



UCP

UTILITY CONCRETE PRODUCTS

LEADERS IN PRECAST SOUNDWALL

PRODUCT SHOWCASE

PRECAST CONCRETE
EXCELLENCE

45+
YEARS
OF SERVICE

ROADWAY & COMMERCIAL



RAILWAY



RESIDENTIAL



AIRPORT



T SHAPED PANEL



SUBSTATION & UTILITIES



As road and highway traffic continues to increase, the amount of noise generated is a growing problem for the surrounding communities.

- Local counties and state DOTs turn to soundwalls to decrease noise pollution, and they specifically choose precast concrete as the supreme material to accomplish the goal. Diligent planners understand the inherent structural strength, durability and limitless aesthetic capabilities of a material with such a long and important history as reinforced concrete, especially when it is precast in a state of the art, controlled, indoor setting.
- With roadways continuing to improve and expand, the development of large commercial real estate follows. These developments often end up in the center of highly populated communities and have a great deal of noise from daily shopper traffic to the delivery of goods. A soundwall is the perfect solution to keep the sound from reaching the neighboring communities.



Whether it be transit or freight, the rail industry continues to expand across the country creating more train noise than ever before. With many of the rail lines passing through residential areas, the need a for soundwall is evident. Our precast soundwalls are the perfect solution to protect communities from the ever-increasing rail noise.





Precast soundwalls are the perfect option for residential noise reduction due to the vast variety of formliners and colors available. Communities are able to choose their aesthetic details, which will provide a visually appealing soundwall that insulates them from the sound of surrounding roadways, factories, shopping centers, etc.



Both soundwalls and jet blast walls are great solutions for helping to reduce air traffic noise when airports are located in populated areas. While standard soundwalls are a suitable option to reduce general airport noise, a thicker wall panel designed to withstand a greater wind load is available to protect against airplane jet blast.

Our T Shaped Panel system can be utilized for a variety of applications. This design features a freestanding precast wall, with an integral, engineered shallow footing for stability, which gives the owner the freedom to move the pieces around with a crane or forklift. Possible uses include:

- Temporary or permanent security wall for substations or utilities
- Noise abatement or privacy
- Aggregate or salt storage
- Ballistic tested and rated protection walls

A smooth panel finish as seen here is typical, however, a variety of aesthetic formliners and colors can be used to provide the desired appearance.





Substations are subject to varying degrees of threats, which is the driving force behind increasing security requirements being enacted. We offer several precast options for both noise reduction and protection:

- Standard soundwalls can be used to keep unwanted parties out of the substation property while also providing an aesthetically pleasing option for both the owner and the surrounding community.
- To protect against greater threats, we can design and provide walls that are ballistic tested and rated.

Firewalls – Within substations, the need often arises to protect critical infrastructure from blasts and fires if a transformer were to malfunction. The perfect solution is a precast firewall, which can be fabricated in a range of widths and heights to protect the rest of the substation or nearby buildings. Our durable firewalls provide maximum protection while being quick and easy to install.



Many owners prefer to provide an attractive wall around their utilities to act as both protection and noise abatement for equipment. Our precast walls can be designed for standard wind load or a fire rating to provide the owner with a sense of security and safety. In addition to protection, these walls can be designed to be aesthetically pleasing through the choice of a vast variety of formliners and paint colors. This allows the wall to closely match any adjacent building, keeping aesthetics constant on the site.

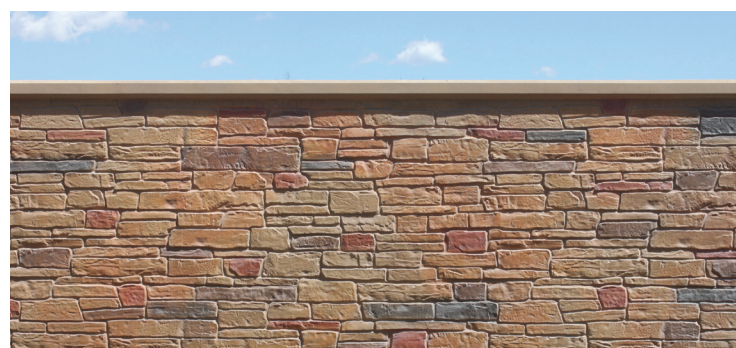
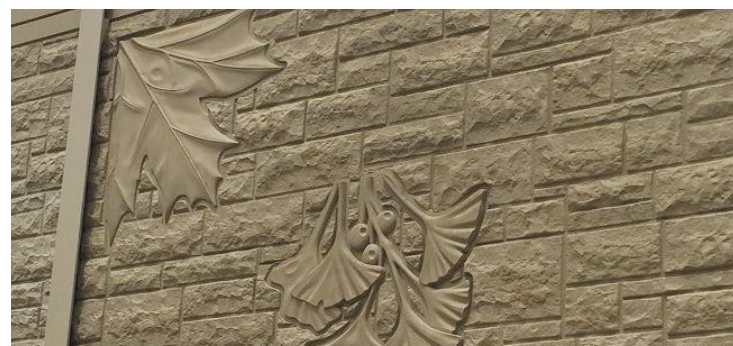


We stock the standard Ashlar formliner which is available in a 0.75" and 1.5" reveal.

A wide variety of custom formliners are available.

Panels can be painted a single color or can be painted using several colors for a customized finish.

Soundwalls are available in reflective or absorptive. Reflective panels are used to reflect noise into the environment, off the face of the wall, while absorptive panels can absorb noise up to or beyond a NRC (Noise Reduction Coefficient) rating of 0.9, or as specified by the project.



Our precast wall systems are designed by licensed structural engineers (SE) to meet the stringent specifications of local and state DOTs. Each project is complete with full shop drawings and calculations in support of the design, which are signed and sealed by the SE.

Detailed shop drawings will include:

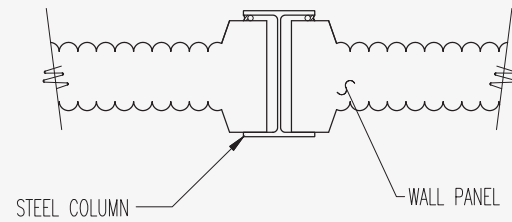
- General information including design criteria and material specifications
- Plan and elevation views of the wall complete with all necessary information to adequately layout and construct the wall
- Panel and column schedules including details
- Aesthetic information on formliner and paint color

Specifications

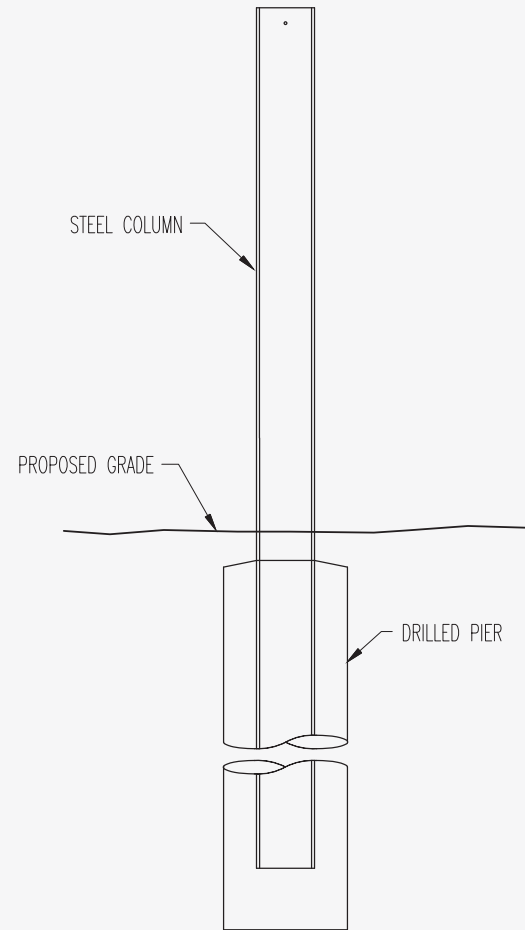
- Strength – Concrete Compressive Strength **f'c = 6,000psi @ 28 days.**
- Wind Loads – **25 psf** for ground mounted and **35 psf** for structure mounted.
- Designed per the requirements of **AASHTO.**
- Deflection – Panels shall be no more than panel length (L) divided by 240 (**L/240**). Vertical posts **H/180** where H is the height of the post.
- Service life of minimum **50 years.**
- All design considerations are taken into account including **traffic surcharge** and **impact loads, earth pressures, surcharges** and **lateral loads** from roadway pavement, and construction loads.
- Spans – Our standard spans (center of column to center of column) are **20'-6"** long panels that vary in height from **2'-0" to 10'-0"** tall (max height) in 1'-0" increments. Different spans and panel sizes are available upon request.
- Max standard panel weight, – **14,435 lbs** at 10'-0" tall.



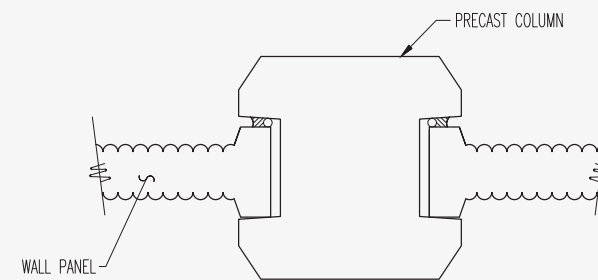
Precast concrete soundwall panels are secured in either steel or concrete columns. These columns may be either embedded in a drilled shaft, attached with anchor bolts to an existing structure, or driven into the ground. Steel columns are galvanized and painted with marine grade coatings, and concrete columns may be smooth concrete or have a cast-in pattern that can be stained to either match or compliment the color of the soundwall panel.



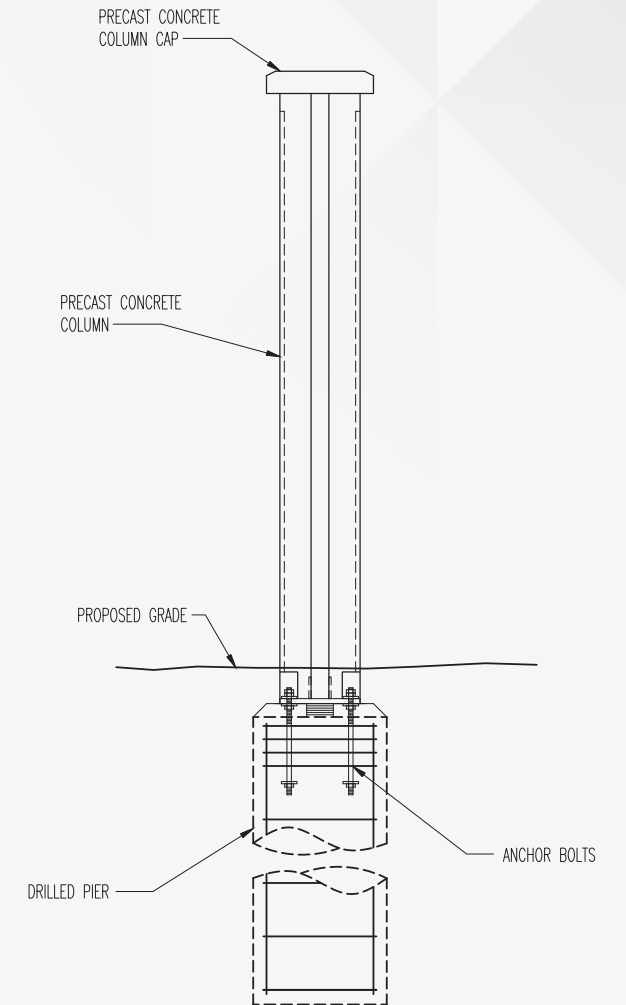
PANEL TO COLUMN CONNECTION
STEEL COLUMN



TYPICAL STEEL COLUMN ELEVATION



PANEL TO COLUMN CONNECTION
CONCRETE COLUMN



TYPICAL CONCRETE COLUMN ELEVATION





LCPA
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