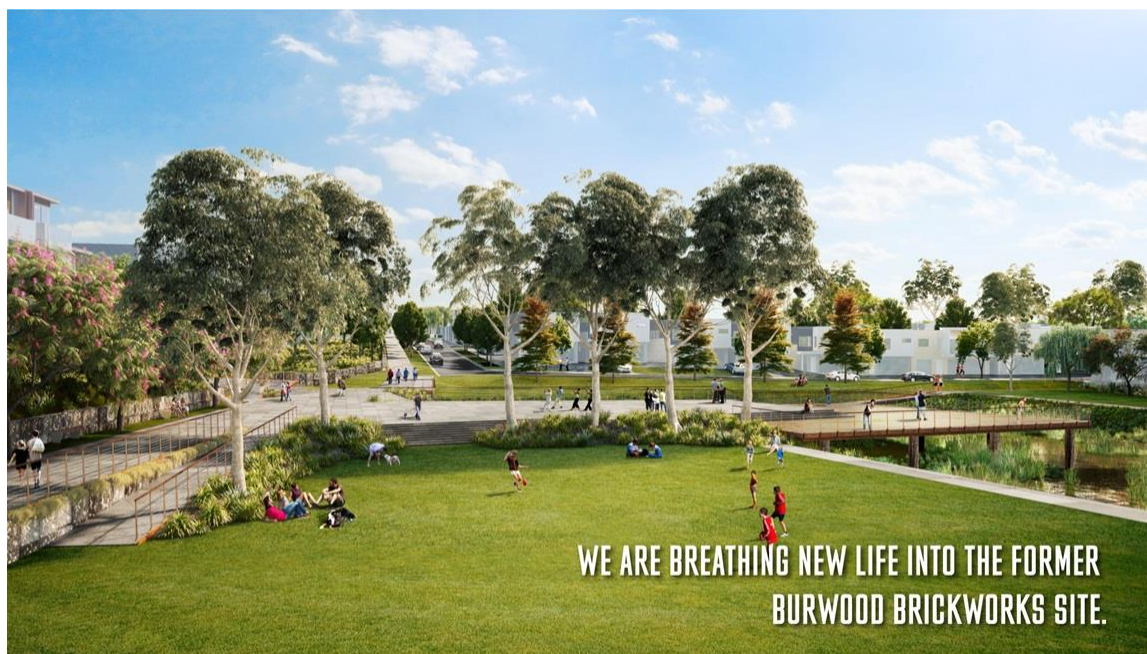


THE BRICKWORKS LIVING BUILDING CHALLENGE

DESIGN COMPETITION BRIEF
living-future.org.au

Redefining Sustainability in Retail.



The Brickworks Living Building Challenge™ Design Competition asks us to re-imagine the design of a retail centre within a new community of parklands, connecting to a civic plaza and local homes. Being developed by Frasers Property Australia, the vision is to deliver a community that embodies holistic principles of respecting ecological limits and natural resource constraints while encouraging economic prosperity and social well-being. The competition asks design teams to achieve this in the context of the Living Building Challenge™ - the built environment's most rigorous performance standard. It calls for the creation of building projects that operate as cleanly, beautifully and efficiently as nature's architecture.

Set within the redevelopment of a former brickworks site in Burwood East, 15km from Melbourne's city centre in Australia, the development represents a major infill site in a diversified catchment in the Inner East of Melbourne. The plan is for a retail building to be developed by Frasers Property Australia in the near future. How much the future building is informed by this competition is the opportunity, as we aim to explore the boundaries of sustainable design within the retail environment, and redefine 'best practice' for the sector.

Imagine a living future.



The Living Future Institute of Australia, in partnership with Frasers Property Australia invites the world's most talented and daring designers to conceive a retail site never before seen in Melbourne, or the world.

Unshackle your creativity and your applied skills to embrace the challenge of bringing this retail site into alignment with the Living Building Challenge™. This is not simply a conceptual competition. An existing site will be home to a mixed use masterplan, being developed by Frasers Property, who is eager to learn whether ultra-effective, regenerative retail sites can be developed affordably. This competition is therefore not simply about winning a prize: it is about laying the groundwork for transforming how the built retail environment is created, used, and maintained, showcasing ideas that can be shared to create better places worldwide.

This competition also pushes the Living Building Challenge™ into new territory. When 'the Challenge' was launched in November 2006, we took a leap of faith. We called on the world's leading thinkers and practitioners to create buildings that supported the ecosystems they inhabited. These buildings would have to respond to the unique ecological and cultural circumstances that give each place its distinct character. What we've seen since has been amazing. The first Living Building Challenge projects have now gone through a rigorous post occupancy evaluation and achieved full certification. We know it is possible to create modern, beautiful buildings that meet the highest standards for sustainability.

With this Design Competition, we call upon designers to take another step: creating designs for a Living Building in a retail environment that is open to the general public, day in, day out.

*To honor our diverse people and cultures, we must seek the
balance we once had between consumption and development.
We must rediscover our sense of place.
Sustainable communities in urban areas require new solutions.*

This is where you come in.

Design Competition entries should both inspire and inform. The Competition is meant to encourage design teams to develop a practical and affordable solution for a retail site, while achieving all imperatives of the Living Building Challenge 3.0. In addition, to help enhance retail developments, Frasers Property Australia should be able replicate aspects of the design, with reasonable modifications for site variability in other places.

Entries must be grounded in real, current, proven technology and taken through the completion of schematic design phase of a typical design project. The winning entry should be so compelling that Frasers will be excited to work with the design (and potentially the design team), when bringing visions to reality.

**Imagine a vibrant place that is
*socially just, culturally rich, and ecologically restorative.***



Burwood East is a suburb of Melbourne, Victoria, Australia, located 15 km east of Melbourne's Central Business District. Its local government area is the City of Whitehorse, with population of just over 165,000 people.

The Wurundjeri Aboriginal clan were the original occupants of the area now occupied by East Burwood. By the mid-19th century, East Burwood and the surrounding districts were under cultivation, supplying Melbourne's markets with cut flowers and produce. Famously, a local orchardist, Walter Mock, developed the *Red Williams'* pear variety here during the 1930s, which were so popular they were exported to Europe and North America.

Burwood East is very well serviced by public transport with train stations, bus lines, and Melbourne's Tram Network. There are several Primary and Secondary schools in the suburb. The State Government has declared the Burwood Heights area as a 'Major Activity Centre' because of the easy access to public transport, current uses and the potential for significant development. Most recently, Whitehorse Council has approved a development plan for the old brickworks site (which is the home of this Design Competition). It is to be comprised of retail space, residential dwellings, leisure, entertainment and community facilities. These will all be based around a "main street" retail/entertainment precinct and urban plaza.

Within the masterplan, and subject to this competition is a retail centre of approximately 12,000 sqm in the form of a full line 4,800sqm supermarket, several specialty retail shops, child care facility, pharmacy and medical centre, and associated amenities, to be serviced in an internal mall. In addition, the centre will provide core food retail uses including butcher, fruit and vegetable operator, and a strong on-site food and beverage offering for shoppers, taking advantage of a unique integration with the proposed community town square.

Imagine a creative, inclusive, connecting, retail environment.



An opportunity exists to develop a destination centre where quality of life and living overlaps with essential services in a neighbourhood-based retail centre.

Essential to the success of the centre is a quality food and beverage offering taking advantage of alfresco dining fronting onto a landscaped town square. This is therefore an opportunity to provide the genuine food and beverage precinct that this increasingly diverse area has been waiting for.

The brief here reflects the need to remain very practical whilst allowing for innovation and exploration, as the development is subject to a myriad of real-world opportunities and constraints, in part due to the Development Plan which sets the framework for all future development on the site. As such, this retail centre is to be anchored by a supermarket, mini and major retail offerings, and essential services including grocer, butcher, news agency, pharmacy and Childcare, and a provision for car parking.

More detail is provided below:

- Primary access to the estate and shopping centre needs to be via multi directional signals from Middleborough Road, which adjoins the northern boundary.
- Secondary access to the site needs to be via a left in left out un-signalised intersection to the south.
- The built form can be constructed with zero setbacks from the North and Westerly boundary, and is expected to not exceed 2 stories.
- The centre should be anchored by a supermarket, and open to a common internal mall.
- The centre is to contain a number of retail services yet to be determined, including (but not limited to) news-agency, bank, post office, hair salon, etc..

- There is to be a food and beverage component for visitors, in addition to alfresco dining. This would comprise:
 - 'Convenience dining' (Retailers that offer food and beverages that can be picked up 'on-the-go' by visitors, e.g. sushi, juice bar) adjacent to the internal mall, and
 - 'Casual dining' (Sit-down 'destination' restaurant(s) and / or café(s)), adjacent to the alfresco dining area that incorporates outdoor tables and chairs.
- Provision for health and well-being in the form of gym, pharmacy, and medical centre is to be sited at ground level.
- A small upper level area, serviced by vertical transportation, should comprise a child care centre providing for approximately 120 children.
- Council requirements dictate a requirement for 526 car spaces, many of which might be located in a basement. Competition entrants are to assume that this number is fixed.
- Access to the basement car park needs to be via 2 locations: The primary access via the Northern access road, approximately 120 metres from the signalized intersection of Middleborough Road, and the secondary basement carpark access via the on grade car park to the south.
- All tenancies back of house (BOH) operations ideally need to share a communal area, which is to be accessed via an on-grade car park

These requirements and suggested areas are summarised in Table 1 below.

Note – the retail centre is the subject of this design competition. Other areas in the masterplan may be referred to, and should certainly be connected with, but are expected to be maintained at this stage. Design teams should focus on the retail centre.

Table 1: Summary of areas

Usage	Suggested areas (square metres)
Supermarket: Front and back of house	4,800sqm
Mini Major (large bottle-shop)	1,400sqm
Childcare: Internal area	800sqm
Childcare: External area	950sqm
Health and well-being: Gym / pharmacy / medical centre	1,800sqm total
Retail services: Tenancy spaces that could each range from 80sqm-130sqm	1,100sqm total
Fresh food retail: Butcher, baker, fishmonger, fruit and vegetables	1,100sqm total
Convenience dining: Range of spaces for food and beverage services	450sqm total
Casual dining: Range of spaces for 'sit-down' dining	900sqm total
Alfresco dining: Space(s) for outdoor tables and chairs	1,000sqm total
Amenities: Toilets and shared services, e.g. baby change, showers	130sqm total

The Living Building Challenge (version 3.0) and competition requirements

All entries must include images, drawings, and outline specifications typical of a schematic design (see detailed requirements in the section below). Each entry must be based explicitly on Version 3.0 of the Living Building Challenge (LBC), and must demonstrate how the realised design would meet each imperative through annotated drawings and a project narrative. The below **Table 2** sets out the competition entry-specific requirements in relation to the LBC.

Table 2: LBC 3.0 requirements for the purposes of this competition

(See <http://living-future.org/lbc> for a copy of the latest LBC)

PETAL	IMPERATIVE	TYPICAL LBC 3.0 PROJECT	DESIGN COMPETITION REQUIREMENT
PLACE	01. Limits to Growth	Projects may only be built on previously developed sites that are not classified as on or adjacent sensitive ecological habitats.	This imperative has already been met. Competition entrants are not required to provide any documentation for this imperative.
	02. Urban Agriculture	The project must integrate opportunities for agriculture appropriate to its scale and density using the Floor Area Ratio (F.A.R) for calculation.	Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative. Note: $F.A.R. = \frac{\text{Total Floor Area}}{\text{Site Area}}$
	03. Habitat Exchange	For each hectare of development, an equal amount of land away from the project site must be set aside in perpetuity	This imperative cannot be met within the competition timeframe. However, team members should consider contributing a minimum two hours of service to a local environmental group. A photo or photos of team members undertaking this should be submitted with a statement of what was achieved (in the narrative)
	04. Human Powered Living	Each project should contribute toward the creation of pedestrian-oriented communities and must not lower the density of the existing site, e.g. promotion of the use of stairs over elevators, a transit subsidy for occupants of the building (if owner occupied), electric vehicle charging.	Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative. Note that the site is located in 'Transect 4'.

PETAL	IMPERATIVE	TYPICAL LBC 3.0 PROJECT	DESIGN COMPETITION REQUIREMENT
WATER	05. Net Positive Water	100% of the project's water needs must be supplied by captured precipitation or other natural closed loop water systems, and/or by re-cycling used project water, and must be purified as needed without the use of chemicals. All water discharge must be treated onsite and managed either through re-use, a closed loop system, or infiltration. Excess stormwater can be released onto adjacent sites under certain conditions.	<p>Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative.</p> <p>This Imperative might be addressed in the context of the wider site (i.e. scale jumping).</p> <p>Note: Climate Data can be found online at the Bureau of Meteorology website: www.bom.gov.au/climate/data</p>
ENERGY	06. Net Positive Energy	105% of the project's energy needs must be supplied by on-site renewable energy on a net annual basis, without the use of on-site combustion. Projects must provide on-site energy storage for resiliency.	<p>Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative.</p> <p>This Imperative might be addressed in the context of the wider site (i.e. scale jumping).</p>

PETAL	IMPERATIVE	TYPICAL LBC 3.0 PROJECT	DESIGN COMPETITION REQUIREMENT
HEALTH & HAPPINESS	07. Civilized Environment	Every regularly occupied space must have operable windows that provide access to fresh air and daylight.	Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative.
	08. Healthy Interior Environment	Projects must create and execute a Healthy Interior Environment Plan that explains how the project will achieve an exemplary indoor environment.	Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative.
	09. Biophilic Environment	The project must include elements that nurture the innate human/ nature connection, via a biophilic framework and plan.	Competition entrants are required to explain in simple terms how the proposal meets this Imperative. Note - a fully-fledged framework and plan is not required, but we encourage designers to embrace this imperative as part of the overall design strategy.

PETAL	IMPERATIVE	TYPICAL LBC 3.0 PROJECT	DESIGN COMPETITION REQUIREMENT
MATERIALS	10. Red List	The project cannot contain Red List materials or chemicals.	Competition entrants are required to submit evidence of advocacy for materials transparency by contacting at least three manufacturer's within 100 km of their workplace(s) or home(s) with information on the Declare label. See https://living-future.org/declare/for-designers
	11. Embodied Carbon Footprint	The project must account for the total embodied carbon (tCO2e) impact from its construction through a one-time carbon offset in the Institute's new Living Future Carbon Exchange or an approved carbon offset provider.	Competition entrants are required to explain with reference to submitted calculations how the proposed design meets this Imperative, and suggest (in the narrative) how the footprint might be offset, in-keeping with the theme of the design.
	12. Responsible Industry	The project must advocate for the creation and adoption of third-party certified standards for sustainable resource extraction and fair labour practices. Applicable raw materials include stone and rock, metal, minerals, and timber.	Competition entrants are required to identify which key materials are likely to be used that will require third party certification and indicate how this might be satisfied.
	13. Living Economy Sourcing	The project must incorporate place-based solutions and contribute to the expansion of a regional economy rooted in sustainable practices, products and services, e.g. 20% or more of materials construction budget must come from within 500 km of construction site, etc..	As this Imperative is complex without a full understanding of construction budget, competition entrants are required to explain how a minimum 40% (by area) of the visible surfaces of the retail centre building to be sourced from within 500 km of the site. Correspondence asking manufacturer / suppliers for this information is acceptable where information is not publicly available.

PETAL	IMPERATIVE	TYPICAL LBC 3.0 PROJECT	DESIGN COMPETITION REQUIREMENT
	14. Net Positive Waste	The project team must strive to reduce or eliminate the production of waste during design, construction, operation, and end of life. All Projects must feature at least one salvaged material per 500 square meters of gross building area or be an adaptive reuse of an existing structure.	Competition entrants are required to produce an indicative waste management plan.
EQUITY	15. Human Scale + Humane Places	The project must be designed to create human-scaled rather than automobile-scaled places. There are specific maximum (and sometimes minimum) requirements for paved areas, street and block design, building scale and signage that contribute to livable places, e.g. 15% of land allowed for total area of surface car parking. All other parking requirements must be handled in structured or underground parking.	Competition entrants are required to explain with reference to submitted drawings and / or calculations how the proposed design meets this Imperative.
	16. Universal Access to Nature & Place	All primary transportation, roads and non-building infrastructure (that is for the public) must be equally accessible to all members of the public regardless of background, age and socioeconomic class.	Competition entrants are required to explain in narrative how the proposed design meets this Imperative.

PETAL	IMPERATIVE	TYPICAL LBC 3.0 PROJECT	DESIGN COMPETITION REQUIREMENT
	17. Equitable Investment	For every dollar of total project cost, the development must set aside and donate half a cent or more to a charity of its choosing or contribute to ILFI's Equitable Offset Program, which directly funds renewable infrastructure for charitable enterprises.	Each competition entrant team member is to contribute two hours of service to a local charity group within 30km of their work place. A photo or photos of the team with the volunteer coordinator must be submitted with a statement of what was achieved in the narrative.
	18. JUST Organizations	The project must help create a more JUST, equitable society through the transparent disclosure of the business practices of the major organizations involved. At least one of the project team members must have a JUST Label.	This imperative cannot be met within the competition timeframe. However, competition entrants are required to submit evidence of advocacy for <i>socially just workplaces</i> by contacting at least two organisations within 25 km of their workplace(s) providing information on the JUST label to those organisations.
BEAUTY	19. Beauty + Spirit	The project must contain design features intended solely for human delight and the celebration of culture, spirit and place appropriate to its function and meaningfully integrate public art.	Competition entrants are required to explain with reference to submitted images drawings and narrative how the proposed design meets this Imperative.
	20. Inspiration + Education	Projects must provide an annual open day for the public, an educational web site that shares information about the design, construction, and operation of the project, interpretive signage that teaches visitors and occupants about the project, etc.	Competition entrants are required to provide an example of interpretive signage that would be used in their project.

Submission Guidelines

To be eligible for consideration, all entries must include at a minimum:

1. Completed **submission form and entry fee**. A submission fee of AUD \$95 per entry is required from professional firms, \$50 from individuals (or teams of no more than two people), and \$25 for student teams.
2. A maximum of **three A1 sized boards** that contain the schematic design and include, at a minimum:
 - a. Site Plan
 - b. Floor Plan
 - c. Roof Plan
 - d. Building Sections
 - e. Diagrams that illustrate site response to the Living Building Challenge Imperatives.
 - f. Diagram(s) to express the materials used in the proposed building(s)
 - g. Three dimensional exterior image(s) showing the design in context
 - h. A minimum of one interior Image(s) expressing what it feels like to be inside

Note that all imagery submitted is to be provided on these three boards.

3. A **narrative** on achieving the Living Building Challenge 3.0 requirements as per Table 2 in the brief. Limit of 2000 words in total, and must be a standalone word document.
4. A **plan and narrative** describing innovative techniques for minimising construction costs. Minimum of 750 words in total, and must be a standalone document (that can contain tables and graphs).
5. Somewhere in the submission (A1 boards or narrative), **calculations** detailing strategies to address required performance levels for:
 - a. Energy;
 - b. Water; and
 - c. Embodied carbon

6. A list of organisations to whom '**Advocacy correspondence**' were sent (in the narrative).
7. '**Peoples' Choice' Poster**: A single A1 (portrait orientation) poster is to be provided to be exhibited at the Living Future Unconference 2016. At the Unconference (held 11-13 May), attendees will have the chance to vote for their favourite designs on the basis of the posters submitted.
Posters will *not* be provided to the main competition Jury members and as such must *not* contain any information that is not provided elsewhere in the submission.
The content provided on this A1 poster is at the discretion of the competition entrants, i.e. may include a mixture of narrative, imagery, calculations, diagrams, etc..

Optional additions to submissions that help to describe the concept:

8. A short poem.
9. A video with a maximum length of two minutes

Please note that teams may also submit photos of physical models as well as animated fly-throughs as optional submission information. Additional drawings may be added if it is essential to the design.

FINAL SUBMISSION DUE DATE and TIME:

12:00pm (Midday) on 6th May 2016 Australian Eastern Standard Time (AEST)

Submission Notes:

Submission Method

All submissions are to be made electronically as per the details provided by the LFIA.

There is no limit on the number of entries a given organization may submit. Each submission requires separate registration.

Judging and Confidentiality

All submitted material must be in English and contain the project ID code only. Team names or project team identifiers must not be included on any document, with the exception of the submission form.

For the exhibition, competition entrants will be requested to provide their design team's names, organisations, and logos to form part of the exhibition and to allow viewers to recognise and appreciate their work.

Judging criteria is as follows:

Area	Weighting	Comment
Addressing the LBC imperatives	34%	Credit is awarded for each imperative that is addressed, considering level of clarity, completeness, creativity and innovation
Functionality	33%	Credit is awarded for designs that fulfill the requirements of the brief for a successfully-functioning retail centre, considering usability, maintenance, etc.
Realisation possibility	33%	Credit is awarded for designs that can be delivered from a <i>technological</i> (current and proven technology) and <i>economical</i> (at a reasonable cost) perspective.

Eligibility

Design teams from any country are eligible. The formation of interdisciplinary competition teams is encouraged. We invite you to collaborate with professions not usually included in design competitions. Consider for example including experts on local culture, biologists, climatologists, public health, educators and community activists along with designers, engineers and planners. Ensure that everyone is versed in the Living Building Challenge 3.0 so that solutions align with the standard.

Enquiries

Email us at designcomp@living-future.org.au.

All questions and answers will be responded to publicly on competition website's *Insights* page. We will endeavor to respond to legitimate queries with 5 business days.

The deadline for questions from competition entrants is 22nd April 2016.

Intellectual Property

The intellectual property rights of the designer is kept with the designer; i.e. by submitting a design to this competition designers keep their intellectual property rights. By submitting you grant us the right to advertise, publish and print your design in published material and through our media partners, always accounting for the aim of this competition – to share our ideas for redefining sustainability in the built environment of retail centres.

Prizes¹

The competition prizes are as follows:

PROFESSIONAL CATEGORY

FIRST PRIZE

- Cash Award of \$15,000
- Feature article in Trim Tab²
- Annual membership of LFIA for the design team

RUNNER-UP PRIZE / MERIT AWARD

- Cash Award of \$ 5,000
- Coverage in Trim Tab
- Annual membership of LFIA for the design team

PEOPLES' CHOICE AWARDS / COMMENDATIONS (x2)

- Cash Award of \$ 2,500
- Coverage in Trim Tab
- Annual membership of LFIA for the design team

DESIGN STUDENT CATEGORY

FIRST PRIZE

- Cash Award of \$3,000
- Article in Trim Tab
- Annual student membership of LFIA for the design team

COMMENDATIONS (x2)

- Cash Award of \$ 1,000
- Coverage in Trim Tab
- Annual student membership of LFIA for the design team

¹ The Living Future Institute of Australia reserves the right to reject submissions if the requirements of the competition are not met. Decisions made by the LFIA on awards are final.

² (<https://living-future.org/trim-tab-news>), the International Living Future Institute's quarterly electronic magazine for transformational people and design

This competition is presented by the Living Future Institute of Australia. It is made possible by the generous support from the following organisations:

Principal Partner



Fraser's Property Australia creates real places for real people. As an international company with a proven track record of 90 years in Australia, Fraser's Property understand the human side of property, making a real difference to peoples' lives and caring deeply about how they will benefit. Fraser's Property's strength and experience is to champion real-world solutions, opening up new possibilities through innovative thinking as well as tackling important sustainability issues. Fraser's Property is committed to delivering real value every time with a service that focuses on making things simpler and easier for real people.

Silver Sponsor



The Sustainable Buildings Research Centre building is a 6 Star Green Star- Education Design v1 accredited, multi-disciplinary facility that hosts a wide range of research and industry collaborations to address the challenges of making buildings sustainable. Located at the University of Wollongong's Innovation Campus, this beautiful new centre is alive with student research as a Living Laboratory and thrives on collaboration with industry. The building was designed and constructed based on the principles of the Living Building Challenge, pushing the boundaries of sustainable design and construction with hopes to inspire communities throughout Australia to take action on sustainability.

Silver Sponsor



QPS Geothermal is the first choice for geothermal solutions, with experience in completing a large number of highly complex and detailed ground works projects. With a high level requirement for quality and precision of works, QPS has developed an operational capacity that focuses heavily on quality and project delivery, with a keen understanding of critical path requirements and has a focus on achievement of programme. QPS Geothermal is the only company operating in the Australian market that self-fulfills all installation works ensuring complete quality control and delivery of high quality outcomes.