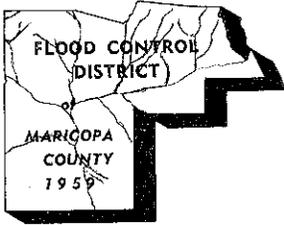


EAR



# FLOOD CONTROL DISTRICT

of

## Maricopa County

2801 West Durango Street • Phoenix, Arizona 85009

Telephone (602) 506-1501

Fax (602) 506-4601

TDD (602) 506-5897

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### BOARD OF DIRECTORS

P. Ben Arredondo

Betsey Bayless

James D. Bruner

Carole Carpenter

Tom Freestone

MARICOPA COUNTY

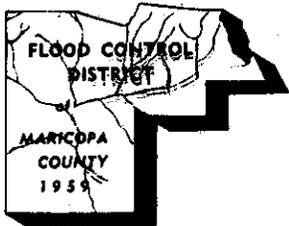
DURANGO COMPLEX

OUTSIDE RAMADAS

SOILS INVESTIGATION

AUGUST/1992

Property of  
Flood Control District of MC Library  
Please Return to  
2801 W. Durango  
Phoenix, AZ 85009



FLOOD CONTROL DISTRICT of Maricopa County

Interoffice Memorandum

CMT. NO.	SUBJECT: <b>OUTSIDE RAMADAS</b>	<input type="checkbox"/> FILE _____ <input type="checkbox"/> DESTROY
	TO: <i>EGR</i> FROM: <b>JVB</b> DATE: <b>8/4/92.</b>  <b>YOUR COPY OF SOILS INVESTIGATION PERFORMED BY HIGHWAY OPERATIONS MATERIALS LAB. THEIR RECOMMENDATIONS HAVE BEEN INCORPORATED INTO THE PLANS &amp; SPECS.</b>  <i>JVB</i>	

RAMADA #1

FLOOD CONTROL DISTRICT  
OF MARICOPA COUNTY

MAIN OFFICE BUILDING



RECOMMENDATIONS

Due to the poor soils classifications (A-5/A-6), and high Plastic Indexes of the existing material, this office would recommend the sites be overexcavated to a depth of 36". The bottom of the excavation would then be compacted to 95% of maximum density, at optimum moisture (+/- 2%). Once compaction was achieved, we would recommend the inclusion of 12" of granular material (preferably ABC) to provide an enhanced support base for the structures.

8-4-92

7:45<sup>+</sup> Tele w/ Jerry Naugan (8667)

Recommendation for over X is just for under Masonry Pier  
Footings, not under Floor Slab or Masonry Screen Wall

JH

RAMADA: #1

A. TEST HOLE #1:

1. THE TEST HOLE WAS EXCAVATED TO A DEPTH OF 24".
2. SOILS CLASSIFICATION:
  - a. A-6
3. PLASTIC INDEX:
  - a. 18
4. PROCTOR:
  - a. MAXIMUM DENSITY:
    1. 115.7 #/CF
  - b. OPTIMUM MOISTURE:
    1. 13.2%
5. SIEVE ANALYSIS:
  - a. SEE ATTACHED SHEET

MARICOPA COUNTY HIGHWAY DEPARTMENT  
 SIEVE ANALYSIS OF FINE & COARSE AGGREGATES  
 USING ASTM C136-76 OR AASHTO T27-82

PROJECT NAME: RAMADA SOILS INVEST WO#: 11407  
 TEST PERFORMED BY: RICK/DEL DATE: 7-27-92  
 CHECKED BY: JERRY HAUGEN LAB#: 92-481  
 SOURCE OF SAMPLE: RAMADA #1/TEST HOLE #1

WBW (WET): 483.8 WBW: 401.0  
 WBW (DRY): 401.0 WAW: 66.5  
 % MOIST: 20.6% ELUT: 334.5

SIEVE	WT RET	% RET	% PASS	SPECS
3"				
2"				
1 1/2"				
1 1/8"				
1"				
3/4"				
1/2"				
3/8"				
1/4"			100.0	
#4	2.0	.5	99.5	
RET + #4				
PASS #4 WET				
PASS #4 DRY				
TOTAL				
#8	2.0	.5	99.0	
#10				
#16				
#30	10.0	2.5	96.5	
#40				
#50	13.0	3.2	93.3	
#100	15.5	3.9	89.4	
#200	22.5	5.6	83.8	
PAN	1.5	.4	83.4	
ELUT	334.5	83.4	----	
TOTAL	401.0	100.0	----	

REMARKS: LIQUID LIMIT = 37 PLASTIC INDEX = 18  
PLASTIC LIMIT = 19 SOILS CLASS = A-6

RAMADA: #1

A. TEST HOLE #2:

1. THE TEST HOLE WAS EXCAVATED TO A DEPTH OF 24".
2. SOILS CLASSIFICATION:
  - a. A-6
3. PLASTIC INDEX:
  - a. 18
4. PROCTOR:
  - a. MAXIMUM DENSITY:
    1. 115.7 #/CF
  - b. OPTIMUM MOISTURE:
    1. 13.2%
5. SIEVE ANALYSIS:
  - a. SEE ATTACHED SHEET

MARICOPA COUNTY HIGHWAY DEPARTMENT  
 SIEVE ANALYSIS OF FINE & COARSE AGGREGATES  
 USING ASTM C136-76 OR AASHTO T27-82

PROJECT NAME: RAMADA SOILS INVEST WO#: 11407  
 TEST PERFORMED BY: RICK/DEL DATE: 7-27-92  
 CHECKED BY: JERRY HAUGEN LAB#: 92-482  
 SOURCE OF SAMPLE: RAMADA #1/TEST HOLE #2

WBW (WET): 568.1 WBW: 466.0  
 WBW (DRY): 466.0 WAW: 104.0  
 % MOIST: 21.9% ELUT: 362.0

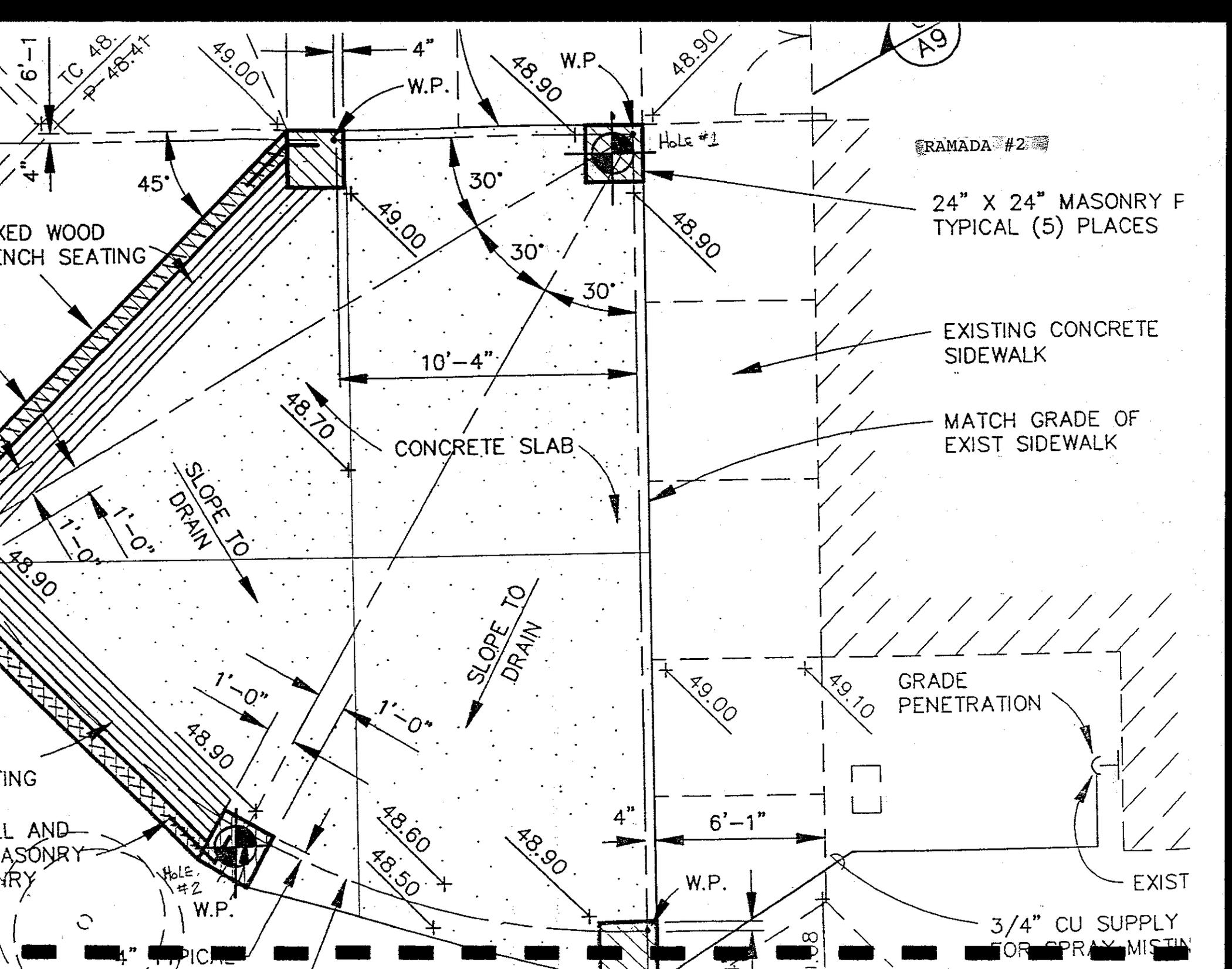
SIEVE	WT RET	% RET	% PASS	SPECS
3"				
2"				
1 1/2"				
1 1/8"				
1"				
3/4"				
1/2"				
3/8"				
1/4"			100.0	
#4	4.0	.9	99.1	
RET + #4				
PASS #4 WET				
PASS #4 DRY				
TOTAL				
#8	5.0	1.1	98.0	
#10				
#16				
#30	19.0	4.1	93.9	
#40				
#50	21.0	4.5	89.4	
#100	24.0	5.2	84.2	
#200	29.0	6.2	78.0	
PAN	2.0	.4	77.6	
ELUT	362.0	77.6	----	
TOTAL	466.0	100.0	----	

REMARKS: LIQUID LIMIT = 37 PLASTIC INDEX = 18  
PLASTIC LIMIT = 19 SOILS CLASS = A-6

RAMADA #2

MARICOPA COUNTY  
DEPARTMENT OF TRANSPORTATION

MAIN OFFICE BUILDING



RECOMMENDATIONS

Due to the poor soils classifications (A-5/A-6), and high Plastic Indexes of the existing material, this office would recommend the sites be overexcavated to a depth of 36". The bottom of the excavation would then be compacted to 95% of maximum density, at optimum moisture (+/- 2%). Once compaction was achieved, we would recommend the inclusion of 12" of granular material (preferably ABC) to provide an enhanced support base for the structures.

3-4-92

7:45A Tel w/ Jerry Haugan (8667)

Recommendations for overX is just for under Masonry Pier Footings, not under Floor Slab or Masonry Screen Wall.

JH

RAMADA: #2

A. TEST HOLE #1:

1. THE TEST HOLE WAS EXCAVATED TO A DEPTH OF 24".
2. SOILS CLASSIFICATION:
  - a. A-5
3. PLASTIC INDEX:
  - a. 10
4. PROCTOR:
  - a. MAXIMUM DENSITY:
    1. 121.2 #/CF
  - b. OPTIMUM MOISTURE:
    1. 12.3%
5. SIEVE ANALYSIS:
  - a. SEE ATTACHED SHEET

MARICOPA COUNTY HIGHWAY DEPARTMENT  
 SIEVE ANALYSIS OF FINE & COARSE AGGREGATES  
 USING ASTM C136-76 OR AASHTO T27-82

PROJECT NAME: RAMADA SOILS INVEST WO#: 11407  
 TEST PERFORMED BY: RICK/DEL DATE: 7-27-92  
 CHECKED BY: JERRY HAUGEN LAB#: 92-483  
 SOURCE OF SAMPLE: RAMADA #2/TEST HOLE #1

WBW (WET): 579.2 WBW: 499.5  
 WBW (DRY): 499.5 WAW: 170.0  
 % MOIST: 16.0% ELUT: 329.5

SIEVE	WT RET	% RET	% PASS	SPECS
3"				
2"				
1 1/2"				
1 1/8"				
1"				
3/4"				
1/2"				
3/8"				
1/4"			100.0	
#4	12.0	2.4	97.6	
RET + #4				
PASS #4 WET				
PASS #4 DRY				
TOTAL				
#8	7.5	1.5	96.1	
#10				
#16				
#30	27.0	5.4	90.7	
#40				
#50	29.0	5.8	84.9	
#100	34.0	6.8	78.1	
#200	57.0	11.4	66.7	
PAN	3.5	.7	66.0	
ELUT	329.5	66.0	----	
TOTAL	499.5	100.0	----	

REMARKS: LIQUID LIMIT = 28 PLASTIC INDEX = 10  
PLASTIC LIMIT = 18 SOILS CLASS = A-5

MARICOPA COUNTY HIGHWAY DEPARTMENT  
 SIEVE ANALYSIS OF FINE & COARSE AGGREGATES  
 USING ASTM C136-76 OR AASHTO T27-82

PROJECT NAME: RAMADA SOILS INVEST WO#: 11407  
 TEST PERFORMED BY: RICK/DEL DATE: 7-27-92  
 CHECKED BY: JERRY HAUGEN LAB#: 92-484  
 SOURCE OF SAMPLE: RAMADA #2/TEST HOLE #2

WBW (WET): 510.1 WBW: 431.8  
 WBW (DRY): 431.8 WAW: 100.5  
 % MOIST: 18.1% ELUT: 331.3

SIEVE	WT RET	% RET	% PASS	SPECS
3"				
2"				
1 1/2"				
1 1/8"				
1"				
3/4"				
1/2"				
3/8"				
1/4"			100.0	
#4	13.0	3.0	97.0	
RET + #4				
PASS #4 WET				
PASS #4 DRY				
TOTAL				
#8	5.0	1.2	95.8	
#10				
#16				
#30	15.0	3.5	92.3	
#40				
#50	20.5	4.7	87.6	
#100	22.0	5.1	82.5	
#200	23.0	5.3	77.2	
PAN	2.0	.5	76.7	
ELUT	331.3	76.7	----	
TOTAL	431.8	100.0	----	

REMARKS: LIQUID LIMIT = 39 PLASTIC INDEX = 20  
PLASTIC LIMIT = 19 SOILS CLASS = A-6