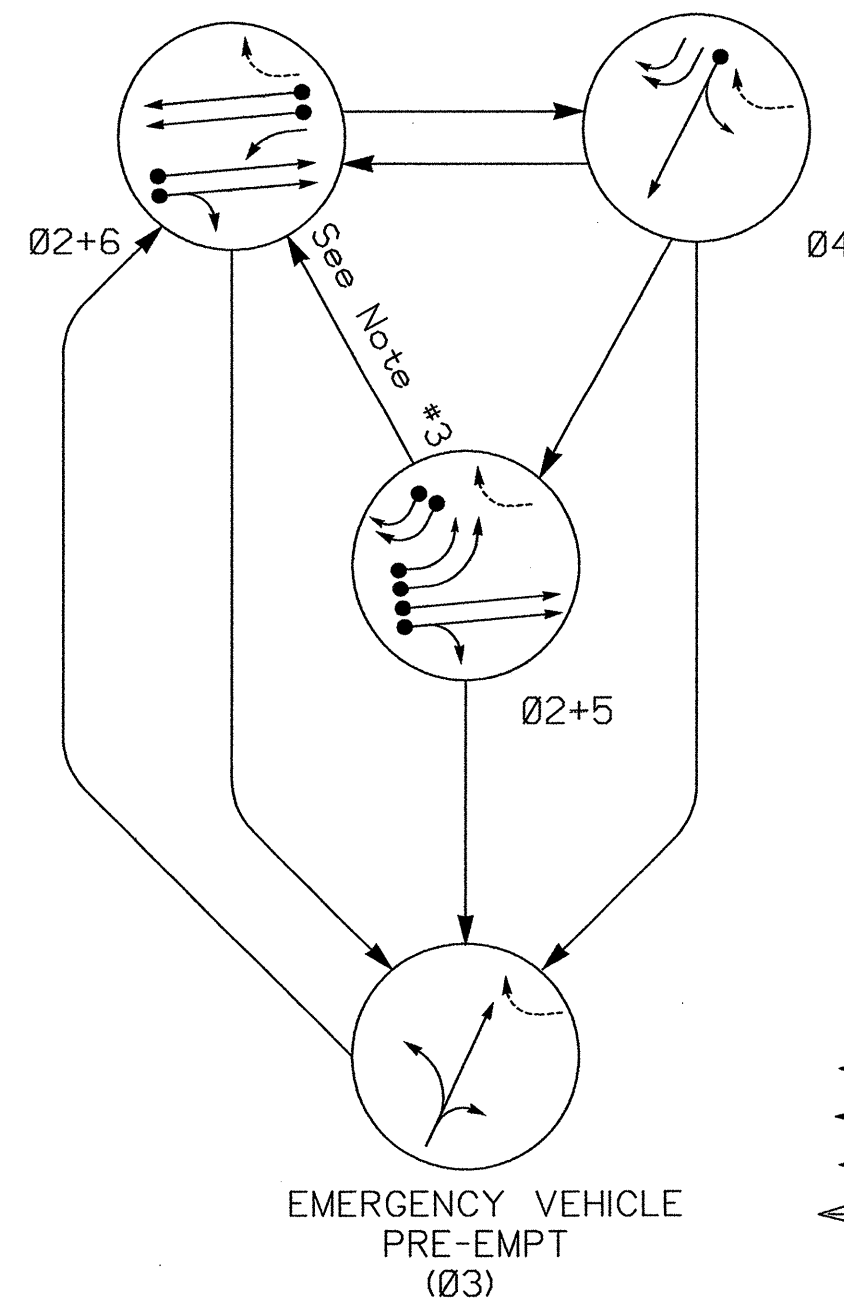
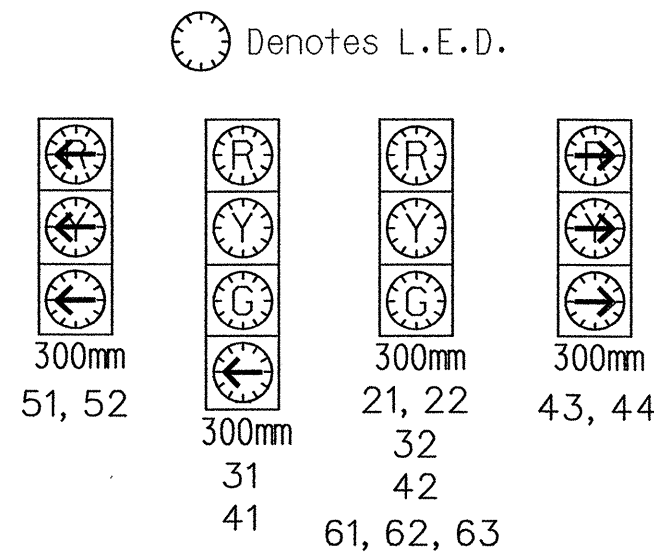


PHASING DIAGRAM



SIGNAL FACE	PHASE				
	02+5	02+6	04	03 (03)	FLASH
21, 22	G	G	R	R	Y
31	R	R	R	G	R
32	R	R	R	G	R
41	R	R	G	R	R
42	R	R	G	R	R
43, 44	-	R	-	R	-
51, 52	-	R	-	R	-
61, 62, 63	R	G	R	R	Y

SIGNAL FACE I.D.



Pay Item	Meters
Signal Cable	210
Messenger Cable	0
Lead-in Cable	950

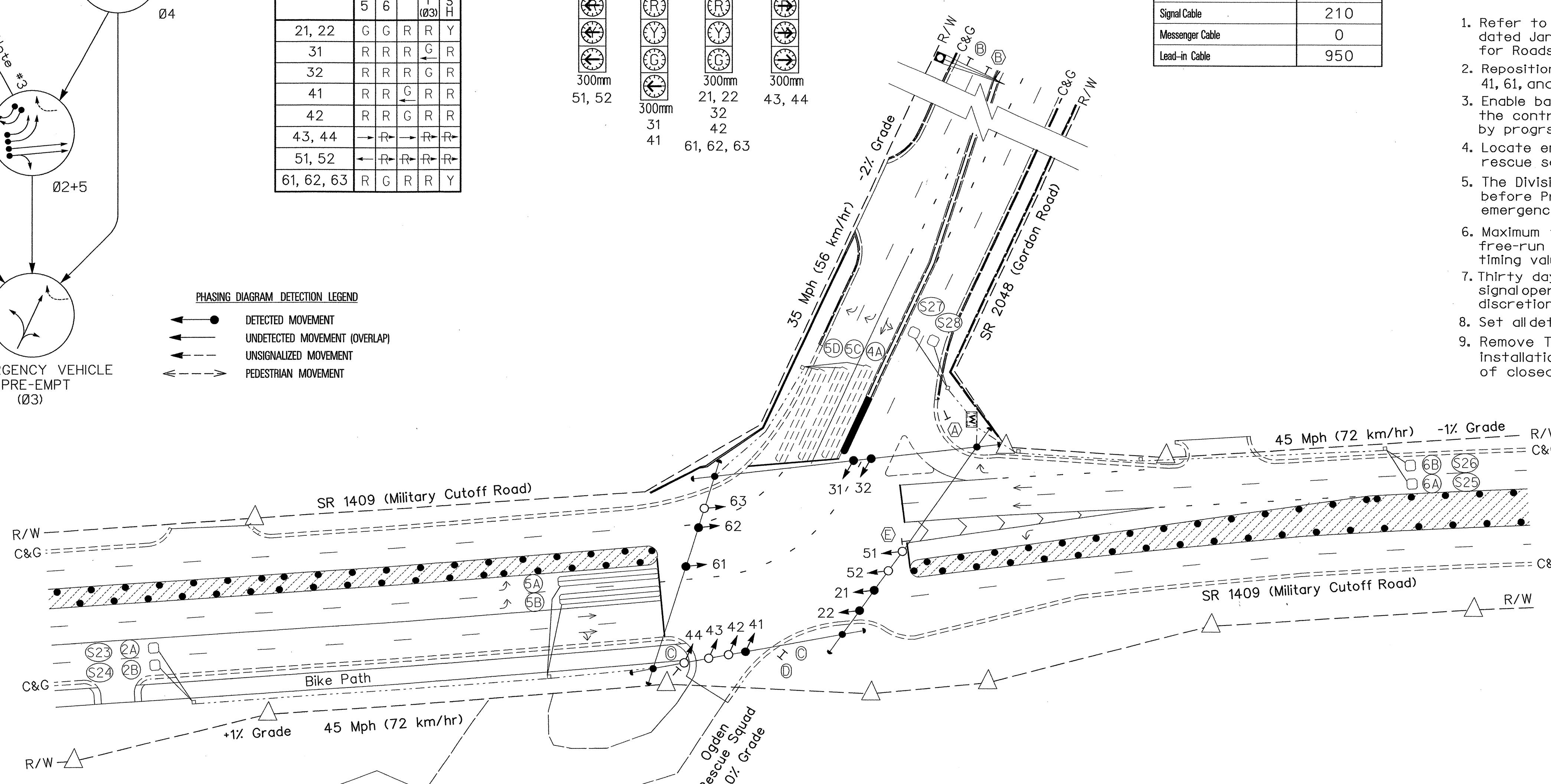
3 Phase
w/Emergency Pre-empt
(Fully Actuated)
(Military Cutoff Road Closed Loop System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Reposition existing signalheads numbered 21, 22, 41, 61, and 62.
- Enable backup protect for phase 2 to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through all red display.
- Locate emergency vehicle preemption switch in rescue squad building.
- The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for emergency vehicle preemption timing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Thirty days after implementation of the revised signal operation, orange flags may be removed at the discretion of the Regional Traffic Engineer.
- Set all detector units to presence mode.
- Remove Trimble Acutime 2000 (RS-232) GPS Unit upon installation of fiber optic cable and actuation of closed loop system.

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT



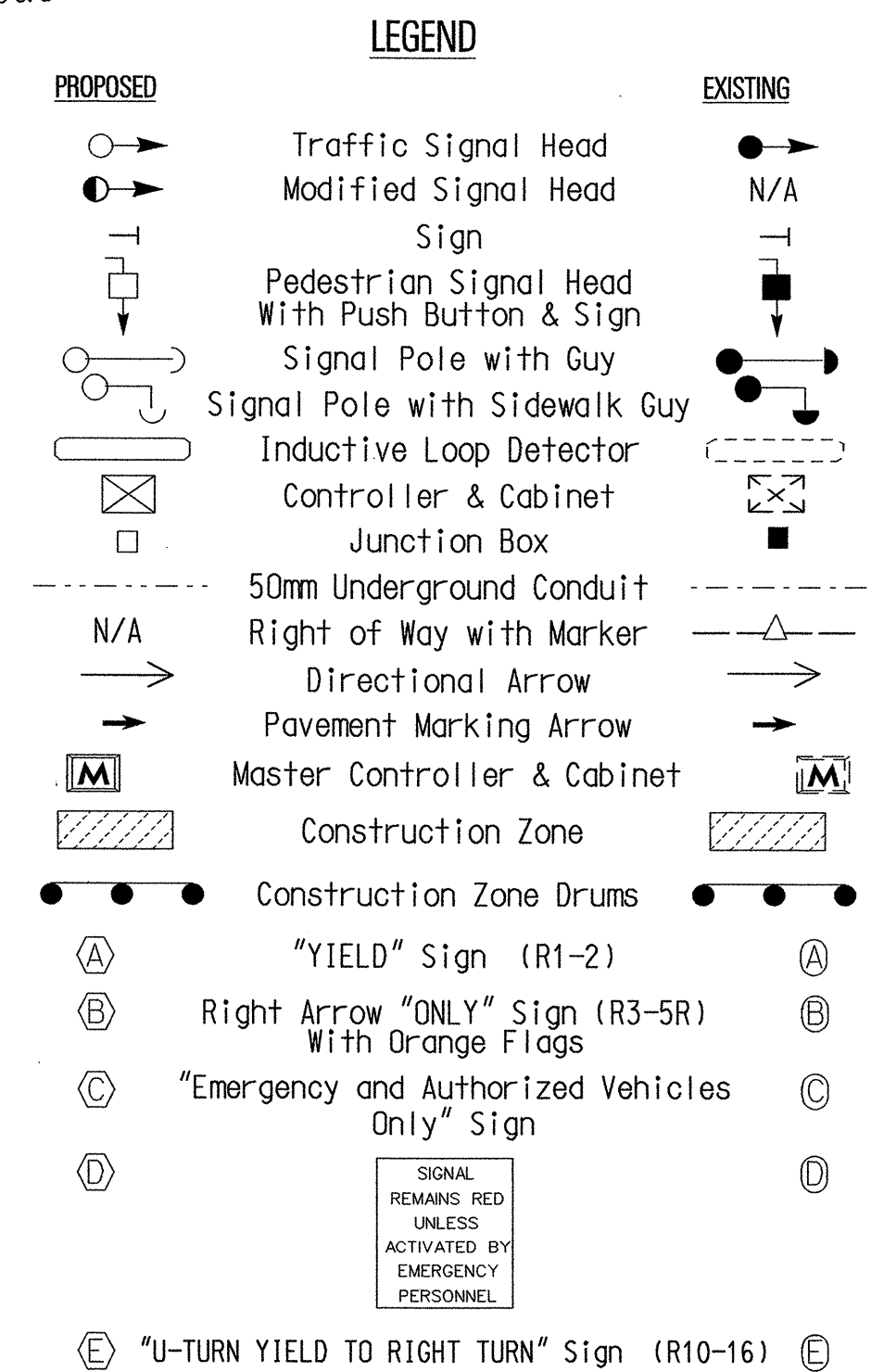
FEATURE	PHASE			
	2	4	5	6
Min Green 1 *	12	7	7	12
Extension 1 *	6.0	1.0	1.0	6.0
Max Green 1 *	100	25	15	100
Yellow Clearance	4.7	4.0	4.0	4.7
Red Clearance	2.0	2.5	3.0	2.0
Red Revert	5.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	1.5	-	-	1.5
Max Variable Initial *	34	-	-	34
Time Before Reduction *	15	-	-	15
Time To Reduce *	30	-	-	30
Minimum Gap	3.0	-	-	3.0
Recall Mode	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

2070 EV PREEMPTION	
Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	4.0
Interval 1 - Dwell Red	3.0
Interval 5 - Exit Green	1
Interval 5 - Exit Yellow	0.0
Interval 5 - Exit Red	0.0
Delay Time	*
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	4.7
Red Clear Before Pre	3.0
Dwell Min Time	*
Enable Backup Protection	N
Ped Clear Through Yellow	N

* See Note #5

2070L LOOP & DETECTOR INSTALLATION												
LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	NEW LOOP	PHASE	DETECTOR PROGRAMMING						NEW CAB
						CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	
2A-S23	1.8X1.8	5	90	Y	2	Y	Y	-	Y	-	-	Y
2B-S24	1.8X1.8	5	90	Y	2	Y	Y	-	Y	-	-	Y
4A	1.8X1.8	2-4-2	0	-	4	Y	Y	-	-	-	-	-
5A	1.8X1.8	2-4-2	0	Y	5	Y	Y	-	-	-	-	Y
5B	1.8X1.8	2-4-2	0	Y	5	Y	Y	-	-	-	-	Y
5C	1.8X1.8	2-4-2	0	-	5	Y	Y	-	-	-	15	-
5D	1.8X1.8	2-4-2	0	-	5	Y	Y	-	-	-	15	-
6A-S25	1.8X1.8	5	90	Y	6	Y	Y	-	Y	-	-	Y
6B-S26	1.8X1.8	5	90	Y	6	Y	Y	-	Y	-	-	Y
S27	1.8X1.8	5	+65	Y	-	-	-	-	Y	-	-	Y
S28	1.8X1.8	5	+65	Y	-	-	-	-	Y	-	-	Y



Signal Upgrade Temporary Design 2 Construction Phase II

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SR 1409 (Military Cutoff Road) at SR 2048 (Gordon Road) and (Ogden Rescue Squad)

Division 3 New Hanover County Wilmington

Prepared for: *Sepe Engineering*

PLANNING AND DESIGN DIVISION

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SCALE: 1:500

DATE: 1/7/04

SIG. INVENTORY NO. 03-088472