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SEE SHEET 2

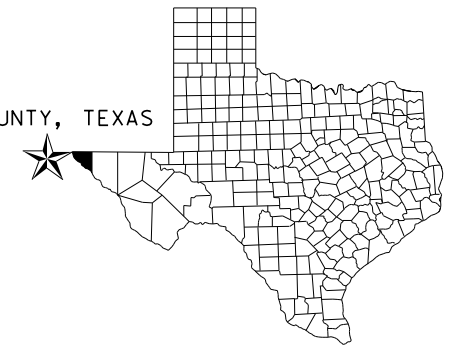
**CAMINO REAL REGIONAL MOBILITY AUTHORITY**

FED. RD.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	1
STATE	DIST.	COUNTY
TEXAS	ELP.	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

**PLANS OF PROPOSED  
ROADWAY IMPROVEMENTS  
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
EL PASO COUNTY, TEXAS**

FEDERAL AID PROJECT: STP 2021 (473) TP  
LENGTH OF PROJECT: 3.29 MILES

EL PASO COUNTY, TEXAS



TEXAS COUNTY MAP

**LIMITS:**

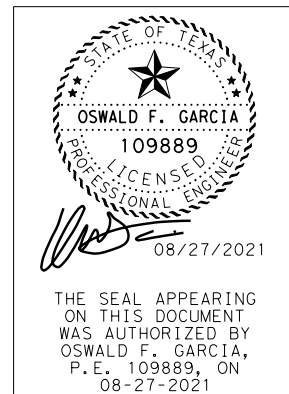
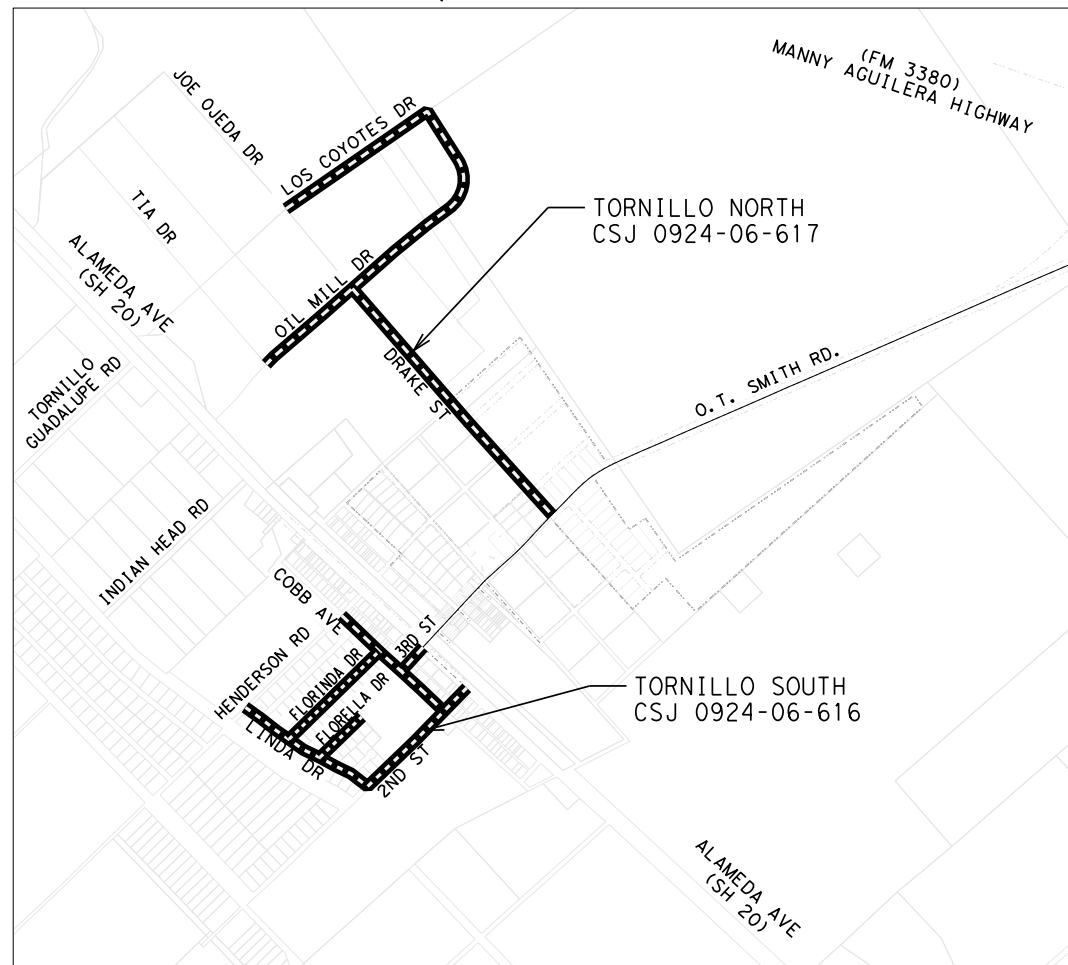
**NORTH (CSJ 0924-06-617):** LOS COYOTES DRIVE, OIL MILL DRIVE, AND DRAKE STREET  
ROADWAY LENGTH: APPROXIMATELY 1.61 MILES

**SOUTH (CSJ 0924-06-616):** LINDA DRIVE, 2ND STREET, FLORINDA DRIVE, FLORELLA DRIVE,  
COBB AVENUE, AND 3RD STREET. ROADWAY LENGTH: APPROXIMATELY 1.68 MILES

FOR THE CONSTRUCTION OF PEDESTRIAN FACILITIES CONSISTING  
OF CONCRETE SIDEWALK, SHARED USE PATH, CURB, RAMPS,  
ILLUMINATION, SIGNING, STRIPING, CROSSWALKS,  
DRIVEWAYS, AND PAVEMENT WIDENING

LETTING DATE: \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_  
DATE CONTRACTOR BEGAN WORK: \_\_\_\_\_  
DATE WORK WAS COMPLETED: \_\_\_\_\_  
DATE WORK WAS ACCEPTED: \_\_\_\_\_  
ORIGINAL CONTRACT AMOUNT: \_\_\_\_\_  
TOTAL DAYS CHARGED: \_\_\_\_\_  
FINAL CONTRACT COST: \_\_\_\_\_

REGISTERED ACCESSIBILITY SPECIALIST (RAS)  
INSPECTION REQUIRED  
TDLR NO. TABS2021008879



THE SEAL APPEARING  
ON THIS DOCUMENT  
WAS AUTHORIZED BY  
OSWALD F. GARCIA,  
P.E. 109889, ON  
08-27-2021

SCALE: 1" = 2000'  
R.R. CROSSINGS: NO  
DESIGN EXCEPTIONS: NONE  
EQUATIONS: N/A

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION,  
NOVEMBER 1, 2014, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS,  
SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR  
FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, May 1st, 2012, 2021)



RECOMMENDED FOR LETTING:

RAYMOND L. TELLES  
EXECUTIVE DIRECTOR, CRRMA

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COUNTY EL PASO PROJ. NO. STP 2021 (473) TP  
HWY. NO. VAR LETTING DATE JAN 2022  
DATE ACCEPTED

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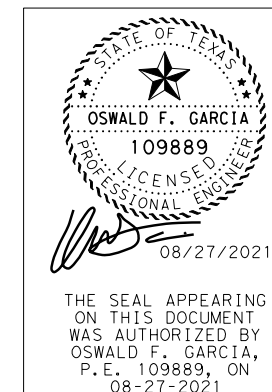
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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.  
EL PASO                      SAN ANTONIO

TBPE Firm Registration  
No. F-000554

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**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

**SHEET INDEX**

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TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

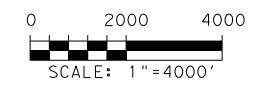
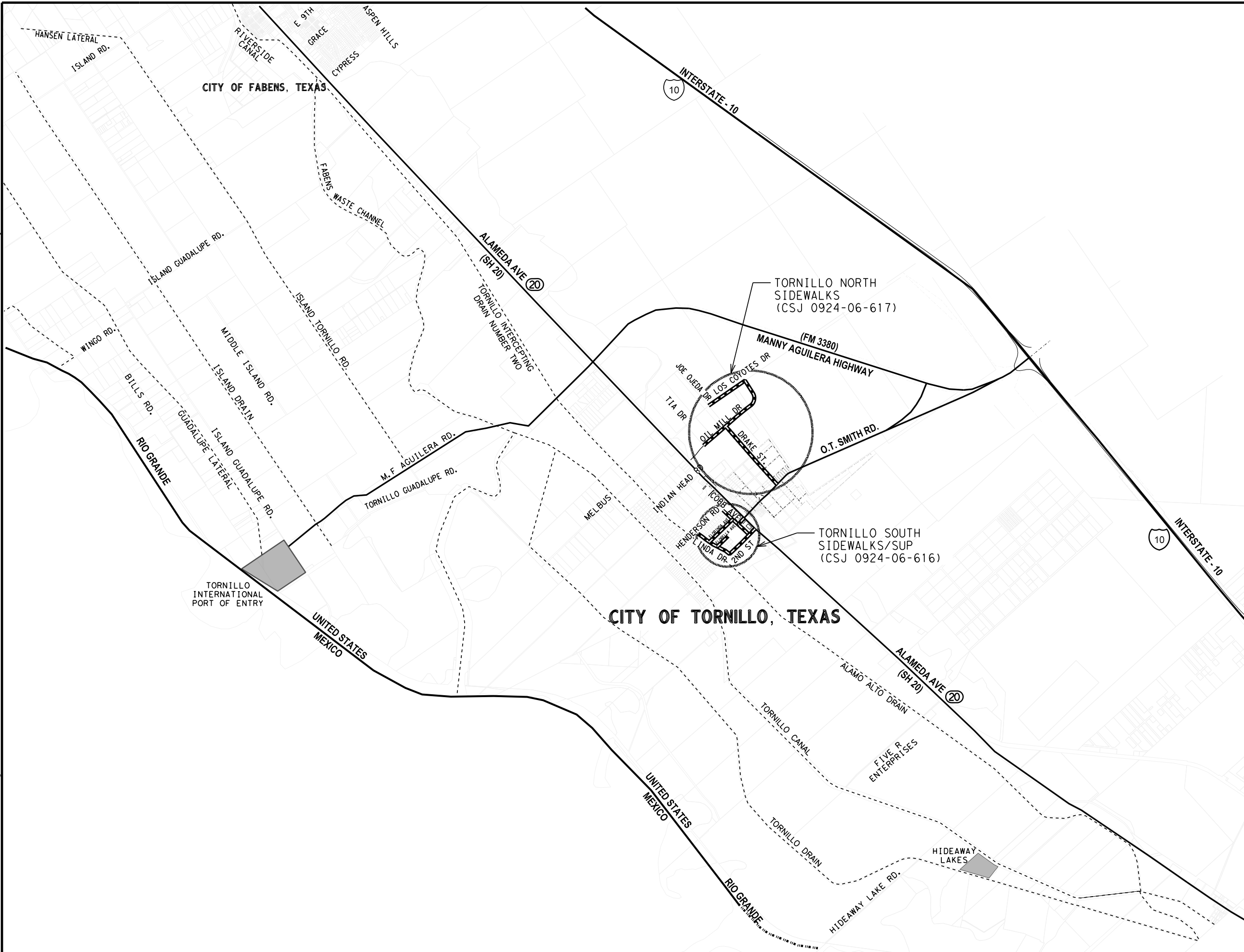
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STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**LOCATION MAP**

SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
FED. RD. DIV. NO.		STP 2021 (473) TP	3
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

CONTROL: CSJ 0924-06-616, ETC

COUNTY: EL PASO

HIGHWAY: VARIOUS

**General Notes:**  
**General Requirements**

The project consists of the construction of sidewalks along Drake Street, Oil Mill Road, and Los Coyotes Drive, Cobb Avenue, Florinda Drive, Linda Drive, Florella Drive, 2<sup>nd</sup> Street, and a Shared Use Path (SUP) on 3<sup>rd</sup> Street. The project includes ADA ramps, striping, curbs, illumination, signs, pavement widening, crosswalks, and driveways.

Maintain the entire project area in a neat and orderly manner throughout the duration of the work. Remove all construction litter and undesirable vegetation within the right of way inside the project limits subsidiary to the various bid Items.

Become familiar with project site prior to submitting bids.

Where night-time work is approved by The County of El Paso, provide adequate lighting for the entire work site as directed, subsidiary to the various bid Items.

Comply with all Occupational Safety & Health Administration (OSHA) and United States Environmental Protection Agency (EPA) regulations as well as all local and State requirements.

Refer to the various traffic control plan project overview sheets for the proposed sequence of work. Changes will not be permitted, except as approved in writing by the Engineer.

Known utility line conflicts are identified on the plans and have been coordinated with the respective utility company. Contractor shall maintain the traffic control during utilities adjustment and/or relocation work.

The Contractor shall inform the County of El Paso or its designated representative and the respective utility companies when it becomes apparent that an unforeseen utility line will interfere with work in progress and shall allow the respective utility company to enter the site and adjust and /or relocate its utility line(s).

Repair all existing pavement, utilities, structures, etc. damaged as a result of the Contractor's operations at no additional cost to the County of El Paso.

Vibratory rollers will not be permitted for use on work within the project limits.

**Item 3L – Award and Execution of Contract**

The Contractor warrants to the County of El Paso that materials and equipment furnished under the contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the work will be free from defects not inherent in the quality required or permitted, and that the work will conform to the requirements of the Contract Documents. Completed work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective.

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Neither the final Certificate of Payment, nor any provision in the Contract Documents, nor partial or entire use of the facility by the County of El Paso shall constitute an acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in their work and repair any damage to their work within a period of one (1) year from the date of final acceptance, unless a longer period is specified. The County of El Paso will give notice of observed defects with reasonable promptness.

Contractor is required to submit their own report manual prior to performing any repairs for the Project Engineer to review. All submittals must be provided before the kick-off meeting or prior to using/ordering the material. Engineer's review is ten (10) working days minimum.

**Item 4L – Scope of Work**

Provide vehicular and pedestrian access at all times including Saturdays, Sundays, and holidays. Access includes, but is not limited to, driveways, streets, parking areas, and walkways and is subsidiary to the various bid Items.

Schedule and perform all work to assure proper drainage during construction operations. All labor, tools, equipment and supervision required, to ensure drainage, removal, and handling of water is considered incidental work.

Maintain all Contract Items until final acceptance of the project.

**Item 5L – Control of the Work**

The County of El Paso will furnish horizontal and vertical reference points. The Contractor shall verify all dimensions and grades before proceeding with the work. Report any discrepancies found immediately to the County of El Paso or its designated representative, otherwise the Contractor shall be held responsible for their correctness.

The Contractor shall verify all typical cross-sections prior to commencing construction. The cross sections may be adjusted if necessary, to better fit field conditions when approved by the County of El Paso and/or Engineer.

The Contractor shall pay special attention to the utility sheets, corresponding sequence of work, and shall coordinate field locations of all utilities with the appropriate utility companies, in order to minimize conflicts during construction operations. Damage incurred to any utility, which in the determination of the County of El Paso or its designated representative could have been prevented, shall be repaired or replaced by the Contractor at his expense as directed by the County of El Paso or its designated representative.

**Item 6L – Control of Materials**

QA Testing, Contractor shall be responsible for paying any additional tests due to density failures, cancellations, and retakes at no cost to the El Paso County.

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Protect and prevent damage to areas of Right-of-Way that are not included in the actual limits of construction.

**Item 7L – Legal Relations and Responsibilities**

Comply with all Federal, State, and Local Laws, ordinances, and regulations that affect the performance of the work. The roadway must be open to traffic at all times. Maintain access to adjacent property at all times. Comply with all requirements of the Environmental Permits Issues and Commitments (EPIC).

Dispose of all waste materials in compliance with Local, State, and Federal regulations. Submit list of all approved waste sites to the County of El Paso for review.

Do not discharge any liquid pollutant from vehicles onto the roadside. Immediately clean spills and dispose in compliance with local, state, and federal regulations to the satisfaction of the Engineer at no additional cost to the Department.

Occupational Safety & Health Administration (OSHA) regulations prohibit operations that bring people or equipment within 10 ft. of an energized electrical line. Where workers and/or equipment may be close to an energized electrical line, notify the electrical power company and make all necessary adjustments to ensure the safety of workers near the energized line.

**Item 8L – Prosecution and Progress**

Working days are calculated in accordance with “Standard Work Week.”

A CPM (Critical Path Method) or Bar Chart schedule is required for this project conforming to “Critical Path Method”. Provide updates as directed by the County of El Paso. Prior to beginning operations, schedule and attend a preconstruction conference with The County of El Paso. Provide the County of El Paso a written outline of the proposed sequence of work and an estimated progress schedule.

Begin work no later than 90 calendar days after the authorization date to begin work.

Keep traveled surfaces used in hauling operations clear and free of dirt or other material.

Maintain thru traffic at all times on within the project limits.

Protect from damage and destruction all areas of the right of way, which are not included in the actual limits of the proposed construction areas. Exercise care to prevent damage to trees, vegetation, and other natural features.

Protect trees, shrubs, and other landscape features from abuse, marring, or damage within the actual construction and/or fenced protection areas designated for preservation. Restore any area disturbed or damaged to a condition “as good as” or “better than” prior to start of construction operation. This work will be at the Contractor’s expense.

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This project consists of a Construction Sequencing Plan containing phases that will be completed in the order described below:

**Table 1  
Construction Sequencing**

Sequence	Phase	Description of Work	Construction Sequence	Contract Time
1	#1	<p><b>Los Coyotes Dr.</b> From: Joe Ojeda Dr. To: Oil Mill Rd.</p> <p><b>Oil Mill Dr.</b> From: Los Coyotes Dr. To: Tia Dr.</p> <p><b>Drake St.</b> From: Oil Mill Dr. To: O.T. Smith Rd.</p> <ul style="list-style-type: none"> <li>Installation of sidewalk and associated amenities along one side of roadway edge and/or abutting ROW</li> </ul>	1	120 Days
2	#2	<p><b>Linda Dr.</b> From: Henderson Rd. To: 2<sup>nd</sup> St.</p> <p><b>Florinda Dr.</b> From: Linda Dr. To: Cobb Ave.</p> <p><b>Florella Dr.</b> From: Linda Dr. To: Gaby Rd.</p> <p><b>Cobb Ave.</b> From: Henderson Rd. To: 2<sup>nd</sup> St.</p> <p><b>3<sup>rd</sup> St.</b> From: Cobb Ave. To: Alameda Ave.</p> <p><b>2<sup>nd</sup> St. (Phase 2 – Stage 1)</b> From: Linda Dr. To: Alameda Ave.</p> <ul style="list-style-type: none"> <li>Installation of sidewalk, shared use path and associated amenities along one side of roadway edge and/or abutting ROW</li> </ul>	2	150 Days

**TOTAL 270 Days**

**Item 9L – Measurement and Payment**

Submit Material on Hand (MOH) payment requests at least three (3) working days before the end of the month for payment consideration on that month’s estimate.

**Item 100 – Preparing Right of Way**

Refer to Specification for additional list of items covered under this item. All existing pavement milling, trees, metal beam guard fence, abandoned sign posts and footings, vegetation and other

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landscape features not deemed for, and other miscellaneous items not specifically quantified on the demolition plans to be removed will be paid under this item.

This item will be used to remove the top 6 - 12 in. of existing material and soil where shown on the plans.

Displaced and/or relocated trees and shrubs shall be paid for under this item.

Maintain 18-inches of cover during construction for all underground utilities.

All aerial telephone, triplex, conductors, cable, etc. shall remain undisturbed, unless otherwise noted.

**Item 104 – Removing Concrete**

All work items required to saw-cut the existing concrete sidewalks, driveways, curb and gutter, etc. as shown on the plans, or as directed is subsidiary to this Item.

**Item 110 – Excavation**

To eliminate all drop-off conditions, construct tapers as directed. This work will not be paid for directly but will be considered subsidiary to this Item.

All suitable excavated materials shall be utilized, insofar as practical, in constructing the required sections or as directed by the Engineer. Unsuitable roadway excavation and excavation more than that is needed shall become the property of Contractor, to be disposed of off-site, in accordance with local, state, and federal requirements.

Excavate to finish subgrade.

**Item 247 – Flexible Base**

Construct a foundation course composed of flexible base.

**Item 251 – Reworking Base Courses**

Refinish or rework existing base material with or without asphaltic concrete pavement. Incorporate new base material when shown on the plans.

The Contractor will be paid in accordance with the associated Item based on work performed. This will fully compensate the Contractor for all associated activities.

**Item 310 – Prime Coat**

Prepare and treat existing or newly constructed surface with an asphalt binder or other specialty prime coat binder material. Apply blotter material as required. This Item will be measured by the gallon and will be paid for at the unit price bid for "Prime Coat (Small Quantity)". This price is full

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compensation for cleaning and sprinkling the area to be primed; materials, including blotter material; and rolling, equipment, labor, tools, water, and incidentals.

**Item 340 – Dense-Graded Hot Mix Asphalt**

Construct a hot-mix asphalt (HMA) pavement layer composed of a compacted, dense-graded mixture of aggregate and asphalt binder mixed hot in a mixing plant. This specification is intended for small quantity (SQ) HMA projects, typically under 5,000 tons total production.

**Item 400 – Excavation and Backfill for Structures**

Cutting and restoring pavement will be paid for at the unit price bid for "Excavation and Backfill for Structures" of the type specified.

Work done to repair damage to base or pavement incurred outside the limits shown on the plans, or the limits authorized, will not be measured for payment.

The unit prices bid are full compensation for excavation including removing obstructions and plugging drainage systems; bedding and backfilling including placing, sprinkling and compaction of material; soundings; cleaning and filling seams; constructing and removing cofferdams; de-watering, sheeting, or bracing excavations up to and including 5 ft. deep; pumps; drills; explosives; disposition of surplus material; cutting pavement and base to neat lines; and materials, hauling, equipment, labor, tools, and incidentals.

**Item 416 – Drilled Shaft Foundations**

Construct foundations consisting of reinforced concrete drilled shafts.

**Item 479 – Adjusting Manholes and Inlets**

Adjust or cap existing manholes, inlets, water meters, boxes, valve boxes, electric boxes, or telephone boxes as shown on the plans.

Furnish and install all labor, materials, and equipment necessary to adjust water valve box and water meter box as shown on plans.

**Item 496 – Removing Structure**

Remove and either dispose of or salvage structures as shown on plans.

**Item 500 – Mobilization**

The Contractor will abide by TxDOT's November 2014 edition of Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges for Item 500.

GENERAL NOTES

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CONTROL: CSJ 0924-06-616, ETC

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**Item 502 – Barricades, Signs, and Traffic Handling**

Prior to beginning construction, the Contractor will submit for approval the routing of traffic and sequence of work.

Additional signs and barricades, placed as directed, will be considered subsidiary to this Item.

All TMA Operators must participate in a TMA workshop to be conducted by the El Paso District Safety Office, on the proper use of TMAs, prior to working on Department Right of Way (ROW). A certificate of completion will be issued to TMA Operators that successfully complete the TMA

workshop. The certificate of completion must be carried by TMA Operators at all times while working on Department right of way.

In accordance with Section 7.2.6.1, designate, in writing, a Contractor Responsible Person (CRP) and a CRP alternate to take full responsibility for the set-up, maintenance, and necessary corrective measures of the traffic control plan. The CRP or CRP alternate must be present at site and implement the initial set up of every traffic control phase/stage, at each location, and/or each call out, for the entire duration of the project.

At the written request of the Engineer, immediately remove the CRP or CRP alternate from the project if, in the opinion of the Engineer, is not competent, not present at initial TCP set-ups, or does not perform in a proper, skillful, or safe manner. These individuals shall not be reinstated without written consent of the Engineer.

CRP and CRP alternate must be trained using approved training. Provide a copy of the certificate of completion to the Engineer for project records. Refer to Table 2 for Department approved Training.

**Table 2  
Contractor Responsible Person and Alternate**

Provider	Course Number	Course Title	Duration	Notes
American Traffic Safety Services Association	TCS	Traffic Control Supervisor	2 days	
National Highway Institute	133112	Design and Operation of Work Zone Traffic Control	1 day	Both courses are required to meet minimum required training.
	133113	Work Zone Traffic Control for Maintenance Operations	1 day	
Texas Engineering Extension Services	133112A	Design and Operation of Work Zone Traffic Control	3 days	
University of Texas Arlington Division for Enterprise Development	WKZ421	Traffic Control Supervisor	16 hours	Contact UTA for training needs.

GENERAL NOTES

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CONTROL: CSJ 0924-06-616, ETC

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All Contractor workers involved with the traffic control implementation and maintenance must participate and complete a Department approved training course. Provide a copy of the certificate of completion to the Engineer for project records. Refer to Table 3 for Department approved training.

**Table 3  
Other Work Zone Personnel**

Provider	Course Number	Course Title	Duration	Notes
American Traffic Safety Services Association	TCT	Traffic Control Technician	1 day	
Texas Engineering Extension Services	HWS002	Work Zone Traffic Control	16 hours	Identical to HWS-410. Counts for 3-year CRP requirement.
National Highway Institute	133116	Maintenance of Traffic for Technicians	5 hours	Web based
National Highway Institute	134109-I	Maintenance Training Series: Basics of Work Zone Traffic Control	1 hour	Free, Web based
University of Texas at Arlington, Division for Enterprise Development	WKZ100	Work Zone Safety: Temporary Traffic Control	4 hours	Note name change. Free, Web based
TxDOT/AGC Joint Development	N/A	Safe Workers Awareness Highway Construction Work Zone Hazards	16 minutes 18 minutes	Videos available through AGC of Texas offices. English & Spanish
AGC America	N/A	Highway Work Zone Safety Training	1 day	
Texas Engineering Extension Service	HWS400	Temporary Traffic Control Worker	4 hours	Contact TEEX, if interested in course
TxDOT/AGC Joint Development	N/A	Work Zone Fundamentals	10 minutes	Videos available through ACT of Texas offices. English & Spanish

Contractor may choose to train workers involved with the traffic control implementation and maintenance with a Contractor developed training in lieu of Department approved training. Contractor developed training must be equivalent to the Department approved training shown in Table 3. Provide the Engineer a copy of the course curriculum for pre-approval, prior to conducting

GENERAL NOTES

VIII

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**CONTROL: CSJ 0924-06-616, ETC**

**COUNTY: EL PASO**

**HIGHWAY: VARIOUS**

the Contractor developed training. Provide the Engineer a copy of the log of attendees after training completion for project records.

Acquire the TCP and TMA Operator's certificates of completion prior to the authorization to begin work. No time suspension will be granted, and no traffic control work will be allowed without certificates of completion.

Existing regulatory signs, route marker auxiliaries, guide signs, and warning signs that must be removed due to widening shall be relocated temporarily and erected on approved supports at locations shown in the plans, or as directed. This work will not be paid for directly but considered subsidiary to this Item.

Notify the school and local officials when major traffic changes are to be made, such as detours. Coordinate with each entity on all traffic changes. Advance notification for the following week's work must be made by 5 P.M. on Wednesdays.

Provide access to intersecting side roads and driveways at all times, unless otherwise directed.

Any change to the sequence of work or TCP, with approval, assumes the responsibility for any additional barricade signs and devices.

Use striping operations to channelize traffic as directed. Maintain shoulders and median areas in a condition capable of serving as emergency paths, as approved. This work will be subsidiary to this Item.

Place and maintain enough additional warning signs, beacons, delineators, and barricades to warn and guide the public of all hazards through the construction zone at all times, and as directed.

Use flashing arrow boards on all tapers for each lane closure.

Some signs, barricades, and channelization devices may not be shown at the precise or measured position. Place the barricades, devices, or signs, with approval, in positions to meet field conditions.

Fill any holes left by barricade or sign supports and restore the area to its original condition.

Use Type A flashing warning lights or delineators to mark open excavation, footings, foundations, or other obstructions near lanes that may be open to traffic, as directed.

For additional information pertaining to channelization, signing, spacing details, and flagging procedures required to regulate, warn, and guide traffic through project, refer to the "Barricade and Construction Standards," BC (1)-21 and to the current *Texas Manual on Uniform Traffic Control Devices (TMUTCD)*.

Remove or cover signs that do not apply to current conditions at the end of each day's work.

**GENERAL NOTES**

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**CONTROL: CSJ 0924-06-616, ETC**

**COUNTY: EL PASO**

**HIGHWAY: VARIOUS**

Repair or replacement of signs damaged by the public, bad weather events or in poor working and/or visible conditions to be subsidiary to this item.

**Safety Contingency:** The contractor Force Account "Law Enforcement" that has been established for this project is intended to be utilized for work zone enhancement, to improve the effectiveness of the TCP that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's

Responsible Peron based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

**Item 506 – Temporary Erosion, Sedimentation, and Environmental Controls**

Place Best Method Practices (BMP's) in locations as designated in the plans or as directed by Engineer.

Place a weatherproof bulletin board containing the Texas Commission on Environmental Quality (TCEQ) required information on the project at a site as directed. Post the following documents:

- (1) TCEQ "TPDES Storm Water Program" Primary & Secondary Construction Site Notice (Both must be filled out and signed);
- (2) TCEQ "Notice of Intent"; and
- (3) TCEQ "TPDES Permit."

Place rain gauge(s) at locations as designated.

Contractor will be responsible for obtaining and cost of CGP, NOI, TPDES and NOT.

The total disturbed area for this project is shown on the plans. The soil disturbed area in this project, all project locations in the Contract, and Contractor Project Specific Locations (PSLs), within one mile of the project limits, for the Contract will further establish the authorization requirements for Storm Water Discharges. The Department will obtain an authorization to discharge storm water from TCEQ for the construction activities shown on the plans. Obtain any required authorization from the TCEQ for any Contractor PSLs for construction support activities on or off right of way. When the total area disturbed for all projects in the Contract and PSLs within one mile of the project limits exceeds five acres, provide a copy of the Contractor Notice of Intent (NOI) PSLs on the right of way to The County of El Paso.

Place Best Method Practices as shown on the plans, or as directed. Maintain and properly place the erosion control measures to prevent storm water pollution into the Waters of the United States, as directed. Within the project limits, keep all inlets functional as long as possible to accept storm water as part of the Storm Water Pollution Prevention Plan (SWP3), as directed.

The sedimentation fences will be paid at the time of their initial placement. Any required replacement will not be a substitute for proper maintenance and be allowed as directed. This work is subsidiary to this Item.

**GENERAL NOTES**

**X**

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CONTROL: CSJ 0924-06-616, ETC

COUNTY: EL PASO

HIGHWAY: VARIOUS

Contractor shall be responsible for the placement of construction entrances/exits throughout the various phases of construction. Actual location will be determined by the contractor based on

field conditions, work location(s), constraints, and needs; with approval of the County of El Paso, or ENGINEER. Construction entrance/exit dimensions shall follow the guidelines outlined within the approved TxDOT standard.

Grading operations will be limited to the catch point of the proposed cross-section.

Preserve any vegetation outside these limits.

**Item 529 – Concrete Curb, Gutter and Combined Curb and Gutter**

Use Type II cement and Class A concrete for these Items, unless otherwise shown on the plans. Wire mesh will not be allowed. Reinforce all concrete using reinforcement conforming to Item 440, "Reinforcement for concrete," as shown on the plans or as directed.

Perform all required grading for proposed concrete curb, gutter, and combined curb and gutter construction as shown on the plans.

After construction, restore the adjacent surface to a condition approved by the Engineer, subsidiary to this Item.

All concrete gutters shall have a minimum thickness of 6-inches.

All backfill material (including but not limited to subgrade and base material) beneath the curb and/or curb and gutter is to be subsidiary to this Item.

**Item 530 – Intersections, Driveways, and Turnouts**

Saw-cut existing roadways and driveways to neat lines when proposed sidewalks intersect. Clean area prior to concrete placement. This work is subsidiary to this Item.

Use Class A concrete for all concrete driveways, unless otherwise shown on the plans.

High early strength concrete for proposed driveways to be available as deemed necessary and as directed.

One (1) density test will be required per driveway.

**Item 531 – Sidewalk**

The wheelchair ramp dimensions and locations shown in the plans may be adjusted, as directed, to match the field conditions. Any such modification will not be paid directly but will be subsidiary to this Item.

Modify the sidewalk expansion joint spacing to 20 ft. spacing where waterlines may exist under the sidewalk subsidiary to this Item.

GENERAL NOTES

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Provide textured finish for wheelchair ramps as directed.

Perform all work under this Item to conform to ADA and TDLR standards.

Perform all requiring grading for proposed sidewalks construction as shown on the plans. All grading, including excavation, fill, and embankment is subsidiary to this Item.

Detectable warning surface for new ramps shall be made from an approved surface applied vitrified polymer composite tile, red in color.

For repairs on the sidewalk, it will be required to be from joint to joint.

Furnish labor, materials, and equipment necessary as shown on plans. Sidewalk reinforcement shall be #3 bars spaced 12 inches on-center each way unless alternate reinforcement methods are selected.

Sidewalk reinforcement materials can be fiber, wire mesh, or rebar and must be approved by the County of El Paso.

**Item 550 – Chain Link Fence**

Furnish, install, remove, repair, or replace chain link fence and gates as shown on plans.

**Item 644 – Small Roadside Sign Assemblies**

Stake all sign locations and receive approval prior to sign placement.

The 2-1/2-inch, Schedule 10 post will meet the following requirements:

- 0.120 in. nominal wall thickness
- Seamless or electric-resistance welded steel tubing or pipe
- Steel will be HSLAS Grade 55 per ASTM A1011 or ASTM A1008

Other steel may be used, if it meets the following:

- 55,000 psi minimum yield strength
- 70,000 psi minimum tensile strength
- 20% minimum elongation in 2 in.
- Wall thickness (uncoated) to be within the range of 0.108 in. to 0.132 in. galvanization per ASTM A123 or ASTM A653 G90

For pre-coated steel tubing (ASTM A653), recoat tube outside diameter weld seam by metalizing with zinc wire per ASTM B833.

Verify all post lengths to ensure the proper sign height. Remove and replace any sign installed incorrectly. This work will be done at no expense to The County of El Paso.

Provide Texas Universal Triangular Slip Base clamp type for all signs as shown on SMD (Slip-1)-08.

GENERAL NOTES

XII



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As directed, some regulatory and guide signs will be relocated before construction begins. Mark and locate each reference marker perpendicular to the road and along the right of way, or as directed, prior to removal. Re-erect reference markers at their original location upon completion of construction.

**Item 666 –Retroreflectorized Pavement Markings**

All new pavement markings and signage shall conform to the most current edition of the “Texas Manual on Uniform Traffic Control Devices” (MUTCD).

All permanent striping within the roadway shall be reflective thermoplastic. All glass beads and pavement markings shall be purchased on the open market.

The quantity for all broken lines as shown on the plans accounts only for the actual installed pavement markings and does not include gap distance between pavement markings.

Use a pilot line for final striping and remove pilot line after all striping is complete. Removal will be in accordance with the methods specified in Item 677, “Eliminating Existing Pavement Markings and Markers,” and is subsidiary to this Item.

In those areas where existing pavement markings are to be covered or removed, field locate and record the existing pavement markings by survey or other approved method by the Engineer as directed. Place final striping on these locations.

Contractor is responsible for conducting reflectivity testing and is subsidiary to this Item.

Contractor shall be responsible for field-locating and recording by survey, the existing stripe alignment so that the final pavement markings may be placed in the exact location as the existing or as directed by the County of El Paso or its designated representative.

**Item 677 – Eliminating Existing Pavement Markings and Markers**

Eliminate existing pavement markings and raised pavement markers (RPMs). Remove existing RPMs as the work progresses or as approved. This work is subsidiary to the various bid Items. Properly dispose materials removed.

**Item 678 – Pavement Surface Preparation for Markings**

Prepare pavement surface areas before placement of pavement markings and raised pavement markers (RPMs). Item 677, “Eliminating Existing Pavement Markings and Markers,” governs removal of existing markings.

Air blasting is required as pavement surface preparation and is subsidiary to this Item.

**Item 9606 – Law Enforcement Personnel**

As approved by the Engineer or at the request of the contractor, provide uniformed off duty police officers and squad cars during lane closures, nighttime work or other situations that indicate a

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COUNTY: EL PASO

HIGHWAY: VARIOUS

need for additional traffic control to protect the traveling public or the construction workforce. Provide documentation such as payroll, log sheets with signatures and badge number, or invoices from the governmental entity providing the officers for reimbursement. Complete the weekly tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month the approved services were provided. Reimbursement will not be made for coordination fees charged by any party.

**Item ELP1 – Fixed Bollards**

Install fixed bollards as shown on the plans.

Contractor must submit shop drawings for approval. Fixed bollards shall consist of 6” galvanized standard steel pipe (painted yellow), with Class A concrete and with a formed domed cap.

**Item ELP2 – Pedestrian Illumination Assemblies**

The location of LED solar pedestrian illumination poles (10-foot height) is diagrammatic only and may be shifted by the Engineer to accommodate Local conditions.

Contractor must submit shop drawings to the Engineer for Pedestrian Illumination approval.

Contractor to contact COEP one week prior to delivery of equipment for storage location.

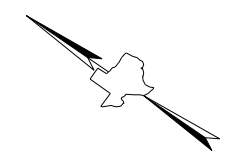
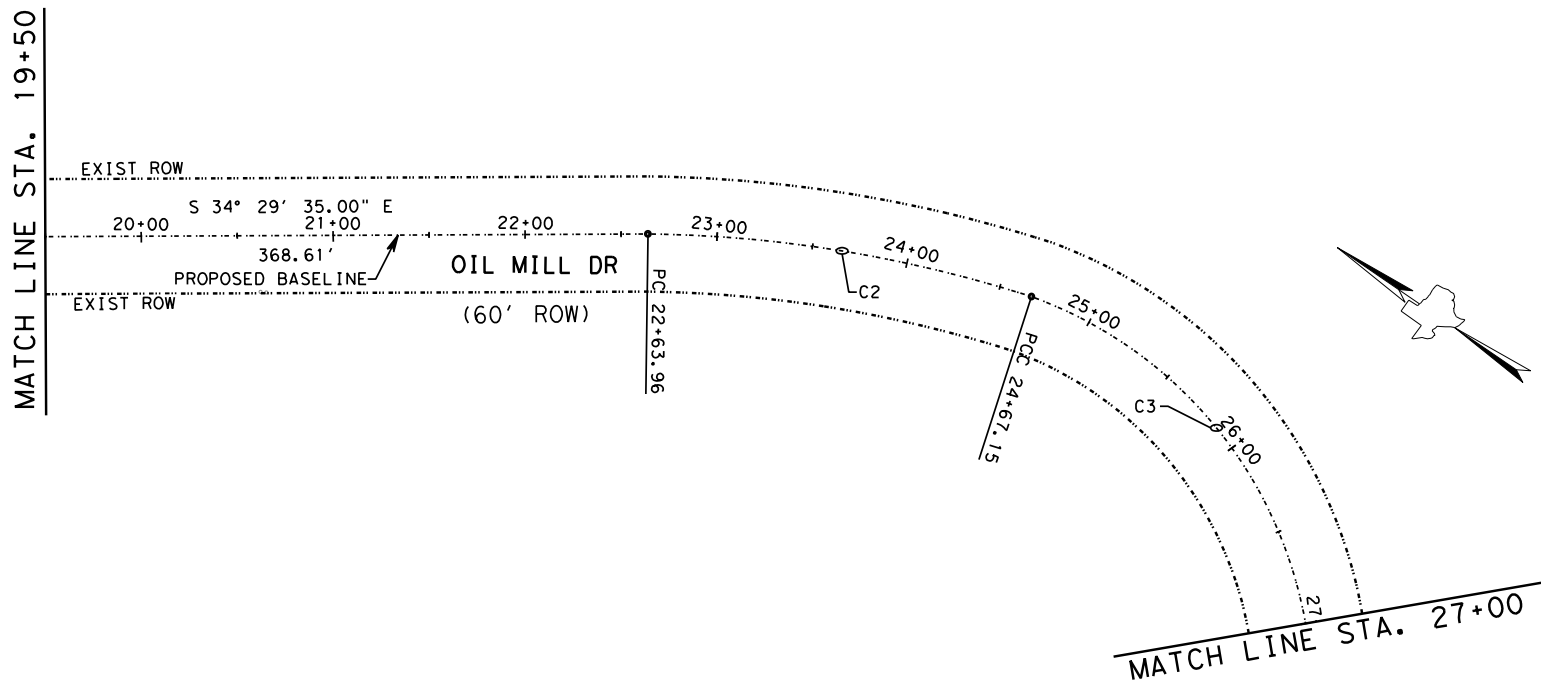
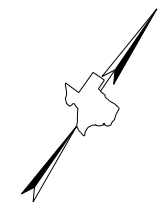
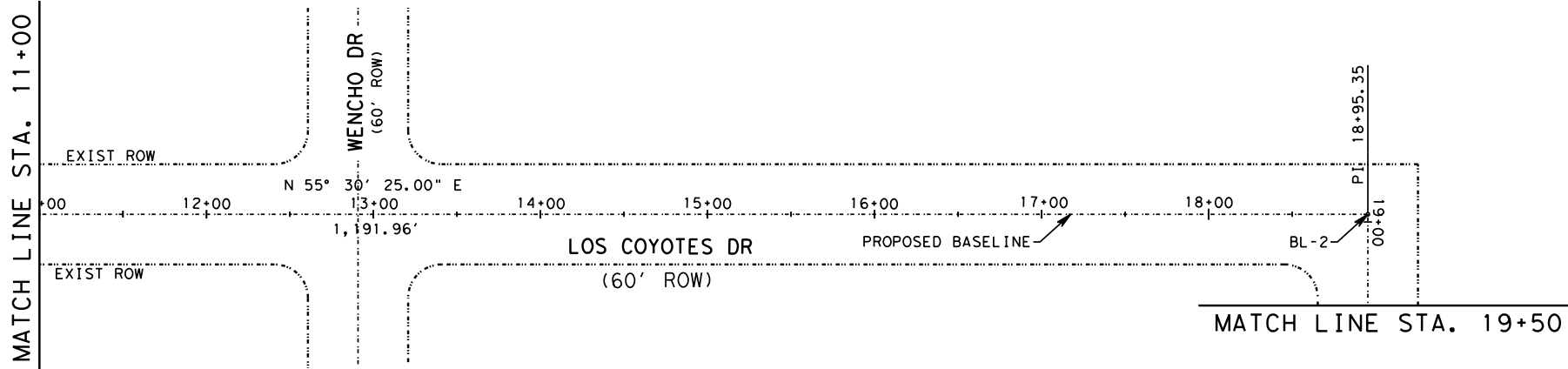
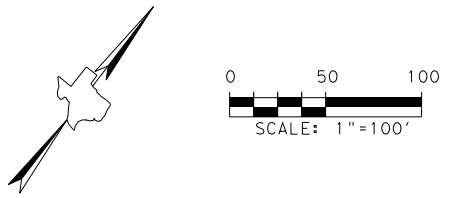
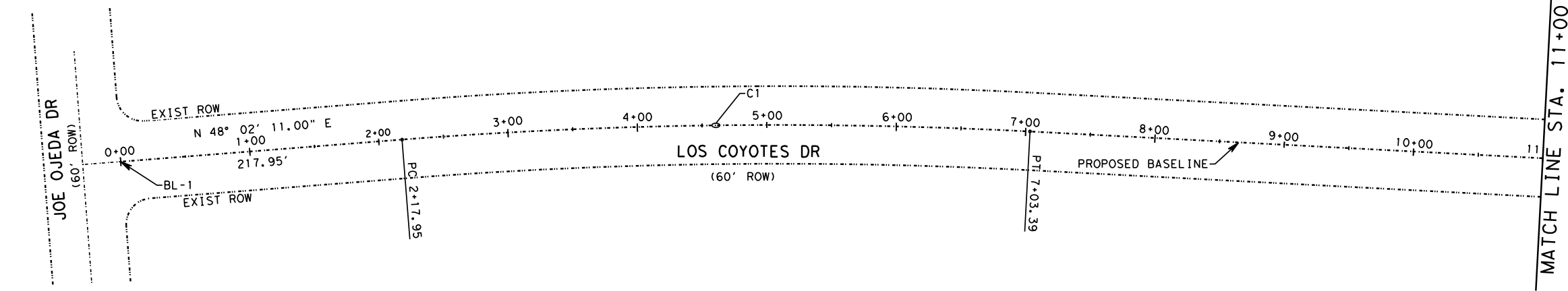
**Submittals.** Submit fabrication drawings and calculations for approval to the project engineer.

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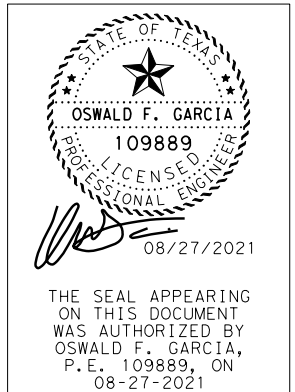
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CURVE DATA					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	3,723.07	485.44	485.09	N51°46'18"E	7°28'14"
C2	681.14	203.20	202.45	N24°58'02"E	17°05'33"
C3	221.30	239.27	227.78	N16°37'53"E	61°56'50"



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PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
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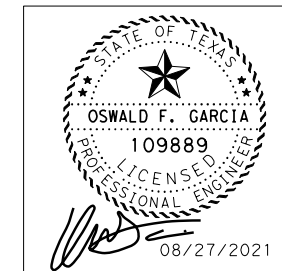
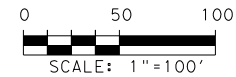
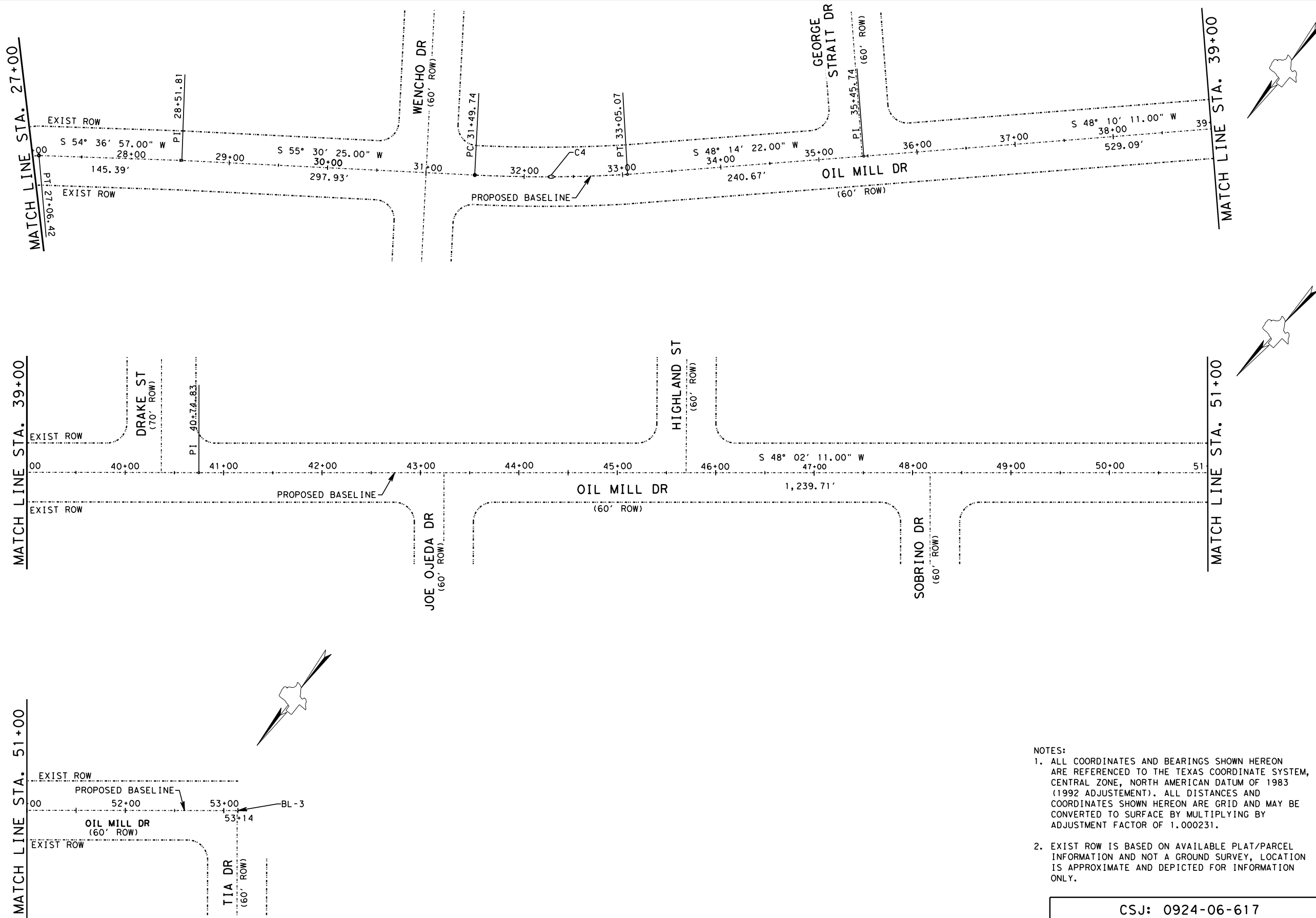


TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
PROJECT LAYOUT/  
HORIZONTAL CONTROL PLAN  
NORTH SIDEWALKS

SHEET 1 OF 3			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	5	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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109889  
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08/27/2021

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NORTH SIDEWALKS

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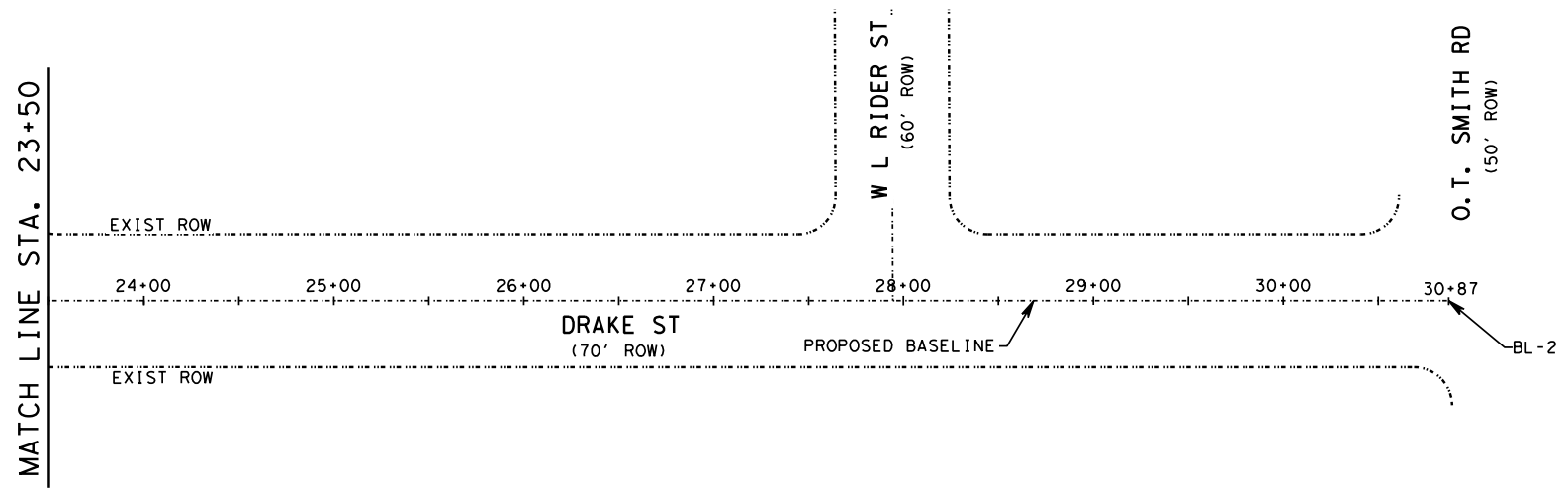
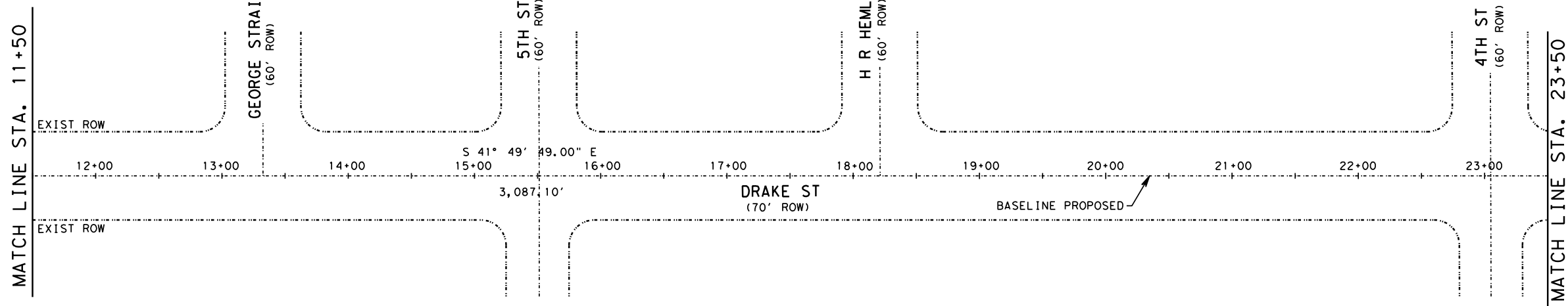
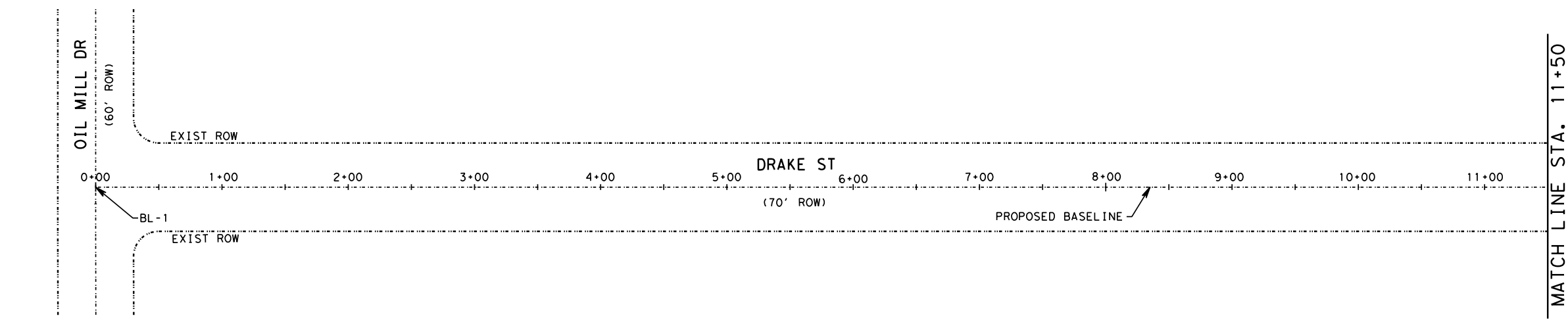
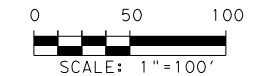
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C4	1,439.61	155.33	155.25	N52°24'57"E	6°10'55"

SHEET 2 OF 3		
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	6
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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HORIZONTAL CONTROL PLAN  
NORTH SIDEWALKS

CSJ: 0924-06-617

HORIZONTAL CONTROL DATA			
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SHEET 3 OF 3

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	7
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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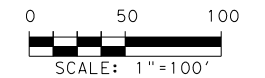
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BL-3	END PROJECT	10535429.406	503128.363

CURVE DATA

CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	905.64	160.17	159.96	N58°22'14"E	10°08'00"
C2	1,027.81	89.66	89.63	N60°56'17"E	4°59'52"

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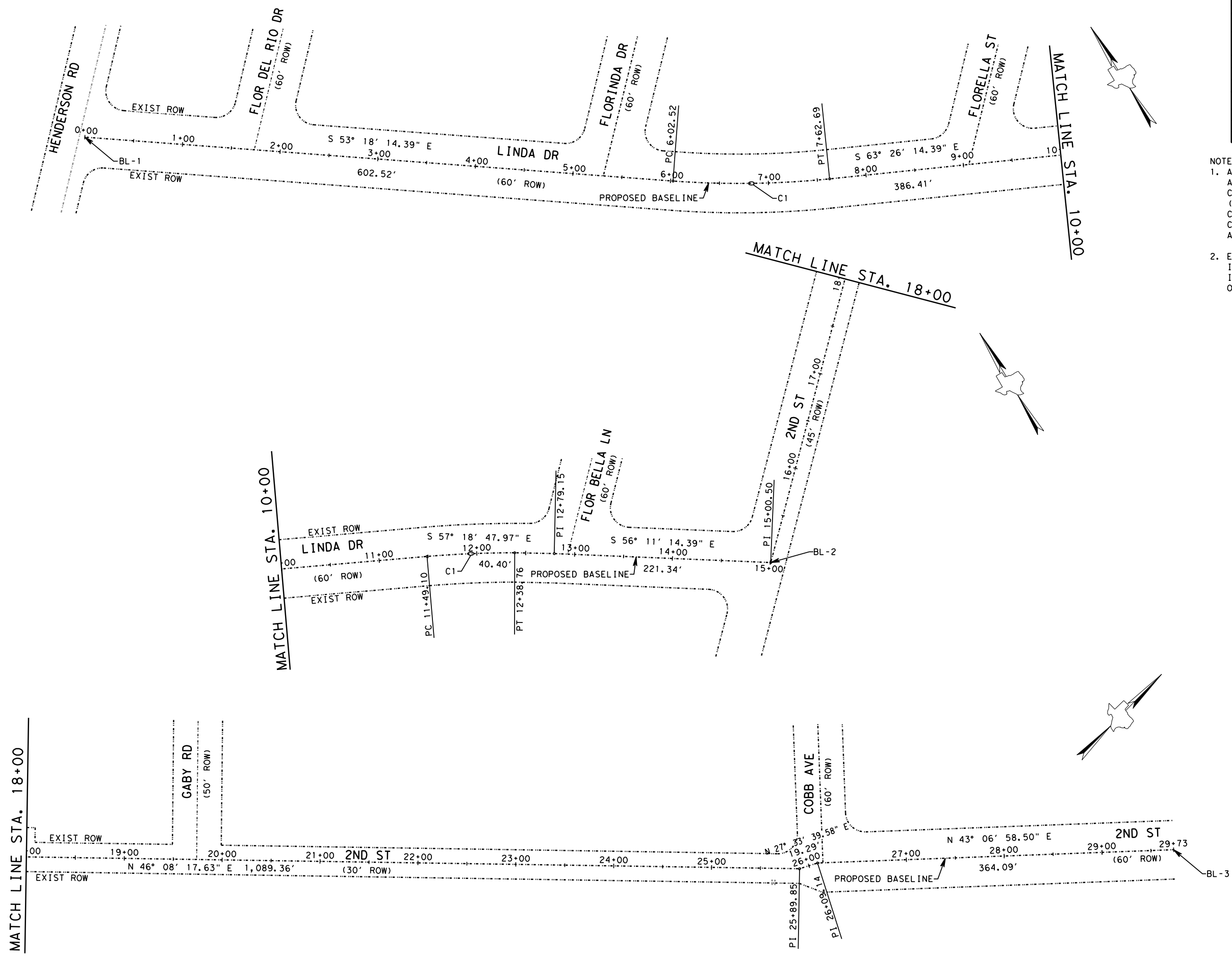
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SOUTH SIDEWALKS

SHEET 1 OF 3		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	8
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
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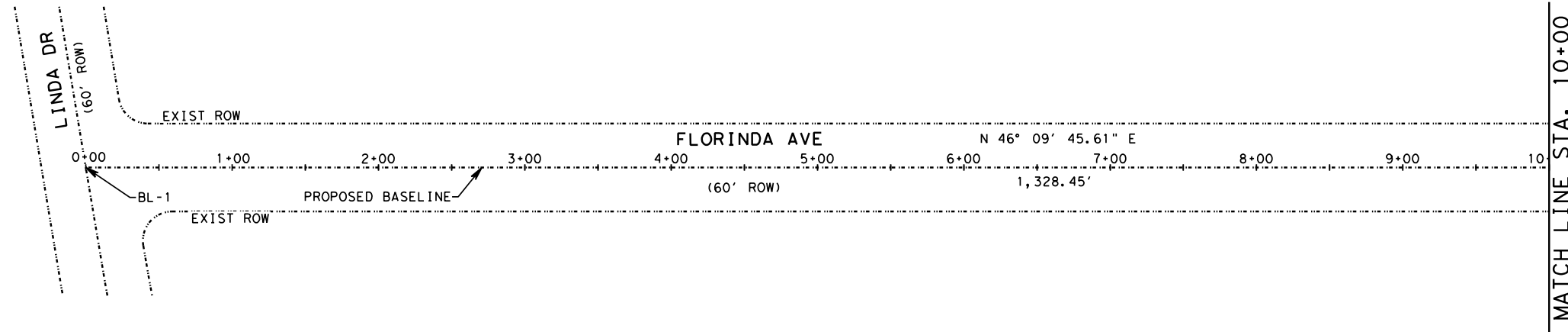
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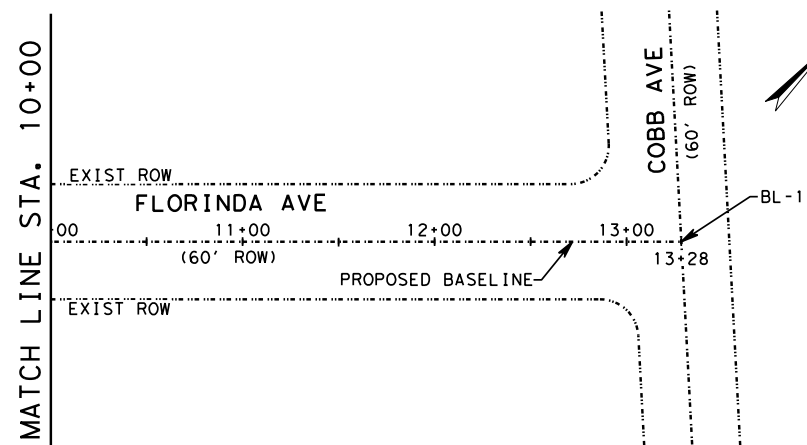
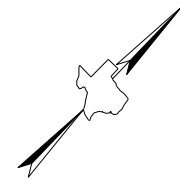
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**NOTES:**

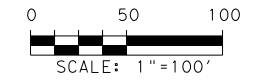
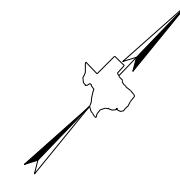
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MATCH LINE STA. 10+00



MATCH LINE STA. 10+00



STATE OF TEXAS  
  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

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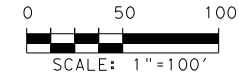
TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
 PROJECT LAYOUT/  
 HORIZONTAL CONTROL PLAN  
 SOUTH SIDEWALKS

SHEET 2 OF 3

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	9
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
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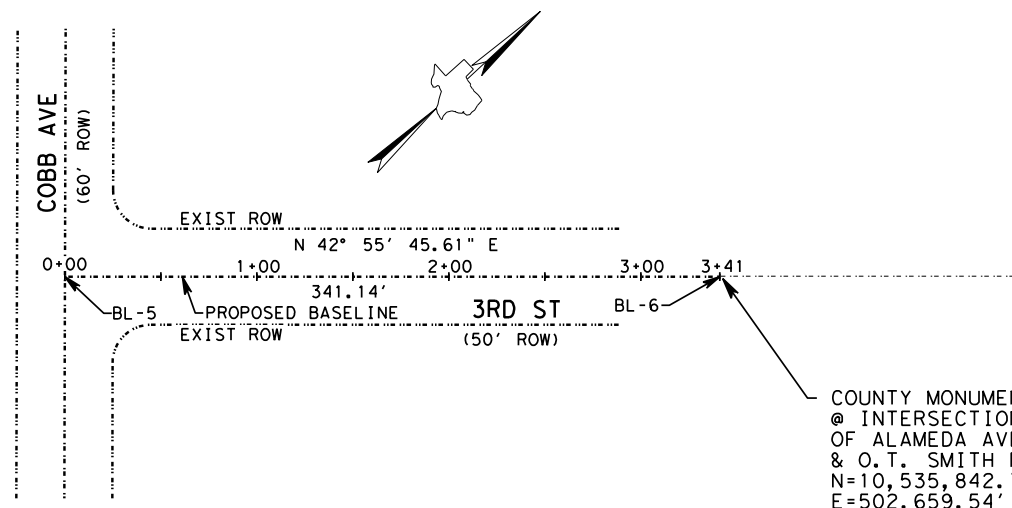
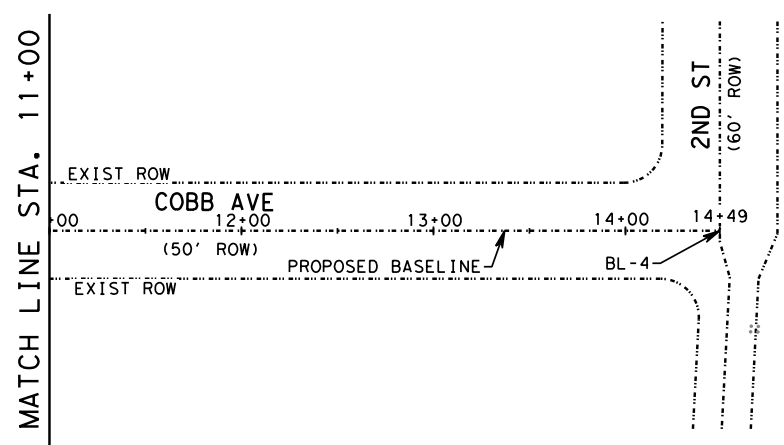
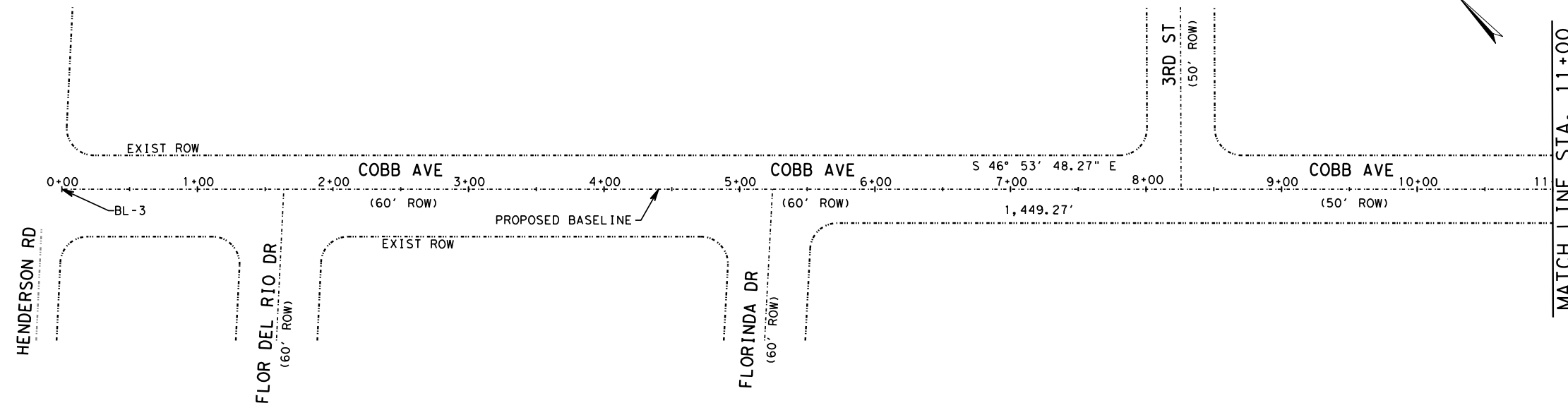
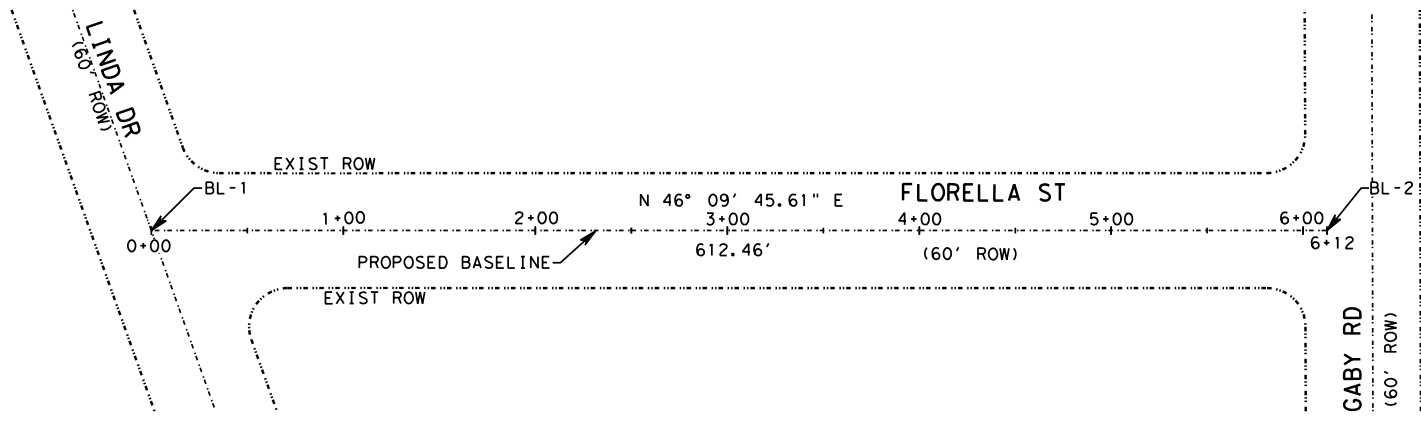


CSJ: 0924-06-616

**HORIZONTAL CONTROL DATA**

CONTROL POINT #	DESCRIPTION	NORTHING	EASTING
BL-1	BEGIN PROJECT	10534689.072	501571.169
BL-2	END PROJECT	10535113.269	502012.940
BL-3	BEGIN PROJECT	10536158.004	501825.178
BL-4	END PROJECT	10535167.670	502883.321
BL-5	BEGIN PROJECT	10535593.707	502428.130
BL-6	END PROJECT	10535843.487	502660.478

- NOTES:
1. ALL COORDINATES AND BEARINGS SHOWN HEREON ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983 (1992 ADJUSTMENT). ALL DISTANCES AND COORDINATES SHOWN HEREON ARE GRID AND MAY BE CONVERTED TO SURFACE BY MULTIPLYING BY ADJUSTMENT FACTOR OF 1.000231.
  2. EXIST ROW IS BASED ON AVAILABLE PLAT/PARCEL INFORMATION AND NOT A GROUND SURVEY, LOCATION IS APPROXIMATE AND DEPICTED FOR INFORMATION ONLY.



COUNTY MONUMENT @ INTERSECTION OF ALAMEDA AVE. & O. T. SMITH RD. N=10,535,842.76' E=502,659.54' ELEV. =3586.52'

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
PROJECT LAYOUT/  
HORIZONTAL CONTROL PLAN  
SOUTH SIDEWALKS

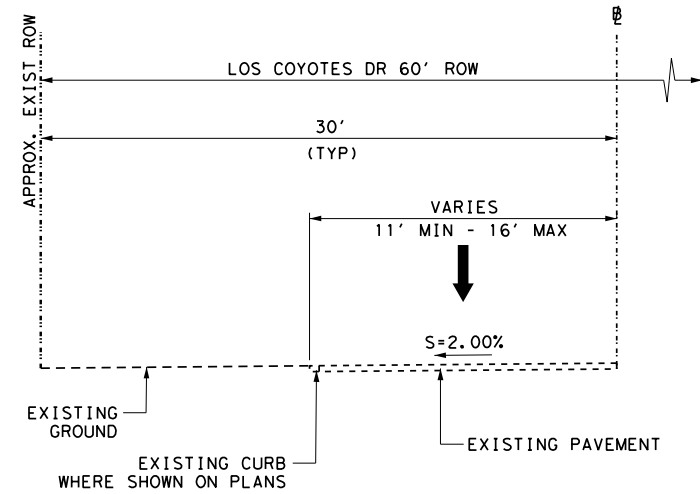
SHEET 3 OF 3

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	10
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616 VARIOUS

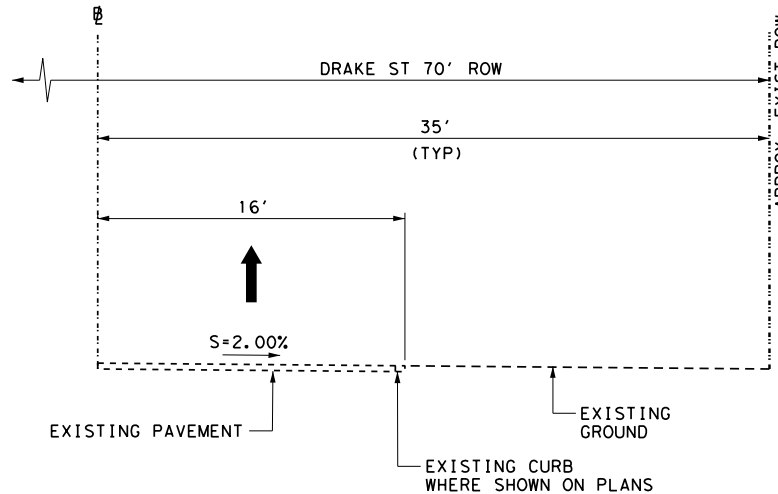
CSJ 0924-06-616

8/27/2021 12:29:18 PM jair

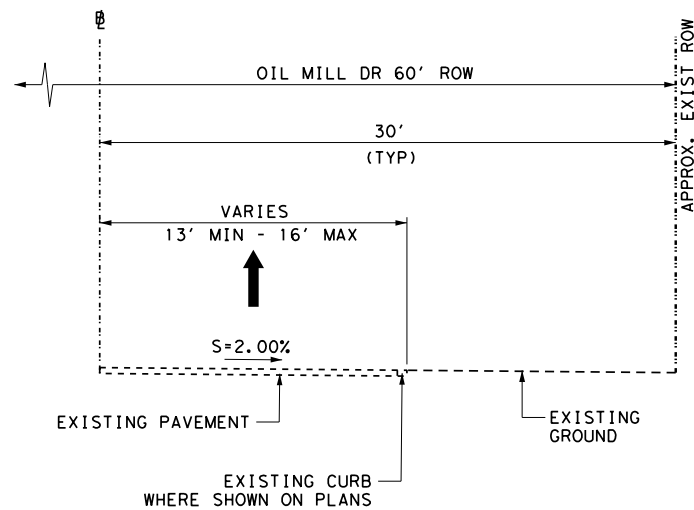
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**LOS COYOTES DR**  
FROM STA. 0+00 TO STA. 18+95



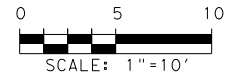
**DRAKE ST**  
FROM STA. 00+00 TO STA. 30+87



**OIL MILL DR**  
FROM STA. 18+95 TO STA. 53+00

**GENERAL NOTES**

1.  $\Phi$  IS THE DESIGNATION FOR THE CENTERLINE OR PROJECT CONTROL BASELINE OF THE ROADWAY.
2. TYPICAL SECTIONS ARE FOR GENERAL INFORMATION AND NOT CONSTRUCTION DETAILS.
3. FOR TYPICAL SECTION STATIONING REFER TO HORIZONTAL DATA SHEETS AND PROJECT LAYOUT SHEETS.
4. EXISTING ROW IS BASED ON AVAILABLE PLAT/PARCEL INFORMATION AND NOT A GROUND SURVEY, LOCATION IS APPROXIMATE AND DEPICTED FOR INFORMATION ONLY.



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**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

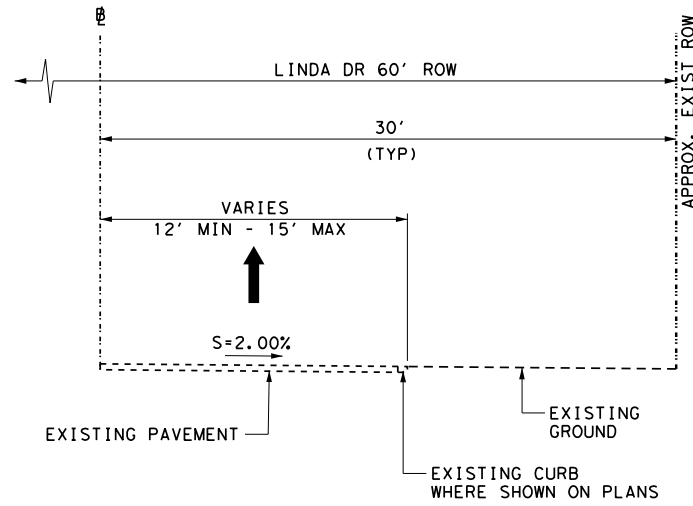
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**ROADWAY**  
EXISTING TYPICAL SECTIONS  
NORTH SIDEWALKS

SHEET 1 OF 1		FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
			STP 2021 (473) TP	11
STATE	DIST.	COUNTY		
TEXAS	ELP	EL PASO		
CONT.	SECT.	JOB	HIGHWAY NO.	
0924	06		VARIOUS	

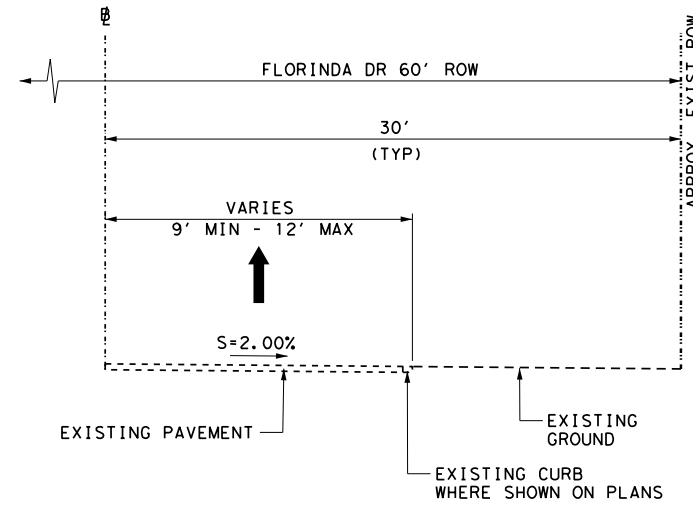
CSJ 0924-06-617

8/27/2021 12:29:18 PM jair

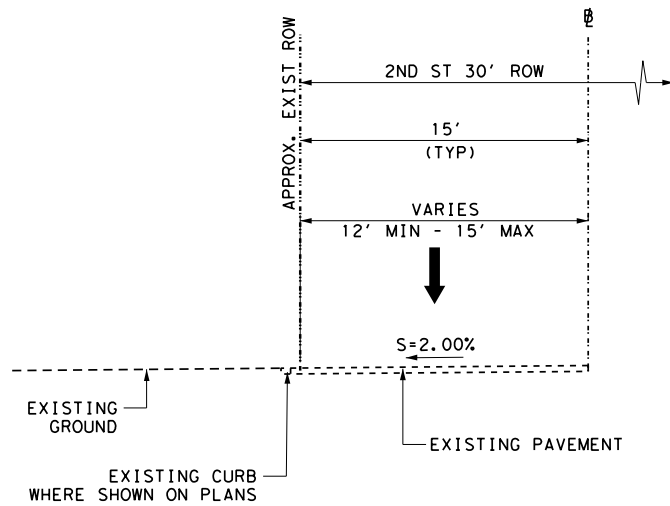
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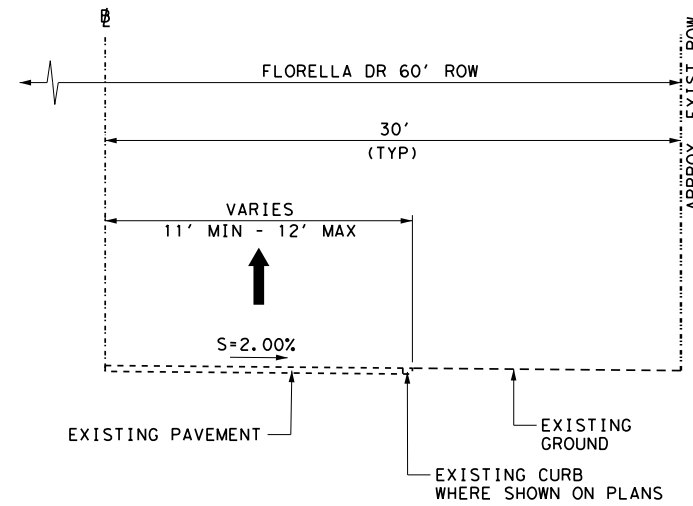
LINDA DR  
FROM STA. 0+00 TO STA. 15+00



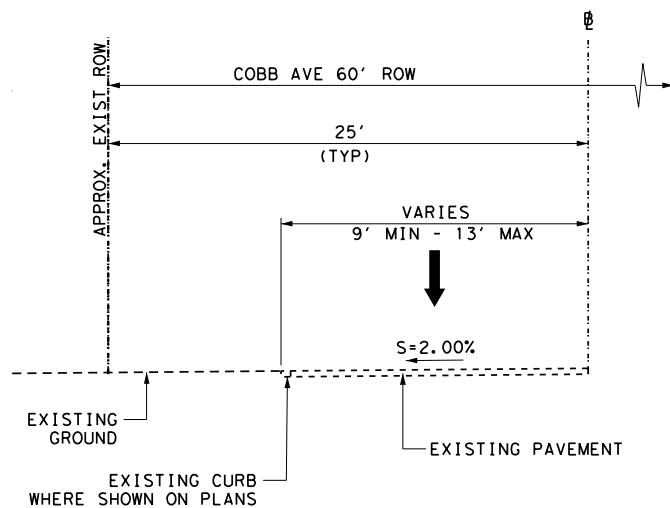
FLORINDA DR  
FROM STA. 0+00 TO STA. 13+28



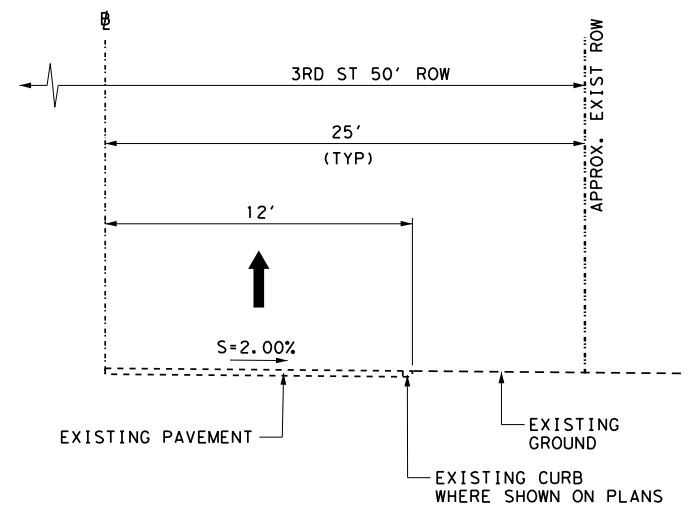
2ND ST  
FROM STA. 15+00 TO STA. 29+50



FLORELLA DR  
FROM STA. 0+00 TO STA. 6+12



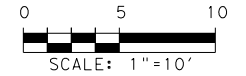
COBB AVE  
FROM STA. 0+00 TO STA. 14+49



3RD ST  
FROM STA. 0+00 TO STA. 3+41

**GENERAL NOTES**

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OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**ROADWAY**  
**EXISTING TYPICAL SECTIONS**  
**SOUTH SIDEWALKS**

SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		12
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616	VARIOUS

CSJ 0924-06-616

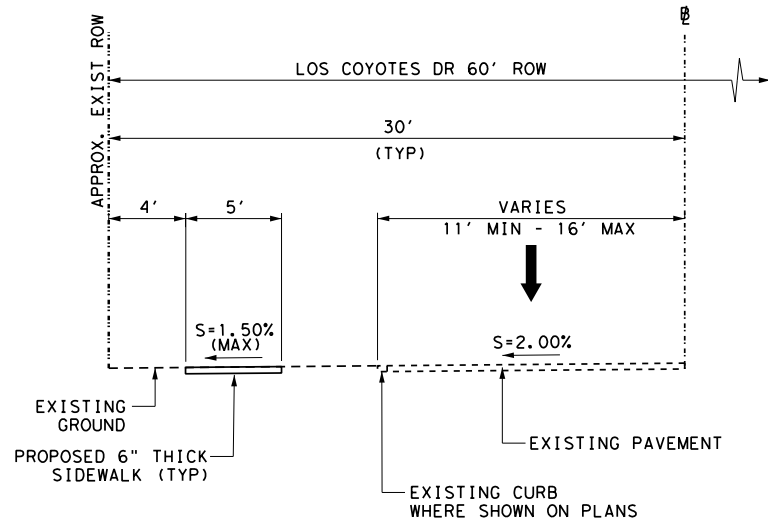


8/27/2021 12:29:18 PM jair

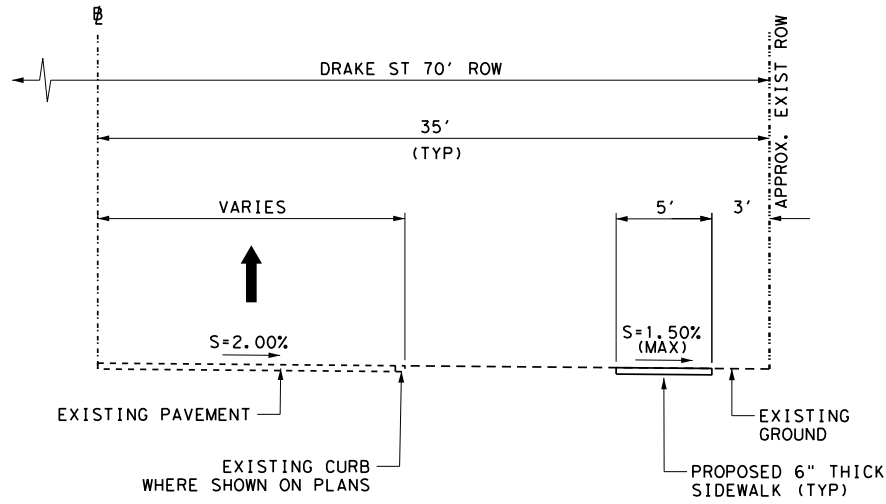
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**GENERAL NOTES**

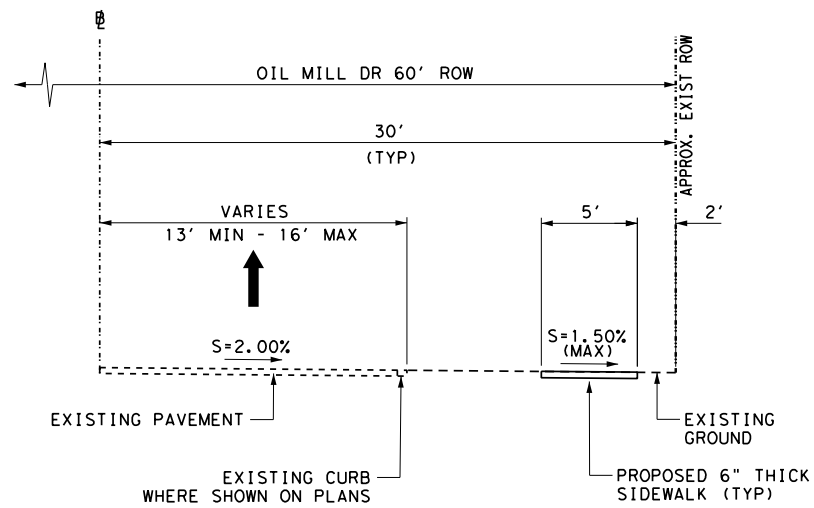
1. THIS IS THE DESIGNATION FOR THE CENTERLINE OR PROJECT CONTROL BASELINE OF THE ROADWAY.
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5. DIMENSION FROM EDGE OF EXISTING PAVEMENT TO EDGE OF THE PROPOSED SIDEWALK IS AS SHOWN ON PLANS.



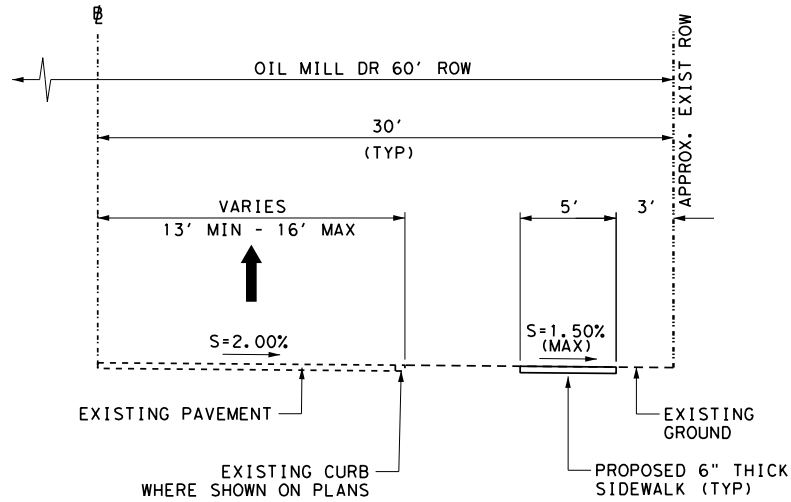
**LOS COYOTES DR**  
FROM STA. 0+00 TO STA. 18+95



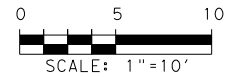
**DRAKE ST**  
FROM STA. 00+00 TO STA. 30+87



**OIL MILL DR**  
FROM STA. 18+95 TO STA. 27+15



**OIL MILL DR**  
FROM STA. 27+15 TO STA. 53+00



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**ROADWAY**  
**PROPOSED TYPICAL SECTIONS NORTH SIDEWALKS**

SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	13
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	617	VARIOUS

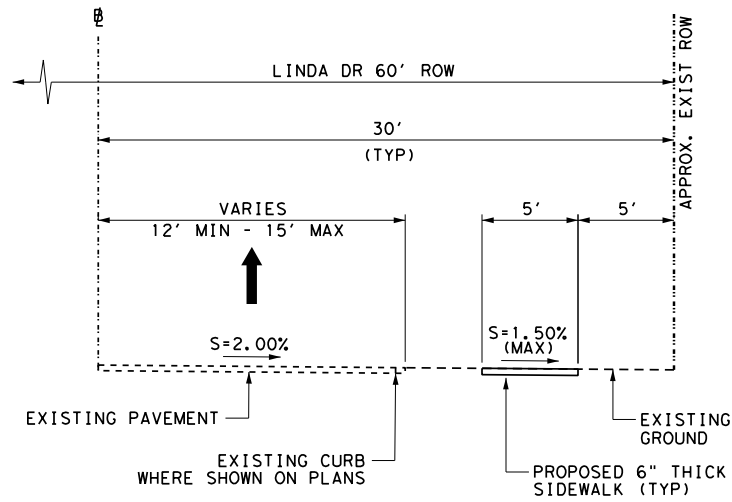
CSJ 0924-06-617

8/27/2021 12:29:18 PM jair

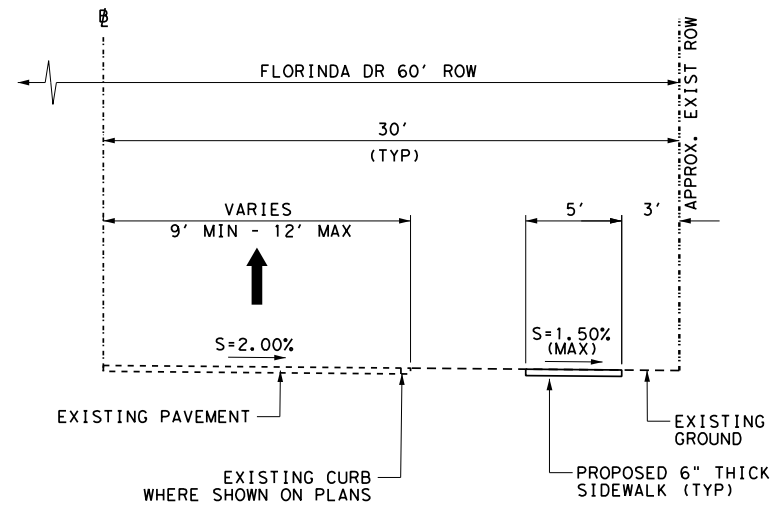
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**GENERAL NOTES**

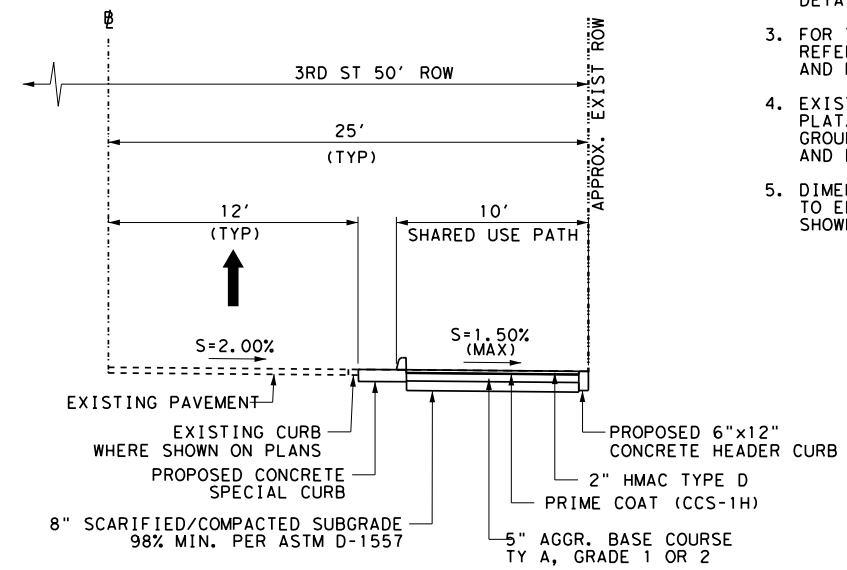
1. THIS THE DESIGNATION FOR THE CENTERLINE OR PROJECT CONTROL BASELINE OF THE ROADWAY.
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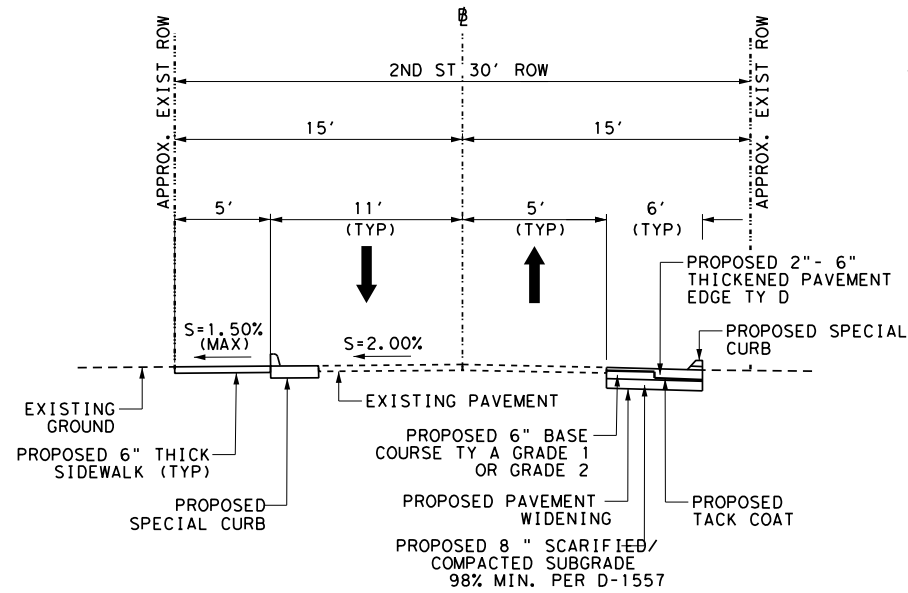
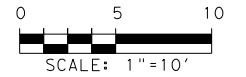
**LINDA DR**  
FROM STA. 0+00 TO STA. 15+00



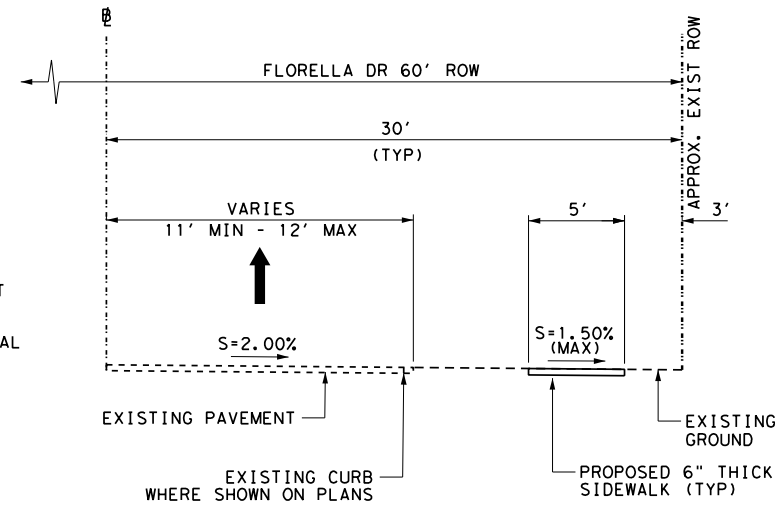
**FLORINDA DR**  
FROM STA. 0+00 TO STA. 13+28



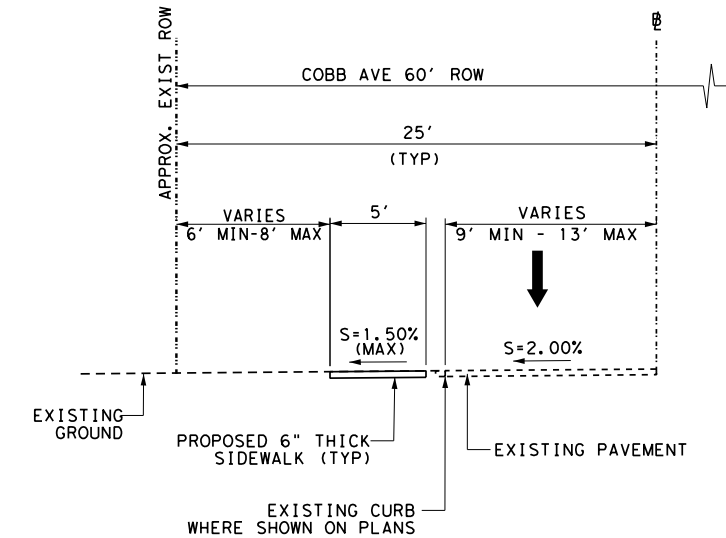
**3RD ST**  
FROM STA. 0+00 TO STA. 3+41



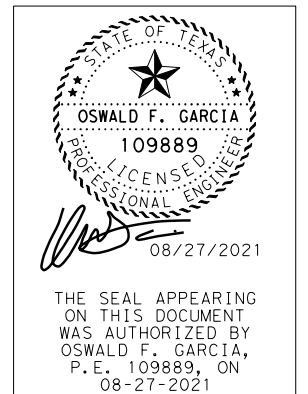
**2ND ST**  
FROM STA. 15+00 TO STA. 29+50



**FLORELLA DR**  
FROM STA. 0+00 TO STA. 6+12



**COBB AVE**  
FROM STA. 0+00 TO STA. 14+49



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TBPE Firm Registration No. F-000554



**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP ROADWAY PROPOSED TYPICAL SECTIONS SOUTH SIDEWALKS**

SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		14
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616	VARIOUS

CSJ 0924-06-616

SUMMARY SHEET FOR CSJ: 0924-06-617

SUMMARY OF REMOVAL ITEMS- BASE BID II

LOCATION	100 6002	104 6015	104 6017	104 6021	104 6067	110 6001	479 6001	479 6010	550 6015	644 6076	677 6005	479 6005	479 6008
	PREPARING ROW	REMOVING CONC (SIDEWALKS)	REMOVING CONC (DRIVEWAYS)	REMOVING CONC (CURB)	REMOVING CONC (SAWCUT)	EXCAVATION (ROADWAY)	ADJUSTING MANHOLES	ADJUSTING MANHOLES (ELECTRIC BOX)	REMOVE AND INSTALL EXISTING GATE	REMOVE SM RD SN SUP&AM	ELIM EXT PAV MRK & MRKS (12")	ADJUST MANHOLE (WATER VALVE BOX)	ADJUST MANHOLE (WATER METER)
	STA	SY	SY	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA
SHEET 1 OF 6 (COYOTES)	8			35		75				1			
SHEET 2 OF 6 (COYOTES)	9		22	105	105	78	1		1				
SHEET 3 OF 6 (COYOTES)	10					89				1	185		
SHEET 4 OF 6 (COYOTES)	9		7	70	70	78			1	2		2	
SHEET 5 OF 6 (COYOTES)	9			70	70	80		2		1			4
SHEET 6 OF 6 (COYOTES)	8			108	108	70				2			
SHEET 1 OF 4 (DRAKE)	7.5			40	40	68							2
SHEET 2 OF 4 (DRAKE)	8		17	35	51	71			1				
SHEET 3 OF 4 (DRAKE)	8			70	70	69				2			
SHEET 4 OF 4 (DRAKE)	7.5	15	5	35	103	70				1			
<b>PROJECT TOTALS</b>	84	15	51	568	617	748	1	2	3	10	185	2	6

SUMMARY OF ROADWAY ITEMS- BASE BID II

LOCATION	529 6008	531 6003	531 6005	531 6010
	CONC CURB & GUTTER (TY II)	CONC SIDEWALKS (6")	CURB RAMPS (TY 2)	CURB RAMPS (TY 7)
	LF	SY	EA	EA
SHEET 1 OF 6 (COYOTES)	35			1
SHEET 2 OF 6 (COYOTES)	73			2
SHEET 3 OF 6 (COYOTES)	29			2
SHEET 4 OF 6 (COYOTES)	72			2
SHEET 5 OF 6 (COYOTES)	72		1	2
SHEET 6 OF 6 (COYOTES)	108			3
SHEET 1 OF 4 (DRAKE)	40			1
SHEET 2 OF 4 (DRAKE)	35			1
SHEET 3 OF 4 (DRAKE)	103			3
SHEET 4 OF 4 (DRAKE)	38		1	1
<b>PROJECT TOTALS</b>	605		2	18

SUMMARY OF EROSION CONTROL ITEMS- BASE BID II

LOCATION	506 6038	506 6039
	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)
	LF	LF
SHEET 1 OF 6 (COYOTES)		
SHEET 2 OF 6 (COYOTES)	402	402
SHEET 3 OF 6 (COYOTES)	970	970
SHEET 4 OF 6 (COYOTES)	419	419
SHEET 5 OF 6 (COYOTES)	56	56
SHEET 6 OF 6 (COYOTES)	118	118
SHEET 1 OF 4 (DRAKE)	652	652
SHEET 2 OF 4 (DRAKE)	232	232
SHEET 3 OF 4 (DRAKE)	26	26
SHEET 4 OF 4 (DRAKE)	116	116
<b>PROJECT TOTALS</b>	2991	2991

SUMMARY OF PAVEMENT MARKING ITEMS- BASE BID II

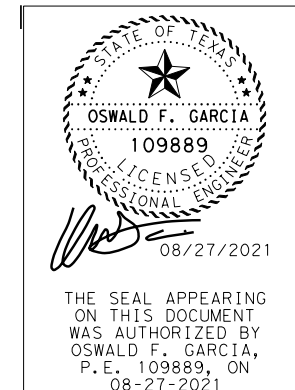
LOCATION	666 6048	666 6230	678 6008
	REFL PAV MRK TY I (W) 24" (SLD (100MIL)	PAVEMENT SEALER 24"	PAV SURF PREP FOR MRK (24")
	LF	LF	LF
SHEET 1 OF 6 (COYOTES)	50	50	50
SHEET 2 OF 6 (COYOTES)	73	73	73
SHEET 3 OF 6 (COYOTES)	59	59	59
SHEET 4 OF 6 (COYOTES)	80	80	80
SHEET 5 OF 6 (COYOTES)	121	121	121
SHEET 6 OF 6 (COYOTES)	131	131	131
SHEET 1 OF 4 (DRAKE)			
SHEET 2 OF 4 (DRAKE)	40	40	40
SHEET 3 OF 4 (DRAKE)	97	97	97
SHEET 4 OF 4 (DRAKE)	51	51	51
<b>PROJECT TOTALS</b>	702	702	702

SUMMARY OF SIGNING ITEMS- BASE BID II

LOCATION	644 6001	644 6004
	IN SM RD SN SUP&AM TY10BWG (1) SA (P)	IN SM RD SN SUP&AM TY10BWG (1) SA (T)
	EA	EA
SHEET 1 OF 6 (COYOTES)	1	2
SHEET 2 OF 6 (COYOTES)	1	1
SHEET 3 OF 6 (COYOTES)	1	
SHEET 4 OF 6 (COYOTES)	2	
SHEET 5 OF 6 (COYOTES)	1	4
SHEET 6 OF 6 (COYOTES)	2	
SHEET 1 OF 4 (DRAKE)		
SHEET 2 OF 4 (DRAKE)		
SHEET 3 OF 4 (DRAKE)	2	
SHEET 4 OF 4 (DRAKE)	1	4
<b>PROJECT TOTALS</b>	11	11

SUMMARY OF WORKZONE TRAFFIC CONTROL ITEMS- BASE BID II

LOCATION	500 6001	502 6001	9606 6053
	MOBILIZATION	BARRICADES, SIGNS AND TRAFFIC HANDLING	LAW ENFORCEMENT PERSONNEL
	LS	MO	DOL
PHASE 1	1	4	1600
<b>PROJECT TOTALS</b>	1	4	1600



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
QUANTITY SUMMARY SHEETS  
NORTH SIDEWALKS

SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
FED. RD. DIV. NO.	STP 2021 (473) TP		15
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

SUMMARY SHEET FOR CSJ: 0924-06-616

SUMMARY OF REMOVAL ITEMS- BASE BID I

LOCATION	100	104	104	104	110	400	496	496	496	550	644	677	479
	6002	6017	6021	6067	6001	6012	6032	6030	6043	6003	6076	6007	6005
	PREPARING ROW	REMOVING CONC (DRIVEWAYS)	REMOVING CONC (CURB)	REMOVING CONC (SAWCUT)	EXCAVATION (ROADWAY)	CUT AND RESTORE PAV (FLEX BASE)	REMOV STR (ROCKWALL)	REMOV STR (BOLLARD)	REMOV STR (SMALL FENCE)	CHAIN LINK FENCE (REMOVE)	REMOVE SM RD SN SUP&AM	ELIM EXT PAV MRK & MRKS (24")	ADJUST MANHOLE (WATER VAVLE BOX)
	STA	SY	LF	LF	CY	SY	EA	EA	EA	LF	EA	LF	EA
SHEET 1 OF 4 (LINDA)	8.5	7.5		26	79								
SHEET 2 OF 4 (LINDA)	9			220	112	38					1		1
SHEET 3 OF 4 (2ND)	9		35	837	171	95		2			4		
SHEET 4 OF 4 (2ND)	3			26					119	119	1		
SHEET 1 OF 2 (FLORINDA)	9				82								
SHEET 2 OF 2 (FLORINDA)	4.5				41						1		
SHEET 1 OF 1 (FLORELLA)	6.5			65	60						1	125	
SHEET 1 OF 2 (COBB)	9			1	82		1				4	192	
SHEET 2 OF 2 (COBB)	5.5	3.5		4	50						1		
SHEET 1 OF 1 (3RD)	3	19		25	59				30		1	200	
<b>PROJECT TOTALS</b>	67	30	35	1178	762	133	1	2	149	119	14	517	1

SUMMARY OF WORKZONE TRAFFIC CONTROL ITEMS- BASE BID I

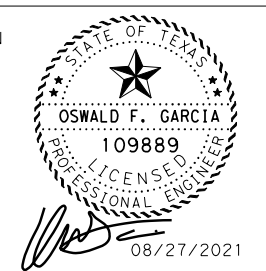
LOCATION	502
	6001
	BARRICADES, SIGNS AND TRAFFIC HANDLING
	MO
PHASE 2	5
<b>PROJECT TOTALS</b>	5

SUMMARY OF ROADWAY ITEMS- BASE BID I

LOCATION	247	251	310	340	340	529	529	529	530	531	531	531	550	550	ELP1	
	6041	6034	6014	6122	6050	6003	6008	6036	6004	6003	6005	6010	6034	6001	6014	6001
	FL BS (CMP IN PLC) (TY GR1-2) (FNAL POS)	REWORK BS MTL (TY C) (8") (ORD COMP)	PRIME COAT (SS-1H)	D-GR HMA (SQ) TY-D PG70-22	D-GR HMA (SQ) TY-C PG70-22	CONC CURB (TY II A)	CONC CURB (TY II)	CONCRETE CURB (SPECIAL)	DRIVEWAYS (CONC)	CONC SIDEWALKS (6")	CURB RAMPS (TY 2)	CURB RAMPS (TY 7)	CURB RAMPS (TY 7) (MOD)	CHAIN LINK FENCE (INSTALL) (6')	CHAIN LINK FENCE GATE (INSTALL) (6'X18')	FIXED BOLLARDS
	CY	SY	GAL	TON	TON	LF	LF	LF	SY	SY	EA	EA	EA	LF	EA	EA
SHEET 1 OF 4 (LINDA)							39			477	1	1				
SHEET 2 OF 4 (LINDA)	33	143	64	16			31	479	24	490	1	2				
SHEET 3 OF 4 (2ND)	92	405	195	46			43	1420	101	402		4				
SHEET 4 OF 4 (2ND)							25			155		3		101	1	
SHEET 1 OF 2 (FLORINDA)							40			492		1				
SHEET 2 OF 2 (FLORINDA)							22			246	1					
SHEET 1 OF 1 (FLORELLA)							100			357		2				
SHEET 1 OF 2 (COBB)							155			490	2	3				
SHEET 2 OF 2 (COBB)							46			297		1				
SHEET 1 OF 1 (3RD)	45	302	144	25	4	281	20	281	38				2			4
<b>PROJECT TOTALS</b>	170	850	403	87	4	281	521	2180	163	3406	5	17	2	101	1	4

SUMMARY OF ILLUMINATION ITEMS- BASE BID I

LOCATION	416	ELP2
	6002	6001
	DRILL SHAFT (24IN)	PED ILLUMINATION ASSEMBLY (10') (SOLAR LED)
	LF	EA
SHEET 1 OF 1 (3RD)	30	5
<b>PROJECT TOTALS</b>	30	5



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SUMMARY OF PAVEMENT MARKING ITEMS- BASE BID I

LOCATION	666	666	666	678	678
	6048	6102	6230	6008	6023
	REFL PAV MRK TY I (W) 24" (SLD) (100MIL)	REFL PAV MRK TY I (W) 36" (YLD TRI) (100MIL)	PAVEMENT SEALER 24"	PAV SURF PREP FOR MRK (24")	PAV SURF PREP FOR MRK (36") (YLD TRI)
	LF	EA	LF	LF	EA
SHEET 1 OF 4 (LINDA)	84		84	84	
SHEET 2 OF 4 (LINDA)	99		99	99	
SHEET 3 OF 4 (2ND)	75		75	75	
SHEET 4 OF 4 (2ND)					
SHEET 1 OF 2 (FLORINDA)					
SHEET 2 OF 2 (FLORINDA)					
SHEET 1 OF 1 (FLORELLA)	61		61	61	
SHEET 1 OF 2 (COBB)	196		196	196	
SHEET 2 OF 2 (COBB)	47		47	47	
SHEET 1 OF 1 (3RD)	320	17	320	320	17
<b>PROJECT TOTALS</b>	882	17	882	882	17

SUMMARY OF EROSION CONTROL ITEMS- BASE BID I

LOCATION	506	506
	6038	6039
	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)
	LF	LF
SHEET 1 OF 4 (LINDA)	200	200
SHEET 2 OF 4 (LINDA)		
SHEET 3 OF 4 (2ND)		
SHEET 4 OF 4 (2ND)	176	176
SHEET 1 OF 2 (FLORINDA)	340	340
SHEET 2 OF 2 (FLORINDA)		
SHEET 1 OF 1 (FLORELLA)		
SHEET 1 OF 2 (COBB)		
SHEET 2 OF 2 (COBB)		
SHEET 1 OF 1 (3RD)		
<b>PROJECT TOTALS</b>	716	716

SUMMARY OF SIGNING ITEMS- BASE BID I

LOCATION	644	644
	6001	6004
	IN SM RD SN SUP&AM TY10BWG (1) SA (P)	IN SM RD SN SUP&AM TY10BWG (1) SA (T)
	EA	EA
SHEET 1 OF 4 (LINDA)		5
SHEET 2 OF 4 (LINDA)	1	3
SHEET 3 OF 4 (2ND)	3	
SHEET 4 OF 4 (2ND)		1
SHEET 1 OF 2 (FLORINDA)		
SHEET 2 OF 2 (FLORINDA)		
SHEET 1 OF 1 (FLORELLA)	1	3
SHEET 1 OF 2 (COBB)	7	4
SHEET 2 OF 2 (COBB)	1	
SHEET 1 OF 1 (3RD)	3	3
<b>PROJECT TOTALS</b>	16	19

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP QUANTITY SUMMARY SHEETS SOUTH SIDEWALKS

SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	16	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506.

List MS4 Operator(s) that may receive discharges from this project. They may need to be notified prior to construction activities.

1. Texas Department of Transportation
- No Action Required       Required Action

Action No.

- Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
- Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
- Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
- When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the Engineer.

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

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

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

- No Permit Required
- Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)
- Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)
- Individual 404 Permit Required
- Other Nationwide Permit Required: NWP# \_\_\_\_\_

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

- 
- 

The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

**Best Management Practices:**

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

**III. CULTURAL RESOURCES**

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

- No Action Required       Required Action

**IV. VEGETATION RESOURCES**

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

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

- No Action Required       Required Action

Best management practices (BMPs) would be in place to further reduce potential impacts. These BMPs include:

**Migratory Birds:**

- Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season. (February 1 to November 1)
- Avoid the removal of unoccupied, inactive nests, as practicable.
- Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
- Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
- Prior to construction, perform daytime surveys for nests, including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be removed.

**Terrestrial Reptiles:**

- Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible because of site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
- For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.
- Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
- Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
- Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
- In addition to general Terrestrial Reptile BMPs, contractors will be advised to avoid harvester ant mounds in the selection of PSLs where feasible for the Texas horned lizard.

**Vegetation:**

- Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs should be avoided to the greatest extent practicable. Wherever practicable, impacted vegetation should be replaced with in-kind on-site replacement/restoration of native vegetation.
- To minimize adverse effects, activities should be planned to preserve mature trees, particularly acorn, nut, or berry producing varieties.
- It is strongly recommended that trees greater than 12 inches in dbh that are removed be replaced. TPWD's experience indicates that for ecologically effective replacement, a ratio of three trees for every one lost should be provided to the extent practicable either on-site or off-site. Trees less than 12 inches dbh should be replaced at a one to one ratio.
- Replacement trees should be of equal or better wildlife quality than those removed and be regionally adapted, native species.
- When trees are planted, a maintenance plan that ensures at least an 85 percent survival rate after three years should be developed for the replacement trees.
- The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.
- The use of seed mix that contains seeds from only locally adapted native species is recommended.
- Avoid vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.

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

**VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES**

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used.

Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act.

Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:

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

Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

- Yes       No

If "No", then no further action is required.

If "Yes", then TxDOT is responsible for completing asbestos assessment/inspection.

Are the results of the asbestos inspection positive (is asbestos present)?

- Yes       No

If "Yes", then TxDOT must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

- No Action Required       Required Action

**VII. OTHER ENVIRONMENTAL ISSUES**

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

- No Action Required       Required Action

**LIST OF ABBREVIATIONS**

BMP: Best Management Practice	SPCC: Spill Prevention Control and Countermeasure
CGP: Construction General Permit	SW3P: Storm Water Pollution Prevention Plan
DSHS: Texas Department of State Health Services	PCN: Pre-Construction Notification
FHWA: Federal Highway Administration	PSL: Project Specific Location
MOA: Memorandum of Agreement	TCEQ: Texas Commission on Environmental Quality
MOU: Memorandum of Understanding	TPDES: Texas Pollutant Discharge Elimination System
MSA: Municipal Separate Stormwater Sewer System	TPWD: Texas Parks and Wildlife Department
MBTA: Migratory Bird Treaty Act	TxDOT: Texas Department of Transportation
NOT: Notice of Termination	T&E: Threatened and Endangered Species
NWP: Nationwide Permit	USACE: U.S. Army Corps of Engineers
NOI: Notice of Intent	USFWS: U.S. Fish and Wildlife Service

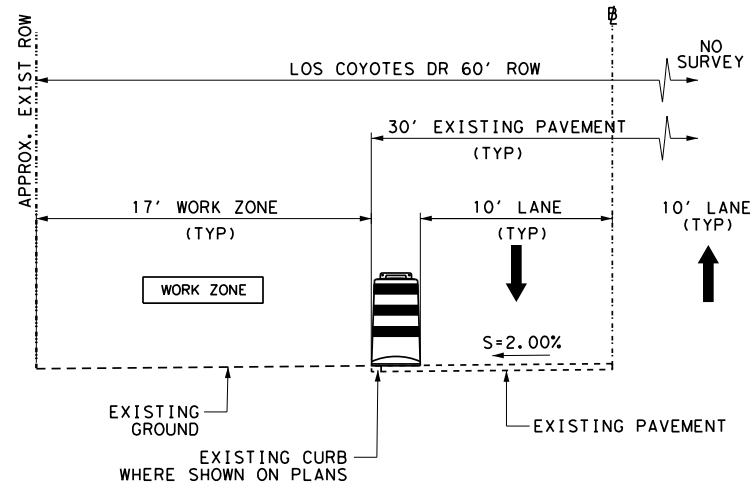


ENVIRONMENTAL PERMITS,  
ISSUES AND COMMITMENTS  
  
EPIC

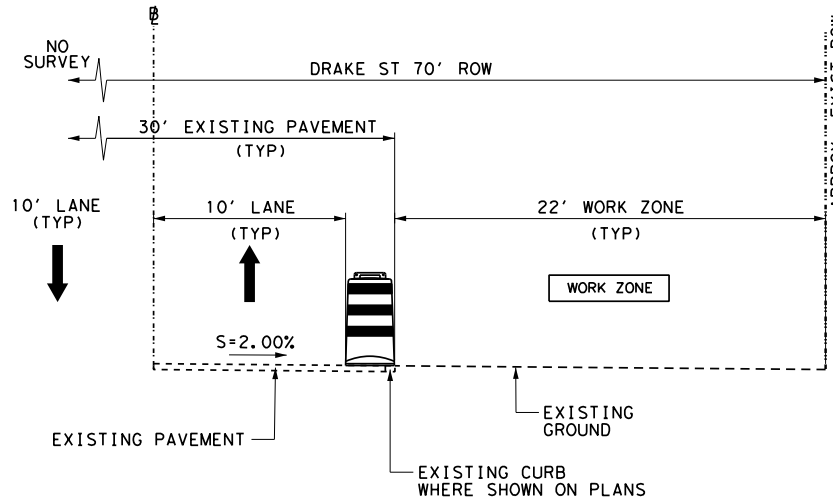
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© TxDOT February 2015	CONT	SECT	JOB	HIGHWAY
12-12-2011 (DS) REVISIONS	0924	06	616, ETC	VARIOUS
05-07-14 ADDED NOTE SECTION IV.	DIST	COUNTY	SHEET NO.	
01-23-2015 SECTION I (CHANGED ITEM 1122 TO ITEM 506, ADDED GRASSY SWALES.	ELP	EL PASO	17	

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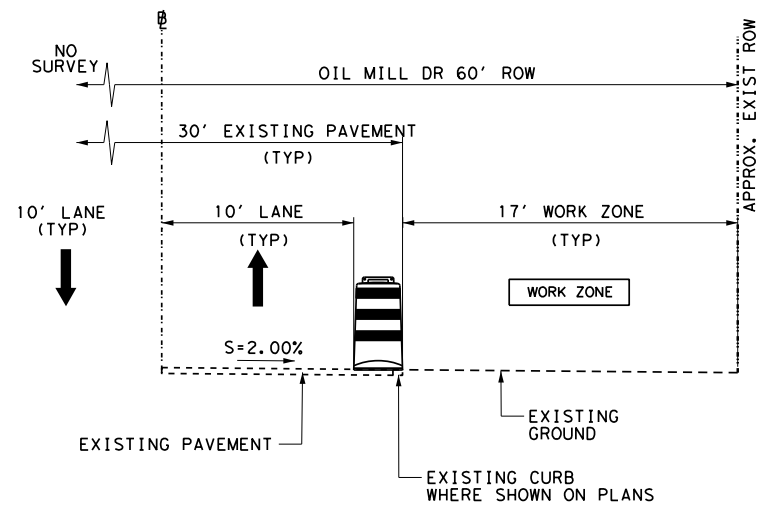
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LOS COYOTES DR  
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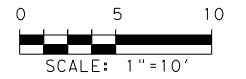
DRAKE ST  
FROM STA. 00+00 TO STA. 30+87



OIL MILL DR  
FROM STA. 18+95 TO STA. 53+00

**GENERAL NOTES**

1. TCP STANDARDS AND TMTCD SHALL BE USED TO ACCOMPLISH THIS WORK OR AS DIRECTED.
2. "END ROAD WORK" SIGNS SHALL BE LOCATED AT OR NEAR THE PROJECT LIMITS AND SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT EVEN THOUGH CERTAIN OTHER ADVANCED WARNING SIGNS WILL BE REPOSITIONED, WITHIN THE PROJECT LIMITS AS CONSTRUCTION NECESSITATES, OR AS DIRECTED.
3. TYPICAL SECTIONS ARE FOR GENERAL INFORMATION AND NOT CONSTRUCTION DETAILS.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
TYPICAL SECTIONS  
NORTH

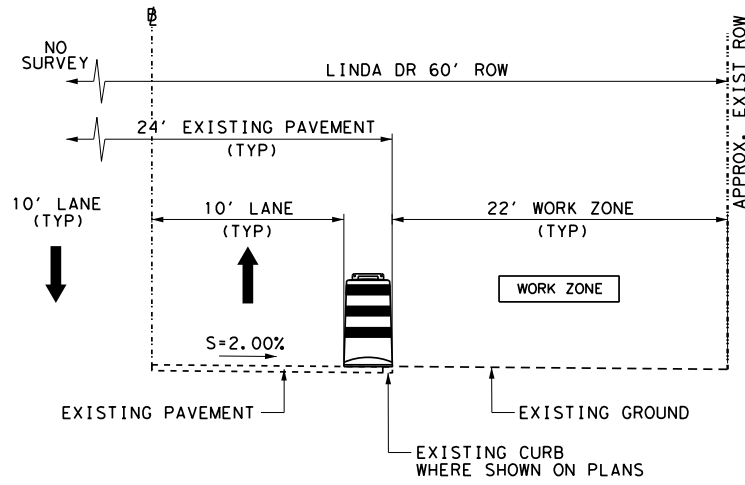
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		STP 2021 (473) TP	18
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

CSJ 0924-06-617

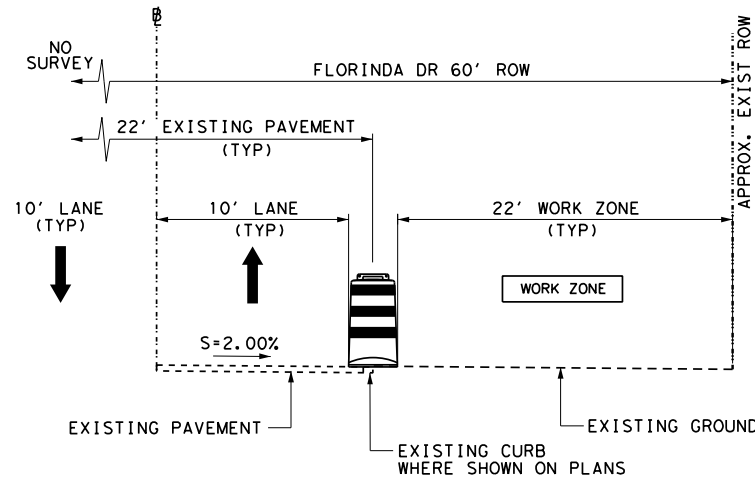
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**GENERAL NOTES**

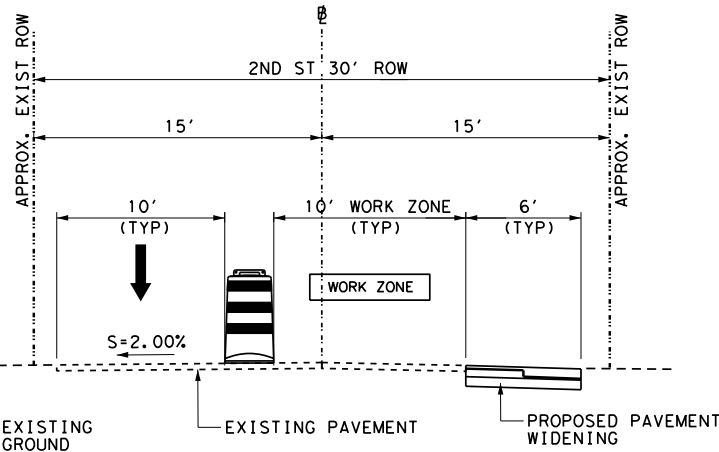
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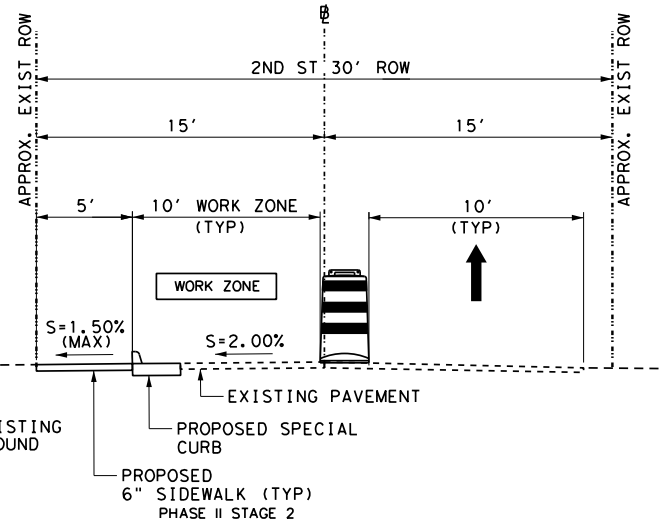
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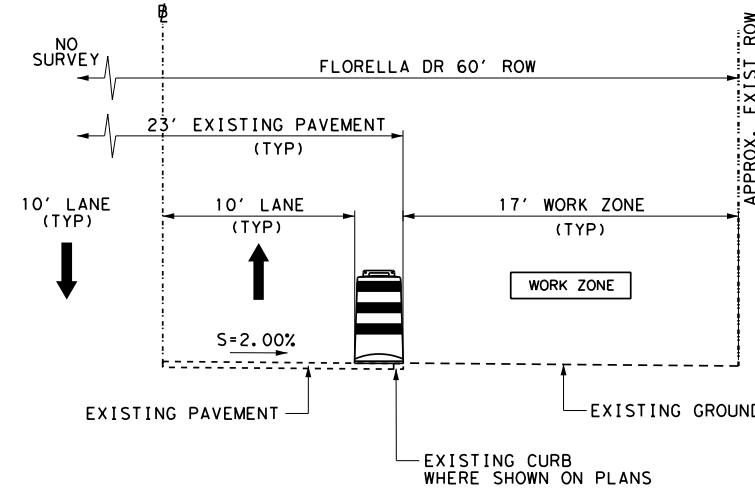
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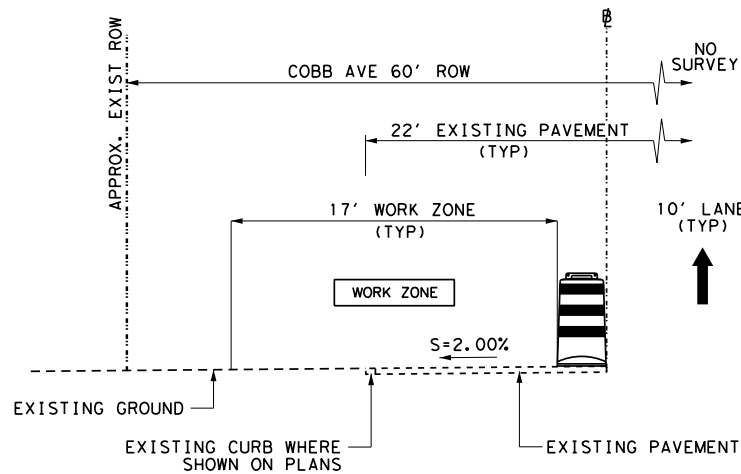
PHASE II STAGE 1  
 2ND ST  
 FROM STA. 15+00 TO STA. 29+50



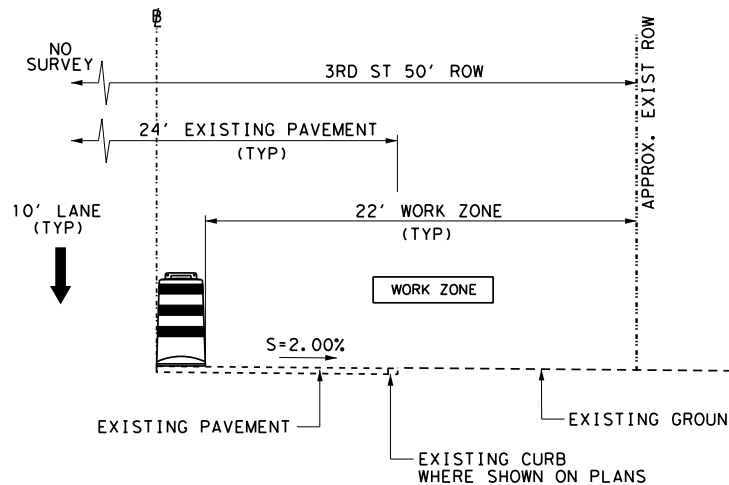
2ND ST  
 FROM STA. 15+00 TO STA. 29+50



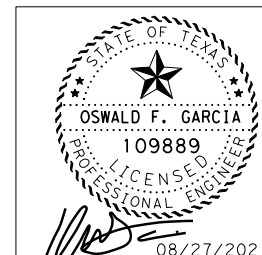
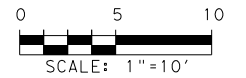
FLORELLA DR  
 FROM STA. 0+00 TO STA. 6+12



COBB AVE  
 FROM STA. 0+00 TO STA. 14+49



3RD ST  
 FROM STA. 0+00 TO STA. 3+41



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CSJ 0924-06-616

CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

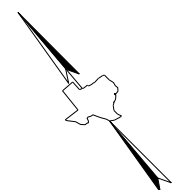
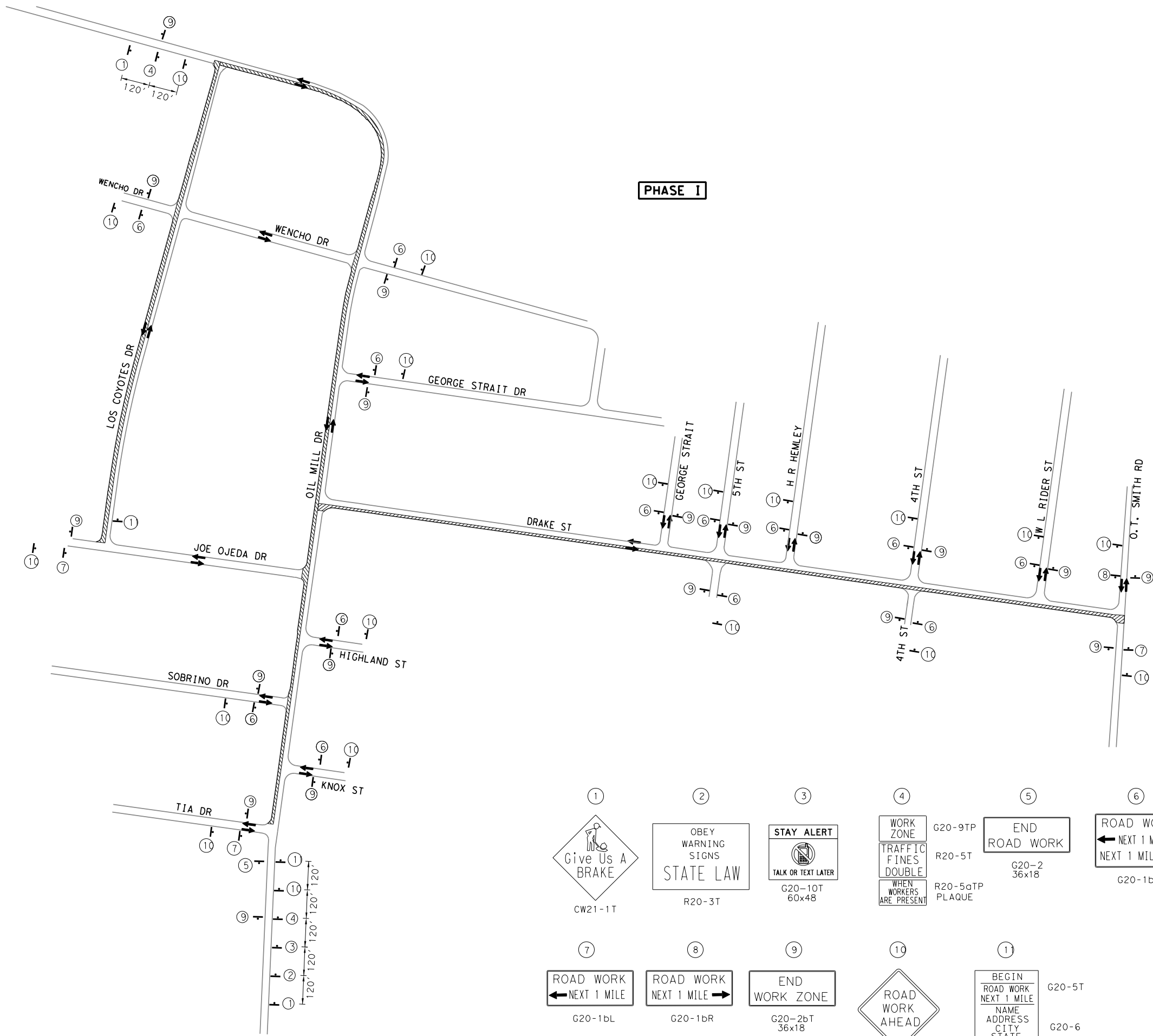
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 TRAFFIC CONTROL PLAN  
 TYPICAL SECTIONS SOUTH

SHEET 1 OF 1  
 FEDERAL AID PROJECT NO. STP 2021 (473) TP  
 SHEET NO. 19

STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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**LEGEND**

- WORK ZONE
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN

- GENERAL NOTES:**
- REFER TO SHEET BC AND TCP STANDARDS FOR TYPICAL WARNING SIGNS SIZE AND SPACINGS.
  - SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
  - PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
  - REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
  - REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
  - NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.

OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

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EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN LINE DIAGRAM-NORTH (PHASE I)**

①  CW21-1T	②  R20-3T	③  G20-10T 60x48	④  G20-9TP R20-5T R20-5aTP PLAQUE	⑤  G20-2 36x18	⑥  G20-1bT
⑦  G20-1bL	⑧  G20-1bR	⑨  G20-2bT 36x18	⑩  CW20-1D	⑪  G20-5T G20-6	



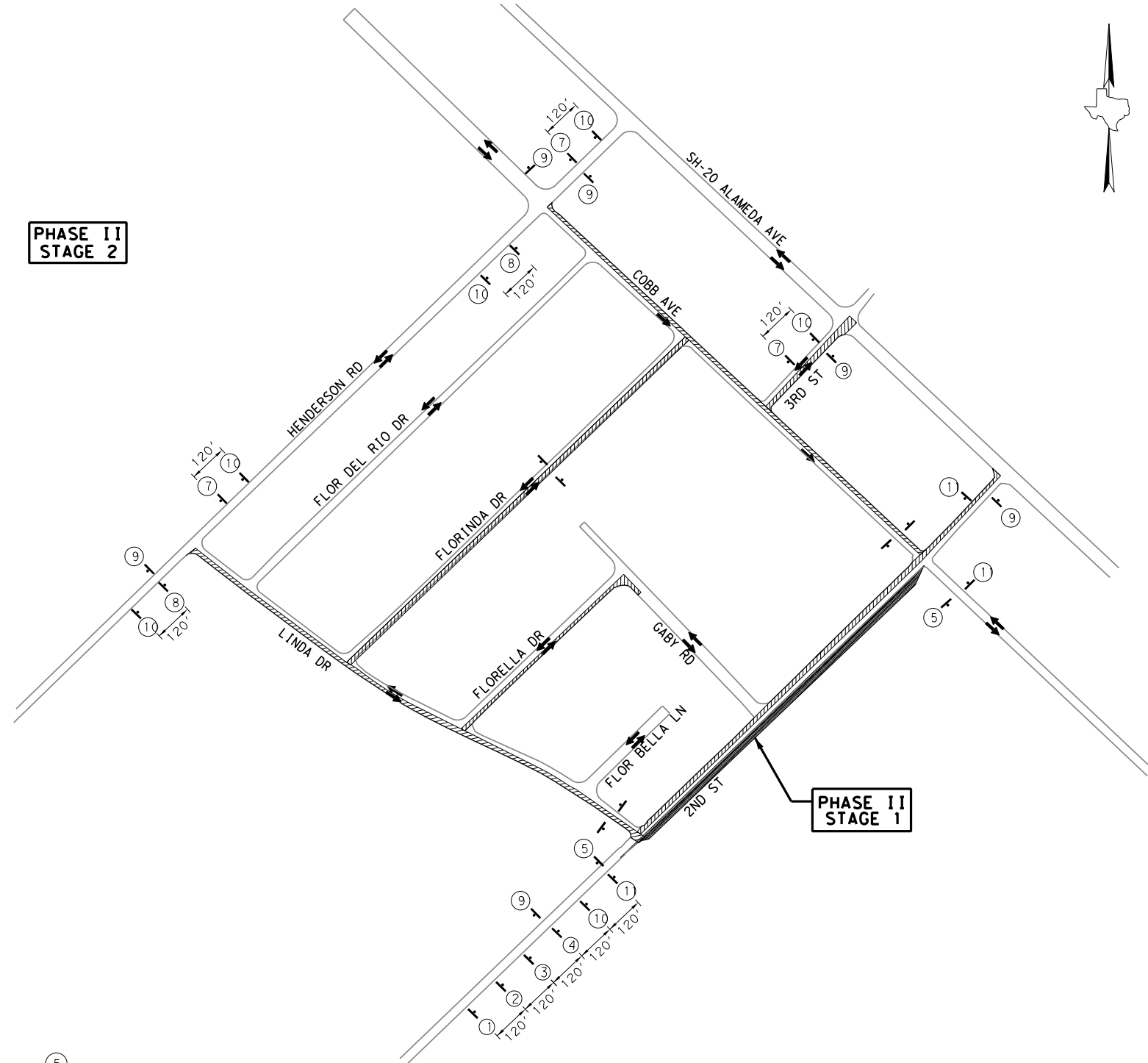
CSJ 0924-06-617

SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		20
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



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F:\19136\19136 - (SOUTH)\_TCP\_Line\_Diagram.dgn

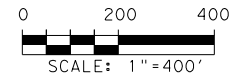


**LEGEND**

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

**GENERAL NOTES:**

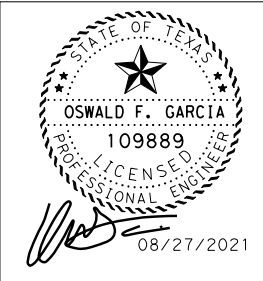
1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

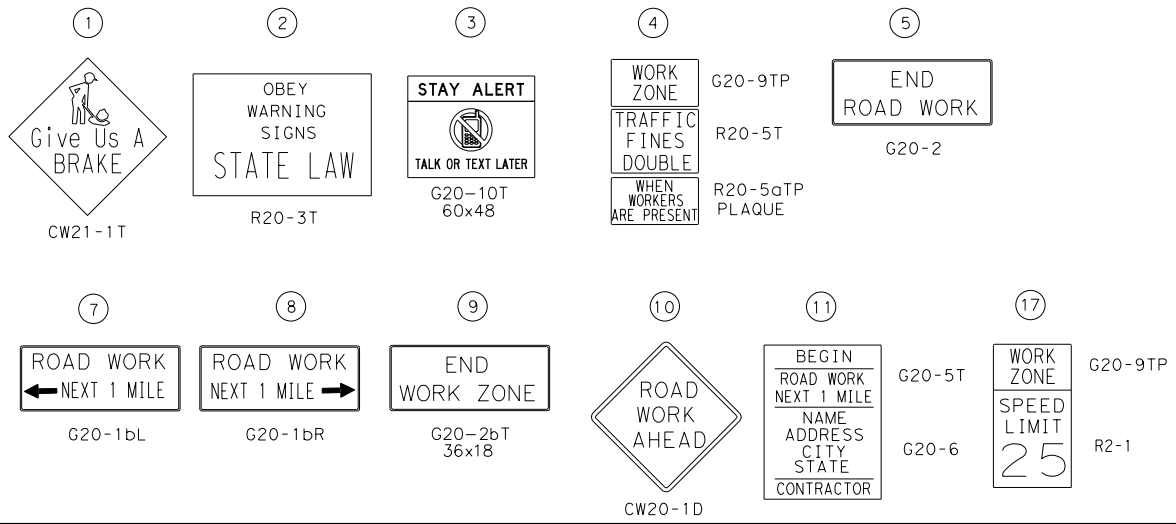


TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
 LINE DIAGRAM-SOUTH  
 (PHASE II)

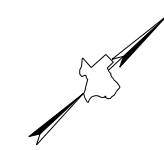
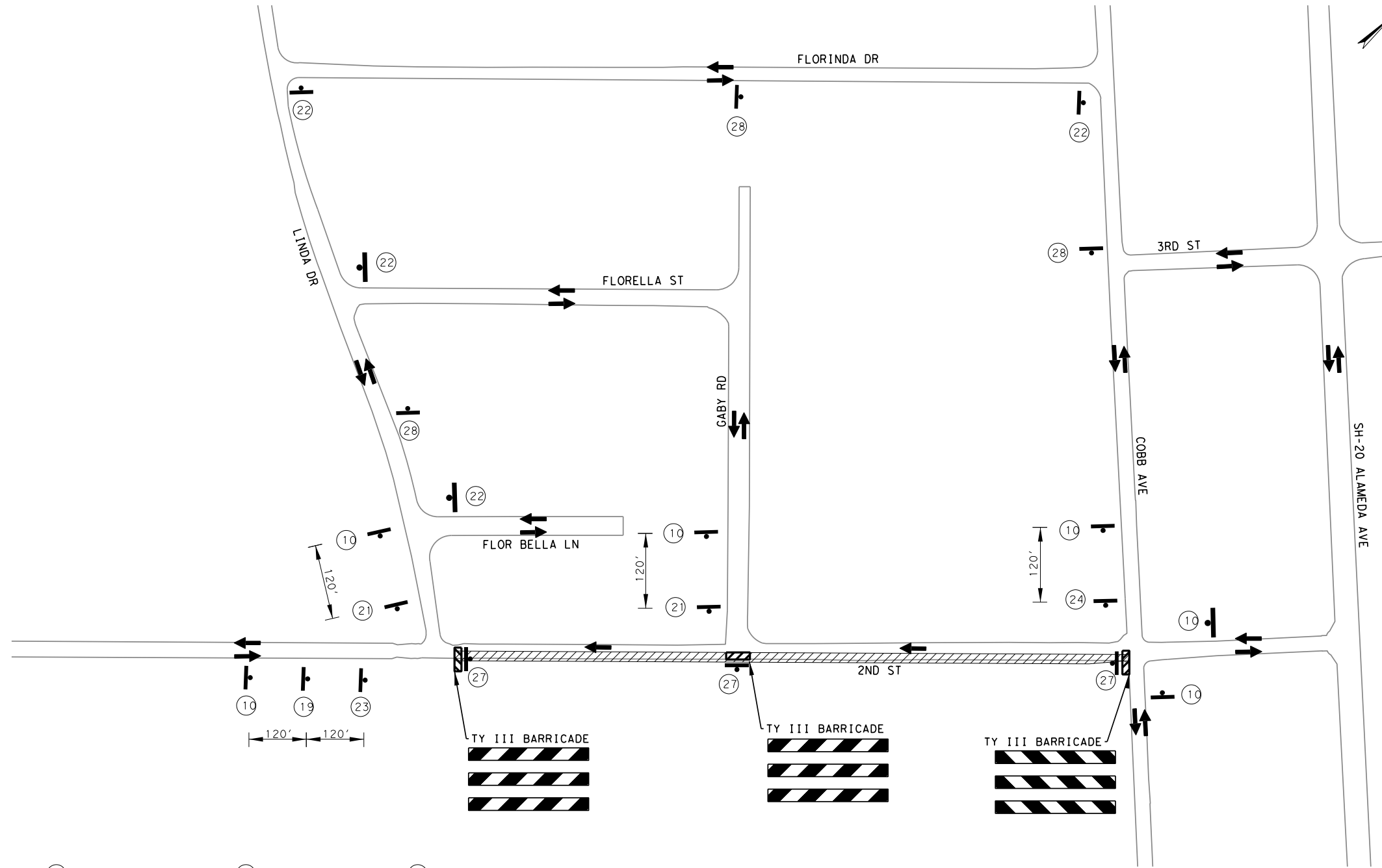


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CSJ 0924-06-616



SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		21
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

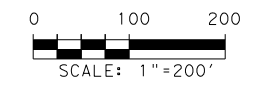


**LEGEND**

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

**GENERAL NOTES:**

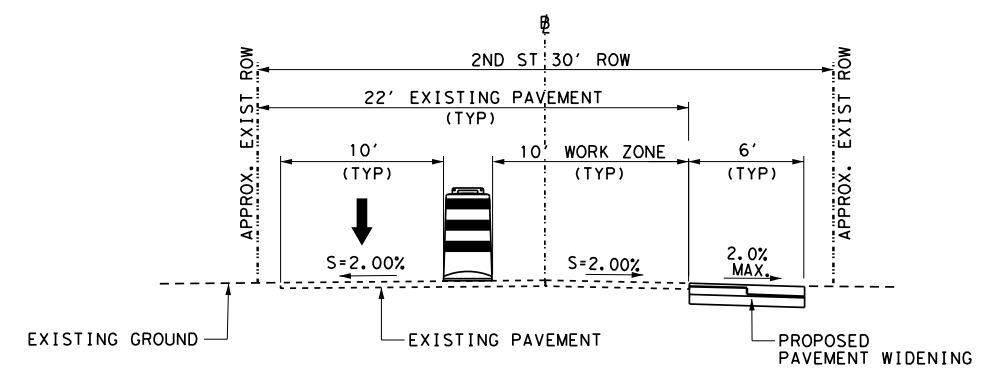
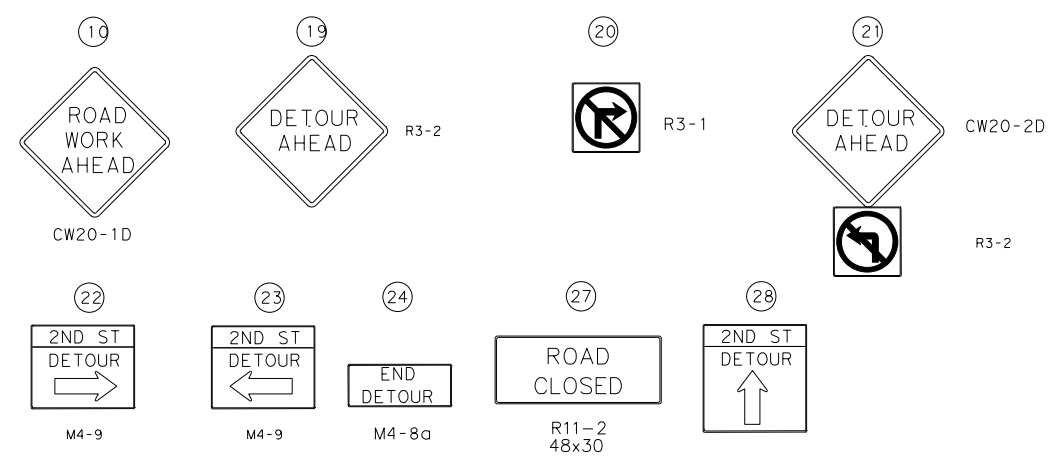
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2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
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6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554



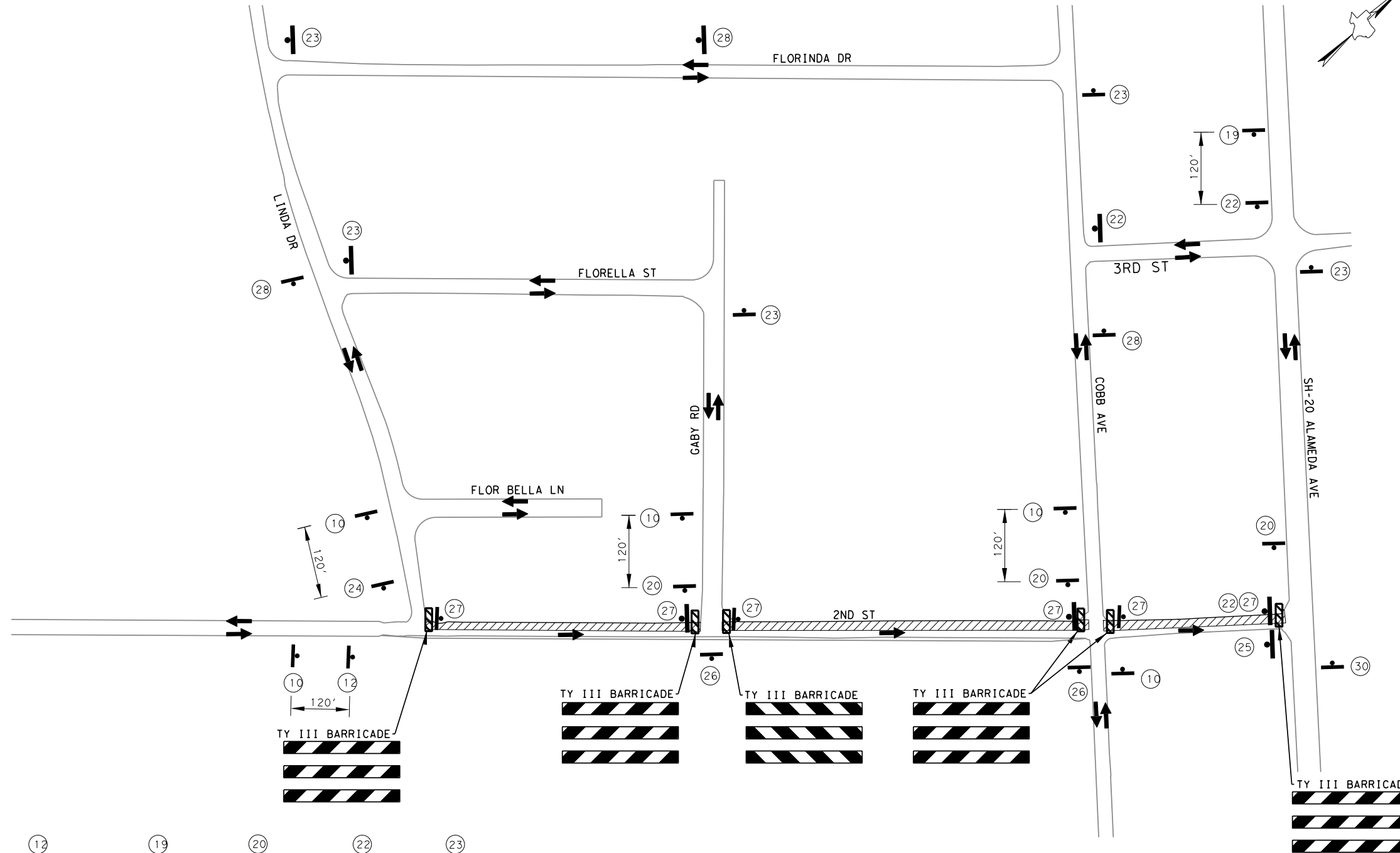
**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP TRAFFIC CONTROL DETOUR PLAN 2ND ST (PHASE II STAGE I)**



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CSJ 0924-06-616

SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	22
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06		VARIOUS

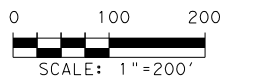


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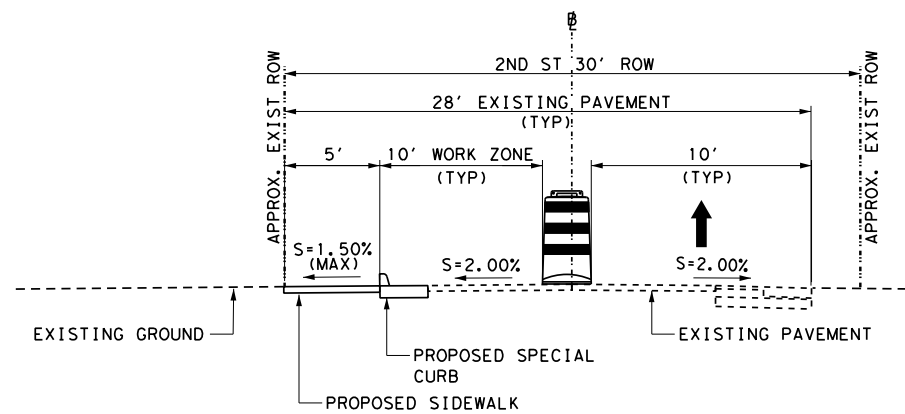
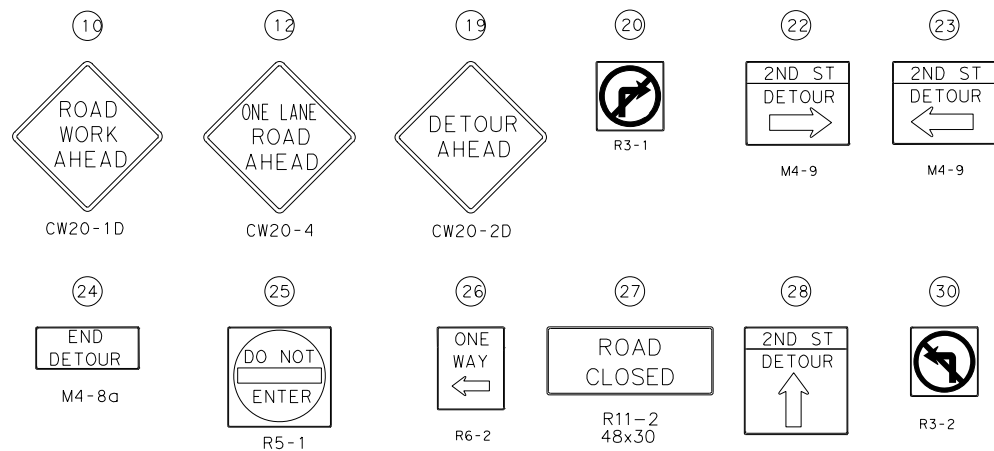
- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

**GENERAL NOTES:**

1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

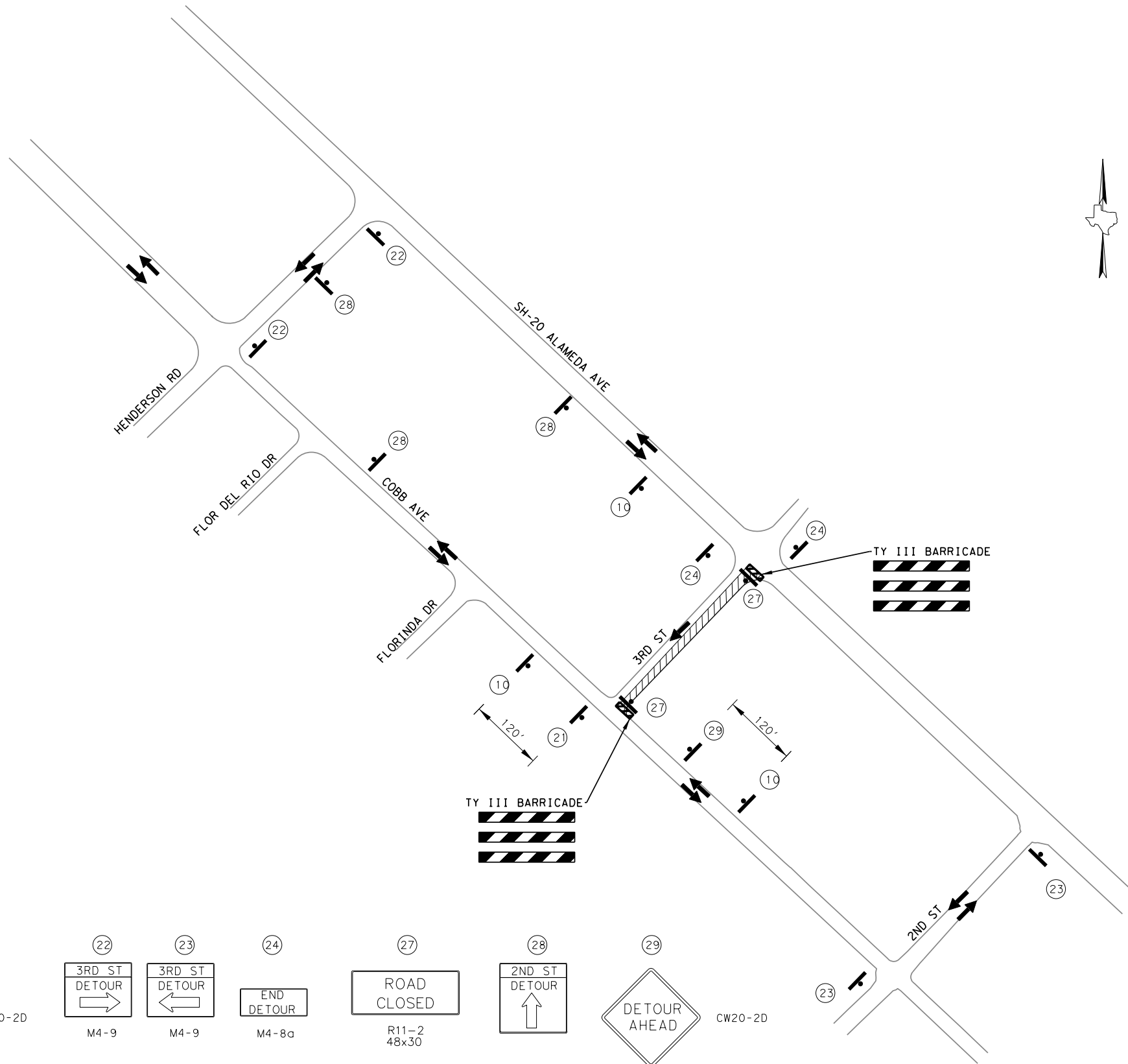


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CSJ 0924-06-616

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP TRAFFIC CONTROL DETOUR PLAN 2ND ST (PHASE II STAGE 2)**

SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	23
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

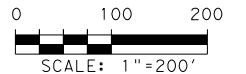


**LEGEND**

-  PROPOSED SIDEWALK
-  PROPOSED ASPHALT
-  DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
-  CONSTRUCTION WARNING SIGN
-  CHANNELIZING DEVICE
-  BARRICADE

**GENERAL NOTES:**

1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



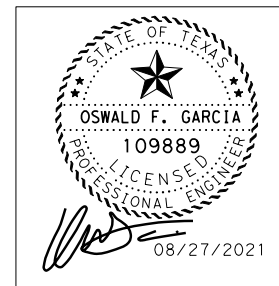
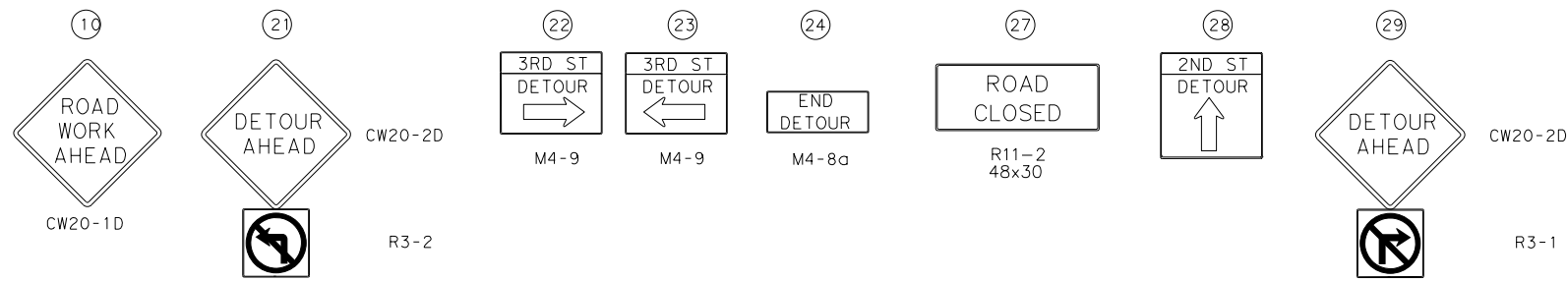
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT



TBPE Firm Registration  
No. F-000554



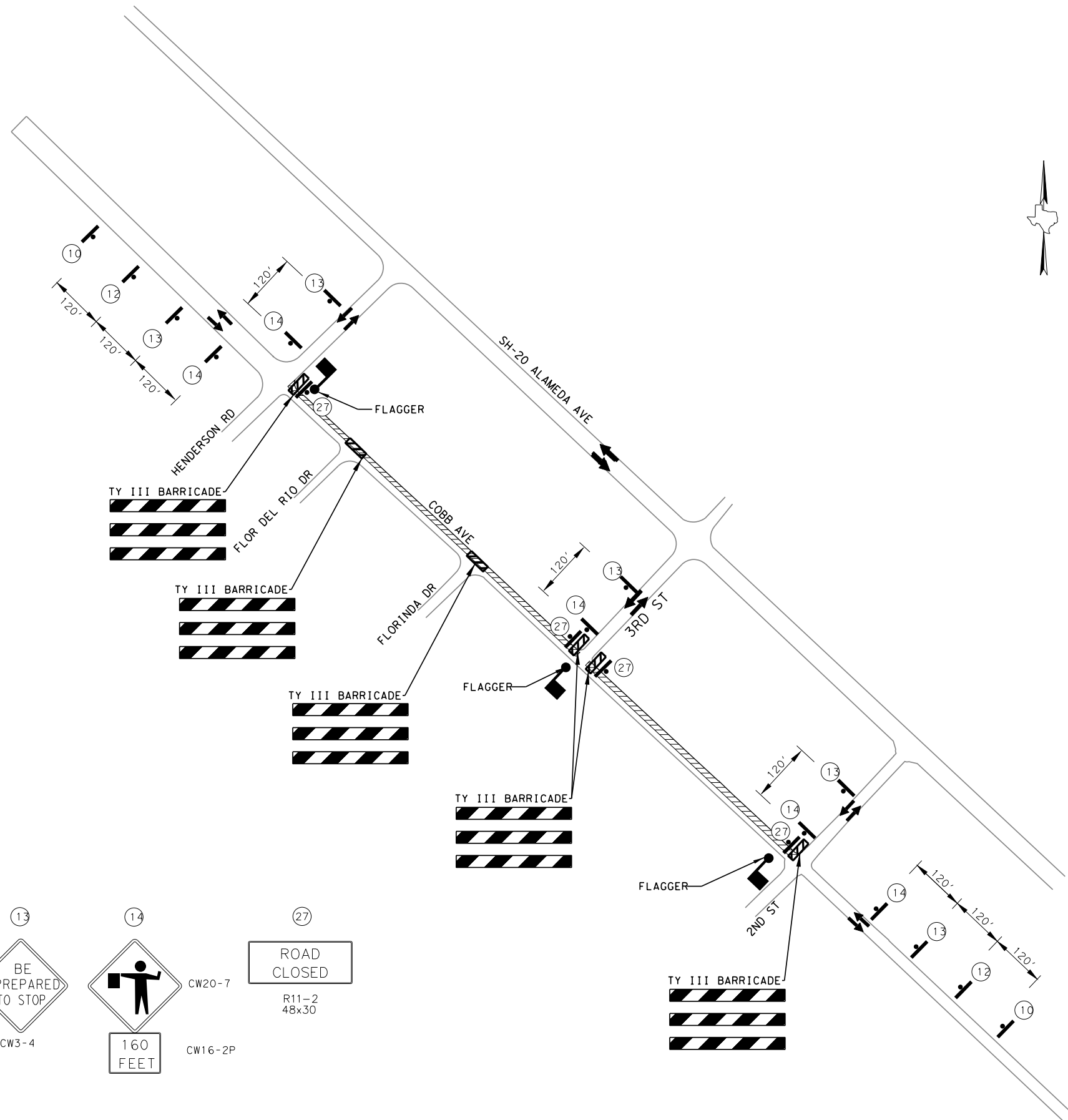
**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP TRAFFIC CONTROL DETOUR PLAN 3RD ST**









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CSJ 0924-06-616

SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		24
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



**LEGEND**

-  PROPOSED SIDEWALK
-  PROPOSED ASPHALT
-  DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
-  CONSTRUCTION WARNING SIGN
-  CHANNELIZING DEVICE
-  BARRICADE

**GENERAL NOTES:**

1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.





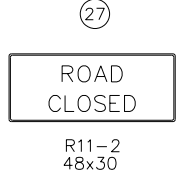



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

 CW20-1D	 CW20-4	 CW3-4	 CW16-2P	 R11-2 48x30
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08/27/2021

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CSJ 0924-06-616

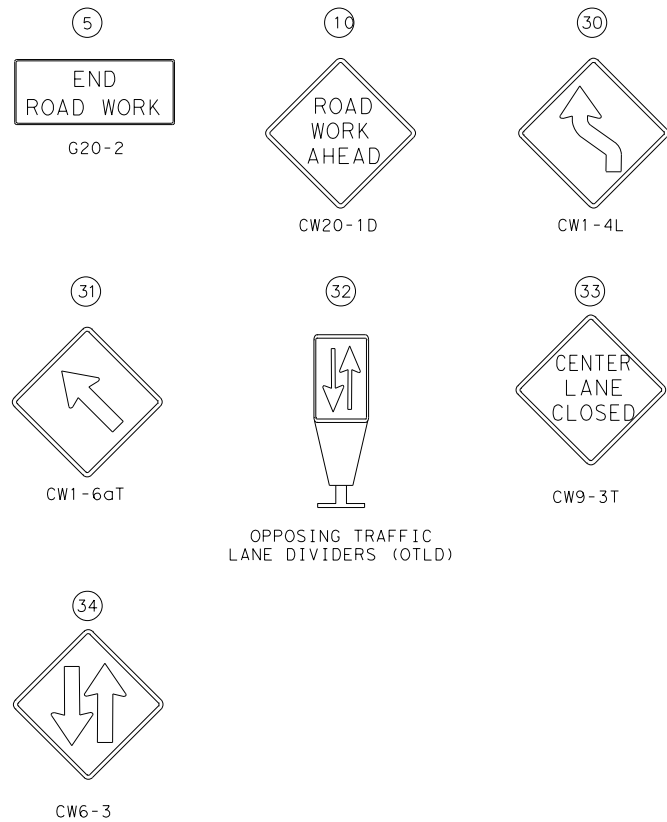
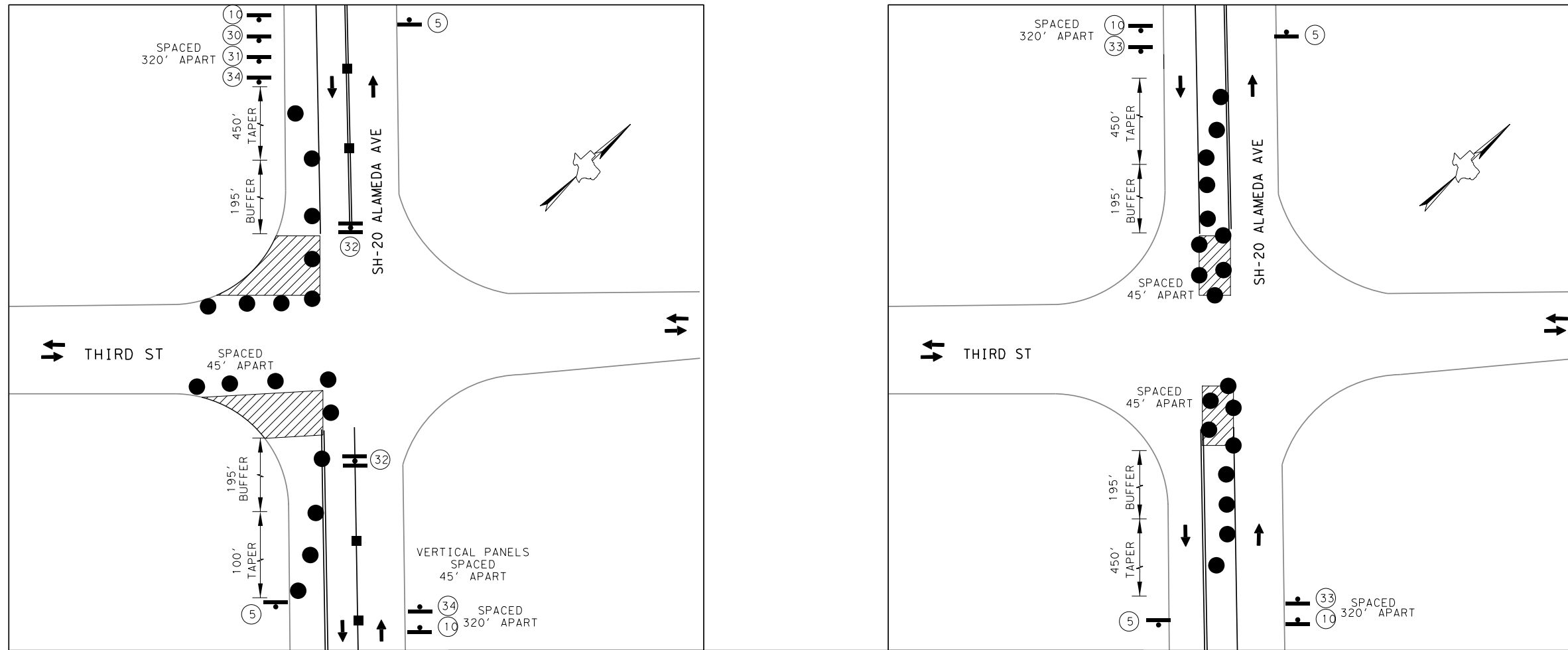
**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP TRAFFIC CONTROL FLAGGER PLAN COBB AVE**

SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	25	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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**LEGEND**

- WORK ZONE
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE
- VERTICAL PANELS (32)

**GENERAL NOTES:**

1. REFER TO SHEET BC AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

**TRAFFIC CONTROL PLAN  
ALAMEDA AVE**

SHEET 1 OF 1		FEDERAL AID PROJECT NO.		SHEET NO.
FED. RD. DIV. NO.	STP 2021 (473) TP			26
STATE	DIST.	COUNTY		
TEXAS	ELP	EL PASO		
CONT.	SECT.	JOB	HIGHWAY NO.	
0924	06	616, ETC	VARIOUS	



CSJ 0924-06-616

**PROPOSED SEQUENCE OF WORK**

**PHASE I** LOS COYOTES DR.  
FROM: JOE OJEDA DR.  
TO: OIL MILL RD

OIL MILL DR.  
FROM: LOS COYOTES DR.  
TO: TIA DR.

DRAKE ST.  
FROM: OIL MILL DR.  
TO: O. T. SMITH RD

- INSTALLATION OF SIDEWALK AND ASSOCIATED AMENITIES ALONG ONE SIDE OF ROADWAY EDGE AND/OR ABUTTING R.O.W.

**PHASE II STAGE 1** 2ND STREET  
FROM: LINDA DR. (15+00)  
TO: COBB AVE. (26+01)

- EXTENSION OF EXISTING PAVEMENT WIDTH ALONG WESTERN ROADWAY EDGE BY PLACEMENT OF NEW ASPHALT PAVEMENT (WIDTH VARIES).

**PHASE II STAGE 2** LINDA DR.  
FROM: HENDERSON RD  
TO: 2ND ST.

2ND ST.  
FROM: LINDA DR.  
TO: ALAMEDA AVE.

FLORINDA DR.  
FROM: LINDA DR.  
TO: COBB AVE.

- INSTALLATION OF SIDEWALK, SHARED USE PATH AND ASSOCIATED AMENITIES ALONG ONE SIDE OF ROADWAY EDGE AND/OR ABUTTING R.O.W.

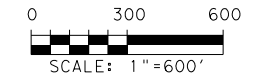
FLORELLA ST.  
FROM: LINDA DR.  
TO: GABY RD

COBB AVE.  
FROM: HENDERSON RD  
TO: 2ND ST.

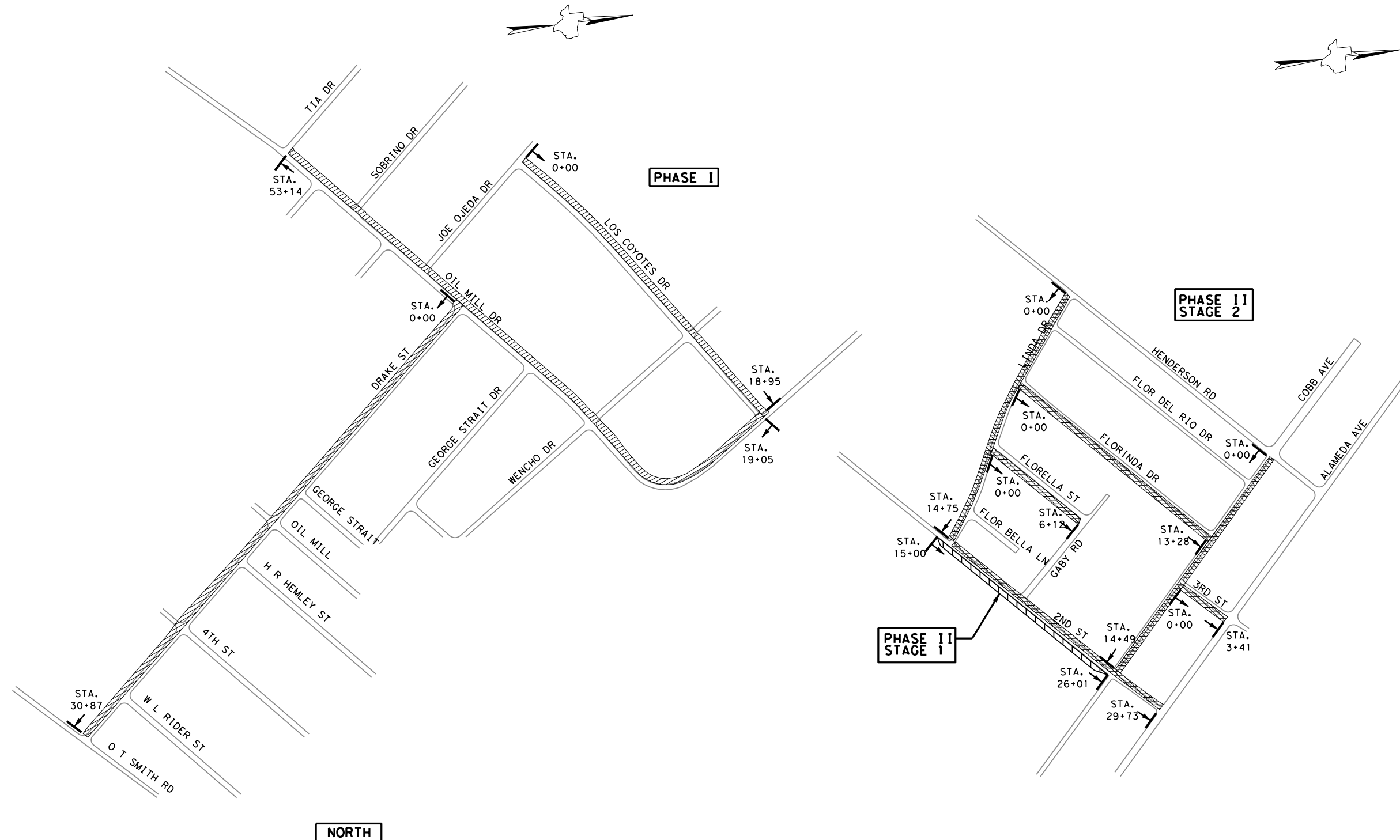
3RD ST.  
FROM: COBB AVE.  
TO: ALAMEDA AVE.

**GENERAL NOTES:**

1. ENGINEER MUST APPROVE CHANGES TO THE SEQUENCE OF CONSTRUCTION.
2. ENGINEER MUST APPROVE WORKING ON MORE THAN ONE PHASE AT A TIME.
3. VEHICULAR ACCESS TO SIDE STREET RESIDENTS TO BE MAINTAINED AT ALL TIMES.
4. CONTRACTOR TO PROVIDE LIST OF ROADWAYS PER PHASE PRIOR TO ANY CONSTRUCTION ACTIVITIES FOR APPROVAL BY COUNTY.



8/27/2021 12:30:16 PM jair



OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 TRAFFIC CONTROL CONSTRUCTION SEQUENCE**

SHEET 1 OF 2			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		27
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

NORTH

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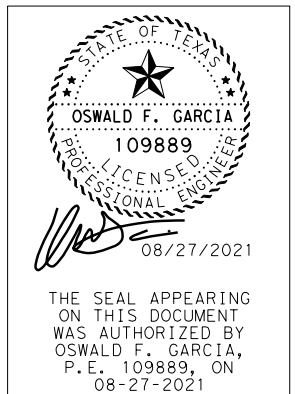
TORNILLO SIDEWALK AND SHARED USE PATH (CSJ 0924-06-616, ETC)

TCP SELECTION TABLE

LOCATION	TYPE OF WORK	STANDARD SHEET	SHEET DESCRIPTION	SHEET DIAGRAM	SUGGESTED USE
ALL STREETS	INSTALLATION OF SIDEWALK, SHARED USE PATH AND ASSOCIATED AMENITIES ALONG ROADWAY EDGE AND/OR ABUTTING ROW.	TCP (1-1)-18	CONVENTIONAL ROAD SHOULDER WORK	TCP (1-1a)	DAILY SHOULDER CLOSURE FOR PHASE I AND PHASE II DURING CONSTRUCTION USE TMA AS SHOWN- OPEN SHOULDER AFTER
COBB AVE		TCP (1-2)-18	ONE-LANE TWO-WAY TRAFFIC CONTROL	TCP (1-2b)	DAILY LANE CLOSURE ON PHASE II- USE FLAGGERS AND TMA AS SHOWN. - OPEN LANE AFTER COMPLETE WITH DAILY OPERATION
ALL STREETS		TCP (2-1)-18	CONVENTIONAL ROAD SHOULDER WORK	TCP (2-1b)	DAILY SHOULDER CLOSURE ON PHASE I AND II DURING CONSTRUCTION. USE TMA AS APPLICABLE- OPEN SHOULDER AFTER COMPLETE WITH DAILY OPERATION
COBB AVE		TCP (2-2)-18	ONE-LANE TWO-WAY TRAFFIC CONTROL	TCP (2-2b)	DAILY LANE CLOSURE ON PHASE II- USE FLAGGERS AND TMA AS SHOWN. - OPEN LANE AFTER COMPLETE WITH DAILY OPERATION

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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

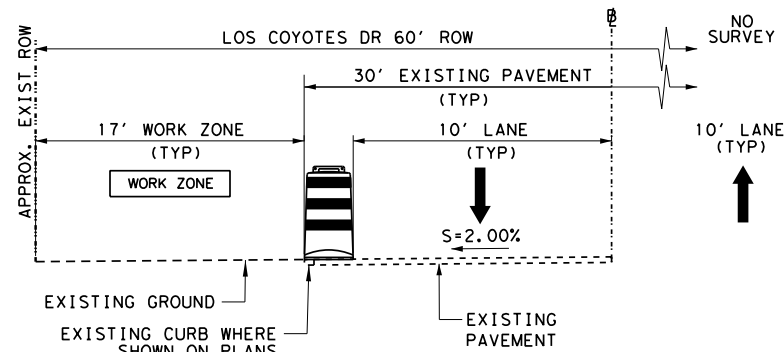
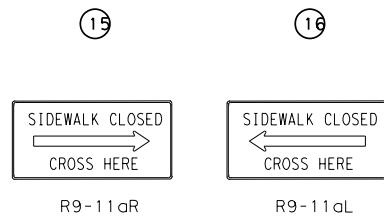
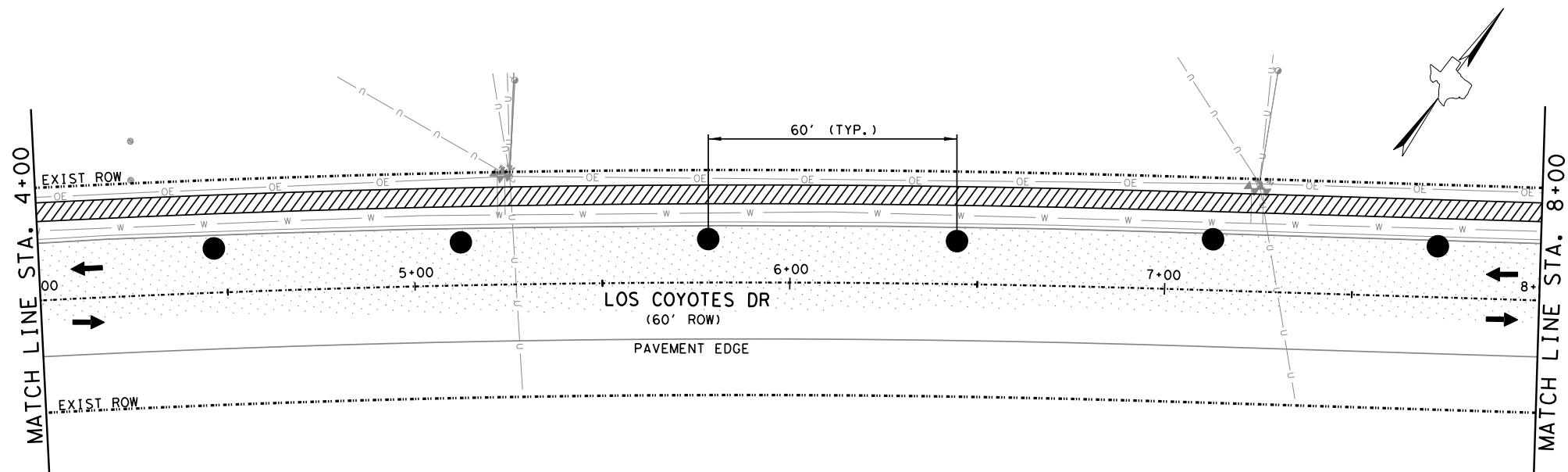
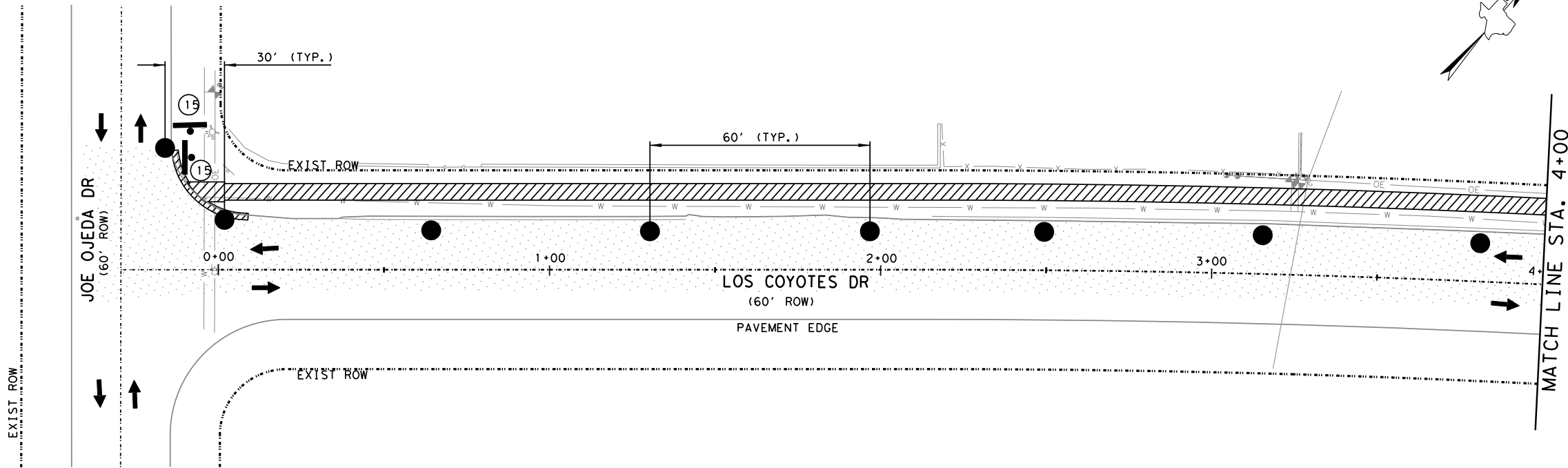


TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
 TRAFFIC CONTROL  
 CONSTRUCTION SEQUENCE

SHEET 2 OF 2		FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
			STP 2021 (473) TP	28
STATE	DIST.	COUNTY		
TEXAS	ELP	EL PASO		
CONT.	SECT.	JOB	HIGHWAY NO.	
0924	06	616, ETC	VARIOUS	



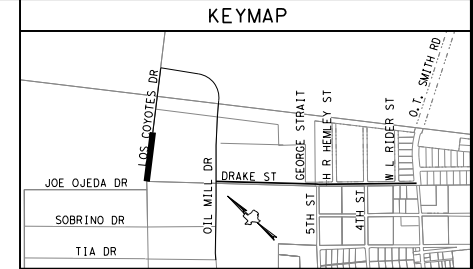
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POSTED SPEED ON  
LOS COYOTES DR  
= 30 MPH

CSJ 0924-06-617

STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021  
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 07-12-2021



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
  2. SIGNS, BARRICADES AND CHANNELIZING DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
  3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
  4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
  5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
  6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
  7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
  8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



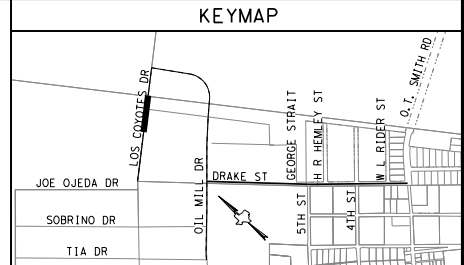
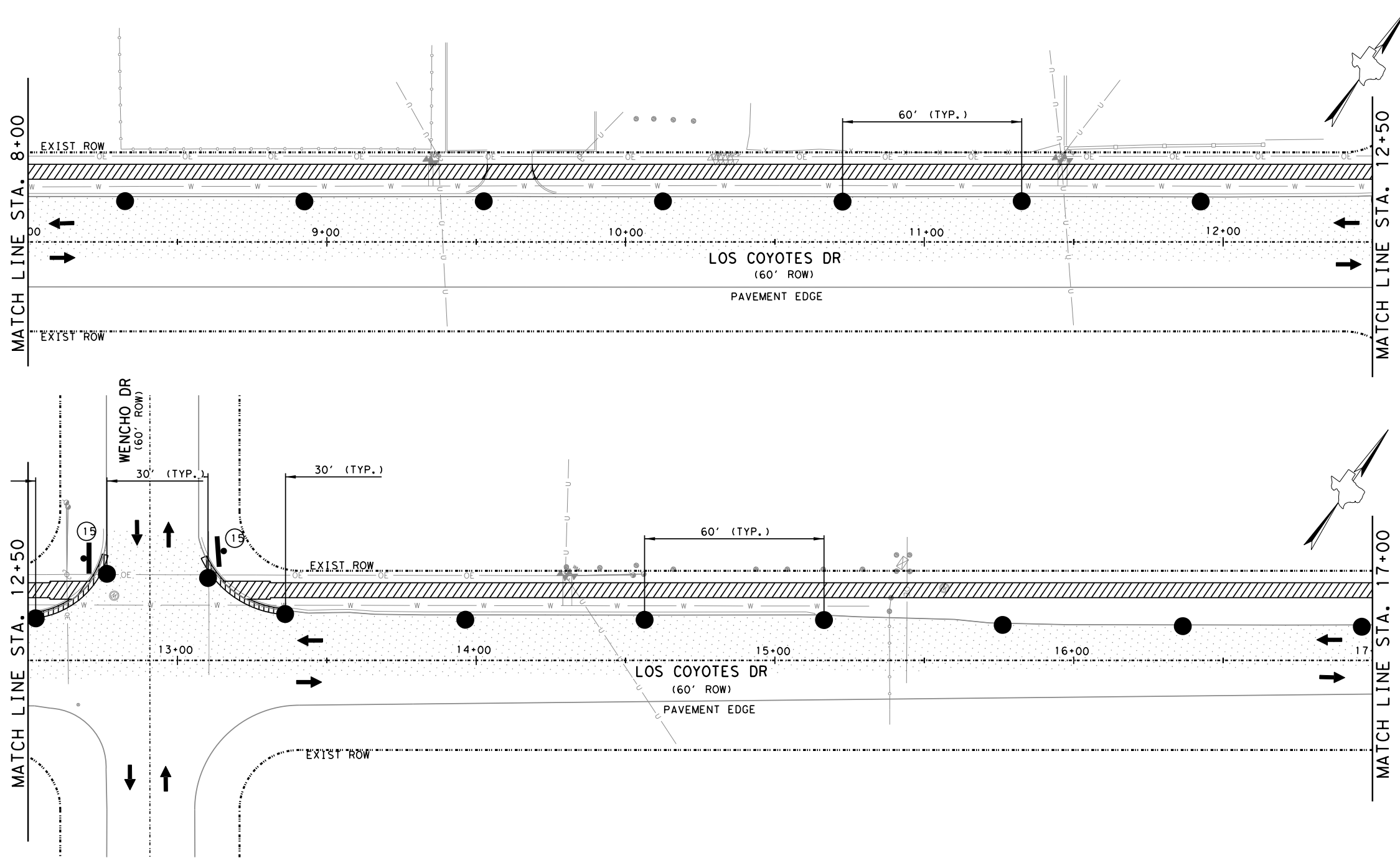
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
LOS COYOTES DRIVE  
STA 0+00 TO STA 8+00

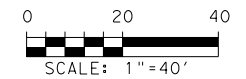
SHEET 1 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	29
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

F:\19136\DG(N-A) - Los Coyotes Drive and Oil Mill Drive\9136 - (NORTH)\_COYOTES\_TRAFFIC\_CONTROL\_PLAN\_1021.dgn 8/27/2021 12:30:18 PM jair



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
  2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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  6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
  7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
  8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.

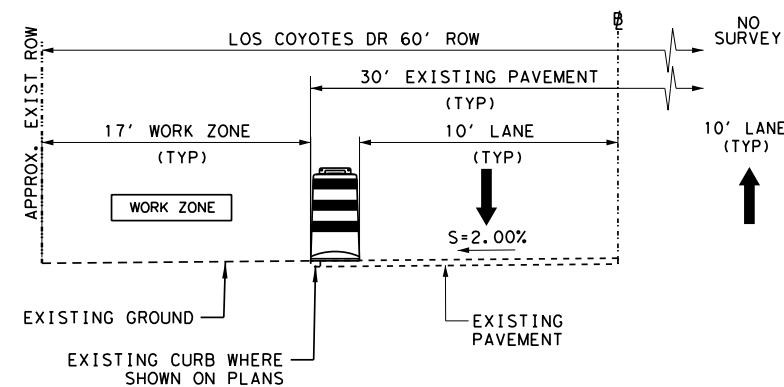


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
LOS COYOTES DRIVE  
STA 8+00 TO STA 17+00

SHEET 2 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	30
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



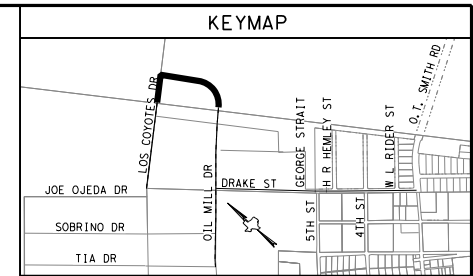
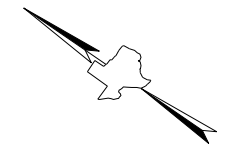
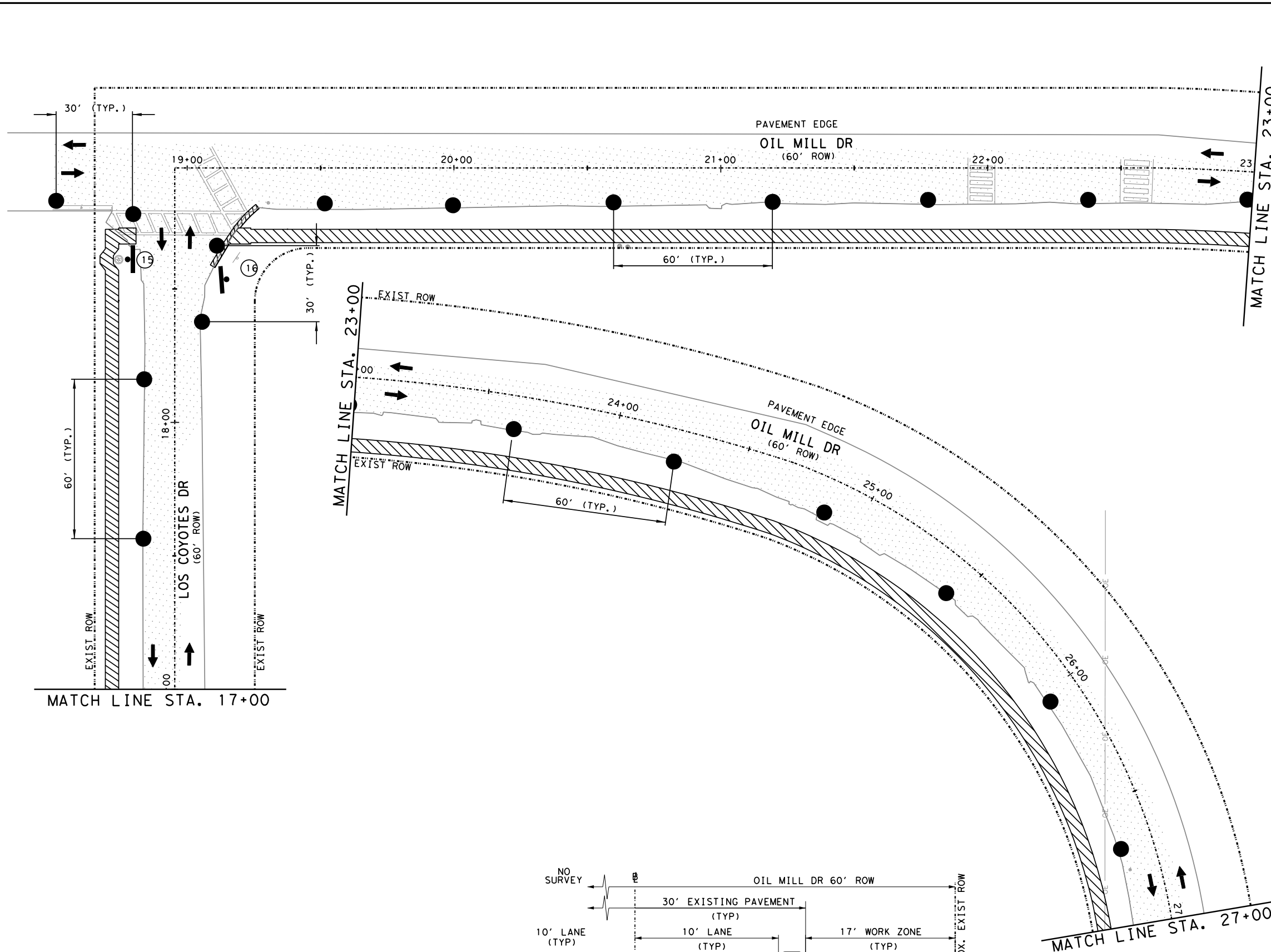
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CSJ 0924-06-617

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- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
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  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
LOS COYOTES DRIVE AND OIL MILL DRIVE STA 17+00 TO STA 27+00

SHEET 3 OF 6

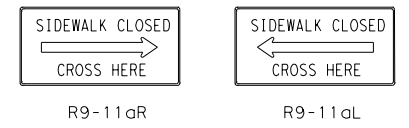
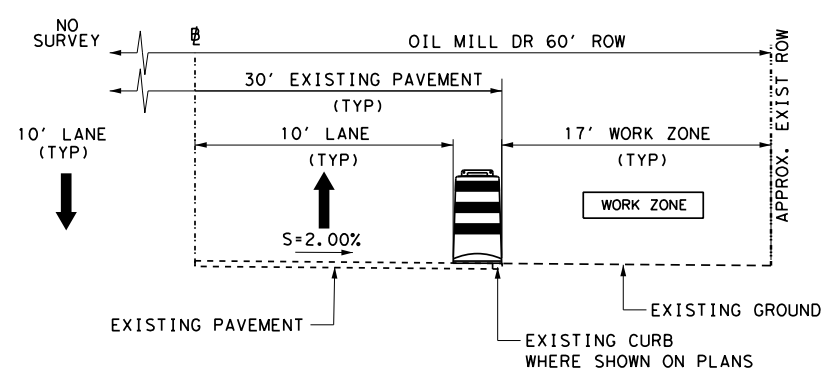
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	STP 2021 (473) TP	31
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



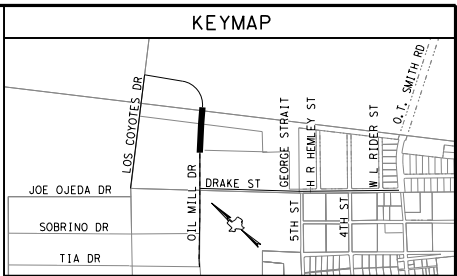
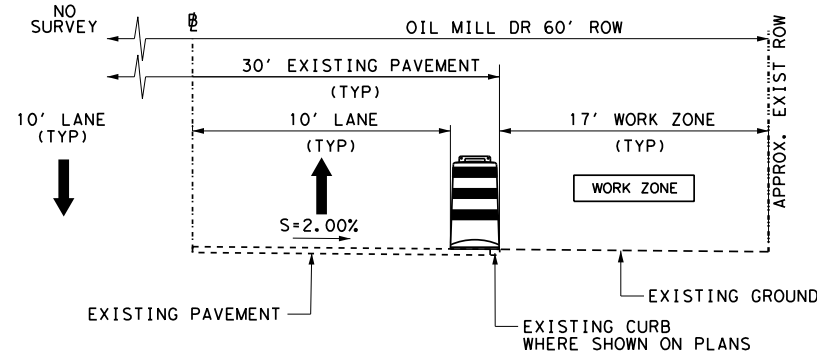
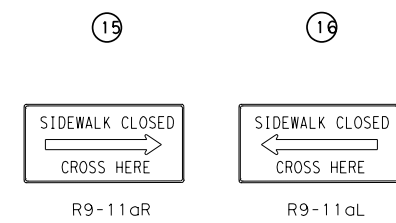
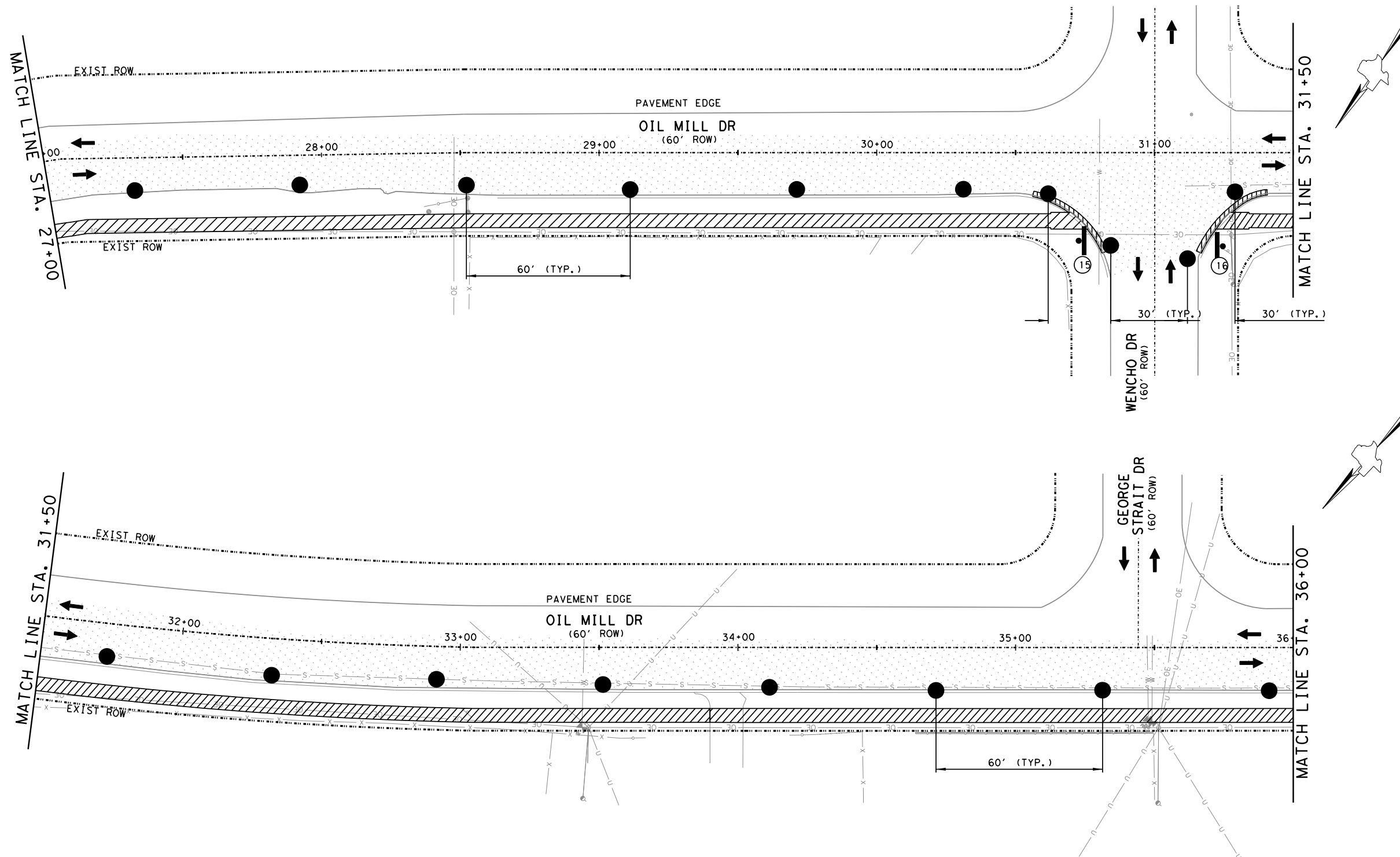
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POSTED SPEED ON OIL MILL DR = 30 MPH

CSJ 0924-06-617

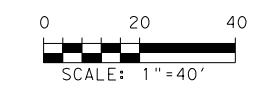


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- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

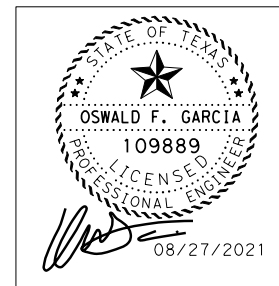
- GENERAL NOTES:**
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  2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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  7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
  8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
OIL MILL DRIVE  
STA 27+00 TO STA 36+00

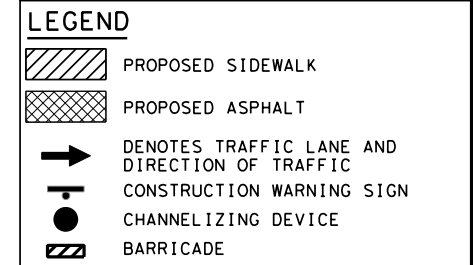
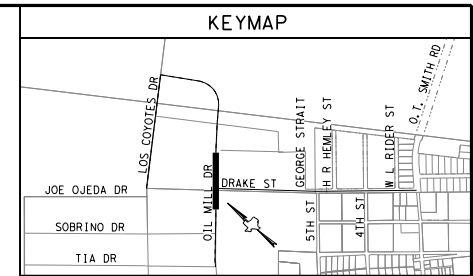
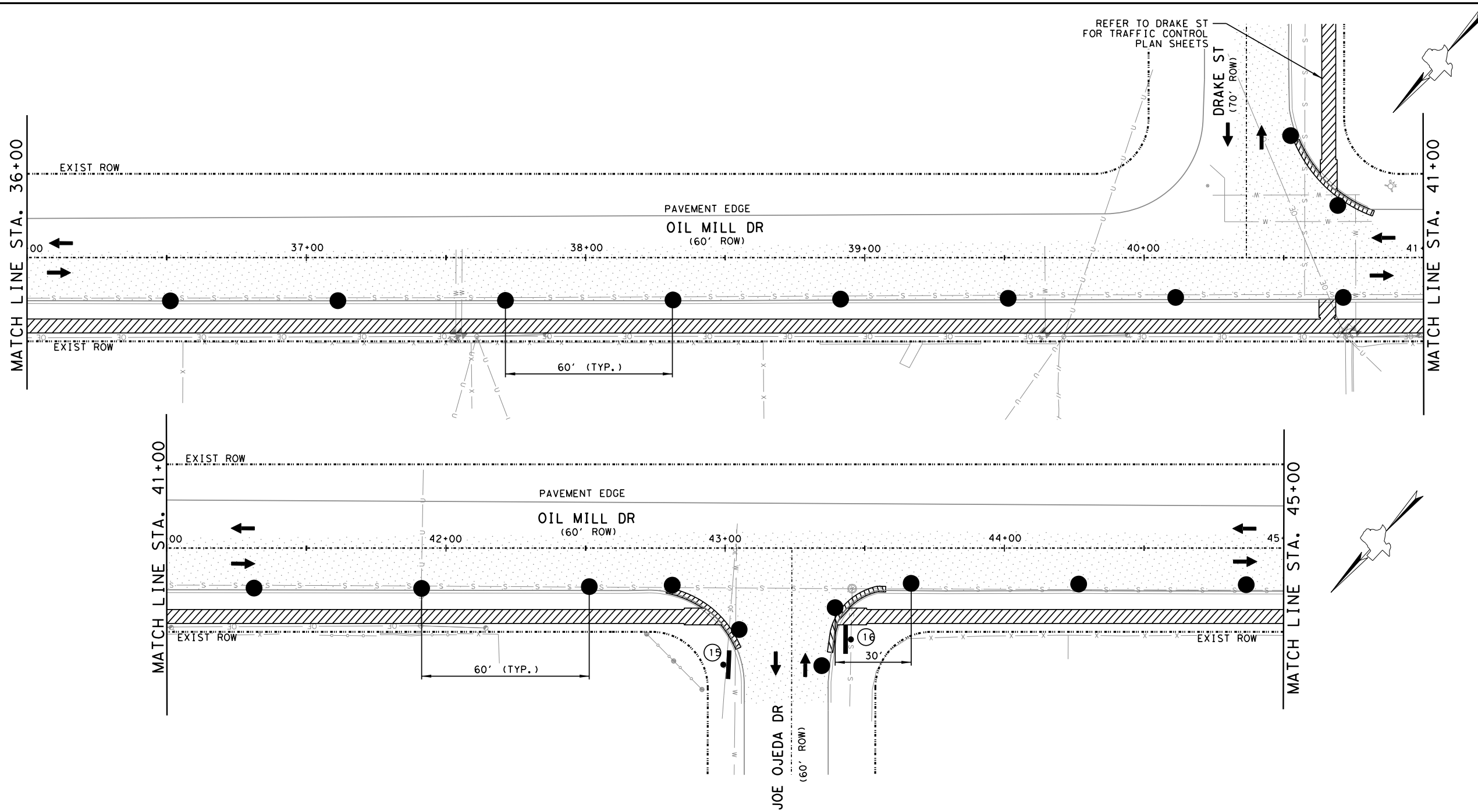


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SHEET 4 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	32
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

CSJ 0924-06-617

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- GENERAL NOTES:**
- REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
  - SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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  - CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
  - IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  - CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.

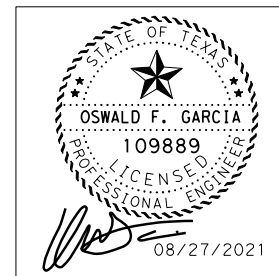
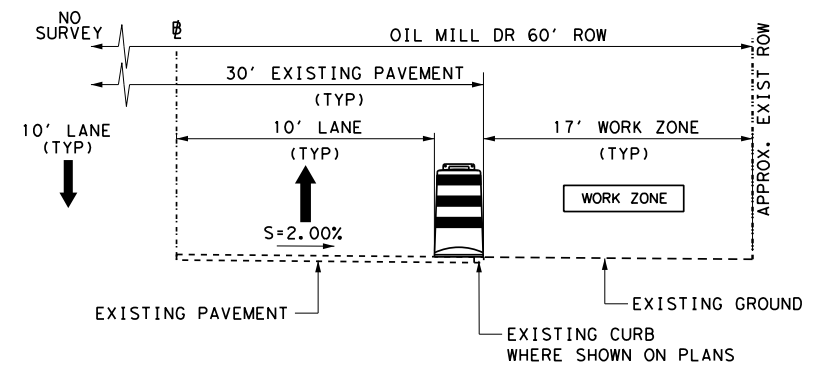
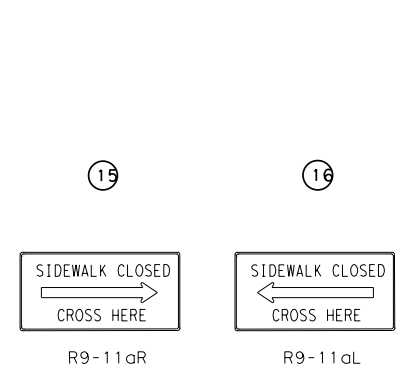


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
OIL MILL DRIVE  
STA 36+00 TO STA 45+00

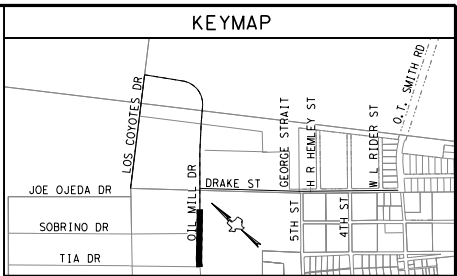
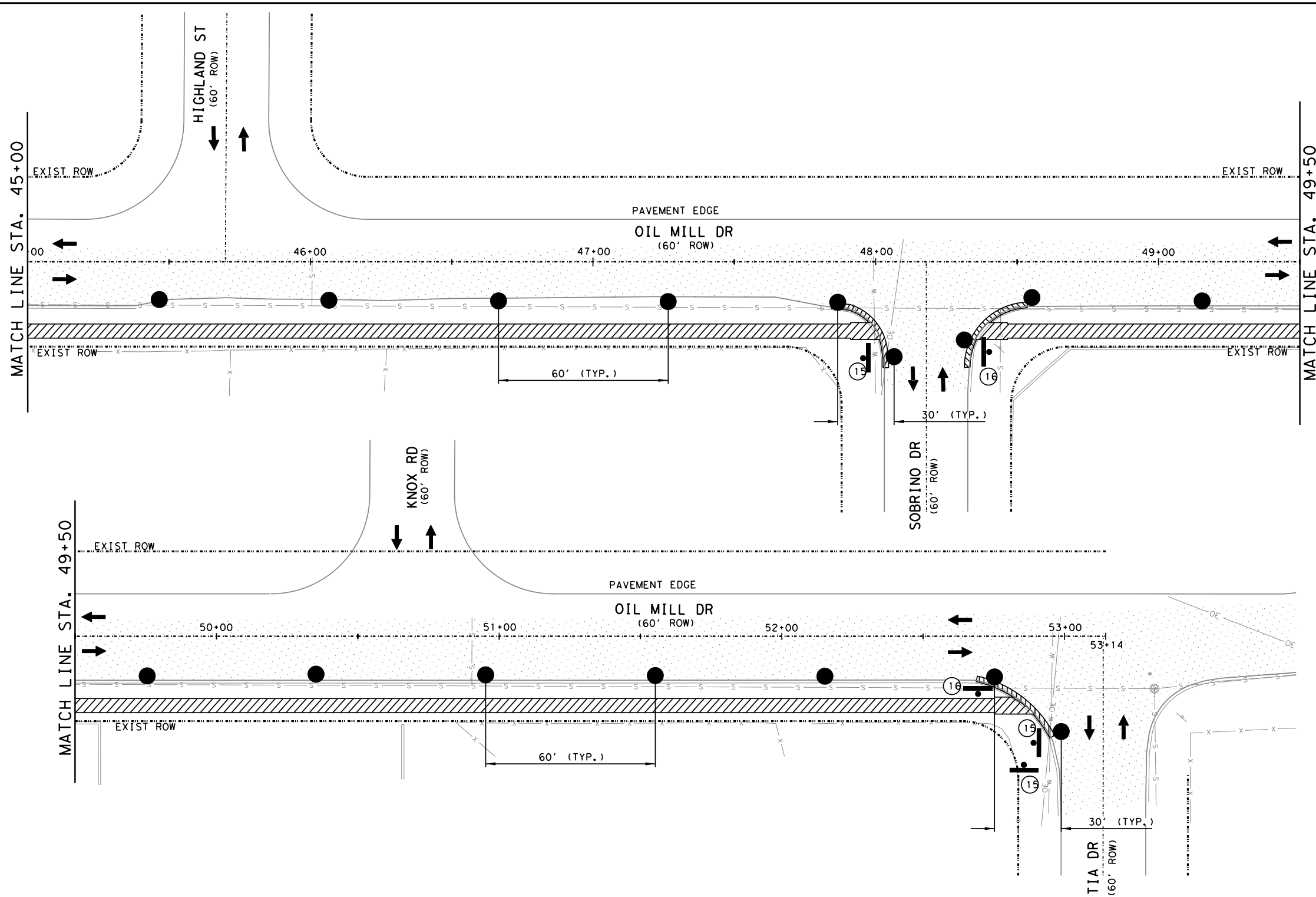
SHEET 5 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	33
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



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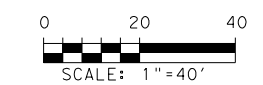
CSJ 0924-06-617

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- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

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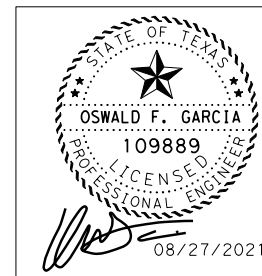
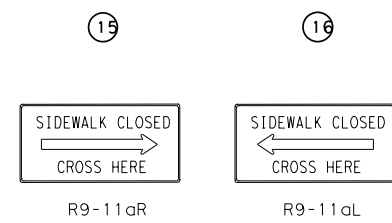
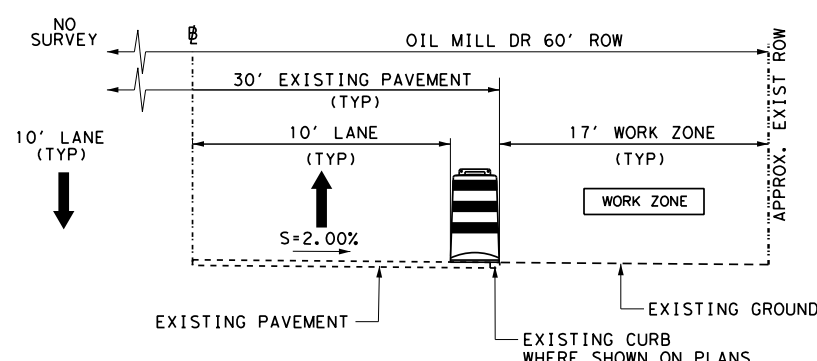


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
OIL MILL DRIVE  
STA 45+00 TO STA 53+14

SHEET 6 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	34
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



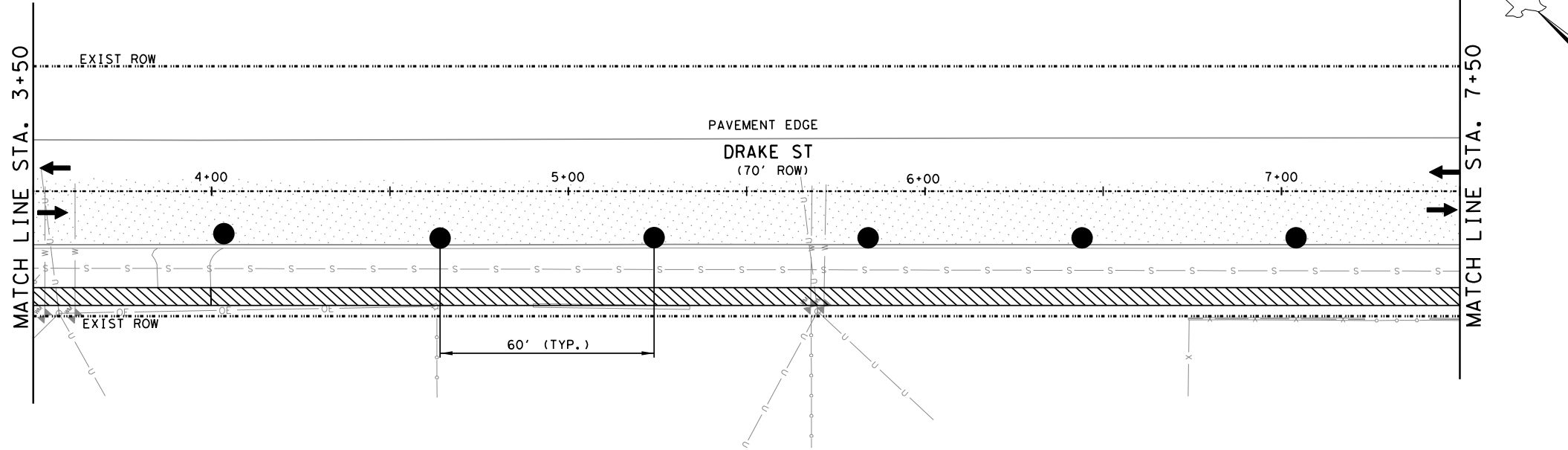
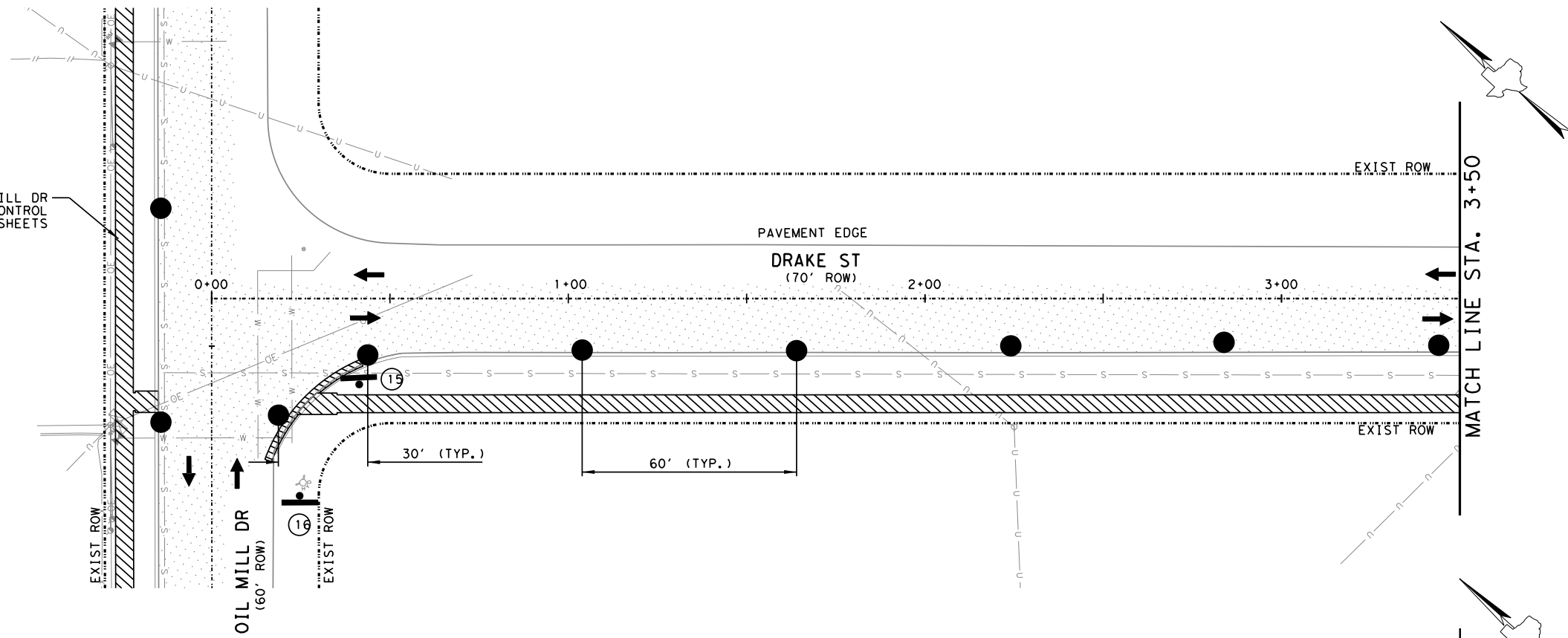
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CSJ 0924-06-617

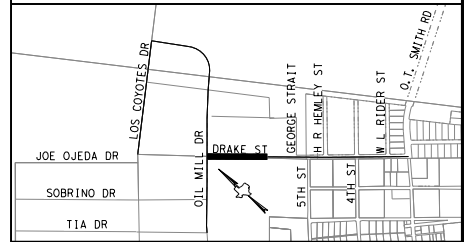
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F:\19136\DG(N-B) - Drake Street\19136 - (NORTH)\_DRAKE\_TRAFFIC\_CONTROL\_PLAN\_(01).dgn

REFER TO OIL MILL DR FOR TRAFFIC CONTROL PLAN SHEETS



KEYMAP

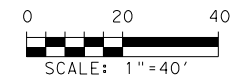


LEGEND

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

GENERAL NOTES:

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2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAYS, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554

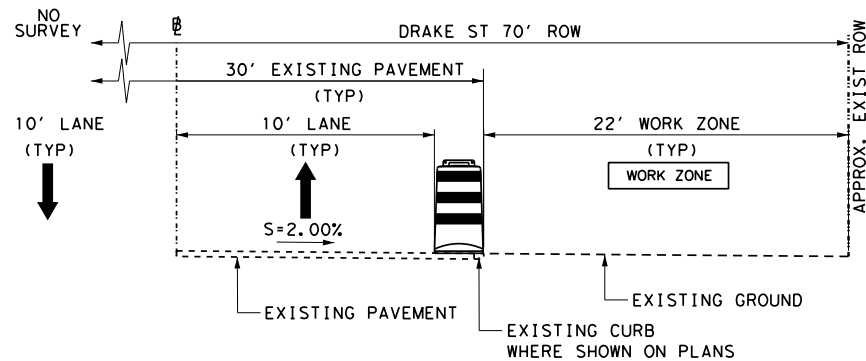
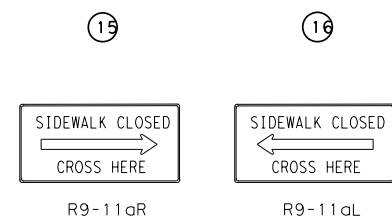
  

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

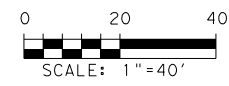
TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
**TRAFFIC CONTROL PLAN**  
DRAKE STREET  
STA 0+00 TO STA 7+50

SHEET 1 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	35
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



POSTED SPEED ON  
DRAKE ST  
= 30 MPH

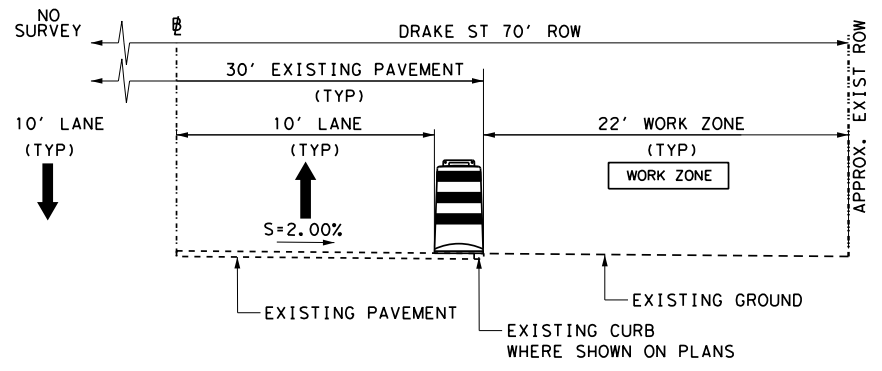
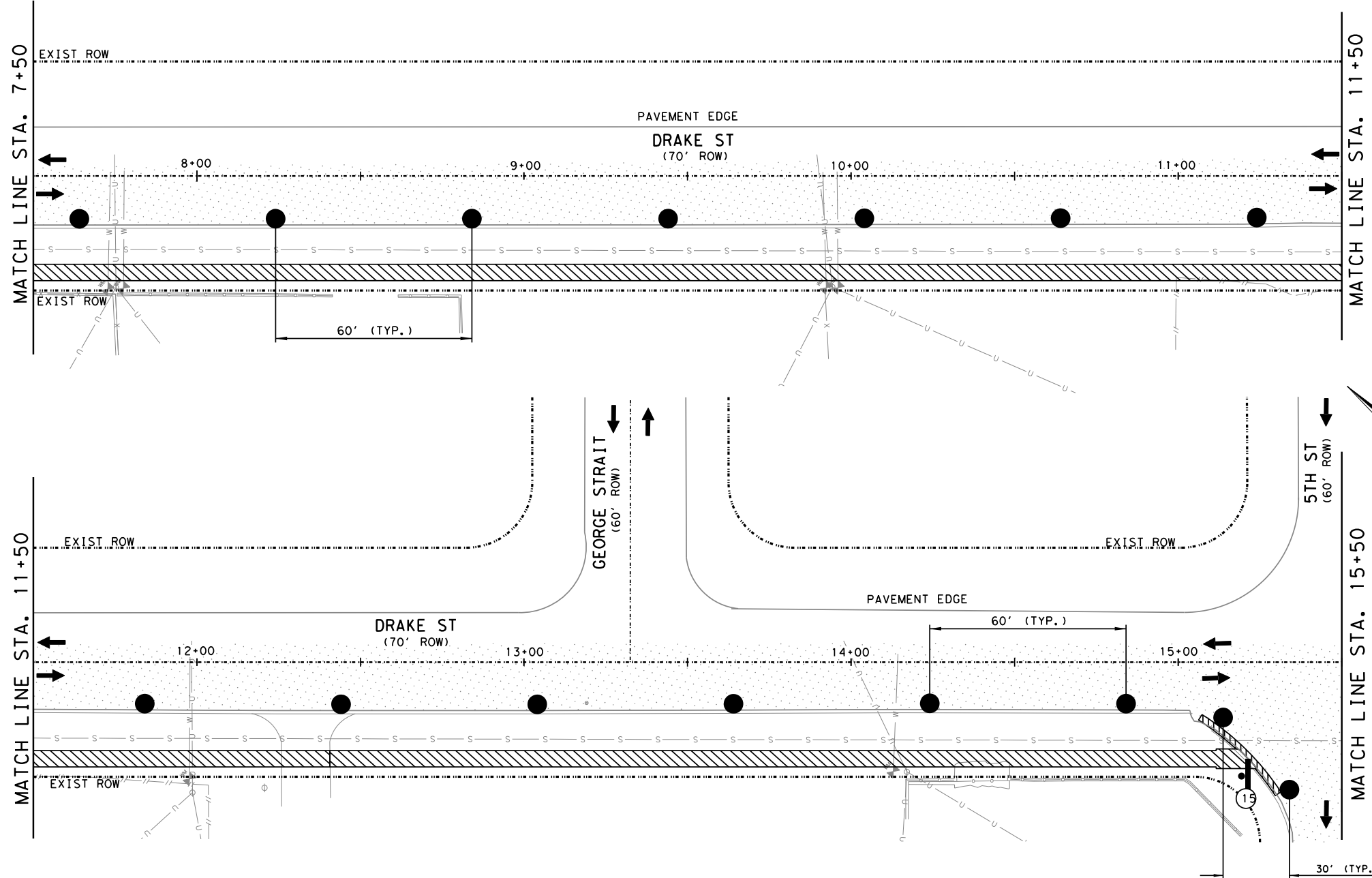


CSJ 0924-06-617

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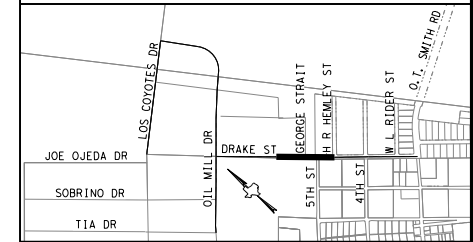
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F:\19136\DG(N-N-B) - Drake Street\19136 - (NORTH)\_DRAKE\_TRAFFIC\_CONTROL\_PLAN\_(02).dgn



R9-11aR

KEYMAP



LEGEND

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

GENERAL NOTES:

1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

TRAFFIC CONTROL PLAN  
DRAKE STREET  
STA 7+50 TO STA 15+50

SHEET 2 OF 4		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	36
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



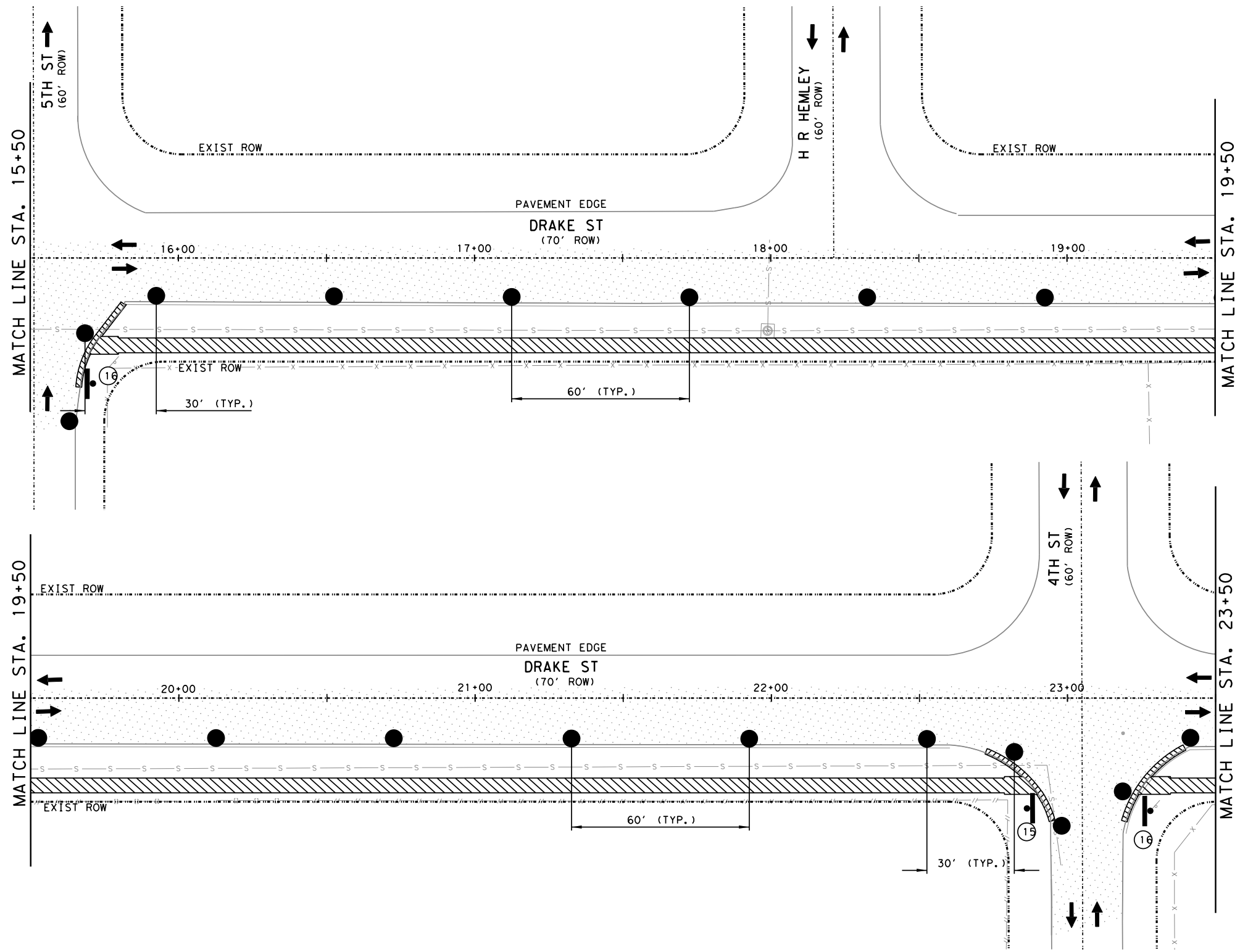
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CSJ 0924-06-617

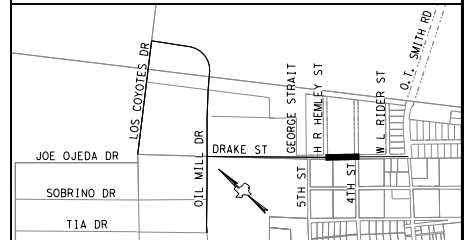


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KEYMAP



LEGEND

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

GENERAL NOTES:

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

TRAFFIC CONTROL PLAN

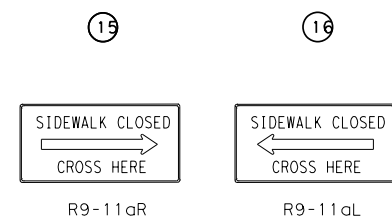
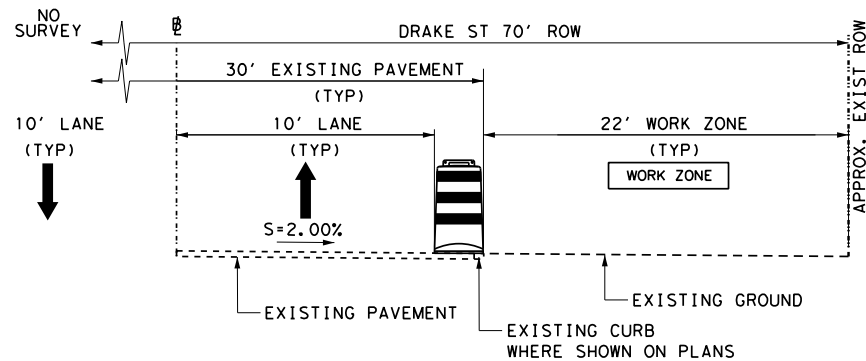
DRAKE STREET  
STA 15+50 TO STA 23+50

SHEET 3 OF 4		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	37
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER

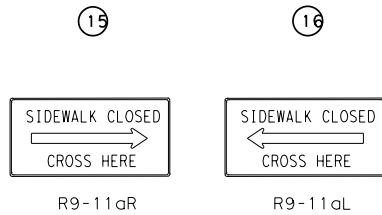
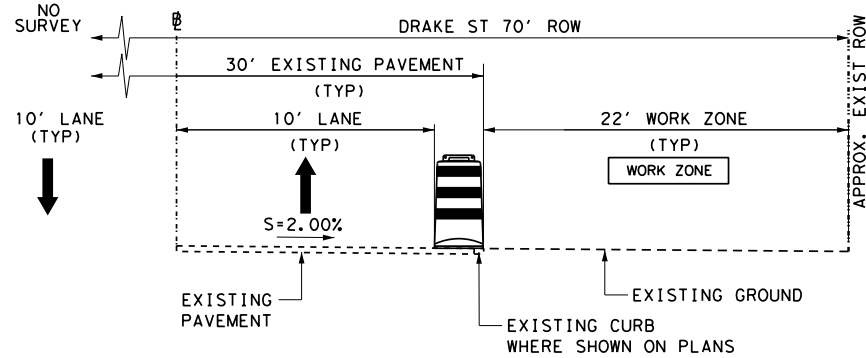
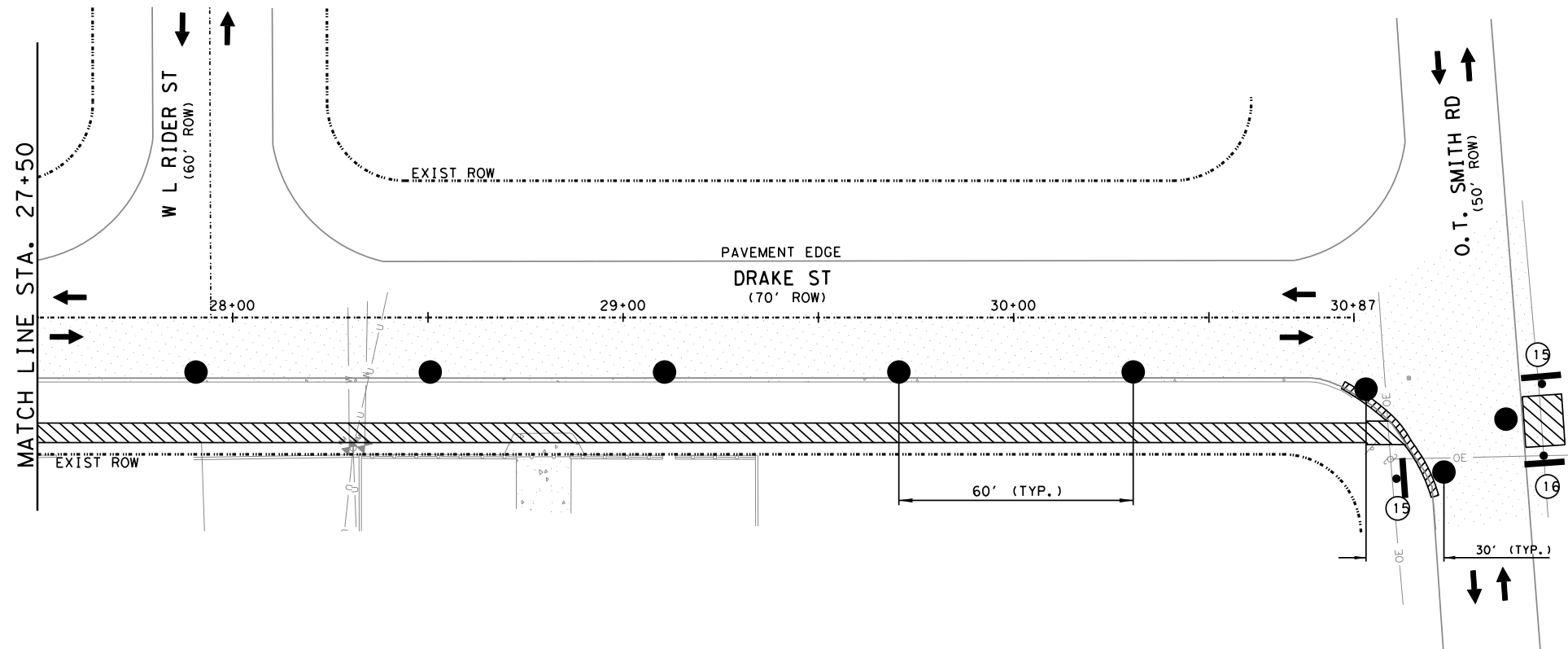
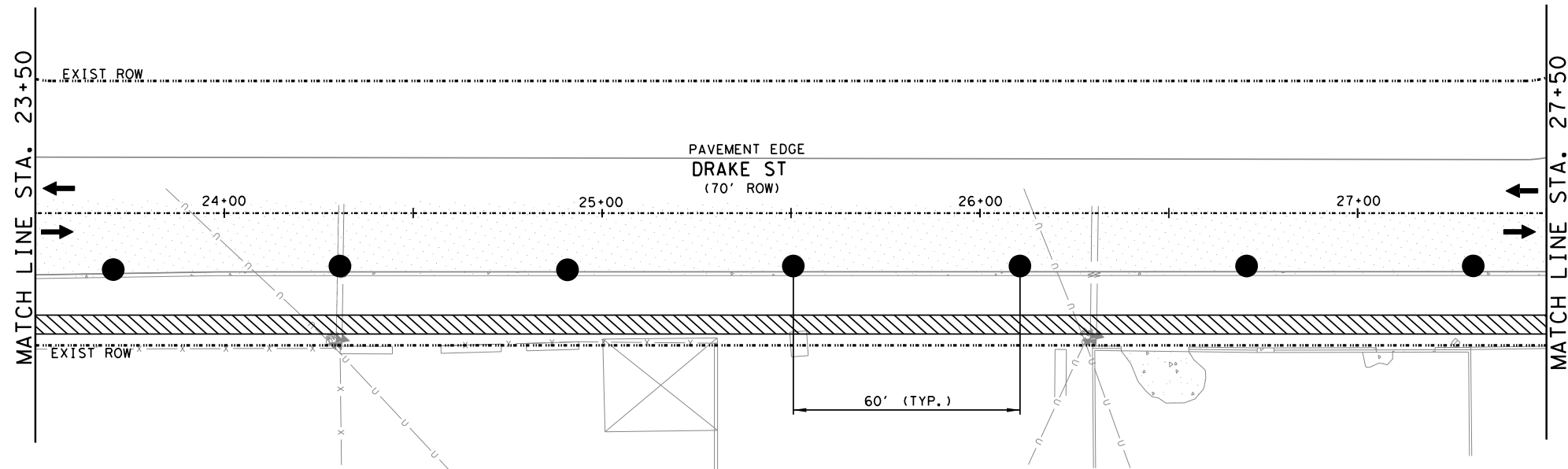
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CSJ 0924-06-617

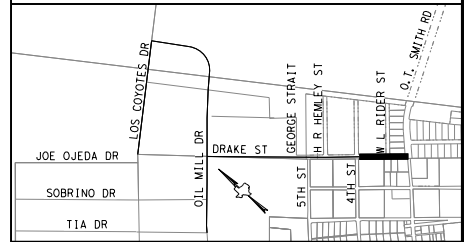
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CSJ 0924-06-617

KEYMAP



LEGEND

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

GENERAL NOTES:

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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY  
 AUTHORITY

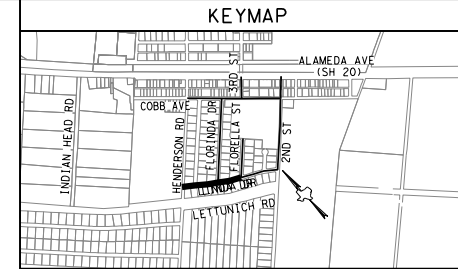
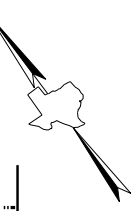
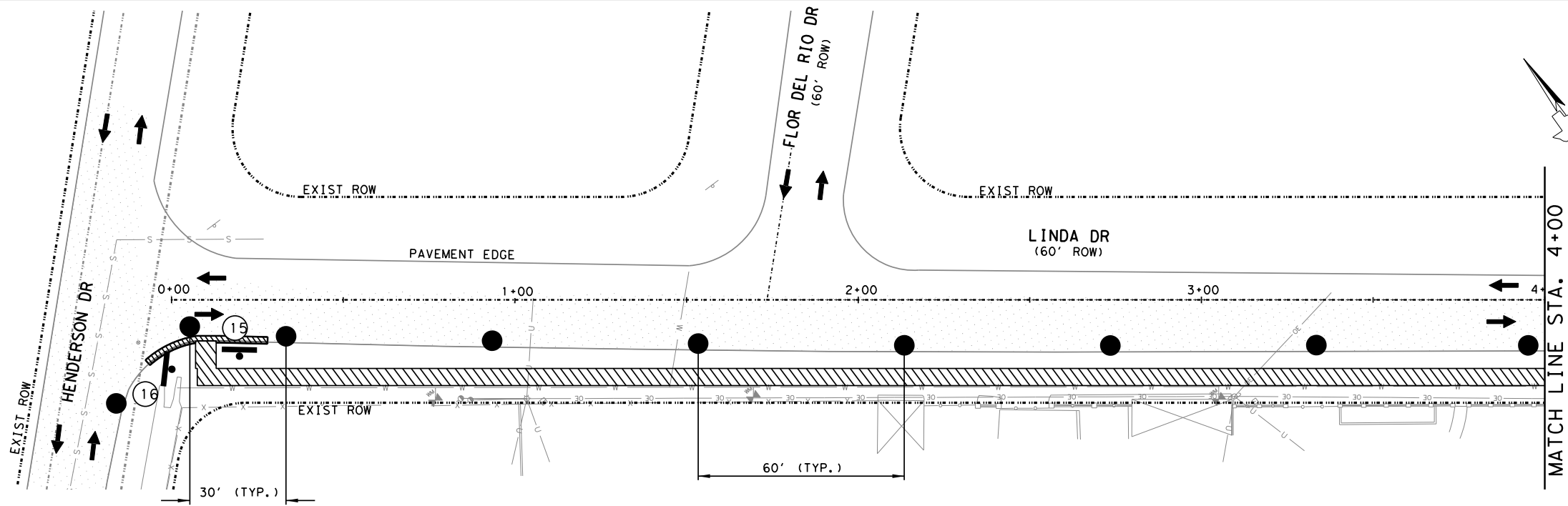
TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

TRAFFIC CONTROL PLAN

DRAKE STREET  
 STA 23+50 TO STA 30+87

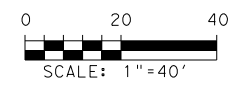
SHEET 4 OF 4		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	38
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

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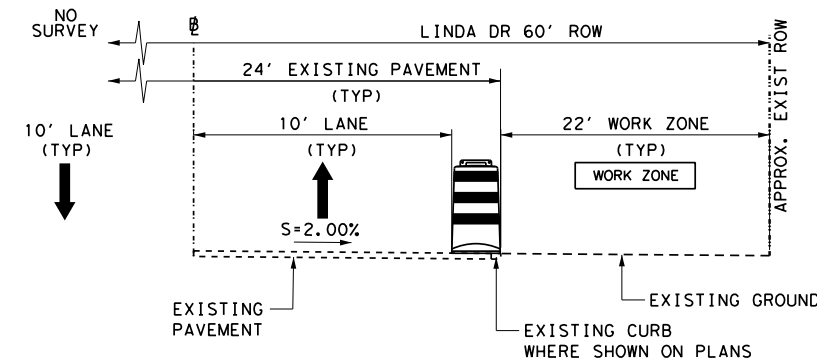
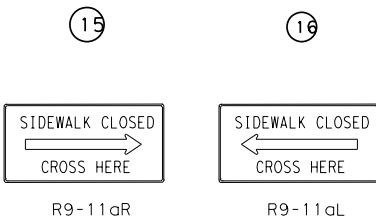
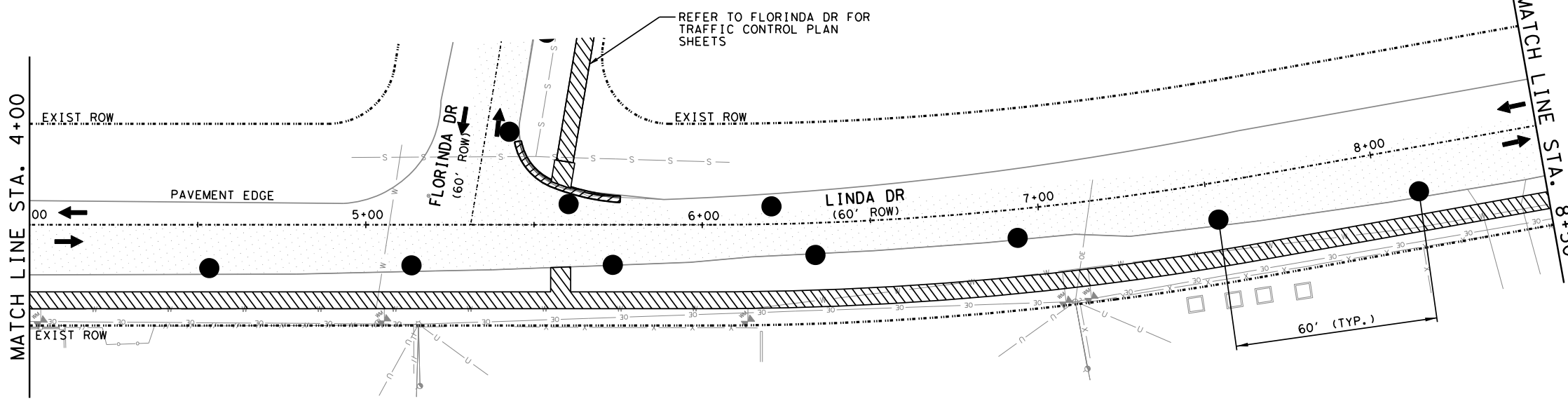


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 2  
LINDA DRIVE  
STA 0+00 TO STA 8+50

SHEET 1 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	39
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



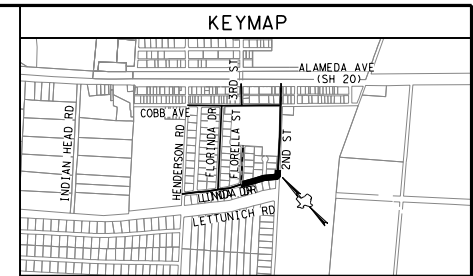
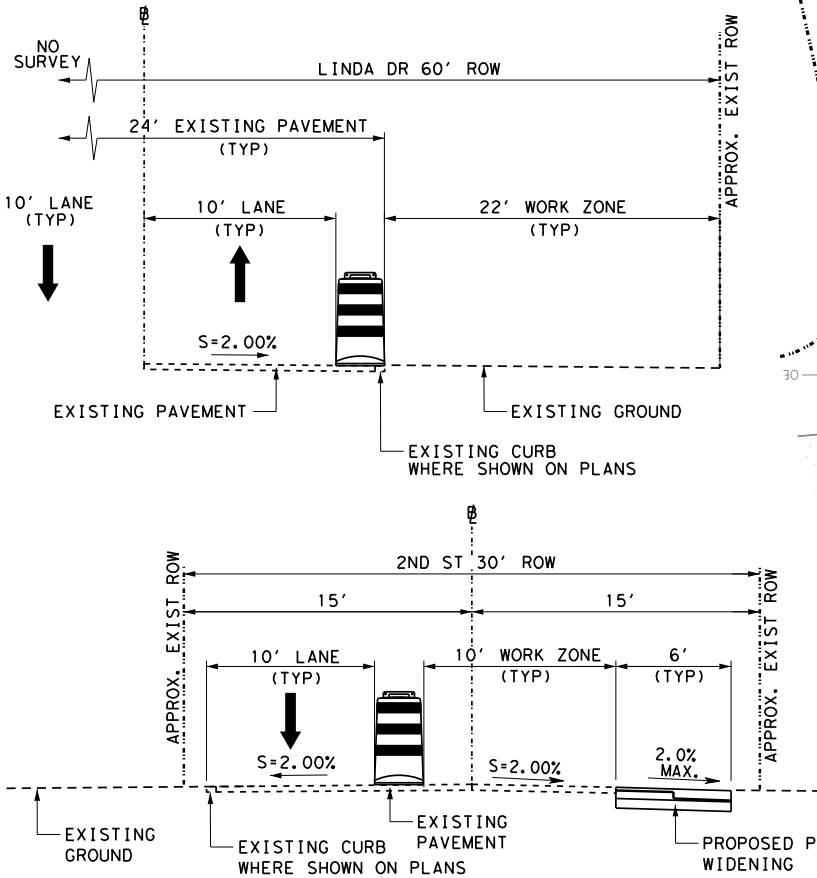
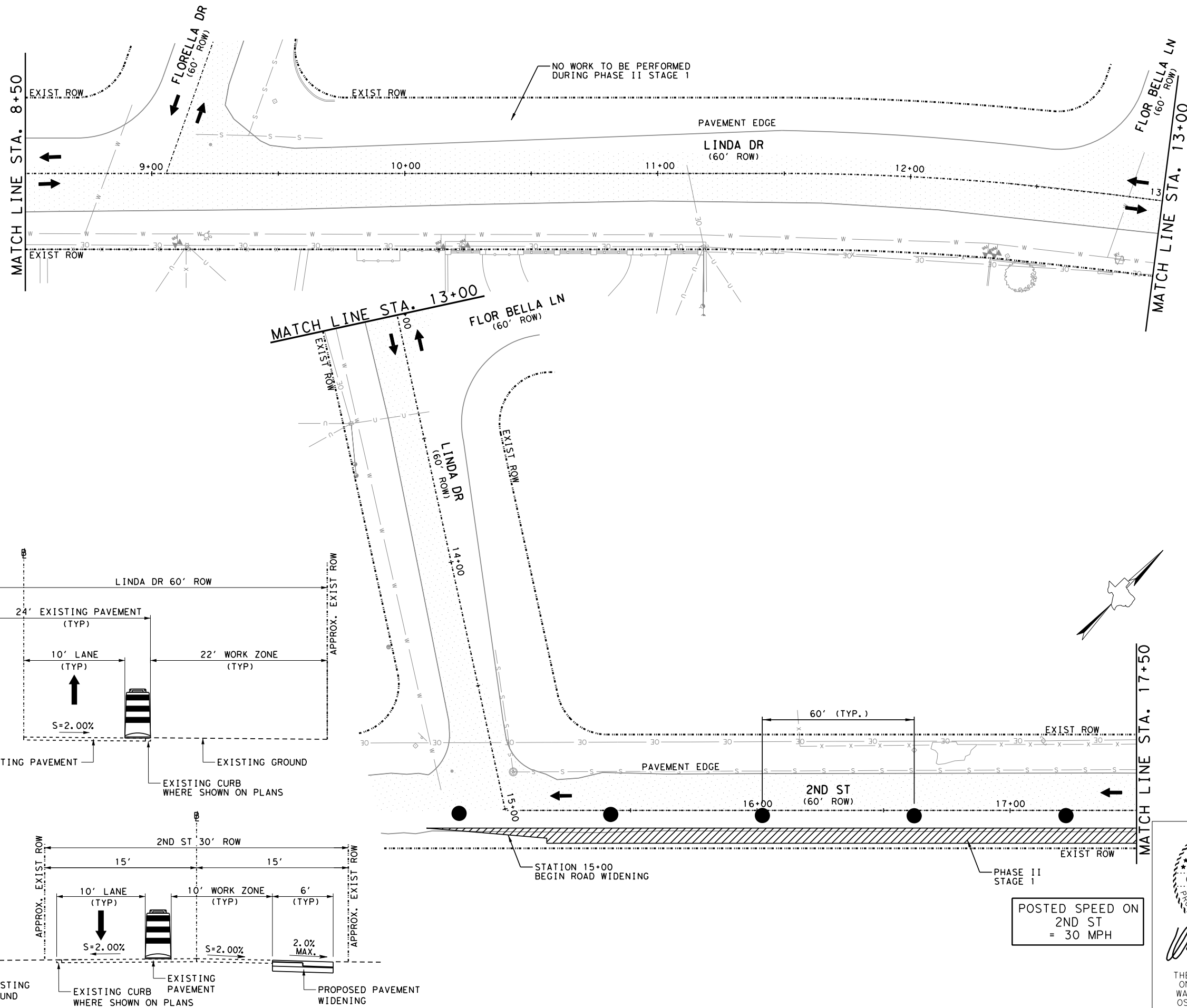
POSTED SPEED ON  
LINDA DR  
= 30 MPH



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CSJ 0924-06-616

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- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 TRAFFIC CONTROL PLAN  
 PHASE II STAGE 1  
 LINDA DRIVE & 2ND STREET  
 STA 8+50 TO STA 17+50



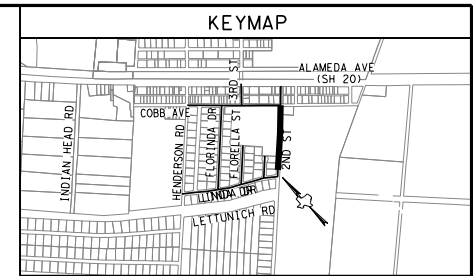
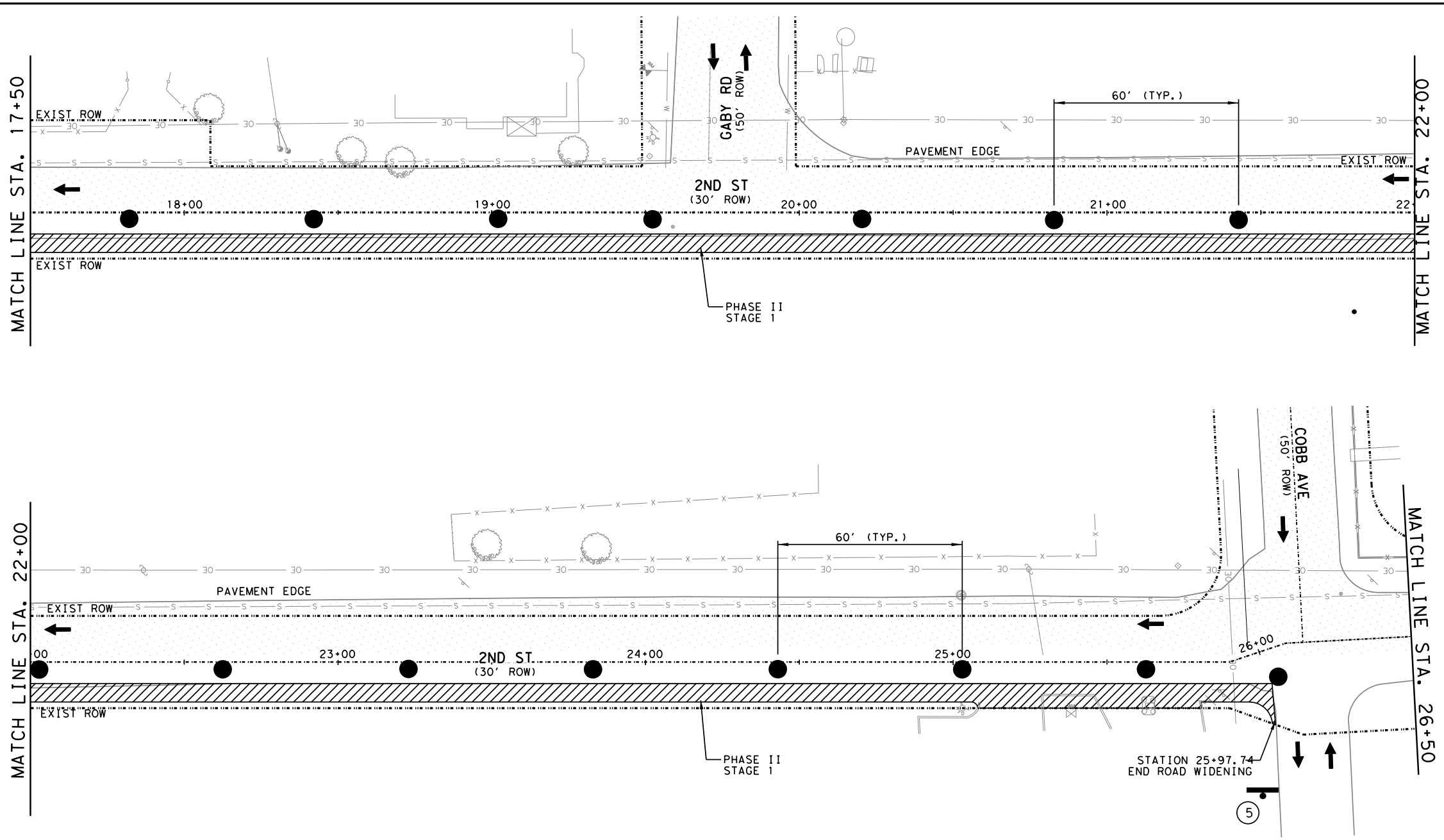
POSTED SPEED ON 2ND ST = 30 MPH

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CSJ 0924-06-616

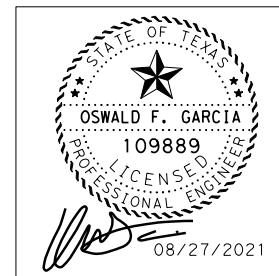
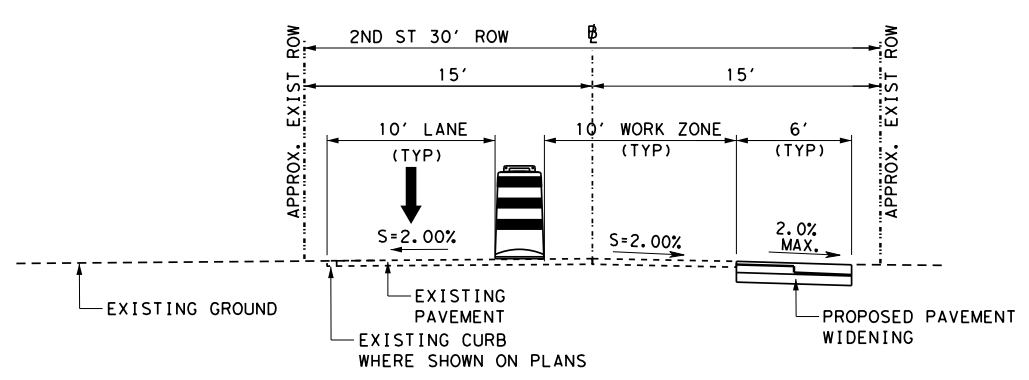
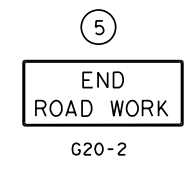
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	40
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

F:\19136\DWG\19136 - (SOUTH)\_LINDA\_TRAFFIC\_CONTROL\_PLAN\_(03).dgn 8/27/2021 12:30:26 PM jair



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

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CSJ 0924-06-616

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

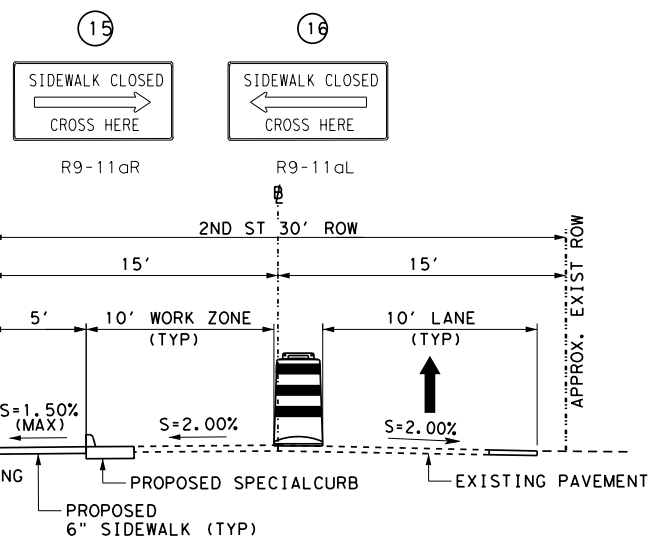
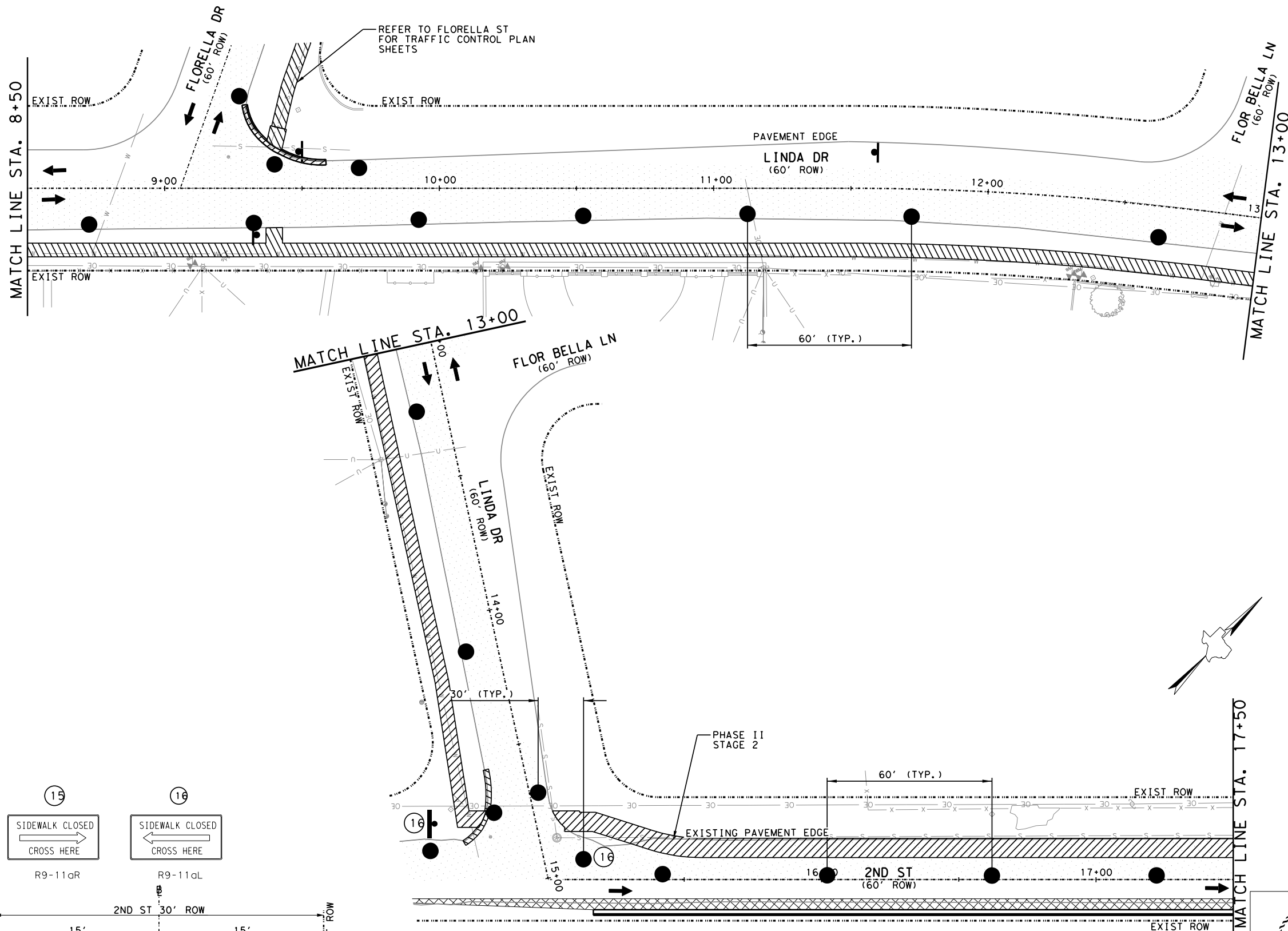
TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 1  
2ND STREET  
STA 17+50 TO STA 26+50  
SHEET 4 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	41
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

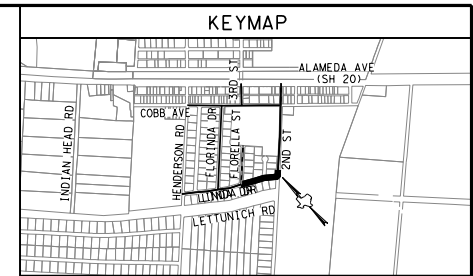
F:\19136\DWG\19136 - (SOUTH)-LINDA-TRAFFIC-CONTROL-PLAN\_(02)-STG-2.dgn 8/27/2021 12:30:26 PM jair



POSTED SPEED ON  
2ND ST  
= 30 MPH

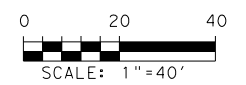


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 07-12-2021



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
  2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
  3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
  4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
  5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
  6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
  7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
  8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

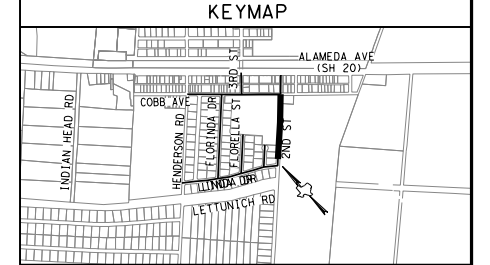
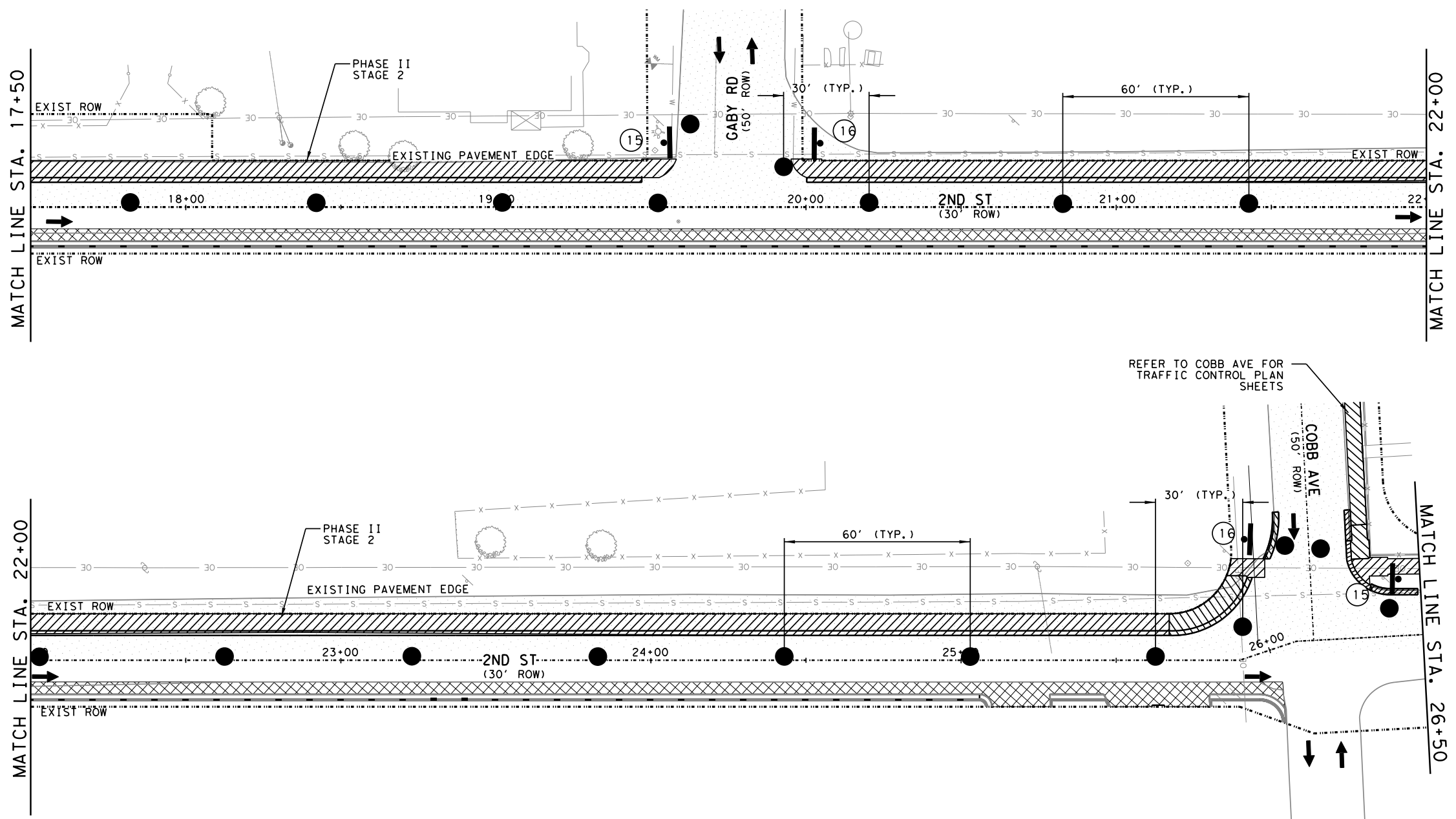
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 2  
LINDA DRIVE & 2ND STREET  
STA 8+50 TO STA 17+50

SHEET 3 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	42	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

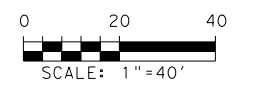
CSJ 0924-06-616

F:\19136\DN(S-C) - Linda Drive and 2nd Street\19136 - (SOUTH) - LINDA - TRAFFIC - CONTROL - PLAN - (3) - STG - 2 - .dgn 8/27/2021 12:30:27 PM jair



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
  2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
  3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
  4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
  5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
  6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
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  8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.

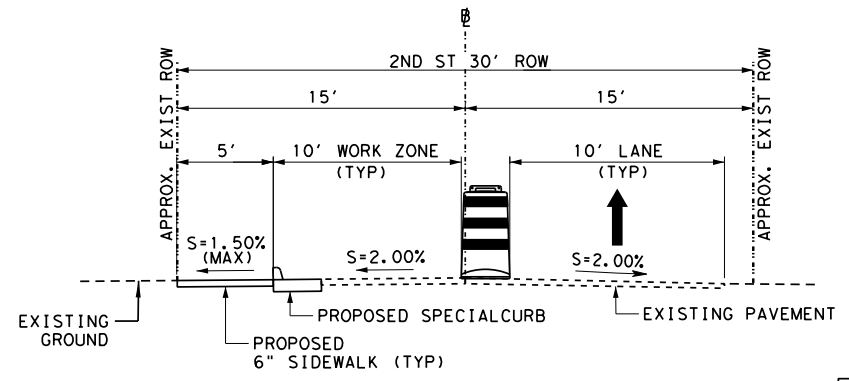
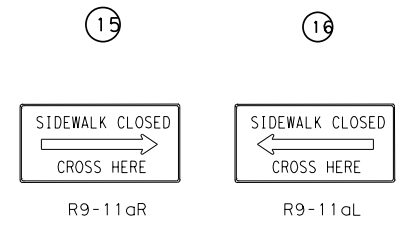


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



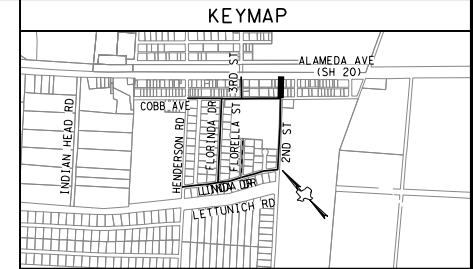
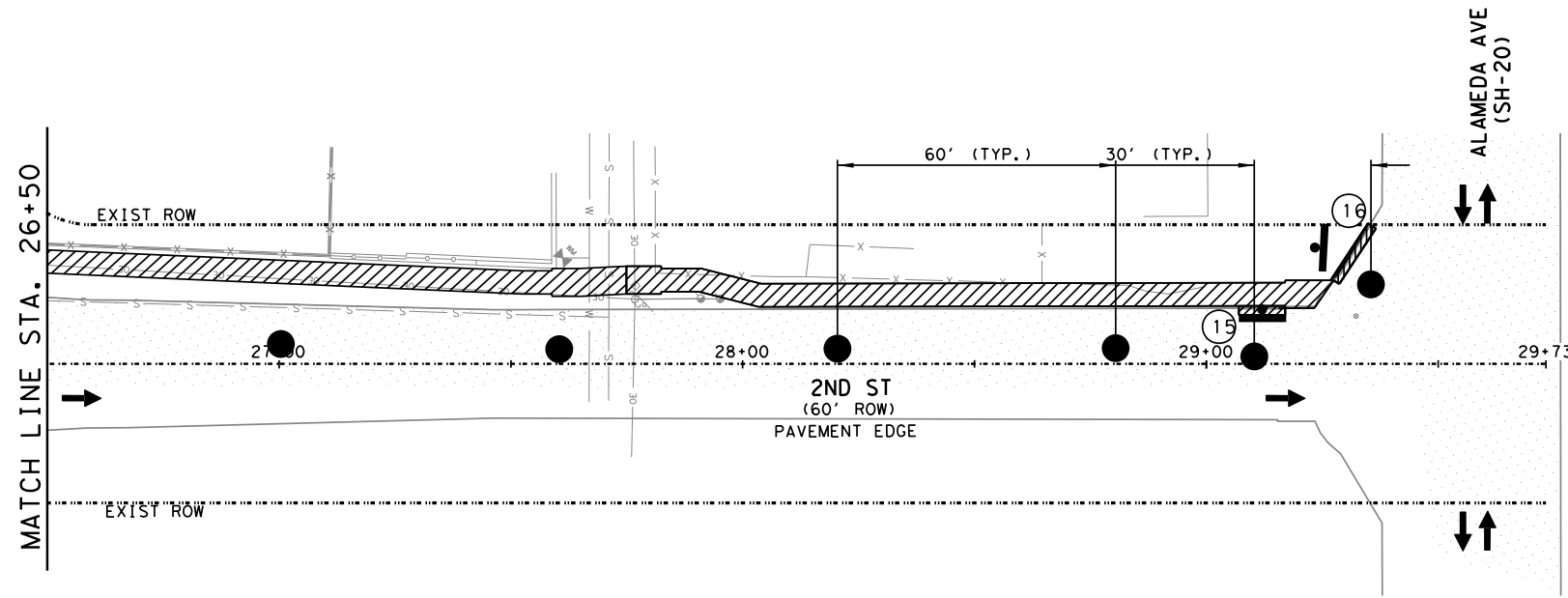
TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 2  
2ND STREET  
STA 17+50 TO STA 26+50  
SHEET 5 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	43
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021  
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 07-12-2021

CSJ 0924-06-616



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
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  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.

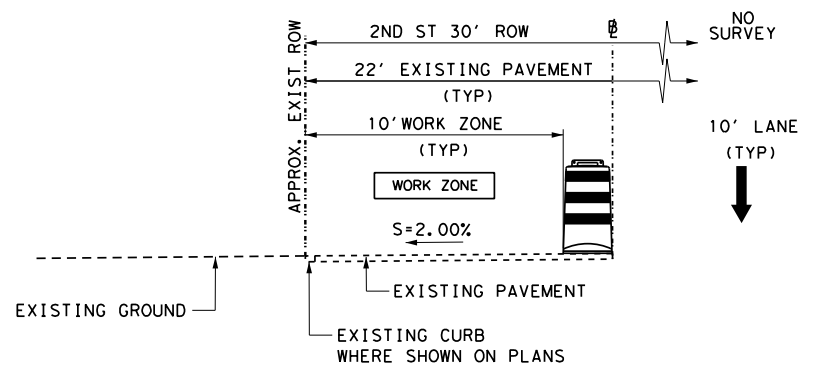
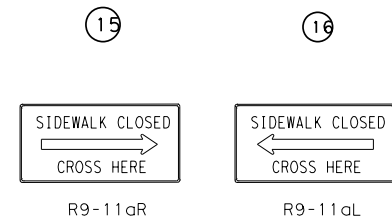


CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554



TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
 TRAFFIC CONTROL PLAN  
 PHASE II STAGE 2  
 2ND STREET  
 STA 26+50 TO STA 29+73.14

SHEET 6 OF 6		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	44
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

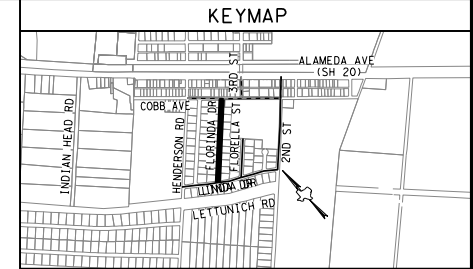
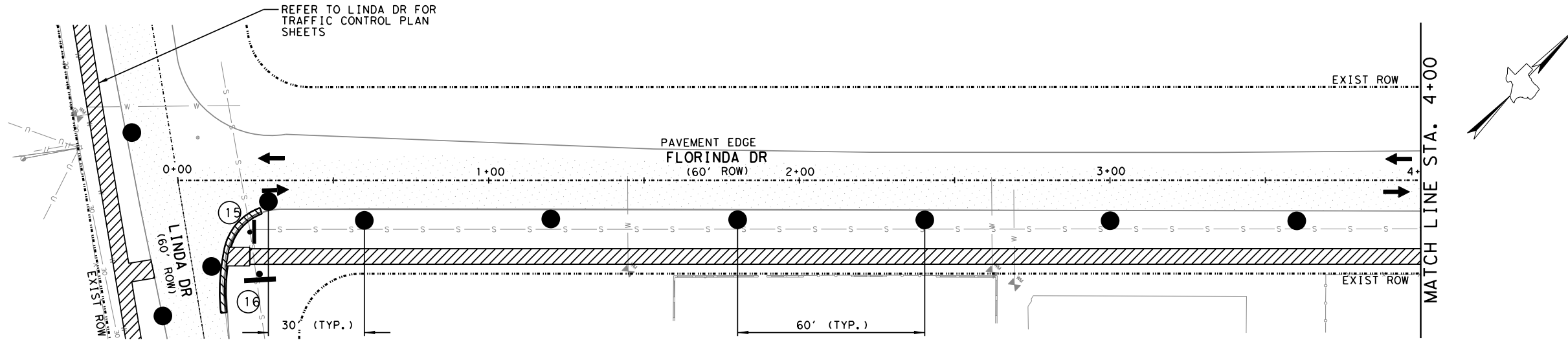


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CSJ 0924-06-616

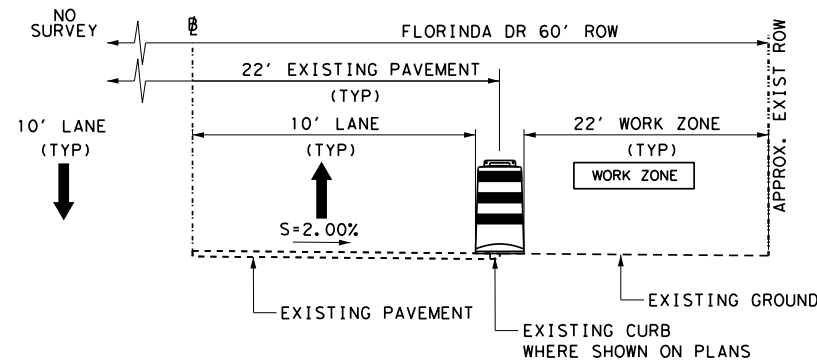
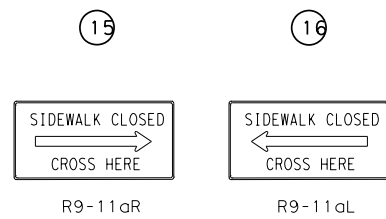
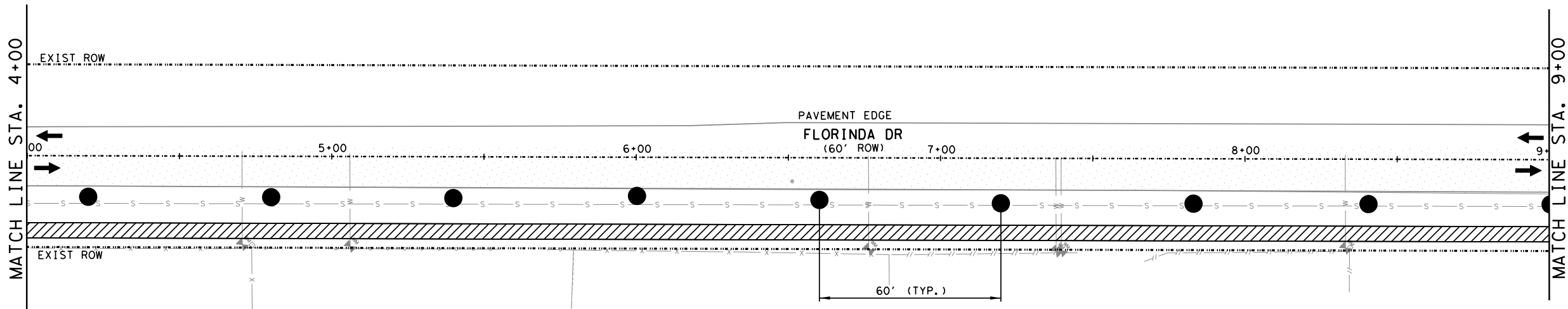


F:\19136\DG\N(S-D) - Florinda Drive\19136 - (SOUTH)\_FLORINDA\_TRAFFIC\_CONTROL\_PLAN\_(01).dgn 8/27/2021 12:30:28 PM jair



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
  2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
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  8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



POSTED SPEED ON FLORINDA DR = 30 MPH



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 07-12-2021

CSJ 0924-06-616

CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

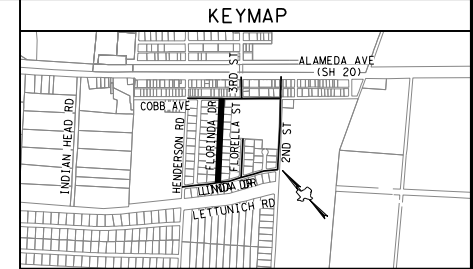
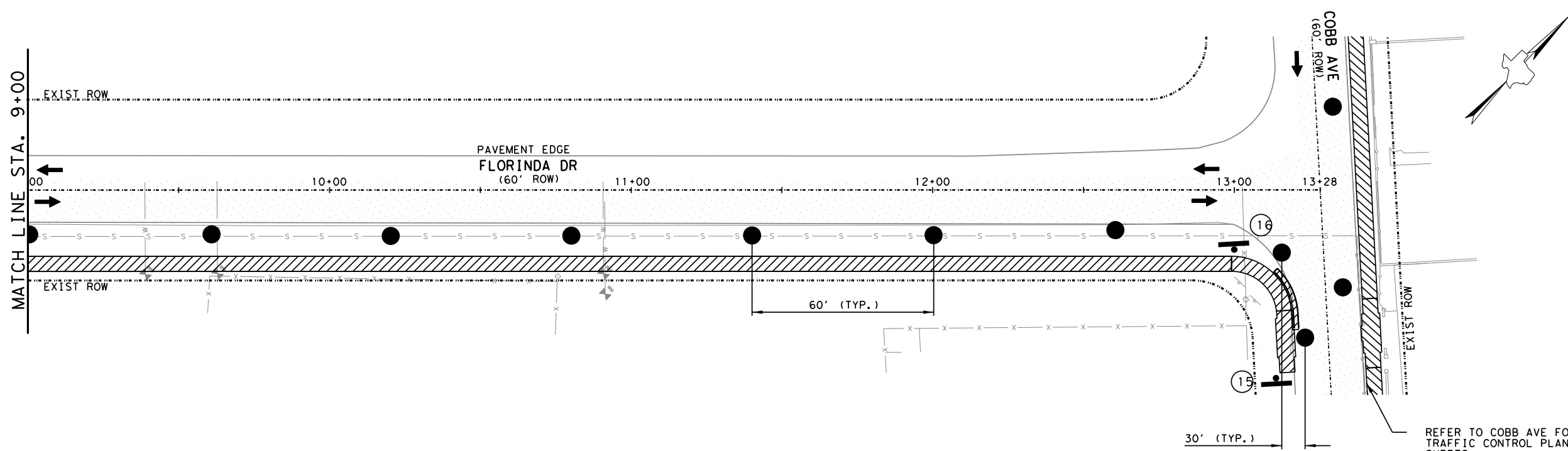


TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 TRAFFIC CONTROL PLAN  
 PHASE II STAGE 2  
 FLORINDA DRIVE  
 STA 0+00 TO STA 9+00

SHEET 1 OF 2		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	45
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

8/27/2021 12:30:29 PM jair

F:\19136\DGNS(D) - Florinda Drive\19136 - (SOUTH)\_FLORINDA\_TRAFFIC\_CONTROL\_PLAN\_(02).dgn



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

- GENERAL NOTES:**
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  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

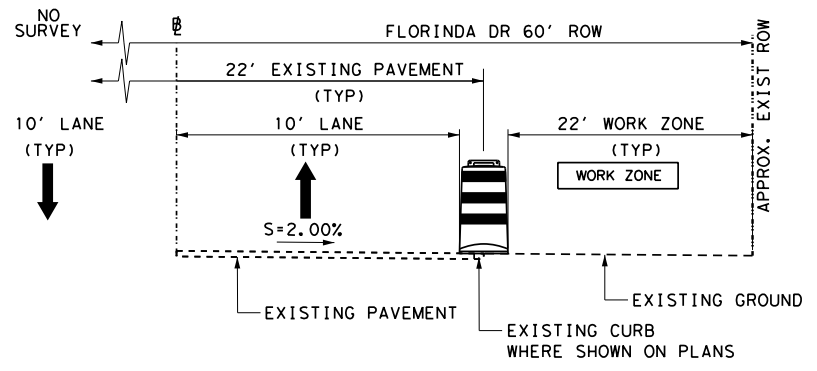
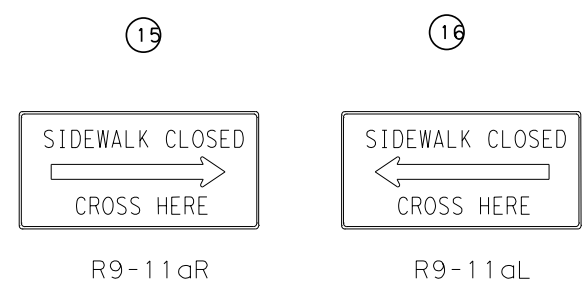
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 2  
FLORINDA DRIVE  
STA 9+00 TO STA 13+28

SHEET 2 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	46
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



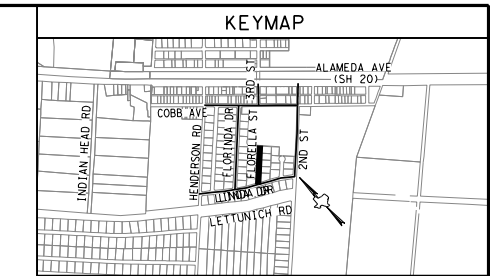
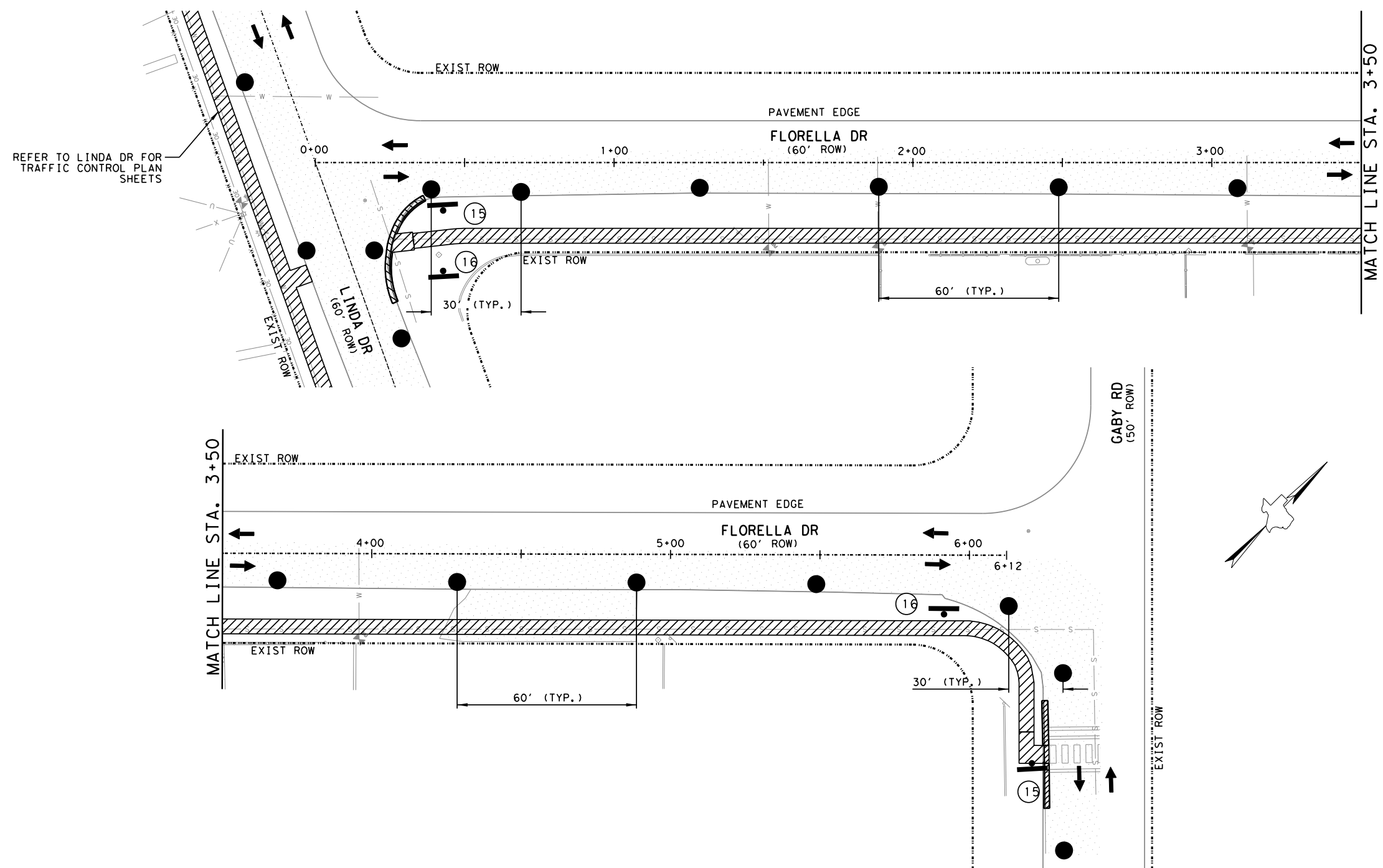
POSTED SPEED ON  
FLORINDA  
= 30 MPH



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 07-12-2021

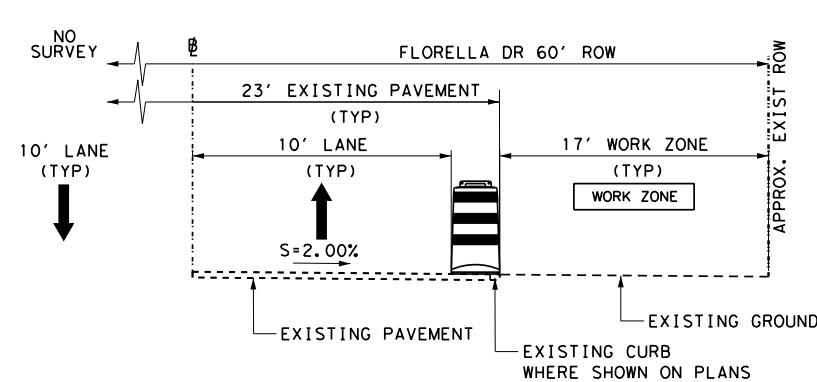
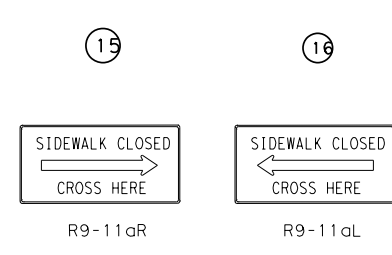
CSJ 0924-06-616

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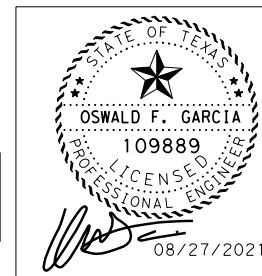


- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

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  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



POSTED SPEED ON FLORELLA ST = 30 MPH



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 07-12-2021

CSJ 0924-06-616

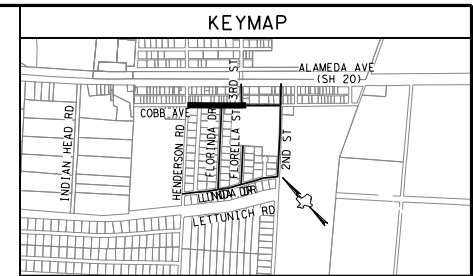
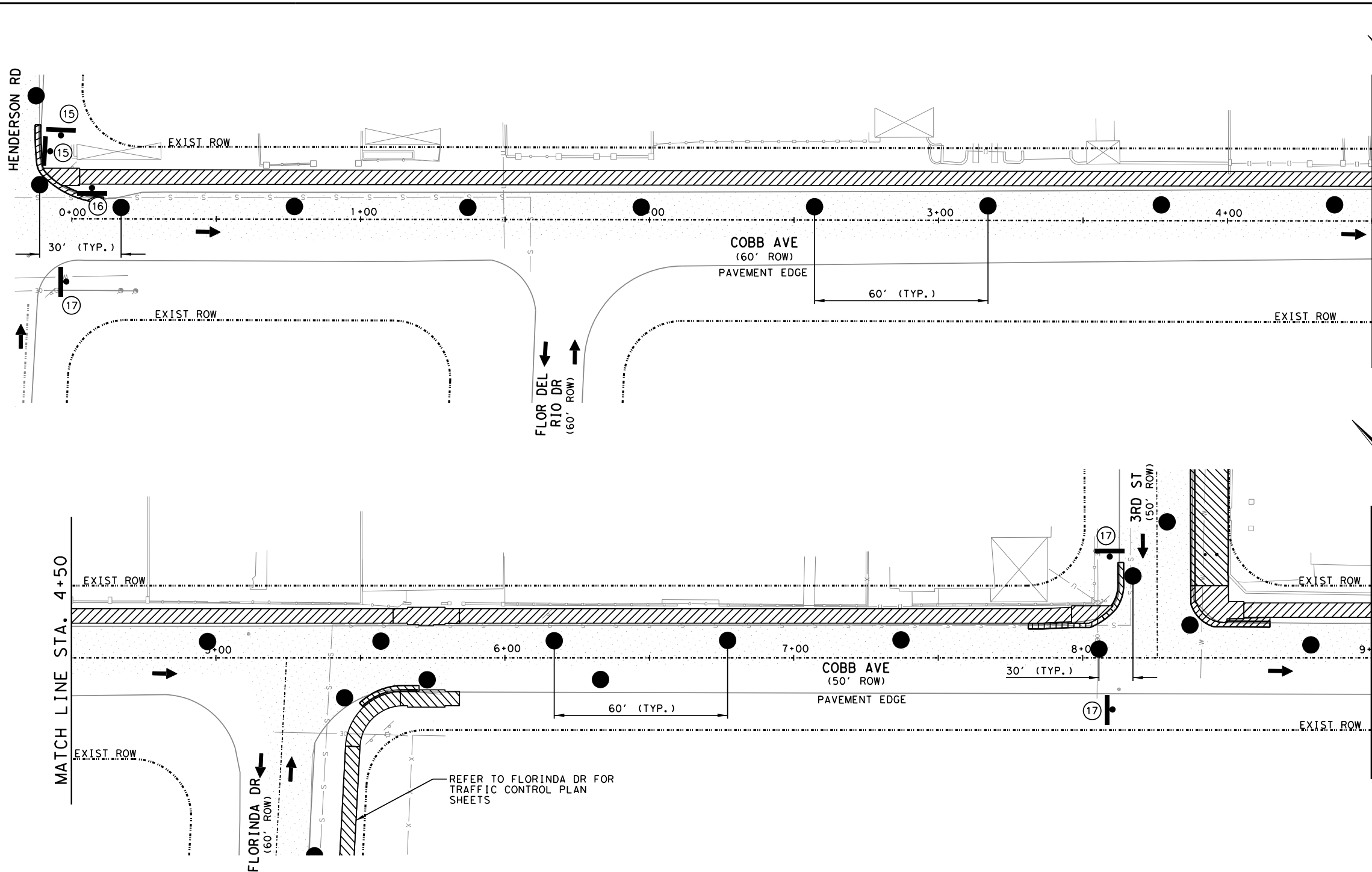
CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 TRAFFIC CONTROL PLAN  
 PHASE II STAGE 2  
 FLORELLA DRIVE  
 STA 0+00 TO STA 6+12

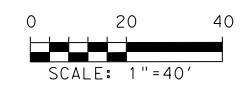
SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	47
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06		VARIOUS

F:\19136\DG\N(S-F) - Cobb Avenue\19136 - (SOUTH)\_COBB\_TRAFFIC\_CONTROL\_PLAN\_(01).dgn 8/27/2021 12:30:30 PM jair



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
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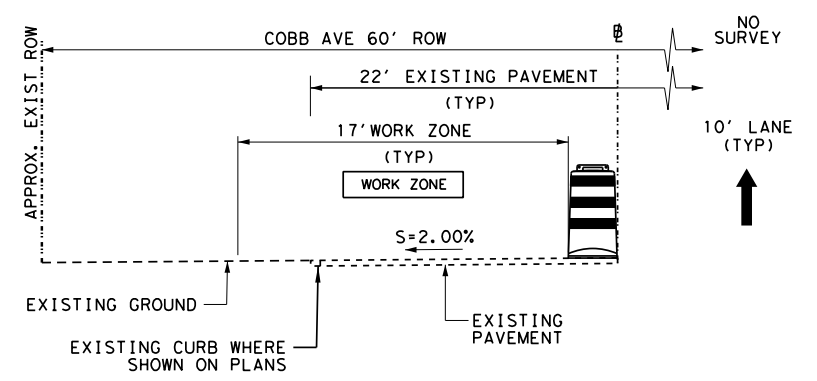
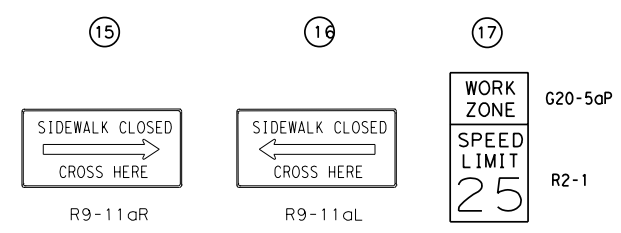


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 2  
COBB AVENUE  
STA 0+00 TO STA 9+00

SHEET 1 OF 2		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	48
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



POSTED SPEED ON  
COBB AVE  
= 30 MPH

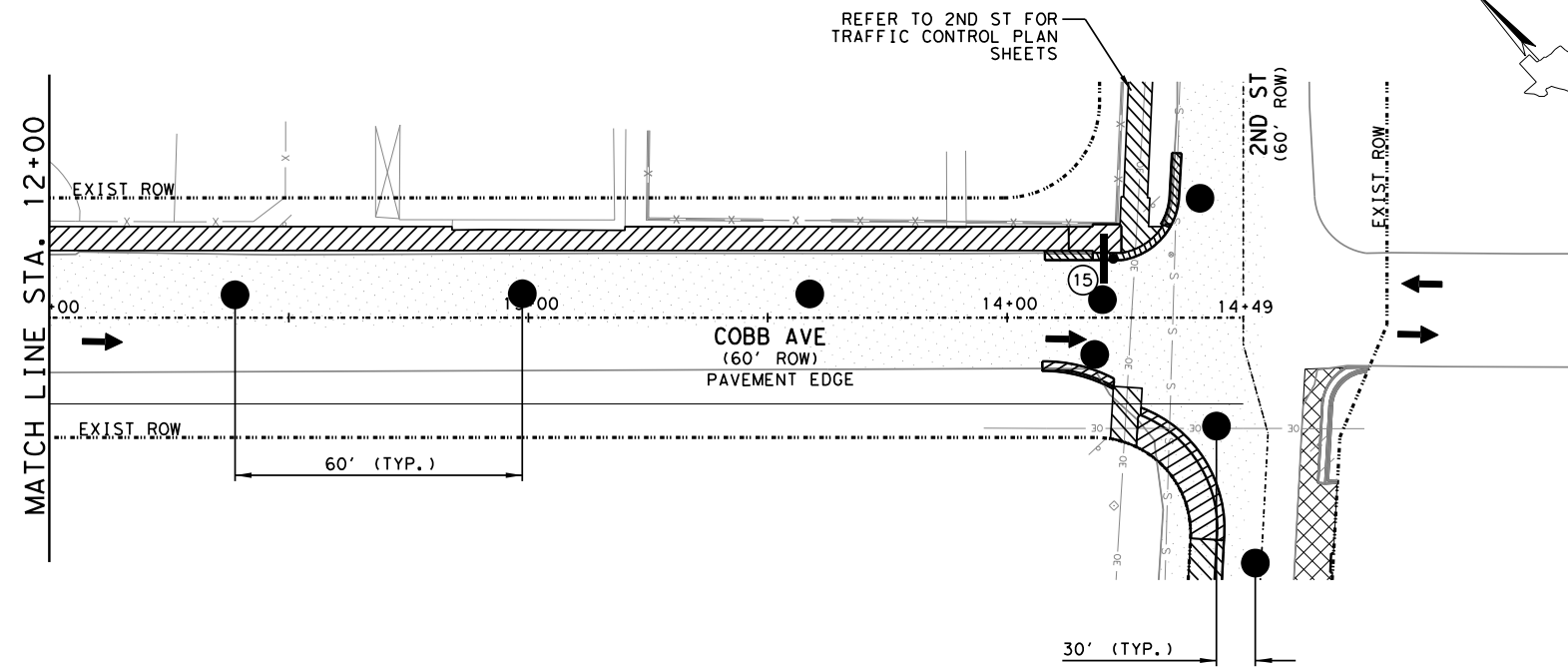
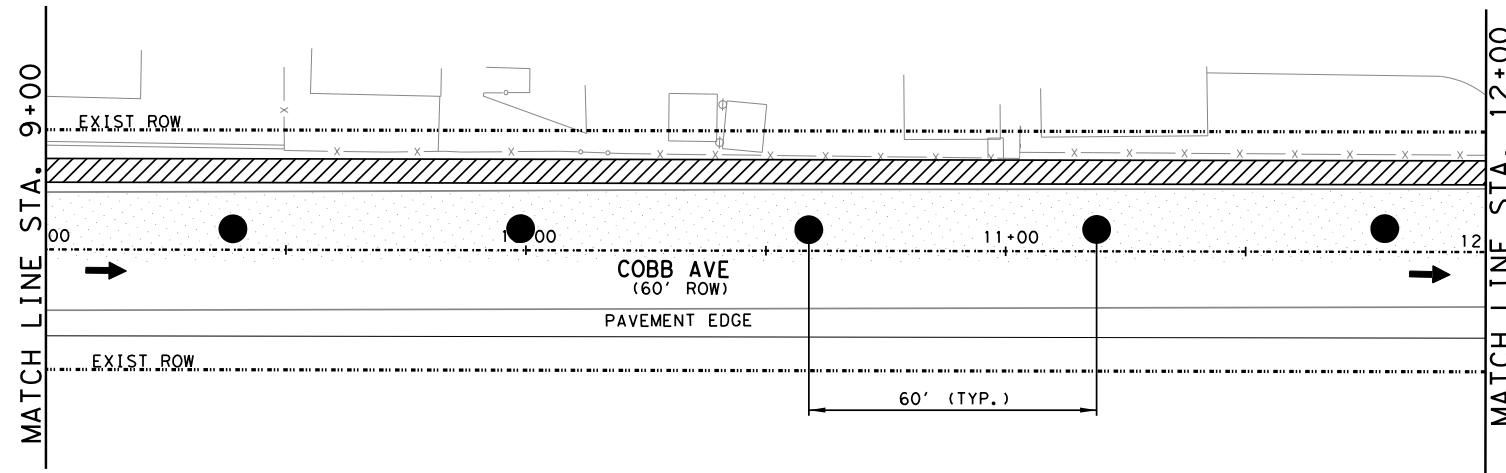


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 07-12-2021

CSJ 0924-06-616

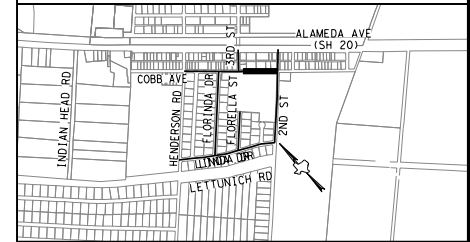
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F:\19136\DWG(S\F) - Cobb Avenue\19136 - (SOUTH)\_COBB\_TRAFFIC\_CONTROL\_PLAN\_02.dgn



REFER TO 2ND ST FOR TRAFFIC CONTROL PLAN SHEETS

KEYMAP

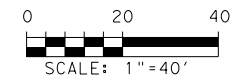


LEGEND

- PROPOSED SIDEWALK
- PROPOSED ASPHALT
- DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
- CONSTRUCTION WARNING SIGN
- CHANNELIZING DEVICE
- BARRICADE

GENERAL NOTES:

1. REFER TO BC SHEET AND TCP STANDARDS FOR TYPICAL WARNING SIGN SIZE AND SPACING.
2. SIGNS, BARRICADES AND CHANNELIZATION DEVICES MAY NOT BE SHOWN AT A PRECISE OR MEASURED POSITION. PLACE BARRICADES, DEVICES AND/OR SIGNS IN POSITIONS TO MEET FIELD CONDITIONS. FINAL SETUP SHALL BE APPROVED PRIOR TO FIELD ADJUSTMENTS.
3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
5. REFER TO LINE DIAGRAM AND OVERALL DETOUR PLAN FOR SIGNS AND DEVICES REQUIRED IN ADVANCE OF THE PROJECT AREA.
6. NO NIGHT WORK IS ALLOWED UNLESS APPROVED BY THE COUNTY OF EL PASO PROJECT INSPECTOR OR THE ENGINEER.
7. CONTRACTOR SHALL USE BC(10)-21 TCP(1-1)-18 FOR SHOULDER CLOSURE ALONG ALAMEDA, DURING SHARED USE PATH CONSTRUCTION ON 3RD ST.
8. IF DROP OFF AT END OF WORK DAY, PLACE APPLICABLE BARRICADES AND SIGNS TO NOTIFY DRIVERS OF DROP OFF.
9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.



CONSULTANT

PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.

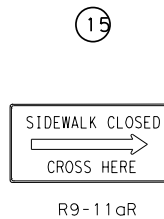
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

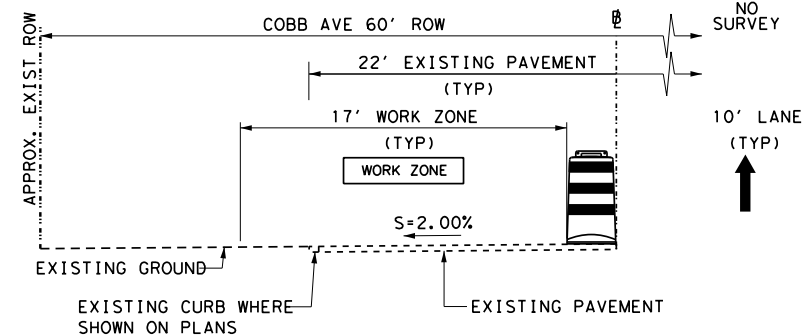


TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 TRAFFIC CONTROL PLAN  
 PHASE II STAGE 2  
 COBB AVENUE  
 STA 9+00 TO STA 14+49

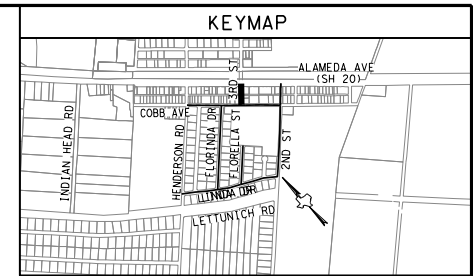
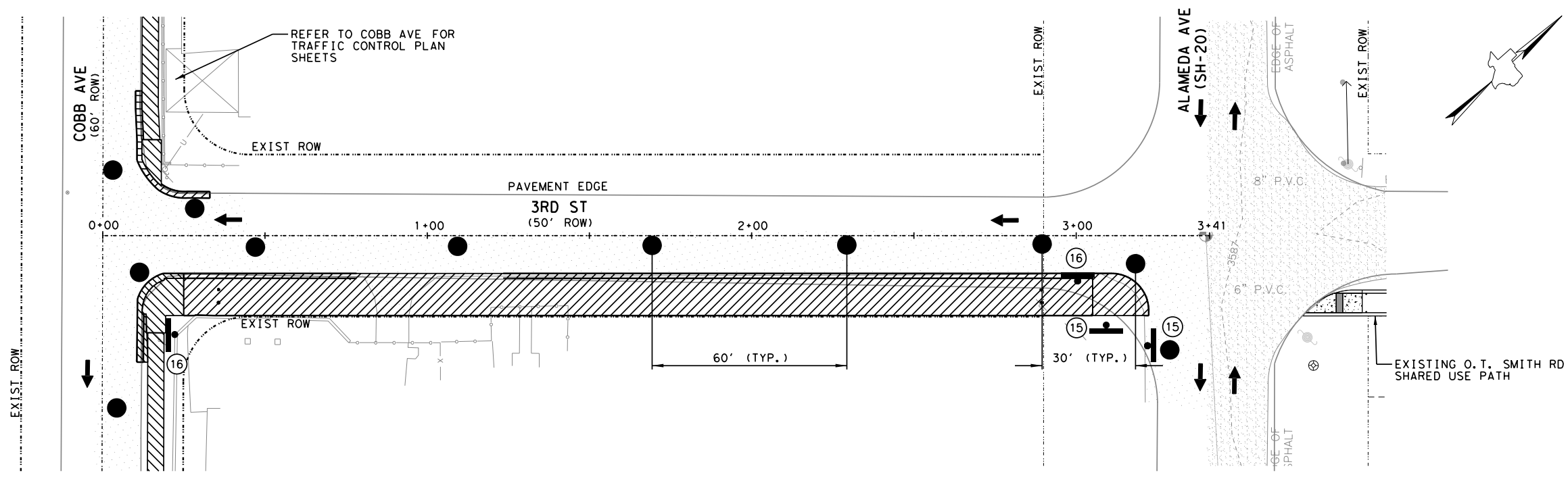
SHEET 2 OF 2		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	49
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



R9-11aR

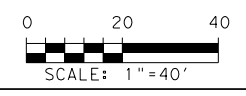


CSJ 0924-06-616



- LEGEND**
- PROPOSED SIDEWALK
  - PROPOSED ASPHALT
  - DENOTES TRAFFIC LANE AND DIRECTION OF TRAFFIC
  - CONSTRUCTION WARNING SIGN
  - CHANNELIZING DEVICE
  - BARRICADE

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  3. PROVIDE ADEQUATE TRANSITION BETWEEN COMPLETED PHASES AND REMAINING CONSTRUCTION.
  4. REMOVE ALL EXISTING SIGNS AND MARKINGS IN CONFLICT WITH CONSTRUCTION AS SOON AS POSSIBLE.
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  9. CONTRACTOR TO PROVIDE SAFE PASSAGE OF PEDESTRIANS DURING SIDEWALK CONSTRUCTION.

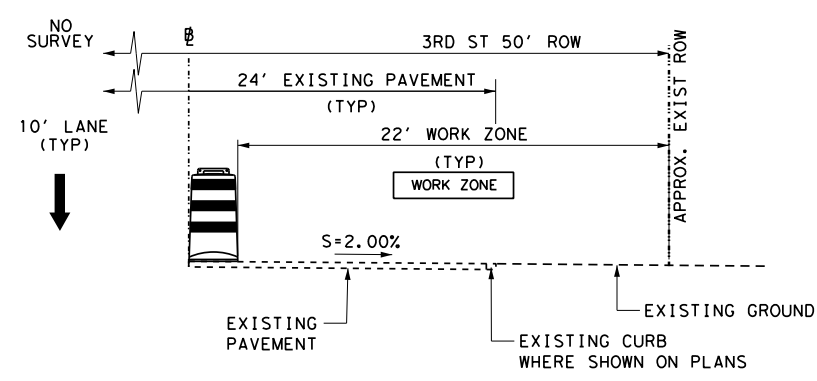
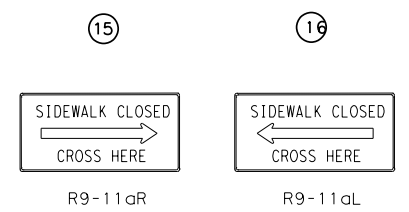


CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
TRAFFIC CONTROL PLAN  
PHASE II STAGE 2  
3RD ST  
STA 0+00 TO STA 3+41

SHEET 1 OF 1		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	50
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



POSTED SPEED ON  
3RD ST  
= 30 MPH













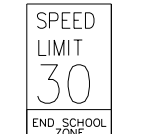

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 07-12-2021

CSJ 0924-06-616

# SUMMARY OF SMALL SIGNS

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DATE: 8/27/2021 12:30:33 PM  
 FILE: F:\19136\19136.dgn  
 Summary of Small Signs (NORTH).dgn

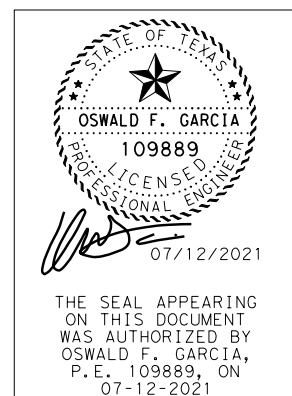
PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)			
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION				
										PREFABRICATED		1EXT or 2EXT = # of Ext		
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"	BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels	TY = TYPE TY N TY S		
87	1	S1-1		36x36	X				10BWG	1	SA	T		
	2	SW16-7P		24x12										
87	3	S1-1		36x36	X				10BWG	1	SA	T		
	4	SW16-7P		24x12										
87	5	R1-1		30x30	X				10BWG	1	SA	P		
88	6	R1-1		30x30	X				10BWG	1	SA	P		
88	7	S1-1		36x36	X				10BWG	1	SA	T		
	8	SW16-9P		24x12										
89	9	R1-1		30x30	X				10BWG	1	SA	P		
90	10	R1-1		30x30	X				10BWG	1	SA	P		
90	11	R2-1		24x30	X				10BWG	1	SA	P		
	97	S5-2aTP		24x10										

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.  
<http://www.txdot.gov/>

**NOTE:**

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).



**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**  
**SUMMARY OF SMALL SIGNS**  
**NORTH SIDEWALKS**

SOSS 1 OF 3












FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	51	

CSJ 0924-06-617

# SUMMARY OF SMALL SIGNS

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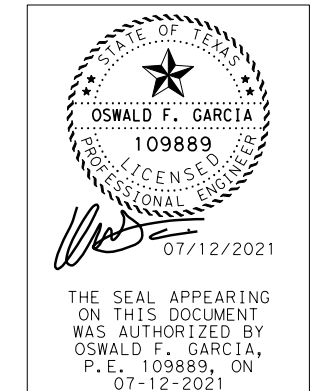
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 FILE: F:\19136\DGN\19136 - SOSS Summary of Small Signs (NORTH).dgn


PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"		TY = TYPE TY N TY S
91	12	S1-1		36x36	X				SA	T		
	13	SW16-9P		24x12								
91	14	S1-1		36x36	X				SA	T		
	15	SW16-7P		24x12								
91	16	S1-1		36x36	X				SA	T		
	17	SW16-7P		24x12								
91	18	S1-1		36x36	X				SA	T		
	19	SW16-9P		24x12								
91	20	R1-1		30x30	X				SA	P		
92	21	R1-1		30x30	X				SA	P		
92	22	R1-1		30x30	X				SA	P		

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.  
<http://www.txdot.gov/>

- NOTE:**
- Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
  - For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
  - For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).





**Texas Department of Transportation**

*Traffic Operations Division Standard*

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 SUMMARY OF SMALL SIGNS  
 NORTH SIDEWALKS  
 SOSS

2 OF 3

FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	52	












CSJ 0924-06-617



# SUMMARY OF SMALL SIGNS

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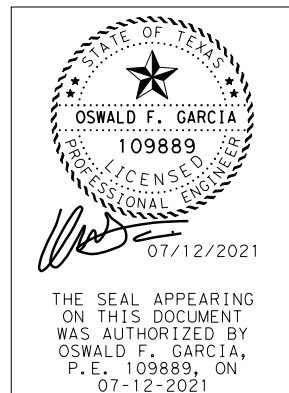
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 FILE: F:\19136\DGN\19136 - SOSS Summary of Small Signs (NORTH).dgn

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"		TY = TYPE TY N TY S
95	23	R1-1		30x30	X			10BWG	1	SA	P	
95	24	R1-1		30x30	X			10BWG	1	SA	P	
96	25	R1-1		30x30	X			10BWG	1	SA	P	
96	26	S1-1		36x36	X			10BWG	1	SA	T	
	27	SW16-9P		24x12								
96	28	S1-1		36x36	X			10BWG	1	SA	T	
	29	SW16-7P		24x12								
96	30	S1-1		36x36	X			10BWG	1	SA	T	
	31	SW16-7P		24x12								
96	32	S1-1		36x36	X			10BWG	1	SA	T	
	33	SW16-7P		24x12								

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

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

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**SUMMARY OF SMALL SIGNS**  
 NORTH SIDEWALKS  
**SOSS**













FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	53	

CSJ 0924-06-617

# SUMMARY OF SMALL SIGNS

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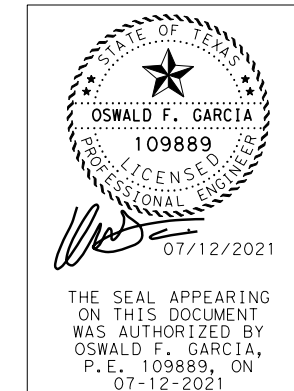
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 FILE: F:\19136\19136.dgn - SOSS Summary of Small Signs (SOUTH).dgn

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		1EXT or 2EXT = # of Ext
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"	BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels	TY = TYPE TY N TY S
107	34	S1-1		36x36	X			10BWG	1	SA	T	
	35	SW16-9P		24x12								
107	36	S1-1		36x36	X			10BWG	1	SA	T	
	37	SW16-7P		24x12								
107	38	S1-1		36x36	X			10BWG	1	SA	T	
	39	SW16-7P		24x12								
107	40	S1-1		36x36	X			10BWG	1	SA	T	
	41	SW16-9P		24x12								
107	42	S1-1		36x36	X			10BWG	1	SA	T	
	43	SW16-9P		24x12								
108	44	S1-1		36x36	X			10BWG	1	SA	T	
	45	SW16-7P		24x12								

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

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 Texas Department of Transportation  
 Traffic Operations Division Standard

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**  
**SUMMARY OF SMALL SIGNS**  
**SOUTH SIDEWALKS**

**SOSS** 1 OF 6













FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	54	

CSJ 0924-06-616

# SUMMARY OF SMALL SIGNS

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DATE: 8/27/2021 12:30:34 PM  
 FILE: F:\19136\DGN\19136 - SOSS Summary of Small Signs (SOUTH).dgn

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		1EXT or 2EXT = # of Ext
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"	BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels	TY = TYPE TY N TY S
108	46	S1-1		36x36	X			10BWG	1	SA	T	
	47	SW16-7P		24x12								
108	48	S1-1		36x36	X			10BWG	1	SA	T	
	49	SW16-9P		24x12								
108	50	R1-1		30x30	X			10BWG	1	SA	P	
109	51	R1-1		30x30	X			10BWG	1	SA	P	
109	52	R1-1		30x30	X			10BWG	1	SA	P	
	53	R1-3P		18x6								
109	54	R1-1		30x30	X			10BWG	1	SA	P	
	55	R1-3P		18x6								
110	56	S1-1		36x36	X			10BWG	1	SA	T	
	57	SW16-9P		24x12								

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

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  - For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).



07/12/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 07-12-2021

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**

**SUMMARY OF SMALL SIGNS**

**SOUTH SIDEWALKS**

**SOSS**

2 OF 6













FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	55	

CSJ 0924-06-616

# SUMMARY OF SMALL SIGNS

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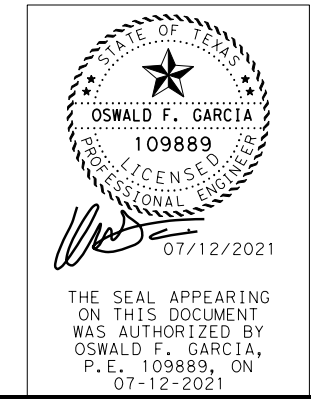
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PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"		TY = TYPE TY N TY S
113	56	S1-1		36x36					SA	T		
	57	SW16-9P		24x12								
113	58	S1-1		36x36	X				SA	T		
	59	SW16-7P		24x12								
113	60	S1-1		36x36	X				SA	T		
	61	SW16-7P		24x12								
114	62	R1-1		30x30	X				SA	P		
	63	R1-3P		18x6								
114	64	R1-1		30x30	X				SA	P		
	65	R1-3P		18x6								
114	66	S1-1		36x36	X				SA	T		
	67	SW16-9P		24x12								

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.  
<http://www.txdot.gov/>

- NOTE:**
- Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
  - For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
  - For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).





*Traffic Operations Division Standard*

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 SUMMARY OF SMALL SIGNS  
 SOUTH SIDEWALKS  
 SOSS

3 OF 6

FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	6161 ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	56	

CSJ 0924-06-616

# SUMMARY OF SMALL SIGNS

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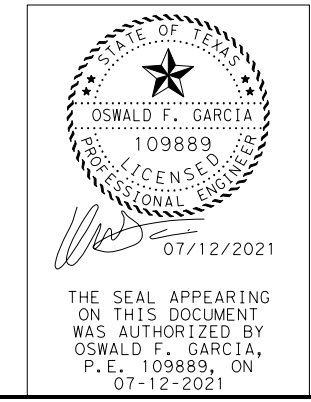
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PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"		TY = TYPE TY N TY S
114	68	S4-3P		24x8	X							
	69	R2-1		24x30								
	70	S4-1P		24x10								
	71	S7-1T		24x18								
114	72	R2-1		24x30	X							
	73	S5-2GTP		24x10								
114	74	S1-1		36x36	X							
	75	SW16-7P		24x12								
114	76	S1-1		36x36	X							
	77	SW16-7P		24x12								
114	78	S1-1		36x36	X							
	79	SW16-9P		24x12								
114	80	R1-1		30x30	X							
	81	R1-3P		18x6								

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

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- NOTE:**
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  - For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
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Traffic Operations Division Standard

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**  
**SUMMARY OF SMALL SIGNS**  
**SOUTH SIDEWALKS**  
**SOSS**

4 OF 6

FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	57	

CSJ 0924-06-616

# SUMMARY OF SMALL SIGNS

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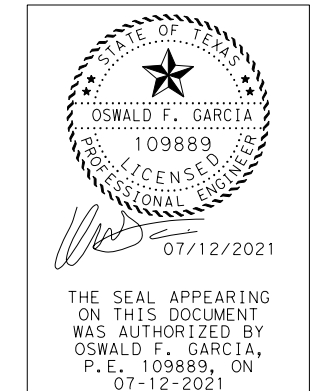
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PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)				BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)	
							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
										PREFABRICATED		TEXT or 2EXT = # of Ext
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	P = "Plain" T = "T" U = "U"	1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels	TY = TYPE TY N TY S
115	82	S4-3P		24x8	X							
	83	R2-1		24x30								
	84	S4-1P		24x10								
	85	S7-1T		24x18								
114	86	R1-1		30x30	X							
	87	R1-3P		18x6								
116	88	R1-1		30x30	X							
116	89	S1-1		36x36	X							
	90	SW16-9P		24x12								
116	91	R1-1		30x30	X							
	92	R1-3P		18x6								
116	93	S1-1		36x36	X							
	94	SW16-7P		24x12								

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

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Traffic Operations Division Standard  
**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**  
**SUMMARY OF SMALL SIGNS**  
**SOUTH SIDEWALKS**  
**SOSS**

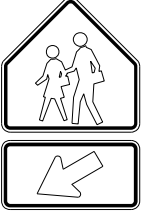
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REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	58	

CSJ 0924-06-616

# SUMMARY OF SMALL SIGNS

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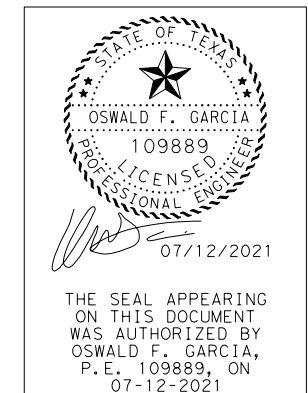
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							POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION	
							FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	1 or 2	UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	PREFABRICATED P = "Plain" T = "T" U = "U"	
116	95 96	S1-1 SW16-7P		36x36  24x12	X		10BWG	1	SA	T	


ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

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**NOTE:**

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).




Traffic Operations Division Standard

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**  
**SUMMARY OF SMALL SIGNS**  
**SOUTH SIDEWALKS**  
**SOSS**

6 OF 6

FILE: slums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CR: TxDOT
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REVISIONS	0924	06	616, ETC	CS
4-16	DIST	COUNTY	SHEET NO.	
8-16	ELP	EL PASO	59	

CSJ 0924-06-616

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DATE:  
 FILE:

**BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:**

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.
11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.
12. The Engineer has the final decision on the location of all traffic control devices.
13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

**WORKER SAFETY NOTES:**

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

**COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES**

1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.
2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

<p>THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT  <a href="http://www.txdot.gov">http://www.txdot.gov</a></p>
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

SHEET 1 OF 12



**BARRICADE AND CONSTRUCTION  
 GENERAL NOTES  
 AND REQUIREMENTS**

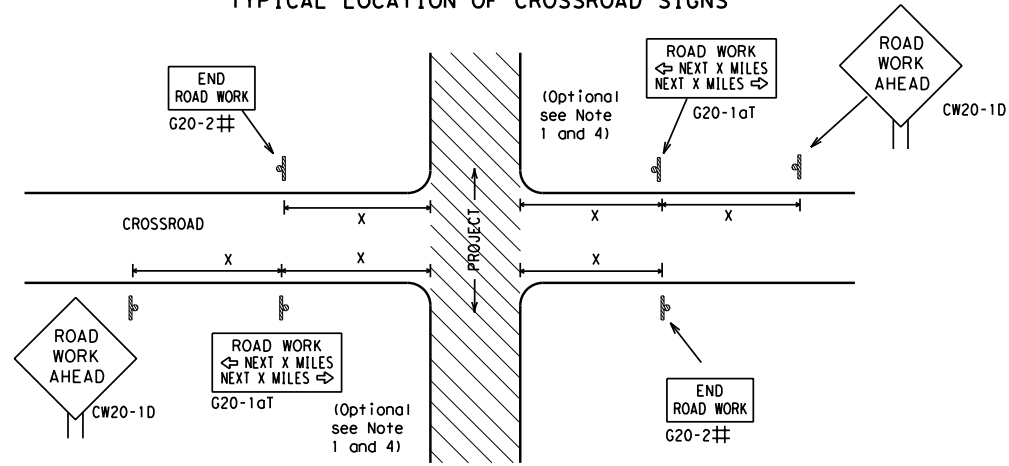
**BC (1) - 21**

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© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
REVISIONS		0924	06	616, ETC	VARIOUS				
4-03	7-13	DIST	COUNTY		SHEET NO.				
9-07	8-14	ELP	EL PASO		60				
5-10	5-21								



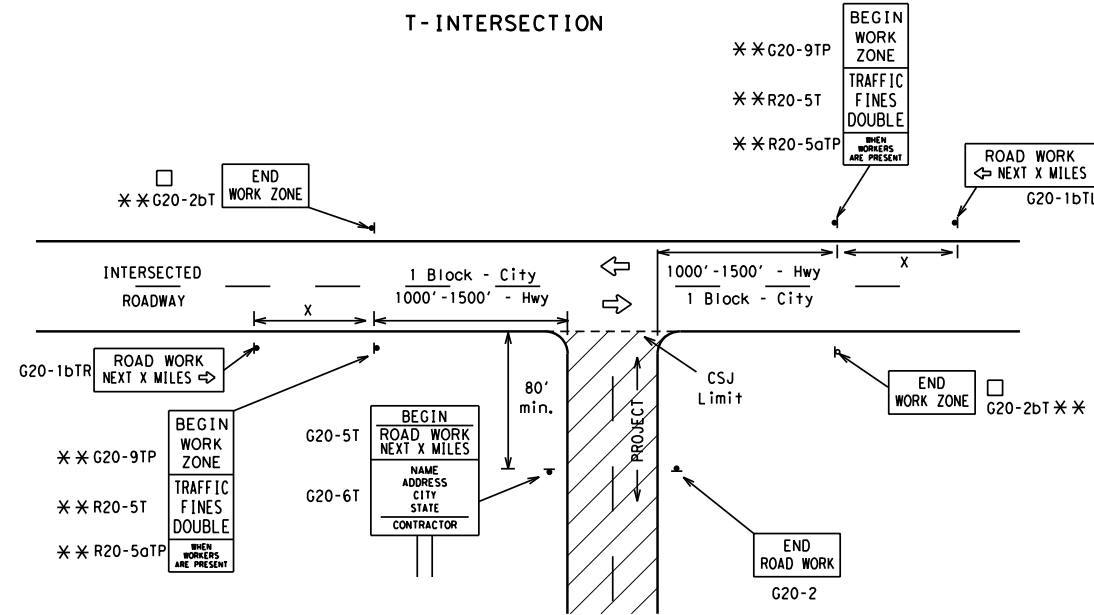
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**TYPICAL LOCATION OF CROSSROAD SIGNS**



- ## May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)
- The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
  - The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
  - Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
  - The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
  - Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
  - When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

**T-INTERSECTION**



**CSJ LIMITS AT T-INTERSECTION**

- The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
- If construction closes the road at a T-intersection, the Contractor shall place the "CONTRACTOR NAME" (G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR) signs shall be replaced by the detour signing called for in the plans.

**TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING<sup>1,5,6</sup>**

Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed MPH	Sign Δ Spacing "x" Feet (Apprx.)
CW20 <sup>4</sup>	48" x 48"	48" x 48"	30	120
CW21			35	160
CW22			40	240
CW23			45	320
CW25	36" x 36"	48" x 48"	50	400
CW1, CW2, CW7, CW8, CW9, CW11, CW14			55	500 <sup>2</sup>
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12			60	600 <sup>2</sup>
			65	700 <sup>2</sup>
			70	800 <sup>2</sup>
	75	900 <sup>2</sup>		
	80	1000 <sup>2</sup>		
	*	*	*	* <sup>3</sup>

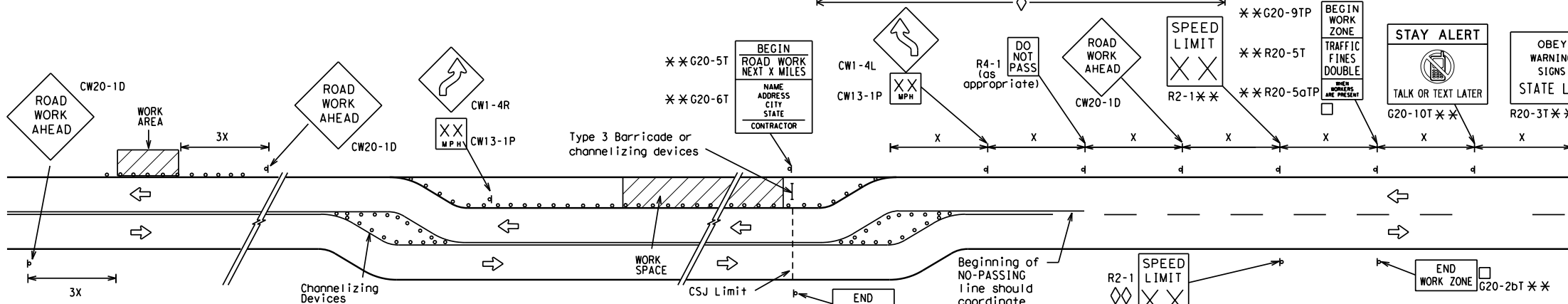
\* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

Δ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

**GENERAL NOTES**

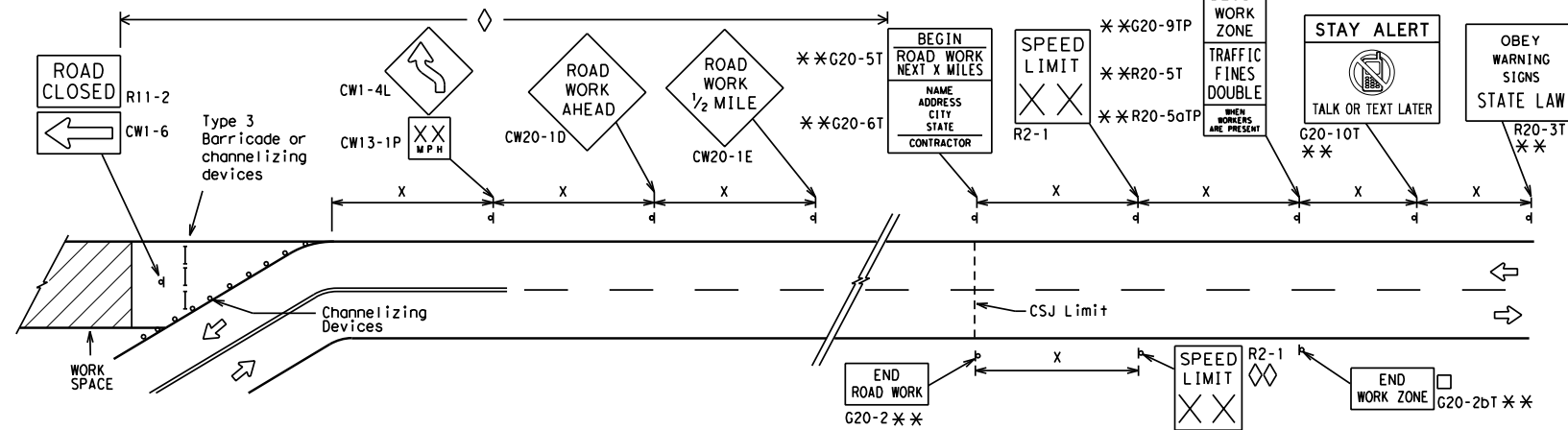
- Special or larger size signs may be used as necessary.
- Distance between signs should be increased as required to have 1500 feet advance warning.
- Distance between signs should be increased as required to have 1/2 mile or more advance warning.
- 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
- Only diamond shaped warning sign sizes are indicated.
- See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

**WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS**



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

**SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS**



**NOTES**

- The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "x" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.
- The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.
  - CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.
  - Area for placement of "ROAD WORK AHEAD" (CW20-1D) sign and other signs or devices as called for on the Traffic Control Plan.
  - Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND	
—	Type 3 Barricade
○ ○ ○	Channelizing Devices
■	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12

**BARRICADE AND CONSTRUCTION PROJECT LIMIT**

**BC (2) - 21**

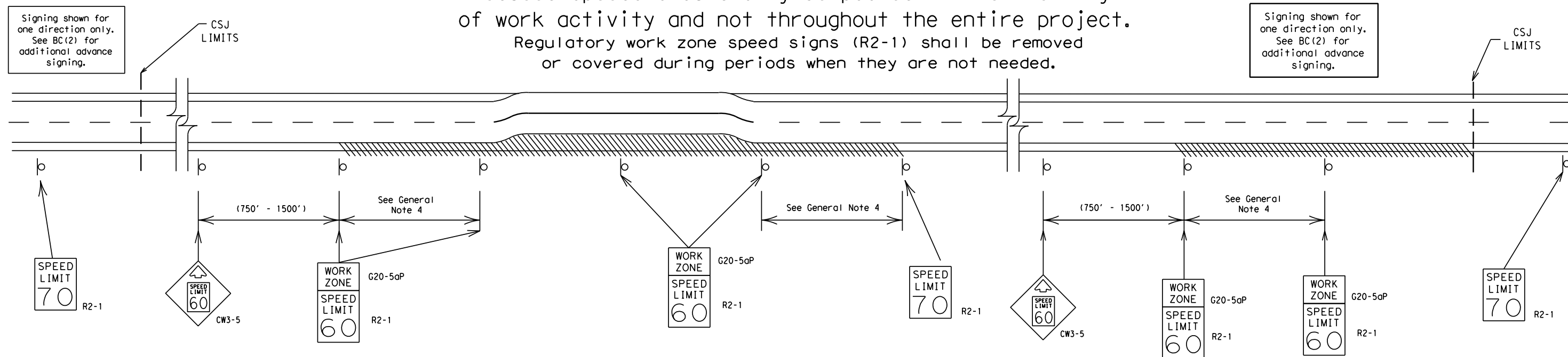
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© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
9-07 8-14	DIST	COUNTY	SHEET NO.	
7-13 5-21	ELP	EL PASO	61	

DATE: FILE:

# TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



## GUIDANCE FOR USE:

### LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- rough road or damaged pavement surface
- substantial alteration of roadway geometrics (diversions)
- construction detours
- grade
- width
- other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

### SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

## GENERAL NOTES

- Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
- Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
- Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
- Frequency of work zone speed limit signs should be:
 

40 mph and greater	0.2 to 2 miles
35 mph and less	0.2 to 1 mile
- Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
- Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
- Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
- Techniques that may help reduce traffic speeds include but are not limited to:
  - Law enforcement.
  - Flagger stationed next to sign.
  - Portable changeable message sign (PCMS).
  - Low-power (drone) radar transmitter.
  - Speed monitor trailers or signs.
- Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
- For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

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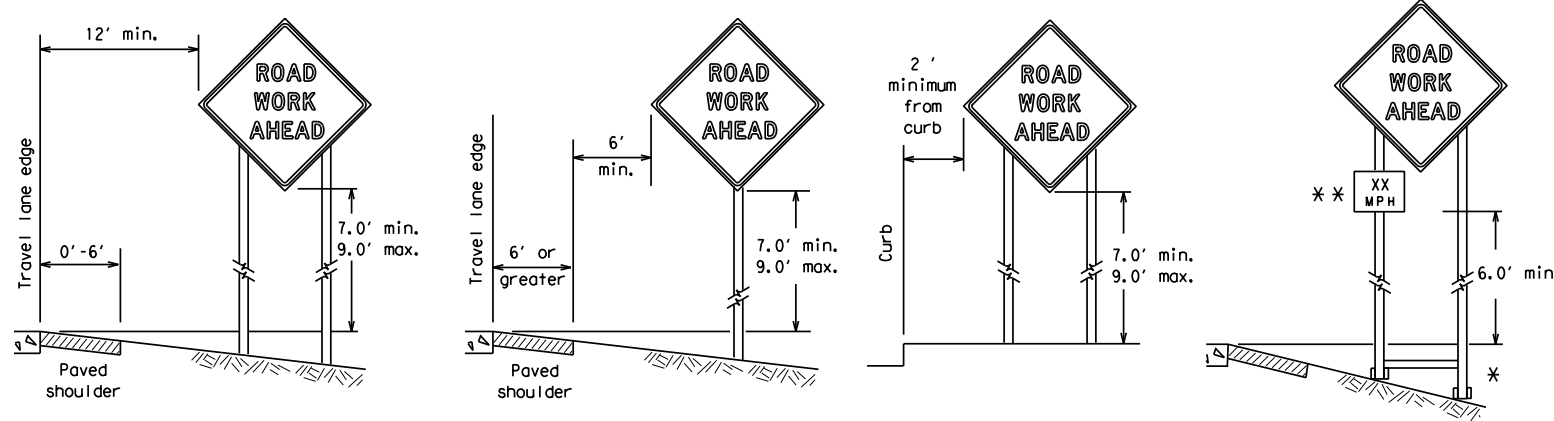
## BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC (3) - 21

FILE:	bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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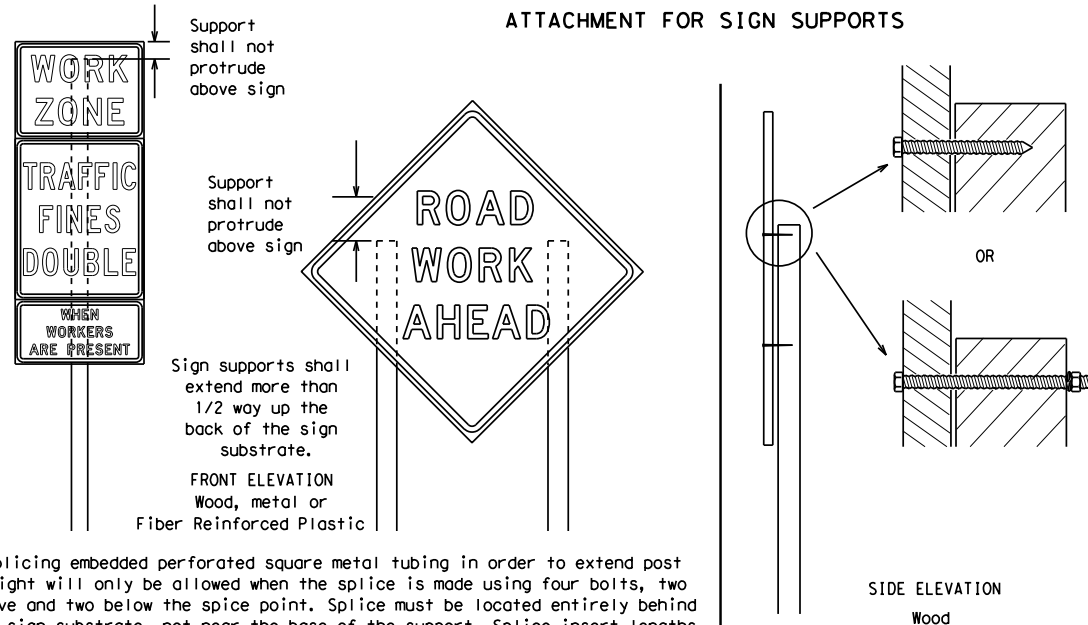
**TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS**



\* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

\*\* When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

**ATTACHMENT FOR SIGN SUPPORTS**



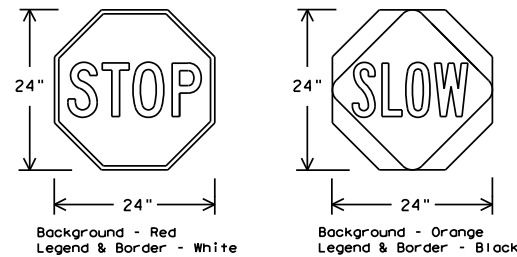
Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

**STOP/SLOW PADDLES**

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
2. STOP/SLOW paddles shall be retroreflectORIZED when used at night.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



SHEETING REQUIREMENTS (WHEN USED AT NIGHT)		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B <sub>FL</sub> OR C <sub>FL</sub> SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

**CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS**

1. Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (LOGO), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
2. When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRs standard sheets or the CWZTCD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

**GENERAL NOTES FOR WORK ZONE SIGNS**

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
5. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
7. The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
8. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
9. The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

**DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)**

1. The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
  - a. Long-term stationary - work that occupies a location more than 3 days.
  - b. Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
  - c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
  - d. Short, duration - work that occupies a location up to 1 hour.
  - e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

**SIGN MOUNTING HEIGHT**

1. The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
2. The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

**SIZE OF SIGNS**

1. The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

**SIGN SUBSTRATES**

1. The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

**REFLECTIVE SHEETING**

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B<sub>FL</sub> or Type C<sub>FL</sub>, shall be used for rigid signs with orange backgrounds.

**SIGN LETTERS**

1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

**REMOVING OR COVERING**

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

**SIGN SUPPORT WEIGHTS**

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

**FLAGS ON SIGNS**

1. Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

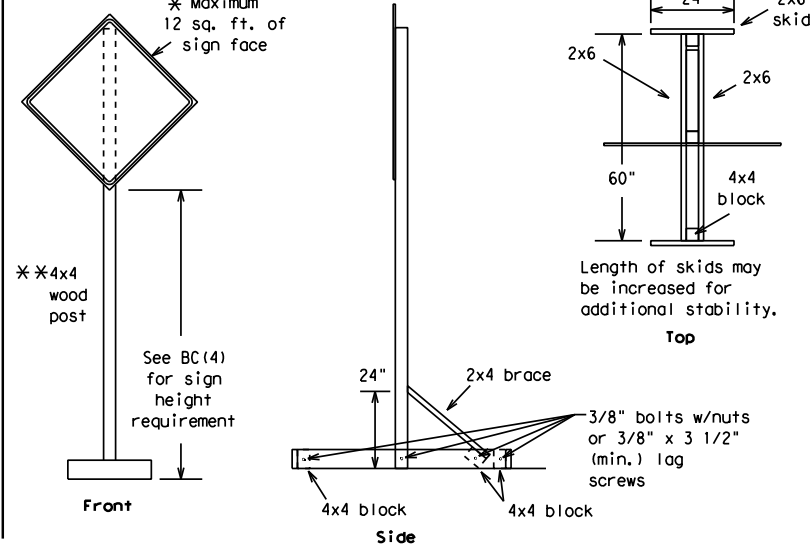
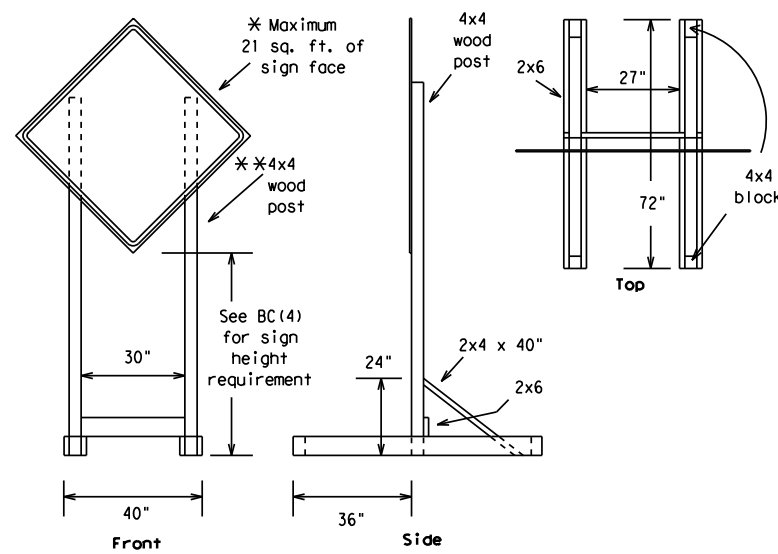
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Traffic Safety Division Standard

## BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

### BC (4) - 21

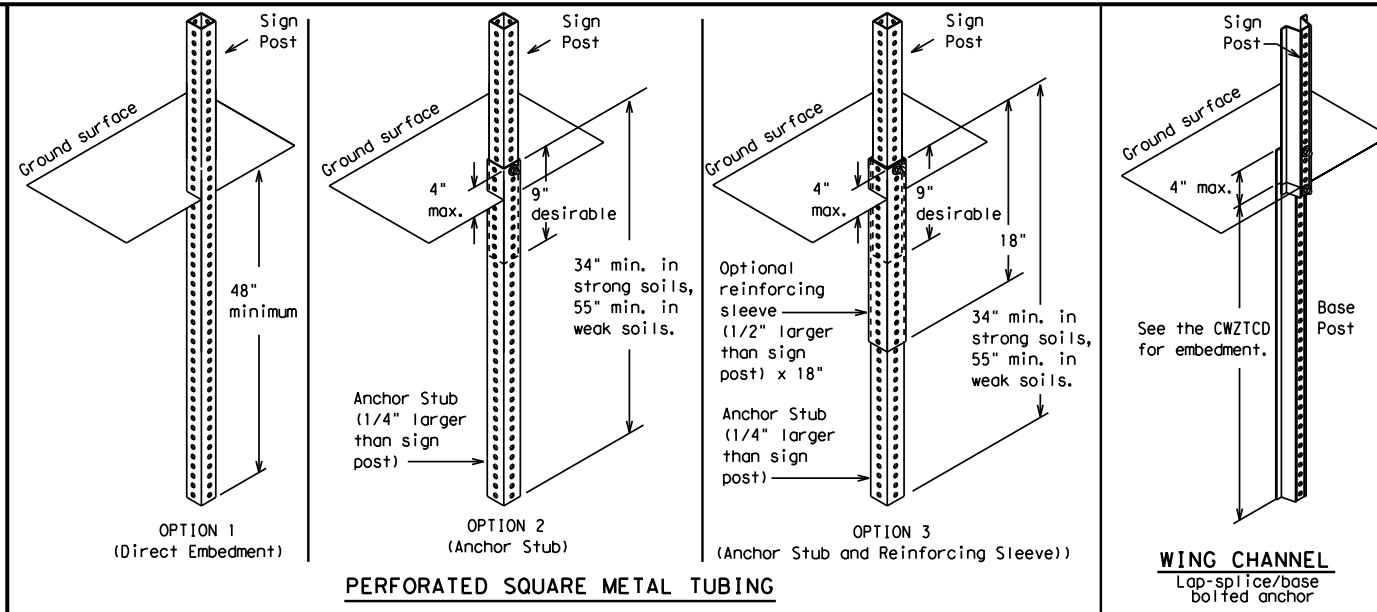
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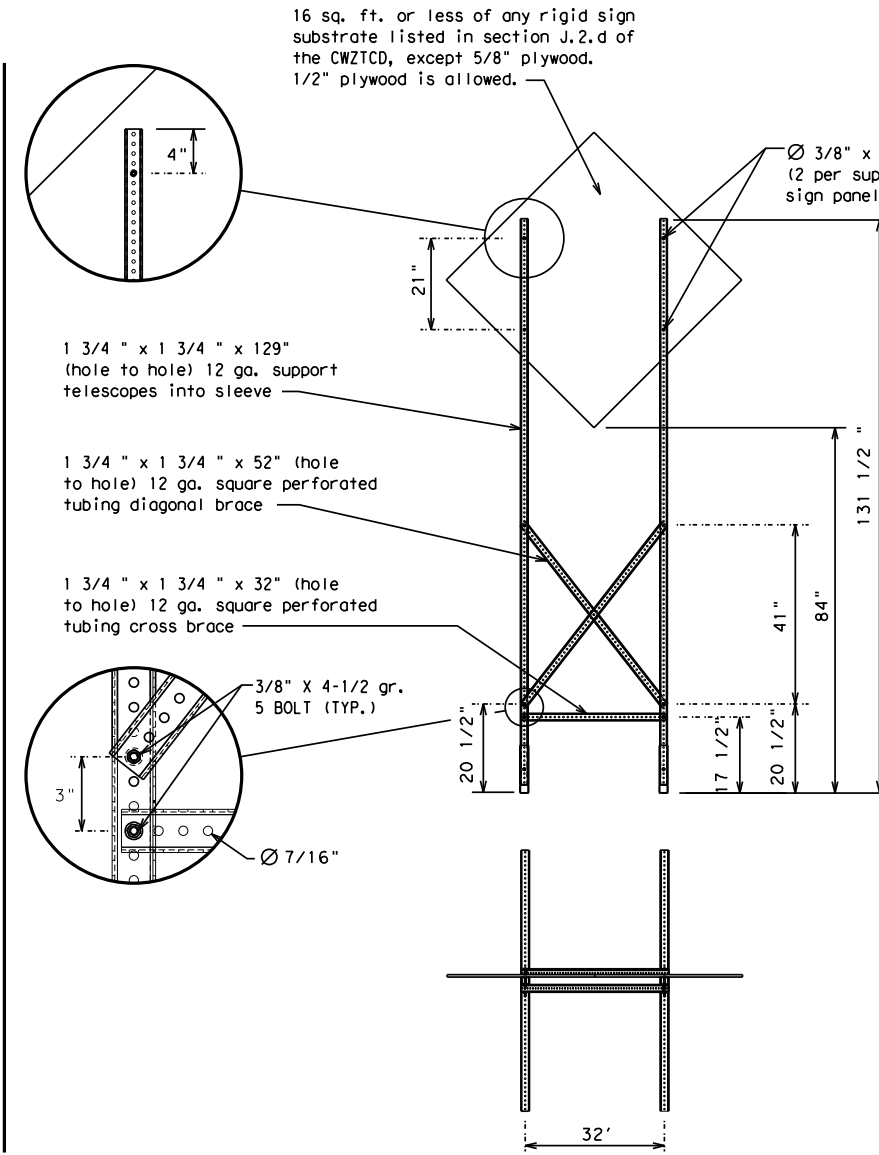
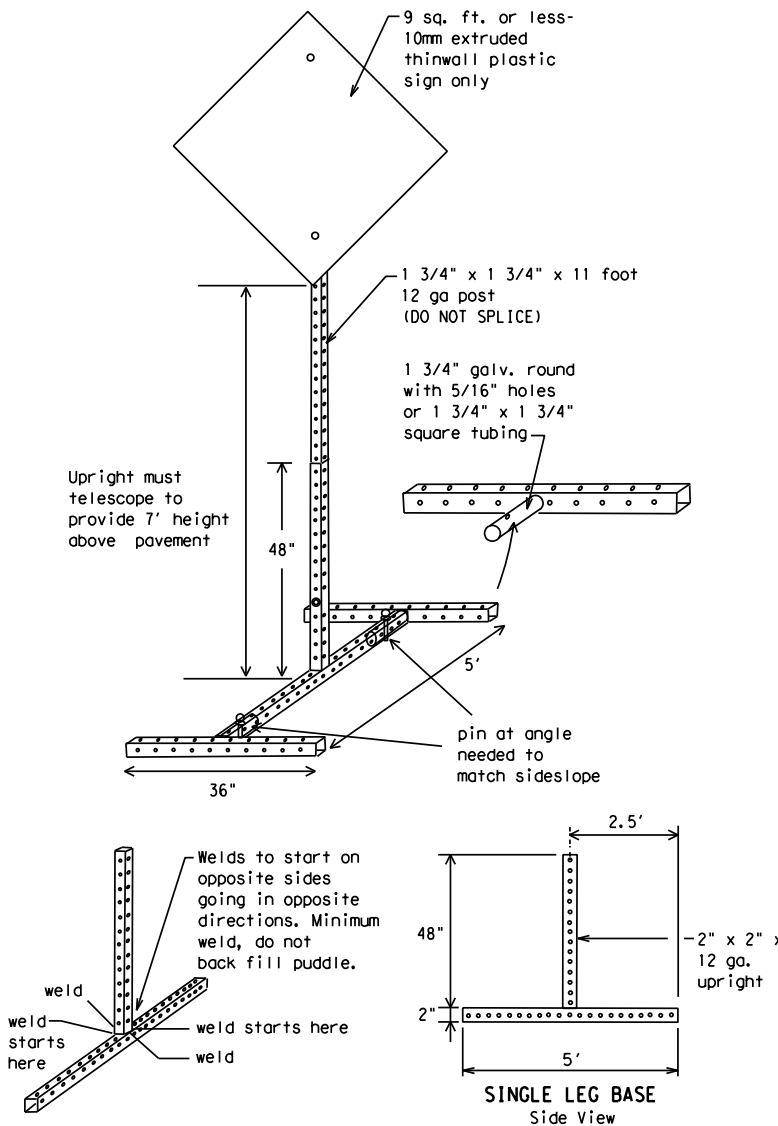
### SKID MOUNTED WOOD SIGN SUPPORTS

\* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



### GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support. The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.



### SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

\* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

### WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

### OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

### GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

- \* See BC(4) for definition of "Work Duration."
- \*\* Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.
- See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

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## BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5) - 21

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

# RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

## PORTABLE CHANGEABLE MESSAGE SIGNS

- The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
- Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
- Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
- Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
- Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
- When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
- The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
- The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
- Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
- Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
- Do not use the word "Danger" in message.
- Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
- Do not display messages that scroll horizontally or vertically across the face of the sign.
- The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
- PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
- Each line of text should be centered on the message board rather than left or right justified.
- If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

## Phase 1: Condition Lists

### Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE
ROAD CLOSED AT SH XXX
ROAD CLSD AT FM XXXX
RIGHT X LANES CLOSED
CENTER LANE CLOSED
NIGHT LANE CLOSURES
VARIOUS LANES CLOSED
EXIT CLOSED
MALL DRIVEWAY CLOSED
XXXXXXXX BLVD CLOSED

### Other Condition List

FRONTAGE ROAD CLOSED
SHOULDER CLOSED XXX FT
RIGHT LN CLOSED XXX FT
RIGHT X LANES OPEN
DAYTIME LANE CLOSURES
I-XX SOUTH EXIT CLOSED
EXIT XXX CLOSED X MILE
RIGHT LN TO BE CLOSED
X LANES CLOSED TUE - FRI
ROADWORK XXX FT
FLAGGER XXXX FT
RIGHT LN NARROWS XXXX FT
MERGING TRAFFIC XXXX FT
LOOSE GRAVEL XXXX FT
DETOUR X MILE
ROADWORK PAST SH XXXX
BUMP XXXX FT
TRAFFIC SIGNAL XXXX FT
ROAD REPAIRS XXXX FT
LANE NARROWS XXXX FT
TWO-WAY TRAFFIC XX MILE
CONST TRAFFIC XXX FT
UNEVEN LANES XXXX FT
ROUGH ROAD XXXX FT
ROADWORK NEXT FRI-SUN
US XXX EXIT X MILES
LANES SHIFT *

\* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

## Phase 2: Possible Component Lists

### Action to Take/Effect on Travel List

MERGE RIGHT
DETOUR NEXT X EXITS
USE EXIT XXX
STAY ON US XXX SOUTH
TRUCKS USE US XXX N
WATCH FOR TRUCKS
EXPECT DELAYS
REDUCE SPEED XXX FT
USE OTHER ROUTES
STAY IN LANE *

FORM X LINES RIGHT
USE XXXXX RD EXIT
USE EXIT I-XX NORTH
USE I-XX E TO I-XX N
WATCH FOR TRUCKS
EXPECT DELAYS
PREPARE TO STOP
END SHOULDER USE
WATCH FOR WORKERS

### Location List

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
XXXXXXXX TO XXXXXXX
US XXX TO FM XXXX

### Warning List

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

### \*\* Advance Notice List

TUE-FRI XX AM - X PM
APR XX - XX X PM - X AM
BEGINS MONDAY
BEGINS MAY XX
MAY X-X XX PM - XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM - XX AM

\*\* See Application Guidelines Note 6.

## APPLICATION GUIDELINES

- Only 1 or 2 phases are to be used on a PCMS.
- The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
- A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
- A Location Phase is necessary only if a distance or location is not included in the first phase selected.
- If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
- For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

## WORDING ALTERNATIVES

- The words RIGHT, LEFT and ALL can be interchanged as appropriate.
- Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
- EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
- Highway names and numbers replaced as appropriate.
- ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
- AHEAD may be used instead of distances if necessary.
- FT and MI, MILE and MILES interchanged as appropriate.
- AT, BEFORE and PAST interchanged as needed.
- Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

## FULL MATRIX PCMS SIGNS

- When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
- When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
- When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
- A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

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WORD OR PHRASE	ABBREVIATION	WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD	Major	MAJ
Alternate	ALT	Miles	MI
Avenue	AVE	Miles Per Hour	MPH
Best Route	BEST RTE	Minor	MNR
Boulevard	BLVD	Monday	MON
Bridge	BRDG	Normal	NORM
Canal	CANT	North	N
Center	CTR	Northbound	(route) N
Construction Ahead	CONST AHD	Parking	PKING
CROSSING	XING	Road	RD
Detour Route	DETOUR RTE	Right Lane	RT LN
Do Not	DONT	Saturday	SAT
East	E	Service Road	SERV RD
Eastbound	(route) E	Shoulder	SHLDR
Emergency	EMER	Slippery	SLIP
Emergency Vehicle	EMER VEH	South	S
Entrance, Enter	ENT	Southbound	(route) S
Express Lane	EXP LN	Speed	SPD
Expressway	EXPWY	Street	ST
XXXX Feet	XXXX FT	Sunday	SUN
Fog Ahead	FOG AHD	Telephone	PHONE
Freeway	FRWY, FWY	Temporary	TEMP
Freeway Blocked	FWY BLKD	Thursday	THURS
Friday	FRI	To Downtown	TO DWNTN
Hazardous Driving	HAZ DRIVING	Traffic	TRAF
Hazardous Material	HAZMAT	Travelers	TRVLR
High-Occupancy Vehicle	HOV	Tuesday	TUES
Highway	HWY	Time Minutes	TIME MIN
Hour(s)	HR, HRS	Upper Level	UPR LEVEL
Information	INFO	Vehicles (s)	VEH, VEHS
It Is	ITS	Warning	WARN
Junction	JCT	Wednesday	WED
Left	LFT	Weight Limit	WT LIMIT
Left Lane	LFT LN	West	W
Lane Closed	LN CLOSED	Westbound	(route) W
Lower Level	LWR LEVEL	Wet Pavement	WET PVMT
Maintenance	MAINT	Will Not	WONT

Roadway designation # IH-number, US-number, SH-number, FM-number



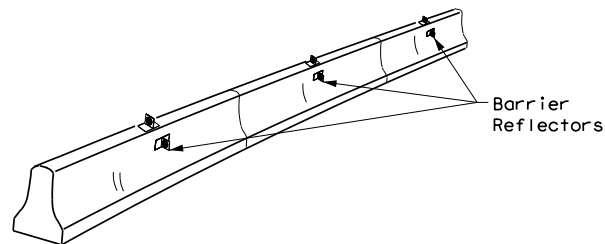
## BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC (6) - 21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DN: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
9-07 8-14	DIST	COUNTY	SHEET NO.	
7-13 5-21	ELP	EL PASO	65	

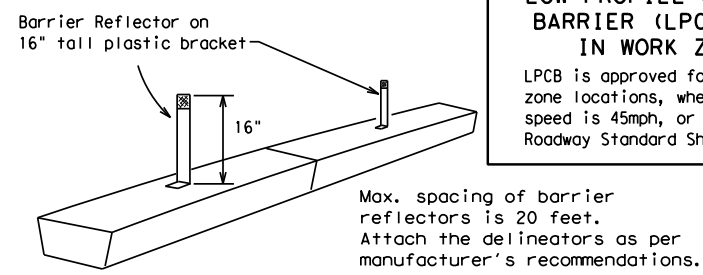
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- Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
- Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



**CONCRETE TRAFFIC BARRIER (CTB)**

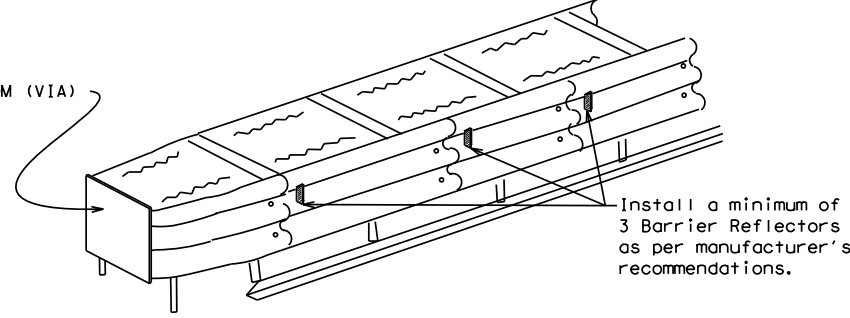
- Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
- Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional) while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
- When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
- Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
- Maximum spacing of Barrier Reflectors is forty (40) feet.
- Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
- Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
- Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
- Single slope barriers shall be delineated as shown on the above detail.



**LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES**

LPCB is approved for use in work zone locations, where the posted speed is 45mph, or less. See Roadway Standard Sheet LPCB.

**LOW PROFILE CONCRETE BARRIER (LPCB)**



**DELINEATION OF END TREATMENTS**

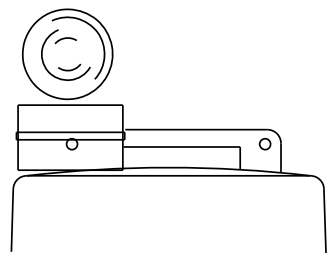
**END TREATMENTS FOR CTB'S USED IN WORK ZONES**

End treatments used on CTB's in work zones shall meet the appropriate crashworthy standards as defined in the Manual for Assessing Safety Hardware (MASH). Refer to the CWZTCD List for approved end treatments and manufacturers.

**BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS**

**WARNING LIGHTS**

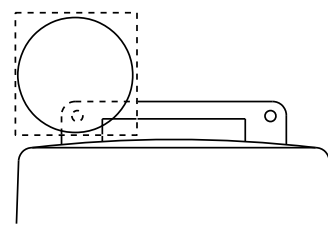
- Warning lights shall meet the requirements of the TMUTCD.
- Warning lights shall NOT be installed on barricades.
- Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B<sub>FL</sub> or C<sub>FL</sub> Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
- Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
- The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
- When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
- When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
- The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.

**WARNING LIGHTS MOUNTED ON PLASTIC DRUMS**

- Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
- Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
- A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
- Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
- Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
- Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
- The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.



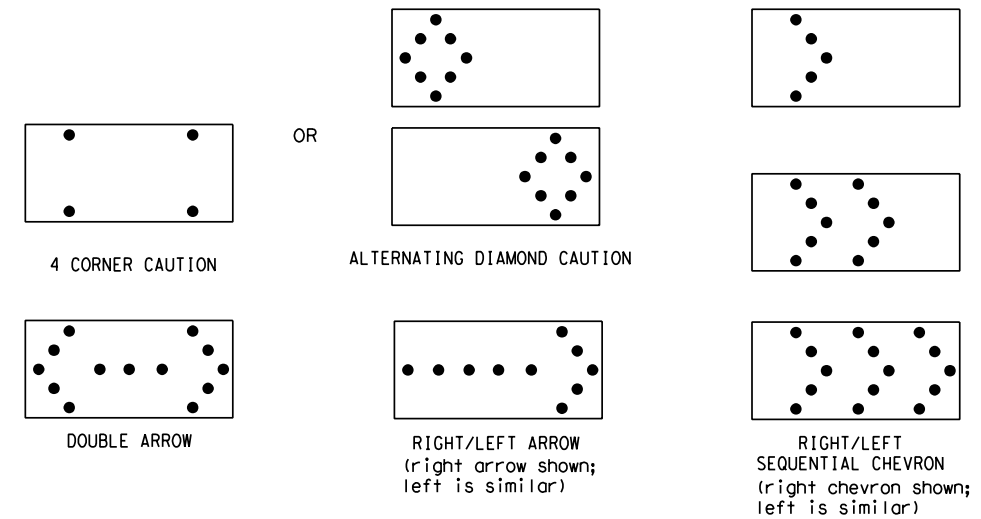
Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches.

**WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS**

- A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
- The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
- The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
- Round reflectors shall be fully reflectorized, including the area where attached to the drum.
- Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
- The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
- When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
- The warning reflector should be mounted on the side of the handle nearest approaching traffic.
- The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

- The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
- Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
- The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
- The Flashing Arrow Board should be able to display the following symbols:



- The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
- The straight line caution display is NOT ALLOWED.
- The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
- Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
- The sequential arrow display is NOT ALLOWED.
- The flashing arrow display is the TxDOT standard; however, the sequential chevron display may be used during daylight operations.
- The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
- A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
- A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
- Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

**ATTENTION**  
Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

**FLASHING ARROW BOARDS**

SHEET 7 OF 12

**TRUCK-MOUNTED ATTENUATORS**

- Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the Manual for Assessing Safety Hardware (MASH).
- Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
- Refer to the CWZTCD for a list of approved TMAs.
- TMAs are required on freeways unless otherwise noted in the plans.
- A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
- The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

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**BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR**

**BC (7) - 21**

FILE:	bc-21.dgn	DN:	TxDOT	CK:	TxDOT	OW:	TxDOT	CK:	TxDOT
© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
REVISIONS		0924	06	616, ETC	VARIOUS				
9-07	8-14	DIST	COUNTY	SHEET NO.					
7-13	5-21	ELP	EL PASO	66					

DATE:  
FILE:



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**GENERAL NOTES**

- For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
- For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections, one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
- For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
- Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
- The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

**GENERAL DESIGN REQUIREMENTS**

Pre-qualified plastic drums shall meet the following requirements:

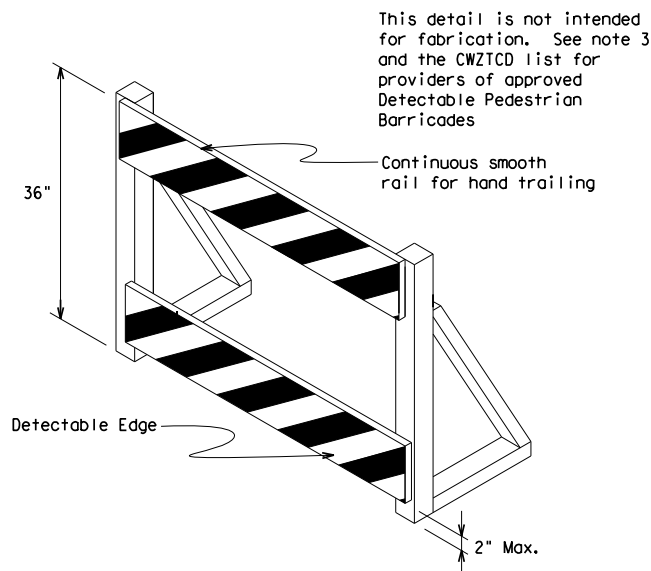
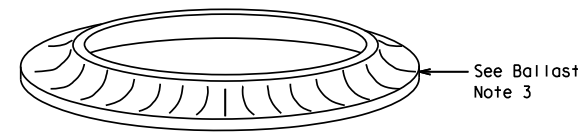
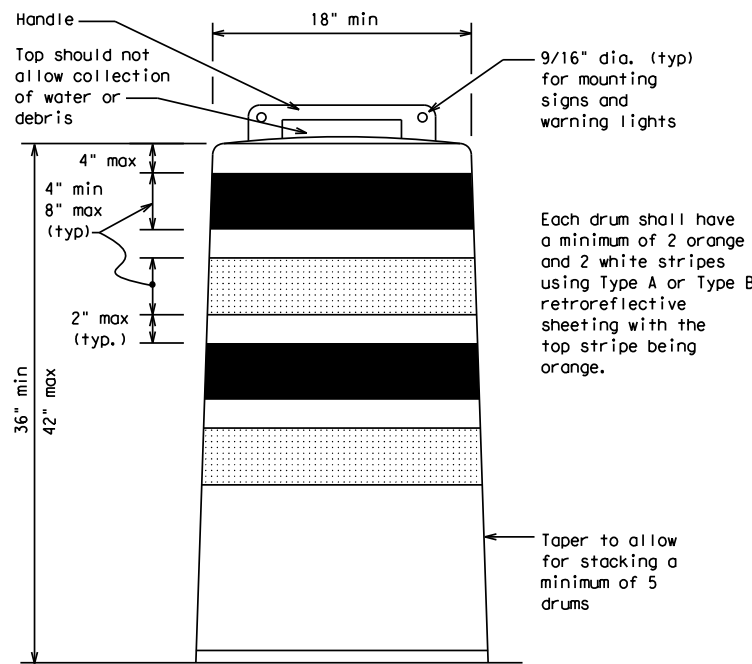
- Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
- The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
- Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
- Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
- The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
- The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
- Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
- Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
- Drum body shall have a maximum unballasted weight of 11 lbs.
- Drum and base shall be marked with manufacturer's name and model number.

**RETROREFLECTIVE SHEETING**

- The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
- The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

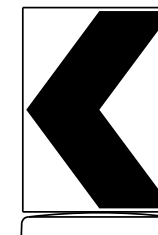
**BALLAST**

- Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
- Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
- Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
- The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
- When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
- Ballast shall not be placed on top of drums.
- Adhesives may be used to secure base of drums to pavement.

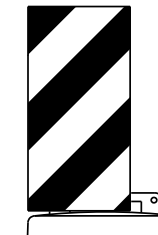


**DETECTABLE PEDESTRIAN BARRICADES**

- When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. Refer to WZ(BTS-2) for Pedestrian Control requirements for Sidewalk Diversions, Sidewalk Detours and Crosswalk Closures.
- Where pedestrians with visual disabilities normally use the closed sidewalk, a Detectable Pedestrian Barricade shall be placed across the full width of the closed sidewalk instead of a Type 3 Barricade.
- Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
- Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines (ADAAG)" and should not be used as a control for pedestrian movements.
- Warning lights shall not be attached to detectable pedestrian barricades.
- Detectable pedestrian barricades should use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign  
(Maximum Sign Dimension)  
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer



12" x 24" Vertical Panel  
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

**SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS**

- Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
- Chevrons and other work zone signs with an orange background shall be manufactured with Type B<sub>FL</sub> or Type C<sub>FL</sub> Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
- Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A or Type B. Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
- Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
- Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
- Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
- Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations, they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
- R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

SHEET 8 OF 12



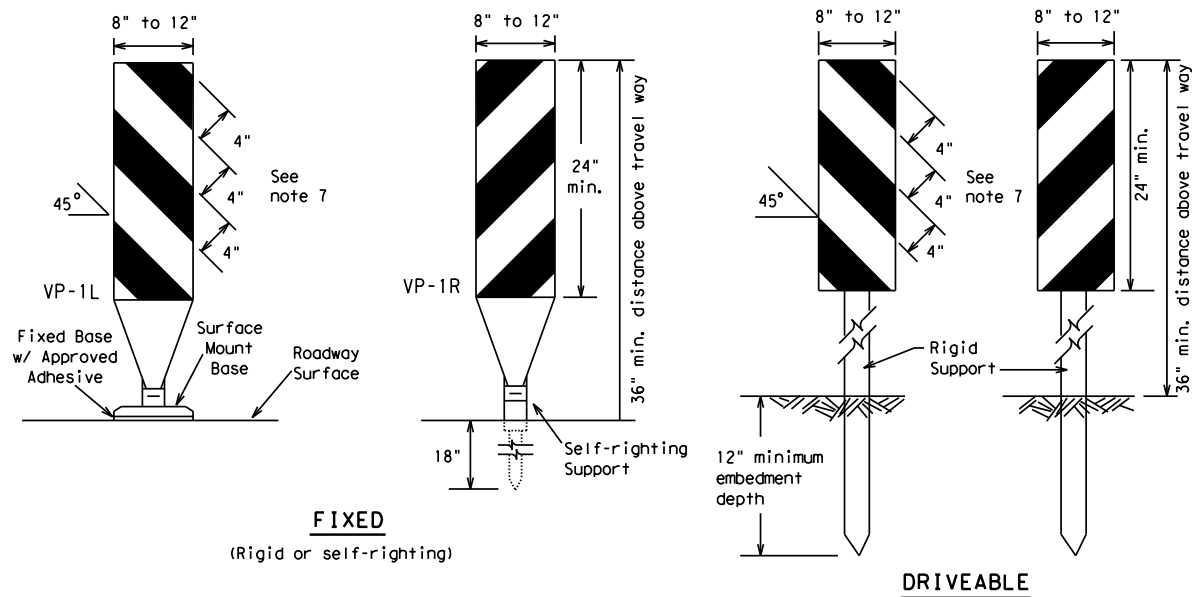
**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

**BC (8) - 21**

FILE:	bc-21.dgn	DN:	TxDOT	CK:	TxDOT	DN:	TxDOT	CK:	TxDOT
© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
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9-07	5-21	ELP	EL PASO	67					
7-13									

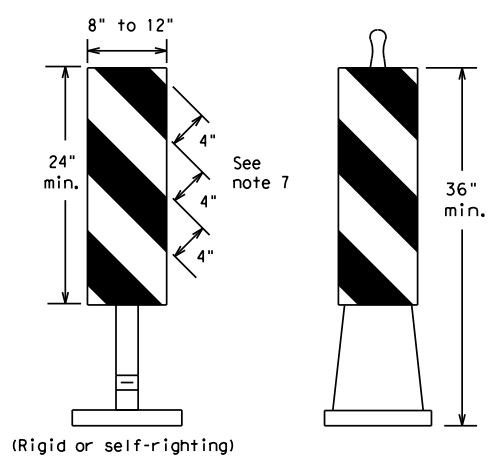
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**FIXED**  
(Rigid or self-righting)

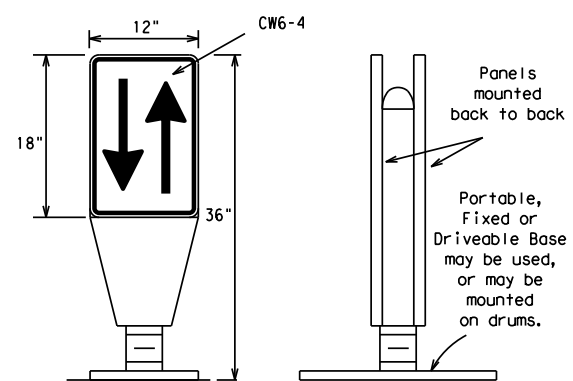
**DRIVEABLE**



**PORTABLE**

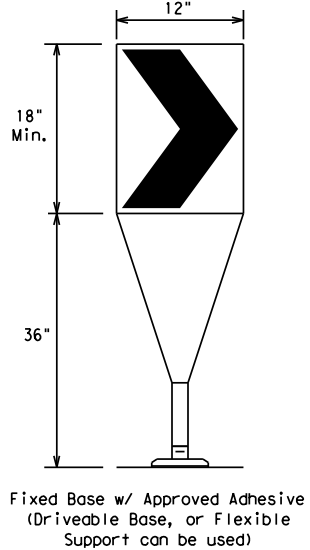
**VERTICAL PANELS (VPs)**

- Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
- VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
- VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
- VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
- Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
- Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.



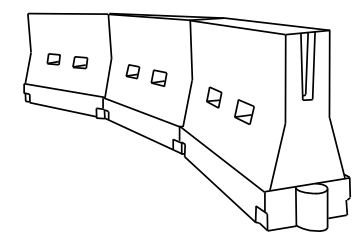
**OPPOSING TRAFFIC LANE DIVIDERS (OTLD)**

- Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
- The OTLD may be used in combination with 42" cones or VPs.
- Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
- The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B<sub>FL</sub> or Type C<sub>FL</sub> conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.



- The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
- Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
- Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
- To be effective, the chevron should be visible for at least 500 feet.
- Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B<sub>FL</sub> or Type C<sub>FL</sub> conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
- For Long Term Stationary use on tapers or transitions on freeways and divided highways, self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

**CHEVRONS**



**LONGITUDINAL CHANNELIZING DEVICES (LCD)**

- LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
- LCDs may be used instead of a line of cones or drums.
- LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
- LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
- LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

**WATER BALLASTED SYSTEMS USED AS BARRIERS**

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MASH) crashworthiness requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

**HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS**

**GENERAL NOTES**

- Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
- Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
- Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
- Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
- The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed	Formula	Minimum Desirable Taper Lengths * *			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	L = WS <sup>2</sup> / 60	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

\* \*\*Taper lengths have been rounded off.  
L=Length of Taper (FT.) W=Width of Offset (FT.)  
S=Posted Speed (MPH)

**SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS**

SHEET 9 OF 12



**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

**BC (9) - 21**

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
9-07 8-14	DIST	COUNTY	SHEET NO.	
7-13 5-21	ELP	EL PASO	68	

DATE: FILE:

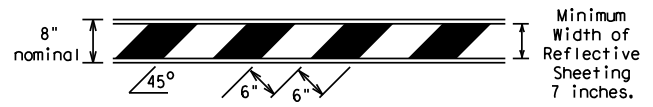


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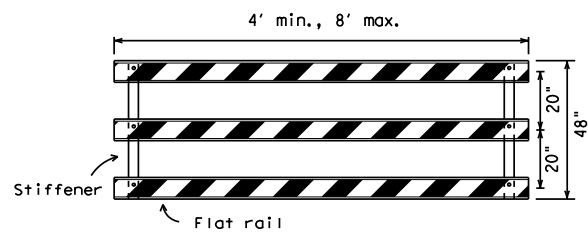
**TYPE 3 BARRICADES**

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



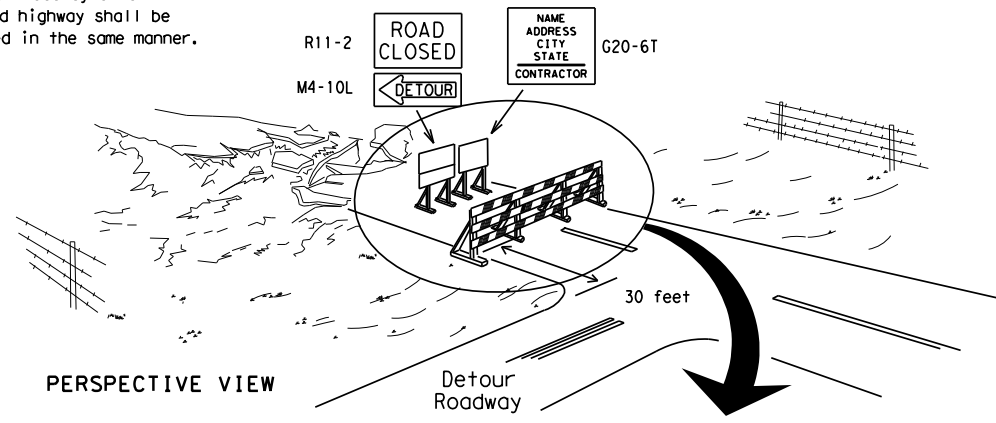
**TYPICAL STRIPING DETAIL FOR BARRICADE RAIL**



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

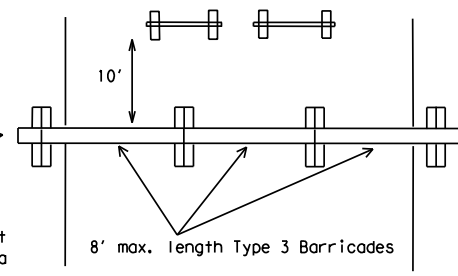
**TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES**

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

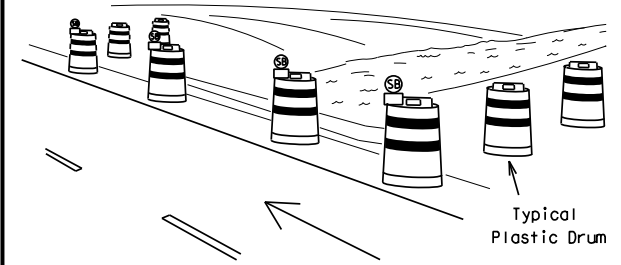
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.



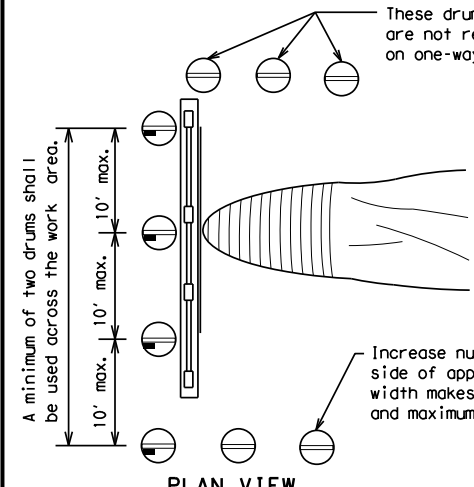
PLAN VIEW

1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

**TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION**



PERSPECTIVE VIEW

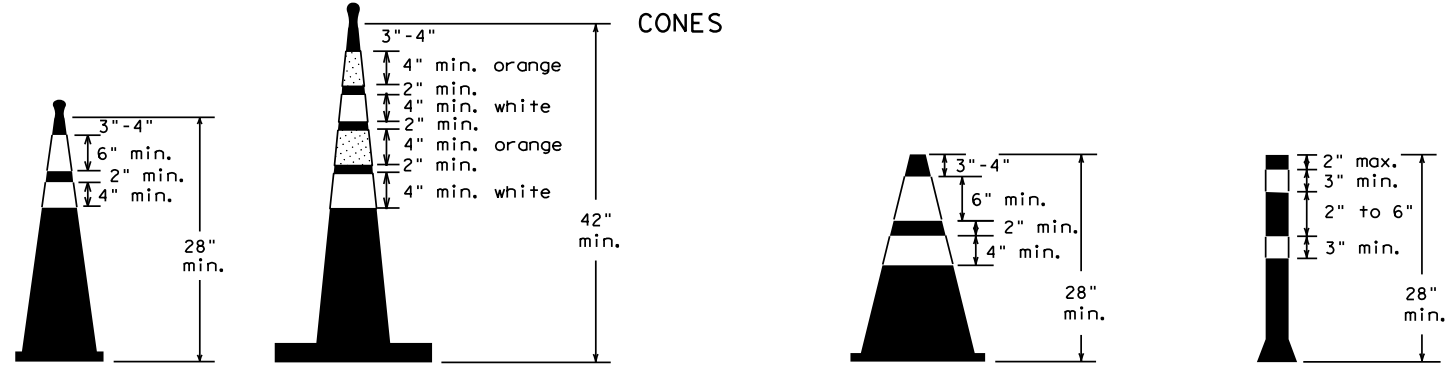


PLAN VIEW

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

**CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS**



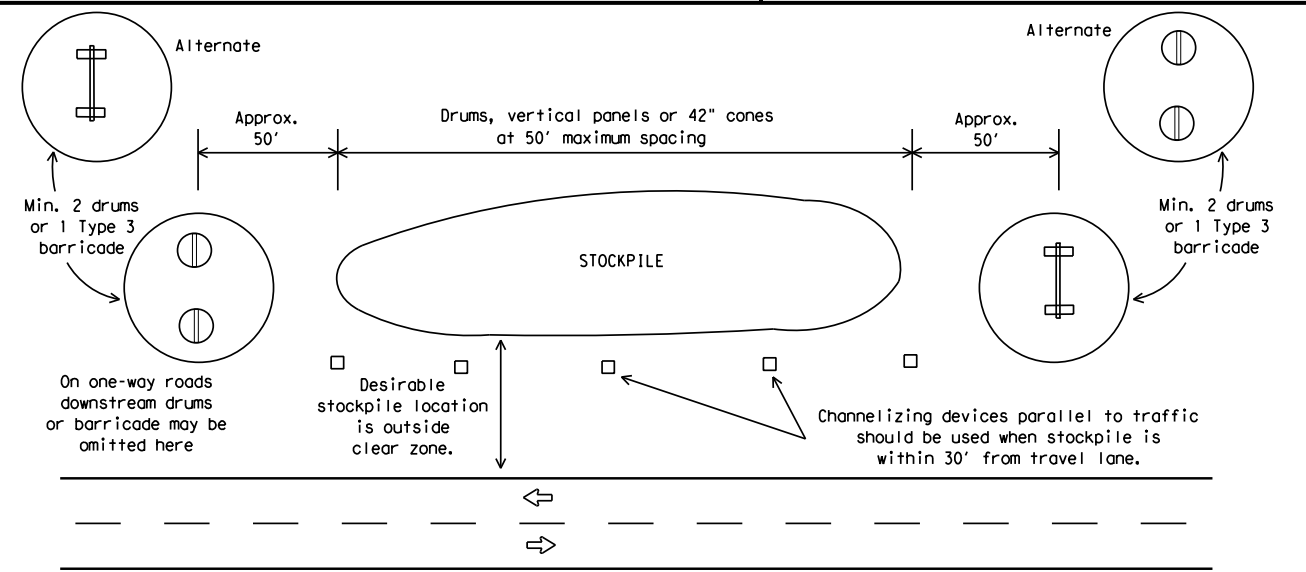
Two-Piece cones

One-Piece cones

Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.  
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.



**TRAFFIC CONTROL FOR MATERIAL STOCKPILES**

**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

**BC (10) - 21**

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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9-07 8-14	DIST	COUNTY	SHEET NO.	
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DATE: FILE:

## WORK ZONE PAVEMENT MARKINGS

### GENERAL

- The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
- Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Additional supplemental pavement marking details may be found in the plans or specifications.
- Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
- When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
- When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
- All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

### RAISED PAVEMENT MARKERS

- Raised pavement markers are to be placed according to the patterns on BC(12).
- All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

### PREFABRICATED PAVEMENT MARKINGS

- Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
- Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

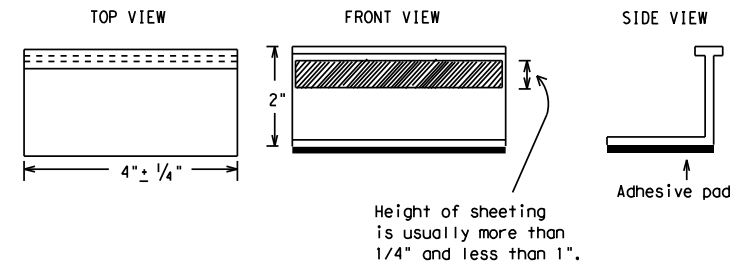
### MAINTAINING WORK ZONE PAVEMENT MARKINGS

- The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
- Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
- The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
- Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

### REMOVAL OF PAVEMENT MARKINGS

- Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
- The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
- Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
- The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
- Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
- Blast cleaning may be used but will not be required unless specifically shown in the plans.
- Over-painting of the markings SHALL NOT BE permitted.
- Removal of raised pavement markers shall be as directed by the Engineer.
- Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
- Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

## Temporary Flexible-Reflective Roadway Marker Tabs



**STAPLES OR NAILS SHALL NOT BE USED TO SECURE  
TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER  
TABS TO THE PAVEMENT SURFACE**

- Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
- Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
  - Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
  - Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
- Small design variances may be noted between tab manufacturers.
- See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

### RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

- Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
- All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
- Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:  
 YELLOW - (two amber reflective surfaces with yellow body).  
 WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

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SHEET 11 OF 12

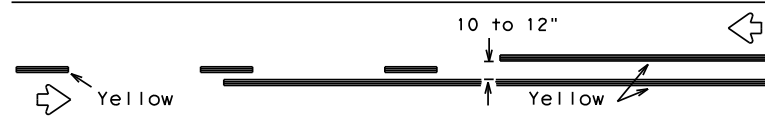


## BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

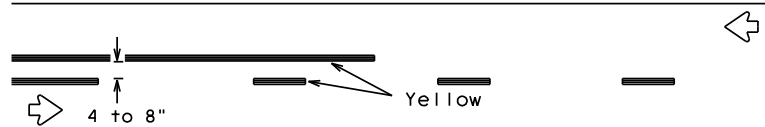
BC(11)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
2-98 9-07 5-21	DIST	COUNTY	SHEET NO.	
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11-02 8-14				

## PAVEMENT MARKING PATTERNS

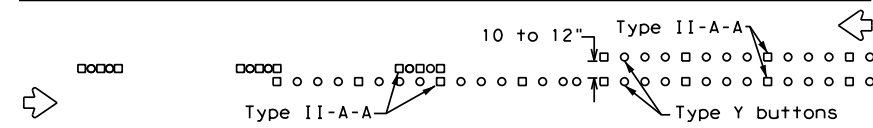


REFLECTORIZED PAVEMENT MARKINGS - PATTERN A

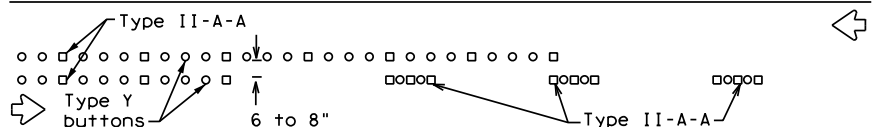


REFLECTORIZED PAVEMENT MARKINGS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer. Prefabricated markings may be substituted for reflectORIZED pavement markings.

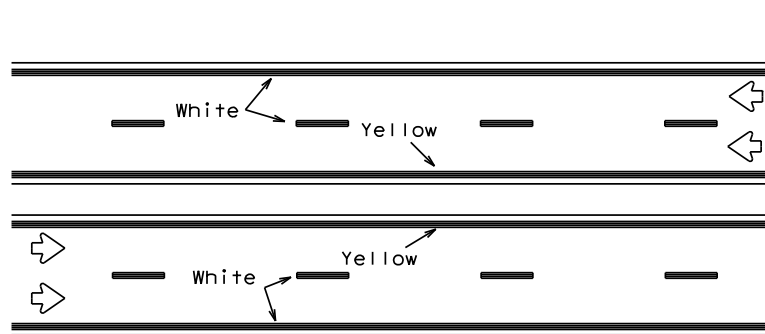


RAISED PAVEMENT MARKERS - PATTERN A



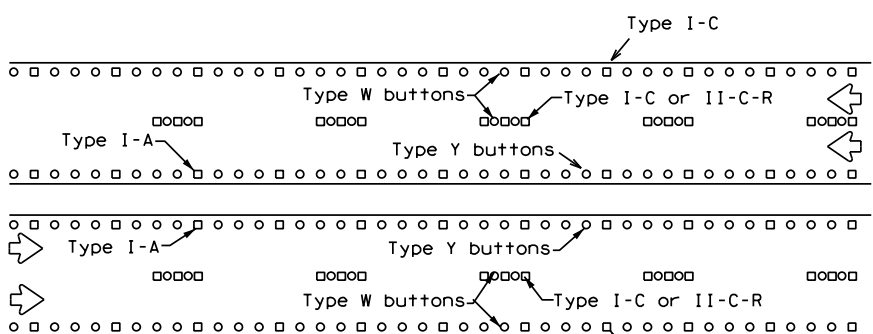
RAISED PAVEMENT MARKERS - PATTERN B

## CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



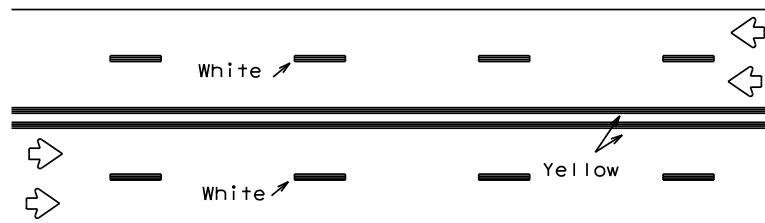
REFLECTORIZED PAVEMENT MARKINGS

Prefabricated markings may be substituted for reflectORIZED pavement markings.



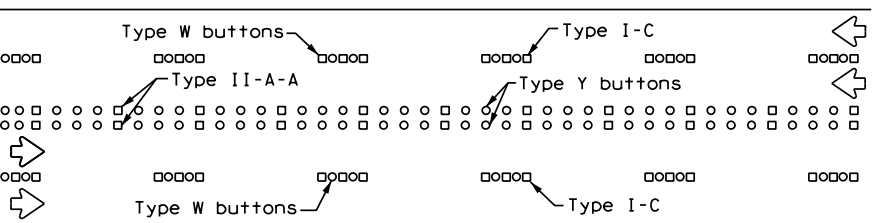
RAISED PAVEMENT MARKERS

## EDGE & LANE LINES FOR DIVIDED HIGHWAY



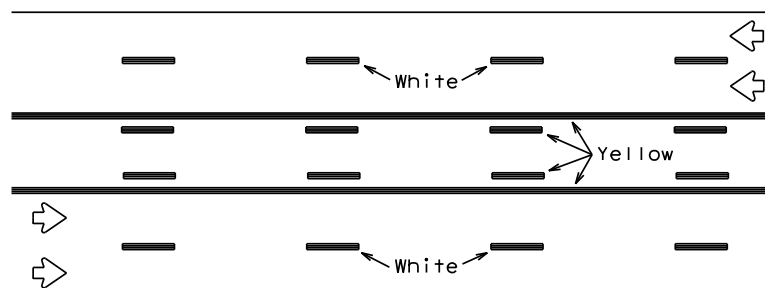
REFLECTORIZED PAVEMENT MARKINGS

Prefabricated markings may be substituted for reflectORIZED pavement markings.



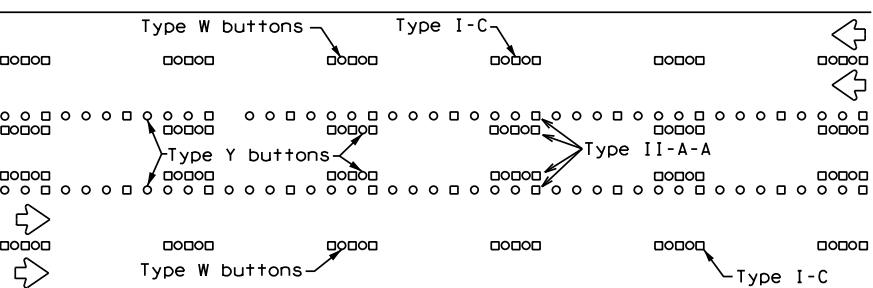
RAISED PAVEMENT MARKERS

## LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS

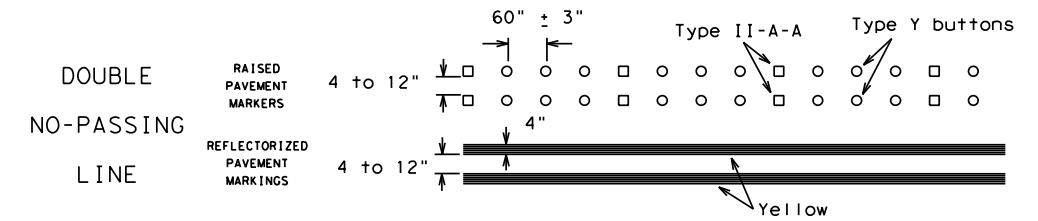
Prefabricated markings may be substituted for reflectORIZED pavement markings.



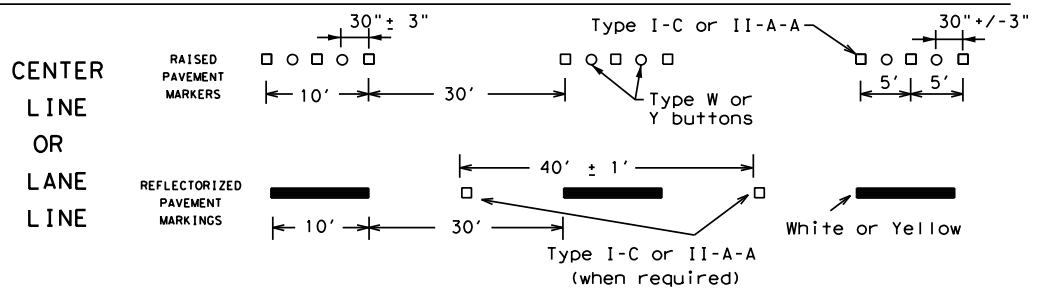
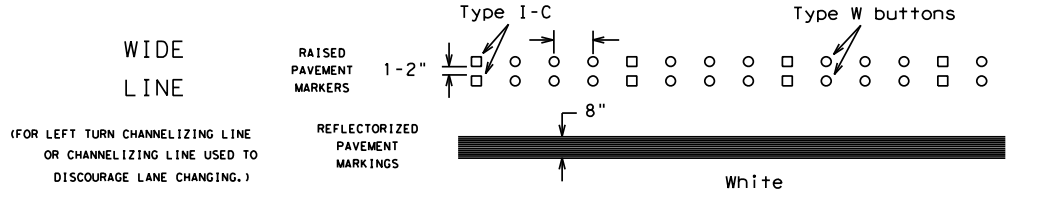
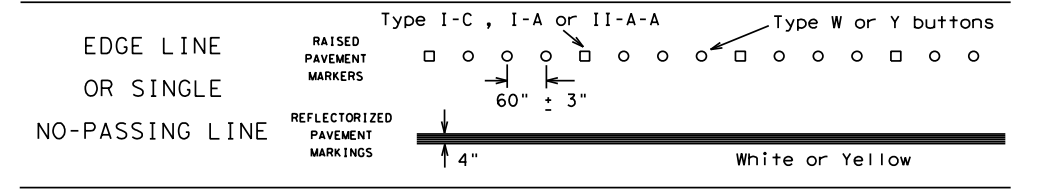
RAISED PAVEMENT MARKERS

## TWO-WAY LEFT TURN LANE

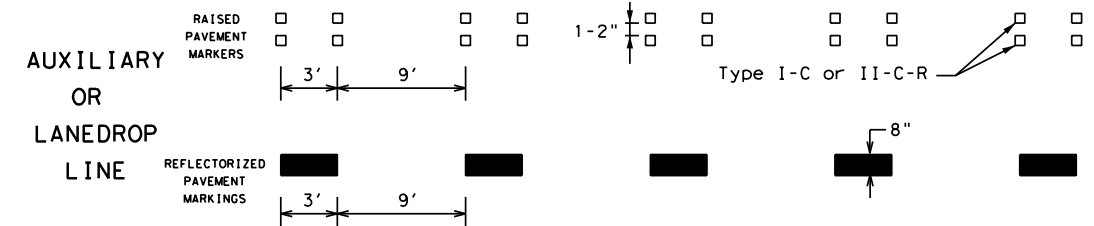
## STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



### SOLID LINES

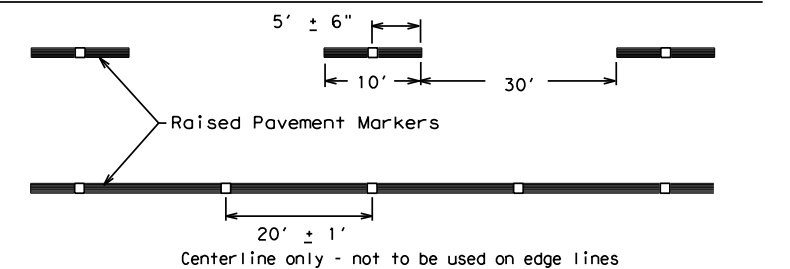


### BROKEN LINES



### REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



SHEET 12 OF 12

## BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC(12)-21

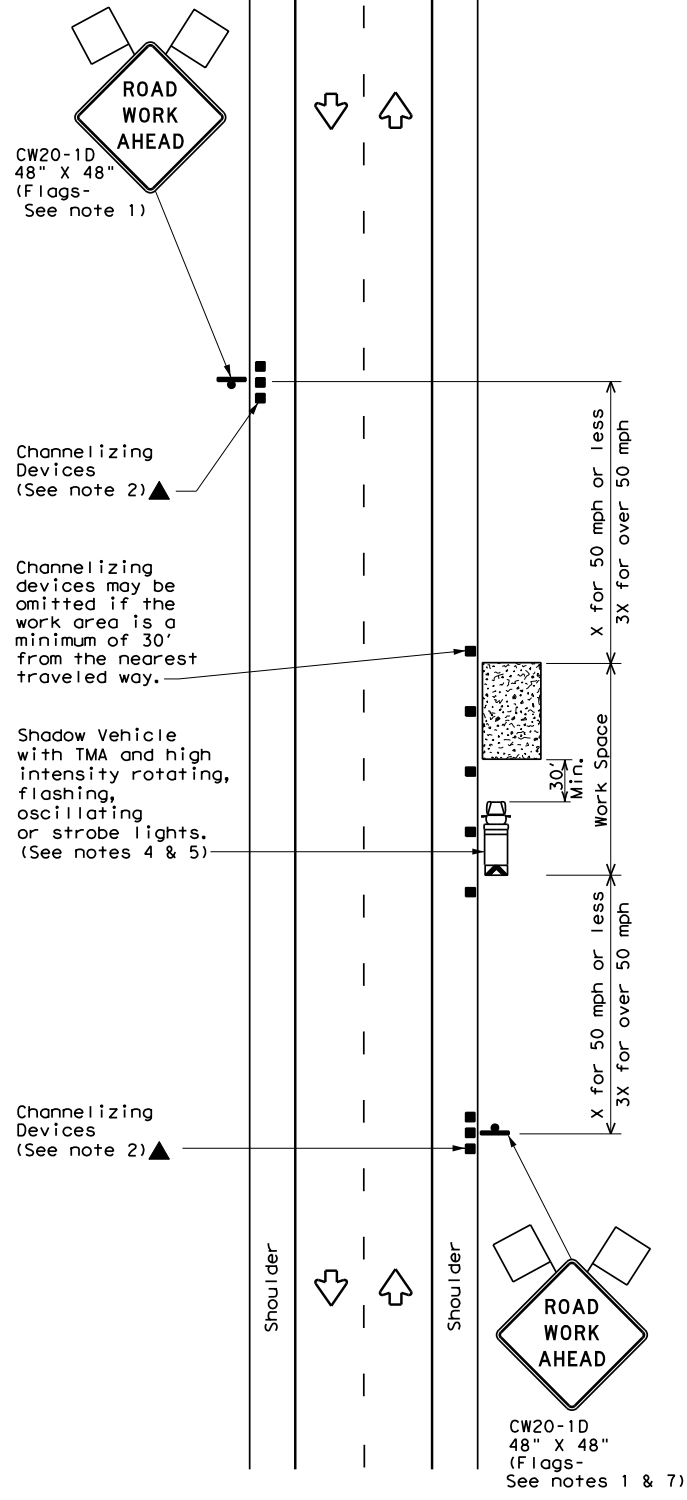
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REVISIONS	0924	06	616, ETC	VARIOUS
1-97 9-07 5-21				
2-98 7-13				
11-02 8-14	ELP	COUNTY	EL PASO	SHEET NO. 71

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

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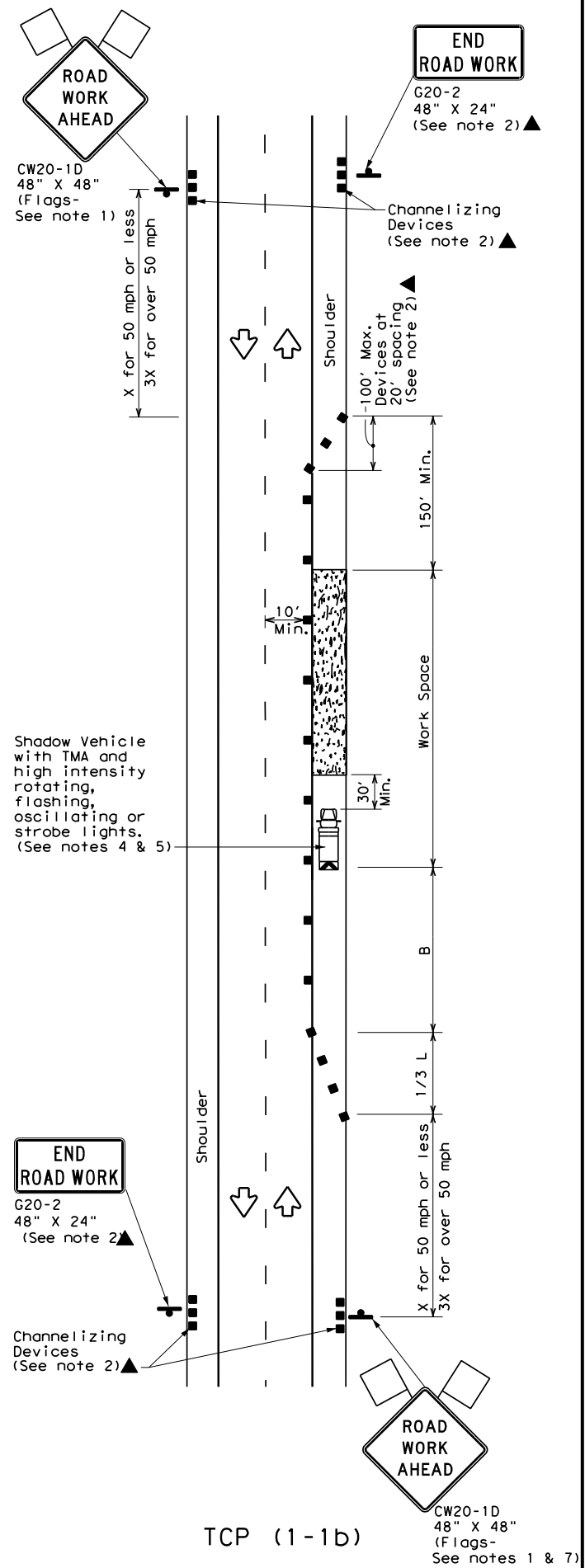
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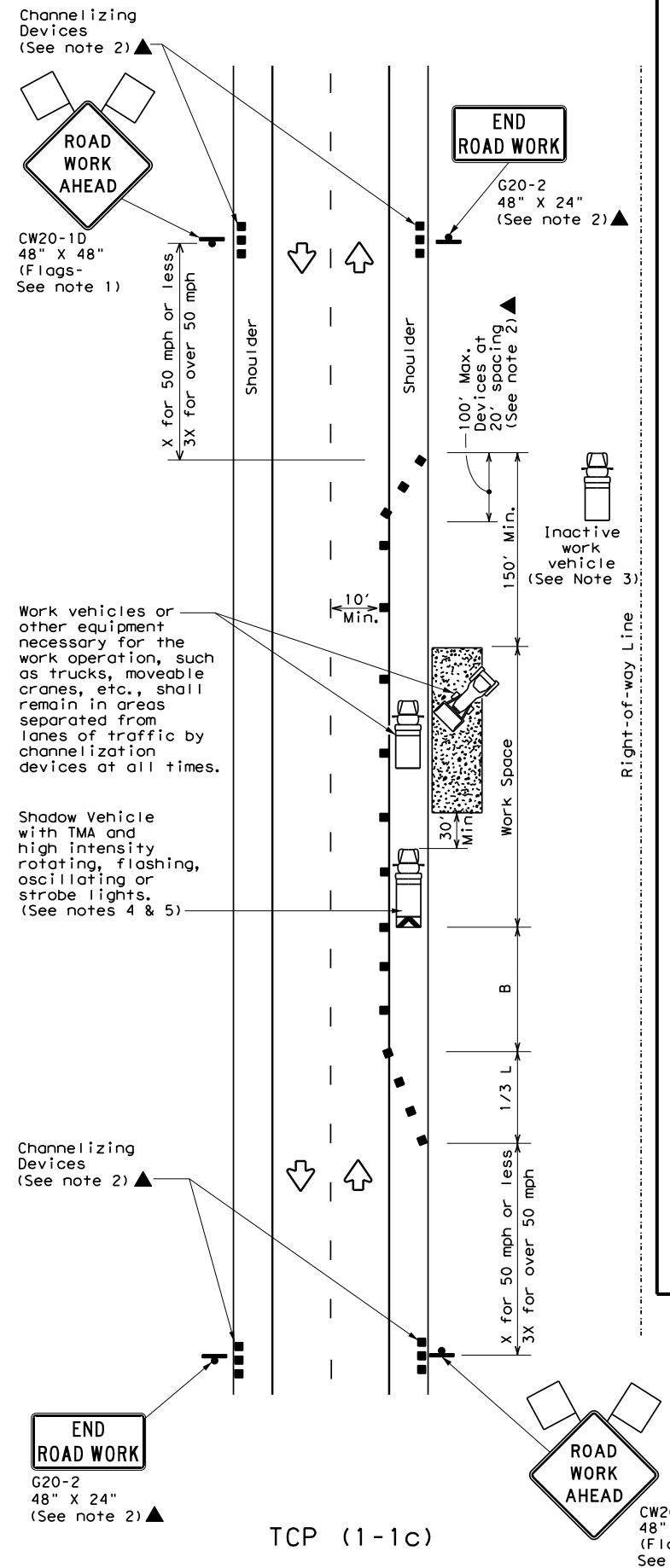
TCP (1-1a)

**WORK SPACE NEAR SHOULDER**  
Conventional Roads



TCP (1-1b)

**WORK SPACE ON SHOULDER**  
Conventional Roads



TCP (1-1c)

**WORK VEHICLES ON SHOULDER**  
Conventional Roads

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

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

\* Conventional Roads Only  
\*\* Taper lengths have been rounded off.  
L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

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

- GENERAL NOTES**
- Flags attached to signs where shown are REQUIRED.
  - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
  - Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
  - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
  - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
  - See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
  - CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

**TRAFFIC CONTROL PLAN**  
**CONVENTIONAL ROAD**  
**SHOULDER WORK**

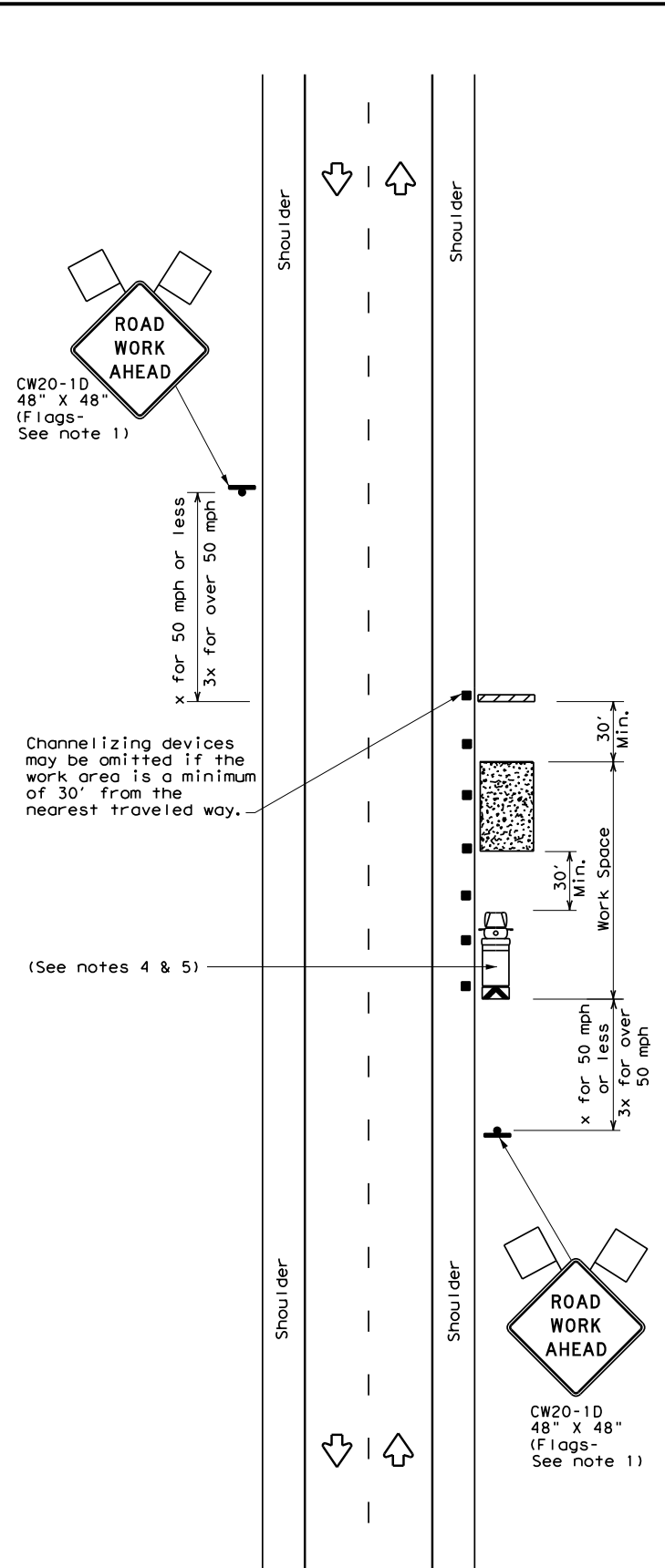
**TCP (1-1) - 18**

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© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
2-94 4-98				
8-95 2-12				
1-97 2-18				
	DIST	COUNTY		SHEET NO.
	ELP	EL PASO		72



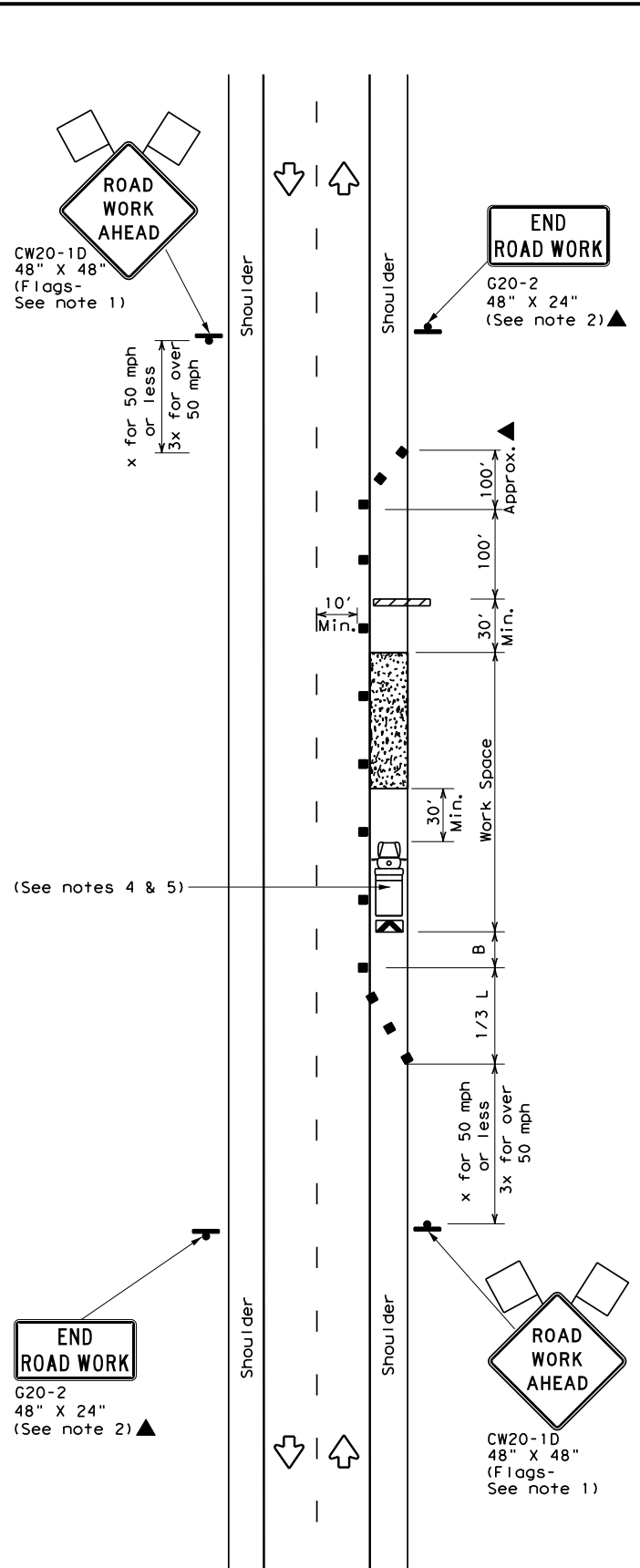
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DATE:  
FILE:



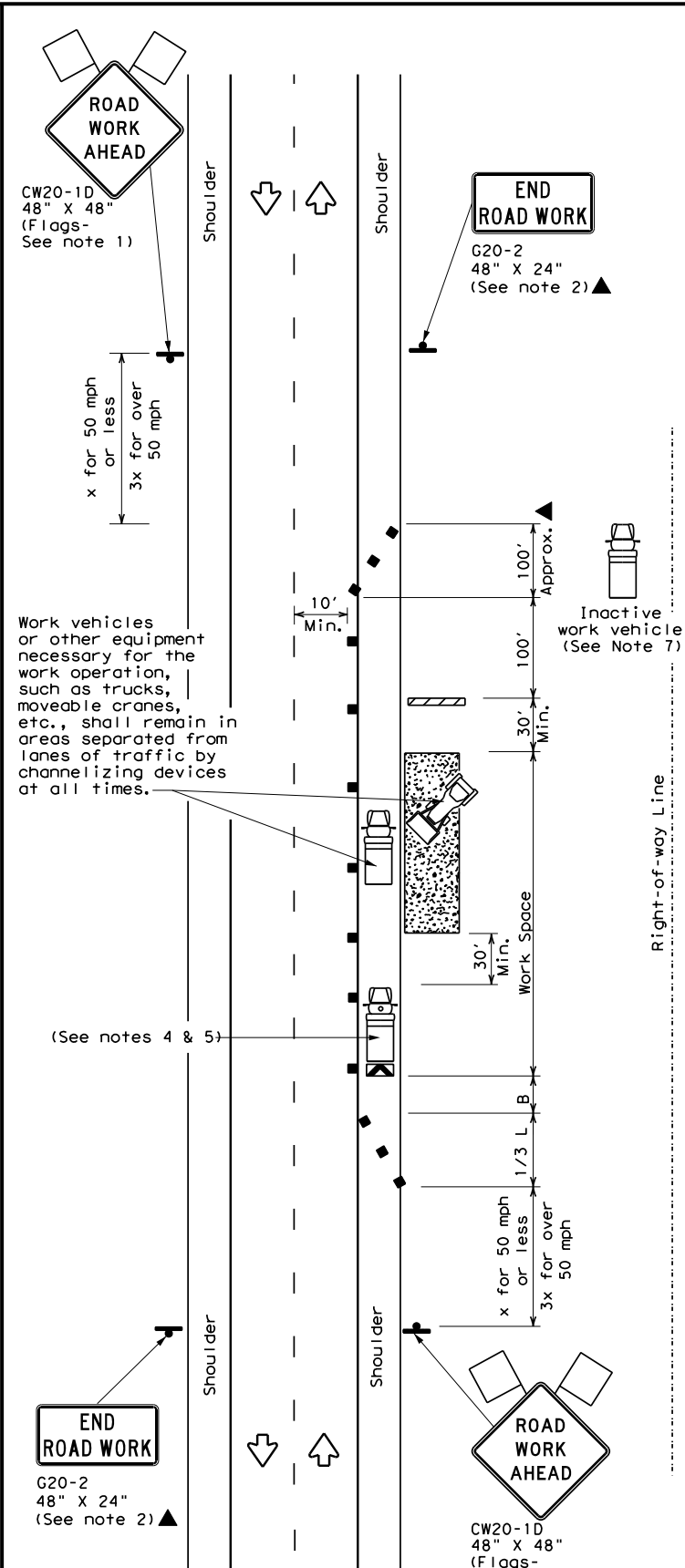
TCP (2-1a)

**WORK SPACE NEAR SHOULDER**  
Conventional Roads



TCP (2-1b)

**WORK SPACE ON SHOULDER**  
Conventional Roads



TCP (2-1c)

**WORK VEHICLES ON SHOULDER**  
Conventional Roads

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

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

\* Conventional Roads Only  
\*\* Taper lengths have been rounded off.  
L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

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

**GENERAL NOTES**

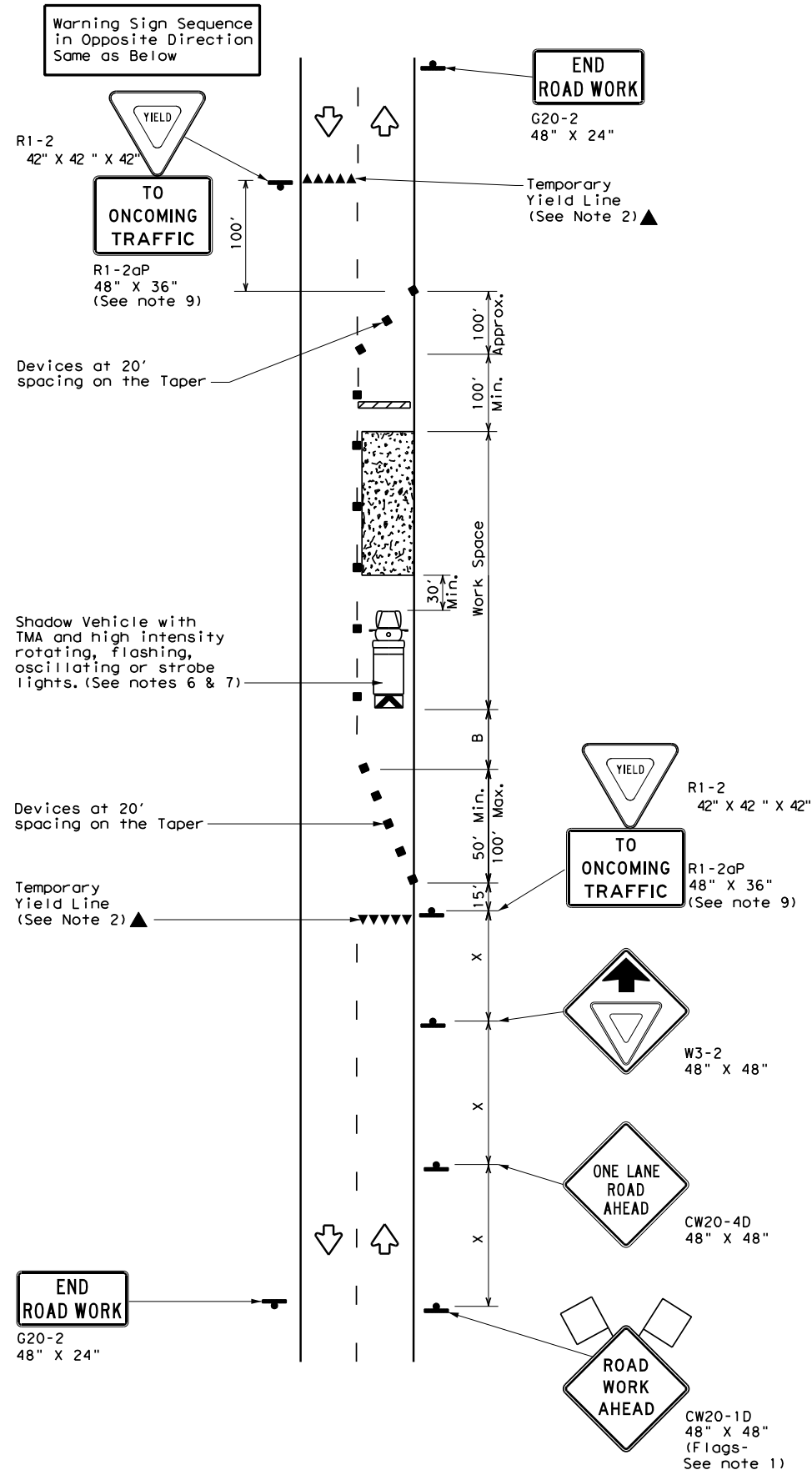
- Flags attached to signs where shown, are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
- Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
- Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

**TRAFFIC CONTROL PLAN**  
**CONVENTIONAL ROAD**  
**SHOULDER WORK**

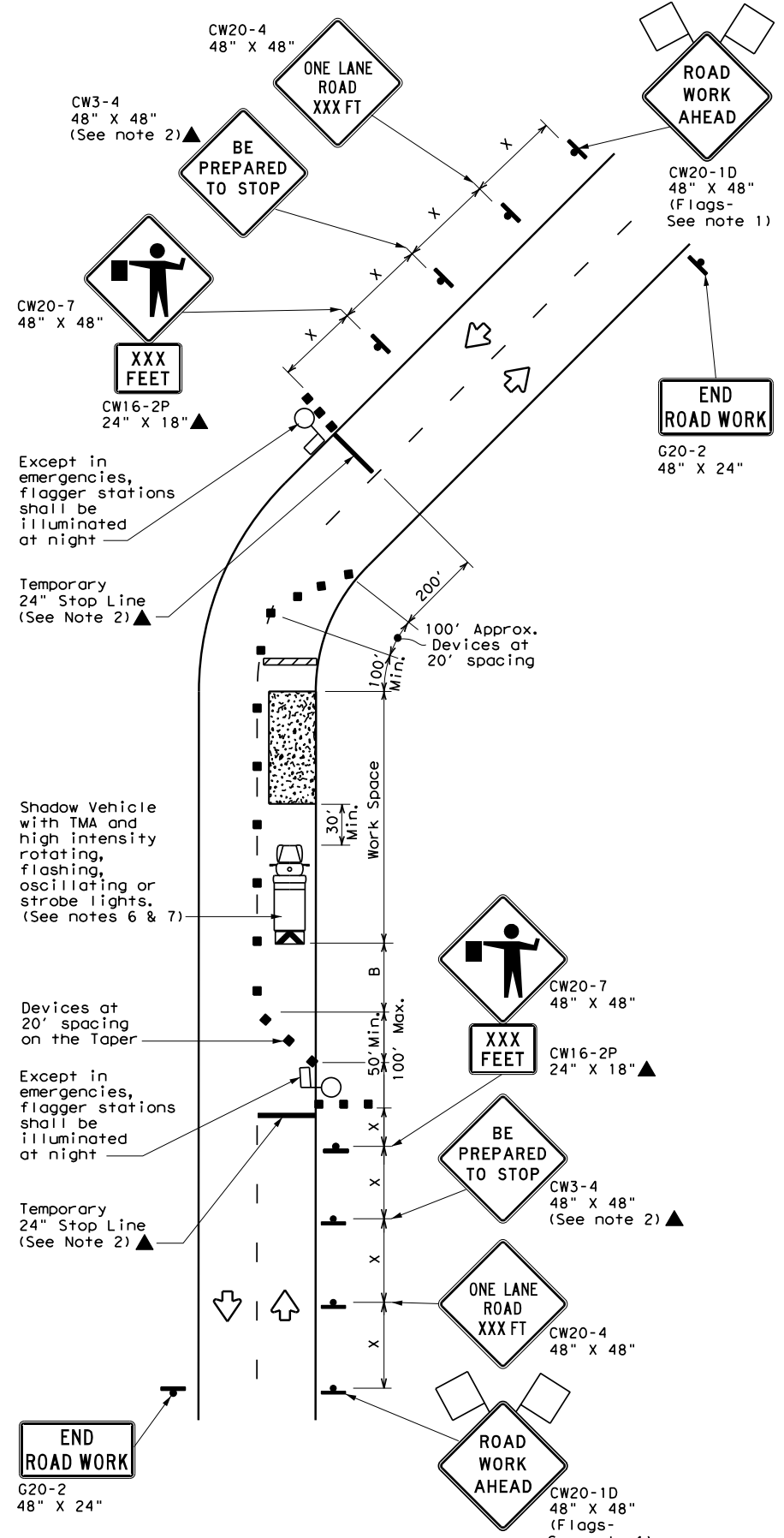
**TCP (2-1) - 18**

FILE: tcp2-1-18.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
2-94 4-98				
8-95 2-12				
1-97 2-18				
	DIST	COUNTY		SHEET NO.
	ELP	EL PASO		74

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TCP (2-2a)  
2-LANE ROADWAY WITHOUT PAVED SHOULDERS  
ONE LANE TWO-WAY  
CONTROL WITH YIELD SIGNS  
(Less than 2000 ADT - See Note 9)



TCP (2-2b)  
2-LANE ROADWAY WITHOUT PAVED SHOULDERS  
ONE LANE TWO-WAY  
CONTROL WITH FLAGGERS

LEGEND

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

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	L = WS <sup>2</sup> / 60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

\* Conventional Roads Only  
 \*\* Taper lengths have been rounded off.  
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE

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

GENERAL NOTES

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

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TRAFFIC CONTROL PLAN  
ONE-LANE TWO-WAY  
TRAFFIC CONTROL

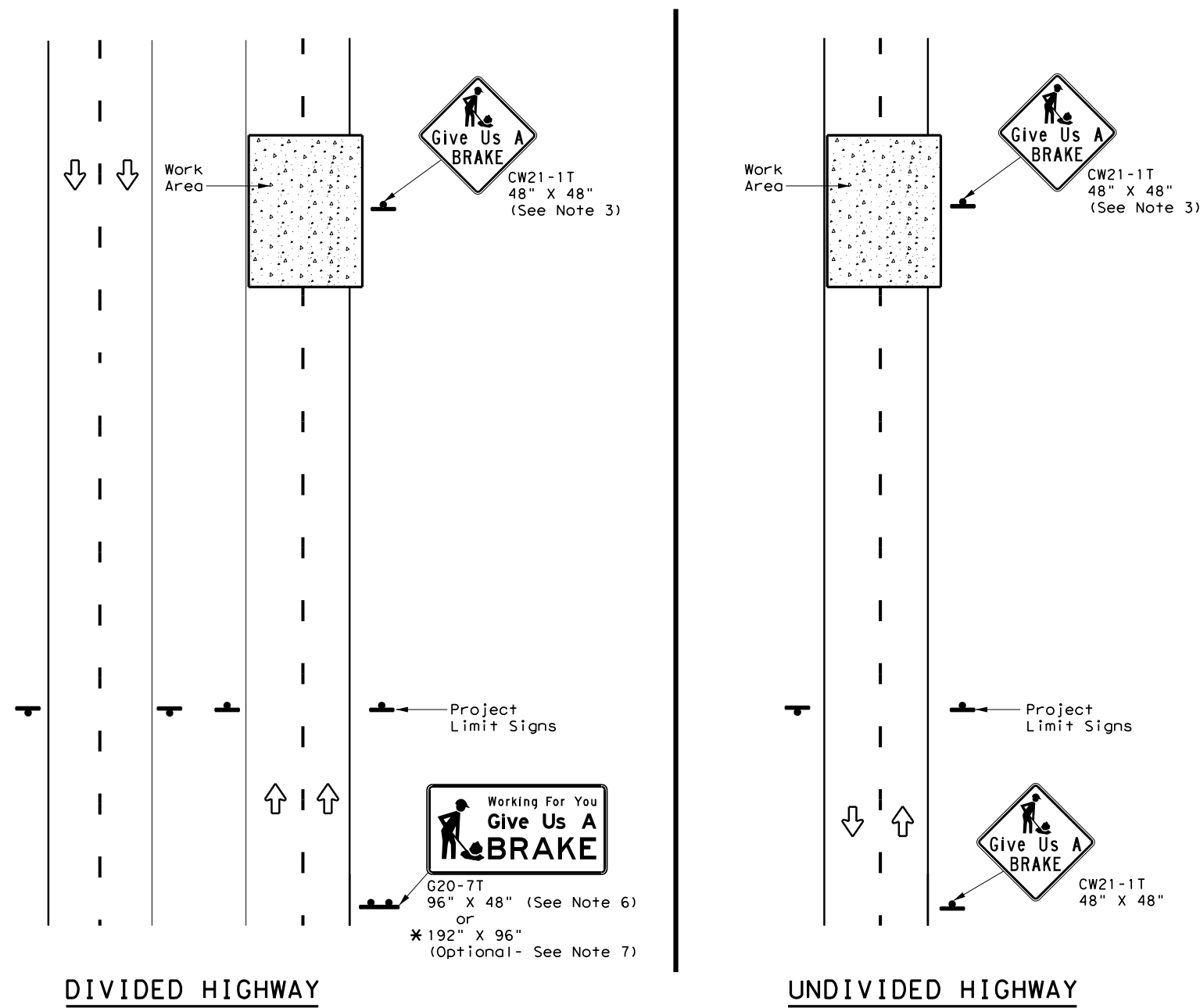
TCP (2-2) - 18

FILE: tcp2-2-18.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
8-95 3-03				
1-97 2-12				
4-98 2-18				
	DIST	COUNTY		SHEET NO.
	ELP	EL PASO		75

DATE:  
FILE:

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DATE:  
FILE:



SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL

\* When the optional larger WORKING FOR YOU GIVE US A BRAKE (G20-7T) 192" x 96" sign is required, the locations shall be noted elsewhere in the plans.

SUMMARY OF LARGE SIGNS

BACKGROUND COLOR	SIGN DESIGNATION	SIGN	SIGN DIMENSIONS	REFLECTIVE SHEETING	SQ FT	GALVANIZED STRUCTURAL STEEL		DRILLED SHAFT
						Size	(LF)	
							① ②	24" DIA. (LF)
Orange	G20-7T		96" X 48"	Type B <sub>FL</sub> or C <sub>FL</sub>	32	▲	▲ ▲	▲
Orange	G20-7T		192" X 96"	Type B <sub>FL</sub> or C <sub>FL</sub>	128	W8x18	16 17	12

▲ See Note 6 Below

**LEGEND**

	Sign
	Large Sign
	Traffic Flow

**DEPARTMENTAL MATERIAL SPECIFICATIONS**

PLYWOOD SIGN BLANKS	DMS-7100
ALUMINUM SIGN BLANKS	DMS-7110
SIGN FACE MATERIALS	DMS-8300

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B <sub>FL</sub> OR TYPE C <sub>FL</sub>
BLACK	LEGEND & BORDERS	NON-REFLECTIVE ACRYLIC FILM

GENERAL NOTES

- See BC and SMD sheets for additional sign support details.
- Sign locations shall be approved by the Engineer.
- For projects more than two miles in length, Give Us a BRAKE signs should be repeated halfway through the project. The Give Us a Brake (CW21-1T) may be used for this purpose.
- Work zone speed limits are sometimes used in conjunction with GIVE US A BRAKE signing. See BC(3) for location and spacing of construction speed zone signing when required.
- Give Us a Brake (CW21-1T) signs and supports shall be considered subsidiary to Item 502, "Barricades, Signs and Traffic Handling."
- The 96" X 48" Working For You Give Us A BRAKE (G20-7T) may use a 1/2" or 5/8" plywood substrate or 0.125" aluminum sheeting substrate and may be supported by two 4" x 6" wood posts with drilled holes for breakaway as per BC(5) and will be subsidiary to Item 502.
- The Working For You Give Us A BRAKE (G20-7T) 192" X 96" sign shall be paid for under the following specification items:  
 Item 636 - Aluminum Signs  
 Item 647 - Large Roadside Sign Supports and Assemblies.  
 Item 416 - Drilled Shaft Foundations
- All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.

WORK ZONE  
"GIVE US A BRAKE"  
SIGNS

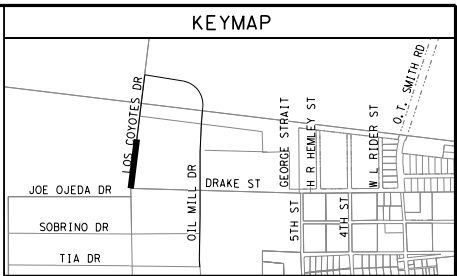
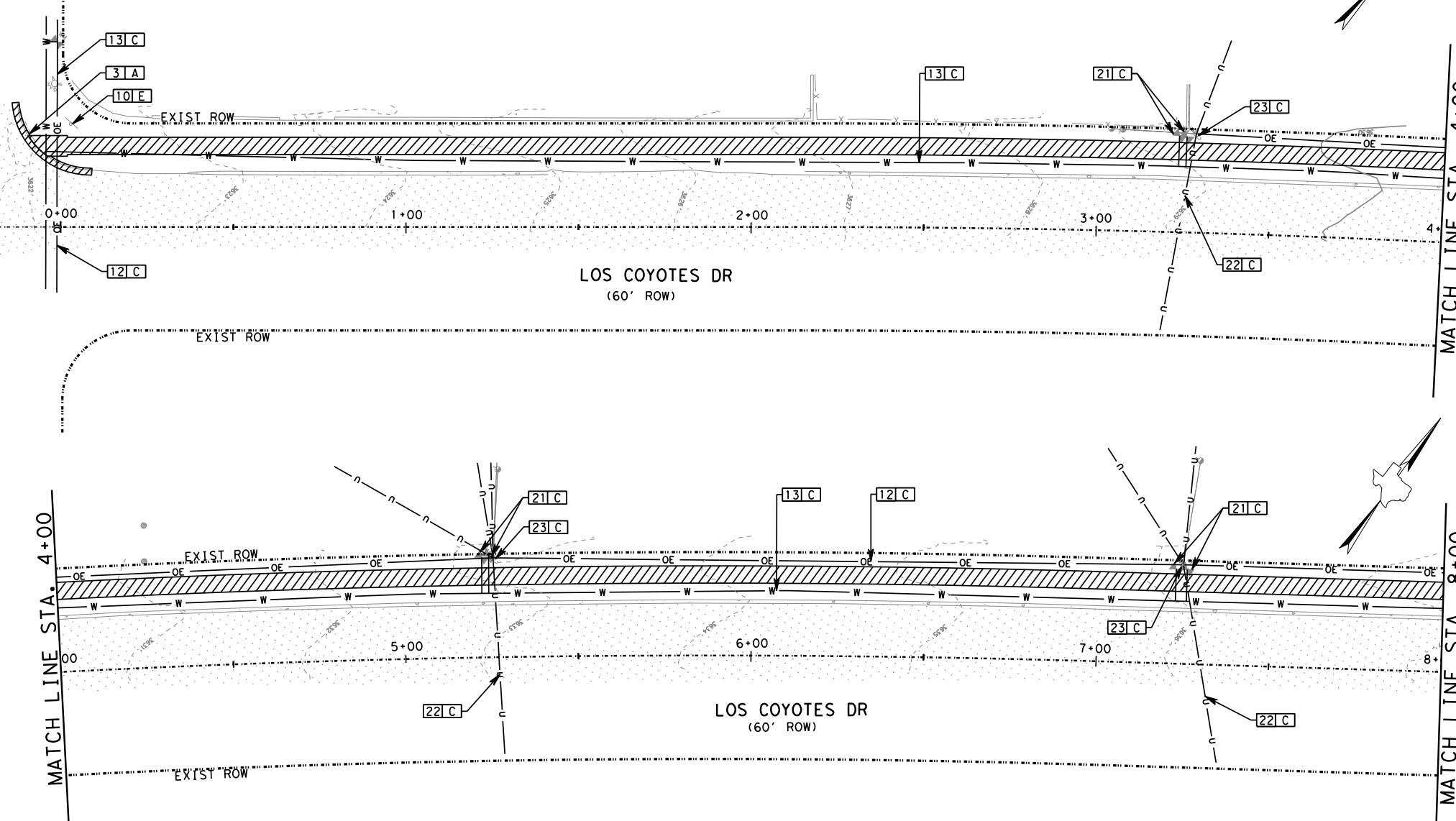
WZ (BRK) - 13

FILE: wZbrk-13.dgn	DN: TxDOT	CK: TxDOT	DN: TxDOT	CK: TxDOT
© TxDOT August 1995	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
6-96 5-98 7-13	DIST	COUNTY	SHEET NO.	
8-96 3-03	ELP	EL PASO	76	



F:\19136\DG(N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH)\_COYOTES\_DEMO AND EX\_UTILITIES\_(01).dgn 8/27/2021 12:32:42 PM jair

EXIST ROW  
JOE OJEDA DR  
(60' ROW)



**LEGEND**

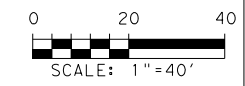
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- PREP ROW
- EXISTING CONCRETE
- EXISTING PAVEMENT
- COVERED AREA
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING POST-BOLLARD
- EXISTING SIGN
- EXISTING UTILITY SERVICE POLE
- EXISTING UTILITY BOX/PEDESTAL
- EXISTING POWER POLE
- EXISTING LAMP

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

[ A ]	
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-617				
SHEET 1 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	8
104	6021	REMOVING CONC (CURB)	LF	35
110	6001	EXCAVATION (ROADWAY)	CY	75
644	6076	REMOVE SM RD SN SUP&AM	EA	1
*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR ONLY				



CSJ 0924-06-617



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO      SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

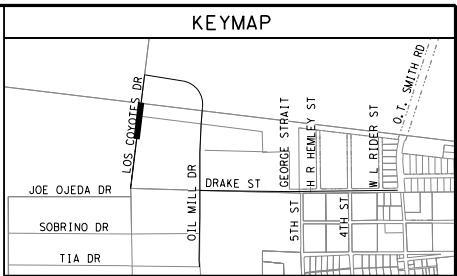
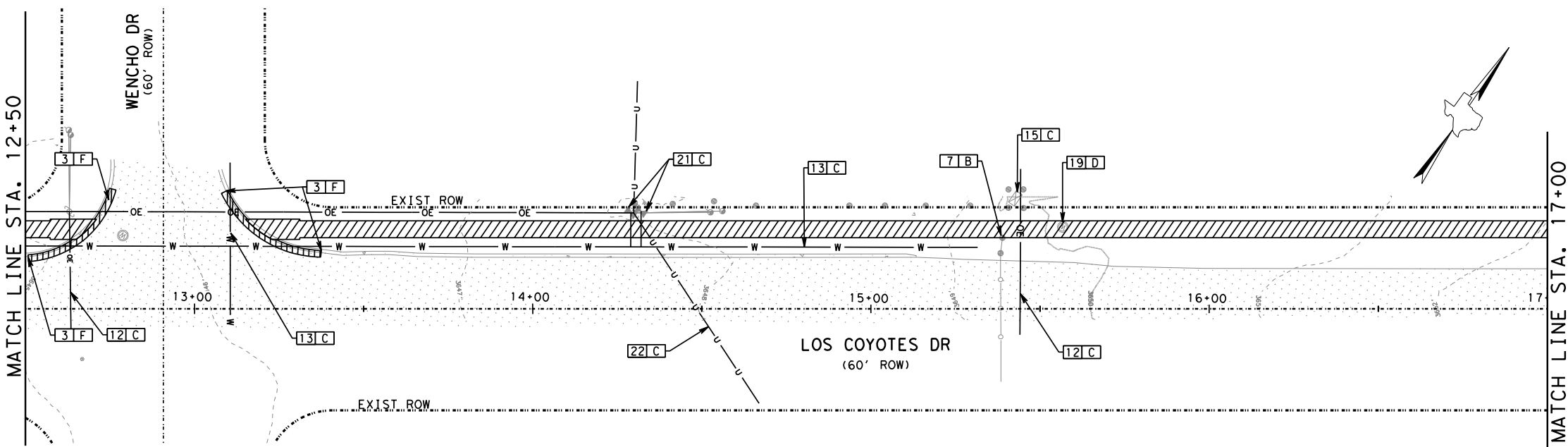
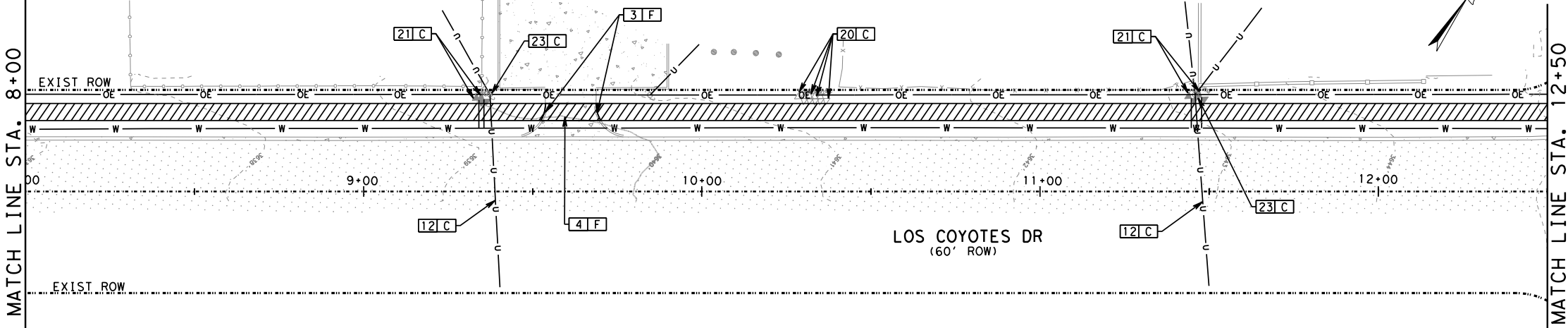
**TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
LOS COYOTES DRIVE  
STA 0+00 TO STA 8+00**

SHEET 1 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	77
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

12:32:43 PM jair

F:\19136\DG\N-A) - Los Coyotes Drive and Oil Mill Drive\9136 - (NORTH)\_COYOTES\_DEMO AND EX\_UTILITIES\_(02).dgn/27/2021



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▨ EXISTING CONCRETE
- ▨ EXISTING PAVEMENT
- ▨ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING WATER METER
- ⊙ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊙ EXISTING UTILITY SERVICE POLE
- ⊙ EXISTING UTILITY BOX/PEDESTAL
- ⊙ EXISTING POWER POLE
- ⊙ EXISTING LAMP

**DEMOLITION KEYED NOTES**

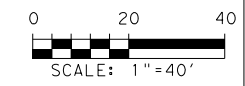
1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
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24	EXISTING TREE/VEGETATION

A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-617  
SHEET 2 OF 6 (COYOTES)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	9
104	6017	REMOVING CONC (DRIVEWAYS)	SY	22
104	6021	REMOVING CONC (CURB)	LF	105
104	6067	REMOVING CONC (SAWCUT)	LF	105
110	6001	EXCAVATION (ROADWAY)	CY	78
479	6001	ADJUSTING MANHOLES	EA	1
550	6015	REMOVE AND INSTALL EXISTING GATE	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR ONLY



CSJ 0924-06-617



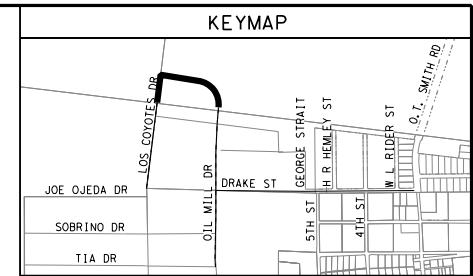
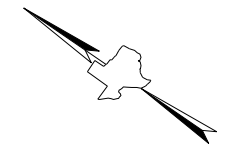
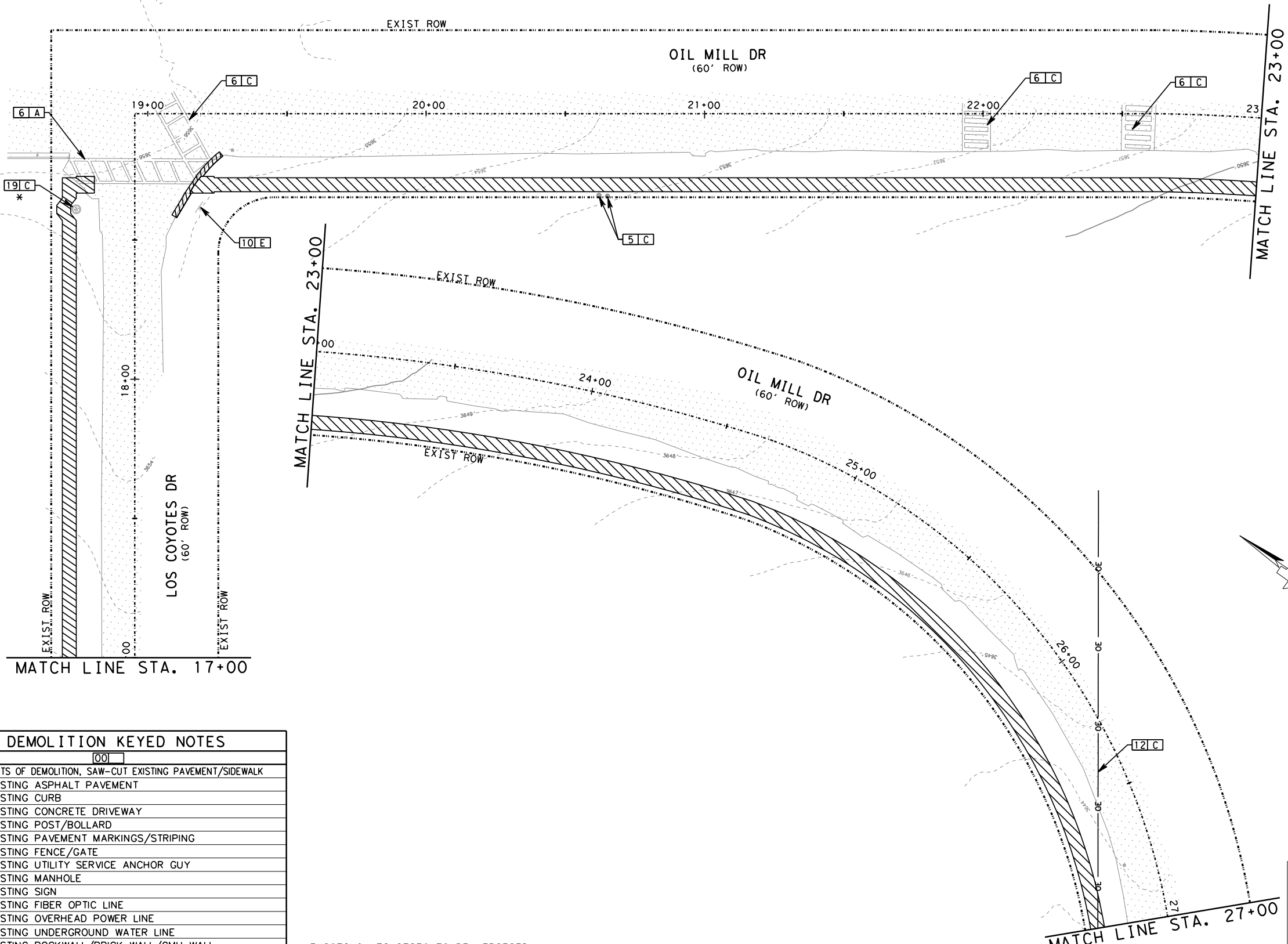
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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
DEMOLITION & EXISTING UTILITY PLAN  
LOS COYOTES DRIVE  
STA 8+00 TO STA 17+00  
SHEET 2 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	78
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\19136-DGN\N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH)\_COYOTES\_DEMO AND EX\_UTILITIES\_(03).dgn 8/27/2021 12:32:44 PM jair



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▨ EXISTING CONCRETE
- ▨ EXISTING PAVEMENT
- ▨ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING WATER METER
- ⊙ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊙ EXISTING UTILITY SERVICE POLE
- ⊙ EXISTING UTILITY BOX/PEDESTAL
- ⊙ EXISTING POWER POLE
- ⊙ EXISTING LAMP

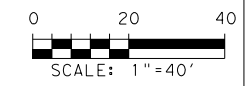
**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

\* EXISTING UTILITIES TO BE VERIFIED

A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-617				
SHEET 3 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	10
110	6001	EXCAVATION (ROADWAY)	CY	89
644	6076	REMOVE SM RD SN SUP&AM	EA	1
677	6005	ELIM EXT PAV MRK & MRKS (12")	LF	185
*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR AND OIL MILL DR				



CSJ 0924-06-617

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

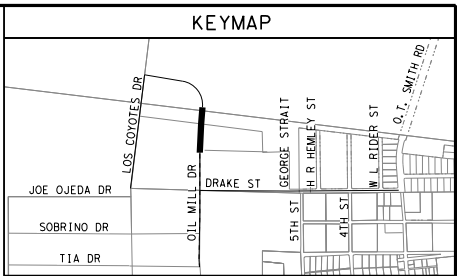
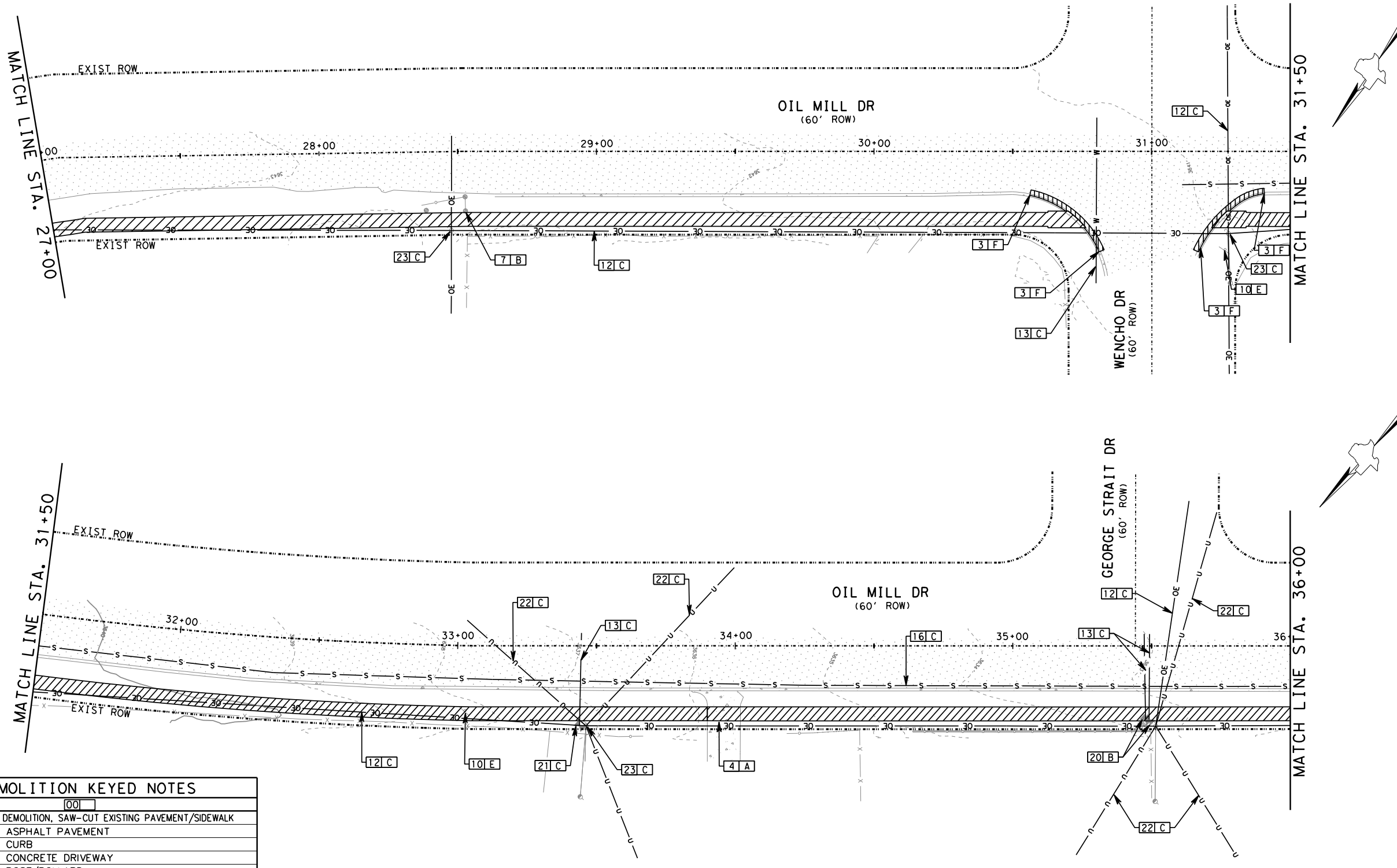
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
DEMOLITION & EXISTING UTILITY PLAN  
LOS COYOTES DRIVE AND OIL MILL DRIVE  
STA 17+00 TO STA 27+00  
SHEET 3 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	79
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

F:\19136\DG(N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH)\_COYOTES\_DEMO AND EX\_UTILITIES\_(04).dgn 8/27/2021 12:32:45 PM jair



**LEGEND**

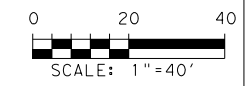
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
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E	REMOVE AND REPLACE
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CSJ: 0924-06-617				
SHEET 4 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	9
104	6017	REMOVING CONC (DRIVEWAYS)	SY	7
104	6021	REMOVING CONC (CURB)	LF	70
104	6067	REMOVING CONC (SAWCUT)	LF	70
110	6001	EXCAVATION (ROADWAY)	CY	78
550	6015	REMOVE AND INSTALL EXISTING GATE	EA	1
644	6076	REMOVE SM RD SN SUP&AM	EA	2
ELP3	6001	ADJUST WATER VALVE BOX	EA	2
*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY				



STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

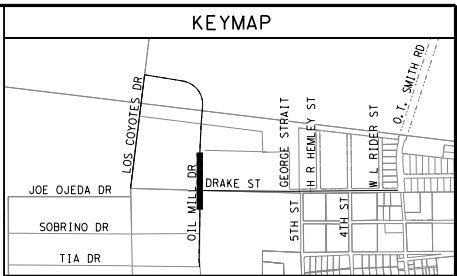
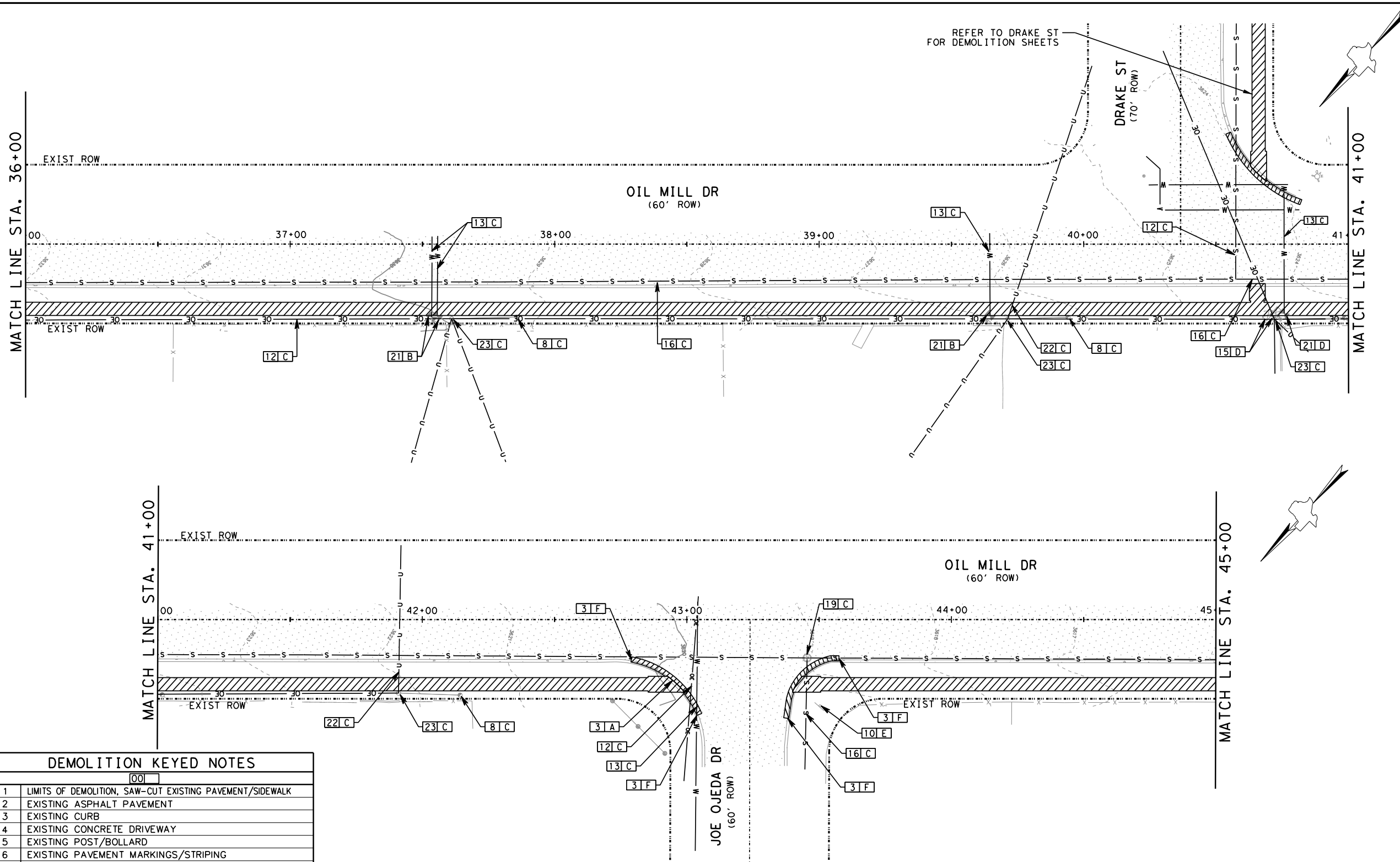
CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 DEMOLITION & EXISTING UTILITY PLAN  
 OIL MILL DRIVE  
 STA 27+00 TO STA 36+00  
 SHEET 4 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	80
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DG\N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH) COYOTES\_DEMO AND EX\_UTILITIES\_(05).dgn 8/27/2021 12:32:45 PM jair



**LEGEND**

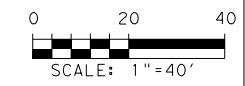
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▨ EXISTING CONCRETE
- ▨ EXISTING PAVEMENT
- ▨ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING FIRE HYDRANT
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F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-617				
SHEET 5 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	9
104	6021	REMOVING CONC (CURB)	LF	70
104	6067	REMOVING CONC (SAWCUT)	LF	70
110	6001	EXCAVATION (ROADWAY)	CY	80
479	6010	ADJUSTING MANHOLES (ELECTRIC BOX)	EA	2
644	6076	REMOVE SM RD SN SUP&AM	EA	1
ELP4	6001	ADJUST AND/OR RELOCATE WATER METE	EA	4
*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY				



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER

08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

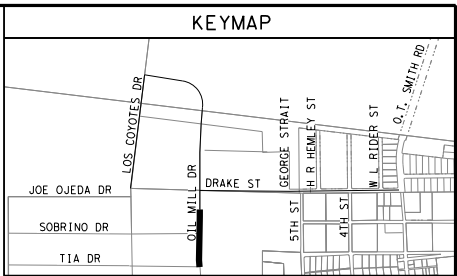
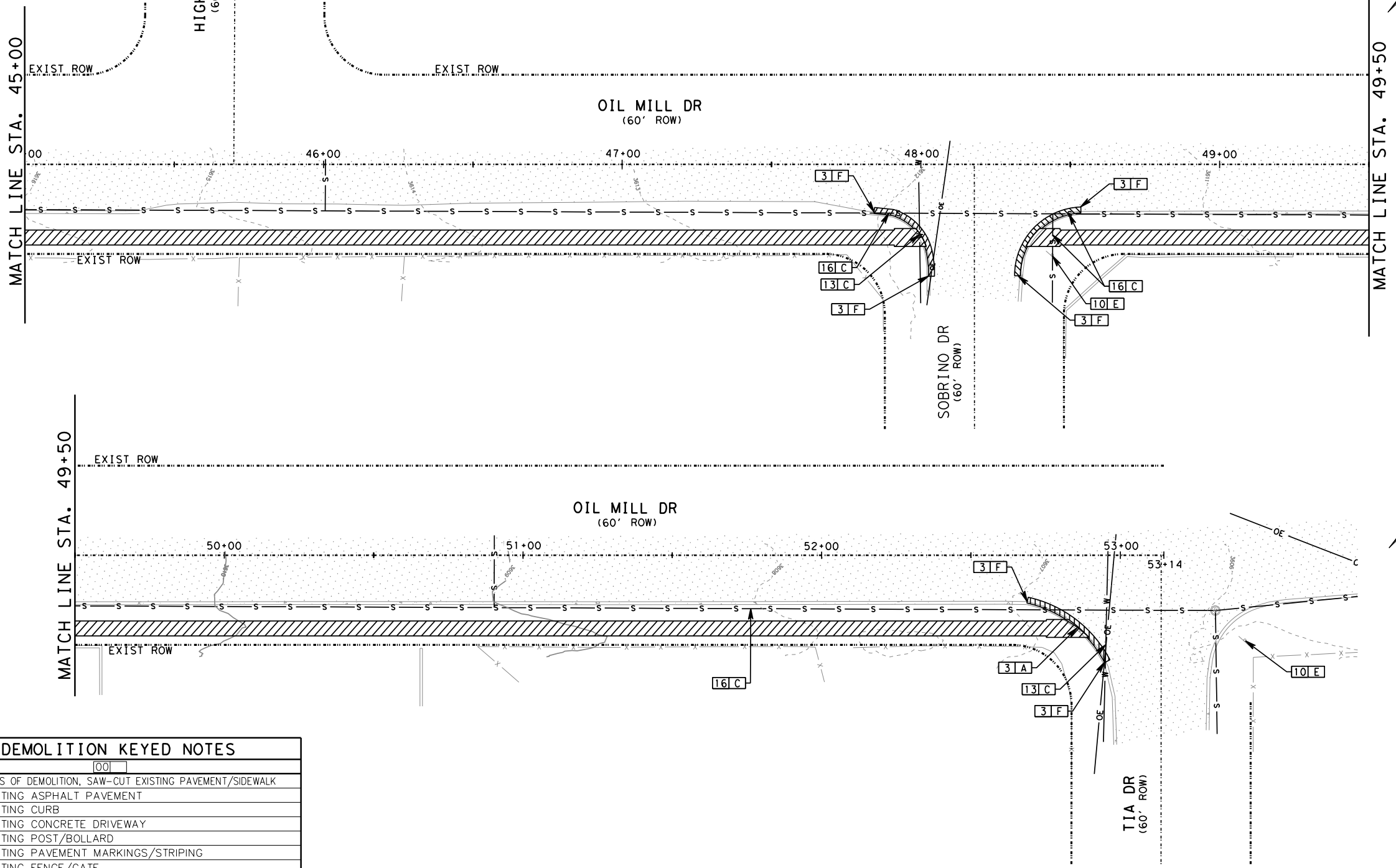
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
OIL MILL DRIVE  
STA 36+00 TO STA 45+00

SHEET 5 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	81
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DG\N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH)\_COYOTES\_DEMO AND EX\_UTILITIES\_(06).dgn 8/27/2021 12:32:46 PM jair



**LEGEND**

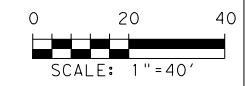
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
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- ▤ EXISTING CONCRETE
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**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
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A	
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
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CSJ: 0924-06-617				
SHEET 6 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	8
104	6021	REMOVING CONC (CURB)	LF	108
104	6067	REMOVING CONC (SAWCUT)	LF	108
110	6001	EXCAVATION (ROADWAY)	CY	70
644	6076	REMOVE SM RD SN SUP&AM	EA	2
*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY				



CSJ 0924-06-617



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO      SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

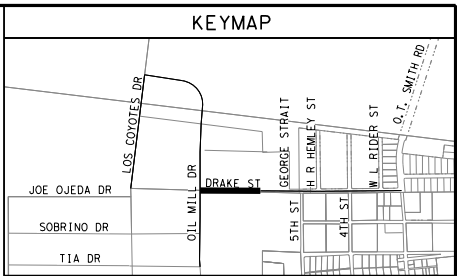
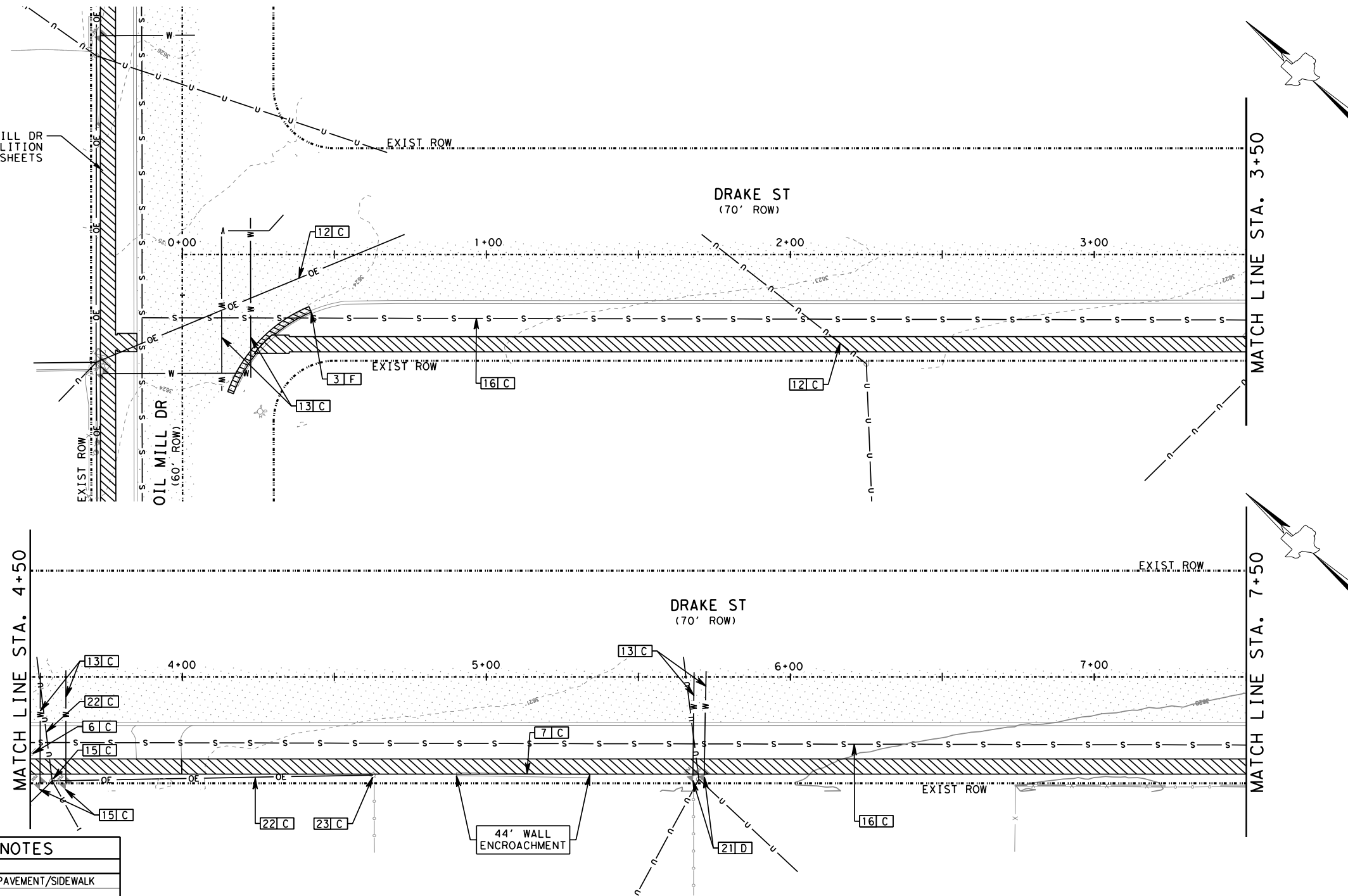
**TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN**  
OIL MILL DRIVE  
STA 45+00 TO STA 53+14  
SHEET 6 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	82
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

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F:\19136\19136-DGN\N-B) - Drake Street\19136 - (NORTH)\_DRAKE\_DEMO AND EX-UTILITIES-(01).dgn

REFER TO OIL MILL DR FOR DEMOLITION SHEETS



**LEGEND**

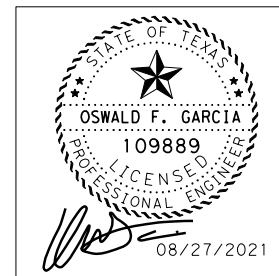
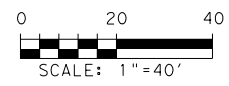
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
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CSJ: 0924-06-617			
SHEET 1 OF 4 (DRAKE) *			
ITEM	CODE	DESCRIPTION	UNIT QUANTITY
100	6002	PREPARING ROW	STA 7.5
104	6021	REMOVING CONC (CURB)	LF 40
104	6067	REMOVING CONC (SAWCUT)	LF 40
110	6001	EXCAVATION (ROADWAY)	CY 68
ELP4	6001	ADJUST AND/OR RELOCATE WATER METE	EA 2
*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY			



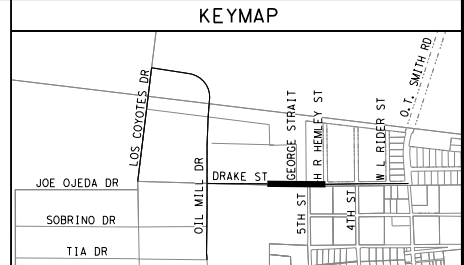
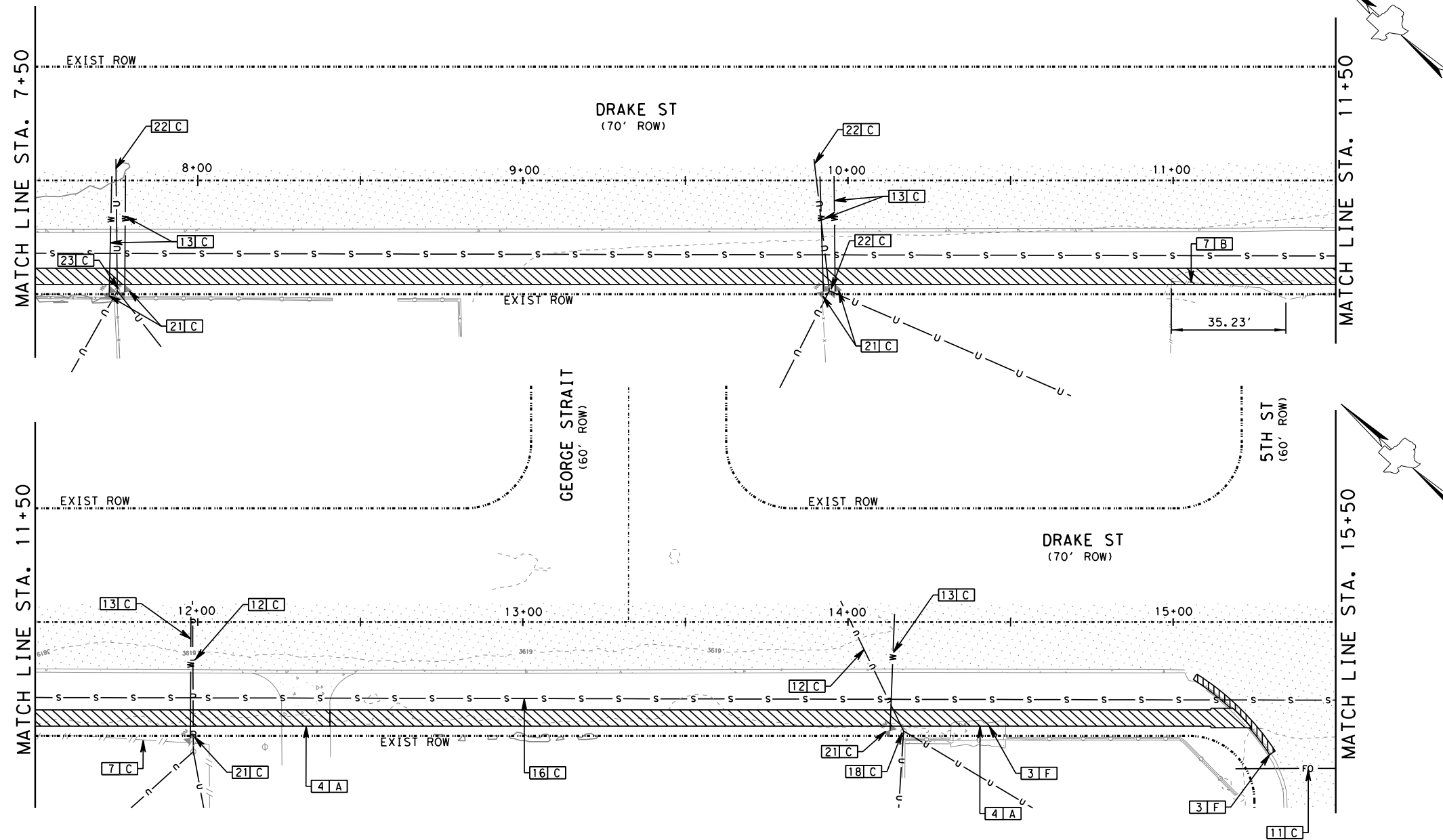
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP DEMOLITION & EXISTING UTILITY PLAN  
DRAKE STREET  
STA 0+00 TO STA 7+50  
SHEET 1 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	83
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

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**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
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- ▤ EXISTING CONCRETE
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D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-617  
SHEET 2 OF 4 (DRAKE) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	8
104	6017	REMOVING CONC (DRIVEWAYS)	SY	17
104	6021	REMOVING CONC (CURB)	LF	35
104	6067	REMOVING CONC (SAWCUT)	LF	51
110	6001	EXCAVATION (ROADWAY)	CY	71
550	6015	REMOVE AND INSTALL EXISTING GATE	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY



CSJ 0924-06-617

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

**TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
DRAKE STREET  
STA 7+50 TO STA 15+50**

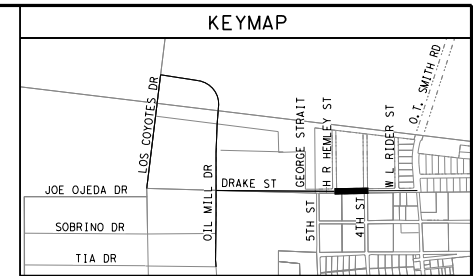
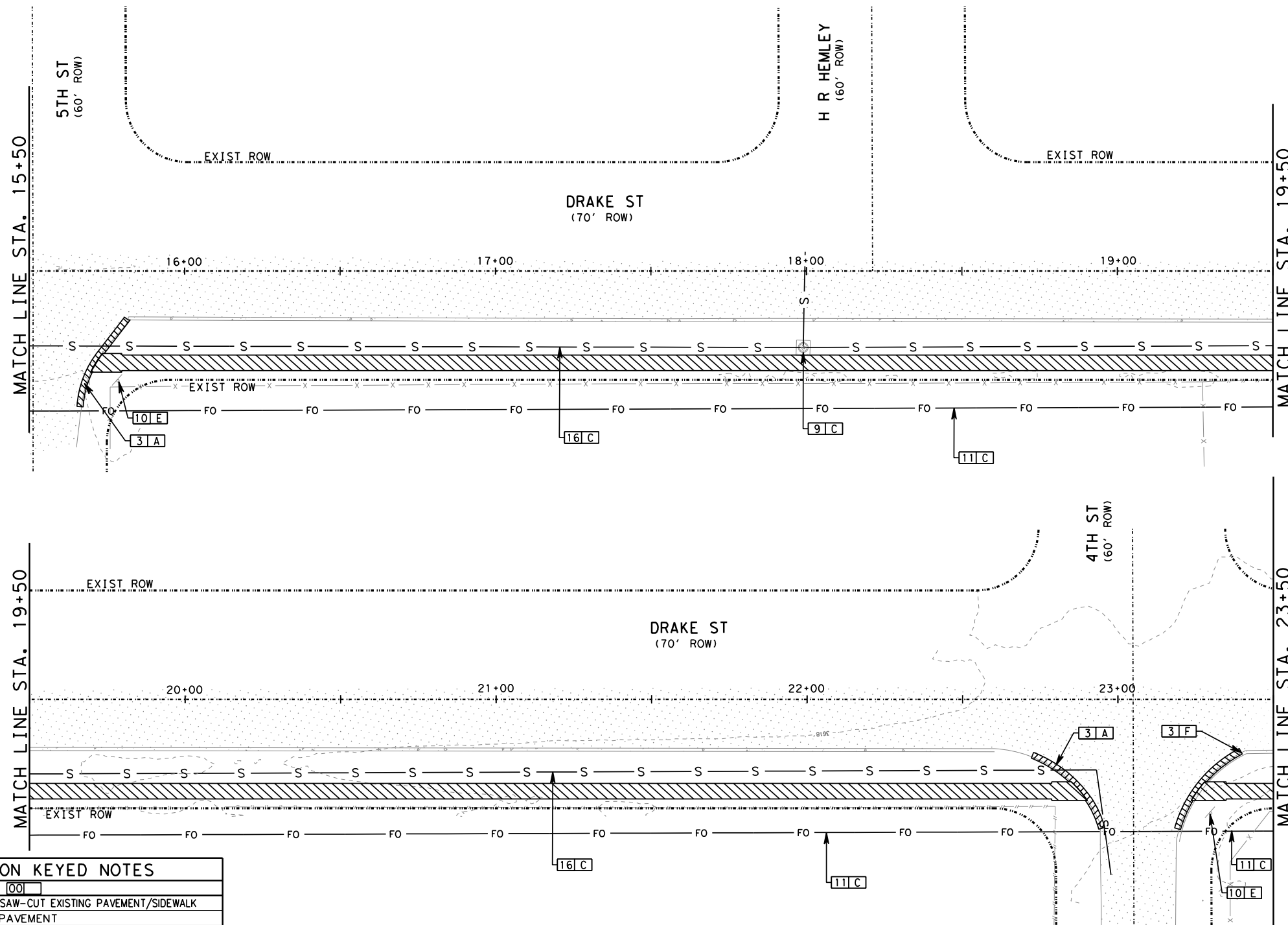
SHEET 2 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	84
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



8/27/2021 12:32:50 PM jair

F:\19136\19136-DGN\N-B) - Drake Street\19136 - (NORTH)\_DRAKE\_DEMO AND EX UTILITIES (03).dgn



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
- ⊗ EXISTING POWER POLE
- ⊘ EXISTING LAMP

**DEMOLITION KEYED NOTES**

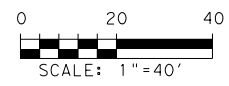
1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

A	
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSI: 0924-06-617  
SHEET 3 OF 4 (DRAKE) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	8
104	6021	REMOVING CONC (CURB)	LF	70
104	6067	REMOVING CONC (SAWCUT)	LF	70
110	6001	EXCAVATION (ROADWAY)	CY	69
644	6076	REMOVE SM RD SN SUP&AM	EA	2

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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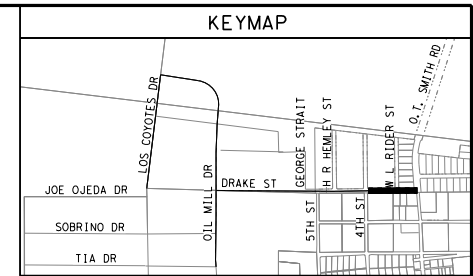
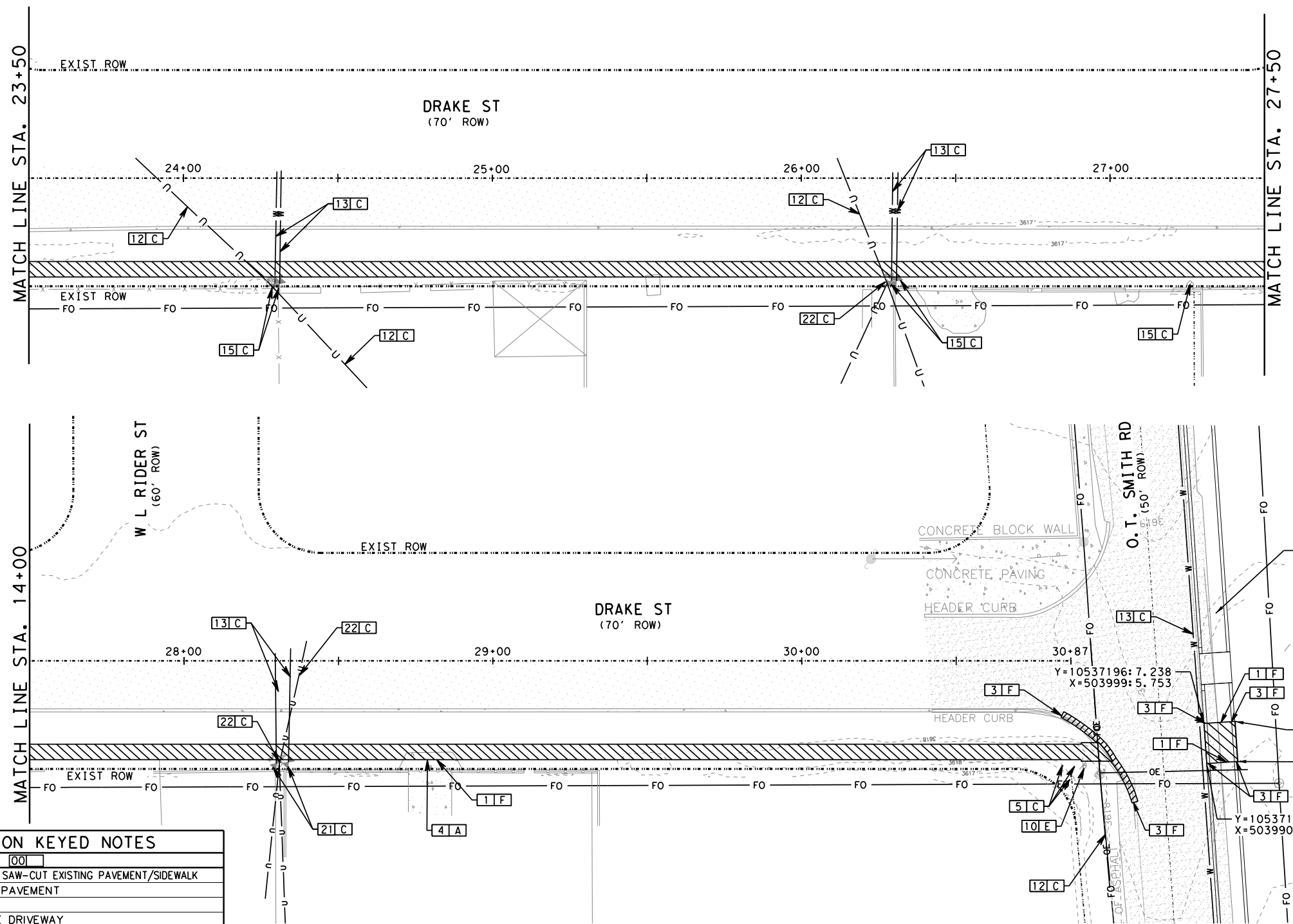
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
DEMOLITION & EXISTING UTILITY PLAN  
DRAKE STREET  
STA 15+50 TO STA 23+50  
SHEET 3 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	85
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\19136-DGN\N-B) - Drake Street\19136 - (NORTH)\_DRAKE\_DEMO AND EX UTILITIES (04).dgn 8/27/2021 12:32:51 PM jair



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- PREP ROW
- EXISTING CONCRETE
- EXISTING PAVEMENT
- COVERED AREA
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING POST-BOLLARD
- EXISTING SIGN
- EXISTING UTILITY SERVICE POLE
- EXISTING UTILITY BOX/PEDESTAL
- EXISTING POWER POLE
- EXISTING LAMP

**DEMOLITION KEYED NOTES**

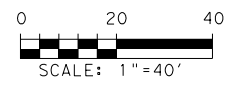
1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

		<b>[ A ]</b>
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION	
B	REMOVE AND RELOCATE	
C	REMAIN UNDISTURBED (TO BE PROTECTED)	
D	ADJUST TO NEW GRADE	
E	REMOVE AND REPLACE	
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE	

CSJ: 0924-06-617  
SHEET 4 OF 4 (DRAKE) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	7.5
104	6015	REMOVING CONC (SIDEWALKS)	SY	15
104	6017	REMOVING CONC (DRIVEWAYS)	SY	5
104	6021	REMOVING CONC (CURB)	LF	35
104	6067	REMOVING CONC (SAWCUT)	LF	103
110	6001	EXCAVATION (ROADWAY)	CY	70
644	6076	REMOVE SM RD SN SUP&AM	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

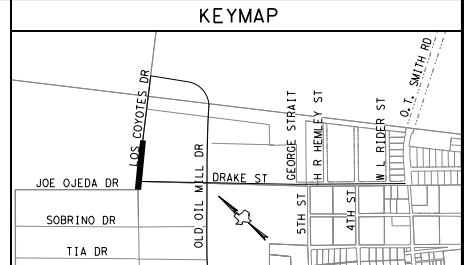
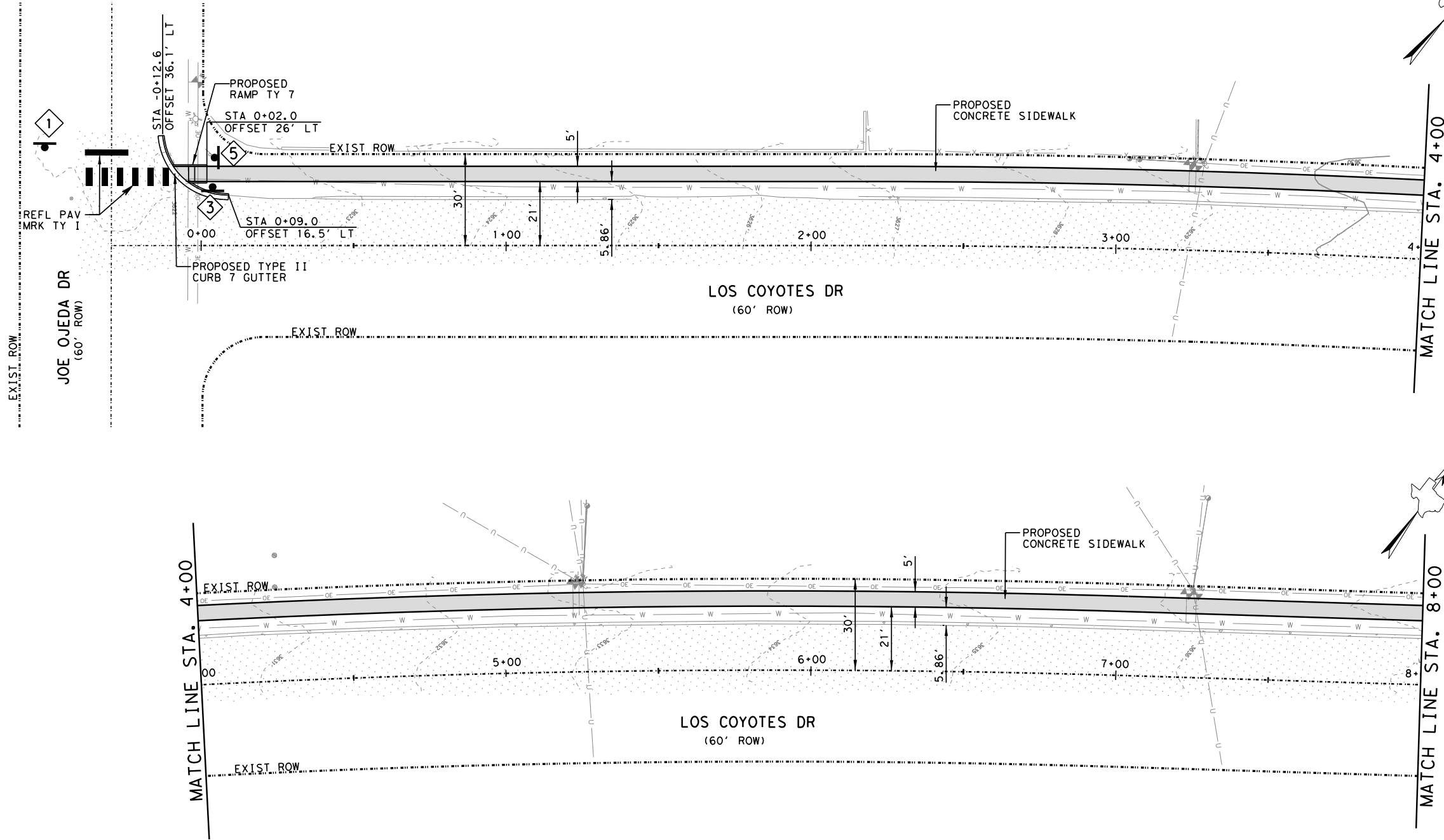
**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
DRAKE STREET  
STA 23+50 TO STA 30+87

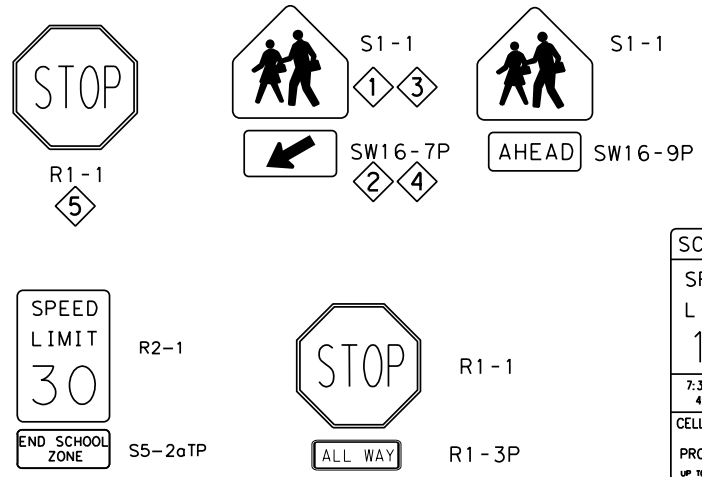
SHEET 4 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	86
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DG\N\A - Los Coyotes Drive and Old Mill Drive\19136 - (NORTH)\_COYOTES\_SIDEWALK\_LAYOUT\_(01).dgn 8/27/2021 12:32:54 PM joir



- LEGEND**
- EXISTING RIGHT-OF-WAY**
- PROJECT CONTROL BASELINE**
- EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)



SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

Joe Ojeda<sup>DR</sup><sub>18800</sub>  
Los Coyotes<sup>DR</sup><sub>300</sub>

CSJ: 0924-16-617				
SHEET 1 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	35
531	6003	CONC SIDEWALKS (6")	SY	450
531	6010	CURB RAMPS (TY 7)	EA	1
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	2
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	50
666	6230	PAVEMENT SEALER 24"	LF	50
678	6008	PAV SURF PREP FOR MRK (24")	LF	50

\*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR ONLY

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CSJ 0924-06-617

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

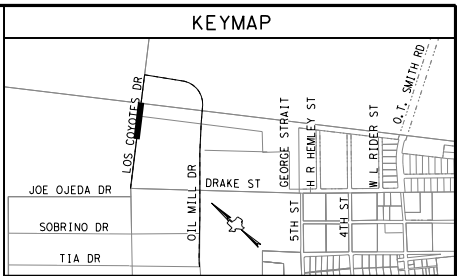
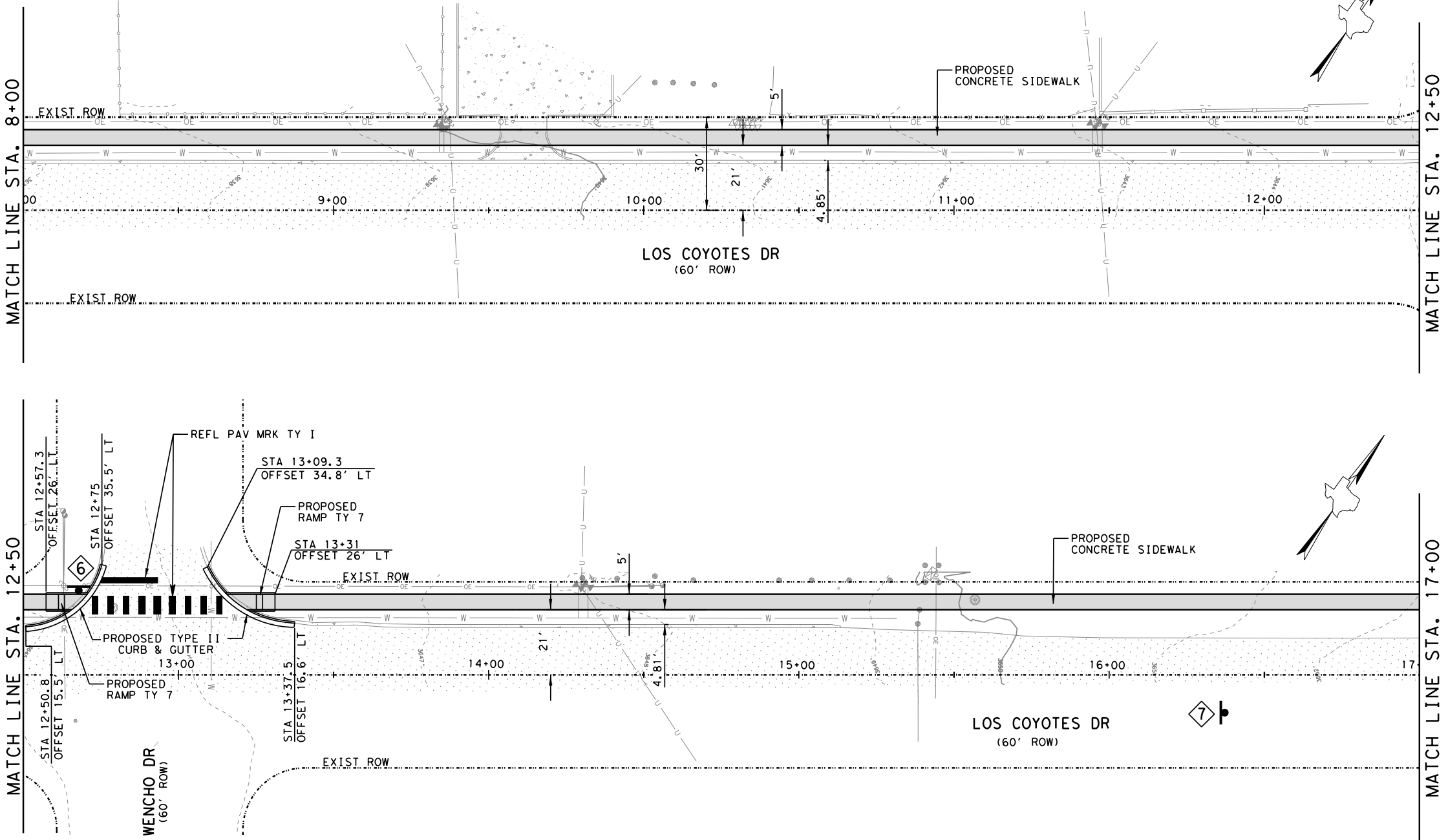
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
LOS COYOTES DRIVE  
STA 0+00 TO STA 8+00

SHEET 1 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	87	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06		VARIOUS

F:\19136\DN\N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH) - COYOTES - SIDEWALK LAYOUT\_1021.dgn 8/27/2021 12:32:55 PM jair



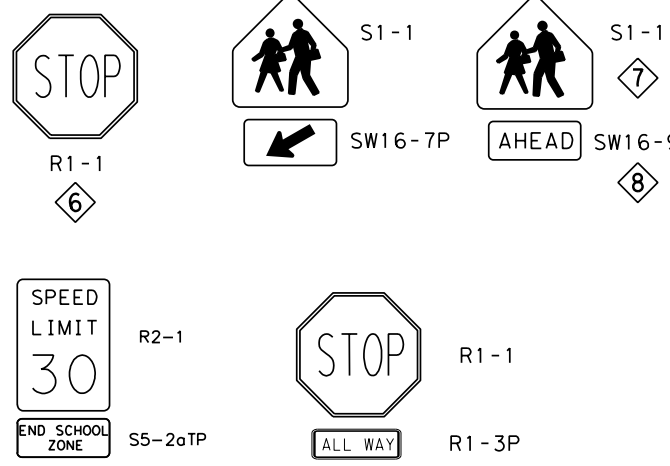
- LEGEND**
- EXISTING RIGHT-OF-WAY
  - PROJECT CONTROL BASELINE
  - EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY  
 AUTHORITY

TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
**SIDEWALK LAYOUT PLAN**  
 LOS COYOTES DRIVE  
 STA 8+00 TO STA 17+00  
 SHEET 2 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	88
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

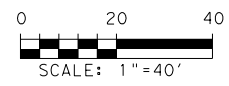


SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

CSJ: 0924-16-617  
 SHEET 2 OF 6 (COYOTES)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	73
531	6003	CONC SIDEWALKS (6")	SY	467
531	6010	CURB RAMPS (TY 7)	EA	2
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	1
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	73
666	6230	PAVEMENT SEALER 24"	LF	73
678	6008	PAV SURF PREP FOR MRK (24")	LF	73

\*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR ONLY

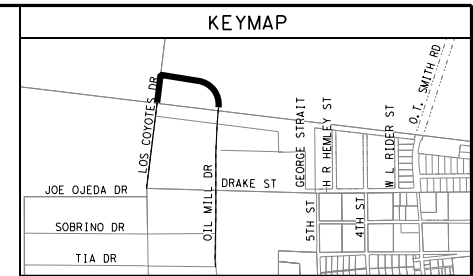
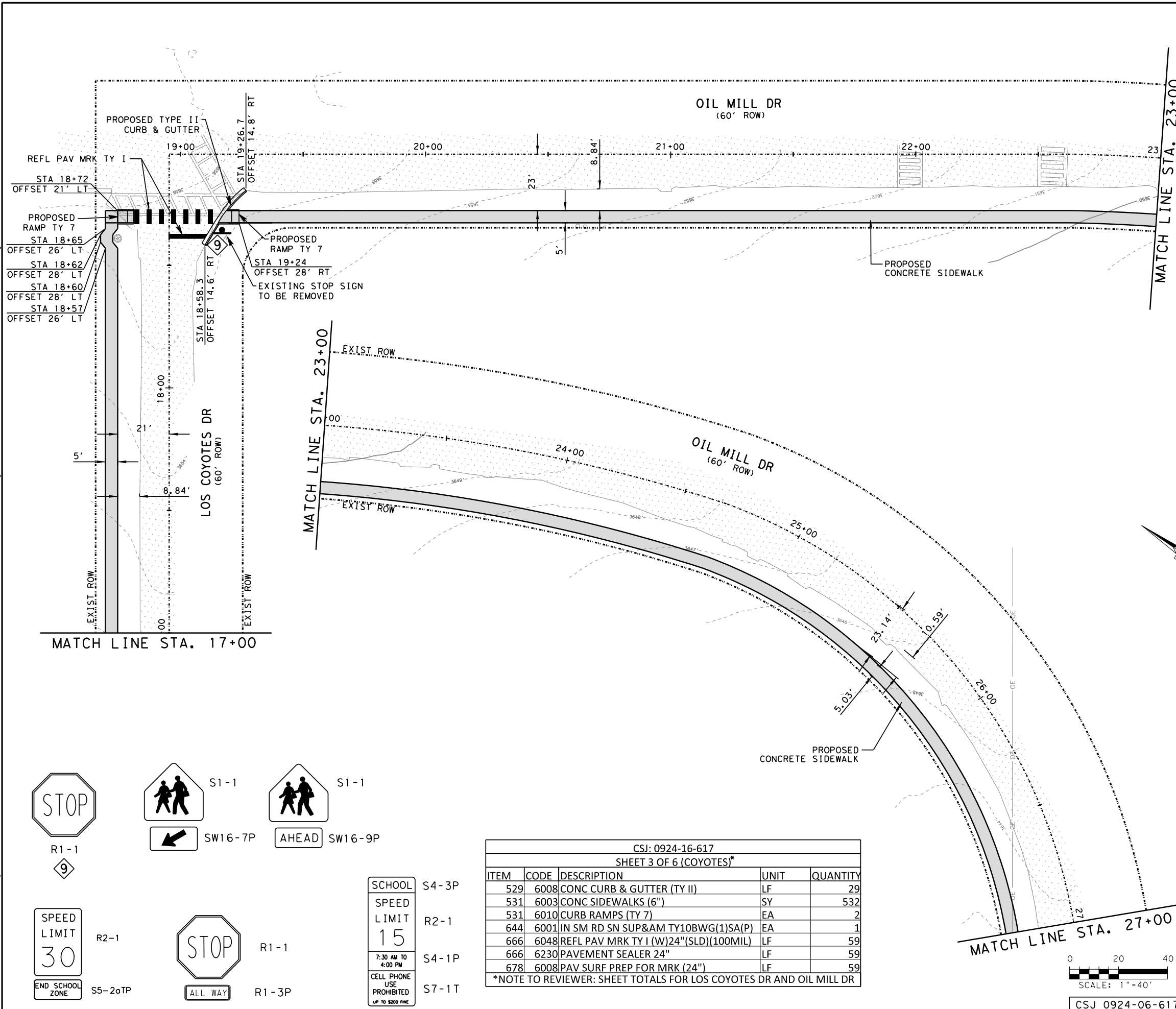


STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CSJ 0924-06-617

F:\19136\DN\N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH) - COYOTES\_SIDEWALK\_LAYOUT\_1031.dgn 8/27/2021 12:32:56 PM jair



**LEGEND**

**EXISTING RIGHT-OF-WAY**

**PROJECT CONTROL BASELINE**

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

**SIDEWALK LAYOUT PLAN**

LOS COYOTES DRIVE AND OIL MILL DRIVE  
STA 17+00 TO STA 27+00

SHEET 3 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	89
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

CSJ: 0924-16-617  
SHEET 3 OF 6 (COYOTES)\*

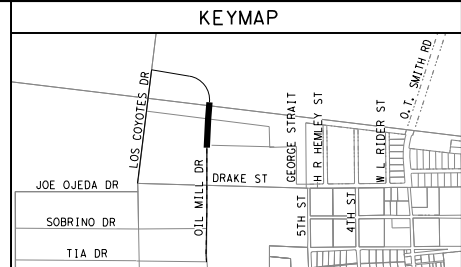
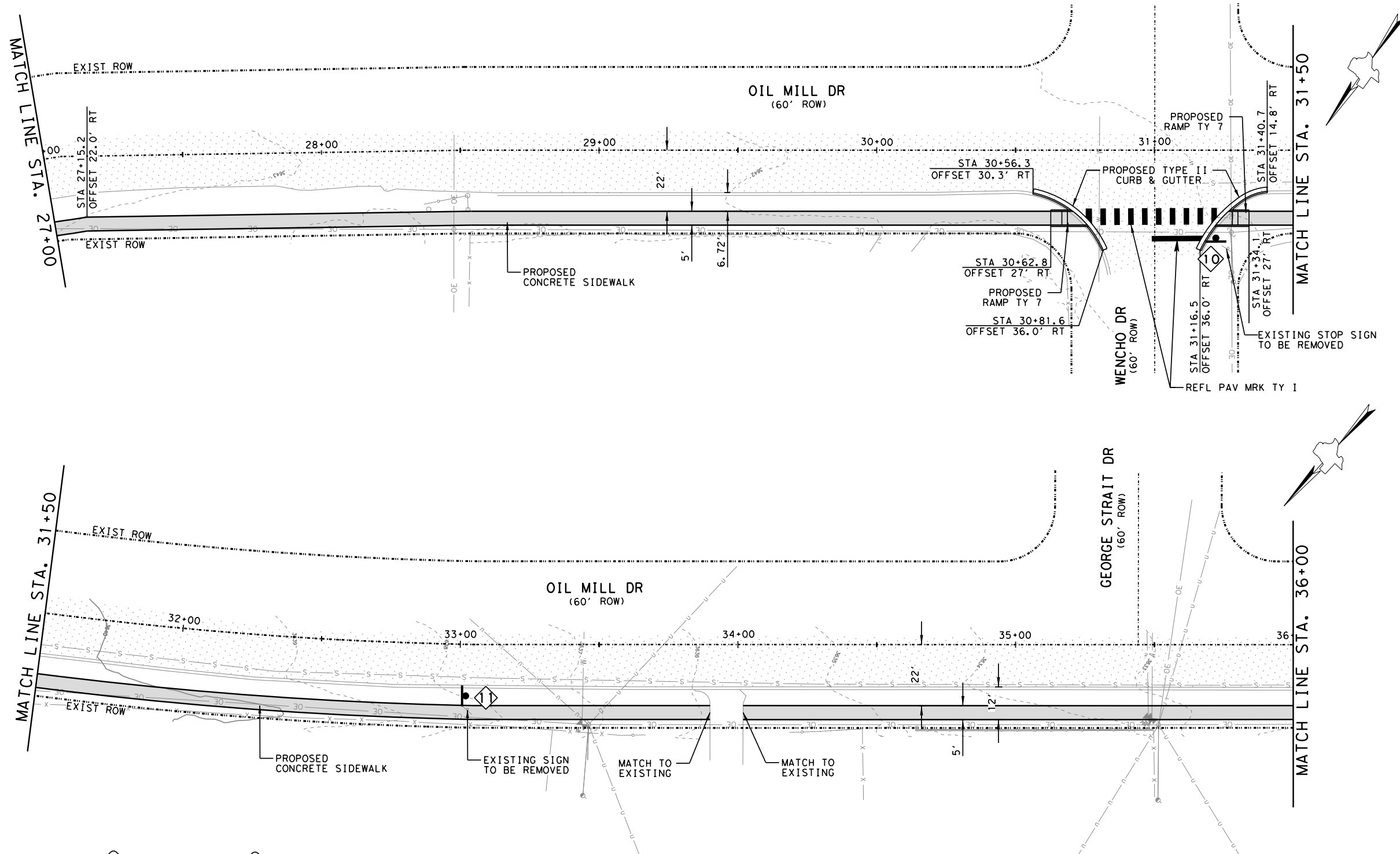
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	29
531	6003	CONC SIDEWALKS (6")	SY	532
531	6010	CURB RAMPS (TY 7)	EA	2
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	59
666	6230	PAV SURF PREP FOR MRK (24")	LF	59
678	6008	PAV SURF PREP FOR MRK (24")	LF	59

\*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR AND OIL MILL DR

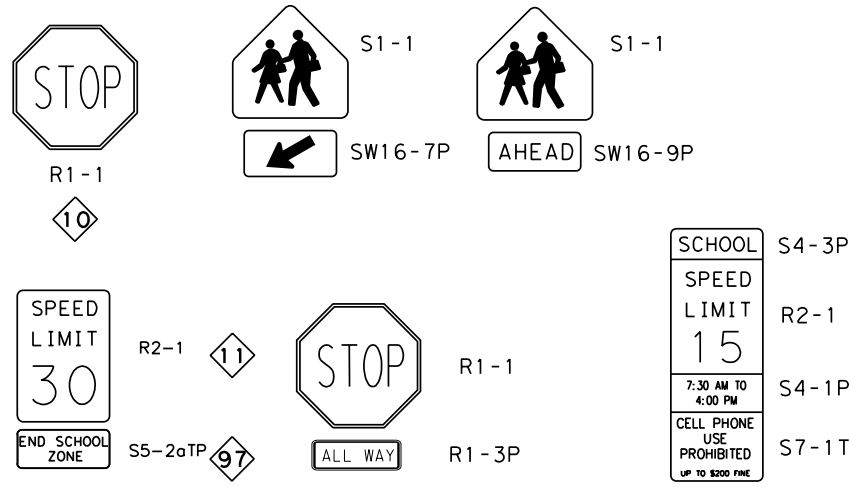
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CSJ 0924-06-617

F:\19136\DN\N-A) - Los Coyotes Drive and Oil Mill Drive and Oil Mill Drive\19136 - (NORTH) - COYOTES\_SIDEWALK\_LAYOUT\_041.dgn 8/27/2021 12:32:57 PM jair



- LEGEND**
- EXISTING RIGHT-OF-WAY**
- PROJECT CONTROL BASELINE**
- EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)



CSJ: 0924-16-617  
SHEET 4 OF 6 (COYOTES)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	72
531	6003	CONC SIDEWALKS (6")	SY	465
531	6010	CURB RAMPS (TY 7)	EA	2
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	2
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	80
666	6230	PAVEMENT SEALER 24"	LF	80
678	6008	PAV SURF PREP FOR MRK (24")	LF	80

\*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY

OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CSJ 0924-06-617

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

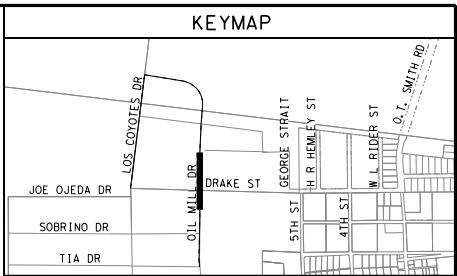
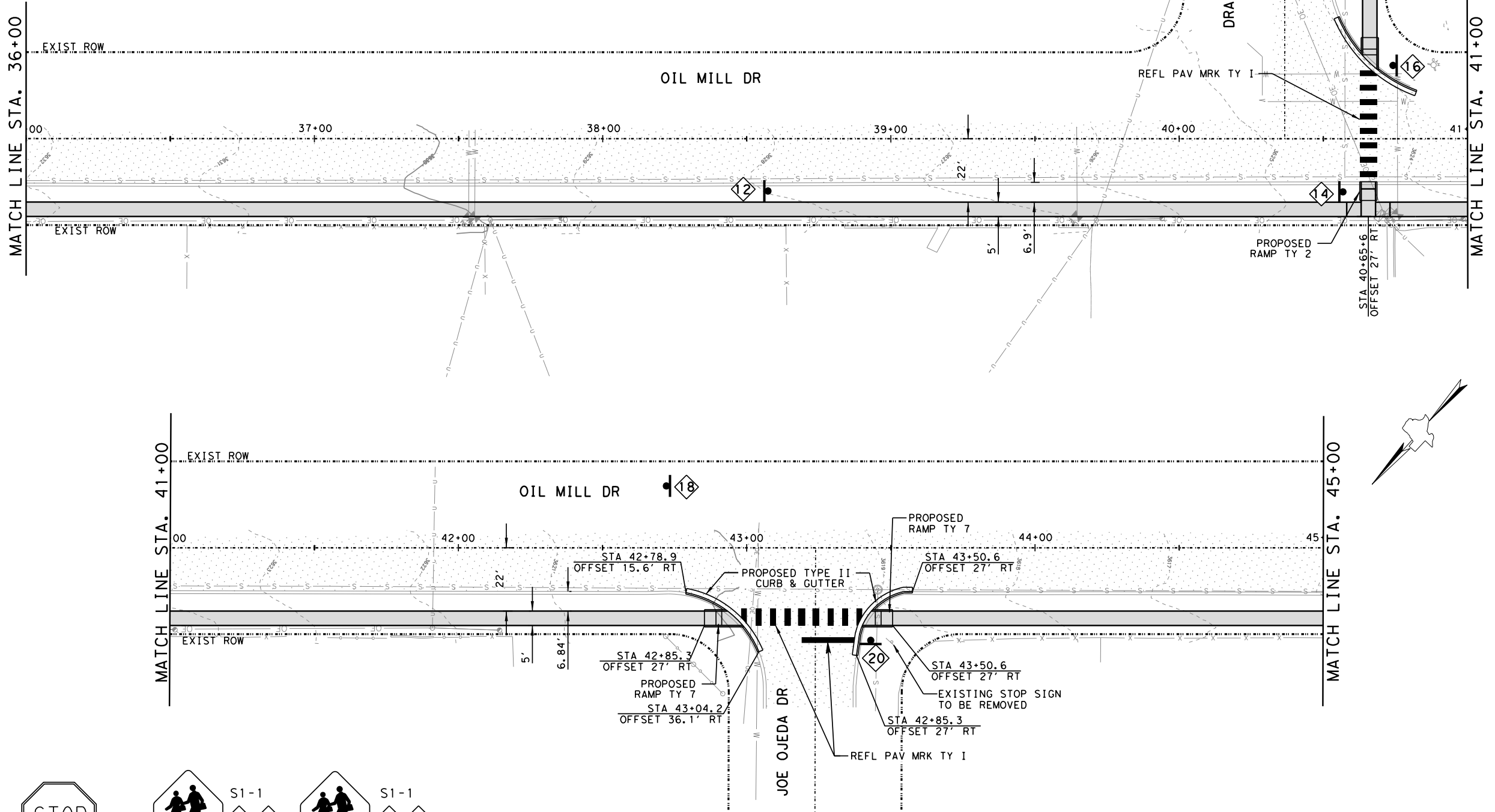
**SIDEWALK LAYOUT PLAN**

OIL MILL DRIVE  
STA 27+00 TO STA 36+00

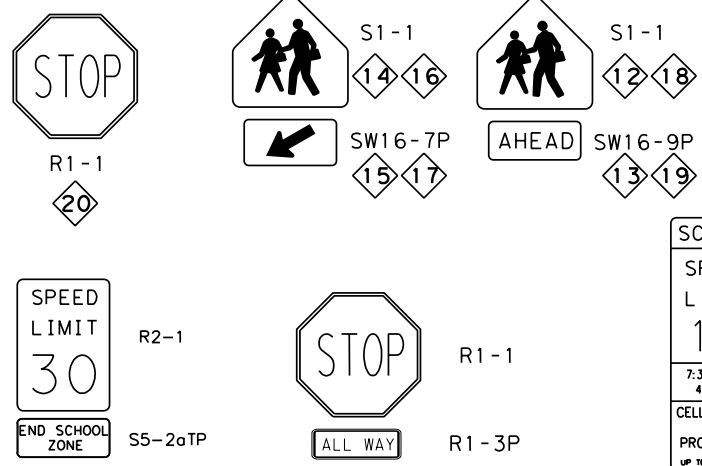
SHEET 4 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	90
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DWG\N-A) - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH) - COYOTES - SIDEWALK - LAYOUT - (05).dgn 8/27/2021 12:32:59 PM jair



- LEGEND**
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

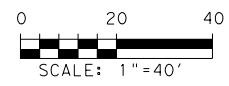


SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO 9200 FINE	S7-1T

Joe Ojeda Dr 18800  
Oil Mill Dr 200

CSJ: 0924-16-617				
SHEET 5 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	72
531	6003	CONC SIDEWALKS (6")	SY	477
531	6005	CURB RAMPS (TY 2)	EA	1
531	6010	CURB RAMPS (TY 7)	EA	2
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	4
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	121
666	6230	PAVEMENT SEALER 24"	LF	121
678	6008	PAV SURF PREP FOR MRK (24")	LF	121

\*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

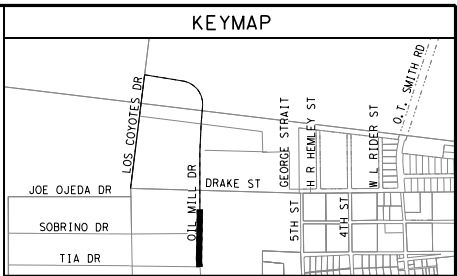
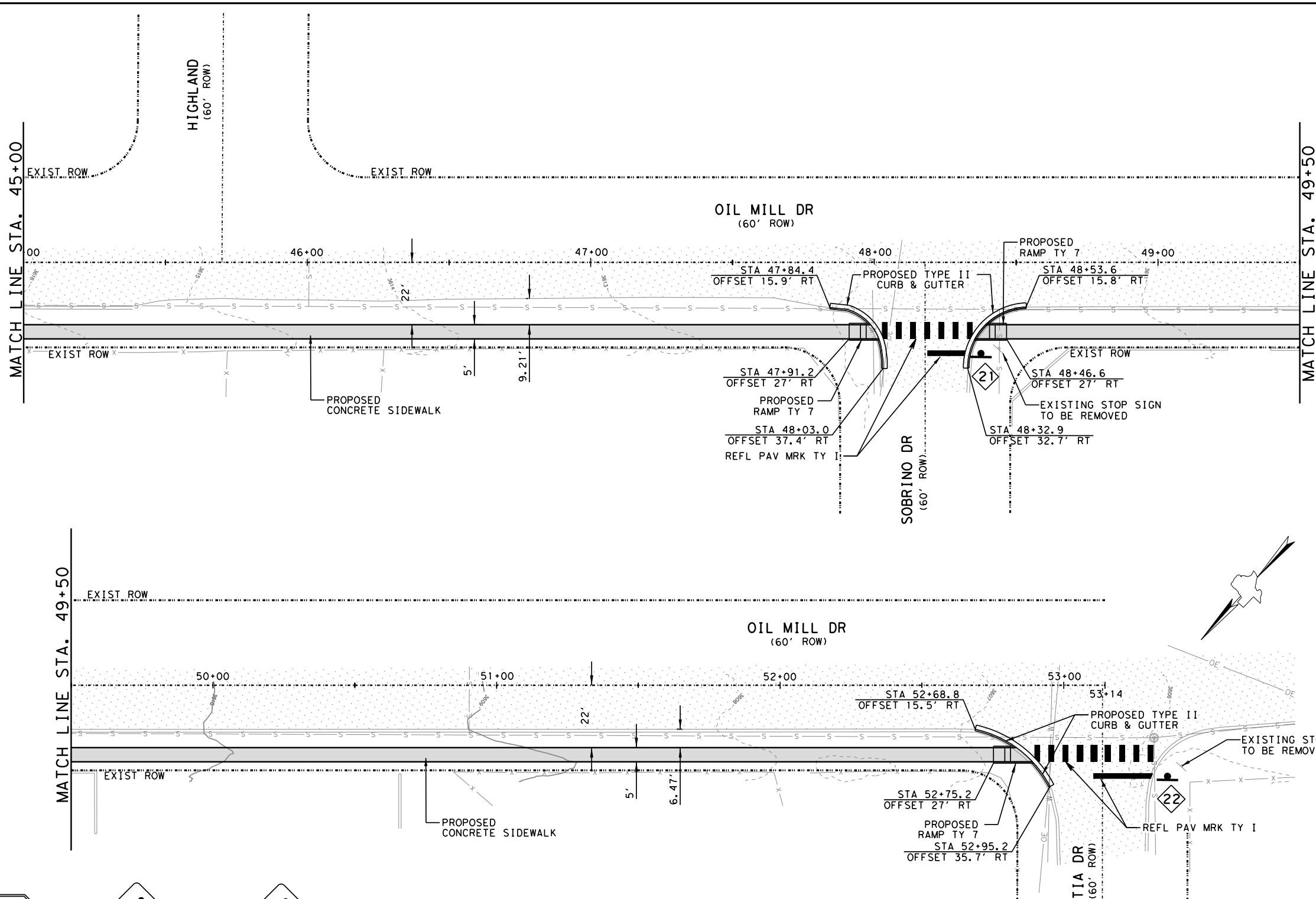
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
OIL MILL DRIVE  
STA 36+00 TO STA 45+00

SHEET 5 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	91
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DWG\N\A - Los Coyotes Drive and Oil Mill Drive\19136 - (NORTH) - COYOTES - SIDEWALK LAYOUT (.06).dgn 8/27/2021 12:33:01 PM jair



**LEGEND**

**EXISTING RIGHT-OF-WAY**

**PROJECT CONTROL BASELINE**

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

**STOP** R1-1

**SW16-7P** SW16-7P

**AHEAD** SW16-9P

**SPEED LIMIT 30** R2-1

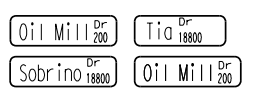
**END SCHOOL ZONE** S5-20TP

**ALL WAY** R1-3P

**SCHOOL SPEED LIMIT 15** S4-3P

**7:30 AM TO 4:00 PM** S4-1P

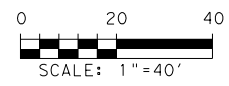
**CELL PHONE USE PROHIBITED UP TO \$200 FINE** S7-1T



CSJ: 0924-16-617  
SHEET 6 OF 6 (COYOTES)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	108
531	6003	CONC SIDEWALKS (6")	SY	420
531	6010	CURB RAMPS (TY 7)	EA	3
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	2
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	131
666	6230	PAVEMENT SEALER 24"	LF	131
678	6008	PAV SURF PREP FOR MRK (24")	LF	131

\*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**SIDEWALK LAYOUT PLAN**  
OIL MILL DRIVE  
STA 45+00 TO STA 53+14

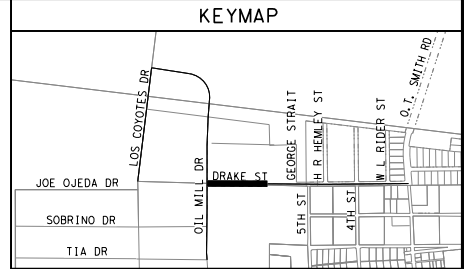
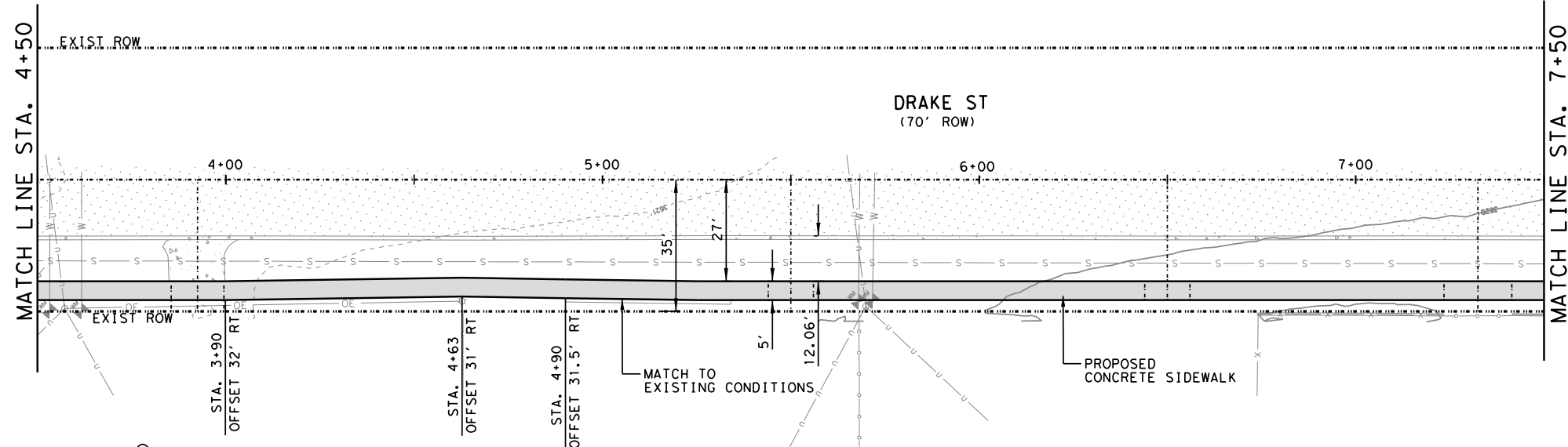
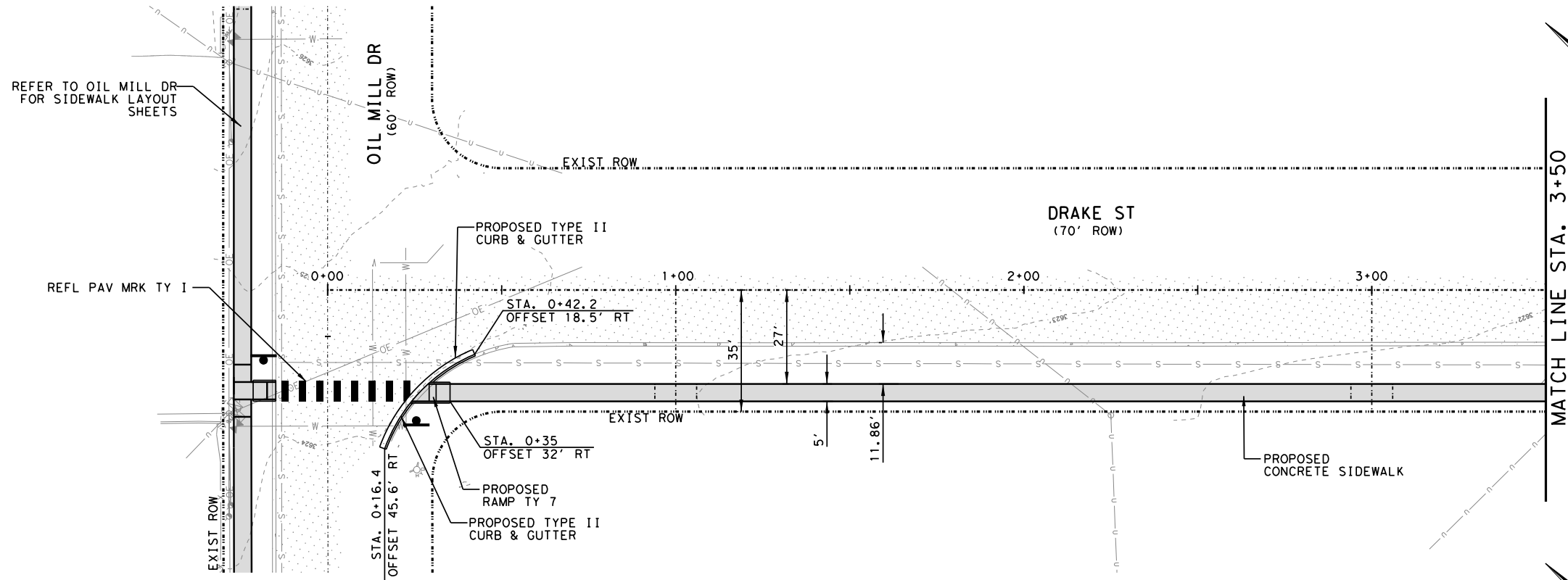
SHEET 6 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	92
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



8/27/2021 12:33:02 PM jair

F:\9136\DN\N-B1 - Drake Street\19136 - (NORTH) - DRAKE - SIDEWALK LAYOUT\_(01).dgn



**LEGEND**

EXISTING RIGHT-OF-WAY

PROJECT CONTROL BASELINE

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

STOP R1-1

SW16-7P

AHEAD SW16-9P

S1-1

S1-1

SPEED LIMIT R2-1

30

END SCHOOL ZONE S5-2aTP

ALL WAY R1-3P

SCHOOL S4-3P

SPEED LIMIT R2-1

15

7:30 AM TO 4:00 PM S4-1P

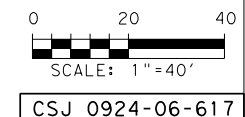
CELL PHONE USE PROHIBITED UP TO \$200 FINE S7-1T

CSJ: 0924-16-617

SHEET 1 OF 4 (DRAKE) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	40
531	6003	CONC SIDEWALKS (6")	SY	404
531	6010	CURB RAMPS (TY 7)	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY



STATE OF TEXAS

OSWALD F. GARCIA

109889

LICENSED PROFESSIONAL ENGINEER

08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT

PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**

REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

**SIDEWALK LAYOUT PLAN**

DRAKE STREET

STA 0+00 TO STA 7+50

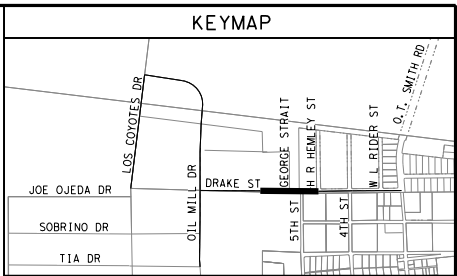
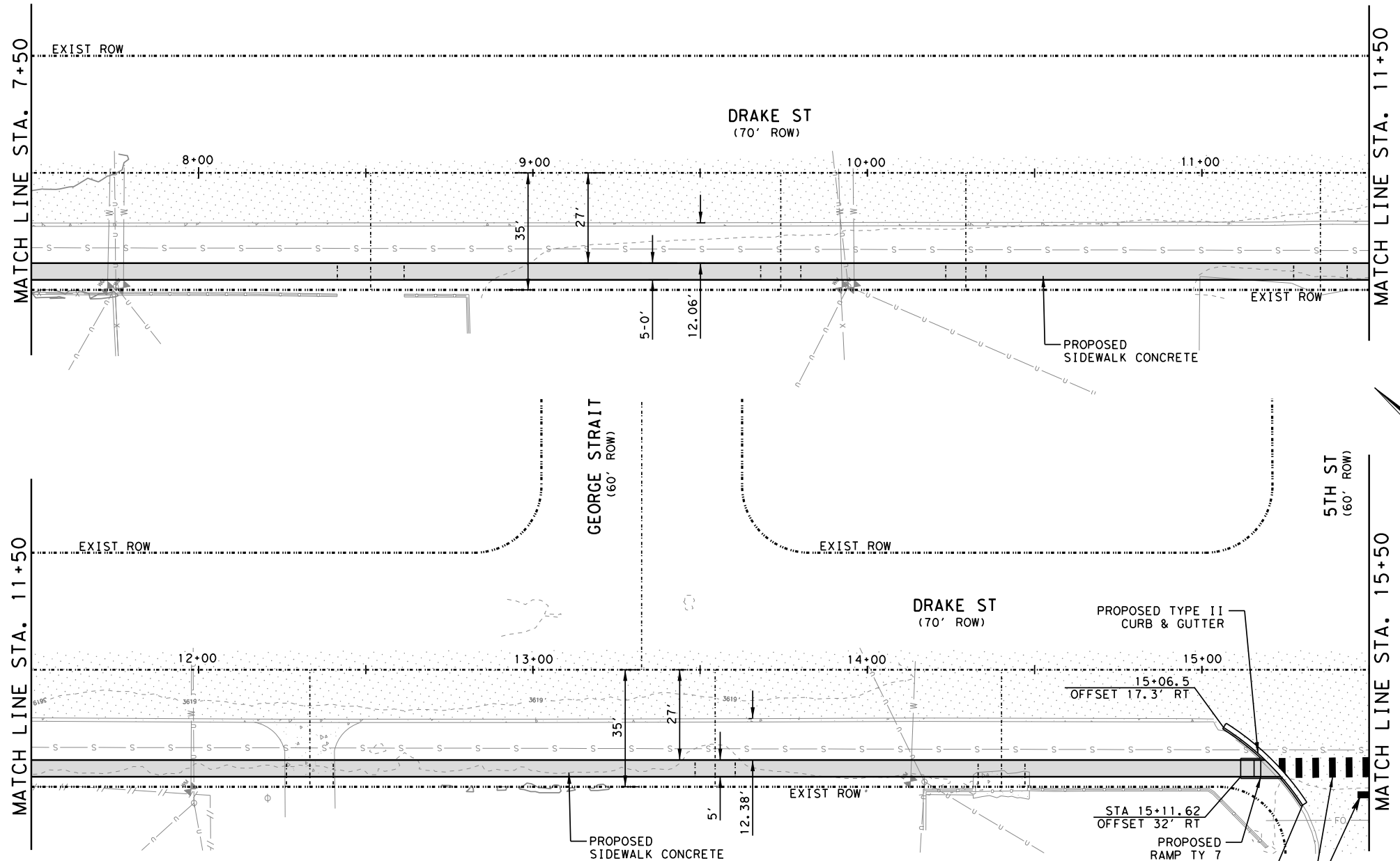
SHEET 1 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	93

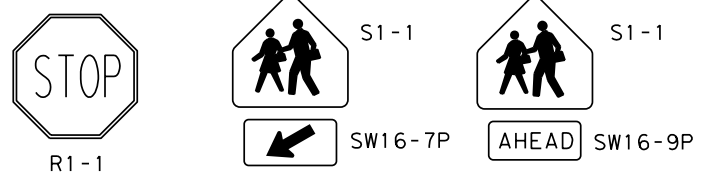
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

8/27/2021 12:33:03 PM jair

F:\19136\DN\N-B1 - Drake Street\19136 - (NORTH) - DRAKE - SIDEWALK LAYOUT\_02.dgn



- LEGEND**
- EXISTING RIGHT-OF-WAY
  - PROJECT CONTROL BASELINE
  - EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

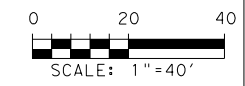


SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

CSJ: 0924-16-617  
SHEET 2 OF 4 (DRAKE) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	35
531	6003	CONC SIDEWALKS (6")	SY	431
531	6010	CURB RAMPS (TY 7)	EA	1
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	40
666	6230	PAVEMENT SEALER 24"	LF	40
678	6008	PAV SURF PREP FOR MRK (24")	LF	40

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

**SIDEWALK LAYOUT PLAN**

DRAKE STREET  
STA 7+50 TO STA 15+50

SHEET 2 OF 4

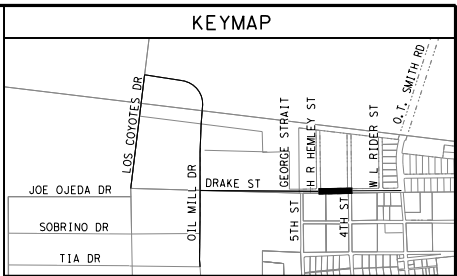
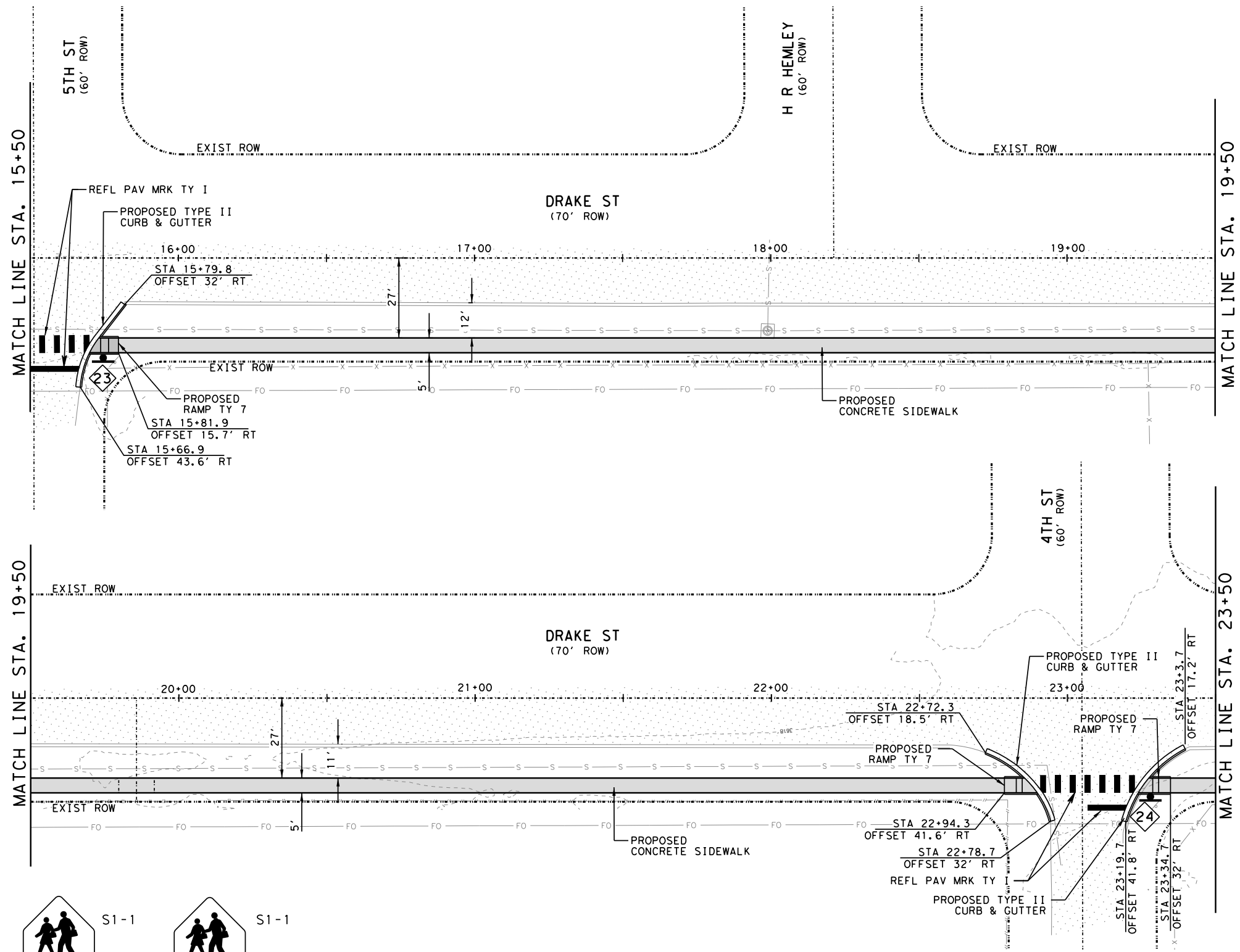
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	STP 2021 (473) TP	94
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

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CSJ 0924-06-617

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F:\9136\DN\N-B1 - Drake Street\19136 - (NORTH) - DRAKE - SIDEWALK LAYOUT\_031.dgn



**LEGEND**

EXISTING RIGHT-OF-WAY

PROJECT CONTROL BASELINE

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

**STOP** R1-1

**SW16-7P** SW16-7P

**AHEAD SW16-9P** AHEAD SW16-9P

**SPEED LIMIT 30** R2-1

**END SCHOOL ZONE** S5-2oTP

**ALL WAY** R1-3P

**SCHOOL SPEED LIMIT 15** S4-3P

7:30 AM TO 4:00 PM S4-1P

CELL PHONE USE PROHIBITED UP TO \$200 FINE S7-1T

**Fifth St** 200

**Fourth St** 1800

**Drake St** 1800

**Drake St** 200

CSJ: 0924-16-617  
SHEET 3 OF 4 (DRAKE)

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	103
531	6003	CONC SIDEWALKS (6")	SY	414
531	6010	CURB RAMPS (TY 7)	EA	3
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	2
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	97
666	6230	PAVEMENT SEALER 24"	LF	97
678	6008	PAV SURF PREP FOR MRK (24")	LF	97

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

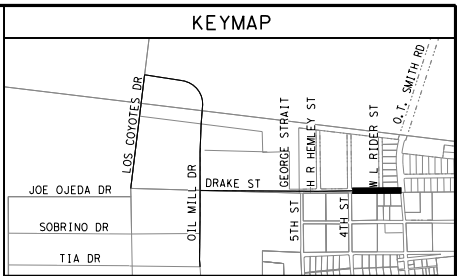
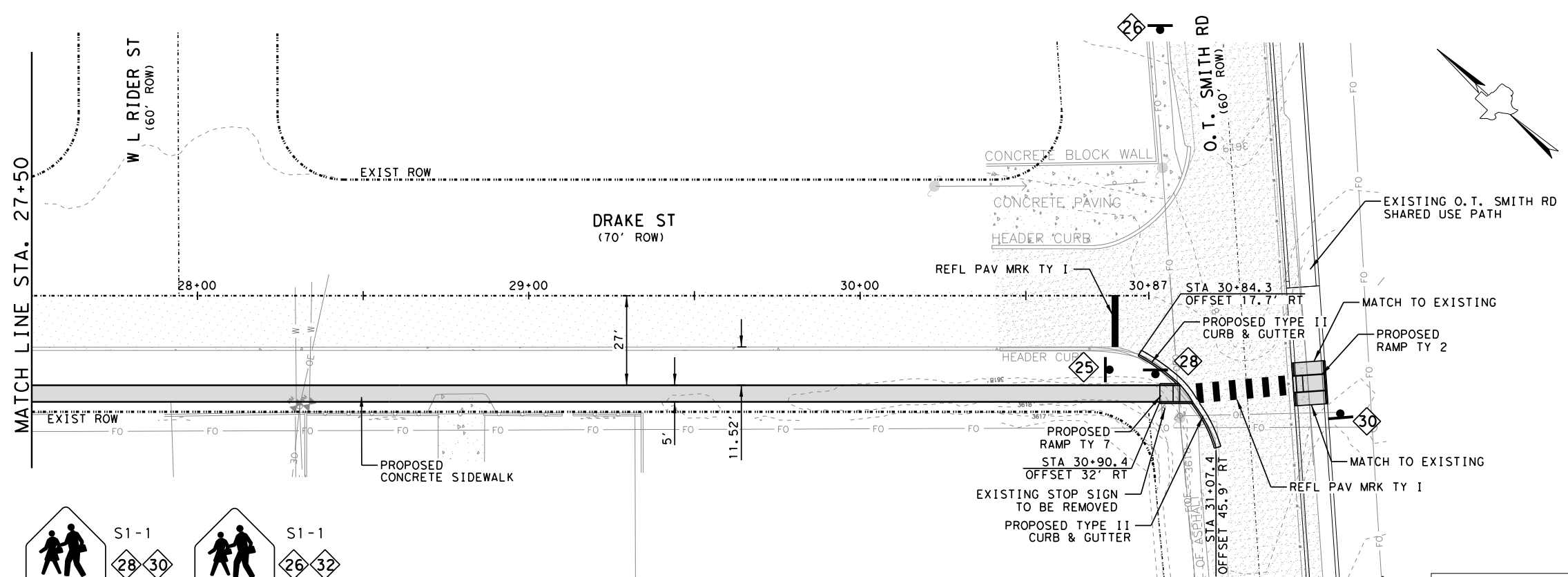
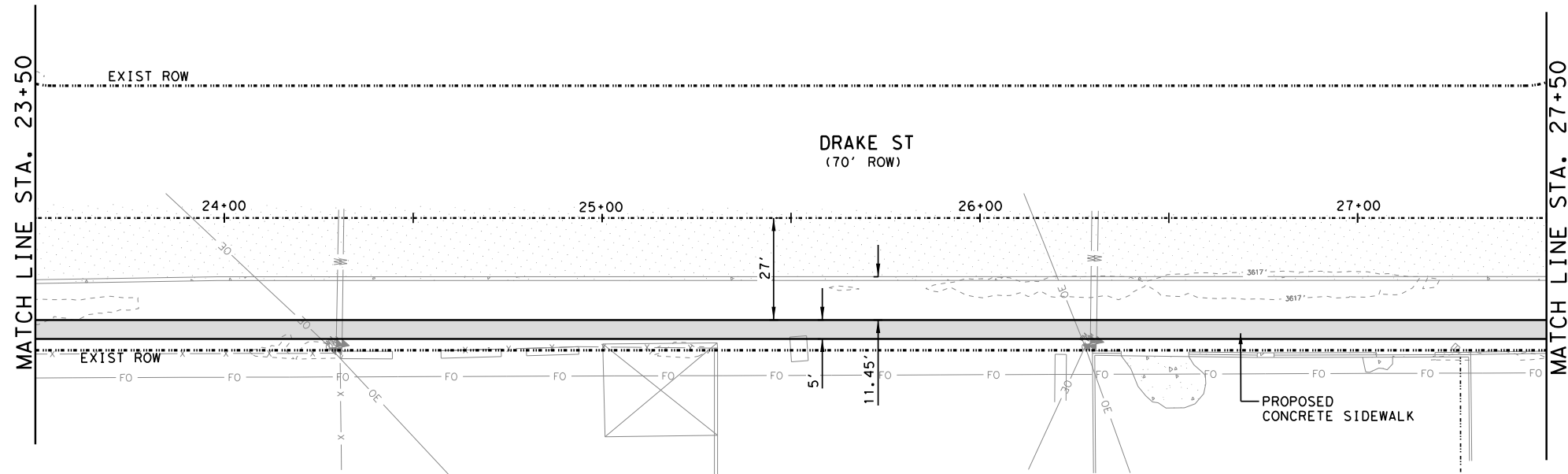
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

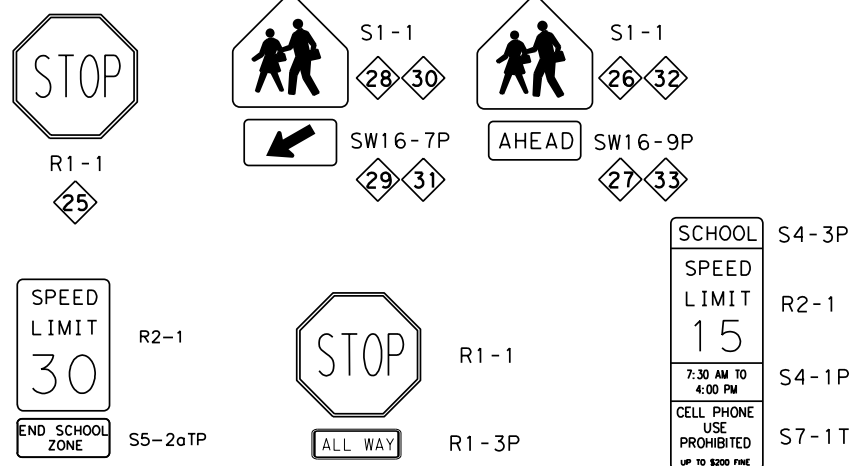
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
DRAKE STREET  
STA 15+50 TO STA 23+50  
SHEET 3 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	95
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

8/27/2021 12:33:08 PM jair



- LEGEND**
- EXISTING RIGHT-OF-WAY**
- PROJECT CONTROL BASELINE**
- EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

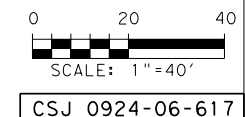


CSJ: 0924-16-617  
SHEET 4 OF 4 (DRAKE)

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	38
531	6003	CONC SIDEWALKS (6")	SY	417
531	6005	CURB RAMPS (TY 2)	EA	1
531	6010	CURB RAMPS (TY 7)	EA	1
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	4
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	51
666	6230	PAVEMENT SEALER 24"	LF	51
678	6008	PAV SURF PREP FOR MRK (24")	LF	51

\*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY

OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021



CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

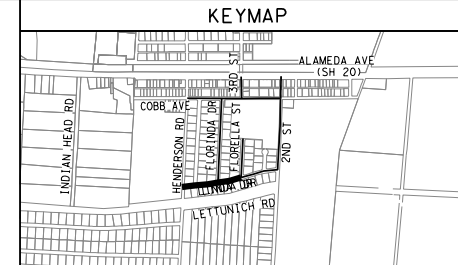
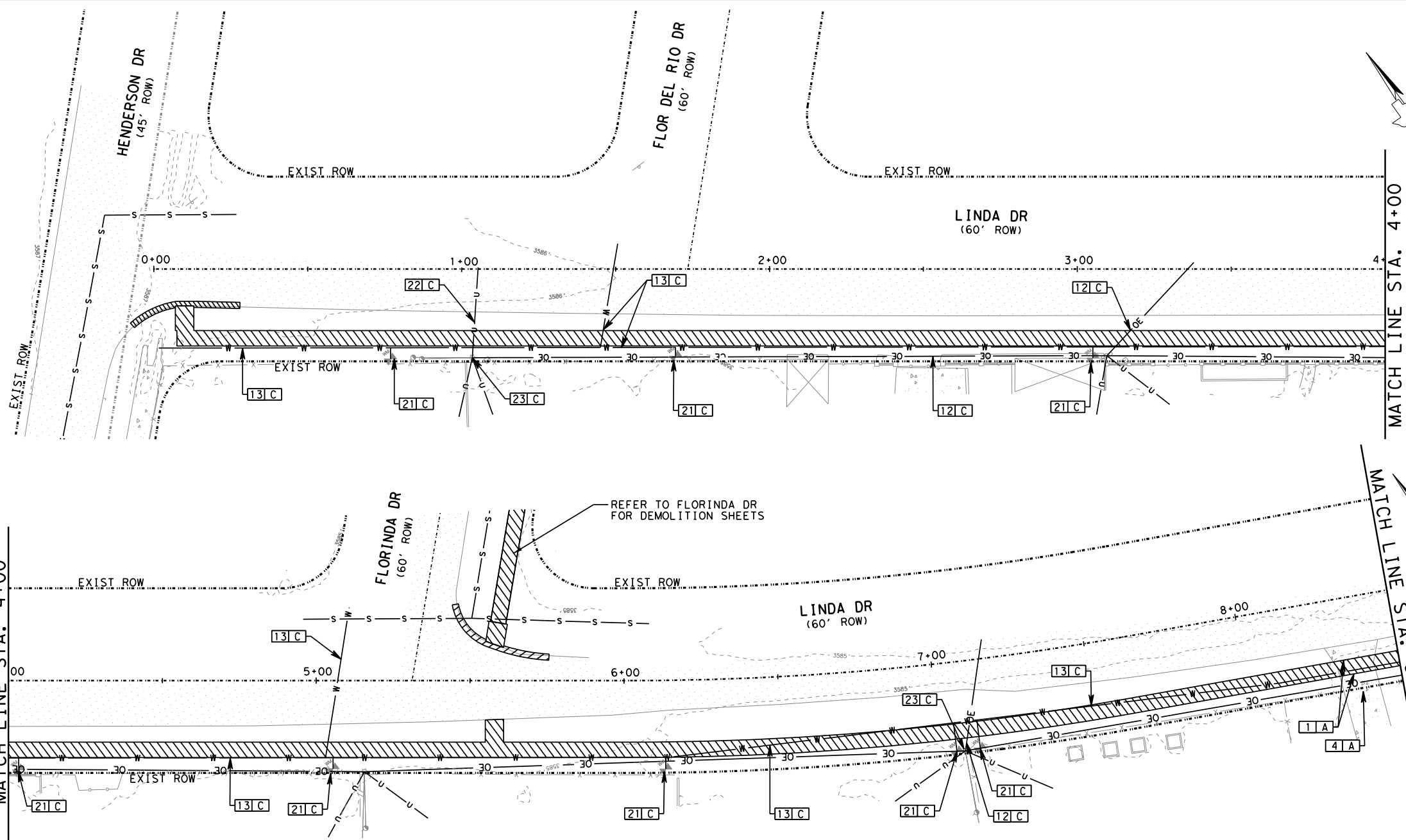
**CAMINO REAL**  
 REGIONAL MOBILITY  
 AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
DRAKE STREET  
STA 23+50 TO STA 30+87

SHEET 4 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	96
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DWG\19136 - Linda Drive and 2nd Street\19136 - (SOUTH)-LINDA-DEMO AND EX-UTILITIES\_(01).dgn 8/27/2021 12:33:10 PM jair



**LEGEND**

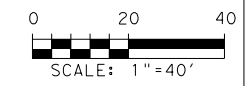
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
- ⊗ EXISTING POWER POLE
- ⊘ EXISTING LAMP

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

[ A ]	
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616				
SHEET 1 OF 4 (LINDA) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	8.5
104	6017	REMOVING CONC (DRIVEWAYS)	SY	7.5
104	6067	REMOVING CONC (SAWCUT)	LF	26
110	6001	EXCAVATION (ROADWAY)	CY	79
*NOTE TO REVIEWER: SHEET TOTALS FOR LINDA DR ONLY				



CSJ 0924-06-616



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO      SAN ANTONIO

TBPE Firm Registration  
No. F-000554

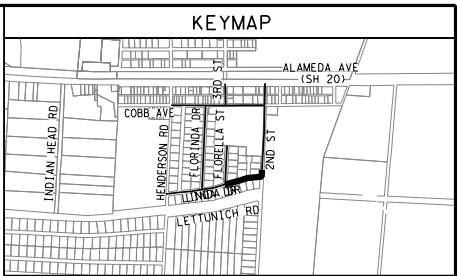
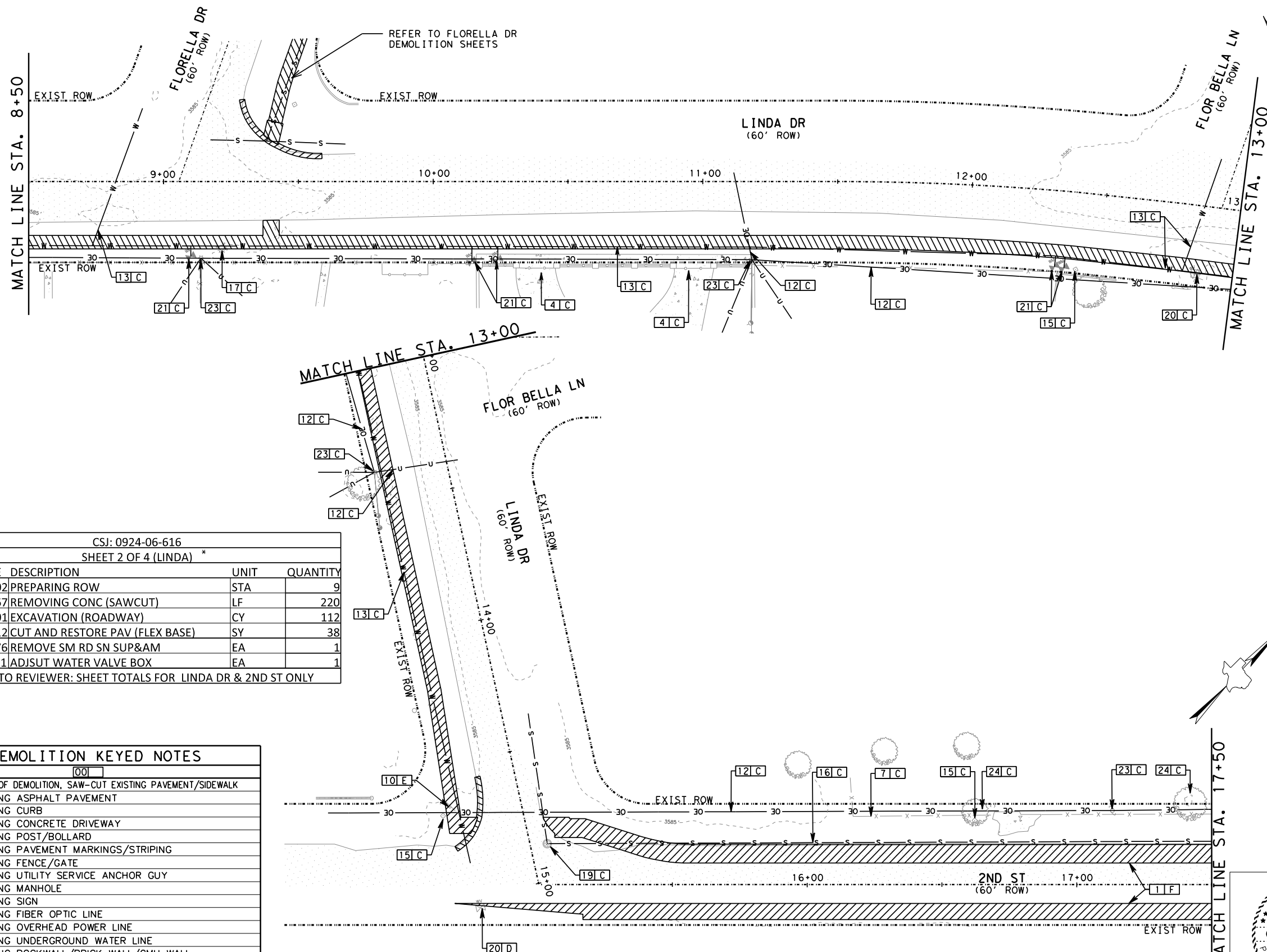
  
**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

**TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN**  
LINDA DRIVE  
STA 0+00 TO STA 8+50

SHEET 1 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	97
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DWG(S-C) - Linda Drive and 2nd Street\19136 - (SOUTH) - LINDA-DEMO AND EX-UTILITIES\_021.dgn 8/27/2021 12:33:11 PM joir



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
- ⊗ EXISTING POWER POLE
- ⊘ EXISTING LAMP

CSJ: 0924-06-616  
SHEET 2 OF 4 (LINDA) \*

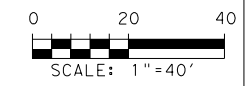
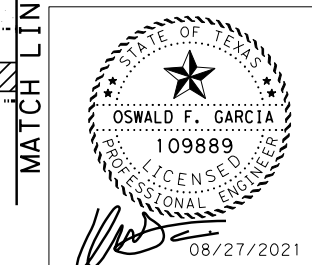
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	9
104	6067	REMOVING CONC (SAWCUT)	LF	220
110	6001	EXCAVATION (ROADWAY)	CY	112
400	6012	CUT AND RESTORE PAV (FLEX BASE)	SY	38
644	6076	REMOVE SM RD SN SUP&AM	EA	1
ELP3	6001	ADJSUT WATER VALVE BOX	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR LINDA DR & 2ND ST ONLY

**DEMOLITION KEYED NOTES**

NO.	DESCRIPTION
1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

LETTER	DESCRIPTION
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE



CSJ 0924-06-616

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

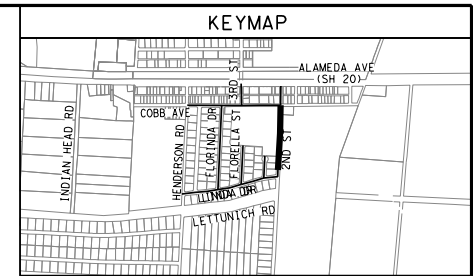
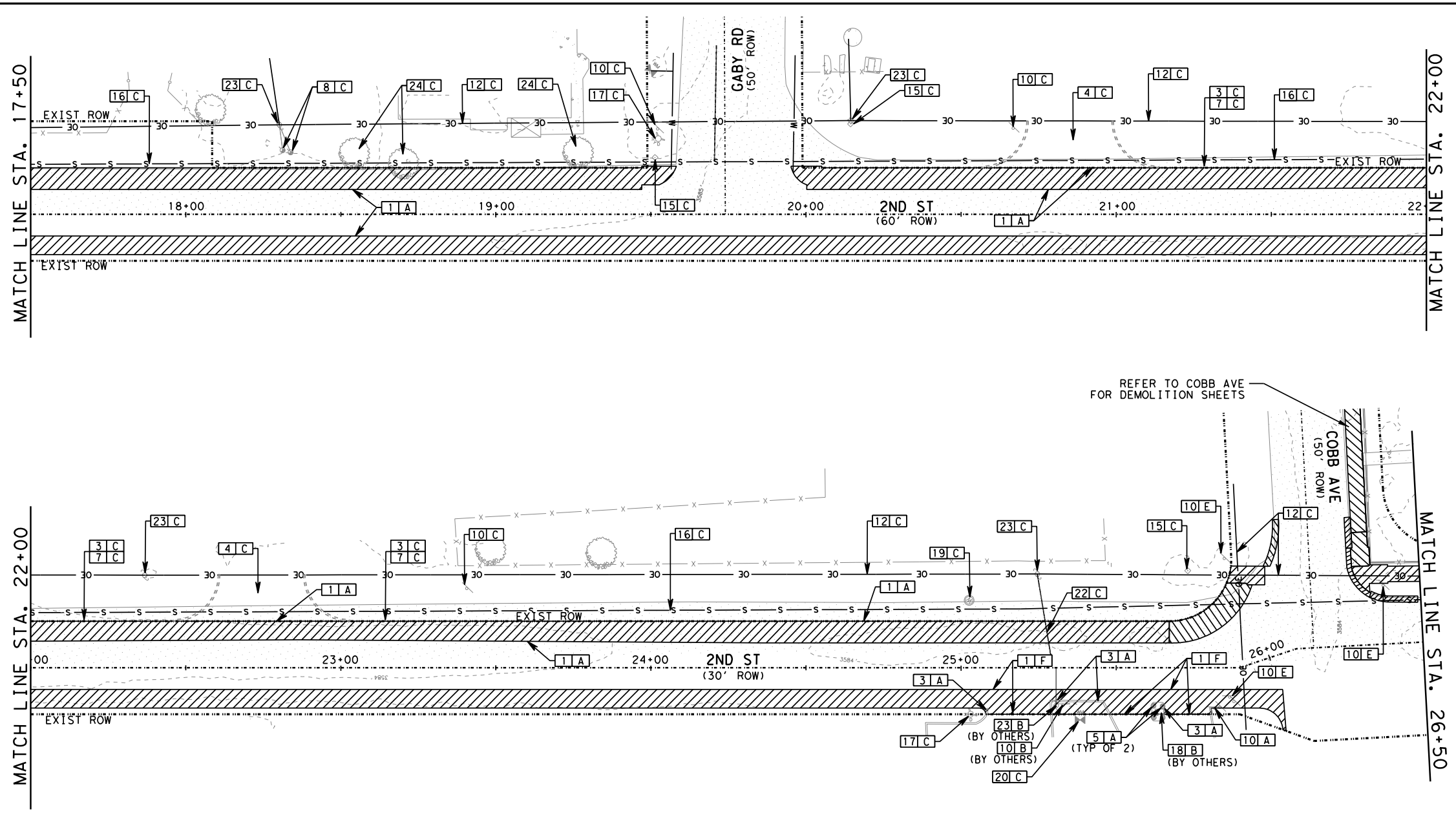
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
LINDA DRIVE & 2ND STREET  
STA 8+50 TO STA 17+50  
EXISTING UTILITY PLAN

SHEET 2 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	98
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

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**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▨ EXISTING CONCRETE
- ▨ EXISTING PAVEMENT
- ▨ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING WATER METER
- ⊙ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊙ EXISTING UTILITY SERVICE POLE
- ⊙ EXISTING UTILITY BOX/PEDESTAL
- ⊙ EXISTING POWER POLE
- ⊙ EXISTING LAMP

**DEMOLITION KEYED NOTES**

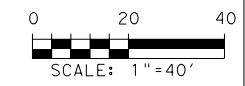
1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
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23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616  
SHEET 3 OF 4 (2ND) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	9
104	6021	REMOVING CONC (CURB)	LF	35
104	6067	REMOVING CONC (SAWCUT)	LF	837
110	6001	EXCAVATION (ROADWAY)	CY	171
400	6012	CUT AND RESTORE PAV (FLEX BASE)	SY	95
496	6030	REMOVE STR (BOLLARD)	EA	2
644	6076	REMOVE SM RD SN SUP&AM	EA	4

\*NOTE TO REVIEWER: SHEET TOTALS FOR 2ND ST ONLY



CSJ 0924-06-616



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554

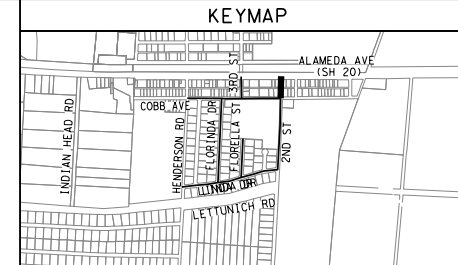
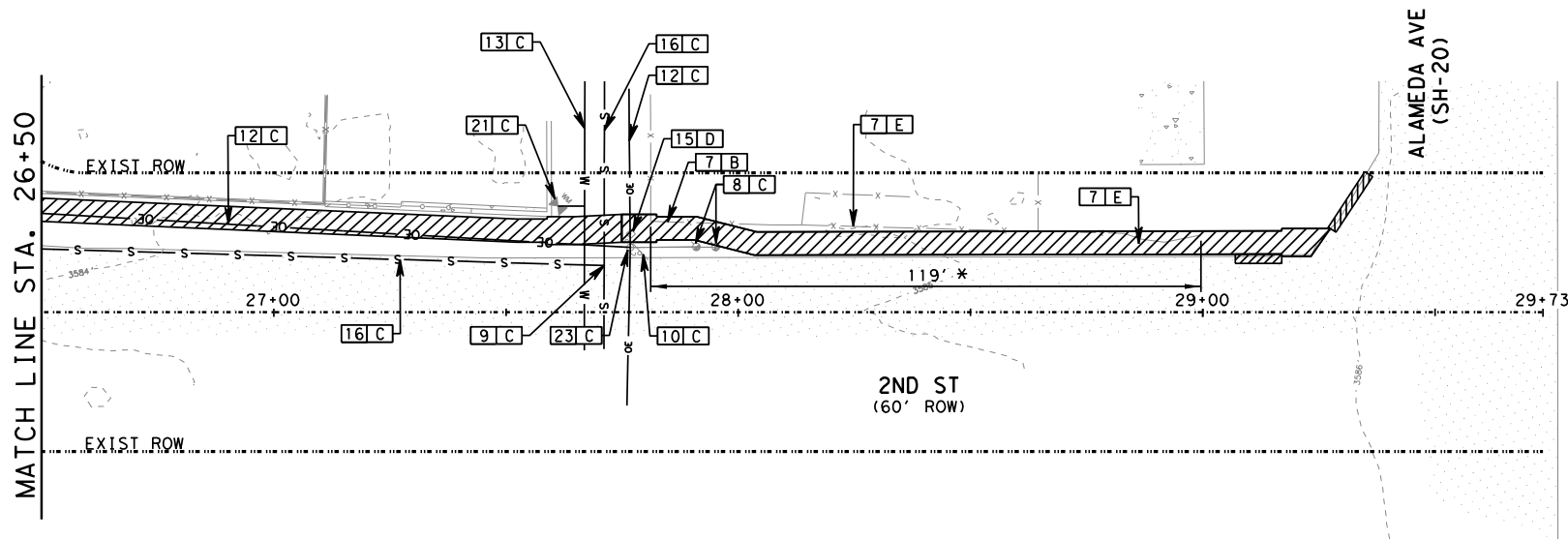
**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

**TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN**  
2ND STREET  
STA 17+50 TO STA 26+50  
SHEET 3 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	99
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

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**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
- ⊗ EXISTING POWER POLE
- ⊘ EXISTING LAMP

**DEMOLITION KEYED NOTES**

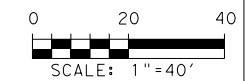
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2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
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17	EXISTING FIRE HYDRANT
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21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

\* FENCE REMOVAL LIMITS

A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSI: 0924-06-616				
SHEET 4 OF 4 (2ND) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	3
110	6001	EXCAVATION (ROADWAY)	CY	26
496	6043	REMOV STR (SMALL FENCE)	LF	119
550	6003	CHAIN LINK FENCE (REMOVE)	LF	119
644	6076	REMOV SMRD SN SUP&AM	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR 2ND ST ONLY



CSJ 0924-06-616

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

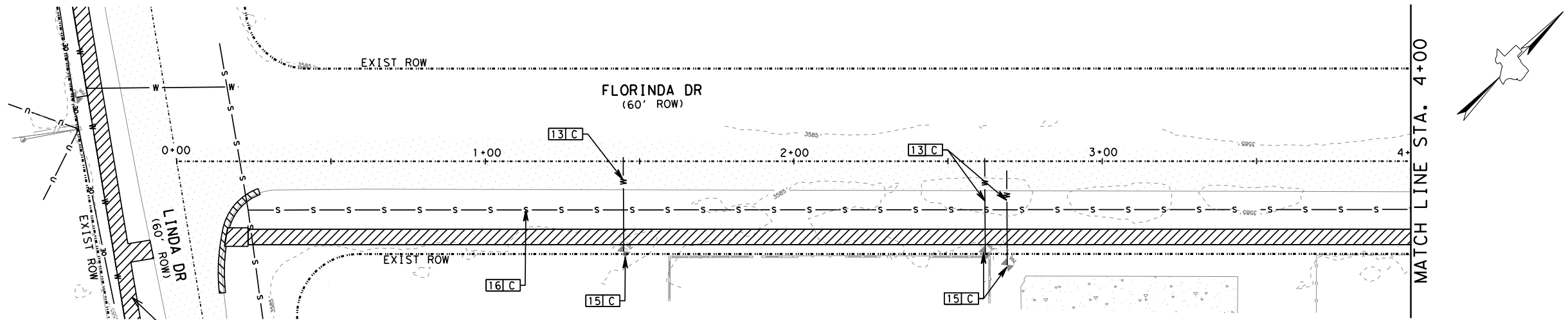
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP DEMOLITION & EXISTING UTILITY PLAN  
2ND STREET  
STA 26+50 TO STA 29+73  
SHEET 4 OF 4

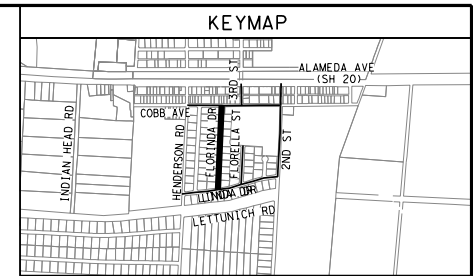
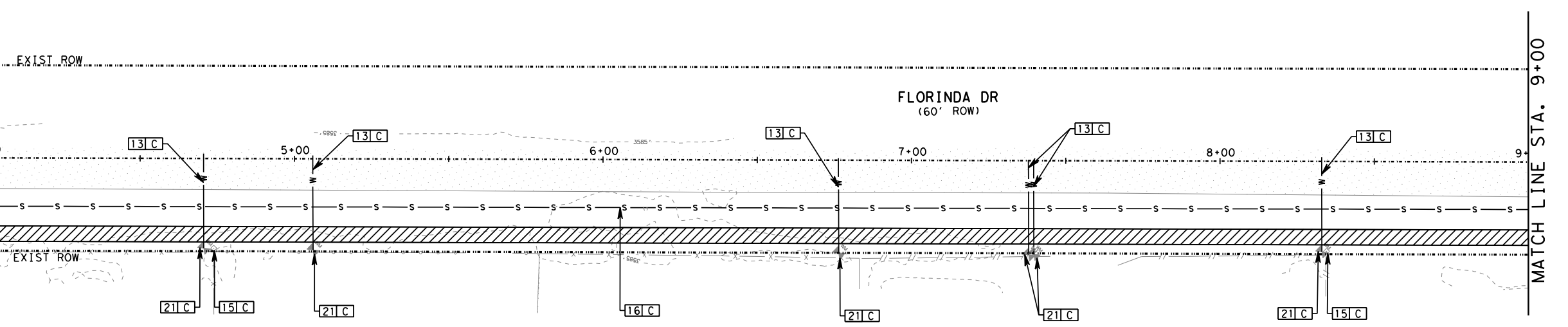
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	STP 2021 (473) TP	100
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS



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REFER TO LINDA DR DEMOLITION SHEETS



**LEGEND**

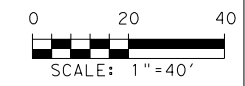
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
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- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▨ EXISTING CONCRETE
- ▨ EXISTING PAVEMENT
- ▨ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING WATER METER
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- ⊙ EXISTING SIGN
- ⊙ EXISTING UTILITY SERVICE POLE
- ⊙ EXISTING UTILITY BOX/PEDESTAL
- ⊙ EXISTING POWER POLE
- ⊙ EXISTING LAMP

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
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24	EXISTING TREE/VEGETATION

A	
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616				
SHEET 1 OF 2 (FLORINDA)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	9
110	6001	EXCAVATION (ROADWAY)	CY	82
*NOTE TO REVIEWER: SHEET TOTALS FOR FLORINDA DR ONLY				



CSJ 0924-06-616

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO      SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

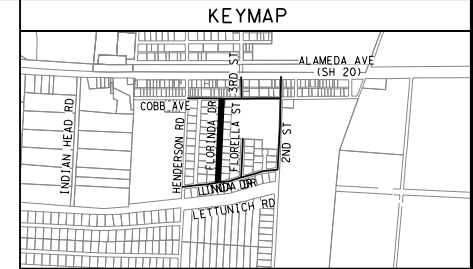
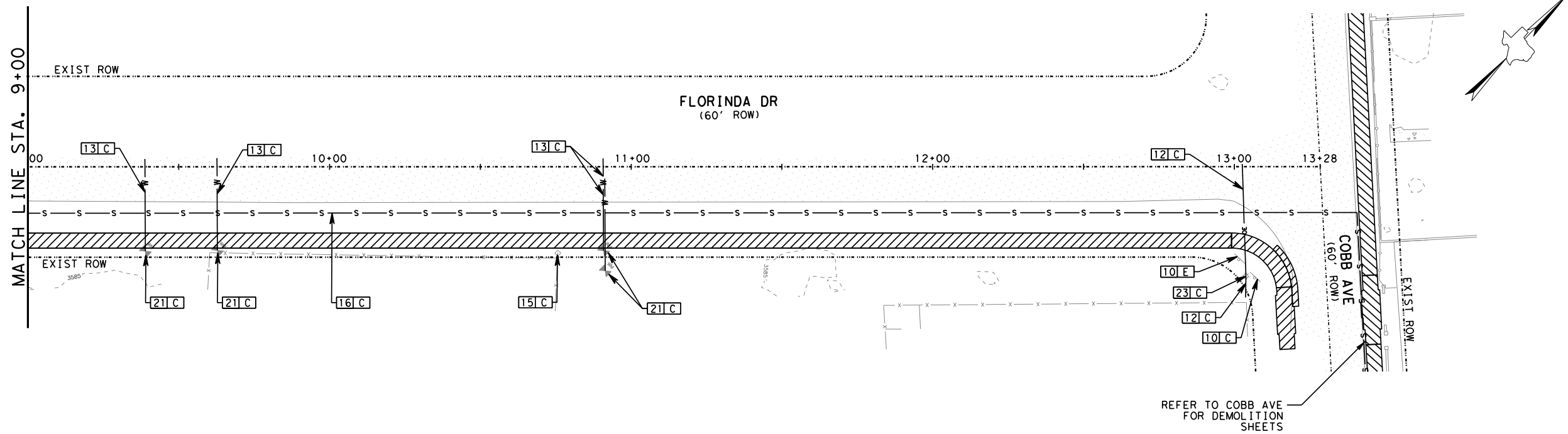
**TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
FLORINDA DRIVE  
STA 0+00 TO STA 9+00**

SHEET 1 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	101	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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8/27/2021

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**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- [Hatched Box] PREP ROW
- [Dotted Box] EXISTING CONCRETE
- [Cross-hatched Box] EXISTING PAVEMENT
- [Diagonal Lines Box] COVERED AREA
- (M) EXISTING MANHOLE
- (H) EXISTING FIRE HYDRANT
- (V) EXISTING WATER VALVE
- (M) EXISTING WATER METER
- (P) EXISTING POST-BOLLARD
- (S) EXISTING SIGN
- (U) EXISTING UTILITY SERVICE POLE
- (X) EXISTING UTILITY BOX/PEDESTAL
- (P) EXISTING POWER POLE
- (L) EXISTING LAMP

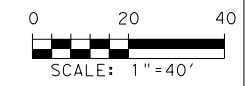
REFER TO COBB AVE FOR DEMOLITION SHEETS

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
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A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
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E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616				
SHEET 2 OF 2 (FLORINDA) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	4.5
110	6001	EXCAVATION (ROADWAY)	CY	41
644	6076	REMOVE SM RD SN SUP&AM	EA	1
*NOTE TO REVIEWER: SHEET TOTALS FOR FLORINDA DR ONLY				



CSJ 0924-06-616



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

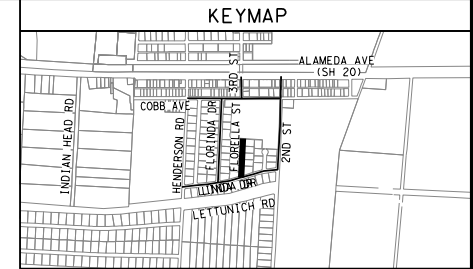
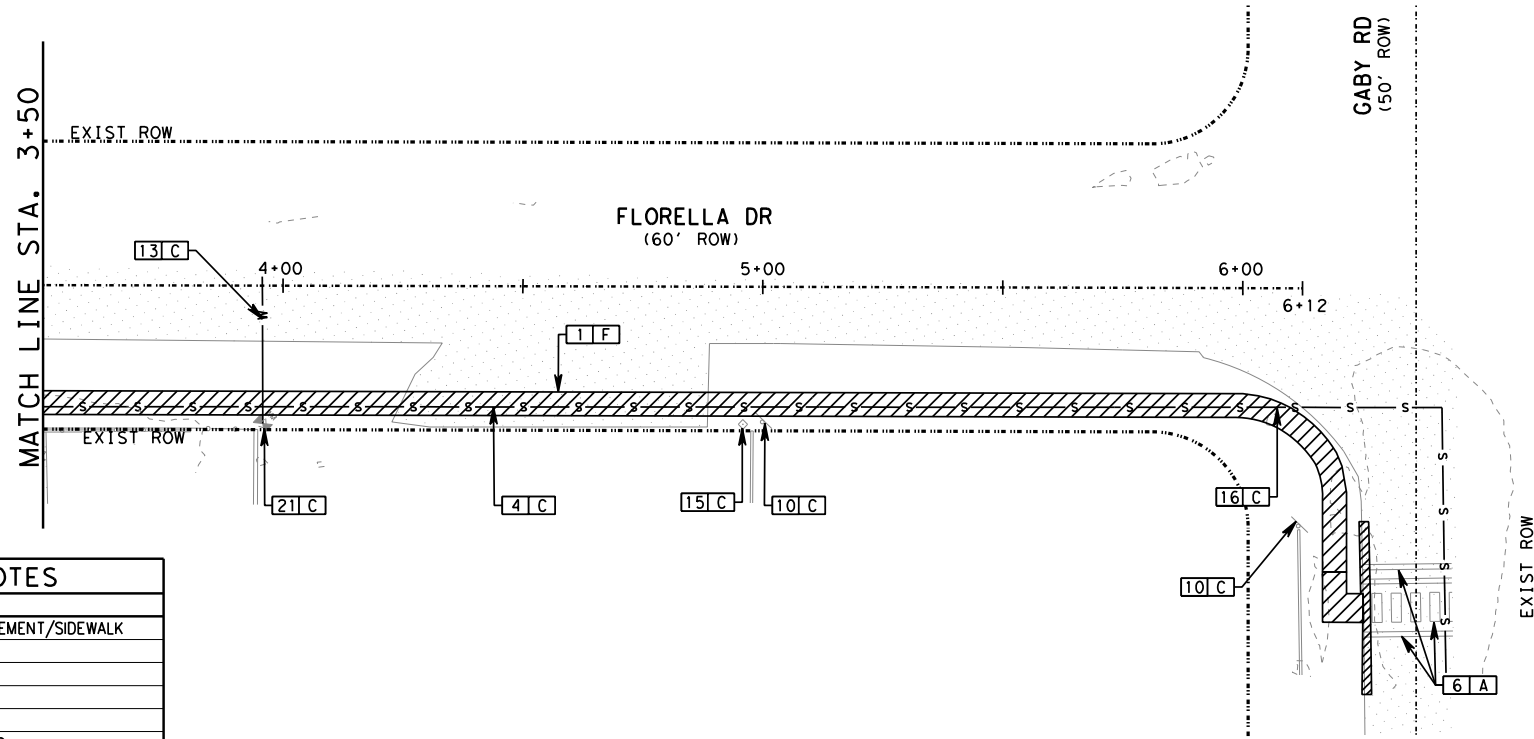
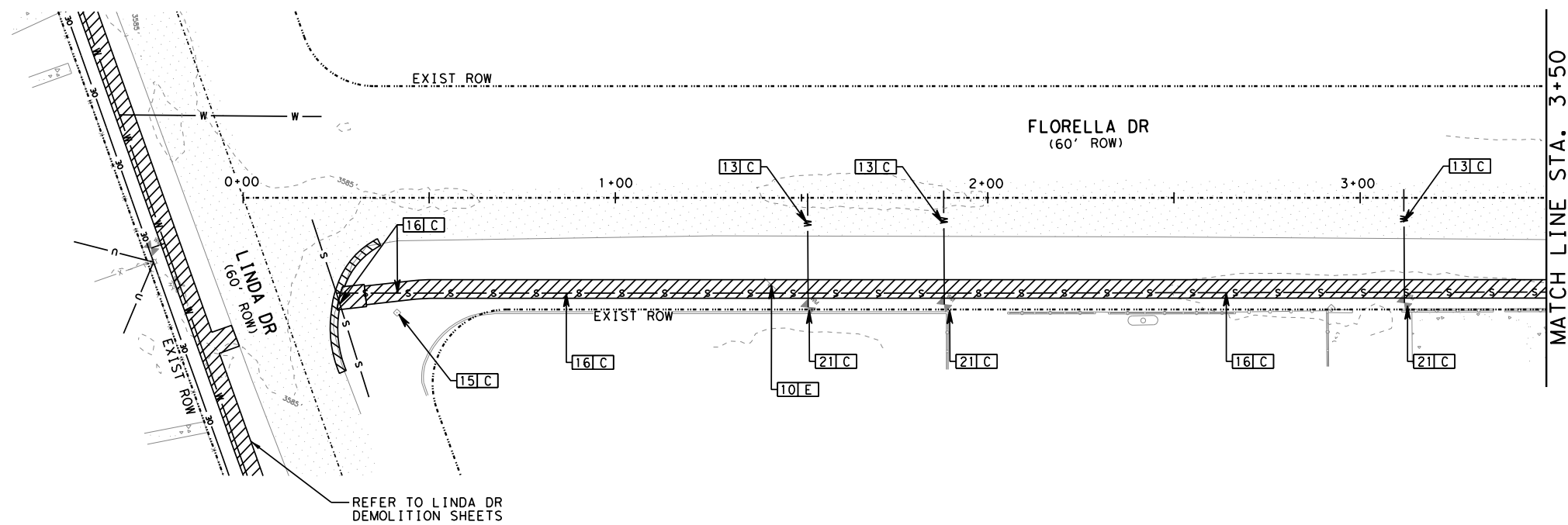
**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
FLORINDA DRIVE  
STA 9+00 TO STA 13+28  
SHEET 2 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	102	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

8/27/2021 12:33:15 PM jair

F:\19136\DG\N(S-E) - Florella Drive\19136 - (SOUTH)\_FLORELLA\_DEMO AND EX - UTILITIES\_(01).dgn



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
- ⊗ EXISTING POWER POLE
- ⊘ EXISTING LAMP

**DEMOLITION KEYED NOTES**

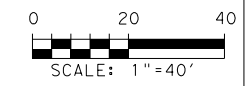
NO.	DESCRIPTION
1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
6	EXISTING PAVEMENT MARKINGS/STRIPING
7	EXISTING FENCE/GATE
8	EXISTING UTILITY SERVICE ANCHOR GUY
9	EXISTING MANHOLE
10	EXISTING SIGN
11	EXISTING FIBER OPTIC LINE
12	EXISTING OVERHEAD POWER LINE
13	EXISTING UNDERGROUND WATER LINE
14	EXISTING ROCKWALL/BRICK WALL/CMU WALL
15	EXISTING UTILITY BOX
16	EXISTING UNDERGROUND SEWER LINE
17	EXISTING FIRE HYDRANT
18	EXISTING MAIL BOX
19	EXISTING MANHOLE
20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

LETTER	DESCRIPTION
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616  
SHEET 1 OF 1 (FLORELLA)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	6.5
104	6067	REMOVING CONC (SAWCUT)	LF	65
110	6001	EXCAVATION (ROADWAY)	CY	60
644	6076	REMOVE SM RD SN SUP&AM	EA	1
677	6007	ELIM EXT PAV MRK & MRKS (24")	LF	125

\*NOTE TO REVIEWER: SHEET TOTALS FOR FLORELLA AVE ONLY



CSJ 0924-06-616



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

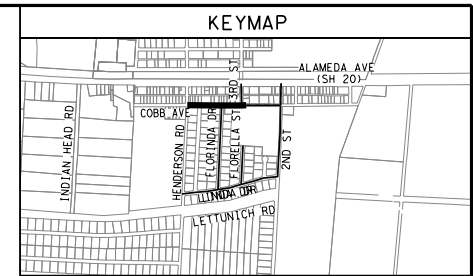
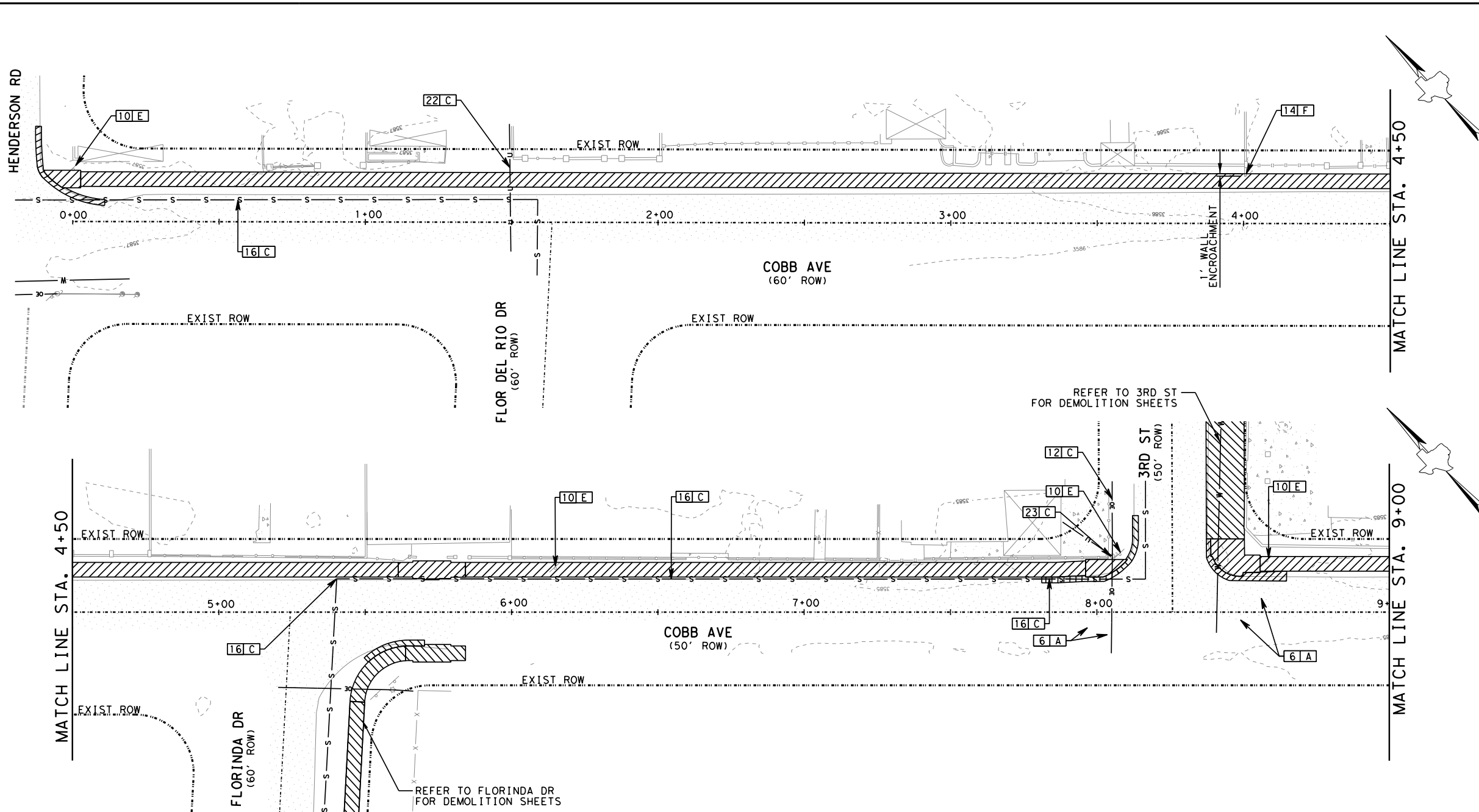
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP DEMOLITION & EXISTING UTILITY PLAN  
FLORELLA DRIVE  
STA 0+00 TO STA 6+12  
SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	103
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

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8/27/2021

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**LEGEND**

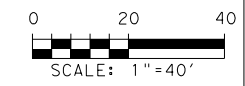
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊖ EXISTING WATER VALVE
- ⊗ EXISTING WATER METER
- ⊘ EXISTING POST-BOLLARD
- ⊙ EXISTING SIGN
- ⊕ EXISTING UTILITY SERVICE POLE
- ⊖ EXISTING UTILITY BOX/PEDESTAL
- ⊗ EXISTING POWER POLE
- ⊘ EXISTING LAMP

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
4	EXISTING CONCRETE DRIVEWAY
5	EXISTING POST/BOLLARD
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8	EXISTING UTILITY SERVICE ANCHOR GUY
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17	EXISTING FIRE HYDRANT
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21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616			
SHEET 1 OF 2 (COBB) *			
ITEM	CODE	DESCRIPTION	UNIT QUANTITY
100	6002	PREPARING ROW	STA 9
104	6067	REMOVING CONC (SAWCUT)	LF 1
110	6001	EXCAVATION (ROADWAY)	CY 82
496	6032	REMOV STR (ROCKWALL)	EA 1
644	6076	REMOVE SM RD SN SUP&AM	EA 4
677	6007	ELIM EXT PAV MRK & MRKS (24")	LF 192
*NOTE TO REVIEWER: SHEET TOTALS FOR COBB AVE ONLY			



CSJ 0924-06-616



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

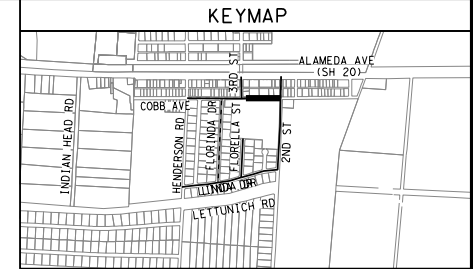
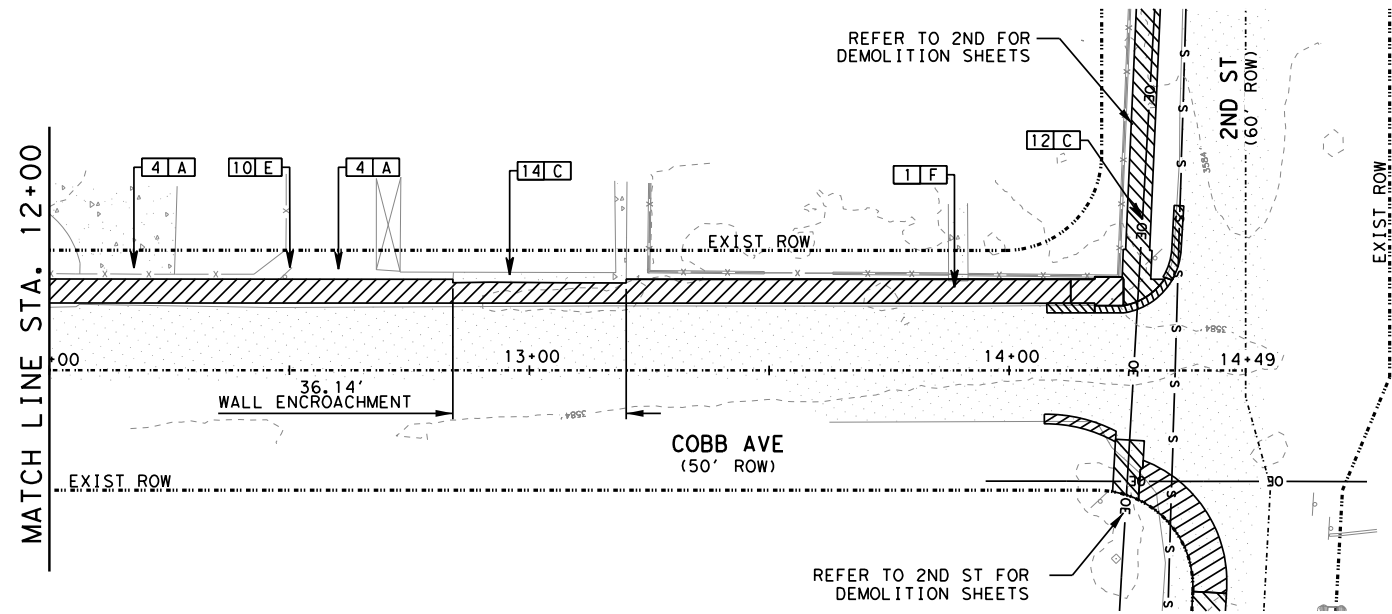
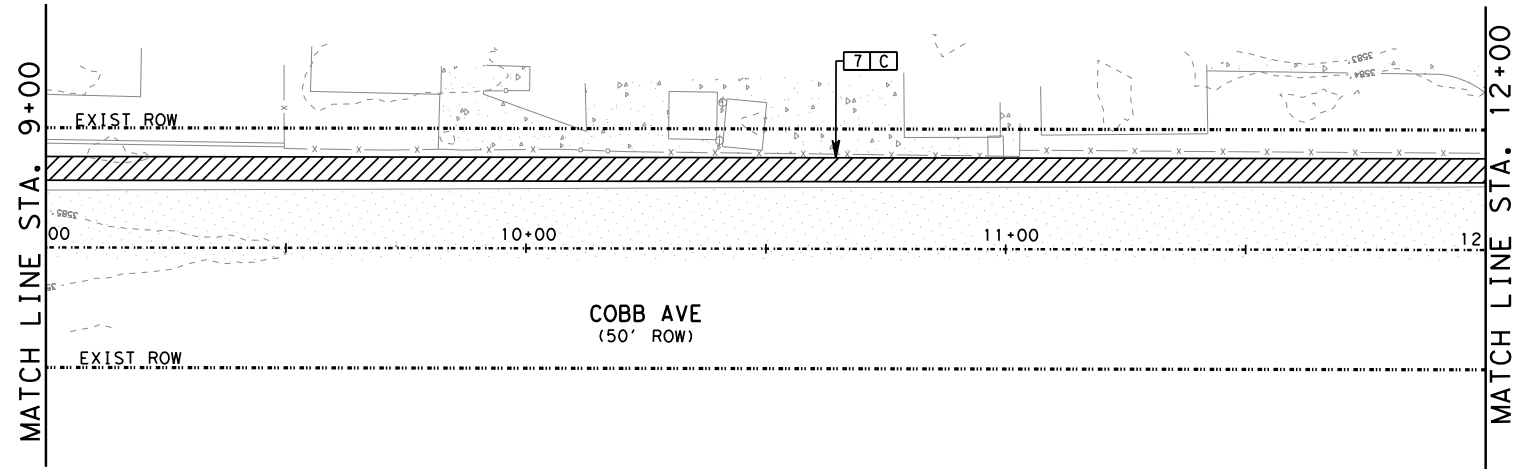
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
DEMOLITION & EXISTING UTILITY PLAN  
COBB AVENUE  
STA 0+00 TO STA 9+00  
SHEET 1 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	104
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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**LEGEND**

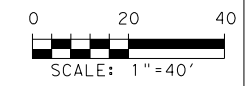
- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
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- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- ▨ PREP ROW
- ▤ EXISTING CONCRETE
- ▥ EXISTING PAVEMENT
- ▧ COVERED AREA
- ⊙ EXISTING MANHOLE
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- ⊘ EXISTING LAMP

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
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24	EXISTING TREE/VEGETATION

[A]	
A	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
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E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616				
SHEET 2 OF 2 (COBB) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	5.5
104	6017	REMOVING CONC (DRIVEWAYS)	SY	3.5
104	6067	REMOVING CONC (SAWCUT)	LF	4
110	6001	EXCAVATION (ROADWAY)	CY	50
644	6076	REMOVE SM RD SN SUP&AM	EA	1
*NOTE TO REVIEWER: SHEET TOTALS FOR COBB AVE ONLY				



CSJ 0924-06-616

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

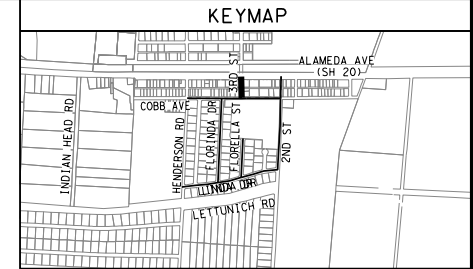
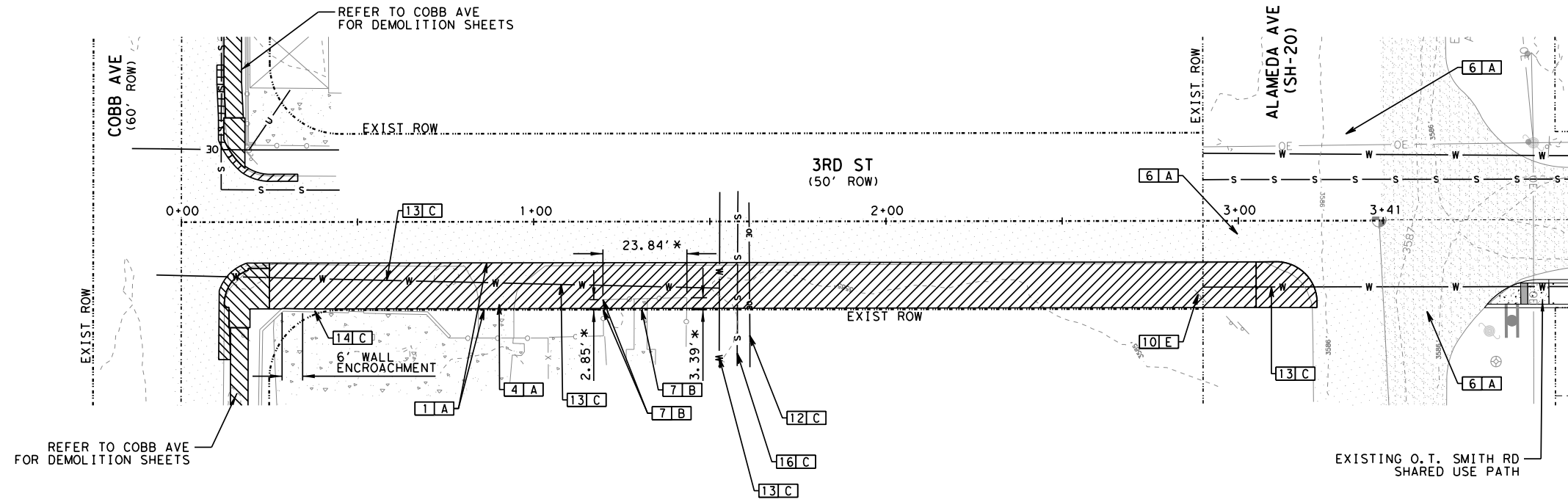
TBPE Firm Registration  
No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
COBB AVENUE  
STA 9+00 TO STA 14+49  
SHEET 2 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	105
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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8/27/2021 F:\9136\DG\N(S-G) - 3rd Street\9136 - (SOUTH)\_3RD\_DEMO AND EX-UTILITIES\_(01).dgn



**LEGEND**

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY LINE
- EXISTING POWER LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING WOOD FENCE
- [Hatched Box] PREP ROW
- [Dotted Box] EXISTING CONCRETE
- [Cross-hatched Box] EXISTING PAVEMENT
- [Cross-hatched Box] COVERED AREA
- (M) EXISTING MANHOLE
- (F) EXISTING FIRE HYDRANT
- (V) EXISTING WATER VALVE
- (M) EXISTING WATER METER
- (P) EXISTING POST-BOLLARD
- (S) EXISTING SIGN
- (U) EXISTING UTILITY SERVICE POLE
- (B) EXISTING UTILITY BOX/PEDESTAL
- (P) EXISTING POWER POLE
- (L) EXISTING LAMP

**DEMOLITION KEYED NOTES**

1	LIMITS OF DEMOLITION, SAW-CUT EXISTING PAVEMENT/SIDEWALK
2	EXISTING ASPHALT PAVEMENT
3	EXISTING CURB
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17	EXISTING FIRE HYDRANT
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20	EXISTING WATER VALVE
21	EXISTING WATER METER
22	EXISTING UTILITY LINE
23	EXISTING POWER/UTILITY/ LIGHT POLE
24	EXISTING TREE/VEGETATION

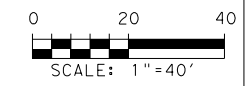
\* FENCE REMOVAL LIMITS

[A]	COMPLETELY REMOVE AND PROPERLY DISPOSE OFF-SITE, AS REQUIRED FOR PROPOSED CONSTRUCTION
B	REMOVE AND RELOCATE
C	REMAIN UNDISTURBED (TO BE PROTECTED)
D	ADJUST TO NEW GRADE
E	REMOVE AND REPLACE
F	SAW CUT AND/OR COMPLETELY REMOVE AS REQUIRED FOR PROPOSED CONSTRUCTION AND PROPERLY DISPOSED OFF-SITE

CSJ: 0924-06-616  
SHEET 1 OF 1 (3RD) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
100	6002	PREPARING ROW	STA	3
104	6017	REMOVING CONC (DRIVEWAYS)	SY	19
104	6067	REMOVING CONC (SAWCUT)	LF	25
110	6001	EXCAVATION (ROADWAY)	CY	59
496	6043	REMOV STR (SMALL FENCE)	LF	30
644	6076	REMOVE SM RD SN SUP&AM	EA	1
677	6007	ELIM EXT PAV MRK & MRKS (24")	LF	200

\*NOTE TO REVIEWER: SHEET TOTALS FOR 3RD ST ONLY



CSJ 0924-06-616

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

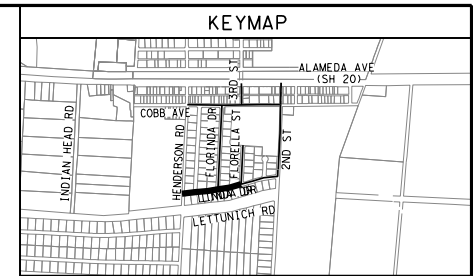
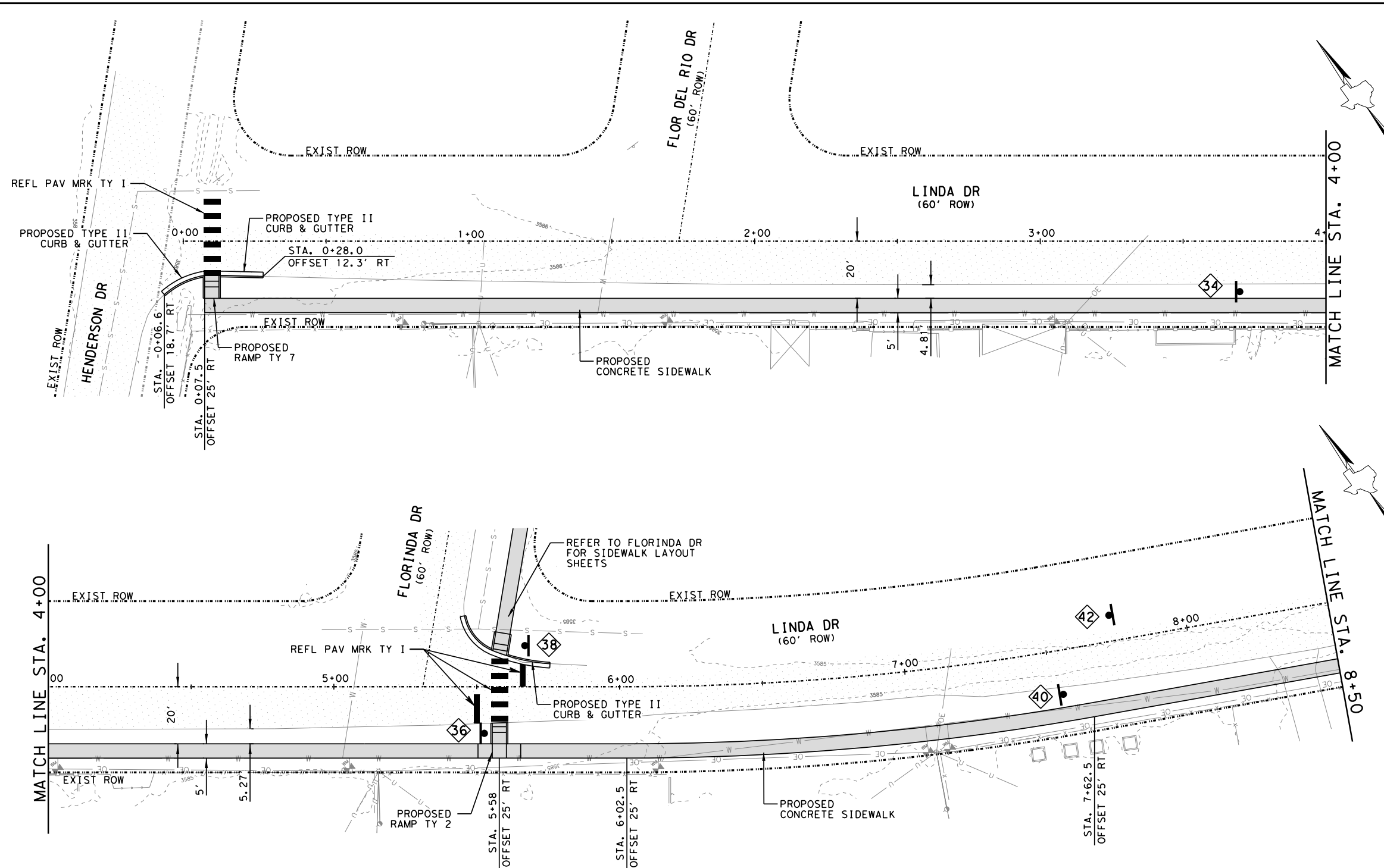


TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
DEMOLITION &  
EXISTING UTILITY PLAN  
3RD ST  
STA 0+00 TO STA 3+41

SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	106
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DN\S-C)- Linda Drive and 2nd Street\19136 - (SOUTH)-LINDA-SIDEWALK\_LAYOUT\_(01).dgn 8/27/2021 12:33:18 PM jair



**LEGEND**

**EXISTING RIGHT-OF-WAY**

**PROJECT CONTROL BASELINE**

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

**STOP** R1-1

**STOP** R1-1

**STOP** R1-1

**STOP** R1-3P

**SPEED LIMIT 30** R2-1

**END SCHOOL ZONE** S5-2oTP

**SCHOOL** S4-3P

**SPEED LIMIT 15** R2-1

**7:30 AM TO 4:00 PM** S4-1P

**CELL PHONE USE PROHIBITED UP TO 9200 FINE** S7-1T

**AHEAD** SW16-9P

**AHEAD** SW16-7P

**SW16-7P** S1-1

**SW16-9P** S1-1

**36 38** S1-1

**34 40 42** S1-1

**37 39** S1-1

**35 41 43** S1-1

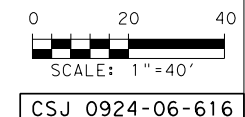
CSJ: 0924-06-616  
SHEET 1 OF 4 (LINDA) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	EA	39
531	6003	CONC SIDEWALKS (6")	EA	477
531	6002	CURB RAMPS (TY 2)	EA	1
531	6010	CURB RAMPS (TY 7)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	5
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	84
666	6230	PAVEMENT SEALER 24"	LF	84
678	6008	PAV SURF PREP FOR MRK (24")	LF	84

\*NOTE TO REVIEWER: SHEET TOTALS FOR LINDA DR ONLY

STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021



CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

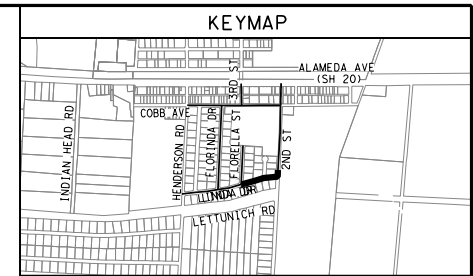
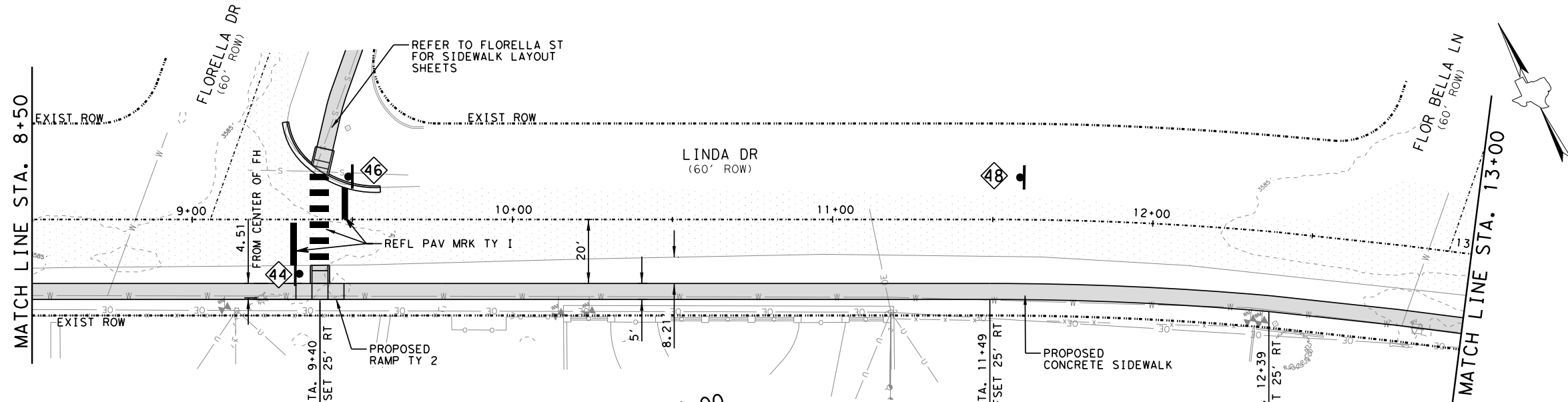
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
LINDA DRIVE  
STA 0+00 TO STA 8+50

SHEET 1 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	107
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARI0U62

8/27/2021 12:33:19 PM jair



- LEGEND**
- EXISTING RIGHT-OF-WAY
  - PROJECT CONTROL BASELINE
  - EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)



CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY  
 AUTHORITY

TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
**SIDEWALK LAYOUT PLAN**  
 LINDA DRIVE & 2ND STREET  
 STA 8+50 TO STA 17+50

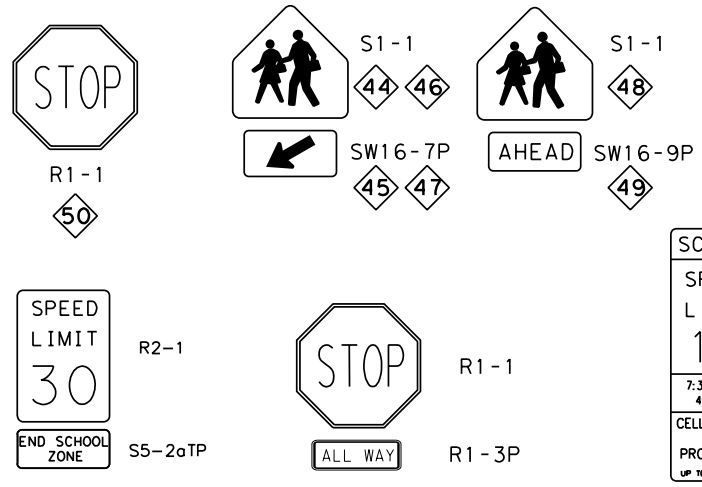
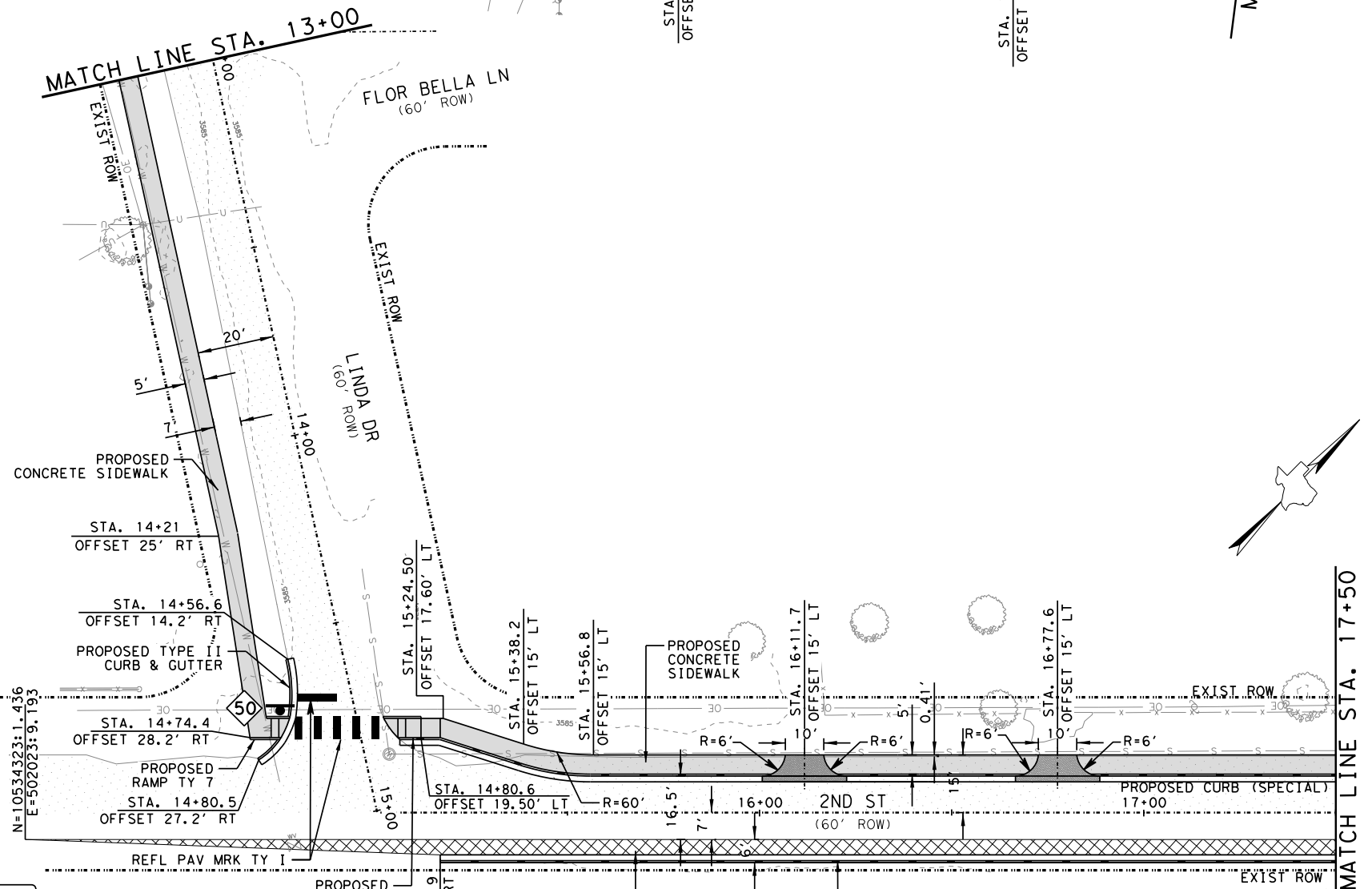
SHEET 2 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	108
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

CSJ: 0924-06-616  
 SHEET 2 OF 4 (LINDA) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
247	6041	FL BS (CMP IN PLC)(TYA GR1-2)(FNL POS)	CY	33
251	6034	REWORK BS MTL (TY C) (8") (ORD COMP)	SY	143
310	6014	PRIME COAT (SS-1H)	GAL	64
340	6122	D-GR HMA(SQ) TY-D PG70-22	TON	16
529	6008	CONC CURB & GUTTER (TY II)	LF	31
529	6036	CONCRETE CURB (SPECIAL)	LF	479
530	6004	DRIVEWAYS (CONC)	SY	24
531	6003	CONC SIDEWALKS (6")	SY	490
531	6005	CURB RAMPS (TY 2)	EA	1
531	6010	CURB RAMPS (TY 7)	EA	2
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	3
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	99
666	6230	PAVEMENT SEALER 24"	LF	99
678	6008	PAV SURF PREP FOR MRK (24")	LF	99

\*NOTE TO REVIEWER: SHEET TOTALS FOR LINDA DR & 2ND ST ONLY



SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO 8200 FINE	S7-1T

Linda Dr 19200  
 Feed Pen 200

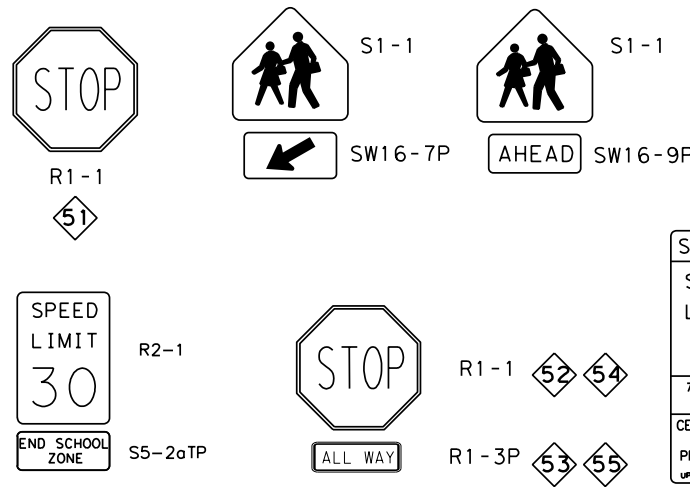
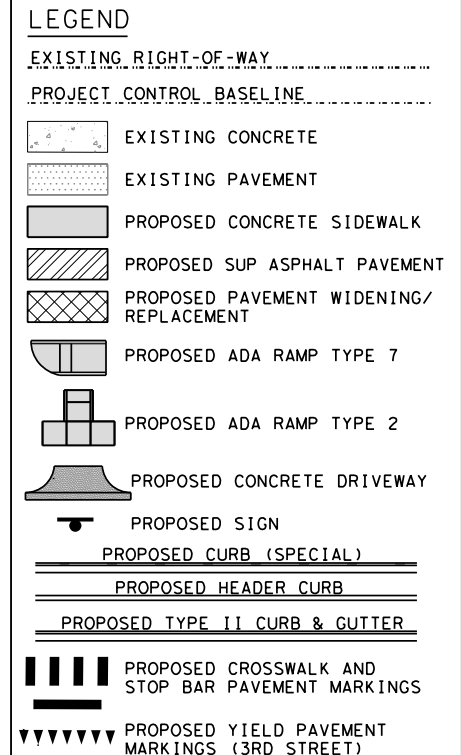
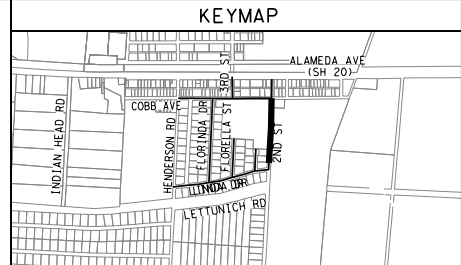
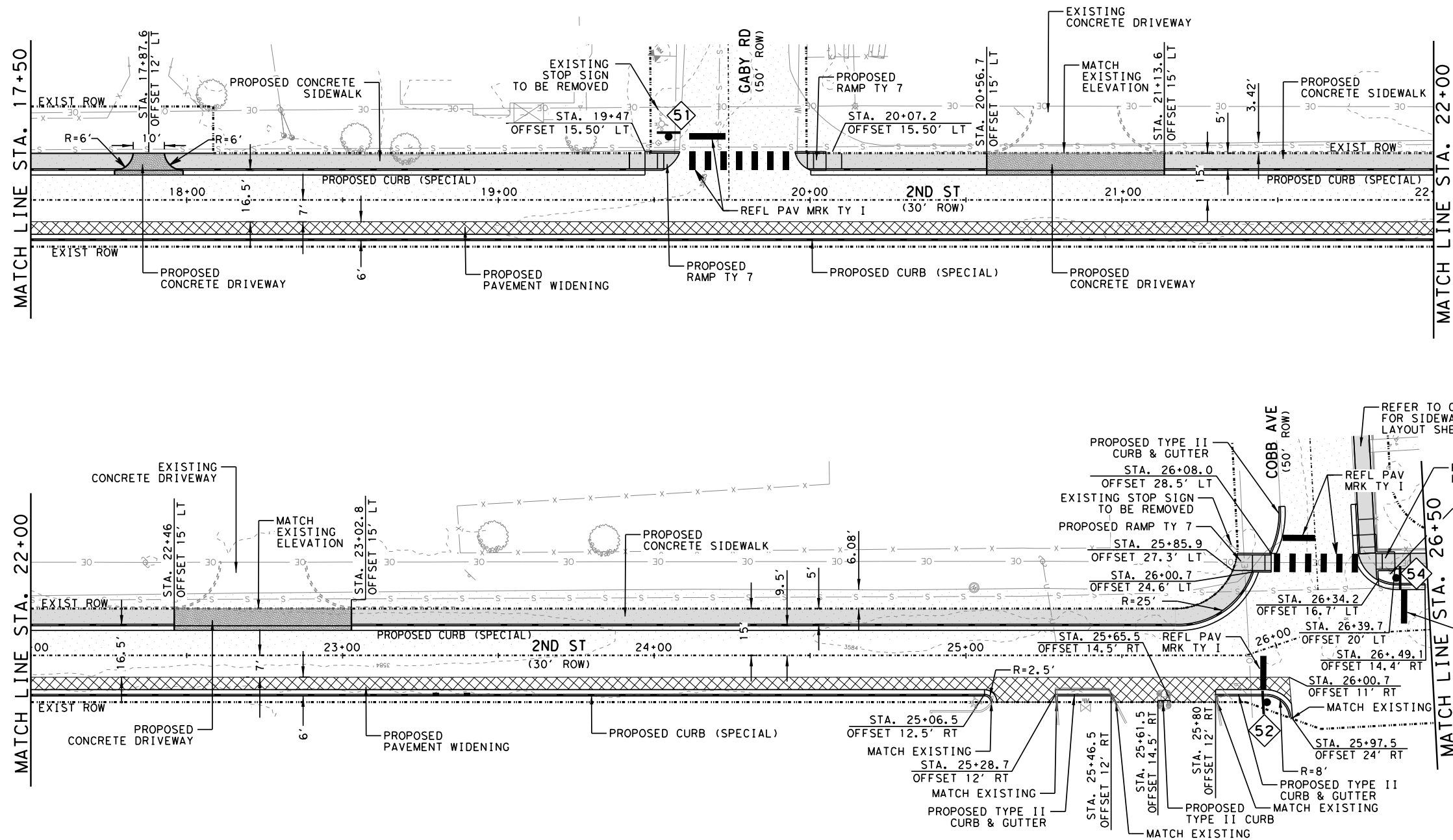
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 07-12-2021

**OSWALD F. GARCIA**  
 109889  
 LICENSED PROFESSIONAL ENGINEER

CSJ 0924-06-616  
 07/12/2021



F:\19136\DWG\N-S-C- Lindd Drive and 2nd Street\19136 - (SOUTH)\_LINDA\_SIDEWALK\_LAYOUT\_(03).dgn 8/27/2021 12:33:21 PM jair



CSJ: 0924-06-616  
SHEET 3 OF 4 (2ND) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
247	6041	FL BS (CMP IN PLC)(TYA GR1-2)(FNAL POS)	CY	92
251	6034	REWORK BS MTL (TY C) (8") (ORD COMP)	SY	405
310	6014	PRIME COAT (SS-1H)	GAL	195
340	6122	D-GR HMA(SQ) TY-D PG70-22	TON	46
529	6008	CONC CURB & GUTTER (TY II)	LF	43
529	6036	CONCRETE CURB (SPECIAL)	LF	1420
530	6004	DRIVEWAYS (CONC)	SY	101
531	6003	CONC SIDEWALKS (6")	SY	402
531	6010	CURB RAMPS (TY 7)	EA	4
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	3
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	75
666	6230	PAVEMENT SEALER 24"	LF	75
678	6008	PAV SURF PREP FOR MRK (24")	LF	75

\*NOTE TO REVIEWER: SHEET TOTALS FOR 2ND ST ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

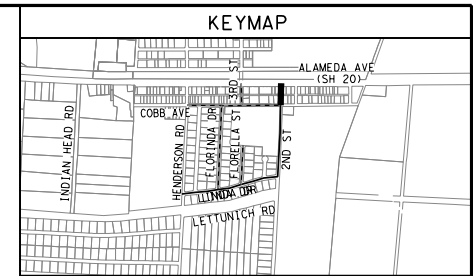
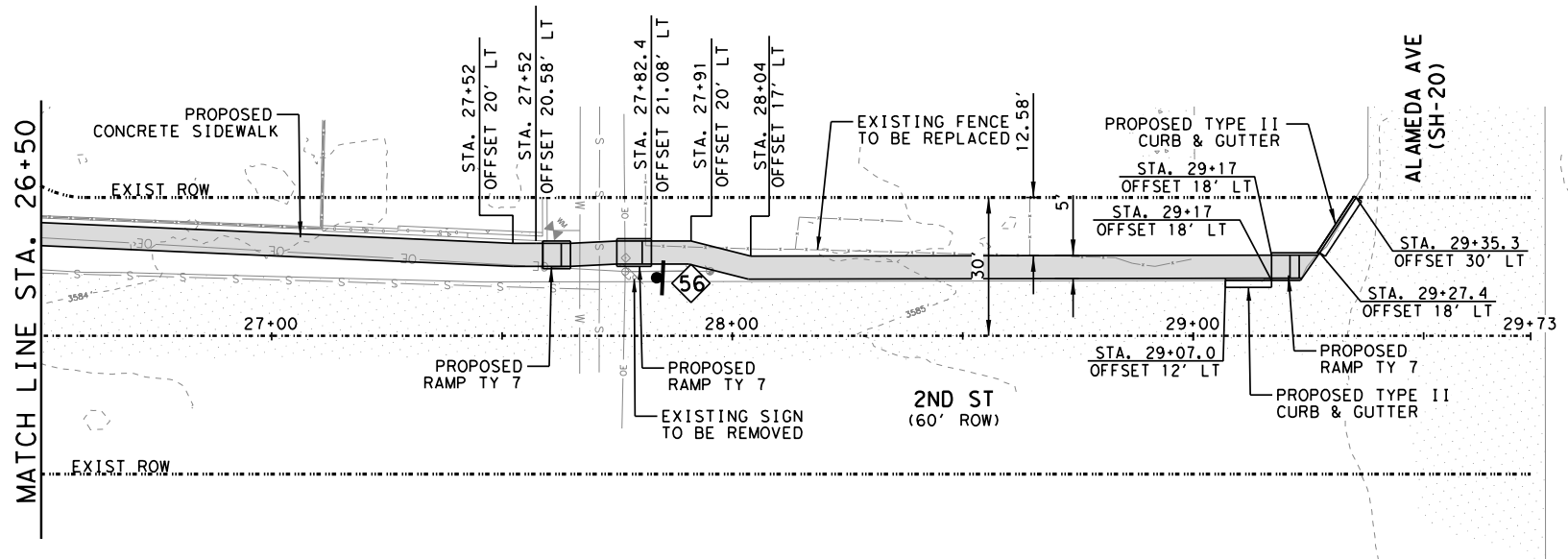
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

**SIDEWALK LAYOUT PLAN**  
2ND STREET  
STA 17+50 TO STA 26+50

SHEET 3 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	109
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DN\S-C)- Linda Drive and 2nd Street\19136 - (SOUTH)-LINDA-SIDEWALK\_LAYOUT\_(04).dgn 8/27/2021 12:33:24 PM jair



- LEGEND**
- EXISTING RIGHT-OF-WAY
  - PROJECT CONTROL BASELINE
  - EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

R1-1

S1-1

SW16-7P

SW16-9P

S4-3P

R2-1

S4-1P

S7-1T

R1-1

R1-3P

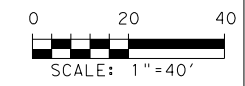
R2-1

S5-2aTP

CSJ: 0924-06-616  
SHEET 4 OF 4 (2ND) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	25
531	6003	CONC SIDEWALKS (6")	SY	155
531	6010	CURB RAMPS (TY 7)	EA	3
550	6001	CHAIN LINK FENCE (INSTALL)(6')	LF	101
550	6014	CHAIN LINK FENCE GATE (INSTALL)(6X18)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR 2ND ST ONLY



08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO      SAN ANTONIO

TBPE Firm Registration  
No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP**

**SIDEWALK LAYOUT PLAN**

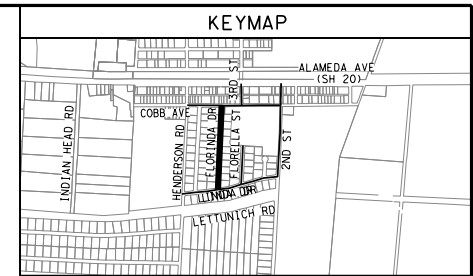
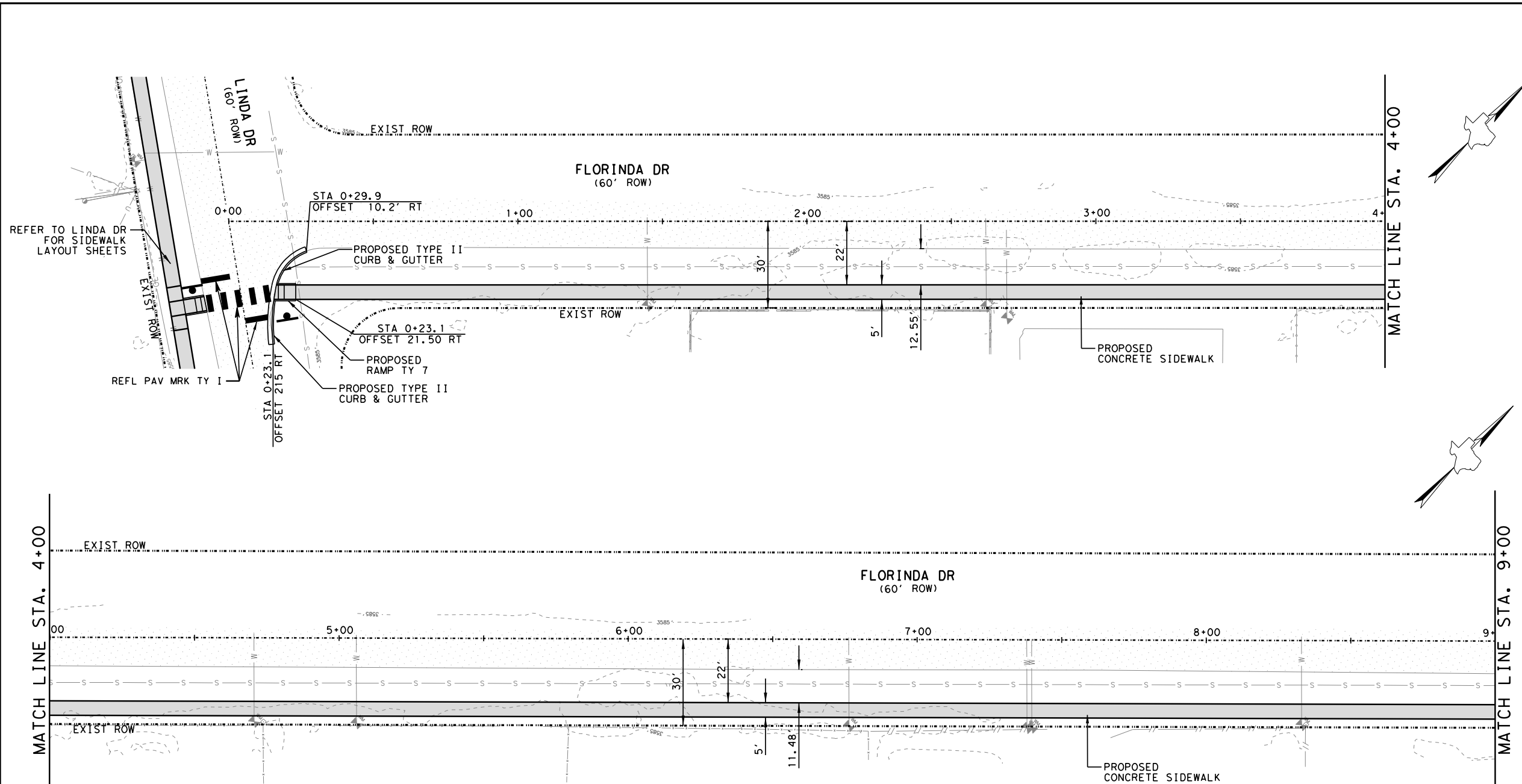
2ND STREET  
STA 26+50 TO STA 29+73

SHEET 4 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	110
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

CSJ 0924-06-616

8/27/2021 12:33:25 PM jair F:\9136\DN\S-D\ - FlorInda Drive\9136 - (SOUTH)\_FLORINDA\_SIDEWALK\_LAYOUT\_(01).dgn



- LEGEND**
- EXISTING RIGHT-OF-WAY**
- PROJECT CONTROL BASELINE**
- EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

R1-1

S1-1  
  
SW16-7P

S1-1  
  
AHEAD SW16-9P

R2-1  
  
S5-2oTP  
  
R1-3P

SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

CSJ: 0924-06-616  
SHEET 1 OF 2 (FLORINDA)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	40
531	6003	CONC SIDEWALKS (6")	SY	492
531	6010	CURB RAMPS (TY 7)	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR FLORINDA DR ONLY

STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER

08/27/2021

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CSJ 0924-06-616

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554

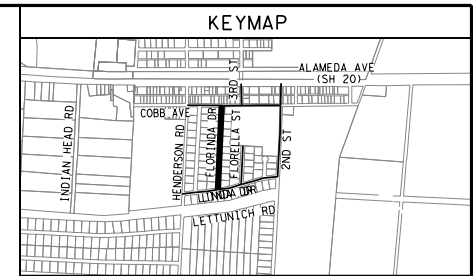
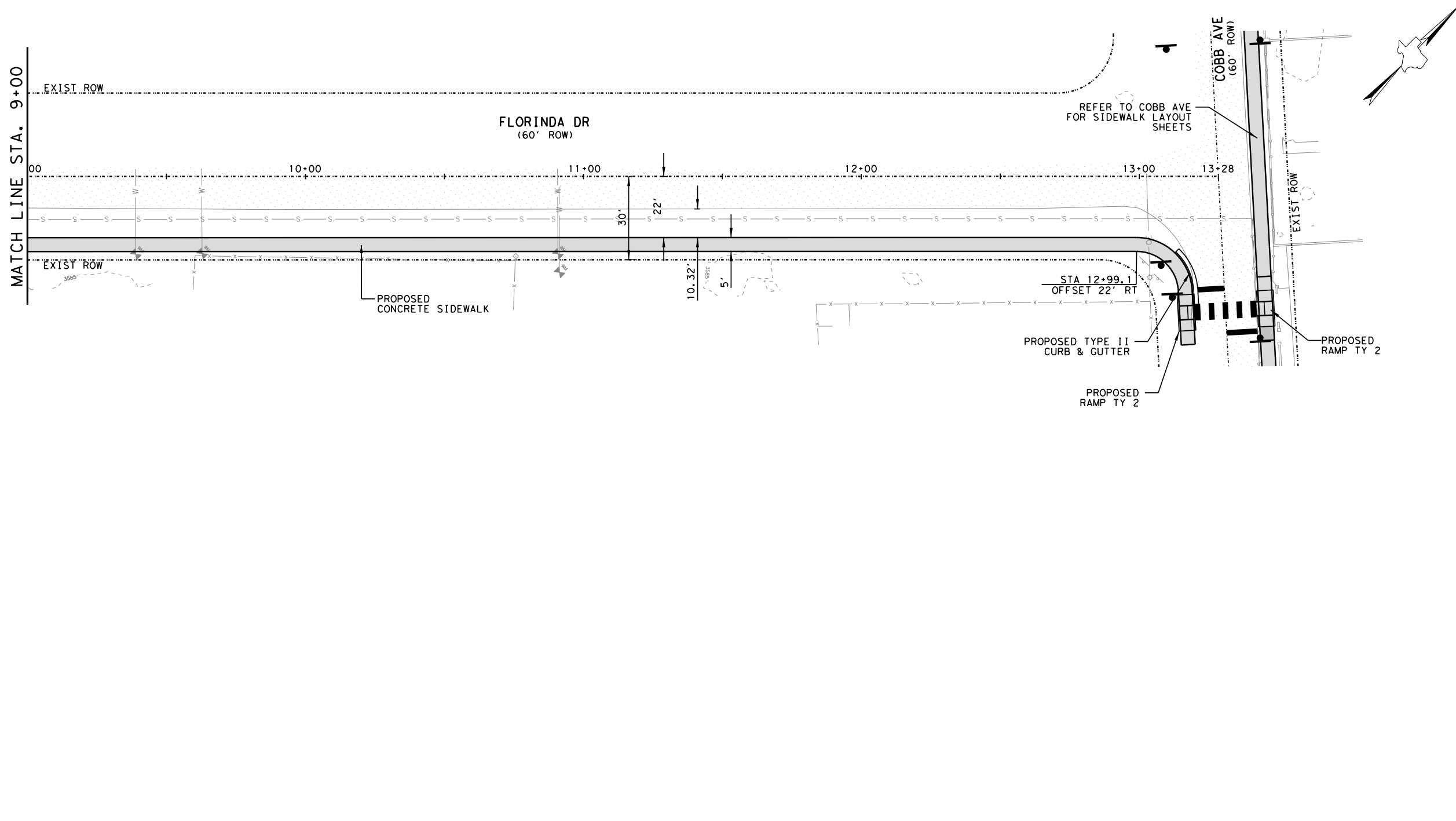
**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
FLORINDA DRIVE  
STA 0+00 TO STA 9+00

SHEET 1 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	111
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

F:\19136\DN\S-D\ - Florinda Drive\19136 - (SOUTH)\\_FLORINDA\\_SIDEWALK\\_LAYOUT\_(02).dgn 8/27/2021 12:33:26 PM jair



- LEGEND**
- EXISTING RIGHT-OF-WAY**
- PROJECT CONTROL BASELINE**
- EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno  
Cardenas Inc.

EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

**SIDEWALK LAYOUT PLAN**

FLORINDA DRIVE  
STA 9+00 TO STA 13+28

SHEET 2 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	112
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

R1-1

S1-1  
  
SW16-7P

S1-1  
  
AHEAD SW16-9P

R2-1  
  
S5-2aTP

R1-3P

SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

CSI: 0924-06-616  
SHEET 2 OF 2 (FLORINDA) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	22
531	6003	CONC SIDEWALKS (6")	SY	246
531	6005	CURB RAMPS (TY 2)	EA	1

\*NOTE TO REVIEWER: SHEET TOTALS FOR FLORINDA DR ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER

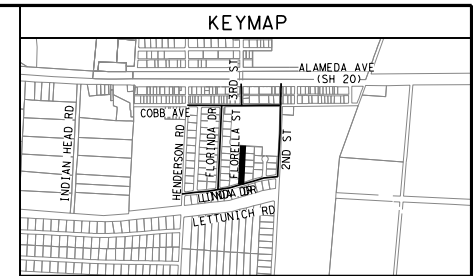
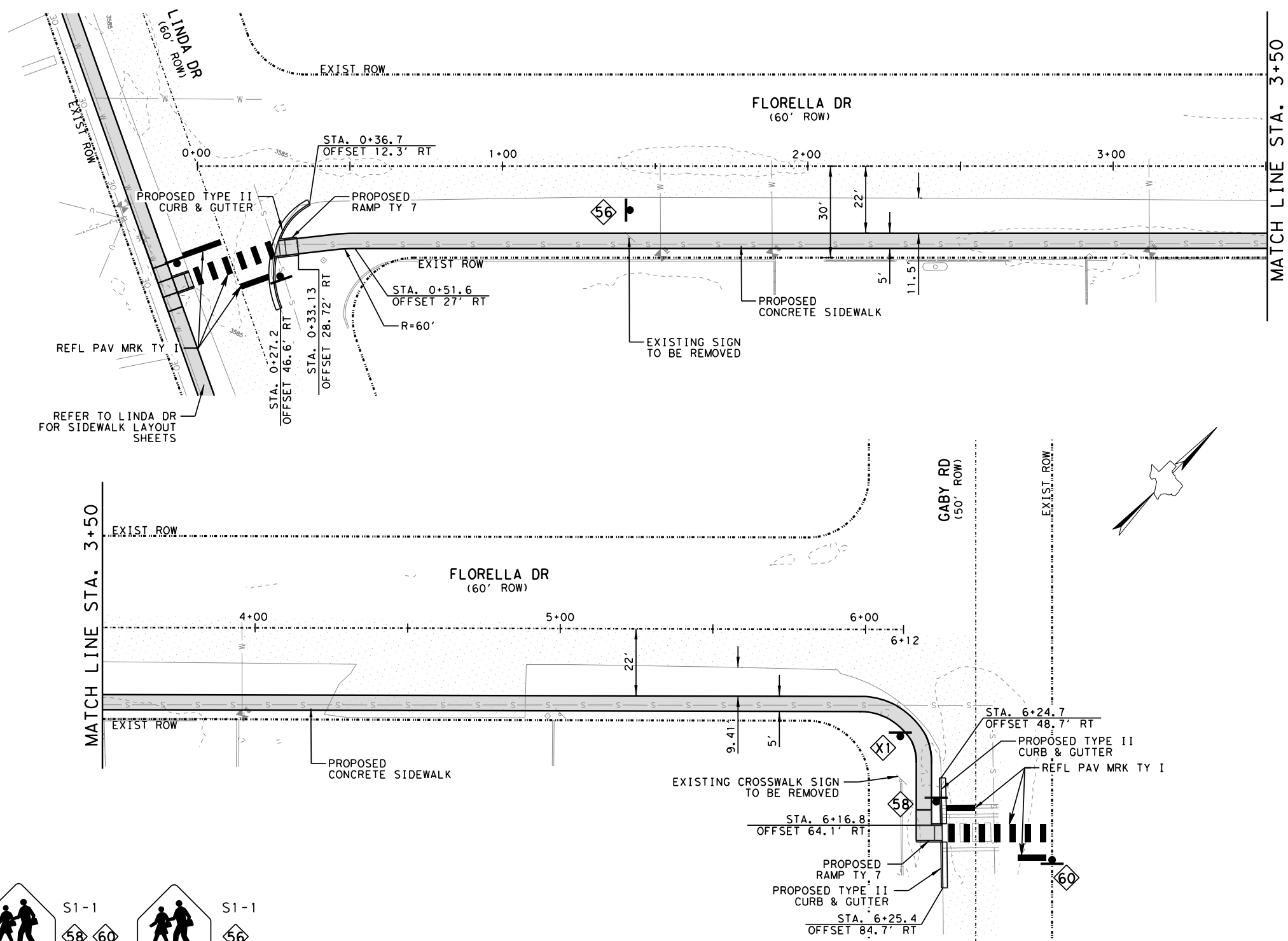
08/27/2021

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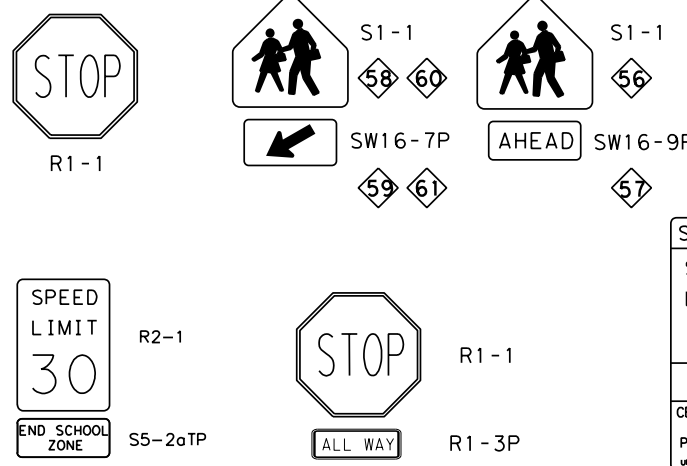
CSJ 0924-06-616

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F:\9136\DN\S-EJ-Florella Drive\9136 - (SOUTH)-FLORELLA-SIDEWALK\_LAYOUT\_(01).dgn



- LEGEND**
- EXISTING RIGHT-OF-WAY
  - PROJECT CONTROL BASELINE
  - EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

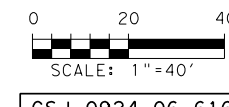


SCHOOL	S4-3P
SPEED LIMIT	R2-1
15	
7:30 AM TO 4:00 PM	S4-1P
CELL PHONE USE PROHIBITED UP TO \$200 FINE	S7-1T

CSJ: 0924-06-616  
SHEET 1 OF 1 (FLORELLA)\*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	100
531	6003	CONC SIDEWALKS (6")	SY	357
531	6010	CURB RAMPS (TY 7)	EA	2
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	3
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	61
666	6230	PAVEMENT SEALER 24"	LF	61
678	6008	PAV SURF PREP FOR MRK (24")	LF	61

\*NOTE TO REVIEWER: SHEET TOTALS FOR FLORELLA AVE ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

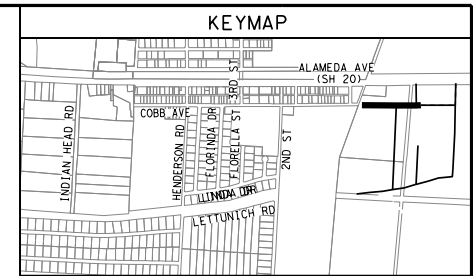
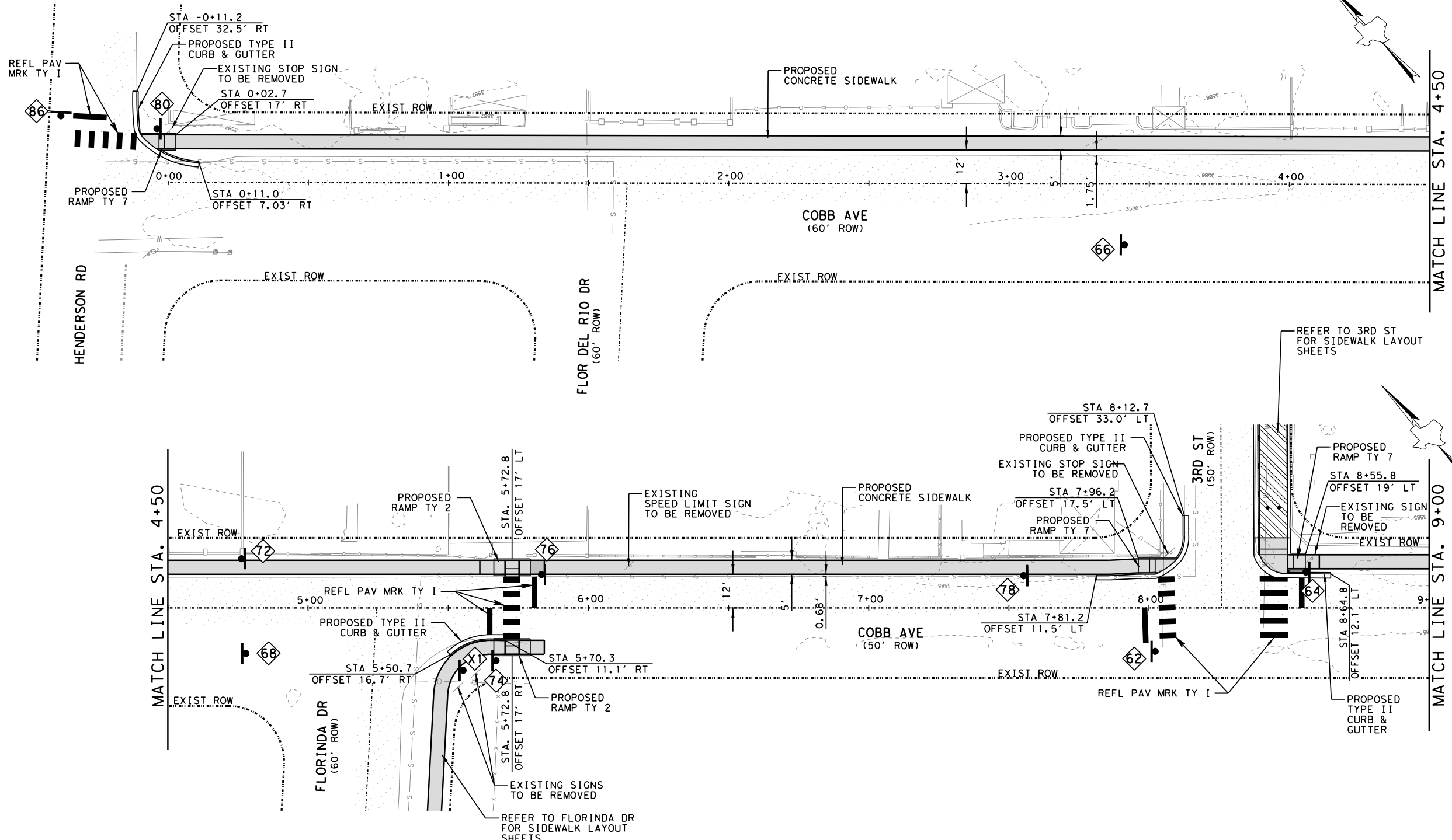
**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
FLORELLA DRIVE  
STA 0+00 TO STA 6+12

SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	113
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

8/27/2021 12:33:28 PM jair F:\9136\DN\S-F\ - (SOUTH)\_COBB\_SIDEWALK\_LAYOUT\_(01).dgn



**LEGEND**

EXISTING RIGHT-OF-WAY

PROJECT CONTROL BASELINE

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

**STOP** R1-1

**STOP** R1-1

**SPEED LIMIT 30** R2-1

**END SCHOOL ZONE** S5-2oTP

**STOP** R1-1

**ALL WAY** R1-3P

**SCHOOL** S4-3P

**SPEED LIMIT 15** R2-1

**7:30 AM TO 4:00 PM** S4-1P

**CELL PHONE USE PROHIBITED UP TO 9200 FINE** S7-1T

**SW16-7P** S1-1

**AHEAD SW16-9P** S1-1

**Florinda Dr** X1

**Cobb Ave** X1

CSJ: 0924-06-616  
SHEET 1 OF 2 (COBB) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	155
531	6003	CONC SIDEWALKS (6")	SY	490
531	6005	CURB RAMPS (TY 2)	EA	2
531	6010	CURB RAMPS (TY 7)	EA	3
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	7
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	4
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	196
666	6230	PAVEMENT SEALER 24"	LF	196
678	6008	PAV SURF PREP FOR MRK (24")	LF	196

\*NOTE TO REVIEWER: SHEET TOTALS FOR COBB AVE ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN

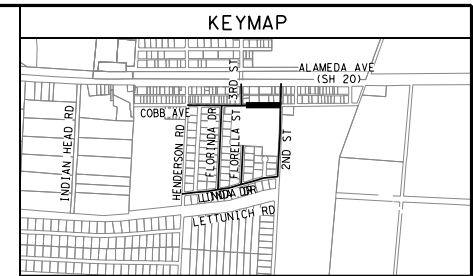
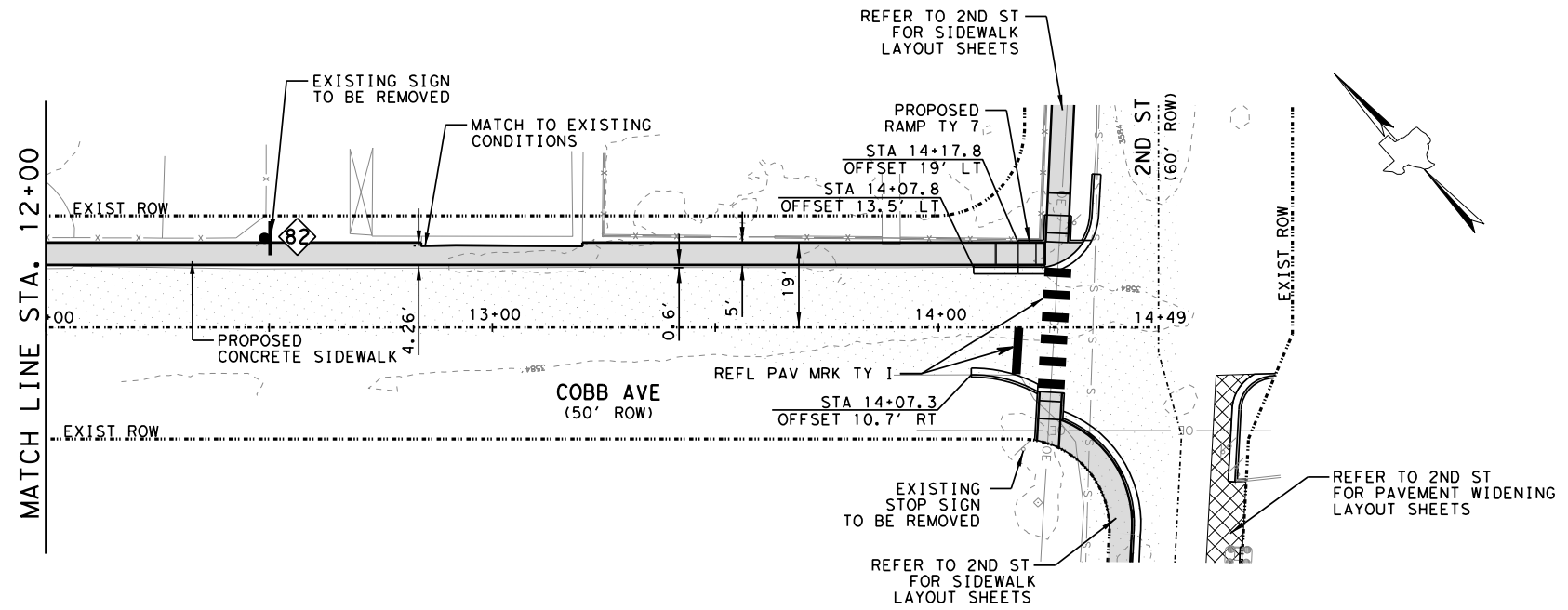
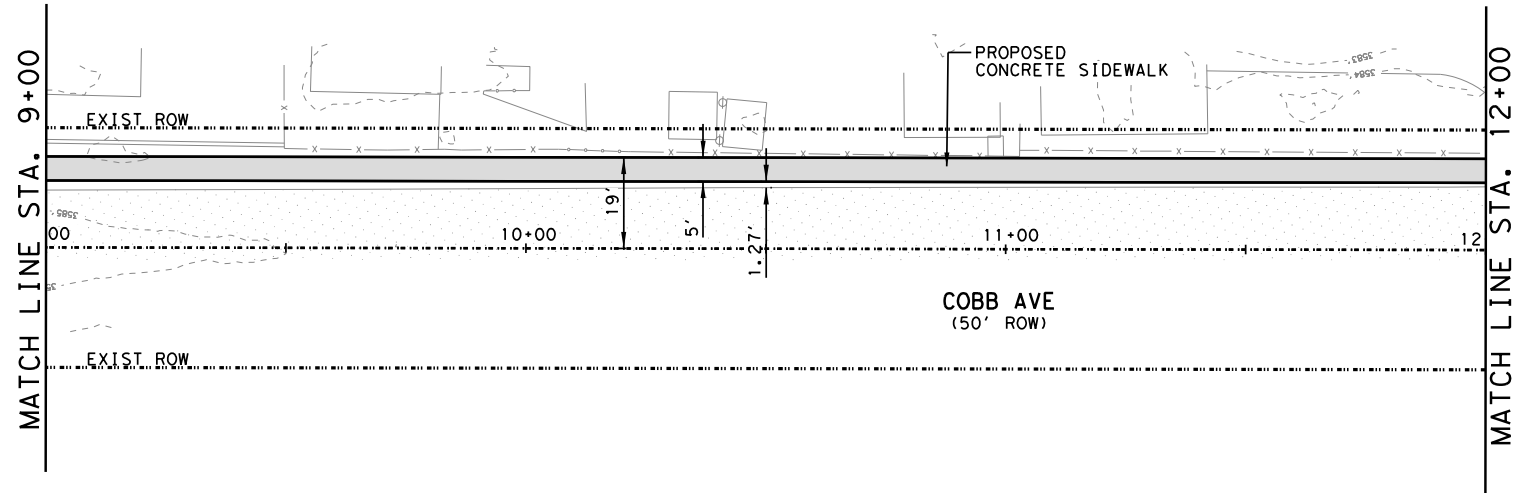
COBB AVENUE  
STA 0+00 TO STA 9+00

SHEET 1 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	114
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB
0924	06	616, ETC
		HIGHWAY NO.
		VARIOUS

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F:\19136\DN\S-F-1-Cobb Avenue\19136 - (SOUTH)\_COBB\_SIDEWALK\_LAYOUT\_(02).dgn



**LEGEND**

EXISTING RIGHT-OF-WAY

PROJECT CONTROL BASELINE

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SUP ASPHALT PAVEMENT
- PROPOSED PAVEMENT WIDENING/REPLACEMENT
- PROPOSED ADA RAMP TYPE 7
- PROPOSED ADA RAMP TYPE 2
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED SIGN
- PROPOSED CURB (SPECIAL)
- PROPOSED HEADER CURB
- PROPOSED TYPE II CURB & GUTTER
- PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
- PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)

R1-1 STOP

S1-1

SW16-7P

AHEAD SW16-9P

R2-1 SPEED LIMIT 30

S5-2aTP END SCHOOL ZONE

R1-1 STOP ALL WAY

R1-3P

SCHOOL SPEED LIMIT 15

7:30 AM TO 4:00 PM

CELL PHONE USE PROHIBITED UP TO \$200 FINE

S4-3P

R2-1

S4-1P

S7-1T

CSJ: 0924-06-616  
SHEET 2 OF 2 (COBB) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
529	6008	CONC CURB & GUTTER (TY II)	LF	46
531	6003	CONC SIDEWALKS (6")	SY	297
531	6010	CURB RAMPS (TY 7)	EA	1
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	1
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	47
666	6230	PAVEMENT SEALER 24"	LF	47
678	6008	PAV SURF PREP FOR MRK (24")	LF	47

\*NOTE TO REVIEWER: SHEET TOTALS FOR COBB AVE ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E., 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

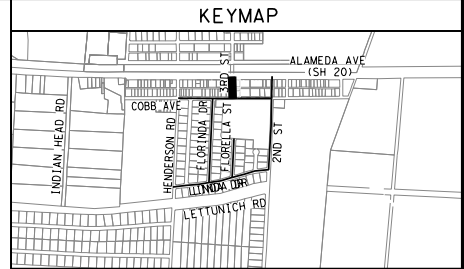
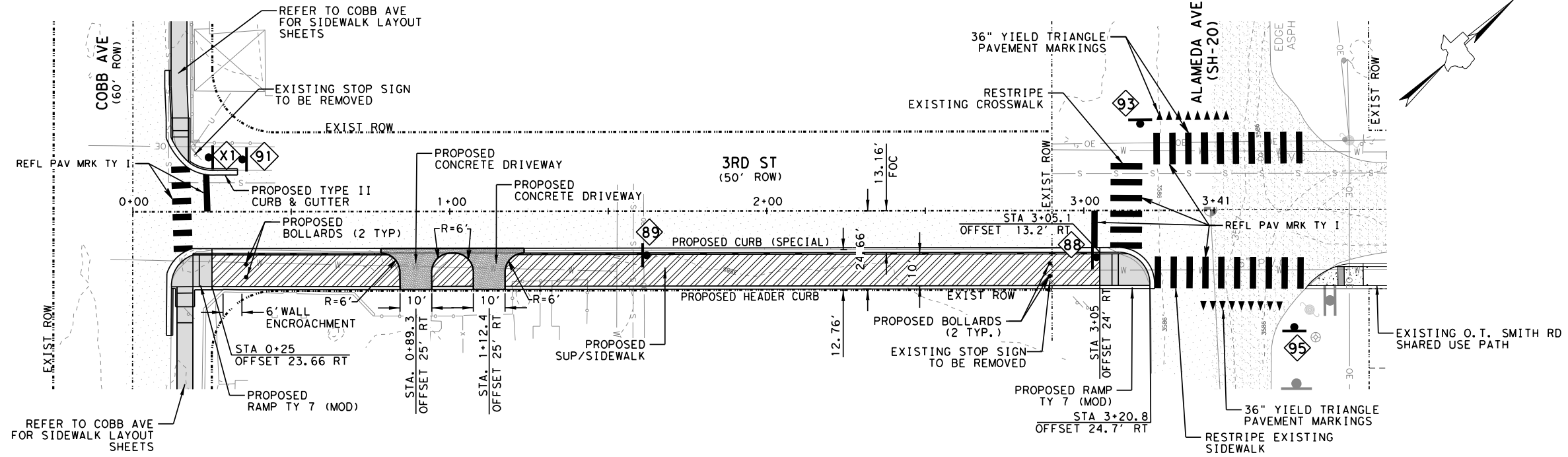
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SIDEWALK LAYOUT PLAN  
COBB AVENUE  
STA 9+00 TO STA 14+49

SHEET 2 OF 2

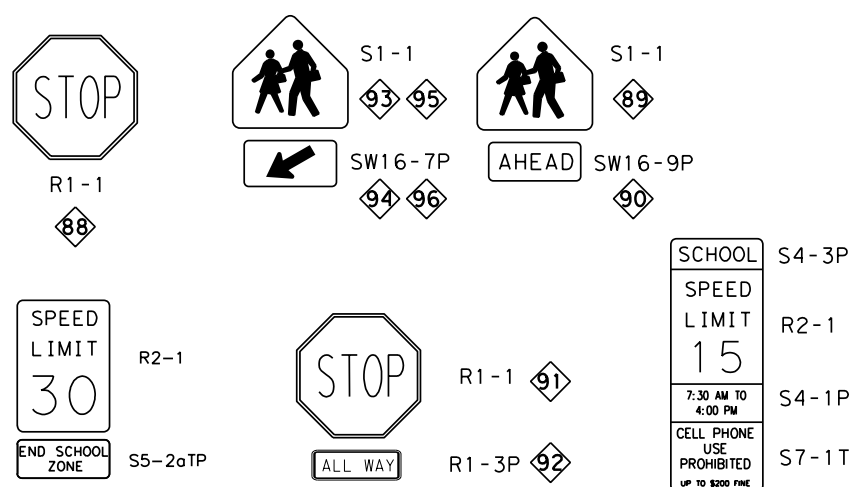
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	115
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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8/27/2021 F:\9136\DG\N\S-G)-3rd Street\9136 - (SOUTH)-3RD-SIDEWALK LAYOUT\_(01).dgn



- LEGEND**
- EXISTING RIGHT-OF-WAY
  - PROJECT CONTROL BASELINE
  - EXISTING CONCRETE
  - EXISTING PAVEMENT
  - PROPOSED CONCRETE SIDEWALK
  - PROPOSED SUP ASPHALT PAVEMENT
  - PROPOSED PAVEMENT WIDENING/REPLACEMENT
  - PROPOSED ADA RAMP TYPE 7
  - PROPOSED ADA RAMP TYPE 2
  - PROPOSED CONCRETE DRIVEWAY
  - PROPOSED SIGN
  - PROPOSED CURB (SPECIAL)
  - PROPOSED HEADER CURB
  - PROPOSED TYPE II CURB & GUTTER
  - PROPOSED CROSSWALK AND STOP BAR PAVEMENT MARKINGS
  - PROPOSED YIELD PAVEMENT MARKINGS (3RD STREET)



CSJ: 0924-06-616  
SHEET 1 OF 1 (3RD) \*

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
247	6041	FL BS (CMP IN PLC)(TYA GR1-2)(FNAL POS)	CY	45
251	6034	REWORK BS MTL (TY C) (8") (ORD COMP)	SY	302
310	6014	PRIME COAT (SS-1H)	GAL	144
340	6122	D-GR HMA(SQ) TY-D PG70-22	TON	25
340	6050	D-GR HMA(SQ) TY-C PG70-22	TON	4
529	6003	CONC CURB (TY II A)	LF	281
529	6008	CONC CURB & GUTTER (TY II)	LF	20
529	6036	CONCRETE CURB (SPECIAL)	LF	281
530	6004	DRIVEWAYS (CONC)	SY	38
531	6034	CURB RAMPS (TY 7)(MOD)	EA	2
ELP1	6001	FIXED BOLLARDS	EA	4
644	6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	3
644	6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	3
666	6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	320
666	6102	REFL PAV MRK TY I (W)36"(YLD TRI)(100MIL)	EA	17
666	6230	PAVEMENT SEALER 24"	LF	320
678	6008	PAV SURF PREP FOR MRK (24")	LF	320
678	6023	PAV SURF PREP FOR MRK (36")(YLD TRI)	EA	17

\*NOTE TO REVIEWER: SHEET TOTALS FOR 3RD ST ONLY



STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY OSWALD F. GARCIA, P.E. 109889, ON 08-27-2021

CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT

**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
SUP/SIDEWALK LAYOUT PLAN  
3RD ST  
STA 0+00 TO STA 3+41

SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	116
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS



**ELECTRICAL GENERAL LEGEND**

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS SHOWN ARE SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
•◻ A	PROPOSED POLE MOUNTED LIGHT FIXTURE	
EX.PP	EXISTING UTILITY POWER POLE	
— EX OHE —	EXISTING OVERHEAD PRIMARY POWER LINE	

**GENERAL ABBREVIATIONS**

AFF	ABOVE FINISHED FLOOR	NIC	NOT IN CONTRACT
BFC	BELOW FINISHED CEILING	TYP	TYPICAL
BOD	BASIS OF DESIGN	EP	ELECTRICAL PRIMARY
C	CONDUIT	NL	NIGHT LIGHT
CB	CIRCUIT BREAKER	PNL	PANEL
EX	EXISTING	RCPT(S)	RECEPTACLE(S)
F	FUSE	SW	SWITCH
G	GROUND (EQUIPMENT)	UG	UNDERGROUND
H	HORIZONTAL MOUNTING	WG	WIRE GUARD
IG	ISOLATED GROUND	WP	WEATHERPROOF
MTD	MOUNT OR MOUNTED	XFMR	TRANSFORMER
MTG	MOUNTING	UNO	UNLESS NOTED OTHERWISE
		OHE	OVERHEAD ELECTRICAL

**NOTES:**

- 48" AFF INDICATES TO TOP OF DEVICE;  
15" AFF INDICATES TO BOTTOM OF DEVICE;  
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

**ELECTRICAL GENERAL NOTES**

**ELECTRICAL SITE PLAN NOTES**

- ANY DAMAGE TO EXISTING CONCRETE STRUCTURE, DRAINAGE OR EXISTING STRUCTURES SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.
- ALL DAMAGE TO BE REPAIRED AT CONTRACTOR'S EXPENSE. ALL COSTS FOR INTERRUPTION OF GAS, ELECTRICAL, COMMUNICATIONS AND/OR WATER SERVICE DUE TO CONTRACTOR'S WORK SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC. SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- ANY EXISTING ELECTRICAL EQUIPMENT TO BE RE-USED THAT GETS DAMAGED DURING DEMOLITION SHALL BE REPLACED WITH ONE OF EQUAL OR GREATER GRADE.
- CONTRACTOR SHALL TACK WELD TWO (2) BOLTS AT EACH LIGHT POLE.

**ELECTRICAL LIGHTING PLAN NOTES**

- LIGHTING IS DESIGNED TO MEET IES RP-100 & TXDOT STANDARDS
- CONTRACTOR IS RESPONSIBLE IN COORDINATING THE NEW INSTALLATION AND POWER OUTAGES WITH PROJECT OFFICIAL.
- CONTRACTOR SHALL EXAMINE THE SITE AND PROVIDE NECESSARY EQUIPMENT/MACHINERY AND APPROPRIATE LABOR WORKING RATES FOR A COMPLETE AND FUNCTIONAL SYSTEM TO OWNER.

**100% SUBMITTAL**



**CONSULTANT**



5000 WEST MILITARY, SUITE 100  
MCALLEN, TEXAS 78503  
TEL (956) 664-0286  
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TBPE FIRM #F-312



**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
ELECTRICAL GENERAL LEGEND

SHEET 1 OF 5

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	STP 2021(473)TP		117
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

# ELECTRICAL SPECIFICATIONS

## I. GENERAL CONDITIONS

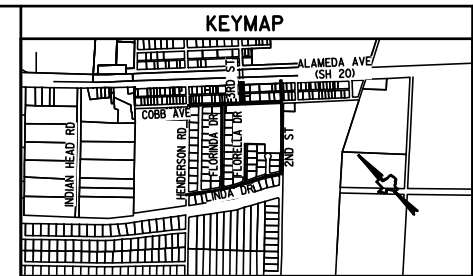
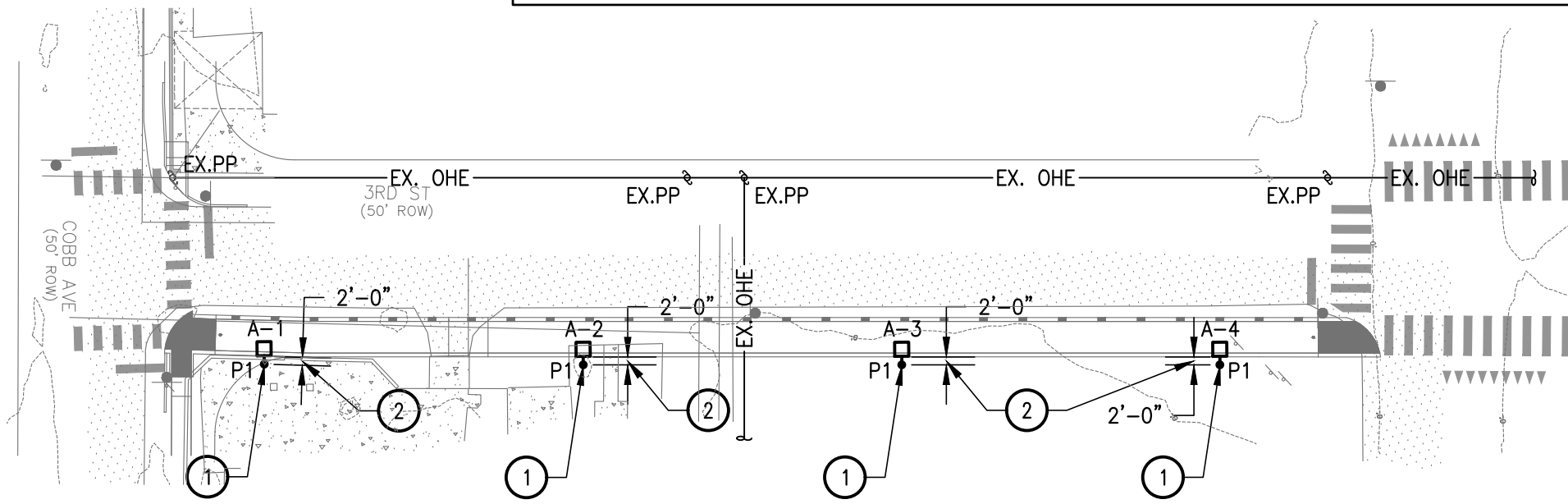
- A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES. WHERE CONFLICTS BETWEEN THIS SPECIFICATION AND THE BASE BUILDING SPECIFICATION EXIST, THE BASE BUILDING DOCUMENT SHALL GOVERN.
- B. THE CONTRACT DOCUMENTS DO NOT PROPOSE TO SHOW ALL EXISTING SYSTEMS, EQUIPMENT OR MATERIAL. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE SUCH THAT INSPECTION HAS TAKEN PLACE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
- C. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE U.L. LABEL WHERE APPLICABLE, UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE EL PASO COUNTY.
- D. CONTRACTOR SHALL INSTALL ELECTRICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.
- E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER/EL PASO COUNTY IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, THEY SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER/OWNER, THE CONTRACTOR SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.
- F. WHERE ONLY ONE MANUFACTURER'S NAME IS LISTED IN THE EQUIPMENT SPECIFICATION, OTHER MANUFACTURERS OF SIMILAR CHARACTERISTICS AND OF EQUAL OR BETTER PERFORMANCE CAPACITIES MAY BE CONSIDERED FOR "OR EQUAL" ACCEPTANCE BY THE ENGINEER/OWNER. SUBSTITUTION REQUESTS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. WHERE MORE THAN ONE MANUFACTURER IS LISTED IN THE NOTES AND EQUIPMENT SPECIFICATIONS, ONLY THOSE NAMED MANUFACTURERS WILL BE CONSIDERED FOR ACCEPTANCE. SHOULD A SUBSTITUTION BE ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL PROVE DEFECTIVE, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO COST TO EL PASO COUNTY.
- G. PROVIDE ACCESS, INCLUDING NECESSARY ACCESS DOORS, FOR NEW AND EXISTING EQUIPMENT REQUIRING OPERATION AND/OR MAINTENANCE. RELOCATE EXISTING AND LOCATE ALL NEW EQUIPMENT SUCH THAT OPERATION OR MAINTENANCE IS NOT RESTRICTED.
- H. INSTALL EQUIPMENT WITH WORKING CLEARANCES COMPLYING WITH CURRENT NATIONAL ELECTRICAL CODE (NEC) ADOPTED BY LOCAL CITY ORDINANCE.

<b>100% SUBMITTAL</b>			
			
<b>CONSULTANT</b>			
			
5000 WEST MILITARY, SUITE 100 McALLEN, TEXAS 78503 TEL (956) 664-0286 FAX (956) 664-0282 TBPE FIRM #F-312			
			
<b>TORNILLO NORTH AND SOUTH                  SIDEWALKS/SUP                  ELECTRICAL SPECIFICATIONS</b>			
SHEET 2 OF 5			
FED. RD. DIVISION	FEDERAL AID PROJECT NO.		SHEET NO.
6	STP 2021(473)TP		118
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

# SHEET 3 OF 5 (3RD)

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY	NOTES
A-#	1006	FLT SOLAR LED INTEGRATED LIGHT	EA	4	1
P-1	0416	POLE FOUNDATIONS	EA	4	---
P-1	0416	DRILL SHAFT (24 IN.)	LF	24 LF	---

**NOTE:**  
 1. CONTRACTOR SHALL PROVIDE 1 SPARE LIGHT FIXTURE AND POLE FOR OWNER'S USE.



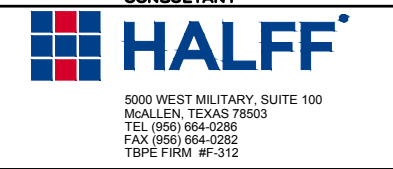
**GENERAL NOTES:**  
 A. REFER TO SHEET 117 FOR ELECTRICAL GENERAL NOTES.  
 B. REFER TO SHEET 121 FOR LIGHTING FIXTURE SCHEDULE.

**KEY NOTES:** #  
 1. APPROXIMATE SPACING BETWEEN LIGHT POLES IS 81'-0".  
 2. TYPICAL DIMENSIONS FROM POLE CENTER TO EDGE OF SIDEWALK.

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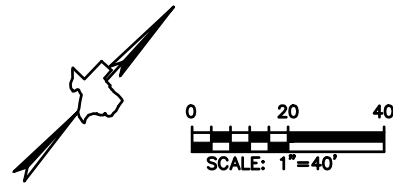


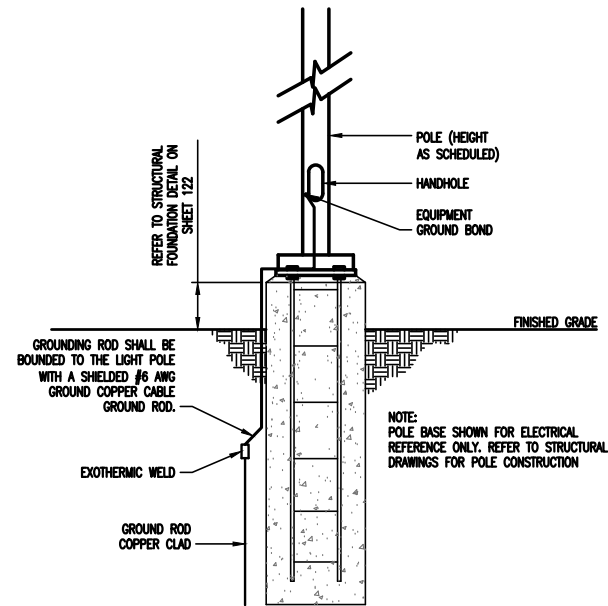
CONSULTANT



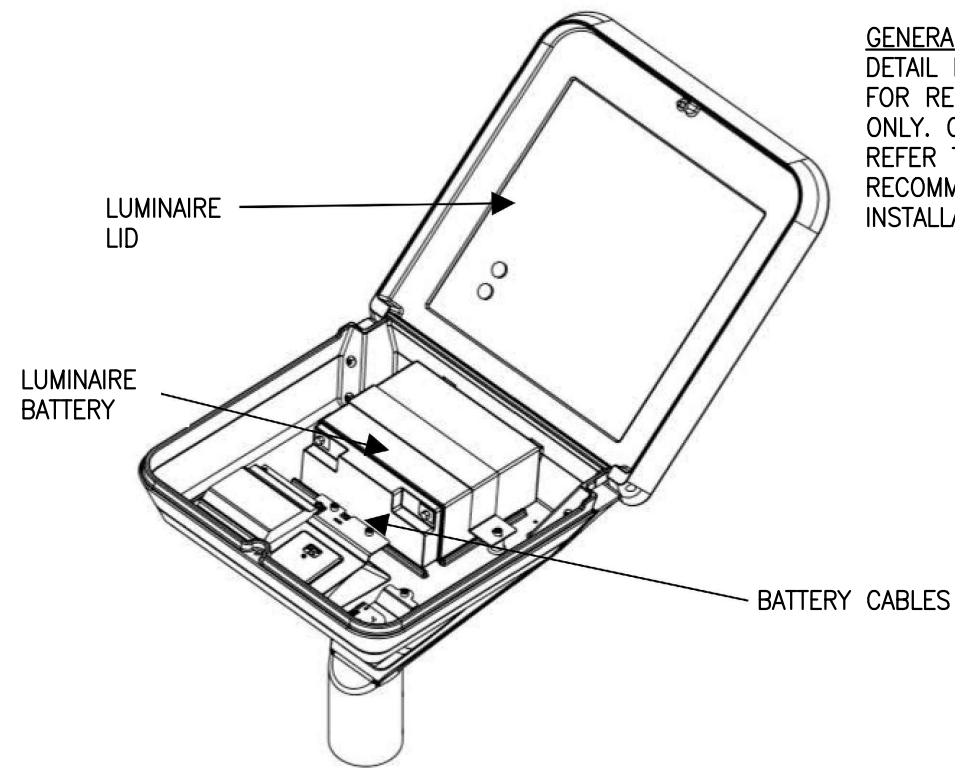
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 ELECTRICAL LIGHTING PLAN  
 3RD ST  
 STA 0+00 TO STA 3+41  
 SHEET 3 OF 5

FED. RD. DIV. NO.	6	FEDERAL AID PROJECT NO.	STP 2021(473)TP	SHEET NO.	119
STATE	DIST.	COUNTY			
TEXAS	ELP	EL PASO			
CONT.	SECT.	JOB	HIGHWAY NO.		
0924	06	616, ETC	VARIOUS		



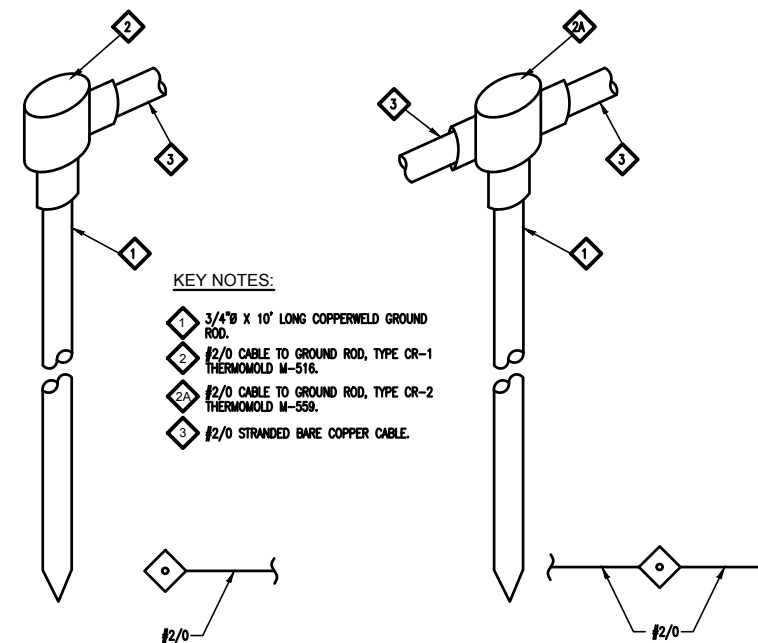


## ELECTRICAL 02 POLE BASE DETAIL N.T.S.



## 03 LIGHT FIXTURE DETAIL - FLT N.T.S.

GENERAL NOTES:  
DETAIL IS SHOWN  
FOR REFERENCE PURPOSES  
ONLY. CONTRACTOR SHALL  
REFER TO MANUFACTURER  
RECOMMENDED  
INSTALLATION INSTRUCTIONS



## TYPICAL 01 GROUNDING ROD N.T.S.

100% SUBMITTAL



CONSULTANT



5000 WEST MILITARY, SUITE 100  
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TBP# FIRM #F-312



**CAMINO REAL**  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
ELECTRICAL DETAILS

SHEET 4 OF 5

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
6	STP 2021(473)TP	120	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



# LIGHTING FIXTURE SCHEDULE

TYPE	MANUF & MODEL NUMBER	LAMPS	VA	VOLTAGE	DESCRIPTION	NOTES
A-1:4	FIRSTLIGHT TECHNOLOGIES FLT – IPL PTM CC T2 NW 00 MSO	4000K	21	SOLAR  MODULE	SOLAR LED INTEGRATED ARCHITECTURAL AREA LIGHT WITH CUSTOM FINISH CC–FOREST GREEN. POLE SHALL BE PROVIDED WITH FOREST GREEN CUSTOM PAINT FINISH. REFER TO LIGHT POLE SCHEDULE FOR POLE MODEL AND ADDITIONAL INFORMATION.	1
NOTES: 1. LUMINAIRE REQUIREMENTS APPLY TO REQUIRED SPARE LUMINAIRE.						

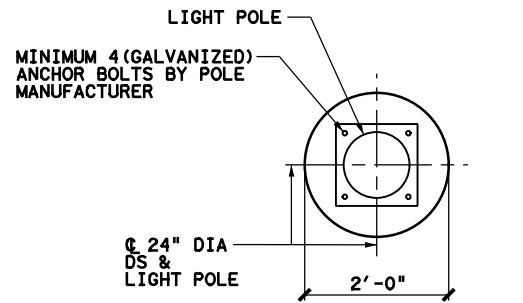
# LIGHTPOLE SCHEDULE

POLE		FIXTURE		DRILLED SHAFT DEPTH	DESCRIPTION
TYPE	HEIGHT	TYPE	NOTE		
P1	10'-0"	A	1, 2	6'-0"	POLE MANUFACTURER HAPCO – RTA10B4A4 WITH FOREST GREEN CUSTOM FINISH. ROUND ALUMINUM POLE NO ARM – 4 BOLT BASE.
NOTES: 1. REFER TO LIGHTING FIXTURE SCHEDULE FOR MODEL NUMBER 2. REFER TO SITE LIGHTING FOUNDATION DETAIL ON SHEET 122 FOR ADDITIONAL STRUCTURAL INFORMATION.					

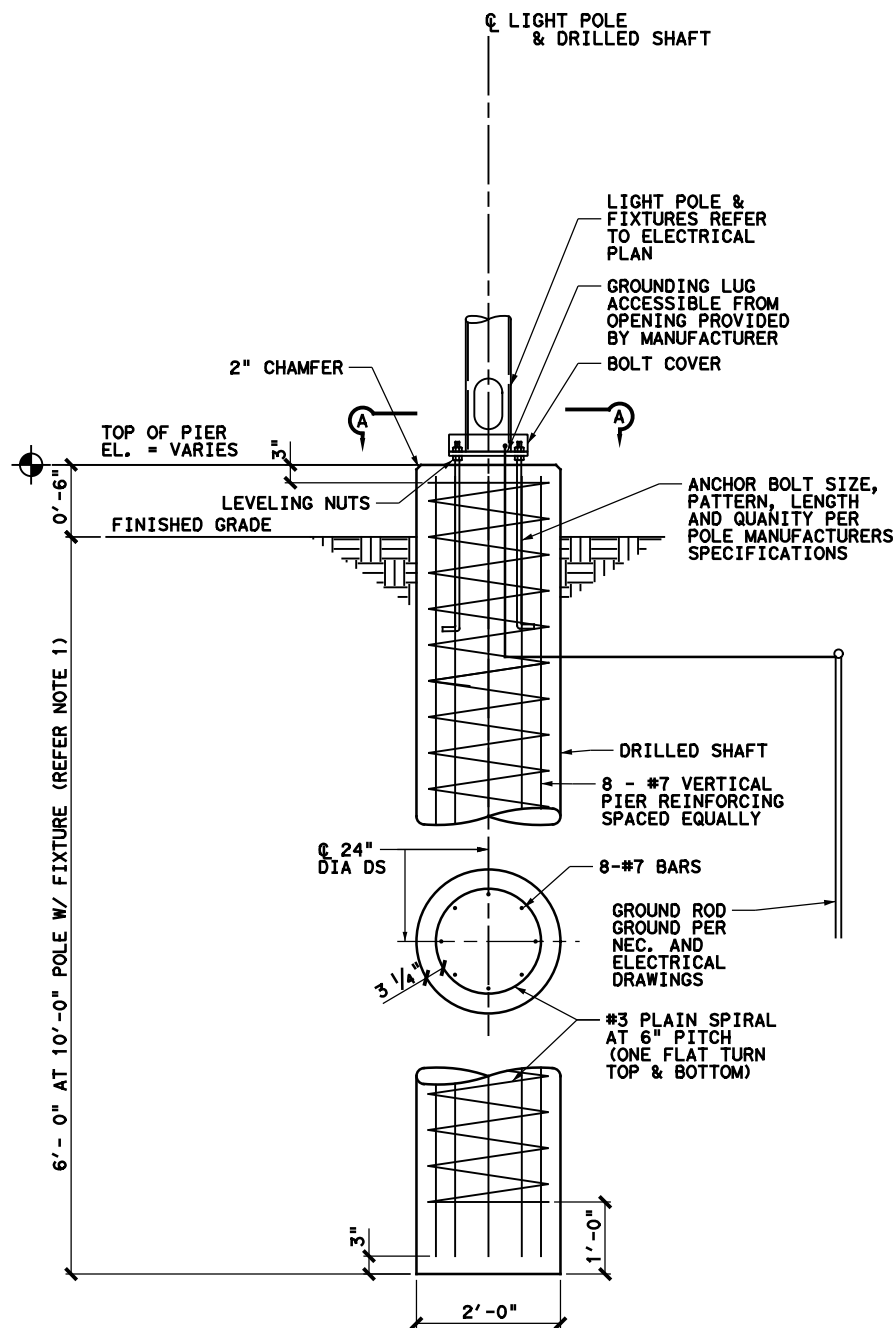
### KEY NOTES: #

1. FIRSTLIGHT TECHNOLOGIES USED AS BASIS OF DESIGN: FLT–IPL PTM CC T2 NW 09 MSO, OR APPROVED EQUAL. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR INSTALLATION REQUIREMENTS.
2. SUBSTITUTION LUMINAIRE EQUAL PRODUCTS ARE ACCEPTABLE CONSIDERING THEY MEET THE FOLLOWING REQUIREMENTS:
  - A. PERFORMANCE AND UL LISTING IS EQUAL TO THE PRODUCTS SPECIFIED
3. ALTERNATE OPTIONS:
  - A. FIXTURE: BEGHELLI–BLS4A
  - B. POLE: KW INDUSTRIES RSP14–4.0–10–LNA–BC–FOREST GREEN FINISH
- A. FIXTURE: DSX0 LED–P2–40K–T2M–SOLAR–RPUMBA–FOREST GREEN FINISH
- B. POLE: HAPCO – RTA10B4A4–FOREST GREEN FINISH

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<b>CONSULTANT</b>  <small>5000 WEST MILITARY, SUITE 100 McALLEN, TEXAS 78503 TEL (956) 664-0286 FAX (956) 664-0282 TBPE FIRM #F-312</small>																								
 <b>CAMINO REAL</b> REGIONAL MOBILITY AUTHORITY																								
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP ELECTRICAL SCHEDULES																								
SHEET 5 OF 5																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">FED. RD. DIV. NO.</td> <td style="width: 55%;">FEDERAL AID PROJECT NO.</td> <td style="width: 30%;">SHEET NO.</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">STP 2021(473)TP</td> <td style="text-align: center;">121</td> </tr> <tr> <td>STATE</td> <td>DIST.</td> <td>COUNTY</td> </tr> <tr> <td>TEXAS</td> <td>ELP</td> <td>EL PASO</td> </tr> <tr> <td>CONT.</td> <td>SECT.</td> <td>JOB</td> </tr> <tr> <td>0924</td> <td>06</td> <td>616, ETC</td> </tr> <tr> <td></td> <td></td> <td>HIGHWAY NO.</td> </tr> <tr> <td></td> <td></td> <td>VARIOUS</td> </tr> </table>	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	6	STP 2021(473)TP	121	STATE	DIST.	COUNTY	TEXAS	ELP	EL PASO	CONT.	SECT.	JOB	0924	06	616, ETC			HIGHWAY NO.			VARIOUS
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.																						
6	STP 2021(473)TP	121																						
STATE	DIST.	COUNTY																						
TEXAS	ELP	EL PASO																						
CONT.	SECT.	JOB																						
0924	06	616, ETC																						
		HIGHWAY NO.																						
		VARIOUS																						



SECTION A-A  
SCALE: 3/4" = 1'-0"



SITE LIGHTING  
FOUNDATION DETAIL

01  
S122 SCALE: 3/4" = 1'-0"

NOTE: REFER TO LIGHT POLE BASE ELECTRICAL AND GROUNDING DETAIL FOR ELECTRICAL INFORMATION

SITE LIGHTING GENERAL NOTES:

- DESIGN OF FOUNDATION IS BASED ON A 10 FT TALL ROUND POLE WITH A SINGLE FIXTURE (7.33 FT MAX. E.P.A.). ENGINEER SHALL BE CONTACTED FOR DESIGN OF FOUNDATIONS WITH DIFFERENT POLE HEIGHTS, NUMBER OF FIXTURES OR TYPE OF FIXTURES THAN SCHEDULED BY ELECTRICAL.
- CONTRACTOR SHALL CONFIRM ANCHOR BOLT CIRCLE FITS WITHIN PIER REINFORCEMENT PRIOR TO CONSTRUCTION. ENGINEER SHALL BE CONTACTED FOR PIER REDESIGN IF FIT IS NOT POSSIBLE WITH CURRENT DESIGN SHOWN.
- ALL ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE LOCAL ELECTRICAL CODE. REFER TO ELECTRICAL DRAWINGS FOR POLE LOCATIONS AND ALL ASSOCIATED ELECTRICAL WORK.
- ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ELECTRICAL CONDUIT AND UTILITY LAYOUT.
- LIGHT POLES, BASE PLATES AND ANCHOR BOLTS SHALL BE DESIGNED AND PROVIDED BY LIGHT POLE MANUFACTURER. CONTRACTOR SHALL COORDINATE ANCHOR BOLT LOCATION WITH LIGHT POLE MANUFACTURER. AVOID CONFLICT WITH DRILLED SHAFT REINFORCING STEEL.
- COMPLETE SHOP DRAWINGS FOR THE STRUCTURAL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF CONSTRUCTION. A PERIOD OF AT LEAST 10 WORKING DAYS SHALL BE PROVIDED FOR THIS REVIEW. REVIEW OF SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR CORRECT FABRICATION AND CONSTRUCTION OF THE WORK.
- LOCATE ALL UTILITIES AND UNDERGROUND SERVICES PRIOR TO PERFORMING EXCAVATION OF ANY KIND.
- THE CONTRACTOR SHALL ENGAGE A REGISTERED SURVEYOR TO PERFORM SURVEYS, LAYOUTS, AND MEASUREMENTS FOR PIER DRILLING WORK. THIS INCLUDES LAYOUT WORK FOR EACH PIER TO LINES AND LEVELS REQUIRED BEFORE EXCAVATION, AND MEASUREMENTS OF EACH PIER'S ACTUAL FINAL LOCATION. PIERS SHALL BE CONSTRUCTED WITHIN THE FOLLOWING CENTERLINE TOLERANCES:
  - MAXIMUM PERMISSIBLE VARIATION OF LOCATION: NOT MORE THAN 1".
  - SHAFTS OUT OF PLUMB: NOT MORE THAN 1/2" OR 1".
  - CONCRETE CUT-OFF ELEVATION: PLUS 1" TO MINUS 1".
- THE DESIGN PENETRATION OF INDIVIDUAL SHAFTS SHALL BE EXCAVATED IN A CONTINUOUS OPERATION AND CONCRETE PLACED AS SOON AS PRACTICAL AFTER COMPLETION OF THE DRILLING AND INSPECTION IN ORDER TO PREVENT DETERIORATION OF BEARING SURFACES AND TO REDUCE THE POSSIBILITY OF SEEPAGE PROBLEMS. NO SHAFT SHALL BE LEFT OPEN FOR MORE THAN EIGHT HOURS.
- DRILLED PIERS MAY REQUIRE TEMPORARY CASING TO PREVENT SOILS AND WATER FROM FLOWING INTO THE EXCAVATION WHILE THE SHAFT EXCAVATION IS BEING ADVANCED.
- "MUSHROOMING" AT THE TOP OF THE PIERS IS PROHIBITED.
- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- MILD STEEL REINFORCING BARS SHALL CONFORM TO ASTM A 615. NO. 3 BARS SHALL BE GRADE 40. NO. 4 AND LARGER BARS SHALL BE GRADE 60.
- MILD STEEL REINFORCEMENT AND ACCESSORIES SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH ACI SP-66.
- PORTLAND CEMENT SHALL BE A SINGLE BRAND CONFORMING TO ASTM C 150, TYPE I OR II, UNLESS OTHERWISE NOTED.
- NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C 33. ALL CONCRETE SHALL USE NORMAL WEIGHT AGGREGATES, UNLESS NOTED OTHERWISE.
- ALL ADDITIVES FOR AIR ENTRAINMENT, WATER REDUCTION, AND SET CONTROL SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
- MIXES SHALL BE DESIGNED TO PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH AT 28 DAYS (f'c) OF 3000 PSI (CLASS A).
- CONTRACTOR SHALL NOT BE REIMBURSED UNTIL REQUIRED STRENGTH IS ACHIEVED.
- THE MAXIMUM NOMINAL SIZE OF COARSE AGGREGATE SHALL BE 1 1/2".
- DRILLED SHAFTS SHALL BE IN ACCORDANCE WITH TxDOT ITEM 416.
- MILD STEEL REINFORCEMENT SHALL BE PLACED AND SECURED IN ACCORDANCE WITH CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS".



James C. Vester  
DATE: 08/27/21

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JAMES C. VESTER, P.E. 13858, ON 07/12/2021.

CONSULTANT



5000 WEST MILITARY, SUITE 100  
McALLEN, TEXAS 78503  
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FAX (956) 664-0282  
TBPE FIRM #F-312



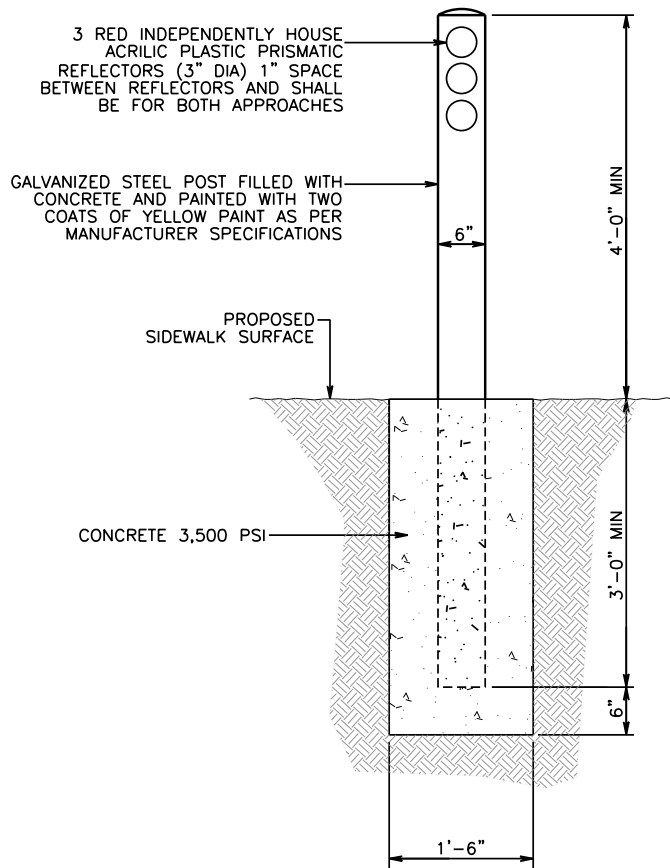
CAMINO REAL  
REGIONAL MOBILITY  
AUTHORITY

TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

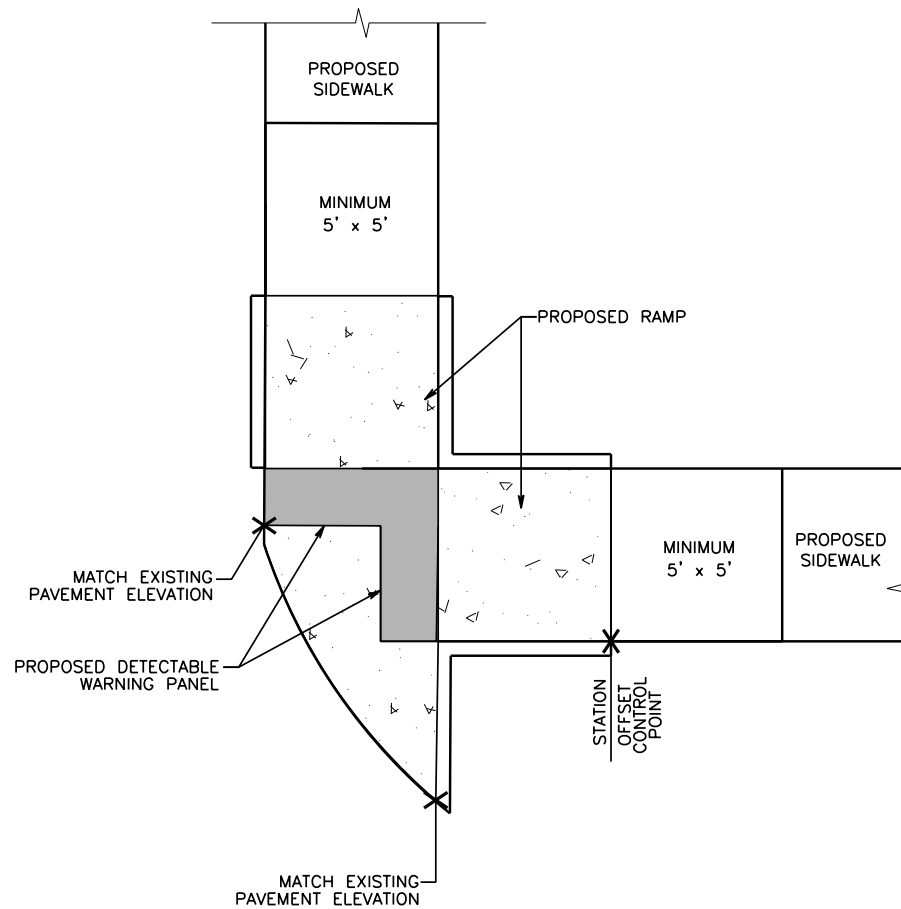
LIGHT POLE FOUNDATION DETAILS

SHEET 1 OF 1			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	STP 2021(473) TP		122
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

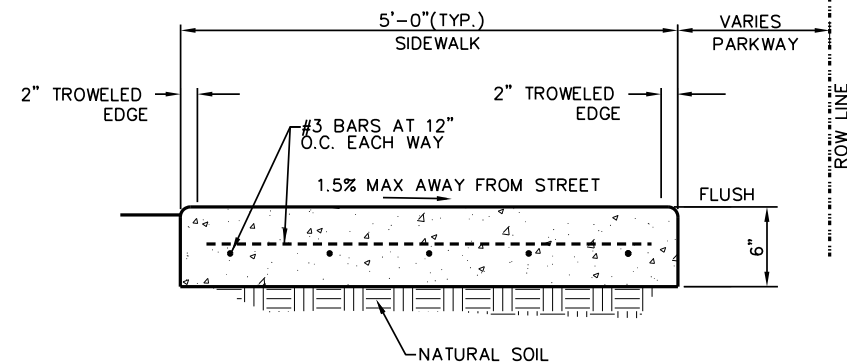
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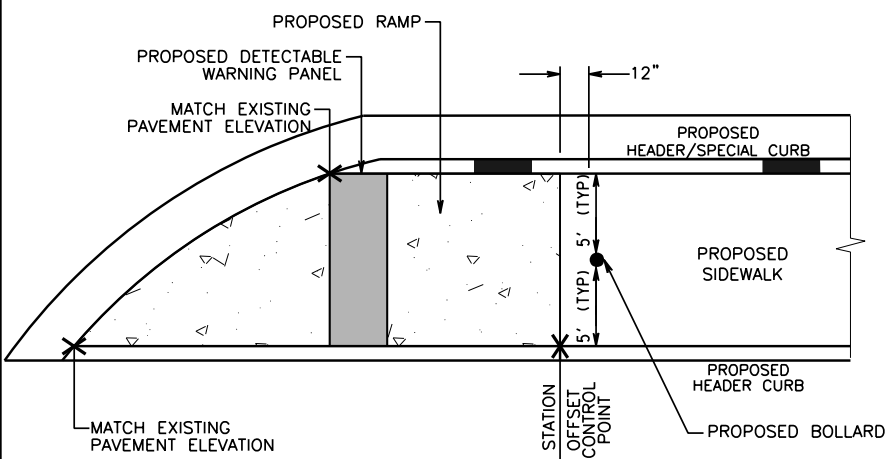
1 FIXED BOLLARD DETAIL  
SCALE: 1/2"=1'-0"



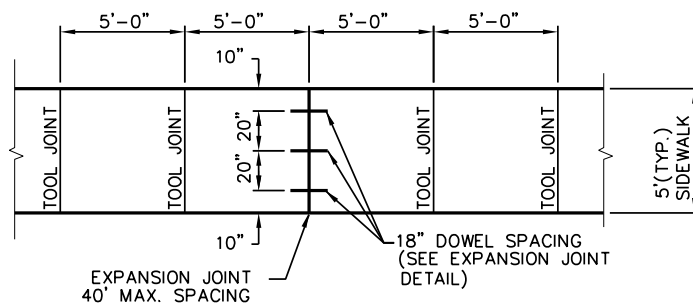
2 RAMP INTERSECTION DETAIL  
NTS  
LOCATED AT THE INTERSECTION OF 3RD STREET AND COBB AVENUE TO THE NORTHEAST AS WELL AS THE INTERSECTION OF 2ND STREET AND COBB AVENUE TO THE NORTHWEST.



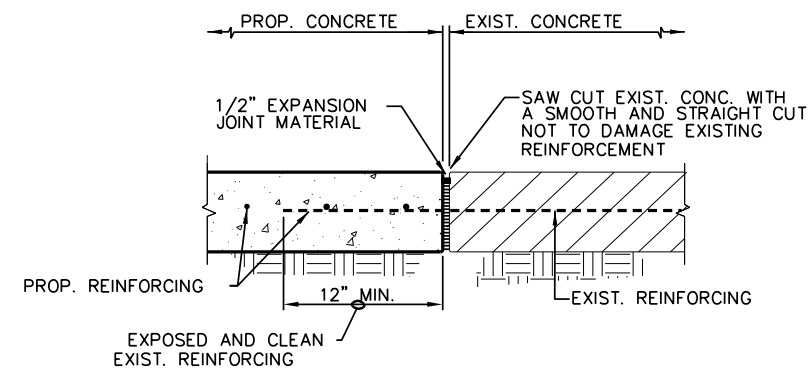
3 TYPICAL SECTION THRU SIDEWALK  
NTS



4 TYPICAL RAMP AND BOLLARDS LAYOUT DETAIL  
NTS



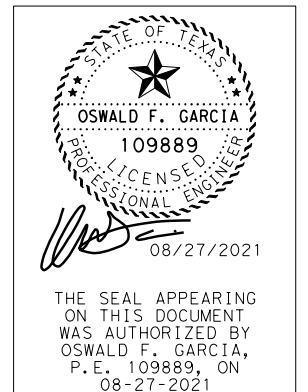
5 PLAN VIEW OF TYPICAL SIDEWALK  
NTS



6 SAWCUT DETAIL  
NTS

**GENERAL NOTES**

1. FURNISH #4 REINFORCING BARS AND PLACE AT 12" O.C. EACH WAY. LAP SPLICES WILL BE A MINIMUM OF 6 INCHES, MEASURED FROM THE ENDS OF REINFORCING BARS.
2. DELIVER SMOOTH DOWEL BARS TO THE JOB SITE IN PREFABRICATED DOWEL ASSEMBLIES. COAT THE ENTIRE DOWEL BAR WITH A MATERIAL THAT WILL PREVENT BONDING TO THE CONCRETE.
3. PLACE REINFORCING STEEL APPROXIMATELY 4" FROM THE DOWEL BAR ASSEMBLY.
4. PLACE DOWEL BARS IN ACCORDANCE WITH THE REQUIREMENT OF ITEM 360, "CONCRETE PLACEMENT".
5. ADJUST ALL MANHOLES, WATER VALVES, AND APPURTENANCES TO NEW SIDEWALK ELEVATIONS AND RELOCATE SERVICE CONNECTIONS IN CONFLICT.
6. SIDEWALK LONGITUDINAL SLOPE SHALL BE LESS THAN 4.5%.
7. SIDEWALK CROSS SLOPE SHALL BE LESS THAN 1.5%.



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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration  
No. F-000554



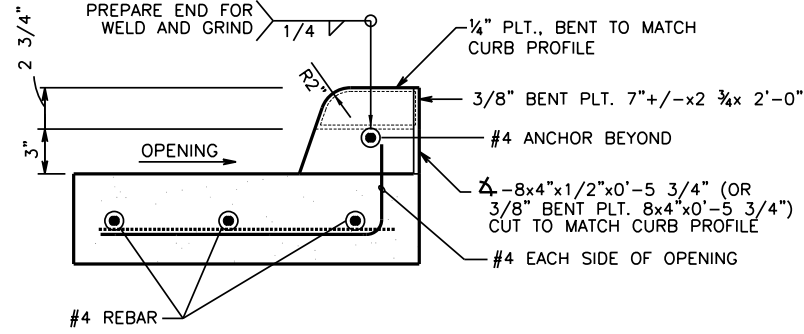
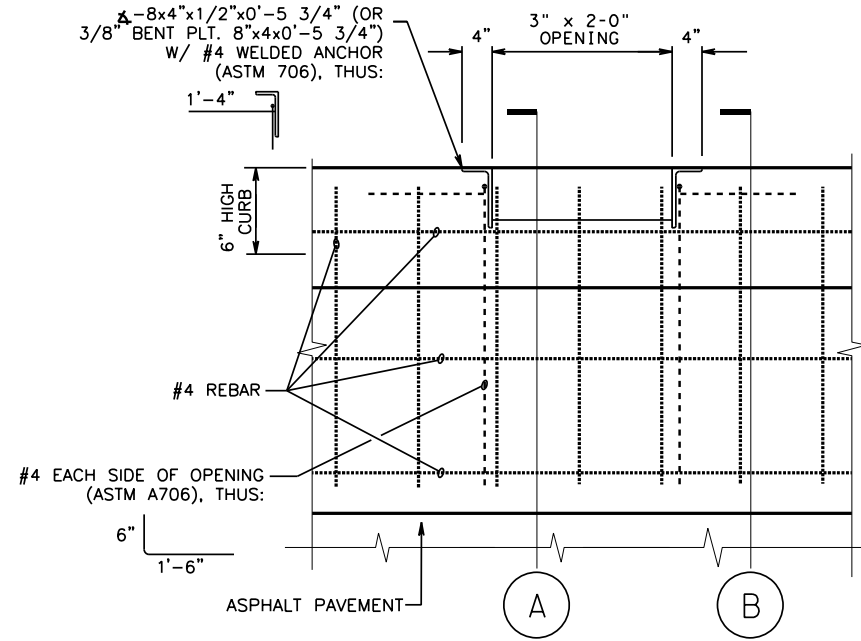
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

**TYPICAL DETAILS**

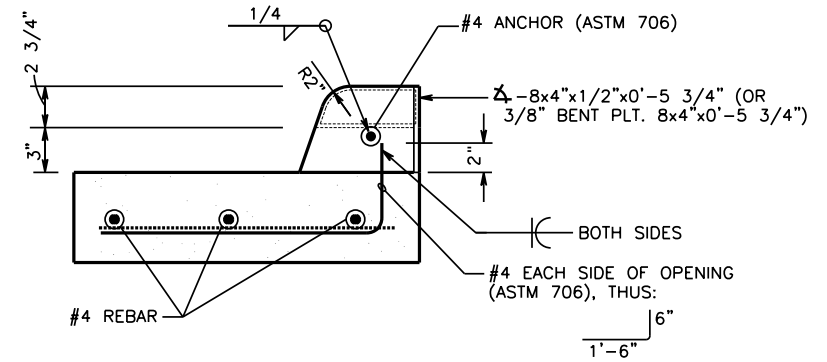
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	STP 2021 (473) TP		123
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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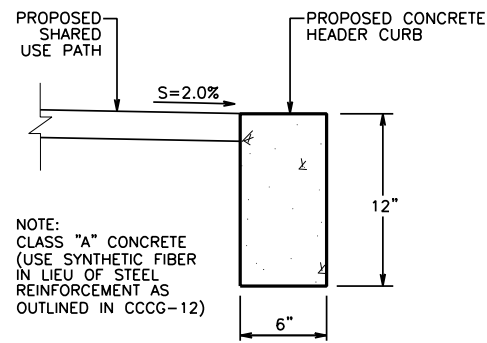


**A** SECTION  
NTS

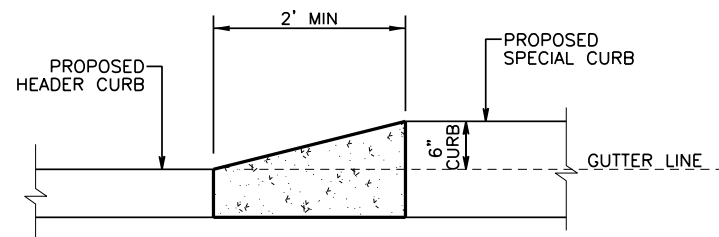


**B** SECTION  
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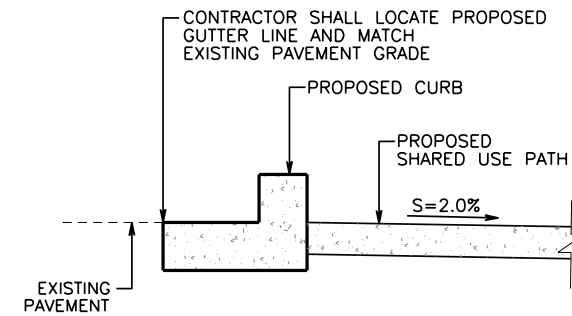
**1** SPECIAL CURB DETAIL  
NTS



**2** CONCRETE HEADER CURB AND PAVEMENT SHARED PATH SECTION  
SCALE: 1"=1'-0"



**3** HEADER CURB TO SPECIAL CURB  
SCALE: 1/2"=1'-0"



**4** TYPE II CURB & GUTTER PLACEMENT DETAIL  
SCALE: 1/2"=1'-0"



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EL PASO SAN ANTONIO

TBPE Firm Registration  
No. F-000554



TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

**TYPICAL DETAILS**

SHEET 2 OF 5

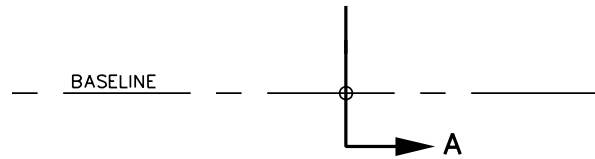
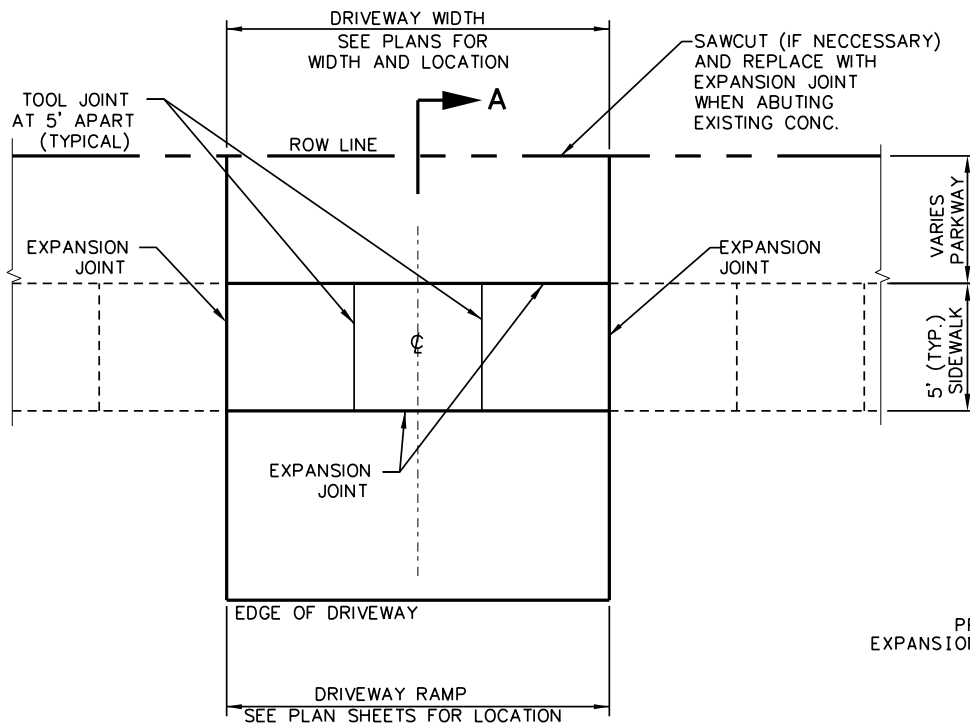
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	STP 2021 (473) TP	124

STATE	DIST.	COUNTY	
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CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

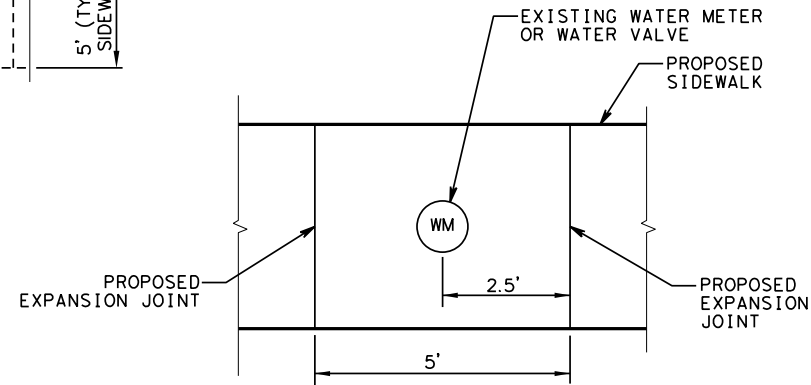
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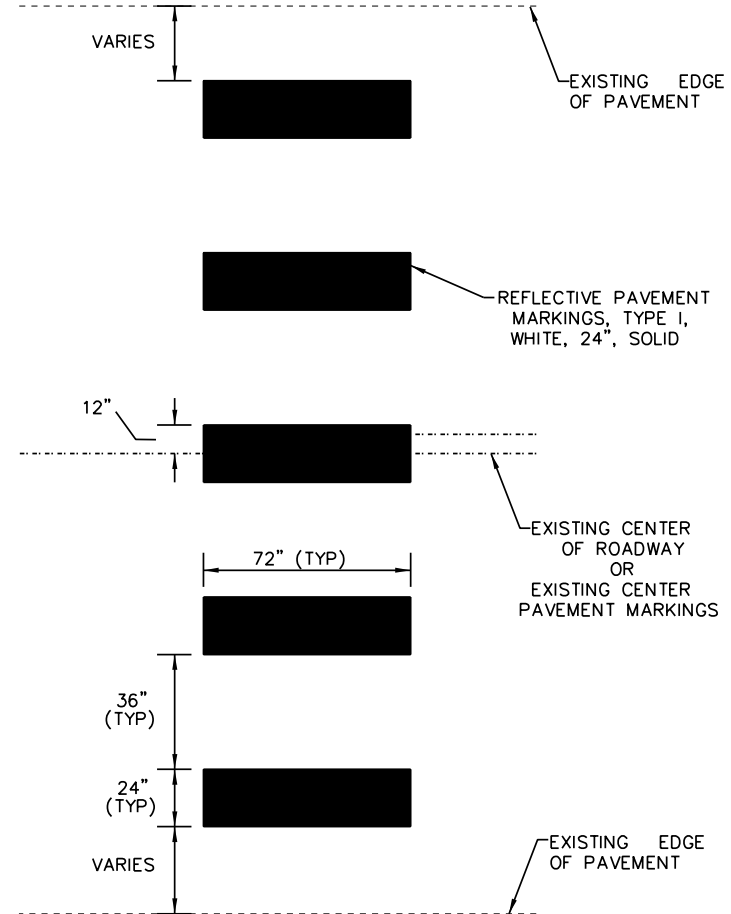
8 TYPICAL DRIVEWAY DETAIL  
NTS



**NOTES**

- ADJUST WATER METER LID OR WATER VALVE, BONNET BOX COVER TO BE FLUSH WITH PROPOSED SIDEWALK FINISHED GRADE. COORDINATE WITH LOWER VALLEY WATER DISTRICT.

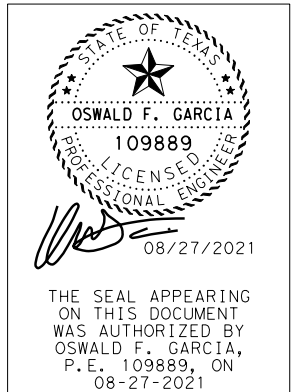
9 WATER VALVE/METER ADJUSTMENT DETAIL  
NTS



**NOTES**

- DIMENSIONS SHOWN ABOVE FOR CROSSWALK MARKINGS ARE TYPICAL AND SHALL BE ADJUSTED IN THE FIELD TO AVOID BEING PLACED IN THE WHEEL PATH OF VEHICULAR TRAFFIC.
- ALL PAVEMENT MARKINGS TO BE THERMOPLASTIC.

10 TYPICAL CROSSWALK PAVEMENT MARKINGS DETAIL  
NTS



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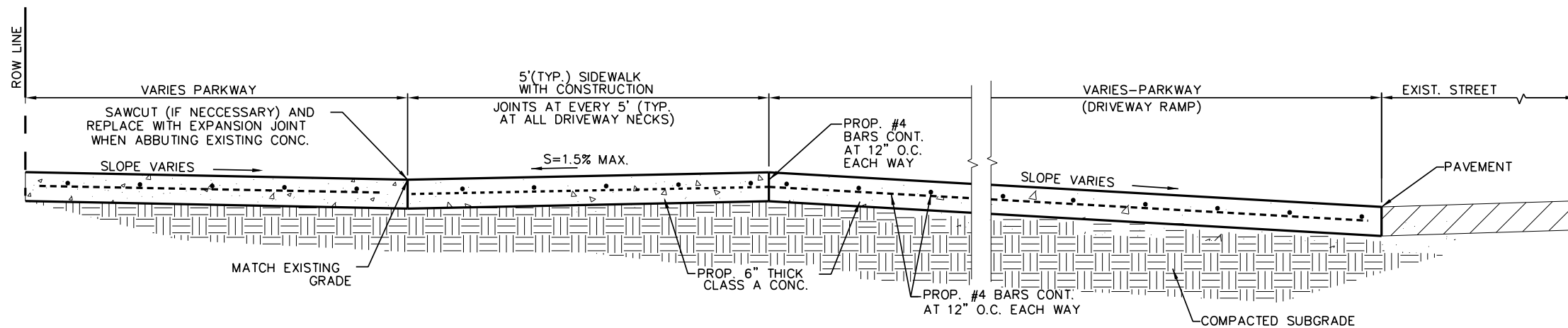
TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP

**TYPICAL DETAILS**

SHEET 3 OF 5			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		125
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



**SECTION A-A**  
NTS

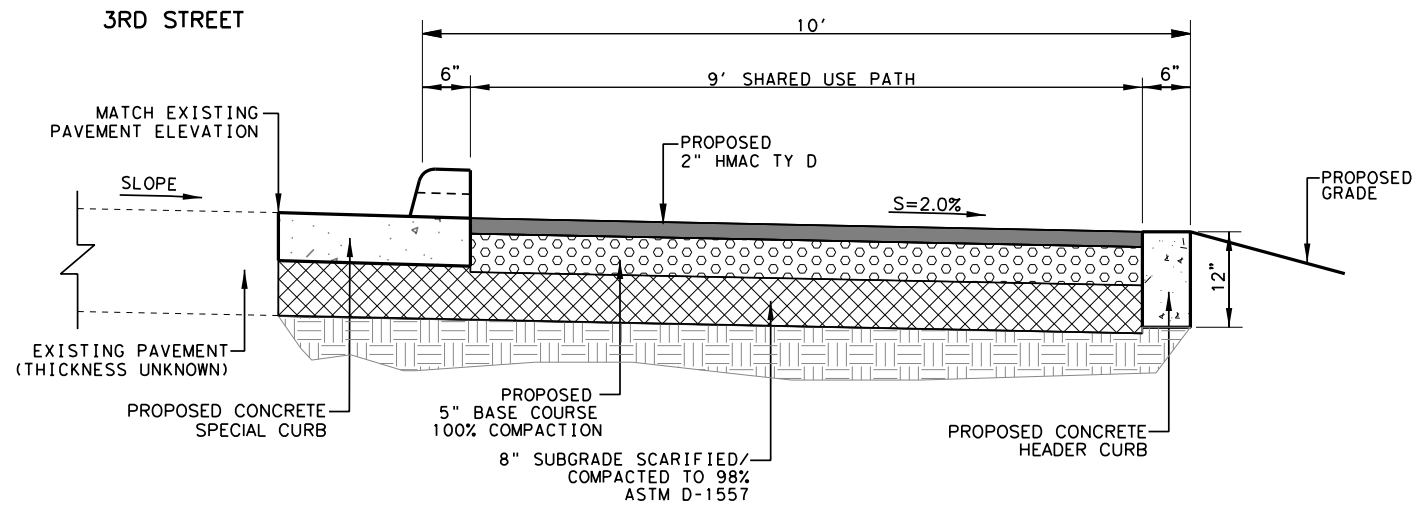
**NOTES**

- CONTRACTOR SHALL ADJUST ALL MANHOLES, WATER VALVES, AND APPURTENANCES TO NEW DRIVEWAY ELEVATIONS AND RELOCATE SERVICE CONNECTIONS IN CONFLICT.

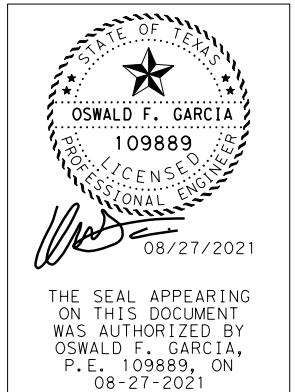
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11 PROPOSED ASPHALT SHARED USE PATH WITH HEADER AND SPECIAL CURB SECTION  
SCALE: 1/2"=1'-0"



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TBPE Firm Registration  
No. F-000554

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TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP

**TYPICAL DETAILS**

SHEET 4 OF 5

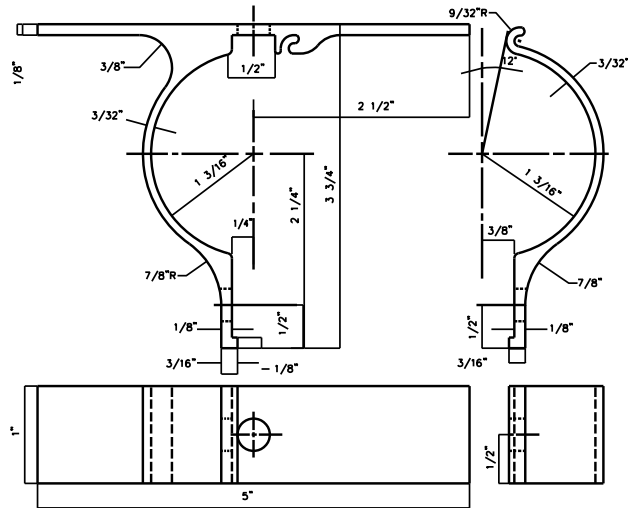
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	126
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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**CITY OF EL PASO  
SPECIFICATIONS FOR REFLECTORIZED  
STREET NAME SIGNS**

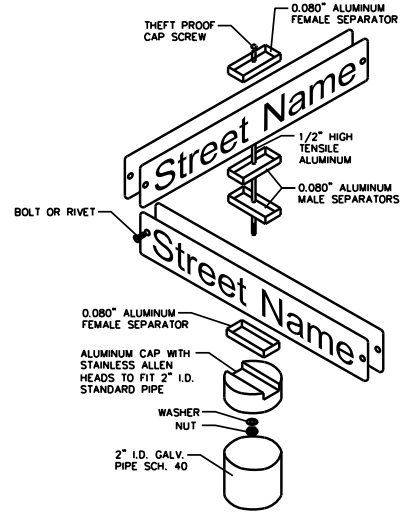
- COLOR OF SIGNS:** THE FINISHED SIGN MUST HAVE A REFLECTORIZED BLUE BACKGROUND. THE BLUE MUST CONFORM WITH THE BUREAU OF PUBLIC ROADS HIGHWAY GREEN. THE LEGEND MUST BE REFLECTORIZED SILVER WHITE (BLUE REVERSE SCREENED BACKGROUND WITH SILVER COPY).
- LETTER DESIGN:** THE LETTERING OF ALL LEGENDS MUST BE UPPER CASE LETTERS IN ACCORDANCE WITH "STANDARD ALPHABETS FOR HIGHWAY SIGNS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- LETTER SPACING:** THE CONTROL FOR THE SPACING VALUES IN TRAFFIC LAYOUT IS THE DISTANCE RECOGNIZED AS AESTHETIC SPACING BETWEEN TWO STRAIGHT LETTERS (HN). A SPACING CONTROL OF TWO TIMES THE WIDTH OF THE STROKE OF THE LETTER SERIES TO BE USED MUST BE THE AESTHETIC CONTROL (100R). TWO AND ONE-HALF TIMES (2-1/2) THIS CONTROL MUST BE USED AS THE AESTHETIC WORD SPACE BETWEEN ELEMENTS IN THE PRIMARY LEGEND.
- LAYOUT:** THE MAXIMUM NUMBER OF LETTERS TO BE ACCOMMODATED ON A GIVEN LENGTH STREET NAME FACE MUST BE DETERMINED BY THE WIDEST LETTER SERIES POSSIBLE FOR THAT LEGEND AND THE SPACING CONTROL (100R) FOR THE SERIES USED MUST BE EXPANDED OR CONDENSED UP TO 25% IN 5% INCREMENTS.
- THE SPACING CONTROL (100R) FOR THE SERIES USED MUST BE EXPANDED OR CONDENSED UP TO 25% IN 5% INCREMENTS FOR THE END MARGIN WITH MINIMUM OF 1".**
- THE WORD SPACE MUST BE EXPANDED UP TO 25% IN 5% INCREMENTS BUT NOT CONDENSED.**
- SPACE BETWEEN PRIMARY AND BLOCK NUMBER AREA MUST BE 1/2 THE AESTHETIC WORD SPACE USED IN THE PRIMARY LEGEND.**
- SUFFIX LETTER SIZE FOR ALL LENGTHS MUST BE 2" CAPITALS, "C" SERIES, EXCEPT THAT SERIES "A" OR "B" WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.**
- SIZE OF LEGEND:** FOR 9" STREET NAME SIGNS, THE PRIMARY LEGEND, OR STREET NAME MUST HAVE CAPITAL LETTERS SIX INCHES (6") HIGH AND ALL SECONDARY LEGENDS, INCLUDING THE SUFFIX, BLOCK NUMBERS, MUST HAVE UPPER CASE LETTERS TWO AND ONE-HALF INCHES (2 1/2") HIGH.
- SUFFIX LETTER SIZE FOR ALL LENGTHS MUST BE 2 1/2" CAPITALS, "C" SERIES, EXCEPT THAT SERIES "A" OR "B" WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.**
- POSITION OF LEGEND:** EACH SIGN FACE WILL CONSIST OF THE STREET NAME, SUFFIX, AND TWO ZEROS OF THE BLOCK NUMBER. THE ADDITIONAL NUMBERS OF THE BLOCK NUMBER WILL BE APPLIED BY THE CITY OF EL PASO. THE SUFFIX WILL BE LOCATED IN THE UPPER RIGHT CORNER AND THE BLOCK NUMBER IN THE LOWER RIGHT CORNER OF THE SIGN FACE AND THE STREET NAME CENTERED IN THE REMAINING SPACE.
- SIGN FABRICATION:** THE SIGN FACE MUST BE FABRICATED BY REVERSE SCREENING GREEN TRANSPARENT COLOR OVER SILVER REFLECTIVE SHEETING. TRANSPARENT PROCESS COLORS MUST BE AS RECOMMENDED BY THE SHEETING MANUFACTURER. CUT-OUT OR APPLIED LEGENDS ARE NOT PERMITTED. SIGN FACES MUST BE COMPRISED OF ONE PIECE OR PANEL OF REFLECTIVE SHEETING.
- TYPE OF SHEETING:** ENGINEER GRADE REFLECTIVE SHEETING MUST BE USED IN THE FABRICATION OF THE STREET NAME SIGN FACES.
- STREET SIGNS WILL BE SUPPLIED BY THE COUNTY OF EL PASO. INSTALLATION OF SIGNS AND HARDWARE SHALL BE PAID FOR AND IS SUBSIDIARY TO THE INSTALLATION OF THE SIGN POST.**



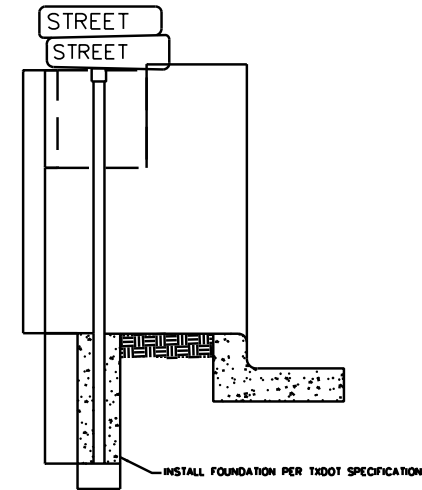
**NOTES:**

- ALL HOLES 3/8" PUNCH
- FILLETS & ROUNDS 1/16"R
- FURNISH THE FOLLOWING HARDWARE FOR EACH BRACKET:  
1 - 5/16" x 3/4" BOLTS  
1 - 5/16" x 1 1/4" BOLT  
2 - 5/16" x NUTS & LOCK WASHERS  
2 - FLAT WASHERS
- THE BRACKET IS TO BE MADE FROM HIGH STRENGTH ALUMINUM ALLOY. THE BRACKET IS TO EMPLOY AN EXTRUDED INTERLOCKING FEATURE OFFERING A RIGID MEANS OF ATTACHING A FLAT SIGN TO A STANDARD 2" (2/8" O.D.) TUBULAR POST.

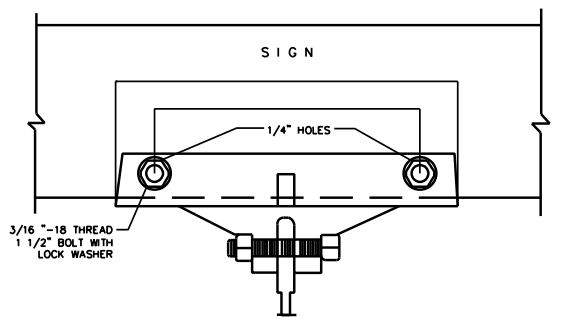
12 ALUMINUM SIGN CLAMP BRACKET FOR TRAFFIC CONTROL SIGNS  
SCALE: N.T.S.



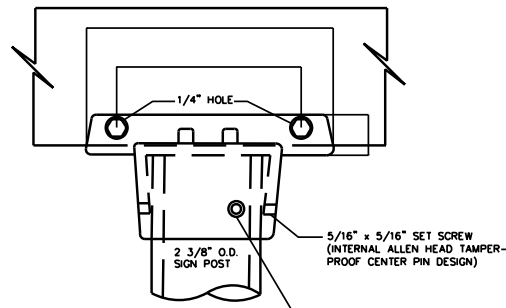
13 9" STREET NAME ASSEMBLY  
SCALE: N.T.S.



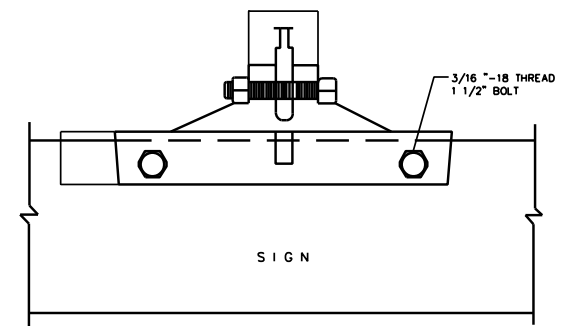
14 SIGN POST EXAMPLE  
SCALE: N.T.S.



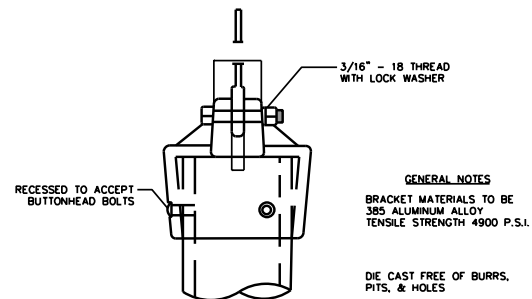
90° SIGN TO SIGN BRACK (FOR EXTRUDED BLADES)



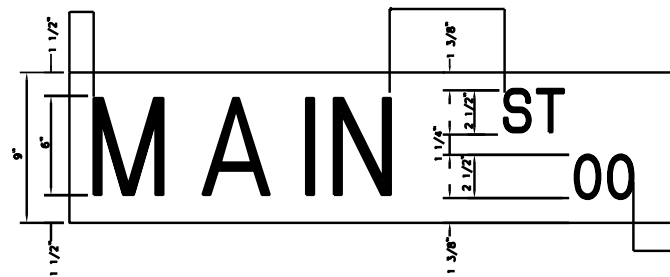
POST CAP BRACKET (FOR EXTRUDED BLADES)



15 9" STREET NAME SIGN ASSEMBLY  
SCALE: N.T.S.



**GENERAL NOTES**  
BRACKET MATERIALS TO BE 305 ALUMINUM ALLOY TENSILE STRENGTH 4900 P.S.I.  
DIE CAST FREE OF BURRS, PITS, & HOLES



SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE & SERIES
9"	36"	6" C.D. SERIES	3" C. SERIES
ARTERIAL	42"	6" C.D. SERIES	4" C. SERIES
STREETS	48"	6" A,B,C,D SERIES	5" C. SERIES

16 LAYOUT FOR 9" STREET NAME SIGNS  
SCALE: N.T.S.

STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

**CAMINO REAL**  
REGIONAL MOBILITY AUTHORITY

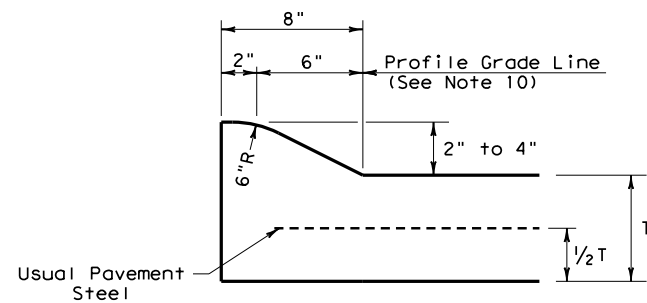
TORNILLO NORTH AND SOUTH  
SIDEWALKS/SUP  
**TYPICAL DETAILS**

SHEET 5 OF 5

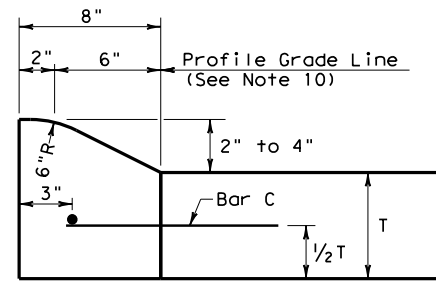
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	STP 2021 (473) TP	126A
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

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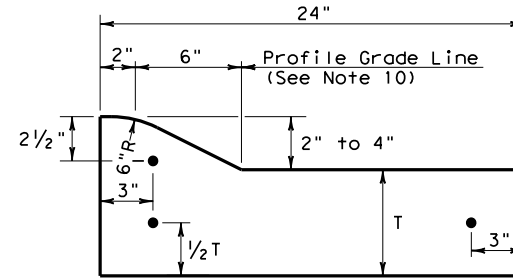
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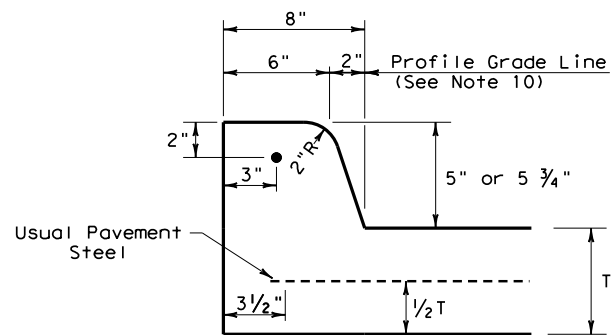
**TYPE I CURB (MONOLITHIC)**  
2" - 4" HEIGHT



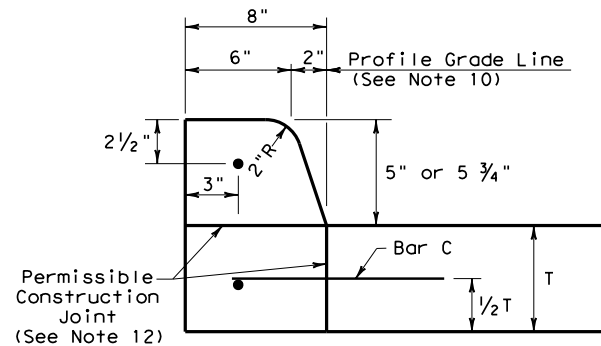
**TYPE I CURB**  
2" - 4" HEIGHT



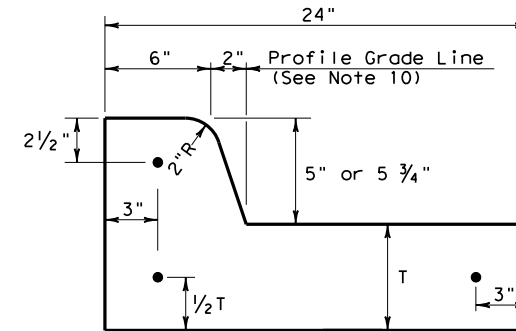
**TYPE I CURB AND GUTTER**  
2" - 4" HEIGHT



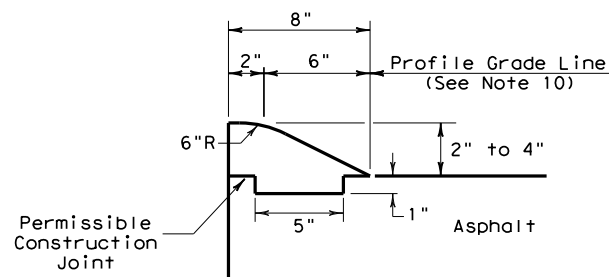
**TYPE II CURB (MONOLITHIC)**  
5" - 5 3/4" HEIGHT



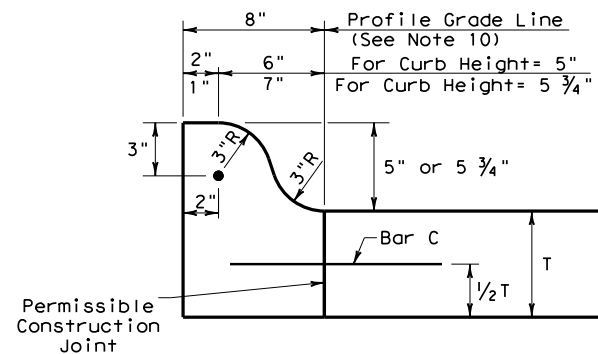
**TYPE II CURB**  
5" - 5 3/4" HEIGHT



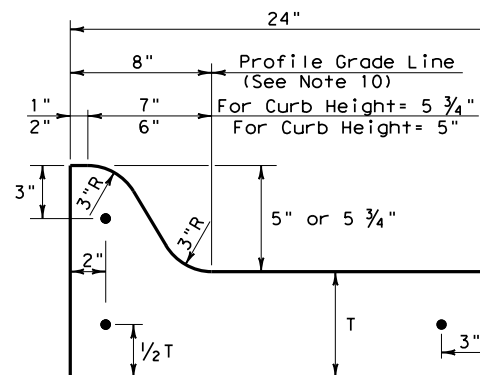
**TYPE II CURB AND GUTTER**  
5" - 5 3/4" HEIGHT



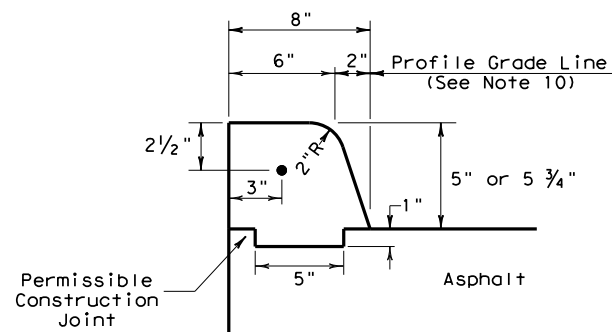
**TYPE III CURB (KEYED)**  
2" - 4" HEIGHT



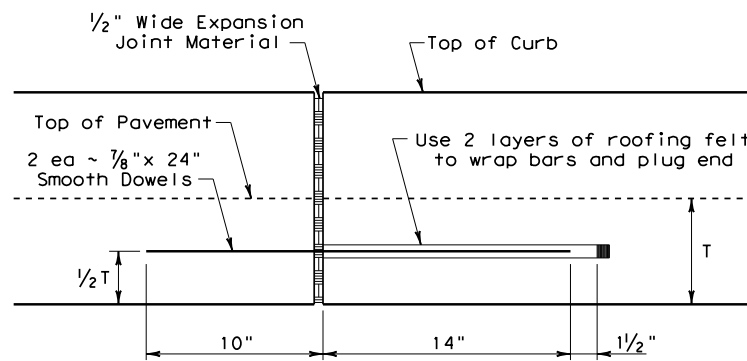
**TYPE IIa CURB**  
5" - 5 3/4" HEIGHT



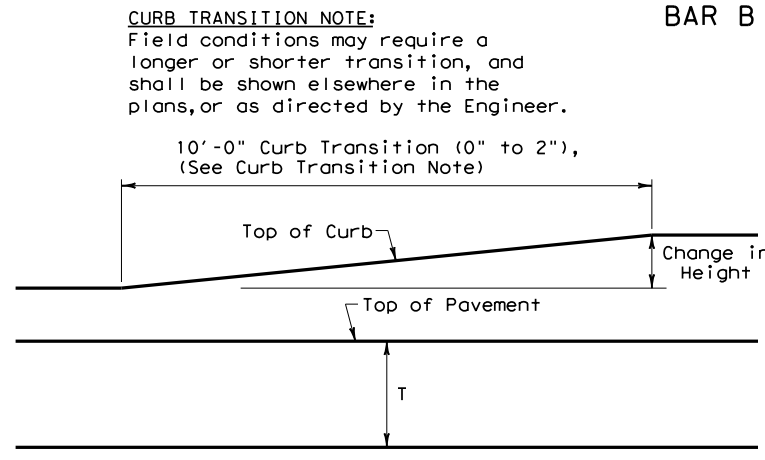
**TYPE IIa CURB AND GUTTER**  
5" - 5 3/4" HEIGHT



**TYPE IV CURB (KEYED)**  
5" - 5 3/4" HEIGHT



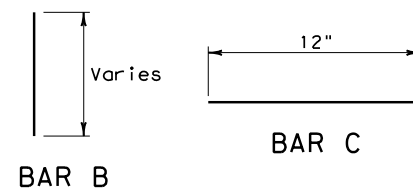
**EXPANSION JOINT DETAIL**



**CURB TRANSITION**  
Note: To be paid for as Highest Curb

**GENERAL NOTES**

- All materials and construction shall be in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."
- Concrete shall be Class A.
- When reinforcing bars are used, they shall be No.4 unless otherwise shown. The use of fiber reinforced concrete in lieu of reinforcing steel is acceptable. Use fibers meeting the requirements of DMS 4550, "Fibers for Concrete," and dose fibers in accordance with Material Producers List (MPL) "Fibers for Class A and B Concrete Applications."
- Round exposed sharp edges with a rounding tool, to a minimum radius of 1/4 inch.
- All existing curbs and driveways to be removed shall be sawed or removed at existing joints.
- Where concrete curb is to be placed on existing concrete pavement, Bar B may be drilled and the grouted in place, or may be inserted into fresh concrete.
- Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.
- Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C-C.
- Dimension 'T' shown is the thickness of concrete pavement. When curb is installed adjacent to flexible pavement dimension 'T' is 8" maximum.
- Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.
- One-half inch expansion joint material shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.
- When horizontal permissible construction joints are used, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans. Reinforcing steel for curb section shall then conform to that required for concrete curb.
- Bar B used as needed to support curb reinforcing steel during concrete placement.

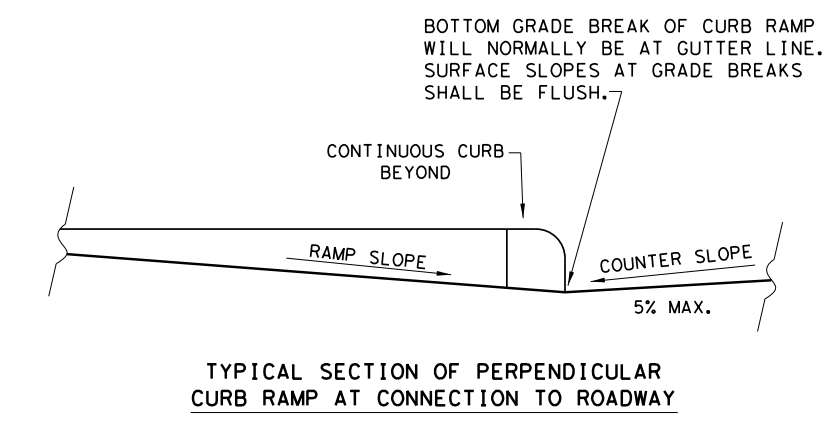
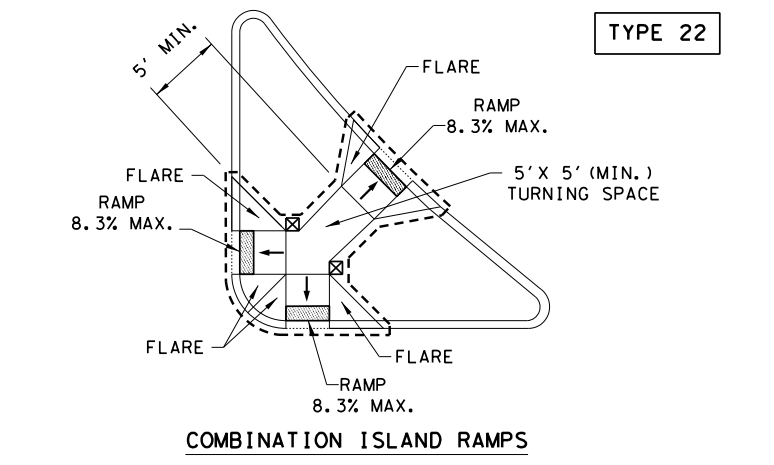
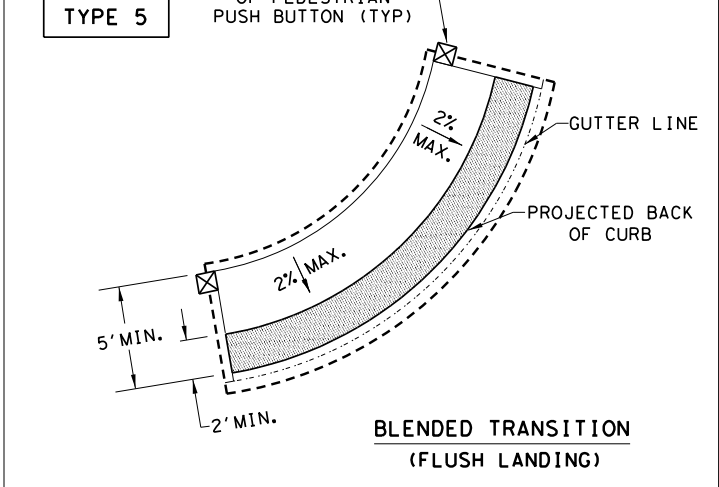
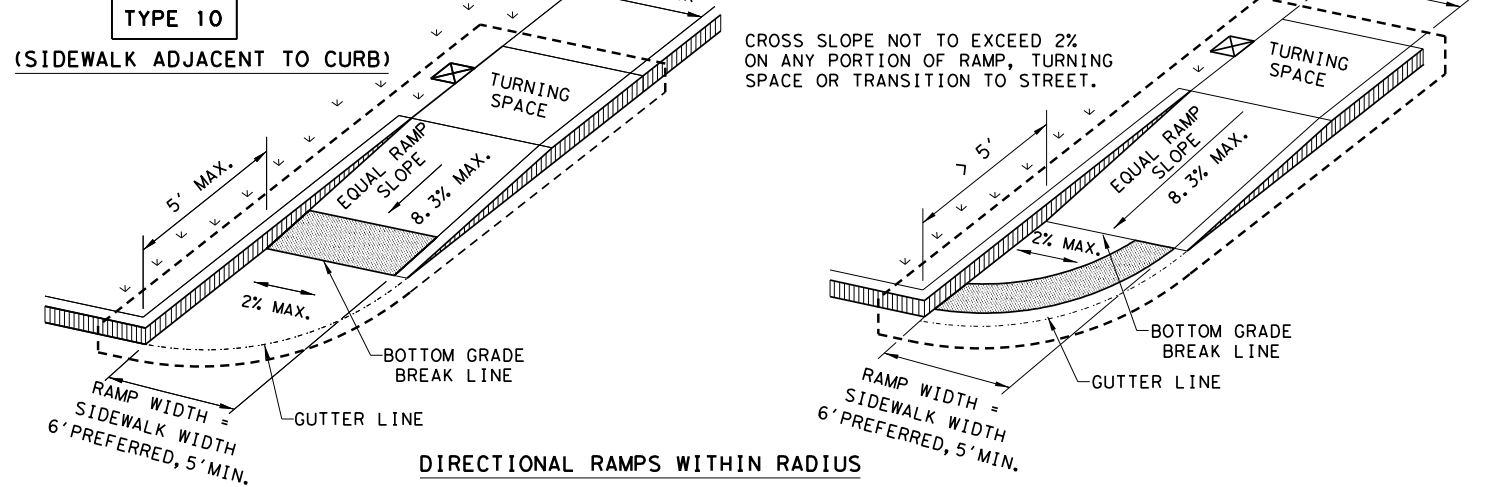
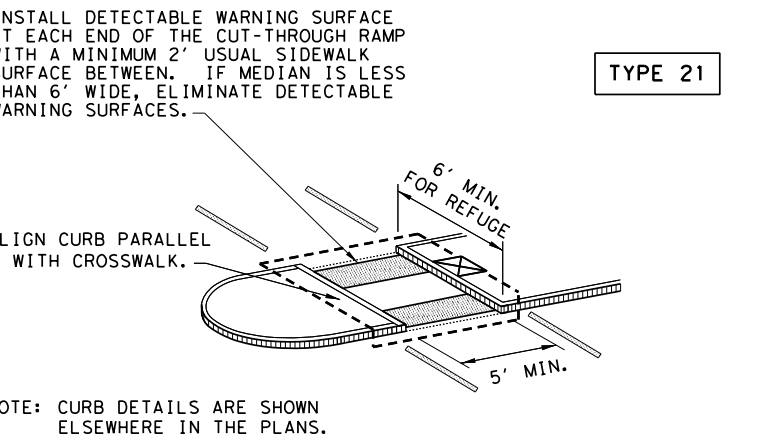
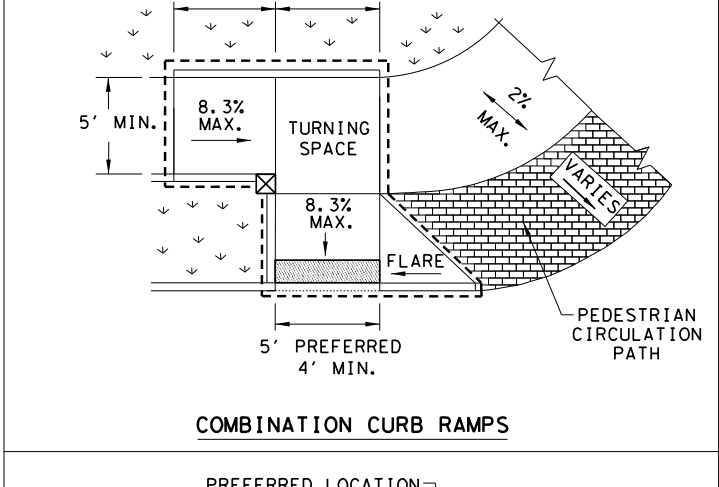
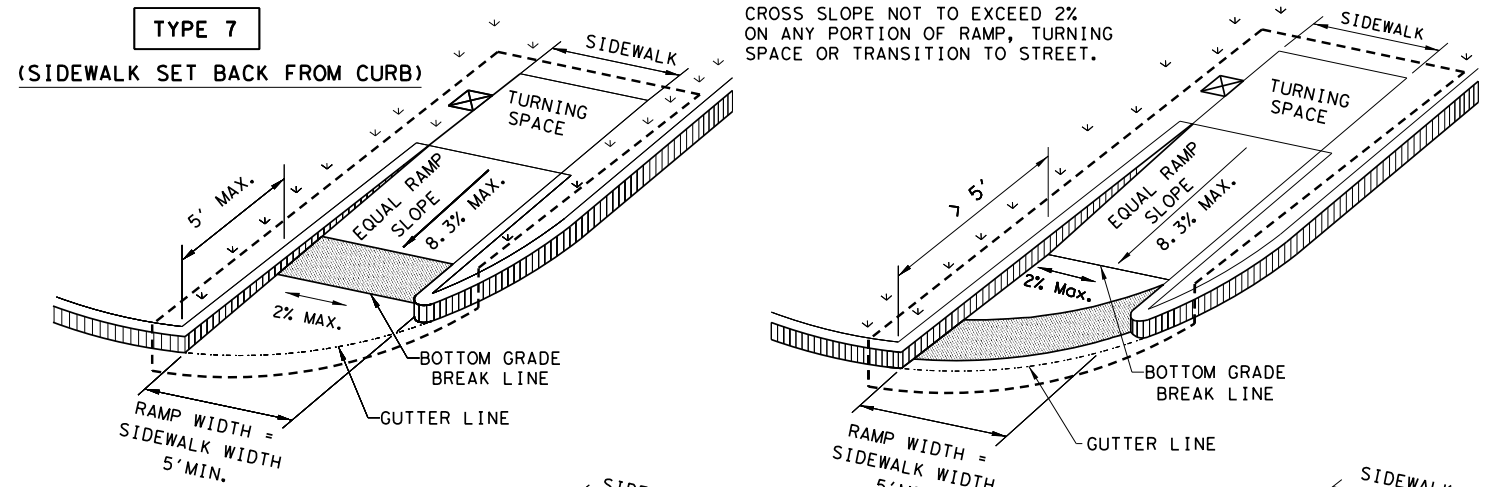
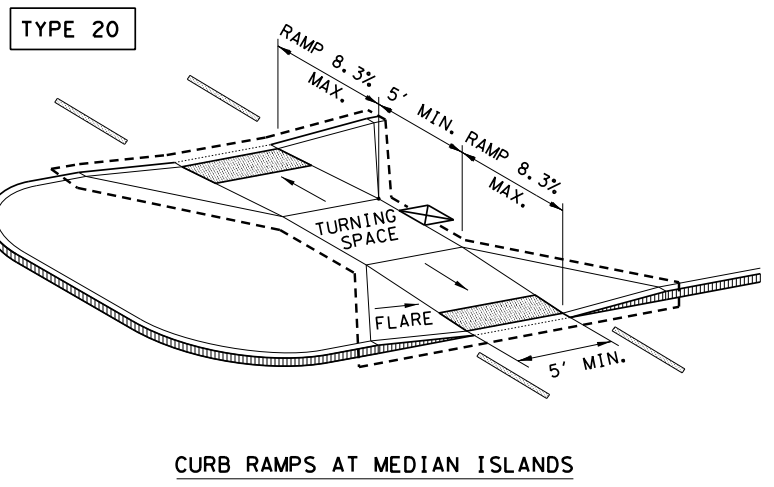
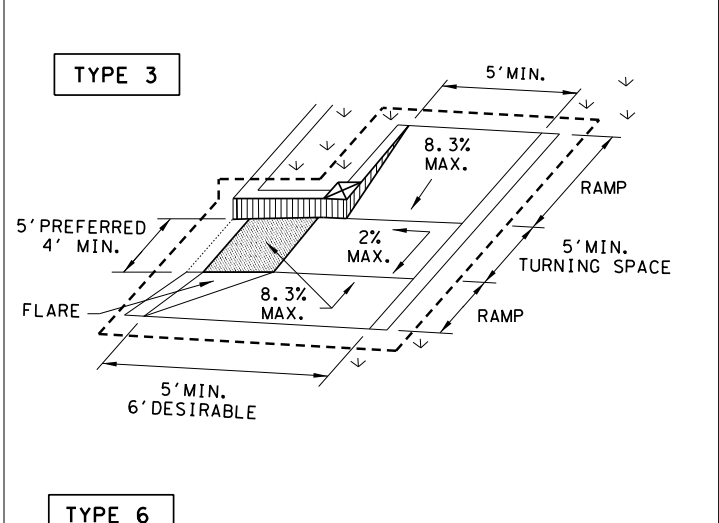
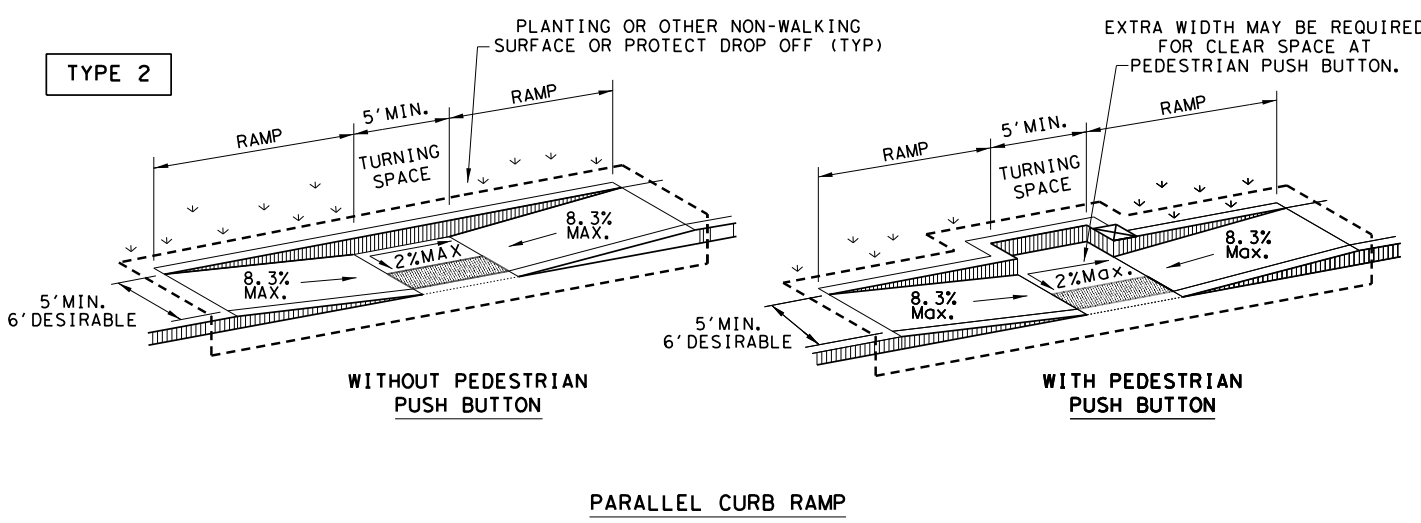
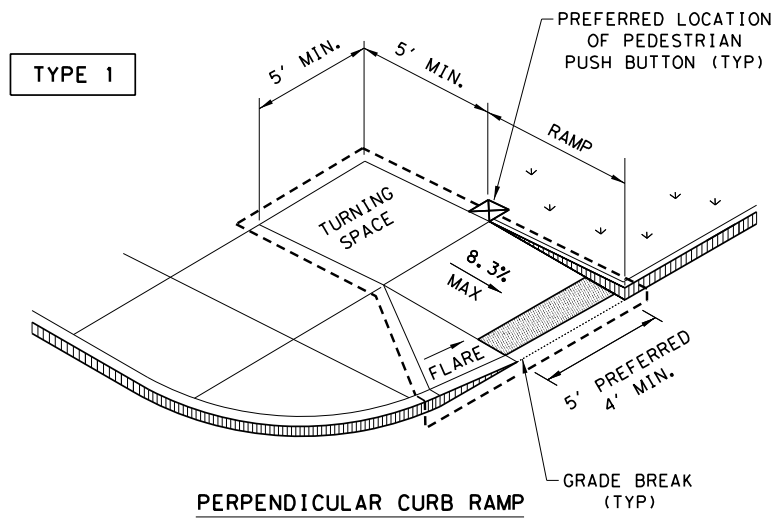


**CURB TRANSITION NOTE:**  
Field conditions may require a longer or shorter transition, and shall be shown elsewhere in the plans, or as directed by the Engineer.

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<b>CONCRETE CURB          AND          CURB AND GUTTER</b>					
<b>CCCG-21</b>					
FILE: cccg21.dgn	DN: TxDOT	CK: AN	DW: SS	CK: KM	
© TxDOT: FEBRUARY 2021	CONT	SECT	JOB	HIGHWAY	
REVISIONS	0924	06	616, ETC	VARIOUS	
	DIST	COUNTY		SHEET NO.	
	ELP	EL PASO		127	

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FILE:



**NOTES / LEGEND:**  
SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

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

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.

DETECTABLE WARNING SURFACE

GUTTER LINE

GRADE BREAK

RAMP LIMITS OF PAYMENT

SHEET 1 OF 4

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**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	0924	06	616, ETC	VARIOUS
REVISED 08, 2009	DIST	COUNTY	SHEET NO.	
REVISED 06, 2012	ELP	EL PASO	128	
REVISED 01, 2018				

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DATE: FILE:

## GENERAL NOTES

### CURB RAMP

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

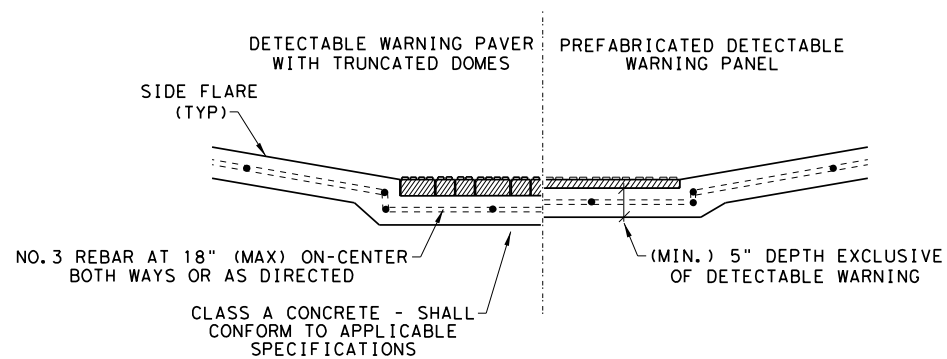
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material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

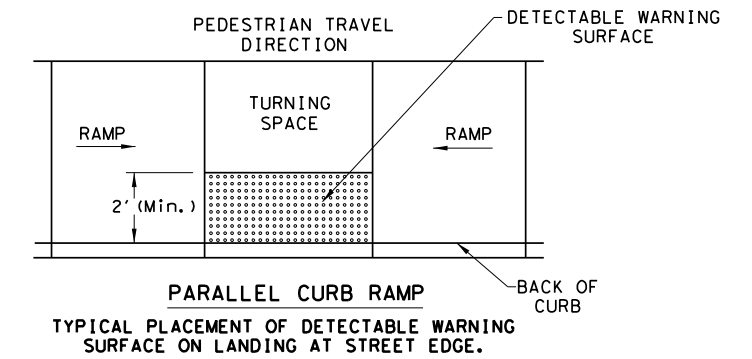
### SIDEWALKS

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.

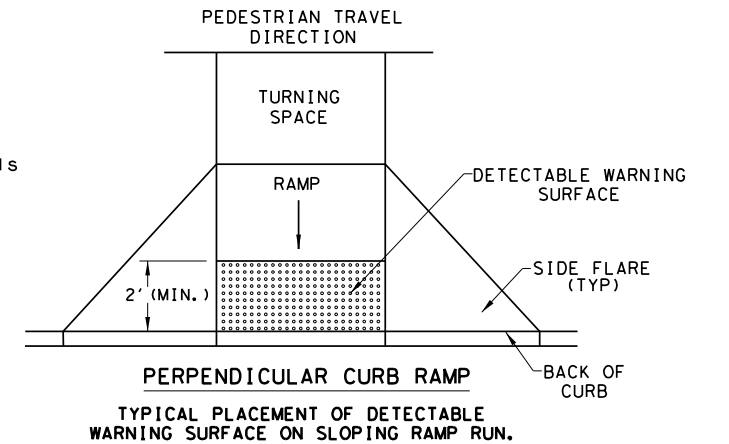


SECTION VIEW DETAIL  
CURB RAMP AT DETECTIBLE WARNINGS

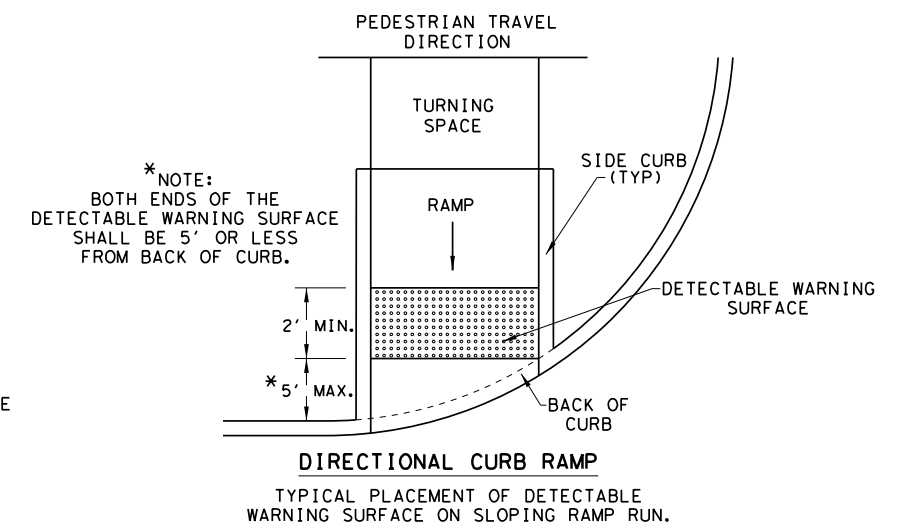
### DETECTABLE WARNING SURFACE DETAILS



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



PERPENDICULAR CURB RAMP  
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



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

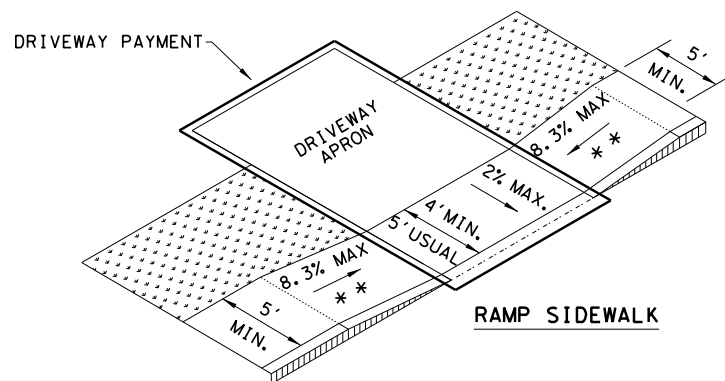
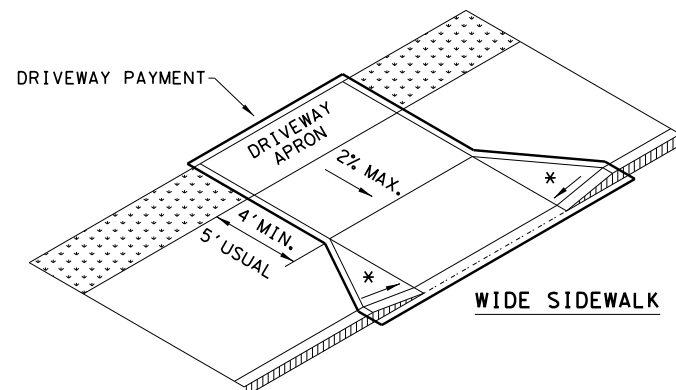
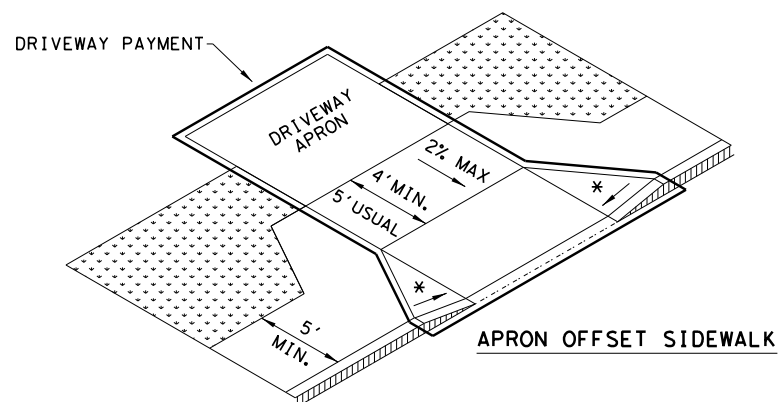
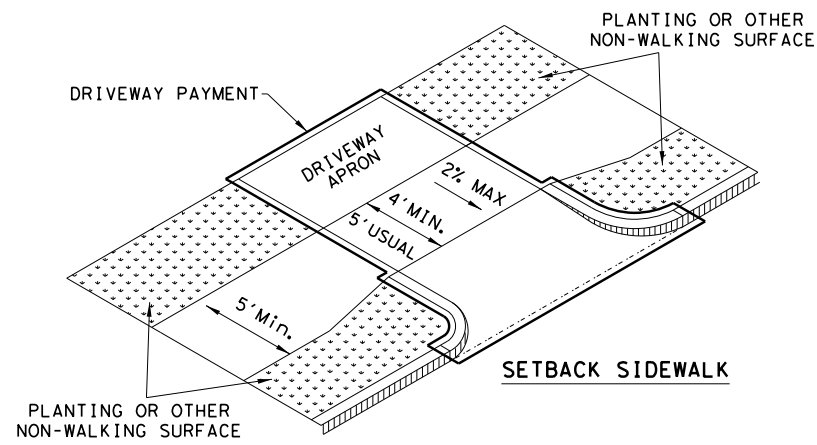
DIRECTIONAL CURB RAMP  
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

SHEET 2 OF 4

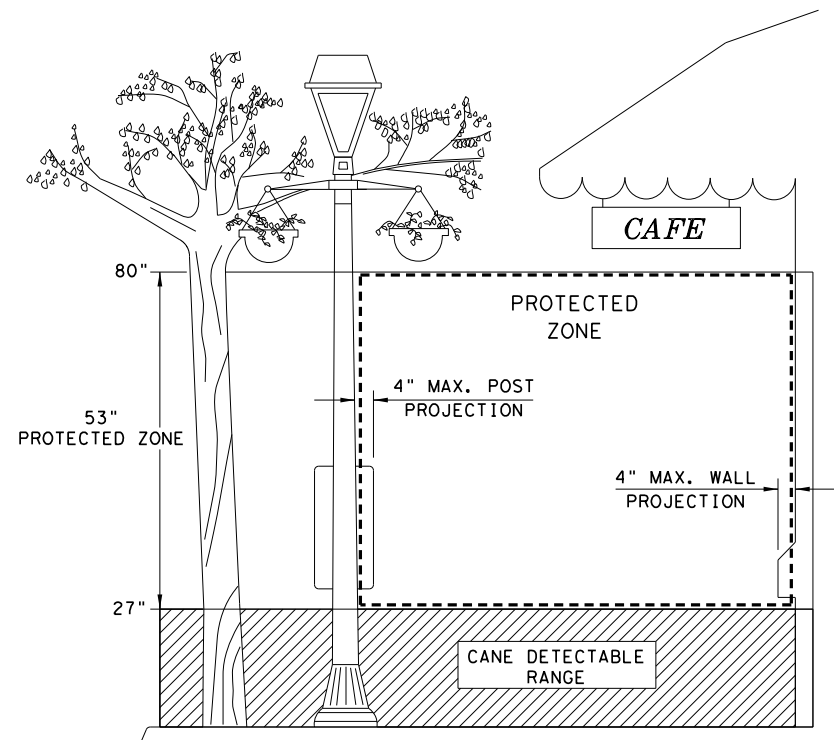
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PEDESTRIAN FACILITIES CURB RAMP			
PED-18			
FILE: ped18	DN: TxDOT	DW: VP	CK: KM
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REVISIONS	0924	06	616, ETC
REVISOR: 08, 2005	DIST	COUNTY	SHEET NO.
REVISOR: 06, 2012	ELP	EL PASO	129
REVISOR: 01, 2018			

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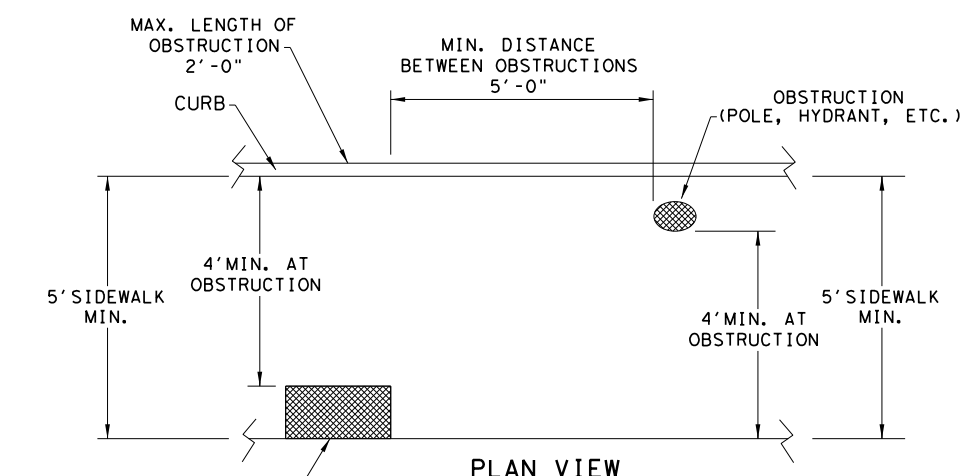
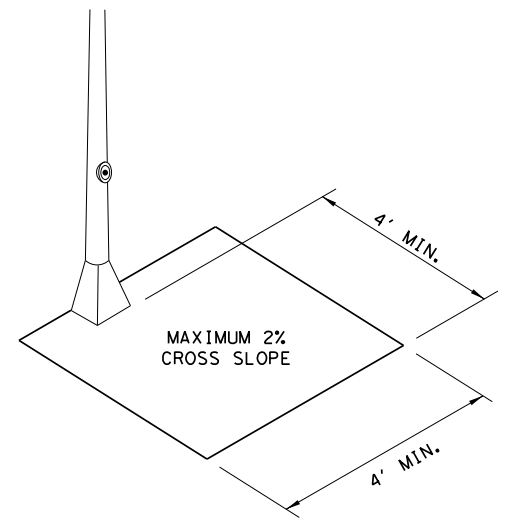
**SIDEWALK TREATMENT AT DRIVEWAYS**



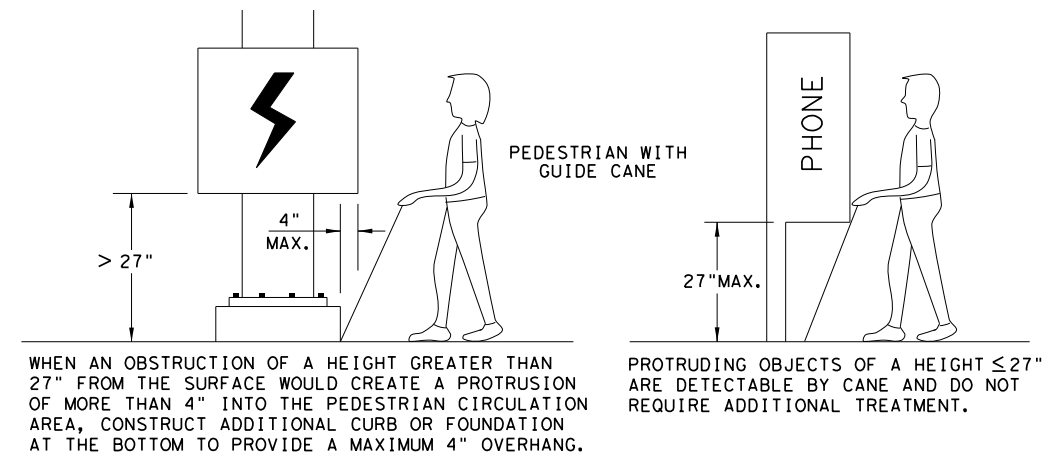
NOTES:  
 \* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.  
 \* \* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



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



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



SHEET 3 OF 4

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**PEDESTRIAN FACILITIES CURB RAMPS**

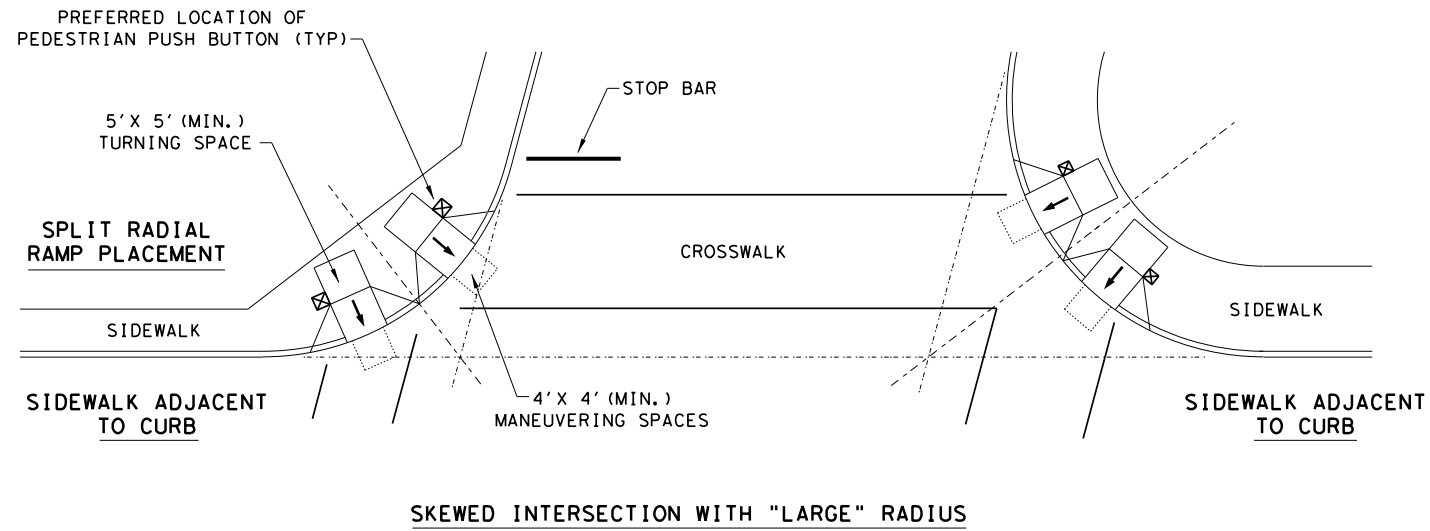
**PED-18**

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
REVISOR	DIST	COUNTY	SHEET NO.	
ELP	EL PASO		130	

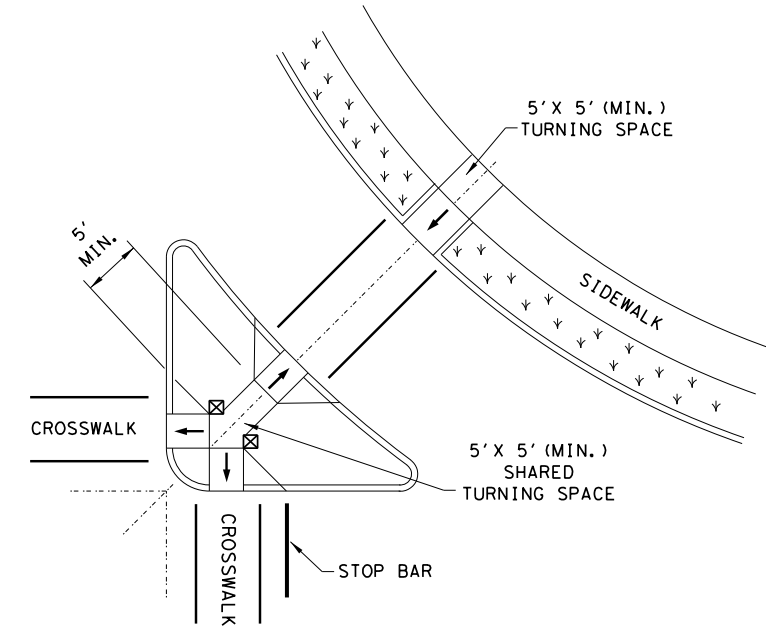
DATE:  
FILE:

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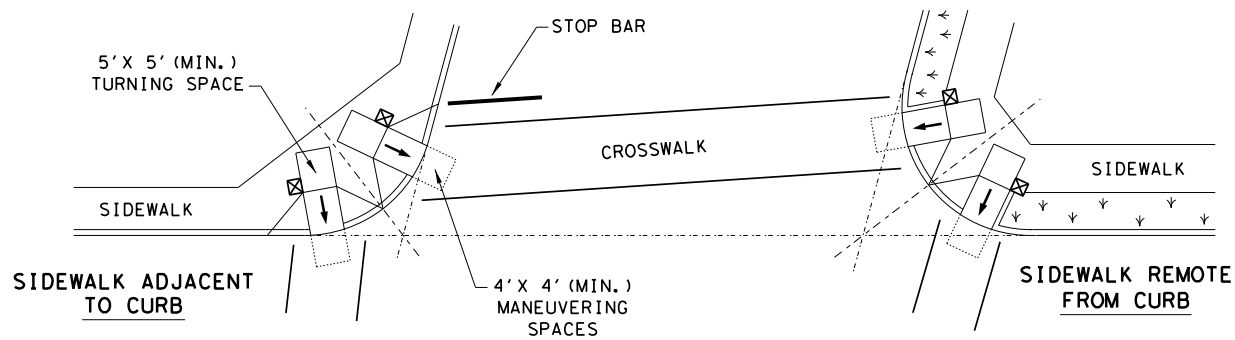
TYPICAL CROSSING LAYOUTS  
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



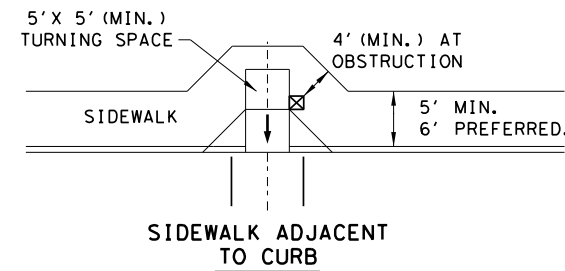
SKewed INTERSECTION WITH "LARGE" RADIUS



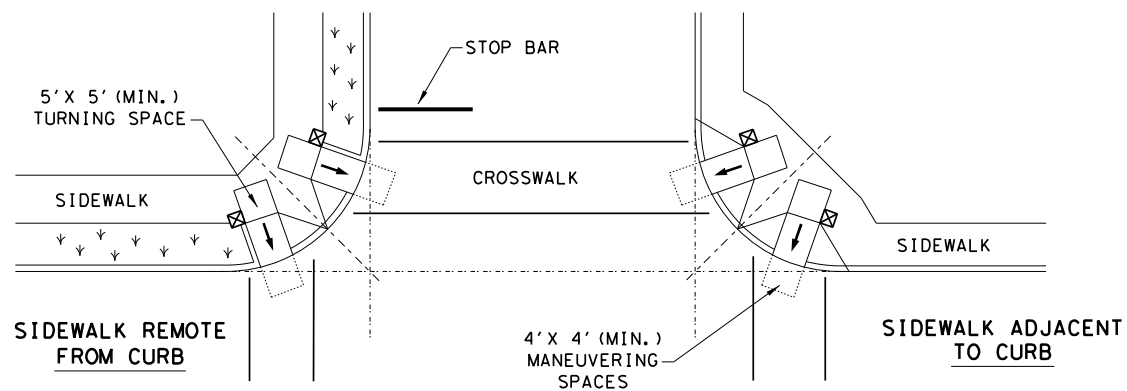
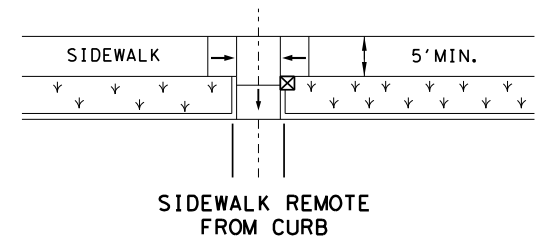
AT INTERSECTION  
W/FREE RIGHT TURN & ISLAND



SKewed INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT  
PERPENDICULAR RAMPS



NORMAL INTERSECTION WITH "SMALL" RADIUS

LEGEND:

SHOWS DOWNWARD SLOPE. →

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

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

SHEET 4 OF 4

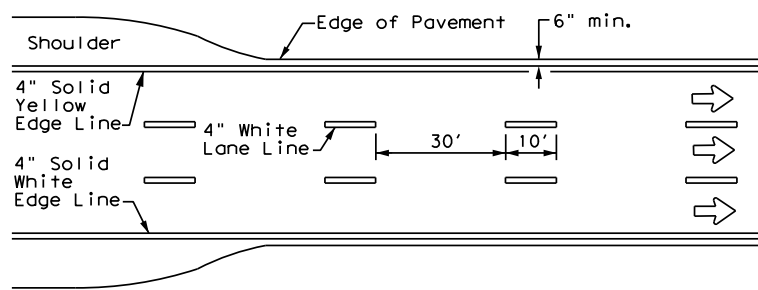
© 2021 Texas Department of Transportation		Design Division Standard		
<h2>PEDESTRIAN FACILITIES</h2> <h3>CURB RAMPS</h3> <h1>PED-18</h1>				
FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
REVISOR	DIST	COUNTY	SHEET NO.	
REVISOR	ELP	EL PASO	131	

DATE:  
FILE:

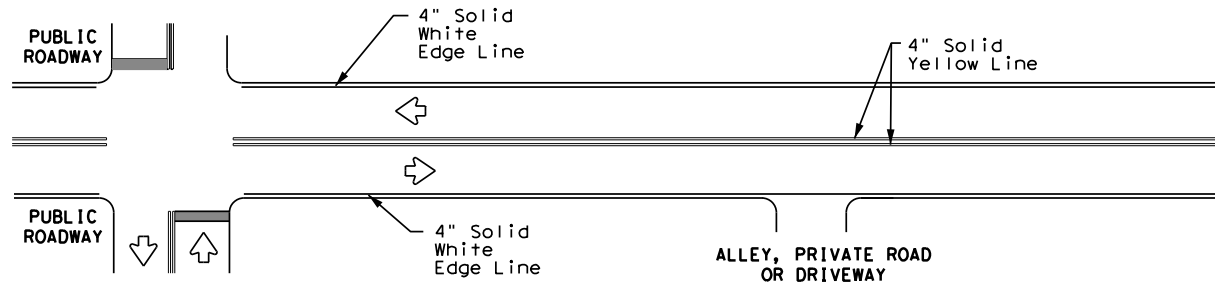


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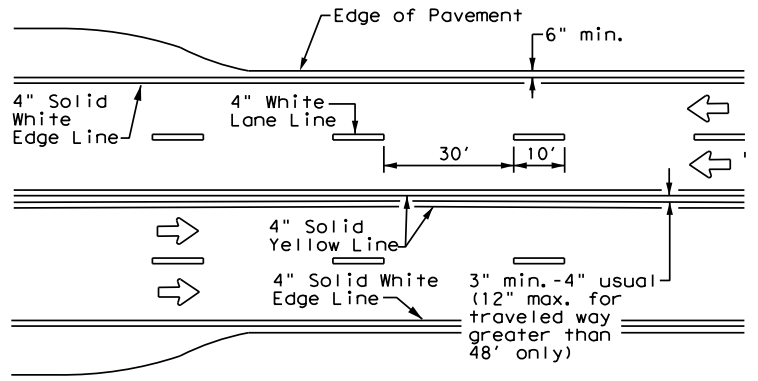
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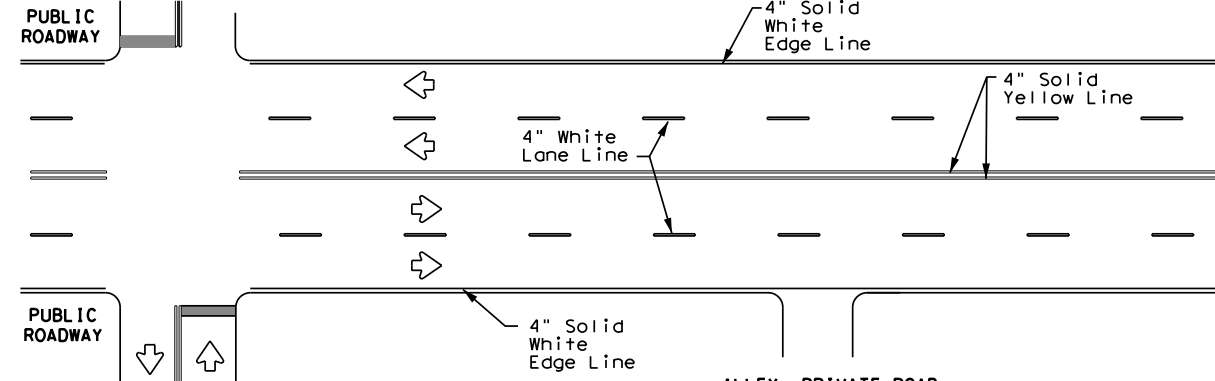
**EDGE LINE AND LANE LINES  
ONE-WAY ROADWAY  
WITH OR WITHOUT SHOULDERS**



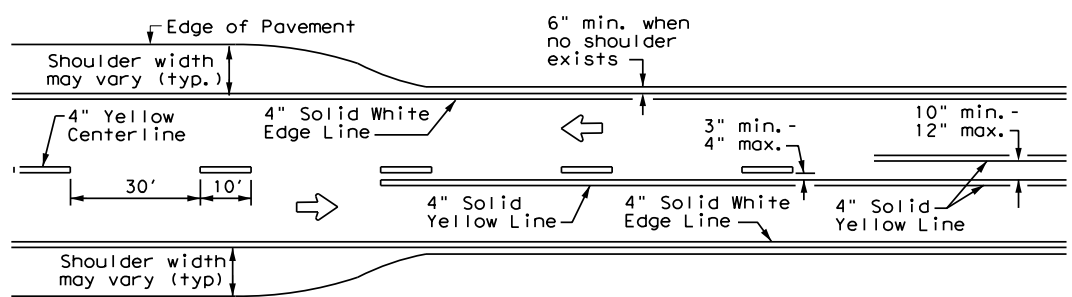
**TYPICAL TWO-LANE, TWO-WAY PAVEMENT  
MARKINGS THROUGH INTERSECTIONS**



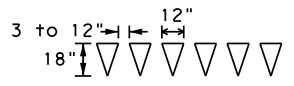
**CENTERLINE AND LANE LINES  
FOUR LANE TWO-WAY ROADWAY  
WITH OR WITHOUT SHOULDERS**



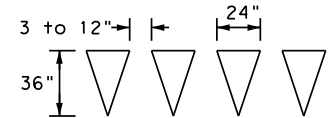
**TYPICAL MULTI-LANE, TWO-WAY PAVEMENT  
MARKINGS THROUGH INTERSECTIONS**



**TWO LANE TWO-WAY ROADWAY  
WITH OR WITHOUT SHOULDERS**

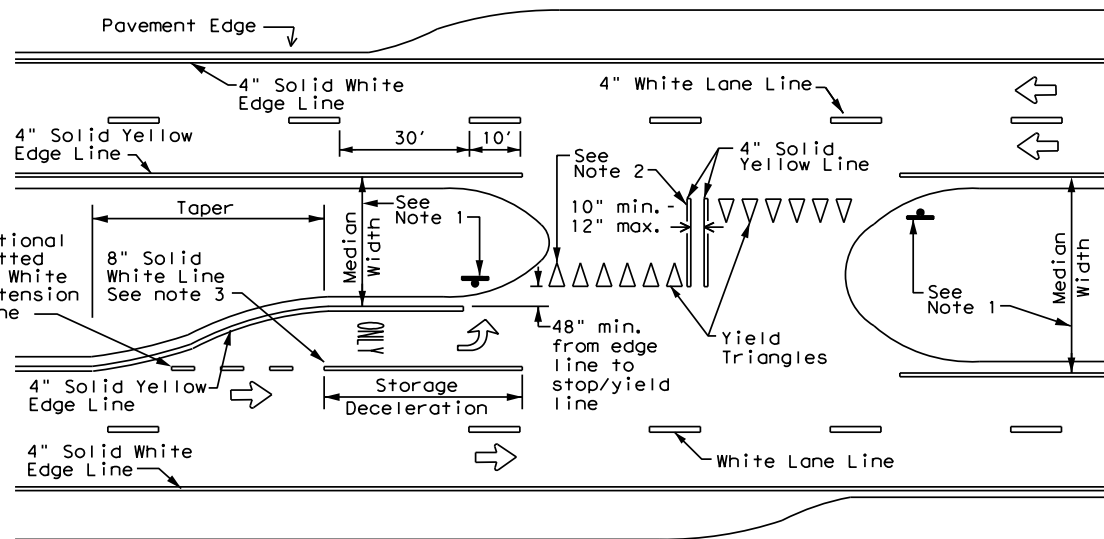


For posted speed on road being marked equal to or less than 40 MPH.



For posted speed on road being marked equal to or greater than 45 MPH.

**YIELD LINES**



**FOUR LANE DIVIDED ROADWAY CROSSOVERS**

**NOTES**

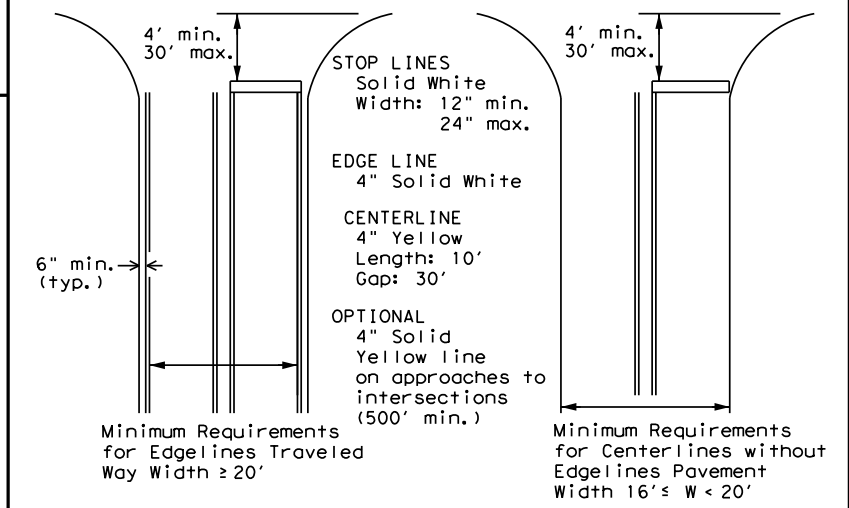
- Where divided highways are separated by median widths at the median opening itself of 30 feet or more, median openings shall be signed as two separate intersections. Each median opening has two width measurements, with one measurement for each approach. The narrow median width will be the controlling width to determine if signs are required. Yield signs are the typical intersection control. Stop signs are optional as determined by the Engineer.
- Install median striping (double yellow centerlines and stop bars/yield triangles) when a 50' or greater median centerline can be placed. Stop bars shall only be used with stop signs. Yield triangles shall only be used with yield signs.
- Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer.

**GENERAL NOTES**

- Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should not be placed less than 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
- The traveled way includes only that portion of the roadway used for vehicular travel. It does not include the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to the inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



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

Based on Traveled Way and Pavement Widths for Undivided Highways

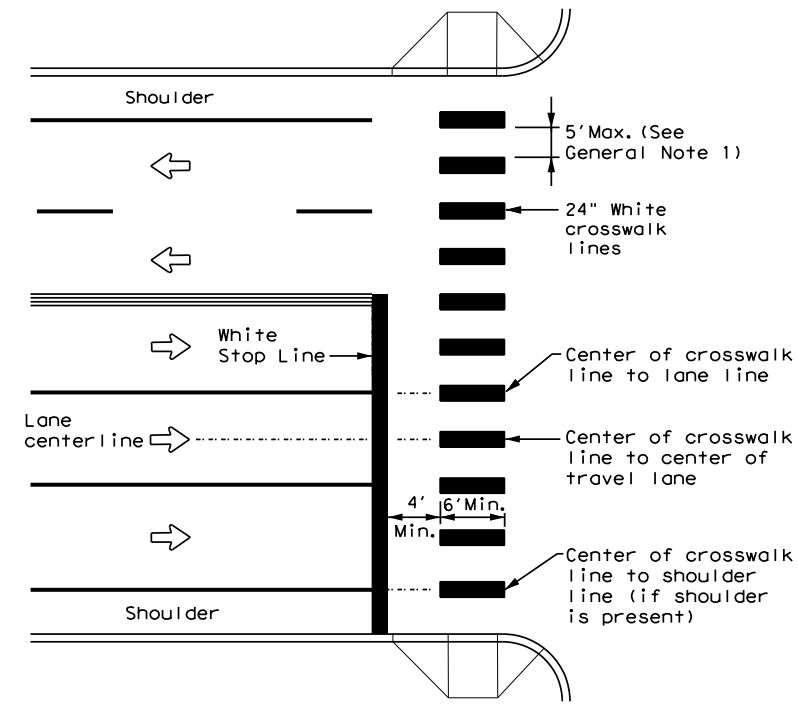
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**TYPICAL STANDARD  
PAVEMENT MARKINGS**

**PM(1)-20**

FILE: pm1-20.dgn	DN:	CK:	DW:	CK:
© TxDOT November 1978	CONT	SECT	JOB	HIGHWAY
8-95 3-03 REVISIONS	0924	06	616, ETC	VARIOUS
5-00 2-12	DIST	COUNTY	SHEET NO.	
8-00 6-20	ELP	EL PASO	132	

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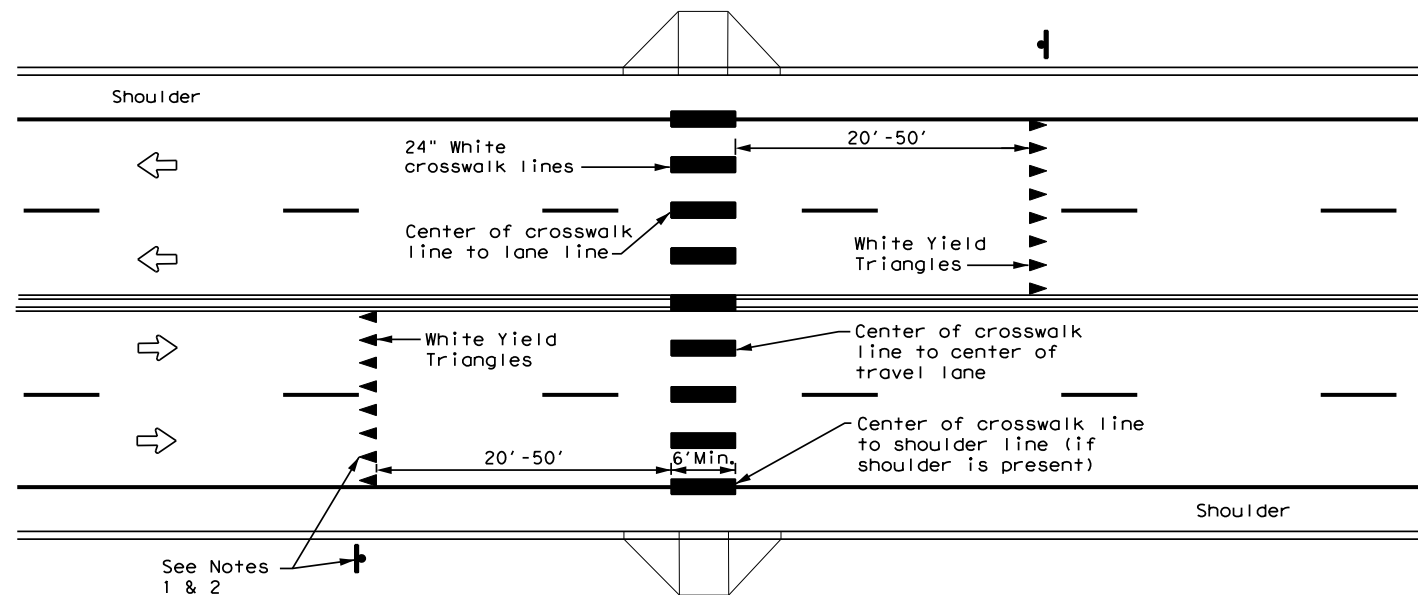
HIGH-VISIBILITY LONGITUDINAL CROSSWALK AT CONTROLLED APPROACH

GENERAL NOTES

1. Longitudinal crosswalk lines should not be placed in the wheel path of vehicles. Center the crosswalk lines on travel lanes, lane lines, and shoulder lines (if present).
2. A minimum 6" clear distance shall be provided to the curb face. If the last crosswalk line falls into this distance it must be omitted.
3. For divided roadways, adjustments in spacing of the crosswalk lines should be made in the median so that the crosswalk lines are maintained in their proper location across the travel portion of the roadway.
4. At skewed crosswalks, the crosswalk lines are to remain parallel to the lane lines.
5. Each crosswalk shall be a minimum of 6' wide.
6. The High-Visibility Longitudinal Crosswalk is the preferred crosswalk pattern on State Highways. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used. All crosswalk designs and dimension shall comply with the "Texas Manual on Uniform Traffic Control Devices."
7. Final placement of Stop Bar/Yield Triangles and Crosswalk shall be approved by the Engineer in the field.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



UNSIGNALIZED MID BLOCK HIGH-VISIBILITY LONGITUDINAL CROSSWALK

NOTES

1. Use yield triangles with "Yield Here to Pedestrians" signs at unsignalized mid block crosswalks.
2. Use stop bars with "Stop Here on Red" signs at mid block crosswalks controlled by traffic signals or pedestrian hybrid beacons.

DATE:  
FILE:

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Traffic Safety Division Standard

## CROSSWALK PAVEMENT MARKINGS

### PM(4) - 20

FILE: pm4-20.dgn	DN:	CK:	DW:	CK:
© TxDOT June 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	0924	06	616, ETC	VARIOUS
	DIST	COUNTY	SHEET NO.	
	ELP	EL PASO	133	

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### SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive Codes correspond to project estimate and quantities sheets)

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

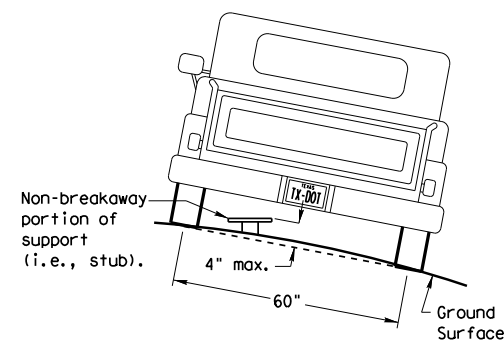
**Post Type**  
 FRP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))  
 TWT = Thin-Walled Tubing (see SMD(TWT))  
 10BWG = 10 BWG Tubing (see SMD(SLIP-1) to (SLIP-3))  
 S80 = Schedule 80 Pipe (see SMD(SLIP-1) to (SLIP-3))

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

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

**Sign Mounting Designation**  
 P = Prefab. "Plain" (see SMD(SLIP-1) to (SLIP-3), (TWT), (FRP))  
 T = Prefab. "T" (see SMD(SLIP-1) to (SLIP-3), (TWT))  
 U = Prefab. "U" (see SMD(SLIP-1) to (SLIP-3))  
 IF REQUIRED  
 1EXT or 2EXT = Number of Extensions (see SMD(SLIP-1) to (SLIP-3), (TWT))  
 BM = Extruded Wind Beam (see SMD(SLIP-1) to (SLIP-3))  
 WC = 1.12 #/ft Wing Channel (see SMD(SLIP-1) to (SLIP-3))  
 EXAL = Extruded Aluminum Sign Panels (see SMD(SLIP-3))

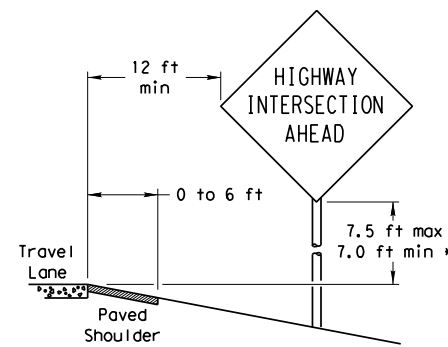
### REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT



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

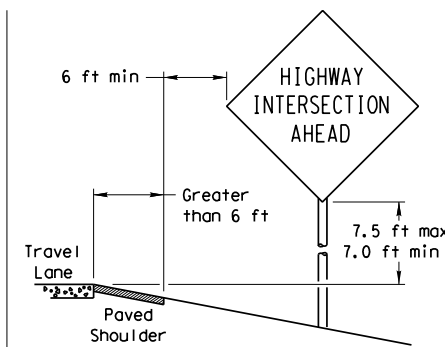
### SIGN LOCATION

#### PAVED SHOULDERS



#### LESS THAN 6 FT. WIDE

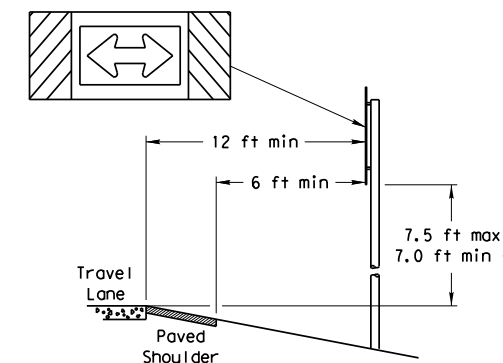
When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.



#### GREATER THAN 6 FT. WIDE

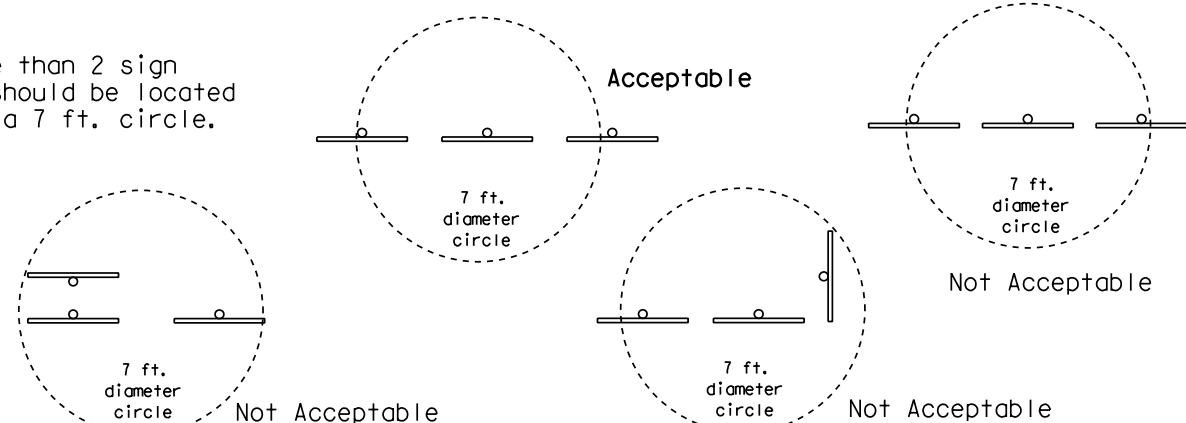
When the shoulder is greater than 6 ft in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

#### T-INTERSECTION

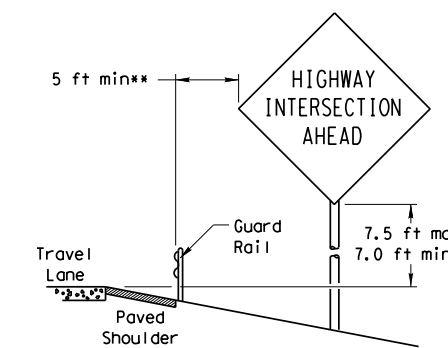


When this sign is needed at the end of a two-lane, two way roadway, the right edge of the sign should be in line with the centerline of the roadway. Place as close to ROW as practical.

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

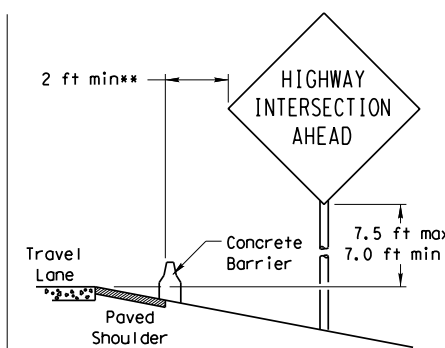


#### BEHIND BARRIER

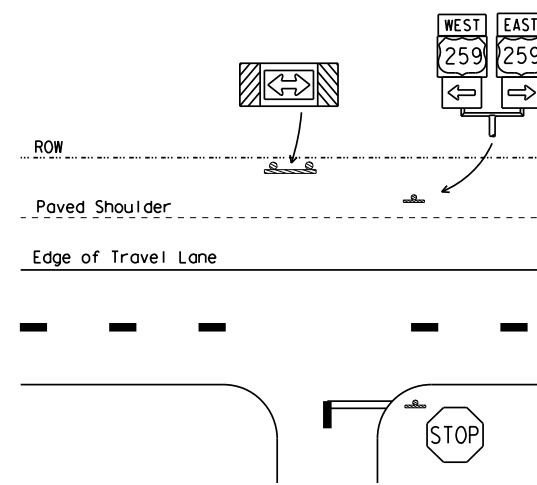


#### BEHIND GUARDRAIL

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



#### BEHIND CONCRETE BARRIER



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

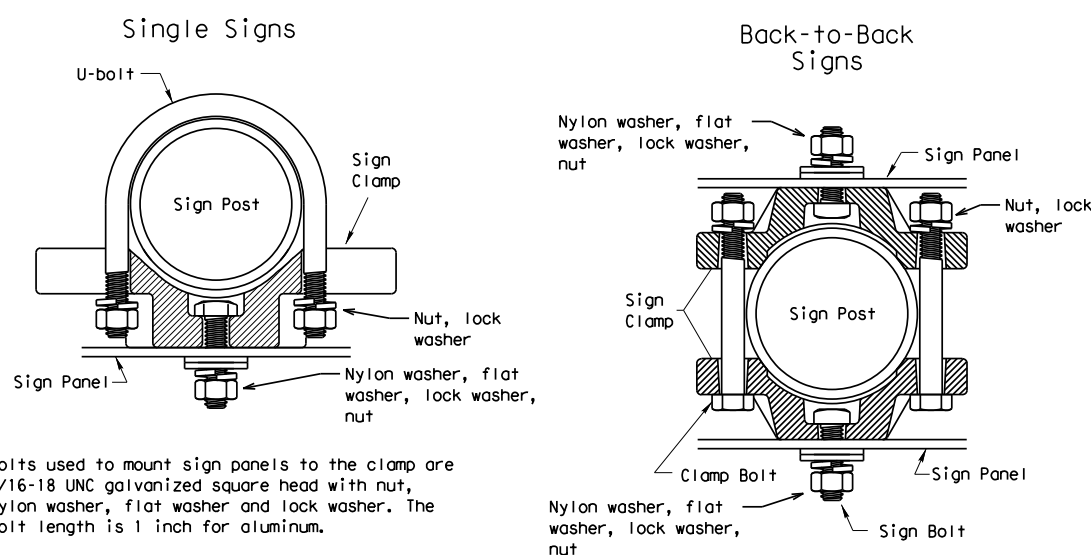
- (1) a minimum of 7 to a maximum of 7.5 feet above the edge of the travel lane or
- (2) a minimum of 7 to a maximum of 7.5 feet above the grade at the base of the support when sign is installed on the backslope.

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

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

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

### TYPICAL SIGN ATTACHMENT DETAIL



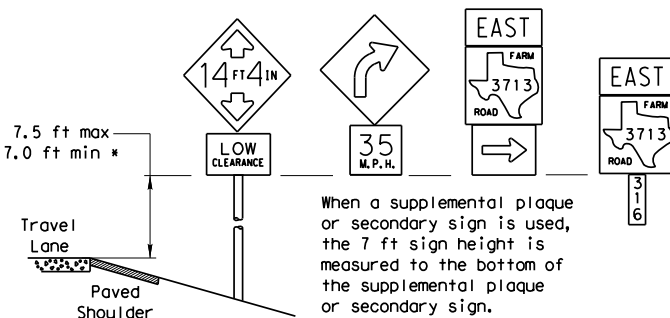
Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

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

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

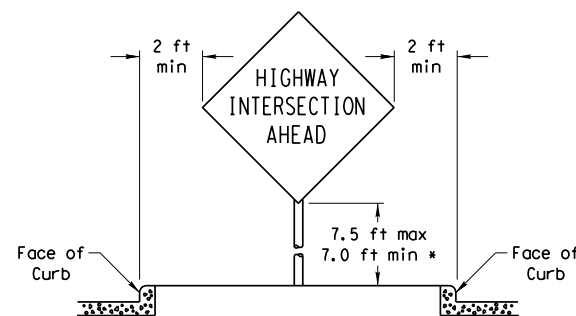
Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

#### SIGNS WITH PLAQUES

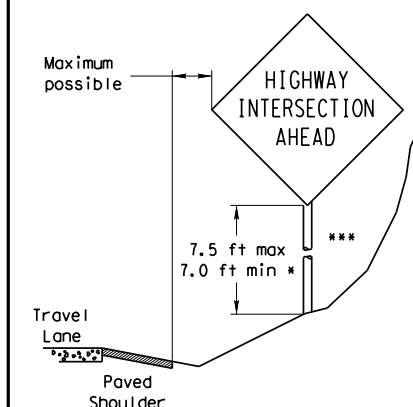


When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

#### CURB & GUTTER OR RAISED ISLAND



#### RESTRICTED RIGHT-OF-WAY (When 6 ft min. is not possible.)



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

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

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



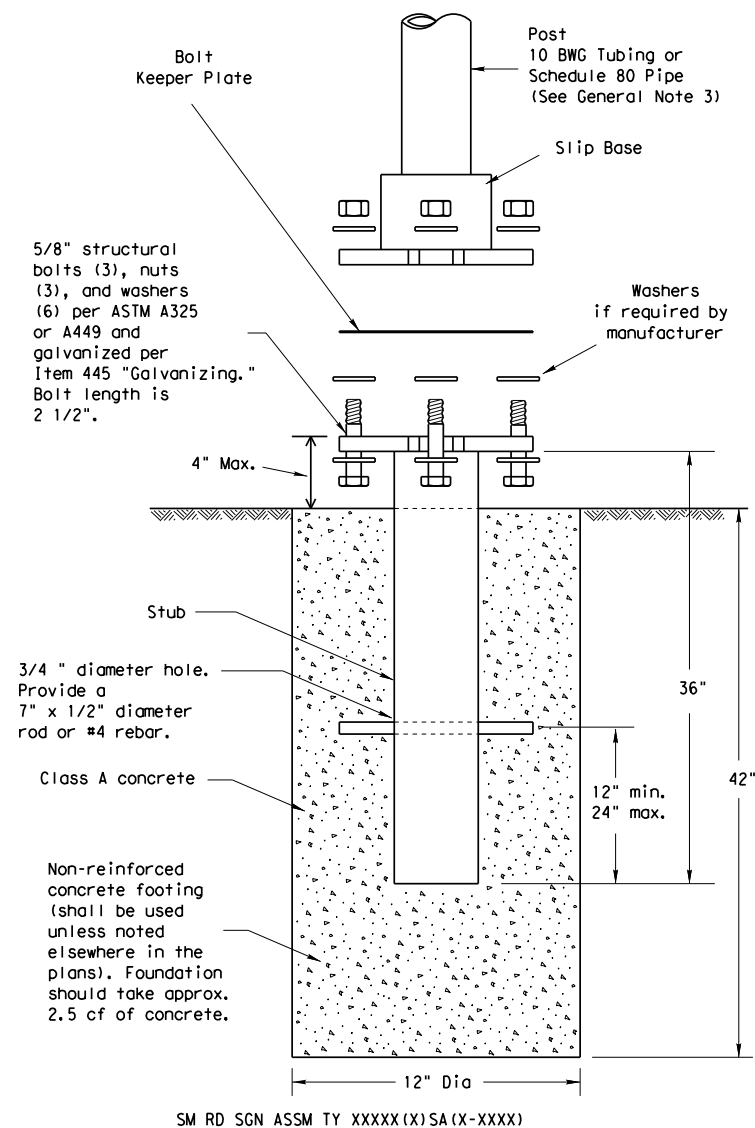
## SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS

SMD(GEN)-08

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		DIST	COUNTY	SHEET NO.
		ELP	EL PASO	134

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## TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS



### NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. [http://www.txdot.gov/business/producer\\_list.htm](http://www.txdot.gov/business/producer_list.htm) The devices shall be installed per manufacturers' recommendations. Installation procedures shall be provided to the Engineer by Contractor.

### GENERAL NOTES:

- Slip base shall be permanently marked to indicate manufacturer. Method, design, and location of marking are subject to approval of the TxDOT Traffic Standards Engineer.
- Material used as post with this system shall conform to the following specifications:
  - 10 BWG Tubing (2.875" outside diameter)
    - 0.134" nominal wall thickness
    - Seamless or electric-resistance welded steel tubing or pipe
    - Steel shall be HSLAS Gr 55 per ASTM A1011 or ASTM A1008
    - Other steels may be used if they meet the following:
      - 55,000 PSI minimum yield strength
      - 70,000 PSI minimum tensile strength
      - 20% minimum elongation in 2"
    - Wall thickness (uncoated) shall be within the range of 0.122" to 0.138"
    - Outside diameter (uncoated) shall be within the range of 2.867" to 2.883"
    - Galvanization per ASTM A123 or ASTM A653 G210. For precoated steel tubing (ASTM A653), recoat tube outside diameter weld seam by metallizing with zinc wire per ASTM B833.
  - Schedule 80 Pipe (2.875" outside diameter)
    - 0.276" nominal wall thickness
    - Steel tubing per ASTM A500 Gr C
    - Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following:
      - 46,000 PSI minimum yield strength
      - 62,000 PSI minimum tensile strength
      - 21% minimum elongation in 2"
    - Wall thickness (uncoated) shall be within the range of 0.248" to 0.304"
    - Outside diameter (uncoated) shall be within the range of 2.855" to 2.895"
    - Galvanization per ASTM A123
- See the Traffic Operations Division website for detailed drawings of sign clamps and Texas Universal Triangular Slipbase System components. The website address is: <http://www.txdot.gov/publications/traffic.htm>
- Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.

### ASSEMBLY PROCEDURE

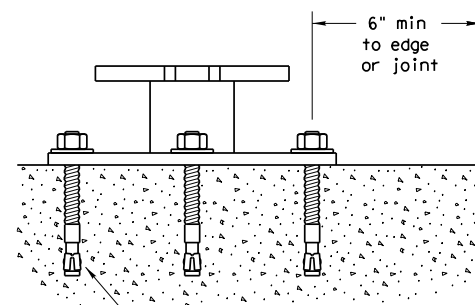
#### Foundation

- Prepare 12-inch diameter by 42-inch deep hole. If solid rock is encountered, the depth of the foundation may be reduced such that it is embedded a minimum of 18 inches into the solid rock.
- The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor-driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
- Push the pipe end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is between 2 to 4 inches above the ground.
- Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
- The triangular slipbase system is multidirectional and is designed to release when struck from any direction.

#### Support

- Cut support so that the bottom of the sign will be 7 to 7.5 feet above the edge of the travelway (i.e., edge of the closest lane) when slip plate is below the edge of pavement or 7 to 7.5 feet above slip plate when the slip plate is above the edge of the travelway. The cut shall be plumb and straight.
- Attach sign to support using connections shown. When multiple signs are installed on the same support, ensure the minimum clearance between each sign is maintained. See SMD(SLIP-2) for clearances based on sign types.

### CONCRETE ANCHOR



5/8" diameter Concrete Anchor - 8 places (embed a minimum of 5 1/2" and torque to min. of 50 ft-lbs). Anchor may be expansion or adhesive type.

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

Concrete anchor consists of 5/8" diameter stud bolt with UNC series bolt threads on the upper end. Heavy hex nut per ASTM A563, and hardened washer per ASTM F436. The stud bolt shall have a minimum yield and ultimate tensile strength of 50 and 75 KSI, respectively. Nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing." Adhesive type anchors shall have stud bolts installed with Type III epoxy per DMS-6100, "Epoxyes and Adhesives." Adhesive anchors may be loaded after adequate epoxy cure time per the manufacturer's recommendations. Top of bolt shall extend at least flush with top of the nut when installed. The anchor, when installed in 4000 psi normal-weight concrete with a 5 1/2" minimum embedment, shall have a minimum allowable tension and shear of 3900 and 3100 psi, respectively.

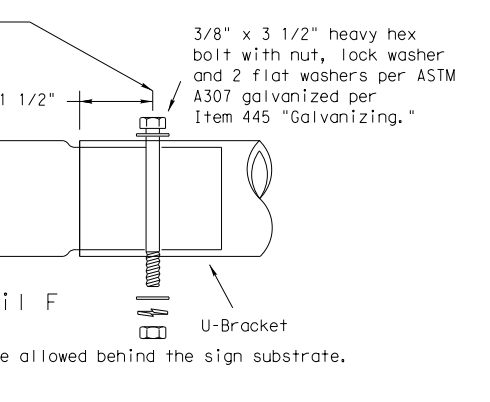
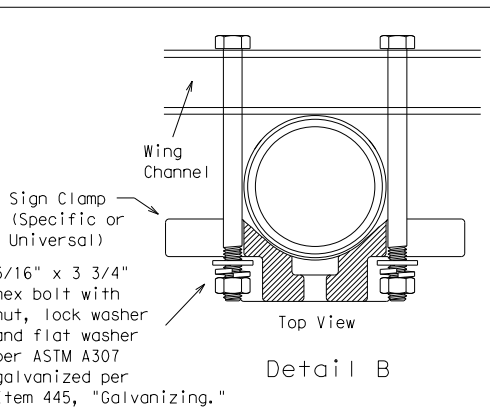
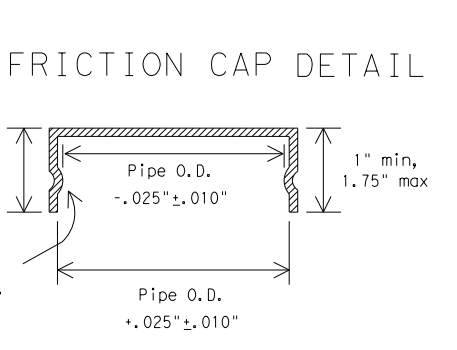
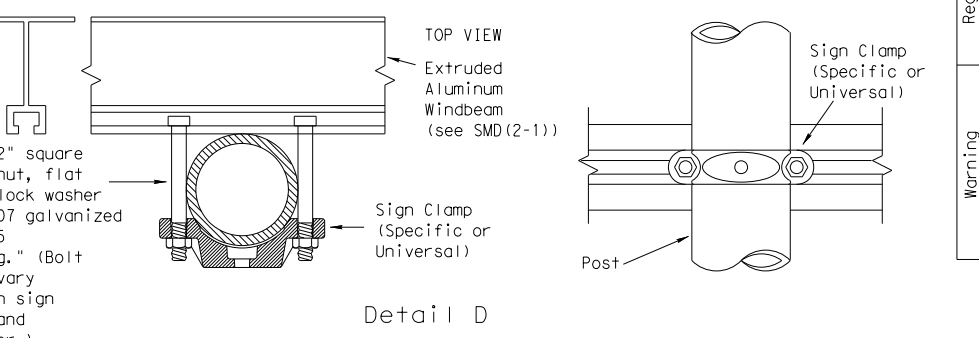
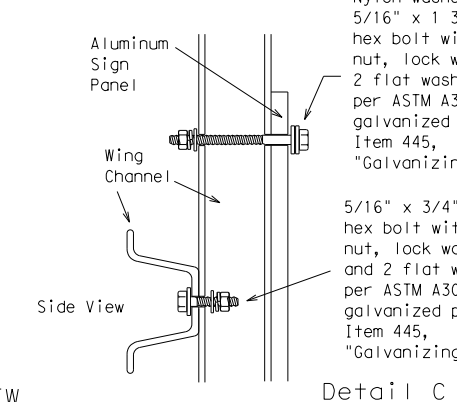
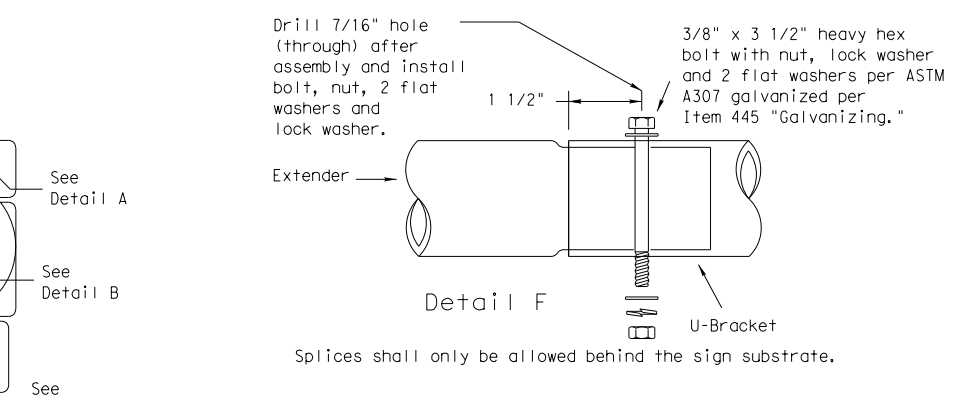
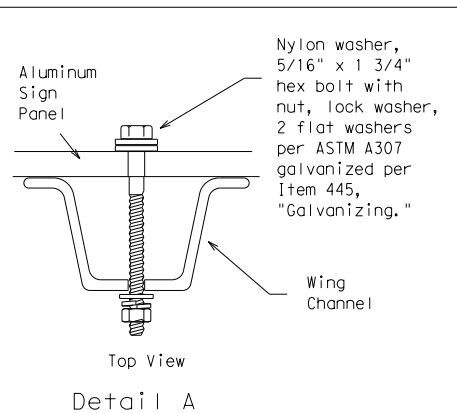
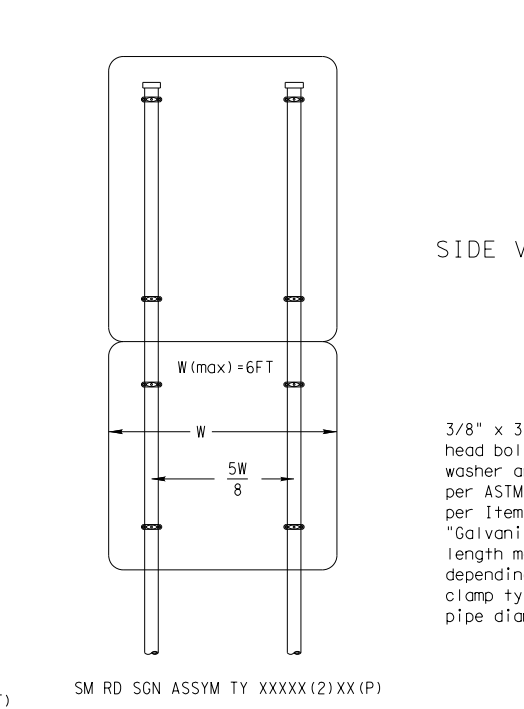
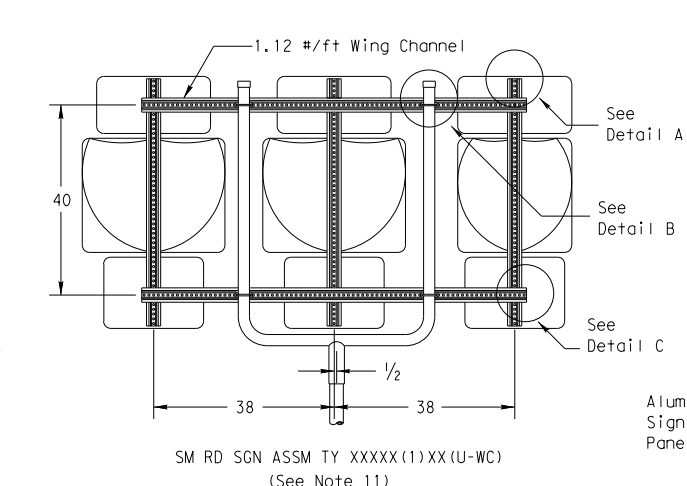
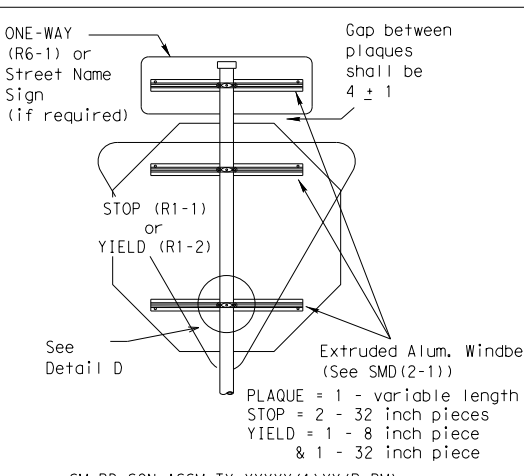
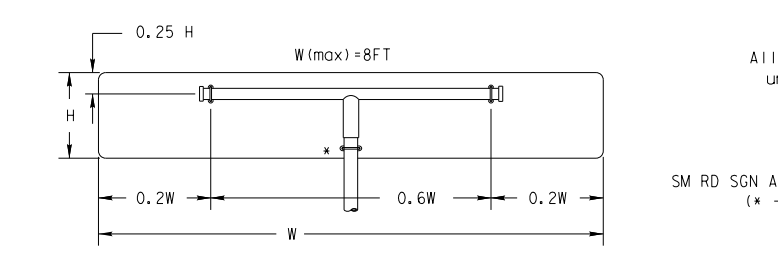
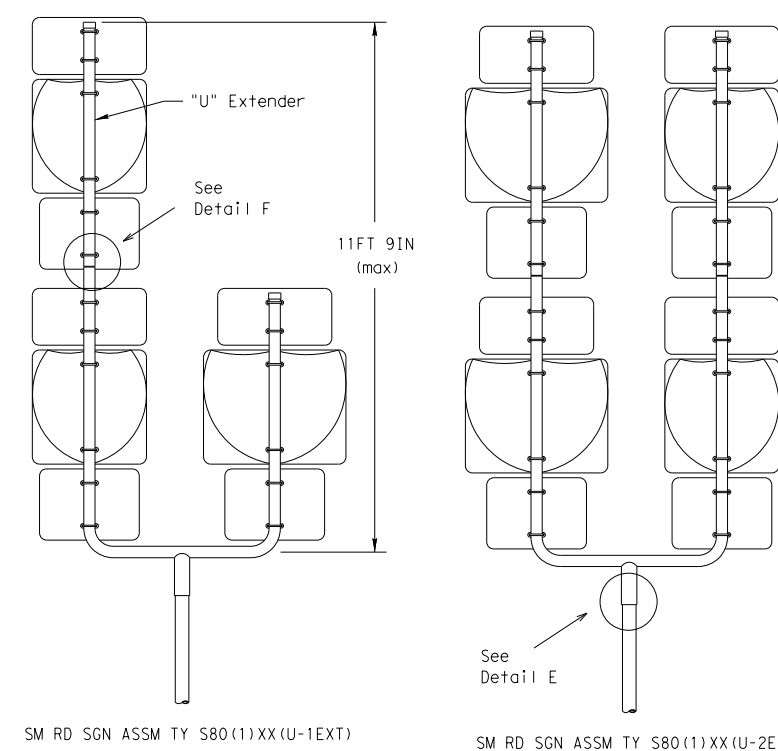
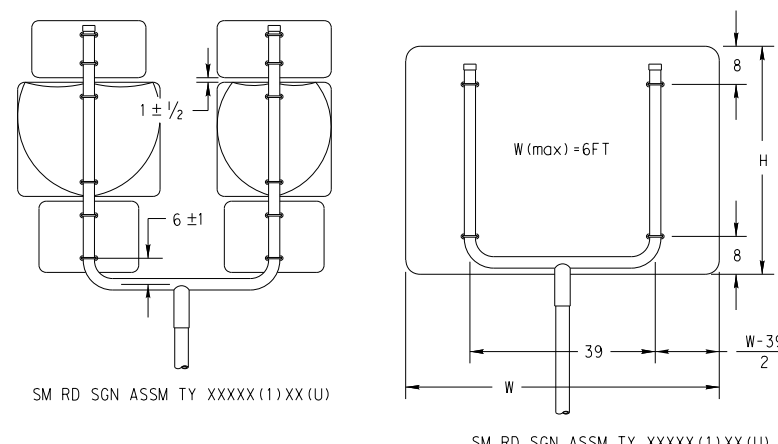
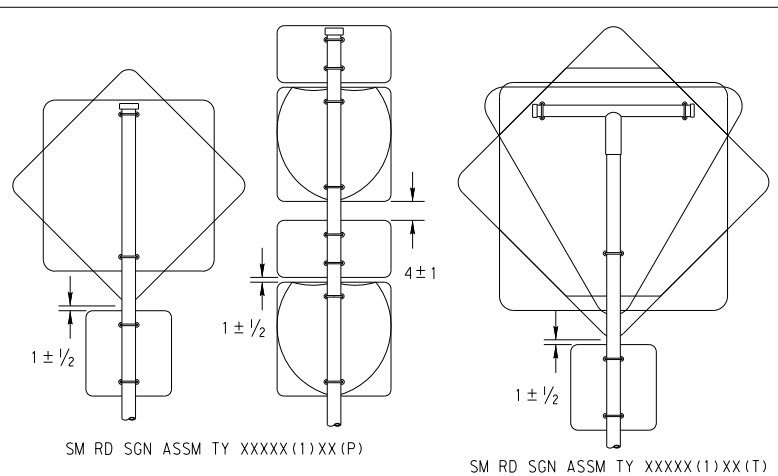


## SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD(SLIP-1)-08

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		DIST	COUNTY	SHEET NO.	
		ELP	EL PASO	135	

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- GENERAL NOTES:
1. 

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

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

Texas Department of Transportation  
Traffic Operations Division

## SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD(SLIP-2)-08

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9-08	REVISIONS	CONTRACT	JOB	HIGHWAY
		0924 06	616, ETC	VARIOUS
		DIST	COUNTY	SHEET NO.
		ELP	EL PASO	136

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

All dimensions are in english unless detailed otherwise.

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

Rolled Crimp to engage pipe O.D.

DATE:  
FILE:

**STORM WATER POLLUTION PREVENTION PLAN (SWP3):**

This SWP3 has been developed in accordance with TPDES General Permit TXR150000. The operator, The Texas Department of Transportation ensures that: Project specifications provide that adequate BMPs have been developed for this project. The contractor shall be the party responsible for implementing the BMPs described herein. The contractor shall implement changes approved by the Project Engineer to the SWP3 within the times specified in the SWP3 or the TPDES General Permit. Operators affected by modifications to specifications will be notified in a timely manner.

**1. SITE OR PROJECT DESCRIPTION:**

NATURE OF THE CONSTRUCTION ACTIVITY: PEDESTRIAN AND BICYCLE FACILITY

POTENTIAL POLLUTANTS AND SOURCES:	
Sediment laden storm water	--> Storm water conveyance over disturbed areas
Fuels, oils, and lubricants	--> Construction vehicles and storage areas
Construction debris and waste	--> Various construction activities
Trash	

**SEQUENCE OF ACTIVITIES THAT WILL DISTURB SOILS:**

1. Install traffic control devices.
2. Saw-cut small sections of existing ACP.
3. Construct ADA ramps, concrete curb and gutter, concrete driveways, acp, and asphalt trail with header curb as shown on plans.
4. Clean up project and remove traffic control devices from step #1 above.

**AREAS:**

TOTAL AREA OF PROJECT: +/-1.89 ACRES  
 TOTAL AREA OF SOIL DISTURBANCE: +/-2.03 ACRES  
 TOTAL AREA OFF-SITE:  
 WEIGHTED RUNOFF COEFFICIENT (BEFORE AND AFTER CONSTRUCTION): 0.50, 0.62  
 DATA DESCRIBING THE SOIL: SILTY, CLAYEY SAND

GENERAL LOCATION MAP: SEE TITLE SHEET

DETAILED SITE MAP: SEE LOCATION MAP SHEET

THE LOCATION AND DESCRIPTION OF CONCRETE AND ASPHALT PLANTS:

Concrete Batch Plant Facilities shall be located off-site  
 Asphalt Batch Plant Facilities shall be located off-site

NAME OF RECEIVING WATERS: Storm water runoff drains into adjacent properties where on-site ponding occurs.

A COPY OF TPDES CGP TXR 150000 IS INCLUDED IN THE SWP3 FILE.

**REMARKS:**

401 WATER QUALITY CERTIFICATION: YES \_\_\_\_\_ NO X

**2. BEST MANAGEMENT PRACTICES (BMPs):**

**EROSION AND SEDIMENT CONTROLS:** Erosion and sediment controls have been designed to retain sediment on-site. Controls shall be utilized to reduce off site transport of suspended sediments and pollutants if it is necessary to pump water from the site. Control measures shall be installed per specifications or as directed by the Project Engineer. Sediment must be removed from controls per the plan requirements or manufacturer's recommendations, but no later than the time that design capacity has been reduced by 50%. If sediment escapes the site, accumulations will be removed to minimize further negative effects. Controls will be developed to limit the off site transportation of litter, construction debris, and construction materials.

INTERIM (INT), PERMANENT (PER), AND 401 CERTIFICATION BMP'S:							
EROSION CONTROLS:			SEDIMENT CONTROLS:				
	401	INT	PER		401	INT	PER
<input type="checkbox"/> <i>Compaction &amp; Tracking of slopes</i>	—	—	—	<input checked="" type="checkbox"/> <i>Silt Fence</i>	—	<u>X</u>	—
<input type="checkbox"/> <i>Diverson Dike</i>	—	—	—	<input type="checkbox"/> <i>Rock Berm</i>	—	—	—
<input checked="" type="checkbox"/> <i>Preserve Existing Vegetation</i>	—	—	<u>X</u>	<input type="checkbox"/> <i>Buffer Zones</i>	—	—	—
<input type="checkbox"/> <i>Soil Stabilization</i>	—	—	—	<input type="checkbox"/> <i>Vegetative Filter Strips</i>	—	—	—
<input type="checkbox"/> <i>Permanent Vegetation</i>	—	—	—	<input type="checkbox"/> <i>Erosion Control Logs</i>	—	—	—
<input type="checkbox"/> <i>Erosion Control Logs</i>	—	—	—	<input type="checkbox"/> <i>No Sediment Controls are Required.</i>	—	—	—
<input type="checkbox"/> <i>No Erosion Controls are Required.</i>	—	—	—				

POST CONSTRUCTION TSS CONTROL (401 CERTIFICATION ONLY):			
<input type="checkbox"/> <i>Vegetation Lined Drainage Ditch</i>	<input type="checkbox"/> <i>Grassy Swales</i>		
<input type="checkbox"/> <i>Retention/Irrigation</i>	<input type="checkbox"/> <i>Vegetative Filter Strips</i>		
<input type="checkbox"/> <i>Erosion Control Compost</i>	<input checked="" type="checkbox"/> <i>No Post Construction TSS Control Required.</i>		

The El Paso District of the Texas Department of Transportation uses Site-Manager, a computer based construction record-keeping system. Documentation describing major grading activities, temporary or permanent cessation of construction, and stabilization measures is a part of this system and is incorporated by reference into this SWPPP. Stabilization measures must be initiated within 14 days when practicable in portions of the site where construction has temporarily or permanently ceased, if earth disturbing activities will not be resumed within 21 days.

**3. STRUCTURAL CONTROL PRACTICES:** Structural control practices for this project are listed elsewhere herein.

**4. PERMANENT STORM WATER CONTROLS:** Structural control practices installed during construction will be maintained and inspected after construction has ceased on the site and until final stabilization is attained. Unless specified in the plans, after project acceptance CEP will assume maintenance responsibilities for the controls and measures. Other permanent controls include existing and proposed riprap at culvert inlets and outlets, diversion dikes, swales, retaining walls, and other similar devices.

**5. OTHER CONTROLS:** OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST: The off site vehicle tracking of sediments shall be minimized by removal of excess dirt from the road and at entrances to the work site. The generation of dust will be minimized as directed by the Project Engineer by dampening haul roads and covering haul trucks with a tarpaulin.

**CONSTRUCTION AND WASTE MATERIALS:** The contractor will maintain a clean, orderly construction site. Construction waste including trash, rubble, scrap and vegetation shall be disposed of in lidded dumpsters or in a manner approved by the Project Engineer. Disposal methods must meet Federal, State, and Local waste management guidelines. No construction waste will be buried or burned on site. Spoils disposal, material storage, and materials resulting from the destruction of existing roads and structures shall be stored in areas designated by the Project Engineer and protected from run-off. All waterways shall be cleared of temporary embankment, temporary bridges, matting, false work, piling, debris, or other obstructions placed during construction operations, that are not part of the finished work, as soon as practicable. All excess soil generated by the construction will be collected and disposed of by the contractor. Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving waters. Disposal areas shall not be located in any wetland, water body, or stream bed.

**POLLUTANT SOURCES FROM AREAS OTHER THAN CONSTRUCTION:** Staging areas and vehicle maintenance areas shall be located and constructed in a manner to minimize the runoff of pollutants. If potential pollutant sources are identified after the start of construction, controls and measures shall be implemented as directed by the Project Engineer.

**5. OTHER CONTROLS (CONT):**

**DEDICATED ASPHALT PLANTS:** Asphalt or asphaltic material for this project will be produced off site. If the project requires a dedicated asphalt plant and the plant within 1 mile of the project limits it will be considered an off site PSL. Consideration shall be given to on site plant and storage facilities and measures implemented as directed by the Project Engineer.

**DEDICATED CONCRETE PLANTS:** Cement or Concrete material for this project will be produced off site. If the project requires a dedicated concrete plant and the plant is within 1 mile of the project limits it will be considered an off site PSL. Consideration shall be given to on site plant and storage facilities and measures implemented as directed by the Project Engineer. Concrete trucks shall be washed or washed out in locations designated by the Project Engineer. The locations shall be protected by a berm sufficient to contain all waste and wash water. Wash water shall not be allowed to enter any storm drainage system or waterway. The residual material and contaminated soil shall be collected and disposed of in accordance with Federal, State, and Local guidelines. Staging areas and vehicle maintenance areas shall be located and constructed in a manner to minimize the runoff of pollutants.

**HAZARDOUS MATERIALS AND SPILL REPORTING:** The contractor shall take appropriate measures to prevent, minimize, and control the spillage or leakage of hazardous materials and any associated wastes on site and in maintenance and staging areas. Hazardous materials shall include but are not limited to paints, acids, solvents, asphalt products, chemical additives, curing compounds, oils, fuels, and lubricants. Hazardous materials shall not be stored, accumulated, or transported in open containers subject to precipitation or spillage, but shall be stored, accumulated, or transported in closed containers of the type recommended by the manufacturer. In the event of a spill the Project Engineer should be contacted immediately. All spills shall be immediately cleaned and any contaminated soil removed and disposed of in accordance with Local, State, and Federal laws. Fuel tanks shall be protected by a secondary containment, such as a lined berm, capable of containing 1.5 times the capacity of the tank, or as approved by the Project Engineer.

**OFF SITE PSLs:** All off site project specific locations including dedicated asphalt plants, concrete plants, or utility installations, required by the contractor, are the contractor's responsibility. The contractor shall secure all permits required by local, state, or federal laws for off site PSLs. The contractor shall provide diagrams and areas of disturbance for all PSL's within 1 mile of the project.

**SANITARY FACILITIES:** All sanitary or septic wastes that are generated onsite shall be treated and disposed of in accordance with state and local regulations. Raw sewage or septage shall not be discharged or buried on site. Precaution shall be taken to prevent illicit discharges to storm water. Licensed waste management contractors shall be required to dispose of sanitary waste. Porta johns will be required for the construction site or as directed by the Project Engineer.

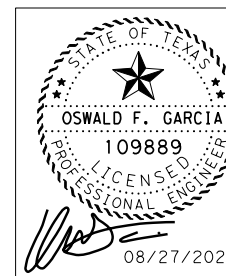
**VELOCITY DISSIPATION DEVICES:** Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as shown in the plans or as directed by the Project Engineer to provide a non-erosive flow velocity from the structure to a watercourse so that the natural physical and biological characteristics and functions are maintained and protected.

**6. APPROVED STATE AND LOCAL PLANS:** This SWP3 is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or storm water management site plans or permits approved by federal, state, or local officials.

**7. MAINTENANCE:** Control measures shall be properly installed according to specifications. If inspections or other information indicates a control has been installed, used, or is performing inadequately, the contractor must replace or modify the control as soon as practicable after discovery. Control measures shall be maintained in effective operating condition. If inspections determine that BMPs are not operating effectively maintenance will be performed as necessary to continue the effectiveness of the controls. Maintenance must be accomplished as soon as practicable. Controls adjacent to creeks, culverts, bridges, and water crossings shall have priority. Controls that have been disabled, run over, removed, or otherwise rendered ineffective must be corrected immediately upon discovery.

**8. INSPECTION OF CONTROLS:** A CEP inspector will inspect disturbed areas of the site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Sediment and erosion controls measures identified in the SWP3 will be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site will be inspected for evidence of off-site vehicle tracking. Inspections will be conducted every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. The SWP3 will be modified based on the result of these inspections. Revisions will be completed within 7 Calendar days following the inspection. Revised implementation schedules will be described in the SWP3 and implemented as soon as practicable. Rain gauges will be maintained on site for the duration of the project. Reports summarizing the scope of the inspections are included in the SWP3 file.

**9. NON-STORM WATER COMPONENTS:** The contractor shall be required to implement appropriate pollution prevention controls and measures for all eligible non-storm water components of the discharge as approved and directed by the Project Engineer.



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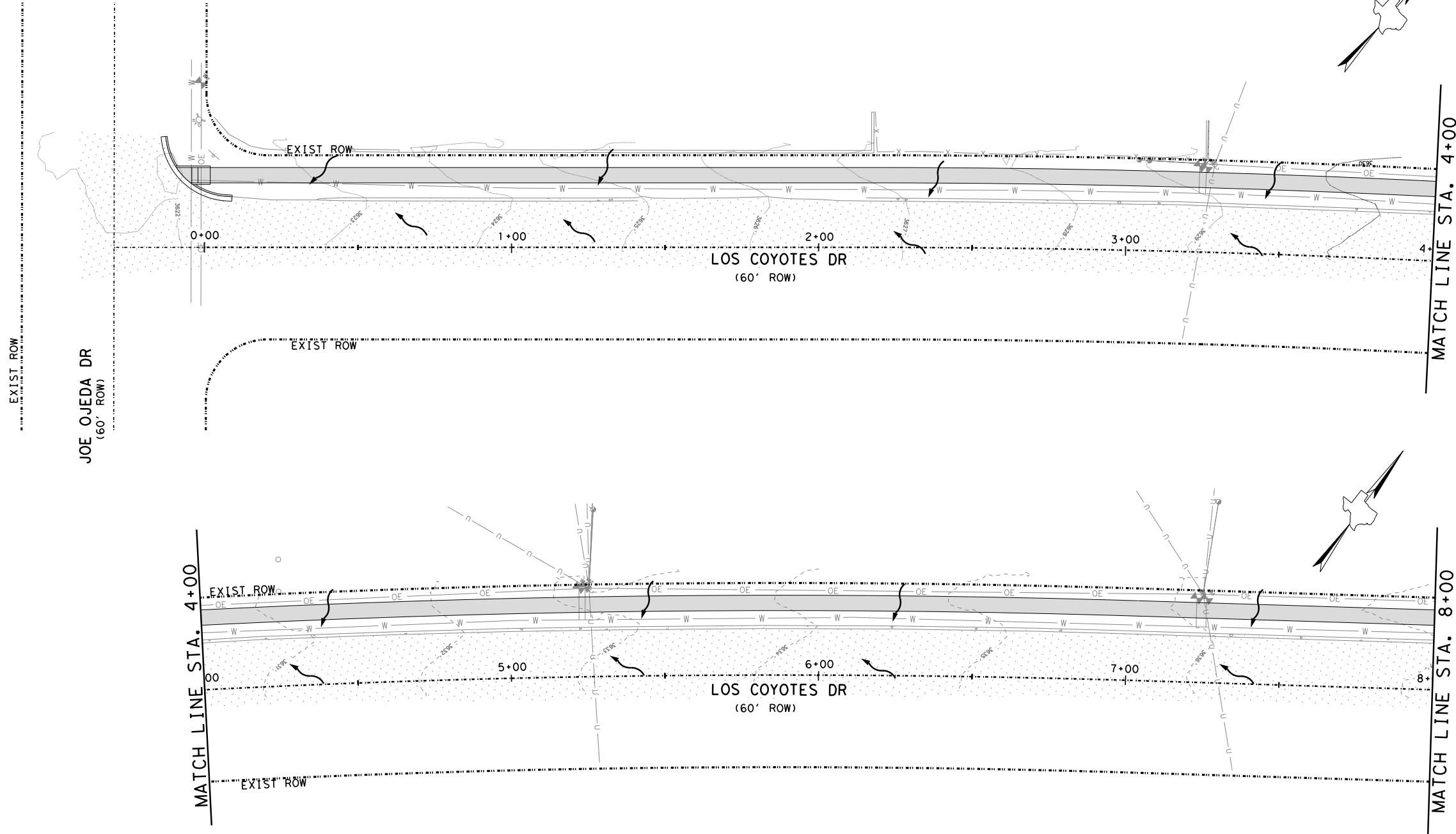
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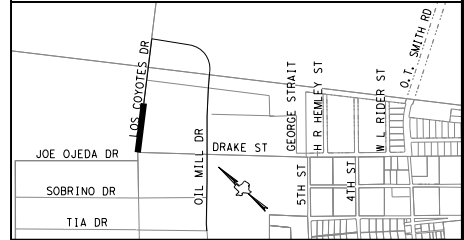
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				137
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TEXAS	ELP	EL PASO		
CONT.	SECT.	JOB	HIGHWAY NO.	
0924	06	616, ETC	VARIOUS	

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KEYMAP



LEGEND

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- TEMPORARY SEDIMENT CONTROL FENCE (SCF)
- PROPOSED CONCRETE SIDEWALK
- FLOW DIRECTION

OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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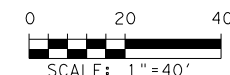
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
LOS COYOTES DRIVE  
STA 0+00 TO STA 8+00

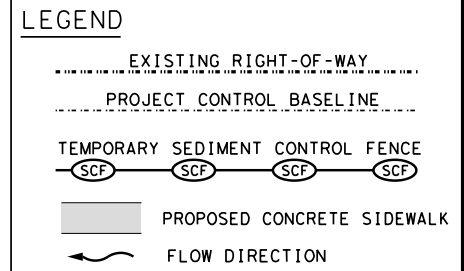
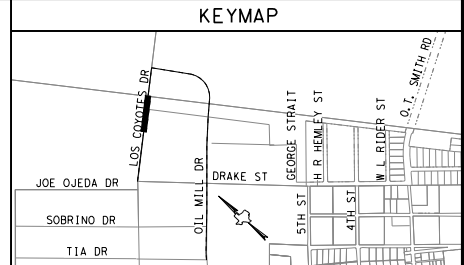
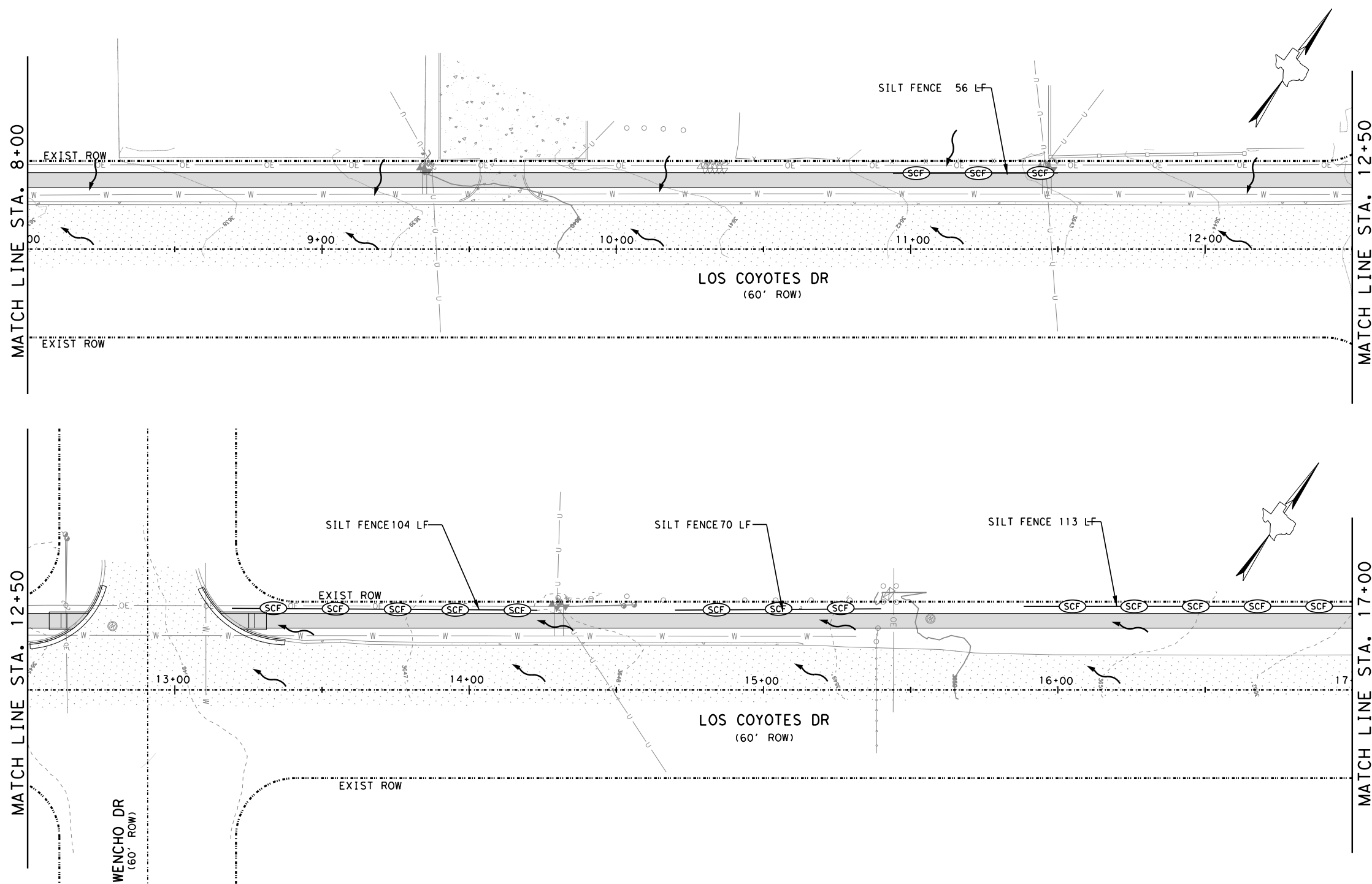
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CSJ 0924-06-617

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TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
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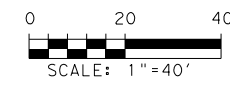
CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
  
**MCI** Moreno  
 Cardenas Inc.  
EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP STORMWATER POLLUTION PREVENTION PLAN**  
 LOS COYOTES DRIVE  
 STA 8+00 TO STA 17+00  
 SHEET 2 OF 6

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	139	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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SHEET 2 OF 6 (COYOTES)*				
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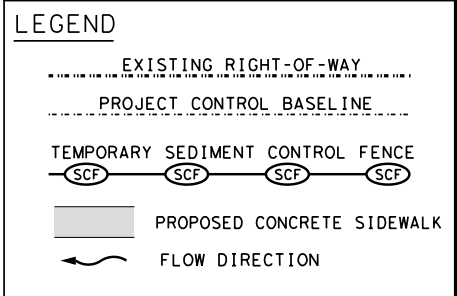
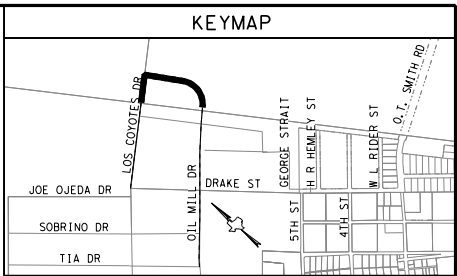
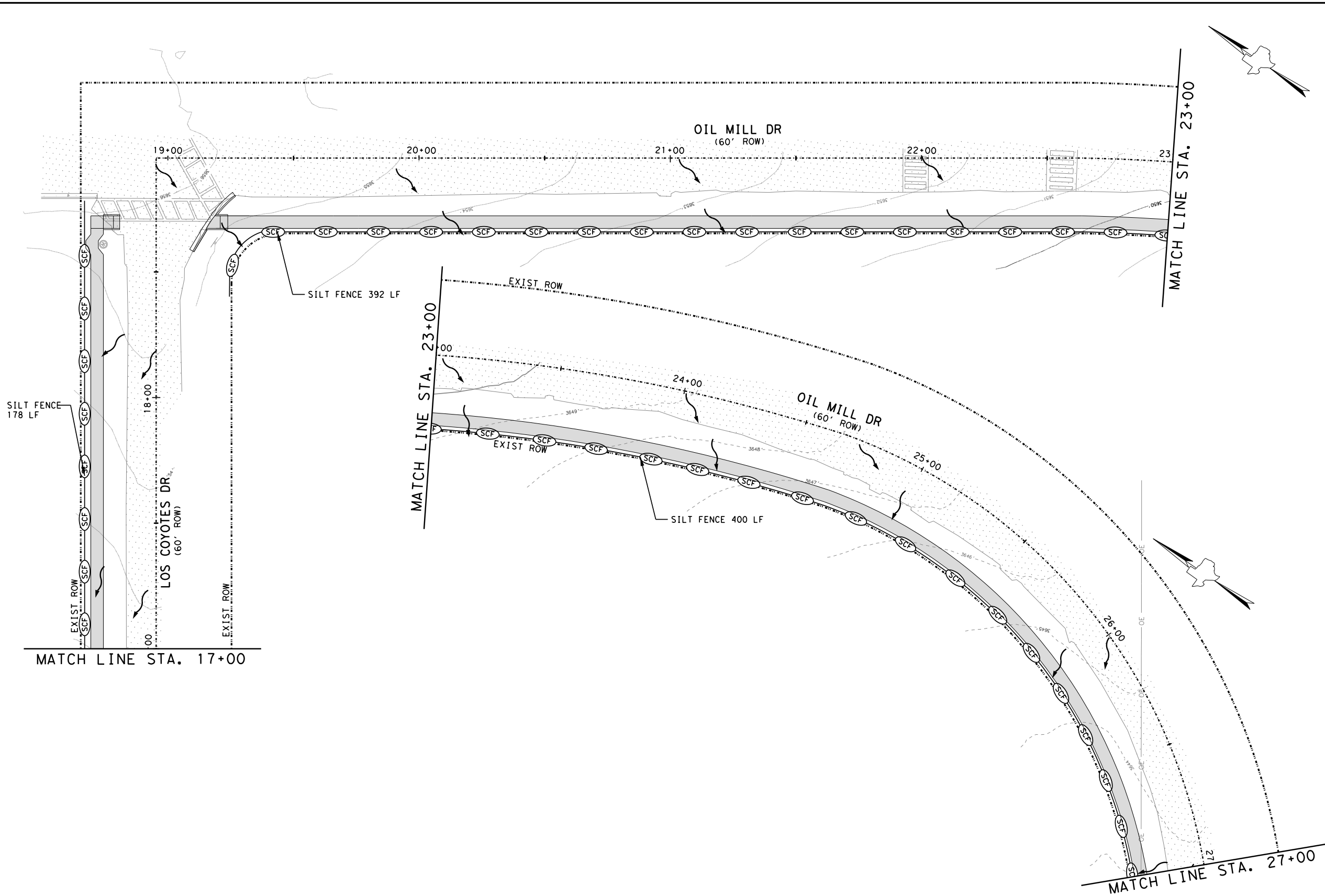


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STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
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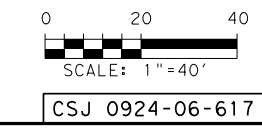
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**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
**STORMWATER POLLUTION PREVENTION PLAN**  
 LOS COYOTES DRIVE AND OIL MILL DRIVE  
 STA 17+00 TO STA 27+00  
 SHEET 3 OF 6

CSJ: 0924-06-617  
 SHEET 3 OF 6 (COYOTES)\*

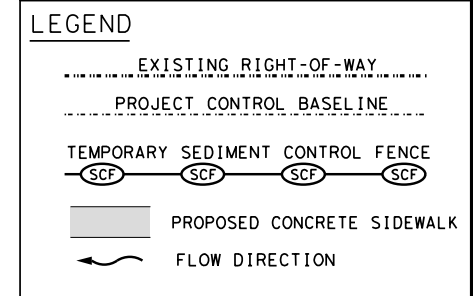
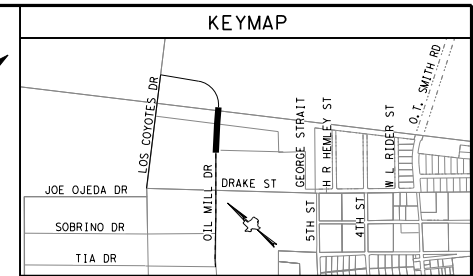
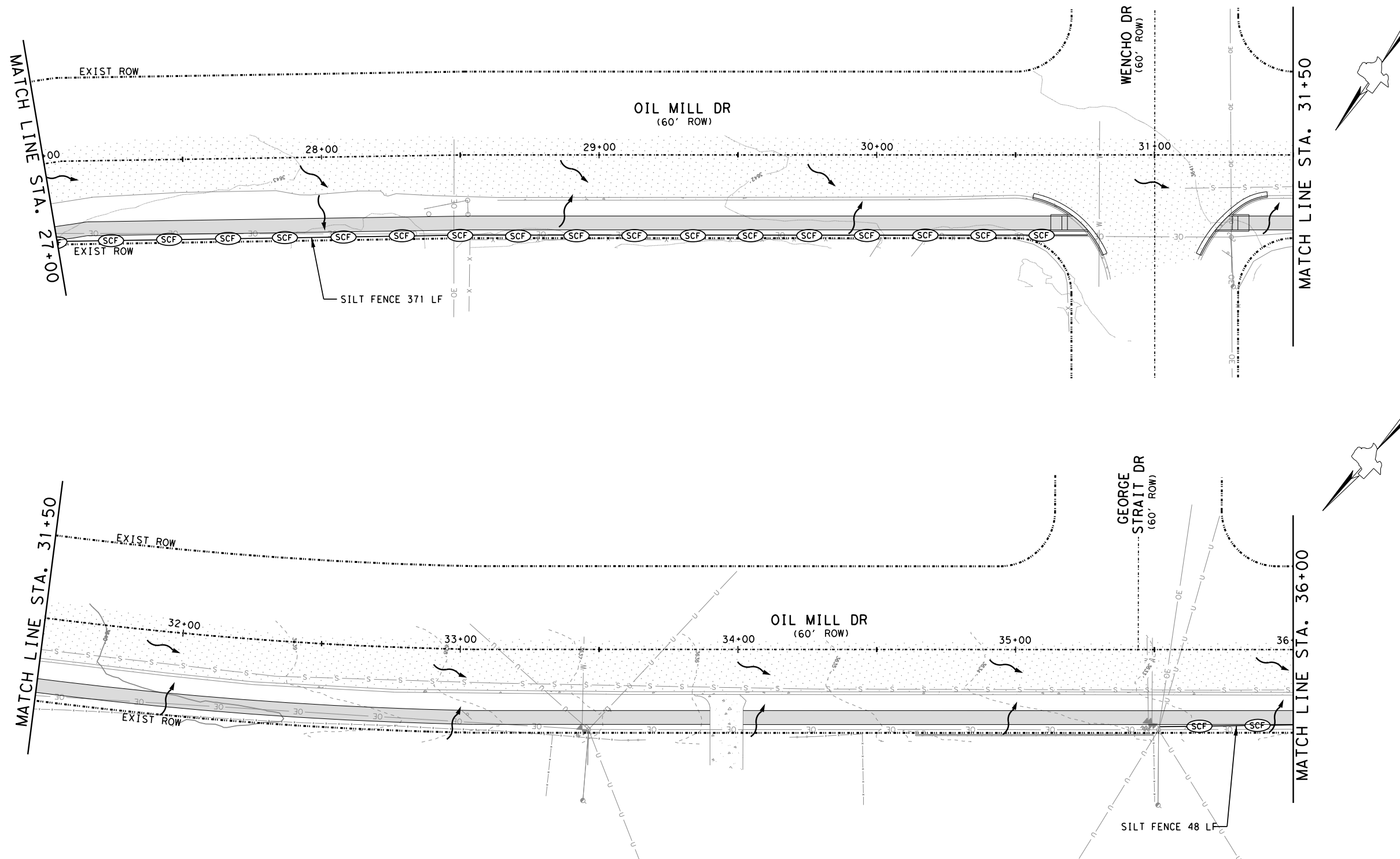
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\*NOTE TO REVIEWER: SHEET TOTALS FOR LOS COYOTES DR AND OIL MILL DR



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TEXAS	ELP	EL PASO	
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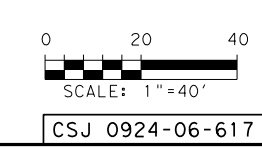
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 REGIONAL MOBILITY AUTHORITY

**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP STORMWATER POLLUTION PREVENTION PLAN**  
 OIL MILL DRIVE  
 STA 27+00 TO STA 36+00  
 SHEET 4 OF 6

CSJ: 0924-06-617				
SHEET 4 OF 6 (COYOTES)*				
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*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY				



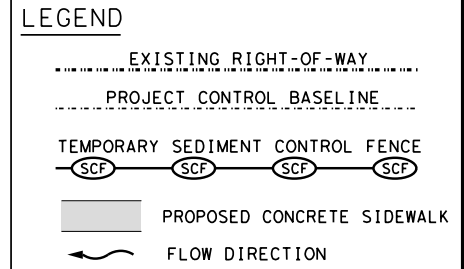
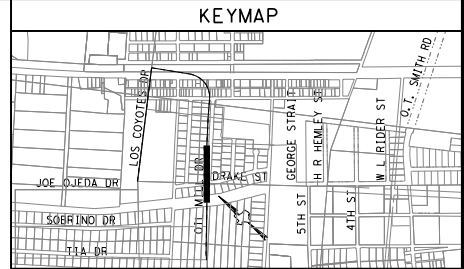
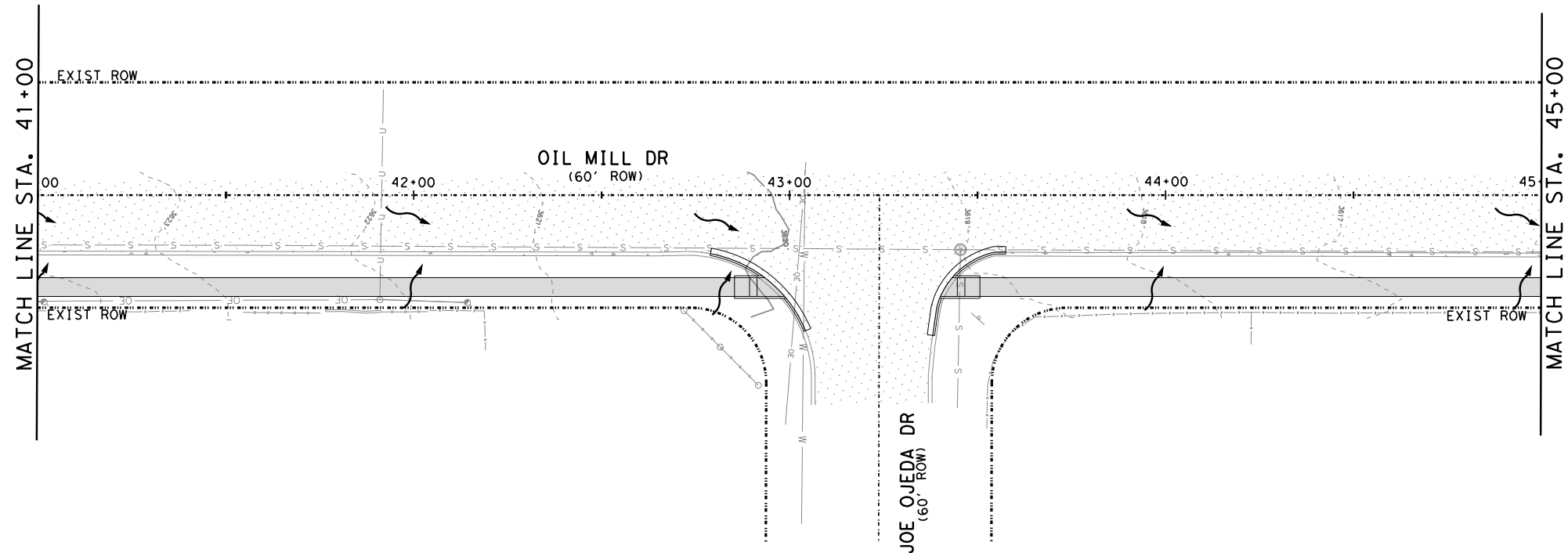
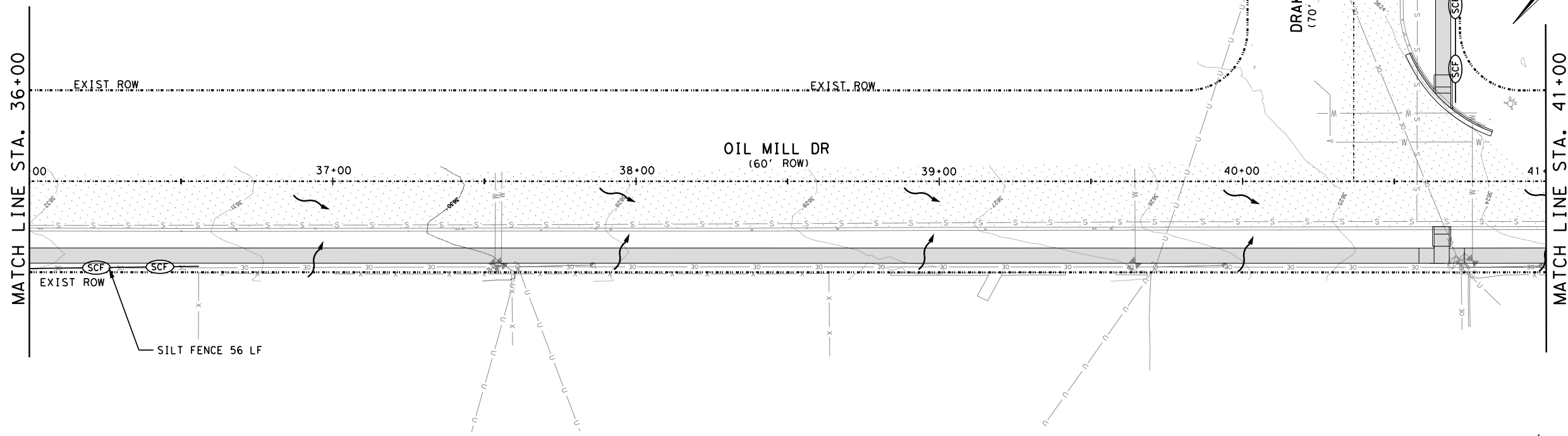
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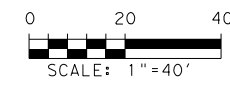
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TORNILLO NORTH AND SOUTH SIDEWALKS/SUP STORMWATER POLLUTION PREVENTION PLAN OIL MILL DRIVE STA 36+00 TO STA 45+00

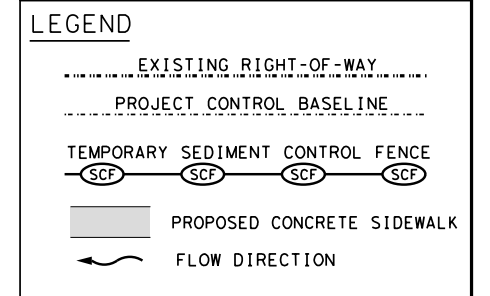
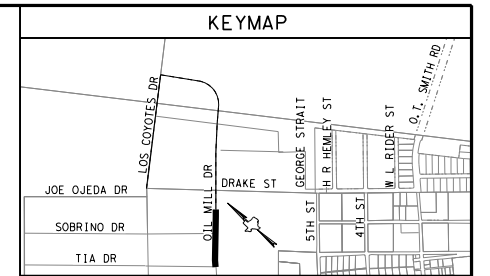
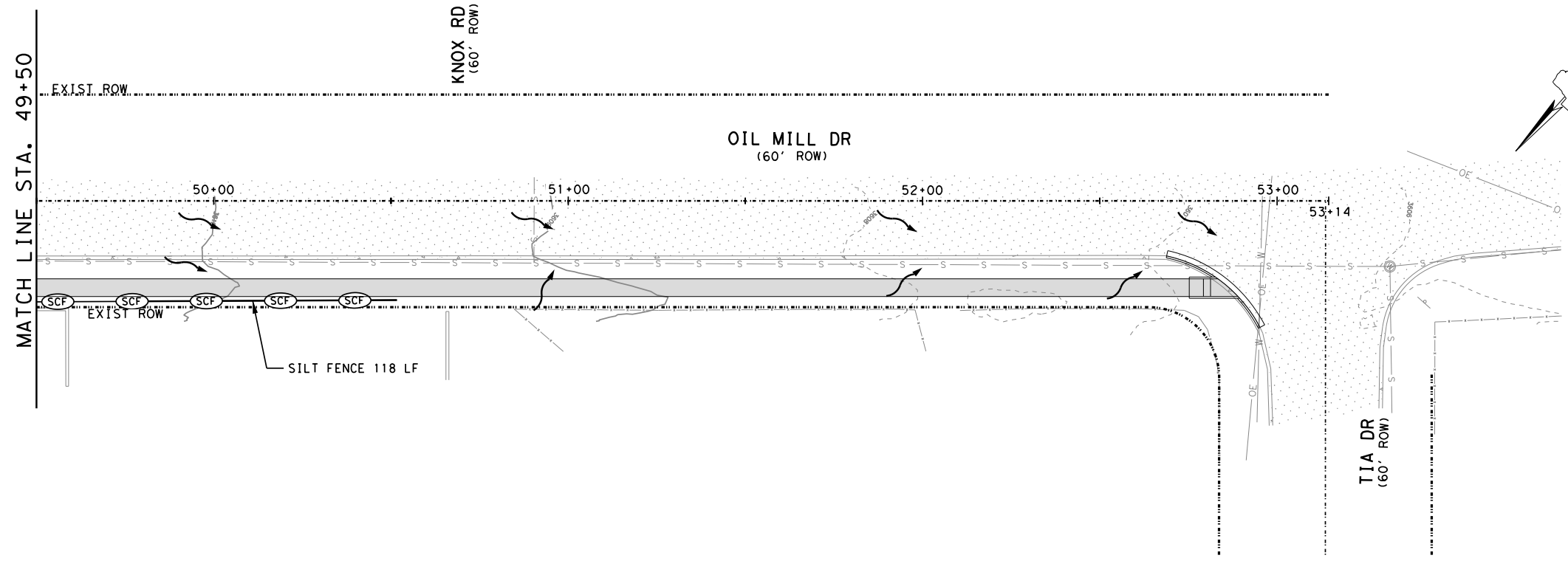
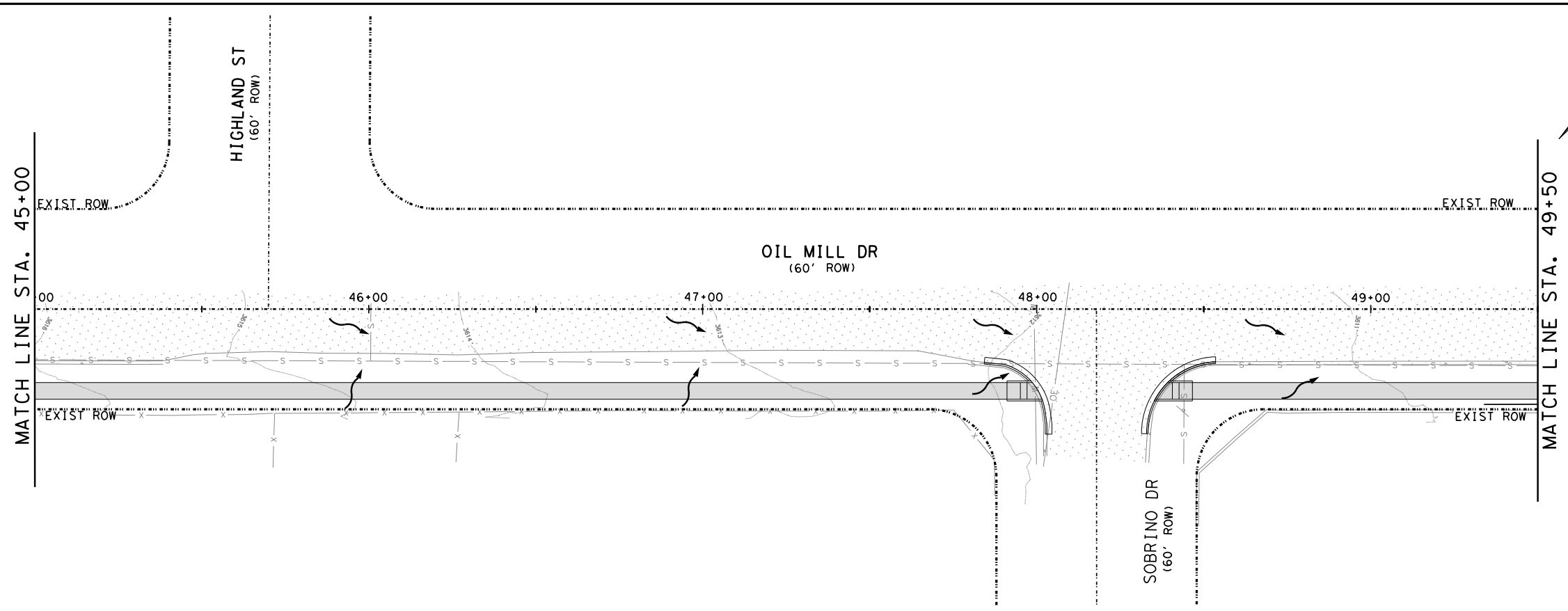
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0924	06	616, ETC	VARIOUS

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SHEET 5 OF 6 (COYOTES)*				
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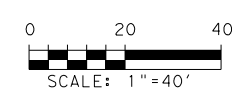
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 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 OIL MILL DRIVE  
 STA 45+00 TO STA 53+14  
 SHEET 6 OF 6

CSJ: 0924-06-617				
SHEET 6 OF 6 (COYOTES)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	118
506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	118
*NOTE TO REVIEWER: SHEET TOTALS FOR OIL MILL DR ONLY				

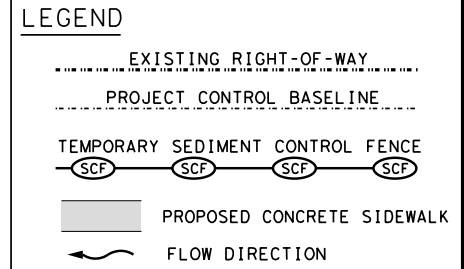
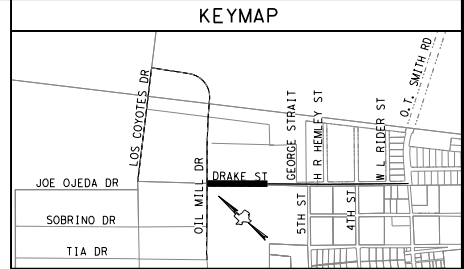
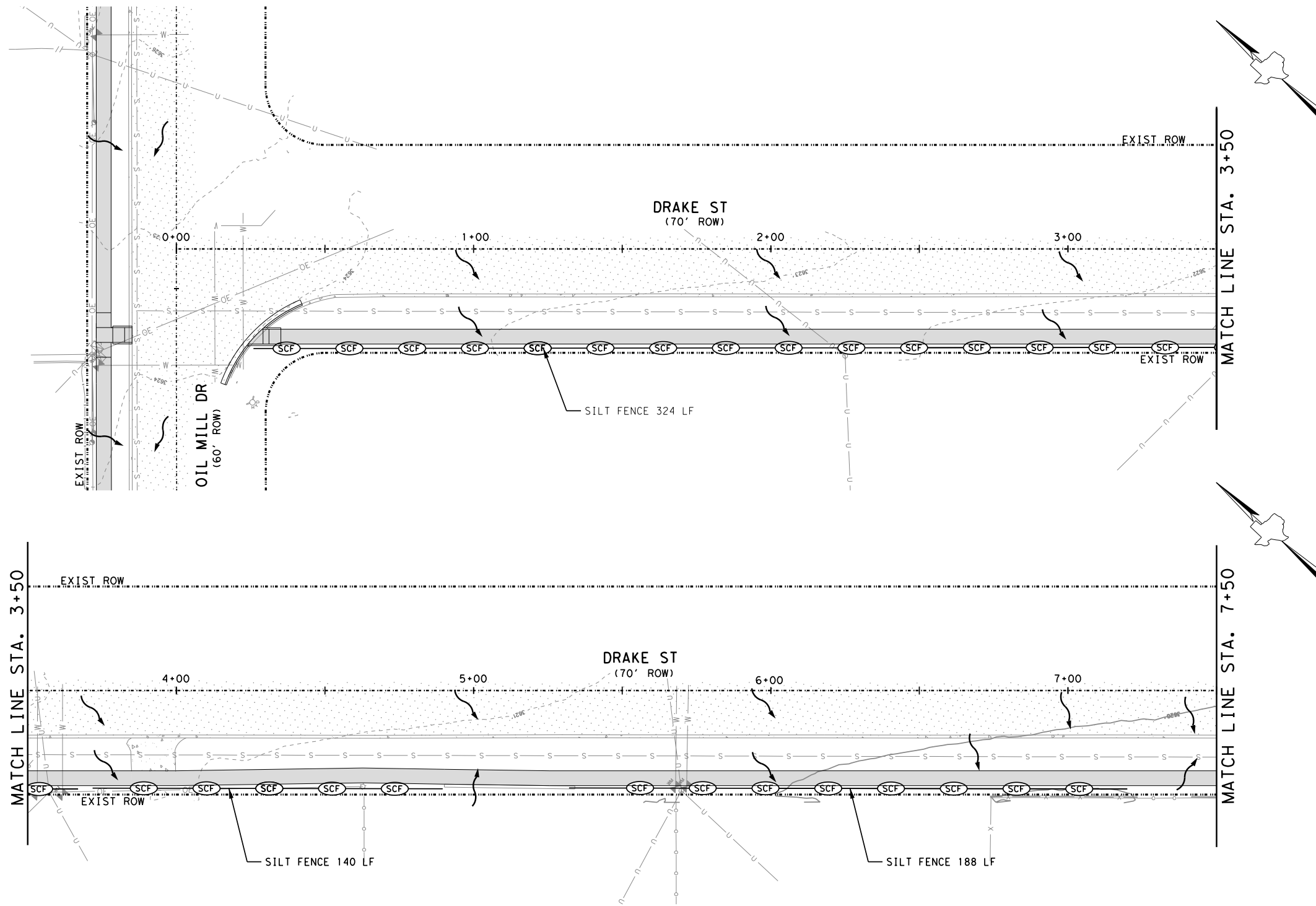


CSJ 0924-06-617

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		143
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

8/27/2021 12:56:07 PM jair

F:\9136\DG(N-N-B) - Drake Street\9136 - (NORTH)\_DRAKE\_SWP3\_(01) .dgn



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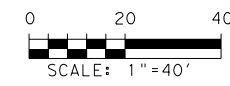
CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno  
 Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554



TORNILLO NORTH AND SOUTH  
 SIDEWALKS/SUP  
 STORMWATER POLLUTION  
 PREVENTION PLAN  
 DRAKE STREET  
 STA 0+00 TO STA 7+50

SHEET 1 OF 4			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		144
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

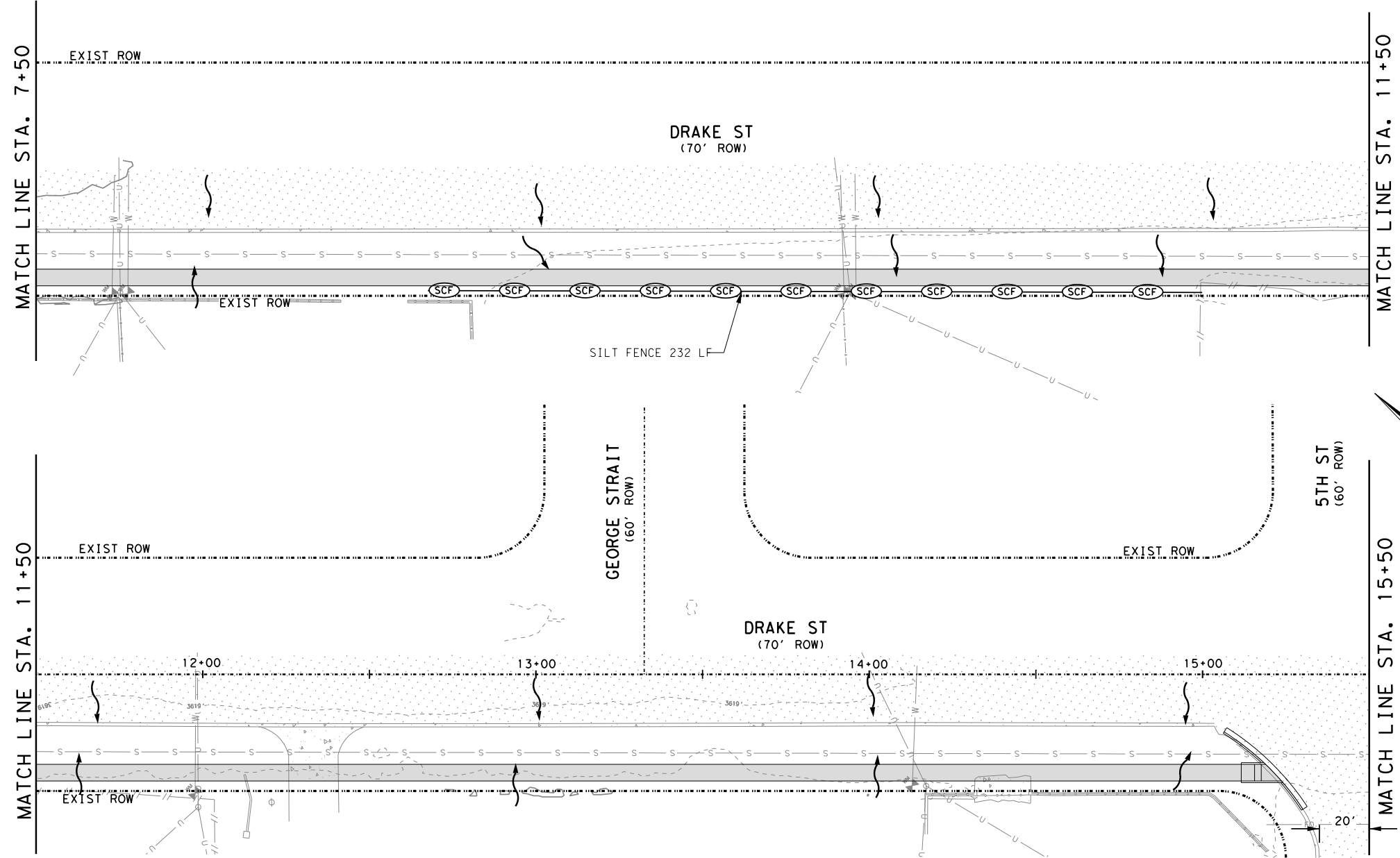
CSJ: 0924-06-617				
SHEET 1 OF 4 (DRAKE) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
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506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	652
*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY				



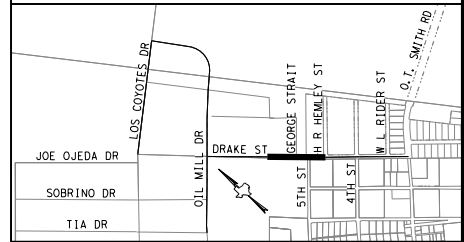
CSJ 0924-06-617

8/27/2021 12:56:08 PM jair

F:\19136\DG\N(N-B) - Drake Street\19136 - (NORTH)\_DRAKE\_SWP3\_(02).dgn



KEYMAP



LEGEND

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- TEMPORARY SEDIMENT CONTROL FENCE (SCF)
- PROPOSED CONCRETE SIDEWALK
- FLOW DIRECTION



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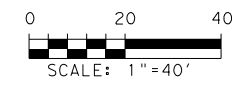


TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
DRAKE STREET  
STA 7+50 TO STA 15+50

SHEET 2 OF 4	
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.
	STP 2021 (473) TP
SHEET NO.	145

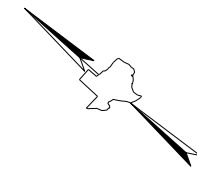
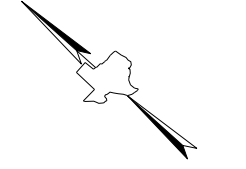
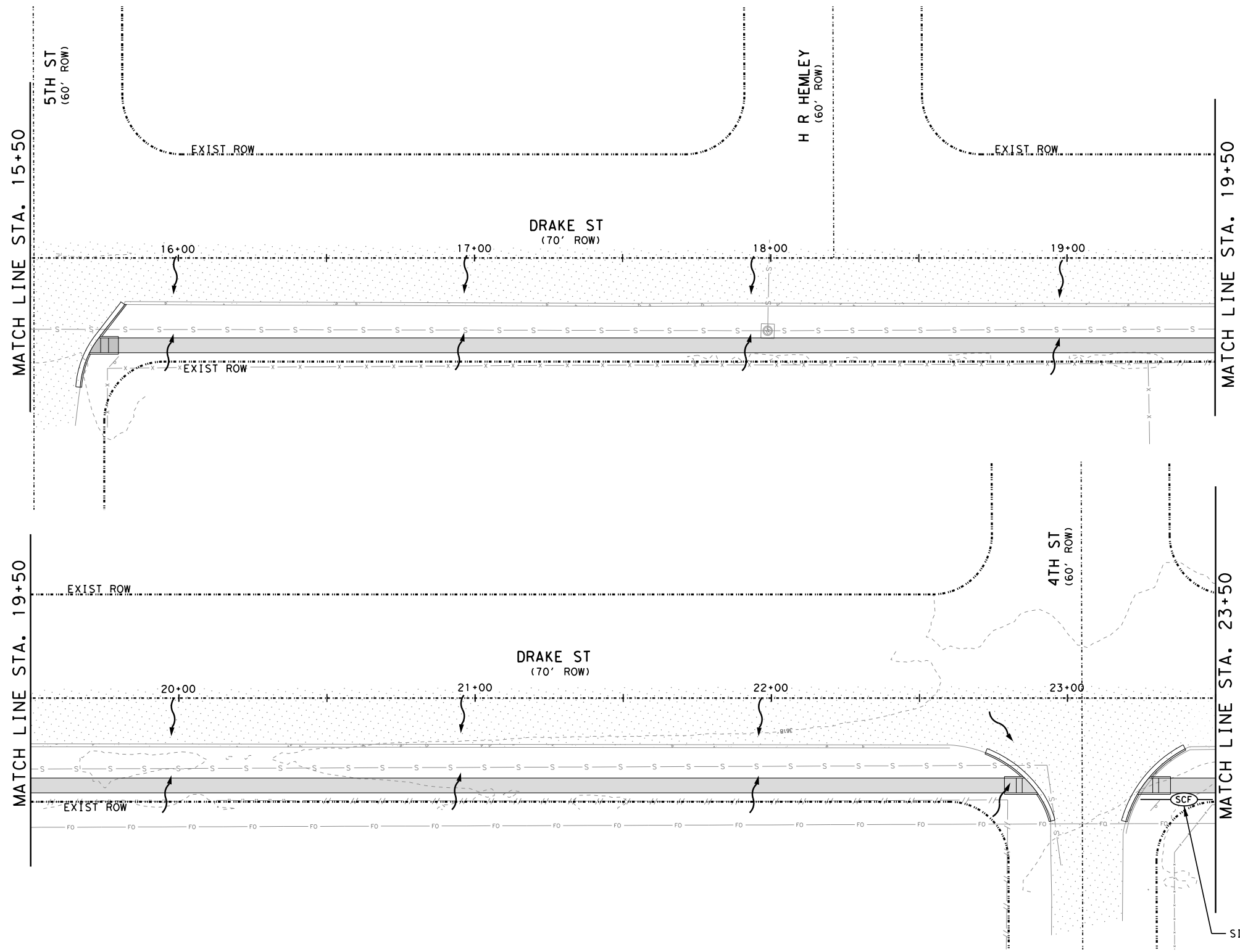


CSJ 0924-06-617

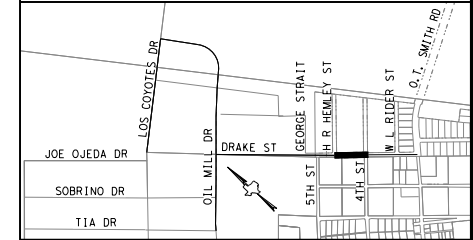
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SHEET 2 OF 4 (DRAKE) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
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506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	232
*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY				

8/27/2021 12:56:09 PM jair

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KEYMAP



LEGEND

- EXISTING RIGHT-OF-WAY
- PROJECT CONTROL BASELINE
- TEMPORARY SEDIMENT CONTROL FENCE (SCF)
- PROPOSED CONCRETE SIDEWALK
- FLOW DIRECTION



08/27/2021

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PLANNING ENGINEERING PROJECT MANAGEMENT



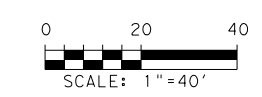
TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
DRAKE STREET  
STA 15+50 TO STA 23+50

SHEET 3 OF 4

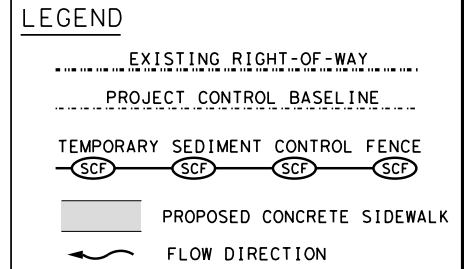
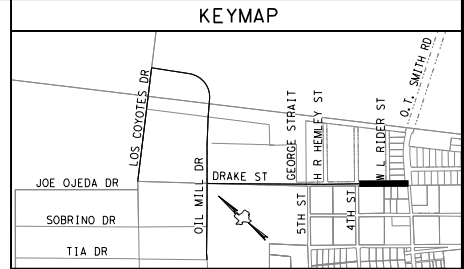
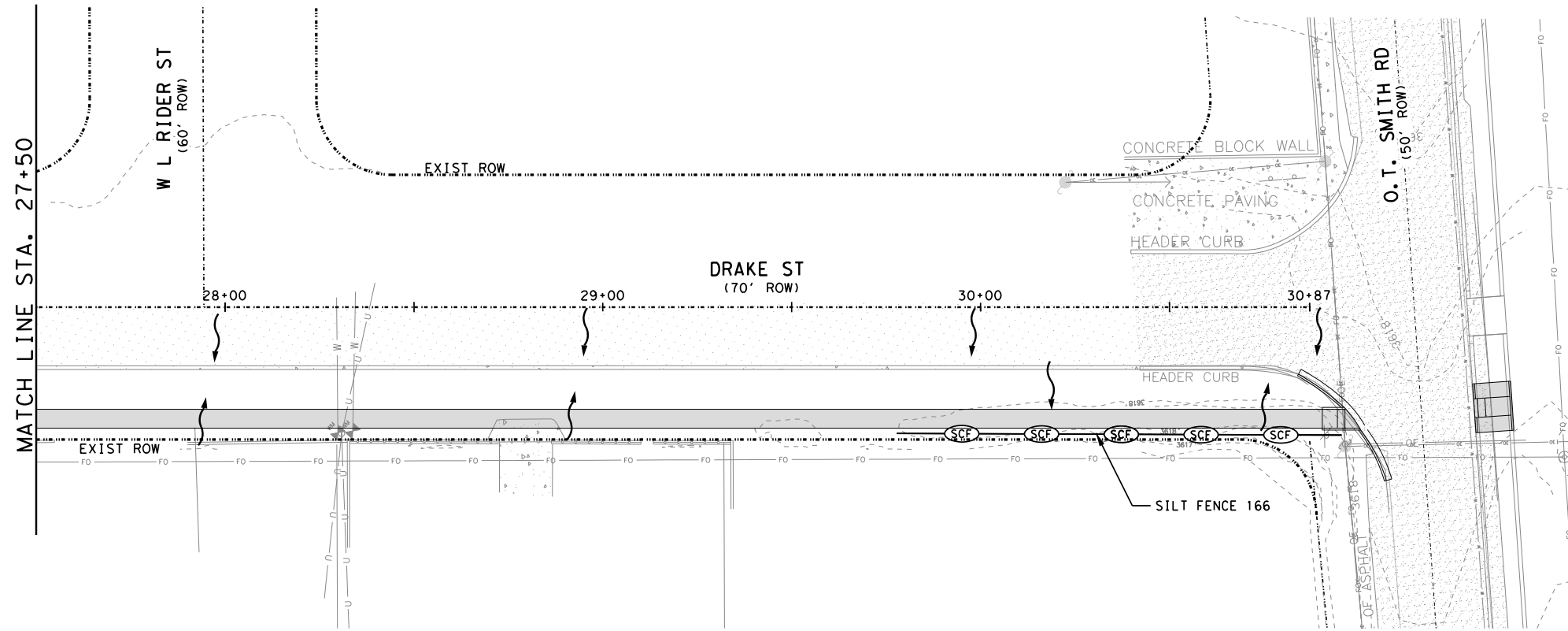
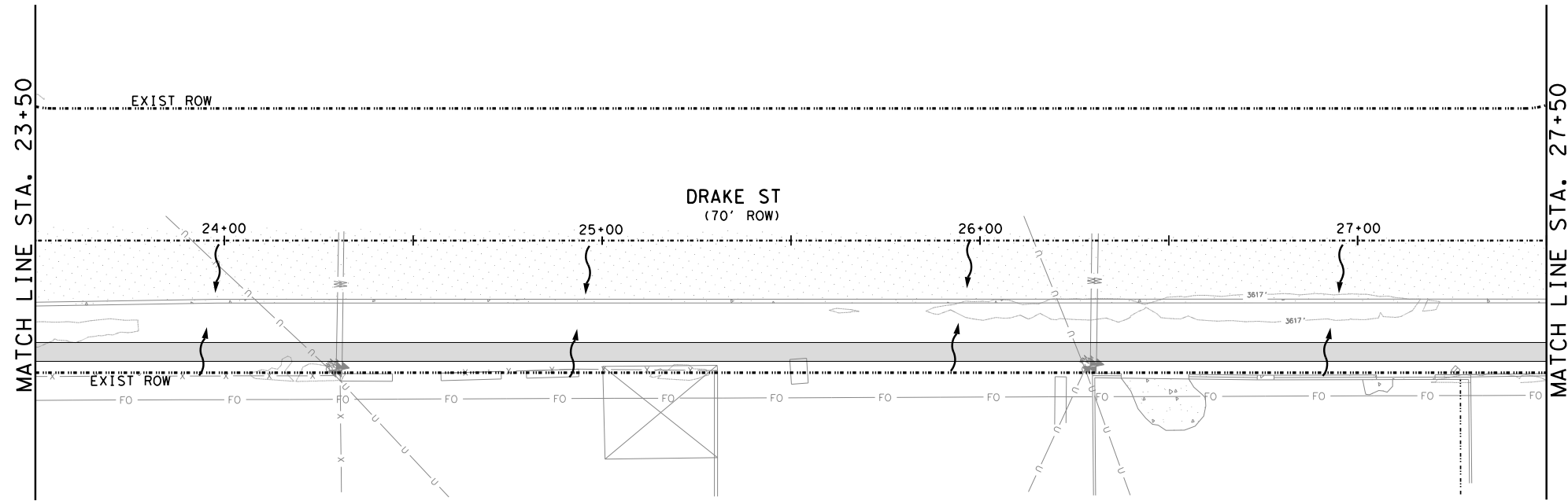
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	STP 2021 (473) TP	146	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
CSJ 0924-06-617	0924	06	616, ETC VARIOUS



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8/27/2021

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STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

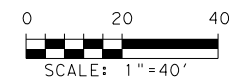
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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 DRAKE STREET  
 STA 23+50 TO STA 30+87

SHEET 4 OF 4			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
	STP 2021 (473) TP	147	
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

CSJ: 0924-06-617				
SHEET 4 OF 4 (DRAKE) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	116
506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	116
*NOTE TO REVIEWER: SHEET TOTALS FOR DRAKE ST ONLY				

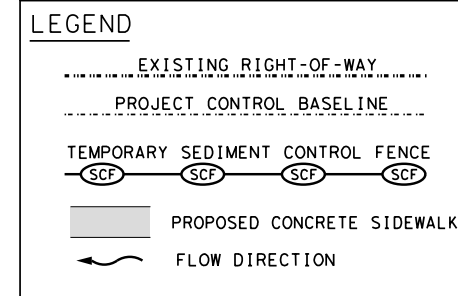
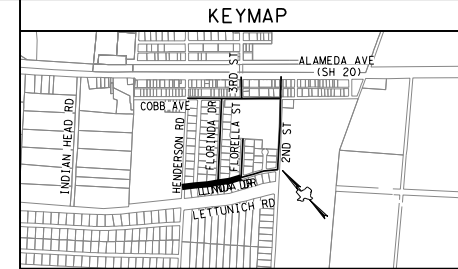
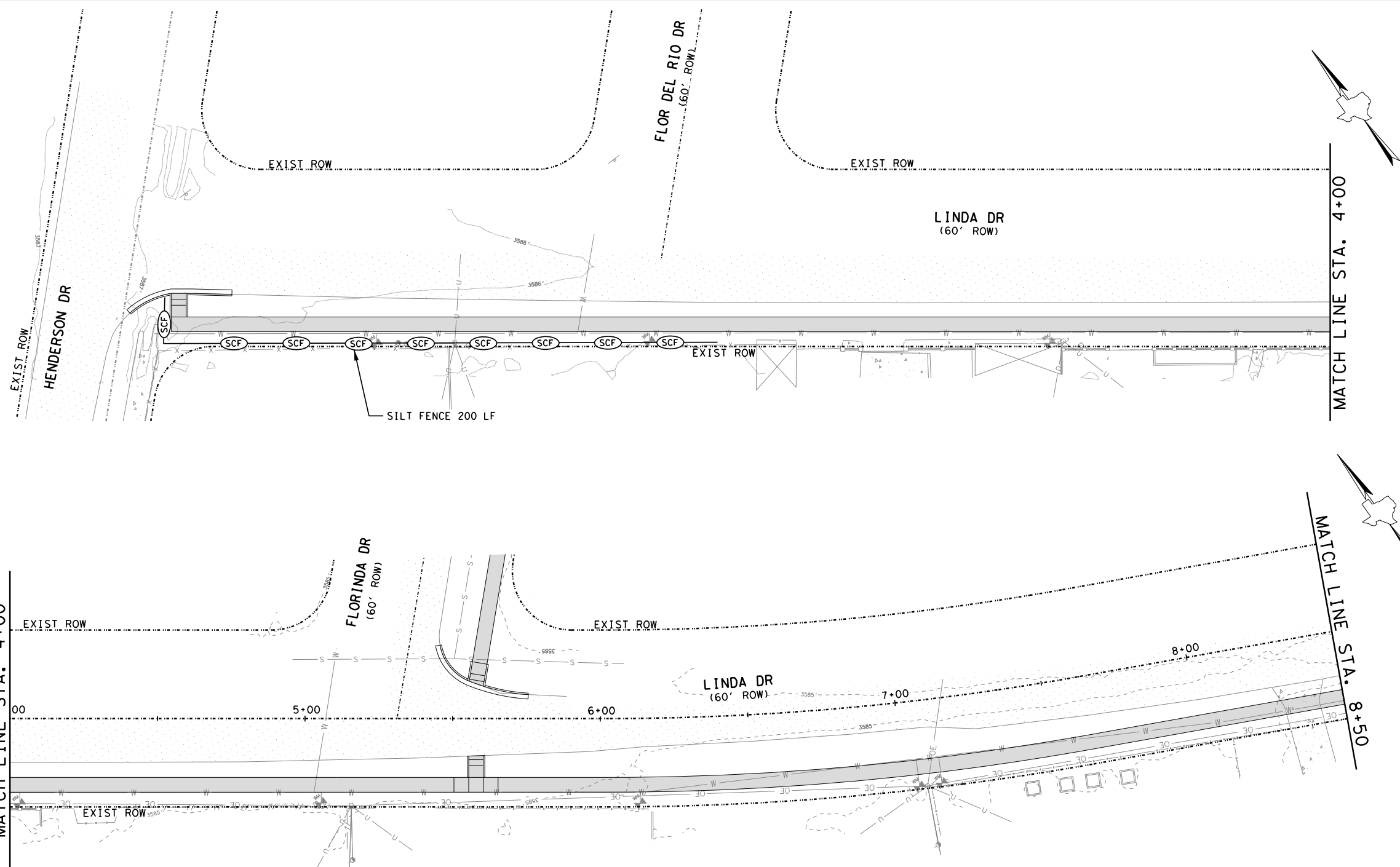


CSJ 0924-06-617



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STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

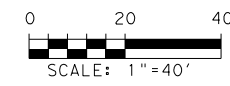
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**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 LINDA DRIVE  
 STA 0+00 TO STA 8+50  
 SHEET 1 OF 4

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	148
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

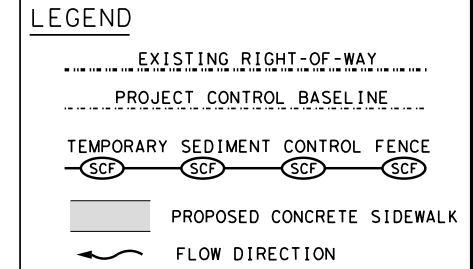
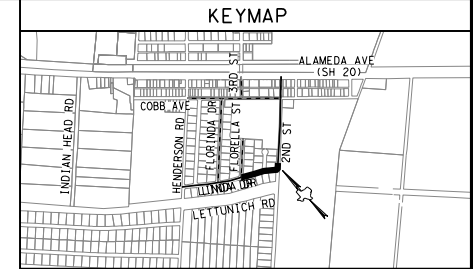
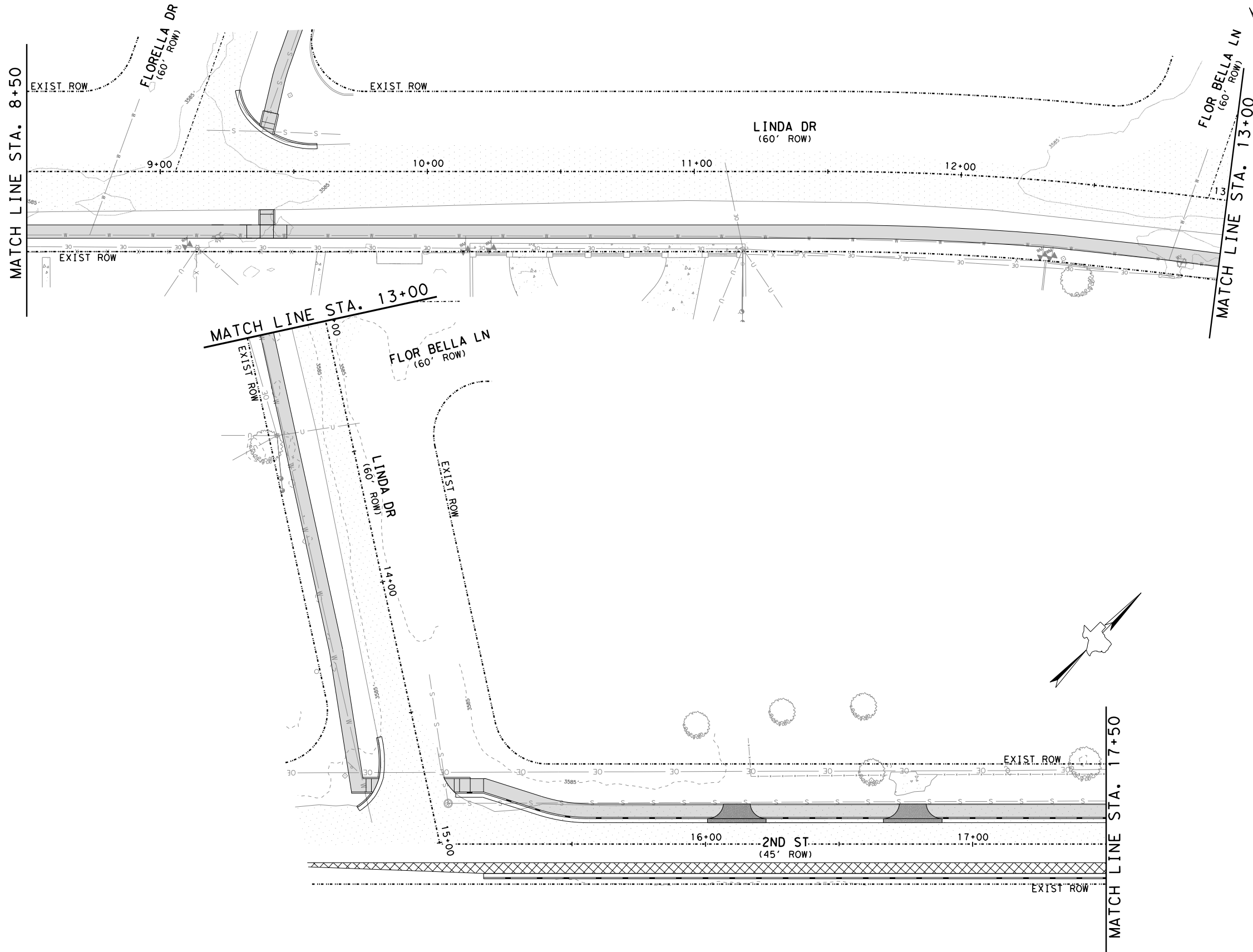
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SHEET 1 OF 4 (LINDA) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
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506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	200
*NOTE TO REVIEWER: SHEET TOTALS FOR LINDA DR ONLY				



CSJ 0924-06-616

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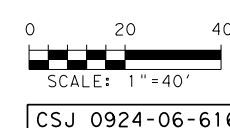


STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

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**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

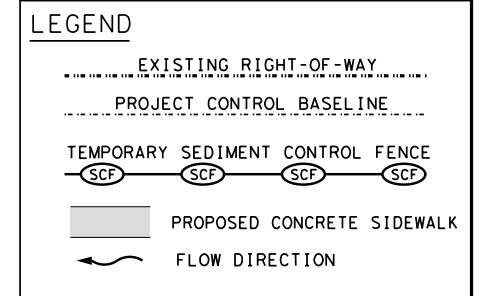
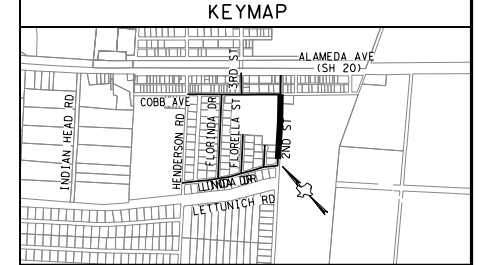
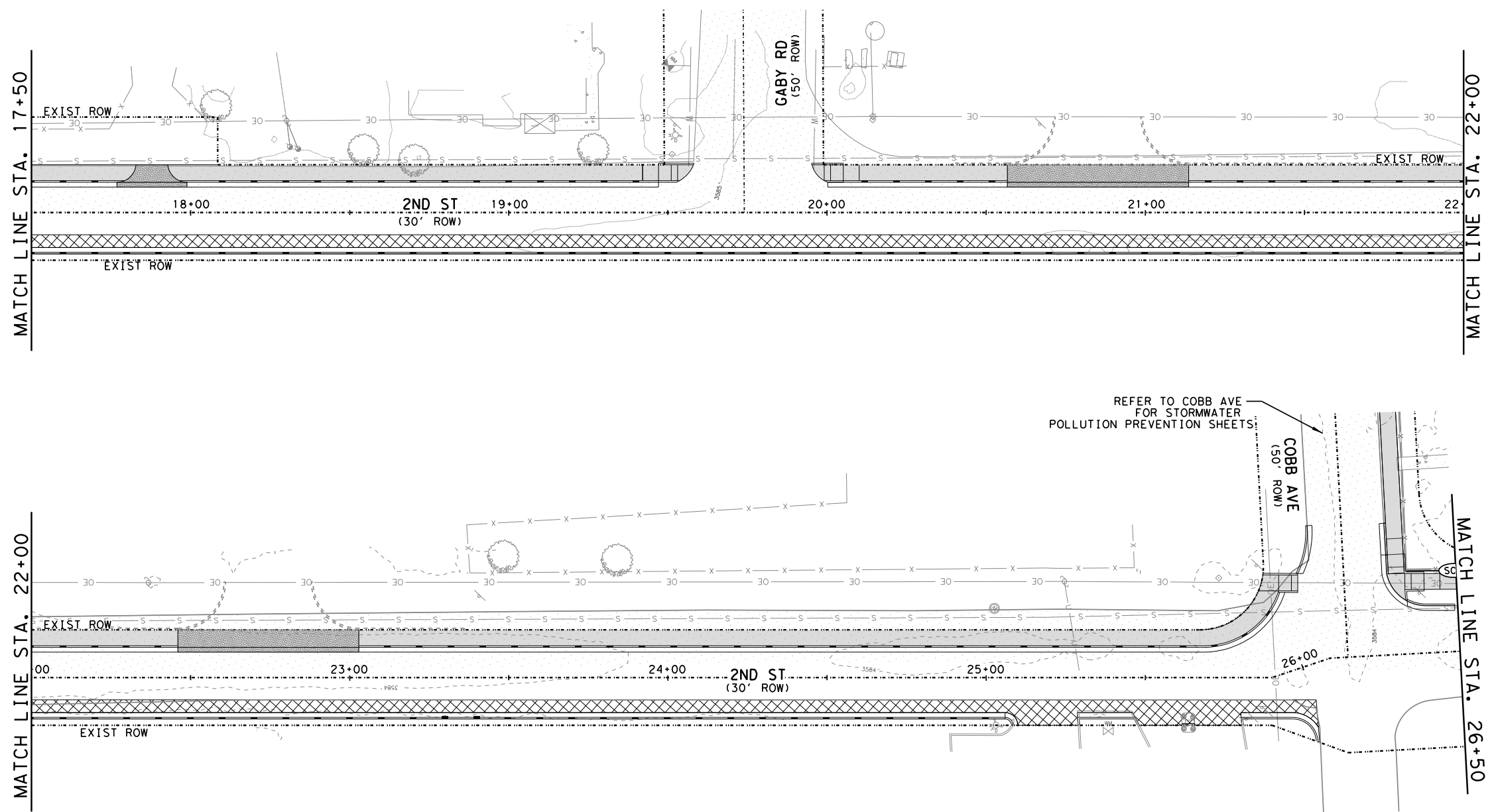
TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 LINDA DRIVE & 2ND STREET  
 STA 8+50 TO STA 17+50



FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		149
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
CSJ 0924-06-616	0924	06 616, ETC	VARIOUS

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F:\9136\DG\N\S-CJ - Linda Drive and 2nd Street\9136 - (SOUTH) - LINDA\_SWP3\_031.dgn



REFER TO COBB AVE FOR STORMWATER POLLUTION PREVENTION SHEETS

OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

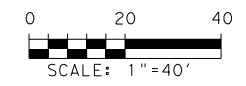
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CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
2ND STREET  
STA 17+50 TO STA 26+50  
SHEET 3 OF 4

CSJ: 0924-06-616			
SHEET 3 OF 4 (2ND) *			
ITEM	CODE	DESCRIPTION	UNIT QUANTITY
*NOTE TO REVIEWER: SHEET TOTALS FOR 2ND ST ONLY			

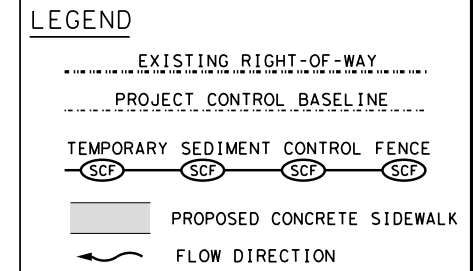
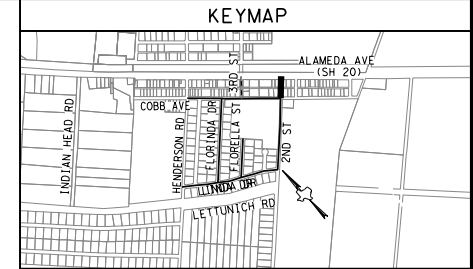
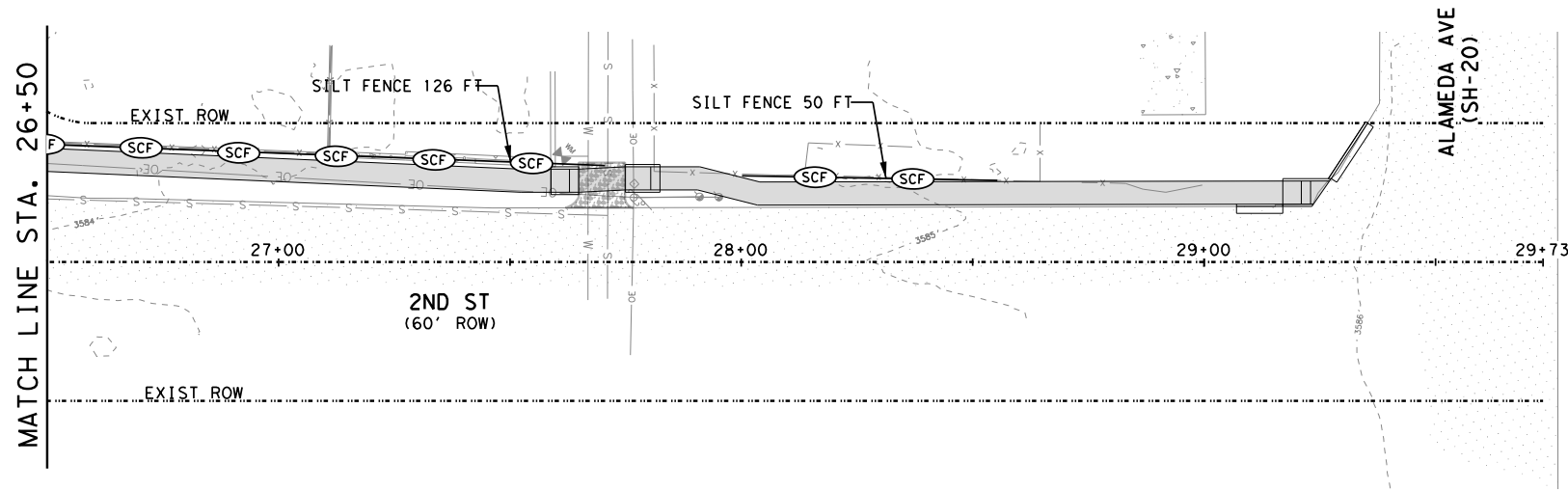


CSJ 0924-06-616

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		150
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

8/27/2021 12:56:17 PM jair

F:\9136\DG\N\S-CJ - Linda Drive and 2nd Street\9136 - (SOUTH)-Linda\_SWP3\_(04).dgn



08/27/2021

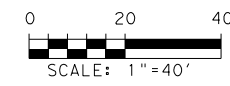
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**MCI** Moreno  
 Cardenas Inc.  
EL PASO SAN ANTONIO  
 TBPE Firm Registration  
 No. F-000554



**TORNILLO NORTH AND SOUTH SIDEWALKS/SUP STORMWATER POLLUTION PREVENTION PLAN**  
 2ND STREET  
 STA 26+50 TO STA 29+73  
 SHEET 4 OF 4

CSJ: 0924-06-616				
SHEET 4 OF 4 (2ND) *				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	176
506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	176
*NOTE TO REVIEWER: SHEET TOTALS FOR 2ND ST ONLY				



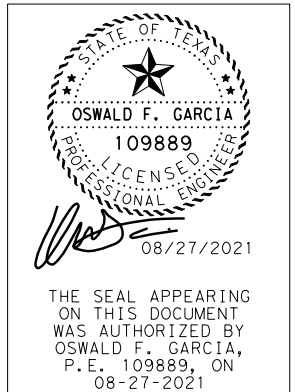
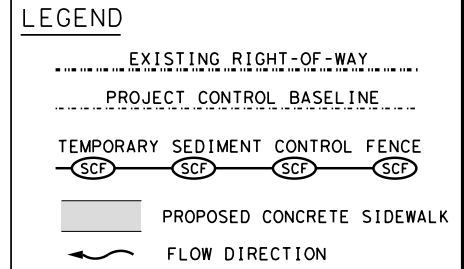
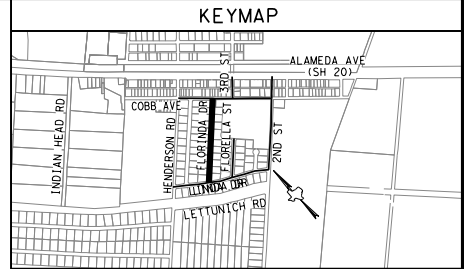
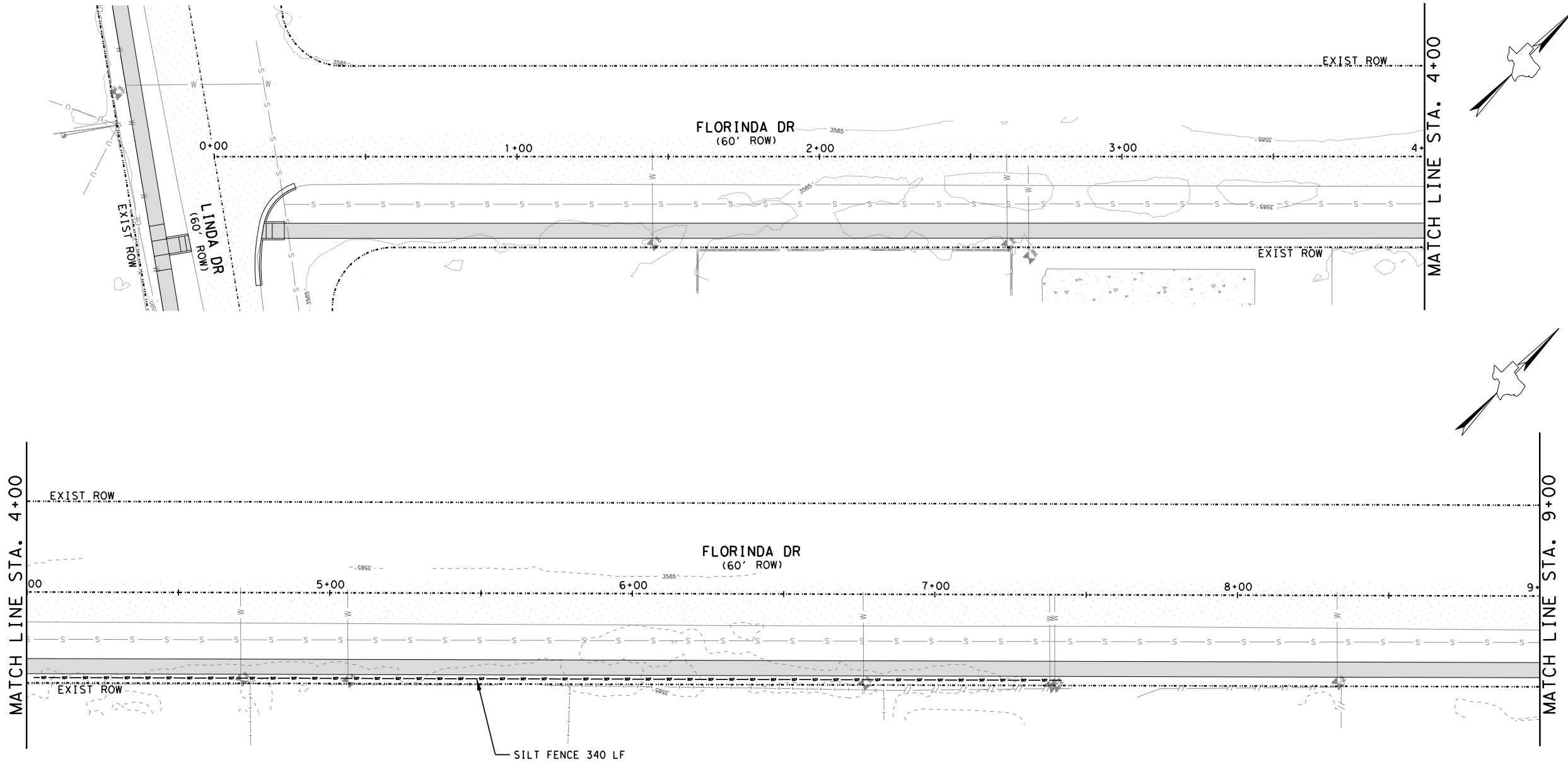
CSJ 0924-06-616

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	STP 2021 (473) TP	151
STATE	DIST.	COUNTY
TEXAS	ELP	EL PASO
CONT.	SECT.	JOB HIGHWAY NO.
0924	06	616, ETC VARIOUS

8/27/2021 12:56:18 PM jair

8/27/2021

F:\9136\DG\N(S-D) - Florinda Drive\9136 - (SOUTH)\_FLORINDA\_SWP3\_PLAN\_(01).dgn



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**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

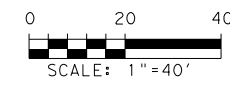
TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
FLORINDA DRIVE  
STA 0+00 TO STA 9+00

SHEET 1 OF 2		FEDERAL AID PROJECT NO.	SHEET NO.
		STP 2021 (473) TP	152
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

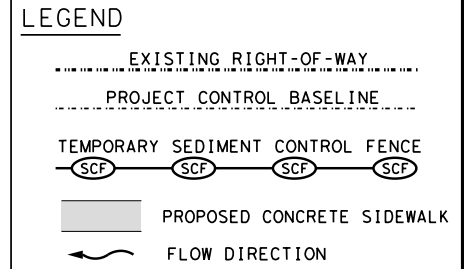
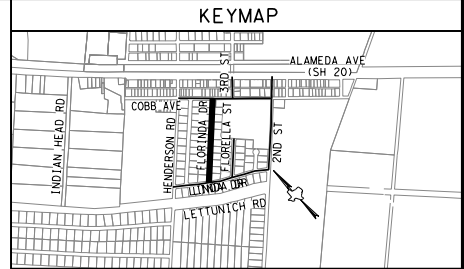
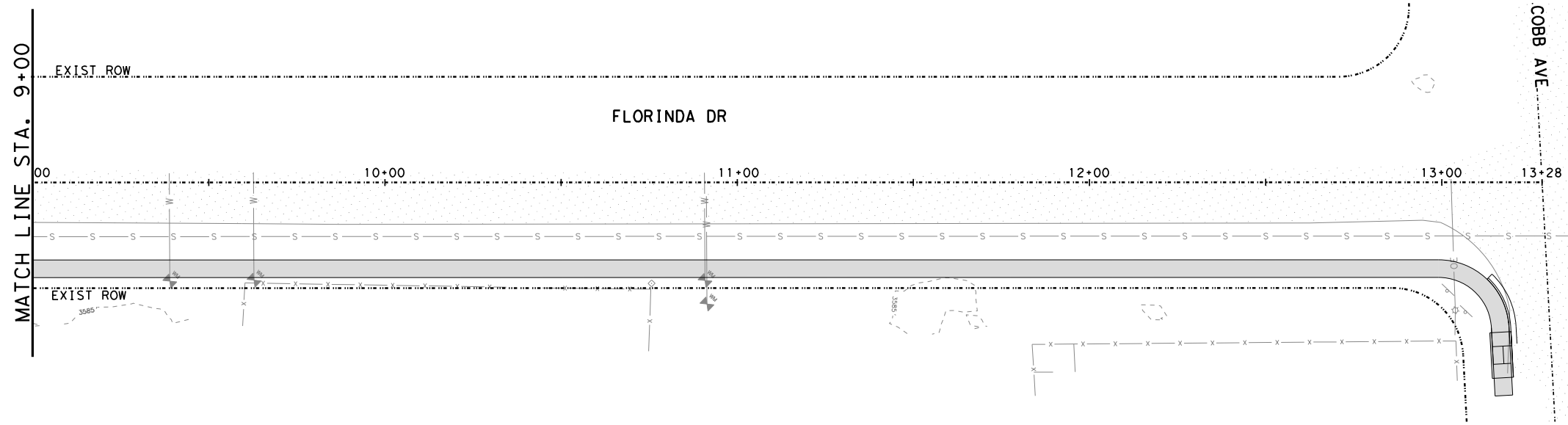
CSJ: 0924-06-616				
SHEET 1 OF 2 (FLORINDA)*				
ITEM	CODE	DESCRIPTION	UNIT	QUANTITY
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506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	340
*NOTE TO REVIEWER: SHEET TOTALS FOR FLORINDA DR ONLY				




CSJ 0924-06-616

8/27/2021 12:56:18 PM jair

F:\9136\DG\N(S-D) - Florinda Drive\9136 - (SOUTH)\_FLORINDA\_SWP3\_PLAN\_(02) .dgn

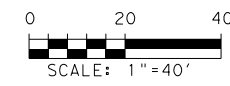


  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021  
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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
  
 EL PASO • SAN ANTONIO  
 TBPE Firm Registration No. F-000554

  
**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 FLORINDA DRIVE  
 STA 9+00 TO STA 13+28  
 SHEET 2 OF 2

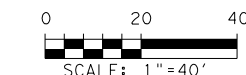
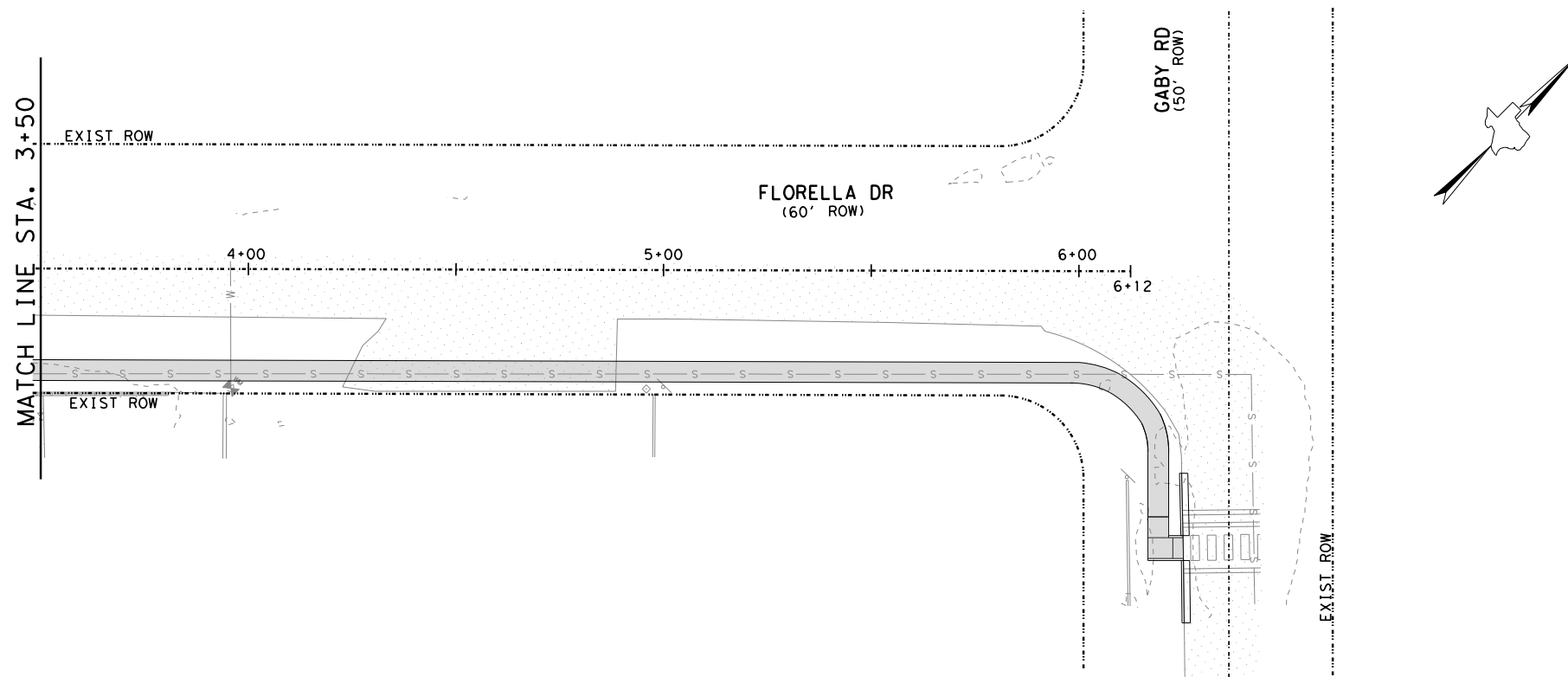
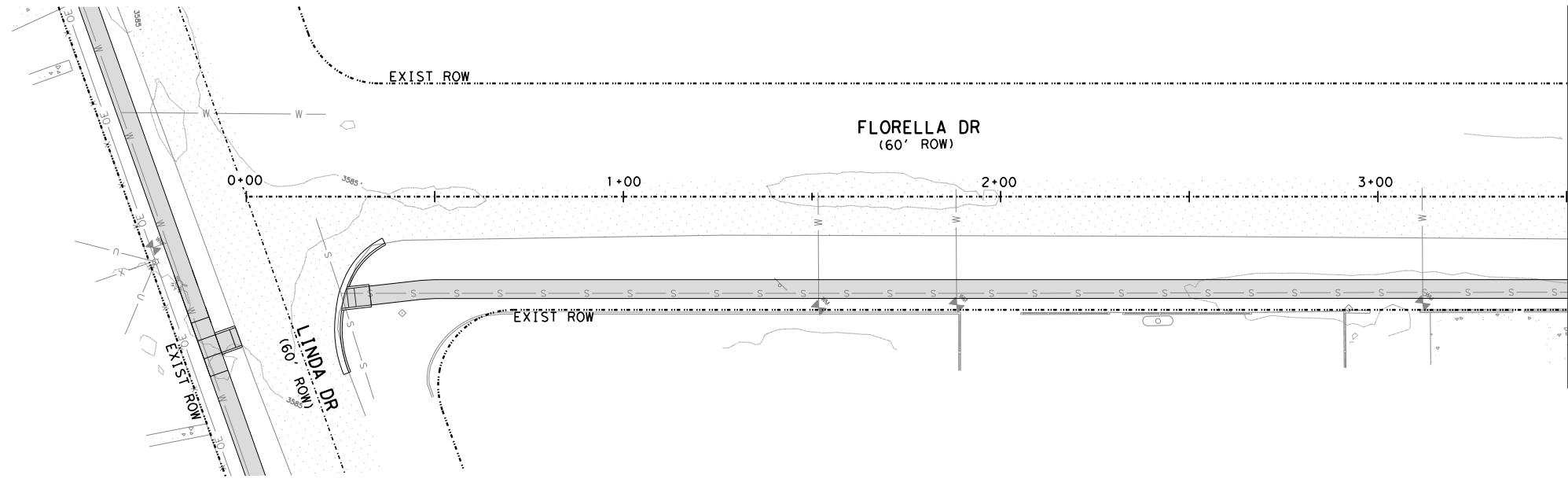


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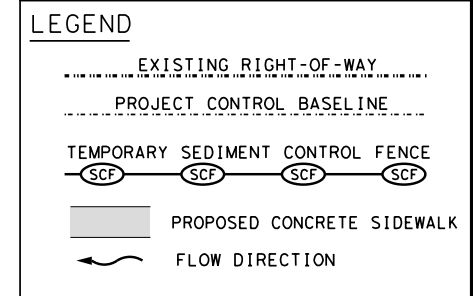
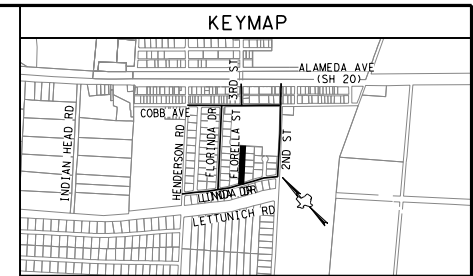
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	STP 2021 (473) TP		153
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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STATE OF TEXAS  
OSWALD F. GARCIA  
109889  
LICENSED PROFESSIONAL ENGINEER  
08/27/2021

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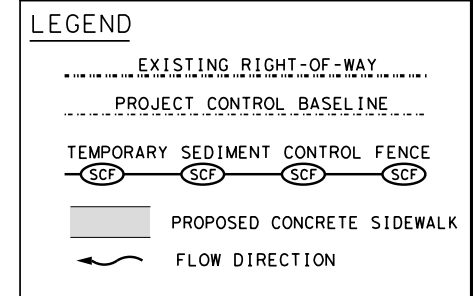
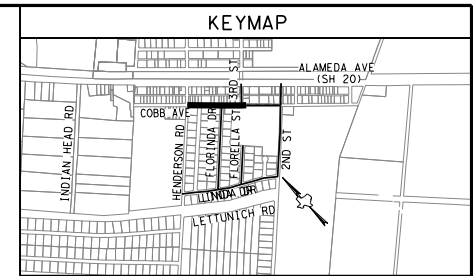
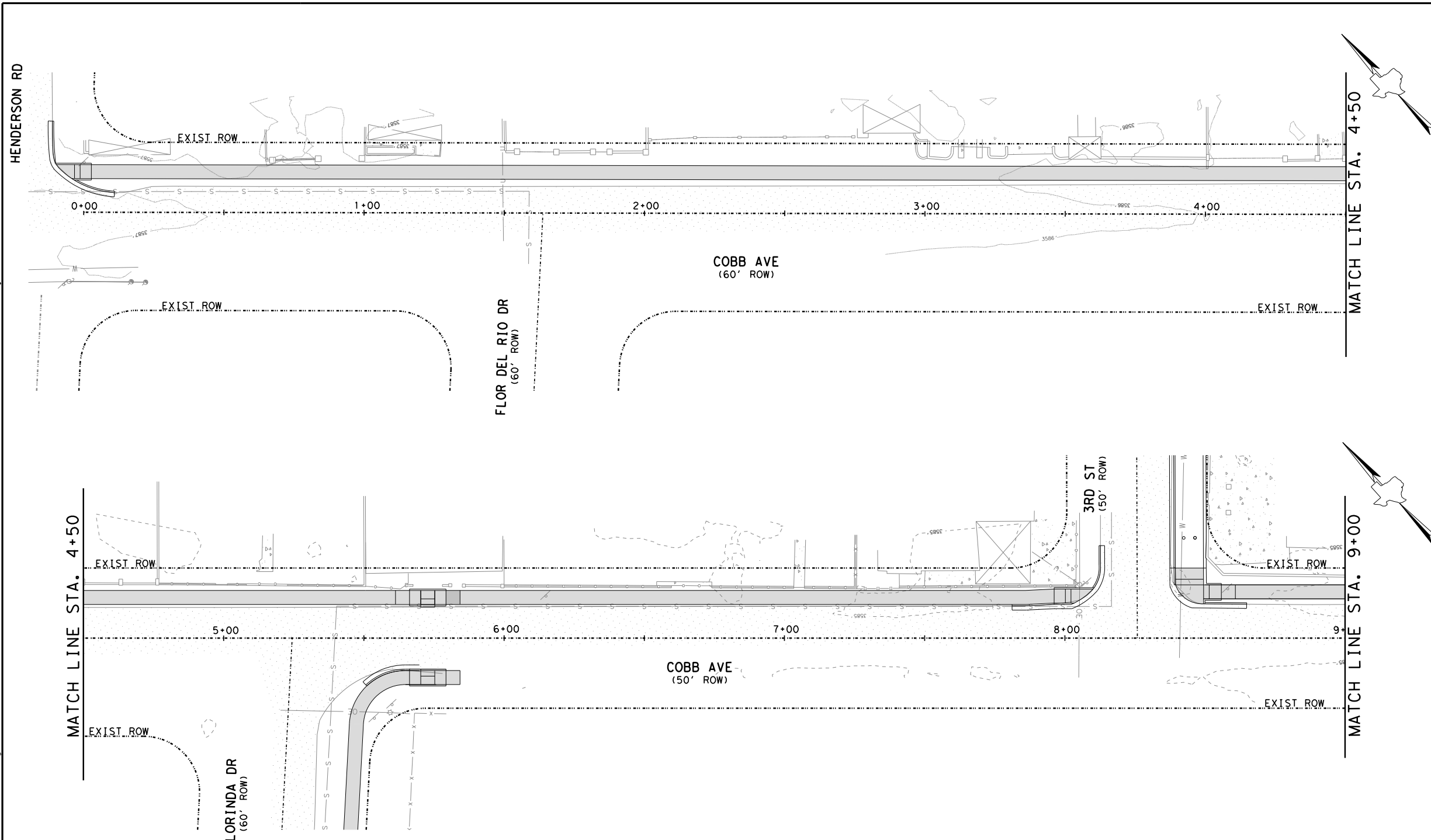
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO  
TBPE Firm Registration No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
FLORELLA DRIVE  
STA 0+00 TO STA 6+12  
SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	STP 2021 (473) TP		154
STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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**CAMINO REAL**  
 REGIONAL MOBILITY AUTHORITY

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 COBB AVENUE  
 STA 0+00 TO STA 9+00  
 SHEET 1 OF 2



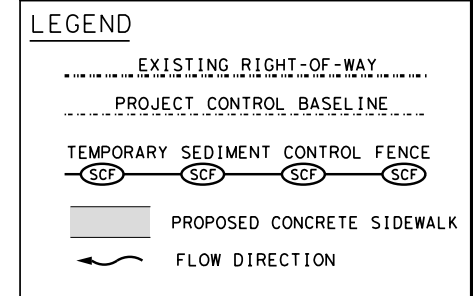
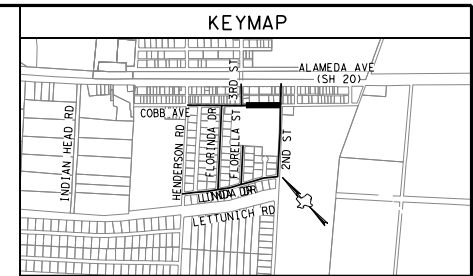
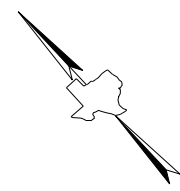
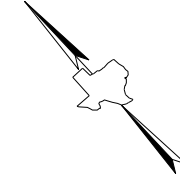
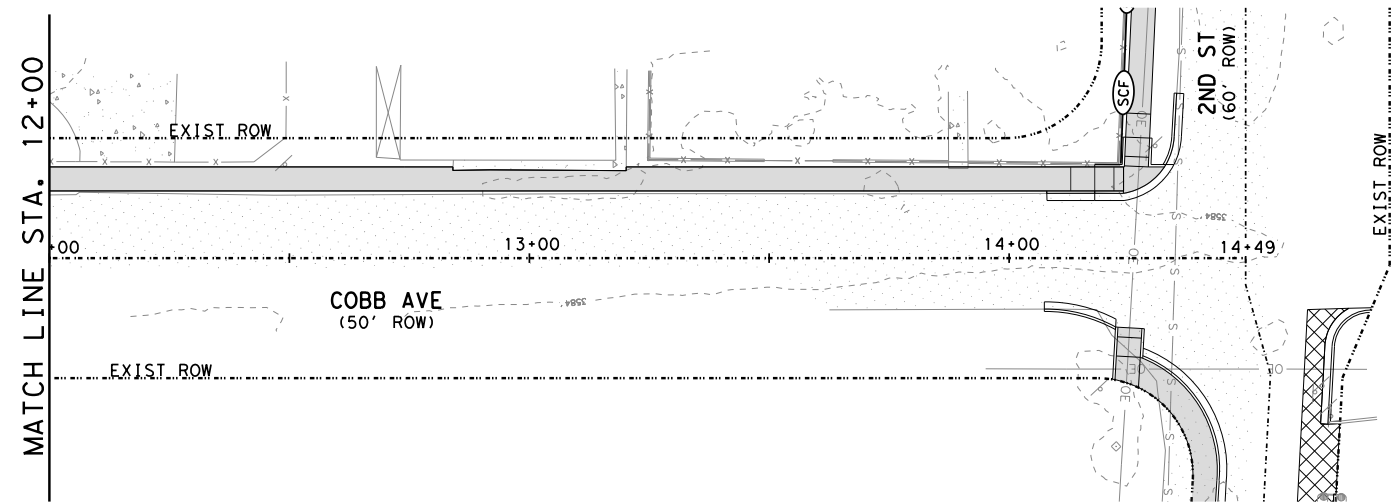
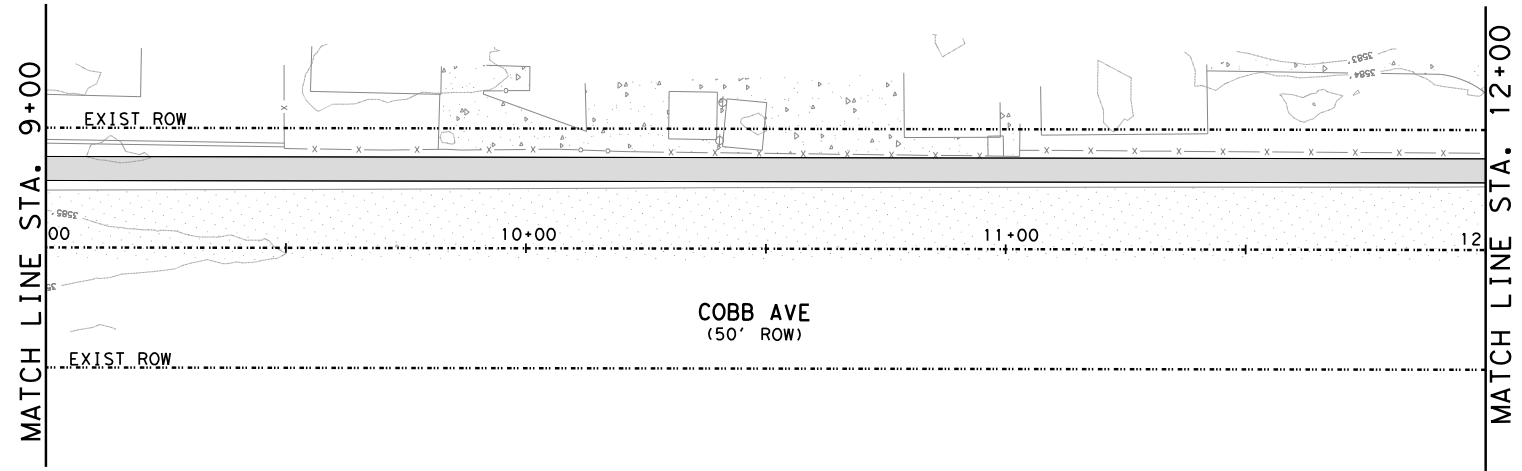
CSJ 0924-06-616

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
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TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS



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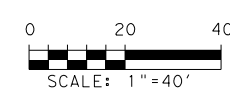


STATE OF TEXAS  
 OSWALD F. GARCIA  
 109889  
 LICENSED PROFESSIONAL ENGINEER  
 08/27/2021

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CONSULTANT  
 PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
 EL PASO SAN ANTONIO  
 TBPE Firm Registration No. F-000554

TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
 STORMWATER POLLUTION PREVENTION PLAN  
 COBB AVENUE  
 STA 9+00 TO STA 14+49  
 SHEET 2 OF 2

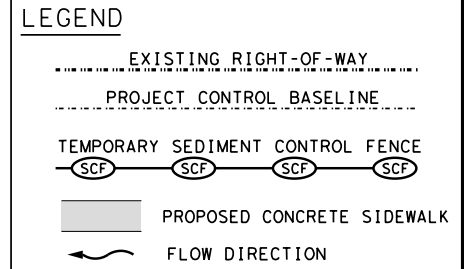
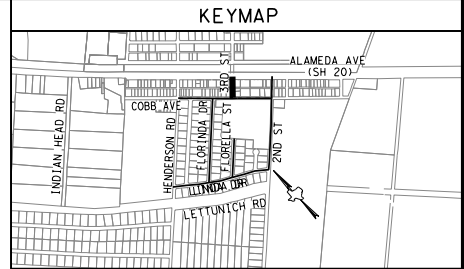
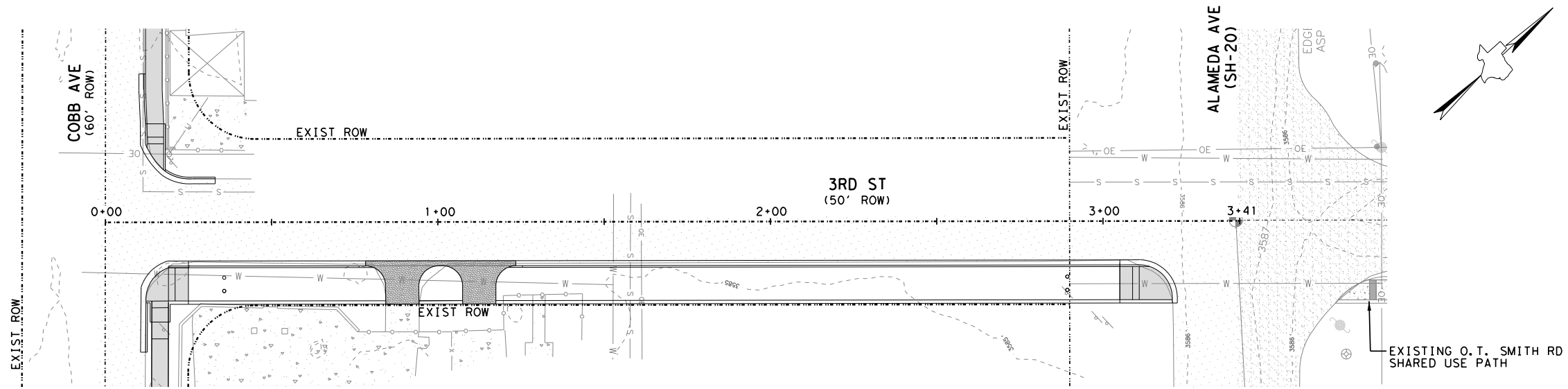


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FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
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STATE	DIST.	COUNTY	
TEXAS	ELP	EL PASO	
CONT.	SECT.	JOB	HIGHWAY NO.
0924	06	616, ETC	VARIOUS

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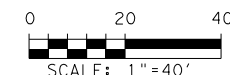
CONSULTANT  
PLANNING ENGINEERING PROJECT MANAGEMENT  
**MCI** Moreno Cardenas Inc.  
EL PASO SAN ANTONIO

TBPE Firm Registration No. F-000554



TORNILLO NORTH AND SOUTH SIDEWALKS/SUP  
STORMWATER POLLUTION PREVENTION PLAN  
3RD ST  
STA 0+00 TO STA 3+41

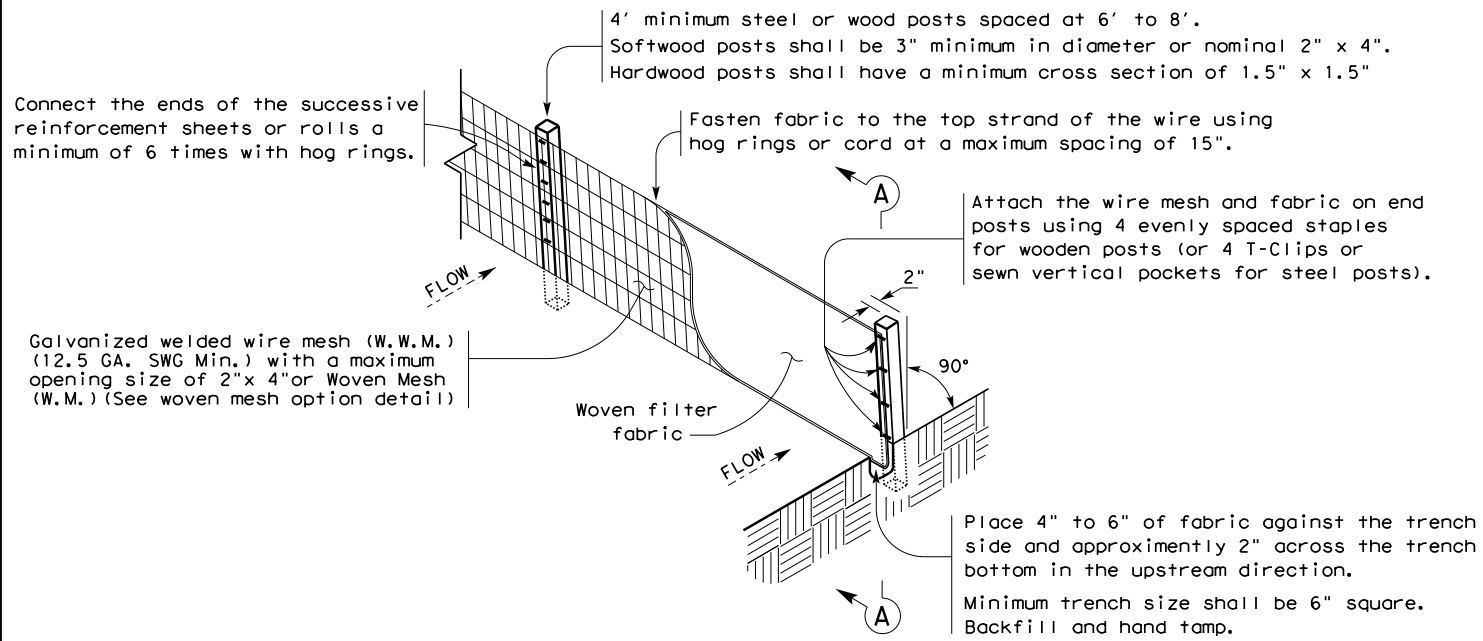
SHEET 1 OF 1		FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
			STP 2021 (473) TP	157



STATE	DIST.	COUNTY	
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CONT.	SECT.	JOB	HIGHWAY NO.
CSJ 0924-06-616	0924	06 616, ETC	VARIOUS

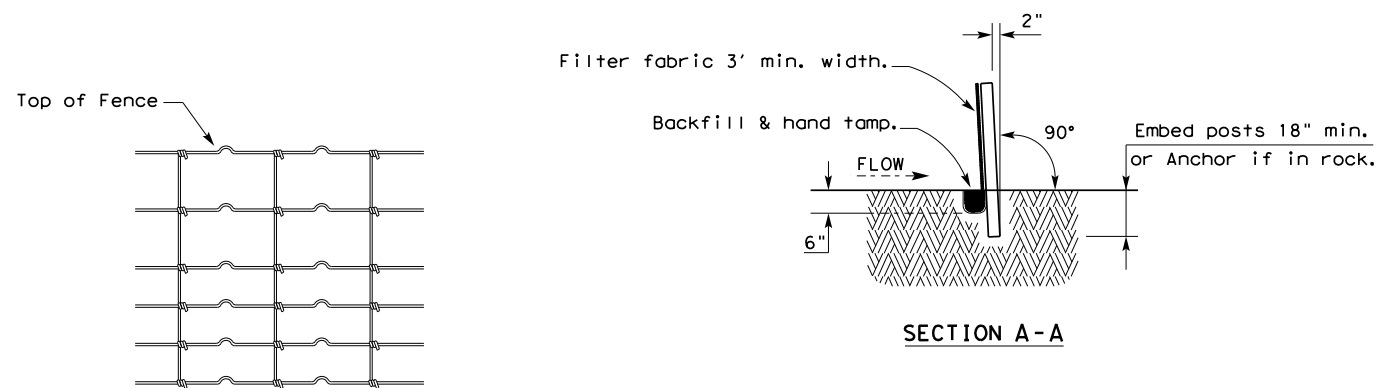
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DATE  
FILE



**TEMPORARY SEDIMENT CONTROL FENCE**

SCF



**HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL**

Galvanized hinge joint knot woven mesh (12.5 GA. SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

**SEDIMENT CONTROL FENCE USAGE GUIDELINES**

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT<sup>2</sup>. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

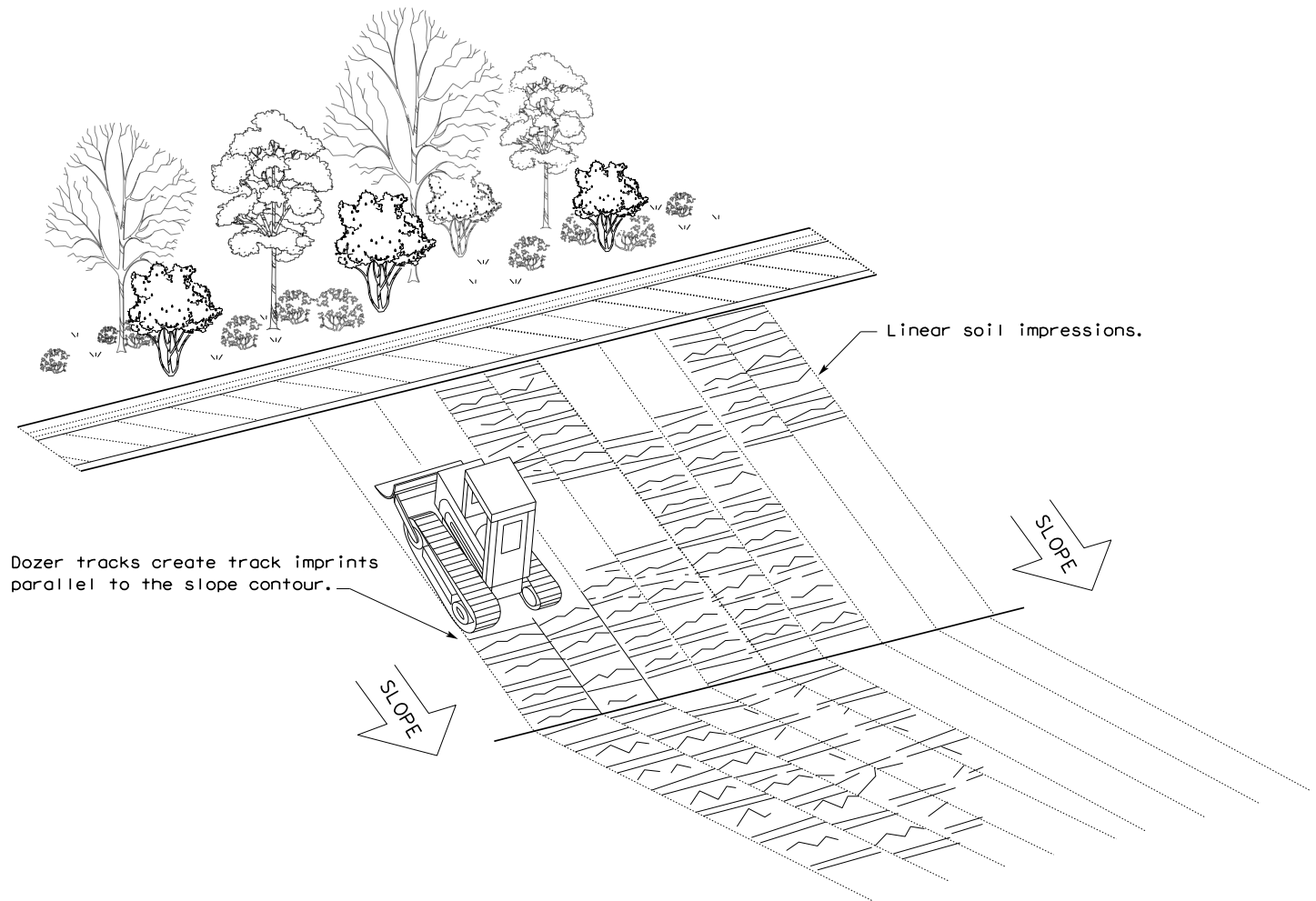
**LEGEND**

Sediment Control Fence

SCF

**GENERAL NOTES**

1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continuous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.

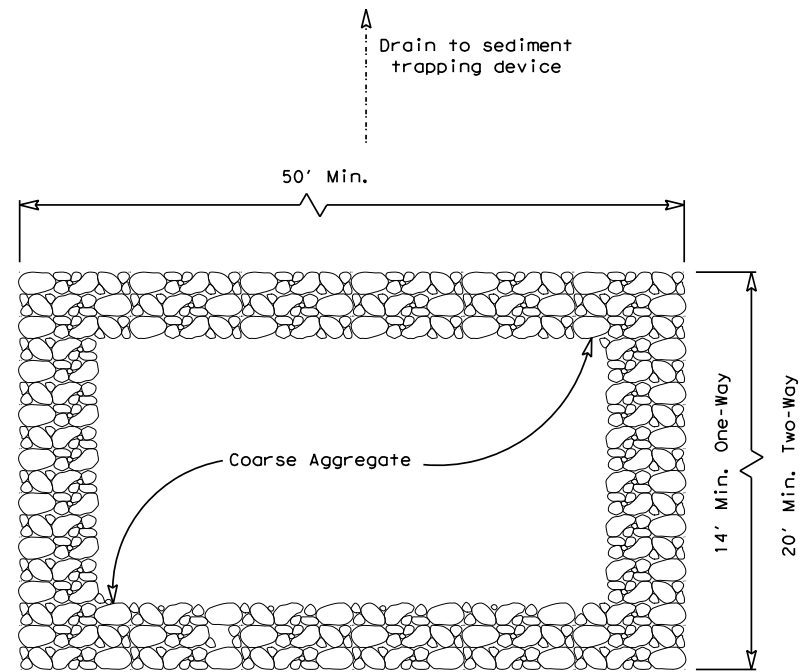


**VERTICAL TRACKING**

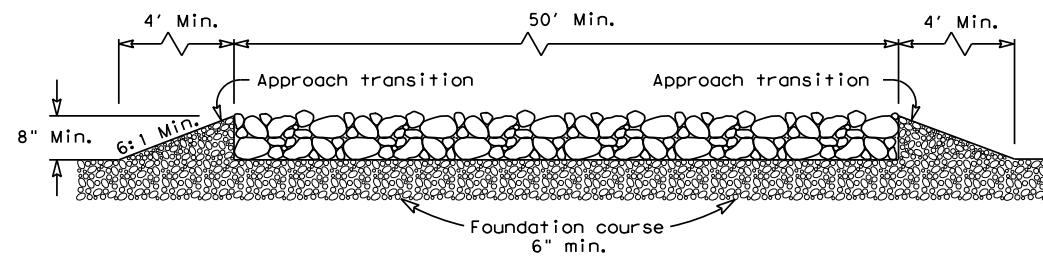
© 2021 Texas Department of Transportation				Design Division Standard	
<b>TEMPORARY EROSION,          SEDIMENT AND WATER          POLLUTION CONTROL MEASURES          FENCE &amp; VERTICAL TRACKING          EC(1) - 16</b>					
FILE: ec116	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS	
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY	
REVISIONS	0924	06	616, ETC	VARIOUS	
	DIST	COUNTY	SHEET NO.		
	ELP	EL PASO	158		

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 FILE: F:\19136\DN\TxDOT\_Standards\ec316.dgn



PLAN VIEW

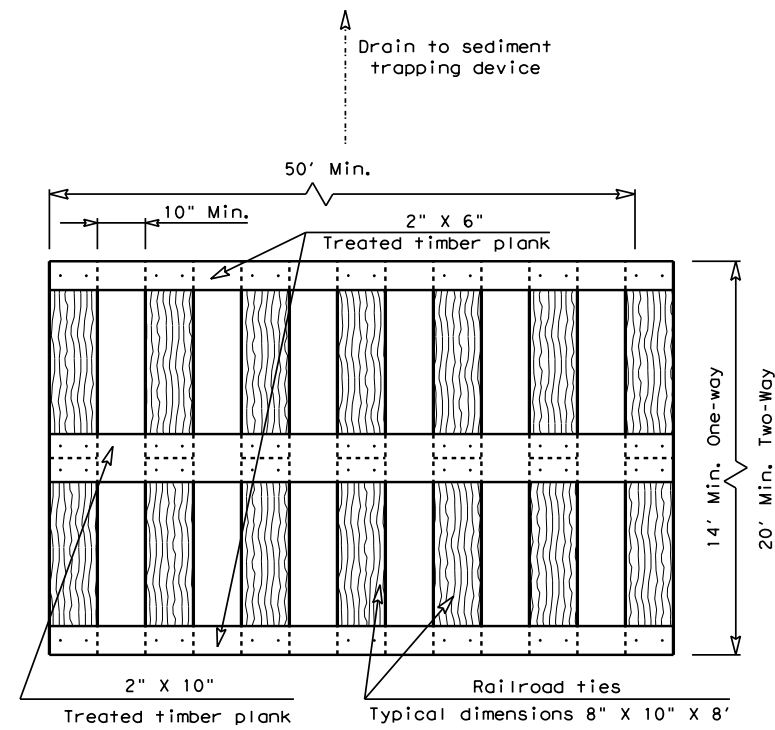


ELEVATION VIEW

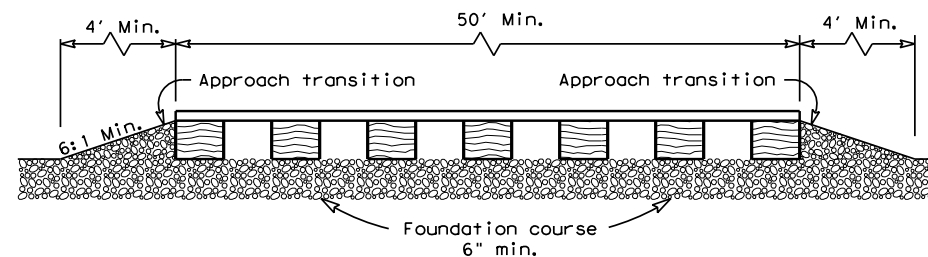
CONSTRUCTION EXIT (TYPE 1)  
 ROCK CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 1)

- The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
- The coarse aggregate should be open graded with a size of 4" to 8".
- The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
- The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
- The construction exit shall be graded to allow drainage to a sediment trapping device.
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.
- Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



PLAN VIEW

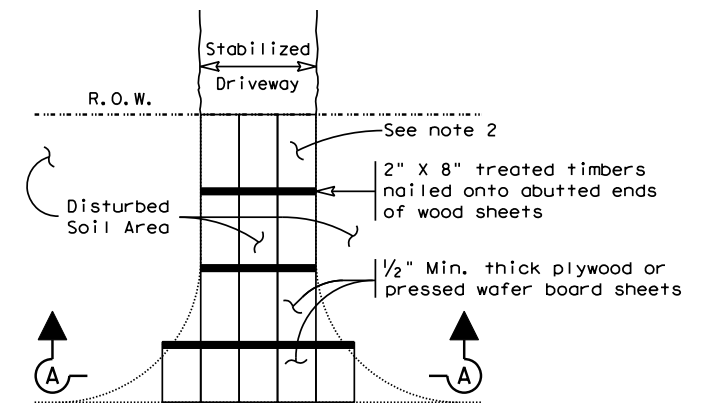


ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 2)  
 TIMBER CONSTRUCTION (LONG TERM)

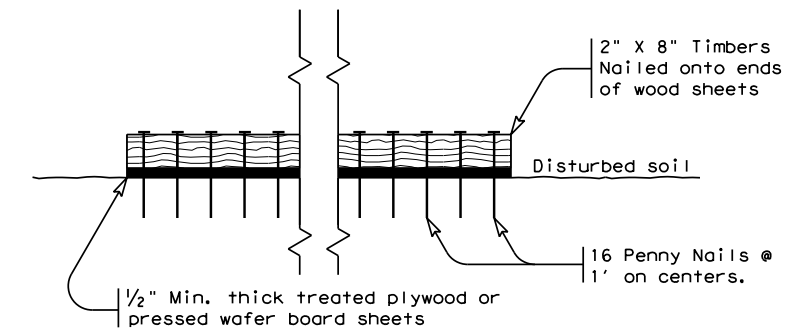
GENERAL NOTES (TYPE 2)

- The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
- The treated timber planks shall be attached to the railroad ties with 1/2" x 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
- The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
- The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
- The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
- The construction exit should be graded to allow drainage to a sediment trapping device.
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.
- Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



Paved Roadway

PLAN VIEW



SECTION A-A

CONSTRUCTION EXIT (TYPE 3)  
 SHORT TERM

GENERAL NOTES (TYPE 3)

- The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
- The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
- The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.

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 Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES  
 CONSTRUCTION EXITS  
 EC(3)-16

FILE: ec316	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
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REVISIONS	0924	06	616, ETC	VARIOUS
	DIST	COUNTY	SHEET NO.	
	ELP	EL PASO	159	