

# HISTORIC AND DESIGN REVIEW COMMISSION

June 06, 2018

**HDRC CASE NO:** 2018-266  
**COMMON NAME:** S ALAMO ST FROM PEREIDA ST TO CESAR CHAVEZ BLVD  
**ZONING:** UZROW  
**CITY COUNCIL DIST.:** 1  
**DISTRICT:** King William Historic District  
Lavaca Historic District  
**APPLICANT:** Florencio Rodriguez/City of San Antonio Transportation & Capital Improvements (TCI)  
**OWNER:** City of San Antonio  
**TYPE OF WORK:** Right-of-way improvements  
**APPLICATION RECEIVED:** May 11, 2018  
**60-DAY REVIEW:** July 10, 2018  
**REQUEST:**

The applicant is requesting a Certificate of Appropriateness for approval to perform road, sidewalk, and landscaping improvements in the right-of-way of S Alamo St from Pereida St to Cesar Chavez Blvd.

## 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.

### 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.

### FINDINGS:

- a. The applicant has proposed to perform various street improvements on S Alamo from Pereida St to Cesar Chavez Blvd. The area of work is located within the King William and Lavaca Historic Districts. Additionally, several individual local historic landmarks front this portion of S Alamo. Proposed improvements include mill and overlay of the roadway, addition of 5' bike lands from St Mary's to Pereida, bulb outs at high volume pedestrian crossings, sidewalk reconstruction where existing sidewalks are out of compliance, widening of the sidewalk at VIA stops for ramp deployment, additional pavers in existing parkways, landscaping improvements, pedestrian lighting upgrades, and the removal of existing vegetated concrete/paver islands in parking areas.
- b. **SIDEWALKS AND RAMPS** – According to the Guidelines for Site elements, replacement materials for sidewalks should match existing sidewalk and material. The historic alignment, width, and configuration should also be matched. The proposal includes matching existing stained concrete paver bandings in existing parkways and matching the concrete sidewalks in color and configuration. Staff finds this appropriate.
- c. **HISTORIC CURBING** – The applicant has proposed to retain historic limestone curbing, which will be protected during the course of construction. Staff finds this proposal appropriate and consistent with the Guidelines.
- d. **PEDESTRIAN LIGHTING** – The applicant has proposed to install pedestrian light poles as indicated in the submitted drawings. The fixtures will be BEGA 77911 with an LED bulb. Staff finds the lighting proposal generally appropriate.
- e. **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 e with the following stipulation:

- i. That the applicant submits any updated plans and specifications that may change during the course of construction to OHP staff for review and approval.
- ii. That pedestrian ramps, including bulbouts, feature adark gray truncated dome color where required.
- iii. **ARCHAEOLOGY** – The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

### CASE MANAGER:

Stephanie Phillips





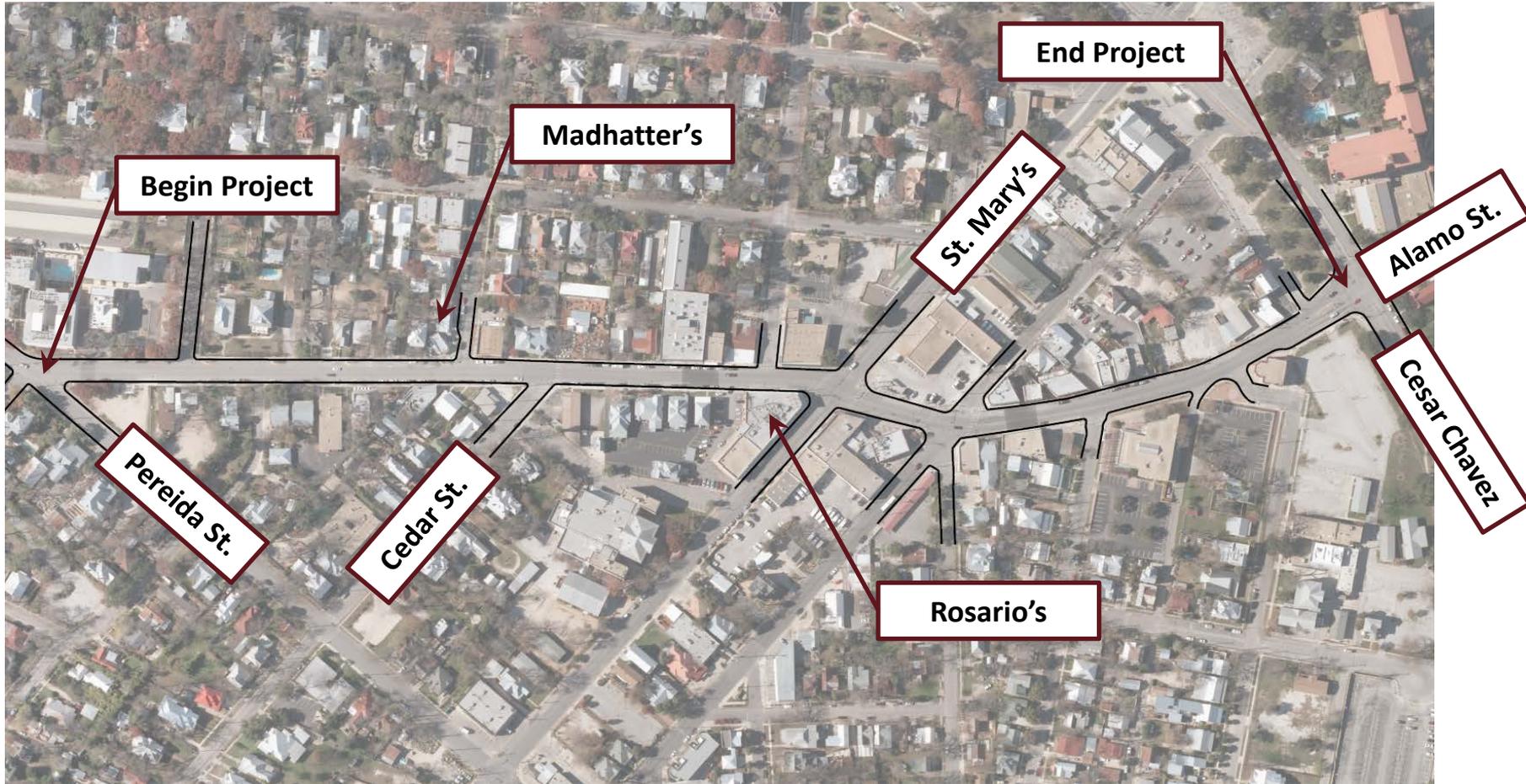
**TRANSPORTATION &  
CAPITAL IMPROVEMENTS  
(TCI)**

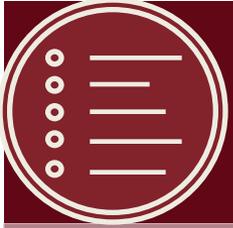
**World Heritage Project  
Alamo St. – Bike Lanes  
June 6, 2018**

**HDRC Presentation**



# PROJECT LIMITS





# PROJECT SCOPE

## Project Scope:

### **Alamo St.**

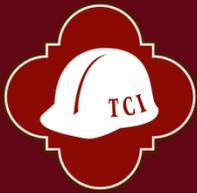
This project will include mill and overlay of the roadway and the addition of 5' bike lanes from St. Mary's to Pereida. This project will also include bulb outs at high volume pedestrian crossings, sidewalk reconstruction where existing sidewalk is out of compliance, widened sidewalk at VIA stops for ramp deployment, added pavers in the existing parkway, landscaping, and pedestrian lighting. Additionally, this project will include removal of existing vegetated concrete/paver islands in the parking areas.

CPS will need to adjust several poles and lines in order to accommodate new pedestrian lights. No other utility worked other than minor elevation adjustments

## Project Budget:

\$700,000 allocated in the 2012 – 2017 General Obligation Bond

\$160,000 TIRZ Grant awarded to King William Assoc. for pedestrian lighting



# STREET FURNITURE



***Remove Existing Bike Corral***



***Install Bike Repair Station – Dero***



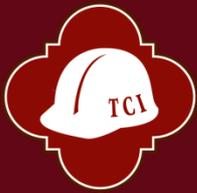
***Install Bike Racks – Dero w/ color options***

## Powder Coat

White	Black	Light Gray RAL 7042	Deep Red RAL 3003	Yellow RAL 1023
CNH Bright Yellow	Orange RAL 2004	Blue RAL 5005	Sky Blue RAL 5015	Hunter Green RAL 6005
Light Green RAL 6018	Green RAL 6016	Sepia Brown RAL 8014	Bronze	Silver 9007
Dark Purple	Flat Black	Wine Red RAL 3005	Beige RAL 1001	Iron Gray 7011

## Thermoplastic

Black	Green	Red	Blue	Gray	Brown
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# PAVING



***CONCRETE SIDEWALKS***



***Alamo Concrete Paver***



***Paver Banding in Parkway  
(Match existing material)***



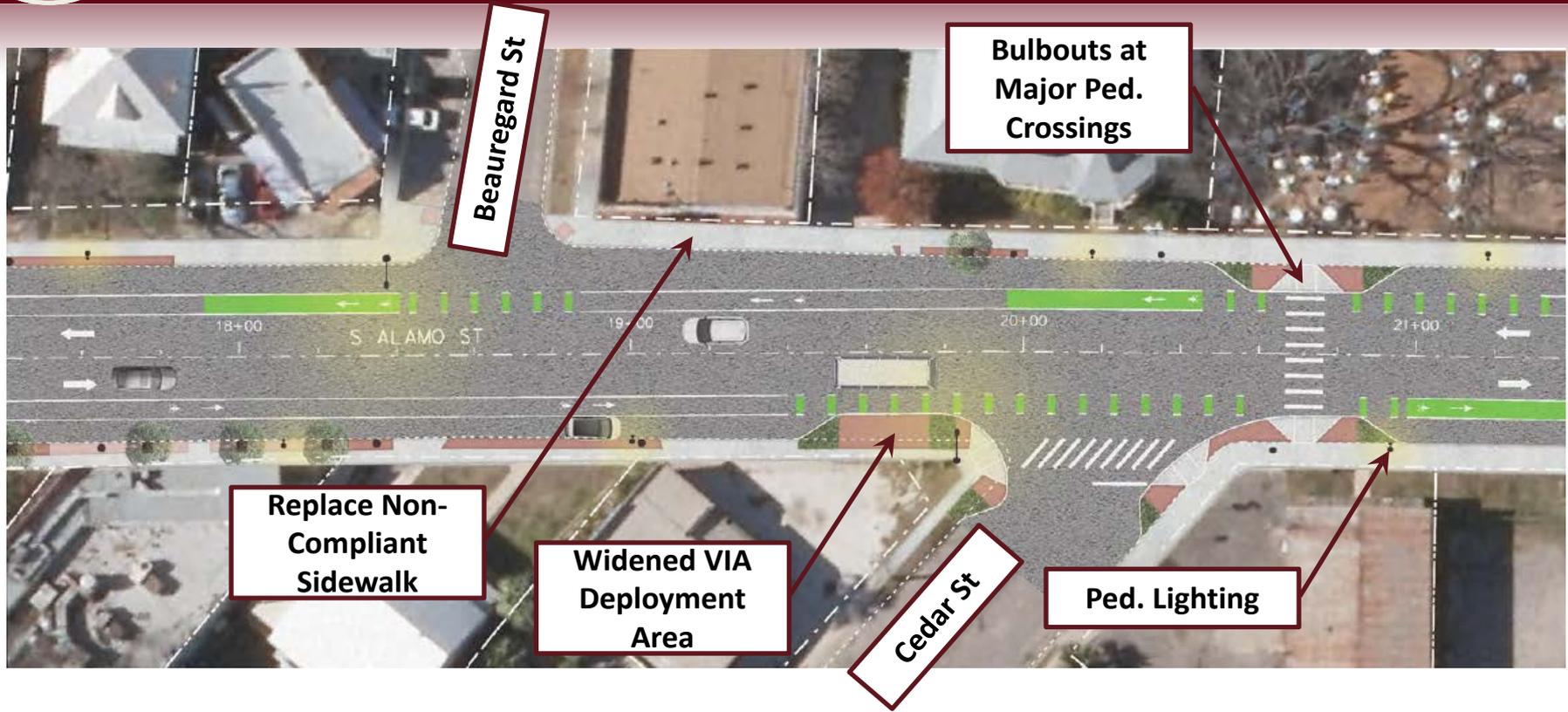
# PEDESTRIAN LIGHTING



***BEGA 77911 Fixture with  
LED***



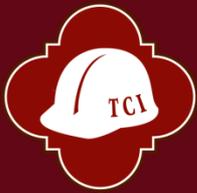
# Alamo St. (Ped. Improvements)





# Alamo St. (Bike Improvements)





## • Cultural Resources Preservation Alamo St.

- Historic limestone curbs to be protected and retained
- Archaeological monitoring present for all excavation
- Contractor is responsible for preventing damage to historic structures during the entire length of construction
- Contractor to saw cut existing sidewalk, 8” to 12” inches away from historic structures
- If the remaining 8” to 12” inches of sidewalk needs to be removed, the contractor will remove it by hand.
- Contractor to repair or replace in kind, and at his own expense any historic materials damaged during construction



# PROJECT SCHEDULE

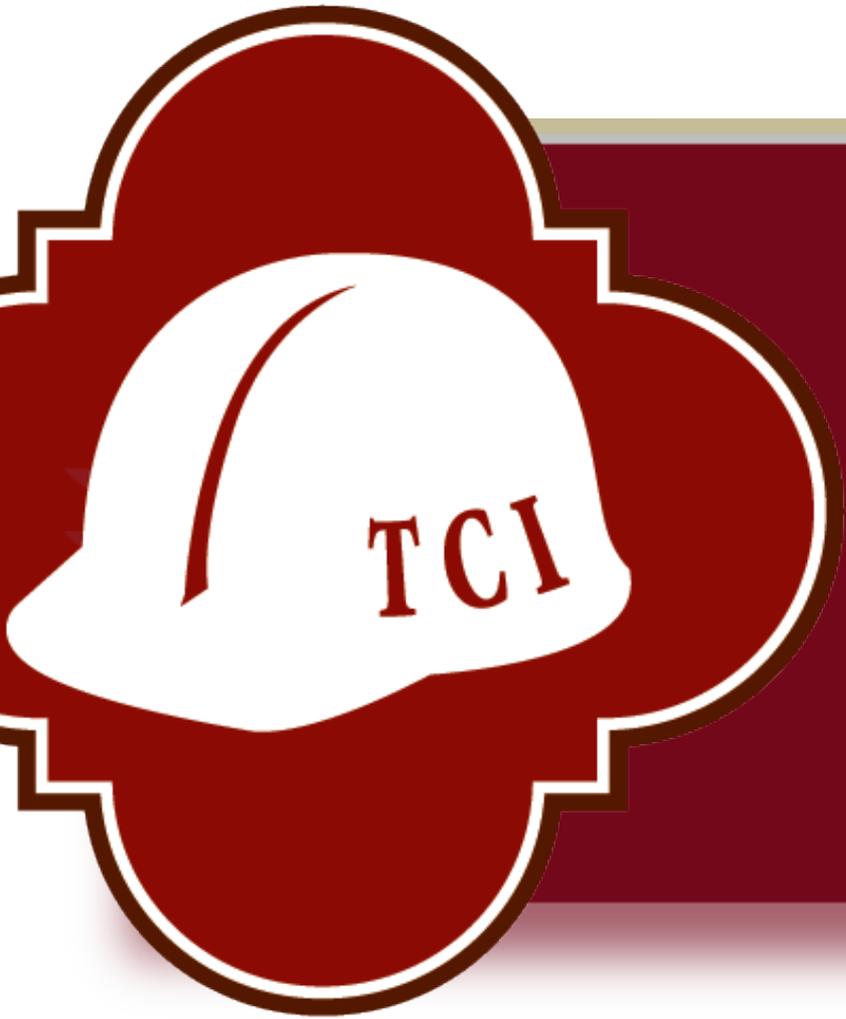
Main Ave. & Soledad Schedule	
Project Award	June 2018
Construction start	July 2018
Estimated construction completion*	December 2018
* Weather permitting	

For information in regards to the project:

Please contact: Timothy Hayes – TCI Senior Engineering Associate at 210-207-6942

[TimothyHayes@sanantonio.gov](mailto:TimothyHayes@sanantonio.gov)

If you would like to be added to an e-mail list for project updates or future meeting announcements, please ensure you fill out the sign-in sheet and check the permission block.



**END**

**THANK YOU**

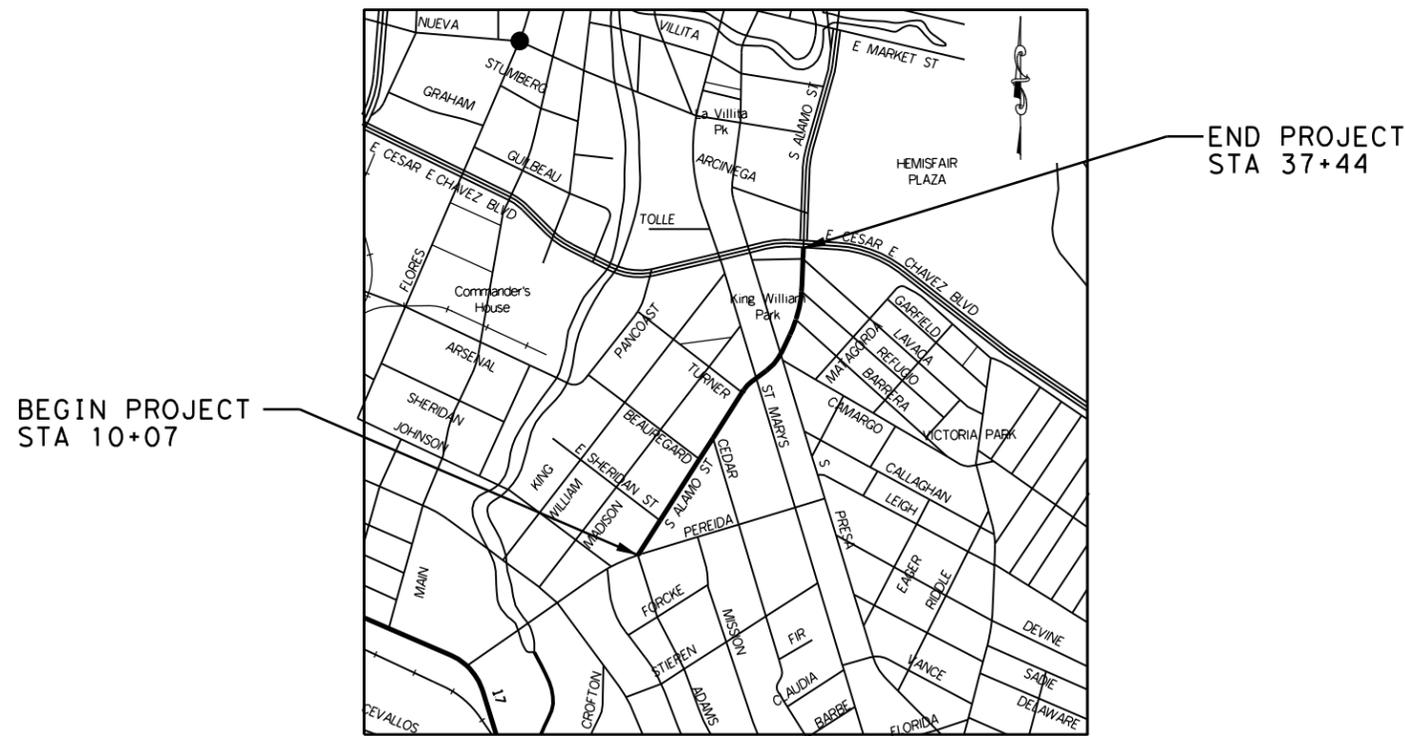
**HDRC Presentation**



# CITY OF SAN ANTONIO

## TRANSPORTATION & CAPITAL IMPROVEMENTS (TCI) DEPARTMENT

### S ALAMO ST (PEREIDA TO E CESAR CHAVEZ) PROJECT NO: XX-XXXX



BEGIN PROJECT  
STA 10+07

END PROJECT  
STA 37+44

LOCATION MAP  
NOT TO SCALE

PLANS PREPARED BY:



PROJECT INFORMATION:  
EXIST SPEED LIMIT: 30 MPH  
DESIGN SPEED LIMIT: 30 MPH  
TDLR INSPECTION:  
TDLR PROJECT NO:



CITY OF SAN ANTONIO  
TRANSPORTATION & CAPITAL IMPROVEMENTS

70% SUBMITTAL

Through innovation and dedication, we build and maintain San Antonio's infrastructure.

# INDEX OF SHEETS

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1	COVER SHEET
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4	PROPOSED TYPICAL SECTIONS
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SHEET NO.	ROADWAY PLANS
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SHEET NO.	ROADWAY STANDARDS
10-13	*PED-18
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SHEET NO.	TRAFFIC STANDARDS
14	LEFT-TURN "ONLY" AND ARROW SPACING WORKSHEET
15	STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE 1
16	RAISED PAVEMENT MARKERS, REFLECTIVE PAVEMENT MARKERS, TRAFFIC BUTTONS & JIGGLE BAR TILES 2
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18	LEFT-TURN LANE & RIGHT-TURN LANE DESIGN WORKSHEET 1
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20	TYPICAL CROSSWALK DETAILS
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SHEET NO.	LANDSCAPING PLAN
21-22	PROPOSED LANDSPACE LAYOUTS

\* DENOTES TXDOT STANDARD DETAIL

\$FILES

3/30/2018

REVISIONS			
DATE	NO.	DESCRIPTION	
 <p><b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b>  <small>TBPE FIRM REGISTRATION NO. 15685</small></p>			
<p><b>CITY OF SAN ANTONIO</b>                      Transportation &amp; Capital Improvements (TCI) Department</p>			
<p>SOUTH ALAMO STREET</p> <p><b>INDEX OF SHEETS</b></p>			
SHEET 1 OF 1			
50	% SUBMITTAL	PROJECT NO.:	XX-XXXXX
DRWN. BY:	AK	DSGN. BY:	AK
		CHKD. BY:	JCS
			DATE: 3/30/2018
			SHEET NO.: 2 OF 22

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
2. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
3. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC, THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
6. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.171 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
8. CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
9. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:
  - SAN ANTONIO WATER SYSTEM (SAWS) 233-2010
  - BEXAR METROPOLITAN WATER DISTRICT (BEXAR MET) 354-6538 /357-5741
  - COSA DRAINAGE 207-8048
  - COSA SIGNAL OPERATIONS 207-7720 /207-7765
  - TEXAS STATE WIDE ONE CALL LOCATOR 1-800-344-8377
  - CITY PUBLIC SERVICE ENERGY
  - TIME WARNER
  - AT&T
  - MCI
11. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
12. ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
13. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
14. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND /OR TRACKED CONSTRUCTION MATERIALS AND /OR DEBRIS.
15. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 207-7306 OR 207-3327 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY.
  - IF MORE THAN THREE (3) DAYS ARE REQUIRED FOR INVESTIGATION (NOT INCLUDING HOLIDAY AND WEEKENDS) AND IF THE CONTRACTOR IS UNABLE TO WORK IN OTHER AREAS, THEN THE CONTRACTOR WILL BE ALLOWED TO NEGOTIATE FOR ADDITIONAL CONSTRUCTION TIME UPON WRITTEN REQUEST WITHIN TEN (10) DAYS AFTER THE FIRST NOTICE TO THE CITY OF ARCHAEOLOGICAL INVESTIGATION FOR EACH EVENT.
  - IF THE TIME REQUIRED FOR INVESTIGATION IS LESS THAN OR EQUAL TO THREE (3) DAYS FOR EACH EVENT, CONTRACT DURATION WILL NOT BE EXTENDED.
16. IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS, C.O.S.A. SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND /OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER, TYPE OF CONTAMINATED MEDIA, EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS. THE CONTAMINATED SOIL AND /OR GROUNDWATER SHALL NOT BE REMOVED FROM THE LOCATION WITHOUT PRIOR C.O.S.A. APPROVAL.
  - THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.O.S.A. INSPECTOR. THE CONTRACTOR CANNOT BEGIN EXCAVATION ACTIVITIES WITHOUT WRITTEN PERMISSION FROM THE CITY.
17. CONTRACTOR IS TO INCLUDE A MAILBOX POST BLOCKOUT FOR VACANT LOTS AND ALL RESIDENCES WHICH DO NOT HAVE MAILBOXES AT THE CURB. BLOCKOUTS ARE PROVIDED FOR FUTURE USE BY THE POST OFFICE.

18. CONTRACTOR SHALL NOT REMOVE OR ADJUST ANY VIA FACILITIES. THE CONTRACTOR MUST CONTACT VIA FOURTEEN DAYS PRIOR, FOR THE REMOVAL OF BENCHES, STOP POLES OR ANY OTHER VIA FACILITIES THAT MAY BE PRESENT. PLEASE PROVIDE THIRTY DAYS PRIOR NOTICE FOR SHELTER REMOVAL (TELEPHONE NOS: (210) 362-2155 OR (210) 362-2096). THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGES TO VIA FACILITIES NOT REMOVED BY VIA. THE CONTRACTOR IS REQUIRED TO REPLACE ALL FLATWORK REMOVED OR DAMAGED IN THE COURSE OF EXECUTING THE CONTRACT UNLESS OTHERWISE NOTED BY VIA. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING VIA FACILITIES IF ADJACENT TO WORK AREA.

TREE PROTECTION AND PRESERVATION GENERAL NOTES

1. NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
2. TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
4. ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
5. ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
6. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
7. NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK WILT.
8. SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
9. NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES.
10. TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSIA-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.
11. NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
12. ALL DEBRIS GENERATED BY THE PRUNING AND TRIMMING OF THE TREES AND /OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
13. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
14. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST. (207-0278)
15. TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
16. TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATION, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

ACCESSIBILITY REQUIREMENTS

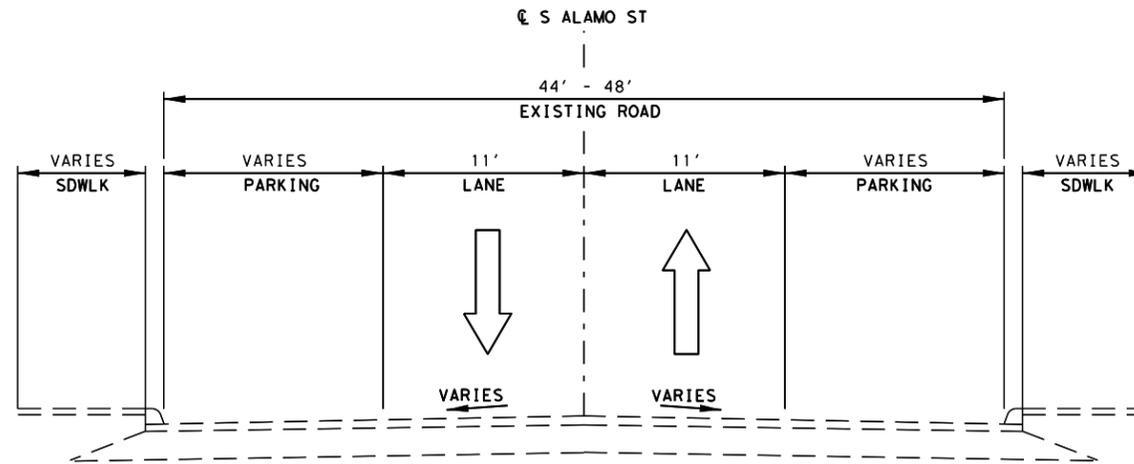
1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES TO LOCAL RESIDENCES AND BUSINESSES.
2. WHEN THE WORK REQUIRES THE EXCAVATION OF THE STREET AND THE REMOVAL OF THE EXISTING DRIVEWAY APPROACHES AND SIDEWALKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY ALL-WEATHER ACCESS TO THE BUSINESSES AND RESIDENCES. THE TEMPORARY DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITH FLEXIBLE BASE OR GRAVEL MATERIAL AT NO SEPARATE COST TO THE CITY.
3. PRIOR TO INITIATING THE CONSTRUCTION OF NEW DRIVEWAY APPROACHES, THE CONTRACTOR SHALL GIVE ADVANCE WARNING IN PERSON, OR IN WRITING, OF AT LEAST 48 HOURS TO EACH RESIDENCE THAT WILL BE IMMEDIATELY AFFECTED, SO THAT ALTERNATE PLANS MAY BE MADE BY THE RESIDENTS.
4. FOR BUSINESSES WITH MORE THAN ONE DRIVEWAY, AT LEAST ONE DRIVEWAY SHALL REMAIN OPEN WHILE THE OTHER NEW DRIVEWAY APPROACHES ARE CONSTRUCTED. FOR BUSINESSES WITH ONLY ONE DRIVEWAY, THE NEW DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN HALF WIDTHS, UNLESS A TEMPORARY ASPHALT DRIVEWAY IS FIRST INSTALLED AT NO SEPARATE COST TO THE CITY.

DECEMBER 2009

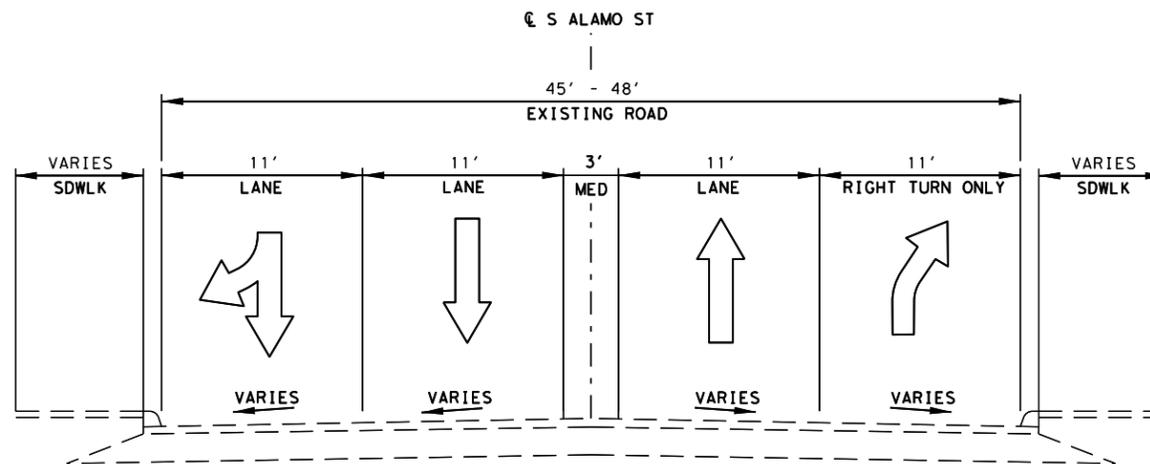
CITY OF SAN ANTONIO  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CITY OF SAN ANTONIO  
GENERAL NOTES

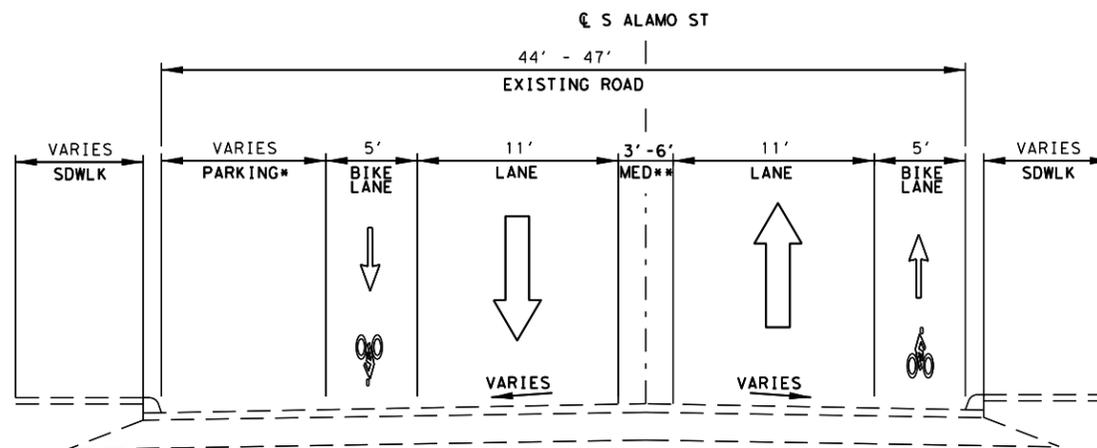
50% SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 2/16/2018
DRWN. BY:	DSGN. BY:	CHKD. BY: SHEET NO.: OF



SOUTH ALAMO ST  
FROM PEREIDA ST. TO ST MARY'S ST.



SOUTH ALAMO ST  
FROM ST MARY'S ST. TO S. PRESA ST.



SOUTH ALAMO ST  
FROM S. PRESA ST. TO CESAR CHAVEZ BLVD.

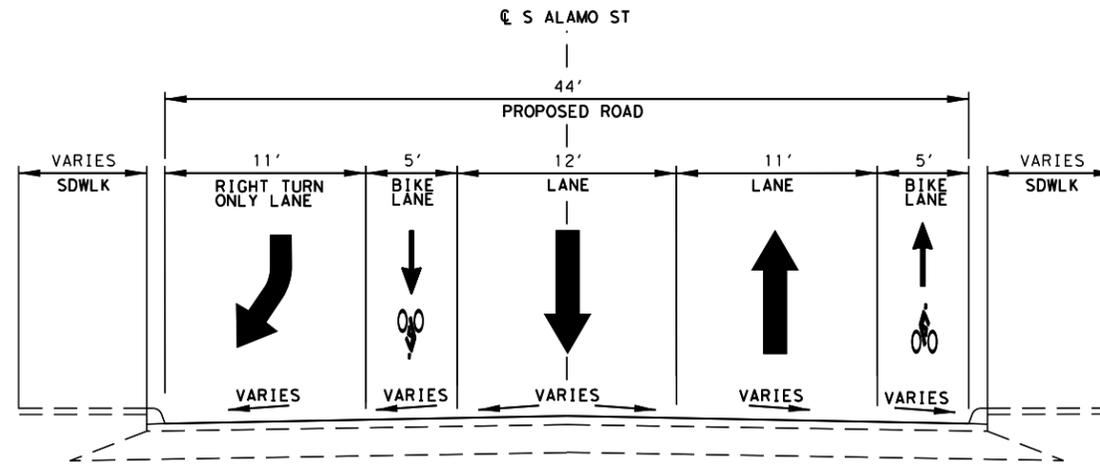
\*\* FROM BARRERA ST TO CESAR CHAVEZ BLVD THE MEDIAN CHANGES TO 6'.

\* THE PARKING LANE TRANSITIONS TO A RIGHT TURN ONLY LANE AT THE INTERSECTION OF SOUTH ALAMO AND SOUTH PRESA STREET.

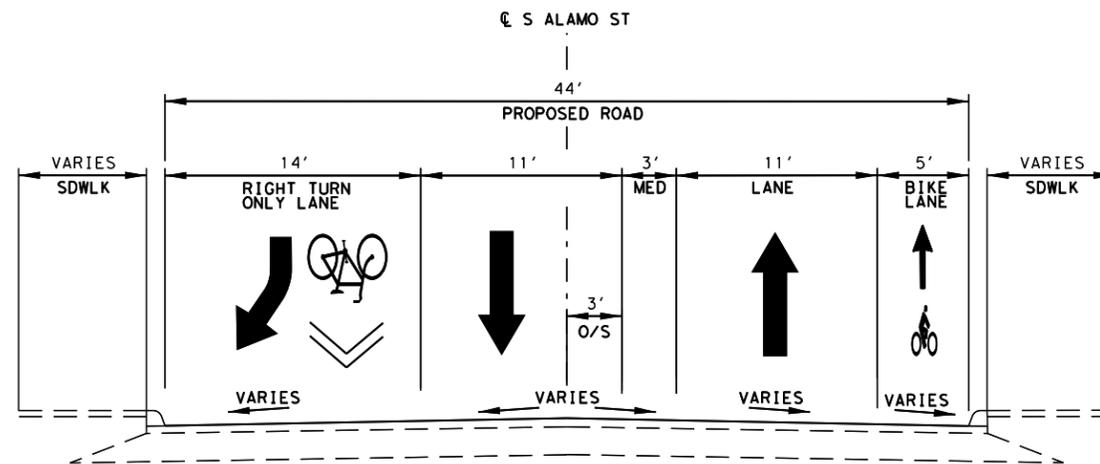
REVISIONS		
DATE	NO.	DESCRIPTION
<b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b> <small>TBPE FIRM REGISTRATION NO. 15685</small>		
<b>CITY OF SAN ANTONIO</b> <small>Transportation &amp; Capital Improvements (TCI) Department</small>		
SOUTH ALAMO STREET <b>EXISTING TYPICAL SECTIONS</b>		
SCALE: N. T. S.		SHEET 1 OF 1
50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
		SHEET NO.: 3 OF 23

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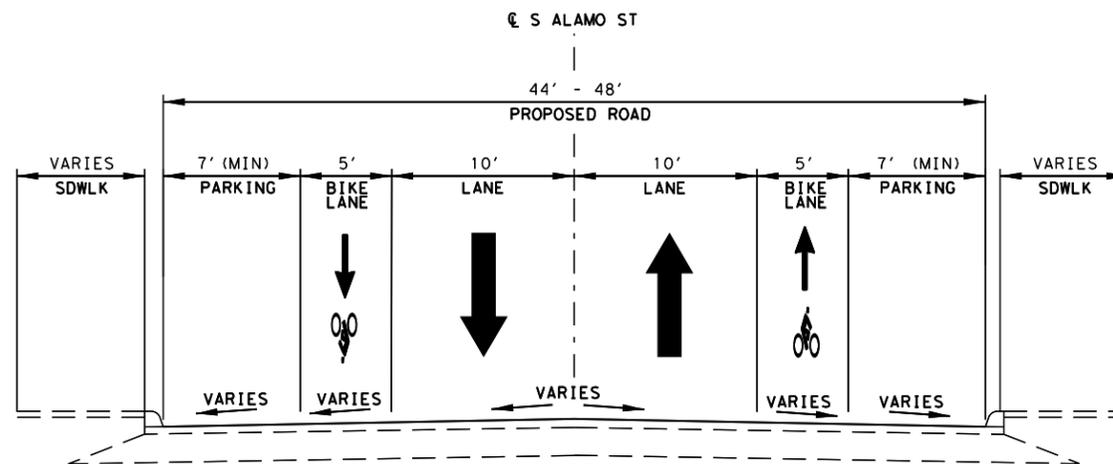
3/30/2018



SOUTH ALAMO ST  
FROM PEREIDA ST TO E SHERIDAN ST  
OPTION "A"



SOUTH ALAMO ST  
FROM PEREIDA ST TO E SHERIDAN ST  
OPTION "B"

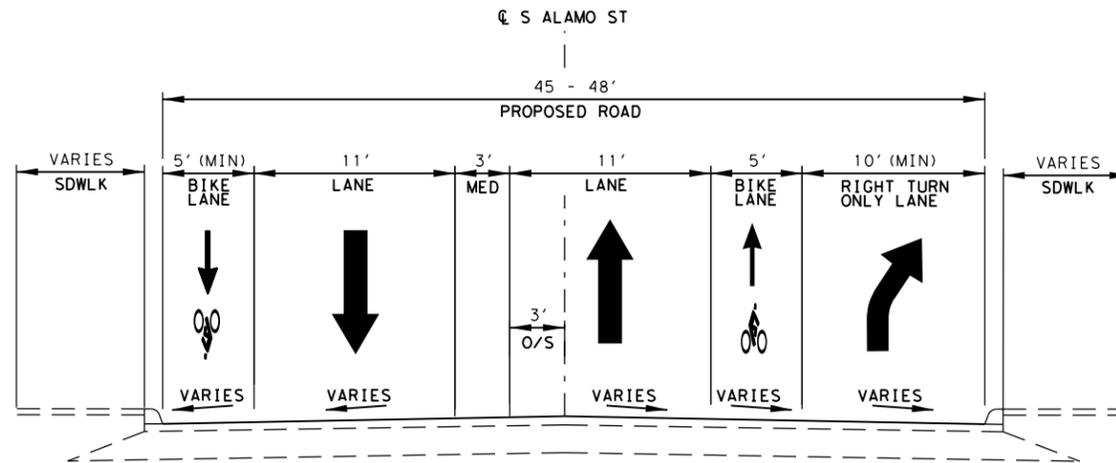


SOUTH ALAMO ST  
FROM E SHERIDAN ST TO ST MARY'S ST

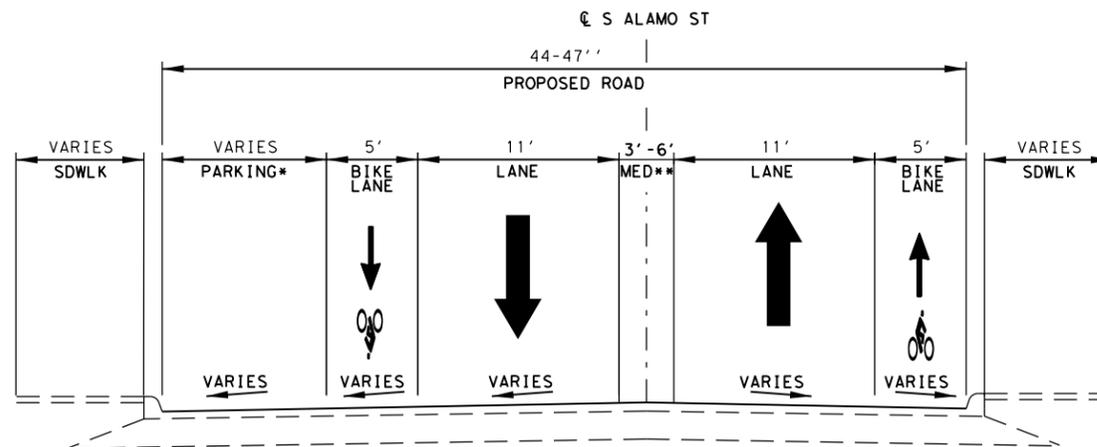
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3/30/2018

REVISIONS		
DATE	NO.	DESCRIPTION
<b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b> <small>TBPE FIRM REGISTRATION NO. 15685</small>		
<b>CITY OF SAN ANTONIO</b> Transportation & Capital Improvements (TCI) Department		
SOUTH ALAMO STREET <b>PROPOSED TYPICAL SECTIONS</b>		
SCALE: N. T. S.		SHEET 1 OF 2
50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
		SHEET NO.: 4 OF 23



SOUTH ALAMO ST  
FROM ST MARY'S ST. TO S. PRESA ST.



SOUTH ALAMO ST  
FROM S. PRESA ST. TO CESAR CHAVEZ BLVD.

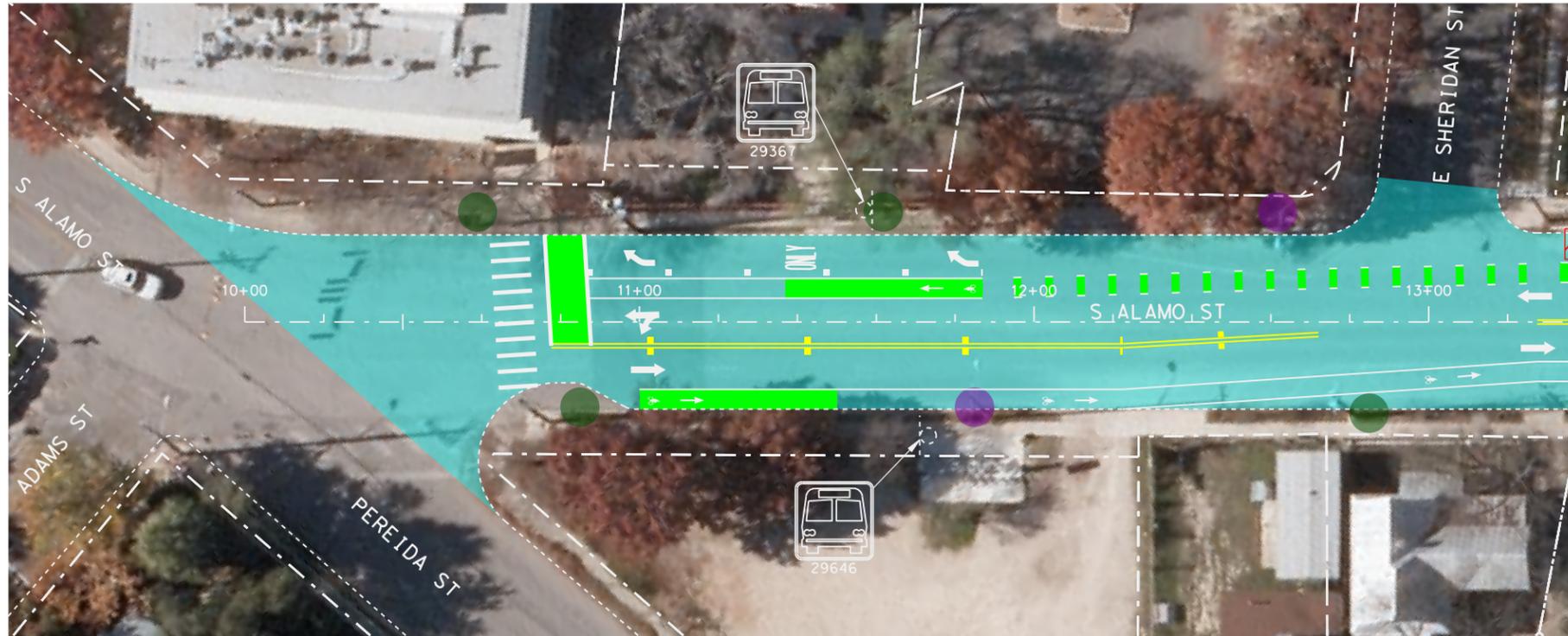
\* THE PARKING LANE TRANSITIONS TO A RIGHT TURN ONLY LANE AT THE INTERSECTION OF SOUTH ALAMO AND SOUTH PRESA STREET.

\*\* FROM BARRERA ST TO CESAR CHAVEZ BLVD THE MEDIAN CHANGES TO 6'.

REVISIONS		
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<b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b> <small>TBPE FIRM REGISTRATION NO. 15685</small>		
<b>CITY OF SAN ANTONIO</b> <small>Transportation &amp; Capital Improvements (TCI) Department</small>		
SOUTH ALAMO STREET <b>PROPOSED TYPICAL SECTIONS</b>		
SCALE: N. T. S.		SHEET 2 OF 2
50% SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
		SHEET NO.: 4 OF 23

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3/30/2018

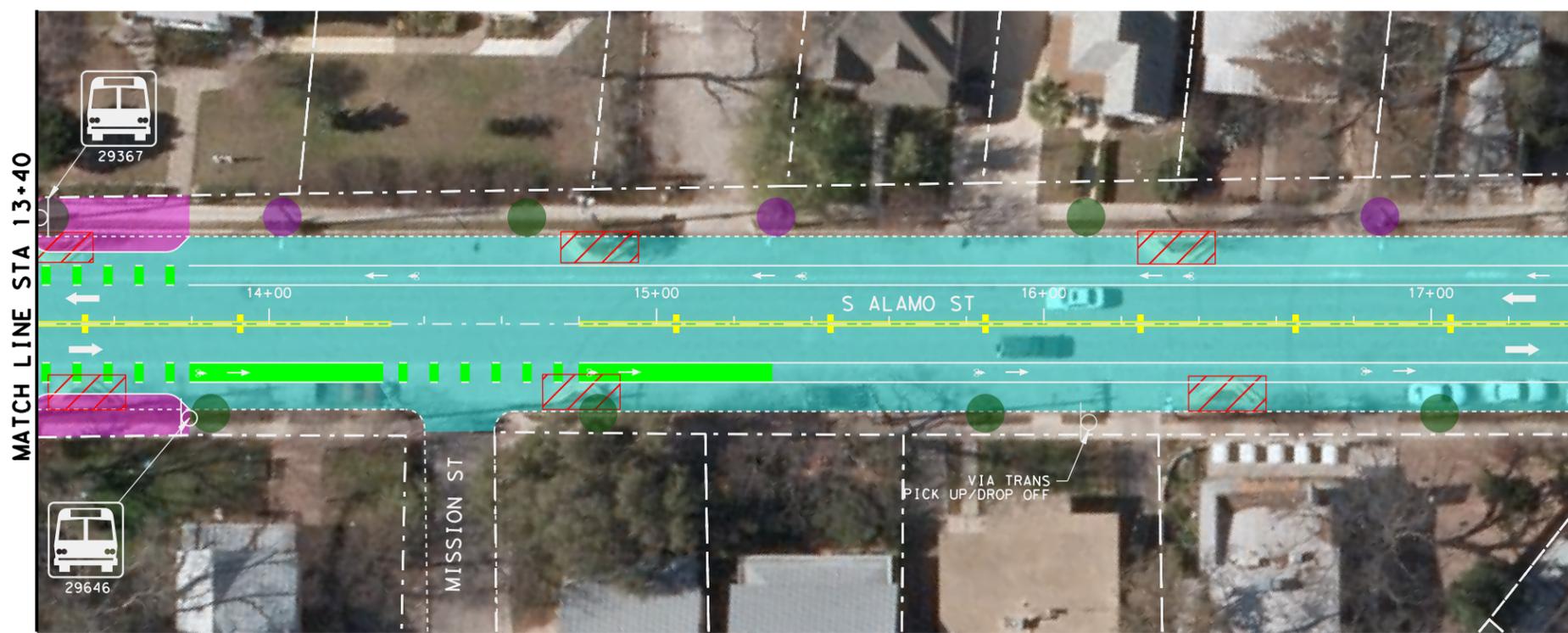


MATCH LINE STA 13+40

**LEGEND**

MILL & OVERLAY	
REMOVE PLANTER	
REMOVE & REPLACE SIDEWALK	
PROPOSED SIDEWALK	
APPARENT ROW	
EXISTING EOP	
TRAFFIC ARROW	
SHARED LANE	
BIKE LANE	
EXISTING STREET LIGHT POLE TO REMAIN	
PROPOSED PEDESTRIAN LIGHT POST	
EXISTING SIGN POST	
PROPOSED SIGN POST	
EXISTING VIA BUS STOP	
PROPOSED VIA BUS STOP	

## OPTION "A"



MATCH LINE STA 13+40

MATCH LINE STA 17+40

**GENERAL NOTES**

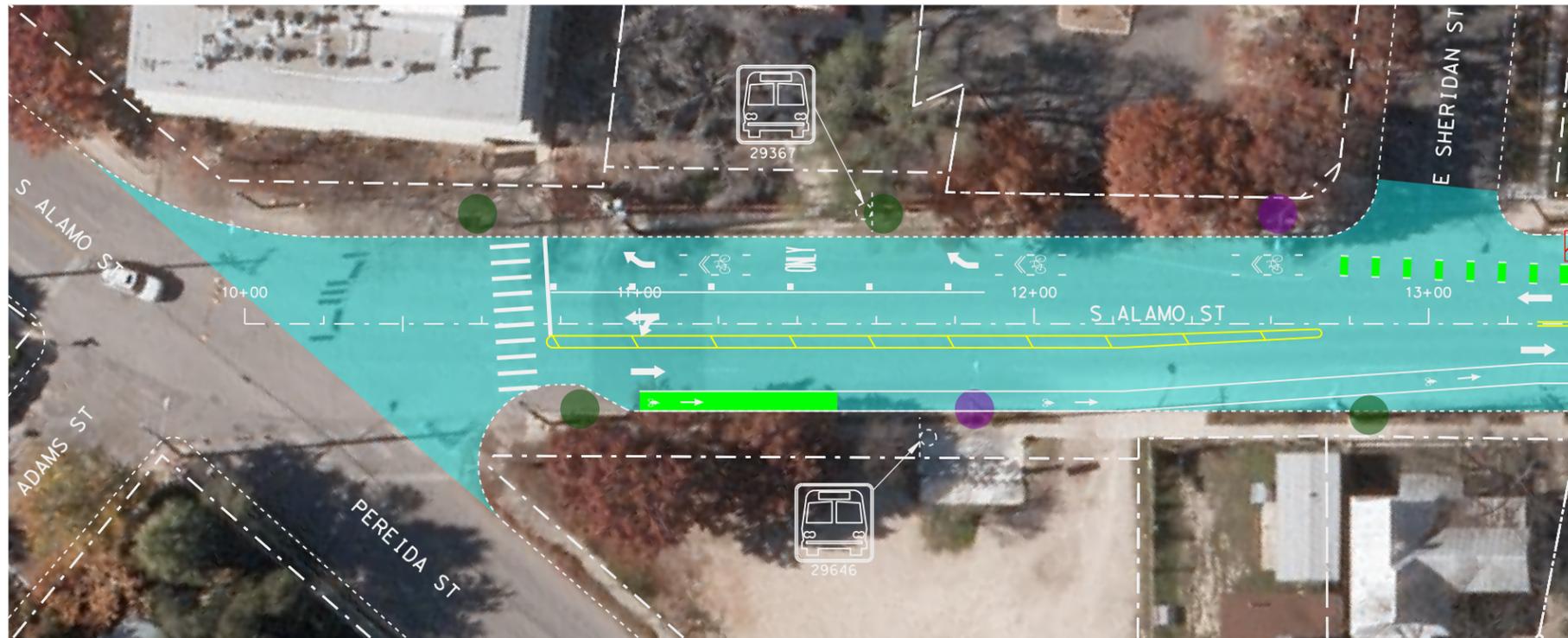
- ALL PROPERTY LINES SHOWN ARE BASED ON BEXAR COUNTY APPRAISAL MAP AND HAVE NOT BEEN SURVEYED.

INTERIM REVIEW ONLY  
 Document incomplete: not intended for permit, bidding or construction.  
 Engineer: **JUAN CARLOS SANCHEZ**  
 P.E. Serial No.: 93954  
 Date: 3/30/2018



REVISIONS		
DATE	NO.	DESCRIPTION
<p><b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b></p> <p>TBPE FIRM REGISTRATION NO. 15685</p> <p><b>CITY OF SAN ANTONIO</b>            Transportation &amp; Capital Improvements (TCI) Department</p> <p><b>SOUTH ALAMO STREET</b></p> <p><b>PROPOSED LAYOUTS</b></p>		
SHEET 1 OF 4		
50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
SHEET NO.: 6 OF 22		

\$FILES  
3/30/2018

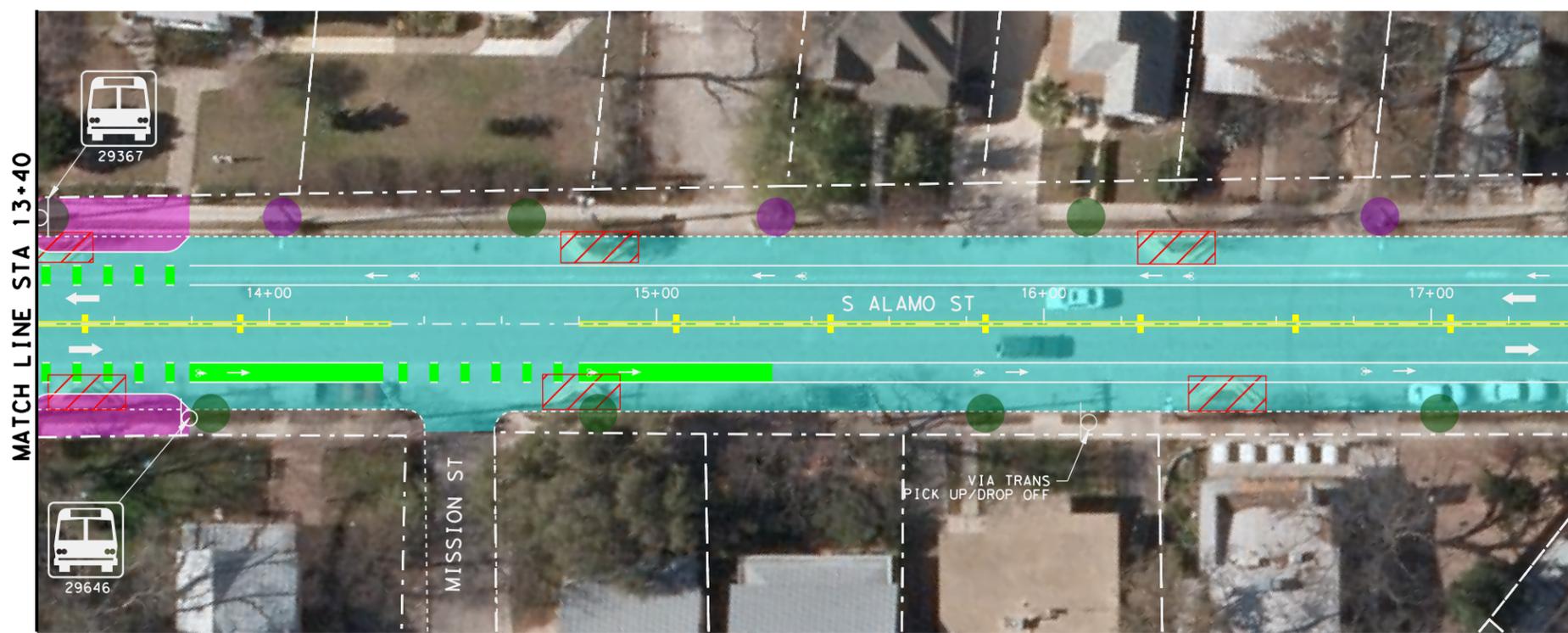


MATCH LINE STA 13+40

**LEGEND**

MILL & OVERLAY	
REMOVE PLANTER	
REMOVE & REPLACE SIDEWALK	
PROPOSED SIDEWALK	
APPARENT ROW	
EXISTING EOP	
TRAFFIC ARROW	
SHARED LANE	
BIKE LANE	
EXISTING STREET LIGHT POLE TO REMAIN	
PROPOSED PEDESTRIAN LIGHT POST	
EXISTING SIGN POST	
PROPOSED SIGN POST	
EXISTING VIA BUS STOP	
PROPOSED VIA BUS STOP	

OPTION "B"



MATCH LINE STA 13+40

MATCH LINE STA 17+40

**GENERAL NOTES**

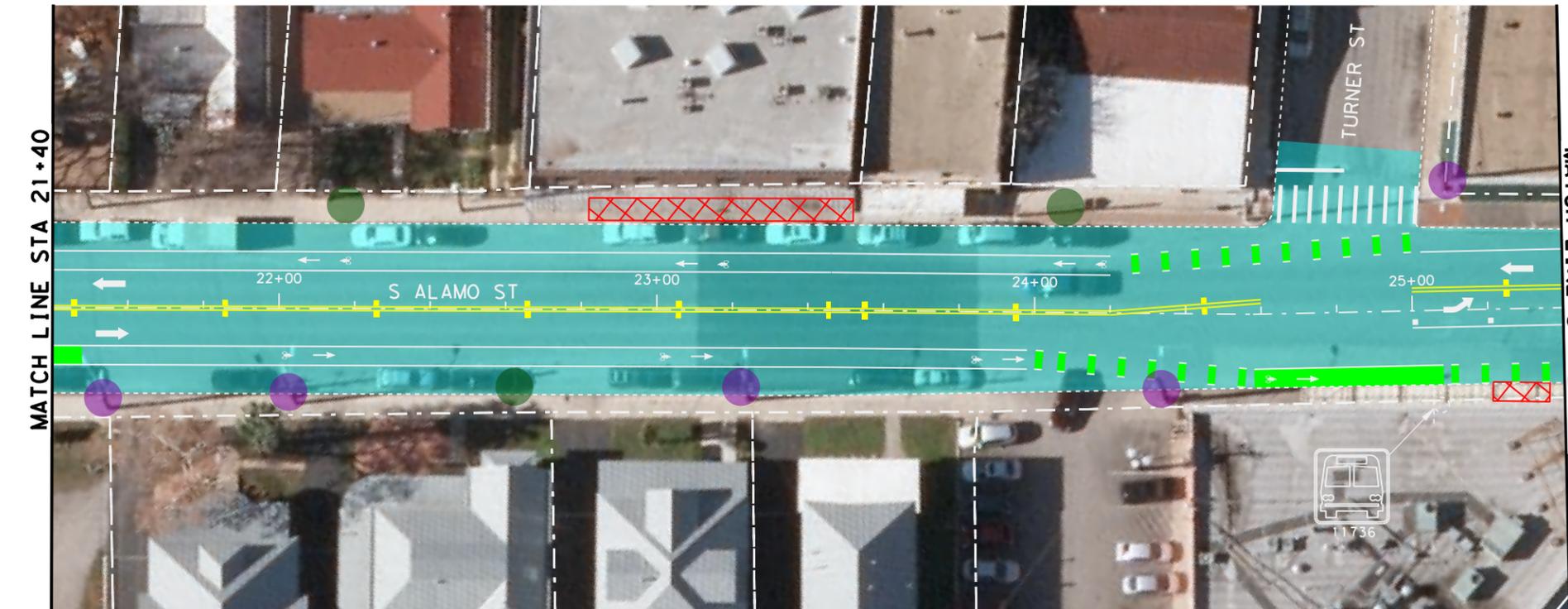
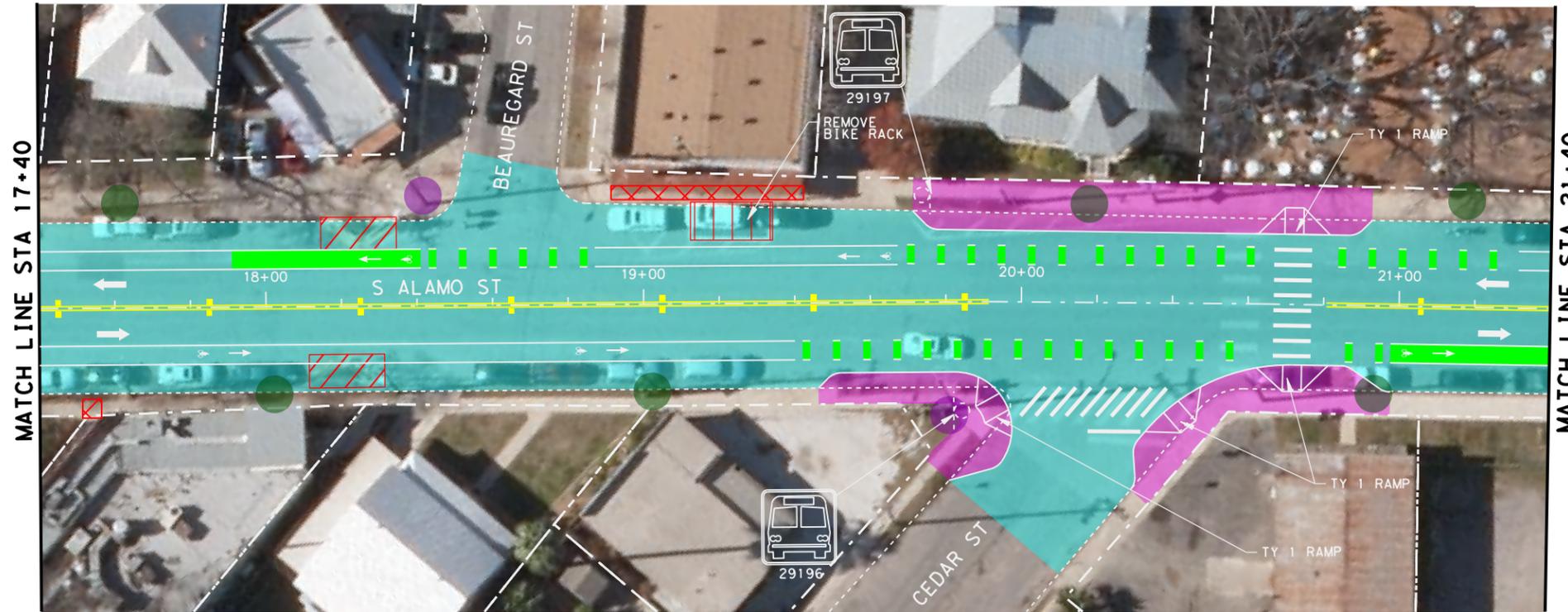
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SHEET 1 OF 4		
50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
SHEET NO.: 6 OF 22		

\$FILES  
3/30/2018



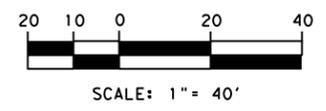
**LEGEND**

- MILL & OVERLAY
- REMOVE PLANTER
- REMOVE & REPLACE SIDEWALK
- PROPOSED SIDEWALK
- APPARENT ROW
- EXISTING EOP
- TRAFFIC ARROW
- SHARED LANE
- BIKE LANE
- EXISTING STREET LIGHT POLE TO REMAIN
- PROPOSED PEDESTRIAN LIGHT POST
- EXISTING SIGN POST
- PROPOSED SIGN POST
- EXISTING VIA BUS STOP
- PROPOSED VIA BUS STOP

**GENERAL NOTES**

1. ALL PROPERTY LINES SHOWN ARE BASED ON BEXAR COUNTY APPRAISAL MAP AND HAVE NOT BEEN SURVEYED.

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<b>CITY OF SAN ANTONIO</b> <small>Transportation &amp; Capital Improvements (TCI) Department</small>		
<small>SOUTH ALAMO STREET</small> <b>PROPOSED LAYOUTS</b>		
SHEET 2 OF 4		
<small>50 % SUBMITTAL</small>	<small>PROJECT NO.: XX-XXXX</small>	<small>DATE: 3/30/2018</small>
<small>DRWN. BY: AK</small>	<small>DSGN. BY: AK</small>	<small>CHKD. BY: JCS</small>
<small>SHEET NO.: 7 OF 22</small>		

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3/30/2018

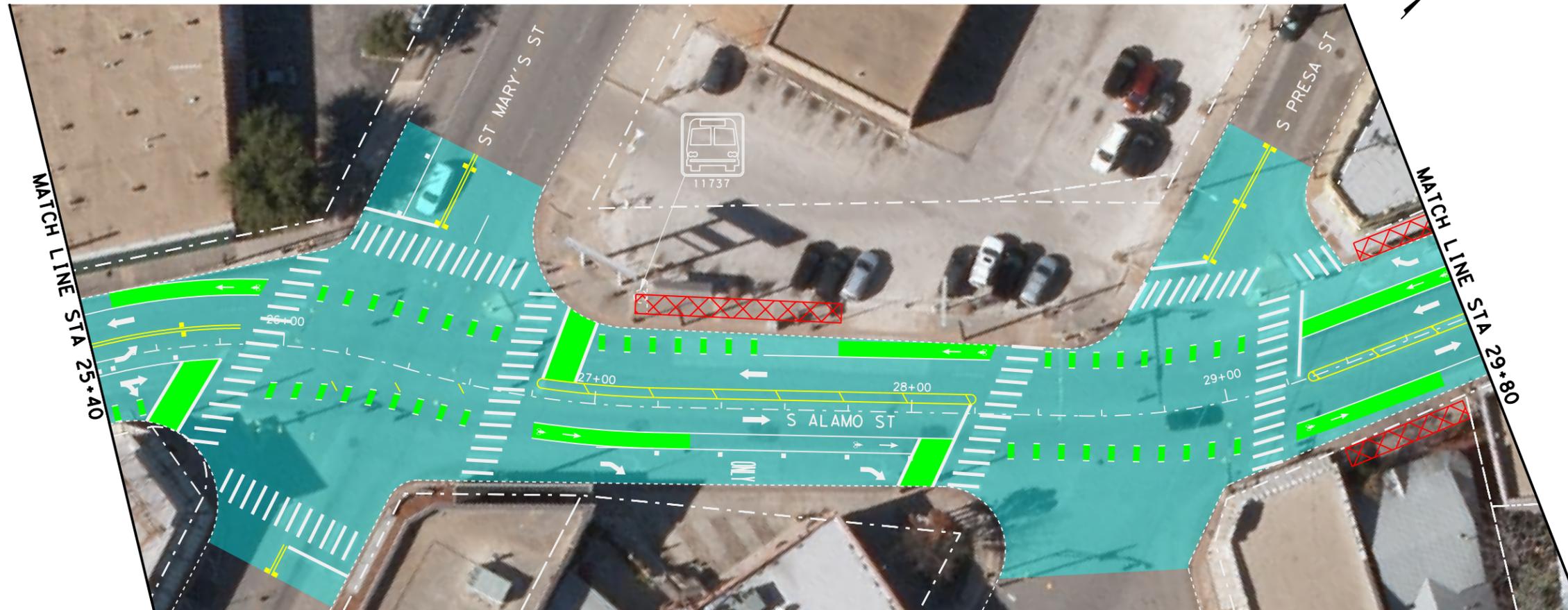
**LEGEND**

- MILL & OVERLAY 
- REMOVE PLANTER 
- REMOVE & REPLACE SIDEWALK 
- PROPOSED SIDEWALK 
- APPARENT ROW 
- EXISTING EOP 
- TRAFFIC ARROW 
- SHARED LANE 
- BIKE LANE 
- EXISTING STREET LIGHT POLE TO REMAIN 
- PROPOSED PEDESTRIAN LIGHT POST 
- EXISTING SIGN POST 
- PROPOSED SIGN POST 
- EXISTING VIA BUS STOP 
- PROPOSED VIA BUS STOP 

**GENERAL NOTES**

1. ALL PROPERTY LINES SHOWN ARE BASED ON BEXAR COUNTY APPRAISAL MAP AND HAVE NOT BEEN SURVEYED.

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 Engineer: JUAN CARLOS SANCHEZ  
 P.E. Serial No.: 93954  
 Date: 3/30/2018



SCALE: 1" = 40'

REVISIONS		
DATE	NO.	DESCRIPTION



**CITY OF SAN ANTONIO**  
 Transportation & Capital Improvements (TCI) Department

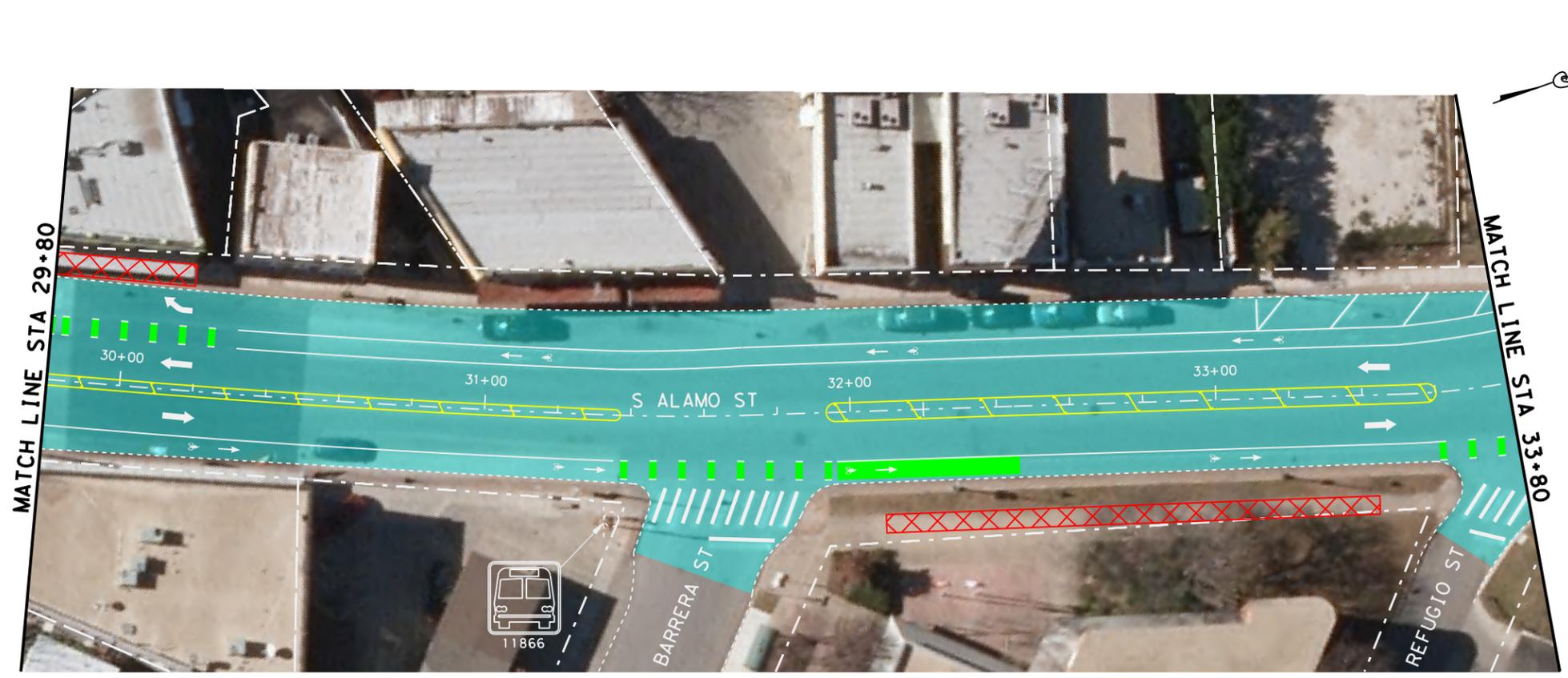
**SOUTH ALAMO STREET**

**PROPOSED LAYOUTS**

SHEET 3 OF 4

50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS

SHEET NO.: 8 OF 22

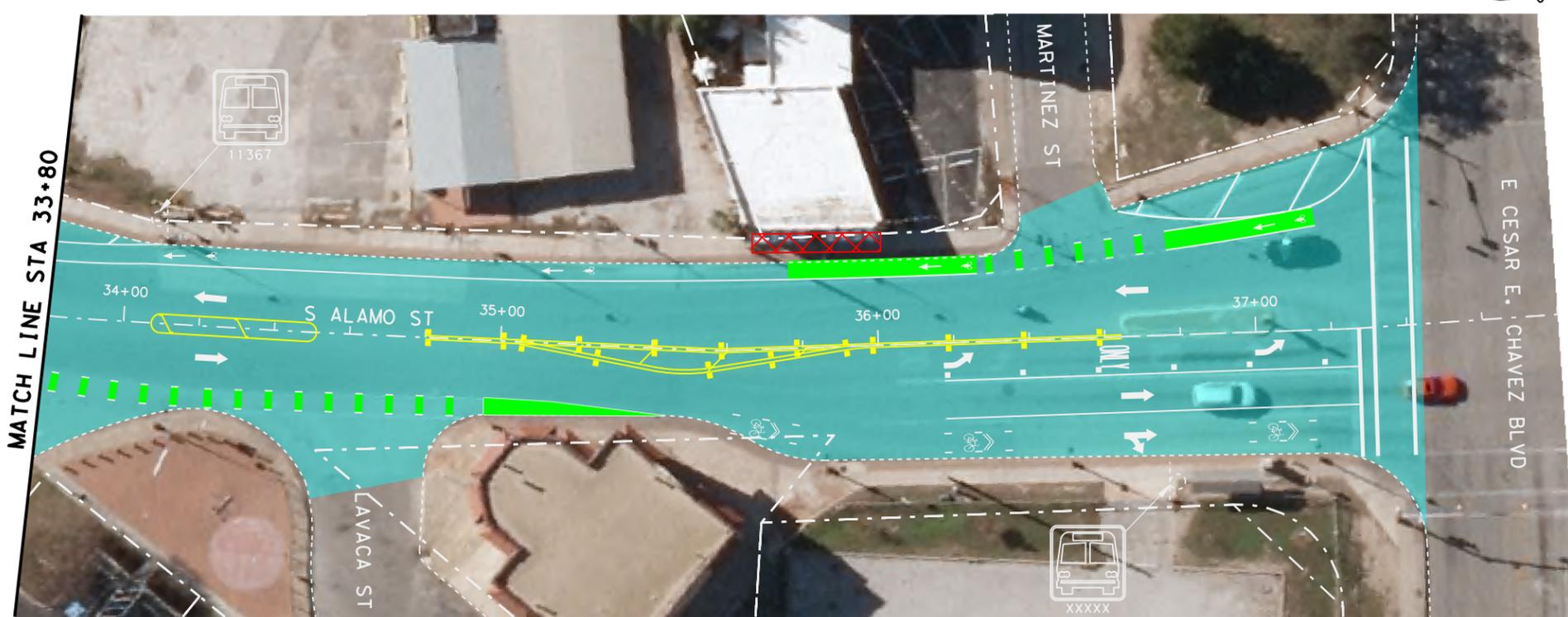


**LEGEND**

MILL & OVERLAY	
REMOVE PLANTER	
REMOVE & REPLACE SIDEWALK	
PROPOSED SIDEWALK	
APPARENT ROW	
EXISTING EOP	
TRAFFIC ARROW	
SHARED LANE	
BIKE LANE	
EXISTING STREET LIGHT POLE TO REMAIN	
PROPOSED PEDESTRIAN LIGHT POST	
EXISTING SIGN POST	
PROPOSED SIGN POST	
EXISTING VIA BUS STOP	
PROPOSED VIA BUS STOP	

**GENERAL NOTES**

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 Engineer: JUAN CARLOS SANCHEZ  
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 Date: 3/30/2018



REVISIONS		
DATE	NO.	DESCRIPTION
<b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b>		
TBPE FIRM REGISTRATION NO. 15685		
<b>CITY OF SAN ANTONIO</b>		
Transportation & Capital Improvements (TCI) Department		
SOUTH ALAMO STREET		
<b>PROPOSED LAYOUTS</b>		
SHEET 4 OF 4		
50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 3/30/2018
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
		SHEET NO.: 9 OF 22

\$FILES 3/30/2018



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**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**

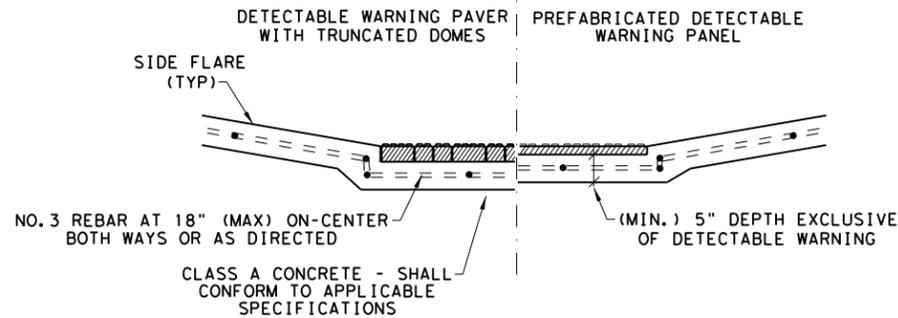
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material 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.

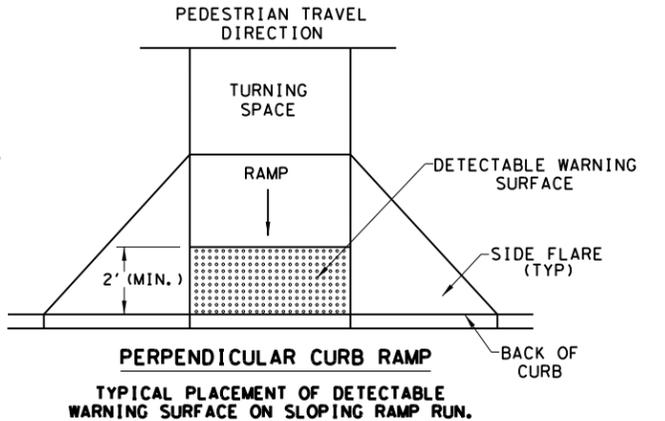
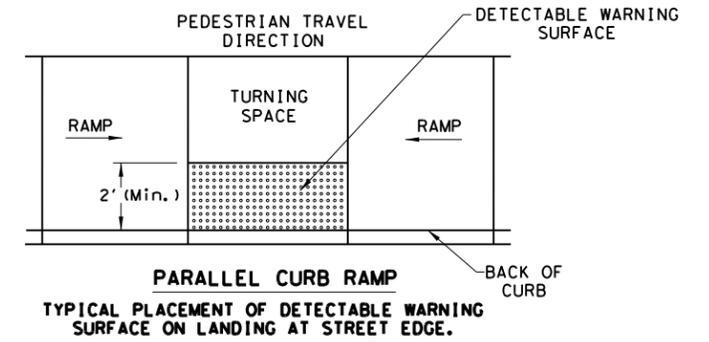
**SIDEWALKS**

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.

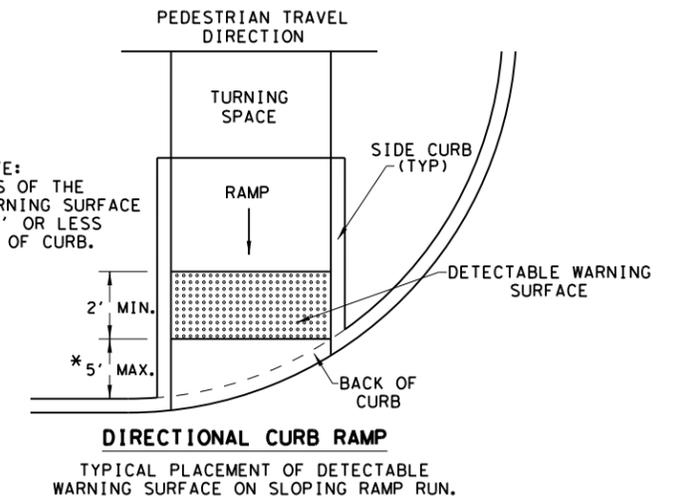


**SECTION VIEW DETAIL  
CURB RAMP AT DETECTIBLE WARNINGS**

**DETECTABLE WARNING SURFACE DETAILS**



\* NOTE:  
BOTH ENDS OF THE  
DETECTABLE WARNING SURFACE  
SHALL BE 5' OR LESS  
FROM BACK OF CURB.

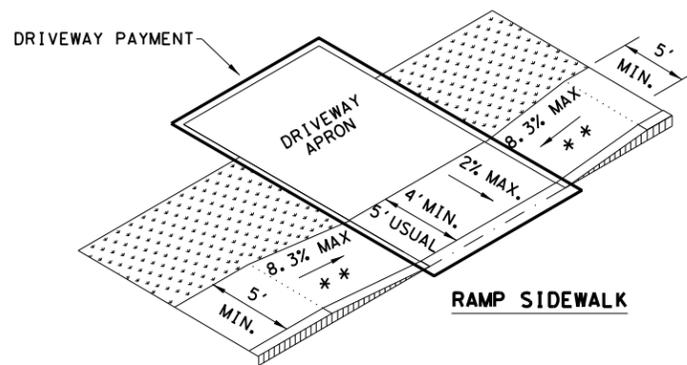
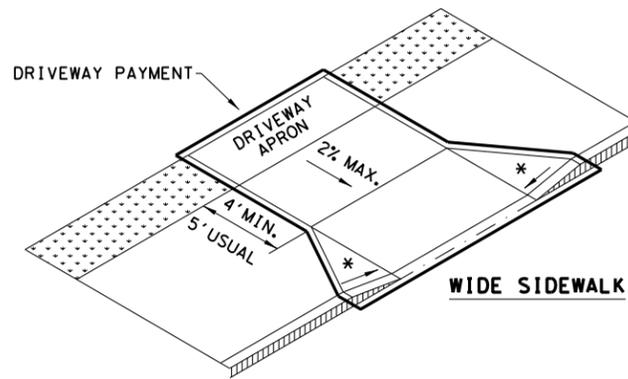
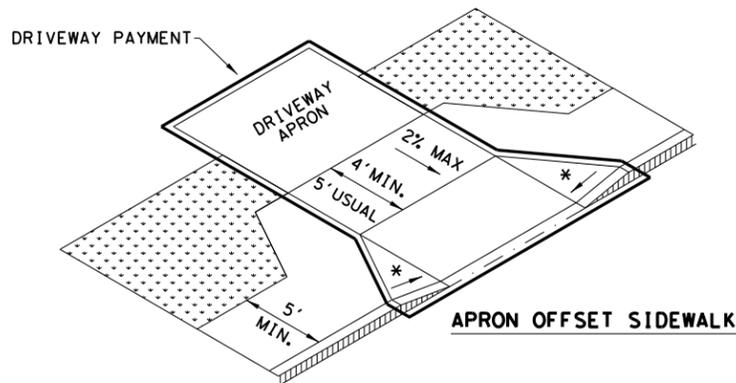
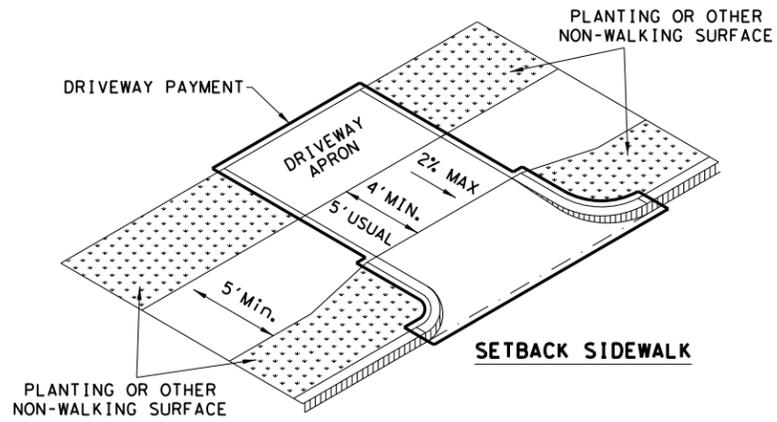


		Design Division Standard	
<h1>PEDESTRIAN FACILITIES CURB RAMPS</h1> <h2>PED-18</h2>			
FILE: ped18	DN: TxDOT	DW: VP	CK: KM
© TxDOT: MARCH, 2002	CONT	SECT	JOB
REVISIONS	DIST		COUNTY
REVISED 08, 2005			SHEET NO.
REVISED 06, 2012			
REVISED 01, 2018			

DATE:  
FILE:

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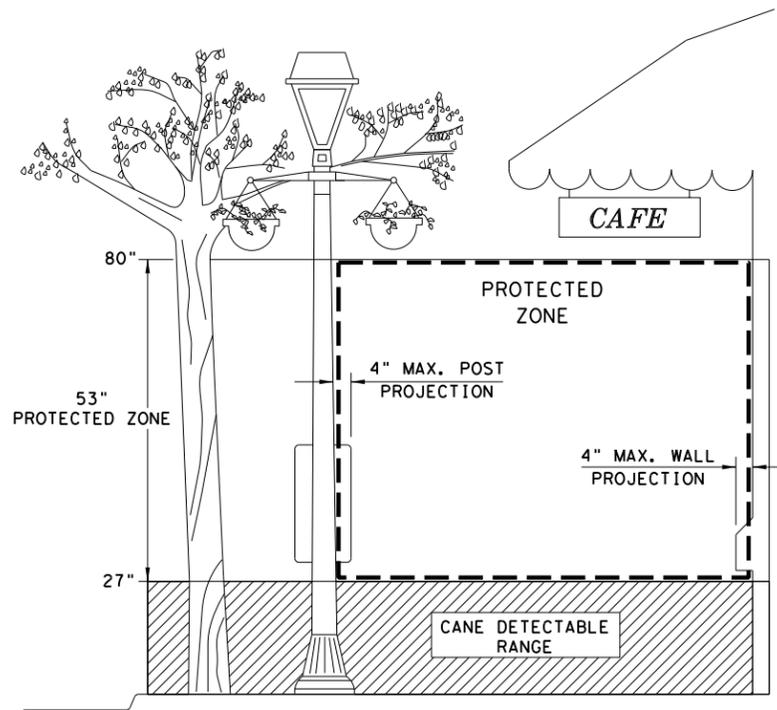
**SIDEWALK TREATMENT AT DRIVEWAYS**



**NOTES:**

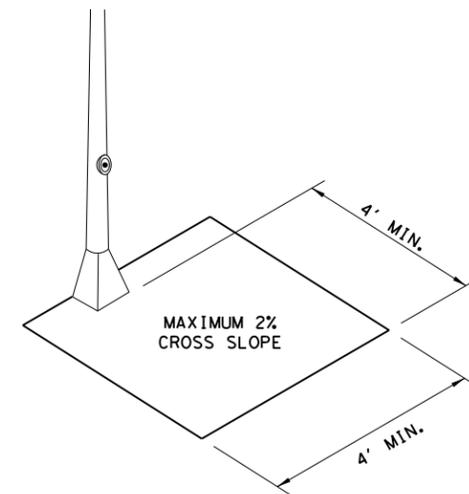
\* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.

\*\* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.

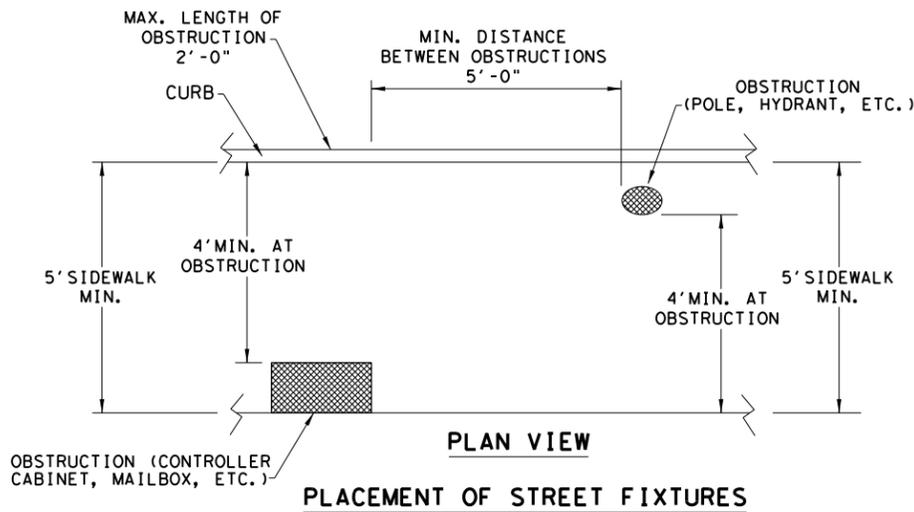


**PROTECTED ZONE**

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

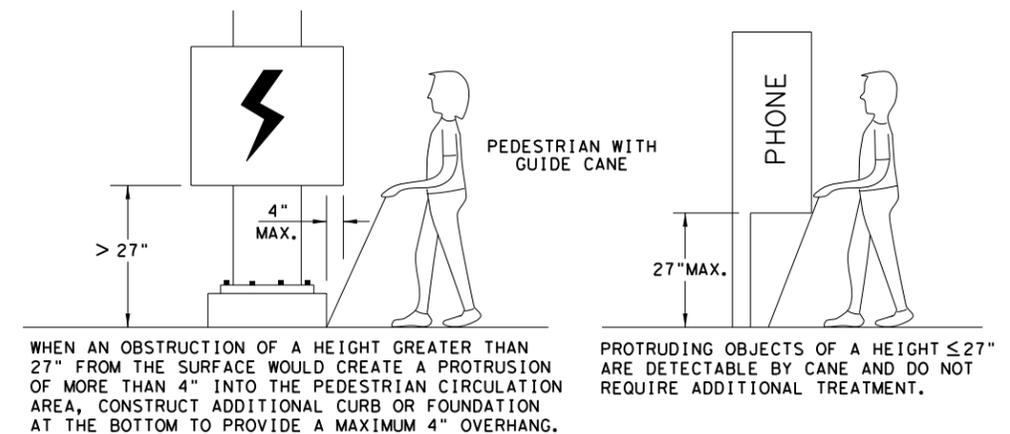


**CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON**



**PLACEMENT OF STREET FIXTURES**

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



**DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"**

SHEET 3 OF 4

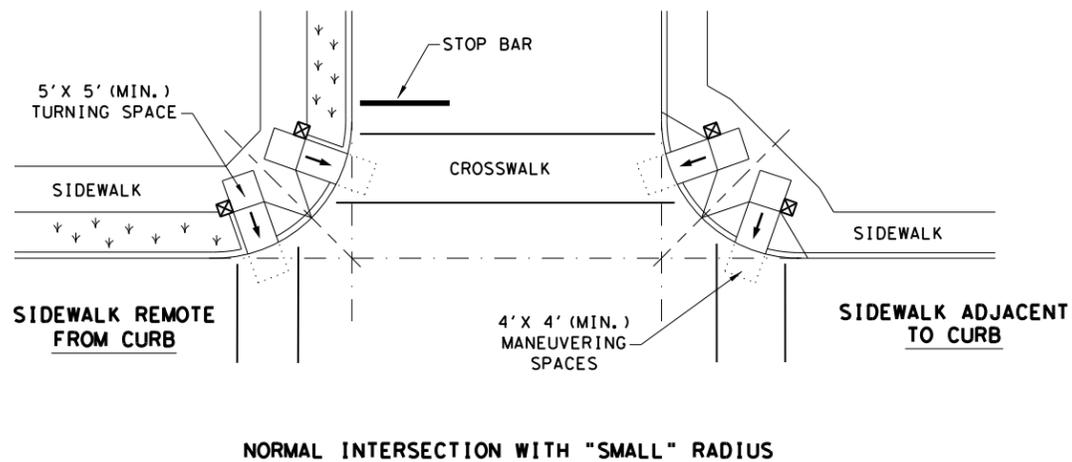
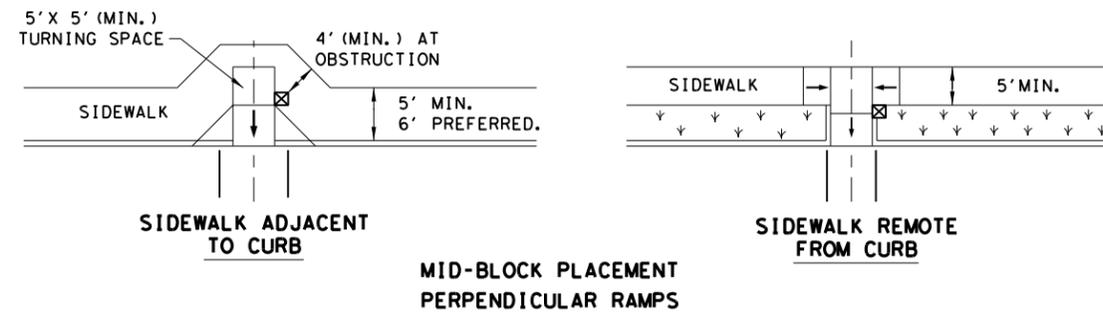
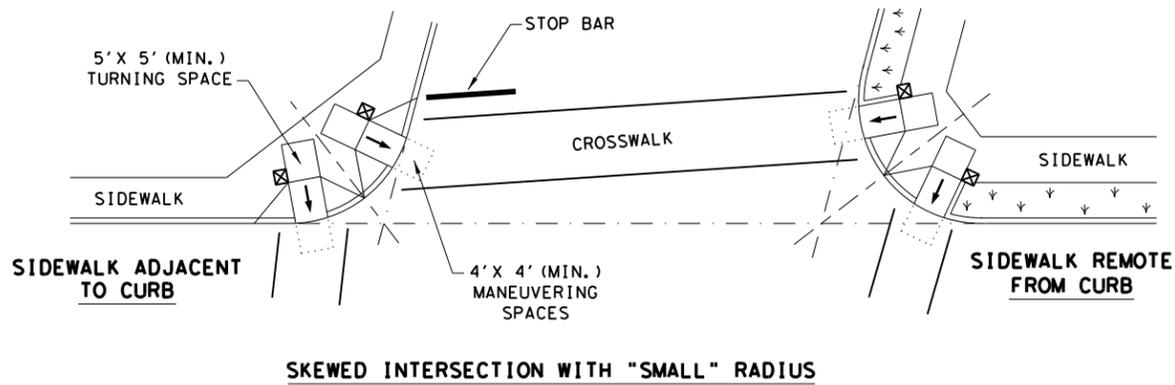
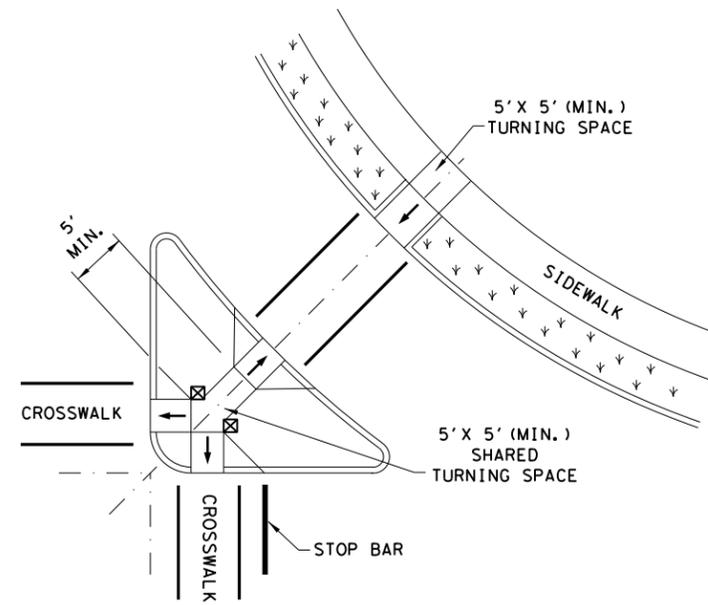
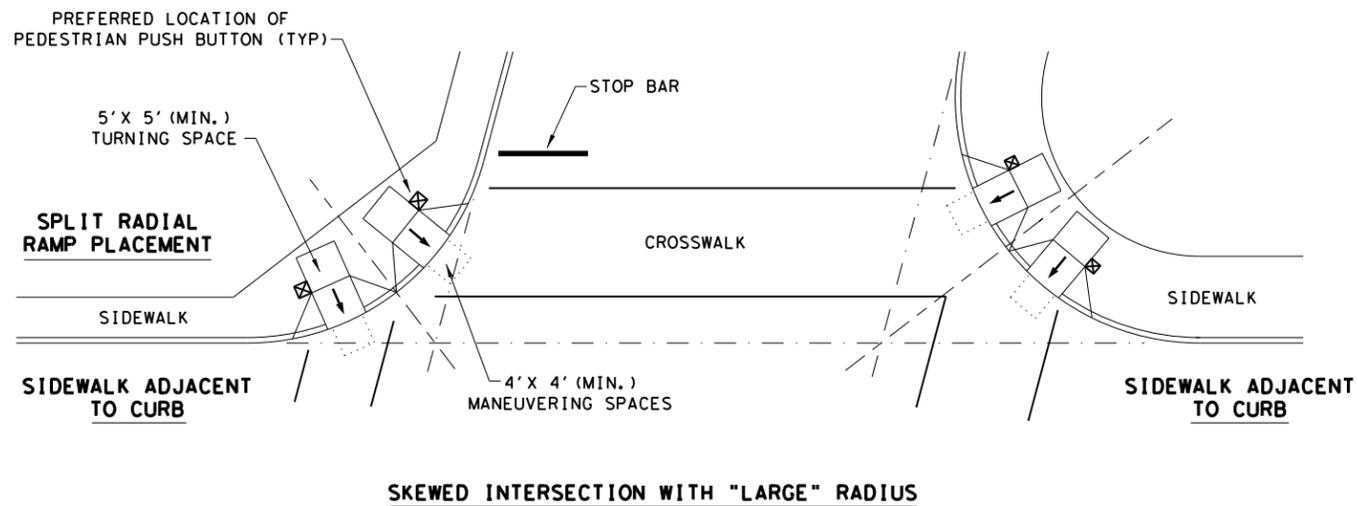
Texas Department of Transportation  
**PEDESTRIAN FACILITIES CURB RAMPS**  
**PED-18**

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	PK: JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED 08, 2005				
REVISED 06, 2012				
REVISED 01, 2018				
DIST	COUNTY	SHEET NO.		

DATE:  
FILE:

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



**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. ↙ ↘ ↙ ↘ ↙ ↘

SHEET 4 OF 4



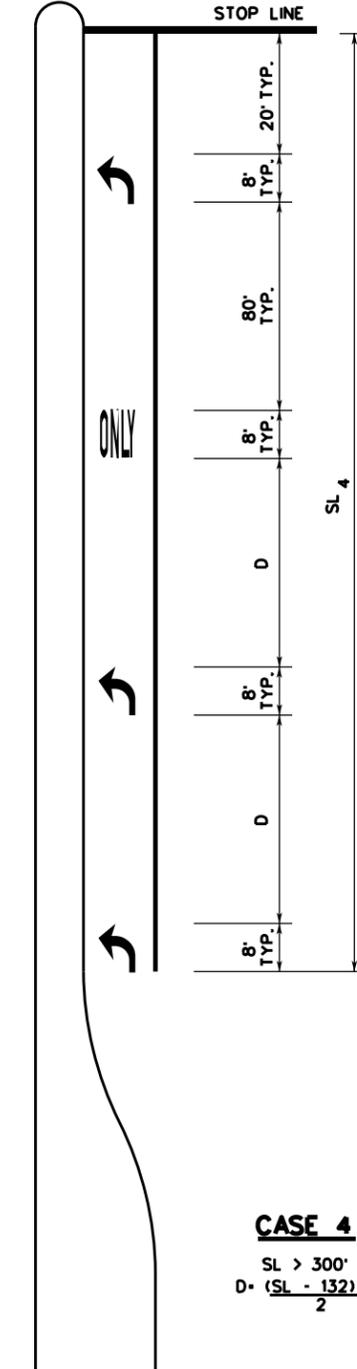
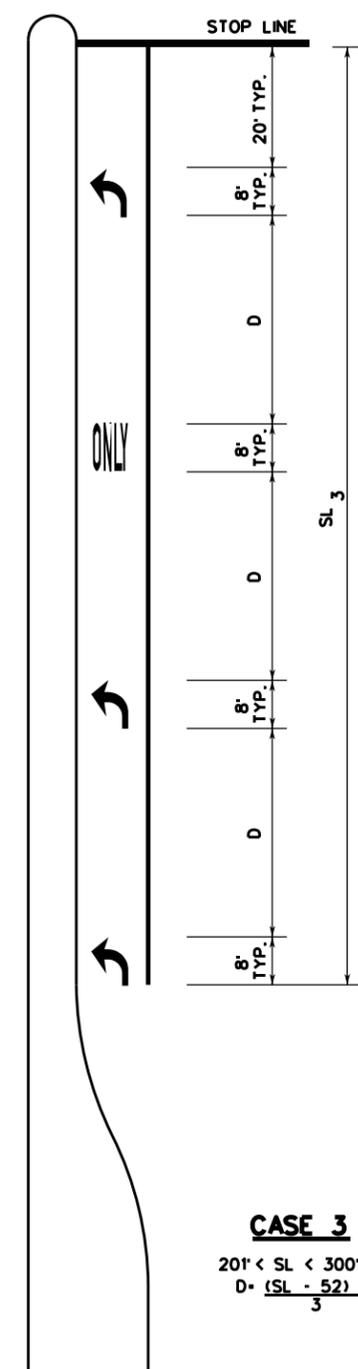
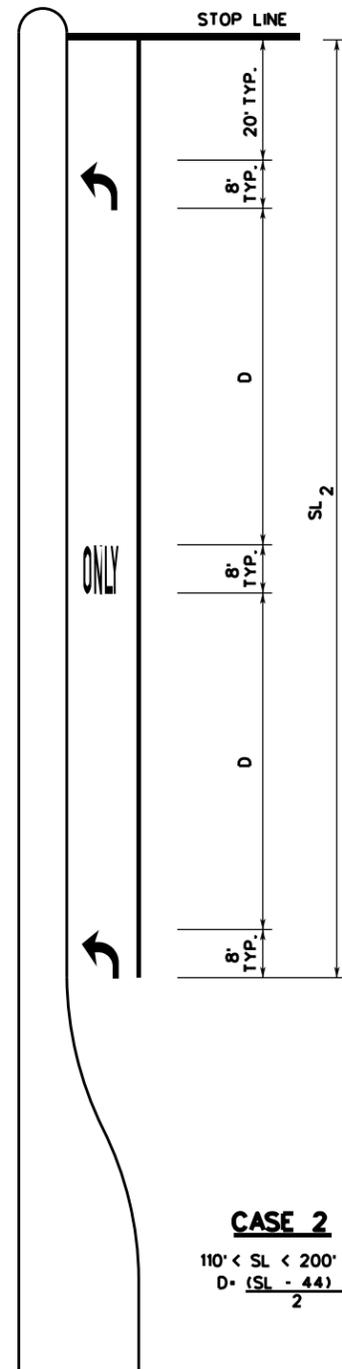
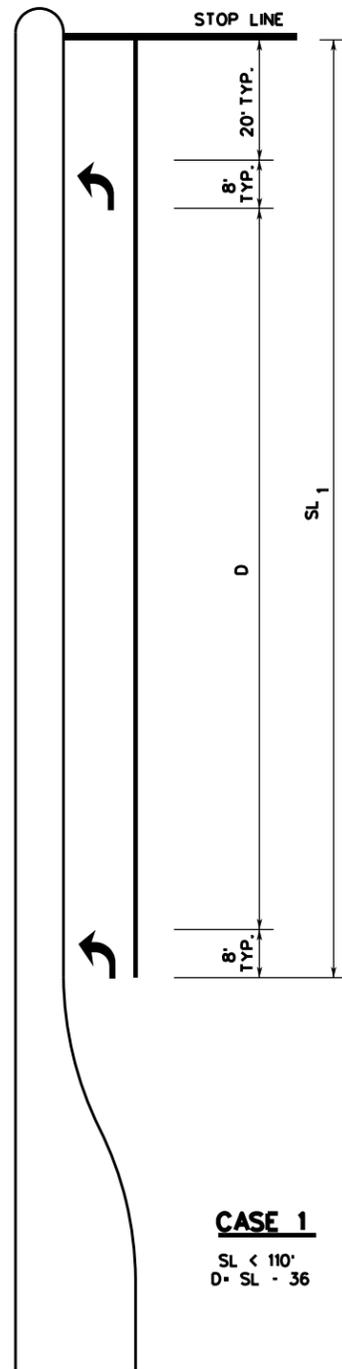
Design Division Standard

**PEDESTRIAN FACILITIES CURB RAMPS**

**PED-18**

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY	SHEET NO.	
REVISED 08, 2005				
REVISED 06, 2012				
REVISED 01, 2018				

DATE:  
FILE:



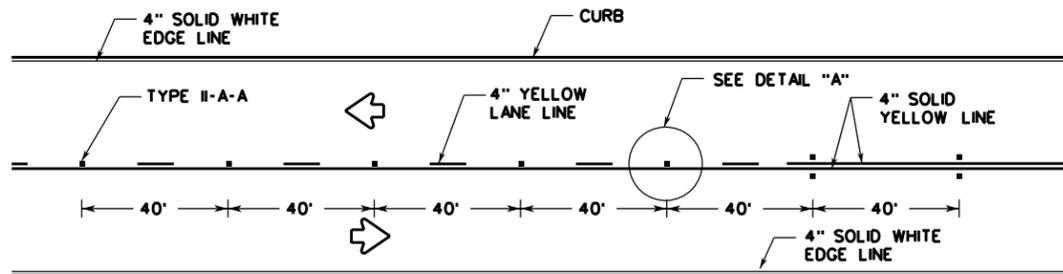
**KEY:**  
 SL - STORAGE LENGTH (FEET)  
 D - DISTANCE BETWEEN ARROWS AND LEGENDS (FEET)

- GENERAL NOTES:**
1. THESE DETAILS ALSO APPLY TO RIGHT-TURN LANES.
  2. FOR DUAL-TURN LANES, DIMENSIONS SHALL BE THE SAME FOR EACH LANE.
  3. SL DIMENSION IS FROM STOP LINE TO END OF TURN LANE, WHICH DOES NOT INCLUDE TAPER LENGTH.
  4. PAVEMENT ARROWS AND "ONLY" LEGEND MARKINGS ARE TYPICALLY USED AT SIGNALIZED INTERSECTIONS AND AT UNSIGNALIZED INTERSECTIONS WHERE A DEMONSTRATED NEED EXISTS.
  5. MINIMUM SL = 110'. SL MAY BE LESS THAN 110 FEET AS DIRECTED BY THE CITY TRAFFIC ENGINEER.

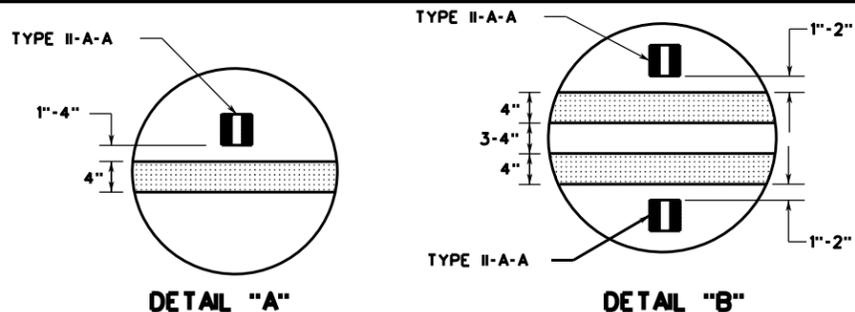
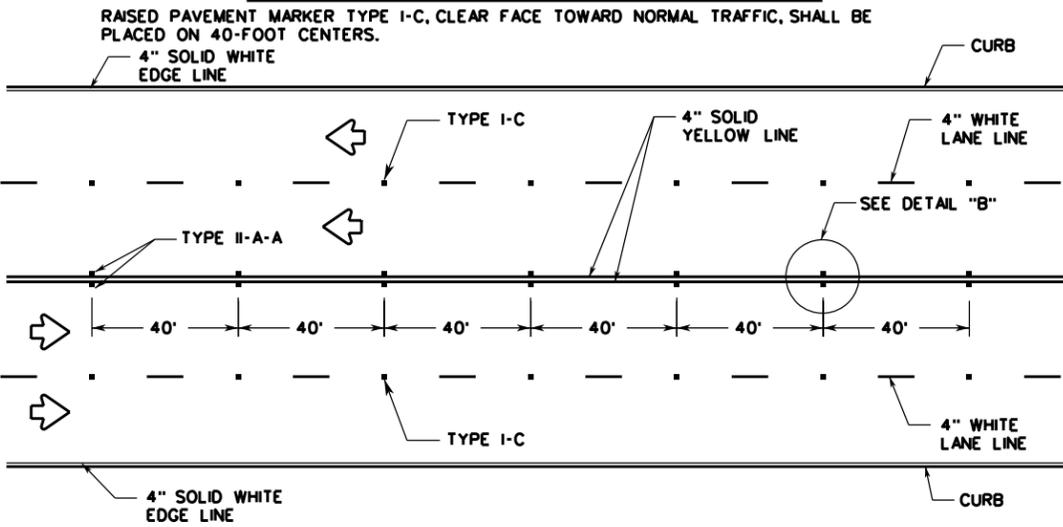
SEPTEMBER 2009  
 CITY OF SAN ANTONIO  
 DEPARTMENT OF PUBLIC WORKS  
 TRAFFIC ENGINEERING STANDARDS  
 LEFT-TURN "ONLY" AND ARROW  
 SPACING WORKSHEET  
 SHEET 1 OF 16

SUBMITTAL	PROJECT NO.:	DATE:	
DRWN. BY: LAN	DSGN. BY: C.B.W.	CHKD. BY: M.E.	SHEET NO.: OF

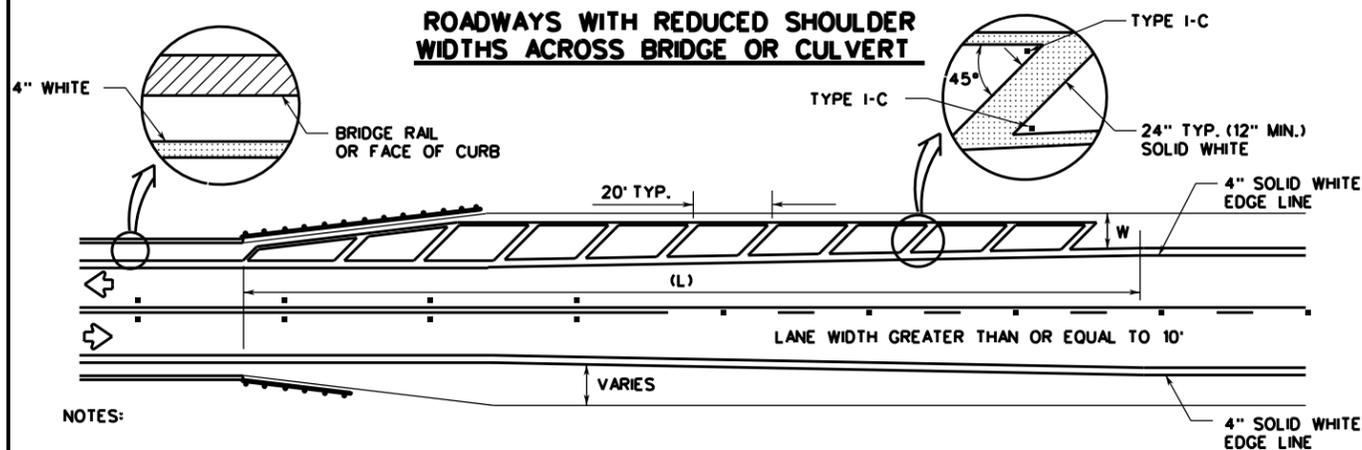
**CENTERLINE & EDGE FOR ALL TWO LANE STREETS WITH PASSING ZONE**



**CENTERLINE, LANE LINES & EDGE LINES FOR FOUR LANE TWO-WAY STREETS**



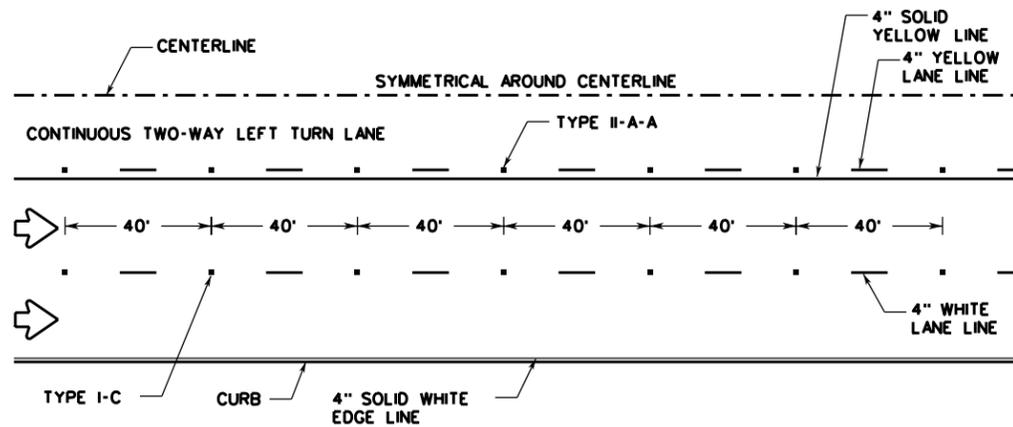
**ROADWAYS WITH REDUCED SHOULDER WIDTHS ACROSS BRIDGE OR CULVERT**



NOTES:

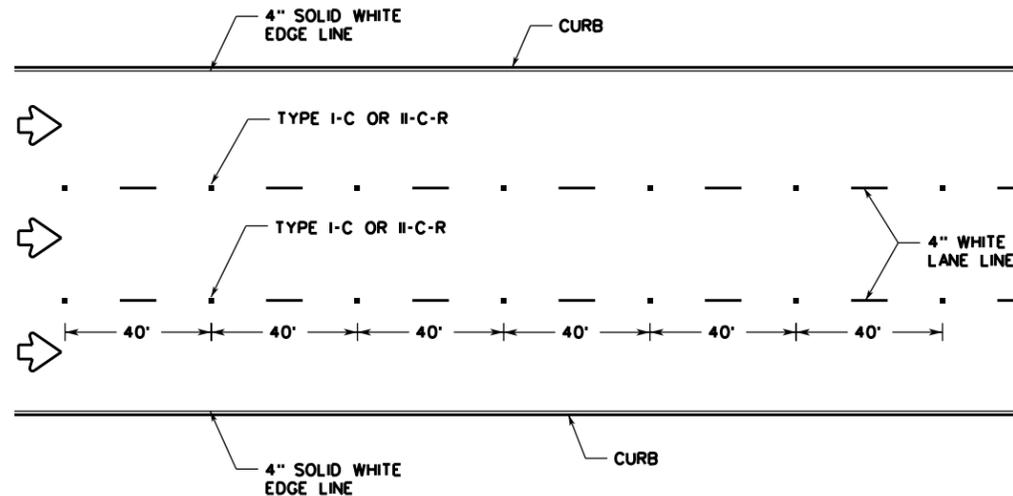
1. NO-PASSING ZONE ON BRIDGE APPROACH IS OPTIONAL BUT IF USED, IT SHALL BE A MINIMUM 500 FEET LONG.
2. FOR CROSSHATCHING LENGTH (L) SEE TABLE 1.
3. THE WIDTH OF THE OFFSET (W) AND THE REQUIRED CROSSHATCHING WIDTH IS THE FULL SHOULDER WIDTH IN ADVANCE OF THE BRIDGE.
4. THE CROSSHATCHING SHOULD BE REQUIRED IF THE SHOULDER WIDTH IN ADVANCE OF THE BRIDGE IS 4 FOOT OR WIDER AND ANY REDUCTION IN SHOULDER WIDTH ACROSS THE BRIDGE OCCURS.

**CENTERLINE, LANE LINES, & EDGE LINES FOR TWO-WAY LEFT TURN LANE**

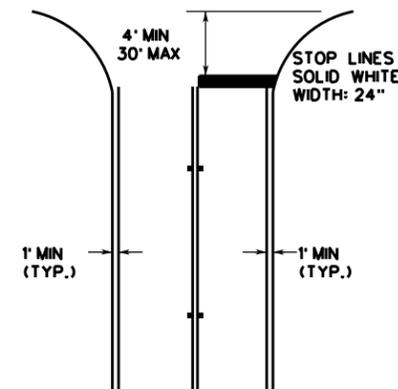


**LANE LINES & EDGE LINES FOR ONE-WAY MULTILANE STREET**

RAISED PAVEMENT MARKERS TYPE II-C-R SHALL HAVE CLEAR FACE TOWARD NORMAL TRAFFIC AND RED FACE TOWARD WRONG-WAY TRAFFIC.



**GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE**



**TABLE 1 - TYPICAL LENGTH (L)**

POSTED SPEED	FORMULA
45 >	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$

\* 85TH PERCENTILE SPEED MAY BE USED ON ROADS WHERE TRAFFIC SPEEDS NORMALLY EXCEED THE POSTED SPEED LIMIT. CROSSHATCHING LENGTH SHOULD BE ROUNDED UP TO NEAREST 5 FOOT INCREMENT.

L = LENGTH OF CROSSHATCHING (FT)  
W = WIDTH OF OFFSET (FT)  
S = POSTED SPEED (MPH)

EXAMPLES:  
AN 8 FOOT SHOULDER IN ADVANCE OF A BRIDGE REDUCES TO 4 FEET ON A 70 MPH ROADWAY. THE LENGTH OF THE CROSSHATCHING SHOULD BE:  
 $L = 8 \times 70 = 560$  FT  
A 4 FOOT SHOULDER IN ADVANCE OF A BRIDGE REDUCES TO 2 FEET ON A 40 MPH ROADWAY. THE LENGTH OF THE CROSSHATCHING SHOULD BE:  
 $L = 4(40)^2 / 60 = 106.67$  FT ROUNDED TO 110 FT

**YIELD LINES**



GENERAL NOTES:

1. EDGELINE ADJACENT TO CURB AND GUTTER IS NOT REQUIRED IN ALL CASES, HOWEVER SHALL BE PLACED AS DIRECTED BY CITY TRAFFIC ENGINEER.
2. THE TRAVELED WAY INCLUDES ONLY THAT PORTION OF THE ROADWAY USED FOR VEHICULAR TRAVEL AND NOT THE PARKING LANES, SIDEWALKS, BERMS AND SHOULDERS. THE TRAVELED WAYS SHALL BE MEASURED FROM THE INSIDE OF EDGELINE TO INSIDE OF EDGELINE OF A TWO LANE ROADWAY.
3. ALL RAISED PAVEMENT MARKERS PLACED IN BROKEN LINES SHALL BE PLACED IN LINE WITH AND MIDWAY BETWEEN THE STRIPES.
4. ON CONCRETE PAVEMENTS THE RAISED PAVEMENT MARKERS SHOULD BE PLACED TO ONE SIDE OF THE LONGITUDINAL JOINTS.
5. ALL PAVEMENT MARKING MATERIAL SHALL MEET THE REQUIRED MATERIAL SPECIFICATIONS AS SPECIFIED BY CITY OF SAN ANTONIO STANDARD SPECIFICATIONS.
6. 4" SOLID WHITE EDGE LINES ARE OPTIONAL AS DIRECTED BY THE CITY TRAFFIC ENGINEER.

SEPTEMBER 2009

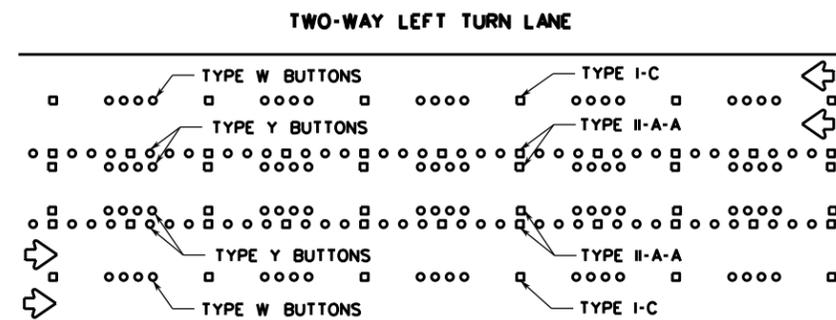
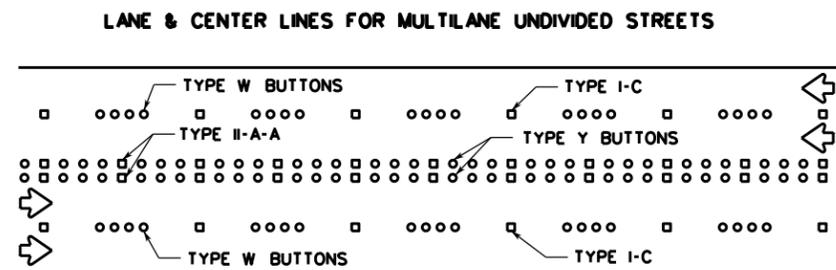
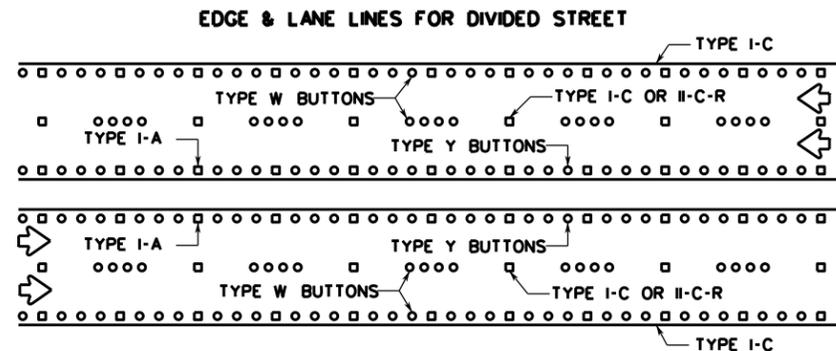
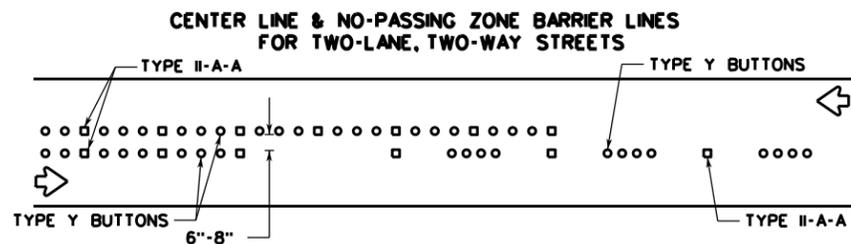
CITY OF SAN ANTONIO

DEPARTMENT OF PUBLIC WORKS

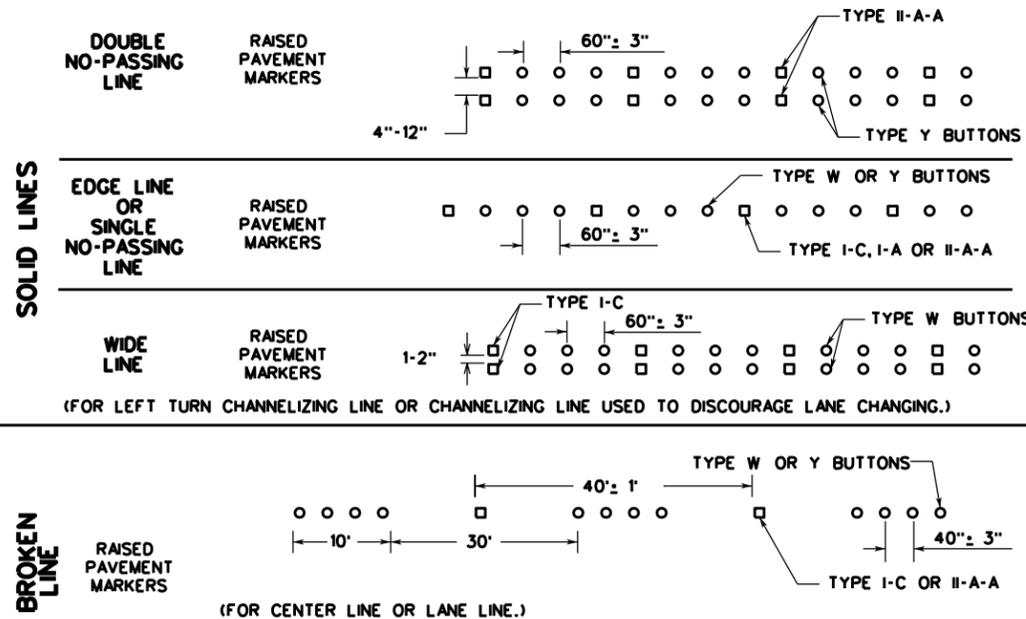
TRAFFIC ENGINEERING STANDARDS  
STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE 1  
SHEET 4 OF 16

DATE: \_\_\_\_\_  
SUBMITTAL: \_\_\_\_\_ PROJECT NO.: \_\_\_\_\_  
DRWN. BY: LAN DSGN. BY: C.B.W. CHKD. BY: M.E. SHEET NO.: \_\_\_ OF \_\_\_

**RAISED PAVEMENT MARKING PLACEMENT PATTERNS**  
PLACED W/ REFLECTION PAVEMENT MARKERS (OPTIONAL)

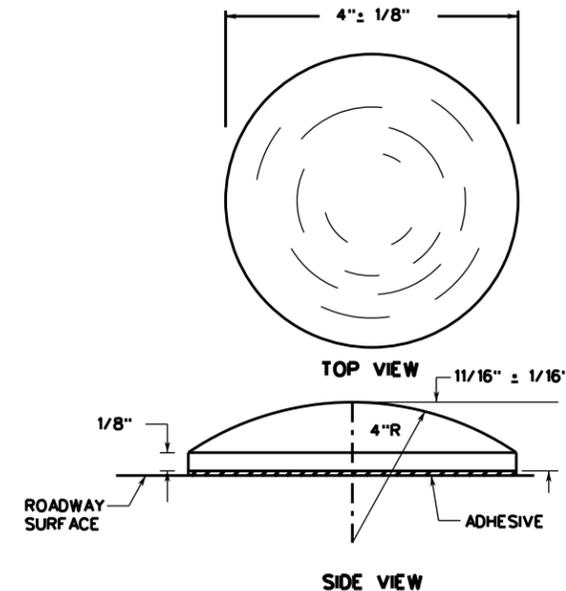


**RAISED PAVEMENT MARKINGS PLACEMENT DETAILS**  
PLACED W/ REFLECTION PAVEMENT MARKERS (OPTIONAL)



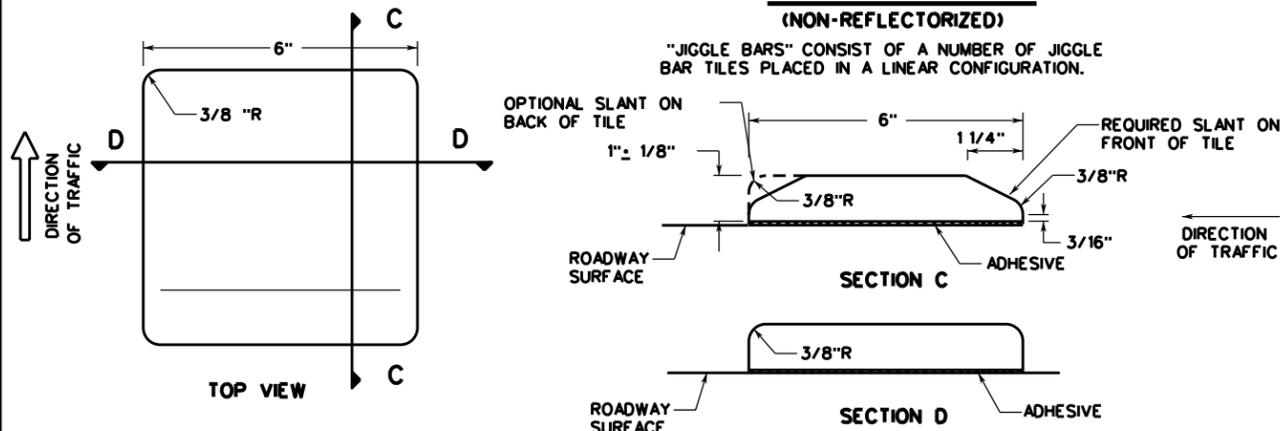
**TRAFFIC BUTTONS (NON-REFLECTORIZED)**

NOTE: MINIMUM AREA OF MARKERS SHALL BE NOT LESS THAN 12.5 SQUARE INCHES.



**JIGGLE BAR TILES (NON-REFLECTORIZED)**

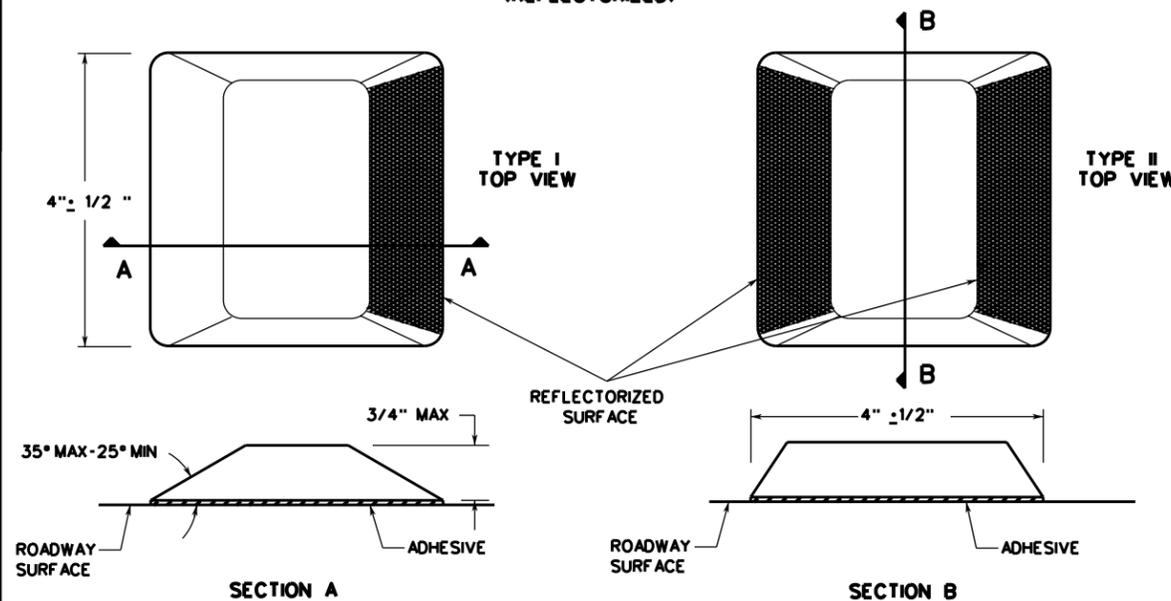
"JIGGLE BARS" CONSIST OF A NUMBER OF JIGGLE BAR TILES PLACED IN A LINEAR CONFIGURATION.



**NOTES:**

1. RAISED PAVEMENT MARKERS (RPMs) MAY CONSIST OF TRAFFIC BUTTONS, PAVEMENT MARKERS AND/OR JIGGLE BAR TILES. PAVEMENT SURFACE SHALL BE PREPARED AND CLEANED SUBJECT TO APPROVAL OF THE CITY TRAFFIC ENGINEER BEFORE ADHESIVE AND RPMs ARE PLACED.
2. JIGGLE BARS SHALL BE ORIENTED PERPENDICULAR TO ROADWAY. JIGGLE BARS SHALL ALSO BE PLACED AT SUCH OTHER LOCATIONS AS SHOWN IN PLANS OR AS DIRECTED BY THE CITY TRAFFIC ENGINEER.
3. MARKERS, BUTTONS AND JIGGLE BAR TILES SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY AND NOT INTENDED TO SPECIFY ANY PARTICULAR PRODUCT. ALL PAVEMENT MARKERS PROVIDED SHALL BE OF THE SAME MANUFACTURER.
4. ALL DIMENSIONS ARE +/- 1/8" UNLESS OTHERWISE NOTED.
5. ALL PAVEMENT MARKING MATERIALS SHALL MEET MATERIAL SPECIFICATIONS AS SPECIFIED BY CITY OF SAN ANTONIO STANDARD SPECIFICATIONS.
6. TRAFFIC BUTTONS AND JIGGLE BAR TILES ARE TO BE USED ONLY FOR TEMPORARY TRAFFIC CONTROL OR AS DIRECTED BY THE CITY TRAFFIC ENGINEER.

**RAISED PAVEMENT MARKERS (REFLECTORIZED)**



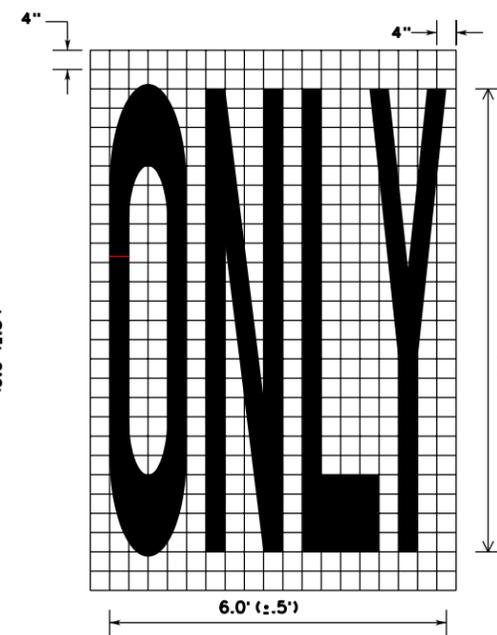
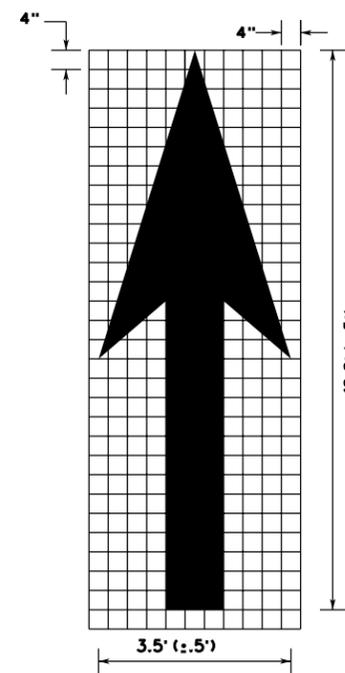
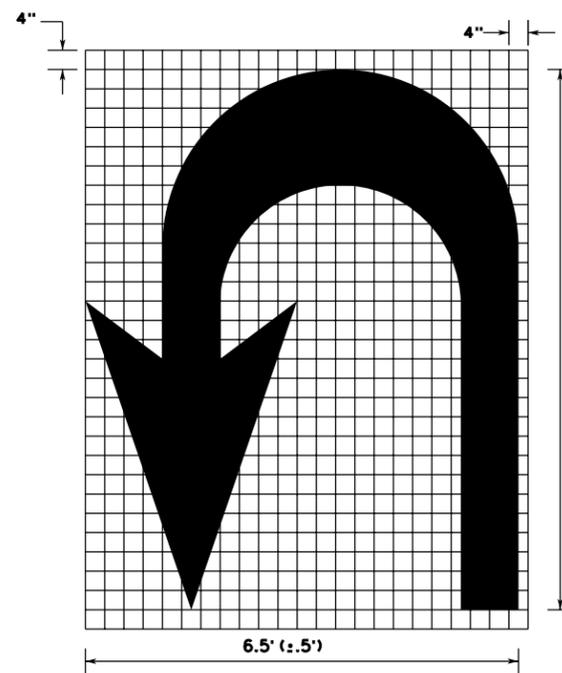
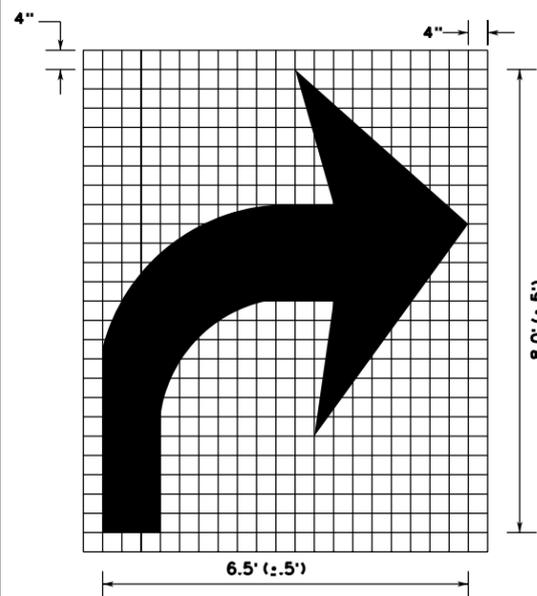
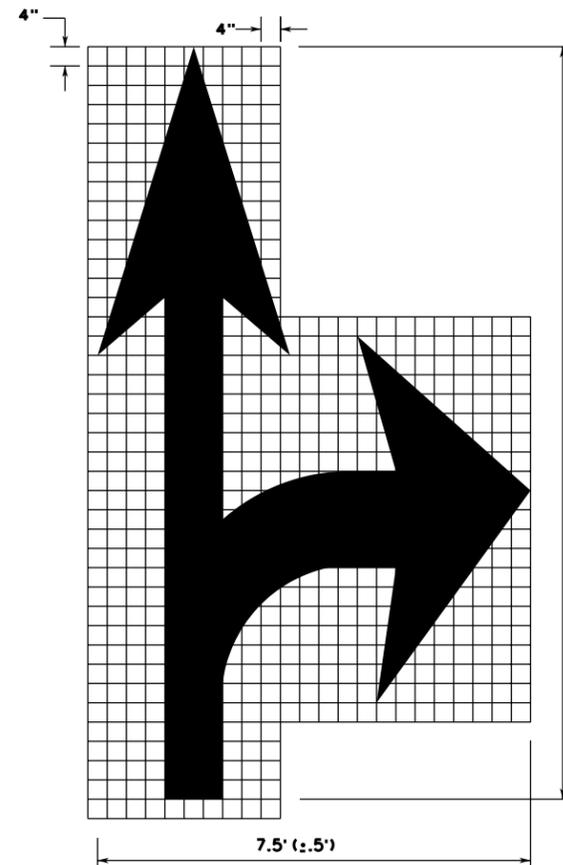
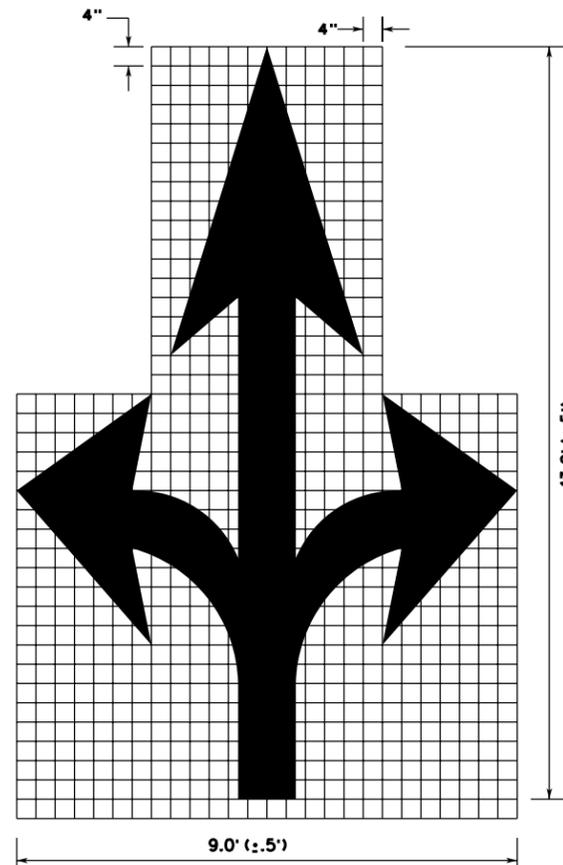
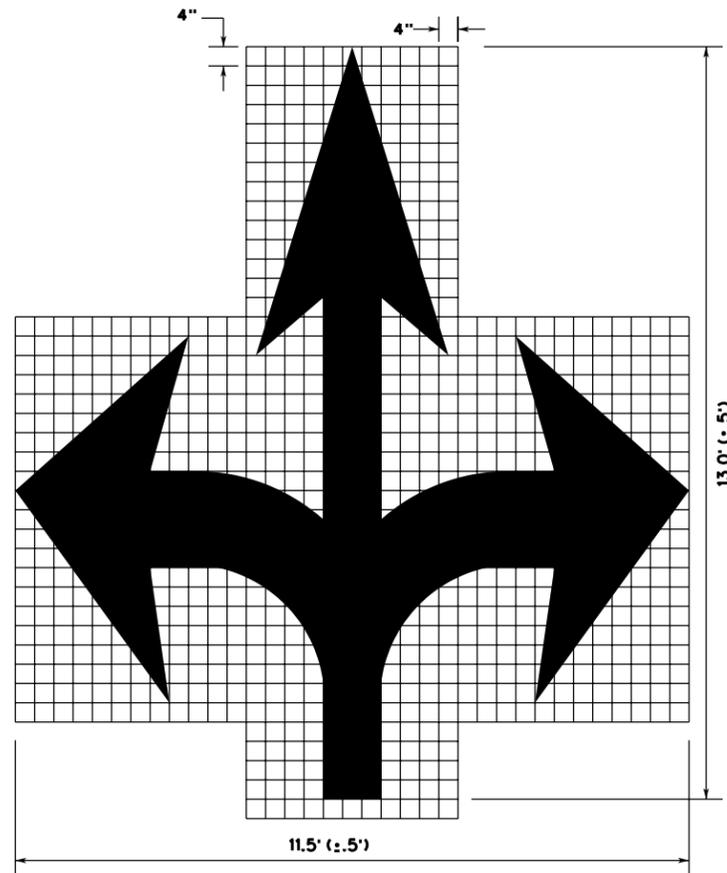
SEPTEMBER 2009

CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING STANDARDS  
RAISED PAVEMENT MARKERS, REFLECTIVE  
PAVEMENT MARKERS, TRAFFIC BUTTONS &  
JIGGLE BAR TILES 2  
SHEET 5 OF 16

NOTES:

1. MINIMUM 8 FOOT WHITE MARKINGS SHALL BE USED, UNLESS OTHERWISE NOTED. IF MESSAGE CONSISTS OF MORE THAN ONE WORD, IT SHOULD BE PLACED WITH FIRST WORD NEAREST THE DRIVER.
2. THESE DETAILS ARE STANDARD SIZE FOR NORMAL INSTALLATION; SIZES MAY BE REDUCED APPROXIMATELY ONE-THIRD DEPENDING ON CONDITIONS.
3. THE LONGITUDINAL SPACE BETWEEN MARKINGS SHOULD BE 30 FEET.
4. MARKINGS CONSIDERED APPROPRIATE FOR USE WHEN WARRANTED INCLUDE THE FOLLOWING:
  - A. REGULATORY
    - STOP
    - RIGHT (LEFT) TURN ONLY
    - 25 MPH
    - SYMBOL ARROWS
  - B. WARNING
    - STOP AHEAD
    - SIGNAL AHEAD
    - SCHOOL
    - SCHOOL X-ING
    - PED X-ING
    - R X R (SEE RCPM DETAIL)
5. UNCONTROLLED USE OF PAVEMENT MARKINGS CAN RESULT IN DRIVER CONFUSION. WORD AND SYMBOL MARKINGS SHOULD BE NO MORE THAN THREE LINES.
6. THE WORD "STOP" SHALL NOT BE USED ON THE PAVEMENT UNLESS ACCOMPANIED BY A STOP LINE AND STOP SIGN. THE WORD "STOP" SHALL NOT BE PLACED ON THE PAVEMENT IN ADVANCE TO A STOP LINE, UNLESS EVERY VEHICLE IS REQUIRED TO STOP AT ALL TIMES.
7. PAVEMENT MARKINGS SHOULD GENERALLY BE NO MORE THAN ONE LANE IN WIDTH, WITH SCHOOL MESSAGES BEING THE EXCEPTION. FOR DETAILS OF SCHOOL AND SCHOOL CROSSING PAVEMENT MARKINGS, REFER TO PART VII OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
8. SPACING BETWEEN LETTERS SHOULD BE APPROXIMATELY 4 INCHES. THE WIDTH OF LETTERS MAY VARY DEPENDING ON THE WIDTH OF THE TRAVEL LANES.
9. LANE-USE ARROW MARKINGS MAY BE USED TO CONVEY EITHER GUIDANCE OR MANDATORY MESSAGES. ARROWS USED TO CONVEY A MANDATORY MOVEMENT MUST BE ACCOMPANIED BY STANDARD SIGNS AND THE PAVEMENT MARKING WORD "ONLY".
10. PAVEMENT MARKINGS ARE TO BE LOCATED AS SPECIFIED ELSEWHERE IN THE PLANS.



SEPTEMBER 2009

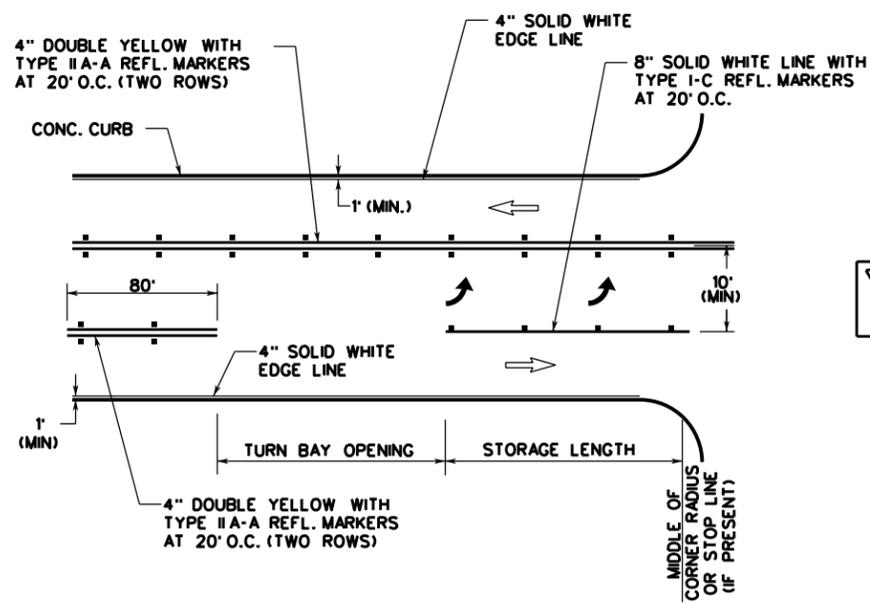
CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING STANDARDS  
STANDARD PAVEMENT MARKINGS  
(ARROWS)

SHEET 3 OF 16

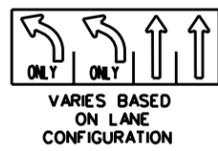
DATE:	PROJECT NO.:	% SUBMITTAL:
CHKD. BY: M.E.	DSGN. BY: C.B.W.	DRWN. BY: J.A.N.
SHEET NO.:	OF	

**LEFT-TURN LANE**



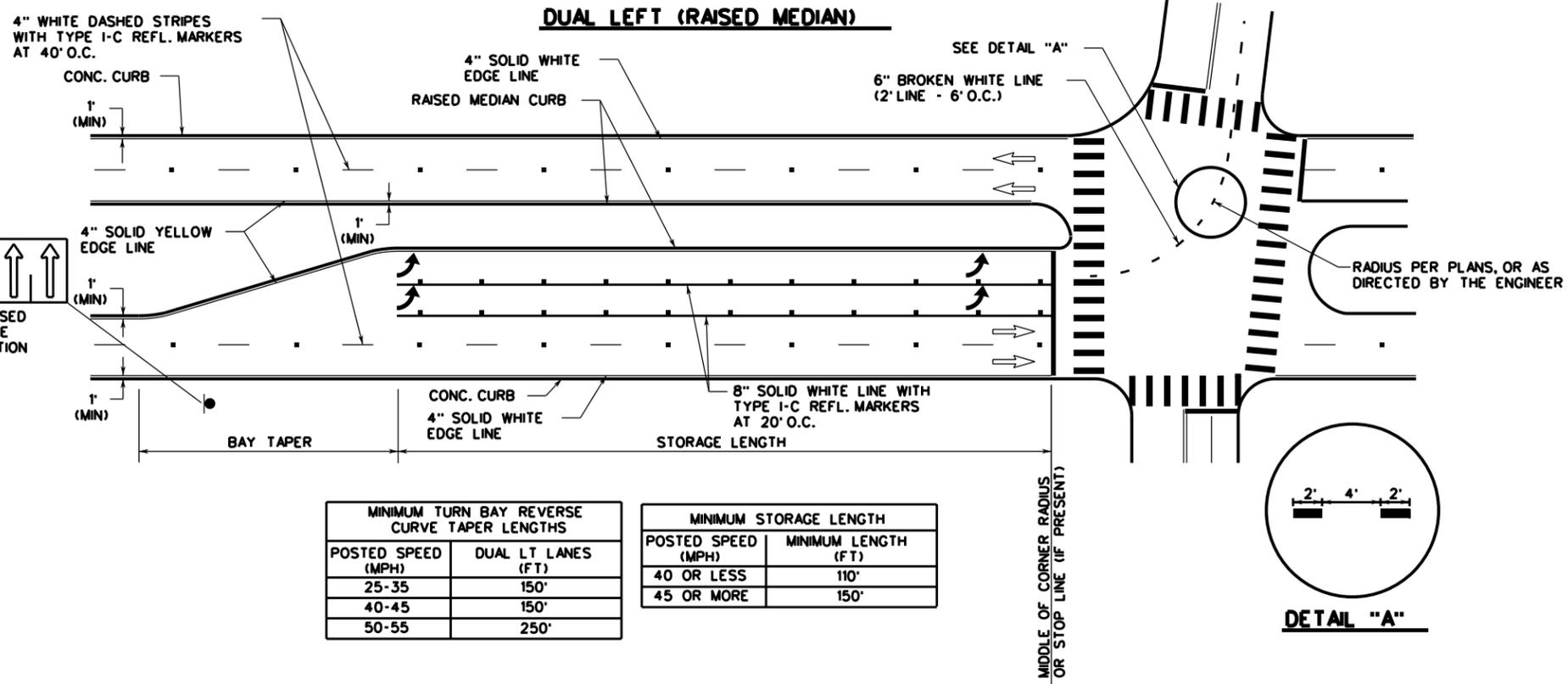
MINIMUM TURN BAY OPENINGS	
POSTED SPEED (MPH)	MINIMUM OPENING (FT)
25-35	60'
≥ 40	100'

MINIMUM STORAGE LENGTH	
POSTED SPEED (MPH)	MINIMUM OPENING (FT)
40 OR LESS	110'
45 OR MORE	150'



VARIES BASED ON LANE CONFIGURATION

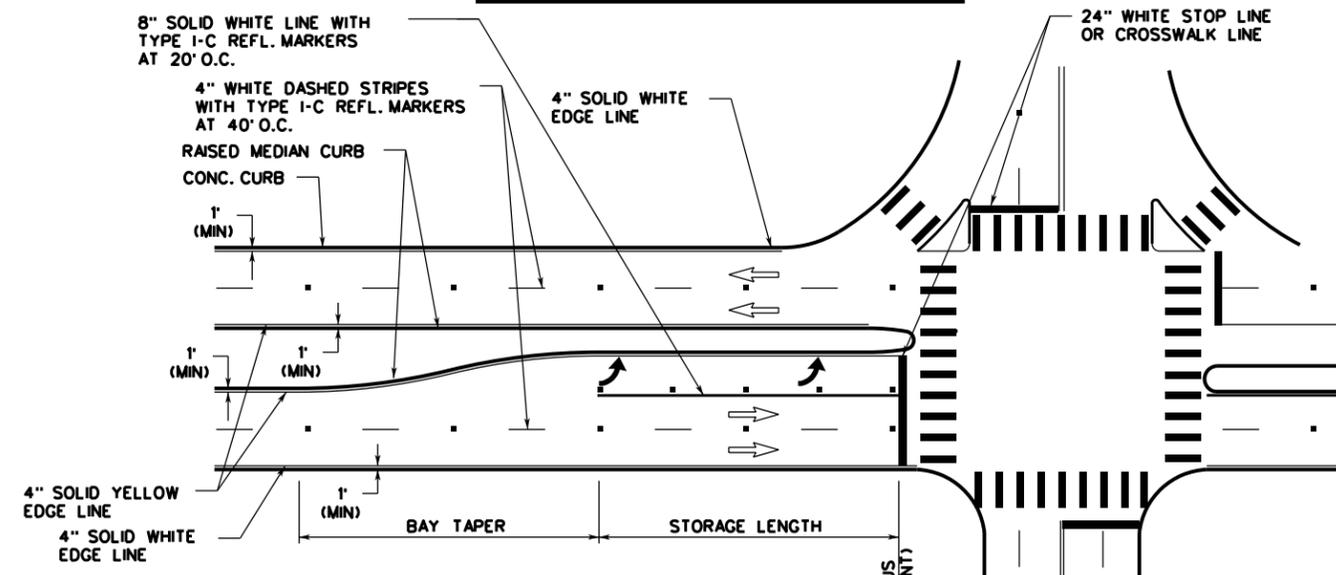
**DUAL LEFT (RAISED MEDIAN)**



MINIMUM TURN BAY REVERSE CURVE TAPER LENGTHS	
POSTED SPEED (MPH)	DUAL LT LANES (FT)
25-35	150'
40-45	150'
50-55	250'

MINIMUM STORAGE LENGTH	
POSTED SPEED (MPH)	MINIMUM LENGTH (FT)
40 OR LESS	110'
45 OR MORE	150'

**LEFT-TURN LANE (RAISED MEDIAN)**



MINIMUM TURN BAY REVERSE CURVE TAPER LENGTHS	
POSTED SPEED (MPH)	SINGLE LT LANE (FT)
25-35	100'
40-45	100'
50-55	150'

MINIMUM STORAGE LENGTH	
POSTED SPEED (MPH)	MINIMUM LENGTH (FT)
40 OR LESS	110'
45 OR MORE	150'

- NOTES:
1. THE POSTED SPEED LIMIT IS TYPICALLY EQUAL TO THE DESIGN SPEED MINUS 5 MPH.
  2. THE DIMENSIONS GIVEN FOR DUAL LEFT (RAISED MEDIAN) IN THE MINIMUM LENGTH TABLES ON THIS SHEET ARE ALSO APPLICABLE FOR DUAL RIGHT-TURN LANES.
  3. STORAGE LENGTHS LONGER THAN THE MINIMUMS LISTED ON THIS DRAWING MAY BE DETERMINED USING TRAFFIC ENGINEERING ANALYSIS OR APPROXIMATE CALCULATIONS.
  4. FOR THE PLACEMENT OF PAVEMENT ARROWS AND WORDS SEE LEFT-TURN "ONLY" AND ARROW SPACING WORKSHEET.
  5. REFER TO APPLICABLE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE AND LEFT-TURN & RIGHT-TURN LANE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKINGS.
  6. REFER TO BICYCLE LANE PAVEMENT MARKINGS STANDARD FOR TYPE AND PLACEMENT.
  7. 4" SOLID WHITE AND YELLOW EDGE LINES ARE OPTIONAL AS DIRECTED BY THE CITY TRAFFIC ENGINEER.

SEPTEMBER 2009

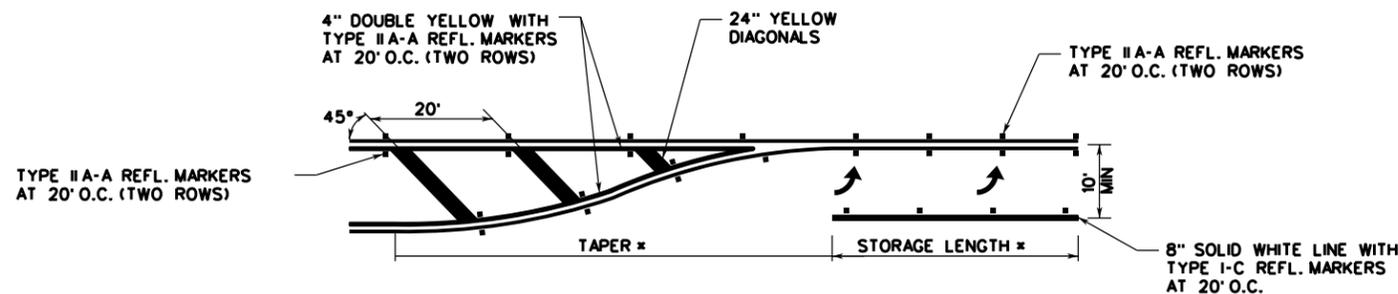
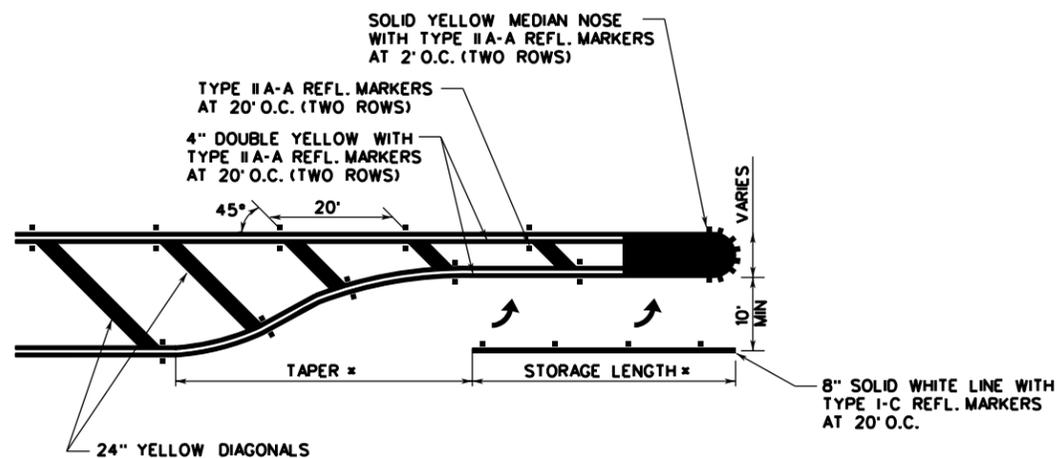
CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING STANDARDS  
LEFT-TURN LANE & RIGHT-TURN LANE  
DESIGN WORKSHEET 1  
SHEET 10 OF 16

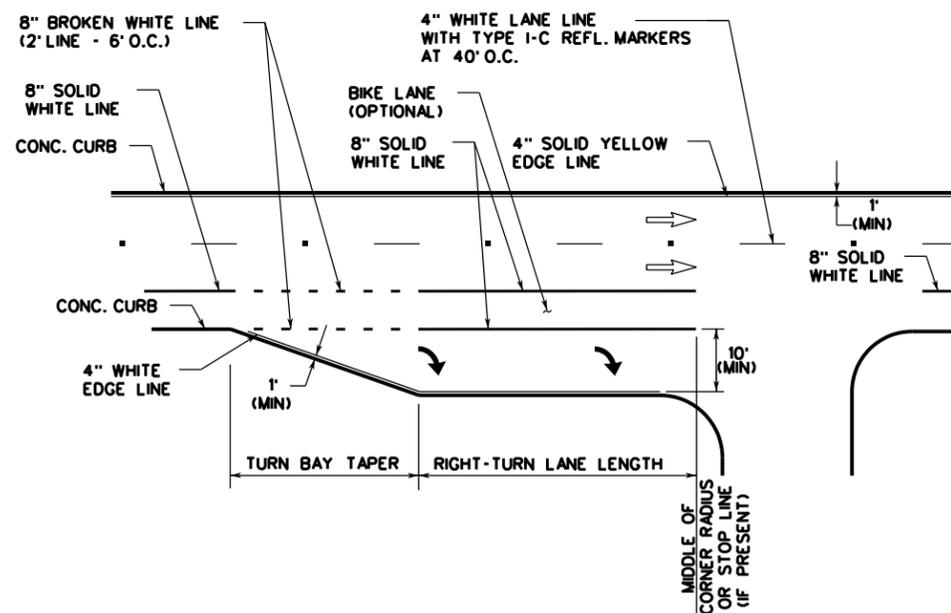
DATE: _____	PROJECT NO.: _____	SUBMITTAL: _____
SHEET NO.: _____ OF _____	CHKD. BY: _____ M.E.	DSGN. BY: _____ C.B.W.
DRWN. BY: _____ LAN		

**PAINTED MEDIAN LEFT TURN BAY DETAILS**

\* - USE MINIMUM TURN BAY REVERSE CURVE TAPER LENGTH AND MINIMUM STORAGE LENGTH TABLES FOR "LEFT-TURN LANE (RAISED MEDIAN)" ON SHEET 10 OF 16.



**UNSIGNALIZED RIGHT-TURN LANE**



MINIMUM TURN BAY TAPER LENGTH		MINIMUM RIGHT-TURN LANE LENGTH	
POSTED SPEED (MPH)	LENGTH (FT)	POSTED SPEED (MPH)	LENGTH (FT)
30 OR LESS	90'	40 OR LESS	110'
35 OR MORE	120'	45 OR MORE	150'

**NOTES:**

1. THE POSTED SPEED LIMIT IS TYPICALLY EQUAL TO THE DESIGN SPEED MINUS 5 MPH.
2. THE DIMENSIONS GIVEN FOR DUAL LEFT (RAISED MEDIAN) IN THE MINIMUM LENGTH TABLES ON THIS SHEET ARE ALSO APPLICABLE FOR DUAL RIGHT-TURN LANES.
3. STORAGE LENGTHS LONGER THAN THE MINIMUMS LISTED ON THIS DRAWING MAY BE DETERMINED USING TRAFFIC ENGINEERING ANALYSIS OR APPROXIMATE CALCULATIONS.
4. FOR THE PLACEMENT OF PAVEMENT ARROWS AND WORDS SEE LEFT-TURN "ONLY" AND ARROW SPACING WORKSHEET.
5. REFER TO APPLICABLE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE AND LEFT-TURN & RIGHT-TURN LANE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKINGS.
6. REFER TO BICYCLE LANE PAVEMENT MARKINGS STANDARD FOR TYPE AND PLACEMENT.
7. 4" SOLID WHITE AND YELLOW EDGE LINES ARE OPTIONAL AS DIRECTED BY THE CITY TRAFFIC ENGINEER.

SEPTEMBER 2009

CITY OF SAN ANTONIO

DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING STANDARDS

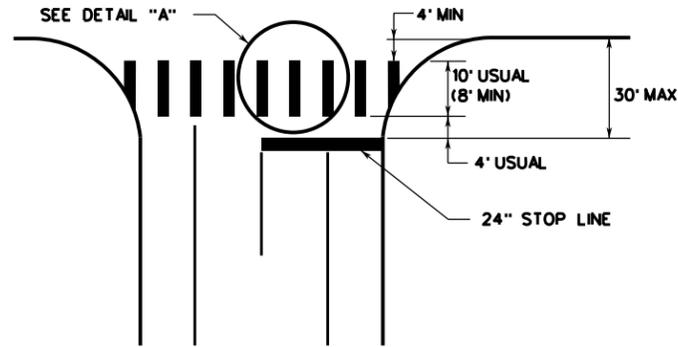
LEFT-TURN LANE & RIGHT-TURN LANE

DESIGN WORKSHEET 2

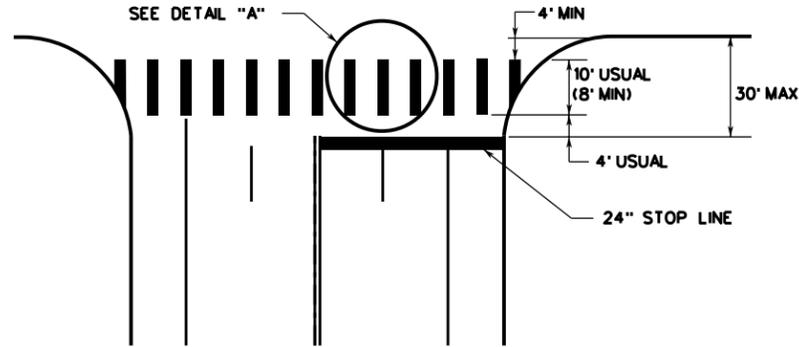
SHEET 11 OF 16

DATE: _____	PROJECT NO.: _____	DATE: _____
DRWN. BY: LAN	DSGN. BY: C.B.W.	CHKD. BY: M.E.
SHEET NO.: _____	OF _____	

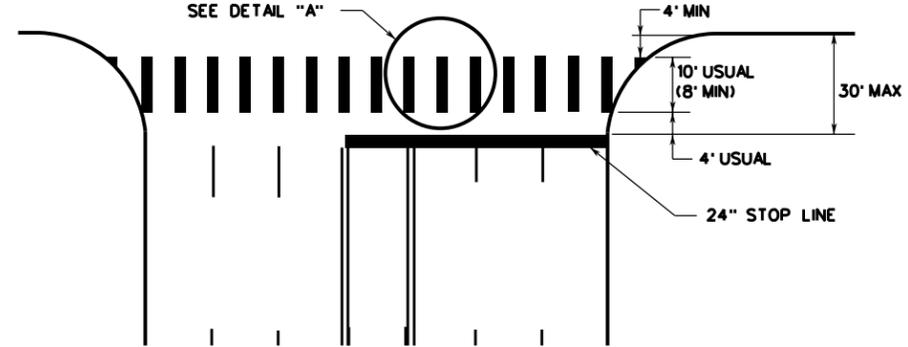
**TWO LANES WITH SHOULDERS**



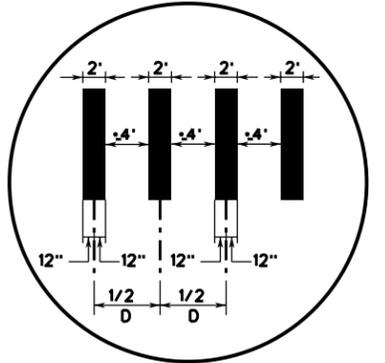
**FOUR LANES WITH SHOULDERS**



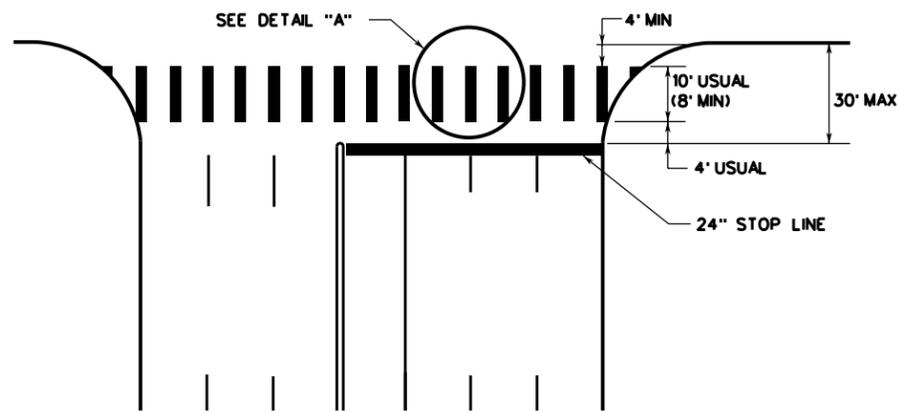
**MULTI-LANES**



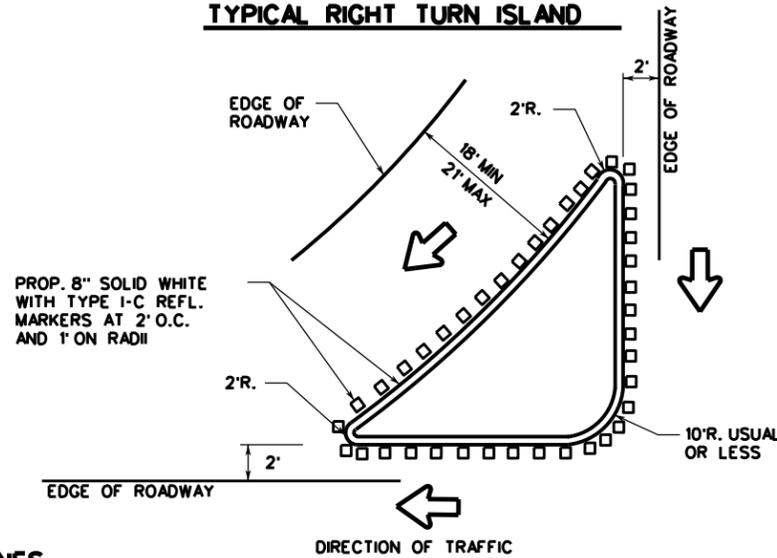
**DETAIL "A"**



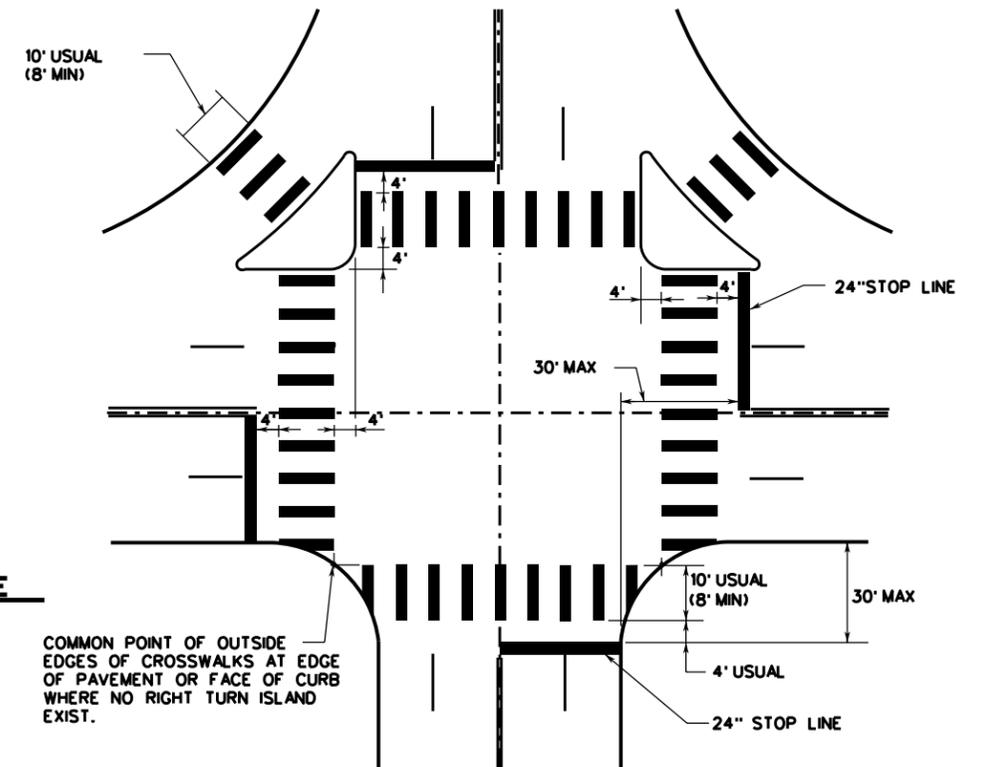
**MULTI-LANE WITH MEDIAN**



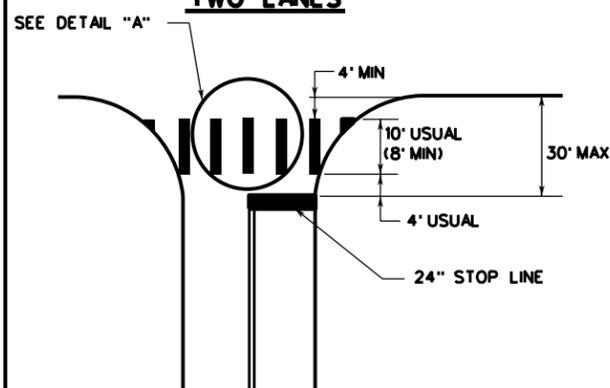
**TYPICAL RIGHT TURN ISLAND**



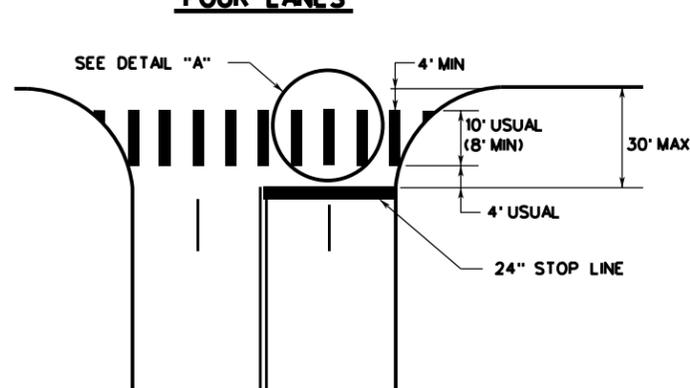
**INTERSECTION WITH RIGHT - TURN ISLANDS**



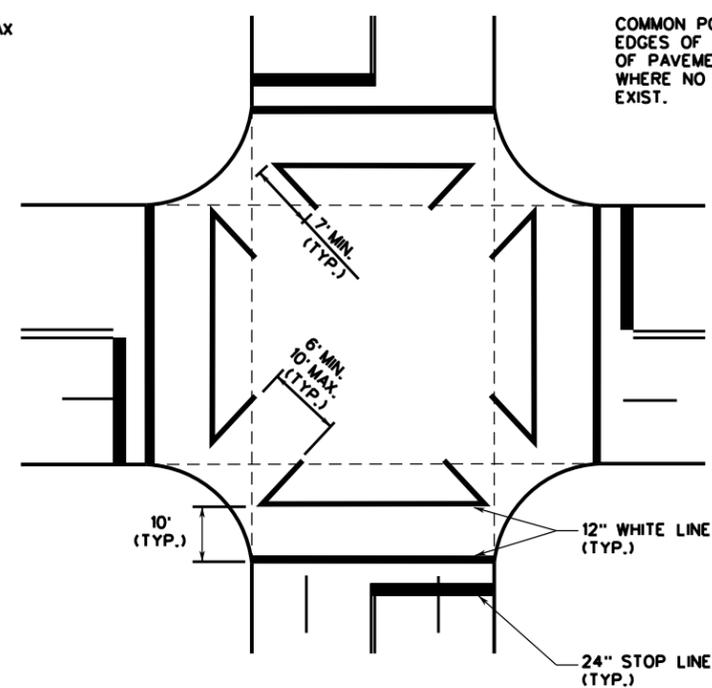
**TWO LANES**



**FOUR LANES**

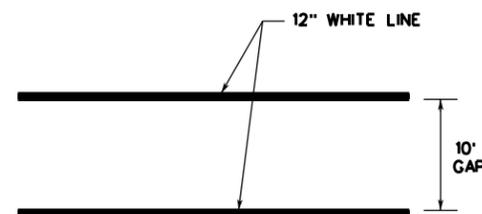


**EXCLUSIVE PEDESTRIAN PHASE**



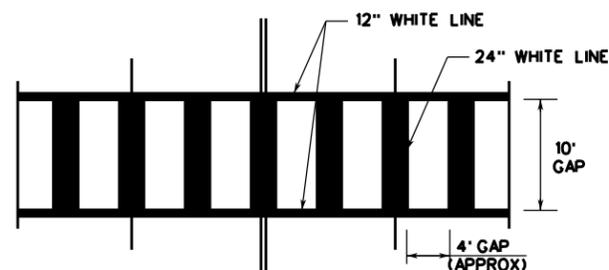
COMMON POINT OF OUTSIDE EDGES OF CROSSWALKS AT EDGE OF PAVEMENT OR FACE OF CURB WHERE NO RIGHT TURN ISLAND EXIST.

**CENTRAL BUSINESS DISTRICT CROSSWALK DETAIL**



**HIGH VISIBILITY CROSSWALK DETAIL**

TYPICALLY USED AT SIGNALIZED AND NON-SIGNALIZED MID-BLOCK CROSSINGS FOR COLLECTOR AND ARTERIAL ROADWAYS AND AT LOCATIONS REQUIRING EXTRA EMPHASIS.



- NOTES:
- CROSSWALKS AND STOP LINES SHALL BE WHITE.
  - "D" IS EQUAL TO ONE HALF THE WIDTH OF TRAVEL LANE.

SEPTEMBER 2009

CITY OF SAN ANTONIO  
DEPARTMENT OF PUBLIC WORKS

TRAFFIC ENGINEERING STANDARDS  
TYPICAL CROSSWALK  
DETAILS  
SHEET 9 OF 16

DATE: _____	PROJECT NO.: _____	SUBMITTAL: _____
SHEET NO.: _____ OF _____	CHKD. BY: M.E.	DSGN. BY: C.B.W.
	LAN	DRWN. BY: _____



MATCH LINE STA 13+40

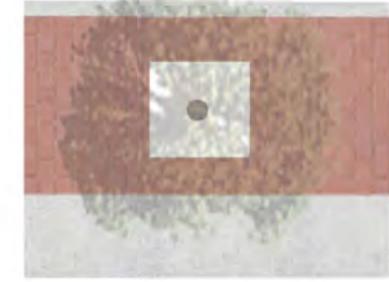
MATCH LINE STA 13+40



MATCH LINE STA 17+40

**LEGEND**

- EXISTING SIDEWALK
- EXISTING PAVERS TO REMAIN
- PROPOSED PAVERS (infill between walk and curb)
- EXISTING STREET TREE (CREPE MYRTLE)
- APPARENT ROW
- EXISTING EOP
- TRAFFIC ARROW
- SHARED LANE
- BIKE LANE
- EXISTING STREET LIGHT POLE TO REMAIN
- PROPOSED PEDESTRIAN LIGHT POST
- EXISTING UTILITY POLE



TYPICAL PAVERS AT EXISTING STREET TREES  
(TO BE DETAILED)



PROPOSED PEDESTRIAN LIGHT POST  
(to match existing)



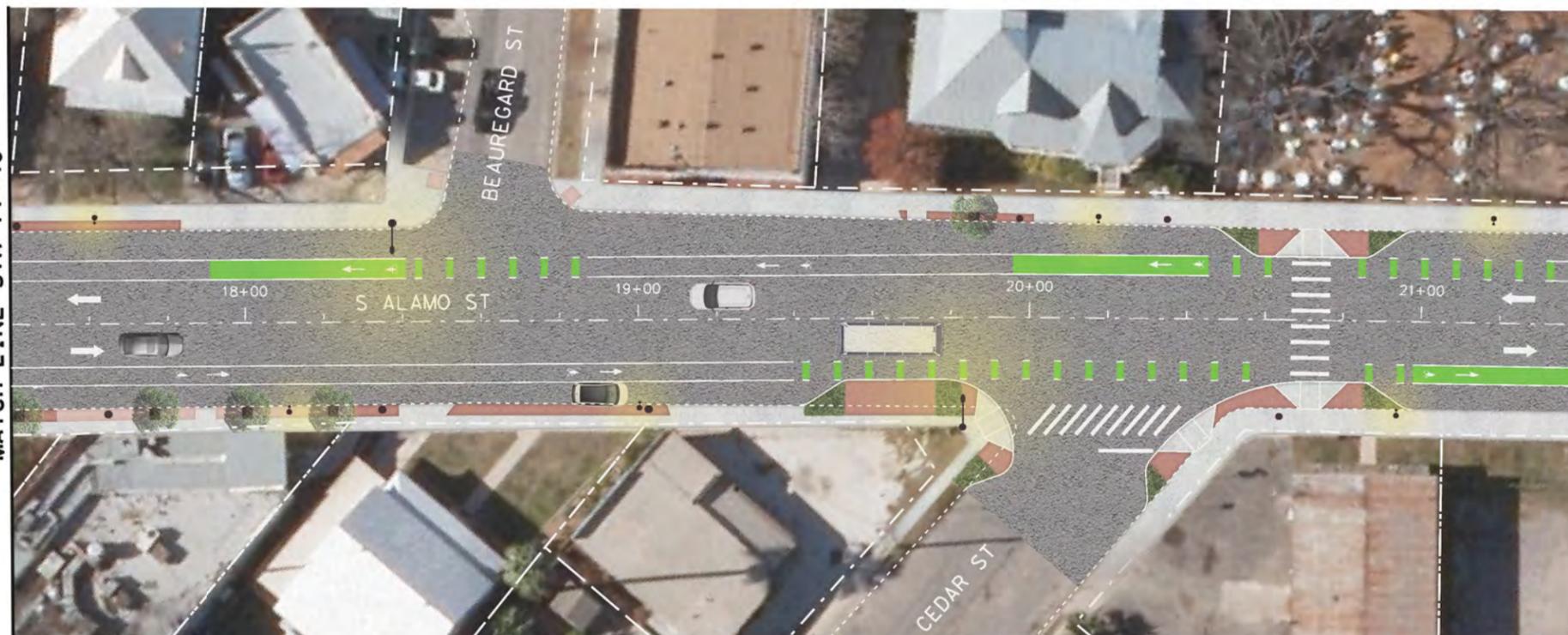
SCALE: 1" = 40'

REVISIONS		
DATE	NO.	DESCRIPTION
 LANDSCAPE ARCHITECT / PRIME CONSULTANT <b>BENDER WELLS CLARK DESIGN</b> 830 N. ALAMO ST. SAN ANTONIO, TEXAS 78215		
<b>SANCHEZ-SALAZAR &amp; ASSOCIATES</b> <small>TBPE FIRM REGISTRATION NO. 15685</small>		
<b>CITY OF SAN ANTONIO</b> <small>Transportation &amp; Capital Improvements (TCI) Department</small> <b>SOUTH ALAMO STREET</b>		
<b>PROPOSED LANDSCAPE LAYOUTS</b>		
SHEET 1 OF 2		
<small>50 % SUBMITTAL</small>	<small>PROJECT NO.: XX-XXXXX</small>	<small>DATE: 2/16/18</small>
<small>DRWN. BY: AK</small>	<small>DSGN. BY: AK</small>	<small>CHKD. BY: JCS</small>
		<small>SHEET NO.: OF XX</small>

8FILES

EX-1000001

MATCH LINE STA 17+40



MATCH LINE STA 21+40

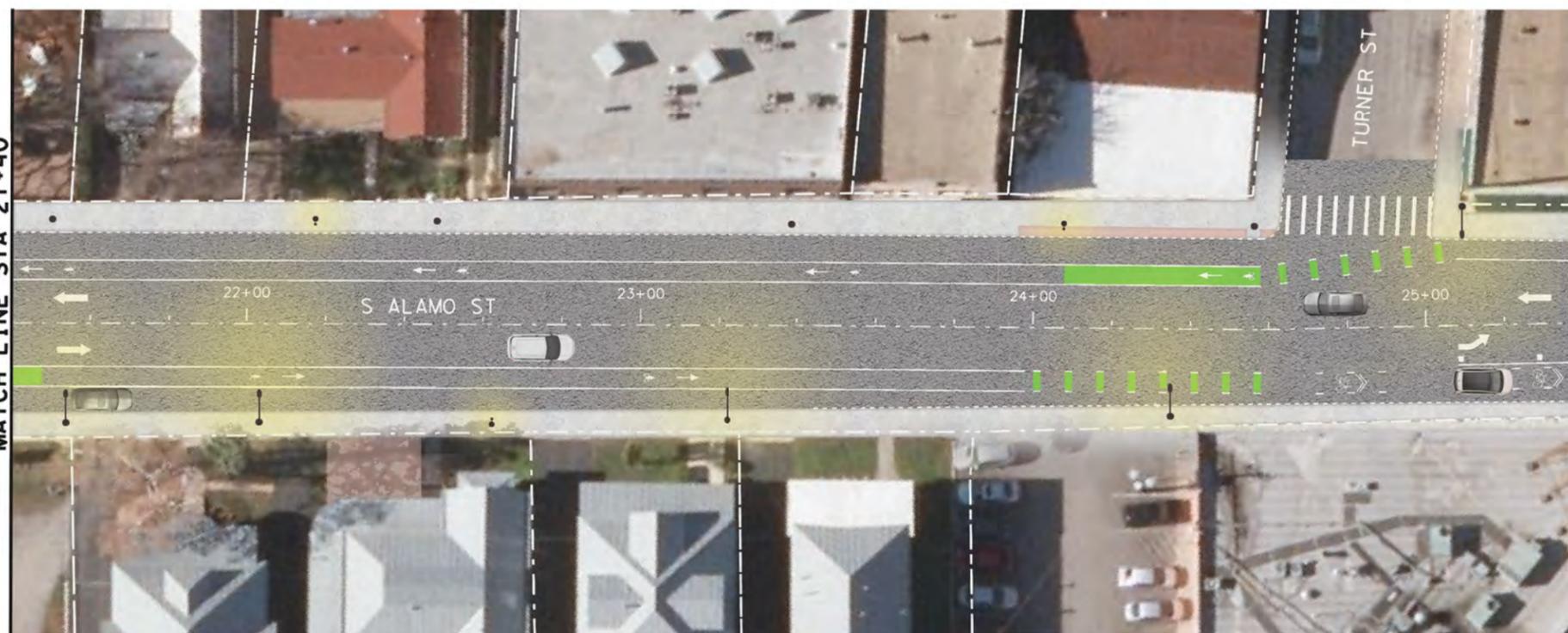
**LEGEND**

- EXISTING SIDEWALK
- EXISTING PAVERS TO REMAIN
- PROPOSED PAVERS (infill between walk and curb)
- EXISTING STREET TREE (CREPE MYRTLE) TO REMAIN
- PROPOSED PLANTING
- APPARENT ROW
- EXISTING EOP
- TRAFFIC ARROW
- SHARED LANE
- BIKE LANE
- EXISTING STREET LIGHT POLE TO REMAIN
- PROPOSED PEDESTRIAN LIGHT POST
- EXISTING UTILITY POLE



PROPOSED PLANT RECOMMENDATIONS  
(NOLINA AND RED YUCCA GROUPINGS)

MATCH LINE STA 21+40



SCALE: 1" = 40'

REVISIONS		
DATE	NO.	DESCRIPTION

**SANCHEZ-SALAZAR & ASSOCIATES**  
 LANDSCAPE ARCHITECT / PRIME CONSULTANT  
 BENDER WELLS CLARK DESIGN  
 830 N. ALAMO ST.  
 SAN ANTONIO, TEXAS 78215

SBPE FIRM REGISTRATION NO. 15685

**CITY OF SAN ANTONIO**  
 Transportation & Capital Improvements (TCI) Department  
 SOUTH ALAMO STREET

**PROPOSED LANDSCAPE LAYOUTS**

SHEET 2 OF 2

50 % SUBMITTAL	PROJECT NO.: XX-XXXX	DATE: 2/18/18
DRWN. BY: AK	DSGN. BY: AK	CHKD. BY: JCS
SHEET NO.: OF XX		

SFILES

2/23/2018