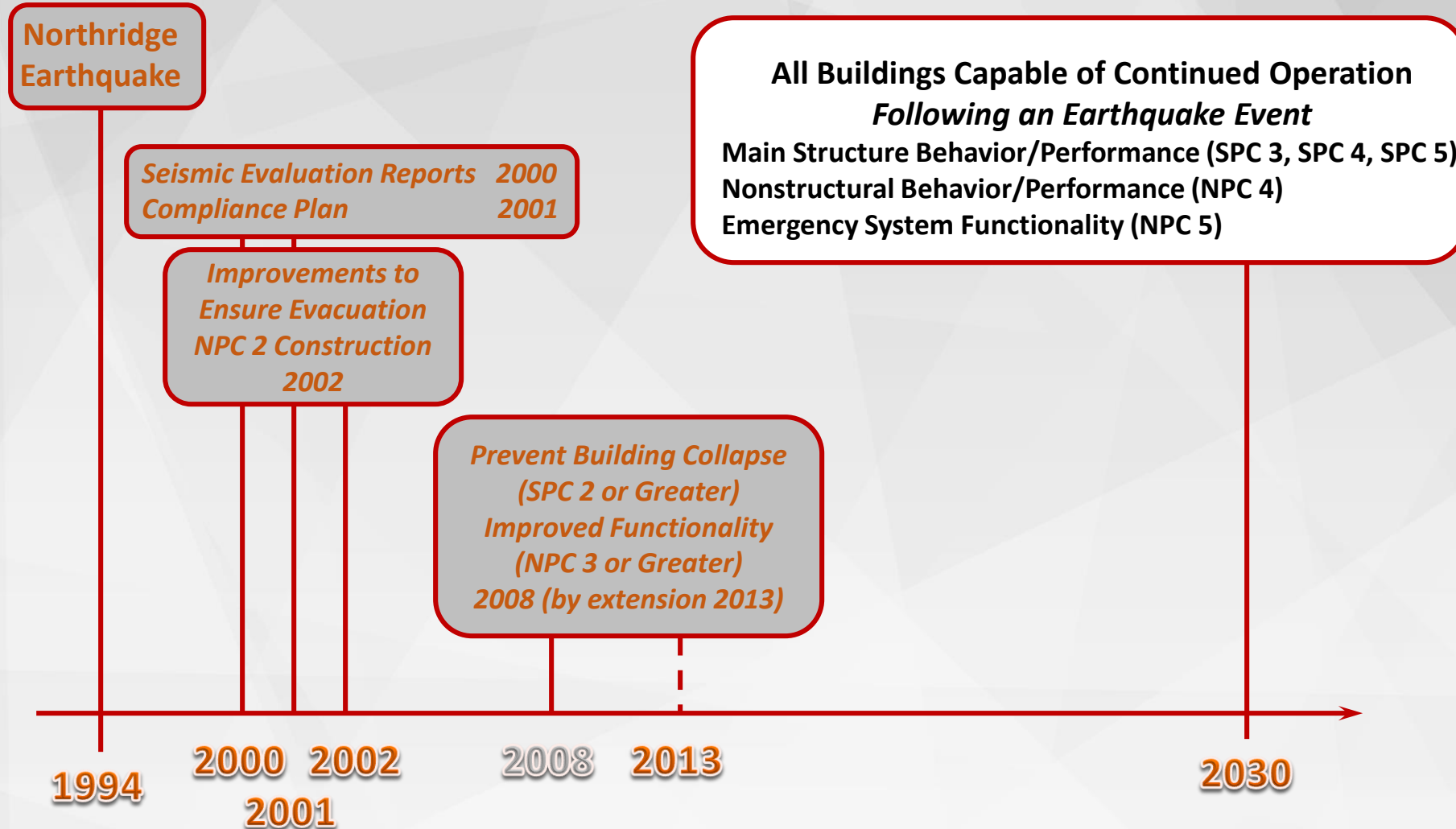
DESERT
REGIONAL

PHASE 1

SIMPSON GUMPERTZ & HEGER

Engineering of Structures
and Building Enclosures

California Seismic Compliance (SB 1953 / Alquist Hospital Seismic Safety Act) Target Compliance Objectives and Major Milestones



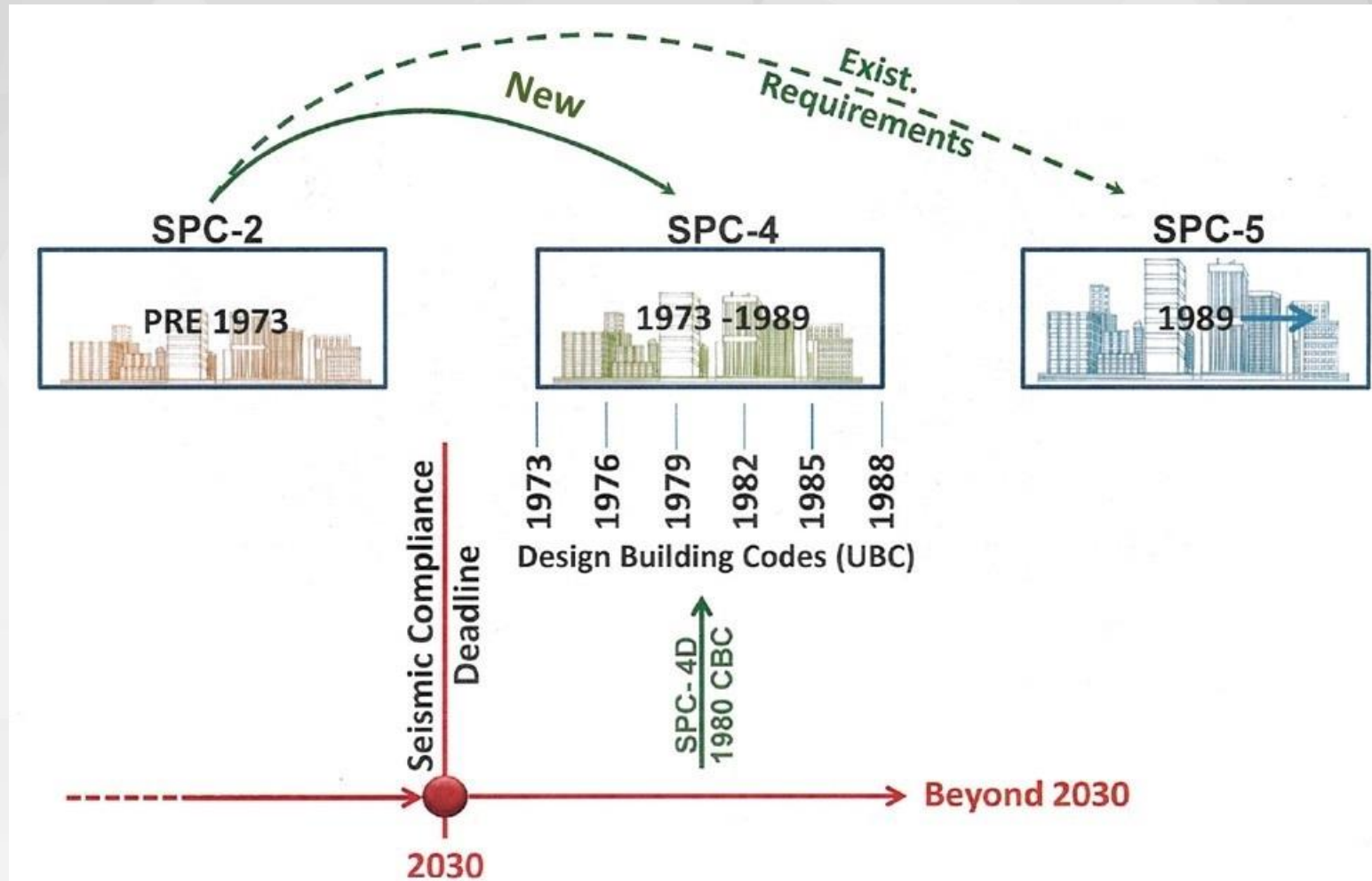
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Structural Performance Categories Description and Timing

- **Structural Performance Category (SPC)**
 - SPC 1: Buildings posing a significant risk of collapse and danger to the public.
 - **SPC 2: Buildings NOT in Compliance with the AHSSA***
 - May not be repairable or functional following strong ground motion
 - Must be removed from GAC service by 1/1/2030
 - SPC 3: Certain Steel Moment Frame Buildings in Compliance with the AHSSA*
 - May not be repairable or functional following strong ground motion
 - May be used beyond 1/1/2030
 - SPC 4: Buildings in Compliance with the AHSSA*
 - May experience structural damage that could disrupt services following strong ground motion
 - May be used beyond 1/1/2030
 - **SPC 4D: Buildings in Compliance with the 1980 CBC and by extension the AHSSA***
 - SPC 5: Buildings in Compliance with the AHSSA*
 - Expected to be reasonably capable of continued operation following strong ground motion
 - May be used beyond 1/1/2030

* Alquist Hospital Seismic Safety Act (AHSSA)

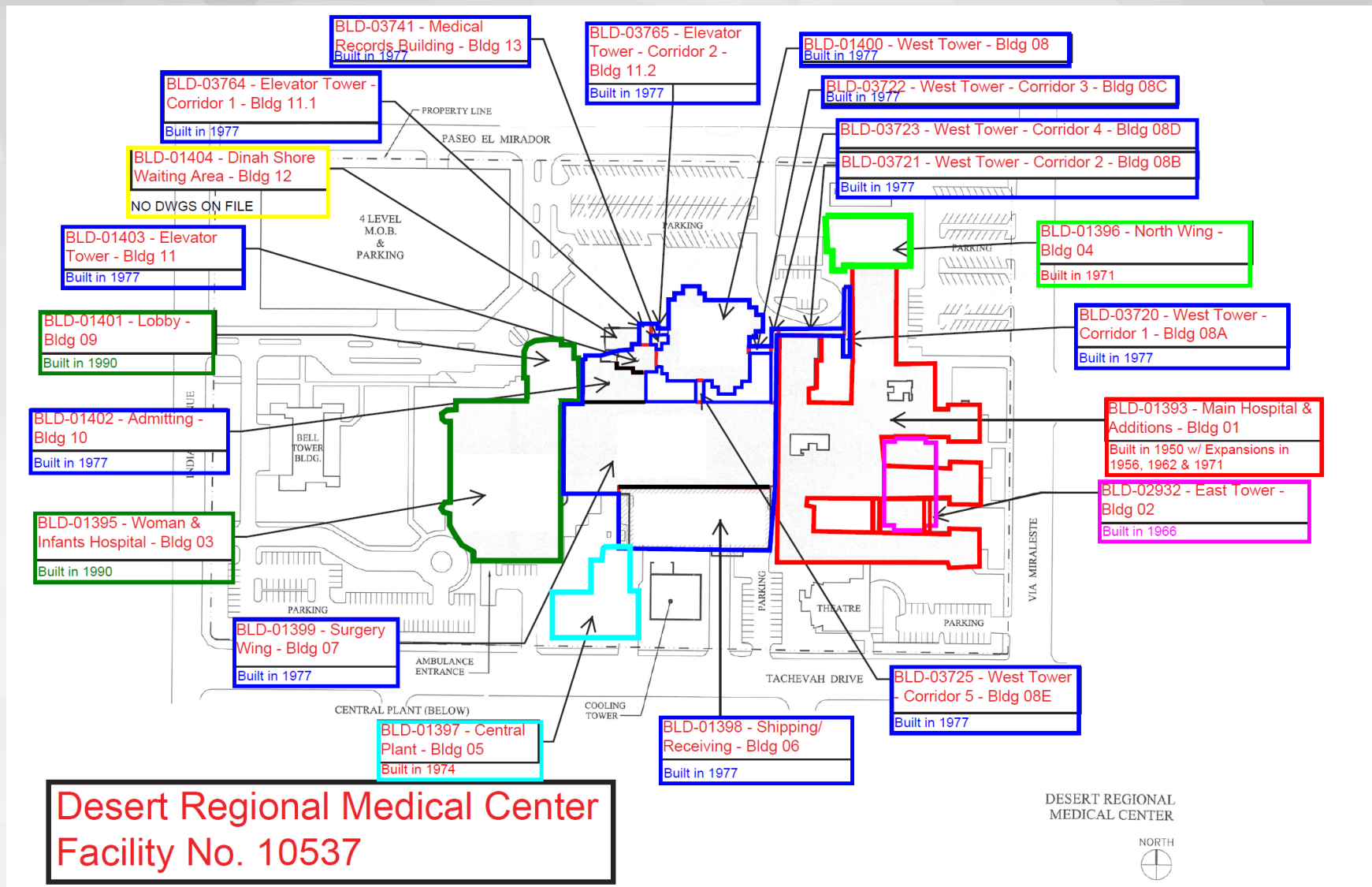
SPC 4D



Nonstructural Performance Categories Description and Timing

- **Nonstructural Performance Category (NPC)**
 - NPC 1 – Rating for a Building with non-compliant Architectural Components
 - Equipment and Systems (pre-1973, w/ no mitigation/retrofit)
 - NPC 2 – Essential Emergency Systems are Compliant
 - NPC 3 – Architectural Components, Equipment and Systems are Compliant
 - Critical Care Areas ONLY (subset of NPC 4)
 - **NPC 4 – Architectural Components, Equipment and Systems are Compliant**
 - ALL areas of the Building
 - NPC 4D - Architectural Components, Equipment and Systems are Compliant in
 - SOME areas of the Building, with NPC 3 being fully compliant (regulations effective July 1, 2019)
 - NPC 5 – NPC 4 + 72 Hour Self-Sufficiency
 - (Water, Sanitary, Diesel Fuel for Generators & Boilers)
 - “Compliant” varies in application, but is intended to result in a building essentially capable of continued operation following an earthquake with minimum “down time”

Desert Regional Medical Center

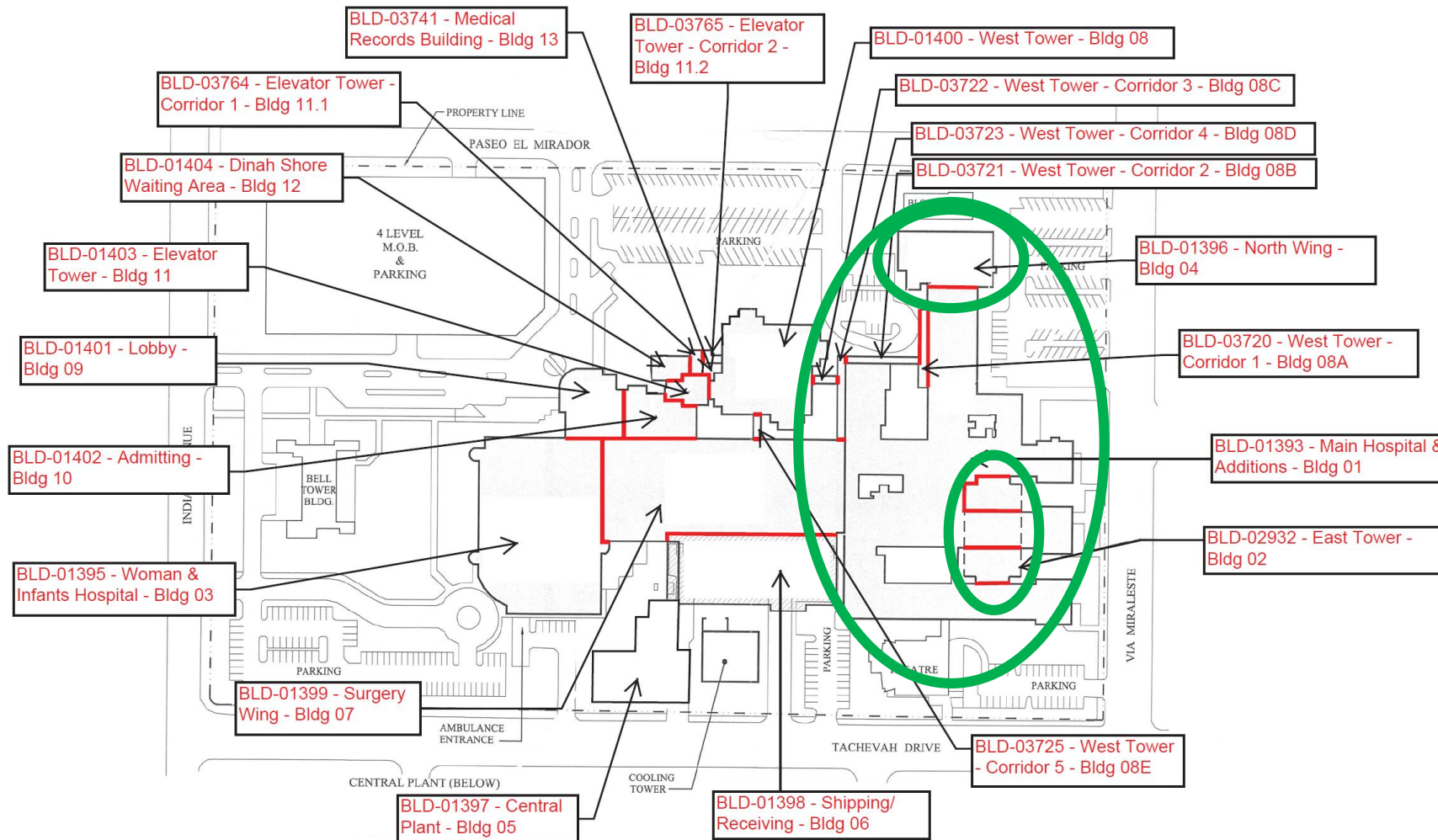


PHASE 1

Building Data and SPC/NPC Ratings

Building Number	OSHPD Building Number	Building Name	SPC	NPC
1	BLD-01393	Main Hospital & Additions	2	2
2	BLD-02932	East Tower	2	2
3	BLD-01395	Woman & Infants Hospital	3	2
4	BLD-01396	North Wing	2	2
5	BLD-01397	Central Plant	4	2
6	BLD-01398	Shipping/Receiving	4	2
7	BLD-01399	Surgery Wing	4	2
8	BLD-01400	West Tower (Sinatra Tower)	3	2
8A	BLD-03720	West Tower Corridor 1	3	2
8B	BLD-03721	West Tower Corridor 2	3	2
8C	BLD-03722	West Tower Corridor 3	3	2
8D	BLD-03723	West Tower Corridor 4	3	2
8E	BLD-03725	West Tower Corridor 5	3	2
9	BLD-01401	Lobby	3	2
10	BLD-01402	Admitting	4	2
11	BLD-01403	Elevator Tower	4	2
11.1	BLD-03764	Elevator Tower Corridor 1	3	2
11.2	BLD-03765	Elevator Tower Corridor 2	3	2
12	BLD-01404	Dinah Shore Waiting Area	3	2
13	BLD-03741	Medical Records Building	3	2

Desert Regional Medical Center – SPC \$



**Desert Regional Medical Center
Facility No. 10537**

PHASE 1

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MEDICAL CENTER



SPC Construction Cost Matrix

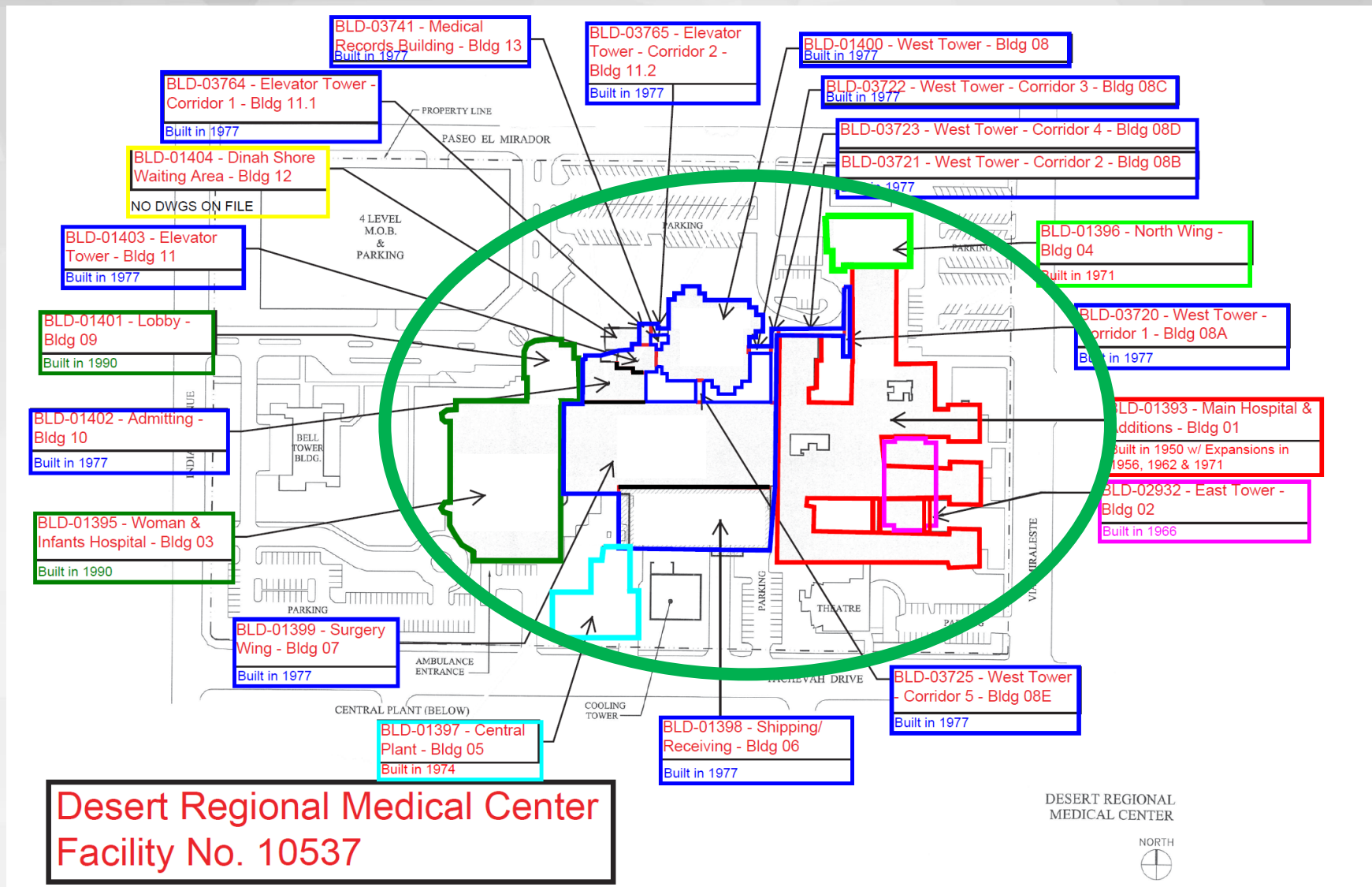
Building	Direct Construction Cost	DCC + Costs & Fees	DCC + Cost & Fees + 10% Contingency + 20% Escalation
Main Hospital	\$30,564,082	\$38,058,338	\$50,237,006
East Tower	\$20,690,965	\$25,764,351	\$34,008,944
North Wing	\$4,189,253	\$5,216,450	\$6,885,714
<i>Subtotal</i>	<i>\$55,444,300</i>	<i>\$69,039,139</i>	<i>\$91,131,664</i>
Materials Testing	\$1,108,886	\$1,380,783	\$1,822,633
Total	\$56,553,186	\$70,419,922	\$92,954,297

Building Data and SPC/NPC Ratings

Building Number	OSHPD Building Number	Building Name	SPC	NPC
1	BLD-01393	Main Hospital & Additions	2	2
2	BLD-02932	East Tower	2	2
3	BLD-01395	Woman & Infants Hospital	3	2
4	BLD-01396	North Wing	2	2
5	BLD-01397	Central Plant	4	2
6	BLD-01398	Shipping/Receiving	4	2
7	BLD-01399	Surgery Wing	4	2
8	BLD-01400	West Tower (Sinatra Tower)	3	2
8A	BLD-03720	West Tower Corridor 1	3	2
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8D	BLD-03723	West Tower Corridor 4	3	2
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10	BLD-01402	Admitting	4	2
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11.1	BLD-03764	Elevator Tower Corridor 1	3	2
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12	BLD-01404	Dinah Shore Waiting Area	3	2
13	BLD-03741	Medical Records Building	3	2

PHASE 1

Desert Regional Medical Center – NPC \$



NPC Cost Matrix

Building Name	Estimate of Affected Area	Consulting Fee Estimate	NPC 4 Cost Estimate	NPC 4 \$/SF Estimate	NPC 4 Cost Estimate	NPC 4 \$/SF Estimate
			(Low)	(Low)	(High)	(High)
Main Hospital & Additions	95,913	\$770,000	\$7,013,131	\$74	\$9,257,332	\$98
East Tower	40,418	\$180,000	\$1,599,608	\$40	\$2,111,483	\$52
Woman & Infants Hospital	88,486	\$160,000	\$2,284,060	\$26	\$3,014,959	\$34
North Wing	18,790	\$86,000	\$777,342	\$41	\$1,026,092	\$55
Central Plant	15,159	\$100,000	\$1,102,969	\$73	\$1,455,919	\$96
Shipping/Receiving	15,742	\$50,000	\$642,274	\$41	\$847,801	\$54
Surgery Wing	105,266	\$750,000	\$6,657,195	\$63	\$8,787,497	\$83
West Tower (Sinatra Tower)	110,614	\$850,000	\$11,480,166	\$104	\$15,153,819	\$137
Lobby	6,214	\$20,000	\$154,020	\$25	\$203,307	\$33
Admitting	9,141	\$40,000	\$360,952	\$39	\$476,457	\$52
Elevator Tower	16,254	\$90,000	\$805,270	\$50	\$1,062,956	\$65
Dinah Shore Waiting Area	2,006	\$35,000	\$202,770	\$101	\$267,657	\$133
Medical Records Building	507	\$10,000	\$24,961	\$49	\$32,948	\$65
Public Spaces	22,881	\$15,000	\$1,518,001	\$66	\$2,003,761	\$88
Total Medical Center	547,391	\$3,156,000	\$34,622,719	\$63	\$45,701,988	\$84

Total Cost Estimate

Building Name	Estimate of Affected Area	SPC4D + NPC 4 Cost Estimate	SPC4D + NPC 4 \$/SF	SPC4D + NPC 4 + 10% Contingency + 20 % Escalation Cost Estimate	SPC4D + NPC 4 + 10% Contingency + 20 % Escalation \$/SF
		(Low)	(Low)	(High)	(High)
Main Hospital & Additions	95,913	\$38,345,273	\$400	\$60,261,778	\$628
East Tower	40,418	\$22,470,573	\$556	\$36,300,427	\$898
Woman & Infants Hospital	88,486	\$2,444,060	\$26	\$3,174,959	\$34
North Wing	18,790	\$5,052,595	\$269	\$7,997,806	\$426
Central Plant	15,159	\$1,202,969	\$73	\$1,555,919	\$96
Shipping/Receiving	15,742	\$692,274	\$41	\$897,801	\$54
Surgery Wing	105,266	\$7,407,195	\$63	\$9,537,497	\$83
West Tower (Sinatra Tower)	110,614	\$12,330,166	\$104	\$16,003,819	\$137
Lobby	6,214	\$174,020	\$25	\$223,307	\$33
Admitting	9,141	\$400,952	\$39	\$516,457	\$52
Elevator Tower	16,254	\$895,270	\$50	\$1,152,956	\$65
Dinah Shore Waiting Area	2,006	\$237,770	\$101	\$302,657	\$133
Medical Records Building	507	\$35,000	\$50	\$43,000	\$66
Public Spaces	22881	\$1,533,001	\$66	\$2,018,761	\$88
Material Testing		\$1,108,886		\$1,822,633	
NPC 5		\$1,000,000		\$2,000,000	
Subtotal		\$95,330,004		\$143,809,777	
Soft Costs ¹ (25% Subtotal)		\$23,832,501		\$35,952,444	
Total Including Soft Costs	547,391	\$119,162,505	\$217.69	\$179,762,221	\$328.40