

HISTORIC AND DESIGN REVIEW COMMISSION

November 01, 2017

HDRC CASE NO: 2017-538
ADDRESS: 8314 S PRESA ST
LEGAL DESCRIPTION: NCB 10923 BLK LOT TR 1 & TR 2
ZONING: R-6 H
CITY COUNCIL DIST.: 3
DISTRICT: Mission Historic District
APPLICANT: Eduardo Villalon, P.E./San Antonio River Authority
OWNER: San Antonio River Authority
TYPE OF WORK: Construction of a hike and bike trail
APPLICATION RECEIVED: October 13, 2017
60-DAY REVIEW: December 12, 2017
REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to construct a multiuse pedestrian trail to span approximately 0.22 miles in length. The trail will be constructed of concrete paving. The proposal includes a canopy shade structure to cover a picnic area, tree removal and new landscaping, directional signage, trash receptacles, and a pedestrian bridge.

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.

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.

6. Non-Residential and Mixed Use Streetscapes

A. STREET FURNITURE

- i. *Historic street furniture*—Preserve historic site furnishings, including benches, lighting, tree grates, and other features.
- ii. *New furniture*—Use street furniture such as benches, trash receptors, tree grates, and tables that are simple in design and are compatible with the style and scale of adjacent buildings and outdoor spaces when historic furnishings do not exist.

B. STREET TREES

- i. *Street trees*—Protect and maintain existing street trees. Replace damaged or dead trees with trees of a similar species, size, and growth habit.

C. PAVING

- i. *Maintenance and alterations*—Repair stone, masonry, or glass block pavers using in-kind materials whenever possible. Utilize similar materials that are compatible with the original in terms of composition, texture, color, and detail, when in-kind replacement is not possible.

D. LIGHTING

- i. *General*—See UDC Section 35-392 for detailed lighting standards (height, shielding, illumination of uses, etc.).
- ii. *Maintenance and alterations*—Preserve historic street lights in place and maintain through regular cleaning and repair as needed.
- iii. *Pedestrian lighting*—Use appropriately scaled lighting for pedestrian walkways, such as short poles or light posts (bollards).
- iv. *Shielding*—Direct light downward and shield light fixtures using cut-off shields to limit light spill onto adjacent properties.
- v. *Safety lighting*—Install motion sensors that turn lights on and off automatically when safety or security is a concern. Locate these lighting fixtures as discreetly as possible on historic structures and avoid adding more fixtures than 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.

Unified Development Code Sec. 35-640. - Public Property and Rights-of-Way.

- (a) **Public Property.** Generally, the historic and design review commission will consider applications for actions affecting the exterior of public properties except in the case of building interiors that are the sites of major public assemblies or public lobbies. The historic and design review commission will also consider applications for actions affecting public properties such as city parks, open spaces, plazas, parking lots, signs and appurtenances.
- (b) **Public Rights-of-Way.** Generally, the historic and design review commission will consider applications for actions affecting public rights-of-way whose construction or reconstruction exceeds in quality of design or materials standards of the design manual of the public works department.

Unified Development Code Sec. 35-646. - Construction in Public Rights-of-Way.

- (a) **General Provisions.** All construction in the public right-of-way shall conform to all city codes. In considering an application, the historic and design review commission shall be guided by the following:
 - (1) **Sidewalk Zones.** Pedestrian movement should be pleasant, allowing for store browsing, comfortable transit waiting and easy accessibility for disabled people. Where possible, sidewalks should at least five (5) feet in width. Existing sidewalks should not be narrowed when replaced.
 - (2) **Sidewalk Paving and Surfaces.** Materials should complement stylistic differences of individual buildings, particularly when related to historic buildings.
 - A. **Materials.** Materials should be chosen for beauty, strength, longevity, easy maintenance and traction when dry or wet.
 - B. **Color and Texture.** To ensure the safety of pedestrians, all changes in surfaces should be defined by contrasting color, texture or materials.
 - (3) **Street Features and Arrangements.** Historic districts and the downtown, as well as other distinct areas of the city have diverse character and any street furniture selected for these areas should complement these differences. In addition, the clustering of street furniture in one (1) place is recommended. Trash receptacles, seating, telephones and other street furniture should be grouped together.
 - A. **Circulation.** A clear path-of-travel of thirty-six (36) inches wide shall be maintained in and around street features and arrangement.
 - B. **Seating.** Seating should be physically comfortable and inviting, durable and attractive. Plaza and open space

seating should also be socially comfortable by offering a variety of choices such as in the sun or shade, near traffic and activity or not, and alone or in groups.

- C. Drinking Fountains. Placing drinking fountains in new development is encouraged. Fountains should be placed within general areas of pedestrian traffic and located on accessible surfaces.
- D. Trash Receptacles. Trash receptacles should blend visually with their surroundings and their design and location should make use as convenient as possible.
- E. Vending Machines. Vending machines will not dispense items other than newspapers and periodicals. Vending machines shall be clustered together and away from intersection corners.
- F. Vending Carts and Kiosks. Vending carts and kiosks are encouraged in locations that do not impede normal pedestrian traffic.
- G. Outdoor Dining. Lease of public right-of-way for outdoor dining is encouraged in appropriate locations. Lease of sidewalk space for outdoor dining shall be managed through the department of parks and recreation and shall comply with all city codes. It is recommended that at least eight (8) feet of sidewalk be retained between the curb and the leased or licensed space to provide an uninterrupted public walkway.
- H. Street Objects. Utility boxes, vending machines and so on should not be located in sidewalk zones. Their design and color should be compatible with character of their surroundings.

(4) Streetscape Landscaping. Landscaping, particularly streets trees, are an important addition to the streetscape because of the hot Texas climate. Appropriate application along sidewalks strengthens the visual quality of public streets. Careful selection of plant materials, using native and low-water use plants, is recommended.

(Ord. No. 98697 § 6)

Sec. 35-645. - Signs and Billboards on Public Property or Right-of-Way.

(a) General Provisions. All non-regulatory signage on public property, on the public right-of-way, or overhanging the public right-of-way shall conform to all city codes and must be approved by the historic preservation officer prior to installation. Permits must be obtained following approval of the application. The historic preservation officer may submit an application under this section to the historic and design review commission for their recommendation prior to approving, denying, or approving with conditions the application. Memorials, markers, naming rights of public property, and recognition of charitable donations given to the City of San Antonio shall be additionally governed by existing policies for memorials and markers and/or any formal action passed by city council. Temporary displays approved by the department exercising control of the public property are authorized if in accordance with chapter 28 of the City Code of San Antonio, Texas.

(b) Sign Definitions. For signage definitions, refer to subsection 35-612(b) and chapter 28 of the City Code.

(c) Proportion of Signs. Signage width and height must be in proportion to the facade, respecting the size, scale and mass of the facade, building height, and rhythms and sizes of window and door openings. The building facade shall be considered as part of an overall sign program but the sign shall be subordinate to the overall building composition. Additionally, signs should respect and respond to the character and/or period of the area in which they are being placed.

(d) Standards for Sign Design and Placement. In considering whether to recommend approval or disapproval of an application for a certificate to construct or alter signage on a building, object, site, or structure, the historic and design review commission shall be guided by the following standards in addition to any specific design guidelines adopted by city council:

- (1) Primary sign design considerations shall be identification and legibility. Size, scale, height, color and location of signs shall be harmonious with, and properly related to, the overall design of the building or structure and the surrounding area.
- (2) The number of signs on each building shall be kept to a minimum to prevent unsightly clutter and confusion.
- (3) Signs which describe, point, or direct the reader to a specific place or along a specific course, such as "entrance," "exit," and "handicap access" shall be reviewed.
- (4) All graphic elements shall reinforce the architectural integrity of any building. Signs should not disfigure, damage, mar, alter, or conceal architectural features or details and should be limited to sizes which are in scale with the architecture and the streetscape. The historic and design review commission shall be guided by the building's proportion and scale

when such elements are incorporated.

(5) Additionally, when reviewing applications for signage the historic preservation officer and the historic and design review commission shall consider the visual impact on nearby historic resources and established neighborhood character.

(f) Prohibited Signs. Signs that shall not be permitted include:

(1) Any sign placed upon a building, object, site, or structure in any manner so as to disfigure, damage, interrupt, or conceal any window opening, door, or significant architectural feature or detail of any building;

(2) Roof mounted signs, except in the cases of (i) integral design with the building; (ii) a contributing sign; (iii) or otherwise allowed in this article;

(3) Digital and/or LED lighted signs, not to include LED light sources that do not meet the definition of a sign, with or without rotating, flashing lettering, icons or images. Except as provided below:

A. A public transportation agency may incorporate transit information signage into transit shelters, utilizing LED or digital technology, provided the signage is contained within or under the transit shelter, and is limited to five (5) square feet of signage area, and one (1) sign per thirty (30) linear feet of pedestrian shelter.

B. A public transportation agency may incorporate transit information signage into a monument sign at transit stops, utilizing LED or digital technology, provided it is limited to five (5) square feet of signage area.

C. A public transportation agency may incorporate transit information signage into a monument sign at transit facilities (other than transit stops), utilizing LED or digital technology, provided it is limited to seven (7) square feet of signage area.

D. The historic preservation officer may impose additional restrictions on illumination to ensure that the character of signs are harmonious with the character of the structures on which they are to be placed and any designated landmarks or districts in the area, provided that such restrictions are reasonably related to other conforming signs and conforming structures in the area, do not unreasonably restrict the amount of signage allowed by this section, and are in keeping with the intent of this section. Among other things, consideration shall be given to the location and illumination of the sign in relation to the surrounding buildings, the use of appropriate materials, the size and style of lettering and graphics, and the type of lighting proposed. Notwithstanding the above, applicants may not exceed illumination restrictions contained in chapter 28.

FINDINGS:

- a. The property located at 8314 S Presa is located within the Mission Historic District. The applicant has proposed to construct a multiuse public trail to span approximately 0.22 miles in length. The trail will be constructed of concrete paving. The proposal includes a canopy shade structure to cover a picnic area, tree removal and new landscaping, directional signage, trash receptacles, and a pedestrian bridge.
- b. PAVING – The proposed trail will be constructed of concrete paving. The concrete will be colored Mesa Buff as indicated in the submitted exhibits. According to the UDC, walkway or paving materials should be chosen for beauty, strength, longevity, easy maintenance and traction when dry or wet. The material is compatible for its proposed use. Staff finds the proposed trail material appropriate.
- c. SHADE STRUCTURE – The applicant has proposed to install a canopy shade structure to cover a picnic area. The structure will be constructed of metal support columns and a metal roof canopy structure. The shade structure canopy and structure will be painted in the shade Old Copper as indicated in the exhibits. Staff finds the size, design, materiality, color appropriate for the structure’s setting and purpose.
- d. SEATING – The applicant has proposed to install several picnic tables for seating beneath the shade structure. According to the UDC, seating should be physically comfortable and inviting, durable and attractive. Staff finds the proposal appropriate.
- e. TRASH RECEPTICLES –According to the UDC, receptacles should blend visually with their surroundings and their design and location should make use as convenient as possible. The proposed receptacle designs are conveniently located at trail focal points and compatible with both the proposed built and existing natural environment. Staff finds the placement and design appropriate.
- f. DIRECTIONAL SIGNAGE – The applicant has proposed to install directional signs throughout the trail that are to be non-illuminated and constructed of masonry, bronze accent medallions, and informational signage panels. The signs will feature an overall height of either approximately 2’-8” with a width of approximately 2’-0”. According to the UDC, primary sign design considerations shall be identification and legibility. Size, scale,

height, color and location of signs shall be harmonious with, and properly related to, the overall design of the building or structure and the surrounding area. Staff finds the proposed signage appropriate in regards to location, size, and design.

- g. ARCHAEOLOGY- The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

RECOMMENDATION:

Staff recommends approval based on findings a through h with the following stipulation:

- i. ARCHAEOLOGY- The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.
- ii. That no directional or wayfinding signage exceeds six feet in height.

CASE MANAGER:

Stephanie Phillips

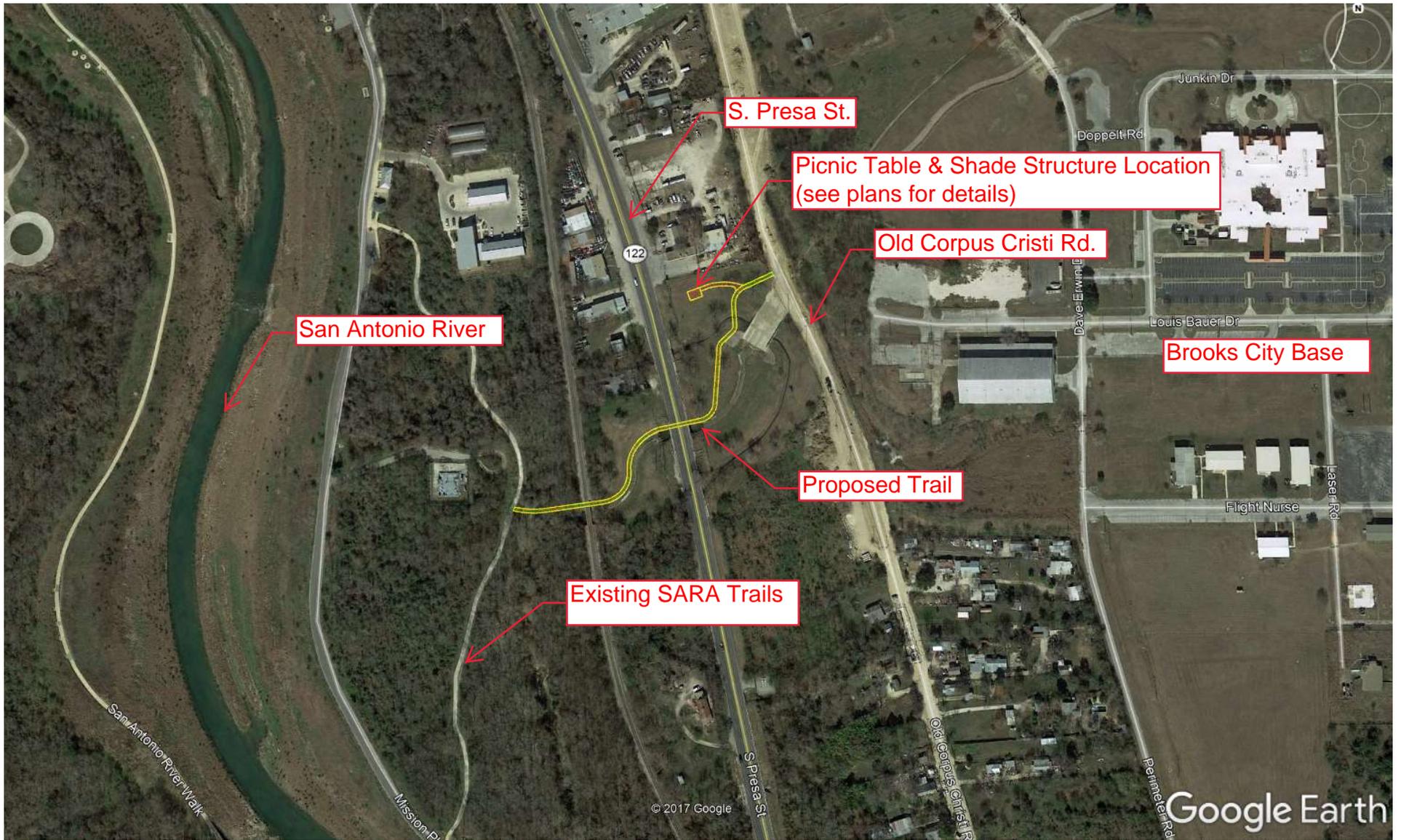


Flex Viewer

Powered by ArcGIS Server

Printed: Oct 23, 2017

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Proposed Trail Location



Proposed Trail
Approx. Location

Photo 1. Brooks Creek facing West



Proposed Trail
Approx. Location

Photo 2. Brooks Creek facing west



Proposed Trail
Approx. Location

Photo 3. Brooks Creek facing West at UPRR Bridge



Photo 4. Proposed Picnic Location
Existing location on Mission Reach of San Antonio River
(See color spec. sheet & plan sheet for more details)

Hike & Bike Concrete Trail Color



Cobblestone 860	Cocoa 6130	Dark Gray (Carbon) *8084	Dark Gray (Iron Oxide) 860	Dune 6058	Eastern Tan 61222	Euroblue (Cobalt) 418	Flagstone Brown 641
Granite Red 1395	Graphite (Carbon) *8084	Graphite (Iron Oxide) 860	Green Slate 3685	Harvest Gold 5084	Jet Black (Carbon) *8084	Jet Black (Iron Oxide) 860	Kailua 677
Lakeside Brown 6804	Light Gray (Carbon) *8084	Light Gray (Iron Oxide) 860	Mesa Buff 5447	Mesquite 677	Miami Buff 5447	Mocha 6058	Omaha Tan 5084
Outback 677	Padre Brown 61078	Palomino 5447	Pebble 641	Pewter 860	Plum 1395	Pueblo Brown 61078	Roadside Brown 6804
Rustic Brown 6058	Salmon 10134	San Diego Buff 5237	Sandstone 5237	Sangria 1117	Santa Fe 1117	Sequoia Sand 641	Sierra 61078

= Selected color for project
Concrete Trail

DuMor Material Options

Wood Species



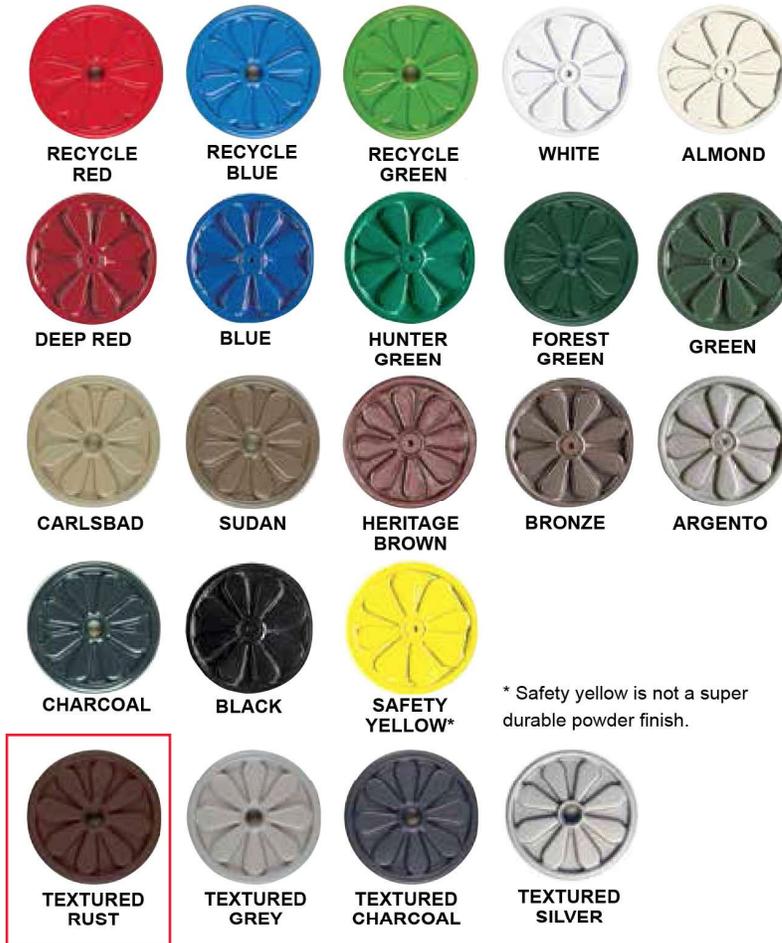
Approver to select color for both recycled plastic slats and powder coated frames on drawing

Recycled Plastic Lumber Color Options



= Selected color for project Picnic Table

Standard Powder coat Options

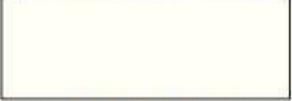
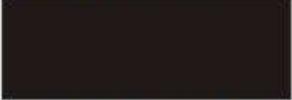
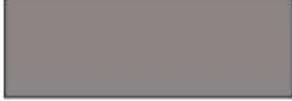


Additional powder coat colors options available upon request and fee.

Matthews Paint

Color Selector Page 3

Shade Structure & Canopy Color

 Mp25542 Amethyst Violet LRV 10.2	 Mp10217 Rich Brown LRV 5.8	 Mp19757 Burgundy Metallic LRV 9
 Mp29705 Grape Jello LRV 10.3	 Mp23647 Fire Weed Red LRV 15.2	 Mp19759 Raspberry Metallic LRV 11.6
 Mp25593 High Society Violet LRV 26.4	 Mp11477 Natural White LRV 89.3	 Mp24661 Hapsburg Blue Metallic LRV 7.8
 Mp25867 Graceful Grape LRV 22.7	 Mp30132 Jet Black LRV 4.2	 Mp27540 Balsam Green Metallic LRV 10.5
 Mp25550 Deep Purple LRV 7.8	 Mp30133 Brilliant Gold over Mp18645 Base Coat LRV 55.5	 Mp21843 Old Orchid Metallic LRV 14.8
 Mp25829 Taos Sand Beige LRV 60.3	 Mp30134 Aztec Gold over Mp34132 Base Coat LRV 39.7	 Mp16771 Champagne Grey Metallic LRV 43.5
 Mp25833 Bone White LRV 68.7	 Mp30135 Aztec Copper over Mp32759 Base Coat LRV 19.4	 Mp28448 Umbra Grey Metallic LRV 31.5
 Mp25849 Durango Grey LRV 24.6	 Mp30136 Brushed Aluminum LRV 68.2	 Mp15720 Medium Bronze LRV 14.8
 Mp25839 Clay Basket Brown LRV 19.5	 Mp21606 Tucson Gold LRV 34.6	 Mp27168 Old Copper LRV 10.5
 Mp23446 Country Red LRV 7.8	 Mp24161 Copper LRV 25.5	 Mp26077 Dark Bronze LRV 12.1

 = Selected color for project
Shade Structure, Canopy & Ped. Bridge

SAN ANTONIO RIVER AUTHORITY

BROOKS CITY BASE CONNECTION

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MANAGEMENT

SUZANNE B. SCOTT	GENERAL MANAGER
STEPHEN T. GRAHAM, P.E.	ASSISTANT GENERAL MANAGER

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- C7. CROSS SECTIONS STA. STA. 5+25 TO STA. 9+75
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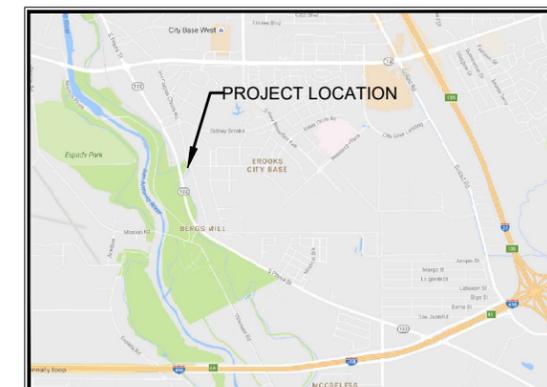
SAN ANTONIO
RIVER AUTHORITY

Leaders In Watershed Solutions

PREPARED BY:
The San Antonio River Authority

MAY 2017

LOCATION MAP



DUSTIN MOORE, PE
THE SAN ANTONIO RIVER AUTHORITY

TREE TYPE	TOTAL Ø SIGN. (IN.)	TOTAL Ø HERITAGE (IN.)
PECAN	211	106
CEDAR ELM	39	0
ELM	74	0
OAK	134	0
CYPRESS	41	0
ASH	94	0
WILLOW	166	0
CHINABERRY	16	0
MULBERRY	30	0
HUISACHE	0	24
HACKBERRY	234	0
ANAQUA	0	0
PALM	12	0
TOTAL:	1,051	130

TREE TYPE	TOTAL Ø SIGN. (IN.) TO BE REMOVED	TOTAL Ø HERITAGE (IN.) TO BE REMOVED	TOTAL Ø MITIGATION (IN.) EXISTING NON. PROTECTED
PECAN	0	0	0
CEDAR ELM	0	0	0
ELM	6	0	0
OAK	0	0	0
CYPRESS	0	0	0
ASH	0	0	8
WILLOW	30	0	0
CHINABERRY	8	0	0
MULBERRY	6	0	0
HUISACHE	0	0	0
HACKBERRY	62	0	370
ANAQUA	0	0	3
PALM	0	0	0
TOTAL:	112	0	381

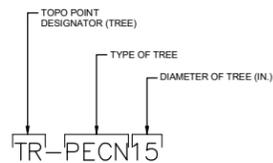
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TR-PECN	PECAN
TR-CDRELM	CEDAR ELM
TR-ELM	ELM
TR-OAK	OAK
TR-CYPRS	CYPRESS
TR-ASH	ASH
TR-WILO	WILLOW
TR-CHNBRY	CHINABERRY
TR-MLBRY	MULBERRY
TR-HUIS	HUISACHE
TR-HACK	HACKBERRY
TR-ANA	ANACUA



PROP. TREE TO BE REMOVED



PROP. TREE TO REMAIN



LEGEND	
--- EX WL ---	EXIST. WATERLINE
--- T --- T ---	EXISTING TELEPHONE
--- R.O.W. ---	RIGHT OF WAY
--- GAS ---	EXISTING GAS LINE
--- FENCE ---	EXIST. FENCE
--- FOC --- FOC ---	EXISTING FIBER OPTIC
--- ELEC. ---	EXISTING OVHD. ELEC.

1" = 40'

NO.	REVISION	DATE	BY

DESIGNED BY: _____
 DRAWN BY: DM
 CHECKED BY: JT
 APPROVED BY: DM
 DATE: 19APR17 FILE: 0525

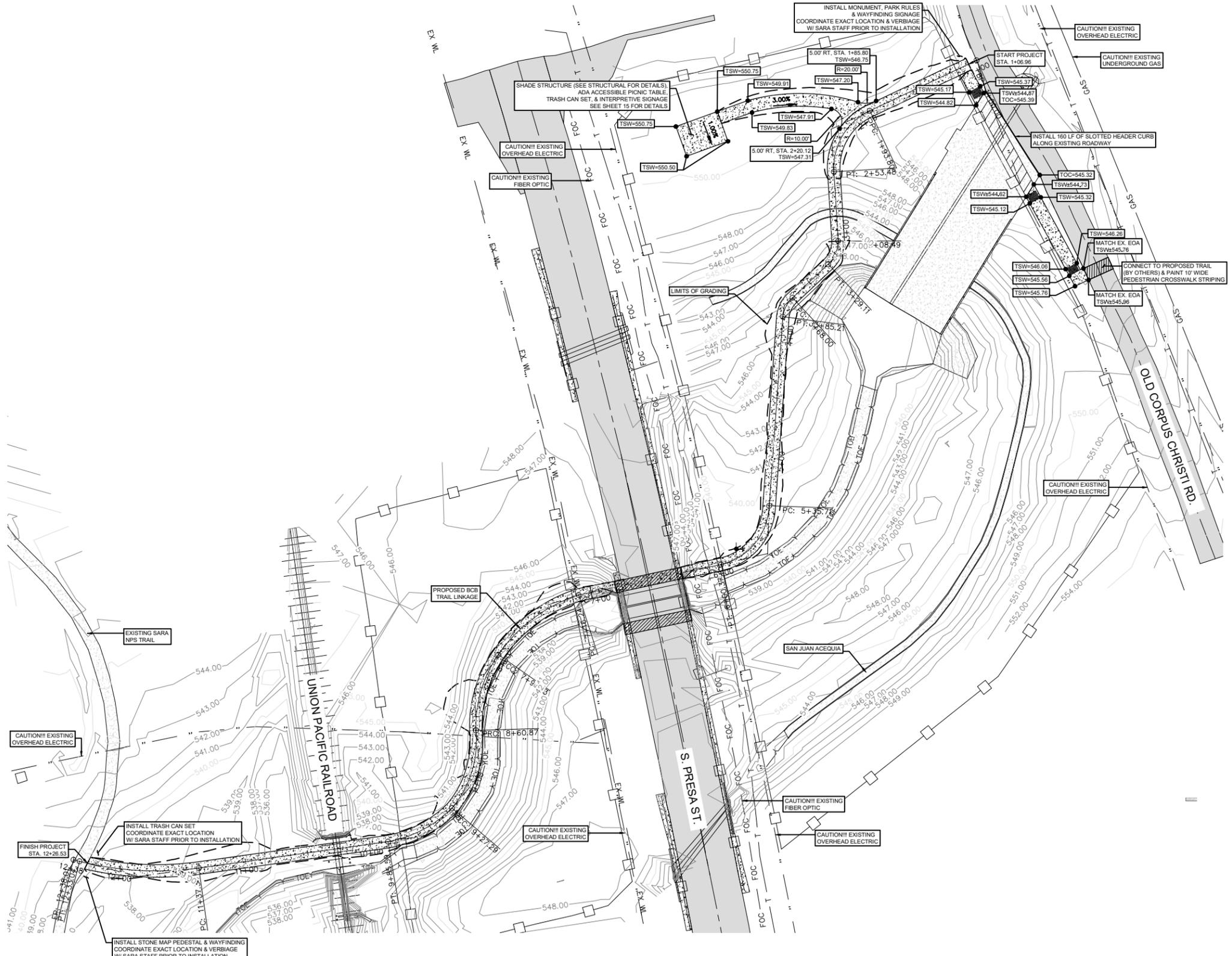


SAN ANTONIO RIVER AUTHORITY
 100 E. GUENTHER STREET
 P.O. BOX 839980
 SAN ANTONIO, TEXAS 78283-9980

TREE PRESERVATION PLAN

GENERAL NOTES:

1. UTILITIES IDENTIFIED WITHIN THESE PLANS ARE PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY. THE CONTRACTOR WILL BE REQUIRED TO HAVE ALL UTILITIES LOCATED PRIOR TO ANY EXCAVATION ACTIVITIES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND AT THE DISCRETION OF THE SAN ANTONIO RIVER AUTHORITY.
2. THE CONTRACTOR SHALL BE REQUIRED TO PROCURE ANY AND ALL OF THE NECESSARY PERMITS OTHER THAN THE CITY OF SAN ANTONIO FLOOD PLAIN DEVELOPMENT AND USAGE PERMIT TO COMPLETE THIS PROJECT.
3. THE CONTRACTOR WILL BE REQUIRED TO HAVE TRAFFIC CONTROL DEVICES IN PLACE PRIOR TO BEGINNING OPERATIONS. THE CONTRACTOR WILL BE REQUIRED TO FOLLOW TXDOT REGULATIONS (INCLUDING TOP(2-1)-12) ON S. PRESA ST. & OLD CORPUS CHRISTI ROAD REGARDING THE USE OF FLAGGERS DURING TRUCK LOAD DELIVERIES AND IN KEEPING THE ROADWAY FREE OF DEBRIS AND MUD AT ALL TIMES.
4. CONTRACTOR TO PREPARE SWPPP PLAN AND ALL EROSION CONTROL DEVICE PLANS WHICH MUST BE APPROVED BY THE ENGINEER OR DESIGNEE FROM THE SAN ANTONIO RIVER AUTHORITY PRIOR TO ANY EXCAVATION ACTIVITY. WHERE DISPOSAL OF EXCAVATED MATERIAL IS MADE ONSITE, SILT FENCING SHALL BE PLACED TO PREVENT SILT FROM ENTERING WATERWAYS. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
5. CONTRACTOR WILL BE RESPONSIBLE FOR SOIL RETENTION BLANKET MAINTENANCE UNTIL VEGETATION HAS BEEN ESTABLISHED.
6. PLACEMENT OF THE CONSTRUCTION EXIT SHALL BE FIELD DETERMINED BY THE CONTRACTOR AND A REPRESENTATIVE OF THE SAN ANTONIO RIVER AUTHORITY AND BE PLACED IN ACCORDANCE WITH THE TXDOT EC(3)-16 STANDARD.
7. STOCKPILE LOCATION REQUIRES APPROVAL PRIOR TO EXCAVATING MATERIAL. MATERIAL MAY NOT BE STOCKPILED IN THE FLOODPLAIN AND LOCATION SHALL BE DETERMINED IN THE FIELD BY A REPRESENTATIVE OF THE SAN ANTONIO RIVER AUTHORITY. SOME EXCAVATED MATERIAL WILL BE USED ONSITE FOR THIS PROJECT.
8. CONTRACTOR SHALL ALLOW FOR AT LEAST 2 TEMPORARY ROCK FILTER DAMS (RFD TY2) AS PART OF THE BID WHICH SHALL BE PLACED AT LOCATIONS DETERMINED IN THE FIELD BY A REPRESENTATIVE OF THE SAN ANTONIO RIVER AUTHORITY. THESE ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TXDOT EC(2)-16 STANDARD.
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN/REPAIR ALL CUT SLOPES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED AND THAT DETERMINATION IS MADE BY A REPRESENTATIVE OF THE SAN ANTONIO RIVER AUTHORITY. ANY QUANTITY ABOVE AND BEYOND THAT WHICH IS SPECIFIED IN THE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS ADDITIONAL WORK SHALL BE DONE IN ACCORDANCE WITH TXDOT STANDARDS EC(5)-16 AND EC(8)-16 AS APPLICABLE AND APPROVED BY THE SAN ANTONIO RIVER AUTHORITY.
10. WHERE PLANS INDICATE THE PROFILE GRADE LINE (PGL) TO MATCH EXISTING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN POSITIVE DRAINAGE ALONG THE EDGES OF THE TRAIL. ADJACENT GRADING WILL BE REQUIRED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE PROPOSED TRAIL. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK. MATERIALS, LABOR, SUPPLIES, AND EQUIPMENT FOR THIS WORK SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE SUBSIDIARY TO THE VARIOUS ITEMS OF WORK.
11. FINAL STAGING AREA AND WORKING LIMITS REQUIRES THE SAN ANTONIO RIVER AUTHORITY'S APPROVAL PRIOR TO BEGINNING THE WORK. TREE PROTECTION AND STORM WATER POLLUTION PROTECTION ARE REQUIRED WITHIN BOTH STAGING AND WORK LIMITS.
12. A PORTABLE RESTROOM WILL BE REQUIRED TO BE ON SITE AT ALL TIMES. MATERIALS, LABOR, SUPPLIES, AND EQUIPMENT FOR THIS ITEM OF THE WORK SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE SUBSIDIARY TO THE VARIOUS ITEMS OF WORK.
13. THE SAN ANTONIO RIVER AUTHORITY WILL PROVIDE SURVEY CONTROL; HOWEVER, THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH THE LINES AND GRADES AS SHOWN ON THE PLANS.
14. ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING FACILITIES (I.E., ROADWAY, CONCRETE RAMP, WALLS, TREES, ETC.) SHALL BE REPAIRED OR REPLACED AT THE DISCRETION OF THE SAN ANTONIO RIVER AUTHORITY.
15. A CLEAN TRANSITION MUST BE MAINTAINED ALONG EXISTING ROADS AND DRIVES.
16. ANY DRAINAGE STRUCTURES OR DITCHES ALONG S. PRESA ST. AND OLD CORPUS CHRISTI RD. IMPACTED BY PROPOSED CONSTRUCTION SHALL BE RE-CONSTRUCTED AT THE CONTRACTOR'S EXPENSE SUCH THAT THE OVERALL PERFORMANCE OF THE SYSTEM IS UNCHANGED.
17. CONTRACTOR SHALL ALLOW FOR AT LEAST 6 PROPOSED TRAFFIC SIGNS AS PART OF THE BID WHICH SHALL BE PLACED AT LOCATIONS DETERMINED IN THE FIELD, BY THE ENGINEER OR DESIGNEE FROM THE SAN ANTONIO RIVER AUTHORITY. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY CONNECTIONS AND FOUNDATIONS AS SUBSIDIARY TO THE BID. THE TXDOT STANDARD SMD (GEN), SMD (TWT), AND ANY OTHER APPLICABLE SMD DETAILS/NOTES/STANDARDS SHALL BE UTILIZED FOR ALL CONNECTIONS, MOUNTING, AND FOUNDATION DETAILS.
18. SOIL RETENTION BLANKETS (CL 2) (TY F) MUST BE INSTALLED IN ACCORDANCE WITH THE TXDOT STANDARDS AND DETAILS LOCATED ON THE "APPROVED PRODUCTS AND VENDORS" OF THE TXDOT - EROSION CONTROL DIVISION.
19. ALL DISTURBED SOIL SHALL BE BROADCAST SEEDING WITH BUFFALO GRASS IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS.
20. ALL TRAIL CROSS-SLOPES ARE TO BE CONSTRUCTED AT A MAXIMUM OF 2.0%. CONTRACTOR RESPONSIBLE TO VERIFY THE CONSTRUCTED SLOPES MEET MINIMUM DESIGN CRITERIA.
21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE POSITIVE DRAINAGE THROUGHOUT THE PROJECT.
22. SOIL RETENTION BLANKET IS REQUIRED ON ALL EXPOSED CUT AND FILL SLOPES THROUGHOUT THE PROJECT. PAYMENT FOR SOIL RETENTION BLANKET WILL NOT BE MADE DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO VARIOUS BID ITEMS.
23. THE PROJECT LOCATION IS PRONE TO FLOODING AND IS WITHIN THE 100-YEAR FLOODPLAIN.
24. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CONSTRUCTION FENCING THROUGHOUT THE PROJECT DURATION THAT SHOULD FULLY ENCOMPASS WORK LIMITS. THE CONTRACTOR SHOULD ALSO PLAN FOR NECESSARY PEDESTRIAN / VEHICULAR TRAFFIC CONTROL IN ACCORDANCE WITH LOCAL / STATE STANDARDS.
25. CONTRACTOR SHALL MARK ENTIRE WORK LIMITS WITH A VISIBLE BARRIER THAT IS APPROVED BY THE ENGINEER OR DESIGNEE FROM THE SAN ANTONIO RIVER AUTHORITY.
26. ALL TREES AND SUBSTANTIAL VEGETATION NOT AUTHORIZED TO BE REMOVED SHALL BE PROTECTED WITHIN THE CONSTRUCTION LIMITS AS REQUIRED BY DETAILS HEREIN AND INDUSTRY STANDARDS.
27. TXDOT STANDARD SPECIFICATIONS WILL GOVERN UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS. TXDOT SPECIFICATION ITEMS 110, 132, 150, 160, 161, 164, 168, 169, 170, 180, 192, 193, 210, 216, 247, 260, 263, 275, 276, 292, 300, 316, 351, 400, 420, 464, 466, AND ALL OTHER REFERENCED OR APPLICABLE TXDOTS SPECIFICATIONS ARE APPLICABLE TO BROOKS CITY BASE CONNECTION CONSTRUCTION.
28. CONTRACTOR TO REPAIR AND REPLACE ANY EXISTING FACILITY DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION.



LEGEND

EX WL	EXIST. WATERLINE	T	EXISTING TELEPHONE
---	RIGHT OF WAY	gas	EXISTING GAS LINE
□	EXIST. FENCE	FOC	EXISTING FIBER OPTIC
- - -	EXISTING OVHD. ELEC.		

1" = 40'

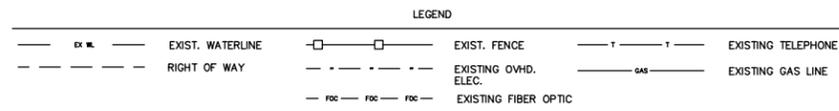
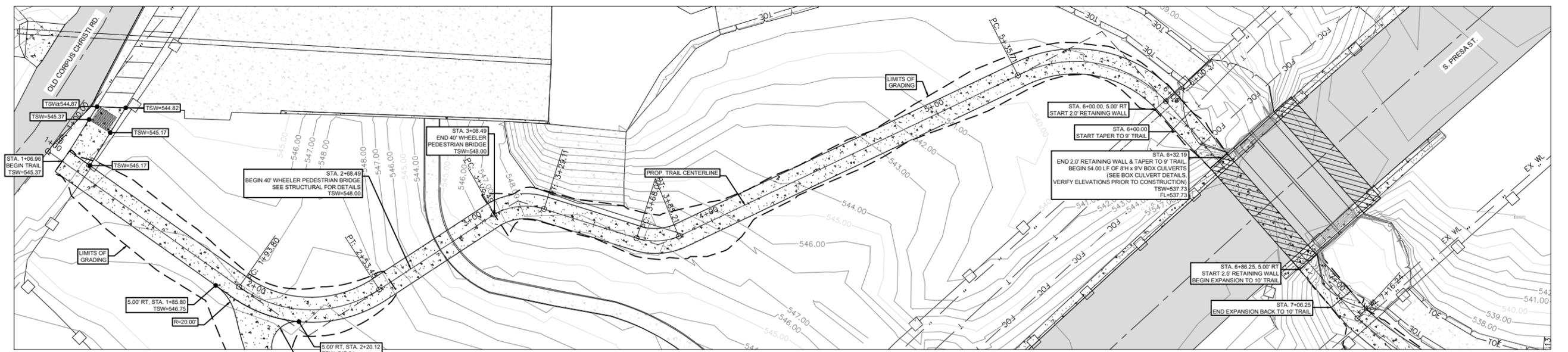
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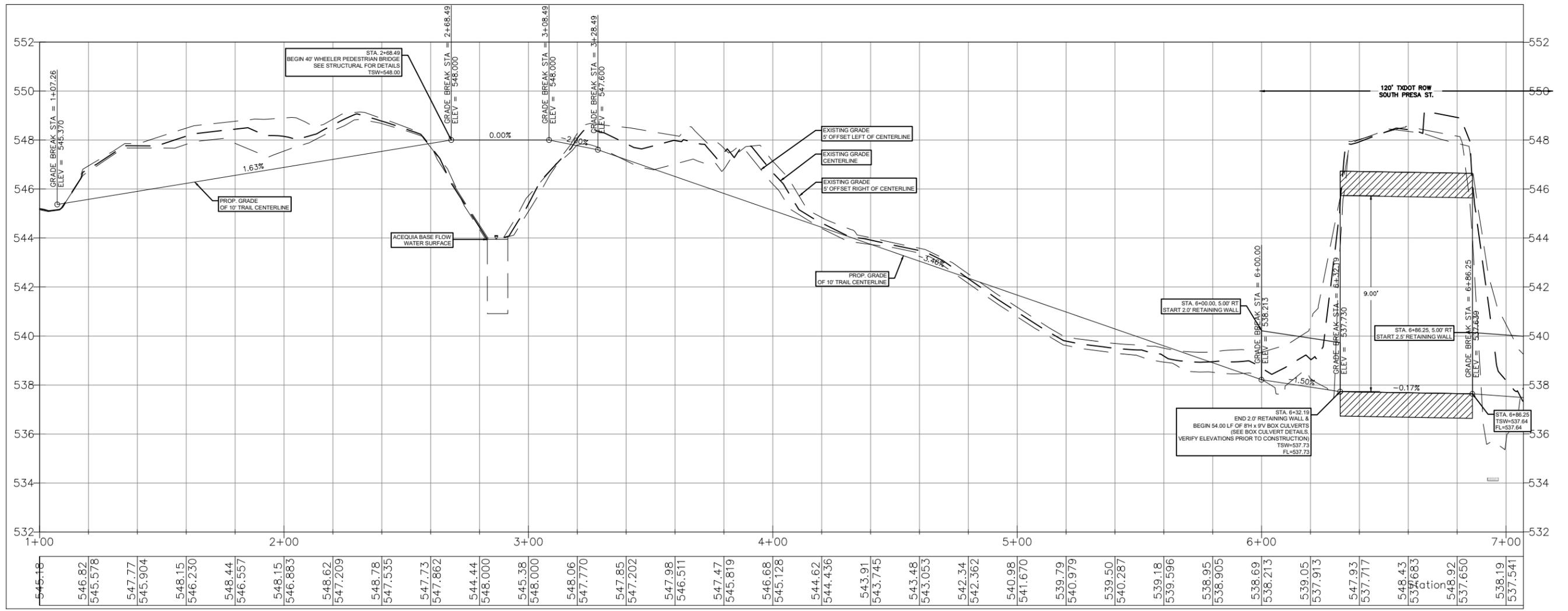


SAN ANTONIO RIVER AUTHORITY
 100 E. GUENTER STREET
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 SAN ANTONIO, TEXAS 78283-9980

BROOKS CITY BASE CONNECTION
OVERALL PLAN & GENERAL NOTES
 SHEET
 C3 OF 18

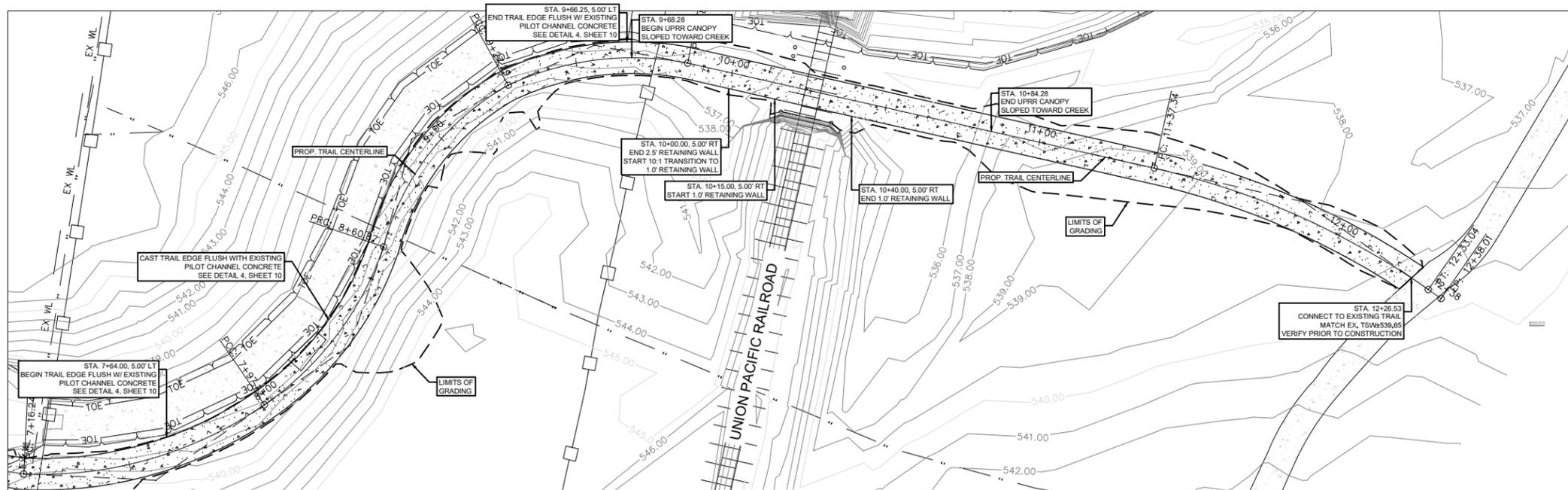


H: 1"=20'
 V: 1"=2'



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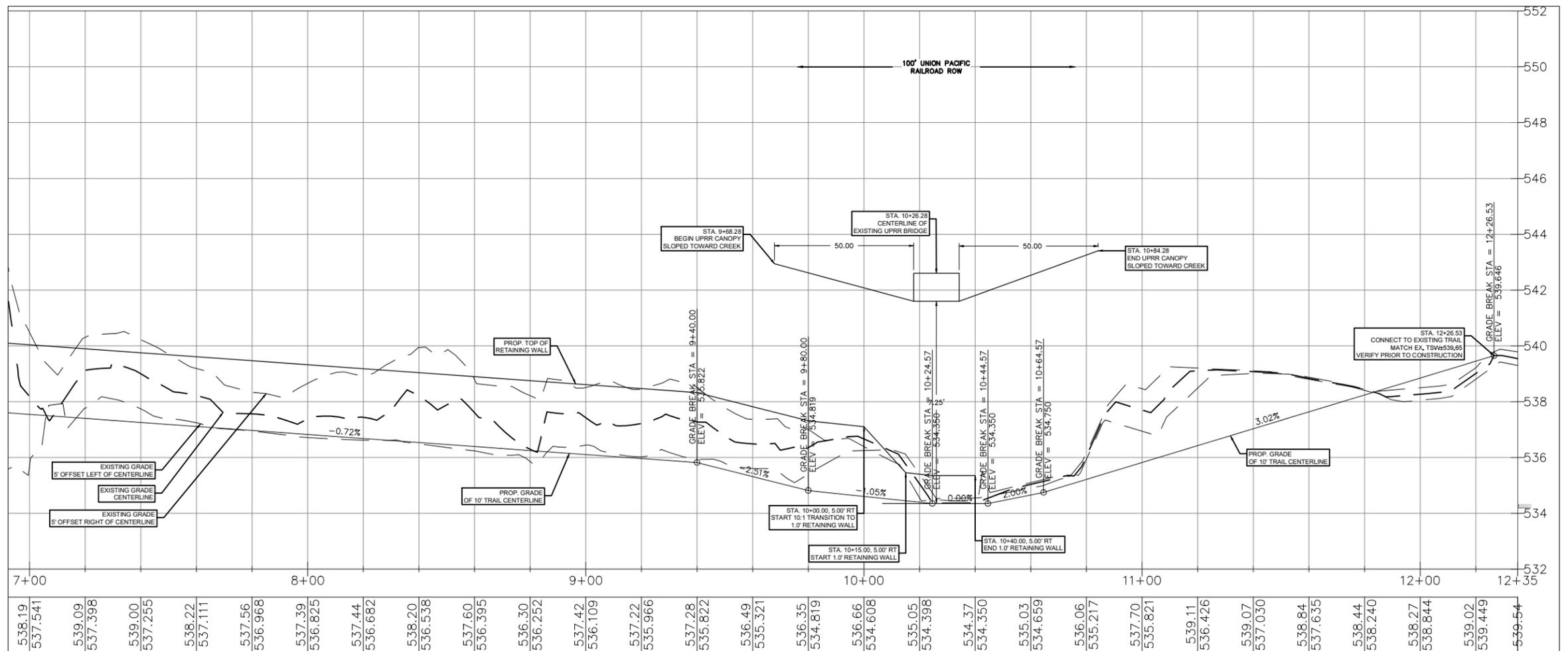
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NO.	REVISION	DATE	BY	FILE: 0525	



LEGEND

	EXIST. WATERLINE		EXIST. FENCE		EXISTING TELEPHONE
	RIGHT OF WAY		EXISTING OVHD. ELEC.		EXISTING GAS LINE
	EXISTING FIBER OPTIC				

H: 1"=20'
V: 1"=2'



538.19	537.541	539.09	537.398	539.00	537.255	538.22	537.111	537.56	536.968	537.39	536.825	537.44	536.682	538.20	536.538	537.60	536.395	536.30	536.252	537.42	536.109	537.22	535.966	537.28	535.822	536.49	535.321	536.35	534.819	536.66	534.608	535.05	534.398	534.37	534.350	535.03	534.659	536.06	535.217	537.70	535.821	539.11	536.426	539.07	537.030	538.84	537.635	538.44	538.240	538.27	538.844	539.02	539.449	539.54
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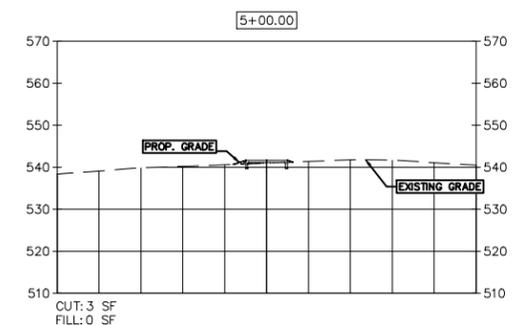
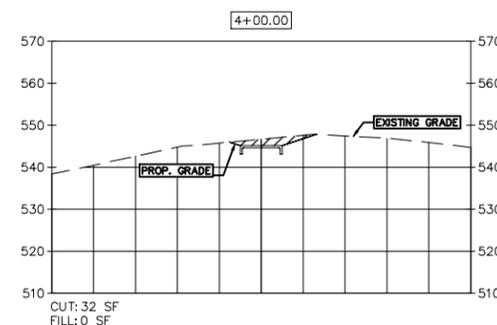
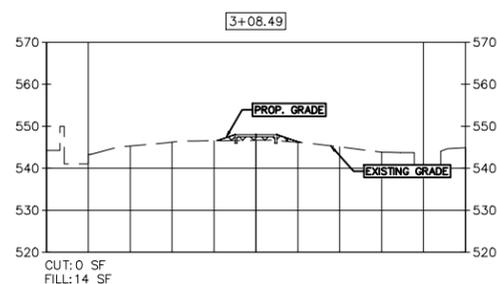
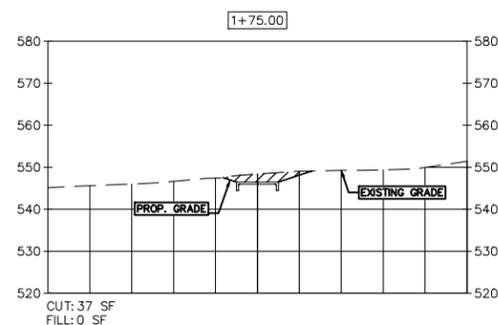
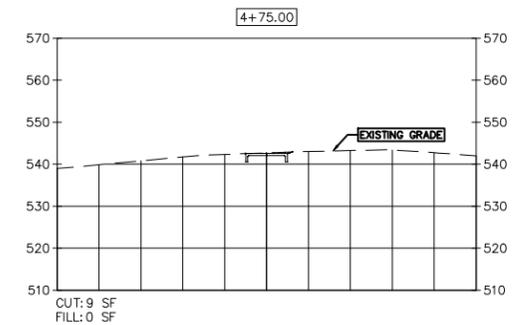
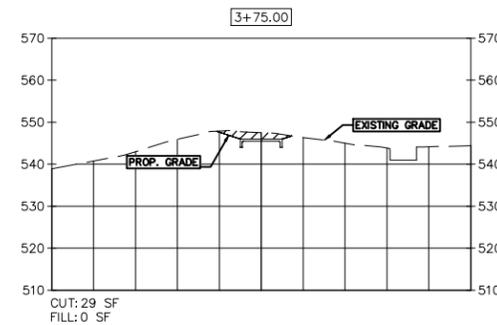
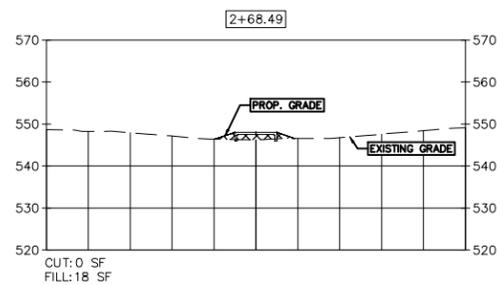
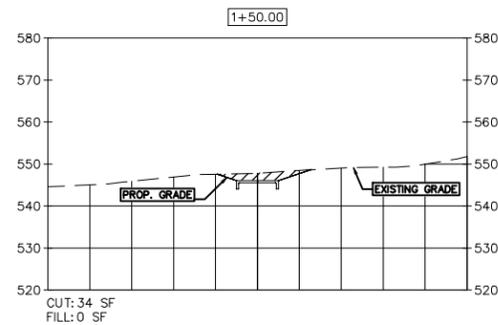
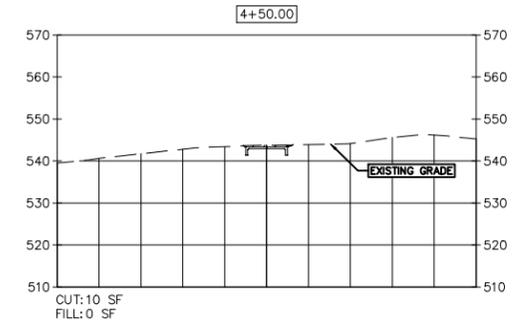
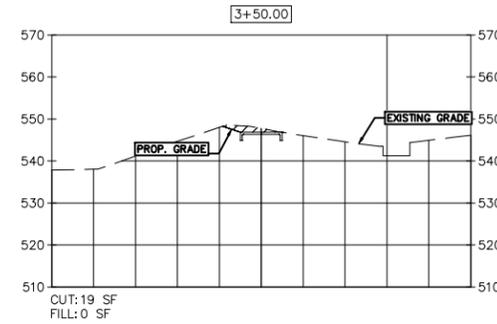
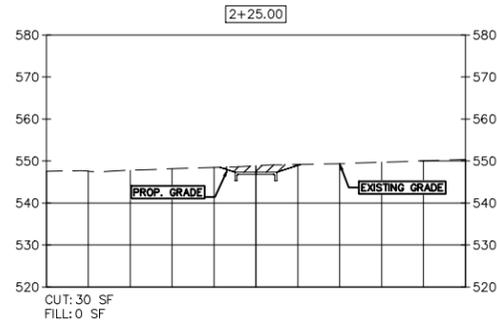
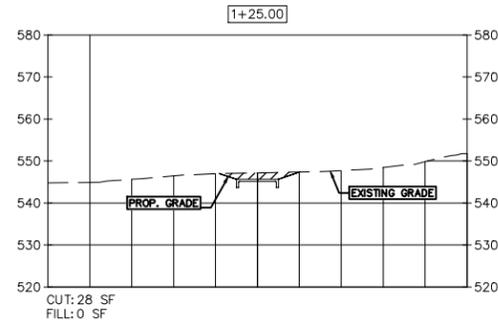
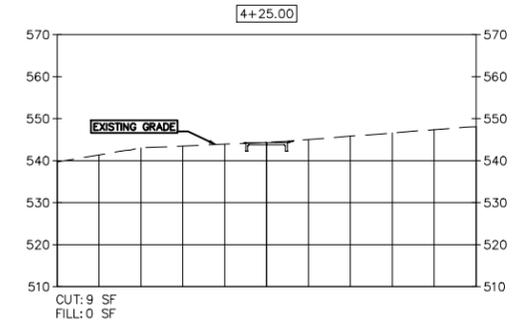
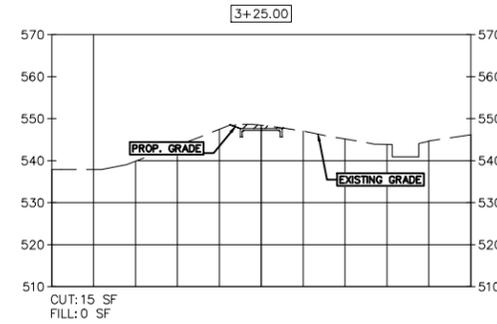
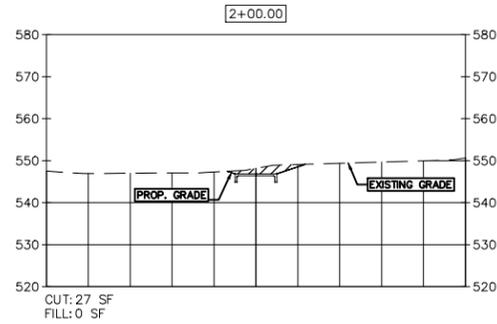
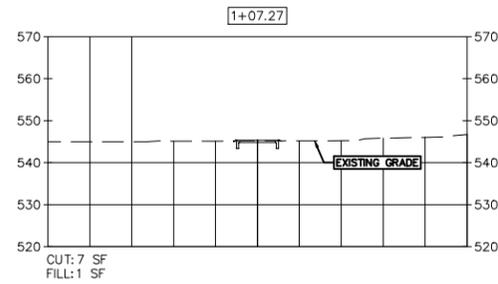
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SAN ANTONIO RIVER AUTHORITY
 100 E. GUENTHER STREET
 P.O. BOX 839980
 SAN ANTONIO, TEXAS 78283-9980

PLAN & PROFILE
 STA. 7+00 TO 12+20



1"=20'

NO.	REVISION	DATE	BY

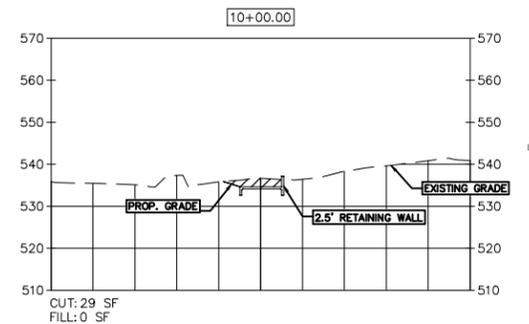
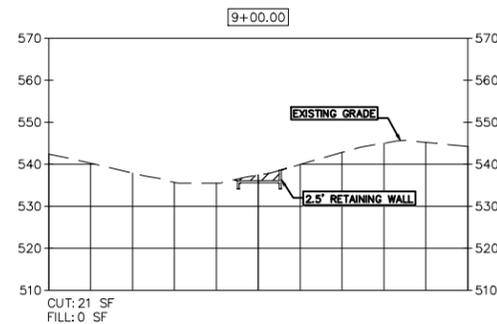
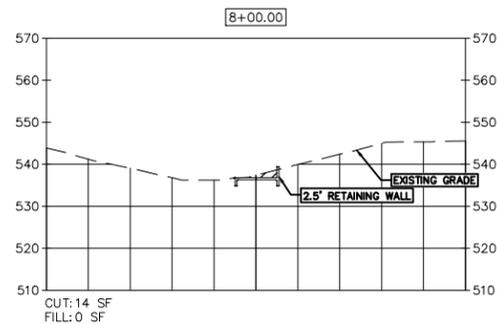
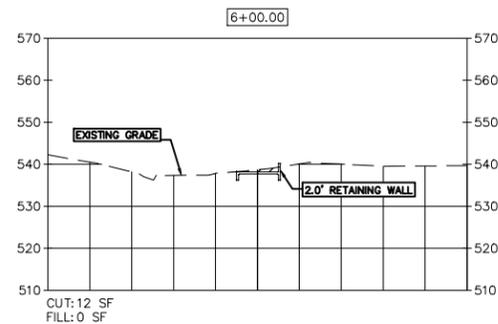
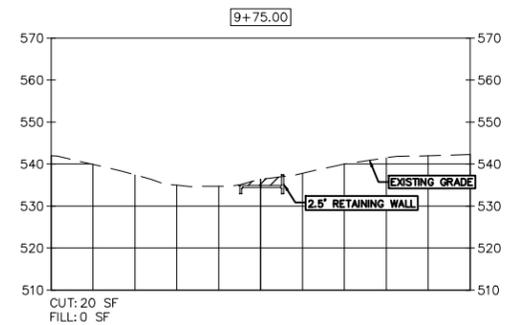
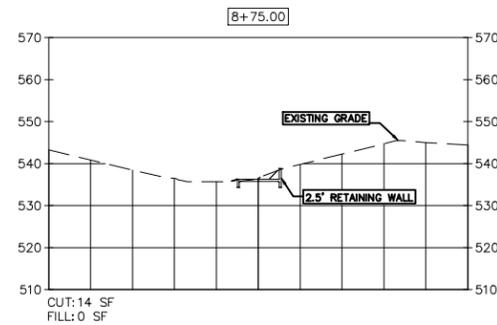
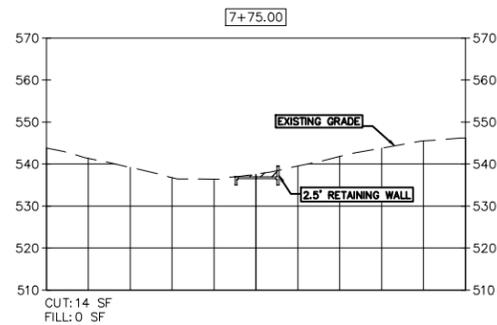
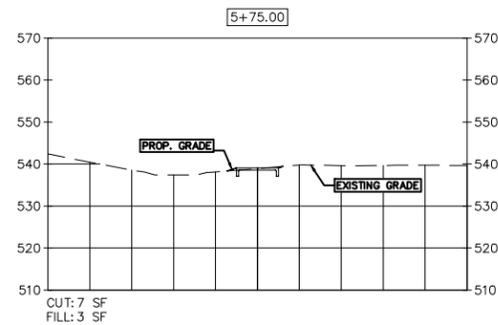
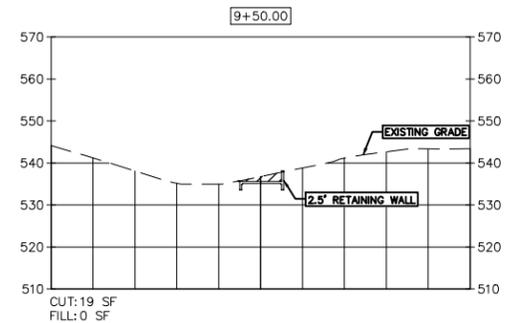
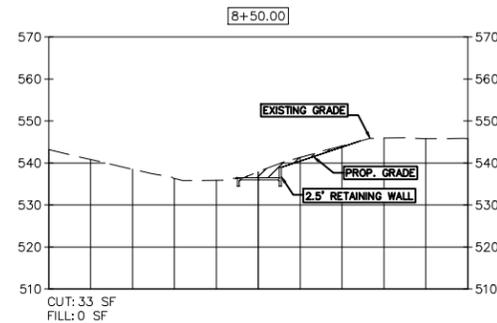
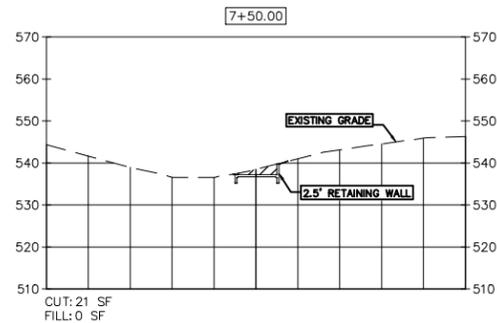
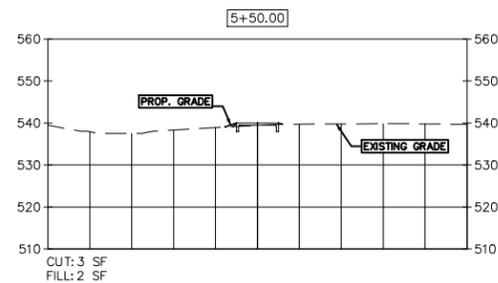
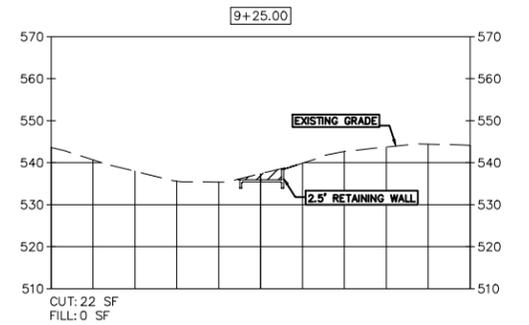
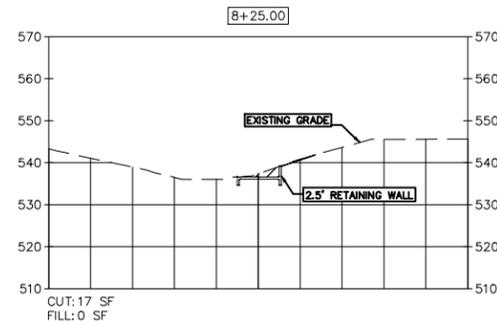
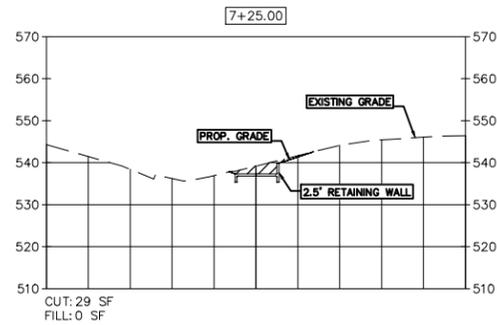
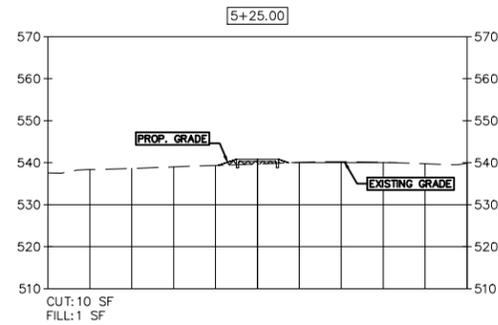
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 APPROVED BY: DM
 DATE: 19 APR 17 FILE: 0525



SAN ANTONIO RIVER AUTHORITY
 100 E. GUENTHER STREET
 P.O. BOX 839980
 SAN ANTONIO, TEXAS 78283-9980

CROSS SECTIONS
 STA. 1+07.26 TO 5+00

SHEET
 C6 OF 18



1"=20'

NO.	REVISION	DATE	BY

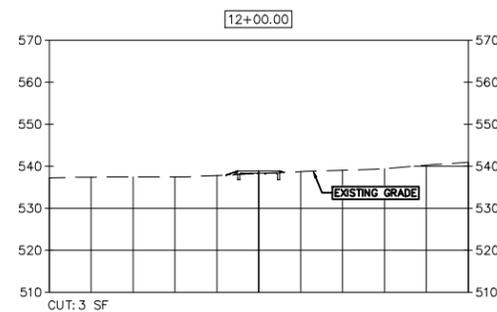
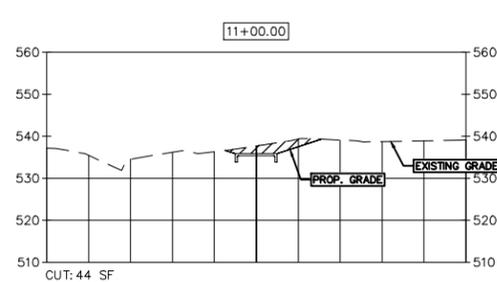
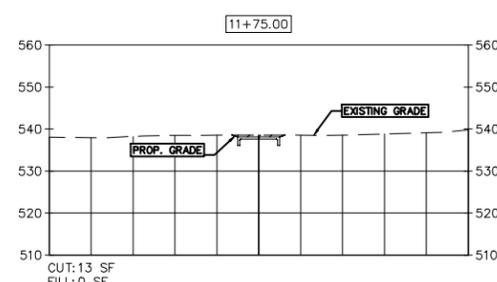
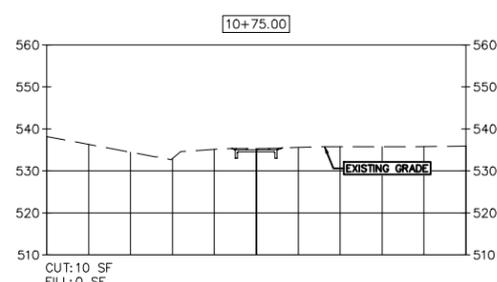
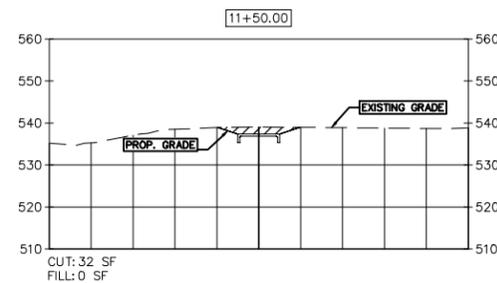
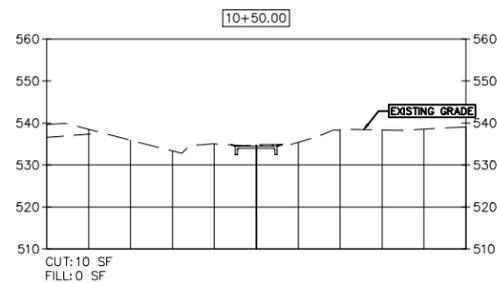
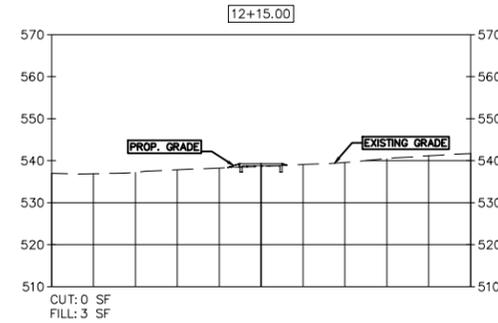
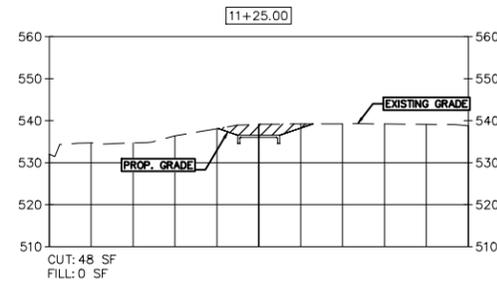
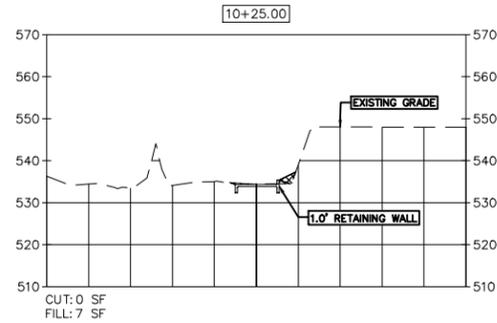
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 APPROVED BY: DM
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CROSS SECTIONS
 STA. 5+25 TO 9+75

SHEET
 C7 OF 18



1"=20'

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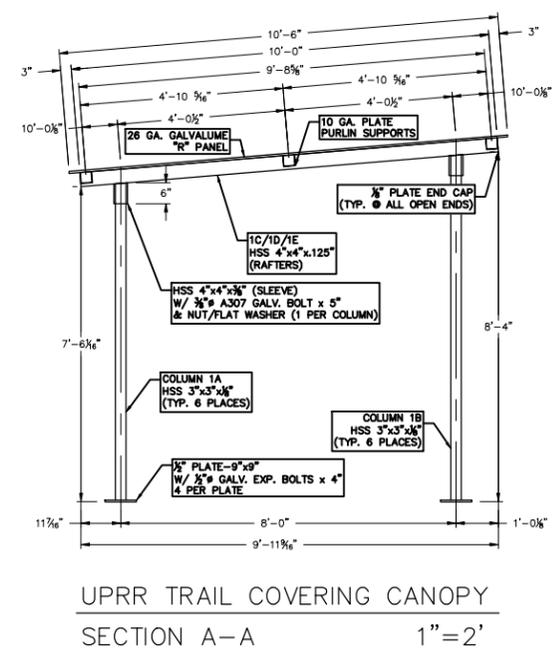
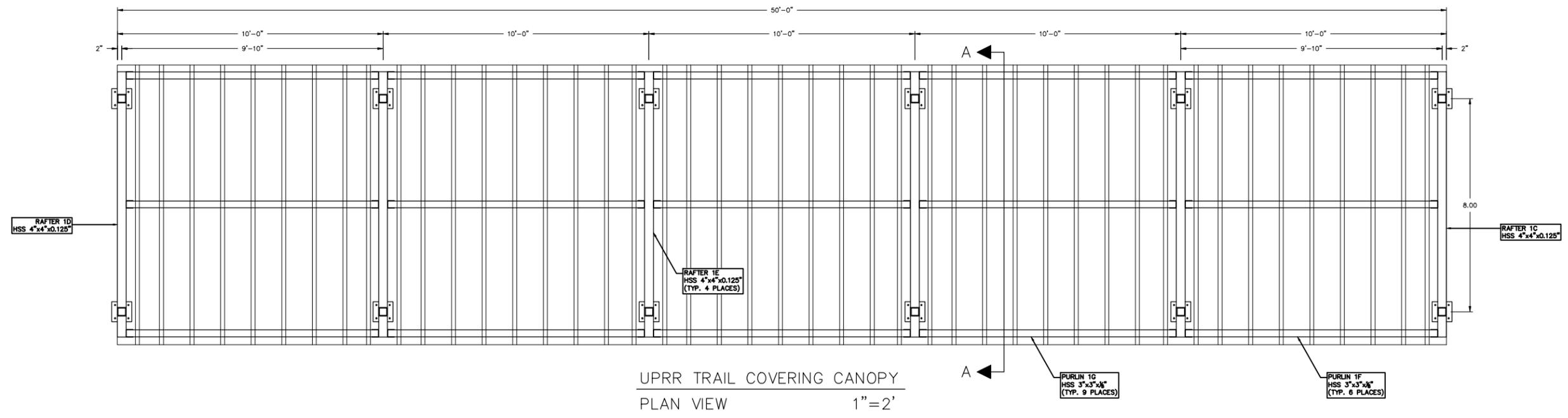
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CROSS SECTIONS
 STA. 10+00 TO 12+15

SHEET
 C8 OF 18

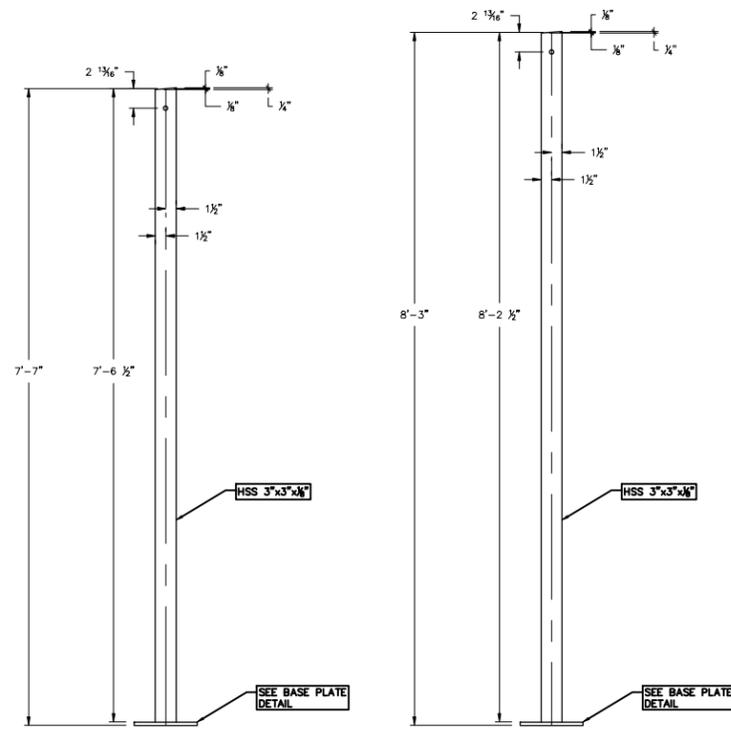


**COLOR: MP OLD
COPPER (SEE PAINT
SPEC SHEET PROVIDED)**

-Eduardo Villalon

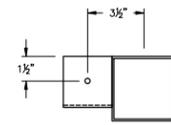
- NOTES:
1. WIDE FLANGE W/ SHAPES: ASTM-A992 (GR. 50 DUAL SPEC)
 2. STEEL TUBING: ASTM-A500, GR. B
 3. STEEL PIPE: ASTM-A53, GR. B
 4. ALL OTHER STEEL ASTM-A36
 5. WELDING ELECTRODES CONFORM TO AWS A5.1 E70 SERIES (OR EQUAL)
 6. ALL WELDS TO BE 1/4" SINGLE PASS FILLET WELD U.N.O.
 7. GALVANIZE, SEAL WELD, PROVIDE WEEP HOLES, REMOVE ALL PAINT, STICK MARKS AND GALVANIZE PER ASTM A123
 8. GRIND SMOOTH ALL BURRS & SHARP EDGES
 9. PROVIDE TWO IDENTICAL STRUCTURES, EACH 50' LONG.

				DRAWN BY: DM				SAN ANTONIO RIVER AUTHORITY		UPRR CROSSING MECHANICAL PLAN & PROFILE	SHEET C9 OF 18
				CHECKED BY: JT				100 E. GUENTHER STREET			
				APPROVED BY: DM				P.O. BOX 839980			
				DATE: 19APR17				SAN ANTONIO, TEXAS 78283-9980			
NO.	REVISION	DATE	BY	DATE: 19APR17		FILE: 0525					

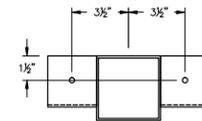


COLUMN 1A
1"=1'

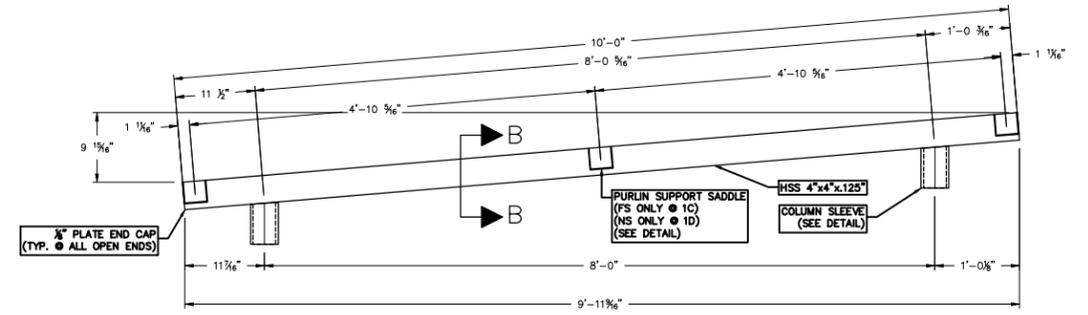
COLUMN 1B
1"=1'



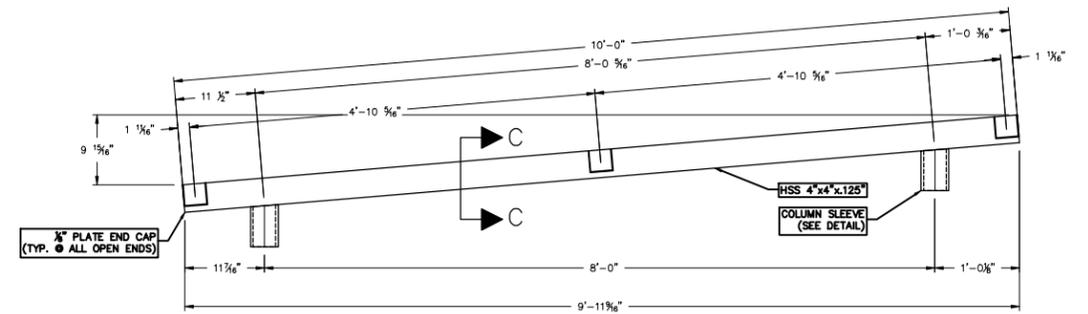
SECTION B-B
NTS



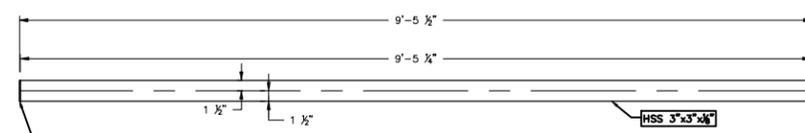
SECTION C-C
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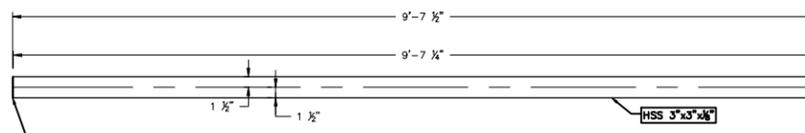
RAFTER 1C (AS SHOWN & NOTED)
RAFTER 1D (OPP. HAND & NOTED)
1"=1'



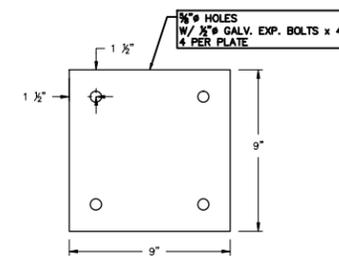
RAFTER 1E (AS SHOWN & NOTED)
1"=1'



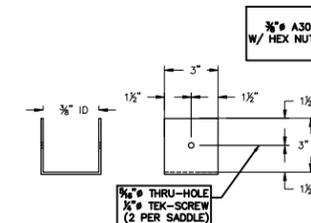
PURLIN 1F
1"=1'



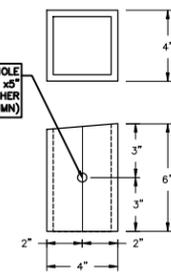
PURLIN 1G
1"=1'



BASE PLATE
NTS



PURLIN SADDLE
NTS



COLUMN SLEEVE
NTS

COLOR: MP OLD COPPER (SEE PAINT SPEC SHEET PROVIDED)

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- NOTES:
1. WIDE FLANGE W/ SHAPES: ASTM-A992 (GR. 50 DUAL SPEC)
 2. STEEL TUBING: ASTM-A500, GR. B
 3. STEEL PIPE: ASTM-A53, GR. B
 4. ALL OTHER STEEL ASTM-A36
 5. WELDING ELECTRODES CONFORM TO AWS A5.1 E70 SERIES (OR EQUAL)
 6. ALL WELDS TO BE 1/4" SINGLE PASS FILLET WELD U.N.O.
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 8. GRIND SMOOTH ALL BURRS & SHARP EDGES
 9. PROVIDE TWO IDENTICAL STRUCTURES, EACH 50' LONG.

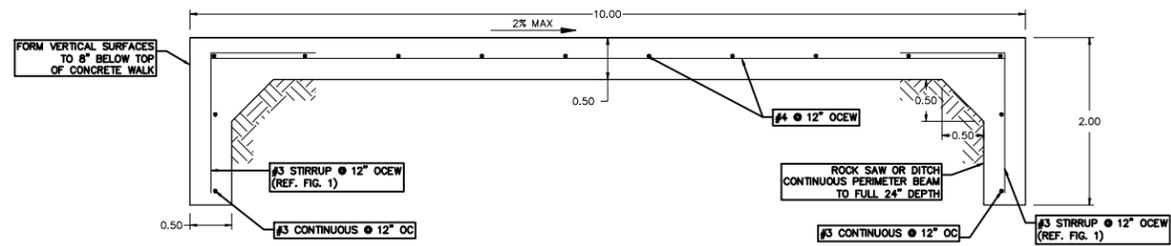
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**UPRR CROSSING
 STANDARD DETAILS**



1 SECTION: TRAIL WITH 2'-0" TOE DOWN
1"=1'

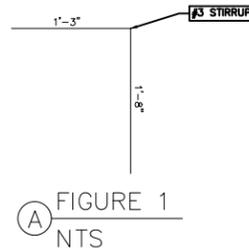
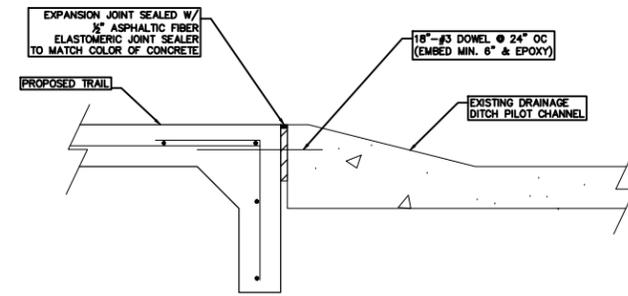
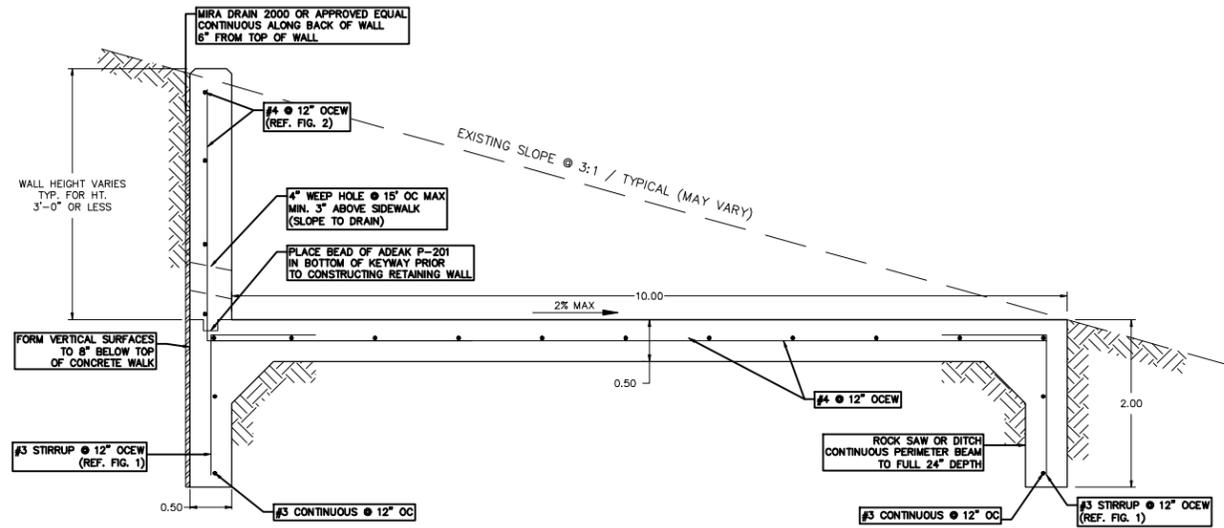


FIGURE 1
NTS



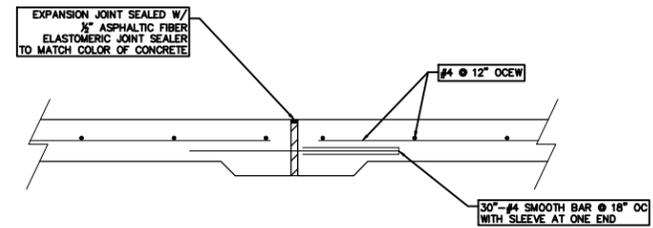
3 SECTION: STA. 7+30.26-9+57.25 TRAIL ABUTMENT TO PILOT CHANNEL
1"=1'



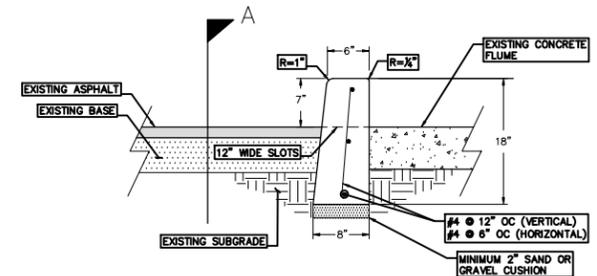
2 SECTION: TRAIL WITH COMBINATION WALL 3'-0" HT. OR LESS
1"=1'



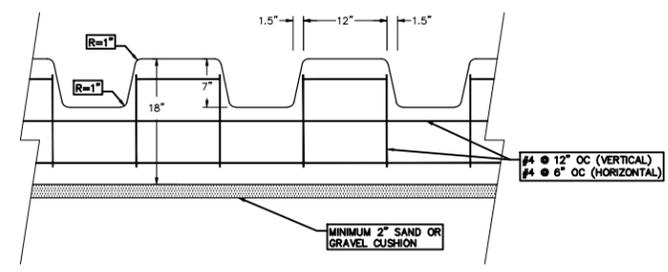
FIGURE 2
NTS



4 SECTION: EXPANSION JOINT
1"=1'



5 SECTION: HEADER CURB
1"=1'



6 SECTION: HEADER CURB SECTION A-A
1"=1'

- GENERAL NOTES:
1. ALL CONCRETE TO BE 4,000 PSI
 2. ALL REINFORCING STEEL TO BE GRADE 60. REINFORCING DIMENSIONS ARE CENTER TO CENTER UNLESS OTHERWISE NOTED. ALL WALL REINFORCEMENT WILL BE FULL DEVELOPED ACROSS ALL CONSTRUCTION JOINTS. PROVIDE STANDARD HOOKS FOR ALL HORIZONTAL REINFORCEMENT AT DISCONTINUOUS ENDS OF WALL WHERE EXPANSION JOINTS ARE LOCATED.
 3. CHAMFER ALL EXPOSED EDGES OF RETAINING WALL 3/4".
 4. ROUND ALL EDGES OF TRAIL W/ 1/2" RADIUS.
 5. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY OF EXPOSED MATERIAL DURING CONSTRUCTION. SHORING WILL BE REQUIRED WHEN EXCESSIVE SLOUGHING IS EVIDENT. THE CONTRACTOR WILL SUBMIT PROPOSED SHORING METHODS TO THE ENGINEER FOR REVIEW.
 6. MAXIMUM DISTANCE BETWEEN CONSTRUCTION JOINTS WILL BE 10 FEET. MAXIMUM DISTANCE BETWEEN EXPANSION JOINTS WILL BE 30 FEET.
 7. CONTRACTOR SHALL FIELD VERIFY ALL WALL HEIGHTS AND SHALL NOTIFY ENGINEER FOR ANY DISCREPANCY.
 8. PLACE VERTICAL BARS INSIDE OF HORIZONTAL BARS.
 9. COMPACT & PROOF ROLL SOIL UNDER TRAIL, BEHIND WALL, AND 5 FT. EITHER SIDE OF TRAIL TO 95% SPD.
 10. COMPACT ADDITIONAL FILL PLACED OUTSIDE OF 5 FT. SHOULDER TO 85% SPD.
 11. INSTALL 1-1/2" X 2" KEYWAY AT BASE OF RETAINING WALL WHERE IT MEETS TRAIL.
 12. PLACE BEAD OF ADEKA P-201 (OR APPROVED EQUAL) IN BOTTOM OF KEYWAY PRIOR TO RETAINING WALL POUR.
 13. SPRAY RETAINING WALLS WITH SI-COAT 530 ANTI-GRAFFITI COATING (OR APPROVED EQUAL).

**COLOR: MESA BUFF
(SEE PAINT SPEC
SHEET PROVIDED)**

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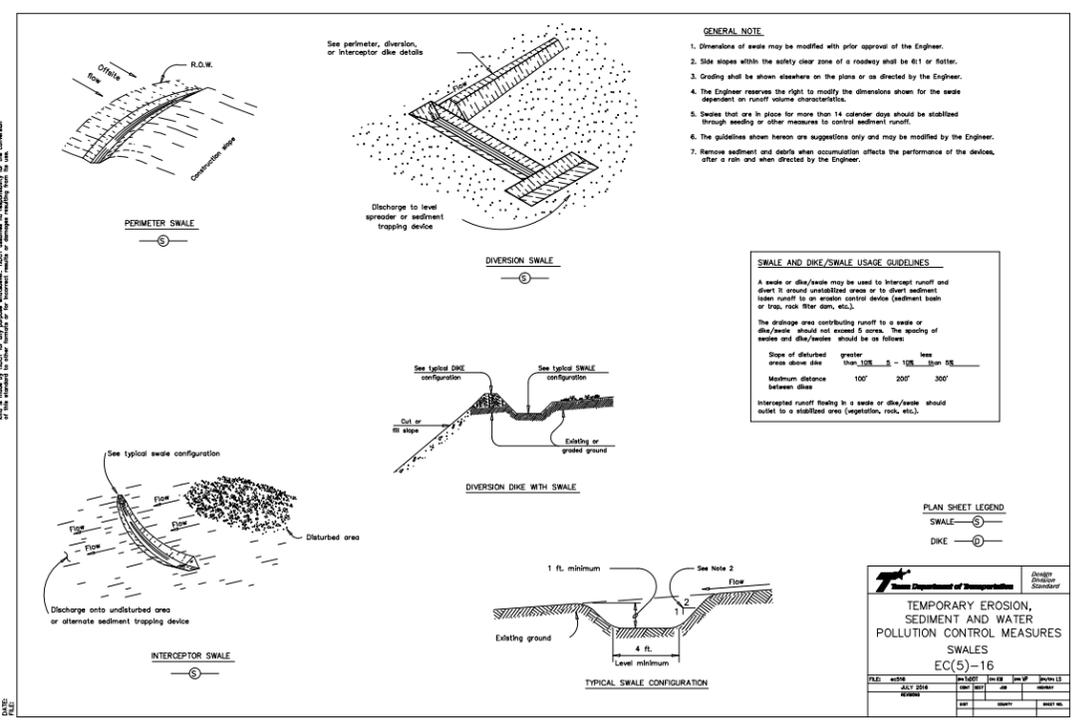
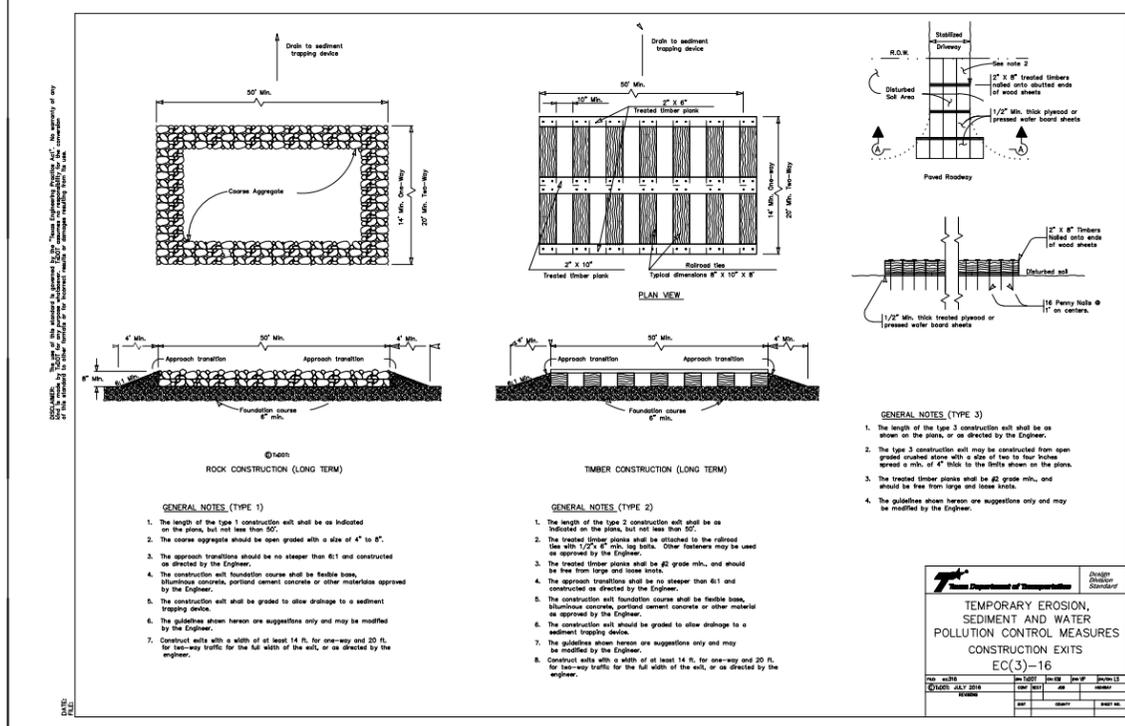
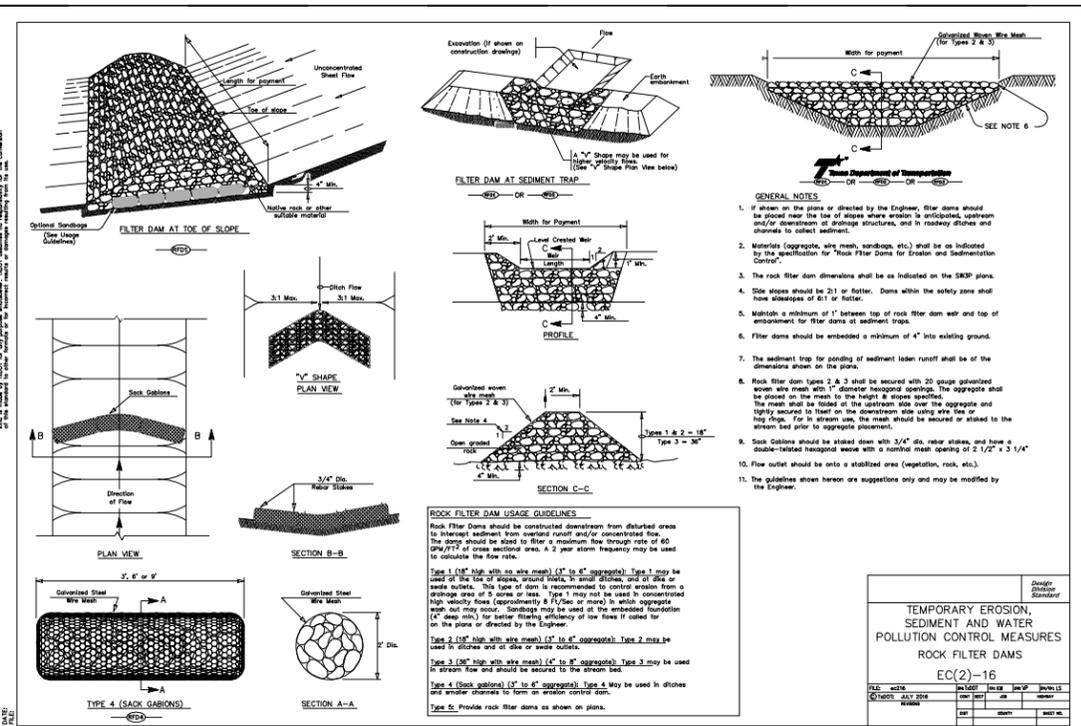
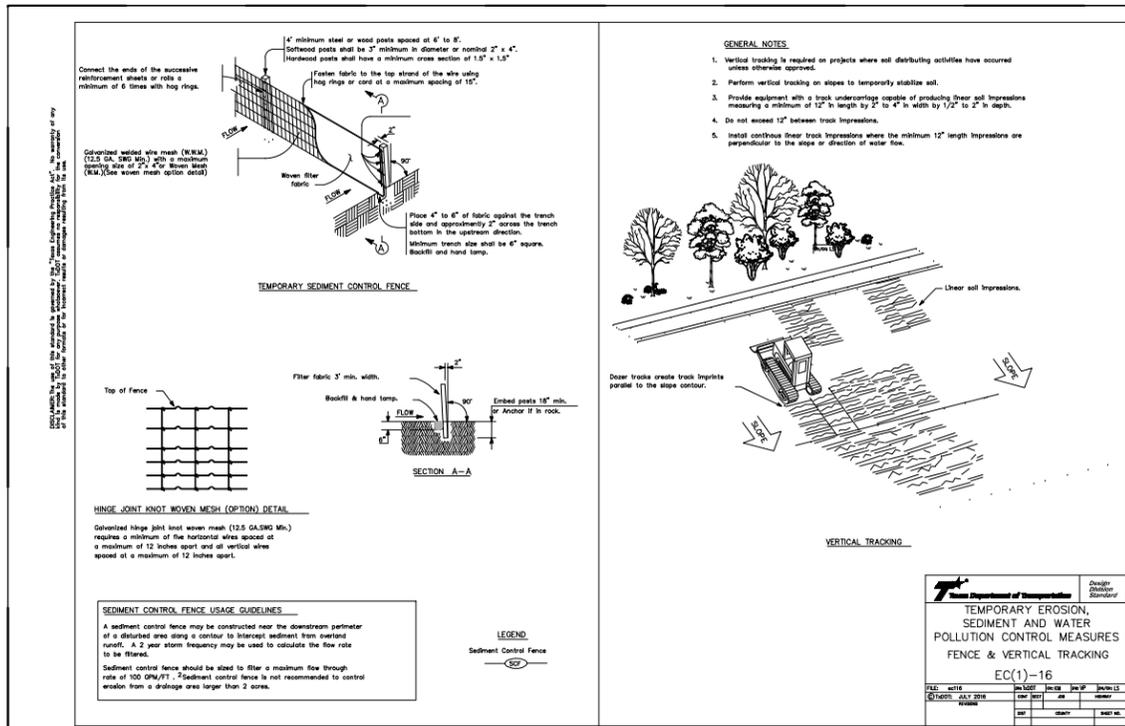
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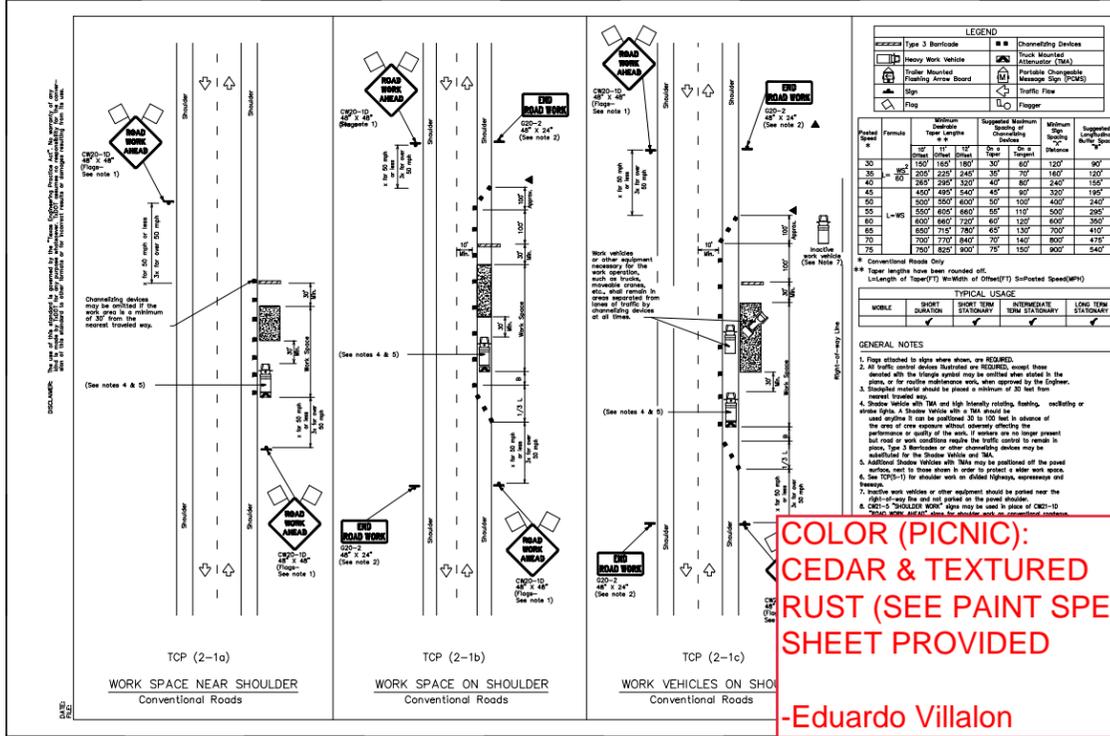
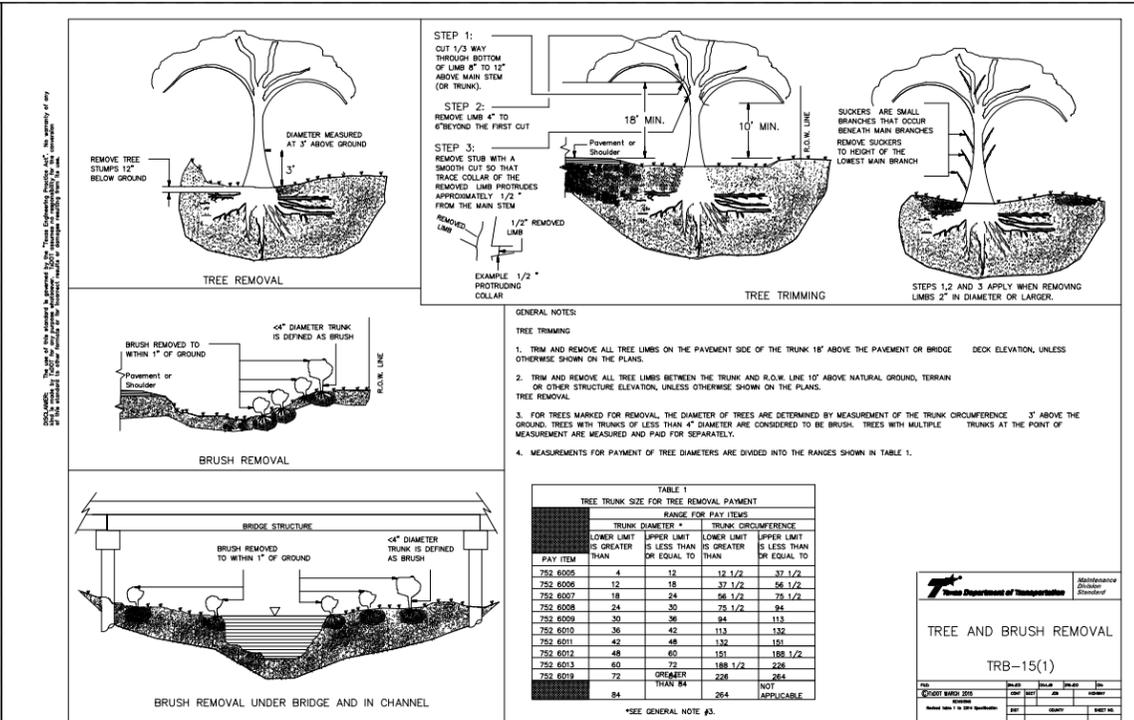
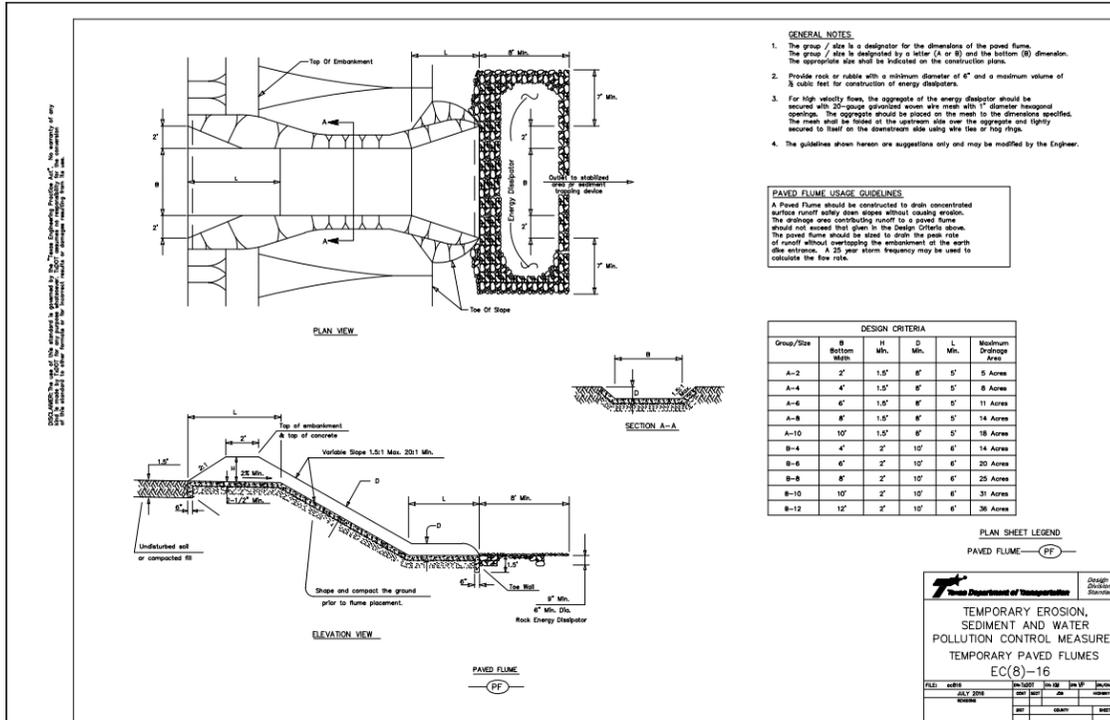


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TRAIL DETAILS

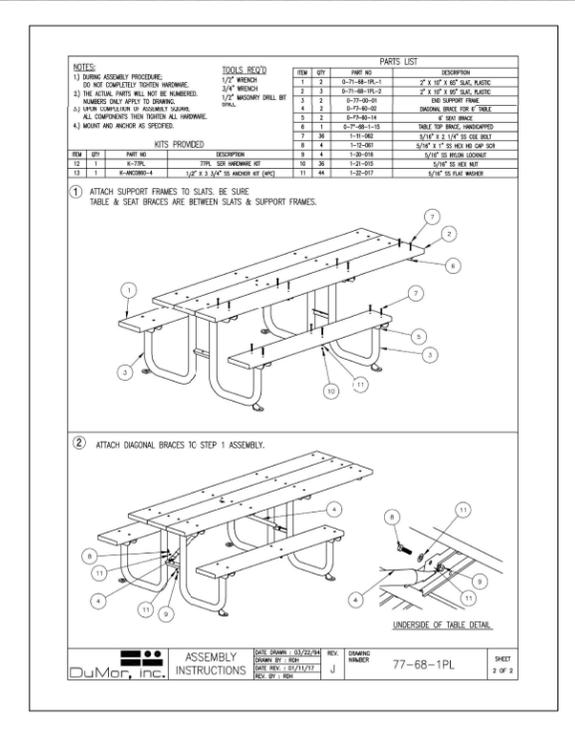
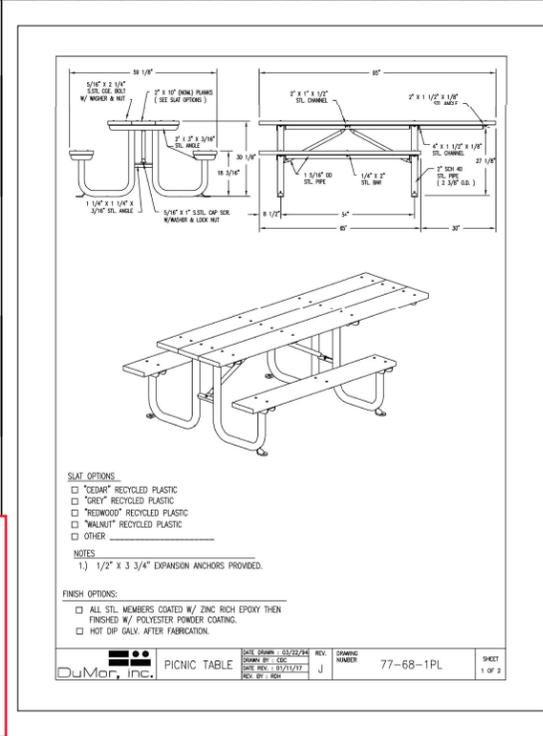
SHEET
C11 OF 18

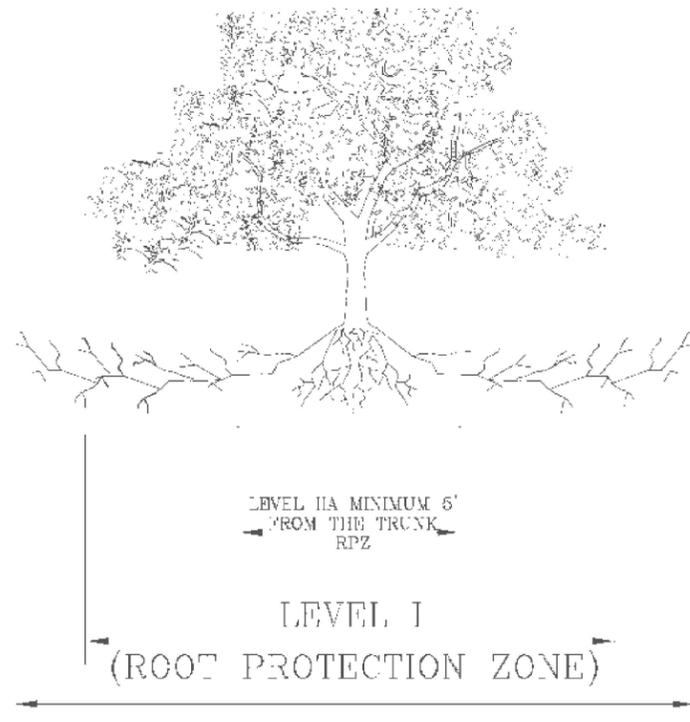




COLOR (PICNIC): CEDAR & TEXTURED RUST (SEE PAINT SPEC SHEET PROVIDED)

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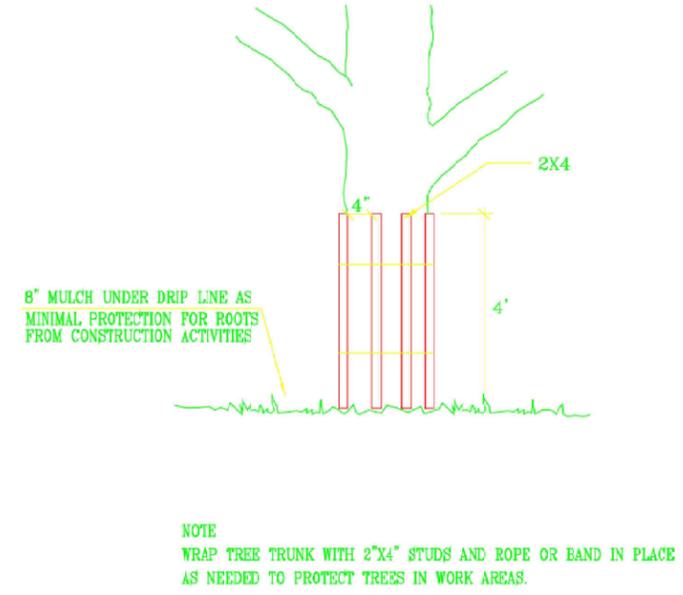




1.1.1

ELEVATION

ROOT PROTECTION ZONE—THE ROOT PROTECTION ZONE IS A CIRCULAR AREA AROUND A TREE THAT IS BASED ON THE DIAMETER OF THE TREE. EACH 1 INCH DIAMETER OF THE TREE EQUALS 1 FOOT RADIUS FOR ROOT PROTECTION ZONE.

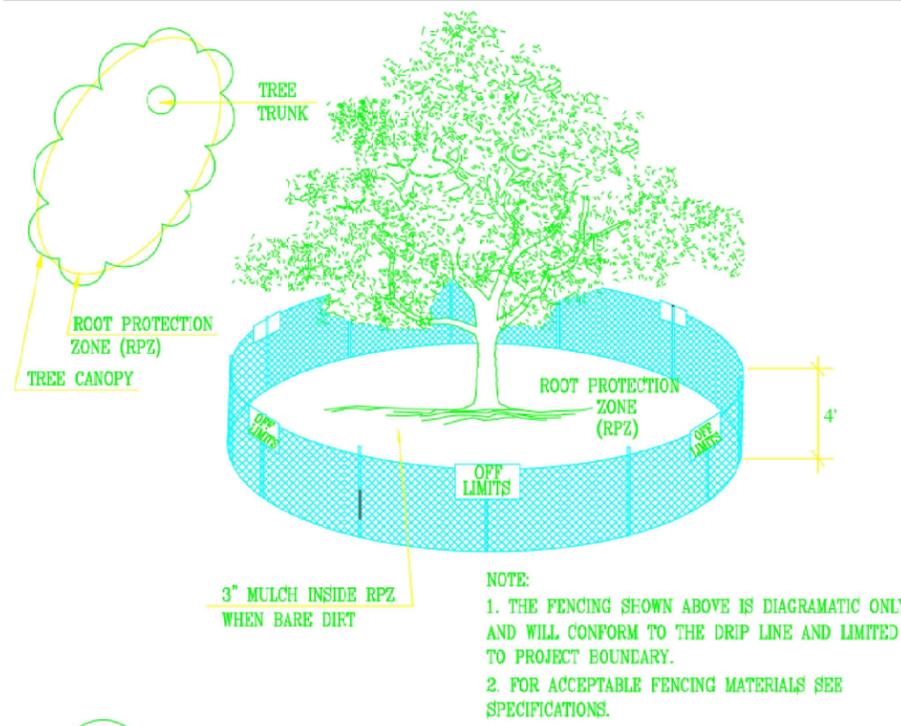


1.1.4

LEVEL II B FENCE PROTECTION

N. T. S.

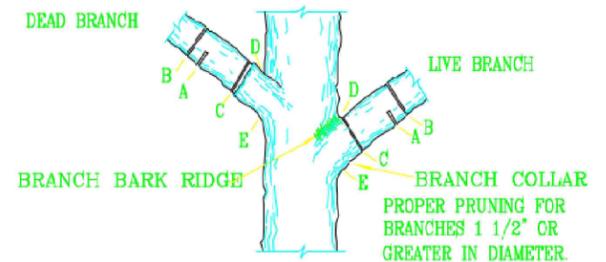
- TREE PROTECTION NOTES
1. A ROOT PROTECTION ZONE WILL BE ESTABLISHED AROUND EACH TREE OR ANY VEGETATION TO BE PRESERVED TO MEET THE LANDSCAPE OR TREE PRESERVATION ORDINANCES. THE ROOT PROTECTION ZONE SHALL BE AN AREA DEFINED BY THE RADIUS EXTENDING OUTWARD FROM THE TRUNK OF THE TREE A DISTANCE OF ONE (1) LINEAR FOOT FOR EACH INCH DIAMETER INCH AT BREAST HEIGHT (4.5 ') OF THE TREE. A 10-INCH DIAMETER TREE WILL HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE.
 2. NO WORK SHALL BEGIN WHERE TREE PROTECTION FENCING HAS NOT BEEN COMPLETED AND APPROVED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING CONSTRUCTION. THE FENCING WILL BE A MINIMUM OF 4' HEIGHT.
 3. ALL ROOTS LARGER THAN ONE-INCH IN DIAMETER ARE TO BE CUT CLEANLY AND OAK WOUNDS PAINTED WITHIN 30 MINUTES.
 4. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE WORK DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
 5. NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE OPERATED OR STORED WITHIN THE ROOT PROTECTION ZONE. NO CLEAN-OUT AREAS WILL BE CONSTRUCTED SO THAT THE MATERIAL WILL BE IN OR MIGRATE TO THE ROOT PROTECTION ZONE.
 6. NO GRADE CHANGE MORE THAN 3" IS ALLOWED WITHIN THE ROOT PROTECTION ZONE.
 7. ROOTS OR BRANCHES IN CONFLICT WITH CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL OAK WOUNDS SHALL BE PAINTED WITHIN 30 MINUTES TO PREVENT OAK WILT INFECTION.
 8. TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED.
 9. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE WATERING THE ROOT PROTECTION ZONE AND OR WASHING FOLIAGE.
 10. NO WIRES, NAILS OR OTHER MATERIALS MAY BE ATTACHED TO PROTECTED TREES.



1.1.2

LEVEL I & FENCE PROTECTION

N. T. S.



1.4

BRANCH PRUNING DETAIL

N. T. S.

- NOTE: DO NOT CUT FROM D to E.
- A. FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
 - B. SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
 - C. FINAL CUT - ALLOW FOR HEALING COLLAR BUT NO STUBS
 - D. BRANCH RIDGES - INDENT PROPERLY BRANCH RIDGES WHICH ARE SITE FOR DECAY.
- FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN TO PREVENT THE SPREAD OF OAK WILT.

NO.	REVISION	DATE	BY

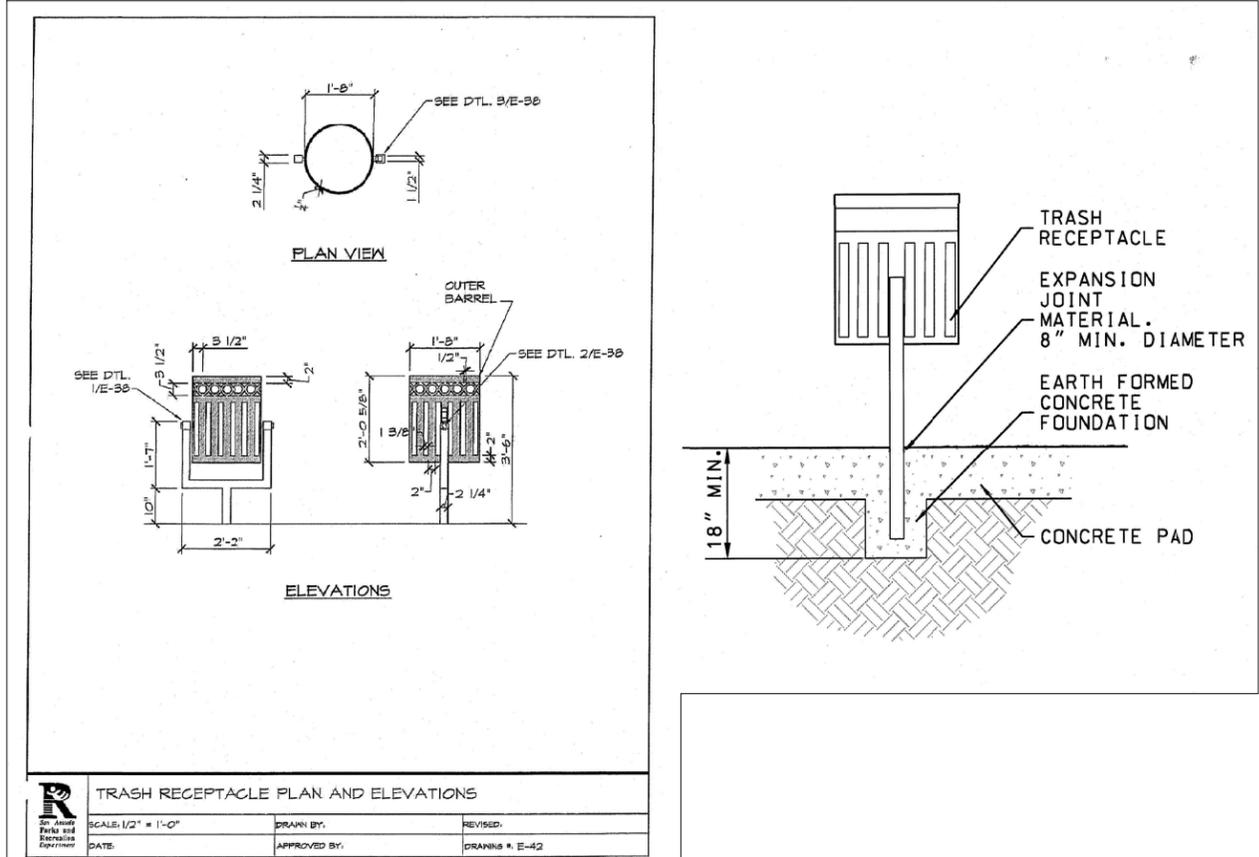
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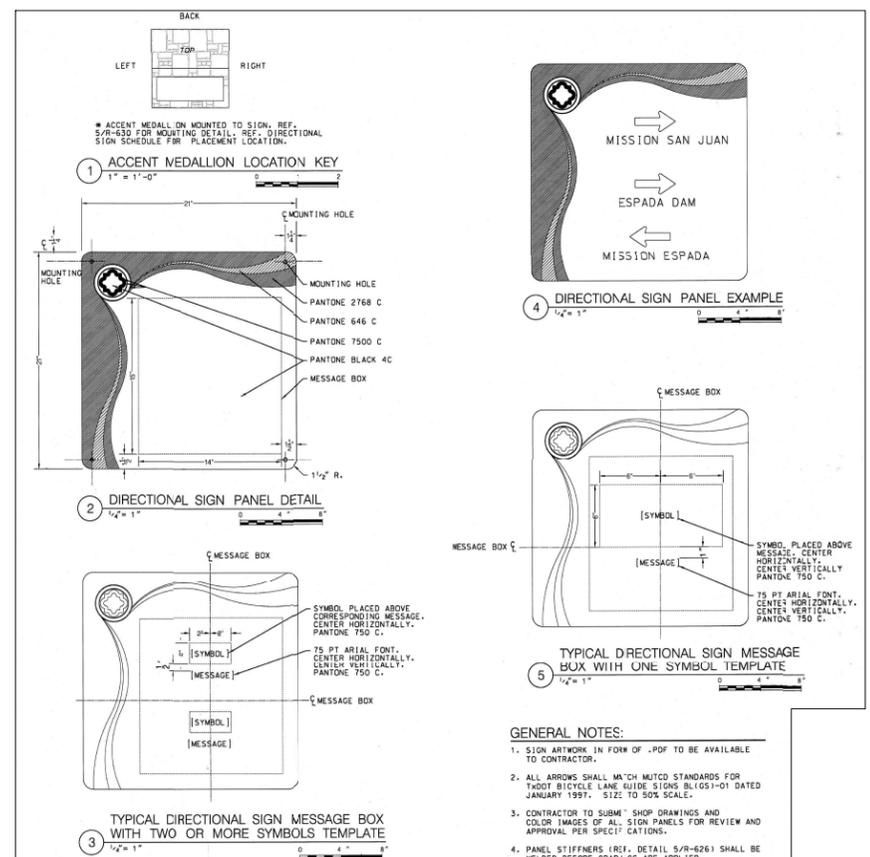
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TREE PROTECTION STANDARD DETAILS

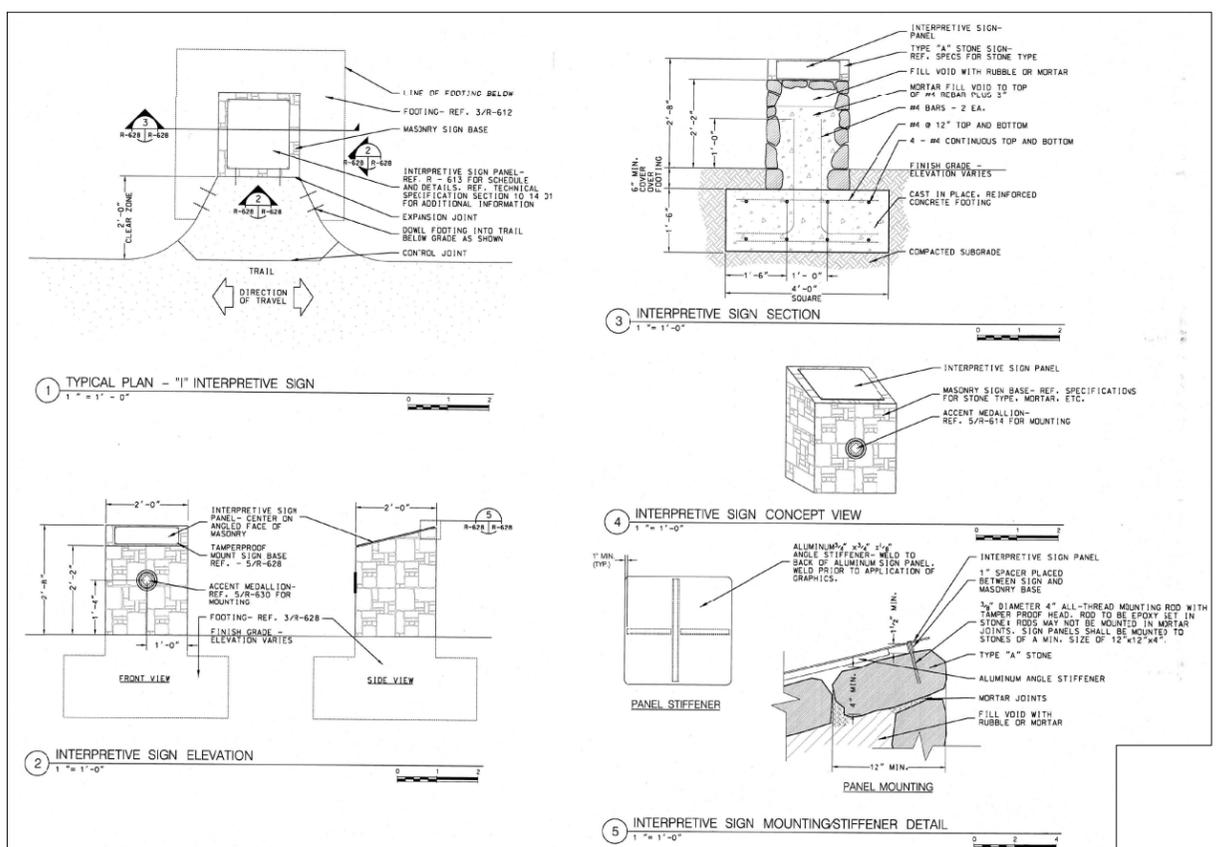
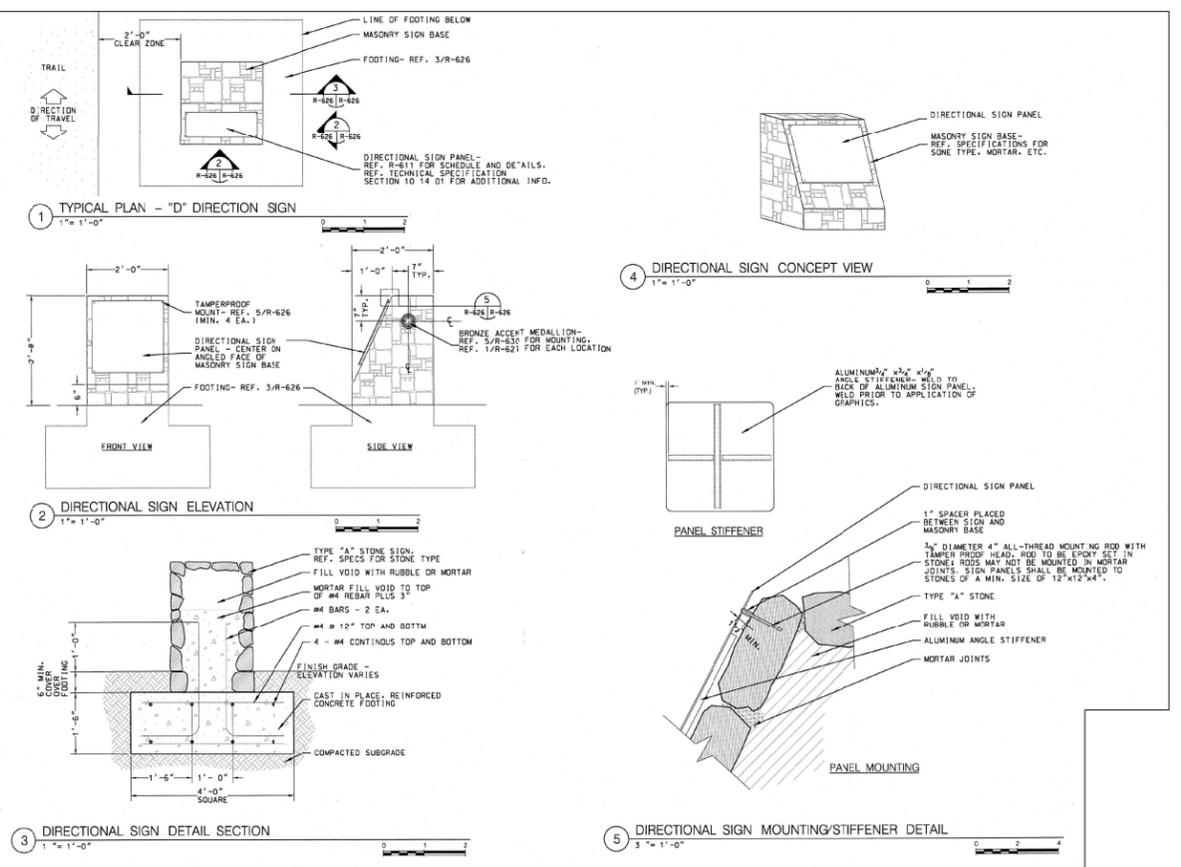
SHEET
 C14 OF 18



TRASH RECEPTACLE PLAN AND ELEVATIONS
 SCALE: 1/2" = 1'-0"
 DRAWN BY: [REDACTED]
 REVISED: [REDACTED]
 DATE: [REDACTED]
 APPROVED BY: [REDACTED]
 DRAWING # E-42



GENERAL NOTES:
 1. SIGN ARTWORK IN FORM OF .PDF TO BE AVAILABLE TO CONTRACTOR.
 2. ALL ARROWS SHALL MATCH MUTCD STANDARDS FOR TRUCK/BICYCLE LANE GUIDE SIGNS (BLOS-01 DATED JANUARY 1997). SIZE TO 50% SCALE.
 3. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND COLOR IMAGES OF ALL SIGN PANELS FOR REVIEW AND APPROVAL PER SPECIFICATIONS.
 4. PANEL STIFFENERS (REF. DETAIL 5/R-626) SHALL BE WELDED BEFORE GRAPHICS ARE APPLIED.



NO.	REVISION	DATE	BY

DESIGNED BY: [REDACTED]
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 APPROVED BY: DM
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 FILE: 0525



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**TRASH RECEPTACLE & SIGNAGE
 STANDARD DETAILS**

SHEET
 C15 OF 18

GENERAL NOTES

- DESIGN IS IN ACCORDANCE WITH 2015 INTERNATIONAL BUILDING CODE, LOCAL AMENDMENTS, AND APPLICABLE CODE REFERENCED STANDARDS.
- DEAD LOADS:
 - SHADE STRUCTURE: FRAMING SELF-WEIGHT
 - PEDESTRIAN BRIDGE: 10 KIPS (PER ABUTMENT)
- LIVE LOADS
 - SHADE STRUCTURE ROOF: 20 PSF
 - PEDESTRIAN BRIDGE: 18 KIPS (PER ABUTMENT)
- GROUND SNOW LOAD: $P_g = 5$ PSF
- LATERAL LOADS
 - RISK CATEGORY II
 - WIND LOAD
 - ULTIMATE DESIGN WIND SPEED: $V_{ult} = 115$ MPH
 - WIND EXPOSURE: C
 - INTERNAL PRESSURE COEFFICIENT: $G_C p_i = +/- 0.0$
 - SEISMIC LOAD
 - SEISMIC IMPORTANCE FACTOR: $I = 1.00$
 - MAPPED SPECTRAL ACCELERATIONS: $SS = 0.086, S1 = 0.029$
 - SITE CLASS: C
 - SPECTRAL RESPONSE COEFFICIENT: $SDS = 0.091, SD1 = 0.046$
 - SEISMIC DESIGN CATEGORY: A
 - DESIGN BASE SHEAR $V = 0.01W$
- VERIFY AND COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH OTHER DISCIPLINES AND PROJECTS ASSOCIATED WITH THIS DESIGN PRIOR TO SHOP DRAWINGS, FABRICATION, OR CONSTRUCTION.
- REMOVE ALL ABANDONED FOUNDATIONS, UTILITIES, PIPELINES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION.
- FIELD VERIFY ALL EXISTING CONDITIONS, INCLUDING LOCATION AND DIMENSIONS OF ALL EXISTING CONSTRUCTION AND UTILITIES. NOTIFY ENGINEER IF THERE IS A CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH WORK. PROVIDE EXCAVATION SHORING TO PROTECT AND SUPPORT FOUNDATION SOILS UNDER EXISTING STRUCTURES.
- THE STRUCTURE IS DESIGNED FOR STABILITY IN THE FINAL CONDITION ONLY. PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED FOR STABILITY DURING CONSTRUCTION.
- PLANS, SECTIONS, AND DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.

CONCRETE

- CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- ALL REINFORCING SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60, DEFORMED.
- CONCRETE CLEAR COVER OVER REINFORCING SHALL BE AS LISTED BELOW, UNLESS OTHERWISE NOTED.
 - CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
 - ALL OTHER: 2"
 - SEE DRAWINGS FOR EXCEPTIONS
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE FORMS OR TOOLED TO 3/4" RADIUS ON SLABS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING, TEMPORARY BRACING AND SHORING.
- CONDUITS AND PIPING EMBEDDED IN CONCRETE SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS PLACED BETWEEN LAYERS OF REINFORCING.
- UNLESS NOTED OTHERWISE, HOOKS SHOWN ON DRAWINGS SHALL BE ASSUMED TO BE STANDARD HOOKS PER ACI 318.
- ALL REINFORCING SHALL BE CONTINUOUS. CONTINUOUS BARS SHALL LAP 48 BAR DIAMETERS OF SMALLER BAR LAPPED, UNLESS NOTED OTHERWISE. ALL REBAR EMBEDMENT LENGTHS SHALL BE 36 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

FOUNDATION

- FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING STUDY "SARA - SHADE STRUCTURE AND PEDESTRIAN BRIDGE, BCB TRAIL LINKAGE, SAN ANTONIO, TEXAS", DATED JANUARY 16, 2017, PREPARED BY ARIAS GEOPROFESSIONALS (ARIAS JOB NO. 2016-812). A COPY OF THIS REPORT IS AVAILABLE FOR INSPECTION AT THE ENGINEER'S OFFICE.
- EXCAVATION DESIGN AND SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY SLOPES SHOWN ARE A MAXIMUM AND SHALL BE DECREASED AS REQUIRED FOR SAFETY AND OSHA REQUIREMENTS.

- ALL BELOW GRADE FOUNDATION ELEMENTS ARE DESIGNED WITH FORMED SIDES, UNLESS OTHERWISE INDICATED.
- ALL CONCRETE EXPOSED TO VIEW IN THE FINAL CONDITION AND 12" BELOW GRADE SHALL BE FORMED.
- ALLOWABLE NET BEARING PRESSURES USED FOR BRIDGE FOUNDATION FOOTING IS 1,500 PSF.
- ALL FOUNDATIONS SHALL BEAR ON SOUND, UNDISTURBED, LEVEL EXCAVATIONS. REMOVE ANY AND ALL LOOSE DEBRIS FROM EXPOSED BEARING SURFACE. SUITABLE BEARING MATERIAL SHALL BE VERIFIED BY A GEOTECHNICAL PROFESSIONAL ENGINEER.

STRUCTURAL STEEL

- STEEL MATERIAL SHALL BE IN ACCORDANCE WITH THE FOLLOWING UNLESS NOTED OTHERWISE:
 - WIDE FLANGES: ASTM A992
 - CHANNELS: ASTM A36
 - PIPES: ASTM A53, TYPE E OR S, GRADE B
 - HSS: ASTM A500, GRADE B
 - PLATES: ASTM A36
 - MISC.: ASTM A36
 - ANCHOR RODS: ASTM F1554, GRADE 36
- PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STEEL ERECTION.
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER ASTM A325 BOLTS, UNLESS NOTED OTHERWISE.
- ALL BOLT HOLES SHALL BE STANDARD HOLES PER AISC 360 TABLE J3.3, UNLESS OTHERWISE NOTED. DO NOT OVERSIZE, SLOT, OR ENLARGE HOLES UNLESS SPECIFICALLY INDICATED.
- GALVANIZED STEEL INDICATED TO BE PAINTED SHALL BE PREPARED IN ACCORDANCE WITH ASTM D6386 AND PRIMER MANUFACTURER RECOMMENDATIONS. PRIMER SHALL BE COMPATIBLE WITH ZINC COATINGS.
- WELDING SHALL BE PERFORMED WITH E70XX LOW-HYDROGEN ELECTRODES.
- NO HOLES SHALL BE CUT THROUGH STEEL FRAMING IN FIELD UNLESS APPROVED BY THE ENGINEER.

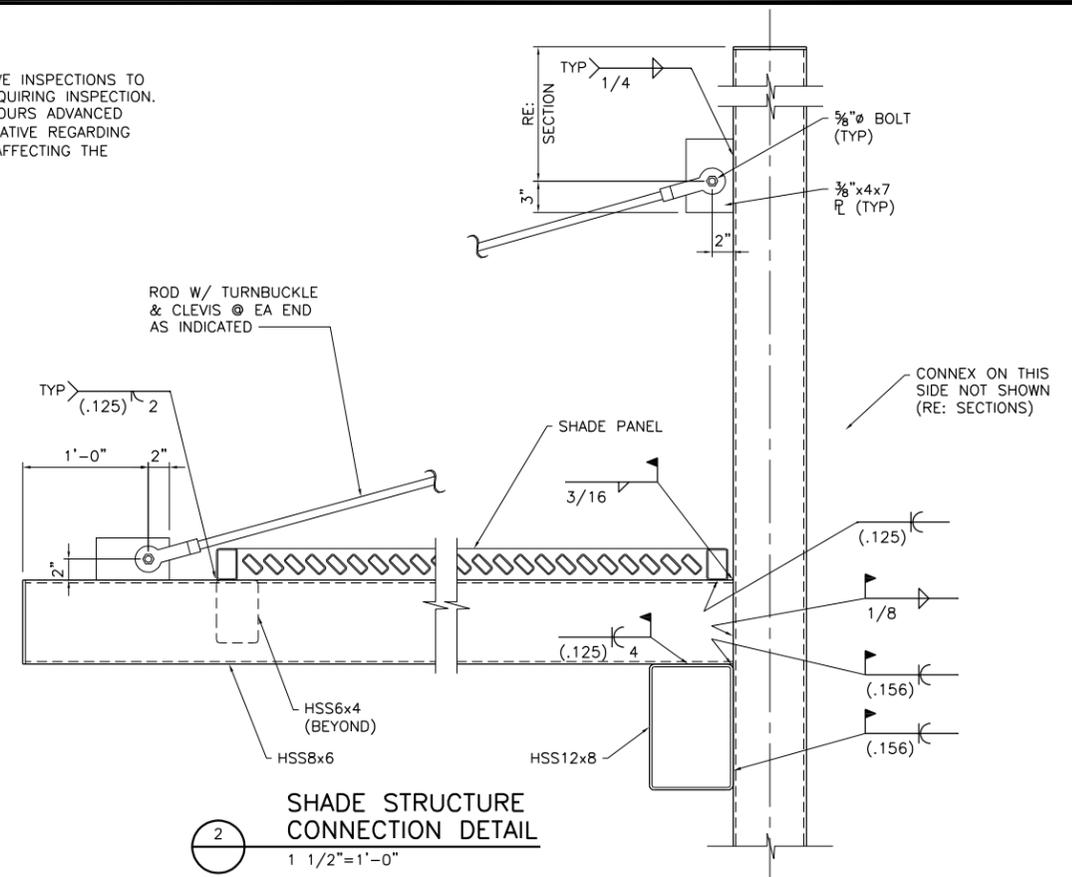
POST-INSTALLED ANCHORS (ADHESIVE)

- INSTALL IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), BUT NOT LESS THAN THAT INDICATED BELOW.
- ADHESIVE ANCHORS SHALL ONLY BE INSTALLED BY CONSTRUCTION PERSONNEL CERTIFIED UNDER ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. SUBMIT CERTIFICATIONS AS RECORD DATA.
- ANCHOR DIAMETER AND EMBEDMENT SHALL BE AS INDICATED.
- HOLES SHALL BE DRILLED USING ROTARY HAMMER DRILLS WITH ANSI MATCHED TOLERANCE CARBIDE-TIPPED DRILL BITS. DRILL BIT DIAMETER SHALL MATCH DIAMETER RECOMMENDED BY MANUFACTURER.
- USE CARE AND CAUTION WHEN INSTALLING TO AVOID CUTTING OR DAMAGING EXISTING REINFORCING STEEL.
- AS INDICATED BLOW HOLES CLEAN WITH COMPRESSED AIR, 80 PSI MINIMUM. START BLOWING WITH NOZZLE AT BACK OF HOLE AND SLOWLY EXTRACT NOZZLE.
- ADHESIVE ANCHORS SHALL BE DEFORMED REINFORCING BARS (ASTM A615, GR 60) OR GALVANIZED THREADED ROD (ASTM F1554 GRADE 36), UNLESS OTHERWISE REQUIRED BY BRIDGE MANUFACTURER, AND AS NOTED BELOW:
 - ADHESIVE SHALL BE HILTI HIT-RE 500 V3 OR AS RECOMMENDED BY BRIDGE MANUFACTURER.
 - PRIOR TO INSTALLATION: ALL DEFORMED BARS AND THREADED ROD SHALL BE CLEAN, FREE OF OIL, GREASE, OR OTHER RESIDUE, IN ACCORDANCE WITH MPII.
 - CLEAN HOLES BEFORE INSTALLING ANCHOR PER MPII, BUT NOT LESS THAN THE FOLLOWING:
 - BLOW HOLE CLEAN. REPEAT 3 TIMES.
 - BRUSH HOLE WITH SPECIFIED BRUSH. REPEAT 3 TIMES.
 - BLOW HOLE CLEAN. REPEAT 3 TIMES.
 - INSTALL EPOXY STARTING AT BACK OF HOLE. AS REQUIRED BY MPII, USE MANUFACTURER SUPPLIED PISTON PLUG INJECTION SYSTEM FOR ALL HORIZONTAL AND VERTICALLY INCLINED HOLES.
 - INSTALL ANCHOR BY SIMULTANEOUSLY TWISTING AND INSERTING INTO HOLE.
 - ALLOW ANCHOR TO SET REQUIRED TIME. DO NOT DISTURB.
 - TIGHTEN NUT. DO NOT OVER-TORQUE.
 - MINIMUM CONCRETE AGE AT TIME OF INSTALLATION: 14 DAYS
 - CONCRETE TEMPERATURE RANGE AT TIME OF INSTALLATION SHALL BE: 41°F TO 104°F.
 - CONCRETE MOISTURE CONDITION AT TIME OF INSTALLATION: DRY.

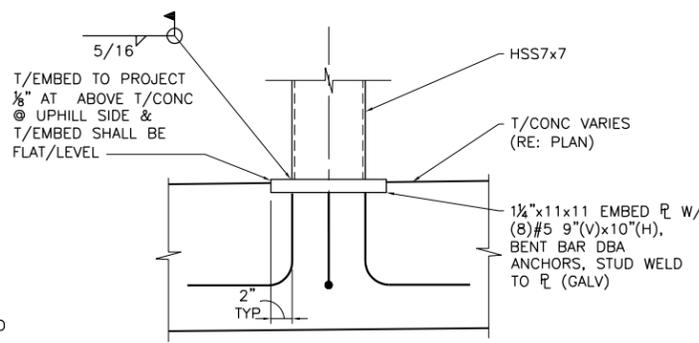
IBC CHAPTER 17 SPECIAL INSPECTION REQUIREMENTS

- THE OWNER OR THE OWNER'S REPRESENTATIVE IS REQUIRED TO PERFORM SPECIAL INSPECTIONS IN ACCORDANCE WITH IBC 2015 AND AS OUTLINED IN THE STATEMENT OF SPECIAL INSPECTION.

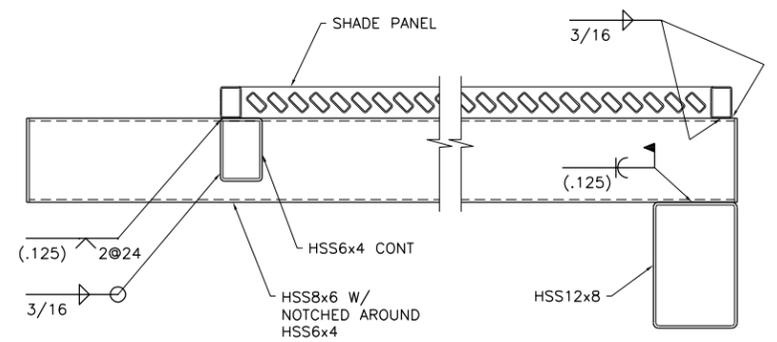
- THE CONTRACTOR IS REQUIRED TO ENABLE THE ABOVE INSPECTIONS TO OCCUR BY PROVIDING ACCESS TO THE ELEMENTS REQUIRING INSPECTION. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE TO THE OWNER OR THE OWNER'S REPRESENTATIVE REGARDING ALL CONSTRUCTION ACTIVITIES RELATED TO AND/OR AFFECTING THE REQUIRED SPECIAL INSPECTIONS.



SHADE STRUCTURE CONNECTION DETAIL
1 1/2" = 1'-0"



SHADE STRUCTURE COLUMN FOUNDATION EMBED DETAIL
1 1/2" = 1'-0"



SHADE STRUCTURE CONNECTION DETAIL
1 1/2" = 1'-0"

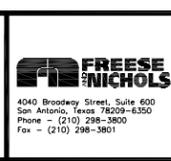
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-Eduardo Villalon

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CHECKED BY: ALR	
APPROVED BY:	

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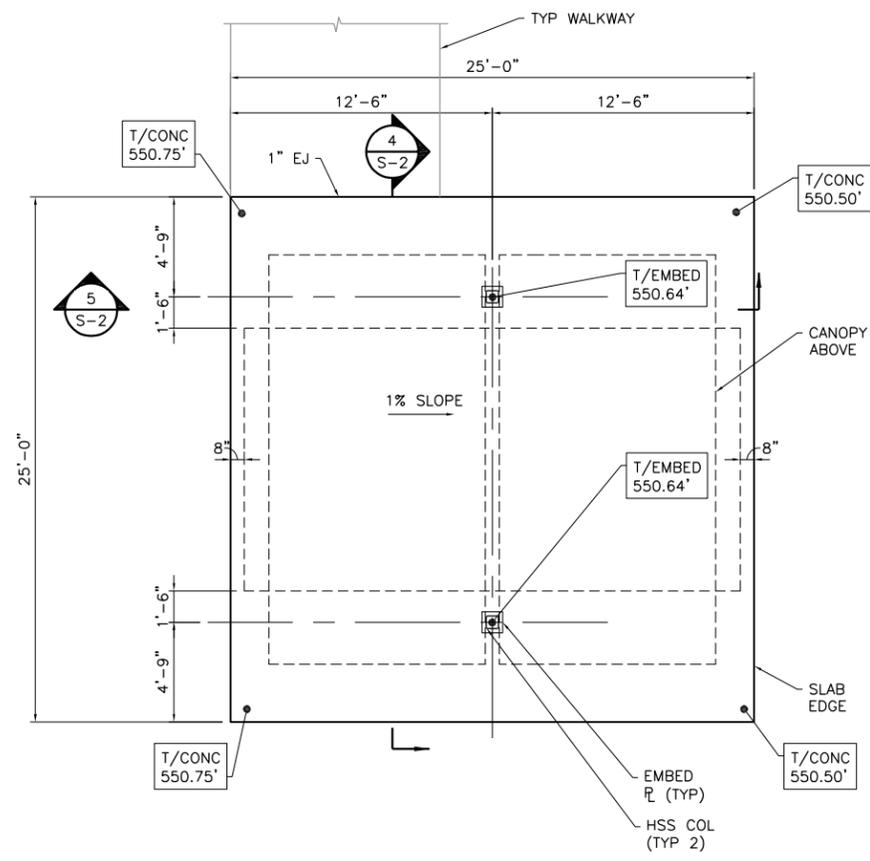


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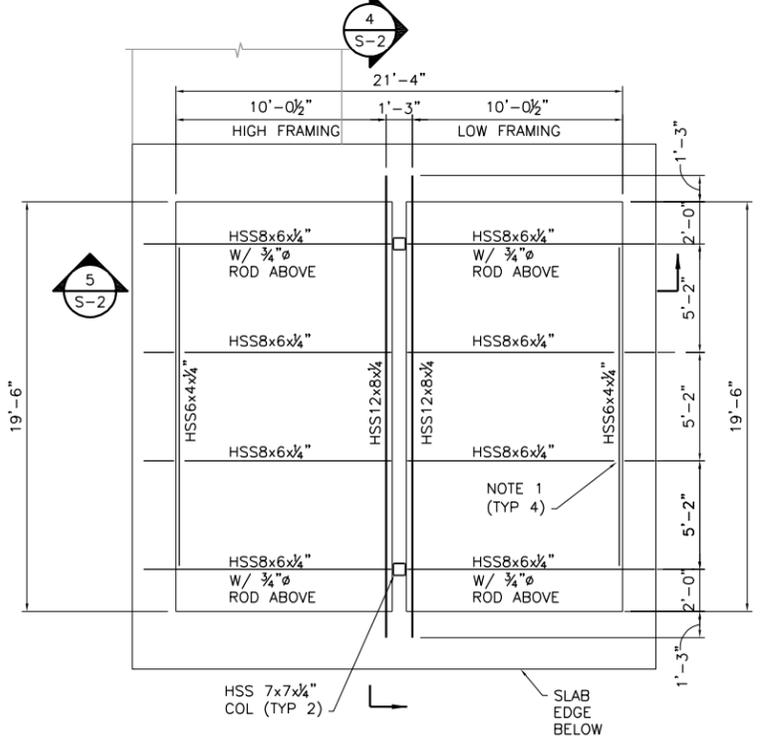
BROOKS CITY BASE CONNECTION

NOTES AND DETAILS

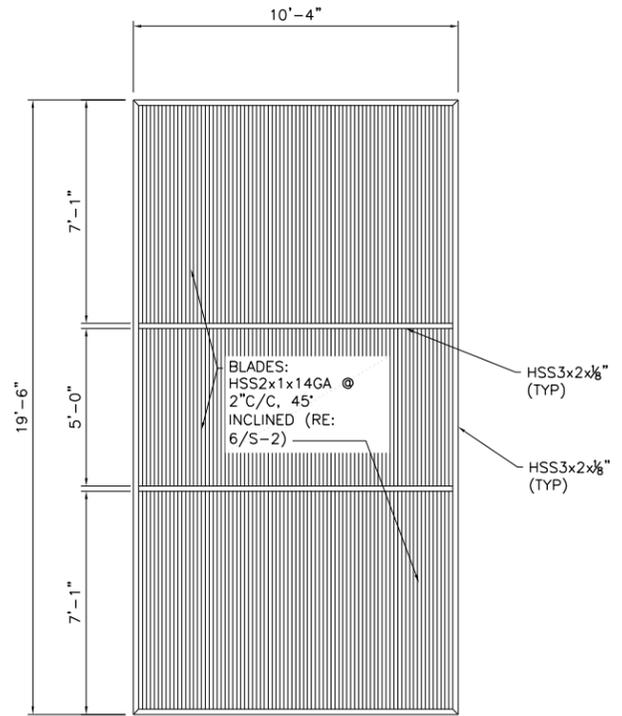
SHEET
S-1 OF 18



SHADE STRUCTURE FOUNDATION PLAN
1/4"=1'-0"



SHADE STRUCTURE ROOF FRAMING PLAN
1/4"=1'-0"

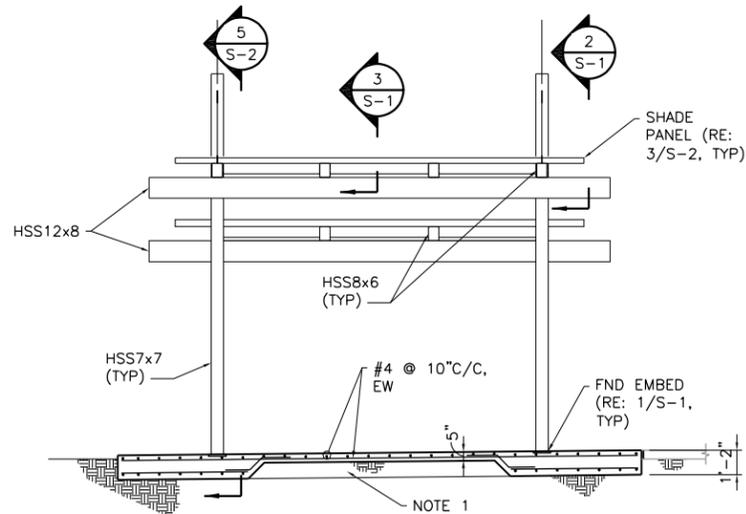


SHADE PANEL FRAMING PLAN
3/8"=1'-0"

- PLAN NOTES:**
1. NOTCH TOP OF HSS8x6. REFER TO DETAILS.
 2. PROVIDE 1/4" END CAP ON ALL BEAMS. SEAL WELD TO BEAM. GRIND FLUSH.
 3. REFER TO GENERAL STRUCTURAL NOTES ON SHEET S-1.

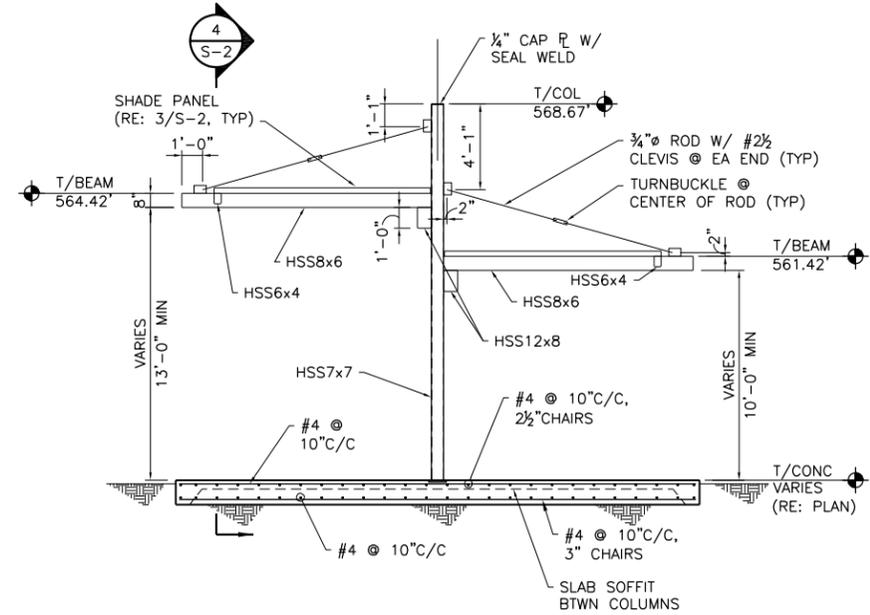
FOUNDATION NOTES:

1. FOUNDATION PREPARATION NOTES:
 - A. STRIP THE SITE OF ALL ORGANIC MATERIAL, MINIMUM 6" DEPTH.
 - B. PROOF ROLL THE EXCAVATED SURFACE TO ENSURE THERE ARE NO SOFT OR PUMPING SOIL AREAS.
 - C. EXCAVATE SITE TO REQUIRED ELEVATION BASED ON SLAB THICKNESS.
 - D. AS REQUIRED, BUILD UP SOIL BELOW SLAB WITH EXCAVATED ONSITE OR IMPORTED SOILS THAT ARE CLASSIFIED AS CL OR SC, FREE OF ORGANIC MATERIAL, AND PARTICLES LARGER THAN 3".
 - E. PLACE FILL IN 4" LOOSE LIFTS AND COMPACT TO 95% STANDARD PROCTOR (ASTM D698) AT A MOISTURE CONTENT OF -0% TO +4% OF OPTIMUM.
2. MAINTAIN MOISTURE CONTENT IN SOIL BELOW SLAB WHILE EXPOSED.

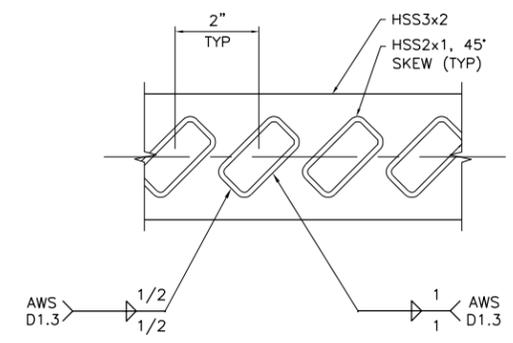


- DETAIL NOTES:**
1. IN LIEU OF STEP SLAB THICKNESS SHOWN AND AT CONTRACTOR'S OPTION: EXCAVATE SLAB AREA TO A UNIFORM THICKNESS OF 14" AND PLACE TWO MATS OF #4 @ 10" C/C FOR ENTIRE SLAB AREA.

SHADE STRUCTURE ELEVATION
1/4"=1'-0"



SHADE STRUCTURE SECTION
1/4"=1'-0"



SHADE PANEL BLADE DETAIL
6"=1'-0"

COLOR: MP OLD COPPER (SEE PAINT SPEC SHEET PROVIDED)

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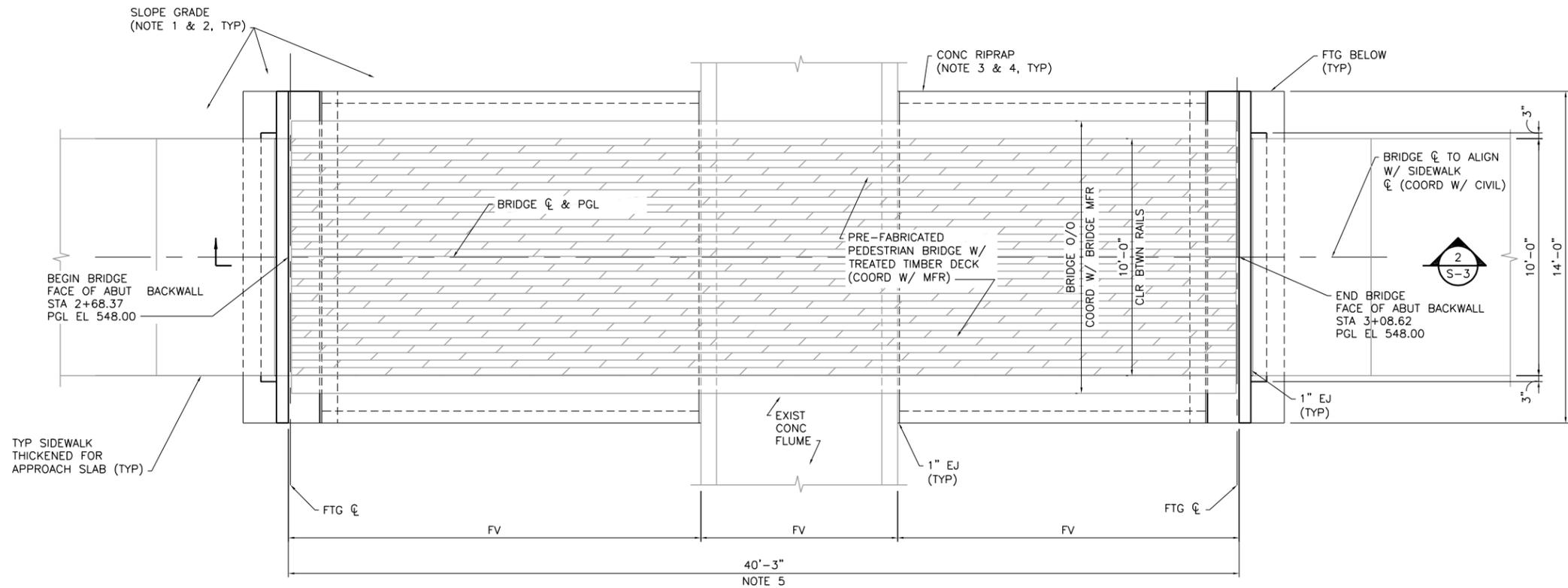
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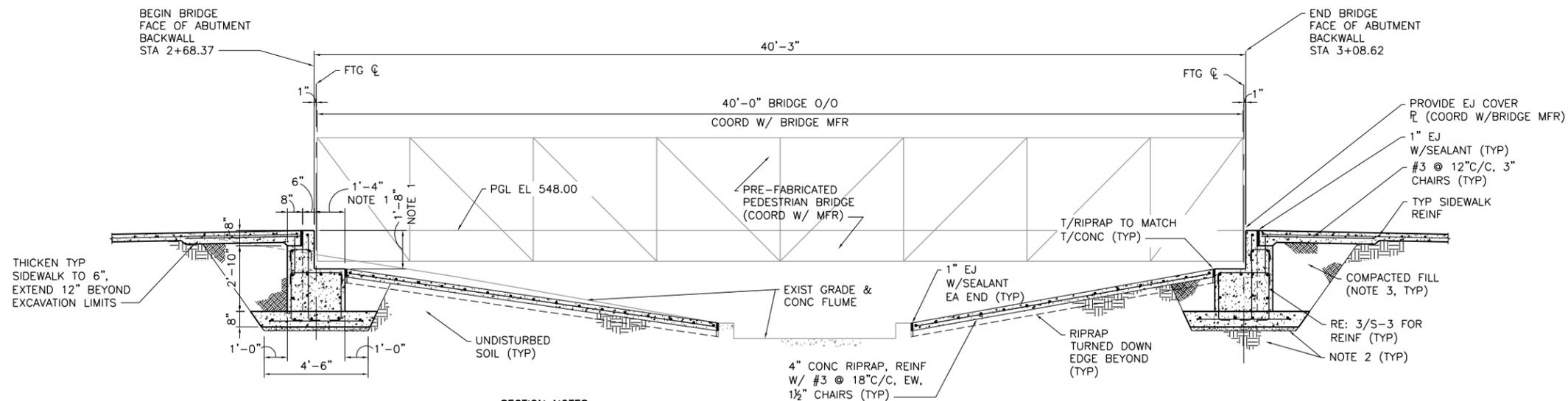
BROOKS CITY BASE CONNECTION
SUN SHADE PLANS AND SECTIONS

SHEET
 S-2 OF 18



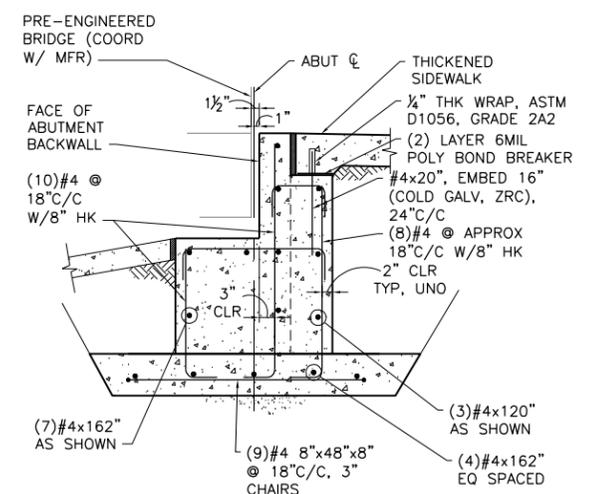
FOUNDATION PLAN
3/8"=1'-0"

- PLAN NOTES:**
- RE-GRADE AROUND ABUTMENT AND SLOPE GRADE AROUND BRIDGE ABUTMENT BACKWALL AS REQUIRED FOR RIPRAP TO BE 1/2" ABOVE GRADE AT ABUTMENT AND 0" AT EXISTING FLUME CURB. TYPICAL EACH SIDE OF EACH ABUTMENT.
 - PROVIDE SOD TO REPLACE DAMAGED TURF. MATCH EXISTING GRASSES. WATER UNTIL ESTABLISHED. COORDINATE WITH OTHER PROJECT REQUIREMENTS.
 - TOP OF CONCRETE RIPRAP SHALL BE 1/2" ABOVE FINISH GRADE AT ABUTMENT AND SHALL BE A CONSTANT SLOPE BETWEEN TOP OF CONCRETE AT ABUTMENT SEAT AND TOP OF CONCRETE AT EXISTING FLUME CURB.
 - THICKEN EDGE OF RIPRAP TO 7" DEEP x 6" WIDE AND REINFORCE WITH (1) ADDITIONAL BAR.
 - COORDINATE WIDTH OF FOOTING AND ABUTMENT-TO-ABUTMENT SPACING WITH BRIDGE MANUFACTURER PRIOR CONSTRUCTION OR SUBMITTING REINFORCING SHOP DRAWINGS. FOOTING WIDTH SHALL EXTEND A MINIMUM OF 12" BEYOND LIMITS OF BRIDGE AT EACH SIDE OF BRIDGE, BUT NOT LESS THAN THAT RECOMMENDED BY THE BRIDGE MANUFACTURER.
 - REFER TO GENERAL STRUCTURAL NOTES ON SHEET S-1.
 - PROVIDE CAST-IN-PLACE ANCHOR BOLTS OR DRILLED IN ADHESIVE ANCHORS AS RECOMMENDED BY BRIDGE MANUFACTURER. ADJUST REINFORCING AT BRIDGE SEAT AS REQUIRED TO PROVIDE 12" WIDE CLEAR ZONE FOR ANCHOR INSTALLATION IF POST INSTALLED. ALL ANCHORS SHALL BE LOCATED WITHIN FOOTING REINFORCING CAGE.
 - PRE-FABRICATED BRIDGE SHALL BE BY WHEELER OR APPROVED EQUAL. BRIDGE SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS IN ACCORDANCE WITH AASHTO "LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES," DECEMBER 2009. PEDESTRIAN LIVE LOAD SHALL BE 90 PSF. VEHICLE LIVE LOAD SHALL BE H5 (2KIP AND 8KIP AXLES, 14FT C/C). BRIDGE DECK SHALL BE TREATED TIMBER.



- SECTION NOTES:**
- COORDINATE DEPTH OF SEAT WITH BRIDGE MANUFACTURER PRIOR CONSTRUCTION OR SUBMITTING REINFORCING SHOP DRAWINGS.
 - FOOTING SHALL BEAR ON UNDISTURBED, SOUND, LEVEL SOIL. CHECK EXPOSED SUBGRADE FOR COMPACTNESS/DENSITY IMMEDIATELY AFTER EXCAVATION BY "PROOF ROLLING" WITH VIBRATORY RAMMER. HAND-DIRECTED COMPACTION EQUIPMENT, AND PROVIDE ONE SUBGRADE DENSITY TEST AT EACH ABUTMENT. PLACE 2" THICK, 1,500 PSI (28-DAY MINIMUM COMPRESSIVE STRENGTH) MUD SLAB WITHIN 8 HOURS OF EXPOSING SUBGRADE.
 - PROVIDE COMPACTED FILL BEHIND AND IN FRONT OF ABUTMENT. BALANCE LIFT PLACEMENT ON EACH SIDE OF WALL UNTIL FINISH GRADE IN FRONT OF WALL IS ACHIEVED. VERIFY ABUTMENT WALL TO ABUTMENT WALL AFTER BACKFILLING. FILL SHALL BE ONSITE, EXCAVATED LEAN CLAYS (OR EQUIVALENT IMPORTED SOIL) COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (ASTM D698) AT A MOISTURE CONTENT OF -1% TO +3% OF OPTIMUM. 4" LOOSE LIFTS

SECTION
3/8"=1'-0"



- SECTION NOTES:**
- BASED ON FINAL FOOTING WIDTH. VERIFY FINAL REINFORCING QUANTITY OR LENGTH AS APPLICABLE.

ABUTMENT DETAIL
3/4"=1'-0"

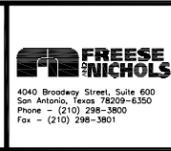
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BROOKS CITY BASE CONNECTION
 PEDESTRIAN BRIDGE
 PLAN AND SECTION
 SHEET
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