



Wall Panels

Terra's BioSafe® Wall Panel System is lightweight, cost-effective, and easy to install. Compliant with cGMP, GLP, and ASTM standards, BioSafe® wall panels feature sealed joints with cold welded seams to create a monolithic finish that eliminates cracks and crevices where microbes can colonize. The pre-fabricated, progressive wall panel system features seamless and coved transitions between the ceiling, walls, and floors for an easy to sterilize and airtight closed system to prevent contamination influx.

Each wall panel is composed of an aluminum honeycomb core encased in a uPVC-laminated steel shell. The 2" thick panels adhere to ISO 14644-1 standard for ISO class 5 and below environments. The uPVC laminate finish ensures a fully flush surface that is robust, easy to clean, and resists common disinfectants, acids and corrosives.

All panels are installed onto an adjustable-height, recessed channel base to ensure a level and flush interface between the wall and the finished floor. Wall panels also include a plenum space to house utility and filling lines, providing the user with convenient access to gas, vacuum and water connections, along with duplex outlets, control panels, and phone jacks. Pre-formed corner pieces eliminate the need for surface capping or flashing.



1219mm W x 4267mm H x 50mm D

- Core: Aluminum honeycomb
- Shell: uPVC laminated steel
- Compliant with cGMP grades A, B, C and D
- Non-flammable
- · Flush, smooth finish resists corrosion, moisture, solvents and disinfectants
- Plenum space for utilities, water lines, gas connections
- Ultimate load (4'W x 14'H): 1500 lb (680kg)
- Max Distributed Load (4'W x 14'H): 0.19psi (1310N/m²)
- Suitable for operating temperature up to 60° Celsius
- Maximum window size 36" W x 36" H







uPVC Sheet Metal Properties

Physical Characteristics	Test Standard	uPVC Sheet Metal		
Nominal thickness (µm)	EN 13523-1	120		
Gloss (%)	EN 13523-2	8-15		
Flexibility (minimum bend radius)	EN 13523-7	0T		
Pencil hardness	EN 13523-4	>4H		
Scratch resistance (g)	EN 13523-12	4000		
Salt spray resistance (hrs)	EN 13523-8	500		
Humidity (hrs)	EN 13523-26	1500		
Minimum continuous temperature (°C)	-	-40		
Maximum continuous temperature (°C)	-	60		
CPI Category	EN 10169	CPI 5		
Complies with EU legislation for foodsafety and contact with food products	-	Yes		
Reaction to fire	EN 13501- 1	A2-s1,d0* (120µ) B-s1,d0* (150µ)		











Approved by BioQuell

Bioquell, an Ecolab solution, is a well established global leader providing validated and compliant surface and airborne bio-decontamination for the pharmaceutical, life science and healthcare sectors. Used globally, it eradicates biological contaminants including problematic bacteria, viruses and fungi on every exposed surface. Viruses can contaminate and survive for long periods on surfaces. Therefore, effective disinfection is essential for stopping transmission.

Bioquell's Hydrogen Peroxide Vapour is a vapour-phase disinfection method. It achieves a level of efficacy unmatched by standard cleaning practices and other disinfection technologies. They regularly conduct tests to determine the effect of hydrogen peroxide vapour on various commonly encountered materials.

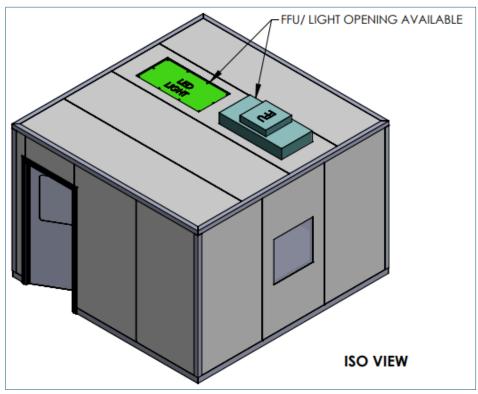
Food safe pre-finished steel products produced by Tata Steel have been tested for compatibility with Bioquell vaporous H₂ O₂ (HPV-AQ).

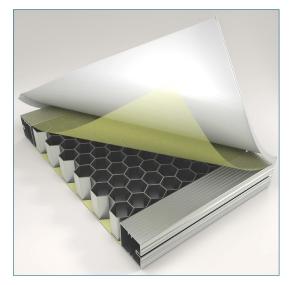
Bioquell confirms that uPVC sheet metal was unaffected by the accelerated test demonstrating suitability for use with a vapour produced using a 35% concentration of Hydrogen Peroxide.

Walkable Ceiling System

Terra's BioSafe® Ceiling Panel System is composed of the same pre-engineered, pre-fabricated panels featured in our BioSafe® Wall Panel System, ensuring seamless wall-to-ceiling integrations. The ceiling panels are available with standard cutouts for HEPA-filtered fan units, lighting, sprinkler heads, video cameras, fire alarms, electrical drop, and gas penetrations. The entire ceiling system is walkable, allowing for easy access to equipment installed above the cleanroom and streamlined maintenance operations, such as HEPA filters change-outs. The ceiling panels maintain a flush, seamless surface for easy wipedown or spray-down. The ceiling system is self-supported or suspended using a turnbuckle and hanger assembly, eliminating the need for a t-grid structure. The ceiling panels meets cGMP, GLP, ISO 14664-1 and ASTM standards.

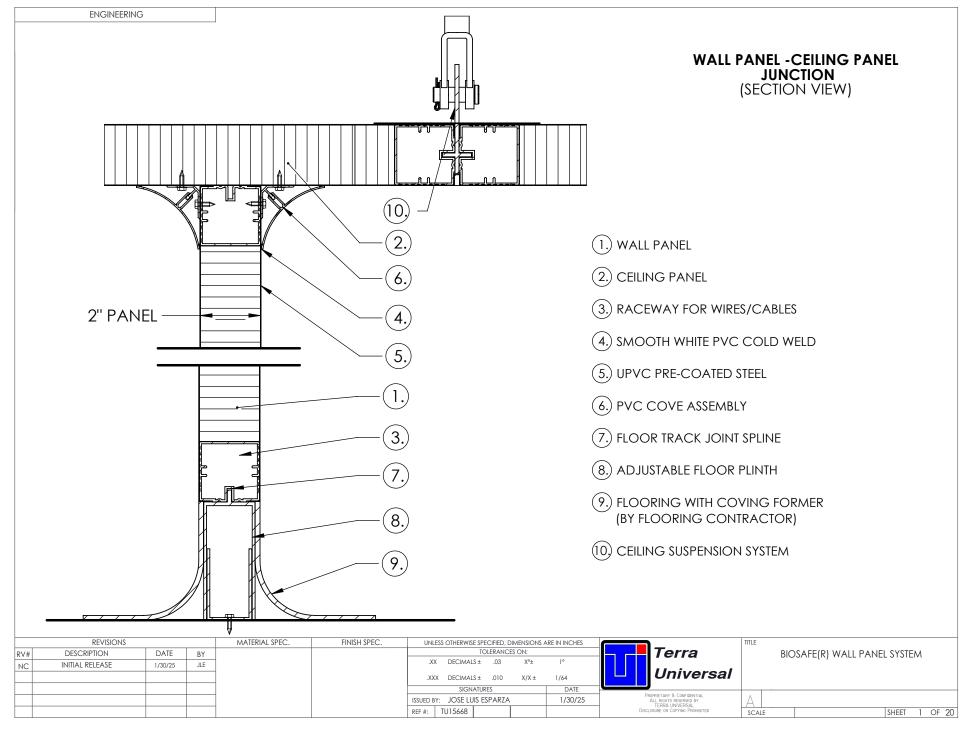
- Fully Walkable
- · Cut-outs for FFUs, lights, sprinklers, HVAC
- · Self-supported or suspended from facility ceiling
- Smooth, flush finish for easy spray-downs
- Seamless wall-to-ceiling integrations







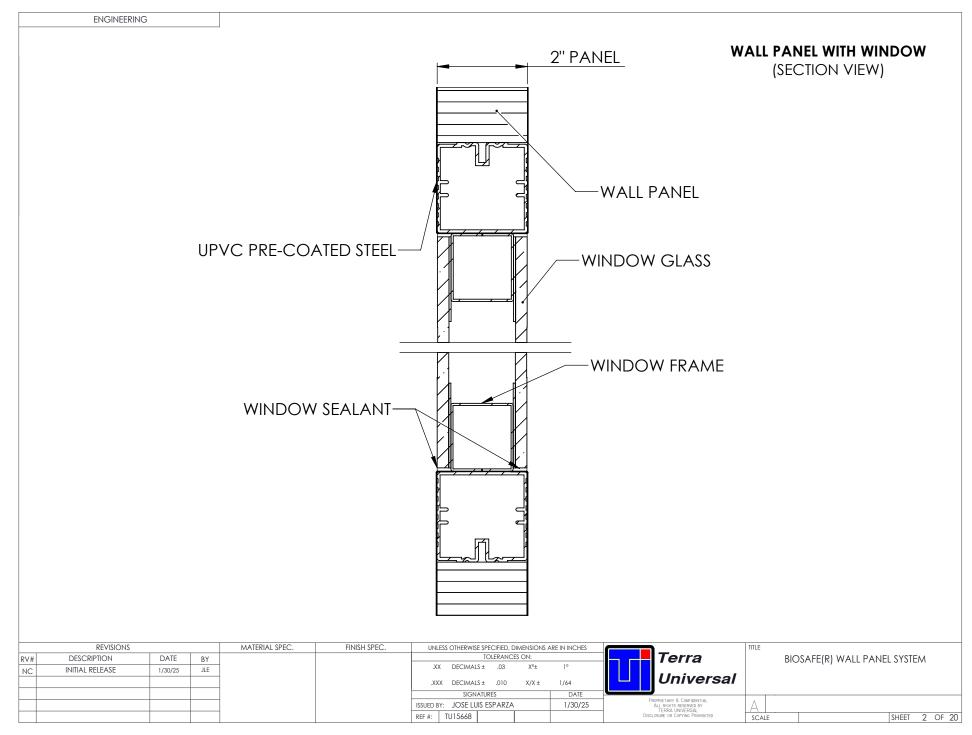


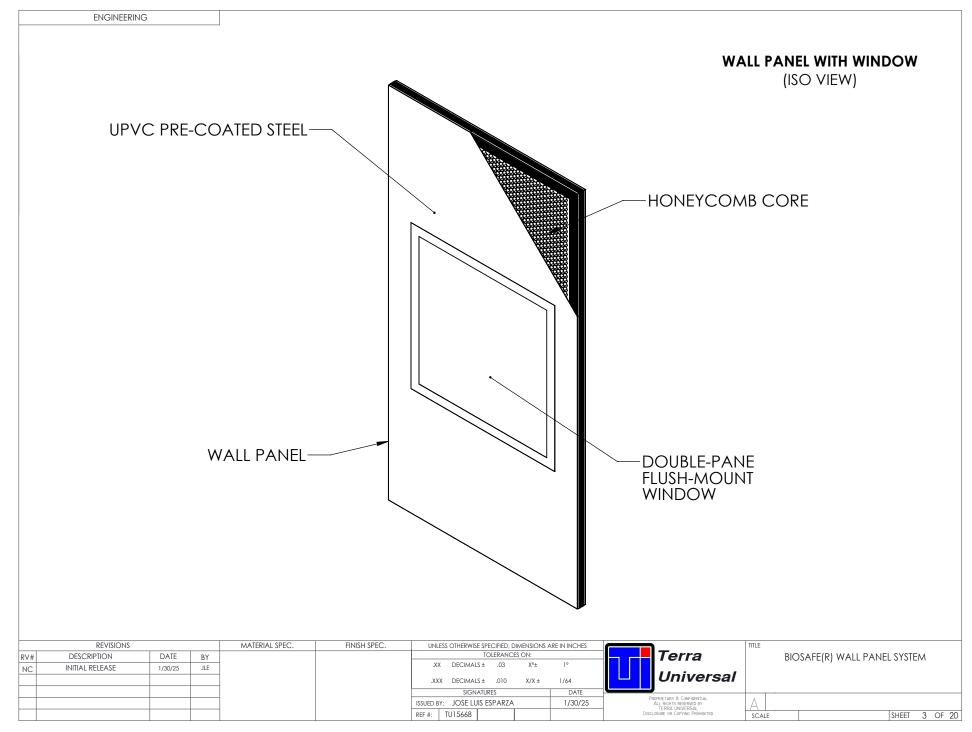


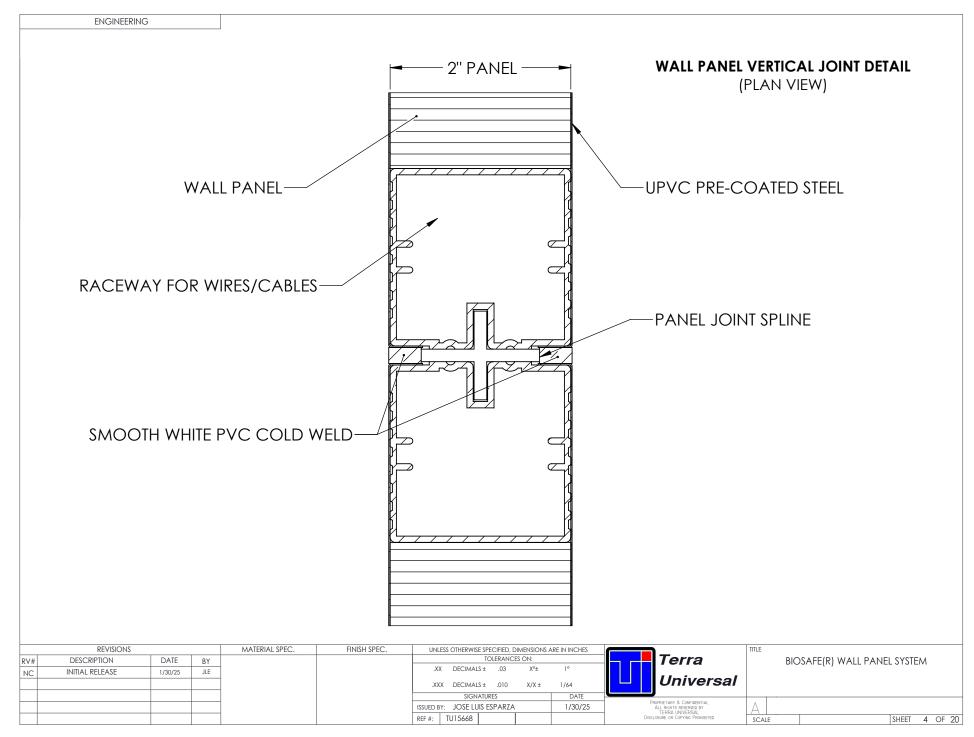


Email: info@terrauniversal.com





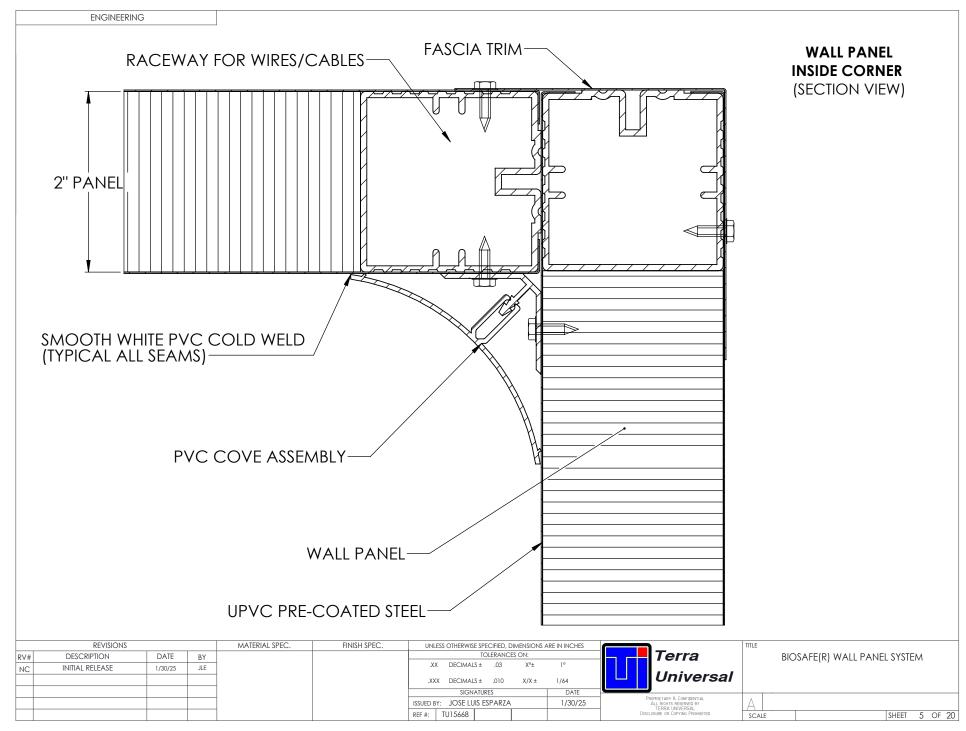


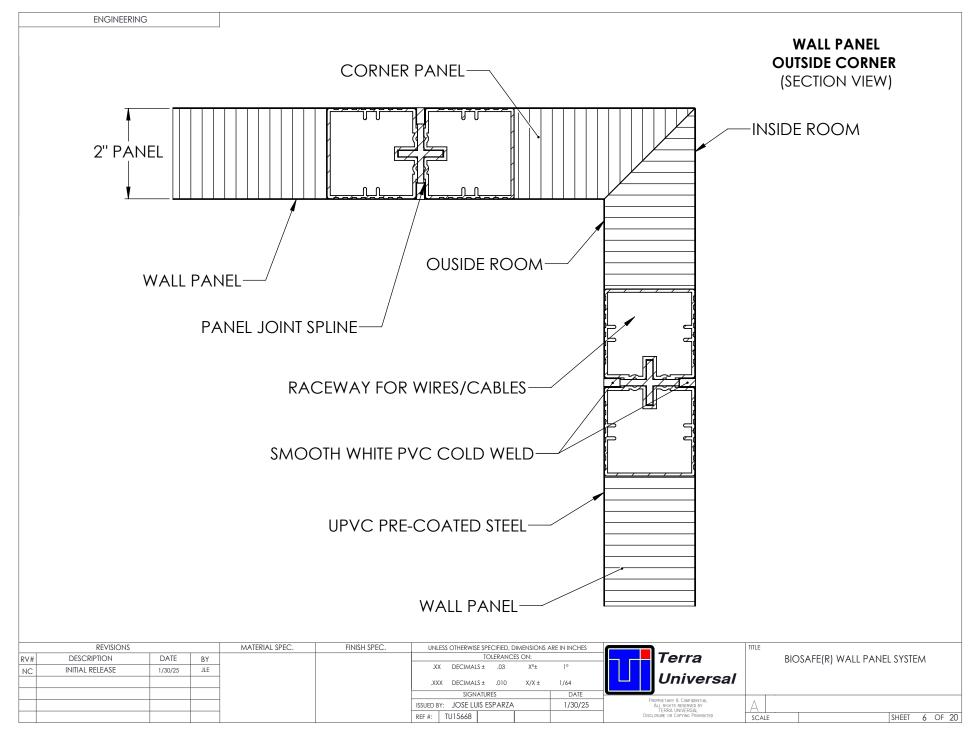


TERRA UNIVERSAL Tel: **+1 (714) 578-6100**

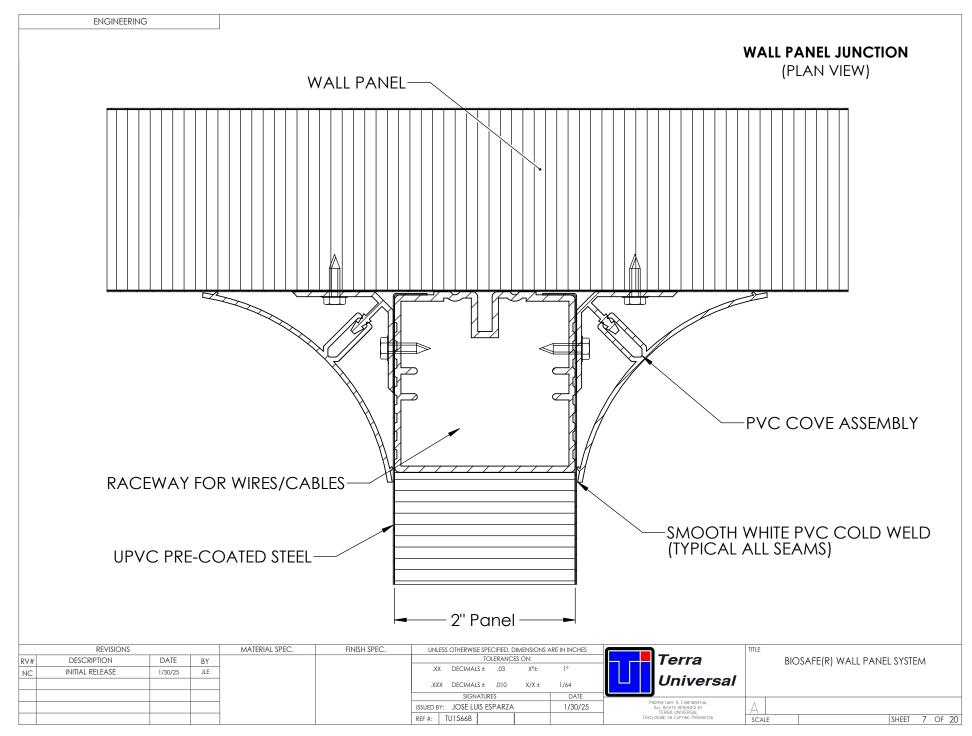
Email: info@terrauniversal.com



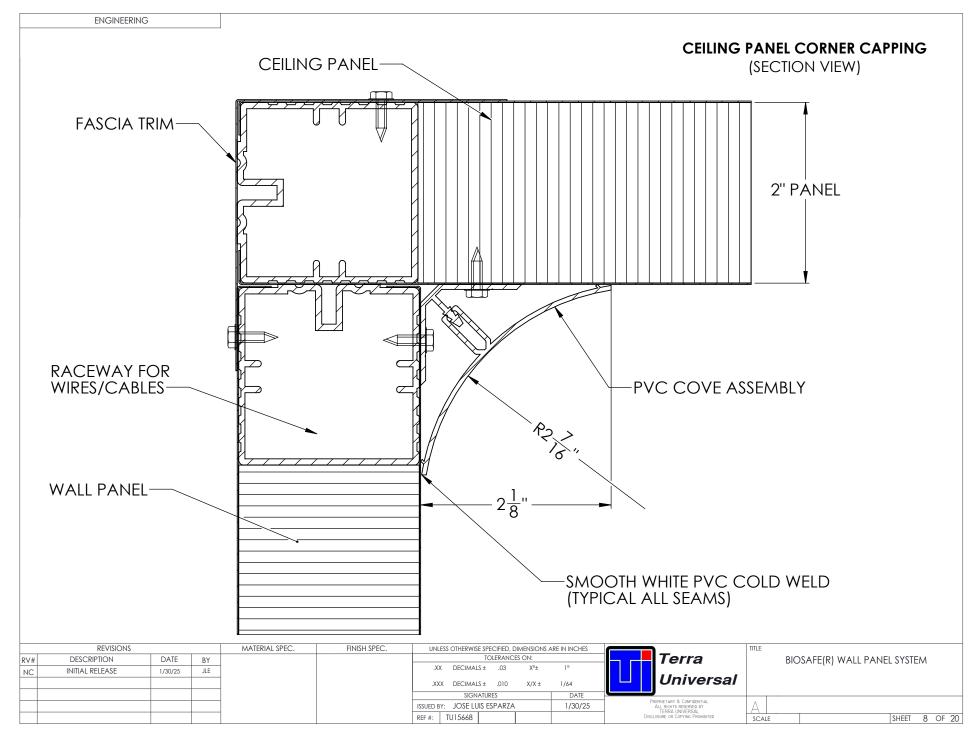






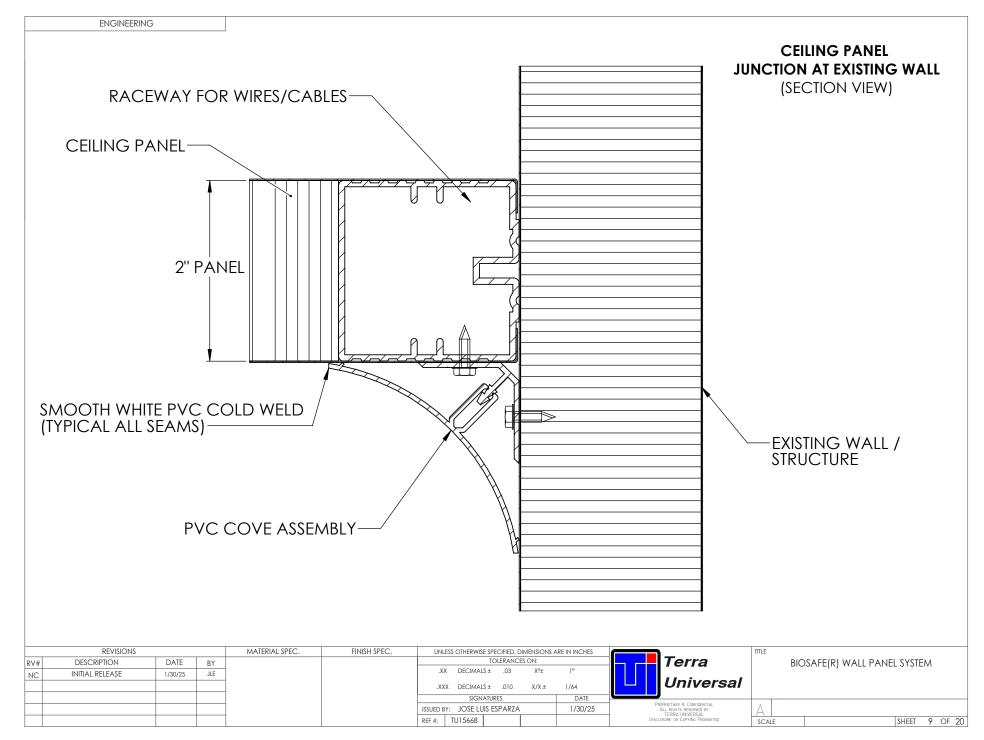










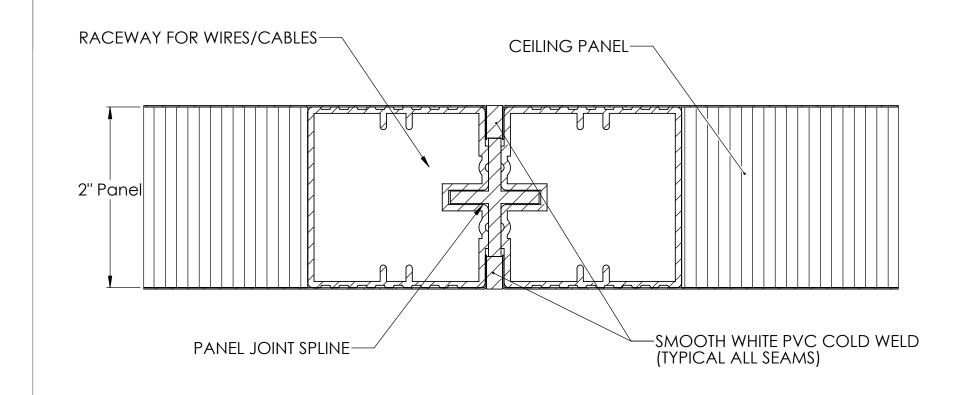






ENGINEERING

CEILING PANEL LONGITUDINAL JOINT DETAIL (SECTION VIEW)



REVISIONS			MATERIAL SPEC.	FINISH SPEC.	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES				1_	TITLE			
RV:	DESCRIPTION	DATE	BY			TOLERANCES ON:					Terra		BIOSAFE(R) WALL PANEL SYSTEM
NC	INITIAL RELEASE	1/30/25	JLE			.XX	X DECIMALS ± .03	Χ°±	1°		l		. ,
						.xx	X DECIMALS ± .010	X/X ±	1/64		Universal		
						SIGNATURES		DATE					
						ISSUED BY: JOSE LUIS ESPARZA		1/30/25	PROPRIETARY 8. CONFIDENTIAL. ALL RIGHTS RESERVED BY TEDDA INVESTS AI				
						REF #:	TU15668			Disc	TERRA UNIVERSAL LOSURE OR COPYING PROHIBITED	SCALE	SHEET 10 OF 20



