

# HISTORIC AND DESIGN REVIEW COMMISSION

June 29, 2022

**HDRC CASE NO:** 2022-337  
**COMMON NAME:** I-10 W to W Agarita ROW  
**ZONING:** UZROW, H  
**CITY COUNCIL DIST.:** 1  
**APPLICANT:** Miranda Garrison/City of San Antonio  
**OWNER:** City of San Antonio  
**TYPE OF WORK:** ROW improvements  
**APPLICATION RECEIVED:** June 10, 2022  
**60-DAY REVIEW:** Not applicable due to City Council Emergency Orders  
**CASE MANAGER:** Rachel Rettaliata

## REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to perform pedestrian improvements along Fredericksburg Road from I-10 W to W Agarita.

## APPLICABLE CITATIONS:

*Historic Design Guidelines, Chapter 5, Guidelines for Site Elements*

### 1. Topography

#### A. TOPOGRAPHIC FEATURES

- i. *Historic topography*—Avoid significantly altering the topography of a property (i.e., extensive grading). Do not alter character-defining features such as berms or sloped front lawns that help define the character of the public right-of-way. Maintain the established lawn to help prevent erosion. If turf is replaced over time, new plant materials in these areas should be low-growing and suitable for the prevention of erosion.
- ii. *New construction*—Match the historic topography of adjacent lots prevalent along the block face for new construction. Do not excavate raised lots to accommodate additional building height or an additional story for new construction.
- iii. *New elements*—Minimize changes in topography resulting from new elements, like driveways and walkways, through appropriate siting and design. New site elements should work with, rather than change, character-defining topography when possible.

### 2. Fences and Walls

#### A. HISTORIC FENCES AND WALLS

- i. *Preserve*—Retain historic fences and walls.
- ii. *Repair and replacement*—Replace only deteriorated sections that are beyond repair. Match replacement materials (including mortar) to the color, texture, size, profile, and finish of the original.
- iii. *Application of paint and cementitious coatings*—Do not paint historic masonry walls or cover them with stone facing or stucco or other cementitious coatings.

#### B. NEW FENCES AND WALLS

- i. *Design*—New fences and walls should appear similar to those used historically within the district in terms of their scale, transparency, and character. Design of fence should respond to the design and materials of the house or main structure.
- ii. *Location*—Avoid installing a fence or wall in a location where one did not historically exist, particularly within the front yard. The appropriateness of a front yard fence or wall is dependent on conditions within a specific historic district. New front yard fences or wall should not be introduced within historic districts that have not historically had them.
- iii. *Height*—Limit the height of new fences and walls within the front yard to a maximum of four feet. The appropriateness of a front yard fence is dependent on conditions within a specific historic district. New front yard fences should not be introduced within historic districts that have not historically had them. If a taller fence or wall existed historically, additional height may be considered. The height of a new retaining wall should not exceed the height of the slope it retains.

iv. *Prohibited materials*—Do not use exposed concrete masonry units (CMU), Keystone or similar interlocking retaining wall systems, concrete block, vinyl fencing, or chain link fencing.

v. *Appropriate materials*—Construct new fences or walls of materials similar to fence materials historically used in the district. Select materials that are similar in scale, texture, color, and form as those historically used in the district, and that are compatible with the main structure. Screening incompatible uses—Review alternative fence heights and materials for appropriateness where residential properties are adjacent to commercial or other potentially incompatible uses.

### C. PRIVACY FENCES AND WALLS

i. *Relationship to front facade*—Set privacy fences back from the front façade of the building, rather than aligning them with the front façade of the structure to reduce their visual prominence.

ii. *Location* – Do not use privacy fences in front yards.

## 3. Landscape Design

### A. PLANTINGS

i. *Historic Gardens*—Maintain front yard gardens when appropriate within a specific historic district.

ii. *Historic Lawns*—Do not fully remove and replace traditional lawn areas with impervious hardscape. Limit the removal of lawn areas to mulched planting beds or pervious hardscapes in locations where they would historically be found, such as along fences, walkways, or drives. Low-growing plantings should be used in historic lawn areas; invasive or large-scale species should be avoided. Historic lawn areas should never be reduced by more than 50%.

iii. *Native xeric plant materials*—Select native and/or xeric plants that thrive in local conditions and reduce watering usage. See UDC Appendix E: San Antonio Recommended Plant List—All Suited to Xeriscape Planting Methods, for a list of appropriate materials and planting methods. Select plant materials with a similar character, growth habit, and light requirements as those being replaced.

iv. *Plant palettes*—If a varied plant palette is used, incorporate species of taller heights, such informal elements should be restrained to small areas of the front yard or to the rear or side yard so as not to obstruct views of or otherwise distract from the historic structure.

v. *Maintenance*—Maintain existing landscape features. Do not introduce landscape elements that will obscure the historic structure or are located as to retain moisture on walls or foundations (e.g., dense foundation plantings or vines) or as to cause damage.

### B. ROCKS OR HARDSCAPE

i. *Impervious surfaces* —Do not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located.

ii. *Pervious and semi-pervious surfaces*—New pervious hardscapes should be limited to areas that are not highly visible, and should not be used as wholesale replacement for plantings. If used, small plantings should be incorporated into the design.

iii. *Rock mulch and gravel* - Do not use rock mulch or gravel as a wholesale replacement for lawn area. If used, plantings should be incorporated into the design.

### C. MULCH

*Organic mulch* – Organic mulch should not be used as a wholesale replacement for plant material. Organic mulch with appropriate plantings should be incorporated in areas where appropriate such as beneath a tree canopy.

i. *Inorganic mulch* – Inorganic mulch should not be used in highly-visible areas and should never be used as a wholesale replacement for plant material. Inorganic mulch with appropriate plantings should be incorporated in areas where appropriate such as along a foundation wall where moisture retention is discouraged.

### D. TREES

i. *Preservation*—Preserve and protect from damage existing mature trees and heritage trees. See UDC Section 35-523 (Tree Preservation) for specific requirements.

ii. *New Trees* – Select new trees based on site conditions. Avoid planting new trees in locations that could potentially cause damage to a historic structure or other historic elements. Species selection and planting procedure should be done in accordance with guidance from the City Arborist.

iii. *Maintenance* – Proper pruning encourages healthy growth and can extend the lifespan of trees. Avoid unnecessary or harmful pruning. A certified, licensed arborist is recommended for the pruning of mature trees and heritage trees.

## 4. Residential Streetscapes

### A. PLANTING STRIPS

- i. *Street trees*—Protect and encourage healthy street trees in planting strips. Replace damaged or dead trees with trees of a similar species, size, and growth habit as recommended by the City Arborist.
- ii. *Lawns*—Maintain the use of traditional lawn in planting strips or low plantings where a consistent pattern has been retained along the block frontage. If mulch or gravel beds are used, low-growing plantings should be incorporated into the design.
- iii. *Alternative materials*—Do not introduce impervious hardscape, raised planting beds, or other materials into planting strips where they were not historically found.

#### B. PARKWAYS AND PLANTED MEDIANS

- i. *Historic plantings*—Maintain the park-like character of historic parkways and planted medians by preserving mature vegetation and retaining historic design elements. Replace damaged or dead plant materials with species of a like size, growth habit, and ornamental characteristics.
- ii. *Hardscape*—Do not introduce new pavers, concrete, or other hardscape materials into parkways and planted medians where they were not historically found.

#### C. STREET ELEMENTS

- i. *Site elements*—Preserve historic street lights, street markers, roundabouts, and other unique site elements found within the public right-of-way as street improvements and other public works projects are completed over time.
- ii. *Historic paving materials*—Retain historic paving materials, such as brick pavers or colored paving, within the public right-of-way and repair in place with like materials.

### 5. Sidewalks, Walkways, Driveways, and Curbing

#### A. SIDEWALKS AND WALKWAYS

- i. *Maintenance*—Repair minor cracking, settling, or jamming along sidewalks to prevent uneven surfaces. Retain and repair historic sidewalk and walkway paving materials—often brick or concrete—in place.
- ii. *Replacement materials*—Replace those portions of sidewalks or walkways that are deteriorated beyond repair. Every effort should be made to match existing sidewalk color and material.
- iii. *Width and alignment*—Follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree.
- iv. *Stamped concrete*—Preserve stamped street names, business insignias, or other historic elements of sidewalks and walkways when replacement is necessary.
- v. *ADA compliance*—Limit removal of historic sidewalk materials to the immediate intersection when ramps are added to address ADA requirements.

#### B. DRIVEWAYS

- i. *Driveway configuration*—Retain and repair in place historic driveway configurations, such as ribbon drives. Incorporate a similar driveway configuration—materials, width, and design—to that historically found on the site. Historic driveways are typically no wider than 10 feet. Pervious paving surfaces may be considered where replacement is necessary to increase stormwater infiltration.
- ii. *Curb cuts and ramps*—Maintain the width and configuration of original curb cuts when replacing historic driveways. Avoid introducing new curb cuts where not historically found.

#### C. CURBING

- i. *Historic curbing*—Retain historic curbing wherever possible. Historic curbing in San Antonio is typically constructed of concrete with a curved or angular profile.
- ii. *Replacement curbing*—Replace curbing in-kind when deteriorated beyond repair. Where in-kind replacement is not be feasible, use a comparable substitute that duplicates the color, texture, durability, and profile of the original. Retaining walls and curbing should not be added to the sidewalk design unless absolutely necessary.

### 8. Americans with Disabilities Act (ADA) Compliance

#### A. HISTORIC FEATURES

- i. *Avoid damage*—Minimize the damage to the historic character and materials of the building and sidewalk while complying with all aspects of accessibility requirements.
- ii. *Doors and door openings*—Avoid modifying historic doors or door openings that do not conform to the building and/or accessibility codes, particularly on the front façade. Consider using a discretely located addition as a means of providing accessibility.

#### B. ENTRANCES

- i. *Grade changes*—Incorporate minor changes in grade to modify sidewalk or walkway elevation to provide an accessible entry when possible.

ii. *Residential entrances*—The preferred location of new ramps is at the side or rear of the building when convenient for the user.

iii. *Non-residential and mixed use entrances*—Provide an accessible entrance located as close to the primary entrance as possible when access to the front door is not feasible.

#### C. DESIGN

i. *Materials*—Design ramps and lifts to compliment the historic character of the building and be visually unobtrusive as to minimize the visual impact, especially when visible from the public right-of-way.

ii. *Screening*—Screen ramps, lifts, or other elements related to ADA compliance using appropriate landscape materials. Refer to Guidelines for Site Elements for additional guidance.

iii. *Curb cuts*—Install new ADA curb cuts on historic sidewalks to be consistent with the existing sidewalk color and texture while minimizing damage to the historical sidewalk.

### *Historic Design Guidelines, Chapter 6, Guidelines for Signage*

#### 1. General

##### A. GENERAL

i. *Number and size*—Each building will be allowed one major and two minor signs. Total requested signage should not exceed 50 square feet.

ii. *New signs*—Select the type of sign to be used based on evidence of historic signs or sign attachment parts along the building storefront where possible. Design signs to respect and respond to the character and/or period of the area in which they are being placed. Signs should identify the tenant without creating visual clutter or distracting from building features and historic districts.

iii. *Scale*—Design signage to be in proportion to the facade, respecting the building's size, scale and mass, height, and rhythms and sizes of window and door openings. Scale signage (in terms of its height and width) to be subordinate to the overall building composition.

##### B. HISTORIC SIGNS

i. *Preservation*—Preserve historic signs, such as ghost signs or other signs characteristic of the building's or district's period of significance, whenever possible.

ii. *Maintenance*—Repair historic signs and replace historic parts in-kind when deteriorated beyond repair.

#### **FINDINGS:**

- a. The project area extending along Fredericksburg Road from I-10 W to W Agarita includes the public right-of-way at the Cool Crest Minatare Golf Course, an individually landmarked property located at 1414 Fredericksburg. The Public Works Department has proposed to replace existing sidewalks, install new sidewalks, install new retaining walls, and make improvements for ADA compliance.
- b. **SIDEWALK INSTALLATION** – The applicant has proposed to install a new 6-foot-wide sidewalk on the east side of Fredericksburg Road at 1414 Fredericksburg, commonly known as Cool Crest Miniature Golf Course. The right-of-way at 1414 Fredericksburg currently does not feature a sidewalk; however, curbing is extant. Guideline 5.A.iii for Site Elements states that the installation of new sidewalks should follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree. Additionally, Guideline 5.C.i for Site Elements states that historic curbing should be retained wherever possible. Historic curbing in San Antonio is typically constructed of concrete with a curved or angular profile. Staff finds the proposal generally appropriate, and that any new curbing installed should match the profile of the existing curbing.
- c. **RETAINING WALL INSTALLATION** – The applicant has proposed to install a decorative pre-cast concrete retaining wall. The wall will extend 7'-6" in height and will feature BWCD Art Deco custom-patterned panels. Guideline 2.B.i for Site Elements states that new fences and walls should appear similar to those used historically within the district in terms of their scale, transparency, and character. Design of fence should respond to the design and materials of the house or main structure. Additionally, Guideline 2.B.ii for Site Elements states that applicants should avoid installing a fence or wall in a location where one did not historically exist. The project area currently features three (3) retaining walls, a gray chain link fence with barbed wire, and a black metal fence. The proposal calls for the removal of a segment of retaining wall 1, all of retaining wall 2, and the portions of retaining wall 3 located in the right-of-way. Additionally, the chain link fence is proposed for removal. The black metal fence and the retaining walls within the miniature golf course will not be impacted. Staff finds that the retaining walls proposed for removal are not character-defining

features of the property and that the proposal is generally appropriate. Additionally, staff finds that the applicant should submit a detailed protection plan for the 1930s course and the existing curbing and retaining walls interior to the course, bordering the holes, to staff for review and approval to ensure that damage does not occur to the historic resources.

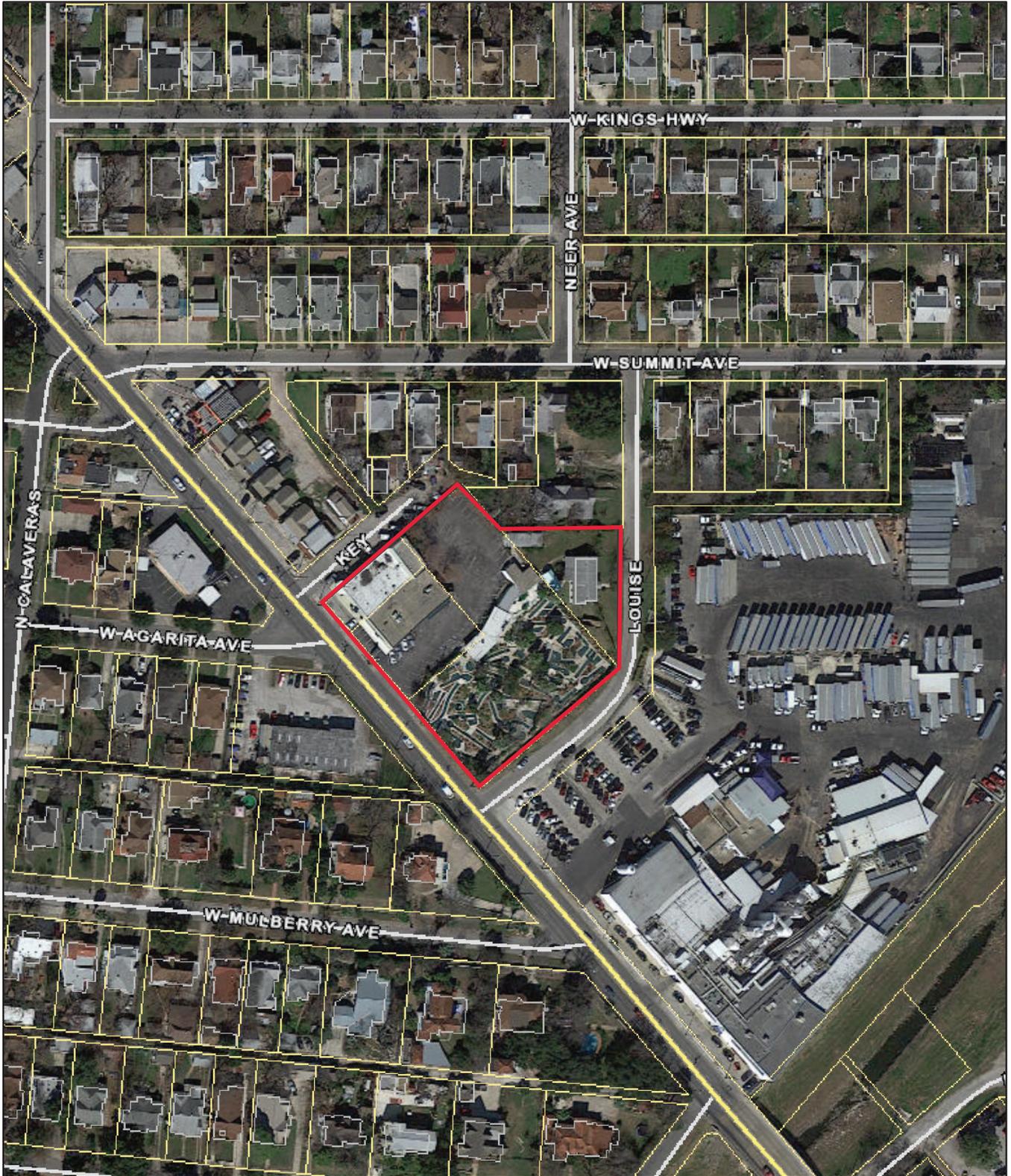
- d. **SIGNAGE PROTECTION** – The scope of work will require the removal, storage, and reinstallation of two (2) historic signs on the Cool Crest Miniature Golf Course property. The applicant has proposed to remove, store, and re-install the Cool Crest “GOLF” putter sign at the north side of the golf course and the Cool Crest Mini-Golf sign at the south side of the property. The applicant has proposed to relocate the Cool Crest Mini-Golf sign approximately five (5) feet northeast of its current location due to the construction of the retaining wall. The Cool Crest “GOLF” putter sign will be temporarily removed and stored during construction. The applicant has proposed to reinstall the sign at its original location on a new foundation following the completion of the retaining wall. The Historic Design Guidelines for Signage state that historic signs should be preserved whenever possible, and that historic signs and parts should be replaced in-kind when deteriorated beyond repair. Staff finds the proposal consistent with the Guidelines.
- e. **ADA RAMP INSTALLATION** – The proposal includes the removal and reconstruction of existing ramps to comply with ADA standards and the construction of new ramps, including a new ADA ramp at the northeast corner of Fredericksburg Road and Mary Louise. Staff finds the proposal consistent with the Guidelines.
- f. **ARCHAEOLOGY** – The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology, as applicable.

### **RECOMMENDATION:**

Staff recommends approval of the proposed sidewalk improvements based on findings a through e with the following stipulations:

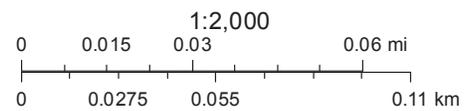
- i. That any new curbing installed or curbing that requires replacement matches the existing in material, width, and profile based on finding b.
- ii. That the applicant submits a protection plan for the 1930s course and the existing curbing and retaining walls bordering the course to staff for review and approval prior to the issuance of a Certificate of Appropriateness based on finding c, to ensure that damage does not occur to the Cool Crest Golf Course.
- iii. **ARCHAEOLOGY** – The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology, as applicable.

# City of San Antonio One Stop



June 23, 2022

 User drawn lines





CITY OF SAN ANTONIO  
**PUBLIC WORKS  
DEPARTMENT**

June 10, 2022

Office of Historic Preservation  
City Tower  
100 W. Houston  
San Antonio, TX 78205

**SUBJECT: Request for Certificate of Appropriateness  
D1 Pedestrian Improvements: Fredericksburg Rd. from I-10 to W. Agarita Ave.  
San Antonio, Bexar County, Texas**

This project requires a Certificate of Appropriateness. The City of San Antonio PWD EMD does hereby request your review of the enclosed documentation and concurrence with the recommendations for the project. Please find the attached historic resource determination memo along with the plan set and a historic resources survey report.

Should you have any questions regarding this project, please do not hesitate to contact me at (210) 207-1454 or by email at [Miranda.Garrison@sanantonio.gov](mailto:Miranda.Garrison@sanantonio.gov).

Sincerely,

Miranda Garrison, Architectural Historian/Environmental Project Manager  
Public Works Department – Environmental Management Division  
City of San Antonio



CITY OF SAN ANTONIO  
**PUBLIC WORKS  
DEPARTMENT**

## Interdepartmental Correspondence

**TO:** Theresa Larson, Environmental Services Coordinator, PWD EMD  
**FROM:** Miranda Garrison, Architectural Historian/Environmental Project Manager, PWD EMD  
**COPIES TO:** Files  
**SUBJECT:** **D1 Pedestrian Improvements: Fredericksburg Rd. from I-10 to W. Agarita Ave.**  
**DATE:** June 10, 2022

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The information included in this submittal for the above-referenced project has been reviewed by an architectural historian with the City of San Antonio Public Works Department Environmental Management Division (PWD EMD). This is in accordance with the City's Historic Preservation and Design Section of the Unified Development Code and the requirements mandated by the Antiquities Code of Texas. This review focuses on the possible effects of the proposed project on above ground historic resources only. *Because this project is funded with federal monies through TxDOT, the historic resources within the project area and the area of potential effect are protected under the National Historic Preservation Act (NHPA). Projects that trigger compliance with the NHPA and/or the Antiquities Code of Texas must also be reviewed by the Texas Historical Commission for concurrence, which in this case falls under the responsibility of TxDOT.*

The proposed project includes pedestrian improvements along Fredericksburg Rd. from I—10 to W. Agarita Ave.

**Architectural Resources:** A review of the Texas Historic Sites Atlas, historic aerial photography, COSA GIS maps, and other historical research sources reveals that there are no known designated historic districts. However, within the Area of Potential Effect (APE), there are two eligible historic resources – the Cool Crest Miniature Golf Course and the Woodlawn Place Historic District. The project has been designed to minimize any effects to either resource.

**PWD EMD recommends that the proposed work deliver as minimal an impact as possible on the Cool Crest Miniature Golf Course and the eligible Woodlawn Place Historic District. In the opinion of the PWD EMD, if this recommendation is followed the proposed work is**

**anticipated to have no adverse effects to non-archeological historic resources. If the project limits expand, further research may be warranted.**

Sincerely,

A handwritten signature in blue ink that reads "L. Miranda Garrison". The signature is written in a cursive style with a light blue background behind it.

Miranda Garrison, Architectural Historian/Environmental Project Manager  
Public Works Department – Environmental Management Division  
City of San Antonio

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STATE OF TEXAS  
DEPARTMENT OF TRANSPORTATION

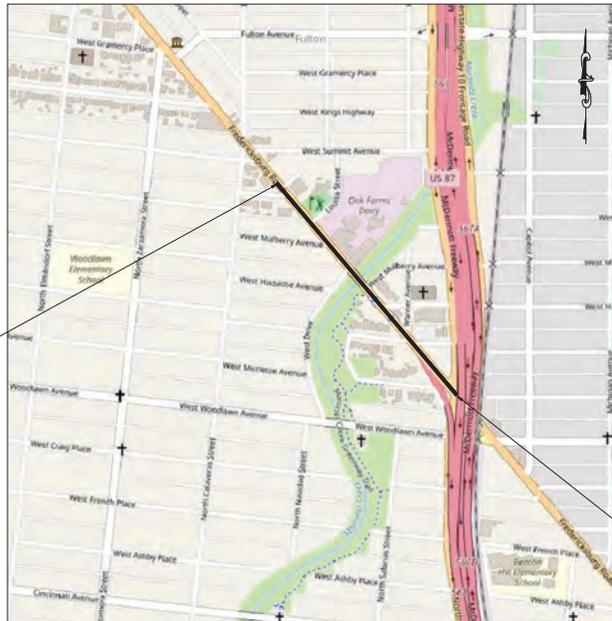
PLANS OF PROPOSED  
STATE HIGHWAY IMPROVEMENT

FEDERAL AID PROJECT  
PROJECT NO. STP ( ) MM  
CSJ: 0915-15-579

BEXAR COUNTY  
FREDERICKSBURG RD.

LIMITS FROM: 10+00.00  
TO: 32+50.00  
AREA OF DISTURBANCE = 9,060 SQ FT  
NET LENGTH OF SIDEWALK = 1,099.00 FT = 0.208 MI  
NET LENGTH OF PROJECT = 2,250.00 FT = 0.426 MI

FOR WORK CONSISTING OF CONSTRUCT CITYWIDE PEDESTRIAN AND BICYCLE IMPROVEMENTS



END PROJECT  
STA. 32+00.00

BEGIN PROJECT  
STA. 10+00.00

SCALE = 1" = 1000'

EXCEPTIONS: N/A  
EQUATIONS: N/A  
R.R. CROSSINGS: N/A



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FED. AID PROJ. NO.	PROJECT NO.		SHEET NO.
6	STP ( ) MM		1
STATE	STATE SECT.	COUNTY	
TEXAS	SAT	BEXAR	
CONT.	SECT.	JOB	FORM NO.
0915	12	579	FM LOOP 345

DESIGN SPEED = 45 MPH  
AREA OF DISTURBED SOIL = 0.208 AC.  
ADT = 11,330 (2015)

ACCESSIBILITY STANDARDS = PROWAG

REGISTERED ACCESSIBILITY SPECIALIST INSPECTION REQUIRED  
TDLR NO. TABS2020012052

THE ABOVE IS REQUIRED IF ANY ONE OF THE FOLLOWING CONDITIONS ARE MET:

1. PEDESTRIAN ELEMENTS GREATER THAN \$50,000
2. HKE AND BIKE TRAIL PROJECTS
3. BUILDING PROJECTS

FINAL PLANS

LETTING DATE: \_\_\_\_\_  
DATE CONTRACTOR BEGAN WORK: \_\_\_\_\_  
DATE WORK WAS ACCEPTED: \_\_\_\_\_  
FINAL CONTRACT COST: \$ \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_

FINAL PLANS STATEMENT:

THE CONSTRUCTION WORK WAS PERFORMED IN ACCORDANCE WITH THE PLANS.

AREA ENGINEER \_\_\_\_\_ P.E. \_\_\_\_\_ DATE \_\_\_\_\_

TEXAS DEPARTMENT OF TRANSPORTATION

ATTACHMENT NO. TO SPECIAL AGREEMENT FOR CONSTRUCTION, MAINTENANCE, AND OPERATION OF HIGHWAY LIGHTING SYSTEMS WITHIN A MUNICIPALITY, DATED JUNE 24, 2014. THE CITY-STATE CONSTRUCTION, MAINTENANCE AND OPERATION RESPONSIBILITIES SHALL BE AS HERETOFORE AGREED TO, ACCEPTED, AND SPECIFIED IN THE AGREEMENT TO WHICH THESE PLANS ARE MADE A PART.

CONCURRENCE

\_\_\_\_\_  
CITY OF SAN ANTONIO

RECOMMENDED FOR LETTING

\_\_\_\_\_  
DESIGN SUPPORT DIRECTOR

RECOMMENDED FOR LETTING

\_\_\_\_\_  
DIRECTOR OF TRANSPORTATION PLANNING & DEVELOPMENT

APPROVED FOR LETTING

\_\_\_\_\_  
DISTRICT ENGINEER

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW ONLY UNDER THE AUTHORITY OF W. PATRICK MURPHY, P.E. #111597

**01/20/2022**

IT IS NOT TO BE USED FOR CONSTRUCTION BIDDING, OR PERMITTING PURPOSES

CONTACT: W. PATRICK MURPHY, P.E. PROJECT # 3097.005.0

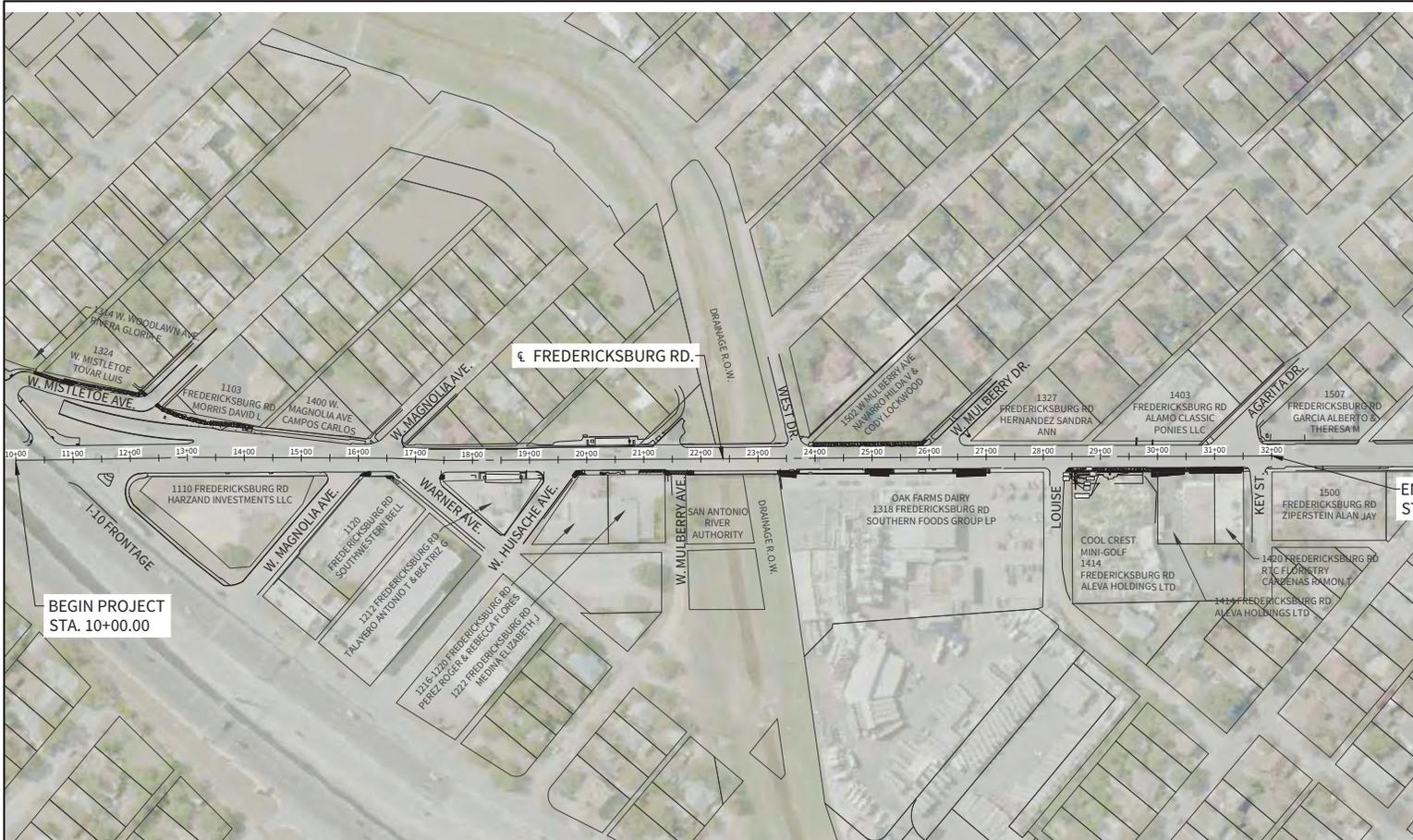
CUBE ENGINEERS  
4122 POND HILL RD. - SUITE 101  
SAN ANTONIO, TEXAS 78231  
TEL 210.681.2951 • FAX 210.523.7112  
WWW.CUBEENGINEERS.COM  
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TBPLS FIRM NO. 10048500

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100% SUBMITTAL

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MAY, 2012)

COUNTY \_\_\_\_\_  
HWY NO. \_\_\_\_\_  
PROJ. NO. \_\_\_\_\_  
LETTING DATE \_\_\_\_\_  
DATE ACCEPTED \_\_\_\_\_



### LEGEND

- ROADWAY CENTERLINE 12+00
- EXISTING R.O.W./PROPERTY LINES
- EXISTING SIDEWALK
- PROPOSED SIDEWALK

BEGIN PROJECT  
STA. 10+00.00

END PROJECT  
STA. 32+00.00

THIS DOCUMENT  
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ONLY UNDER THE AUTHORITY OF  
W. PATRICK MURPHY, P.E. #111597

**01/20/2022**

IT IS NOT TO BE USED FOR  
CONSTRUCTION BIDDING, OR  
PERMITTING PURPOSES

SCALE: 1"=200'



**CUDE**  
CUDE ENGINEERS  
4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681.2951 F: (210) 523.7112  
TBPE No. 455 #TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCD DEPARTMENT)

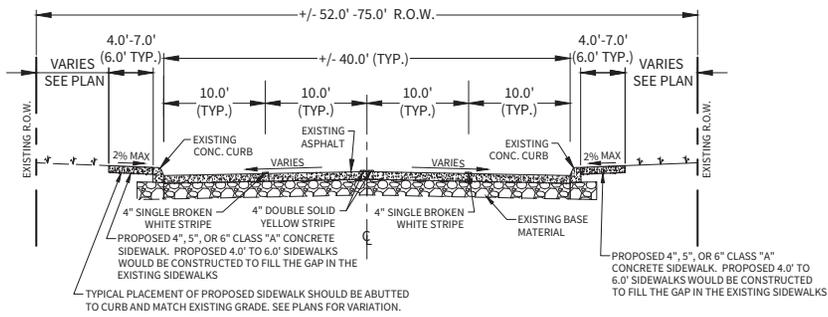
**Texas Department of Transportation**

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

### PROJECT LAYOUT

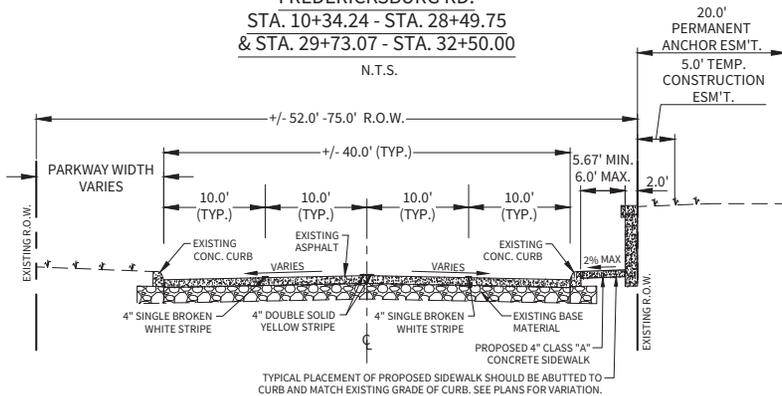
HORIZONTAL ALIGNMENT DATA			
Horizontal Alignment Report	Line (3)	N39° 54' 24.10"W 346.00'	
.....	Line (7)	N 13,715,600.3440 E 2,122,590.3874	16+58.82
Date: 12/22/2020 3:11:19 PM	Line (3)		
Alignment Name: FREDERICKSBURG	Line (8)	N40° 17' 44.96"W 405.86'	
Station Range: Start: 10+00.00, End: 32+00.00	Line (4)	N 13,716,707.4923 E 2,121,651.2919	31+10.70
Description:	Line (8)	N40° 32' 47.77"W 89.30'	
.....	Line (4)	N 13,715,675.7925 E 2,122,531.7878	17+54.35
Begin FREDERICKSBURG	Line (4)		
N 13,715,099.2924 E 2,123,018.1030	Line (5)	N 13,716,775.3470 E 2,121,593.2430	32+00.00
	Line (1)	End FREDERICKSBURG	
Line (1)	Line (1)	.....	
N40° 49' 04.81"W 83.30'	Line (5)	Alignment Length: 2,200.00'	
N 13,715,162.3324 E 2,122,963.6538	Line (5)	.....	
Line (1)	Line (6)	.....	
	Line (2)	N41° 14' 12.01"W 229.52'	
Line (2)	Line (2)	N 13,715,334.9319 E 2,122,812.3591	13+12.82
	Line (7)	.....	

DESIGNED: MJS/WPM	FED. DIST. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: WPM			STP ( ) MM	FM LOOP 345
DRAWN: MJS	STATE DISTRICT SAN	COUNTY BEKAR	CONTROL NO. 0915	SECTION 15
CHECKED: WPM			JOB NO. 579	SHEET NO. 2 OF 54



**PROPOSED  
FREDERICKSBURG RD.  
STA. 10+34.24 - STA. 28+49.75  
& STA. 29+73.07 - STA. 32+50.00**

N.T.S.

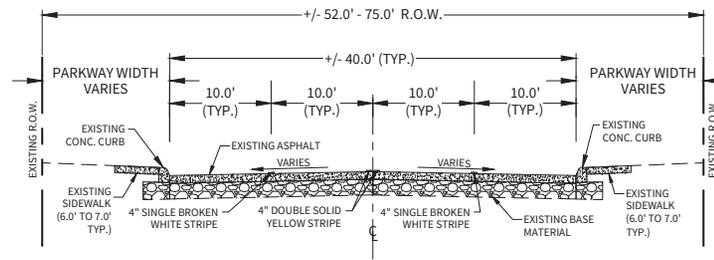


**PROPOSED  
FREDERICKSBURG RD.  
STA. 28+49.75 - STA. 29+73.07**

N.T.S.

**NOTE**

1. CONTRACTOR TO INSTALL CONCRETE SIDEWALK AT DIMENSIONS SHOWN ON SIDEWALK PLANS PER C.O.S.A. SPECIFICATIONS. SEE DETAILS ON SHEET 8.



**EXISTING  
FREDERICKSBURG RD.  
STA. 10+34.24 - STA. 32+50.00**

N.T.S.

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**01/20/2022**

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**CUDE ENGINEERS**  
4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78221  
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TBPE No. 455 #BPLS No. 10048500

**CITY OF SAN ANTONIO  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCD) DEPARTMENT**

**Texas Department of Transportation**

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**TYPICAL SECTIONS**

DESIGNED: MJS/WPM	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: WPM	6	TEXAS	STP( ) MM	FM LOOP 345
DRAWN: MJS	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.
CHECKED: WPM	SAN	BEXAR	0915	15
				JOB NO. SHEETING
				3 OF 5

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0104 6010	REMOVING CONC. (RIP-RAP)	S.Y.	2
0104 6017	REMOVING CONC. (DRIVEWAYS)	S.Y.	188
0104 6021	REMOVING CONC. (CURB)	L.F.	286
0104 6024	REMOVING CONC. (RETAINING WALLS)	S.Y.	13
0104 6036	REMOVING CONC. (SIDEWALKS OR RAMP)	S.Y.	263
0105 6011	REMOVING STAB BASE AND ASPH PAV (2"-6")	S.Y.	176
0110 6001	EXCAVATION (ROADWAY)	C.Y.	76
0160 6003	FURNISHING AND PLACING TOPSOIL (4")	S.Y.	137
0162 6002	BLOCK SODDING	S.Y.	137
0166 6001	FERTILIZER	AC.	0.03
0168 6001	VEGETATIVE WATERING	K.G.	20
0354 6012	FLEXIBLE PAVEMENT STRUCTURE REPAIR (2")	S.Y.	22
0410 6001	SOIL NAIL ANCHORS	L.F.	1044
0423 6022	RETAINING WALL (SOIL NAIL) (FACIA)	S.F.	1017
0506 6047	TEMP SDMT CONT FENCE (INLET PROTECTION)	L.F.	51
0529 6001	CONC. CURB (TY I)	L.F.	306

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0530 6004	DRIVEWAYS (CONC)	S.Y.	166
0531 6001	CONC. SIDEWALKS (4")	S.Y.	505
0531 6002	CONC. SIDEWALKS (5")	S.Y.	13
0531 6003	CONC. SIDEWALKS (6")	S.Y.	172
0531 6005	CURB RAMPS (TY 2)	EA.	1
0531 6013	CURB RAMPS (TY 10)	EA.	8
0550 6003	CHAIN LINK FENCE (REMOVE)	L.F.	133
0556 6008	PIPE UNDERDRAIN (TY 8)(6")	L.F.	135
5113 6001	WROUGHT IRON FENCE (6)	L.F.	133
6001 6001	PORTABLE CHANGEABLE MESSAGE SIGN	DAY	120
COSA 801.3	TREE PROTECTION (TY II B)	L.F.	50
SAWS 833	EXISTING METER & METER BOX RELOCATION	EA.	1

TREE #	STATION	DBH (IN)	TREE SPECIES	REMOVE/PRESERVE
00351	10+41.13	2.5"	HACKBERRY	PRESERVE
00352	10+52.32	6.5"	HACKBERRY	PRESERVE
00353	10+56.38	4"	HACKBERRY	PRESERVE
00354	10+61.75	11"	HACKBERRY	PRESERVE
00355	10+71.95	4"	ASH	PRESERVE
00356	10+76.53	7"	ASH	PRESERVE
00357	10+81.21	4"	ASH	PRESERVE
00358	11+00.68	8"	CREPE MYRTLE	PRESERVE
00359	11+06.99	4"	CREPE MYRTLE	PRESERVE
00360	11+12.21	2"	CREPE MYRTLE	PRESERVE
00361	11+22.68	4"	CREPE MYRTLE	PRESERVE
00362	10+41.06	26"	PALM	PRESERVE
00363	10+38.82	6.5"	ASH	PRESERVE
00364	10+14.10	13.5"	HACKBERRY	PRESERVE
00365	10+47.04	8"	HACKBERRY	PRESERVE
00366	10+72.32	3.5"	HACKBERRY	PRESERVE
00367	10+00.64	2.5"	ASH	PRESERVE
00368	10+71.64	2.5"	ASH	PRESERVE
00369	10+58.65	2.5"	OAK	PRESERVE
00370	10+64.15	14"	PENDULA	PRESERVE
00371	10+57.10	13"	UNKNOW	PRESERVE
00372	21+00.00	21"	MESQUITE	PRESERVE

QUANTITY SUMMARY - DRIVEWAYS				
SHEET NO.	STATION	PORTLAND CEMENT CONCRETE DRIVEWAYS		
		LENGTH (FT)	WIDTH AT R.O.W. (FT)	SY
5	23+52.59	5.6	28	18
5	25+12.95	4.8	33	17
5	26+73.62	6.2	51	35
6	30+18.41	7.3	58	49
6	31+01.29	4.0	90	40

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CITY OF SAN ANTONIO  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
DEPARTMENT

Texas Department of Transportation  
FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

ESTIMATED QUANTITIES

DESIGNED: MJS/WPM	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: WPM	6	TEXAS	STP( ) MM	FM LOOP 345
DRAWN: MJS	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.
CHECKED: WPM	SAN	BEXAR	0915	15

JOB NO. 579 SHEET 4 OF 5

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0104 6017	REMOVING CONC. (DRIVEWAYS)	S.Y.	13
0104 6021	REMOVING CONC. (CURB)	L.F.	50
0104 6036	REMOVING CONC. (SIDEWALKS OR RAMP)	S.Y.	167
0160 6003	FURNISHING AND PLACING TOPSOIL (4")	S.Y.	81
0162 6002	BLOCK SODDING	S.Y.	81
0166 6001	FERTILIZER	AC.	0.02
0168 6001	VEGETATIVE WATERING	K.G.	12
0529 6001	CONC. CURB (TY I)	L.F.	62

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0530 6004	DRIVEWAYS (CONC)	S.Y.	7
0531 6001	CONC. SIDEWALKS (4")	S.Y.	185
0531 6002	CONC. SIDEWALKS (5")	S.Y.	13
0531 6003	CONC. SIDEWALKS (6")	S.Y.	5
0531 6013	CURB RAMPS (TY 10)	EA.	5
COSA 801.3	TREE PROTECTION (TY II B)	L.F.	50
6001 6001	PORTABLE CHANGEABLE MESSAGE SIGN	DAY	90

**CAUTION!!!**

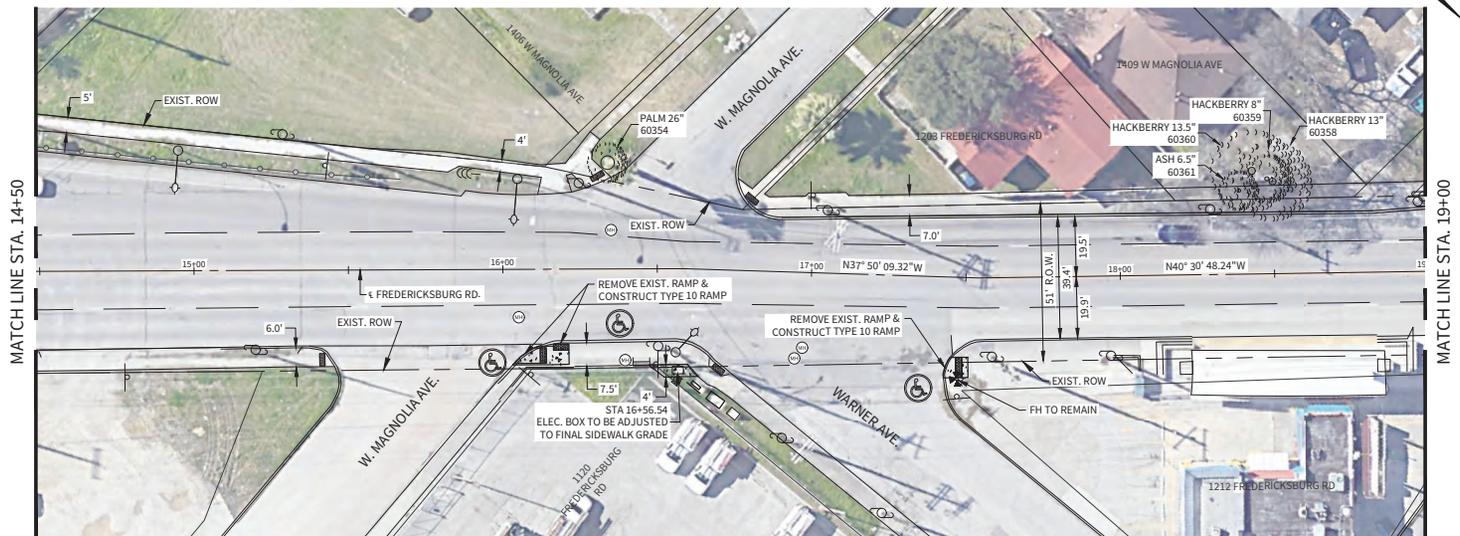
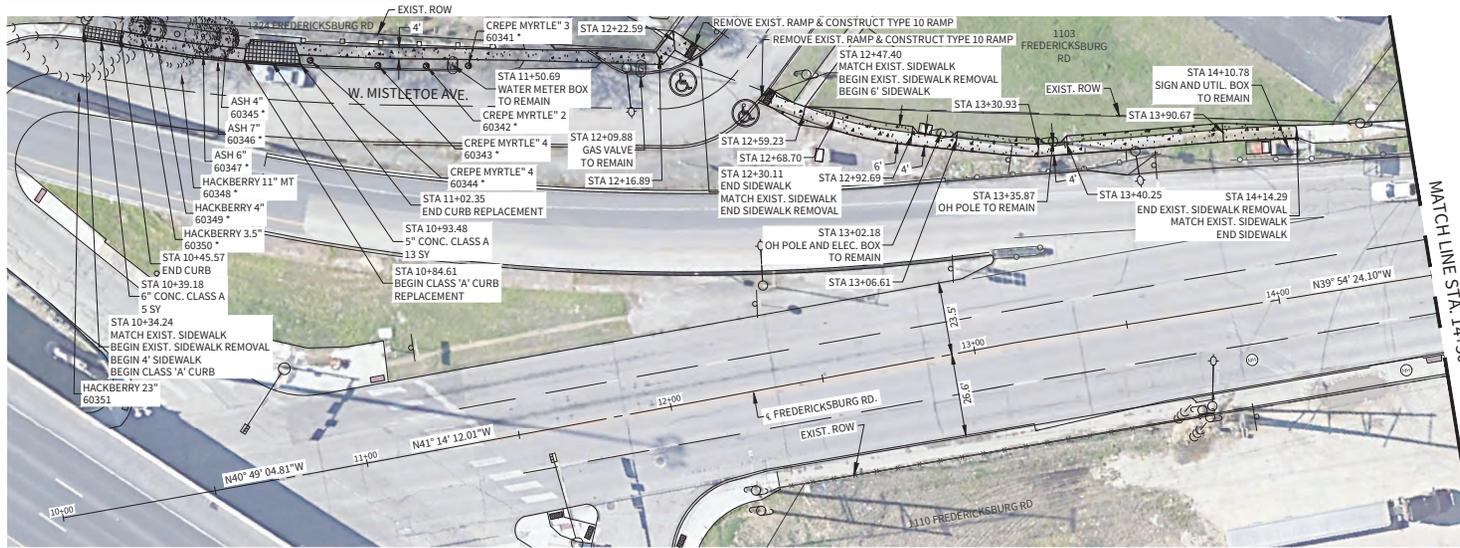
THE CONTRACTOR SHALL BE AWARE THAT WATER, GAS, AND FIBER OPTIC CABLE EXIST WITHIN THE LIMITS OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EX. FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

**LEGEND**

- ROADWAY CENTERLINE
- EXISTING R.O.W.
- EXISTING CURB
- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- EXISTING EDGE OF PAVEMENT
- PROPOSED SIDEWALK RAMP
- EXISTING WATER METER
- EXISTING GUY WIRES
- EXISTING G/W VALVE
- EXISTING SIGN
- EXISTING MH
- EXIST. STREET LIGHT
- EXISTING OH POLE
- EXIST. TRAFFIC SIGNAL
- EXISTING IRRIGATION VALVE
- EXISTING TREE
- EXISTING WATER VALVE

\* = CONTRACTOR TO INSTALL TREE PROTECTION (TYPE II B) - 5 L.F. NOTES:

- CONTRACTOR IS REQUIRED TO INSTALL SW3P MEASURES IN ACCORDANCE WITH TPDES AND CITY OF SAN ANTONIO STANDARDS AS DIRECTED BY THE PROJECT ENGINEER AND/OR CITY OF SAN ANTONIO STAFF.
- REFERENCE SIDEWALK DETAILS SHEET 8 OF 54 FOR TYPICAL SIDEWALK SECTIONS AND DETAILS USED FOR ALIGNMENT CONFLICTS WITH EXISTING TREES, UTILITIES, AND/OR OTHER STRUCTURES.
- CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.
- WHERE EXISTING DRIVEWAY SLOPES EXCEED 2%, CONTRACTOR SHALL FIELD COORDINATE DRIVEWAY TIE-INS TO PROPOSED SIDEWALK WITH CoSA INSPECTOR.
- CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.



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 TRANSPORTATION & CAPITAL IMPROVEMENTS  
 (TCD DEPARTMENT)

**Texas Department of Transportation**

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**FREDERICKSBURG RD. SIDEWALK LAYOUT 10+00.00 TO 19+00.00**

DESIGNED: MJS/WPM	REV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: WPM	6	TEXAS	STP 1 JMM	FM LOOP 345
DRAWN: MJS	SAN	BEXAR	CONTROL NO. 0915	SECTION 15
CHECKED: WPM			JOB NO. 579	SHEET NO. 5 OF 54



QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0124 6010	REMOVING CONC. 'RIF-RAP'	S.Y.	2
0124 6017	REMOVING CONC. 'DRIVEWAYS'	S.Y.	123
0124 6018	REMOVING CONC. 'CURB'	L.F.	86
0124 6021	REMOVING CONC. 'RETAINING WALLS'	S.Y.	13
0124 6025	REMOVING CONC. 'SIDEWALKS OR RAMPS'	S.Y.	43
0125 6011	REMOVING STAB BASE AND ASPH PAV '2" - 4"	S.Y.	130
0125 6001	EXCAVATION (ROADWAYS)	C.Y.	76
0162 6003	FURNISHING AND PLACING TOPSOIL '4"	S.Y.	5
0162 6002	BLOCK SCODDING	S.Y.	5
0124 6001	SOIL NAIL ANCHORS	L.F.	1044
0123 6022	RETAINING WALLS (SOIL NAIL TYPE A)	S.F.	.017

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0532 6001	RIFRAP (CONC.) (FLUKA)	C.Y.	11
0529 6001	CONC. CURB (1' H)	L.F.	94
0535 6001	DRIVEWAYS (CONC.)	S.Y.	89
0531 6001	CONC. SIDEWALKS (4")	S.Y.	138
0531 6003	CONC. SIDEWALKS (6")	S.Y.	24
0531 6005	CURB RAMPS (1' H)	L.F.	4
0540 6001	CHAIN LINK FENCE (18' H) (1' W)	L.F.	111
0556 6008	PIPE (UND. HIGHWAY) (18" DIA)	L.F.	135
5113 6001	WORKSHOP (IRON) (4' H) (2' W)	L.F.	131
0504 6001	PILE (PREF. SECTION) (1' H) (2' W)	L.F.	35

\* NOTE: BID PRICE OF RETAINING WALL TO INCLUDE REMOVAL, CRIBBING, TRANSPORTATION, STORAGE AND REINSTALLATION OF BOTH COOLCREST GOLF SIGNS

**NOTE:**

IT IS THE INTENT OF THIS PROJECT TO NOT IMPACT GOLF HOLES, TREES, OR OTHER ABOVE-GROUND FEATURES LOCATED WITHIN THE PROPERTY OWNED BY COOLCREST MINI-GOLF. CONTRACTOR WILL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN ANTONIO AND TxDOT PRIOR TO CONSTRUCTION INITIATION TO DISCUSS THE MEANS AND METHODS TO INSURE THIS GOAL IS MET. SHOULD ANY CONSTRUCTION ACTIVITIES IMPACT GOLF HOLES, AMENITIES, TREES, OR ANY OTHER ABOVE-GROUND FEATURES LOCATED WITHIN THE PROPERTY OWNED BY COOLCREST MINI-GOLF, ALL WORK WITHIN THE VICINITY OF THE IMPACT MUST CEASE IMMEDIATELY AND THE CONTRACTOR SHALL NOTIFY THE CITY OF SAN ANTONIO INSPECTOR IMMEDIATELY REGARDING THE IMPACT.



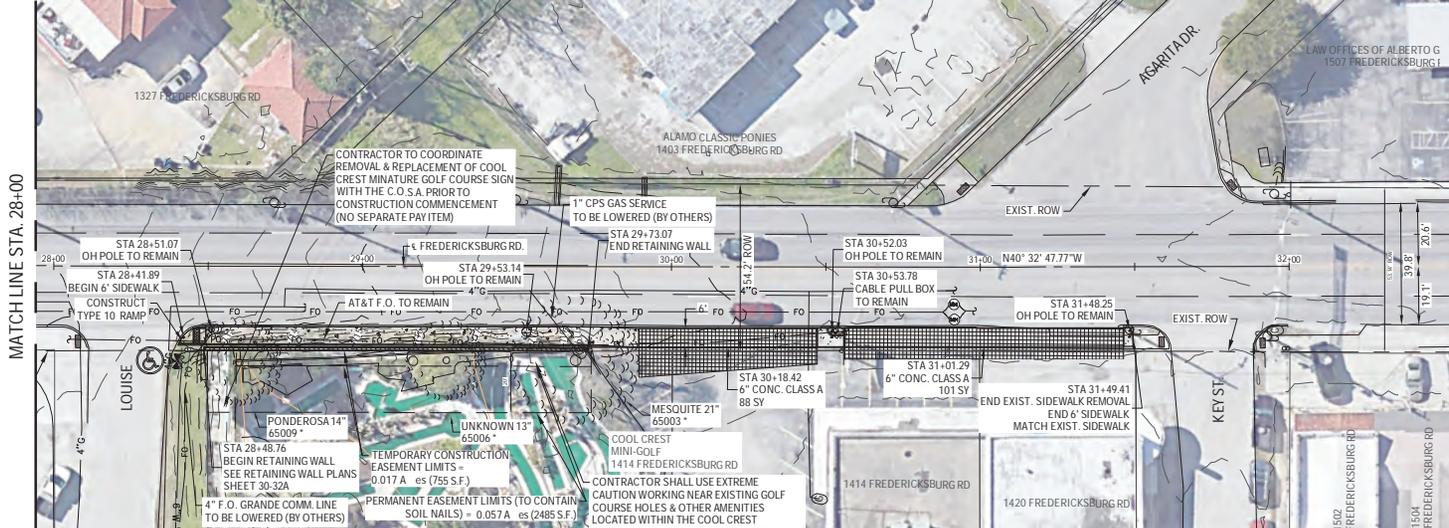
**LEGEND**

- ROADWAY CENTERLINE
- EXISTING R.O.W.
- EXISTING CURB
- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- PROPOSED EASEMENT
- EXISTING EDGE OF PAVEMENT
- PROPOSED SIDEWALK RAMP
- EXISTING WATER METER
- EXISTING GUY WIRES
- EXISTING G/W VALVE
- EXISTING SIGN
- EXISTING MH
- EXIST. STREET LIGHT
- EXISTING OH POLE
- EXIST. TRAFFIC SIGNAL
- EXISTING IRRIGATION VALVE
- EXISTING WATER VALVE
- EXISTING TREE

\* = CONTRACTOR TO INSTALL TREE PROTECTION (TYPE II B) - 5 L.F.

**NOTES:**

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- REFERENCE SIDEWALK DETAILS SHEET 8 OF 54 FOR TYPICAL SIDEWALK SECTIONS AND DETAILS USED FOR ALIGNMENT CONFLICTS WITH EXISTING TREES, UTILITIES, AND/OR OTHER STRUCTURES.
- CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.
- WHERE EXISTING DRIVEWAY SLOPES EXCEED 2%, CONTRACTOR SHALL FIELD COORDINATE DRIVEWAY TIE-INS TO PROPOSED SIDEWALK WITH COSA INSPECTOR.
- CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.



CONTRACTOR TO COORDINATE REMOVAL & REPLACEMENT OF COOLCREST MINI-GOLF COURSE SIGN WITH THE C.O.S.A. PRIOR TO CONSTRUCTION COMMENCEMENT (NO SEPARATE PAY ITEM)

1\"/>

4\"/>

CONTRACTOR SHALL USE EXTREME CAUTION WORKING NEAR EXISTING GOLF COURSE HOLES & OTHER AMENITIES LOCATED WITHIN THE COOLCREST MINI-GOLF PROPERTY. NO IMPACTS TO EXISTING HOLES OR AMENITIES WILL BE ALLOWED.

**HISTORIC PRESERVATION NOTES**

KEY NOTES FOR HISTORIC SIDEWALK TILES - MARKED WITH A PHOTO ON SHEET 6 OF 54

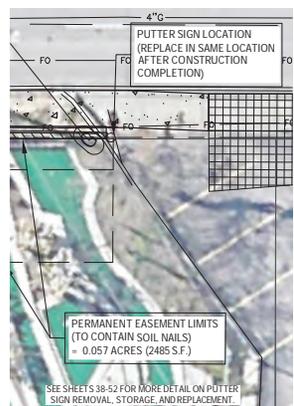
- CONTRACTOR SHALL SAWCUT ONE (1) FOOT AROUND TILES AND REMOVE BY HAND THE SIDEWALK BETWEEN THE SAWCUT AND THE TILE.
- IF POSSIBLE, TILES SHALL REMAIN IN PLACE (AFTER STEP 1 IS COMPLETED) AND NEW CONCRETE SHALL BE POURED AROUND THEM.
- IF TILES MUST BE MOVED TEMPORARILY (I.E. GRADING), THEY MUST BE RETURNED TO EXACT LOCATION BEFORE NEW CONCRETE POUR. CONTRACTOR SHALL MOVE TILE WITH THE UTMOST CARE AND SAFELY STORE THEM UNTIL THEY ARE RESTORED TO THEIR EXACT LOCATION AND ALIGNMENT.
- IF A TILE EXISTS IN PIECES AND CAN BE WHOLLY REASSEMBLED, CONTRACTOR SHALL FOLLOW STEPS 1 AND 3. WHEN TILE IS RESTORED TO ITS ORIGINAL LOCATION, CONTRACTOR SHALL REASSEMBLE AND SET THE TILE PIECES.
- IF TILE IS MISSING, A REPLACEMENT TILE WILL BE SUPPLIED BY COSA EMD.
- WHEN POURING CONCRETE FOR RE-INSTALLATION OF TILES AND NEW SIDEWALK, CONTRACTOR SHALL PREVENT SPLASHBACK OF CONCRETE ONTO THE TILES.

**GENERAL NOTES FOR ABOVE-GROUND HISTORIC RESOURCES AND HISTORIC SIDEWALK ELEMENTS**

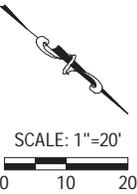
- CONTRACTOR IS RESPONSIBLE FOR PREVENTING DAMAGE (INCLUDING CONCRETE SPLASHBACK) TO HISTORIC ABOVE-GROUND RESOURCES (BUILDINGS, BRIDGES, RETAINING WALLS, FREESTANDING WALLS, STAIRS, RAILINGS, FENCES, CANOPIES, ETC.) AND HISTORIC SIDEWALK ELEMENTS DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
- CONTRACTOR SHALL EXERCISE CAUTION AND SHALL PHYSICALLY PROTECT HISTORIC ABOVE-GROUND RESOURCES (ALL PARTS, INCLUDING STAIRWAYS) AND HISTORIC SIDEWALK ELEMENTS DESIGNATED IN THE PLANS. IF A HISTORIC RESOURCE IS FOUND THAT IS NOT IN THE PLANS OR HAS NOT BEEN PREVIOUSLY ASSESSED, CONTACT COSA EMD IMMEDIATELY - (210) 207-1454.
- CONTRACTOR SHALL REPAIR OR REPLACE IN KIND (AT THEIR OWN EXPENSE) ANY HISTORIC ABOVE-GROUND RESOURCE OR HISTORIC SIDEWALK ELEMENT DAMAGED IN THE COURSE OF EXECUTING THE WORK. CONTRACTOR IS RESPONSIBLE FOR LOCATING THE SAME OR COMPARABLE SALVAGED HISTORIC MATERIALS TO RECTIFY THE DAMAGE. COSA EMD STAFF MUST BE NOTIFIED IMMEDIATELY OF THE DAMAGE AND APPROVE THE PROPOSED REPAIRS AND REPLACEMENT MATERIALS PRIOR TO EXECUTION OF ANY WORK. THIS INCLUDES ALL HISTORIC CONCRETE STRUCTURES. ANY HISTORIC CONCRETE THAT IS DAMAGED MUST BE REPLACED IN KIND AND INCLUDE ANY UNIQUE FEATURES, SHAPES, AND/OR FINISHES PRESENT IN THE ORIGINAL FORM.
- PLEASE CONTACT COSA EMD WITH ANY QUESTIONS - (210) 207-1454.



**MAIN SIGN LOCATION DETAIL**



**PUTTER SIGN LOCATION DETAIL**



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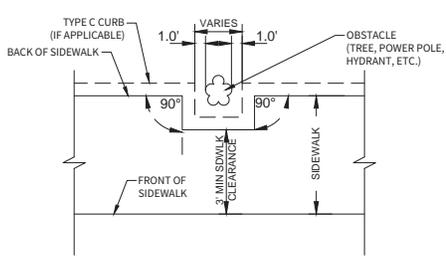
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 TPBE No. 455 + TPPLS No. 10048500

**CITY OF SAN ANTONIO**  
**TRANSPORTATION & CAPITAL IMPROVEMENTS**  
**(TCD DEPARTMENT)**

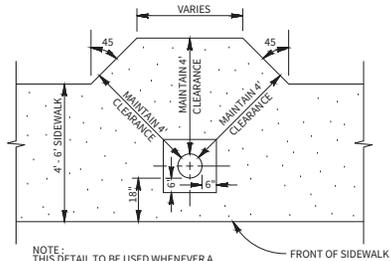
Texas Department of Transportation

FREDERICKSBURG RD. (I-10 TO W. AGARTTA AVE.)  
**FREDERICKSBURG RD. SIDEWALK**  
**LAYOUT 28+00.00 TO 32+00.00**

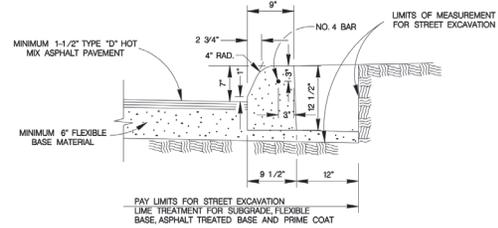
DESIGNED: MJS/WPM	SDR NO. 6	STATE: TEXAS	FEDERAL AID PROJECT NO. STP (J) MM	NO. DRAWING
CHECKED: WPM	6	TEXAS	STP (J) MM	FM LOOP 345
DRAWN: MJS	STATE: SAN	COUNTY: BEXAR	CONTRACT NO. 0915	SECTION NO. 15
CHECKED: WPM				7 OF 54



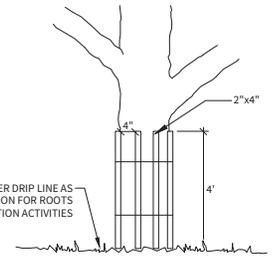
**CONCRETE SIDEWALK @ PRESERVED TREE DETAIL**  
(SIDEWALK PASSING ZONE)  
N.T.S.



**CONCRETE SIDEWALK @ UTILITY POWER POLE DETAIL**  
N.T.S.



**CONCRETE CURB**  
ITEM 500 ON FLEXIBLE BASE MATERIAL  
SCALE: 1"=2"

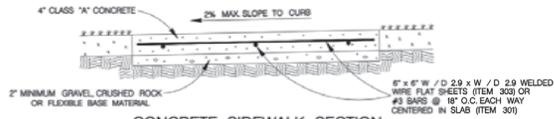


8" MULCH UNDER DRIP LINE AS MINIMAL PROTECTION FOR ROOTS FROM CONSTRUCTION ACTIVITIES

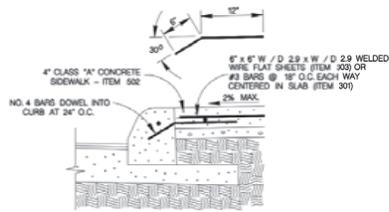
NOTE:  
WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

**LEVEL II B FENCE PROTECTION**

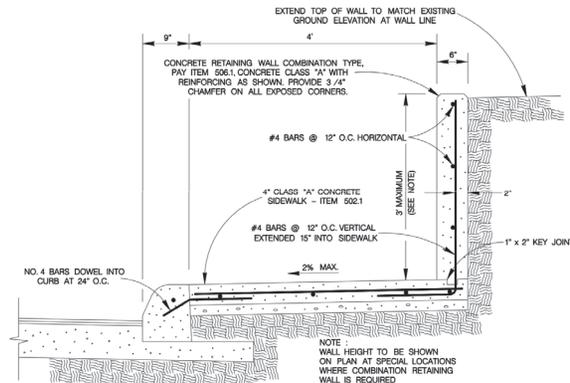
N. T. S.



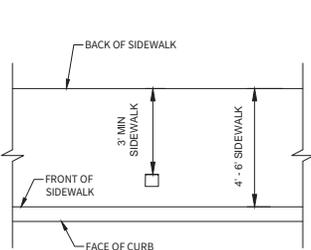
**CONCRETE SIDEWALK SECTION**  
ITEM 502  
SCALE: 1"=2"



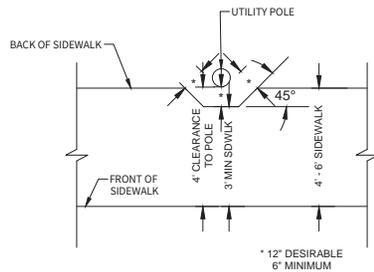
**CONCRETE SIDEWALK ABUTTING CURB SECTION**  
ITEM 502  
SCALE: 1"=2"



**CONCRETE RETAINING WALL - COMBINATION TYPE**  
ITEM 506  
SCALE: 1"=2"



**MAILBOX / SIGN PLACEMENT**  
(WITHIN SIDEWALK)  
N.T.S.



**SIDEWALK CUTOUT DETAIL**  
(ENCROACHMENT AT UTILITY POLE)  
N.T.S.

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW ONLY UNDER THE AUTHORITY OF W. PATRICK MURPHY, P.E. #111597

**01/20/2022**

IT IS NOT TO BE USED FOR CONSTRUCTION BIDDING, OR PERMITTING PURPOSES

**CUDE ENGINEERS**  
4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681.2951 F: (210) 523.7112  
TBPE No. 455 #TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCD DEPARTMENT)

**Texas Department of Transportation**

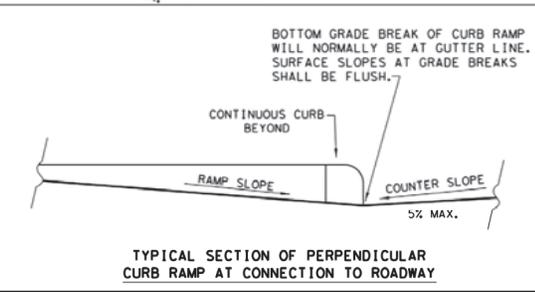
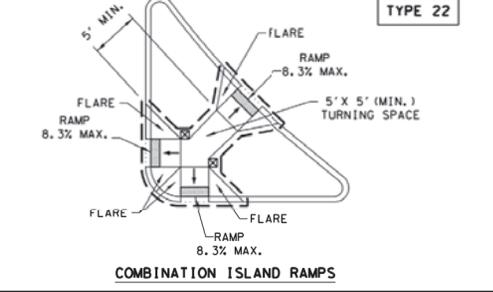
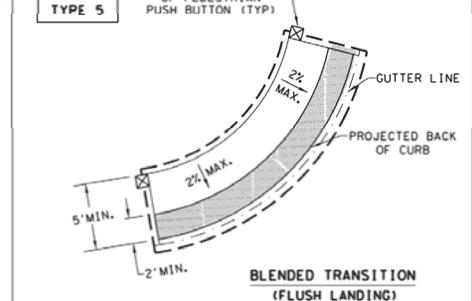
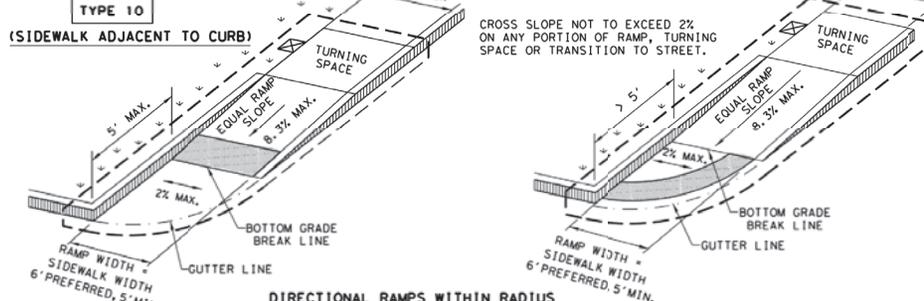
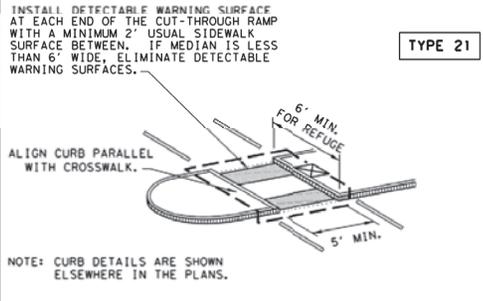
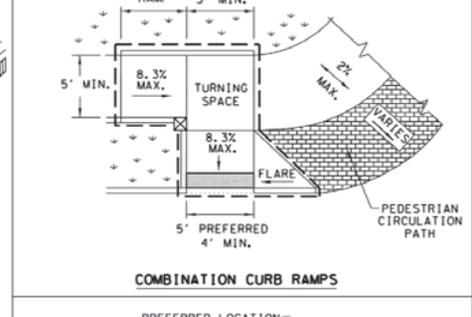
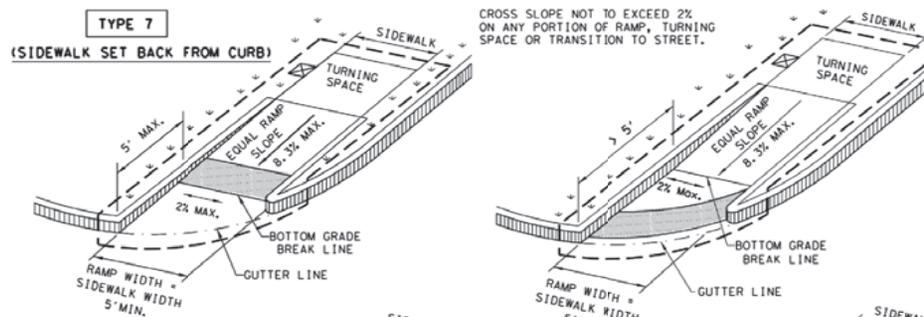
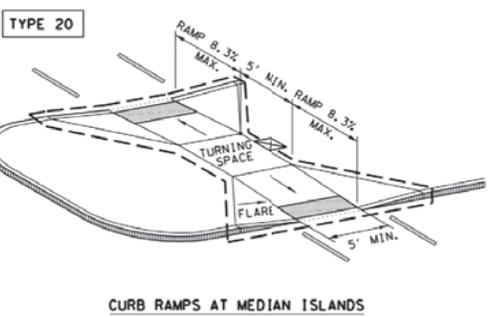
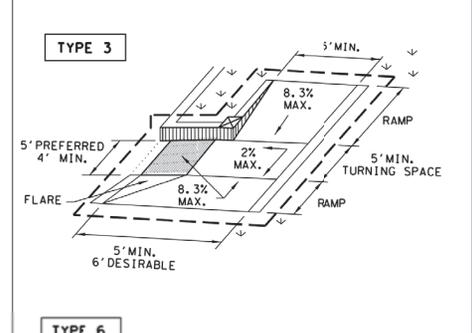
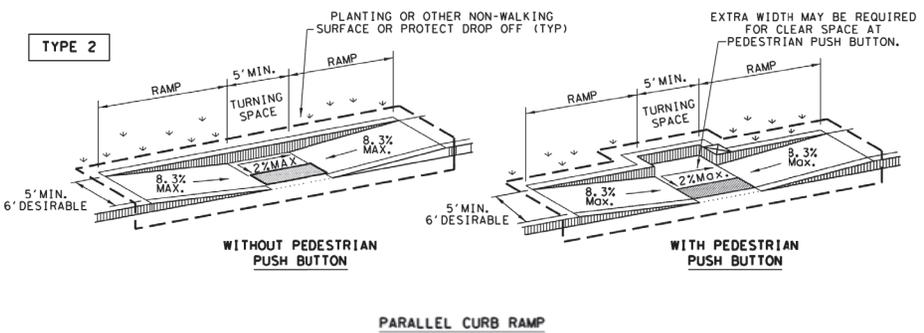
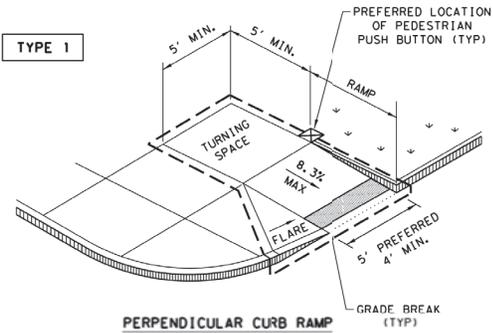
FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**MISC DETAILS**

DESIGNED: MJS/WPM	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: WPM	6	TEXAS	STP ( ) MM	FM LOOP 345
DRAWN: MJS	STATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: WPM	SAN	BEXAR	0915 15	579 8 OF 54

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DATE: FILE:



**NOTES / LEGEND:**

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

--- GUTTER LINE

--- GRADE BREAK

--- RAMP LIMITS OF PAYMENT

--- DETECTABLE WARNING SURFACE

--- DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.

--- DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.

SHEET 1 OF 4

Texas Department of Transportation Design Division Standard

**PEDESTRIAN FACILITIES CURB RAMPS**

**PED-18**

FILE: ped18	DW TxDOT	DW VP	CK KM	CK PK & JG
© TxDOT, MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2005	0915	15	579	FM LOOP 345
REVISED 04, 2012	DIST	COUNTY	SHEET NO.	
REVISED 01, 2018	SAN	BEXAR	9 OF 54	

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DATE: FILE:

## GENERAL NOTES

### CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
5. Turning Spaces shall be 5' x 5' minimum. Cross slope shall be maximum 2%.
6. Clear space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

### DETECTABLE WARNING MATERIAL

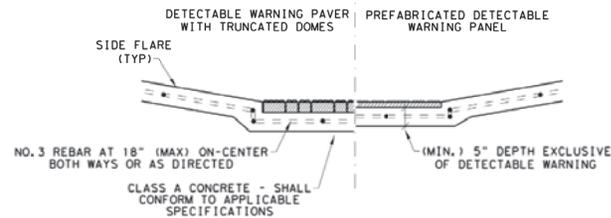
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cost-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

### DETECTABLE WARNING PAVERS (IF USED)

25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

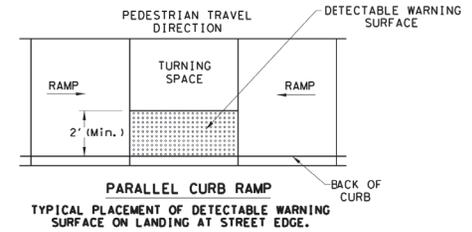
### SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.

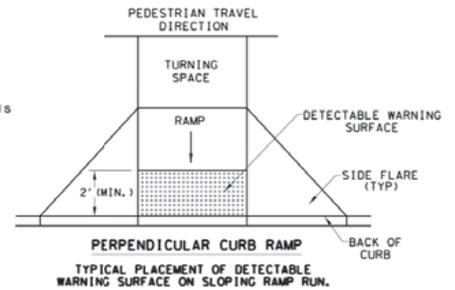


SECTION VIEW DETAIL  
CURB RAMP AT DETECTABLE WARNINGS

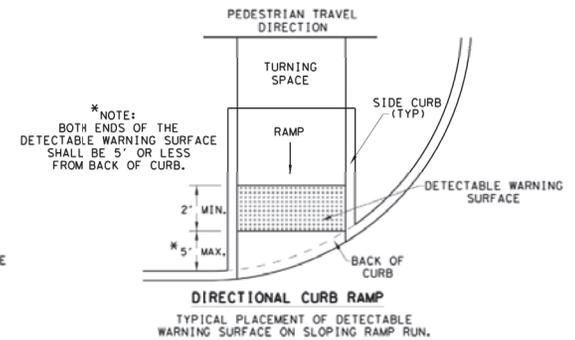
### DETECTABLE WARNING SURFACE DETAILS



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE.



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

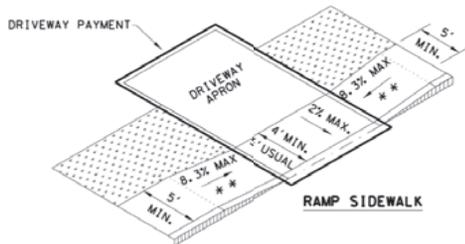
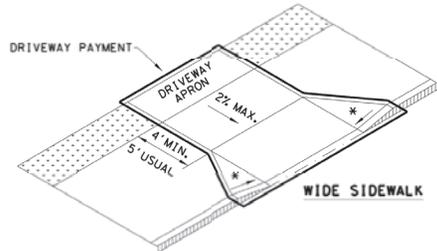
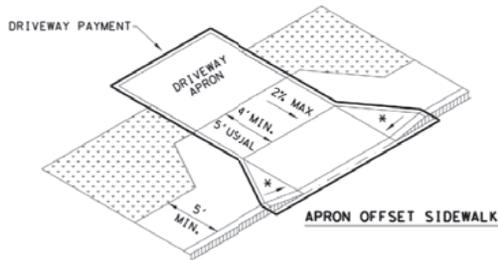
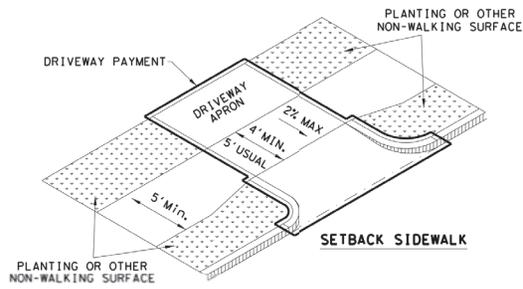
SHEET 2 OF 4

		Design Division Standard	
<h1>PEDESTRIAN FACILITIES</h1> <h2>CURB RAMPS</h2> <h3>PED-18</h3>			
FILE: ped18	DATE: MARCH, 2002	CONTRACT: 0915	SECTION: 15
DESIGNED BY: SAN	CHECKED BY: CKM	DATE: 0915	DATE: 0915
PROJECT: SAN	COUNTY: BEXAR	JOB: FM LOOP 345	SHEET NO. 10 OF 54

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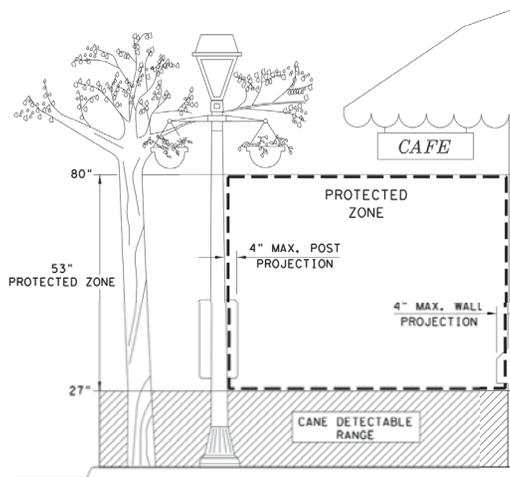
DATE: FILE:

**SIDEWALK TREATMENT AT DRIVEWAYS**

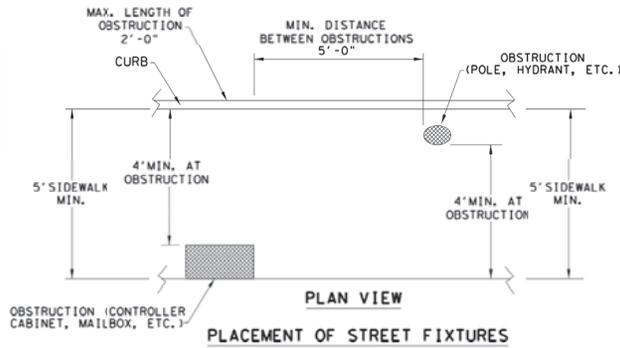


**NOTES:**

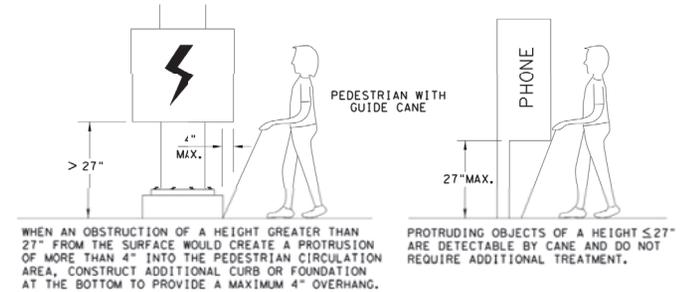
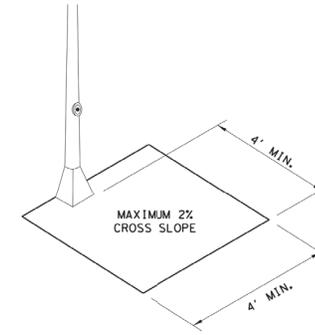
- \* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.
- \*\* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%, HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.



NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



WHEN AN OBSTRUCTION OF A HEIGHT GREATER THAN 27" FROM THE SURFACE WOULD CREATE A PROTRUSION OF MORE THAN 4" INTO THE PEDESTRIAN CIRCULATION AREA, CONSTRUCT ADDITIONAL CURB OR FOUNDATION AT THE BOTTOM TO PROVIDE A MAXIMUM 4" OVERHANG.

PROTRUDING OBJECTS OF A HEIGHT ≤ 27" ARE DETECTABLE BY CANE AND DO NOT REQUIRE ADDITIONAL TREATMENT.

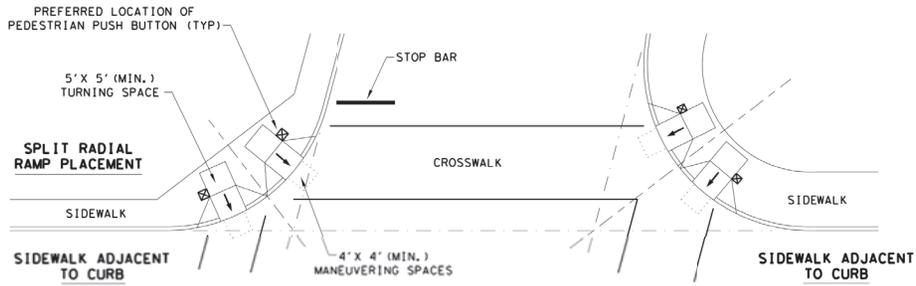
**PEDESTRIAN FACILITIES CURB RAMPS**

**PED-18**

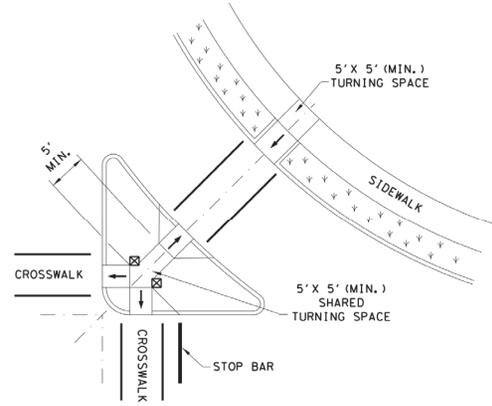
FILE: ped18	DWG: TxDOT	DWG: VP	CHK: KM	CHK: PK & JG
© TxDOT: MARCH, 2002	CONT: SECT	JOB: 579	FM LOOP 345	REVISIONS
REVISED 08, 2005	0915	15	COUNTY: SAN	SHEET NO. 11 OF 54
REVISED 04, 2012			COUNTY: BEXAR	
REVISED 01, 2018				

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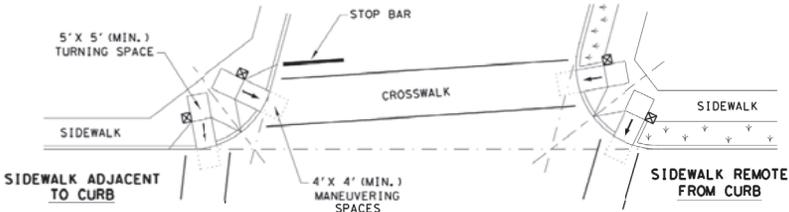
TYPICAL CROSSING LAYOUTS  
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



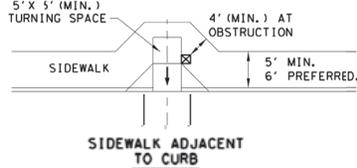
SKewed INTERSECTION WITH "LARGE" RADIUS



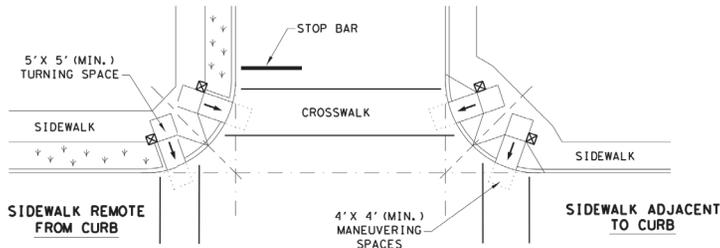
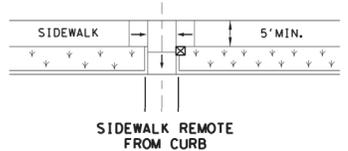
AT INTERSECTION  
W/FREE RIGHT TURN & ISLAND



SKewed INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT  
PERPENDICULAR RAMPs



NORMAL INTERSECTION WITH "SMALL" RADIUS

**LEGEND:**

SHOWS DOWNWARD SLOPE.

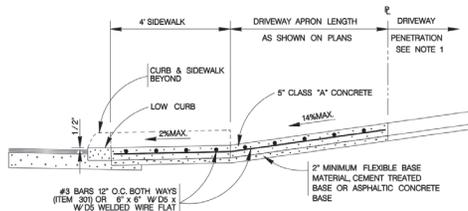
DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE).

DENOTES PLANTING OR NON-WALKING SURFACE, NOT PART OF PEDESTRIAN CIRCULATION PATH.

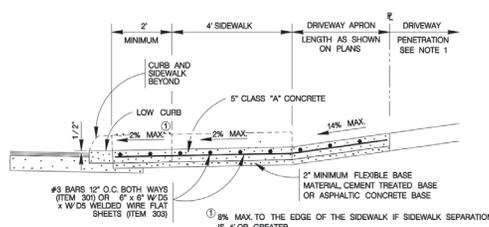
PEDESTRIAN FACILITIES  
CURB RAMPS  
PED-18

FILE: ped18	DWG: TxDOT	DWG: VP	CHK: KM	CHK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2005	0915	15	579	FM LOOP 345
REVISED 04, 2012	DIST	COUNTY	SHEET NO.	
REVISED 01, 2018	SAN	BEXAR	12 OF 54	

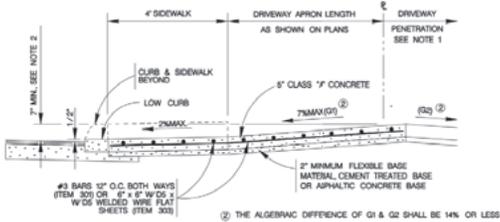
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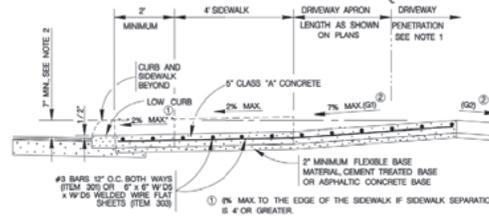
**TYPICAL RESIDENTIAL DRIVEWAY SECTION**  
WITH SIDEWALK ABUTTING CURB  
ITEM 503.1



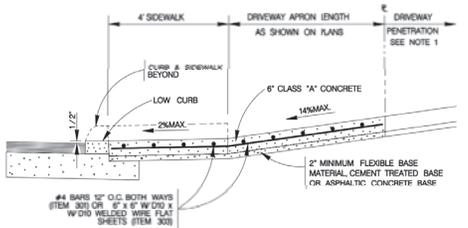
**TYPICAL RESIDENTIAL DRIVEWAY SECTION**  
WITH SIDEWALK SEPARATED FROM CURB  
ITEM 503.1



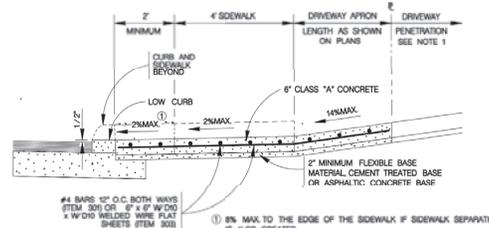
**TYPICAL RESIDENTIAL DRIVEWAY SECTION**  
WHERE PROPERTY IS LOWER THAN STREET & SIDEWALK IS ABUTTING CURB  
ITEM 503.1



**TYPICAL RESIDENTIAL DRIVEWAY SECTION**  
WHERE PROPERTY IS LOWER THAN STREET & SIDEWALK IS SEPARATED FROM CURB  
ITEM 503.1



**TYPICAL COMMERCIAL DRIVEWAY SECTION**  
WITH SIDEWALK ABUTTING CURB  
ITEM 503.2



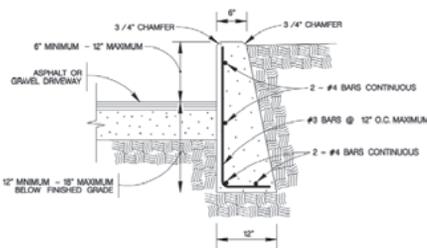
**TYPICAL COMMERCIAL DRIVEWAY SECTION**  
WITH SIDEWALK SEPARATED FROM CURB  
ITEM 503.2

**CONCRETE DRIVEWAY NOTES**

- DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:  
A) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.1 OR 503.2;  
B) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE;  
C) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE.
- 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE; IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
- THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

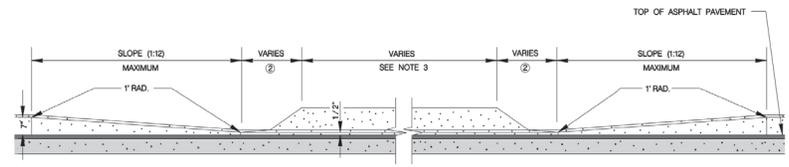
TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'

- FOR LOCAL TYPE 'A' STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
- FOR OTHER THAN LOCAL TYPE 'A' STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
- DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
- A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3/4" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
- SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

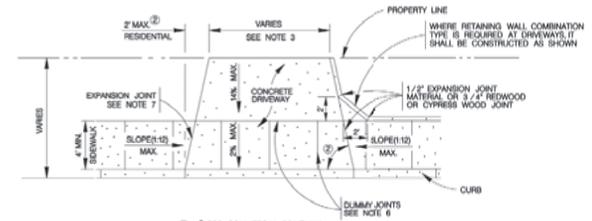


**DRIVEWAY - CONCRETE RETAINING WALL**  
ON COMPACTED SUBGRADE  
ITEM 307.1

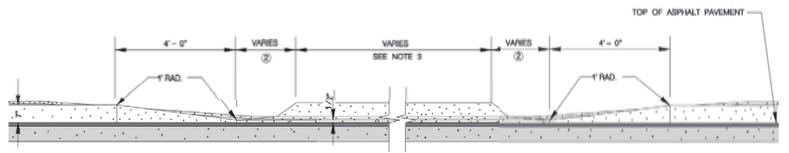
- NOTE:
- COST OF REINFORCEMENT TO BE INCLUDED IN UNIT COST OF ITEM 307.1.
  - CONCRETE RETAINING WALL COMBINATION TYPE SHALL BE USED FOR CONCRETE DRIVEWAYS.



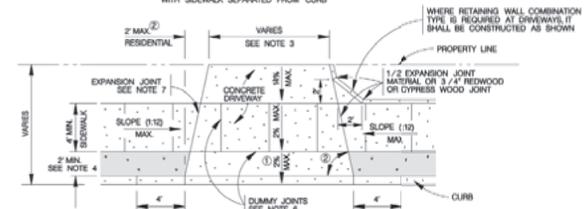
**CURB PROFILE AT DRIVEWAY**  
WITH SIDEWALK ABUTTING CURB



**TYPICAL DRIVEWAY PLAN VIEW**  
WITH SIDEWALK ABUTTING CURB



**CURB PROFILE AT DRIVEWAY**  
WITH SIDEWALK SEPARATED FROM CURB



**TYPICAL DRIVEWAY PLAN VIEW**  
WITH SIDEWALK SEPARATED FROM CURB

MAY 2009

CITY OF SAN ANTONIO  
CARTAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
FREDERICKSBURG RD. (I-10 TO W. ACARITA AVE.)  
**CONCRETE DRIVEWAY STANDARDS**

100% SUBMITTAL PROJECT NO.: STP ( RRM DATE: 01/20/2022  
DRAWN BY: V. VASQUEZ (DSGN. BY: CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.: 13 OF 54

P:\007005\0503\0503.dwg, 2022/01/21 11:08am, vvasquez

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### SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive Codes correspond to project estimate and quantities sheets)

SM RD SGN ASSM TY XXXXX(X)XX(X-XXXX)

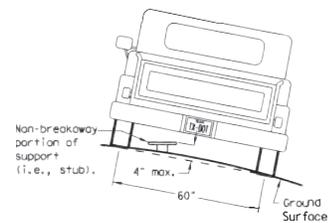
**Post Type**  
 FRP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))  
 TWT = Thin-Walled Tubing (see SMD(TWT))  
 10BWG = 10 BWG Tubing (see SMD(SLIP-1) to (SLIP-3))  
 S80 = Schedule 80 Pipe (see SMD(SLIP-1) to (SLIP-3))

**Number of Posts (1 or 2)**

**Anchor Type**  
 UA = Universal Anchor - Concreted (see SMD(FRP) and (TWT))  
 UB = Universal Anchor - Bolted down (see SMD(FRP) and (TWT))  
 WS = Wedge Anchor Steel - (see SMD(TWT))  
 WP = Wedge Anchor Plastic (see SMD(TWT))  
 SA = Slipbase - Concreted (see SMD(SLIP-1) to (SLIP-3))  
 SB = Slipbase - Bolted Down (see SMD(SLIP-1) to (SLIP-3))

**Sign Mounting Designation**  
 P = Prefab. "Plain" (see SMD(SLIP-1) to (SLIP-3), (TWT), (FRP))  
 T = Prefab. "T" (see SMD(SLIP-1) to (SLIP-3), (TWT))  
 U = Prefab. "U" (see SMD(SLIP-1) to (SLIP-3))  
 IF REQUIRED  
 TEXT or 2EXT = Number of Extensions (see SMD(SLIP-1) to (SLIP-3), (TWT))  
 IM = Extruded Irid Beam (see SMD(SLIP-1) to (SLIP-3))  
 WC = 1, 1/2 #ft #ft #ft Channel (see SMD(SLIP-1) to (SLIP-3))  
 EXAL = Extruded Aluminum Sign Panels (see SMD(SLIP-3))

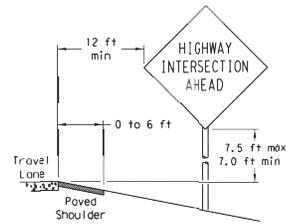
### REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT



To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project more than 4 inches above a 60-inch chord (i.e., typical space between wheel paths).

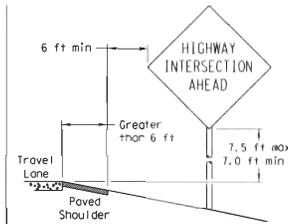
### SIGN LOCATION

#### PAVED SHOULDERS



#### LESS THAN 6 FT. WIDE

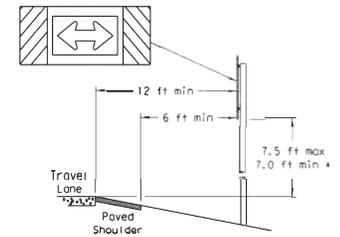
When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.



#### GREATER THAN 6 FT. WIDE

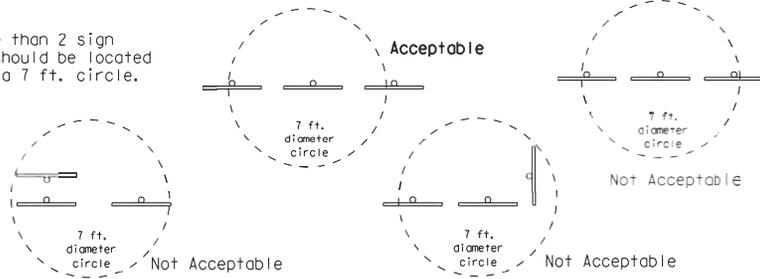
When the shoulder is greater than 6 ft in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

#### T-INTERSECTION

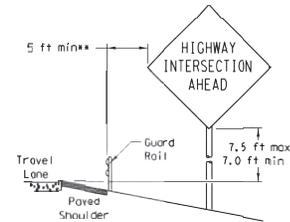


When this sign is needed at the end of a two-lane, two way roadway, the right edge of the sign should be in line with the centerline of the roadway. Place as close to ROW as practical.

No more than 2 sign posts should be located within a 7 ft. circle.

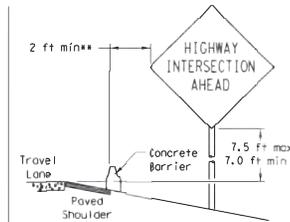


#### BEHIND BARRIER



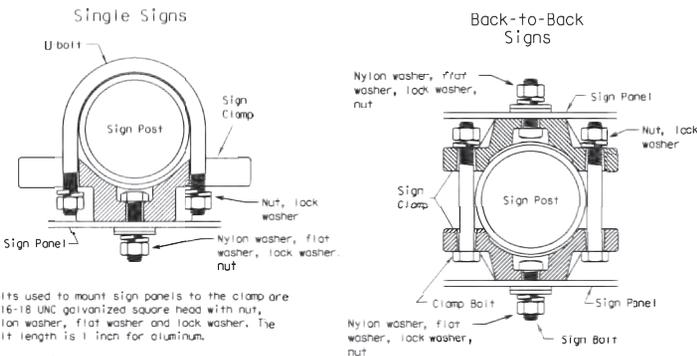
#### BEHIND GUARDRAIL

\*\*Sign clearance based on distance required for proper guard rail or concrete barrier performance.



#### BEHIND CONCRETE BARRIER

### TYPICAL SIGN ATTACHMENT DETAIL



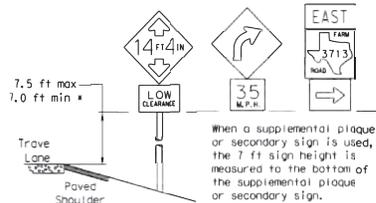
Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

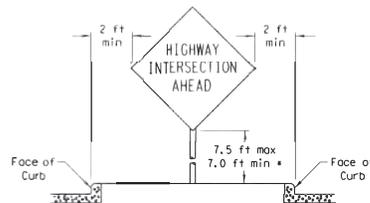
Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

#### SIGNS WITH PLAQUES



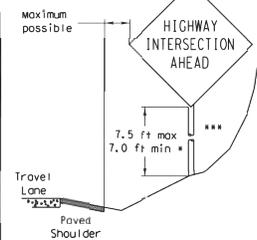
When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

#### CURB & GUTTER OR RAISED ISLAND



#### RESTRICTED RIGHT-OF-WAY

(When 6 ft min. is not possible.)



Right-of-way restrictions may be created by rocks, water, vegetation, forest, buildings, a narrow island, or other factors.

In situations where a lateral restriction prevents the minimum horizontal clearance from the edge of the travel lane, signs should be placed as far from the travel lane as practical.

\*\*\* Post may be shorter if protected by guardrail or if Engineer determines the post could not be hit due to extreme slope.

\* Signs shall be mounted using the following condition that results in the greatest sign elevation:

- (1) a minimum of 7 to a maximum of 7.5 feet above the edge of the travel lane or
- (2) a minimum of 7 to a maximum of 7.5 feet above the grade at the base of the support when sign is installed on the backslope.

The maximum values may be increased when directed by the Engineer.

See the Traffic Operations Division website for detailed drawings of sign clamps, Triangular Slipbase System components and Wedge Anchor System components.

The website address is:  
<http://www.txdot.gov/publications/traffic.htm>

Texas Department of Transportation  
 Traffic Operations Division

## SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS SMD (GEN) -08

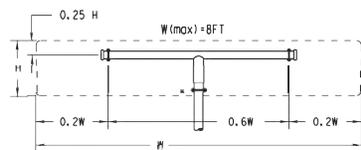
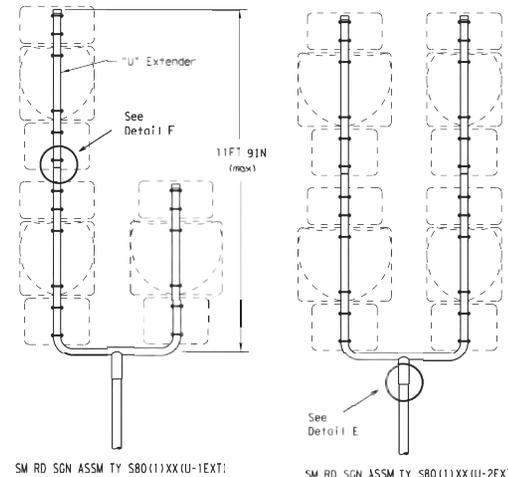
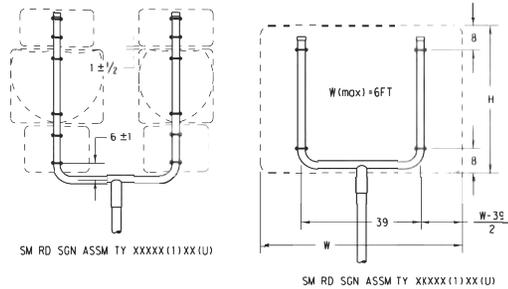
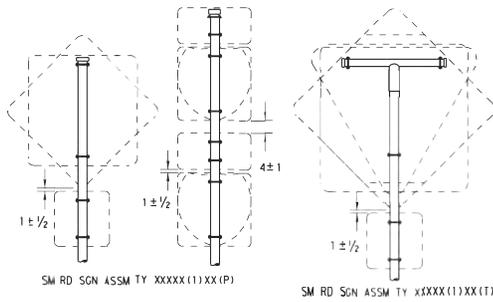
© TxDOT July 2002		DN TxDOT	CA TxDOT	DN TxDOT	CA TxDOT
REV	REVISIONS	DATE	BY	DATE	BY
9-08		0915	15	579	FM LOOP 345
		0511			COUNTY
		SAN		BEXAR	SHEET NO.
					14 OF 54



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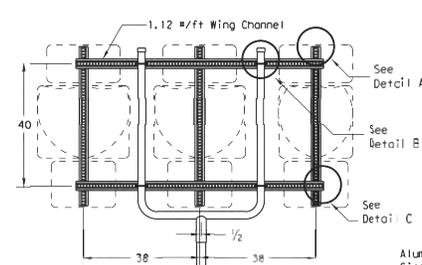
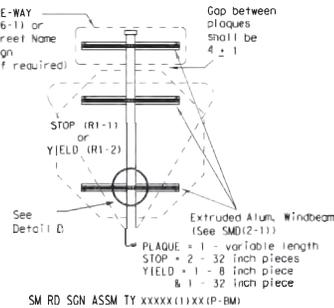
DISCLAIMER

DATE: FILE:

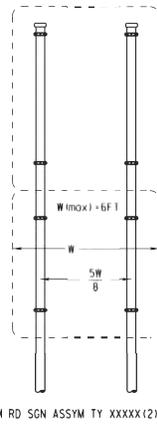


All dimensions are in english unless detailed otherwise.

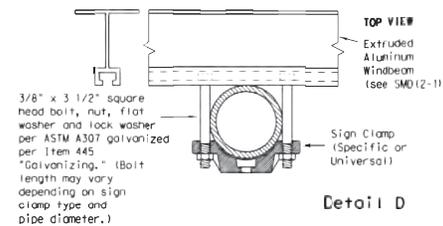
SM RD SGN ASSM TY XXXX(1)XX(T) (\* - See Note 12)



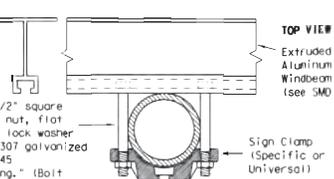
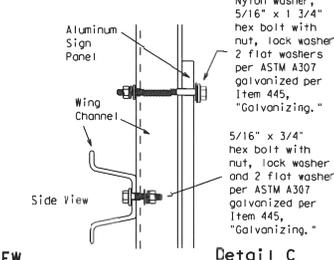
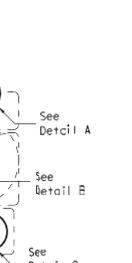
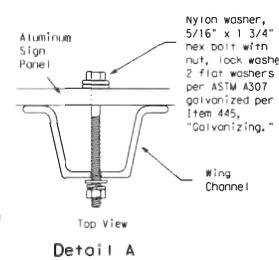
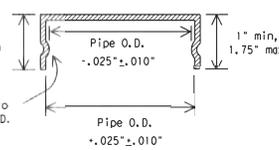
SM RD SGN ASSM TY XXXX(1)XX(U-WC) (See Note 11)



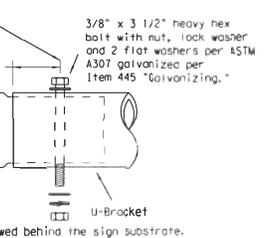
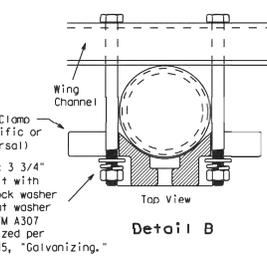
**SIDE VIEW**



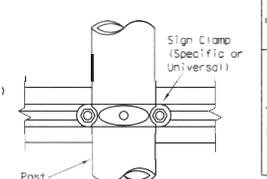
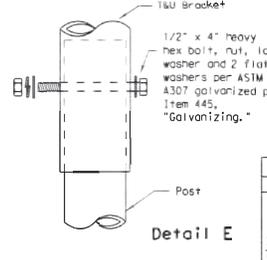
**FRICION CAP DETAIL**



Detail D



Splices shall only be allowed behind the sign substrate.



Detail E

Friction caps may be manufactured from hot rolled or cold rolled steel sheets. The minimum sheet metal thickness shall be 24 gauge for all cap sizes. The rim edges shall be reasonably straight and smooth. Caps shall be sized and formed in such a manner as to produce a drive-on friction fit and have no tendency to rock when seated on the pipe. The depth shall be sufficient to give positive protection against entrance of rainwater. They shall be free of sharp creases or indentations and show no evidence of metal fracture. Caps shall have an electrocoated coating of zinc in accordance with the requirements of ASTM B633 Class FE/Zn 8.

**GENERAL NOTES**

- | SIGN SUPPORT | # OF POSTS | MAX. SIGN AREA |
|--------------|------------|----------------|
| 10 BWG       | 1          | 16 SF          |
| 10 BWG       | 2          | 32 SF          |
| Sch 80       | 1          | 32 SF          |
| Sch 80       | 2          | 64 SF          |
- The Engineer may require that a Schedule 80 post be used in place of a 10 BWG where a sign height is abnormally high due to a fill slope.
- Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.
- Aluminum sign blanks shall conform to Departmental Material Specifications DMS-7110 and shall have the following minimum thicknesses: 0.080 for signs less than 7.5 sq. ft., 0.100 for signs 7.5 to 15 sq. ft., and 0.125 for signs greater than 15 sq. ft.
- Signs that require specific supports due to reasons in addition to windloading are indicated on the "REQUIRED SUPPORT" table on this sheet.
- For horizontal rectangular signs fabricated from flat aluminum, U-brackets are used for signs 24 inches or less in height. U-brackets are used for signs of greater height.
- When two triangular slipbase supports are used to support a single sign, they shall not be "rigidly" connected to each other except through the sign panel. This will allow each support to act independently when impacted by an errant vehicle.
- Wing channel shall meet ASTM A 1011 S5 Gr 50 and be galvanized per ASTM A 123.
- Excess pipe, wing channel, or windbeam shall be cut off so that it does not extend beyond the sign panel (i.e., excess support shall not be visible when the sign is viewed from the front.) Repair galvanized coating of cut support ends per Item 445, "Galvanizing."
- Additional route markers may be added vertically, provided the total sign area does not exceed the maximum allowable amount per Note 1.
- Additional sign clamp required on the "T-bracket" post for 24 inch height signs. Place the clamp 3 inches above bottom of sign when possible.
- Post open ends shall be fitted with Friction Caps.
- Sign blanks shall be the sizes and shapes shown on the plans.

REQUIRED SUPPORT		
	SIGN DESCRIPTION	SUPPORT
Regulatory	48-inch STOP sign (R1-1)	TY 10BWG(1)XX(T)
	60-inch YIELD sign (R1-2)	TY 10BWG(1)XX(P-BM)
	48x16-inch ONE-WAY sign (R6-1)	TY 10BWG(1)XX(T)
	36x48, 48x36, and 48x48-inch signs	TY 10BWG(1)XX(P-BM)
Warning	48x60-inch signs	TY 10BWG(1)XX(T)
	48x48-inch signs (diamond or square)	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
	48-inch Advance School X-ing sign (S1-1)	TY 10BWG(1)XX(T)
	48-inch School X-ing sign (S2-1)	TY 10BWG(1)XX(T)
	Large Arrow sign (W1-6 & W1-7)	TY 10BWG(1)XX(T)

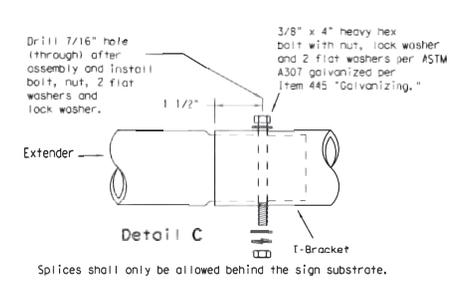
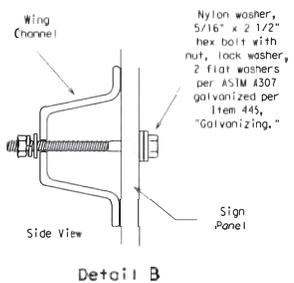
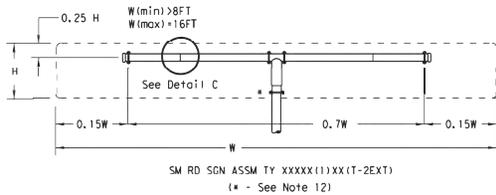
**SIGN MOUNTING DETAILS**  
**SMALL ROADSIDE SIGNS**  
**TRIANGULAR SLIPBASE SYSTEM**  
**SMD(SLIP-2)-08**

© TxDOT July 2002	DW TxDOT	CKI TxDOT	DW TxDOT	CKI TxDOT
9-08	REVISIONS	DATE	BY	DESCRIPTION
	0915	15	579	FM LOOP 345
	DIST	COUNTY	SHEET NO.	
	SAN	BEXAR	16 OF 54	

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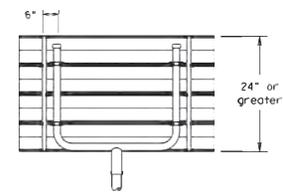
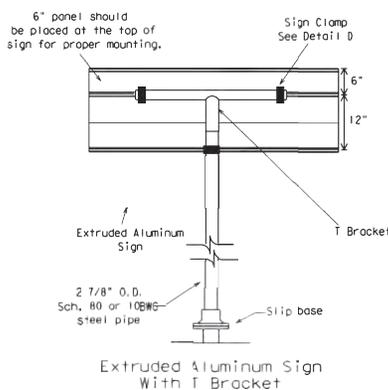
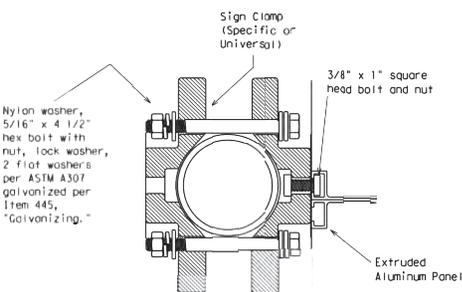
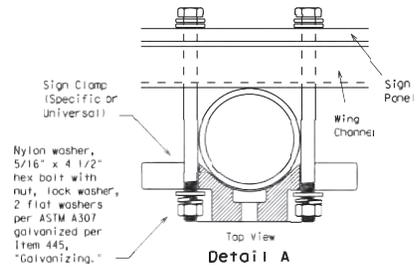
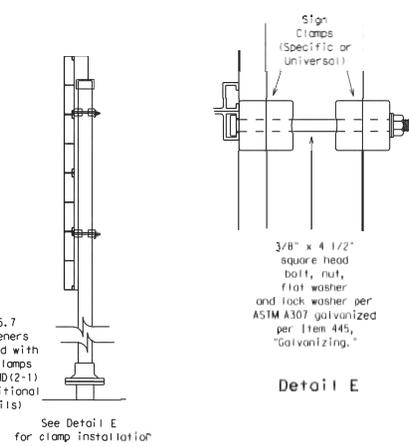
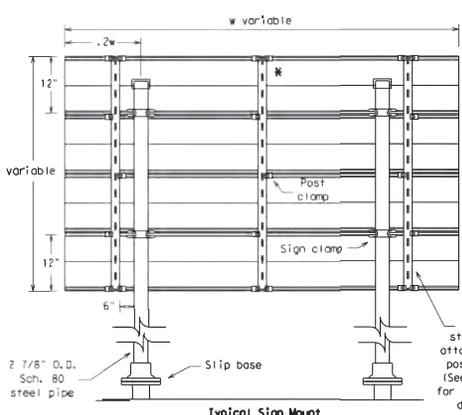
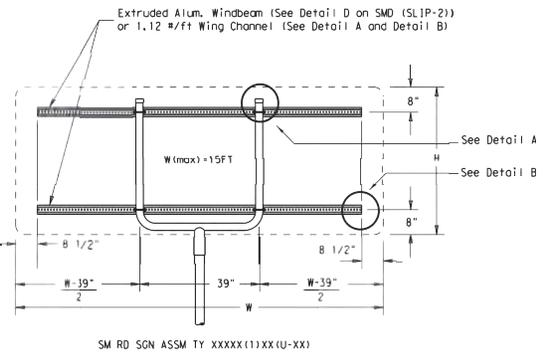
DISCLAIMER

DATE: FILE:



**GENERAL NOTES**

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- Wing channel shall meet ASTM A 1011 S5 Gr 50 and be galvanized per ASTM A 123.
- Excess pipe, wing channel, or windbeam shall be cut off so that it does not extend beyond the sign panel (i.e., excess support shall not be visible when the sign is viewed from the front.) Repair galvanized coating of cut support ends per Item 445, "Galvanizing."
- Sign blanks shall be the sizes and shapes shown on the plans.
- Additional sign clamp required on the "T-bracket" post for 24 inch high signs. Place the clamp 3 inches above bottom of sign when possible.
- Post open ends shall be fitted with Friction Caps.



REQUIRED SUPPORT		
	SIGN DESCRIPTION	SUPPORT
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		TY 10BWG(1)XX(P-BM)
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		TY 10BWG(1)XX(P-BM)
Warning	48x16-inch ONE-WAY sign (R6-1)	TY 10BWG(1)XX(T)
	36x48, 48x36, and 48x48-inch signs	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
	48x48-inch signs (diamond or square)	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
	48-inch Advance School X-ing sign (S1-1)	TY 10BWG(1)XX(T)
	48-inch School X-ing sign (S2-1)	TY 10BWG(1)XX(T)
	Large Arrow sign (W1-6 & W1-7)	TY 10BWG(1)XX(T)

Texas Department of Transportation  
 Traffic Operations Division  
**SIGN MOUNTING DETAILS**  
**SMALL ROADSIDE SIGNS**  
**TRIANGULAR SLIPBASE SYSTEM**  
**SMD(SLIP-3)-08**

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9-08	REVISIONS	CONT	SECT	JOB	HIGHWAY
		0915	15	579	FM LOOP 345
		DIST	COUNTY		SHEET NO.
		SAN	BEXAR		16A OF 51

TCP GENERAL NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED AT THE JOB SITE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND RELATED INDUSTRY STANDARDS AND REGULATIONS.
2. THESE TRAFFIC CONTROL PLANS SERVE AS A GUIDE FOR THE CONSTRUCTION SEQUENCES AND THE SAFE HANDLING OF TRAFFIC DURING CONSTRUCTION. THESE TRAFFIC CONTROL PLANS DO NOT ATTEMPT TO ADDRESS EVERY ASPECT OF CONSTRUCTION THAT IS REQUIRED OR COULD BE ENCOUNTERED DURING EACH PHASE OF CONSTRUCTION. THIS DOES NOT, HOWEVER, RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY OF CONSTRUCTING THE PROPOSED IMPROVEMENTS AND PROVIDING FOR THE SAFE HANDLING OF TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH COSA AND TxDOT STANDARDS.
3. TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), AND APPROPRIATE TxDOT AND COSA TCP/BARRICADES STANDARDS.
4. CONTRACTOR SHALL COORDINATE WITH VIA METROPOLITAN TRANSIT FOR CONSTRUCTION WORK WITHIN VICINITY OF EXISTING BUS STOPS.
5. COVER EXISTING SIGNS IN CONFLICT WITH THE TRAFFIC CONTROL PLAN.
6. BARRICADES, CHANNELIZING DEVICES AND SIGNS SHALL BE CLEAR AND IN GOOD VISIBLE CONDITION AT ALL TIMES, INCLUDING DAYTIME, NIGHTTIME, AND WEEKENDS. DEFICIENT OR DAMAGED DEVICES SHALL BE REPLACED/REPAIRED.
7. PROVIDE ACCESS TO ALL ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION.
8. IF APPLICABLE, ANY DROPOFF CONDITIONS ADJACENT TO TRAVEL WAY GREATER THAN TWO INCHES SHALL HAVE A 3:1 SAFETY WEDGE OR APPROPRIATE TREATMENT PER TxDOT STANDARD.
9. SIGNS, BARRICADES, AND CHANNELIZING DEVICES SHOWN ON THE TRAFFIC CONTROL PLANS ARE APPROXIMATE. ACTUAL LOCATIONS MAY VARY BASED ON FIELD CONDITIONS, GEOMETRIC CONSTRAINTS, ROADWAY CURVATURE, AND AS DIRECTED BY THE ENGINEER OR CITY REPRESENTATIVE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS PRIOR TO THEIR PLACEMENT TO ASSURE GOOD VISIBILITY TO ALL MOTORISTS/CYCLISTS, PEDESTRIANS.
10. CONTRACTOR SHALL PROVIDE PROPER DRAINAGE DURING CONSTRUCTION TO ENSURE THAT WATER DOES NOT POND ONTO THE ROADWAY.

TCP NARRATIVE:

1. INSTALL TREE PROTECTION, EROSION CONTROL/SW3P MEASURES.
2. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN
3. INSTALL DRUMS, AND/OR CHANNELIZING DEVICES AS INDICATED IN THE TRAFFIC CONTROL PLAN.
4. CONSTRUCT RETAINING WALL, SIDEWALK, ADA CURB RAMPS, OR DRIVEWAY FEATURES AS SHOWN ON THE PLANS.
5. MAINTAIN OPEN TRAFFIC TO ALL DRIVEWAYS AND SIDE STREETS. A MINIMUM OF ONE DRIVEWAY SHOULD BE OPEN DURING CONSTRUCTION. ROUTE PEDESTRIANS BASED ON TxDOT STANDARD WZ(BTS-2)-18 AND TMUTCD TYPICAL APPLICATION TA-28.
6. REMOVE ALL SURPLUS MATERIALS FROM PROJECT AND ESTABLISH VEGETATION AS REQUIRED.
7. PERFORM FINAL CLEANUP AND INSPECTION.



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**CITY OF SAN ANTONIO**  
 TRANSPORTATION & CAPITAL IMPROVEMENTS  
 (TCD DEPARTMENT)

TEXAS DEPARTMENT OF TRANSPORTATION  
 FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**TRAFFIC CONTROL PLAN**  
 NOTES 1 OF 5

DESIGNED: PRB	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: TL		TEXAS	SEE TITLE SHEET	VA
DRAWN: BC	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.
CHECKED: BM	SAN	BEXAR	0915	15
				JOB NO. 579
				SHEET NO. 17 OF 54

**DETOURS, BARRICADES, WARNING SIGNS, SEQUENCE OF WORK, ETC.**

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF ITEM 7, "LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC", OF THE STANDARD SPECIFICATIONS. IN ADDITION TO THESE REQUIREMENTS, THE FOLLOWING PROVISIONS SHALL ALSO GOVERN ON THIS CONTRACT:

**1. GENERAL**

- (1) TRAFFIC MUST BE HANDLED THROUGHOUT THE PROJECT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE AND COMFORTABLE PASSAGE FOR VEHICULAR AND PEDESTRIAN TRAFFIC WITH MINIMAL INCONVENIENCE TO THE PUBLIC, AS SHOWN IN THE PLANS OR AS DIRECTED/APPROVED BY THE ENGINEER.
- (2) THE CONTRACTOR MAY PROPOSE/RECOMMEND MODIFICATIONS TO THE SEQUENCE OF WORK FOR CONSIDERATION BY THE ENGINEER. ANY MAJOR RECOMMENDED MODIFICATION BY THE CONTRACTOR SHALL INCLUDE ANY CHANGES TO THE VARIOUS BID ITEMS, IMPACT TO TRAFFIC, EFFECT OF OVERALL PROJECT IN TIME AND COST, ETC. IF THIS PROPOSAL IS IMPLEMENTED, THE CONTRACTOR WILL BE RESPONSIBLE FOR DEVELOPING DETAILED PLAN SHEETS TO BE SEALED BY A LICENSED PROFESSIONAL ENGINEER FOR INCLUSION WITH THE CHANGE ORDER. THE CONTRACTOR CANNOT PROCEED WITH ANY CONSTRUCTION OPERATIONS BASED ON A REVISED PHASE/SEQUENCE UNTIL WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. IF AT ANY TIME DURING CONSTRUCTION THE CONTRACTOR'S PROPOSED PLAN OF OPERATION FOR HANDLING TRAFFIC DOES NOT PROVIDE FOR SAFE AND COMFORTABLE MOVEMENT, THE CONTRACTOR WILL IMMEDIATELY CHANGE THEIR OPERATION TO CORRECT THE UNSATISFACTORY CONDITION.
- (3) DO NOT STORE ANY CONSTRUCTION MATERIAL OR EQUIPMENT AT ANY LOCATION THAT WILL CONSTITUTE A HAZARD AND WILL ENDANGER TRAFFIC.
- (4) THE CONTRACTOR WILL PROVIDE ADVANCE NOTIFICATION TO THE ENGINEER OF IMPENDING / UPCOMING LANE CLOSURES FOR ALL TEMPORARY AND / OR PERMANENT LANE, RAMP, CONNECTOR, FRONTAGE, SHOULDER, ETC. CLOSURES OR DETOURS. SEE GENERAL NOTES FOR NOTIFICATION REQUIREMENTS.
- (5) ACCESS TO ADJOINING PROPERTY MUST BE MAINTAINED AT ALL TIMES.
- (6) TEMPORARY DRAINAGE IS THE RESPONSIBILITY OF THE CONTRACTOR.
- (7) AT NO TIME SHALL TWO CONSECUTIVE INTERSECTING ROADWAYS BE CLOSED AT ONE TIME DURING CONSTRUCTION.
- (8) AT NO TIME SHALL TWO CONSECUTIVE RAMP BE CLOSED AT ONE TIME DURING CONSTRUCTION OR OVERLAY OPERATIONS.
- (9) UNLESS OTHERWISE NOTED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER, DAILY LANE CLOSURES SHALL BE LIMITED ACCORDING TO THE FOLLOWING RESTRICTIONS:  
 NIGHTTIME: **COORDINATE WITH COSA/TxDOT AS REQUIRED.** (WITH UNIFORMED OFF DUTY LAW ENFORCEMENT OFFICERS)  
 WEEKEND CLOSURES WHEN APPROVED BY THE ENGINEER: **COORDINATE WITH COSA/TxDOT AS REQUIRED.**  
 NO LANE CLOSURES OR ROADWAY CLOSURES WILL BE PERMITTED FOR THE FOLLOWING KEY DATES AND/OR SPECIAL EVENTS:  
 BETWEEN DECEMBER 15 AND JANUARY 1.  
 FIESTA WEEK AND TAX FREE WEEKEND. (BEXAR COUNTY ONLY)  
 WEDNESDAY BEFORE THANKSGIVING THRU THE SUNDAY AFTER THANKSGIVING  
 SATURDAY AND SUNDAY BEFORE MEMORIAL DAY AND LABOR DAY.  
 SATURDAY OR SUNDAY WHEN JULY 4 FALLS ON A FRIDAY OR MONDAY.  
 ELECTION DAYS (BEXAR COUNTY ONLY)  
 DURING MAJOR EVENTS AT THE AT&T CENTER (SPURS HOME GAMES, RODEO, CONCERTS, ETC.), ALAMODOME AND OR CONVENTION CENTER  
**EASTER WEEKEND: APRIL 15-18, 2022**
- (10) REMOVAL AND DISPOSAL OF EXISTING ABANDONED UTILITIES (EITHER PREVIOUSLY ABANDONED OR ABANDONED DURING THIS PROJECT) REQUIRED TO SUPPORT THIS PROJECT'S CONSTRUCTION SHALL BE PERFORMED UNDER THE OVERALL PREPARE RIGHT-OF-WAY ITEM (ITEM 100).
- (11) COORDINATE WITH ADJACENT PROJECTS.
- (12) COVER PERMANENT SIGNS IF NOT USED. THIS IS SUBSIDIARY TO ITEM 502.
- (13) EXCAVATION WITHIN 5 FEET OF AN EXISTING CPS ENERGY POLE WILL REQUIRE POLE BRACING. CONTACT CPS ENERGY UTILITY COORDINATION TO REQUEST POLE BRACING (JOHN OFFER, JOFFER@CPSENERGY.COM). THE ESTIMATED DURATION FOR THE POLE BRACING PROCESS IS APPROXIMATELY 6 TO 8 WEEKS.
- (14) COORDINATE WITH THE CITY OF SAN ANTONIO OR TxDOT FOR SIGNAL TIMING REVISIONS, AS NECESSARY.

**2. SEQUENCE OF WORK**

- (1) THIS PROJECT WILL BE CONSTRUCTED IN 3 PHASES. BEFORE THE COMMENCEMENT OF EACH PHASE, INSTALL ADVANCE WARNING SIGNS, TEMPORARY SIGNS AND BARRICADES AS SHOWN ON THE PLANS AND/OR AS DIRECTED/APPROVED BY THE ENGINEER. DAILY LANE CLOSURES WILL BE USED IN ACCORDANCE WITH STATE TCP STANDARDS. DROP OFF CONDITIONS OF GREATER THAN 2" MUST HAVE A 3:1 SLOPE AT THE END OF EACH DAY, AS WELL AS THROUGHOUT THE PROJECT WHERE ACCESS TO ADJACENT PROPERTIES IS ALLOWED TO DRIVEWAYS AND SIDE STREETS.
- (2) PREPARING ROW / REMOVAL OF EXISTING ITEMS TO BE DONE ONLY IN AREAS WHERE WORK IS OCCURRING, AS PER THE PHASES NOTED BELOW.
- (3) PLANING, SURFACE TREATMENTS AND OVERLAYS SHALL BE PERFORMED IN THE DIRECTION OF TRAFFIC. BEGIN SURFACE CONSTRUCTION ON HIGH SIDE OF ROAD TO AVOID WATER PONDING ISSUES.
- (4) A BRIEF DESCRIPTION OF THESE PHASES ARE AS FOLLOWS:

**PHASE 1**

THE INTENT OF THIS PHASE IS TO COMPLETE SOIL NAIL WALL CONSTRUCTION ALONG THE NORTHBOUND DIRECTION FROM STA 28+00 TO 30+00. REFER TO TRAFFIC CONTROL PLAN FOR ADDITIONAL DETAILS.

**PHASE 2**

THE INTENT OF THIS PHASE IS TO COMPLETE REMAINING DRIVEWAY AND SIDEWALK/RAMP IMPROVEMENTS ALONG THE NORTHBOUND DIRECTION USING TxDOT STANDARD LANE CLOSURES SETUPS.

**PHASE 3**

THE INTENT OF THIS PHASE IS TO COMPLETE REMAINING DRIVEWAY AND SIDEWALK/RAMP IMPROVEMENTS ALONG THE SOUTHBOUND DIRECTION USING TxDOT STANDARD LANE CLOSURES SETUPS.

**3. SAFETY**

- (1) THE CONTRACTOR WILL PROVIDE, CONSTRUCT AND MAINTAIN BARRICADES AND SIGNS IN ACCORDANCE WITH STATE STANDARDS BC (1 - 12)-14. ANY SIGNS REQUIRED THAT ARE NOT DETAILED IN THE STANDARD SHEETS SHALL BE IN CONFORMANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND THE "STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS."
- (2) BARRICADES AND WARNING SIGNS SHALL BE PLACED AS INDICATED ON THE PLANS. THIS SHALL BE CONSIDERED THE MINIMUM REQUIRED TO PROVIDE FOR THE SAFETY OF TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN OTHER SUCH BARRICADES AND SIGNS DEEMED NECESSARY BY THE ENGINEER OR AS DIRECTED BY FIELD CONDITIONS, TO PROVIDE FOR THE PASSAGE OF TRAFFIC IN SAFETY AT ALL TIMES.
- (3) THE CONTRACTOR SHALL PROVIDE AND MAINTAIN FLAGGERS AS DIRECTED/APPROVED BY THE ENGINEER, AT SUCH POINTS, AND FOR SUCH PERIODS OF TIME AS MAY BE REQUIRED, TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC AND THE CONTRACTOR'S PERSONNEL.
- (4) THE CONTRACTOR SHALL KEEP THE ROADWAY CLEAN AND FREE OF DIRT OR OTHER MATERIALS DURING HAULING OPERATIONS. IF THE CONTRACTOR DOES NOT MAINTAIN A CLEAN ROADWAY, THEY SHALL CEASE ALL CONSTRUCTION OPERATIONS, WHEN DIRECTED BY THE ENGINEER, TO CLEAN THE ROADWAY TO THE SATISFACTION OF THE ENGINEER.

**4. HAULING EQUIPMENT**

- (1) THE USE OF RUBBER-TIRED EQUIPMENT WILL BE REQUIRED FOR MOVING DIRT OR OTHER MATERIALS ALONG OR ACROSS PAVEMENTED SURFACES. WHERE THE CONTRACTOR DESIRES TO MOVE ANY EQUIPMENT NOT LICENSED FOR OPERATION ON PUBLIC HIGHWAYS, ON OR ACROSS PAVEMENT, THEY SHALL PROTECT THE PAVEMENT FROM DAMAGE AS DIRECTED / APPROVED BY THE ENGINEER.
- (2) THROUGHOUT CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO CONDUCT THEIR HAULING OPERATIONS IN A MANNER SUCH THAT VEHICLES WILL NOT HAUL OVER PREVIOUSLY RECOMPACTED SUBGRADE OR COMPACTED BASE MATERIAL, EXCEPT IN SHORT SECTIONS FOR DUMPING MANIPULATIONS.

**5. FINAL CLEAN UP**

UPON COMPLETION OF THE WORK AND BEFORE FINAL ACCEPTANCE AND FINAL PAYMENT IS MADE, THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE SITE ALL SURPLUS AND DISCARDED MATERIALS AND DEBRIS OF EVERY KIND AND LEAVE THE ENTIRE PROJECT IN A SMOOTH, NEAT AND SIGHTLY CONDITION.

**6. PAYMENT**

ALL BARRICADES, SIGNS, AND FLAGGERS SHALL BE SUBSIDIARY TO ITEM 502 BARRICADES, SIGNS AND TRAFFIC HANDLING. ALL EROSION AND SEDIMENT CONTROL DEVICES WILL BE PAID FOR UNDER ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS. ALL WORK ZONE PAVEMENT MARKINGS WILL BE PAID FOR UNDER ITEM 662 WORK ZONE PAVEMENT MARKINGS. ALL OTHER WORK AND MATERIALS SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS UNLESS OTHERWISE INDICATED IN THE PLANS.



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 TRANSPORTATION & CAPITAL IMPROVEMENTS  
 (TCD DEPARTMENT)

**Texas Department of Transportation**  
 FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**TRAFFIC CONTROL PLAN**  
 NOTES 2 OF 5

DESIGNED: PRB	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: TL		TEXAS	SEE TITLE SHEET	VA
DRAWN: BC	STATE DISTRICT	COUNTY	CONTROL SECTION NO.	SHEET NO.
CHECKED: BM	SAN	BEXAR	0915 15	579 118 OF 54

# LEGEND

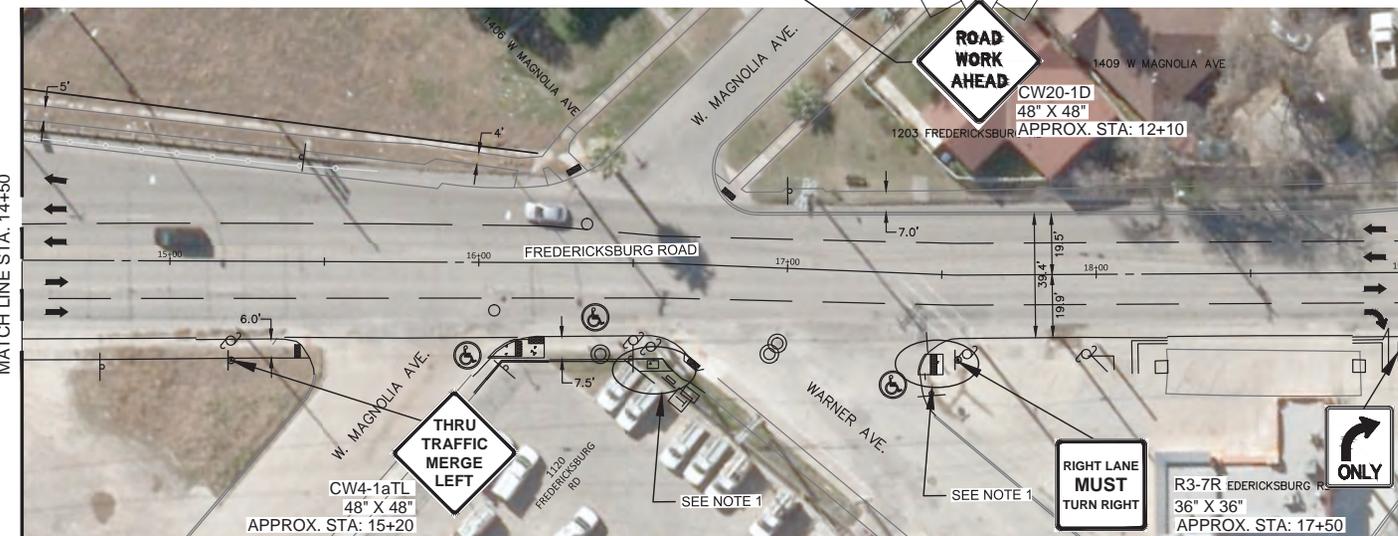
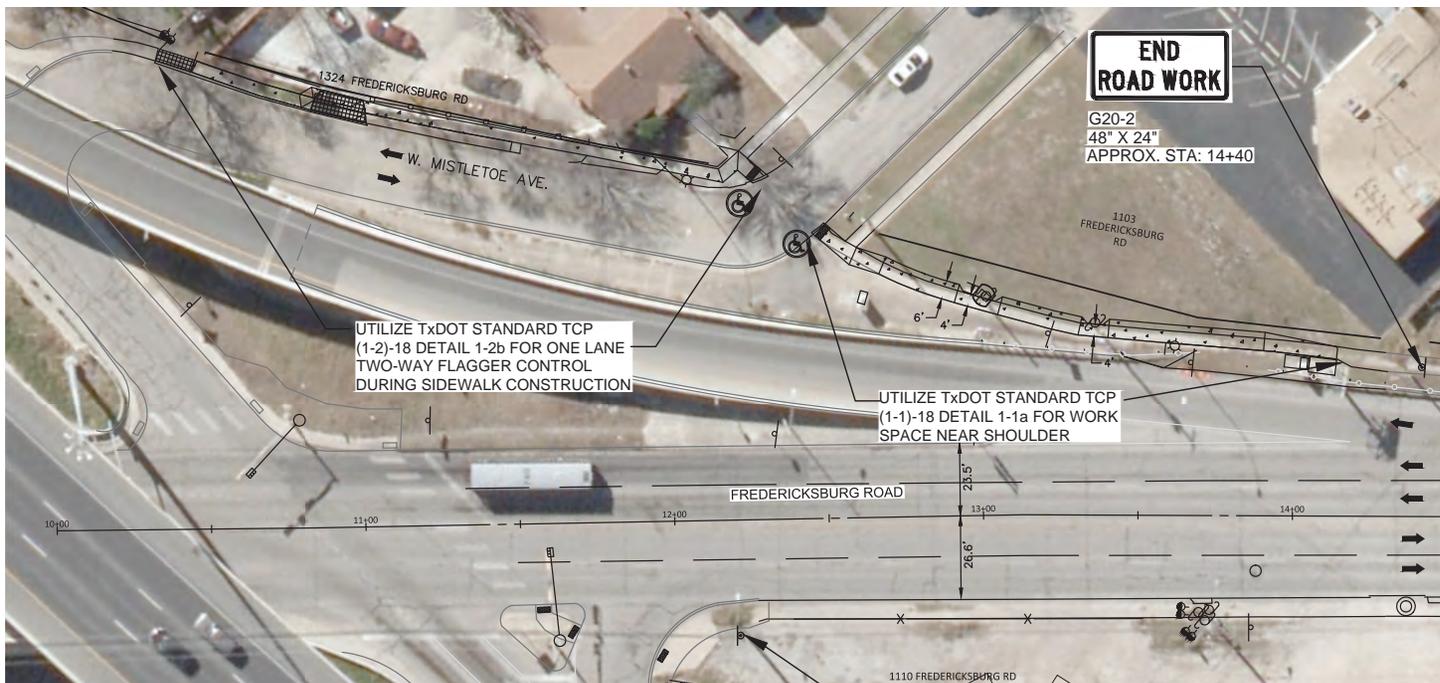
- ● ● ● CHANNELEZING DEVICES
- ⊠ CONSTRUCTION AREA - NEW CONC. SIDEWALK AND RETAINING WALL
- ➔ TRAFFIC FLOW DIRECTION
- ⊥ TY III BARRICADE
- Ⓢ TEMPORARY SIGN
- ▬ TEMPORARY BARRIER
- Ⓜ TRAILER MOUNTED FLASHING ARROW
- ▬ PROPOSED CONCRETE SIDEWALK
- ▬ PROPOSED CONCRETE DRIVEWAY PAD

### NOTES:

1. UTILIZE TxDOT STANDARDS TCP(1-4)-18 (SHORT TERM STATIONARY) OR TCP (2-4)-18 (INTERMEDIATE TERM STATIONARY) FOR TRAFFIC CONTROL PLAN SETUP (ONE LANE CLOSED).
2. MAINTAIN PARKING, RESIDENTIAL, AND BUSINESS ACCESS DURING CONSTRUCTION. FOR DRIVEWAY RECONSTRUCTION COORDINATE WITH PROPERTY OWNERS AND ENSURE THAT A MINIMUM OF ONE DRIVEWAY IS AVAILABLE FOR ACCESS.
3. DEVICES SHOWN ON THESE PLANS ARE FOR RETAINING WALL CONSTRUCTION WORK AREA ONLY. REFER TO ABOVE NOTES FOR OTHER CONSTRUCTION AREAS.
4. CLOSE SIDEWALK TO PEDESTRIANS OR PROVIDE TEMPORARY DIVERSIONS DURING CONSTRUCTION IN ACCORDANCE WITH TxDOT STANDARD WZ(BTS-2)-13 AND TEXAS MUTCD TYPICAL APPLICATION TA-28.

MATCH LINE STA. 14+50

MATCH LINE STA. 19+00



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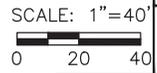
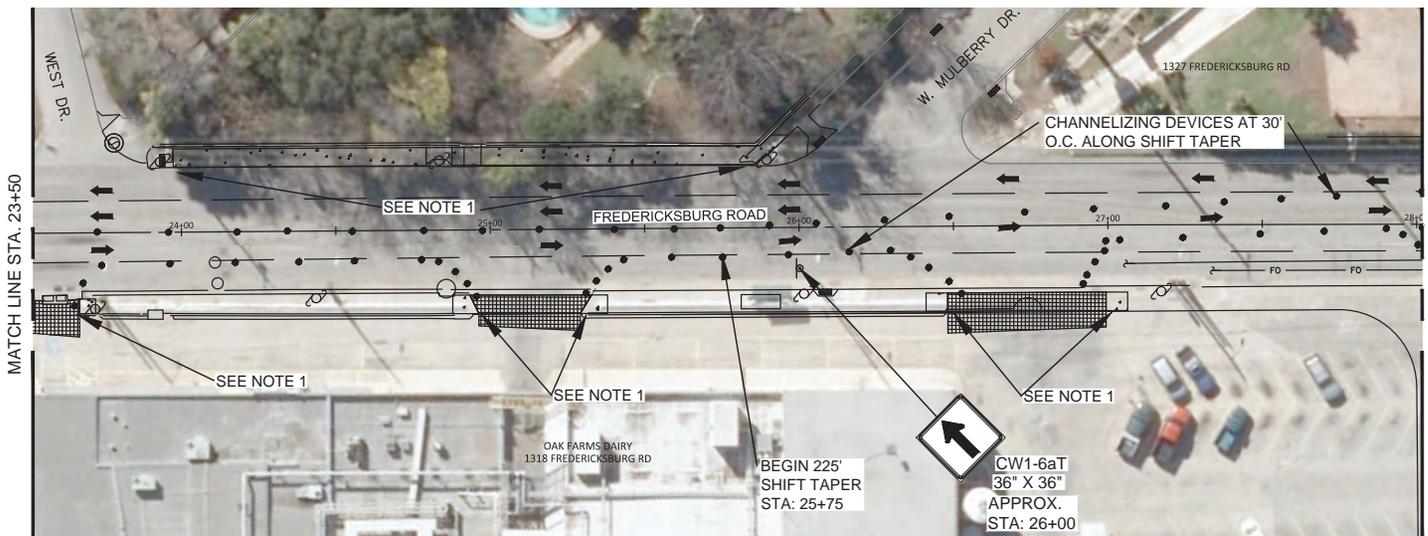
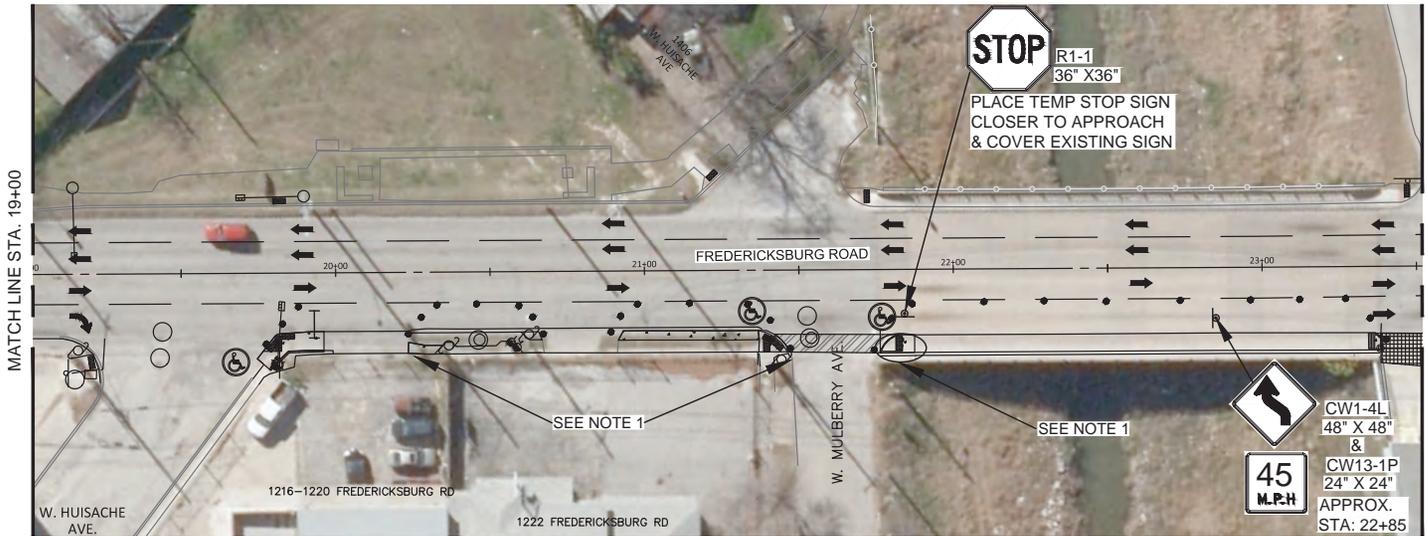
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**TRAFFIC CONTROL PLAN**  
SHEET 3 OF 5

DESIGNED: PRB	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: TL	TEXAS	SEE TITLE	VA	
DRAWN: BC	COUNTY	CONTROL SECTION	SHEET NO.	
CHECKED: BM	SAN	BEXAR	0915 15 579	19 of 54

# LEGEND

- • • • CHANNELIZING DEVICES
- ⊠ CONSTRUCTION AREA - NEW CONC. SIDEWALK AND RETAINING WALL
- ➔ TRAFFIC FLOW DIRECTION
- ⊥ TY III BARRICADE
- Ⓢ TEMPORARY SIGN
- TEMPORARY BARRIER
- ↑ TRAILER MOUNTED FLASHING ARROW
- ▨ PROPOSED CONCRETE SIDEWALK
- ▩ PROPOSED CONCRETE DRIVEWAY PAD

- NOTES:**
- UTILIZE TXDOT STANDARDS TCP(1-4)-18 (SHORT TERM STATIONARY) OR TCP (2-4)-18 (INTERMEDIATE TERM STATIONARY) FOR TRAFFIC CONTROL PLAN SETUP (ONE LANE CLOSED).
  - MAINTAIN PARKING, RESIDENTIAL, AND BUSINESS ACCESS DURING CONSTRUCTION. FOR DRIVEWAY RECONSTRUCTION COORDINATE WITH PROPERTY OWNERS AND ENSURE THAT A MINIMUM OF ONE DRIVEWAY IS AVAILABLE FOR ACCESS.
  - DEVICES SHOWN ON THESE PLANS ARE FOR RETAINING WALL CONSTRUCTION WORK AREA ONLY. REFER TO ABOVE NOTES FOR OTHER CONSTRUCTION AREAS.
  - CLOSE SIDEWALK TO PEDESTRIANS OR PROVIDE TEMPORARY DIVERSIONS DURING CONSTRUCTION IN ACCORDANCE WITH TXDOT STANDARD WZ(BTS-2)-13 AND TEXAS MUTCD TYPICAL APPLICATION TA-28.



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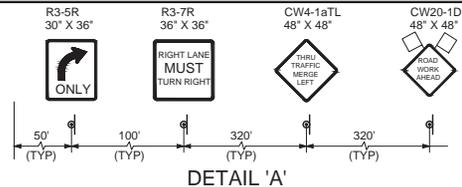
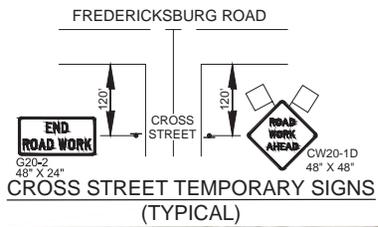
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Texas Department of Transportation

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)  
 TRAFFIC CONTROL PLAN  
 SHEET 4 OF 5

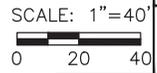
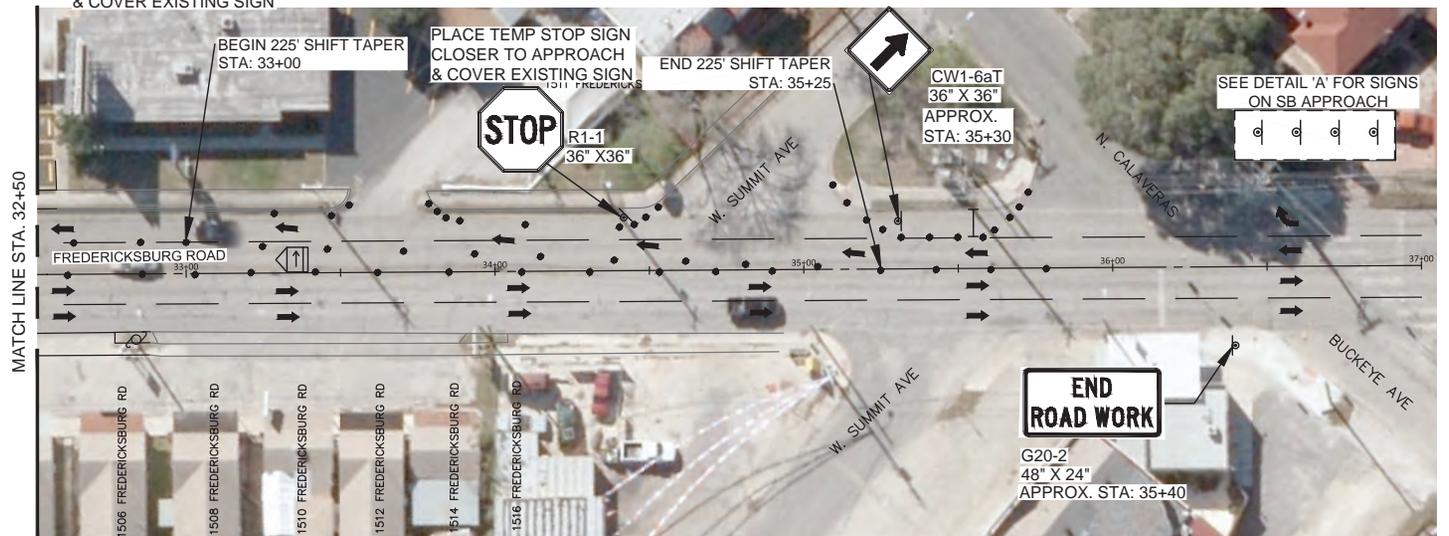
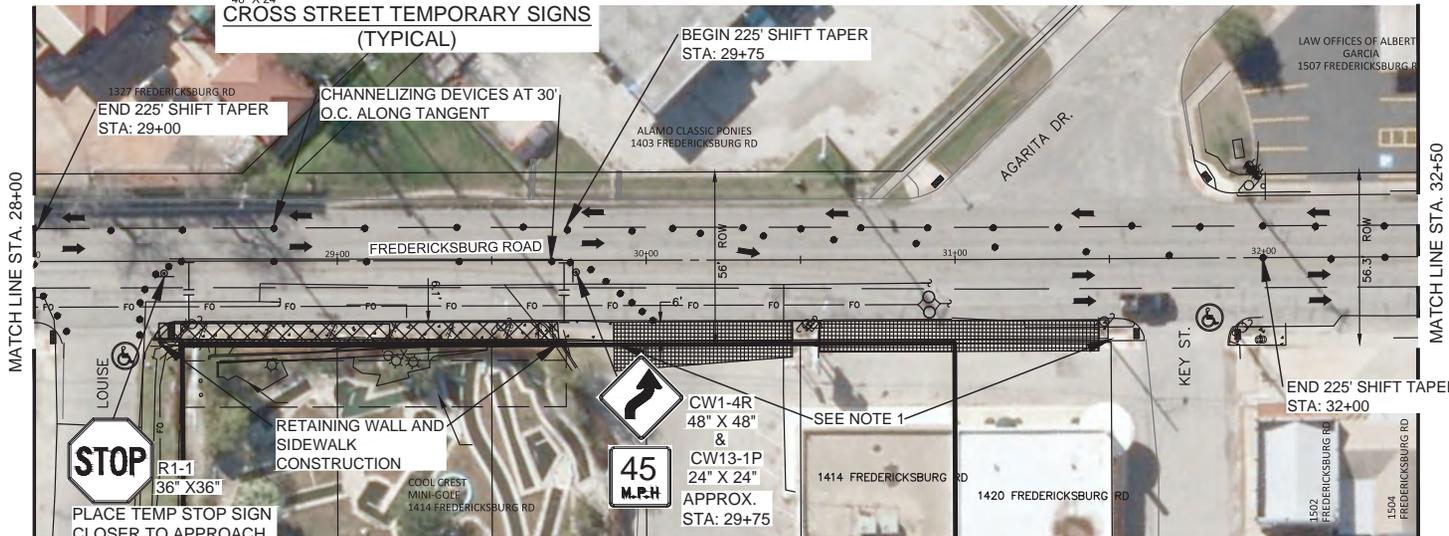
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**LEGEND**

- CHANNELIZING DEVICES
- ⊠ CONSTRUCTION AREA - NEW CONC. SIDEWALK AND RETAINING WALL
- ➔ TRAFFIC FLOW DIRECTION
- ⊥ TY III BARRICADE
- Ⓢ TEMPORARY SIGN
- TEMPORARY BARRIER
- ⬆️ TRAILER MOUNTED FLASHING ARROW
- ▨ PROPOSED CONCRETE SIDEWALK
- ▨ PROPOSED CONCRETE DRIVEWAY PAD

- NOTES:**
- UTILIZE TXDOT STANDARDS TCP(1-4)-18 (SHORT TERM STATIONARY) OR TCP (2-4)-18 (INTERMEDIATE TERM STATIONARY) FOR TRAFFIC CONTROL PLAN SETUP (ONE LANE CLOSE).
  - MAINTAIN PARKING, RESIDENTIAL, AND BUSINESS ACCESS DURING CONSTRUCTION. FOR DRIVEWAY RECONSTRUCTION COORDINATE WITH PROPERTY OWNERS AND ENSURE THAT A MINIMUM OF ONE DRIVEWAY IS AVAILABLE FOR ACCESS.
  - DEVICES SHOWN ON THESE PLANS ARE FOR RETAINING WALL CONSTRUCTION WORK AREA ONLY. REFER TO ABOVE NOTES FOR OTHER CONSTRUCTION AREAS.
  - CLOSE SIDEWALK TO PEDESTRIANS OR PROVIDE TEMPORARY DIVERSIONS DURING CONSTRUCTION IN ACCORDANCE WITH TXDOT STANDARD WZ(BTS)-2-13 AND TEXAS MUTCD TYPICAL APPLICATION TA-28.



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FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**TRAFFIC CONTROL PLAN**  
SHEET 5 OF 5

DESIGNED: PRB	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: TL	TEXAS	SECTION	NO.	VA
DRAWN: BC	STATION	COUNTY	CONTROL SECTION	SHEET NO.
CHECKED: BM	SAN	BEXAR	0915 15 579	21 of 54

## TRAFFIC NOTES

### TRENCHING / EXCAVATING

The following notes shall apply to excavations of trenches or pits that are located in the pavement or are within six (6) feet of the edge of roadway:

- 1.) Trench walls shall not be closer than three (3) feet from the edge of the traveled way at any stage of construction.
- 2.) Traffic control devices shall be in place before starting any excavation.
- 3.) Trenches or pits will not be permitted to be bridged by steel plates and open to traffic unless they are temporarily backfilled to finished street grade.
- 4.) For pits or trenches along or in a roadway that are going to be left open over night that are zero to fifty (0 - 50) feet in length, the following applies. **GUARD RAIL OR CONCRETE BARRIER SHALL BE USED.**
- 5.) For pits or trenches along or in roadway that are going to be left open over night and are longer than 50 feet in length. **CONCRETE BARRIERS MUST BE USED.**
- 6.) Plastic construction fencing shall be required for any trench or pit left open over night.
- 7.) When using any guardrail or concrete barrier, protected end must be used as per the TEXAS-M.U.T.C.D.
- 8.) For vertical drop-offs greater than two (2) feet along roadway, low profile concrete with appropriate end protection must be installed.
- 9.) All concrete barriers placed on City R.O.W shall be low profile. No high profile barriers will be allowed.

### REFLECTIVE SHEETING

The reflectorized white and reflectorized orange stripes for channelizing devices such as barricade drums and vertical panels shall be constructed of reflective sheeting meeting the color and retro-reflectivity requirements of high intensity, unless otherwise specified in the plans.

### MAINTENANCE

- 1.) All traffic signs shall be kept in proper position, clean and legible at all times. Damaged barricades, signs, and other traffic control devices shall be replaced without undue delay.
- 2.) To ensure adequate maintenance, a suitable schedule for inspection, cleaning, and replacement of barricades, lights, and signs shall be established.
- 3.) Special attention and necessary action shall be taken to see that weeds, trees, shrubbery and construction materials do not obscure the face of any sign or barricades.

### TRAINING

Each person whose actions affect maintenance and construction zone safety, from the upper-level management personnel through construction and maintenance field personnel, should receive training appropriate to the job decision each individual is required to make. Only those individuals who are qualified by means of adequate training in safe traffic control practices and have a basic understanding of the principles established by applicable standards and regulations, including those of the TEXAS M.U.T.C.D. should supervise the selection, placement, and maintenance of traffic control devices in maintenance and construction areas.

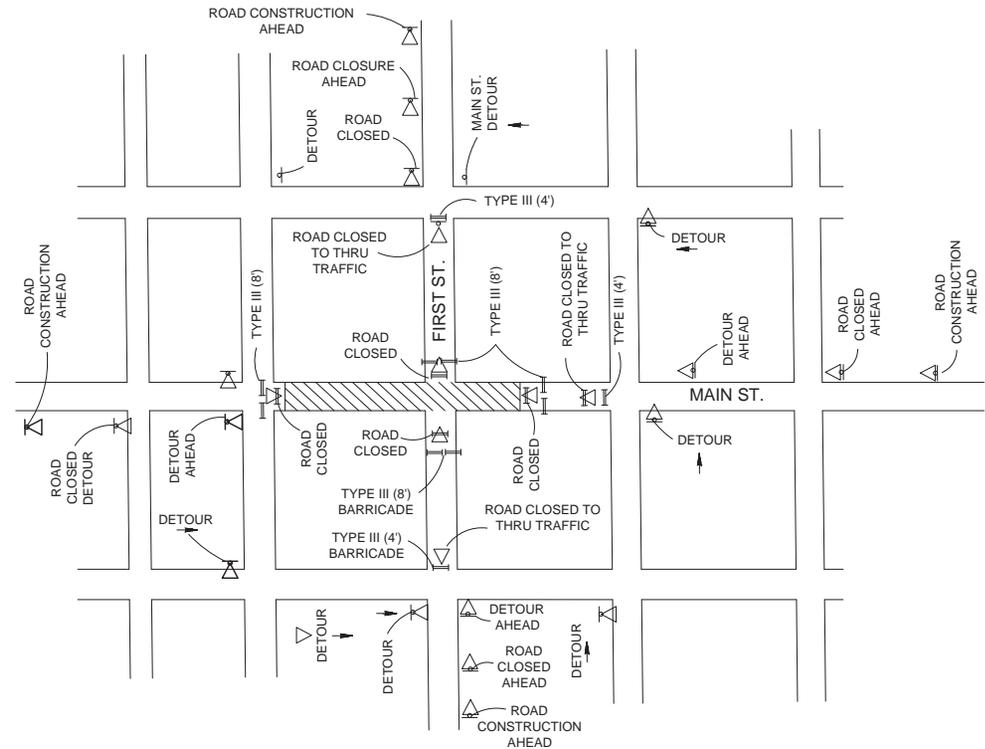
### SPECIAL EVENTS BARRICADING

All Type I, (8') barricades used for special events (Dome, Runs, Walks, Parades etc.) shall be a minimum of 42" high and 96" wide. Any necessary signs will require proper sign stands.

### USE OF CITY R.O.W.

The City of San Antonio reserves the right to allow contracting and barricading sub-contractors to use the City's R.O.W. The City also reserves the right to advise contractors and barricading sub-contractors to remove stored or unused traffic control devices from the City of San Antonio R.O.W. It is the barricading sub-contractor's responsibility to remove any traffic control device from City's R.O.W. when instructed to do so by a City representative.

## CLOSURE DIAGRAMS



## TYPICAL INTERSECTING STREET CLOSURE FOR TWO LANE STREETS

NOTE:  
ALL SIGNS WILL BE  
MOUNTED ON SIGN  
SUPPORTS ONLY

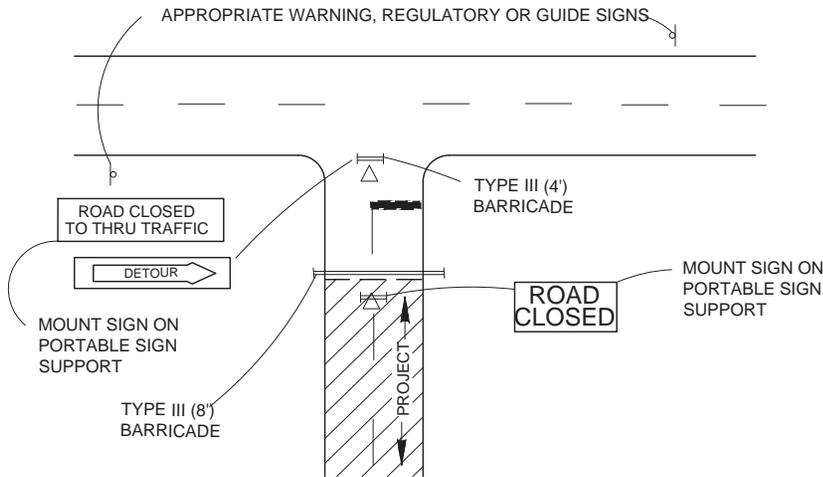
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JUNE 2005

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DEPARTMENT OF PUBLIC WORKS

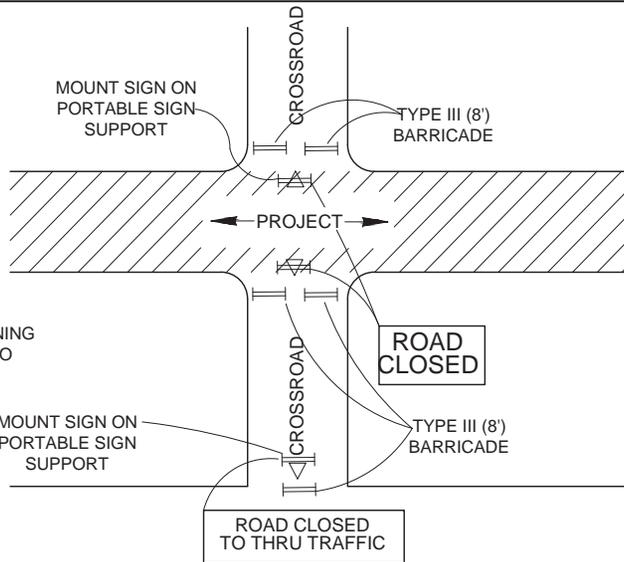
TRAFFIC STANDARDS  
**BARRICADE AND CONSTRUCTION  
STANDARDS**  
SHEET 1 OF 4

% SUBMITTAL	PROJECT NO.:	DATE:	
DRWN. BY: A.F.G.	DSGN. BY: E.N.M.	CHKD. BY: J.D.F. / E.N.M.	SHEET NO. 22 OF 54

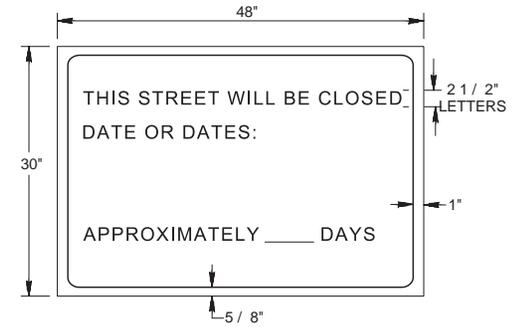


**PROJECT LIMITS FOR CLOSED ROADWAY**

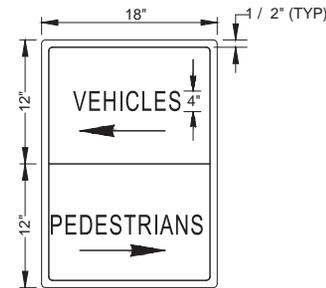
BARRICADES SHALL BE ERECTED COMPLETELY ACROSS ROADWAY. CHANNELIZING DEVICES MAY BE DRUMS, VERTICAL PANELS OR CONES AS SPECIFIED IN THE PLANS



**CROSS STREET SIGNING AND BARRICADING TOTALLY CLOSED**

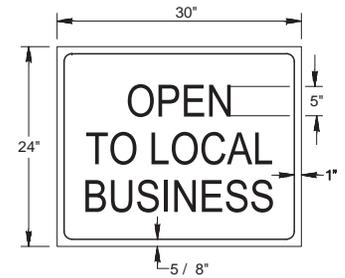


LETTERS- BLACK  
BORDER- BLACK  
BACKGROUND- ORANGE



LETTERS- BLACK  
BORDER- BLACK  
BACKGROUND- ORANGE  
SPACING-3 SIGNS PER BLOCK

DIRECTION OF ARROWS  
ARE REVERSIBLE



LETTERS- WHITE  
BORDER- WHITE  
BACKGROUND- BLUE REFLECTIVE

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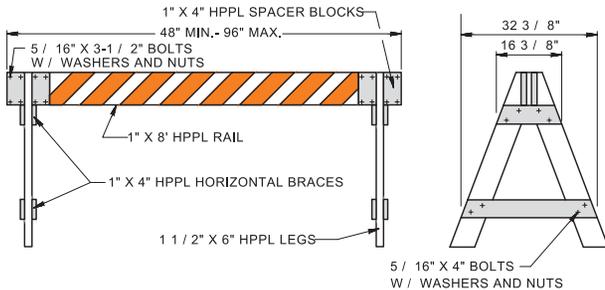
CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC STANDARDS  
**BARRICADE AND CONSTRUCTION STANDARDS**  
SHEET 2 OF 4

% SUBMITTAL	PROJECT NO.:	DATE:
DRWN. BY: A.F.G.	DSGN. BY: E.N.M.	CHKD. BY: J.D.F. / E.N.M.

SHEET NO. 23 OF 54

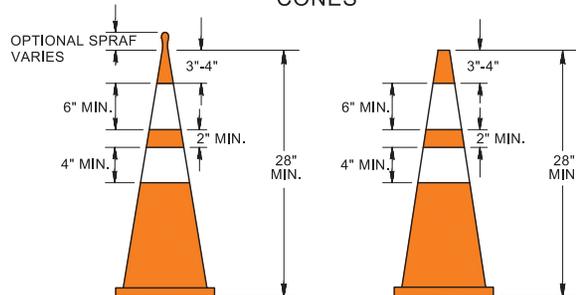
### TYPE I BARRICADE



- 1.) Only the following Type I barricade shall be used in the City of San Antonio Right-Of-Way:
  - A. 1" x 8" plastic rail with 2" x 6" wooden legs.
  - B. 1" x 8" wooden rail with plastic legs.
  - C. 1" x 8" wooden rail with 2" x 6" wood legs.
  - D. No screws allowed for assembly of A-legs or rail.
  - E. Warning lights will be used as directed by the Traffic Engineer.
  - F. All Type I (4') barricades will be a minimum of 36" high and 60" wide. (For Construction Use Only)
  - G. All Type I (8') barricades with wooden legs shall be 2" X 6" wood only.
  - H. All Type I (4') barricades with wooden legs shall be 1" X 8" wood only.
- 2.) Type I Barricades shall not be used for partial and total street closures in construction work zones. Only Type III barricades shall be used for this purpose.
- 3.) Warning lights shall not be mounted on Type I barricades.

(See TxDOT BC-03 Sheets for specific construction information)

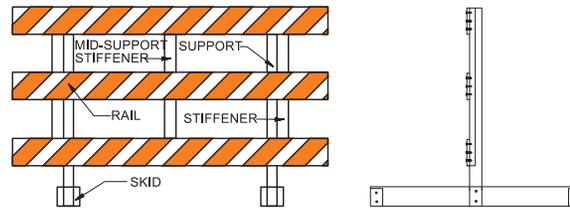
### CONES



- 1.) Base for 28" high cones must weigh at least 9.5 lbs.
- 2.) Night time cones must have reflective collars.

(See TxDOT BC-03 Sheets for specific construction information)

### Type III BARRICADE



- 1.) Only the following Type III barricade shall be used in the City of San Antonio Right-Of-Way.
  - A. Hollow polyvinyl or fiberglass tubing post with 1" X 8" wooden rails.
  - B. Hollow polyvinyl or fiberglass tubing post with plastic rails.
  - C. Skids must be wood or solid plastic only.
  - D. Warning lights shall not be mounted on Type III barricades.

(See TxDOT BC-03 Sheets for specific construction information)

### TEMPORARY MARKINGS

- 1.) Solid double yellow painted lines shall be installed for temporary division of traffic or construction duration longer than five (5) days, with repainting to occur once monthly or at the discretion of the Traffic Engineer. (All cost of upkeep will be at the contractor's expense.)
- 2.) Solid double yellow tabs, or V/P panels shall be installed for temporary division of traffic for construction duration less than five (5) days, with re-tabbing to occur at the discretion of the Traffic Engineer. NAILS SHALL NOT BE USED TO FIX TABS TO CEMENT OR BASE (All cost of upkeep will be at the contractor's expense.)

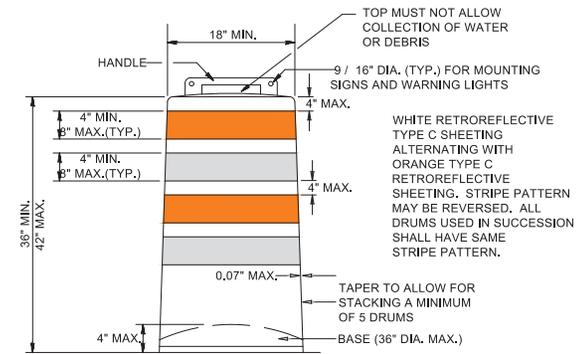
(See TxDOT BC-03 Sheets for specific construction information.)

### TEMPORARY CONCRETE BARRIER

- 1.) All concrete barriers placed on City R.O.W. shall be low profile.
- 2.) No high profile barriers will be allowed.
- 3.) Reflectors will be required on each concrete barrier.

(See TxDOT BC-03 Sheets for specific construction information)

### PLASTIC DRUMS



- 1.) Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- 2.) Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
- 3.) The Engineer/Inspector shall provide written notice to the Contractor regarding the replacement of drums or other traffic control devices. The Contractor shall have a maximum of 24 hours to replace any plastic drums or other traffic control devices identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.
- 4.) Each drum must have a 40 lb. rubber or plastic snap on.
- 5.) No signs larger than 18" X 24" will be allowed to be mounted on plastic drums.
- 6.) No warning lights will be allowed to be mounted on plastic barrels.
- 7.) In lieu of a warning light, a yellow reflector will be acceptable.

(See TxDOT BC-03 Sheets for specific construction information)

JUNE 2005

CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC STANDARDS  
**BARRICADE AND CONSTRUCTION STANDARDS**  
SHEET 3 OF 4

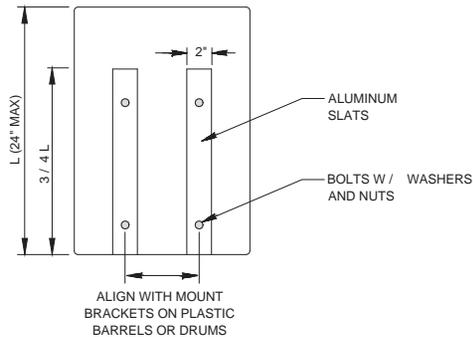
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% SUBMITTAL	PROJECT NO.:	DATE:
DRWN. BY: A.F.G.	DSGN. BY: E.N.M.	CHKD. BY: J.D.F. / E.N.M.

SHEET NO. 24 OF 54

## SIGNS

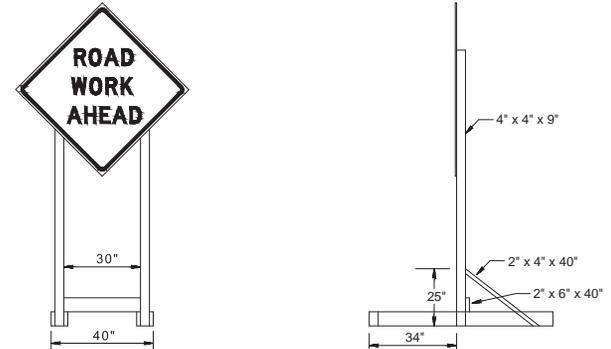
- 1.) A maximum of two signs can be mounted on any one Long / Intermediate Term Stationary Portable Sign Support.
- 2.) 48" X 48" signs shall be mounted separately on the Long / Intermediate Term Stationary Portable Sign Support.
- 3.) For Short Term Stationary Portable Sign Support the distance from the bottom of the vinyl sign to the exiting ground must be one (1) foot.
- 4.) Long / Intermediate Term Stationary Portable Signs must be made of wood or plastic only.
- 5.) No signs shall be mounted to any Type I, Type III, or folding barricades.
- 6.) Signs shall be mounted only on TxDOT approved sign supports.
- 7.) Detour signs will be mounted on single "D" legs w / 7' clearance from the bottom of the sign.
- 8.) WORK DURATION TERMINOLOGY  
 Long Term Stationary = occupies a location 3 or more days.  
 Intermediate-Term Stationary = occupies a location for overnight to 3 days.  
 Short Term Stationary = daylight work that occupies a location from 1 to 12 hours.  
 Short Duration = occupies a location up to 1 hour.
- 9.) Signs shall adhere to the following requirements:
  - Signs placed on plastic barrels or drums shall be made of ABS plastic or plywood.
  - Signs placed on skids shall be made of plywood or aluminum.
  - Aluminum signs shall have a minimum thickness of 0.08".
  - Plywood signs shall have a minimum thickness of 1 / 2".
  - ABS Plastic signs shall have a minimum thickness of 0.13".
  - Plastic signs cannot exceed 18" by 24" in size and shall be reinforced with 2" wide, 0.08" thick aluminum slats, as depicted below:



- No other material shall be accepted without the express written approval of the Traffic Engineer.

(See TxDOT BC-03 Sheets for specific construction information.)

## LONG TERM / INTERMEDIATE TERM SIGN SUPPORT



- 1.) 48" X48" signs must be mounted independently.
- 2.) A maximum of two signs can be mounted on any one long term / intermediate sign support.
- 3.) Sand bag all sign supports.
- 4.) Distance from the bottom of the sign to the existing ground shall be 7'.
- 5.) Distance from the header barricade rail to the face of the sign panel shall be 2' min. and 10' max.
- 6.) Steel tripods shall not be allowed.

(See TxDOT BC-03 Sheets for specific construction information)

JUNE 2005

CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC STANDARDS  
**BARRICADE AND CONSTRUCTION STANDARDS**  
SHEET 4 OF 4

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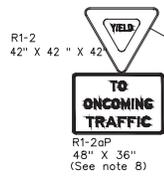
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DRWN. BY: A.F.G.	DSGN. BY: E.N.M.	CHKD. BY: J.D.F. / E.N.M.	SHEET NO. 25 OF 54



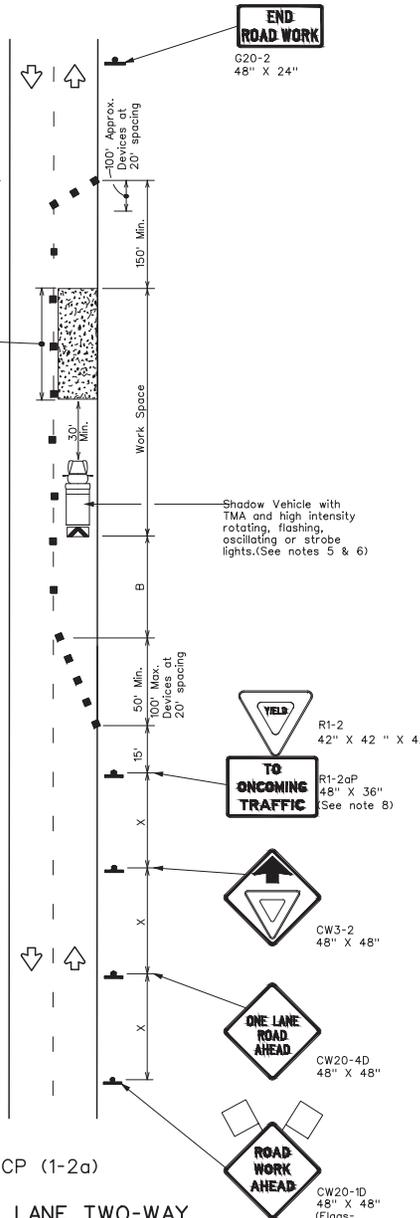
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DATE: FILE:

Warning Sign Sequence in Opposite Direction Same as Below

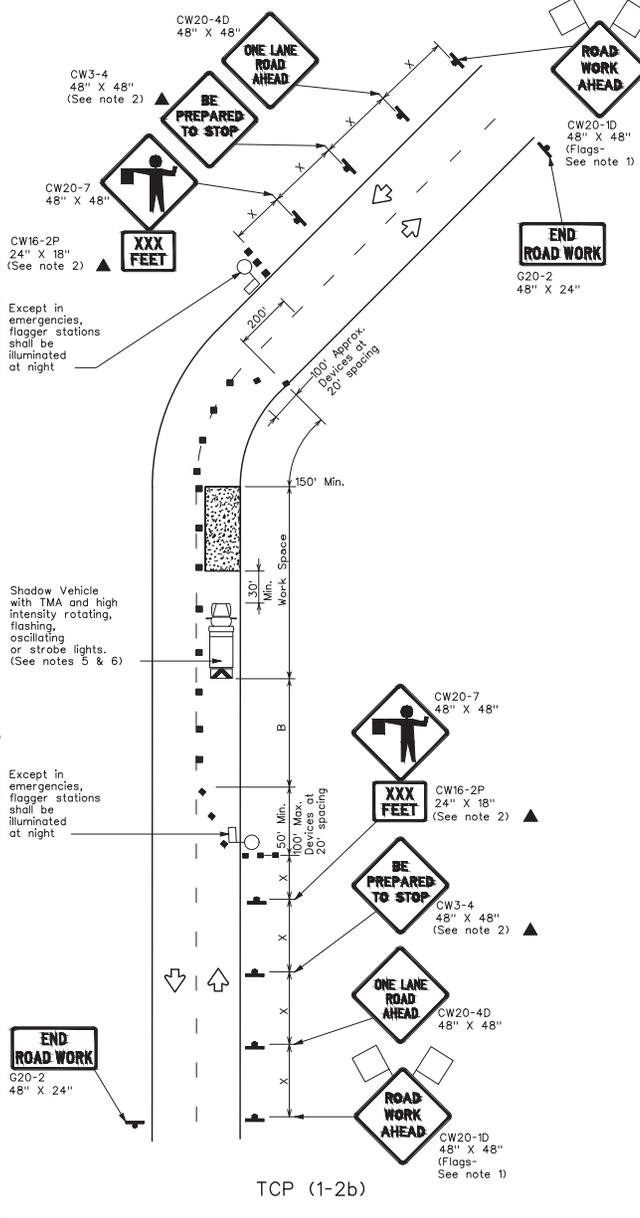
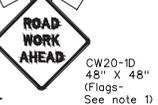
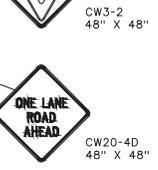
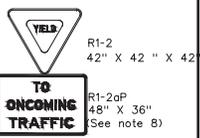


Channelizing devices separate work space from traveled way



**TCP (1-2a)**  
**ONE LANE TWO-WAY CONTROL WITH YIELD SIGNS**  
(Less than 2000 ADT - See note 7)

**END ROAD WORK**  
G20-2  
48" X 24"



**TCP (1-2b)**  
**ONE LANE TWO-WAY CONTROL WITH FLAGGERS**

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Worked Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed x	Formula	Minimum Desirable Taper Lengths x x			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x"	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	L = WS/60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40	L = WS	265'	295'	320'	40'	80'	240'	155'	305'
45		450'	495'	540'	45'	90'	320'	195'	360'
50	L = WS	500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60	L = WS	600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70	L = WS	700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

x Conventional Roads Only  
xx Taper lengths have been rounded off.  
L- Length of Taper (FT) W-Width of Offset(FT) S-Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

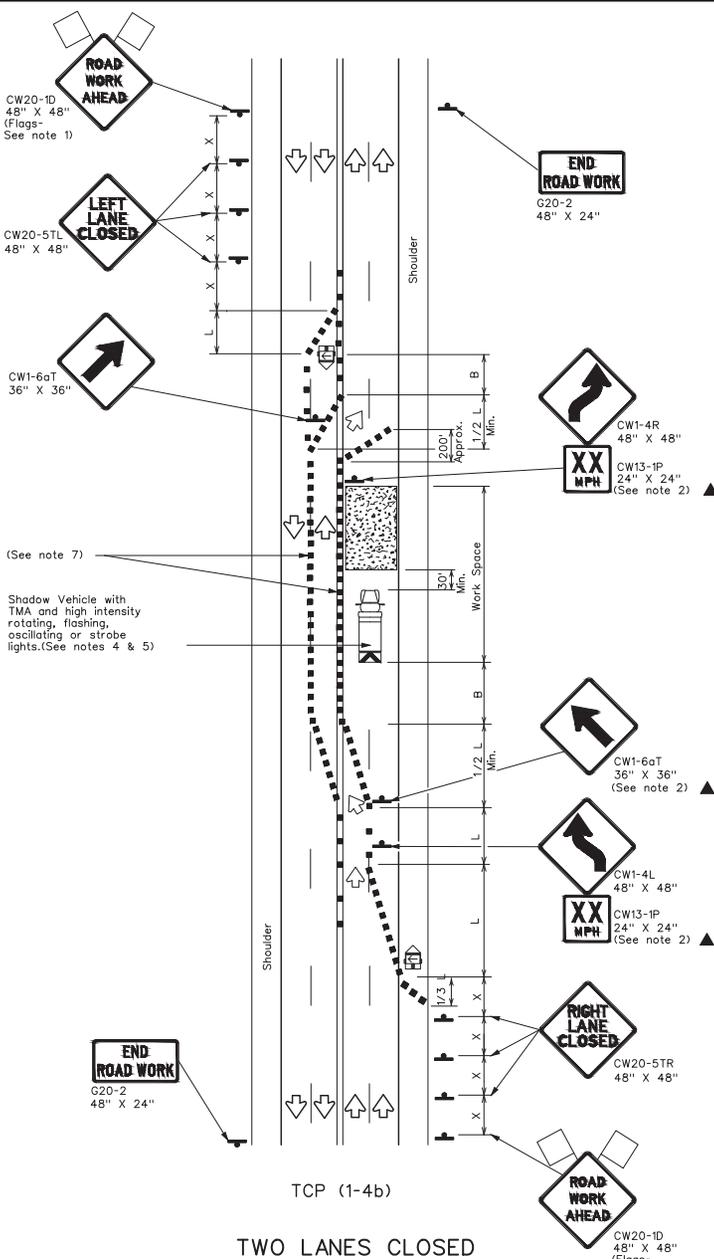
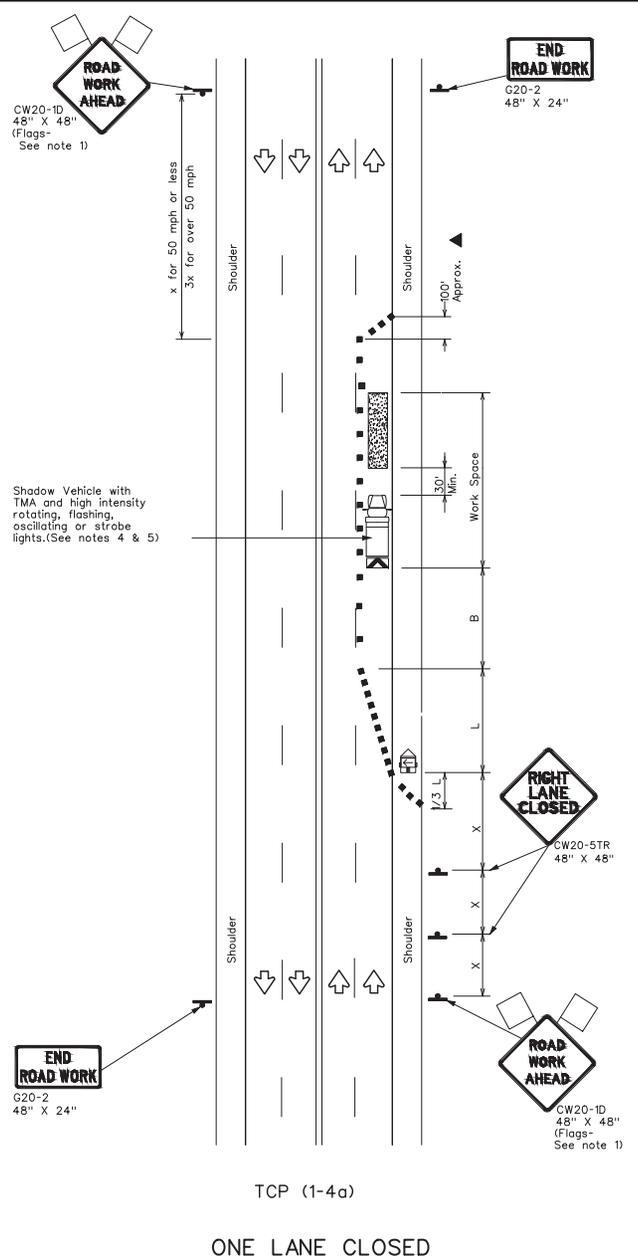
**GENERAL NOTES**

- Flags attached to signs where shown are REQUIRED.
  - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
  - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
  - Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
  - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
  - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- TCP (1-2a)**
- R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block; in rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
  - R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.
- TCP (1-2b)**
- Flaggers should use two-way radios or other methods of communication to control traffic.
  - Length of work space should be based on the ability of flaggers to communicate.
  - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
  - Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
  - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

		Traffic Operations Division Standard	
<b>TRAFFIC CONTROL PLAN</b> <b>ONE-LANE TWO-WAY</b> <b>TRAFFIC CONTROL</b>			
<b>TCP(1-2)-18</b>			
FILE: tcp1-2-18.dgn	DATE: 4-90	CHK: [ ]	DW: [ ]
© TxDOT December 1985	COMT: [ ]	SECT: [ ]	JOB: [ ]
4-90 4-90	DIST: [ ]		COUNTY: [ ]
2-94 2-12	SHEET NO.:		27 OF 54
1-97 2-18	152		

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DATE:  
FILE:



**LEGEND**

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed x	Formula	Minimum Desirable Taper Lengths x x			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L-WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70	700'	770'	840'	70'	140'	800'	475'	
75	750'	825'	900'	75'	150'	900'	540'	

x Conventional Roads Only  
 xx Taper lengths have been rounded off.  
 L- Length of Taper(FT) W-Width of Offset(FT) S-Posted Speed(MPH)

**TYPICAL USAGE**

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

- GENERAL NOTES**
- Flags attached to signs where shown are REQUIRED.
  - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
  - The CW20-1D "ROAD WORK AHEAD" sign may be repeated if the visibility of the work zone is less than 150 feet.
  - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
  - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- TCR (1-4g)**
- If this TCR is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline where needed to protect the work space from opposing traffic with the arrow panel placed in the closed lane near the end of the merging taper.
- TCR (1-4b)**
- Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2S where S is the speed in mph. This tighter device spacing is intended for the areas of conflicting markings, not the entire work zone.

**Texas Department of Transportation** Traffic Operations Division Standard

**TRAFFIC CONTROL PLAN  
 LANE CLOSURES ON MULTILANE  
 CONVENTIONAL ROADS**

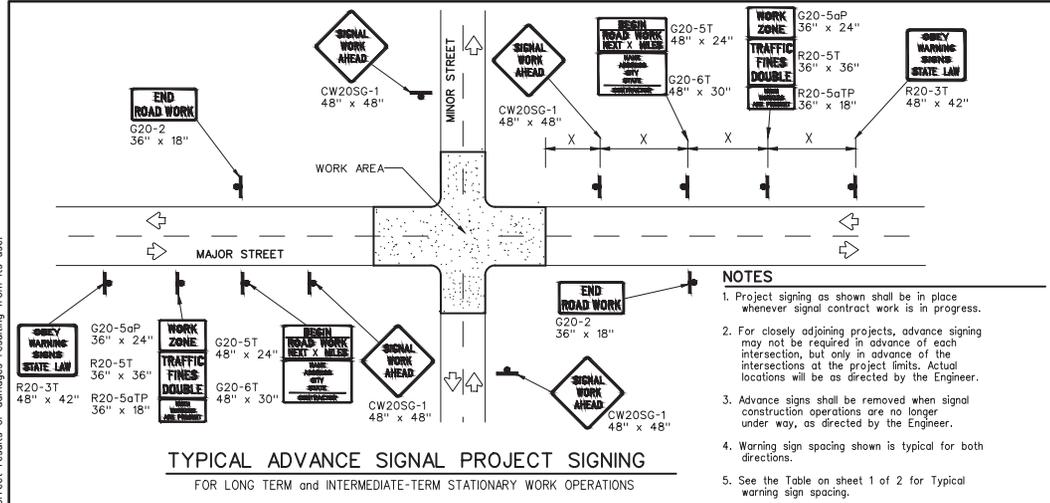
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REVISIONS		DIST: [ ]		COUNTY: [ ]	
2-94	4-98	[ ]		SHEET NO. [ ]	
8-95	2-12	[ ]		28 OF 54	
1-97	2-18	[ ]		[ ]	

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- NOTES**
1. Project signing as shown shall be in place whenever signal contract work is in progress.
  2. For closely adjoining projects, advance signing may not be required in advance of each intersection, but only in advance of the intersections at the project limits. Actual locations will be as directed by the Engineer.
  3. Advance signs shall be removed when signal construction operations are no longer under way, as directed by the Engineer.
  4. Warning sign spacing shown is typical for both directions.
  5. See the Table on sheet 1 of 2 for Typical warning sign spacing.

**TYPICAL ADVANCE SIGNAL PROJECT SIGNING**  
FOR LONG TERM and INTERMEDIATE-TERM STATIONARY WORK OPERATIONS

**GENERAL NOTES FOR WORK ZONE SIGNS**

1. Signs shall be installed and maintained in a straight and plumb condition.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. Nails shall NOT be used to attach signs to any support.
5. All signs shall be installed in accordance with the plans or as directed by the Engineer.
6. The Contractor shall furnish the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD).
7. The Contractor shall furnish sign supports and substrates listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD), installed as per the manufacturer's recommendations.
8. Temporary signs that have damaged or cracked substrates and/or damaged or marred reflective sheeting shall be replaced as directed by the Engineer.
9. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1".
10. Damaged wood posts shall be replaced. Splicing wood posts will not be allowed.

**DURATION OF WORK**

1. Work zone durations are defined in Part 6, Section 6C.02 of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

**SIGN MOUNTING HEIGHT**

1. Sign height of Long-term/intermediate-term warning signs shall be as shown on Figure 6F-1 of the TMUTCD.
2. Sign height of Short-term/Short Duration warning signs shall be as shown on Figure 6F-2 of the TMUTCD.
3. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

**REMOVING OR COVERING**

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered, unless otherwise approved by the Engineer.
2. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night without damaging the sign sheeting. Burlap, or heavy materials such as plywood or aluminum shall not be used to cover signs.
3. Duct tape or other adhesive material shall NOT be affixed to a sign face.
4. Signs and anchor stubs shall be removed and holes back filled upon completion of the work.

**REFLECTIVE SHEETING**

1. All signs shall be retroreflective and constructed of sheeting meeting the requirements of the DMS and color usage table shown on this sheet.

**SIGN SUPPORT WEIGHTS**

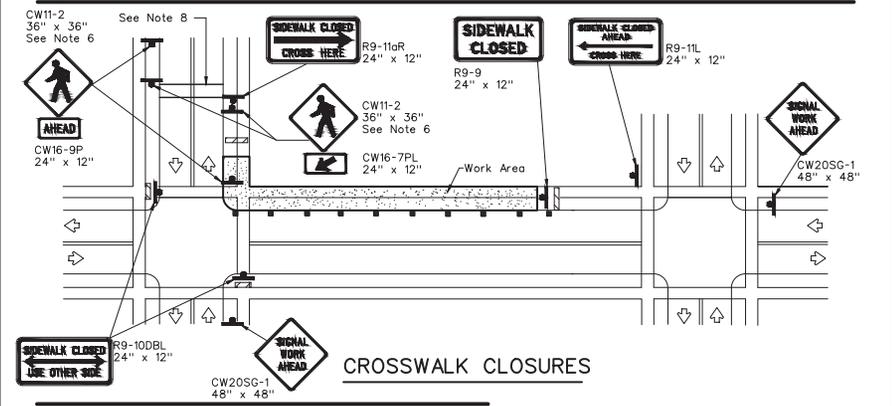
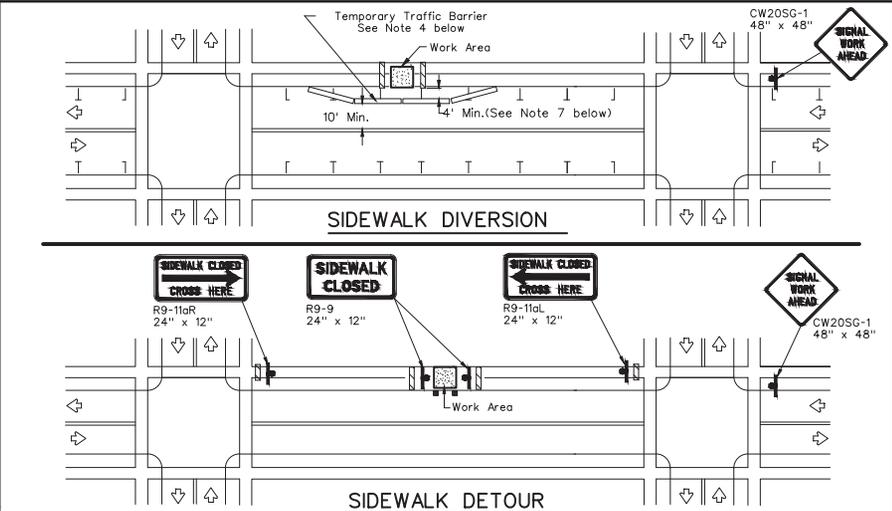
1. Weights used to keep signs from turning over should be sandbags filled with dry, cohesionless material.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber, such as tire inner tubes, shall not be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skirts to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

LEGEND	
	Sign
	Channelizing Devices
	Type 3 Barricade

DEPARTMENTAL MATERIAL SPECIFICATIONS	
SIGN FACE MATERIALS	DMS-8300
FLEXIBLE ROLL-UP REFLECTIVE SIGNS	DMS-8310

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B <sub>L</sub> OR TYPE R <sub>L</sub> SHEETING
WHITE	BACKGROUND	TYPE A SHEETING
BLACK	LEGEND & BORDERS	ACRYLIC NON-REFLECTIVE SHEETING

Only pre-qualified products shall be used. A copy of the "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found at the following web address:  
[http://www.txdot.gov/txdot\\_library/publications/construction.htm](http://www.txdot.gov/txdot_library/publications/construction.htm)



**PEDESTRIAN CONTROL**

1. Holes, trenches or other hazards shall be adequately protected by covering, delineating or surrounding the hazard with orange plastic pedestrian fencing or longitudinal channelizing devices, or as directed by the Engineer.
2. "CROSSWALK CLOSURES" as detailed above will require the Engineer's approval prior to installation.
3. R9 series signs shown may be placed on supports detailed on the BC standards or CWZTCD list, or when fabricated from approved lightweight plastic substrates, they may be mounted on top of a plastic drum at or near the location shown.
4. For speeds less than 45 mph longitudinal channelizing devices may be used instead of traffic barriers when approved by the Engineer. Attenuation of blunt ends and installation of water filled devices shall be as per BC(9) and manufacturer's recommendations.
5. Location of devices are for general guidance. Actual device spacing and location must be field adjusted to meet actual conditions.
6. Where pedestrians with visual disabilities normally use the closed sidewalk Detectable Pedestrian Barricades should be used instead of the Type 3 Barricades shown.
7. The width of existing sidewalk shall be maintained if practical.
8. Pavement markings for mid-block crosswalks shall be paid for under the appropriate bid items.
9. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

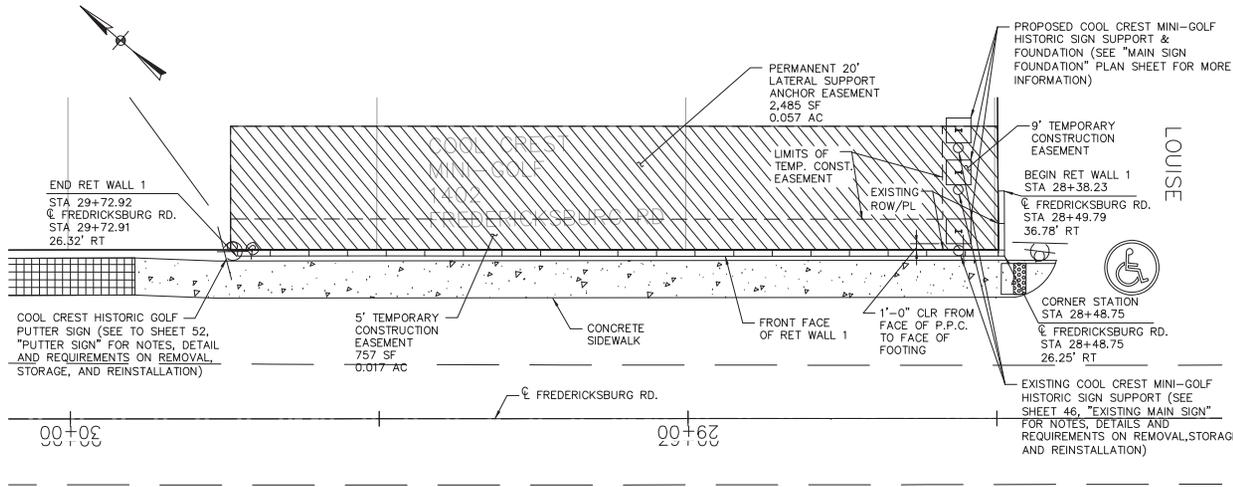


**TRAFFIC SIGNAL WORK BARRICADES AND SIGNS**

**WZ(BTS-2)-13**

FILE: ..wz(bts-13.dgn..	DW: TxDOT	CR: TxDOT	DW: TxDOT	CR: TxDOT
© TxDOT April, 1992	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY	SHEET NO.	
2-98 10-99 7-13			30 OF 54	
4-98 3-03				

DATE: FILE:

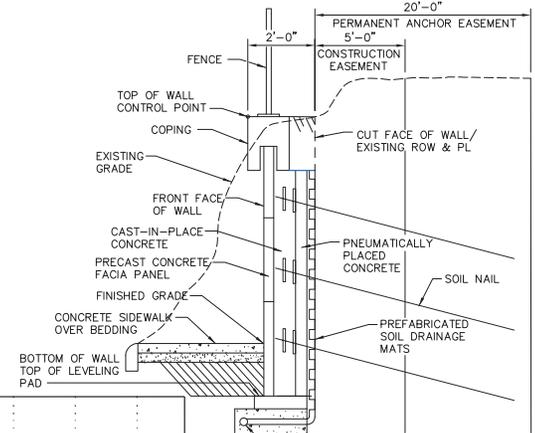


PLAN

ITEM NO.	DESCRIPTION	UNIT	QTY
0410-6001	SOIL NAIL ANCHORS	LF	1,001.00
0423-6022	RETAINING WALL (SOIL NAIL)(FACIA)	SF	1,017
0556-6008	PIPE UNDERDRAIN (TY 8)(6")	LF	134.69

GENERAL NOTES:

1. TxDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES SHALL APPLY FOR THE CONSTRUCTION OF THIS RETAINING WALL.
2. SEE SOIL NAIL LAYOUT, RETAINING WALL DETAILS, ROADWAY SHEETS, DRAINAGE SHEETS, BORING LOGS, AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND THE BOTTOM OF WALL/TOP OF LEVELING PAD.
4. PAYMENT PRICE FOR RETAINING WALL (SOIL NAIL)(FACIA) SHALL BE FULL COMPENSATION FOR PROVIDING ALL STRUCTURAL STEEL, CONCRETE, DRAINAGE MATS, BACKFILL, VERIFICATION TESTING, PROOF TESTING AND OTHER MATERIALS NECESSARY TO CONSTRUCT THE WALL.
5. ALL MEASUREMENTS ARE TO TOP OF WALL, CONTROL POINT UNLESS NOTED OTHERWISE.
6. UTILITY LOCATION AND ELEVATION TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO EXCAVATION AND CONSTRUCTION.
7. PRECAST CONCRETE FACIA PANEL SHALL HAVE PALM LEAF WALL AESTHETIC FINISH. SEE AESTHETIC DETAILS FOR MORE INFORMATION.
8. COOL CREST MINI-GOLF HISTORIC SIGN AND GOLF PUTTER HISTORIC SIGN ARE TO BE PROPERLY REMOVED AND STORED PRIOR TO CONSTRUCTION OF WALL. REFER TO "COOL CREST SIGN DECONSTRUCTION AND NEW FOUNDATION" PLAN SHEETS FOR MORE INFORMATION ON PROPER REMOVAL AND STORAGE REQUIREMENTS.
9. PROPOSED COOL CREST MINI-GOLF HISTORIC SIGN SUPPORT FOUNDATIONS ARE TO BE CONSTRUCTED AND HELIX PILES DRILLED PRIOR TO EXCAVATION OF WALL AND DRILLING OF SOIL NAILS. REFER TO "MAIN SIGN FOUNDATION PLAN" DETAILS FOR MORE INFORMATION.



TYPICAL SECTION  
SOIL NAIL WALL

SCALE: 1"=20" (HORIZ)  
1"=10" (VERT)

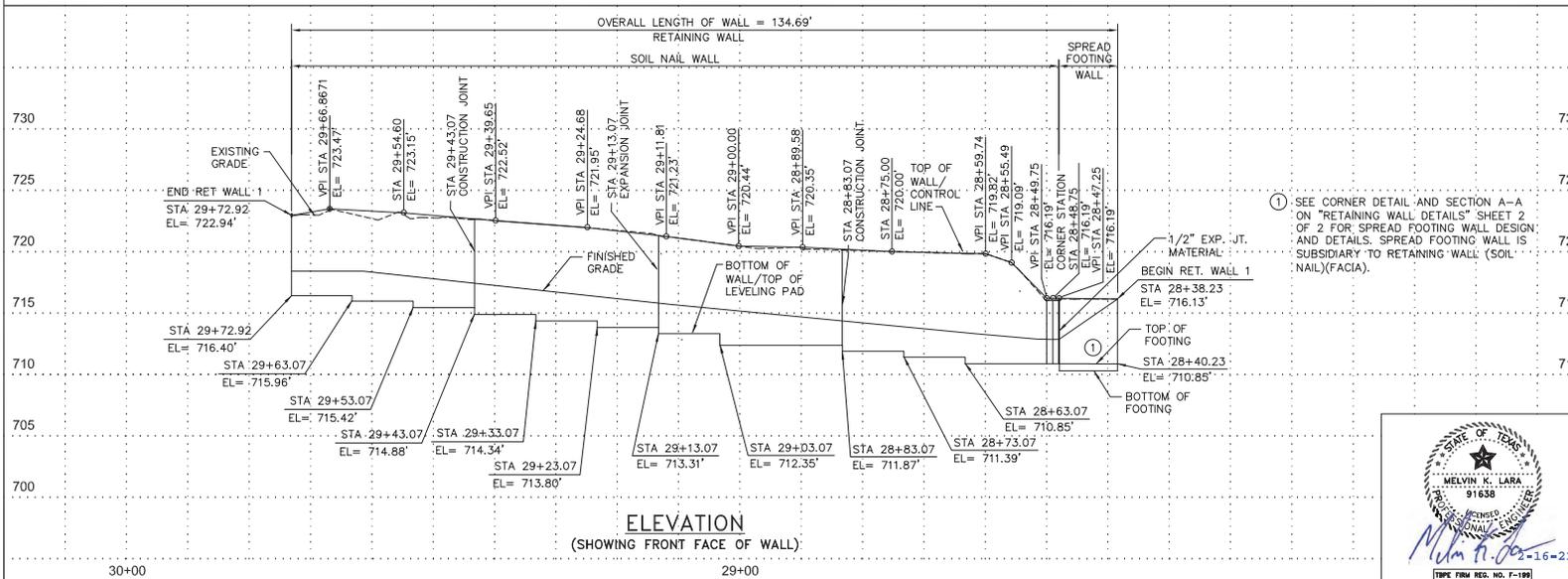


CITY OF SAN ANTONIO  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCI DEPARTMENT)



RETAINING WALL 1

DESIGNED: MKL	FED. OR STATE: TEXAS	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHECKED: VMG	DATE: 11-16-22	SEE TITLE SHEET	FM LOOP 345
DRAWN: AMH	STATE: TEXAS	COUNTY: BEKAR	SECTION: 15
CHECKED: MKL	SAT	0915	15 579



ELEVATION  
(SHOWING FRONT FACE OF WALL)



TYPE REG. NO. P-199



**GENERAL NOTES:**

FURNISH CLASS "C" CONCRETE UNLESS OTHERWISE SHOWN.

FURNISH GRADE 60 REINFORCING STEEL. SOIL NAILS SHALL BE #6 BARS, GRADE 60 EPOXY COATED REINFORCING (DYWIDAG OR WILLIAMS THREADBAR OR EQUAL).

SOIL NAIL TEST ANCHORS WILL BE REQUIRED AS SHOWN IN THE PLANS. THE LOCATION OF THE TEST NAILS ARE SHOWN ON THE SOIL NAIL LAYOUT. NAIL SPACING MAY NOT BE MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. THE VERIFICATION TEST NAILS MAY NOT BE USED AS PRODUCTION NAILS. THE PROOF TEST NAILS MAY BE USED AS PRODUCTION NAILS PROVIDED THAT THE TEST NAIL DEVELOPS THE REQUIRED TEST LOAD AND ARE EPOXY COATED. IF WIDELY VARYING SOIL CONDITIONS ARE ENCOUNTERED, THE ENGINEER MAY REQUIRE ADDITIONAL TEST NAILS. THE VERIFICATION TEST NAILS SHALL BE #7 BARS, GRADE 75 DYWIDAG OR WILLIAMS THREADBAR (OR APPROVED EQUAL). TEST NAILS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "SOIL NAIL ANCHORS".

FURNISH PNEUMATICALLY PLACED CONCRETE (PPC) COMPLYING WITH REQUIREMENTS OF THE ITEM 431 "PNEUMATICALLY PLACED CONCRETE" (CLASS 1).

FURNISH A DRAINAGE SYSTEM CONSISTING OF 2'-0" PANELS OF PREFABRICATED SOIL DRAINAGE MATS EMPTYING INTO UNDERDRAIN. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF DMS-6200. THE DRAINAGE SYSTEM WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "RETAINING WALLS."

THE PRECAST CONCRETE FACIA PANELS SHALL HAVE AN ASHLAR STONE AESTHETIC FINISH.

PRECAST WALL PANEL REINFORCING AND PANEL ANCHOR'S BAR SIZE AND SPACING SHALL BE DESIGNED BY PRECAST WALL SUPPLIER.

THE PRICE BID PER SQUARE FOOT OF RETAINING WALL (FASCIA) SHALL INCLUDE ALL CONCRETE, REINFORCING STEEL, PNEUMATICALLY PLACED CONCRETE, DRAINAGE MATERIAL, CLOSURE POUR CONCRETE, BACKFILL AND ANY OTHER MATERIALS NECESSARY TO COMPLETE THE WALL.

THE PRICE BID PER LINEAR FOOT OF SOIL NAIL ANCHOR SHALL INCLUDE ALL DRILLING, NAIL REINFORCEMENT, GROUT, MECHANICAL COUPLING SYSTEM, TEST NAILS, AND ANY OTHER MATERIALS NECESSARY TO COMPLETE THE SOIL NAIL ANCHOR.

**CONSTRUCTION PROCEDURE:**

REMOVE THE SLOPE IN FRONT OF THE RETAINING WALL IN LIFTS. LIMIT THE DEPTH OF EACH LIFT TO THE AMOUNT NECESSARY TO INSTALL A SINGLE HORIZONTAL ROW OF SOIL NAILS. DO NOT EXPOSE MORE THAN FIVE FEET OF UNNIAILED VERTICAL SOIL IN EACH LIFT.

SOIL NAIL INSTALLATION AND GROUTING OF OPEN HOLE SHALL TAKE PLACE WITHIN 8 HOURS OF COMPLETION OF HOLE DRILLING.

UPON COMPLETION OF EACH DAY'S INSTALLATION OF NAILS, INSTALL DRAINAGE MAT AGAINST NATURAL CUT AND APPLY 4" MINIMUM PNEUMATICALLY PLACED CONCRETE TO THE CUT FACE. REINFORCE THE CONCRETE WITH A SINGLE LAYER OF WELDED WIRE FABRIC, WWF 6" X 6" - W4.0 X W4.0, UNLESS NOTED OTHERWISE. TIGHTEN THE ANCHOR PLATES AND NUTS AGAINST THE FACE OF THE PPC. OVERLAP SPLICE WWF MINIMUM OF 1 FOOT.

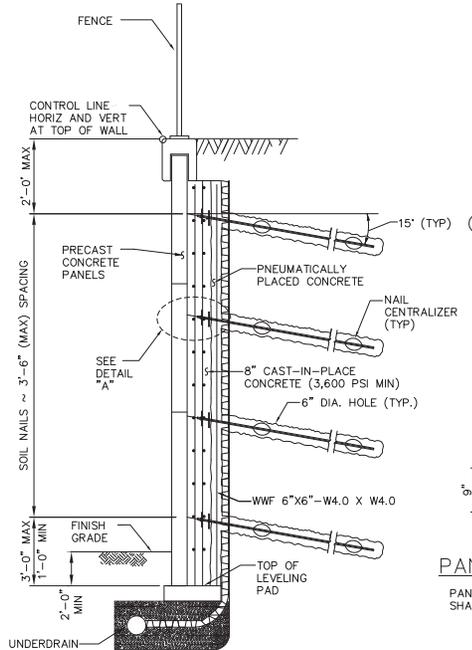
WHEN ALL ROWS OF NAILS HAVE BEEN PLACED, THE PERMANENT CONCRETE FASCIA MAY BE COMPLETED. AT NO TIME WILL ANY UNNIAILED CUT FACE BE EXPOSED FOR OVER 24 HOURS PRIOR TO PPC APPLICATION. INSTALL THE PERMANENT CONCRETE FASCIA WITHIN 30 WORKING DAYS OF THE COMPLETION OF THE SOIL NAILING.

IT IS RECOMMENDED THAT AN OWNERS REPRESENTATIVE BE PRESENT DURING NAIL LOAD TESTING TO OBSERVE THE LOAD TEST AND REVIEW THE RESULTS. IN ADDITION, IT IS RECOMMENDED THAT AN OWNER REPRESENTATIVE BE PRESENT FOR THE DURATION OF THE RETAINING WALL CONSTRUCTION TO VERIFY THAT THE CONSTRUCTION IS PROCEEDING PER THESE CONTRACT PLAN DOCUMENTS.

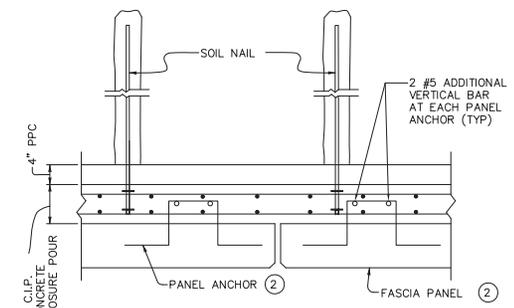
FOLLOW ALL PROCEDURES AS DIRECTED BY TxDOT ITEM 410, "SOIL NAIL ANCHORS".

**WORKING DRAWINGS:**

PRIOR TO BEGINNING WORK, SUBMIT DRAWINGS SHOWING THE PROPOSED PANEL LAYOUT AND CONNECTION. THE DRAWING WILL INCLUDE THE LOCATION OF ALL CONSTRUCTION JOINTS, UNDERDRAINS, EXISTING AND PROPOSED UTILITIES, EXISTING FOUNDATION AND SOIL NAILS. TOP AND BOTTOM OF WALL AND LIMITS OF WALL WILL BE IN ACCORDANCE WITH THE RETAINING WALL LAYOUT. SLIGHT MODIFICATIONS OF THE BOTTOM OF WALL ARE ALLOWED AS NECESSARY TO ACCOMMODATE PRECAST CONCRETE PANELS.

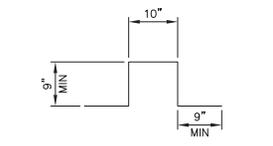


TYPICAL SECTION THRU RETAINING WALL



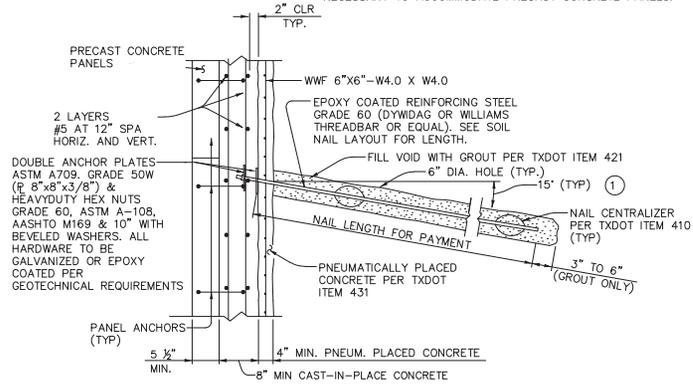
TYPICAL WALL SECTION

2) PANEL AND ANCHOR DESIGN SHALL BE BY PRECAST SUPPLIER



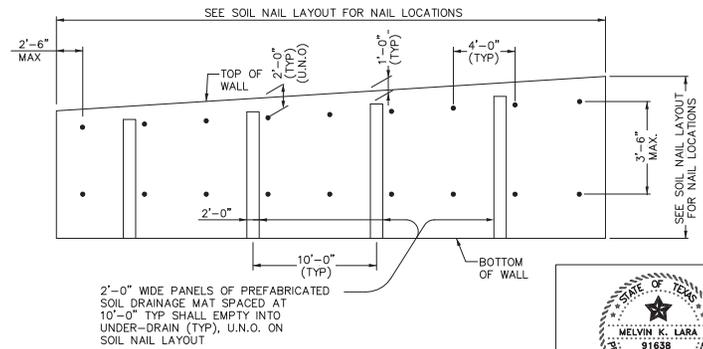
PANEL ANCHOR DETAIL

PANEL ANCHOR'S BAR SIZE AND SPACING SHALL BE BY PRECAST WALL SUPPLIERS



DETAIL A

1) SOIL NAILS MAY BE SKEWED UP TO 15' (MAX) HORIZONTALLY AND + 5 DEGREES VERTICALLY IN ORDER TO AVOID CONFLICTS. (U.N.O.)



TYPICAL PANEL ELEVATION



**SEA**  
STRUCTURAL ENGINEERING  
ASSOCIATES, INC.  
CONSULTING ENGINEERS  
(810) 795-9202 SAN ANTONIO, TX 78229  
FIRM REGISTRATION NO. F-199

**CUDE**  
CONSULTING ENGINEERS  
4122 Pined Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681-0767 F: (210) 523-7112  
TBPE No. 455 TBPLS No. 10048500

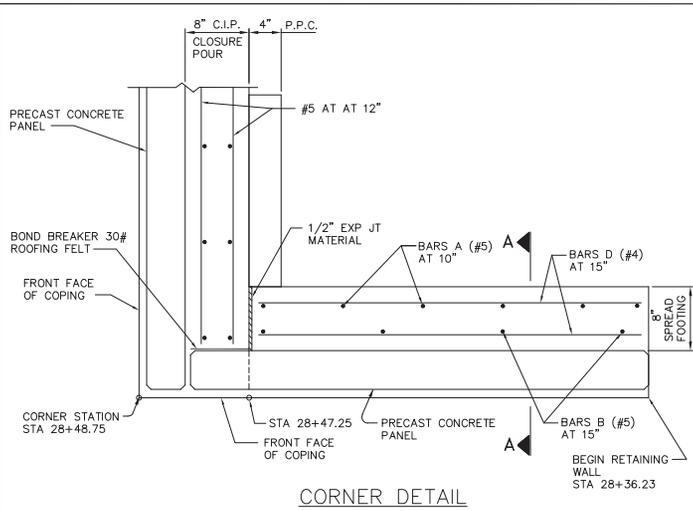
**CITY OF SAN ANTONIO**  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCI DEPARTMENT)

**Texas Department of Transportation**  
FREDERICKSBURG RD.  
RETAINING WALL DETAILS

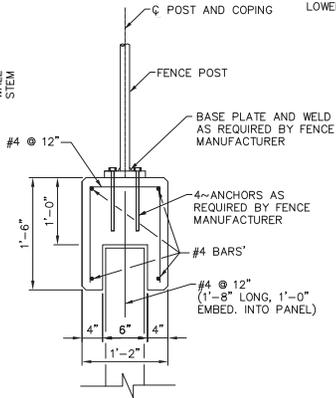
SHEET 1 OF 2

DESIGNED: MKL	FED. RES. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	ROADWAY NO.
CHECKED: WMG	TEXAS	SEE TITLE SHEET		FM LOOP 345
DRAWN: AMH	STATE DISTRICT	COUNTY	CONTRACT NO.	SUB NO.
CHECKED: MKL	SAT	BEXAR	0915	15 579

33

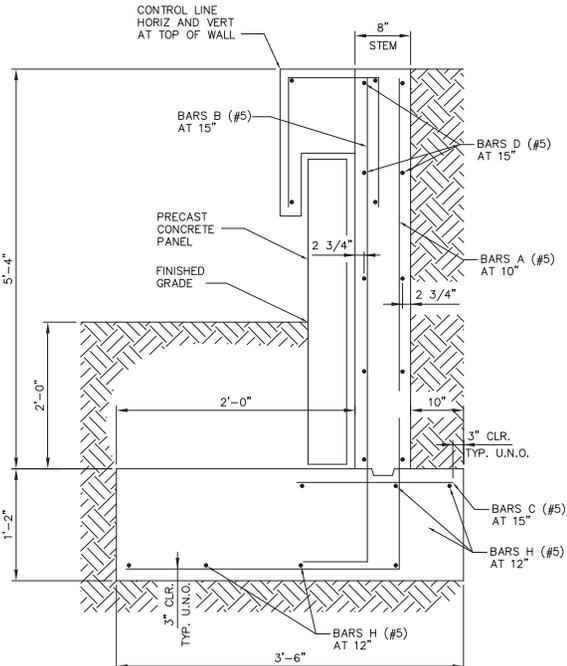


**CORNER DETAIL**

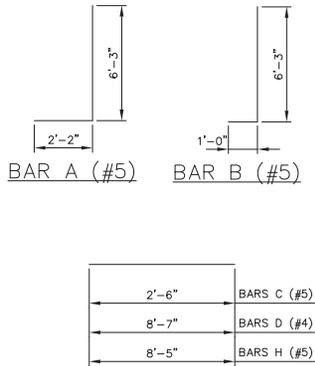


**COPING AND FENCE ANCHORAGE DETAIL**

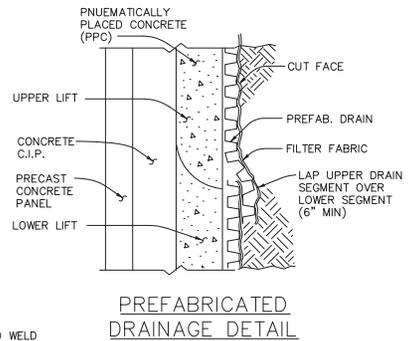
NOTE:  
1. PROVIDE A 1/2" OPEN JOINT IN THE COPING AT 15'-0" MAX.



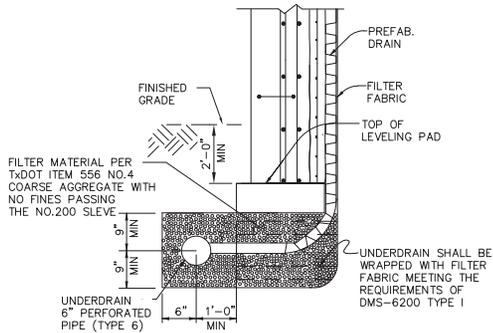
**SECTION A-A SPREAD FOOTING**



**BARS C,D,H,T**

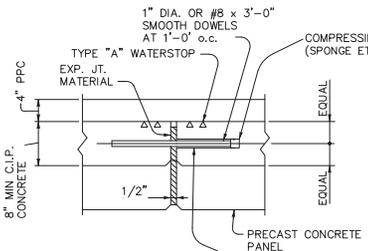


**PREFABRICATED DRAINAGE DETAIL**



**UNDERDRAIN DETAIL**

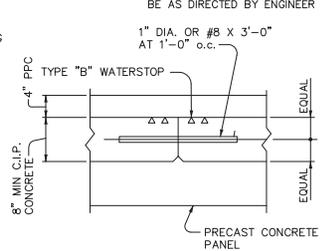
THE UNDERDRAIN OUTFALL SHALL BE AS DIRECTED BY ENGINEER



**EXPANSION JOINT (TYPICAL)**

(EXPANSION JOINT AT 90'-0" MAX)

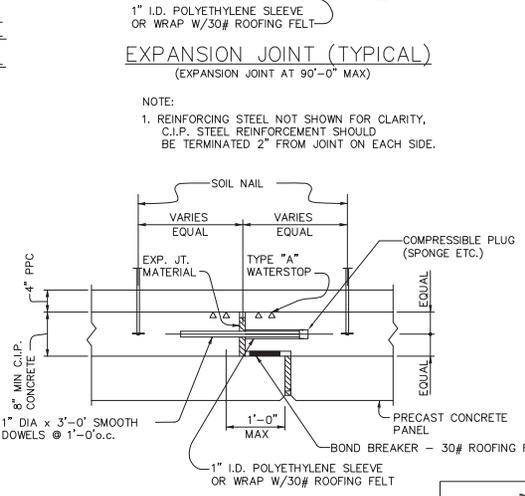
NOTE:  
1. REINFORCING STEEL NOT SHOWN FOR CLARITY, C.I.P. STEEL REINFORCEMENT SHOULD BE TERMINATED 2" FROM JOINT ON EACH SIDE.



**TYPICAL CONSTRUCTION JOINT DETAIL**

(CONSTRUCTION JOINT AT 30'-0" o.c. MAX)

NOTE:  
1. REINFORCING STEEL NOT SHOWN FOR CLARITY, C.I.P. STEEL REINFORCEMENT SHOULD BE TERMINATED 2" FROM JOINT ON EACH SIDE WHEN #8 DOWEL BARS ARE USED.  
2. IN LIEU OF #8 DOWEL BARS, TYPICAL C.I.P. STEEL REINFORCEMENT MAY BE CONTINUOUS ACROSS CONSTRUCTION JOINT.



**EXPANSION JOINT (ALTERNATE)**

(EXPANSION JOINT AT 90'-0" MAX)

NOTE:  
1. ALTERNATE EXPANSION JOINT DETAIL TO BE USED WHEN EXPANSION JOINT AND FASCIA CANNOT BE ALIGNED DUE TO NAIL HEAD LOCATION.



**SEA STRUCTURAL ENGINEERING ASSOCIATES, INC. CONSULTING ENGINEERS**  
(810) 786-9202 SAN ANTONIO, TX. 78229  
FIRM REGISTRATION NO. F-199

**STATE OF TEXAS ENGINEER**  
4122 POPE FERRIS ROAD, Suite 101  
San Antonio, Texas 78231  
P/E 2161/691-2951 P/E 2161/523-7112  
TBP# No. 455 TBP#LS No. 10048500

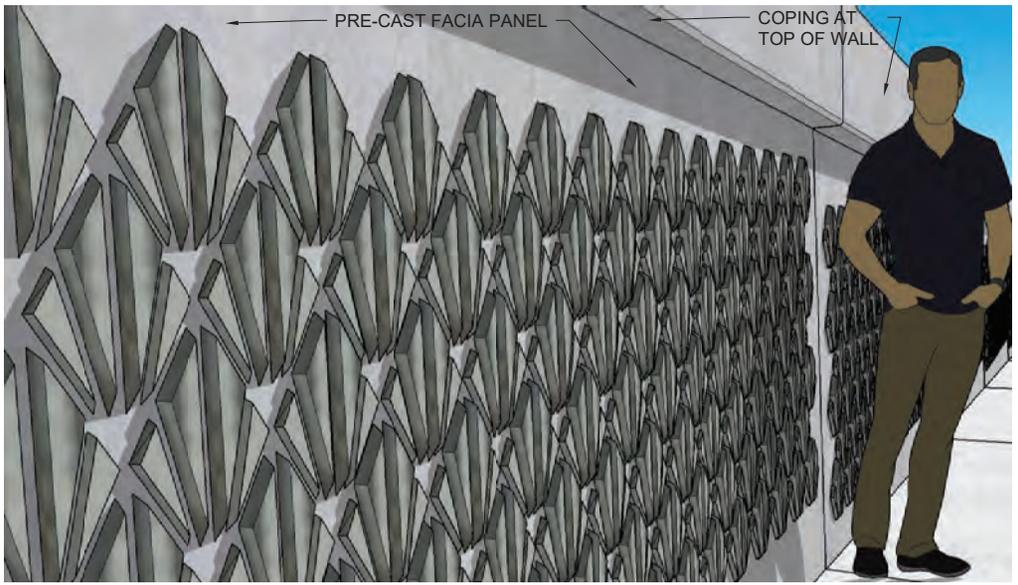
**CITY OF SAN ANTONIO TRANSPORTATION & CAPITAL IMPROVEMENTS (TCI DEPARTMENT)**

**Texas Department of Transportation**  
FREDERICKSBURG RD.

**RETAINING WALL DETAILS**

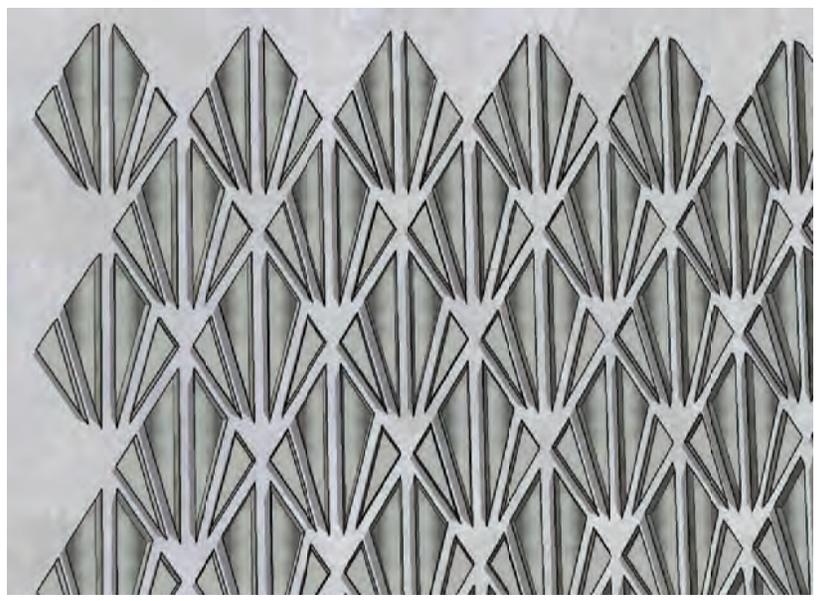
SHEET 2 OF 2

DESIGNED: MKL	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	TICKET NO.
CHECKED: WMG	TEXAS	1-13-22	FM LOOP 345	
DRAWN: AMH	STATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: MKL	SAT	BEXAR	0915 15	579 34

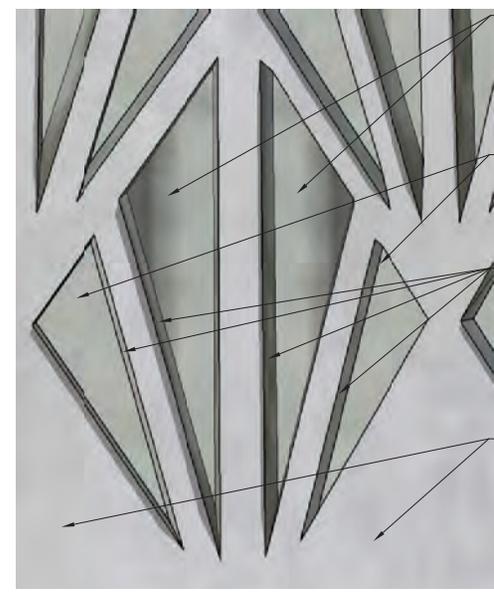


1 PERSPECTIVE VIEW AT DECORATIVE PRE-CAST CONCRETE WALL

2 RENDERING: DECORATIVE PRE-CAST CONCRETE WALL PATTERN



3 RENDERING: DECORATIVE PRE-CAST CONCRETE WALL PATTERN

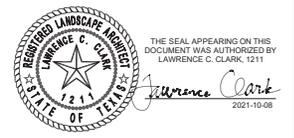


LARGE FACES  
RAISED  $\frac{3}{4}$ " FROM  
FACE OF WALL

SMALL FACES  
RAISED  $\frac{1}{2}$ " FROM  
FACE OF WALL

ALL RAISED EDGES  
BATTERED AT 10  
DEGREES

FACE OF  
WALL



**CUDE ENGINEERS**  
4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681.2951 F: (210) 523.7112  
TBPE No. 455 #TBPLS No. 10048500

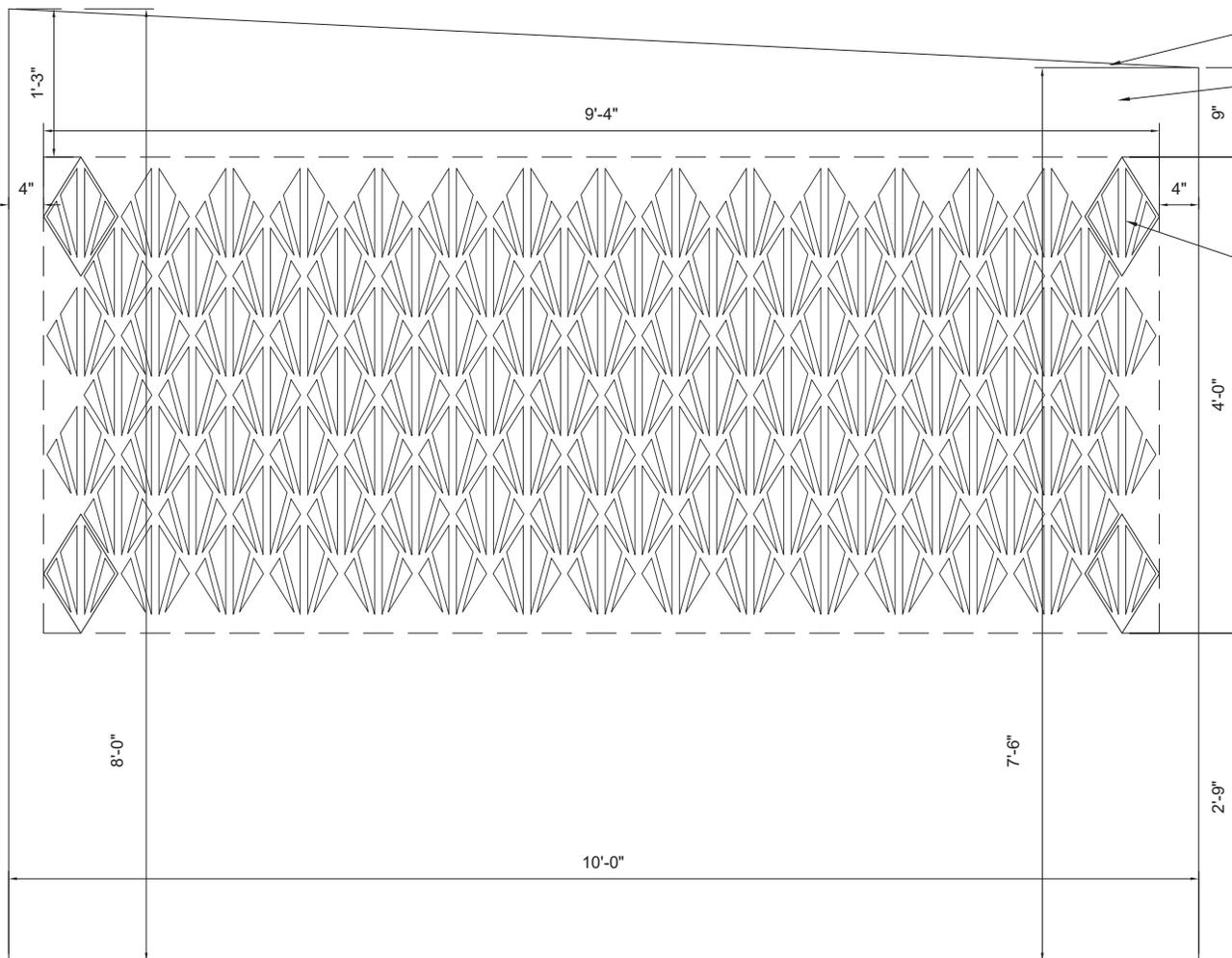
**CITY OF SAN ANTONIO**  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCD DEPARTMENT)



**WENNER WELLS CLARK**  
DESIGN  
830 NORTH ALAMO STREET  
SAN ANTONIO, TX 78215  
210-692-9221 FAX: 210-223-8582

DESIGNED: MJS/WPM	FED. PROJ. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: LCC		TEXAS	PRE-CAST CONCRETE WALL ELEVATION	VA
DRAWN: LCC	STATE	COUNTY	CONTROL SECTION	JOB NO.
CHECKED: LCC	SAN	BEXAR	0915 15	579
				<b>35</b>

TYPICAL PROJECT INFORMATION: SEE "CONCRETE WALL ELEVATION" FOR TYPICAL PROJECT INFORMATION. TYPICAL PROJECT INFORMATION: SEE "CONCRETE WALL ELEVATION" FOR TYPICAL PROJECT INFORMATION.



TOP EDGE OF PRECAST PANEL

FACE OF WALL

RAISED DECORATIVE PRE-CAST CONCRETE "BWCD ART DECO" CUSTOM PATTERN. PANELS ARE TO BE CAST WITH CUSTOM URETHANE MOLD AS MANUFACTURED BY SCOTT SYSTEM (518) 888-7082 OR APPROVED SUBSTITUTION, AND AS NOTED. MOLD MAY BE USED UP TO 12 TIMES. SHOP DRAWINGS OF MOLDS SHALL BE APPROVED BY DESIGNER PRIOR TO FABRICATION. PANELS SHALL BE SET AS SHOWN ON STRUCTURAL ENG. DWGS. AS FACIA TO POURED-IN-PLACE REINF. CONCRETE WALLS. PROVIDE SHOP DRAWINGS OF ALL ELEMENTS. MOCK-UP PANEL SHALL BE REVIEWED AND APPROVED BY DESIGNER PRIOR TO PLACEMENT.



**CUDE ENGINEERS**  
 4122 Pond Hill Road, Suite 101  
 San Antonio, Texas 78231  
 P: (210) 681.2951 F: (210) 523.7112  
 TBPE No. 455 4TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
 TRANSPORTATION & CAPITAL IMPROVEMENTS  
 (TCD DEPARTMENT)

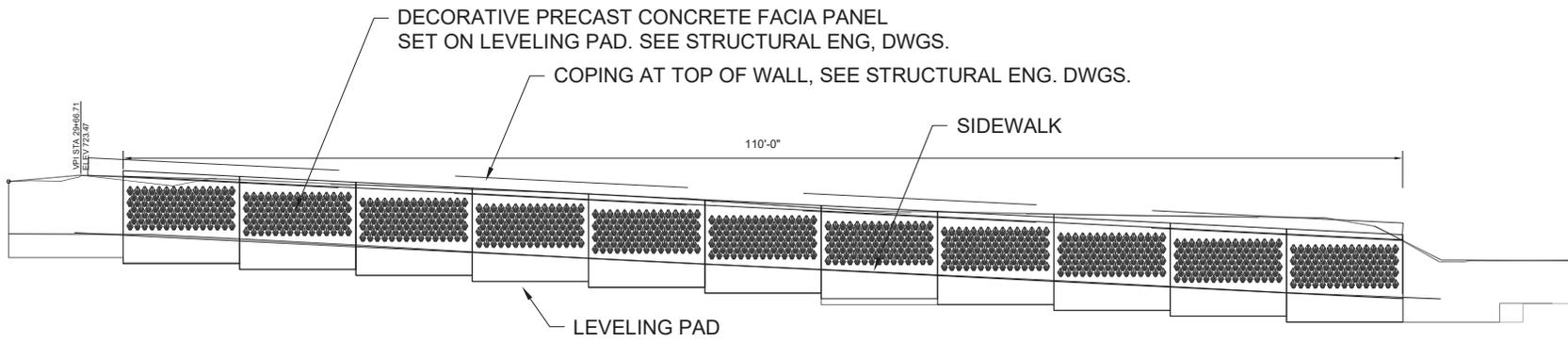


**HENDER WELLS CLARK DESIGN**  
 830 NORTH ALAMO STREET  
 SAN ANTONIO, TX 78215  
 210-692-9221 FAX: 210-223-8582

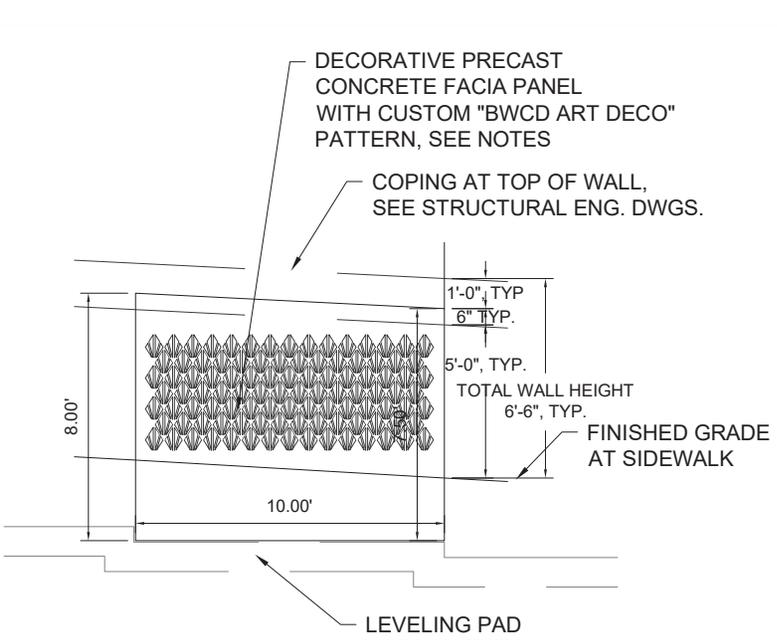
**1** ELEVATION: DECORATIVE PRE-CAST CONCRETE WALL PANEL

10/5/2021 2:19:09 PM

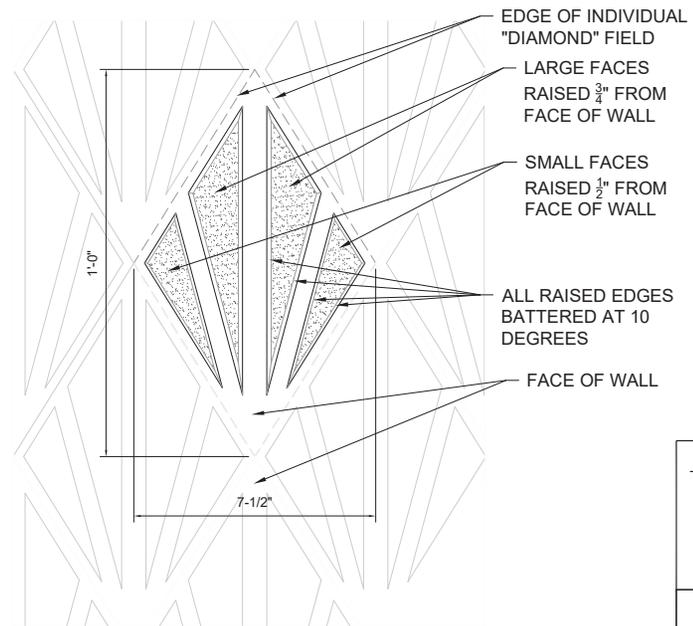
DESIGNED: MJS/WPM	REV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHECKED: LCC	TEXAS		PRE-CAST CONCRETE WALL ELEVATION	VA
DRAWN: LCC	STATE:	COUNTY:	CONTROL NO.:	SECTION NO.:
CHECKED: LCC	SAN	BEKAR	0915	15
				JOB NO.:
				579
				SHEET NO.:
				36



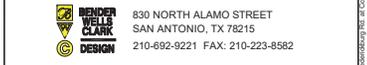
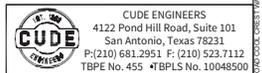
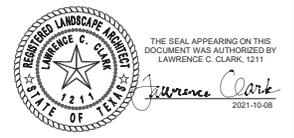
1 ELEVATION: DECORATIVE PRE-CAST CONCRETE WALL PANELS SHOWING FRONT FACE OF WALL



2 ELEVATION: SINGLE DECORATIVE PRE-CAST CONCRETE WALL PANEL SHOWING FRONT FACE OF WALL



3 DETAIL ELEVATION: SINGLE DECORATIVE PRE-CAST CONCRETE "DIAMOND" PATTERN ELEMENT



DESIGNED: MJS/WPM	FED. PROJ. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: LCC	DIV. NO.	TEXAS	PRE-CAST CONCRETE WALL ELEVATION	VA
DRAWN: LCC	STATE	COUNTY	CONTROL SECTION	JOB NO.
CHECKED: LCC	SAN	BEXAR	0915 15	579
				<b>37</b>

# COOL CREST SIGN DECONSTRUCTION AND NEW FOUNDATION

**PROJECT LOCATION:**

**COOL CREST MINIATURE GOLF COURSE**  
1402 Fredricksburg Road  
San Antonio, TX 78201

**CLIENT:**

**CUDE ENGINEERS**  
4122 Pond Hill Road, Suite 101  
San Antonio, TX 78231

**CONSULTING ENGINEER:**

**WISS, JANNEY, ELSTNER ASSOCIATES, INC.**  
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**TEXAS REGISTERED ENGINEERING FIRM F-0093**



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**CITY OF SAN ANTONIO**  
PUBLIC WORKS  
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*Texas Department of Transportation*

COVER SHEET &  
DRAWING SHEET INDEX

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC		TEXAS		FM LOOP 345
DRAWN: T.J.H.	COUNTY	CONTROL SECTION	JOB NO.	SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	38

PROJECT LOCATION: 1402 FREDRICKSBURG ROAD, SAN ANTONIO, TEXAS 78201

**GENERAL PROJECT NOTES**

**SCOPE OF PROJECT**

THE SCOPE OF WORK IS DEFINED BY THE CONTRACT DRAWINGS AND INCLUDES ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO ACCOMPLISH THE WORK. IN GENERAL, THE SCOPE OF WORK TO BE COMPLETED BY THE CONTRACTOR INCLUDES:

1. REMOVE COOL CREST MAIN SIGN AND STORE TEMPORARILY IN A SAFE LOCATION (REFERENCE NOTES ON SHEET 43 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE).
2. DEMOLISH EXISTING COOL CREST SIGN POSTS.
3. INSTALL NEW COOL CREST SIGN FOUNDATIONS CONSISTING OF HELICAL PILES, CONCRETE PILE CAP, AND NEW STEEL POSTS.
4. ATTACH COOL CREST SIGN TO NEW FOUNDATION AND POSTS.
5. REMOVE PUTTER SIGN/POST, STORE TEMPORARILY IN SAFE LOCATION, AND REINSTALL ON NEW CONCRETE FOUNDATION (REFERENCE NOTES ON SHEET 43 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE).

**CODE COMPLIANCE**

1. ALL WORK PERFORMED SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE, FEDERAL, AND LOCAL CODES, ORDINANCES, AND LAWS, INCLUDING THE GOVERNING CODES AS ADOPTED BY THE CITY OF SAN ANTONIO, TEXAS.

**COORDINATION**

1. THE CONTRACTOR SHALL COORDINATE WORK BETWEEN ALL TRADES AND BRING ANY CONFLICTS TO THE ENGINEER'S ATTENTION PRIOR TO THE WORK BEING PERFORMED. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS FOR CORRECTIONS ASSOCIATED WITH THE CONTRACTOR'S FAILURE TO PROPERLY COORDINATE THE WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DISCONNECTION AND RECONNECTION OF ELECTRICAL FEEDS TO SIGNS WITH LICENSED AND INSURED ELECTRICIAN AS PART OF THE CONTRACTOR'S SCOPE OF WORK.

**FAMILIARITY WITH CONDITIONS**

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS RELATING TO THE CONSTRUCTION, LABOR, FACILITIES INVOLVED, DIFFICULTIES, RESTRICTIONS, AND THE LOGICAL EXTENSIONS OF THE SCOPE ATTENDING THE PERFORMANCE OF THE CONTRACT.
2. THE CONTRACTOR SHALL THOROUGHLY EXAMINE AND BECOME FAMILIAR WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL IN NO WAY BE RELIEVED OF ANY OBLIGATION UNDER THE CONTRACT BECAUSE OF THE CONTRACTOR'S FAILURE TO RECEIVE OR EXAMINE ANY REQUIRED FORMS AND LEGAL DOCUMENTS, OR VISIT THE SITE AND BECOME FULLY INFORMED OF ANY AND ALL CONDITIONS AND REQUIREMENTS THAT MAY IN ANY MANNER AFFECT THE WORK TO BE PERFORMED.

**EXISTING CONDITIONS**

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND FIELD MEASUREMENTS AND VERIFICATION WILL BE REQUIRED TO COMPLETE THE WORK. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE WITH, AND MATCH NEW CONSTRUCTION TO EXISTING CONDITIONS.

2. SOME INFORMATION SHOWN IN THE DRAWINGS, IN REGARDS TO EXISTING FEATURES, IS NECESSARILY CONJECTURAL DUE TO HIDDEN CONDITIONS AT THE TIME OF PREPARATION. IF CONDITIONS EXIST THAT DIFFER FROM THE DRAWINGS, OR ARE NOT ADEQUATELY DETAILED, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION FROM THE ENGINEER.

**TEMPORARY FACILITIES**

1. COORDINATE LOCATION AND PLACEMENT OF FIELD OFFICE, STAGING AREAS, MATERIAL STORAGE, PORTABLE TOILETS, DUMPSTERS, AND ANY OTHER FACILITIES REQUIRED FOR CONSTRUCTION WITH THE ENGINEER AND OWNER PRIOR TO CONSTRUCTION.

**SAFETY**

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR THEIR MEANS AND METHODS OF CONSTRUCTION, AND SHALL PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY, AND SHALL ENSURE THEIR COMPLIANCE WITH OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION. SAFETY MEASURES INCLUDE, BUT ARE NOT LIMITED TO ADEQUATE FALL PROTECTION, ERECTION BRACING, BARRICADES, FENCING, SIGNS, FIRST-AID STATIONS, ETC.
3. PEDESTRIAN PROTECTION REQUIREMENTS: PROVIDE BARRICADES AND/OR CAUTION TAPE AT POINTS ALONG SIDEWALKS TO PREVENT PEDESTRIANS FROM ACCESSING PROJECT AREA. COORDINATE ACCESS REQUIREMENTS WITH OWNER. BARRICADES SHALL MEET OR EXCEED THE APPLICABLE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION.

**PROTECTION OF BUILDING & SITE**

1. CONTRACTOR SHALL PROTECT ALL EXISTING TREES, LANDSCAPING, SITE LIGHTING, SIDEWALKS, AND SITE FEATURES FROM DAMAGE FOR THE DURATION OF THE PROJECT. IF DAMAGED DURING THE COURSE OF WORK, THE CONTRACTOR SHALL REPAIR THE DAMAGED AREAS TO PRE-CONSTRUCTION CONDITION PRIOR TO THE COMPLETION OF THE PROJECT AT NO EXPENSE TO THE OWNER.
2. DO NOT PLACE LOADS ON THE STRUCTURE IN A MANNER THAT WILL ENDANGER IT.
3. REFERENCE SHEET 7 FOR NOTES ON PROTECTION OF COMPONENTS WITH HISTORIC SIGNIFICANCE.

**SITE MAINTENANCE**

1. CONTRACTOR SHALL PERFORM SITE CLEAN UP ON A REGULAR BASIS, AND MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER.
2. AREAS THAT ARE NOT DIRECTLY UNDER CONSTRUCTION THAT ARE USED AS PATHWAYS TO TRANSPORT MATERIALS, OR TO REMOVE TRASH, ARE TO BE KEPT CLEAN AT ALL TIMES. THIS MAINTENANCE INCLUDES, BUT NOT LIMITED TO DUSTING, SWEEPING, MOPPING, AND PICKING UP TRASH AS REQUIRED TO KEEP THE AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH.

**QUALITY ASSURANCE**

1. WHERE APPLICABLE, THE CONTRACTOR SHALL BE A LICENSED APPLICATOR OR INSTALLER OF ALL SPECIFIED PROPRIETARY PRODUCTS AND MATERIALS.
2. THE PRESENCE OF THE ENGINEER OR TESTING AGENCY AT THE JOBSITE DOES NOT RELIEVE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.



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**GENERAL NOTES**

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
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CHECKED: BBC	SAT	BEXAR	0915	15 579 39

**STRUCTURAL NOTES**

**CODES**

THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES:

1. THE INTERNATIONAL BUILDING CODE, 2018 EDITION.
2. STRUCTURAL CONCRETE: BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AND AMERICAN CONCRETE INSTITUTE, ACI 318-14.
3. STRUCTURAL STEEL: CODE OF STANDARD PRACTICE, AND SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (2016).
4. ALL CODES AND SPECIFICATIONS LISTED ABOVE SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATES OF THE CONTRACT DOCUMENTS. WHERE CONFLICT EXISTS BETWEEN THE VARIOUS PUBLICATIONS AS SPECIFIED HEREIN, THE STRICTEST REQUIREMENTS OF THE VARIOUS PUBLICATIONS SHALL GOVERN UNLESS NOTED OTHERWISE. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE CONTRACT DOCUMENTS, DRAWINGS, NOTES, SPECIFICATIONS, THE STRICTEST REQUIREMENTS SHALL GOVERN.

**DESIGN LOADS**

1. DEAD LOADS INCLUDE THE SELF-WEIGHT OF THE STRUCTURAL AND ARCHITECTURAL ELEMENTS. ANY CHANGES FROM THE CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE GENERAL CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF THE LOAD CARRYING CAPACITY OF THE STRUCTURE.
2. WIND DESIGN DATA:  
 BASIC DESIGN WIND SPEED, V 100 MPH  
 ALLOWABLE STRESS DESIGN WIND SPEED, V<sub>ASD</sub> 78 MPH  
 RISK CATEGORY I  
 EXPOSURE CATEGORY B

**COORDINATION**

1. THE DETAILS OR NOTES DESIGNATED AS "TYPICAL" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED AS TYPICAL.
2. ANY SUBSTITUTIONS CAUSING OR REQUIRING CHANGES TO THE STRUCTURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. ANY REQUIRED CHANGES TO THE STRUCTURAL DRAWINGS DUE TO THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
4. IF CONDITIONS EXIST THAT ARE NOT ADEQUATELY DETAILED, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION FROM THE ENGINEER.

**CONCRETE REINFORCEMENT**

1. REINFORCING STEEL SHALL BE DEFORMED NEW BILLET STEEL BARS IN ACCORDANCE WITH ASTM SPECIFICATIONS A615 GRADE 60.
2. DETAILING OF REINFORCING STEEL AND SUPPRORTS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL AND ACI 315-18 "GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS."
3. THE WELDING OF REINFORCEMENT STEEL WILL NOT BE PERMITTED.

4. HEAT SHALL NOT BE USED IN THE FABRICATION OR INSTALLATION OF REINFORCEMENT, EXCEPT IN CUTTING STRAIGHT BARS TO LENGTH.
5. REINFORCING BARS SHALL BE SUPPORTED ON PRECAST CONCRETE BLOCKS AT 1'-0" O.C. OR BAR CHAIRS WITH SHEET METAL OR PLASTIC BASES AT 1'-0" O.C.
6. SEE TESTING AND INSPECTION REQUIREMENT FOR REQUIRED TESTS AND INSPECTIONS.

**CAST-IN-PLACE CONCRETE**

1. CONCRETE WILL BE NORMAL WEIGHT CONCRETE.
2. READY-MIXED CONCRETE SHALL BE BATCHED, MIXED AND TRASPORTED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF ACI 211.
3. ALL CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
4. READY MIX CONCRETE MATERIALS
  - A. PORTLAND CEMENT: ASTM C150, TYPE II
  - B. FLY ASH: ASTM C618, CLASS F AND CLASS C.
  - C. CALCIUM CHLORIDE SHALL NOT BE PERMITTED IN THE CONCRETE AS AN INTENTIONAL ADDITIVE.
  - D. FINE AND COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 AND SHALL CONSIST OF NATURAL OR MANUFACTURED SAND AND GRAVEL OR CRUSHED STONE. AGGREGATE PARTICLES SHALL BE CLEAN, HARD, TOUGH, DURABLE, OF UNIFORM QUALITY, AND FREE FROM SOFT, THIN ELONGATED PIECES, DISINTEGRATED STONE, DIRT, ORGANIC, OR OTHER INJURIOUS MATERIALS OCCURRING IN EITHER FREE OR AS COATING. AGGREGATES MUST BE SUPPLIED FROM A SOURCE APPROVED BY THE ENGINEER, AND SHALL NOT CONTAIN CHLORIDES. AGGREGATE GRADATION SHALL CONFORM TO ASTM C33. CONCRETE AGGREGATES SHALL BE DEEMED NON-REACTIVE OR MITIGATED ACCORDINGLY. MAXIMUM COARSE AGGREGATE SIZE WILL BE 1" WITH GRADING SIZE NUMBER 5.
  - E. MIXING WATER SHALL BE CLEAN AND FREE OF INJURIOUS QUANTITIES OF SUBSTANCES KNOWN TO BE HARMFUL TO PORTLAND CEMENT.
5. THE MAXIMUM CONCRETE TEMPERATURE SHALL NOT EXCEED 90° FAHRENHEIT AT THE POINT OF DELIVERY/DISCHARGE.
6. WATER-CEMENT RATIO SHALL NOT BE LESS THAN 0.37 OR GREATER THAN 0.42.
7. CEMENTITIOUS MATERIALS CONTENT SHALL BE AS FOLLOWS: MINIMUM CEMENT CONTENT 5 SACKS (470 LBS.) PER CUBIC YARD. FLY ASH REPLACEMENT, 20% +/- 5% OF VOLUME OF PORTLAND CEMENT PLUS FLY ASH. AND AS REQUIRED FOR MITIGATION OF ASR OF EACH AGGREGATE WHEN TESTED PER ASTM C1567 AS APPLICABLE.
8. THE SPECIFIED SLUMP SHALL APPLY AT THE TIME WHEN THE CONCRETE IS DISCHARGED AT THE JOB SITE. IN ALL CASES, THE CONCRETE SLUMP SHALL NOT EXCEED THAT SPECIFIED. IF HIGHER SLUMPS ARE REQUIRED FOR PROPER CONCRETE PLACEMENT AND CONSOLIDATION, SUCH SLUMPS SHALL BE ACHIEVED THROUGH THE USE OF HIGH-RANGE WATER REDUCERS (SUPERPLASTICIZERS), AND SLUMP MEASUREMENTS SHALL BE MADE PRIOR TO ANY ADDITION OF SUPERPLASTICIZER. THE SLUMP SHALL BE SUCH THAT THE FINISHED SURFACE REMAINS STRAIGHT, WITHOUT SAGGING OR BULGING DUE TO GRAVITY ON THE ELASTIC MIX.
9. NO CHLORIDES SHALL BE INTENTIONALLY INTRODUCED INTO THE CONCRETE MIX.
10. ADMIXTURES: USE ADMIXTURES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. USE WATER-REDUCING AND RETARDING ADMIXTURE WHEN REQUIRED BY HIGH TEMPERATURES, LOW HUMIDITY, OR OTHER ADVERSE PLACEMENT CONDITIONS.
11. CURING MATERIALS
  - A. LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE SHALL CONFORM



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STRUCTURAL NOTES – 1 OF 5

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC	TEXAS	125536	FM LOOP 345	
DRAWN: T.J.H.	STATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15	579 40

TO THE REQUIREMENTS OF ASTM C309, TYPE 2, CLASS B, OR CLASS A IF WAX BASE ONLY. COMBINED CURING AND SEALING/DENSIFIER/HARDENERS SHALL NOT BE USED. CURING COMPOUND AND DENSIFIER/SEALER/HARDENER SHALL BE FROM SAME MANUFACTURER.

- B. MOISTURE-RETAINING COVER: ASTM C171, WHITE BURLAP-POLYETHYLENE SHEET, CONTINUOUS WATERPROOF PAPER, OR 4 MIL POLYETHYLENE SHEETING.
- C. WATER: POTABLE
- D. RECOMMENDED PRODUCTS ARE LISTED BELOW.
  - 1. KUREZ DR VOX DISSIPATING CURING COMPOUND FROM EUCLID CHEMICAL COMPANY
  - 2. APPROVED SIMILAR

12. BATCHING AND MIXING

- A. READY-MIXED CONCRETE SHALL BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF ASTM C94.
- B. CONCRETE SHALL BE DELIVERED TO SITE AND DISCHARGED WITHIN 90 MINUTES OR BEFORE 300 REVOLUTIONS OF MIXER DRUM AFTER INTRODUCTION OF MIXING WATER.
- C. INDISCRIMINATE ADDITION OF WATER TO INCREASE THE SLUMP IS PROHIBITED. WHEN CONCRETE ARRIVES AT PROJECT SITE WITH SLUMP BELOW THAT SUITABLE FOR PLACING, WATER MAY BE ADDED PROVIDED THAT THE MAXIMUM PERMISSIBLE SLUMP IS NOT EXCEEDED. DO NOT ADD WATER AFTER THE ADDITION OF HIGH-RANGE WATER-REDUCING ADMIXTURE. IN THE EVENT WATER IS ADDED AT SITE, IT SHALL BE INCORPORATED BY ADDITIONAL MIXING EQUAL TO AT LEAST 30 REVOLUTIONS OF THE DRUM AT THE MIXING SPEED RECOMMENDED BY THE MANUFACTURER. IF ADDITIONAL WATER IS ADDED, THE AMOUNT ADDED SHALL BE NOTED ON THE DELIVERY TICKET AND THE TICKET SIGNED BY PERSON AUTHORIZING ADDITION OF WATER. CONCRETE TO WHICH WATER HAS BEEN ADDED IN SUCH AMOUNTS AS TO CAUSE THE WATER/CEMENT RATIO TO EXCEED THE SPECIFIED MAXIMUM ALLOWABLE VALUE WILL BE REJECTED.
- D. WHEN A HIGH-RANGE WATER-REDUCING ADMIXTURE IS ADDED, IT SHALL BE INCORPORATED AT THE SITE BY ADDITIONAL MIXING AS SPECIFIED BY THE MANUFACTURER. IF UNSPECIFIED, 70 REVOLUTIONS OF THE DRUM SHALL BE REQUIRED TO ENSURE PROPER MIXING.
- E. WHEN CONCRETE ARRIVES AT JOB SITE WITH A SLUMP EXCEEDING THE MAXIMUM SPECIFIED SLUMP, THE CONCRETE SHALL BE REJECTED.
- F. AIR-ENTRAINING AND CHEMICAL ADMIXTURES, WHEN USED, SHALL BE INCORPORATED INTO THE MIX IN AMOUNTS AND MANNER RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. ACCURACY OF MEASUREMENT OF ANY ADMIXTURE SHALL BE WITHIN  $\pm 3$  PERCENT. TWO OR MORE ADMIXTURES MAY BE USED IN THE SAME CONCRETE PROVIDED SUCH ADMIXTURES ARE ADDED SEPARATELY AND THAT THE COMBINATION IS COMPATIBLE AND HAS NO DELETERIOUS EFFECT ON THE CONCRETE.

13. PLACING

- A. BEFORE PLACING CONCRETE, ALL EQUIPMENT FOR MIXING AND TRANSPORTING CONCRETE SHALL BE CLEANED, VIBRATORS SHALL BE CHECKED FOR WORKABILITY, ALL FROST, ICE, MUD, DEBRIS, AND WATER SHALL BE REMOVED FROM CONCRETE SURFACES AND FORMS, FORMS SHALL BE THOROUGHLY WETTED OR OILED, AND REINFORCEMENT, AND OTHER EMBEDMENTS SHALL BE SECURELY TIED IN PLACE AND THOROUGHLY CLEANED OF COATINGS WHICH MAY DESTROY OR REDUCE BONDING WITH CONCRETE. NO CONCRETE SHALL BE PLACED UNTIL THE ENGINEER HAS APPROVED THE FORMS AND THE CONDITION AND PLACEMENT OF REINFORCEMENT.
- B. CONVEYING THE CONCRETE FROM THE MIXER TO THE PLACE OF DEPOSIT SHALL NOT CAUSE SEPARATION OR LOSS OF MATERIALS.
- C. PLACING OF CONCRETE SHALL BE SUCH THAT IT IS DEPOSITED AS NEAR AS POSSIBLE TO FINAL LOCATION WHEN CONCRETING IS COMMENCED, IT SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL THE FOOTING IS COMPLETED. WHEN BEING DEPOSITED, CONCRETE SHALL NOT BE ALLOWED TO FALL A VERTICAL DISTANCE GREATER THAN 3 FEET FROM POINT OF DISCHARGE TO POINT OF DEPOSIT.
- D. ALL NEWLY PLACED CONCRETE SHALL BE THOROUGHLY CONSOLIDATED IN ACCORDANCE WITH ACI 309R BY MEANS OF VIBRATION TO ASSURE DISPELLING OF LARGE VOIDS. VIBRATORS SHALL BE AS NARROW AS NECESSARY FOR SHALLOW WORK.
- E. THE CONTRACTOR SHALL HAVE AVAILABLE MATERIALS FOR THE PROTECTION OF

CONCRETE DURING INCLEMENT WEATHER. SUCH PROTECTIVE MATERIALS SHALL CONSIST OF ROLLED POLYETHYLENE SHEETING AT LEAST 4 MILS (0.1 MM) THICK OF SUFFICIENT LENGTH AND WIDTH TO COVER THE PLASTIC CONCRETE SLAB AND ANY EDGES. WHEN RAIN APPEARS IMMINENT, ALL CONCRETING OPERATIONS SHALL STOP AND ALL AVAILABLE PERSONNEL SHALL BEGIN COVERING THE SURFACE OF THE UNHARDENED CONCRETE WITH THE PROTECTIVE COVERING.

- F. COLD-WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTION, OR LOW TEMPERATURES. COMPLY WITH ACI 306.1 AND MANUFACTURER'S RECOMMENDATIONS.
  - G. HOT-WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY RAPID EVAPORATION OR OVERHEATING OF THE CONCRETE. REFER TO ACI 305.1-14, "SPECIFICATION FOR HOT WEATHER CONCRETING," FOR HOT-WEATHER CONDITIONS THAT MAY ADVERSELY AFFECT THE CONCRETE PLACEMENT. WHEN HOT-WEATHER CONDITIONS EXIST, INFORM ENGINEER PRIOR TO PLACEMENT.
  - H. USE OF SURFACE EVAPORATION RETARDERS. WHEN AMBIENT CONDITIONS CREATE HIGH SURFACE MOISTURE EVAPORATION, USE FOG SPRAYING OR A SPRAY APPLIED SURFACE EVAPORATION RETARDER AS NEEDED TO PREVENT PREMATURE SURFACE DRYING AND PLASTIC SHRINKAGE CRACKING.
14. FINISHING.
- A. COMPLY WITH ACI 302.1R RECOMMENDATIONS FOR SCREEDING, RE-STRAIGHTENING, AND FINISHING OPERATIONS FOR CONCRETE SURFACES. DO NOT WET CONCRETE SURFACES.
  - B. SURFACES SHALL BE FINISHED AS REQUIRED TO OBTAIN THE DESIRED APPEARANCE, AND SHALL BE WITHOUT RIDGES, PROJECTIONS, VOIDS AND CONCRETE DROPPINGS.
15. CURING
- A. IMMEDIATELY AFTER FINISHING THE ENTIRE SURFACE OF THE NEWLY PLACED CONCRETE SHALL BE CURED FOR A 7-DAY CURE PERIOD IN ACCORDANCE WITH ONE OF THE METHODS BELOW. THE CONCRETE SHALL NOT BE LEFT EXPOSED FOR MORE THAN 1/2 HOUR DURING THE CURING PERIOD.
  - I. IMPERVIOUS MEMBRANE METHOD. THE ENTIRE SURFACE OF THE CONCRETE SHALL BE SPRAYED UNIFORMLY WITH CURING COMPOUND IMMEDIATELY AFTER THE FINISHING OF THE SURFACE, AFTER THE BLEED WATER IS GONE FROM THE SURFACE AND BEFORE THE SET OF THE CONCRETE HAS TAKEN PLACE. THE CURING COMPOUND SHALL NOT BE APPLIED DURING RAINFALL. CURING COMPOUND SHALL BE APPLIED BY MECHANICAL SPRAYERS UNDER PRESSURE AT THE RATE RECOMMENDED BY MANUFACTURER. DURING APPLICATION THE COMPOUND SHALL BE IN A THOROUGHLY MIXED CONDITION. HAND SPRAYING OF ODD WIDTHS OR SHAPES AND CONCRETE SURFACES EXPOSED BY THE REMOVAL OF FORMS WILL BE PERMITTED. THE CURING COMPOUND SHALL BE OF SUCH CHARACTER THAT THE FILM WILL HARDEN WITHIN 60 MINUTES AFTER APPLICATION. SHOULD THE FILM BECOME DAMAGED FROM ANY CAUSE, INCLUDING SAWING OPERATIONS, WITHIN THE REQUIRED CURING PERIOD, THE DAMAGED PORTIONS SHALL BE REPAIRED IMMEDIATELY WITH ADDITIONAL COMPOUND OR OTHER APPROVED MEANS. UPON REMOVAL OF SIDE FORMS, THE SIDES OF THE EXPOSED FOOTINGS SHALL BE PROTECTED IMMEDIATELY TO PROVIDE A CURING TREATMENT EQUAL TO THAT PROVIDED FOR THE SURFACE.
  - II. WHITE BURLAP-POLYETHYLENE SHEETS. THE SURFACE OF THE CONCRETE SHALL BE ENTIRELY COVERED WITH THE SHEETING. THE SHEETING USED SHALL BE SUCH LENGTH (OR WIDTH) THAT IT WILL EXTEND AT LEAST TWICE THE THICKNESS OF THE PAVEMENT BEYOND THE EDGES OF THE SLAB. THE SHEETING SHALL BE PLACED SO THAT THE ENTIRE SURFACE AND BOTH EDGES OF THE SLAB ARE COMPLETELY COVERED. THE SHEETING SHALL BE PLACED AND WEIGHTED TO REMAIN IN CONTACT WITH THE SURFACE COVERED, AND THE COVERING SHALL BE MAINTAINED FULLY SATURATED AND IN POSITION FOR SEVEN (7) DAYS AFTER THE CONCRETE HAS BEEN PLACED.
  - III. WATER METHOD. THE ENTIRE AREA SHALL BE COVERED WITH BURLAP OR OTHER WATER ABSORBING MATERIAL. THE MATERIAL SHALL BE OF SUFFICIENT THICKNESS TO RETAIN WATER FOR ADEQUATE CURING WITHOUT EXCESSIVE RUNOFF. THE MATERIAL SHALL BE KEPT WET AT ALL TIMES AND MAINTAINED FOR SEVEN (7) DAYS. WHEN THE FORMS ARE STRIPPED, THE VERTICAL WALLS SHALL ALSO BE KEPT MOIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT PONDING OF



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TBPE No. 455 TBPLS No. 10048500

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STRUCTURAL NOTES - 2 OF 5

DESIGNED: MJS/WFM	REV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC		TEXAS		FM LOOP 345
DRAWN: T.J.H.	DATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
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- THE CURING WATER ON THE SUBBASE.
- B. WHENEVER AIR TEMPERATURE IS BELOW 40°F DURING THE REQUIRED CURING PERIOD, THE CONCRETE SHALL BE MAINTAINED AT A TEMPERATURE NOT LESS THAN 50°F. FOLLOWING THE GUIDELINES PUBLISHED IN ACI 306R IS RECOMMENDED FOR PLACEMENT AND CURING CONCRETE DURING COLD WEATHER.
  - C. PROTECT CONCRETE FROM FALLING BELOW 50°F (14°C) WITH INSULATING BLANKETS OR ENCLOSURES WITH HEATERS.
  - D. FOLLOWING THE GUIDELINES PUBLISHED IN ACI 305R FOR CONCRETING DURING HOT WEATHER IS RECOMMENDED.
  - E. CRACKS WHICH OCCUR WITHIN 20 DAYS OF CONCRETE PLACEMENT SHOULD BE EVALUATED BY ENGINEER FOR REMOVAL AND REPLACEMENT OR ROUTING AND SEALING, AT NO EXTRA COST TO THE OWNER. NOTE: THE CONTRACTOR IS CAUTIONED THAT EXPOSURE TO WIND MAY RESULT IN SURFACE CRACKS.
16. SEE TESTING AND INSPECTION REQUIREMENTS AND SUBMITTALS FOR CONCRETE COMPRESSIVE STRENGTH TEST AND SUBMITTAL REQUIREMENTS.

**CONCRETE FORMWORK**

1. FORMS FOR UNEXPOSED FINISH CONCRETE MAY BE PLYWOOD, LUMBER, METAL, OR OTHER ACCEPTABLE MATERIAL. PROVIDE LUMBER DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT.
2. FORMS MAY BE REMOVED WHEN FIELD-CURED CYLINDERS ACHIEVE 75 PERCENT OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE AND PAY FOR THE COSTS OF THESE SUPPLEMENTAL STRENGTH TESTS.

**GROUT**

1. GROUT SHALL HAVE DESIGN COMPRESSIVE STRENGTH TWICE THAT OF CONCRETE FOOTING.
2. PROMPTLY PACK GROUT SOLIDLY BETWEEN BEARING SURFACES AND PLATES SO NO VOIDS REMAIN. NEATLY FINISH EXPOSED SURFACES; PROTECT GROUT AND ALLOW TO CURE. COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR SHRINKAGE-RESISTANT GROUTS.

**STRUCTURAL STEEL**

1. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT THE APPROVAL AS TO LOCATION AND TYPE. ANY MEMBER HAVING A SPLICE NOT SHOWN AND DETAILED ON THE SHOP DRAWINGS WILL BE REJECTED.
2. BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED. ANY MEMBER WITH BURNED HOLES SHALL BE REPLACED.
3. UNLESS OTHERWISE NOTED, CONNECTIONS ARE TO BE SHOP WELDED AND FIELD BOLTED.
4. ALL MISCELLANEOUS WELDS (FIELD OR SHOP) SHALL BE MINIMUM SIZE FILLET ALL AROUND IN ACCORDANCE WITH AISC.
5. ALL WELDS SHALL BE DE-SLAGGED, CLEANED, AND PRIMED.
6. ALL WELDS SHALL BE DONE IN ACCORDANCE WITH A.W.S. CODE, BY CERTIFIED WELDERS.
7. WELDING ELECTRODES SHALL BE E70XX, UNLESS NOTED OTHERWISE.
8. NO FOREIGN MANUFACTURED MATERIAL SHALL BE USED FOR HIGH-STRENGTH BOLTS, NUTS, AND HARDENED WASHERS.
9. ALL STRUCTURAL SHAPES AND PLATES SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
  - A. WIDE FLANGE BEAMS & COLUMNS: ASTM A992

B. ALL OTHER SHAPES & PLATES: ASTM A36

10. HIGH-STRENGTH BOLTS, NUTS, AND WASHERS SHALL CONFORM TO THE FOLLOWING:
  - A. HEAVY-HEX STEEL STRUCTURAL BOLTS: ASTM F3125, TYPE 1.
  - B. NUTS: ASTM A563, TYPE 1
  - C. WASHERS: ASTM F436
  - D. ALL BOLTS, NUTS AND WASHERS WILL BE HOT DIP GALVANIZED WITH FINISH CONFORMING TO ASTM 123
11. ALL STEEL POSTS AND BASEPLATES WILL BE COATED WITH ONE OF THE FOLLOWING PRODUCTS.
  - A. SHERWIN WILLIAMS:
    - I. MACROPOXY 646, 5.0 TO 10.0 MILS.
    - II. TOP COAT: ACROCOLON 218HS, DFT 3.0 TO 6.0 MILS.
  - B. TNEMEC CO., INC.:
    - I. PRIMER: CHEMBUILD SERIES 135, 4.0 TO 6.0 MILS.
    - II. FINISH COAT: ENDURA-SHIELD SERIES 73, 3.0 TO 5.0 MILS.
  - C. CARBOLINE COMPANY:
    - I. PRIMER: CARBOGAURD 880, 3.0 TO 5.0 MILS.
    - II. TOP COAT: CARBOTHANE 133 FC, DFT 3.0 TO 5.0 MILS.
  - D. APPROVED SIMILAR
13. PRIOR TO COATING CLEAN AND PREPARE SUBSTRATE ACCORDING TO COATING MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE CLEAN, DUST-FREE, DRY, AND SOUND SUBSTRATE FOR COATING APPLICATION.
  - A. SURFACES SHALL BE PREPARED ACCORDING TO SSPC-SP 15 – COMMERCIAL GRADE POWER TOOL CLEANING. REMOVAL ALL EXISTING CORROSION AND COATINGS.
  - B. REMOVE GREASE, OIL, DIRT, AND OTHER CONTAMINANTS THAT MIGHT IMPAIR BOND OF COATING IN ACCORDANCE WITH SSPC-SP 1. USE CLEANER/DEGREASER OR CHEMICAL REMOVAL AS NECESSARY; RINSE THOROUGHLY WITH COPIOUS AMOUNTS OF CLEAN WATER.
14. SEE TESTING AND INSPECTION REQUIREMENTS AND SUBMITTALS FOR TESTING AND SUBMITTAL REQUIREMENTS.

**ANCHOR RODS**

1. ANCHOR RODS SHALL BE ASTM F1554 GR 36.
2. ANCHOR RODS SHALL BE HOT-DIP GALVANIZED (ASTM 153).
3. NUTS AND WASHERS USED ON ANCHOR RODS WILL BE GALVANIZED USING THE SAME PROCESS AS ANCHOR RODS.
4. ANCHOR RODS, NUTS, AND WASHERS SHALL BE PURCHASED FROM SAME SUPPLIER.
5. SEE TESTING AND INSPECTION REQUIREMENTS AND SUBMITTALS FOR CONCRETE COMPRESSIVE STRENGTH TEST AND SUBMITTAL REQUIREMENTS.

**HELICAL PILES**

1. THE HELICAL PILE TYPE, SIZE, INSTALLATION, TORQUE, AND LENGTH SHALL BE ESTABLISHED BY THE PILE DESIGN PROFESSIONAL ENGAGED BY THE CONTRACTOR AND SHALL BE BASED ON THE LOADS PROVIDED IN THE DRAWINGS.
2. THE PILE DESIGN PROFESSIONAL SHALL BE A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS WITH AT LEAST 5 YEARS EXPERIENCE IN THE DESIGN OF HELICAL PILE FOUNDATIONS ON PROJECTS OF SIMILAR SIZE AND SCOPE.
3. HELICAL PILES SHALL BE OBTAINED FROM A COMPANY THAT SPECIALIZES IN THE MANUFACTURING AND DISTRIBUTION OF HELICAL PILES.
4. PILES SHALL BE INSTALLED BY A CONTRACTOR SPECIALIZING IN THE INSTALLATION OF HELICAL PILES WITH AT LEAST 5 YEARS EXPERIENCE ON PROJECTS OF SIMILAR SIZE AND SCOPE AND INSTALLED IN SIMILAR SOILS.



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STRUCTURAL NOTES – 3 OF 5

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4. PROVIDE ALL PARTS NECESSARY FOR COMPLETE INSTALLATION OF THE PILE SYSTEM, INCLUDING BUT NOT LIMITED TO CENTRAL SHAFT, HELICAL BEARING PLATES, SHAFT CONNECTIONS, BOLTS, SLEEVES, AND CONNECTION BRACKET/DEVICE FOR CONNECTION TO CONCRETE FOUNDATION. ALL PARTS SHALL BE HOT-DIP GALVANIZED.
5. INSTALL PILES WITH HIGH TORQUE, LOW RPM TORQUE MOTORS, WHICH ALLOW THE HELICAL PILES TO ADVANCE WITH MINIMAL SOIL DISTURBANCE.

**ALTERNATES & SUBSTITUTIONS**

1. ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO THEIR USE.
2. ANY REQUIRED CHANGES TO THE STRUCTURAL DRAWINGS DUE TO THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ENGINEER FOR ACCEPTANCE.

**DEMOLITION**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE SIGN PANELS AND SIGN FRAME DURING CONSTRUCTION. THE CONTRACTOR WILL REPLACE ANY DAMAGED SIGN MEMBERS AS DIRECTED BY THE ARCHITECT OR ENGINEER AT NO EXTRA COST TO THE OWNER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING, STORAGE, HAULING AND REMOVAL OF THE MATERIALS TO BE REMOVED.

**TESTING AND SPECIAL INSPECTION REQUIREMENTS**

1. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO PERFORM ALL REQUIRED TESTING AND SPECIAL INSPECTIONS AS LISTED BELOW. UNLESS NOTED OTHERWISE, THE SERVICES OF A COMMERCIAL TESTING LABORATORY TO PERFORM ALL LISTED MATERIAL TESTS AND INSPECTIONS WILL BE SECURED BY OWNER.
2. CONTRACTOR WILL BE RESPONSIBLE FOR ALL QUALITY CONTROL INSPECTIONS REQUIRED BY GOVERNING CODES. THESE REQUIREMENTS ARE NOT WAIVED AS A RESULT OF ANY TESTING OR SPECIAL INSPECTIONS REQUIRED BY OWNER.
3. REINFORCING STEEL AND ANCHOR RODS
  - A. PLACEMENT OF REINFORCING STEEL AND CAST-IN ANCHOR RODS
4. CONCRETE
  - A. FOR EACH CONCRETE MIX PLACED ON A GIVEN DAY, A SET OF CONCRETE FIELD STRENGTH TEST SPECIMENS CONSISTING OF FIVE 6 IN. X 12 IN. OR SEVEN 4 IN. X 8 IN. CYLINDERS SHALL BE CAST NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE PER EACH 150 CUBIC YARDS OF CONCRETE WHICHEVER IS MORE FREQUENT. THE COST OF THESE CYLINDERS SHALL BE PAID BY THE OWNER.
  - B. ALL CYLINDERS SHALL BE MADE AND TESTED BY A QUALIFIED APPROVED TESTING AGENCY WHICH MEETS THE REQUIREMENTS OF ASTM C1077.
  - C. ONE CYLINDER SHALL BE TESTED AT 7 DAYS, TWO OR THREE (SEE A ABOVE) AT 28 DAYS, AND THE OTHER ONE OR TWO HELD FOR TESTING AT AN UNSPECIFIED DATE STORED IN ACCORDANCE WITH ASTM C31.
  - D. AT THE TIME EACH SET OF CYLINDERS IS MADE, THE FRESH CONCRETE SHALL BE TESTED FOR SLUMP AND AIR CONTENT. THE TEMPERATURE OF CONCRETE SHALL BE TAKEN AT SAME TIME CYLINDERS ARE MADE. SLUMP TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM C143. AIR CONTENT TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM C231. AMBIENT TEMPERATURE WILL BE MEASURED AND REPORTED.
  - E. SAMPLES OF CONCRETE FOR TEST SPECIMENS SHALL BE TAKEN FROM THE TRANSPORT VEHICLE OR MIXER DURING DISCHARGE.
  - F. CONCRETE WHICH FAILS TO MEET THE SLUMP OR AIR CONTENT REQUIREMENTS SHALL BE TESTED AGAIN USING A DIFFERENT CONCRETE TEST SAMPLE FROM THE SAME SOURCE. IF THE SECOND SERIES OF TESTS REVEALS THAT THE CONCRETE DOES NOT MEET THE SLUMP OR AIR CONTENT REQUIREMENTS, THE NONCONFORMING CONCRETE SHALL BE REJECTED AND PROPERLY DISPOSED. A NEW

- BATCH OF CONCRETE SHALL BE MIXED OR OBTAINED AT THE CONTRACTOR'S EXPENSE.
- G. TEST SPECIMENS SHALL BE MOLDED IMMEDIATELY AFTER THE SAMPLE IS TAKEN AND THEN PLACED IN ON-SITE STORAGE PROVIDED BY THE CONTRACTOR. STORAGE SHALL BE IN A SHED, BOX OR OTHER ENCLOSURE MAINTAINED AT A TEMPERATURE OF BETWEEN 60°F AND 80°F. SPECIMENS SHALL BE STORED NOT LESS THAN 16 HOURS, AND NOT MORE THAN 48.
5. STRUCTURAL STEEL
    - A. VISUAL INSPECTION OF ALL WELDS, INCLUDING FIELD WELDS, BY AN AWS CERTIFIED WELD INSPECTOR. WELDS FOUND TO BE UNSATISFACTORY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
    - B. VISUAL INSPECTION OF ALL HIGH-STRENGTH BOLTED CONNECTIONS.
    - C. VISUAL INSPECTION OF ALL MEMBER SIZES AND GEOMETRY.

**SUBMITTALS**

THE FOLLOWING ITEMS SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW. WORK OR FABRICATION ASSOCIATED WITH THESE ITEMS SHALL NOT COMMENCE UNTIL THE SUBMITTALS HAVE BEEN REVIEWED AND APPROVED.

1. QUALIFICATION DATA: FOR CONTRACTOR AND ON-SITE SUPERVISOR TO DEMONSTRATE THEIR CAPABILITIES AND EXPERIENCE. SUBMIT A LIST OF AT LEAST THREE (3) COMPLETED PROJECTS OF SIMILAR SIZE AND SCOPE IN WHICH A SIGN WAS DECONSTRUCTED AND/OR ERECTED SUCCESSFULLY. THE LIST SHALL INCLUDE THE FOLLOWING INFORMATION FOR EACH OF THE THREE (3) PROJECTS:
  - A. PROJECT NAME.
  - B. OWNER OF PROJECT.
  - C. OWNER'S REPRESENTATIVE NAME, ADDRESS, AND TELEPHONE NUMBER.
  - D. DESCRIPTION OF WORK.
  - E. EQUIPMENT USED.
  - F. COMPLETION DATE.
  - G. PROJECT SUPERVISOR.
2. SIGN REMOVAL, TRANSPORTATION, AND STORAGE PLAN FOR BOTH THE COOL CREST SIGN AND THE PUTTER SIGN. THE SUBMITTAL SHALL INCLUDE ALL THE FOLLOWING:
  - A. DETAILED PLAN FOR SIGN REMOVAL, INCLUDING THE EQUIPMENT TO BE USED AND THE PROCESS TO BE USED TO TAKE THE COOL CREST AND PUTTER SIGN/POST DOWN WITHOUT DAMAGING/SCRAPING THE SIGNS.
  - B. DETAILED PLAN FOR EFFECTIVE SIGN TRANSPORTATION, INCLUDING THE EQUIPMENT TO BE USED DURING TRANSPORTATION AND SPECIFIC CRIBBING/PROTECTION TO BE PROVIDED FOR THE COOL CREST AND PUTTER SIGN/POST DURING TRANSPORT.
  - C. DETAILED STORAGE PLAN, INCLUDING THE LOCATION WHERE THE COOLCREST AND PUTTER SIGN/POST WILL BE STORED, HOW THE SIGNS WILL BE SUPPORTED (I.E., TYPE, QUANTITY, AND LOCATION OF CRIBBING SUPPORTS BELOW SIGNS WHEN LAID FLAT), HOW THE SIGNS WILL BE PROTECTED (I.E., LOCKED UP), AND HOW THE SIGNS WILL BE COVERED FOR PROTECTION AGAINST HAIL OR OTHER ADVERSE WEATHER.
3. DOCUMENTATION OF PRE-CONSTRUCTION CONDITIONS AND PHOTOGRAPHS
  - A. THE CONTRACTOR SHALL PHOTOGRAPH AND/OR VIDEO DOCUMENT AND TAKE WRITTEN NOTES OF EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF THE WORK ON THE SITE. COPIES OF ALL DOCUMENTATION SHALL BE SUBMITTED TO THE OWNER OR ENGINEER PRIOR TO COMMENCING WORK.
4. REINFORCING STEEL
  - A. MATERIAL AND PRODUCT DATA: FOR EACH TYPE OF MANUFACTURED MATERIAL AND PRODUCT INDICATED. MILL TEST REPORTS SHALL BE SUBMITTED TO ENGINEER ONE-WEEK PRIOR TO SHIPPING REINFORCING STEEL. TEST REPORTS SHALL INCLUDE ADEQUATE INFORMATION ON CHEMICAL AND PHYSICAL PROPERTIES TO DEMONSTRATE CONFORMANCE TO ASTM A615 GRADE 60.
  - B. SHOP DRAWINGS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS FOR REINFORCING AND ACCESSORIES PROPOSED FOR CONSTRUCTION.



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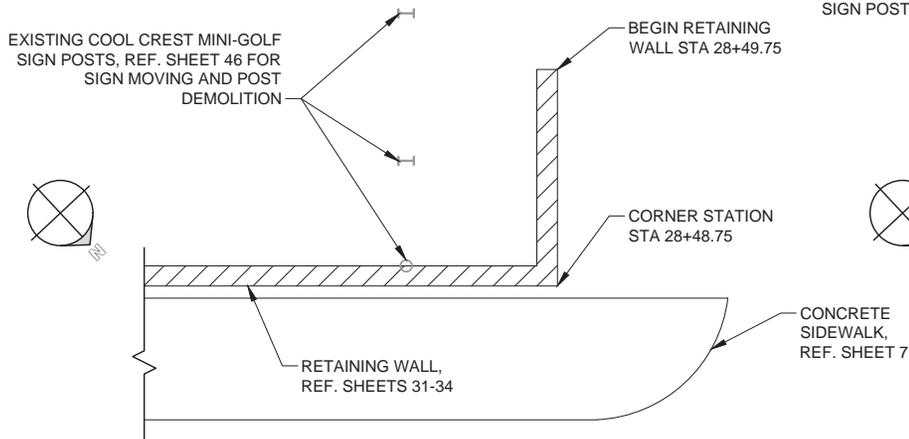
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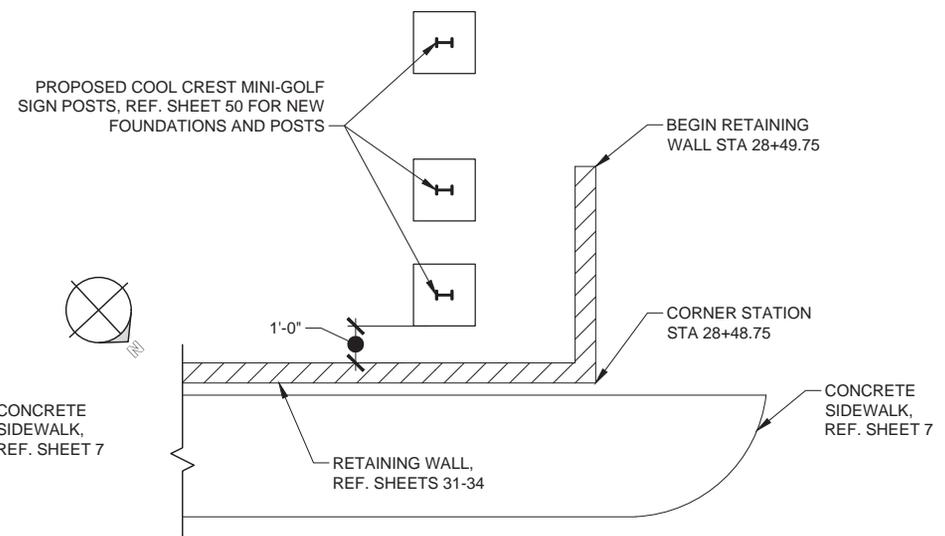
STRUCTURAL NOTES – 4 OF 5

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
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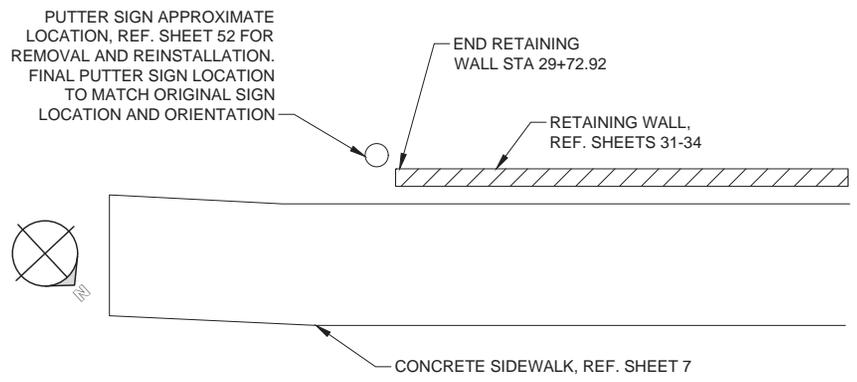


**1** MAIN SIGN AREA PLAN VIEW PRIOR TO MOVING SIGN  
1/8" = 1'-0"



**2** MAIN SIGN AREA PLAN VIEW AFTER REINSTALLING SIGN  
1/8" = 1'-0"

**SHEET NOTES:**  
1. REFERENCE SEA DRAWINGS FOR RETAINING WALL LOCATION AND DESIGN.



**3** PUTTER SIGN AREA PLAN VIEW PRIOR TO MOVING SIGN  
1/8" = 1'-0"

**PROJECT VICINITY MAP - NOT TO SCALE**



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MAIN AND PUTTER SIGN PROJECT AREA PLAN

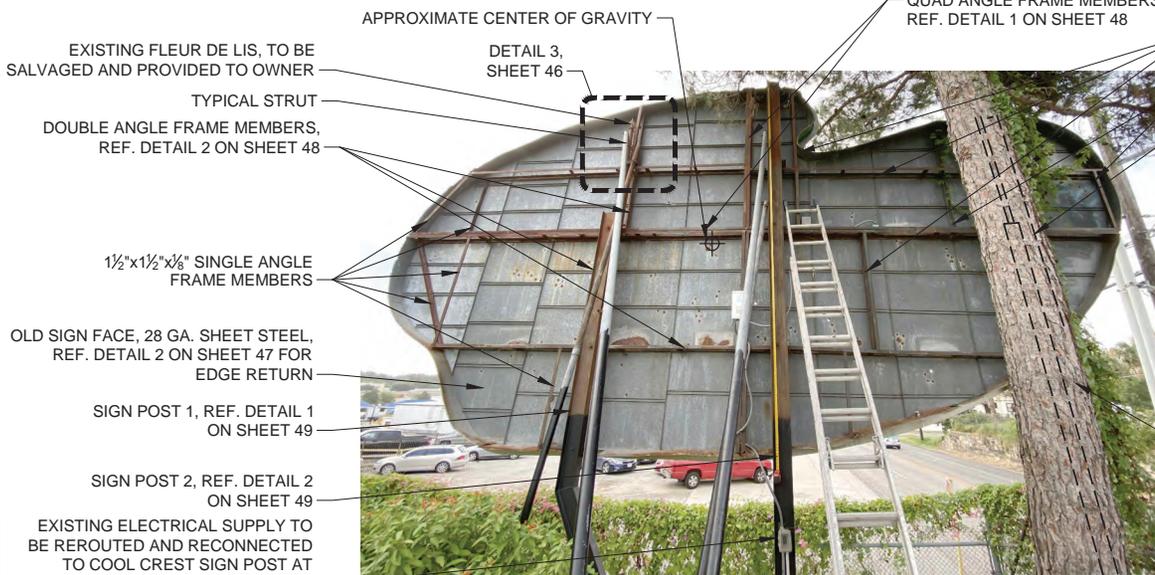
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**MAIN SIGN REMOVAL AND REINSTALLATION NOTES:**

1. REFERENCE NOTES ON SHEET 43 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE.
2. REMOVAL SEQUENCE
  - A. NEW SIGN FACE SHALL BE FULLY ATTACHED TO OLD FACE AT EXISTING FASTENER LOCATIONS, REF. DETAIL 1 ON SHEET 46 AND DETAIL 1 ON SHEET 47. LOOSE EXISTING SCREWS SHALL BE FULLY TIGHTENED OR REPLACED AS REQUIRED.
  - B. SIGN SHALL BE BRACED AS REQUIRED SUCH THAT MOVING WILL NOT PERMANENTLY DEFORM OR DAMAGE SIGN INCLUDING RAISED LETTERS. (REFERENCE SUBMITTAL REQUIREMENTS FOR REMOVAL, TRANSPORTATION, AND STORAGE OF COOL CREST SIGN ON SHEET 43).
  - C. ELECTRICAL SUPPLY SHALL BE DISCONNECTED PRIOR TO MOVING SIGN, REF. GENERAL NOTES - COORDINATION NOTE NO.2.
  - D. SIGN SHALL BE DISCONNECTED FROM EXISTING SUPPORTS AND STRUTS PRIOR TO MOVING.
  - E. CONTRACTOR SHALL SUBMIT FOR APPROVAL CRIBBING PRODUCT DATA FOR SIGN TRANSPORT AND STORAGE.
  - F. AFTER SIGN REMOVAL, EXISTING POSTS AND STRUTS SHALL BE REMOVED.
  - G. SIGN SHALL BE REINSTALLED ON NEW POSTS WITH CONNECTIONS SHOWN IN DRAWINGS, REF. DETAILS 1 & 2 ON SHEET 51.
2. ESTIMATED TOTAL SIGN WEIGHT NOT INCLUDING POSTS IS 2,600 LBS.
3. EXISTING SIGN IS HISTORICALLY SIGNIFICANT. CONTRACTOR SHALL:
  - A. PHYSICALLY PROTECT AND PREVENT DAMAGE TO SIGN DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
  - B. REPAIR OR REPLACE IN KIND (AT THEIR OWN EXPENSE) ANY SIGN ELEMENT DAMAGED IN THE COURSE OF EXECUTING THE WORK. CONTRACTOR IS RESPONSIBLE FOR LOCATING THE SAME OR COMPARABLE SALVAGED HISTORIC MATERIALS TO RECTIFY THE DAMAGE. COSA PWD EMD STAFF (210-207-1454) MUST BE NOTIFIED IMMEDIATELY OF THE DAMAGE AND APPROVE THE PROPOSED REPAIRS AND REPLACEMENT MATERIALS PRIOR TO EXECUTION OF ANY WORK.

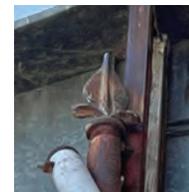


**1 MAIN SIGN FRONT**  
NOT TO SCALE



**2 MAIN SIGN BACK**  
NOT TO SCALE

- QUAD ANGLE FRAME MEMBERS, REF. DETAIL 1 ON SHEET 48
- DOUBLE ANGLE FRAME MEMBERS, REF. DETAIL 2 ON SHEET 48
- 1 1/2" x 1 1/2" x 1/8" SINGLE ANGLES
- DOUBLE ANGLE FRAME MEMBERS OBSCURED BY TREE, REF. DETAIL 2 ON SHEET 48



**3 FLEUR DE LIS TO BE SALVAGED**  
NOT TO SCALE

**NOTE:**  
ALL EXISTING ELECTRICAL CONNECTIONS AND LIGHTS AT EXISTING SIGN SHALL BE MOVED AND RECONFIGURED AT THE NEW SIGN LOCATION IN A CONFIGURATION THAT MATCHES THE EXISTING CONFIGURATION.

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EXISTING MAIN SIGN

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RAISED LETTERS

(6) EACH NEW EXISTING SIGN FACE PANELS. 1/8" THICK SHEET STEEL

FASTENERS TYPICAL TO BE FULLY INSTALLED PRIOR TO MOVING

EXISTING NEW SIGN EDGE



OLD SIGN FACE RETURN

OLD SIGN FACE EDGE CONDITION, REF. DETAIL 3 ON SHEET 47

**1** EXISTING NEW SIGN FACE  
NOT TO SCALE

**2** EXISTING NEW SIGN EDGE & OLD RETURN  
NOT TO SCALE



OLD SIGN FACE EDGE

NEW EXISTING SIGN FACE (BACK)

**3** OLD SIGN FACE EDGE  
NOT TO SCALE



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EXISTING MAIN SIGN FACES

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**1** QUAD ANGLE FRAME MEMBER  
NOT TO SCALE



**2** DOUBLE ANGLE FRAME MEMBER  
NOT TO SCALE

(4) EACH 1½"x1½"x⅝" ANGLE

(2) EACH 1½"x1½"x⅝" ANGLE

(1) EACH 1½"x1½"x⅝" ANGLE

(2) EACH 1½"x1½"x⅝" ANGLE



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EXISTING SIGN FRAME  
MEMBERS

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CHECKED: BBC	SAT	BEXAR	0915 15 579	48

EXISTING BOLTED POST FLANGE CONNECTION TO SIGN FRAME, REF. DETAIL 4 ON SHEET 49



EXISTING BOLTED POST FLANGE CONNECTIONS TO SIGN FRAME, REF. DETAIL 4 ON SHEET 49

EXISTING BOLTED POST WEB CONNECTIONS TO SIGN FRAME, REF. DETAIL 4 ON SHEET 49

EXISTING BOLTED CONNECTIONS TO SIGN FRAME, REF. DETAIL 4 ON SHEET 49 FOR TYPICAL CONNECTION



EXISTING 1/2" DIA. BOLT TYPICAL POST WEB CONNECTION

EXISTING 1/2" DIA. BOLT TYPICAL POST FLANGE CONNECTION

**4** SIGN POST 1 & 2 TYPICAL BOLTED CONNECTIONS  
NOT TO SCALE

**1** SIGN POST 1  
NOT TO SCALE

**2** SIGN POST 2  
NOT TO SCALE

EXISTING 6" DIA. STEEL PIPE



EXISTING PIPE EXTENSION OBSCURED BY VINE

ASSUMED EXISTING BOLTED CONNECTION, OBSCURED BY VINE

EXISTING BOLTED CONNECTION, REF. DETAIL 5 ON SHEET 49

EXISTING BRACKET

EXISTING BOLT

EXISTING STEEL PIPE



**3** SIGN POST 3  
NOT TO SCALE

**5** SIGN POST 3 BOLTED CONNECTION  
NOT TO SCALE



**WJE** ENGINEERS ARCHITECTS MATERIALS SCIENTISTS

Wiss, Janney, Elstner Associates, Inc.  
1344 South Flores St., Suite 201  
San Antonio, TX 78204  
210.826.4200 tel | 512.219.9883 fax  
www.wje.com

Texas Registered Engineering Firm F-0093



CUDE ENGINEERS  
4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681.2951 F: (210) 523.7112  
TBPE No. 455 TBPLS# No. 10048500

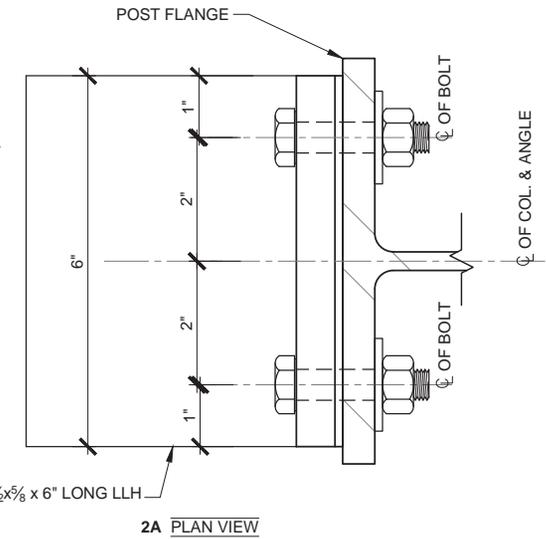
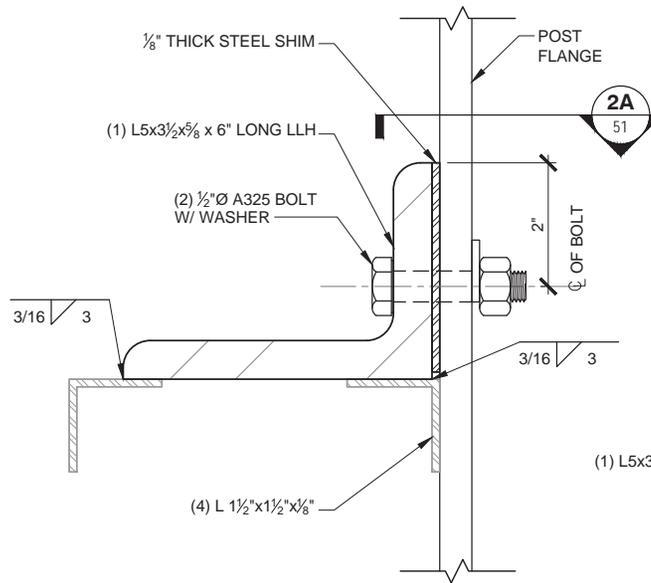
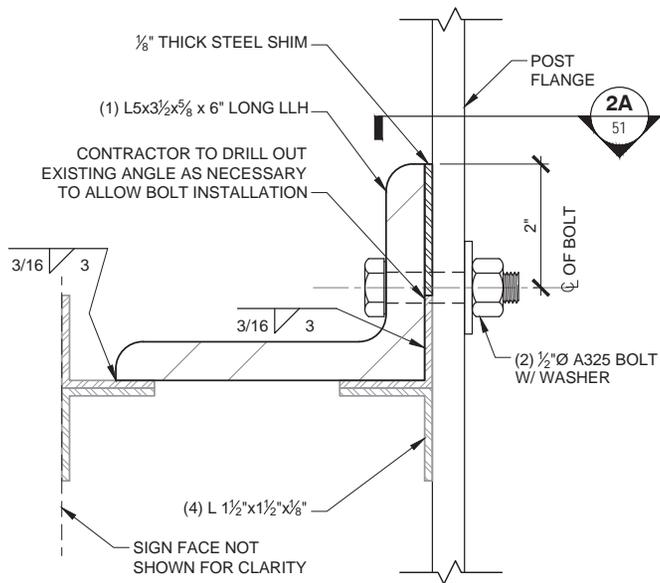
**CITY OF SAN ANTONIO**  
PUBLIC WORKS DEPARTMENT



EXISTING MAIN SIGN POSTS

DESIGNED: MJS/WPM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC	TEXAS	95	FM LOOP 345	
DRAWN: T.J.H.	COUNTY	CONTROL SECTION	JOB	SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	49





**1** CONNECTION TO POST AT QUAD ANGLE FRAME MEMBER  
1" = 2"

**2** CONNECTION TO POST AT DOUBLE ANGLE FRAME MEMBER  
1" = 2"



**SHEET NOTES:**

- NEW CONNECTIONS SHALL BE AT EXISTING CONNECTION LOCATIONS, REF. DETAILS 1, 2, & 3 ON SHEET 49.
- REFERENCE TABLE BELOW FOR NUMBERS OF CONNECTIONS FOR EACH POST

POST	NO. QUAD ANGLE CONNECTIONS, REF. DETAIL 1 ON SHEET 51	NO. DOUBLE ANGLE CONNECTIONS, REF. DETAIL 2 ON SHEET 51
1	1	2
2	1	2
3	1	2

**WJE** ENGINEERS ARCHITECTS MATERIALS SCIENTISTS  
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 San Antonio, Texas 78231  
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 TBPE No. 455 TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
 PUBLIC WORKS DEPARTMENT

Texas Department of Transportation

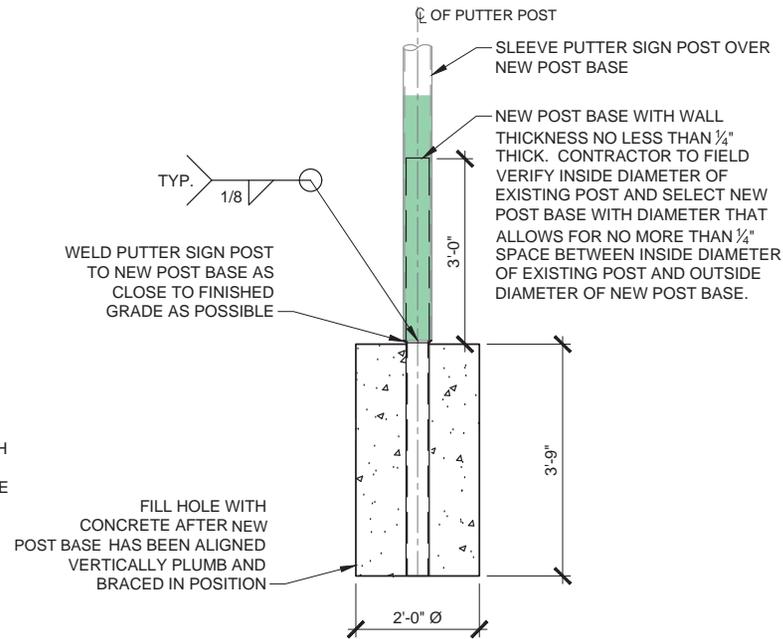
DESIGNED: MJS/WPM FED. RD. DIST. NO. STATE FEDERAL AID PROJECT NO. HIGHWAY NO.  
 CHECKED: BBC TEXAS TITLE FM LOOP 345

DRAWN: T.J.H. COUNTY CONTROL SECTION JOB SHEET NO.  
 CHECKED: BBC SAT BEXAR 0915 15 579 51



**PUTTER SIGN/POST REMOVAL AND REINSTALLATION NOTES:**

1. REFERENCE NOTES ON SHEET 43 FOR SUBMITTAL REQUIREMENTS ON SIGN/POST REMOVAL, TRANSPORTATION, AND STORAGE.
2. REMOVE SEQUENCE
  - A. SIGN/POST SHALL BE BRACED AND/OR SUPPORTED TO PREVENT FALLING DURING CUTTING OF BASE.
  - B. CONTRACTOR SHALL VERIFY THAT CURRENT ELECTRICAL CONNECTIONS ARE DISCONNECTED BEFORE CUTTING THE PUTTER SIGN POST. CONTRACTOR SHALL TAKE CARE TO PRESERVE ANY EXISTING ELECTRICAL CONNECTIONS SO THAT PUTTER SIGN LIGHTING CAN BE RECONNECTED IN THE FUTURE.
  - C. SIGN POST SHALL BE CUT AT BASE AS CLOSE TO GROUND AS POSSIBLE.
  - D. CONTRACTOR SHALL PROVIDE CRIBBING AND/OR BRACING FOR SIGN/POST TRANSPORT AND STORAGE. (REFERENCE SUBMITTAL REQUIREMENTS FOR REMOVAL, TRANSPORTATION, AND STORAGE OF COOL CREST SIGN ON SHEET 43).
3. REINSTALLATION SEQUENCE
  - A. SIGN/POST SHALL BE REINSTALLED ON NEW FOUNDATION SHOWN IN DRAWINGS, REF. DETAIL 2 ON SHEET 52.
  - B. FINAL SIGN/POST HEIGHT SHALL MATCH EXISTING.
4. EXISTING SIGN/POST IS HISTORICALLY SIGNIFICANT. CONTRACTOR SHALL:
  - A. PHYSICALLY PROTECT AND PREVENT DAMAGE TO SIGN/POST DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
  - B. REPAIR OR REPLACE IN KIND (AT THEIR OWN EXPENSE) ANY SIGN ELEMENT DAMAGED IN THE COURSE OF EXECUTING THE WORK. CONTRACTOR IS RESPONSIBLE FOR LOCATING THE SAME OR COMPARABLE SALVAGED HISTORIC MATERIALS TO RECTIFY THE DAMAGE. COSA PWD EMD STAFF (210-207-1454) MUST BE NOTIFIED IMMEDIATELY OF THE DAMAGE AND APPROVE THE PROPOSED REPAIRS AND REPLACEMENT MATERIALS PRIOR TO EXECUTION OF ANY WORK.



**WJE** ENGINEERS ARCHITECTS MATERIALS SCIENTISTS

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TBPE No. 455 TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
PUBLIC WORKS DEPARTMENT



PUTTER SIGN

**1** PUTTER SIGN  
NOT TO SCALE

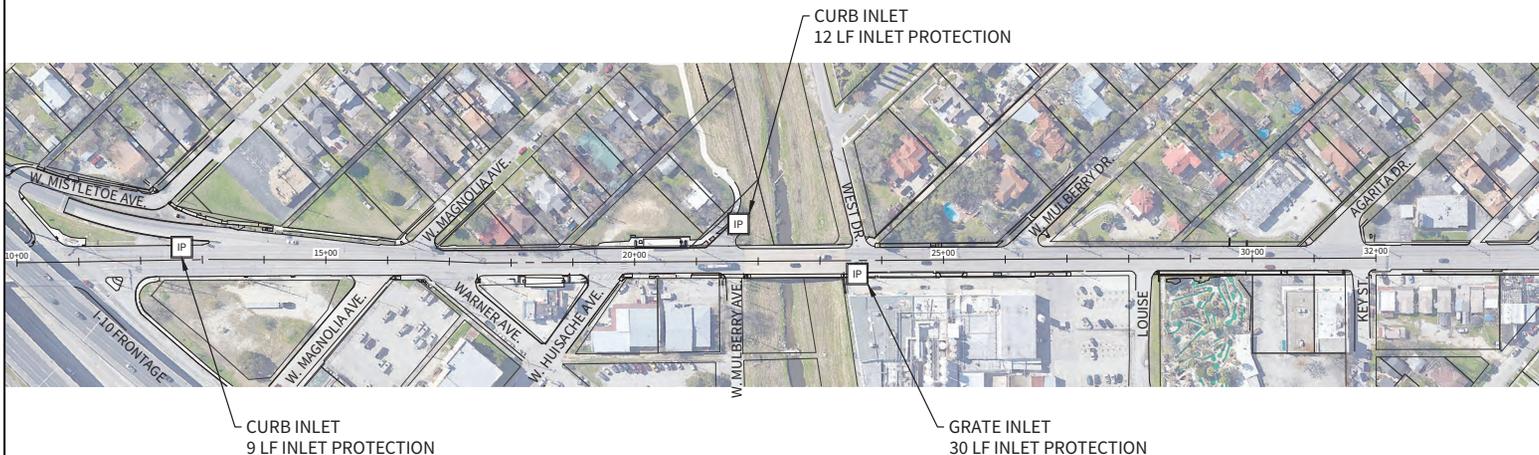
**2** PUTTER SIGN/POST NEW FOUNDATION  
1/2" = 1'-0"

DESIGNED: MJS/WFM	FED. PROJ. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC	TEXAS			FM LOOP 345
DRAWN: T.J.H.	COUNTY	CONTROL SECTION	JOB NO.	SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	52



**LEGEND**

- ROADWAY CENTERLINE 12+00
- EXISTING R.O.W./PROPERTY LINES
- PROPOSED SIDEWALK
- EXISTING SIDEWALK
- INLET PROTECTION IP

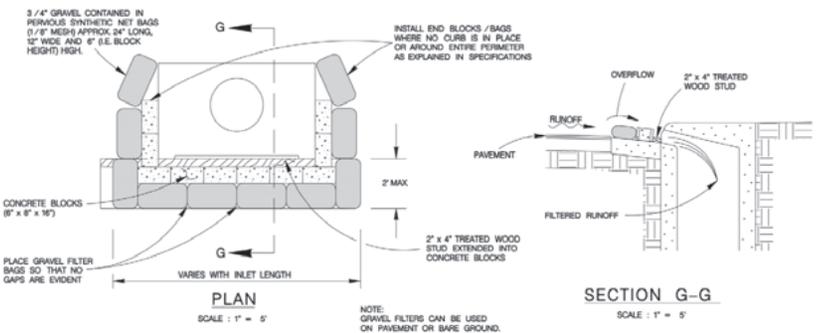


THIS DOCUMENT  
IS RELEASED FOR THE  
PURPOSE OF INTERIM REVIEW  
ONLY UNDER THE AUTHORITY OF  
W. PATRICK MURPHY, P.E. #111597

**01/20/2022**

IT IS NOT TO BE USED FOR  
CONSTRUCTION BIDDING, OR  
PERMITTING PURPOSES

SCALE: 1"=200'



**CURB INLET GRAVEL FILTER**

**CUDE ENGINEERS**  
4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681.2951 F: (210) 523.7112  
TBPE No. 455 #TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
TRANSPORTATION & CAPITAL IMPROVEMENTS  
(TCD DEPARTMENT)

**Texas Department of Transportation**

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**SWPPP**

DESIGNED: MJS/WPM	FED. PROJ. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: WPM	6	TEXAS	STP ( ) MM	FM LOOP 345
DRAWN: MJS	STATE	COUNTY	CONTROL NO.	SECTION NO.
CHECKED: WPM	SAN	BEXAR	0915	15
				JOB NO. 579
				SHEET NO. 53 OF 54

DISCLAIMER: This standard is prepared by the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the use of this standard or for incorrect results or damages resulting from its use.

DATE: FILE:

**I. STORMWATER POLLUTION PREVENTION-CLEAN WATER ACT SECTION 402**

Texas Pollutant Discharge Elimination System (TPDES) TXR 150000: Stormwater Discharge Permit or Construction General Permit (CGP) required for projects with 1 or more acres of disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 540.

No Action Required  Required Action

Action No.

- SW3P BMPs are required for any area of disturbance, per CoSA Ordinance No. 2019-04-02-0123, Sec. 34-804 (a) through (e).
- When Contractor project specific locations (PSL's) increase disturbed soil area to 1 acre or more, Contractor shall submit Construction Site Notice (CSN) and post CSN on or near the site.
- SW3P inspections shall be conducted by a P.E. or a certified stormwater inspector [see Ordinance No. 2019-04-02-0123, Sec. 34-805 (4)].
- NOI required:  Yes  No

Note: If amount of soil disturbance changes, permit requirements may change.

**II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404**

US Army Corps of Engineers (USACE) Permit required for filling, dredging, excavating or other work in any potential USACE jurisdictional water, such as, rivers, creeks, streams, or wetlands.

The Contractor shall adhere to all of the terms and conditions associated with the following permit(s):

- No Permit Required
- Nationwide Permit (NWP) 14 - Pre-construction Notice (PCN) not Required
- Nationwide Permit 14 - PCN Required
- Individual 404 Permit Required
- Other Nationwide Permit Required: NWP# \_\_\_\_\_

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices (BMPs) planned to control erosion, sedimentation and post-project total suspended solids (TSS).

- 
- 
- 
- 

**401 Best Management Practices: (Not applicable if no USACE permit)**

<b>Erosion</b>	<b>Sedimentation</b>	<b>Post-Construction TSS</b>
<input type="checkbox"/> Temporary Vegetation	<input type="checkbox"/> Silt Fence	<input type="checkbox"/> Vegetative Filter Strips
<input type="checkbox"/> Blankets/Matting	<input type="checkbox"/> Rock Berm	<input type="checkbox"/> Retention/Irrigation Systems
<input type="checkbox"/> Mulch	<input type="checkbox"/> Triangular Filter Dike	<input type="checkbox"/> Extended Detention Basin
<input type="checkbox"/> Sodding	<input type="checkbox"/> Sand Bag Berm	<input type="checkbox"/> Constructed Wetlands
<input type="checkbox"/> Interceptor Swale	<input type="checkbox"/> Straw Bale Dike	<input type="checkbox"/> Wet Basin
<input type="checkbox"/> Diversion Dike	<input type="checkbox"/> Brush Berms	<input type="checkbox"/> Erosion Control Compost
<input type="checkbox"/> Erosion Control Compost	<input type="checkbox"/> Erosion Control Compost	<input type="checkbox"/> Mulch Filter Berm and Socks
<input type="checkbox"/> Mulch Filter Berm and Socks	<input type="checkbox"/> Mulch Filter Berm and Socks	<input type="checkbox"/> Compost Filter Berm and Socks
<input type="checkbox"/> Compost Filter Berm and Socks	<input type="checkbox"/> Compost Filter Berm and Socks	<input type="checkbox"/> Vegetation Lined Ditches
	<input type="checkbox"/> Stone Outlet Sediment Traps	<input type="checkbox"/> Sand Filter Systems
	<input type="checkbox"/> Sediment Basins	<input type="checkbox"/> Sedimentation Chambers
		<input type="checkbox"/> Grassy Swales

**III. CULTURAL RESOURCES**

Cultural Resources fall under the Antiquities Code of Texas and/or the National Historic Preservation Act, as amended in 1966. If a previously unidentified archeological site is encountered during construction work, activities should be stopped in the vicinity and the City Archeologist (210-207-5421 or 210-207-7306) notified and/or the SHPO.

No Action Required  Required Action

Action No.

- Follow the Historic Preservation Notes on sheet 7 of 54 of the plan set for the treatment of historic sidewalk tiles.
- Follow sign removal, storage, and reinstallation provided on sheet 38 through 52 of the plan set.
- If historic resource (concrete stamp, carriage block, metal fixture, tile, masonry, etc.) is found that is not in the plans or has not been previously assessed, contact PWD EMD immediately - 210-207-1454.

**IV. VEGETATION RESOURCES**

Preserve native vegetation to the extent practical. Contractor must adhere to Construction Specification Requirements Specs 162,164, 192, 193, 506, 730, 751, 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

No Action Required  Required Action

Action No.

- Ensure that a tree permit is in place for the project, if required.
- Follow the tree preservation/mitigation plan provided in the design plan set. If there are any questions or concerns, please contact the City Arborist as 210-207-0278, before any work begins.

**V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.**

No Action Required  Required Action

Action No.

- MIGRATORY BIRD NESTS:** Schedule construction activities as needed to meet the following requirements:
  - Do not remove or destroy any active migratory bird nests (nests containing eggs and/or flightless birds) at any time of year. If there are any active nests, they shall not be removed until the nests become inactive.
  - On/in structures, if there are any active nests, they shall not be removed until all nests become inactive. After inactive nests are removed and/or before nest activity begins, deterrent materials may be applied to the structures to prevent future nest building.
- Deterrent material should be placed (and maintained) after October 1 or before February 15.
- The preferred nesting season for migratory birds is from February 15 to October 1. When practicable, schedule construction operations outside of the preferred nesting season.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the CoSA inspector immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the CoSA inspector immediately.

**VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES**

General (applies to all projects):  
 Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used. Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act. Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the CoSA inspector immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the CoSA inspector if any of the following are detected:

- \* Dead or distressed vegetation (not identified as normal)
- \* Trash piles, drums, canisters, barrels, etc.
- \* Undesirable smells or odors
- \* Evidence of leaching or seepage of substances

Hazardous Materials or Contamination Issues Specific to this Project:

No Action Required  Required Action

Action No.

- 
- 
- 

Does the project involve the demolition of a span bridge?  
 Yes  No (No further action required)

If "Yes", a pre-demolition notification must be submitted to the Texas Department of State Health Services. The contractor shall contact the Project Engineer 25 calendar days prior to the demolition of the bridge(s) on the project to assist with the notification.

**VII. OTHER ENVIRONMENTAL ISSUES**

(Includes regional issues such as Edwards Aquifer District, etc.)

No Action Required  Required Action

Action No.

- 
- 
- 

DISTRICT 1 PEDESTRIAN MOBILITY  
 FREDERICKSBURG RD. (I-10 TO W. AGARITA AV.)  
 JANUARY 2022



**ENVIRONMENTAL PERMITS,  
 ISSUES AND COMMITMENTS**  
 EPIC

FILE# ep1c_2015-10-09_SAT.dgn	DN: TxDOT	CR: TxDOT	DN: BW	CR: GAG
© TxDOT OCTOBER 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY	SHEET NO.	
		BEXAR	54	

fountain) of the type constructed by artist Dionicio Rodriguez in the early twentieth century (Appendix C, Resources 6E1-3). Research did not reveal if Rodriguez was the artist or if the works were original to the property or early additions. A simple building served as the clubhouse (Figure 7), a wood sign was located along Fredericksburg Road in the southeast corner of the property (Figure 8), and a batting cage and archery range were added at the rear of the property.



Figure 6. In 1947 when this photograph was taken of hole #6, Cool Crest Miniature Golf had wood bumper walls lining the fairways, paved hardscape areas surrounding the fairways, native trees, a simple fence enclosing landscaped areas, and wood seating. The old sign on Fredericksburg Road is visible at right in the background. Source: the Andry family.

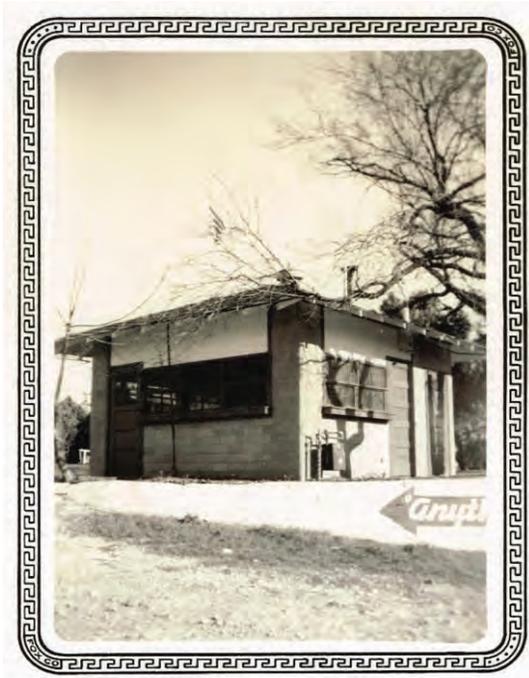


Figure 7. Old clubhouse (not extant), undated photograph. Source: the Andry family.



Figure 8. Old sign on Fredericksburg Road in the southeast corner of the property (not extant), undated photograph. Source: the Andry family.

In response to mini golf's second wave of popularity after World War II, Harold Metzger expanded Cool Crest around 1959 to include a second 18-hole golf course on the east side of the original course, presumably displacing the batting cages and archery.<sup>4</sup> The new course, which was designed by Metzger, was also a challenge course but featured more water and terrain elements than the old course (Mitchell Andry October 13, 2020; Castillo June 14, 1959; McCollough 1987). Around this time, Metzger replaced the old clubhouse with a new, larger clubhouse; the relocation of the old clubhouse allowed Metzger to redesign the course's first four holes (Michell Andry October 13, 2020; NETR 1955). He also added two new signs on Fredericksburg Road. Sohn is attributed with adding the lush, tropical landscaping that gives the course the distinct appearance it retains today, including hundreds of banana trees, along with magnolia, honeysuckle, jasmine bushes, and other plants (Guzman 2017).

When the Andry family purchased the property in 2013, they restored some of the golf course's historical elements, including the metal benches, the scoring stands, and its large sign, which were refinished with the original paint formula, and the landscape, which had suffered during the years in which the golf course was closed. Many plants in the original course had died and needed to be replanted; however, the Andrys attempted to replicate the historical design. The c.

---

<sup>4</sup> Various dates are provided for the second course in contemporary articles and documentation, mostly 1959 and 1960. A 1955 newspaper article announced Metzger's plan to double the size of Cool Crest to two 18-hole courses; however, a 1959 article repeats this announcement (Cary 1955; Castillo 1959). The course is not visible on a 1955 aerial photograph (but the month of the photograph is unknown) and is visible on a 1963 aerial photograph.

1959 course was mostly overgrown, and its plantings were restored with minimal replacements.

#### *Description*

The Cool Crest Miniature Golf property is located on a hilly site and comprises a c. 1930 18-hole course (Resource 6A-1) and a c. 1959 18-hole course (Resource 6A-2) (**Appendix F, Image 9**). Both courses are “challenge” type courses designed to test a golfer’s skill with hazards rather than entertain with novelty features such as windmills and artificial themes. Both have a geometrical layout, artificial turf greens lined with concrete curbs, hazards formed by undulations and mounds, bi-level greens, physical and visual barriers that disrupt the line of play, and a “bottomless” 18<sup>th</sup> hole. Golfers make their way through the original course on a series of hardscape elements that reflect the terrain, and softscape areas separate the holes, some of which are lined with concrete curbs or brick or stone retaining walls. It also has several *faux bois* elements, including a meandering brook, a fountain, and a footbridge that golfers must chip their ball over (Resources 6E1-3) (**Appendix F, Image 10**).

The c. 1959 course has a more varied terrain than the original course, and it has additional water features including a brook; here, the brook is incorporated into play at hole # 4 where a ramp launches the ball over the water. Hole #11 is another interesting design with its banked fairway that makes a 180-degree turn (**Appendix F, Image 11**). Like the old course, the c. 1959 course has softscape areas, some of which are lined with concrete curbs or retaining walls of varied materials. The courses have the same c. 1959 metal scoring stands (Resource 6F), c. 1959 arched overhead lights arranged individually and in clusters (Resource 6G), and c. 1959 metal benches with angled metal legs (Resource 6H). Additionally, both are planted with lush and tropical trees, plants, and shrubs.

Most of the alterations to the courses stem from the addition of the c. 1959 second course and clubhouse, which resulted in the reconfiguration of the first four holes of the c. 1930 course; the displacement of the batting cage and archery range; the replacement of the c. 1930 wood curbs with concrete curbs, and the replacement of small-scale objects (scoring stands, lights, and benches) to make the old and new courses cohesive. Additionally, some hazards have been replaced, and the original sawdust greens were replaced with outdoor carpet, which is regularly switched out for maintenance. Changes that have occurred more recently include the removal of the hole numbers from the back of the scoring stands (they are now painted on the concrete curbs), yellow safety paint on stairs, and the replacement of some retaining wall materials. CMEC replicated historical photographs to assist with identifying alterations to the golf course property; these side-by-side comparisons are provided in **Appendix F, Images 12 to 21**.

The property’s Mid-Century Modern style clubhouse (Resource 6B) has a butterfly roofline with an exaggerated overhanging eave. It is clad in horizontal banded stone and wood vertical boards. A horizontal band of windows wraps around the building where golfers pay and receive putters, balls, and scoring cards. Historical photos show the window area was originally open to

the exterior. In addition to the ticket booth, the original portion of the building also has a recessed, covered seating area. Non-historic-age additions to the rear comprise a small living space, storage, and restrooms.

Resource 6C is a c. 1950 sign facing westbound traffic on Fredericksburg Road. The sign face is very large, designed to grab the attention of passing motorists, and has a parabolic shape. It reads “Cool Crest Miniature Golf World’s Finest” in typography common in the 1950s and 1960s and depicts an illustration of a globe. The sign face is metal and supported by three metal posts. The sign was recently restored with its original colors, but its neon is not extant. Additionally, the words “Cool Crest” originally projected from the sign. The word panels are extant and onsite but were not reinstalled on the sign (Mitchell Andry October 13, 2020).

Resource 6D is a c. 1959 Programmatic-style sign facing eastbound traffic on Fredericksburg Road. It is metal and shaped like a golf club with a grip, shaft, and club head oriented upside down so that the shaft and grip act as the sign post. A sign face extends from the shaft with the word “golf” in panels. The light behind the words is not currently working (Mitchell Andry October 13, 2020).

Resource 6I includes five wall/fence components along the frontage with Fredericksburg Road and Louise Street. They include three retaining walls, a chain-link fence with barbed wire at the top, and a black chain-link fence. Photos of the golf course from the 1960s show that it historically had a perimeter chain-link fence. It is unknown if the current chain-link fence is the historical fence or a replacement. Portions of the retaining wall are visible in a photograph dated 1974 (Andry collection) (**Appendix C, Resource 6C**). The short black fence appears to be more recent. None of these elements have the same landscape design aesthetic as the golf course itself.

The golf course property was recently expanded to include a 2020 beer garden on the parcel north of the golf course where the Metzger’s house was once located (outside the APE). A c. 2008 storage building is on the same parcel.

### *Comparative Analysis*

#### Extant Courses

While an estimated 25,000 to 50,000 miniature golf courses were constructed in the U.S. in the sport’s 1930-1931 heyday, very few courses from this period are extant. In Texas, Cool Crest is the only known miniature golf course dating to this era and the only historic-age course in Bexar County. Only eight other historic-age courses were identified in Texas. A golf course constructed in Garner State Park between c. 1941 and 1951 is the only historic-age miniature golf course in a Texas state park. The rest of the historic-age courses are privately owned and date to the post-World War II and 1970s revivals of the sport (**Error! Reference source not found.**). In comparison

to Cool Crest’s lush, tropical theme, four of these private courses have whimsical themes and three are Putt-Putt-branded courses.

Table 1. Historic-age Miniature Golf Courses in Texas\*

Photograph	Current Name	Former Name	Location	Year Built	Notes
 <p>Source: <a href="https://rvtexasyall.com/region-texas-hill-country/campgrounds/garner-state-park">https://rvtexasyall.com/region-texas-hill-country/campgrounds/garner-state-park</a></p>	Stinkin' Sweet Candy Golf	Garner State Park Mini Golf Course	Concan (Uvalde County)	Between c. 1941 and 1951	Only historic-age course in a Texas state park
 <p>Source: <a href="https://abilenescene.com/a-look-inside-play-faire-park/">https://abilenescene.com/a-look-inside-play-faire-park/</a></p>	Play Faire Park	Green Acres	Abilene (Taylor County)	1947	Wood railroad ties replaced original wood bumpers; whimsical obstacles; new bandstand added
 <p>Source: <a href="https://www.roadarch.com/minigolf/tx.html">https://www.roadarch.com/minigolf/tx.html</a></p>	Peter Pan Mini-Golf	Varsity Links	Austin (Travis County)	1948	Whimsical theme with large-scale sculptures
 <p>Source: <a href="https://www.yelp.com/biz_photos/putt-putt-golf-and-games-tyler?select=XWeTqMVBwyOW2_oSO0dyig">https://www.yelp.com/biz_photos/putt-putt-golf-and-games-tyler?select=XWeTqMVBwyOW2_oSO0dyig</a></p>	Putt-Putt Golf & Games	N/A	Tyler (Smith County)	Between 1947 and 1965	Putt-Putt brand course

Photograph	Current Name	Former Name	Location	Year Built	Notes
 <p>Source: <a href="https://www.roadarch.com/minigolf/tx3.html">https://www.roadarch.com/minigolf/tx3.html</a></p>	Wonderland Park	Kiddie Land	Amarillo (Potter County)	1953	Whimsical theme; part of an amusement park
 <p>Source: <a href="https://puttputt.com/waco/hoursinfo/">https://puttputt.com/waco/hoursinfo/</a></p>	Putt-Putt Fun Center	N/A	Waco (McLennan County)	Pre-1970	Putt-Putt brand course
 <p>Source: <a href="https://www.roadarch.com/minigolf/tx.html">https://www.roadarch.com/minigolf/tx.html</a></p>	Hidden Valley Miniature Golf	N/A	Lakeside (Tarrant County)	1971	1-acre with whimsical obstacles like a lighthouse, windmill, etc.
 <p>Source: <a href="https://www.roadarch.com/minigolf/tx3.html">https://www.roadarch.com/minigolf/tx3.html</a></p>	Putt-Putt Fun Center	N/A	Abilene (Taylor County)	1972	Putt-Putt brand course

\* Compiled via online sources and historical aerial review. Additional historic-age golf courses in Texas may exist. Landa Park Miniature Golf Course in New Braunfels may be historic-age, but additional research is necessary to confirm the construction date.

### NRHP-Listed Courses

Two miniature golf courses are individually listed in the NRHP, and one is contributing to an NRHP historic district and was determined individually eligible for the NRHP. None are in Texas. Like Cool Crest, two of these courses were constructed in the early 1930s and the other in 1949. All are described as rare surviving early examples of miniature golf courses. Unlike Cool Crest, none of the properties have both a 1930s and post-World War II course. The common criteria and areas of significance are Criterion A in the area of Entertainment/Recreation and Criterion C in the area of Architecture or Landscape Architecture. Like Cool Crest, one of the 1930s courses has a naturalistic theme; its wooded landscape reflects its location in the northeast U.S., whereas Cool Crest's tropical landscape reflects its southern location. Both courses had a different landscape originally, and their post-war landscape updates give the courses the look they are known for today. All three courses have sustained alterations.

Common changes include the replacement of the original bumpers along the fairways; landscape changes; replacement turf; and loss of original hazards, lighting, and clubhouses. Like Cool Crest, many of these changes occurred as maintenance measures and during the post-World War II years to ensure the continued vitality of the property. A description of each course, its significance, and integrity is provided next.

Tall Maples Miniature Golf Course in New York was listed in the NRHP at the local level of significance under Criterion C in the area of Architecture as a “highly intact and extremely rare surviving example of a miniature golf course that dates from the sport’s first period of broad-based popularity and development” (Englert 2002: 8-1). Entertainment/Recreation is also listed as an Area of Significance and discussed; however, Criterion A is not checked on the form. The course was built in 1930 and features rustic architectural elements and hardscape, such as low stone retaining walls and surrounds along the holes, wood bumpers, and trees and rock gardens (Figure 9). It is lit with overhead lighting. Hazards include a mechanized windmill, dogleg fairways, and bi-level holes, and a bottomless 18th hole returns the player’s ball to the clubhouse. The original maple trees, which gave the course its name, were replaced by conifer trees in the 1950s or 1960s, one of the holes was redesigned in the 1950s, and the original ground cork fairway material was replaced with outdoor carpeting.



Figure 9. Photographs of the NRHP-listed Tall Maples Miniature Golf Course, built in 1930 with a rustic theme. Source: Englert 2002.

The City of St. Augustine Miniature Golf Course, built in 1949, is the oldest extant miniature golf course in Northeast Florida (Weaver and Jones 2014) (Figure 10). It was listed in the NRHP at the local level of significance under Criterion C in the area of Landscape Architecture as an excellent example of an early challenge type course constructed with a distinct local concrete building material. It is also listed under Criterion A in the area of Entertainment/Recreation for its association with golf, an important recreational activity in the city since the 1890s, and in the area of Social History for its association with the Civil Rights Movement in St. Augustine as the

first public facility in the city to be desegregated. The course has a non-historic-age clubhouse and the outdoor carpet is periodically replaced.



Figure 10. Photographs of the NRHP-listed City of St. Augustine Miniature Golf Course, built in 1949 as a challenge type course. Source: Weaver and Jones 2014.

The East Potomac Park Miniature Golf Course in Washington D.C. is a contributing site to the East and West Potomac Parks historic district, a collection of national parklands listed in the NRHP at the national level of significance under Criterion A and C under numerous areas of significance (Bobeczko and Robinson 1998) (Figure 11). Constructed in 1931, the course was the first miniature golf course built by the National Park Service on federally owned land and the only remaining miniature golf course in Washington D.C. It features a geometrical layout, hazards formed by undulations and mounds, bi-level greens, and whimsical obstacles such as a well house, lilypond, bridge, and loop-di-loop that were popular in early courses (Babin 2017).

The course has also been determined individually eligible for the NRHP by the National Park Service (Babin 2017). The determination indicates the course is locally significant under Criterion A in the area of Entertainment/Recreation and under Criterion C in the area of Architecture. The report states that in addition to being the single remaining golf course from its era in Washington D.C. and the region, it is one of the oldest continually operating courses in the country. It is also a representative example of miniature golf course architecture of the 1930s. In 1949, the golf course was raised approximately 18 inches to combat sinking grounds and the original clubhouse/ticket booth was replaced with a new and larger one. The course was renovated again in the early 1960s, at which point the original wood bumpers were likely replaced with concrete bumpers. Additionally, the course's original overhead lighting system and hazards, which included miniature reproductions of prominent buildings in Washington D.C., are not extant. The course, however, retains its original configuration.



Figure 11. Current (left) and historical (right) photographs of East Potomac Park Miniature Golf Course, built in 1931. The course is listed in the NRHP as a contributing site to a historic district and was determined individually eligible for the NRHP. Source: Babin 2017.

### *NRHP Evaluation*

The Cool Crest Miniature Golf Course is one of a small number of extant miniature golf courses in the country that date to the 1930s when miniature golf swept the nation. It also reflects the post-World War II revival of the game through its c. 1959 expansion and renovations and uniquely has courses that date to both eras of popularity. Though Cool Crest has experienced some periods of closure, it has provided a steady source of recreation and entertainment in San Antonio for nearly 90 years. It is the only historic-age miniature golf course extant in San Antonio and appears to be the oldest course in Texas. For these reasons, Cool Crest is significant under Criterion A in the Area of Entertainment/Recreation.

Cool Crest was also assessed for significance in the area of Transportation as a potential roadside attraction along the Old Spanish Trail. Though the course is located on the headquarters section of the road and was likely built in its location because it was a main thoroughfare, research did not reveal that the course had direct ties to the road, such as being a main attraction on the trail or having been advertised to Old Spanish Trail travelers. Mere location on a named road is not sufficient to support eligibility for the NRHP for transportation associations.

Regarding Criterion B, none of the prior owners from 1930 to present were found to have made significant contributions to history. Though original owner A. L. Huber was a business executive, any contributions he may have made to history are not documented and little is known about his involvement with Cool Crest or miniature golf. Metzger designed Cool Crest's c. 1959 course and other miniature golf courses in Texas during the 1950s, but this is not well-documented and he is not identified in contemporary literature to have been a noteworthy or prolific miniature golf course designer (McCollough 1987). Though the c. 1930 course may have been designed by architect Beverly W. Spillman, this could not be verified. Similarly, the *faux bois* elements are not definitively the works of notable artist Dionicio Rodriguez. Regardless, the golf course would not be the best example of Spillman's work and the sculptural elements are small-

scale components of the property and would not make the property eligible for listing in the NRHP as a whole. For these reasons, Cool Crest is not significant under Criterion B.

Regarding Criterion C, Cool Crest Miniature Golf has all the character-defining features of a typical historical miniature golf course (Table 2). It is an example of a challenge type course with its geometrical layout, hazards formed by undulations and mounds, and lack of wacky or whimsical elements. Its rustic bridge, fountain, and stone-lined brook reflect 1930s-era miniature golf course design trends. Though much of the original vegetation has been replaced, the 1950s or 1960s tropical landscape has become significant in its own right and gives the course the unique theme it is known for today. Other elements from the c. 1959 expansion and redesign reflect typical post-World War II miniature golf course trends, including the replacement concrete curbs, Mid-Century Modern clubhouse, flashy road signs, and more heavily designed c. 1959 course with more water features and terrain elements than the original course. As a rare surviving example of a miniature golf course from the early 1930s that also demonstrates post-World War II miniature golf course design trends, Cool Crest Miniature Golf is significant under Criterion C in the area of Landscape Architecture.

Table 2. Typical features of a historical miniature golf course\*

Feature	Present at Cool Crest
Typically 18 holes, each distinguished from the next through layout, hazards, miniature architectural structures, or sculptural figures	Yes
Teeing ground for each hole, which may be defined by a vinyl mat with tee points or, more simply, a level section of carpet or synthetic green	Yes
Fairway with the putting green and other landscape elements between the tee and hole	Yes
Obstacles along the green like sand traps, water hazards, swales, mounds, undulations, and rough patches of gravel or turf	Yes
Banks or modulations along the green to redirect a ball in play or change its speed	Yes
Curbs, off which the ball can be played	Yes
Physical and visual barriers that disrupt the line of play, such as jogs and Doglegs	Yes
Scoring tables at each hole	Yes
A “bottomless” 18th hole that directs the ball underground to the clubhouse	Yes
Overhead lighting at outdoor courses	Yes
Landscaping with trees, flowers, shrubs, stone, and fountains	Yes
A “clubhouse,” usually a modest building, where fees are paid, balls and putters are selected, and scorecards and pencils are obtained	Yes
May include a snack bar	Yes
Themed	Yes

\*Note: Compiled from Chandler 2000, Englert 2002, Liebs 1995, and Margolies 1987.

Regarding integrity, Cool Crest has sustained similar modifications to the NRHP-listed miniature golf courses. It was significantly modified c. 1959; however, these modifications have achieved significance on their own and help illustrate how the course was adapted to include then-current design and game trends. The course retains much of the look and feel it had c. 1959. Since then, curbs have been painted yellow for safety; the neon and word panels have been removed from the large sign, the hole numbers were removed from the scoring stands and are now

painted on the concrete curbs, the clubhouse was expanded to the rear, but its original volume is still evident; and the property was extended to include a beer garden. Despite these changes, the property still retains the essential physical features that enable it to convey its historical character. It retains sufficient integrity of location, design, setting, materials, workmanship, feeling, and association to convey its historic Recreation/Entertainment association and Landscape Architecture association. As a result, **Cool Crest Miniature Golf is recommended eligible for the NRHP at the local level of significance under Criterion A in the area of Entertainment/Recreation and Criterion C in the area of Landscape Architecture.**

The recommended period of significance is 1930 to 1970, reflecting the estimated year in which the first course was built, including its c. 1959 expansion and redesign, and extending to the 50-year cut-off date to reflect the continued recreational opportunity the property has provided people in San Antonio. The recommended NRHP boundary is a 0.79-acre area comprising the two courses, the clubhouse, and signs (**Appendix D, Figure 6**). It excludes the property's parking lot and a new secondary building and beer garden on an adjacent parcel. The recommended NRHP property includes the golf course site (Resource 6A), the contributing clubhouse (Resource 6B), and the two contributing signs on Fredericksburg Road (Resource 6C and Resource 6D). Additionally, the following small scale objects are features of the property and are therefore identified as contributing elements: the *faux bois* objects, including the fountain, brook, and footbridge (Resource 6E); scoring stands (Resource 6F); overhead lights (6G); and benches (6H). The property's chain-link fences and concrete retaining walls (Resource 6I) are noncontributing because they are not character-defining features of the course. They are simple utilitarian structures and lack the same landscape architecture character or value as other elements of the property.

#### ***Recommended Eligible District: Woodlawn Place***

The **Woodlawn Place Historic District** is recommended eligible for listing in the NRHP at the local level of significance under Criterion C in the area of Architecture for its collection of early twentieth-century residential architecture. The neighborhood is a mix of bungalows and larger houses designed in popular early twentieth-century styles including Tudor Revival, Spanish Colonial Revival, Moorish-Spanish, and Craftsman. The abundance of eclectic styles reflects the efforts of developer Leland Busby who had been inspired by stucco houses in Southern California and had an interest in styles other than Craftsman residences, which dominated residential construction in the early 1900s (*San Antonio Express* October 25, 1925). Together, these resources form a cohesive collection of early twentieth-century residential architecture.

Reconnaissance-level research suggests the neighborhood may also be eligible for the NRHP under Criterion A in the area of Community Planning and Development for the potentially innovative marketing methods used by the neighborhood's developers, but substantiating such a recommendation would require intensive-level research outside the scope of this project.

The irregularly shaped historic district comprises approximately five blocks bounded by the south side of West Summit to the north, North Calaveras to the west, the north side of West Woodlawn Avenue to the south, West Drive to the east, and the west side of Fredericksburg Road to the northeast. Surveyed properties in the district include one- and two-story single-family houses and secondary structures, a multifamily dwelling, and two commercial buildings.

The district's streets are gridded, the parcels are rectilinear and regularly sized, and the houses maintain a consistent setback. The streets have concrete sidewalks and curbs, and some residences have historic-age walkways and steps to the sidewalk or low stone retaining walls. Although the neighborhood's stone masonry retaining walls do not exhibit consistent workmanship or design, they are almost uniformly of uncoursed limestone rubble. The design and integrity of these features vary, with some having been replaced or augmented with poured concrete or brick. Four historic-age ceramic tile street signs are set in sidewalks in the district, one of which is in the APE (**Resource 10**). The neighborhood also included masonry pylons with the neighborhood's name in the same ceramic tile, but they are no longer extant. Martinez Creek was originally constructed as a parkway complete with landscaping and a nine-hole practice golf course (*San Antonio Express* December 10, 1922), but these landscape features and amenities are not extant. Common modifications to the district's resources include material replacements, rear/side additions, and some contemporary infill; however, overall, the district retains sufficient integrity to evoke the feeling of its period of significance, discussed below.

The provisional recommended NRHP boundary is the boundary of the addition, less the parkway and the area east of the parkway, which lack integrity. The parkway lacks all aspects of integrity except location. In the area east of the parkway, numerous houses have been demolished for a floodplain, and integrity of individual properties in this area is not as strong as the properties west of the parkway (**Appendix D, Figure 5**). The majority of the proposed district is outside the APE; therefore, further survey outside the scope of the current project would be needed to confirm the proposed district's boundaries.

The recommended period of significance is 1921, when the neighborhood opened for sales and construction of the advertised model home began, to 1940, when most of the original addition's buildings were completed. Further, after 1935, traditional craftsmanship, building designs, and methods of the early twentieth century began to be replaced by modern materials, construction techniques, and styles, a marked departure from the district's earlier residences.

CMEC assigned contributing/noncontributing status to resources located in the APE; those outside the APE were not individually assessed (although historians conducted a windshield survey of the district to confirm sufficient integrity and that there would likely be at least 50 percent contributing resources). Contributing resources in the APE include three 1920s Spanish Colonial Revival style houses (Resources 7A, 9A, and 11A), their contemporary Spanish Colonial Revival style ancillary buildings (7B and 9B), and retaining walls (Resources 7C, 7D, and 9C). A tile street name inlay at the corner of West Mulberry Avenue and Fredericksburg Road (Resource 10) is also contributing. These resources illustrate the character of the district, were constructed during the period of significance, and retain sufficient integrity to convey their

historic associations. Resources 7A and 9A have non-historic-age secondary resources that do not contribute to the recommended district (Resources 9D and Resources 11B-F). Other noncontributing resources include a 1960 commercial building and its non-historic-age ancillary resources (Resources 1A-1F) and a 1970 commercial building, its sign, and shed (Resources 5A-5C). These resources were built after the district's recommended period of significance and do not share the district's historic associations.

Note: The individual NRHP eligibility of surveyed resources in the district is described below.

#### ▪ **Properties not Individually Eligible**

##### *Agriculture/Processing*

- **Resource 8** is an International style creamery/dairy processing plant constructed in 1936 and substantially remodeled in 1970. The building, which originally featured an Art Deco design by architect Phil Lloyd Shoop, was constructed in 1936 (*San Antonio Light* January 26, 1936). In 1970, the plant was expanded and completely redesigned, losing its original appearance (*San Antonio Light* June 23, 1970). The plant has since expanded several times and accreted two historic-age buildings and subsumed the former Parkmoor Drive (Linn Street). This facility does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, although this resource has been in long-standing use as a creamery/dairy, "reconnaissance-light" research did not reveal associations linking it to persons or events of historic importance. Additional research may reveal potential for eligibility under Criterion A, but since no direct effects are proposed to the property, further research is not warranted. The building no longer retains integrity of design, materials, workmanship, or feeling due to the redesign and expansions that have completely modified its appearance. Furthermore, the complex's setting was impaired when Parkmoor Drive (Linn Street) was subsumed by the parcel and built over. As a result, it is recommended not eligible for the NRHP under Criterion A, B, or C.

##### *Commerce/Specialty Store*

- **Resources 2A-F and 2H** are small detached commercial shops located on the same city block and constructed c. 1940. The buildings are rectangular in form and are not constructed in any specific style. Research indicates the shops have been used by various retail and professional service providers, but none have had long-term tenants. They do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Furthermore, all have experienced diminished integrity of design and materials due to alterations such as additions and replaced doors and windows. As a result, they are recommended not eligible for the NRHP under Criterion A, B, or C.

- **Resource 2G** is a Commercial style 1-part commercial block building constructed c. 1940. The building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to additions on its rear and side elevations, the addition of a metal awning, replaced doors, painted brick, and a partially infilled storefront. As a result, it is recommended not eligible for the NRHP under Criterion A, B, or C.
- **Resources 3A and 4A** are Moderne style buildings occupying the same block. Resource 3A was constructed c. 1940 and 4A in 1948. Resource 3A has two storefronts, one of which has a prominent Streamline Moderne entry. Historical photographs indicate Resource 4A had a glass storefront, but it has since been filled. Although Resource 3A has some Streamline Moderne elements, the buildings do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Alterations at 3A include infilled window openings, an enclosed garage, and replaced doors and windows. Resource 4A's integrity of design, materials, workmanship, and feeling has been diminished due to the replaced storefront and modified fenestrations. As a result, they are recommended not eligible for listing in the NRHP under Criterion A, B, or C.
- **Resources 3B, 13, and 14** are commercial buildings constructed in no specific style in c. 1940, 1959, and 1946, respectively. These buildings do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Furthermore, Resource 3B has experienced diminished integrity of material due to a replaced garage door and a damaged parapet. Resource 13 has been modified and enlarged to the extent it no longer retains integrity of design, materials, workmanship, feeling, or association. Resource 14 has a roofline modification, some replacement windows and doors, and an addition, among other modifications, that diminish integrity of design, materials, workmanship, and feeling. As a result, they are recommended not eligible for the NRHP under Criterion A, B, or C.
- **Resource 5A**, one of the properties surveyed at a more intensive level, is a 1970 commercial building with multiple automobile bays and a Mansard style roof over the storefront. The building was originally occupied by Car Parts Co., which had several locations in the area and advertised Bull Parts brand products (*San Antonio Express-News* October 21, 1972). It is currently occupied by Alamo Classic Ponies, a car parts and service business that opened in a different location in 1988 and recently relocated to Fredericksburg Road (Alamo Classic Ponies 2020). This commercial building does not embody distinctive characteristics of a type, period, or method of construction and it

does not represent the work of a master or possess high artistic value. It modestly references the Mansard style through its roof. Additionally, no associations were identified linking it to persons or events of historic importance; it is not known to be associated with any businesses of note. The current and former occupants are not known to be legacy businesses. Furthermore, the replacement of the building's Mansard roof material reduces integrity of materials. As a result, it is recommended not eligible for the NRHP under Criterion A, B, or C.

#### *Commerce/Professional*

- **Resource 1A** is a Post-war Modern style professional building constructed in 1960. This office building does not embody distinctive characteristics of a method of construction and it does not represent the work of a master or possess high artistic value. Although this building is an example of the Post-war Modern style, the architecture does not rise to the level of significance necessary for listing in the NRHP. Additionally, no associations were identified linking it to persons or events of historic importance. As a result, it is recommended not eligible for the NRHP under Criterion A, B, or C. As indicated in the previous section, it is noncontributing to the Woodlawn Place district because it was constructed outside of the period of significance.

#### *Commerce/Specialty store*

- **Resource 15** is a gasoline station constructed in 1935. The Conservation Society of San Antonio's (CSSA) "San Antonio Historic Gas Stations" survey identifies this former gasoline station as a Sinclair Service station (CSSA 2012). CMEC historians, referring to TxDOT's 2016 updated study *A Field Guide to Gas Stations in Texas*, confirmed the building's form and remaining identifying features are consistent with Sinclair stations constructed between 1930 and 1940. Such features include tile covered pent roofs, stucco exterior finish, larger corner columns with brackets supporting the canopy, pedimented parapets on canopy, service bay extending from side of office, and Mission or Spanish Eclectic stylistic influences (TxDOT 2016). According to the CSSA survey, the building remained a service station under various names until 1965 when it became the location of a radio and television repair shop. Since then, the building has been the location of a cabinet shop and several restaurants.

CMEC historians evaluated the integrity of the building based on the guidelines in *A Field Guide to Gas Stations in Texas* (TxDOT 2016). The alterations noted for Resource 13, as well as the tier of impact to integrity assigned by the field guide, are presented below.

Table 3. Resource 15 Integrity Analysis

Resource 15 Alterations	Integrity Impact Tier (per TxDOT 2016 definitions)
Change in use	1-minimal
Removal of signage	1-minimal
Removal of gas pumps	1-minimal
Small rear addition	1-minimal
Permanently infilled windows	2-moderate
Infilled service bays	2-moderate
Infilled canopy	3-severe
Large side addition	3-severe

Per the field guide, gas stations most commonly have historic significance under Criterion A in the areas of Community and Regional Development and Transportation. The most common area of significance under Criterion A is Transportation. Architecture and Engineering are the most common areas of significance under Criterion C. In terms of Criterion A/Transportation, gas stations may achieve significance if they have a clear association with a named highway or auto trail during their period of significance or a clear association with the construction of an interstate highway. Resource 15 is one of 12 former gas stations on Fredericksburg Road within a 1-mile radius, reflecting the importance of the road as a major automobile corridor; however, Resource 15 was built in 1934, approximately 15 years after the Old Spanish Trail was paved through San Antonio. Though it serviced Old Spanish Trail travelers, it was not constructed in direct response to the establishment of the trail. In terms of Criterion B, no associations were identified linking it to persons or events of historic importance. In terms of Criterion C, the building had potential for architectural significance, but it has been modified to the extent it no longer retains integrity of design, materials, workmanship, feeling, or association (Table 3). Furthermore, the building's setting has been diminished by the addition of a prominent bus rapid transit station directly in front of the building. As a result, it is recommended not eligible for the NRHP under Criterion A, B, or C.

*Domestic/Multiple dwelling*

- **Resource 16** is a duplex bungalow constructed c. 1925 with modest suggestions of the Colonial Revival and Craftsman styles. The dwelling does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, its integrity of materials has been diminished due to a replaced primary door. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

*Domestic/Single dwelling*

- **Resources 7A, 9A, and 11A** are two-story Spanish Colonial Revival style single-family residences constructed c. 1923, 1929, and c. 1925, respectively. Resource 7A, the

subject of a more intensive study, appears on a 1924 Sanborn map, which shows that the one-story volume on the east (right) end was a porch. The porch's arched openings have been enclosed with windows. Historic real estate advertisements indicate the dwelling has a reception hall, 3 bedrooms, 2 bathrooms, is constructed of hollow tile with stucco cladding, and has a separate 2-car garage with servant's quarters (**Resource 7B**) (*San Antonio Express* May 5, 1940: C3; *San Antonio Light* June 10, 1951). Resource 9A has sustained alterations including the replacement of the tile roof with asphalt shingles, replaced windows, altered landscaping, the addition of an awning, and the addition of a rear balcony. Alterations to Resource 11 include replaced windows, an enclosed garage, the addition of a porch, and a rear addition. Research did not reveal whether the buildings were designed by an architect. Although the buildings are examples of the Spanish Colonial Revival style, numerous intact examples are found in San Antonio that embody the style and these building's architectural quality has been diminished due to alterations affecting integrity of design, setting, and materials. As a result, they are recommended not eligible for individual listing in the NRHP under Criterion A, B, or C. However, as indicated in the previous section, they are eligible for the NRHP as contributing properties to the Woodlawn Place historic district.

- **Resources 17 and 19A** are single-family residences with a bungalow plan with both Colonial Revival and Craftsman styling. Both were constructed c. 1925. These buildings do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Furthermore, Resource 17 has experienced diminished integrity of materials due to replaced windows and doors. Resource 19A has been extensively remodeled and no longer retains integrity of design, materials, workmanship, or feeling. As a result, they are recommended not eligible for the NRHP under Criterion A, B, or C.

#### *Domestic/Secondary structure*

- **Resources 7B and 9B** are Spanish Colonial Revival secondary domestic structures constructed c. 1923 and c. 1929, respectively. Both were originally garage and servant quarters. These secondary buildings do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Furthermore, both have experienced diminished material integrity due to alteration. As a result, they are recommended not individually eligible for the NRHP under Criterion A, B, or C. However, as indicated in the previous section, they are eligible for the NRHP as contributing properties to the Woodlawn Place historic district.
- **Resource 18B** is a domestic secondary building constructed in no specific style. The building was built in 1950. This secondary building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the

work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to a large addition. As a result, it is recommended not eligible for the NRHP under Criterion A, B, or C.

#### *Landscape/Street furniture*

- **Resources 7C, 7D, and 9C** are stone masonry walls. Resources 7C and 7D were constructed c. 1923 and Resource 9C c. 1929. All three are associated with the houses located on their parcels. Resource 7C is constructed of roughly dressed stone masonry set in irregular courses and has a concrete cap that extends for most of its length. The wall is approximately 5 feet tall and extends along Fredericksburg Road for approximately 175 feet. No contractor or date stamps were found on the wall but the ability to examine the resource was limited by its proximity to Fredericksburg Road traffic, overgrowth, and lack of right-of-entry to the property. Surveyors observed other walls in the vicinity and noted that most others are constructed of uncoursed rubble masonry. Resource 7D is an approximately 7-foot tall stone masonry wall extending along West Mulberry Avenue for about 140 feet. It is constructed of uncoursed rubble masonry, which is consistent with similar walls throughout the neighborhood. In some areas, brick piers connected by wrought iron rails are set atop the stone. In other areas, the brick piers are connected by concrete blocks and terra cotta. The wall breaks on West Mulberry Avenue for a staircase leading to Resource 7A's front door. At the corner of West Mulberry Avenue and Fredericksburg Road is a driveway gate with piers, metal lights atop the piers, and a wrought iron gate. No contractor or date stamps were found on the wall. Resource 9C is a poured concrete wall extending along its parcel's perimeter along West Mulberry Avenue and Fredericksburg Road. These landscape resources do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. These resources are adjacent to a section of Fredericksburg Road that was part of the Old Spanish Trail (OST). To beautify the roadway, owners were encouraged by the OST's Beautification Department to construct "improved property entrances and fences" like this. However, research did not reveal that these walls were specifically constructed in response to that effort, although it is possible (OST 1929: 45). No other associations were identified linking them to persons or events of historic importance. Furthermore, Resource 7D's integrity of design and materials has been diminished due to alterations, and Resource 9C's design integrity has been diminished due to the addition of privacy fencing. As a result, they are recommended not individually eligible for the NRHP under Criterion A, B, or C. However, as indicated in the previous section, they are eligible for the NRHP as contributing properties to the Woodlawn Place historic district.
- **Resources 2I-K, 4B, and 5B** are parking lot signs associated with historic-age commercial resources. Resources 2I, 2J, and 2K were constructed c. 1940, Resource 4B c. 1948, and 5B in 1970. These objects do not embody distinctive characteristics of a type,

period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. All have experienced diminished integrity of materials due to missing or removed components. As a result, they are recommended not eligible for the NRHP under Criterion A, B, or C. As indicated in the previous section, Resource 5B is within the Woodlawn Place NRHP historic district but is recommended as noncontributing.

- **Resource 10** is a c. 1921 ceramic tile street sign embedded into a concrete sidewalk. It reads “Mulberry,” but the letter “U” is missing. Street name tiles were historically located in the Woodlawn Place Addition. This resource is a small-scale object. On its own, it does not rise to the level of significance necessary for individual listing in the NRHP. It is best understood in the context of the recommended historic district. As a result, it is recommended not individually eligible for the NRHP under Criterion A, B, or C. However, as indicated in the previous section, it is a contributing resource in the Woodlawn Place historic district.

#### *Recreation & Culture/Other*

- **Resource 12** is the site of the former Woodlawn Place parkway designed by landscape architect James Hopkins Healy and constructed in 1921. The parkway was originally lined by two boulevards (West Drive and East Drive) connecting Fredericksburg Road with Woodlawn Avenue and was planted with arbor vitae, palms, shrubbery, flower beds, and a lawn on either side of Martinez Creek (*San Antonio Light*, July 10, 1921; *San Antonio Express*, December 10, 1922). Walking paths lined the creek and a nine-hole practice golf course was in the parkway (NETR 1955; *San Antonio Express*, December 10, 1922). Concrete bridges over Martinez Creek at West Huisache, West Magnolia, and West Mistletoe Avenues connected both sides of the Woodlawn Place neighborhood. None of the landscape features or the bridges on the three avenues remain. Furthermore, of the two boulevards, only West Drive remains. As a result, this site is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

- **Recommendations for Further Study**

No further work is recommended.

## **Determination of Section 106 Effects Recommendations**

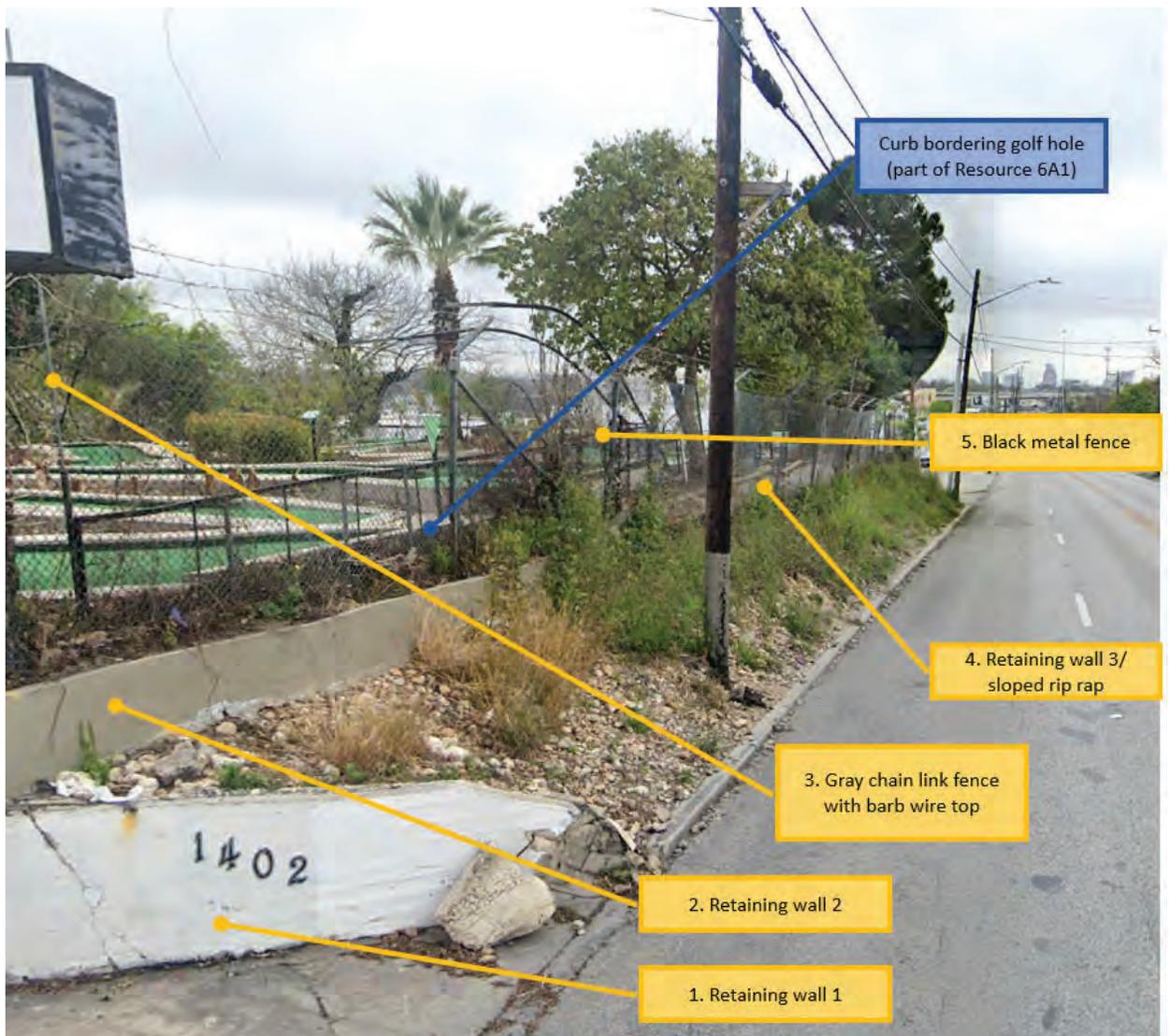
- **Direct Effects**

In accordance with 36 CFR 60 and 36 CFR 800.11, the criteria of effect were applied to the property and district recommended eligible for the NRHP. As discussed above, Resource 6 is recommended eligible for the NRHP at the local level of significance under Criterion A in the

area of Entertainment/Recreation and Criterion C in the area of Landscape Architecture. The recommended NRHP boundary for the property is shown in **Appendix D, Figure 6**. Woodlawn Place Historic District is recommended eligible for listing in the NRHP at the local level of significance under Criterion C in the area of Architecture. The provisional recommended NRHP boundary is shown in **Appendix D, Figure 5**. Project designers have minimized the impact to historic properties to the greatest extent possible while addressing the goals of the proposed project.

Individual Property: Resource 6/Cool Crest Miniature Golf Course

At Resource 6, a new retaining wall and sidewalk would be constructed on the property's border with Fredericksburg Road (**Appendix E, Retaining Wall Exhibits**). The image below shows the five existing walls/fences at the Cool Crest property, numbered sequentially from west to east/exterior to interior (Resource 6I). A concrete curb bordering hole #2 is also depicted (in blue) because of its close proximity to the proposed work; as an element of the golf course, it is part of the NRHP-eligible site.



The proposed project would require the removal of all materials within the roadway ROW. The segment of retaining wall 1 pictured above would be removed. Retaining wall 2, the portions of retaining wall 3 in the ROW, as well as the gray chain-link fence (all noncontributing to the property) would be removed and a temporary wall would be constructed to hold the earth while the new retaining wall is constructed. The construction of the new wall would require a 20-foot permanent easement and placement of soil nails to secure the new wall. The soil nails would be placed horizontally in the earth bank and would not require excavation at the golf course surface. The property owner has indicated that there may be a well, although its presence has not been confirmed. If a well or void is present, the soil nail pattern may be adjusted. Regardless, the soil nail construction method is not expected to affect the golf course at ground level as a result of drilling vibrations or settlement; however, test nails would be installed to be certain. Fill dirt and sod would be added in some locations behind the new retaining wall to raise the ground surface elevation to be level with the rest of the area behind the wall. A fence would be installed on top of the new retaining wall. Although the low, black metal fence (feature 5 shown above) and the concrete walls forming the edge of the mini-golf holes that line Fredericksburg Road (feature 6A1 shown above) are within the 5-foot temporary construction easement area, they would not be affected. The new retaining wall would be 4 to 5 inches from the concrete curb of hole #2; this section would be installed carefully to avoid damage to the curb/hole.

Resource 6C, the large Cool Crest sign, is currently embedded in sloped concrete riprap. The sign would be temporarily removed and stored during construction. After completion of the retaining wall, the sign would be reinstalled. Because of the new retaining wall's construction, the sign's location would be approximately five feet northeast of its current position (see Appendix E). Resource 6D, the "GOLF" sign, would be temporarily removed and stored during construction. The sign would be reinstalled at its original location on a new foundation following completion of the retaining wall's construction (Appendix E). Most construction equipment would be in the road; if construction requires access via the golf course section of the property, care should be taken to avoid damage to the course and its landscape, such as laying protecting coverings over the greens. The aesthetic design of the retaining wall and fence has not been determined. A simple design that does not detract from the historic setting of the golf course or lessen one's understanding of it from the ROW is recommended, such as a plain concrete wall and chain-link or wrought iron fence. As the proposed modifications would not affect contributing resources and would not alter the characteristics of the property that qualify it for inclusion in the NRHP, the proposed project would pose no adverse direct effects to the property.

#### Historic District: Woodlawn Place

The proposed project includes reconstructing existing sidewalks and curbing, replacing some sidewalk material, and introducing some new sidewalk segments where they did not previously exist along Fredericksburg Road. The existing character of the sidewalks, curbing, and other features of the Woodlawn Place historic district was evaluated (see **Appendix C**, Woodlawn Place Overview Record). In general, the district is characterized by sidewalk sections that are

varied in age, width, and condition. The district does not derive significance from the layout or character of the sidewalks, except for tile sidewalk inlays bearing street names. Resource 10 is a tile sidewalk inlay reading “Mulberry,” which is recommended as contributing to the Woodlawn Place eligible historic district. The sidewalk tiles are proposed to be salvaged and put back into place unless it is determined during construction that this is not possible. Any broken tiles would be replaced with replicas. There are no other direct effects to the contributing resources in the district.

- **Indirect, Cumulative or Reasonable Foreseeable Effects**

Indirect visual effects were considered, in accordance with TxDOT’s *Standard Operating Procedure for Visual Impacts Assessment*. The proposed project would not result in significant changes in setting. The Cool Crest property has long had retaining walls along Fredericksburg Road and Louise Street; the proposed project would construct a replacement retaining wall that is not anticipated to significantly change the setting or compromise any other aspects of integrity at the property. Sidewalks already exist in the project area, including directly north and south of the Cool Crest property on the east side of Fredericksburg Road as well as north of Agarita Avenue and south of West Avenue on the west side of Fredericksburg Road. The replacement of existing segments and the introduction of new segments would not be an adverse indirect visual effect to the Cool Crest property or the Woodlawn Place historic district.

Indirect noise effects were also considered. The proposed project would not be on a new location, would not substantially alter either the horizontal or vertical alignment, and would not increase the number of through-traffic lanes or auxiliary lanes. Therefore, a traffic noise analysis was not required by 23 CFR 772 or TxDOT’s *Guidelines for Analysis and Abatement of Roadway Traffic Noise*. Furthermore, any increases in traffic noise levels would not diminish the ability of the properties and district to convey historic significance.

Overall, the proposed project would not lessen one’s understanding of each resource’s significance and would not constitute adverse indirect effects. Furthermore, no reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative were identified in the assessment of effects.

## **U.S. DOT Section 4(f) Applicability Statement**

Although the proposed project would have no adverse effect on the characteristics for which Resource 6 is significant, the proposed permanent easement constitutes a *de minimis* impact to a historic site under the U.S. Department of Transportation Act Section 4(f) regulations (23 CFR 774).

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## Appendix A: Project Information and ROW Information

- [WPD Section I - Project Definition](#)
- [WPD Section II - Tool](#)
- [WPD Section III - Project Work Plan](#)
- [WPD Section IV - Findings](#)



Print this Page

Project Definition

Project Name:

CSJ:  -  -

Anticipated Environmental Classification:

Type:

Criterion:

Is this an FHWA project that normally requires an EIS per 23 CFR 771.115(a)?

Project Association(s)

Manually Associate CSJ:

CSJ	DCIS Funding	DCIS Number	Env Classification	DCIS Classification	Main or Associate	Doc Tracked In	Actions
There are currently no Project Associations added to this project.							

DCIS Project Funding and Location

Funding

DCIS Funding Type:

Federal  State  Local  Private

Location

DCIS Project Number:

Highway:

District:

County:

Project Limit -- From:

Project Limit -- To:

Begin Latitude: +  .

Begin Longitude: -  .

End Latitude: +  .

End Longitude: -  .

DCIS & P6 Letting Dates

DCIS District:

DCIS Approved:

DCIS Actual:

P6 Ready To Let:

P6 Proposed Letting:

DCIS Project Description

Type of Work:

Layman's Description:

DCIS Project Classification:

Design Standard:

Roadway Functional Classification:

Jurisdiction

No

Does the project cross a state boundary, or require a new Presidential Permit or modification of an existing Presidential Permit?

Who is the lead agency responsible for the approval of the entire project?

FHWA - Assigned to TxDOT  TxDOT - No Federal Funding  FHWA - Not Assigned to TxDOT

Local Government

Who is the project sponsor as defined by 43 TAC 2.7?

Yes

Is a local government's or a private developer's own staff or consultant preparing the CE documentation, EA or EIS?

No

Does the project require any federal permit, license, or approval?

USACE  IBWC  USCG  NPS  IAJR  Other

No

Does the project occur, in part or in total, on federal or tribal lands?

Environmental Clearance Project Description

Project Area

Typical Depth of Impacts:  (Feet) Maximum Depth of Impacts:  (Feet)

New ROW Required:  (Acres)

New Perm. Easement Required:  (Acres) New Temp. Easement Required:  (Acres)

Project Description

Describe Limits of All Activities:

The proposed project limits would extend for a total of 0.4 mile along Loop 345, also known as Fredericksburg Road, from I-10 to approximately 100 feet north of W. Agarita Avenue. The project would also include work on W. Mistletoe Avenue for approximately 185 feet, from the point where W. Mistletoe Avenue turns in a southeasterly direction running parallel to Loop 345 to the southbound I-10 entrance ramp. The project would be constructed primarily within the existing 52- to 75-foot right of way (ROW) of Loop 345, with the exception of at one parcel (Property ID# 134690) that is currently in use by Cool Crest Miniature Golf Course; a 0.057-acre permanent easement and 0.014-acre temporary construction easement are proposed at this parcel.

Describe Project Setting:

The project area is located in an urban area within the City of San Antonio, in central Bexar County. Within and adjacent to the project limits, land use primarily consists of single-family residential on the west side of Loop 345 and commercial and industrial uses on the east side of Loop 345.

A City-designated historic landmark, Cool Crest Miniature Golf, is located adjacent to the project limits at 1414 Fredericksburg Road; permanent and temporary easements are proposed at this facility. Martinez Creek flows through the central portion of the project limits, and the Martinez Creek Greenway, Martinez Creek Trail, and Martinez Creek Fredericksburg Trailhead are located adjacent to the project area at the creek crossing on the west side of the roadway. Vegetation within the project limits consists entirely of urban maintained vegetation.

#### Describe Existing Facility:



Loop 345 is currently a four-lane, undivided, non-controlled access roadway within an existing ROW width of 52 to 75 feet. The existing typical section includes two (2) 10-foot travel lanes in each direction, with 6- to 7-foot discontinuous sidewalks and a varied-width parkway on both sides of the roadway. An existing drainage easement exists along Martinez Creek. A concrete span bridge exists at Martinez Creek, where Loop 345 travels over the creek.

#### Describe Proposed Facility:

The proposed project would include pedestrian improvements to Loop 345 within the project limits. More specifically, the project would construct 4- to 6-foot sidewalks and curb on both sides of the roadway to fill the gaps in the existing sidewalks; the existing 6- to 7-foot sidewalks already in place in the project limits would remain.

The project would also replace existing ramps with ADA-compliant ramps and would add a crosswalk at Loop 345 and Key Street. A retaining wall would be constructed in front of the Cool Crest Miniature Golf facility, located at 1414 Fredericksburg Road. Utility work would include adjustments to one electric box and one water meter in order to accommodate the proposed pedestrian improvements.

There would be no work conducted within Martinez Creek, Martinez Creek Greenway, or along the Martinez Creek Trail. Furthermore, there would be no roadway work (e.g. mill/overlay, base repairs, etc.).

Would the project add capacity?

Transportation Planning

Is the project within an MPO's boundaries?

Does the project meet the definition for a grouped category for planning and programming purposes?

The project is located in  area.

This status applies to:

CO - Carbon Monoxide

O3 - Ozone

NO2 - Nitrogen Dioxide

PM10 - Particulate

PM2.5 - Particulate

Environmental Clearance Information

Environmental Clearance Date:

Environmental LOA Date:

Closed Date:

Archived Date:

Approved Environmental Classification:

Project Contacts

Created By:

Date Created:

Project Sponsor:  TXDOT (Or)  Local Government

Sponsor Point Of Contact:

Delegate Point Of Contact:

Other Point of Contact(s):

Last Updated By: System Admin

Last Updated Date: 11/06/2020 07:10:02

## Appendix B: Tabular Inventory of Surveyed Properties

Tabular Inventory of Historic-Age, Surveyed Properties											
Resource No.	Address/Location	Function/Sub-Function	Form/Type	Style	Date(s)	Integrity/Comments	NRHP Eligibility (Indiv.)	Contributing to NRHP Recommended District	Effect	Latitude	Longitude
1A	1507 Fredericksburg Rd San Antonio, TX	Commerce/Professional	Rectangular/Building	Post-war Modern	1960	Location; Design; Setting; Materials; Workmanship; Feeling; Association	No	No	N/A	29.45844	-98.52037
2A	1500 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45866	-98.52023
2B	1512 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Design; Setting; Materials; Workmanship; Feeling; Association	No	N/A	N/A	29.45881	-98.52017
2C	1510 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Setting; Workmanship; Feeling; Association; Materials	No	N/A	N/A	29.45875	-98.52013
2D	1508 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.4587	-98.52006
2E	1506 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45864	-98.52
2F	1504 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45857	-98.51994
2G	1502 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	1-part commercial block/Building	Commercial	c.1940	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45851	-98.51985
2H	105 Key St San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Setting; Materials; Workmanship; Feeling; Association	No	N/A	N/A	29.45862	-98.51974
2I-K	1500 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Sign/Object	No style	c.1940	Location; Design; Setting; Feeling; Association	No	N/A	N/A	Multiple	Multiple
3A	1420-1424 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	Moderne	c.1940	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45837	-98.51964
3B	102 Key St San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	c.1940	Location; Design; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45845	-98.51948
4A	1414 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	Moderne	1948	Location; Setting; Association	No	N/A	N/A	29.45829	-98.5195
4B	1414 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Sign/Object	Moderne	c.1948	Location; Design; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.4581	-98.51962
5A	1403 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	Mansard	1970	Location; Setting; Workmanship; Feeling; Association; Design	No	No	N/A	29.45803	-98.51983
5B	1403 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Sign/Object	No style	1970	Location; Setting; Materials; Workmanship; Feeling; Association	No	No	N/A	29.45803	-98.51983
6A	1402 Fredericksburg Rd San Antonio, TX	Rec & culture/sports facility	N/A/Site	No style	c.1930	Location; Setting; Materials; Workmanship; Feeling; Association; Design	Yes	N/A	No Adverse Effect	Multiple	Multiple
6B	1402 Fredericksburg Rd San Antonio, TX	Rec & culture/sports facility	Irregular/Building	Post-war Modern	c.1959	Location; Setting; Feeling; Association; Materials; Workmanship	No	Yes	No Adverse Effect	29.45818	-98.51919
6C	1402 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Sign/Object	Post-war Modern	c.1950	Location; Design; Setting; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.4577	-98.51921
6D	1402 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Sign/Object	Programmatic	c.1959	Location; Design; Setting; Materials; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45794	-98.51948
6E1-4	1402 Fredericksburg Rd San Antonio, TX	Landscape/object	Fountain/Object	Faux Bois	c.1930	Location; Design; Setting; Materials; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	Multiple	Multiple
6F1-36	1402 Fredericksburg Rd San Antonio, TX	Rec & culture/sports facility	N/A/Object	No style	c.1959	Location; Setting; Workmanship; Feeling; Association; Design; Materials	No	Yes	No Adverse Effect	Multiple	Multiple
6G	1402 Fredericksburg Rd San Antonio, TX	Rec & culture/sports facility	N/A/Structure	No style	c.1959	Location; Setting; Workmanship; Feeling; Association; Design; Materials	No	Yes	No Adverse Effect	Multiple	Multiple
6H	1402 Fredericksburg Rd San Antonio, TX	Rec & culture/sports facility	N/A/Object	No style	c.1959	Location; Setting; Materials; Workmanship; Feeling; Association; Design	No	Yes	No Adverse Effect	Multiple	Multiple
6I	1402 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	N/A/Structure	No style	c.1959- c.2000	Location; Setting; Materials; Workmanship; Feeling; Association; Design	No	No	N/A	29.45779	-98.51934
7A	1327 Fredericksburg Rd San Antonio, TX	Domestic/Single dwelling	Rectangular/Building	Spanish Colonial Revival	c.1923	Location; Setting; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45739	-98.51943

Tabular Inventory of Historic-Age, Surveyed Properties

Resource No.	Address/Location	Function/Sub-function	Form/Type	Style	Date(s)	Integrity/Comments	NRHP Eligibility (Indiv.)	Contributing to NRHP Recommended District	Effect	Latitude	Longitude
7B	1327 Fredericksburg Rd San Antonio, TX	Domestic/Secondary structure	Rectangular/Building	Spanish Colonial Revival	c.1923	Location; Design; Setting; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45759	-98.51948
7C	1327 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Linear/Structure	No style	c.1923	Location; Feeling; Association; Workmanship; Setting; Design; Materials	No	Yes	No Adverse Effect	29.45751	-98.51927
7D	1327 Fredericksburg Rd San Antonio, TX	Landscape/street furniture	Linear/Structure	No style	c.1923	Location; Setting; Feeling; Association; Workmanship	No	Yes	No Adverse Effect	29.45721	-98.51932
8	1314 Fredericksburg Rd San Antonio, TX	Agriculture/Processing	Irregular/Building	International	1936	Location; Association	No	N/A	N/A	29.4572	-98.51822
9A	1502 W Mulberry Ave San Antonio, TX	Domestic/Single dwelling	Irregular/Building	Spanish Colonial Revival	1929	Location; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45684	-98.51884
9B	1502 W Mulberry Ave San Antonio, TX	Domestic/Secondary structure	Rectangular/Building	Spanish Colonial Revival	c.1929	Location; Design; Setting; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45672	-98.51912
9C	1502 W Mulberry Ave San Antonio, TX	Landscape/street furniture	Linear/Structure	No style	c.1929	Location; Setting; Materials; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45684	-98.51865
10	West Mulberry Avenue At Fredericksburg Road, San Antonio, TX	Landscape/object	N/A/Object	No style	c.1921	Location; Design; Setting; Feeling; Association	No	Yes	No Adverse Effect	29.45706	-98.51884
11A	1503 W Huisache Ave San Antonio, TX	Domestic/Single dwelling	Irregular/Building	Spanish Colonial Revival	c.1925	Location; Setting; Workmanship; Feeling; Association	No	Yes	No Adverse Effect	29.45646	-98.51883
12	Martinez Creek; Fredericksburg Rd To W. Woodlawn Ave San Antonio, TX	Rec & culture/outdoor recreation	Linear/Site	No style	1921	Location	No	N/A	N/A	29.45586	-98.51868
13	1222 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	Rectangular/Building	No style	1959	Location; Setting	No	N/A	N/A	29.45619	-98.51753
14	1216-1220 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	L-plan/Building	No style	1946	Location; Setting; Association	No	N/A	N/A	29.45599	-98.5173
15	1212 Fredericksburg Rd San Antonio, TX	Commerce/Specialty store	L-plan/Building	Spanish Colonial Revival	1935	Location	No	N/A	N/A	29.45562	-98.51706
16	1409 W Magnolia Ave San Antonio, TX	Domestic/Multiple dwelling	Bungalow/Building	Colonial Revival; Craftsman	c.1925	Location; Design; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45531	-98.51739
17	1203 Fredericksburg Rd San Antonio, TX	Domestic/Single dwelling	Bungalow/Building	Colonial Revival; Craftsman	c.1925	Location; Workmanship; Feeling; Association; Design; Setting	No	N/A	N/A	29.45526	-98.51724
18A	1324 W Mistletoe Ave San Antonio, TX	Domestic/Single dwelling structure	Bungalow/Building	Colonial Revival	c.1925	Location; Setting; Workmanship; Feeling; Association	No	N/A	N/A	29.45384	-98.51632
18B	1324 W Mistletoe Ave San Antonio, TX	Domestic/Secondary structure	Rectangular/Building	No style	1950	Location; Setting; Materials; Workmanship; Feeling; Association	No	N/A	N/A	29.45363	-98.51627
19A	1315 W Woodlawn Ave San Antonio, TX	Domestic/Single dwelling	Bungalow/Building	Colonial Revival; Craftsman	c.1925	Location; Association; Setting	No	N/A	N/A	29.45327	-98.51603

## Appendix C: Survey Forms for All Surveyed Properties

<b>Resource ID:</b> 1A	<b>Parcel ID:</b> 378197	<b>Year Built:</b> 1960	<b>Year Source:</b> CAD
<b>Address:</b> 1507 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> See comment		<b>Latitude:</b> 29.458437	<b>Longitude:</b> -98.520374
<b>Historic Function/Subcategory:</b> Commerce/Professional		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Professional		<b>Contributing to NRHP Property/District?</b> No	



Photos taken:  
October 13, 2020

View facing  
southwest

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> brick stone concrete	<b>Primary roof type:</b> flat	<b>Alterations:</b> Appears to be unaltered
<b>Style:</b> Post-war Modern			
<b>Form:</b> Rectangular	<b>Porch:</b> none	<b>Roof cladding:</b> built-up	

**Comments**

In addition to the single historic-age resource, this parcel has five non-historic-age resources (Resources B through F) that are included in this record.

Name: Law Office of Alberto Garcia (current); American General Investment Corp. (former)

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This office building does not embody distinctive characteristics of a method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Although this building is an example of the Post-war Modern style, the architecture does not rise to the level of significance necessary for listing in the NRHP. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as noncontributing to the proposed Woodlawn Place NRHP historic district. It was constructed outside the district’s period of significance and does not contribute to the character of the district.

Resource ID: 1A

Parcel ID: 378197

Address: 1507 FREDERICKSBURG RD

View facing southeast



View facing west



**Resource ID:** 1A

**Parcel ID:** 378197

**Address:** 1507 FREDERICKSBURG RD

View facing north



Non-historic age Resource B;  
view facing northwest

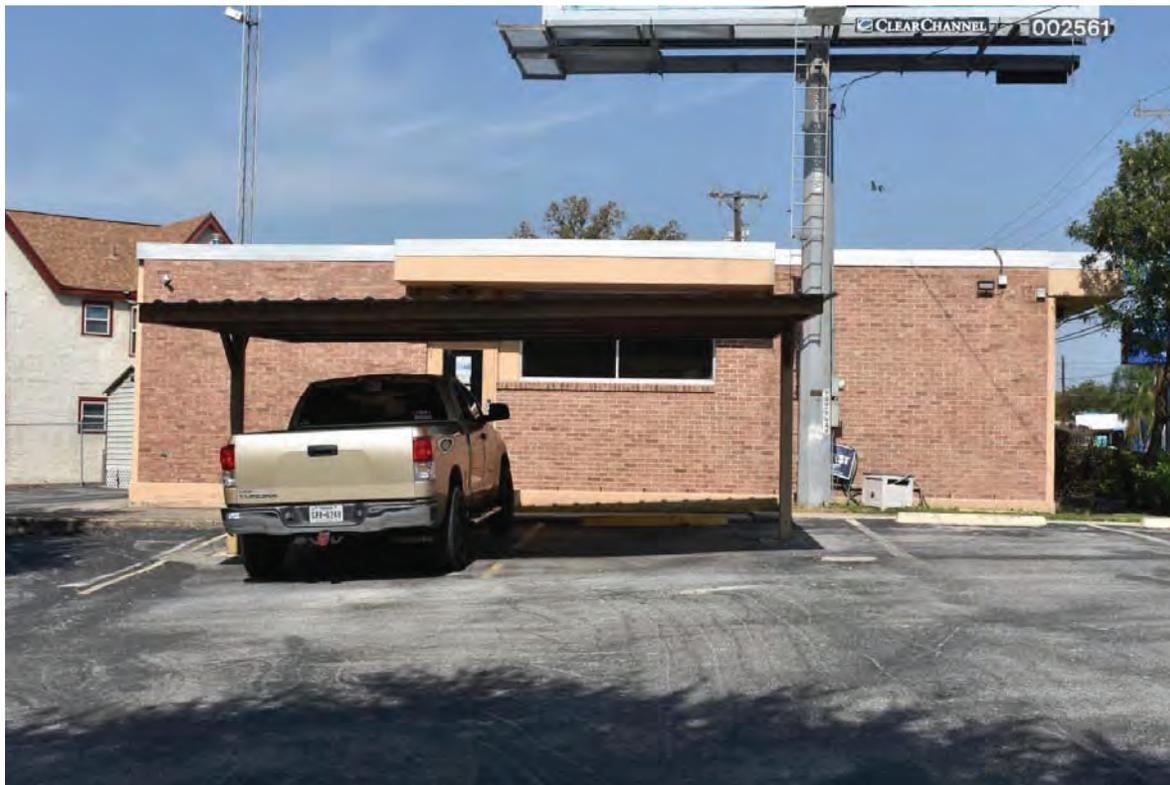


Resource ID: 1A

Parcel ID: 378197

Address: 1507 FREDERICKSBURG RD

Non-historic age Resource C  
(carport); view facing  
northwest



Non-historic age Resources F,  
E, and D (signs) (l to r); view  
facing southeast



<b>Resource ID:</b> 2A	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1500 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Peyton Nursery (former)	<b>Latitude:</b> 29.458856	<b>Longitude:</b> -98.520227	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Vacant/Not in use	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> wood siding panels asbestos metal	<b>Primary roof type:</b> gable, side	<b>Alterations:</b> Windows replaced – some Addition to rear/side elevation Signage added
<b>Style:</b> No style	<b>Porch:</b> Full-width projecting awning	<b>Roof cladding:</b> composition shingle metal	
<b>Form:</b> Rectangular			

**Comments**

In addition to eleven historic-age resources, this parcel has two non-historic age resources (Resources K and J) that are included in this record.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2A

Parcel ID: 134692

Address: 1500 FREDERICKSBURG RD

View facing east



Overview showing Resources 2A through 2G and 2K; view facing east



**Resource ID:** 2A

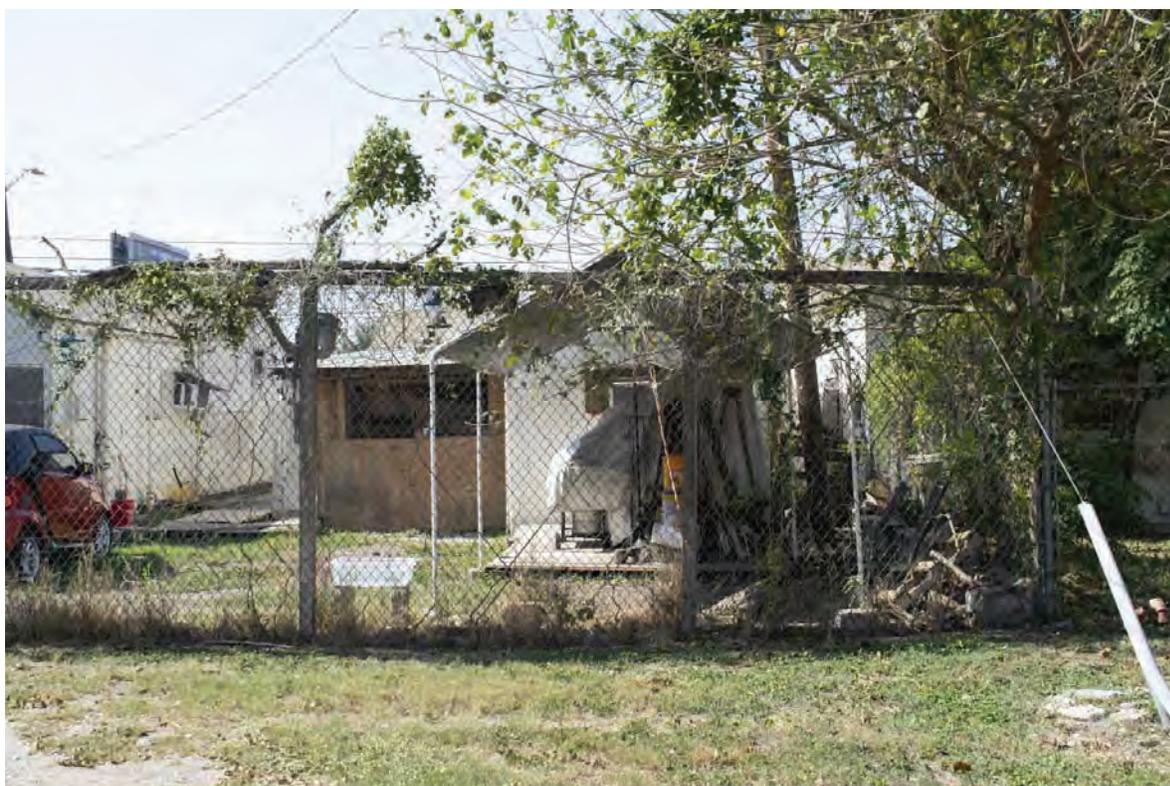
**Parcel ID:** 134692

**Address:** 1500 FREDERICKSBURG RD

Resources B (left) and A (right); view facing west



Non-historic age Resource J (right, foreground) and Resource C (rear); view facing southwest



**Resource ID:** 2A

**Parcel ID:** 134692

**Address:** 1500 FREDERICKSBURG RD

Non-historic age Resource K;  
view facing southwest



<b>Resource ID:</b> 2B	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1512 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> See comments	<b>Latitude:</b> 29.458811	<b>Longitude:</b> -98.520168	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Vacant/Not in use	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> asbestos wood siding	<b>Primary roof type:</b> gable, crossed	<b>Alterations:</b> Other than the added signage, the building appears unaltered
<b>Style:</b> No style			
<b>Form:</b> Rectangular	<b>Porch:</b> Full-width projecting awning	<b>Roof cladding:</b> composition shingle	

**Comments**

Name: Karla's Super Piñatas (current); Dr. W.A. Johnson Optometrist (former)

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2B

Parcel ID: 134692

Address: 1512 FREDERICKSBURG RD

View facing east



<b>Resource ID:</b> 2C	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1510 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Salazar Pictures & Frames (current); Roby Co. (former)	<b>Latitude:</b> 29.458754	<b>Longitude:</b> -98.520133	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Commerce/Specialty store	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco concrete block	<b>Primary roof type:</b> gable, side	<b>Alterations:</b> The rear portion of the building has been altered with a flat-roof concrete block addition, and a shed roof addition.
<b>Style:</b> No style			
<b>Form:</b> Rectangular	<b>Porch:</b> full-width projecting	<b>Roof cladding:</b> composition shingle metal	

**Comments**

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2C

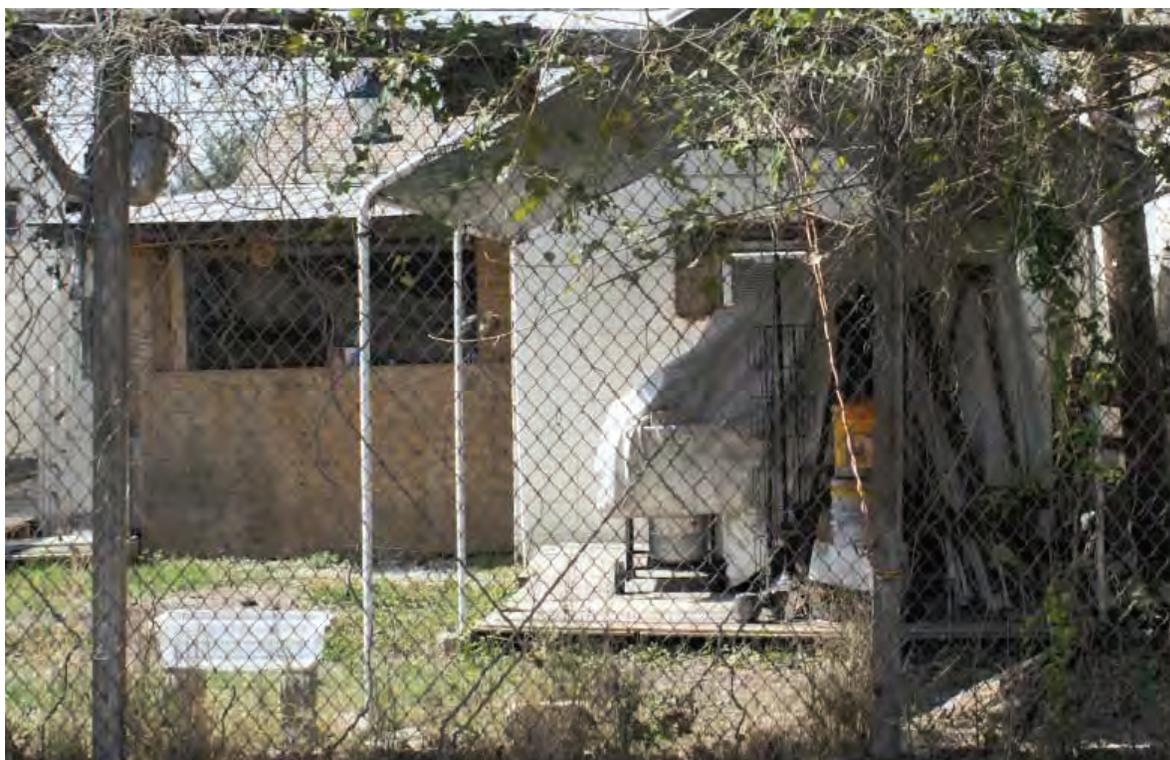
Parcel ID: 134692

Address: 1510 FREDERICKSBURG RD

View facing east



Rear addition; view facing southwest



<b>Resource ID:</b> 2D	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1508 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> See comments	<b>Latitude:</b> 29.458696	<b>Longitude:</b> -98.520057	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Commerce/Specialty store	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> asbestos wood siding wood siding panels	<b>Primary roof type:</b> gable, crossed	<b>Alterations:</b> Door (primary) replaced Windows replaced – some Window opening(s) altered Signage added Window type replaced
<b>Style:</b> No style	<b>Porch:</b> Full-width projecting awning	<b>Roof cladding:</b> composition shingle	
<b>Form:</b> Rectangular			

**Comments**

Name: Alejandra MtzH Gallery (current); Empire Tailors and Cleaners (former)

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2D

Parcel ID: 134692

Address: 1508 FREDERICKSBURG RD

View facing north



<b>Resource ID:</b> 2E	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1506 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> See comments	<b>Latitude:</b> 29.458635	<b>Longitude:</b> -98.519996	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Commerce/Specialty store	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> wood siding	<b>Primary roof type:</b> gable, crossed	<b>Alterations:</b> Window opening(s) infilled
<b>Style:</b> No style	wood siding panels		Window opening(s) altered
<b>Form:</b> Rectangular	asbestos	<b>Roof cladding:</b> composition shingle	Door (primary) replaced
	<b>Porch:</b> Full-width projecting awning		

**Comments**

Name: Alejandra MtzH Workshop (current); Summit Radio & TV Co. (former)

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2E

Parcel ID: 134692

Address: 1506 FREDERICKSBURG RD

View facing north



<b>Resource ID:</b> 2F	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1504 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> See comments		<b>Latitude:</b> 29.458572	<b>Longitude:</b> -98.519939
<b>Historic Function/Subcategory:</b> Commerce/Specialty store		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Specialty store		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken: October 13, 2020

Resource F (center) and Resource G (right; orange volume)); view facing northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> brick	<b>Primary roof type:</b> gable, crossed	<b>Alterations:</b> Awning(s) added
<b>Style:</b> No style	<b>asbestos</b>		Decorative elements added
<b>Form:</b> Rectangular	<b>Porch:</b> Full-width projecting awning	<b>Roof cladding:</b> composition shingle	Brick/stone painted
			Doors replaced
			Addition to rear/side elevation

**Comments**

Name: Old Is Better Than New Antiques (current); White House Beauty Salon (former)

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

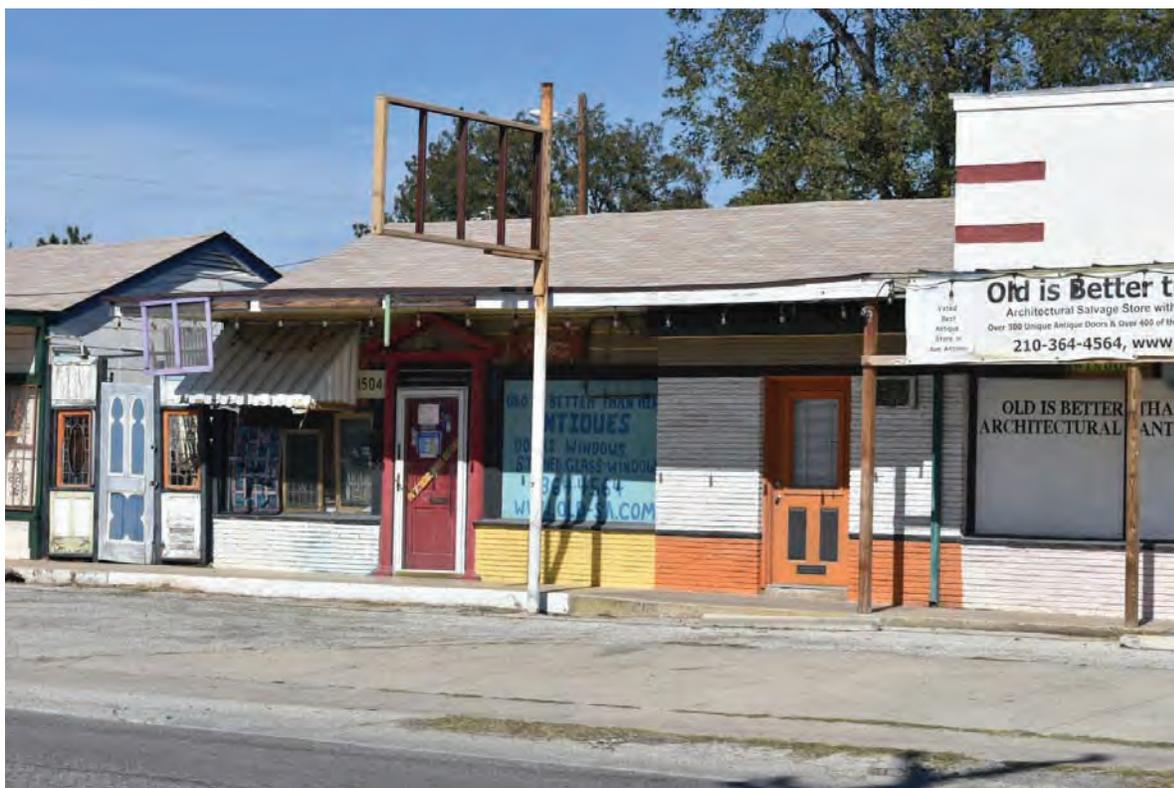
This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2F

Parcel ID: 134692

Address: 1504 FREDERICKSBURG RD

Resource F (center) and  
Resource G (right); view  
facing north



Resources G (left) and F  
(right); view facing south



**Resource ID:** 2G      **Parcel ID:** 134692      **Year Built:** c. 1940      **Year Source:** Estimate  
**Address:** 1502 FREDERICKSBURG RD      **City:** San Antonio      **County:** Bexar  
**Name:** See comments      **Latitude:** 29.458512      **Longitude:** -98.519851  
**Historic Function/Subcategory:** Commerce/Specialty store      **Indiv. NRHP Eligible?** No      **Effect:** N/A  
**Current Function/Subcategory:** Commerce/Specialty store      **Contributing to NRHP Property/District?** N/A



Photos taken:  
October 13, 2020

View facing  
northeast; the  
orange-colored  
storefront on right  
is an addition

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> brick asbestos stucco	<b>Primary roof type:</b> gable, front w/ flat parapet	<b>Alterations:</b> Awning(s) added Doors replaced Addition to rear/side elevation Brick/stone painted Some of storefront window system filled Addition to primary/side elevation
<b>Style:</b> Commercial	<b>Porch:</b> Full-width projecting awning	<b>Roof cladding:</b> unknown/not visible	
<b>Form:</b> 1-part commercial block			

**Comments**

Name: Old Is Better Than New Architectural Salvage (current); Mission Feed Company (former)  
Per Sanborn map, the orange portion of the building is a post-1952 addition.

**Integrity**    Location    Design    Setting    Materials    Workmanship    Feeling    Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2G

Parcel ID: 134692

Address: 1502 FREDERICKSBURG RD

View facing north



View facing east



**Resource ID:** 2G

**Parcel ID:** 134692

**Address:** 1502 FREDERICKSBURG RD

View facing west



Detail from 1924 Sanborn map, republished 1952;  
Resource 2G is 1502  
Fredericksburg Road,  
Resource 2F is 1504  
Fredericksburg Road; the infill  
suite had not been



<b>Resource ID:</b> 2H	<b>Parcel ID:</b> 134692	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 105 KEY STREET	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> See comment	<b>Latitude:</b> 29.458616	<b>Longitude:</b> -98.519741	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Commerce/Specialty store	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northwest

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> gable, crossed	<b>Alterations:</b> Window opening(s) infilled Addition to rear/side elevation Window(s) boarded
<b>Style:</b> No style	<b>Style:</b> wood siding		
<b>Form:</b> Rectangular	<b>Porch:</b> Full-width projecting awning	<b>Roof cladding:</b> composition shingle metal	

**Comments**

Name: MEI Building Maintenance (current); Pest Exterminators Co.\Elo Exterminating, Merry Camera Service (former)

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial store building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to an extensive rear addition. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 2H

**Parcel ID:** 134692

**Address:** 105 KEY STREET

View facing west



View facing north



**Resource ID:** 2H

**Parcel ID:** 134692

**Address:** 105 KEY STREET

View facing south



**Resource ID:** 2I, J, K

**Parcel ID:** 134692

**Year Built:** c. 1940

**Year Source:** Estimate

**Address:** 1500 FREDERICKSBURG RD

**City:** San Antonio

**County:** Bexar

**Name:** N/A

**Latitude:** Comments

**Longitude:** Comments

**Historic Function/Subcategory:** Landscape/street furniture

**Indiv. NRHP Eligible?** No

**Effect:** N/A

**Current Function/Subcategory:** Landscape/street furniture

**Contributing to NRHP Property/District?** N/A



Photos taken:  
October 13, 2020

Resource 2I  
(center) and 2A  
(right); view facing  
northwest

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Two of the signs are missing their sign inserts.
<b>Style:</b> No style			
<b>Form:</b> Sign	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Three historic-age metal signs, only one is currently in use and the other two are missing their sign inserts.

- 2I: 29.458817, -98.520327
- 2J: 29.458708, -98.520144
- 2K: 29.458521, -98.519971

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

These resources do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Furthermore, they have experienced loss of integrity due to missing portions. As a result, they are recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 2I, J, K

Parcel ID: 134692

Address: 1500 FREDERICKSBURG RD

Resource 2J (right) and 2C  
(center); view facing east



Resource 2K (left) and 2G  
(right); view facing north



<b>Resource ID:</b> 3A	<b>Parcel ID:</b> 134688	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 1420-1424 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> See comment		<b>Latitude:</b> 29.458366	<b>Longitude:</b> -98.519641
<b>Historic Function/Subcategory:</b> Commerce/Specialty store		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Specialty store		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> concrete	<b>Primary roof type:</b> flat	<b>Alterations:</b> Window opening(s) infilled
<b>Style:</b> Moderne	<b>Stucco:</b> stucco		Doors replaced
<b>Form:</b> Rectangular	<b>Porch:</b> N/A	<b>Roof cladding:</b> built-up	Garage enclosed
			Awning(s) added
			Windows replaced – some

**Comments**

The building has two storefronts facing Fredericksburg Road. Suite on southeast (right) side of building is currently RTC Floristry; formerly Hydro Gas Sales Co. Suite on northwest side (left) was formerly White Cross Pharmacy.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

Though this building has some streamline moderne elements, its architectural quality is diminished by its alterations. It does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 3A

**Parcel ID:** 134688

**Address:** 1420-1424 FREDERICKSBURG RD

View facing north



Resource 3 (on center) and 4A (far right); on separate parcels; view facing east



**Resource ID:** 3A

**Parcel ID:** 134688

**Address:** 1420-1424 FREDERICKSBURG RD

View facing south



<b>Resource ID:</b> 3B	<b>Parcel ID:</b> 134688	<b>Year Built:</b> c. 1940	<b>Year Source:</b> Estimate
<b>Address:</b> 102 KEY ST		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Sherman H. Geisen Upholstering (former)		<b>Latitude:</b> 29.458451	<b>Longitude:</b> -98.519482
<b>Historic Function/Subcategory:</b> Commerce/Specialty store		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Specialty store		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing  
southeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> flat w/ parapet	<b>Alterations:</b> Garage door(s) replaced Some damage to parapet
<b>Style:</b> No style			
<b>Form:</b> Rectangular	<b>Porch:</b> none	<b>Roof cladding:</b> built-up	

**Comments**

The 1952 Sanborn map (updated from 1924, volume 5, sheet 506) identifies this building as 102 Key Street. It was in use as a furniture warehouse.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, material integrity has been diminished due to alteration and unrepaired damage. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 3B

**Parcel ID:** 134688

**Address:** 102 KEY ST

View facing east



View facing south



<b>Resource ID:</b> 4A	<b>Parcel ID:</b> 134689	<b>Year Built:</b> 1948	<b>Year Source:</b> CAD
<b>Address:</b> 1414 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> McDougal's Hydrogas Sales Co. (former)	<b>Latitude:</b> 29.458286	<b>Longitude:</b> -98.519496	
<b>Historic Function/Subcategory:</b> Commerce/Specialty store	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Vacant/Not in use	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> concrete	<b>Primary roof type:</b> flat	<b>Alterations:</b> Storefront altered/replaced w/ resized window openings Garage enclosed
<b>Style:</b> Moderne	stone stucco		Door (primary) replaced Awning(s) added
<b>Form:</b> Rectangular	<b>Porch:</b> N/A	<b>Roof cladding:</b> built-up	Window replaced/window opening resized on side elevation

**Comments**

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, integrity has been diminished due to alterations. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 4A

Parcel ID: 134689

Address: 1414 FREDERICKSBURG RD

View facing north



Resource 4A (center) and  
portion of Resource 3 (left);  
view facing east



Resource ID: 4A

Parcel ID: 134689

Address: 1414 FREDERICKSBURG RD

View facing west



1949 advertisement photograph showing original storefront and street sign. From *San Antonio Light*, March 31, 1949, 15-A.

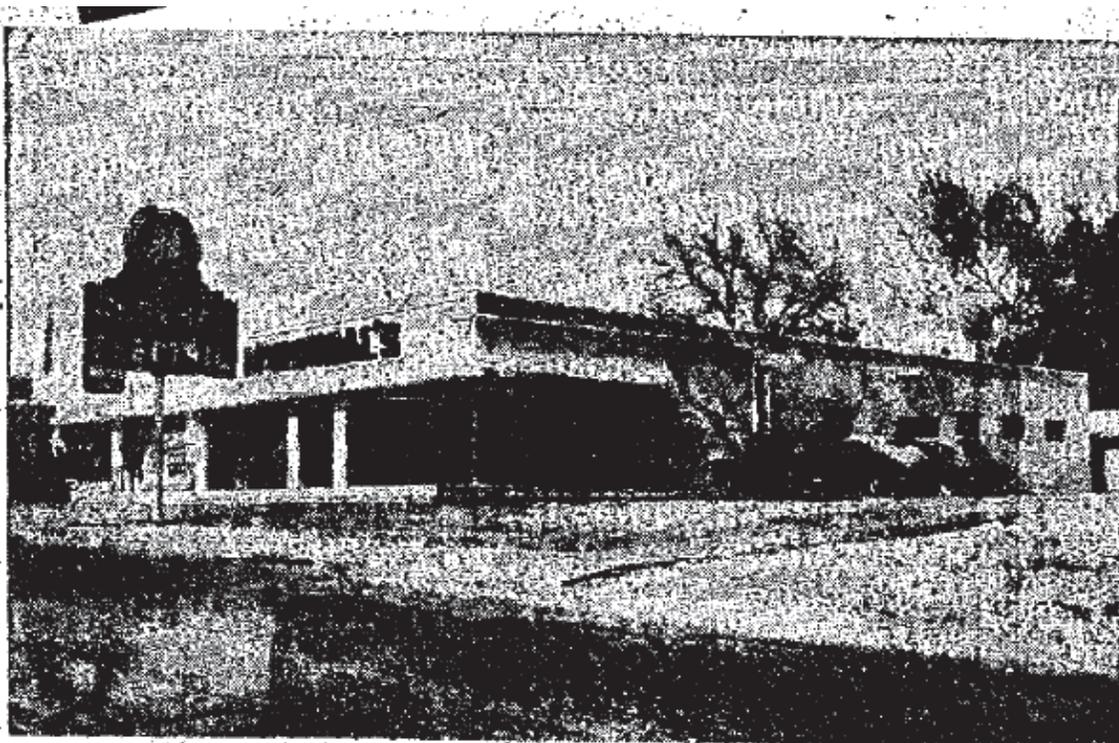


**Resource ID:** 4A

**Parcel ID:** 134689

**Address:** 1414 FREDERICKSBURG RD

1949 advertisement  
photograph showing original  
storefront and street sign.  
From *San Antonio Light* ,  
March 31, 1949, 15-A.



<b>Resource ID:</b> 4B	<b>Parcel ID:</b> 134689	<b>Year Built:</b> c. 1948	<b>Year Source:</b> Estimate
<b>Address:</b> 1414 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.458102	<b>Longitude:</b> -98.519621	
<b>Historic Function/Subcategory:</b> Landscape/street furniture	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Vacant/Not in use	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing  
southwest

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Neon has been removed Original wording removed
<b>Style:</b> Moderne			
<b>Form:</b> Sign	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

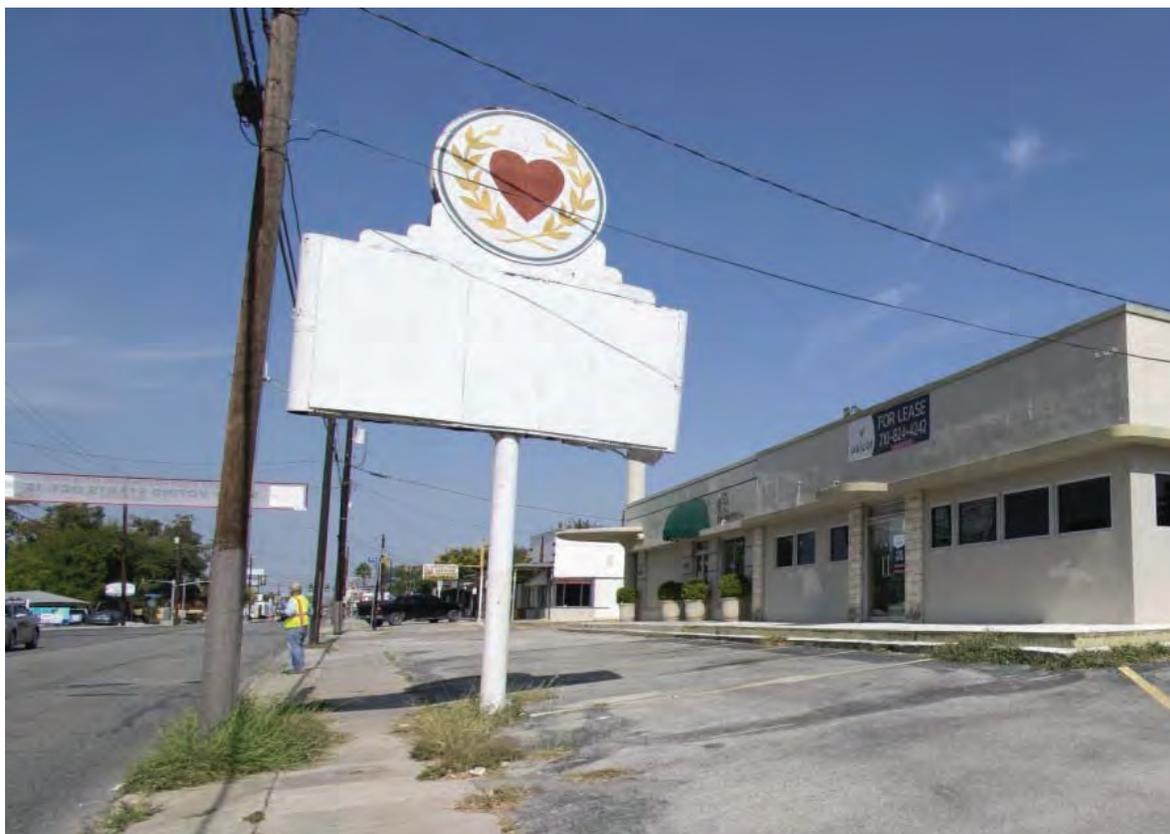
This sign does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, the object has experienced loss of integrity due to an alteration. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 4B

Parcel ID: 134689

Address: 1414 FREDERICKSBURG RD

View facing northwest



1949 advertisement photograph showing original storefront and street sign. From *San Antonio Light*, March 31, 1949, 15-A.



<b>Resource ID:</b> 5A	<b>Parcel ID:</b> 378194	<b>Year Built:</b> 1970	<b>Year Source:</b> CAD
<b>Address:</b> 1403 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Alamo Classic Ponies (current); Car Parts Co. (former)		<b>Latitude:</b> 29.458031	<b>Longitude:</b> -98.519834
<b>Historic Function/Subcategory:</b> Commerce/Specialty store		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Specialty store		<b>Contributing to NRHP Property/District?</b> No	



Photos taken:  
October 13, 2020

View facing south

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stone	<b>Primary roof type:</b> flat	<b>Alterations:</b> Addition of standing seam metal mansard parapet.
<b>Style:</b> Mansard	<b>Style:</b> concrete		
<b>Form:</b> Rectangular	<b>Porch:</b> none	<b>Roof cladding:</b> built-up	

**Comments**

In addition to two historic-age resources, this parcel has one non-historic-age resource (Resource C) that is included in this record. As outlined in the research design, this property was subject to more intensive than normal reconnaissance-level documentation. The building is not on a 1963 aerial but appears on a 1973 aerial. Bexar CAD indicates it was constructed in 1970. The building was originally occupied by Car Parts Co., which had several locations in the area and advertised Bull Parts brand products. The current and former occupants are not known to be legacy businesses.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This commercial building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. It modestly references the Mansard style through its roof. Additionally, no associations were identified linking it to persons or events of historic importance; it is not known to be associated with any businesses of note. Furthermore, the replacement of the building's Mansard roof material reduces integrity of materials. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as noncontributing to the proposed Woodlawn Place NRHP historic district. It was constructed outside the district's period of significance and does not contribute to the character of the district.

Resource ID: 5A

Parcel ID: 378194

Address: 1403 FREDERICKSBURG RD

View facing southwest



Non-historic age Resource C;  
view facing south



<b>Resource ID:</b> 5B	<b>Parcel ID:</b> 378194	<b>Year Built:</b> 1970	<b>Year Source:</b> CAD
<b>Address:</b> 1403 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Alamo Classic Ponies (current); Car Parts Co. (former)		<b>Latitude:</b> 29.458031	<b>Longitude:</b> -98.519834
<b>Historic Function/Subcategory:</b> Landscape/street furniture		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Landscape/street furniture		<b>Contributing to NRHP Property/District?</b> No	



Photos taken:  
October 13, 2020

View facing south

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Sign cabinet is no longer extant.
<b>Style:</b> No style			
<b>Form:</b> Sign	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This sign does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to the removal of the sign's cabinet. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as noncontributing to the proposed Woodlawn Place NRHP historic district. It was constructed outside the district's period of significance and does not contribute to the character of the district.

Resource ID: 5B

Parcel ID: 378194

Address: 1403 FREDERICKSBURG RD

View facing south



<b>Resource ID:</b> 6A	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1930	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Cool Crest Miniature Golf	<b>Latitude:</b> Comments	<b>Longitude:</b> Comments	
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility	<b>Indiv. NRHP Eligible?</b> Yes	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Rec & culture/sports facility	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

c. 1930 course;  
view facing south

**Description**

<b>Type:</b> Site	<b>Exterior materials:</b> concrete	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Holes 1-4 reconfigured c. 1959 Sawdust greens replaced w/ turf c. 1947 Some hazards removed/replaced
<b>Style:</b> No style	<b>artificial turf</b>		<b>Wood curbs replaced with concrete curbs</b>
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	<b>Plants/trees updated c. 1959</b> <b>Some retaining wall segments replaced</b>

**Comments**

This property includes a miniature golf course and its associated components (recorded on subsequent forms), as well as two non-historic age resources (also recorded on subsequent forms). Resource 6A consists of the original 18-hole miniature golf course constructed c. 1930 (6A1 on figures) and the second course constructed c. 1959 (6A2 on figures). Both are "challenge" type courses designed to test a golfer's skill with hazards rather than entertain with novelty features such as windmills and artificial themes. Course 6A1 was originally surfaced in a compacted sawdust mixture that was replaced with artificial turf c. 1947. Its first four holes located in the west corner were reconfigured c. 1959. The course's landscaping was originally planted with native plants and trees but was redesigned with tropical specimens in the 1950s by owner Maria Metzger. The venue had a batting cage and archery activity in the 1950s which were likely located in the area where course 6A2 was constructed c. 1959. Both courses were restored in 2013. Additional current and historical photographs of the course are provided in Appendix F. c. 1930: 29.457893, -98.519274; c. 1959: 29.458181, -98.518901

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

The Cool Crest Miniature Golf Course is among a small number of extant 1930s mini golf courses in the country from when the sport swept the nation. Its c. 1959 expansion also reflects the post-WW II revival of the game. Though it has experienced periods of closure, it has provided a steady source of recreation in San Antonio for nearly 90 years, is the only historic-age miniature golf course extant in the city, and appears to be the oldest in Texas. For these reasons, it is significant under Crit. A in the Area of Entertainment/Rec. Regarding Crit. C, it has all the features of a typical historical mini golf course. It is an example of a challenge type course with its geometrical layout, hazards, and lack of whimsical elements. Its rustic bridge, fountain, and stone-lined brook reflect 1930s-era miniature golf course design trends. Though portions of the c. 1930 course were redesigned in c. 1959, the changes have achieved significance on their own. Similarly, though much of the original vegetation has been replaced, the mid-century tropical landscape endures and gives the course the unique theme it is known for today. Other c. 1959 elements include the replacement concrete curbs, Mid-Century Modern clubhouse, flashy road signs, and heavier use of water features and terrain elements than the original course. As a rare surviving example of a miniature golf course from the early 1930s that also demonstrates post-WW II mini golf course design trends, it is significant under Crit. C in the area of Landscape Architecture.

**Resource ID:** 6A

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

c. 1930 course; view facing northwest



c. 1930 course; view facing west



**Resource ID:** 6A

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

c. 1930 course; view facing south



c. 1959 course; view facing east



**Resource ID:** 6A

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

c. 1959 course; view facing west



c. 1959 course; view facing north



<b>Resource ID:</b> 6B	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1959	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Cool Crest Miniature Golf	<b>Latitude:</b> 29.45818	<b>Longitude:</b> -98.519186	
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Rec & culture/sports facility	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stone wood vertical boards concrete block	<b>Primary roof type:</b> butterfly	<b>Alterations:</b> Additions to primary/side elevation Some doors replaced Windows added
<b>Style:</b> Post-war Modern	<b>Porch:</b> N/A	<b>Roof cladding:</b> metal	
<b>Form:</b> Irregular			

**Comments**

Post-war Modern style clubhouse constructed c. 1959 to replace a smaller, original clubhouse located along Fredericksburg Road. The clubhouse includes a ticket office and storage room/office space. In a 2006 interview, Maria Metzger stated that watermelon slices were historically sold at the course, presumably from the clubhouse (White, August 18, 2006: 21). The return for the two "bottomless" 18th holes is located in a well under the ticket office desk. The building was expanded northward c. 1980 with an addition containing restrooms, storage, and a small living space built for the property's groundskeeper. Reconnaissance-level research was not able to identify an architect. In 2020 when the adjacent beergarden was constructed, the northeast end of the building was remodeled into a bar area.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

Although this building is an example of the Post-war Modern style, it does not rise to the level of significance necessary for individual listing in the NRHP. It does not embody distinctive characteristics of a period or method of construction and it does not represent the work of a master or possess high artistic value. Furthermore, it has sustained additions that diminish its integrity of design. It is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. Clubhouses are a typical characteristic of miniature golf courses and this clubhouse illustrates the evolution and continued use of the Cool Crest Miniature Golf Course in the post-World War II years during the game's second period of popularity. It is recommended as a contributing element to the miniature golf course, recommended eligible for the NRHP.

**Resource ID:** 6B

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

View facing north



View facing southwest



Resource ID: 6B

Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

View facing west



View facing southwest



**Resource ID:** 6B

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

View facing northeast



View facing west



Resource ID: 6B

Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

Sanborn map showing location of original clubhouse; the current clubhouse is located farther back on the property; Sanborn map 1924, republished 1952, volume 5, sheet 506.



<b>Resource ID:</b> 6C	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1950	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Cool Crest Miniature Golf	<b>Latitude:</b> 29.457696	<b>Longitude:</b> -98.519208	
<b>Historic Function/Subcategory:</b> Landscape/street furniture	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Landscape/street furniture	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing  
northwest

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Neon removed Original lettering replaced with backlit lettering
<b>Style:</b> Post-war Modern			
<b>Form:</b> Sign	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	Pole supports added on rear to increase support; pier closest to Fredericksburg Road damaged

**Comments**

The current sign is the golf course's second sign at this location on Fredericksburg Road (see historic photograph below). Although the site's municipal landmark nomination indicates the current sign was constructed in 1937, the date could not be substantiated and the historic photograph dated to 1947 shows a different sign in this location. The size of the sign, its parabolic shape, and typography suggest it dates to the post-WW II years. The municipal landmark application indicates the sign was the largest neon sign in San Antonio. The sign's restoration in 2013 included color matching by the local firm that had the original paint formula on file.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This resource is an example of a Post-war Modern street sign designed to attract the attention of passing motorists with its neon lighting and large scale. As a secondary object, it does not rise to the level of significance necessary for individual listing in the NRHP; it is best understood in the context of its associated property. The sign illustrates the evolution of the Cool Crest Miniature Golf Course in the Post-World War II years during the game's second era of popularity. It is recommended as a contributing element to the miniature golf course, recommended eligible for the NRHP.

Resource ID: 6C

Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

View facing north/northwest



View facing southwest



**Resource ID:** 6C

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

Detail of damaged footing;  
view facing northwest



Detail of sign pier and footing  
in relation to proposed  
easement; view facing  
northwest



Resource ID: 6C

Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

Resource 6D (left) and 6C (right); view facing east



March 1974 photograph of the wall (left) and the Cool Crest Miniature Golf Course (Resource 6); photograph courtesy of Mitch Andry



<b>Resource ID:</b> 6D	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1959	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Cool Crest Miniature Golf	<b>Latitude:</b> 29.457942	<b>Longitude:</b> -98.519484	
<b>Historic Function/Subcategory:</b> Landscape/street furniture	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Landscape/street furniture	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing  
southeast

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> The sign no longer lights up.
<b>Style:</b> Programmatic			
<b>Form:</b> Sign	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

c. 1959 pole sign with programmatic shape (a golf club) referencing the function of the property.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This resource is an example of a Programmatic sign designed to reference the function of the property. As a secondary object, it does not rise to the level of significance necessary for individual listing in the NRHP; it is best understood in the context of its associated property. The sign illustrates the evolution of the Cool Crest Miniature Golf Course in the Post-World War II years during the game's second era of popularity. It is recommended as a contributing element to the miniature golf course, recommended eligible for the NRHP.

Resource ID: 6D

Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

View facing south



View facing north



<b>Resource ID:</b> 6E1-4	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1930	<b>Year Source:</b> Estimate
<b>Address:</b> 1414 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> Comments	<b>Longitude:</b> Comments
<b>Historic Function/Subcategory:</b> Landscape/object		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Landscape/object		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

Resource 6E1;  
view facing  
southeast

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> concrete	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Appears to be unaltered
<b>Style:</b> Faux Bois	stone metal		
<b>Form:</b> Fountain	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Resources 6E1, a fountain; 6E2, a concrete-lined brook; and 6E3, a small footbridge, are *faux bois* elements of the type constructed by artist Dionicio Rodriguez in the early twentieth century. The resources were constructed c. 1930 and are sited within the original course (Resource 6A1). Fountain 6E1 is the source of the small brook (6E2) that is intertwined within various golf course holes. The brook is bridged by Resource 6E3. Whether the works are by Mr. Rodriguez is unconfirmed; however, they were allegedly recognized by Mr. Rodriguez's nephew. The system is fed by a cistern (Resource 6E4) located on the southeast edge of the property. 6E1: 29.457944, -98.519302; 6E2: 29.45794, -98.519078; 6E3: 29.457958, -98.519245; 6E4: 29.457871, -98.518988

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

Although these resources embody distinctive characteristics of the *faux bois trabajo rustico* type and method of construction associated with artistic master Dionicio Rodriguez, and retain high artistic value, whether the works are by Mr. Rodriguez are unconfirmed. Furthermore, there are numerous other works definitively attributed to Mr. Rodriguez in San Antonio. Although reconnaissance-level research is unable to definitively confirm the work's provenance at this time, future research may be able to. The resources are recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. These resources are recommended as contributing to the proposed NRHP site. They are associated with the site's historical significance and contributes to its character.

**Resource ID:** 6E1-4

**Parcel ID:** 134690

**Address:** 1414 FREDERICKSBURG RD

Resource 6E1 (center) and  
6E2 (lower right); view facing  
northwest



Resources 6E2 (concrete  
brook) and 6E3 (foot bridge);  
view facing south



**Resource ID:** 6E1-4

**Parcel ID:** 134690

**Address:** 1414 FREDERICKSBURG RD

Resources 6E2 (concrete brook) and 6E3 (foot bridge); view facing north



Resources 6E1 (left) and 6E2 (right); view facing northwest



**Resource ID:** 6E1-4

**Parcel ID:** 134690

**Address:** 1414 FREDERICKSBURG RD

Resource 6E2; view facing north



Resource 6E2; view facing west



Resource ID: 6E1-4

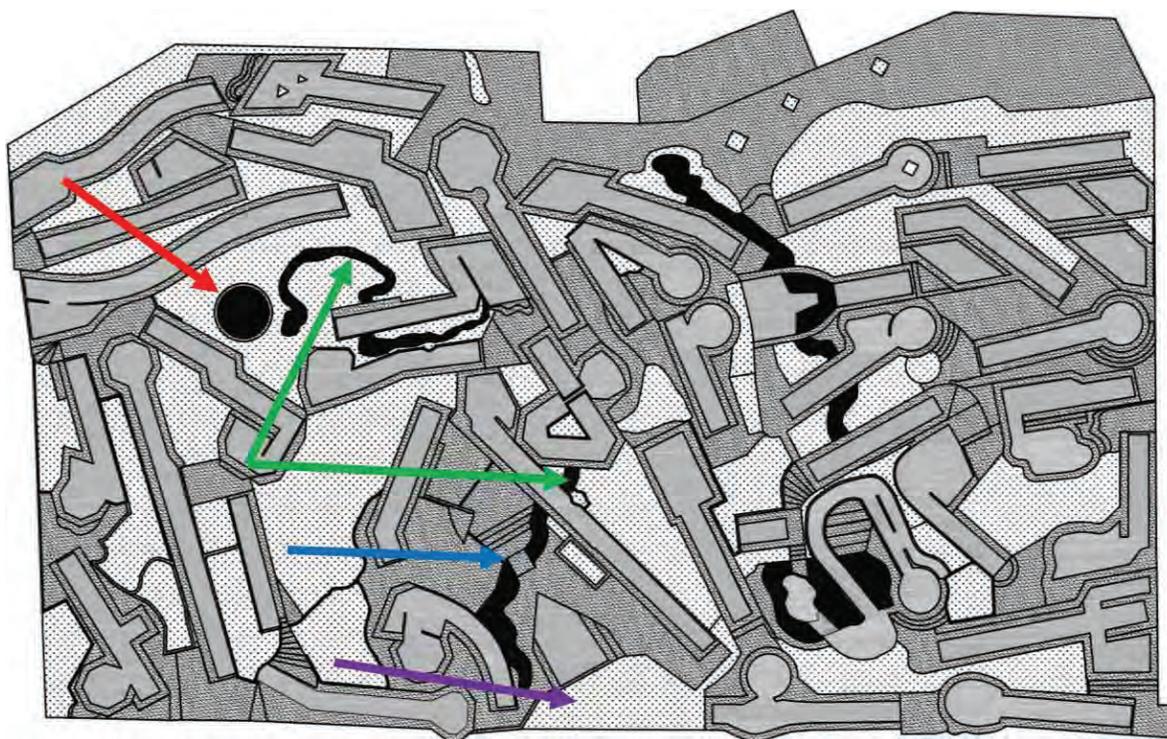
Parcel ID: 134690

Address: 1414 FREDERICKSBURG RD

Resource 6E4; view facing west



Resource 6E1 (red arrow), 6E2 (green arrows), 6E3 (blue arrow), and 6E4 (purple arrow); undated drawing of site, courtesy of Mitchell Andry



<b>Resource ID:</b> 6F1-36	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1959	<b>Year Source:</b> Estimate
<b>Address:</b> 1414 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> Multiple	<b>Longitude:</b> Multiple
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Rec & culture/sports facility		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

View facing  
southwest

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> Metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Hole numbers removed from triangular portion of the sign
<b>Style:</b> No style			
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Each hole features a scoring stand consisting of an angled pad atop a metal pole. The stands are located on both the original and 1959 courses. They are likely contemporaneous with the 1959 expansion. They were restored in 2013.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

As small scale secondary objects, the miniature golf course's scoring stands do not rise to the level of significance necessary for individual listing in the NRHP. The stands date to the c. 1959 expansion of Cool Crest Miniature Golf and illustrate the course's evolution in the Post-World War II years during the game's second era of popularity. They are recommended as a contributing element to the miniature golf course, recommended eligible for the NRHP.

**Resource ID:** 6F1-36

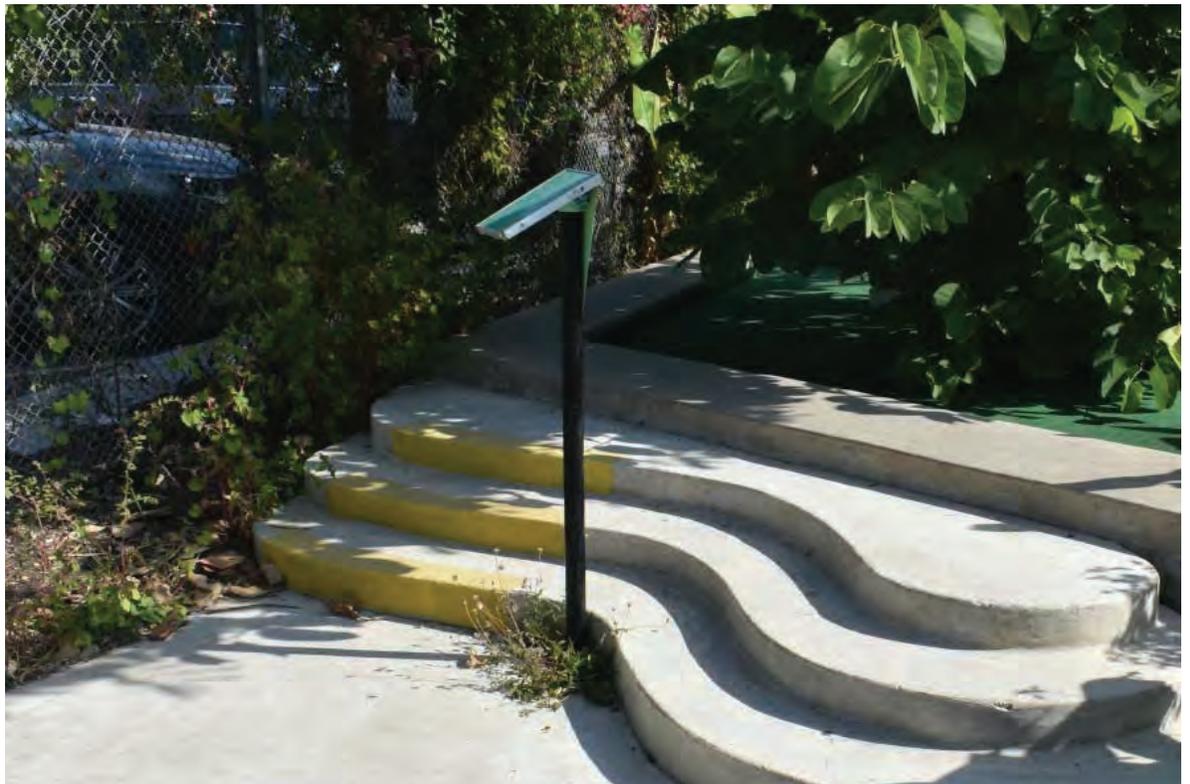
**Parcel ID:** 134690

**Address:** 1414 FREDERICKSBURG RD

View facing northwest



View facing north



**Resource ID:** 6F1-36

**Parcel ID:** 134690

**Address:** 1414 FREDERICKSBURG RD

Detail of undated photograph showing numbered scoring stand (left, background); courtesy of Mitch Andry



<b>Resource ID:</b> 6G	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1959	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> Multiple	<b>Longitude:</b> Multiple
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Rec & culture/sports facility		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

Typical light  
fixture; view facing  
northwest

**Description**

<b>Type:</b> Structure	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Florescent lighting upgraded to LED
<b>Style:</b> No style			
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Series of overhead lighting that illuminates the fairways for nighttime play. The fixtures are sited within the landscaped beds and are a mix of single and clustered groups located on both the original and 1959 courses. They are likely contemporaneous with the 1959 expansion.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

As small scale secondary objects, the miniature golf course's pole lighting does not rise to the level of significance necessary for individual listing in the NRHP, but overhead lighting is a typical characteristic of a miniature golf course. Furthermore, the lighting illustrates the evolution of the Cool Crest Miniature Golf Course in the Post-World War II years during the game's second era of popularity. It is recommended as a contributing element to the miniature golf course, recommended eligible for the NRHP.

**Resource ID:** 6G

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

Typical arrangement of course lighting; view facing southeast



Typical arrangement of course lighting; view facing north



**Resource ID:** 6G

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

Undated historic photo  
showing light fixtures;  
courtesy of Mitch Andry



<b>Resource ID:</b> 6H	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1959	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> Multiple	<b>Longitude:</b> Multiple
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Rec & culture/sports facility		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

Typical bench;  
view facing  
northwest

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Appears unaltered
<b>Style:</b> No style			
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Series of metal benches supported by metal legs located at each tee on the original and c. 1959 courses. The course's original benches (see photo below) were wood but were replaced with the current metal units, likely c.1959 when the second course was added. The benches were restored in 2013.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

As small scale secondary objects, the miniature golf course's benches do not rise to the level of significance necessary for individual listing in the NRHP. The benches date to the c. 1959 expansion of Cool Crest Miniature Golf and illustrate the course's evolution in the Post-World War II years during the game's second era of popularity. The benches are recommended as a contributing element to the miniature golf course, recommended eligible for the NRHP.

**Resource ID:** 6H

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

Typical bench; view facing north



Typical arrangement of benches at tees; view facing southeast



**Resource ID:** 6H

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

View facing south



Undated historic photo showing benches; courtesy of Mitch Andry



**Resource ID:** 6H

**Parcel ID:** 134690

**Address:** 1402 FREDERICKSBURG RD

Undated historic photo showing original wood benches; courtesy of Mitch Andry



<b>Resource ID:</b> 6I	<b>Parcel ID:</b> 134690	<b>Year Built:</b> c. 1959-c.2000	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> 29.457794	<b>Longitude:</b> -98.519337
<b>Historic Function/Subcategory:</b> Landscape/street furniture		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Landscape/street furniture		<b>Contributing to NRHP Property/District?</b> No	



Photos taken:  
October 13, 2020

View from  
Fredericksburg  
Road, facing  
east/southeast

**Description**

<b>Type:</b> Structure	<b>Exterior materials:</b> metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Appears to be unaltered
<b>Style:</b> No style	<b>Style:</b> concrete		
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Resource 6I includes five wall/fence components along Fredericksburg Road and Louise Street. The image below shows the five components, numbered sequentially from west to east/exterior to interior. Circa 1960s photos of the golf course show it historically had a perimeter chain link fence. It is unknown if the current chain link fence is the historical fence or a replacement. Portions of the retaining wall are visible in a photograph dated 1974 (Andry collection). And the short black fence appears to be more recent.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

These landscape elements are secondary in nature and are not character defining features of the golf course. Furthermore, they do not help illustrate the course's use as a recreational facility. The resources do not rise to the level of significance necessary for individual listing in the NRHP and are recommended as noncontributing elements of the site.

Resource ID: 6I

Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

Resource 6I includes 1. Retaining wall 1; 2. Retaining wall 2; 3. Gray chain link fence with barb wire atop; 4. Retaining wall 3; and 5. Black metal fence; annotations by CMEC



View of retaining wall from parking lot, view facing southeast. The proposed retaining wall would require this element's removal.



Resource ID: 61

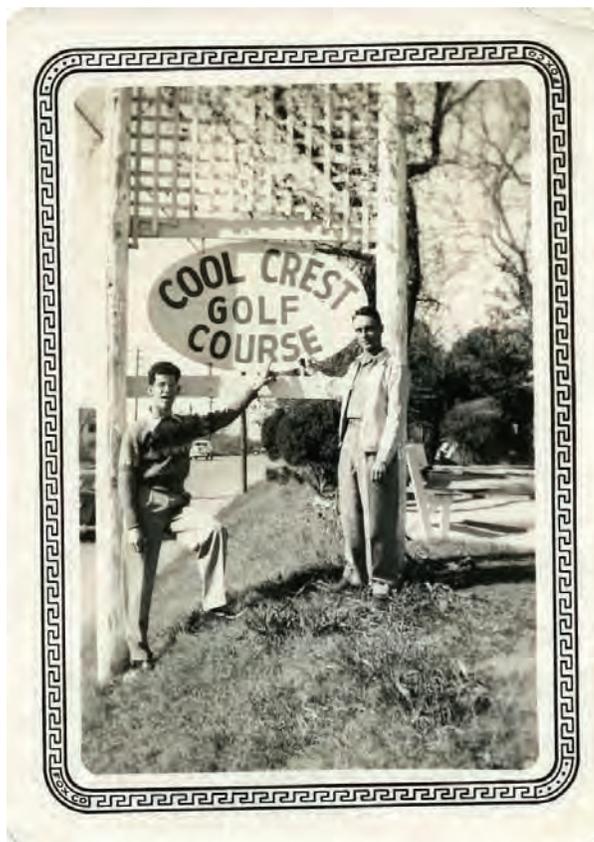
Parcel ID: 134690

Address: 1402 FREDERICKSBURG RD

Black fence; view facing southwest



In this c. 1947 photograph taken along Fredericksburg Road the current fence does not exist; photograph courtesy of Mitch Andry



<b>Resource ID:</b> 6J	<b>Parcel ID:</b> 143240	<b>Year Built:</b> c. 2008	<b>Year Source:</b> Estimate
<b>Address:</b> 1402 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> 29.458519	<b>Longitude:</b> -98.519072
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Rec & culture/sports facility		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> concrete block	<b>Primary roof type:</b> flat	<b>Alterations:</b> Appears to be unaltered
<b>Style:</b> No style			
<b>Form:</b> Rectangular	<b>Porch:</b> none	<b>Roof cladding:</b> built-up	

**Comments**

Storage building on parcel located outside the APE. The building was documented because it is associated with the Cool Crest golf course (located in the APE).

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This warehouse is a non-historic-age secondary building on the same parcel as an historic-age resource or resources. It is less than 50 years old and was not found to possess exceptional significance under Criterion Consideration G. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 6J

**Parcel ID:** 143240

**Address:** 1402 FREDERICKSBURG RD

View facing north



View facing west



<b>Resource ID:</b> 6K	<b>Parcel ID:</b> 143240	<b>Year Built:</b> 2020	<b>Year Source:</b> Owner
<b>Address:</b> 1402 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Cool Crest Miniature Golf		<b>Latitude:</b> 29.458383	<b>Longitude:</b> -98.51878
<b>Historic Function/Subcategory:</b> Rec & culture/sports facility		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Rec & culture/sports facility		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing east

**Description**

<b>Type:</b> Site	<b>Exterior materials:</b> various	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Appears to be unaltered
<b>Style:</b> No style			
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

The beergarden was constructed in 2020 on the site of the former Metzger residence behind the 1959 course. The parcel is outside the APE, but was documented because it is associated with the Cool Crest course, located in the APE.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This resource is a non-historic-age site on the same parcel as an historic-age resource or resources. It is less than 50 years old and was not found to possess exceptional significance under Criterion Consideration G. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 6K

**Parcel ID:** 143240

**Address:** 1402 FREDERICKSBURG RD

View facing north



View facing southwest



<b>Resource ID:</b> 7A	<b>Parcel ID:</b> 378187	<b>Year Built:</b> c. 1923	<b>Year Source:</b> Estimate
<b>Address:</b> 1327 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> N/A		<b>Latitude:</b> 29.457394	<b>Longitude:</b> -98.519426
<b>Historic Function/Subcategory:</b> Domestic/Single dwelling		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Domestic/Single dwelling		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> hipped	<b>Alterations:</b> Windows replaced – most Windows added to arched openings of side porch
<b>Style:</b> Spanish Colonial Revival	<b>stone</b>		
<b>Form:</b> Rectangular	<b>Porch:</b> partial-width integrated	<b>Roof cladding:</b> clay tile	

**Comments**

Located on the corner of Fredericksburg Road and W. Mulberry, this dwelling appears on a 1924 Sanborn map and shows the one-story volume on the east (right) end was a porch. The porch's arched openings have been enclosed with windows. Historic real estate advertisements indicate the dwelling has a reception hall, 3 bedrooms, 2 bathrooms, is constructed of hollow tile with stucco cladding, and has a separate 2-car garage with servant's quarters (Resource 7B) (*San Antonio Express*, May 5, 1940, 41; *San Antonio Light*, June 10, 1951, 28). Research did not reveal if the building was designed by an architect.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This dwelling does not embody distinctive characteristics of a period or method of construction and it does not represent the work of a master or possess high artistic value. No associations were identified linking it to persons or events of historic importance. Although this building is an example of the Spanish Colonial Revival style, numerous intact example are found in San Antonio that embody the style and this building's architectural quality is diminished due to the replacement of windows and the enclosure of the patio on the building's east side. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained some alterations as outlined above, it contributes to the character of the district.

**Resource ID:** 7A

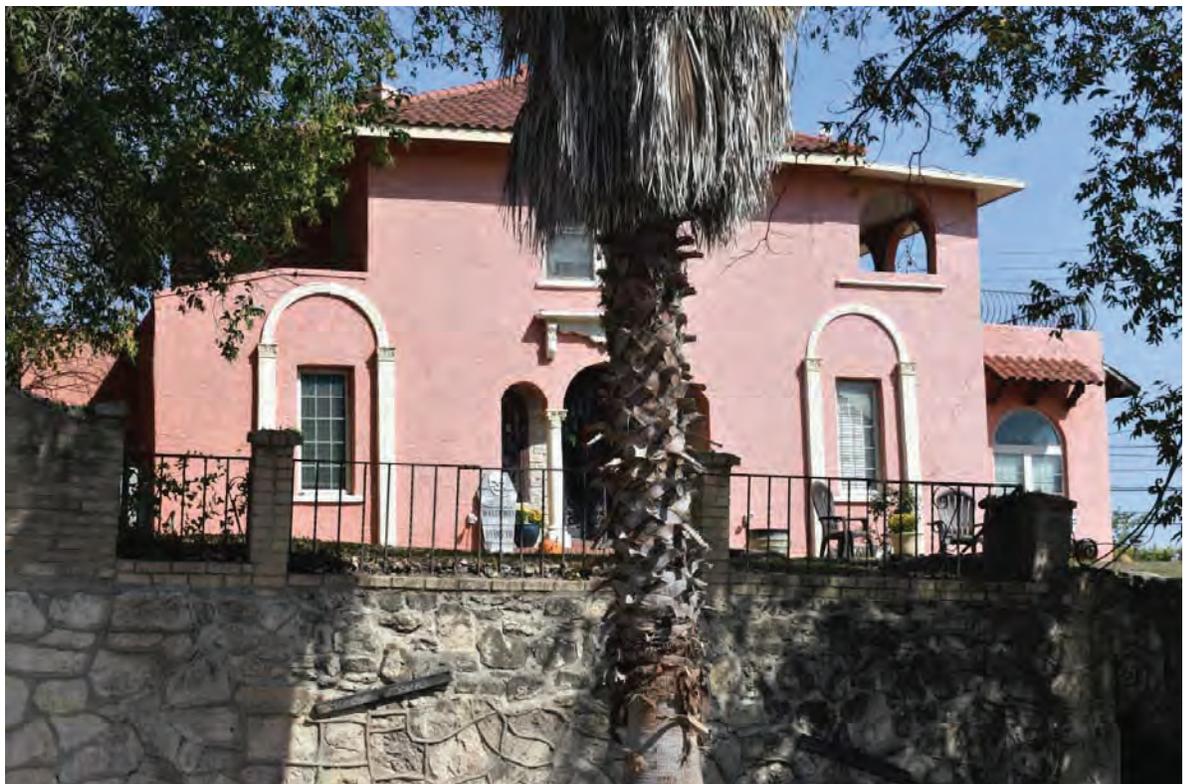
**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

View facing north



View facing north/northeast



**Resource ID:** 7A

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

Detail of front door; view facing north



<b>Resource ID:</b> 7B	<b>Parcel ID:</b> 378187	<b>Year Built:</b> c. 1923	<b>Year Source:</b> Estimate
<b>Address:</b> 1327 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> N/A		<b>Latitude:</b> 29.457586	<b>Longitude:</b> -98.519475
<b>Historic Function/Subcategory:</b> Domestic/Secondary structure		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Domestic/Secondary structure		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

View facing west;  
photo by Google  
Streetview.  
February 2019

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> hipped	<b>Alterations:</b> Door (primary) replaced Garage bays converted to window openings
<b>Style:</b> Spanish Colonial Revival			
<b>Form:</b> Rectangular	<b>Porch:</b> none	<b>Roof cladding:</b> clay tile	

**Comments**

A Google Streetview photograph has been used to supplement survey photographs because fieldwork photography was limited by right-of-entry and heavy foliage. Per historic newspaper real estate listings this building was a combination garage/servant's quarters (*San Antonio Express*, May 5, 1940, 41).

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This secondary dwelling does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, material integrity has been diminished due to alteration. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained some alterations as outlined above, it contributes to the character of the district.

**Resource ID:** 7B

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

View facing southeast



View facing south

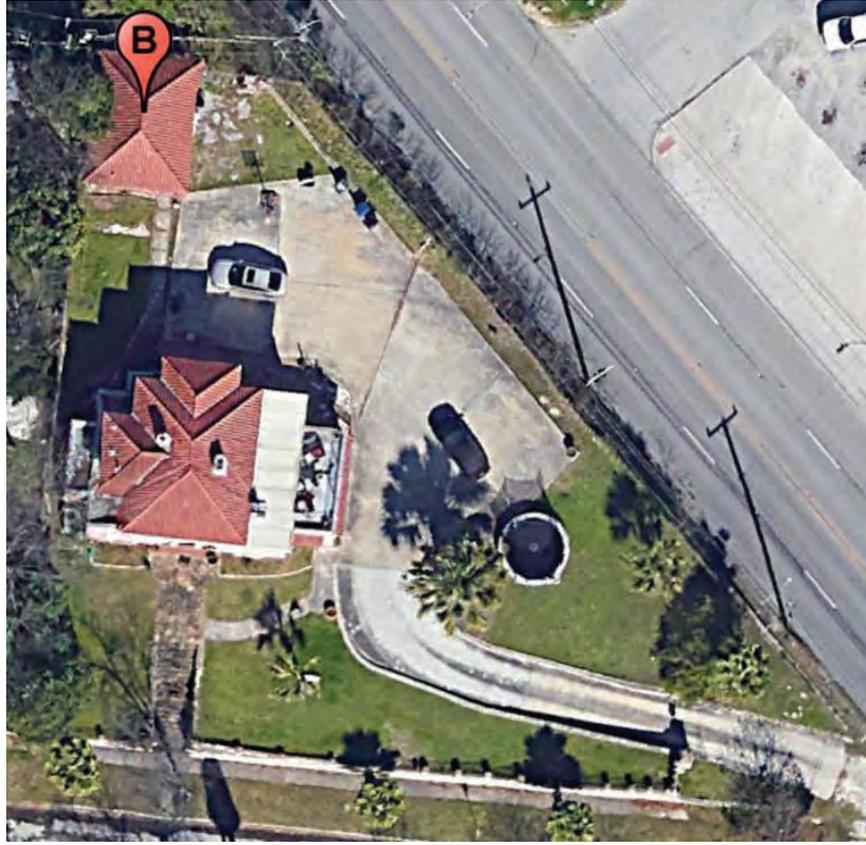


**Resource ID:** 7B

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

Aerial view of Resource B  
(upper left); photo by  
GoogleEarth Pro, January 11,  
2019.



<b>Resource ID:</b> 7C	<b>Parcel ID:</b> 378187	<b>Year Built:</b> c. 1923	<b>Year Source:</b> Estimate
<b>Address:</b> 1327 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.457507	<b>Longitude:</b> -98.519268	
<b>Historic Function/Subcategory:</b> Landscape/street furniture	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Landscape/street furniture	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing west

**Description**

<b>Type:</b> Structure	<b>Exterior materials:</b> stone	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Holes through the stone masonry indicate the wall was anchored back to the adjacent hill, but the cables and ties are no longer extant
<b>Style:</b> No style	<b>Style:</b> concrete		
<b>Form:</b> Linear	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

This retaining wall is constructed of roughly dressed stone masonry set in irregular courses and has a concrete cap that extends for most of its length. The wall is approximately 5 feet tall and extends along Fredericksburg Road for approximately 175 feet. No contractor or date stamps were found on the wall but the ability to examine the resource was limited by its proximity to Fredericksburg Road traffic, overgrowth, and lack of right-of-entry to the property. Surveyors observed other walls in the vicinity and noted its difference in that most others are constructed of uncoursed rubble masonry. A 1938 real estate listing for the house indicates it has a rock wall around the grounds (*San Antonio Express*, February 6, 1938: 2C). The estimated date of construction is contemporary with Resource 7A. This resource is adjacent to a section of Fredericksburg Road that was part of the Old Spanish Trail (OST). To beautify the roadway owners were encouraged by the OST's Beautification Department to construct "improved property entrances and fences" like this. Research did not reveal that this wall was specifically constructed in response to that effort (OST 1929: 45).

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

Individually, this stone masonry wall does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. It is recommended not individually eligible for individual listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance and it contributes to the character of the district.

**Resource ID:** 7C

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

View facing south



View facing northwest along  
Fredericksburg Road



**Resource ID:** 7C

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

View facing southeast



2011 photo showing the wall without foliage overgrowth; photo by Google Streetview, March 2011.



**Resource ID:** 7C

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

March 1974 photograph of the wall (left) and the Cool Crest Miniature Golf Course (Resource 6); photograph courtesy of Mitch Andry



<b>Resource ID:</b> 7D	<b>Parcel ID:</b> 378187	<b>Year Built:</b> c. 1923	<b>Year Source:</b> Estimate
<b>Address:</b> 1327 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.457206	<b>Longitude:</b> -98.519315	
<b>Historic Function/Subcategory:</b> Landscape/street furniture	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Landscape/street furniture	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing west

**Description**

<b>Type:</b> Structure	<b>Exterior materials:</b> brick, stone, concrete block, terra cotta, metal	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Multiple modifications using incompatible material replacement; wing wall on the southeast corner is severely cracked
<b>Style:</b> No style			
<b>Form:</b> Linear	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Resource 7D is a stone masonry wall that is approximately 7 feet tall and extends along W. Mulberry Avenue for approximately 140 feet. It is clad in uncoursed rubble masonry, which is consistent with similar walls throughout the neighborhood. In some areas, brick piers connected by wrought iron rails are set atop the stone. In other areas, the brick piers are connected by concrete blocks and terra cotta. The wall breaks on Mulberry Avenue for a staircase leading to Resource 7A's front door. At the corner of W. Mulberry Avenue and Fredericksburg Road is a driveway gate with piers, metal lights atop the piers, and a wrought iron gate. No contractor or date stamps were found on the wall. A 1938 real estate listing for the house indicates it has a rock wall around the grounds (*San Antonio Express*, February 6, 1938: 2C). The estimated date of construction is contemporary with Resource 7A.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This gate and stone wall do not embody distinctive characteristics of a type, period, or method of construction and do not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking them to persons or events of historic importance. Furthermore, design and material integrity has been diminished due to alterations and portions in disrepair. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained some alterations as outlined above, it contributes to the character of the district.

Resource ID: 7D

Parcel ID: 378187

Address: 1327 FREDERICKSBURG RD

View facing west



View facing northeast; note the metal ties bracing the wall from within



**Resource ID:** 7D

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

Detail of entry steps; view facing north



Detail of wing wall; view facing west



**Resource ID:** 7D

**Parcel ID:** 378187

**Address:** 1327 FREDERICKSBURG RD

Detail of wall; view facing  
northeast



<b>Resource ID:</b> 8	<b>Parcel ID:</b> 378237	<b>Year Built:</b> 1936	<b>Year Source:</b> Newspaper research
<b>Address:</b> 1314 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Oak Farms Dairy (current); Knowlton's Creamery (former)	<b>Latitude:</b> 29.457197	<b>Longitude:</b> -98.518221	
<b>Historic Function/Subcategory:</b> Agriculture/Processing	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Agriculture/Processing	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> concrete	<b>Primary roof type:</b> flat	<b>Alterations:</b> Completely modified from its original appearance
<b>Style:</b> International	stucco		Addition to primary/side elevation
<b>Form:</b> Irregular	metal	<b>Roof cladding:</b> built-up	Addition to rear/side elevation
	<b>Porch:</b> N/A		Landscape/hardscape altered
			Signage replaced

**Comments**

In addition to one historic-age resource, this parcel has three non-historic age resources (Resources B, C, and D) that are included in this record. The building, which originally featured an Art Deco design by architect Phil Lloyd Shoop, was constructed in 1936 (*San Antonio Light*, January 26, 1936, 3). In 1970 the plant was expanded and completely redesigned, losing its original appearance (*San Antonio Light*, June 23, 1970, 7). The plant has since expanded several times and accreted two historic-age buildings (see annotated image below) and has subsumed the former Parkmoor Drive (Linn Street).

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This dairy processing plant does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Although this resource has been in long-standing use as a creamery/dairy, "reconnaissance-light" research did not reveal associations linking it to persons or events of historic importance. Additional research may reveal potential for eligibility under Criterion A, but since no direct effects are proposed to the property, further research is not warranted. Furthermore, the building no longer retains integrity of design, materials, workmanship, or feeling due to a 1970 redesign and expansions that modified the building from its original Art Deco appearance. Furthermore, the complex's setting was impaired when Parkmoor Drive (Linn Street) was subsumed by the parcel and built over. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 8

Parcel ID: 378237

Address: 1314 FREDERICKSBURG RD

View facing northeast



View facing east



Resource ID: 8

Parcel ID: 378237

Address: 1314 FREDERICKSBURG RD

View facing northwest



Non-historic age Resource B;  
view facing northeast

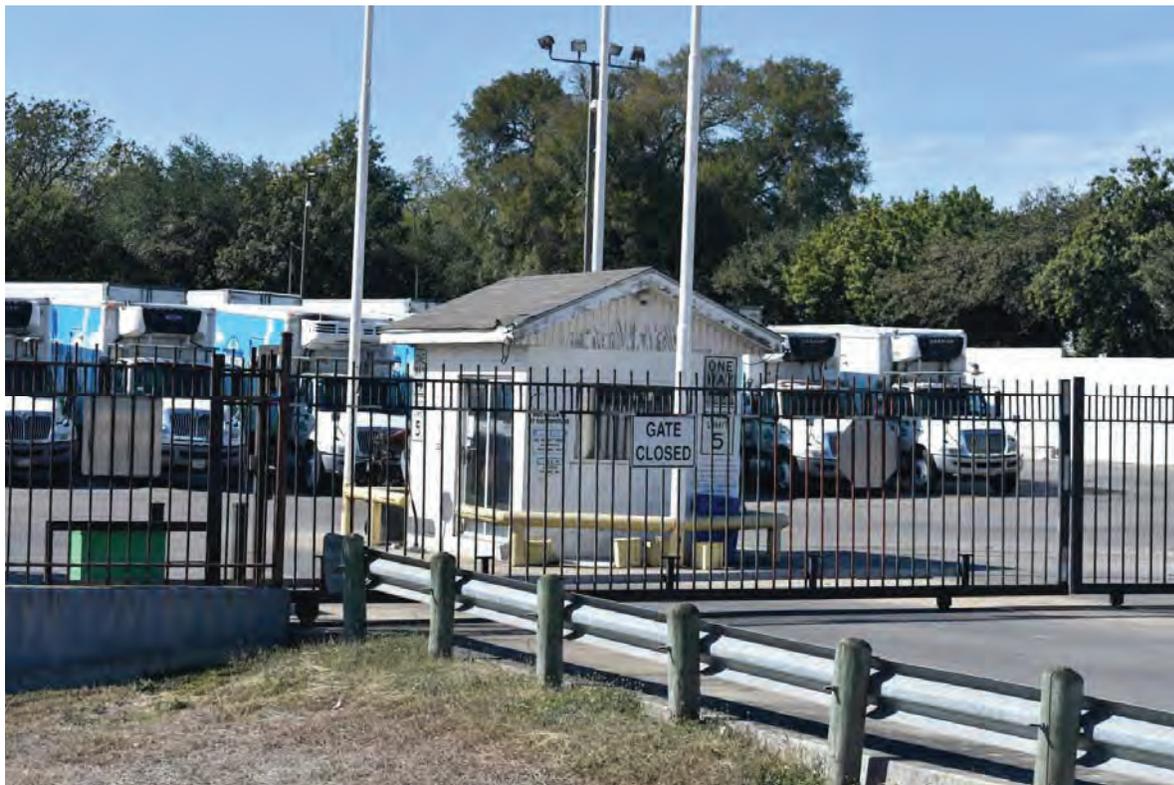


Resource ID: 8

Parcel ID: 378237

Address: 1314 FREDERICKSBURG RD

Non-historic age Resource C;  
view facing northwest



Non-historic age Resource D;  
view facing northeast

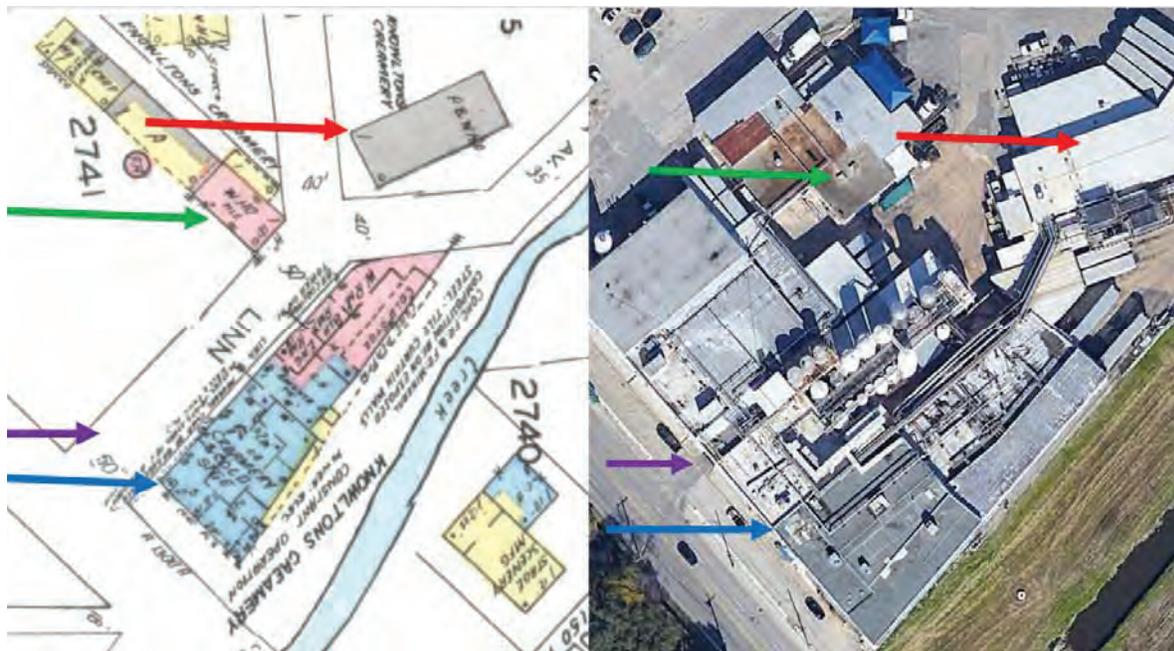


Resource ID: 8

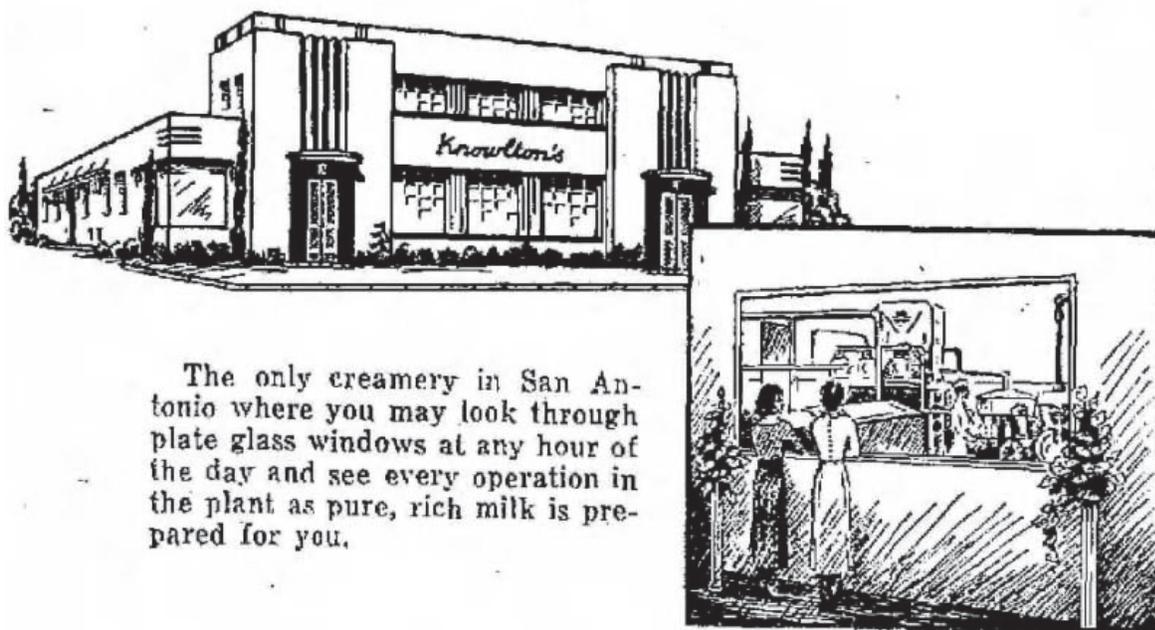
Parcel ID: 378237

Address: 1314 FREDERICKSBURG RD

Color-coded arrows indicate the same elements; Sanborn map; 1924, republished 1952, vol. 5, sheet 506 (left); and Google Earth Pro, 2019; annotations by CMEC (right)



Original 1936 Art Deco appearance; from *San Antonio Light*, June 13, 1936, 3.



The only creamery in San Antonio where you may look through plate glass windows at any hour of the day and see every operation in the plant as pure, rich milk is prepared for you.

<b>Resource ID:</b> 9A	<b>Parcel ID:</b> 377988	<b>Year Built:</b> 1929	<b>Year Source:</b> CAD
<b>Address:</b> 1502 W MULBERRY AVE	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.456842	<b>Longitude:</b> -98.518838	
<b>Historic Function/Subcategory:</b> Domestic/Single dwelling	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Domestic/Single dwelling	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing south

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> complex	<b>Alterations:</b> Picture window opening resized Windows replaced – some Roof replaced w/ incomp. materials Decorative wrought iron missing from turret windows Landscape/hardscape altered
<b>Style:</b> Spanish Colonial Revival	<b>Porch:</b> none	<b>Roof cladding:</b> composition shingle	Balcony added at rear; patio added to front
<b>Form:</b> Irregular			

**Comments**

In addition to three historic-age resources, this parcel has one non-historic-age resource (Resource D) that is included in this record. Research did not reveal if the building was designed by an architect.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

Although this building is an example of the Spanish Colonial Revival style, numerous intact example are found in San Antonio that embody the style and this building's architectural quality is diminished due to the replacement of the clay tile roof with asphalt shingles, replacement and resizing of a picture window on its primary facade, addition of a patio and additional room on its rear facade, and addition of a concrete patio to its primary facade. Furthermore, the addition of privacy fencing along W. Mulberry has diminished the setting's integrity. No associations were identified linking it to persons or events of historic importance. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained some alterations as outlined above, it contributes to the character of the district.

**Resource ID:** 9A

**Parcel ID:** 377988

**Address:** 1502 W MULBERRY AVE

View facing north



2016 Google Streetview image showing original picture window, landscaped entry, and wrought iron on turret window.



**Resource ID:** 9A

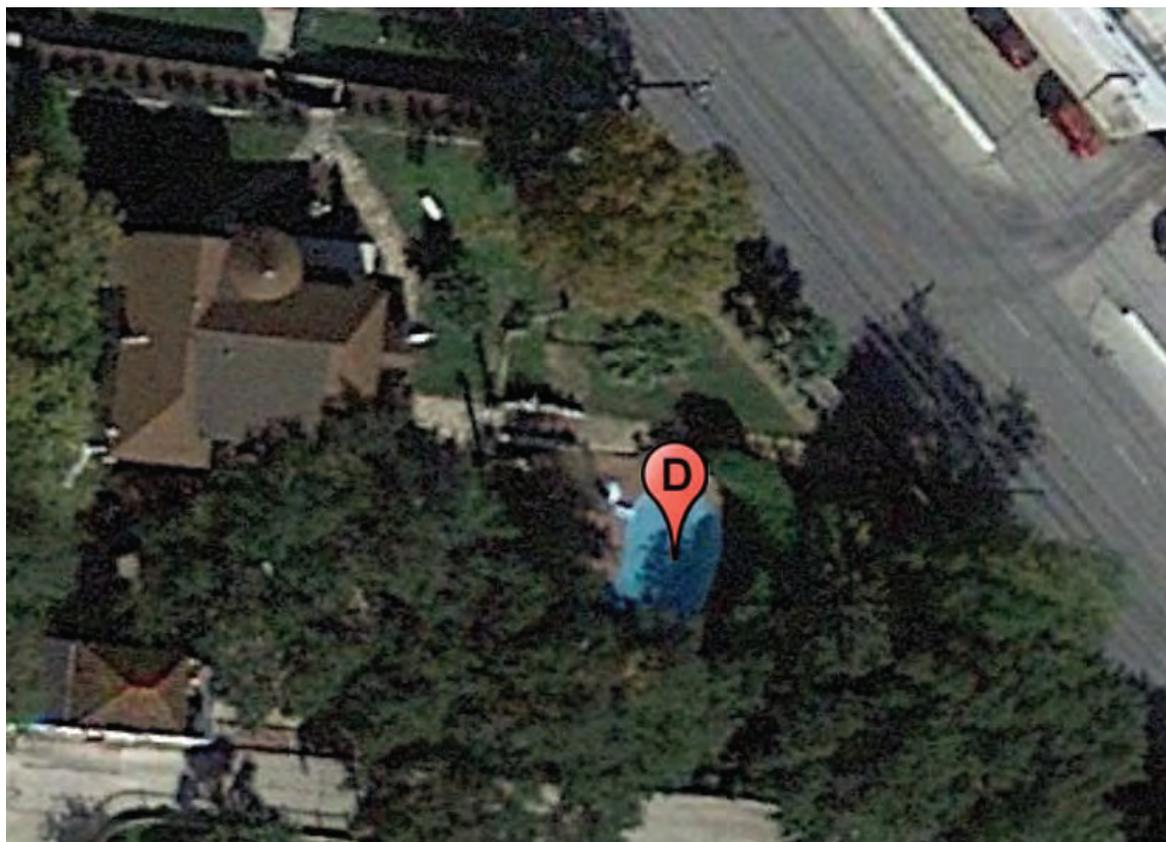
**Parcel ID:** 377988

**Address:** 1502 W MULBERRY AVE

2018 Google Streetview image showing replaced picture window and raised concrete patio in place or formerly landscaped entry.



Surveyors were unable to take photographs of non-historic age Resource D due to lack of right-of-entry. Aerial photograph by Google Earth Pro, November 2019



<b>Resource ID:</b> 9B	<b>Parcel ID:</b> 377988	<b>Year Built:</b> c. 1929	<b>Year Source:</b> Estimate
<b>Address:</b> 1502 W MULBERRY AVE	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.456717	<b>Longitude:</b> -98.519123	
<b>Historic Function/Subcategory:</b> Domestic/Secondary structure	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Domestic/Secondary structure	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing  
northwest

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> hipped	<b>Alterations:</b> Windows replaced – all
<b>Style:</b> Spanish Colonial Revival			
<b>Form:</b> Rectangular	<b>Porch:</b> unknown/none visible	<b>Roof cladding:</b> clay tile	

**Comments**

This is a garage apartment behind Resource 9A. The front of the building was not able to be photographed due to lack of right of entry. The estimated year built date is contemporary with Resource 9A.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This resource is an example of the Spanish Colonial Revival style, but it does not embody the characteristics of the style. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, material integrity has been diminished due to the replacement of windows. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained some alterations as outlined above, it contributes to the character of the district.

**Resource ID:** 9B

**Parcel ID:** 377988

**Address:** 1502 W MULBERRY AVE

View facing northeast



<b>Resource ID:</b> 9C	<b>Parcel ID:</b> 377988	<b>Year Built:</b> c. 1929	<b>Year Source:</b> Estimate
<b>Address:</b> 1502 W MULBERRY AVE	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.456842	<b>Longitude:</b> -98.518645	
<b>Historic Function/Subcategory:</b> Landscape/street furniture	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect	
<b>Current Function/Subcategory:</b> Landscape/street furniture	<b>Contributing to NRHP Property/District?</b> Yes		



Photos taken:  
October 13, 2020

View facing  
southeast

**Description**

<b>Type:</b> Structure	<b>Exterior materials:</b> concrete	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Wood privacy fence added
<b>Style:</b> No style	wood vertical board metal		
<b>Form:</b> Linear	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Perimeter wall along W. Mulberry Avenue and Fredericksburg Road.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This wall does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to the addition of privacy fencing. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained some alterations as outlined above, it contributes to the character of the district.

**Resource ID:** 9C

**Parcel ID:** 377988

**Address:** 1502 W MULBERRY AVE

View facing southwest



View facing southeast along  
Fredericksburg Road



**Resource ID:** 9C

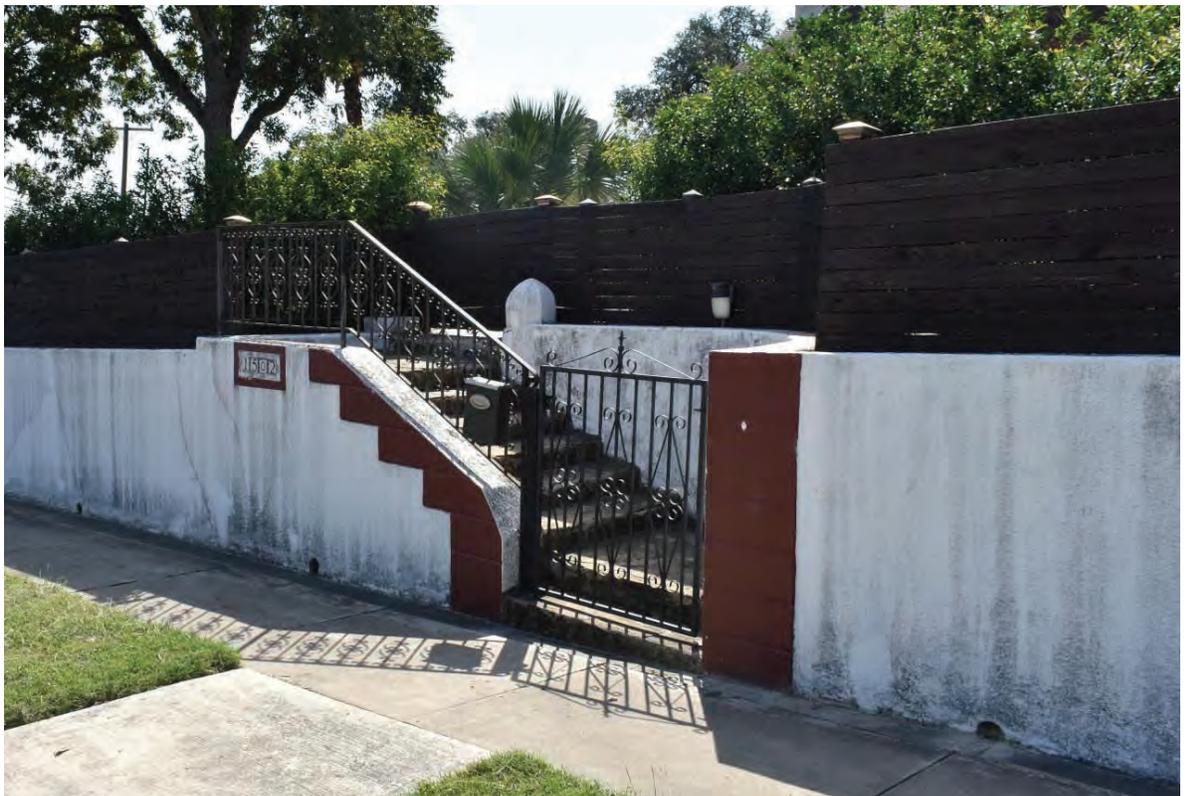
**Parcel ID:** 377988

**Address:** 1502 W MULBERRY AVE

View facing northwest along  
Fredericksburg Road



Detail of stairs; view facing  
southeast



<b>Resource ID:</b> 10	<b>Parcel ID:</b> N/A	<b>Year Built:</b> c. 1921	<b>Year Source:</b> Newspaper research
<b>Address:</b> West Mulberry Avenue at Fredericksburg Road		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> N/A		<b>Latitude:</b> 29.457059	<b>Longitude:</b> -98.518838
<b>Historic Function/Subcategory:</b> Landscape/object		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Landscape/object		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
View facing east

**Description**

<b>Type:</b> Object	<b>Exterior materials:</b> ceramic tile	<b>Primary roof type:</b> N/A	<b>Alterations:</b> letter missing
<b>Style:</b> No style			
<b>Form:</b> N/A	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Ceramic tile street sign embedded into the concrete sidewalk. The Woodlawn Place subdivision's original sidewalks included these tile signs at intersections. There are only a few of these signs extant within the proposed Woodlawn Place NRHP historic district boundaries and some are surrounded by reconfigured sidewalks. Some of the signs include the word "Ave," but neither this nor its corresponding sign at Calaveras Street do so. Current plans call for this segment of sidewalk to be removed.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This resource is a small-scale object. It reads "Mulberry" in ceramic tiles, but the letter "U" is missing. On its own, it does not rise to the level of significance necessary for individual listing in the NRHP. It is best understood in the context of the recommended historic district. As a result, it is recommended not individually eligible for the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance, and though it has sustained diminished integrity, it contributes to the character of the district. The 90% plans call for sidewalk removal in this area. If this resource is removed and destroyed and/or not replaced, it would result in an adverse effect. However, if the tile is carefully removed and re-set in the new sidewalk (as has been done for other tile street name inlays in the neighborhood during recent sidewalk improvement projects), the impact could be reduced to no adverse effect.

**Resource ID:** 10

**Parcel ID:** N/A

**Address:** WEST MULBERRY AVENUE AT FREDERICKSBURG ROAD

View facing northwest



View facing northwest



<b>Resource ID:</b> 11A	<b>Parcel ID:</b> 377987	<b>Year Built:</b> c. 1925	<b>Year Source:</b> Estimate
<b>Address:</b> 1503 W HUISACHE AVE		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> N/A		<b>Latitude:</b> 29.45646	<b>Longitude:</b> -98.518827
<b>Historic Function/Subcategory:</b> Domestic/Single dwelling		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> No Adverse Effect
<b>Current Function/Subcategory:</b> Domestic/Single dwelling		<b>Contributing to NRHP Property/District?</b> Yes	



Photos taken:  
October 13, 2020

View facing north;  
photo by Google  
Earth 2019

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stone	<b>Primary roof type:</b> hipped	<b>Alterations:</b> Garage enclosed
<b>Style:</b> Spanish Colonial Revival	wood siding stucco		Addition to rear/side elevation
<b>Form:</b> Irregular	<b>Porch:</b> partial-width set within ell	<b>Roof cladding:</b> clay tile	Awning porch added Windows replaced – some

**Comments**

In addition to one historic-age resource, this parcel has five non-historic-age resources (Resources B through F) that are included in this record. Without right of entry, surveyors were unable to take more effective photographs of the facade of this building. A Google Earth photo is provided as a supplement.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

Although this building is an example of the Spanish Colonial Revival style, numerous intact example are found in San Antonio that embody the style. This building's integrity has been diminished due to an addition on its rear facade and enclosure of its garage. No associations were identified linking it to persons or events of historic importance. As a result, it is recommended not individually eligible for listing in the NRHP under Criterion A, B, or C. This resource is recommended as contributing to the proposed Woodlawn Place NRHP historic district. It is associated with the district's historical significance and it contributes to the character of the district.

**Resource ID:** 11A

**Parcel ID:** 377987

**Address:** 1503 W HUISACHE AVE

View facing north



View facing northwest



**Resource ID:** 11A

**Parcel ID:** 377987

**Address:** 1503 W HUISACHE AVE

View facing south



Non-historic age Resource B;  
view facing southeast



**Resource ID:** 11A

**Parcel ID:** 377987

**Address:** 1503 W HUISACHE AVE

Non-historic age Resources C;  
and D; view facing southeast



Non-historic age Resource E;  
view facing south



**Resource ID:** 11A

**Parcel ID:** 377987

**Address:** 1503 W HUISACHE AVE

Non-historic age Resource F;  
view facing west



**Resource ID:** 12      **Parcel ID:** N/A      **Year Built:** 1921      **Year Source:** Newspaper research  
**Address:** Martinez Creek; Fredericksburg Rd. to W. Woodlawn Ave.      **City:** San Antonio      **County:** Bexar  
**Name:** Woodlawn Place parkway (Martinez Creek)      **Latitude:** 29.455860      **Longitude:** -98.518683  
**Historic Function/Subcategory:** Rec & culture/outdoor recreation      **Indiv. NRHP Eligible?** No      **Effect:** N/A  
**Current Function/Subcategory:** Vacant/Not in use      **Contributing to NRHP Property/District?** N/A



Photos taken:  
October 13, 2020

View facing northeast. West Drive in on left and the Frederickburg Road bridge is in background.

**Description**

<b>Type:</b> Site	<b>Exterior materials:</b> N/A	<b>Primary roof type:</b> N/A	<b>Alterations:</b> Completely modified from its original appearance
<b>Style:</b> No style			
<b>Form:</b> Linear	<b>Porch:</b> N/A	<b>Roof cladding:</b> N/A	

**Comments**

Site of former Woodlawn Place parkway designed by landscape architect James Hopkins Healy in 1921. The parkway was originally lined by two boulevards (West Drive and East Drive) connecting Fredericksburg Road with Woodlawn Avenue and was planted with arbor vitre, palms, shrubbery, flower beds, and a lawn (*San Antonio Light* July 10, 1921; *San Antonio Express* December 10, 1922). A 1921 advertisement mentions a nine-hole practice golf course in the parkway (*San Antonio Express* December 10, 1922, November 9, 1941). Aerial images show walkways along the green space. The neighborhood, on both sides of Martinez Creek, was connected by concrete bridges on W. Huisache, W. Magnolia, and W. Mistletoe Avenues.

**Integrity**    Location    Design    Setting    Materials    Workmanship    Feeling    Association

**NRHP Justification**

None of the landscape features or the bridges on the three avenues remain. Furthermore, of the two boulevards, only West Drive remains. As a result, this property is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 12

**Parcel ID:** N/A

**Address:** MARTINEZ CREEK; FREDERICKSBURG RD. TO W. WOODLAWN AVE.

View facing southwest; West Drive is on right.



View facing north; West Drive in on left.



Resource ID: 12

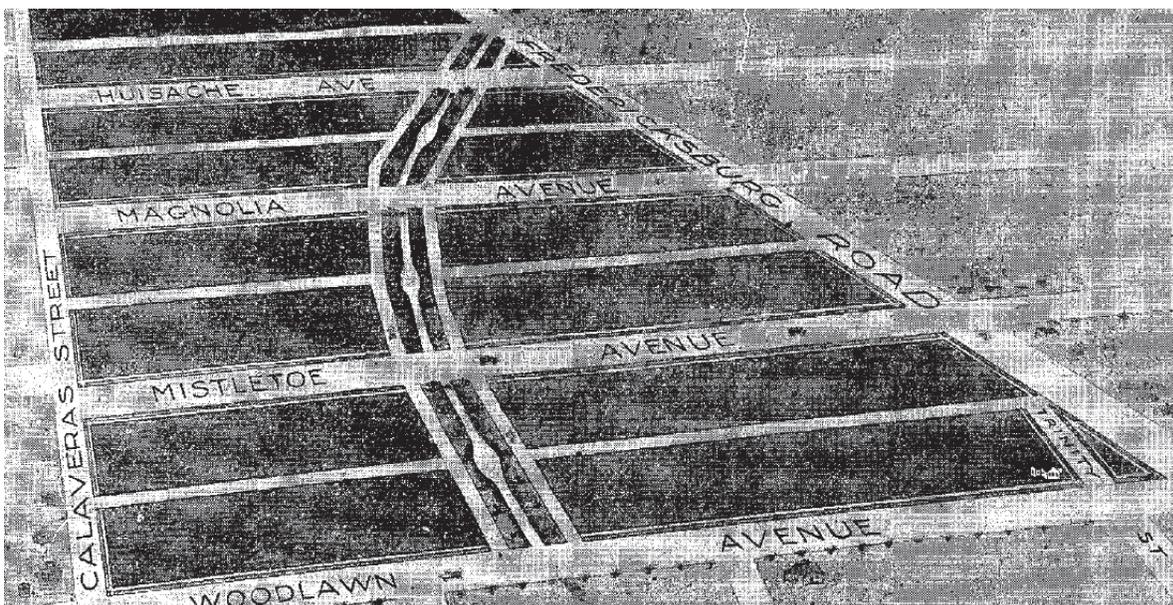
Parcel ID: N/A

Address: MARTINEZ CREEK; FREDERICKSBURG RD. TO W. WOODLAWN AVE.

View facing southeast; West Drive is on right, W. Woodlawn bridge over Martinez Creek in background.



Advertisement featuring Woodlawn Place parkway; *San Antonio Light*, November 1, 1921, 22.



**Resource ID:** 12

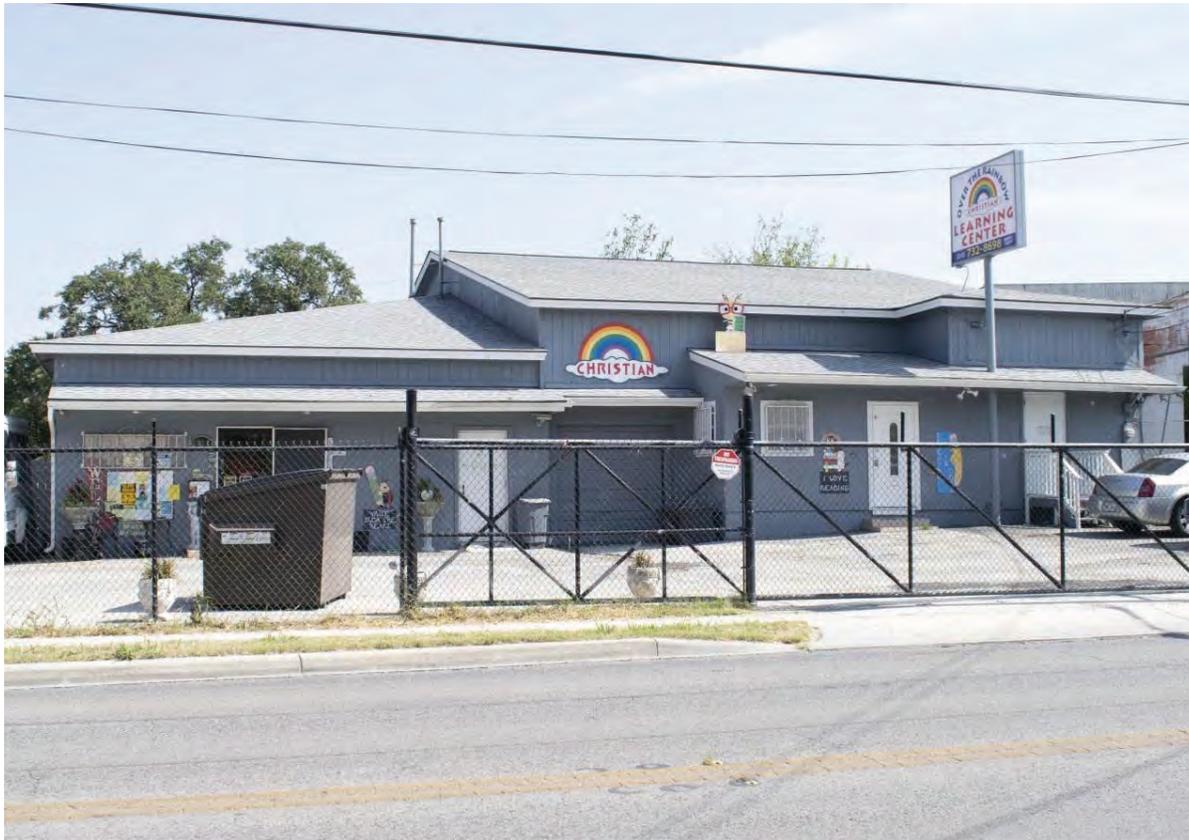
**Parcel ID:** N/A

**Address:** MARTINEZ CREEK; FREDERICKSBURG RD. TO W. WOODLAWN AVE.

Landscaping along Woodlawn  
Place Park between  
Woodlawn and Mistletoe  
avenues; *San Antonio Express*,  
November 9, 1941, 33.



**Resource ID:** 13      **Parcel ID:** 134646      **Year Built:** 1959      **Year Source:** Newspaper research  
**Address:** 1222 FREDERICKSBURG RD      **City:** San Antonio      **County:** Bexar  
**Name:** See comments      **Latitude:** 29.456185      **Longitude:** -98.517533  
**Historic Function/Subcategory:** Commerce/Specialty store      **Indiv. NRHP Eligible?** No      **Effect:** N/A  
**Current Function/Subcategory:** Commerce/Specialty store      **Contributing to NRHP Property/District?** N/A



Photos taken:  
October 13, 2020

View facing  
northeast

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> wood siding panels	<b>Primary roof type:</b> complex	<b>Alterations:</b> Addition to primary/side elevation
<b>Style:</b> No style	<b>stucco</b>		Doors replaced
<b>Form:</b> Rectangular	<b>Porch:</b> stoop	<b>Roof cladding:</b> composition shingle	Landscape/hardscape altered
			Completely modified from its original appearance
			Roofline altered

**Comments**

The original building consists of the volume on the left.  
 Name: Over the Rainbow Learning Center (current); Fredericksburg Road Animal Hospital (former)

**Integrity**    Location    Design    Setting    Materials    Workmanship    Feeling    Association

**NRHP Justification**

This building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, the building has been modified and enlarged to the extent it no longer retains integrity of design, materials, workmanship, feeling, or association. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 13

Parcel ID: 134646

Address: 1222 FREDERICKSBURG RD

View facing north



View facing east



**Resource ID:** 13

**Parcel ID:** 134646

**Address:** 1222 FREDERICKSBURG RD

View facing south



<b>Resource ID:</b> 14	<b>Parcel ID:</b> 134648	<b>Year Built:</b> 1946	<b>Year Source:</b> CAD
<b>Address:</b> 1216-1220 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> Northwest Paint & Body Shop (current); ATCO (former)		<b>Latitude:</b> 29.455988	<b>Longitude:</b> -98.517302
<b>Historic Function/Subcategory:</b> Commerce/Specialty store		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Specialty store		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> brick concrete	<b>Primary roof type:</b> flat	<b>Alterations:</b> Brick/stone painted Windows replaced, painted – some Addition to rear/side elevation Awning(s) added Door (primary) replaced Roofline altered
<b>Style:</b> No style	<b>Porch:</b> Wrap-around awning projecting	<b>Roof cladding:</b> metal	
<b>Form:</b> L-plan			

**Comments**

The 1952 Sanborn map indicates this as an auto body repair shop (1924 Sanborn map, republished 1952, vol. 5 sheet 506).

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, integrity of design, materials, workmanship, feeling, and association is lost due to modifications. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 14

Parcel ID: 134648

Address: 1216-1220 FREDERICKSBURG RD

View facing north



View facing northwest



Resource ID: 14

Parcel ID: 134648

Address: 1216-1220 FREDERICKSBURG RD

View facing east



View facing west



**Resource ID:** 14

**Parcel ID:** 134648

**Address:** 1216-1220 FREDERICKSBURG RD

View facing west



<b>Resource ID:</b> 15	<b>Parcel ID:</b> 134650	<b>Year Built:</b> 1935	<b>Year Source:</b> Conservation Society of San Antonio
<b>Address:</b> 1212 FREDERICKSBURG RD		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> The Lighthouse Seafood (current); Sinclair Service		<b>Latitude:</b> 29.455617	<b>Longitude:</b> -98.517064
<b>Historic Function/Subcategory:</b> Commerce/Specialty store		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Commerce/Restaurant		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> stucco	<b>Primary roof type:</b> flat	<b>Alterations:</b> Addition to primary/side/rear elevation Parapet altered or removed Canopy enclosed Service bay enclosed
<b>Style:</b> Spanish Colonial Revival	<b>Porch:</b> none	<b>Roof cladding:</b> built-up	Historic photographs indicate doorways and fenestrations have changed multiple times.

**Comments**

The Conservation Society of San Antonio's (CSSA) "San Antonio Historic Gas Stations" survey identifies this 'former box with canopy gasoline station as a Sinclair Service station constructed 1934-1935. CMEC historians, referring to *A Field Guide to Gas Stations in Texas*, confirmed the building's form and remaining identifying features are consistent with Sinclair stations constructed between 1930 and 1940. Such features include tile covered pent roofs, stucco exterior finish, larger corner columns with brackets supporting the canopy, pedimented parapets on canopy, service bay extending from side of office, and Mission or Spanish Eclectic stylistic influences (TxDOT 2016). According to the CSSA survey the building remained a service station under various names until 1965 when it became the location of a radio and television repair shop. Since then the building has been the location of a cabinet shop and several restaurants.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This resource was evaluated according to the TxDOT report *A Field Guide to Gas Stations in Texas*. This former Sinclair gasoline station does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Since its construction the building has been modified multiple times for several disparate uses, to the extent it no longer retains integrity of design, materials, workmanship, feeling, or association. The building's setting has been modified by the addition of a bus rapid transit station directly in front of the building, which has diminished its integrity of setting. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

Resource ID: 15

Parcel ID: 134650

Address: 1212 FREDERICKSBURG RD

View facing west



View facing south



**Resource ID:** 15

**Parcel ID:** 134650

**Address:** 1212 FREDERICKSBURG RD

Undated photograph; from Conservation Society of San Antonio Historic Gas Station survey; <https://gasstationsurvey.omeka.net/items/show/21657>



<b>Resource ID:</b> 16	<b>Parcel ID:</b> 377950	<b>Year Built:</b> c. 1925	<b>Year Source:</b> Estimate
<b>Address:</b> 1409 W MAGNOLIA AVE	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.455310	<b>Longitude:</b> -98.517386	
<b>Historic Function/Subcategory:</b> Domestic/Multiple dwelling	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Domestic/Multiple dwelling	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> wood siding	<b>Primary roof type:</b> gable-on-hip	<b>Alterations:</b> Door (primary) replaced
<b>Style:</b> Colonial Revival; Craftsman			
<b>Form:</b> Bungalow	<b>Porch:</b> partial-width integrated	<b>Roof cladding:</b> composition shingle	

**Comments**

The classical columns modestly suggest Colonial revival style.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This dwelling does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 16

**Parcel ID:** 377950

**Address:** 1409 W MAGNOLIA AVE

View facing northwest



View facing northeast



**Resource ID:** 16

**Parcel ID:** 377950

**Address:** 1409 W MAGNOLIA AVE

Detail of replaced door; view  
facing northeast



<b>Resource ID:</b> 17	<b>Parcel ID:</b> 377949	<b>Year Built:</b> c. 1925	<b>Year Source:</b> Estimate
<b>Address:</b> 1203 FREDERICKSBURG RD	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> Dr. L.D. Lowry Chiropractor (former)	<b>Latitude:</b> 29.455261	<b>Longitude:</b> -98.517238	
<b>Historic Function/Subcategory:</b> Domestic/Single dwelling	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Domestic/Single dwelling	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> wood siding	<b>Primary roof type:</b> gable, crossed	<b>Alterations:</b> Windows replaced – some Door (secondary) replaced Door (primary) replaced Foundation stuccoed
<b>Style:</b> Colonial Revival; Craftsman	<b>Porch:</b> partial-width set within ell	<b>Roof cladding:</b> composition shingle	
<b>Form:</b> Bungalow			

**Comments**

The building has been used as both an office (in the 1950s) and a dwelling.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This building does not embody distinctive characteristics of a style and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, the integrity of materials has been diminished due to the replacement of doors and a prominent window. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 17

**Parcel ID:** 377949

**Address:** 1203 FREDERICKSBURG RD

View facing northwest



View facing northeast



<b>Resource ID:</b> 18A	<b>Parcel ID:</b> 377856	<b>Year Built:</b> c. 1925	<b>Year Source:</b> Estimate
<b>Address:</b> 1324 W MISTLETOE AVE	<b>City:</b> San Antonio	<b>County:</b> Bexar	
<b>Name:</b> N/A	<b>Latitude:</b> 29.453844	<b>Longitude:</b> -98.51632	
<b>Historic Function/Subcategory:</b> Domestic/Single dwelling	<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A	
<b>Current Function/Subcategory:</b> Domestic/Single dwelling	<b>Contributing to NRHP Property/District?</b> N/A		



Photos taken:  
October 13, 2020

View facing south

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> vinyl siding	<b>Primary roof type:</b> clipped side gable	<b>Alterations:</b> Door (primary) replaced Addition to rear/side elevation Wall cladding replaced Window type replaced Triangular knee braces removed Window opening(s) altered
<b>Style:</b> Colonial Revival	<b>Porch:</b> partial-width projecting	<b>Roof cladding:</b> composition shingle	
<b>Form:</b> Bungalow			

**Comments**

In addition to two historic-age resources, this parcel has one non-historic age resource (Resource C) that is included in this record.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This dwelling does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to a rear addition. Integrity of materials has been diminished due to replacements. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 18A

**Parcel ID:** 377856

**Address:** 1324 W MISTLETOE AVE

View facing southeast



View facing southwest



**Resource ID:** 18A

**Parcel ID:** 377856

**Address:** 1324 W MISTLETOE AVE

View facing west



Non-historic age Resource C;  
view facing southwest



<b>Resource ID:</b> 18B	<b>Parcel ID:</b> 377856	<b>Year Built:</b> 1950	<b>Year Source:</b> CAD
<b>Address:</b> 1324 W MISTLETOE AVE		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> N/A		<b>Latitude:</b> 29.453626	<b>Longitude:</b> -98.516265
<b>Historic Function/Subcategory:</b> Domestic/Secondary structure		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Domestic/Secondary structure		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing west

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> brick	<b>Primary roof type:</b> hipped	<b>Alterations:</b> Door (primary) replaced
<b>Style:</b> No style	<b>asbestos</b>		<b>Addition to primary/side elevation</b>
<b>Form:</b> Rectangular	<b>Porch:</b> full-width projecting	<b>Roof cladding:</b> metal	

**Comments**

Surveyors were unable to take more effective photographs of this resource or photographs of this resource from multiple angles due to lack of right-of-entry.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

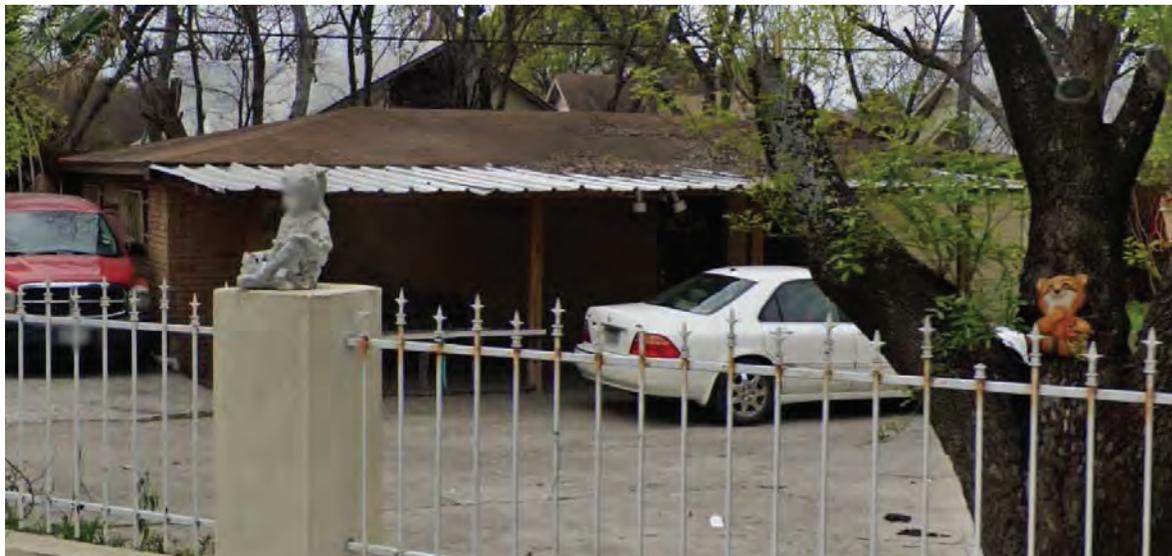
This secondary building does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, design integrity has been diminished due to a significant addition. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 18B

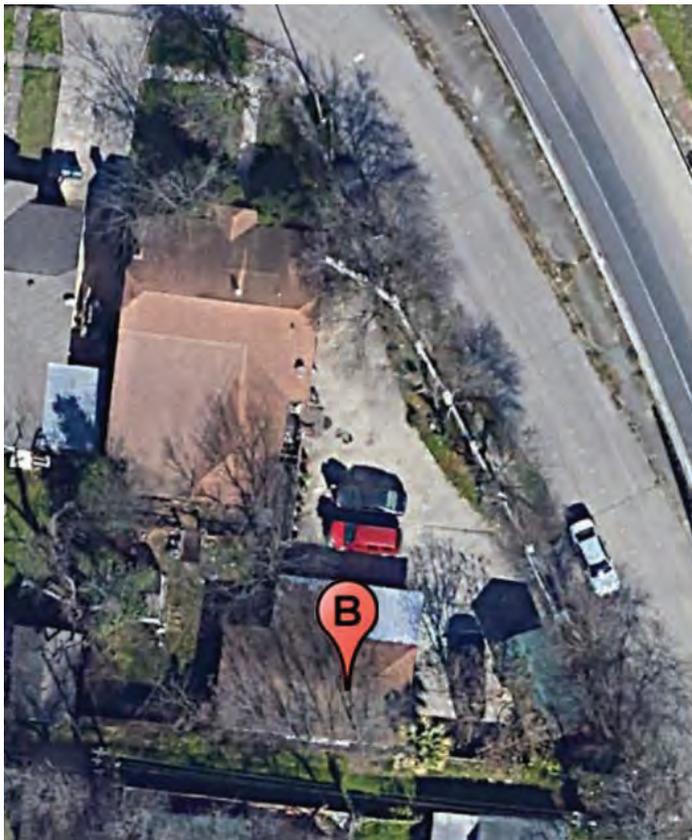
**Parcel ID:** 377856

**Address:** 1324 W MISTLETOE AVE

Photograph by Google  
Streetview 2019, view facing  
south



Aerial view; photo by  
GoogleEarth Pro, 29.453629/  
-98.516227, January 11, 2019.



<b>Resource ID:</b> 19A	<b>Parcel ID:</b> 377859	<b>Year Built:</b> c. 1925	<b>Year Source:</b> Estimate
<b>Address:</b> 1315 W WOODLAWN AVE		<b>City:</b> San Antonio	<b>County:</b> Bexar
<b>Name:</b> N/A		<b>Latitude:</b> 29.453274	<b>Longitude:</b> -98.516032
<b>Historic Function/Subcategory:</b> Domestic/Single dwelling		<b>Indiv. NRHP Eligible?</b> No	<b>Effect:</b> N/A
<b>Current Function/Subcategory:</b> Domestic/Single dwelling		<b>Contributing to NRHP Property/District?</b> N/A	



Photos taken:  
October 13, 2020

View facing north

**Description**

<b>Type:</b> Building	<b>Exterior materials:</b> wood siding stucco	<b>Primary roof type:</b> gable, side	<b>Alterations:</b> Door (primary) replaced Door (secondary) replaced Window opening(s) altered Door/entrance added Porch support(s) replaced Addition to primary elevation Wall cladding replaced - some
<b>Style:</b> Colonial Revival; Craftsman			
<b>Form:</b> Bungalow	<b>Porch:</b> partial-width set within ell	<b>Roof cladding:</b> composition shingle	

**Comments**

In addition to one historic-age resource, this parcel has one non-historic-age resource (Resource B) that is included in this record. In addition to the noted alterations, the building's chimney and triangular knee braces have been removed from the west facade.

**Integrity**  Location  Design  Setting  Materials  Workmanship  Feeling  Association

**NRHP Justification**

This dwelling does not embody distinctive characteristics of a type, period, or method of construction and it does not represent the work of a master or possess high artistic value. Additionally, no associations were identified linking it to persons or events of historic importance. Furthermore, integrity has been diminished due to extensive modifications. As a result, it is recommended not eligible for listing in the NRHP under Criterion A, B, or C.

**Resource ID:** 19A

**Parcel ID:** 377859

**Address:** 1315 W WOODLAWN AVE

View facing northwest



View facing northeast



**Resource ID:** 19A

**Parcel ID:** 377859

**Address:** 1315 W WOODLAWN AVE

View facing south



<b>Resource ID:</b> Multiple	<b>Parcel ID:</b> Multiple	<b>Year Built Range:</b> 1921-2009	<b>Year Source:</b> newspaper research, Bexar CAD data
<b>Address:</b> See proposed boundries below		<b>County:</b> Bexar	
<b>Name:</b> Woodlawn Place Historic District		<b>NRHP Eligible as a District?</b> Yes	<b>Effect:</b> No Adverse Effect



West Huisache Avenue. view facing northeast

**Comments**

The proposed Woodlawn Place Historic District is irregularly shaped and bounded on the south side of West Summit to the north, North Calaveras to the west, the north side of West Woodlawn Avenue to the south, West Drive to the east, and the west side of Fredericksburg Road to the northeast. The subdivision, located atop a 67-foot bluff over Martinez Creek, was originally planned and constructed by N.S. Dickinson who, after first constructing streets and utilities (a first for San Antonio), formally opened Woodlawn Place in November 1921 (*San Antonio Light*, November 1, 1921, 22). It also included a furnished model home, a Colonial style house designed by Charles T. Boelhauwe, a landscaped parkway, and unique neighborhood and street markers (Varga 2017; *San Antonio Express*, December 10, 1922). Restrictions required a minimum home cost of \$5,000.00 and a maximum of \$10,000.00 (*San Antonio Light*, November 1, 1921, 22). Inspired by housing stock in California, Dickinson encouraged new housing styles rather than the usual bungalows common at the time in San Antonio (Varga 2017). The district was previously proposed for local designation, but the application expired.

**Overall Integrity of District**    Location    Design    Setting    Materials    Workmanship    Feeling    Association

**NRHP Justification**

The Woodlawn Place Historic District is recommended eligible for listing in the NRHP at the local level of significance under Criterion C in the area of Architecture for its collection of early twentieth century residential architecture. The neighborhood is a mix of bungalows and larger houses designed in popular early twentieth century styles including Tudor Revival, Spanish Colonial Revival, Moorish-Spanish, and Craftsman. Together, these resources form a cohesive and intact collection of early twentieth-century residential architecture. Reconnaissance-level research suggests the neighborhood may also be eligible for the NRHP under Criterion A in the area of Community Planning and Development for the potentially innovative marketing methods used by the neighborhood’s developers, but substantiating such a recommendation would require intensive-level research outside the scope of this project. The recommended POS is 1921 to 1940.

**Resource ID:** Multiple

**Parcel ID:** Multiple

**Address:** SEE PROPOSED BOUNDRIES BELOW

West Magnolia Avenue,  
view facing northeast



West Mistletoe Avenue,  
view facing northwest



**Resource ID:** Multiple

**Parcel ID:** Multiple

**Address:** SEE PROPOSED BOUNDRIES BELOW

West Huisache Avenue,  
view facing south



Example of the ceramic  
street name tiles; West  
Huisache Avenue at  
West Drive; view facing  
west



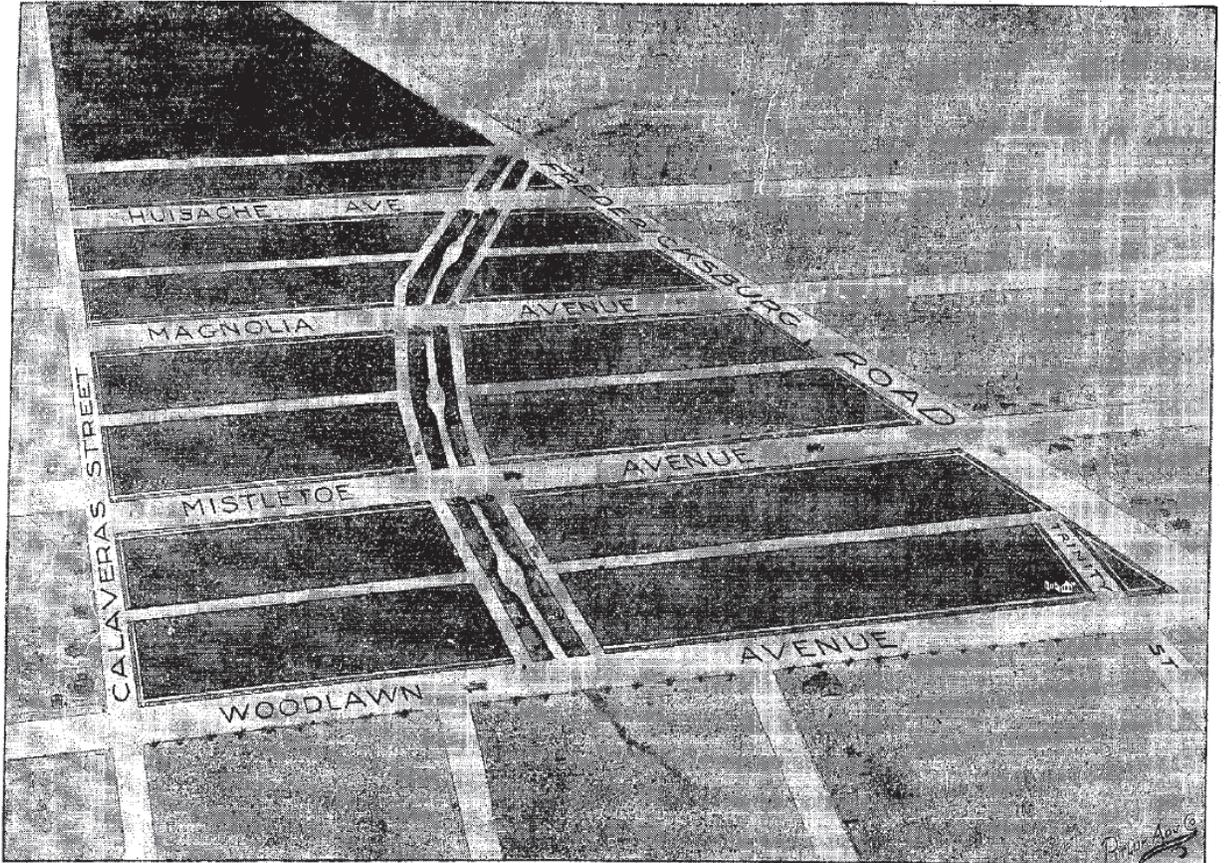


Resource ID: Multiple

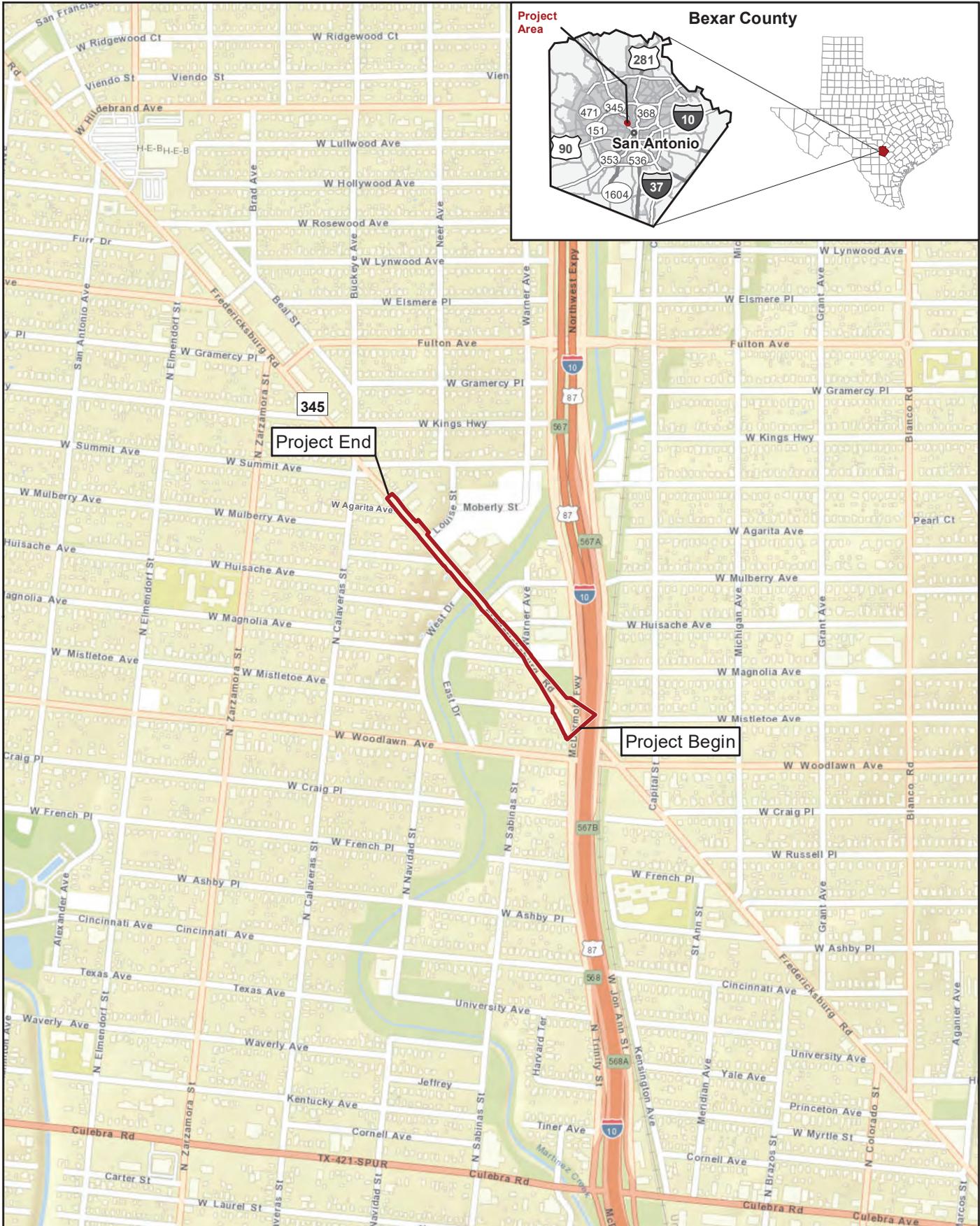
Parcel ID: Multiple

Address: SEE PROPOSED BOUNDRIES BELOW

Detail of advertisement showing the location of the addition and parkway, *San Antonio Light*, November 1, 1921, 22.



## Appendix D: Figures

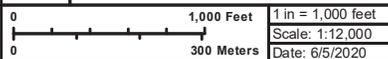


**Figure 1.**  
**Project Location (Road Base)**

 Project Location



CSJ: 0915-12-579



Loop 345 (Fredericksburg Road) from I-10 to W. Agarita Avenue

Basemap Source: Esri (2020)





**Figure 3.**  
**Parcels Intersecting the APE**

- Existing Right-of-Way
- Proposed Permanent Easement
- Temporary Construction Easement
- Proposed Sidewalk
- Parcel Boundary
- Parcel Intersecting APE
- APE (Adjacent Parcels)

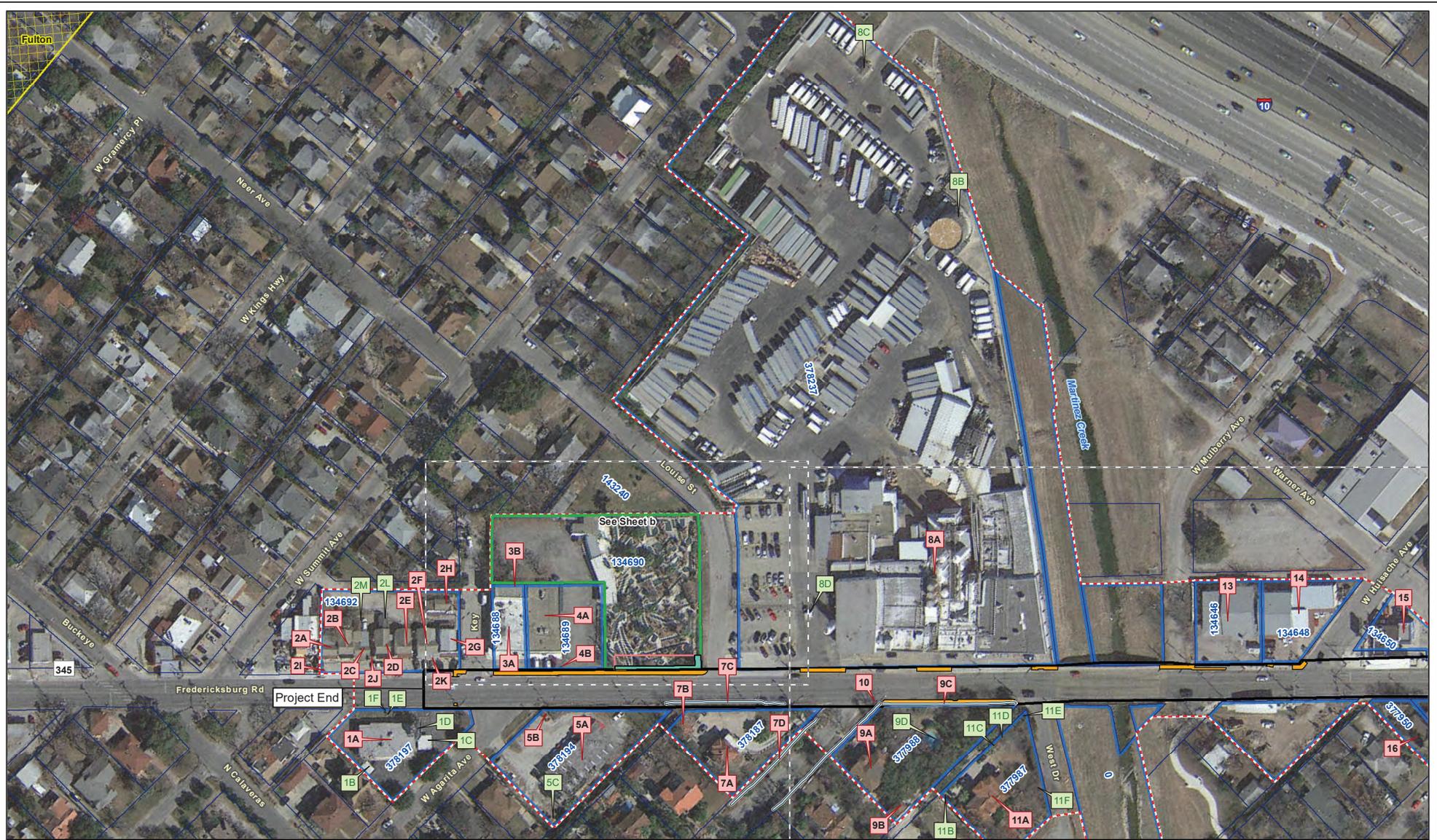
Loop 345 (Fredericksburg Road) from I-10 to W. Agarita Avenue

G:\Projects\Cities\SanAntonio\Fredericksburg\_Rd\_110\_to\_W\_Agarita\FredericksburgRd\_Hist\_Figure 3\_Parcels Intersecting the APE\_20201105\_SGL.mxd

CSJ: 0915-12-579

	200 Feet 1 in = 200 feet
	Scale: 1:2,400
60 Meters	Date: 11/16/2020

Data Source: BCAD (2019)  
 Aerial Source: City of San Antonio (2019)



**Figure 4a.**  
**Survey Results**  
 Loop 345 (Fredericksburg Road)  
 from I-10 to W. Agarita Avenue

- |                                 |                             |                             |                            |                            |
|---------------------------------|-----------------------------|-----------------------------|----------------------------|----------------------------|
| Existing Right-of-Way           | Proposed Sidewalk           | Parcel Boundary             | Sheet Limits               | <b>Documented Resource</b> |
| Proposed Permanent Easement     | CoSA Historic Landmark Site | APE (Adjacent Parcels)      | Documented Linear Resource | Historic-age               |
| Temporary Construction Easement | CoSA Historic District      | Parcel Intersecting the APE |                            | Not Historic-age           |

Data Sources: CMEC (2020),  
 THC (2020), CoSA (2018, 2020),  
 TxDOT (2020), BCAD (2019)  
 Aerial Source: City of San Antonio (2019)



CSJ: 0915-12-579

0 130 Feet  
 0 30 Meters

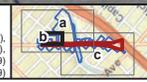
1 in = 130 Feet  
 Scale: 1:1,550  
 Date: 11/16/2020



**Figure 4b.**  
**Survey Results**  
 Loop 345 (Fredericksburg Road)  
 from I-10 to W. Agarita Avenue

- |                                 |                             |                             |                            |
|---------------------------------|-----------------------------|-----------------------------|----------------------------|
| Existing Right-of-Way           | Proposed Sidewalk           | APE (Adjacent Parcels)      | <b>Documented Resource</b> |
| Proposed Permanent Easement     | CoSA Historic Landmark Site | Parcel Intersecting the APE | Historic-age               |
| Temporary Construction Easement | Parcel Boundary             | Sheet Limits                | Not Historic-age           |

Data Sources: CMEC (2020),  
 THC (2020), CoSA (2018, 2020),  
 TxDOT (2020), BCAD (2019)  
 Aerial Source: City of San Antonio (2019)



CSJ: 0915-12-579

0 36 Feet 1 in = 36 feet  
 0 10 Meters Scale: 1:420  
 Date: 11/16/2020

G:\Projects\CityofSanAntonio\Fredericksburg\_Rd\_110\_to\_W\_Agarita\FredericksburgRd\_Hist\_Figure 4b\_Survey Results\_20201105\_SGL.mxd



**Figure 4c.**  
**Survey Results**  
 Loop 345 (Fredericksburg Road)  
 from I-10 to W. Agarita Avenue

- |                             |                             |                            |                            |
|-----------------------------|-----------------------------|----------------------------|----------------------------|
| Existing Right-of-Way       | Parcel Boundary             | Sheet Limits               | <b>Documented Resource</b> |
| Proposed Sidewalk           | APE (Adjacent Parcels)      | Documented Linear Resource | Historic-age               |
| CoSA Historic Landmark Site | Parcel Intersecting the APE |                            | Not Historic-age           |

Data Sources: CMEC (2020),  
 THC (2020), CoSA (2018, 2020),  
 TxDOT (2020), BCAD (2019)  
 Aerial Source: City of San Antonio (2019)



CSJ: 0915-12-579

0 130 Feet  
 0 30 Meters

1 in. = 130 feet  
 Scale: 1:130  
 Date: 11/16/2020



Note: Properties in the provisional NRHP boundary but outside the APE were not assigned a recommended contributing/noncontributing status.

**Figure 5. Woodlawn Place Provisional NHRP District Boundary**

Loop 345 (Fredericksburg Road) from I-10 to W. Agarita Avenue

	Existing Right-of-Way
	Proposed Permanent Easement
	Temporary Construction Easement
	Proposed Sidewalk
	Parcel Boundary
	Provisional NRHP District Boundary
<b>Documented Resource</b>	
	Contributing
	Noncontributing

Data Sources:  
 CMFC (20020), BCAD (2019)  
 Aerial Source: Google (2019)

CSJ: 0915-12-579

1 in = 250 feet  
 Scale: 1:3,000  
 Date: 11/16/2020



**Figure 6. Resource 6 (Cool Crest Miniature Golf)  
Recommended NHRP Boundary**

Loop 345 (Fredericksburg Road) from I-10 to W. Agartia Avenue

City of San Antonio, Fredericksburg Rd, I10 To W Agartia Fredericksburg Rd, H14, Figure 6, NHRP Recommended Cool Crest Property, 2021106.mxd

	Existing Right-of-Way		<b>Documented Resource</b>
	Proposed Permanent Easement		Contributing Building
	Temporary Construction Easement		Contributing Element
	Proposed Sidewalk		Contributing Sign
	Parcel Boundary		Noncontributing
	APE (Adjacent Parcels)		c. 1930 Course (6A1)
	Recommended NHRP Boundary		c. 1959 Course (6A2)

Data Sources:

CMEC (20020), BCAD (2019)  
Aerial Source: City of San Antonio (2019)



CSJ: 0915-12-579

36 Feet 1 in = 36 feet  
Scale: 1:420  
Date: 11/16/2020

0 10 Meters

## Appendix E: Plans (in ECOS) and Drawings

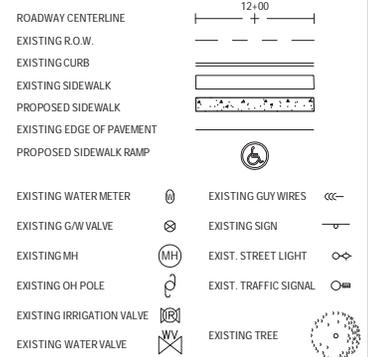
QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0104 001	REMOVING CONC DRIVEWAYS	S.Y.	13
0104 002	REMOVING CONC CURBS	L.F.	130
0104 003	REMOVING CONC SIDEWALKS OR RAMPS	S.Y.	54
0105 001	REMOVING STAB BASE AND ASPHALT (12'-6")	S.Y.	45
0105 002	FURNISHING AND PLACING TOPSOIL (4")	S.Y.	45
0110 001	BLOCK SCHEDING	S.Y.	43
0166 001	VEGETATIVE FILTER	A.C.	002
0168 001	VEGETATIVE WATERING	K.G.	6
0321 002	FLEXIBLE PAVEMENT STRUCTURE REPAIR (2")	S.Y.	162

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0519 001	CONC CURB (1")	L.F.	150
0520 001	DRIVEWAYS (CONC)	S.Y.	70
0521 001	CONC SIDEWALKS (4")	S.Y.	282
0521 002	CONC SIDEWALKS (6")	S.Y.	243
0711 001	CURB RAMPS (12'x6")	E.A.	3
0716 001	ALUMINUM SIGNS (12'x42")	S.F.	8
0842 002	IN-SLURRY SUP&AM™ (150W:1)SBT	E.A.	1
SAWS 833	EXISTING MET'ER & METER BOX RELOCATION	E.A.	1

**CAUTION!!!**

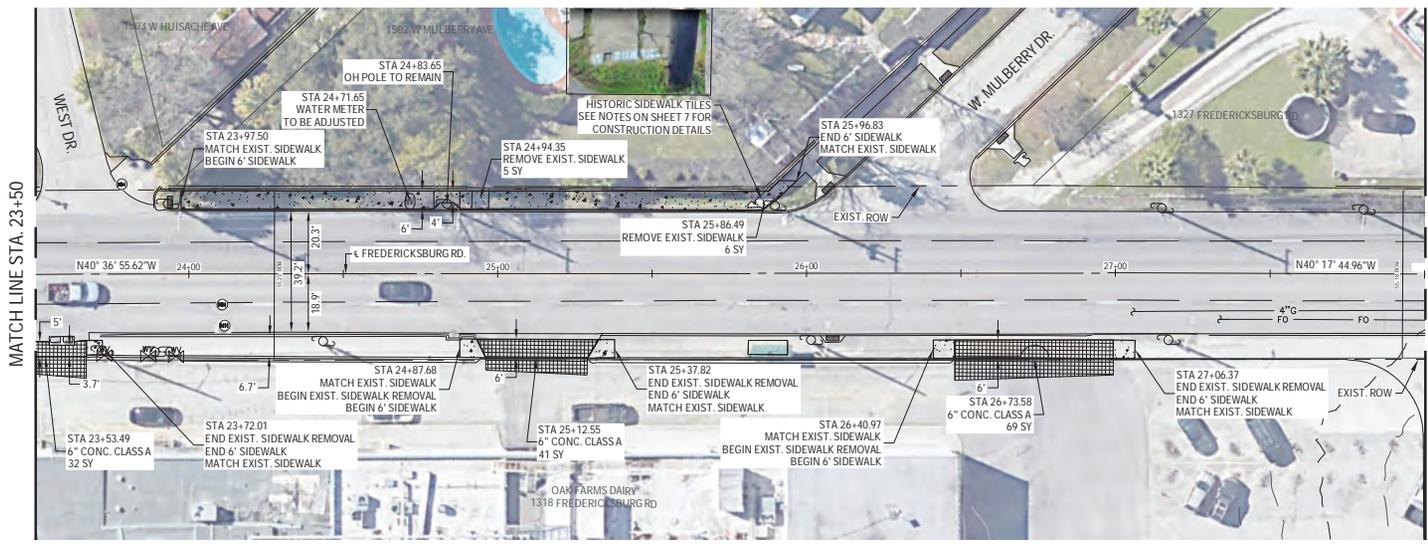
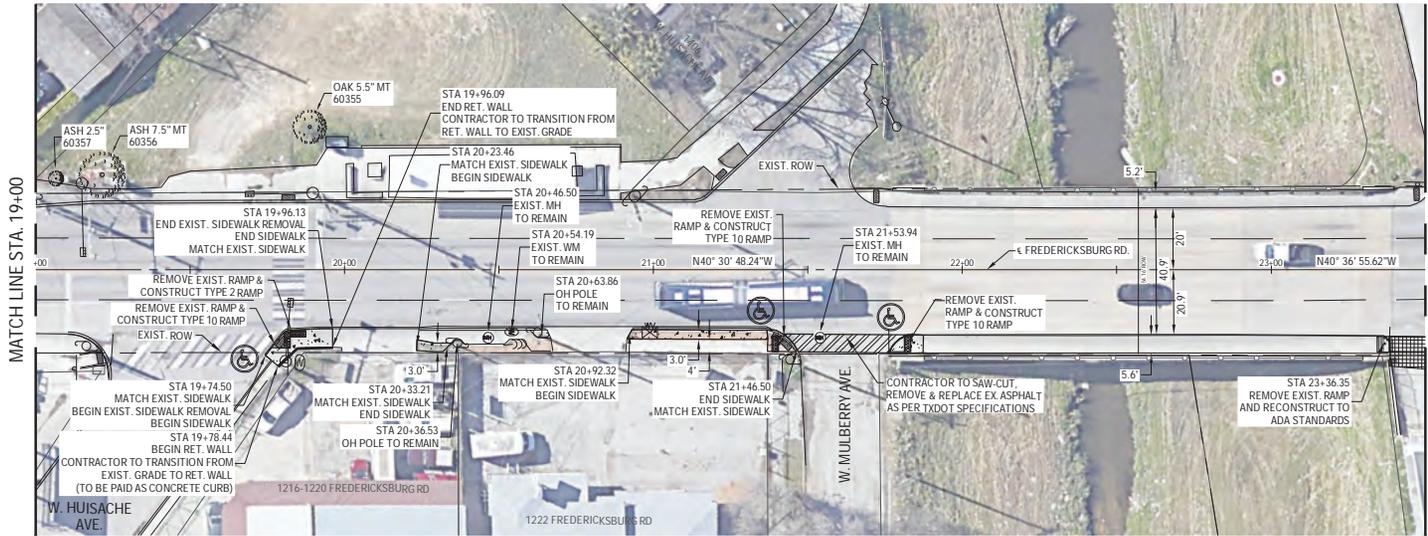
THE CONTRACTOR SHALL BE AWARE THAT WATER, GAS, AND FIBER OPTIC CABLE EXIST WITHIN THE LIMITS OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EX. FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

**LEGEND**



\* = CONTRACTOR TO INSTALL TREE PROTECTION (TYPE II B) - 5 L.F. NOTES:

- CONTRACTOR IS REQUIRED TO INSTALL SW3P MEASURES IN ACCORDANCE WITH TPDES AND CITY OF SAN ANTONIO STANDARDS AS DIRECTED BY THE PROJECT ENGINEER AND/OR CITY OF SAN ANTONIO STAFF.
- REFERENCE SIDEWALK DETAILS SHEET 8 OF 36 FOR TYPICAL SIDEWALK SECTIONS AND DETAILS USED FOR ALIGNMENT CONFLICTS WITH EXISTING TREES, UTILITIES, AND/OR OTHER STRUCTURES.
- CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.
- WHERE EXISTING DRIVEWAY SLOPES EXCEED 2%, CONTRACTOR SHALL FIELD COORDINATE DRIVEWAY TIE-INS TO PROPOSED SIDEWALK WITH CoSA INSPECTOR.
- CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.



THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW ONLY UNDER THE AUTHORITY OF W. PATRICK MURPHY, P.E. #111597

**01/15/2021**

IT IS NOT TO BE USED FOR CONSTRUCTION BIDDING OR PERMITTING PURPOSES



**CUDE ENGINEERS**  
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 P: (210) 681-2951 F: (210) 523-7112  
 TBPE No. 455 • TBPLS No. 10048500

**CITY OF SAN ANTONIO**  
 TRANSPORTATION & CAPITAL IMPROVEMENTS  
 (TCD DEPARTMENT)

Texas Department of Transportation

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)

**FREDERICKSBURG RD. SIDEWALK LAYOUT 19+00.00 TO 28+00.00**

DESIGNED: MJS/WPM	REV. NO.	STATE	FEDERAL AID PROJECT NO.	ACCOMMODATING
CHECKED: WPM	6	TEXAS	STP ( ) JMM	FM LOOP 345
DRAWN: MJS	STATE	COUNTY	CONTROL SECTION	TOR. NO.
CHECKED: WPM	SAN	BEXAR	0915 15	579

PROJECT: C:\WORK\PROJECTS\2020\FREDERICKSBURG RD. SIDEWALK LAYOUT.dwg DATE: 01/15/21 11:02 AM

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0104 6010	REMOVING CONC. 'RIF-RAP'	S.Y.	2
0104 6017	REMOVING CONC. 'DRIVEWAYS'	S.Y.	123
0104 6017	REMOVING CONC. 'CURB'	L.F.	86
0104 6024	REMOVING CONC. 'RETAINING WALLS'	S.Y.	13
0104 6035	REMOVING CONC. 'SIDEWALKS OR RAMPS'	S.Y.	43
0105 6011	REMOVING STAB BASE AND ASPH PAV (2" - 4")	S.Y.	130
0110 6001	EXCAVATION (ROADWAY)	C.Y.	76
0102 6000	FURNISHING AND PLACING 'COMPOIL' (4")	S.Y.	5
0102 6002	BLOCK SCODDING	S.Y.	5
0104 6001	SOIL NAIL ANCHORS	L.F.	1044
0102 6022	RETAINING WALL (SOIL NAIL) (MCA)	S.F.	2017

QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
0532 6001	RIFRAP (CONC) (FLUKA)	C.Y.	11
0529 6001	CONC. CURB (1' H)	L.F.	94
0530 6001	DRIVEWAYS (CONC)	S.Y.	89
0531 6001	CONC. SIDEWALKS (4")	S.Y.	138
0531 6003	CONC. SIDEWALKS (6")	S.Y.	24
0531 6005	CURBRAMP'S (1' X 2')	L.A.	7
0540 6001	CHAIN LINK FENCE (HFM/UVF)	L.F.	133
0556 6008	PIPE (UNDIRIGIBLE) (19.5")	L.F.	135
5113 6001	OROLUSH - IRON #4 (19.5")	L.F.	133
0504 6021	PILE (P) - SECTION (1' X 1' B)	L.F.	35

\* NOTE: BID PRICE OF RETAINING WALL TO INCLUDE REMOVAL, CRIBBING, TRANSPORTATION, STORAGE AND REINSTALLATION OF BOTH COOLCREST GOLF SIGNS

**NOTE:**

IT IS THE INTENT OF THIS PROJECT TO NOT IMPACT GOLF HOLES, TREES, OR OTHER ABOVE GROUND FEATURES LOCATED WITHIN THE PROPERTY OWNED BY COOL CREST MINI-GOLF. CONTRACTOR WILL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN ANTONIO AND TxDOT PRIOR TO CONSTRUCTION INITIATION TO DISCUSS THE MEANS AND METHODS TO INSURE THIS GOAL IS MET. SHOULD ANY CONSTRUCTION ACTIVITIES IMPACT GOLF HOLES, AMENITIES, TREES, OR ANY OTHER ABOVE GROUND FEATURES LOCATED WITHIN THE PROPERTY OWNED BY COOL CREST MINI-GOLF, ALL WORK WITHIN THE VICINITY OF THE IMPACT MUST CEASE IMMEDIATELY AND THE CONTRACTOR SHALL NOTIFY THE CITY OF SAN ANTONIO INSPECTOR IMMEDIATELY REGARDING THE IMPACT.

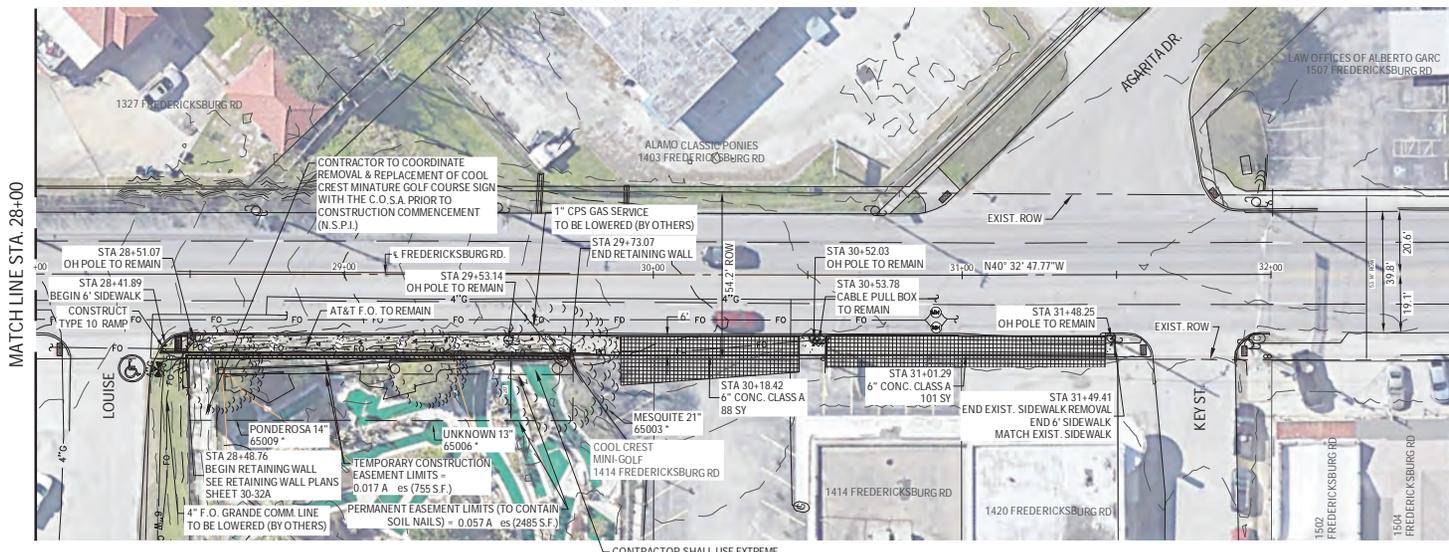


**LEGEND**

- ROADWAY CENTERLINE
  - EXISTING R.O.W.
  - EXISTING CURB
  - EXISTING SIDEWALK
  - PROPOSED SIDEWALK
  - PROPOSED EASEMENT
  - EXISTING EDGE OF PAVEMENT
  - PROPOSED SIDEWALK RAMP
  - EXISTING WATER METER
  - EXISTING GUY WIRES
  - EXISTING G/W VALVE
  - EXISTING SIGN
  - EXISTING MH
  - EXIST. STREET LIGHT
  - EXISTING OH POLE
  - EXIST. TRAFFIC SIGNAL
  - EXISTING IRRIGATION VALVE
  - EXISTING TREE
- \* = CONTRACTOR TO INSTALL TREE PROTECTION (TYPE II B) - 5 L.F.

**NOTES:**

- 1) CONTRACTOR IS REQUIRED TO INSTALL SW3P MEASURES IN ACCORDANCE WITH TPDES AND CITY OF SAN ANTONIO STANDARDS AS DIRECTED BY THE PROJECT ENGINEER AND/OR CITY OF SAN ANTONIO STAFF.
- 2) REFERENCE SIDEWALK DETAILS SHEET 8 OF 36 FOR TYPICAL SIDEWALK SECTIONS AND DETAILS TO AVOID ALIGNMENT CONFLICTS WITH EXISTING TREES, UTILITIES, AND/OR OTHER STRUCTURES.
- 3) CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.
- 4) WHERE EXISTING DRIVEWAY SLOPES EXCEED 2%, CONTRACTOR SHALL FIELD COORDINATE DRIVEWAY TIE-INS TO PROPOSED SIDEWALK WITH COSA INSPECTOR.
- 5) CONTRACTOR TO GRADE THE REMAINING PORTION OF THE PARKWAY AT 2.0% (MAX) SLOPE WHERE APPLICABLE. CONTRACTOR IS TO FIELD COORDINATE PARKWAY GRADING IN ALL LOCATIONS WHERE A 2% (MAX) SLOPE PARKWAY IS NOT ACHIEVABLE.



**HISTORIC PRESERVATION NOTES**

KEY NOTES FOR HISTORIC SIDEWALK TILES - MARKED WITH A PHOTO

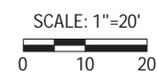
1. CONTRACTOR SHALL SAWCUT ONE (1) FOOT AROUND TILES AND REMOVE BY HAND THE SIDEWALK BETWEEN THE SAWCUT AND THE TILE.
2. IF POSSIBLE, TILES SHALL REMAIN IN PLACE (AFTER STEP 1 IS COMPLETED) AND NEW CONCRETE SHALL BE POURED AROUND THEM.
3. IF TILES MUST BE MOVED TEMPORARILY (I.E. GRADING), THEY MUST BE RETURNED TO EXACT LOCATION BEFORE NEW CONCRETE POUR. CONTRACTOR SHALL MOVE TILE WITH THE UTMOST CARE AND SAFELY STORE THEM UNTIL THEY ARE RESTORED TO THEIR EXACT LOCATION AND ALIGNMENT.
4. IF A TILE EXISTS IN PIECES AND CAN BE WHOLLY REASSEMBLED, CONTRACTOR SHALL FOLLOW STEPS 1 AND 3. WHEN TILE IS RESTORED TO ITS ORIGINAL LOCATION, CONTRACTOR SHALL REASSEMBLE AND SET THE TILE PIECES.
5. IF TILE IS MISSING, A REPLACEMENT TILE WILL BE SUPPLIED BY COSA EMD.
6. WHEN POURING CONCRETE FOR RE-INSTALLATION OF TILES AND NEW SIDEWALK, CONTRACTOR SHALL PREVENT SPLASHBACK OF CONCRETE ONTO THE TILES.

**GENERAL NOTES FOR ABOVE-GROUND HISTORIC RESOURCES AND HISTORIC SIDEWALK ELEMENTS**

1. CONTRACTOR IS RESPONSIBLE FOR PREVENTING DAMAGE (INCLUDING CONCRETE SPLASHBACK) TO HISTORIC ABOVE-GROUND RESOURCES (BUILDINGS, BRIDGES, RETAINING WALLS, FREESTANDING WALLS, STAIRS, RAILINGS, FENCES, CANOPIES, ETC) AND HISTORIC SIDEWALK ELEMENTS DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
2. CONTRACTOR SHALL EXERCISE CAUTION AND SHALL PHYSICALLY PROTECT HISTORIC ABOVE-GROUND RESOURCES (ALL PARTS, INCLUDING STAIRWAYS) AND HISTORIC SIDEWALK ELEMENTS DESIGNATED IN THE PLANS. IF A HISTORIC RESOURCE IS FOUND THAT IS NOT IN THE PLANS OR HAS NOT BEEN PREVIOUSLY ASSESSED, CONTACT COSA EMD IMMEDIATELY - (210) 207-1454.
3. CONTRACTOR SHALL REPAIR OR REPLACE IN KIND (AT THEIR OWN EXPENSE) ANY HISTORIC ABOVE-GROUND RESOURCE OR HISTORIC SIDEWALK ELEMENT DAMAGED IN THE COURSE OF EXECUTING THE WORK. CONTRACTOR IS RESPONSIBLE FOR LOCATING THE SAME OR COMPARABLE SALVAGED HISTORIC MATERIALS TO RECTIFY THE DAMAGE. COSA EMD STAFF MUST BE NOTIFIED IMMEDIATELY OF THE DAMAGE AND APPROVE THE PROPOSED REPAIRS AND REPLACEMENT MATERIALS PRIOR TO EXECUTION OF ANY WORK. THIS INCLUDES ALL HISTORIC CONCRETE STRUCTURES. IF ANY HISTORIC CONCRETE THAT IS DAMAGED MUST BE REPLACED IN KIND AND INCLUDE ANY UNIQUE FEATURES, SHAPES, AND/OR FINISHES PRESENT IN THE ORIGINAL FORM.
4. PLEASE CONTACT COSA EMD WITH ANY QUESTIONS - (210) 207-1454.



**SIGN LOCATION DETAIL**



**CAUTION!!!**

THE CONTRACTOR SHALL BE AWARE THAT WATER, GAS, AND FIBER OPTIC CABLE EXIST WITHIN THE LIMITS OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DUE TO THESE EX. FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

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**CITY OF SAN ANTONIO**  
**TRANSPORTATION & CAPITAL IMPROVEMENTS**  
**(TCD DEPARTMENT)**

TEXAS Department of Transportation

FREDERICKSBURG RD. (I-10 TO W. AGARITA AVE.)  
**FREDERICKSBURG RD. SIDEWALK**  
**LAYOUT 28+00.00 TO 32+00.00**

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**01/15/2021**

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DESIGNED: MJS/WPM	SDS DIV NO:	STATE:	FEDERAL AID PROJECT NO.:	MODIFICATION:
CHECKED: WPM	6	TEXAS		FM LOOP 345
DRAWN: MJS	STATE:	COUNTY:	CONTROL SECTION:	TOR. NO. SHEET NO.
CHECKED: WPM	SAN	BEXAR	0915 15	579 7 OF 36

# COOL CREST SIGN DECONSTRUCTION AND NEW FOUNDATION

**PROJECT LOCATION:**

**COOL CREST MINIATURE GOLF COURSE**  
1402 Fredricksburg Road  
San Antonio, TX 78201

**CLIENT:**

**CUDE ENGINEERS**  
4122 Pond Hill Road, Suite 101  
San Antonio, TX 78231

**CONSULTING ENGINEER:**

**WISS, JANNEY, ELSTNER ASSOCIATES, INC.**  
1344 South Flores St., Suite 201  
San Antonio, Texas 78204  
210.826.4200 tel | 512.219.9883 fax  
**TEXAS REGISTERED ENGINEERING FIRM F-0093**



DRAWING SHEET INDEX	
Sheet Number	Sheet Title
S1.0	COVER SHEET & DRAWING SHEET INDEX
S1.1	GENERAL NOTES
S1.2	STRUCTURAL NOTES
S1.3	STRUCTURAL NOTES (CONTINUED)
S1.4	STRUCTURAL NOTES (CONTINUED)
S1.5	STRUCTURAL NOTES (CONTINUED)
S1.6	STRUCTURAL NOTES (CONTINUED)
S2.0	MAIN AND PUTTER SIGN PROJECT AREA PLAN
S3.0	EXISTING MAIN SIGN
S3.1	EXISTING MAIN SIGN FACES
S3.2	EXISTING MAIN SIGN FRAME MEMBERS
S3.3	EXISTING MAIN SIGN POSTS
S4.0	MAIN SIGN FOUNDATION PLAN
S4.1	MAIN SIGN CONNECTIONS TO NEW POSTS
S5.0	PUTTER SIGN

**WJE** ENGINEERS  
ARCHITECTS  
MATERIALS SCIENTISTS

Wiss, Janney, Elstner Associates, Inc.  
1344 South Flores St., Suite 201  
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210.826.4200 tel | 512.219.9883 fax  
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**CITY OF SAN ANTONIO**  
PUBLIC WORKS  
DEPARTMENT

*Texas Department of Transportation*

COVER SHEET &  
DRAWING SHEET INDEX

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC		TEXAS	FM LOOP 345	
DRAWN: T.J.H.	STATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	S1.0

PROJECT LOCATION: 1402 FREDRICKSBURG ROAD, SAN ANTONIO, TEXAS 78201

**GENERAL PROJECT NOTES**

**SCOPE OF PROJECT**

THE SCOPE OF WORK IS DEFINED BY THE CONTRACT DRAWINGS AND INCLUDES ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO ACCOMPLISH THE WORK. IN GENERAL, THE SCOPE OF WORK INCLUDES:

1. REMOVE COOL CREST MAIN SIGN AND STORE TEMPORARILY IN A SAFE LOCATION (REFERENCE NOTES ON SHEET S1.5 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE).
2. DEMOLISH EXISTING COOL CREST SIGN POSTS.
3. INSTALL NEW COOL CREST SIGN FOUNDATIONS CONSISTING OF HELICAL PILES, CONCRETE PILE CAP, AND NEW STEEL POSTS.
4. ATTACH COOL CREST SIGN TO NEW FOUNDATION AND POSTS.
5. REMOVE PUTTER SIGN, STORE TEMPORARILY IN SAFE LOCATION, AND REINSTALL ON NEW CONCRETE FOUNDATION (REFERENCE NOTES ON SHEET S1.5 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE).

**CODE COMPLIANCE**

1. ALL WORK PERFORMED SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE, FEDERAL, AND LOCAL CODES, ORDINANCES, AND LAWS, INCLUDING THE GOVERNING CODES AS ADOPTED BY THE CITY OF SAN ANTONIO, TEXAS.

**COORDINATION**

1. THE CONTRACTOR SHALL COORDINATE WORK BETWEEN ALL TRADES AND BRING ANY CONFLICTS TO THE ENGINEER'S ATTENTION PRIOR TO THE WORK BEING PERFORMED. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS FOR CORRECTIONS ASSOCIATED WITH THE CONTRACTOR'S FAILURE TO PROPERLY COORDINATE THE WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DISCONNECTION AND RECONNECTION OF ELECTRICAL FEEDS TO SIGNS WITH LICENSED AND INSURED ELECTRICIAN AS PART OF THE CONTRACTOR'S SCOPE OF WORK.

**FAMILIARITY WITH CONDITIONS**

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS RELATING TO THE CONSTRUCTION, LABOR, FACILITIES INVOLVED, DIFFICULTIES, RESTRICTIONS, AND THE LOGICAL EXTENSIONS OF THE SCOPE ATTENDING THE PERFORMANCE OF THE CONTRACT.
2. THE CONTRACTOR SHALL THOROUGHLY EXAMINE AND BECOME FAMILIAR WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL IN NO WAY BE RELIEVED OF ANY OBLIGATION UNDER THE CONTRACT BECAUSE OF THE CONTRACTOR'S FAILURE TO RECEIVE OR EXAMINE ANY REQUIRED FORMS AND LEGAL DOCUMENTS, OR VISIT THE SITE AND BECOME FULLY INFORMED OF ANY AND ALL CONDITIONS AND REQUIREMENTS THAT MAY IN ANY MANNER AFFECT THE WORK TO BE PERFORMED.

**EXISTING CONDITIONS**

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND FIELD MEASUREMENTS AND VERIFICATION WILL BE REQUIRED TO COMPLETE THE WORK. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE WITH, AND MATCH NEW CONSTRUCTION TO EXISTING CONDITIONS.

2. SOME INFORMATION SHOWN IN THE DRAWINGS, IN REGARDS TO EXISTING FEATURES, IS NECESSARILY CONJECTURAL DUE TO HIDDEN CONDITIONS AT THE TIME OF PREPARATION. IF CONDITIONS EXIST THAT DIFFER FROM THE DRAWINGS, OR ARE NOT ADEQUATELY DETAILED, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION FROM THE ENGINEER.

**TEMPORARY FACILITIES**

1. COORDINATE LOCATION AND PLACEMENT OF FIELD OFFICE, STAGING AREAS, MATERIAL STORAGE, PORTABLE TOILETS, DUMPSTERS, AND ANY OTHER FACILITIES REQUIRED FOR CONSTRUCTION WITH THE ENGINEER AND OWNER PRIOR TO CONSTRUCTION.

**SAFETY**

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR THEIR MEANS AND METHODS OF CONSTRUCTION, AND SHALL PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY, AND SHALL ENSURE THEIR COMPLIANCE WITH OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION. SAFETY MEASURES INCLUDE, BUT ARE NOT LIMITED TO ADEQUATE FALL PROTECTION, ERECTION BRACING, BARRICADES, FENCING, SIGNS, FIRST-AID STATIONS, ETC.
3. PEDESTRIAN PROTECTION REQUIREMENTS: PROVIDE BARRICADES AND/OR CAUTION TAPE AT POINTS ALONG SIDEWALKS TO PREVENT PEDESTRIANS FROM ACCESSING PROJECT AREA. COORDINATE ACCESS REQUIREMENTS WITH OWNER. BARRICADES SHALL MEET OR EXCEED THE APPLICABLE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION.

**PROTECTION OF BUILDING & SITE**

1. CONTRACTOR SHALL PROTECT ALL EXISTING TREES, LANDSCAPING, SITE LIGHTING, SIDEWALKS, AND SITE FEATURES FROM DAMAGE FOR THE DURATION OF THE PROJECT. IF DAMAGED DURING THE COURSE OF WORK, THE CONTRACTOR SHALL REPAIR THE DAMAGED AREAS TO PRE-CONSTRUCTION CONDITION PRIOR TO THE COMPLETION OF THE PROJECT AT NO EXPENSE TO THE OWNER.
2. DO NOT PLACE LOADS ON THE STRUCTURE IN A MANNER THAT WILL ENDANGER IT.

**SITE MAINTENANCE**

1. CONTRACTOR SHALL PERFORM SITE CLEAN UP ON A REGULAR BASIS, AND MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER.
2. AREAS THAT ARE NOT DIRECTLY UNDER CONSTRUCTION THAT ARE USED AS PATHWAYS TO TRANSPORT MATERIALS, OR TO REMOVE TRASH, ARE TO BE KEPT CLEAN AT ALL TIMES. THIS MAINTENANCE INCLUDES, BUT NOT LIMITED TO DUSTING, SWEEPING, MOPPING, AND PICKING UP TRASH AS REQUIRED TO KEEP THE AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH.

**QUALITY ASSURANCE**

1. WHERE APPLICABLE, THE CONTRACTOR SHALL BE A LICENSED APPLICATOR OR INSTALLER OF ALL SPECIFIED PROPRIETARY PRODUCTS AND MATERIALS.
2. THE PRESENCE OF THE ENGINEER OR TESTING AGENCY AT THE JOBSITE DOES NOT RELIEVE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.



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**CITY OF SAN ANTONIO**  
 PUBLIC WORKS DEPARTMENT  
  
 Texas Department of Transportation

**GENERAL NOTES**

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC		TEXAS		FM LOOP 345
DRAWN: T.J.H.	STATE DISTRICT	COUNTY	CONTROL SECTION NO.	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	S1.1

**STRUCTURAL NOTES**

**CODES**

THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES:

1. THE INTERNATIONAL BUILDING CODE, 2018 EDITION.
2. STRUCTURAL CONCRETE: BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AND AMERICAN CONCRETE INSTITUTE, ACI 318-14.
3. STRUCTURAL STEEL: CODE OF STANDARD PRACTICE, AND SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (2016).
4. ALL CODES AND SPECIFICATIONS LISTED ABOVE SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATES OF THE CONTRACT DOCUMENTS. WHERE CONFLICT EXISTS BETWEEN THE VARIOUS PUBLICATIONS AS SPECIFIED HEREIN, THE STRICTEST REQUIREMENTS OF THE VARIOUS PUBLICATIONS SHALL GOVERN UNLESS NOTED OTHERWISE. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE CONTRACT DOCUMENTS, DRAWINGS, NOTES, SPECIFICATIONS, THE STRICTEST REQUIREMENTS SHALL GOVERN.

**DESIGN LOADS**

1. DEAD LOADS INCLUDE THE SELF-WEIGHT OF THE STRUCTURAL AND ARCHITECTURAL ELEMENTS. ANY CHANGES FROM THE CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE GENERAL CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF THE LOAD CARRYING CAPACITY OF THE STRUCTURE.
2. WIND DESIGN DATA:  

BASIC DESIGN WIND SPEED, V	100 MPH
ALLOWABLE STRESS DESIGN WIND SPEED, V <sub>ASD</sub>	78 MPH
RISK CATEGORY	I
EXPOSURE CATEGORY	B

**COORDINATION**

1. THE DETAILS OR NOTES DESIGNATED AS "TYPICAL" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED AS TYPICAL.
2. ANY SUBSTITUTIONS CAUSING OR REQUIRING CHANGES TO THE STRUCTURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE.
3. ANY REQUIRED CHANGES TO THE STRUCTURAL DRAWINGS DUE TO THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
4. IF CONDITIONS EXIST THAT ARE NOT ADEQUATELY DETAILED, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION FROM THE ENGINEER.

**CONCRETE REINFORCEMENT**

1. REINFORCING STEEL SHALL BE DEFORMED NEW BILLET STEEL BARS IN ACCORDANCE WITH ASTM SPECIFICATIONS A615 GRADE 60.
2. DETAILING OF REINFORCING STEEL AND SUPPRORTS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL AND ACI 315-18 "GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS."
3. THE WELDING OF REINFORCEMENT STEEL WILL NOT BE PERMITTED.
4. HEAT SHALL NOT BE USED IN THE FABRICATION OR INSTALLATION OF

REINFORCEMENT, EXCEPT IN CUTTING STRAIGHT BARS TO LENGTH.

5. REINFORCING BARS SHALL BE SUPPORTED ON PRECAST CONCRETE BLOCKS AT 1'-0" O.C. OR BAR CHAIRS WITH SHEET METAL OR PLASTIC BASES AT 1'-0" O.C.
6. SEE TESTING AND INSPECTION REQUIREMENT FOR REQUIRED TESTS AND INSPECTIONS.

**CAST-IN-PLACE CONCRETE**

1. CONCRETE WILL BE NORMAL WEIGHT CONCRETE.
2. READY-MIXED CONCRETE SHALL BE BATCHED, MIXED AND TRASPORTED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF ACI 211.
3. ALL CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
4. READY MIX CONCRETE MATERIALS
  - A. PORTLAND CEMENT: ASTM C150, TYPE II
  - B. FLY ASH: ASTM C618, CLASS F AND CLASS C.
  - C. CALCIUM CHLORIDE SHALL NOT BE PERMITTED IN THE CONCRETE AS AN INTENTIONAL ADDITIVE.
  - D. FINE AND COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 AND SHALL CONSIST OF NATURAL OR MANUFACTURED SAND AND GRAVEL OR CRUSHED STONE. AGGREGATE PARTICLES SHALL BE CLEAN, HARD, TOUGH, DURABLE, OF UNIFORM QUALITY, AND FREE FROM SOFT, THIN ELONGATED PIECES, DISINTEGRATED STONE, DIRT, ORGANIC, OR OTHER INJURIOUS MATERIALS OCCURRING IN EITHER FREE OR AS COATING. AGGREGATES MUST BE SUPPLIED FROM A SOURCE APPROVED BY THE ENGINEER, AND SHALL NOT CONTAIN CHLORIDES. AGGREGATE GRADATION SHALL CONFORM TO ASTM C33. CONCRETE AGGREGATES SHALL BE DEEMED NON-REACTIVE OR MITIGATED ACCORDINGLY. MAXIMUM COARSE AGGREGATE SIZE WILL BE 1" WITH GRADING SIZE NUMBER 5.
  - E. MIXING WATER SHALL BE CLEAN AND FREE OF INJURIOUS QUANTITIES OF SUBSTANCES KNOWN TO BE HARMFUL TO PORTLAND CEMENT.
5. THE MAXIMUM CONCRETE TEMPERATURE SHALL NOT EXCEED 90° FAHRENHEIT AT THE POINT OF DELIVERY/DISCHARGE.
6. WATER-CEMENT RATIO SHALL NOT BE LESS THAN 0.37 OR GREATER THAN 0.42.
7. CEMENTITIOUS MATERIALS CONTENT SHALL BE AS FOLLOWS: MINIMUM CEMENT CONTENT 5 SACKS (470 LBS.) PER CUBIC YARD. FLY ASH REPLACEMENT, 20% +/- 5% OF VOLUME OF PORTLAND CEMENT PLUS FLY ASH. AND AS REQUIRED FOR MITIGATION OF ASR OF EACH AGGREGATE WHEN TESTED PER ASTM C1567 AS APPLICABLE.
8. THE SPECIFIED SLUMP SHALL APPLY AT THE TIME WHEN THE CONCRETE IS DISCHARGED AT THE JOB SITE. IN ALL CASES, THE CONCRETE SLUMP SHALL NOT EXCEED THAT SPECIFIED. IF HIGHER SLUMPS ARE REQUIRED FOR PROPER CONCRETE PLACEMENT AND CONSOLIDATION, SUCH SLUMPS SHALL BE ACHIEVED THROUGH THE USE OF HIGH-RANGE WATER REDUCERS (SUPERPLASTICIZERS), AND SLUMP MEASUREMENTS SHALL BE MADE PRIOR TO ANY ADDITION OF SUPERPLASTICIZER. THE SLUMP SHALL BE SUCH THAT THE FINISHED SURFACE REMAINS STRAIGHT, WITHOUT SAGGING OR BULGING DUE TO GRAVITY ON THE ELASTIC MIX.
9. NO CHLORIDES SHALL BE INTENTIONALLY INTRODUCED INTO THE CONCRETE MIX.
10. ADMIXTURES: USE ADMIXTURES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. USE WATER-REDUCING AND RETARDING ADMIXTURE WHEN REQUIRED BY HIGH TEMPERATURES, LOW HUMIDITY, OR OTHER ADVERSE PLACEMENT CONDITIONS.
11. CURING MATERIALS
  - A. LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C309, TYPE 2, CLASS B, OR CLASS A IF WAX BASE ONLY. COMBINED CURING AND SEALING/DENSIFIER/HARDENERS SHALL NOT BE USED.



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CHECKED: BBC	SAT	BEXAR	0915	15 579 S1.2

- CURING COMPOUND AND DENSIFIER/SEALER/HARDENER SHALL BE FROM SAME MANUFACTURER.
- B. MOISTURE-RETAINING COVER: ASTM C171, WHITE BURLAP-POLYETHYLENE SHEET, CONTINUOUS WATERPROOF PAPER, OR 4 MIL POLYETHYLENE SHEETING.
  - C. WATER: POTABLE
  - D. RECOMMENDED PRODUCTS ARE LISTED BELOW.
    - 1. KUREZ DR VOX DISSIPATING CURING COMPOUND FROM EUCLID CHEMICAL COMPANY
    - 2. APPROVED SIMILAR
12. BATCHING AND MIXING
- A. READY-MIXED CONCRETE SHALL BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF ASTM C94.
  - B. CONCRETE SHALL BE DELIVERED TO SITE AND DISCHARGED WITHIN 90 MINUTES OR BEFORE 300 REVOLUTIONS OF MIXER DRUM AFTER INTRODUCTION OF MIXING WATER.
  - C. INDISCRIMINATE ADDITION OF WATER TO INCREASE THE SLUMP IS PROHIBITED. WHEN CONCRETE ARRIVES AT PROJECT SITE WITH SLUMP BELOW THAT SUITABLE FOR PLACING, WATER MAY BE ADDED PROVIDED THAT THE MAXIMUM PERMISSIBLE SLUMP IS NOT EXCEEDED. DO NOT ADD WATER AFTER THE ADDITION OF HIGH-RANGE WATER-REDUCING ADMIXTURE. IN THE EVENT WATER IS ADDED AT SITE, IT SHALL BE INCORPORATED BY ADDITIONAL MIXING EQUAL TO AT LEAST 30 REVOLUTIONS OF THE DRUM AT THE MIXING SPEED RECOMMENDED BY THE MANUFACTURER. IF ADDITIONAL WATER IS ADDED, THE AMOUNT ADDED SHALL BE NOTED ON THE DELIVERY TICKET AND THE TICKET SIGNED BY PERSON AUTHORIZING ADDITION OF WATER. CONCRETE TO WHICH WATER HAS BEEN ADDED IN SUCH AMOUNTS AS TO CAUSE THE WATER/CEMENT RATIO TO EXCEED THE SPECIFIED MAXIMUM ALLOWABLE VALUE WILL BE REJECTED.
  - D. WHEN A HIGH-RANGE WATER-REDUCING ADMIXTURE IS ADDED, IT SHALL BE INCORPORATED AT THE SITE BY ADDITIONAL MIXING AS SPECIFIED BY THE MANUFACTURER. IF UNSPECIFIED, 70 REVOLUTIONS OF THE DRUM SHALL BE REQUIRED TO ENSURE PROPER MIXING.
  - E. WHEN CONCRETE ARRIVES AT JOB SITE WITH A SLUMP EXCEEDING THE MAXIMUM SPECIFIED SLUMP, THE CONCRETE SHALL BE REJECTED.
  - F. AIR-ENTRAINING AND CHEMICAL ADMIXTURES, WHEN USED, SHALL BE INCORPORATED INTO THE MIX IN AMOUNTS AND MANNER RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. ACCURACY OF MEASUREMENT OF ANY ADMIXTURE SHALL BE WITHIN  $\pm 3$  PERCENT. TWO OR MORE ADMIXTURES MAY BE USED IN THE SAME CONCRETE PROVIDED SUCH ADMIXTURES ARE ADDED SEPARATELY AND THAT THE COMBINATION IS COMPATIBLE AND HAS NO DELETERIOUS EFFECT ON THE CONCRETE.
13. PLACING
- A. BEFORE PLACING CONCRETE, ALL EQUIPMENT FOR MIXING AND TRANSPORTING CONCRETE SHALL BE CLEANED, VIBRATORS SHALL BE CHECKED FOR WORKABILITY, ALL FROST, ICE, MUD, DEBRIS, AND WATER SHALL BE REMOVED FROM CONCRETE SURFACES AND FORMS, FORMS SHALL BE THOROUGHLY WETTED OR OILED, AND REINFORCEMENT, AND OTHER EMBEDMENTS SHALL BE SECURELY TIED IN PLACE AND THOROUGHLY CLEANED OF COATINGS WHICH MAY DESTROY OR REDUCE BONDING WITH CONCRETE. NO CONCRETE SHALL BE PLACED UNTIL THE ENGINEER HAS APPROVED THE FORMS AND THE CONDITION AND PLACEMENT OF REINFORCEMENT.
  - B. CONVEYING THE CONCRETE FROM THE MIXER TO THE PLACE OF DEPOSIT SHALL NOT CAUSE SEPARATION OR LOSS OF MATERIALS.
  - C. PLACING OF CONCRETE SHALL BE SUCH THAT IT IS DEPOSITED AS NEAR AS POSSIBLE TO FINAL LOCATION WHEN CONCRETING IS COMMENCED, IT SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL THE FOOTING IS COMPLETED. WHEN BEING DEPOSITED, CONCRETE SHALL NOT BE ALLOWED TO FALL A VERTICAL DISTANCE GREATER THAN 3 FEET FROM POINT OF DISCHARGE TO POINT OF DEPOSIT.
  - D. ALL NEWLY PLACED CONCRETE SHALL BE THOROUGHLY CONSOLIDATED IN ACCORDANCE WITH ACI 309R BY MEANS OF VIBRATION TO ASSURE DISPELLING OF LARGE VOIDS. VIBRATORS SHALL BE AS NARROW AS NECESSARY FOR SHALLOW WORK.
  - E. THE CONTRACTOR SHALL HAVE AVAILABLE MATERIALS FOR THE PROTECTION OF THE CONCRETE DURING INCLEMENT WEATHER. SUCH PROTECTIVE MATERIALS SHALL

- F. CONSIST OF ROLLED POLYETHYLENE SHEETING AT LEAST 4 MILS (0.1 MM) THICK OF SUFFICIENT LENGTH AND WIDTH TO COVER THE PLASTIC CONCRETE SLAB AND ANY EDGES. WHEN RAIN APPEARS IMMINENT, ALL CONCRETING OPERATIONS SHALL STOP AND ALL AVAILABLE PERSONNEL SHALL BEGIN COVERING THE SURFACE OF THE UNHARDENED CONCRETE WITH THE PROTECTIVE COVERING.
  - F. COLD-WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTION, OR LOW TEMPERATURES. COMPLY WITH ACI 306.1 AND MANUFACTURER'S RECOMMENDATIONS.
  - G. HOT-WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY RAPID EVAPORATION OR OVERHEATING OF THE CONCRETE. REFER TO ACI 305.1-14, "SPECIFICATION FOR HOT WEATHER CONCRETING," FOR HOT-WEATHER CONDITIONS THAT MAY ADVERSELY AFFECT THE CONCRETE PLACEMENT. WHEN HOT-WEATHER CONDITIONS EXIST, INFORM ENGINEER PRIOR TO PLACEMENT.
  - H. USE OF SURFACE EVAPORATION RETARDERS. WHEN AMBIENT CONDITIONS CREATE HIGH SURFACE MOISTURE EVAPORATION, USE FOG SPRAYING OR A SPRAY APPLIED SURFACE EVAPORATION RETARDER AS NEEDED TO PREVENT PREMATURE SURFACE DRYING AND PLASTIC SHRINKAGE CRACKING.
14. FINISHING.
- A. COMPLY WITH ACI 302.1R RECOMMENDATIONS FOR SCREEDING, RE-STRAIGHTENING, AND FINISHING OPERATIONS FOR CONCRETE SURFACES. DO NOT WET CONCRETE SURFACES.
  - B. SURFACES SHALL BE FINISHED AS REQUIRED TO OBTAIN THE DESIRED APPEARANCE, AND SHALL BE WITHOUT RIDGES, PROJECTIONS, VOIDS AND CONCRETE DROPPINGS.
15. CURING
- A. IMMEDIATELY AFTER FINISHING THE ENTIRE SURFACE OF THE NEWLY PLACED CONCRETE SHALL BE CURED FOR A 7-DAY CURE PERIOD IN ACCORDANCE WITH ONE OF THE METHODS BELOW. THE CONCRETE SHALL NOT BE LEFT EXPOSED FOR MORE THAN 1/2 HOUR DURING THE CURING PERIOD.
  - I. IMPERVIOUS MEMBRANE METHOD. THE ENTIRE SURFACE OF THE CONCRETE SHALL BE SPRAYED UNIFORMLY WITH CURING COMPOUND IMMEDIATELY AFTER THE FINISHING OF THE SURFACE, AFTER THE BLEED WATER IS GONE FROM THE SURFACE AND BEFORE THE SET OF THE CONCRETE HAS TAKEN PLACE. THE CURING COMPOUND SHALL NOT BE APPLIED DURING RAINFALL. CURING COMPOUND SHALL BE APPLIED BY MECHANICAL SPRAYERS UNDER PRESSURE AT THE RATE RECOMMENDED BY MANUFACTURER. DURING APPLICATION THE COMPOUND SHALL BE IN A THOROUGHLY MIXED CONDITION. HAND SPRAYING OF ODD WIDTHS OR SHAPES AND CONCRETE SURFACES EXPOSED BY THE REMOVAL OF FORMS WILL BE PERMITTED. THE CURING COMPOUND SHALL BE OF SUCH CHARACTER THAT THE FILM WILL HARDEN WITHIN 60 MINUTES AFTER APPLICATION. SHOULD THE FILM BECOME DAMAGED FROM ANY CAUSE, INCLUDING SAWING OPERATIONS, WITHIN THE REQUIRED CURING PERIOD, THE DAMAGED PORTIONS SHALL BE REPAIRED IMMEDIATELY WITH ADDITIONAL COMPOUND OR OTHER APPROVED MEANS. UPON REMOVAL OF SIDE FORMS, THE SIDES OF THE EXPOSED FOOTINGS SHALL BE PROTECTED IMMEDIATELY TO PROVIDE A CURING TREATMENT EQUAL TO THAT PROVIDED FOR THE SURFACE.
  - II. WHITE BURLAP-POLYETHYLENE SHEETS. THE SURFACE OF THE CONCRETE SHALL BE ENTIRELY COVERED WITH THE SHEETING. THE SHEETING USED SHALL BE SUCH LENGTH (OR WIDTH) THAT IT WILL EXTEND AT LEAST TWICE THE THICKNESS OF THE PAVEMENT BEYOND THE EDGES OF THE SLAB. THE SHEETING SHALL BE PLACED SO THAT THE ENTIRE SURFACE AND BOTH EDGES OF THE SLAB ARE COMPLETELY COVERED. THE SHEETING SHALL BE LACED AND WEIGHTED TO REMAIN IN CONTACT WITH THE SURFACE COVERED, AND THE COVERING SHALL BE MAINTAINED FULLY SATURATED AND IN POSITION FOR SEVEN (7) DAYS AFTER THE CONCRETE HAS BEEN PLACED.
  - III. WATER METHOD. THE ENTIRE AREA SHALL BE COVERED WITH BURLAP OR OTHER WATER ABSORBING MATERIAL. THE MATERIAL SHALL BE OF SUFFICIENT THICKNESS TO RETAIN WATER FOR ADEQUATE CURING WITHOUT EXCESSIVE RUNOFF. THE MATERIAL SHALL BE KEPT WET AT ALL TIMES AND MAINTAINED FOR SEVEN (7) DAYS. WHEN THE FORMS ARE STRIPPED, THE VERTICAL WALLS SHALL ALSO BE KEPT MOIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT PONDING OF THE CURING WATER ON THE SUBBASE.



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- B. WHENEVER AIR TEMPERATURE IS BELOW 40°F DURING THE REQUIRED CURING PERIOD, THE CONCRETE SHALL BE MAINTAINED AT A TEMPERATURE NOT LESS THAN 50°F. FOLLOWING THE GUIDELINES PUBLISHED IN ACI 306R IS RECOMMENDED FOR PLACEMENT AND CURING CONCRETE DURING COLD WEATHER.
  - C. PROTECT CONCRETE FROM FALLING BELOW 50°F (14°C) WITH INSULATING BLANKETS OR ENCLOSURES WITH HEATERS.
  - D. FOLLOWING THE GUIDELINES PUBLISHED IN ACI 305R FOR CONCRETING DURING HOT WEATHER IS RECOMMENDED.
  - E. CRACKS WHICH OCCUR WITHIN 20 DAYS OF CONCRETE PLACEMENT SHOULD BE EVALUATED BY ENGINEER FOR REMOVAL AND REPLACEMENT OR ROUTING AND SEALING, AT NO EXTRA COST TO THE OWNER. NOTE: THE CONTRACTOR IS CAUTIONED THAT EXPOSURE TO WIND MAY RESULT IN SURFACE CRACKS.
16. SEE TESTING AND INSPECTION REQUIREMENTS AND SUBMITTALS FOR CONCRETE COMPRESSIVE STRENGTH TEST AND SUBMITTAL REQUIREMENTS.

**CONCRETE FORMWORK**

- 1. FORMS FOR UNEXPOSED FINISH CONCRETE MAY BE PLYWOOD, LUMBER, METAL, OR OTHER ACCEPTABLE MATERIAL. PROVIDE LUMBER DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT.
- 2. FORMS MAY BE REMOVED WHEN FIELD-CURED CYLINDERS ACHIEVE 75 PERCENT OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE AND PAY FOR THE COSTS OF THESE SUPPLEMENTAL STRENGTH TESTS.

**GROUT**

- 1. GROUT SHALL HAVE DESIGN COMPRESSIVE STRENGTH TWICE THAT OF CONCRETE FOOTING.
- 2. PROMPTLY PACK GROUT SOLIDLY BETWEEN BEARING SURFACES AND PLATES SO NO VOIDS REMAIN. NEATLY FINISH EXPOSED SURFACES; PROTECT GROUT AND ALLOW TO CURE. COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR SHRINKAGE-RESISTANT GROUTS.

**STRUCTURAL STEEL**

- 1. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT THE APPROVAL AS TO LOCATION AND TYPE. ANY MEMBER HAVING A SPLICE NOT SHOWN AND DETAILED ON THE SHOP DRAWINGS WILL BE REJECTED.
- 2. BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED. ANY MEMBER WITH BURNED HOLES SHALL BE REPLACED.
- 3. UNLESS OTHERWISE NOTED, CONNECTIONS ARE TO BE SHOP WELDED AND FIELD BOLTED.
- 4. ALL MISCELLANEOUS WELDS (FIELD OR SHOP) SHALL BE MINIMUM SIZE FILLET ALL AROUND IN ACCORDANCE WITH AISC.
- 5. ALL WELDS SHALL BE DE-SLAGGED, CLEANED, AND PRIMED.
- 6. ALL WELDS SHALL BE DONE IN ACCORDANCE WITH A.W.S. CODE, BY CERTIFIED WELDERS.
- 7. WELDING ELECTRODES SHALL BE E70XX, UNLESS NOTED OTHERWISE.
- 8. NO FOREIGN MANUFACTURED MATERIAL SHALL BE USED FOR HIGH-STRENGTH BOLTS, NUTS, AND HARDENED WASHERS.
- 9. ALL STRUCTURAL SHAPES AND PLATES SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
  - A. WIDE FLANGE BEAMS & COLUMNS: ASTM A992
  - B. ALL OTHER SHAPES & PLATES: ASTM A36

10. HIGH-STRENGTH BOLTS, NUTS, AND WASHERS SHALL CONFORM TO THE FOLLOWING:

- A. HEAVY-HEX STEEL STRUCTURAL BOLTS: ASTM F3125, TYPE 1.
- B. NUTS: ASTM A563, TYPE 1
- C. WASHERS: ASTM F436
- D. ALL BOLTS, NUTS AND WASHERS WILL BE HOT DIP GALVANIZED WITH FINISH CONFORMING TO ASTM 123

11. ALL STEEL POSTS AND BASEPLATES WILL BE COATED WITH ONE OF THE FOLLOWING PRODUCTS.

- A. SHERWIN WILLIAMS:
  - I. MACROPOXY 646, 5.0 TO 10.0 MILS.
  - II. TOP COAT: ACROLON 218HS, DFT 3.0 TO 6.0 MILS.
- B. TNEMEC CO., INC.:
  - I. PRIMER: CHEMBUILD SERIES 135, 4.0 TO 6.0 MILS.
  - II. FINISH COAT: ENDURA-SHIELD SERIES 73, 3.0 TO 5.0 MILS.
- C. CARBOLINE COMPANY:
  - I. PRIMER: CARBOGAURD 880, 3.0 TO 5.0 MILS.
  - II. TOP COAT: CARBOTHANE 133 FC, DFT 3.0 TO 5.0 MILS.
- D. APPROVED SIMILAR

13. PRIOR TO COATING CLEAN AND PREPARE SUBSTRATE ACCORDING TO COATING MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE CLEAN, DUST-FREE, DRY, AND SOUND SUBSTRATE FOR COATING APPLICATION.

- A. SURFACES SHALL BE PREPARED ACCORDING TO SSPC-SP 15 – COMMERCIAL GRADE POWER TOOL CLEANING. REMOVAL ALL EXISTING CORROSION AND COATINGS.
- B. REMOVE GREASE, OIL, DIRT, AND OTHER CONTAMINANTS THAT MIGHT IMPAIR BOND OF COATING IN ACCORDANCE WITH SSPC-SP 1. USE CLEANER/DEGREASER OR CHEMICAL REMOVAL AS NECESSARY; RINSE THOROUGHLY WITH COPIOUS AMOUNTS OF CLEAN WATER.

14. SEE TESTING AND INSPECTION REQUIREMENTS AND SUBMITTALS FOR TESTING AND SUBMITTAL REQUIREMENTS.

**ANCHOR RODS**

- 1. ANCHOR RODS SHALL BE ASTM F1554 GR 36.
- 2. ANCHOR RODS SHALL BE HOT-DIP GALVANIZED (ASTM 153).
- 3. NUTS AND WASHERS USED ON ANCHOR RODS WILL BE GALVANIZED USING THE SAME PROCESS AS ANCHOR RODS.
- 4. ANCHOR RODS, NUTS, AND WASHERS SHALL BE PURCHASED FROM SAME SUPPLIER.
- 5. SEE TESTING AND INSPECTION REQUIREMENTS AND SUBMITTALS FOR CONCRETE COMPRESSIVE STRENGTH TEST AND SUBMITTAL REQUIREMENTS.

**HELICAL PILES**

- 1. THE HELICAL PILE TYPE, SIZE, INSTALLATION, TORQUE, AND LENGTH SHALL BE ESTABLISHED BY THE PILE DESIGN PROFESSIONAL ENGAGED BY THE CONTRACTOR AND SHALL BE BASED ON THE LOADS PROVIDED IN THE DRAWINGS.
  - 2. THE PILE DESIGN PROFESSIONAL SHALL BE A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS WITH AT LEAST 5 YEARS EXPERIENCE IN THE DESIGN OF HELICAL PILE FOUNDATIONS ON PROJECTS OF SIMILAR SIZE AND SCOPE.
  - 3. HELICAL PILES SHALL BE OBTAINED FROM A COMPANY THAT SPECIALIZES IN THE MANUFACTURING AND DISTRIBUTION OF HELICAL PILES.
  - 4. PILES SHALL BE INSTALLED BY A CONTRACTOR SPECIALIZING IN THE INSTALLATION OF HELICAL PILES WITH AT LEAST 5 YEARS EXPERIENCE ON PROJECTS OF SIMILAR SIZE AND SCOPE AND INSTALLED IN SIMILAR SOILS.
4. PROVIDE ALL PARTS NECESSARY FOR COMPLETE INSTALLATION OF THE PILE



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SYSTEM, INCLUDING BUT NOT LIMITED TO CENTRAL SHAFT, HELICAL BEARING PLATES, SHAFT CONNECTIONS, BOLTS, SLEEVES, AND CONNECTION BRACKET/DEVICE FOR CONNECTION TO CONCRETE FOUNDATION. ALL PARTS SHALL BE HOT-DIP GALVANIZED.

- INSTALL PILES WITH HIGH TORQUE, LOW RPM TORQUE MOTORS, WHICH ALLOW THE HELICAL PILES TO ADVANCE WITH MINIMAL SOIL DISTURBANCE.

**ALTERNATES & SUBSTITUTIONS**

- ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO THEIR USE.
- ANY REQUIRED CHANGES TO THE STRUCTURAL DRAWINGS DUE TO THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ENGINEER FOR ACCEPTANCE.

**DEMOLITION**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE SIGN PANELS AND SIGN FRAME DURING CONSTRUCTION. THE CONTRACTOR WILL REPLACE ANY DAMAGED SIGN MEMBERS AS DIRECTED BY THE ARCHITECT OR ENGINEER AT NO EXTRA COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING, STORAGE, HAULING AND REMOVAL OF THE MATERIALS TO BE REMOVED.

**TESTING AND SPECIAL INSPECTION REQUIREMENTS**

- THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO PERFORM ALL REQUIRED TESTING AND SPECIAL INSPECTIONS AS LISTED BELOW. UNLESS NOTED OTHERWISE. THE SERVICES OF A COMMERCIAL TESTING LABORATORY TO PERFORM ALL LISTED MATERIAL TESTS AND INSPECTIONS WILL BE SECURED BY OWNER.
- CONTRACTOR WILL BE RESPONSIBLE FOR ALL QUALITY CONTROL INSPECTIONS REQUIRED BY GOVERNING CODES. THESE REQUIREMENTS ARE NOT WAIVED AS A RESULT OF ANY TESTING OR SPECIAL INSPECTIONS REQUIRED BY OWNER.
- REINFORCING STEEL AND ANCHOR RODS
  - PLACEMENT OF REINFORCING STEEL AND CAST-IN ANCHOR RODS
- CONCRETE
  - FOR EACH CONCRETE MIX PLACED ON A GIVEN DAY, A SET OF CONCRETE FIELD STRENGTH TEST SPECIMENS CONSISTING OF FIVE 6 IN. X 12 IN. OR SEVEN 4 IN. X 8 IN. CYLINDERS SHALL BE CAST NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE PER EACH 150 CUBIC YARDS OF CONCRETE WHICHEVER IS MORE FREQUENT. THE COST OF THESE CYLINDERS SHALL BE PAID BY THE OWNER.
  - ALL CYLINDERS SHALL BE MADE AND TESTED BY A QUALIFIED APPROVED TESTING AGENCY WHICH MEETS THE REQUIREMENTS OF ASTM C1077.
  - ONE CYLINDER SHALL BE TESTED AT 7 DAYS, TWO OR THREE (SEE A ABOVE) AT 28 DAYS, AND THE OTHER ONE OR TWO HELD FOR TESTING AT AN UNSPECIFIED DATE STORED IN ACCORDANCE WITH ASTM C31.
  - AT THE TIME EACH SET OF CYLINDERS IS MADE, THE FRESH CONCRETE SHALL BE TESTED FOR SLUMP AND AIR CONTENT. THE TEMPERATURE OF CONCRETE SHALL BE TAKEN AT SAME TIME CYLINDERS ARE MADE. SLUMP TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM C143. AIR CONTENT TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM C231. AMBIENT TEMPERATURE WILL BE MEASURED AND REPORTED.
  - SAMPLES OF CONCRETE FOR TEST SPECIMENS SHALL BE TAKEN FROM THE TRANSPORT VEHICLE OR MIXER DURING DISCHARGE.
  - CONCRETE WHICH FAILS TO MEET THE SLUMP OR AIR CONTENT REQUIREMENTS SHALL BE TESTED AGAIN USING A DIFFERENT CONCRETE TEST SAMPLE FROM THE SAME SOURCE. IF THE SECOND SERIES OF TESTS REVEALS THAT THE CONCRETE DOES NOT MEET THE SLUMP OR AIR CONTENT REQUIREMENTS, THE NONCONFORMING CONCRETE SHALL BE REJECTED AND PROPERLY DISPOSED. A NEW BATCH OF CONCRETE SHALL BE MIXED OR OBTAINED AT THE CONTRACTOR'S

EXPENSE.

- TEST SPECIMENS SHALL BE MOLDED IMMEDIATELY AFTER THE SAMPLE IS TAKEN AND THEN PLACED IN ON-SITE STORAGE PROVIDED BY THE CONTRACTOR. STORAGE SHALL BE IN A SHED, BOX OR OTHER ENCLOSURE MAINTAINED AT A TEMPERATURE OF BETWEEN 60°F AND 80°F. SPECIMENS SHALL BE STORED NOT LESS THAN 16 HOURS, AND NOT MORE THAN 48.
- STRUCTURAL STEEL
    - VISUAL INSPECTION OF ALL WELDS, INCLUDING FIELD WELDS, BY AN AWS CERTIFIED WELD INSPECTOR. WELDS FOUND TO BE UNSATISFACTORY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
    - VISUAL INSPECTION OF ALL HIGH-STRENGTH BOLTED CONNECTIONS.
    - VISUAL INSPECTION OF ALL MEMBER SIZES AND GEOMETRY.

**SUBMITTALS**

THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR REVIEW. WORK OR FABRICATION ASSOCIATED WITH THESE ITEMS SHALL NOT COMMENCE UNTIL THE SUBMITTALS HAVE BEEN REVIEWED AND APPROVED.

- QUALIFICATION DATA: FOR CONTRACTOR AND ON-SITE SUPERVISOR TO DEMONSTRATE THEIR CAPABILITIES AND EXPERIENCE. SUBMIT A LIST OF AT LEAST THREE (3) COMPLETED PROJECTS OF SIMILAR SIZE AND SCOPE IN WHICH A SIGN WAS DECONSTRUCTED AND/OR ERECTED SUCCESSFULLY. THE LIST SHALL INCLUDE THE FOLLOWING INFORMATION FOR EACH OF THE THREE (3) PROJECTS:
  - PROJECT NAME.
  - OWNER OF PROJECT.
  - OWNER'S REPRESENTATIVE NAME, ADDRESS, AND TELEPHONE NUMBER.
  - DESCRIPTION OF WORK.
  - EQUIPMENT USED.
  - COMPLETION DATE.
  - PROJECT SUPERVISOR.
- SIGN REMOVAL, TRANSPORTATION, AND STORAGE PLAN FOR BOTH THE COOL CREST SIGN AND THE PUTTER SIGN. THE SUBMITTAL SHALL INCLUDE ALL THE FOLLOWING:
  - DETAILED PLAN FOR SIGN REMOVAL, INCLUDING THE EQUIPMENT TO BE USED AND THE PROCESS TO BE USED TO TAKE THE SIGN DOWN WITHOUT DAMAGING/SCRAPING THE SIGN.
  - DETAILED PLAN FOR EFFECTIVE SIGN TRANSPORTATION, INCLUDING THE EQUIPMENT TO BE USED DURING TRANSPORTATION AND SPECIFIC CRIBBING/PROTECTION TO BE PROVIDED FOR THE SIGN DURING TRANSPORT.
  - DETAILED STORAGE PLAN, INCLUDING THE LOCATION WHERE THE SIGN WILL BE STORED, HOW THE SIGN WILL BE SUPPORTED (I.E., TYPE, QUANTITY, AND LOCATION OF CRIBBING SUPPORTS BELOW SIGN WHEN LAID FLAT), HOW THE SIGN WILL BE PROTECTED (I.E., LOCKED UP), AND HOW THE SIGN WILL BE COVERED FOR PROTECTION AGAINST HAIL OR OTHER ADVERSE WEATHER.
- DOCUMENTATION OF PRE-CONSTRUCTION CONDITIONS AND PHOTOGRAPHS
  - THE CONTRACTOR SHALL PHOTOGRAPH AND/OR VIDEO DOCUMENT AND TAKE WRITTEN NOTES OF EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF THE WORK ON THE SITE. COPIES OF ALL DOCUMENTATION SHALL BE SUBMITTED TO THE OWNER OR ENGINEER PRIOR TO COMMENCING WORK.
- REINFORCING STEEL
  - MATERIAL AND PRODUCT DATA: FOR EACH TYPE OF MANUFACTURED MATERIAL AND PRODUCT INDICATED. MILL TEST REPORTS SHALL BE SUBMITTED TO ENGINEER ONE-WEEK PRIOR TO SHIPPING REINFORCING STEEL. TEST REPORTS SHALL INCLUDE ADEQUATE INFORMATION ON CHEMICAL AND PHYSICAL PROPERTIES TO DEMONSTRATE CONFORMANCE TO ASTM A615 GRADE 60.
  - SHOP DRAWINGS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS FOR REINFORCING AND ACCESSORIES PROPOSED FOR CONSTRUCTION.
- CAST-IN-PLACE CONCRETE
  - PROVIDE CONCRETE MIX DESIGN A MINIMUM OF 14 DAYS PRIOR TO THE START OF THE CONCRETE WORK FOR ENGINEER'S APPROVAL PRIOR TO PLACEMENT OF



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STRUCTURAL NOTES  
 (CONTINUED)

DESIGNED: MJS/WFM	REV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC		TEXAS		FM LOOP 345
DRAWN: T.J.H.	DATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15	579 S1.5

CONCRETE IN THE FIELD. ANY ADJUSTMENTS IN APPROVED MIX DESIGNS, INCLUDING CHANGES IN ADMIXTURES, MUST BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL PRIOR TO USE IN THE FIELD.

- B. PROVIDE TEST RESULTS OF THE CONCRETE MIX TO BE USED.
- C. PROVIDE CONCRETE COMPRESSIVE TEST, SLUMP, AIR CONTENT, AND TEMPERATURE DATA AFTER EACH TEST.

5. GROUT

- A. PRODUCT DATA INCLUDING DESIGN COMPRESSIVE STRENGTH

6. STRUCTURAL STEEL

- A. PROVIDE MILL TEST REPORT FOR EACH EVERY TYPE OF STEEL MEMBER INSTALLED.
- B. PROVIDE STRUCTURAL STEEL SHOP DRAWING DETAILING THE BASEPLATES, POSTS AND CONNECTIONS OF NEW POSTS TO EXISTING SIGNS. SHOP DRAWINGS SHALL CLEARLY INDICATE THE MATERIAL TYPE, SIZES, LOCATIONS, BOLT HOLES, COPED EDGES, WELDS, SPLICES, AND PIECE-MARK FOR ALL STRUCTURAL STEEL. THE SHOP DRAWINGS SHALL INCLUDE A COMPLETE BILL OF MATERIALS FOR ALL STRUCTURAL STEEL. IN ADDITION, THE CONTRACTOR SHALL SUBMIT ERECTION DRAWINGS, CLEARLY INDICATING THE INSTALLED LOCATION, SIZE, ORIENTATION, AND PIECE-MARK FOR ALL STRUCTURAL STEEL MEMBERS. THE SHOP DRAWINGS AND ERECTION DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT FABRICATION AND ERECTION OF THE STRUCTURAL STEEL WITHOUT THE USE OF THE DESIGN DRAWINGS. CONTRACT DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS. ALL ITEMS DEVIATING FROM THE CONTRACT DRAWINGS OR FROM PREVIOUSLY SUBMITTED SHOP DRAWINGS SHALL BE CLOUDED.
- C. PROVIDE WELDER QUALIFICATIONS: WELDING SHALL BE DONE ONLY BY WELDING OPERATORS CURRENTLY QUALIFIED ACCORDING TO AWS D1.1.
- D. PROVIDE WELD INSPECTOR CERTIFICATES INDICATING AWS CERTIFICATION IN ACCORDANCE WITH PROVISIONS OF AWS.
- E. CERTIFICATIONS: FOR ALL HIGH-STRENGTH BOLTS, NUTS AND HARDENED WASHERS, NO FOREIGN MANUFACTURED MATERIAL SHALL BE CONSIDERED FOR USE.
- F. PROVIDE LIFTING AND STORAGE PLAN FOR COOL CREST AND PUTTER SIGN. LIFTING PLAN TO INCLUDE DRAWINGS OF LIFTING DEVICES AND ACCESSORY MEMBERS USED TO LIFT, BRACE, OR STIFFEN SIGNS. INCLUDE LIFTING SEQUENCE AND NOTES DESCRIBING THE PROCESS AND EQUIPMENT TO BE USED. INCLUDE A STORAGE PLAN AND/OR TRANSPORTATION PLAN FOR SIGNS.

6. EXISTING SIGN POST CONNECTIONS AND SPACING

- A. THE CONTRACTOR SHALL DOCUMENT THE CENTER-TO-CENTER SPACINGS OF THE EXISTING SIGN POSTS. NOTE, THE SPACING SHALL BE TAKEN AT THE ELEVATION OF THE POST ATTACHMENT TO THE SIGN FRAME, NOT AT THE GROUND LEVEL. ADDITIONALLY, THE CONTRACTOR SHALL DOCUMENT HOW EACH EXISTING POST IS CONNECTED TO THE SIGN FRAME. THE NEW SIGN POSTS SHALL BE SPACED AT THE SAME SPACING AS EXISTING POSTS.

7. ANCHOR RODS

- A. SUBMIT PRODUCT MANUFACTURER DATA FOR ALL ANCHOR RODS, NUTS, AND WASHERS.

8. HELICAL PILES

- A. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER SHOP DRAWINGS PRODUCED BY THE HELICAL PILE MANUFACTURER THAT CLEARLY DEPICT THE FOLLOWING:

- 1) HELICAL PILE PRODUCT DATA (I.E., DIAMETER OF HELICAL PILE SHAFT, NUMBER OF HELICES, DIAMETER OF HELICES, PILE HEAD TYPE, ETC.)
- 2) DESIGN CAPACITIES OF THE HELICAL PILE SYSTEM
- 3) ANGLE OF INSTALLATION OF THE HELICAL PILES
- 4) REQUIRED INSTALLATION TORQUE TO ACHIEVE DESIGN CAPACITIES
- 5) LOCATION OF PILE HEAD WITHIN CONCRETE PILE CAP



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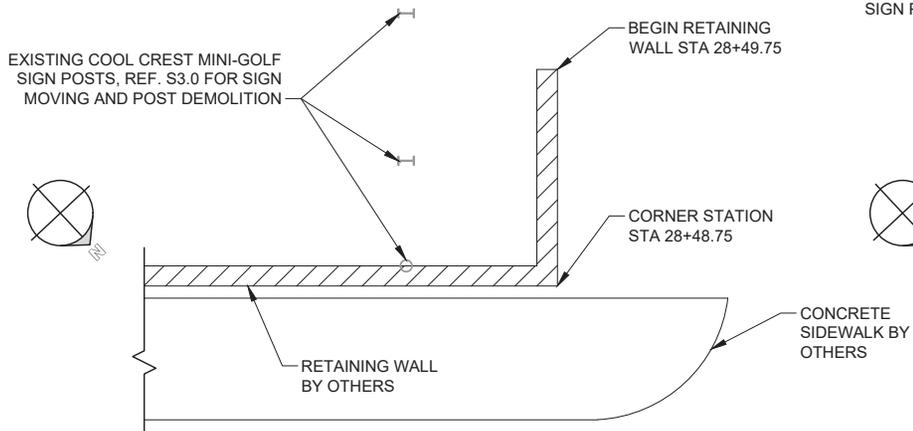
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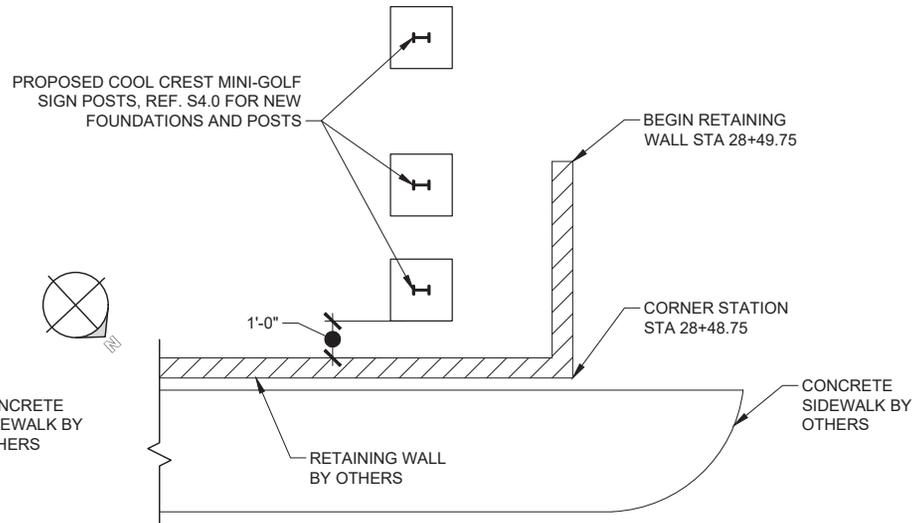


STRUCTURAL NOTES  
(CONTINUED)

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC	TEXAS	SECTION	FM LOOP 345	
DRAWN: T.J.H.	STATE DISTRICT	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	S1.6

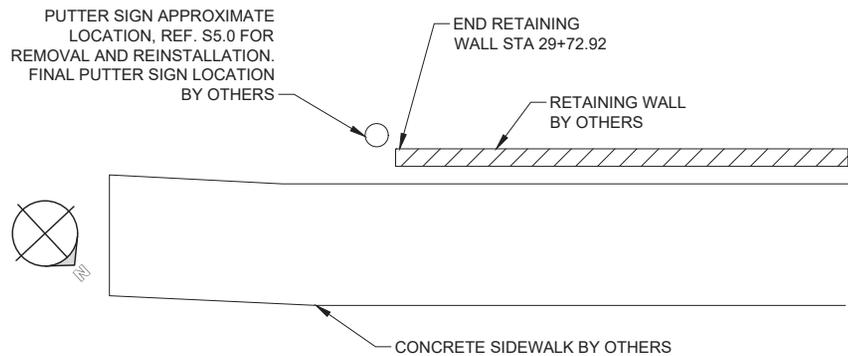


**1** MAIN SIGN AREA PLAN VIEW PRIOR TO MOVING SIGN  
1/8" = 1'-0"



**2** MAIN SIGN AREA PLAN VIEW AFTER REINSTALLING SIGN  
1/8" = 1'-0"

**SHEET NOTES:**  
1. REFERENCE SEA DRAWINGS FOR RETAINING WALL LOCATION AND DESIGN.



**3** PUTTER SIGN AREA PLAN VIEW PRIOR TO MOVING SIGN  
1/8" = 1'-0"

**PROJECT VICINITY MAP - NOT TO SCALE**



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MAIN AND PUTTER SIGN PROJECT AREA PLAN

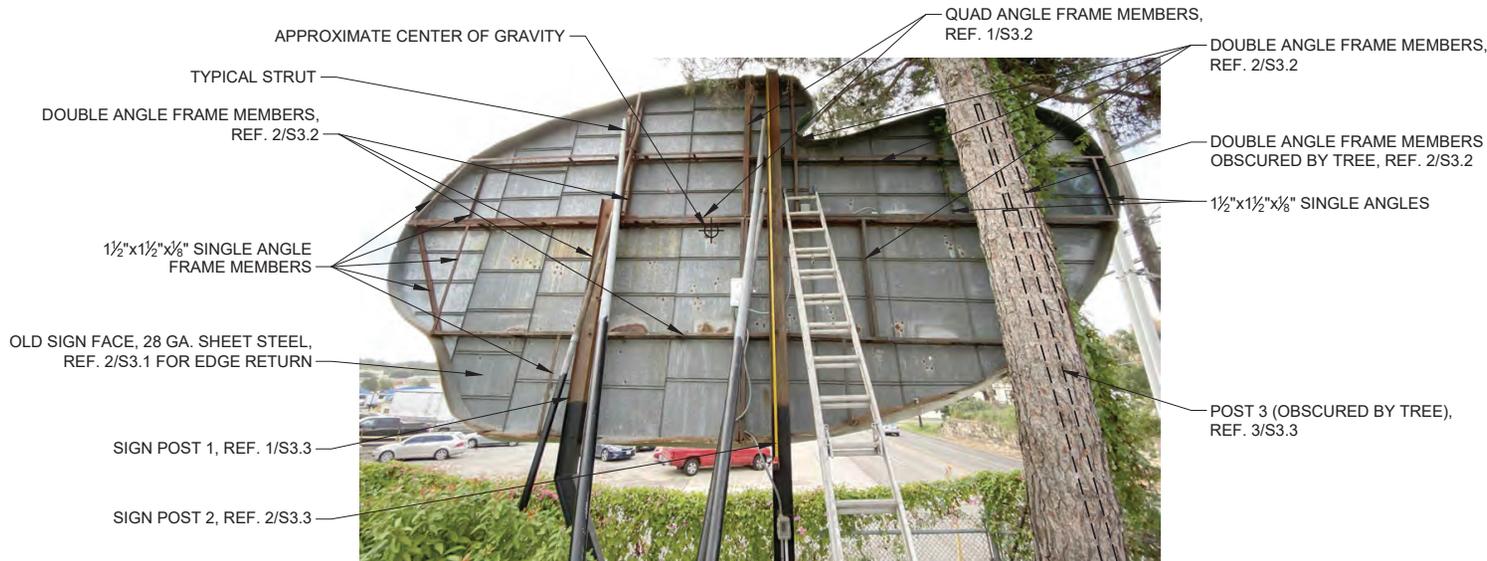
DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC	TEXAS	FM LOOP 345		
DRAWN: T.J.H.	STATE NO.	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	SZ.0

**MAIN SIGN REMOVAL AND REINSTALLATION NOTES:**

1. REFERENCE NOTES ON SHEET S1.5 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE.
2. REMOVAL SEQUENCE
  - A. NEW SIGN FACE SHALL BE FULLY ATTACHED TO OLD FACE AT EXISTING FASTENER LOCATIONS, REF 1/S3.0 AND 1/S3.1. LOOSE EXISTING SCREWS SHALL BE FULLY TIGHTENED OR REPLACED AS REQUIRED.
  - B. SIGN SHALL BE BRACED AS REQUIRED SUCH THAT MOVING WILL NOT PERMANENTLY DEFORM OR DAMAGE SIGN INCLUDING RAISED LETTERS. (REFERENCE SUBMITTAL REQUIREMENTS FOR REMOVAL, TRANSPORTATION, AND STORAGE OF COOL CREST SIGN ON SHEET S1.5).
  - C. ELECTRICAL SUPPLY SHALL BE DISCONNECTED PRIOR TO MOVING SIGN, REF. GENERAL NOTES - COORDINATION NOTE NO.2.
  - D. SIGN SHALL BE DISCONNECTED FROM EXISTING SUPPORTS AND STRUTS PRIOR TO MOVING.
  - E. CONTRACTOR SHALL SUBMIT FOR APPROVAL CRIBBING PRODUCT DATA FOR SIGN TRANSPORT AND STORAGE.
  - F. AFTER SIGN REMOVAL, EXISTING POSTS AND STRUTS SHALL BE REMOVED.
  - G. SIGN SHALL BE REINSTALLED ON NEW POSTS WITH CONNECTIONS SHOWN IN DRAWINGS, REF. 1 AND 2/S4.1.
2. ESTIMATED TOTAL SIGN WEIGHT NOT INCLUDING POSTS IS 2,600 LBS.
3. EXISTING SIGN IS HISTORICALLY SIGNIFICANT. CONTRACTOR SHALL:
  - A. PHYSICALLY PROTECT AND PREVENT DAMAGE TO SIGN DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
  - B. REPAIR OR REPLACE IN KIND (AT THEIR OWN EXPENSE) ANY SIGN ELEMENT DAMAGED IN THE COURSE OF EXECUTING THE WORK. CONTRACTOR IS RESPONSIBLE FOR LOCATING THE SAME OR COMPARABLE SALVAGED HISTORIC MATERIALS TO RECTIFY THE DAMAGE. COSA PWD EMD STAFF (210-207-1454) MUST BE NOTIFIED IMMEDIATELY OF THE DAMAGE AND APPROVE THE PROPOSED REPAIRS AND REPLACEMENT MATERIALS PRIOR TO EXECUTION OF ANY WORK.



**1 MAIN SIGN FRONT**  
NOT TO SCALE



**2 MAIN SIGN BACK**  
NOT TO SCALE

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EXISTING MAIN SIGN

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CHECKED: BBC	SAT	BEXAR	0915 15 579	S3.0



RAISED LETTERS

(6) EACH NEW EXISTING SIGN FACE PANELS. 1/8" THICK SHEET STEEL

FASTENERS TYPICAL TO BE FULLY INSTALLED PRIOR TO MOVING

EXISTING NEW SIGN EDGE



OLD SIGN FACE RETURN

OLD SIGN FACE EDGE CONDITION, REF. 3/S3.1

**1** EXISTING NEW SIGN FACE  
NOT TO SCALE

**2** EXISTING NEW SIGN EDGE & OLD RETURN  
NOT TO SCALE



OLD SIGN FACE EDGE

NEW EXISTING SIGN FACE (BACK)

**3** OLD SIGN FACE EDGE  
NOT TO SCALE



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EXISTING MAIN SIGN FACES

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**1** QUAD ANGLE FRAME MEMBER  
NOT TO SCALE



**2** DOUBLE ANGLE FRAME MEMBER  
NOT TO SCALE

(4) EACH 1½"x1½"x⅝" ANGLE  
(2) EACH 1½"x1½"x⅝" ANGLE

(1) EACH 1½"x1½"x⅝" ANGLE  
(2) EACH 1½"x1½"x⅝" ANGLE



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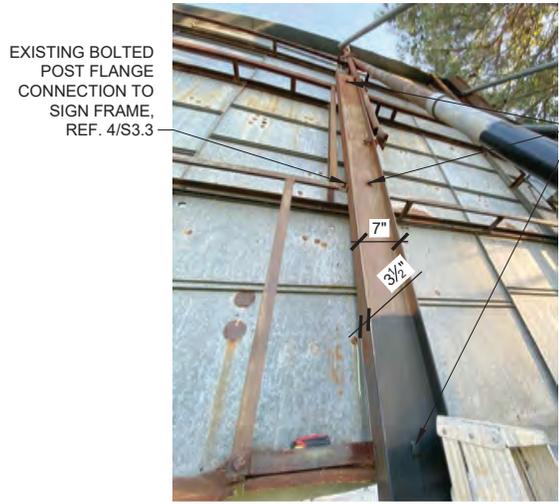
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EXISTING SIGN FRAME  
MEMBERS

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC	TEXAS	ROUTE	FM LOOP 345	
DRAWN: T.J.H.	STATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	S3.2



EXISTING BOLTED POST FLANGE CONNECTIONS TO SIGN FRAME, REF. 4/S3.3

EXISTING BOLTED POST WEB CONNECTIONS TO SIGN FRAME, REF. 4/S3.3

EXISTING BOLTED CONNECTIONS TO SIGN FRAME. REF. 4/S3.3 FOR TYPICAL CONNECTION



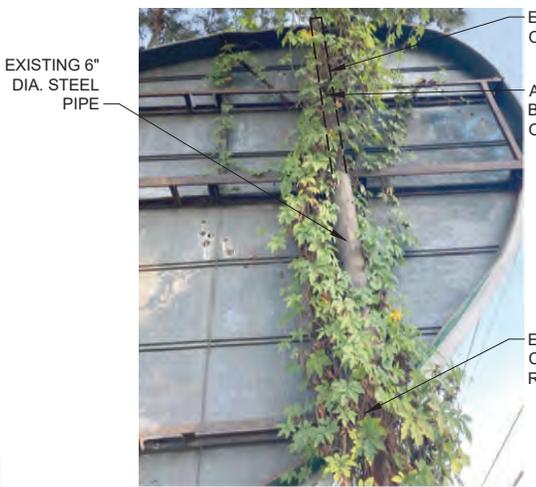
EXISTING 1/2" DIA. BOLT TYPICAL POST WEB CONNECTION

EXISTING 1/2" DIA. BOLT TYPICAL POST FLANGE CONNECTION

**4** SIGN POST 1 & 2 TYPICAL BOLTED CONNECTIONS  
NOT TO SCALE

**1** SIGN POST 1  
NOT TO SCALE

**2** SIGN POST 2  
NOT TO SCALE



EXISTING PIPE EXTENSION OBSCURED BY VINE

ASSUMED EXISTING BOLTED CONNECTION, OBSCURED BY VINE

EXISTING BOLTED CONNECTION, REF. 5/S3.3



EXISTING BRACKET

EXISTING BOLT

EXISTING STEEL PIPE

**3** SIGN POST 3  
NOT TO SCALE

**5** SIGN POST 3 BOLTED CONNECTION  
NOT TO SCALE



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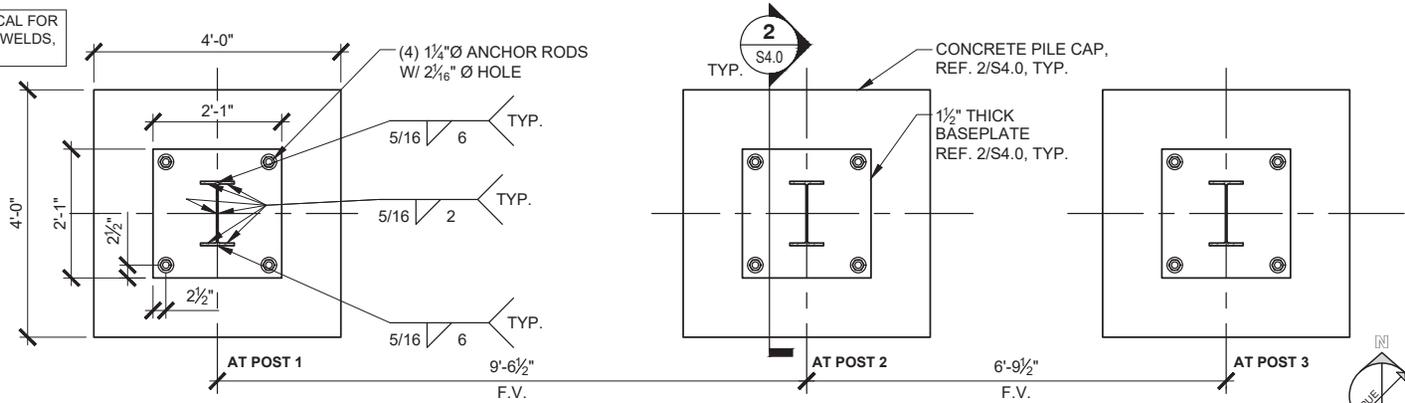
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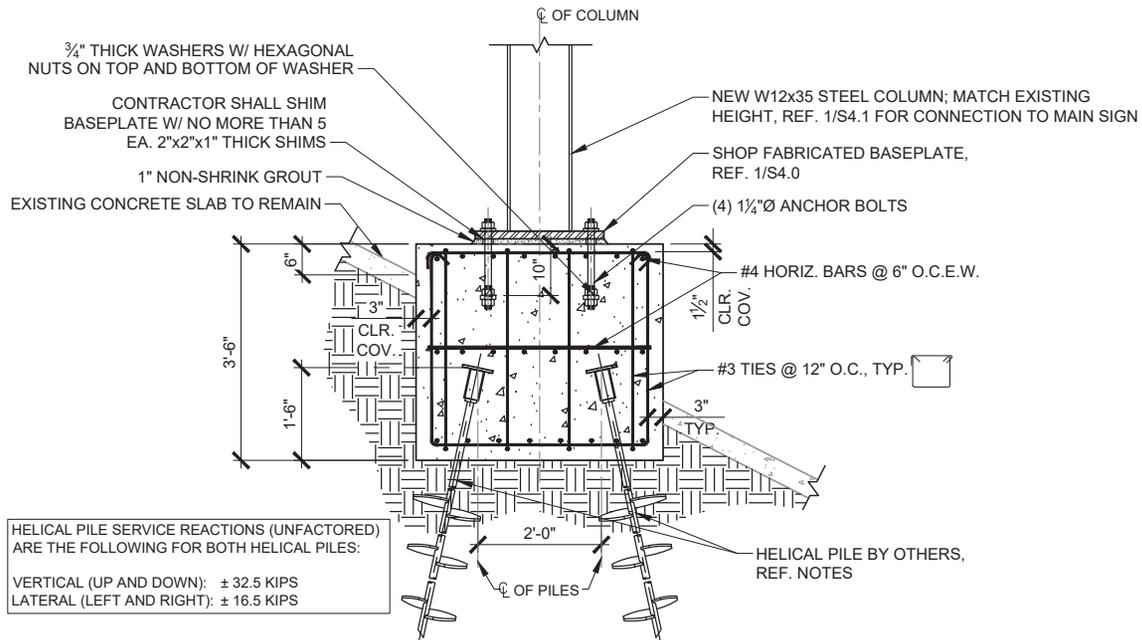
EXISTING MAIN SIGN POSTS

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CHECKED: BBC	TEXAS	95	FM LOOP 345	
DRAWN: T.J.H.	SHEET NO.	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15	579 S3.3

DIMENSIONS TYPICAL FOR ALL BASEPLATES, WELDS, AND PILE CAPS



**1** MAIN SIGN FOUNDATION PLAN  
 1/2" = 1'-0"



HELICAL PILE SERVICE REACTIONS (UNFACTORED) ARE THE FOLLOWING FOR BOTH HELICAL PILES:  
 VERTICAL (UP AND DOWN): ± 32.5 KIPS  
 LATERAL (LEFT AND RIGHT): ± 16.5 KIPS

**2** FOUNDATION SECTION  
 1/2" = 1'-0"



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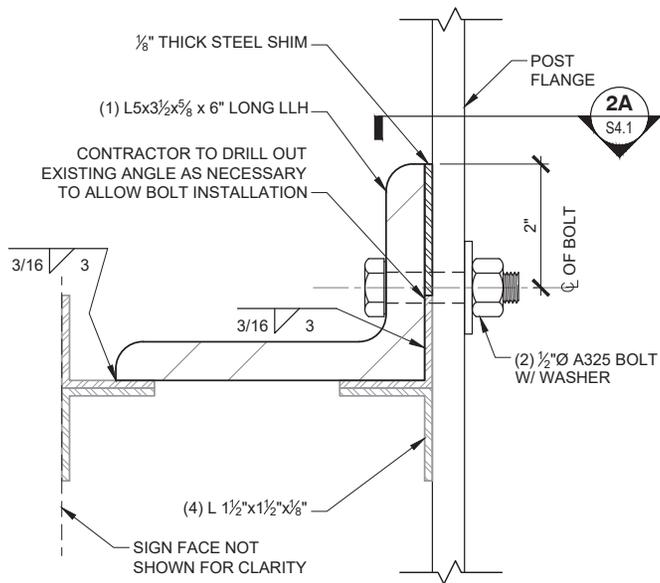
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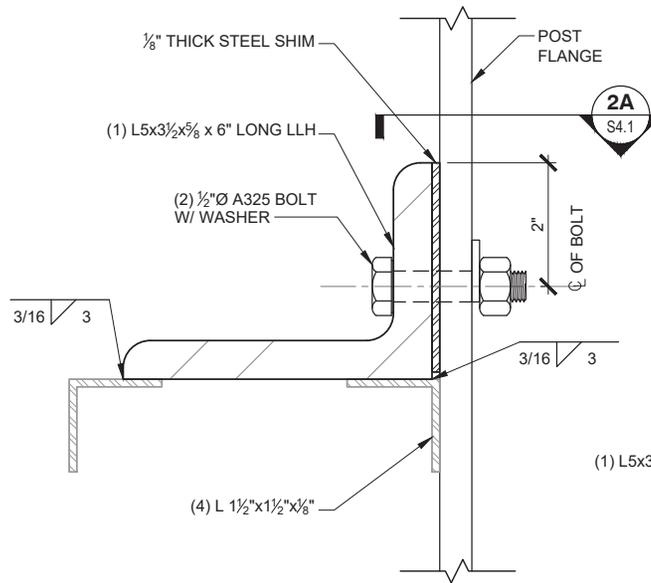


MAIN SIGN FOUNDATION PLAN

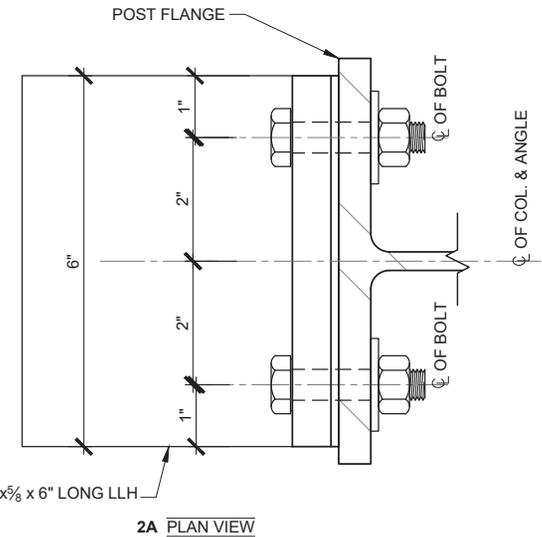
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CHECKED: BBC	TEXAS	99	FM LOOP 345	
DRAWN: T.J.H.	STATE	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	S4.0



**1** CONNECTION TO POST AT QUAD ANGLE FRAME MEMBER  
1" = 2"



**2** CONNECTION TO POST AT DOUBLE ANGLE FRAME MEMBER  
1" = 2"



2A PLAN VIEW



**SHEET NOTES:**

1. NEW CONNECTIONS SHALL BE AT EXISTING CONNECTION LOCATIONS, REF 1, 2, 3/S3.3.
2. REFERENCE TABLE BELOW FOR NUMBERS OF CONNECTIONS FOR EACH POST

POST	NO. QUAD ANGLE CONNECTIONS, REF. DETAIL 1/S4.1	NO. DOUBLE ANGLE CONNECTIONS, REF. DETAIL 2/S4.1
1	1	2
2	1	2
3	1	2

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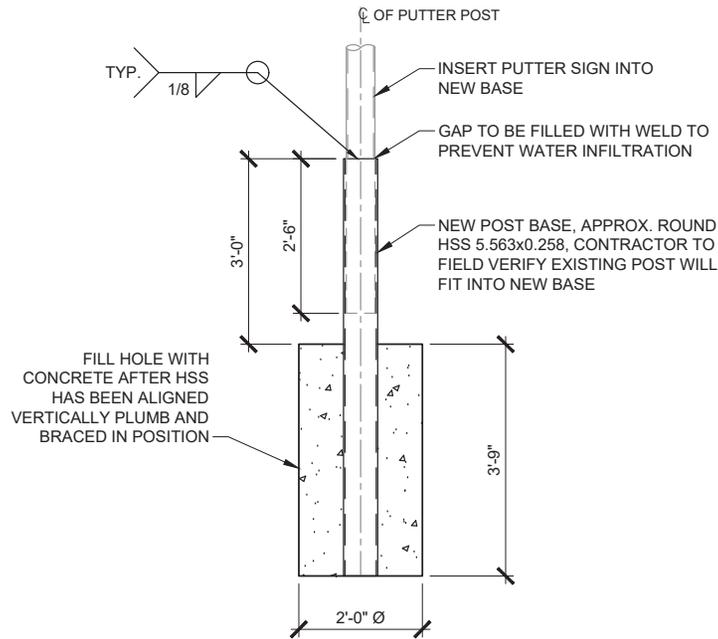
MAIN SIGN CONNECTIONS TO  
NEW POSTS

DESIGNED: MJS/WFM	FED. RD. DIST. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED: BBC		TEXAS		FM LOOP 345
DRAWN: T.J.H.	CITY	COUNTY	CONTROL SECTION	JOB SHEET NO.
CHECKED: BBC	SAT	BEXAR	0915 15 579	S4.1



**PUTTER SIGN REMOVAL AND REINSTALLATION NOTES:**

1. REFERENCE NOTES ON SHEET S1.5 FOR SUBMITTAL REQUIREMENTS ON SIGN REMOVAL, TRANSPORTATION, AND STORAGE.
2. REMOVE SEQUENCE
  - A. SIGN SHALL BE BRACED AND/OR SUPPORTED TO PREVENT FALLING DURING CUTTING OF BASE.
  - B. IF PRESENT ELECTRICAL SUPPLY SHALL BE DISCONNECTED PRIOR TO CUTTING BASE.
  - C. SIGN POST SHALL BE CUT AT BASE AS CLOSE TO GROUND AS POSSIBLE.
  - D. CONTRACTOR SHALL PROVIDE CRIBBING AND/OR BRACING FOR SIGN TRANSPORT AND STORAGE. (REFERENCE SUBMITTAL REQUIREMENTS FOR REMOVAL, TRANSPORTATION, AND STORAGE OF COOL CREST SIGN ON SHEET S1.5).
3. REINSTALLATION SEQUENCE
  - A. SIGN SHALL BE REINSTALLED ON NEW FOUNDATION SHOWN IN DRAWINGS, REF. 2/S5.0.
  - B. FINAL SIGN HEIGHT SHALL MATCH EXISTING.
4. EXISTING SIGN IS HISTORICALLY SIGNIFICANT. CONTRACTOR SHALL:
  - A. PHYSICALLY PROTECT AND PREVENT DAMAGE TO SIGN DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
  - B. REPAIR OR REPLACE IN KIND (AT THEIR OWN EXPENSE) ANY SIGN ELEMENT DAMAGED IN THE COURSE OF EXECUTING THE WORK. CONTRACTOR IS RESPONSIBLE FOR LOCATING THE SAME OR COMPARABLE SALVAGED HISTORIC MATERIALS TO RECTIFY THE DAMAGE. COSA PWD EMD STAFF (210-207-1454) MUST BE NOTIFIED IMMEDIATELY OF THE DAMAGE AND APPROVE THE PROPOSED REPAIRS AND REPLACEMENT MATERIALS PRIOR TO EXECUTION OF ANY WORK.



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PUTTER SIGN

**1** PUTTER SIGN  
NOT TO SCALE

**2** PUTTER SIGN NEW FOUNDATION  
1/2" = 1'-0"

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CHECKED: BBC	SAT	BEXAR	0915	15 579 S5.0

## Appendix F: Supplemental Images

**Project Area Photographs**



Image 1: Southern project terminus, Loop 345 (Fredericksburg Road) at I-10, view facing northwest.



Image 2: Project area along Loop 345 (Fredericksburg Road) at Warner Avenue; view facing southeast.



Image 3: Project area along Loop 345 (Fredericksburg Road) at Warner Avenue; view facing northwest. Resource 17 is on left and Resource 15 is on right.



Image 4: Project area along Loop 345 (Fredericksburg Road) at Warner Avenue; view facing southeast. Non-historic-age bridge (NBI 150150007209184) over Martinez Creek in foreground.



Image 5: Project area along Loop 345 (Fredericksburg Road) at West Drive, Complex 9 on left and Complex 8 on right; view facing northwest.



Image 6: Project area along Loop 345 (Fredericksburg Road) at Louise Street. The area between the curb and the top of the embankment is the proposed ROW.



Image 7: Project area along Loop 345 (Fredericksburg Road) at Key Street; view facing southeast. Resource 3 and Complex 4 on left, Complex 5 on right.



Image 8: Northern project terminus, Loop 345 (Fredericksburg Road) at West Agarita Avenue. Complex 2 is on left, non-historic age Resource 1F is on right.

Supplemental Images: Cool Crest Miniature Golf (Resource 6)

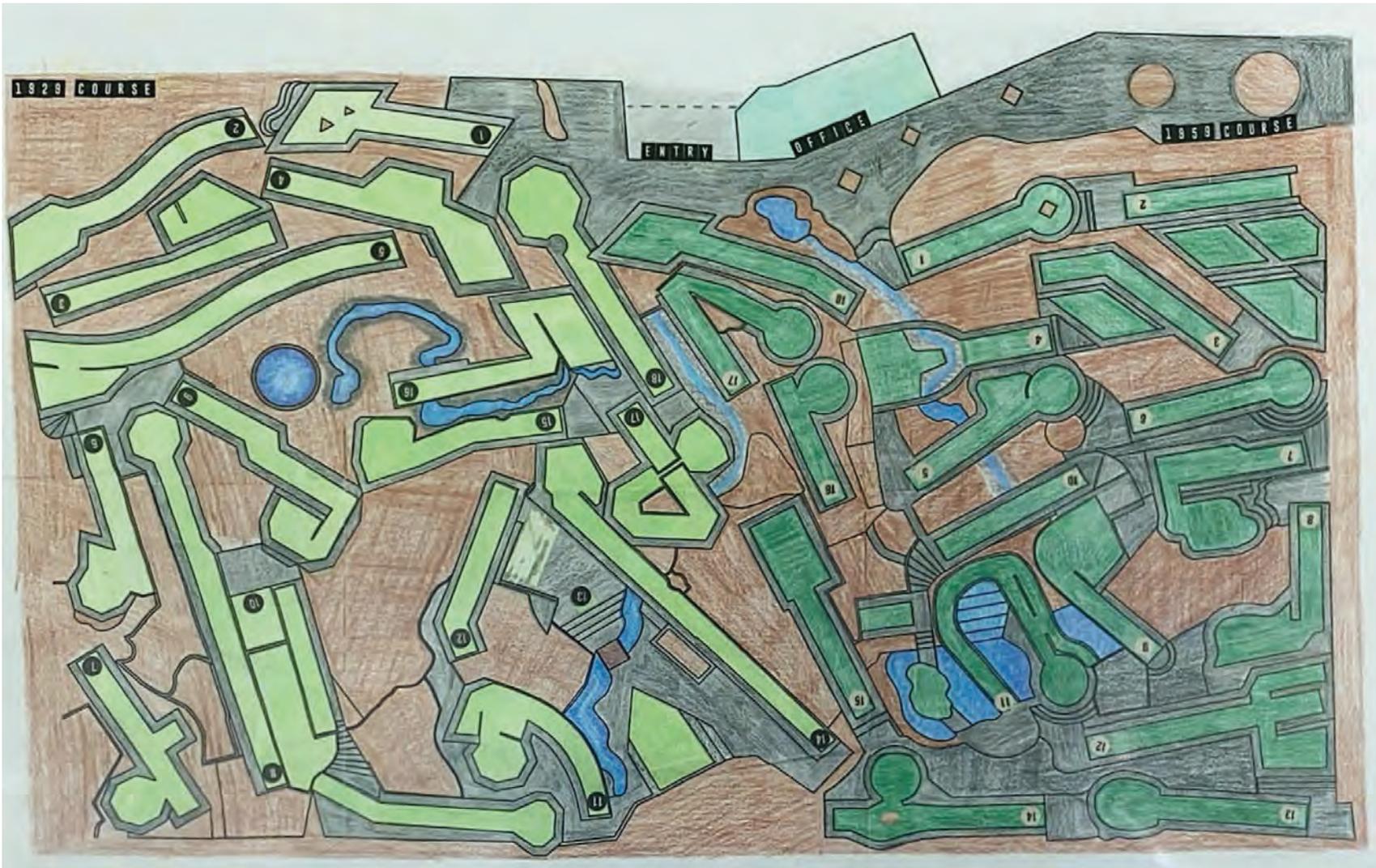


Image 9. Excerpt of a 2013 topographic survey of Cool Crest Miniature Golf showing the overall plan. The original course (left in light green) has geometrically shaped greens whereas the c. 1959 course (right in dark green) has rounded greens and hardscapes and more varied topography. (Source: Frontier Surveying Company)



Image 10. Examples of hole design on the c. 1930 course. Hole 7 has a straight fairway that slopes to the left away from the hole (left). Curbs restrict ball movement and can be used to redirect the ball toward the hole. Hole 13 requires golfers to chip the ball over a *faux bois* foot bridge and on to the green (right). Some survey forms include historical photographs.



Image 11. Examples of hole design on the c. 1959 course. At Hole 7, players must putt the ball into a hole on the top level and then the ball travels down a tunnel to the lower level where the winning hole is located (left). Hole 11 has a banked fairway that travels over a pool of water and makes a 180-degree turn (right).

*Comparison of historical versus current photographs. Historical photographs from the Andry family collection; all undated unless otherwise noted. Current photographs taken October/November 2020.*

**c. 1929 course**



Historical Photo

Present Day

Image 12. Tree in historical photo removed and planter added.



Historical Photo



Present Day

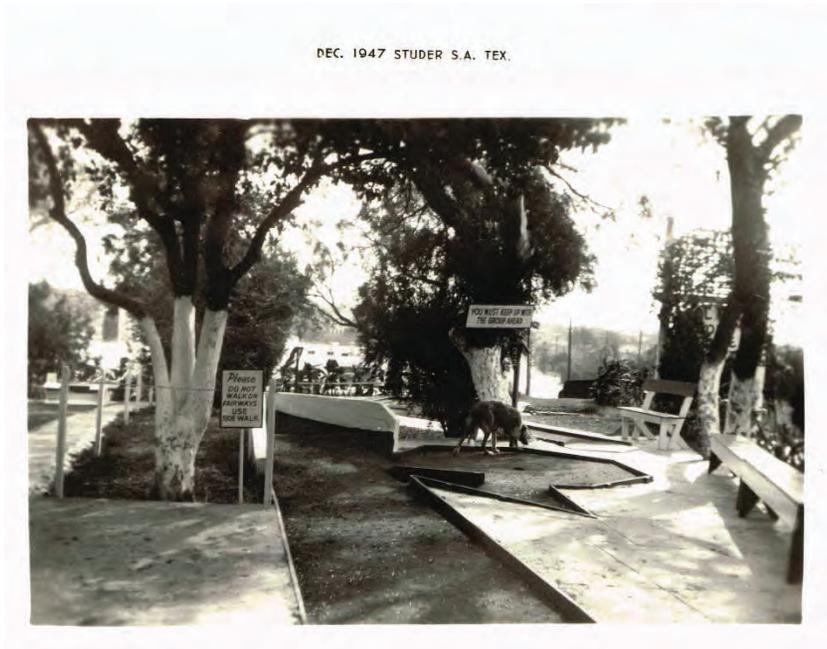
Image 13. Retaining wall cladding at right in present day photo is not original.



Historical Photo

Present Day

Image 14. No evident changes.



Historical Photo (1947)

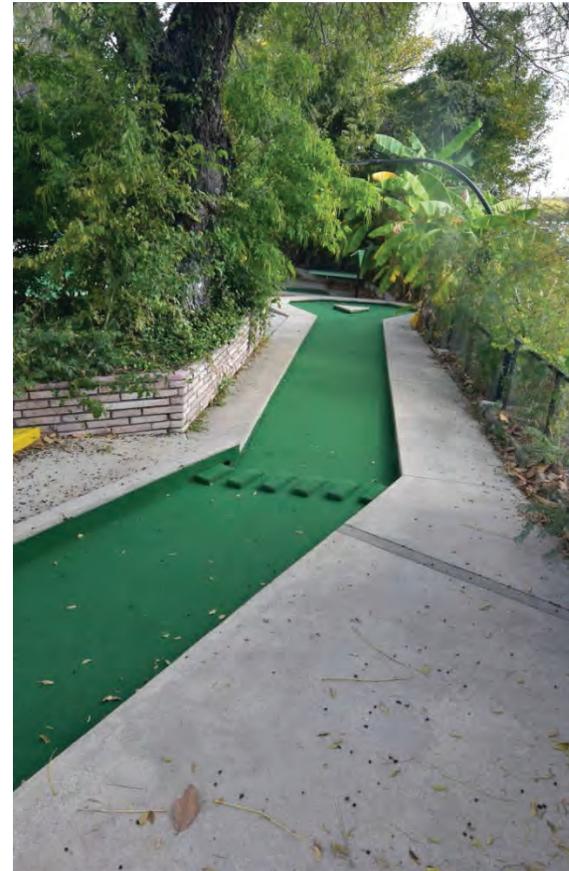


Present Day

Image 15. Original benches and signs removed, oak or mesquite trees removed, concrete curb added around softscape area and fence removed.



Historical Photo



Present Day

Image 16. Wood hazard replaced with mounds, wood curbs replaced with concrete, retaining wall added.

c. 1959 Course



Historical Photo



Present Day

Image 17. Paint added to stairs.



Historical Photo



Present Day

Image 18. Retaining wall at top left in present day photo is not original.



Historical Photo

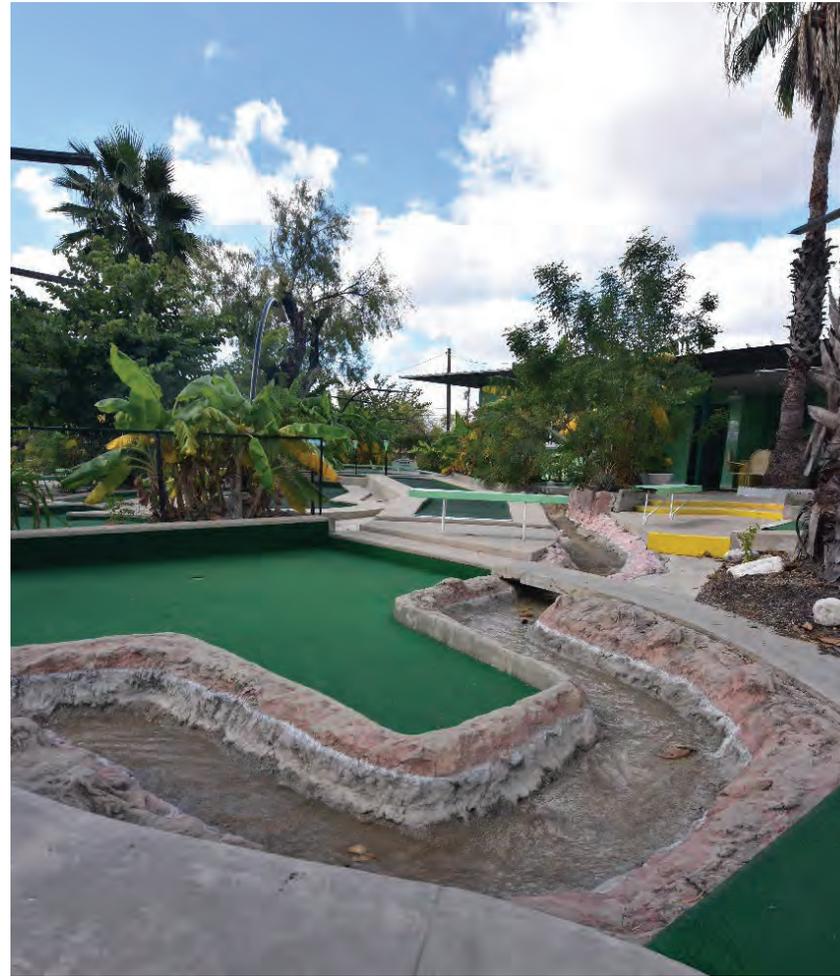


Present Day

Image 19. Retaining wall at right in present day photograph is an alteration.



Historical Photo



Present Day

Image 20. No evident changes.



Historical Photo



Present Day

Image 21. Paint added to stairs.

## Appendix G: Consulting Party Comments

**From:** [Sandra Shannon](#)  
**To:** "fdalmarazjr1@att.net"  
**Subject:** FW: Proposed improves to Fredericksburg Road  
**Date:** Friday, November 6, 2020 2:21:00 PM  
**Attachments:** [FredericksburgRd\\_all Figure 1 Project Location road 20200603\\_SGL.pdf](#)

---

**From:** Sandra Shannon  
**Sent:** Monday, October 5, 2020 4:46 PM  
**To:** fdalmarazjr1@att.net  
**Subject:** Proposed improves to Fredericksburg Road

Hi Dr. Almaraz,

I am contacting you in your capacity as the chair of the Bexar County Historical Commission. The City of San Antonio (CoSA) is proposing improvements to Fredericksburg Road (Loop 345) from I-10 to West Agarita Avenue. Please see the attached project location map.

My firm, Cox|McLain Environmental Consulting, was contracted to identify historic properties within the project area and to evaluate the effect the proposed project may have on them. We are aware that the locally listed Cool Crest Mini Golf Course at 1402 Fredericksburg Road is in the project area and that four additional local landmarks are near the project area (135 Beal Street, 1622 West Huisache Avenue, 1527 West Mistletoe Avenue, and 1544 West Mistletoe Avenue).

We would appreciate any information you or other members of the Bexar County Historical Commission may have regarding any significant historic resources in the project area, especially those that may not currently have a designation. Please feel free to call or email me with any information you may have (or just to state that you aren't aware of anything significant in the area). We also want to emphasize that we are certainly not asking you to do our work – we just want to make sure we consider any resources that you may already be aware of.

Thank you in advance for your help!

Sandy

SANDY SHANNON | Senior Architectural Historian  
**COX|McLAIN Environmental Consulting, Inc.**  
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**From:** [Jenny Hay \(OHP\)](#)  
**To:** [Sandra Shannon](#)  
**Subject:** Re: [EXTERNAL] FW: Proposed improvements to Fredericksburg Road  
**Date:** Thursday, November 5, 2020 12:03:07 PM

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Sandy,

Thanks for reaching out - I was the person that shared the documents related to Cool Crest and Woodlawn Place with Miranda Garrison. That's all we have in our files related to this area.

jenny hay, PhD  
ScoutSA Program Manager  
210-207-0166

---

**From:** Sandra Shannon <sandys@coxmcclain.com>  
**Sent:** Thursday, November 5, 2020 8:07 AM  
**To:** Jenny Hay (OHP) <Jenny.Hay@sanantonio.gov>  
**Subject:** [EXTERNAL] FW: Proposed improvements to Fredericksburg Road

Hi Ms. Hay,

I recently contacted Ms. Miller in her capacity with the City of San Antonio Certified Local Government regarding a proposed project on Fredericksburg Road (see below/attached). I know that Ms. Miller is very busy, so I thought I'd try you. We are interesting in any information your office may have regarding historic resources in the project area, especially those that are not already designated. I should note that since I last wrote we have obtained copies of the Cool Crest landmark application and the Woodlawn Place historic district application.

Thank in advance for any help you can provide!

Sandy Shannon

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**From:** Sandra Shannon  
**Sent:** Monday, October 5, 2020 4:49 PM  
**To:** shanon.miller@sanantonio.gov  
**Subject:** Proposed improvements to Fredericksburg Road

Hi Ms. Miller,

I am contacting you in your capacity with the City of San Antonio Certified Local Government. As you may know, the City of San Antonio (CoSA) is proposing improvements to Fredericksburg Road (Loop 345) from I-10 to West Agarita Avenue. Please see the attached project location map.

My firm, Cox|McLain Environmental Consulting, was contracted to identify historic properties within the project area and to evaluate the effect the proposed project may have on

them. We are aware that the locally listed Cool Crest Mini Golf Course at 1402 Fredericksburg Road is in the project area and that four additional local landmarks are near the project area (135 Beal Street, 1622 West Huisache Avenue, 1527 West Mistletoe Avenue, and 1544 West Mistletoe Avenue). We also understand that there was an application for a Woodlawn Place Historic District, but that the application expired.

We would appreciate any information you may have regarding any significant historic resources in the project area, especially those that may not currently have a designation. Please feel free to call or email me with any information you may have (or just to state that you aren't aware of anything significant in the area). We also want to emphasize that we are certainly not asking you to do our work – we just want to make sure we consider any resources that you may already be aware of.

Thank you in advance for your help!

Sandy

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## Sandra Shannon

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**From:** Sandra Shannon  
**Sent:** Monday, October 5, 2020 4:51 PM  
**To:** 'conserve@saconservation.org'  
**Subject:** Proposed improvements to Fredericksburg Road  
**Attachments:** FredericksburgRd\_all\_Figure 1\_Project\_Location\_road\_20200603\_SGL.pdf

Hi Mr. Michael,

I am contacting you in your capacity as the Executive Director of the Conservation Society of San Antonio (CSSA). The City of San Antonio (CoSA) is proposing improvements to Fredericksburg Road (Loop 345) from I-10 to West Agarita Avenue. Please see the attached project location map.

My firm, Cox|McLain Environmental Consulting, was contracted to identify historic properties within the project area and to evaluate the effect the proposed project may have on them. We are aware that the locally listed Cool Crest Mini Golf Course at 1402 Fredericksburg Road is in the project area and that four additional local landmarks are near the project area (135 Beal Street, 1622 West Huisache Avenue, 1527 West Mistletoe Avenue, and 1544 West Mistletoe Avenue).

We would appreciate any information you may have regarding any significant historic resources in the project area, especially those that may not currently have a designation. Please feel free to call or email me with any information you may have (or just to state that you aren't aware of anything significant in the area). We also want to emphasize that we are certainly not asking you to do our work – we just want to make sure we consider any resources that you may already be aware of.

Thank you in advance for your help!

Sandy

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