

RANGE SOP

Range: R-223A	Lateral Limits: LLL – 049° magnetic RLL - 036° magnetic	Min/max Engagement Distance: 200 Yard Range Min 1 yards Max 200 yards	Range Facilities: Bleachers; Shoot House; 25 target Turning Targets; 4 Moving targets; 8 Plate racks; ammo table; port-a-johns; BZO Range; Parking Lot
Location: 619 915	Impact Area: Zulu	Shoot House Min 1 meters Max 7 meters	
Type: Shoot House & Turning Target Range			
Troop Penetration: Only within Foot Print of range	Allowable Wpns: Rifles, 7.62mm (200 yard range Only): Rifles, 5.56mm and below (No Tracer – No Burst Fire); Subguns .45 cal and below; Pistols, .45 cal. and below; Shotguns (No Slugs on Steel Targets); Flash Bangs; SESAMS (In House Only); Breaches (up to .18 NEW)	Assigned to: CO, MCB	Date Revised: 14 Oct, 2008

Scheduling

1. All scheduling requests for R-223A shall be submitted via their battalion. Unit will utilize RFMSS to schedule range.
2. Use on automated targets requires contractor. Contact TSD at 725-4444 to coordinate.
3. All personnel conducting live fire in shoot house must have completed the required live fire qualification (NLT than 48 hours) prior to shooting on this range.
4. When conducting Force-on-Force no shooting member shall have conducted live fire within 24 hours of this event.

Scheduling Conflicts	Notes	Conflict Notes
R440 &/or Zulu Impact	1	Note (1) – No Access WHEN 200 YARD Turing Target Range is being used
R223A – 200 Yrd/BZO	2	Note (2) – Is in conflict with Zulu Impact
R223A - Shoot House	1 & 3	Note (3) – Is not in conflict with Zulu Impact
R223A - BZO Range	2 & 4	Note (4) – No Movement Past 200 yard line & No Access to Shoot House
R225	5	Note (5) – CMP is not allowed when R223A is occupied.

GENERAL INSTRUCTIONS

1. A safety Brief will be conducted prior to each live fire event to all participants.
2. All personnel shall wear required PPE during all training events.
3. OIC & RSO Requirements -
 - a. CQB (Shoot Hse) Live Fire, SESAMS, & Flash Bangs
 - i. OIC Requirement – GySgt or Above
 - ii. RSO Requirement - SSgt or Above
 - b. Small Arms Static Live fire
 - i. OIC Requirement – SSgt or Above
 - ii. RSO Requirement - Sgt or Above
 - c. No Munitions
 - i. OIC Requirement – None
 - ii. RSO Requirement - Sgt or Above
 - iii. LASER (If Used) LSSO Requirement - Sgt or Above
4. IOT occupy this range unit must have the following personnel/equipment:
 - a. RSO
 - b. Corpsman & Safety Vehicle
 - c. Positive Communication with LONGRIFLE
 - d. An ORM reviewed and signed by the Command, RSO and OIC.
5. IOT go into a hot status on range unit must have the following personnel/equipment:
 - a. OIC
 - b. RSO
 - c. LSSO – If using Laser
 - d. Corpsman & Safety Vehicle
 - e. Positive Communication with LONGRIFLE
6. POVs are authorized to park in parking lot area without a POV pass.
7. The RSO & OIC will personally observe each event.
8. A non-participating Corpsman will be stationed with safety vehicle.
9. Ammunition will only be issued per event and accounted for on NAVMC 11381.
10. After each event, unit leaders will conduct a line out.
11. Each RSO/PSO will certify to the OIC that all weapons are in Condition 4 prior to exiting the range/facility and all ammunition is accounted for.
12. All weapon malfunctions shall be corrected per the appropriate TM/FM, and unit SOP.

RANGE SOP

CQB Shoot House

1. Weapons allowed – Rifle 5.56mm, Pistols .45 Caliber & Below, and Shotguns – **Breaching Ammunition Only.**
 2. OIC and RSO must have completed a training event “shadowing” a qualified OIC/RSO prior to acting in that capacity on this range.
 - a. **Completion of this requirement shall be indicated on the unit ORM.**
 2. RSO shall sweep both decks to ensure that there are no un-authorized personnel present prior to going hot.
 3. 1st and second deck can not be used concurrently
 4. **All traps shall be placed on bullet traps provided.**
 5. **All traps shall be placed only on north walls.**
 6. No shots will be taken from outside to inside, a room to a room, hallway to a room or room to the hallway.
 7. No shots will be taken outside the authorized lateral limits of each room.
 - a. **Square Room Center Door**
 - i. #1 Man – Primary Sector:
 1. Corner to corner to Center wall – 1 meter overlap
 - ii. #1 Man – Secondary Sector:
 1. Corner to Center wall
 - iii. #2 Man - Corner to corner to Center wall – 1 meter overlap
 - iv. # 3 Man – Center wall to center wall
 - v. # 4 Man – Center wall to center wall
 - vi. # 5 Man – Center wall to corner
 - b. **Square Room Corner Door**
 - i. #1 Man – Primary Sector:
 1. Corner to corner – 1 meter overlap
 - ii. #1 Man – Secondary Sector:
 1. Corner to Center wall
 - iii. #2 Man - Corner to center wall
 - iv. # 3 Man – Center wall to center wall
 - v. # 4 Man – Center wall to center wall
 - vi. # 5 Man - Center wall to center wall
8. **Qualifications –**
 - a. All personnel conducting live fire must have completed the required live fire qualification prior to shooting on this range.
 - b. All Marine Corps Personnel must hold a current qualification as outlined (Min Qual is 75 out of 100):
 - i. Table 3A & 4A Service Long Gun (M16/M4 or Subgun).
 - ii. Table 3A & 4A Service Handgun.
 - c. “Current” qualifications must meet the following criteria:
 - i. Qualification must be completed within 48 hours of conducting training.
 - d. **Units other than USMC may submit an alternate course of fire to the RCO for approval.**
9. **All personnel shall conduct a non live-fire rehearsal prior to conducting live-fire scenarios.**
10. The OIC and RSO will accompany personnel as they execute both the rehearsal and the live -fire scenario.

200 yard Rifle Range

1. Turning Targets
 - a. All targets shall be mounted to wooded uprights.
 - b. Wooden uprights and targets are to be supplied by the using unit.
2. Moving Targets
 - a. 200 – 150 yard Line
 - i. Only four shooters are authorized.
 - b. 100 – 75 yard Line
 - i. Shooters shall be at center line.
 - ii. Only two shooters are authorized.
3. Steel Plates
 - a. **Safety Equipment**
 - i. Wrap around ballistic eye protection (glasses or goggles) and ear protection are mandatory for everyone on the range regardless of what they are doing, no exceptions.
 - ii. All personnel will have long sleeves and long trousers.
 - b. **Pistol**
 - i. **No engagements will be made closer than 7 yards.**
 - c. **Shotguns**
 - i. **No engagements will be made closer than 10 yards.**
 - ii. **Pellet only – No Slugs**
 - d. **Rifle**
 - i. Use of 5.56mm **M855 ball** ammunition is authorized on steel plates **at distances of 100 to 200 yards.**
 - ii. **5.56 frangible** ammunition is authorized. Engagements **shall not be closer than 25 yards.**

RANGE SOP

BZO Range

1. **Weapons allowed on BZO range –**
 - a. Rifle – 7.62 mm & Below (**Prone BZO Only**)
2. **Left Lateral Limit**
 - a. 041° magnetic
 - b. 61943 91356
3. **Right Lateral Limit**
 - a. 041° magnetic
 - b. 61952 91344

SESAMS

1. **A “SESAMS training In Progress” Sign shall be posted at each entrance outside the building by the unit.**
4. All participating Marines will be required to wear flak, Kevlar, throat/groin protector, contact gloves, utilities, hearing protection, and approved masks.
5. All personnel will wear the specified gear when inside the safety perimeter.
6. You shall have a minimum of two NCOs or higher act as safety controllers.
 - a. These Marines will ensure that there are no intentional headshots and no engagements closer than **5 feet.**
7. All Marines will be lined out before any SESAMS rounds are distributed.
8. All SESAMS magazines will be clearly marked, as will the barrels.
9. Following the completion of the training, all Marines will be lined out again
10. **Ensure all training is conducted IAW SOUM 1-02.**

Breaching Operations

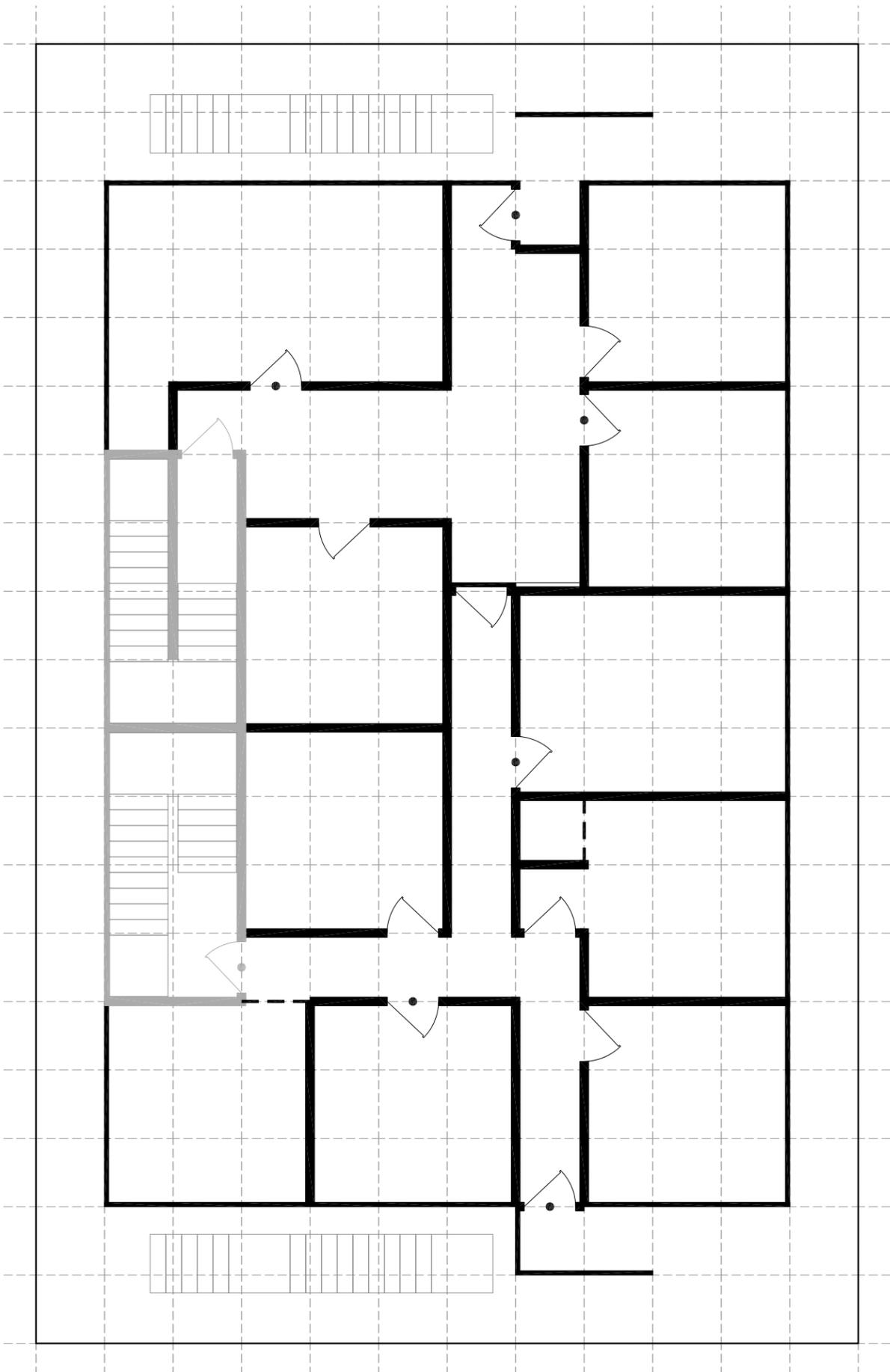
1. **Mechanical Breaching**
 - a. All mechanical breaching will be conducted utilizing tools from issued breaching kits.
2. **Ballistics Breaching**
 - a. Ammunition will only be issued per event.
 - b. Only commercial breaching rounds shall be used.
3. **Explosive Breaching**
 - a. **All breaches will be set on doors and frames provided by the by the using unit that are mounted to reduce any hazards to the building.**
 - i. **Approved framing will consists of:**
 1. **½ inch plywood covering entire threshold, sides and overhead of doorway.**
 2. **2x4 placed to form a frame on plywood covering.**
 3. **Only use plywood ¼ inch to construct “doorway”.**
 4. **If using actual doors, only hollow core wooden doors shall be used.**
 - b. **The breach will consist of a field expedient urban breaches (duel primed) at no more than .18 lbs NEW (Any Requests for annual waivers for this requirement shall not be approved).**
 - c. **Max Ord is 185 feet AGL for vertical or fragmentation hazard at .18 lbs NEW.**
 - d. **A maximum K – Factor of 18 (3.5 PSI) will be utilized and all personnel are to follow the below unshielded safety standoffs.**
 - e. **If shielded, RSO may reduce standoff by 50%.**
 - f. **Double hearing protection required for all PSIs at or above 1.68.**
 - g. **All personnel will be set in position prior to initiating the breach.**
 - h. **All exposed building material must be covered/framed IOT prevent any damage to the structure.**
 - i. **A safety Brief will conducted prior to each live fire event to all participants.**
 - j. **The RSO & OIC will personally observe each live fire event.**
 - k. **Each breach will be inspected and approved by the RSO.**
 - l. **Time fuse will be cut and tested by RSO (30 Sec. Max. Time).**
 - m. **Any Electrical Systems will be tested by RSO.**
 - a. **All breaches will be set on doors and frames provided by the by the using unit that are mounted to reduce any hazards to the building.**
4. **There will be additional safety personnel assigned as follows:**
 - a. **A PSO will travel with each breaching team.**
 - b. **Each PSO will have positive communication with the RSO.**
5. **Live Fire signs will be posted all times when the SACON House is hot as depicted in the graphics.**
6. **The OIC is responsible for all charges, and ensuring all misfire procedures are in compliance with current directives.**

RANGE SOP
K FACTOR

NEW OF CHARGE (TNT EQUIVALENT)	40	30	24	18	11	9	6
	1.2 -.9 PSI	1.7 PSI	2.3 PSI	3.5 PSI	8 PSI	12 PSI	27 PSI

Distance in Feet From Detonation

0.05	14.73612599	11.0520945	8.841675597	6.631256698	4.052434649	3.315628349	2.210418899
0.1	18.56635533	13.9247665	11.1398132	8.354859901	5.105747717	4.17742995	2.7849533
0.125	20	15	12	9	5.5	4.5	3
0.15	21.25317138	15.93987854	12.75190283	9.563927123	5.844622131	4.781963561	3.187975708
0.155	21.48674142	16.11505606	12.89204485	9.669033639	5.90885389	4.834516819	3.223011213
0.18	22.58486469	16.93864852	13.55091882	10.16318911	6.210837791	5.081594556	3.387729704



1
1ST FLOOR PLAN
SCALE - GRID 4" X 4"

LEGEND

- BLAST PANEL
- BLASTIC PANEL (PLYWOOD ON 2 SIDES)
- BLASTIC PANEL (PLYWOOD ON 1 SIDE)
- DOWNWAY (NO DOORS)
- L27 BLASTIC PANEL (PLYWOOD ON 1 SIDE)
- BLASTIC SLIDING ENCLOSURE
- ROOF BREACH LANDING POINT
- BLASTIC ROOF BREACH
- STANDARD DOOR
- BREACH DOOR

PROJECT MANAGER:	RODNEY WILKERSON
PROJECT DESIGNER:	JAMES SOVINE
PROJECT ENGINEER:	
DRAWN BY:	JES
APPROVED BY:	
DRAWING SCALE:	1/4"=1' TYPICAL
DATE:	FEB 28, 2008

CAMP PENDLETON
M.A.T.C.H
LIVE FIRE SHOOT HOUSE

NO	BY	REVISION	DATE	NOTES
1		STAIRS MOVED	1/21/08	
2		BREACH DOOR LOCATIONS ADDED	3/21/08	

DRAWING TITLE:
1ST FLOOR PLAN

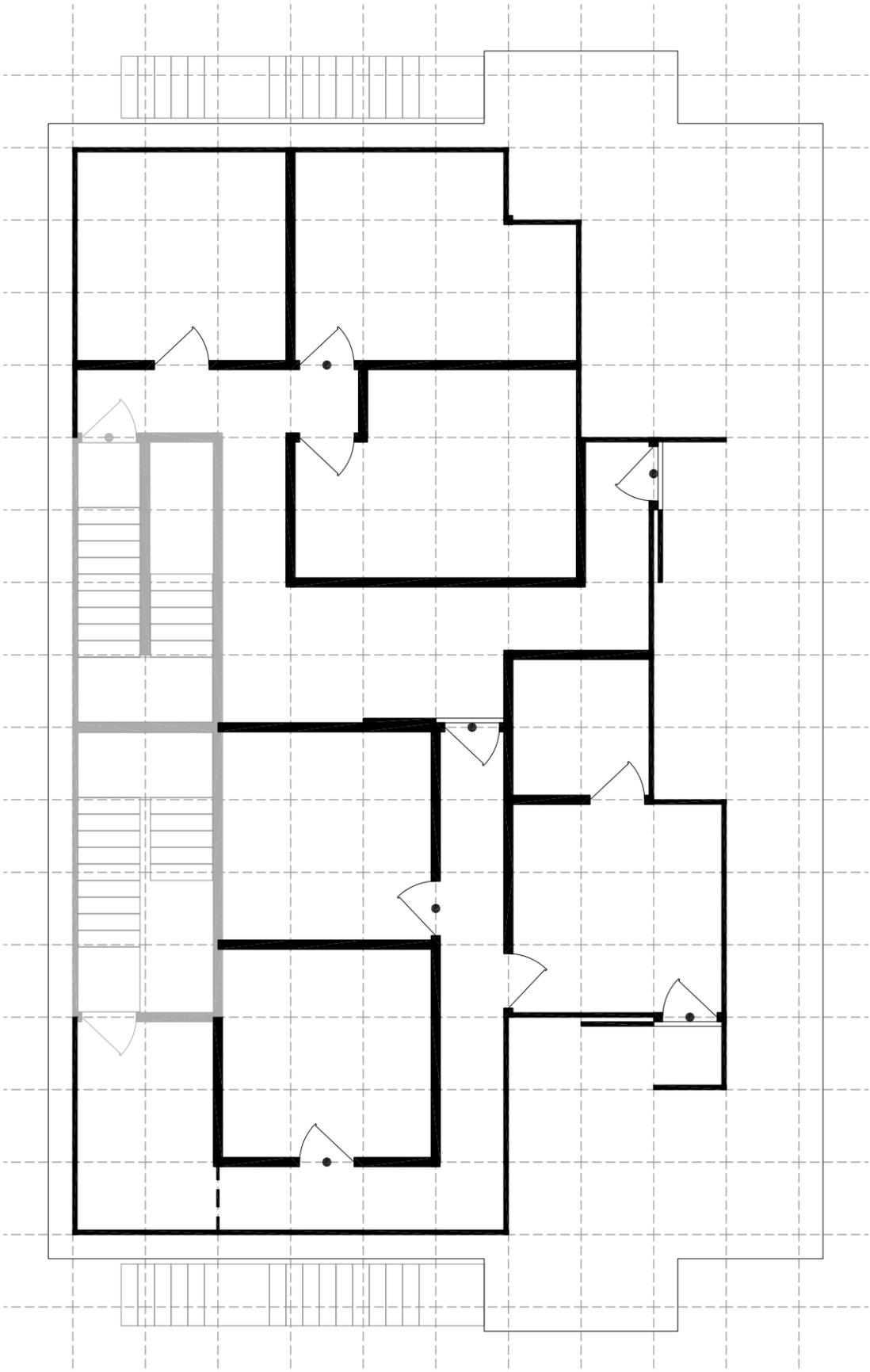
DRAWING NUMBER:

A101

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(801) 377-8033
(801) 377-8096 (FAX)
WWW.ACTIONTARGET.COM
P O Box 636
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1 2ND FLOOR PLAN
SCALE - GRID TO GRID

DRAWING TITLE:
2ND FLOOR PLAN

CAMP PENDLETON
M.A.T.C.H
LIVE FIRE SHOOT HOUSE

NO	BY	REVISION	DATE
1	JES	STAIRS MOVED	1/21/08
2		BREACH DOOR LOCATIONS ADDED	3/21/08
3		1 DOOR LOCATION MOVED FOR SAFETY	4/30/08

PROJECT MANAGER:	RODNEY WILKERSON
PROJECT DESIGNER:	JAMES SOVINE
PROJECT ENGINEER:	
DRAWN BY:	JES
APPROVED BY:	
DRAWING SCALE:	1/4"=1' TYPICAL
DATE:	FEB 28, 2008

NOTES

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SCALE FOR ORIGINAL DRAWING AT 24" X 36"

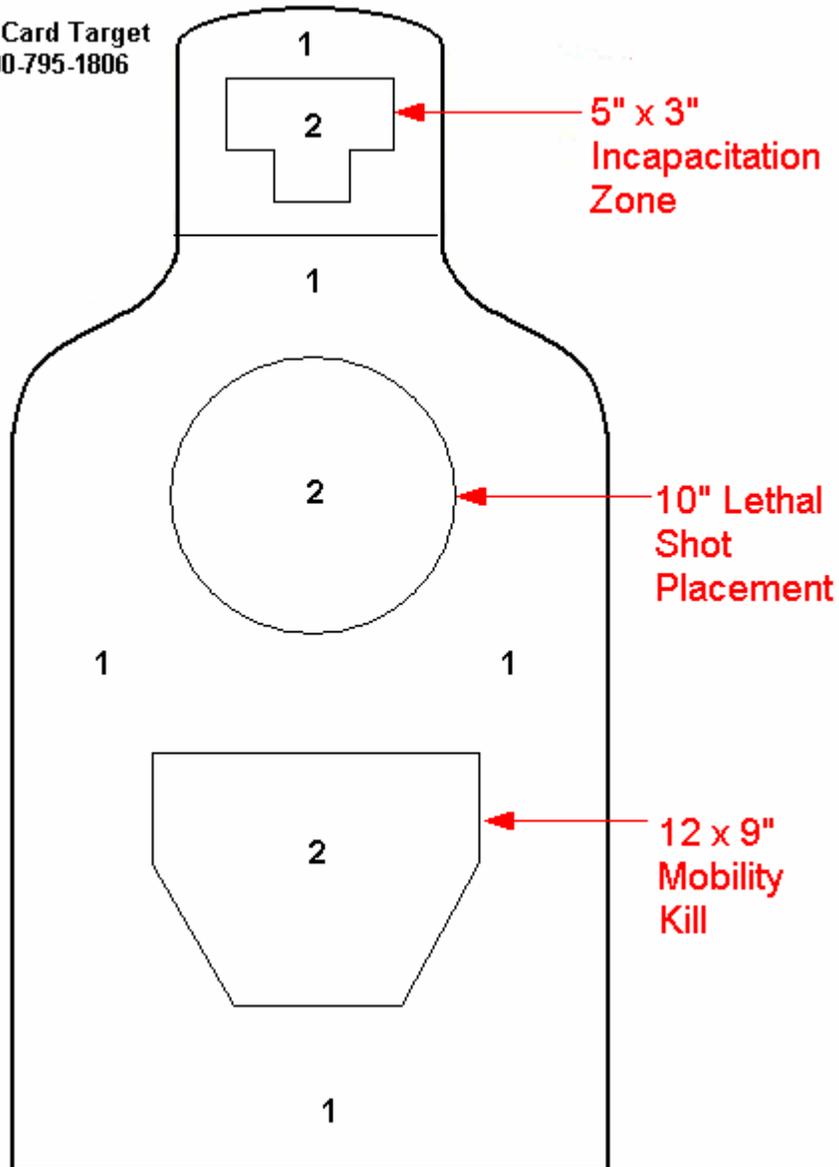
Table 3A

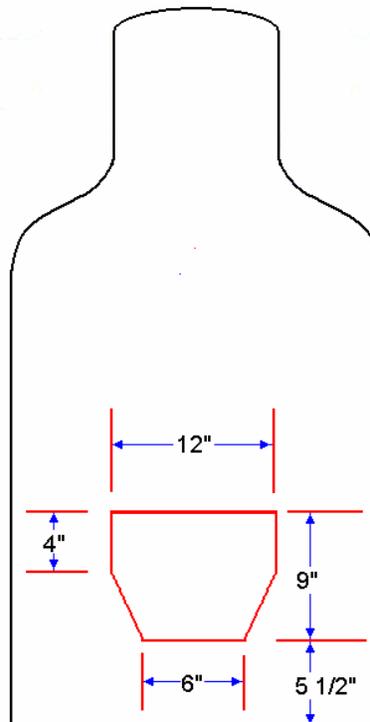
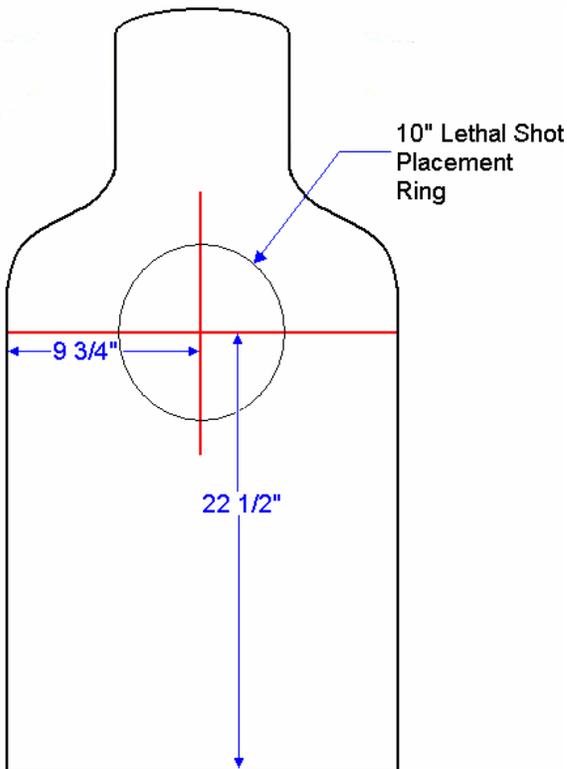
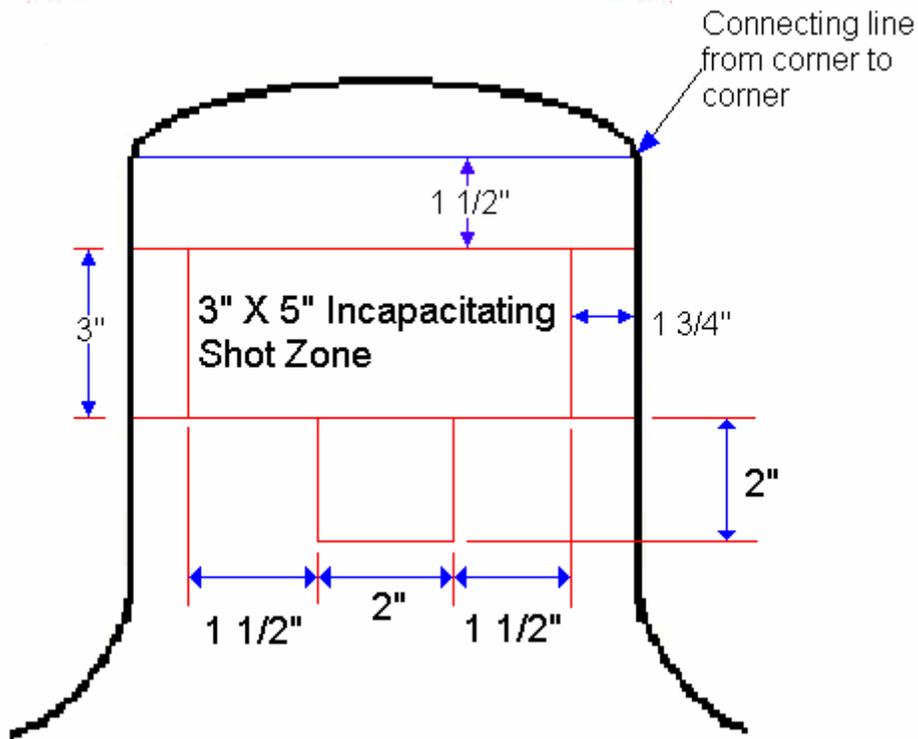
Stages	Yard line	Drill	Rounds per Iteration	Time(sec)	Position	Iteration	Rounds	Possible Score
Stage 1	25	Controlled Pair	2	4	Standing	2	4	8
Stage 2	25-15	Fwd Mvt (Controlled Pair)	2	NA	Standing	1	2	4
	15	Pivot right (Hammer Pair)	2	4	Standing	1	2	4
	15	Pivot Left (Hammer Pair)	2	4	Standing	1	2	4
Stage 3	15-10	Fwd Mvt (Hammer Pair)	2	NA	Standing	1	2	4
	10	Pivot right (Hammer Pair)	2	3.5	Standing	1	2	4
	10	Pivot left (Hammer Pair)	2	3.5	Standing	1	2	4
Stage 4	10-5	Fwd Mvt (Failure to Stop)	3	NA	Standing	1	3	6
	5	Pivot right (Failure to Stop)	3	3	Standing	1	3	6
	5	Pivot left (Failure to Stop)	3	3	Standing	1	3	6
Stage 5	25	Controlled Pair	2	4	Standing	2	4	8
Stage 6	25-15	Fwd Mvt (Controlled Pair)	2	NA	Standing	1	2	4
	15	Pivot right (Hammer Pair)	2	4	Standing	1	2	4
	15	Pivot Left (Hammer Pair)	2	4	Standing	1	2	4
Stage 7	15-10	Fwd Mvt (Hammer Pair)	2	NA	Standing	1	2	4
	10	Pivot right (Hammer Pair)	2	3.5	Standing	1	2	4
	10	Pivot left (Hammer Pair)	2	3.5	Standing	1	2	4
Stage 8	10-5	Fwd Mvt (Failure to Stop)	3	NA	Standing	1	3	6
	5	Pivot right (Failure to Stop)	3	3	Standing	1	3	6
	5	Pivot left (Failure to Stop)	3	3	Standing	1	3	6
						Total	50	100

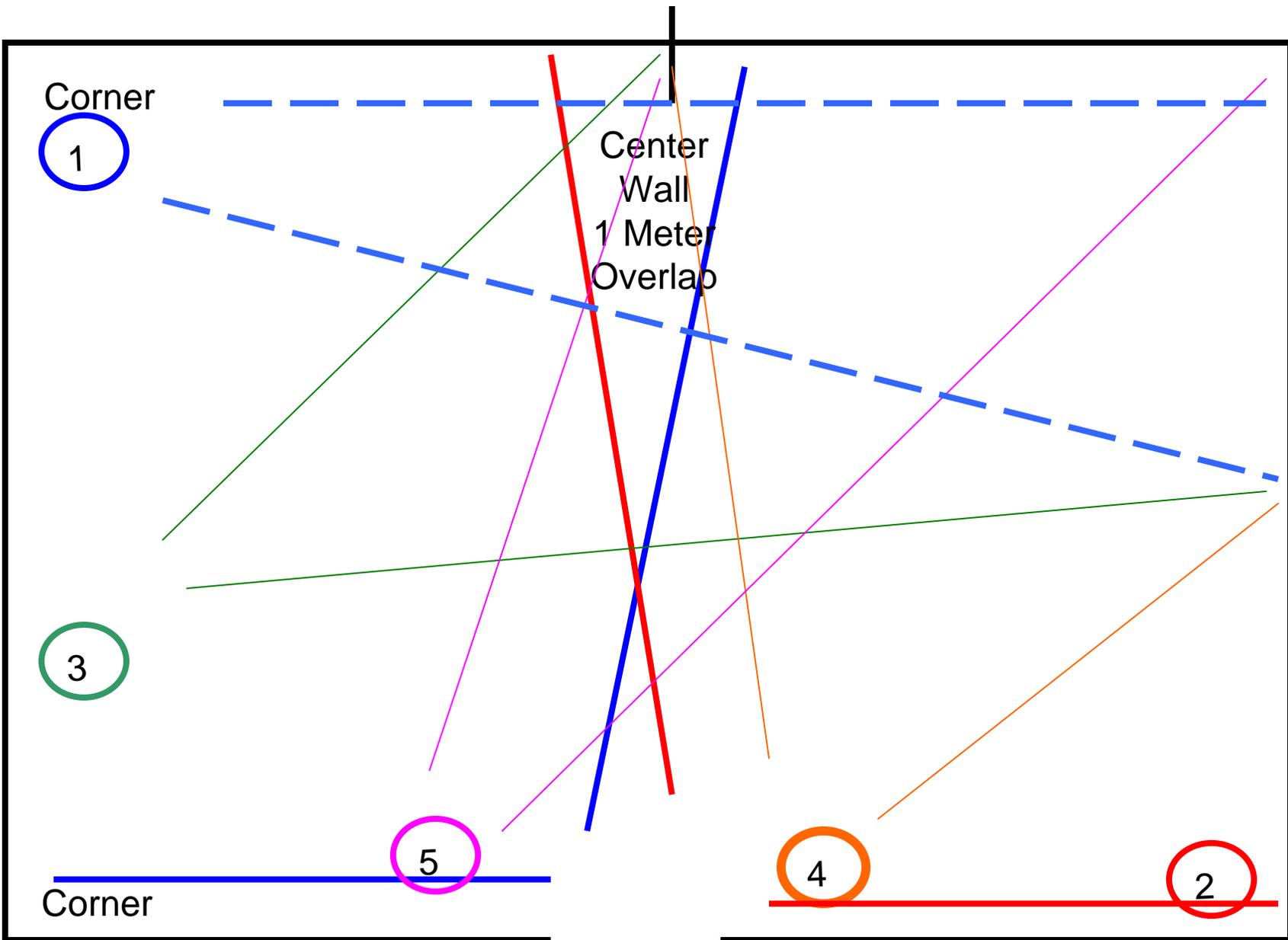
Table 4A

Stages	Yard Line	Drill	Rounds per Iteration	Time (sec)	Position	Iterations	Rounds	Possible Score
	50	Controlled Pairs	4	8	Standing to Kneeling	1	4	8
	25	Box Drill	6	12	Standing/Kneeling	1	6	12
	25-15	Controlled Pairs	4	NA	Forward Mvmt	1	4	8
	15	90° Pivot Right, Box Drill	6	5	Standing	1	6	12
	15	90° Pivot Left, Box Drill	3	4	Standing	1	6	12
	15-10	180° Pivot Left, Box Drill	6	NA	Forward Mvmt	1	6	12
	10	90° Pivot Right, Box Drill	6	4	Standing	1	6	12
	10	90° Pivot Left, Box Drill	6	4	Standing	1	6	12
	10-5	180° Pivot Right, Box Drill	6	NA	Forward Mvmt	1	6	12
						Total	50	100

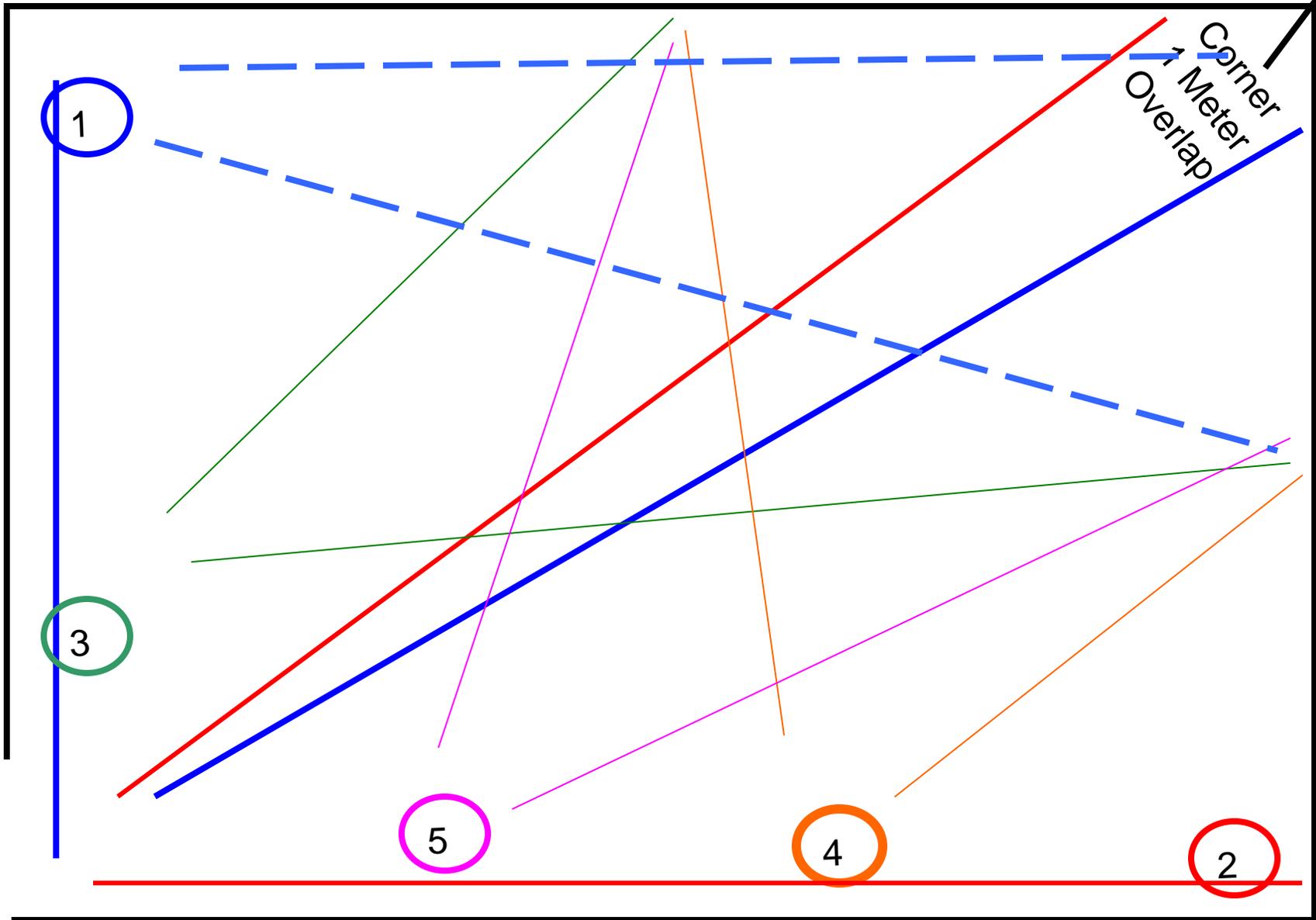
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Corner



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