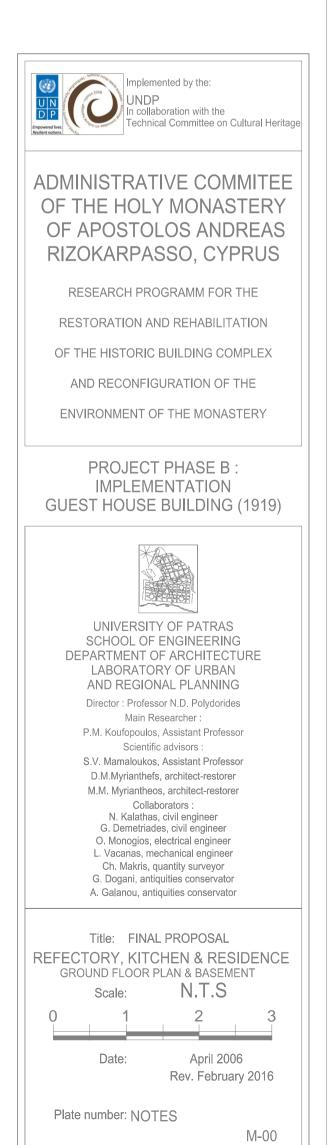
NOTATION	ABBR		IATIONS	ABBREVIATIONS	
ACCESS DOOR	AC	PCV	-PRESSURE INDEPENDENT BALANCING &	AAV	-AUTOMATIC AIR VENT
ANTI SYPHON PIPE	ASP		CONTROL VALVE	AB	-AIR BOTTLE
AUTOMATIC AIR VALVE	AAV	PHX	-PLATE HEAT EXCHANGER	AFFL	-ABOVE FINISHED FLOOR LEVEL
BALL VALVE	BV	PPC	-PRIMARY PUMP CONSTANT SPEED	AHU	-AIR HANDLING UNIT
COLD WATER SERVICE	cws	PPV	-PRIMARY PUMP VARIABLE SPPED	ASHP	-AIR SOURCE HEAT PUMP
BUILDING MANAGEMENT SYSTEM	BMS	PT	-PRESSURE TRANSMITTER	ATT	-ATTENUATOR
CLEANERS SINK	CS	PU	-PRESSURISATION UNIT	В	-BOILER
COLD WATER SUPPLY	cws	QPX	-FLOWMETER	BCW	-BOOSTED COLD WATER
NON POTABLE WATER SUPPLY	NPWS	RAC	-ROUND AROUND COIL	BHW	-BOREHOLE WATER
COVER LEVEL	C.L.	RA DPCV	-REVERSE ACTING DIFFERENTIAL PESSURE	BLV	-BALL LEVER VALVE
CUBIC METRES	М³		CONTROL VALVE	CAL	-CALORIFIER
DISHWASHER	DW	RG	-RETURN GRILLE	CCFO	-CLOSED COUPLED FIXED ORIFICE
DRAIN COCK	DC	RO	-REVERSE OSMOSIS	CCU	-CLOSED CONTROL UNIT
DOUBLE CHECK VALVE	DCV	SG	-SUPPLY GRILLE	CDM	-CONTROL DAMPER MODULATING
FINISHED FLOOR LEVEL	FFL	SHW	-SOLAR HOT WATER	CDO	-CONTROL DAMPER ON/OFF
FLOOR GULLY	FG	SPC	-SECONDARY PUMP CONSTANT SPEED	СН	-CHILLER
FOUL WATER MANUALE	FW FMALL	SPV	-SECONDARY PUMP VARIABLE SPEED	CHW	-CHILLED WATER
FOUL WATER MANHOLE	FWMH	ST	-SOLAR THERMAL	CL	-CALORIFIER
FROM ABOVE	F/A	STR	-STRAINER	COND	-CONDENSATE
FROM BELOW	F/B	SV	-STAIRWELL VENTILATOR	CS	-COMMISSIONING STATION
GULLY	G	SV	-STOP VALVE	CSD	-CONSTANT SPEED DRIVE
HIGH LEVEL	H/L	TAX	-AVERAGING TEMPERAURE SENSOR	CU	-CONDENSING UNIT
HOSE UNION BIB TAP	HUBT	T/A	-TO ABOVE	CVD	-CONSTANT VOLUME DAMPER
HOT WATER SUPPLY	HWS	T/B	-TO BELOW	CVM	-CONTROL VALVE MODULATING
HOT WATER RETURN	HWR	TDX	-DUCT TEMPERATURE SENSOR	CVO	-CONTROL VALVE ON/OFF
NVERT LEVEL	IL	TEF	-TOILET EXTRACT FAN	C/W	-COMPLETE WITH
SOLATING VALVE	IV	TH	-TRENCH HEATER	DAS	-DIRT & AIR SEPERATOR
LOW LEVEL	L/L	TIX	-PIPE TEMPERATURE SENSOR	DC	-DRAIN COCK
MAINS COLD WATER SERVICE	MCWS	TOD	-TOP OF DUCT	DCV	-DOUBLE CHECK VALVE
MANHOLE	MH	TWX	-WALL-MOUNTED TEMPERATURE SENSOR	DHW	-DOMESTIC HOT WATER
MID LEVEL	M/L	UIC	-USER INTERFACE CONTROLLER	DP	-DOSING POT
ION RETURN VALVE	NRV	U/S	-UNDERSIDE	DPCV	-DIFFERENTIAL PRESSURE CONTROL VALV
ION POTABLE WATER SUPPLY	NPWS	VCD	-VOLUME CONTROL DAMPER	DPS	-DIFFERENTIAL PRESSURE SWITCH
PLANTROOM GULLY	PG	VRV/F	-VARIABLE REFRIGERANT VOLUME/FLOW	DPX	-DIFFERENTIAL PRESSURE SENSOR
PRESSURE REDUCING VALVE	PRV	VSD	-VARIABLE SPEED DRIVE	DRV	-DOUBLE REGULATING VALVE
RODDING EYE	RE	SBD	-SINGLE BLADE DAMPER	DV	-DUCT VENTILATOR
SHOWER	SH	SEF	-SMOKE EXTRACT FAN	DV	-DRAIN VALVE
SINK	S	OL1	SHORE EXTRAOLITAN	EF	-EXTRACT FAN
SOIL AND VENT PIPE	SVP			EG	-EXTRACT FAIN -EXTRACT GRILLE
SOIL PIPE	SP			EL	-EXHAUST LOUVRE
	SSL			EV	
STRUCTURAL SLAB LEVEL					-EXPANSION VESSEL
STUB STACK	SS			F&R	-FLOW AND RETURN
SURFACE WATER MANUALE	SW			F/A	-FROM ABOVE
SURFACE WATER MANHOLE	SWMH			F/B	-FROM BELOW
EMPERATURE & PRESSURE	T&P			FCU	-FAN COIL UNIT
EMPERATURE GAUGE	TG			FD	-FIRE DAMPER
THERMOSTATIC MIXING VALVE	TMV			GSHP	-GROUND SOURCE HEAT PUMP
O ABOVE	T/A			HAX	-AVERAGING HUMIDITY SENSOR
O BELOW	T/B			HDX	-DUCT HUMIDITY SENSOR
RAPPED FLOOR GULLY	TG			HMX	-HEAT METER
ENT PIPE	VP			H/L	-HIGH LEVEL
VASH HAND BASIN	WHB			HP	-HEAP PUMP
VASHING MACHINE	W/M			HPS	-HIGH PRESSURE SWITCH
VASTE PIPE	WP			HTG	-HEATING
VASTE VENT PIPE	WVP			HUM	-HUMIDIFIER
VATER CLOSET	WC			HWX	-WALL-MOUNTED HUMIDITY SENSOR
				IL	-INTAKE LOUVRE
				IV	-ISOLATING VALVE
				JF	-JET FAN
				K/EF	-KITCHEN EXTRACT FAN
				L/L	-LOW LEVEL
				LPHW	-LOW PRESSURE HOT WATER
				LPS	-LOW PRESSURE SWITCH
				LTHW	-LOW TRESSORE SWITCH -LOW TEMPERATURE HOT WATER
				L/s	-LOW TEMPERATURE HOT WATER -LITRES PER SECOND
				LSV	-LOCKSHIELD VALVE
				LxWxD	-LENGTH x WIDTH x DEPTH
				MD	-MOTORISED DAMPER
				MSD	-MOTORISED SMOKE DAMPER
				M/L	-MID LEVEL
				m³/s	-CUBIC METERS PER SECOND
				NC	-NORMALLY CLOSED
				NO	-NORMALLY OPEN
				NPW	-NON POTABLE WATER
				NRD	-NON RETURN DAMPER
				NRV	-NON RETURN VALVE
				NTS	-NOT TO SCALE

VE	NTILATION SYMBOLS	HEATING	& COOLING SYMBOLS	WATER S	SERVICES (SYMBOLS)
l/s Pa m/s m		Kg/s Pa/m m/s mm	COMMISSIONING INFORMATION		- INCOMING MAIN COLD WATER SUPPLY
	(FLOW RATES GIVEN IN BRACKETS	ARE FOR	FLOW ARROW		- BOOSTED COLD WATER
	SMOKE EXTRACT)	CEDNIAL CIZE)	PIPE DROP FROM TEE		- BOOSTED GREY COLD WATER
	(DUCT SIZES IN BRACKETS ARE EXT	ERNAL SIZE)	PIPE DROPPER		- HOT WATER SERVICE
0	CENTRIFUGAL ENCASED FAN	0	PIPE DROP		- HOT WATER RETURN SERVICE
		•	PIPE RISER	→ ₩ +	DRAIN OFF COCK
	M		ANCHOR POINT BLANK END	-×- -×-	ISOLATING VALVE NON RETURN VALVE
	IN LINE MIXVENT MIXFLOW VENTILA	TION FAN	BREAK SINGLE LINE	→	COLD WATER DRAW OFF
			FLANGE JOINT	-	HOT WATER DRAW OFF
(A)	AHU ACCESS SECTION	Ш		→	BLENDED WATER DRAW OFF
Θ	AHU COOLING COIL	QUICK FILL	QUICK FILL CONNECTION	⋈	WATER METER
\Box	AHU HEATING COIL	FS	FLOW SWITCH	\$	
	RUN AROUND COIL) (TP	ORIFICE PLATE		PRESSURE RELIEF VALVE
<u>、</u>	_		TEST POINT		DOUBLE QUEOK VALVE
X X X			THERMOSTAT COMMISSIONING SET	₩	DOUBLE CHECK VALVE ANTI-VACCUUM VALVE
\rm \text{\rm \text{\rm \text{\rm \text{\rm \text{\rm \text{\rm \rm \text{\rm \rm \rm \text{\rm \rm \rm \rm \rm \rm \rm \rm \rm \rm	MIXING SECTION	Į.	THERMOMETER	,	ANTI-VACCOUNT VALVE
	_		2-PORT MOTORISED VALVE		GAS SHUT-OFF VALVE
			3-PORT MOTORISED VALVE	\bowtie	
	PLATE HEAT EXCHANGER	. . .	PRESSURE INDEPENDENT BALANCING &	₩	REDUCED PRESSURE ZONE VALVE
			CONTROL VALVE		
\/ \/	AHU VOLUME CONTROL DAMPER		DIFFERENTIAL PRESSURE CONTROL VALVE		
	(OPPOSED BLADE)	ΔΡ	DIFFERENTIAL PRESSURE		
<u>/ </u>	AHU BAG FILTER	P	SWITCH OR SENSOR		
	AHU PANEL FILTER		PRESSURE SENSOR		
	AHU MOISTURE ELIMINATOR	P	PRESSURE GAUGE		
V V V	AHU HUMIDIFIER	甲	TEMPERATURE SENSOR		
		$\stackrel{\leftarrow}{\Box}$	TEMPERATURE GAUGE		
	AHU THERMAL WHEEL		FLOW METER		
	— DUCTWORK (INSULATED OR NON-IN	(Q) ISULATED) (H)	HEAT METER		
	— ACOUSTICALLY LINED DUCTWORK		DOUBLE CHECK VALVE		
	— FIRE RATED DUCTWORK	\bowtie	DOUBLE REGULATING VALVE		
——————————————————————————————————————	ACOUSTICALLY LINED FIRE RATED I	V	DRAIN COCK		
Ŭ.	FIRE DAMPER	☆			
№		全	DRAIN OFF VALVE 1		
S □ 	0110011/ 00111 5(0)	X	DRAIN OFF VALVE 2		
		$\stackrel{\wedge}{\mathbb{M}}$	EXPANSION VALVE		
	INTAKE/EXHAUST LOUVRE C/W PLEI	NUM 🔀	FILTER VALVE		
		Š	GRAVITY OPERATED VALVE		
			VALVE WITH HOSE UNION CONNECTOR ISOLATING VALVE		
	INTAKE/EXHAUST LOUVRE	Ξ	LOCKSHIELD VALVE		
∐ MD		\geq	NON RETURN VALVE		
	MOTORISED DAMPER	\nearrow	REGULATING VALVE		
MSD		*	RELIEF VALVE		
*	MOTORISED SMOKE DAMPER	\bowtie	STOP COCK		
√			THERMOSTATIC RADIATOR VALVE		
	MOTORISED SMOKE DAMPER & EXT	RACT GRILLE M	ANTI-VIBRATION COUPLING		
	RECTANGULAR DUCT RISER	Ϋ́ Υ	AUTOMATIC AIR VENT FLEXIBLE CONNECTION		
	RECTANGULAR DUCT DROPPER		TRENCH HEATER		
•	CIRCULAR DUCT RISER		7		
0	CIRCULAR DUCT DROPPER		CONDENSER UNIT		
Co					
	TURNING VANES		BUFFER VESSEL		
			BOTT EN VESSEE		
\ \frac{1}{2}	DIRECTION OF AIRFLOW	DAS	DIDT * AID SEDADATOR		
→		NA N	DIRT & AIR SEPARATOR		
	FLEXIBLE DUCT	¥			
Ñ			DOSING POT		
	_	Ž			
			EXPANSION VESSEL		
	CROSS TALK ATTENUATOR				
			PRESSURISATION UNIT c/w		
	DIFFUSER PLATE		EXPANSION VRSSEL		
C	CO ₂ SENSOR		PUMP (RUN)		
ΔΡ	DIFFERENTIAL PRESSURE SWITCH (OR SENSOR OR	PUMP (STANDBY)		
Ħ _	PRESSURE TRANSDUCER HUMIDIDITY SENSOR		VARIABLE SPEED PUMP (RUN)		
			VARIABLE SPEED PUMP (STANDBY)		
S	SMOKE SENSOR	***	, ,		
Ţ	TEMPERATURE SENSOR				
LP	LOW PRESSURE SWITCH				
HP	HIGH PRESSURE SWITCH				



SOIL WASTE (SYMBOLS)

——□ RODDING EYE

FOUL WATER DRAINAGE
GREY WATER DRAINAGE

SURFACE WATER DRAINAGEBELOW SLAB DRAINAGEVENTILATION PIPEWORK

WIRE BALLOON

FLOOR GULLY

FLOOR GULLY

ACCESS DOOR

SUMP PUMP

DRAINAGE CHANNEL

—

√

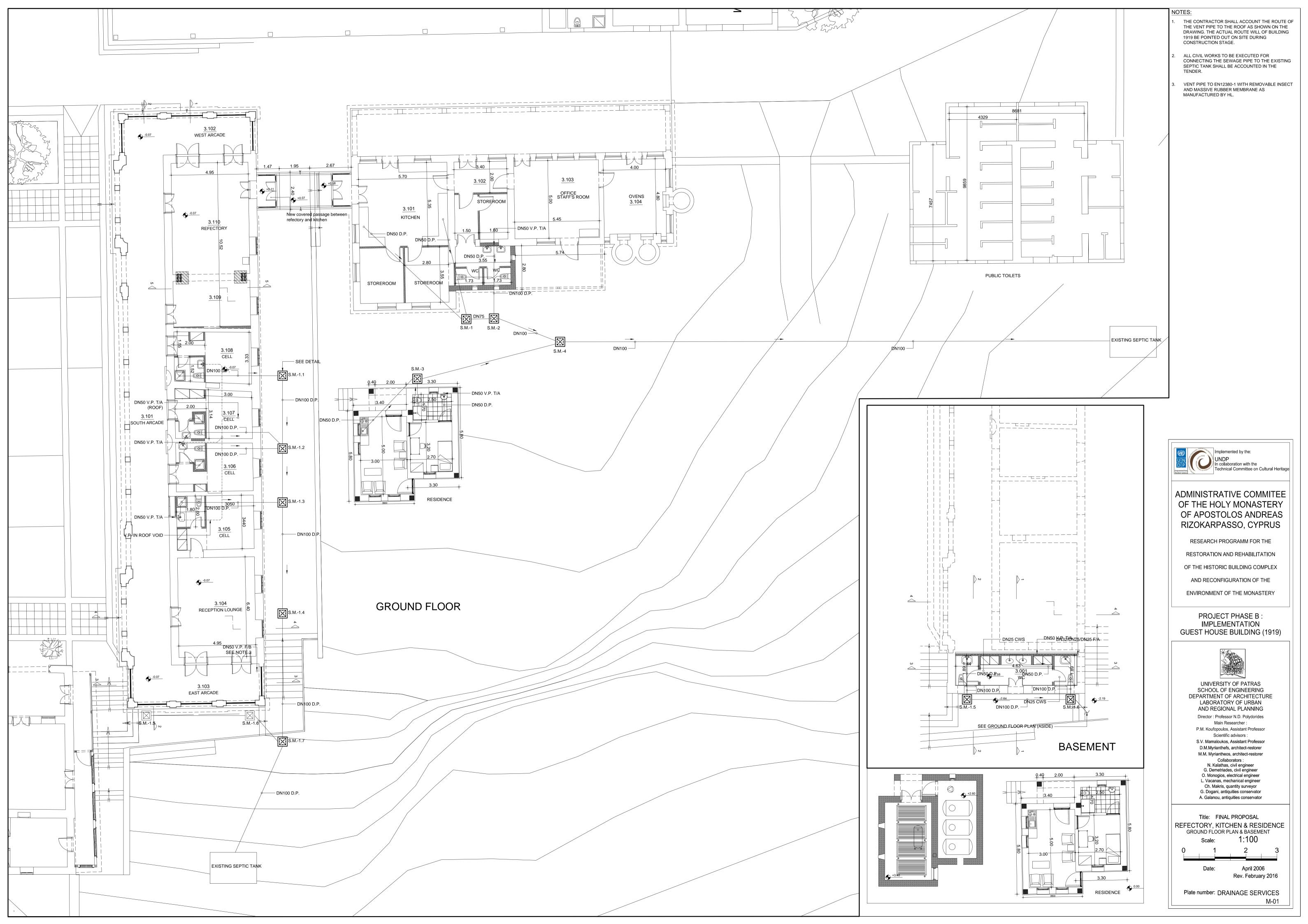
TRAPPED SHOWER DRAIN

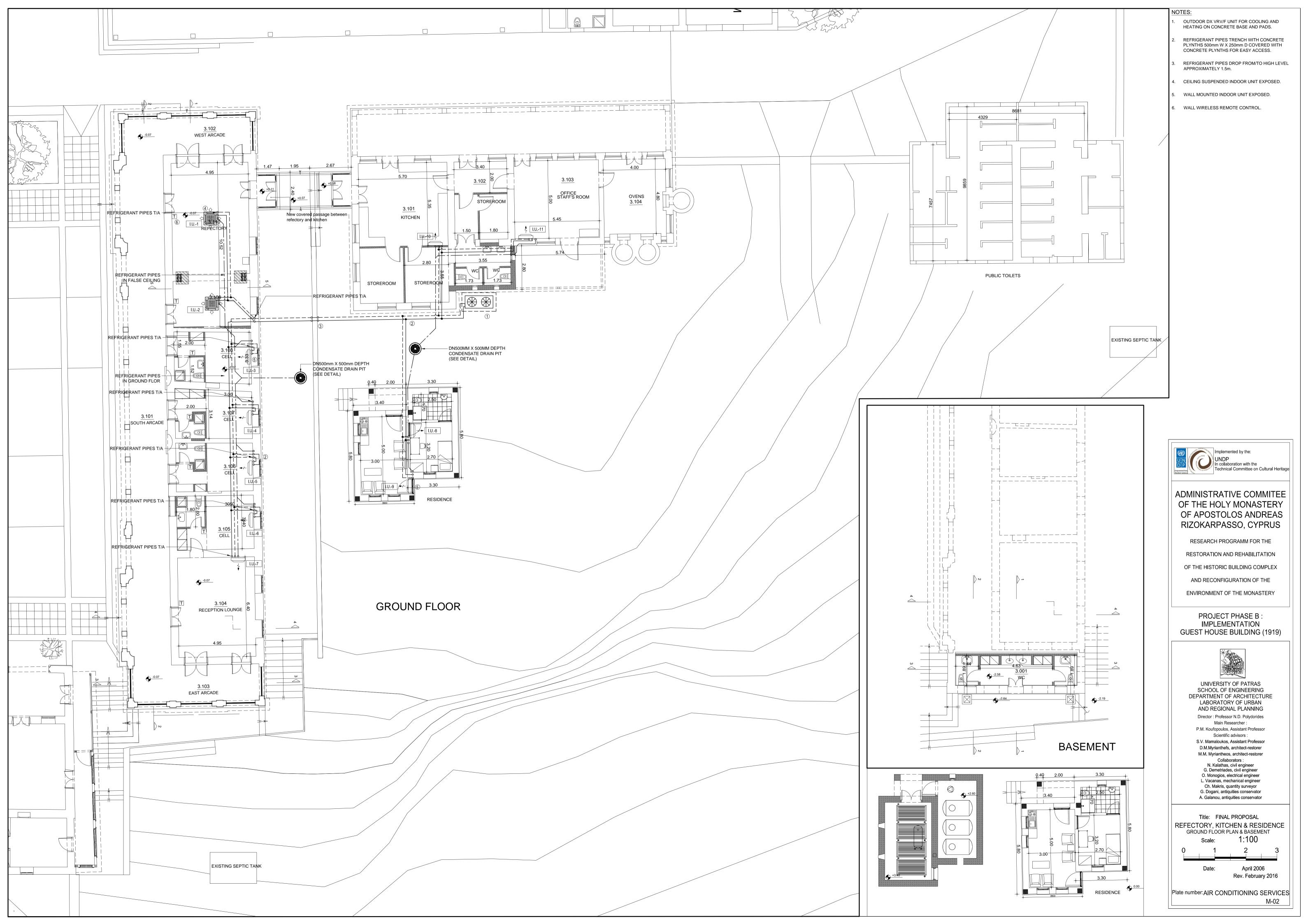
CONNECTING INTO CAST IN

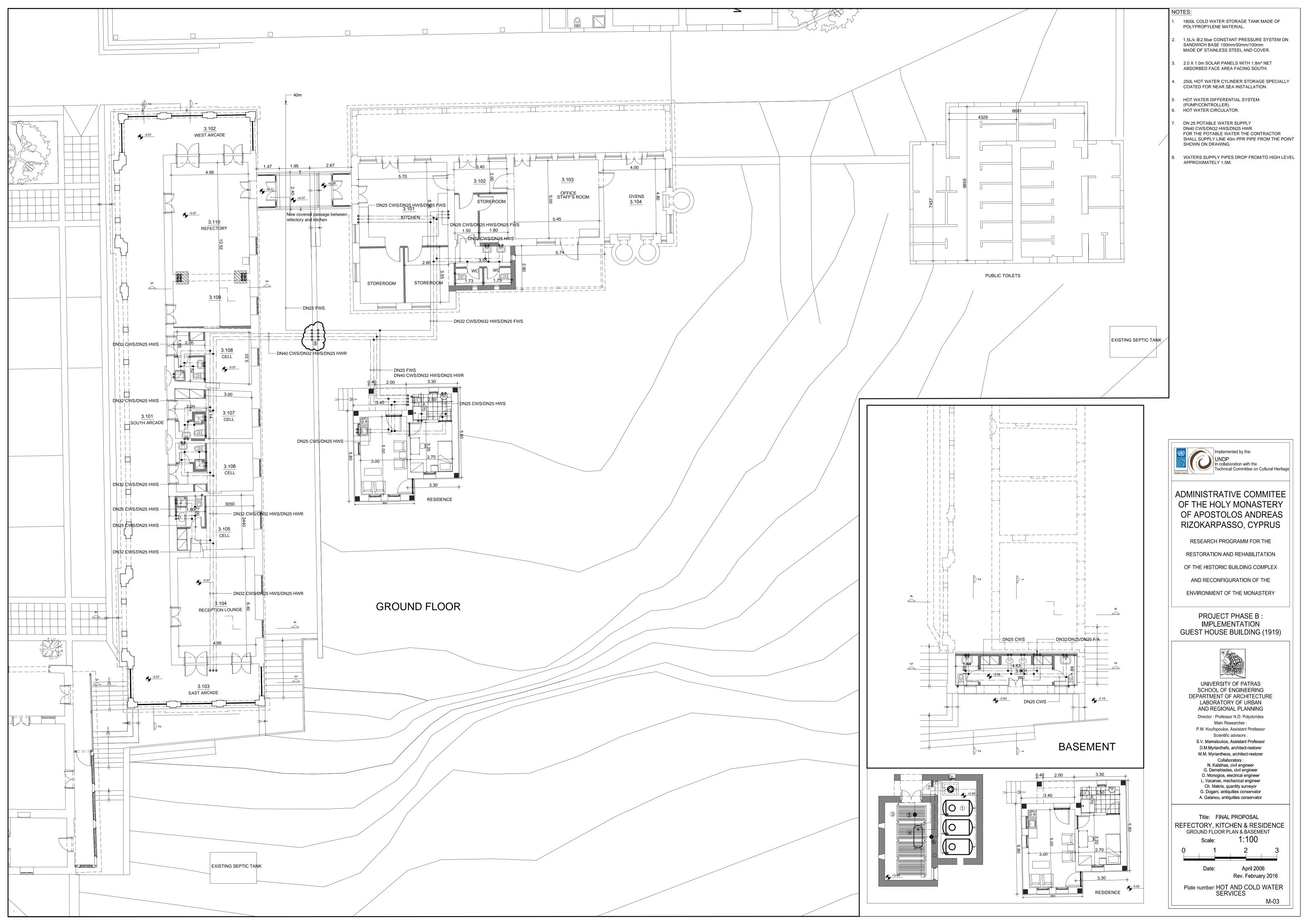
VENT CROSS CONNECTION

DRAINAGE SYSTEM

MANHOLE

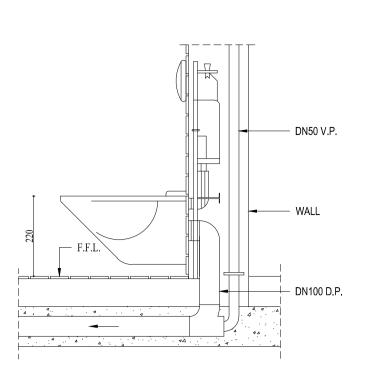




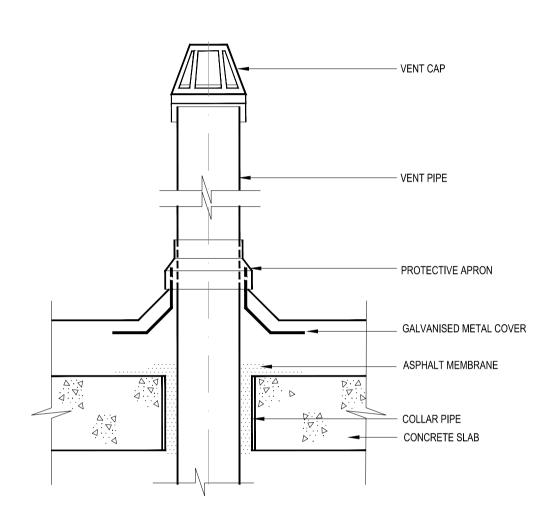


1. ALL DRAIN PIPES EXCEPT WHERE NOTED SHOULD HAVE AN INCLINATION OF 1:100.

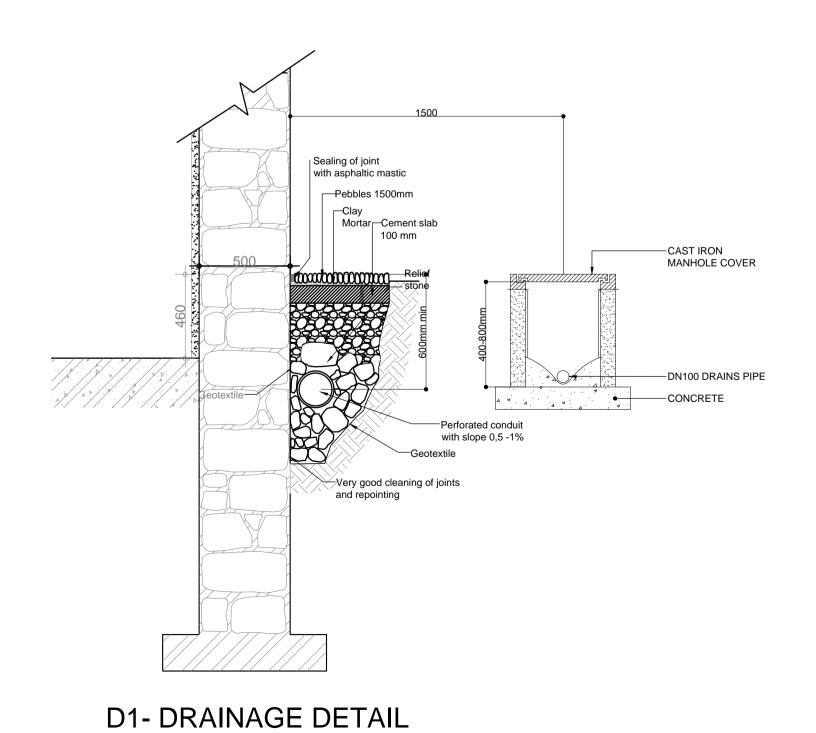
2. ALL CAST IRON COVER SHOULD BE AS PER 497/EN 124



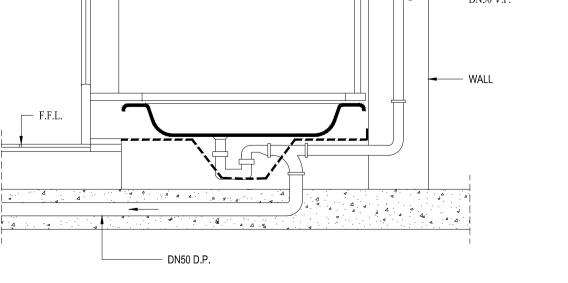
CONCEALED TYPE W.C. DRAINS DETAIL

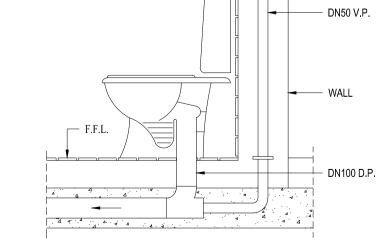


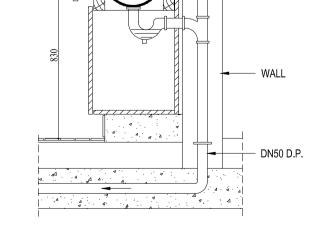
VENT PIPE TYPICAL DETAIL



—— DN50 V.P. – DN50 D.P.







W.C. POSITIONING BATH DRAIN DETAIL **DETAIL**

SOLAR

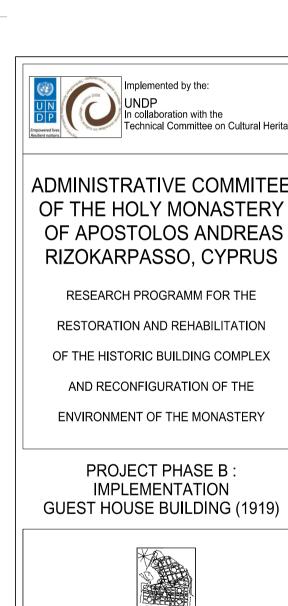
PANEL

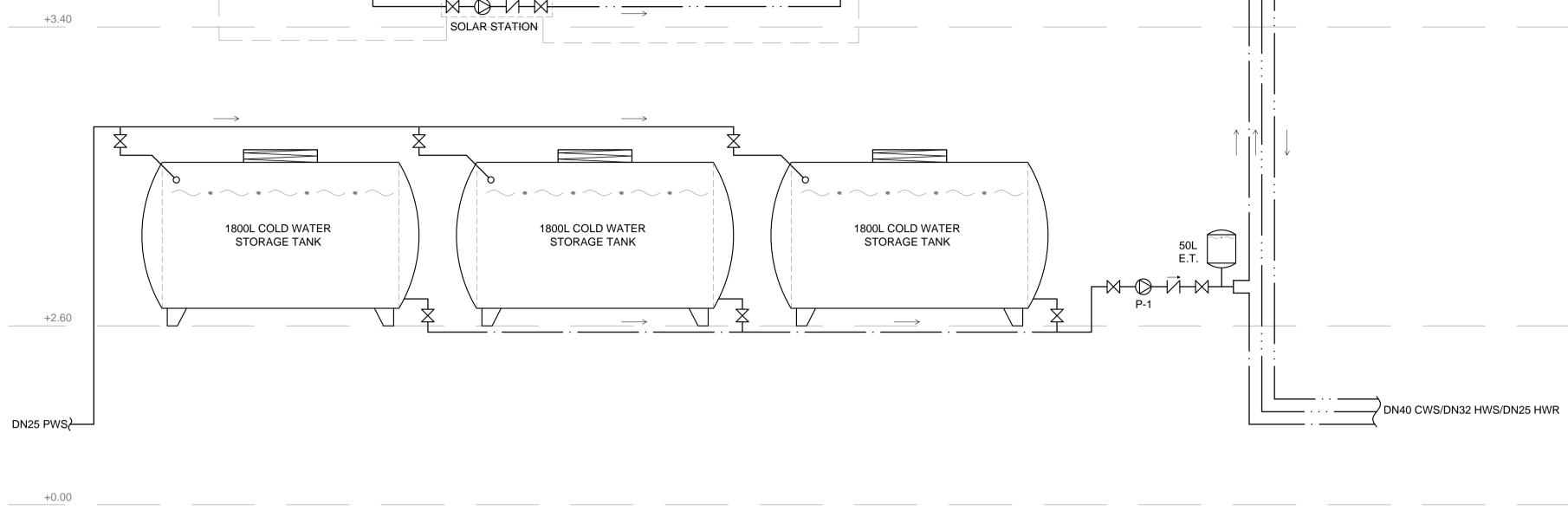
SOLAR

HOT WATER STORAGE

EXPOSED TYPE W.C. DRAINS DETAIL

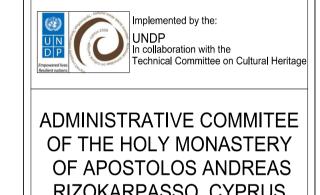
SINK DRAIN DETAIL





SOLAR

PANEL



RESEARCH PROGRAMM FOR THE

RESTORATION AND REHABILITATION

UNIVERSITY OF PATRAS
SCHOOL OF ENGINEERING
DEPARTMENT OF ARCHITECTURE
LABORATORY OF URBAN

AND REGIONAL PLANNING

Director: Professor N.D. Polydorides Main Researcher:

P.M. Koufopoulos, Assistant Professor Scientific advisors : S.V. Mamaloukos, Assistant Professor D.M.Myrianthefs, architect-restorer

M.M. Myriantheos, architect-restorer

Collaborators: N. Kalathas, civil engineer G. Demetriades, civil engineer O. Monogios, electrical engineer L. Vacanas, mechanical engineer Ch. Makris, quantity surveyor

G. Dogani, antiquities conservator

Title: FINAL PROPOSAL REFECTORY, KITCHEN & RESIDENCE GROUND FLOOR PLAN & BASEMENT

Plate number: DRAINAGE DETAILS

N.T.S

April 2006 Rev. February 2016

SCHEMATIC DIAGRAM M-04

A. Galanou, antiquities conservator