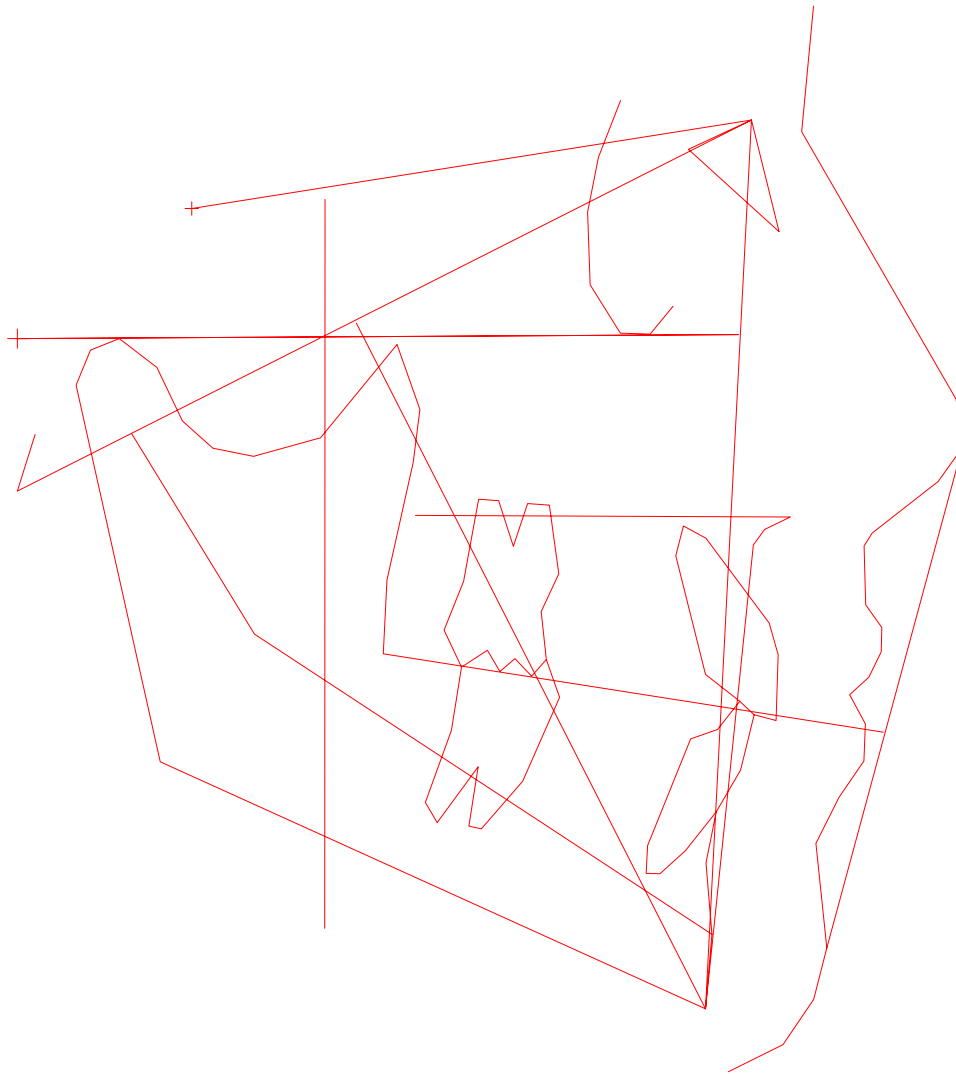


CASE: 0000 0034 1  
MIXED DENTITION , MALE  
Dr. TRAINING  
M (CA) Caucasian  
AGE: 10.0  
X: 06/25/2002 - R: 02/21/2003  
MISSING PERMANENT TEETH

# VISUAL NORMS

RMO®

R ————— | ————— L



MIXED DENTITION , MALE  
Dr. Training

RMO Case Number: 0000 0034 1  
RMO Run date: 02/21/2003

X-Ray date: 06/25/2002 Age: 10.0  
Birthdate: 07/08/1992 Sex: Male 1

Reference: C C D 1

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

FACTOR	MEASURED VALUE	CLINICAL NORM	CLINICAL DEVIATIONS FROM NORM
# - Appears on tracing			

===== DENTAL RELATIONS =====

01 Molar Relation	-1.2 mm	-3.0 mm	0.6
03 Canine Relation	-3.4 mm	-2.0 mm	-0.5
05 Incisor Overjet	4.3 mm	2.5 mm	0.7
07 Incisor Overbite	6.5 mm	2.5 mm	2.0 **
09 Mand Incisor Extrusion	2.5 mm	1.3 mm	0.6
#11 Interincisal Angle	155.0 dq	130.0 dq	4.2 ***

===== DENTAL TO SKELETON =====

#18 A6 Molar Position to PTV	12.0 mm	13.0 mm	-0.3
#20 B1 to A-Po Plane	-3.5 mm	1.0 mm	-2.0 **
22 A1 to A-Po Plane	0.2 mm	3.5 mm	-1.5 *
#24 B1 Inclination to A-Po	9.4 dg	22.0 dg	-3.1 ***
26 A1 Inclination to A-Po	15.6 dg	28.0 dg	-3.1 ***
27 Occlusal Plane to Xi	2.2 mm	0.4 mm	0.6
28 Inclination of Occl Plane	17.0 dq	23.1 dq	-1.5 *
54 B1 Inclination to FH	77.0 dq	65.0 dq	2.4 **

===== ESTHETICS =====

29 Lower Lip to Esthetic Plane	-3.9 mm	-1.3 mm	-1.3 *
30 Upper Lip Length	23.3 mm	26.1 mm	-1.4 *
31 Lip Embrasure to Occl Plane	-4.7 mm	-3.0 mm	-0.8
58 NasoLabial Angle	104.8 dq	115.0 dq	-2.0 **

===== NASOPHARYNGEAL AIRWAY =====

62 N-S-Ba	129.4 dg	129.6 dg	0.0
63 Ba-S-PNS	56.2 dg	63.0 dg	-2.7 **
85 Airway Percent	43.6 %	55.9 %	-0.9
86 Linder-Aronson AD1	14.9 mm	22.7 mm	-1.5 *
87 Linder-Aronson AD2	15.0 mm	18.1 mm	-0.8
88 Distance PTV to Adenoid	8.8 mm	10.1 mm	-0.3

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

LATERAL BEFORE TREATMENT

FACTOR	MEASURED VALUE	CLINICAL NORM	CLINICAL DEVIATIONS FROM NORM
# - Appears on tracing			

===== SKELETAL RELATIONS =====

#13 Convexity	1.1 mm	2.8 mm	-0.9
#15 Lower Facial Height	40.1 dg	45.0 dg	-1.2 *
84 Present Patient Height	59.0 in	54.6 in	
91 Posterior face height	74.6 mm		
92 Anterior face height	116.6 mm		
93 Posterior/Anterior ratio	63.9 %		
94 Saddle Angle	123.9 dg	123.0 dg	0.3
96 Condylion-A point	89.2 mm	86.6 mm	0.9
97 Condylion-Gnathion	112.6 mm	107.6 mm	1.1 *
95 Max-Mand Differential	23.4 mm	20.7 mm	1.0 *
98 Menton-ANS	64.0 mm	63.9 mm	0.1

===== JAW TO CRANIUM =====

#32 Facial Depth	87.9 dg	86.9 dg	0.3
#34 Facial Axis	91.1 dq	90.0 dq	0.3
#36 Maxillary Depth	88.9 dg	90.0 dg	-0.4
37 Maxillary Height	57.8 dg	53.5 dg	1.4 *
38 Palatal Plane to FH	4.7 dg	1.0 dg	1.1 *
#39 Mandibular Plane to FH	22.9 dg	25.7 dg	-0.6
77 Ba-N-A	60.1 dg	63.0 dg	-1.0 *
76 S-N-A	78.4 dg	82.0 dg	-1.1 *
78 S-N-B	76.0 dg	80.0 dg	-1.1 *
69 A-N-B Difference	2.4 dg	2.0 dg	0.1
75 Total Facial Height	54.6 dg	60.0 dg	-1.8 *

===== INTERNAL STRUCTURE =====

40 Cranial Deflection	28.9 dg	27.0 dg	0.6
42 Cranial Length Anterior	63.7 mm	60.7 mm	1.2 *
44 Ramus Height (CF-Go)	58.3 mm	61.5 mm	-1.0 *
46 Ramus Xi Position	73.2 dg	76.0 dg	-0.9
48 Porion Location (Por to PTV)	-40.8 mm	-41.9 mm	0.5
#50 Mandibular Arc	33.5 dg	26.6 dg	1.7 *
51 Corpus Length	71.6 mm	72.5 mm	-0.3

MIXED DENTITION , MALE  
Dr. Training

RMO Case Number: 0000 0034 1  
RMO Run date: 02/21/2003

X-Ray date: 06/25/2002 Age: 10.0  
Birthdate: 07/08/1992 Sex: Male 1

Reference: I N F O

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

===== NAME =====

Patient name: MIXED DENTITION , MALE  
Doctor name: TRAINING  
Age: 10.0  
X-Ray date: 06/25/2002  
RMO Case Number:  
RMO Run date: 02/21/2003

===== MISSING PERMANENT TEETH =====

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

===== HEIGHT PREDICTION =====

Assumed skeletal age: 10.0  
Current height: 59.0 inches  
Amount of adult growth achieved: 78.3 %  
Expected adult height: 75.4 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 =====

===== VERTICAL =====

Severe Deep Bite 7  
Skeletal Deep Bite 15  
due to the mandible & palate 39

===== TRANSVERSE =====

===== SYMMETRY =====

===== SPECIAL CONSIDERATIONS =====

===== COMMENTS =====

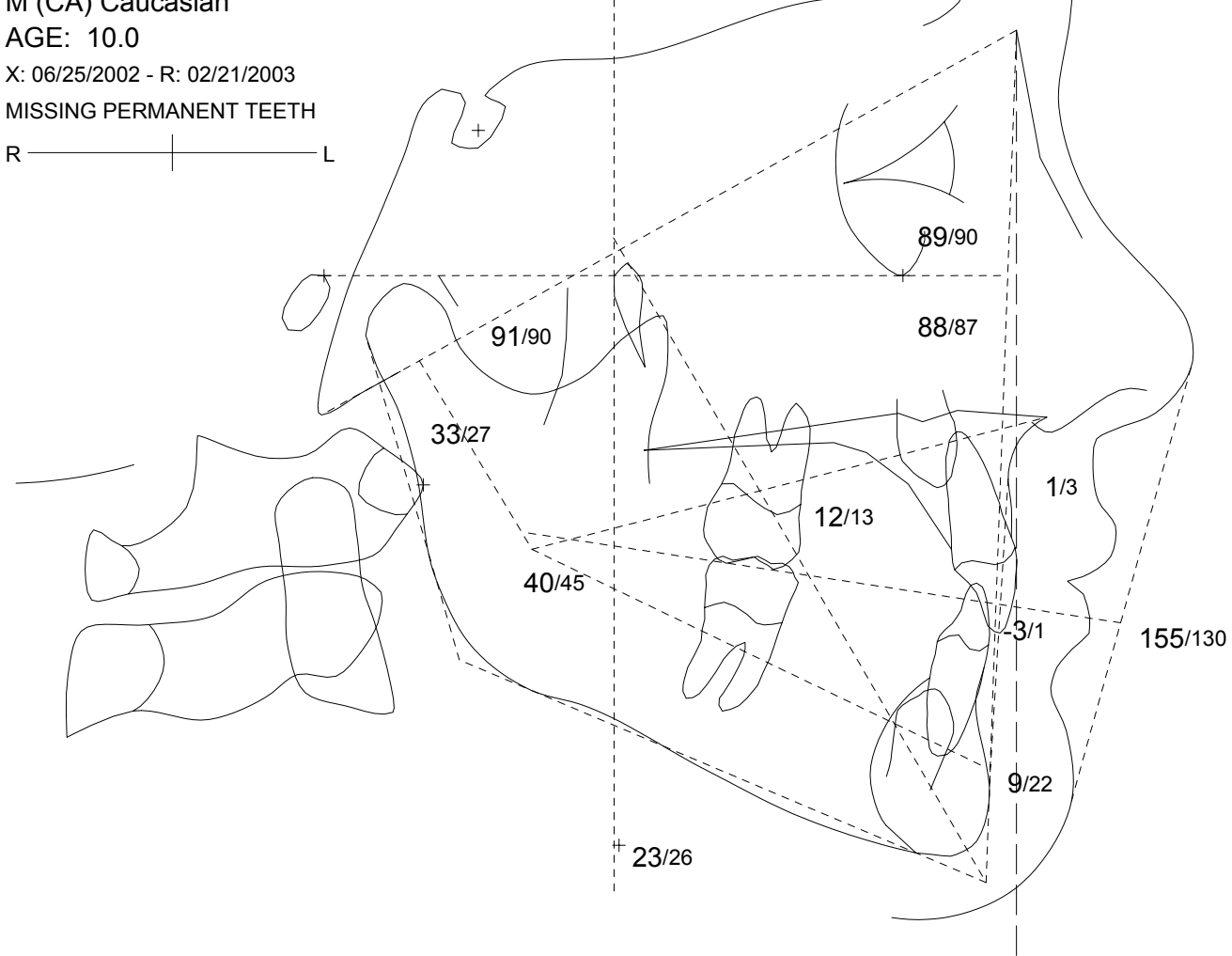
No analysis of frontal x-ray. Upper and lower arch  
expansion decisions based on available data only.

CASE: 0000 0034 1  
 MIXED DENTITION , MALE  
 Dr. TRAINING  
 M (CA) Caucasian  
 AGE: 10.0  
 X: 06/25/2002 - R: 02/21/2003  
 MISSING PERMANENT TEETH

# TRACING

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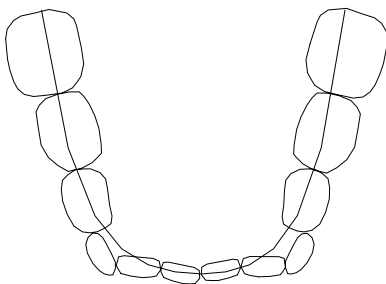
BEFORE TREATMENT



MEASURED VALUE/NORM

SIGNIFICANT CONSIDERATIONS			
CONDITION	REASON		
Severe Deep Bite Skeletal Deep Bite Adenoid blockage of the airway?	due to the mandible & palate Probably not		
FACIAL PATTERN: MILD BRACHYFACIAL			
# FACTORS	MEASURED VALUE	NORM	CLINICAL DEVIATION
Interincisal Angle	155.0 dg	130.0 dg	4.2 ***
Convexity	1.1 mm	2.8 mm	-0.9
Lower Facial Height	40.1 dg	45.0 dg	-1.2 *
A6 Molar Position to PTV	12.0 mm	13.0 mm	-0.3
B1 to A-Po Plane	-3.5 mm	1.0 mm	-2.0 **
B1 Inclination to A-Po	9.4 dg	22.0 dg	-3.1 ***
Facial Depth	87.9 dg	86.9 dg	0.3
Facial Axis	91.1 dg	90.0 dg	0.3
Maxillary Depth	88.9 dg	90.0 dg	-0.4
Mandibular Plane to FH	22.9 dg	25.7 dg	-0.6
Mandibular Arc	33.5 dg	26.6 dg	1.7 *

R L



SHORTAGE 5.5 MM  
 LEEWAY 6.0 MM

MIXED DENTITION , MALE  
Dr. Training

RMO Case Number: 0000 0034 1  
RMO Run date: 02/21/2003

X-Ray date: 06/25/2002  
Birthdate: 07/08/1992

Age: 10.0  
Sex: Male 1

Reference: G T N

===== 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 =====

Facial Pattern	0.6 C.D.	Probability of Lower Third Molar (based on space available)		
Vertical Description	MILD BRACHYFACIAL	Impaction	Eruption	Eruption
Auxiliary Appliances			Questionable	Functional
Headgear	NOT INDICATED		Function	
Activator	NOT INDICATED	5.%	26.%	69.%
Palate Separation	N/A - No Arch and Frontal data			
Convexity Objective	Reduce 0.0 mm			

Lower Arch Length Discrepancy (original arch) 0.5 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 (Manual Over-ride)	Lt: 5.4 mm Fwd. Rt: 5.0 mm Fwd. 4.0 mm Fwd.	8.7 mm Increase	9.2 mm Excess
Buccal Expansion to Ideal Arch Form		1.3 mm Increase	10.5 mm Excess
Incisors & Convexity to Cephalometric Limit	0.0 mm	0.0 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	5.0 mm Mesial
Resulting Expected Space for 2nd & 3rd Molars at Maturity (non-ext.)	24.2 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	Forward 4.0 mm
Buccal Expansion	Gain 1.3 mm
Lower Molar Movement	Forward 4.6 mm

Teeth Sizes:	L6	L5	L4	L3	L2	L1	R1	R2	R3	R4	R5	R6	TOTAL	SUM OF INCISOR	NORM
Lower Arch :	11.4	7.3	7.1	6.9	5.9	5.3	5.3	5.9	6.9	7.1	7.3	11.2	87.6	22.4 MM	23.1

MIXED DENTITION , MALE  
Dr. TrainingRMO Case Number: 0000 0034 1  
RMO Run date: 02/21/2003X-Ray date: 06/25/2002 Age: 10.0  
Birthdate: 07/08/1992 Sex: Male 1

Reference: W R N

## W O R K U P

## R A T I O N A L E

===== ORIGINAL CONDITION =====

===== REASONS FOR LOWER ARCH DECISION =====

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

Mandibular Arch Length Analysis

Missing permanent teeth: R -----+----- L

1. Initial Conditions
  - A. Original Arch Length 5.5 mm shortage
  - B. Useable Leeway Space 6.0 mm
  - C. Total Initial Discrepancy (A+B) 0.5 mm excess

Lower arch length discrepancy (ALD) 5.5 mm SHORTAGE  
 Leeway space 6.7 mm ---  
 Maximum use of leeway space 6.0 mm  
 Total arch length discrepancy 0.5 mm EXCESS

2. Maximum Permissible Arch Length Increase (Within Doctor Limits)  
 Due To:
  - D. Lower Incisor Repositioning 8.7 mm increase
  - E. Buccal Expansion 1.3 mm increase
  - F. Lower Molar Distal Movement 0.0 mm
  - G. Total Possible Increase (D+E+F) 10.0 mm increase

===== COMPUTER DECISION =====  
based on Dr. Training's individualized standards

UPPER ARCH: NON-EXTRACTION

Convexity change NONE

3. Resultant Arch Length Discrepancy 10.5 mm excess  
 Considering All Possible Arch Length Increases (C+G)
4. Resultant Computer Decision Non-Extraction
5. Work-Up Presented Is NON-EXTRACTION

LOWER ARCH: NON-EXTRACTION

Lower incisor FORWARD 4.0 mm Manually overridden  
 Buccal Expansion GAIN 1.3 mm Extracted teeth  
 Lower molar FORWARD 4.6 mm

===== REASONS FOR UPPER ARCH DECISION =====

1. Convexity change 0.0 mm
2. Upper incisor tip movement for overbite/overjet ideal to lower 2.2 mm forward
3. First molar movement required 2.6 mm forward
4. First molar movement clinical limit 5.0 mm backward
5. Work-Up Presented Is NON-EXTRACTION

===== AUXILIARY APPLIANCES =====

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

===== COMMENTS =====

===== POST TREATMENT =====

Pentamorphic arch form: Narrow ovoid  
 Arch length relapse: 1.3 mm

Lower third molar probabilities  
 (based on space available)

Impaction: 5 %  
 Marginal: 26 %  
 Functional: 69 %

MIXED DENTITION , MALE  
0000 0034 1

M 10.0

SEQUENCES WORKSHEET  
PHASE I TREATMENT

02/21/2003  
NON-EXTRACTION

RMO®

UPPER ARCH				LOWER ARCH			
ACTIVITY	DESCRIPTION	MONTHS	NOTES	ACTIVITY	DESCRIPTION	MONTHS	NOTES
	ADVANCE INCISORS	0			ADVANCE INCISORS	0	
		1				1	
		0				0	
		2				2	
		0				0	
		3				3	
		0				0	
		4				4	
		0				0	
		5				5	
<u>PROGRESS RECORDS</u>		0		<u>PROGRESS RECORDS</u>		0	
		6				6	
		0				0	
		7				7	
	INTRUDE 1	0				0	
		8				8	
		0				0	
		9				9	
		1				1	
		0				0	
		1				1	
		1				1	
		2				2	
	RETRACT INCISORS	1				1	
		3				3	
		1				1	
		4				4	
		1				1	
		5				5	
		1				1	
<u>POST TX RECORDS</u>		6		<u>POST TX RECORDS</u>		6	
		1				1	
		7				7	
		1				1	
		8				8	
		1				1	
		9				9	
		2				2	
		0				0	
		2				2	
		1				1	
		2				2	
		2				2	
		2				2	
		3				3	
		2				2	
		4				4	

MIXED DENTITION , MALE  
0000 0034 1

M 10.0

SEQUENCES WORKSHEET  
PHASE II TREATMENT

02/21/2003  
NON-EXTRACTION

RMO®

UPPER ARCH				LOWER ARCH					
ACTIVITY	DESCRIPTION	MONTHS	NOTES	ACTIVITY	DESCRIPTION	MONTHS	NOTES		
	ADVANCE 6 ALIGN/LEVEL BUCCAL SEGS	0			ALIGN/LEVEL BUCCAL SEGS ADVANCE 6	0			
		1					1		
		0					0		
		2					2		
		0					0		
		3					3		
		IDEAL ARCH	0				IDEAL ARCH	0	
			4					4	
			0					0	
			5					5	
	PROGRESS RECORDS	0			PROGRESS RECORDS	0			
		6				6			
		0				0			
		7				7			
		0				0			
		8				8			
		0				0			
		9				9			
		1				1			
		0				0			
		1			IDEAL ARCH	1			
		1				1			
		1				1			
		2				2			
		1				1			
		3				3			
	FINAL ARCH	1			FINAL ARCH	1			
		4				4			
		1				1			
	POST TX RECORDS	5			POST TX RECORDS	5			
		1				1			
		6				6			
		1				1			
		7				7			
		1				1			
		8				8			
		1				1			
		9				9			
		2				2			
		0				0			
		2				2			
		1				1			
		2				2			
		2				2			
		2				2			
		3				3			
		2				2			
		4				4			



0000 0034 1

MIXED DENTITION , MALE

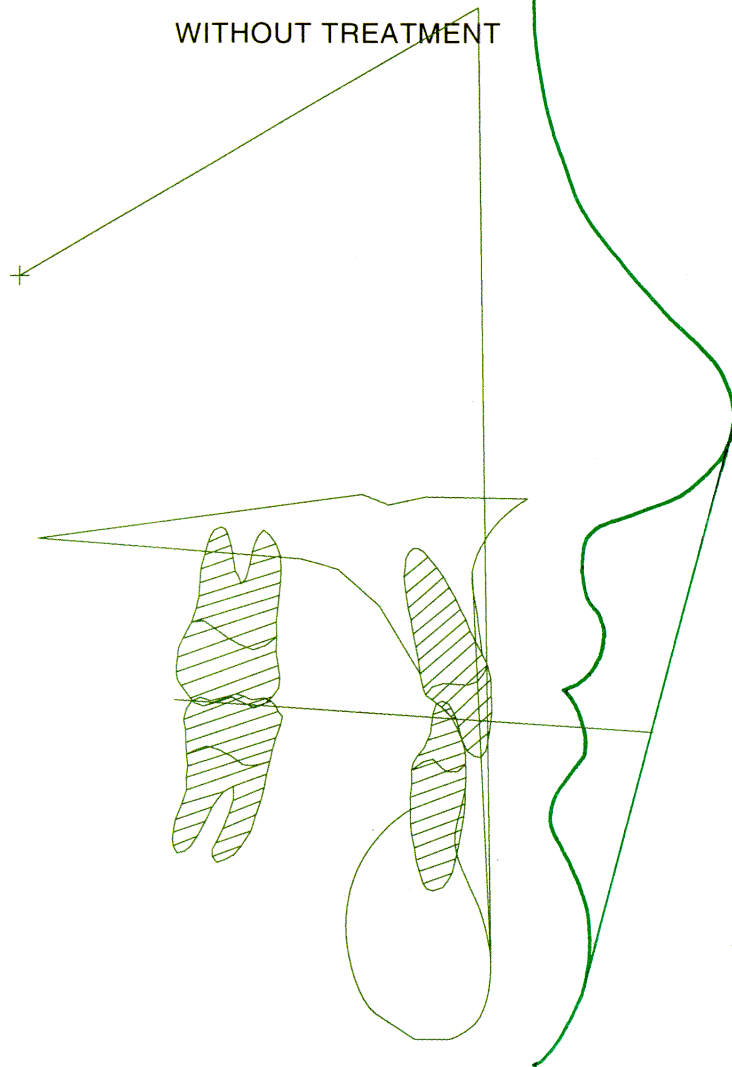
M 10.0

# LONG RANGE GROWTH FORECAST COMPARISON RMO®

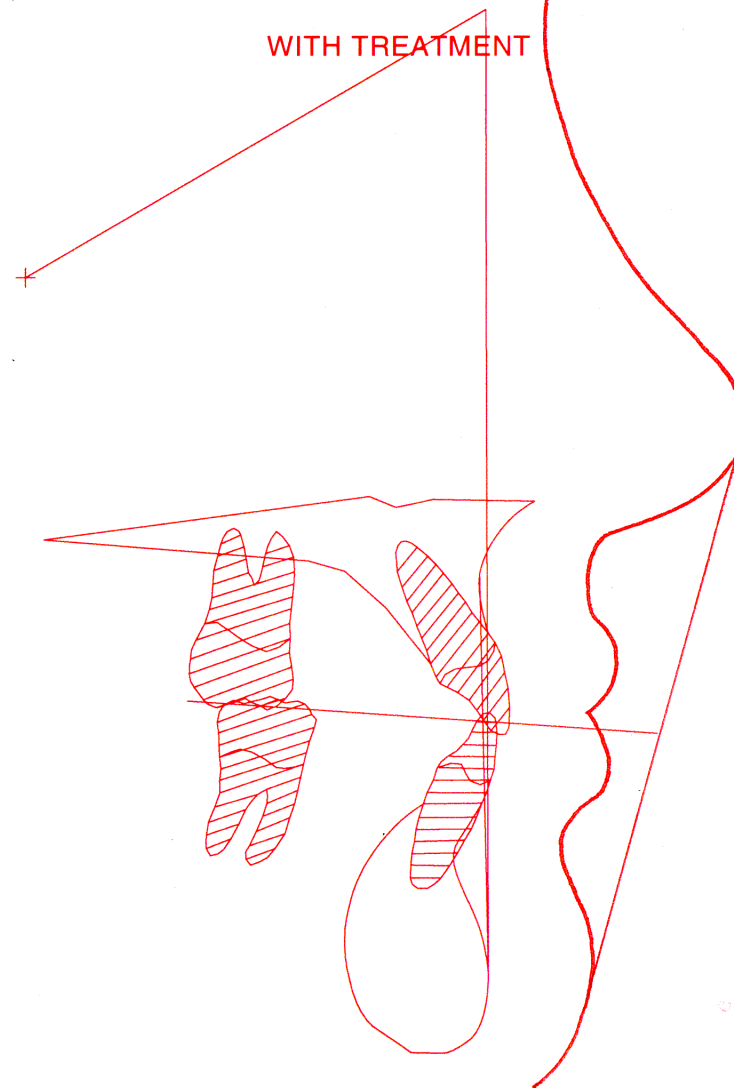
02/20/2003

NON-EXTRACTION

WITHOUT TREATMENT



WITH TREATMENT



## LOWER THIRD MOLAR PROBABILITIES

(BASED ON SPACE AVAILABLE)

IMPACTION: 22 %

MARGINAL: 46 %

FUNCTIONAL: 32 %

CURRENT HEIGHT: 59.0 IN

EXPECTED MATURE HEIGHT: 75.4 IN

## LOWER THIRD MOLAR PROBABILITIES

(BASED ON SPACE AVAILABLE)

IMPACTION: 5 %

MARGINAL: 26 %

FUNCTIONAL: 69 %

ARCH LENGTH DECREASE POST TX

1.3 MM TOTAL

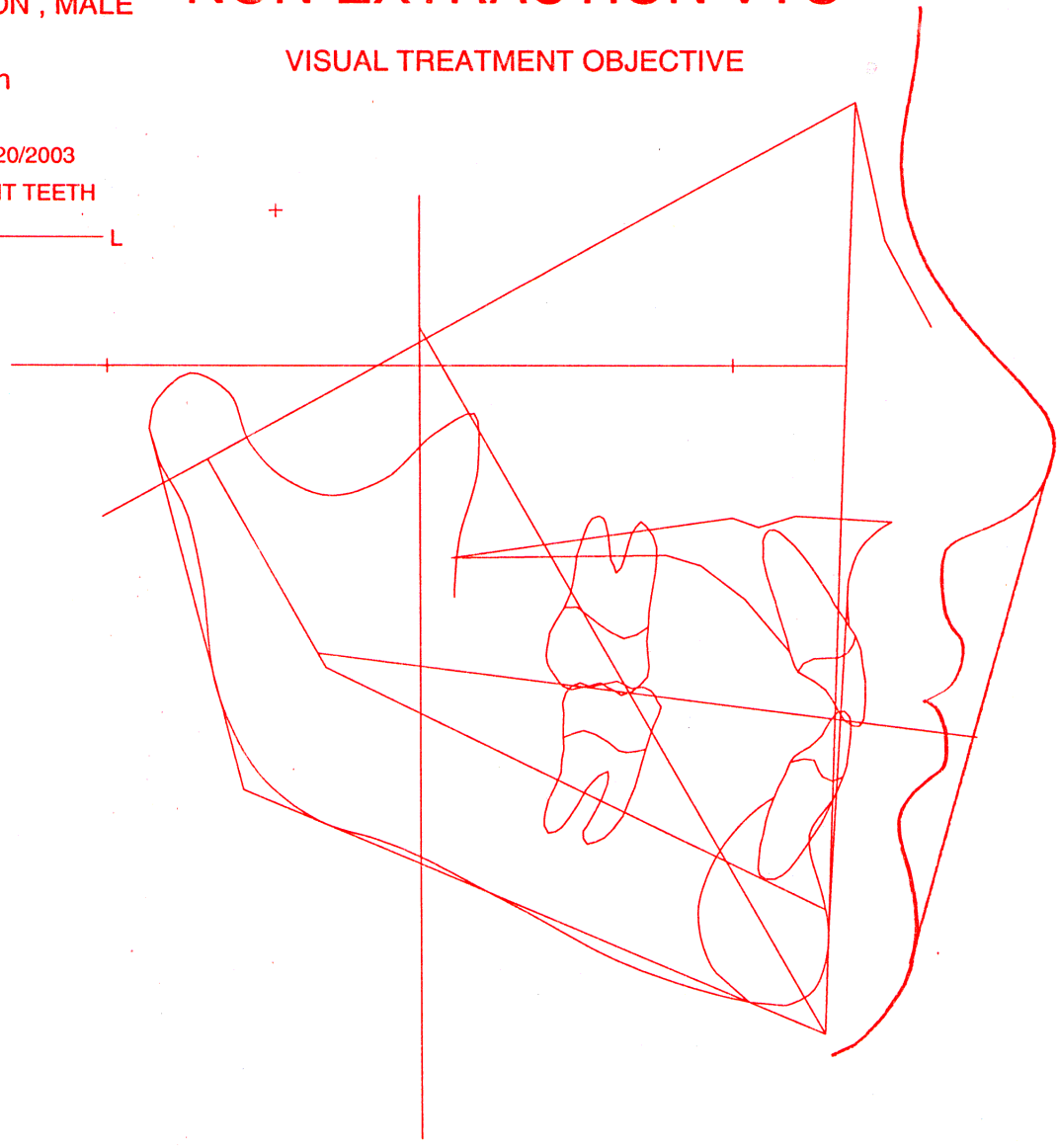
CASE: 0000 0034 1  
 MIXED DENTITION , MALE  
 Dr. TRAINING  
 M (CA) Caucasian  
 AGE: 10.0  
 X: 06/25/2002 - R: 02/20/2003  
 MISSING PERMANENT TEETH

# NON-EXTRACTION VTO

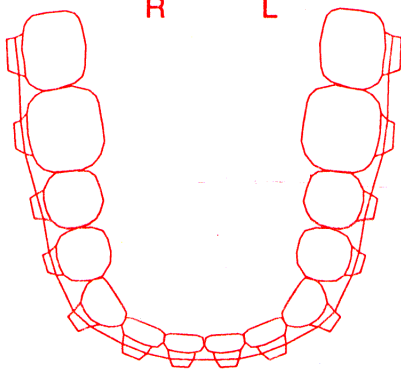
RMO®

## VISUAL TREATMENT OBJECTIVE

R ————— L



SUGGEST  
 NARROW OVOID  
 RMO PREFORMED  
 PENTAMORPHIC ARCHWIRE



ESPECIALLY PREPARED FOR Dr. TRAINING

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

PREDICTION PERIOD  
 24.0 months

GROWTH UNITS  
 24.0 months: 1.6

HEIGHT PREDICTION  
 Current height: 59.0 inches  
 Mature height: 75.4 inches

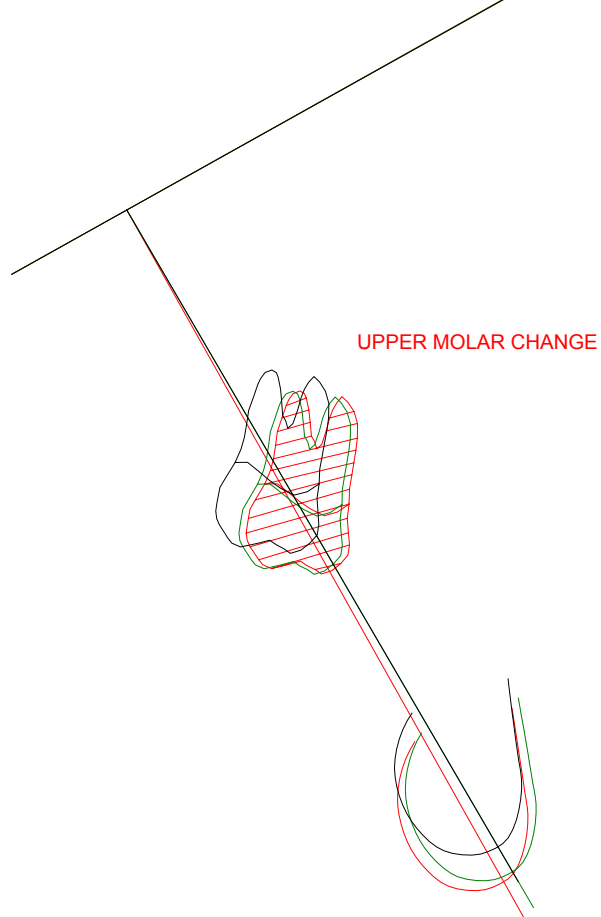
3RD MOLAR PREDICTION  
 Impaction: 5 %  
 Marginal: 26 %  
 Functional: 69 %

COMMENTS

0000 0034 1  
 MIXED DENTITION , MALE  
 M 10.0                      02/21/2003

# NON-EXTRACTION TREATMENT DESIGN

RMO®



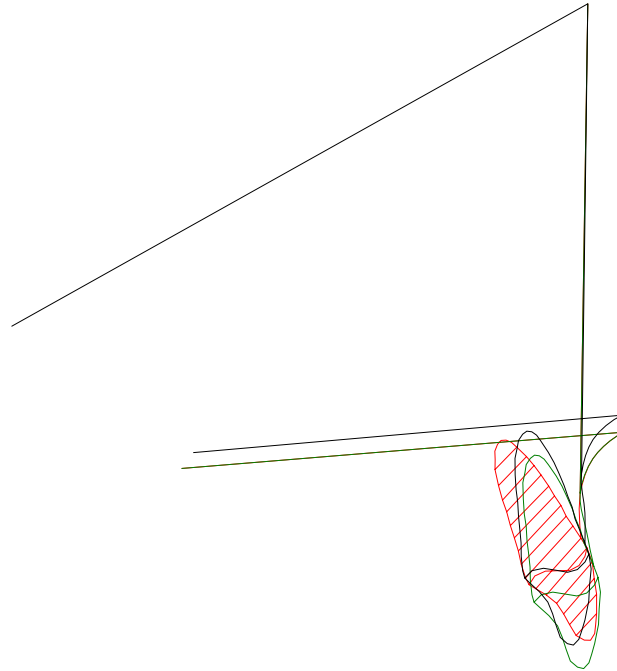
MANDIBULAR GROWTH

— ORIGINAL  
 — GROWTH W/O TREATMENT  
 — TREATMENT OBJECTIVE

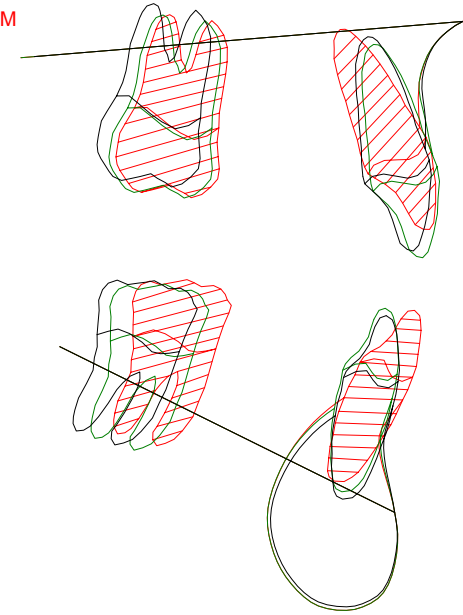
MAXILLARY CHANGE

PT. A MOVEMENT                      NONE

0.0 MM

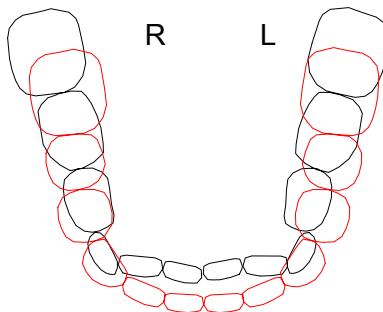


CHANGE IN MAXILLARY TEETH



CHANGE IN MANDIBULAR TEETH

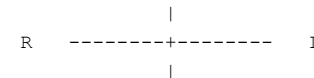
LOWER INCISOR	FWD(RT)	4.0	MM
LOWER MOLAR	FWD	4.6	MM



## WORKUP PRESENTED

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

## MISSING PERMANENT TEETH



## COMMENTS

MIXED DENTITION , MALE  
Dr. TrainingRMO Case Number: 0000 0034 1  
RMO Run date: 02/21/2003X-Ray date: 06/25/2002  
Birthdate: 07/08/1992Age: 10.0  
Sex: Male 1

Reference: S A

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

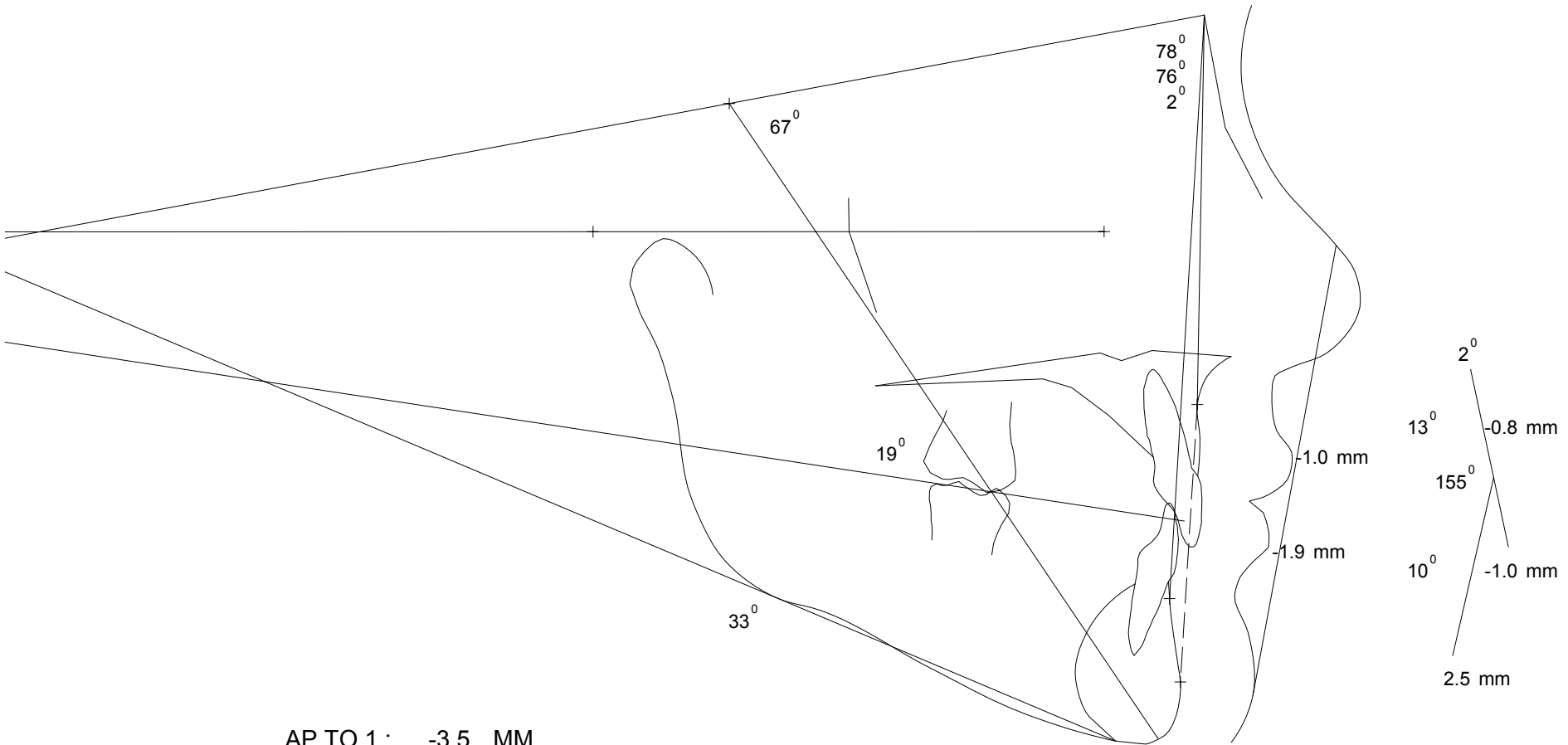
## ===== BEFORE TREATMENT =====

Factor	Measured Value	Clinical Norm	Clinical Deviations From Norm
SNA	78.4 dg	82.0 dg	-1.1 *
SNB	76.0 dg	80.0 dg	-1.1 *
ANB	2.4 dg	2.0 dg	0.1
SND	72.9 dg	76.0 dg	-0.9
A1 to NA	-0.8 mm	4.0 mm	-1.6 *
A1 to NA	13.1 dg	22.0 dg	-1.1 *
B1 to NB	-1.0 mm	4.0 mm	-2.1 **
B1 to NB	9.6 dg	25.0 dg	-2.2 **
A1 to B1	155.0 dg	131.0 dg	2.5 **
OCC.PL/SN	19.2 dg	14.0 dg	1.2 *

0000 0034 1  
MIXED DENTITION , MALE  
M 10.0 02/21/2003

# STEINER ANALYSIS

RMO®



AP TO 1 : -3.5 MM  
WITS : -0.3 MM

