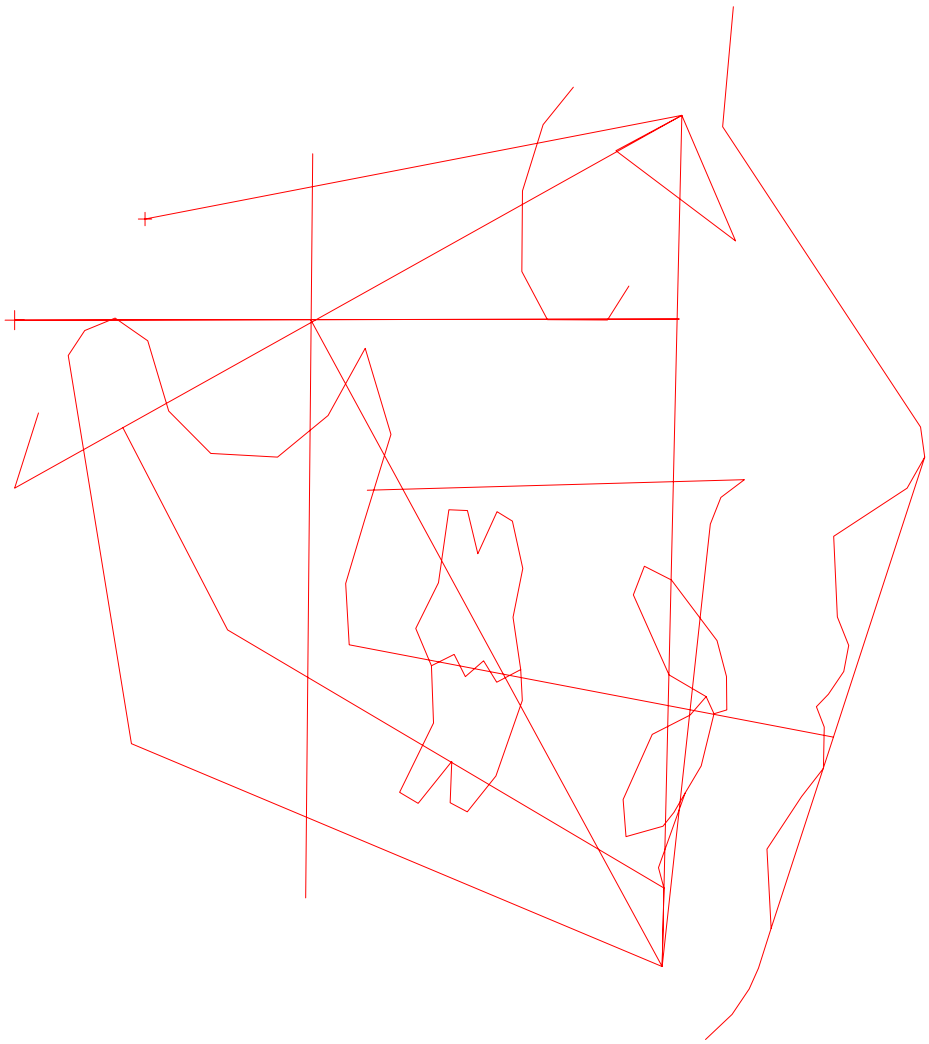
CASE: 0000 0039 1
HISPANIC SAMPLE
Dr. TRAINING
F (LA) Latin
AGE: 10.5
X: 06/23/2001 - R: 02/21/2003
MISSING PERMANENT TEETH

R L

VISUAL NORMS

RMO®



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(800)458-8884 Post Office Box 7955
(818)704-8198 Canoga Park, CA 91303-7955

HISPANIC SAMPLE RMO Case Number: 0000 0039 1 X-Ray date: 06/23/2001 Age: 10.5 Reference: C C D 1
Dr. Training RMO Run date: 02/21/2003 Birthdate: unknown Sex: Female 6

C C D - O R T H O D O N T I C C O N D I T I O N S

LATERAL BEFORE TREATMENT

# - Appears on tracing	FACTOR	MEASURED VALUE	CLINICAL NORM	CLINICAL DEVIATIONS FROM	NORM
	DENTAL RELATIONS				
01	Molar Relation	2.8 mm	-3.0 mm	2.2	**
03	Canine Relation	-0.4 mm	-2.0 mm	0.8	
05	Incisor Overjet	4.0 mm	2.5 mm	0.6	
07	Incisor Overbite	4.5 mm	2.5 mm	1.0	*
09	Mand Incisor Extrusion	2.7 mm	1.3 mm	0.7	
#11	Interincisal Angle	120.6 dg	119.5 dg	0.2	
	DENTAL TO SKELETON				
#18	A6 Molar Position to PTV	14.8 mm	13.5 mm	0.4	
#20	B1 to A-Po Plane	3.2 mm	3.0 mm	0.1	
22	A1 to A-Po Plane	7.0 mm	5.5 mm	0.7	
#24	B1 Inclination to A-Po	32.2 dg	26.0 dg	1.5	*
26	A1 Inclination to A-Po	27.2 dg	34.5 dg	-1.8	*
27	Occlusal Plane to Xi	3.6 mm	1.1 mm	0.9	
28	Inclination of Occl Plane	17.3 dg	20.4 dg	-0.8	
54	B1 Inclination to FH	51.9 dg	65.0 dg	-2.6	**
	ESTHETICS				
29	Lower Lip to Esthetic Plane	0.7 mm	-0.4 mm	0.5	
30	Upper Lip Length	25.6 mm	26.3 mm	-0.4	
31	Lip Embrasure to Occl Plane	-3.4 mm	-3.0 mm	-0.2	
58	NasoLabial Angle	114.9 dg	112.0 dg	0.6	
	NASOPHARYNGEAL AIRWAY				
62	N-S-Ba	132.8 dg	129.6 dg	0.6	
63	Ba-S-PNS	63.8 dg	63.0 dg	0.3	
85	Airway Percent	67.1 %	56.5 %	0.7	
86	Linder-Aronson AD1	27.8 mm	23.0 mm	0.9	
87	Linder-Aronson AD2	21.3 mm	18.5 mm	0.7	
88	Distance PTV to Adenoid	18.5 mm	10.5 mm	1.8	

C C D - S K E L E T A L C O N D I T I O N S

LATERAL BEFORE TREATMENT

# - Appears on tracing	FACTOR	MEASURED VALUE	CLINICAL NORM	CLINICAL DEVIATIONS FROM	NORM
	SKELETAL RELATIONS				
#13	Convexity	3.9 mm	6.1 mm	-0.7	
#15	Lower Facial Height	40.5 dg	47.0 dg	-1.6	*
84	Present Patient Height	52.0 in	57.0 in		
91	Posterior face height	73.0 mm			
92	Anterior face height	111.1 mm			
93	Posterior/Anterior ratio	65.7 %			
94	Saddle Angle	126.1 dg	123.0 dg	1.0	*
96	Condylion-A point	91.6 mm	87.8 mm	0.9	
97	Condylion-Gnathion	112.4 mm	106.8 mm	1.0	*
95	Max-Mand Differential	20.9 mm	22.2 mm	-0.5	
98	Menton-ANS	61.5 mm	62.3 mm	-0.2	
	JAW TO CRANIUM				
#32	Facial Depth	89.1 dg	88.6 dg	0.2	
#34	Facial Axis	91.7 dg	89.0 dg	0.7	
#36	Maxillary Depth	93.2 dg	93.5 dg	-0.1	
37	Maxillary Height	54.6 dg	55.9 dg	-0.4	
38	Palatal Plane to FH	1.3 dg	3.0 dg	-0.5	
#39	Mandibular Plane to FH	20.4 dg	23.3 dg	-0.5	
77	Ba-N-A	68.1 dg	63.0 dg	1.7	*
76	S-N-A	82.4 dg	82.0 dg	0.1	
78	S-N-B	77.9 dg	80.0 dg	-0.6	
69	A-N-B Difference	4.6 dg	2.0 dg	1.0	*
75	Total Facial Height	54.4 dg	60.0 dg	-1.9	*
	INTERNAL STRUCTURE				
40	Cranial Deflection	28.4 dg	29.5 dg	-0.4	
42	Cranial Length Anterior	58.9 mm	55.5 mm	1.0	*
44	Ramus Height (CF-Go)	62.4 mm	63.8 mm	-0.4	
46	Ramus Xi Position	75.4 dg	77.0 dg	-0.6	
48	Porion Location (Por to PTV)	-41.2 mm	-38.7 mm	-1.0	*
#50	Mandibular Arc	32.8 dg	29.9 dg	0.7	
51	Corpus Length	69.1 mm	68.7 mm	0.1	

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HISPANIC SAMPLE RMO Case Number: 0000 0039 1 X-Ray date: 06/23/2001 Age: 10.5 Reference: I N F O
Dr. Training RMO Run date: 02/21/2003 Birthdate: unknown Sex: Female 6

P A T I E N T I N F O R M A T I O N

NAME

Patient name: LATIN SAMPLE
Doctor name: TRAINING
Age: 10.5
X-Ray date: 06/23/2001
RMO Case Number:
RMO Run date: 02/21/2003

MISSING PERMANENT TEETH

R --------+-------- L

HEIGHT PREDICTION

Assumed skeletal age: 10.5
Current height: 52.0 inches
Amount of adult growth achieved: 88.4 %
Expected adult height: 58.8 inches

AIRWAY ANALYSIS

If the patient is clinically diagnosed as a mouthbreather, observed mouthbreathing is probably not caused by adenoid blockage of the airway.

BOLTON ANALYSIS

Not Available - Upper and lower arch not analyzed

S I G N I F I C A N T C O N S I D E R A T I O N S

CONDITION	CCD FACTORS
HORIZONTAL	
Severe Class II malocclusion	1
due to upper & lower molar	18
VERTICAL	
Skeletal Deep Bite	15
due to the mandible & palate	39
TRANSVERSE	
SYMMETRY	
SPECIAL CONSIDERATIONS	

COMMENTS

Cl 1 Lt/Cl 2 Rt, diagnosis of Rt
No analysis of frontal x-ray. Upper and lower arch expansion decisions based on available data only.

CASE: 0000 0039 1
HISPANIC SAMPLE
Dr. TRAINING
F (LA) Latin
AGE: 10.5
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MISSING PERMANENT TEETH

R L

TRACING

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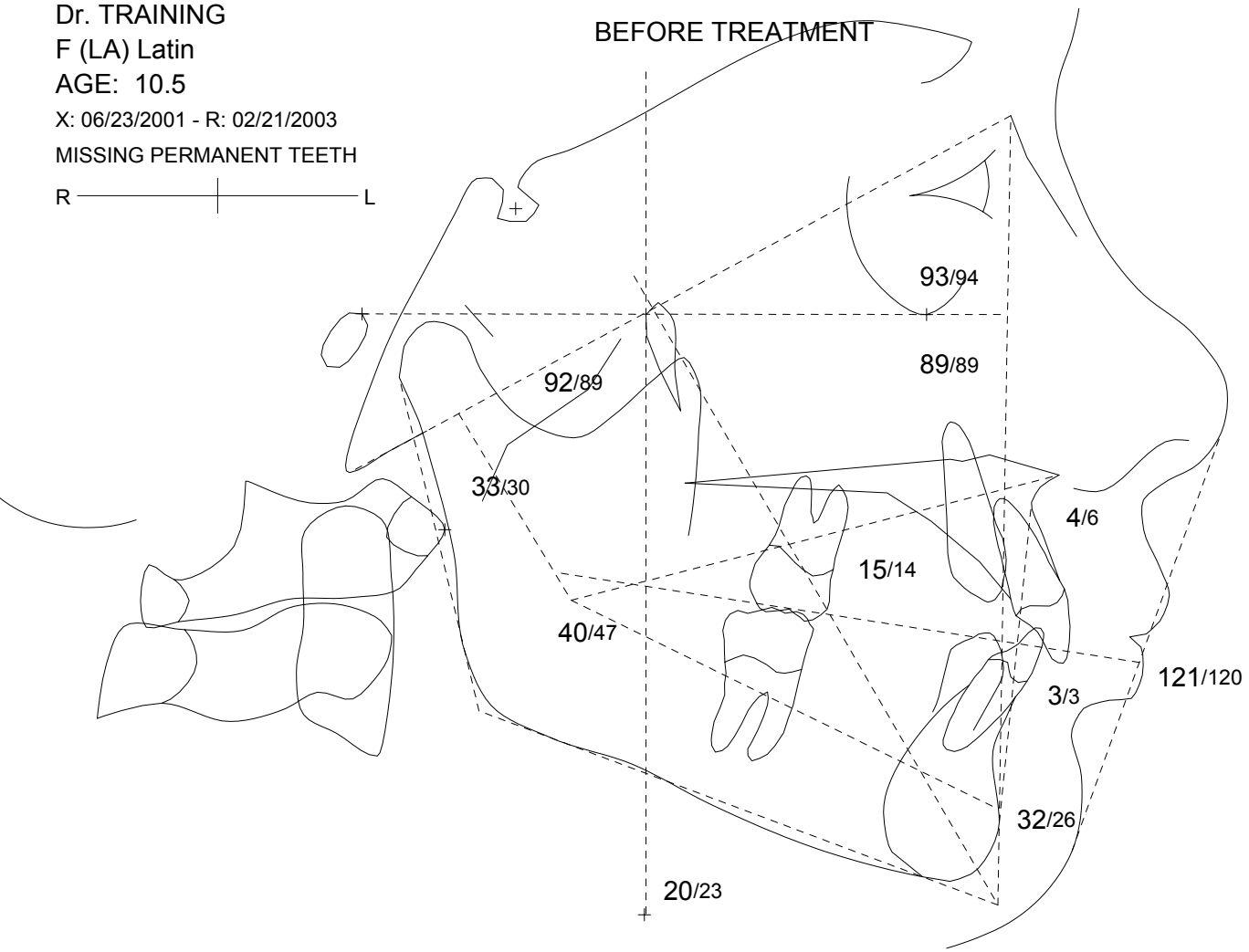
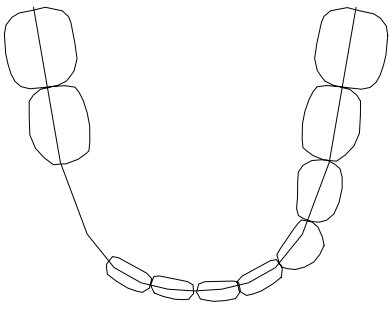
BEFORE TREATMENT



MEASURED VALUE/NORM

R L



SHORTAGE 0.6 MM
LEEWAY 4.5 MM

SIGNIFICANT CONSIDERATIONS

CONDITION	REASON
Severe Class II malocclusion	due to upper & lower molar
Skeletal Deep Bite	due to the mandible & palate
Adenoid blockage of the airway?	Probably not

FACIAL PATTERN: MILD BRACHYFACIAL

# FACTORS	MEASURED VALUE	NORM	CLINICAL DEVIATION
Interincisal Angle	120.6 dg	119.5 dg	0.2
Convexity	3.9 mm	6.1 mm	-0.7
Lower Facial Height	40.5 dg	47.0 dg	-1.6 *
A6 Molar Position to PTV	14.8 mm	13.5 mm	0.4
B1 to A-Po Plane	3.2 mm	3.0 mm	0.1
B1 Inclination to A-Po	32.2 dg	26.0 dg	1.5 *
Facial Depth	89.1 dg	88.6 dg	0.2
Facial Axis	91.7 dg	89.0 dg	0.7
Maxillary Depth	93.2 dg	93.5 dg	-0.1
Mandibular Plane to FH	20.4 dg	23.2 dg	-0.5
Mandibular Arc	32.8 dg	29.9 dg	0.7

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Dr. Training RMO Run date: 02/21/2003 Birthdate: unknown Sex: Female 6

========== G U I D E T O A L T E R N A T I V E T R E A T M E N T P L A N N I N G ==========

		Probability of Lower Third Molar (based on space available)		
Facial Pattern	0.6 C.D.			
Vertical Description	MILD BRACHYFACIAL	Impaction	Eruption Questionable Function	Eruption Functional
		71.%	29.%	0.%
Auxiliary Appliances				
Headgear	NOT INDICATED			
Activator	NEUTRAL			
Palate Separation	N/A - No Arch and Frontal data			
Convexity Objective	Reduce 0.0 mm			

Lower Arch Length Discrepancy (original arch) 3.9 mm Excess
Including useable leeway (E) space

* * * L O W E R A R C H * * *	Required Tooth Movement	Effect on Arch Length	Resulting Discrepancy
Lower Incisor to Ideal	Lt: 0.6 mm Bwd. Rt: 0.2 mm Bwd.	0.3 mm Decrease	3.6 mm Excess
Buccal Expansion to Ideal Arch Form		0.1 mm Increase	3.7 mm Excess
Incisors & Convexity to Cephalometric Limit	2.6 mm	5.2 mm Increase	Not Reqd
Lower Molar Distal Movement	0.0 mm	0.0 mm Increase	Not Reqd

* * * U P P E R A R C H * * *

Movement of First Molar (non-ext.) Required for Class I	2.6 mm Distal
Resulting Expected Space for 2nd & 3rd Molars at Maturity (non-ext.)	19.5 mm
Required Space for 2nd Molars	9.0 mm to 11.0 mm
Required Space for 2nd & 3rd Molars	18.0 mm to 22.0 mm

*** Indicated Treatment using Dr's Personalized Decision Program ***

Upper Arch	NON-EXTRACTION
Lower Arch	NON-EXTRACTION
Lower Incisor	Backward 0.6 mm
Buccal Expansion	Gain 0.1 mm
Lower Molar Movement	Forward 1.4 mm

Teeth Sizes:	L6	L5	L4	L3	L2	L1	R1	R2	R3	R4	R5	R6	TOTAL	SUM OF INCISOR	NORM
Lower Arch :	10.5	8.1	7.9	7.2	6.5	5.8	5.8	6.5	7.2	7.9	8.1	10.5	92.0	24.6 MM	22.6

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HISPANIC SAMPLE RMO Case Number: 0000 0039 1 X-Ray date: 06/23/2001 Age: 10.5 Reference: W R N
Dr. Training RMO Run date: 02/21/2003 Birthdate: unknown Sex: Female 6

W O R K U P

ORIGINAL CONDITION

Facial pattern: 0.6 CD - Mild Brachyfacial
Lower arch form: Narrow ovoid

Missing permanent teeth:

R --------+-------- L

Lower arch length discrepancy (ALD) 0.6 mm SHORTAGE
Leeway space 4.5 mm ---
Maximum use of leeway space 4.5 mm
Total arch length discrepancy 3.9 mm EXCESS

COMPUTER DECISION

based on Dr. Training's individualized standards

UPPER ARCH: NON-EXTRACTION

Convexity change NONE

LOWER ARCH: NON-EXTRACTION

Lower incisor	BACKWARD	0.6 mm
Buccal Expansion	GAIN	0.1 mm
Lower molar	FORWARD	1.4 mm

Extracted teeth

R --------+-------- L

AUXILIARY APPLIANCES

Activator: NEUTRAL
Palate separation: N/A - No Arch and Frontal data
Headgear: NOT INDICATED

POST TREATMENT

Pentamorphic arch form: Narrow ovoid
Arch length relapse: 2.4 mm

Lower third molar probabilities
(based on space available)

Impaction: 71 %
Marginal: 29 %
Functional: 0 %

R A T I O N A L E

REASONS FOR LOWER ARCH DECISION

Mandibular Arch Length Analysis

1. Initial Conditions	
A. Original Arch Length	0.6 mm shortage
B. Useable Leeway Space	4.5 mm
C. Total Initial Discrepancy(A+B)	3.9 mm excess
2. Maximum Permissible Arch Length Increase(Within Doctor Limits) Due To:	
D. Lower Incisor Repositioning	4.9 mm increase
E. Buccal Expansion	0.1 mm increase
F. Lower Molar Distal Movement	0.0 mm
G. Total Possible Increase (D+E+F)	5.0 mm increase
3. Resultant Arch Length Discrepancy Considering All Possible Arch Length Increases (C+G)	8.9 mm excess
4. Resultant Computer Decision	Non-Extraction
5. Work-Up Presented Is	NON-EXTRACTION

REASONS FOR UPPER ARCH DECISION

1. Convexity change	0.0 mm
2. Upper incisor tip movement for overbite/overjet ideal to lower	1.3 mm backward
3. First molar movement required	3.4 mm backward
4. First molar movement clinical limit	5.0 mm backward
5. Work-Up Presented Is	NON-EXTRACTION

COMMENTS

Cl 1 Lt/Cl 2 Rt, diagnosis of Rt

HISPANIC SAMPLE
0000 0039 1

F 10.5

SEQUENCES WORKSHEET
PHASE I TREATMENT

02/21/2003
NON-EXTRACTION

RMO®

UPPER ARCH				LOWER ARCH			
ACTIVITY	DESCRIPTION	MONTHS	NOTES	ACTIVITY	DESCRIPTION	MONTHS	NOTES
	DISTALIZE 6 INTRUDE 1	01			INTRUDE 1	01	
		02				02	
		03				03	
		04				04	
		05				05	
POST TX		06		POST TX		06	
RECORDS		07		RECORDS		07	
		08				08	
		09				09	
		10				10	
		11				11	
		12				12	
		13				13	
		14				14	
		15				15	
		16				16	
		17				17	
		18				18	
		19				19	
		20				20	
		21				21	
		22				22	
		23				23	
		24				24	

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0000 0039 1

F 10.5

SEQUENCES WORKSHEET
PHASE II TREATMENT

02/21/2003
NON-EXTRACTION

RMO®

UPPER ARCH

ACTIVITY	DESCRIPTION	MONTHS	NOTES
	RETRACT 4 AND/OR 5	01	
		02	
		03	
		04	
		05	
PROGRESS RECORDS		06	
	RETRACT 3 ALIGN/LEVEL BUCCAL SEGS	07	
		08	
		09	
	IDEAL ARCH	10	
		11	
		12	
	FINAL ARCH	13	
POST TX RECORDS		14	
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	

LOWER ARCH

ACTIVITY	DESCRIPTION	MONTHS	NOTES
	RETRACT INCISORS	01	
		02	
	ALIGN/LEVEL BUCCAL SEGS	03	
		04	
		05	
PROGRESS RECORDS	IDEAL ARCH	06	
		07	
		08	
		09	
		10	
		11	
		12	
	FINAL ARCH	13	
POST TX RECORDS		14	
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	

0000 0039 1
HISPANIC SAMPLE
F 10.5 02/20/2003

LONG RANGE GROWTH FORECAST COMPARISON RMO®

NON-EXTRACTION

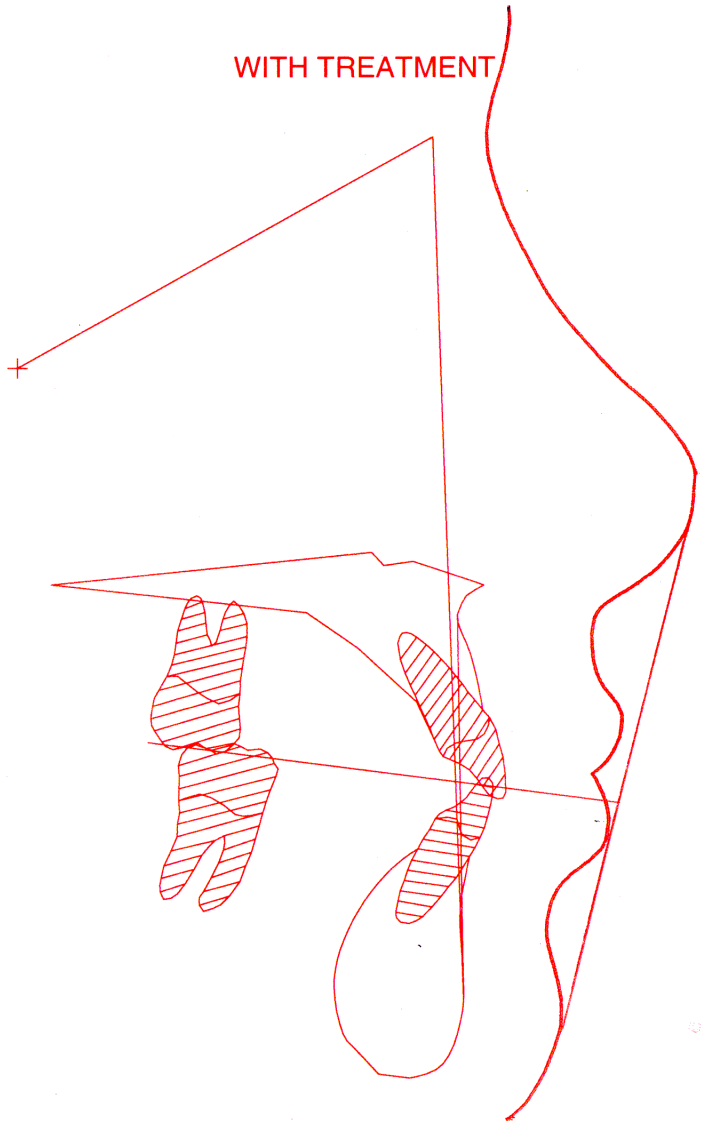
WITHOUT TREATMENT

LOWER THIRD MOLAR PROBABILITIES
(BASED ON SPACE AVAILABLE)

IMPACTION: 81 %
MARGINAL: 19 %
FUNCTIONAL: 0 %

CURRENT HEIGHT: 52.0 IN
EXPECTED MATURE HEIGHT: 58.8 IN

WITH TREATMENT



LOWER THIRD MOLAR PROBABILITIES
(BASED ON SPACE AVAILABLE)

IMPACTION: 71 %
MARGINAL: 29 %
FUNCTIONAL: 0 %

ARCH LENGTH DECREASE POST TX
2.4 MM TOTAL

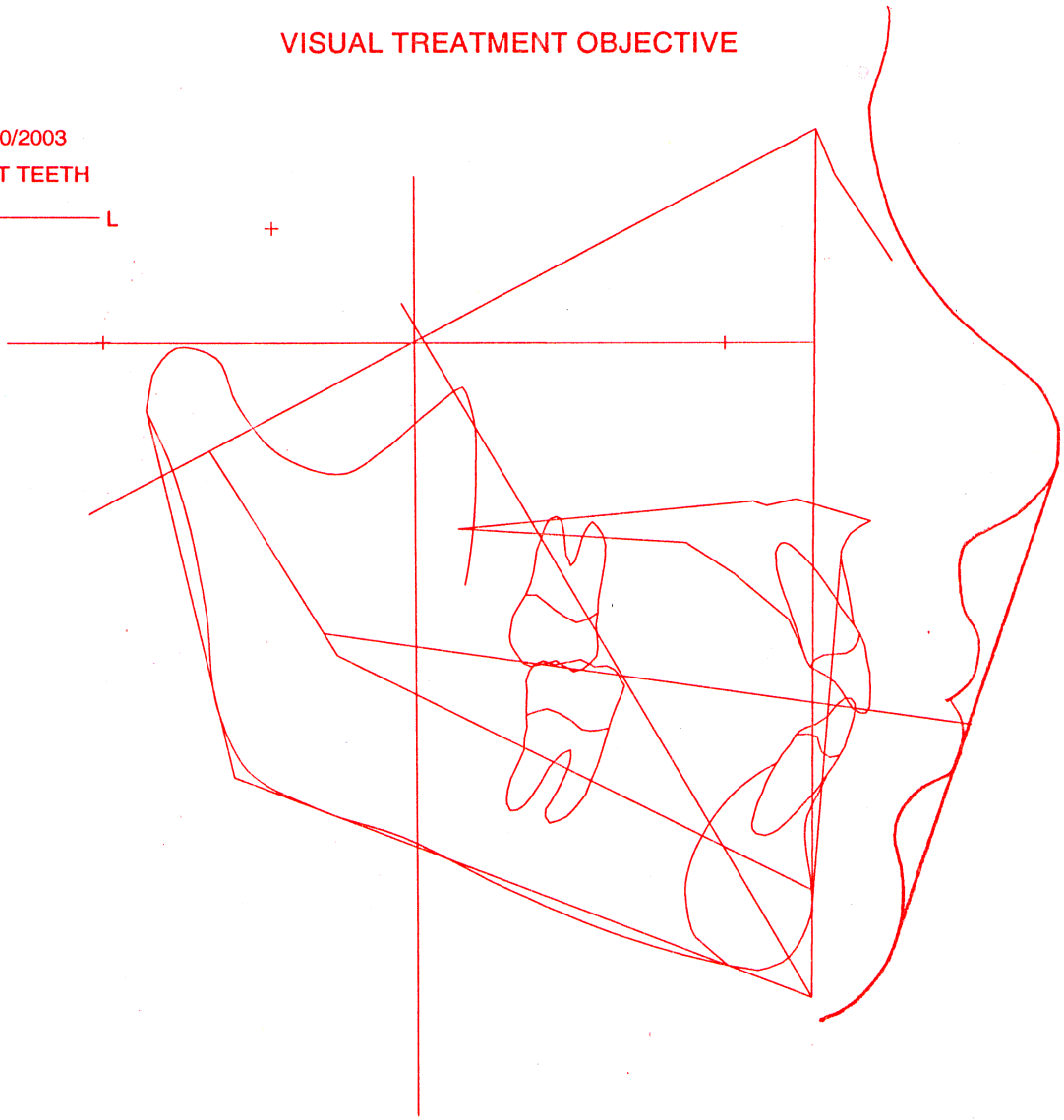
CASE: 0000 0039 1
HISPANIC SAMPLE
Dr. TRAINING
F (LA) Latin
AGE: 10.5
X: 06/23/2001 - R: 02/20/2003
MISSING PERMANENT TEETH

R L

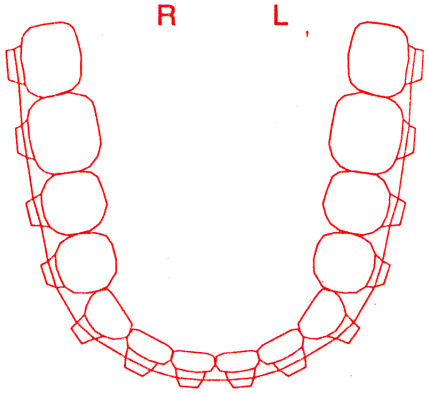
NON-EXTRACTION VTO

RMO®

VISUAL TREATMENT OBJECTIVE



SUGGEST
NARROW OVOID
RMO PREFORMED
PENTAMORPHIC ARCHWIRE



ESPECIALLY PREPARED FOR Dr. TRAINING

WORKUP PERFORMED
Upper: NON-EXTRACTION
Lower: NON-EXTRACTION

PREDICTION PERIOD
13.4 months

GROWTH UNITS
13.4 months: 1.1

HEIGHT PREDICTION
Current height: 52.0 inches
Mature height: 58.8 inches

3RD MOLAR PREDICTION
Impaction: 71 %
Marginal: 29 %
Functional: 0 %

COMMENTS
Cl 1 Lt/Cl 2 Rt, diagnosis of Rt

NON-EXTRACTION TREATMENT DESIGN

RMO®

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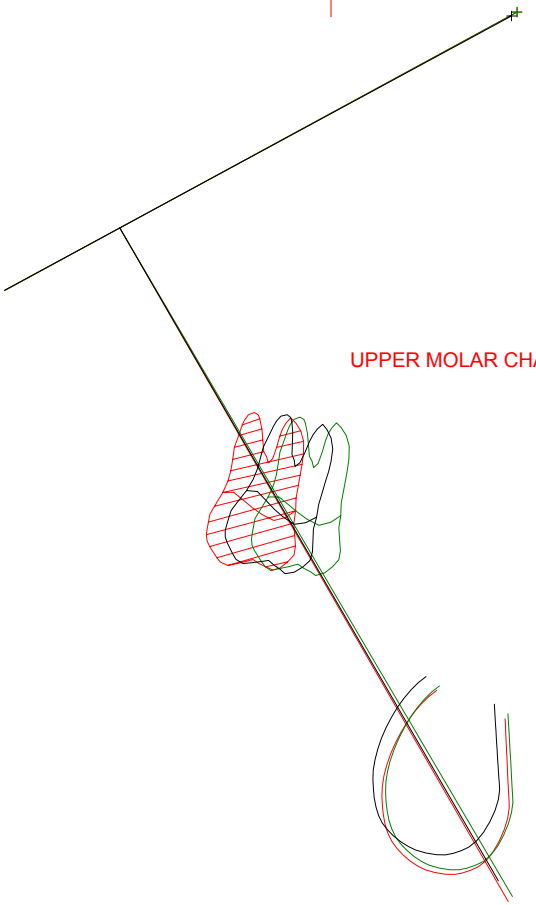
HISPANIC SAMPLE
F 10.5 02/21/2003

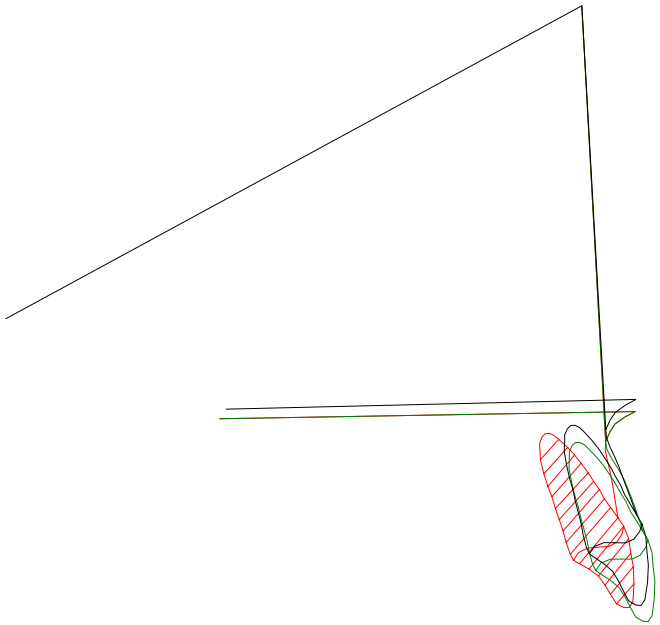
EXTRACT R L



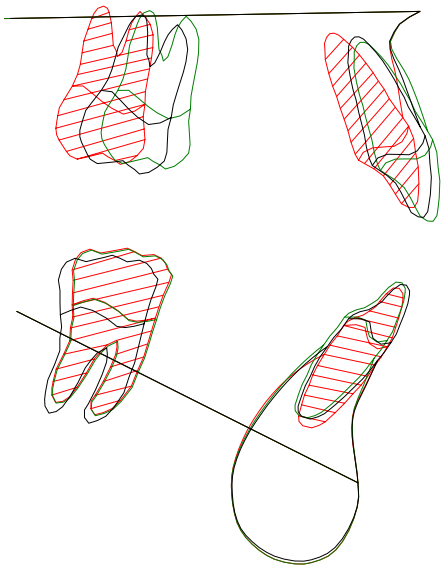
UPPER MOLAR CHANGE

MAXILLARY CHANGE

PT. A MOVEMENT NONE 0.0 MM



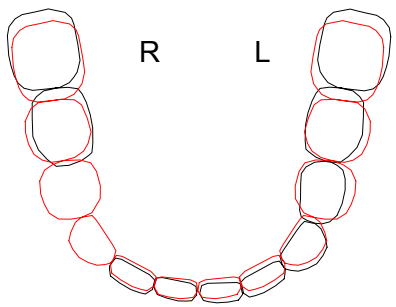
CHANGE IN MAXILLARY TEETH



CHANGE IN MANDIBULAR TEETH

LOWER INCISOR	BWD(LT)	0.6	MM
LOWER MOLAR	FWD	1.4	MM

MANDIBULAR GROWTH



ORIGINAL
GROWTH W/O TREATMENT
TREATMENT OBJECTIVE

WORKUP PRESENTED

Upper arch: NON-EXTRACTION
Lower arch: NON-EXTRACTION

MISSING PERMANENT TEETH

```
        |
R  --------+--------  L
        |
```

COMMENTS

Cl 1 Lt/Cl 2 Rt, diagnosis of Rt

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HISPANIC SAMPLE RMO Case Number: 0000 0039 1 X-Ray date: 06/23/2001 Age: 10.5 Reference: S A
Dr. Training RMO Run date: 02/21/2003 Birthdate: unknown Sex: Female 6

S T E I N E R A N A L Y S I S

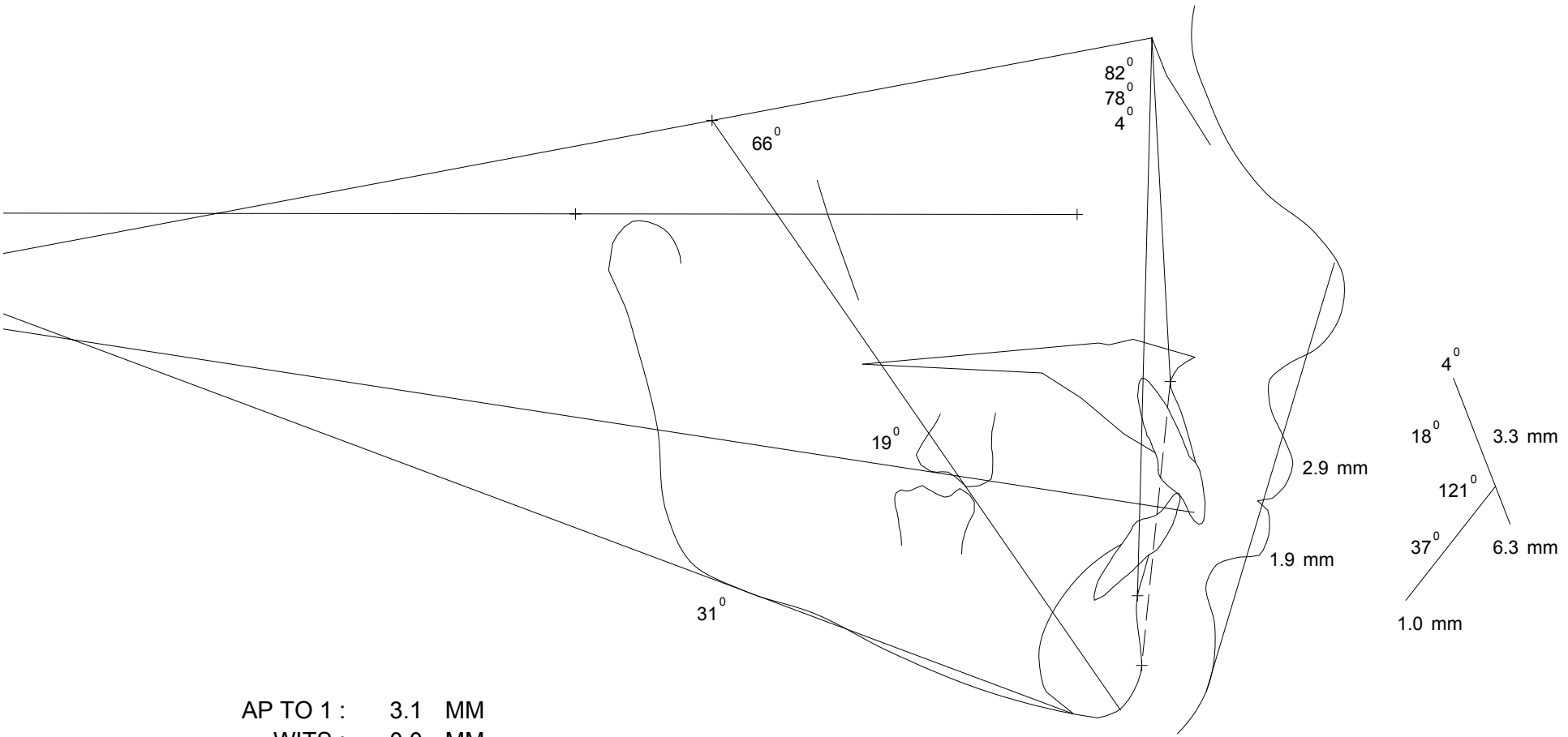
BEFORE TREATMENT

Factor	Measured Value	Clinical Norm	Clinical Deviations From Norm	
SNA	82.4 dg	82.0 dg	0.1	
SNB	77.9 dg	80.0 dg	-0.6	
ANB	4.6 dg	2.0 dg	1.0	*
SND	73.7 dg	76.0 dg	-0.6	
A1 to NA	3.3 mm	4.0 mm	-0.2	
A1 to NA	18.1 dg	22.0 dg	-0.5	
B1 to NB	6.3 mm	4.0 mm	0.9	
B1 to NB	36.7 dg	25.0 dg	1.7	*
A1 to B1	120.6 dg	131.0 dg	-1.1	*
OCC.PL/SN	19.4 dg	14.0 dg	1.2	*

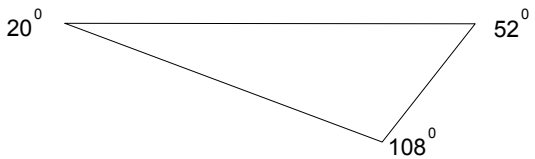
0000 0039 1
HISPANIC SAMPLE
F 10.5 02/21/2003

STEINER ANALYSIS

RMO®



AP TO 1 : 3.1 MM
WITS : -0.0 MM



RMO Diagnostic Services
RMO, Inc.

February 21, 2003

RMODS Case #: 0000 0039 1 Non-extraction
Patient: HISPANIC SAMPLE Letter: (5)

Dear Dr. TRAINING:

The enclosed workup calls for significant distal movement of the upper molar with minimal convexity reduction. Convexity reduction in this case could have adverse affects on the profile.

We have done our best to provide you with comprehensive diagnostic information and a simulation of the likely treatment outcome. Clinical evaluation of the possibility of upper second molar impaction is advised.

While a variety of approaches may be taken, some of the possibilities include:

1) Light force headgear (which may cause some change at point A)

2) Approaches using coil springs (e.g., Wilson distalizing modules)

3) Upper arch extraction of bicuspids or second molars

The chosen alternative will probably not affect the remainder of the diagnosis.

If you have interesting solutions to similar cases, please let us know; other clinicians may be interested to try them.

We appreciate the opportunity to be of service to you. If you have any questions, please contact one of our technical representatives.

Rocky Mountain Associates International, Inc
Post Office Box 7955 Canoga Park, California 91303-7955
21515 Vanoven Street - Suite 100 Canoga Park, California 91303-2715
(800)458-8884 (818)704-8198