VISION ZERO

WEBB LAREDO

Appendix I

RURAL SCHOOL BUS STOPS

"THE BUS STOPS HERE"

TABLE OF CONTENTS

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Background

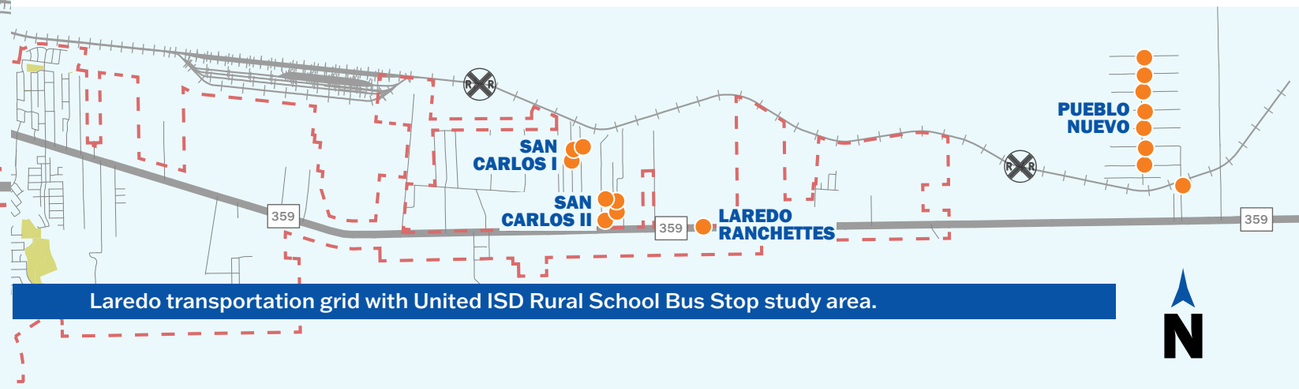
The Vision Zero Webb Laredo Comprehensive Safety Action Plan (CSAP) was developed in collaboration with several local stakeholders including government entities and private interests. Among these stakeholders from the outset have been Laredo Independent School District (LISD) and United Independent School District (UISD), both active participants in the process. During the development of the Capital Project recommendations, both school districts expressed needs and priorities, which included a safety focus more on the quality of multimodal travel infrastructure around urban campuses for LISD, and more on the quality of school bus pickup locations in rural areas for UISD.

"The Bus Stops Here" initiative addresses the lack of safe, sheltered waiting areas for nearly 140 UISD students who board buses each morning in rural communities along US 359 in the Colonias of San Carlos, Laredo Ranchettes, and Pueblo Nuevo, just east of Laredo. These communities lie outside city limits in Webb County and are characterized by economic hardship, substandard development, and minimal infrastructure. Many streets are unpaved and lack sidewalks or formal waiting areas. As a result, children often gather in darkness or under sparse cover, and buses frequently cannot access stops during rainstorms due to washouts.

Recognizing this challenge, the CSAP Capital Plan highlights the urgent need to enhance safety and comfort at these Tier 1 and Tier 2 equity-designated census tracts to help achieve zero roadway fatalities. Designated in the plan as Rural School Bus Stops, this project aims to identify shared-use path opportunities and optimal locations for standardized "kit of parts" shelters comprised of basic shelters, seating, signage, and solar lighting that could be replicated across UISD and designed to a standard that would be acceptable for El Águila and El Metro transit services, should they have interest.

Stops subject to particularly severe weather will be outfitted with more robust shelters, offering increased capacity and resilience against wind and rain. Design development included a Workshop with participation from TxDOT and Webb County, and site visits with UISD staff, as well as consultation with transit partners to ensure high standards. To date, 15 potential stops have been identified, and pilot locations identified in the Workshop. This will result in a phased implementation of safe, well-lit, and weather-resistant bus shelters, improving daily travel conditions for students in these communities while also advancing broader community safety goals.

Additionally, the project team toured San Antonio's VIA Primo and Next Gen Bus Stops and met with staff from VIA Metropolitan Transit regarding design, procurement, and maintenance considerations and to discuss the processes and considerations involved in rolling out a line of new bus shelters. These meetings allowed the project team to ascertain what stops were priority for adding a shelter, and in what areas there are needs for lighting. This Appendix outlines what this pilot project consists of, and the steps taken to begin establishing bus shelters in key locations within the area.



Laredo transportation grid with United ISD Rural School Bus Stop study area.

VIA's Primo Bus Shelters

The project team sought to design rural school bus shelters that could serve as a replicable model for other local entities. To achieve this, the team conducted research to better understand the requirements, constraints, and best practices for designing and implementing bus shelters in rural contexts. A key component of this research involved meeting with VIA Metropolitan Transit to learn from their experience developing and deploying the Primo bus shelters in San Antonio.

The VIA Primo shelters integrate functional design with community identity through built-in public art. Their laser-cut metal panels serve as both artistic elements and wind screens, providing protection while creating visual interest. This approach to incorporating art into functional infrastructure was of particular interest to the project team, and future engagement for this program may include discussions on potential artists or partners to create similar elements for the school bus shelters.

This bus shelter has solar panels on the roof and a storage battery under the seating to power adequate lighting at night completely off the power grid.

Wind screens at the back of the shelter may also serve as a shading device.

Wind screens offer an opportunity to engage students in creating public art representative of their communities.

A site visit to San Carlos and other Colonias by the project team and UISD staff help offer some context to the area where students are picked up by school bus.

During the tour of the Primo bus shetlers, the project team met with VIA staff directly involved in the design and installation process, as well as the maintenance and procurement. The discussion provided valuable insights on multiple aspects of shelter implementation, including appropriate materials to mitigate deterioration and vandalism, long-term maintenance strategies, and placement considerations such as setbacks and right-of-way coordination. VIA staff also shared specifications for lighting and emphasized the importance of designing for local climate conditions, including orientation for shade. The conversation also addressed ADA-compliant design and the integration of accessible features such as tactile art.

The tour and meeting with VIA staff provided guidance and assurance that the rural school bus shelter designs would be functional, durable, and adaptable for future use across Webb County and beyond.

Site Visit

Architecture staff from Able City, engineering staff from LJA, and operations administrators from the UISD Transportation Department conducted a field visit of 15 rural bus stops serving the Colonias of Pueblo Nuevo, San Carlos, and Laredo Ranchettes. The purpose of the site visit was to evaluate existing conditions and identify priority locations—"preferred stops"—for the installation of new bus shelters as part of The Bus Stops Here Pilot Program. Additional needs, such as lighting and seating, were also assessed to improve student safety and comfort.

Field Notes

Following the site visit, the project team developed a report of the exisiting conditions which details relevant info for each bus stop location along the three routes in the Colonia neighborhoods. This information is detailed in the following pages.

Pueblo Nuevo Bus Route

1. E. Ozuna Avenue + Main Street

- This is the first stop along this route
- Shelter location at the North-West corner of Main Street
- This is a paved street with no sidewalk
- Lighting needed

2. Parades Street + Main Street

- Shelter location at the North-West corner of Main Street
- This is a paved street with no sidewalk
- Lighting needed

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3. Mendoza Street + Main Street

- Shelter location at the North-West corner of Main Street
- This is a paved street with no sidewalk
- Lighting needed

4. Gomez Street + Main Street

- Shelter location at the North-West corner of Main Street
- This is a paved street with no sidewalk
- Lighting needed

5. W. Alvarado Street + Main Street

- Shelter location at the North-West corner of Main Street
- This is a paved street with no sidewalk
- Lighting needed

6. Mier Street + Main Street

- Shelter location at the North-West corner of Main Street
- This is a paved street with no sidewalk
- This stop is currently not being used.
- Lighting needed

7. Maria Elena Street + Main Street – Preferred Stop

- Shelter location at the North-East corner of Main Street
- This is considered a community stop, students for school and sports activities.
- This is a paved street with no sidewalk
- There is a Webb County bus shelter located on the South-East corner that is not being used by UISD students
- Lighting needed

8. Milagro Road

- Shelter location on the Eastside of Milagro Road
- Capacity - 10 students
- This is a paved street with no sidewalk
- Lighting needed

San Carlos and Laredo Ranchettes Bus Stops

9. SH 359 + RR 7006B - Preferred Stop

- All weather stop
- Shelter location at the North-East corner of SH 359
- This is a along SH 359 , which is currently being expanded to a four lane SH
- Widening of SH 359 will require this stop relocated to RR 7006B effective immediately

10. Welch Road + Bailey Road - Preferred Stop

- All weather stop
- Shelter location at the North-East corner of Welch Road
- Capacity - 25-30 students

11. Welch Road + Laredo Flea Market

- The request is no bus shelter at this location
- Requested lighting

12. Barrera Road + Laredo Flea Market

- The request is no bus shelter at this location
- Requested lighting

13. Emilliano Road + Adenta Road - Preferred Stop

- All weather stop
- Shelter location at the North-East corner of Adenta Road
- Capacity - 25-30 students

14. Nacogdoches Road

- The request is no bus shelter at this location
- Requested lighting

15. Gore Road

- The request is no bus shelter at this location
- Requested lighting

Exisiting conditions of bus stop #7 referenced in the Field Notes section of this report

“The Bus Stops Here” Design Workshop

Following the site visit, the project team convened a design workshop with key stakeholders to review right-of-way, ownership, and safety considerations for the proposed shelters. Representatives from UISD, Webb County, TxDOT, the Laredo & WebbCounty Area MPO (LWCAMPO), Able City, and LJA participated in the session. The workshop provided an opportunity to align priorities, share local knowledge, and establish preliminary steps for moving the pilot program forward, including refinement of shelter design and coordination of jurisdictional responsibilities.

A primary focus of the discussion was Bus Stop #9, located within TxDOT right-of-way along the planned expansion of SH 359. While this site is a popular gathering point for students, its proximity to the highway raises long-term safety concerns. UISD representatives noted that even if the stop were relocated, children might still congregate at the original site, creating ongoing exposure to traffic. The group explored the option of moving the stop further into Ranch Road 7006B. However, several challenges were identified: RR 7006B is a caliche road prone to washouts during rain, which could make the stop unreliable during inclement weather if buses are unable to enter. Additionally, the current configuration does not provide adequate clearance for bus turnaround movements, making it unsuitable without significant modifications.

In response to these concerns, TxDOT officials shared that a government assistance program may be able to provide asphalt millings to stabilize the road surface, creating an all-weather access point for buses and mitigating one of the key barriers to relocation.

Additional feedback from the workshop highlighted conditions along the Pueblo Nuevo route. Stakeholders noted that the area is particularly dark during early morning pick-ups, emphasizing the need for lighting at several stops. Stops #2 and #3 were identified as high-use locations, while Preferred Stop #7 will require a shelter large enough to accommodate 20–30 children. To meet this need, the group discussed a five-module shelter design, including one ADA-compliant landing pad. Stakeholders also shared observations that many parents wait in vehicles until the bus arrives, underscoring the importance of safe and visible shelter locations.

The workshop successfully initiated coordination between agencies and clarified several implementation challenges, including the jurisdictional questions surrounding Bus Stop #9. Further discussions with Webb County are needed to confirm right-of-way ownership for proposed shelter sites and to explore their potential role in supporting the relocation of Stop #9 away from SH 359. Overall, the session was productive in identifying priority needs, bringing together critical partners, and outlining the next steps for advancing the pilot program.

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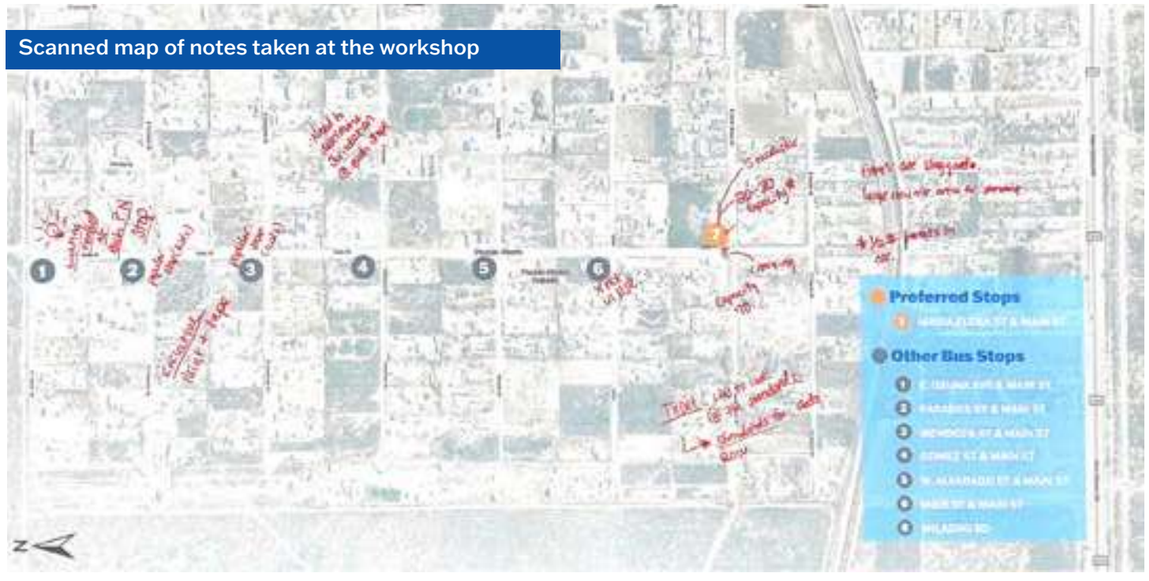
Following the workshop, the project team convened a virtual follow-up meeting to engage additional departmental staff from the County that could support the government assistance program and connect with stakeholders to begin the process of determining jurisdictional responsibilities for the bus stop locations. This meeting also marked the conclusion of the project team’s role in facilitating these discussions. This effort has built momentum through these conversations establishing a strong foundation for the continued advancement of this important initiative.



Scanned map of notes taken at the workshop

Preliminary Drawings

The illustrations on the right side of the page show some of the preliminary designs and mock-ups created by the architecture team prior to the Design Workshop held with input from UISD, TxDOT, and Webb County staff.

Following the workshop discussions, additional details such as reflective paint, and a finalized roof slope were incorporated into the design. The images on this spread show the first renderings in the design process for the bus stop shelter.

The top image on the right page shows early prototype options for the roof design of the bus stop shelter in the one module format.

The bottom image on the right page is a rendering that demonstrates a shelter comprised of 3 modules.

The image directly below shows a rendering that places one of these prototypes (in the 3 module format) onto the proposed location for Bus Stop #7, at the corner of Maria Elena Street and Main Street in the Pueblo Nuevo Colonia neighborhood.

BUS STOP PROTOTYPE RENDERING - PUEBLO NUEVO ROUTE; BUS STOP #7

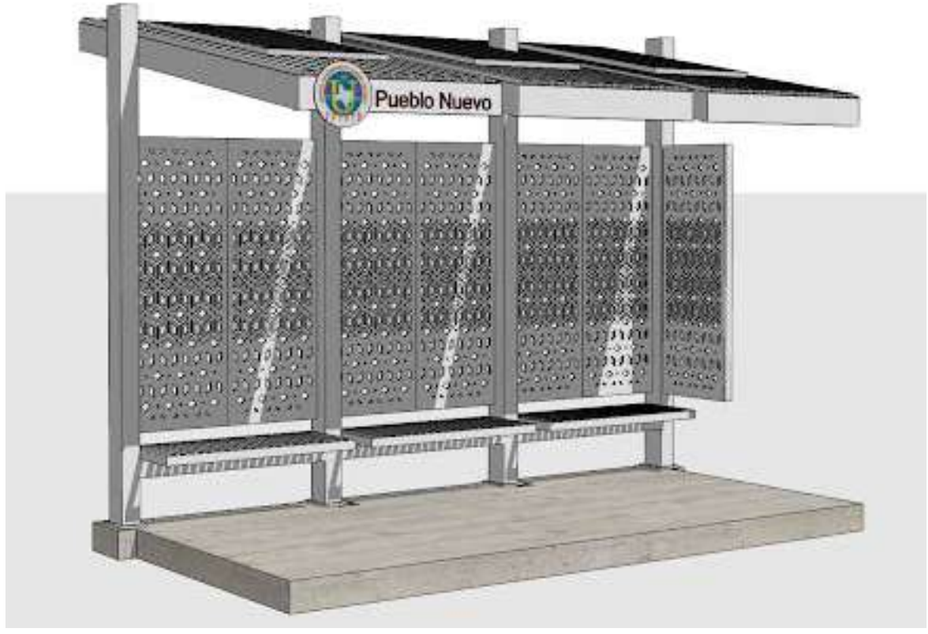
BUS STOP PROTOTYPE - 1 MODULE (4’ X 6’)

OPTION 1 FLAT ROOF

OPTION 2 10% SLOPE

OPTION 3 10% SLOPE

BUS STOP PROTOTYPE - 3 MODULES (12’ X 6’)

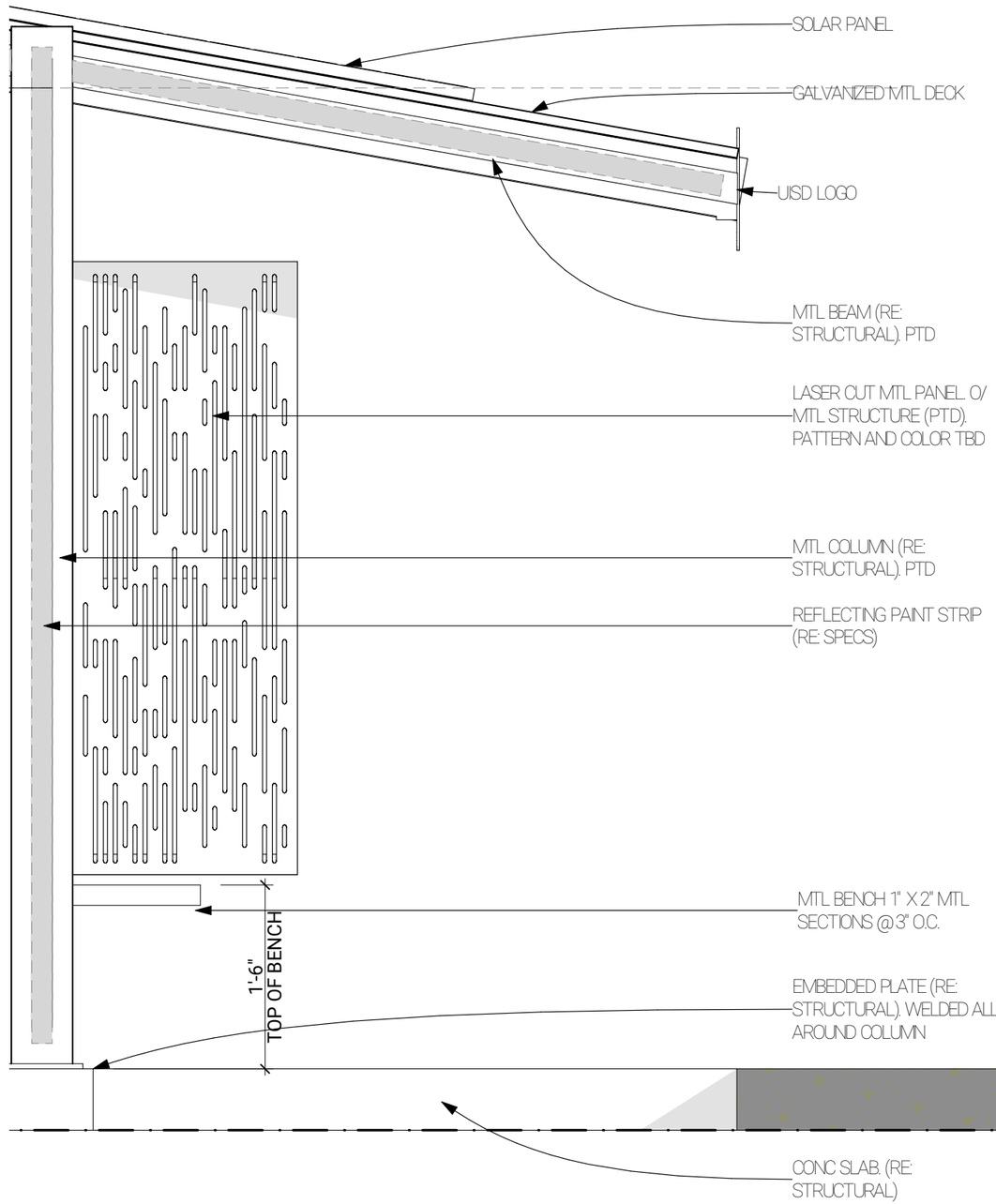


Modular Bus Shelter Design

Able City, in collaboration with LJA Engineering, partnered with the United Independent School District (UISD) Transportation Department to plan, develop, and design a modular bus shelter prototype for rural bus routes in Webb County, Texas. These shelters are intended to serve students residing in Colonias San Carlo, Laredo Ranchettes, and Pueblo Nuevo—areas that lack the basic infrastructure and safe, comfortable waiting areas for students.

Following multiple site visits, design workshops, and coordination meetings, the project team determined that a modular bus shelter prototype was the most effective and adaptable solution. The modular design allows for flexible sizing and easy adjustment to suit varying site conditions and student capacities at different locations.

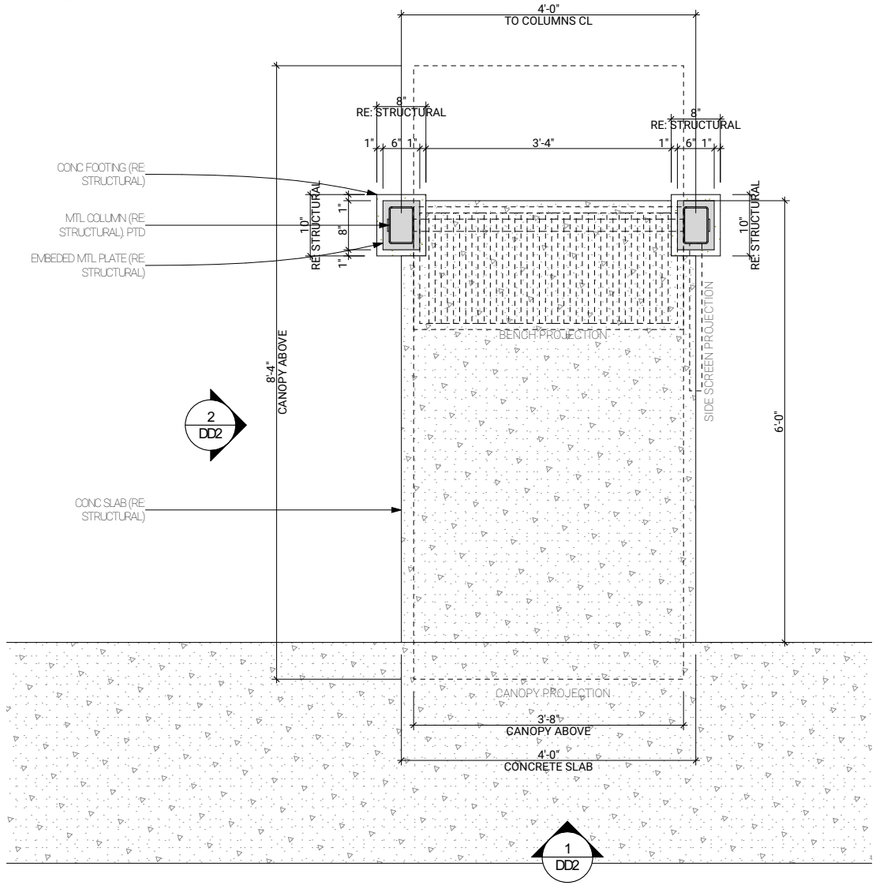
The schematic design is based on a single 4’ x 6’ modular bay with an 8’-4” high overhead canopy. This base unit can be configured into a larger 3- to 5-bay shelter, depending on the number of students at each stop. A five-bay version is also illustrated to demonstrate the design of a larger-capacity shelter. All shelters are designed to be ADA accessible and equipped with solar-powered lighting, ensuring both safety and sustainability.

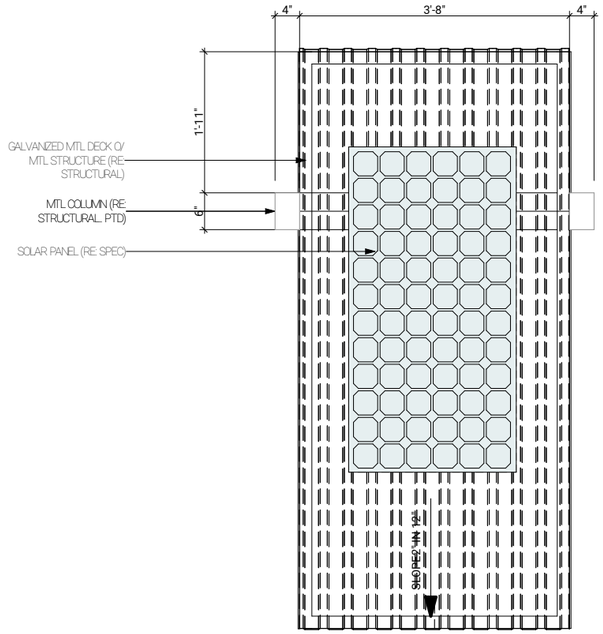


Schematic Drawings

DD1: Floor & Roof Plan – Single Bay Unit

This drawing illustrates the layout of a typical 4’ x 6’ modular bay. Key structural elements include a reinforced concrete slab and footing, galvanized steel columns, and embedded metal plates. The roof plan on the following page shows an 8’–4” high canopy projection and the placement of integrated solar panels for lighting.





1 FIRST FLOOR PLAN

SCALE: 1/2" = 1'-0"

2 ROOF PLAN

SCALE: 1/2" = 1'-0"

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PUBLISHED: 7/31/25

UISD BUS SHELTER

PROTOTYPE FLOOR PLAN/ ROOF PLAN

REVISIONS:

SHEET NO.:

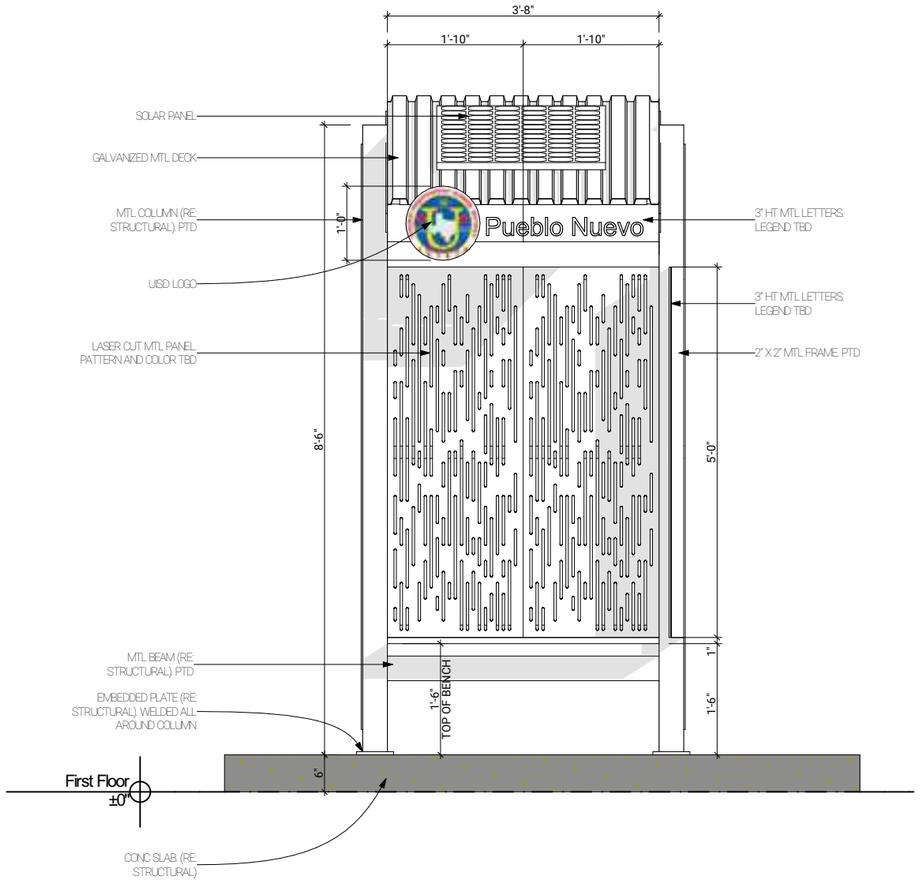
DD1

JOB NO.: 24020

DRAFT

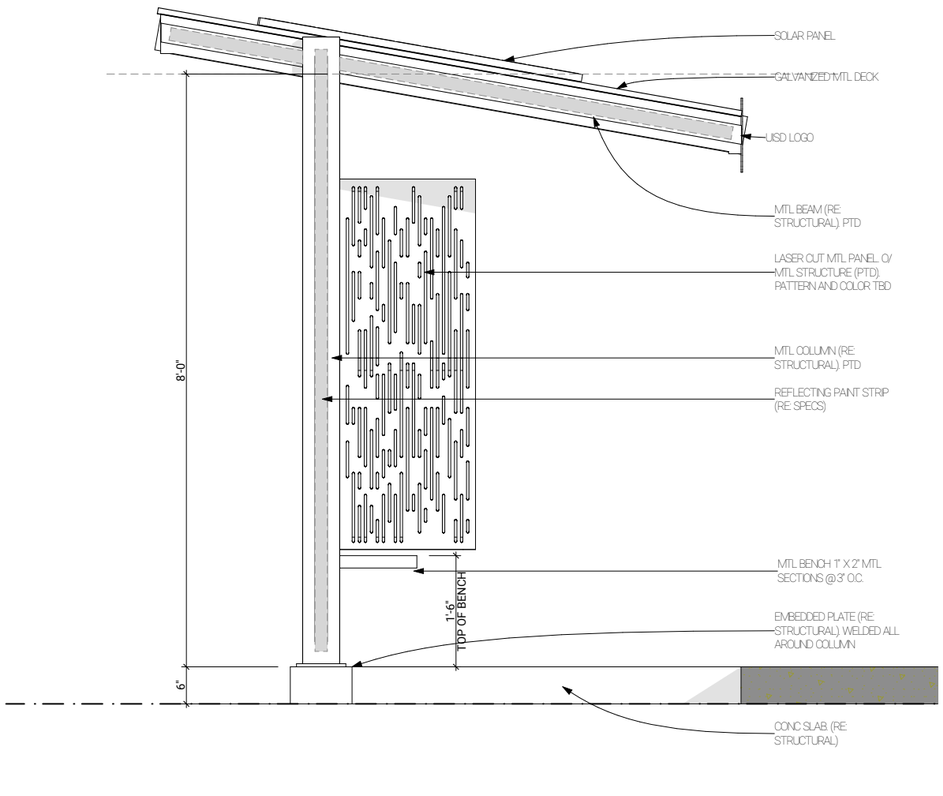
DD2: Front and Side Elevations – Single Bay Unit

These elevations depict various design details including the galvanized metal roof deck, laser-cut perforated metal panels with school-specific colors and patterns, structural columns and beams, and a fixed metal bench. The front elevation will prominently feature the UISD logo and 3" high metal letters displaying the bus stop name or route.



1 FRONT ELEVATION

SCALE: 1/2" = 1'-0"



2 SIDE ELEVATION

SCALE: 1/2" = 1'-0"

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UISD BUS SHELTER

PROTOTYPE ELEVATIONS

REVISIONS:

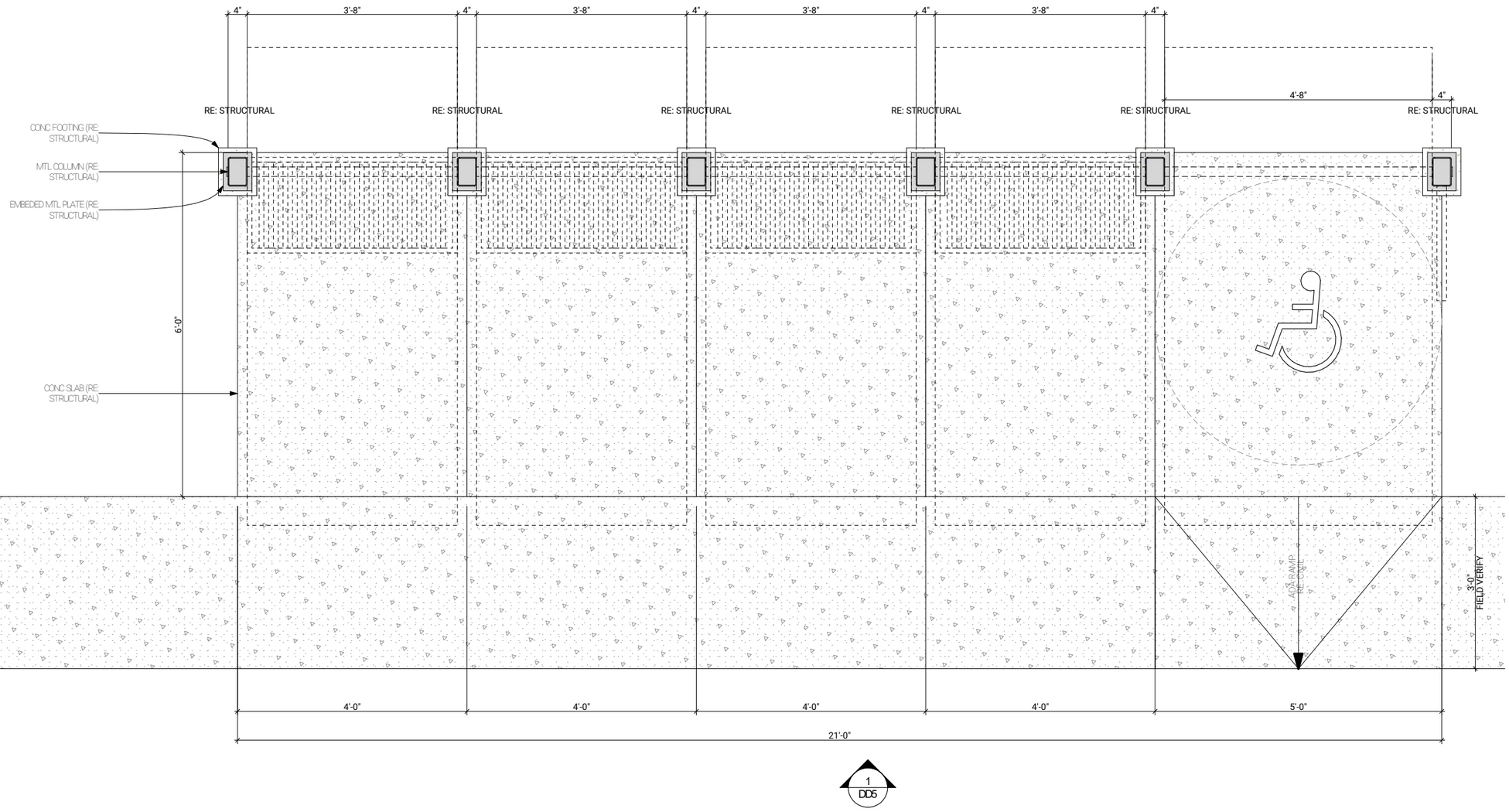
SHEET NO.:

DD2

JOB NO.: 24020

DD3: Floor Plan – Five Bay Unit

This plan shows the expanded five-bay layout with an accessible route, including an ADA-compliant approach ramp and turnaround space. This configuration allows for greater student capacity while maintaining safety and accessibility.



1 FIRST FLOOR PLAN

SCALE: 1/2" = 1'-0"

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UISD BUS SHELTER

TYPICAL 5 UNITS FLOOR PLAN

REVISIONS:

SHEET NO.:

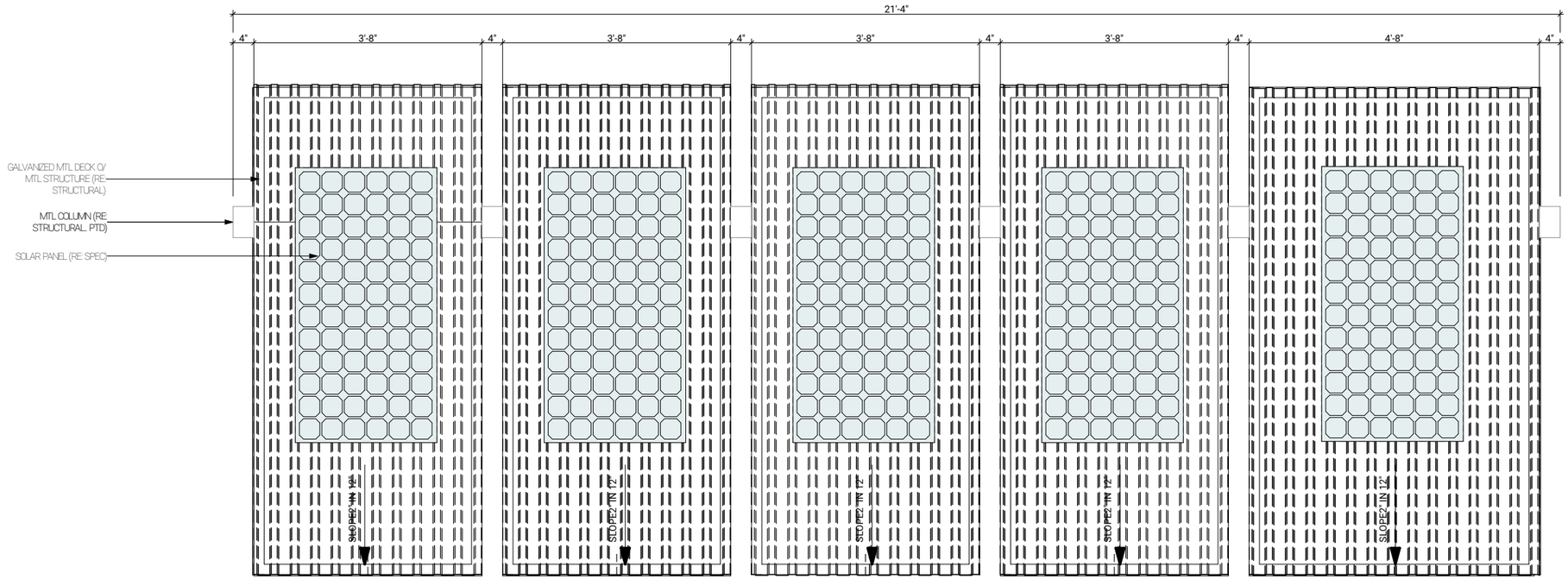
DD3

JOB NO.: 24020

DRAFT

DD4: Roof Plan – Five Bay Unit

The roof plan for the five-bay version illustrates the modular canopy system with solar panel arrays placed as needed to ensure adequate lighting. The galvanized metal deck spans the full structure, supported by the underlying metal framework. The number of solar panels will be determined during future phasing. The number of solar panels shown on this diagram are for illustrative purposes only.



1 ROOF PLAN

SCALE: 1/2" = 1'-0"

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UISD BUS SHELTER

TYPICAL 5 UNITS ROOF PLAN

REVISIONS:

SHEET NO.:

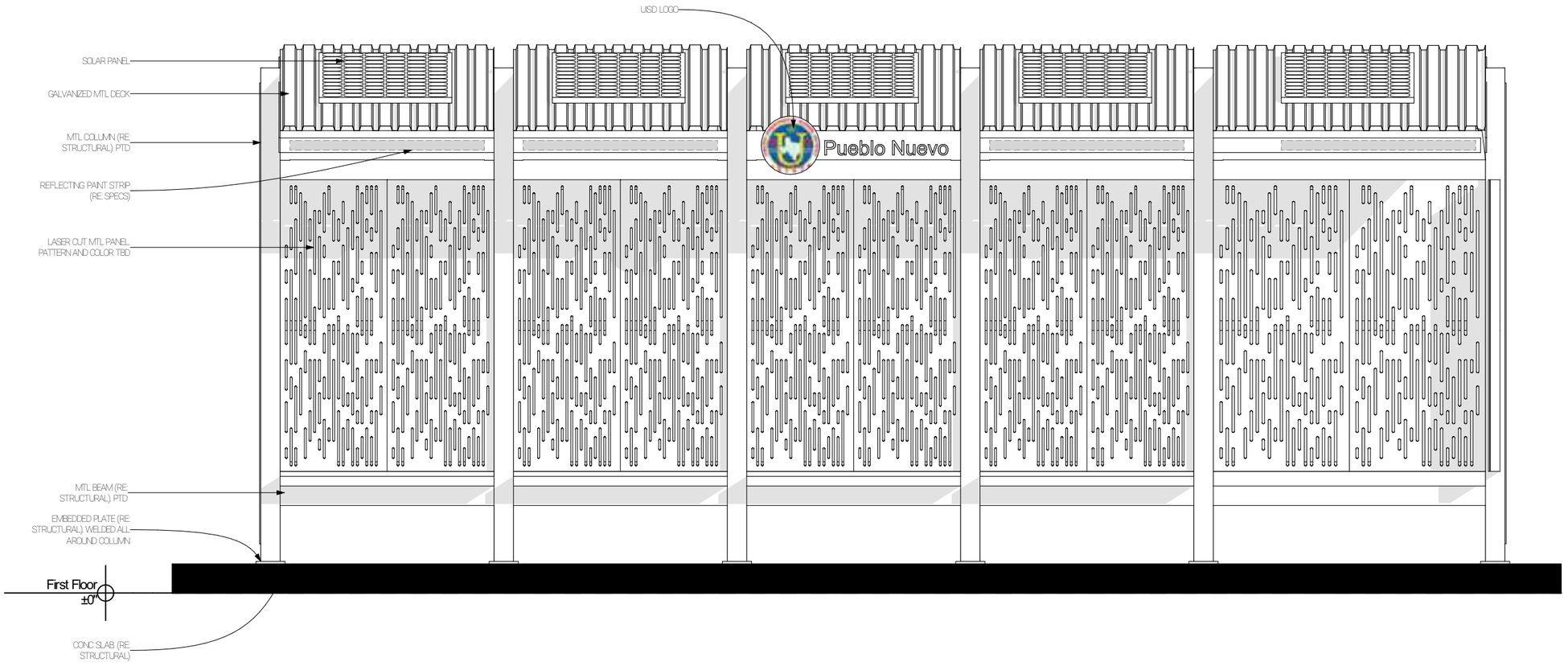
DD4

JOB NO.: 24020

DRAFT

DD5: Front Elevation – Five Bay Unit

The elevation shows the five bays assembled into a cohesive unit. Design elements include solar panels, galvanized roof decking, laser-cut metal screens, reflective paint markings for visibility, and vertical steel columns for support.



1 5 UNITS FRONT ELEVATION

SCALE: 1/2" = 1'-0"

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UISD BUS SHELTER

5 UNITS TYP ELEVATION

REVISIONS:

SHEET NO.:

DD5

JOB NO.: 24020

Opinion of Probable Cost

The table below outlines the probable cost of one bay. Site improvements are not included in the opinion of probable cost.

OPINION OF PROBABLE COSTS

UISD BUS SHELTER - 1 UNIT

DATE: July 15, 2025

Description	QTY	Units	Cost / Unit	Amount
Building				
Foundation				
Concrete Piers for columns 12" dia	2	EA	$3,000	$6,000.00
Concrete Slab	24	SF	$30	$720.00
Structure				
Structural Columns 6"x4"x 8'-6" (2 columns)	17	LF	$40	$680.00
Structural plates for columns (8"x6") (2 plates)	0.66	SF	$30	$19.80
Steel Beams 6"x2"	26.5	LF	$53	$1,404.50
Labor	1	EA	$3,500	$3,500.00
Roof				
Metal Deck	29.5	SF	$38	$1,121.00
Metal Wall Panels				
Metal frame 2"x2"x3'-8"	24.5	LF	$20.00	$490.00
Laser Cut Metal Wall Panels 1'-10"x5'-0"	2	EA	$2,000.00	$4,000.00
Labor	1	EA	$1,500	$1,500.00
Bench				
TS 2"x 1"x 1.5'	33	LF	$7	$231.00
TS 2"x1"x 3'-8"	3.66	LF	$7	$25.62
TS 2"x4"x 3'-8"	3.66	LF	$12	$43.92
Electrical	1	EA	$1,500	$1,500.00
Solar Panels	1	EA	$1,300	$1,300.00
Labor	1	EA	$5,200	$5,200.00
Logo				
Logo and letters	1	EA	$1,500	$1,500.00
Sub Total per Unit				**$29,235.84**
General Conditions, OH, & Profit	30.00%	PERCENT		$8,770.75
Contingency	5.00%	PERCENT		$1,461.79
Total Projected Costs				**$39,468.38**

Next Steps

A Pilot Project of two to five bus shelters has been included as part of a recent SS4A Implementation Grant submittal and could serve as a means to install prototype shelters in the area over the next three to five years if awarded. In any case, the bus stop that is currently located at the intersection of SH 359 and RR 7006B still needs to be relocated, as the highway widening will impact the ability for this stop to function as it has in the past during the 2025-2026 school year. The initiation of conversations between UISD, TxDOT, Webb County, and the LWCAMPO conducted through this Pilot Program will help to resolve this in the interim.

Capital improvements involving these shelters will need to be complemented by ADA accessible sidewalk infrastructure with connectivity to pavement. Asset ownership, maintenance responsibility, and right-of-way will need to be clarified with formal agreements put in place delineating responsibilities. Funding will also need to be identified for implementing the remaining shelters and lighting improvements. The stop at RR 7006B will need particular interagency coordination to ensure that students at that location have a more permanent way to access school bus service safely.

SH 359 expansion project underway in front of the current school bus stop #9 on RR 7006B and SH 359.