TECHNICAL REQUIREMENTS

SH 130 SEGMENTS 5 AND 6 FACILITY

Between

Texas Department of Transportation

and

SH 130 Concession Company, LLC

Dated March 22, 2007

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TECHNICAL REQUIREMENTS
STATE HIGHWAY 130 - SEGMENTS 5 and 6

1 INTRODUCTION

1.1 General Requirements

These Technical Requirements are part of the FCA Documents and shall be interpreted as provided in the Agreement. Initially capitalized terms not otherwise defined shall have the definitions set forth in the Agreement. References to Exhibits shall mean Exhibits to the Agreement, unless otherwise specified. References to Attachments shall mean Attachments to these Technical Requirements. References to sections shall mean sections of these Technical Requirements, unless otherwise specified.

The procedure by which Developer may apply for Deviations from these Technical Requirements or Technical Documents is set forth in Sections 7.1.2 and 8.1.2 of the Agreement.

1.2 Scope of Work

Developer shall determine the scope of the Work through examination of the FCA Documents and the Site and shall not only rely on the physical description contained in this section.

1.3 Basic Configuration

The Facility extends from the southern terminus of SH 130, Segment 4, in Travis County, Texas to IH-10 near Seguin, in Guadalupe County, Texas. The description of the Basic Configuration given in this section is supplemented by the Developer's schematic layouts contained in Exhibit 2 to the Agreement.

The Facility comprises the following segments (to be verified upon receipt of Developer's schematics):

SH 130 Segment 5 – from Developer's approximate Sta. 2783+94 to approximate Sta. 3376+00 (Bk) at FM 1185

SH 130 Segment 6 – from Developer's approximate Sta. 3376+00 at FM 1185 to approximate Sta. 4963+00 at IH-10

At cross street and interchange ramp connections, the Facility limits shall extend to the tie-in to existing construction; otherwise, the lateral limits of the Facility shall be the Facility ROW.

Segment 5 shall consist of a minimum four lane divided toll highway with a minimum two toll lanes in each direction, and minimum two continuous frontage lanes in each direction. Segment 5 shall include a direct connect interchange at the future connection on SH 130/SH 45 SE. This interchange shall include the following connections (to be verified upon receipt of Developer's schematics):

EB SH 45 to SB SH 130
NB SH 130 to WB SH 45
NB SH 130 Segment 5 to NB SH 130 Segment 4
SB SH 130 Segment 4 to SB SH 130 Segment 5

Segment 5 shall provide grade-separated crossings at the following locations (to be verified upon receipt of Developer's schematics):

New Laws Road
New Lockhart Road
SH 21
CR 179
CR 222
FM 1185

Segment 5 shall provide ramps from and onto the frontage roads at the following locations (to be verified upon receipt of Developer's schematics):

North of New Laws Road
Between New Lockhart Road and SH21
Between SH 21 and FM 1185

Segment 6 shall consist of a minimum four lane divided toll highway with a minimum of two toll lanes in each direction. Segment 6 shall provide a minimum of two continuous frontage lanes in each direction from the connection with Segment 5 at FM 1185 to the interchange with CR 218. From CR 218 south to the interchange with IH-10, Segment 6 shall include limited frontage and access roads as shown in Exhibit 2 to the Agreement.

Direct connect interchanges shall be provided at the following locations in Segment 6 (to be verified upon receipt of Developer's schematics):

NB US 183 to NB SH 130
NB US 183 to future SB SH 130 (Ultimate Configuration) through the SB Frontage Road
SB SH 130 to SB US 183

SB SH 130 to WB IH-10
SB SH 130 to EB IH-10
EB IH-10 to NB SH 130
WB IH-10 to NB SH 130

Segment 6 shall include grade-separated crossings at the following locations (to be verified upon receipt of Developer's schematics):

FM 2001
UPRR #1 (existing track)
SH 142
CR 108
CR 218
CR 215
CR 109

SH 80
FM 621
CR 242
CR 241
FM 3353
FM 20
CR 119
UPRR #2 (existing track)
US 90

Segment 6 shall include grade-separated interchanges at the following locations (to be verified upon receipt of Developer's schematics):

SH 80
FM 621
FM 20
US 90 (only north side of interchange)

Segment 6 shall provide ramps from and onto the frontage or access roads at the following locations (to be verified upon receipt of Developer's schematics):

Between FM 1185 and the Interchange with US 183
Between the interchange with US 183 and FM 2001
Between FM2001 and SH142
Between CR 108 and CR 218
South of CR 218 (Southbound ramp from frontage road and northbound ramp onto CR 218)

1.4 Ultimate Configuration

Accompanying the Final Design Documents, Developer shall include a set of schematic plans showing, on the same plans, both the Basic Configuration and the Ultimate Configuration. Developer shall provide with the schematic plans sufficient information to demonstrate that the Ultimate Configuration complies with the Technical Requirements and is capable of being constructed with limited disruption to Users.

2 FACILITY MANAGEMENT

2.1 General Requirements

This section defines the requirements for the Facility Management Plan (FMP), schedule management, data management and control, and drawing standards.

2.2 Facility Management Plan

The FMP shall contain the parts set out in Attachment 1 – Facility Management Plan Contents. Developer shall have submitted each part of the FMP to TxDOT in sufficient time for TxDOT to have approved (in accordance with the provisions of Section 6.3 of the Agreement) by the date given for the relevant part in the final column of Table A1-4.

The FMP shall describe Developer's managerial approach, strategy, and quality procedures to implement the Facility and achieve all requirements of the FCA Documents. Developer shall avoid re-statement or re-phrasing of obligations contained in the FCA Documents.

The FMP shall commit Developer to a course of action or management methodology by means of statements of intent, assignments of responsibility to individuals, and definitions of organizational structure and staff roles. All statements contained in the FMP shall be of an auditable nature.

For certain parts of the FMP, Attachment 1 requires Developer to submit an outline plan at an earlier stage than the complete plan. An outline plan shall include, at a minimum, the following items:

- Table of contents.
- Proposed organization and management structure.
- Titles and qualifications of proposed Key Personnel and principal personnel.
- Materials, equipment and systems procurement.
- Anticipated contractual arrangements and approach to subcontracting;
- Proposed resource table.
- Conceptual schedule.
- Titles and brief contents of all procedures that would form part of the complete plan.

Changes to the FMP shall be governed by Sections 6.3 and 9.1.3 of the Agreement.

2.3 Schedule Management

These requirements apply to each schedule submitted to TxDOT in accordance with the FCA Documents and shall be read together with Section 7.7 of the Agreement.

2.3.1 Facility Schedule Requirements

A. Software

The scheduling software employed by Developer shall be compatible with those employed by TxDOT and implement any new operating practices required as a result of TxDOT's amendments to any such systems, standards and procedures. Current software in use is Primavera® Project Manager (v 5.0). Compatible shall mean that Developer-provided electronic file version of the Facility Schedule may be loaded or imported by TxDOT with no modifications, preparation or adjustments.

B. Activities

All Work prior to Service Commencement shall be divided into activities with appropriate logic ties to show Developer's overall approach and sequencing. Logical relationships between activities shall reflect Developer's actual intended work sequencing. Developer shall not use imposed constraint dates to begin or complete any Facility activity unless these dates are required in the FCA Documents, and all activities shall be logically tied to avoid open ends.

C. Facility Activity Identification

Facility activity identification numbers, textual descriptions, and codes shall be consistently applied in all submitted schedules.

D. Activity Durations

Facility activity durations shall be in units of whole working days. Activity durations shall be capable of verification by calculation of outputs based on assigned resourcing.

E. Cost Allocations

Developer shall allocate an estimated cost/planned value to each lowest level element of the Work Breakdown Structure as illustrated in Attachment 2 – Work Breakdown Structure (WBS) with the exception of the Operations and Maintenance leg of the WBS.

F. Miscellaneous Requirements

Developer shall not use multiple intermediate milestones, artificial constraints, activity durations and/or sequences that do not accurately reflect the work to be performed and/or artificially suppress Float.

2.3.2 Work Breakdown Structure (WBS)

Developer shall establish a hierarchical Work Breakdown Structure (WBS) in accordance with Attachment 2.

Activities shall be assigned to a WBS element at the lowest WBS level and related activities shall be assigned to a common WBS. Each schedule submittal shall contain full detail of each activity at the lowest WBS level. Activity assignment to WBS and any modification thereto shall be subject to review and comment by TxDOT.

2.3.3 Facility Schedule Reporting and Updates

A. Weekly Production Schedule

Developer shall submit to TxDOT and the Independent Engineer a weekly production schedule outlining all anticipated Work activities planned for the upcoming week.

B. Facility Status Schedule Updates

Developer shall submit to TxDOT Facility Status Schedule Updates with a reporting period ending on the last day of each calendar month. Submittals shall be on or before the 15th of the month following the reporting period. Facility Status Schedule Updates shall use the same document and revision number as the Facility Baseline Schedule from which they are derived and shall be individually identified by a sequential appended letter (A, B, etc.), to indicate the revision. Facility Status Schedule Updates shall comply in all respects with the schedule requirements set forth in this section.

Facility Status Schedule Updates shall include:

- Schedule of activities which clearly identify the critical path.
- Progress for the current update period for all activities.
- Actual start and actual finish dates of Work, percentage complete and days remaining for activities in progress.
- Updated progress to the status date.
- Forecast finish for in-progress activities.
- Reforecast early dates and late dates for remaining activities.
- Appropriate information from the Facility Baseline Schedule from which it is derived.

Each Facility Status Schedule Update submittal shall consist of a CD with Developer's electronic Facility Status Schedule backup files (bar charts in the format prescribed), a narrative and one copy of the required reports and plots including a Status Impact Report matrix. (Usernames, passwords, and data access instructions shall be provided as necessary to enable TxDOT to separately view and run reports of the Facility Schedule).

C. TxDOT Review of Facility Status Schedule Update

TxDOT will notify Developer of corrections required within five days of receipt of the Facility Status Schedule Update. Developer shall provide Facility Status Schedule Update revisions within five days of receipt of TxDOT's comments.

D. Delays

Developer shall identify and promptly report to TxDOT all delays during the prosecution of the Work.

E. Schedule Revisions

Whenever the Facility Status Schedule Update indicates a delay greater than 60 calendar days over the Facility Baseline Schedule, Developer shall submit a Facility Recovery Schedule to TxDOT for review and comment. Facility Recovery Schedule submittals shall include a list of all activities changed, added or deleted along with all logic changes, and an accompanying narrative explaining the nature of the changes.

Once a Facility Recovery Schedule is reviewed by TxDOT with no exceptions, it shall become the Facility Baseline Schedule and be used as the basis for subsequent Facility Status Schedule Updates. Developer shall archive all approved Facility Baseline Schedules.

2.4 Reporting Requirements

2.4.1 Developer Responsibility for Submittals

Developer shall coordinate, deliver and process all submittals to TxDOT as required under the terms of Section 6.3 of the Agreement. Developer shall cause all draft, revised and final submittals to be accurate, complete and in a form and level of detail that satisfy the requirements of the FCA Documents.

2.4.2 Submittal Procedures and Standards

Wherever submittals are required by the FCA Documents, Developer shall furnish electronic copy in accordance with Section 2.5 below and three Convenience Hard Copies with original signatures of each submittal, unless otherwise expressly stated for a particular submittal.

Developer shall include with each submittal a transmittal cover sheet in form acceptable to TxDOT. Any submittal not accompanied by such a form will be returned for resubmittal. Partially completed transmittal forms will also result in the return of the submittal for resubmittal.

Minimum sheet size for the submittals shall be 8.5 inches by 11 inches. Maximum sheet size shall be 36 inches by 120 inches. Every page in a submittal shall be numbered in sequence.

Each submittal shall be assigned a unique, sequential number, clearly noted on the transmittal form. Original submittals shall be assigned a numeric submittals number. Resubmittals shall bear an alphanumeric designation which consists of the number assigned to the original submittal for that item followed by a letter of the alphabet to represent that it is a subsequent submittal of the original. For example, if submittal 25 requires a resubmittal, the first resubmittal will bear the designation "25-A" and the second resubmittal will bear the designation "25-B" and so on.

Any changes made on a resubmittal, other than those made or requested by TxDOT, shall be identified and noted on the resubmittal.

2.4.3 Developer Monthly Report, Quarterly Report and Annual Report

The minimum required contents of the Monthly Report, Quarterly Report and Annual Report are set forth in Attachment 3 – Reporting Requirements Summary. These reports shall be submitted no later than the deadlines set forth below:

Report	Deadline
Monthly Report	10 working days after the end of each calendar month
Quarterly Report	10 working days after the end of each quarter
Annual Report	28 days following the end of each calendar year

2.4.4 Record Drawings and Documentation

Within 90 days after Service Commencement of all or part of the Facility, Developer shall submit to TxDOT a complete set of Record Drawings for the portion of the Facility opened to traffic operations. The Record Drawings shall be an organized, complete record of plans and supporting calculations and details that represent what Developer actually constructed.

Developer shall cause the Record Drawings to reflect the actual condition of the constructed Work.

2.5 Document Management System

Developer shall establish and maintain an Electronic Document Management System (EDMS) to store and record all documents generated in accordance with the FCA Documents including those records required in accordance with Attachment 4 – SLR 105 State of Texas Records Retention Schedule.

In the provision of a document management system, Developer shall:

- Use data systems, standards and procedures compatible with those employed by TxDOT and implement any new operating practices required as a result of TxDOT's amendments to any such systems, standards and procedures.
- Provide a secure location for any interface as may be provided by TxDOT, such that only authorized users and maintenance personnel have access and that it is protected from theft, damage, unauthorized or malicious use.
- Employ appropriate standards and procedures, and train Developer personnel to operate any TxDOT data management system which TxDOT may require in connection with the Facility.
- Provide a mechanism for the electronic transfer of meta data along with the associated document pdf file format images for uploading into an Electronic Document Management System (EDMS) employed by TxDOT.
- Provide TxDOT with procedures and software for accessing all documents generated under the FCA Documents.

All electronic information submitted to TxDOT shall be searchable and legible. Minimum document data properties that are to be captured in the EDMS for each document are listed in Attachment 5 – Document Data Properties.

O&M Records shall utilize the same format as TxDOT utilizes for its statewide asset inventory and condition assessments as of the date of preparation of any such document and shall be capable of being integrated into TxDOT's Maintenance Management Information System (MMIS) or other such system as may be introduced by TxDOT.

In the FMP, Developer shall describe:

1. Methods by which all documents issued and received by Developer will be uniquely coded and retrievable in a user-friendly format.
2. The routing, filing, control, and retrieval methods for all documents.
3. Methods to facilitate sharing of data including procedures and software for accessing all documents.
4. All documents and data elements that will support records required by Attachment 5. The data elements, at a minimum, shall include: document class,

document type/subtype, document name, form number, TxDOT records series item number, TxDOT agency item number, TxDOT records series title, TxDOT retention period, turnover media, turnover frequency, submission type, submission source, and special requirements/remarks.

3 PUBLIC INFORMATION & COMMUNICATIONS PLAN

3.1 General Requirements

Developer acknowledges that it is vital to the success of the Facility that TxDOT and Developer gain and maintain public support.

This Section 3 describes the requirements for communication with Customer Groups (including the public) with which Developer shall comply throughout the Term.

3.2 Public Information and Communications Plan (PICP)

3.2.1 Contents of the PICP

The PICP is part of the FMP described in Section 2 and shall be prepared in collaboration with TxDOT. The PICP shall be structured according to the contents set forth in Attachment 1 and shall contain procedures to demonstrate how Developer shall communicate with the following groups:

Public liaison

- Gain and maintain public support, building on existing community partnerships and communication networks.
- Provide the public with opportunities for input.
- Demonstrate to the public that the Facility will be developed pursuant to a well-executed program.
- Notify the public in advance of key Facility ROW acquisition, construction, operations, and maintenance activities and communicate the potential impacts of these activities.
- Develop, disseminate and display timely, high quality, innovative, user-friendly, accurate and appropriate community information including exhibits showing slope grading, drainage, bridge structures, retaining walls, sound walls and Facility ROW acquisition.
- Develop and manage a public relations campaign and communication strategy to convey key messages, branding and pertinent information about the Facility.

Customer Groups

- Develop a forum to coordinate on-going dialogue among Customer Groups, TxDOT, and Developer.
- Prepare and distribute Facility-related materials in a user friendly format to inform Customer Groups through appropriate means such as: meetings, interviews, media kits, news releases, telephone correspondence, newsletters brochures, e-mail, hotlines, HCR, dynamic message boards, web alerts, public opinion polls/surveys, videos, display booths, presentations, public access information kiosks, and special events.
- Organize and manage meetings with key elected officials, the general public, representatives of civic organizations, businesses, and special interest groups along the Facility corridor (individually or in groups) for the purpose of building rapport with affected stakeholders.

Media

- Build upon existing TxDOT media resources and/or create and develop advertising messages, including graphics, logos and slogans.
- Place Facility-related messages in the appropriate media.
- Develop and distribute public service announcements, paid advertising, news reports.
- Manage media relations with key transportation and business reporters, and prepare and distribute news releases and media kits.

3.2.2 Development of PICP

Developer acknowledges that TxDOT and the Independent Engineer may audit Developer's performance of the activities set forth in the PICP. Developer shall make appropriate changes to the PICP as required to meet the findings of any audit or review and to suit the changing goals and needs of the Facility. Developer shall cooperate with TxDOT to amend the PICP as required to suit circumstances as yet unknown, including public reaction to the impacts from the Work and the depth, breadth and frequency of information necessitated by Customer Groups.

3.3 Public Information Coordinator

3.3.1 Duties of the Public Information Coordinator

Developer shall provide a Public Information Coordinator to lead Developer's responsibility for public involvement activities on a day-to-day basis throughout the Term. The Public Information Coordinator shall have a Bachelor's degree in public relations, communications, or related field, a minimum of four years of relevant experience on projects of similar type and scope, and be experienced in all aspects of communication with the public on public works projects. The Public Information Coordinator shall:

- Provide the primary point of contact between Developer and the public and act as clearinghouse for the receipt and response to written or verbal complaints regarding the Facility.
- Lead the production, implementation, audit, quality control/quality assurance and update of the PICP.
- Coordinate and supervise day-to-day activities of Developer's personnel in performing the activities described in the PICP.
- Facilitate communication among Developer, TxDOT personnel including TxDOT's Public Information Officers, and Customer Groups.
- Interact with affected Customer Groups and represent the interests of the Facility at associated public meetings and other formal and informal occasions
- Develop a "first-hand feel" for public concerns and reactions regarding the Facility and public information program and incorporate that knowledge into improving the PICP.
- Liaise with the person assigned to coordinate the initial response to any Incident or Emergency as set forth in Section 22 and any Governmental Entity that may have jurisdiction in the Emergency.

3.4 Public Information and Communications Obligations

3.4.1 General Obligations

Developer shall:

- Provide Facility information, in a manner, that is consistent with on-going and/or future public involvement programs for TxDOT toll roads.
- Operate systems compatible with any TxDOT customer information and interface systems.
- Identify Customer Groups, and maintain an up-to-date database of Customer Groups in a format compatible with TxDOT database systems.
- Obtain, review, and provide to TxDOT copies/clippings of all media coverage relevant to the Facility.
- Advertise by means of a general timeline a list of public information activities both before and after Service Commencement.
- Prepare individual written responses to all inquiries and complaints received from the public and provide copies of such incoming and outgoing correspondence to TxDOT.
- Insofar as such queries or complaints are not capable of being dealt with immediately, provide a written reply within five days of the relevant query or complaint being received.
- Maintain a register of all queries and complaints and the actions taken by Developer in relation to them, retained for at least the previous five years.
- Develop and implement a 24-hour telephone hotline, manned during normal business hours, with a recorded message describing Emergency procedures after hours.
- On Service Commencement, install signs notifying the public that the highway is under private maintenance and operation and providing hotline contact details.
- Assess the need for and, where appropriate, furnish Facility-related materials in Spanish and other demographic adaptations.
- Coordinate with TxDOT to provide and maintain an up-to-date public website to convey useful Facility information throughout the Term such as the timing of street, lane and ramp closures and openings; recommended route alternatives, toll rates and a special events calendar.
- Execute opinion polls to garner a baseline and subsequent analyses of the public's perception of the Facility.
- All written materials produced for Customer Groups shall follow the Associated Press (AP) Stylebook and/or other appropriate spelling/writing guidelines.

3.4.2 Public Information Office

Developer shall operate and maintain a public information office, open at a minimum during normal business hours and in addition during hours that are customer oriented and convenient. This office shall serve as the primary business location for the Public Information Coordinator and shall be conveniently located to the Facility. The public information office shall facilitate the exchange of information between Developer and the public and provide a centralized location for residents and other stakeholders to obtain information on the Facility, including Facility maps and plans, alternative routes, lane closures, construction updates, community impacts, and commute options.

3.4.3 Meetings with Customer Groups

Developer shall participate in any meetings with Customer Groups called and conducted by TxDOT and shall provide support including oral, written and/or graphic information. Where agreed by TxDOT, Developer shall lead and conduct such meetings and shall notify TxDOT a minimum of 48 hours in advance.

3.4.4 Meeting Minutes

Whenever Developer attends a meeting with any Customer Group the Public Information Coordinator or his/her designee shall prepare meeting minutes for TxDOT review within five Days of the meeting. At a minimum, Developer shall include the following items in the meeting minutes:

- A complete list of attendees (including their affiliations, telephone numbers, mailing and e-mail addresses).
- Descriptions of issues discussed and any associated solutions.
- All open issues and action items (including the person(s) responsible for follow-up and the target date for resolution).

3.4.5 Emergency Communications

For emergency communications requirements, refer to Section 22.2.

3.4.6 Lane Closures

Subject to the lane closure restrictions set forth in Sections 18 and 22, Developer shall provide TxDOT and Users a minimum of two weeks advance notice for major lane closures and/or traffic switches that are planned to be in effect longer than 24 hours, and a minimum of 24 hours advance notice for daily lane closures that are planned to be in effect less than 24 hours, using all appropriate tools. Developer shall input daily lane closures (or events that result in lane closures) into the HCR.

4 ENVIRONMENTAL

4.1 General Requirements

Developer's obligations regarding Governmental Approvals and compliance with Environmental Approvals are set forth in Sections 5.2 and 7.9 of the Agreement.

Developer shall cause Work to comply with Environmental Approvals throughout the Term and shall monitor all work activities so that documents providing evidence of compliance are available to TxDOT for inspection at any time.

In order to maintain a consistent approach and maintain the integrity of these Environmental and Governmental Approvals, Developer shall cause its Environmental Compliance Manager (ECM) and Project Manager to participate in a full day environmental workshop with TxDOT. The workshop will provide the opportunity for Developer to review and suggest additions or modifications to TxDOT provided requirements for the content, format, protocols and process for submittals to Governmental Entities.

Developer acknowledges that Environmental and Governmental Approvals in connection with the Facility have been negotiated by TxDOT and accepted by Governmental Entities. Further Governmental Approvals will be required to enable the Work to proceed, for which Developer shall be required to prepare documentation and TxDOT shall, where specified, make the necessary submittals to the Governmental Entity. Table 4.1 – Environmental Roles and Responsibilities sets forth the status of existing Environmental Approvals and Developer's obligations to prepare documentation and take other action(s) to support TxDOT regarding Environmental Approvals and the actions to be taken by TxDOT.

TxDOT agrees to:

- Provide Developer all Approved environmental documentation in TxDOT's possession relevant to Environmental and Governmental Approvals of the Facility within 30 days of receipt from or issue to a Governmental Entity including all correspondence in connection with the Facility to or from environmental agencies.

- Afford Developer the opportunity to attend coordination meetings with environmental agencies regarding the Facility.

Table 4.1 Environmental Roles and Responsibilities

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
Permanent water pollution control measures Section 401 Permit TCEQ	TCEQ certifies that discharges will comply with state water quality standards under the authority of Section 401 of the federal Clean Water Act. For this purpose, TCEQ has agreed with TxDOT to consider an application in respect of the SH130 Project of which the Facility is a part. The SH130 Project has been designated as a Section 401 Tier II project as referred to in the Memorandum of Agreement between the U.S. Army Corps of Engineers and the Texas Natural Resource Conservation Commission on Section 401 Certification Procedures dated August 2000.	Liaise with TxDOT and TCEQ to mutually establish the format and schedule of submittals to support TxDOT permit application. Provide documentation in respect of Facility. Documentation to include plans, specifications and/or operation and maintenance manuals, which may be part of the Final Design Documents, identifying the type and location of the following permanent water pollution control measures to maintain water quality: • Erosion control • Sedimentation control • Post construction Total Suspended Solids (TSS) Control (as specified in the ROD and subsequent Environmental Approvals) Perform the Work in a manner that causes TxDOT/Facility to be in compliance with any permit and/or requirement of TCEQ.	Review and comment on documentation provided by Developer. On receipt of a permit and/or requirements from TCEQ, issue to Developer.
Temporary water pollution control measures permit TCEQ	TxDOT submitted a Notice of Intent (NOI) for storm water discharges associated with construction activity under the TPDES Construction General Permit for the SH130 Project to TCEQ on September 8, 2003 for Segments 1 through 4 only.	Submit to TxDOT no later than 90 days before start of construction all documentation in respect of the Facility needed to support TxDOT in meeting the requirements of a new NOI, including Stormwater Pollution Prevention Plan (SW3P) sheets and temporary erosion and	Review and comment on documentation provided by Developer in support of NOI and NOT.

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
		sedimentation BMPs, incorporating where appropriate, design elements from the TCEQ Tier 1 BMP List. When stabilization and construction activities for the Facility have been completed, notify TxDOT and submit all necessary documentation to enable TxDOT to provide a Notice of Termination (NOT) in respect of the SH130 Project to TCEQ. Perform the Work in a manner that causes TxDOT/Facility to be in compliance with any permit and/or requirement of TCEQ.	On receipt of a permit and/or requirements from TCEQ, issue to Developer. On resolution of TxDOT's comments (if any) on Developer documentation, submit a NOT to TCEQ.
Section 404 Permit USACE Permit # 199600228	TxDOT has applied to USACE and received a Section 404 Permit to place fill material into navigable waters at specified disposal sites as required to construct the SH130 Project (of which the Facility is a part) under Section 404 of the Clean Water Act dated July 17, 2002. The permit requires avoidance and mitigation measures to be considered and implemented first, before consideration is given to permitting fill to be placed in existing waters. The permit is conditional on the	Liaise with TxDOT and USACE to mutually establish a format and schedule of submittals to support the current Section 404 Permit. Make submittals to TxDOT in accordance with the permit requirements. Notify TxDOT within 24 hours of any accidental discharge within a Section 404 permitted crossing. Provide submittals to TxDOT within 30 Days of any request. Submittals shall set forth the proposed impacts associated with the placement of fill into navigable waters for the Facility, so that TxDOT may cause the necessary parts of the mitigation site (to be developed by others) as satisfactory compensation for the impacts of the Facility. If Developer initiates design amendments	Review and comment on documentation provided by Developer in support of submittals to USACE/TCEQ. On resolution of TxDOT's comments (if any) on Developer documentation, make submittals to USACE/TCEQ to support the Section 404 Permit. If wetland impacts

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
	construction of a mitigation site (to be constructed by March 15, 2009) to compensate for unavoidable impact on wetlands (the "Special Condition"). TxDOT has acquired the necessary land and has entered into agreements with others to construct and complete the mitigation site by the required date. An environmental re-evaluation process is underway in respect of Segments 5 and 6 in which the impacts of the Facility on wetlands are being re-calculated. It is intended that the mitigation site (to be constructed by others) will be sufficient to compensate for the impacts of the Facility on wetlands (as reassessed). If the Final Design for the Facility causes impacts to exceed the threshold impact caps established in the Special Condition, a permit amendment may be required upon review by USACE. All mitigation associated with discharges to jurisdictional waters of the U.S. have been identified through qualitative and quantitative processes. TxDOT agrees to allocate mitigation to offset all discharges to jurisdictional waters, adjacent wetlands, and associated aquatic and riparian ecosystems as	that result in impacts that exceed the baseline of 15.5 acres, then Developer shall: • Design, acquire and construct compensatory mitigation and prepare supporting documentation to amend the Section 404 Permit. • Prepare documentation in support of the amended Section 404 Permit and reimburse TxDOT its associated costs. Provide a tracking program that will identify, during development of the Final Design Documents, the impacts of the Facility for both Ultimate Configuration and Basic Configuration and compare these against the impacts assessed for the schematic designs. Report to TxDOT whenever a change in impact is identified. Perform the Work in a manner that causes TxDOT/Facility to be in compliance with any permit and/or requirement of TCEQ and/or USACE for the Section 404 Permit.	proposed by CZ are approved by USACE, up to the baseline 15.5 acre area of wetland impacts, TxDOT shall allocate the necessary parts of the mitigation site (to be developed by others) as satisfactory compensatory mitigation for the impacts of the Facility. If Developer provides reasonable notice to TxDOT by means of the tracking program that the baseline 15.5 acres of impacts are exceeded for the permitted discharges, and provided that the need for construction of mitigation in excess of the baseline area is not as a result of a design amendment initiated by Developer, then TxDOT shall design, acquire and construct compensatory mitigation in excess of the baseline area.

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
	defined by the USACE Permit # 199600228 for up to 15.5 acres of impact.		Make submittals to USACE/TCEQ as required by the permit and with respect to a permit amendment (should one be required.) On receipt of permit amendments and/or further requirements from USACE/TCEQ, issue to Developer. Provide Developer with updates regarding changes to construction of mitigation site (to be built by others) and any significant schedule changes causing completion of the mitigation site to extend beyond March 15, 2009 until mitigation site is complete.
Permit to undertake cultural resource studies within Facility ROW or Additional Properties. THC, FHWA,	TxDOT has undertaken archaeological surveys and testing for the Facility, but was denied access to parcels described in Attachment 6 – Right of Entry Refusals. The project will be subject to the	Follow the *Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project and Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Amendment 1.* Develop for TxDOT approval, as part of the	Follow the *Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project and Protocol for Historic Properties*

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
Advisory Council on Historic Preservation, Tribes, Consulting Parties, Interested Public, Local Governments, and property owners per existing protocol	provisions of the Programmatic Agreement between the FHWA, THC, TxDOT and the ACHP. There is an existing MOU between TxDOT and THC. THC will need to issue an Antiquities Permit to enable the performance of archeological activities. Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project and Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project Amendment 1 has been negotiated for SH 130. TxDOT's statewide Emergency Discovery protocol has been developed for any TxDOT project. Environmental Approvals in respect of historical resources and archeological resources are in place under NEPA Approval for the Facility, but not for. • Project Specific Locations • Additional Properties TxDOT, SHPO and FHWA concurrence is required for all Work on Additional Properties where historical resources and archaeological resources may be affected. Approvals are predictable and	FMP, a process consistent with the Protocol to complete archeological surveys and, if needed, testing and data recovery within the Facility ROW, on Project Specific Locations or Additional Properties. Provide TxDOT a completed application for Antiquities Permits. On receipt of a permit, complete archaeological surveys and studies within parcels where TxDOT was unable to gain right of entry as identified in Attachment 6 and for Additional Properties. Perform any other required archeological excavations to determine site eligibility or archeological data recovery excavations within the Facility ROW or on Additional Properties. If Developer chooses to utilize a TxDOT contractor for archaeological services, Developer shall reimburse TxDOT for costs incurred. Follow *TxDOT's Emergency Discovery Protocol* for previously unknown cultural resource sites discovered during construction. Perform the Work in a manner that causes TxDOT and the Facility to be in compliance with the existing protocols as required by the ROD.	*Identification, Evaluation, and Treatment for SH 130 Amendment 1.* On receipt and approval of a permit application execute application and transmit to THC.

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
	readily obtainable through compliance with existing protocol.		
Vegetative screening for Historic Structures THC, County Historical Commissions, property owners	Outcomes of existing discussions and negotiations on vegetative screening for the SH 130 Project are outlined in the Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project and Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project Amendment 1.	Submit for TxDOT approval vegetative screening proposals as part of the Final Design Documents (landscape design). Perform the Work in a manner that causes TxDOT/Facility to be in compliance with the existing protocol as required by the ROD.	Approve or disapprove the vegetative screening proposals. On receipt of approved documentation from Developer, provide to THC.
Mitigation measures for endangered species. Permits in respect of endangered species within Facility ROW, or on Additional Properties USFWS, TPWD	Environmental Approvals in respect of habitats and mitigation measures are in place under NEPA Approval for the Facility and the existing MOU/PA between TxDOT USFWS, but not for • Additional Properties TxDOT, as the FHWA agent for projects receiving federal funds or with a federal permit, must comply with the provisions of Section 7 of the ESA. Where the Facility may affect a protected species, TxDOT, as an agent for FHWA, may consult directly with USFWS. FHWA and USFWS concurrence is	Prepare and submit to USFWS, copied to TxDOT a request for a list of endangered species including a description of the Facility and the need for Additional Properties. For the Facility and in respect of each Additional Property, submit for TxDOT approval a Biological Assessment and Mitigation Plan. Conduct studies on Additional Properties to determine if protected resources in the area trigger consultation under Section 7 of the ESA and provide appropriate documentation to TxDOT and FHWA. Where no protected resources are identified in the Additional Properties,	Approve or disapprove the Biological Assessment and Mitigation Plan. Submit the Biological Assessment and Mitigation Plan to FHWA, for FHWA submission to USFWS. Upon receipt of the biological opinion from USFWS, transmit to Developer.

Permit and/or Agency	Background and Existing Agreements	Developer Obligations	TxDOT Actions
	required for all Work in Additional Properties where an endangered species or its critical habitat may be affected. If a permit is required for the harm or take of an endangered species, the USFWS may: • Work with the FHWA to reduce the harmful effects of the project. • Determine that the project cannot be modified sufficiently to proceed.	monitor any changes to the Work and advise TxDOT immediately if there is evidence of a listed species. If it is determined that the Facility may adversely affect listed species, prepare documentation for TXDOT to request initiation of formal consultation between USFWS and FHWA. Whenever FHWA/USFWS recommends Facility modifications to eliminate adverse effects on listed species, undertake design efforts to accommodate those recommendations. Perform the Work in a manner that causes TxDOT/Facility to be in compliance with the requirements of the USFWS biological assessment and to be approved in the USFWS biological opinion. If the USFWS biological opinion includes non-binding conservation recommendations, consult with TxDOT and FHWA concerning possible implementation of such recommendations.	
Project Specific Locations (PSLs)		Developer shall comply with the requirements found in the Project Specific Location Quickguide USDOT/FHWA, April 2004 and Special Provision 7.19 (F) in TxDOT Specification Manual 2004 or subsequent guidance that supersedes the preceeding documents.	Audit capacity only

4.2 Hazardous Materials Requirements

Developer shall conduct environmental site assessments at:

- Additional Properties.
- Locations within the Facility ROW where Developer becomes aware that previously unidentified Hazardous Materials may be present.
- Locations where Hazardous Materials have already been identified in Environmental Approvals.

Results of all Hazardous Materials site assessments shall be submitted for TxDOT review and comment within 30 days of the performance of each assessment.

If source areas are acquired as part of the acquisition of the property or contamination is caused by Developer, Developer shall actively pursue remediation and closure.

Developer shall use approved methods and techniques to demonstrate that all materials used during construction and maintenance of the Facility are free of Hazardous Materials. If hazardous materials are used in construction, then Developer shall manage the Hazardous Materials in accordance with the approved Hazardous Materials Management Plan. All post closure care and continual monitoring of contaminated areas, if needed, shall be the sole responsibility of Developer.

If Hazardous Materials are encountered or spilled, dumped, discharged or released at any time on, under, within or about the Facility Right-of-Way or other areas under the control of any Developer-Related Entity such that remedial action is required under applicable Law, Environmental Approvals or the Hazardous Materials Management Plan (HMMP), Developer shall prepare and implement a remedial action plan in compliance with such requirements. Developer shall obtain all necessary Governmental Approvals of the remedial action plan and give all notices and reports required by applicable Law, Environmental Approvals or the HMMP in connection with the remedial action. For all spills, dumping, accidents, discharges or other releases of Hazardous Materials or solid waste that occur on, under, within or about the Facility Right-of-Way or other areas under the control of any Developer-Related Entity, Developer shall coordinate the remediation efforts and, if needed, regulatory closure for the accident. For releases that impact the soil and groundwater, final remediation levels shall be consistent with definitions established by TCEQ.

For all maintenance and storage facilities used by Developer for long-term care of the Facility, Developer shall manage all fuels, lubricants, vehicular fluids, wastes, asphalt, de-icing materials, road trash (such as scrap and whole tires, municipal wastes) construction materials and all other such wastes in accordance with applicable Environmental Laws. Developer shall implement and maintain a Spill Prevention Control and Countermeasure Plan (SPCC) for each maintenance/storage facility where petroleum product storage exceeds TCEQ/EPA current standards. The SPCC shall be sealed by a registered professional engineer.

Developer shall be responsible for all OSHA requirements related to its employees and shall verify that all Developer-related Entities are following health and safety plans. During construction, Developer shall require any non-Developer personnel who visit the Facility be equipped with the appropriate personal protection equipment.

4.3 Floodplain Requirements

Developer shall identify the locations of all streams within the Facility ROW that will be affected by the Work, for which such floodplain hydraulic analyses, and other required reports shall be made, the anticipated date of the submittals and the anticipated comment and approval periods. All correspondence between the floodplain administrators, FEMA and the Developer shall be copied to TxDOT within five working days together with any comments and/or approvals given to Developer by those agencies.

4.4 Noise/Sound Abatement Requirements

As required by the ROD and subsequent Environmental Approvals, Developer shall construct noise/sound abatement measures as early as the construction sequencing allows.

If recyclable materials are to be used in lieu of TxDOT approved construction and maintenance materials for noise/sound abatement, Developer shall perform noise analyses as needed to verify the recyclable material's effectiveness for use in the abatement of noise impacts. In addition, any significant (determined in consultation with TxDOT) changes would be subject to public involvement requirements for the Affected Properties and would be the Developer's responsibility.

4.5 Well Requirements

4.5.1 Water Well Requirements

If Developer becomes aware that a municipal, domestic, or irrigation water well (or related drinking or surface water well) has become contaminated, whether due to the Work or by any other cause, Developer shall notify TxDOT, and with TxDOT concurrence, the appropriate regulatory agency within 24 hours of the discovery. Developer shall prepare a corrective action plan for TxDOT and/or regulatory agency approval and shall perform the corrective action upon acceptance of the plan by TxDOT and the regulatory agency.

4.5.2 Plugging and Abandonment of Wells

Developer shall prepare a standard operating procedure for the plugging and abandonment of wells that shall consist of, at a minimum, the following components:

1. Remove and dispose of contaminated and uncontaminated water, petroleum, or sulfur wells. Remove appurtenances, seal and plug wells, and restore the area. Prepare and file required documents with applicable agencies.
2. Remove all pump equipment to three feet below the finished sub grade or the existing grade, whichever is lower, and within construction limits. Pump equipment includes pump, piping, motor, housing, well structures, foundations, flumes, windmills, casing, and other projecting objects associated with the well. After removal of all pump equipment, items and appurtenances, Developer shall backfill in accordance with the following:
   - Plug the remaining ends of abandoned underground structures over three inches in diameter with concrete to form a tight closure.
   - Backfill, compact, and restore areas where obstructions have been removed.
3. All removed items and appurtenances become the property of the Developer, including existing contaminated soil and liquids.

4. Developer shall cap all remaining pipe. When required by the TCEQ, the Texas Department of Licensing and Regulation (TDLR), or the Texas Railroad Commission (RRC), the Developer shall submit a "Plugging Report" to the appropriate agency and furnish a copy to TxDOT.
5. Accept ownership and dispose of removed materials and debris at locations off the right-of-way in accordance with local, state, and federal requirements

Water Wells - Remove all removable casing from water wells, including dry wells and abandoned wells. Pressure-fill the well with a mixture of hydraulic cement and water at a rate of not more than seven gallons of water per sack of cement from the bottom of the well to the natural ground surface or three feet below the finished sub grade, whichever is lower Alternative procedures require written approval by TDLR and the TxDOT. Plug any well located in a cut section up to the proposed earthwork elevation before excavating the cut. After plugging a well in a cut section, immediately backfill the remainder of the well, above the proposed earthwork elevation, with earth.

Petroleum and Sulfur Wells - Developer shall have a RRC approved contractor plug the well. Empty the contents of petroleum or sulfur wells into approved containers according to applicable regulations. Transport and dispose of the filled containers at an approved disposal facility or recycling center according to applicable regulations. Approved plugging methods include protecting water-bearing strata with cement plugs when shown on the plans, or completely cementing the well.

4.6 Comprehensive Environmental Protection Program (CEPP)

As part of the FMP, Developer shall submit for TxDOT approval, and shall implement throughout the Term, a Comprehensive Environmental Protection Program (CEPP). The CEPP shall establish the approach, requirements and processes to be employed to avoid or minimize impacts on the environment. The CEPP shall satisfy applicable FHWA, TxDOT, and resource agency requirements including those commitments described in the Environmental Approvals and shall include a reporting contact tree with contact information for individuals with primary responsibility for environmental protection.

At a minimum, the CEPP shall include the following component parts, to be submitted for TxDOT approval as set forth in Attachment 1:

- Environmental Management System (EMS)
- Environmental Compliance and Mitigation Plan (ECMP)
- Environmental Protection Training Plan (EPTP)
- Hazardous Materials Management Plan (HMMP)
- Construction Monitoring Plan (CMP)
- Recycling Plan.

To the extent that the documents are available to TxDOT and that TxDOT is permitted to do so by the originator, TxDOT agrees to provide, on 30 days' request by Developer, one copy of the above referenced documents, for SH 130 Segments 1 through 4. In each part, impact avoidance and minimization shall be the primary mitigation objective. Amendments and updates to the CEPP, as necessary to address changing Site conditions and environmental requirements, shall be in accordance with the procedures for amendments to the FMP.

4.6.1 Environmental Management System (EMS)

Through the EMS, Developer shall cause environmental commitments arising from Environmental Approvals and permitting processes to be included in the design and implemented in the Work. Developer shall include, within the EMS, procedures to detect, monitor and record environmental compliances and noncompliances Whenever an environmental noncompliance is detected, the EMS shall include a requirement for Developer to identify actions required, record remedial actions taken, report on the effectiveness of actions and where appropriate implement improvement actions to prevent recurrence and/or improve future remedial action.

4.6.2 Environmental Compliance and Mitigation Plan (ECMP)

The ECMP shall set forth:

- Detailed procedures by which Developer shall cause Work to be performed in accordance with requirements of the FCA Documents and Environmental Approvals.
- Detail of all mitigation required by Environmental Approvals and the Developer's approach to satisfying mitigation requirements.
- Schedules, protocols, and methodologies to be used for the Work, to include requirements for monitoring, reporting, corrective actions and adaptive management.

The ECMP shall include standard operating procedures for a minimum of the following components and shall be submitted in accordance with Attachment 1:

- Environmental Permits, Issues, and Commitments (EPIC) Sheets to include a detailed list of EPIC sheet content and sample EPIC sheets required by the NEPA Approvals. Developer shall set forth procedures by which EPIC sheets will fully reflect the requirements of Environmental Approvals, and the manner in which habitat areas shall be protected during construction, such as the requirement for EPIC sheets to identify locations for the erection of fencing and signing .
- Permanent water pollution control measures including erosion control, sedimentation control and post-construction Total Suspended Solids (TSS) Control (as specified in the ROD and subsequent Environmental Approvals) and as set forth on Table 4.1
- Temporary water pollution control measures including a list of temporary and sedimentation BMPs to be used during the Work.
- Plugging and abandoning wells including municipal, domestic, irrigation, oil and gas, or monitoring and observation wells and including identification of where it proposes to depart from the methods described in Section 4.5.2 - Plugging and Abandonment of Wells
- Protocols for well contamination events.
- Procedures for compliance with all permit requirements as set forth on Table 4.1 including operating in floodplains, dewatering, SW3P escalation and resolution.
- Procedures for dealing with Hazardous Materials.
- Procedures for Post-NEPA design changes and environmental compliance procedures for Additional Properties.
- Procedures for compliance with legislation such as Migratory Bird Treaty Act.

- Procedures for Public Involvement processes for environmental issues, Additional Properties and Environmental Approvals.
- Noise mitigation measures for construction and post-construction.
- Air quality mitigation measures for construction and post-construction

4.6.3 Environmental Protection Training Plan (EPTP)

The EPTP shall include methods and procedures documented in the ECMP to:

1 Educate every worker to:
   - Recognize the overall importance of environmental issues to constructing, operating and maintaining a successful Facility
   - Appreciate the various environmental sensitivities of the Facility.

2. Train every worker to:
   - Recognize environmentally sensitive resources that may be encountered during the Work.
   - Avoid or take appropriate action to minimize environmental impacts from the Work.
   - Know the required actions, practices, and procedures regarding regulated resources.

3. Foster Developer's management and supervisory personnel's attitude of commitment to the Facility's environmental quality.
4. Convey to all workers, Developer's management commitment to the Facility's environmental quality.
5. Convey to all workers, TxDOT's and Developer's commitment to zero tolerance for violations.

4.6.3.1 EPTP Scope and Content

The goal of the EPTP is to educate Facility personnel about the following:

- Overall importance of environmental protection to the Facility.
- Compliance responsibility and Governmental Entity authority including background and environmental issues regulatory overview.
- Overview of specific Developer's environmental commitments and responsibilities at the Facility level.
- Worker responsibilities.
- Wetlands identification.
- Environmental Approvals terms and conditions including an overview of the provisions of the ESA, Migratory Bird Treaty Act, Stormwater Pollution Prevention Program (SW3P) overview.
- BMPs for environmental compliance, including pollution prevention, erosion, sedimentation, de-watering, and dust control measures to maintain water and air quality
- Required mitigation measures.
- Procedures and precautions in the event of spills of or discovery of Hazardous Materials or unknown chemicals or contamination.
- Procedures and precautions in the event skeletal remains or other archeological or paleontological resources are discovered.
- Groundwater protection requirements.
- CWA regulations and surface water protection requirements.
- Overview of noise and residential impact reduction procedures.

- Air quality and dust control requirements.
- Penalties and/or fines for violations of and noncompliance with Environmental Approvals and Environmental Laws, including termination of employment

4.6.3.2 EPTP Participation

Developer shall require all employees to participate in the EPTP and shall keep accurate records documenting attendance as well as materials presented.

4.6.3.3 EPTP Schedule

Developer shall include activities for implementation of the EPTP in the Facility Schedule. The length of training sessions and their frequency shall be sufficient to achieve the goals set forth above. Periodic training sessions at key times (e.g., prior to construction or major maintenance in sensitive areas or construction timing restrictions to protect threatened and/or endangered species) shall be used to update workers on specific restrictions, conditions, concerns, and/or requirements.

4.6.4 Hazardous Materials Management Plan (HMMP)

Developer shall prepare a HMMP providing for Hazardous Materials Management, which shall be subject to TxDOT's approval as part of the FMP. At a minimum, the HMMP shall include:

- A list of Hazardous Materials to be brought onto the Site.
- A list, updated as needed, of Hazardous Materials encountered on-site.
- A brief description of the hazardous characteristics of each Hazardous Material.
- A Material Safety Data Sheets (MSDS) for each Hazardous Material.
- Provisions for appropriate storage and disposal.
- Provision for a Hazardous Materials training module as an element of the EPTP component of the CEPP.
- Procedures for preparing an investigative work plan (IWP), remedial action plan and site investigative report (SIR) in the event that Hazardous Materials are discovered during construction, operations or maintenance activities.
- Procedures for preparation and an outline of the content for remedial action plans.
- Identification and contact information for designated responsible individuals.
- Emergency spill response procedures.
- SPCC outline for maintenance/storage facilities.

The HMMP shall require that all personnel of Developer-Related Entities handling Hazardous Materials be trained and certified at least to the minimum requirements established under the current guidelines of OSHA 1910.120 (HAZWOPER Training). The HMMP shall include procedures for causing all such personnel be enrolled and cleared by a medical surveillance program prior to engaging in and after completion of Development Work activities. Further, the HMMP shall include procedures to cause that all applicable certifications, licenses, authorizations and Governmental Approvals for Developer personnel handling Hazardous Materials are current and valid through the duration of the Work.

The HMMP shall include provisions for making all on-site workers aware of the potential Hazardous Materials to which they may be exposed, limiting Contractors and other site workers'

exposure to Hazardous Materials and providing all necessary personal protection equipment to protect workers from exposure.

Developer shall perform ASTM-1527-05 environmental site assessments for all parcels, including any Additional Properties. All reports shall be completed in coordination with the ROW parcel appraiser(s) and shall be available to the appraiser(s). An "environmental site assessment Phase I" shall be performed for all properties. If it is determined that there is a potential environmental risk based on the Phase I report then a Phase II investigation shall be performed. A Phase III investigation shall be performed if the Phase II report justifies it The Phase III report must indicate the approximate cost to remediate the parcel to achieve its current use and its highest and best use in concurrence with TxDOT. Any environmental or other concerns associated with the Facility ROW and Additional Properties to be acquired that could require environmental remediation or other special attention or which would cause a report to be prepared shall be submitted to TxDOT for review and comment.

4.6.5 Construction Monitoring Plan (CMP)

The CMP shall identify times, locations, and other conditions where monitoring of construction activities are to be performed to maintain and cause compliance with Environmental Laws, Environmental Approvals, and the FCA Documents. The CMP shall establish and/or document schedules, protocols and methodologies to be used for monitoring Work with an emphasis on timely reporting, corrective actions and adaptive management The CMP shall establish reporting procedures, identify reporting requirements and establish controls for report distribution and records retention. Developer shall include a detailed listing of the appropriate construction noise mitigation measures in the CMP. Developer shall make all Environmental Monitoring Reports available for review by TxDOT at TxDOT's request. Should any non-compliance or violation be observed that represents an imminent danger to human health or the environment, the CMP shall include procedures to cause immediate notification of TxDOT.

4.6.6 Recycling Plan

The recycling plan shall document and fully detail Developer's commitment to recycling, waste minimization and use of "green products" during all aspects of Work. The recycling plan shall document Developer's recycling initiatives as well as methods and procedures for optimizing the use of recycled materials in all aspects of the Work. If recyclable materials shall be used in lieu of TxDOT approved construction and maintenance materials, Developer shall:

1. Purchase recycled products whenever such products are available, meet performance specifications and compete favorably with regard to cost.
2. Exclusively purchasing:
   - business envelopes and printing, writing, xerographic, and computer paper with a minimum of 20 percent post-consumer fiber
   - recycled-content restroom towels and tissues, and
3. Review and modify current specifications, contracts, and practices to increase the use of recycled products--especially those listed in the most recently Environmental Protection Agency Comprehensive Procurement Guidelines posted on the EPA website.
4. Suggest that third parties who do business with Developer increase their product lines that contain recycled materials.
5. Use approved methods and techniques to demonstrate that all recycled materials are free of Hazardous Materials and that the recycled materials can be used without the need for short-term or long-term management, such as special

worker protection precautions, deed restrictions or notices, tracking, monitoring, special handling after the project life, or special engineering controls;and do not present an increased risk to human health, the environment, or waters in the state when applied to the land or used in products that are applied to the land.

6. Gather data from relevant offices and provide an annual report to TxDOT to monitor progress on recycled product purchases within the EMS.

4.7 Environmental Personnel

Developer, acting through the Environmental Compliance Manager (ECM), shall designate an Environmental Team (ET), as detailed in this section, to prevent, minimize, and/or correct any violation of or noncompliance with Environmental Approvals. The ET specified personnel shall include the Archeologist, Historian, Natural Resource Biologist, Water Quality Specialist, and Hazardous Materials Manager. Other ET staff members shall include the Environmental Training Staff and Environmental Compliance Inspectors (ECIs).

In the CEPP, Developer shall set forth an approach, procedures and methods throughout the Term for:

- Staffing and availability of ECM and all ET personnel.
- Environmental contact tree including primary and secondary contacts.
- ET staff response times.

4.7.1 Environmental Compliance Manager (ECM)

Developer shall designate a full-time, 100 percent project assigned ECM during the Construction Work and on a Developer specified and TxDOT approved basis throughout the remainder of the Term The ECM shall have a minimum of six years experience in similar transportation projects. The ECM shall report and coordinate with TxDOT and Developer's Facility Manager. In the event the ECM, in consultation with Developer's Facility Manager and TxDOT, is unable to reach satisfactory resolution of environmental issues, the ECM shall provide written notification to Developer and TxDOT outlining the concerns, actions taken in attempt to correct the concerns, and provide a recommendation as to the suggested course of action.

The ECM shall direct the work of the ET and shall monitor, document, and report environmental compliance for the Work. The ECM shall report immediately to TxDOT and Developer any violation or non-compliance that represents an imminent danger to human health or the environment. The ECM shall submit in the context of a report, the appropriate recommendations for corrective action including stoppage of Work.

The ECM shall coordinate with TxDOT, Developer, and appropriate Governmental Entities. The ECM shall submit all necessary environmental documentation and monitoring reports to the appropriate Governmental Entities and when applicable, through TxDOT, to the extent necessary to maintain compliance with applicable Environmental Approvals.

4.7.2 Environmental Training Staff

Under the direction of the ECM, the environmental training staff shall develop, schedule and conduct environmental awareness and environmental compliance training for Developer personnel. All training shall be in accordance with the requirements set forth in Section 4.6.3.

4.7.3 Environmental Compliance Inspectors

The ECIs shall conduct on-site environmental monitoring, prepare documentation, and report to the ECM daily all violations, compliance, and noncompliance with Environmental Approvals.

The ECI shall report immediately to the ECM any violation or non-compliance that represents an imminent danger to human health or the environment, and shall include with any such reports, the appropriate recommendations for corrective action, including stoppage of Work.

4.7.4 Archeologist

The ECM shall designate an Archeologist on an as-needed basis to provide expertise in monitoring of cultural resources impacted by the Work throughout the Term.

Qualifications: The Archeologist shall be a qualified and experienced professional with the following experience:

1. Duties of a "Principal Investigator," as set forth in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (36 CFR § 44738-9) and Chapter 26 (TAC) Rules of Practice and Procedure for the THC.
2. Graduate degree in archeology, anthropology or a closely related field.
3 Completion at the Principal Investigator level of one (three preferred) data recovery project or a project involving substantial analysis and reporting of excavated data.

4.7.5 Historian

The ECM shall designate a Historian on an as-needed basis to provide expertise in completing the mitigation of the historic properties throughout the Term.

Qualifications: The Historian shall be a qualified and experienced professional with the following experience:

1. Meets the qualifications of a historian or architectural historian as set forth in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (36 CFR § 44738-9.)
2. Experience at the project manager (or equivalent) on a minimum of three historical projects completed within the last five years in accordance with the provisions of the standards in (1) above To qualify as a project manager, the Historian must be able to demonstrate that they had direct involvement in these projects, including administration, supervision, and performance of research or other technical functions.

4.7.6 Natural Resource Biologist

The ECM shall designate a Natural Resource Biologist on an as-needed basis to provide expertise in monitoring impacts on wildlife and the natural environment related to the Work throughout the Term.

Qualifications: The Natural Resource Biologist shall be a qualified and experienced professional with at least five years of professional experience on similar projects and a Bachelor's degree in ecology or related biological field (i.e. wildlife biology, botany, etc).

4.7.7 Water Quality Specialist

The ECM shall designate a Water Quality Specialist to provide expertise in permitting delineation, stormwater pollution prevention, and the protection of jurisdictional waters related to the Work throughout the Term.

Qualifications: The Water Quality Specialist shall be qualified with at least five years professional experience on similar projects.

4.7.8 Hazardous Materials Manager

The ECM shall designate a Hazardous Materials Manager to provide expertise in the safe handling of Hazardous Materials required to perform the Work and those that may be discovered/impacted throughout the Term. The Hazardous Materials Manager shall conduct appropriate activities such as the following:

- Schedule and/or conduct training for Developer's employees.
- Verify all employee certifications prior to and required for any handling of Hazardous Materials.
- Maintain records of all incidents involving Hazardous Materials and notify the ECM, TxDOT and appropriate authorities in writing of any such incidents

Qualifications: The Hazardous Materials Manager shall be a qualified professional with 40-hour HAZWOPER certification and at least five years experience in similar projects in the following areas:

- Experienced in developing IWPs, SIRs, and remedial action plans or equivalent reports necessary and acceptable to the TCEQ in material discovery and remediation efforts of Hazardous Materials.
- Experienced in TCEQ guidance for the investigation and remediation of Hazardous Materials under the TCEQ Voluntary Cleanup Program (30 TAC 333A) and Texas Risk Reduction Program Rules (30 TAC 350).
- Shall be 40-hour HAZWOPER certified.

4.7.9 Other Specialists

The ECM shall designate other specialists as needed including air quality specialists, environmental planners, community impact specialists, etc.

5 THIRD PARTY AGREEMENTS

5.1 Facility Work Affecting Railroad Operations

The Facility crosses railroad right of way owned by an Operating Railroad. Developer shall coordinate the Work with the Operating Railroad

5.1.1 Railroad Agreement

Developer shall be responsible for obtaining the required approvals, permits, and agreements as required for the Work, including any railroad related work. Unless specified elsewhere or by the Operating Railroad, the preparation of all agreements shall be in conformance with requirements as indicated in the Technical Documents.

5.1.2 Agreement for Construction, Maintenance and Use of Right-of-Way

Whenever a license agreement for construction, maintenance and use of railroad right-of-way (hereinafter called the "License Agreement") between the Operating Railroad and TxDOT is required, Developer shall prepare all the documentation required to obtain the License Agreement including preparation of the License Agreement application on behalf of TxDOT, the plans and specifications, making necessary modifications as required, and preparation of the License Agreement.

Developer shall submit the draft License Agreement to TxDOT for transmittal to the Operating Railroad. After all comments have been incorporated or satisfactorily resolved by either Developer, railroad or TxDOT, then Developer shall submit a complete and final License Agreement to TxDOT for execution.

5.1.3 Operation Safety

Developer shall arrange with the Operating Railroad for railroad flagging as required. Developer shall comply with the Operating Railroads' requirements for contractor safety training prior to performing work or other activities on Operating Railroads' property.

5.1.4 Railroad Right of Entry Agreement

In order to enter the Operating Railroad's right-of-way to perform the Work, Developer shall secure a railroad Right of Entry Agreement and shall coordinate the arrangements of the necessary agreements directly with the Operating Railroad

6 UTILITIES

6.1 General Requirements

A number of existing Utilities are located within or in the vicinity of the Facility ROW, some pursuant to statutory rights and some pursuant to property rights. Certain of those existing Utilities will need to be relocated or otherwise adjusted in order to accommodate the Facility This Section 6 establishes procedures and requirements for Adjusting Utilities, including such processes as coordination with Utility Owners, administration of the engineering, construction and other activities necessary for Utility Adjustments, and required documentation. This Section 6 references certain TxDOT forms for Developer's use in Adjusting Utilities Any TxDOT forms referenced in this Section 6 but not included in attachments are found in the Technical Documents.

Developer shall cause all Utility Adjustments necessary to accommodate construction, operation, maintenance and/or use of the Facility in both its initial configuration and in its Ultimate Configuration. TxDOT will assist Developer in the Utility Adjustment process, to the extent described in the FCA Documents Some Utility Adjustments may be performed by the Utility Owner with its own forces and/or contractors and consultants (i.e. Owner-Managed); all others shall be performed by Developer with its own forces and/or Contractors and consultants (subject to any approval rights required by the Utility Owner for those working on its facilities) (i.e. Developer-Managed). The allocation of responsibility for the Utility Adjustment Work between the Developer and the Utility Owners shall be specified in the Utility Agreements.

Developer's obligations regarding reimbursement to Utility Owners for eligible costs of Utility Adjustment Work are set forth in Section 7.5.4 of the Agreement. Developer's obligations regarding the accommodation of Utilities from and after the Service Commencement Date are set forth in Section 8.1.5 of the Agreement.

This Section 6 does not address Utility services to the Facility. Utility services to the Facility shall be the subject of separate agreements between the Developer and Utility Owners.

6.1.1 When Utility Adjustment is Required

A Utility Adjustment may be necessary to accommodate the Facility for either or both of the following reasons: (a) a physical conflict between the Facility and the Utility, and/or (b) an incompatibility between the Facility and the Utility based on the requirements in Section 6.2.1 – Standards (even though there may be no physical conflict). The physical limits of all Utility Adjustments shall extend as necessary to functionally replace the existing Utility, whether inside or outside of the Facility ROW. Section 6.2.4.2 – Acquisition of Replacement Utility Property Interests contains provisions that address the acquisition of easements for Utilities to be installed outside of the Facility ROW.

Utilities may remain in their existing locations within the Facility ROW if (a) the requirements of Section 6.2.1 – Standards are met, and (b) the existing location will not adversely affect the construction, operation, safety, maintenance and/or use of the Facility.

6.1.2 Certain Components of the Utility Adjustment Work

Coordination. Developer shall communicate, cooperate, and coordinate with TxDOT, the Utility Owners and potentially affected third parties, as necessary for performance of the Utility Adjustment Work. Developer shall be responsible for preparing (unless prepared by the

Utility Owner) and securing execution (by Developer and the Utility Owner) of all necessary Utility Agreements. All such executed Utility Agreements must be approved by TxDOT prior to taking effect.

Betterments. Replacements for existing Utilities shall be designed and constructed to provide service at least equal to that offered by the existing Utilities, unless the Utility Owner specifies a lesser replacement. Utility Enhancements are not included in the Work; however, any Betterment furnished or performed by Developer as part of a Utility Adjustment shall be deemed added to the Work, on the date the Utility Agreement providing for same becomes fully effective. Developer shall perform all coordination necessary for Betterments.

Protection in Place Developer shall be responsible for Protection in Place of all Utilities impacted by the Facility as necessary for their continued safe operation and structural integrity and to otherwise satisfy the requirements described in Section 6.2.1 - Standards.

Abandonment and Removal. Developer shall make all arrangements and perform all work necessary to complete each abandonment or removal (and disposal) of a Utility in accordance with Section 6.2.1 - Standards, including obtaining Governmental Approvals and consent from the affected Utility Owner and any affected landowner(s) (or shall confirm that the Utility Owner has completed these tasks).

Service Lines and Utility Appurtenances. Whenever required to accommodate construction, operation, maintenance and/or use of the Facility, Developer shall cause Service Line Adjustments and Utility Appurtenance Adjustments. On completion of these, Developer shall cause full reinstatement of the roadway, including reconstruction of curb, gutter, sidewalks, and landscaping, whether the Utility Adjustment Work is performed by the Utility Owner or by Developer.

6.1.3 Utility Memoranda of Understanding (MOUs)

TxDOT has entered into Utility Memoranda of Understanding ("MOUs") with certain Utility Owners anticipated to have Utilities that will be impacted by the Facility. Copies of existing Utility MOUs are included in the Reference Information Documents. TxDOT does not intend to enter into any additional Utility MOUs, although it may enter into updates to the existing MOUs.

Developer acknowledges that the purpose of the Utility MOUs is to promote cooperation by the Utility Owners with the Facility but that by their terms, the Utility MOUs are not binding on either TxDOT or on the Utility Owners. Accordingly, Developer acknowledges that the Utility Owners might not comply with their Utility MOUs and that if Developer relies on any commitments made by a Utility Owner in any Utility MOU, Developer does so at its own risk. Nevertheless, Developer is encouraged to comply with the Utility MOUs.

6.1.4 Agreements Between Developer and Utility Owners

Except as otherwise stated in this Section 6 or in Secton 7.5.7.4 of the Agreement, each Utility Adjustment shall be specifically addressed in a Master Utility Adjustment Agreement (MUAA) or in a Utility Adjustment Agreement Amendment (UAAA) which adds to an existing MUAA. Developer is responsible for preparing, negotiating (to the extent allowed by this Section 6), and obtaining execution by the Utility Owners, of all Utility Agreements (including preparing all necessary exhibits and information about the Facility such as reports, plans and surveys). A Utility Agreement is not required for any Utility Adjustment consisting solely of

Protection in Place in the Utility's original location within the Facility ROW, unless the Utility Owner is being reimbursed for costs incurred by it on account of such Protection in Place.

6.1.4.1 Master Utility Adjustment Agreements

Developer shall enter into one or more MUAAs with each affected Utility Owner to define the design, material, construction, inspection, and acceptance standards and procedures necessary to complete Utility Adjustments, as well as to define the Developer's and the Utility Owner's respective responsibilities for Utility Adjustment costs and activities such as material procurement, construction, inspection and acceptance. A MUAA may address more than one Utility Adjustment for the same Utility Owner.

Developer shall prepare each MUAA using the standard form of TxDOT Master Utility Adjustment Agreement (Owner-Managed) or TxDOT Master Utility Adjustment Agreement (Developer-Managed), copies of which are in Attachment 7 – Utility Forms.

Following issuance of the Notice to Proceed, Developer shall begin negotiations with each affected Utility Owner to reach agreement on one or more MUAAs. Developer shall use good faith efforts to finalize a MUAA with each affected Utility Owner within a reasonable time period after the Effective Date. Developer shall include any proposed changes to a standard form (other than filling in blanks that are specific to a particular Utility Owner) in a Utility Owner-specific addendum. Each MUAA (including the Utility Adjustment Plans attached thereto) shall be subject to TxDOT review and approval as part of a Utility Assembly.

6.1.4.2 Utility Adjustment Agreement Amendments

Except where Utility Adjustment Field Modifications are permitted pursuant to Section 6.4.7 – Utility Adjustment Field Modifications, modification of an executed MUAA or any component thereof, after it has been approved by TxDOT as part of a Utility Assembly, shall be stated in a Utility Adjustment Agreement Amendment (UAAA).

Each UAAA (including any Utility Adjustment Plans attached thereto) shall be subject to TxDOT's approval as part of a Supplemental Utility Assembly. Except as otherwise directed by TxDOT or provided in an applicable Utility Agreement, Developer shall prepare all UAAAs using the standard form included in Attachment 7.

6.1.5 Recordkeeping

Developer shall maintain construction and inspection records in order to ascertain that Utility Adjustment Work is accomplished in accordance with the terms and in the manner proposed on the approved Utility Adjustment Plans and otherwise as required by the FCA Documents and the applicable Utility Agreement(s).

6.2 Administrative Requirements

6.2.1 Standards

All Utility Adjustment Work shall comply with all applicable Laws, the Technical Documents, the Utility Adjustment Standards applicable pursuant to Section 7.5 of the Agreement, and the requirements specified in this Section 6.

6.2.2 Communication

6.2.2.1 Communication with Utility Owners: Meetings and Correspondence

Developer is responsible for holding meetings and otherwise communicating with each Utility Owner as necessary to accomplish the Utility Adjustments in compliance with the FCA Documents. TxDOT will participate in these meetings if requested by the Utility Owner or Developer or otherwise as TxDOT deems appropriate.

At least two Business Days in advance of each scheduled meeting, Developer shall provide notice and an agenda for the meeting to TxDOT. Developer and shall provide a meeting agenda to the Utility Owner at least three Business Days in advance of each scheduled meeting. Developer shall prepare minutes of all meetings with Utility Owners and shall keep copies of all correspondence between Developer and any Utility Owner.

6.2.3 Utility Adjustment Team

Developer shall provide a Utility Adjustment team with appropriate qualifications and experience for the Utility Adjustment Work. Developer shall provide the names and contact details, titles, job roles, and specific experience of the team members in the FMP. Specifically, Developer shall provide a Utility Manager (UM) and a Utility Design Coordinator (UDC) as described herein.

The UM's primary work responsibility shall be the performance of all Developer's obligations with respect to Utility Adjustments. The Utility Manager shall have a Bachelor's degree, and have at least four years of relevant experience in coordinating and solving complex utility adjustments on highway improvement projects.

The UDC shall be a Registered Professional Engineer. The UDC shall be responsible for coordinating the Utility Adjustment design with the overall highway design features during the planning, design, and construction phases of the Work.

6.2.4 Real Property Matters

Developer shall provide the services described below in connection with existing and future occupancy of property by Utilities.

6.2.4.1 Documentation of Existing Utility Property Interests -- Affidavits

For each Existing Utility Property Interest within the Facility ROW claimed by any Utility Owner, Developer shall include an Affidavit of Property Interest in the applicable Utility Assembly, with documentation of the Existing Utility Property Interest (e.g., an easement deed) attached. Any such claim shall be subject to TxDOT's review as part of its Utility Assembly review. Except as otherwise

directed by TxDOT, Developer shall prepare all Affidavits of Property Interest using the standard forms included in Attachment 7.

6.2.4.2 Acquisition of Replacement Utility Property Interests

Each Utility Owner will be responsible for acquiring any Replacement Utility Property Interests that are necessary for its Utility Adjustments. Developer shall have the following responsibilities for each acquisition:

1. Developer shall coordinate with, and provide the necessary information to each Utility Owner as necessary for the Utility Owner to acquire any Replacement Utility Property Interests required for its Utility Adjustments.
2. If any of the Developer-Related Entities assists a Utility Owner in acquiring a Replacement Utility Property Interest, such assistance shall be by separate contract outside of the Work, and Developer shall ensure that the following requirements are met:
   - The files and records must be kept separate and apart from all acquisition files and records for the Facility ROW.
   - The items used in acquisition of Replacement Utility Property Interests (e.g., appraisals, written evaluations and owner contact reports) must be separate from the purchase of the Facility ROW.
   - Any Developer-Related Entity staffers negotiating the acquisition of Replacement Utility Property Interests must be different from those negotiating the acquisition of Facility ROW.

Developer is not responsible for Utility Owner condemnation proceedings.

6.2.4.3 Relinquishment of Existing Utility Property Interests

Developer shall cause the affected Utility Owner to relinquish each Existing Utility Property Interest within the Facility ROW, unless the existing Utility occupying such interest is either (i) remaining in its original location or (ii) being reinstalled in a new location still subject to such interest.

6.2.4.4 Quitclaim Deeds

Except as otherwise directed by TxDOT, Developer shall prepare a Quitclaim Deed for each relinquishment of an Existing Utility Property Interest using TxDOT's standard form included in Attachment 7. Each Quitclaim Deed shall be subject to TxDOT's review as part of a Utility Assembly as described below.

Developer understands and expects that a Utility Owner will not relinquish any Existing Utility Property Interest until after the Adjusted Utility has been accepted by the Utility Owner in its new location. Accordingly, instead of an executed Quitclaim Deed, the Utility Assembly for such a Utility Adjustment shall include a letter signed by the Utility Owner's authorized representative confirming that the interest will be Quitclaimed upon completion of the Utility Adjustment, and a copy of the unsigned Quitclaim Deed In these cases, Developer shall obtain the executed Quitclaim Deed upon completion of the Utility Adjustment.

6.2.4.5 Utility Joint Use Acknowledgements

Developer shall prepare a "Utility Joint Use Acknowledgment" for:

1. Each Utility proposed to be relocated within the Facility ROW.
2. Each Utility proposed to remain in its existing location within the Facility ROW.
3. Any Existing Utility Property Interest located within the Facility ROW that is not required to be relinquished pursuant to Section 6.2.4.3 - Relinquishment of Existing Utility Property Interests, and is not addressed in the foregoing clause (a) or clause (b)

Except as otherwise directed by TxDOT in its sole discretion, Developer shall prepare all Utility Joint Use Acknowledgments using TxDOT's standard form included in Attachment 7. Developer also shall prepare all required documentation to be included with each Utility Joint Use Acknowledgment.

Developer shall arrange for the Utility Owner to execute each Utility Joint Use Acknowledgment. Each Utility Joint Use Acknowledgment (executed by the Utility Owner) shall be subject to TxDOT's approval as part of a Utility Assembly.

6.2.4.6 Documentation Requirements

Developer shall prepare, negotiate (to the extent permitted by Section 6.2.4 – Real Property Matters), and obtain execution by the Utility Owner of (and record in the appropriate jurisdiction, if applicable) all agreements and deeds described in this Section 6 2.4, including all necessary exhibits and information concerning the Facility (e.g., reports, plans and surveys). Each agreement or deed shall identify the subject Utility(ies) by the applicable Utility Assembly Number (130-U 4 digit Number beginning with 0500), and shall also identify any real property interests by parcel number or highway station number, or by other identification acceptable to TxDOT.

6.3 Design

6.3.1 Developer's Responsibility for Utility Identification

Developer bears sole responsibility for ascertaining, at its own expense, all pertinent details of all Utilities located within the Facility ROW or otherwise affected by the Facility, whether located on private property or within an existing public ROW, and including all Service Lines.

Developer shall prepare and submit to TxDOT in accordance with the FMP, a Utility Strip Map showing the information obtained and/or confirmed pursuant to this Section 6.3.1. Developer's Utility Strip Map shall show in "plan view" all of the Utilities within the Facility ROW or otherwise impacted by the Facility, in each case detailing the type of Utility facility (communication, gas, oil, water, etc.) and the Utility Owner's name and contact information. Developer shall update the information provided in the Utility Strip Map with SUE data and shall submit the same to TxDOT in accordance with the FMP.

6.3.2 Technical Criteria and Performance Standards

All design plans for Utility Adjustment Work, whether furnished by Developer or by the Utility Owner, shall be consistent and compatible with the following:

- The applicable requirements of the FCA Documents, including Section 6.2.1 - Standards

- The Facility as initially designed and constructed as well as the Ultimate Configuration
- Any Utilities remaining in, or being installed in, the same vicinity
- All applicable Governmental Approvals
- Private approvals of any third parties necessary for such work.

6.3.3 Utility Adjustment Concept Plans

Developer shall prepare a proposed conceptual Utility design (a "Utility Adjustment Concept Plan") for the Facility (or proposed Utility Adjustment Concept Plans for various segments of the Facility, as appropriate), showing the approximate location of each existing Utility, the existing Utilities to remain, and Developer's Utility Adjustment recommendations.

In accordance with the FMP, Developer shall submit the proposed Utility Adjustment Concept Plans(s) to TxDOT for its review The plan(s) shall be color-coded and shall utilize a scale that clearly depicts all of the required information. Developer shall coordinate with the affected Utility Owners, as necessary to obtain their respective concurrence with the Utility Adjustment Concept Plan(s).

6.3.4 Utility Adjustment Plans

Utility Adjustment Plans shall be prepared in accordance with the following:

6.3.4.1 Plans Prepared by Developer

Where Developer and the Utility Owner have agreed that Developer will furnish a Utility Adjustment design, Developer shall prepare and obtain the Utility Owner's approval of plans, specifications, and cost estimates for the Utility Adjustment (collectively, "Utility Adjustment Plans") by having an authorized representative of the Utility Owner sign the plans as "reviewed and approved for construction". The Utility Adjustment Plans (as approved by the Utility Owner) shall be attached to the applicable Utility Agreement, which Developer shall include in the appropriate Utility Assembly for TxDOT's approval.
Unless otherwise specified in the applicable Utility Agreement(s), all changes to Utility Adjustment Plans previously approved by the Utility Owner (excluding estimates, if the Utility Owner is not responsible for any costs) shall require written Utility Owner approval.

6.3.4.2 Plans Prepared by the Utility Owner

For all Utility Adjustment Plans to be furnished by a Utility Owner, Developer shall coordinate with the Utility Owner as necessary to confirm compliance with the applicable requirements. Those Utility Adjustment Plans shall be attached to the applicable Utility Agreement, which Developer shall include in the appropriate Utility Assembly for TxDOT's approval

6.3.4.3 Design Documents

Each proposed Utility Adjustment shall be shown in the Final Design Documents, regardless of whether the Utility Adjustment Plans are prepared by Developer or by the Utility Owner.

6.3.4.4 Certain Requirements for Underground Utilities

Casing as specified in the Utility Accommodation Rules shall be used for all underground Utilities crossing the Facility ROW. However, high-pressure gas

and liquid petroleum pipelines may be allowed to cross the Facility ROW without steel casing as long as the requirements of the Utility Accommodation Rules are met. All high-pressure gas pipelines within the Facility ROW shall comply with a design factor "F" = 0.6.

6.3.5 Utility Assemblies

Each Utility Adjustment (as well as each Utility remaining in place in the Facility ROW and not requiring any Protection in Place or other Utility Adjustment) shall be addressed in a Utility Assembly prepared by Developer and submitted to TxDOT for its review and comment, and for TxDOT's approval of any items for which this Section 6, including Attachment 7 and Attachment 8 – Utility Assembly and Tracking Report Requirements, requires TxDOT's approval. Each Utility Adjustment shall be addressed in a full Utility Assembly, unless it is appropriate for a Supplemental Utility Assembly or Abbreviated Utility Assembly, as described below. Developer shall coordinate with the Utility Owner to prepare all components of each Utility Assembly. Completion of the review and comment process for the applicable Utility Assembly, as well as issuance of any required TxDOT approvals, shall be required before the start of construction for the affected Utility Adjustment Work. Provisions governing the procedure for and timing of Utility Assembly submittals are in Section 6.5 - Deliverables.

All Utility Adjustments covered by the same initial MUAA shall be addressed in a single full Utility Assembly, which shall include all items described in Attachment 8.

Supplemental Utility Assemblies. For each UAAA, Developer shall prepare a supplement to the Utility Assembly for the relevant initial MUAA (a "Supplemental Utility Assembly"), covering all Utility Adjustments addressed in the UAAA. The Supplemental Utility Assembly shall contain a transmittal memo, Utility Assembly Checklist, proposed UAAA cost estimate, a proposed UAAA which has been executed by the Utility Owner and Developer (one original in each of the two original Supplemental Utility Assemblies), including all required attachments and applicable revisions to the Utility Adjustment Plans, as well as Utility Joint Use Acknowledgement(s) and Affidavit(s) of Property Interest, if applicable. The transmittal memo shall briefly describe the desired amendment and explain why the amendment is necessary. Each of the foregoing items shall comply with the requirements described in Attachment 8.

Abbreviated Utility Assemblies. Developer shall prepare an Abbreviated Utility Assembly for each Utility proposed to remain at its original location within the Facility ROW that is not required to be addressed in a MUAA or UAAA, or for a group of such Utilities. Each Abbreviated Utility Assembly shall contain a transmittal memo recommending that the subject Utility(ies) remain in place, a completed Utility Assembly Checklist, a certification from the Utility Owner approving leaving the Utility(ies) in place, as well as Utility Joint Use Acknowledgement(s) and Affidavit(s) of Property Interest, if applicable. Each of the foregoing items shall comply with the requirements described in Attachment 8.

6.4 Construction

6.4.1 Notification

For each Utility Adjustment being constructed by Developer, Developer shall notify the Utility Owner(s) in writing before starting the Construction Work for that Utility Adjustment.

6.4.2 General Construction Criteria

All Utility Adjustment construction performed by Developer shall conform to the requirements listed below. In addition, Developer is responsible for verifying that all Utility Adjustment construction performed by each Utility Owner conforms to the requirements described below. In case of nonconformance, Developer shall cause the Utility Owner (and/or its contractors) to complete all necessary corrective work or to otherwise take such steps as are necessary to conform to the following requirements:

1. All criteria identified in Section 6.3.2 – Technical Criteria and Performance Standards
2. The Utility Adjustment Plans included in the Utility Agreement approved by TxDOT (other than Utility Adjustment Field Modifications complying with Section 6.4.7 - Utility Adjustment Field Modifications)
3. All Facility safety and environmental requirements
4. The right-of-way acquisition schedule described in Section 7 – Right-of-Way.

6.4.3 Inspection of Utility Owner Construction

In the FMP, Developer shall set forth procedures for inspection of all Utility Adjustment Work performed by Utility Owners (and/or their contractors) to verify compliance with the applicable requirements described in Section 6.4.2 - General Construction Criteria.

6.4.4 Scheduling Utility Adjustment Work

The Utility Adjustment Work (other than construction) may begin at any time following issuance of the Notice to Proceed. Refer to Section 7.6 of the Agreement for the conditions to commencement of Utility Adjustment Construction Work by Developer; and Developer shall not arrange for any Utility Owner to begin any demolition, removal, or other construction work for any Utility Adjustment until all of the following conditions are satisfied:

1. The Utility Adjustment is covered by an executed Utility Agreement (and any conditions to commencement of such activities that are included in the Utility Agreement have been satisfied);
2. Availability and access to any affected Replacement Utility Property Interest has been obtained by the Utility Owner;
3. If any part of the construction work for the Utility Adjustment will affect the Facility ROW, the condition described in Section 7.6.2 of the Agreement has been satisfied;
4. If applicable, the Alternate Procedure List has been approved by FHWA, and either (a) the affected Utility is on the approved Alternate Procedure List, as supplemented, or (b) the Utility Owner is on the approved Alternate Procedure List, as supplemented;
5. The review and comment process has been completed and any required approvals have been obtained for the Utility Assembly covering the Utility Adjustment;and
6. All Governmental Approvals necessary for the Utility Adjustment construction have been obtained, and any pre-construction requirements contained in those Governmental Approvals have been satisfied.

6.4.5 Standard of Care Regarding Utilities

Developer shall carefully and skillfully carry out all Work impacting Utilities and shall mark, support, secure, exercise care, and otherwise act to avoid damage to Utilities. At the completion of the Work, the condition of all Utilities shall be as safe and permanent as before.

6.4.6 Emergency Procedures

Developer shall provide emergency procedures with respect to Utility Adjustment Work in the FMP. Developer shall obtain emergency contact information from, and establish emergency procedures with each Utility Owner.

6.4.7 Utility Adjustment Field Modifications

Developer shall establish a procedure to be followed if a Utility Adjustment Field Modification is proposed by either Developer or a Utility Owner, after the Utility Assembly (which includes the Utility Adjustment Plans) has been approved. The procedure shall contain the following processes:

a. The Utility Owner's review and approval of a Utility Adjustment Field Modification proposed by Developer, or Developer's review and approval of a Utility Adjustment Field Modification proposed by the Utility Owner.
b. Submittal of plans for the proposed Utility Adjustment Field Modification to TxDOT for its review and comment.
c. Transmittal of Utility Adjustment Field Modifications to the appropriate construction field personnel.
d. Inclusion of any Utility Adjustment Field Modifications in the Record Drawings for the Facility.

Developer shall cause the procedure to be followed for all Utility Adjustment Field Modifications, whether the construction is performed by Developer or by the Utility Owner

6.4.8 Switch Over to New Facilities

After a newly Adjusted Utility has been accepted by the Utility Owner and is otherwise ready to be placed in service, Developer shall coordinate with the Utility Owner regarding the procedure and timing for placing the newly Adjusted Utility into service and terminating service at the Utility being replaced.

6.4.9 Record Drawings

Developer shall provide Record Drawings to TxDOT (regardless of whether design and/or construction of the subject Utilities was furnished or performed by Developer or by the Utility Owner). These drawings shall comply with Section 2.4 – Reporting Requirements. Developer shall provide the Record Drawings for each Utility Adjustment to TxDOT not later than 120 days after the Utility Owner accepts the Utility Adjustment or before such earlier deadline as is specified elsewhere in the FCA Documents.

6.4.10 Maintenance of Utility Service

All Utilities shall remain fully operational during all phases of construction, except as specifically allowed and approved in writing by the Utility Owner. Developer shall schedule Utility Adjustment Work in order to minimize interruption of service, while at the same time meeting the Facility Schedule and taking into consideration seasonal demands.

6.4.11 Traffic Control

Developer shall be responsible for traffic control necessary for Utility Adjustment Work, whether performed by Developer or by the Utility Owner. Traffic control shall comply with the guidelines of Section 18 – Traffic Control.

6.5 Deliverables

All deliverables shall conform to the standards required in the Facility Management Plan.

6.5.1 Maximum Number of Submittals

Developer shall coordinate Submittals required pursuant to this Section 6.5, so as not to submit within any calendar week more than:

a. Two Utility Assemblies (excluding Supplemental or Abbreviated Utility Assemblies)
b. Two of any of the following:
   - A modified or additional item submitted in response to TxDOT comments on a particular Utility Assembly
   - A Quitclaim Deed
   - Any other type of relinquishment document
c. Two Supplemental Utility Assemblies
d. Two Abbreviated Utility Assemblies.

Where Submittals exceed these limits, Section 6.3 of the Agreement shall apply.

6.5.2 Developer's Utility Tracking Report

Developer shall maintain a Utility Tracking Report in tabular form, listing all Utilities located within the Facility ROW or otherwise potentially affected by the Facility. The Utility Tracking Report shall include the items specified in Attachment 8. Developer shall submit the Utility Tracking Report to TxDOT and update it periodically in accordance with the FMP.

6.5.3 Utility Assembly Submittals

The following procedure shall govern submittal and review of each Utility Assembly, including Supplemental and Abbreviated Utility Assemblies:

1. Before submitting a Utility Assembly to TxDOT, Developer shall:
   - Verify that each subject Utility (or the Utility Owner) is on the approved Alternate Procedure List, if applicable;
   - Submit the complete Utility Assembly to the quality control/quality assurance entity designated by Developer in accordance with the FMP; and
   - Resolve all comments made by the quality control/quality assurance entity, coordinating with the Utility Owner as appropriate.
2. Developer shall submit to TxDOT three identical and complete originals of each Utility Assembly (each of which shall be bound and labeled "Developer Copy", " TxDOT Copy", or "Utility Owner Copy", as appropriate), complying with the requirements of Section 6.3 of the Agreement for Submittals. These Submittals shall be for TxDOT's review and comment, except for any components of the Utility Assembly for which TxDOT approval is required by this Section 6.5.

TxDOT will review the Utility Assembly for compliance with the requirements of this Section 6.5.3, and within ten Business Days shall return the Utility Assembly to Developer with the appropriate notations (pursuant to Section 6.3 of the Agreement) to reflect its responses. Developer shall transmit any TxDOT comments to the Utility Owner, and shall coordinate any modification, review and approval by the Utility Owner and resubmittal to TxDOT, as necessary to resolve all TxDOT comments and/or obtain TxDOT's approval, as applicable. Upon (a) TxDOT's approval of any Utility Assembly components for which TxDOT's approval is required, and (b) completion of the review and comment process for all other Utility Assembly components, TxDOT will sign three originals of any approved UJUA and of any other components of the Utility Assembly for which this Section 6 requires TxDOT's signature.

7 RIGHT-OF-WAY (ROW)

7.1 General Requirements

Developer's obligations in respect of the acquisition of Facility ROW are set forth in Section 7.4 of the Agreement.

This section sets forth the ROW activities that are assigned to Developer, including pre-acquisition and acquisition activities, and designates which ROW activities TxDOT will conduct. This section also sets forth the requirements applicable to the Work assigned to Developer related to the acquisition of Facility ROW. Developer shall provide all services necessary to acquire title to the Facility ROW in the name of the State, effect relocation of displacees and clearance/demolition of the improvements from the Facility ROW in form and substance acceptable to TxDOT, as more fully described in the following sections.

Except as otherwise set forth in the Agreement, Developer's Facility ROW staff and/or Contractors will function as independent contractors while acquiring Facility ROW, and not as an agent, representative, or employee of TxDOT.

7.2 Administrative Requirements and ROW Scope of Services

7.2.1 Standards

Facility ROW shall be acquired in accordance with State and federal Law and the practices, guidelines, procedures and methods contained in the Technical Documents.

In the FMP, Developer shall set forth an approach, procedures and methods for all ROW acquisition and shall specifically identify any proposed Deviations from the Technical Documents

Pursuant to 23 CFR §710 313(d), Developer shall (i) acquire ROW parcels for the Facility on behalf of the State, but without the direct participation of TxDOT; subject to TxDOT's rights of review, approval, audit and enforcement described in the FCA Documents, (ii) certify acceptance of the TxDOT *Right-of-Way Manual*; (iii) provide adequate access to all occupied properties; (iv) maintain utility service to occupied properties until relocation is complete; and (v) not permit open burning within 1000 feet of an occupied dwelling.

Developer shall maintain a complete and current set of the TxDOT *Right-of-Way Manual* Collection, Volumes 1 through 8 (http://manuals.dot.state.tx.us/dynaweb), TxDOT *Access Management Manual* (http://manuals.dot.state.tx.us/dynaweb), TxDOT *Appraisal and Review Manual*, and a current approved Facility ROW map for public use. Any TxDOT forms referenced in this section shall be found in the TxDOT *Right-of-Way Manual* Collection or will be provided by TxDOT.

All Facility ROW activities must be completed and documented in compliance with all applicable Laws, including the Uniform Act, and the rules and regulations implementing the Uniform Act.

7.2.2 Software Requirements

Developer shall employ software that is compatible with the software in use by TxDOT, or fully transferable to TxDOT's systems As of the Effective Date, the version in use by TXDOT is the most current version of Microstation® and supporting electronic data in GEOPAK for electronic drawings, and Microsoft Word format for all reports and documents, or fully transferable. The Developer must supply and maintain a web-based parcel-by-parcel database that incorporates the fields and information required by TxDOT's approved ROW tracking system: ROWIS. Developer must maintain and participate in any other required ROW tracking system required by the FCA Documents or otherwise agreed to by the parties. The database shall be fully accessible to persons authorized by TxDOT.

7.2.3 ROW Acquisition Plan

Developer shall prepare a ROW Acquisition Plan in accordance with the requirements of this section and Section 2 The ROW Acquisition Plan shall set forth Developer's organization including names, titles and qualifications of Key Personnel and other Facility ROW Personnel, integration of the Facility ROW schedule into the Facility Schedule, interface between design and Facility ROW activities, documentation and reporting, quality control procedures and quality review standards.

The ROW Acquisition Plan shall contain, as a minimum, the following:

1 The name of TxDOT approved title company(ies) to be used for title services,
2. The name and qualifications of the proposed ROW Acquisition Manager (ROW AM), and
3. The resumes and qualifications for appraisers, appraisal reviewers, land planners, relocation agents, negotiators, real estate attorneys, and ROW personnel who shall have the minimum qualifications and experience specified in Section 7.2.7.

The ROW Acquisition Plan shall establish the specific means by which Developer will:

1. Provide sufficient personnel to achieve, in accordance with the Facility Schedule, the goals and milestones established for Facility ROW acquisition, relocation assistance, appraisals and appraisal review, and clearance/demolition of the improvements from the Facility ROW.
2. Provide administrative support.
3. Provide for Spanish, visually impaired, or hearing impaired translation, as necessary.
4. Provide documentation and reports.
5. Produce and distribute acquisition and relocation brochures as approved by TxDOT.
6. Establish, implement, and maintain quality control procedures and quality review standards for the acquisition for Facility ROW.
7. Prevent fraud, waste and mismanagement.

The Developer shall update the ROW Acquisition Plan regularly, at least quarterly, in accordance with the FCA Documents.

7.2.4 Schedule and Review Procedures

The Facility Schedule shall indicate the date to begin the acquisition of the Facility ROW and the anticipated completion date of acquisition activities for each parcel. TxDOT shall be advised of all Additional Properties and temporary rights or interests in real property to be acquired by Developer. In developing the Facility Schedule, Developer will give priority to the acquisition of parcels that have significant impact on the Facility Schedule and/or affect the Critical Path as so indicated. The monthly status reports required by Section 2.3.3 shall provide updated projections for the acquisition date of each parcel.

In developing the Facility Schedule, Developer shall incorporate adequate time periods for TxDOT review and approval of Acquisition Packages. TxDOT intends to review the completed Acquisition Packages as expeditiously as possible; however, for the purposes of the Facility Schedule, Developer shall assume that the reviews performed by TxDOT will require ten Business Days for Acquisition Packages that Developer submits as final and complete in accordance with Section 7.3.6 – Facility ROW Acquisition Package Approval, up to a maximum of 25 Acquisition Packages. Any submittals that would require TxDOT to review more than 25 Acquisition Packages within any given ten Business Day period shall be considered excess, and TxDOT may defer its review of any such Acquisition Packages to a subsequent ten Business Day period (or periods as necessary). TxDOT will notify Developer of its election to defer any excess Acquisition Packages within ten Business Days after receipt. The balance of Acquisition Packages in excess of 25 will be rolled over to the next ten Business Day period and added to the Acquisition Package submittals made by Developer in that period. When Developer opts to submit more than one Acquisition Package at any given time, Developer shall indicate the priority of required review in order to meet the Facility Schedule.

If TxDOT notifies Developer that any submitted Acquisition Package has a deficiency, Developer shall correct such deficiency and resubmit the package to TxDOT, which resubmissions shall be treated as a new Acquisition Package as described above. An Acquisition Package shall be deficient, as determined by TxDOT, if any of its components fails to meet any of the criteria established by this section for such component, or contains any material errors or omissions. Delays to schedule resulting from inadequate or incomplete submissions of Acquisition Packages shall be the responsibility of Developer and will not be eligible for treatment as an Extended Relief Event or Compensation Event.

TxDOT reserves the right to undertake additional review of Acquisition Packages that are of an unusual/questionable nature in regards to Technical Documents and will notify Developer in writing that the review period will be extended by an additional ten Business Days before rendering a decision to Developer.

Developer may request TxDOT to do a preliminary review of the survey and appraisal before the complete Acquisition Package is submitted. TxDOT shall review the preliminary submission of the survey and appraisal and notify Developer of any deficiencies within five Business Days after TxDOT's receipt of such preliminary submission

7.2.5 Developer's Facility ROW Scope of Services

Developer shall complete all administrative activities and prepare all documentation sufficient for Developer to acquire the Facility ROW. Developer shall obtain TxDOT's review and prior written approval of all Facility ROW maps and surveys, appraisals, legal descriptions, acquisition documentation, purchase price, requests to acquire Facility ROW, condemnation-related activities and funding/closing procedures. TxDOT will (i) approve and return the Facility

ROW acquisition documentation, (ii) provide review comments for incorporation by Developer in accordance with Section 7 2.4 - Schedule and Review Procedures, or (iii) in the case of an Acquisition Package that is deficient, notify Developer of any deficiency to be corrected by Developer in accordance with Section 7.2.4 – Schedule and Review Procedures. Except as otherwise authorized by applicable State and federal policy and regulations for early acquisition and approved by TxDOT, Developer shall not proceed with acquisition of the Facility ROW until the NEPA Approval is issued, public involvement procedures have been completed and TxDOT has issued Notice to Proceed, and ROW maps and legal descriptions for the applicable constructible segment as established by the logical termini of the Facility have been prepared by Developer and approved by TxDOT. TxDOT will provide a separate release for each approved segment. Further, Developer shall not commence any negotiations with landowners nor will TxDOT begin eminent domain procedures until the specific Acquisition Package for that particular parcel is approved by TxDOT

If Developer and the landowner cannot negotiate an agreed upon purchase price, acceptable to TxDOT, TxDOT will commence acquisition of the property through eminent domain procedures. Developer shall not be permitted to commence any condemnation action through the statutory "Declaration of Taking" procedure without the express written consent of TxDOT, which consent may be withheld in TxDOT's sole and absolute discretion.

7.2.6 Acquisition Process Summary

Developer's major activities with respect to the acquisition of the Facility ROW include:

- Facility ROW surveying and mapping
- Facility ROW budget estimates and updates
- Title services
- Appraisal services
- Appraisal review
- Negotiations
- Closing services
- Relocation assistance
- Condemnation support services
- Clearance and demolition of Facility ROW
- Environmental due diligence
- Documentation and document control
- Progress reports
- Facility ROW administration and management
- Facility ROW quality management
- Letter from Developer's design engineer certifying that the required Facility ROW acquisition is necessary and that any proposed alternatives are not feasible or are cost prohibitive
- Obtaining rights of entry, as necessary

7.2.7 Facility ROW Personnel Qualifications

Developer's ROW Acquisition Manager shall have at least five years experience managing the acquisition of transportation right-of-way projects for a condemning authority, be licensed as a real estate salesman or broker pursuant to the Texas Real Estate Act or rules established by the Texas Real Estate Commission, be familiar with appraisal and appraisal report review pursuant to the Uniform Standards of Professional Appraisal Practice (USPAP), and be familiar with the Uniform Act and applicable Laws of the State.

Each appraiser and appraisal reviewer shall be licensed and certified in the State of Texas and shall have a minimum of five years experience in appraising real property for eminent domain purposes, including partial taking appraisal, partial taking appraisal review and expert witness testimony. He or she must also have been actively and continuously engaged for at least three years immediately preceding his or her selection for this Facility in appraisal work primarily in Travis, Caldwell, Guadalupe, Bexar, Comal and/or Hays Counties, Texas. The appraisers and the appraisal reviewers shall have separate and distinct duties, and appraisers must be employed by different firms from the appraisal reviewers. Each appraiser shall be required to submit three samples of previous appraisal work prepared for eminent domain purposes. All appraisers preparing and signing appraisals must be approved by TxDOT before performing any appraisals on the Facility. If required by TxDOT the appraiser will be required to demonstrate his/her skills at expert witness testimony.

Each land planner shall have a minimum of five years experience in land planning and expert witness testimony in eminent domain proceedings. He or she must also have been actively and continuously engaged for at least three years immediately preceding his or her selection for this Facility in land planning work primarily in Travis, Caldwell, Guadalupe, Bexar, Comal and/or Hays Counties, Texas. There shall be a minimum of two land planners who will be available to assist appraisers and provide complete land plans.

Each relocation agent shall have a minimum of three years experience in relocation assistance for right-of-way projects pursuant to the Uniform Act. A relocation agent's responsibilities shall include the following. Determination of eligibility of all displacees, contacting all displacees and informing them of their benefits, maintaining a file of all documentation concerning the relocation of the displacees, and extending all relocation assistance advisory services.

Each ROW negotiator shall be licensed either as a real estate sales person or broker pursuant to the Texas Real Estate Act or rules established by the Texas Real Estate Commission, and shall be familiar with appraisal and appraisal report review pursuant to the USPAP. The negotiator shall have a minimum of three years experience in right-of-way negotiations. The ROW negotiator's responsibilities shall include the following: contact with property owners on the Facility to discuss the acquisition of property needed for the Facility, maintain complete and accurate files of all transactions and contacts with the property owners and/or their representatives, and actively work toward a joint resolution to acquire the property with the property owner.

Each real estate attorney shall be licensed by the State and shall have at least five years experience in title review and curative matters. The real estate attorney's responsibilities shall include the following: coordinate and clear all title issues, and compliance assistance with State and federal acquisition requirements for the properties acquired for the Facility.

Facility ROW personnel shall have at least three years experience in title review and curative matters. Facility ROW personnel's responsibilities shall include the following: maintain complete and accurate files of all transactions and contacts with the property owners and/or their representatives, coordinate and clear all title issues and assist at closing the properties acquired for the Facility.

7.2.8 Developer Conflict of Interest

Developer conflict of interest requirements are located in Section 7.4 of the Agreement.

7.2.9 Meetings

Developer shall attend meetings and provide exhibits as requested by TxDOT.

7.2.10 Documentation and Reporting

Developer shall provide TxDOT with all specific reports and supporting documentation for review and approval during the acquisition process. All correspondence with TxDOT and property owners relating to acquisition of real property shall include the following information (at a minimum) as a heading:

- County
- Control Section Job (CSJ) number
- Highway Designation
- Facility limits
- Parcel number
- Name of record owner(s)

In administering and managing its Facility ROW activities, Developer shall:

1. Maintain parcel records on file of all aspects of the acquisition process.
2. Provide monthly summaries for the purchase prices of Facility ROW acquisition and related relocation assistance payments including amounts authorized and amounts paid on a parcel-by-parcel basis.
3. Maintain and electronically transmit to TxDOT, in a format acceptable to TxDOT, monthly status reports including appraisal, acquisition and relocation status of all parcels and activities related to Facility ROW, acquisition and disposition of Additional Properties and acquisition and disposition of temporary easements or other property interests, and provide weekly (or as requested) updates to TxDOT.
4. Evaluate and report to TxDOT, Contractor status and performance on a monthly basis or more frequently as requested.
5. Prepare and submit electronically to TxDOT, on a monthly basis, a spreadsheet that contains Facility ROW specific data required in order to complete the fields in TxDOT's ROWIS tracking software program or as directed by TxDOT
6. Input and update parcel status in TxDOT approved web based tracking system or as directed by TxDOT.

7.2.11 Developer Responsibility for Costs

Developer responsibility for costs is set forth in Section 7.4.3 of the Agreement.

7.2.12 Responsibilities of TxDOT

TxDOT shall have the following responsibilities in connection with acquisition of Facility ROW:

1. Except as otherwise set forth in this section, TxDOT will provide final approval for all Acquisition Packages, relocation assistance payments, administrative settlement requests, negotiated settlement requests, court settlement requests, payments and other approvals required by the FCA Documents, by the State or by applicable Law within ten Business Days after receipt of complete Acquisition Packages from Developer.

2. After receiving a complete condemnation packet from Developer in accordance with Section 7.4.4, TxDOT will submit a minute order request on the agenda of the next scheduled Texas Transportation Commission meeting, provided the completed condemnation package is submitted before the Commission's required deadline for eminent domain minute order requests.
3. TxDOT shall endeavor to reasonably accommodate a written request from Developer for early submission to the agenda of the Texas Transportation Commission in accordance with Section 6.3.2.9 of the Agreement.
4. TxDOT will coordinate with the Office of the Attorney General to provide legal counsel to prepare and deliver to TxDOT the condemnation petition within 20 Business Days after the Attorney General's receipt of the condemnation packet, including Commission minute order approval. TxDOT shall deliver the condemnation petition to Developer within ten Business Days after receipt of the condemnation petition from the Office of the Attorney General.
5. TxDOT will provide all coordination services between Developer and the Office of the Attorney General for prosecution of jury trials.
6. TxDOT will provide a ROW Administrator to serve as first point of contact for all Facility ROW issues as set forth in 23 CFR § 710.313(d).

7.2.13 TxDOT Facility Monitor/Reviewer

In addition to any of the matters specifically required to be provided by Developer to TxDOT pursuant to the foregoing sections, Developer shall provide information to TxDOT as requested to assist in its review and assessment of the progress, timeliness, adequacy, or sufficiency of Developer's Facility ROW activities.

7.2.14 Responsibilities of the Office of the Attorney General

TxDOT, with assistance of Developer, shall refer to the Office of the Attorney General, all necessary legal actions for acquiring and obtaining possession of the Facility ROW (and any necessary temporary construction easements approved by TxDOT for acquisition by condemnation) through the eminent domain process and eviction process. The referrals to the Office of the Attorney General will include:

1. Preparation of complete petitions for condemnation with the appropriate court for a cause number to be assigned
2. Coordination with TxDOT on all legal matters concerning acquisition process, including negotiated settlements
3. Provide analysis of recommended parcel values and/or appraisal issues
4. Provide any additional legal advice and opinions as needed by TxDOT
5. Special commissioners' hearings
6. Jury trials including determination of expert witnesses and all appeals
7. Prepare, obtain and file all necessary legal documentation for eviction of property owners or tenants.

7.3 Pre-Acquisition Activities

7.3.1 Facility ROW Surveying and Mapping

Developer shall perform all Facility ROW surveying and mapping and shall prepare all Facility ROW documents in accordance with the Right-of-Way Acquisition Plan and applicable Technical Documents. Developer shall refer to Section 9 of these Technical Requirements for additional survey requirements.

The Facility ROW map shall be prepared by Developer and submitted to TxDOT for review and approval. The Facility ROW map may be prepared in separate constructible segments established by the logical termini of the Facility. TxDOT shall have 15 Business Days for review of each submitted ROW map, up to a maximum of 25 parcels. Any submittals that would require TxDOT to review more than 25 parcels in a ROW map within any given 15 Business Day period shall be considered excess, and TxDOT may defer its review of any such excess parcels to a subsequent 15 Business Day period (or periods as necessary).

Developer shall make submission of the Acquisition Packages in conformance with Section 7.3.6 - Facility ROW Acquisition Package Approval.

Developer shall prepare all Facility ROW surveying and mapping in accordance with the following supplemental specifications:

1. Developer shall assemble an Acquisition Survey Document Package. The Acquisition Survey Document Package shall include the Facility ROW map, a parcel (metes and bounds) description, and a parcel plat, with a closure report for each of these three items for each of the parcels to be acquired. The latter three items shall be on standard 8½" x 11" bond paper The Facility ROW map sheets shall be standard 22" x 34" Each final submission to TxDOT shall include two sets of each document, unless otherwise directed. Each map sheet and document page shall have an "as of" date near the lower right hand corner. The parcel plat and parcel description for a given parcel should show identical "as of" dates.
2. The parcel, as shown on the ROW Map sheet and plat shall show all areas of denied access according to the current TxDOT *Access Control Management Manual.*
3. The point of beginning (POB) shall be located on the proposed Facility ROW line and shown in all documents with its centerline (Survey Baseline) station and offset.
4. The point of commencing (POC), where applicable, shall be a well-defined monument, and shall be tied to the POB by measured bearing and distance. The POC shall not be located on any proposed Facility ROW line, or existing Facility ROW line within the proposed Facility ROW.
5. The centerline (survey baseline) station and offset shall be shown on the Facility ROW map sheets for all significant points along the Facility ROW line such as point of curvature (PC), point of tangency (PT), point of intersection (PI), point of compound curvature (PCC), and point of reverse curvature (PRC), and for property line intersections (PLI) with the Facility ROW line, and for any other monumentation points on the Facility ROW line.
6. The centerline (survey baseline) station and offset shall be shown in the parcel description and parcel plat at the beginning and ending, being the points with the lowest station and the highest station, of each parcel along the proposed Facility ROW line.
7. Facility ROW map sheets shall include all curve data, with the station and coordinates of the PI, and the stations at each end (PC, PT, PRC, PCC), for every centerline (survey baseline) curve on that map sheet.
8. Any existing ROW lines that are being incorporated into the proposed Facility ROW, including intersecting rights of way, shall be surveyed and monumented (if not previously monumented).

9. All Facility ROW maps (and on the title sheet) and all parcel descriptions (at the end of the description) shall include a notation that states the State Plane Coordinate System and UTM zones, datum (NAD83) (HARN) (2002), and the project grid-to-surface coordinate adjustment factor.
10. A Facility ROW Map title sheet with signature blocks shall be produced for each portion of the Facility. Developer shall sign the Facility ROW map.
11. All Facility ROW maps shall include a control sheet (or sheets), to show the primary survey control points with their location relative to the Facility.
12. The parcel description and parcel plat documents shall all be referenced as parts of the exhibit that is recorded with the deed, so the pages shall be numbered accordingly. For example, if the parcel description is two pages, the parcel plat is one page, then the first page of the parcel description is denoted "Page 1 of 3", the parcel plat is denoted "Page 3 of 3".
13. Improvements within 100 feet outside of all proposed Facility ROW shall be depicted on the Facility ROW map sheets. All improvements should be current as of the date of the on-the-ground property survey.
14. All visible improvements (buildings and structures) within 25 feet outside of the proposed Facility ROW line shall be located by an "on-the-ground" survey and documented on the Facility ROW map sheets and the parcel plats by measured offset distance from the proposed Facility ROW line. Clearly indicate which distances are surveyed on the ground.
15. Developer shall show calculated points by a symbol on the drawing, with their relationship to the found reference points.
16. All property, city, county, abstract, section, and survey lines shall be indicated appropriately. A map legend should clearly define the line styles and symbols used
17. At the final submittal of the Facility ROW documents to TxDOT, Developer shall cause the surveyor to mark on the ground, using permanent and stable monuments as defined in Section 663.17 of the General Rules of Procedures and Practices of the Texas Board of Professional Land Surveying (TBPLS), all significant points along the Facility ROW line, as described above, and all property line intersections with the Facility ROW line. TxDOT requires these monuments to be a ½-inch iron rod, driven just below surface level, capped by a TxDOT-labeled aluminum cap (rod-and-cap monument).
18. Upon completion of the Facility ROW acquisition or as directed by TxDOT, Developer shall replace rod-and-cap monuments which were set at the significant ROW line points as described above, with TxDOT Type II monuments (constructed according to TxDOT specifications).
19. To communicate the intent of TxDOT and the surveyor to replace the set rod-and-cap monuments with TxDOT Type II monuments at some future time, Developer shall cause the surveyor to indicate wording to that effect in the parcel descriptions, and on the parcel plats and Facility ROW map sheets. An example of such wording would be "set ½-inch iron rod with TxDOT aluminum cap (to be replaced with a TxDOT Type II monument after right-of-way acquisition is complete)".
20. Upon completion of the Facility ROW acquisition or as directed by TxDOT, Developer shall cause a TxDOT Type II monument to be set at all significant points on the Facility ROW line and at intersections with existing Facility ROW lines, replacing monuments as described above, unless otherwise directed by TxDOT. Facility ROW line intersections with property lines shall remain

monumented by a ½-inch iron rod with a TxDOT aluminum cap (rod-and-cap monument).

21. Developer shall cause the surveyor to set additional rod-and-cap monuments for the final Facility ROW lines, at a point on curve or a point on line, where the distance between significant Facility ROW line points as described above exceeds 1,500 feet. Developer shall replace each rod-and-cap monument with a TxDOT Type II monument upon completion of the Facility ROW acquisition or as directed by TxDOT.

22. To reference all significant points along the centerline (survey baseline), Developer shall cause to be set a rod-and-cap monument; and upon completion of the Facility ROW acquisition or as directed by TxDOT, Developer shall replace it with a TxDOT Type II monument, on the final Facility ROW lines, perpendicularly left and right of each significant centerline point, regardless of the relative orientation of the final Facility ROW line.

23. For any required revisions, Developer shall resubmit to TxDOT all documents pertaining to the parcel to reflect the most recent revision date, and shall add a notation on the appropriate documents to state briefly the reason for the revision.

24. Documents shall contain deed references (survey name, abstract number, volume and page or document number, grantee, and area) for all existing public right-of-way encountered within the Facility limits. If there is no recorded information found, a note shall state "Based upon our research, there appears to be no recorded vesting deed for the public right-of-way as shown hereon".

25. The documents that are produced by the surveyor are the property of TxDOT, and release of any document shall be subject to TxDOT's prior written approval.

26. Developer shall cause the surveyor to include the control of access line on the Facility ROW map sheets and on the parcel plats, as required for controlled access facilities. Developer also shall cause the surveyor to describe the area of denied access in the parcel description.

27. The Facility ROW map and each parcel plat shall include a parcel information table containing the areas, expressed in square feet, of the following: 1) the parent ownership as stated in all adjoining record vesting deeds or converted from the stated record acreage in those vesting deeds; 2) the parcel to be acquired as shown on the closure report for that parcel, and; 3) the remainder tract (item 1 minus item 2). If the parcel to be acquired consists of multiple parts, the Facility ROW map shall show the net remainder. The parcel information table shall also contain the areas, expressed in acres, of the parent tract, the parcel to be acquired, and the remainder. This acreage (except stated record) shall be converted from the square footage as contained in the table. A note shall be included on the Facility ROW map and on each parcel plat stating: "The acreage calculated and shown hereon is converted from the square footage shown hereon, and is for informational purposes only." Parcels with area less than one acre will not require acreage units to also be shown.

28. Within the proposed Facility ROW, all property owned by a City, County, or other local public agency in fee or easement that does not have a vesting deed shall be identified by a parcel number and included on the Facility ROW map. Developer shall cause the surveyor to prepare a parcel description and parcel plat for use as an exhibit in the Facility ROW acquisition (property transfer) documents.

29. Developer shall cause an independent Registered Professional Land Surveyor (RPLS) to review the Acquisition Survey Document Package for consistency as to the information delineated thereon and for compliance with all applicable

Technical Requirements and Technical Documents. The boundary location and the survey methods remain the responsibility of Developer, and are not part of this review process. TxDOT will have no obligation to accept the Acquisition Survey Document Package as complete until the reviewing RPLS has signed and sealed the compliance certificate (compliance certificate form to be provided by TxDOT).

30. Parcel numbering shall follow the TxDOT *Right-of-Way Manual*. Parcels are to be numbered based upon the parent tract. Developer shall revise parcel numbering due to subsequent transactions as in the following example: From a 50-acre parent tract, with a proposed Facility ROW acquisition parcel identified as Parcel 14, a 5-acre tract is sold which will also require Facility ROW acquisition. The result is, Parcel 14 is "Not Used", and the two new Facility ROW acquisition parcels are identified as Parcel 14A and 14B. If the property containing Parcel 14B sells a portion, then 14B is "Not Used" and the new Facility ROW acquisition parcels are identified as Parcel 14C and 14D, etc. Developer shall not use the letter "E" to avoid confusion with easement designations. Parcel numbering shall be sensitive to the appraisal of the required parcels.
31. Complicated portions of a Facility ROW acquisition survey can cause the Facility ROW Map to be very difficult to read. TxDOT's preferred solution is to create an additional Facility ROW map sheet or sheets for details, curve data, general notes, etc. The primary page would still retain the whole property inset, record ownership data, and most of the usual information. The additional sheet(s) should be clearly referenced and be numbered as the next sequential page(s). Pages numbered with a letter added (for example: 6A, 6B) are for revisions and corrections. Developer shall use the preferred solution unless TxDOT approves an alternate method.
32. An ownership sheet or sheets, containing an index to the information for all the parcels, shall be included and located near the beginning of the Facility ROW map, after the title sheet and control sheet. The ownership sheet index shall include the parcel numbers, the names of the property owners, the vesting deed recording information, the record area of the parent tract, the area of parcel(s) to be acquired, the area of the remainder(s) left and right, the beginning and ending stations of the parcel along the Facility ROW line, and the sheet number in the Facility ROW map where the parcel is located.
33. At property corners where more than one monument is found, a detail shall be provided to show the measured relationship between the monuments found and the monument set or held.
34. Developer shall purchase all materials, supplies and all items necessary for proper survey monumentation. Developer may purchase Type II monuments from TxDOT. TxDOT shall make available for pick-up by Developer Type II monuments within 75 days after TxDOT receives from Developer a written order, specifying the number of monuments to be purchased. Payment for TxDOT-supplied monuments shall be due within 30 days after TxDOT delivers to Developer a written invoice. Developer may use these monuments only for this Facility and shall be responsible for proper storage thereof.

7.3.2 Additional Reporting Requirements

In addition to the Facility ROW map, parcel description and parcel plats, Developer shall provide the following reports and electronic files:

- Monthly Parcel Report: Developer shall provide a report, prior to the first of the month, listing all parcel deletions, parcel additions, and parcel splits.
- Monthly Progress Report: Developer shall provide a report of all survey activity that occurred over the previous month, including a two-week look ahead of anticipated survey activity.
- CADD Files: Developer shall provide digital CADD files in Microstation format which includes· property lines and/or existing ROW lines, as surveyed; proposed ROW lines, parcel numbers; resource files; level assignments; and plot files Developer shall submit CADD files prior to submitting the first Acquisition Package, and provide updates as needed.

7.3.3 Title Services

With respect to title services, Developer shall comply with the applicable standards identified in Section 7.2.1, including the following requirements:

1. Select and contract with one or more title companies approved by TxDOT and deliver to TxDOT a five year sales history, a preliminary title commitment or preliminary title report and, if necessary or appropriate, with copies of all underlying documents and a plot of all easements, including Existing Utility Property Interests, referenced therein for each parcel (including fee acquisitions, slope easements, other drainage and roadway ROW or easements and abandonment of utility easements) to be acquired by TxDOT for the Facility. Each title report shall be dated not more than 180 Days prior to the date of submittal of the Acquisition Package for such parcel to TxDOT. Developer shall, at its own cost, review each title report to ensure that it complies with the format required by the FCA Documents. Developer shall, at its own cost, retain the services of a real estate attorney, licensed and located in the State of Texas, to be available for title support and acquisition assistance. All title reports must be in the following required format: clearly indicate which exclusions and exceptions shall be deleted upon acquisition of the subject parcel, and clearly indicate any required deliverables to the title company to clear identified exclusions and exceptions. Title reports shall be in accordance with Good Industry Practice. Developer shall notify the title company, by letter, which exceptions should be removed, including easements that (a) are appurtenant to and/or of benefit to the parcel but not included in the parcel to be acquired, and (b) are a burden on the parcel and not acceptable.
2. Review the preliminary title commitment or report to ensure that all current owners of record title are contacted and that negotiations or condemnation actions are conducted with all appropriate parties
3. Work with the current owners of record title to each parcel or interest in a parcel or their designee and all other appropriate parties to clear any title exceptions or exclusions not acceptable to TxDOT.
4. Secure an owner's policy of title insurance in the amount of the total acquisition cost for each parcel from a title company acceptable to TxDOT for each parcel acquired, whether by deed or eminent domain judgment, insuring title as required by TxDOT. All Facility ROW shall be acquired, and TxDOT's title in the Facility ROW shall be insured, in fee simple absolute or easement interest as appropriate, free and clear of any and all liens and encumbrances. Developer shall pay the applicable title company for the cost of the title policies, including all endorsements thereto required by TxDOT, which title policies must be in form

and substance approved by TxDOT. Title to the Facility ROW shall be insured in the name of the State by and through the Texas Department of Transportation.

7.3.4 Introduction to Property Owners

Developer shall prepare and send out initial contact letters of introduction for both property owners and displacees. The letters shall clearly describe the Facility, TxDOT's need for the owner's property, and shall include the name and telephone number of a Developer's representative TxDOT's ROW Administrator or his/her designee will sign the letters on TxDOT letterhead. The forms for these letters shall be approved by TxDOT prior to its use. Property owners or displaces unable to read or understand the notice must be given appropriate translation.

7.3.5 Appraisals

7.3.5.1 Appraisal Services

Developer shall provide TxDOT with fair market value appraisals prepared by appraisers meeting the minimum qualifications established herein. All appraisals shall be prepared in conformance with applicable Law (including the Uniform Act), and in accordance with professional appraisal methods and applicable Technical Documents for all parcels to be acquired by TxDOT. Developer shall:

1. Select appraisers from TxDOT's list of approved fee appraisers and meeting the requirements specified in Section 7.2.7 - ROW Personnel Qualifications. TxDOT shall have final approval of the selection of each appraiser and appraisal reviewers submitted by Developer. Developer must identify and receive written approval of the appraiser who will be responsible for the appraisal work product and who will be signing the reports.
2. Establish personal pre-appraisal contact with each owner of record title and each occupant, and document all contacts.
3. If necessary, make a diligent effort to secure a written agreement between the record title owner and Developer granting TxDOT, Developer or assignees permission to enter the applicable parcel that is to be acquired (a "Right of Entry Agreement"). Developer may at its sole discretion offer to pay reasonable compensation for any required Right of Entry Agreements If Developer, after best efforts, is unable to secure a Right of Entry Agreement from the property owner, Developer shall provide documentation acceptable to TxDOT indicating conversations, correspondence, and efforts used to attempt to secure the Right of Entry Agreement.
4. Contact the record title owners or their designated representatives, in writing, to offer them the opportunity to accompany the appraiser on the appraiser's inspection of the parcel, and maintain a record of all such contacts in the parcel file.
5. Cause the appraiser to prepare a complete appraisal report for each parcel to be acquired to include the whole property, the portion to be acquired, and any damage to the remainder. It shall also include all improvements on the whole property, unless otherwise directed by TxDOT. The appraisal reports shall comply with and include all matters required by this section and TxDOT *Right-of-Way Manual*, and shall satisfy the requirements of the USPAP in effect at the time the appraisal

is submitted. Special analyses, studies or reports, as necessary, shall be made a part of each appraisal. The appraiser must use the most current edition of the standards referenced above and continually monitor these standards to ensure the appraisals conform to the most current requirements of professional appraisal practice. All appraisals shall utilize TxDOT Form ROW-A-5 - Real Estate Appraisal Report unless otherwise authorized by the TxDOT *Right-of-Way Manual* or TxDOT *Appraisal and Review Manual*; provided, however, that all appraisals for condemnation proceedings will utilize TxDOT Form ROW-A-5 - Real Estate Appraisal Report.

6. Obtain and provide TxDOT with copies of all written leases, licenses and other occupancy agreements, including outdoor advertising/sign agreements, in order to identify lessees, licensee and other occupants with potential compensable interests in each parcel and to determine the value of each such interest.
7. Perform an evaluation of all outdoor advertising signs, as required, utilizing the appropriate forms as instructed by TxDOT.
8. Cause the appraiser(s) to testify as an expert witness(es) or provide expert witness(es) approved by TxDOT in special commissioners' hearings or eminent domain proceedings through jury trial and be available for depositions, other discovery, pre-hearing or pre-trial meetings and appeals, as directed by TxDOT. Developer shall also provide administrative and/or technical support for such proceedings as requested by TxDOT.
9. Coordinate with the review appraiser regarding corrections and/or additional information that may be required for a particular appraisal.
10. Cause a report to be prepared by an environmental professional that meets ASTM E-1527-05, documenting the environmental condition of each parcel, which may be based on field investigations and/or historical review, as appropriate for the particular parcel. Requirements for environmental site reports are detailed in Section 4.
11. Engage the services of, and cause, a land planner to perform, or otherwise assist in the preparation of, any and all appraisals that involve a parcel with a valuation analysis indicating a highest and best use that is other than the current use of such parcel, or as directed by TxDOT for certain other appraisals. Developer shall notify TxDOT in writing of each and every instance when the highest and best use of a parcel is different and TxDOT will determine to what degree land planner services will be utilized by Developer.
12. Cause the appraiser(s) to prepare updated appraisals, as well as updated appraisal reviews, when required by TxDOT or as needed during eminent domain proceedings. An updated appraisal package shall comply with USPAP, specifically the Statement on Appraisal Standards No. 7 (SMT-7) and Advisory Opinion, AO-3. The term "Update of an Appraisal" is defined as "an extension of a complete or limited appraisal and report relied on by a client for a prior business decision." At a minimum, the updated appraisal report must include:
    - A letter of transmittal with a specific reference to the original appraisal report, any changes in market conditions, since the original appraisal, any changes in the subject property since the original appraisal, a

statement of the current value or extension of the original value opinion and the listing of the current date of value

- An updated Page 1 from TxDOT Form ROW-A-5 – Real Estate Appraisal Report or Form ROW-A-6 – Real Estate Appraisal Report, as appropriate, with the current date of a recent inspection of the subject property and a current date of value. This form needs to have a current signature and date by both the appraiser and the reviewing appraiser in the appropriate spaces on the form.
- Any qualifying and limiting conditions or general assumptions by the appraiser shall be clearly stated and attached.
- A copy of the survey and legal description of the property being acquired, current photographs of the subject property, clearly showing the area being acquired, even though the original appraisal report contained photographs of the subject and the area of the acquisition. If there are significant changes to the subject property, the area being acquired, access to the remainder property, damages to the remainder(s), market conditions, the subject property's highest and best use from the previous appraisal or significant changes in the approaches to value, the property shall be reappraised using either TxDOT Form ROW-A-5 – Real Estate Appraisal Report, or, when approved by TxDOT, TxDOT Form ROW-A-6 – Real Estate Appraisal Report, depending on the report used for the original appraisal Appraisers shall refer to Sections 6.03 and 6.04 of the TxDOT *Appraisal & Review Manual* for additional guidance. Developer shall follow these guidelines in producing updated appraisal reports and shall discuss specific updating requirements for any complex appraisals with TxDOT before beginning the assignment.

13. Prepare and deliver to TxDOT upon request, a copy of all file documents, as formally requested in discovery motions or request for production.
14. Complete and furnish, to the appraiser, TxDOT Form ROW-A-9 - Property Classification Agreement before appraisal is completed.
15. Particular attention shall be paid to items that have questionable classifications. A completed TxDOT Form ROW-A-9 – Property Classification Agreement.

7.3.5.2 Appraisal Review

In connection with appraisal review, Developer shall:

1. Select review appraisers from TxDOT's list of approved fee appraisers and meeting the requirements of Section 7 2.7. The review appraiser selected must follow the appraisal guidelines and procedures found in Chapter 4 of the TxDOT *Appraisal & Review Manual*.
2. Determine, in consultation with TxDOT, if additional appraisal reports or technical expert reports are required. Initiate, review, and reconcile each report required.
3. Review all appraisal reports for each parcel to determine consistency of methodology, supporting documentation related to the conclusion reached, and compliance with Technical Documents, as defined in Section 7.3.5.1 - Appraisal Services and Section 7.3 5.2 - Appraisal Review, TxDOT *Appraisal & Review Manual*, the Uniform Standards and Federal Land Acquisitions and the requirements of the Appraisal

Foundation's USPAP in effect at the time the appraisal is reviewed. The review appraiser must use the most current edition of the standards referenced above and continually monitor these standards to ensure the appraisals conform to the most current requirement of professional appraisal practice.

4. Inspect the subject properties and the sale properties used in direct comparison for each appraisal being reviewed.

Upon completion of the review outlined above, the appraiser shall certify in writing to TxDOT that all required standards have been met. This certification will occur by signing on Page 1 of each TxDOT Form ROW-A-5 – Real Estate Appraisal Report or TxDOT Form ROW-A-6 – Real Estate Appraisal Report in the block provided. The review appraiser will also complete TxDOT Form ROW-A-10 - Tabulations of Value to accompany each appraisal.

For appraisal updates, the review appraiser will perform a complete review of the updated appraisal, re-inspecting the subject property and the sales used, as of the current date of value. The review appraiser will follow the procedures outlined in the TxDOT *Appraisal & Review Manual*. A new TxDOT Form ROW-A-10 - Tabulations of Value will be required for each updated appraisal ordered by Developer.

7.3.6 Facility ROW Acquisition Package Approval

Acquisition Packages submitted by Developer for TxDOT's approval shall include the following items prepared for each parcel in accordance with the requirements of this section:

1. A cover sheet setting forth the following information for each parcel.
   - Parcel number and number of parts
   - Station number
   - CSJ number
   - Location of parcel
   - Name of owner
   - County and/or other jurisdiction
   - Extent of acquisition (partial or whole acquisition)
   - Type of conveyance (fee, easement, etc.)
2. A complete legal description of the parcel adequate to effect the desired acquisition of the parcel, signed and sealed by an RPLS A legal description and parcel plat is required for each parcel. Control of access shall be addressed in all legal descriptions. All descriptions shall be in recordable form and shall be prepared in a form and manner acceptable to TxDOT in all respects.
3. The parcel plat, as prepared by the RPLS, and a half size (11" x 17") copy of the ROW map sheet(s) pertaining to the parcel, such plat to include control of access designations.
4. A title report, current within 180 Days, including copies of all documents identified in the exceptions listed therein and a plot of all easements identified therein The Acquisition Package shall include Developer's analysis of each preliminary title report or title commitment to determine potential problems and proposed methods to cure title deficiencies. Developer shall perform title curative Work. Developer will provide TxDOT with copies of all curative documents.
5. A copy of the appraisal report and all supporting documentation.

6. A copy of the environmental site assessment and all amendments as described in Section 7.3.5.1 - Appraisal Services.
7. A real/personal property report detailing what items making up each parcel are classified as real estate, tenant-owned improvements or personal property.
8. Replacement Housing Calculations, notification of business eligibility, completed displacee interviews, all comparables used in estimating the replacement housing calculations, and letter to displacee(s) explaining replacement housing calculations. Calculations and replacement housing benefit package shall be prepared and reviewed by a qualified consultant, in conformance with TxDOT's *Relocation Manual* and applicable Laws.
9. The proposed initial offer letter, memorandum of agreement, deed, and any other documents, which shall be prepared by Developer as required or requested by TxDOT, on Developers letterhead or as otherwise directed. TxDOT will provide the format for preparing these documents. Documents referred to in this section are standardized by TxDOT and modification of standardized documents shall be kept to a minimum, and all changes are subject to approval by TxDOT in writing, in TxDOT's sole discretion.
10. Any other required TxDOT forms, such as record of all contacts with the property owner or any party with a compensable interest.

Upon TxDOT's prior written approval of the Acquisition Package, Developer may proceed with the offer to the property owner.

7.4 Acquisition Activities

7.4.1 ROW Negotiations

Developer shall conduct all negotiations in accordance with the requirements of applicable Law. In conjunction with negotiations, Developer shall:

1. Within ten Business Days of TxDOT's approval of the Acquisition Package, contact each property owner or owner's designated representative, in person where practical, to present the offer and deliver an appraisal report and appropriate brochures. A copy of the appraisal report for the subject property shall be provided to the property owner or authorized representative at the time of offer. Developer shall also maintain a file record of receipt of appraisal signed by the property owner. Developer shall also maintain follow-up contacts and secure the necessary documentation and title curative Work upon acceptance of the purchase offer.
2. At the time of offer, produce and distribute to all property owners and displacees, TxDOT approved informational brochures as appropriate. The purchase of ROW brochure shall include language about the Declaration of Taking procedure, as set forth in the TxDOT *Right-of-Way Manual*, if the Developer anticipates requesting the utilization of this procedure by TxDOT anywhere within the Facility.
3. Identify lessees, licensees, occupants, or other parties with potential compensable interests including outdoor advertising sign owners, and, if appropriate, after consultation with TxDOT, negotiate with such parties for the acquisition of their compensable interests.
4. Advise the property owners, lessee, licensees, occupants, and other holders of compensable interests, as applicable, of the administrative settlement process.

Confer with and transmit to TxDOT's ROW Administrator any settlement request from property owners, lessees, licensees, occupants, or other holders of any compensable interest, as applicable, including a detailed recommendation from Developer in accordance with standards, manuals and procedures as defined in Section 7.2. Developer and TxDOT shall jointly determine whether to accept a settlement request. Delivery of the administrative settlement request and Developer's recommendation to TxDOT must occur within five Business Days of Developer's receipt of the administrative settlement request.

5 Developer, at its request or the request by TxDOT and/or the TxDOT Administrative Settlement Committee, may participate in the evaluation of the administrative settlement request and attend the committee meeting.

6. As set forth in the TxDOT *Right-of-Way Manual*, Developer shall provide a letter with the administrative settlement committee's response to the property owner, lessee, licensee, occupant, or other holder of a compensable interest, as applicable. Developer shall deliver all settlement responses (if within reasonable proximity of the Facility) by hand within three Business Days after receipt. If this delivery method is not feasible, Developer shall mail [return receipt requested] response letters not more than three Business Days following any decision by the TxDOT administrative settlement committee. If Developer selects the mailing option, Developer shall make a telephone call to the property owner to discuss the settlement offer prior to mailing the response letter. The TxDOT ROW Administrator, on an as needed basis, will convene the TxDOT Administrative Settlement Committee.

7. Notwithstanding an unsuccessful completion of the formal administrative settlement process, Developer may, in its sole discretion, engage in ongoing negotiations with the owners of compensable interests. Developer shall develop and incorporate in its ROW Acquisition Plan a procedure for these negotiated settlements. Said negotiations may continue until such time as the Texas Transportation Commission adopts a minute order authorizing the filing of a condemnation petition. Developer shall submit to TxDOT its recommendation of a negotiated settlement and obtain TxDOT's consent prior to acceptance of any settlement.

8. Provide timely (i.e., not more than ten Business Days after inquiry) response to the verbal or written inquiries of any property owner, lessee, licensee, occupant or other holder of a compensable interest, as applicable.

9. Prepare a separate negotiator contact report for each meeting or conversation with any person (or their appointed representative(s) supported by a written confirmation of appointment) who has a compensable interest in each parcel on TxDOT Form ROW-N-94 – Negotiator's Report. Contact reports shall also be prepared for unsuccessful attempts to contact such persons.

10. Maintain a complete parcel file for each parcel. All original documentation related to the purchase of the real property interests will be maintained [housed separately from the relocation files] in conformance as set forth in the TxDOT *Right-of-Way Manual* and as defined in Section 7.2. All original ROW documents must be retained and properly secured in Developer's Facility office or as otherwise approved by TxDOT. Signed original documents shall be periodically forwarded to TxDOT with a transmittal form during the acquisition process; provided, however, that all remaining original documents shall be forwarded upon completion of the acquisition of Facility ROW for the Facility.

11. Prepare and deliver documents of conveyance (including bisection clause and access clause, if applicable) to the property owner, lessee, licensee, occupant, or

other holder of any compensable interest, as applicable, and obtain their execution of the same. All signatures on documents to be recorded shall be notarized in accordance with Texas law.

12. Pursue and obtain possession and use agreements (PUA) concurrently with the parcel negotiations. The form of PUA will be provided by TxDOT and will contain provisions allowing for construction to commence while negotiations are finalized. Such agreements will be sought and negotiated by Developer strictly in accordance with the law and only with the prior written consent of TxDOT. If Developer exercises the use of a TxDOT PUA, Developer must obtain a deed or commence action on condemnation proceedings by forwarding a condemnation packet to TxDOT for approval within six months from the date of the PUA.
13. Be open to all reasonable settlement requests (that comply with the regulations as outlined in this section) from the property owners, which are feasible and help expedite the Facility ROW acquisition process. Developer acknowledges and understands that TxDOT encourages all positive and creative solutions which satisfy the property owner and promote the success of the Facility.
14. Developer shall prepare and deliver a final offer letter to the property owners, lessees, licensees, occupants, or other holders of any compensable interest, as applicable. The letter shall be on Developer's letterhead and shall be signed by the ROW Acquisition Manager. Developer shall submit to TxDOT, a copy of the final offer letter within two days after delivery to the property owner.
15. If the offer is not accepted, Developer shall follow the procedures established for condemnation.

7.4.2 Relocation Assistance

Developer shall coordinate and perform the administrative requirements necessary in order to relocate any occupants from Facility ROW.

Developer shall maintain a relocation office (handicap accessible) within reasonable proximity of the Facility area as approved by TxDOT. At a minimum, the office hours of the relocation office shall be posted to meet the following timetables:

- Monday thru Friday - 8:00 am to 5:00 pm
- Saturday - 9:00 am to 12:00 pm
- Sunday - office shall be closed

In addition to the office hours listed above, Developer shall be available to all displacees for relocation services at the convenience of the displacees.

Developer's relocation assistance of occupants from Facility ROW shall include:

1. Prepare a "relocation plan" in accordance with the TxDOT *Right-of-Way Manual*, Volume 3, Chapter 8 - Relocation Program Planning and Construction.
2. Monitor relocation assistance activities.
3. Prevent fraud, waste and mismanagement.
4. Assist with all requests and be responsible for carrying out decisions made by TxDOT, the review/appeal process and judicial reviews.

With respect to relocation assistance, Developer shall:

1 Provide written notice to all property owners, lessees, licensees, occupants, other holders of compensable interests, and other potential displacees regarding relocation assistance and produce and provide them with a relocation assistance brochure, which has been approved by TxDOT. Developer shall perform relocation interviews, complete and maintain interview forms and discuss general eligibility requirements, programs, and services with potential displaces. Developer shall maintain a written record of all verbal contacts.

2 Give written notice of the pending acquisition to any non-eligible occupants. Any questions as to the eligibility of a potential displacee shall be directed in writing to TxDOT's ROW Administrator.

3. Contact and provide relocation assistance to those parties affected by the Facility ROW acquisition and complete forms for all displacees, as required.

4. Locate, evaluate and maintain files on comparable available housing, commercial, retail, and industrial sites.

5. Calculate replacement supplement benefits.

6. Compute and submit requests for relocation rental/housing supplement to TxDOT prior to submission to relocatees. All relocation supplements shall be subject to TxDOT's written approval.

7. Perform a Decent, Safe and Sanitary (DSS) inspection for each replacement housing comparable, photograph the comparable and complete the DSS inspection form, TxDOT Form ROW-R-116 - Replacement Housing Inspection.

8 Request at least three moving estimates from moving companies to effect relocation of personal property.

9. Prepare moving plan with appropriate photos, sketches and inventory of personal property to be moved.

10. Coordinate moves with displacees and moving companies.

11. Maintain relocation contact logs on a TxDOT Form ROW-R-96-R – Relocation Advisory Assistance – Parcel Record.

12. Attend all closings on replacement properties, if requested by any party involved, and assure supplemental payments, if any, are properly distributed.

13. Process and compute increased interest payments on the mortgage of owner-occupied dwellings, as required.

14. Deliver to displacees a 90-Day notice of eligibility letter simultaneous with the delivery of the relocation benefits package. Deliver a 90-Day letter to displacees with the location of the comparable property used to compute the supplement.

15. Deliver a 30-Day notice to displacees and property owners upon acquisition of Facility ROW.

16 Notify TxDOT's ROW Administrator office immediately if a displacee has not moved after 30 Day notice expires. Prepare a written recommendation to facilitate the displacee's move.

17 Be available for any appeals or hearings.

18. Prepare relocation payment claim submissions for all displacees and all relocation assistance benefits.

19. Verify DSS dwelling criteria on all replacement housing as selected by the displacees.

20. Secure dwellings and structures no later than ten Days after vacancy and protect the Facility ROW following acquisition and relocation.

21. Maintain a complete file, separate from acquisition files, on each displacee and make available for inspection.

22. Be responsible for all relocation activities that may occur after deposit of the special commissioner's award in the courts, including instances when a parcel

referred to the Office of the Attorney General for eminent domain also has a relocation issue.

23. Prepare all correspondence to the displacees or their representative(s) on Developer's designated relocation letterhead and have the Developer's correspondence signed by the Facility ROW Relocation Agent.
24. Deliver to each displacee the relocation assistance payments according to the TxDOT Right-of-Way Separation of Duties chart provided.
25. Assist the Office of the Attorney General with eviction proceedings. Serve notice of eviction proceedings to the occupant(s) of the property who have not complied with move dates. Coordinate the eviction process with the local authorities and accompany the Sheriffs Department when the local authorities are carrying out eviction.

7.4.3 Closing Services

For purposes of closing services, Developer shall:

1. Prepare the escrow agreement and closing documents, including a closing memorandum identifying all parties involved in the closing, and listing all documents to be executed and/or delivered in connection with the closing.
2. Attend closings; provide curative documents and exhibits as required and in conjunction with the applicable title company. Confirm that all conditions to closing are satisfied and notify TxDOT of all closing appointments.
3. Coordinate with TxDOT and the applicable title company to obtain an updated title commitment within 24 hours prior to closing and then obtain an issued title policy based on the approved updated title commitment within 30 Days following closing and transmit the same to TxDOT.
4. Obtain and deliver to TxDOT one certified copy of each instrument of conveyance immediately after closing, and provide a copy of the title policy to TxDOT within five Business Days after receipt. Cause to be delivered to TxDOT a copy of the recorded deed within ten Days after the title company receives the recorded deed.

7.4.4 Condemnation Support

Developer shall support condemnation efforts as directed by TxDOT and further delineated as follows:

1. Notify TxDOT of any potential condemnation and document the reason(s) for condemnation including recommendations for property closure.
2. Conduct all applicable eminent domain-condemnation activities in accordance with the policies and procedures as described in the FCA Documents.
3. After non-response or upon receipt of a copy of the rejected final offer from a property owner or other property right holder entitled to compensation, request an updated title report from the title company issuing the original title commitment.
4. Provide to TxDOT, within ten Days following non-response or rejected certified mailing, notification thereof together with a signed and sealed parcel description and parcel plat, and a bisection clause and access clause, if necessary, with the clauses attached to a property exhibit containing the parcel description and parcel plat.

5. Use the information from the title report to join all parties having a property interest on applicable TxDOT form. Spouses of property holders with compensable rights must also be joined.

6 Upon completion of TxDOT Form ROW-E-49 – Request for Eminent Domain Proceedings, prepare a condemnation packet containing two copies each of the following documents: the completed TxDOT form, negotiation logs, the updated title report not more than 90 Days old, appraisal receipt acknowledgment, pre-appraisal contact sheet, signed and sealed field notes, parcel sketch, bisection clause and access clause exhibits (if necessary), final offer letter reflecting latest appraisal, complete minute order request form (form to be provided by TxDOT), any correspondence sent by Developer or from the owner of the compensable interest or representatives, one copy of the appraisal report not more than 90 Days old, and proof of good faith negotiations. Submit two complete condemnation packets to TxDOT's ROW Administrator.

7. Send a copy of the complete petition to the title company and confirm with the title company that the appropriate parties were joined in the case and that no changes in title have occurred since the original litigation guaranty was issued.

8. File the petition for condemnation with the appropriate court clerk after a determination that a timely settlement is not feasible.

9. Coordinate and provide legal and technical support to the Attorney General's office, as required to facilitate filing the petition, assignment of a court, and setting of a hearing date.

10 Make available to TxDOT on behalf of the Attorney General's office an agent who will be expected to assist in making arrangements for conferences with witnesses prior to trial, filing the condemnation petition, informing the Attorney General's office as to the filing date of the petition and the case number assigned to the suit, and perform any other duties which will assist in the successful prosecution of the suit, including his or her attendance in court and filing necessary documents to complete all eminent domain proceedings.

11. Depending on the market conditions or if over six months have elapsed since the date of the initial offer, contact the attorney handling the case for TxDOT and confer about the advisability of preparing an updated appraisal. If it is determined that an updated or new appraisal is necessary or desirable, obtain such appraisal using the same procedures as described in Section 7.3.4 - Appraisal Services above. Developer must also undertake appraisal review as described in Section 7.3.4 - Appraisal Review.

12. Coordinate with TxDOT on behalf of the Attorney General as to land planners and/or other expert witnesses as required by the Attorney General. Developer, at its cost, shall provide the land planner or other expert at the request of TxDOT or the Attorney General. The land planner or other expert report, if required, shall be completed and forwarded to the appraiser before the updated appraisal is completed.

13. Appear or provide for the appearance of expert witness (es) or fact witness(es) when requested by TxDOT or the Attorney General's Office. The appearances may include pre-commissioner's hearing preparations, special commissioner's hearings, and subsequent proceedings including jury trials and related proceedings.

14. Submit the updated appraisal to TxDOT and the attorney handling the case for TxDOT for review and approval, which review and approval shall occur within ten Business Days of receiving the updated appraisal. TxDOT and Developer must approve any revised offer in writing prior to an offer letter being sent. If a revised

offer is approved, prepare a final offer letter, make the revised offer to the property owner or other holder of a compensable interest, as applicable, and submit a copy of the final offer letter to TxDOT for written approval.

15. Communicate with TxDOT as to the parcel status on a monthly basis and in the Facility progress report or as requested by TxDOT.
16. Serve in person, a "Notice of Hearing" at least 11 Days prior to the date of the special commissioners' hearing or other hearings and notice requirements as directed or authorized by the court.
17. Call and send reminder letter two to three weeks in advance of any hearing to the assigned attorney, engineer, technical experts, appraiser, the commissioners, court reporter, and TxDOT's ROW Administrator concerning hearing dates.
18. Upon completion of the hearing, prepare TxDOT Form ROW-E-73 – Data Sheet – Special Commissioners Hearing and commissioners' time sheets. Developer shall make payment to all commissioners involved in the hearing and include payment for commissioners as part of general Facility ROW services.
19. Be responsible for coordinating the pre-hearing meeting with TxDOT on behalf of the Office of the Attorney General and all others required for testimony or exhibit preparation. Coordinate and provide support to TxDOT's counsel and facilitate distribution of copies of award, prepare request for payment, and file notice of deposit. Developer shall coordinate with TxDOT on behalf of the Office of the Attorney General regarding expert witnesses needed to testify on behalf of the State at the special commissioners' hearing and subsequent proceedings including jury trials. At the request of the Office of the Attorney General or TxDOT, Developer shall provide and pay for all necessary expert witnesses including. engineering, land planners, real estate consultants, cost estimators, outdoor advertising sign experts and environmental consultants and Developer shall appear as expert witness or fact witness, as requested. Developer shall also make any Contractors available to appear as an expert witness or fact witness, as requested at the special commissioners' hearing or subsequent proceedings. The Office of the Attorney General shall have the right to select all expert witnesses to be used for jury trials.
20. Schedule and pay for all court reporter services, transcription costs, expert witness fees, exhibits, and exhibit workbooks as directed by TxDOT. All documents and exhibits used in the special commissioner's hearings shall be submitted to TxDOT within 20 Days after completion of such hearing.
21. Timely file and provide proper service of objections if requested by TxDOT after completion of the special commissioner's hearing and promptly provide evidence of filing and copies of all filed documents to TxDOT. Within three days after objections have been filed, Developer, at its cost, shall order transcripts of such hearing.

7.4.5 Clearance/Demolition of Facility ROW

Prior to demolition of any improvements, Developer shall provide to TxDOT photographs of the property and all improvements, unless the special commissioner's hearing has been completed and objections have not been filed. Developer shall also have photos of personality and any other items of dispute in and of a quality suitable for presentation as evidence in court. Following acquisition or possession of any parcel of Facility ROW, Developer shall:

1. Secure and protect the buildings, improvements and fixtures on the Facility ROW until they are disposed of or demolished. Developer shall board-up, mow, and winterize as required by Good Industry Practice or Applicable Law

2. Coordinate with the owner and occupants to assure the clearance of personal property from the Facility ROW, as applicable.
3. Provide for any insect and rodent control and initiate extermination as required to protect the adjacent properties and rid the Facility ROW from infestations.
4. Secure Governmental Approvals required for demolition and environmental surveys or tests, and notify TxDOT in writing of all such activities.
5. To the extent required by Section 7.2.11 – Developer Responsibility for Costs, prepare necessary documentation for disposal of improvements, fixtures and buildings in accordance with applicable Laws and submit the same to TxDOT.
6. Provide written notification to TxDOT of any real and/or personal property remaining on the Facility ROW after vacated by the occupants and not acquired as part of the acquisition.
7. Terminate all utility service(s) when appropriate.
8. Process all required forms, documents and permit applications in order to proceed with the timely demolition or removal of any and all improvements, buildings and fixtures located within the Facility ROW, as applicable.
9. Demolish and/or remove all improvements.
10. Notify TxDOT upon completion of the demolition and clearance of the Facility ROW, as applicable.

7.4.6 Property Fence

Fencing standards for Developer-provided fencing shall conform to the overall requirements found elsewhere in these FCA Documents and referenced standards.

7.4.6.1 Property Fencing for Public Properties

Where public facilities now exist that are in high risk areas for public use (particularly those containing parks, sport areas, schools or any highly traveled pedestrian areas), Developer shall, at a minimum, construct a six feet high chain link fence with metal posts. Developer shall use Good Industry Practice in fencing public properties to control public access to the Facility.

7.4.6.2 Property Fencing for Private Properties

Developer shall instruct the appraiser to use the "Cost to Cure" format to compensate an owner of private property for a replacement fence when the Facility ROW line leaves one or more unfenced remainder property(s) that were fenced before the taking. Compensation for the new fencing will be based upon the same type of fence as the property owner's existing fence

When the property owner is paid through the appraisal process for the cost to rebuild the fence on the remainder property, Developer shall include in the memorandum of agreement or the purchase agreement for such property the following clause:

> "It is further understood and agreed that the Grantor has been compensated for the construction of a new fence and shall be responsible for constructing the necessary fencing within 30 Days from the date of closing. Grantor specifically understands and agrees that the fences are the property of the Grantor and the Grantor shall be liable and responsible for any reconstruction, maintenance, or adjustment with regard to such fencing."

Developer shall make reasonable and good faith efforts to ensure that the property owners, who have been compensated for fencing of the remainder properties, erect the fence in accordance with the Facility Schedule.

If necessary to maintain the Facility Schedule and to control unauthorized access to the Facility ROW by the public or livestock, Developer shall be responsible for providing temporary fencing in cases where the property owner refuses to fence the property within the allotted timeframe.

After the property owner's retention period has expired and if any existing fencing remains, Developer shall remove the existing fences from the newly acquired Facility ROW and will be responsible for all costs associated therewith

8 GEOTECHNICAL

8.1 General Requirements

Geotechnical investigation means testing, research, and other measures to be performed by Developer to determine the surface and subsurface geotechnical conditions.

Developer's obligations in respect of geotechnical investigations are set forth in Section 6.1 of the Agreement.

In the FMP, Developer shall set forth an approach, procedures and methods for all geotechnical investigations and shall specifically identify any proposed Deviations from the FCA Documents including Deviations from the requirements and guidance outlined in the TxDOT *Geotechnical Manual.*

Developer shall include the geotechnical engineering reports in the Final Design Documents in accordance with the FMP.

Developer shall restore any areas disturbed during subsurface boring operations to the condition existing immediately before the Work was started.

8.2 Geotechnical Engineering Reports

Developer shall prepare and submit geotechnical engineering reports to TxDOT that document the assumptions, conditions, and results of the geotechnical investigations, including:

Surface and Subsurface Conditions

1. Plan view locations of field sampling, boring logs and other field data, laboratory test results, calculations, and analyses which support recommendations.
2. The geology of the Facility area including soil and/or rock types.
3. Presentation of field investigations and laboratory test results used to characterize conditions.
4. Soil compaction criteria and plasticity index recommendations related to suitability for embankment, backfill, or sub grade including the potential vertical rise.

Pavements

1. Pavement design details by location, including structural layer materials, general specifications, and thicknesses.
2. Lifecycle management analysis, including the periods for resurfacing, reconstruction, and other rehabilitation measures and what these activities are likely to entail.
3. Relevant pavement evaluation data and condition information on adjacent roads.
4. Relevant drainage requirements.
5. Design criteria used in determining the pavement design(s), including annual average daily traffic, percentage heavy vehicles, pavement materials strength factors, and pavement design life.
6. Design methods adopted in developing the pavement design(s) and the rationale for their selection.

7. Other considerations that were used in developing the pavement design(s) including functional classifications.

Excavations and Embankments

1. Recommendations for design and construction parameters resulting from the geotechnical investigation.
2. Relevant drainage requirements.
3. Methods of slope stability analysis and factors of safety.
4. Settlement and overburden criteria
5. Sub grade stabilization and improvement techniques.

Structures (Foundations, Retaining/Sound Walls)

1. Recommendations for foundation design (bridges, buildings and walls) and construction parameters.
2. Settlement tolerances.
3. Scour analysis parameters.
4. Retaining wall stability analysis.
5. Relevant drainage requirements.

8.3 Pavement Design Requirements

Developer shall utilize the following requirements for pavement design:

- The mainlanes, frontage roads and ramps shall be designed using an appropriate functional highway classification as defined in the *AASHTO Guide for Design of Pavement Structures*.
- For roadways adjacent to and crossing the Facility that may be potentially disturbed by the Work, Developer shall return roadway to its functional utility.

9 FIELD OR CONSTRUCTION SURVEY

9.1 General Requirements

Developer's obligations in respect of surveys are set forth in Section 6.1 of the Agreement.

Developer shall perform all survey work in the English system of measurement using the U.S. survey feet. Developer shall adhere to the survey requirements and specifications outlined in the FCA Documents Developer shall keep all survey records and field notes as a permanent record and make available to TxDOT upon request.

In the FMP, Developer shall specifically identify any proposed Deviations from the FCA Documents including Deviations from the requirements and guidance outlined in the TxDOT *Right-of-Way Manual*, the TxDOT *Survey Manual* and the TxDOT *GPS User's Manual.*

9.2 Horizontal Control Requirements

Developer shall provide all horizontal data for the Facility design in both the Texas State Plane Coordinate System and Universal Trans Mercator (UTM) format based on NAD83((HARN)(2002)). Developer shall provide permanent or primary control monuments conforming with level two accuracy requirements of the TxDOT *GPS User's Manual* and National Geodetic Survey level "B" standards for accuracy and stability. Data recovery sheets of each permanent or primary monument will be signed and sealed by a Registered Professional Land Surveyor.

9.3 Vertical Control Requirements

As a minimum, Developer shall establish vertical control for the Facility design on the *North American Vertical Datum of 1988*, English units, (NAVD 1988). Developer shall provide primary vertical control monuments at the ends of the Facility and at no greater than five mile increments within the Facility. Primary or permanent control monuments shall conform to level two accuracy requirements of the TxDOT *GPS User's Manual* and National Geodetic Survey level "B" standards for stability. Data recovery sheets of each primary or permanent monument shall be signed and sealed by a Registered Professional Land Surveyor.

9.4 Permanent Survey Control Network

Primary control monuments shall be TxDOT brass survey markers installed in concrete (M-92 monument) and marked as directed by the TxDOT *Survey Manual and* TxDOT *GPS User's Manual.* Developer shall promptly preserve or replace as necessary, throughout the Term, all existing survey monuments and control points. Developer shall cause the surveyor to make all computations necessary to establish the exact position of the control points based on the primary control. Developer shall provide primary or permanent control at the ends of the Facility and at no greater than five-mile increments within the Facility. Primary control monuments shall conform to level two accuracy requirements of the TxDOT *GPS Users Manual* and National Geodetic Survey level "B" standards for accuracy and stability. Data recovery sheets of each monument will be signed and sealed by a Registered Professional Land Surveyor.

9.5 Control Report

Developer shall provide a report showing the control information and data. The control report shall include the following:

- Listing of all Facility control points specifying primary and secondary control points provided in both the *Texas State Plane Coordinate System* and *UTM* format
- Listing of existing control points used to establish the network
- Listing of points set
- Network maps showing the location of the control points
- Datum used NAD83 (HARN)(2002))
- Geographic coordinate values
- Scale factors
- Orthometric and ellipsoidal heights
- Primary control point data sheets

Developer shall submit a draft control report to TxDOT before the first Acquisition Packages submittal.

10 GRADING

10.1 General Requirements

In the FMP, Developer shall set forth an approach, procedures and methods for all finish grading and materials stockpiling.

Material stockpile locations within the ROW shall be located outside the horizontal clear zone. Material stockpiles shall be constructed with side slopes of 3:1 or flatter. Permanent material stockpiles shall be constructed so as to not interfere with vehicle stopping sight distance requirements.

Finished grading of stockpiles within the ROW shall be in compliance with Developer's landscape plan as specified in the FMP. The landscape plan must identify the original ground and finished contours and appropriate finish treatment. All landscape treatments shall be constructed within the NEPA Approved ROW.

Finished grading of stockpiles shall drain properly into appropriate drainage features and not create areas of standing or ponded water.

Stockpiles shall not be placed in a way that would directly increase the future costs of construction or maintenance of the Ultimate Configuration.

Unsuitable structural fill materials (peat, silts, etc.) shall not be placed in any embankment area of the Ultimate Configuration.

Material shall not be borrowed from areas that will be needed for the construction of the future Ultimate Configuration.

11 ROADWAY DESIGN

11.1 General Requirements

In the FMP, Developer shall set forth an approach, procedures and methods for all roadway design.

Developer shall include the roadway design in the Final Design Documents and submit such design in accordance with the FMP and FCA Documents. Developer shall demonstrate with the submittal of the Final Design Documents that the roadway design of the Basic Configuration reasonably accommodates and is compatible with the geometric requirements of the Ultimate Configuration.

Wherever a Related Transportation Facility is affected by the Work its geometry over its affected length shall meet the design criteria for the roadway functional classification of the relevant Related Transportation Facility. Geometry will include all cross sectional elements.

11.2 Roadway Design Standards

Developer shall prepare the geometric design of the roadway elements in accordance with the Technical Requirements and all applicable Technical Documents. Developer shall specifically identify within the FMP, proposed Deviations, including Deviations from the Technical Requirements and Technical Documents including the requirements and guidance outlined in the TxDOT *Roadway Design Manual.*

11.3 Roadway Design Criteria

Developer shall design and construct the Facility in accordance with the criteria shown in the tables below and the following requirements:

A. Grass slopes shall be 6:1 or flatter through the clear zone as per Table 11.3-1 except near bridge rail ends where steeper slopes are protected by guardrail. Beyond the clear zone, slopes shall be 4:1 or flatter. Extending the required limits of guardrail solely for the purposes of increasing the steepness of the slope shall not be allowed. Header slopes below bridges shall not be steeper than 2:1.

B. When entrances and exits are planned without frontage roads, the entire ramp shall be treated as a controlled facility. Control of access shall be applied back to the closest cross street. Control of access shall not create a landlocked condition.

C. All roadside safety devices such as metal beam guard fence, concrete traffic rail, bridge rails, sign supports, light poles, and crash cushions shall at a minimum meet Test Level 3 (TL-3) crash test criteria of the National Cooperative Highway Research Program (NCHRP) report on evaluating the safety performance of highway features entitled NCRHP Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

Table 11.3-1 Design Criteria

	Main Lanes	Direct Connectors	Ramps
DESIGN SPEED			
Design Speed	80 mph	60 mph	80 mph (high) 70 mph (medium) 60 mph (low)
HORIZONTAL ALIGNMENT			
Minimum radius	5095'[f]	2210'	4605' (high) 3405' (medium) 2210' (low)
Maximum super-elevation	0.06 ft/ft	0.06 ft/ft	0.06 ft/ft
VERTICAL ALIGNMENT[a]			
Maximum grades	3 0 percent (level terrain) 4 0 percent (rolling terrain)	6.0 percent (uphill) 6.5 percent (downhill)	3.0 percent (level terrain) 4.0 percent (rolling terrain)
Minimum grades [b]	0 50 percent	0.50 percent	0.50 percent
Minimum K-value			
Crest	433[f]	151	384 (high) 247 (medium) 151 (low)
Sag	254[f]	136	231 (high) 181 (medium) 136 (low)
CROSS-SECTION			
Lane width	12'	14' (12' for 2 lanes)	14' (12' for 2 lanes)
Shoulder width			
Inside shoulder	6' (BC),10' (UC)	4' [b]	4' [c]
Outside shoulder	10'	8' [b]	6' [c]
Curb offset	N/A	N/A	N/A
Minimum cross-slope 2 lanes [e]	2.0 percent	2.0 percent	2.0 percent
HORIZONTAL CLEARANCE (Minimum)			
Distance measured from edge of outside travel lane	30'	30'	16'
VERTICAL CLEARANCE (Minimum)[d]			
Over/under roadway	16'-6"	16'-6"	16'-6"
Over/under streets			
Over railroad	16'-6"	16'-6"	16'-6"
Under railroad	23'-0"	23'-0"	23'-0"
Overhead signs and	17'-6"	17'-6"	17'-6"
pedestrian crossings	17'-6"	17'-6"	17'-6"

a) Minimum vertical curve length (ft) shall be at least 3 x Design Speed

b) To mitigate restrictions on the design imposed by sight distance, it is acceptable to position the 8-foot shoulder on the inside of the curve and the 4-foot shoulder on the outside of the curve for one-lane and two-lane direct connectors

c) Shoulder width measured from edge of travel lane to face of curb or edge of pavement for uncurbed section.
d) Vertical clearances shall be measured from the top of the UC pavement section including any future overlay stages of the pavement design and/or top of rail, where appropriate.
e) Pavements with three or more lanes inclined in the same direction shall have at least 0.5 percent greater slope on the outer lane/lanes than across the two interior lanes
f) Design criteria as developed by the Plan Development Section of the TxDOT Design Division for an 80+ mph.

11.4 Roadway Design Waivers

TxDOT has granted design waivers to the above mentioned criteria at the following locations:

a) SH 45 SE interchange curve ADCNW-4 with a proposed radius of 1,345 feet and design speed of 50 mph or greater.
b) SH 45 SE interchange curve ADCES-4 with a proposed radius of 835 feet and design speed of 45 mph or greater.
c) IH-10 with FONSI right-of-way interchange curve TCCL01-18 with a proposed radius of 3,000 feet and design speed of 65 mph or greater.
d) SH 45 SE / Segment 4 / Segment 5 interchange curve TTCL01-2 with a proposed radius of 3,820 feet and design speed of 70 mph or greater.
e) SH 130 southbound to IH-10 westbound curve CDSW-3 with a proposed radius of 2,083 feet.
f) IH-10 eastbound to SH 130 northbound curve CDDEN-2 with a proposed radius of 2,292 feet.
g) SH 130 southbound to IH-10 eastbound curve CDCSE-3 with a proposed radius of 1,850 feet and design speed of 55 mph or greater.
h) IH-10 westbound to SH 130 northbound curve CDCWN-1 with a proposed radius of 2,210 feet.
i) SH 130 northbound frontage road to US 183 southbound curve BFRS2-1 with proposed 45 mph curve radius of 660 feet.
j) US 183 northbound to future SH 130 southbound through the southbound frontage road curve BFRN1-1 with a proposed radius of 850 feet and design speed of 45 mph or greater.

NOTE: within the areas outlined above, if requested by the Developer, TxDOT will evaluate and consider additional design Deviations as final design progresses.

Table 11.3-2: Design Criteria (Frontage Roads and Access Roads)

	Frontage Roads	Service and Access Roads
DESIGN SPEED		
Design Speed		40 mph
Segment 5	60 mph	--
Segment 6	50 mph	
HORIZONTAL ALIGNMENT		
Minimum radius	1055'	510'
Maximum super-elevation	0.06 ft/ft	0.06 ft/ft
VERTICAL ALIGNMENT[a]		
Maximum grades	7.0 percent (level terrain) 8.0 percent (rolling terrain)	7.0 percent (level terrain) 8.0 percent (rolling terrain)
Minimum grades	0.50 percent	0.50 percent
Minimum K-value		
Crest	151 (60 mph) 84 (50 mph)	44
Sag	136 (60 mph) 96 (50 mph)	64
CROSS-SECTION		
Lane width	12' (14' outside lane only if curbed)	12'
Shoulder width		
Inside shoulder	4'	No Shoulders
Outside shoulder	8' (no curb),N/A (curbed)	No Shoulders
Curb offset	1 5'	N/A
Minimum cross-slope	2 0 percent	2.0 percent
HORIZONTAL CLEARANCE (Minimum)		
Distance measured from edge of outside travel lane	30'	10'
VERTICAL CLEARANCE (Minimum)[b]		
Over/under roadway	16'-6"	16'-6"
Over/under streets	16'-6"	16'-6"
Over railroad	23'-0"	23'-0"
Under railroad	17'-6"	17'-6"
Overhead signs and pedestrian crossings	17'-6"	17'-6"

(a) Vertical clearances shall be measured from the top of the UC pavement section including any future overlay stages of the pavement design and/or top of rail, where appropriate.

(b) Minimum vertical curve length (ft) shall be at least three times the Design Speed

Design criteria for Related Transportation Facilities affected by the Work are found in Attachment 9 – Cross Road Matrix.

12 DRAINAGE DESIGN

12.1 General Requirements

In the FMP, Developer shall set forth an approach, procedures and methods for all drainage design and all associated stormwater management.

Developer shall include the drainage design in the Final Design Documents and submit such design in accordance with the FMP and FCA Documents. Developer shall demonstrate with its submittal of the Final Design Documents for drainage of the Facility that the design of the Basic Configuration reasonably accommodates and is compatible with the hydraulic and hydrologic requirements of the Ultimate Configuration and is capable of serving the drainage requirements for the Ultimate Configuration without need for reconfiguration or reconstruction of the drainage system.

Wherever drainage elements of a Related Transportation Facility are affected by the Work, Developer shall restore the drainage elements over the affected length to at least their original functional utility.

12.2 Drainage Design Standards

Developer shall specifically identify within the FMP proposed Deviations, including Deviations from the Technical Requirements and Technical Documents including the requirements and guidance outlined in the TxDOT *Hydraulic Design Manual.*

12.3 Drainage Design Criteria

Developer shall design and construct the Facility in accordance with the criteria shown in the table below and the following requirements:

1. Hydraulic grade lines must be at least one foot below top of the grate inlet or throat of curb inlet. Ditch and channel flow shall be a minimum one foot below the roadway sub grade elevation.
2. Minimum pipe size shall equal 24", Minimum velocity in pipe shall equal 2.5 feet per second.
3. Maximum pipe run between clean-out points (manholes or inlets) shall equal: 300' for pipes 24", 375' for pipes greater than 24" and less than or equal to 36", 450' for pipes greater than 36" and less than or equal to 54" and 900' for pipes 60" and greater in diameter.
4. Bridge deck drains shall be in accordance with the guidelines included in FHWA's *Bridge Deck Drainage Systems.*
5. Slotted drains for mainlane roadways shall not be used.
6. All drainage structures, storm systems and outfalls shall be evaluated for the 100-year storm event. Drainage design shall provide for conveyance and/or storage for storm events that at a minimum meet the design frequency criteria as shown on Table 12.3-1.

Table 12.3-1 Drainage Design Criteria

	DESIGN FREQUENCY (YEARS)	DESIGN REQUIREMENTS
MAIN LANES AND DIRECT CONNECTORS		
Bridges	50	Allowable ponded width equal to width of shoulder.
Culverts and open channels	50	Backwater shall remain at least 2' below the finished pavement grade.
Storm sewers and inlets	50	Developer shall use a 50-year starting water surface elevation in the outfall channels.
Roadway	50	Allowable ponded width equal to width of shoulder.
FRONTAGE ROADS, ACCESS ROADS, AND RAMPS		
Bridges (major river crossings)	50	Allowable ponded width equal to full width of outer lane.
All other bridges	25	Allowable ponded width equal to full width of outer lane.
Culverts, and open channels	25	Backwater shall remain at least 2' below the finished pavement grade of the frontage roads, and intersecting city and county streets.
Storm sewers and inlets	10	Developer shall use a 50-year starting water surface elevation in the outfall channels.
Roadway	10	Depressed roadways shall be designed for a 25-year frequency. Allowable ponded width equal to ½ width of outer lane.

12.4 Railroad Drainage

Drainage channels or structures within railroad right-of-way or for railroad facilities require coordination and agreements with each applicable railroad owner as per Section 5.

13 STRUCTURAL DESIGN

13.1 General Requirements

In the FMP, Developer shall set forth an approach, procedures and methods for all structural design

Developer shall include the structural design in the Final Design Documents and shall submit such structural design in accordance with the FMP and FCA Documents. Developer shall demonstrate with the submittal of the Final Design Documents that the structural design of the Basic Configuration reasonably accommodates and is compatible with the structural requirements of the Ultimate Configuration.

The structural elements of the Facility include bridges, culverts, retaining walls, noise/sound walls, and overhead signs/sign supports. Railroad structures shall not be used to support utilities

13.2 Structural Design Standards

Developer shall specifically identify proposed Deviations within the FMP.

13.3 Bridge Criteria

Developer shall design and construct the Facility in accordance with the following requirements:

1. Bridges and bridge class culverts shall provide a 100-year service life following the completion of construction.
2. All bridges and bridge class culverts shall be designed to accommodate the following vehicle loads:
   - HS25 with Military Alternate minimum vehicle loading shall be utilized for all mainlane bridges carrying traffic and direct connector bridges providing access to or from mainlanes. An HS25 vehicle loading shall be equivalent to 125 percent of the weight of an HS20-44 vehicle load.
   - HS20-44 with Military Alternate minimum vehicle shall be utilized for all other bridges.
3. The bridges shall be designed to accommodate a minimum 2" future overlay
4. All bridges including bridges for Related Transportation Facilities shall be designed for the total length and span arrangement required for the Ultimate Configuration of both the Related Transportation Facility and the Facility, including spanning future lanes that will be constructed below the structure as part of the Ultimate Configuration while maintaining the required horizontal and vertical alignments and clearances.
5. All Facility structures shall be designed to reasonably accommodate and be compatible with the Ultimate Configuration with minimal impacts to aesthetics and traffic during any future widening.
6. Sidewalks shall be designed to be in agreement with Attachment 9 and in compliance with ADA/TAS standards and shall be provided on both sides of roadways crossing the Facility. The minimum width of useable sidewalk shall be

in accordance with Attachment 9. Sidewalks on structures shall be protected from vehicular impact by an appropriate traffic barrier.

7. Roadway bridges over railroads shall have crash walls and clearances required by the *AREMA Manual of Railway Engineering*, and the standards of the applicable railroad owner.
8. Bridge designs shall utilize a closed drainage system through the neutral axis of the columns as opposed to a drainage pipe affixed to the exterior of the bent.
9. Bridges over water shall be designed to withstand a 500-year peak flood event.

13.4 Retaining Wall Criteria

When retaining wall systems are required for the Facility, Developer shall design and construct all retaining wall systems in accordance with the following requirements:

- Steel modular walls shall not be used.
- Only one type of MSE retaining wall system may be used on the Facility.
- Reinforcement elements in permanent MSE walls shall be designed to have adequate corrosion resistance/durability to provide a 100-year service life following the completion of construction.
- MSE walls shall not be used to support abutment foundations.
- If pipe culverts are to extend through the retaining walls, the pipe shall be installed so that no pipe joints are located within or under the wall.
- Weep holes, where applicable, shall be installed at the base of walls.

13.5 Sign, Illumination, and Traffic Signal Supports

Developer shall demonstrate in its structural design of overhead and cantilever sign supports, that it has designed such supports to be capable of serving the sign support requirements for the Ultimate Configuration without reconfiguration or reconstruction.

13.6 Bridge Foundations

Abutments shall be conventional full height or stub type. Integral abutments shall not be permitted. Foundations may include driven piles or drilled shafts for both abutments and piers.

Spread footings shall not be permitted in locations where potential for scour is present. Spread footings shall not be permitted for structures supporting railroads unless founded on competent "bedrock" material.

Concrete approach slabs shall be used on all roadway bridges. Concrete approach slabs, or other methods approved by the railroad owners, shall be used at the ends of skewed rail bridges to provide a zero skew for the track/structure interface.

13.7 Bridge Railing and Barriers

Bridge rail and barrier systems shall be in accordance with the TxDOT *Bridge Railing Manual*.

14 RAIL

Not used.

15 AESTHETICS AND LANDSCAPING REQUIREMENTS

15.1 General Requirements

For purposes of this section, the following list of items will be considered the "Aesthetics" elements of the Facility design:

- Finish, color, and texture of all bridge elements
- Materials, finish, and color of all barriers and railings.
- Paved slope treatments (if necessary).
- Finish, color, and texture of all retaining and noise walls.
- Contour grading, slope rounding, and drainage.
- Median or pedestrian specialty paving.
- Hardscape at interchanges
- Landscaping
- Fencing
- Signage.
- Sign gantries.

Developer shall indicate its approach, procedures and methods for all aesthetics and landscaping design in the FMP. Developer shall specifically set forth the manner in which it proposes to incorporate the requirements of Attachment 10 - SH 130 Landscape and Aesthetic Details into the design of the Facility. Developer's aesthetic and landscaping design shall comply with any special requirements set forth in the Environmental Approvals. Developer shall include the aesthetics and landscaping design in the Final Design Documents and shall submit such design in accordance with the FMP and FCA Documents.

TxDOT, at its sole discretion, may cause Developer to spend the full allocated sum of $11 million for aesthetics and landscaping or any portion thereof, or none. Developer is not obligated to any requirements beyond the allocated $11 million sum to be utilized for aesthetics and landscaping as specified by TxDOT

Developer shall specifically identify proposed Deviations within the FMP including Deviations from the requirements of Attachment 10.

Developer shall submit to TxDOT sample panels a minimum of ten days in advance of starting any construction of textured concrete surfaces Developer shall provide sample panels having a textured portion at least 5.0 feet by 5 0 feet with a representative un-textured surrounding surface. The sample panel shall be the standard of comparison for the production concrete surface texture.

15.2 Trees, Shrubs, and Other Plant Materials

All trees, shrubs, deciduous vines, and perennials shall comply with the applicable requirements of Attachment 10 and the Technical Documents including the requirements and guidance outlined in the *Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project* and *Protocol for Historic Properties Identification, Evaluation, and Treatment for SH 130 Project Amendment 1*.

16 SIGNING, MARKINGS, SIGNALIZATION, AND LIGHTING

16.1 General Requirements

In the FMP, Developer shall set forth an approach, procedures and methods for all signing, markings, signalization and lighting. Developer shall identify the location of incidental work outside the Facility ROW. Developer shall specifically identify any proposed Deviations within the FMP. Developer shall include signing, markings, signalization and lighting design in the Final Design Documents and submit such design in accordance with the FMP and FCA Documents.

Developer shall design signing, markings, signalization and lighting of the Basic Configuration in a manner that is compatible with and shall accommodate the requirements of the Ultimate Configuration.

For any Related Transportation Facility affected by the Work, Developer shall design and construct signing, delineation, pavement markings, traffic signals and lighting in accordance with any published standards or specifications of the Governmental Entity or other authority having jurisdiction over the relevant facility. Developer is responsible to obtain any necessary agreements and access rights to perform the Work related to such signing, pavement marking, signalization and lighting.

Traffic signals shall provide for the efficient movement of traffic at both the Service Commencement Date and the forecasted future year traffic volume.

Developer shall include in the FMP, the software systems it proposes to use and, where a software system differs from that in use by TxDOT, the procedures and processes Developer proposes for compatibility.

16.2 Design Requirements

16.2.1 Illumination Requirements

Developer shall provide roadway illumination at:

- Interchanges and intersections.
- Ramps.

Developer shall provide high mast illumination at interstate and U.S. highway interchanges with the Facility.

Developer shall install partial interchange/intersection safety lighting in accordance with the design requirements as shown in the Technical Documents.

Developer shall prepare and submit with the Final Design Documents, illumination studies that consider illumination levels, uniformity, and sources. The design shall utilize cut-off fixtures and shall eliminate spill over illumination outside the Facility ROW.

Developer shall install and connect the electrical and light systems to the appropriate Traffic Management Center Developer shall design the lighting to take account of the proximity

of adjacent rail and air corridors, and shall coordinate with the relevant Governmental Entities such that safety is not compromised.

Developer shall maintain existing lighting and/or temporary lighting during construction and restore or replace such lighting prior to the Service Commencement Date.

16.2.2 Traffic Control Signals

In the FMP, Developer shall indicate the proposed locations of traffic control signals; and shall provide its approach, methods and procedures for phasing and implementing traffic signals throughout the Term. Developer shall identify any traffic control signal systems that will be taken over for operation and maintenance by other authorities after Service Commencement and any Developer provided warranties for such systems. The FMP shall include procedures for testing and acceptance of traffic control signal systems.

Developer shall perform traffic control signal needs studies (signal warrant studies) at each location to determine the appropriate traffic signal installation in accordance with the *TMUTCD* and to demonstrate compliance with the Basic Configuration and Ultimate Configuration. Developer shall submit to TxDOT the traffic signal warrant studies with the relevant parts of the FMP.

Signal warrant studies shall be based on actual traffic and/or opening year traffic projections If opening year traffic volumes are not available, Developer shall calculate opening year traffic volumes by applying a 50 percent reduction to the design year traffic projections. Developer shall conduct additional signal warrant studies for all intersections located within the Facility ROW annually commencing six months after the Service Commencement Date. If additional signals or modifications to existing signals are warranted, based on the traffic counts obtained through these studies, Developer shall be responsible for installation of additional traffic signals or modification of previously installed traffic signals.

Every signalized intersection shall include pedestrian facilities in compliance with the *TMUTCD* and ADA/TAS requirements. Traffic signals systems shall include emergency preemption. Performance requirements for the operation and maintenance of traffic signals are contained in Section 19.

16.2.3 Signing

Developer shall prepare and submit an overall signing layout, for the Facility and all affected Related Transportation Facilities, subject to TxDOT review and approval. TxDOT shall have a period of 60 Days to review and approve or disapprove. TxDOT approval of the overall signing layout is required prior to the installation of any permanent signs. Installation of all signs is required prior to the Service Commencement Date.

All large roadside, overhead signs and regulatory signs shall utilize aluminum sign blanks and prismatic sheeting.

All ETCS information signing and Facility logo shall be in accordance with the requirements set forth in Sections 21.5.5 and 21.5 6.

Developer shall submit to TxDOT for review and approval all requests for new signs, including any third-party signs, logo signs and traffic generators, or modifications of existing signs text.

17 TRAVELER INFORMATION SYSTEM

17.1 General Requirements

The Traveler Information System (TIS) includes the following distinct elements:

1. The infrastructure required for the TIS.
2. The intelligent sub-systems and components of the TIS.
3. The communications network for the TIS.
4. A management facility for operating the segment TIS.

In the FMP, Developer shall set forth an approach, procedures and methods for any TIS elements proposed. As a minimum, all elements of the Facility TIS shall be technically compatible and interoperable with planned or operating TIS system components on Related Transportation Facilities.

17.2 Trigger for Integration of TIS

Developer shall design and submit a proposal to TxDOT to install and integrate a TIS no later than 12 months after the first occasion on which more than four Hourly Flows in a calendar month exceed 3,000 passenger car units per hour.

18 TRAFFIC CONTROL ON RELATED TRANSPORTATION FACILITIES

18.1 General Requirements

Developer's obligations for traffic control and traffic management on Related Transportation Facilities are set forth in Section 9.2 of the Agreement.

This section describes Technical Requirements for traffic control and traffic management on Related Transportation Facilities throughout the Term. Technical Requirements for traffic control and traffic management on the Facility after the commencement of traffic operations on any portion of the Facility are set forth in Section 22.

Developer's obligations to inform TxDOT and Customer Groups of any traffic control or traffic management are set forth in Section 3.

18.2 Required Standards

The planning, design, installation and performance of traffic control and traffic management shall comply with the TMUTCD.

18.2.1 Detours and Lane Closures

Temporary detours and speed restrictions applied to Related Transportation Facilities shall be kept to the minimum necessary to perform the Work. Detours shall provide the same number of travel lanes as the facility being bypassed and have an operating speed not lower than 15 mph below the regularly posted speed of the existing Related Transportation Facilities. Lanes of Related Transportation Facilities shall be closed only when no alternative is available to enable Developer to safely perform the Work. Any such lane closures shall be planned to take place at off-peak times and to minimize disruption, interruption and other adverse effects on traffic flow, throughput and level of service. No ingress or egress to public or private properties shall be closed or otherwise adversely affected by the Work without prior notice and approval from affected parties.

18.2.2 Miscellaneous Obligations

Whenever, as a result of the Work, traffic control or traffic management is required on any Related Transportation Facility, Developer shall:

- Cause personnel having at least five years relevant experience with TxDOT's traffic control requirements to be available, to patrol, monitor and maintain the traffic control devices and signs necessary for the safe passage of traffic.
- Provide a courtesy patrol service that includes provision for fuel (25-gallon minimum); assistance with tire changing, capability of pushing light vehicles to safe locations; arrangements for towing assistance; placement of cones and safety flares; removal of objects from the roadway.
- Cause the provision of on-call vehicle removal service 24 hours per day, seven days per week, for vehicles that obstruct travel lanes or become stalled.
- Respond to service calls within 30 minutes of discovery or being notified, whichever occurs first.
- Coordinate with local and state law enforcements, emergency responders, and impacted Customer Groups.

18.3 Planning Requirements

18.3.1 Traffic Management Plans

Provisions for the submittal to TxDOT of Traffic Management Plans consisting of the Construction Traffic Management Plan and the Operating Traffic Management Plan are set forth in Section 9.2 of the Agreement. Developer shall submit Traffic Management Plans to, and obtain the approval of, any Governmental Entity or other party having jurisdiction over affected Related Transportation Facilities.

Traffic Management Plans shall include details of detours, traffic control devices, sequencing of traffic control, signing, pavement markings, typical sections, alignment, striping layout, edge drop off conditions, signals, illumination, and stormwater management.

Developer shall provide information and analysis with each Traffic Management Plan to enable verification that:

- Sufficient traffic flow capacity exists throughout all traffic management or traffic control sequences.
- All reasonable alternatives have been explored to minimize disruption, interruption and other adverse effects on traffic flow, throughput and level of service.
- Geometric design criteria are met.
- All applicable Safety Standards have been followed.

19 MAINTENANCE

19.1 General Requirements

Developer shall maintain the Facility in a manner that enables TxDOT to meet its obligations and to achieve the strategic aims and objectives relating to the Facility; namely to build an efficient, reliable transportation system to assure public safety, improved mobility, economic vitality, and quality of life.

19.1.1 General Obligations

Developer shall take all necessary action to:

- Maintain the Facility according to Good Industry Practice appropriate for a highway of the character of the Facility and for use by the traffic which is reasonably expected to use the Facility.
- Minimize delay to Users and, to the extent that Developer is able to control, users of Related Transportation Facilities.
- Respond to all Incidents and Defects as quickly as possible and minimize their adverse effects, according to Good Industry Practice.
- Provide Users adequate information and forewarning of any events on, or any matters affecting, the smooth operation of the Facility as will enable them to minimize any associated adverse consequences, according to Good Industry Practice
- Protect the safety of Users, workers or other persons on the Facility, on land adjacent to the Facility or using Related Transportation Facilities, according to Good Industry Practice.
- Respect the environment by minimizing the risk of adverse effects on the environment and on the amenity enjoyed by the owners and occupiers of land adjacent to the Facility and to Related Transportation Facilities.
- Minimize the risk of damage or disturbance to or destruction of third party property.
- Enable TxDOT and others with statutory duties or functions in relation to the Facility or Related Transportation Facilities to perform those duties and functions unimpaired.
- Perform inspections in accordance with provisions in this section.

19.1.2 Data Management

In performance of the O&M Work, Developer shall implement all of the data management requirements set forth in Section 2.5, including the retention periods and formats for O&M Records specified in Attachment 4.

19.1.3 Highway Reference Marker Location System and Auditable Sections

Developer shall implement TxDOT's Highway Reference Marker Location System as described in the Technical Documents.

Developer shall establish "Auditable Sections" referenced to the Highway Reference Marker Location System. An Auditable Section shall include all travel lanes of the roadway operating in one direction of approximately 0.1 miles in length together with all Elements of the Facility associated with the relevant 0.1-mile length of roadway. Developer shall prepare plans identifying the Auditable Sections and shall submit to TxDOT for review and comment before

the Service Commencement Date. The plans shall identify the boundaries of each Auditable Section and shall cross-reference to an inventory describing each Element of the Facility contained within each Auditable Section.

19.2 Performance Requirements

Developer shall carry out O&M Work on the Facility to minimize the occurrence of Defects. In scheduling O&M Work, Developer shall comply with the traffic operations restrictions set forth in Section 22.5.

In the FMP, Developer shall set forth annually, for TxDOT approval, a Performance and Measurement Table which shall, except where indicated below, be consistent with Attachment 11 – Performance and Measurement Table Baseline. Developer shall deliver to TxDOT for its approval the Performance and Measurement Table no later than 90 days before Service Commencement. The Performance and Measurement Table shall set forth the following information:

Heading in Attachment 11 - Performance and Measurement Table Baseline	**Contents of Developer's submitted Performance and Measurement Table**
Element	As Attachment 11
Element Category	As Attachment 11
Performance Requirements	As Attachment 11
Response to Defects	As Attachment 11
Inspection and Measurement Method	Subject to proposed amendment by Developer as part of annual submittal of FMP
Measurement Record	Subject to proposed amendment by Developer as part of annual submittal of FMP
Target	As Attachment 11

In its annual submittals of the Performance and Measurement Table, Developer shall propose such amendments to the inspection and measurement methods and measurement records as are necessary to cause these to comply with Good Industry Practice and/or Technical Documents.

Failure to meet a Performance Requirement, whether through failure to meet the Target for any relevant measurement record, or for any other reason, shall be deemed to be a Defect. Whenever a Defect is identified, either by Developer's inspections, by TxDOT, by the Independent Engineer or any third party, Developer shall act to remedy and repair the Defect as described in the following section.

19.2.1 Obligation to Remedy and Repair

Where a Category 1 Defect is revealed by any inspection or is otherwise brought to the attention of Developer, Developer shall take immediate steps to alert Users to the hazard and shall categorize, correct, make safe and repair the Defect in accordance with the Performance and Measurement Table.

For Category 1 Defects, Developer shall:

- Take necessary action such that the hazard to Users is mitigated within the period given in the column entitled "Cat 1 Hazard Mitigation" in the Performance and Measurement Table.
- Permanently remedy the Defect within the period given in the column entitled "Cat 1 Permanent Remedy" in the Performance and Measurement Table

For all other Defects (Category 2 Defects), Developer shall undertake the permanent repair within the period specified in the column entitled "Cat 2 Permanent Repair" in the Performance and Measurement Table

Sections 8.1 and 8.5 of the Agreement sets forth Developer's obligation to remedy and repair the Facility as a preventative measure, including Renewal Work not scheduled in Developer's annually recurring highway maintenance and repair program.

19.2.2 Standard of Remedy or Repair

Where action is taken to remedy or repair any Defect in any Element of the Facility in accordance with Section 19.2.1 above, Developer shall create an O&M Record that identifies the nature of the remedy or repair. Developer shall include within the relevant O&M Record a measurement record compliant with the requirements set forth in the column entitled "Measurement Record" in the Performance and Measurement Table.

The remedy or repair of any Element shall meet or exceed the standard identified in the column entitled "Target" in the Performance Measurement Table and Developer shall create an O&M Record and continues to verify that this requirement has been met.

19.3 Inspection Requirements

Developer shall employ and cause trained and competent personnel to plan and implement a program of inspections of the Facility which:

- Verifies the continuing safety of the Facility for Users.
- Prioritizes Defects requiring immediate and urgent attention because they are likely to create a danger or serious inconvenience to Users (Category 1 Defects).
- Identifies Category 2 Defects to be included for repair either within Developer's annually recurring highway maintenance and repair program or as Renewal Work.
- Is responsive to reports or complaints received from Customer Groups.
- Takes account of Incidents and Emergencies affecting the Facility.
- Monitors the effects of extreme weather conditions.
- Collates data to monitor performance of the Facility and to establish priorities for future maintenance operations and Renewal Work.

Developer shall cause personnel performing inspections of road pavements and structures to be certified as inspectors and/or raters in accordance with Technical Documents.

19.3.1 Inspection Frequency

Developer shall establish inspection procedures and carry out inspections so that:

1. All Category 1 Defects are identified and repaired such that the hazard to Users is mitigated within the period given in the column entitled "Cat 1 Hazard Mitigation" in the Performance and Measurement Table
2. All Category 1 Defects are identified and permanently remedied within the period given in the column entitled "Cat 1 Permanent Remedy" in the Performance and Measurement Table.
3. All Category 2 Defects are identified and permanently repaired within the period given in the column entitled "Cat 2 Permanent Repair" in the Performance and Measurement Table.

The periods stated in the Performance and Measurement Table under each of the above headings shall be deemed to be periods from the time the relevant Defect first occurred, and not from the time the relevant Defect was first identified by Developer.

Developer shall investigate reports and complaints on the condition of the Facility received from all sources. Developer shall record these as O&M Records together with details of all relevant inspections and actions taken in respect of Defects, including temporary protective measures and repairs.

19.3.2 Inspection Standards

In performing inspections to identify Category 1 and Category 2 Defects, Developer shall, for any Element defined in the column entitled "Element" on the Performance and Measurement Table, conform as a minimum to the inspection standards set forth for that Element in the column entitled "Inspection and Measurement Method" on the Performance and Measurement Table.

19.4 Safety Inspections

The record of a Safety Inspection shall include details of the weather conditions, road surface condition and any unusual features of the method of inspection.

19.5 General Inspections

Developer shall perform General Inspections in accordance with the FMP so that the repairs of all Defects are included in planned programs of work.

O&M Records with respect to General Inspections shall include details of the manner of inspection (e g. center lane closure or shoulder), the weather conditions and any other unusual features of the inspection.

General Inspections shall be performed such that Category 2 Defects are identified within six months of the Defect occurring; provided that Defects which require special equipment to identify or are listed under the heading of Specialist Inspections in Section 19.6 below may have different identification periods.

19.6 Specialist Inspections

Developer shall undertake Specialist Inspections for Elements listed in Table 19.6-1 below and shall include the inspection results as O&M Records.

Table 19.6-1 Specialist Inspections

Element	Frequency
Roadway	Annual survey of pavement condition for the entire Facility, including mainlanes, ramps, toll plaza approach tapers and frontage roads, undertaken using automated condition survey equipment to measure all necessary criteria including: ruts, skid resistance and ride quality according to the inspection and measurement methods set forth in the Performance and Measurement Table
Bridges	Inspections and load rating calculations at the frequency specified in the Technical Documents. In addition, NBIS inspections as per FHWA regulations and at the frequency specified in FHWA regulations.
Electrical supplies to lighting, signs, traffic signals and communications equipment	Inspections as required by National Electric Code
Toll equipment	Inspections as required by the equipment manufacturer or Technical Documents.

19.7 Audit Inspections

Developer's Audit Inspections shall be in addition to Developer's obligation to undertake the other inspections and keep any other O&M Records as described above.

19.7.1 Inspections by Developer

Developer shall undertake detailed inspections of randomly selected Auditable Sections for audit purposes (the "Developer's Audit Inspections") at least four times per year. On each occasion that a Developer's Audit Inspection is undertaken, it shall include at least five percent of the total available Auditable Sections. Developer shall assess the condition of each Element of the Facility, as set forth in the column entitled "Element" on the Performance and Measurement Table using the inspection and measurement method set forth in the column entitled "Inspection and Measurement Method". Developer's Audit Inspections shall include physical inspection of those Elements that are safely accessible without traffic control. Where the measurement method would require specialist equipment or would require traffic lane closures to implement, Developer shall assess the condition of the relevant Element by reference to the current O&M Records held in Developer's database.

Developer shall create a new O&M Record for each Element physically inspected in accordance with the column entitled "Measurement Record" on the Performance and Measurement Table. Developer's Audit Inspections shall be undertaken to a schedule agreed with the Independent Engineer and TxDOT on Auditable Sections randomly selected by the Independent Engineer. The Independent Engineer and TxDOT shall be given the opportunity

by seven days notice, to accompany Developer when it undertakes the physical inspections associated with the Audit Inspection.

19.7.2 Asset Condition Score by Developer

Within ten days after Developer completes its quarterly Audit Inspections, Developer shall assess its achievement of the Performance Requirements by self-scoring against the Targets set forth on the Performance and Measurement Table.

Developer shall report quarterly to TxDOT and the Independent Engineer an Asset Condition Score to include, for each Element Category, all of the Auditable Sections inspected in Developer's most recent Audit Inspection. Developer shall assess the Asset Condition Score according to the measurement criteria set forth in Table 19.7.2-1 below.

Table 19.7.2-1 Asset Condition Score Criteria for Element Categories (Reported quarterly for each Element Category for all inspected Auditable Sections)

Score	Criteria
5	• Targets for individual Elements are almost entirely met (95% to 100% compliance with the relevant Targets for each Element within each Auditable Section), and • Is fully functional and in nearly new condition, meeting or exceeding Performance Requirement
4	• Targets for individual Elements are substantially met (90% to 94.9% average compliance with the relevant Targets for each Element within each Auditable Section), and • Is functional and in good condition, meeting Performance Requirement.
3	• Targets for individual Elements are mostly met (80% to 89.9% average compliance with the relevant Targets for each Element within each Auditable Section), and • Is in fair condition, but suggesting need for early replacement, renewal or repair of individual Element and/or maintenance or operation improvement action to meet Performance Requirement.
2	• Targets for individual Elements are barely met (50% to 79.9% average compliance with the relevant Targets for each Element within each Auditable Section), or • In poor condition demonstrating need for immediate replacement, renewal or repair of individual Element and/or immediate change to FMP.
1	• Targets for individual Elements are not met (less than 50% average compliance with the relevant Targets for each Element within each Auditable Section), or • In very poor condition demonstrating need for immediate replacement, renewal or repair of individual Element and/or immediate change to FMP.

Notes to Table 19.7.2.1:

1 The calculation of percentage compliance is demonstrated by the following example for "pavement markings":

Assume 40 Auditable Sections. There are five Targets to be assessed for "pavement markings". Therefore, 5 x 40 = 200 measurement records. If 180 of these measurement records meet the Target, there would be 90% compliance. If the remaining Elements in the Element Category also achieved 90% or greater compliance, the Element Category Asset Condition Score would be four.

2. Pavement Condition Score is a component of Asset Condition Score, but Pavement Condition Score shall also be reported annually for the entire Facility.

3 Developer acknowledges that Asset Condition Score is a mechanism to benchmark the performance of the Facility against the performance of other similar facilities and that TxDOT may, during the Term, alter the Asset Condition Score criteria to reflect Good Industry Practice.

4. An Asset Condition Score of less than three is a Noncompliance (see Exhibit 20 of the Agreement).

5. Where specific measurement criteria are not provided in the Performance and Measurement Table, Developer shall use Good Industry Practice to assess the Asset Condition Score against the general criteria stated in the table above.

19.7.3 Audit Inspections - Actions by Independent Engineer

19.7.3.1 Inspections by Independent Engineer

As described in the Independent Engineer's Agreement, the Independent Engineer is required to undertake physical inspections of the Auditable Sections and/or to audit the records arising from the "Developer's Audit Inspections" on a random sample basis (the "IE's Audit Inspections"). The Independent Engineer is required to inspect, on average, one in every five of the Auditable Sections inspected by Developer. The Independent Engineer shall give Developer and TxDOT 24 hours' prior notice of the Independent Engineer's intent to carry out an Audit Inspection (whether as a stand-alone inspection or accompanying Developer's Audit Inspection).

Developer shall provide all necessary facilities and safe access to the Facility to enable the IE's Audit Inspections to proceed and enable any such inspection to take place at the time prescribed by the Independent Engineer.

19.7.3.1 Independent Engineer Assessment of Developer's O&M Records

The Independent Engineer is required to:

1. Assign a score to the accuracy of Developer's O&M Records created pursuant to Section 19.7 2 under the headings of O&M Records inventory accuracy and O&M Records condition accuracy.

2. Assign an inventory accuracy score of A, B or C in accordance with the table below for each Element for which the Independent Engineer has undertaken an assessment.

A	Correct identification and referencing of Element
B	Incomplete referencing, but Element is identifiable
C	Wrong referencing; either Element is not identifiable from record, or records show Element that does not exist

3. Assign a condition accuracy score of A, B or C in accordance with the table below for each Element for which the Independent Engineer has undertaken an assessment:

A	Correct Element condition recorded (within acceptable tolerance)
B	Similar Element condition recorded (but outside acceptable tolerance based on Good Industry Practice repeatability criteria)
C	Wrong condition recorded

4. Assess the accuracy of Developer's O&M Records under item 2 above, where the acceptable minimum standard shall be no more than five percent of Elements scored at level C and no more than 10 percent of Elements scored at level B or below.
5. Assess the accuracy of Developer's O&M Records under item 3 above, where the acceptable minimum standard shall be no more than five percent of Elements scored at level C and no more than 10 percent of Elements scored at level B or below.
6. Following the correction of any inventory condition inaccuracy, undertake an independent assessment of the Asset Condition Score of the relevant Auditable Sections in accordance with the methodology given above.

19.8 Handback Requirements

19.8.1 Residual Life Methodology

Developer shall prepare and submit to TxDOT for approval a Residual Life Methodology, 72 months before the due date for Handback, for TxDOT approval. This submittal shall contain the evaluation and calculation criteria to be adopted for the calculation of the Residual Life at Handback of all Elements of the Facility. The scope of any Residual Life testing shall be included, together with a list of all independent Residual Life testing organizations, proposed by Developer. These organizations shall be on TxDOT's approved list, have third party quality certification, and be financially independent of Developer and not be an Affiliate.

TxDOT's approval of the Residual Life Methodology, including the scope and schedule of inspections, shall be required before commencement of Residual Life Inspections.

19.8.2 Residual Life Inspections

Inspections and testing shall be performed with appropriate coverage such that the results are representative of the whole Facility as described in the Table 19.8.5-1 - Residual Life Table.

TxDOT shall be given the opportunity to witness any of the inspections and/or tests and shall be kept informed with minimum ten Business Days notice prior to the performance of any

such tests. Developer shall deliver to TxDOT, within ten Days after it is created, the output data arising from any testing and any interpretation thereof made by the testers.

In the event that Developer fails to undertake inspections within the relevant time periods described below, TxDOT shall be entitled to undertake or arrange the relevant inspections itself, following 30 Days written notice to Developer.

First Inspection

Between 69 and 72 months before the end of the Term, Developer shall perform a Residual Life inspection (the 'First Inspection'), including all Elements set forth in the Residual Life Table.

Within 30 Days following performance of the First Inspection, Developer shall submit to TxDOT the findings of the inspection, including Residual Life test results, the report of the independent testing organization(s), Developer's Residual Life calculations and Developer's calculation of Residual Life at Handback for each inspected Auditable Section.

Second Inspection

Between 15 and 18 months before the end of the Term, Developer shall perform a second Residual Life inspection (the 'Second Inspection') including all Elements set forth in the Residual Life Table.

The Second Inspection shall be performed for all Elements of the Facility whether or not Developer has undertaken Renewal Work for a particular Element in the period since the First Inspection.

Within 30 Days following the performance of the Second Inspection, Developer shall submit to TxDOT the findings of the inspection, including Residual Life test results, the report of the independent testing organization(s), the Developer's Residual Life calculations and the Developer's calculation of Residual Life at Handback for all Elements of the Facility.

Final Inspection

Not later than 90 Days before the end of the Term, Developer shall perform a final Residual Life inspection (the 'Final Inspection') including all Elements within the Facility, whether or not Developer has undertaken Renewal Work for a particular Element in the period since the First and Second Inspections.

Within 30 Days following performance of the Final Inspection, Developer shall submit to TxDOT the findings of the inspection, including Residual Life test results, the report of the independent testing organization(s), the Developer's Residual Life calculations and the Developer's calculation of Residual Life at Handback for all Elements of the Facility.

19.8.3 Renewal Work Schedule at Handback

The Renewal Work Schedule for each of the five years before Handback shall include, in addition to any other requirements specified in the FCA Documents:

1. Developer's calculation of Residual Life for each Element calculated in accordance with the Residual Life Methodology and taking into account the results of the inspections set forth above.
2. The estimated cost of the Renewal Work for each Element at the end of its Residual Life.

19.8.4 Residual Life and Useful Life Requirements

For any Element in Table 19.8 5-1:

1. Where a Residual Life at Handback is specified in years, the Residual Life at Handback shall be equal to or greater than the period set forth in the column entitled "Residual Life at Handback".
2. Where a Useful Life is specified in years, the Useful Life created at the time of its last replacement, renewal, reconstruction, restoration or rehabilitation before the end of the Term shall be equal to or greater than the period set forth in the column entitled "Useful Life", and the Renewal Work Schedule shall estimate the cost of the next Renewal Work (after the end of the Term) on the assumption that such Renewal Work will be performed in order to create a new Useful Life of the same duration .

The inspection requirements and Residual Life Methodology requirements identified in the Table 19.8.5-1 - Residual Life Table are minimum requirements.

Table 19.8.5-1 Residual Life Table

Element Category	Residual Life at Handback (yrs)	Useful Life	Inspection Requirements	Residual Life Methodology (RLM) Requirement
Road Pavement				
Mainlanes	A (Note 1)	10	Pavement inspections shall be undertaken by independent testing organizations. Inspections shall provide a continuous or near-continuous record of Residual Life in each lane. Where the inspection method does not provide a continuous record of Residual Life, the number of valid measurements in each Auditable Section shall be sufficient to give a statistically valid result. Inspections shall be repeatable to an agreed level of accuracy and inspection contracts shall include an agreed proportion of inspections to verify accuracy. Inspections shall include ride quality, skid resistance and rutting.	RLM shall be capable of calculation of residual life for each 0.1 mile Auditable Section For a nominal 10 year Residual Life at Handback, 85% of Auditable Sections shall have a Residual Life exceeding 10 years, and no Auditable Section shall have a calculated Residual Life of less than 5 years.)
Ramps/direct connectors	A (Note 1)	10		
Frontage/access roads	A (Note 1)	10		
Local/collector roads	A (Note 1)	10		

Table 19.8.5-1 Residual Life Table

Element Category	Residual Life at Handback (yrs)	Useful Life	Inspection Requirements	Residual Life Methodology (RLM) Requirement
Structures				
Reinforced concrete	50	N/A	Inspections of structures shall be undertaken by independent testing organizations. Inspections shall follow the latest inspection guidelines (as they apply at the relevant date that the testing is undertaken) recognized by TxDOT. A close examination shall be made of all parts of each structure. Non-destructive tests shall be undertaken appropriate to the type of structure. These shall include the measurement of structural deflection under calibrated load, the identification and measurement of de-lamination in bridge decks, the measurement of chloride and carbonation profiles from surface to reinforcement and/or tendon level, and the in-situ strength testing of concrete Elements.	RLM shall: Draw on historical asset maintenance records, inspection and test histories for each structure. Take account of TxDOT and FHWA records of other structures on the network with similar characteristics. Include an assessment of load carrying capacity based on the original structural design calculations, the as built drawings and results of load deflection tests where appropriate. Take account of any trends in asset deterioration to determine the rate of deterioration and to predict the future condition of individual Elements and the entire structure.
Pre-stressed concrete	50	N/A		
Structural steelwork	50	N/A		
Weathering steel	50	N/A		
Corrugated steel	50	N/A		
Corrosion protection for structural steelwork	A (Note 1)	5		
Deck surfacing	A (Note 1)	10		
Deck joints	A (Note 1)	5		
Bearings	A (Note 1)	20		
Railing	25	N/A		
Sign / signal gantries (structural elements)	50	N/A		
Retaining walls	50	N/A		
Traffic signal poles	A (Note 1)	8		

Table 19.8.5-1 Residual Life Table

Element Category	Residual Life at Handback (yrs)	Useful Life	Inspection Requirements	Residual Life Methodology (RLM) Requirement
High mast lighting	A (Note 1)	8	Testing of steel structures shall include the depth of corrosion and/or the measurement of remaining structural thickness for hidden and exposed parts. All lengths of weld shall be tested for cracking at key areas of structural steelwork.	
Building and Maintenance Facilities (structural elements				
	50	N/A	Inspections shall comply with Good Industry Practice	RLM shall draw on historical asset maintenance records, inspection and test histories for each building and maintenance facility
Building and Maintenance Facilities (installation and finishes)				
	25	N/A		
Toll Collection and Traffic Management Facilities				
			Inspections shall comply with Good Industry Practice	RLM shall be based on the manufacturer's or supplier's recommended component life, together with records of the performance of similar equipment from Developer or

Table 19.8.5-1 Residual Life Table

Element Category	Residual Life at Handback (yrs)	Useful Life	Inspection Requirements	Residual Life Methodology (RLM) Requirement
				TxDOT records.
Drainage				
Underground storm sewer systems	50	N/A	Inspection of storm sewer systems shall include closed circuit TV inspection of all buried pipe work. Groundwater level monitoring at selected locations will be required to provide assurance through the RLM of a 10 year Residual Life for groundwater interceptor drains.	RLM shall draw on historical asset maintenance records, inspection and test histories for each Element of the drainage system. Developer shall include a methodology to determine the Residual Life of filter drains designed to intercept groundwater.
Culverts	50	N/A		
Ditches	A (Note 1)	10		
Inlets	25	N/A		
Outfalls	A (Note 1)	10		
Ancillary				
Earthwork slopes	50	N/A	For embankment and cut slopes a risk based inspection procedure shall be adopted following Good Industry Practice. Deformation monitoring will be required to provide assurance through the RLM of a 50-year residual life. Inspections of all ancillary items shall be undertaken by personnel having adequate training on modes of failure,	RLM shall draw on historical asset maintenance records, inspection and test histories for each ancillary Element
Metal beam guard fence	A (Note 1)	20		
Concrete barrier	A (Note 1)	20		
Impact attenuators	A (Note 1)	20		
Lighting columns	A (Note 1)	10		
Overhead signs	A (Note 1)	5		

Table 19.8.5-1 Residual Life Table

Element Category	Residual Life at Handback (yrs)	Useful Life	Inspection Requirements	Residual Life Methodology (RLM) Requirement
Traffic signals housings and mountings	A (Note 1)	8	risk assessment and observational skills.	
Fences	A (Note 1)	20		
Manhole covers, gratings, frames and boxes	A (Note 1)	10		
curbs and gutters	A (Note 1)	10		
Luminaires	A (Note 1)	5		
Roadside traffic signs	A (Note 1)	5		
Pavement markings	A (Note 1)	3		
Delineators	A (Note 1)	5		

Note1: Where designated by the letter "A", a Useful Life Life created at the time of last replacement, renewal, reconstruction, restoration or rehabilitation before the end of the Term is specified in place of a Residual Life at Handback.

20 BICYCLE AND PEDESTRIAN FACILITIES

Not used.

21 ELECTRONIC TOLL COLLECTION SYSTEM REQUIREMENTS

21.1 General Requirements

This section sets forth the technical requirements for tolling, based on the principle that Developer provides toll transaction data to TxDOT in a prescribed format and within required performance requirements and TxDOT provides back office functions including call center operations, account management and maintenance, tag issue and replacement, User invoicing, collection and enforcement. Developer acknowledges that tolls will be collected according to the screenline principle, in which Users are assessed a toll whenever they pass a given Tolling Zone, regardless of the distance traveled on the Facility, and not according to the trip generation principle in which Users are assessed a toll depending on the distance traveled.

In the FMP, Developer shall set forth an approach, procedures and methods for an Open Road Toll (ORT) Electronic Toll Collection System (ETCS) including postpaid video tolling.

Developer shall include the ETCS design in the Final Design Documents and shall submit such design in accordance with the FMP and FCA Documents. Developer shall demonstrate that its ETCS design is capable of serving the Ultimate Configuration.

Developer shall design, develop, test, integrate, deploy, operate and maintain the ETCS to:

- Properly transmit to TxDOT a record of the tolls due from all Users in accordance with the toll rate policy and methodology set forth in Article 3 of the Agreement.
- Provide data to and receive data from TxDOT in accordance with Technical Documents for Open Road ETCS.
- Enable TxDOT to maximize collection of all toll payments from Users.

21.2 ETCS Design Standards

Developer shall prepare the ETCS design in accordance with the Technical Requirements and all applicable Technical Documents including the Technical Documents for Open Road Toll Collection. Developer shall specifically identify, within the FMP, proposed Deviations from the Technical Requirements and Technical Documents.

21.3 Design and Operational Criteria

21.3.1 ETCS

Subject to the performance standards set forth on Table 21.1 below, ETCS shall:

- Detect all vehicles that pass through each Tolling Zone either on the traffic lanes or on the shoulder, and generate a Tag Trip transaction or a Video Trip transaction for each vehicle.
- For each vehicle carrying a properly mounted, valid, working transponder that passes through the Tolling Zone, whether it is in a traffic lane, on the shoulder or between lanes, correctly read from each transponder and produce a Tag Trip transaction.

- Communicate with the CSC Host either directly or via a Developer provided intermediary computer system in accordance with the TxDOT Standards for Open Road Toll Collection Systems. Such communication to include receipt and transmission of daily updates of the status of each transponder, transmitting Tag Trip transactions, Video Trip transactions, video images, maintenance messages, and other lane event messages and receiving transponder / license plate association data.

Where, for any reason, ETCS is unable to generate a valid Tag Trip transaction, ETCS shall:

- Produce a transaction record of any Tag Trip transaction data that was captured, even if incomplete.
- Identify the reason that a valid Tag Trip transaction could not be generated.
- Capture image(s) of the front and rear license plate of each vehicle that passes through the Tolling Zone and generate a Video Trip transaction.

The ETCS shall be capable of receiving a tag status file for all transponders registered in Texas, as defined in the Technical Documents for Open Road Toll Collection Systems.

21.3.2 User Classification Sub-system (UCS)

UCS shall accurately classify vehicles passing through the Tolling Zone according to vehicle shape (height, width and length) as determined by the User Classification. UCS shall detect whether a vehicle is present, recognize the features required to determine the User Classification and have the ability to accurately distinguish individual vehicles.

If the UCS is unable to assign a User Classification to a vehicle, this shall be indicated in the transaction record.

21.3.3 Video Exception Sub-system (VES)

Subject to the Tolling Performance Standards in Table 21.1 below, VES shall capture a digital video image (front and rear) of a license plate of every vehicle that is traversing the Tolling Zone, whenever ETCS is unable to generate a valid Tag Trip transaction or as specified in the Technical Documents.

The VES shall capture 24-bit color digital images of the vehicle including its front and rear license plates. Developer shall cause sufficient images to be captured to optimize license plate image readability and shall forward to the CSC Host, for each vehicle, one cropped image of the license plate area only and one image encompassing the license plate and including sufficient of the vehicle to enable identification of its color, make and model. Captured images shall be such that no part of any image would enable recognition of vehicle occupants.

Developer shall cause all images and related video transaction data to be transmitted to a Developer-provided automatic license plate reading capability where every image shall be processed using OCR to acquire digitized data. Digitized data shall follow the requirements set forth in the Technical Documents, including plate number, jurisdiction of issue, date and time of capture, lane assignment, User Classification and Tolling Zone for all license plates, including motorcycles.

For every video transaction, both digitized data and raw images shall be transmitted to the CSC Host. Before transmission to the CSC Host, Developer shall categorize all digitized data as follows:

- Acceptable for User invoicing
- Not acceptable for User invoicing

Whenever there is defective equipment at the time of a video transaction, Developer shall code the transaction as to the type of equipment malfunction.

21.3.3 Tolling Zones

Tolling Zones may be located either on mainlanes or on ramps in a manner that all User vehicles are assessed a toll whenever they pass. Tolling Zones shall not incorporate any feature to cause or require vehicles to slow down. Developer shall include within his FMP a tolling schematic identifying the proposed Tolling Zone locations.

21.4 ECTS Data Retention Capabilities

In the event that any part of the communications between the various ETCS components and the CSC Host is interrupted, Tolling Zone components shall be designed to run independently, recording all necessary toll operations data

Each Tolling Zone shall be able to operate for at least 30 Days without communications to external computer systems. During such time, all toll transaction data and images and other data normally communicated to external systems such as the CSC Host shall be saved for later transfer, when the communications link is re-stored.

In addition, the Tolling Zone controllers shall be able to receive from and transmit to a portable device, data which would be normally conveyed via communications link. This device shall then serve as the transfer medium for data to and from the external computer systems.

21.5 Advance Toll Information Signs

Developer shall design, install, operate and maintain advance toll information signs in accordance with TxDOT Documents.

Developer shall submit to TxDOT for review and approval, no later than 90 Days before start of Facility construction, a layout of the Facility identifying the proposed locations and details (including proposed wording) of all advance toll information signs. At a minimum, such signs shall clearly identify toll rates for each User Classification. Signs shall be located to provide maximum visibility to Users and situated:

- At all RTF locations that provide User access to the Facility
- Prior to all entrance ramps to the Facility.

Developer shall consult with TxDOT and shall obtain graphic design of the current TxDOT logo or logos that Developer shall integrate into the design and fabrication of guide and trailblazer signs.

21.6 ETCS Performance Requirements

The Tolling Performance Standards set forth on Table 21.3 shall apply throughout a vehicle speed range of 0 to 100 mph with the exceptions of User Classification and image capture where the stated Tolling Performance Standards shall be achieved for a speed range of 5 to 100 mph. Tolling Performance Standards apply to vehicles that are traveling closely together (i.e. platooning) as well as for vehicles that are separated by normal headway.

For each Tolling Zone and for each function, Table 21.1 Tolling Zone Functional Availability below sets forth the minimum percentage Functional Availability that shall be achieved.

Table 21.1 - Tolling Zone Functional Availability

Function	Minimum Percentage Functional Availability
Vehicle detection, ETC tag read capability and transaction processing	≥99.96%
Video image capture capability	≥99.50%
Automatic Vehicle Classification (AVC) capability	≥98.00%
OCR	≥96.00%

Tolling Zone percentage Functional Availability is defined as the ratio of the unit-hours that the Tolling Zone operates while satisfying the Tolling Performance Standard for that function expressed as a percentage of the total hours of operation for the Tolling Zone.

In the FMP, Developer shall set forth annually, for TxDOT approval, Tolling Performance Standards which shall, except where indicated in Table 21.2 below, be consistent with Table 21.3 -Tolling Performance Standards Baseline. The first such submittal of the Tolling Performance Standards shall be submitted for TxDOT approval no later than 90 days before Service Commencement. The Tolling and Performance Standards shall set forth the following information:

Table 21.2 - Contents of Tolling Performance Standards

Heading in Tolling Performance Standards Baseline	Contents of Developer's submitted Tolling Performance Standards
Parameter	As Tolling Performance Standards Baseline
General requirement	As Tolling Performance Standards Baseline
Inspection and measurement method	Subject to proposed amendment by Developer as part of annual submittal of FMP
Measurement record	Subject to proposed amendment by Developer as part of annual submittal of FMP
Target	Subject to proposed amendment by Developer as part of annual submittal of FMP

In its annual submittals of the Tolling Performance Standards, Developer shall propose such amendments to the inspection and measurement methods and measurement records as are necessary to comply with Good Industry Practice and/or Technical Documents.

Failure to meet the Functional Availability for any Tolling Zone or failure to meet a Tolling Performance Standard shall be deemed to be a Defect

Table 21.3 - Tolling Performance Standards Baseline

Ref	Parameter	General Requirement	Measurement Method	Measurement Record	Target
1	Vehicle detection success rate	For all vehicles passing through the Tolling Zone a Tag Trip transaction record or Video Trip transaction record is reliably produced.	Reported monthly for all Tolling Zones through a continuous automated process Detection success rate is defined as the total number of toll transactions recorded and transmitted through ETCS to the CSC Host, expressed as a percentage of the total number of vehicles passing through all Tolling Zones. (A maximum of one toll transaction per vehicle shall be considered for each vehicle, whether this be a Tag Trip transaction or a Video Trip transaction)	Detection success rate for all Tolling Zones for each month.	>99.8 %
2	Transponder read success rate	For all vehicles carrying a valid, properly mounted transponder and passing through the Tolling Zone, a correct Tag Trip transaction is reliably produced.	Reported monthly for all Tolling Zones. Transponder read success rate is defined as the number of Tag Trip transactions correctly generated for all vehicles carrying a valid, properly mounted transponder and passing through all Tolling Zones, expressed as a percentage of the total number of Tag Trips. A Tag Trip transaction shall be deemed incorrect if a Tag Trip transaction is incorrectly generated, or not generated when it should have been and shall include any instance where part or all of any assessed toll is required to be refunded to a User.	Transponder read success rate for all Tolling Zones for each month	>99.99 %

Ref	Parameter	General Requirement	Measurement Method	Measurement Record	Target
3	Transponder incorrect read rate	A Tag Trip transaction is assigned only for a vehicle traveling in a designated lane or lanes for which a toll may legitimately be assessed.	Reported monthly for all Tolling Zones. Transponder incorrect read rate is defined as the number of incorrectly assessed Tag Trip transactions arising from vehicles traveling in any lane or lanes for which a toll may not be legitimately assessed, expressed as a percentage of the total number of legitimate Tag Trips. Incorrectly assessed Tag Trip transactions are those in which one or more of the following apply: (i) a Tag Trip transaction is assigned to a vehicle traveling in any lane for which a toll may not be legitimately assessed, for example the opposing direction of travel, (ii) a Tag Trip transaction is assigned to a vehicle in any adjacent lane, (iii) a Tag Trip transaction is assigned to a vehicle behind or in front of the vehicle on which the tag is mounted. (iv) more than one Tag Trip transaction is assigned to a single vehicle. (v) it is required to refund to a User holding a valid transponder part or all of any assessed toll, whether or not another proper toll such as a Video Trip may be charged.	Transponder incorrect read for all Tolling Zones for each month.	<0.2%
4	License plate	For Video	Reported monthly for all	License plate	>98%

Ref.	Parameter	General Requirement	Measurement Method	Measurement Record	Target
	image reliability success rate	Trips, the human readable license plate images produced by the VES reliably contain images in which both plate number and issuing jurisdiction can be read.	vehicles in all Tolling Zones. The license plate image reliability success rate is defined as the number of readable plate images in which both plate number and jurisdiction of issue are discernable and can be converted unambiguously to text by an operator, expressed as a percentage of the total number of plate images that Developer is required to obtain (excluding plate images for ineligible vehicles (**Note 1**)).	image reliability success rate for all Tolling Zones for each month.	
5	OCR reliability rate	Where readable, unobstructed license plate images are digitized and converted to text by VES using OCR, the data reliably matches that created by an operator examining the same license plate images and extracting the data manually.	Measured by audit of 5% of license plate images and reported monthly for plates that are human readable and unobstructed. The OCR reliability rate is defined as the number of OCR plate extractions in which the data extracted matches precisely the data extracted by an operator expressed as a percentage of the total number of OCR plate extractions that Developer is required to obtain, (excluding OCR extractions for ineligible vehicles (**Note 1**)). For plates issued by Texas, the plate numbers shall be correctly identified and reported. For all motorcycle license plates, and vehicles with license plates that are issued by States that are contiguous to Texas (Oklahoma, Louisiana, New Mexico, Arkansas, and Mexican States that border	Proportion of OCR plate extractions in which the data extracted matches precisely the data extracted by an operator for all human readable and unobstructed/un obscured license plates.	>90%

Ref	Parameter	General Requirement	Measurement Method	Measurement Record	Target
			Texas), only the plate numbers are correctly identified and reported and State jurisdictions that are reported shall not be reported incorrectly. All other jurisdictions that are not listed above are not calculated as part of the OCR percentage requirement. The OCR success rate shall be judged on a single presented result for the vehicle. The percentage of incorrectly reported OCR results shall apply to all plate types of all jurisdictions		
6	OCR incorrect read rate	Where data is extracted from a license plate using OCR, the data is reliable.	Reported monthly by audit of 5% of license plate images. OCR incorrect read rate is defined as the percentage of license plate images converted to text that are incorrect. (applicable to license plates of all jurisdictions) as a percentage of all license plate images.	Proportion of Incorrectly read license plates	<1%
7	Video Trip direct invoice assignment rate	Where digitized data is transmitted to the CSC Host in accordance with Section 21.3.3, most of the data is acceptable for direct user invoicing without the	Reported monthly for all Tolling Zones, Video Trip direct invoice assignment rate is defined as the proportion of the digitized data transmitted to the CSC Host that Developer categorizes as being suitable for direct invoicing by TxDOT without the need for manual review of the images.	Proportion of digitized Video Trip data that is assigned for direct invoicing	>90%

Ref	Parameter	General Requirement	Measurement Method	Measurement Record	Target
		need for manual intervention.			
8	Video Trip direct invoice error rate	Where Developer assigns digitized data as being suitable for direct invoicing with no manual intervention, the data is error free.	Reported monthly for all Tolling Zones. Where Developer categorizes digitized data as being suitable for direct invoicing in accordance with Section 21.3.3, the Video Trip direct invoice error rate is defined as the proportion of invoices generated from such data that contain errors as a result of incorrect licence plate, jurisdiction or other digitized data error	Video Trip direct invoice error rate	<1%

Note 1: Ineligible vehicles are those for which a video image is obtained that due only to one or more of the following conditions cannot be reliably read by the human eye:

(i) The vehicle either has no license plate or it is not mounted in the legally required position

(ii) The license plate is covered by dirt or snow rendering it unreadable

(iii) The license plate is damaged, bent or broken rendering it unreadable

(iv) The license plate is blocked by an object carried by the vehicle (such as a plate frame, overhanging cargo or a trailer towing ball)

(v) The license plate is blocked by something in the lane such as a person or another vehicle.

22 OPERATIONS

22.1 General Requirements

The requirements of this section apply to the Work from and after the Service Commencement Date.

In the FMP, within the Operating Traffic Management Plan, Developer shall set forth an approach, procedures and methods for:

1. Incident Management Plan
   - Incident Response
   - Incident Reporting
2. Safety and Security
3. Traffic Management
4. Traffic Operations Restrictions
5. Emergency Management Plan
   - Standard operating and communication procedures for emergency preparation, response and recovery, including contact numbers for key personnel and government agencies.
   - Employee training.
6. Planning and Coordination
   - Compliance with requirements of any Governmental Entity, which affect or may affect the Facility.
   - Liaison with law enforcement agencies in relation to all major road traffic accidents and full cooperation with their investigations into the cause of such accidents, and provision of such expertise and assistance as required under the circumstances.
   - Interfacing with Emergency Services.
   - Coordination with Emergency Services and any adjacent highway authorities or concessions to identify accident patterns and examine cost effective solutions to maximize safety.
   - Liaison procedures with any Traffic Management Centers that TxDOT may establish.
7. Tolling Equipment and Systems

22.2 Incident and Emergency Response

Developer shall:

- Cause personnel having at least five years relevant experience with TxDOT's traffic control requirements to be available, to patrol, monitor and maintain the traffic control devices and signs necessary for the safe passage of traffic
- Provide a courtesy patrol service that includes provision for fuel (25 gallon minimum); assistance with tire changing, capability of pushing light vehicles to safe locations; arrangements for towing assistance; placement of cones and safety flares; removal of objects from the roadway.
- Cause the provision of on-call vehicle removal service 24 hours per day, seven days per week, for vehicles that obstruct travel lanes or become stalled.

- Respond to service calls within 30 minutes of discovery or being notified, whichever occurs first.
- Coordinate with local and state law enforcements, emergency responders, and impacted Customer Groups.

Developer shall commence the implementation of safety procedures (road signing, information for Users, information for law enforcement agencies) as soon as practicable. Developer shall attend to the Incident with qualified personnel, equipped to carry out the functions required in this section, not later than the times stated in the Performance and Measurement Table.

Developer shall provide services for automobile towing of Users' light and heavy vehicles at the Users' expense and shall reach the site of the accident or breakdown within the time period set forth on the Performance and Measurement Table.

Where an Incident or Emergency has an effect on the operation of the Facility, Developer shall clear obstructions and repair damage to the Facility, under the supervision of law enforcement agencies if necessary, such that the Facility is returned to normal operating standards and conditions as quickly as possible. Where liquid or soluble material spills are involved, Developer shall take all necessary measures to minimize pollution of watercourses or groundwater. Where structural damage to highway structures is suspected, Developer shall cause that a suitably qualified bridge engineer or Special Inspection Inspector is available to evaluate the structure and to advise on temporary repairs and shoring needed to provide safe clearance of the Incident or Emergency. Where such an Incident or Emergency involves a personal injury, Developer shall not remove any vehicle or other item that may assist the investigation until authorized to do so by jurisdictional law enforcement agencies.

Following an Incident or Emergency, Developer shall promptly:

- Perform any work necessary to return the Facility to a safe condition and in any event shall carry out such work before the affected area of the Facility is reopened to traffic
- Assist Emergency Services to minimize danger, disruption or delay to the public and pollution of watercourses or groundwater.
- Test and classify all waste material arising from an Incident, and contain, store and dispose of all inert, industrial and non-hazardous waste material arising from an Incident
- For any Hazardous Material spills, call appropriate local, state or federal governmental regulatory agency as necessary.
- Remove spilled cargo to a safe location on the Facility ROW, as necessary, to restore traffic flow.

Within one hour of any Incident or Emergency, Developer shall:

- Provide accurate information to TxDOT and the appropriate Customer Groups through the use of the appropriate tools, such as dynamic message boards, HCR, e-mail/web alerts, and media releases/interviews.
- Continue to provide updated information, as available, until the Incident or Emergency no longer exists.

- In the event of an Emergency such as ice/snow for which advance warning is available, use appropriate methods to inform TxDOT and Users in a timely manner.

22.3 Incident and Emergency Reporting

Developer shall report, as part of Developer's Monthly Report, the following information from the previous month on any Incident or Emergency:

- The date, time, location and nature of the Incident or Emergency.
- All parties involved in the Incident, including names, addresses, telephone numbers and their involvement (including witnesses).
- Responsible party and insurance information.
- Status of all necessary actions taken to address the Incident or Emergency.
- Identification of any traffic control in place at time of Incident or Emergency.

22.4 Safety and Traffic Management Measures

Developer shall provide, erect, maintain, reposition, cover, uncover and remove traffic signs as required in respect of the Work on the Facility including any detours in accordance with the requirements of the Technical Documents.

Developer shall not reopen any area of the Facility which has been closed, until all appropriate safety and traffic management measures have been completed.

Developer shall appoint a traffic safety and control officer and one or more deputies to make all arrangements necessary for safety and traffic control including the provision and operation of recovery vehicles for breakdowns Developer shall cause the traffic safety and control officer or one of his/her deputies to be on site at all times when safety and traffic management measures are proceeding and to be readily available at all times to deal with matters related to safety and traffic control.

Developer shall cause any shoulders carrying traffic as part of any traffic management measure to meet the performance requirements detailed in Attachment 11 for mainlines and ramps or frontage roads, as appropriate

22.5 Traffic Operations Restrictions

Lane Closures on the Facility, including frontage roads and ramps, shall be planned to minimize disruption, interruption and other adverse effects on traffic flow, throughput and level of service. Except due to Incidents or Emergencies, unless otherwise approved by TXDOT in writing, Developer shall not allow or suffer lane closures on the main lanes during the following periods:

New Year's Eve and New Year's Day (December 31 through January 1)
Easter Holiday Weekend (Thursday through Monday)
Memorial Day Weekend (Thursday through Tuesday)
Independence Day (July 3 through July 5th Noon)
Labor Day Weekend (Thursday through Tuesday)
Thanksgiving Holiday (Wednesday through Monday)
Christmas Holiday December 23 through 26

The above-described restrictions shall apply from 12 noon of the above-described starting day through 10:00 pm on the ending day unless otherwise specified.

Except due to Incidents or Emergencies, no traffic lane shall be closed during peak traffic hours. Peak traffic hours are defined as 7 00 a.m. to 9:30 a m. and 3.30 p.m. to 7:00 p.m. Monday through Friday and Saturdays 8:00 a.m. to 5 00 p.m.

Except due to Incidents or Emergencies, concurrent closure of all lanes in the same direction of travel is prohibited.

Except due to Incidents, no traffic lane shall be closed during any period that the Facility is designated for immediate use as an emergency mass evacuation route, or as an alternate route for diversion of traffic from another state highway or frontage road temporarily closed.

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 1 – Facility Management Plan
Contents

Attachment 1 – Facility Management Plan Contents

As described in Article 9 of the Agreement and Section 2 of the Technical Requirements, the following Table A1-1 sets out the overall contents of the Facility Management Plan (FMP), Table A1-2 sets forth the Key Personnel, Table A1-3 lists other Specified Personnel, and Table A1-4 provides the contents list of the FMP together with a schedule for the provision of its component parts.

Table A1-1 Overall structure of FMP

Parts of the FMP	Title
1	Introduction to FMP
2	Quality Management Plan
2A	*Right of Way (ROW)*
2B	*Design*
2C	*Construction*
2D	*Operations and Maintenance (O&M)*
3	Comprehensive Environmental Protection Program
4	Public Information and Communications Plan (PICP)

Table A1-2 Key Personnel

Key Personnel Title
Facility Manager
Quality Manager
Design Manager
Construction Manager
Environmental Compliance Manager
Public Information Coordinator
ROW Acquisition Manager

Table A1-3 Specified Personnel

Title
Appraiser(s)
Review Appraiser(s)
Land Planner(s)
Relocation Agent(s)
ROW Negotiator(s)
Real Estate Attorney(s)
Utility Manager
Utility Design Coordinator
Archeologist
Natural Resource Biologist
Water Quality Specialist
Hazardous Materials Manager
Traffic Safety Officer

Table A1-4 Contents and Schedule for provision of Component parts of FMP

Part	Ref	Section	Contents	Required by [a]
1. FMP Introduction				
	1.1	**General**	Provide Executive summary to Developer's managerial approach, strategy, and quality procedures to implement the Facility.	A
			Description of quality management procedures under any joint venture arrangements.	A
			Integration of quality management and quality control systems and/or plans submitted by Contractors and suppliers	A
			Provide overall approach to Quality Management.	A
	1.2	**Organization**	List organization and management structure and staff roles.	A
	1.3	**Procurement**	List of all Key Contracts and Key Contractors.	A
			Provide names and contact details, titles, job roles and specific experience required for Key Personnel.	A
			Provide written policies establishing ethical standards of conduct for all Developer-Related Entities.	B
			Describe equal employment opportunity policy.	A
			Describe subcontracting plan.	A
			Provide DBE Performance Plan.	A
			Provide Job Training and Small Business Mentoring Plan.	A
			Describe Equipment and Systems Procurement Plan.	A
	1.4	**Interfaces**	Describe external/internal communication procedures.	A
			Describe arrangements for direct reporting to Developer by parties not immediately contracted to Developer regarding any part of the Facility Management Plan.	A
			Describe integration of the Public Information and Communications Plan.	A
	1.5	**Environmental**	Describe overall Approach to Environmental Management/Compliance	A

Part	Ref	Section	Contents	Required by [a]
			Describe integration of the Comprehensive Environmental Protection Program and the Quality Management Plans under the FMP.	A
	1.6	**Schedule**	Provide Facility Baseline Schedule in accordance with Section 2 of the Technical Requirements.	A
	1.7	**Cost Management**	Provide an overview of the Facility Plan of Finance	A
	1.8	**Change**	Outline procedures to manage change requested by TxDOT and/or change instigated by Developer.	A
	1.9	**Quality Control**	Describe procedures to establish and encourage continuous improvement.	A
	1.10	**Audit**	Describe procedures to facilitate review and audit by TxDOT and/or the Independent Engineer.	A
			Describe procedures for auditing and management review of Developer's own activities under the FMP.	A
			Describe procedures for auditing and management review of Contractor's activities and management procedures.	A
	1.11	**Non-compliance**	Describe procedures for identification of, recording and reporting to TxDOT the occurrence of any non-compliance pursuant to Article 18 of the Agreement	A
	1.12	**Corrective Action**	Describe procedures for Corrective Action Plan	A
	1.13	**FMP amendment**	Describe procedures for preparation of amendments and submission of amendments to any part of the FMP	A
	1.14	**Risk Management**	Identify the Facility' s principal risks and how each of these risks will be managed by Developer.	A
	1.15	**Confidentiality**	Describe procedures for maintaining confidentiality of confidential information.	A
	1.16	**Document Management**	Describe document management procedures and the manner in which records will be include any specific systems the Developer will use.	A
2. Quality Management Plan				
2A. ROW Acquisition Plan				
	2A.1	**Organization**	Describe Developer's main contractual arrangements.	A

Part	Ref	Section	Contents	Required by [a]
			Describe organizational structure covering the activities to be performed in accordance with the FCA Documents.	A
	2A.2	**Procurement**	Provide a brief description of Developer's resources necessary to apply to each principal activity	A
			Describe arrangements for coordinating and managing staff interaction with Independent Engineer and/or TxDOT and its consultants, including collocation if applicable	A
			Provide names and contact details, titles, job roles and specific experience required for Developer's Key Personnel and titles, job roles and specific experience required for Developer's Specified Personnel in accordance with Sections 6 and 7 of the Technical Requirements.	A
			Provide plans and specific location for Facility ROW relocation office in accordance with Section 7 of the Technical Requirements.	A
			Describe procedures for implementation of Environmental Protection Training Program for all employees and Contractors in accordance with Section 4 of the Technical Requirements.	A
			Describe overall control procedures for Contractors, consultants and subconsultants.	A
			Describe responsibility of Contractors and affiliates.	A
	2A.3	**Relocation**	Describe Relocation Plan in accordance with Section 7 of the Technical Requirements	A
	2A.4	**Environmental**	Describe procedures to address any applicable environmental requirements.	A
	2A.5	**Health and Safety**	Describe procedures demonstrating how Developer will comply with TxDOT and OSHA health and safety requirements.	A
	2A.6	**Schedule**	Provide logic linked ROW acquisition activities on a parcel-by-parcel basis as part of the Facility Baseline Schedule.	A
	2A.7	**Cost Management**	Describe procedures and systems that will enable the Independent Engineer and/or TxDOT to establish the price reasonableness of any Change Order or Compensation Event.	A

Part	Ref	Section	Contents	Required by [a]
			Describe procedures by which relevant financial information and financial reporting will be compiled and audited before submittal to the Independent Engineer/ TxDOT.	A
	2A.8	**Procedures**	Describe procedures of the principal activities to be performed during the ROW acquisition, whether directly undertaken or subcontracted	A
	2A.9	**Quality Control**	Describe procedures to ensure accuracy, completion, and quality in submittals to TxDOT and other governmental agencies	A
			Describe procedures to establish and encourage continuous improvement.	A
			Describe procedures for quality control and quality review standards for ROW acquisition in accordance with Section 7 of the Technical Requirements.	A
	2A.10	**Audit**	Provide name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority.	A
	2A.11	**Corrective Action**	Describe procedures for corrective and preventive action reporting.	A
	2A.12	**Document Management**	Describe the manner in which records will be maintained in compliance with Section 2 of the Technical Requirements, including any specific systems Developer will use.	A
			Describe document management procedures in compliance with Section 2 of the Technical Requirements.	A
			Identify environmental documentation and reporting requirements.	A
2. Quality Management Plan				
2B. Design Quality Management Plan				
	2B.1	**Organization**	Describe Developer's main contractual arrangements.	A
			Describe organizational structure covering the activities to be performed in accordance with the FCA Documents.	A
	2B.2	**Procurement**	Provide a brief description of Developer's resources necessary to apply to each principal activity	A
			Describe arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation if applicable.	A

Part	Ref	Section	Contents	Required by [a]
			Provide names and contact details, titles, job roles and specific experience required for Key Personnel and titles, job roles and specific experience required for other Specified Personnel during design.	A
			Describe procedures for r implementation of Environmental Protection Training Program for all employees and Contractors in accordance with Section 4 of the Technical Requirements.	A
			Describe procedures for procurement of services, materials and products including methods to ensure best value.	A
			Describe procedures for overall control procedures for Contractors, consultants and subconsultants.	A
			Describe responsibility of Contractors and Affiliates.	A
			Describe steps taken to ensure contractors and suppliers meet the obligations imposed by their respective Contracts.	A
	2B.3	**Interfaces**	Describe interface between the Developer and Contractors during design including interfaces between the structural design auditor, the safety auditor, and any quality reviewer	A
			Describe interface between the Developer and Contractors during Facility ROW acquisition and Utility Adjustment Work	
			Describe procedures for coordination with Utility Owners.	A
	2B.4	**Environmental**	Describe procedures to address the environmental requirements for design activities.	A
	2B.5	**Health and Safety**	Describe procedures for demonstrating how Developer will comply with TxDOT and OSHA health and safety requirements.	A
	2B.6	**Schedule**	Provide logic linked design activities as part of the Facility Baseline Schedule.	A
	2B.7	**Cost Management**	Describe procedures and systems that will enable the Independent Engineer and/or TxDOT to establish the price reasonableness of any Change Order or Compensation Event.	A
			Describe procedures by which relevant financial information and financial reporting will be compiled and audited before submittal to the Independent Engineer/TxDOT.	A

Part	Ref	Section	Contents	Required by [a]
	2B.8	Geotechnical	Describe procedures for geotechnical investigations in accordance with Section 8 of the Technical Requirements.	A
	2B.9	Aesthetics	Describe procedures for aesthetic and landscaping design concept in accordance with Section 15 of the Technical Requirements	A
	2B.10	Traffic and Ridership	Describe procedures to collect and verify traffic and ridership data.	A
			Describe procedures for phasing and implementing traffic control signals throughout the Term, including traffic control signal needs studies in accordance with Section 16 of the Technical Requirements.	A
	2B.11	Procedures		
			Identify any proposed Deviations in accordance with Sections 7.1.2.3 and 7.1.2.4 of the Agreement	A
	2B.12	Quality Control	Describe quality control procedures including a resource table for monitoring and auditing all design services, design review and certification, verification of plans.	A
			Describe procedures to establish hold points in design process where checking and review will take place.	A
			Describe procedures to ensure accuracy, completion, and quality in necessary submittals.	A
			Describe procedures to establish and encourage continuous improvement	A
	2B.13	Audit	Describe role of Developer's Quality Manager in establishing, maintaining, auditing and reporting on the FMP.	A
			Provide roles and responsibilities of supporting quality management staff reporting to the person with defined authority	A
	2B.14	Corrective Action	Describe procedures for corrective and preventive action reporting.	A
	2B.15	Document Management	Describe manner in which records will be including any specific systems Developer will use.	A
			Describe document management procedures in compliance with the technical requirements Section 2 of the Technical Requirements.	A

Part	Ref	Section	Contents	Required by [a]
			Identify environmental documentation and reporting requirements.	A
2. Quality Management Plan				
2C. Construction Quality Management Plan				
	2C.1	**Organization**	Describe Developer's main contractual arrangements.	A
			Describe organizational structure covering the activities to be performed in accordance with the FCA Documents.	A
	2C.2	**Procurement**	Provide resource plan for the Developer and its Contractors.	C
			Describe arrangements for coordinating and managing staff interaction with TxDOT, its consultants and the Independent Engineer including collocation if applicable.	C
			Provide names and contact details, titles, job roles and specific experience required for the Key Personnel and titles, job roles and specific experience for other Specified Personnel.	A
			Describe names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate its activities.	C
			Describe procedures for implementation of Environmental Protection Training Program for all employees and Contractors in accordance with Section 4 of the Technical Requirements.	C
			Describe procedures for procurement of services, materials and products including methods to ensure best value	C
			Describe procedures for overall control procedures for Contractors, consultants and subconsultants	C
			Describe responsibility of Contractors and affiliates.	C
			Describe steps taken to ensure contractors and suppliers meet the obligations imposed by their respective contracts.	C
	2C.3	**Interface**	Describe interface between the Developer and Contractors during construction, including any testing contractor.	A
			Describe procedures to support the timely implementation of Facility.	A

Part	Ref	Section	Contents	Required by [a]
			Describe procedures for the performance of Utility Adjustment Work.	A
	2C.4	**Environmental**	Describe procedures to address the environmental requirements for design activities.	C
	2C.5	**Health and Safety**	Describe procedures demonstrating how Developer will comply with TxDOT and OSHA health and safety requirements	C
	2C.6	**Accessibility**	Describe procedures to provide and maintain facilities for any Users who may require specific accessibility considerations (including, but not limited to ADA / TAS accessibility, pedestrians, bicyclists, etc., who may use or cross a Facility).	C
	2C.7	**Schedule**	Provide logic linked construction activities as part of the Facility Baseline Schedule.	C
			Describe Procedures to support the timely implementation of Facility Baseline Schedule.	A
	2C.8	**Cost Management**	Describe procedures and systems to enable actual cost to be established.	C
			Describe procedures setting out facility financial management and other controls, and related information systems.	C
	2C.9	**Procedures**	Provide list of Facility specific construction procedures.	A
			Provide detailed procedure for each major construction activity whether directly undertaken or subcontracted to include pavement, structures, drainage, communications.	C
			Provide Construction Traffic Management Plan Outline.	A
			Provide Construction Traffic Management Plan.	C
			Identify any proposed Deviations in accordance with Sections 7.1.2.3 and 7.1.2.4 of the Agreement.	C
			Describe procedures to establish and encourage continuous improvement.	A
	2C.10	**Quality Control**	Describe role of Developer's Quality Manager in establishing, maintaining, auditing and reporting on the FMP.	A
			Provide construction monitoring plan including materials testing plan with protocols, procedures and frequencies.	C

Part	Ref	Section	Contents	Required by[a]
			Provide construction monitoring plan including control, identification and traceability of materials, including any material or samples temporarily or otherwise removed from site for testing or other reasons.	C
			Describe examinations and audit of Construction Work, review of examination and audit, issue of certificates.	C
			Provide procedure for observation and reporting of all tests.	C
			Describe procedures for materials testing and inspections including prior notification to Independent Engineer and TxDOT, for the purpose of the Contractor certifying that prior to covering up, each part of the Works is complete and conforms to the FCA Documents.	C
			Describe quality control procedures including a resource table for monitoring and auditing during construction any work and testing undertaken by Contractors and suppliers both on and off site.	C
			Describe procedures to establish hold points in construction and give prior notification to Independent Engineer and TxDOT.	C
			Describe procedures to ensure accuracy, completion, and quality in submittals to TxDOT and other governmental agencies.	C
			Describe procedures to establish and encourage continuous improvement.	A
	2C.11	**Audit**	Inspection and test plans that identify the proforma and/or databases to be used for recording the inspection and test results.	C
			Describe role of Developer's Quality Manager in establishing, maintaining, auditing and reporting on the FMP.	A
			Provide roles and responsibilities of supporting quality management staff reporting to the person with defined authority.	C
	2C.12	**Corrective Action**	Describe procedures for corrective and preventive action reporting.	A
	2C.13	**Document Management**	Describe manner in which records will be maintained in compliance with Section 2 of the Technical Requirements, including any specific systems Developer will use.	C
			Describe document management procedures in compliance with Section 2 of the Technical Requirements.	A

Part	Ref	Section	Contents	Required by [a]
			Identify environmental documentation and reporting requirements, including Environmental Permits, Issues and Commitments (EPIC) sheets.	C
2. Quality Management Plan				
2D. Operations and Maintenance Quality Management Plan				
	2D.1	**Organization**	Provide a general description of Developer's main contractual arrangements.	A
			Provide a general description of organizational structure covering the activities to be performed in accordance with the FCA Documents.	A
	2D.2	**Resources**	Provide resource plan for the Developer and its Subcontractors.	D
			Describe arrangements for coordinating and managing staff interaction with TxDOT, its consultants and the Independent Engineer including collocation of Key Personnel and description of approach to coordinating work of off-site personnel.	D
			Provide names and contact details, titles, job roles and specific experience required for Key Personnel and titles, job roles and specific experience required for other Specified Personnel during Operating Period.	D
			Describe procedures for implementation of Environmental Protection Training Program for all employees and Contractors in accordance with Section 4 of the Technical Requirements.	D
			Describe procedures for procurement of services, materials and products including methods to ensure best value.	D
			Provide description of the necessary offices and office equipment to be provided by Developer during Operating Period.	C
			Describe overall control procedures for Contractors, consultants and subconsultants.	D
			Describe responsibility of Contractors and affiliates.	D
			Describe steps taken to ensure Contractors and suppliers meet the obligations imposed by their respective contracts	D
	2D.3	**Interfaces**	Describe procedures for between Developer, Contractors and independent certifiers during Operating Period	D

Part	Ref	Section	Contents	Required by[a]
			Describe procedures for coordination with Utility Owners.	D
			Describe procedures to minimize the impact of the Facility's operations on neighboring facilities.	D
			Describe procedures to ensure enforcement (permitting) of overloaded/oversized vehicles.	D
	2D.4	**Environmental**	Describe procedures to address the requirements of the Comprehensive Environmental Protection Plan from and after the Service Commencement Date.	D
	2D.5	**Health and Safety**	Describe procedures demonstrating how Developer will comply with TxDOT and OSHA health and safety requirements.	D
	2D.6	**Schedule**	Provide Renewal Work Schedule in accordance with Section 8 6 1 of the Agreement.	E
	2D.7	**Cost Management**	Describe procedures and systems that will enable the Independent Engineer and/or TxDOT to establish the price reasonableness of any Change Order or Compensation Event.	D
			Describe procedures by which relevant financial information and financial reporting will be compiled and audited before submittal to the Independent Engineer/TxDOT.	D
	2D.8	**Benchmarking**	Describe procedures Developer will put in place to benchmark the Facility against similar facilities and update the Performance and Measurement Baseline Table.	D
	2D.9	**Complaints**	Describe procedures to respond to comments and/or complaints received from Users and others in compliance with Section 22 of the Technical Requirements.	D
	2D.10	**Equipment**	Describe equipment servicing requirements.	D
			Describe procedures to ensure performance, condition and availability of equipment (including communication equipment, data recording equipment, Facility signage and fare collection, tolling and electronic measurement equipment).	D
	2D.11	**Traffic and Ridership**	Describe procedures to collect and verify traffic and ridership data.	D

Part	Ref	Section	Contents	Required by [a]
			Describe procedures for phasing and implementing traffic control signals throughout the Term, including additional traffic control signal needs studies in accordance with Section 16 of the Technical Requirements.	D
	2D.12	**Procedures**	Describe procedures describing how the principal activities will be performed during the Operating Period. to include routine maintenance, Renewal Work, traffic management, inspections regime, main operational requirements and toll operations.	D
			Provide outline of Operating Traffic Management Plan.	A
			Provide Operating Traffic Management Plan	D
			Identify any proposed Deviations in accordance with Section 8.1.2.8 of the Agreement	D
	2D.13	**Quality Control**	Describe procedures for examinations and audit of O&M Work, review of examination and audit, issue of certificates of compliance.	D
			Describe observation and reporting of all tests.	D
			Describe quality control procedures including a resource table for monitoring and auditing all O&M Work.	D
			Describe procedures to ensure accuracy, completion, and quality in submittals to TxDOT and other Governmental Agencies.	D
			Describe procedures to establish and encourage continuous improvement	A
	2D.14	**Audit**	Provide name of Developer's representative with defined authority for establishing, maintaining, auditing and reporting on the FMP	D
			Provide roles and responsibilities of supporting quality management staff reporting to the person with defined authority.	D
	2D.15	**Corrective Action**	Describe procedures for corrective and preventative action reporting.	A
	2D.16	**Performance Requirements**	Describe procedures to be followed by Developer pursuant to Section 19 of the Technical Requirements to meet all Performance Requirements.	D
			Describe procedures for initial update to Attachment 11 - Performance and Measurement Table and procedure for annual updates thereafter.	D

Part	Ref	Section	Contents	Required by [1]
	2D.17	**Document Management**	Describe manner in which records will be maintained in compliance with Section 2 of the Technical Requirements, including any specific systems Developer will use.	D
			Describe document management procedures in compliance with Section 2 of the Technical Requirements.	D
			Identify environmental documentation and reporting requirements.	D
	2D.18	**Renewals**	Describe procedures for the establishment and funding of, and draws on, the Renewal Works Reserve in compliance with Section 8.7 of the Agreement.	D
	2D.19	**Response to maintenance**	Describe procedures setting out Developer's response to maintenance issues that impair use, reliability or availability of the Facility in a timely manner.	D
	2D.20	**User satisfaction**	Describe procedures to collect and track User satisfaction.	D
	2D.21	**Operations**	Provide outline of Tolling Plan.	A
			Provide Tolling Plan	C
	2D.22	**Emergency Response**	Provide outline of Incident Management Plan Outline	A
			Provide Incident Management Plan.	D
			Provide outline of Emergency Plan Outline (Operations).	A
			Provide Emergency Plan (Operations).	D
			Describe procedures setting out how Developer will respond to Incidents on the Facility.	D
			Describe procedures to establish protocols with emergency services and others in case of Emergencies.	D
3. Comprehensive Environmental Protection Program				
	3.1	**Organization**	Describe Developer's main contractual arrangements.	A
			Describe organizational structure covering the activities to be performed in accordance with the FCA Documents.	A

Part	Ref	Section	Contents	Required by [a]
			Provide outline of Environmental Contact Tree outline or flowchart showing reporting relationships as further described in Section 4 of the Technical Requirements.	A
	3.2	**Procurement**	Describe arrangements for coordinating and managing staff interaction with Independent Engineer and/or TxDOT and its consultants, including collocation if applicable	A
			Provide names and contact details, titles, job roles and specific experience required for Developer's Key Personnel and titles, job roles and specific experience required for Developer's Specified Personnel.	A
			Describe procedures and schedule for implementation of Environmental Protection Training Program for all employees and Contractors in accordance with Section 4 of the Technical Requirements.	A
			Describe procedures for overall control procedures for Contractors, consultants and subconsultants.	A
			Describe responsibility of Contractors and affiliates.	A
	3.3	**Environmental Plans**	Provide outline of Environmental Compliance and Mitigation Plan.	A
			Provide Environmental Compliance and Mitigation Plan.	B
			Provide outline of Environmental Protection Training Program	A
			Provide Environmental Protection Training Program.	B
			Provide Hazardous Materials Management Plan.	B
			Provide outline of Construction Monitoring Plan.	B
			Provide Construction Monitoring Plan.	C
			Provide Recycling Plan.	B
	3.4	**Quality Control**	Describe procedures to ensure accuracy, completion, and quality in submittals to TxDOT and other governmental agencies.	A
			Describe procedures to establish and encourage continuous improvement.	A
	3.5	**Audit**	Provide name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority.	B

Part	Ref	Section	Contents	Required by[a]
	3.6	**Document Management**	Describe the manner in which records will be maintained including any specific systems Developer will use.	A
			Describe procedures for Environmental Management System.	B
			Identify environmental documentation and reporting requirements	A
4. Public Information and Communications Plan				
	4.1	**Organization**	Describe Developer's main contractual arrangements.	A
			Describe organizational structure covering the activities to be performed in accordance with the FCA Documents.	A
	4.2	**Procurement**	Provide description of Developer's resources necessary to apply to each principal activity.	A
			Descrube arrangements for coordinating and managing staff interaction with Key Personnel, TxDOT and its consultants, including collocation if applicable	A
			Provide names and contact details, titles, job roles and specific experience required for Key Personnel and titles, job roles and specific experience required for other Specified Personnel.	A
			Describe procedures for implementation of Public Information and Communications Plan in accordance with Section 3 of the Technical Requirements for all employees and Contractors.	A
			Describe procedures for procurement of services, materials and products including methods to ensure best value.	A
			Describe overall control procedures for Contractors, consultants and subconsultants.	A
			Describe responsibility of Contractors and Affiliates.	A
			Describe steps taken to ensure Contractors and suppliers meet the obligations imposed by their respective contracts.	A
	4.3	**Interfaces**	Describe procedures for liaison with the public, the media and other Customer Groups in accordance with Section 3 of the Technical Requirements and the press media policy of TxDOT.	A

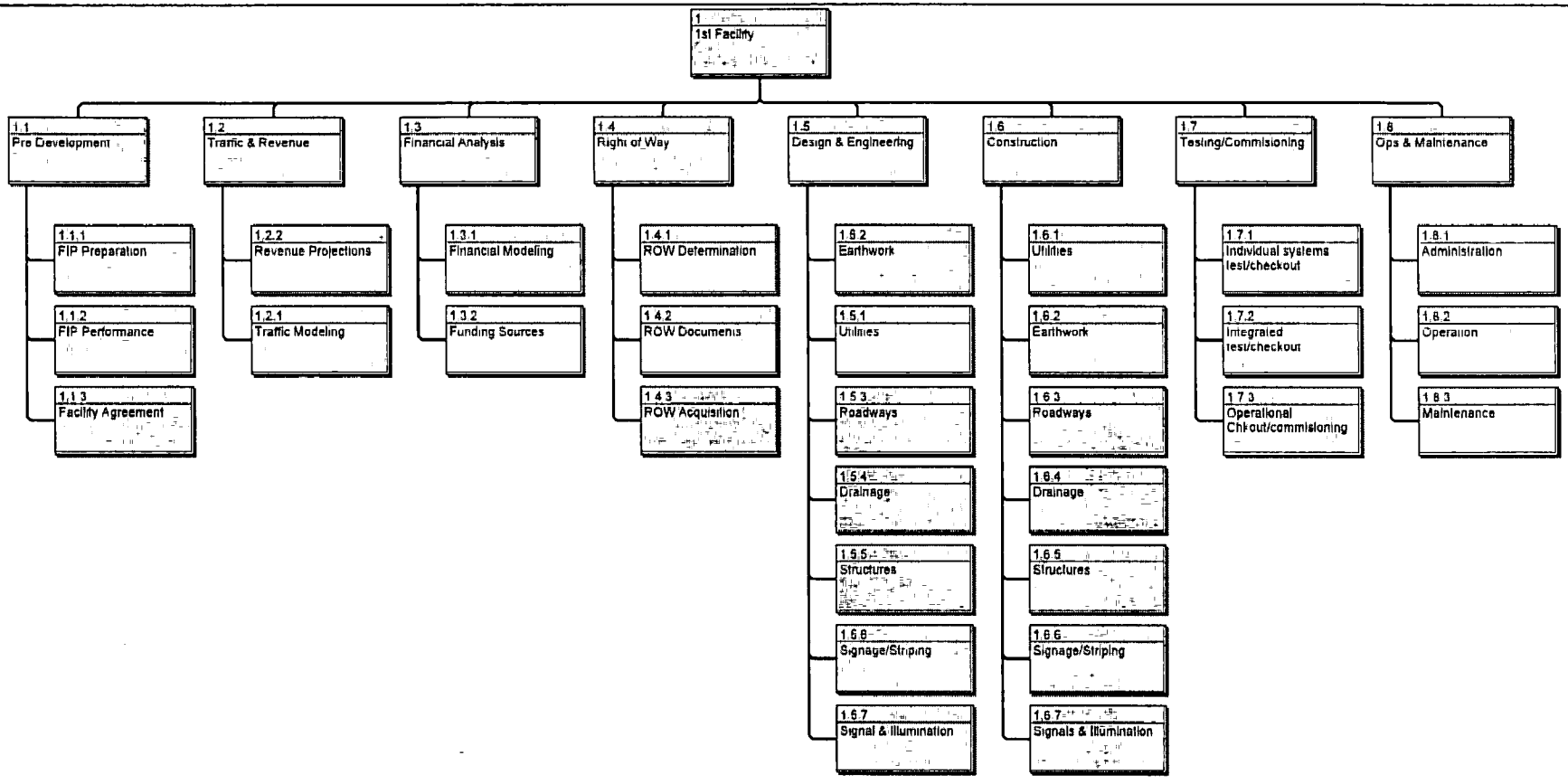
Part	Ref	Section	Contents	Required by [a]
			Procedures to coordinate with Facility stakeholders such as municipalities, counties, MPOs, RMAs and other Customer Groups.	A
			Describe arrangements for consultation with and taking due account of the views of competent authorities and interested/ affected parties	A
	4.4	**Procedures**	Describe procedures describing how the principal activities will be performed.	A
	4.5	**Quality Control**	Provide brief description of Developer's resources necessary to apply each principal activity.	A
			Describe procedures to ensure accuracy, completion, and quality in submittals to TxDOT, governmental agencies and Customer Groups.	A
			Describe procedures to establish and encourage continuous improvement.	A
	4.6	**Audit**	Describe the roles of Developer's Quality Manager and Public Information Coordinator in establishing, maintaining, auditing and reporting on the FMP.	A
	4.7	**Corrective Action**	Describe corrective and preventive action reporting.	A
	4.8	**Document Management**	Describe manner in which records will be maintained in compliance with Section 2 of the Technical Requirements, including any specific systems Developer will use.	A
			Identify document management procedures in compliance with Section 2 of the Technical Requirements	A

Note to Table A1-4:

A = Approved by TxDOT prior to the Effective Date
B = Approved by TxDOT within 90 days after the Effective Date
C = Approved by TxDOT at least 90 days prior to Commencement of Construction
D = Approved by TxDOT at least 90 days prior to Service Commencement Date
E = Approved by TxDOT no later than 90 Days before the beginning of the second full calendar year after the Service Commencement Date

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 2 – Work Breakdown Structure (WBS)

Attachment 2 - WBS for Facilities



WBS Code
WBS Name

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 3 – Monthly, Quarterly and Annual Reporting Requirements

Attachment 3 – Monthly, Quarterly and Annual Reporting Requirements

This attachment shows the requirements for Developer's monthly, quarterly and annual reporting. Where the letter "T", "C" or "O" appears in the column of the table titled "Period" below, this signifies that the relevant item shall be reported:

T throughout the Term
C any design and construction activity during the Term
O after Service Commencement, during the Operating Period

1: Monthly Report			
Item	Requirement	Reference	Period
1	Facility Schedule Status Update Progress to the month end for all activities Actual start and actual finish dates of Work and percentage complete and days remaining for activities in progress. Updated progress to the month end and forecast finish for in-progress activities	Section 2.3 of the Technical Requirements	C
2	Progress For each division of Work within the WBS a narrative of current progress to accompany the Facility Schedule Status Update, the reasons for any slippage during the month and remedial actions proposed by Developer. Summary of any Relief Event Notice and/or Relief Request submitted during the month.	Section 2.3 of the Technical Requirements and Section 13.1 of the Agreement	C
3	Meetings and Correspondence Summary and outcomes of all meetings with: • Public Liaison • Customer Groups • Media • Governmental Entities • Other organizations having jurisdiction over Facility Important correspondence or coordination with any of the above during the month.	Section 3 of the Technical Requirements	T
4	Submittals A cumulative list of Submittals and resubmittals to TxDOT including those made during the month and, where applicable, the review, comment and/or approval status of every Submittal and resubmittal, including separate identification of any Submittal requiring TxDOT approval and the date by which such approval is required	Article 6 of the Agreement Section 6.3.2	T

1: Monthly Report			
Item	Requirement	Reference	Period
	Rolling work plan containing a description and schedule of Submittals Developer intends to make within the next 180 days, including the estimated dates of submittal in a time range no broader than weekly.	of the Agreement	
5	Tests and Verifications Results of tests and verifications undertaken during the month Schedule of planned tests and verifications to be conducted, covering at least the next two month period and shall describe the nature, date, time and location of each planned test and verification.	Section 9.3.4 of the Agreement	T
6	ROW Acquisition Monthly status reports of all parcels and activities related to Facility ROW, acquisition and disposition of Additional Properties and acquisition and disposition of temporary easements or other property interests.	Section 7.2.10 of the Technical Requirements	C
7	Environmental Status of the Work as it relates to the Environmental Approvals Any violations of Environmental Approvals CPA compliance report for air quality during the ozone season between May 1 and September 30.	Section 4.1 of the Technical Requirements (Table 4.1) Section 4.5 of the Technical Requirements	T
8	Facility Management Plan Any intended amendments to the FMP including any submitted during the month for TxDOT approval. Developer progress towards 3rd party certification of its Facility Management Plan	Section 9.1 of the Agreement Section 9.1 7 of the Agreement	T
9	Statement of Contracts and Personnel List of all Contracts and Contractors, guarantees of Key Contracts and guarantors, any changes in Contractors and any potential Contractors identified to TxDOT during the month including phones, pagers and email addresses. List of all Key Personnel and any changes in Key Personnel advised to TxDOT during the month.	Section 10.1 of the Agreement Section 10.4 of the Agreement	T

1. Monthly Report			
Item	Requirement	Reference	Period
10	Audit and Corrective Action Summary of all audits of Developer's compliance with the FMP during the month by Developer, the Independent Engineer and TxDOT identifying all non-conformities identified, corrective actions proposed and dates by which Developer shall complete any corrective actions.	Section 2 of the Technical Requirements	T
11	Noncompliance Points and Default List of assessed Noncompliance Points during the month; a record of the number of uncured points at the end of the month; the number of points assessed in the preceding 12 months and 36 months. List of Developer Defaults during the month, a record of the number of uncured Developer Defaults; the number of Developer Defaults in the preceding 12 months and 36 months For any uncured Developer Default a summary of the actions proposed by Developer and schedule for implementation.	Article 18 and Exhibit 20 of the Agreement Article 17 of the Agreement	T
12	Potential Disagreements Summary of any occurrence during the month where Developer disagrees with any decision, action or instruction by TxDOT or any report or recommendation of the Independent Engineer or any other party having jurisdiction over the Work.	Article 17 of the Agreement	T
13	Vehicle Flow and Speed Measurement Hourly Flows Hourly Speeds	Exhibit 18 of the Agreement	O
14	Toll Revenues Toll Revenues received during the month including Incidental charges, amounts becoming due to TxDOT under revenue sharing formula and transaction fees.	Article 5 of the Agreement Exhibits 7 and 14 of the Agreement	O
15	Facility Traffic Management The location and duration of any Lane Closures during the month and anticipated closures for the following 2 months		O

1: Monthly Report			
Item	Requirement	Reference	Period
16	Related Transportation Facility Traffic Management The location and duration of any lane closures during the month and anticipated closures for the following 2 months		C
17	Incidents and Emergencies A summary report of all Incidents and Emergencies on the Facility during such month, including: i. A categorization of all such Incidents and Emergencies· ii. By Auditable Section of the Facility. iii. By type of Incident (e.g. environmental occurrence, accident type) and Emergencies.	Section 22 of the Technical Requirements	O
18	Asset Condition Score Summary of current asset condition and details of physical defects identified within the Facility (details obtained from the Condition Reports)	Section 22 of the Technical Requirements	O
19	Complaints A summary of complaints and service requests from Users received by the Developer and status of Developer responses.	Section 3.3 of the Technical Requirements	O
20	Press and Media A summary of all press coverage associated with the Facility.		T
21	Training Record A summary of all training activities performed including attendance at Environmental Protection Training Program (EPTP) training sessions.	Section 4.5.3 of the Technical Requirements	T
22	Safety Compliance Status of all Safety Compliance Orders issued, including Developer's progress to implement any Safety Compliance Orders.	Section 12.4 of the Agreement	T
23	Health and Safety at Work Record of all incidents during the month resulting in injury to any person during performance of the Work.		T

2: Quarterly Report			
Ref	Requirement	Reference	Period
1	Executive Summary		T
2	Facility Activity Status • Design Status • Environmental Status • ROW Status • Utility Status • Construction Status • Tests and Verifications		C
3	Facility Status Schedule Update • Major milestones accomplished		C
4	Toll System Management Report • Traffic and revenue quarterly totals. • Transaction fees. • Status of Noncompliance Points. • Statistics on road traffic accidents. • Significant Work carried out on the Facility. • Significant congestion incidents, with reasons. • Upcoming O&M activities.	Section 19 of the Technical Requirements Exhibit 14 of the Agreement	O

3: Annual Report			
Ref	Requirement	Reference	Period
1	Facility Status Schedule Update Summary of schedule status over 12-month period. High-level schedule with narrative of key events giving rise to any delay.		C
2	Annual Summaries A summary for each month of the information required for the monthly report, with appropriate totals for the Calendar Year.		T
3	Monthly Report Corrections A statement showing any adjustments to the Monthly Reports.		T
4	Capacity Improvement Status Hourly Flows and Hourly Speeds plotted relative to trigger points under Exhibit 18.		O
5	Renewal Work Annual Report Description by location, component, system and	Section 8.5 of the Agreement	O

3: Annual Report			
Ref.	**Requirement**	**Reference**	**Period**
	subsystem as listed in the Renewal Work Schedule of the type of work performed, the dates of commencement and completion and the cost, as well as the total cost of all Renewal Work performed during the calendar year and other financial information, including draw-down of Renewal Work Reserve funds.		
6	Toll Report Suite of automatic audit reports covering all Toll Revenue collection activities.	Section 17 of the Technical Requirements	O
7	Annual Storm Water Management Report Report for each Facility segment to include records confirming compliance with all required monitoring, both dry weather and wet weather screening, any illicit discharges and their resolution, and any other storm water related activities that were conducted.		C
8	Annual Recycling Report Report summarizing the results of the Developer's recycling program, including the type and volume of materials that were recycled, the type and volume of materials that were re-used, and the type and volume of green products purchased for construction, maintenance and office use.		T
9	Annual Universal Waste Report Report summarizing the type and volume of universal waste materials that were disposed of and/or recycled during the previous Calendar Year.		T
10	Lane Closures Lane closures and detours on the Facility and Related Transportation Facilities performed during the previous Calendar Year and planned for the current Calendar Year.		T

SLR 105

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STATE OF TEXAS
RECORDS RETENTION SCHEDULE

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2. Agency Code 601

3. Agency TEXAS DEPARTMENT OF TRANSPORTATION

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7. RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
	43	**FINANCE DIVISION**								
	43ACM	**ACCOUNTING MANAGEMENT**								
4.3.	43ACM01	Journals. Monthly Clearing, Daily/monthly receipts, transaction journals	FE+3		FE+3	O		O	X	For financial records and reports: Medium O = (Financial Information System (FIMS) records on mainframe and tape), and paper records, which may be scanned to electronic for retention.
4.3.003	43ACM02	Paid Voucher Register: FIM.VPP.1102.	FE+3		FE+3	O		E	X	
4.4.001	43ACM03	General Ledger. FIM.GEN.0501.	FE+10		FE+10	O		E	X	Retained for research purposes
4.4.	43ACM04	Special Ledgers: Active and inactive research, and special projects/subjects ledgers (i.e. construction, maintenance, facility, public transportation, traffic safety project ledgers).	FE+3		FE+3	O		E		Refer to the Finance Division Intranet page for detailed listings of FIMS records
4.5.002	43ACM05	Segment-General Ledger Comparison	FE+3		FE+3	O		O		Medium O = Paper, electronic
4.5.002	43ACM06	Internal Fiscal Management Reports: Daily/Monthly Cash receipts, revenue earned/not collected, exception, expenditure and expenditure authorizations and summaries, closed detail, clearing receipts, cash, fund equity balance, expenditure-obligation, retainage, vouchers payable, fund analyses, obligations, liabilities, projects finaled, fund sources, equipment cost, etc	FE+3		FE+3	O		E		Refer to the Finance Division Intranet page for detailed listings of daily, monthly and on-demand FIMS reports

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc.	LA – Life of Asset	P - Paper	A - Transfer to State Archives	O - Open Record
AV - As long as administratively valuable	MO– Months	M - Microfilm	I - Retain in Agency	C - Confidential
CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
		O - Other (Specify in Field 12		Indicate with an "X"

SLR 105

(ELECTRONIC FACSIMILE)

STATE OF TEXAS

RECORDS RETENTION SCHEDULE

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4 Records Series Item Number	5 Agency Item Number	6 RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11 VIT	12. REMARKS
4.5.002	43ACM07	Internal Fiscal Management Reports: Year-end cumulative reports: Construction annual expenditures, obligations, finals, and analyses by various categories, maintenance and facility projects annual expenditures by county, statewide function summary, routine maintenance state summary by class of highway, expenditures on a modified accrual basis, Texas Highways financial summary, etc.	FE+10		FE+10	O		E		Refer to the Finance Division Intranet page for detailed listings of annual FIMS reports (Presume FIN still retaining annual cumulative reports for 10 years)
4.5.002	43ACM08	Internal Fiscal Management Reports. Cost center responsibility report.	FE+5		FE+5	O		O		Medium O = Paper, electronic.
1.1.002	43ACM09	Detail Cost Center Audit Report	AC	7	AC+7	O		O	X	AC = May be managed on CE, FE, or as completed basis. Medium O = Paper, electronic. SRC Access # 97-601-050
4.5.003	43ACM10	TxDOT Annual Financial Report. 100 Day Report	AC+6		AC+6	O	A	O		AC= September 1 of odd-numbered calendar years. Archival requirement met by sending required copies to the Texas State Publications Depository Program.
4.6.002	43ACM11	General Ledger Reconciliations	FE+3		FE+3	O		O		Medium O = Paper, electronic.
4.6.002	43ACM12	Reconciliations: Travel advance, treasury cash.	FE+3	2	FE+5	O		O		Medium O = Paper, electronic. SRC Access #90-601-004.
4.7.007	43ACM13	Detail Chart of Accounts: Chart of Detail Accounts for all accounts used in a fiscal year.	FE+3		FE+3	O		O		Medium O = Paper, electronic
4.2.005	43ACM14	Segment 26 Purchase Orders	FE+3		FE+3	O		O		Medium O = Paper, electronic

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc.	LA – Life of Asset	P - Paper	A - Transfer to State Archives	O - Open Record
AV - As long as administratively valuable	MO– Months	M - Microfilm	I - Retain in Agency	C - Confidential
CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
		O - Other (Specify in Field 12		Indicate with an "X"

SLR 105

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STATE OF TEXAS

RECORDS RETENTION SCHEDULE

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7. RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
4.2.006	43ACM15	Vouchers: General Journal Vouchers, Expenditure Transfer Vouchers used to input cost data into FIMS.	FE+3		FE+3	O		O		Medium O = Paper, electronic. Offices inputting adjustment vouchers may retain record copy of support documentation that is not included with records scanned by Finance Division for retention.
4.1.004	43ACM16	Encumbrance Detail	FE+3		FE+3	O		O		Medium O = Paper, electronic.
	43ADI	**DIVISION ADMINISTRATION**								
5.2	43ADI02	Fixed Asset Inventory	FE+3		FE+3	O		O		Medium O = Paper, electronic.
4.7.	43ADI03	Financial Management System Tapes. End-of-month and end-of-year structured tapes; end-of-month unstructured tapes.		10	10	O		E	X	
	43CCP	**CLAIMS MANAGEMENT -- CONTRACT PAYMENTS**								
4.3.	43CCP01	Journals. Retainage Liabilities-monthly detail transactions, transaction journal A/R outside fund sources, and transaction journal A/R.	FE+3		FE+3	O		E	X	Refer to the Finance Division Intranet page for detailed listings of FIMS reports
4.1.002	43CCP02	Billing Detail: A/R Outside fund sources UMTA billing detail by project, UMTA Section XX grants, federal billing detail	FE+3		FE+3	O		E	X	UMTA Section XX Grants and Federal billing detail records vital.
4.2	43CCP03	Monthly Financial Report/Public Voucher for Work Performed Under Provisions	FE+3		FE+3	O		O		Medium O = Paper, electronic. Refer to the Finance Division Intranet page for detailed listings of FIMS reports
4.3.	43CCP04	Transaction Journal List of Funds in Trust Accounts: REC 8201	FE+3		FE+3	O		E		

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc	LA – Life of Asset	P - Paper	A - Transfer to State Archives	O - Open Record
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CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
		O - Other (Specify in Field 12		Indicate with an "X"

SLR 105

(ELECTRONIC FACSIMILE)

STATE OF TEXAS
RECORDS RETENTION SCHEDULE

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4.5.002	43CCP05	Retainage Status Report: LTY 6701	FE+3		FE+3	O		E		
4.5.002	43CCP06	Internal Fiscal Management Reports: Federal Billing Detail Summaries: Listing of project summary tape, summary totals by appropriation number, and segment 3 and 6 projects removed from file at end of month/year, reimbursement reports, list of accounts on file.	FE+3		FE+3	O		O	X	Medium O = Paper, electronic. Refer to the Finance Division Intranet page for detailed listings of FIMS reports
4.7.	43CCP07	Construction Project File Folders. Estimates, fund authorizations, retainage agreements, etc. (Number 6 and 8 folders for construction projects).	AC	4	AC+4	O		O	X	AC = Project closeout. Medium O = Paper, electronic. Stored according to retention for construction project records described in DEC03 or DEC04
4.7	43CCP08	HPR (Highway Planning and Research) Project Folders: (Number 6 and 8 folders)	AC	4	AC+4	O		O	X	Vital while active. AC = Project completion. Medium O = Paper, electronic
4.7.005	43CCP09	Damage Claims: Written off and finaled with authorization to close	4		4	O		O	X	Medium O = Paper, electronic
4.7.	43CCP10	Damage Claim Write-offs	AC	4	AC+4	O		O		Medium O = Paper, electronic SRC Access # 97-601-051. AC = Claim write-off.
	43CEP	**CLAIMS MANAGEMENT – EMPLOYEE PAYMENTS**								
4.3.003	43CEP01	Payroll Salary and Labor Registers and Reports	10		10	O		O	X	Medium O = Prior to 9/1996 on microfiche. After 9/1996 electronic. Retained for legal/legislative reference.
4.5.002	43CEP02	Lump Sum Listings: Special lump sum payments	FE+3		FE+3	O		O		Medium O = Paper, electronic. Record not subject to audit.

RETENTION CODES (For Field 7)	MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc. AV - As long as administratively valuable CE – Calendar Year End FE – Fiscal Year End LA – Life of Asset MO– Months PM – Permanent US – Until Superseded	P - Paper M - Microfilm C - Computer Printout E - Electronic O - Other (Specify in Field 12	A - Transfer to State Archives I - Retain in Agency R - Review by State Archives O - Other (Specify in Field 12)	O - Open Record C - Confidential VITAL RECORD (For Field 11) Indicate with an "X"

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3.2.002	43CEP03	Quarterly Earnings Reports	FE+4		FE+4	O		O	X	40 TAC §815.6(1). Medium O = Paper, electronic
3.2.003	43CEP04	W-2 Listings: Yearly earnings reports	10		10	O		O	X	Medium O = Paper, electronic Retained for reference. Do not destroy until reviewed by Payroll Section
4.5.002	43CEP05	Deferred Compensation Listings: Report of employee contributions.	AC+4		AC+4	O		O	X	AC = Account fully distributed. Files reviewed annually and are not to be destroyed until reviewed by Payroll Section. Medium O = Paper, electronic
4.5.002	43CEP06	Withholding/FICA Reports	US+4		US+4	O		O	X	Medium O = Paper, electronic
3 2 001	43CEP07	Payroll Deduction Authorizations: Levy Authorizations and Releases	AC+4		AC+4	O		O	X	AC = After termination of employee or after amendment, expiration or termination of authorization, whichever is sooner Employee Retirement System office of record for authorizations for retirement service purchase. Medium O = Paper, electronic
4.5.002	43CEP08	Status of Cash Advances. List of funds in trust accounts to be removed from file. FIM. REC 8501	FE+3		FE+3	O		E		
4.5.	43CEP09	Personnel Analysis Reports: Summarizing department workforce by various categories, i e , by funding activity, classification, etc.	AV		AV	O		O		Medium O = Paper, electronic
4 4 004	43CEP10	Savings Bonds: Bonds issued/deduction listing.	FE+3		FE+3	O		O	X	Medium O = Paper, electronic Do not destroy until reviewed by payroll section.
4.5.002	43CEP11	Group insurance/Texflex monthly reports and annual IRS deductions	FE+3		FE+3	O		O		Medium O = Paper, electronic
4.5.	43CEP12	Retirement Report: Employee salary history and retirement system contributions.	FE+1		FE+1	O		O		Medium O = Paper, electronic

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CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
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3.2.008	43CEP13	Direct Deposit Applications/Authorizations Power of Attorney documents.	US		US	O		O	X	US = Account changed/moved or authorization terminated by employee Medium O = Paper, electronic
4.7	43CEP14	Damage claims write-offs	4		4	O		O		Medium O = Paper, electronic
4.2.007	43CEP15	Payroll vouchers	FE+3		FE+3	O		O	X	Medium O = Paper, electronic
3.4.006	43CEP16	Employee time sheets for Austin headquarters divisions and offices.	FE+4		FE+4	O		O		40 TAC 815.6(1). Medium O = Paper, electronic Scanned monthly for retention. Hard copy shredded on acceptance of scanned image.
	43CVP	**CLAIMS MANAGEMENT -- VOUCHER PROCESSING**								
4.3.	43CVP01	Comptroller's Warrant Register.	FE+1	2	FE+3	O		O	X	Medium O = Paper, electronic SRC Access #92-601-012
4.5.002	43CVP02	Monthly Listing of Miscellaneous Receivables, FIM.REC.6301.	FE+3		FE+3	O		E	X	
4.2.001	43CVP03	Cash Vouchers Batch cover vouchers for travel expense reimbursement, purchases, services, special miscellaneous contracts, interagency transaction vouchers.	FE	3	FE+3	O		O	X	Medium O = Paper, electronic. Vouchers scanned after completion, with hard copy destroyed on acceptance of scanned image. Department offices to retain records related to vouchers that are not scanned.
4.3.003	43CVP04	Accounts Payable - Monthly Transaction Journal, FIM.LTY.5501.	FE+3		FE+3	O		E		
4.5.002	43CVP05	District Report of Active Accounts Payable, FIM.LTY.5601.	FE+3		FE+3	O		E		

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4.2.	43CVP06	Payment Documentation File: Records pertaining to the receipt, acceptance, and submission for payment of purchases, supporting documentation and other information which may not be in the Purchasing Section's paid-firm file.	FE	10	FE+10	O		O		Medium O = Paper, electronic Retained for legal reference. SRC Access # 97-601-052.
	43FBF	**FUNDS MANAGEMENT – BUDGET AND FORECASTING**								
1.1.004	43FBF01	Legislative Appropriation Requests: Including any supporting documentation created and/or used to justify and support legislative appropriations requests by an agency Only copies of supporting documentation submitted to the legislative budget board are archival.	AC+6		AC+6	O	A	O		AC = September 1 of odd-numbered calendar years. The archival requirement is met by sending the required copies of the requests to the Texas State Publications Depository Program, Texas State Library and Archives Commission Medium O = Paper, electronic.
4 5 002	43FBF02	Budget monitoring reports for agency. MIS BUD R22	FE+3		FE+3	O		E		
	43FRA	**FUNDS MANAGEMENT – REVENUE ACCOUNTING**								
4.2.	43FRA01	Accounts Receivable Records: Cash deposits, transmittal documentation, revenue accounting records/reports, direct deposit records, daily deposit transactions.	FE+3		FE+3	O		O	X	Medium O = Paper, electronic Refer to the Finance Division Intranet page for detailed listings of FIMS reports. SRC Access # 97-601-043.
	43FMS	**FUNDS MANAGEMENT SECTION**								

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4.7.010	43FMS01	Long-Term Liability Records: Statewide Infrastructure Bank (SIB) and other long-term project financing files: Records related to the review, decision, execution and management of SIB loans and other instruments related to the financing of transportation projects.	AC+3		AC+3	O		O	X	AC = Retirement of debt Medium O = Paper, electronic. Records may be electronically imaged. Hard copy destroyed.
4.7	43FMS02	Records related to unsuccessful applications for long-term financing of transportation projects.	FE+3		FE+3	O		O		Medium O = Paper, electronic. Records may be electronically imaged Hard copy destroyed

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4 Records Series Item Number	5 Agency Item Number	6 RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8 SEC	9 ARC	10 MED	11 VIT	12 REMARKS
	54CIV	**CIVIL RIGHTS OFFICE**								
1.1.065	54CIV01	Complaint and Grievance Tabulation. Database of internal department complaints and grievances information	AV		AV	C		E		
3.1.018	54CIV02	Complaint and Investigative Files: Documentation related to EEO, employee grievances, complaints and other investigative matters.	AC+2		AC+2	C		P	X	AC = Final decision on the grievance. CAUTION: Does not include formal complaints filed by an agency employee with the Equal Employment Office (EEO) of the U.S. Department of Labor. See item ADM43.
3.3.	54CIV03	EEO Policy: Correspondence and memoranda related to the department's EEO program, policy, procedures, and department EEO updates.	AC+3		AC+3	O		P	X	AC = Files may be managed on either CE or FE basis, Per 29 CFR 1602.32.
3 3 031	54CIV04	EEO Reports: EEO-4 Reports, quarterly EEO progress reports and related documentation.	AC+3		AC+3	O		P		AC = Files may be managed on either CE or FE basis, Per 29 CFR 1602 32
3 3 001	54CIV05	AAP Files: Documentation, plans, and reports related to the department's Affirmative Action Program for both regular employees and apprenticeship programs.	AC+5		AC+5	O		P		29 CFR 30.8(e) for apprenticeship plans. Files may be managed on CE, FE, or as completed basis.
3.3.031	54CIV06	EEO Compliance Reviews and Associated Voluntary Corrective Action Plans (VCAPs)	FE+3		FE+3	O		P		
3.3.031	54CIV07	Title VI Program Document	FE+3		FE+3	O		P		
3.3.031	54CIV08	Title VI Program Area Reviews	FE+3		FE+3	O		P		

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3 3 031	54CIV09	District Program Reviews	FE+3		FE+3	O		P		
3.3.031	54CIV10	Contractor Annual EEO Reports: PR-1392.	FE+5		FE+5	O		P		

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	55	**RIGHT OF WAY DIVISION**								
	55ACQ	**ROW ACQUISITION SECTION**								
5.2	55ACQ01	Active Right of Way Project Files for state, federal and local participating agency ROW acquisition, including authorizations, releases coordination review and approval of district project submissions, eminent domain proceedings, relocation assistance.	AC+4		AC+4	O		O	X	AC = Project closeout. Medium O = Paper, electronic. Paper documents may be scanned to electronic for retention. Hard copy destroyed, except for Deed, Judgment, Title Policy or Abstract files retained for the life of the asset in the Records Branch of the Resource Management Section (55REM01). NOTE: Project records must be retained for four years after the project is closed out. FHWA may audit the records at any time to verify that FHWA ROW acquisition requirements were met.
	55LEG	**LEGAL SECTION**								
1.1.	55LEG01	Road Utility District Files: Petitions, hearing records and copies of commission minute orders for creation of road utility districts.	AV		AV	O		O	X	Medium O = Paper, electronic
1.1.	55LEG02	Transportation Corporation Files: Correspondence and documentation for the creation of transportation corporations, applications, copies of minute orders, related reports.	AV		AV	O		O	X	Medium O = Paper, electronic
	55MSU	**MAP, SURVEY, UTILITY SECTION**								

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5 1 001	55MSU01	Utility Agreements: Agreements and related records pertaining to adjustment/ relocation/ accommodation/joint use of utility facilities on ROW projects. Records include local option utility agreements executed in districts.	AV		AV	O		O	X	AV = Agreements may be retained beyond minimum requirement of AC+4, (with AC = Completion, expiration, or termination of the instrument according to its terms) for engineering and legal reference. Medium O = Paper, electronic, microfilm. Records prior to 6/2000 on microfilm. After 6/2000 records scanned to electronic. Hard copy destroyed
5 2	55MSU02	Right of Way Maps: Working copies of ROW maps as projects are in acquisition Corrections with applicable support documentation received from districts throughout project life-cycle. Final Map produced by District at project close out Final ROW Map retained in Division's Permanent Files.	AC		AC	O		E		AC = Completion of ROW project. ROW Division is office of record for all TX DOT ROW Maps Corrections and documentation physically retained in Records Branch of Resource Management Section during project acquisition. Final ROW map retained with final project records per 55REM01.
	55PMT	**PROPERTY MANAGEMENT SECTION**								
5.2.	55PMT01	Non ROW Acquisitions. Records of acquisition of non-ROW real estate, including office/ building/warehouse sites, maintenance facility, dredge disposal sites. Contains deed, title issuance and abstract files.	LA		LA	O		O	X	Medium O = Paper, electronic. SEE 47FMS04 for building plan records and 47FMS06 for related records concerning state-owned buildings and sites.
5 1 001	55PMT02	ROW Leasing files	AC+4		AC+4	O		O	X	AC = Expiration or termination of the instrument according to its terms.

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
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5.2.	55PMT03	Records related to disposal of surplus ROW, real property sites and improvements and exchanges of ROW interests.	AC+4		AC+4	O		O	X	AC = Transaction closing Medium O = Paper, electronic. Selected records resulting from exchange transactions scanned and retained PM per 55RES01 and 02. SEE 44PMS04 and 07 for records related to improvements sold separately from the land
5 1 010	55PMT04	Outdoor Advertising License Files: Applications, related correspondence, surety bond information, fee accounting, district quarterly reports.	AV		AV	O		O	X	Retained minimum AC+5 (AC = Expiration or revocation of annual license.) Medium O = Paper, electronic Files may be imaged at irregular intervals Hard copy destroyed. Files retained for legal reference.
5.2.	55PMT05	Junkyard program records: Correspondence with districts and state and local legal entities related to program enforcement.	AV		AV	O		O		Retain records related to enforcement actions AC+3. (AC = Final decision of action or decision not to take action. SEE ADM43). Medium O = Paper, electronic.
	55REM	**RESOURCE MANAGEMENT SECTION**								
5.2.	55REM01	Final Right of Way project files containing: • ROW conveyances and judgements, • final ROW maps, • title insurance policies, and • other instruments pertaining to the State's title to land or interests therein.	LA		LA	O		O	X	Medium O = Microfilm, electronic, paper. Records microfilmed prior to 6/2000 After 6/2000 project records scanned to electronic. Retained for legal reference. Original conveyances and judgments, deed, title policies or abstract documents retained.

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	57	**ENVIRONMENTAL AFFAIRS DIVISION**								
	57ADI	**ADMINISTRATION**								
5.1.001	57ADI01	Memoranda of Understanding with Natural Resource Agencies	US+4		US+4	O		O	X	US = MOU reviewed, updated and adopted by rule, at a minimum, every fifth year. (43TAC§§2.22-25). Medium O = Paper, electronic.
5 1 001	57ADI02	Statewide Environmental Engineering and Scientific Services Contract Program: Records related to selection and award of contracts, technical oversight regarding administration of contracts and technical services to districts for individual consultant projects during the effective period of the contracts.	AC+4		AC+4	O		O	X	AC = Expiration or termination of the instrument according to its terms. Medium O = Paper, electronic. NOTE. Oversight responsibility and signature authority for work authorizations related to contracts for specific engineering or scientific purposes reside with Section (Cultural Resources, Natural Resources, etc) managers SEE 79CSO01 for office of record for original contracts and administration of work authorization agreements for projects by contracting consultants.
	57CRM	**CULTURAL RESOURCES MANAGEMENT SECTION**								
1.1.	57CRM01	Cultural Resources Records: Photographic records of archaeological projects, artifacts, field resources, notes, log books, coordination with other agencies, research materials, and publication files for reports.	AC		AC	C		O		AC = After completion, records and artifacts sent to curatorial facility as designated in Antiquities Permit. Cultural resource records confidential per 13TAC §24 13 Medium O = Photographs, slides, artifacts Photographic negatives retained in TxDOT under 57CMR02. SEE ADM18 for requirements related to state publications as applicable for published archaeological reports

RETENTION CODES (For Field 7)	MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc. AV - As long as administratively valuable CE – Calendar Year End FE – Fiscal Year End LA – Life of Asset MO– Months PM – Permanent US – Until Superseded	P - Paper M - Microfilm C - Computer Printout E - Electronic O - Other (Specify in Field 12	A - Transfer to State Archives I - Retain in Agency R - Review by State Archives O - Other (Specify in Field 12)	O - Open Record C - Confidential VITAL RECORD (For Field 11) Indicate with an "X"

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
1.1.	57CRM02	Cultural resources photographic negatives.	AV		AV	O	A	O		Medium O = Photographic negatives To be sent to State Archives when no longer of administrative value.
	57HMM	**HAZARDOUS MATERIALS MANAGEMENT SECTION**								
5.4	57HMM01	District facility environmental compliance surveys	3		3	O		O		Medium O = Paper, electronic.
5.4.	57HMM02	Records related to coordination of Notice of Registration of TxDOT facilities as hazardous waste generators with the TCEQ and EPA, generator status of TxDOT facilities,	3		3	O		O		Medium O = Paper, electronic. EPQ (Environmental Protection Agency); TCEQ (Texas Commission on Environmental Quality)
5.4.	57HMM03	Records related to petroleum storage tank release determinations, coordination with TCEQ and Environmental Affairs division for remediation and/or removals.	AC+5		AC+5	O		O		AC = Receipt of TCEQ closure letter in response to the certification of completion of corrective action requirements submitted by the owner or operator. Records related to the permanent removal of a UST to be retained at the site for as long as any UST remains in service at the facility, or for five years after the UST system is permanently removed from service, whichever is longer. (30TAC §334.55(f)). TCEQ may extend the records retention period during the course of any unresolved enforcement action regarding the regulated activity.
5.4.	57HMM04	Leaking petroleum storage tank cleanup program records.	AV		AV	O		O		AV = Maintain obsolete or superseded program records at least five years Medium O = Paper, electronic. SEE 57HMM03 and ENV09 for requirements for individual project records.

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AC - After closed, terminated, completed, expired, settled, etc.	LA – Life of Asset	P - Paper	A - Transfer to State Archives	O - Open Record
AV - As long as administratively valuable	MO– Months	M - Microfilm	I - Retain in Agency	C - Confidential
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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8 SEC	9 ARC	10 MED	11 VIT	12 REMARKS
	57PRO	**PROJECT MANAGEMENT SECTION**								
5.2.	57PRO01	Project Environmental: Files and exhibits related to site assessments, completion of environmental documents, required environmental permits, coordination/review with natural resource, historical or archaeological agencies, mitigation plans, * public involvement, or other documents necessary to obtain environmental clearance for individual construction or maintenance projects.	AC	15	AC+15	O		O		AC = Clearance of evaluation or re-evaluation by appropriate environmental resource agencies. Retain for use in subsequent projects. NOTE: Cultural resource records confidential per 13 TAC §24 *ALSO NOTE: Mitigation planning or implementation may be completed after the contract for the project is awarded. Medium O = Paper, printouts, roll maps, electronic SEE ADM13 for requirements related to raw data, analysis worksheets, etc.
5.4.	57PRO02	Environmental Studies: Analyses, studies, environmental reviews and recommendations related to transportation planning projects, including aviation, Gulf intracoastal waterway, public transportation or proposed turnpike projects.	AV		AV	O		O		AV = Resulting environmental documentation may be incorporated into individual project records retained by responsible office as described in 57PRO01 and ENV01 for districts
5.2	57PRO03	Environmental reviews of maintenance programs for coordination and review by state and federal environmental resource agencies to develop effective environmental protection measures for maintenance programs.	US+5		US+5	O		O		US = Environmental reviews are reviewed, revised as appropriate and re-coordinated with resource agencies at least every five years

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AV - As long as administratively valuable	MO– Months	M - Microfilm	I - Retain in Agency	C - Confidential
CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
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4 Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7.RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11 VIT	12. REMARKS
	58	**TRAFFIC OPERATIONS DIVISION**								
	58RRS	**RAILROAD SECTION**								
5 1 001	58RRS01	Railroad Agreements and exhibits pertaining to specific crossing projects, and railroad spur tracks crossing state highways. Records include master agreements for grade crossing replanking in place with each railroad company that receives new projects on a regular basis Master agreements are updated each year by adding an Exhibit L (List of Projects) to the original master agreement. (# 9 folders).	PM		PM	C		O	X	Medium O = Paper, microfilm, electronic. Folders retained PM in storage because of license, maintenance, and payment clauses in original agreement. Imaged (microfilm or electronic) copies for security backup. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC. SEE TRA03 and 04 for retention requirements for individual signal and illumination project records. SEE ALSO DMT09 for requirements for records related to sign and signal maintenance.
5.1.001	58RRS02	Project Specific Letter, Right of Entry and Survey Agreements and related records.	AC+4		AC+4	O		O	X	AC = Reimbursement to railroad company. Medium O = Paper, electronic.
5.2.	58RRS03	Railroad Crossing Inventory. TxDOT crossing inventory file.	AV		AV	O		O		AV = Database continuously updated. Medium O = Paper, electronic.
5.2.	58RRS04	Records related to annual Grade Crossing Replanking Program, including district requests, project ranking, selection and funding coordination with the Transportation Planning and Programming division.	FE+3		FE+3	C		O		Medium O = Paper, electronic Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC. SEE 58RRS06 for requirements for individual project records

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
5.2	58RRS05	Warning signal and device program management records related to the selection, prioritization and management of state and federally funded grade crossing and signal maintenance and upgrading programs and management.	FE+3		FE+3	C		O		Confidential safety information not subject to release under Title 23 USC §409 Refer requests for information to OGC Medium O = Paper, electronic. SEE 58RRS06 for requirements for individual project records
5.2.	58RRS06	Railroad crossing and signal project records: Division records related to management and coordination of grade crossing maintenance, replanking, signal installation and maintenance, grade separation and drainage structure projects with Districts Division, local governmental entities and railroad companies.	AC+4		AC+4	O		O		AC = Project completion in accordance with the terms of the agreement. Medium O = Paper, electronic. Railroad agreements retained per 58RRS01and58RRS02 NOTE: Records related to original highway construction projects retained with the project records in the district per the DEC series. District may retain layouts and wiring diagrams for reference per DEC07
	58TEN	**TRAFFIC ENGINEERING SECTION**								
5.4.	58TEN01	Category 4A-Hazard Elimination program project files (HES) of the Highway Safety Improvement Program (HSIP): Annual program call, district Safety Evaluation Report (SER) forms and supporting data, project analyses and selection, coordination of project PS&E with Design division, funding oversight.	AC	4	AC+4	C		P		AC = After project is included in annual report to FHWA.. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC Individual project records retained in districts per TRA01

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
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5.1.001	58TEN02	Traffic Engineering Agreement Files. Records related to the development, execution and management of traffic engineering agreements between TxDOT and other entities.	AC	4	AC+4	C		O	X	AC = Completion, expiration or termination of the agreement according to its terms. NOTE: Original signed agreements retained in district (TRA01) or Contract Services Office (87CON01), depending on the specific agreement., Medium O = Paper, microfilm, electronic.
5.2.	58TEN03	Traffic Engineering project records. Project PS&E plan review and coordination.	AV		AV	C		O		NOTE: Traffic Operations and Design divisions, as appropriate to the project, review project PS&E, but districts retain project records. (SEE TRA02 and 03). Confidential safety information not subject to release under Title 23 USC §409 Refer requests for information to OGC. Medium O = Paper, electronic.
5.4.	58TEN04	Speed zoning, coordination with districts and/or municipalities for Commission action, coordination with TCEQ on environmental speed limits.	US		US	O		O		US = Records supporting current speed zone. Periodic rechecks of all zones are desirable at intervals of about three to five years in urban areas and intervals of five to ten years in rural areas. Medium O = Paper, electronic.
5.4.	58TEN05	Original strip map file.	US		US	O		O	X	Medium O = Mylar, paper
5.2.	58TEN06	Traffic Engineering Standard Sheets	AV		AV	O		O	X	AV = Current version available electronically until superseded Previous versions may be retained for reference. Medium O = Paper, electronic SEE ADM18 for requirements related to state publications, as applicable.

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
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2.1.	58TEN07	TxDOT Accident Records Tapes	AV		AV	C		E		AV = Reports retained on system from three years to nine years, depending on the report. Refer oral requests for accident information to Texas Department of Public Safety. Refer written requests for accident information to TxDOT Office of General Counsel
	58RAD	**TRAFFIC MANAGEMENT SECTION -- RADIO OPERATIONS**								
5.1.	58RAD01	Records related to coordination with the FCC (Federal Communications Commission) for departmental base station licensees/operations	AV		AV	O		O		Individual base station operators retain original licenses minimum two years per DMT08.
5.3.	58RAD02	Radio Needs Surveys.	5		5	O		O		Medium O = Paper, electronic.
	58TRM	**TRAFFIC MANAGEMENT SECTION**								
5.2	58TRM01	Traffic Management Project Files: Documentation related to specific traffic management projects, reviews of district signal projects, review of coordination of PS&E.	AV		AV	O		O		AV = Districts are office of record for signal installation project records SEE TRA01 and 02 Medium O = Paper, electronic.
5.2.	58TRM02	Traffic Signal Authorization Request Form files.	AV		AV	O		O		Medium O = Paper, electronic
5.2.	58TRM03	Traffic signal specifications.	US		US	O		O		
	58TSS	**TRAFFIC SAFETY SECTION**								

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5.4.	58TSS01	Annual Highway Safety Plan (HSP) documentation related to development, Commission approval and coordination of annual HSP with federal authorities approval by FHWA, NHTSA, and TxDOT Commission. Annual approved project list for distribution to districts, annual performance plan submitted to NHTSA	AC+3	7	AC+10	O		O		AC = Approval by authorities These records are umbrella documents for annual safety grants. Medium O = Paper, electronic. FHWA = Federal Highway Administration, NHTSA = National Highway Traffic Safety Administration
5.1001.	58TSS02	Traffic Safety Project records: Grant Agreements, Contracts: Federal and State (FHWA 402(3+) and NHTSA 402(14+) project records as described in Chapter 5, Section 6 of the *Highway Traffic Safety* volume of the *Traffic Operations Manual* collection.	AC	4	AC+4	O		O	X	AC = Completion, expiration or termination of the agreement according to its terms or satisfaction of all Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments (the Common Rule), as applicable. Medium O = Paper, electronic.

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	86	**TEXAS TURNPIKE AUTHORITY DIVISION**								
	86ADI	**DIVISION ADMINISTRATION**								
5.2	86ADI01	Records related to Commission and/or department approval of certain phases of the development of turnpike projects, including feasibility studies, environmental reviews, Records of Decisions (RODs) and project approval	AC		AC	O		O		AC = Commission or department action, as applicable. Records to be retained with project records per 86CON01 or 86OPS01, as applicable Medium O = Paper, electronic.
5.2.	86ADI02	Transfer of Turnpike Projects: Records related to Commission and Governor's office approval for the transfer of all, or any portion of, a turnpike project by lease, sale, or other conveyance to certain entities.	AV		AV	O		O	X	AV = Records retained indefinitely after transfer, and reviewed at periodic intervals for further retention or destruction Medium O = Paper, electronic. Right of Way Division office of record for real property transactions and related records SEE 55PMT02 for leases and 55PMT03 for sales.
5.1.001	86ADI03	Conversion of Existing Public Highways. Agreements and records related to the conversion of existing public highways to turnpike projects and transferring responsibility for maintenance and operations to the TTA.	AC+4.		AC+4	O		O	X	AC = Life of the asset as TTA project per binding written agreement accepting the highway for maintenance and operation in good condition and repair while protecting and preserving the state's investment in the facility. Medium O = Paper, electronic.

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1.1.	86ADI04	Regional Authorities. Records related to the application to, approval by the Commission, establishment of, additions to, withdrawals from and dissolution of Regional Mobility Authorities (RMAs) and Regional Tollway Authorities (RTAs).	AC+4		AC+4	O		O	X	AC = Dissolution of Authority. Medium O = Paper, electronic.
1.1.	86ADI05	Private Toll Road Compliance Action Files: Records and documentation related to denying or severing connection to a portion of the state highway system	AC+3		AC+3	C		O		AC = Final decision on action to deny or sever connection, or correction of the deficiency. Medium O = Paper, electronic. SEE ALSO ADM42 and 79OGC01.
4.7.005	86ADI06	Contractor Claim and Dispute records.	AC	3	AC+3	C		P	X	AC = Final Resolution or settlement. Confidential while active. SEE ALSO 41AEO01 and 46CPM01 for offices of records for claims that advance to mediation. If litigation is filed, apply ADM43.
	86CON	**TURNPIKE CONSTRUCTION**								

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5.1.001	86CON01	Construction Project Files: Records related to department coordination review and approval of the planning, design and construction of toll road improvement projects on the state highway system, including RFPs, environmental documentation, specifications, project development agreements, and (for TTA projects) bids, bonds, payments, field change reviews, inspections and project management correspondence.	AC+4		AC+4	O		O	X	AC = Completion of the contract. Medium O = Paper, electronic. Refer to Bridge (88), Design (48), Construction (46) and Right of Way (55) division schedules for retention of records related to PS&E, design alternatives/exceptions, letting, bidder qualification, DBE/HUB, contractor management and real property. SEE 86FIN01 for requirements for records related to project financing. The authority may retain selected engineering or other project records per DEC07 (TTA projects), 86CON04 and relevant 86ROW items for projects developed by external entities that are added to state jurisdiction Record copy of final as-built plans retained by General Services Division per 44CPY01
5.2	86CON02	Facility Construction Project Files: Records related to TTA projects for the planning, design and construction of architectural facilities on toll road projects on the state highway system, including RFPs, environmental documentation, specifications, bids, bonds, payments, field change reviews, inspections and correspondence.	AC+10		AC+10	O		O	X	AC = Completion of the contract.. Medium O = Paper, electronic. Refer to Design (48), Construction (46) and Maintenance (47) division schedules for retention of records related to PS&E, letting, bidder qualification, DBE/HUB, contractor management and final plans/drawings of state-owned buildings.

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7. RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
5.1.001	86CON03	Maintenance and Operations Files. Records related to contracted toll road maintenance and operations, including RFPs, specifications, bids, bonds, payments, inspections, correspondence and audits.	AC+4		AC+4	O		O	X	AC = Completion expiration or termination of the contract according to its terms. Medium O = Paper, electronic. Refer to Bridge, Design and Construction schedules for retention of records related to bridge inspection, consultant contracting, letting, bidder qualification, DBE/HUB and contractor management.
5.2.	86CON04	Completed toll project files: Design data, surveys, construction plans, right of way maps, utility permits, and agreements with other entities relating to projects that become part of the state highway system.	AV		AV	O		O	X	Medium O = Paper, electronic SEE 44CPY01 for office of record for final as-built plans, and the Right of Way division (55) for office of record for utility agreements and final right of way project files.
	86FIN	**FINANCE AND ADMINISTRATION**								
4.7.010	86FIN01	Long Term Liability Records. Project Financing: Documentation and records related to the issuance and repayment of bonds, loans or other financial instruments related to the construction, maintenance or operation of toll facilities under state jurisdiction.	AC+4		AC+4	O		O	X	AC = Retirement of debt For grants), AC = Satisfaction of all Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments (the Common Rule). Turnpike Revenue Bonds shall mature at the time or times, not exceeding 40 years from their date or dates per Government Code § 366.111(b) (3). Medium O = Paper, electronic.

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc.	LA – Life of Asset	P - Paper	A - Transfer to State Archives	O - Open Record
AV - As long as administratively valuable	MO– Months	M - Microfilm	I - Retain in Agency	C - Confidential
CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
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STATE OF TEXAS
RECORDS RETENTION SCHEDULE

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5.1.010	86FIN02	Financial Assistance Agreement Files: Documentation and records related to the evaluation of requests for toll financing assistance, issuance and repayment of loans or issuance of grants for the construction, maintenance or operation of toll facilities not under state jurisdiction	AC+4		AC+4	O		O	X	AC = Retirement of debt. (NOTE: Per 43TAC §6.3(f) The term for repaying any financial assistance from the State Infrastructure Bank will not exceed 30 years after the date of the first payment). For grants, AC = Satisfaction of all Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments (the Common Rule). Records described in 43 TAC §27.55(b)(6) for facilities transferred to department jurisdiction retained per 86CON04 and relevant 86ROW items Medium O = Paper, electronic.
4.5.005	86FIN03	RMA Reports Department files of financial reports and information, including annual operating and capital budgets and detailed financial information and notices of material events relating to bonds, as well as provisions relating to project accounting and annual audits.	AC+4		AC+4	O		O		AC = Receipt of annual RMA audit reports. Medium O = Paper, electronic
4.7	86FIN04	Documentation related to requests to utilize surplus funds for transportation projects.	AC		AC	O		O		AC = Action on request. Medium O = Paper, electronic.
5.3.	86FIN05	Prequalification and Bidder Records: Statements, questionnaires and related correspondence.	AC+4		AC+4	O		O	X	AC = Expiration of period of qualification or denial of qualification Files may be managed on CE or FE basis for purposes of retention and storage. Medium O = Paper, electronic.

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5.1.001	86FIN06	Consultant Contract files: Records related to procurement, evaluation, selection and management of individual, multiple or emergency consultant contracts	AC+4		AC+4	O		O	X	AC = Completion, expiration, or termination of the instrument according to its terms. Medium O = Paper, electronic. SEE 78CON01 for office of record for retention of original contracts.
5.1.	86FIN07	Consultant contract work file that may be used by state or federal auditors during a financial or performance audit	AC		AC	O		O		AC = Completion of audit or determination that no audit is required. Medium O = Paper, electronic. SEE ALSO ADM33
1.1.	86FIN08	Consultant Qualification Files: Precertifications, questionnaires and other documentation related to consulting engineers, surveyors, etc. maintained in the Consultant Certification Information System (CCIS).	AV		AV	O		O		Medium O = Paper, electronic.
5.3.	86FIN09	Bid and letting records: Bid requisitions/authorizations, invitations to bid, bid specifications and bid tabulations/ evaluations, etc	FE+3		FE+3	O		O		NOTE: If a formal written contract is the result of a successful bid or request for proposal, the successful bid or request for proposal and its supporting documentation must be retained for the same period as the contract (AC+4) and should be integrated with the contract file Medium O = Paper, electronic.
	86OPS	**TOLL OPERATIONS**								
5.1.001	86OPS01	Project Operating Agreements: Records related to operating agreements between the department and RMAs governing the maintenance and operation of turnpike projects.	AC+4		AC+4	O		O	X	AC = Completion expiration or termination of the contract according to its terms. Medium O = Paper, electronic Refer to Bridge, Design and Construction schedules for retention of records related to bridge inspection, consultant contracting, letting, bidder qualification, DBE/HUB and contractor management.

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	86PLD	**TURNPIKE PLANNING AND DEVELOPMENT--PLANNING AND DESIGN**								
5.2.	86PLD01	Project proposal files: Records related to the evaluation of solicited (RFP) and unsolicited proposals and resulting competing proposals, if any, from private entities to acquire, design, finance, construct, maintain, operate, extend or expand turnpike projects.	AV		AV	O		O		Retain contracts and agreements related to successful proposals a minimum of AC+4 Files may include records related to TTA participation per 43 TAC §27.3(g). Medium O = Paper, electronic.
1 1 067	86PLD02	Planning and technical studies, toll revenue feasibility studies, engineering feasibility and environmental studies that either define the elements of a proposed project or identify alternatives.	AV		AV	O	R	O		Retain minimum 3 years. Medium O = Paper, electronic Records to be offered to State Archives when no longer of administrative value to the department Forward to TxDOT Records Management for handling.
5 2	86PLD03	Records related to early coordination with public agencies and public involvement in project development.	AC+4		AC+4	O		O		AC = Project completion. May be integrated with project design records (86PLD06) for retention. AC = Project completion. Medium O = Paper, electronic.
5.2.	86PDS04	Private Toll Roads: Records related to review and approval of projects to connect private toll roads to state highway facilities, including all documentation enumerated in 43 TAC §27.32-36	AC+4		AC+4	O		O	X	AC = Project completion. Medium O = Paper, electronic As-built plans retained per 44CPY01

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5.1.001	86PLD05	Exclusive Development Agreement (EDA) Files: All records including RFPs, proposal and proposer reviews/evaluations, and documentation related to the negotiation, execution and management of an EDA for the acquisition, design, financing, construction, maintenance, operation, extension or expansion of a turnpike project	AC+4		AC+4	O		O		AC = Completion, expiration or termination of agreement according to its terms. Medium O = Paper, electronic. Retain right of Way, planning, design, construction and operations records as described under appropriate sections in the Turnpike Authority Division schedule.
5.2.	86PLD06	Project design records, including preliminary design investigations, schematics, submission/review packages, environmental documentation, clearances, permits, agreements and documentation related to completion, review and acceptance of Plans, Specifications and Estimates (PS&E) for specific projects	AC		AC	O		O	X	AC = Approval of PS&E to by appropriate departmental divisions and FHWA. Project design files merged with construction project records (86CON01, 02) when project is let. Medium O = Paper, printouts, roll maps, electronic.
	86PNV	**TURNPIKE PLANNING AND DEVELOPMENT--MAJOR ENVIRONMENTAL**								
5.2	86PNV01	RMA Project Approval Records: Environmental reviews, financing plan and public involvement records for toll projects involving new construction and major improvements to existing toll facilities which do not meet the criteria for exclusion	AC+4		AC+4	O		O		AC = Project completion. Project environmental files merged with construction project records (86CON01, 02) when project is let. AC = Project completion. Medium O = Paper, electronic.

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5.2	86PNV02	Documentation related to determination that an authority project is eligible for exclusion from environmental review.	AC+4		AC+4	O		O		AC = Project completion. Retain with project file. AC = Project completion. Medium O = Paper, electronic
	86ROW	**TURNPIKE PLANNING AND DEVELOPMENT--ROW AND UTILITIES**								
5.2.	86ROW01	Right of Way Project Files for state, federal and local participating agency ROW acquisition for state-owned turnpikes, including pre-release planning correspondence, forms and schematics, project documentation submissions, appraisals, funding agreements, negotiations, agreements, project progress records/reports, eminent domain proceedings, administrative settlements, relocation assistance, payment processing, project/parcel cost records	AC+4		AC+4	O		O	X	AC = Acquisition project completion. Medium O = Paper, electronic Paper documents may be scanned to electronic for retention. NOTE: Records must be retained for four years after the project is closed out. FHWA may audit the records at any time to verify that FHWA ROW acquisition requirements were met. SEE 55REM01 for department record copy of final ROW Project files containing conveyance instruments.
5.2	86ROW02	Non ROW Acquisitions: Records related to TTA acquisition of non-ROW real estate, including office/ building/warehouse sites, maintenance facility, dredge disposal sites.	AC+4		AC+4	O		O	X	AC = Transaction closing. Medium O = Paper, electronic. SEE 55PMT01 for Acquisition file including deed, title issuance and abstract files.
5.1.001	86ROW03	TTA ROW Leasing files, including submissions to ROW Division, Leases, Lessees' insurance, lease management and payment records. Files may also include lease, contract and licensing agreements with vendors and service providers on TTA ROW.	AC+4		AC+4	O		O	X	AC = Expiration or termination of the instrument according to its terms. Medium O = Paper, electronic.

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5.1.001	86ROW04	Utility Agreements. Agreements and related records pertaining to adjustment/ relocation/ accommodation/joint use of utility facilities on TTA ROW projects	AC+4		AC+4	O		O	X	AC = Expiration or termination of the instrument according to its terms. Medium O = Paper, electronic. SEE ALSO 55MSU01 for TxDOT office of record for original executed utility agreements.
5.1.001	86ROW05	Temporary Easements: Records related to easements for a specified period of time acquired for parcels that are needed for construction purposes.	AC+4		AC+4	O		O	X	AC = Expiration or termination of the instrument according to its terms. (NOTE: Retention may be coordinated with overall construction or maintenance project records, with AC = Project completion) Medium O = Paper, electronic.
5.1.	86ROW06	Records related to disposal of surplus ROW, real property sites and improvements.	AC+4		AC+4	O		O		AC = Transaction closing Medium O = Paper, electronic. SEE 55PMT03. TTA may retain a duplicate file for convenience. SEE ALSO 44PMS04 and 07 for records related to improvements sold separately from the land

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	88	**BRIDGE DIVISION**								
	88ADM	**ADMINISTRATION**								
5.1.	88ADS01	Consultant Contract files: Records related to procurement, evaluation, selection, and management of consultant contracts for on- and off-system bridge design and bridge safety inspections.	AC+4		AC+4	O		O	X	AC = Completion, expiration, or termination of the instrument according to its terms, or until completion of audit or determination that no audit is required. Medium O = Paper, electronic. SEE 79CSO01 for office of record for retention of original contracts.
	88BDS	**BRIDGE DESIGN SECTION**								
5.2	88BDS01	Project files: Half-scale plans, design notes, geometric calculations, and records related to coordination with external agencies/offices of projects under construction.	AV		AV	C		O		AV = Working plans kept until projects are finaled. Geometric calculations discarded after project completion. Design notes for structural adequacy and accuracy of pay quantities for each bridge kept on file routinely for 2 years after construction of the bridge is completed. Medium O = Paper, electronic. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC. SEE 44CPY01 for retention information on final as-built plans and DEC03, 06 for project records retained by districts

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	88BPB	**PROJECT DEVELOPMENT SECTION - BRIDGE PROGRAMS**								
1.1	88BPB01	Bridge Funding Program records related to the Highway Bridge Replacement and Rehabilitation Program (HBRRP) and the Railroad Grade Separation Program development process for the Unified Transportation Program (UTP). Program calls, review and scoring of district proposals, and coordination with Transportation Planning and Programming division (TPP).	AC		AC	O		O		AC = Selection and funding by Commission during annual update of UTP. Districts retain records related to individual projects per DES01. Medium O = Paper, electronic. SEE ALSO 50PSH01.
4.7.	88BPB02	Cost estimate data related to on-system and off-system bridge and bridge-class culvert replacement based on costs for bridge work let to contract construction.	US/AV		US/AV	O		O		US/AV = Tables on intranet updated on FY basis. Superseded summary and tables may be retained for reference Medium O = Paper, electronic
	88BPM	**PROJECT DEVELOPMENT SECTION - PROJECT MANAGEMENT**								
5.2	88BPM01	Records related to gauging stations and other similar instrumentation attached to bridges.	LA		LA	O		O	X	LA = Expiration, termination or revision of the instrument according to its terms. Vital while active. (SEE DMT01 for Utility attachment records) Medium O = Paper, electronic.

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5.2.	88BPM04	Documentation related to review and approval of preliminary bridge and railroad overpass/underpass layouts, coordination with other divisions and external authorities for necessary agreements and permits, and bridge-related project information.	AV		AV	C		O		AV = Approved layouts returned to district. District documentation retained with district project design records retained per DEC03, 06, 07. Final as-built plans retained per 44CPY01. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC SEE 58RRS01 for railroad agreements. Medium O = Paper, electronic.
5.2.	88BPM05	Bridge Design Exceptions: Documentation related to the approval or denial of design exceptions, variances, and waivers.	PM		PM	O		O	X	Medium O = Original retained until project completion in office. Records prior to 2000 microfilmed After 2000 scanned to electronic media and added to online final plans (44CSS01). Hardcopy destroyed.
	88BPR	**PROJECT DEVELOPMENT SECTION - PROJECT MANAGEMENT – PLAN REVIEW**								
5.2.	88BPR01	Documentation related to review and approval of project PS&E (Plans, Specifications and Estimates) containing structural items.	AC+4		AC+4	C		O		AC = Project completion. Routinely keep for 4 years after construction. District documentation becomes part of project PS&E records retained by districts per DEC03, 06, 07 Final as-built plans retained under 44CSS01. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC. .Medium O = Paper, electronic

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	88BRI	**FIELD OPERATIONS SECTION - BRIDGE INSPECTION**								
5.4.003	88BRI01	Bridge Special Inspection Reports: Filed by the Bridge Division with one folder per bridge in categories of underwater inspection, fracture critical inspection, off-system bridges	LA+3		LA+3	C		P		Records to be maintained per National Bridge Inspection Standards. Districts maintain Routine Inspection Reports. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC.
5.4.	88BRI02	Bridge Inspection Database: maintained electronically on the mainframe	LA+5		LA+5	C		E		Records to be maintained per National Bridge Inspection Standards. Confidential safety information not subject to release under Title 23 USC §409. Refer requests for information to OGC.
3.4.006	88BRI03	Dive logs, memos, and timesheets to authorize hazardous duty pay for divers.	FE+4		FE+4	O		O		Medium O = Paper, electronic
	88CMT	**FIELD OPERATIONS SECTION – CONSTRUCTION/MAINTENANCE**								
5.4.	88CMT01	Bridge overload analysis notes.	AV		AV	O		O		Medium O = Paper, electronic.
3.1.	88CMT02	Copies of certificates for certified welders.	US		US	O		P		
	88TSG	**TECHNICAL SERVICES – GEOTECHNICAL**								
5.2	88TSG01	Bridge Project Drilled shaft (Form 1302) and Pile driving records (Form 168). (1b4b Folders).	LA		LA	O		O		Medium O = Original retained until project completion in office. Records prior to 2000 microfilmed. After 2000 scanned to electronic media and added to online final plans (44CSS01). Hardcopy destroyed.

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc.	LA – Life of Asset	P - Paper	A - Transfer to State Archives	O - Open Record
AV - As long as administratively valuable	MO– Months	M - Microfilm	I - Retain in Agency	C - Confidential
CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
		O - Other (Specify in Field 12		Indicate with an "X"

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8 SEC	9 ARC	10 MED	11 VIT	12 REMARKS
	88TSS	**TECHNICAL SERVICES – STANDARDS**								
5.2.	88TSS01	Statewide Standard Drawing File.	PM		PM	O		O		Medium O = Paper, electronic.

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
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	ADM	**ADMINISTRATIVE RECORDS**								
1.1.007	ADM01	Administrative Correspondence: Incoming/ outgoing and internal correspondence in any format pertaining to the formulation, planning, implementation, interpretation, modification or redefinition of the programs, services or projects of an agency and the administrative regulations, policies and procedures that govern them.	3		3	O	R	O	X	Medium O = Paper, electronic. ARCHIVES NOTE: Only the administrative correspondence of executive staff, board or commission members, district engineers, division directors and program heads require archival review. At end of retention, forward to General Services Division, Records Management, for State Archives review CAUTION: This record series and item ADM02 should be used only for correspondence that is not included in or directly related to another record series in this schedule. For example, a memorandum documenting an appropriations request must be retained for the minimum period prescribed by Agency Item Number ACC01; a letter concerning an audit for that prescribed by ADM33, etc. Item does not include routine construction project correspondence.. SEE ALSO item number ADM03. May be managed on AV, CE or FE basis
1.1.008	ADM02	General Correspondence and Memoranda in any media related to routine operations: Requests for information or services; interoffice memoranda, telephone reports, internal meeting notes, District/Division Announcements, etc.	1		1	O		O		Medium O = Paper, electronic. SEE Remarks to ADM01, above. SEE ALSO item number ADM04. May be managed on AV, CE or FE basis

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4 Records Series Item Number	5 Agency Item Number	6 RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11 VIT	12 REMARKS
1.1.011	ADM03	Executive Orders: Any document that initiates, rescinds, or amends a regulation, policy or procedure that governs the programs, services, or projects of an agency.	US+3		US+3	O	A	O	X	Medium O = Paper, electronic. Originating office responsible for related administrative correspondence. Agency archive retained under ADM15 by TxDOT Records Management. See also ADM16.
1.1.010	ADM04	Directives: Any document that officially initiates, rescinds, or amends general office procedures.	US+1		US+1	O		O		Medium O = Paper, electronic
5.1.	ADM05	Memoranda of Agreement/Understanding with other agencies/entities related to programs and operations of the agency and/or its subdivisions.	AC+4		AC+4	O		O		AC = Terminated, revised or superseded Medium O = Paper, electronic. Medium O = Paper, electronic.
1.1.006	ADM06	Complaint Files: Complaints received from the public concerning the agency and records pertaining to the resolution of the complaint.	AC+2		AC+2	O		O		AC = Final disposition of complaint. Individual offices are responsible for files related to their operations. CAUTION: If a complaint becomes the subject of litigation, it must be included in and is subject to the minimum retention period of item number ADM43 Medium O = Paper, electronic.
1.1.	ADM07	Public information (open records) requests made to the department (Approved and Exempted).	AC+2		AC+2	O		O		AC = Date request fulfilled or date of notification that records are exempt. Medium O = Paper, electronic.
1.1.069	ADM08	Operations Reports: Operations, activity and/or performance reports used for workload measures, time studies or funding; technical operations, production or service reports, objectives-related progress reports, etc.	1		1	O		O		Medium O = Paper, electronic May be managed on AC, CE or FE basis. CAUTION: SEE ADM12 and its cautionary note.

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7. RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
1.1.067	ADM09	Reports and Studies (Non-Fiscal): Annual, sub-annual, or special reports or studies on non-fiscal aspects of TxDOT programs, services or projects, compiled by agency personnel, by advisory committees, or by consultants under contract that are not noted elsewhere in this schedule. Includes reports distributed either internally or to other entities	3		3	O	R	O		Medium O = Paper, electronic Retain raw data and working papers only as long as administratively valuable. Records to be offered to State Archives when retention has been met. Forward to TxDOT Records Management for handling
1.1.066	ADM10	Biennial or annual narrative reports to the governor and legislature as required by the agency's enabling statutes, including annual narrative reports, if they are required by statute.	AC+6		AC+6	O	A	O		AC= September 1 of odd-numbered calendar years. ARCHIVES NOTE. Archival requirement met by sending required copies to the Texas State Publications Depository Program SEE 43ACM13 for responsible office for agency annual financial report. Medium O = Paper, electronic.
1.1.068	ADM11	Reports on Performance Measures: Quarterly and annual reports on agency performance measures submitted to the executive and legislative budget offices Item includes reports which may be produced by individual districts, divisions, or offices, or for specific programs or projects.	AC+6		AC+6	O		O		AC = September 1 of odd-numbered calendar years Medium O = Paper, electronic.

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1 1 064	ADM12	Performance Measures Documentation: Any records needed for the documentation of output, outcome, efficiency, and explanatory measures in the agency (and/or its subdivisions) appropriations request or strategic plan, and for performance measures used to manage the agency.	FE+3		FE+3	O		O	X	Medium O = Paper, electronic. CAUTION: The FE+3 retention period overrides any shorter retention period for a records series in this schedule if the records series is needed for documentation of agency performance measures.
1 1 065	ADM13	Working papers for non-fiscal reports and studies: surveys, raw data, notes, calculations, etc. for technical/program and/or project operations, photographic, video, publications resource and working files	AV		AV	O		O	X	Medium O = Records may be in paper, electronic, photographic, microfilm or video media. Some records may be designated vital by offices. Materials not used in final reports may be purged. CAUTION: Does not include source documentation used for information or data included in or directly related to another records series in this schedule. See Remarks for item number ADM12, above.
1.1.023	ADM14	Organization Charts - originals	US		US	O	A	O		Medium O = Electronic, paper
1.1.	ADM15	History Files: Records related to the history of the agency and its subdivisions.	AV		AV	O	R	O		Medium O = Paper, microfilm, electronic, photographs, audio, video. R = Records to be offered to State Archives if ever determined to be of no further value to TxDOT

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1.1.070	ADM16	Agency Rules, Policies, and Procedures -- Final. Manuals, guidelines, administrative rules or similar records distributed internally for the use of employees or externally to the public or those individuals or entities regulated by an agency that sets out rules, policies, and procedures that govern an agency's programs, services, or projects	AC+3		AC+3	O	R	O	X	AC = Completion or termination of program, rules, policies or procedures. Medium O = Paper, electronic. SEE ADM 18 for retention requirements related to manuals made available to the public as state publications SEE ADM17 for retention requirements related to internal office procedures. Working files retained in specific offices responsible for individual manuals of parts of manuals subject to same requirement. SEE ALSO ADM01, ADM03 and ADM51.
5.1.014	ADM17	Office Procedures: Any internally distributed manual, guidelines, or similar records that establish standard office procedures.	US+1		US+1	O		O		Medium O = Paper, electronic.

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1 3 001	ADM18	State Publications: One copy of each state publication, (as defined in the *Communications Manual, Printing and Document Services Volume*, Chapter 6), except a publication that is subject to a different retention period in this schedule. For example News Releases (ADM39 and 76PIO01), meet the definition of a state publication, but require only a 2 year retention; Meeting Agendas and Minutes (ADM22 and 41AEO02,), also meet the definition but must be retained permanently; the reports described in (ADM10 and ADM11), the Legislative Appropriations Request (43ADI01), and the Annual Financial Report (43ACM13) which also meet the definition are closely associated with the appropriations process and are retained AC+6.	AC+2		AC+2	O		O		AC = Until superseded or obsolete. Medium O = Paper, electronic. CAUTION: Many state publications must be submitted to the Texas State Publications Depository Program by law (Government Code §441.101), to be retained by the State Library submitted to it on a continuing basis subject to periodic evaluation to determine if the publication merits further retention. NOTE: Publications on the Internet must remain accessible on the Internet for two years after they are released or last modified. For deposit information, procedures and requirements see Chapter 8 of the *Printing and Document Services Volume, Communications Manual.*
1 3 002	ADM19	Publications Development Files: Background material, copy (drafts), original artwork, photo negatives, prints, flats, etc. This includes all work performed both inside and outside the agency	AV		AV	O	R	O		Medium O = Paper, electronic, photographic, audio/video materials. Send to General Services Division, Records Management for State Archives review when no longer of administrative value.

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1.3.	ADM20	Internal newsletters, publications, General Warehouse Catalog, Materials Sources Catalog, etc	AV		AV	O		O		Medium O-Paper, electronic.
1.1.058	ADM21	Meeting Agenda and Minutes. Official agenda and minutes of state boards, committees, commissions and councils that conduct open meetings as defined in Texas Government Code Chapter 551.	PM		PM	O	A	O		Medium O = Paper, electronic. TxDOT retains permanent record copy. The archival requirement is met by sending a copy to the Archives and Information Services Division, Texas State Library and Archives Commission. CAUTION: This records series and item numbers ADM22, 23, 24 and 25 must be used for those state boards, committees, commissions and councils which by law or the biennial Appropriations Act, are administered by another state agency. These records and all others related to the functions of any of these dependent entities must be included in the records retention schedule of the administering agency. SEE ALSO 41AEO series for responsible office for Transportation Commission meeting records
1.1.059	ADM22	Meetings, Certified Agendas or Tape Recordings of Closed: Certified agendas or tape recordings of closed meetings of state boards, commissions, committees, and councils	AC+2		AC+2	C		O		AC = The date of the meeting or completion of pending action involving the meeting, whichever is later. Medium O = Paper, audio, video, electronic Government Code, Sect. 551.104(a). SEE caution comment at ADM21, above.

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1.1.060	ADM23	Meetings, Audio or Videotapes of Open: Audio or videotapes of open meetings of state boards, commissions, committees, and councils	AC+90 Days		AC+90 Days	O		O		AC = Official approval of written minutes of the meeting by the governing body of an agency Medium O = Audio video, electronic. CAUTION. Minutes of state agencies are permanent records. Audio and videotapes are not permanent media and will not be retained in lieu of written minutes. The proceedings of all meetings of state boards, committees, commissions and councils must be reduced to writing. SEE ALSO the caution comment at ADM21.
1.1.061	ADM24	Meetings - Notes. Notes taken during open meetings of state boards, commissions, committees, and councils from which written minutes are prepared.	AC+90 Days		AC+90 Days	O		O		AC = Official approval of written minutes of the meeting by the governing body of an agency. Medium O = Paper, electronic. SEE caution comment at ADM21.
1.1.062	ADM25	Meetings - Supporting Documentation: Documents submitted at meetings of state boards, commissions, committees, and councils, including exhibit items, documentation for agenda items, etc. Includes documents sent in advance of meetings for briefing purposes, some of which may not be submitted at an actual meeting	2		2	O	A	O		Medium O = Paper, audio video, electronic SEE caution comment at ADM21.
1.1.063	ADM26	Staff Meeting Minutes and Notes. Minutes or notes, and supporting documentation taken at internal agency staff meetings	1		1	O		O		Medium O = Paper, electronic.

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1.1.	ADM27	Records Related to Meetings, Conferences and Observances: Announcements, meeting arrangements, programs, committees for associations, internal agency, and affiliated organizations, dedications, memorials, anniversaries, retirements, etc.	AV		AV	O		O		Medium O = Paper, audio video, electronic. Retain minimum of 1 year
1.1.	ADM28	Records related to internal department committees, task forces, work groups, teams etc.	AV		AV	O		O		AV = Many committees are ongoing SEE ADM08 - 13 for requirements related to reports. Medium O = Paper, printout, electronic, audio/video.
1.1.	ADM29	Public Hearings. Transcripts and records related to public hearings.	AV		AV	O		O		Medium O = Paper, electronic Hearing records integrated into planning, design, construction, traffic or other files may be retained per those record series.
1.1.040	ADM30	Speeches, Papers and Presentations. Notes or text of speeches, papers, presentations or reports delivered in conjunction with agency work	AC		AC	O	R	O		AC = End of term in office or termination of service in a state position. Medium O = Paper, electronic.
1.1.	ADM31	Rules and Regulations: Documentation related to development and revision of administrative rules related to agency programs and procedures.	AV		AV	O		O		Medium O = Paper, electronic. SEE ADM16 for retention of published rules SEE 79OGC05 for office of record for TxDOT *Texas Register* submissions

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1.1.027	ADM32	Proposed Legislation Files: Fiscal notes and related correspondence for bills affecting the agency and/or affected subdivisions during the legislative session, proposed legislation drafts, correspondence, impact statements, action plans.	AV		AV	O		O		Medium O = Paper, electronic. SEE ALSO 75LAO02 for related legislative issues files. Action plans may become parts of other files.
1.1002.	ADM33	Audits: Audits and reviews performed by TxDOT on external entities, on TxDOT by external entities or on the agency by internal auditors.	AC+7		AC+7	C		O		AC = Publication or release of final audit findings. Medium O = Paper, electronic. The State Auditor's Office retains any copies of its audits performed on Texas state agencies. Audit working papers and draft reports confidential per Government Code, Section 552.116.
1.1	ADM34	Audit Response File. Action plans, progress reports, etc., related to resolution of audit findings when applicable	AV		AV	O		O		AV = Retain minimum of 1 year after resolution of findings Medium O = Paper, electronic
3.1.035	ADM35	Performance Bonds: Bonds posted by employees and individuals or entities under contract with TxDOT for the performance of duties of a position or the terms of a contract with the agency.	AC+4		AC+4	O		O	X	AC = Expiration or termination of the bond according to its terms. Medium O = Paper, electronic. NOTE: Certain surety bonds may have specific retention requirements and are listed elsewhere in the department's schedule. Does not include construction or architectural surety bonds. SEE item 46CCP01, 02.

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CE – Calendar Year End	PM – Permanent	C - Computer Printout	R - Review by State Archives	
FE – Fiscal Year End	US – Until Superseded	E - Electronic	O - Other (Specify in Field 12)	VITAL RECORD (For Field 11)
		O - Other (Specify in Field 12		Indicate with an "X"

SLR 105

(ELECTRONIC FACSIMILE)

STATE OF TEXAS
RECORDS RETENTION SCHEDULE

Form SLR 105C MUST accompany all submissions of this form

2 Agency Code 601

3 Agency TEXAS DEPARTMENT OF TRANSPORTATION

Indicate Use of Form
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APPROVED 05-23-05

4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7. RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
1.1.056	ADM36	ADA (Americans with Disabilities Act) records/documentation related to self-evaluations and plans documenting compliance with the requirements of the Americans with Disabilities Act.	3		3	O		O		Medium O = Paper, electronic May be managed on AC, CE or FE basis. Per 29 CFR 35.105(c).
1.1.074	ADM37	Sunset Review: Correspondence and files related to Sunset Review of the agency, including documentation prepared by the subdivisions of the agency.	AC+3		AC+3	O		O		AC = After the subsequent Sunset Review. Medium O = Paper, electronic. See also 75LAO04 for listing related to agency report
1.1024.	ADM38	Plans and Planning Records: Plans and records relating to the process of planning new or redefined programs, services, or projects of the agency that are not included in or directly related to other records series in this schedule.	AC+3		AC+3	O	R	O		AC = Decision made to implement or not to implement result of planning process. Medium O = Paper, electronic, audio, video, drawings, models, displays. SEE 41DED01 for office responsible for TxDOT strategic plans. ARCHIVES NOTE: Data processing planning records are not archival
1.1.	ADM39	Non-construction Program/Project files: Records and documentation related to operational program development and management, and special or unique project-related records not otherwise listed as unique record types.	3		3	O		O		Medium O = Paper, electronic, audio/video. Certain records in these files may require handling (vital status, archival review) according to listings for specific record types in this schedule.
1.1	ADM40	Subject Reference Files: Case, project, technical files or other record copy files of continuing value which may be retained by offices beyond minimum retention requirements.	AV		AV	O		O		Medium O = Paper, electronic, microfilm, audio, video. ARCHIVES NOTE: Some records may require archival review before disposal. Refer to listings for specific types of records in the retention schedule

RETENTION CODES (For Field 7)	MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7. RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11. VIT	12. REMARKS
1.1.	ADM41	Tort claim records maintained in district offices.	AC+3		AC+3	C		O	X	AC = Settlement or resolution of claim. All statutes of limitation to be met before file is closed. If no settlement accomplished, case file transferred to 60TOR01. If litigation is filed, apply ADM43. Medium O = Paper, electronic.
1.1.019	ADM42	Public Relations Records. News, press releases, or any public relations files maintained or issued by department offices. Includes print, electronic, audio and audiovisual records	2		2	O	R	O		Medium O = Paper, electronic.

RETENTION CODES (For Field 7)		MEDIUM CODES (For Field 10)	ARCHIVAL CODES (For Field 9)	SECURITY CODES (For Field 8)
AC - After closed, terminated, completed, expired, settled, etc AV - As long as administratively valuable CE – Calendar Year End FE – Fiscal Year End	LA – Life of Asset MO– Months PM – Permanent US – Until Superseded	P - Paper M - Microfilm C - Computer Printout E - Electronic O - Other (Specify in Field 12	A - Transfer to State Archives I - Retain in Agency R - Review by State Archives O - Other (Specify in Field 12)	O - Open Record C - Confidential VITAL RECORD (For Field 11) Indicate with an "X"

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1.1.048	ADM43	Legal Case Files: Records related to specific cases retained in the district, division or office (D/D/O).	AC+3		AC+3	C	R	O		NOTE: This item addresses records that may be retained by D/D/Os that may not be included in claim, litigation or administrative hearing case files managed for the department by the Office of the Attorney General, TxDOT's Office of General Counsel, private counsel or in coordination with specific Austin headquarters offices (i.e., OCC, ROW, etc.). SEE ALSO 79OGC01. The Office of General Counsel may forward case files to the district, division, or office from which the case originated, to maintain in accordance with this retention schedule In every instance the Office of General Counsel will retain a copy of the final decision and memoranda from the Office of General Counsel according to the retention schedule AC = After the decision is final under the Texas Administrative Procedure Act or other law, and any opportunity to appeal the decision to court has expired, or the case on appeal is completed and final. Medium O = Paper, electronic, audio/visual materials, models, etc. On the expiration of the retention period, the Office of General Counsel will contact TxDOT Records Management to coordinate a review by the State Archives to evaluate cases that set legal precedent or exhibit historical value.

RETENTION CODES (For Field 7)

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AV - As long as administratively valuable
CE – Calendar Year End
FE – Fiscal Year End
LA – Life of Asset
MO– Months
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MEDIUM CODES (For Field 10)

P - Paper
M - Microfilm
C - Computer Printout
E - Electronic
O - Other (Specify in Field 12

ARCHIVAL CODES (For Field 9)

A - Transfer to State Archives
I - Retain in Agency
R - Review by State Archives
O - Other (Specify in Field 12)

SECURITY CODES (For Field 8)

O - Open Record
C - Confidential

VITAL RECORD (For Field 11)

Indicate with an "X"

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4. Records Series Item Number	5. Agency Item Number	6. RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11 VIT	12. REMARKS
5.1.013	ADM44	Insurance policies	AC+4		AC+4	O		O	X	AC = Expiration or termination of the policy according to its terms Medium O = Paper, electronic
1.1.057	ADM45	Transitory Information. Records of temporary usefulness that are not an integral part of a records series of an agency, that are not regularly filed within an agency's record keeping system, and that are required only for a limited period of time for the completion of an action by an official or employee of the agency or in the preparation of an on-going records series. Transitory records are not essential to the fulfillment of statutory obligations or to the documentation of agency functions. Some examples of transitory information, which can be in any medium (voice mail, fax, email, hard copy, etc), are routine messages, internal meeting notices, routing slips, incoming letters or memoranda of transmittal that add nothing of substance to enclosures, and similar routine information used for communication, but not for the documentation of a specific agency transaction.	AC		AC	O		O		AC = Purpose of the record has been fulfilled Medium O = Paper, e-mail, voice-mail. CAUTION: Record owners must make certain that these records are not part of another record series listed in this schedule or part of a TxDOT records series that documents the fulfillment of the statutory obligations of the agency or the documentation of its functions The disposal of transitory information need not be documented through destruction authorizations or in records destruction logs.

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1.1.	ADM46	Management-directed Reviews. Official reports and supporting documentation related to special investigations in districts, divisions and offices.	AC+10		AC+10	C		P		AC = Completion and issuance of final written report to appropriate recipients. Access subject to public information requests. Retained for legal reference. Working papers and draft reports confidential per Government Code, §552.116.
1 1	ADM47	Contractor Sanctions: Records related to debarment and/or suspension of contractors.	AC+3		AC+3	O		O		AC = Completion of penalty period, cancellation of suspension, lifting, modification or suspension of department action. Medium O = Paper, electronic.
1 1 038	ADM48	Customer Surveys: Surveys returned by the customers or clients of the agency, and the statistical data maintained rating the agency's performance.	AC+3		AC+3	O		O		AC = Completion of survey. See item number ADM09 for summary reports compiled from customer surveys.
1.1.073	ADM49	Administrative Hearings. Transcripts and final decisions of hearings conducted as part of the regulatory process, and hearings on proposed rules and changes. The records may be retained with related information including meeting notices, proofs of publication, and meeting minutes.	AC+3		AC+3	O		O	R	AC = Last action. Medium O = Paper, electronic.

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1 1 075	ADM50	Alternative Dispute Resolutions – Final Agreement: Final agreement described by Government Code §2009.054©, associated with a matter conducted under an alternative dispute resolution procedure in which TxDOT personnel participate as a party on the agency's behalf.	AC+4		AC+4	O		O		AC = Date of final agreement. Medium O = Paper, electronic Texas Civil Practices and Remedies Code, Chapter 154.071.
1 1	ADM51	Signature Authorizations: Records establishing authority of TxDOT employees to initiate or authorize non-fiscal actions or correspondence on behalf of the agency.	US+3		US+3	O		O		Medium O = Paper, electronic.
1.1.071	ADM52	Agency Rules, Policies, and Procedures – Working Files. Working files used in the development of manuals, guidelines, administrative rules or similar records distributed internally for the use of employees or externally to the public or those individuals or entities regulated by an agency that sets out rules, policies, and procedures that govern an agency's programs, services, or projects.	AC+3		AC+3	O	R	O	X	AC = Completion or termination of program, rules, policies or procedures. Medium O = Paper, electronic. Working files retained in specific offices responsible for individual manuals or parts of manuals subject to same requirement. SEE ALSO ADM01, ADM03.

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	SAF	**SAFETY RECORDS**								
5.4.008	SAF01	Hazard Communication Program Files, including Hazard/Hazmat materials locations, information on interpreting Materials Safety Data Sheets, proper use of protective equipment general safety information related to hazardous materials handling, cleanup and disposal and records of original and biennial refresher hazardous materials/Hazmat and worker protection training given employees in the TxDOT hazard communications program.	US+5		US+5	O		O	X	Work site notebooks updated on ongoing basis. Five-year retention by Hazardous Materials Coordinator at district/division/office work locations per Texas Health and Safety Code, § 502.009(g). Original Form 1812 Certification of Training retained in individual employee folders (PER01). Medium O = Paper, electronic. Records may be imaged for retention with hard copy destroyed
5.4.009	SAF02	Workplace Chemical Lists	CE+5		CE+5	O		O		Submit annual list to Occupational Safety Division (OCC) by January 31 following the reporting period. OCC retains original workplace chemical lists for the 30-year minimum retention required by Texas Health and Safety Code, §502.005(d) Medium O = Paper, electronic. Records may be imaged for retention with hard copy destroyed.
5.4.010	SAF03	Material Safety Data Sheets.	AC		AC	O		P		AC = After sheets are updated or hazardous material no longer stored, as applicable.
5.4	SAF04	Hazardous Materials reporting, Tier two reporting to Occupational Safety Division.	CE+5		CE+5	O		O		Medium O = Paper, electronic Per Texas Health and Safety Code, § 502.009(g).
5.4.002	SAF05	Evacuation plans, emergency procedures.	US		US	O		O		Medium O = Paper, electronic.

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4 Records Series Item Number	5 Agency Item Number	6 RECORDS SERIES TITLE	7 RETENTION PERIOD Agency	Storage	Total	8. SEC	9. ARC	10. MED	11 VIT	12. REMARKS
5 4 003	SAF06	Inspection Records: Safety and Hazardous Materials Survey records: Reviews, findings, reports and documentation of corrective action Safety inspection records for facilities/ equipment, including fire protection systems and equipment May also include safety procedures, and periodic procedural inspections and reviews.	AC+3		AC+3	O		O		AC = Inspection or date of the correction of the deficiency, if the inspection report reveals a deficiency. Medium O = Paper, electronic CAUTION: Does not include inspection reports of construction projects. SEE DEC03, DEC04.
5 4 001	SAF07	Accident or Occupational Disease Reports by supervisors and employees required to be submitted to the Occupational Safety Division for further submission to the Texas Workers Compensation Commission Other associated accident reports re: state vehicles, construction site accidents, individuals, fatality reports.	CE+5		CE+5	O		O	X	Medium O = Paper, electronic, film, videocassette. Per 29 CFR 1904 33 Texas Workers Compensation Commission's copy of individual accident reports retained an additional 50 years.
5.4.	SAF08	Accident Reports at Construction Sites: Copy of DPS vehicle accident reports on accidents occurring at construction sites. (May be kept with project files at field office.)	AC+4		AC+4	C		O		AC = Records retained with construction project records (CON01) after project completion Medium O = Paper, electronic. Confidential because of possible tort claims.
1.1.	SAF09	Potential tort claims files. Accident files which do not result in claims against the department, retained by districts/divisions/ offices	AC+2		AC+2	O		O		AC = Six months after the date of the incident (per § 101.101 *Civil Practices and Remedies Code*). Medium O = Paper, photographs, videotape. SEE ADM41 for requirements for tort claim records.

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5.4.	SAF10	District/Division/Office substance abuse program records, coordination of substance testing and reporting with the D/D/O Substance Control Officer and the Occupational Safety Division.	AV		AV	C		O		Medium O = Paper, electronic. Individual employee reports and records retained under PER05.
1.1.063	SAF11	Safety Meetings: Safety committee meeting minutes and accident report reviews; safety meeting reports, documentation.	4		4	O		O		Medium O = Paper, electronic. Files may be managed on CE, FE, or as-completed basis. Safety committee minutes and accident report reviews retained with specific project records (CON01 or DEC3).
5.4.	SAF12	Confined space entry permit files.	1		1	O		P		Retain minimum one year per 29CFR §1910.146(e)(6) to facilitate the review of the permit-required confined space program required by paragraph (d)(14) of this section.
3.1.	SAF13	Employee Recognition. Safe drivers award/certificate awards, related program documentation	AV		AV	O		O		Medium O = Paper, electronic. NOTE. Awards for individual employees retained AC+5 in Employee Folder (PER01)
3.3.030	SAF14	Training Administration Records. Safety training records, documentation/rosters related to driver training, first aid, fleet safety, radiological monitoring, etc.	3		3	O		O		May be managed on CE, FE, or US (Until Superseded) basis. Medium O = Paper, electronic. CAUTION. Does not include hazardous materials training records. SEE SAF01 and 60HAZ01.

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Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 5 – Document Data Properties

Attachment 5 – Document Data Properties

Document Class – Identifies the associated business discipline of the document

Business Function – Identifies or associates a specific business function or project sub-discipline to a file or document and is utilized only if additional classification is required within a document class.

Document Type – Identifies the project specific document grouping series for the document.

Document Subtype – Identifies the project specific document second level grouping series for the document

Document Name – Identifies the project specific document name or title for the document type/subtype.

Document Date – Identifies the date in which a document is complete or a work action is complete.

Received Date - Identifies the date the document is received by the retaining organization.

Document Status - Identifies the 'state' of a file or document representing its document life cycle stage.

Highway Segment – Identifies a Highway and/or Segment identifier to each file or document.

Component - Identifies the corridor Components associated with the document or file.

Document Author - Identifies the sender (FROM) for documents such as correspondence/transmittals.

Addressee - Identifies the recipient (TO) for documents such as correspondence/transmittals.

Transmittal Number - Identifies that a document or file is transmitted to or received – identifies the date and to whom the document is going to or coming from.

Meeting Name - Identifies the name of a meeting.

Meeting Date – Identifies the calendar date of a meeting.

Meeting Location – Identifies the location (generally a City) where a meeting is held.

Comment (Document) – Identifies or further describes something unique about the document or file.

Title – Identifies or further defines the document or file for example subject matter or key topics.

Parcel Owner – Identifies the legal owner of a ROW parcel of land or property that is being pursued for or is procured.

Parcel Number – Identifies the unique identification of a ROW parcel of land or piece of property that is being pursued for or is procured.

WBS Element – Identifies the element of the WBS.

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 6 – Right of Entry Refusals

Parcel	Owner	Status
465	Morris E. Alexander	**Survey ROE Only**
497	Dollie Cole	**Refusal**
522	Conrad and Geraldine Ohlendorf	**Refusal**
840	Wilfred H. Bartoskewitz	**Refusal**
850	G A., Jr & C A. Powers	**Refusal**

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 7 – Utility Forms

County:
ROW CSJ No.:
Const. CSJ No.
Highway:
Limits
Fed. Proj. No.:

MASTER UTILITY ADJUSTMENT AGREEMENT
(Developer Managed)
Agreement No.: -U-_____

THIS AGREEMENT, by and between_____, hereinafter identified as the **"Developer"**, and_____, hereinafter identified as the **"Owner"**, is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as TxDOT or the "Department", is authorized to design, construct, operate, maintain, and improve turnpike projects as part of the state highway system throughout the State of Texas, all in conformance with the provisions of Chapter 203, Texas Transportation Code, as amended; and

WHEREAS, the Department proposes to construct, a turnpike project identified as ("Facility"), approximately [*insert brief description of the Facility*]; and

WHEREAS, pursuant to Section 203.092 of the Texas Transportation Code, as amended, the cost of the removal, relocation, or grade separation of utilities impacted by the Facility is the Department's responsibility, as part of the cost of the Facility; and

WHEREAS, pursuant to that certain Facility Concession Agreement by and between the Department and the Developer with respect to the Facility (the "FCA"), the Developer has undertaken the obligation to design, construct, finance, operate and maintain the Facility; and

WHEREAS, the Developer's duties pursuant to the FCA include causing the removal, relocation, or other necessary adjustment of existing utilities impacted by the Facility (collectively, "Adjustment"), at the Developer's expense; and

WHEREAS, the Developer may request Federal credit assistance in payment of costs incurred in Adjustment of the Owner's facilities to accommodate the Facility; and

WHEREAS, the Developer has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Facility (and/or with the "Ultimate Configuration", as hereinafter defined), and the Owner has requested that the Developer undertake the Adjustment of the Owner Utilities as necessary to accommodate the Facility (and the Ultimate Configuration); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected utility facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00")]*:

_____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the Developer and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the Developer and the Owner agree as follows:

1. **Preparation of Plans.** *[Check one box that applies.]*

☐ The Developer has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The Developer represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), set forth in 43 Tex. Admin. Code Part 1, Chapter 21, Subchapter C *et seq.*, (the "UAR") By its execution of this Agreement or by the signing of the Plans, Owner hereby approves the Plans and confirms that the Plans are in compliance with Owner's "standards" described in Paragraph 3 (c).

☐ The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities The Owner represents and warrants that the Plans conform to the UAR. By its execution of this Agreement, Developer hereby approves the Plans. The Owner also has provided to the Developer a utility plan view map illustrating the location of existing and proposed utility facilities on the Developer's right of way map of the Facility. With regard to its preparation of the Plans, Owner represents as follows *[check one box that applies]*:

☐ The Owner's employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner's typical costs for such work

☐ The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Facility for comparable work for the Owner

2. **Review by the Department.** The parties hereto acknowledge and agree as follows

(a) Upon execution of this Agreement by both the Developer and the Owner, pursuant to the FCA the Developer will submit this Agreement, together with the attached Plans, to the

Department for its review and approval as part of a package referred to as a "Utility Assembly". The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to both parties, to respond to any comments made by the Department thereon. Without limiting the generality of the foregoing, (i) the Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the Developer in response to Department comments within **fourteen (14) business days** after receipt of such modifications, and (ii) if the Owner originally prepared the Plans, the Owner agrees to modify the Plans in response to Department comments and to submit such modified Plans to the Developer for its comment and/or approval (and re-submittal to the Department for its comment and/or approval) within **fourteen (14) business days** after receipt of the Department's comments. The Owner's failure to timely respond to any modified Plans submitted by the Developer pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the Developer shall have the right to modify the Plans for the Owner's approval as if the Developer had originally prepared the Plans. The process set forth in this paragraph will be repeated until the Owner, the Developer, and the Department have all approved this Agreement and accepted the Plans.

(b) The parties hereto acknowledge and agree that the Department's review, comments, and/or approval of a Utility Assembly or any component thereof is solely for the purpose of ascertaining matters of particular concern to the Department, and the Department has, and by its review, comments and/or approval of such Utility Assembly or any component thereof undertakes, no duty to review the Utility Assembly or its components for their quality or for the adequacy of Adjusted utility facilities (as designed) for the purposes for which they are intended to be used or for compliance with law or applicable standards (other than Department requirements).

3. **Design and Construction Standards.** All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:

(a) All applicable local, state and federal laws, regulations, decrees, ordinances and policies, including the UAR, the Utility Manual issued by TxDOT, (to the extent its requirements are mandatory for Utility Adjustments necessitated by the Facility, as stated in the FCA and communicated to the Owner by the Developer or TxDOT), the requirements of the FCA, and the policies of TxDOT;

(b) The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work; and

(c) The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to utility facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the Developer in writing.

Such design and construction also shall be consistent and compatible with (i) the Developer's current design and construction of the Facility, (ii) TxDOT's projected design for the Facility as it will ultimately be built out in the future (the "Ultimate Configuration"), and (iii) any other utilities being installed in the same vicinity The Owner acknowledges receipt from the Developer of Facility plans and Ultimate Configuration documents as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

4. **Construction by the Developer**

(a) The Owner hereby requests that the Developer perform the construction necessary to adjust the Owner Utilities and the Developer hereby agrees to perform such construction. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 17).

(b) The Developer shall retain such contractor or contractors as are necessary to adjust the Owner Utilities through the Developer's normal procedures.

(c) The Developer shall obtain all permits necessary for the construction to be performed by the Developer hereunder, and the Owner shall cooperate in that process as needed.

5. **Developer Responsible for Costs of Work.** With the exception of any "Betterment" as defined in Paragraph 10, all work to be performed pursuant to this Agreement shall be at the sole cost and expense of the Developer, including but not limited to the engineering and inspection costs of the Owner. All costs charged to the Developer by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to the similar work performed by or for the Owner at the Owner's expense. The costs paid by the Developer pursuant to this Agreement shall constitute full compensation to the Owner for all costs incurred by the Owner in Adjusting the Owner Utilities (including without limitation costs of relinquishing and/or acquiring right of way), and the Department shall have no liability to the Owner for any such costs. Owner shall not be entitled to compensation for any Adjustment(s) covered by this Agreement, including costs with respect to real property interests (either acquired or relinquished), except from the Developer as set forth in this Agreement.

6. **Costs of the Work**

(a) The costs for Adjustment of the Owner Utilities shall be derived from (i) the accumulated total of costs incurred by the Developer for design and construction of such Adjustment ("direct costs"), plus (ii) the Owner's related costs ("indirect costs"), including without limitation the engineering costs incurred by the Owner for design or design review prior to execution of this Agreement (to the extent permitted pursuant to Paragraph 6(c)), plus (iii) the Owner's right-of-way acquisition costs, if any, which are reimbursable pursuant to Paragraph 16 The Owner's indirect costs are estimated below *[insert below a list of estimated Owner indirect costs, or refer to an attached exhibit]*.

(b) The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only one box]*:

☐ (1) Actual related indirect costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body; or

☐ (2) Actual related indirect costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations; or

☐ (3) The agreed sum of $_____, as supported by the analysis of estimated costs included in Paragraph 6(a).

(c) Eligible Owner indirect costs shall include only those authorized under 23 C.F.R. Part 645, Subpart A. The Owner agrees that costs referenced in 23 C.F.R. Section 645.117(d)(2) are not eligible for reimbursement. These regulations can be found at: http://www.access.gpo.gov/nara/ctr/waisidx_03/23cfr645_03.html

7 **Billing, Payment, Records and Audits: Actual Cost Method.** The following provisions apply if the Owner's indirect costs are developed under procedure (1) or (2) described in Paragraph 6(b):

(a) The Developer shall, upon completion of all the Adjustment work to be performed by both parties pursuant to this Agreement and upon receipt of a final invoice complying with the requirements of Paragraph 9, make payment in the amount of ninety percent (90%) of the Owner's eligible indirect costs as shown in such final invoice (less amounts previously paid, and applicable credits). After completion of the Developer's audit referenced in Paragraph 7(c) and the parties' mutual determination of any necessary adjustment to the final invoice resulting therefrom, the Developer shall make any final payment due so that total payments will equal the total amount reflected on such final invoice (as adjusted, if applicable).

(b) When requested by the Owner and properly invoiced in accordance with Paragraph 9, the Developer shall make intermediate payments to the Owner based upon the progress of the work completed at not more than monthly intervals, and such payments shall not exceed eighty percent (80%) of the Owner's eligible indirect costs as shown in each such invoice (less applicable credits). Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

(c) The Owner shall maintain complete and accurate cost records for all work performed pursuant to this Agreement, in accordance with the provisions of 23 C.F.R. Part 645, Subpart A. The Owner shall maintain such records for four (4) years after receipt of final payment hereunder. The Developer and its representatives shall be allowed to audit such records during the Owner's regular business hours. Unsupported charges will not be considered eligible for reimbursement. The parties shall mutually agree upon (and shall promptly implement by payment or refund, as applicable) any financial adjustment found necessary by the Developer's audit. The Department, the Federal Highway Administration, and their respective representatives also shall be allowed to audit such records upon reasonable notice to the Owner, during the Owner's regular business hours.

8. **Billing and Payment: Agreed Sum Method.** If the Owner's indirect costs are developed under procedure (3) described in Paragraph 6(b), then the Developer shall, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement and upon receipt of an invoice complying with the applicable requirements of Paragraph 9, make payment to the Owner in the agreed amount.

9. **Invoices.** Each invoice submitted by the Owner (i) shall be prepared in the form and manner prescribed by 23 C.F.R. Part 645, Subpart A, and (ii) if the Owner's indirect costs are developed under procedure (1) or (2) described in Paragraph 6(b), shall list each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice shall be submitted to the Developer at the address for notices stated in Paragraph 23, unless otherwise directed by Developer pursuant to Paragraph 23. The Owner shall make commercially reasonable efforts to submit final invoices not later than one hundred twenty (120) days after completion of work. The Owner hereby acknowledges and agrees that any of its costs not submitted to the Developer within eighteen months following

completion of all Adjustment work to be performed by both parties pursuant to this Agreement shall be deemed to have been abandoned and waived.

10. **Betterment and Salvage**

(a) For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being Adjusted that is not attributable to the construction of the Facility and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the Adjusted Utility over that provided by the existing Utility facility or an expansion of the existing Utility facility; provided, however, that the following are not considered Betterments:

(i) any upgrading which is required for accommodation of the Facility;

(ii) replacement devices or materials that are of equivalent standards although not identical;

(iii) replacement of devices or materials no longer regularly manufactured with the next highest grade or size;

(iv) any upgrading required by applicable laws, regulations or ordinances;

(v) replacement devices or materials which are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); or

(vi) any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(c); or

(vii) any discretionary decision by a Utility Owner that is contemplated within a particular standard described in clause (vi) above.

[Include the following for fiber optic Owner Utilities only:] Extension of an Adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(c) shall be deemed to be of direct benefit to the Facility.

(b) It is understood and agreed that Developer will not pay for any Betterments and that Owner shall not be entitled to payment therefore. No Betterment may be performed hereunder which is incompatible with the Facility or the Ultimate Configuration or which cannot be performed within the other constraints of applicable law, any applicable governmental approvals, and the requirements imposed on the Developer by the FCA, including without limitation the scheduling requirements thereunder. Accordingly, the parties agree as follows *[check one box that applies, and complete if appropriate]*

☐ The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment

☐ The Adjustment of the Owner Utilities pursuant to the Plans includes Betterment to the Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]* _____ The Developer has provided to the Owner comparative estimates for (i) all work to be performed by the Developer pursuant to this

Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner The estimated cost of the Developer's work hereunder which is attributable to Betterment is $_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Developer's work hereunder which is attributable to Betterment is _____%, calculated by subtracting (ii) from (i), which remainder is divided by (i)

(c) If Paragraph 10(b) identifies Betterment, the Owner shall advance to the Developer, at least **fourteen (14) business days** prior to the date scheduled for commencement of construction for Adjustment of the Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 10(b). *[If Paragraph 10(b) identifies Betterment, check the one appropriate provision]*:

☐ The estimated cost stated in Paragraph 10(b) is the agreed and final amount due for Betterment hereunder, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.

☐ The Owner is responsible for the Developer's actual cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement, (i) the Owner shall pay to the Developer the amount, if any, by which the actual cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the Developer shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable. Any additional payment by the Owner shall be due within **sixty (60) calendar days** after Owner's receipt of the Developer's invoice therefore, together with supporting documentation; any refund shall be due within **sixty (60) calendar days** after completion of the Adjustment work hereunder. The actual cost of Betterment incurred by the Developer shall be calculated by multiplying (i) the Betterment percentage stated in Paragraph 10(b), by (ii) the actual cost of all work performed by the Developer pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the Developer to the Owner.

(d) If Paragraph 10(b) identifies Betterment, the parties shall mutually determine the appropriate portion, if any, of the Owner's indirect costs which were increased by such Betterment. Neither party shall unreasonably withhold or delay its approval of a proposal in this regard made by the other party. Owner's invoice to the Developer for its indirect costs shall credit the Developer with any Betterment amount determined by the parties pursuant to this Paragraph 10(d).

(e) For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the Owner's invoice to the Developer for its indirect costs shall credit the Developer with the salvage value for such materials and/or parts, determined in accordance with 23 C.F.R Section 645.105(j)

(f) The determinations and calculations of Betterment described in this Paragraph 10 shall exclude right-of-way acquisition costs. Betterment in connection with right-of-way acquisition is addressed Paragraph 16.

11. **Facility Project Management.** The Developer will provide project management during the Adjustment of the Owner Utilities

12. **Utility Investigations.** At the Developer's request, the Owner shall assist the Developer in locating any Utilities (including appurtenances) which are owned and/or operated by Owner and may be impacted by the Facility. Without limiting the generality of the foregoing, in order to help assure that neither the Adjusted Owner Utilities nor existing, unadjusted utilities owned or operated by the Owner are damaged during construction of the Facility, the Owner shall mark in the field the location of all such utilities horizontally on the ground in advance of Facility construction in the immediate area of such utilities.

13. **Inspection and Acceptance by the Owner**.

(a) Throughout the Adjustment construction hereunder, the Owner shall provide adequate inspectors for such construction. The work shall be inspected by the Owner's inspector(s) at least once each working day, and more often if such inspections are necessary for prudent installation. Further, upon request by the Developer or its contractors, the Owner shall furnish an inspector at any reasonable time in which construction is underway pursuant to this Agreement, including occasions when construction is underway in excess of the usual forty (40) hour work week and at such other times as reasonably required. The Owner agrees to promptly notify the Developer of any concerns resulting from any such inspection

(b) The Owner shall perform a final inspection of the Adjusted Owner Utilities, including conducting any tests as are necessary or appropriate, within **five (5) business days** after completion of construction hereunder. The Owner shall accept such construction if it is consistent with the performance standards described in Paragraph 3, by giving written notice of such acceptance to the Developer within said **five (5) day** period. If the Owner does not accept the construction, then the Owner shall, not later than the expiration of said **five (5) day** period, notify the Developer in writing of its grounds for non-acceptance and suggestions for correcting the problem, and if the suggested corrections are justified, the Developer will comply. The Owner shall re-inspect any revised construction (and re-test if appropriate) and give notice of acceptance, not later than **five (5) business days** after completion of corrective work. The Owner's failure to inspect and/or to give any required notice of acceptance or non-acceptance within the specified time period shall be deemed acceptance.

(c) From and after the Owner's acceptance (or deemed acceptance) of an Adjusted Owner Utility, the Owner agrees to accept ownership of, and full operation and maintenance responsibility for, such Owner Utility.

14 **Design Changes.** The Developer will be responsible for additional Adjustment design and/or construction costs necessitated by design changes to the Facility, upon the terms specified herein.

15 **Field Modifications.** The Developer shall provide the Owner with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes described in paragraph 17(b), occurring in the Adjustment of the Owner Utilities.

16 **Real Property Interests.**

(a) The Owner has provided, or upon execution of this Agreement shall promptly provide to the Developer, documentation acceptable to the Department indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their

existing location(s). Such claims are subject to the Department's approval as part of its review of the Utility Assembly as described in Paragraph 2. Claims approved by the Department as to rights or interests are referred to herein as "Existing Interests".

(b) If acquisition of any new easement or other interest in real property ("New Interest") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the Developer's Facility schedules. The Developer shall be responsible for the actual and reasonable acquisition costs of any such New Interest (including without limitation the Owner's reasonable overhead charges and legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 16(c), and subject to the provisions of Paragraph 16(e); provided, however, that all acquisition costs shall be subject to the Developer's prior written approval. Eligible acquisition costs shall be invoiced by the Owner and paid by the Developer pursuant to this Agreement, as a segregated component of the Owner's indirect costs described in Paragraph 6. Any such New Interest shall have a written valuation and shall be acquired in accordance with applicable law.

(c) The Developer shall pay only for replacement in kind of an Existing Interest (e.g., as to width and type), unless a New Interest exceeding such standard (i) is required in order to accommodate the Facility or by compliance with applicable law, or (ii) is called for by the Developer in the interest of overall Facility project economy. Any New Interest which is not Developer's cost responsibility pursuant to the preceding sentence shall be considered a Betterment to the extent that it upgrades the Existing Interest which it replaces, or in its entirety if the related Owner Utility was not installed pursuant to an Existing Interest. Betterment costs shall be solely the Owner's responsibility.

(d) For each Existing Interest located within the final Facility right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Interest to the Department. For each such Existing Interest relinquished by the Owner, the Developer shall do one of the following to compensate the Owner for such Existing Interest, as appropriate:

(e) (i) If the Owner acquires a New Interest for the affected Owner Utility, the Developer shall reimburse the Owner for its actual and reasonable acquisition costs in accordance with Paragraph 16(b); or

(ii) If the Owner does not acquire a New Interest for the affected Owner Utility, the Developer shall compensate the Owner for the fair market value of such relinquished Existing Interest, as mutually agreed between the Owner and the Developer and supported by written valuation.

The compensation provided to the Owner pursuant to either subparagraph (i) or subparagraph (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Interest, and no further compensation shall be due to the Owner from either the Developer or the Department on account of such Existing Interest.

(f) The Owner shall execute a Utility Joint Use Acknowledgement for each Adjusted Owner Utility where required pursuant to TxDOT policies.

17. **Amendments and Modifications.** This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 17(a) or Paragraph 17(b)below.

(g) Except as otherwise provided in Section 17(b), any amendment or modification to this Agreement on the plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment (UAAA) in the form of Exhibit B hereto (TxDOT-CDA-U-35A-DM) The UAAA form can be used for a new scope of work with concurrence of the Developer and TxDOT as long as the Design and Construction responsibilities have not changed. Each UAAA is subject to the review and approval of the Department, prior to its becoming effective for any purpose and prior to any work being initiated thereunder The Owner agrees to keep and track costs separate from other work being performed.

(b) For purposes of this Paragraph 17(b), "Utility Adjustment Field Modification" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by the Department, due either to design of the Facility or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 in water line to miss a roadway drainage structure) A Utility Adjustment Field Modification agreed upon by the Developer and the Owner does not require a UAAA, provided that the modified Plans have been submitted to the Department for its review and comment, and the process for such review and comment has been completed as specified in the FCA. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 15.

18. **Relationship of the Parties.** This Agreement does not in any way, and shall not be construed to, create a principal/agent or joint venture relationship between the parties hereto and under no circumstances shall the Owner or the Developer be considered as or represent itself to be an agent of the other.

19. **Entire Agreement.** This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

20. **Assignment; Binding Effect; Department as Third Party Beneficiary.** Neither the Owner nor the Developer may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party and of the Department, which consent may not be unreasonably withheld or delayed; provided, however, that the Developer may assign any of its rights and/or delegate any of its duties to

(a) a design-build contractor engaged by Developer to design and construct the Facility and/or related Utility Adjustments, or

(b) to the Department or to any other entity engaged by the Department to fulfill the Developer's obligations under the FCA, at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, the Developer, and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by either party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; provided, however, that the Owner and the

Developer agree that although the Department is not a party to this Agreement, the Department is intended to be a third-party beneficiary to this Agreement.

21. **Breach by the Developer.** If the Owner claims that the Developer has breached any of its obligations under this Agreement, the Owner will notify the Developer and the Department in writing of such breach, and the Developer shall have 30 days following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; provided, however, that both during and after such period the Department shall have the right, but not the obligation, to cure any breach by the Developer. Without limiting the generality of the foregoing, (a) the Department shall have no liability to the Owner for any act or omission committed by the Developer in connection with this Agreement, including without limitation any reimbursement owed to the Owner hereunder and any claimed defect in any design or construction work supplied by the Developer or by its contractors, and (b) in no event shall the Department be responsible for any repairs or maintenance to the Owner Utilities Adjusted pursuant to this Agreement.

22. **Traffic Control.** The Developer shall provide traffic control or reimburse the owner for traffic control made necessary by the Adjustment work performed by either the Developer or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas Manual on Uniform Traffic Control Devices. Betterment percentages calculated in Paragraph 10 shall also apply to traffic control costs.

23. **Notices.** Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following

The Owner:

Phone
Fax:

The Developer:

Phone
Fax:

A party sending a notice of default of this Agreement to the other party shall also send a copy of such notice to the Department at the following address

The Department:

Phone
Fax

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, (c) by confirmed fax, or (d) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt, served by facsimile transmission shall be deem delivered on the date of receipt as shown on the received facsimile, and served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Either party may from time to time designate any other address for this purpose by written notice to the other party; the Department may designate another address by written notice to both parties.

24. **Approvals.** Any acceptance, approval, or any other like action (collectively "Approval") required or permitted to be given by either the Developer, the Owner or the Department pursuant to this Agreement:

(a) Must be in writing to be effective (except if deemed granted pursuant hereto),

(b) Shall not be unreasonably withheld or delayed, and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval, and

(c) Except for approvals by the Department, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then fourteen (14) calendar days), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 23.

25. **Time.**

(a) Time is of the essence in the performance of this Agreement.

(b) All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.

(c) Neither the Owner nor the Developer shall be liable to the other for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("Force Majeure"), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts.

26. **Continuing Performance.** In the event of a dispute, the Owner and the Developer agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

27. **Equitable Relief.** The Developer and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties' remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Facility. Consequently, the parties hereto (and

the Department as well, as a third party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Facility; provided, however, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

28 **Authority.** The Owner and the Developer each represents and warrants to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.

29 **Cooperation.** The parties acknowledge that the timely completion of the Facility will be influenced by the ability of the Owner and the Developer to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the Developer agree to take all steps reasonably required to coordinate their respective duties hereunder, in a manner consistent with the Developer's current and future construction schedules for the Facility.

30 **Termination.** If the Facility project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the Developer shall notify the Owner in writing and the Developer reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.

31 **Nondiscrimination.** Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement, that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.

32. **Captions.** The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the contest of their respective paragraphs.

33. **Counterparts.** This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.

34. **Effective Date.** Except for the provisions of Paragraph 2(a) (which shall become effective immediately upon execution of this Agreement by both the Owner and the Developer without regard to the Department's signature), this Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Agreement, and (b) the completion of the Department's review as indicated by the signature of the Department's representative, below.

REVIEWED BY:
DEPARTMENT

By: _____
Authorized Signature

Printed
Name: _____

Title: _____

Date: _____

OWNER

_____
[Print Owner Name]

By: _____
Duly Authorized Representative

Printed
Name _____

Title _____

Date _____

DEVELOPER

_____
[Print Developer Name]

By: _____
Duly Authorized Representative

Printed
Name: _____

Title: _____

Date. _____

County:
ROW CSJ No.:
Const. CSJ No.
Highway
Limits:
Fed. Proj No.:

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT B

UTILITY ADJUSTMENT AGREEMENT AMMENDMENT
(TxDOT-CDA-U-35A-DM)

County:
Highway
Limits
Fed. Proj. No :
ROW CSJ No.:
Const. CSJ No :

UTILITY ADJUSTMENT AGREEMENT AMENDMENT (Developer Managed)

(Amendment No. to Agreement No.: -U-_____)

THIS AMENDMENT TO Master UTILITY ADJUSTMENT AGREEMENT (this "Amendment"), by and between _____, hereinafter identified as the "**Developer**", and _____, hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as the "Department", proposes to construct the turnpike project identified above (the "Facility", as more particularly described in the "Original Agreement", defined below); and

WHEREAS, pursuant to that certain Facility Concession Agreement("FCA") by and between the Department and the Developer with respect to the Facility, the Developer has undertaken the obligation to design, construct, finance, operate and maintain the Facility, including causing the removal, relocation, or other necessary adjustment of existing Utilities impacted by the Facility; and

WHEREAS, the Owner and the Developer are parties to that certain Master Utility Adjustment Agreement with an effective date of _____, 20_____ and designated by the "Agreement No " indicated above, as amended by previous amendments, if any (the "Original Agreement"), which provides for the adjustment of certain Utilities owned and/or operated by the Owner; and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the adjustment of Owner utility facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1. **Amendment.** The Original Agreement is hereby amended as follows.

(a) The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities is hereby amended to add the following utility facility(ies) ("Additional Owner Utilities") and proposed Adjustment(s) to the Owner Utilities described in the Original Agreement:

(b) The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the plans, specifications and cost estimates attached hereto as Exhibit A.

(c) The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to the Department in accordance with Paragraph 2 of the Original Agreement, and the 14 day response times in Paragraph 2 shall apply thereto.

(d) Paragraph 6(a) of the Original Agreement is hereby amended to add thereto the following estimation of the Owner's indirect costs associated with the Adjustment of the Additional Owner Utilities *[insert below a list of the additional estimated Owner indirect costs, or refer to an attached exhibit]*:

(e) The Owner's indirect costs associated with Adjustment of the additional Owner Utilities shall be developed pursuant to the method checked and described below, which for purposes of Paragraphs 7 through 11 of the Original Agreement, shall correspond to the procedures set forth as (1) through (3) in Paragraph 6(b) of the Original Agreement *[check only one box]*:

☐ (1) Actual related indirect costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body; or

☐ (2) Actual related indirect costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations; or

☐ (3) The agreed sum of $_____, as supported by the analysis of estimated costs included in Paragraph 1(d) of this Amendment.

[Include the following Paragraphs 1(f), (g), and (h), if the additional work includes a Betterment:]

(f) Section 10(b) of the Original Agreement is hereby amended to add the following Betterment

The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____. The Developer has provided to the Owner comparative estimates for (i) all work to be performed by the Developer pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of the Developer's work under this Amendment which is attributable to Betterment is $_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Developer's work under this Amendment which is attributable to Betterment is _____ %, calculated by subtracting (ii) from (i), which remainder is divided by (i).

(g) The Owner shall advance to the Developer, at least **fourteen (14) days** prior to the date scheduled for commencement of construction for Adjustment of the additional Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 1(f) of this Amendment *[Check the <u>one</u> appropriate provision]*:

☐ The estimated cost stated in Paragraph 1(f) of this Amendment is the agreed and final amount due for Betterment under this Amendment, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.

☐ The Owner is responsible for the Developer's actual cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment, (i) the Owner shall pay to the Developer the amount, if any,

by which the actual cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the Developer shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable Any additional payment by the Owner shall be due within **sixty (60) days** after Owner's receipt of the Developer's invoice therefore, together with supporting documentation; any refund shall be due within **sixty (60) days** after completion of the Adjustment work under this Amendment. The actual cost of Betterment incurred by the Developer shall be calculated by multiplying (i) the Betterment percentage stated in Paragraph 1(f) of this Amendment, by (ii) the actual cost of all work performed by the Developer pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the Developer to the Owner.

(h) The determinations and calculations of Betterment described in this Amendment shall exclude right-of-way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 16 of the Original Amendment (i) Owner and Developer agree to refer to this Amendment, designated by the "Amendment No" and "Agreement Number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

(j) [*Include any other proposed amendments allowed by applicable law.*]

2. **General.**

(a) All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.

(b) This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.

(c) Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the Developer, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.

(d) This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Amendment, and (b) the completion of the Department's review as indicated by the signature of the Department's representative, below.

REVIEWED BY:

DEPARTMENT

By: _____
Authorized Signature

Printed Name: _____

Title: _____

Date: _____

OWNER

_____
[Print Owner Name]

By _____
Duly Authorized Representative

Printed Name: _____

Title: _____

Date: _____

DEVELOPER

_____
[Print Developer Name]

By _____
Duly Authorized Representative

Printed Name _____

Title: _____

Date: _____

County:
Highway:
Limits:
Fed. Proj. No.:
ROW CSJ No.:
Const. No.:

UTILITY ADJUSTMENT AGREEMENT AMENDMENT (Owner Managed)

(Amendment No. to Agreement No.: -U-)

THIS AMENDMENT TO MASTER UTILITY ADJUSTMENT AGREEMENT (this "Amendment"), by and between _____, hereinafter identified as the "**Developer**", and _____, hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as the "Department", proposes to construct the turnpike project identified above (the "Facility", as more particularly described in the "Original Agreement", defined below); and

WHEREAS, pursuant to that certain Facility Concession Agreement ("FCA") by and between the Department and the Developer with respect to the Facility, the Developer has undertaken the obligation to design, construct, finance, operate and maintain the Facility, including causing the removal, relocation, or other necessary adjustment of existing Utilities impacted by the Facility; and

WHEREAS, the Owner and the Developer are parties to that certain Master Utility Adjustment Agreement with an effective date of _____, 20_____ and designated by the "Agreement No " indicated above, as amended by previous amendments, if any (the "Original Agreement"), which provides for the adjustment of certain Utilities owned and/or operated by the Owner; and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the adjustment of Owner utility facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1. **Amendment.** The Original Agreement is hereby amended as follows

(a) The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities in the Original Agreement is hereby amended to add the following utility facility(ies) ("additional Owner Utilities") and proposed Adjustment(s):

(b) The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the plans, specifications and cost estimates attached hereto as Exhibit A.

(c) The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to the Department in accordance with Paragraph 2 of the Original Agreement, and the 14 day response times in Paragraph 2 shall apply thereto.

(d) Paragraph 4(f) of the Original Agreement is hereby amended to add the following deadline for the Adjustment of the additional Owner Utilities *[check one box that applies]*:

☐ Owner shall complete all of the utility reconstruction and relocation work, including final testing and acceptance thereof, on or before _____, 20_____.

☐ Owner shall complete all of the utility reconstruction and relocation work, including final testing and acceptance thereof, within _____ calendar days after delivery to Owner of a notice to proceed by Developer

(e) The Owner's costs associated with Adjustment of the additional Owner Utilities shall be developed pursuant to the method checked and described below, which for purposes of Paragraphs 7 through 11 of the Original Agreement, shall correspond to the procedures set forth as (1) through (3) in Paragraph 6(b) of the Original Agreement *[check only one box]*:

☐ (1) Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body; or

☐ (2) Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations, or

☐ (3) The agreed sum of $_____, as supported by the analysis of estimated costs attached hereto as part of Exhibit A.

[Include the following Paragraphs 1(f), (g), and (h), if the additional work includes a Betterment:]

(f) Section 10(b) is hereby amended to add the following Betterment:

The Adjustment of the additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]* _____ The Owner has provided to the Developer comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Developer The estimated amount of the Owner's costs for work under this Agreement which is attributable to Betterment is $_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____%, calculated by subtracting (ii) from (i) which remainder shall be divided by (i).

(g) The following shall apply to any Betterment described in Paragraph 1(f) of this Amendment:

(i) If the Owner's costs are developed under procedure (3) described in Paragraph 1(e) of this Amendment, then the agreed sum stated in that Paragraph includes any credits due to the Developer on account of the identified Betterment, and no further adjustment shall be made on account of same.

(ii) If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 1(e) of this Amendment, the parties agree as follows *[check the one appropriate provision]*:

☐ The estimated cost stated in Paragraph 1(f) of this Amendment is the agreed and final amount due for Betterment under this Amendment. Accordingly, each intermediate invoice submitted for Adjustment(s) of the additional Owner Utilities pursuant to Paragraph 7(b) of the Original Agreement shall credit the Developer with an appropriate percentage of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted pursuant to Paragraph 7(a) of the Original Agreement shall credit the Developer with the full agreed Betterment amount. No other adjustment (either up or down) shall be made based on actual Betterment costs.

☐ The Owner is responsible for the actual cost of the identified Betterment, determined by multiplying (a) the Betterment percentage stated in Paragraph 1(f) of this Amendment, by (b) the actual cost of all work performed by the Owner pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the Owner to the Developer. Accordingly, each invoice submitted for Adjustment of the additional Owner Utilities pursuant to either Paragraph 7(a) or Paragraph 7(b) of the Original Agreement shall credit the Developer with an amount calculated by multiplying (x) the Betterment percentage stated in Paragraph 1(f) of this Amendment, by (y) the amount billed on such invoice.

(h) The determinations and calculations of Betterment described in this Amendment shall exclude right-of-way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 16 of the Original Agreement.

(i) Owner and Developer agree to refer to this Amendment, designated by the "Amendment No." and "Agreement number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

(j) [*Include any other proposed amendments in compliance with the applicable law.*]

2. **General.**

(a) All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.

(b) This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.

(c) Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the Developer, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.

(d) This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Amendment, and (b) the completion of the Department's review as indicated by the signature of the Department's representative, below.

REVIEWED BY DEPARTMENT

By: _____
Authorized Signature

Printed Name: _____

Title: _____

Date: _____

OWNER

_____
[Print Owner Name]

By: _____
Duly Authorized Representative

Printed Name _____

Title: _____

Date: _____

DEVELOPER

_____
[Print Developer Name]

By: _____
Duly Authorized Representative

Printed Name _____

Title: _____

Date _____

County:
ROW CSJ No.:
Const. CSJ No.
Highway
Limits:
Fed. Proj No.:

MASTER UTILITY ADJUSTMENT AGREEMENT
(Owner Managed)
Agreement No.: -U-_____

THIS AGREEMENT, by and between _____, hereinafter identified as the "**Developer**", and _____, hereinafter identified as the "**Owner**", is as follows

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT' or the "Department", is authorized to design, construct, operate, maintain, and improve turnpike projects as part of the state highway system throughout the State of Texas, all in conformance with the provisions of Chapter 203, Texas Transportation Code, as amended, and

WHEREAS, the Department proposes to construct, as part of the Central Texas Turnpike Project, a turnpike project identified as ("Facility"), [insert brief description of the Facility]; and

WHEREAS, pursuant to Section 203.092 of the Texas Transportation Code, as amended, the cost of the removal, relocation, or grade separation of utilities impacted by the Facility is the Department's responsibility, as part of the cost of the Facility; and

WHEREAS, pursuant to that certain Facility Concession Agreement by and between the Department and the Developer with respect to the Facility (the "FCA"), the Developer has undertaken the obligation to design and construct the Facility; and

WHEREAS, the Developer's duties pursuant to the FCA include causing the removal, relocation, or other necessary adjustment of existing utilities impacted by the Facility (collectively, "Adjustment"), at the Developer's expense; and

WHEREAS, the Developer may request Federal credit assistance in payment of costs incurred in Adjustment of the Owner's utility facilities to accommodate the Facility; and

WHEREAS, the Developer has notified the Owner that certain of its utility facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Facility (and/or with the "Ultimate Configuration", as hereinafter defined), and has requested that the Owner undertake the Adjustment of the Owner Utilities as necessary to accommodate the Facility (and the Ultimate Configuration); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected utility facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00")]*:
_____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the Developer and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the Developer and the Owner agree as follows:

1. **Preparation of Plans**. *[Check one box that applies]*

☐ The Developer has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities The Developer represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), set forth in 43 Tex. Admin. Code, Part 1, Chapter 21, Subchapter C, *et seq* (the "UAR"). By its execution of this Agreement or by the signing of the Plans, Owner hereby approves and confirms that the Plans are in compliance with Owner's "standards" described in Paragraph 3(c)

☐ The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities The Owner represents and warrants that the Plans conform to the UAR. By its execution of this Agreement, Developer hereby approves the Plans The Owner also has provided to the Developer a utility plan view map illustrating the location of existing and proposed utility facilities on the Developer's right of way map of the Facility. With regard to its preparation of the Plans, Owner represents as follows *[check one box that applies]*:

☐ The Owner's employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner's typical costs for such work.

☐ The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Facility for comparable work for the Owner.

2 **Review by the Department.** The parties hereto acknowledge and agree as follows:

(a) Upon execution of this Agreement by both the Developer and the Owner, pursuant to the FCA the Developer will submit this Agreement, together with the attached Plans, to the Department for its review and approval, as part of a package referred to as a "Utility Assembly". The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to both parties, to respond to any comments made by the Department thereon. Without limiting the generality of the foregoing, (i) the Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the Developer in response to Department comments within **fourteen (14) business days** after receipt of such modifications, and (ii) if the Owner originally prepared the Plans, the Owner agrees to modify the Plans in response to Department comments and to submit such modified Plans to the Developer for its comment and/or approval (and re-submittal to the Department for its comment and/or approval) within **fourteen (14) business days** after receipt of the Department's comments. The Owner's failure to timely respond to any modified Plans submitted by the Developer pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the Developer shall have the right to modify the Plans for the Owner's approval as if the Developer had originally prepared the Plans. The process set forth in this paragraph will be repeated until the Owner, the Developer, and the Department have all approved this Agreement and accepted the Plans.

(b) The parties hereto acknowledge and agree that the Department's review, comments, and/or approval of a Utility Assembly or any component thereof is solely for the purpose of ascertaining matters of particular concern to the Department, and the Department has, and by its review, comments and/or approval of such Utility Assembly or any component thereof undertakes, no duty to review the Utility Assembly or its components for their quality or for the adequacy of Adjusted facilities (as designed) for the purposes for which they are intended to be used or for compliance with law or applicable standards (other than Department requirements).

3. **Design and Construction Standards.** All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:

(a) All applicable local, state and federal laws, regulations, decrees, ordinances and policies, including the UAR, the Utility Manual issued by TxDOT (to the extent its requirements are mandatory for Utility Adjustments necessitated by the Facility, as stated in the FCA and communicated to the Owner by the Developer of TxDOT), the requirements of the FCA, and the policies of TxDOT;

(b) The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work; and

(c) The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the Developer in writing.

Such design and construction also shall be consistent and compatible with (i) the Developer's current design and construction of the Facility, (ii) TxDOT's projected design for the Facility as it will ultimately be built out in the future (the "Ultimate

Configuration"), and (iii) any other utilities being installed in the same vicinity. The Owner acknowledges receipt from the Developer of Facility plans and Ultimate Configuration documents as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

4. **Construction by the Owner; Scheduling.**

(a) The Owner hereby agrees to perform the construction necessary to Adjust the Owner Utilities. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except for as modified pursuant to Paragraph 17) The Owner agrees that during the Adjustment of the Utility, Owner and its contractors will coordinate their work with the Developer so as not to interfere with the performance of work on the Facility by the Developer or by any other party "Interfere" means any action or inaction that interrupts, interferes, delays or damages Facility work.

(b) The Owner may utilize its own employees or may retain such contractor or contractors as are necessary to Adjust the Owner Utilities, through the procedures set forth in Form TxDOT-U-48 "Statement Covering Contract Work" attached hereto as Exhibit C. If the Owner utilizes its own employees for the Adjustment of the Utility, a Form TxDOT-U-48 is not required If the Adjustment of the Utility is undertaken by the Owner's contractor under a competitive bidding process, all bidding and contracting shall be conducted in accordance with all federal and state laws and regulations applicable to the Owner and the Facility.

(c) The Owner shall obtain all permits necessary for the construction to be performed by the Owner hereunder, and the Developer shall cooperate in that process as needed.

(d) The Owner shall commence its construction for Adjustment of each Owner Utility hereunder promptly after (i) receiving written notice to proceed therewith from the Developer, and (ii) any right of way necessary for such Adjustment has been acquired either by the Department (for Adjusted facilities to be located within the Facility right of way) or by the Owner (for Adjusted facilities to be located outside of the Facility right of way), or a right-of-entry permitting Owner's construction has been obtained from the landowner by the Developer or by the Owner with the Developer's prior approval. The Owner shall notify the Developer at least 72 hours prior to commencing construction for the Adjustment of each Owner Utility hereunder

(e) The Owner shall expeditiously stake the survey of the proposed locations of the Owner Utilities being adjusted, on the basis of the final approved Plans. The Developer shall verify that the Owner Utilities, whether moving to a new location or remaining in place, clear the planned construction of the Facility as staked in the field as well as the Ultimate Configuration.

(f) The Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof (check one box that applies):

☐ on or before _____, 20___.

☐ a duration not to exceed _____ calendar days upon notice to proceed by the Developer.

(g) The amount of reimbursement due to the Owner pursuant to this Agreement for the affected Adjustment(s) shall be reduced by ten percent (10%) for each 30-day period (and by a pro rata amount of said ten percent (10%) for any portion of a 30-day period) by which the final completion and acceptance date for the affected Adjustment(s) exceeds the applicable deadline. The provisions of this Paragraph 4(g) shall not limit any other remedy available to the Developer at law or in equity as a result of the Owner's failure to meet any deadline hereunder.

The above reduction applies except to the extent due to (i) Force Majeure as described in Paragraph 25(c), (ii) any act or omission of the Developer, if the Owner fails to meet any deadline established pursuant to Paragraph 4(f), or (iii) if the Developer and TxDOT determine, in their sole discretion, that a delay in the relocation work is the result of circumstances beyond the control of the Owner or Owner's contractor and the Developer will not reduce the reimbursement.

5. **Developer Responsible for Costs of Work.** With the exception of any "Betterment" as defined in Paragraph 10, all work to be performed pursuant to this Agreement shall be at the sole cost and expense of the Developer, including but not limited to the engineering costs of the Owner. All costs charged to the Developer by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to the similar work performed by or for the Owner at the Owner's expense The costs paid by the Developer pursuant to this Agreement shall be full compensation to the Owner for all costs incurred by the Owner in Adjusting the Owner Utilities (including without limitation costs of relinquishing and/or acquiring right of way), and the Department shall have no liability to the Owner for any such costs. Owner expressly acknowledges that it shall only be entitled to compensation for any Adjustment(s) covered by this Agreement, including costs with respect to real property interests (either acquired or relinquished), from the Developer as set forth in this Agreement, and specifically acknowledges that it shall not be entitled to compensation or reimbursement from Department or the State of Texas

6. **Costs of the Work.**

(a) The Owner's costs for Adjustment of the Owner Utilities shall be derived from (i) the accumulated total of costs incurred by the Owner for design and construction of such Adjustment, plus (ii) the Owner's other related costs to the extent permitted pursuant to Paragraph 6(c) (including without limitation the eligible engineering costs incurred by the Owner for design prior to execution of this Agreement), plus (iii) the Owner's right of way acquisition costs, if any, which are reimbursable pursuant to Paragraph 16.

(b) The Owner's costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only one box]*:

☐ (1) Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body; or

☐ (2) Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations, or

☐ (3) The agreed sum of $ [redacted], as supported by the analysis of estimated costs attached hereto as part of Exhibit A.

(c) Eligible Owner costs shall include only those authorized under 23 C.F.R. Part 645, Subpart A. The Owner agrees that costs referenced in 23 C.F.R. Section 645.117(d)(2) are not eligible for reimbursement. These regulations can be found at http://www.access.gpo.gov/nara/cfr/waisidx_03/23cfr645_03.html.

7. **Billing, Payment, Records and Audits: Actual Cost Method.** The following provisions apply if the Owner's costs are developed under procedure (1) or (2) described in Paragraph 6(b)

(a) After (i) completion of all Adjustment work to be performed pursuant to this Agreement, (ii) the Developer's final inspection of the Adjustment work by Owner hereunder (and resolution of any deficiencies found), and (iii) receipt of an invoice complying with the applicable requirements of Paragraph 9, the Developer shall pay to the Owner an amount equal to ninety percent (90%) of the Owner's costs as shown in such final invoice (less amounts previously paid, and applicable credits). After completion of the Developer's audit referenced in Paragraph 7(c) and the parties' mutual determination of any necessary adjustment to the final invoice resulting therefrom, the Developer shall make any final payment due so that total payments will equal the total amount reflected on such final invoice (as adjusted, if applicable).

(b) When requested by the Owner and properly invoiced in accordance with Paragraph 9, the Developer shall make intermediate payments to the Owner based upon the progress of the work completed at not more than monthly intervals, and such payments shall not exceed eighty percent (80%) of the Owner's eligible costs as shown in each such invoice (less applicable credits). Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

(c) The Owner shall maintain complete and accurate cost records for all work performed pursuant to this Agreement, in accordance with the provisions of 23 C.F.R. Part 645, Subpart A. The Owner shall maintain such records for four (4) years after receipt of final payment hereunder. The Developer and its representatives shall be allowed to audit such records during the Owner's regular business hours. Unsupported charges will not be considered eligible for reimbursement. The parties shall mutually agree upon (and shall promptly implement by payment or refund, as applicable) any financial adjustment found necessary by the Developer's audit. The Department, the Federal Highway Administration, and their respective representatives also shall be allowed to audit such records upon reasonable notice to the Owner, during the Owner's regular business hours.

8. **Billing and Payment: Agreed Sum Method.** If the Owner's costs are developed under procedure (3) described in Paragraph 6(b), then the Developer shall make payment to the Owner in the agreed amount, after (a) completion of all Adjustment work to be performed pursuant to this Agreement, (b) the Developer's final inspection of the Adjustment work by Owner

hereunder (and resolution of any deficiencies found), and (c) receipt of an invoice complying with the applicable requirements of Paragraph 9.

9. **Invoices.** Each invoice submitted by the Owner (i) shall be prepared in the form and manner prescribed by 23 C.F R. Part 645, Subpart A, and (ii) if the Owner's costs are developed under procedure (1) or (2) described in Paragraph 6(b), shall list each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice shall be submitted to the Developer at the address for notices stated in Paragraph 23, unless otherwise directed by Developer pursuant to Paragraph 23. The Owner shall make commercially reasonable efforts to submit final invoices not later than one hundred twenty (120) days after completion of work. The Owner hereby acknowledges and agrees that any of its costs not submitted to the Developer within eighteen months following completion of all Adjustment work to be performed by both parties pursuant to this Agreement shall be deemed to have been abandoned and waived.

10. **Betterment.**

(a) For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being Adjusted that is not attributable to the construction of the Facility and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the Adjusted Utility over that provided by the existing Utility facility or an expansion of the existing Utility facility, provided, however, that the following are not considered Betterments

(i) any upgrading which is required for accommodation of the Facility,

(ii) replacement devices or materials that are of equivalent standards although not identical;

(iii) replacement of devices or materials no longer regularly manufactured with the next highest grade or size,

(iv) any upgrading required by applicable laws, regulations or ordinances;

(v) replacement devices or materials which are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); or

(vi) any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(c), or

(vii) any discretionary decision by a Utility Owner that is contemplated within a particular standard described in clause (vi) above.

[Include the following for fiber optic Owner Utilities only.] Extension of an Adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(c) shall be deemed to be of direct benefit to the Facility.

(b) It is understood and agreed that the Developer will not pay for any Betterments and that Owner shall not be entitled to payment therefor. No Betterment may be performed in connection with the Adjustment of the Owner Utilities which is incompatible with the Facility or the Ultimate Configuration or which cannot be performed within the other

constraints of applicable law, any applicable governmental approvals, and the requirements imposed on the Developer by the FCA, including without limitation the scheduling requirements thereunder. Accordingly, the parties agree as follows *[check one box that applies, and complete if appropriate]*:

☐ The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.

☐ The Adjustment of the Owner Utilities pursuant to the Plans includes Betterment to the Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: [redacted]. The Owner has provided to the Developer comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Developer. The estimated amount of the Owner's costs for work hereunder which is attributable to Betterment is $[redacted], calculated by subtracting (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is [redacted]%, calculated by subtracting (ii) from (i), which remainder shall be divided by (i).

(c) If Paragraph 10(b) identifies Betterment, then the following shall apply:

(i) If the Owner's costs are developed under procedure (3) described in Paragraph 6(b), then the agreed sum stated in that Paragraph includes any credits due to the Developer on account of the identified Betterment, and no further adjustment shall be made on account of same.

(ii) If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 6(b), the parties agree as follows *[If Paragraph 10(b) identifies Betterment <u>and</u> the Owner's costs are developed under procedure (1) or (2), check the <u>one</u> appropriate provision]*:

☐ The estimated cost stated in Paragraph 10(b) is the agreed and final amount due for Betterment hereunder. Accordingly, each intermediate invoice submitted pursuant to Paragraph 7(b) shall credit the Developer with an appropriate percentage of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted pursuant to Paragraph 7(a) shall credit the Developer with the full-agreed Betterment amount. No other adjustment (either up or down) shall be made based on actual Betterment costs.

☐ The Owner is responsible for the actual cost of the identified Betterment, determined by multiplying (a) the Betterment percentage stated in Paragraph 10(b), by (b) the actual cost of all work performed by the Owner pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the Owner to the Developer. Accordingly, each invoice submitted pursuant to either Paragraph 7(a) or Paragraph 7(b) shall credit the Developer with an amount calculated by multiplying (x) the Betterment percentage stated in Paragraph 10(b), by (y) the amount billed on such invoice.

(d) The determinations and calculations of Betterment described in this Paragraph 10 shall exclude right-of-way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 16.

11 **<u>Salvage.</u>** For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the Developer is

entitled to a credit for the salvage value of such materials and/or parts, determined in accordance with 23 C.F.R. Section 645.105(j). If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 6(b), then the final invoice submitted pursuant to Paragraph 7(a) shall credit the Developer with the full salvage value. If the Owner's costs are developed under procedure (3) described in Paragraph 6(b), then the agreed sum stated in that Paragraph includes any credit due to the Developer on account of salvage.

12. **Utility Investigations.** At the Developer's request, the Owner shall assist the Developer in locating any Utilities (including appurtenances) which are owned and/or operated by Owner and may be impacted by the Facility. Without limiting the generality of the foregoing, in order to help assure that neither the Adjusted Owner Utilities nor existing, unadjusted utilities owned or operated by the Owner are damaged during construction of the Facility, the Owner shall mark in the field the location of all such utilities horizontally on the ground in advance of Facility construction in the immediate area of such utilities.

13. **Inspection and Ownership of Owner Utilities.**

(a) The Developer shall have the right, at its own expense, to inspect the Adjustment work performed by the Owner or its contractors, during and upon completion of construction. All inspections of work shall be completed and any comment provided within **five (5) business days** after request for inspection is received.

(b) The Owner shall accept full responsibility for all future repairs and maintenance of said Owner Utilities In no event shall the Developer or the Department become responsible for making any repairs or maintenance, or for discharging the cost of same. The provisions of this Paragraph 13(b) shall not limit any rights which the Owner may have against the Developer if the Developer damages any Owner Utility as a result of its Facility activities.

14. **Design Changes.** The Developer will be responsible for additional Adjustment design and/or construction costs necessitated by design changes to the Facility, upon the terms specified herein.

15. **Field Modifications.** The Owner shall provide the Developer with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes as described in Paragraph 17(b), occurring in the Adjustment of the Owner Utilities

16. **Real Property Interests.**

(a) The Owner has provided, or upon execution of this Agreement shall promptly provide to the Developer, documentation acceptable to the Department indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to the Department's approval as part of its review of the Utility Assembly as described in Paragraph 2. Claims approved by the Department as to rights or interests are referred to herein as "Existing Interests".

(b) If acquisition of any new easement or other interest in real property ("New Interest") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the Developer's Facility schedules. The Developer shall be responsible for the actual and reasonable acquisition costs of any such New Interest (including without limitation the Owner's reasonable overhead charges and legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph

16(c), and subject to the provisions of Paragraph 16(e); provided, however, that all acquisition costs shall be subject to the Developer's prior written approval. Eligible acquisition costs shall be invoiced by the Owner and paid by the Developer pursuant to this Agreement, as a segregated component of the Owner's costs described in Paragraph 6. Any such New Interest shall have a written valuation and shall be acquired in accordance with applicable law.

(c) The Developer shall pay only for replacement in kind of an Existing Interest (e.g., as to width and type), unless a New Interest exceeding such standard (i) is required in order to accommodate the Facility or by compliance with applicable law, or (ii) is called for by the Developer in the interest of overall Facility economy. Any New Interest which is not Developer's cost responsibility pursuant to the preceding sentence shall be considered a Betterment to the extent that it upgrades the Existing Interest which it replaces, or in its entirety if the related Owner Utility was not installed pursuant to an Existing Interest. Betterment costs shall be solely the Owner's responsibility.

(d) For each Existing Interest located within the final Facility right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Interest to the Department. For each such Existing Interest relinquished by the Owner, the Developer shall do one of the following to compensate the Owner for such Existing Interest, as appropriate:

(i) If the Owner acquires a New Interest for the affected Owner Utility, the Developer shall reimburse the Owner for its actual and reasonable acquisition costs in accordance with Paragraph 16(b); or

(ii) If the Owner does not acquire a New Interest for the affected Owner Utility, the Developer shall compensate the Owner for the fair market value of such relinquished Existing Interest, as mutually agreed between the Owner and the Developer and supported by a written valuation.

The compensation provided to the Owner pursuant to either subparagraph (i) or subparagraph (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Interest, and no further compensation shall be due to the Owner from either the Developer or the Department on account of such Existing Interest.

(e) The Owner shall execute a Utility Joint Use Acknowledgement for each Adjusted Owner Utility where required pursuant to TxDOT policies.

17 **Amendments and Modifications.** This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 17(a) or Paragraph 17(b) below.

(a) Except as otherwise provided in Section 17(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment (UAAA) in the form of Exhibit B hereto (TxDOT-CDA-U-35A-OM). The UAAA form can be used for a new scope of work with concurrence of the Developer and TxDOT as long as the Design and Construction responsibilities have not changed. Each UAAA is subject to the review and approval of the Department, prior to

its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs separate from other work being performed.

(b) For purposes of this Paragraph 17(b), "Utility Adjustment Field Modification" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by the Department, due either to design of the Facility or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 in. water line to miss a roadway drainage structure). A Utility Adjustment Field Modification agreed upon by the Developer and the Owner does not require a UAAA, provided that the modified Plans have been submitted to the Department for its review and comment, and the process for such review and comment has been completed as specified in the FCA. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 15.18.

18. **Relationship of the Parties.** This Agreement does not in any way, and shall not be construed to, create a principal/agent or joint venture relationship between the parties hereto and under no circumstances shall the Owner or the Developer be considered as or represent itself to be an agent of the other.

19. **Entire Agreement.** This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

20. **Assignment; Binding Effect; Department as Third Party Beneficiary.** Neither the Owner nor the Developer may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party and of the Department, which consent may not be unreasonably withheld or delayed; provided, however, that the Developer may assign any of its rights and/or delegate any of its duties to:

(a) a design-build contractor engaged by Developer to design and construct the Facility and/or related Utility Adjustments, or

(b) to the Department or to any other entity engaged by the Department to fulfill the Developer's obligations under the FCA, at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, the Developer, and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by either party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general, provided, however, that the Owner and the Developer agree that although the Department is not a party to this Agreement, the Department is intended to be a third-party beneficiary to this Agreement.

21. **Breach by the Developer.** If the Owner claims that the Developer has breached any of its obligations under this Agreement, the Owner will notify the Developer and the Department in writing of such breach, and the Developer shall have 30 days following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; provided, however, that both during and after such period the Department shall have the right, but not the obligation, to cure any breach by the Developer. Without limiting the generality of the foregoing, (a) the Department shall have no liability to the

Owner for any act or omission committed by the Developer in connection with this Agreement, including without limitation any reimbursement owed to the Owner hereunder, and (b) in no event shall the Department be responsible for any repairs or maintenance to the Owner Utilities Adjusted pursuant to this Agreement

22. **Traffic Control.** The Developer shall provide traffic control or reimburse the owner for traffic control made necessary by the Adjustment work performed by either the Developer or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas Manual on Uniform Traffic Control Devices. Betterment percentages calculated in Paragraph 10 shall also apply to the traffic control costs.

23. **Notices.** Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following

The Owner:

Phone:
Fax:

The Developer:

Phone:
Fax:

A party sending a notice of default of this Agreement to the other party shall also send a copy of such notice to the Department at the following address:

The Department:

Phone:
Fax:

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, (c) by confirmed fax, or (d) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt, served by facsimile transmission shall be deem delivered on the date of receipt as shown on the received facsimile, and served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Either party may from time to time designate any other address for this purpose by written notice to the other party; the Department may designate another address by written notice to both parties

24 **Approvals.** Any acceptance, approval, or any other like action (collectively "Approval") required or permitted to be given by either the Developer, the Owner or the Department pursuant to this Agreement

(a) Must be in writing to be effective (except if deemed granted pursuant hereto),

(b) Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval, and

(c) Except for approvals by the Department, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then fourteen (14) calendar days), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 23.

25 **Time; Force Majeure.**

(a) Time is of the essence in the performance of this Agreement.

(b) All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.

(c) Neither the Owner nor the Developer shall be liable to the other for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("Force Majeure"), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts. If any such event of Force Majeure occurs, the Owner agrees, if requested by the Developer, to accelerate its efforts hereunder if reasonably feasible in order to regain lost time, so long as the Developer agrees to reimburse the Owner for such the reasonable and actual costs of such efforts

26 **Continuing Performance.** In the event of a dispute, the Owner and the Developer agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

27 **Equitable Relief** The Developer and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties' remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Facility. Consequently, the parties hereto (and the Department as well, as a third party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Facility, provided, however, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

28. **Authority.** The Owner and the Developer each represents and warrants to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this

Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.

29. **Cooperation.** The parties acknowledge that the timely completion of the Facility will be influenced by the ability of the Owner (and its contractors) and the Developer to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the Developer agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with the Developer's current and future construction schedules for the Facility. The Owner further agrees to require its contractors to coordinate their respective work hereunder with the Developer.

30. **Termination.** If the Facility project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the Developer shall notify the Owner in writing and the Developer reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.

31. **Nondiscrimination**. Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement, that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.

32. **Captions**. The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the contest of their respective paragraphs

33. **Counterparts.** This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.

34. **Effective Date.** Except for the provisions of Paragraph 2(a) (which shall become effective immediately upon execution of this Agreement by both the Owner and the Developer without regard to the Department's signature), this Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Agreement, and (b) the completion of the Department's review as indicated by the signature of the Department's representative, below

REVIEWED BY:
DEPARMENT

By: _____
Authorized Signature

Printed
Name: _____

Title: _____

Date: _____

OWNER

_____
[Print Owner Name]

By: _____
Duly Authorized Representative

Printed
Name: _____

Title: _____

Date: _____

DEVELOPER

_____
[Print Developer Name]

By: _____
Duly Authorized Representative

Printed
Name: _____

Title: _____

Date: _____

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT B

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(TxDOT-CDA-U-35A-OM)

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed Proj. No.:

EXHIBIT C

STATEMENT COVERING CONTRACT WORK
(TxDOT-U-48)

TxDOT
UTILITY ADJUSTMENT CHECKLIST
(To be included with submittal)

SH130-U-No.:

Utility Owner Name:

County:

Jurisdictions:

Estimated Dollar Amount of Utility Adjustment/Cost to Developer:

ROW CSJ No.:

Construction CSJ No.:

Segment Number:

☐ Actual Cost or ☐ Lump Sum (Check one)

Federal-Aid ROW Project No.:

Alternate Procedure Approval Date.

Highway Station Limits (To & From):

Description/Scope of Work:

1.	Yes ☐	No ☐	N/A ☐	Approved & current ROW Maps on file with TxDOT?
2.	Yes ☐	No ☐	N/A ☐	Is the Utility Adjustment within the Facility ROW limits or directly related to work required within Facility ROW limits?
3.	Yes ☐	No ☐	N/A ☐	Are explanations and clarifications included in the transmittal to describe unique conditions affecting the Utility?
4	Yes ☐	No ☐	N/A ☐	Have (3) identical originals of the Utility Assembly with plans been submitted, of which one original should be color-coded?
5	Yes ☐	No ☐	N/A ☐	Has the Developer's Utility Design Coordinator located on the plans the major items of material listed on the estimate by scaling or stationing?
6	Yes ☐	No ☐	N/A ☐	Have the existing and proposed Utility facilities been plotted on the ROW map and attached with this submission?

7. Yes ☐ No ☐ N/A ☐ Have the Utility Adjustments been designed for the Ultimate Configuration?

8. Yes ☐ No ☐ N/A ☐ Has the Utility Owner signed the plans for a Developer Managed MUAA (DM)?

9. Yes ☐ No ☐ N/A ☐ Has the Utility Owner signed the plans for an Owner Managed (OM) MUAA that allows for the Developer to design for the Utility Adjustment?

10. Yes ☐ No ☐ N/A ☐ If the agreed sum method has been marked, has a detailed, itemized estimate and matching plans been provided?

11. Yes ☐ No ☐ N/A ☐ Is the Utility consultant-engineering contract reviewed and approved by the Developer's Utility Manager (UM)?

12. Yes ☐ No ☐ N/A ☐ Are all forms submitted complete and correct for the situation/circumstance of the Utility Adjustment?

13. Yes ☐ No ☐ N/A ☐ Has the Statement Covering Utility Construction Contract Work (TxDOT Form ROW-U-48) been submitted for work completed by an owner-managed contractor?

14. Yes ☐ No ☐ N/A ☐ Is the Utility Assembly folded so as to fit into an 8.5" x 11" file?

15. Yes ☐ No ☐ N/A ☐ Are any of the proposed Utility facilities installed longitudinally inside the control of access, excluding areas near ramp terminals?

16 Yes ☐ No ☐ N/A ☐ Has Barlow's Formula information been submitted for unencased high-pressure pipelines? The following information is required to complete Barlow's formula. S=Yield Strength, Wall thickness = t, Outside Diameter = D, Design Factor = F. Maximum Operating Pressure must also be given and compared to the pressure calculated with Barlow's. The Barlow calculation must be shown with the submission.

17. Yes ☐ No ☐ N/A ☐ If the pipeline is unencased, is there adequate coating, wrapping and cathodic protection?

18. Yes ☐ No ☐ N/A ☐ Are replacement Utility ROW charges justified and supported?

19. Yes ☐ No ☐ N/A ☐ If yes to #18, is an affidavit and an ownership instrument (i.e. easement, license or deed) included?

20. Yes ☐ No ☐ N/A ☐ Do Utility Adjustment plans demonstrate Utility Accommodation Rules compliance, including minimum depth of cover from proposed grade and casing requirements?

21. Yes ☐ No ☐ N/A ☐ Is the proposed Utility Adjustment shown on the plans with stationing and offsets from centerline, edge of pavement, or ROW lines?

22. Yes ☐ No ☐ N/A ☐ Are backfill requirements met?

23. Yes ☐ No ☐ N/A ☐ Is a schedule of work provided by/required of the Utility company if the Utility Adjustment is large and complex?

24. Yes ☐ No ☐ N/A ☐ Is a Betterment credit applicable?

25. Yes ☐ No ☐ N/A ☐ If yes to #24, is the credit calculated and applied properly?

26. Yes ☐ No ☐ N/A ☐ Is accrued depreciation credit applicable?

27. Yes ☐ No ☐ N/A ☐ If accrued depreciation is applicable, is credit applied properly?

28. Yes ☐ No ☐ N/A ☐ Is salvage credit applicable?

29. Yes ☐ No ☐ N/A ☐ If salvage credit applicable, is the credit applied properly?

30. Yes ☐ No ☐ N/A ☐ Are overheads and loadings checked for reasonableness?

31. Yes ☐ No ☐ N/A ☐ Are cost estimate extensions checked?

32. Yes ☐ No ☐ N/A ☐ Is a correct & recorded Quitclaim Deed (TxDOT Form ROW-N-30) submitted, if required?

33. Yes ☐ No ☐ N/A ☐ Has a recommendation for approval been stated on the transmittal memorandum?

34. Yes ☐ No ☐ N/A ☐ Is the Utility Adjustment in only one jurisdiction?

35. Yes ☐ No ☐ N/A ☐ If the Utility Adjustment is in more than one jurisdiction, have the percentages in each jurisdiction been detailed in the transmittal memorandum?

36. Yes ☐ No ☐ N/A ☐ Are the sign-off forms attached?

37. Yes ☐ No ☐ N/A ☐ Have the plans for the Utility Adjustment been sealed by a Registered Professional Engineer?

Prepared by: _____

Utility Design Coordinator

Approved by _____

Utility Manager

Recommended for Approval by: _____
Quality Control

Date: _____

Comments:

Developer's Utility Design Coordinator
Utility No Conflict Sign-Off Form

Utility Design Coordinator: _____
Date plans received: _____
Utility Company: _____
Assembly "U" number: _____
Type of Utilities: _____
Date on Utility's plans: _____ No. of sheets in Utility's plans: _____

I, the Utility Design Coordinator (UDC) on behalf of the Developer ( ) certify that a review of the above referenced Utility plans concerning the proposed interim and ultimate highway improvements on SH130 has been completed and has not identified any conflicts between the Utility's proposed relocation and any design features.

Design features include but are not limited to pavement structures, drainage facilities, bridges, retaining walls, traffic signals, illumination, signs, foundations, duct/conduit, ground boxes, erosion control facilities, water quality facilities and other Developer-Managed Utilities.

Any design changes to the SH130 roadway after the signing of this form will be coordinated through the Developer's Utility Manager and the affected Utility Owner.

☐ Check box if there are any areas of concern and insert comments below:

Print Name:
(UDC) _____ Date: _____

Utility Design Coordinator (UDC)

Sign Name:
(UDC) _____ Date: _____

Utility Coordination
Firm Name: _____

This form must be completed/signed and included in each Utility Assembly submitted to the Texas Department of Transportation

Developer's Utility Design Coordinator
Utility No Conflict Sign-Off Form

Utility Design Coordinator: _____
Date plans received: _____
Utility Company: _____
Assembly "U" number: _____
Type of Utilities: _____
Date on Utility's plans: _____ No. of sheets in Utility's plans: _____

I, the Utility Design Coordinator (UDC) on behalf of the Developer ( ) certify that a review of the above referenced Utility plans concerning the proposed interim and ultimate highway improvements on SH130 has been completed and has not identified any conflicts between the Utility's proposed relocation and any design features.

Design features include but are not limited to pavement structures, drainage facilities, bridges, retaining walls, traffic signals, illumination, signs, foundations, duct/conduit, ground boxes, erosion control facilities, water quality facilities and other Developer-Managed Utilities.

Any design changes to the SH130 roadway after the signing of this form will be coordinated through the Developer's Utility Manager and the affected Utility Owner.

☐ Check box if there are any areas of concern and insert comments below:

Print Name:
(UDC) _____ Date: _____

Utility Design Coordinator (UDC)

Sign Name:
(UDC) _____ Date: _____

Utility Coordination
Firm Name: _____

This form must be completed/signed and included in each Utility Assembly submitted to the Texas Department of Transportation

Developer's Utility Manager
Utility No Conflict Sign-Off Form

Utility Manager _____
Date plans received: _____
Utility Company: _____
Assembly "U" number: _____
Type of Utilities: _____
Date on Utility's plans: _____ No. of sheets in Utility's plans: _____

I, the Utility Manager (UM) working on behalf of the Developer ( ) certify that a review of the above referenced Utility plans concerning the proposed ultimate highway improvements on SH130 has been completed and has not identified any conflicts between the Utility's proposed relocation and any existing and/or proposed Utilities.

The proposed Utility plans conform to Title 43, Texas Administrative Code, Section 21 31 – 21 56 of the Utility Accommodation Rules.

☐ Check box if there are any areas of concern and insert comments below.

Print Name (Utility Manager-UM) _____ Date: _____

Sign Name. (UM) _____ Date: _____

Print Name (Utility Design Coordinator – UDC) _____ Date: _____

Sign Name: (UDC) _____ Date: _____

Utility Coordination Firm Name: _____

This form must be completed/signed and included in each Utility Assembly submitted to the Texas Department of Transportation

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 8 – Utility Assembly and Tracking Report Requirements

Required Items in Utility Assemblies

Each Utility Assembly required by Section 6.3.5.1 - Utility Assemblies for Adjustments Covered by the Same Original Utility Agreement shall include the following:

1. A transmittal memo recommending approval and detailing any unique characteristics or information pertaining to the subject Utility Adjustment(s); the memo also shall briefly explain the need for the Adjustment(s)

2. A completed Utility Assembly Checklist (using TxDOT's then-standard form for such purpose).

3. A proposed Utility Agreement which has been executed by the Utility Owner and Developer (one original in each of the three original Utility Assemblies); required attachments shall be included.

4. Utility Adjustment Plans (in paper format) with all information necessary, and in proper format, which:

    a. Show plan and profiles of the existing Utility facilities and proposed Adjustments

    b. Show any existing highway ROW lines, the Facility ROW lines and control of access lines

    c. Show the proposed roadway features of the Facility and other Utilities in the vicinity

    d. Show the final Facility grade and any railroad profiles in order to determine if clearance requirements are met

    e. Show an offset distance from the Facility ROW line to the proposed Utility facility, for each Utility which will parallel (and be within) the proposed Facility ROW lines (whether proposed to remain in place or be reinstalled in a new location)

    f Show dimensions to Utility facilities with station and offset in relation to the Facility ROW line

    g. Show symbols and major material items

    h. Provide the Utility Owner's specifications for the Adjustment

    i. Present sufficient information to enable TxDOT to verify compliance with UAR requirements (including depth of cover, casing requirements, vent locations, etc)

    j. Are color coded on at least one of the three original Utility Assemblies for each Utility or group of Utilities

k. Shall be no larger than 11" x 17" folded to 8.5" x 11" size (oversize plans are not permitted with the Utility Assembly, and plans shall be folded so as to be able to pull the plans out of the Assembly, sheet by sheet)

l. Clearly identify Betterments

m. Are signed and sealed by a Registered Professional Engineer, whether provided by Developer or the Utility Owner, unless waived at TxDOT's sole discretion.

5. Estimate(s) from the Utility Owner detailing costs within the cost categories established in 23 CFR 645.117

6 Proposed Utility Joint Use Acknowledgment(s) executed by the Utility Owner, if required pursuant to Section 6.2.9.5 - Utility Joint Use Acknowledgments (one original for each affected Utility in each original Utility Assembly)

7 Statement(s) Covering Construction Contract Work (using TxDOT's then-standard form for such purpose), if the Utility Owner intends to contract out design and/or construction work

8. Affidavit(s) of Property Interest, if required by Section 6.2.9.1 -- Documentation of Existing Utility Property Interests -- Affidavits

9. A Developer Roadway Design sign-off and a Utility Coordinator Utility conflict sign-off, in the forms provided in Attachment 6, executed by the appropriate individuals on Developer's behalf

10. An executed Quitclaim Deed (or correspondence confirming a future quitclaim together with a draft of same) for each Existing Utility Property Interest required to be relinquished in accordance with Section 6.2.9.3 - Relinquishment of Existing Utility Property Interests (one original in each original Utility Assembly for each Existing Utility Property Interest). Whether prepared by Developer or the Utility Owner, the Utility Adjustment Plans shall identify any Replacement Utility Property Interests necessary for the Adjustment, and shall conform to the deliverable requirements of the Contract Documents.

Developer's Utility Tracking Report

Developer's Utility Tracking Report shall contain, at a minimum, the following information for each Adjustment:

1. The Utility Owner's name and a unique tracking number starting with the prefix "Highway U-" followed by a four digit number, starting at 0001 and numbered consecutively thereafter, with one tracking number being assigned by Developer to each Adjustment or group of Adjustments covered by a single MUAA, UAA, or UAAA ("Utility Assembly Number")

2 A brief description of the Utility by size and type

3. Once determined, the party (ies) (Developer and/or the Utility Owner) responsible for performance of the Utility Adjustment Work

4. The nature of the Utility Owner's existing right of occupancy of the ROW (e.g., Utility Joint Use Acknowledgment, permit "notice", easement or a combination of these)

5. Whether a Utility Joint Use Acknowledgment will be necessary; and if yes, the dates on which it was executed by the Utility Owner and TxDOT

6. Whether any Replacement Utility Property Interest will be necessary

7. The amount of estimated cost approved in the applicable Utility Agreement(s)

8. Amounts of payments made by Developer to the Utility Owner, listing in each case the type of payment (e.g., partial payments, final costs, lump sums), date payment was made, and source of funds (e.g., local government)

9. Such other information as TxDOT may require.

The Utility Tracking Report also shall include a separate section for Replacement Utility Property Interests, listing each necessary Replacement Utility Property Interest with the names of property owners, parcel numbers, related Utility Assembly numbers and other identifying information, status of the acquisition, acquisition cost, and such other information as TxDOT may require. This section of the Utility Tracking Report shall be maintained and submitted to TxDOT in the same manner as all other portions of the Utility Tracking Report.

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 9 – Cross Road Matrix

CROSS SECTION ELEMENTS FOR ROADWAYS CROSSING SH 130

Intersecting Street	Jurisdiction	Functional Classification / Roadway Classification	Design Speed (MPH)	Position (over / under)	Existing Condition: Surface Type	Outside Shoulder	WB thru lanes	Turn lanes	EB thru lanes	Inside Shoulder	Clear Zone - Cross St. Thru Lanes	Posted Speed	Ultimate Configuration / Basic Configuration: U-Turn (SB to NB)	Sidewalk & Min. Usable Width	Curb & Gutter and Offset	WB Shoulder	WB thru lanes	Turn lanes	EB thru lanes	EB shoulder	Curb & Gutter and Offset	Sidewalk & Min. Usable Width	Clear Zone for Cross Street Thru Lanes (Based on ADT)	U-turn (NB to SB)
SEGMENT 5																								
Proposed Laws Road	Travis Co.	Arterial Rural	45	Under SH 130	P	N	1-12'	N	1-12'	N		NP	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			4'	1(12')	N	1(12')	4'				N
Proposed CR 176	Travis Co	Collector Rural	50	Under SH 130	P	N	1-12'	N	1-12'	N		35	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			2'	1(12')	N	1(12')	2'				N
SH 21	TxDOT - Austin District	Arterial Rural	70	Under SH 130	P	10'	2-12'	2-12'	2-12'	6'		65	Y	Y-6'	N	10' out/ 4' in	3(12')	2(14')	3(12')	10' out/ 4' in	N	Y-6'	30'	Y
													Y			10' out	2(12')	2(14')	2(12')	10' out				Y
CR 179 (Old Lockhart Hwy)	Caldwell	Collector Rural	50	Under SH 130	P	N	1-12'	N	1-12'	N		35	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			4'	1(12')	N	1(12')	4'				N
CR 222	Caldwell	Collector Rural	50	Under SH 130	P	N	1-12'	N	1-12'	N		35	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			4'	1(12')	N	1(12')	4'				N
FM 1185	TxDOT - Austin District	Arterial Rural	60	Under SH 130	P	N	1-12'	N	1-12'	N		60	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			8'	1(12')	N	1(12')	8'				Y

CROSS SECTION ELEMENTS FOR ROADWAYS CROSSING SH 130

Intersecting Street	Jurisdiction	Functional Classification / Roadway Classification	Design Speed (MPH)	Position (over / under)	Existing Condition: Surface Type	Outside Shoulder	WB thru lanes	Turn lanes	EB thru lanes	Inside Shoulder	Clear Zone - Cross St. Thru Lanes	Posted Speed	Ultimate Configuration / Basic Configuration: U-Turn (SB to NB)	Sidewalk & Min. Usable Width	Curb & Gutter and Offset	WB Shoulder	WB thru lanes	Turn lanes	EB thru lanes	EB Shoulder	Curb & Gutter and Offset	Sidewalk & Min. Usable Width	Clear Zone for Cross Street Thru Lanes (Based on ADT)	U-turn (NB to SB)
Segment 6																								
US 183	TxDOT - Austin District	Arterial Rural	70	Direct Connector	P	N	2-12'	N	2-12'	N		60	Direct Connectors											
FM 2001	TxDOT - Austin District	Collector Suburban	70	under SH 130	P	N	1-12'	N	1-12'	N		60	Y Y	Y-6' 	Y-1.5' 	 8'	2(12') 1(12')	2(14') N	2(12') 1(12')	 8'	Y-1.5' 	Y-6' 	16' 	Y N
SH 142	TxDOT - Austin District	Collector Suburban	70	under SH 130	P	N	1-12'	N	1-12'	N		65	Y N	Y-6' 	Y-1.5' 	 8'	2(12') 1(12')	2(14') 1(12')	2(12') 1(12')	 8'	Y-1.5' 	Y-6' 	16' 	Y N
CR 108 (Borchert Loop)	Caldwell	Local Rural	40	over SH 130	P	N	1-12'	N	1-12'	N		35	N N	N 	N 	4' 4'	1(12') 1(12')	N N	1(12') 1(12')	4' 4'	N 	N 	10' 	N N
CR 218 (Maple Street)	Caldwell	Local Rural	45	under SH 130	G	N	1-16'	N	N	N		40	Y N	Y-6' 	Y-1.5' 	 4'	2(12') 1(12')	2(14') N	2(12') 1(12')	 4'	Y-1.5' 	Y-6' 	10' 	Y N
CR 218 / CR 217 (Boggy Creek Rd)	Caldwell	Local Rural	45	over SH 130	P	N	1-16'	N	N	N		40	N N	N 	N 	4' 4'	1(12') 1(12')	N N	1(12') 1(12')	4' 4'	N 	N 	10' 	N N
CR 109 (Black Ankle Rd)	Caldwell	Local Rural	40	over SH 130	P	N	1-16'	N	N	N		35	N N	N 	N 	4' 4'	1(12') 1(12')	N N	1(12') 1(12')	4' 4'	N 	N 	10' 	N N
SH 80	TxDOT - Austin District	Arterial Rural	70	over SH 130	P	N	2-12'	N	2-12'	N		NP	N N	N 	N 	10' 10'	2(12') 2(12')	N N	2(12') 2(12')	10' 10'	N 	N 	30' 	N N
FM 621	TxDOT - San Antonio District	Collector Rural	60	over SH 130	P	2'	1-12'	N	1-12'	N		55	N N	N 	N 	8' 8'	1(12') 1(12')	N N	1(12') 1(12')	8' 8'	N 	N 	30' 	N N

CROSS SECTION ELEMENTS FOR ROADWAYS CROSSING SH 130

Intersecting Street	Jurisdiction	Functional Classification / Roadway Classification	Design Speed (MPH)	Position (over / under)	Existing Condition: Surface Type	Outside Shoulder	WB thru lanes	Turn lanes	EB thru lanes	Inside Shoulder	Clear Zone - Cross St. Thru Lanes	Posted Speed	Ultimate Configuration / Basic Configuration: U-Turn (SB to NB)	Sidewalk & Min. Usable Width	Curb & Gutter and Offset	WB Shoulder	WB thru lanes	Turn lanes	EB thru lanes	EB shoulder	Curb & Gutter and Offset	Sidewalk & Min. Usable Width	Clear Zone for Cross Street Thru Lanes (Based on ADT)	U-turn (NB to SB)
CR 242 (Guadalupe County)	Guadalupe	Local	60	over SH 130	P	N	1-16'	N	N	N		NP	N	N	N	4'	1(12')	N	1(12')	4'	N	N	10'	N
(Bylerpool Rd)		Rural											N			4'	1(12')	N	1(12')	4'				N
CR 241	Guadalupe	Local	40	under SH 130	G	N	1-10'	N	1-10'	N		NP	N	N	N	4'	1(12')	N	1(12')	4'	N	N	10'	N
(Wade Rd)		Rural											N			4'	1(12')	N	1(12')	4'				N
FM 3353	TxDOT - San Antonio District	Collector	60	under SH 130	P	N	1-12'	N	1-12'	N		55	Y	Y-6'	Y-1 5'		2(12')	2(14')	2(12')		Y-1 5'	Y-6'	30'	Y
		Rural											N			2'	1(12')	N	1(12')	2'				N
FM 20	TxDOT - San Antonio District	Collector	60	over SH 130	P	N	1-12'	N	1-12'	N		55	N	N	N	10'	2(12')	N	2(12')	10'	N	N	30'	N
		Rural											N			10'	1(12')	N	1(12')	10'				N
CR 119	Guadalupe	Local	50	over SH 130	G	N	1-16'	N	N	N		NP	N	N	N	4'	1(12')	N	1(12')	4'	N	N	10'	N
(Tschoepe Rd)		Rural											N			4'	1(12')	N	1(12')	4'				N
US 90	TxDOT - San Antonio District	Arterial	70	under SH 130	P	10'	1-12'	N	1-12'	N		65	Y	Y-6'	Y-1 5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	30'	Y
		Rural											N			10'	1(12')	1(12')	1(12')	10'				N

CROSS SECTION ELEMENTS FOR ROADWAYS CROSSING SH 130

Intersecting Street	Jurisdiction	Functional Classification / Roadway Classification	Design Speed (MPH)	Position (over / under)	Existing Condition: Surface Type	Existing Condition: Outside Shoulder	Existing Condition: WB thru lanes	Existing Condition: Turn lanes	Existing Condition: EB thru lanes	Existing Condition: Inside Shoulder	Existing Condition: Clear Zone - Cross St. Thru Lanes	Existing Condition: Posted Speed	Ultimate Configuration: U-Turn (SB to NB)	Basic Configuration: Sidewalk & Min. Usable Width	Basic Configuration: Curb & Gutter and Offset	Basic Configuration: WB Shoulder	Basic Configuration: WB thru lanes	Basic Configuration: Turn lanes	Basic Configuration: EB thru lanes	Basic Configuration: EB shoulder	Basic Configuration: Curb & Gutter and Offset	Basic Configuration: Sidewalk & Min. Usable Width	Basic Configuration: Clear Zone for Cross Street Thru Lanes (Based on ADT)	Basic Configuration: U-turn (NB to SB)
SEGMENT 5																								
Proposed Laws Road	Travis Co.	Arterial Rural	45	Under SH 130	P	N	1-12'	N	1-12'	N		NP	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			4'	1(12')	N	1(12')	4'				N
Proposed CR 176	Travis Co	Collector Rural	50	Under SH 130	P	N	1-12'	N	1-12'	N		35	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			2'	1(12')	N	1(12')	2'				N
SH 21	TxDOT - Austin District	Arterial Rural	70	Under SH 130	P	10'	2-12'	2-12'	2-12'	6'		65	Y	Y-6'	N	10' out/ 4' in	3(12')	2(14')	3(12')	10' out/ 4' in	N	Y-6'	30'	Y
													Y			10' out	2(12')	2(14')	2(12')	10' out				Y
CR 179 (Old Lockhart Hwy)	Caldwell	Collector Rural	50	Under SH 130	P	N	1-12'	N	1-12'	N		35	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			4'	1(12')	N	1(12')	4'				N
CR 222	Caldwell	Collector Rural	50	Under SH 130	P	N	1-12'	N	1-12'	N		35	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			4'	1(12')	N	1(12')	4'				N
FM 1185	TxDOT - Austin District	Arterial Rural	60	Under SH 130	P	N	1-12'	N	1-12'	N		60	Y	Y-6'	Y-1.5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	16'	Y
													N			8'	1(12')	N	1(12')	8'				Y

CROSS SECTION ELEMENTS FOR ROADWAYS CROSSING SH 130

Intersecting Street	Jurisdiction	Functional Classification / Roadway Classification	Design Speed (MPH)	Position (over / under)	Existing Condition: Surface Type	Outside Shoulder	WB thru lanes	Turn lanes	EB thru lanes	Inside Shoulder	Clear Zone - Cross St. Thru Lanes	Posted Speed	Ultimate Configuration / Basic Configuration: U-Turn (SB to NB)	Sidewalk & Min. Usable Width	Curb & Gutter and Offset	WB Shoulder	WB thru lanes	Turn lanes	EB thru lanes	EB shoulder	Curb & Gutter and Offset	Sidewalk & Min. Usable Width	Clear Zone for Cross Street Thru Lanes (Based on ADT)	U-turn (NB to SB)
Segment 6																								
US 183	TxDOT - Austin District	Arterial Rural	70	Direct Connector	P	N	2-12'	N	2-12'	N		60	Direct Connectors											
FM 2001	TxDOT - Austin District	Collector Suburban	70	under SH 130	P	N	1-12'	N	1-12'	N		60	Y Y	Y-6' 	Y-1.5' 	 8'	2(12') 1(12')	2(14') N	2(12') 1(12')	 8'	Y-1.5' 	Y-6' 	16' 	Y N
SH 142	TxDOT - Austin District	Collector Suburban	70	under SH 130	P	N	1-12'	N	1-12'	N		65	Y N	Y-6' 	Y-1.5' 	 8'	2(12') 1(12')	2(14') 1(12')	2(12') 1(12')	 8'	Y-1.5' 	Y-6' 	16' 	Y N
CR 108 (Borchert Loop)	Caldwell	Local Rural	40	over SH 130	P	N	1-12'	N	1-12'	N		35	N N	N 	N 	4' 4'	1(12') 1(12')	N N	1(12') 1(12')	4' 4'	N 	N 	10' 	N N
CR 218 (Maple Street)	Caldwell	Local Rural	45	under SH 130	G	N	1-16'	N	N	N		40	Y N	Y-6' 	Y-1.5' 	 4'	2(12') 1(12')	2(14') N	2(12') 1(12')	 4'	Y-1.5' 	Y-6' 	10' 	Y N
CR 218 / CR 217 (Boggy Creek Rd)	Caldwell	Local Rural	45	over SH 130	P	N	1-16'	N	N	N		40	N N	N 	N 	4' 4'	1(12') 1(12')	N N	1(12') 1(12')	4' 4'	N 	N 	10' 	N N
CR 109 (Black Ankle Rd)	Caldwell	Local Rural	40	over SH 130	P	N	1-16'	N	N	N		35	N N	N 	N 	4' 4'	1(12') 1(12')	N N	1(12') 1(12')	4' 4'	N 	N 	10' 	N N
SH 80	TxDOT - Austin District	Arterial Rural	70	over SH 130	P	N	2-12'	N	2-12'	N		NP	N N	N 	N 	10' 10'	2(12') 2(12')	N N	2(12') 2(12')	10' 10'	N 	N 	30' 	N N
FM 621	TxDOT - San Antonio District	Collector Rural	60	over SH 130	P	2'	1-12'	N	1-12'	N		55	N N	N 	N 	8' 8'	1(12') 1(12')	N N	1(12') 1(12')	8' 8'	N 	N 	30' 	N N

CROSS SECTION ELEMENTS FOR ROADWAYS CROSSING SH 130

Intersecting Street	Jurisdiction	Functional Classification / Roadway Classification	Design Speed (MPH)	Position (over / under)	Existing Condition: Surface Type	Outside Shoulder	WB thru lanes	Turn lanes	EB thru lanes	Inside Shoulder	Clear Zone - Cross St. Thru Lanes	Posted Speed	Ultimate Configuration / Basic Configuration: U-Turn (SB to NB)	Sidewalk & Min. Usable Width	Curb & Gutter and Offset	WB Shoulder	WB thru lanes	Turn lanes	EB thru lanes	EB shoulder	Curb & Gutter and Offset	Sidewalk & Min. Usable Width	Clear Zone for Cross Street Thru Lanes (Based on ADT)	U-turn (NB to SB)
CR 242 (Guadalupe County)	Guadalupe	Local	60	over SH 130	P	N	1-16'	N	N	N		NP	N	N	N	4'	1(12')	N	1(12')	4'	N	N	10'	N
(Bylerpool Rd)		Rural											N			4'	1(12')	N	1(12')	4'				N
CR 241	Guadalupe	Local	40	under SH 130	G	N	1-10'	N	1-10'	N		NP	N	N	N	4'	1(12')	N	1(12')	4'	N	N	10'	N
(Wade Rd)		Rural											N			4'	1(12')	N	1(12')	4'				N
FM 3353	TxDOT - San Antonio Distnct	Collector	60	under SH 130	P	N	1-12'	N	1-12'	N		55	Y	Y-6'	Y-1 5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	30'	Y
		Rural											N			2'	1(12')	N	1(12')	2'				N
FM 20	TxDOT - San Antonio District	Collector	60	over SH 130	P	N	1-12'	N	1-12'	N		55	N	N	N	10'	2(12')	N	2(12')	10'	N	N	30'	N
		Rural											N			10'	1(12')	N	1(12')	10'				N
CR 119	Guadalupe	Local	50	over SH 130	G	N	1-16'	N	N	N		NP	N	N	N	4'	1(12')	N	1(12')	4'	N	N	10'	N
(Tschoepe Rd)		Rural											N			4'	1(12')	N	1(12')	4'				N
US 90	TxDOT - San Antonio District	Arterial	70	under SH 130	P	10'	1-12'	N	1-12'	N		65	Y	Y-6'	Y-1 5'		2(12')	2(14')	2(12')		Y-1.5'	Y-6'	30'	Y
		Rural											N			10'	1(12')	1(12')	1(12')	10'				N

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 10 – SH 130 Landscaping and Aesthetic Design Details

File Name (version)	Drawing_Number	Item ID
00771000 pdf		52920101
00765083 pdf	L-1.01	52920102
00765223 pdf	L-1.02	52920103
00765224 pdf	L-1.03	52920104
00765086 pdf	L-1.04	52920105
00765087 pdf	L-1.05	52920106
00765088 pdf	L-1.06	52920107
00765089 pdf	L-1.07	52920108
00765090 pdf	L-1.08	52920109
00765091 pdf	L-1.09	52920110
00765092 pdf	L-1.10	52920111
00765093 pdf	L-1.11	52920112
00765094 pdf	L-1.12	52920113
00765225 pdf	L-1.13	52920114
00765095 pdf	L-2.01	52920115
00765096 pdf	L-2.02	52920116
00765097 pdf	L-2.03	52920117
00765098 pdf	L-2.04	52920118
00765099.pdf	L-2.05	52920119
00765100 pdf	L-2.06	52920120
00765101 pdf	L-2.07	52920121
00765102 pdf	L-2.08	52920122
00765103 pdf	L-2.09	52920123
00765104 pdf	L-2.10	52920124
00765105.pdf	L-2.11	52920125
00765106.pdf	L-3.01	52920126
00765107 pdf	L-3.02	52920127
00765108 pdf	L-3.03	52920128
00765109 pdf	L-3.04	52920129
00765110.pdf	L-3.05	52920130
00765111.pdf	L-3.06	52920131
00765112.pdf	L-3.07	52920132
00765113 pdf	L-3.08	52920133
00765114 pdf	L-3.09	52920134
00765115 pdf	L-3.10	52920135
00765116 pdf	L-3.11	52920136
00765117 pdf	L-3.12	52920137
00765118 pdf	L-3.13	52920138
00765119 pdf	L-3.14	52920139
00765120 pdf	L-3.15	52920140
00765121.pdf	L-3.16	52920141
00765122.pdf	L-3.17	52920142
00765123.pdf	L-3.18	52920143
00765124.pdf	L-3.19	52920144
00765125.pdf	L-4.01	52920145
00765126.pdf	L-4.02	52920146
00765127.pdf	L-4.03	52920147
00765128.pdf	L-4.04	52920148
00765129.pdf	L-4.05	52920149
00765130.pdf	L-4.06	52920150

00765131.pdf	L-4.07	52920151
00765132.pdf	L-4.08	52920152
00765133.pdf	L-4.09	52920153
00765134.pdf	L-4.10	52920154
00765135.pdf	L-4.11	52920155
00765136.pdf	L-4.12	52920156
00765137.pdf	L-4.13	52920157
00765138.pdf	L-4.14	52920158
00765139.pdf	L-4.15	52920159
00765140.pdf	L-4.16	52920160
00765141.pdf	L-4.17	52920161
00765142.pdf	L-4.18	52920162
00765143.pdf	L-4.19	52920163
00765144.pdf	L-4.20	52920164
00765145.pdf	L-4.21	52920165
00765146.pdf	L-4.22	52920166
00765147.pdf	L-4.23	52920167
00765148.pdf	L-4.24	52920168
00765149.pdf	L-5.01	52920169
00765150.pdf	L-5.02	52920170
00765151.pdf	L-5.03	52920171
00765152.pdf	L-5.04	52920172
00765153.pdf	L-5.05	52920173
00765154.pdf	L-5.06	52920174
00765155.pdf	L-5.07	52920175
00765156.pdf	L-5.08	52920176
00765157.pdf	L-5.09	52920177
00765158.pdf	L-5.10	52920178
00765159.pdf	L-5.11	52920179
00765160.pdf	L-5.12	52920180
00765161.pdf	L-5.13	52920181
00765162.pdf	L-5 14	52920182
00765163.pdf	L-5 15	52920183
00765220.pdf	L-5 16	52920184
00765164.pdf	L-5.17	52920185
00765165.pdf	L-5 18	52920186
00765166.pdf	L-5.19	52920187
00765167.pdf	L-5 20	52920188
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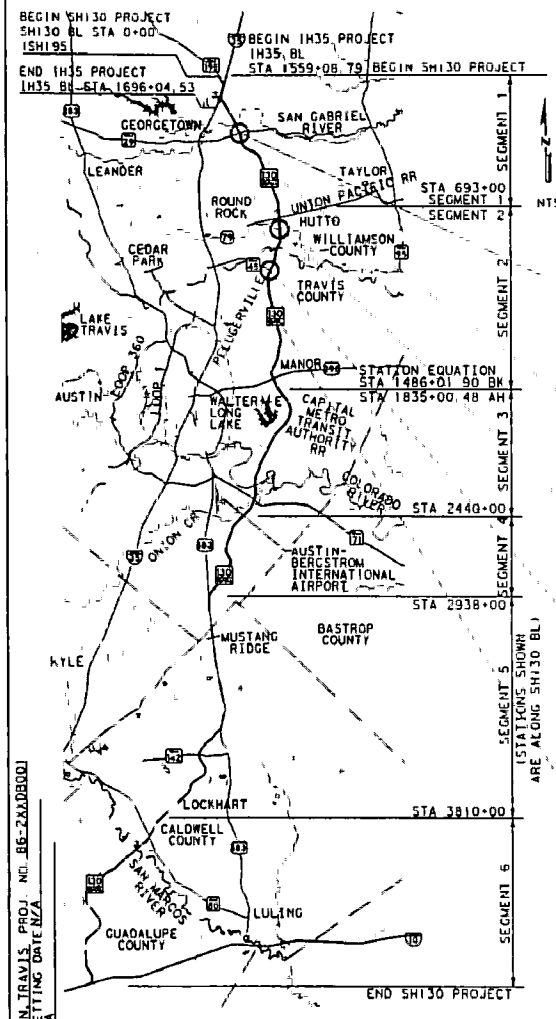
6	86 2XXDB001	COVER SHT	L1 01
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON, TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	ALL	004	SH130

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY 130 LANDSCAPE IMPROVEMENT
WILLIAMSON AND TRAVIS COUNTIES

FEDERAL AID PROJECT NO.
86-2XXDB001
CSJ: 0440-06-004



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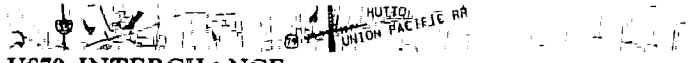

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MAIN LANE TOLL PLAZA 6 _____ SEGMENT 2, SECTION 8

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SEE SHEET L-1.02

REQUIRED SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH BC STANDARDS AND THE "2003 TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES"

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, MARCH 1, 1993, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, DECEMBER, 1993).

LEGEND

- SH130 LANDSCAPE IMPROVEMENTS
- FUTURE SH130 LANDSCAPE IMPROVEMENTS
- HIGHWAY SYSTEM
- COUNTY LINE

COUNTY WILLIAMSON, TRAVIS PROJ. NO. 86-2XXDB001
HWY NO. SH130 LETTING DATE N/A
DATE ACCEPTED N/A

© 2005
TEXAS DEPARTMENT OF TRANSPORTATION

TEAM MEMBER
DMJM+HARRIS

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

THE SEAL APPEARING ON THE ORIGINAL OF THIS DOCUMENT WAS AUTHORIZED BY ROBERT W. GLADWIN, LIC. NO 2134 ON October 10, 2005

RECOMMENDED BY:
LONE STAR INFRASTRUCTURE

DESIGN MANAGER — DATE 10/13/05

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

ROADSIDE PLANTING AND ESTABLISHMENT, ITEM 192

192.1 DESCRIPTION

1. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REFERENCING ITEM 192 OF THE TEXAS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES 1993 FOR ITEMS NOT SHOWN. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL INFORMATION IN 192 SHALL APPLY AS WRITTEN WITH THE FOLLOWING SPECIFICATIONS BEING CONSIDERED "IN ADDITION".

192.2(2)(C) LICENSE REQUIREMENTS

1. THE SUBCONTRACTOR SHALL POSSESS AN IRRIGATOR'S LICENSE ISSUED BY THE STATE OF TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, IRRIGATOR'S DIVISION. ALL OTHER ASPECTS OF REQUIRED LICENSES SHALL COMPLY WITH ITEM 192.2(2)

192.3(2) PLANT MATERIAL

1. PLANT MATERIAL SHALL HAVE BEEN GROWN WITHIN A 100 MILE RADIUS OF EACH SITE'S SPECIFIC LOCATION, AND UNDER SIMILAR SOIL CONDITIONS TO EACH SPECIFIC SITE'S CHARACTERISTICS. THIS SHALL APPLY TO ALL ALLOWABLE PLANT AND STOCK MATERIALS.

2. BARE-ROOT OR BAG GROWN STOCK WILL NOT BE ALLOWED.

3. REJECTION OF PLANTS SHALL BE IN STRICT ACCORDANCE WITH ITEM 192.3(4).

4. ALL PLANTS SHALL BE HARDY, SYMMETRICAL, TIGHT KNIT, AND SO TRAINED OR FAVORED IN DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, AND COMPACTNESS. PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF, AND SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS. WHERE PLANTS ARE SHOWN IN FORMAL ARRANGEMENTS OR STRAIGHT LINES, THEY SHALL BE VISUALLY MATCHED IN SIZE AND FORM.

192.3(5) MULCH

1. MATERIAL FOR SURFACE APPLICATION SHALL BE THE FOLLOWING:

A. SHREDDED PLANT AND HARDWOOD MATERIAL WITH A MINIMUM SIZE OF ½" AND MAXIMUM SIZE IN ANY DIMENSION OF 2". MULCH SHALL NOT BE EXCESSIVELY DRY OR DUSTY. THE MULCH SHALL BE FREE OF ANY PLASTIC, GLASS, METALS AND OTHER CONTAMINANTS (STICKS, STONES, CLAY OR OTHER FOREIGN MATTER).

B. GRAVEL MULCH SHALL BE GRANITE GRAVEL, ¼" TO ½" SIZE, SIMILAR TO GRANITE GRAVEL FOUND IN THE AUSTIN AREA. APPLICATION DEPTH SHALL BE 2".

192.3(7) BACKFILL

1. BACKFILL SOIL MIX SHALL BE OF THE FOLLOWING: 75% SUITABLE TOPSOIL AND 25% COMPOST MATERIAL FOR SOIL AMENDMENT.

2. COMPOST SHALL BE WELL MIXED ORGANIC MATERIALS INCLUDING ANIMAL MANURE, WOOD SHAVINGS, SEED HULLS, HAY, ETC. AND SHALL BE REASONABLY FREE OF WEED SEEDS, NEMATODES, STONES, CLODS, STICKS, ROOTS, HARMFUL PATHOGENS OR OTHER OBJECTIONABLE MATERIAL. COMPOST SHALL HAVE BEEN STOCKPILED AT THE MANUFACTURER TO HEAT TO REACH 160 DEGREES FAHRENHEIT OR MORE FOR
A PERIOD OF 8 WEEKS OR LONGER, AND TURNED SEVERAL TIMES DURING THIS PERIOD TO PROMOTE AEROBIC COMPOSTING. CERTIFICATION BY THE MANUFACTURER OF THIS REQUIREMENT SHALL BE PROVIDED TO THE COMPANY.

192.4 CONSTRUCTION METHODS

1. 192.4(4) PLANT MATERIALS SHALL NOT BE STORED ON HARD, PAVED SURFACES OR LEFT EXPOSED TO THE SUN. PROTECT AND SHADE THE ROOT BALLS AND WATER REGULARLY UNTIL PLANTING. IF PLANTS ARE LEFT IN STORAGE OVER THE WEEKEND OR HOLIDAY, A MEANS FOR PERIODICALLY WATERING AND INSPECTING CONTAINER MOISTURE SHALL BE PROVIDED.

2. SUBCONTRACTOR SHALL VERIFY THAT ALL PLANTINGS MEET THE FOLLOWING CLEAR ZONE MINIMUM STANDARDS UNLESS SPECIFIED OTHERWISE BY THE COMPANY:

TREES:
-30 FEET FROM EDGE OF TRAVEL LANE UNLESS PROTECTED BY A BARRIER
-18 FEET FROM RAMPS AND FRONTAGE ROADS
-15 FEET FROM UTILITIES
-10 FEET FROM DRAINAGE STRUCTURES
-20 FEET FROM OVERHEAD DIRECT CONNECTORS
-15 FEET FROM PROPERTY LINES

SHRUBS, VINES AND GROUND COVER; NO MINIMUM DISTANCE.

3. ROADWAY EDGES SHOWN ON THE PLANS ARE TO BE CONSIDERED THE EDGE OF TRAVEL LANE UNLESS LABELED OTHERWISE.

4. ALL LOCATIONS OF TREES, SHRUBS AND BEDS SHALL BE STAKED IN THE FIELD BY THE SUBCONTRACTOR IN ACCORDANCE WITH ITEM 192.4(5)

5. STRIP EXISTING GRASS AND WEEDS, INCLUDING ROOTS, FROM ALL BED AREAS, LEAVING THE SOIL SURFACE ONE INCH BELOW FINISHED GRADE.

6. HERBICIDES: APPLY SPECIFIC HERBICIDE TO ERADICATE VEGETATION WITHIN BED AREAS. CONTACT AND PRE-EMERGENT HERBICIDES ARE TO BE USED AS APPROVED BY THE COMPANY.

7. 192.4(6)(B)(IV) ADD THE FOLLOWING:
PLANTING TREES: PLACE TREE IN THE BOTTOM OF THE PIT TO A DEPTH NECESSARY TO SET THE PLANT 2 INCHES ABOVE FINISHED GRADE. SET THE PLANT IN THE PIT TO PROPER GRADE AND POSITION, FACED TO GIVE THE BEST APPEARANCE IN RELATIONSHIP TO ONE ANOTHER AND ADJACENT STRUCTURES. CLEANLY CUT OFF BROKEN OR FRAYED ROOTS AND SEVER THE SIDES OF THE ROOT BALL OF CONTAINER GROWN TREES IN SEVERAL PLACES. PLACE PLANTING MIXTURE AROUND THE BALL AND CAREFULLY COMPACT TO AVOID INJURY TO THE ROOTS AND TO FILL THE VOIDS. AFTER BACKFILLING PLANTING PIT APPROXIMATELY TWO-THIRDS FULL, ADD WATER AND ALLOW PLANTING MIXTURE TO SETTLE. AFTER THE WATER HAS BEEN ABSORBED, FILL THE PLANTING PIT WITH PLANTING MIXTURE. TAMP LIGHTLY TO GRADE. PLACE 1 INCH LAYER OF ORGANIC MATTER OVER THE PLANTING MIXTURE, AND FORM A WATERING BASIN OF THE SIZE INDICATED ON THE DETAILS.

PLANTING CONTAINER-GROWN SHRUBS, GROUND COVER, AND VINES:

REMOVE CONTAINERS BEFORE PLANTING AND VERTICALLY CUT THE SIDES OF THE ROOT BALL IN SEVERAL PLACES TO A DEPTH OF NO MORE THAN ½", LOOSENING THE ROOTS ON THE OUTSIDE OF THE BALL SUFFICIENTLY TO ENCOURAGE RAPID ROOT EXTENSION INTO THE SURROUNDING SOIL AND TO PREVENT GIRDLING OF ROOT MASS.

8. PLANTING PITS SHALL BE TESTED BY FILLING THE PIT WITH WATER. EVERY FIFTH (5TH) TREE PIT SHALL BE TESTED. DRAINAGE TIME IN EACH PIT SHALL BE OBSERVED AND IF, IN THE OPINION OF THE COMPANY THE WATER DOES NOT DRAIN OFF WITHIN 12 HOURS, THE SUBSTRATE WILL BE DRILLED AND SHATTERED TO A MINIMUM DEPTH OF 3 FEET BELOW THE BOTTOM OF THE PIT. THE PLANTING PIT WILL BE INSTALLED AS SPECIFIED BY THE COMPANY. IF DRAINS ARE REQUIRED, THE COST FOR ADDITIONAL WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 4.3.

LANDSCAPE MAINTENANCE AND WARRANTY, ITEM 193

1. PLANTS SHALL BE HEALTHY, FREE OF PESTS AND DISEASE, AND IN FLOURISHING CONDITION AT THE END OF THE ESTABLISHMENT PERIOD. PLANTS SHALL BE FREE OF DEAD AND DYING BRANCHES AND BRANCH TIPS, AND SHALL BEAR FOLIAGE OF NORMAL DENSITY, SIZE AND COLOR.

2. REPLACE DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS THRIVING GROWING CONDITION, AS DETERMINED BY THE COMPANY, AT ANY TIME DURING AND AT THE END OF THE WARRANTY PERIOD, WITHOUT ADDITIONAL COSTS AND AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN THE SPECIFIED PLANTING PERIOD.

3. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS SHALL BE SUBJECT TO ALL REQUIREMENTS STATED IN THIS SPECIFICATION.

4. MAKE ALL NECESSARY REPAIRS DUE TO PLANT REPLACEMENT. SUCH REPAIRS SHALL BE DONE AT NO EXTRA COST.

5. PLANTS SHALL BE INSPECTED AT LEAST ONCE PER WEEK BY THE SUBCONTRACTOR DURING THE INSTALLATION PERIOD AND NEEDED MAINTENANCE PERFORMED PROMPTLY. MONTHLY INSPECTIONS SHOULD OCCUR IN THE COOL SEASON AND BIWEEKLY INSPECTIONS IN THE WARM SEASON, DURING THE ESTABLISHMENT PERIOD.

6. THE SUBCONTRACTOR SHALL IRRIGATE ALL PLANTS ADEQUATELY TO MAINTAIN OPTIMUM SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. RECURRING OVERLY DRY OR WET CONDITIONS SHALL BE GROUNDS FOR REJECTION OF PLANT MATERIAL. IF THE IRRIGATION SYSTEM IS INOPERATIVE, HAND WATERING SHALL BE ACCOMPLISHED FROM A SOURCE APPROVED BY THE COMPANY. WATER SHALL NOT BE APPLIED WITH A FORCE THAT WILL DISPLACE MULCH OR CAUSE SELF EROSION AND SHALL NOT BE APPLIED SO QUICKLY THAT IT CANNOT BE ABSORBED BY THE MULCH AND PLANTS.

7. 193.4(1) PLANTS SHALL BE PRUNED AS REQUIRED TO THE SAME REQUIREMENTS AS FOR THE INITIAL PLANTING. ALL PLANTS UTILIZED ARE INTENDED TO BE LEFT IN THEIR NATURALLY GROWING FORM - SHEARING OR CLIPPING IN UNNATURAL CONFIGURATIONS IS NOT PERMITTED.

8. 193.4(4) MULCH SHALL BE REAPPLIED AS NECESSARY TO MAINTAIN THE SAME DEPTH AS SPECIFIED IN THE ORIGINAL PLANTING PLANS AND SPECIFICATAIONS.

9. STAKES AND GUYWIRES SHALL BE ADJUSTED OR REPLACED AS REQUIRED TO REPAIR ERODED OR DAMAGED PLANT SAUCERS. STAKES AND GUYWIRES ARE TO BE REMOVED ONE YEAR AFTER PLANT INSTALLATION UNLESS DETERMINED BY THE COMPANY TO BE LEFT IN PLACE. IN ALL CASES, REMOVE ALL STAKES AND GUYWIRES AT THE END OF THE ESTABLISHMENT PERIOD.

10. MAINTAIN ALL PLANT BEDS AND SAUCERS WEED FREE AT ALL TIMES.

11. KEEP PLANTS FREE OF INSECTS AND DISEASE. ALL INSECTICIDES AND FUNGICIDES APPLIED TO CONTROL PESTS AND MAINTAIN PLANTS IN HEALTHY GROWING CONDITION SHALL BE APPROVED BY THE COMPANY.

12. FERTILIZE PLANTS AT LEAST TWICE YEARLY DURING THE ESTABLISHMENT PERIOD. FERTILIZATION SHALL BE APPLIED BY TOPDRESSING 2 POUNDS PER 1000 SQUARE FEET OF BED AREA AND 0.3 TO 0.5 POUNDS EACH TREE. FERTILIZER FOR THIS APPLICATION SHALL BE CONTROLLED RELEASE TYPE USED FOR THE INSTALLATION; REFER TO ITEM 166

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAUNAHARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SH 130 CORRIDOR WIDE STANDARDS
LANDSCAPE PLANS
SPECIFICATIONS

SCALE: NTS

SHEET 3 OF SHEETS

DESIGNED BY: DB	CHECKED BY: RWD	DATE:
DR'N BY: Ex.	CHECKED BY:	SHEET NO. (by CE)
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
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STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
0	10-11 2005	CJ	APPROVED FOR CONSTRUCTION

GENERAL NOTES

1. GENERAL SCOPE: THE SUBCONTRACTOR SHALL LOCATE, PROCURE, DELIVER, STORE, INSTALL, MAINTAIN AND GUARANTEE ALL SPECIFIED PLANTS, ASSOCIATED LANDSCAPE MATERIALS AND IRRIGATION SYSTEM COMPONENTS. THE SUBCONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, CODES AND STANDARDS, AND THE REQUIREMENTS OF APPLICABLE PERMITS FOR THE PROCUREMENT, SHIPPING, DELIVERY, STORAGE AND INSTALLATION OF THESE MATERIALS

2. PROJECT MEETING: BEFORE WORK BEGINS ON THE PROJECT, THE SUBCONTRACTOR AND THE COMPANY SHALL MEET ON THE SITE TO REVIEW THE PROJECT SCOPE AND CONDITIONS.

3. EXISTING IMPROVEMENTS: THE SUBCONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND VERIFYING THE LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES, DRAINAGE STRUCTURES AND OTHER IMPROVEMENTS AND AVOIDING DAMAGE TO SAME. THE SUBCONTRACTOR SHALL CONTACT THE COMPANY AND, IF NECESSARY, SHALL POTHOLE TO LOCATE EXISTING UTILITIES, DRAINAGE STRUCTURES AND OTHER IMPROVEMENTS TO PERMIT ANY REQUIRED ADJUSTMENTS IN HIS WORK AND TO VERIFY SUBSURFACE MATERIALS, EQUIPMENT AND SIZES FOR ORDERING PROPER TRANSITIONS AND/OR TIE-IN FITTINGS, WHICH MAY BE REQUIRED. ALL ABANDONED SURFACE AND SUBSURFACE UTILITIES OR OTHER IMPROVEMENTS THAT INTERFERE WITH THE SUBCONTRACTOR'S WORK, SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE SUBCONTRACTOR. THE SUBCONTRACTOR SHALL MAINTAIN, REPAIR AND RESTORE ALL FINISH GRADES AND DRAINAGE IMPROVEMENTS PROVIDED BY OTHERS.

4. DEMOLITION, CLEARING & GRUBBING: ALL EXISTING VEGETATION, WEEDS, AND DEBRIS ARE TO BE REMOVED FROM THE PROJECT AREA AND SHALL BE DISPOSED OF PROPERLY AND LEGALLY OFF-SITE. EXISTING IMPROVEMENT DESIGNATED TO BE DEMOLISHED SHALL BE COMPLETELY REMOVED TO THEIR FULL DEPTH

5. DAMAGES: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE CAUSED BY HIS OPERATIONS TO NEW AND EXISTING IMPROVEMENTS AND PROPERTY (INCLUDING ADJACENT PROPERTIES). ALL REPAIRS AND REPLACEMENTS SHALL BE OF LIKE TYPE, MATERIAL, SIZE AND CONDITION AS THE ORIGINAL MATERIAL OR IMPROVEMENT. REPAIRS OR REPLACEMENTS OF WORK DAMAGED BY THE SUBCONTRACTOR SHALL BE DONE AT THE SUBCONTRACTOR'S EXPENSE AND AT NO COST TO THE COMPANY. PRIOR TO BEGINNING WORK, THE SUBCONTRACTOR AND THE COMPANY'S REPRESENTATIVE SHALL MAKE A JOINT INSPECTION OF EXISTING AND NEW IMPROVEMENTS TO IDENTIFY ANY PRE-EXISTING DEFECTS NOT CAUSED BY THE SUBCONTRACTOR. COMPLETION OF ALL REQUIRED REPAIRS AND REPLACEMENTS SHALL BE A CONDITION FOR FINAL PAYMENT FROM THE COMPANY TO THE SUBCONTRACTOR

6. PERMIT FEES: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYMENT OF FEES FOR ALL PERMITS REQUIRED FOR THE SUBCONTRACTOR'S WORK.

7. CONSTRUCTION COORDINATION: THE SUBCONTRACTOR SHALL COORDINATE HIS WORK AND CONSTRUCTION SCHEDULE WITH THE COMPANY AND OTHER SUBCONTRACTORS WORKING ON THE SITE.

8. INSPECTION: THE WORK SHALL BE SUBJECT TO INSPECTION BY THE COMPANY AT ANY TIME DURING CONSTRUCTION AND AT OTHER SCHEDULED TIMES AND PLACES.

9. MATERIALS STORAGE & NURSERY: THE SUBCONTRACTOR SHALL CONSTRUCT A STORAGE YARD FOR LANDSCAPE AND IRRIGATION MATERIALS AND EQUIPMENT, INCLUDING A PLANT HOLDING AREA IN A LOCATION APPROVED BY THE COMPANY. THE STORAGE YARD SHALL BE SECURED AT A MINIMUM WITH APPROPRIATE FENCING, GATES AND LOCKS. THE SUBCONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SECURITY AND SAFETY FOR THIS STORAGE FACILITY AND ALL OTHER ASPECTS OF HIS WORK. THE SUBCONTRACTOR IS RESPONSIBLE FOR THE PROPER AND SAFE STORAGE OF ALL MATERIALS AND SHALL COMPLY WITH ALL REGULATIONS AND MANUFACTURERS INSTRUCTIONS REGARDING THE STORAGE OF MATERIALS. THE YARD SHALL BE KEPT IN A NEAT AND CLEAN CONDITION AT ALL TIMES.

10. COMPLETE INSTALLATION: ALL EQUIPMENT AND MATERIALS NOT SHOWN OR SPECIFIED IN THE PLANS AND SPECIFICATIONS, BUT THAT ARE REQUIRED TO COMPLETE THE INSTALLATION SHALL BE SUPPLIED AND INSTALLED BY THE SUBCONTRACTOR AS A PART OF THIS WORK.

11. DRAINAGE: THE SUBCONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SITE GRADING AND DRAINAGE IMPROVEMENTS THAT HAVE BEEN OR ARE BEING CONSTRUCTED BY THE SUBCONTRACTOR OR BY OTHERS. DESIGNED AND CONSTRUCTED DRAINAGE FLOWS AND IMPROVEMENTS SHALL NOT BE ALTERED, OBSTRUCTED OR IMPAIRED

12. BARRICADES & FENCING: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL PROVIDE AND INSTALL BARRICADES, SECURITY FENCING AND/OR SECURITY GUARDS AROUND ON-GOING CONSTRUCTION AND ALONG PUBLIC STREETS (IF REQUIRED) TO PROTECT HIS WORK AND TO PROVIDE FOR THE SAFETY OF THE PUBLIC

13. LANDSCAPE & IRRIGATION MAINTENANCE: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED MAINTENANCE INCLUDING, BUT NOT LIMITED TO, THE CARE, REPAIR AND REPLACEMENT OF SALVAGED PLANTS, TREES, SHRUBS, GROUND COVERS, PALM TREES, HYDROSEEDING, TURF, LANDSCAPE MATERIALS AND IRRIGATION SYSTEM COMPONENTS THROUGHOUT THE TERM OF THE PROJECT, OR SUB-PROJECT. MAINTENANCE PRACTICES SHALL INCLUDE, BUT NOT BE LIMITED TO, WATERING, WEEDING, PRUNING, APPLYING HERBICIDES AND PESTICIDES, REPAIRING STAKING AND GUYING, LITTER REMOVAL, REPAIR OF ERODED GROUND SURFACES AND REPLACEMENT OF ANY MATERIAL THAT IS DEAD OR IS SHOWING EVIDENCE OF STRESS

14. RECORD DRAWINGS: MAINTAIN ONE SET OF CONTRACT DRAWINGS ON THE SITE AND RECORD AS-BUILT INFORMATION SHOWING ACTUAL LOCATIONS OF THE IRRIGATION SYSTEM COMPONENTS IF IT HAS BEEN INSTALLED DIFFERENTLY THAN AS SHOWN ON THE CONSTRUCTION PLANS. PROVIDE DIMENSIONS FROM TWO PERMANENT REFERENCE POINTS TO VALVES, BACKFLOW PREVENTION UNITS, CONTROLLERS, SLEEVE ENDS, LINE STUB-OUTS, WIRING CONNECTIONS AND OTHER IRRIGATION COMPONENTS ENCLOSED WITHIN A VALVE BOX. KEEP THE DOCUMENTS CURRENT. DO NOT PERMANENTLY COVER THE WORK UNTIL THE AS-BUILT INFORMATION IS RECORDED.

15. MAINTENANCE MANUAL: THE SUBCONTRACTOR SHALL PREPARE A COMPLETE OPERATION AND MAINTENANCE MANUAL FOR USE BY THE COMPANY. AT A MINIMUM, THE MANUAL SHALL INCLUDE:

A. FULL OPERATING AND MAINTENANCE INSTRUCTIONS, CATALOG SHEETS AND MODEL NUMBERS FOR ALL EQUIPMENT AND SYSTEMS
B. AN ANNUAL WATERING SCHEDULE FOR ALL IRRIGATED PLANTS, SEEDING AND TURF.
C. CARE OF TREES, SHRUBS, GROUND COVERS, PALM TREES, SEEDING AND TURF INCLUDING MOWING, TRIMMING, PEST AND DISEASE CONTROL, WEEDING, PRUNING, STAKING AND FERTILIZING
D. NAMES, ADDRESSES, TELEPHONE NUMBERS AND WRITTEN WARRANTIES OF MATERIALS AND EQUIPMENT SUPPLIERS
E. FINISH GRADING AND SURFACE IRRIGATION EROSION CONTROL MAINTENANCE AND REPAIR PROCEDURES

WEED BARRIER FABRIC

WEED BARRIER FABRIC SHALL BE NEEDLE-PUNCHED, HEAT BONDED NONWOVEN POLYPROPYLENE LANDSCAPE FABRIC. IT SHALL BE EARTHTONE IN COLOR. IT SHALL BE DESIGNED SPECIFICALLY TO ACT AS A WEED BARRIER, SOIL SEPARATOR AND LIGHT DRAINAGE FILTER. IT SHALL ALSO BE INERT TO BIOLOGICAL DEGRADATION AND RESISTANT TO NATURALLY ENCOUNTERED CHEMICALS, ALKALIS AND ACIDS. MINIMUM FABRIC THICKNESS 0.89 MM

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
(MULTI-DISCIPLINED)

TEXAS DEPARTMENT OF TRANSPORTATION

SH 130 CORRIDOR WIDE STANDARDS
LANDSCAPE PLANS
GENERAL NOTES

SCALE: NTS

SHEET 4 OF SHEETS

DESIGNED BY: DI	CHECKED BY: RMM	DATE:
DRAWN BY: CJ	CHECKED BY:	DATE: 01-10-01
APPROVED BY:	DATE:	FRANCHISE NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-1.05

STATE	DISTRICT	COUNTY
TX	AUS	

CONT	SECT	JOB	HIGHWAY NO
			SH130

PLANTING NOTES

1. THE SUBCONTRACTOR SHALL PROVIDE ACCEPTABLE SOIL FOR BACKFILLING PLANTING PITS AND FOR PLATING UNDER TURF AREAS. ACCEPTABLE SOIL SHALL BE CLEAN, FRIABLE, AND FREE OF ANY CONTAMINANTS THAT WOULD HINDER PLANT GROWTH.

2. PRIOR TO THE BEGINNING OF PLANTING OPERATIONS, THE EXISTING SITE SOIL SHALL BE TESTED FOR THE HORTICULTURAL PURPOSES REPRESENTED BY THE PLANTING PLANS INCLUDING BUT NOT LIMITED TO SOIL FERTILITY, SOIL TOXINS AND PATHOGENS. THE SOIL SHALL BE AMENDED THE ORGANIC MATERIAL, FERTILIZER, SOIL SULFUR, OR OTHER AMENDMENTS, IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOIL CHEMISTRY/FERTILITY ANALYSIS. A REPUTABLE LABORATORY AT THE SUBCONTRACTOR'S EXPENSE SHALL PERFORM THE SOIL TESTING. THE SUBCONTRACTOR SHALL FURNISH THE SOIL REPORT TO THE COMPANY.

3. PROVIDE SLOW-RELEASE FERTILIZER TABLETS (AGRIFORM, OR APPROVED EQUAL) IN EACH PLANT PIT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

4. NO ROCKS LARGER THAN 1" IN ANY DIMENSION SHALL BE ALLOWED IN THE EXISTING OR PLATED SOIL WHERE TURF IS SPECIFIED.

5. THE NATIVE SUBSOIL UNDER THE TURF PLATING SHALL BE COMPACTED TO 90% PRIOR TO PLACING THE AMENDED SOIL.

6. PLANT PIT EXCAVATION, BACKFILL, PLANTING AND STAKING SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS. IN ANY CASE, THE PLANT ROOT BALL SHALL REST ON UNDISTURBED SOIL AT THE SPECIFIED OR DETAILED ELEVATION. THE SIDES AND BOTTOM OF THE PIT SHALL BE SCARIFIED AND PROPER PIT DRAINAGE SHALL BE PROVIDED.

7. THE TOP OF ROOT BALLS, AFTER PLANTING, SHALL BE SLIGHTLY HIGHER THAN ADJACENT FINISHED GRADES. THE SUBCONTRACTOR SHALL TAMP AND WATER SETTLE THE PLANTING BACKFILL AS NEEDED FOR PROPER ROOT BALL DEPTH.

8. THE SUBCONTRACTOR SHALL INSURE ADEQUATE DRAINAGE IN ALL PLANT PITS. WHERE CALICHE OR OTHER IMPERVIOUS LAYER IS ENCOUNTERED IN THE PLANT PITS, INCREASE THE HORIZONTAL SIZE OF THE PIT BY 1/3 OF THE SPECIFIED DIMENSION. INCREASE DRAINAGE BY DIGGING CHIMNEYS THROUGH THE CALICHE AND/OR PROVIDING DRAINAGE WITH THE USE OF DRAINAGE PIPES.

9. THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR'S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS.

10. THE QUALITY OF PLANT MATERIAL TO BE FURNISHED SHALL COMPLY WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK" FOR HEIGHT, WIDTH, CALIPER AND OTHER REQUIREMENTS.

11. ALL PLANT MATERIAL SHALL BE INSPECTED BY THE COMPANY PRIOR TO INSTALLATION. THE COMPANY RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL DEEMED TO BE UNACCEPTABLE.

12. PRIOR TO PLANTING, THE SUBCONTRACTOR SHALL STAKE THE LAYOUT OF INDIVIDUAL TREES AND SHRUBS AND THE AREAS OF GROUNDCOVERS. THE SUBCONTRACTOR SHALL REVIEW THIS LAYOUT WITH THE COMPANY AND OBTAIN THE COMPANY'S APPROVAL. STAKES SHALL BE LABELED WITH THE NAME OF EACH TREE AND SHRUB AND THE NAME OF THE MASSED GROUND COVER AREAS.

13. PLANTS SHALL BE LOCATED AWAY FROM FIRE HYDRANTS, TRAFFIC CONTROL SIGNS, POWER POLES AND LIGHT FIXTURES AS NECESSARY FOR VISIBILITY AND ACCESS. SHRUBS AND GROUND COVER PLANTS THAT ARE LOCATED ALONG WALKS AND OTHER PAVED SURFACES SHALL BE PLANTED SUCH THAT AT MATURITY, THE PLANT DOES NOT OVERGROW THE EDGE OF THE PAVEMENT.

14. SPACING FOR MASSED PLANTINGS SHALL BE "ON-CENTER" AND IN A TRIANGULAR PATTERN UNLESS OTHERWISE INDICATED.

15. SEVERE PRUNING, "TOPPING" OR REMOVING THE LEADER AND TOPIARY PRUNING OF TREES AND SHRUBS IS NOT PERMITTED.

16. AREAS DESIGNATED FOR NATIVE SEED MIX SHALL BE HYDROSEEDED/HYDROMULCHED WITH SEED, FIBER MULCH, FERTILIZER, OTHER AMENDMENTS, TACKIFIER AND WATER AND SHALL BE APPLIED UNIFORMLY OVER ROUGH GRADED NATIVE SOIL. REMOVAL OF ROCKS SMALLER THAN 1½" IS NOT NECESSARY AND THE FINISH SOIL SURFACE SHOULD BE IN A ROUGH, CULTIVATED CONDITION. AN ACCEPTABLE GERMINATION RATE SHALL BE 90% COVERAGE OF NATIVE SEED PLANTS, UNIFORMLY OVER THE AREAS DESIGNATED FOR SEEDING.

17. UNLESS NOTED OTHERWISE, WOOD MULCH OR GRANITE GRAVEL SHALL EXTEND UNDER ALL PLANTS AND SHALL BE RAKED LEVEL AND UNIFORMLY ALONG WALLS, WALKS AND CURBS. SPECIFIED OR APPROVED PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO INERT GROUND COVER AREAS PRIOR TO AND AFTER INSTALLATION OF THE GRANITE GRAVEL. THE SUBCONTRACTOR SHALL NOTIFY THE COMPANY PRIOR TO APPLYING HERBICIDES, AND SHALL KEEP ACCURATE RECORDS OF ALL HERBICIDE APPLICATIONS AND SHALL CONFORM TO ALL LAWS REGARDING THEIR APPLICATION.

IRRIGATION NOTES

1. THE PROJECT CONSISTS OF IRRIGATION SYSTEMS TO BE PERMANENTLY INSTALLED AT THE MAINLINE TOLL PLAZAS. IRRIGATION SOURCES WILL BE POTABLE WATER FROM WELLS OR MUNICIPAL SOURCES.

2. SUBCONTRACTOR SHALL COORDINATE AND MARK EXISTING UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

3. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES OR THE SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO ATTENTION OF THE COMPANY IN WRITING PRIOR TO CONSTRUCTION. DO NOT PROCEED WITH IRRIGATION LAYOUT BEFORE ALL TREES, SHRUBS AND LANDSCAPED BEDS HAVE BEEN STAKED BY THE SUBCONTRACTOR.

4. INSTALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.

5. ALL IRRIGATION LINES AND EQUIPMENT ARE TO BE LOCATED IN LANDSCAPE AREAS. THE IRRIGATION PLANS ARE DIAGRAMMATIC AND ARE INTENDED TO PROVIDE A GUIDE FOR THE FINAL DESIGN BY THE SUBCONTRACTOR.

6. IRRIGATION DESIGN REQUIREMENTS ARE AS FOLLOWS:

A. PIPE SIZING SHALL BE CALCULATED TO ALLOW A VELOCITY OF NO MORE THAN 5 FEET PER SECOND.
B. ALL COVERAGE OF SPRAYS AND ROTORS SHALL BE HEAD TO HEAD AT MINIMUM. PREVAILING WINDS AND SLOPE CONDITIONS MAY REQUIRE ADJUSTMENTS TO TYPICAL SPACING.
C. ALL SHRUBS, TREES, TURF AND NATIVE GRASSES/WILDFLOWERS SHALL BE ON SEPARATE ZONES.
D. BUBBLERS AND DRIP EMITTERS SHALL BE PLACED ON THE UPHILL SIDES OF PLANTS, AND OTHERWISE SHALL BE EVENLY SPACED AROUND THE PLANT.
E. ALL PLANTINGS IN GRANITE GRAVEL BEDS SHALL BE IRRIGATED WITH DRIP IRRIGATION.

7. ALL IRRIGATION AND ELECTRICAL SLEEVES ARE TO BE SCH. 40 PVC (UNLESS OTHERWISE NOTED), AND SHALL EXTEND 24" BEYOND ANY STRUCTURES AND PAVING, OTHER THAN UNDER WALKWAYS OR MOW CURBS, WHERE THEY SHALL EXTEND 12". THERE SHALL BE A MINIMUM OF 12" FROM THE END OF THE SLEEVE TO THE FIRST FITTING ON THE LINE. THE SUBCONTRACTOR SHALL COORDINATE THE PLACEMENT OF IRRIGATION SLEEVES WITH OTHER TRADES AND SHALL VERIFY ANY SLEEVES PROVIDED BY OTHERS.

8. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL REQUIRED IRRIGATION MAINLINES. DELIVERY SYSTEMS SHALL EXTEND FROM THE WATER SOURCE TO A DISTANCE OF NO MORE THAN 250 FEET FROM EVERY PART OF THE LANDSCAPE IMPROVEMENTS AS SHOWN ON THE PLANS. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE SUBCONTRACTOR SHALL PREPARE DETAILED IRRIGATION PLANS WITH ALL NOTES, HEADS, PIPING, PRESSURE LOSS CALCULATION, AND ALL OTHER EQUIPMENT SHOWN AND IDENTIFIED FOR APPROVAL BY THE COMPANY PRIOR TO INSTALLATION.

9. NATIVE PLANT HYDROSEEDED AREAS SHALL BE IRRIGATED WITH ROTARY IRRIGATION HEADS. THE IRRIGATION SYSTEM FOR SEEDED AREAS SHALL BE OPERATING AT THE RATES REQUIRED TO GERMINATE THE SEED, ESTABLISH INITIAL SEED GROWTH AND HEALTH OF THE PLANTS OVER THE FIRST YEAR OF GROWTH. IN SUBSEQUENT SEASONS AND AT THE COMPANY'S DISCRETION, THE SEEDED AREA IRRIGATION SYSTEM MAY BE REDUCED UNTIL NO SUPPLEMENTAL WATER IS APPLIED, EXCEPT DURING EXTENDED PERIODS OF DROUGHT WHEN THE IRRIGATION CAN BE RESUMED, AGAIN AT THE COMPANY'S DISCRETION. ACCEPTABLE ESTABLISHMENT SHALL BE ACHIEVED WHEN NO AREAS LARGER THAN 25 S.F. ARE ABSENT OF THE SPECIFIED PLANT MIX SPECIES.

10. EMITTERS AND DISTRIBUTION LINES SHALL BE DISTRIBUTED EVENLY AROUND THE ROOT BALL. ON SLOPED PLANTING AREAS, LOCATE EMITTERS ON THE UPHILL SIDE OF THE ROOT BALL.

11. VALVE BOXES SHALL BE CLEAN OF DEBRIS AND ALL PEA GRAVEL SHALL BE REMOVED FROM THE VALVE BOX LIP AND THE TOP OF THE VALVE.

12. REMOTE CONTROL VALVES AND THE PRESSURE REGULATORS SHALL BE INSTALLED IN ADJACENT VALVE BOXES OR IN A JUMBO VALVE BOX. EMITTER SYSTEM END FLUSH CAPS SHALL BE INSTALLED IN 10" ROUND ECONOMY BOXES.

13. ALL BOXES FOR IRRIGATION EQUIPMENT SHALL BE INSTALLED AND OR ADJUSTED TO MEET FINISH GRADES AFTER PLACEMENT OF THE FINAL SURFACE MATERIAL. BOXES SHALL BE INSTALLED TO BE PARALLEL OR PERPENDICULAR TO ANY ADJACENT HARDSCAPE SURFACE OR STRUCTURE. GANGS OF BOXES SHALL BE IN ALIGNMENT WITH ONE ANOTHER.

14. THE SUBCONTRACTOR SHALL PROVIDE SPARE PARTS OF ALL EQUIPMENT USED AT EACH SITE TO THE COMPANY AT SUBSTANTIAL COMPLETION.

THE FOLLOWING LIST IS PROVIDED FOR EXAMPLE ONLY:
1) 1-2" REMOTE CONTROL VALVE
2) 3 - ADJUSTABLE ARC GEAR ROTORS
3) 3 - PART CIRCLE GEAR ROTORS
4) 3 - FULL CIRCLE GEAR ROTORS
5) 1 - QUICK COUPLING KEY
6) 6 - MULTI-OUTLET DRIP EMITTER
7) 3 - SINGLE OUTLET DRIP EMITTER

FREESTANDING STONE WALLS AND COLUMNS

1. DESCRIPTION: CONSTRUCT STONE WALLS AND COLUMNS COMPOSED OF APPROVED STONE AND LIME-CEMENT MORTAR IN THE LOCATIONS SHOWN ON THE PLANS. ALL STONE WALLS AND COLUMNS SHALL BE LOCATED OUTSIDE THE ROADWAY CLEARZONES AS SPECIFIED IN 192.4.2.

2. MATERIALS:

A. STONE SHALL BE SOUND, DURABLE LIMESTONE RUBBLE OR ROUGHLY SQUARED STONE, UNIFORM IN COLOR AND TEXTURE, CLEAN OF EARTH, CLAY, OIL OR OTHER FOREIGN SUBSTANCES. STONE TYPE AND THICKNESS SHALL BE AS SHOWN ON THE PLANS.

B. CONCRETE SHALL BE CLASS "D" IN ACCORDANCE WITH ITEM 421, "HYDRAULIC CEMENT CONCRETE."

C. CEMENT: FURNISH CEMENT CONFORMING TO DMS-4600, "HYDRAULIC CEMENT"

D. SAND: SAND SHALL BE FREE OF DELETERIOUS OR ORGANIC MATTER ANS SHALL CONFORM TO THE GRADING REQUIREMENTS FOR GRADE 1 FINE AGGREGATE, SUB ARTICLE 421.E.2.

E. WATER SHALL CONFORM TO THE REQUIREMENTS OF ITEM 421 "HYDRAULIC CEMENT CONCRETE", SUB ARTICLE 421.2.D.

F. LIME: HYDRATED LIME SHALL CONFORM TO ASTM C 207, TYPE S.

3. SUBMIT SAMPLES OF STONE WHICH SHOW THE COMPLETE COLOR RANGE FOR APPROVAL. PROVIDE SHOP DRAWINGS SHOWING LOCATIONS AND DETAILS OF ANCHORS, IF USED.

4. FREE STANDING STONE WALLS:

A. BUILD ONE SECTION OF WALL TO DEMONSTRATE AESTHETIC EFFECTS AND SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION. WALL MOCKUP TO BE APPROXIMATELY 72" LONG AND 48" HIGH.

B. VERIFY ALL DIMENSIONS INCIDENTAL TO THIS WORK AND PROMPTLY REPORT ANY DISCREPANCIES TO THE COMPANY.

C. CONSTRUCT STONE WALLS IN ACCORDANCE WITH THESE SPECIFICATIONS IN CONFORMITY WITH THE FORM, DIMENSIONS, AND DESIGN SHOWN ON THE PLANS.

D. FREESTANDING STONE WALLS ARE TO BE CONSTRUCTED WITHOUT MORTAR. FILL FOR INTERIOR SPACES MAY BE STONE CHIPS OR GRAVEL SIMILAR IN CHARACTER TO THE STONE USED FOR CONSTRUCTION.

E. FREESTANDING STONE WALLS ARE NOT TO BE PLACED ON CONCRETE FOOTINGS. A COMPACTED AGGREGATE BED AS SHOWN ON THE PLANS SHALL BE USED.

5. COLUMNS:

A. CONSTRUCT ONE MOCKUP COLUMN TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND TO SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION. MOCKUP TO BE THE SAME SIZE AND DIMENSIONS AS SHOWN ON THE PLANS. STONE USED SHALL BE THE SAME AS USED IN THE FREESTANDING STONE WALLS.

B. VERIFY ALL DIMENSIONS INCIDENTAL TO THIS WORK AND PROMPTLY REPORT ANY DISCREPANCIES TO THE COMPANY.

C. CONSTRUCT STONE COLUMNS IN ACCORDANCE WITH THESE SPECIFICATIONS IN CONFORMITY WITH THE FORM, DIMENSIONS, AND DESIGN SHOWN ON THE PLANS.

6. MORTAR: MIX MORTAR IN THE PROPORTIONS BY VOLUME OF 1 PART PORTLAND CEMENT, 1 PART HYDRATED LIME, AND 4 PARTS OF SAND; OR, 1 PART TYPE II MASONRY CEMENT AND 3 PARTS SAND.

A. WATER CONTENT IN THE MORTAR MIX SHALL BE THE AMOUNT REQUIRED TO OBTAIN A WORKABLE PLASTIC MORTAR. MORTAR NOT USED WITHIN 1 HOUR OF MIXING SHALL BE DISCARDED.

7. WORKMANSHIP: STONE MUST BE SET BY COMPETENT, EXPERIENCED MASONS.

A. WHEN CONSTRUCTING MORTARED COLUMNS, CLEAN, SPONGE AND DRENCH EACH STONE WITH CLEAN WATER JUST BEFORE SETTING. SET EACH STONE IN A FULL BED OF PLASTIC MORTAR.

B. FACE JOINTS OF RANDOM RUBBLE STONE MAY VARY FROM ¼" TO 2" IN THICKNESS. FACE JOINTS OF ROUGHLY SQUARED STONE MAY VARY FROM ¼" TO ½" IN THICKNESS. JOINTS SHALL BE UNIFORM AND RAKED OUT ¾" DEEP, OR AS NECESSARY TO NOT BE EASILY VISIBLE. WOOD WEDGES ARE NOT ALLOWED. MORTAR SHALL BE WELL DRIVEN INTO THE JOINTS AND FINISHED WITH AN APPROVED POINTING TOOL.

C. AFTER POINTING IS COMPLETED AND THE MORTAR SET, CLEAN ALL SHOWING SURFACES OF LOOSE MORTAR AND CEMENT STAINS.

D. FREESTANDING STONE WALLS ARE TO BE SET IN A SETTLING BED AS SHOWN ON THE PLANS.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER

TEXAS DEPARTMENT OF TRANSPORTATION

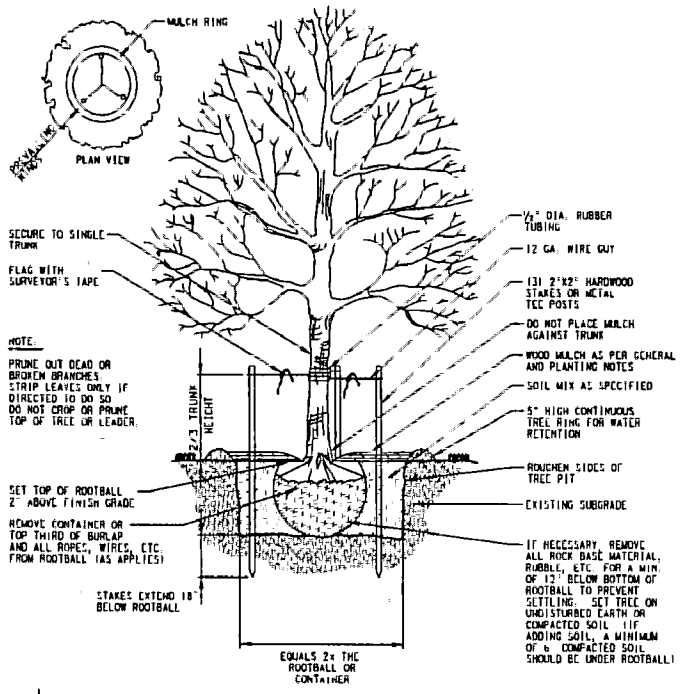
SH 130 CORRIDOR WIDE STANDARDS
LANDSCAPE PLANS
PLANTING, IRRIGATION,
FREESTANDING STONE WALLS
AND COLUMNS NOTES

SCALE: NTS

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-1.06
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

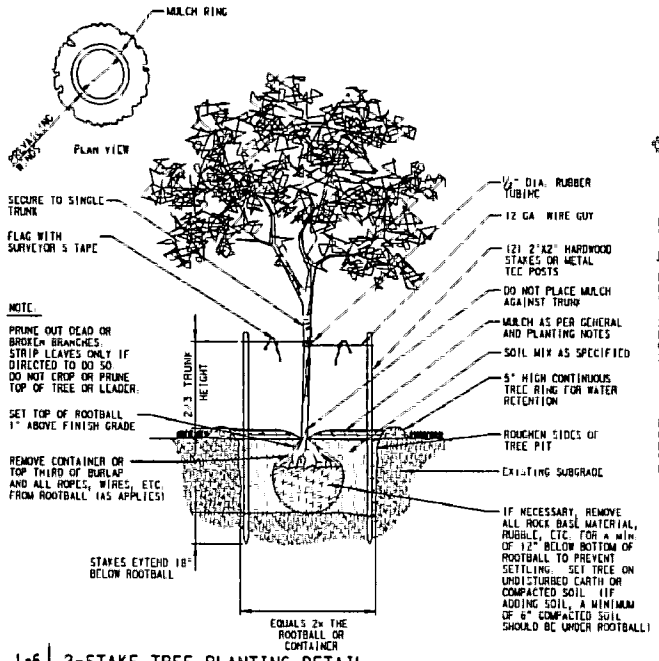
REV	DATE	BY	DESCRIPTION
0	10/11/07	APL	



L-3 3-STAKE TREE PLANTING DETAIL

FOR TREES WITH TRUNKS 3" IN CALIPER OR GREATER

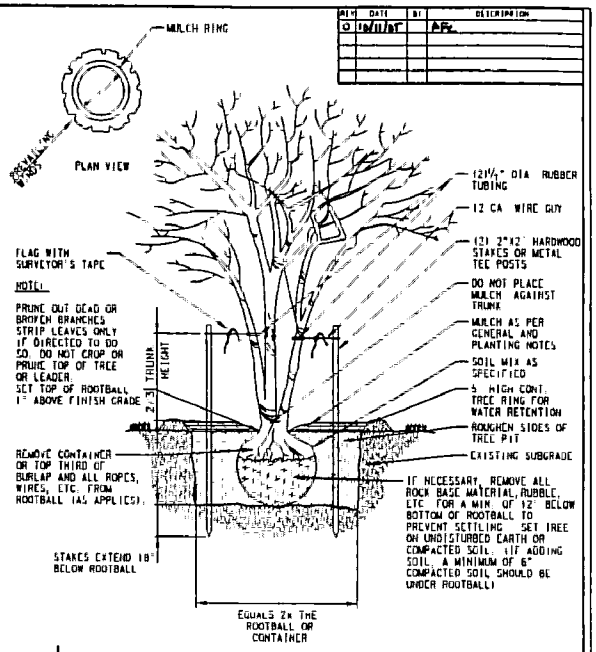
NOT TO SCALE



L-6 2-STAKE TREE PLANTING DETAIL

FOR TREES WITH TRUNKS LESS THAN 3" IN CALIPER

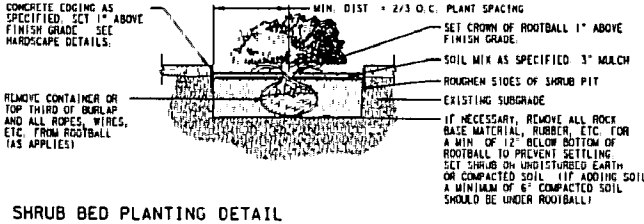
NOT TO SCALE



L-7 TREE PLANTING DETAIL

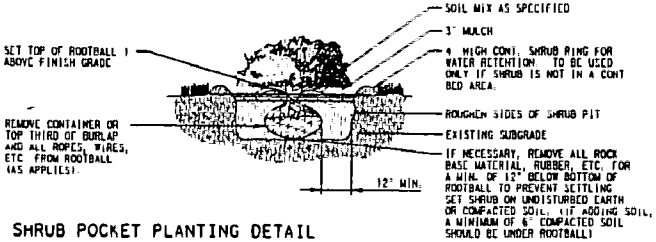
FOR TREES WITH MULTI-TRUNKS

NOT TO SCALE



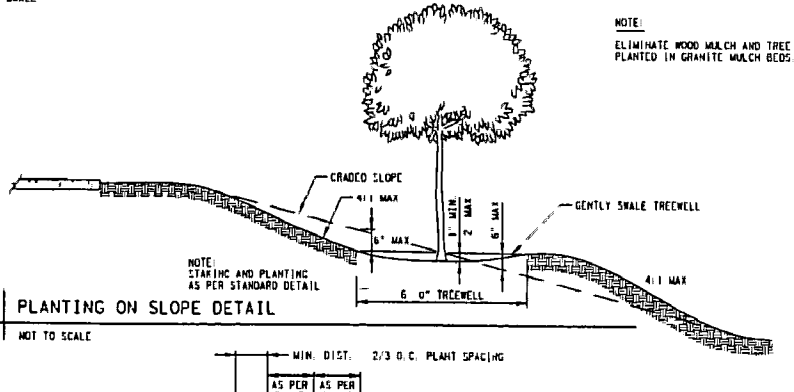
L-2 SHRUB BED PLANTING DETAIL

NOT TO SCALE



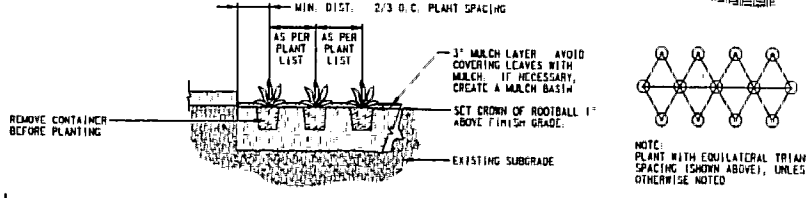
L-1 SHRUB POCKET PLANTING DETAIL

NOT TO SCALE



L-5 PLANTING ON SLOPE DETAIL

NOT TO SCALE



NOTE:
PLANT WITH EQUILATERAL TRIANGULAR SPACING (SHOWN ABOVE), UNLESS OTHERWISE NOTED

L-4 GROUNDCOVER/PERENNIAL PLANTING DETAIL

NOT TO SCALE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/11/05

TEAM MEMBER
DALAM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SH130 CORRIDOR WIDE STANDARD
LANDSCAPE PLANS
PLANTING DETAILS

SCALE: NTS

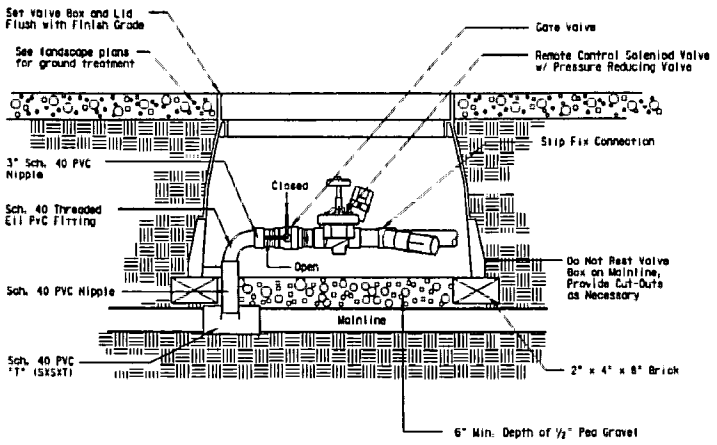
SHEET OF SHEETS

DESIGNED BY: DS	CHECKED BY: RWG	DATE:
DRAWN BY: ADAMS	CHECKED BY:	DATE: 8 29 05
APPROVED BY:	DATE:	PROJECT NO:
FED. RD. DIV. NO. 6	PROJECT NO. 86-2XXD0001	SHEET NO. L-1 07

STATE	DISTRICT	COUNTY
TX	AUS	

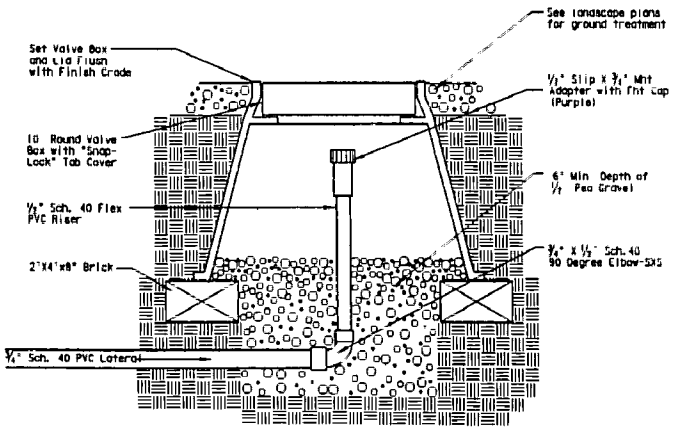
CONT	SECT	JOB	HIGHWAY NO.
			SH130

REV	DATE	BY	DESCRIPTION
0	10/11/05	APL	



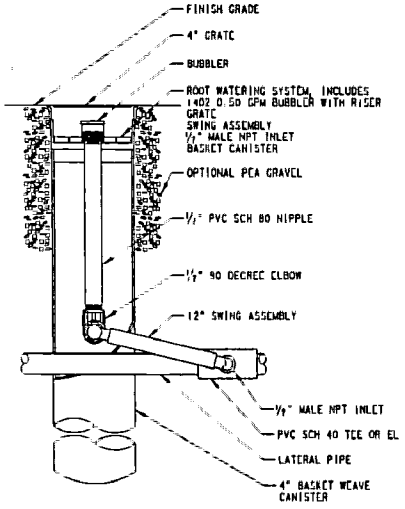
I-2 EMITTER REMOTE CONTROL VALVE ASSEMBLY

NOT TO SCALE



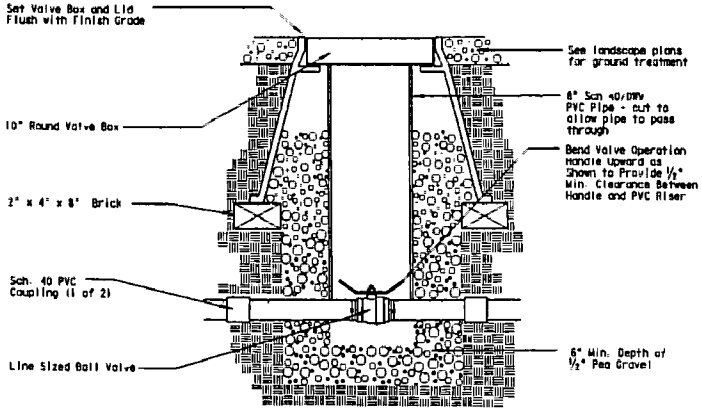
I-4 DRIP END FLUSH CAP ASSEMBLY

NOT TO SCALE



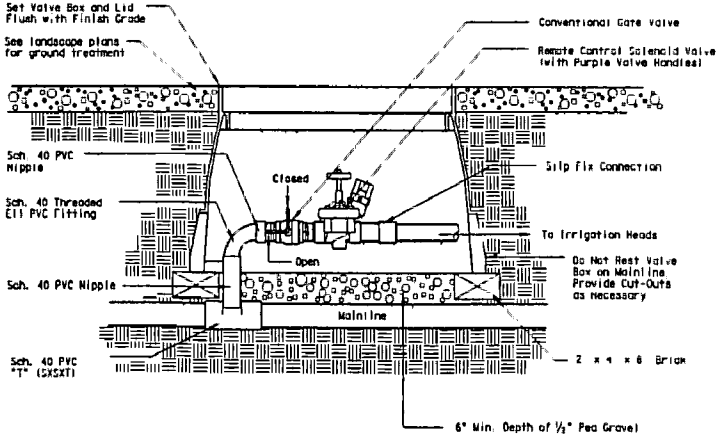
I-5 ROOT WATERING SYSTEM

NOT TO SCALE



I-1 ISOLATION GATE VALVE ASSEMBLY

NOT TO SCALE



I-3 REMOTE CONTROL VALVE ASSEMBLY

NOT TO SCALE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAUM-HARRIS

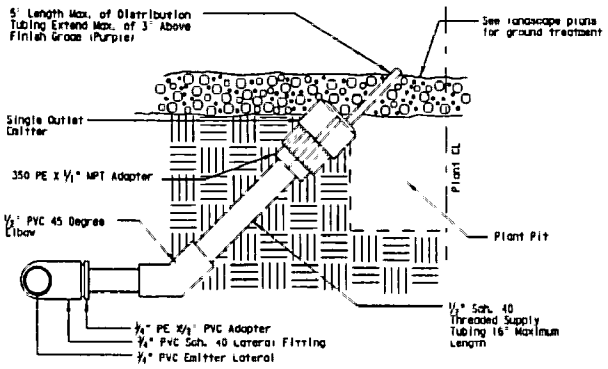
TEXAS DEPARTMENT OF TRANSPORTATION

SH130 CORRIDOR WIDE STANDARD
LANDSCAPE PLANS
IRRIGATION DETAILS

SCALE: NTS

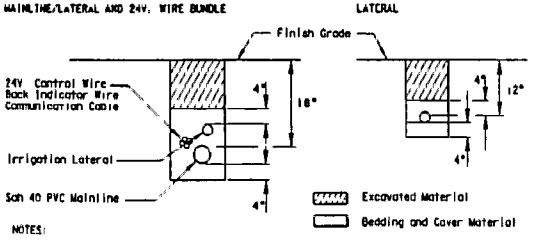
SHEET OF SHEETS

DESIGNED BY: GS	CHECKED BY: RWG	DATE:	
DRAWN BY: AMK	CHECKED BY:	DATE: 07 20 05	
APPROVED BY:	DATE:	PROJECT NO:	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XX08001		L-1 08
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130



I-8 SINGLE OUTLET EMITTER

NOT TO SCALE

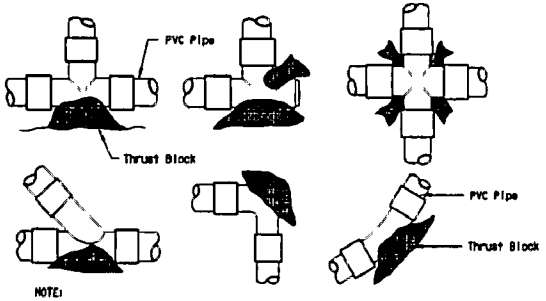


NOTES:

1. Trench Width May Vary With the Number of Pipes in Trench and Soil Type.
2. Provide a Min. of 2" Clearance to Side of Trench and 4" Between Pipes.
3. Provide a Min. of 4" Minimum Separation Between Mainline and Laterals (Wall to Wall).

I-7 TRENCHING DETAIL

NOT TO SCALE

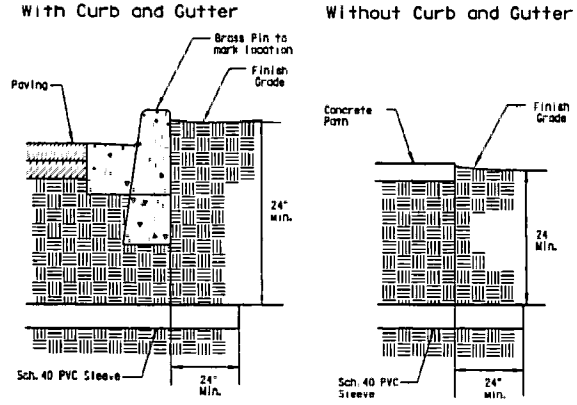


NOTE:

1. Thrust Blocks to be Placed at All Tees, Ells, Interconnections on Mainline.
2. All Thrust Blocks to be a Min. of 0.5 Cu. Ft.
3. Thrust Blocks to be Composed of 2000 PSI Concrete with a 28 Day Cure.

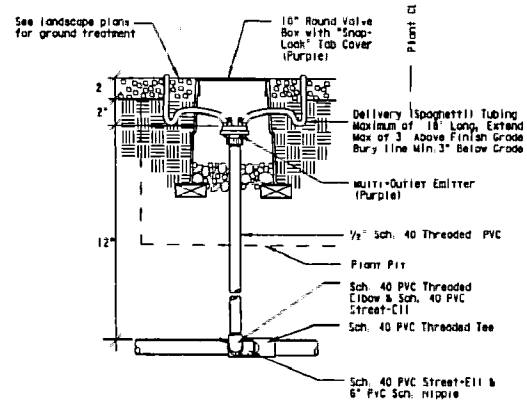
I-6 THRUST BLOCK DETAIL

NOT TO SCALE



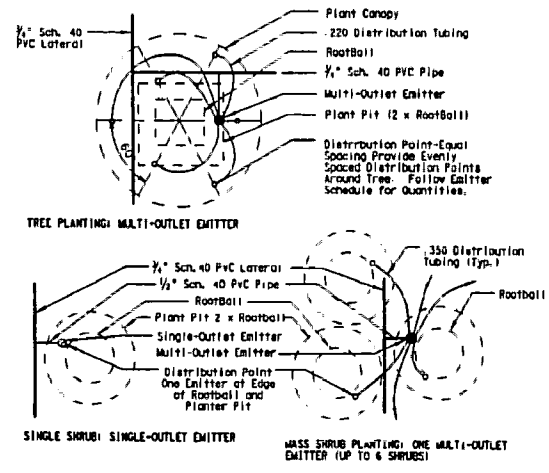
I-10 WIRING/IRRIGATION SLEEVE

NOT TO SCALE



I-11 MULTI-OUTLET EMITTER

NOT TO SCALE



Note: When Planting on Slopes Evenly Distribute Emission Points Uphill of Plant Material.

I-9 EMITTER LOCATION DETAIL

NOT TO SCALE

REV	DATE	BY	DESCRIPTION
0	10/10/05	AFC	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

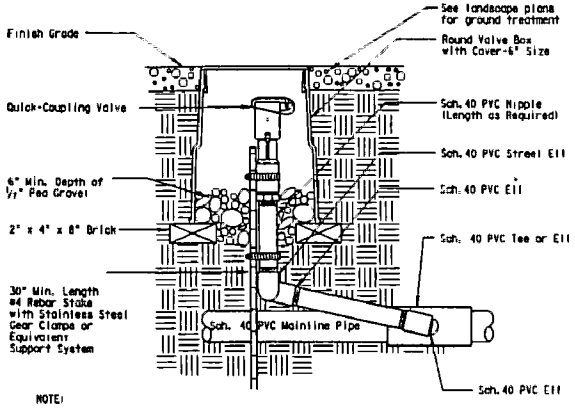
SH130 CORIDOR WIDE STANDARD
LANDSCAPE PLANS
IRRIGATION DETAILS

SCALE: NTS

SHEET OF SHEETS

DESIGNED BY: DS	CHECKED BY: RWG	DATE:	
DRAWN BY: AMR	CHECKED BY:	DATE: 07-10-05	
APPROVED BY:	DATE	PROJECT NO.	
FED AID PROJECT NO	SHEET NAME	DWG NO	
6	86-2YXDB001		L-1 09
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
0	10/11/05		AFL

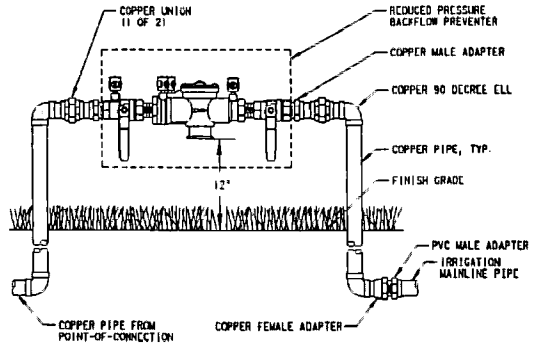


NOTE:

1. Furnish Fittings and Piping Nominally Sized Identical to Nominal Quick Coupling Valve Inlet Size

I-13 QUICK COUPLER

NOT TO SCALE



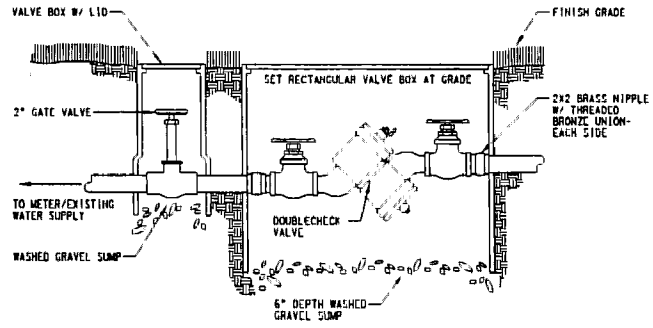
NOTE:

1 INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

2 USED FOR DRIP SYSTEMS

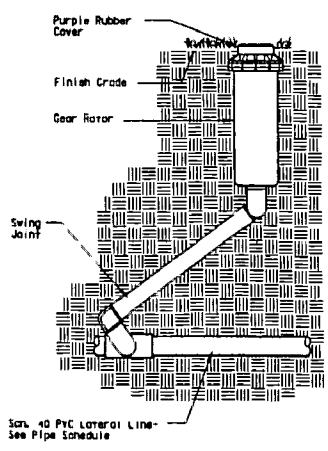
I-14 REDUCED PRESSURE BACKFLOW PREVENTER

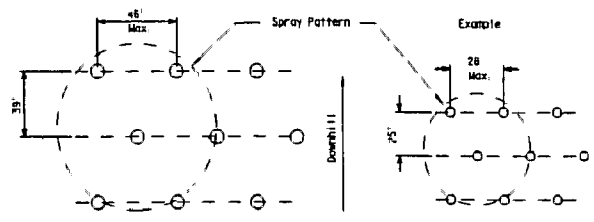
NOT TO SCALE



I-16 DOUBLECHECK BACKFLOW PREVENTER

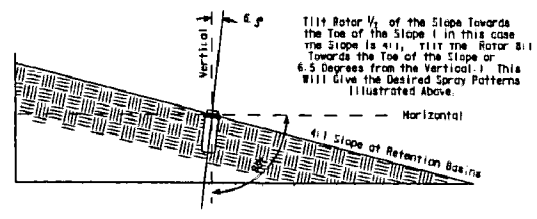
NOT TO SCALE





Adjustable Arc (47' Radius)

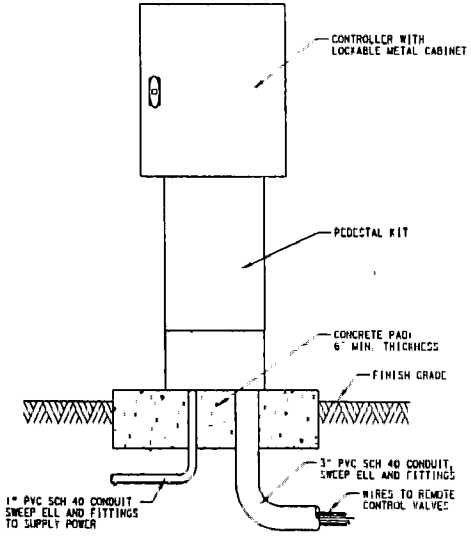
Adjustable Arc (29' Radius)



For Slope Irrigation

I-12 POP-UP ROTOR SPRAY HEAD INSTALLATION DETAIL

NOT TO SCALE



I-15 IRRIGATION CONTROLLER (PEDESTAL)

NOT TO SCALE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM/HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SH130 CORRIDOR WIDE STANDARD LANDSCAPE PLANS IRRIGATION DETAILS

SCALE: NTS

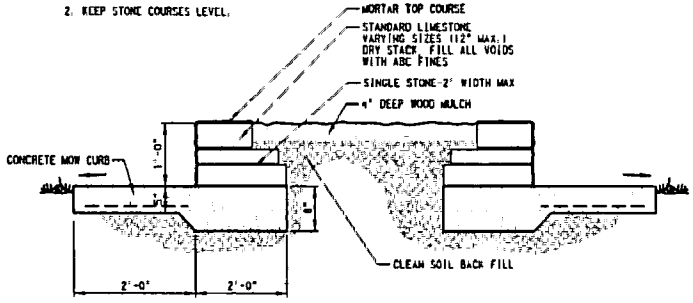
SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-1.10
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
2	10/1/07	[illegible]	

NOTES:

1. STEP TOP OF WALLS TO ACCOMMODATE GRADE CHANGES.
2. KEEP STONE COURSES LEVEL.

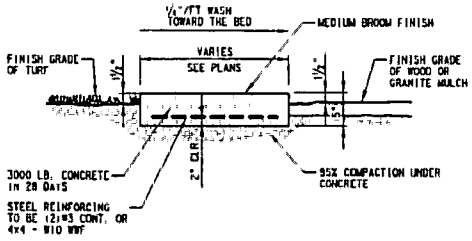


HS-6 RAISED PLANTER DETAIL

NOT TO SCALE

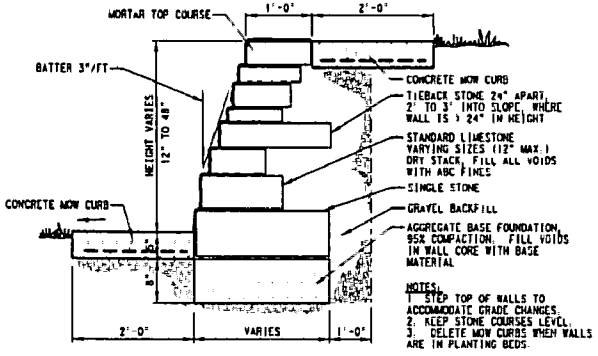
NOTE:

1. CONSTRUCTION JOINTS @ 30'
2. CONTRACTION JOINTS @ 10'.
3. (1) 1/2" DOWELL @ EACH CONSTRUCTION JOINT.



HS-4 CONCRETE MOW CURB DETAIL

NOT TO SCALE

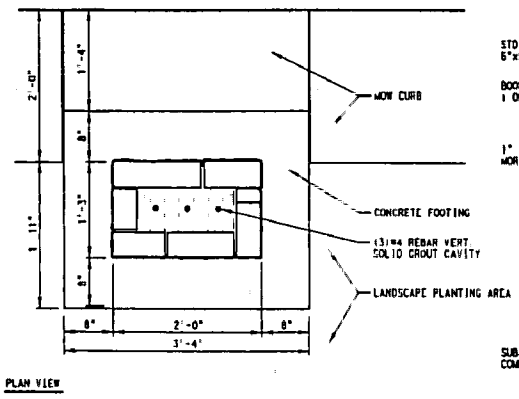


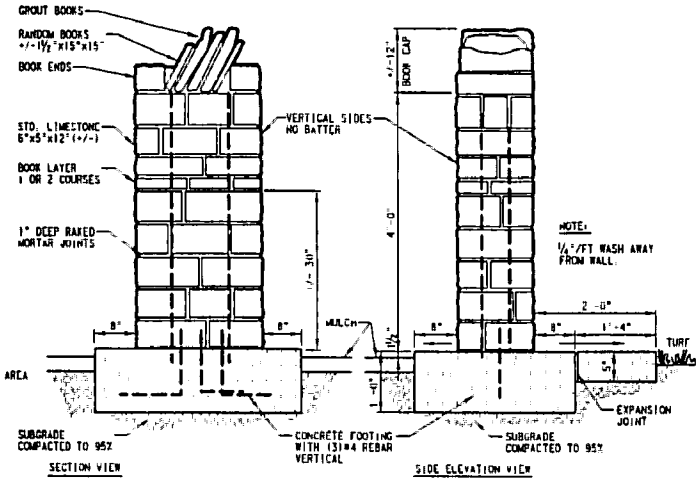
NOTES:

1. STEP TOP OF WALLS TO ACCOMMODATE GRADE CHANGES.
2. KEEP STONE COURSES LEVEL.
3. DELETE MOW CURBS WHEN WALLS ARE IN PLANTING BEDS.

HS-1 DRY STACKED NATIVE STONE WALL DETAIL

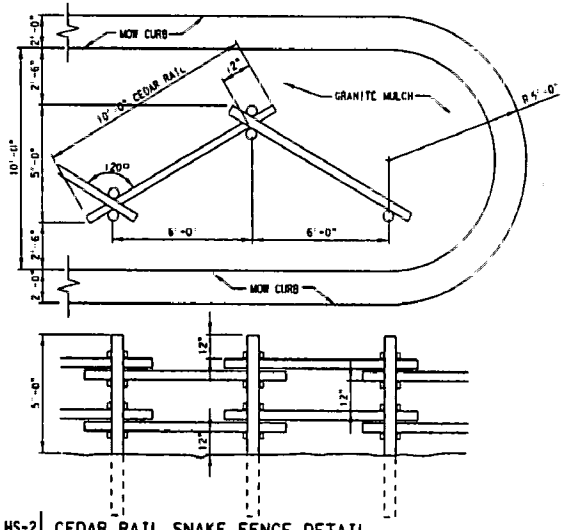
NOT TO SCALE





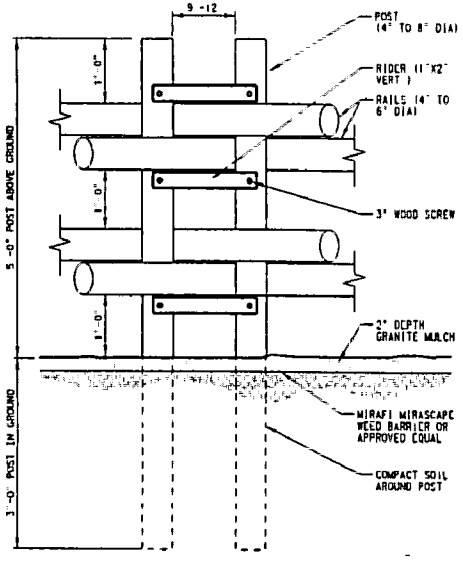
HS-5 FREESTANDING NATIVE STONE COLUMN

NOT TO SCALE



HS-2 CEDAR RAIL SNAKE FENCE DETAIL

NOT TO SCALE



HS-3 CEDAR RAIL SNAKE FENCE DETAIL

NOT TO SCALE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADNEY
2134
STATE OF TEXAS
10/1/05

TEAM MEMBER
DRAIN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION © 1993

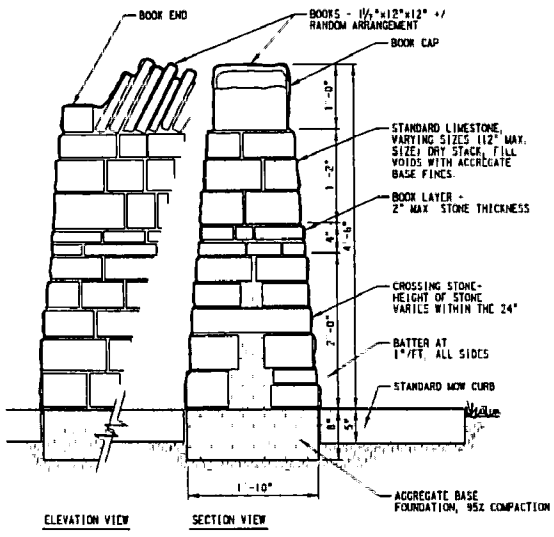
SH130 CORRIDOR WIDE STANDARD
LANDSCAPE PLANS
HARDSCAPE DETAILS

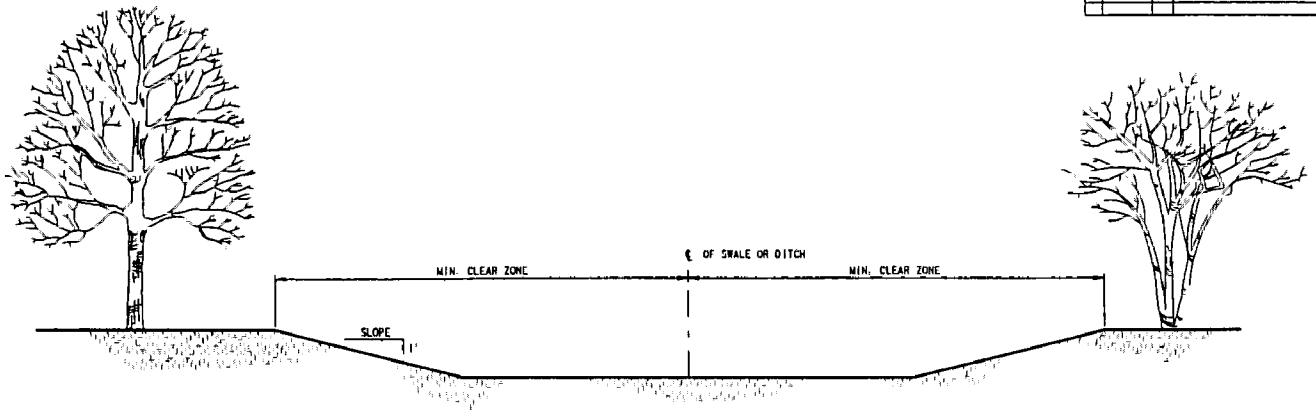
SCALE: NTS

SHEET OF SHEETS

DESIGNED BY: DS	CHECKED BY: RWG	DATE:	
DRAWN BY: JWB	CHECKED BY:	DATE: 06-20-05	
APPROVED BY:	DATE:	PROJECT NO:	
FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.	DWG NO.
6	86-2NXDB001		L-1.11
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT.	SECT.	JOB	HIGHWAY NO.
			SH130

REV	DATE	BY	DESCRIPTION
0	10/11/05		AFC





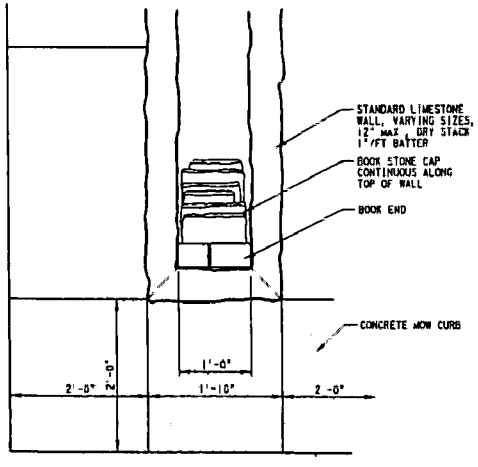
SLOPE	MIN. CLEAR ZONE
4'	10'-0"
6'	14'-0"

NOTE:

1. DRAINAGE DITCHES ARE TO BE FREE OF OBSTRUCTIONS TO THE FLOW OF WATER.
2. CLEAR ZONES ARE FOR DITCHES WITH A 4' BOTTOM WIDTH. FOR OTHER BOTTOM WIDTHS, PROVIDE A CLEAR ZONE WHICH INCLUDES THE BOTTOM WIDTH AND 8'-0" ALONG THE SLOPE FOR 4:1 AND 12'-0" ALONG THE SLOPE FOR 6:1.

HS-9 TYPICAL DRAINAGE DITCH SECTION

NOT TO SCALE



HS-7 FREESTANDING NATIVE STONE WALL DETAIL

NOT TO SCALE

HS-8 NOT USED

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAVIS HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SH130 CORRIDOR WIDE STANDARD
LANDSCAPE PLANS
HARDSCAPE DETAILS

SCALE: NTS

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XX0B001		L-1.12

STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
0	10/10/05		

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT
WILLIAMSON COUNTY

FEDERAL AID PROJECT NO:
86-2XXDB001
CSJ: 0440-05-004

LANDSCAPE FOR
STATE HIGHWAY 29 GATEWAY

OVERALL PLANT LEGEND FOR STATE HIGHWAY 29 GATEWAY

THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR'S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS.

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
GC-	GROUND COVER			
AM	Achillea millefolium	4"p	117	36" O.C.
	YARROW			
DB	Dalea bicolor v. argyrea	4"p	52	36" O.C.
	SILVER DALEA			
DF	Dalea frutescens	4"p	17	36" O.C.
	BLACK DALEA			
DG	Dalea greggii	4"p	52	36" O.C.
	GREGG DALEA			
OR	Orbexilum sp.	4"p	131	24" O.C.
	MOUNTAIN PEA			
GR-	GRASSES			
MC	Muhlenbergia capillaris	1g	226	60" O.C.
	GULF MUHLY			
ML	Muhlenbergia lindheimeri	1g	232	60" O.C.
	LINDHEIMER MUHLY			
SS	Schizachyrium scoparium	1g	10	60" O.C.
	LITTLE BLUESTEM			
AC-	ACCENT			
HP	Hesperaloe parviflora	3g	81	60" O.C.
	RED YUCCA			
SL-	SHRUB - LARGE			
HV	Hamamelis virginiana	3g	28	
	WITCH HAZEL			
RL	Rhus lanceolata	3g	101	
	PRAIRIE FLAMELEAF SUMAC			
RV	Rhus virens	3g	103	
	EVERGREEN SUMAC			
VR	Viburnum rufidulum	3g	63	
	RUSTY BLACKHAW			
SM-	SHRUB - MEDIUM			
CA	Callicarpa americana	1g	116	60" O.C.
	AMERICAN BEAUTYBERRY			
LH	Lantana horrida	1g	97	60" O.C.
	TEXAS LANTANA			
LA	Lonicera albiflora	1g	94	60" O.C.
	WHITE HONEYSUCKLE			
RG	Rhus glabra	1g	8	60" O.C.
	SMOOTH SUMAC			
TS	Tecoma stans v. angustata	1g	64	60" O.C.
	YELLOW BELLS			
SS-	SHRUB - SMALL			
MQ	Malvaviscus drummondii	1g	137	36" O.C.
	TURK'S CAP			
PL	Pavonia lasiopetala	1g	172	36" O.C.
	ROSE PAVONIA			
RC	Rosa carolina	1g	98	36" O.C.
	CAROLINA ROSE			
VN-	VINES			
BC	Bignonia capreolata	1g	20	
	CROSS VINE			

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
TC-	TREES - CANOPY			
PO	Platanus occidentalis	3"c	5	
	SYCAMORE			
QM	Quercus macrocarpa	2"c	50	
	BUR OAK			
QL	Quercus muhlenbergii	3"c	22	
	CHINQUAPIN OAK			
QV	Quercus virginiana	1"c	59	
	LIVE OAK			
TM-	TREES - MEDIUM			
FP	Fraxinus pennsylvanica v. texensis	1"c	12	
	TEXAS ASH			
JV	Juniperus virginiana	1"c	7	
	EASTERN RED CEDAR			
TS-	TREES - SMALL			
CTW	Cercis texensis 'whitebud'	1"c	3	
	TEXAS WHITEBUD			
CT	Cercis texensis	1"c	36	
	TEXAS REDBUD			
CL	Chilopsis linearis	1"c	11	
	DESERT WILLOW			
DT	Diospyros texana	2"c	10	
	TEXAS PERSIMMON			
ID	Ilex decidua	1"c	13	
	POSSUM HAW			
IV	Ilex vomitoria	1"c	33	
	YAUPON HOLLY			
PM	Prunus mexicana	2"c	34	
	MEXICAN PLUM			
	OTHER			
	WOOD MULCH	S.F.	64,114	
	SEEDING - WILDFLOWER	S.F.	558,261	
	1'-0" CONCRETE MOW CURB	L.F.	4,184	
	2'-0" CONCRETE MOW CURB	L.F.	4,018	
	RAISED PLANTER	F.F.	516	
	DRY STACKED NATIVE STONE WALL	F.F.	1,529	

INDEX OF SHEETS

COVER SHEET, SH29 PLANT LEGEND, KEYMAP	L-2 01
LANDSCAPE PLANS	L-2 02 THRU L-2 05
HARDSCAPE PLANS	L-2 06 THRU L-2 09
PLANTER DETAILS	L-2 10, L-2 11

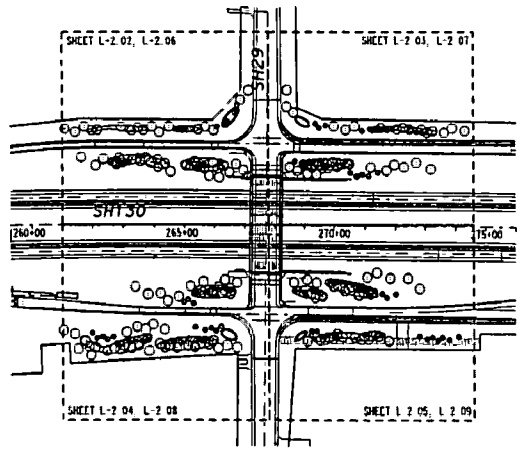
ABBREVIATIONS

g	GALLONS
c	CALIPER
p	POT
L.F.	LINEAR FEET
S.F.	SQUARE FEET
F.F.	FACE FEET
EA.	EACH
O.C.	ON CENTER
BL	BASELINE

NOTE

SEE SHEET L-1.05, GENERAL NOTE #3. FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

KEYMAP



0' 100' 200' 400'

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
COVER SHEET

SH29 GATEWAY

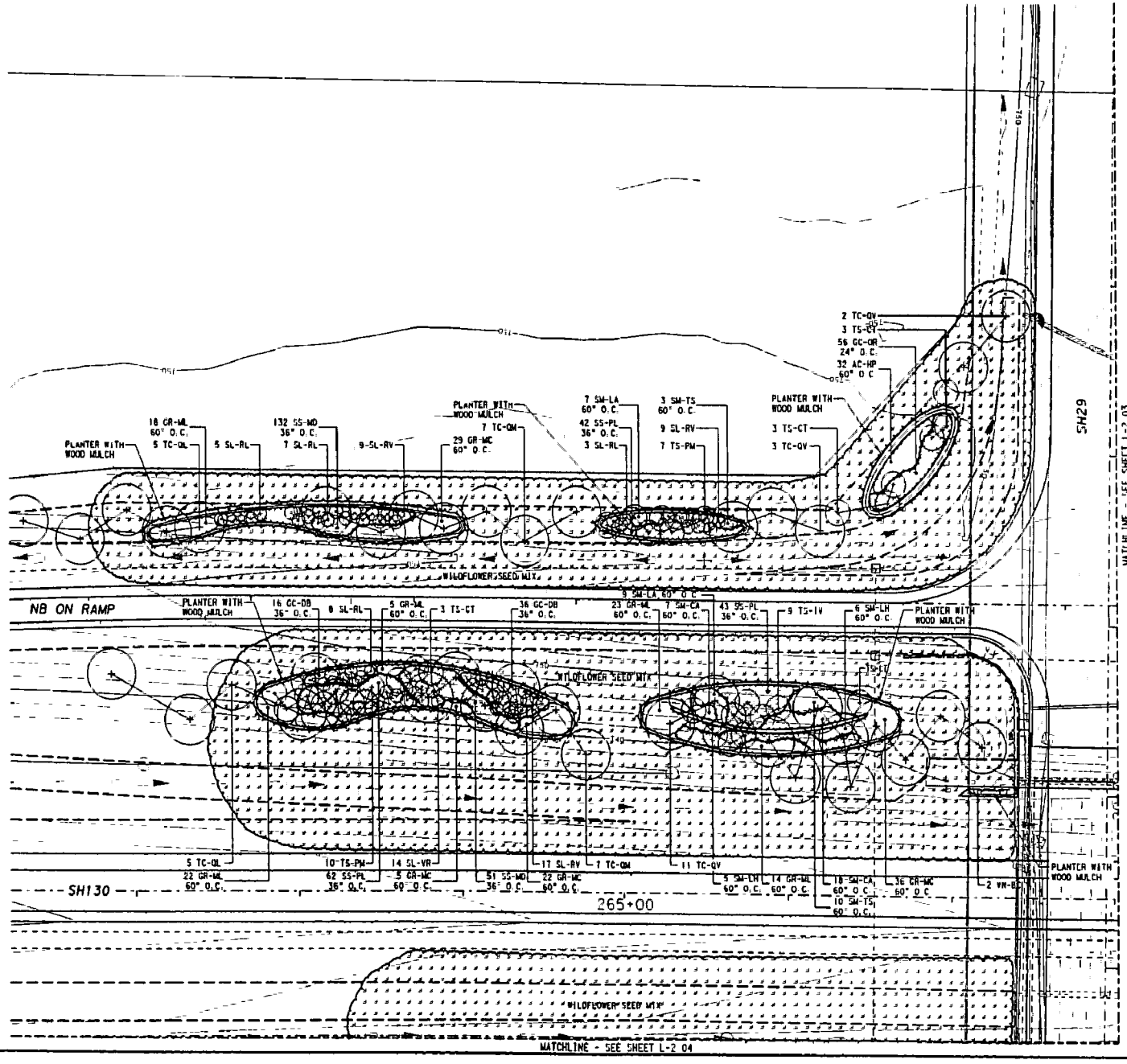
SCALE: 1" = 400'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV.	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L 2 01

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05	AA	

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
AM	Achillea millefolium / YARROW	4"p	0
DB	Dalea bicolor v. argyrea / SILVER DALEA	4 p	52
DF	Dalea frutescens / BLACK DALEA	4"p	0
DG	Dalea greggii / GREGG DALEA	4"p	0
OR	Orbertium sp / MOUNTAIN PEA	4"p	56
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	1g	92
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	1g	82
SS	Schizachyrium scoparium / LITTLE BLUESTEM	1g	0
AC-	ACCENT		
HP	Hesperaloe parviflora / RED YUCCA	5g	32
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	3g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	3g	23
RV	Rhus virens / EVERGREEN SUMAC	3g	35
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	14
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	1g	75
LH	Lantana horrida / TEXAS LANTANA	1g	11
LA	Lonicera albiflora / WHITE HONEYSUCKLE	1g	16
MP	Myrica pusilla / DWARF WAX MYRTLE	1g	0
RG	Rhus glabra / SMOOTH SUMAC	1g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	1g	13
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	183
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	147
RC	Rosa carolina / CAROLINA ROSE	1g	0
VN-	VINES		
BC	Bignonia capreolata / CROSS VINE	1g	2

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
PO	Platanus occidentalis / SYCAMORE	3"c	0
QM	Quercus macrocarpa / BUR OAK	2"c	14
QL	Quercus muhlenbergii / CHINKAPIN OAK	3"c	10
QV	Quercus virginiana / LIVE OAK	1"c	16
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	0
JV	Juniperus virginiana / EASTERN RED CEDAR	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis whitebud / TEXAS WHITEBUD	1"c	0
CT	Cercis texensis / TEXAS REDBUD	1"c	10
CL	Chilopsis linearis / DESERT WILLOW	1"c	0
DT	Diospyros texana / TEXAS PERSIMMON	2"c	0
ID	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / YAUPON HOLLY	1"c	9
PM	Prunus mexicana / MEXICAN PLUM	2"c	17
	OTHER		
	WOOD MULCH	S.F.	11,476
	SEEDING-WILDFLOWER	S.F.	122,584

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLAWE
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAUM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
PLANTING PLAN

SH29 GATEWAY

SCALE: 1" = 60'

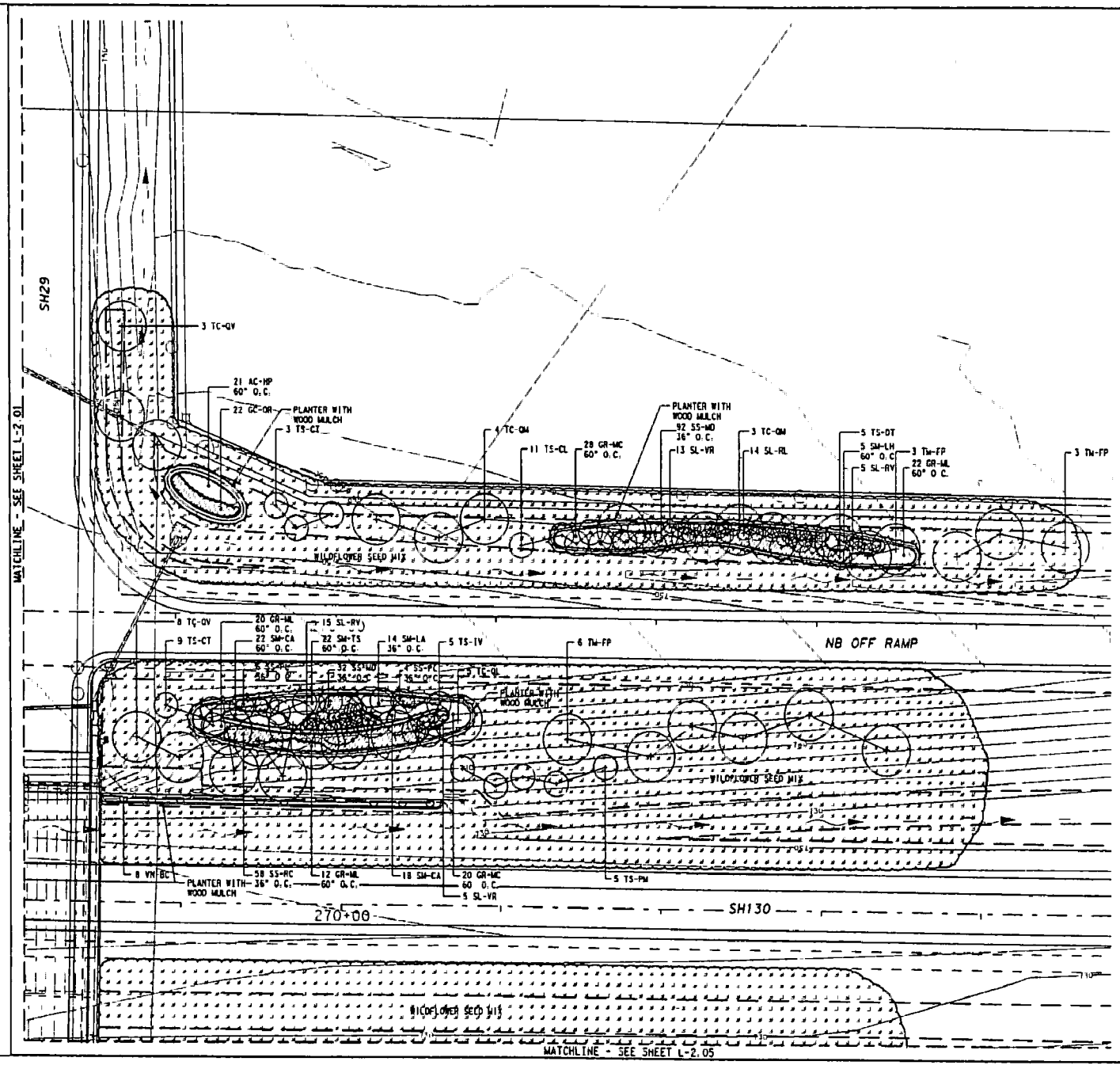
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: GAR	CHECKED BY:	DATE: 09-29-05
APPROVED BY:	DATE:	PROJECT NO:

FED RD DIV	FED AID PROJECT NO	SHEET NAME	DWG NO
6	BS-2XXDB001		L-2.02

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
AM	Achillea millefolium / YARROW	4"p	0
DB	Dalea bicolor v. argyrea / SILVER DALEA	4"p	0
DF	Dalea frutescens / BLACK DALEA	4"p	0
DG	Dalea greggii / GREGG DALEA	4"p	0
OR	Orbexilum sp. / MERIDIAN PEA	4"p	27
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	1g	48
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	1g	54
SS	Schizachyrium scoparium / LITTLE BLUESTAR	1g	0
AC-	ACCENT		
HP	Hesperaloe parviflora / RED YUCCA	5g	21
SH-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	1g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	3g	14
RV	Rhus virens / EVERGREEN SUMAC	3g	20
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	18
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	1g	40
LH	Lantana horida / TEXAS LANTANA	1g	5
LA	Lonicera albiflora / WHITE HONEYSUCKLE	1g	14
MP	Myrica pusilla / DWARF WAX MYRTLE	1g	0
RG	Rhus glabra / SMOOTH SUMAC	1g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	1g	27
SS-	SHRUB - SMALL		
MD	Malpighia drummondii / TURK'S CAP	1g	124
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	10
RC	Rosa carolina / CAROLINA ROSE	1g	58
VN-	VINES		
BC	Bignonia capreolata / CROSS VINE	1g	8

NOTE:

SEE SHEET L-1 05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

0 15 30 60

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
PO	Platanus occidentalis / SYCAMORE	3"c	0
QM	Quercus macrocarpa / BUR OAK	2"c	7
QL	Quercus muhlenbergii / CHINQUAPIN OAK	3"c	5
QV	Quercus virginiana / LIVE OAK	1"c	11
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	12
JV	Juniperus virginiana / CALIBA RED CEDAR	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1"c	0
CT	Cercis texensis / TEXAS REDBUD	1"c	12
CL	Chilopsis linearis / DESERT WILLOW	1"c	11
DT	Diospyros texana / TEXAS PERSIMMON	2"c	5
IO	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / TAUPON HOLLY	1"c	5
PM	Prunus mexicana / MEXICAN PLUM	2"c	5
	OTHER		
	WOOD MULCH	S.F.	15,325
	SEEDING-WILDFLOWER	S.F.	174,967

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT ROBERT W. GLADNEY 2134 STATE OF TEXAS 10/3/05

TEAM MEMBER
DAMM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
PLANTING PLAN

SH29 GATEWAY

SCALE: 1" = 60'

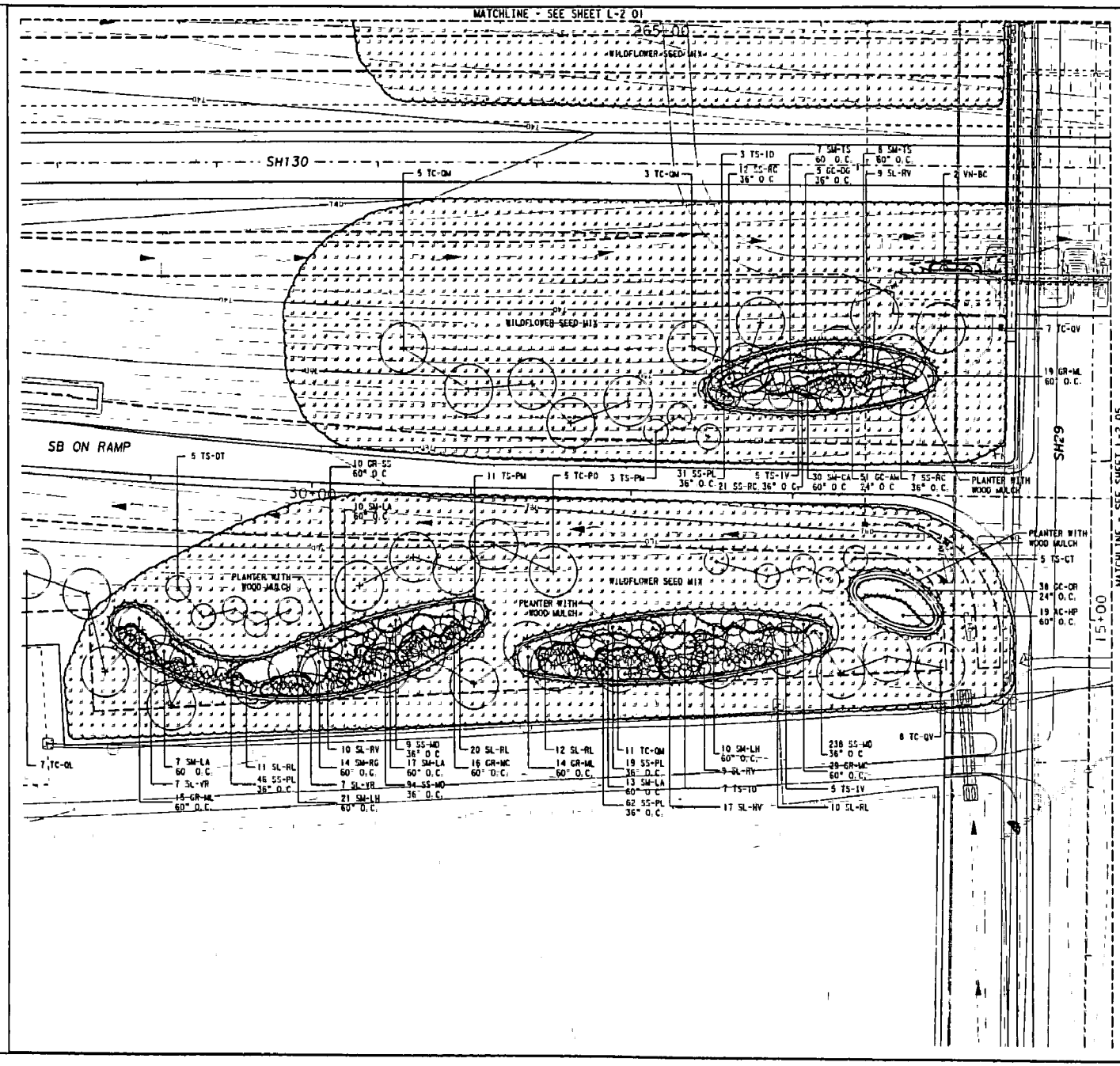
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AAM	CHECKED BY:	DATE: 06 10 05
APPROVED BY:	DATE:	PROJECT NO

FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG NO
6	86-2#X08001		L-2 03

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
5	08/11/05		AC

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	51
	YARROW		
DB	Dalea bicolor v. argyraea	4"p	0
	SILVER DALEA		
DF	Dalea frutescens	4"p	0
	BLACK DALEA		
DG	Dalea greggii	4"p	5
	GREGG DALEA		
OR	Ornithium sp.	4"p	36
	MOUNTAIN PEA		
GR-	GRASSES		
MC	Muhlenbergia capillaris	1g	45
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	1g	48
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	1g	10
	LITTLE BLUESTAR		
AC-	ACCENT		
HP	Hesperaloe parviflora	5g	19
	RED YUCCA		
SL-	SHRUB LARGE		
HV	Hamamelis virginiana	3g	17
	WITCH HAZEL		
RL	Rhus lanceolata	3g	53
	PRAIRIE FLAMELEAF SUMAC		
RV	Rhus virens	3g	28
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	14
	RUSTY BLACKHAW		
SM-	SHRUB MEDIUM		
CA	Callicarpa americana	1g	39
	AMERICAN BEAUTYBERRY		
LH	Lantana horrida	1g	31
	TEXAS LANTANA		
LA	Lonicera albiflora	1g	47
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	1g	0
	DWARF WAX MYRTLE		
RG	Rhus glabra	1g	0
	SMOOTH SUMAC		
TS	Tecoma stans v. angustata	1g	15
	YELLOW BELLS		
SS-	SHRUB SMALL		
MD	Malvaviscus drummondii	1g	341
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	139
	ROSE PAVONIA		
RC	Rosa carolina	1g	40
	CAROLINA ROSE		
VN-	VINES		
BC	Bignonia capreolata	1g	7
	CROSS VINE		

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
PO	Platanus occidentalis	3"c	5
	SYCAMORE		
QM	Quercus macrocarpa	2"c	19
	BUR OAK		
QL	Quercus muhlenbergii	3"c	7
	CHINQUAPIN OAK		
QV	Quercus virginiana	1"c	15
	LIVE OAK		
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis	1"c	0
	TEXAS ASH		
JV	Juniperus virginiana	1 c	0
	EASTERN RED CEDAR		
TS-	TREES SMALL		
CTW	Cercis texensis 'whitebud'	1"c	0
	TEXAS WHITEBUD		
CT	Cercis texensis	1"c	5
	TEXAS REDBUD		
CL	Chilopsis linearis	1"c	0
	DESERT WILLOW		
DT	Diospyros texana	2 c	5
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	10
	POSSUM HAW		
IV	Ilex vomitoria	1"c	10
	YAUPON HOLLY		
PM	Prunus mexicana	2 c	14
	MEXICAN PLUM		
	OTHER		
	WOOD MULCH	S.F.	18,376
	SEEDING-WILDFLOWER	S.F.	155,065

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT ROBERT W. CLADWELL 2134 STATE OF TEXAS 8/11/05

TEAM MEMBER DIANA HARRIS

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

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SEGMENT 1, SECTION 02
LANDSCAPE PLANS
PLANTING PLAN

SH29 GATEWAY

SCALE: 1" = 60

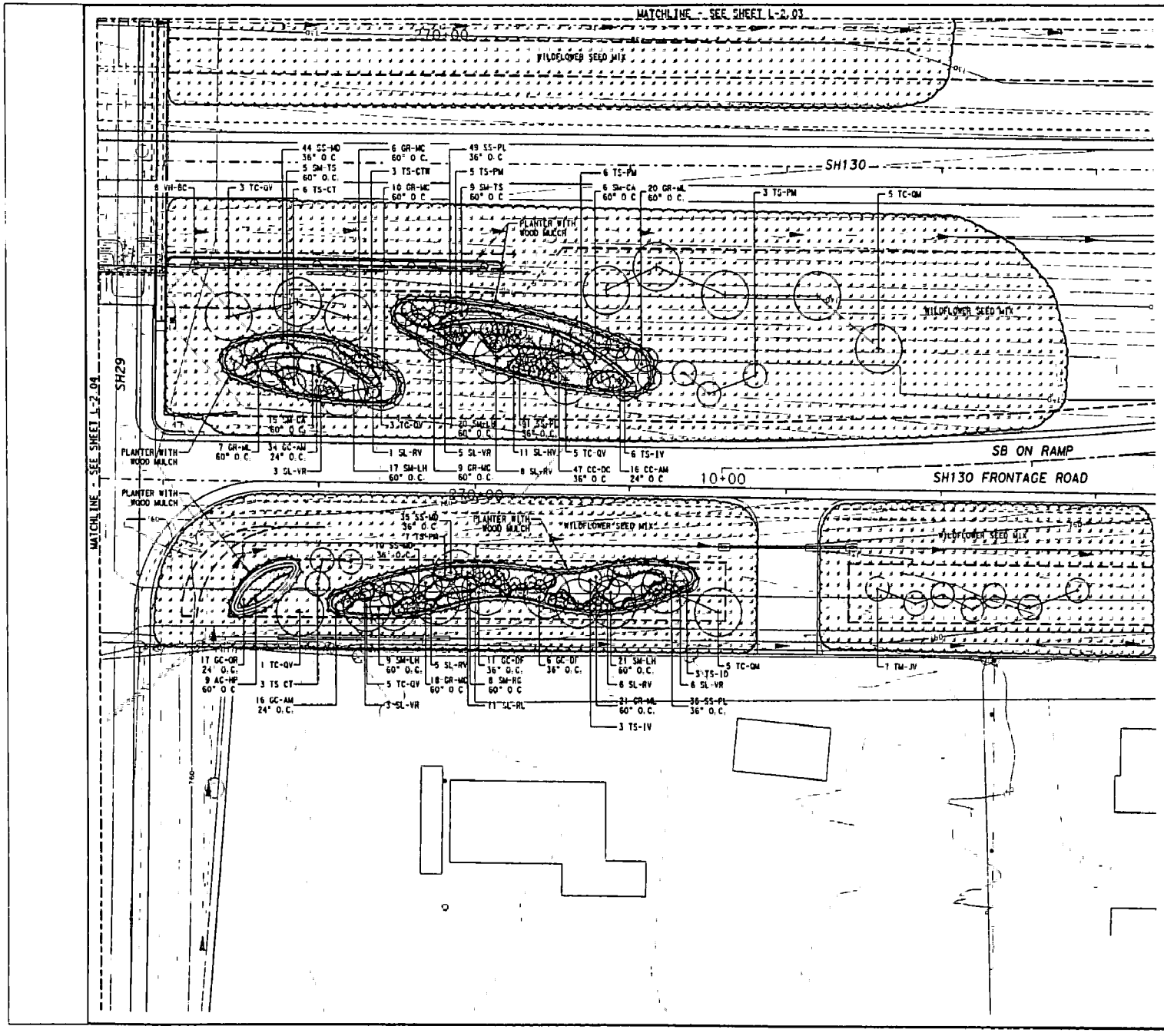
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AWS	CHECKED BY:	DATE: 08 08 05
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NO.	DWG NO.
6	86-2XX08001		L-2.04

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT.	SECT.	JOB	HIGHWAY NO.
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		AFC

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
AM	Achillea millefolium / YARROW	4'p	66
DB	Dalea bicolor v. argyrea / SILVER DALEA	4'p	0
DF	Dalea frutescens / BLACK DALEA	4 p	17
DG	Dalea greggii / GREGG DALEA	4'p	47
OR	Orbexilum sp. / MOUNTAIN PEA	4'p	17
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MURLY	1g	43
ML	Muhlenbergia lindheimeri / LINDHEIMER MURLY	1g	48
SS	Schizachyrium scoparium / LITTLE BLUESTAR	1g	0
AC-	ACCENT		
HP	Hesperaloe parviflora / RED YUCCA	5g	9
SL-	SHRUB LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	3g	11
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	3g	11
RV	Rhus virens / EVERGREEN SUMAC	3g	20
VR	Viburnum rufidulum / RUSTY BLACKHAW	5d	17
SM-	SHRUB MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	1g	21
LH	Lantana horrida / TEXAS LANTANA	1g	50
LA	Lonicera albiflora / WHITE HONEYSUCKLE	1g	17
MP	Myrica pusilla / DWARF WAX MYRTLE	1g	0
RG	Rhus glabra / SMOOTH SUMAC	1g	8
TS	Tecoma stans v. angustata / YELLOW BELLS	1g	14
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	89
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	176
RC	Rosa carolina / CAROLINA ROSE	1g	0
VN-	VINES		
BC	Bignonia capreolata / CROSS VINE	1g	8

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
PO	Platanus occidentalis / SYCAMORE	3"c	0
QM	Quercus macrocarpa / BUR OAK	2"c	10
QL	Quercus muhlenbergii / CHINQUAPIN OAK	3"c	0
QV	Quercus virginiana / LIVE OAK	1"c	17
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvania v. texensis / TEXAS ASH	1"c	0
JV	Juniperus virginiana / EASTERN RED CEDAR	1"c	7
TS-	TREES SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1"c	3
CT	Cercis texensis / TEXAS REDBUD	1"c	9
CL	Chilopsis linearis / DESERT WILLOW	1"c	0
DT	Diospyros texana / TEXAS PERSIMMON	2"c	0
ID	Ilex decidua / POSSUM HAW	1"c	3
IV	Ilex vomitoria / YAUPON HOLLY	1"c	9
PM	Prunus mexicana / MEXICAN PLUM	2 g	18
	OTHER		
	WOOD MULCH	S.F.	15,437
	SEEDING-WILDFLOWER	S F	155,656

PLANTING SETBACK LINE

NOTE:

SEE SHEET L-1 05 GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REGISTERED LANDSCAPE ARCHITECT
ROBERT W GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DWAN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
PLANTING PLAN

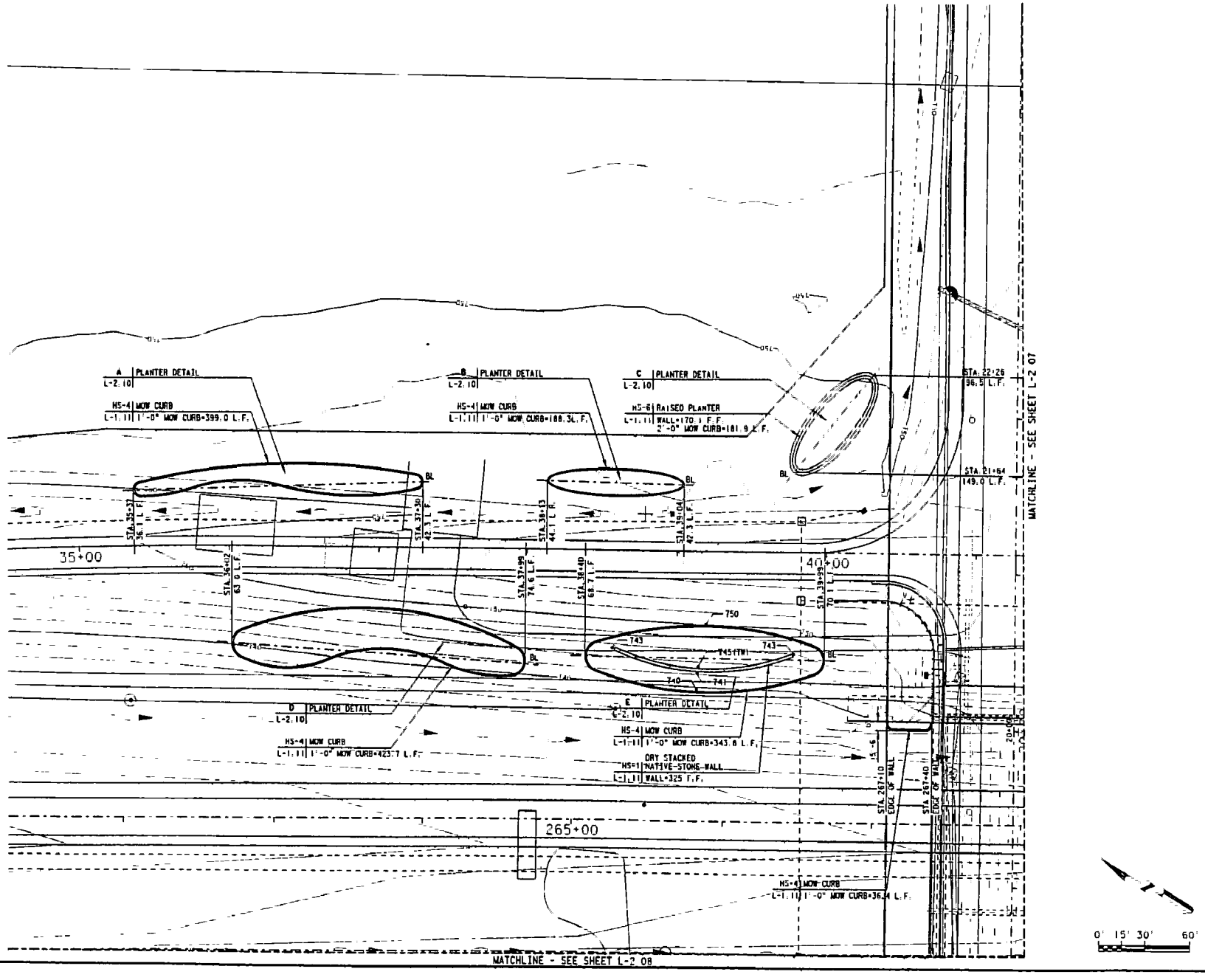
SH29 CATEWAY

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:	
DRAWN BY: SAME	CHECKED BY:	DATE: 06 20-05	
APPROVED BY:	DATE:	PROJECT NO:	
FED. RD. DIV. NO.	PROJECT NO.	INTER. NAME	DWG. NO.
6	86-2XXD8001		L-2.05
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
0440	05	004	SH130

REV	DATE	BY	DESCRIPTION
0	10/11/05	APC	



NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	1,355
2'-0" CONCRETE MOW CURB	L.F.	1818
RAISED PLANTER	L.F.	170
DRY STACKED NATIVE STONE WALL	F.F.	325
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX — DETAIL #; X-XX — SHEET #	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DAUM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
HARDSCAPE PLAN

SH29 GATEWAY

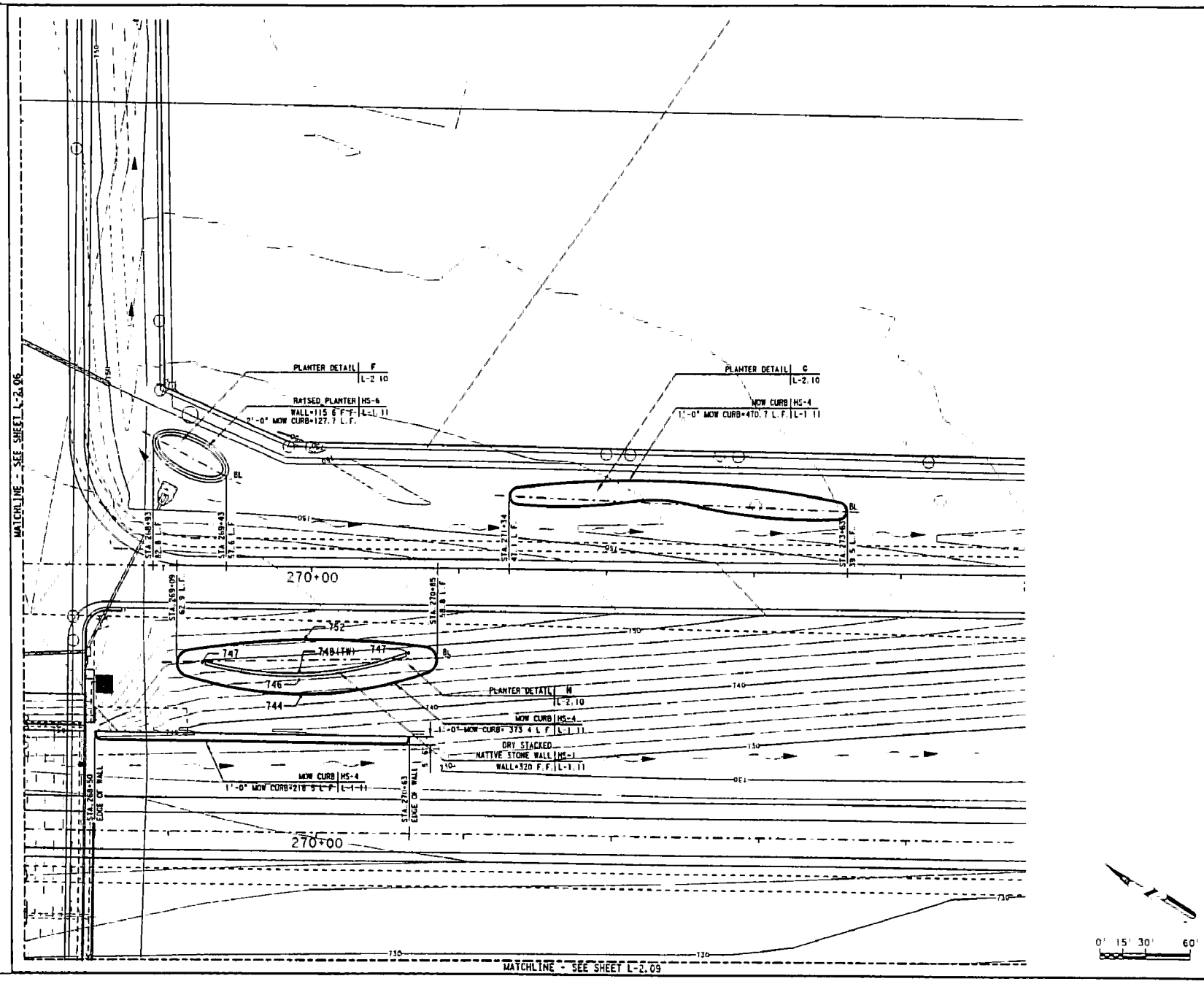
SCALE: 1" =60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DB	DATE:
DRAWN BY:	LAST REV BY:	DATE: 04-20-03
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-2.06

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	844
2'-0" CONCRETE MOW CURB	L.F.	128
RAISED PLANTER	L.F.	116
DRY STACKED NATIVE STONE WALL	F.F.	320
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XY DETAIL # / X-XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DMJM+HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
HARDSCAPE PLAN

SH29 GATEWAY

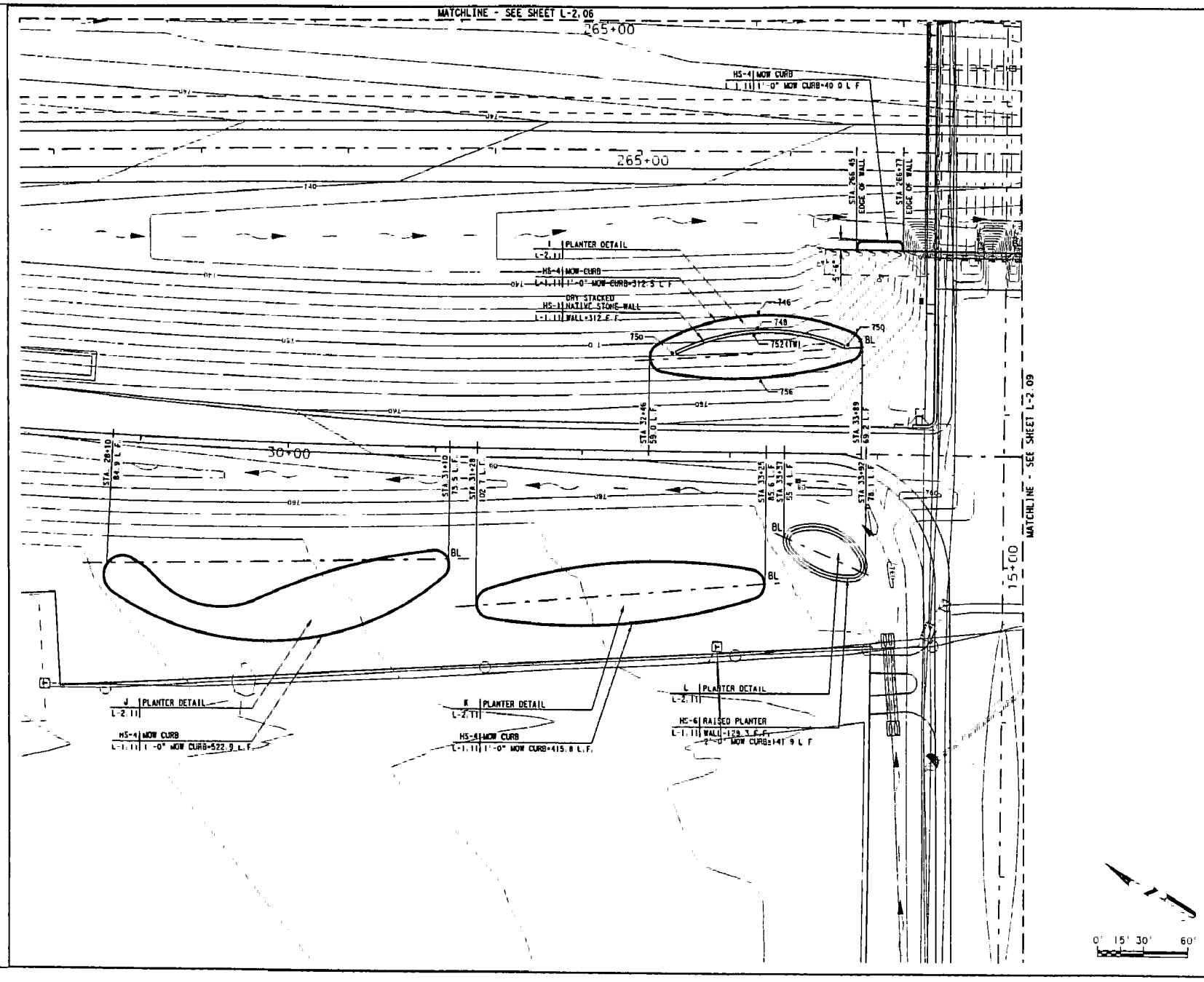
SCALE: 1" =60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY:	CHECKED BY:	DATE: 08/20/05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-2.07

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/6/05	AAW	

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	1251
2'-0" CONCRETE MOW CURB	L.F.	142
RAISED PLANTER	L.F.	129
DRY STACKED NATIVE STONE WALL	L.F.	312
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/3/05

TEAM MEMBER
OWJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
HARDSCAPE PLAN

SH29 GATEWAY

SCALE 1" =60'

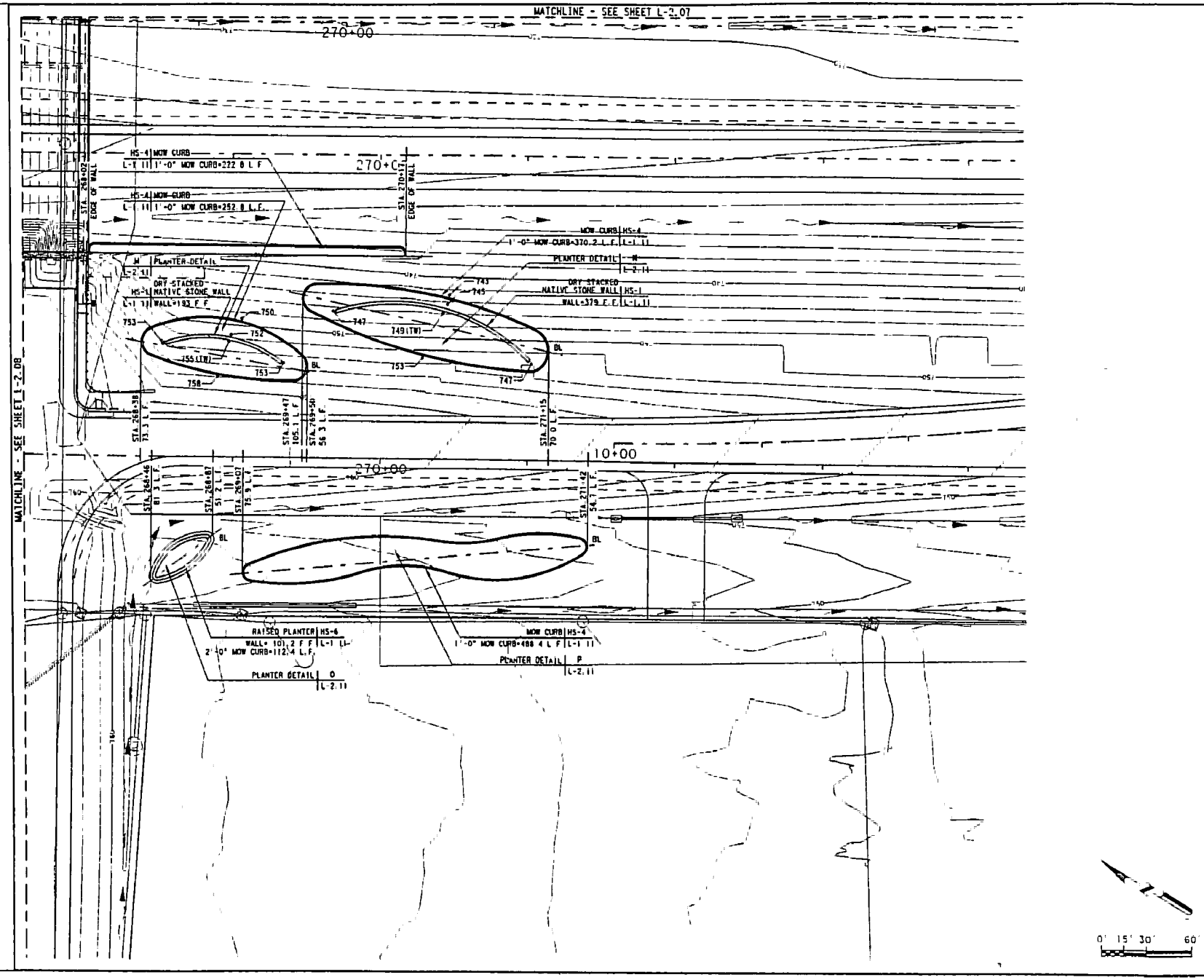
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY:	CHECKED BY:	DATE DUE TO DS
APPROVED BY:	DATE:	PROJECT NO

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2X-D8001		L-2.08

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/18/05		

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	1334
2' 0" CONCRETE MOW CURB	L.F.	112
RAISED PLANTER	L.F.	101
DRY STACKED NATIVE STONE WALL	F.F.	972
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DAUM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
HARDSCAPE PLAN

SH29 GATEWAY

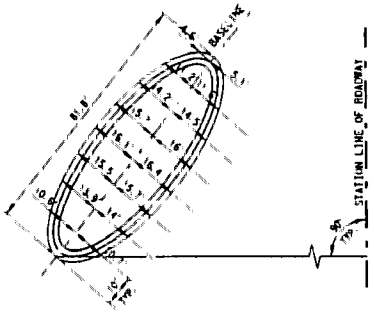
SCALE: 1" =60'

SHEET OF SHEETS

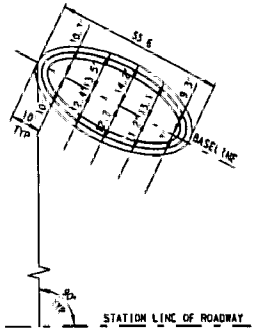
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY:	CHECKED BY:	DATE: 06-29-05
APPROVED BY	DATE:	PROJECT NO:

FED. RD.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-2.09

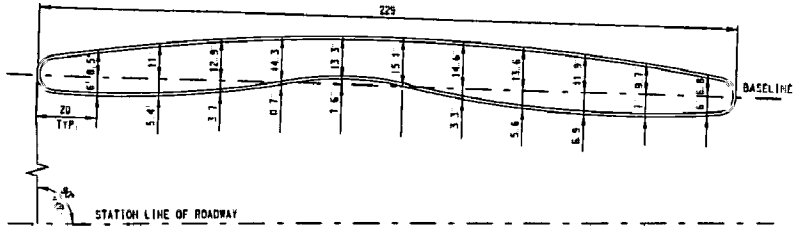
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO.
0440	05	004	SH130



C | PLANTER DETAIL "C"
SCALE = 1"=20'-0"



F | PLANTER DETAIL "F"
SCALE = 1"=20'-0"



G | PLANTER DETAIL "G"
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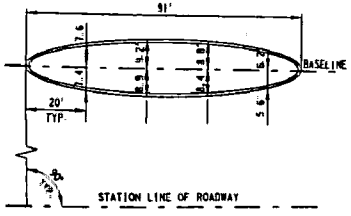

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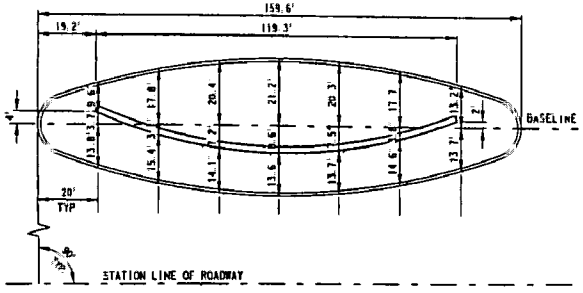

E | PLANTER DETAIL "E"
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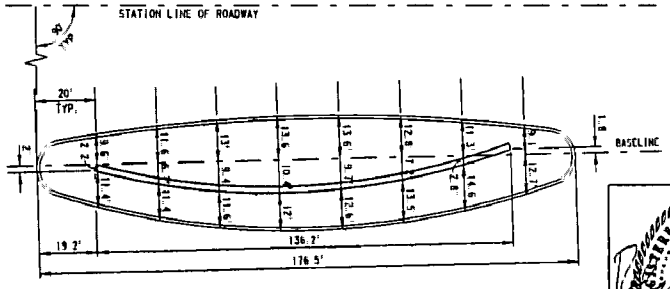

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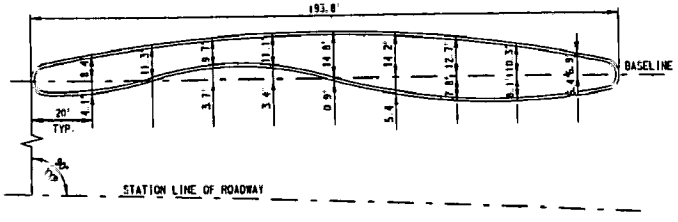

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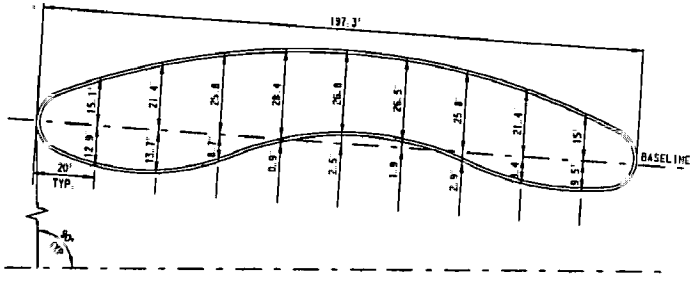


D | PLANTER DETAIL "D"
SCALE = 1"=20'-0"

REV	DATE	BY	DESCRIPTION
D	10/6/05		AFC

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLAN
PLANTER DETAILS

SH29 GATEWAY

SCALE: 1" = 40

SHEET OF SHEETS

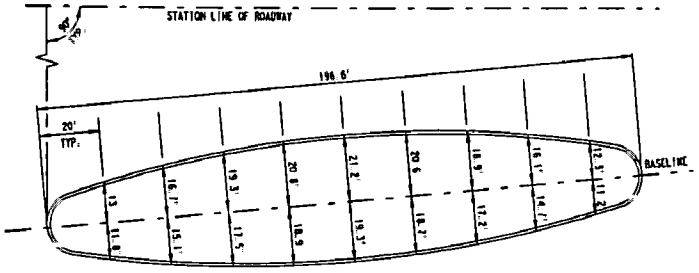
DESIGNED BY: RWG	CHECKED BY: DJ	DATE:
DRAWN BY: AAM	CHECKED BY:	DATE: 08-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-2.10

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

REV	DATE	BY	DESCRIPTION
0	10/4/05		AD



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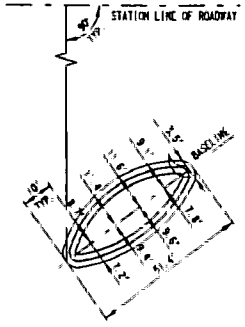

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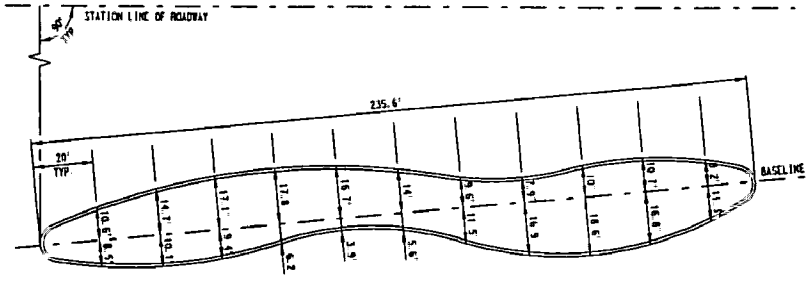

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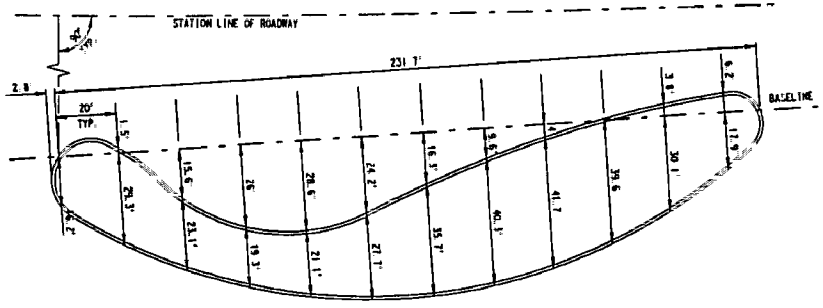

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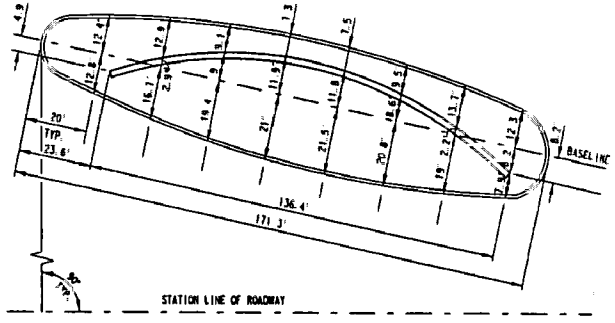

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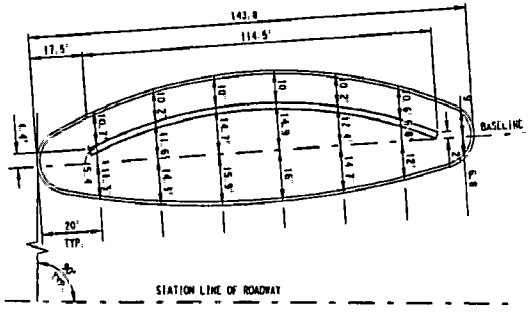

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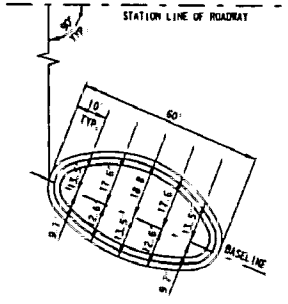

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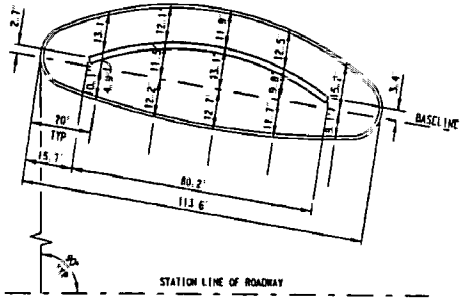

M | PLANTER DETAIL "M"
SCALE = 1"=20'-0"

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 02
LANDSCAPE PLANS
PLANTER DETAILS

SH29 GATEWAY

SCALE: 1" = 40

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: BS	DATE:
DRAWN BY: AAH	CHECKED BY:	DATE: 06-20-05
APPROVED BY:	B.II	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-2.11

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

REV	DATE	BY	DESCRIPTION
0	10/10/05		

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT
TRAVIS COUNTY

FEDERAL AID PROJECT NO:
86-2xxDB001
CSJ: 0440-05-004

LANDSCAPE FOR
MAIN LANE TOLL PLAZA 5

OVERALL PLANT LEGEND FOR MAIN LANE TOLL PLAZA 5

THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
GR-	GRASSES			
MC	Muhlenbergia capillaris	3g	42	
	GULF MUHLY			
ML	Muhlenbergia lindheimeri	3g	59	
	LINDHEIMER MUHLY			
GC-	GROUND COVER			
AM	Achillea millefolium	4"p	75	24" O.C.
	YARROW			
DG	Dalea greggii	4"p	347	36" O.C.
	GREGG DALEA			
OR	Orbexilum sp.	4"p	155	24" O.C.
	MOUNTAIN PEA			
RN	Ruellia nudiflora	4"p	198	18" O.C.
	VIOLET RUELLIA			
VB	Verbena bipinnatifida	4"p	496	24" O.C.
	PRAIRIE VERBENA			
AC-	ACCENT			
DS	Dasylirion sp.	5g	6	
	SOTOL			
HP	Hesperaloe parviflora	10g	14	
	RED YUCCA			
NT	Nolina texana	5g	53	
	SACAHUISTA			
SL-	SHRUB - LARGE			
MC	Myrica cerifera	5g	14	
	WAX MYRTLE			
RV	Rhus lanceolata	5g	45	
	EVERGREEN SUMAC			
VR	Viburnum rufidulum	5g	43	
	RUSTY BLACKHAW			
SM-	SHRUB - MEDIUM			
CA	Callicarpa americana	3g	45	
	AMERICAN BEAUTYBERRY			
LA	Lonicera albiflora	3g	42	
	WHITE HONEYSUCKLE			
MP	Myrica pusilla	3g	34	
	DWARF WAX MYRTLE			
RA	Rhus aromatica	5g	29	
	AROMATIC SUMAC			
TS	Tecoma stans v. angustata	5g	26	
	YELLOW BELLS			
SS-	SHRUB - SMALL			
DB	Dietes bicolor	1g	116	
	BICOLOR IRIS			
IV	Ilex vomitoria 'nana'	1g	195	
	DWARF YAUPON			
MO	Malvaviscus drummondii	1g	245	
	TURK'S CAP			
PL	Pavonia lasiopetala	1g	292	
	ROSE PAVONIA			
VN-	VINES			
LS	Lonicera sempervirens	1g	3	
	CORAL HONEYSUCKLE			
RS	Rosa setigera	1g	19	
	CLIMBING PRAIRIE ROSE			

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
TC-	TREES - CANOPY			
CI	Carya illinoiensis	2"c	23	
	PECAN			
PO	Platanus occidentalis	2"c	28	
	SYCAMORE			
QM	Quercus macrocarpa	3"c	18	
	BUR OAK			
QL	Quercus muhlenbergii	2"c	4	
	CHINQUAPIN OAK			
QV	Quercus virginiana	3"c	17	
	LIVE OAK			
TM-	TREES - MEDIUM			
QB	Quercus buckleyi	3"c	9	
	TEXAS OAK			
TS-	TREES - SMALL			
CTW	Cercis texensis 'whitebud'	3"c	17	
	TEXAS WHITEBUD			
CC	Cercis canadensis	1"c	16	
	REDBUD			
CT	Cercis texensis	1"c	46	
	TEXAS REDBUD			
DT	Diospyros texana	1"c	6	
	TEXAS PERSIMMON			
ID	Ilex decidua	1"c	30	
	POSSUM HAW			
IV	Ilex vomitoria	3"c	42	
	YAUPON HOLLY			
PM	Prunus mexicana	2"c	45	
	MEXICAN PLUM			
	OTHER			
	GRANITE MULCH	S.F.	4,909	
	WOOD MULCH	S.F.	24,602	
	BERMUDA GRASS SOD	S.F.	65,587	
	SEEDING - WILDFLOWER	S.F.	489,471	
	1' 0" CONCRETE MOW CURB	L.F.	1,923	
	2' 0" CONCRETE MOW CURB	L.F.	3,120	
	CEDAR RAIL FENCE	L.F.	1,320	
	FREESTANDING NATIVE STONE WALL	L.F.	360	
	FREESTANDING NATIVE STONE COLUMN	EA.	38	

INDEX OF SHEETS

MLTP 5	COVER SHEET, MLTP 5 PLANT LEGEND, KEYMAP	L-3.01
	LANDSCAPE PLANS	L-3.02 THRU L-3.05
	ENLARGED LANDSCAPE PLANS	L-3.06 THRU L-3.11
	HARDSCAPE PLANS	L-3.12 THRU L-3.15
	IRRIGATION PLANS	L-3.16 THRU L-3.19

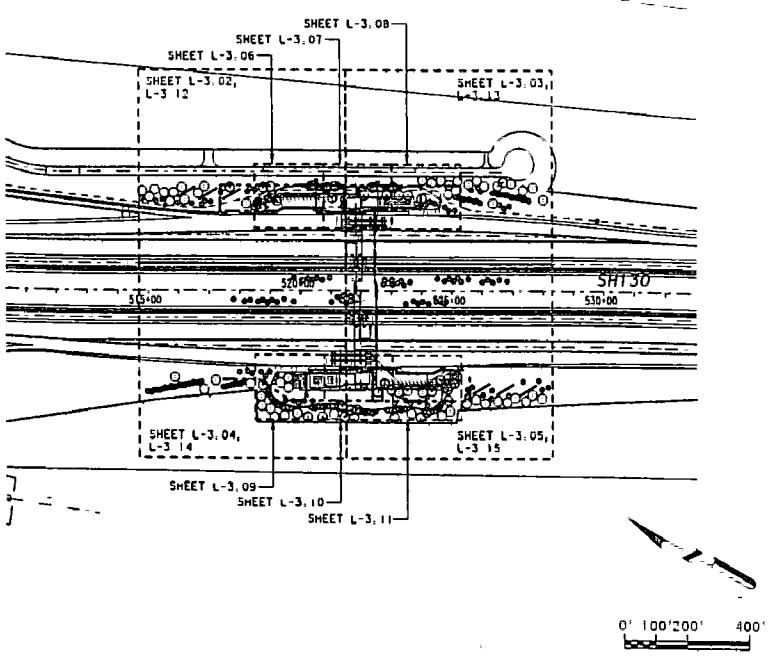
ABBREVIATIONS

g	GALLONS
c	CALIPER
p	POT
L F	LINEAR FEET
S F	SQUARE FEET
F F	FACE FEET
EA	EACH
O C.	ON CENTER
BL	BASELINE

NOTE

SEE SHEET L-1 05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

KEYMAP



REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADDY
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM+HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1 , SECTION 04
LANDSCAPE PLANS
COVER SHEET

MAIN LANE TOLL PLAZA 5

SCALE: NTS

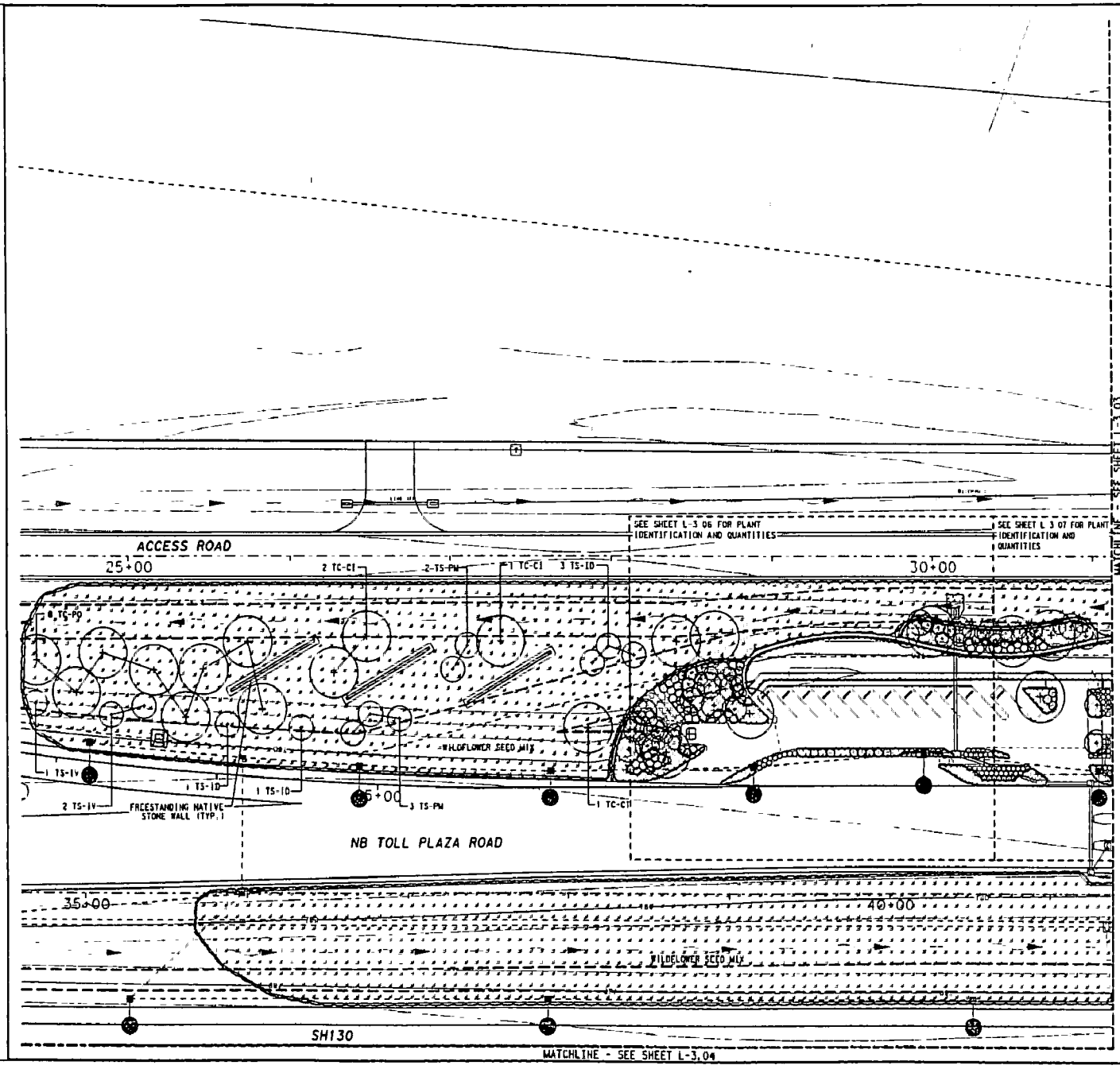
SHEET OF SHEETS

DESIGNED BY: RMG	CHECKED BY: DE	DATE:
DRAWN BY: AK	CHECKED BY:	DATE: 09-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.01

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		ADL

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	0
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	3g	0
	LINDHEIMER MUHLY		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DC	Dalea greggii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp.	4"p	0
	MOUNTAIN PEA		
RH	Ruellia nudiflora	4"p	0
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	0
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp.	5g	0
	SOTOL		
HP	Hesperaloe parviflora	10g	0
	RED YUCCA		
HT	Hollia texana	5g	0
	SACHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lanceolata	5g	0
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	0
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	0
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	0
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	0
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Diplas bicolor	1g	0
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	0
	DWARF TAUPON		
WD	Wedelia texana drummondii	1g	0
	TEXAS CAP		
PL	Pavonia lasiopetala	1g	0
	ROSE PAVONIA		
VH-	VINES		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		
		1g	0

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis	2"c	4
	PECAN		
PO	Platanus occidentalis	2"c	8
	SYCAMORE		
QM	Quercus macrocarpa	3"c	0
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	0
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	0
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	0
	TEXAS REDBUD		
DT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	5
	POSSUM HAW		
IV	Ilex vomitoria	3"c	3
	TAUPON HOLLY		
PM	Prunus mexicana	2"c	5
	MEXICAN PLUM		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	BERMUDA GRASS SOD	S.F.	0
	SEEDING - WILDFLOWER	S.F.	79,204
	PLANTING SETBACK LINE		

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLASNER
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DAUM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
PLANTING PLANS

MAIL LANE TOLL PLAZA 5

SCALE: 1" = 60'

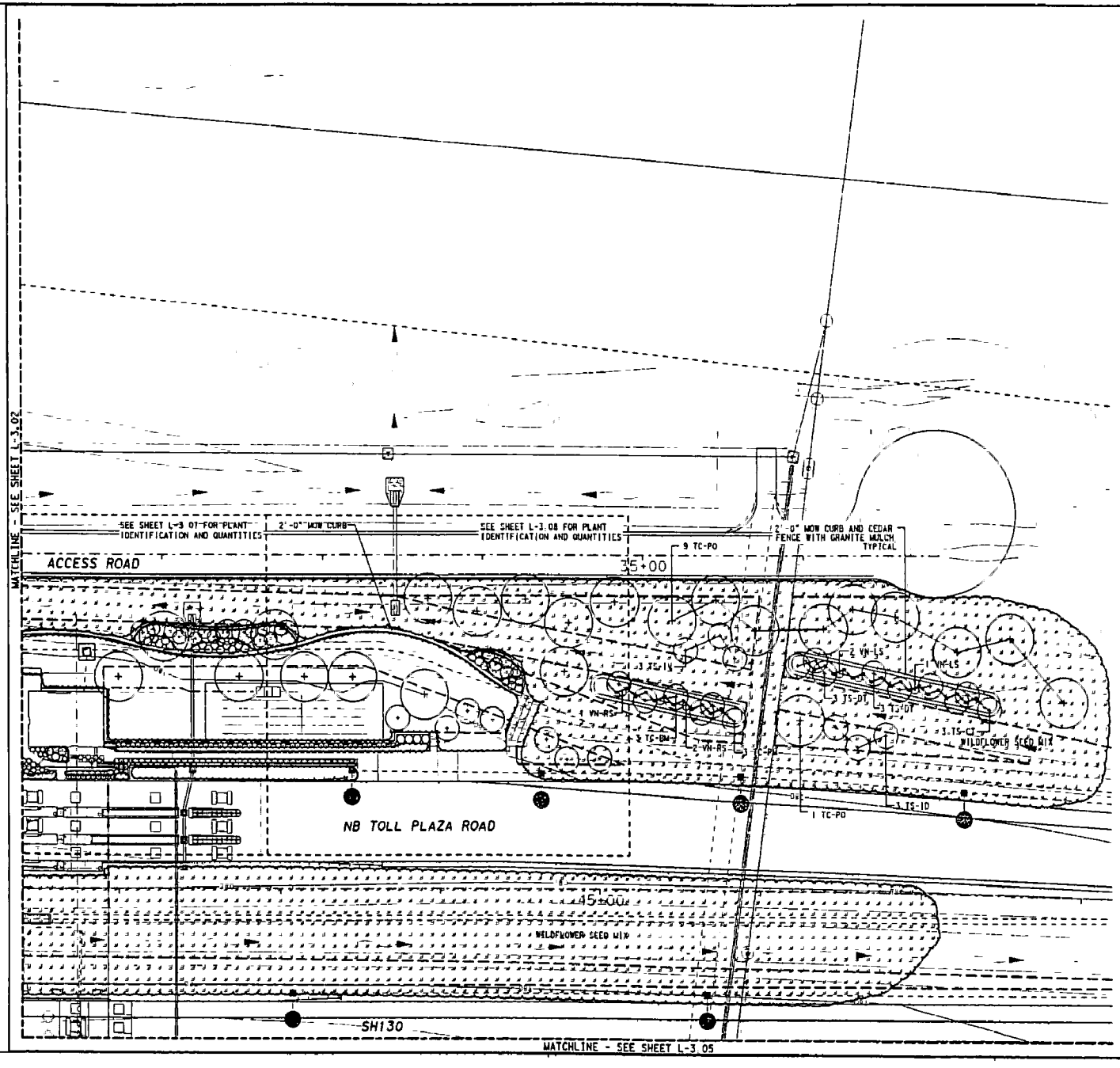
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: JDL	CHECKED BY:	DATE: PB 20 p4
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB003		L-3.02

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/04	[illegible]	

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	0
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	3g	0
	LINDHEIMER MUHLY		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DC	Dalea greggii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp.	4"p	0
	MOUNTAIN PEA		
RN	Ruellia nudiflora	4"p	0
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	0
	PRAIRIE VERBENA		
AC-	ACCENT		
DQ	Dasylirion sp	5g	0
	SOTOL		
HP	Hesperaloe parviflora	10g	0
	RED YUCCA		
NT	Nolina texana	5g	0
	SACHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lanceolata	5g	0
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	0
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Calligonum americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	0
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	0
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	0
	AROMATIC SUMAC		
TS	Tecoma stans var. angustata	5g	0
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	0
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	0
	DWARF YAUPON		
MG	Malvaviscus drummondii	1g	0
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	0
	ROSE PAVONIA		
VN-	VINES		
LS	Lonicera sempervirens	1g	3
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	3
	CLIMBING PRAIRIE ROSE		

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoinensis	2"c	0
	PECAN		
PO	Platanus occidentalis	2"c	10
	SYCAMORE		
QM	Quercus macrocarpa	1"c	0
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	0
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	0
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	3
	TEXAS REDBUD		
DT	Diospyros texana	1"c	6
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	3
	POSSUM HAW		
IV	Ilex vomitoria	3"c	3
	YAUPON HOLLY		
PM	Prunus mexicana	2"c	6
	MEXICAN PLUM		
	OTHER		
	GRANITE MULCH	S.F.	2,245
	WOOD MULCH	S.F.	0
	BERMUDA GRASS SOD	S.F.	0
	SEEDING - WILDFLOWER	S.F.	15,240
	PLANTING SETBACK LINE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

0' 15' 30' 60'

REGISTERED LANDSCAPE ARCHITECT
SCOTT W. GLAWE
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
PLANTING PLAN

MAIL LANE TOLL PLAZA 5

SCALE: 1" = 60'

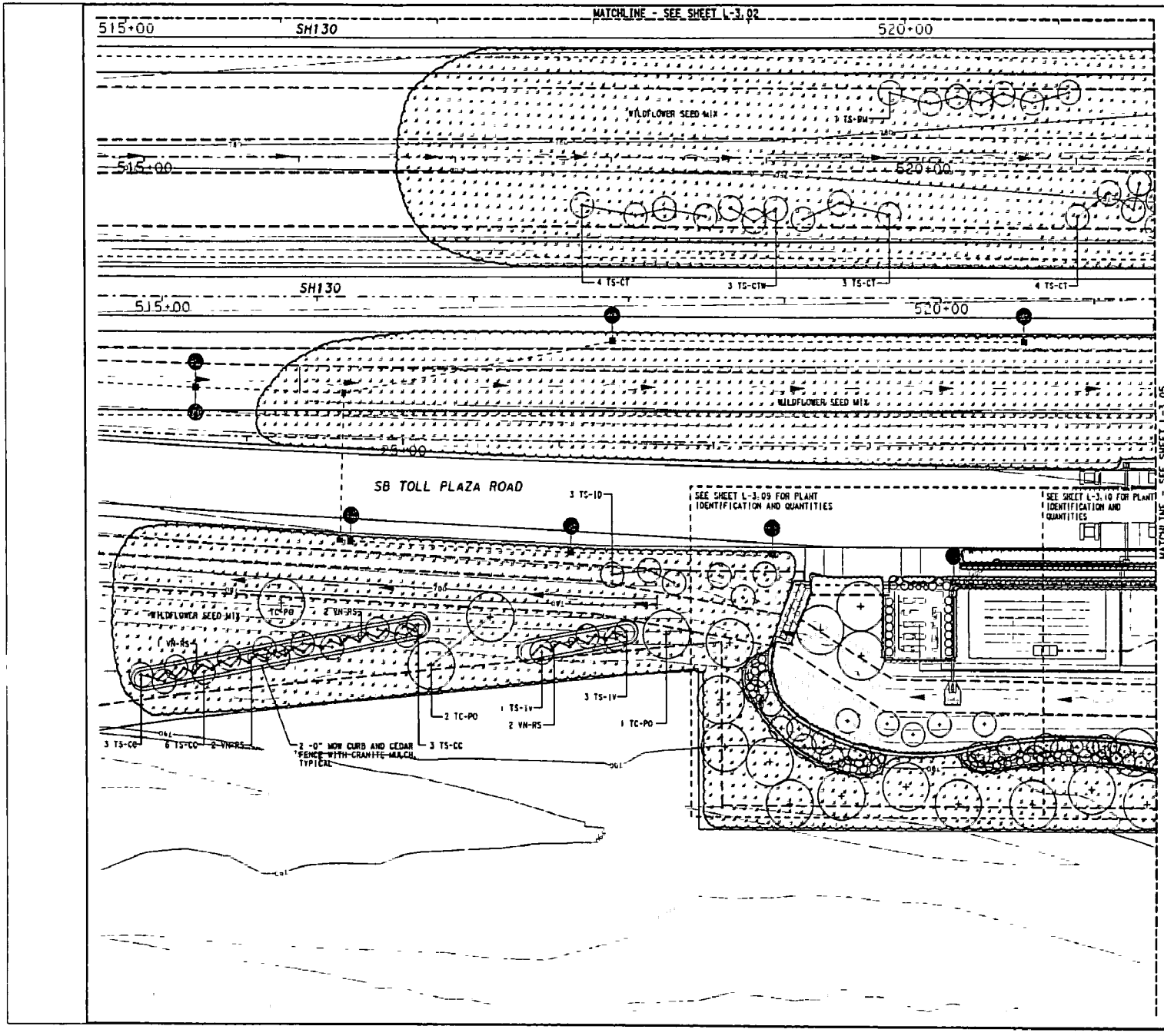
SHEET OF SHEETS

DESIGNED BY: RWC	CHECKED BY: GS	DATE:
DRAWN BY: [illegible]	CHECKED BY:	DATE: 04.10.01
APPROVED BY:	DATE:	PROJECT NO.

FED RD DIV	FED RD PROJECT NO	SHEET NAME	DWG NO
6	86-2KXDB001		L-3.03

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	3g	0
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	3g	0
GC-	GROUND COVER		
AM	Achillea millefolium / YARROW	4"p	0
DG	Dalea greggii / GREGG DALEA	4"p	0
OR	Oreoeleum sp / MOUNTAIN PEA	4"p	0
RH	Ruellia nudiflora / VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida / PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
DS	Dasylirion sp. / SOTOL	5g	0
HP	Hesperaloe parviflora / RED YUCCA	15g	0
NT	Nolina texana / SACAHUISTA	5g	0
SL-	SHRUB - LARGE		
MC	Myrica cerifera / WAX MYRTLE	5g	0
RV	Rhus typhina / STAGHORN SUMAC	5g	0
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	0
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	5g	0
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	0
MP	Myrica pusilla / DWARF WAX MYRTLE	3g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB - SMALL		
DB	Dietes bicolor / BICOLOR IRIS	1g	0
IV	Ilex vomitoria 'nana' / DWARF YAUPON	1g	0
MD	Malvaviscus drummondii / TURK'S CAP	1g	0
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	0
VN-	VINES		
LS	Lonicera sempervirens / CORAL HONEYSUCKLE	1g	0
RS	Rosa setigera / CLIMBING PRAIRIE ROSE	1g	1

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES CANOPY		
CI	Carya illinoiensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	4
QM	Quercus macrocarpa / BUR OAK	3"c	0
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	0
QV	Quercus virginiana / LIVE OAK	3"c	0
TM-	TREES MEDIUM		
QB	Quercus buckleyi / TEXAS OAK	3"c	0
TS-	TREES SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	3"c	3
CC	Cercis canadensis / REDBUD	1"c	12
CT	Cercis texensis / TEXAS REDBUD	1"c	11
DT	Diospyros texana / TEXAS PERSIMMON	1"c	0
IO	Ilex opaca / AMERICAN HOLLY	1"c	3
IV	Ilex vomitoria / YAUPON HOLLY	3"c	4
PM	Prunus mexicana / MEXICAN PLUM	2"c	7
	OTHER		
	GRANITE MULCH	S.F.	2,664
	WOOD MULCH	S.F.	0
	BERMUDA GRASS SOD	S.F.	0
	SEEDING WILDFLOWER	S.F.	135,925

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
6/8/15

TEAM MEMBER
DMM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
PLANTING PLAN

MAIL LANE TOLL PLAZA 5

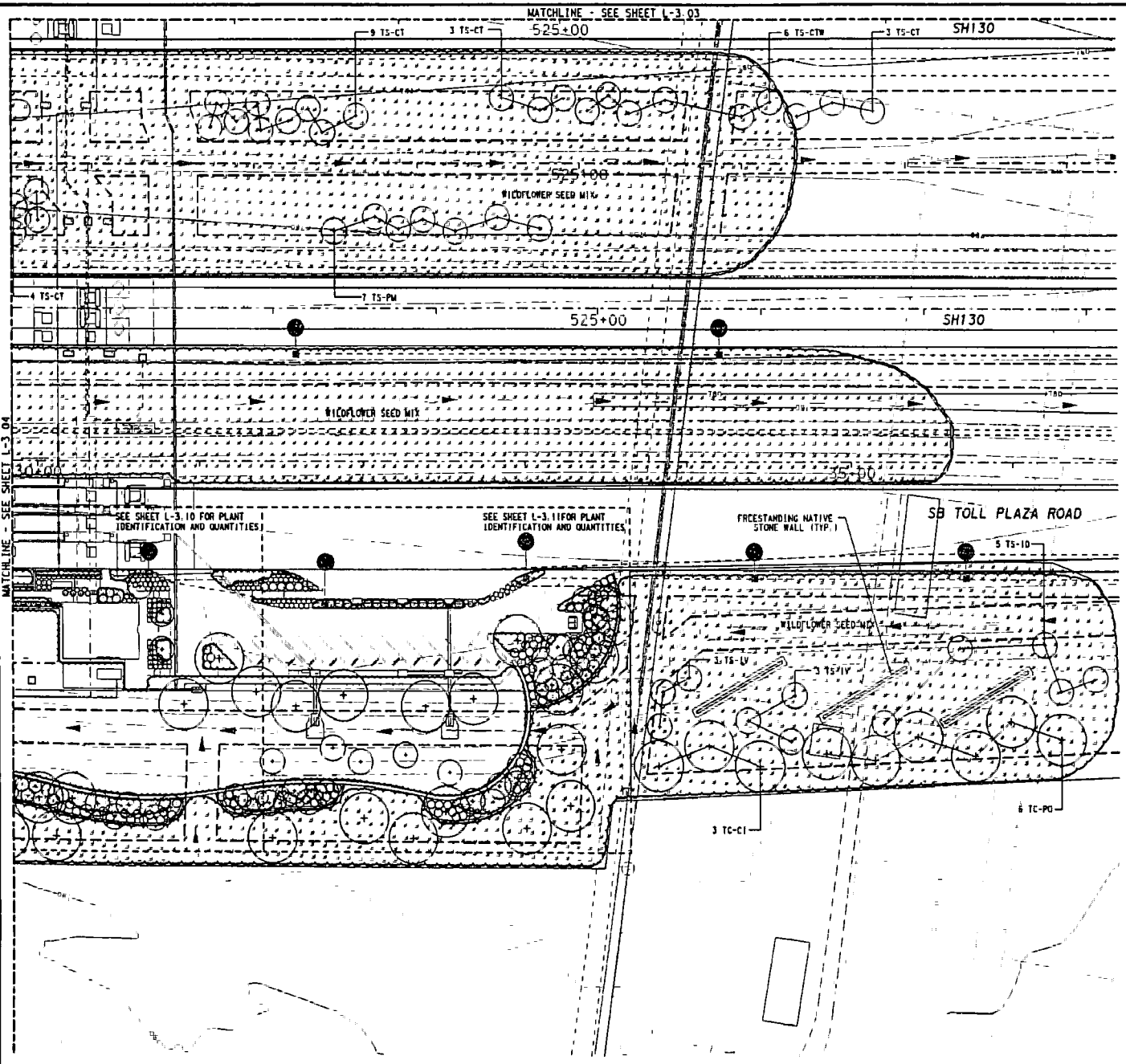
SCALE: 1" = 60'

SHEET OF SHEETS

0 15 30 60

DESIGNED BY: RWG	CHECKED BY: DS	DATE	
DRAWN BY: AMR	CHECKED BY:	DATE: 06-20-05	
APPROVED BY:	DATE:	PROJECT NO.	
FED RD DIST	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2xxDB001		L-3.04
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

REV	DATE	BY	DESCRIPTION
0	10/11/07	RR	



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	1g	0
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	1g	0
	LINDHEIMER MUHLY		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DG	Dalea greggii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp.	4"p	0
	MOUNTAIN PEA		
RM	Ruellia nudiflora	4"p	0
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	0
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp	5g	0
	SOTOL		
HP	Hesperaloe parviflora	10g	0
	RED YUCCA		
NT	Nolina texana	5g	0
	SACAHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lancedata	5g	0
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	0
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	5g	0
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	0
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	0
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	0
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	0
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	0
	DWARF TAUPON		
WD	Malvaviscus drummondii	1g	0
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	0
	ROSE PAVONIA		
VN-	VINES		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis	2"c	3
	PECAN		
PO	Platanus occidentalis	2"c	6
	SYCAMORE		
QM	Quercus macrocarpa	3"c	0
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	0
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	6
	TEXAS WHITEBUD		
CC	Cercis canadensis	3"c	0
	REDBUD		
CT	Cercis texensis	3"c	19
	TEXAS REDBUD		
DT	Diospyros texana	3"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	3"c	5
	POSSUM HAW		
IV	Ilex vomitoria	3"c	6
	TAUPON HOLLY		
PM	Prunus mexicana	2"c	7
	MEXICAN PLUM		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	BERMUDA GRASS SOD	S.F.	0
	SEEDING WILDFLOWER	S.F.	140,674
	PLANTING SETBACK LINE		

REV	DATE	BY	DESCRIPTION
0	10/11/05		ADC

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLASS
2134
STATE OF TEXAS
6/10/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
PLANTING PLAN

MAIL LANE TOLL PLAZA 5

SCALE: 1" = 60'

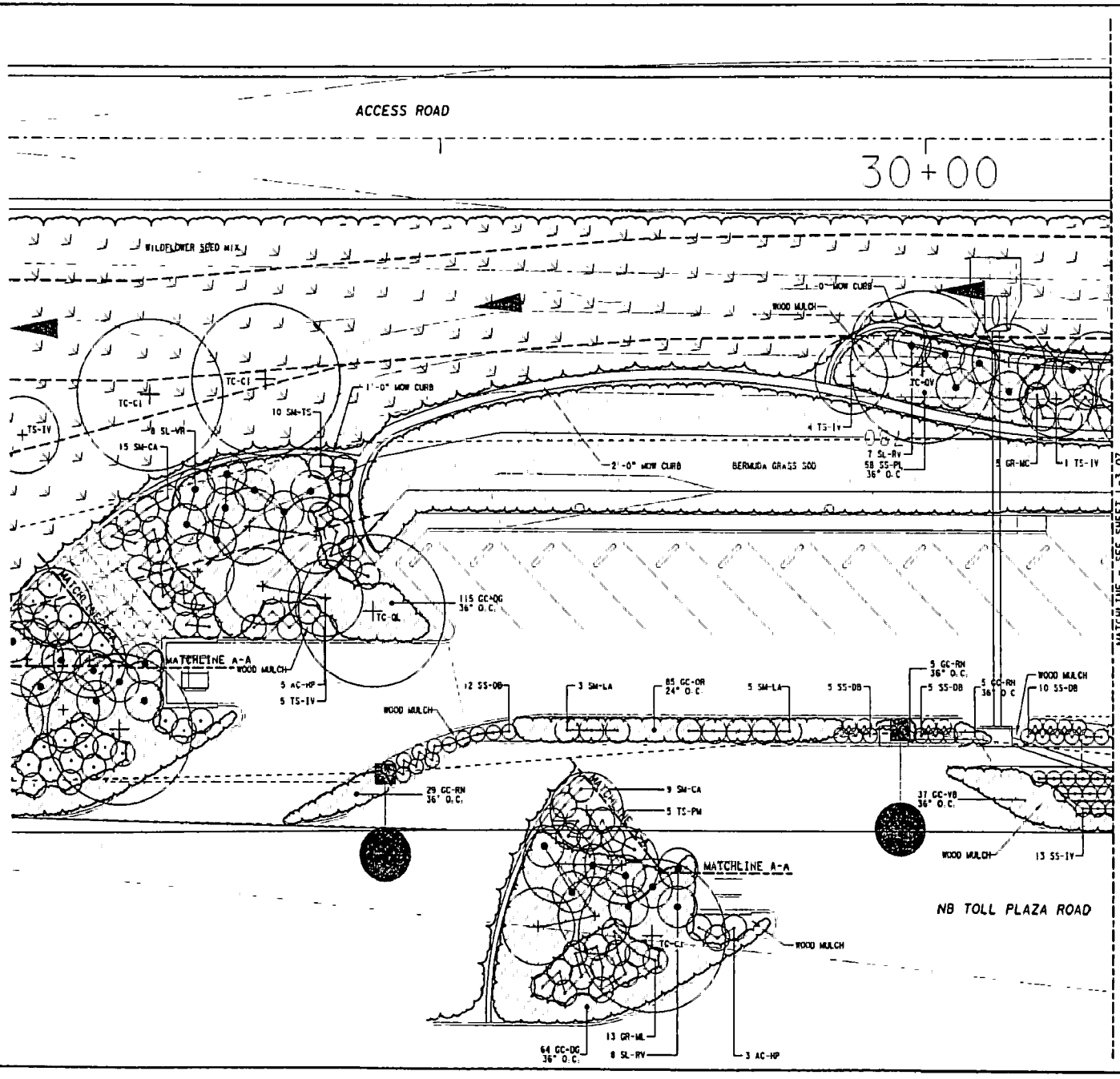
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DR. BY: [illegible]	CHK. BY: [illegible]	DATE: 06.10.05
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG. NO.
6	BS-2XXDB001		L-3.05

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO.
0440	05	004	SH130

0' 15' 30' 60'



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	5
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	1g	13
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	3g	0
	LITTLE BLUESTEM		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DG	Dalea greggii	4"p	175
	GREGG DALEA		
OR	Orbexilum sp.	4"p	85
	MOUNTAIN PEA		
RM	Ruellia nudiflora	4"p	39
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	37
	PRAIRIE VERBENA		
AC-	ACCENT		
DG	Dasylirion sp.	5g	0
	SOTOL		
HP	Hesperaloe parviflora	10g	8
	RED YUCCA		
HT	Helianthemum	5g	0
	SACHUISTA		
SL-	SHRUB - LARGE		
WC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lanceolata	5g	15
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	8
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	24
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	8
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	0
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	0
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	10
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	32
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	13
	DWARF YAUPON		
MD	Malvaviscus drummondii	1g	0
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	58
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		
VN-	VINES		
GS	Gelsemium sempervirens	1g	0
	CAROLINA JESSAMINE		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis	2"c	3
	PECAN		
PO	Platanus occidentalis	2"c	0
	SYCAMORE		
QM	Quercus macrocarpa	3"c	0
	BUR OAK		
QL	Quercus muhlenbergii	2"c	1
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	1
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	0
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	0
	TEXAS REDBUD		
CL	Chilopsis linearis	2"c	0
	DESERT WILLOW		
DT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	0
	POSSUM HAW		
IV	Ilex vomitoria	3"c	10
	YAUPON HOLLY		
PM	Prunus mexicana	2"c	5
	MEXICAN PLUM		
SS	Sophora secundiflora	1"c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	GRANITE MULCH	s.f.	0
	WOOD MULCH	s.f.	4,774
	BERMUDA GRASS SOD	s.f.	2,896
	SEEDING - WILDFLOWER	s.f.	7,156

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
CRAIN-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
ENLARGED PLANTING PLANS

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 20'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DI	DATE:	
DRAWN BY: AAM	CHECKED BY:	DATE: 08.08	
APPROVED BY:	DATE:	PROJECT NO.	
FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG. NO.
6	86-2*KD8001		L-3.06
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
0440	05	004	SH130

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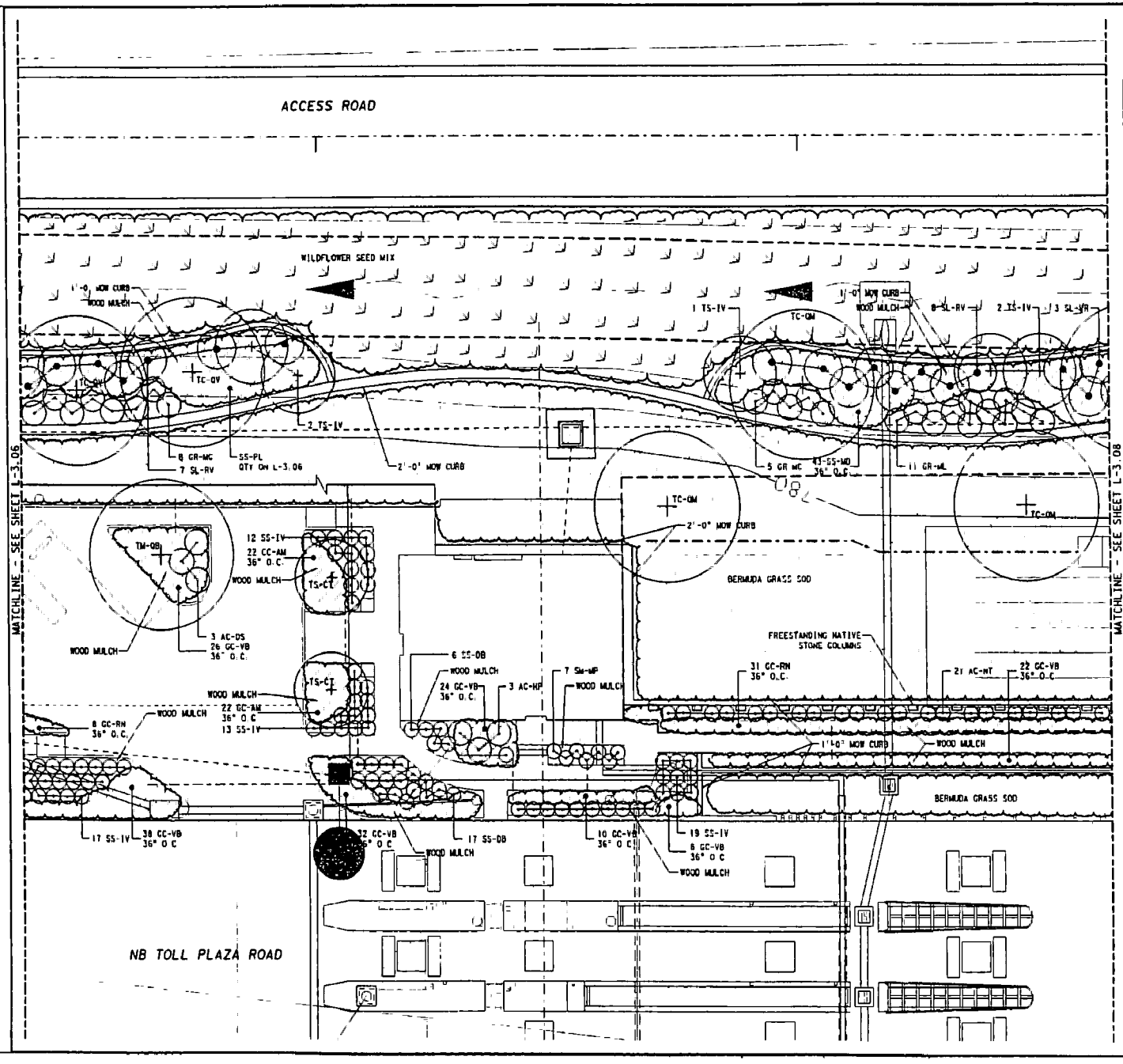


REV	DATE	BY	DESCRIPTION
0	10/13/05		APL

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	13
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	3g	11
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	3g	0
	LITTLE BLUESTEM		
CC-	GROUND COVER		
AM	Achillea millefolium	4"p	42
	YARROW		
DG	Dalea greggii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp	4"p	0
	MOUNTAIN PEA		
RH	Ruellia nudiflora	4"p	39
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	158
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp.	5g	3
	SOTOL		
HP	Hesperaloe parviflora	10g	3
	RED YUCCA		
NT	Nolina texana	5g	21
	SACAHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lanceolata	5g	15
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	3
	RUSTY BLACKHAW		
SW-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	0
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	7
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	0
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	0
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	23
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	61
	DWARF YAUPON		
MD	Malvaviscus drummondii	1g	43
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	0
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		
VN-	VINES		
GS	Gelsemium sempervirens	1g	0
	CAROLINA JESSAMINE		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis	2"c	0
	PECAN		
PO	Platanus occidentalis	2"c	0
	SYCAMORE		
QM	Quercus macrocarpa	3"c	3
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	2
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	1
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	0
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	2
	TEXAS REDBUD		
CL	Chilopsis linearis	2"c	0
	DESERT WILLOW		
DT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	0
	POSSUM HAW		
IV	Ilex vomitoria	3"c	5
	YAUPON HOLLY		
PM	Prunus mexicana	2"c	0
	MEXICAN PLUM		
SS	Sophora secundiflora	1"c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	4,434
	BERMUDA GRASS SOD	S.F.	9,132
	SEEDING WILDFLOWER	S.F.	6,414

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLOWNIA
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
CHAM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
ENLARGED PLANTING PLANS

MAIN LANE TOLL PLAZA 5

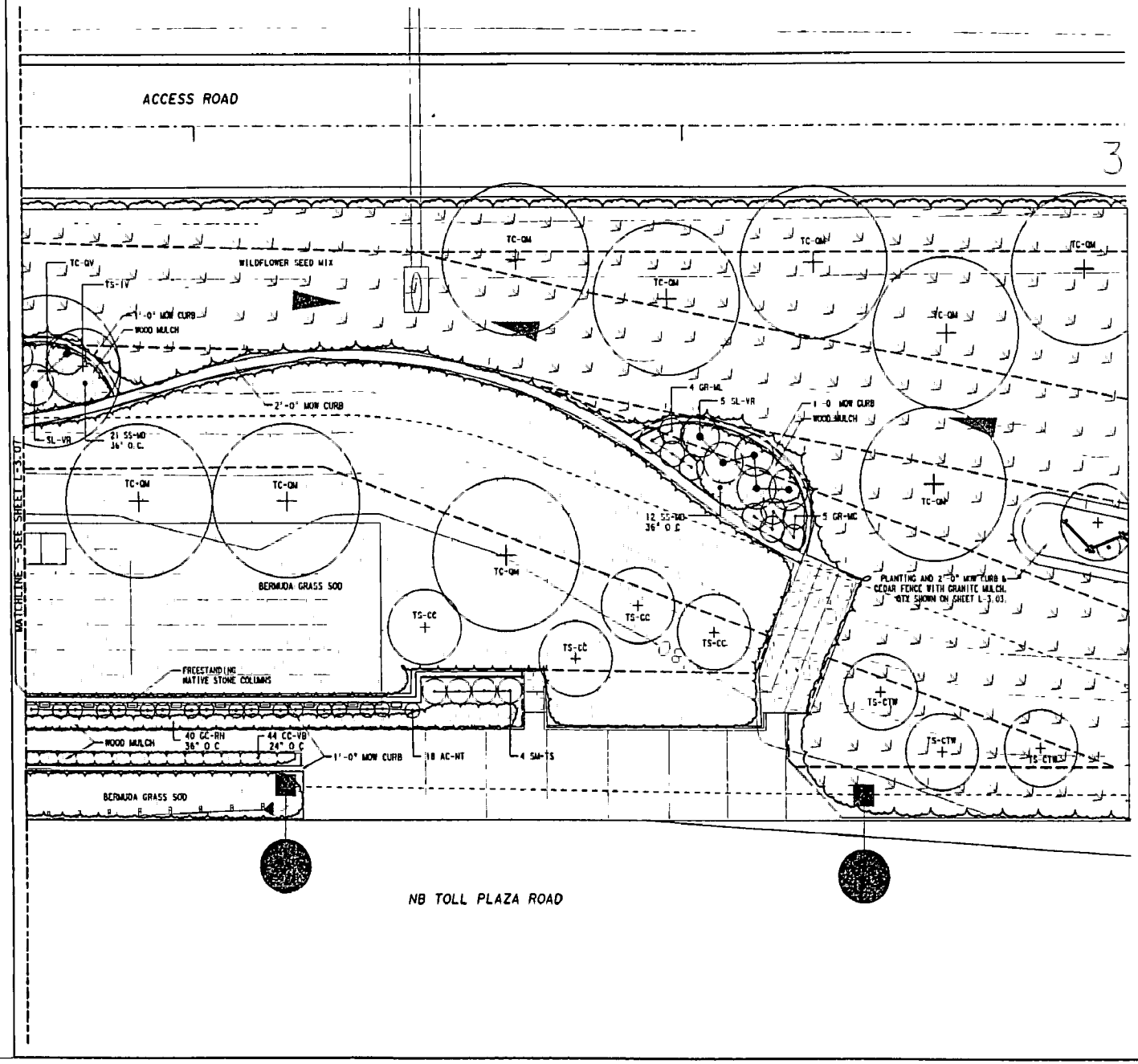
SCALE: 1" = 20'

SHEET OF SHEETS

DESIGNED: RWG	TWELLS 01	01	
DRAWN BY: AMB	TWELLS 01	DATE: 06 10 05	
APPROVED BY:	DATE:	PROJECT NO:	

FED RD DIV	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2*KDB001		L-3.07

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	12/12/07	[illegible]	

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	5
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	3g	4
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	3g	0
	LITTLE BLUESTEM		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DG	Dalea gregii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp.	4"p	0
	MOUNTAIN PEA		
RN	Ruellia nudiflora	4"p	40
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	44
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp.	5g	0
	SOTOL		
HP	Hesperaloe parviflora	10g	0
	RED YUCCA		
HT	Hoffing texana	5g	18
	SACHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lanceolata	5g	0
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	7
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	0
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	0
	DWARF WAX MYRTLE		
RA	Rhus aromatica	3g	0
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	4
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	0
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	0
	DWARF YAUPON		
MD	Malpighia glabra drummondii	1g	12
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	0
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		
VN-	VINES		
GS	Gelsemium sempervirens	1g	0
	CAROLINA JESSAMINE		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoinensis	2"c	0
	PECAN		
PO	Platanus occidentalis	2"c	0
	SYCAMORE		
QM	Quercus macrocarpa	3"c	9
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	1
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	3
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	4
	REDBUD		
CT	Cercis texensis	1"c	0
	TEXAS REDBUD		
CL	Chilopsis linearis	2"c	0
	DESERT WILLOW		
DT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	0
	POSSUM HAW		
IV	Ilex vomitoria	3"c	1
	YAUPON HOLLY		
PM	Prunus mexicana	2"c	0
	MEXICAN PLUM		
SS	Sophora secundiflora	1"c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	1,400
	BERMUDA GRASS SOD	S.F.	9,326
	SEEDING - WILDFLOWER	S.F.	13,238

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLAUNER
2134
STATE OF TEXAS
12/12/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
ENLARGED PLANTING PLANS

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 20'

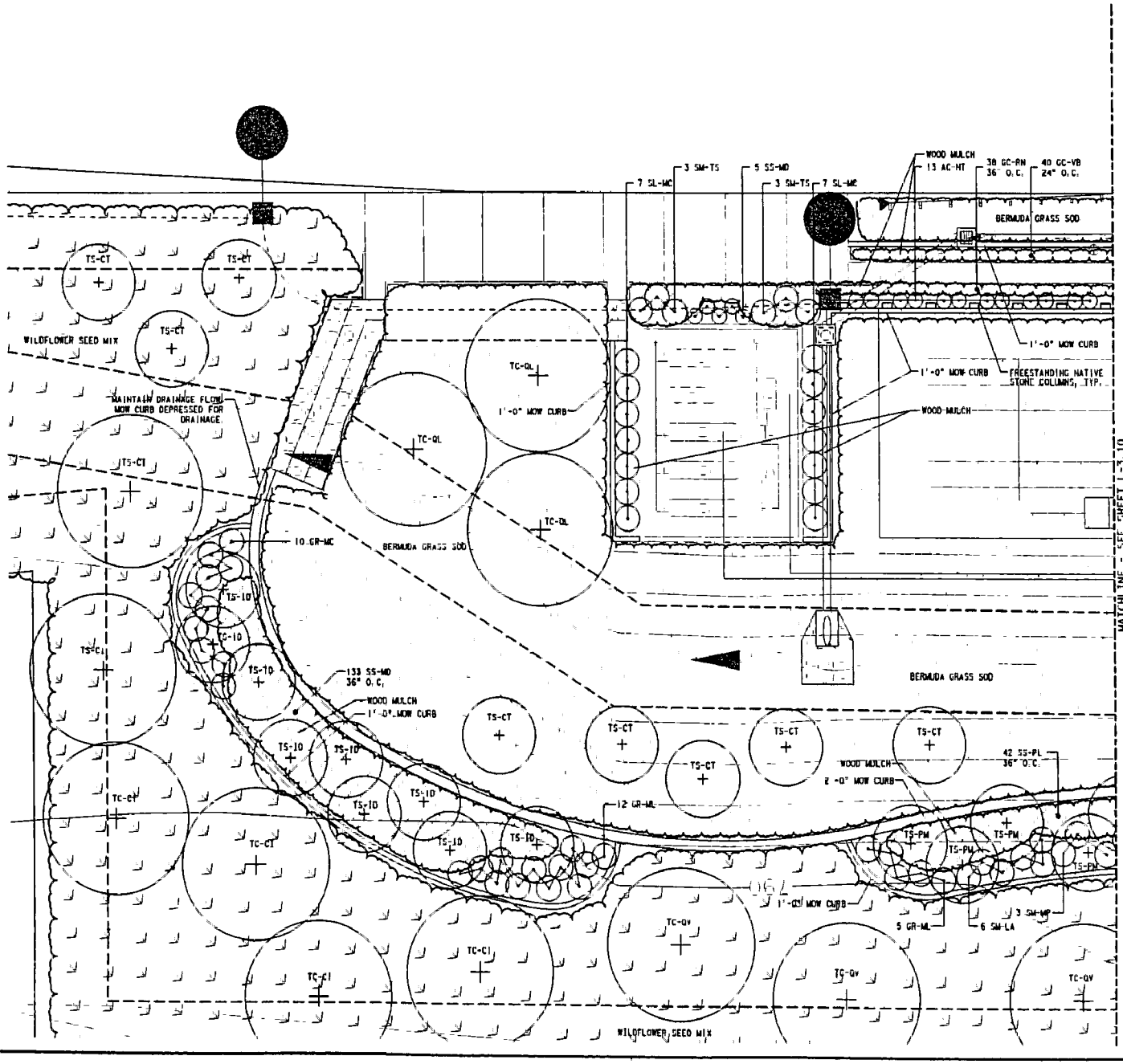
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DB	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06-20-05
w/PROVIDE:	Self	PROJECT NO:

FED RD DIV	PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-3.08

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	1g	10
	GULF MUHLY		
ML	Muhlenbergia (lindheimeri)	1g	17
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	1g	0
	LITTLE BLUESTEM		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DG	Dalea greggii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp.	4"p	0
	MOUNTAIN PEA		
RH	Ruellia nudiflora	4"p	38
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	40
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp.	5g	0
	SOTOL		
HF	Hesperaloe parviflora	10g	0
	RED YUCCA		
NT	Nolina texana	5g	13
	SACAHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	14
	WAX MYRTLE		
RV	Rhus lanceolata	5g	0
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	0
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	6
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	3
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	0
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	6
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	0
	BICOLOR IRIS		
JV	Ilex vomitoria 'nana'	1g	0
	DWARF YAUPON		
MO	Mahonia aquifolium grumwendii	1g	138
	TURK'S CAP		
PL	Poliomintha longiflora	1g	42
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		
VN-	VINES		
GS	Gelsemium sempervirens	1g	0
	CAROLINA JESSAMINE		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis	2"c	6
	PECAN		
PO	Platanus occidentalis	2"c	0
	SYCAMORE		
QM	Quercus macrocarpa	3"c	0
	BUR OAK		
QL	Quercus muhlenbergii	2"c	1
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	1
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	0
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	8
	TEXAS REDBUD		
CL	Chilopsis linearis	2"c	0
	DESERT WILLOW		
DT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	9
	POSUM HAW		
JV	Ilex vomitoria	1"c	0
	YAUPON HOLLY		
PM	Prunus mexicana	2"c	4
	MEXICAN PLUM		
SS	Sophora secundiflora	1 c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	3,387
	BERMUDA GRASS SOD	S.F.	14,447
	SEEDING - WILDFLOWER	S.F.	14,237

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/3/05

TCAM MEMBER
DAVIN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1 , SECTION 04
LANDSCAPE PLANS
ENLARGED PLANTING PLANS

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 20'

SHEET OF SHEETS

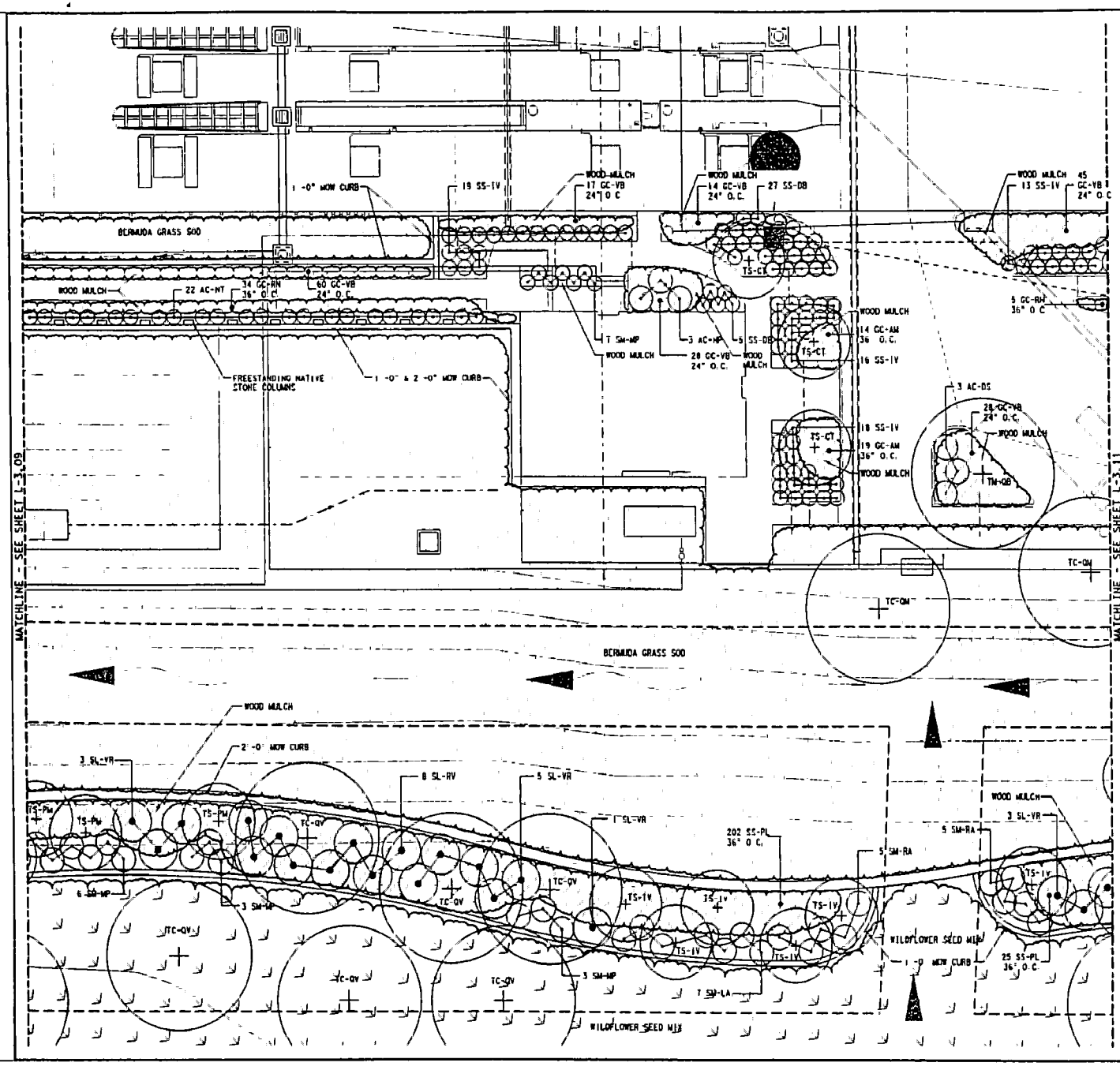
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AGM	CHECKED BY:	DATE: 06 28 05
REVIEWED BY:	DIV:	PROJECT NO:

FED RD DIV	PROJECT NO	SHEET NAME	DWG NO
6	86-2XX08001		L-3 09

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

REV	DATE	BY	DESCRIPTION
0	10/11/05	AFC	



PLANT LEGEND			
STMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	0
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	3g	0
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	3g	0
	LITTLE BLUESTEM		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	33
	YARROW		
DG	Dalea greggii	4"p	0
	GREGG DALEA		
OR	Orbexilum sp.	4"p	0
	MOUNTAIN PEA		
RH	Ruellia nudiflora	4"p	19
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	192
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp.	5g	3
	SOTOL		
HP	Hesperaloe parviflora	10g	3
	RED YUCCA		
HT	Nolina texana	5g	22
	SACHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus longipinata	5g	8
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	12
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	0
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	7
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	19
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	19
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	0
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	32
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	66
	DWARF TAUPON		
MD	Malvaviscus drummondii	1g	0
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	227
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		
VN-	VINES		
GS	Gelsemium sempervirens	1g	0
	CAROLINA JASMINE		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REV	DATE	BY	DESCRIPTION
0	10/10/05		AFC

PLANT LEGEND			
STMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoinensis	2"c	0
	PECAN		
PO	Platanus occidentalis	2"c	0
	SYCAMORE		
QM	Quercus macrocarpa	3"c	2
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	6
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	1
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	1"c	0
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	3
	TEXAS REDBUD		
CL	Chilopsis linearis	2"c	0
	DESERT WILLOW		
DT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	0
	POSSUM HAW		
IV	Ilex vomitoria	3"c	6
	TAUPON HOLLY		
PM	Prunus mexicana	2"c	3
	MEXICAN PLUM		
SS	Sophora secundiflora	1"c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	5,150
	BERMUDA GRASS SOD	S.F.	19,379
	SEEDING - WILDFLOWER	S.F.	5,871
	PLANTING SETBACK LINE		

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAMM/HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1 , SECTION 04
LANDSCAPE PLANS
ENLARGED PLANTING PLANS

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 20

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMM	CHECKED BY:	DATE: 06 TO 05
APPROVED BY:	DATE	PROJECT NO:

FED RD DIV NO	PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.10

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

NO	DATE	BY	DESCRIPTION
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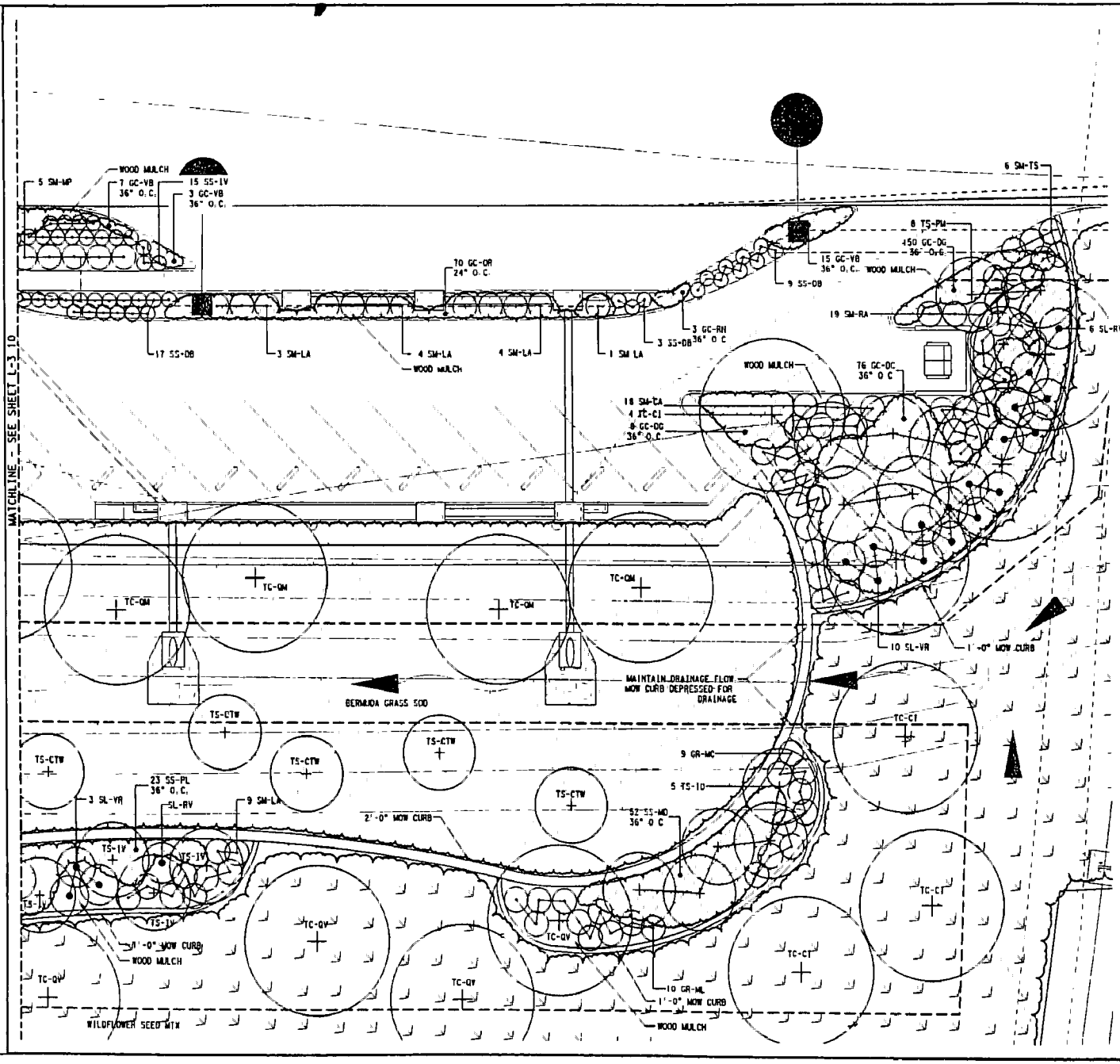


PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris	3g	9
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	3g	10
	LINDHEIMER MUHLY		
SS	Schizachyrium scoparium	3g	0
	LITTLE BLUESTEM		
GC-	GROUND COVER		
AM	Achillea millefolium	4"p	0
	YARROW		
DG	Dalea greggii	4"p	168
	CREEK DALEA		
OR	Orbexilum sp.	4"p	70
	MOUNTAIN PEA		
RN	Ruellia nudiflora	4"p	3
	VIOLET RUELLIA		
VB	Verbena bipinnatifida	4"p	25
	PRAIRIE VERBENA		
AC-	ACCENT		
DS	Dasylirion sp.	5g	0
	SOTOL		
HP	Hesperaloe parviflora	10g	0
	RED YUCCA		
HT	Hoitzia texana	5g	0
	SACHUISTA		
SL-	SHRUB - LARGE		
MC	Myrica cerifera	5g	0
	WAX MYRTLE		
RV	Rhus lanceolata	5g	7
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	13
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	5g	18
	AMERICAN BEAUTYBERRY		
LA	Lonicera albiflora	3g	21
	WHITE HONEYSUCKLE		
MP	Myrica pusilla	3g	5
	DWARF WAX MYRTLE		
RA	Rhus aromatica	5g	19
	AROMATIC SUMAC		
TS	Tecoma stans v. angustata	5g	6
	YELLOW BELLS		
SS-	SHRUB - SMALL		
DB	Dietes bicolor	1g	29
	BICOLOR IRIS		
IV	Ilex vomitoria 'nana'	1g	15
	DWARF YAUPON		
MD	Malvaviscus drummondii	1g	52
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	23
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		
VM-	VINES		
GS	Gelsemium sempervirens	1g	0
	CAROLINA JESSAMINE		
LS	Lonicera sempervirens	1g	0
	CORAL HONEYSUCKLE		
RS	Rosa setigera	1g	0
	CLIMBING PRAIRIE ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoinensis	2"c	7
	PECAN		
PO	Platanus occidentalis	2"c	0
	SYCAMORE		
QM	Quercus macrocarpa	3"c	4
	BUR OAK		
QL	Quercus muhlenbergii	2"c	0
	CHINQUAPIN OAK		
QV	Quercus virginiana	3"c	4
	LIVE OAK		
TM-	TREES - MEDIUM		
QB	Quercus buckleyi	3"c	0
	TEXAS OAK		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	3"c	5
	TEXAS WHITEBUD		
CC	Cercis canadensis	1"c	0
	REDBUD		
CT	Cercis texensis	1"c	0
	TEXAS REDBUD		
CL	Chilopsis linearis	2"c	0
	DESERT WILLOW		
OT	Diospyros texana	1"c	0
	TEXAS PERSIMMON		
ID	Ilex decidua	1"c	5
	POSSUM HAW		
IV	Ilex vomitoria	3"c	4
	YAUPON HOLLY		
PM	Prunus mexicana	2"c	8
	MEXICAN PLUM		
SS	Sophora secundiflora	1"c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	5,457
	BERMUDA GRASS SOD	S.F.	10,407
	SEEDING WILDFLOWER	S.F.	10,916

PLANTING SETBACK LINE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLASCOCK
2134
STATE OF TEXAS
6/3/05

TEAM MEMBER
DRAWMARRIE

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
ENLARGED PLANTING PLANS

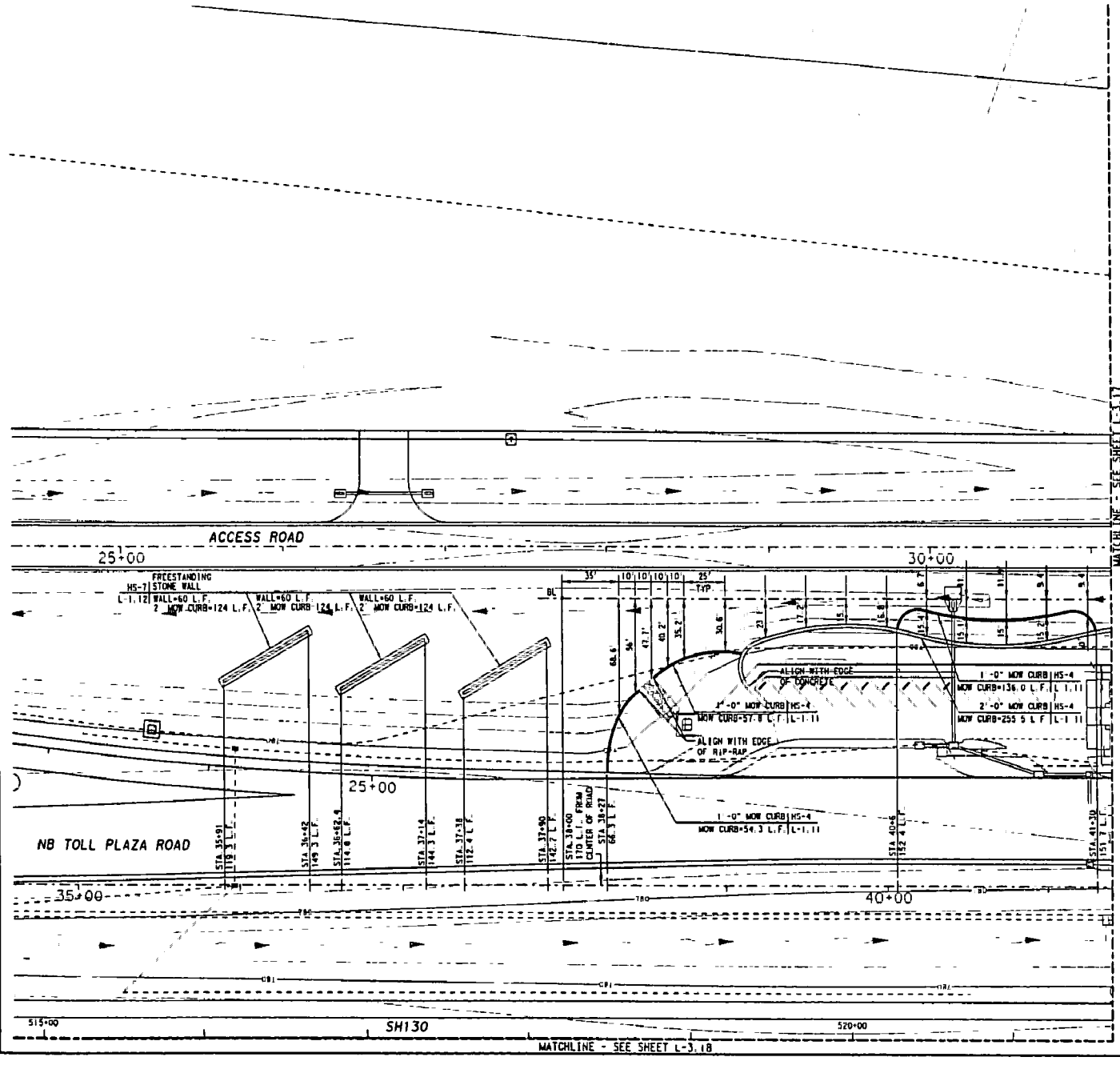
MAIN LANE TOLL PLAZA 5

SCALE: 1" = 20'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DE	DATE:	
DRAWN BY: AMR	CHECKED BY:	DATE: 06-03	
APPROVED BY:	DATE:	PROJECT NO.	
FED. RD. DIV.	FED AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2xxD8001		L-3.11

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		[illegible]

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

3. LENGTH OF CEDAR FENCE IS DETERMINED BY MEASURING EACH LEG OF THE FENCE ANGLE.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	248
2'-0" CONCRETE MOW CURB	L.F.	628
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	180
FREESTANDING NATIVE STONE COLUMN	EA.	0
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAVID HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1 SECTION 04
LANDSCAPE PLANS
HARDSCAPE PLAN

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 60'

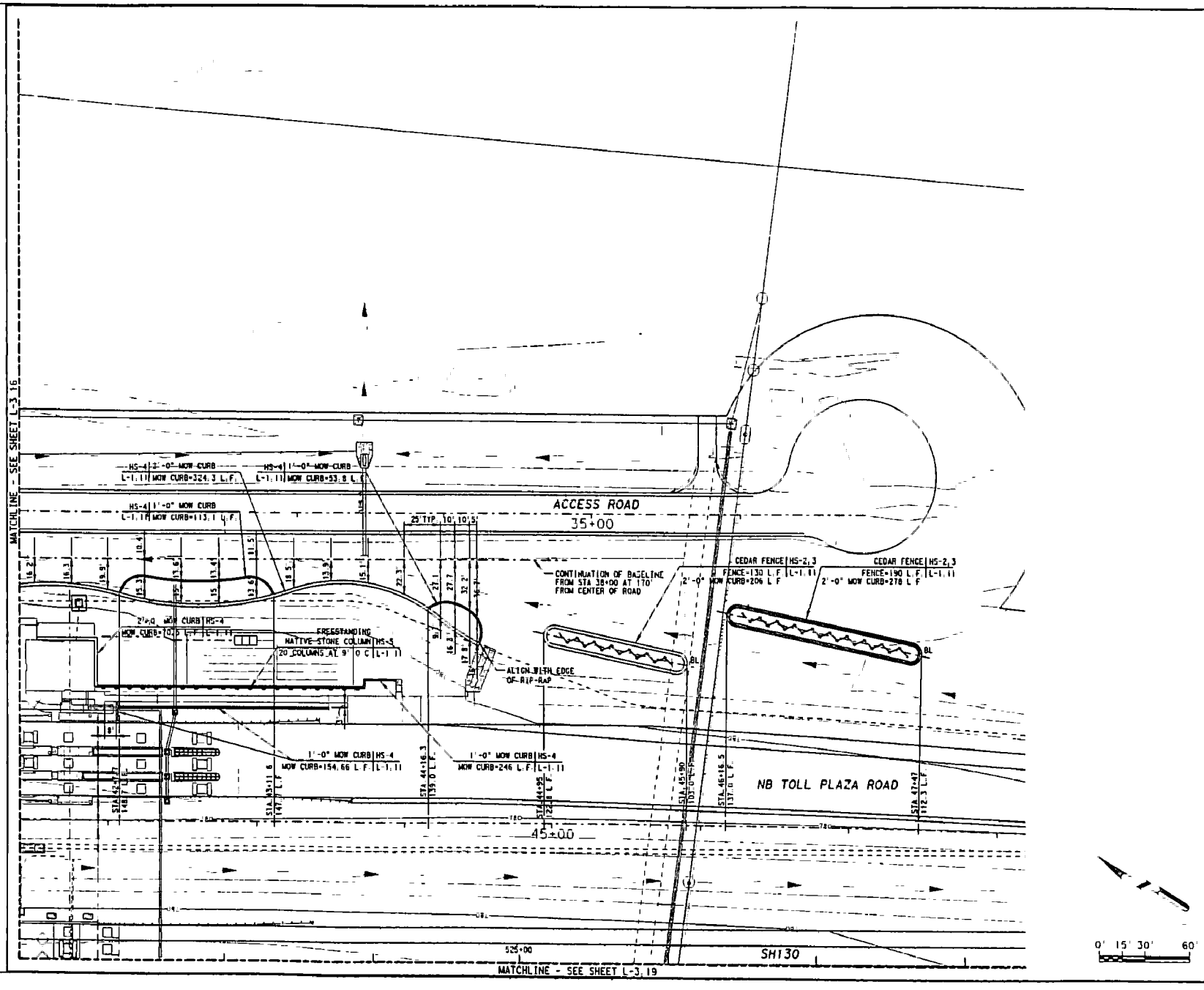
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: JAM	CHECKED BY:	DATE: 06 20 05
APPROVED BY	DATE:	PROJECT NO

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.12

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

0' 15' 30' 60'



REV	DATE	BY	DESCRIPTION
0	10/11/05		APG

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

3. LENGTH OF CEDAR FENCE IS DETERMINED BY MEASURING EACH LEG OF THE FENCE ANGLE.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	568
2'-0" CONCRETE MOW CURB	L.F.	808
CEDAR RAIL FENCE	L.F.	320
FREESTANDING NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	20
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT ROBERT W. GLADWIN 2134 STATE OF TEXAS 10/3/05

TEAM MEMBER DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION ©2005

SEGMENT 1 SECTION 04
LANDSCAPE PLAN
HARDSCAPE PLAN

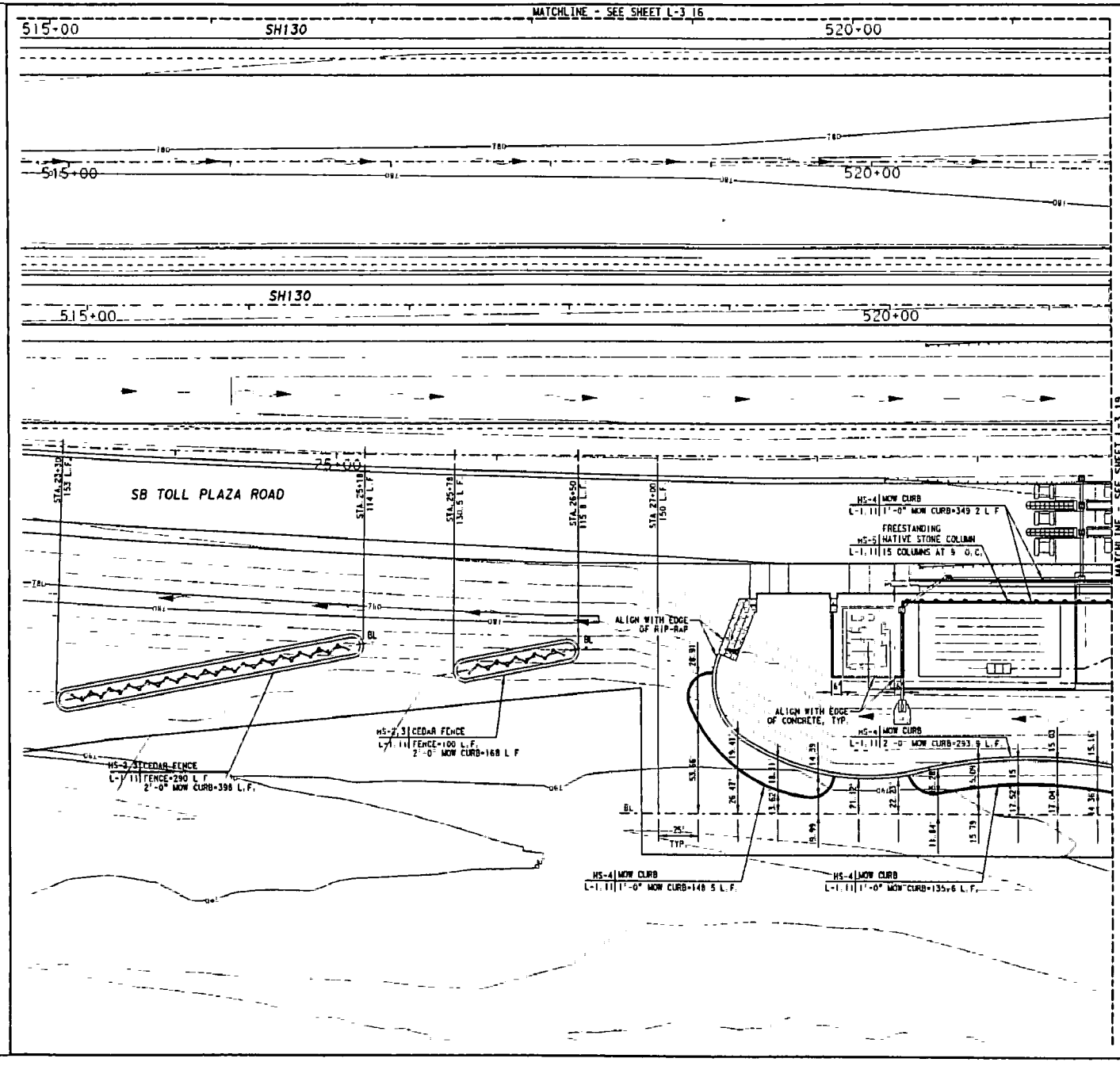
MAIN LANE TOLL PLAZA 5

SCALE: 1" = 60'

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.13

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

3. LENGTH OF CEDAR FENCE IS DETERMINED BY MEASURING EACH LEG OF THE FENCE ANGLE.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	633
2'-0" CONCRETE MOW CURB	L.F.	860
CEDAR RAIL FENCE	L.F.	390
FREESTANDING NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	15
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / X-XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DAVIS-HARRIS

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SEGMENT 1 SECTION 04
LANDSCAPE PLANS
HARDSCAPE PLANS

MAIN LANE TOLL PLAZA 5

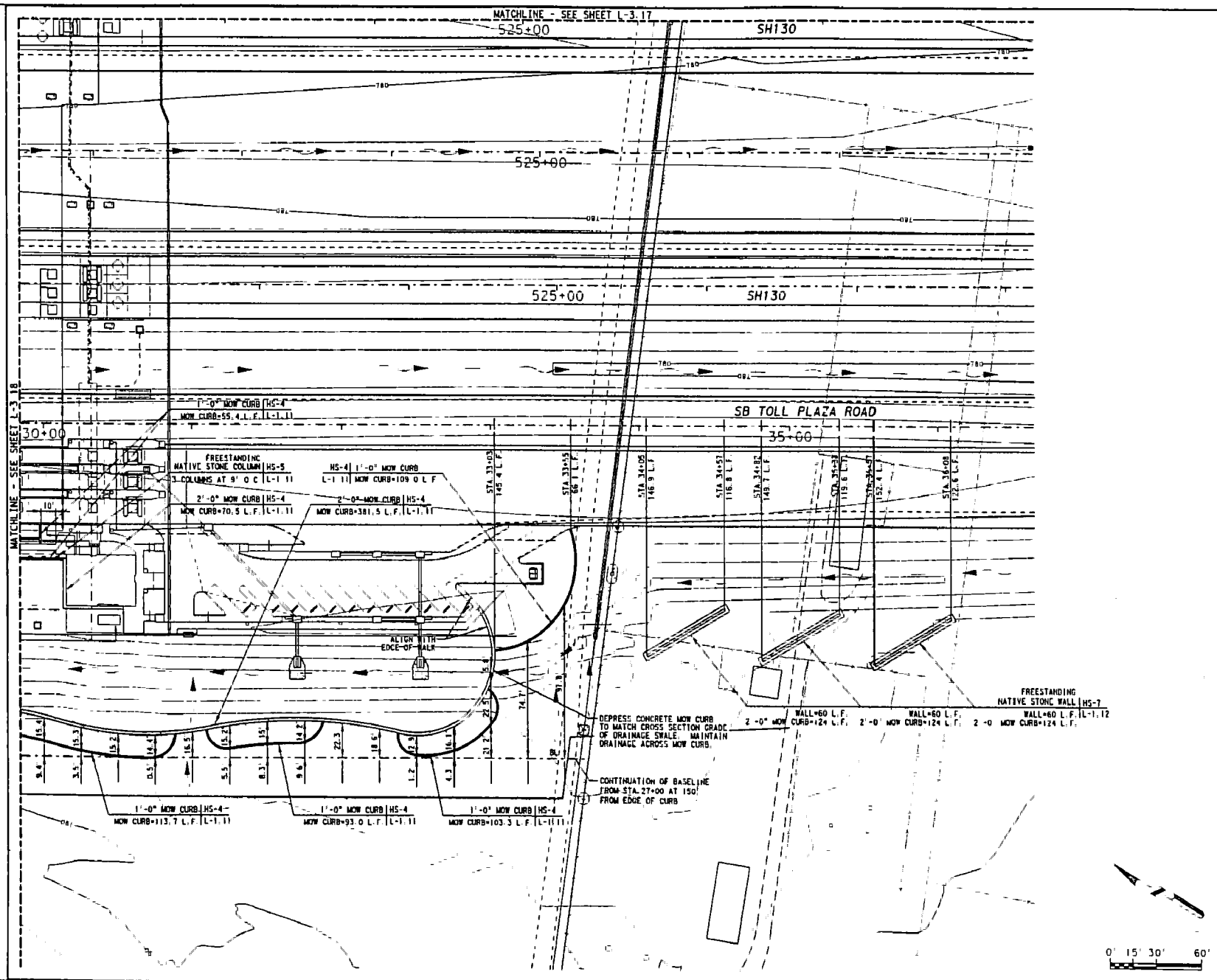
SCALE 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWC	CHECKED BY: DI	DATE:
DRAWN BY: AAR	CHECKED BY:	DATE: 06/20/05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.14

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/10/05		APL

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

3. LENGTH OF CEDAR FENCE IS DETERMINED BY MEASURING EACH LEG OF THE FENCE ANGLE

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	474
2'-0" CONCRETE MOW CURB	L.F.	824
CEDAR RAIL FENCE	L.F.	610
FREESTANDING NATIVE STONE WALL	L.F.	180
FREESTANDING NATIVE STONE COLUMN	EA.	3
TOP OF WALL ELEVATION	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLASWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DIMM-HARRIS

©2005
TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
HARDSCAPE PLAN

MAIN LANE TOLL PLAZA 5

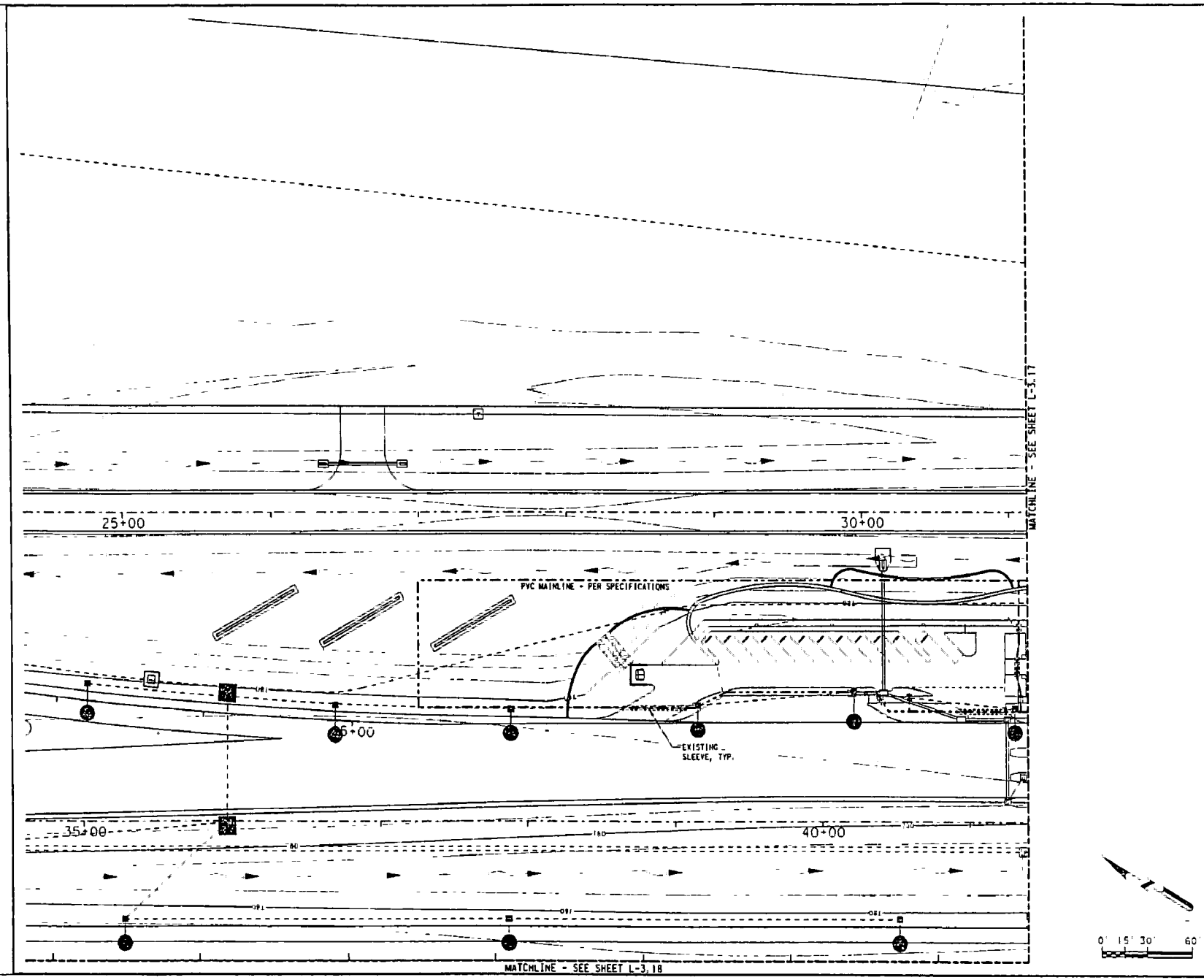
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY:	CHECKED BY:	DATE: 06-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.15

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/10/05		AFC

IRRIGATION LEGEND

DESCRIPTION	SYMBOL
PVC MAINLINE	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM-HARRIS

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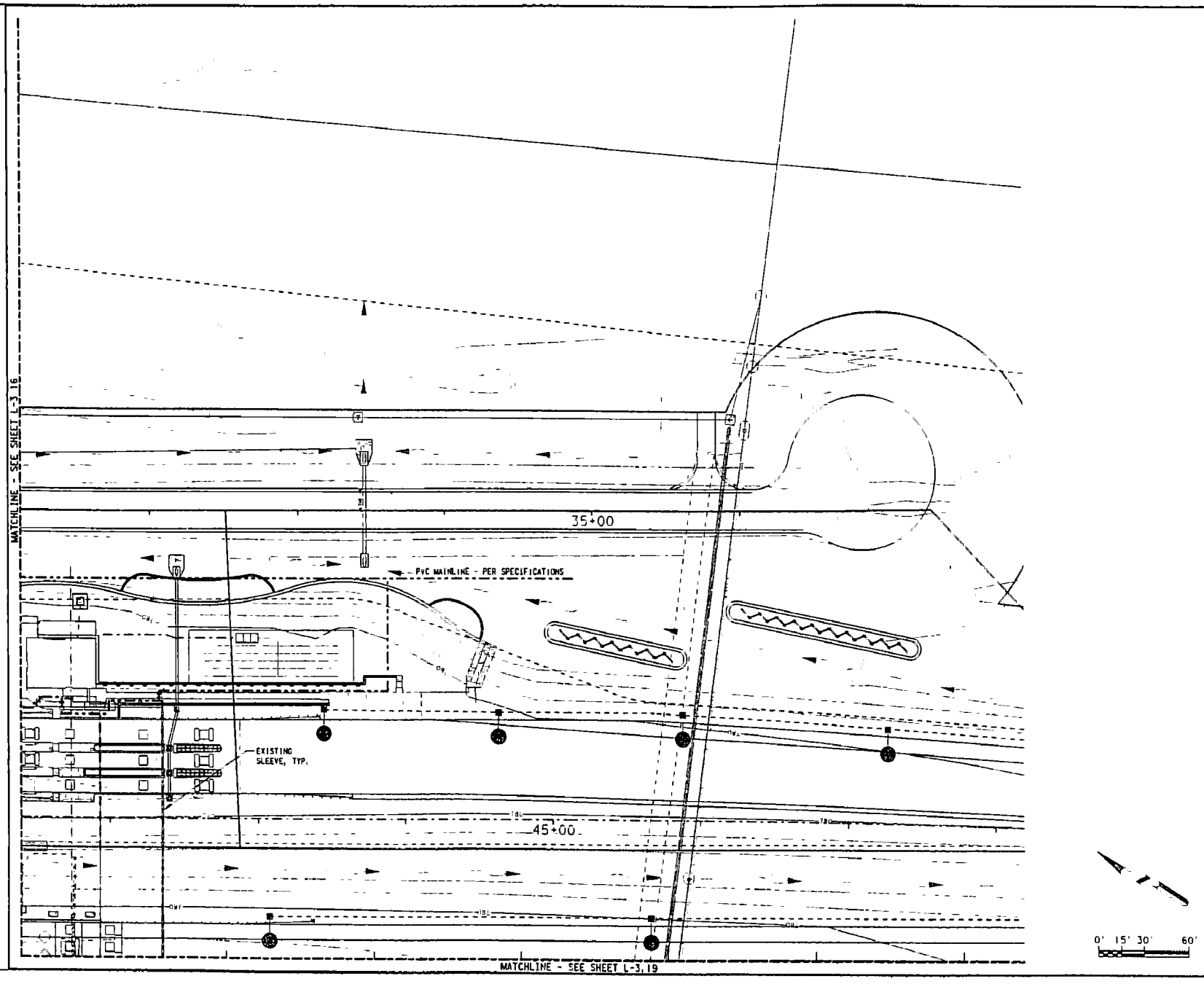
SEGMENT 1, SECTION 04
LANDSCAPE PLANS
IRRIGATION PLAN

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 60

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:	
DRAWN BY: AMK	CHECKED BY:	DATE: 06/20/05	
APPROVED BY:	DATE:	PROJECT NO:	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.16
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		AFC

IRRIGATION LEGEND

DESCRIPTION	SYMBOL
PVC MAINLINE	— - — - —

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1, SECTION 04
LANDSCAPE PLANS
IRRIGATION PLAN

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 60'

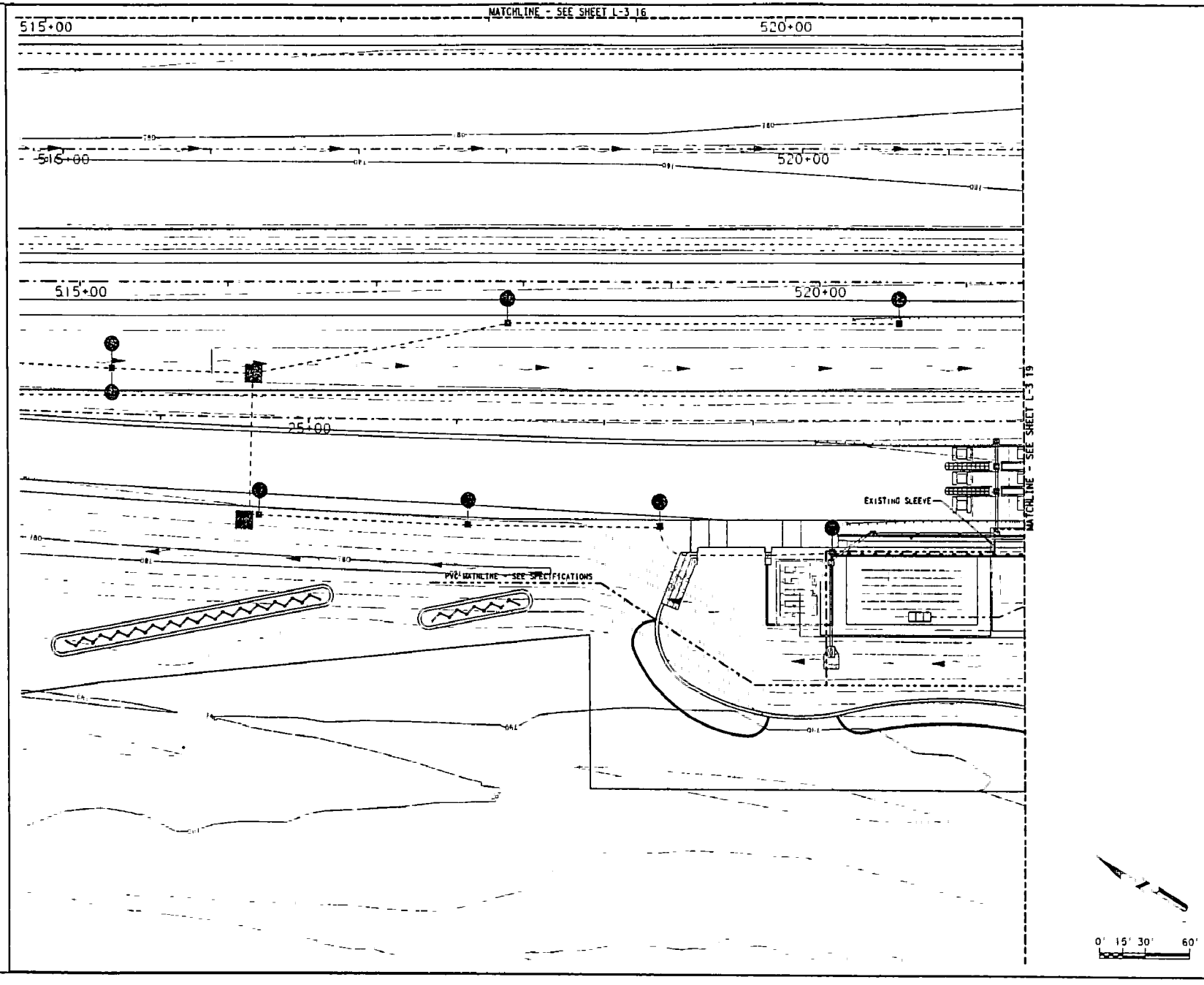
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: JMK	CHECKED BY:	DATE: 06 TO 05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-3.17

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		

IRRIGATION LEGEND	
DESCRIPTION	SYMBOL
PVC MAINLINE	— · — · —

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAMM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1 SECTION 04
LANDSCAPE PLAN
IRRIGATION PLAN

MAIN LANE TOLL PLAZA 5

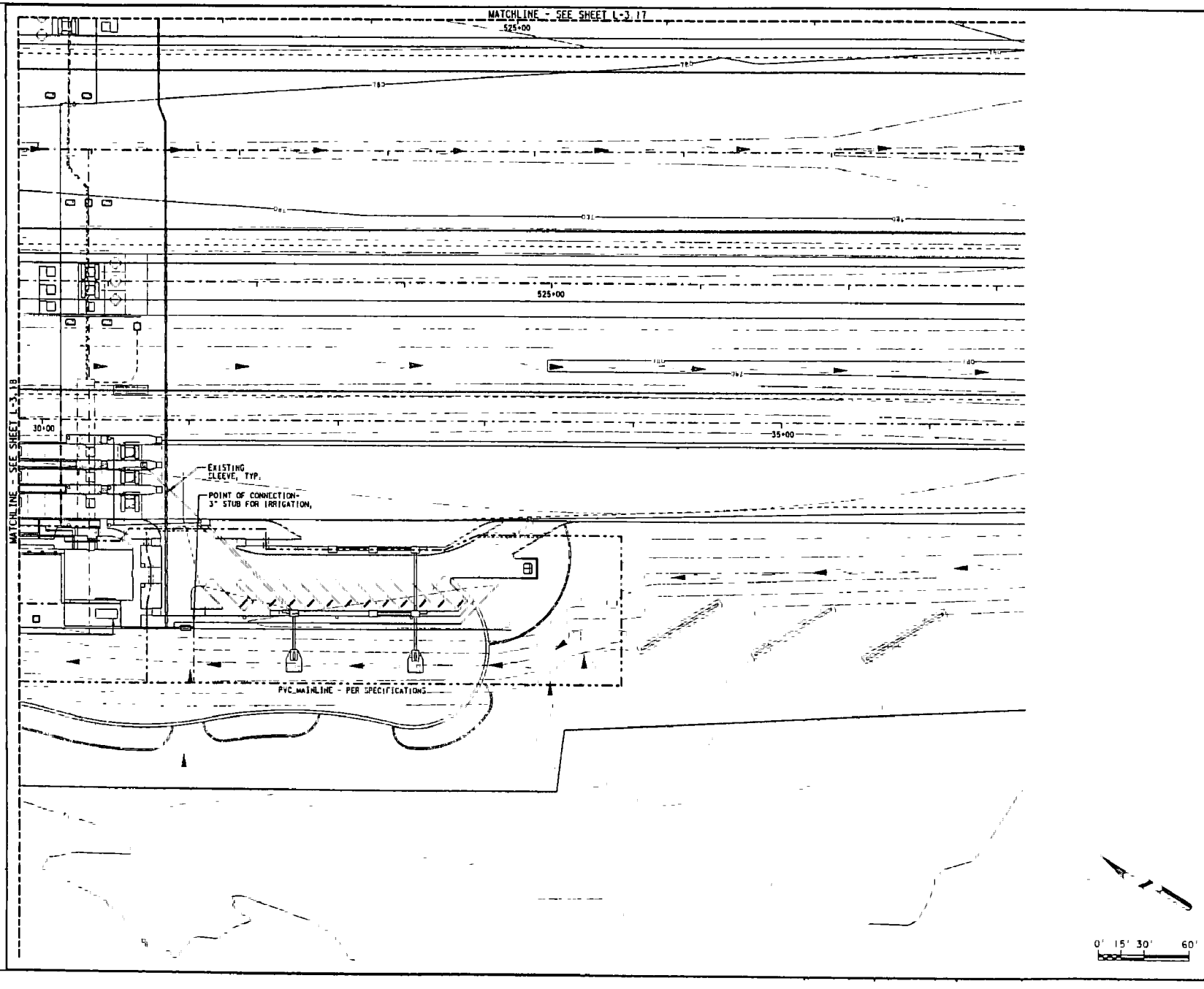
SCALE 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: DB TO US
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-3.18

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO.
0440	05	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		

IRRIGATION LEGEND

DESCRIPTION	SYMBOL
PVC MAINLINE	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 1 SECTION 04
LANDSCAPE PLAN
IRRIGATION PLAN

MAIN LANE TOLL PLAZA 5

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06 20 05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L 3 19

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	004	SH130

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT
TRAVIS COUNTY

FEDERAL AID PROJECT NO:
86-2XXDB001
CSJ: 0440-05-005

LANDSCAPE FOR
US 79 MAJOR INTERCHANGE

INDEX OF SHEETS

US 79	COVER SHEET, US 79 PLANT LEGEND, KEYMAP	L-4 01
	PLANTING PLANS	L-4 02 THRU L-4 13
	HARDSCAPE PLANS	L-4 14 THRU L-4.20
	PLANTER DETAILS	L-4.21 THRU L-4.24

ABBREVIATIONS

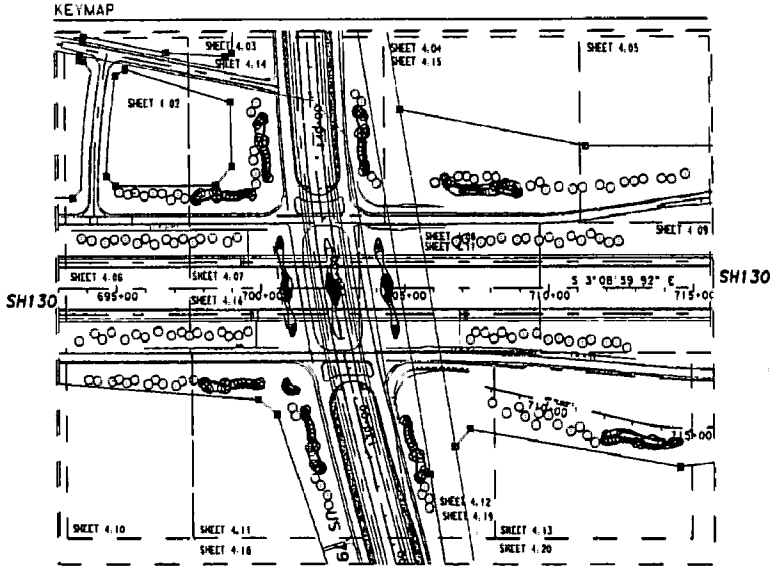
g	GALLONS
c	CALIPER
p	POT
L.F.	LINEAR FEET
S.F.	SQUARE FEET
F.F.	FACE FEET
EA.	EACH
O.C.	ON CENTER
BL	BASELINE

OVERALL PLANT LEGEND FOR US 79

STMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
GR-	GRASSES			
MC	Muhlenbergia capillaris			
	GULF MUHLY	1g	824	24" O.C.
MR	Muhlenbergia rigens			
	DEER MUHLY	1g	119	
GC-	GROUND COVER			
DB	Dalea bicolor var. argyrea			
	Silver Dalea	4"p	416	24" O.C.
DF	Dalea frutescens			
	Black Dalea	4"p	655	24" O.C.
OR	Orbexilum sp.			
	Mountain Pea	4"p	894	24" O.C.
VB	Verbena bipinnatifida			
	Prairie Verbena	4"p	269	24" O.C.
AC-	ACCENT			
HP	Hesperaloe parviflora			
	Red Yucca	1g	50	
HE	Helleria erungens			
	Bear Grass	1g	84	
OE	Opuntia engelmannii			
	Prickly Pear	1g	29	
SS-	SHRUB - SMALL			
MO	Mirrovlaous grummondii			
	TURK'S CAP	1g	1101	24" O.C.
PL	Pavonia lasiopetala			
	ROSE PAVONIA	1g	921	24" O.C.
SM-	SHRUB - MEDIUM			
LA	Lonicera albiflora			
	WHITE HONEYSUCKLE BUSH	3g	252	48" O.C.
LF	Leucophyllum frutescens			
	TEXAS SAGE	3g	118	
LH	Lantana horrida			
	TEXAS LANTANA	1g	889	48" O.C.
SL	SHRUB - LARGE			
CA	Callicarpa americana			
	AMERICAN BEAUTY BUSH	5g	95	
TC-	TREES - CANOPY			
PO	Platanus occidentalis			
	Sycamore	3"c	9	
	Sycamore	1"c	11	
QV	Quercus virginiana			
	LIVE OAK	3"c	25	
	LIVE OAK	1"c	12	
UC	Ulmus crassifolia			
	CEDAR ELM	3"c	27	
	CEDAR ELM	1"c	68	

STMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
TS-	TREES - SMALL			
CT	Cercis texensis			
	TEXAS REDBUD	2"c	84	MULTI-TRUNK (3-5 CANES MINIMUM)
DT	Diospyros texana			
	TEXAS PERSIMMON	2"c	77	
US	Ungnadia speciosa			
	MEXICAN BUCKEYE	1"c	60	MULTI-TRUNK (3-5 CANES MINIMUM)
	OTHER			
	GRANITE MULCH	S.F	0	
	WOOD MULCH	S.F.	77912	
	BERMUDA COMMON HYDROMULCH	ACRES	0	
	SEEDING - WILDFLOWER	ACRES	23.6	
	SEEDING - BLACK LAND PRAIRIE	ACRES	6.65	
	1' CONCRETE MOW CURB	L.F.	5102	
	2' CONCRETE MOW CURB	L.F	1302	
	CEDAR RAIL FENCE	L.F.	0	
	FREESTANDING NATIVE STONE WALL	L.F	0	
	DRY STACKED NATIVE STONE WALL	F.F.	6983	
	FREESTANDING NATIVE STONE COLUMN	EA	0	

KEYMAP



0' 100' 200' 400'

THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR'S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS.

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1187
STATE OF TEXAS
10/11/05

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
COVER SHEET

US 79 MAJOR INTERCHANGE

SCALE: 1" = 400'

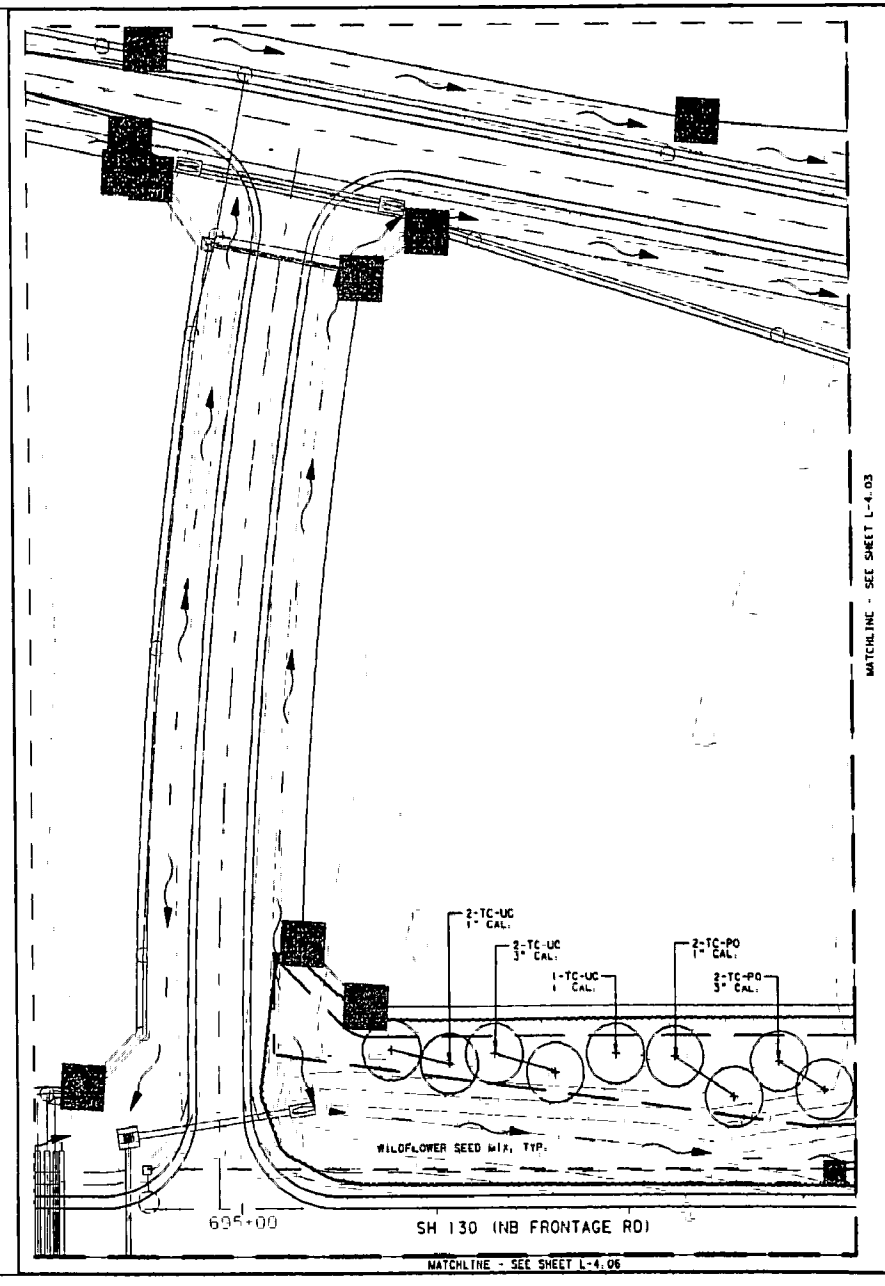
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWB	DATE:
DRAWN BY: LJL	CHECKED BY:	DATE: 06-29-01
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.01

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4"p	0
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
NE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	0
LH	Lantana horrida		
	TEXAS LANTANA	1g	0
SL	SHRUB LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC	TREES CANOPY		0
PO	Platanus occidentalis		
	Sycamore	3"g	2
	Sycamore	1"g	2
QV	Quercus virginiana		
	LIVE OAK	3"c	0
	LIVE OAK	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	2
	CEDAR ELM	1"c	3

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"g	0
DT	Diospyros texana		
	TEXAS PERSIMMON	2"g	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0.6
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

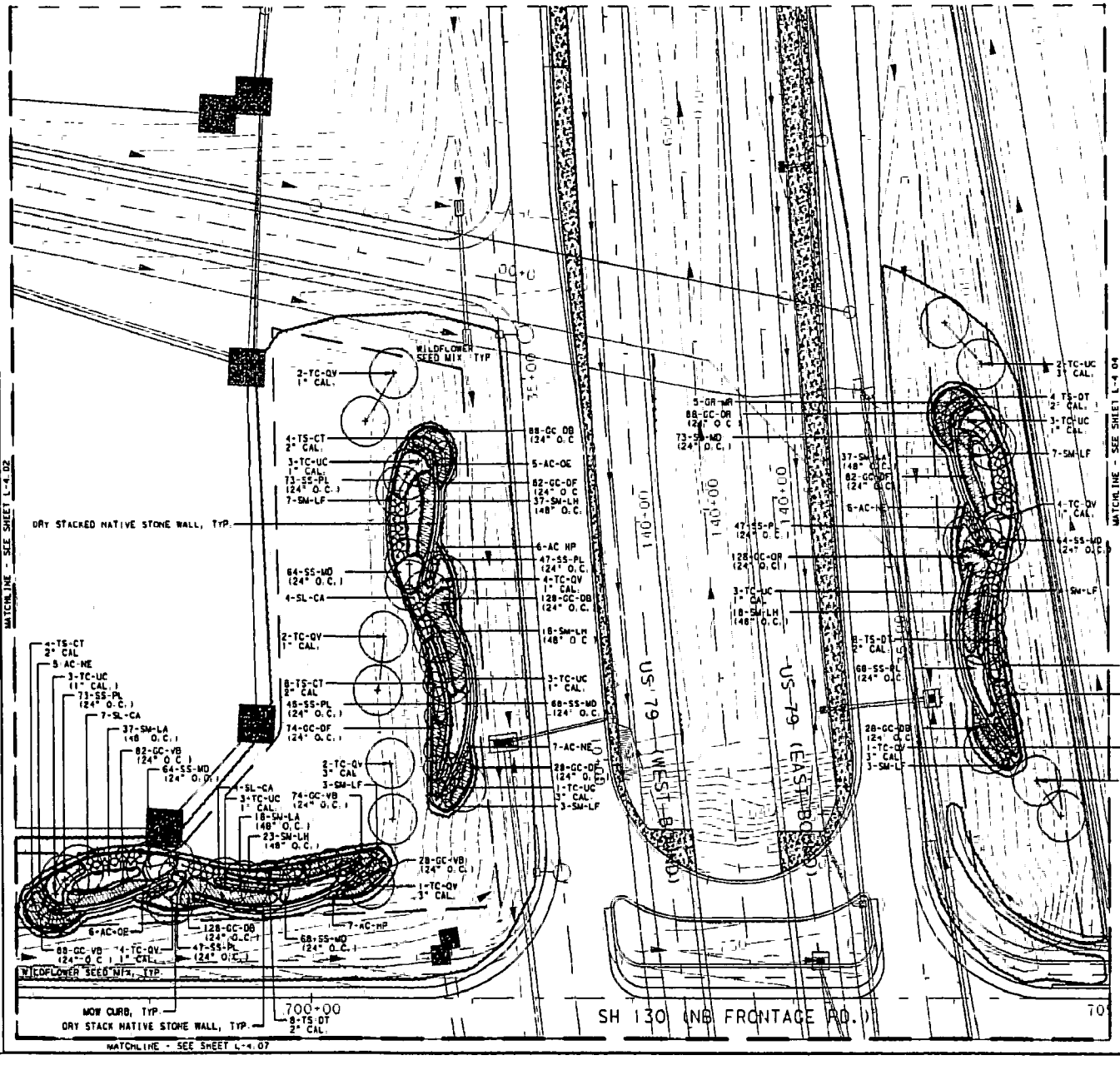
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMO	DATE:
DRAWN BY: CSJ	CHECKED BY:	DATE: 06-20-03
APPROVED BY:		PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.02

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130

0 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	12
GC-	GROUND COVER		
DB	Dalea bicolor var. gravrana		
	SILVER DALEA	4"p	372
DF	Dalea frutescens		
	BLACK DALEA	4"p	266
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	290
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	272
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	13
NE	Nolina erumpens		
	BEAR GRASS	1g	18
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	11
SS-	SHRUB SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	446
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	400
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	92
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	27
LH	Lantana horrida		
	TEXAS LANTANA	1g	96
SL	SHRUB LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	15
TC	TREES CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	3
	LIVE OAK	1"c	16
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	4
	CEDAR ELM	1"c	20

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	16
DT	Diospyros texana		
	TEXAS PERSIMMON	2"c	20
US	Ugnadia speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	19125
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	2.6
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
Dan Brown Harris

TEXAS DEPARTMENT OF TRANSPORTATION

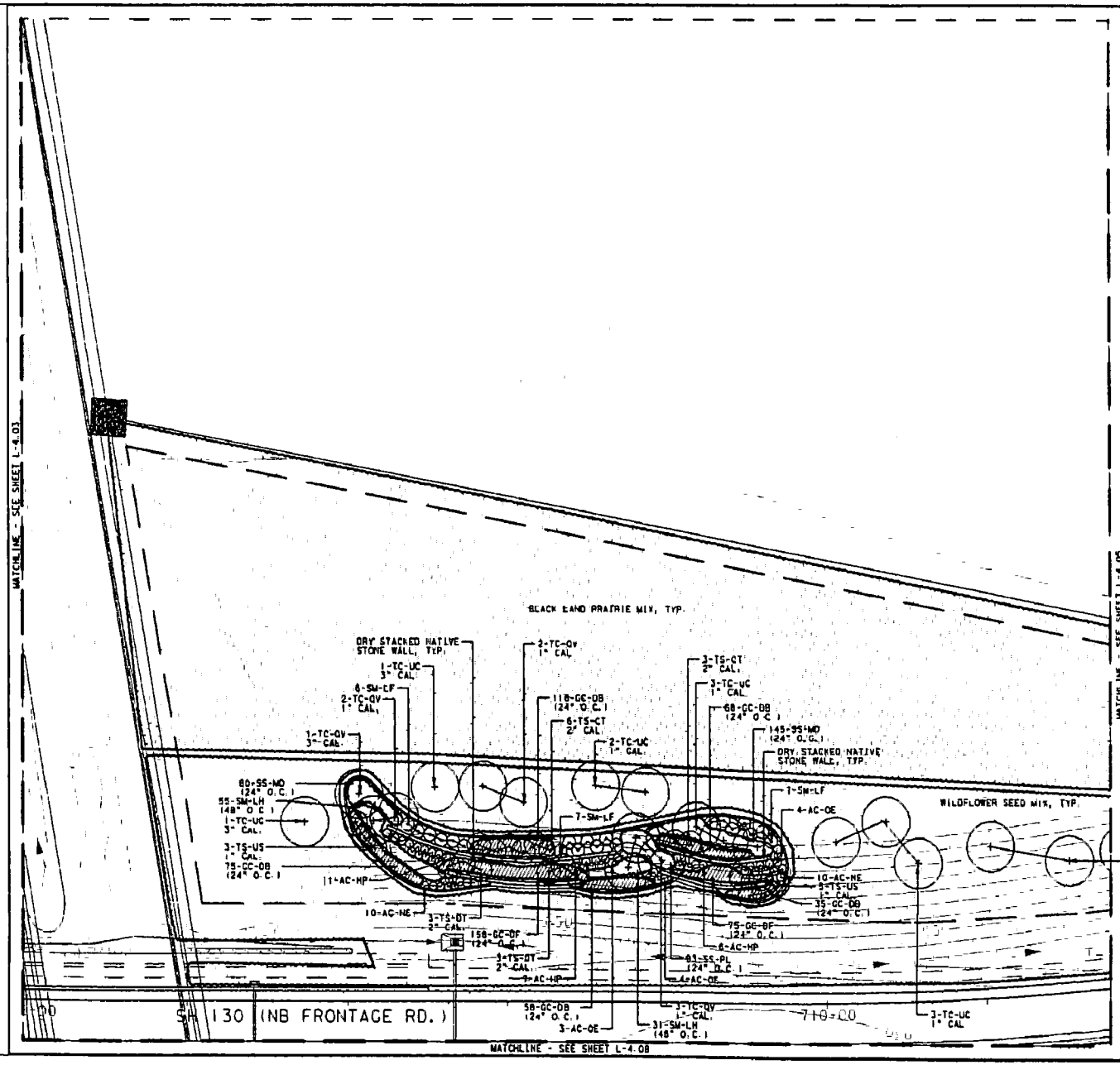
SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWG	DATE:	
DRAWN BY: CJT	CHECKED BY:	DATE: 09-20-05	
APPROVED BY:	DATE:	PROJECT NO.	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.03
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
DB	Dalea bipinnata var. gravrana		
	SILVER DALEA	4"p	352
DF	Dalea frutescens		
	BLACK DALEA	4"p	233
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	24
NE	Nolina erumpens		
	BEAR GRASS	1g	20
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	11
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	225
PL	Pavonia lasiopetala		
	ROCK PAVONIA	1g	93
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	1g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	20
LH	Lantana horrida		
	TEXAS LANTANA	1g	86
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	1
	LIVE OAK	1"c	9
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	2
	CEDAR ELM	1"c	8

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	9
DT	Diospyros texana		
	TEXAS PERSIMMON	2"c	6
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	8

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	10227
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING - WILDFLOWER	ACRES	1.4
SEEDING - BLACK LAND PRAIRIE	ACRES	2.3

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DRAIN-HARRIS

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SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

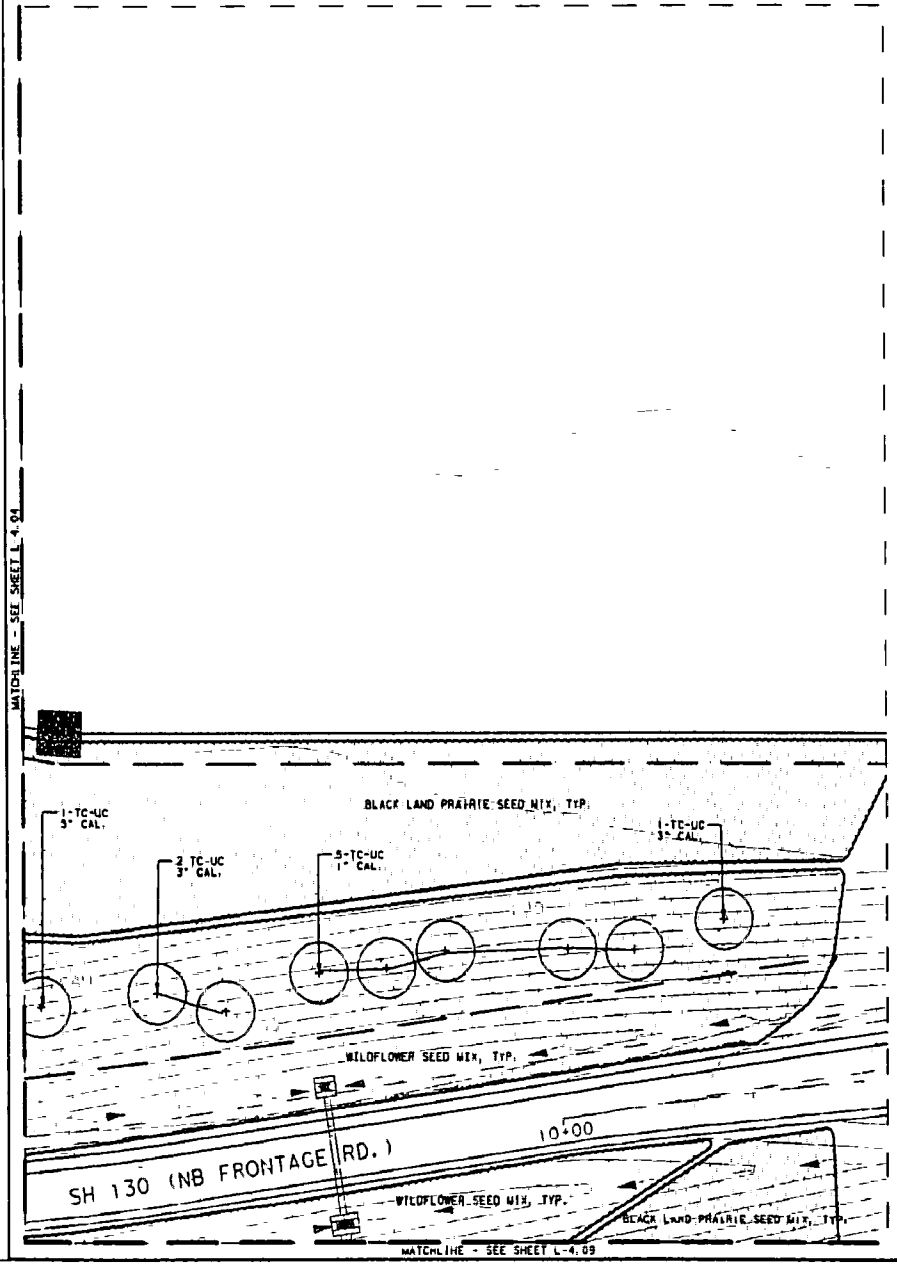
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RHD	DATE:
DRAWN BY: CJ	CHECKED BY:	DATE: 09-12-05
APPROVED BY:	DATE:	PROJECT NO

FED RD DIST	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.04

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0140	05	005	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
DB	Dalea bicolor var. cravrosa		
	SILVER DALEA	4"p	0
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
HE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB SMALL		
MO	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	0
LH	Lantana horrida		
	TEXAS LANTANA	1g	0
SL	SHRUB LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC-	TREES CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	0
	LIVE OAK	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	4
	CEDAR ELM	1"c	5

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
DT	Diospyros texana		
	TEXAS PERSIMMON	2"p	0
US	Ugnania speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	0
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING WILDFLOWER	ACRES	1.0
SEEDING BLACK LAND PRAIRIE	ACRES	0.9

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

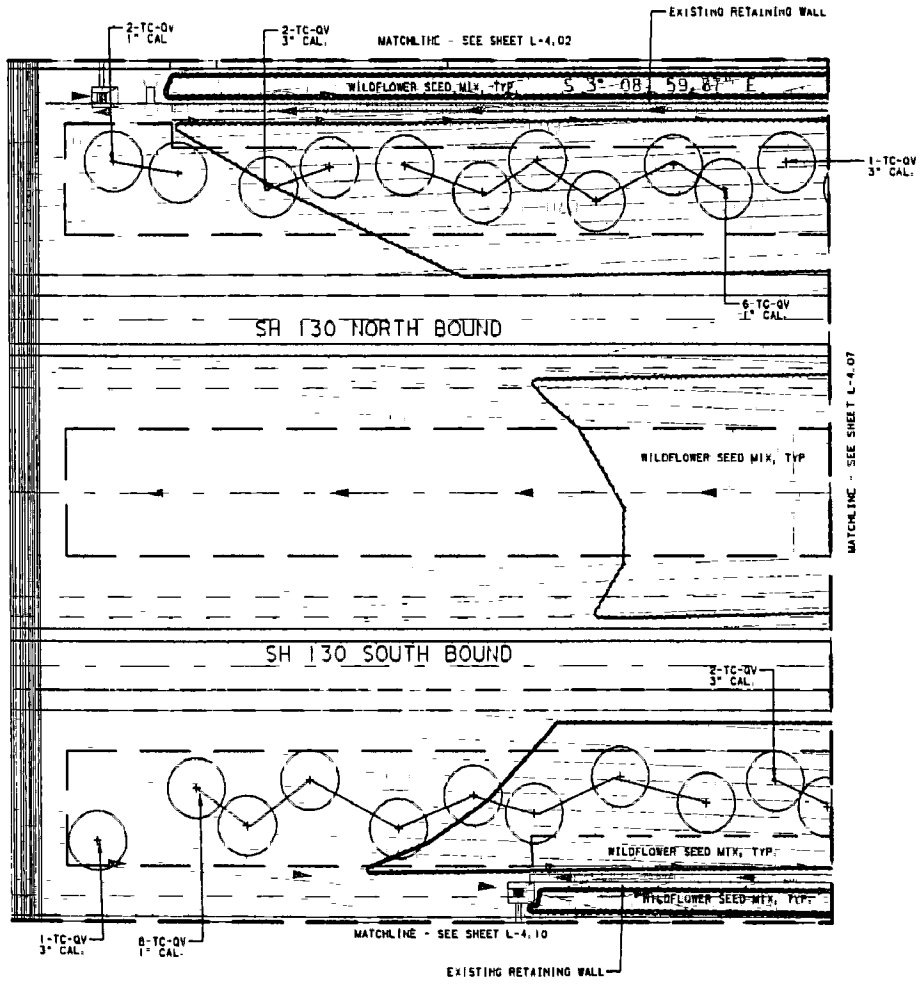
SCALE: 1" = 60'

SHEET OF SHEETS

FED AID PROJECT NO	SHEET NAME	DWG NO
6 86-2XXDB001		L-4 05

STATE	DISTRICT	LOCATION	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
MR	Muhlenbergia ricens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4"p	0
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
NE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB SMALL		
MO	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	0
LH	Lantana horrida		
	TEXAS LANTANA	1g	0
SL	SHRUB LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC-	TREES CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	6
	LIVE OAK	1"c	16
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
DT	Diospyros texana		
	TEXAS PERSIMMON	2"p	0
US	Uanodia speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	1.8
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DIANA HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

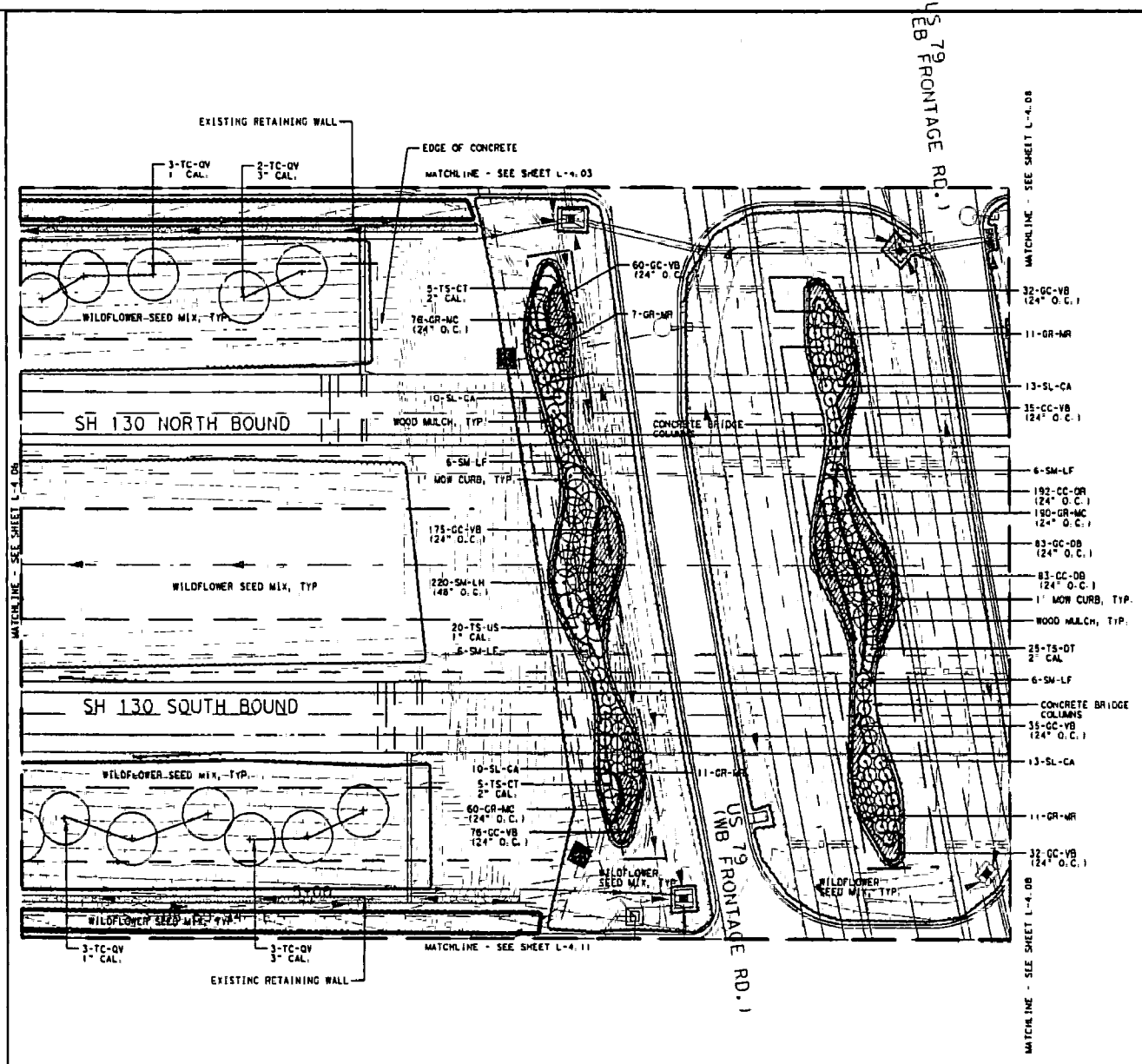
SHEET OF SHEETS

DESIGNED BY: DLG	CHECKED BY: RRG	DATE:
DRAWN BY: CJI	CHECKED BY:	DATE: 09 10 05
APPROVED BY:	DATE:	FINISHED BY:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.06

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1 05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
NC	Muhlenbergia capillaris		
	GULF MUHLY	1g	326
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	40
GC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4"p	166
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Oenothera g.		
	MOUNTAIN PEA	4"p	192
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	445
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
HE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	24
LH	Lantana horrida		
	TEXAS LANTANA	1g	220
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	46
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	5
	LIVE OAK	1"c	6
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	10
DT	Diospyros texana		
	TEXAS PERSIMMON	2"c	25
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	20

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	13520
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	3.4
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRECK
1197
STATE OF TEXAS
10/11/06

TEAM MEMBER
DANN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 03
LANDSCAPE PLANS
PLANTING PLANS

US 79 MAJOR INTERCHANGE

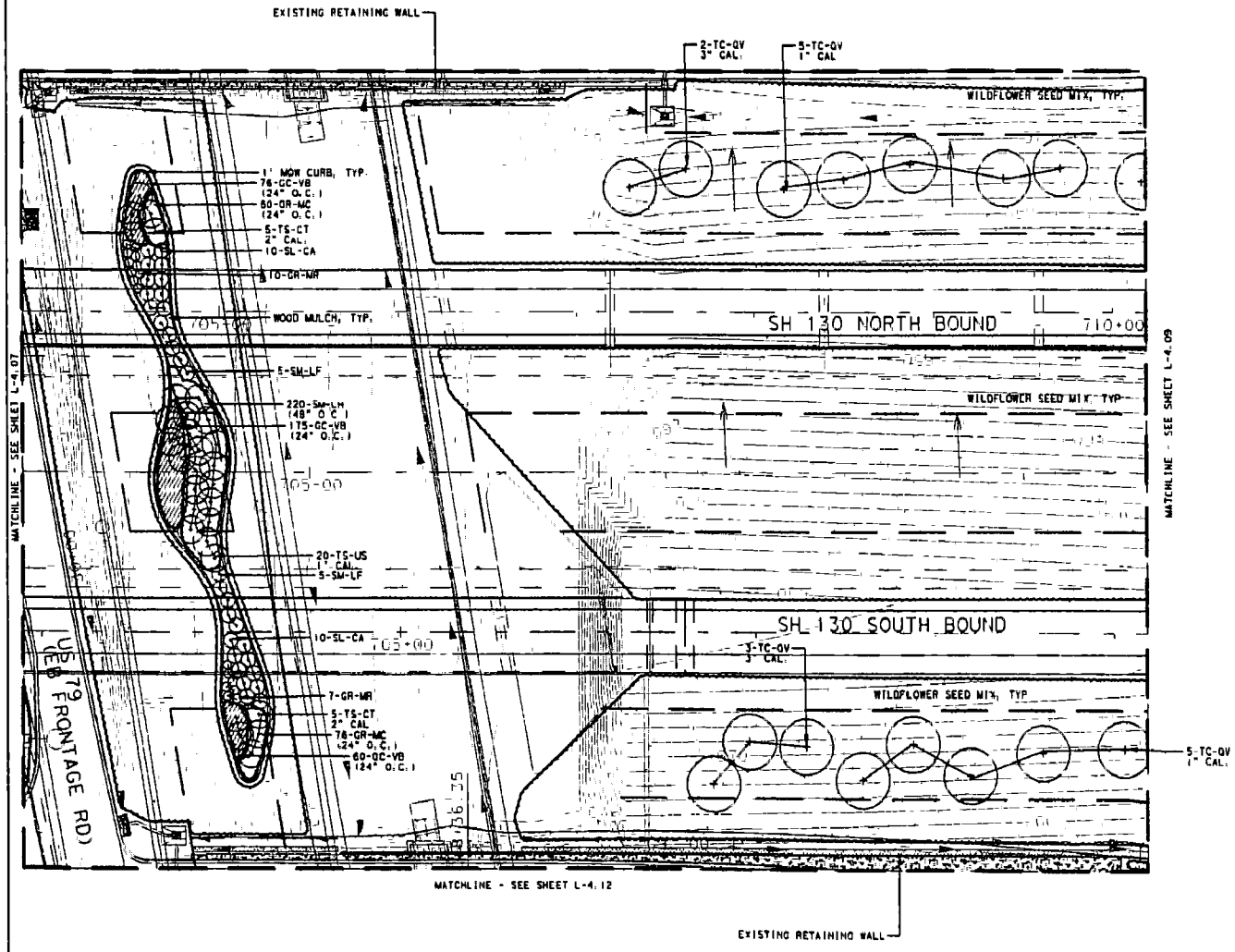
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWD	DATE:	
DRAWN BY: LJS	CHECKED BY:	DATE:	PLOT: 06-20-06
APPROVED BY:	DATE:		T-LEVEL: NO

FED. RD. DIV.	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4 07

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	136
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	17
GC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4"p	0
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	311
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
HE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB - SMALL		
WD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Poronia lanceolata		
	ROSE PAVONIA	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	10
LH	Lantana horrida		
	TEXAS LANTANA	1g	220
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	20
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	5
	LIVE OAK	1"c	10
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	10
DT	Diospyros texana		
	TEXAS PERSIMMON	2"c	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	20

	PLANTING SETBACK LINE		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	6760
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	3.2
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/14/05

TXAN MEMBER
DRAIN MAINTAINS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

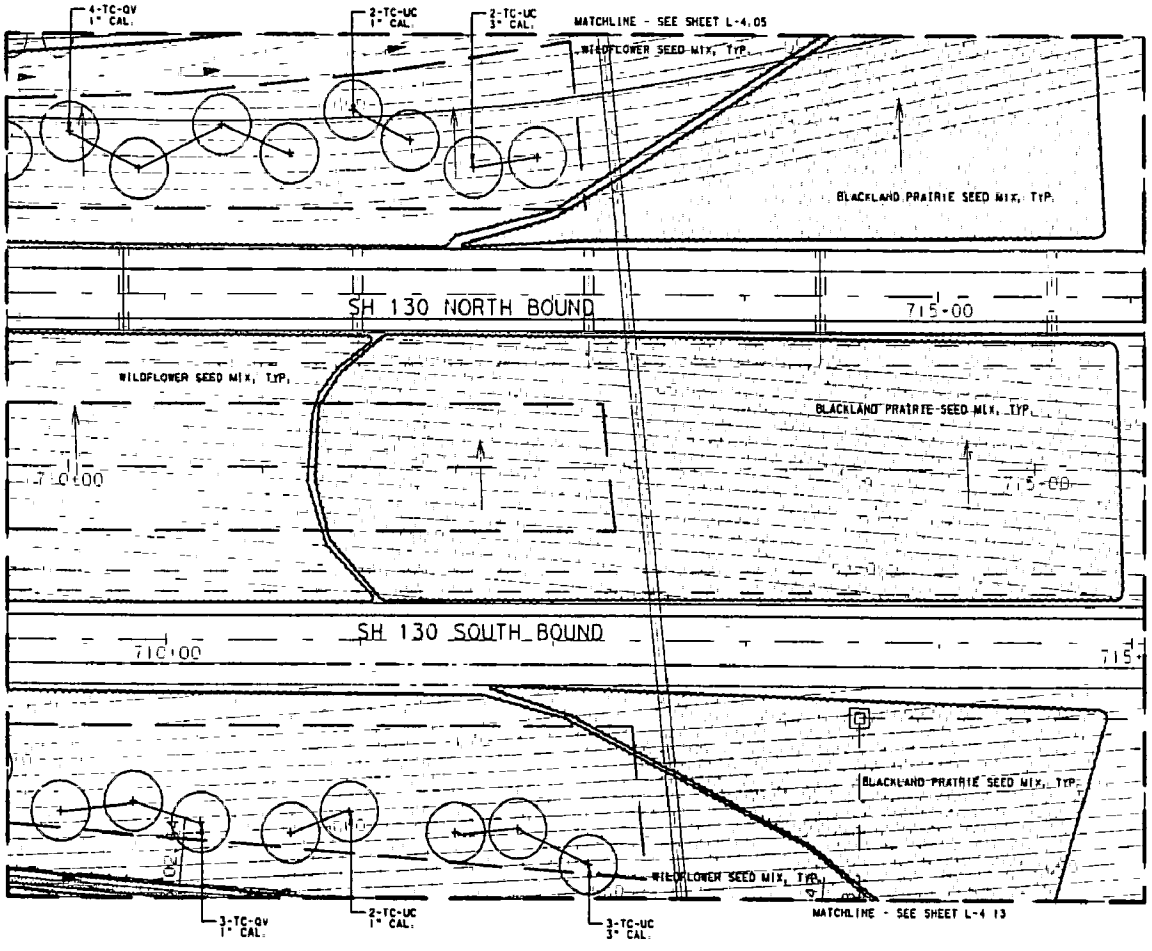
DESIGNED BY: DLB	CHECKED BY: RWD	DATE:
DRAWN BY: [illegible]	CHECKED BY: [illegible]	DATE: 08 10 01
APPROVED BY:	DATE:	FRONTIER INC

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.08

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
DB	Dalea bipolar var. gravrosa		
	SILVER DALEA	4"p	0
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
NE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB - SMALL		
MO	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	0
LH	Lantana horrida		
	TEXAS LANTANA	1g	0
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	0
	LIVE OAK	1"c	7
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	6
	CEDAR ELM	1"c	4

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"p	0
DT	Diospyros texana		
	TEXAS PERSIMMON	2"p	0
US	Ugnadia speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	2.2
	SEEDING - BLACK LAND PRAIRIE	ACRES	2.0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAVIS-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

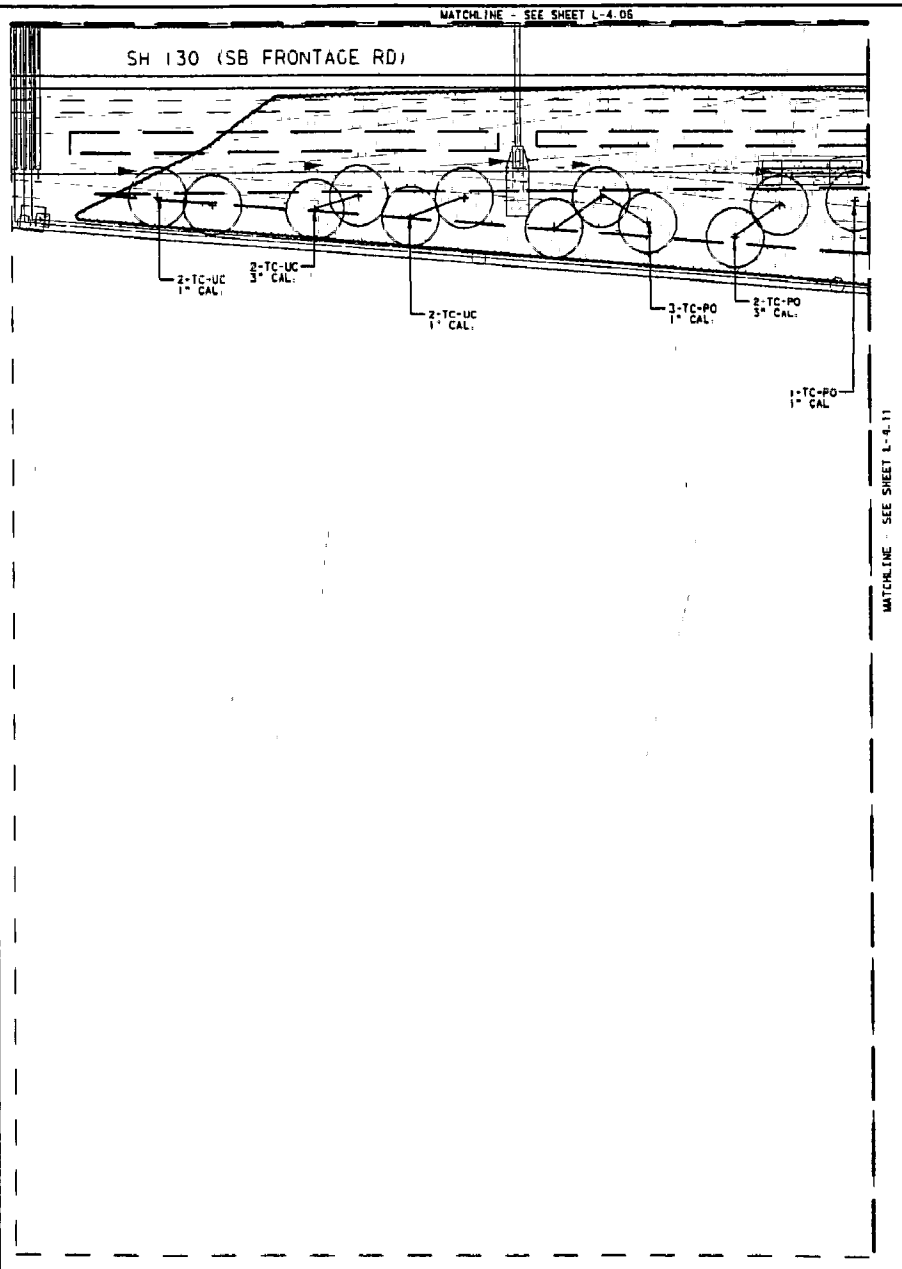
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWD	DATE:
DRAWN BY: CJJ	CHECKED BY:	DATE: 09-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED 110 PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.09

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	CULF MUHLY	1g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
CC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4"p	0
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Orbexilum sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
HE	Nolina erumpens		
	BEAR GRASS	1g	0
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	0
LH	Lantana horrida		
	TEXAS LANTANA	1g	0
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	2
	Sycamore	1"c	4
Qv	Quercus virginiana		
	LIVE OAK	3"c	0
	LIVE OAK	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	2
	CEDAR ELM	1"c	4

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
DT	Diospyros texana		
	TEXAS PERSIMMON	2"c	0
US	Vanoala speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	1.0
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/4/05

TEAM MEMBER
DMJM-HARRIS

(E)2005
TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

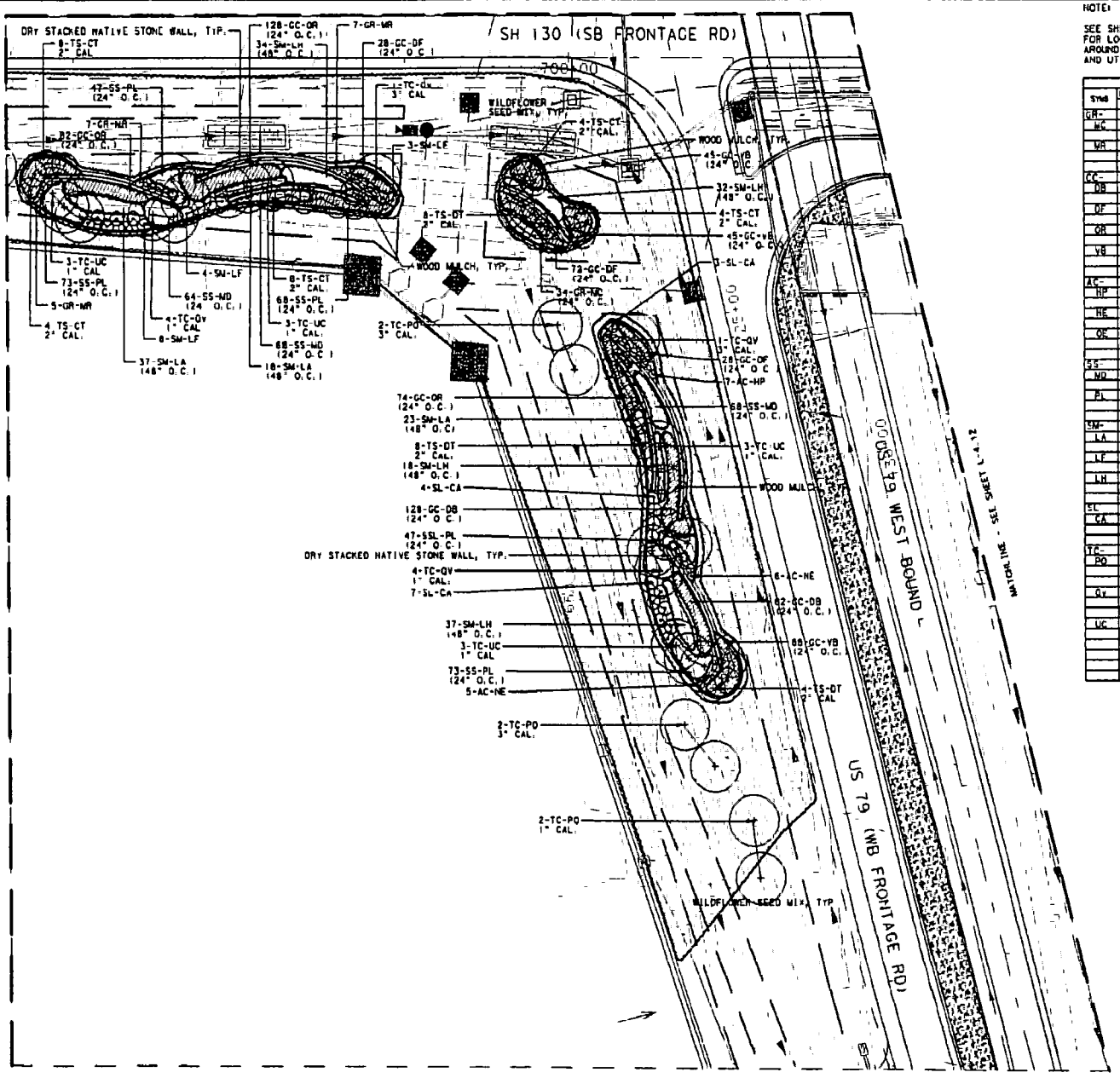
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWO	DATE:
DRAWN BY: CSJ	CHECKED BY:	DATE: 09-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-4.10

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO.
0440	05	005	SH130

0' 15 30' 60



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	34
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	19
CC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4"p	210
DF	Dalea frutescens		
	BLACK DALEA	4"p	128
OR	Oreoelium sp.		
	MOUNTAIN PEA	4"p	284
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	178
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	7
HE	Helianthemum		
	SUN CHASER	1g	11
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	200
PL	Rosa x "Lolita"		
	ROSE PAROMILA	1g	308
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	78
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	15
LH	Lantana horrida		
	TEXAS LANTANA	1g	121
SL	SHRUB - LARGE		
CA	Calliandra americana		
	AMERICAN BEAUTY BUSH	5g	14
TC-	TREES - CANOPY		
PO	Pistacia lentiscus		
	Shoenoro	3"g	4
	Sycamore	1"c	2
QV	Quercus virginiana		
	LIVE OAK	3"p	2
	LIVE OAK	1"c	8
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	12

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	28
DT	Diospyros texana		
	TEXAS PERSIMMON	2"g	20
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	12750
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING - WILDFLOWER	ACRES	2.5
SEEDING - BLACK LAND PRAIRIE	ACRES	0

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM WILMER LANDSCAPE ARCHITECTS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

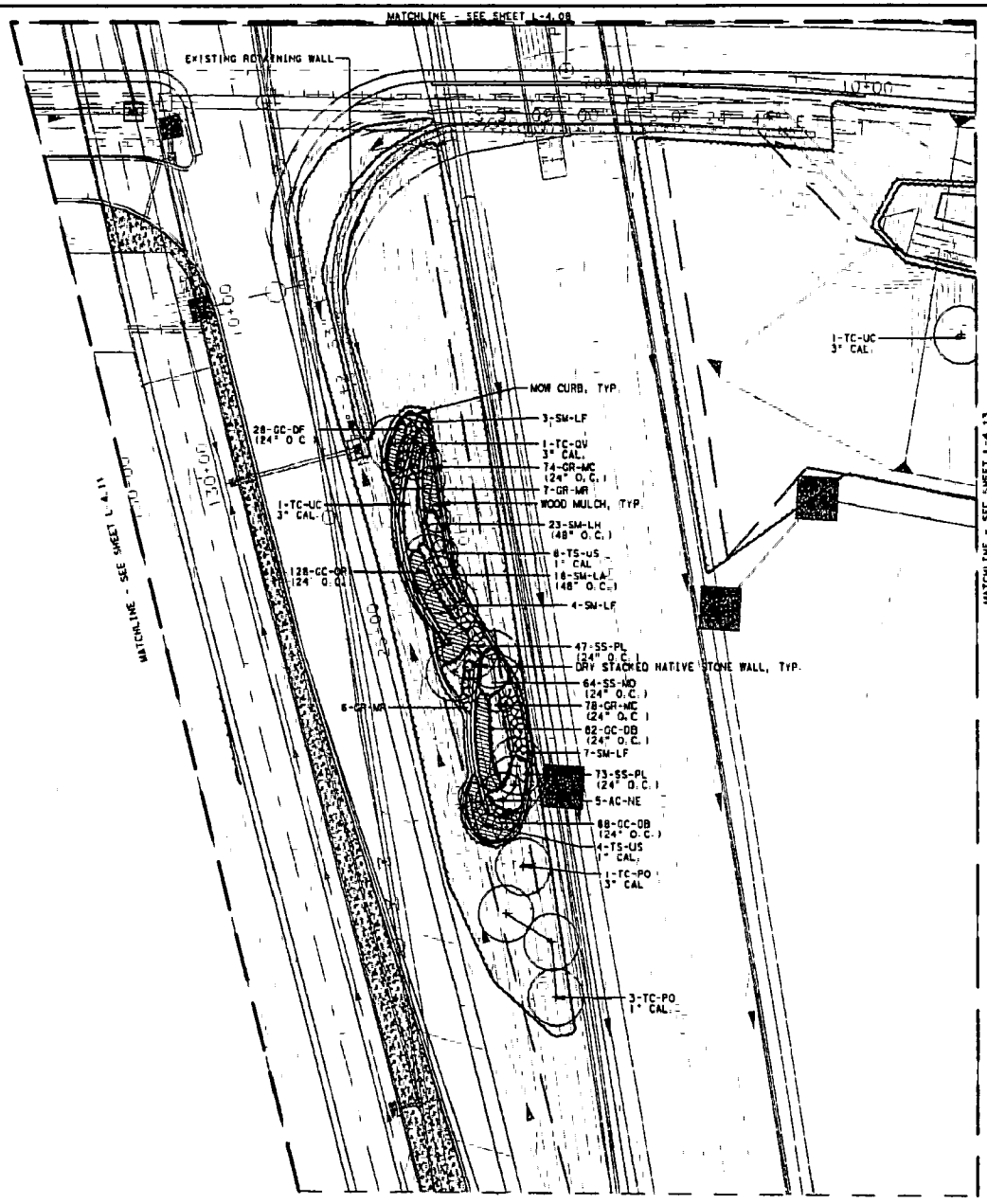
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: TWC	DATE:
DRAWN BY: LBW	CHECKED BY:	DATE: 08-30-05
APPROVED BY:	DATE:	PROJECT NO:

FED RD	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2xxDB001		L-4.11

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10.11.2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1 g	152
MR	Muhlenbergia rigens		
	DEER MUHLY	1 g	13
GC-	GROUND COVER		
DB	Dalea bicolor var. argyrea		
	SILVER DALEA	4" p	170
DF	Dalea frutescens		
	BLACK DALEA	4" p	28
OR	Orbexilum sp.		
	MOUNTAIN PEA	4" p	128
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4" p	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1 g	0
NE	Nolina erumpens		
	BEAR GRASS	1 g	5
OE	Opuntia engelmannii		
	PRICKLY PEAR	1 g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1 g	64
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1 g	120
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3 g	18
LF	Leucophyllum frutescens		
	TEXAS SAGE	3 g	14
LH	Lantana horrida		
	TEXAS LANTANA	1 g	23
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5 g	0
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	SYCAMORE	3" c	1
	SYCAMORE	1" c	3
QV	Quercus virginiana		
	LIVE OAK	3" c	0
	LIVE OAK	1" c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3" c	2
	CEDAR ELM	1" c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis reniformis		
	TEXAS REDBUD	2" c	0
DT	Diospyros texana		
	TEXAS PERSIMMON	2" c	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1" c	12

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	4375
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING - WILDFLOWER	ACRES	1.2
SEEDING - BLACK LAND PRAIRIE	ACRES	0.05

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
STATE OF TEXAS
1197
10/11/05

TEAM MEMBER
CHAIN HARDIS

TEXAS DEPARTMENT OF TRANSPORTATION ©2001

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RWB	DATE:
DRAWN BY: JK	CHECKED BY:	A.T.E. 06-18-21
APPROVED BY:	DATE:	PROJECT NO

FED. RD.	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2(XX)B001		L-4.12

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	003	SH130

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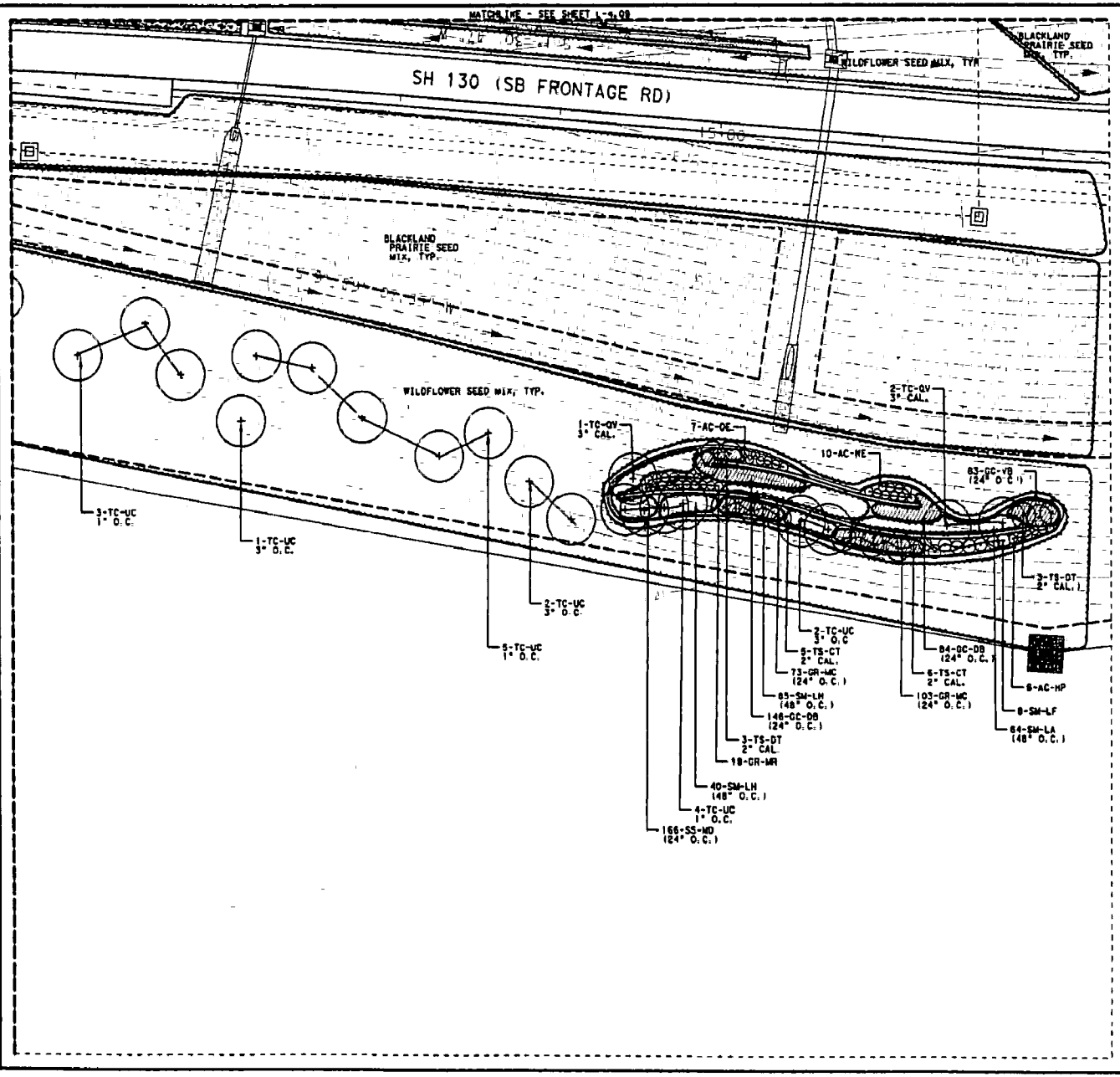

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	176
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	18
GC-	GROUND COVER		
DB	Dalea bicolor var. argyraea		
	SILVER DALEA	4"p	146
DF	Dalea frutescens		
	BLACK DALEA	4"p	0
OR	Oenothera sp.		
	MOUNTAIN PEA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	4"p	83
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	8
HE	Helianthus angustifolius		
	BEAR GRASS	1g	10
OE	Opuntia engelmannii		
	PRICKLY PEAR	1g	7
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	166
PL	Pavonia lasiopetala		
	ROSE PAVONIA	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE BUSH	3g	64
LF	Leucophyllum frutescens		
	TEXAS SAGE	3g	8
LH	Lantana horrida		
	TEXAS LANTANA	1g	123
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
TC-	TREES - CANOPY		
PO	Platanus occidentalis		
	Sycamore	3"c	0
	Sycamore	1"c	0
QV	Quercus virginiana		
	LIVE OAK	3"c	3
	LIVE OAK	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	5
	CEDAR ELM	1"c	12

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	11
DT	Diospyros texana		
	TEXAS PERSIMMON	2"c	6
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	9155
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	2.6
	SEEDING - BLACK LAND PRAIRIE	ACRES	1.6

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUCK 1197 STATE OF TEXAS

10/11/05

TEAM MEMBER OWNERSHIPS

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SEGMENT 2 , SECTION 05
LANDSCAPE PLANS
PLANTING PLAN

US 79 MAJOR INTERCHANGE

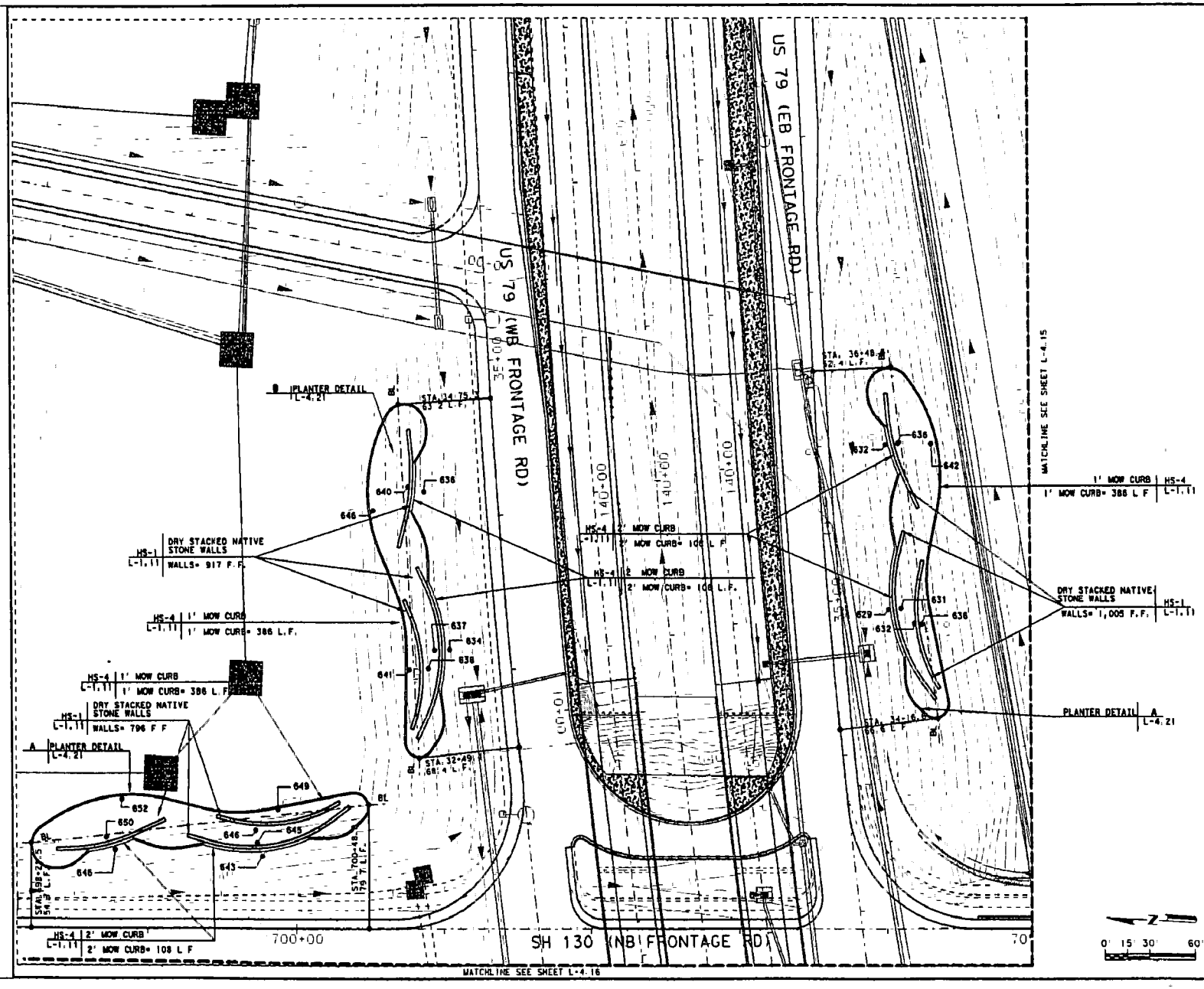
SCALE: 1" = 60'

SHEET OF SHEETS

DETAILED BY: CL.S	CHECKED BY: RWB	DATE:	
DRAWN BY: CEJ	REVIEWED BY:	DATE: 06-28-05	
APPROVED BY:	DATE:	PROJECT NO:	

FED RD	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2YXDB001		L-4.13

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	1,158
2' CONCRETE MOW CURB	L.F.	324
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	2,718
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
ONWM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 SECTION 05
LANDSCAPE PLANS
HARDSCAPE PLAN

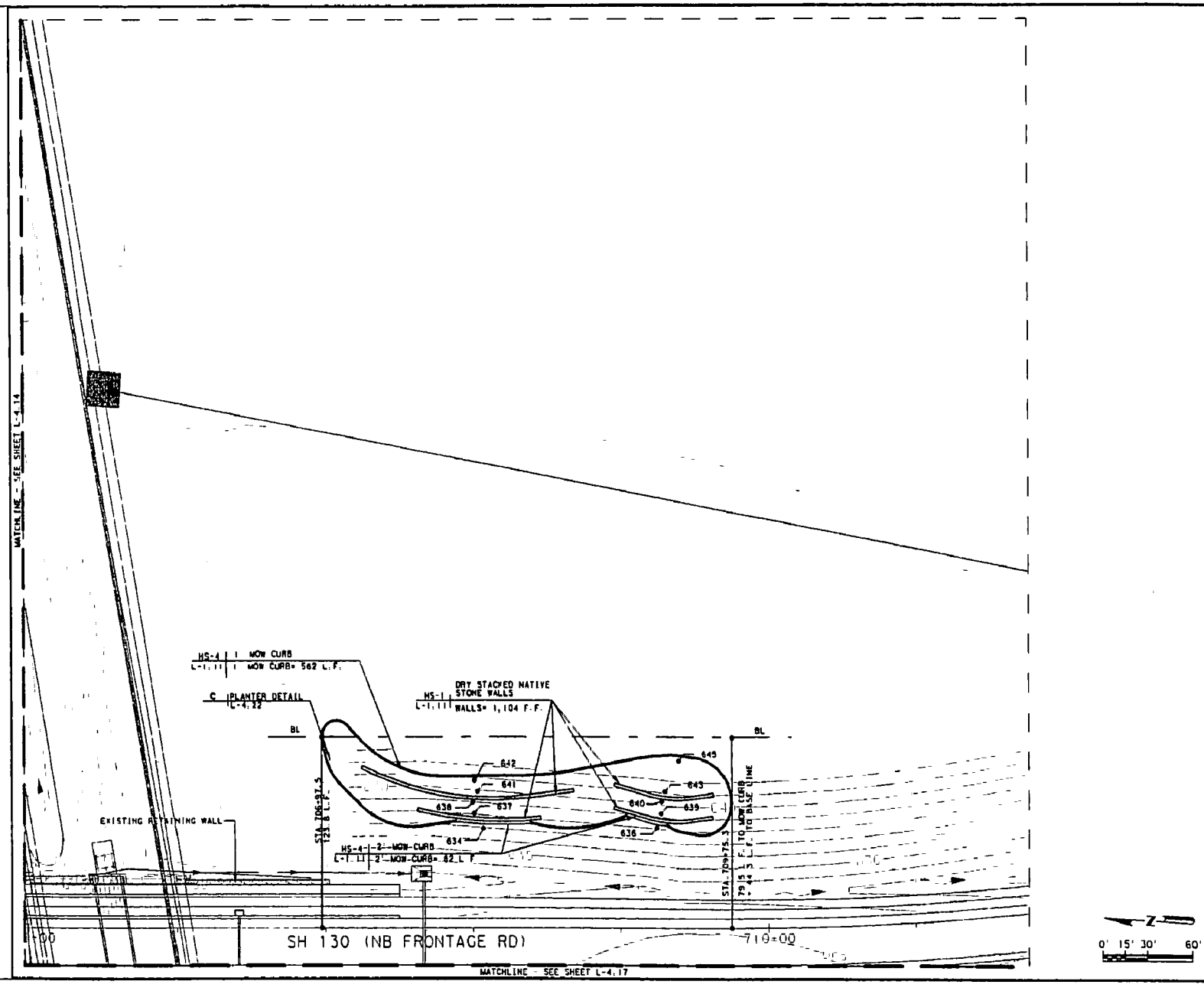
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: CLS	CHECKED BY: RBG	DATE:	
DRAWN BY: FEJ	CHECKED BY:	DATE: 06-20-05	
APPROVED BY:	DATE:	PROJECT NO.	

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.14

STATE	DISTRICT	COUNTY	
Tx	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	567
2' CONCRETE MOW CURB	L.F.	82
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	1,104
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER OMNI-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

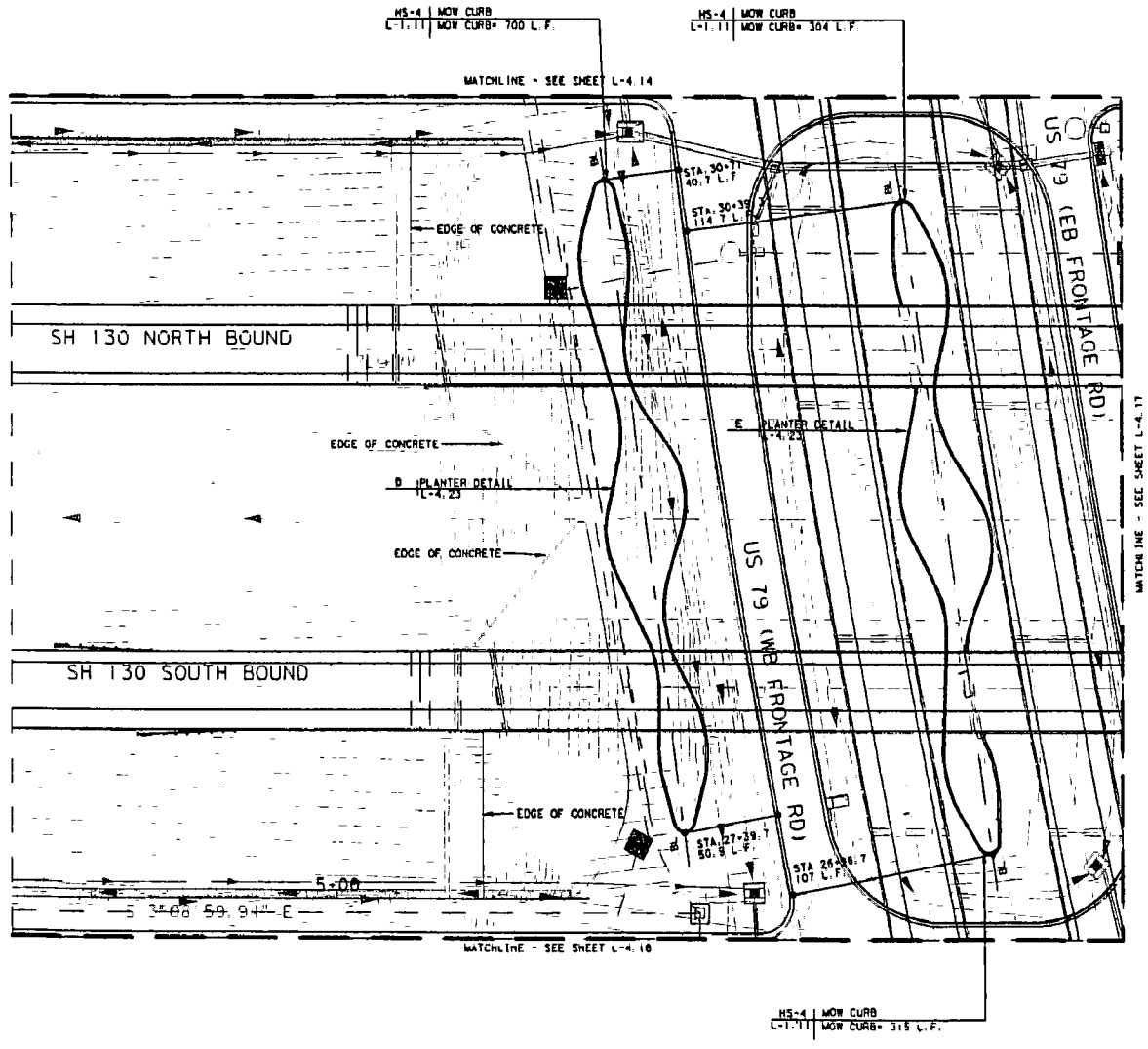
SEGMENT 2, SECTION 05
LANDSCAPE PLANS
HARDSCAPE PLAN

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMS	DATE:	
DRAWN BY: ETJ	CHECKED BY:	DATE: 06-20-05	
APPROVED BY:	DATE:	PROJECT NO:	
FED AID PROJECT NO	SHEET NAME	DWG NO	
6	86-2XXDB001	L-4.15	
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



0' 15' 30' 60'

REV	DATE	BY	DESCRIPTION
0	10-11 2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	1319
2' CONCRETE MOW CURB	L.F.	0
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	Ea.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DAVIN+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLAN
HARDSCAPE PLAN

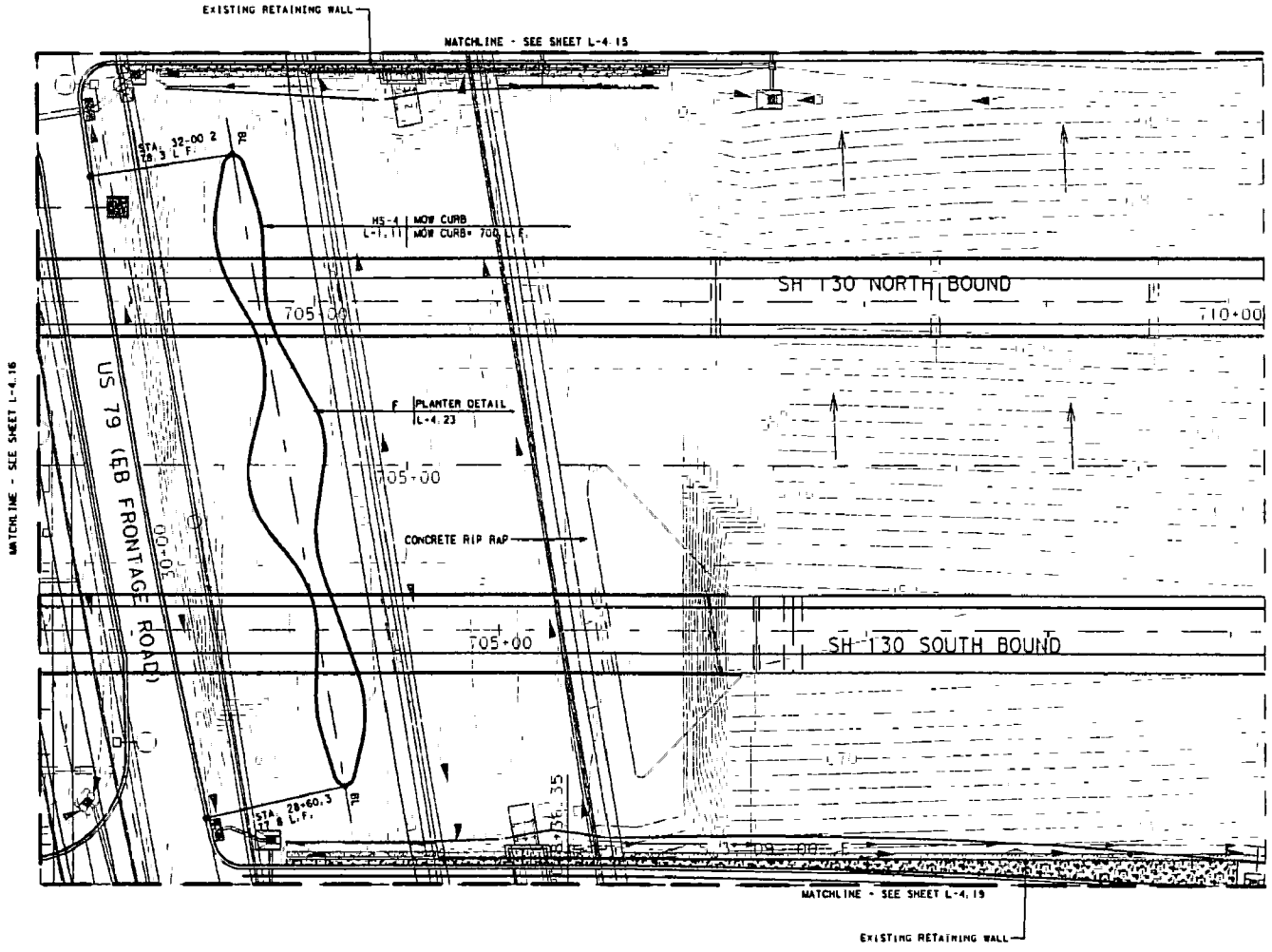
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWD	DATE:
DRAWN BY: CSJ	CHECKED BY:	DATE: 09-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.16

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



0' 15' 30' 60'

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #1 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	700
2' CONCRETE MOW CURB	L.F.	0
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DAUN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
HARDSCAPE PLAN

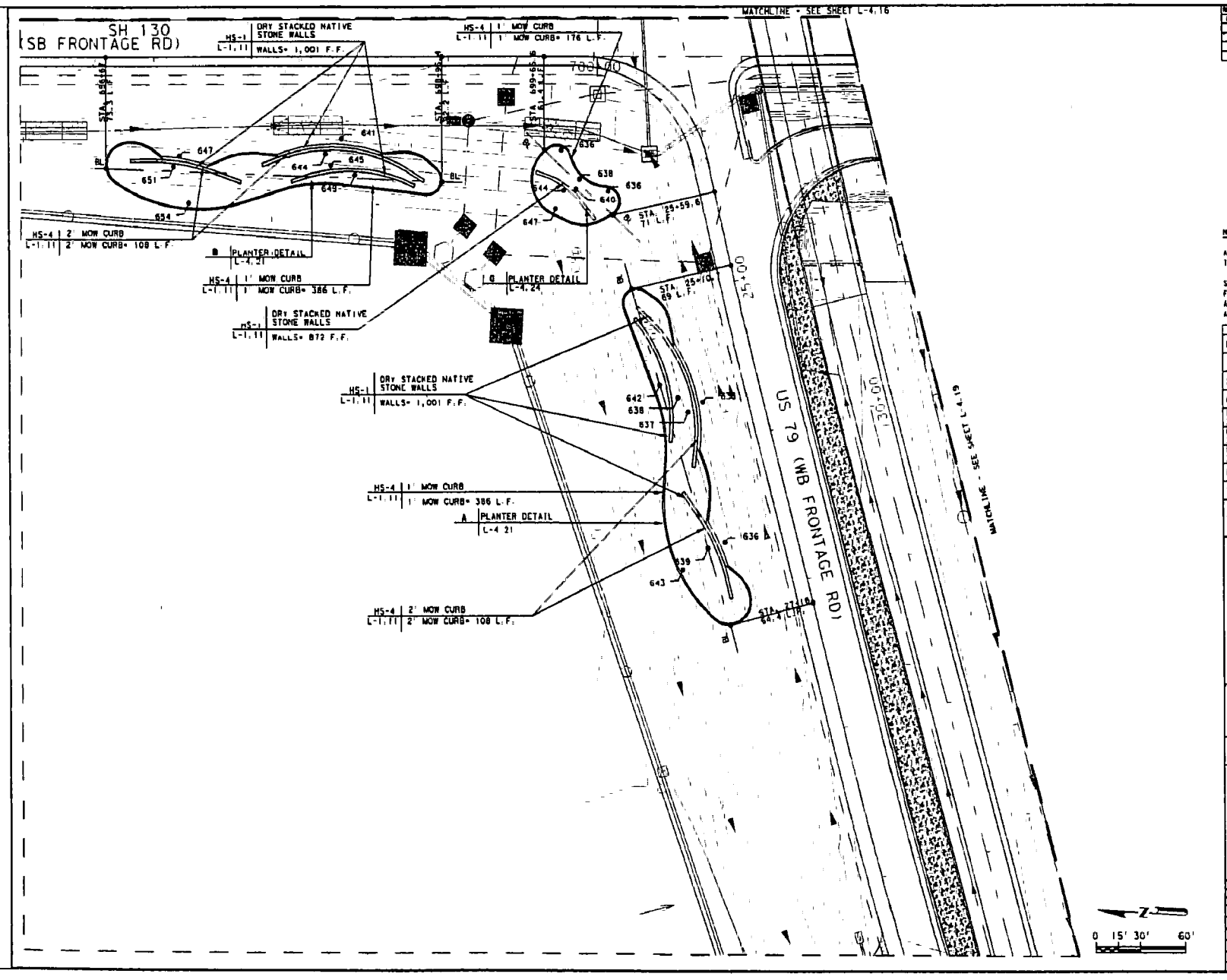
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMO	DATE:
DRAWN BY: CJJ	CHECKED BY:	DATE: 04-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED RD PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.17

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	918
2' CONCRETE MOW CURB	L.F.	216
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	2,874
FREESTANDING NATIVE STONE COLUMN	EA	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	YX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBROECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DIAN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

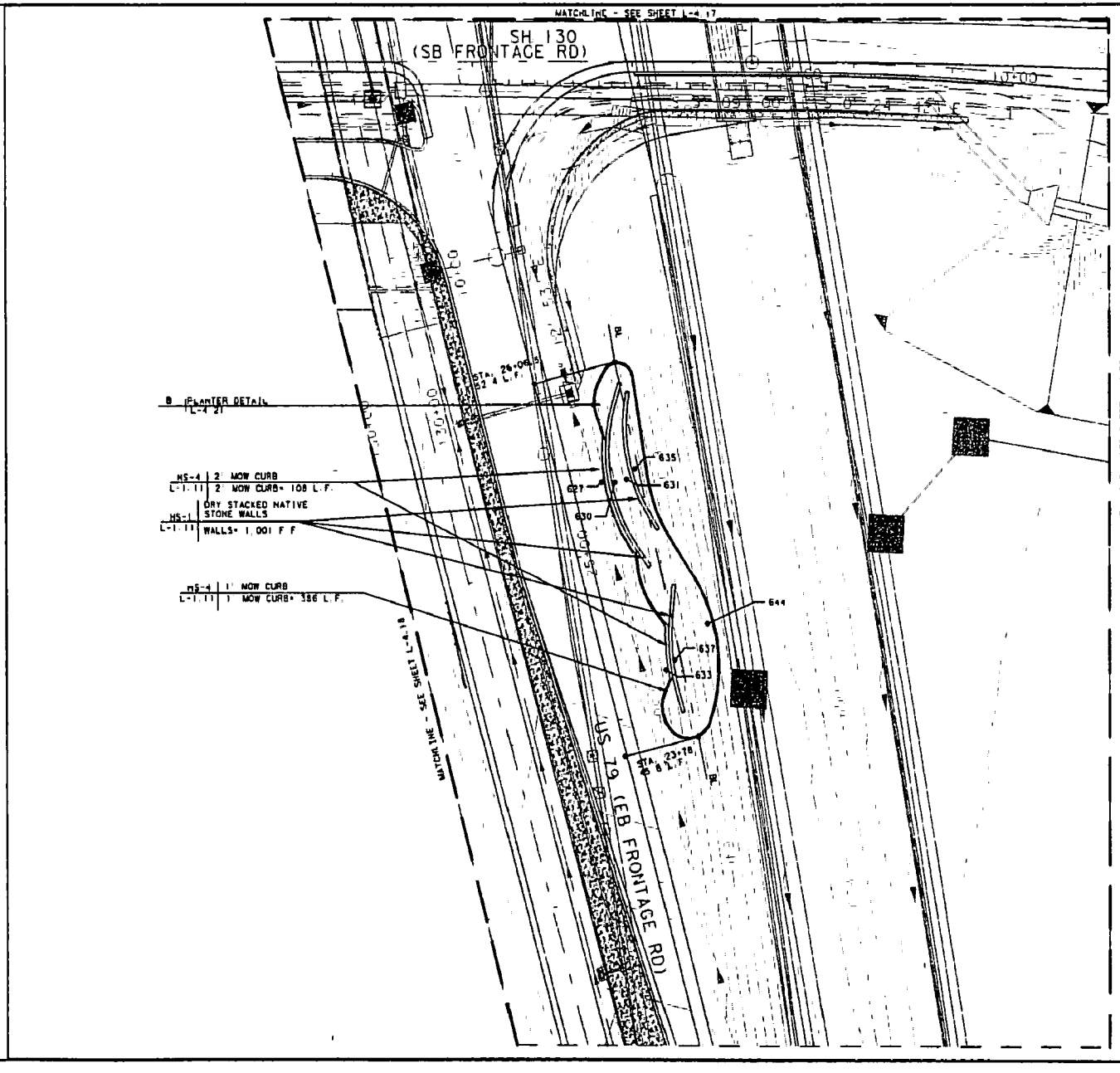
US 79 MAJOR INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.18

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



REV	DATE	BY	DESCRIPTION
0	8-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.01, GENERAL NOTE #1 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	386
2' CONCRETE MOW CURB	L.F.	108
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	1,001
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	790	
DETAIL REFERENCE	XX DETAIL # / X.XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
STATE OF TEXAS
1197
10/11/05

TEXAS MAJOR INTERCHANGES

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

US 79 MAJOR INTERCHANGE

SCALE: 1" = 60

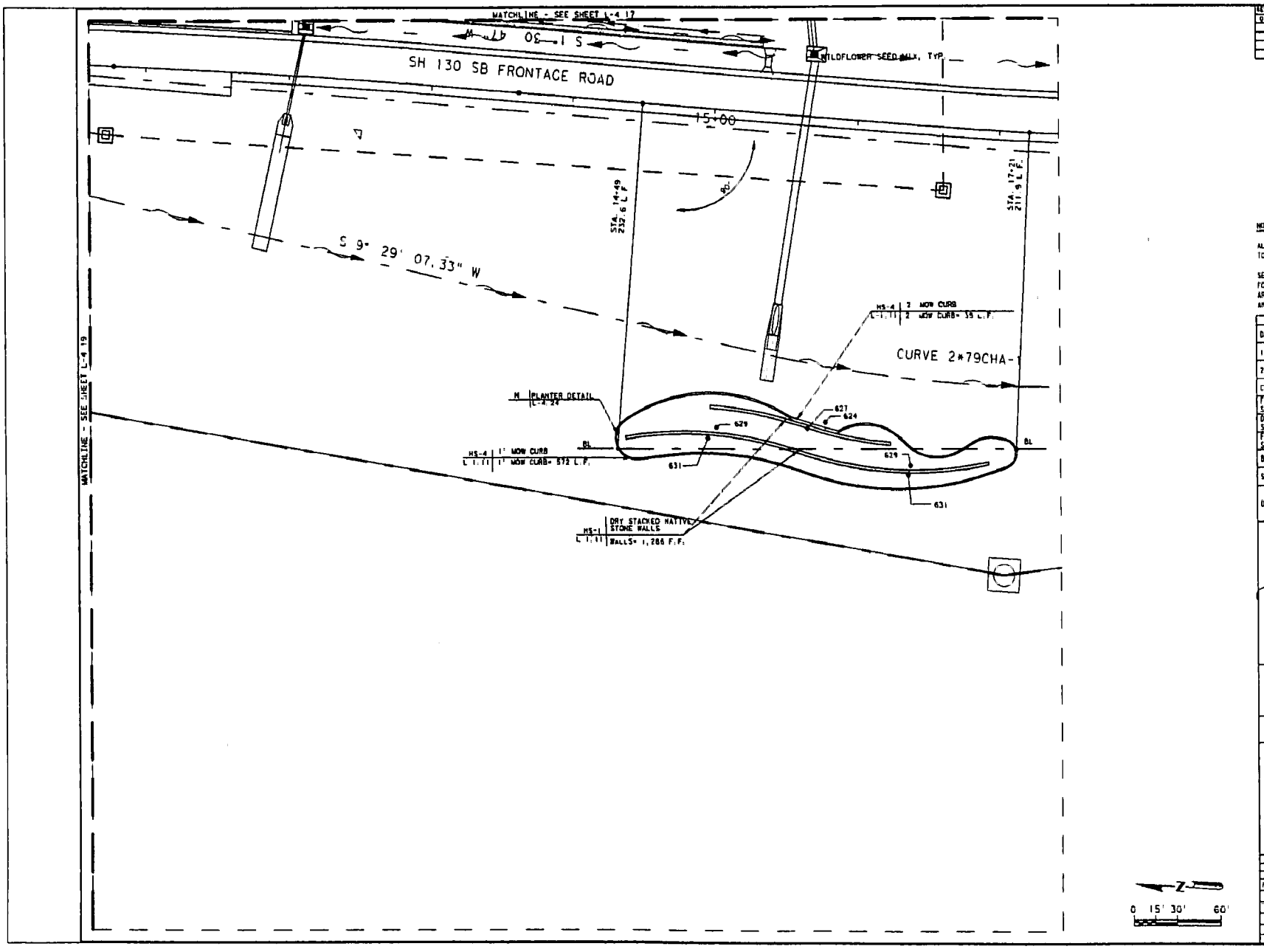
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMD	DATE:
DRAWN BY: ESJ	CHECKED BY:	DATE: OCT-03
APPROVED BY:	DATE:	PROJECT NO.

FED.	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.19

STATE	DISTRICT	COUNTY
TX	AUS	WILLIAMSON

CONT	SECT	JOB	HIGHWAY NO
0440	05	003	SH130



REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.09, GENERAL NOTE #1 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	35
2' CONCRETE MOW CURB	L.F.	512
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	1,286
FREESTANDING NATIVE STONE COLUMN	EA	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / X XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

US 79 MAJOR INTERCHANGE

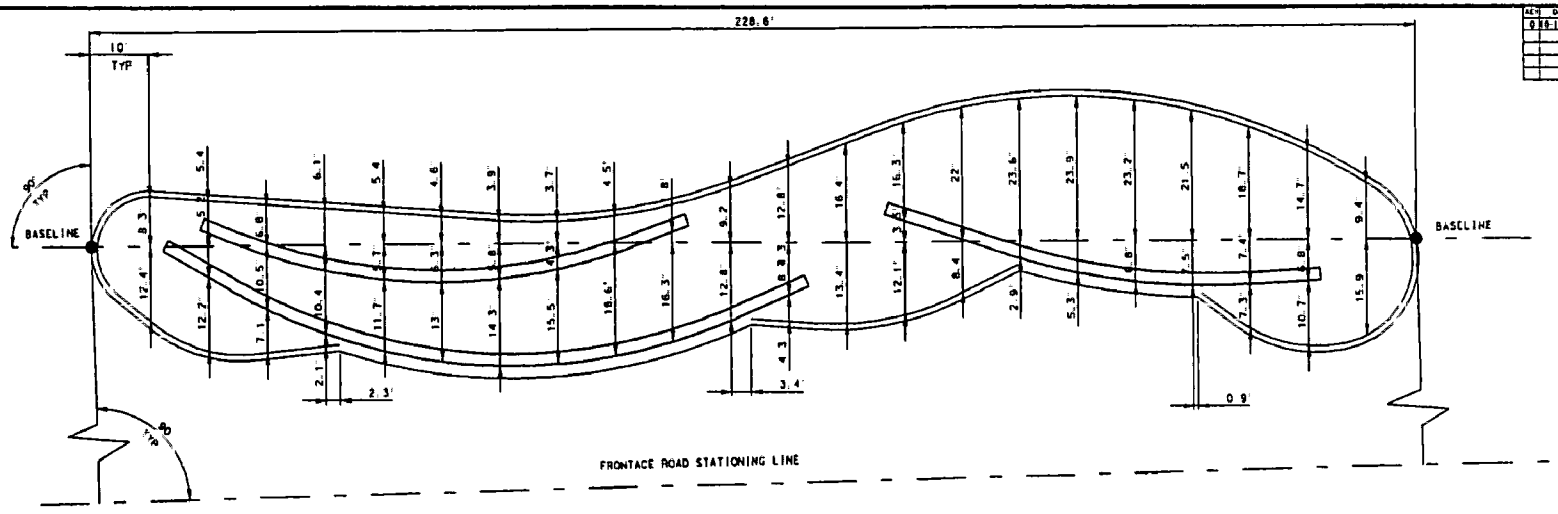
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: CLB	CHECKED BY: RMO	DATE
DRAWN BY: CSJ	CHECKED BY:	DATE: 06 20-05
APPROVED BY:	DATE:	PROJECT NO.

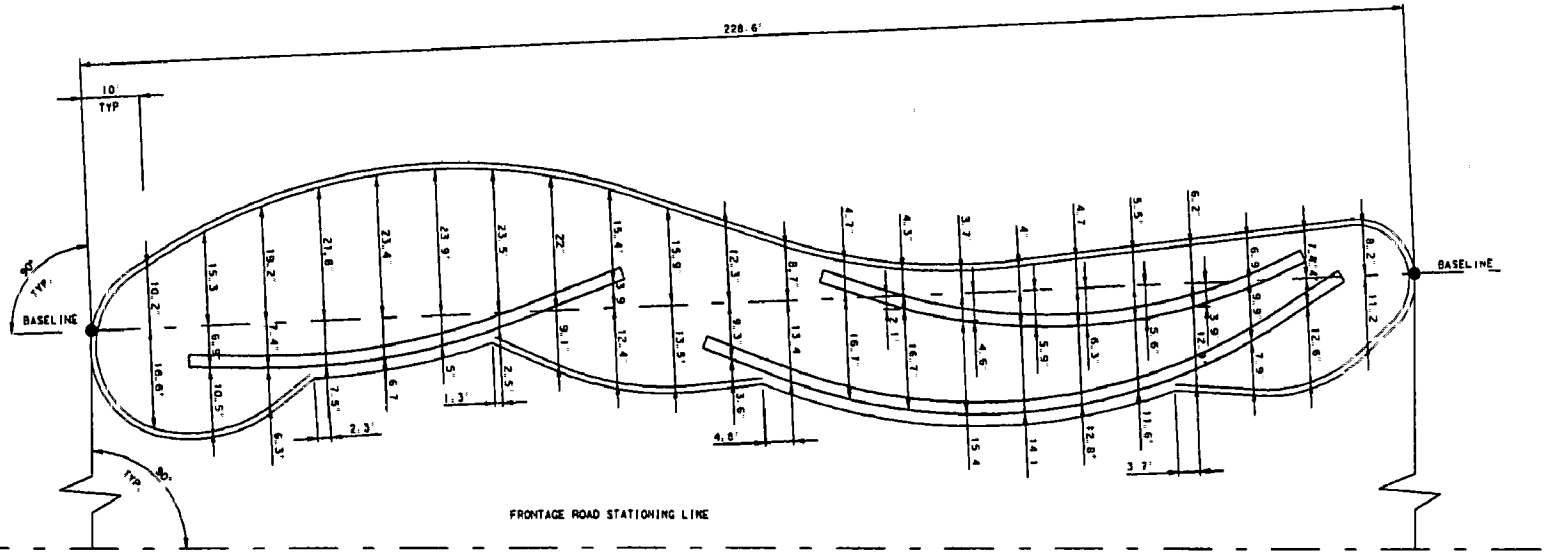
FED	FED AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-4.20

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO.
0440	05	005	SH130



B | PLANTER DETAIL "B"

SCALE • 1"=20'-0"



A | PLANTER DETAIL "A"

SCALE • 1"=20'-0"

0' 5' 10' 20'

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

US 79 MAJOR INTERCHANGE

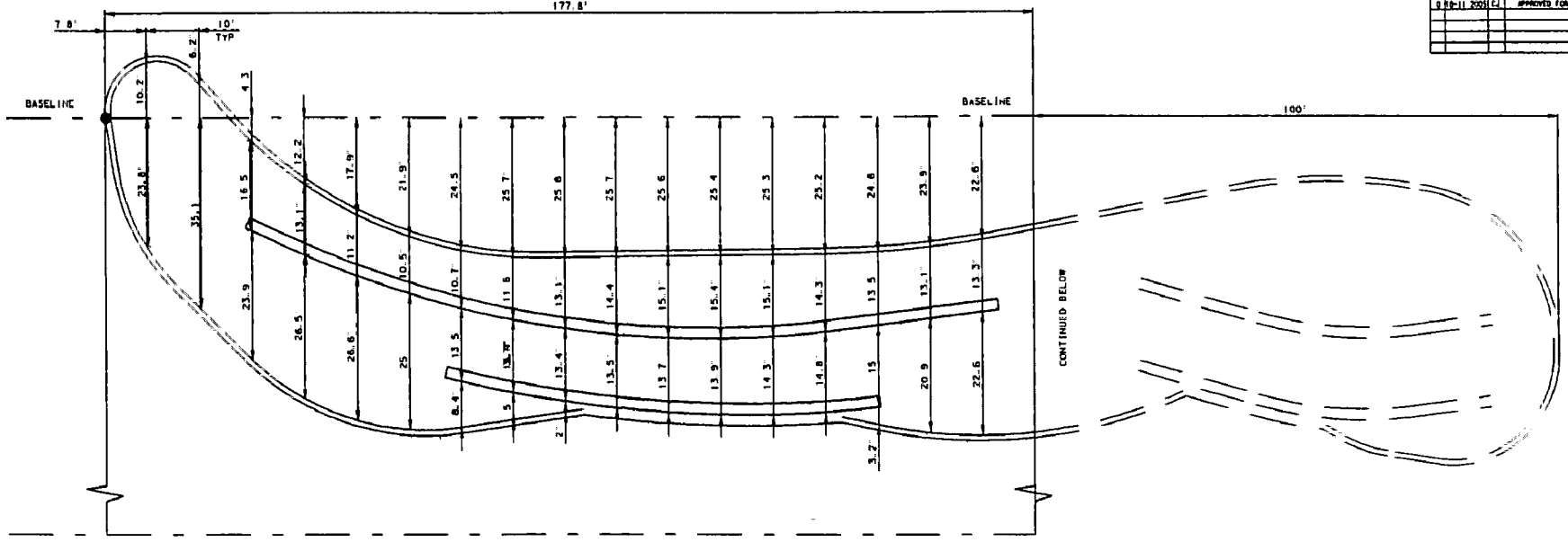
SCALE: 1" = 20

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RBG	DATE:
DRAWN BY: LBJ	CHECKED BY:	DATE: 08 10 01
APPROVED BY:	DATE:	PROJECT NO.

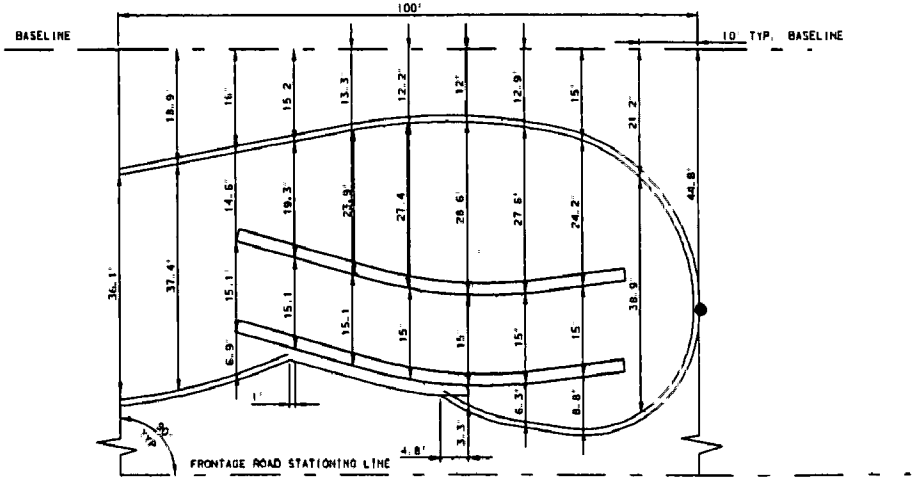
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.21

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



C | PLANTER DETAIL "C"

SCALE = 1"=20'-0"



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SCALE = 1"=20'-0"

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SECMENT 2 , SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

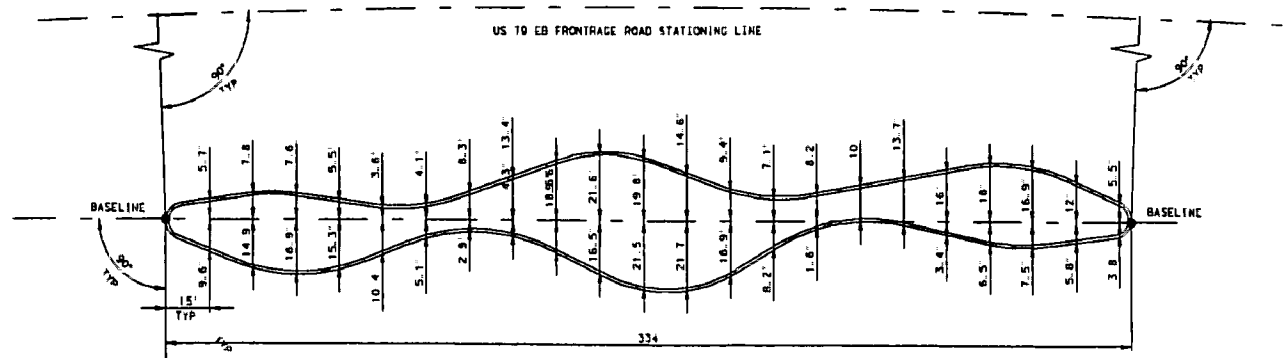
US 79 MAJOR INTERCHANGE

SCALE: 1" = 20'

SHEET OF SHEETS

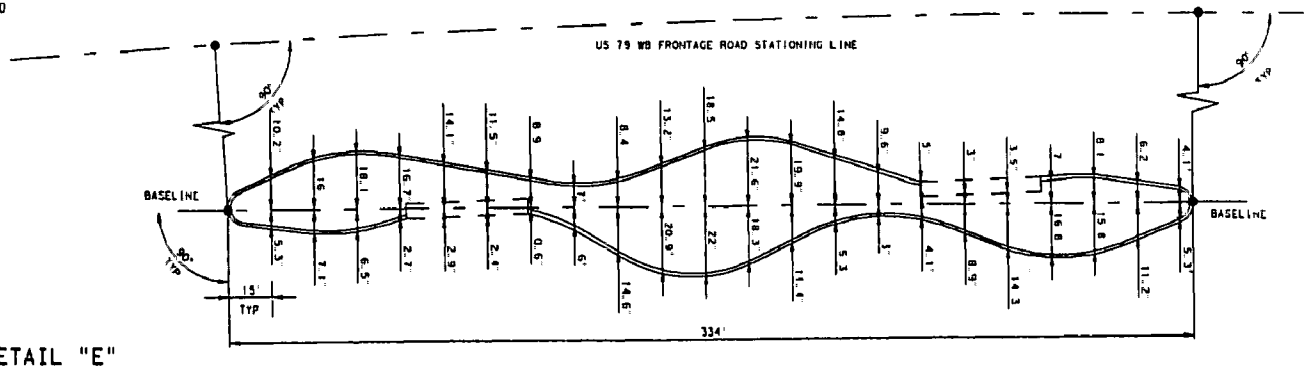
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4.22

STATE	DISTRICT	COUNTY	
Tx	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130



F | PLANTER DETAIL "F"

SCALE = 1"=40'-0



E | PLANTER DETAIL "E"

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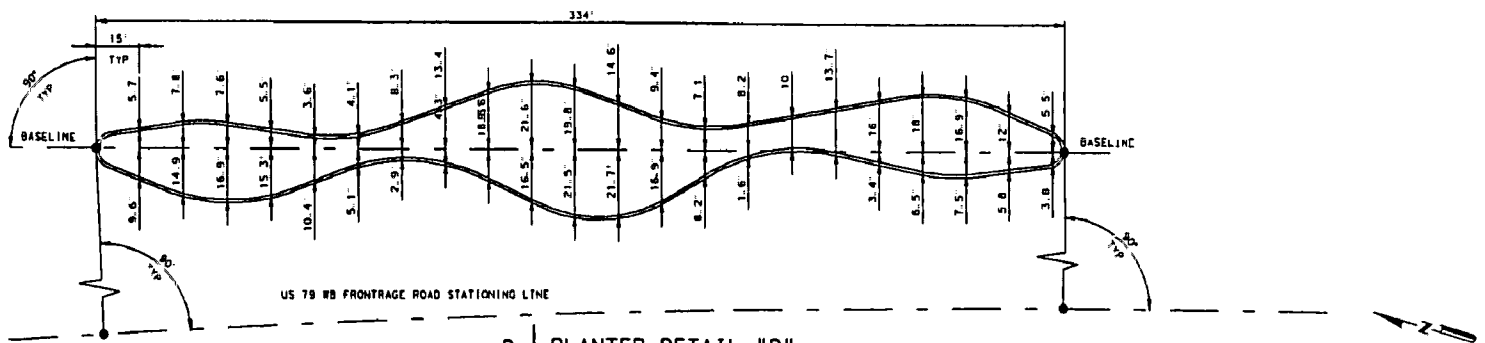

D | PLANTER DETAIL "D"

SCALE = 1"=40'-0"

0' 10' 20' 40'

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DAVIS-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

US 79 MAJOR INTERCHANGE

SCALE: 1" = 40

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RBG	DATE:	
DRAWN BY: EBA	CHECKED BY:	DATE: 08-20-05	
APPROVED BY:	DATE:	PROJECT NO.	
FED. RD. DIV.	PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-4.23
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO.
0440	05	005	SH130

REV	DATE	BY	DESCRIPTION
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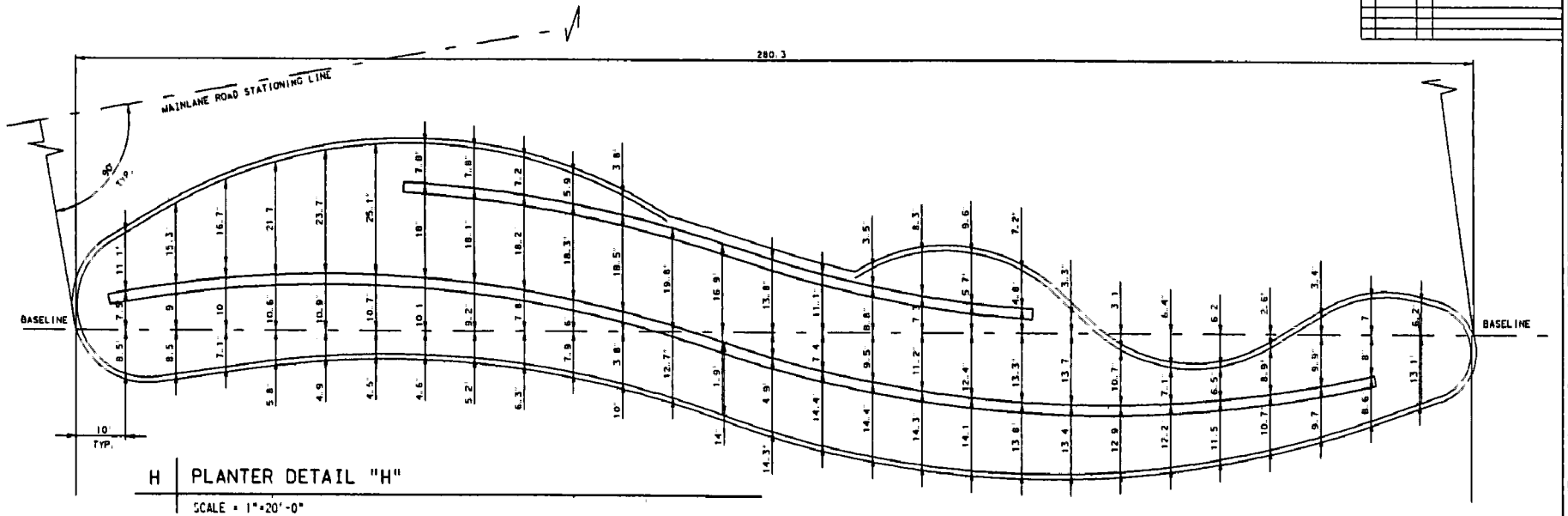
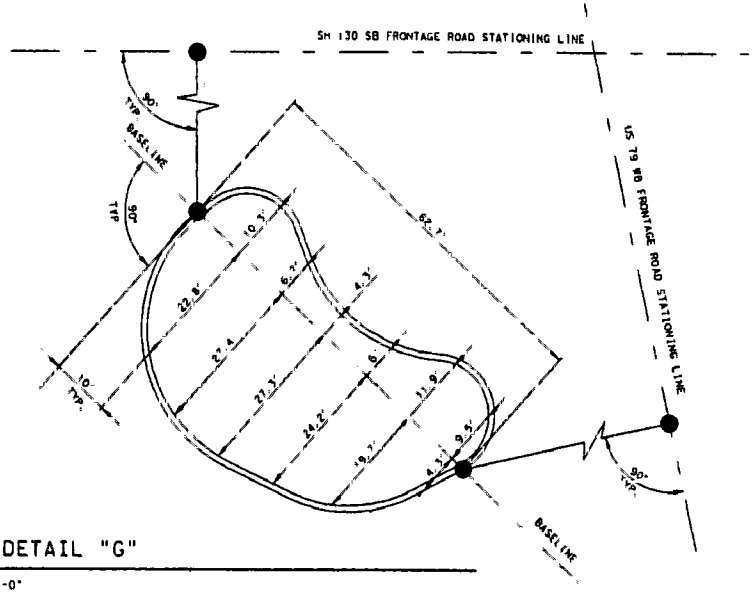


H | PLANTER DETAIL "H"

SCALE = 1"=20'-0"



G | PLANTER DETAIL "G"

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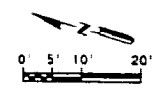


REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DAUN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 05
LANDSCAPE PLANS
PLANTER DETAILS

US 79 MAJOR INTERCHANGE

SCALE: 1" = 20

SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RMO	DATE:
DRAWN BY: CBJ	CHECKED BY:	DATE: 06-20-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-4-24

STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON	
CONT	SECT	JOB	HIGHWAY NO
0440	05	005	SH130

REV	DATE	BY	DESCRIPTION
0	10/15/03	AFL	

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED STATE HIGHWAY IMPROVEMENT TRAVIS COUNTY

FEDERAL AID PROJECT NO:
86-2XXDB001
CSJ: 0440-05-004

LANDSCAPE FOR STATE HIGHWAY 45

OVERALL PLANT LEGEND FOR STATE HIGHWAY 45

THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR'S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS.

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
GC-	GROUND COVER			
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	311	36" O.C.
DF	Dalea frutescens / BLACK DALEA	1g	164	36" O.C.
DG	Dalea greggii / GREGG DALEA	1g	290	36" O.C.
GR-	GRASSES			
MC	Muhlenbergia capillaris / GULF MUHLY	10g	270	60" O.C.
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	406	60" O.C.
SL-	SHRUB - LARGE			
HV	Hamamelis virginiana / WITCH HAZEL	5g	65	
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	100	
RV	Rhus virens / EVERGREEN SUMAC	5g	178	
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	149	
SM-	SHRUB - MEDIUM			
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	302	60" O.C.
LH	Lantana horrida / TEXAS LANTANA	3g	95	60" O.C.
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	86	60" O.C.
RA	Rhus aromatica / AROMATIC SUMAC	5g	32	60" O.C.
RG	Rhus glabra / SMOOTH SUMAC	5g	76	60" O.C.
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	12	60" O.C.
SS-	SHRUB - SMALL			
MO	Malvaviscus drummondii / TURK'S CAP	1g	1164	36" O.C.
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	1332	36" O.C.
RC	Rosa carolina / CAROLINA ROSE	1g	27	36" O.C.

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
TC-	TREES - CANOPY			
CI	Carya illinoiensis / PECAN	2"c	11	
PO	Platanus occidentalis / SYCAMORE	2"c	27	
QM	Quercus macrocarpa / BUR OAK	2"c	70	
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	50	
QP	Quercus polymorpha / MONTERET OAK	2"c	52	
QV	Quercus virginiana / LIVE OAK	2"c	61	
UC	Ulmus crassifolia / CEDAR ELM	2"c	28	
TM-	TREES - MEDIUM			
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	11	
TS-	TREES - SMALL			
CTW	Cercis texensis whitebud / TEXAS WHITEBUD	1"c	19	
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	46	
CL	Chilopsis linearis / DESERT WILLOW	1"c	3	
ID	Ilex decidua / POSSUM HAW	1"c	10	
IV	Ilex vomitoria / YAUPON HOLLY	1"c	38	
PM	Prunus mexicana / MEXICAN PLUM	1"c	49	
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	24	
	OTHER			
	WOOD MULCH	S.F.	78,838	
	SEEDING - WILDFLOWER	S.F.	987,797	
	SEEDING - BLACK LAND PRAIRIE	S.F.	339,147	
	1'-0" CONCRETE MOW CURB	L.F.	5,753	
	2'-0" CONCRETE MOW CURB	L.F.	268	
	DRY STACKED NATIVE STONE WALL	L.F.	2,156	

INDEX OF SHEETS

SH 45	COVER SHEET, SH45 PLANT LEGEND, KEYMAP	L-5.01
	LANDSCAPE PLANS	L-5.02 THRU L-5.10
	HARDSCAPE PLANS	L-5.11 THRU L-5.17
	PLANTER DETAILS	L-5.18 THRU L-5.20

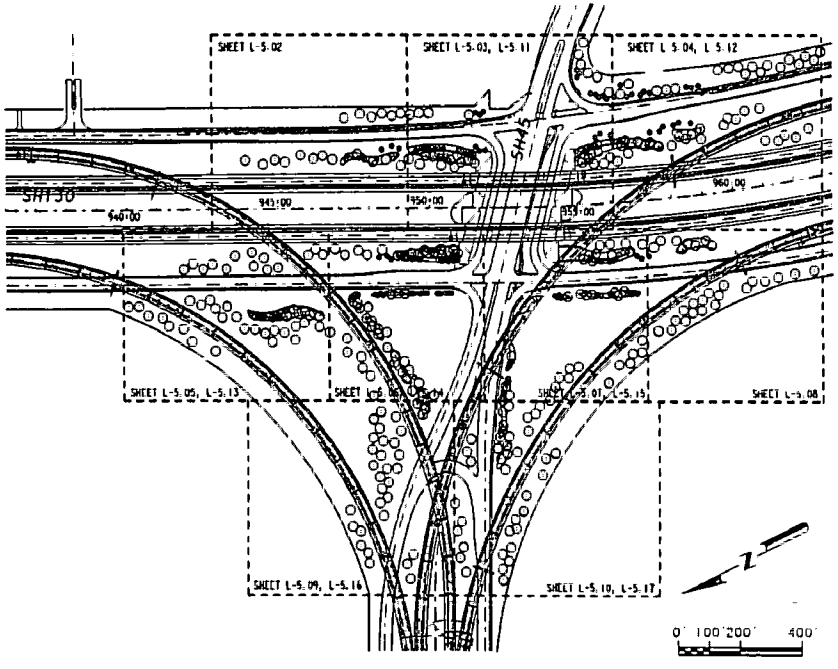
ABBREVIATIONS

g	GALLONS
c	CALIPER
p	POT
L.F.	LINEAR FEET
S.F.	SQUARE FEET
F.F.	FACE FEET
EA	EACH
O.C.	ON CENTER
BL	BASELINE

NOTE

SEE SHEET L-1.05, GENERAL NOTE #3. FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

KEYMAP



REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TC&W WOOD DAMM-HARRIS

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SEGMENT 2, SECTION 06
LANDSCAPE PLANS
COVER SHEET

STATE HIGHWAY 45
INTERCHANGE

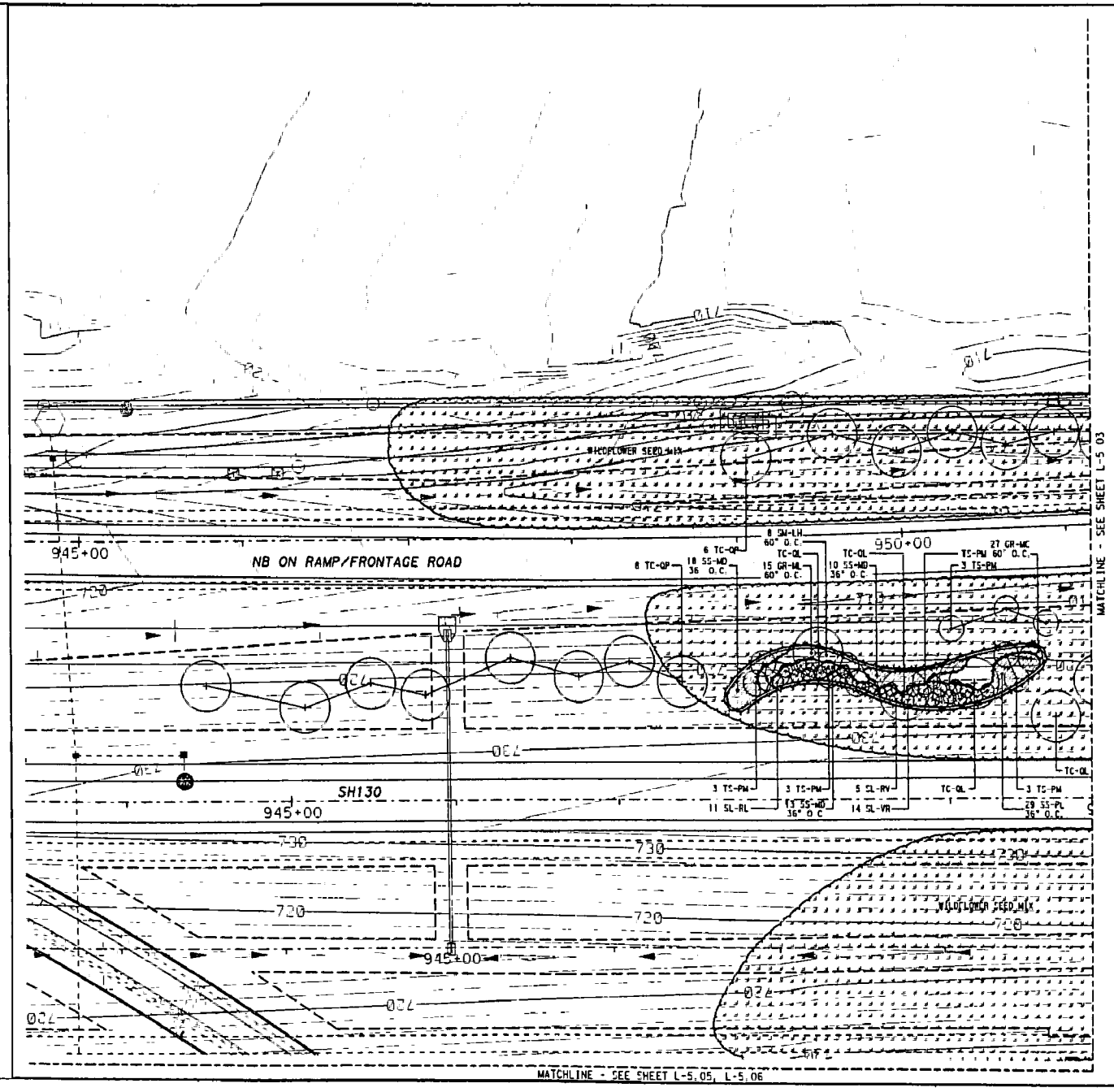
SCALE: 1" = 400

SHEET OF SHEETS

DESIGNED BY: RMG	CHECKED BY: RG	DATE:
DRAWN BY: AMK	CHECKED BY:	DATE: 08.29.03
APPROVED BY:	DATE	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5.01

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	0
DF	Dalea frutescens / BLACK DALEA	1g	0
DG	Dalea greggii / GREGG DALEA	1g	0
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	1Gg	27
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	15
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	11
RV	Rhus virens / EVERGREEN SUMAC	5g	5
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	14
SW-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	0
LH	Lantana horrida / TEXAS LANTANA	3g	8
LA	Lonicera albiflora / WHITE HONEYSUCKLE	1g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	0
RC	Rhus albida / SMOOTH SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	41
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	29
RC	Rosa carolina / CAROLINA ROSE	1g	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2 c	0
QM	Quercus macrocarpa / BUR OAK	2"c	4
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	14
QP	Quercus polymorpha / MONTERCY OAK	2"c	0
QV	Quercus virginiana / LIVE OAK	2"c	0
UC	Ulmus crassifolia / CEDAR ELM	2 c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1"c	0
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	0
CL	Chilopsis linearis / DESERT WILLOW	1 c	0
ID	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1 c	13
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	0
	OTHER		
	WOOD MULCH	S.F.	3,931
	SEEDING - WILDFLOWER	S.F	77,283
	SEEDING BLACK LAND PRAIRIE	S.F.	0
	PLANTING SETBACK LINE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REV	DATE	BY	DESCRIPTION
0	10/1/05		

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/1/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

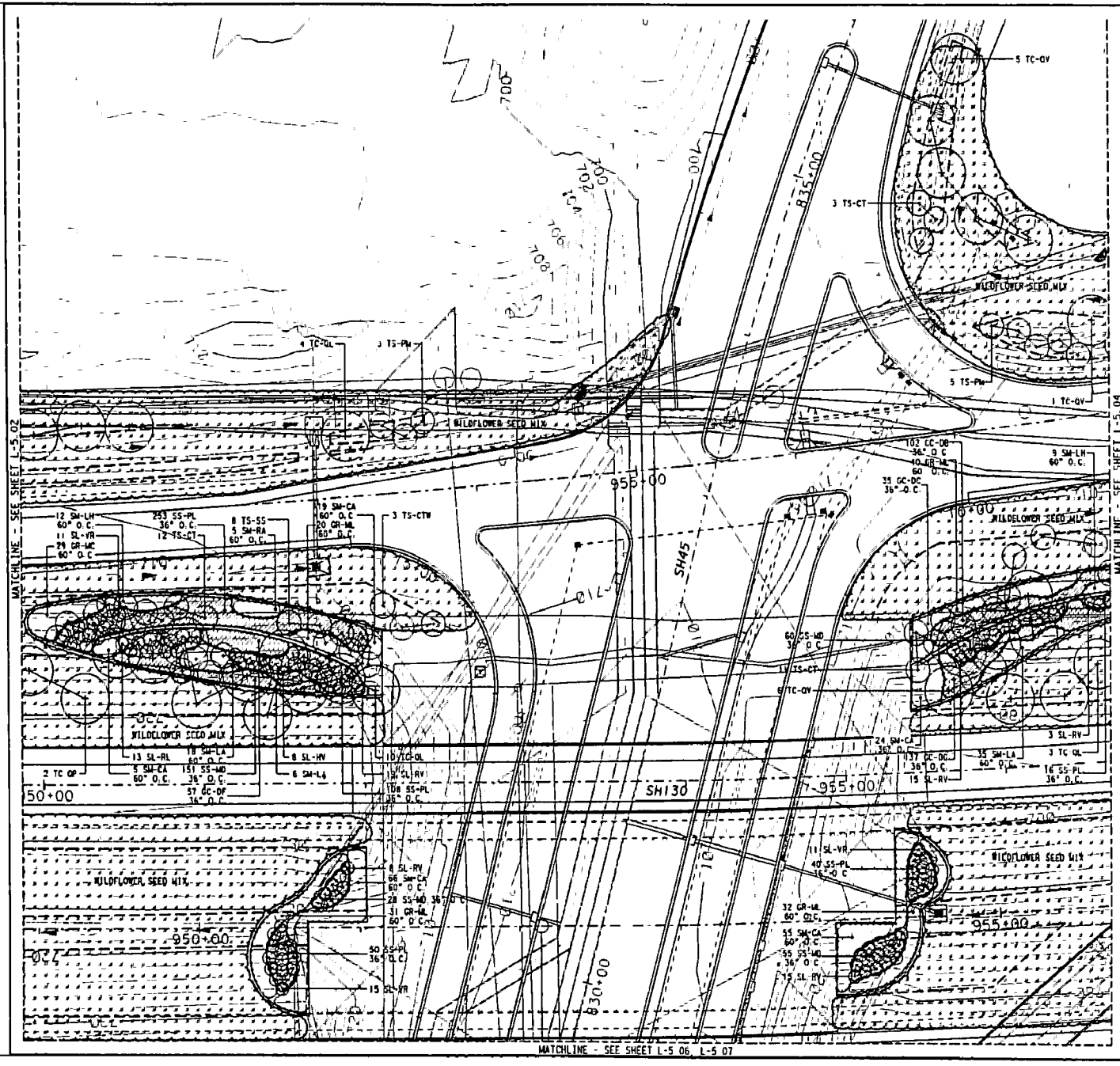
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: GMR	CHECKED BY:	DATE:
APPROVED BY:	DATE:	PROJECT NO:

FED RD DIV	FED RD PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5 02

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrata / SILVER DALEA	1g	102
DF	Dalea frutescens / BLACK DALEA	1g	57
DG	Dalea greggii / GREGG DALEA	1g	177
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	29
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	123
SL-	SHRUB LARGE		
HV	Hamamelis virginiana / Witch Hazel	5g	8
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	11
RV	Rhus virens / EVERGREEN SUMAC	5g	60
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	37
SM-	SHRUB MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	169
LH	Lonicera hirsuta / TEXAS LANIANA	3g	21
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	59
RA	Rhus aromatica / AROMATIC SUMAC	5g	5
RG	Rhus glabra / SMOOTH SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	294
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	467
RC	Rosa carolina / CAROLINA ROSE	1g	0

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis / PECAN	2" c	0
PO	Platanus occidentalis / SYCAMORE	2" c	0
QM	Quercus macrocarpa / BUR OAK	2" c	17
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2" c	2
QP	Quercus polymorpha / MONTERET OAK	2" c	12
QV	Quercus virginiana / LIVE OAK	2" c	0
UC	Ulmus crassifolia / CEDAR ELM	2" c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1" c	0
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1" c	3
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1" c	26
CL	Chilopsis linearis / DESERT WILLOW	1" c	0
ID	Ilex decidua / POSSUM HAW	1" c	0
IV	Ilex vomitoria / YAUPON HOLLY	1" c	0
PM	Prunus mexicana / MEXICAN PLUM	1" c	8
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2" c	8
	OTHER		
	WOOD MULCH	S.F.	21 255
	SEEDING - WILDFLOWER	S.F.	94,639
	SEEDING - BLACK LAND PRAIRIE	S.F.	0
	PLANTING SETBACK LINE		

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLASNER
2134
STATE OF TEXAS
6/10/05

TEAM MEMBER
DAUM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

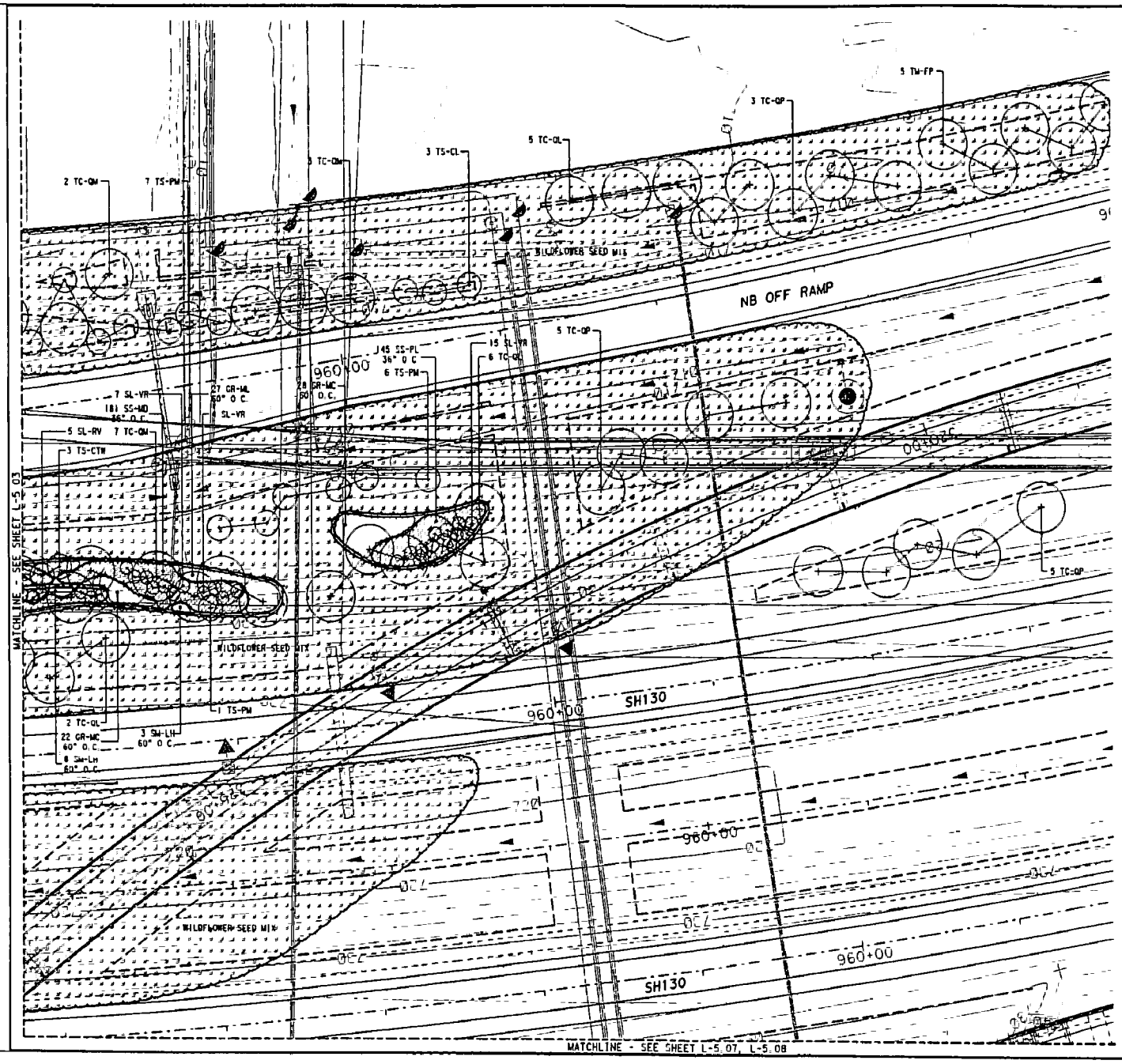
SCALE: 1" = 60'

SHEET OF SHEETS

FED AID PROJECT NO	SHEET NAME	DWG NO
6 BS-2XXDB001		L-5.03

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
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PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	0
DF	Dalea frutescens / BLACK DALEA	1g	0
DG	Dalea greggii / GREGG DALEA	1g	0
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	50
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	27
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	0
RV	Rhus virens / EVERGREEN SUMAC	5g	5
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	26
SM-	SHRUB - MEDIUM		
GA	Gallizaria americana / AMERICAN BEAUTYBERRY	5g	0
LM	Lantana horrida / TEXAS LANTANA	5g	11
LA	Lonicera albiflora / WHITE HONEYSUCKLE	5g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	0
RC	Rhus glabra / SMOOTH SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	181
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	145
RC	Rosa carolina / CAROLINA ROSE	1g	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	12
QM	Quercus macrocarpa / BUR OAK	2"c	13
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	13
QP	Quercus polymorpha / MONTERREY OAK	2"c	0
QV	Quercus virginiana / LIVE OAK	2"c	0
UC	Ulmus crassifolia / CEDAR ELM	2"c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pennsylvanica v. texensis / TEXAS ASH	1"c	5
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1 c	3
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	0
CL	Chilopsis linearis / DESERT WILLOW	1 c	3
ID	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	14
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	0
	OTHER		
	WOOD MULCH	S.F.	6,347
	SEEDING - WILDFLOWER	S.F.	146,366
	SEEDING - BLACK LAND PRAIRIE	S.F.	0
	PLANTING SETBACK LINE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAWN HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

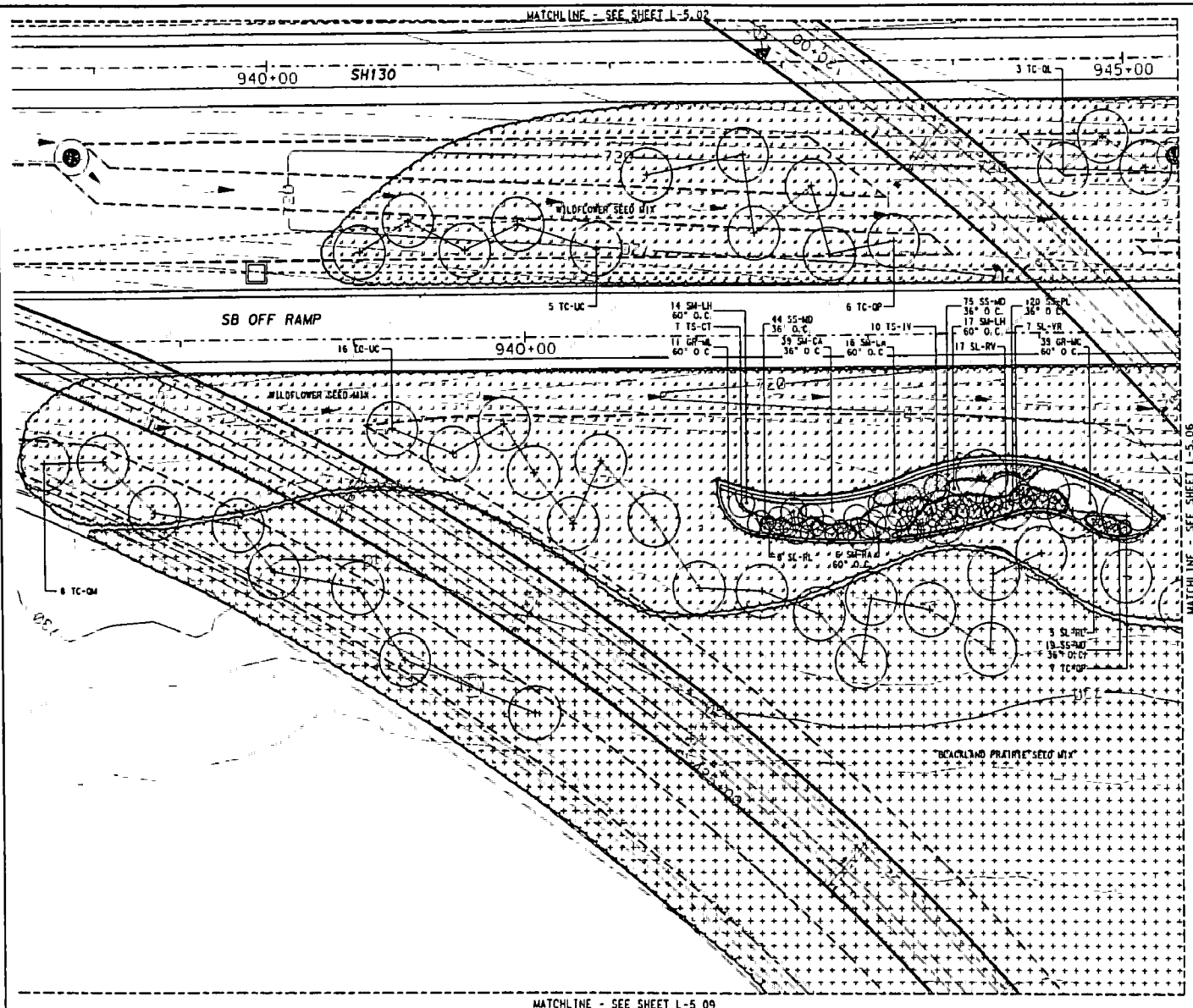
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: DWH	CHECKED BY:	DATE: 09/20/01
APPROVED BY:	DATE:	PROJECT NO

FED AID PROJECT NO	SHEET NAME	DWG NO
6 86-2XXDB001		L-5.04

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60'



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	0
DF	Dalea frutescens / BLACK DALEA	1g	0
DG	Dalea greggii / GREGG DALEA	1g	0
GR-	GRASSES		
MC	Muhlenbergia capillaris	10g	39
	GULF MUHLY		
ML	Muhlenbergia lindheimeri	5g	11
	LINDHEIMER MUHLY		
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana	5g	0
	WITCH HAZEL		
RL	Rhus lanceolata	5g	13
	PRAIRIE FLAMELEAF SUMAC		
RV	Rhus virens	5g	17
	EVERGREEN SUMAC		
VR	Viburnum rufidulum	5g	7
	RUSTY BLACKHAW		
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana	1g	39
	AMERICAN BEAUTYBERRY		
LH	Lantana horrida	1g	31
	TEXAS LANTANA		
LA	Lonicera albiflora	1g	16
	WHITE HONEYSUCKLE		
RA	Rhus aromatica	5g	6
	AROMATIC SUMAC		
RG	Rhus glabra	5g	0
	SMOOTH SUMAC		
TS	Tecoma stans v. angustata	5g	0
	YELLOW BELLS		
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii	1g	138
	TURK'S CAP		
PL	Pavonia lasiopetala	1g	120
	ROSE PAVONIA		
RC	Rosa carolina	1g	0
	CAROLINA ROSE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis	2"c	0
	PECAN		
PO	Platanus occidentalis	2"c	8
	SYCAMORE		
QM	Quercus macrocarpa	2"c	3
	BUR OAK		
QL	Quercus muhlenbergii	2"c	13
	CHINQUAPIN OAK		
QP	Quercus polymorpha	2"c	0
	MONTERREY OAK		
QV	Quercus virginiana	2"c	0
	LIVE OAK		
UC	Ulmus crassifolia	2"c	21
	CEDAR ELM		
TM-	TREES - MEDIUM		
FP	Fraxinus pennsylvanica v. texensis	1"c	0
	TEXAS ASH		
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud'	1"c	0
	TEXAS WHITEBUD		
CT	Cercis canadensis v. texensis	1"c	7
	TEXAS REDBUD		
CL	Chilopsis linearis	1"c	0
	DESERT WILLOW		
IO	Ilex decidua	1"c	0
	POSSUM HAW		
IV	Ilex vomitoria	1"c	10
	TAUPON HOLLY		
PM	Prunus mexicana	1"c	0
	MEXICAN PLUM		
SS	Sophora secundiflora	2"c	0
	TEXAS MOUNTAIN LAUREL		
	OTHER		
	WOOD MULCH	S.F.	7,475
	SEEDING WILDFLOWER	S.F.	110,421
	SEEDING - BLACK LAND PRAIRIE	S.F.	97,284
	PLANTING SETBACK LINE		

REV	DATE	BY	DESCRIPTION
0	10/10/05		

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DALBY-MARRES

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLAN
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60

SHEET OF SHEETS

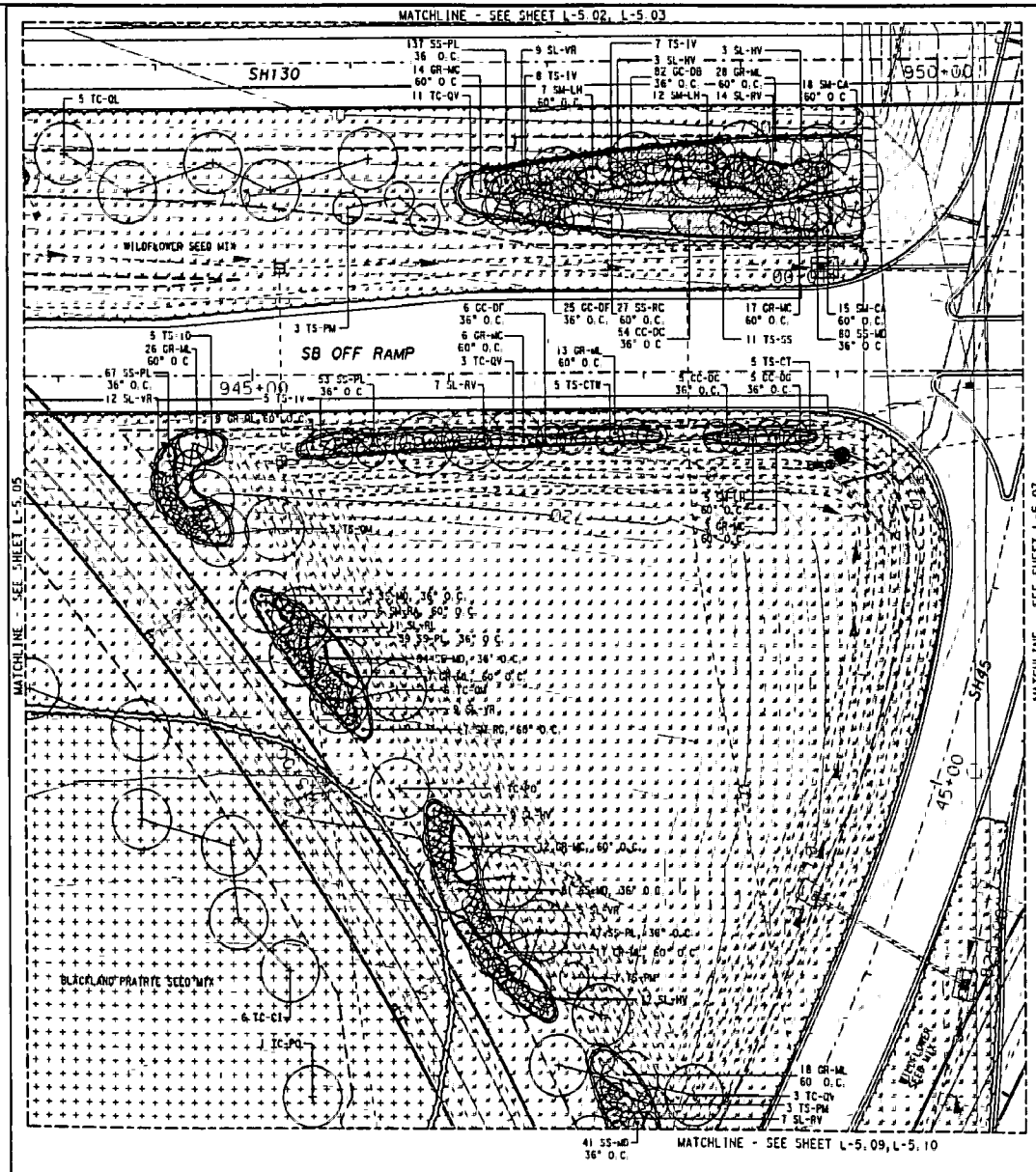
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06 10 05
APPROVED BY: RG-CI	DATE:	PROJECT NO.

FED. RD. DIV.	PROJECT NO.	SHEET NAME	DWG. NO.
6	BE-2XXD8001		L 5 05

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

0' 15' 30' 60'



MK	DATE	BY	DESCRIPTION
3	10/11/05	[illegible]	

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	82
DF	Dalea frutescens / BLACK DALEA	1g	31
DG	Dalea greggii / GREGG DALEA	1g	64
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	52
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	118
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	27
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	11
RV	Rhus virens / EVERGREEN SUMAC	5g	28
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	15
SW-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	33
LH	Lantana horrida / TEXAS LANTANA	1g	24
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	6
RC	Rhus glabra / SMOOTH SUMAC	5g	7
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	259
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	291
RC	Rosa carolina / CAROLINA ROSE	1g	27

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoensis / PECAN	2"c	6
PO	Platanus occidentalis / SYCAMORE	2 c	9
QM	Quercus macrocarpa / BUR OAK	2"c	9
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	5
QP	Quercus polymorpha / MONTERCY OAK	2"c	0
QV	Quercus virginiana / LIVE OAK	2 c	17
UC	Ulmus crassifolia / CEDAR ELM	2 c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pennsylvanica v. texensis / TEXAS ASH	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1 c	5
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	5
CL	Chilopsis linearis / DESERT WILLOW	1 c	0
ID	Ilex decidua / POSSUM HAW	1"c	5
IV	Ilex vomitoria / YAUPON HOLLY	1"c	20
PM	Prunus mexicana / MEXICAN PLUM	1"c	7
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	11
	OTHER		
	WOOD MULCH	S.F.	16,690
	SEEDING - WILDFLOWER	S.F.	151,635
	SEEDING - BLACK LAND PRAIRIE	S.F.	38,437
	PLANTING SETBACK LINE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DAUM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION © 2005

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

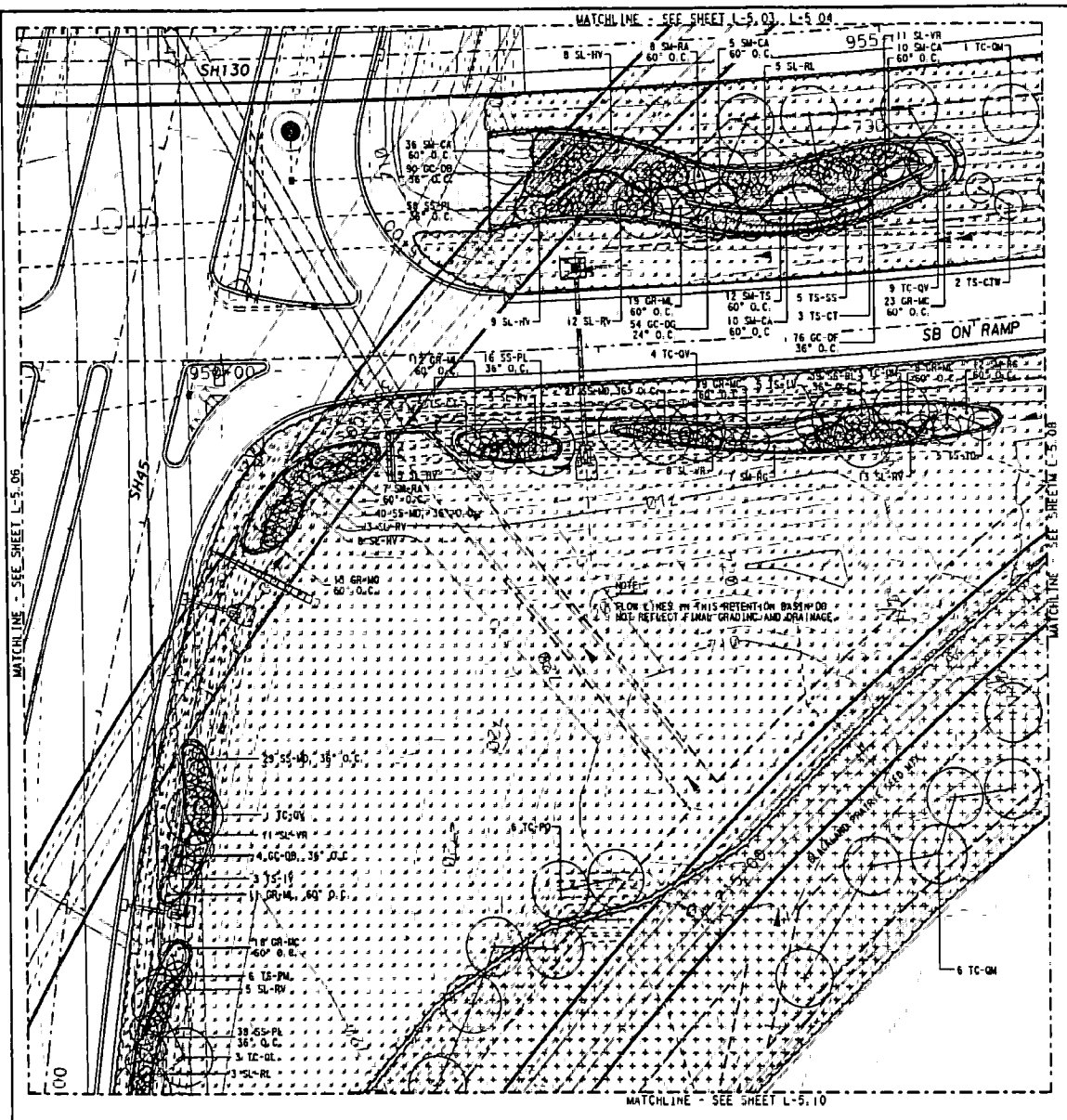
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMB	CHECKED BY:	DATE: 10-10-05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	B6-2XXDB001		L-5.06

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60'



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	94
DF	Dalea frutescens / BLACK DALEA	1g	76
DG	Dalea greggii / GREGG DALEA	1g	54
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	73
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	50
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	30
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	8
RV	Rhus virens / EVERGREEN SUMAC	5g	38
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	30
SW-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	61
LH	Lantana horrida / TEXAS LANTANA	3g	0
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	15
RG	Rhus glabra / SMOOTH SUMAC	5g	19
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	12
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	90
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	151
RC	Rosa carolina / CAROLINA ROSE	1g	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	9
QM	Quercus macrocarpa / BUR OAK	2"c	10
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	3
QP	Quercus polymorpha / MONTERREY OAK	2"c	6
QV	Quercus virginiana / LIVE OAK	2"c	14
UC	Ulmus crassifolia / CEDAR ELM	2"c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis whitebud / TEXAS WHITEBUD	1"c	2
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	8
CL	Chilopsis linearis / DESERT WILLOW	1"c	0
ID	Ilex decidua / POSSUM HAW	1"c	5
IV	Ilex vomitoria / YAUPON HOLLY	1"c	8
PM	Prunus mexicana / MEXICAN PLUM	1"c	6
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	5
	OTHER		
	WOOD MULCH	S.F.	15,869
	SEEDING - WILDFLOWER	S.F.	140,969
	SEEDING - BLACK LAND PRAIRIE	S.F.	36,122
	PLANTING SETBACK LINE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADNEY
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
OMM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

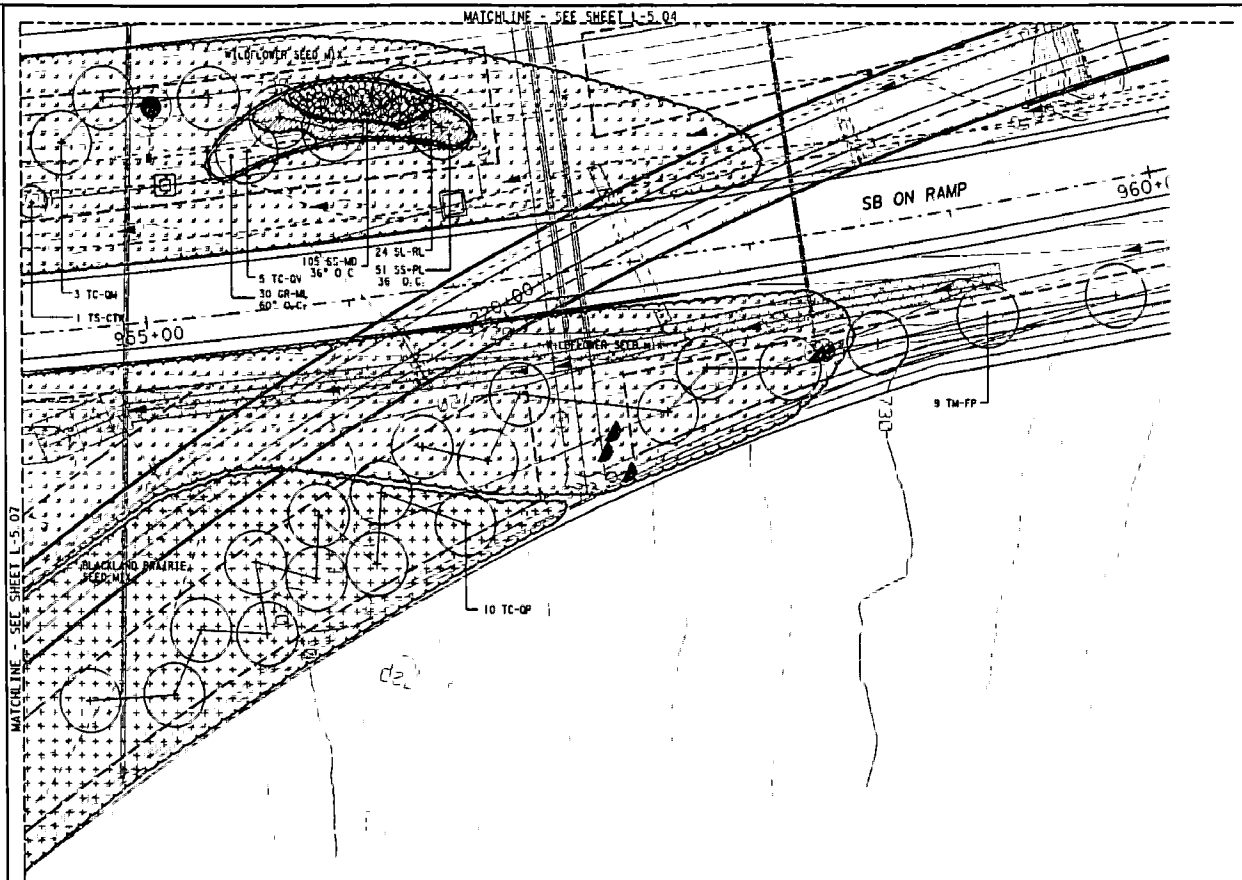
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:	
DRAWN BY: MMR	CHECKED BY:	D-H: PM PB PJ	
APPROVED BY:	DATE:	PROJECT NO.	
FED AID PROJECT NO.		SHEET NAME	DWG NO.
6 BG-2XXDB001			L-5.07

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

0' 15' 30' 60'



REV	DATE	BY	DESCRIPTION
0	10/10/05		

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyraea / SILVER DALEA	1g	0
DF	Dalea frutescens / BLACK DALEA	1g	0
DG	Dalea greggii / GREGG DALEA	1g	0
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	0
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	30
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	24
RV	Rhus virens / EVERGREEN SUMAC	5g	0
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	0
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	0
LH	Lantana horrida / TEXAS LANTANA	3g	0
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	0
RC	Rhus glabra / SMOOTH SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB - SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	105
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	51
RC	Rosa carolina / CAROLINA ROSE	1g	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoiensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	0
QM	Quercus macrocarpa / BUR OAK	2"c	3
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	0
QP	Quercus polymorpha / MONTEREY OAK	2"c	10
QV	Quercus virginiana / LIVE OAK	2"c	5
UC	Ulmus crassifolia / CEDAR ELM	2"c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	9
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS WHITEBUD	1"c	0
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	0
CL	Chilopsis linearis / DESERT WILLOW	1"c	0
ID	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / TAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	0
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	0
	OTHER		
	WOOD MULCH	S.F.	3,003
	SEEDING - WILDFLOWER	S.F.	58,609
	SEEDING BLACK LAND PRAIRIE	S.F.	22,504

PLANTING SETBACK LINE

NOTE:

SEE SHEET L-1 05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLAN
PLANTING PLANS

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

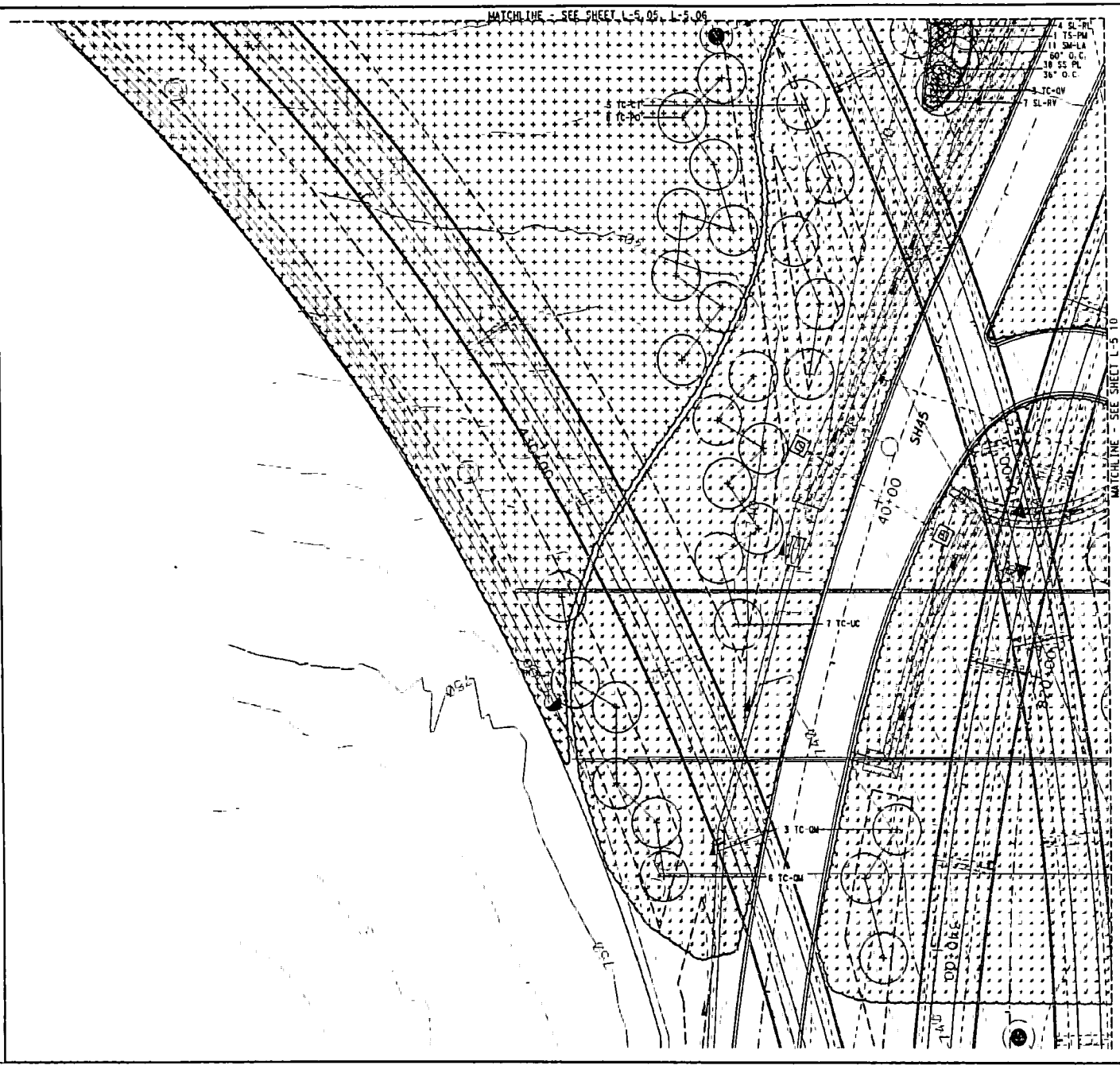
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06 20 03
APPROVED BY:	DATE:	PROJECT NO:

FED. RD.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-5 08

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

0' 15' 30' 60'



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argentea / SILVER DALEA	1g	0
DF	Dalea frutescens / BLACK DALEA	1g	0
DG	Dalea greggii / GREGG DALEA	1g	0
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	0
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	0
SL-	SHRUB LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	4
RV	Rhus virens / EVERGREEN SUMAC	5g	7
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	0
SM-	SHRUB MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	0
LH	Lantana horrida / TEXAS LANTANA	3g	0
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	11
RA	Rhus aromatica / AROMATIC SUMAC	5g	0
RG	Rhus glabra / SMOOTH SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB Small		
MD	Malvaviscus drummondii / TURK'S CAP	1g	0
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	38
RC	Rosa carolina / CAROLINA ROSE	1g	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES - CANOPY		
CI	Carya illinoinensis / PECAN	2"c	5
PO	Platanus occidentalis / SYCAMORE	2"c	8
QM	Quercus macrocarpa / BUR OAK	2"c	9
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	0
QP	Quercus polymorpha / MONTERREY OAK	2"c	0
QV	Quercus virginiana / LIVE OAK	2"c	3
UC	Ulmus crassifolia / CEDAR ELM	2"c	7
TM-	TREES - MEDIUM		
FP	Fraxinus pennsylvanica v. texensis / TEXAS ASH	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis 'whitebud' / TEXAS REDBUD	1"c	0
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	0
CL	Chilopsis linearis / DESERT WILLOW	1"c	0
IO	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	1
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	0
	OTHER		
	WOOD MULCH	S.F.	1,139
	SEEDING - WILDFLOWER	S.F.	127,318
	SEEDING - BLACK LAND PRAIRIE	S.F.	90,961
	PLANTING SETBACK LINE		

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10/10/07		RFS

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/07

TEAM MEMBER
DAWN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

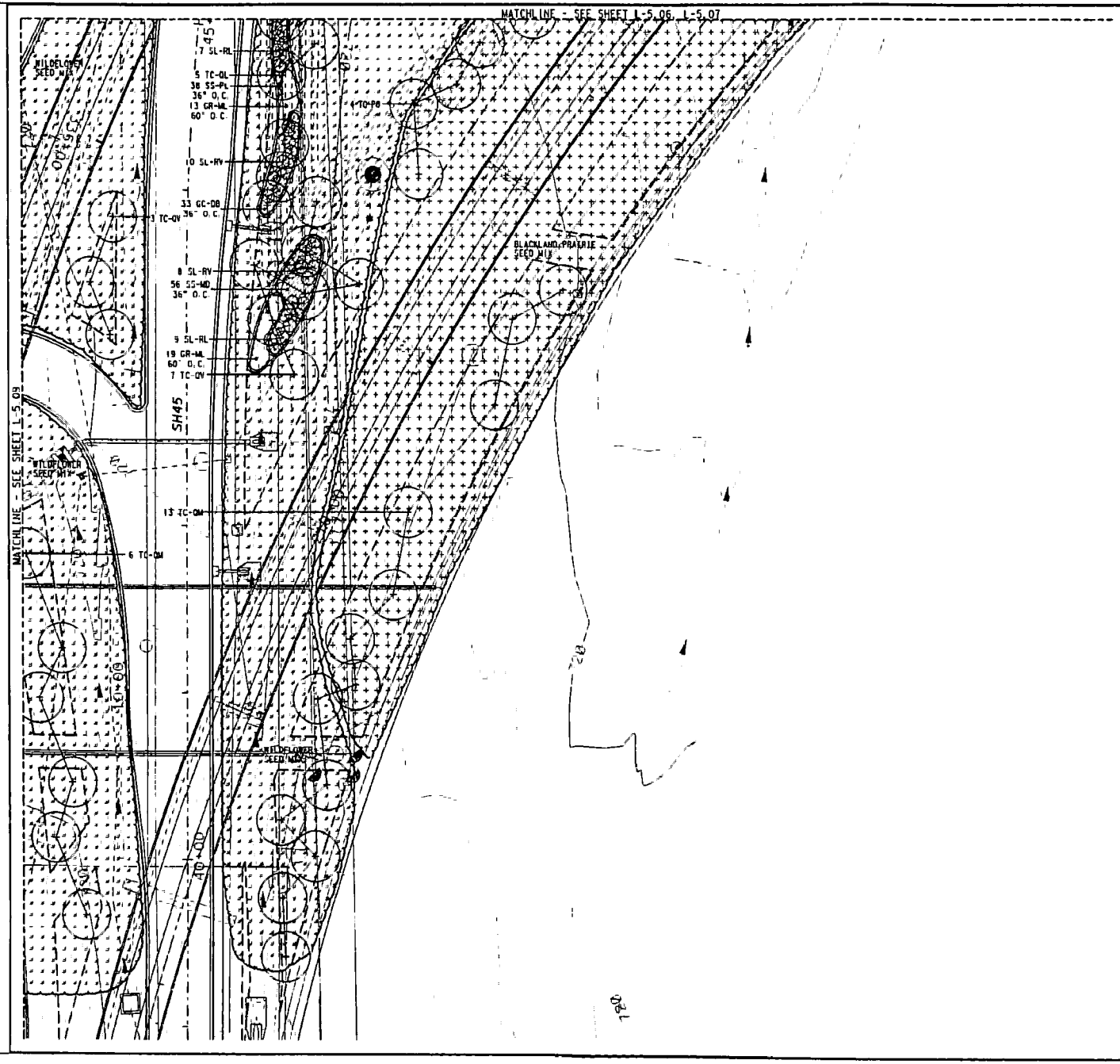
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06 18-09
APPROVED BY:	DATE:	PROJECT NO:

FED RD DIV	PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5 09

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/10/05		

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GC-	GROUND COVER		
DB	Dalea bicolor v. argyrea / SILVER DALEA	1g	33
DF	Dalea frutescens / BLACK DALEA	1g	0
DG	Dalea greggii / GREGG DALEA	1g	0
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	10g	0
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	32
SL-	SHRUB - LARGE		
HV	Hamamelis virginiana / WITCH HAZEL	5g	0
RL	Rhus lanceolata / PRAIRIE FLAMELEAF SUMAC	5g	16
RV	Rhus virens / EVERGREEN SUMAC	5g	18
VR	Viburnum rufidulum / RUSTY BLACKHAW	5g	0
SM-	SHRUB - MEDIUM		
CA	Callicarpa americana / AMERICAN BEAUTYBERRY	3g	0
LH	Lantana horrida / TEXAS LANTANA	3g	0
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	0
RA	Rhus aromatica / AROMATIC SUMAC	5g	0
RG	Rhus glabra / SMOOTH SUMAC	5g	0
TS	Tecoma stans v. angustata / YELLOW BELLS	5g	0
SS-	SHRUB SMALL		
MD	Malvaviscus drummondii / TURK'S CAP	1g	56
PL	Pavonia lasiopetala / ROSE PAVONIA	1g	36
RC	Rosa carolina / CAROLINA ROSE	1g	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TC-	TREES CANOPY		
CI	Carya illinoiensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	4
QM	Quercus macrocarpa / BUR OAK	2"c	19
QL	Quercus muhlenbergii / CHINQUAPIN OAK	2"c	5
QP	Quercus polymorpha / MONTEREY OAK	2"c	0
QV	Quercus virginiana / LIVE OAK	2"c	10
UC	Ulmus crassifolia / CEDAR ELM	2"c	0
TM-	TREES - MEDIUM		
FP	Fraxinus pensylvanica v. texensis / TEXAS ASH	1"c	0
TS-	TREES - SMALL		
CTW	Cercis texensis whitebud / TEXAS WHITEBUD	1"c	0
CT	Cercis canadensis v. texensis / TEXAS REDBUD	1"c	0
CL	Chilopsis linearis / DESERT WILLOW	1"c	0
ID	Ilex decidua / POSSUM HAW	1"c	0
IV	Ilex vomitoria / YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	0
SS	Sophora secundiflora / TEXAS MOUNTAIN LAUREL	2"c	0
	OTHER		
	WOOD MULCH	S.F.	3,129
	SEEDING - WILDFLOWER	S.F.	80,755
	SEEDING - BLACK LAND PRAIRIE	S.F.	54,437

PLANTING SETBACK LINE

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UNTILITIES.

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DIMM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
PLANTING PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

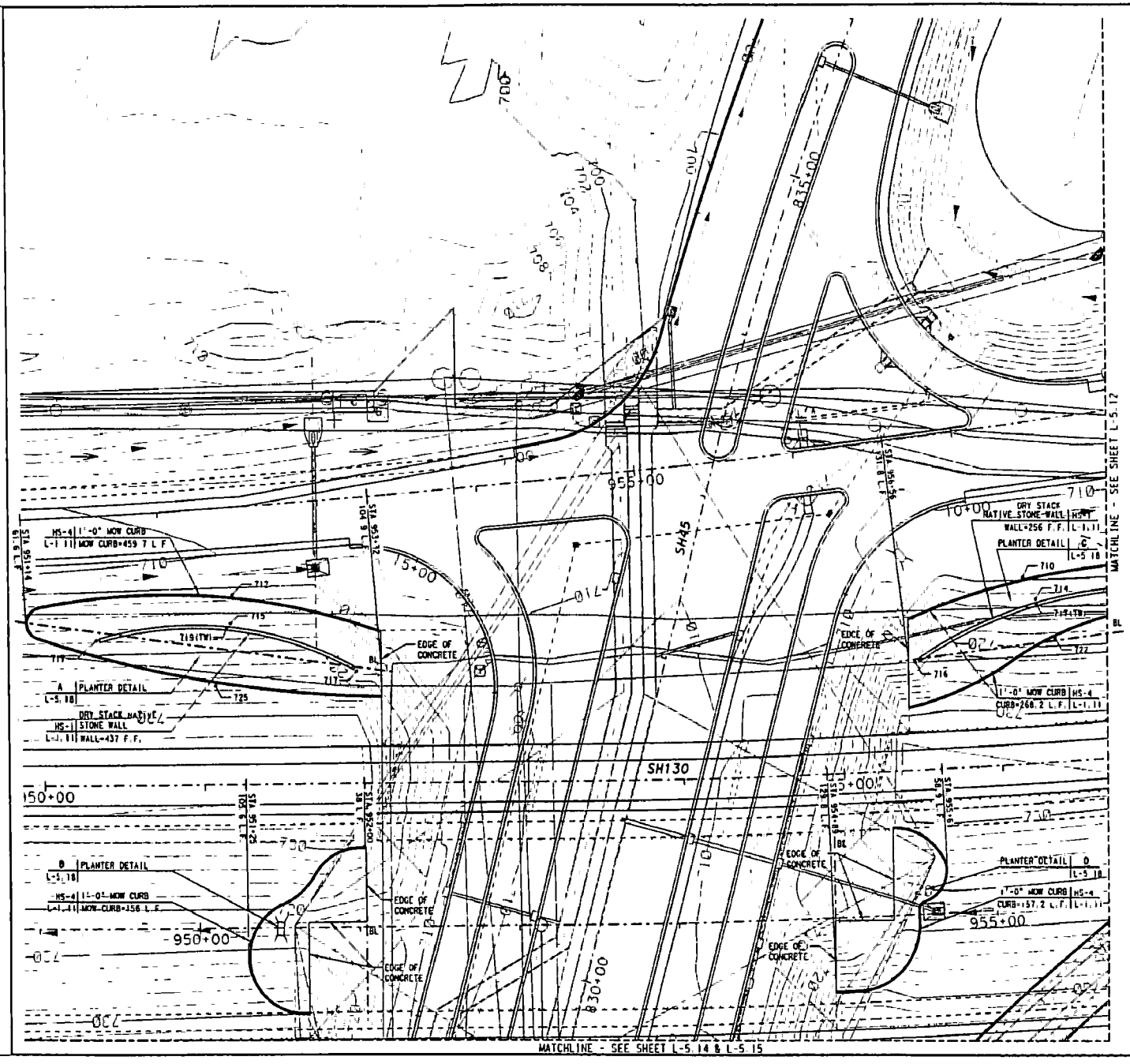
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DB	DATE:
DRAWN BY: JAMS	CHECKED BY:	DATE: 08 10 05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5.10

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	[illegible]		[illegible]

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	1,041
2'-0" CONCRETE MOW CURB	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	693
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
1/10/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

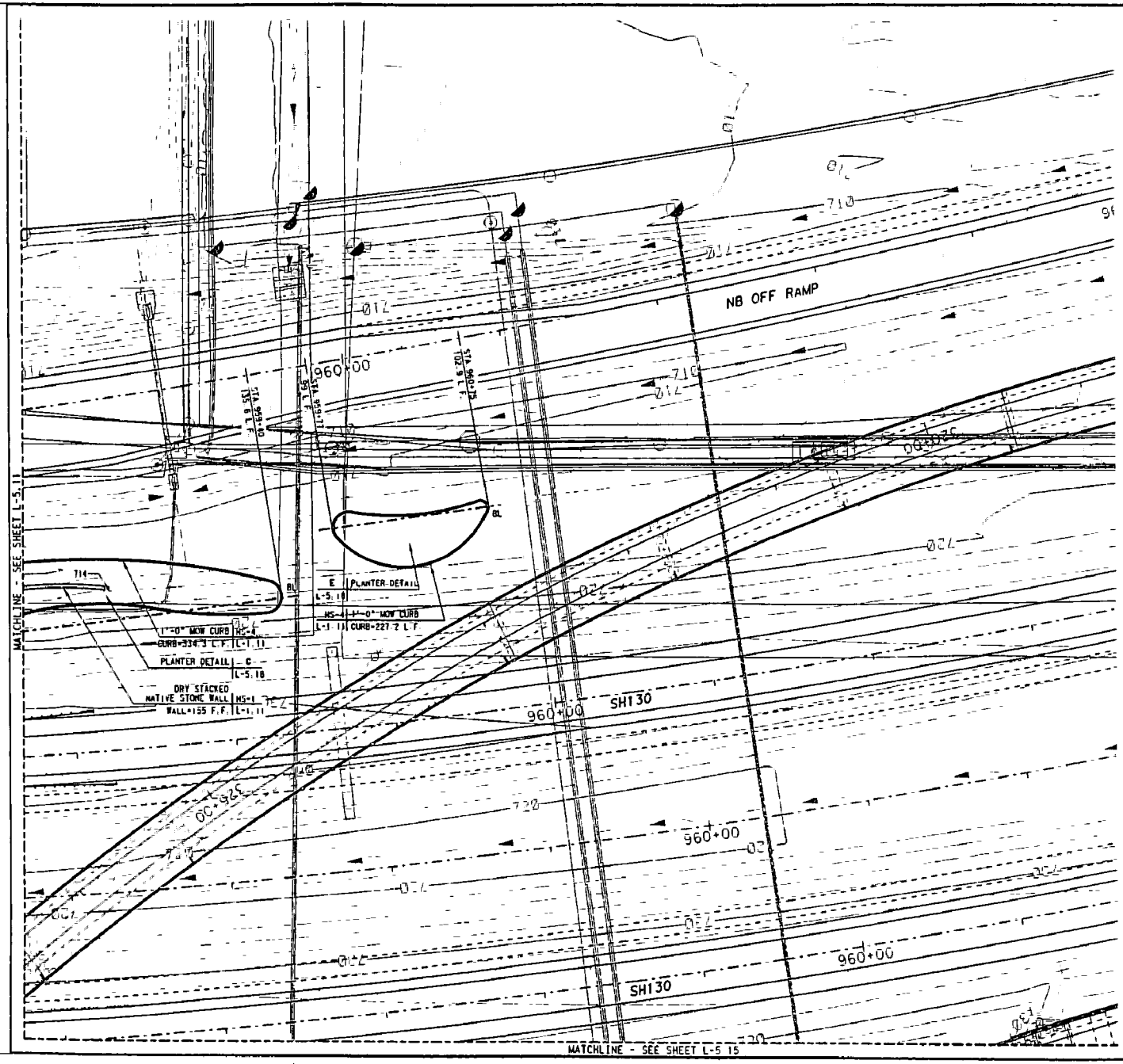
SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:	
DRAWN BY: AMS	CHECKED BY:	DATE: 06 20 05	
APPROVED BY:	DATE:	PROJECT NO:	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5.11
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		APL

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	562
2'-0" CONCRETE MOW CURB	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	155
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
OMNI-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

STATE HIGHWAY 45
INTERCHANGE

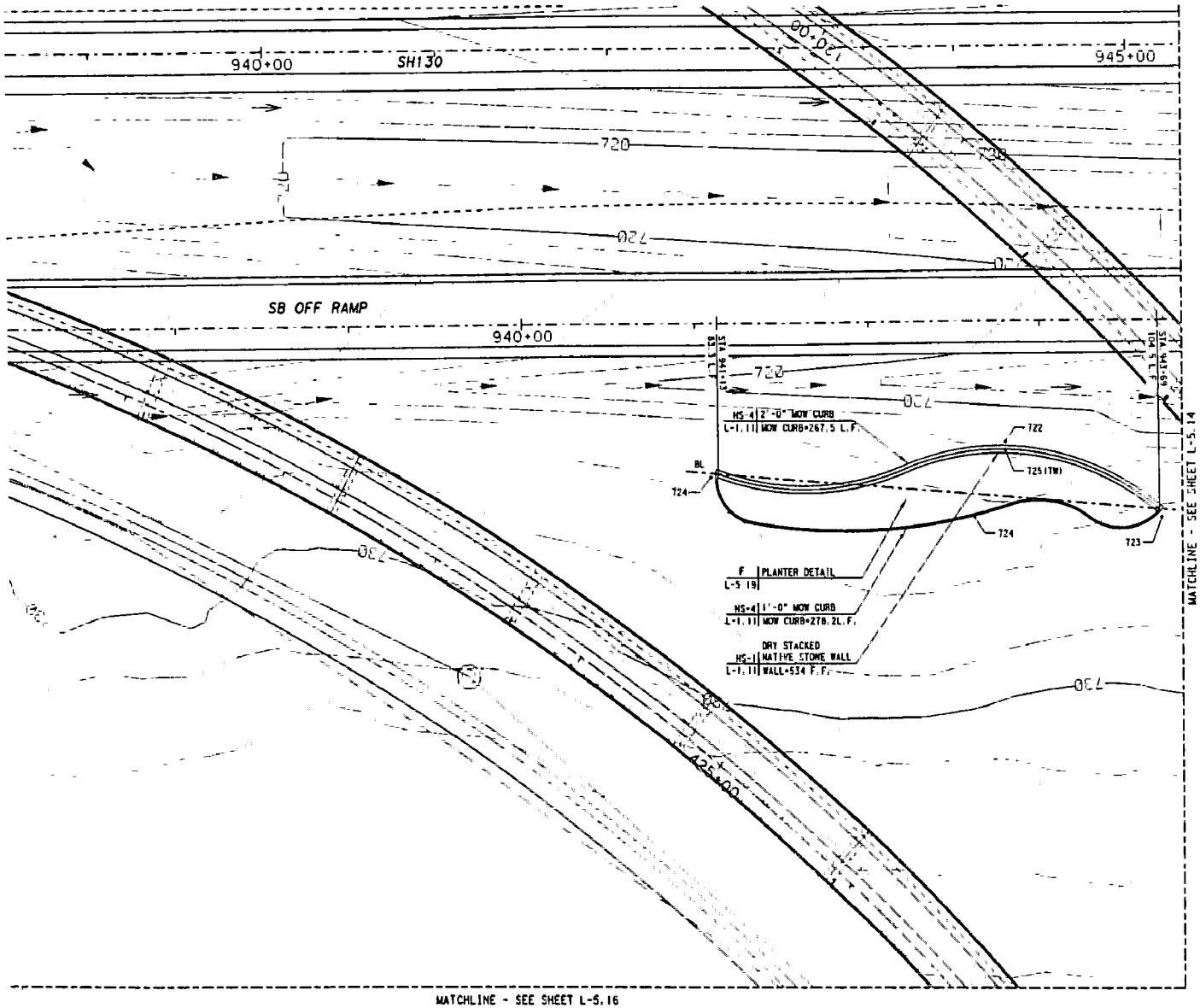
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DA	DATE:
DRAWN BY: AMK	CHECKED BY:	DATE: 06 TO 07
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5.12

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	10/11/05		

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L 1 05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	278
2'-0" CONCRETE MOW CURB	L.F.	268
DRY STACKED NATIVE STONE WALL	F.F.	534
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
ROBERT W GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DIMM-HARRIS

©2005
TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60

SHEET OF SHEETS

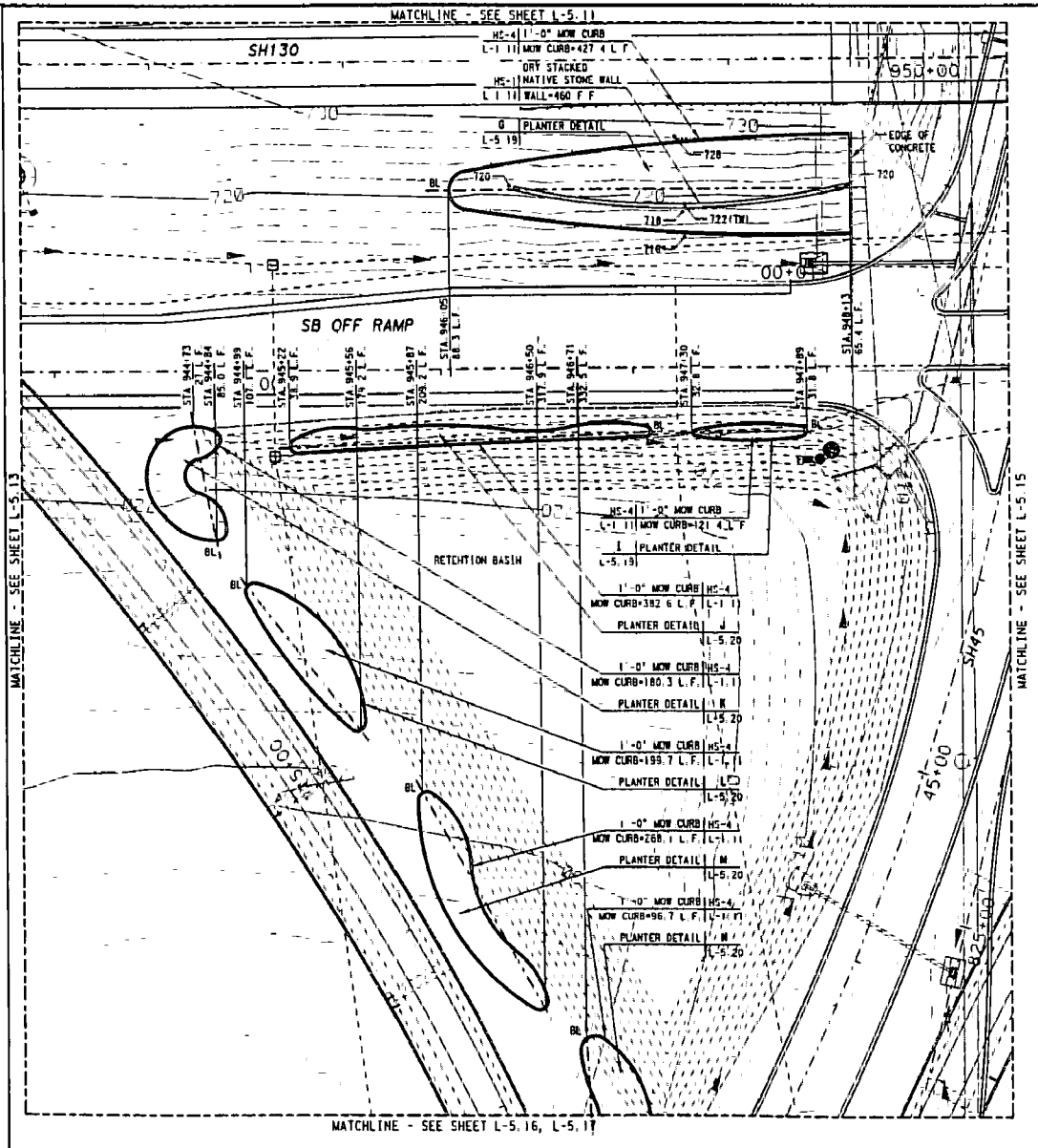
DESIGNED BY: RWG	CHECKED BY: GS	DATE:
DRAWN BY: JAML	CHECKED BY:	DATE: 06 TO 05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5.13

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60



REV	DATE	BY	DESCRIPTION
0	10/11/07	[illegible]	[illegible]

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

3. PRELIMINARY RETENTION BASIN DESIGN, FURTHER REVIEW IN PROCESS. FLOW LINES DO NOT REFLECT FINAL GRADING AND DRAINAGE.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	1676
2'-0" CONCRETE MOW CURB	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	460
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX (DETAIL # / SHEET #)	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLOWINSKI
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DRAWN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

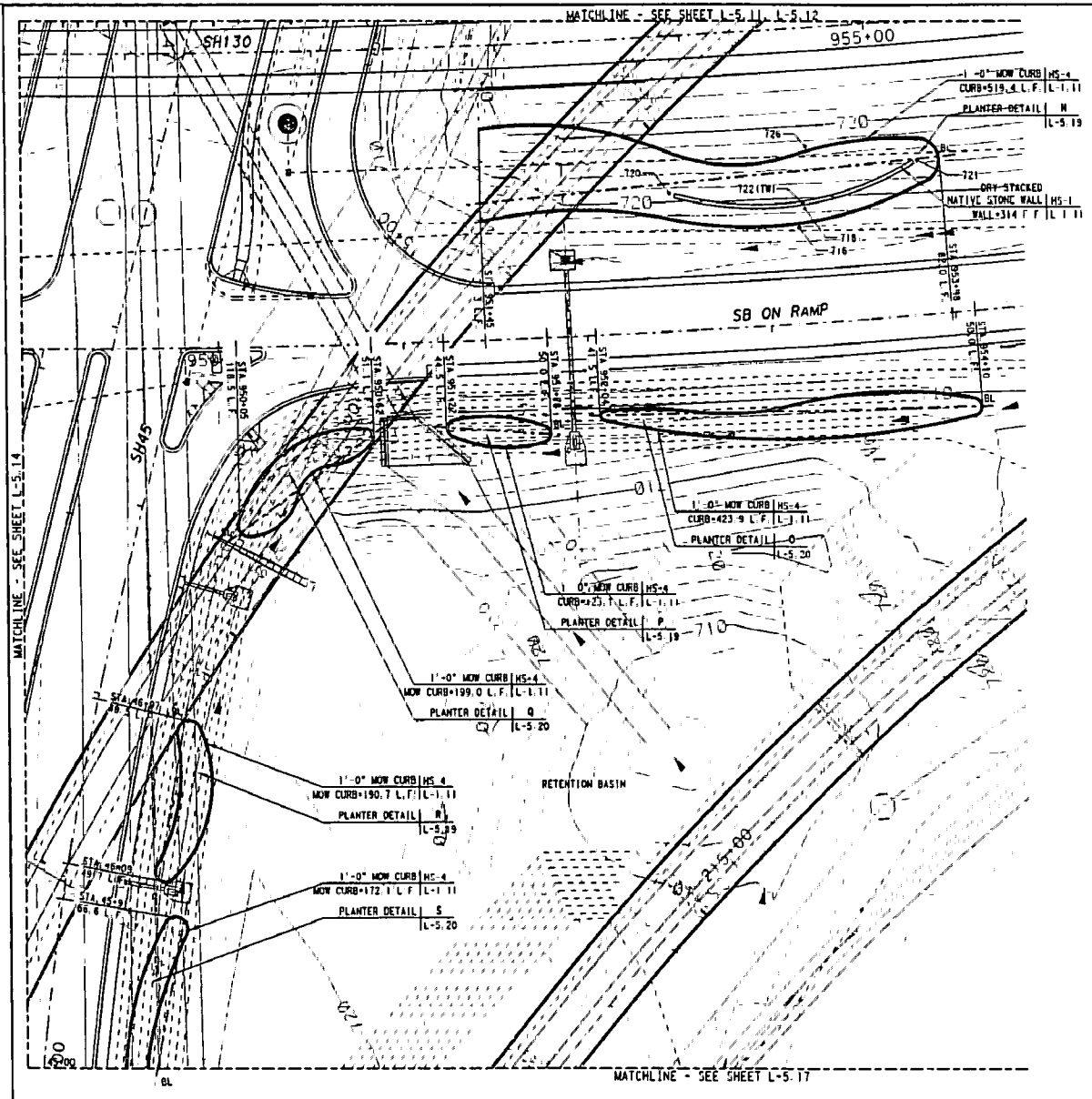
SHEET OF SHEETS

DESIGNED BY: PENG	CHECKED BY: DB	DATE:
DRAWN BY: LMC	CHECKED BY:	DATE: 08 TO 03
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5.14

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60'



REV	DATE	BY	DESCRIPTION
0	10/11/05		APP

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

3. PRELIMINARY RETENTION BASIN DESIGN, FURTHER REVIEW IN PROCESS. FLOW LINES DO NOT REFLECT FINAL GRADING AND DRAINAGE

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	1,628
2'-0" CONCRETE MOW CURB	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	314
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADDY
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DALAL-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60

SHEET OF SHEETS

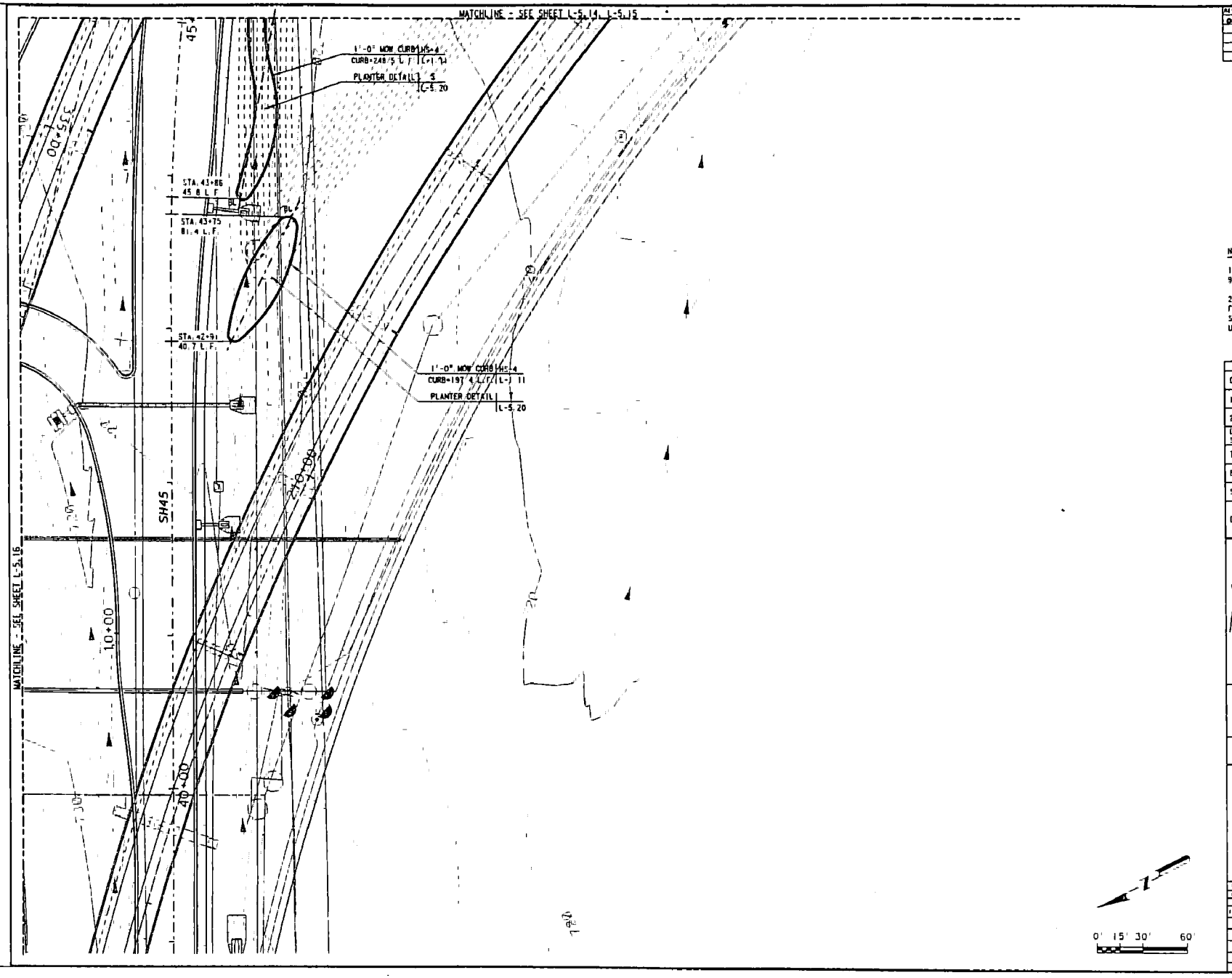
DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AWM	CHECKED BY:	DATE: 09-28-05
APPROVED BY:	DATE:	PROJECT NO.

FED. RD. DIV. NO.	FEDERAL PROJECT NO.	SHEET NAME	SHEET NO.
6	86-2HXDB001		L-5.15

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

0' 15 30 60'



REV	DATE	BY	DESCRIPTION
0	10/11/05		APL

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	446
2'-0 CONCRETE MOW CURB	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	730	
DETAIL REFERENCE	XX / X-XX (DETAIL # / SHEET #)	

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DMMM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: GA	DATE:
DRAWN BY: AME	CHECKED BY:	DATE: 06 TO 07
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L 5.17

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

REV	DATE	BY	DESCRIPTION
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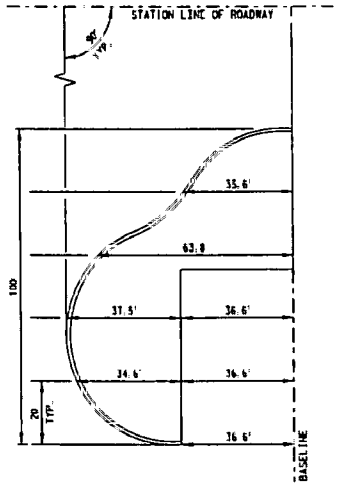
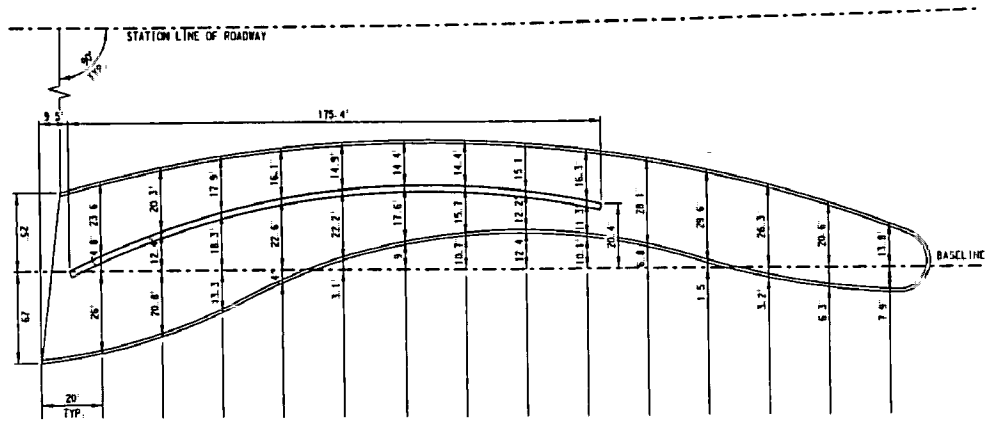


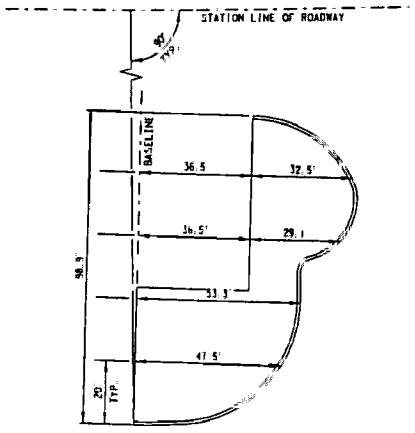
B | PLANTER DETAIL "B"

SCALE = 1"=20'-0"



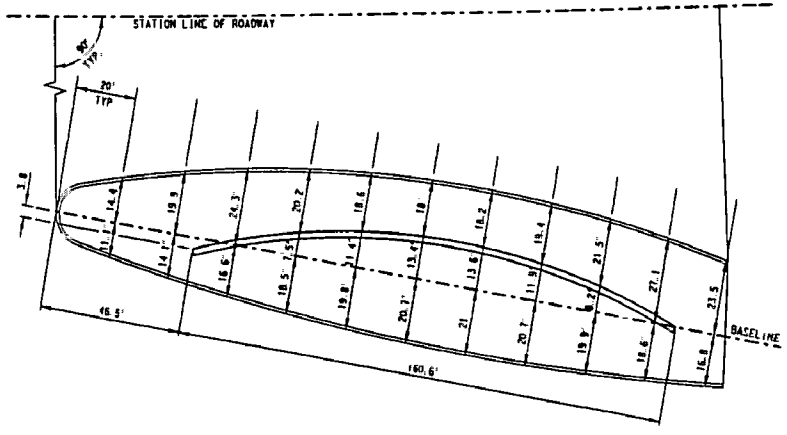
C | PLANTER DETAIL "C"

SCALE = 1"=20'-0"



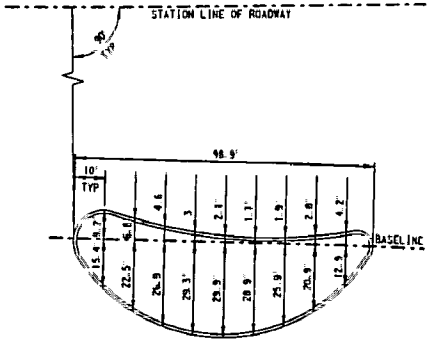
D | PLANTER DETAIL "D"

SCALE = 1"=20'-0"



A | PLANTER DETAIL "A"

SCALE = 1"=20'-0"



E | PLANTER DETAIL "E"

SCALE = 1"=20'-0"

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TCAM MEMBER
DMJM HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION ©2005

SEGMENT 2 SECTION 06
LANDSCAPE PLANS
PLANTER DETAILS

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 40'

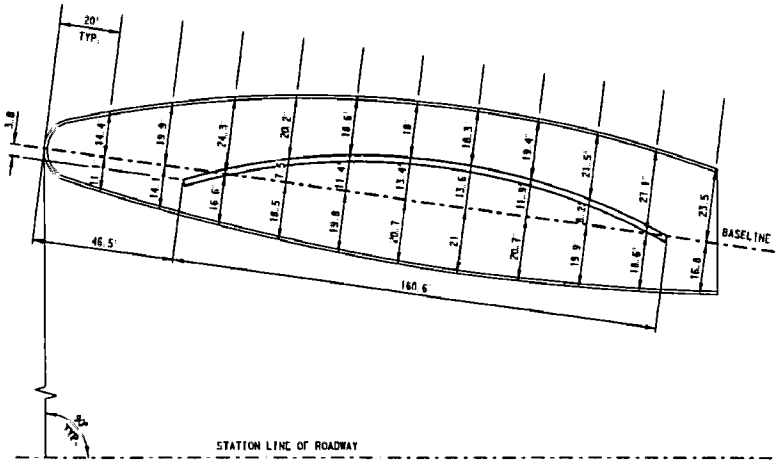
SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: BS	DATE:
DRAWN BY: AJM	CHECKED BY:	DATE: 08 TO 09
APPROVED BY:	DATE:	PROJECT NO.

FED RD	FED RD PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5 18

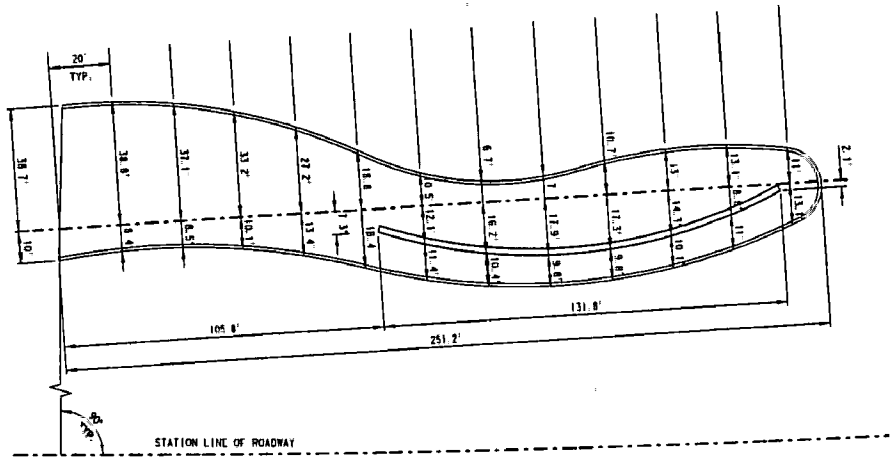
STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



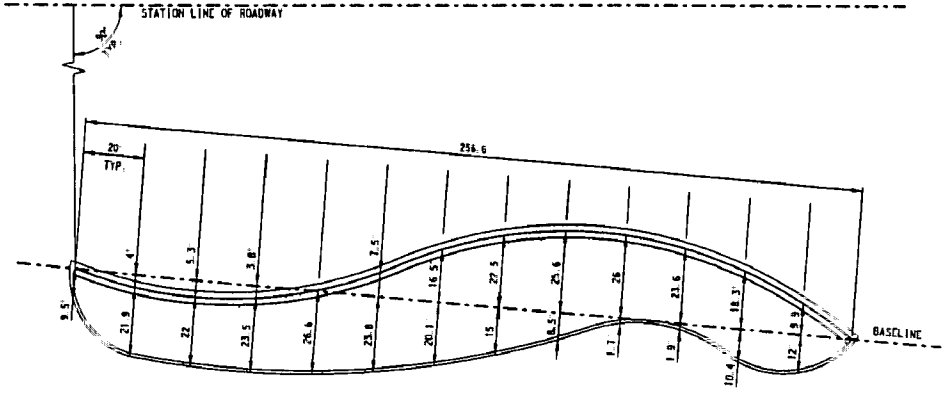
G | PLANTER DETAIL "G"

SCALE = 1"=20' 0"



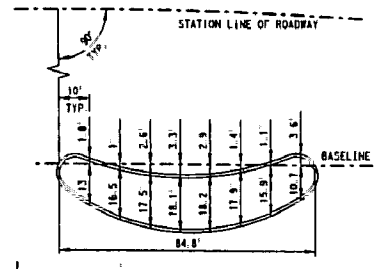
H | PLANTER DETAIL "H"

SCALE = 1"=20'-0"



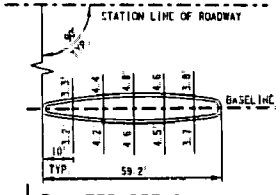
F | PLANTER DETAIL "F"

SCALE = 1"=20'-0"



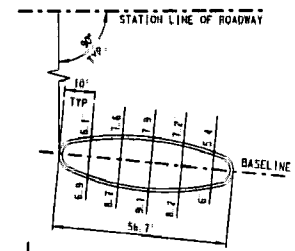
R | PLANTER DETAIL "R"

SCALE = 1"=20' 0"



I | PLANTER DETAIL "I"

SCALE = 1"=20'-0



P | PLANTER DETAIL "P"

SCALE = 1"=20'-0"

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
PLANTER DETAILS

STATE HIGHWAY 45
INTERCHANGE

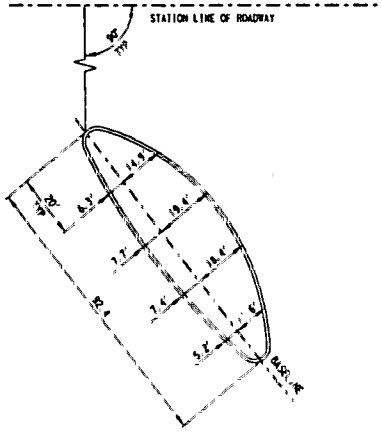
SCALE: 1" = 40'

SHEET OF SHEETS

FED. RD. DIV.	FED. AID PROJECT NO.	SHEET NAME	DWG. NO.
6	86-2XXDB001		L-5.19

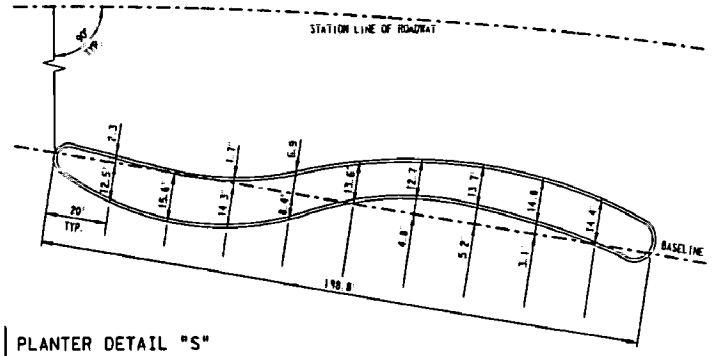
STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
0440	06	004	SH130



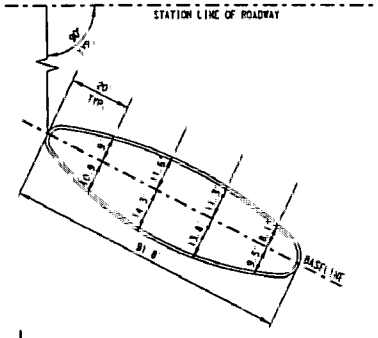
L | PLANTER DETAIL "L"

SCALE = 1"=20'-0"



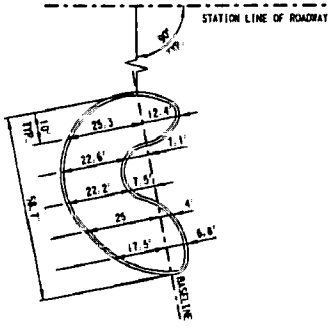
S | PLANTER DETAIL "S"

SCALE = 1"=20'-0"



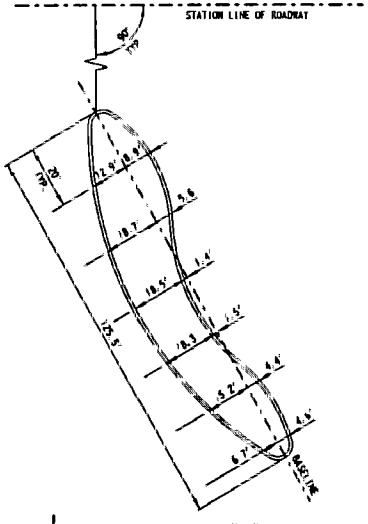
T | PLANTER DETAIL "T"

SCALE = 1"=20'-0"



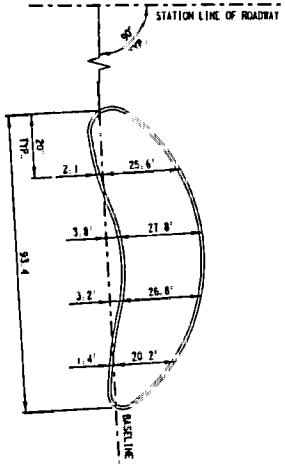
K | PLANTER DETAIL "K"

SCALE = 1"=20'-0"



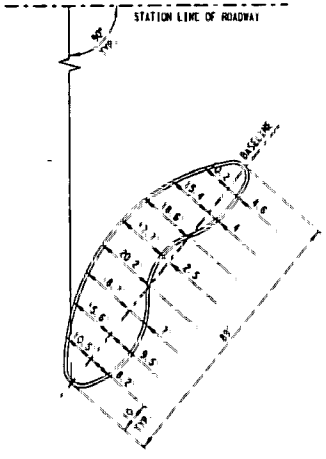
M | PLANTER DETAIL "M"

SCALE = 1"=20'-0"



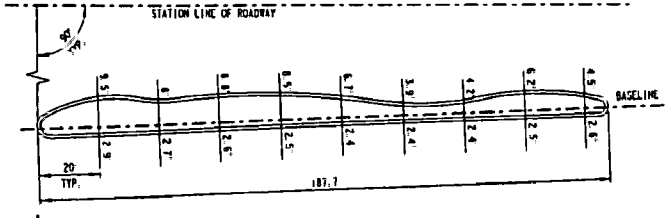
N | PLANTER DETAIL "N"

SCALE = 1"=20'-0"



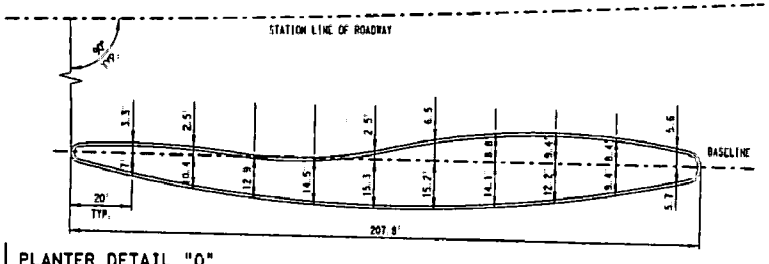
Q | PLANTER DETAIL "Q"

SCALE = 1"=20'-0"



J | PLANTER DETAIL "J"

SCALE = 1"=20'-0"



O | PLANTER DETAIL "O"

SCALE = 1"=20'-0"

REV	DATE	BY	DESCRIPTION
0	10/8/05		

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/8/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
PLANTER DETAILS

STATE HIGHWAY 45
INTERCHANGE

SCALE: 1" = 40

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:	
DRAWN BY: AWE	CHECKED BY:	DATE: 08 20 05	
APPROVED BY:	DATE:	PROJECT NO:	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-5 20
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED STATE HIGHWAY IMPROVEMENT TRAVIS COUNTY

FEDERAL AID PROJECT NO:
86-2XXDB001
CSJ: 0440-06-004

LANDSCAPE FOR PECAN STREET GATEWAY

INDEX OF SHEETS

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ABBREVIATIONS

g	GALLONS
c	CALIPER
p	POT
L.F.	LINEAR FEET
S.F.	SQUARE FEET
F.F.	FACE FEET
EA.	EACH
O.C.	ON CENTER
BL	BASELINE

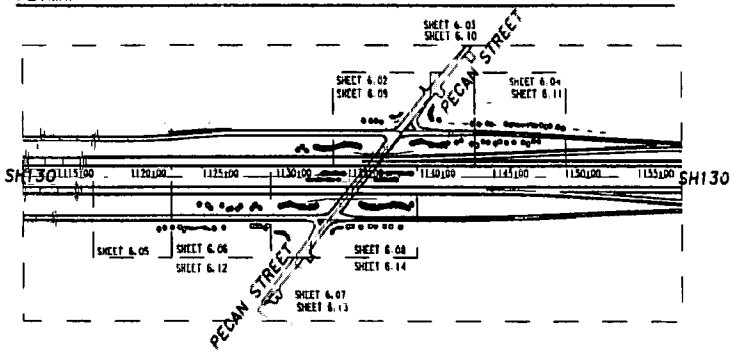
OVERALL PLANT LEGEND FOR PECAN STREET GATEWAY

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
GR	GRASSES			
MC	Muhlenbergia capillaris			
	GULF MUHLY	1g	726	24" O.C.
ML	Muhlenbergia lindheimeri			
	LINDHEIMER MUHLY	1g	52	
AC-	ACCENT			
HP	Hesperaloe parviflora			
	RED YUCCA	1g	80	
NE	Nolina erumpens			
	BEAR GRASS	3g	162	
SM	Sabal minor			
	PALMETTO	5g	16	
SS-	SHRUB - SMALL			
LN	Lantana hybrida 'New Gold'			
	NEW GOLD LANTANA	1g	1607	24" O.C.
LP	Lantana montevidensis 'Purple Trailing'			
	PURPLE TRAILING LANTANA	1g	647	24" O.C.
LS	Lantana hybrida 'Silver Mound'			
	SILVER MOUND Lantana	1g	1557	24" O.C.
RC	Rosa carolina			
	CAROLINA ROSE	1g	696	36" O.C.
SM-	SHRUB - MEDIUM			
LA	Lonicera albiflora			
	WHITE HONEYSUCKLE	3g	60	48" O.C.
LF	Leucophyllum frutescens			
	TEXAS SAGE	5g	68	
LH	Lantana horrida			
	TEXAS LANTANA	3g	480	48" O.C.
SL	SHRUB - LARGE			
CA	Callicarpa americana			
	AMERICAN BEAUTY BUSH	5g	55	
RC	Rhamnus caroliniana			
	CAROLINA BUCKTHORN		42	
TC-	TREES - CANOPY			
QP	Quercus polymorpha			
	MONTERREY OAK	3"c	13	
	MONTERREY OAK	1"c	15	
TD	Taxodium distichum			
	BALD CYPRESS	3"c	4	
	BALD CYPRESS	1"c	10	
UC	Ulmus crassifolia			
	CEDAR ELM	3"c	7	
	CEDAR ELM	1"c	11	
TM-	TREES - MEDIUM			
QB	Quercus buckleyi			
	TEXAS OAK	3"c	11	
	TEXAS OAK	1"c	21	

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
TS-	TREES - SMALL			
CT	Cercis texensis			
	TEXAS REDBUD	2"c	60	OWN'L TRUNK
CTW	Cercis texensis 'Whitebud'			(3' CANES MIN)
	TEXAS WHITEBUD	2"c	48	OWN'L TRUNK
CL	Chilopsis linearis			(3' CANES MIN)
	DESERT WILLOW	2"c	37	OWN'L TRUNK
US	Ungnadia speciosa			(3' CANES MIN)
	MEXICAN BUCKEYE	1"c	49	OWN'L TRUNK
				(3' CANES MIN)
	OTHER			
	GRANITE MULCH	S.F	0	
	WOOD MULCH	S.F.	56541	
	COMMON BERMUDA HYDROMULCH	ACRES	0	
	SEEDING - WILDFLOWER	ACRES	12.9	
	SEEDING - BLACK LAND PRAIRIE	ACRES	0	
	1' CONCRETE MOW CURB	L.F.	5116	
	2' CONCRETE MOW CURB	L.F.	945	
	RAISED PLANTER	L.F.	897	
	CEDAR RAIL FENCE	L.F.	0	
	FREESTANDING NATIVE STONE WALL	L.F.	0	
	DRY STACKED NATIVE STONE WALL	F.F.	0	
	FREESTANDING NATIVE STONE COLUMN	EA.	0	

THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR'S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS.

KEYMAP



0 200 400 800

LICENSED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DIANE HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

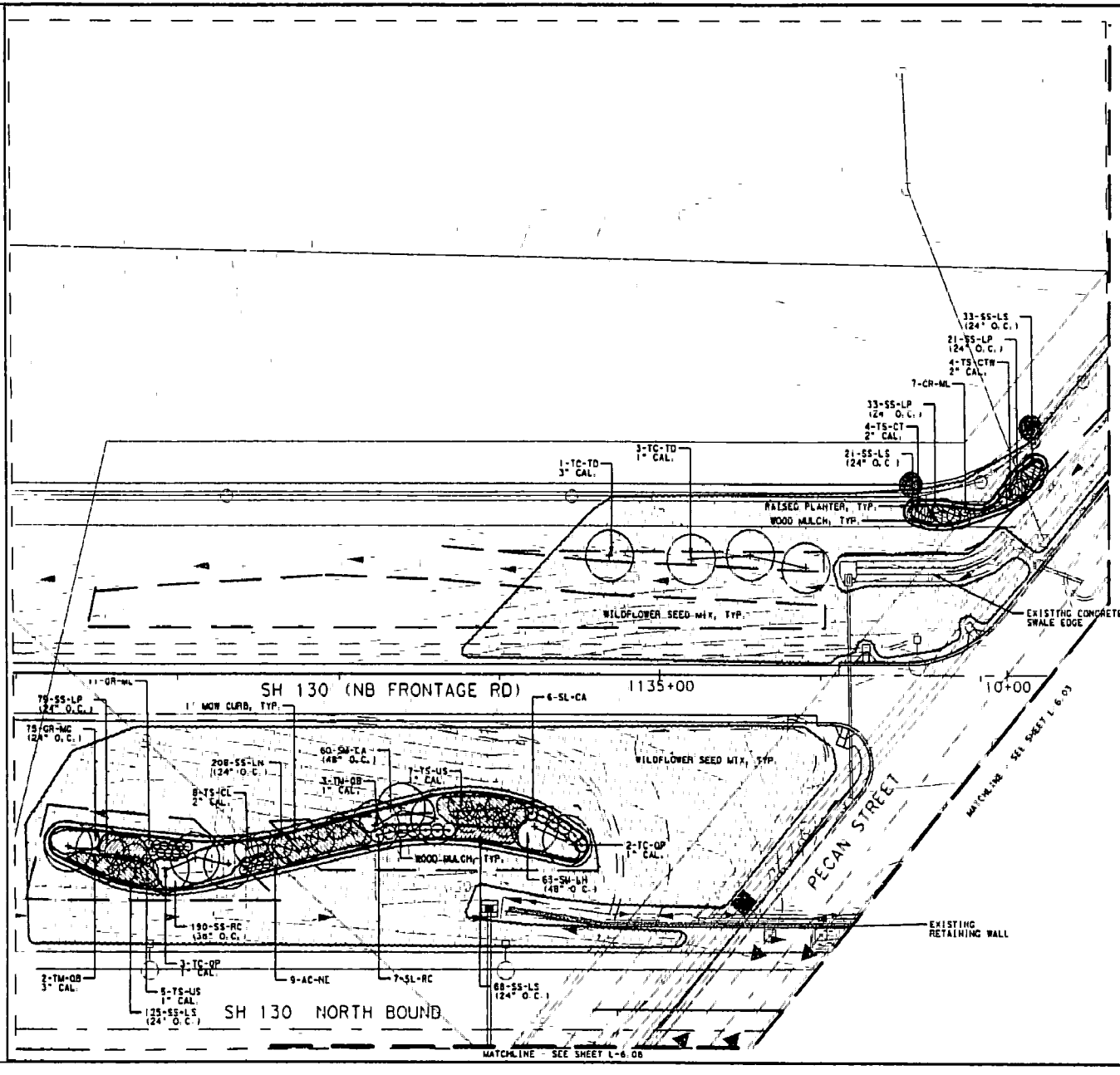
SEGMENT 2 , SECTION 06
LANDSCAPE PLANS
COVER SHEET

PECAN STREET GATEWAY

SCALE: 1" = 800'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: PWD	DATE:	
DRAWN BY: LSH	CHECKED BY:	DATE: 04-29-05	
APPROVED BY:	DATE:	PROJECT NO:	
FED. RD. DIV.	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-6.01
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L-1.01, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	8-11-2004	CT	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	15
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	1g	18
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	0
NE	Nolina erumpens		
	BEAR GRASS	3g	0
SM	Sabal minor		
	PALMETTO	5g	0
SS-	SHRUB - SMALL		
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	208
LP	Lantana montevidensis 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	133
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	179
RC	Rosa carolina		
	CAROLINA ROSE	1g	190
SW-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	3g	60
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lantana horrida		
	TEXAS LANTANA	3g	63
SL-	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	6
RC	Rhamnus caroliniana		
	CAROLINA BUCKTHORN	5g	7
TC-	TREES - CANOPY		
QP	Quercus polymorpha		
	MONTERREY OAK	3"c	0
	MONTERREY OAK	1"c	0
TD	Taxodium distichum		
	BALD CYPRESS	3"c	1
	BALD CYPRESS	1"c	3
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	4
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	4
CL	Chilopsis linearis		
	DESERT WILLOW	2"c	8
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	12
TM-	TREES - MEDIUM		
QB	Quercus buckleyi		
	TEXAS OAK	3"c	2
	TEXAS OAK	1"c	3

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	8,715
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	1.5
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DUNN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

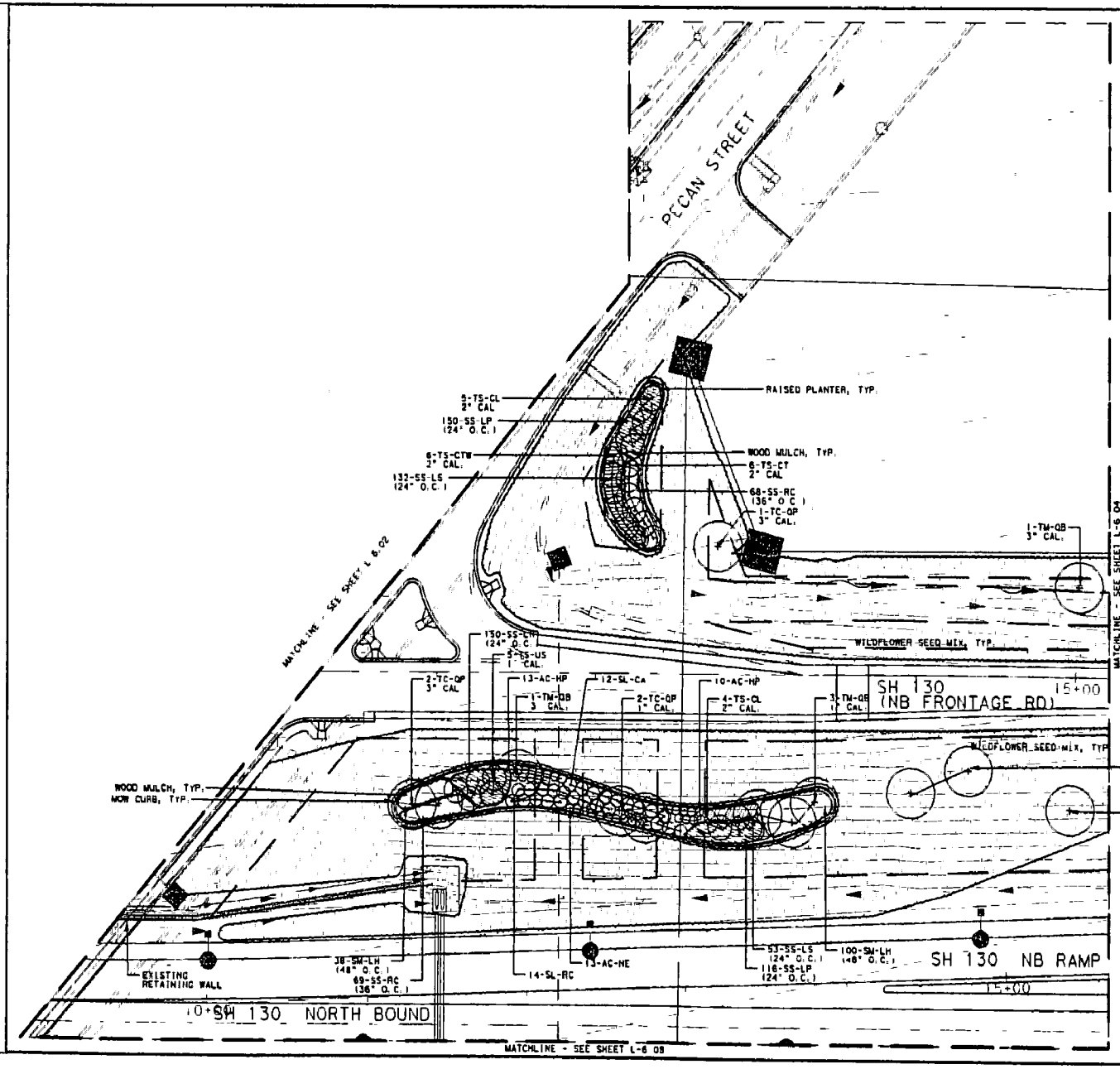
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMD	DATE:	
DRAWN BY: CTJ	CHECKED BY:	DATE: 04 10 03	
APPROVED BY:	DATE:	TRACKING NO:	
FED. RD. DIV. NO.	PROJECT NO.	SHEET NAME	CONTROL NO.
6	86-2XXD8001		L-6.02

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130



NOTE:

SEE SHEET L-1.03, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	0 11 2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	1g	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	23
NE	Nolina erumpens		
	BEAR GRASS	3g	13
SM	Sabal minor		
	PALMETTO	5g	0
SS-	SHRUB - SMALL		
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	150
LP	Lantana montevidensis 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	266
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	185
RC	Rosa carolina		
	CAROLINA ROSE	1g	137
SW	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lantana horrida		
	TEXAS LANTANA	3g	138
SL	SHRUB - LARGE		
CA	Calliicarpa americana		
	AMERICAN BEAUTY BUSH	5g	12
RC	Rhamnus carolniana		
	CAROLINA BUCKTHORN	5g	14
TC-	TREES - CANOPY		
QP	Quercus polymorpha		
	MONTERREY OAK	3"c	1
	MONTERREY OAK	1"c	2
TD	Taxodium distichum		
	BALD CYPRESS	3"g	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	1
	CEDAR ELM	1"g	2

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	11
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"g	6
CL	Chilopsis linearis		
	DESERT WILLOW	2"c	4
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	5
TM-	TREES - MEDIUM		
QB	Quercus buckleyi		
	TEXAS OAK	3"g	2
	TEXAS OAK	1"c	3

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	8,030
	COMMON BERMUDA HYDROMULCH	ACREL	0
	SEEDING - WILDFLOWER	ACRES	2.2
	SEEDING - BLACK LAND PRAIRIE	ACREL	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

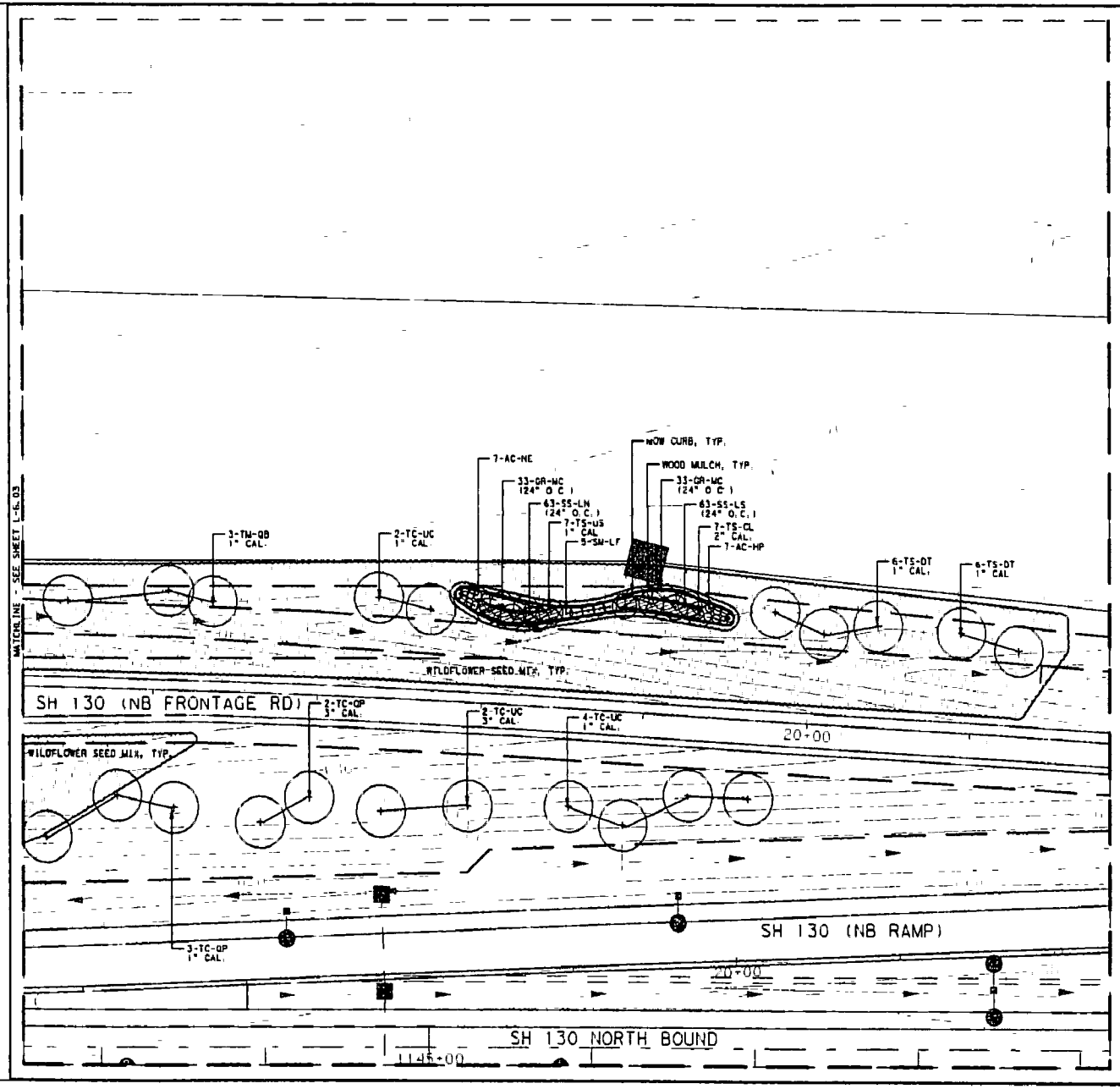
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: CLS	CHECKED BY: RRS	DATE:	
DRAWN BY: TLJ	CHECKED BY:	DATE: 06-20-05	
APPROVED BY:	DATE:	PROJECT NO:	
FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2xxD800)		L-6.03

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	7
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	1g	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	7
NE	Nolina erumpens		
	BEAR GRASS	3g	7
SM	Sabal minor		
	PALMETTO	5g	0
SS-	SHRUB - SMALL		
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	126
LP	Lantana montevidensis 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
RC	Rosa carolina		
	CAROLINA ROSE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	5
LH	Lantana horrida		
	TEXAS LANTANA	3g	0
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
RC	Rhamnus caroliniana		
	CAROLINA BUCKTHORN	5g	0
TC-	TREES - CANOPY		
QP	Quercus polymorpha		
	MONTEREY OAK	3"c	2
	MONTEREY OAK	1"c	3
TD	Taxodium distichum		
	BALD CYPRESS	3"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	2
	CEDAR ELM	1"c	6

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitewood'		
	TEXAS WHITEBUD	2"c	0
CL	Chilopsis linearis		
	DESERT WILLOW	2"c	7
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	1"c	7
TN-	TREES - MEDIUM		
QB	Quercus buckleyi		
	TEXAS OAK	3"c	0
	TEXAS OAK	1"c	3

	PLANTING SETBACK LINE		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	1,750
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	1.2
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DRAWINGS

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SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

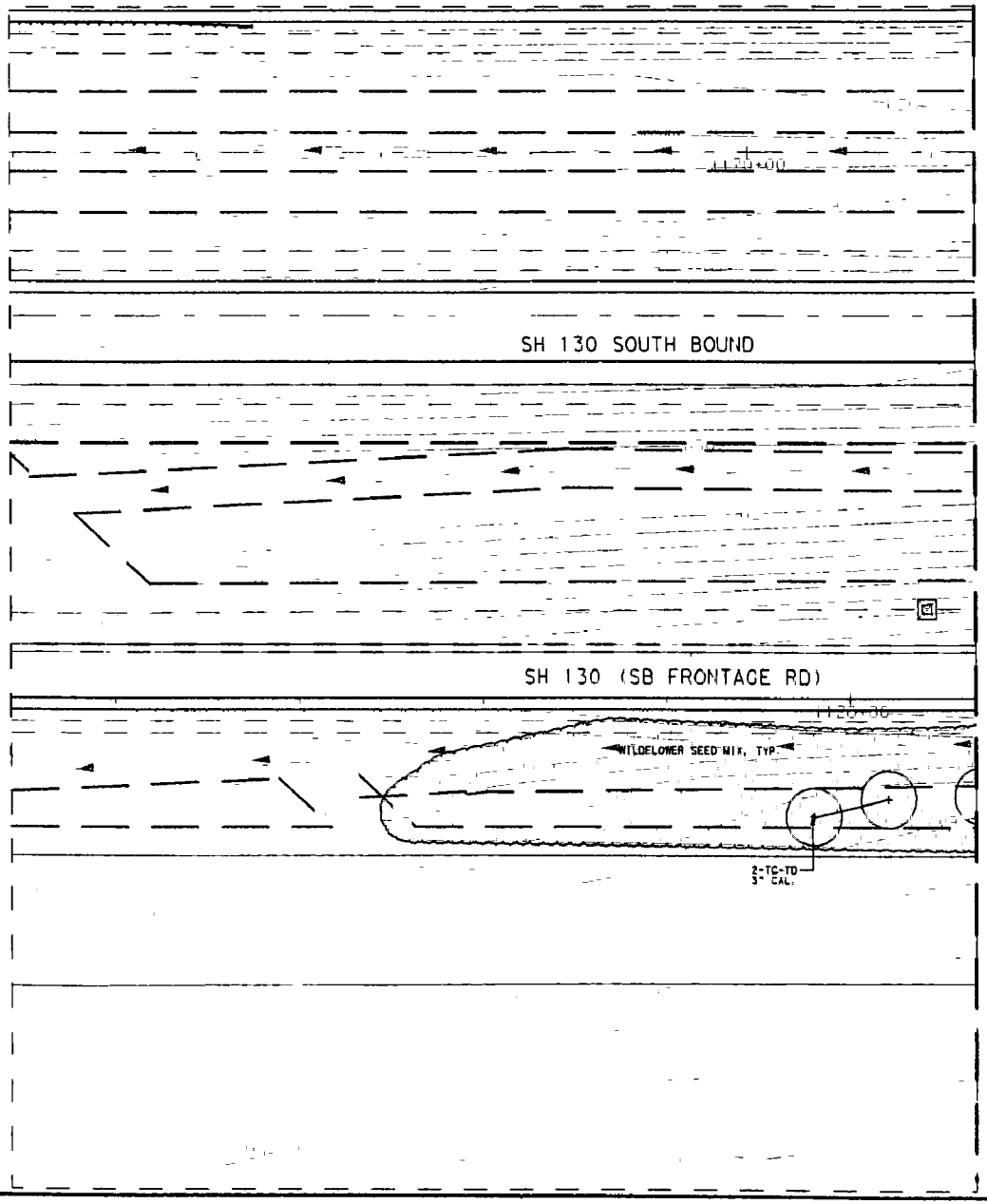
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMO	DATE:
DRAWN BY: JTJ	CHECKED BY:	DATE: 09-09-05
APPROVED BY:	DATE:	PROJECT NO.

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	DWG NO.
6	86-2XXDB001		L-6.04

STATE	DISTRICT	COUNTY	
Tx	AUS	TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0440	06	004	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.01, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	1g	0
AC-	ACCENT		
HP	Hesperoloe parviflora		
	RED YUCCA	1g	0
NE	Nolina erumpens		
	BEAR GRASS	3g	0
SM	Sabal minor		
	PALMETTO	5g	0
SS-	SHRUB SMALL		
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LP	Lantana montevidensis 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
RC	Rosa carolina		
	CAROLINA ROSE	1g	0
			0
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	3g	0
LF	Leucophyllum frustescens		
	TEXAS SAGE	5g	0
LH	Lantana horrida		
	TEXAS LANTANA	3g	0
SL	SHRUB LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
RC	Rhamnus caroliniana		
	CAROLINA BUCKTHORN	5g	0
TC-	TREES CANOPY		
QP	Quercus polymorpha		
	MONTEREY OAK	3"c	0
	MONTEREY OAK	1"c	0
TD	Taxodium distichum		
	BALD CYPRESS	3"c	2
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
CL	Chilopsis linearis		
	DESERT WILLOW	2"c	0
US	Uanadia speciosa		
	MEXICAN BUCKEYE	1"c	0
TM-	TREES MEDIUM		
QB	Quercus buckleyi		
	TEXAS OAK	3"c	0
	TEXAS OAK	1"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0.7
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBROECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAUM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

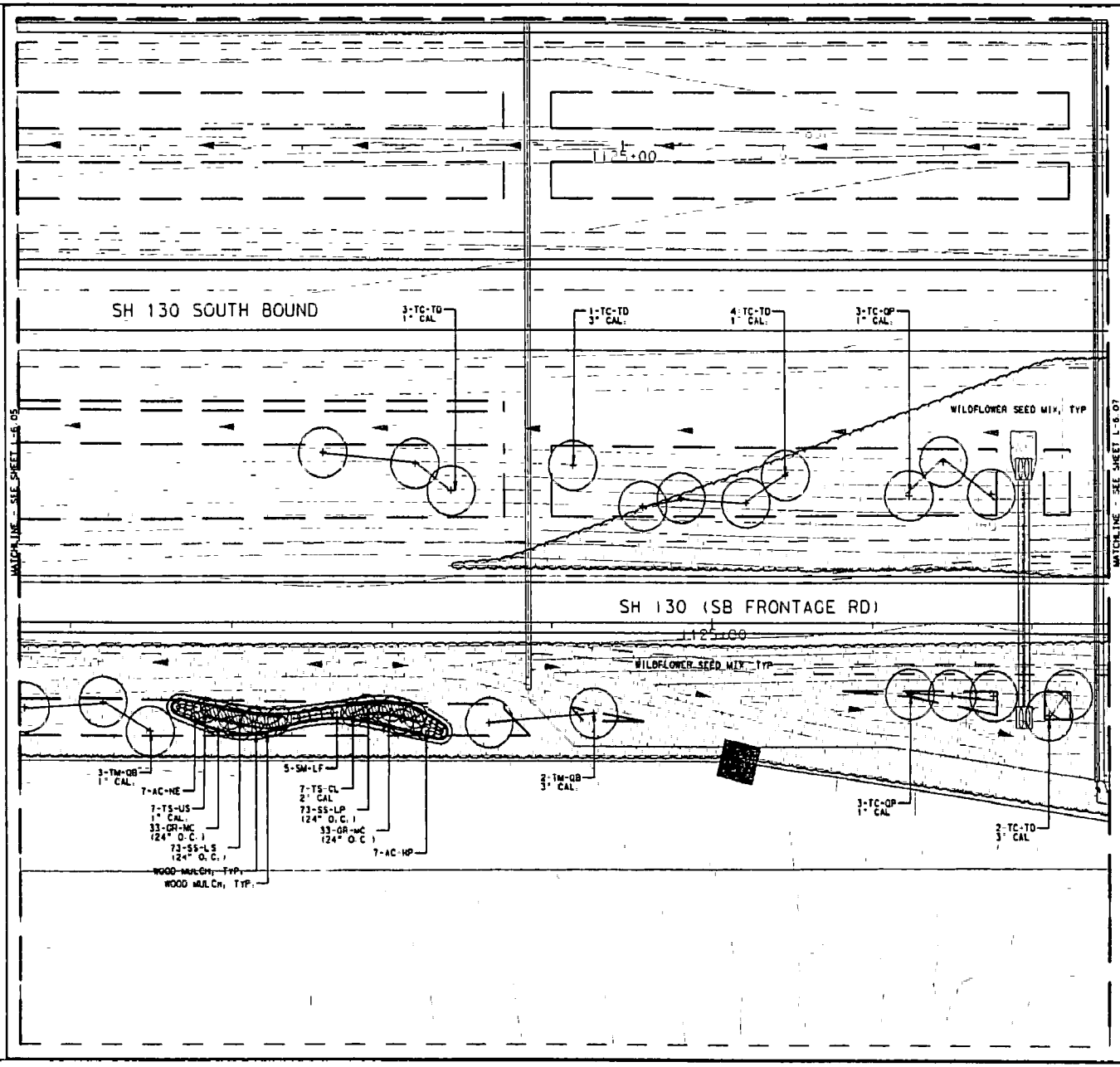
SHEET OF SHEETS

DESIGNED BY: DLG	CHECKED BY: RWD	DATE:
DRAWN BY: CJ	CHECKED BY:	DATE: 08-30-05
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV.	PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XX08001		L-6.05

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	0-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	66
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	1g	0
AC-	ACCENT		
HP	Hesperaloe parviflora		
	RED YUCCA	1g	7
NE	Nolina erumpens		
	BEAR GRASS	3g	7
SM	Sabal minor		
	PALMETTO	5g	0
SS-	SHRUB - SMALL		
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LP	Lantana montevidensis 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	73
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	73
RC	Rosa carolina		
	CAROLINA ROSE	1g	0
SM-	SHRUB MEDIUM		
LA	Lanicera albiflora		
	WHITE HONEYSUCKLE	3g	0
LF	Leucophyllum frustescens		
	TEXAS SAGE	5g	5
LH	Lantana horrida		
	TEXAS LANTANA	3g	0
SL	SHRUB - LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	0
RC	Rhamnus caroliniana		
	CAROLINA BUCKTHORN	5g	0
TC-	TREES CANOPY		
QP	Quercus polymorpha		
	MONTEREY OAK	3"c	0
	MONTEREY OAK	1"c	6
TD	Taxodium distichum		
	BALD CYPRESS	3"c	3
	BALD CYPRESS	1"c	7
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
CL	Chilopsis linearis		
	DESERT WILLOW	2"c	7
US	Ugnadia speciosa		
	MEXICAN BUCKEYE	1"c	7
TM-	TREES - MEDIUM		
QB	Quercus buckleyi		
	TEXAS OAK	3"c	2
	TEXAS OAK	1"c	3

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	1 750
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	2.4
	SEEDING BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUECK 1197 STATE OF TEXAS

10/11/05

TEAM MEMBER DIANE STEINBRUECK

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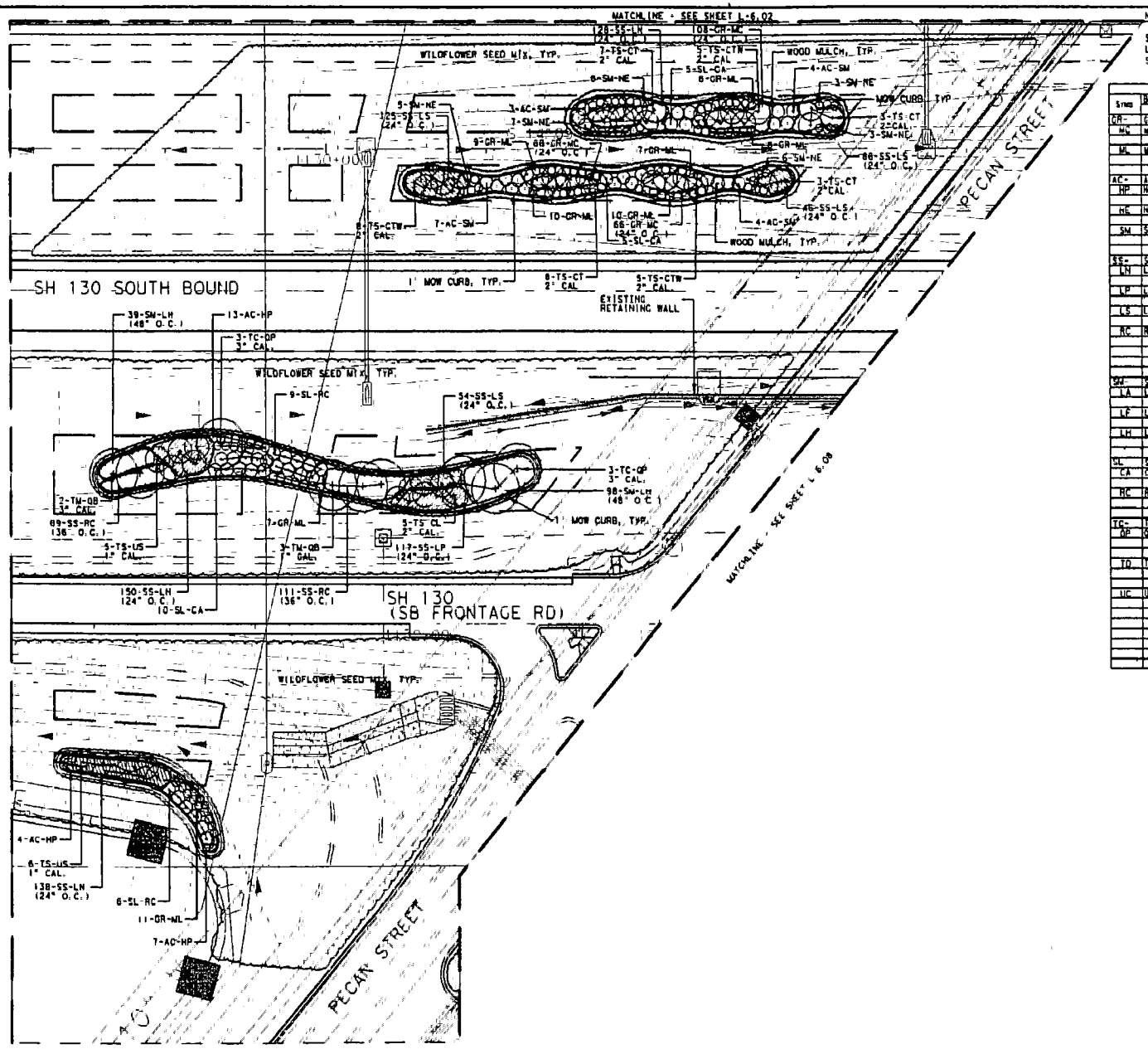
SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60

SHEET OF SHEETS

DESIGNED BY: CLS	CHECKED BY: RWB	DATE:	
DRAWN BY: EJJ	CHECKED BY:	DATE: 08-20-05	
APPROVED BY:	DATE:	PROJECT NO.	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-6.06
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	5-11-2005	[illegible]	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	174
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	1g	70
AC-	ACCENT		
HP	Hesperoides parviflora		
	RED YUCCA	1g	24
HE	Nolina erumpens		
	BEAR GRASS	3g	32
SM	Sabal minor		
	PALMETTO	5g	18
SS-	SHRUB SMALL		
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	316
LP	Lantana montevidensis 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	117
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	311
RC	Rosa carolina		
	CAROLINA ROSE	1g	186
SM-	SHRUB MEDIUM		
LA	Lanicera albiflora		
	WHITE HONEYSUCKLE	3g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lantana horrida		
	TEXAS LANTANA	3g	137
SL	SHRUB LARGE		
CA	Callicarpa americana		
	AMERICAN BEAUTY BUSH	5g	25
RC	Rhamnus caroliniana		
	CAROLINA BUCKTHORN	5g	15
TC-	TREES CANOPY		
OP	Quercus polymorpha		
	MONTEREY OAK	3"c	6
	MONTEREY OAK	1"c	0
TD	Taxodium distichum		
	BALD CYPRESS	3"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	3"c	0
	CEDAR ELM	1"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	21
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	18
CL	Chilopsis linearis		
	DESERT WILLOW	2"c	5
US	Uanodia speciosa		
	MEXICAN BUCKEYE	1"c	6
TM-	TREES MEDIUM		
QB	Quercus buckleyi		
	TEXAS OAK	3"c	2
	TEXAS OAK	1"c	3

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	20736
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING - WILDFLOWER	ACRES	2.7
SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

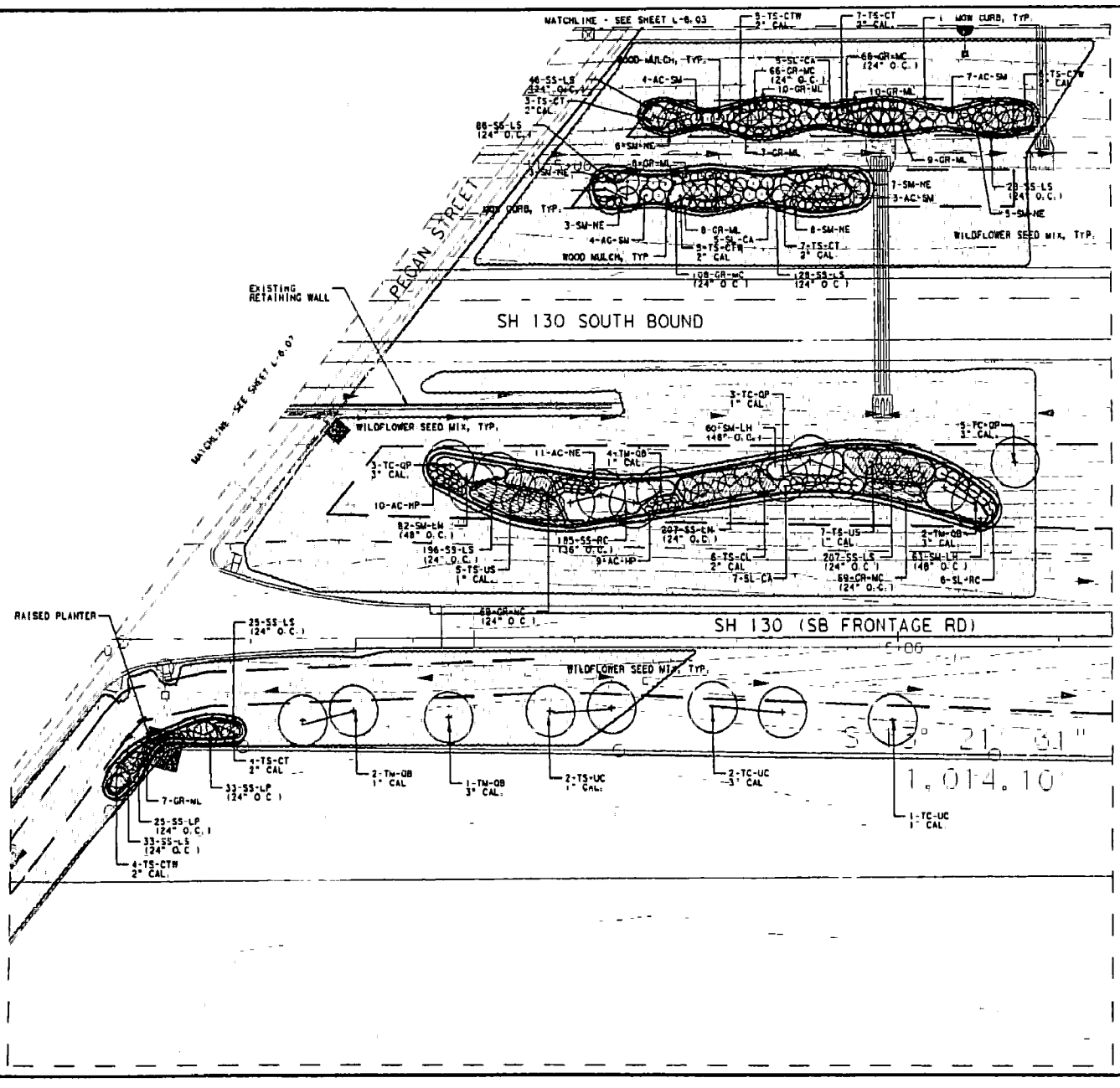
SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWG	DATE: 8-11	
DRAWN BY: LZJ	CHECKED BY:	DATE: 08-29-03	
APPROVED BY:	DATE:	PROJECT NO:	
FED AID PROJECT NO	SHEET NAME	DWG NO	
6	86:2XX08001		L-6.07
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L 1.01, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	8-17-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
NC	Muhlenbergia capillaris / GULF MUHLY	1g	378
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	1g	52
AC-	ACCENT		
HP	Hesperaloe parviflora / RED YUCCA	1g	19
NE	Nolina erumpens / BEAR GRASS	3g	43
SM	Sabal minor / PALMETTO	5g	18
SS-	SHRUB - SMALL		
LH	Lantana hybrida 'New Gold' / NEW GOLD LANTANA	1g	207
LP	Lantana montevidensis 'Purple Trailing' / PURPLE TRAILING LANTANA	1g	58
LS	Lantana hybrida 'Silver Mound' / SILVER MOUND LANTANA	1g	849
RC	Rosa carolina / CAROLINA ROSE	1g	185
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora / WHITE HONEYSUCKLE	3g	0
LF	Leucophyllum frutescens / TEXAS SAGE	3g	0
LM	Lantana horrida / TEXAS LANTANA	3g	205
SL	SHRUB - LARGE		
CA	Callicarpa americana / AMERICAN BEAUTY BUSH	5g	12
RC	Rhamnus caroliniana / CAROLINA BUCKHORN	5g	6
TC-	TREES - CANOPY		
QP	Quercus polymorpha / NONTRACT OAK	3"c	4
	NONTRACT OAK	1"c	3
TD	Taxodium distichum / BALD CYPRESS	3"c	0
	BALD CYPRESS	1"c	9
UC	Ulmus crassifolia / CEDAR ELM	3"c	2
	CEDAR ELM	1"c	3

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis / TEXAS REDBUD	2"c	24
CTW	Cercis texensis 'Whitewood' / TEXAS WHITEBUD	2"c	20
CL	Chilopsis linearis / DESERT WILLOW	2"c	6
US	Ungnadia speciosa / MEXICAN BUCKEYE	1"c	12
TM-	TREES - MEDIUM		
QB	Quercus buckleyi / TEXAS OAK	3"c	3
	TEXAS OAK	1"c	6

PLANTING SETBACK LINE

	GRANITIC MULCH	S.F.	0
	WOOD MULCH	S.F.	15560
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	2.2
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
8/11/05

TEAM MEMBER CHAMPIONS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

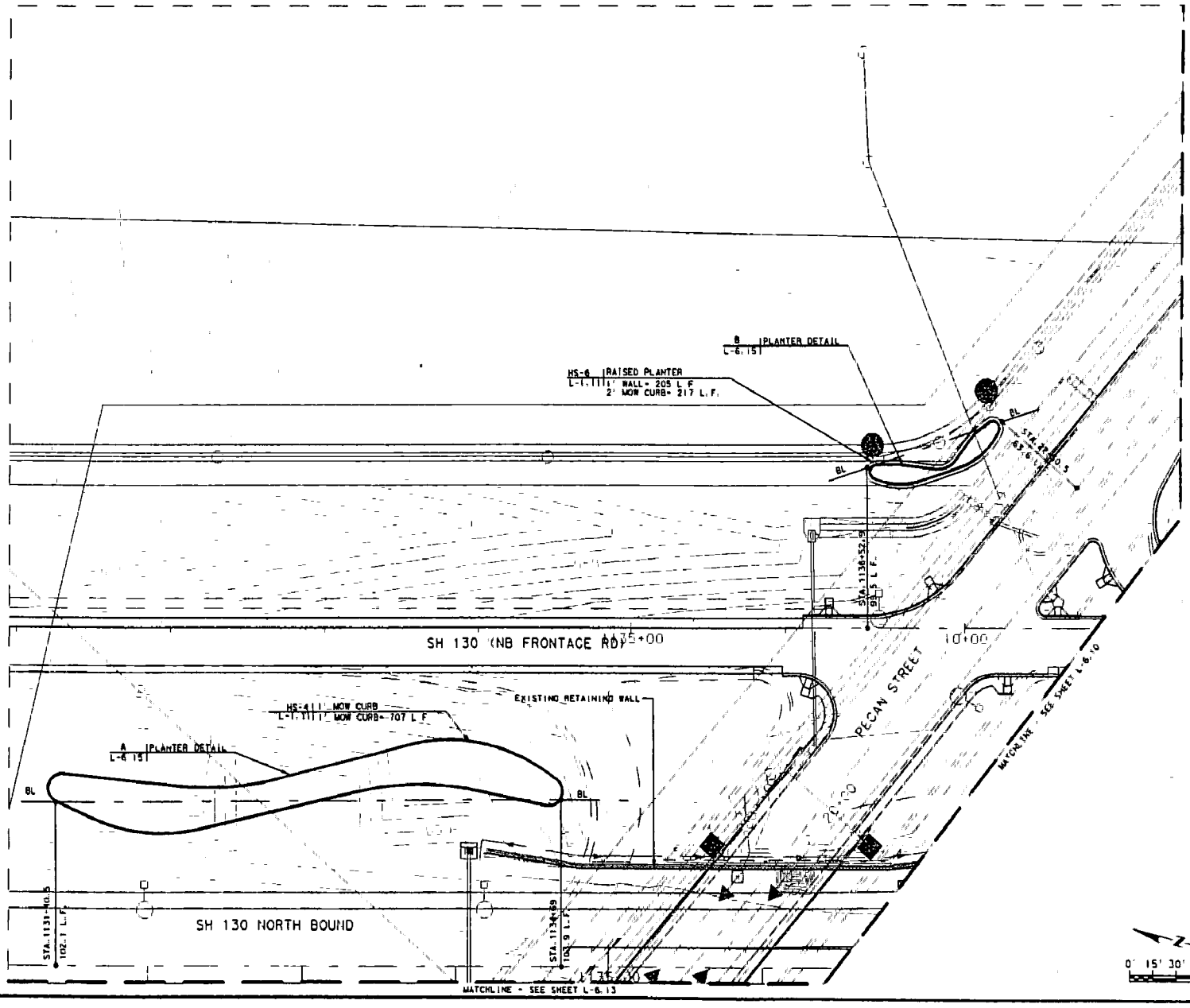
SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: TMW	DATE:
TP-PM J. LEE	SPE-HCA D.	P-TL 08-22-01
APPROVED BY:	DATE:	PANEL: 1 OF 1

FED	FED AID PROJECT NO	SHEET NAME	CNTL NO
6	66-2XX08001		L-6.08

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05 GENERAL NOTE #1 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	707
2' CONCRETE MOW CURB	L.F.	217
1' RAISED PLANTER	L.F.	205
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / X-XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM-HARRIS

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SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

PECAN STREET GATEWAY

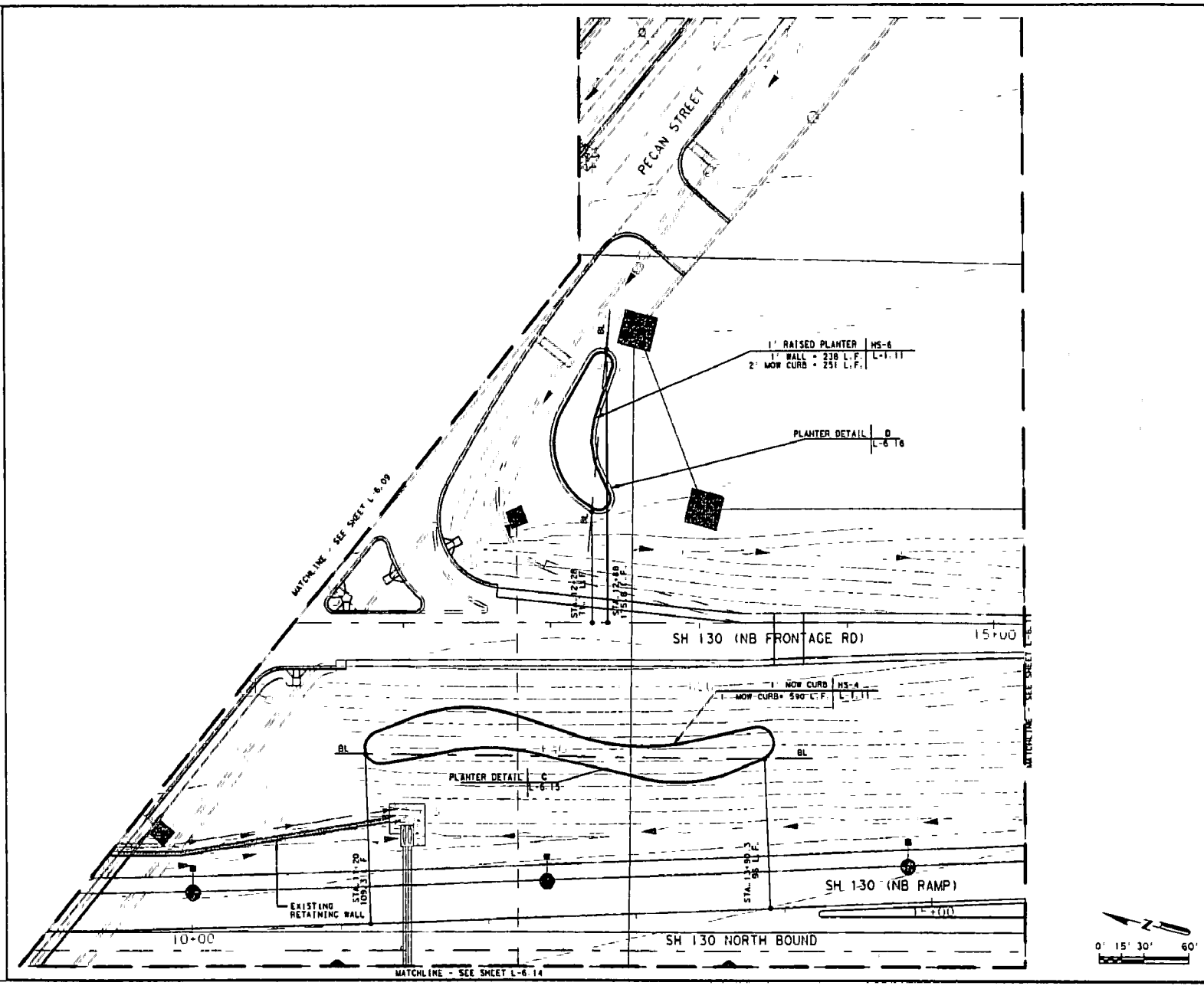
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RBG	DATE:
DRAWN BY: CBJ	CHECKED BY:	DATE: 08-10-05
APPROVED BY:	DATE:	FRAME:

FED	FED. RD. PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-6.09

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	590
2' CONCRETE MOW CURB	L.F.	251
1' RAISED PLANTER	L.F.	238
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / Y-XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

PECAN STREET GATEWAY

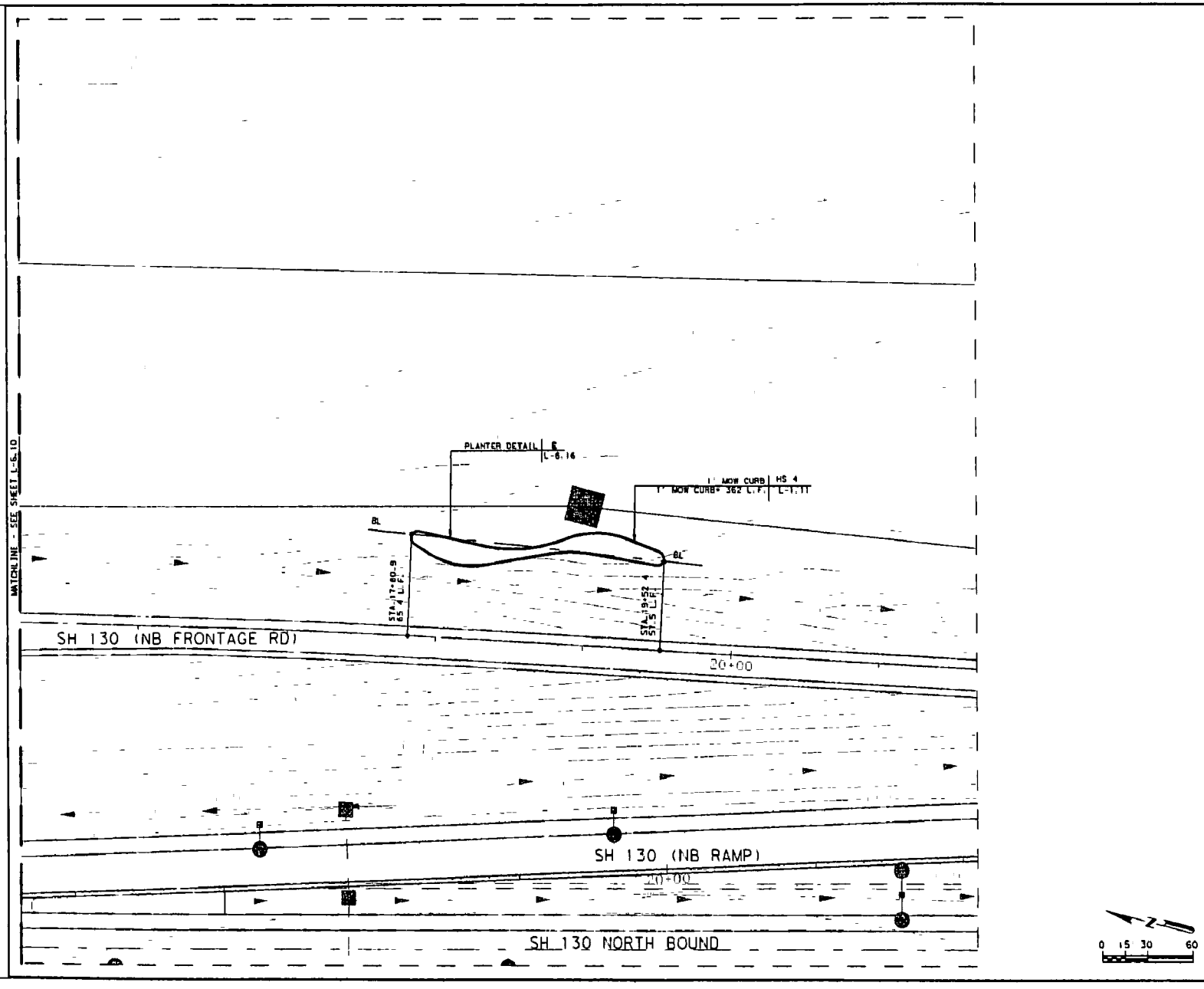
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RMG	DATE:
DRAWN BY: [illegible]	CHECKED BY:	DATE: Oct 20-05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-6.10

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	362
2' CONCRETE MOW CURB	L.F.	0
1' RAISED PLANTER	L.F.	0
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DMJM+HARRIS

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SEGMENT 2 SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

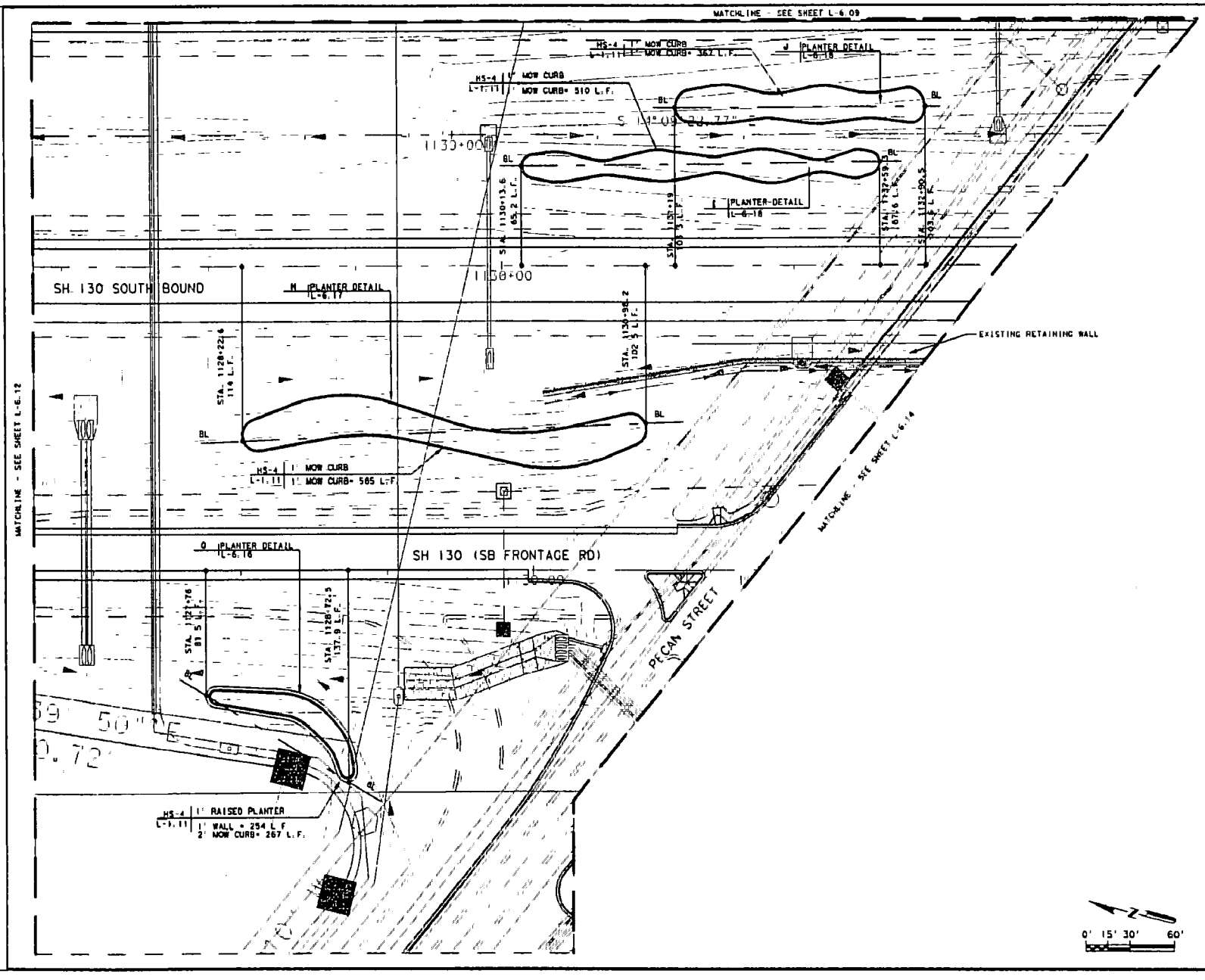
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWG	DATE
DRAWN BY: FBJ	CHECKED BY:	DATE: 08-20-03
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-6.11

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	1,470
2' CONCRETE MOW CURB	L.F.	266
1' RAISED PLANTER	L.F.	254
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / X XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUECK 1197 STATE OF TEXAS

10/11/05

TEAM MEMBER DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

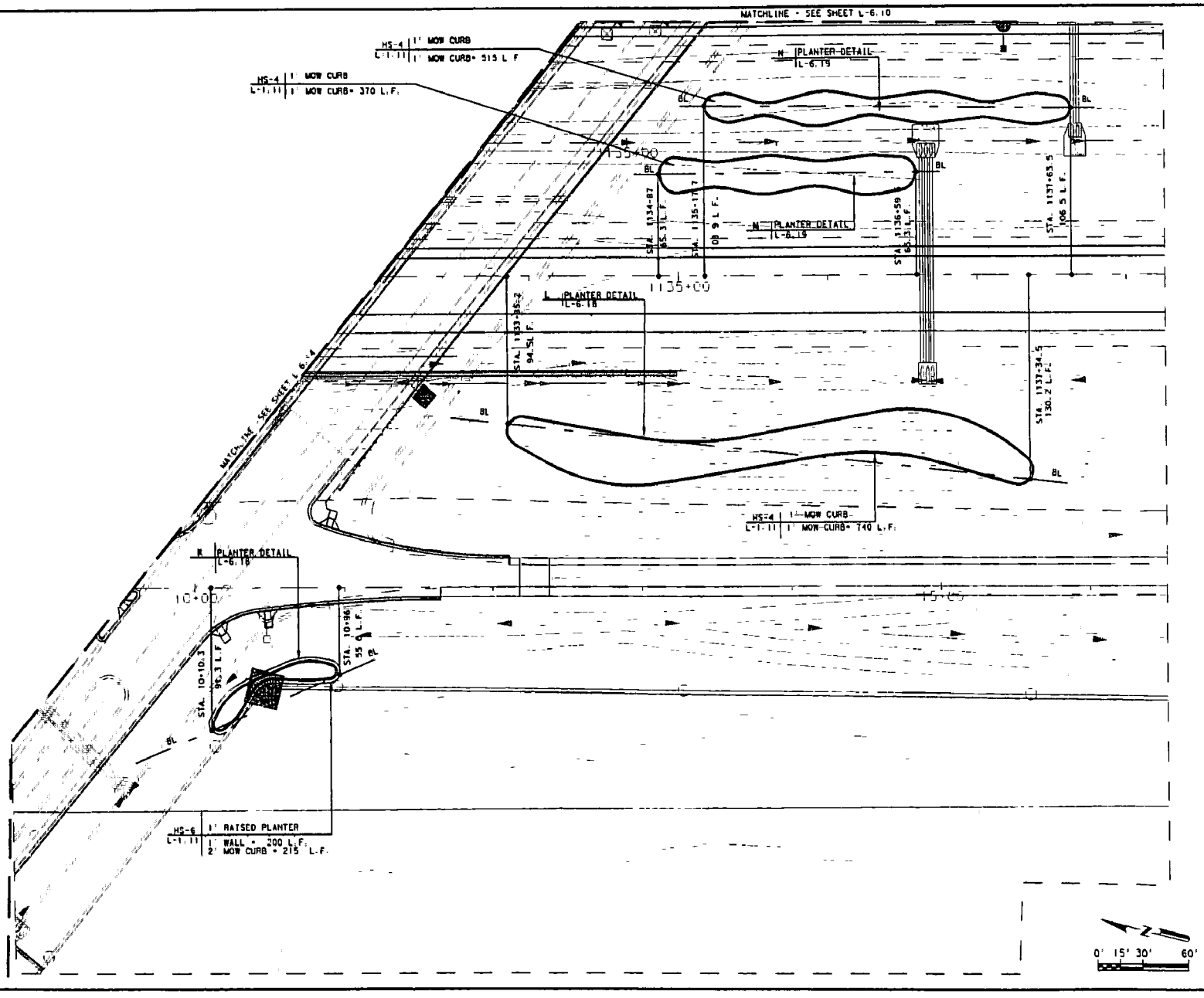
PECAN STREET GATEWAY

SCALE: 1" = 60'

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-6.13

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
6	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	1,625
2' CONCRETE MOW CURB	L.F.	215
1' RAISED PLANTER	L.F.	200
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUECK 1197 STATE OF TEXAS 10/11/05

TEAM MEMBER DAUM+HARRIS

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SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

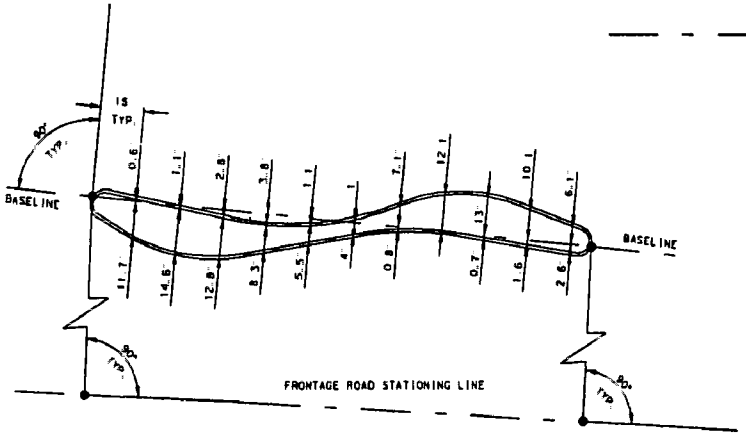
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMS	DATE:
DRAWN BY: LEJ	CHECKED BY:	DATE: 06 20 05
APPROVED BY	DATE	PROJECT NO.

FED. RD. DIV. NO.	PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-6.14

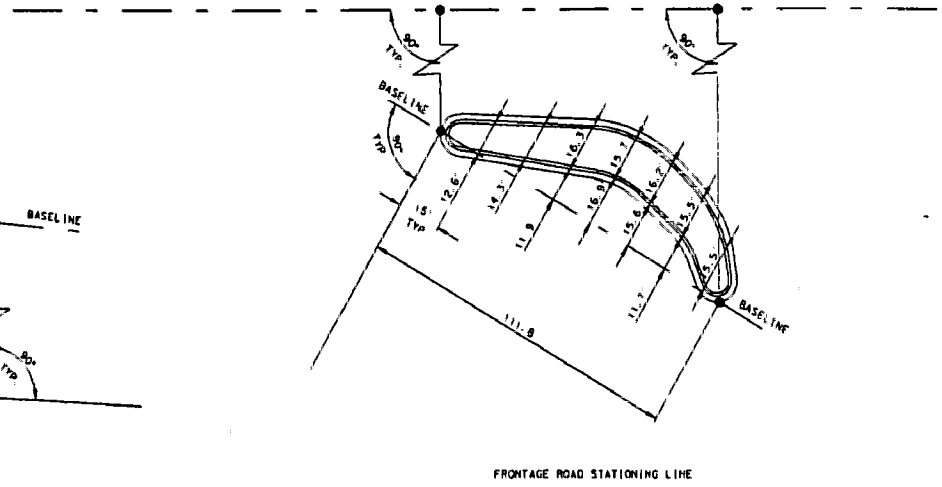
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION



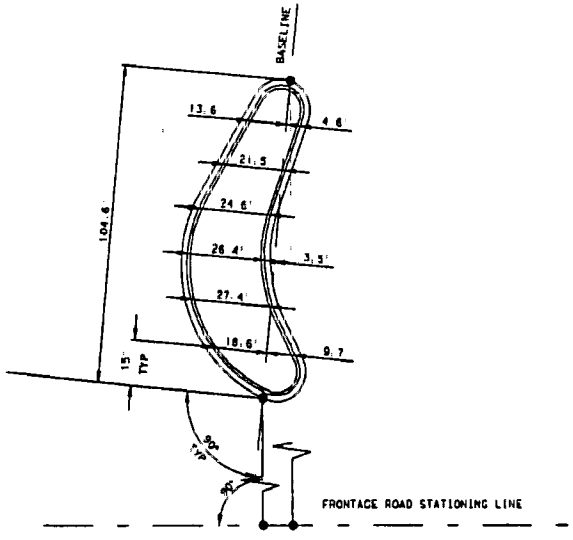
E | PLANTER DETAIL "E"

SCALE = 1"=40'-0"



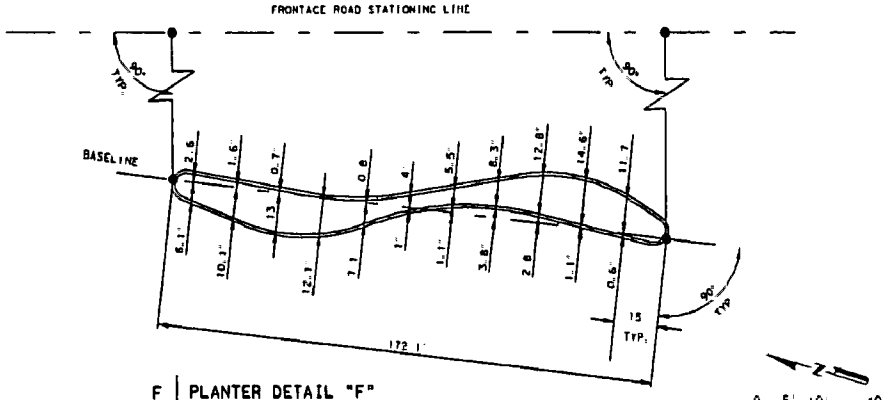
G | PLANTER DETAIL "G"

SCALE = 1"=40'-0"



D | PLANTER DETAIL "D"

SCALE = 1"=40'-0"



F | PLANTER DETAIL "F"

SCALE = 1"=40'-0"

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRECK
1197
STATE OF TEXAS
10/11/05

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 SECTION 08
LANDSCAPE PLANS
PLANTER DETAILS

PECAN STREET GATEWAY

SCALE: 1" = 40'

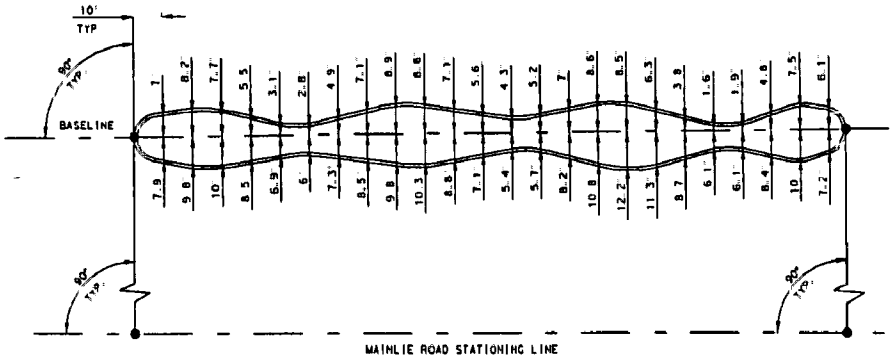
SHEET OF SHEETS

FILE	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2X08001		L-6.16

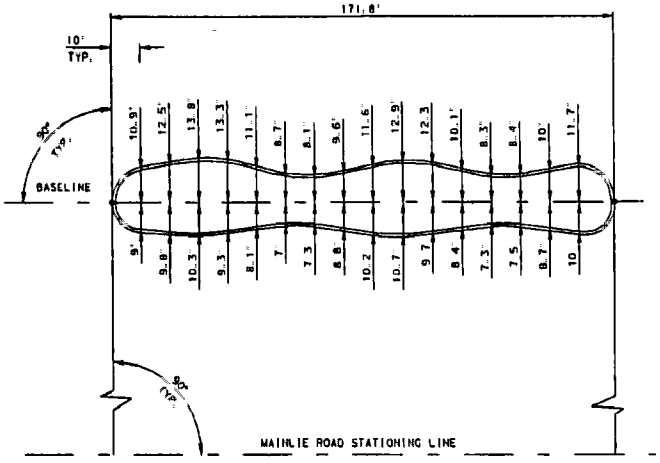
STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130

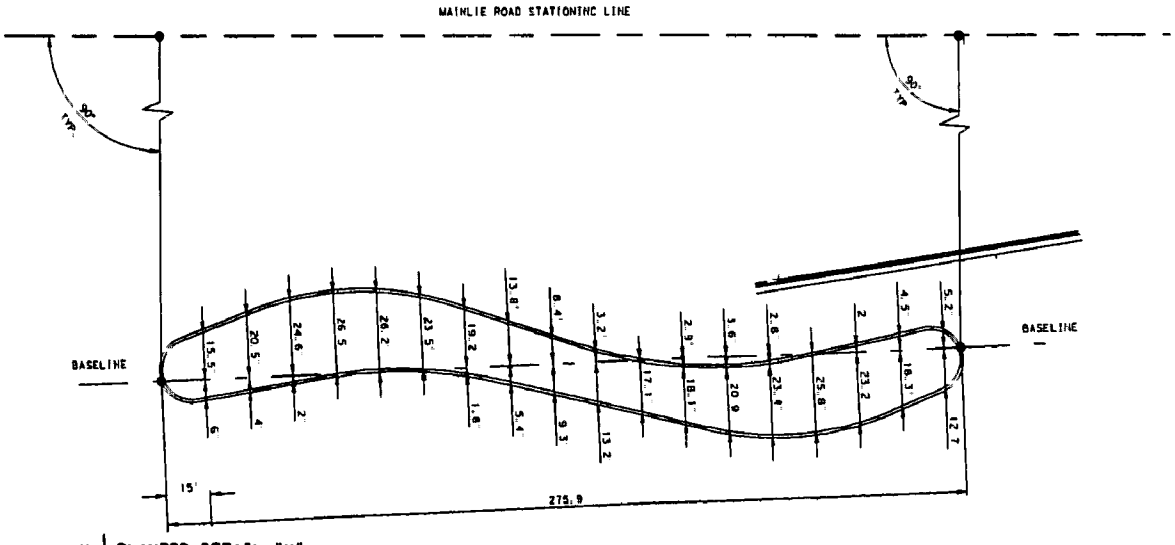
REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION



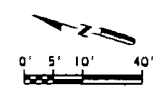
I | PLANTER DETAIL "I"
SCALE = 1"=40'-0"

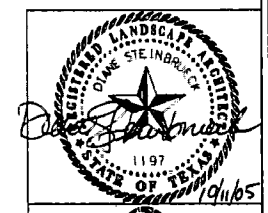


J | PLANTER DETAIL "J"
SCALE = 1"=40'-0"



H | PLANTER DETAIL "H"
SCALE = 1"=10'-0"





10/11/05

TEAM MEMBER
DIANA HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

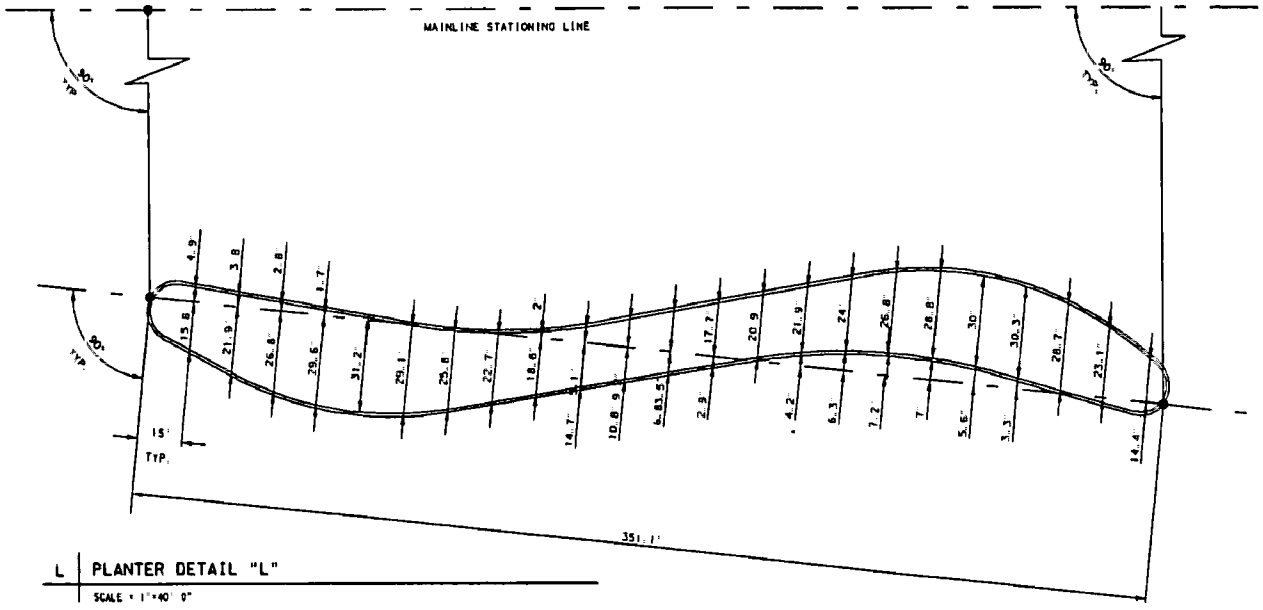
SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTER DETAILS

PECAN STREET GATEWAY

SCALE: 1" =40'

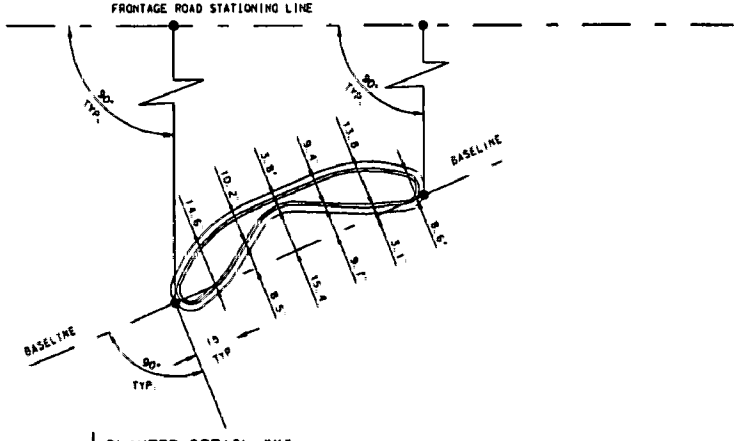
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RBG	DATE:	
DRAWN BY: LTJ	CHECKED BY:	DATE: 08-20-03	
APPROVED BY:	DATE:	PROJECT NO.	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XX08001		L-6.17
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130



L | PLANTER DETAIL "L"

SCALE = 1"=40' 0"



K | PLANTER DETAIL "K"

SCALE = 1"=40'-0"

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 SECTION 08
LANDSCAPE PLANS
PLANTER DETAILS

PECAN STREET GATEWAY

SCALE: 1" = 40'

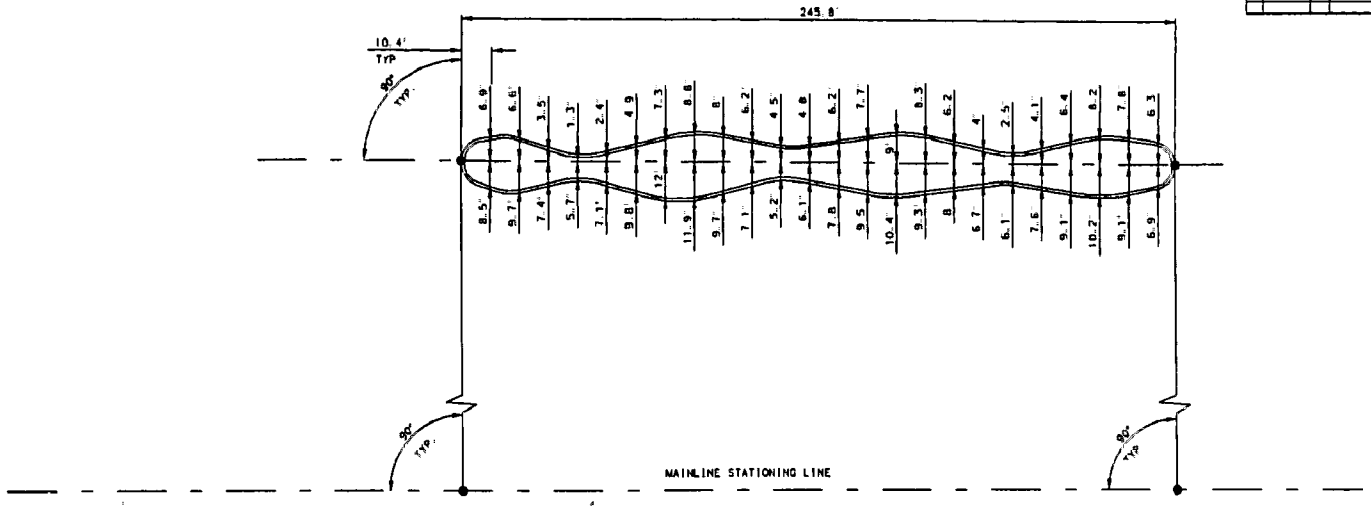
SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DRW NO
6	86-2xxDB001		L-6.18

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

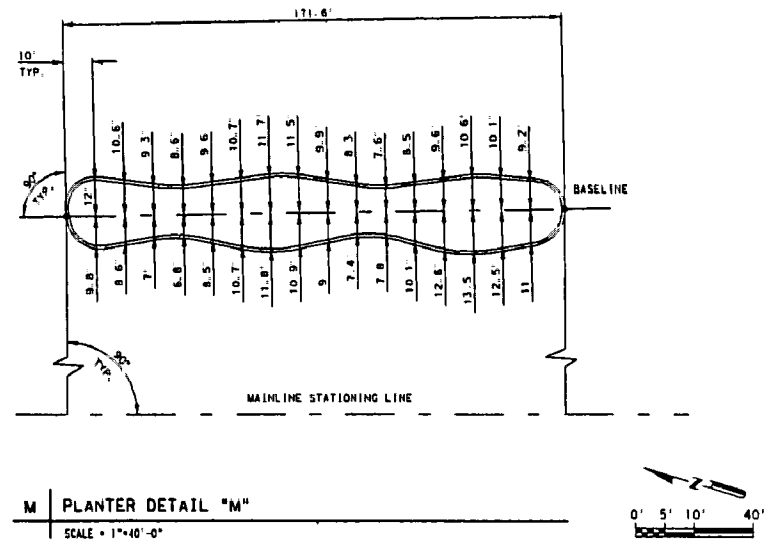
CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION



N | PLANTER DETAIL "N"

SCALE = 1"=40' 0"



M | PLANTER DETAIL "M"

SCALE = 1"=40'-0"

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTER DETAILS

PECAN STREET GATEWAY

SCALE: 1" = 40

SHEET OF SHEETS

DESIGNED BY: DLG	CHECKED BY: RWO	DATE:
DRAWN BY: LSJ	CHECKED BY:	DATE: 06 24 05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-6.19

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT
TRAVIS COUNTY

FEDERAL AID PROJECT NO:
86-2XXDB001
CSJ: 0440-06-004

LANDSCAPE FOR MAINLINE TOLL PLAZA #6

OVERALL PLANT LEGEND FOR MAINLINE TOLL PLAZA #6

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
GR-	GRASSES			
MC	Muhlenbergia capillaris			
	GULF MUHLY	1g	1035	24" O.C.
ML	Muhlenbergia lindheimeri			
	LINDHEIMER MUHLY	5g	29	
MR	Muhlenbergia rigens			
	DEER MUHLY	1g	275	24" O.C.
GC-	GROUND COVER			
RN	Ruellia nudiflora			
	VIOLET RUELLIA	4"p	472	24" O.C.
VB	Verbena bipinnatifida			
	PRAIRIE VERBENA	1g	542	24" O.C.
AC-	ACCENT			
SM	Sabal minor			
	TEXAS PALMETTO	5g	41	
YR	Yucca requenifolia			
	SOFT-LEAF YUCCA	1g	30	
SS-	SHRUB - SMALL			
DB	Dietes bicolor			
	BICOLOR IRIS	1g	68	
IV	Ilex vomitoria var. nana			
	DWARF YAUPON	3g	136	
LH	Lantana hybrida 'Hey Gold'			
	HEY GOLD LANTANA	1g	88	21" AND 36" O.C.
LS	Lantana hybrida "Silver Mound"			AS SHOWN
	SILVER MOUND LANTANA	1g	335	24" AND 36" O.C.
LP	Lantana montevidensis 'Purple	Trailing'		AS SHOWN
	PURPLE TRAILING LANTANA	1g	400	24", AND 36" O.C.
MD	Malvaviscus drummondii			AS SHOWN
	TURK'S CAP	1g	466	24" O.C.
SW	Salvia greggii 'White'			
	WHITE AUTUMN SAGE	1g	64	
SM-	SHRUB - MEDIUM			
LA	Lonicera albiflora			
	WHITE HONEYSUCKLE	5g	6	
LF	Leucophyllum frutescens			
	TEXAS SAGE	5g	30	
LH	Lantana horrida			
	TEXAS LANTANA	5g	188	
MP	Myrica pusilla			
	DWARF WAX MYRTLE	5g	38	
SL	SHRUB - LARGE			
MC	Myrica cerifera			
	WAX MYRTLE	5g	15	
VH-	VINES			
RS	Rosa setigera			
	CLIMBING PRAIRIE ROSE	5g	60	

SYMB	Botanical name / COMMON NAME	SIZE	QTY	REMARKS
TS-	TREES - SMALL			
CT	Cercis texensis			MULTI-TRUNK
	TEXAS REDBUD	2"c	64	(3-5 CANES MINIMUM)
CTW	Cercis texensis 'Whitebud'			MULTI-TRUNK
	TEXAS WHITEBUD	2"c	58	(3-5 CANES MINIMUM)
ID	Ilex decidua			
	POSSUMHAW HOLLY	2"c	2	MULTI-TRUNK
	POSSUMHAW HOLLY	1"c	15	(3-5 CANES MINIMUM)
IV	Ilex vomitoria			MULTI-TRUNK
	YAUPON HOLLY	2"c	10	(3-5 CANES MINIMUM)
	YAUPON HOLLY	1"c	16	
PM	Prunus mexicana			
	MEXICAN PLUM	1"c	8	
US	Ungnadia speciosa			MULTI-TRUNK
	MEXICAN BUCKEYE	2"c	6	(3-5 CANES MINIMUM)
TC-	TREES - CANOPY			
CI	Carya illinoiensis			
	PECAN	2"c	5	
PO	Platanus occidentalis			
	SYCAMORE	2"c	5	
QM	Quercus macrocarpa			
	BUR OAK	4"c	5	
QP	Quercus polymorpha			
	MONTEREY OAK	4"c	5	
	MONTEREY OAK	3"c	1	
	MONTEREY OAK	2"c	7	
	MONTEREY OAK	1"c	2	
QV	Quercus virginiana			
	LIVE OAK	4"c	2	
	LIVE OAK	2"c	3	
TD	Taxodium distichum			
	BALD CYPRESS	4"c	6	
	BALD CYPRESS	2"c	5	
	BALD CYPRESS	1"c	4	
UC	Ulmus crassifolia			
	CEDAR ELM	4"c	2	
	CEDAR ELM	2"c	13	
	OTHER			
	GRANITE MULCH	S.F.	0	
	WOOD MULCH	S.F.	10306	
	COMMON BERMUDA HYDROMULCH	ACRES	1.51	
	SEEDING - WILDFLOWER	ACRES	8.4	
	SEEDING - BLACK LAND PRAIRIE	ACRES	0	
	1' CONCRETE MOW CURB	L.F.	4277	
	2' CONCRETE MOW CURB	L.F.	2281	
	CEDAR RAIL FENCE	L.F.	0	
	FREESTANDING NATIVE STONE WALL	S.F.	258	
	DRY STACKED NATIVE STONE WALL	S.F.	0	
	FREESTANDING NATIVE STONE COLUMN	EA.	22	

THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE SUBCONTRACTOR'S REFERENCE ONLY. THE SUBCONTRACTOR SHALL VERIFY QUANTITIES ACCORDING TO THE SYMBOLS ON THE PLAN AND PROVIDE AND INSTALL ALL PLANTS AND OTHER SPECIFIED MATERIALS SHOWN ON THE PLANS.

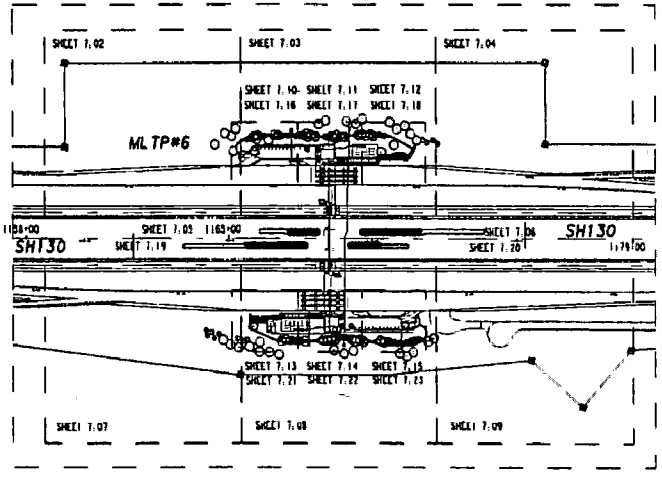
INDEX OF SHEETS

MLTP #6	COVER SHEET, MLTP#6 PLANT LEGEND, KEYMAP	L-7.01
	PLANTING PLANS	L-7.02 THRU L-7.09
	ENLARGED LANDSCAPE PLANS	L-7.10 THRU L-7.15
	HARDSCAPE PLANS	L-7.16 THRU L-7.23
	IRRIGATION PLANS	L-7.24 THRU L-7.25

ABBREVIATIONS

g	GALLONS
c	CALIPER
p	POT
L.F.	LINEAR FEET
S.F.	SQUARE FEET
F.F.	FACE FEET
EA.	EACH
O.C.	ON CENTER
BL	BASELINE

KEYMAP



0' 100' 200' 400'

LICENSED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DRAFTSMAN

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
COVER SHEET

MAINLINE TOLL PLAZA #6

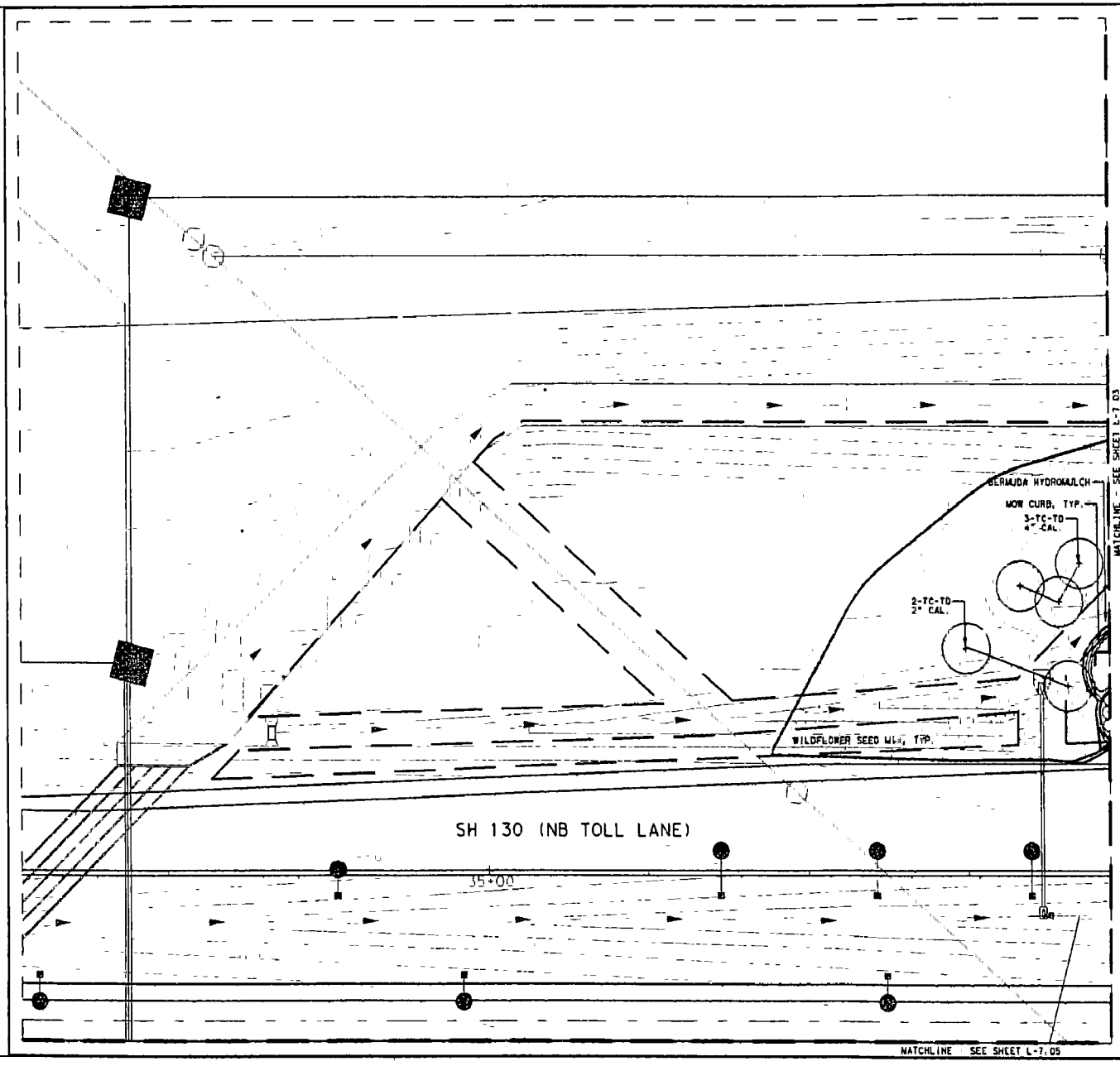
SCALE: 1" = 400'

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	CNTL NO
6	86-2XXDB001		L-7.01

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	09 11 2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens / DEER MUHLY	1g	0
GC-	GROUND COVER		
RH	Ruellia nudiflora / VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida / PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor / TEXAS PALMETTO	5g	0
TR	Yucca recurvifolia / SOFT LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
DB	Dietes bicolor / BICOLOR IRIS	1g	0
Iv	Ilex vomitoria var. nana / DWARF YAUPON	3g	0
LN	Lantana hybrida 'New Gold' / NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound' / SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple Trailing' / PURPLE TRAILING LANTANA	1g	0
WD	Malvaviscus drummondii / TURK'S CAP	1g	0
SW	Salvia greggii 'White' / WHITE AUTUMN SAGE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora / WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens / TEXAS RAIN	5g	0
LH	Lantana horrida / TEXAS LANTANA	5g	0
MP	Myrica pusilla / DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera / WAX MYRTLE	5g	0
VN-	VINES		
RS	Rosa setigera / CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoinensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	0
QM	Quercus macrocarpa / BUR OAK	4"c	0
QP	Quercus polymorpha / MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana / LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum / BALD CYPRESS	4"c	3
	BALD CYPRESS	2"c	2
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia / CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis / TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'mollissima' / TEXAS WHITEBUD	2"c	0
ID	Ilex decidua / POSSUMHAW HOLLY	2"c	0
	POSSUMHAW HOLLY	1"c	0
Iv	Ilex vomitoria / YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	0
US	Ungnadia speciosa / MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	0
COMMON BERMUDA HYDROMULCH	ACRES	0.01
SEEDING - WILDFLOWER	ACRES	0.5
SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
9/11/05

TEAM MEMBER
SWANN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

SHEET OF SHEETS

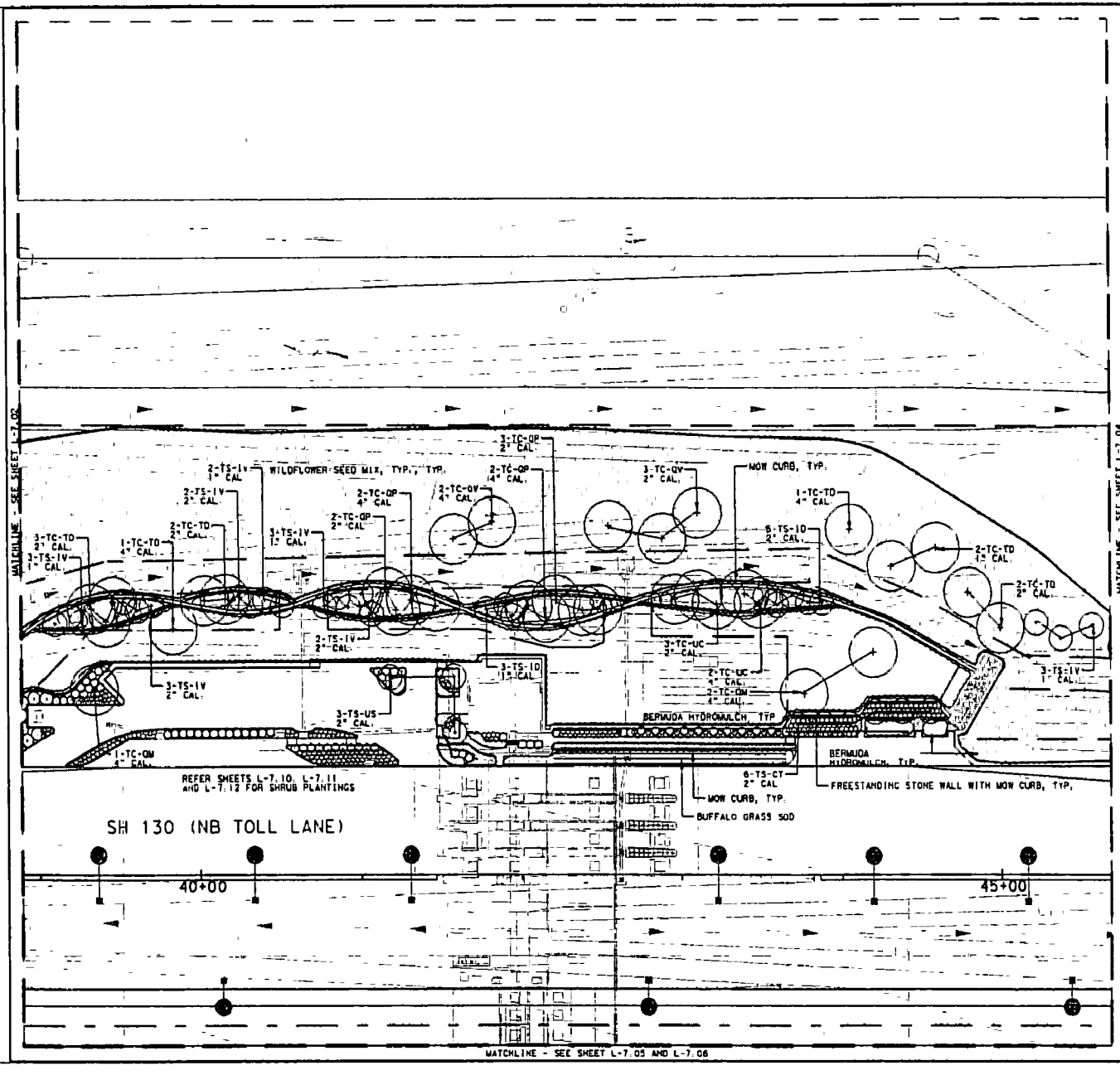
DESIGNED BY: DLS	CHECKED BY: MMO	DATE:
DRAWN BY: EEJ	CHECKED BY:	DATE: 06 10 03
APPROVED BY:	DATE:	PARCEL NO

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-7 02

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	06-11-2003	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
WC	Muhlenbergia capillaris		
	GULF MUHLY	1 g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHL	5 g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1 g	0
GC-	GROUND COVER		
AH	Aquilia multiflora		
	VIOLET AQUILIA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1 g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5 g	0
YR	Yucca rupicola		
	SOFT-LEAF YUCCA	1 g	0
SS-	SHRUB - SMALL		
OB	Oligia bicolor		
	BICOLOR DAISY	1 g	0
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	3 g	0
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1 g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1 g	0
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1 g	0
MD	Malvaviscus drummondii		
	TURK'S CAP	1 g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1 g	0
SM	SHRUB - MEDIUM		
LA	Leucophyllum frutescens		
	WHITE HONEYSUCKLE	5 g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5 g	0
LH	Lonicera harrigii		
	TEXAS LANTANA	5 g	0
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5 g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5 g	0
VH-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5 g	0
TC-	TREES - CANOPY		
CI	Cercis canadensis		
	REDBUD	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	2"c	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	3
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	4
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	5
	MONTERREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	2
	LIVE OAK	2"c	3
TD	Taxodium distichum		
	BALD CYPRESS	4"c	2
	BALD CYPRESS	2"c	7
	BALD CYPRESS	1"c	2
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	2
	CEDAR ELM	2"c	3

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	6
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	5
	POSSUMHAW HOLLY	1"c	3
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	7
	YAUPON HOLLY	1"c	11
PM	Prunus mexicana		
	MEXICAN PLUM	1"c	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"c	3

	PLANTING SETBACK LINE		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0.8
	SEEDING - WILDFLOWER	ACRES	1.65
	SEEDING - BEACH LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/31/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

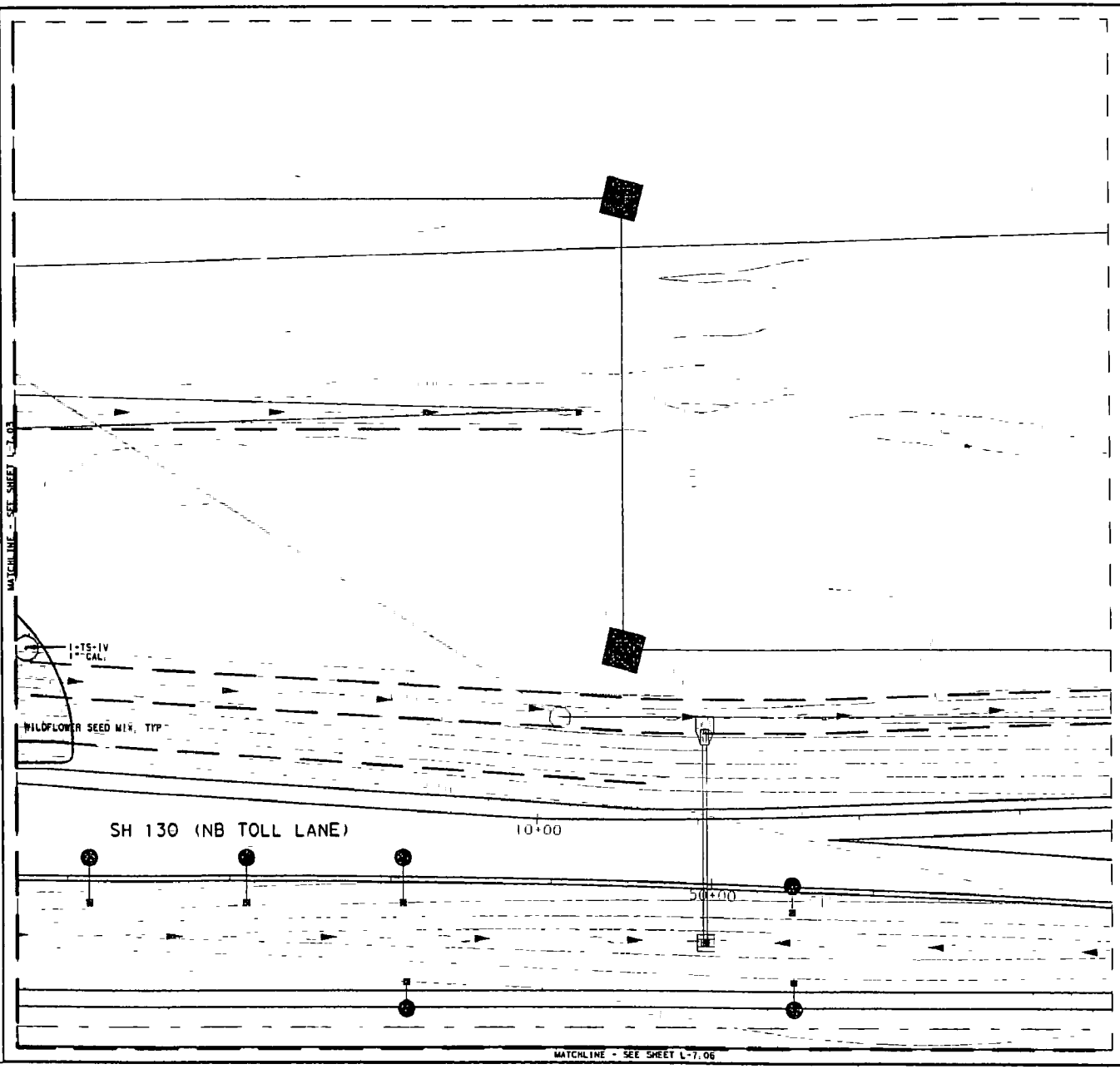
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWB	DATE:
DRAWN BY: EBJ	CHECKED BY:	DATE: 06-20-03
APPROVED BY:	DATE:	TEXAS DOT

FED RD DIV	PROJECT NO	SHEET NAME	DWG NO
6	86-2XX08001		L-7.03

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60'



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
YR	Yucca recurvifolia		
	SOFT LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
DB	Dietes bicolor		
	BICOLOR IRIS	1g	0
Iy	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	0
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	0
MO	Malvaviscus arboreus		
	TURK'S CAP	1g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM	SHRUB - MEDIUM		
LA	Lonicera sibirica		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera horrida		
	TEXAS LANTANA	5g	0
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	0
VN-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoensis		
	PECAN	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	2"g	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"g	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
	POSSUMHAW HOLLY	1"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	1
PM	Prunus mexicana		
	MEXICAN PLUM	1"c	0
US	Universitia americana		
	MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	0
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING - WILDFLOWER	ACRES	0.1
SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
CALLIN/HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: CLS	CHECKED BY: RWB	DATE:
DRAWN BY: CJ	CHECKED BY:	DATE: 04-13-05
APPROVED BY:	DATE:	PROJECT NO:

FED RD DIV	PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-7.04

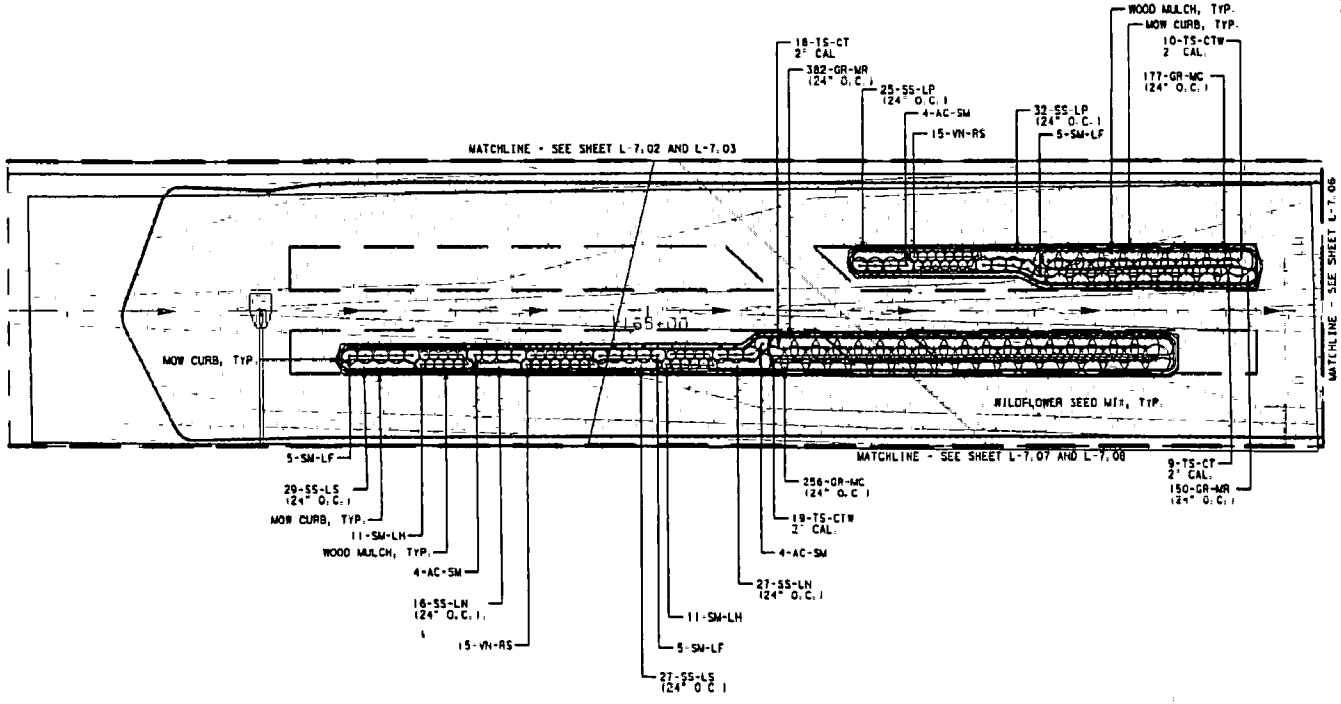
STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	09 11 2005	CJ	APPROVED FOR CONSTRUCTION



PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	1g	433
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens / DEER MUHLY	1g	532
GC-	GROUND COVER		
RH	Ruellia nudiflora / VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida / PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor / TEXAS PALMETTO	5g	12
YR	Yucca recurvifolia / SOFT LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
DB	Dietes bicolor / BICOLOR IRIS	1g	0
IV	Ilex vomitoria var. nana / DWARF YAUPON	3g	0
LN	Lantana hybrida 'New Gold' / NEW GOLD LANTANA	1g	43
LS	Lantana hybrida 'Silver Mound' / SILVER MOUND LANTANA	1g	56
LP	Lantana hybrida 'Purple Trailing' / PURPLE TRAILING LANTANA	1g	57
WD	Malvaviscus drummondii / TURK'S CAP	1g	0
SW	Salvia greggii 'White' / WHITE AUTUMN SAGE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora / WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens / TEXAS SAGE	5g	15
LH	Lonicera hispida / TEXAS LANTANA	5g	22
MP	Myrica pusilla / DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera / WAX MYRTLE	5g	0
VH-	VINES		
RS	Rosa setigera / CLIMBING PRAIRIE ROSE	5g	30
TC	TREES - CANOPY		
CI	Carya illinoinensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	0
QW	Quercus macrocarpa / BUR OAK	4"c	0
QP	Quercus polymorpha / MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana / LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum / BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia / CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND			
SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis / TEXAS REDBUD	2"c	27
CTW	Cercis texensis 'Whitebud' / TEXAS WHITEBUD	2"c	23
IO	Ilex opaca / POSSUMHAW HOLLY	2"c	0
	POSSUMHAW HOLLY	1"c	0
IV	Ilex vomitoria / YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	0
US	Ungnadia speciosa / MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	10108
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	1.7
	SEEDING - BLADY LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRECK 1197 STATE OF TEXAS 10/11/05

TRAM WENGER CHAIRMAN

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60

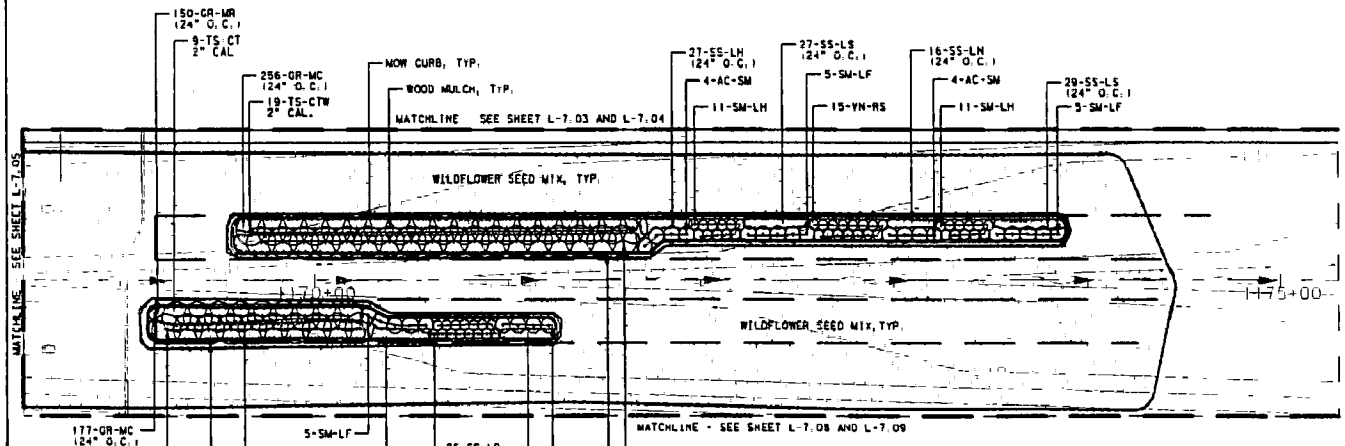
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWO	DATE:
DRAWN BY: TJ	DETAILS BY:	DATE: 08-03
APPROVED BY:	DATE:	/ / 2005 / / HRS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-7.05

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	433
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHL	1g	532
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	12
YR	Yucca recurvifolia		
	SOFT LEAF YUCCA	1g	0
SS-	SHRUB SMALL		
DB	Dietes bicolor		
	BICOLOR IRIS	1g	0
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	5g	0
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	43
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	56
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	57
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	15
LH	Lonicera horridia		
	TEXAS LANTANA	5g	22
WP	Myrica cerifera		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB LARGE		
WC	Myrica cerifera		
	WAX MYRTLE	5g	0
VN-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	30
TC-	TREES CANOPY		
CI	Carya illinoinensis		
	PECAN	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	4"c	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	27
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	29
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
	POSSUMHAW HOLLY	1"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PN	Prunus mexicana		
	MEXICAN PLUM	1"c	0
US	Unanodia speciosa		
	MEXICAN BUCKEYE	2"c	0

	PLANTING SETBACK LINE		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	10108
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	1.7
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM WOWDER SHAW-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

SHEET OF SHEETS

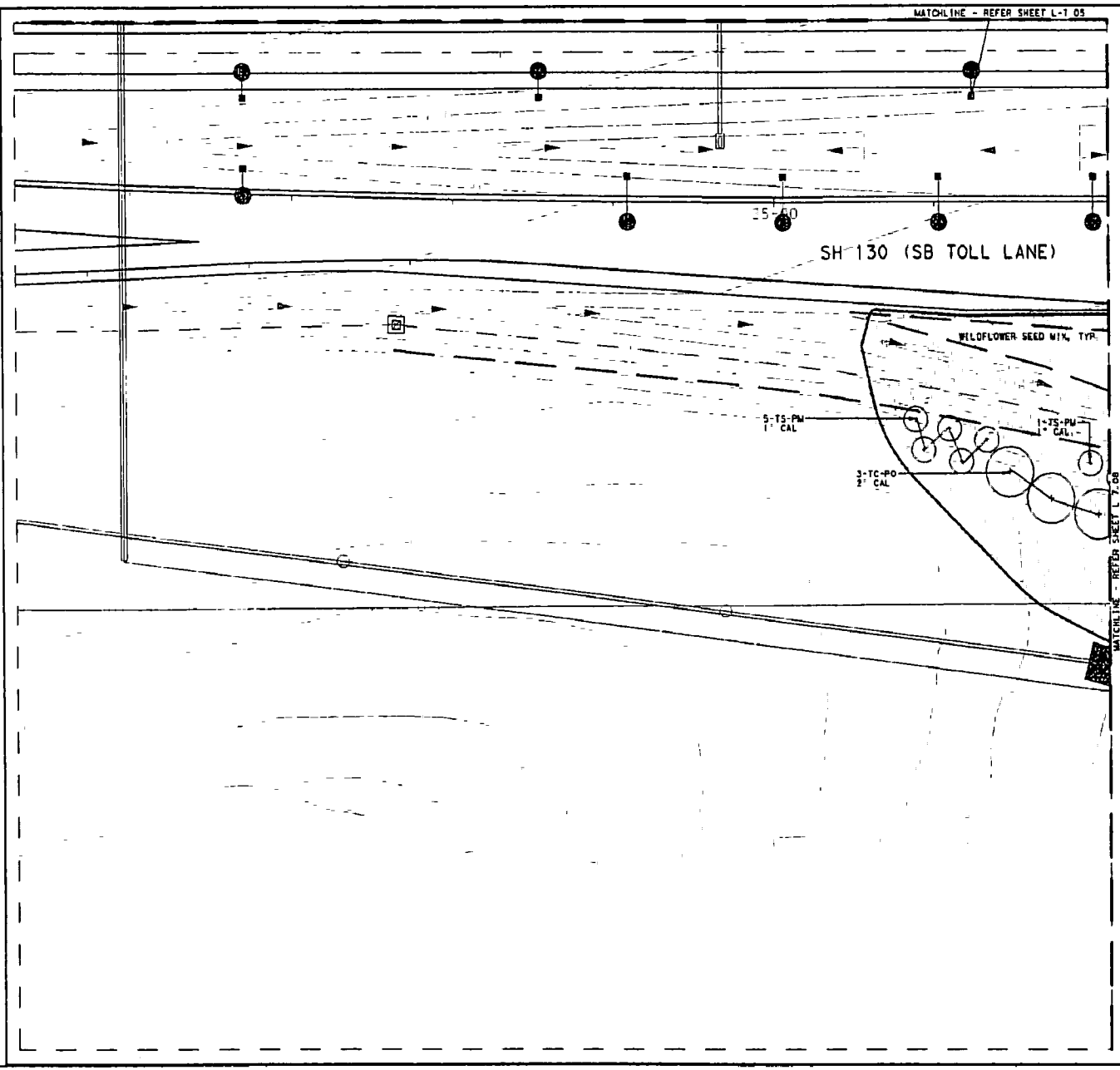
0' 15' 30' 60'

DESIGNED BY: DLS	CHECKED BY: PWD	DATE:
DRAWN BY: TJJ	CALCULD BY:	DATE: 06.10.03
APPROVED BY:	DATE:	FINAL:

FED. RD.	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-7.06

STATE	DISTRICT	COUNTY
Tx	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
YR	Yucca rigida		
	SOFT-LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
OB	Olea europaea bicolor		
	BICOLOR TREE	1g	0
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	5g	0
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple trailing'		
	PURPLE TRAILING LANTANA	1g	0
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera japonica		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera hybrida		
	TEXAS LANTANA	5g	0
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	0
VH-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC	TREES - CANOPY		
CI	Carya illinoinensis		
	PECAN	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	2"c	3
QW	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	3"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
	POSSUMHAW HOLLY	1"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prosopis glandulosa		
	MEXICAN PLUM	1"c	6
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

	GRANITIC MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING : WILDFLOWER	ACRES	0.9
	SEEDING : BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRECK
1197
STATE OF TEXAS
10/11/05

TEXAS MEMBER
ASLA+NLA+ASLA

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

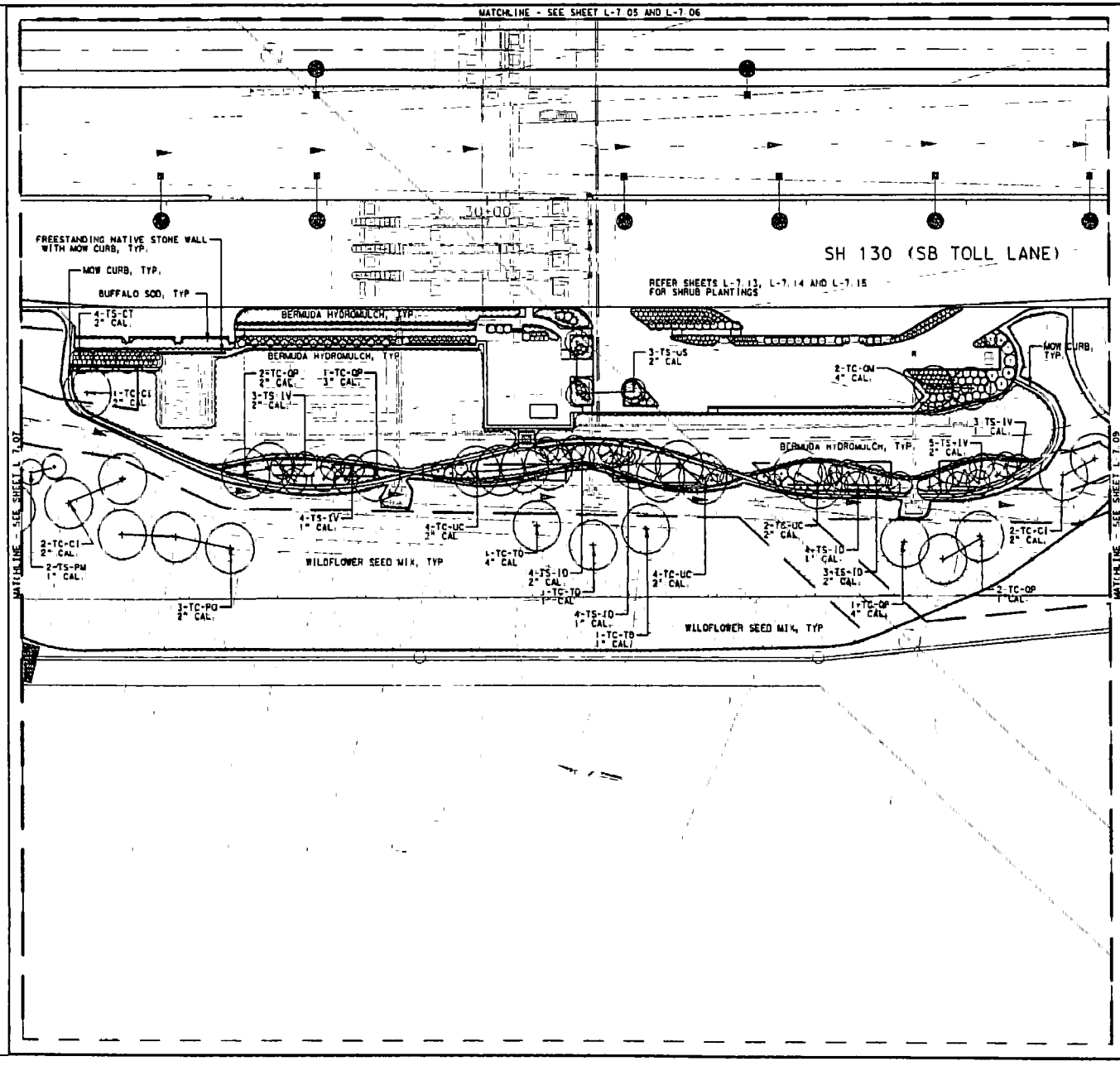
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: MRG	DATE:
DRAWN BY: ESJ	CHECKED BY	DATE: 09-19-03
APPROVED BY:	DATE:	FHWA: NO.

FED. RD. DIV. NO.	PROJECT NO.	SHEET NAME	DWG. NO.
6	86-2XXDB001		L-7.07

STATE	DISTRICT	COUNTY
Tx	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO.
0440	08	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"g	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
YR	Yucca recurvifolia		
	SOFT-LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
DB	Dietes bicolor		
	BICOLOR IRIS	1g	0
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	0
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple trailing'		
	PURPLE TRAILING LANTANA	1g	0
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera hispidula		
	TEXAS LANTANA	5g	0
NP	Nerium oleander		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	0
VH-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoinensis		
	PECAN	4"c	5
PO	Platanus occidentalis		
	SYCAMORE	4"c	2
QM	Quercus macrocarpa		
	BUR OAK	4"c	2
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	1
	MONTERREY OAK	3"c	1
	MONTERREY OAK	2"c	2
	MONTERREY OAK	1"c	2
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	1
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	2
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	10

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	4
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	7
	POSSUMHAW HOLLY	1"c	12
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	3
	YAUPON HOLLY	1"c	4
PM	Prunus mexicana		
	MEXICAN PLUM	1"g	2
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"c	3

	PLANTING SETBACK LINE		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0.7
	SEEDING - WILDFLOWER	ACRES	1.8
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUCK 1197 STATE OF TEXAS

10/8/05

TEAM MOVER DRAIN-MARRS

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SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

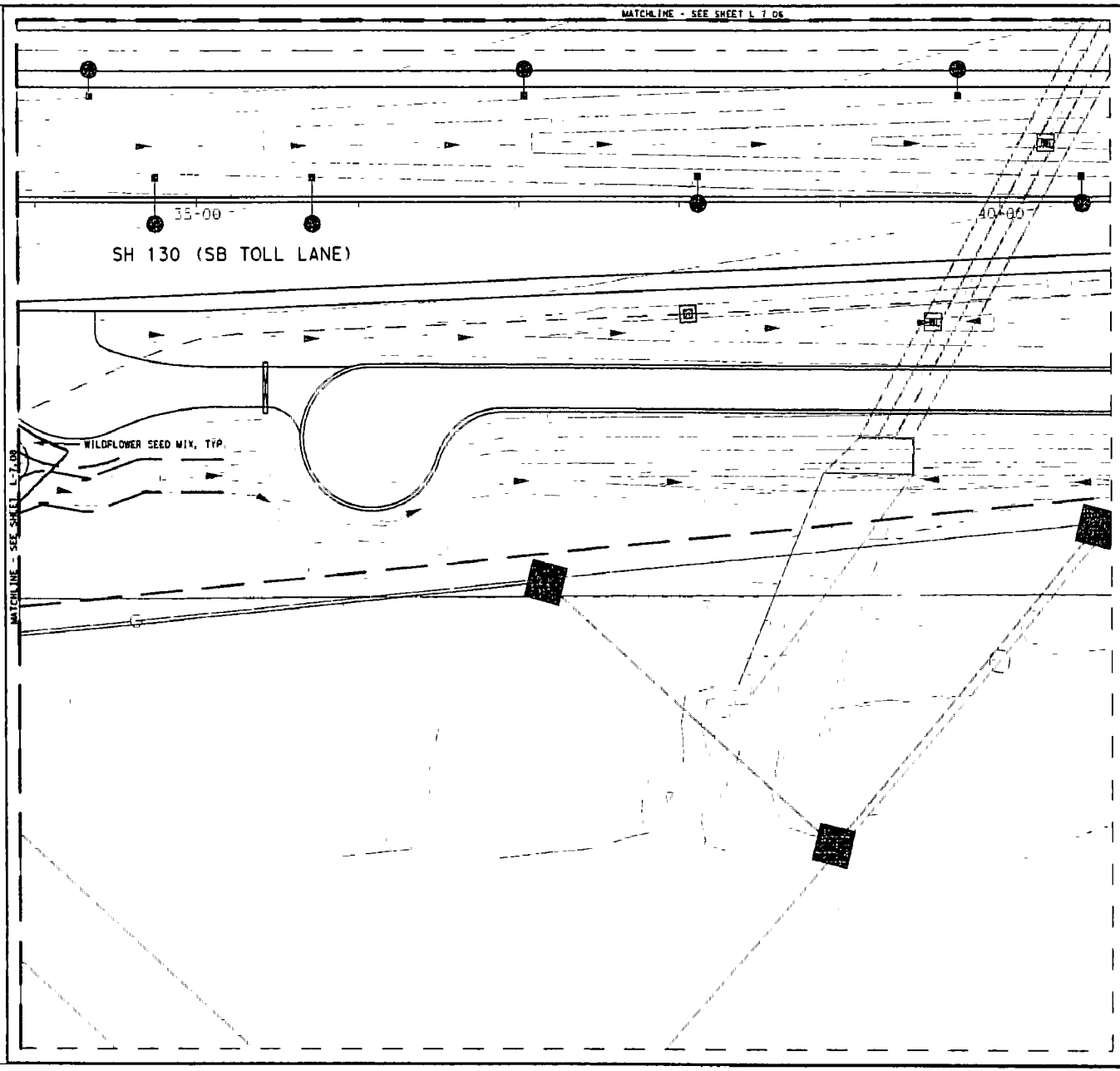
SHEET OF SHEETS

DESIGNED BY: CLS	CHECKED BY: PMG	DATE:
DRAWN BY: LEJ	CHECKED BY	DATE: 08.10.05
APPROVED BY:	DATE:	PROJECT NO.

FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2xx08001		L-7.08

STATE	DISTRICT	COUNTY
Tx	AUS	TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	0
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	0
GC-	GROUND COVER		
RM	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	0
VB	Verbena pigmaeaflida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
YR	Yucca recurvifolia		
	SOFT-LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
DB	Dianea bicolor		
	BICOLOR IRIS	1g	0
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	0
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	0
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera horrida		
	TEXAS LANTANA	5g	0
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	0
SC	SHRUB - LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	0
VN-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoiensis		
	PECAN	2"g	0
PO	Platanus occidentalis		
	SYCAMORE	2"g	0
QM	Quercus macrocarpa		
	BUR OAK	4"g	0
QP	Quercus polymorpha		
	MONTERREY OAK	4"g	0
	MONTERREY OAK	3"g	0
	MONTERREY OAK	2"g	0
	MONTERREY OAK	1"g	0
QV	Quercus virginiana		
	LIVE OAK	4"g	0
	LIVE OAK	2"g	0
TD	Taxodium distichum		
	BALD CYPRESS	4"g	0
	BALD CYPRESS	2"g	0
	BALD CYPRESS	1"g	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"g	0
	CEDAR ELM	2"g	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
TS-	TREES - SMALL		
CT	Cercis texensis		
	TEXAS REDBUD	2"g	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"g	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"g	0
	POSSUMHAW HOLLY	1"g	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"g	0
	YAUPON HOLLY	1"g	0
PM	Prunus mexicana		
	MEXICAN PLUM	1"g	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"g	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	0
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0.05
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
4197
STATE OF TEXAS
10/11/05

TEAM LEADER
DAWN HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 60'

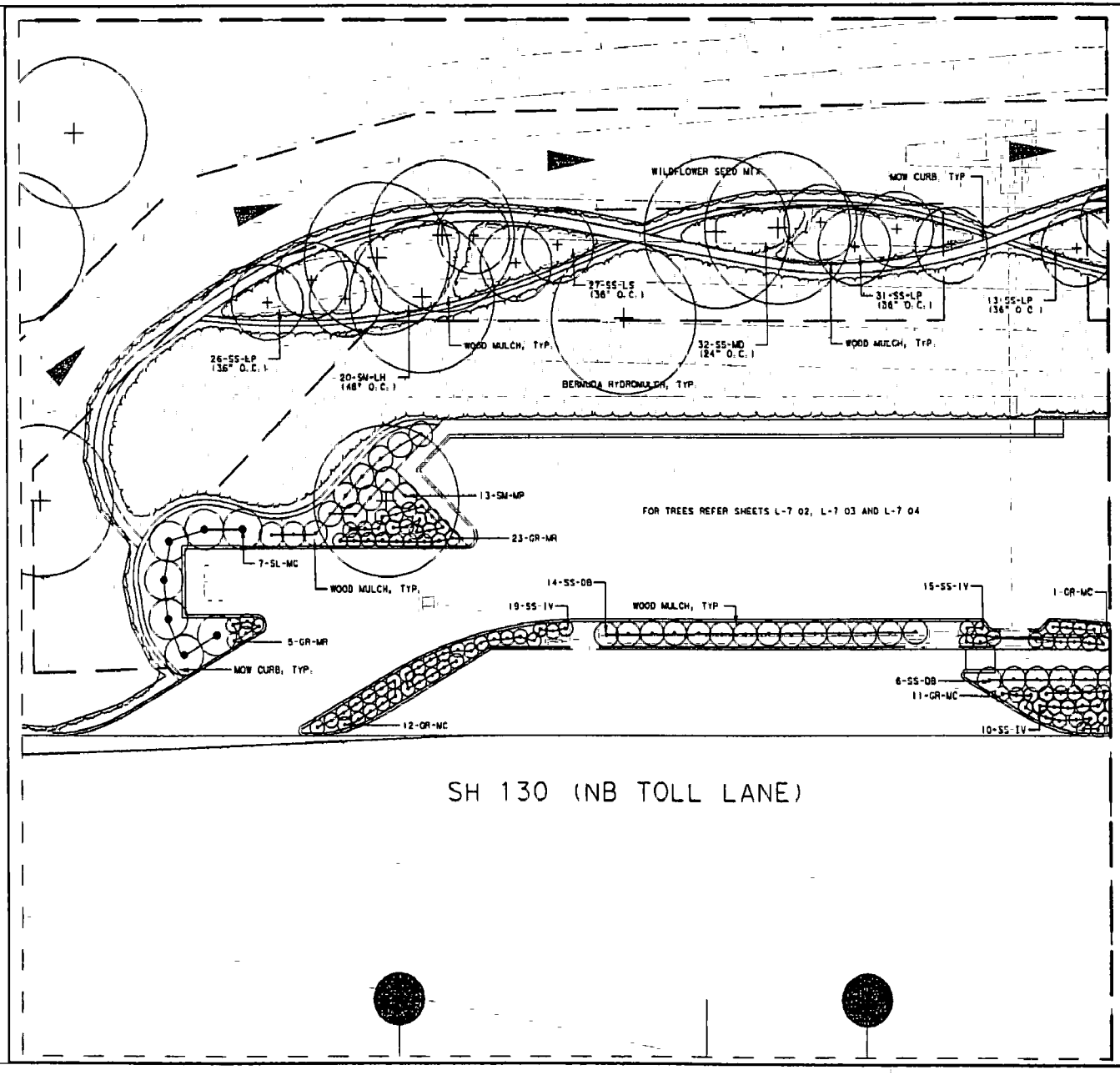
SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RWB	DATE:
DRAWN BY: JJK	CHECKED BY:	DATE: 09-19-05
APPROVED BY:	DATE:	PROJECT NO:

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-7.09

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

MATCHLINE - SEE SHEET L-7.11

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	24
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	28
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"g	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
YR	Yucca rupicola/filifa		
	SOTOL/ LEN YUCCA	1g	0
SS-	SHRUB SMALL		
DB	Dietes bicolor		
	BICOLOR IRIS	1g	20
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	44
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	37
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1d	70
MD	Malvaviscus drummondii		
	TURKS CAP	1g	32
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera horridia		
	TEXAS LANTANA	5g	20
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	13
SL	SHRUB LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	7
VN-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES CANOPY		
CI	Carya illinoiensis		
	PECAN	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	2"c	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTEREY OAK	4"c	0
	MONTEREY OAK	3"c	0
	MONTEREY OAK	2"c	0
	MONTEREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
ST-	SMALL TREES		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
IO	Ilex opaca		
	POSSUMHAW HOLLY	2"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana		
	MEXICAN PLUM	1"c	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	3,080
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/2/05

TEAM LOWNER
DAUN+HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
ENLARGED LANDSCAPE PLAN

MAINLINE TOLL PLAZA #8

SCALE: 1" = 20'

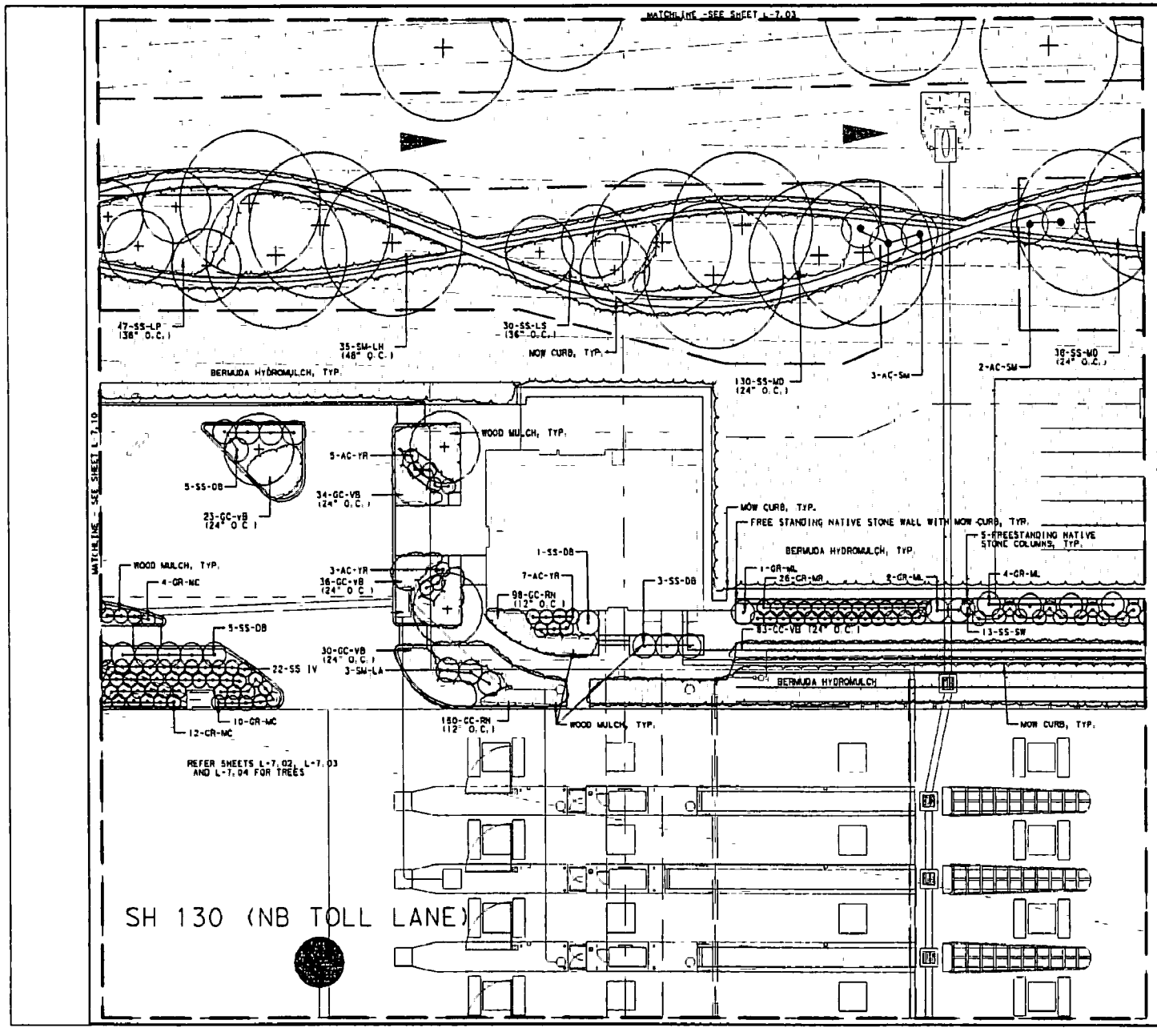
SHEET OF SHEETS

DESIGNED BY DLB	CHECKED BY RWD	DATE
DRAWN BY CBA	CHECKED BY	DATE: Oct 10 05
APPROVED BY	DATE:	FILMED NO

FED RD DIV	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS	DWG NO
6	86-2XXDB001			L-7.10

STATE	DISTRICT	COUNTY
Tx	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	001	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris / GULF MUHLY	1g	26
ML	Muhlenbergia lindheimeri / LINDHEIMER MUHLY	5g	7
MR	Muhlenbergia rigens / DEER MUHLY	1g	26
GC-	GROUND COVER		
RN	Ruellia nudiflora / VIOLET RUELLIA	4"p	248
VB	Verbena bipinnatifida / PRAIRIE VERBENA	1g	206
AC-	ACCENT		
SM	Sabal Minor / TEXAS PALMETTO	5g	5
YR	Yucca rosarifolia / SOFT LEAF YUCCA	1g	15
SS-	SHRUB - SMALL		
DB	Diplay Bicolor / BICOLOR INTS	1g	14
IV	Ilex vomitoria var. nana / DWARF YAUPON	3g	22
LN	Lantana hybrida "New Gold" / NEW GOLD LANTANA	1g	0
LS	Lantana hybrida "Silver Mound" / SILVER MOUND LANTANA	1g	30
LP	Lantana hybrida "Purple Trailing" / PURPLE TRAILING LANTANA	1g	47
MD	Malvaviscus drummondii / TURK'S CAP	1g	168
SW	Salvia greggii "White" / WHITE AUTUMN SAGE	1g	13
SW-	SHRUB - MEDIUM		
LA	Lonicera albiflora / WHITE HONEYSUCKLE	5g	3
LF	Leucophyllum frutescens / TEXAS SAGE	5g	0
LH	Lonicera hispidula / TEXAS LANIANA	5g	35
MP	Myrica pusilla / DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
MC	Myrica cerifera / WAX MYRTLE	5g	0
VIN-	VINES		
RS	Rosa setigera / CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoinensis / PECAN	2"c	0
PO	Platanus occidentalis / SYCAMORE	2"c	0
QM	Quercus macrocarpa / BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTEREY OAK	4"c	0
	MONTEREY OAK	3"c	0
	MONTEREY OAK	2"c	0
	MONTEREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
CT-	SMALL TREES		
CT	Cercis texensis / TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitewood' / TEXAS WHITEBUD	2"c	0
ID	Ilex decidua / POSSUMHAW HOLLY	2"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana / MEXICAN PLUM	1"c	0
US	Ungnadia speciosa / MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

GRANITE MULCH	S.F.	0
WOOD MULCH	S.F.	4,350
COMMON BERMUDA HYDROMULCH	ACRES	0
SEEDING - WILDFLOWER	ACRES	0
SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUCK 1197 STATE OF TEXAS

10/11/05

TEAM WENDER DRAW-HARRIS

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SEGMENT 2, SECTION 08
LANDSCAPE PLANS
ENLARGED PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 20

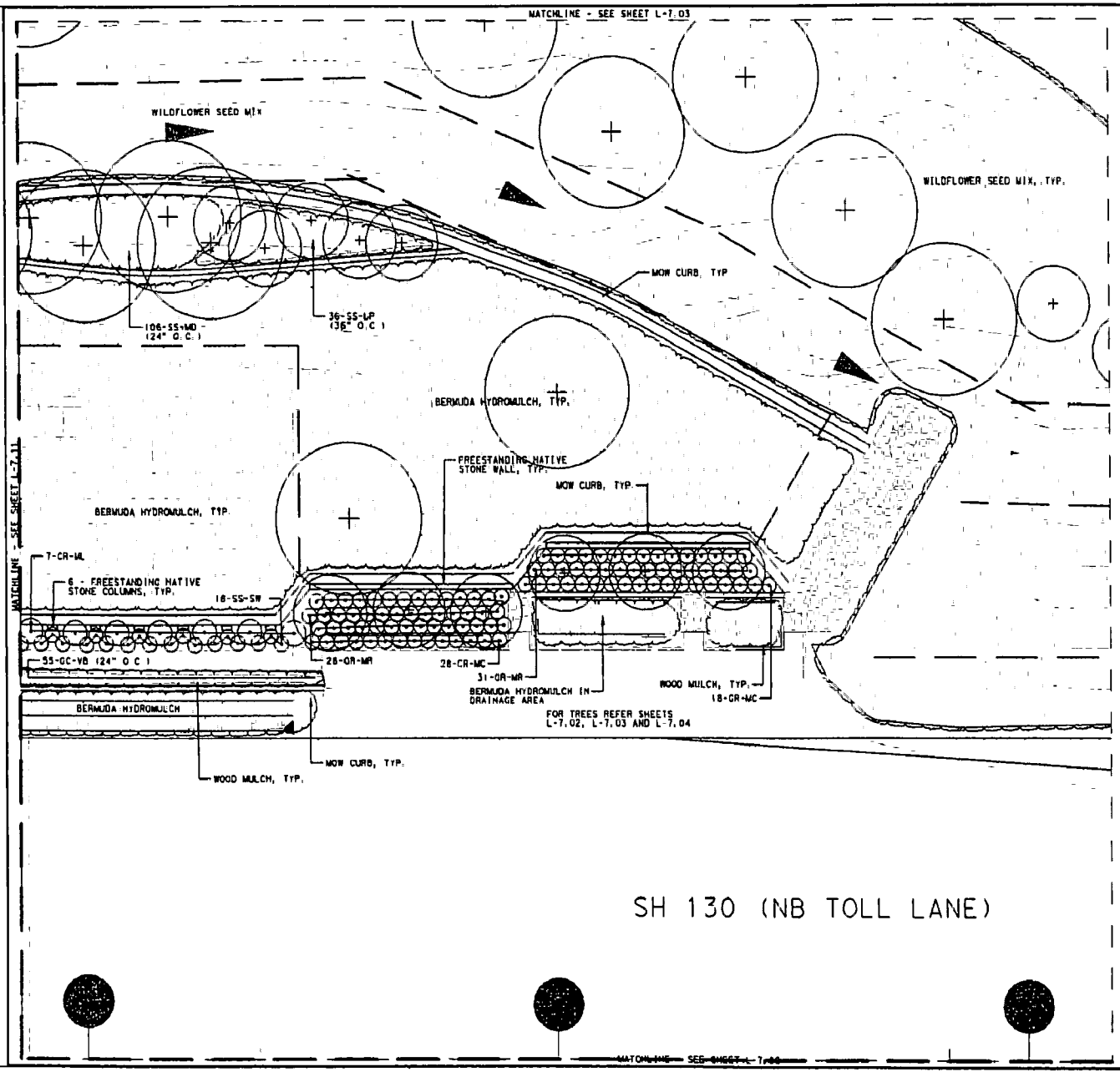
SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: PMS	DATE:
DRAWN BY: EEH	CHECKED BY:	DATE: 08-18-05
APPROVED BY:	DATE:	FAMILY NO.

FED AID PROJECT NO	SHEET NAME	DFD NO
6	86-2YYDB001	L-7.11

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11 2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	46
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	7
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	59
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"g	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	55
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
TR	Yucca rupicola		
	SOFT LEAF YUCCA	1g	0
SS-	SHRUB SMALL		
DB	Dietes bicolor		
	BICOLOR IRIS	1g	0
Iy	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	0
LN	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	36
NO	Nolina verciana grusmondii		
	TURKEY CAP	1g	106
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	18
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera horridia		
	TEXAS LANTANA	5g	0
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB LARGE		
WC	Myrica cerifera		
	WAX MYRTLE	5g	0
VM-	VINES		
HS	Hosta sativiera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES CANOPY		
CI	Carya illinoiensis		
	PECAN	2"g	0
PO	Platanus occidentalis		
	SYCAMORE	2"g	0
QM	Quercus macrocarpa		
	BUR OAK	4"g	0
QP	Quercus polymorpha		
	MONTEREY OAK	4"g	0
	MONTEREY OAK	3"g	0
	MONTEREY OAK	2"g	0
	MONTEREY OAK	1"g	0
QV	Quercus virginiana		
	LIVE OAK	4"g	0
	LIVE OAK	2"g	0
TD	Taxodium distichum		
	BALD CYPRESS	4"g	0
	BALD CYPRESS	2"g	0
	BALD CYPRESS	1"g	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"g	0
	CEDAR ELM	2"g	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
ST-	SMALL TREES		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
Iy	Ilex vomitoria		
	YAUPON HOLLY	2"g	0
	YAUPON HOLLY	1"g	0
PW	Prunus mexicana		
	MEXICAN PLUM	1"g	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"g	0

	PLANTING SETBACK LINE		
	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	2,340
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAUN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
ENLARGED PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 20'

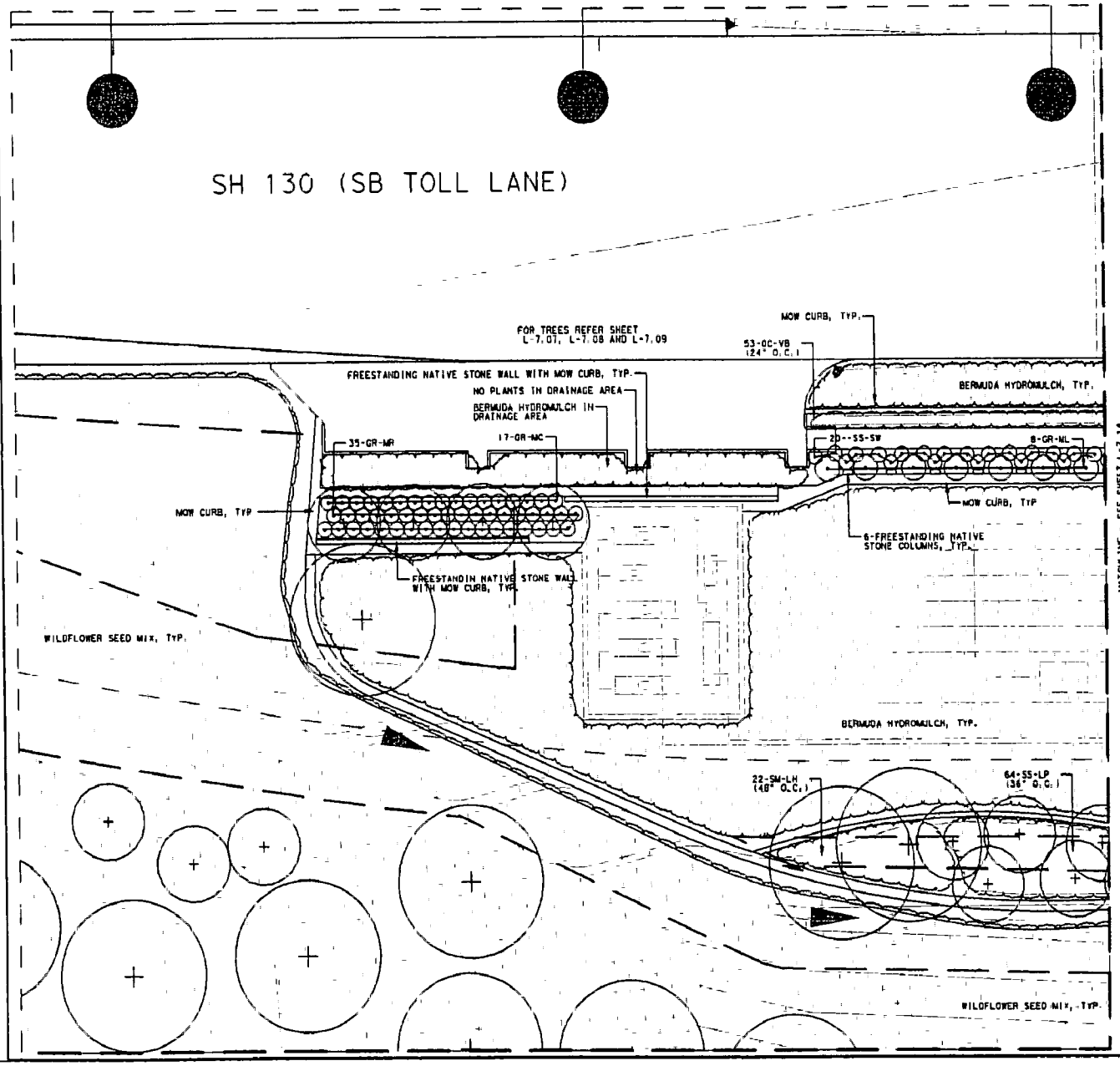
SHEET OF SHEETS

DESIGNED BY: DKB	CHECKED BY: RWD	DATE
DRAWN BY: LEL	CHECKED BY:	DATE: 06.10.03
APPROVED BY:	DATE:	FINALLY MM

FED RD DIV	PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-7.12

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

REV	DATE	BY	DESCRIPTION
0	10-11-2005	Ca	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	17
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	8
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	35
GC-	GROUND COVER		
RN	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	0
VA	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	53
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	0
YR	Yucca rosecrucis		
	SOFT LEAF YUCCA	1g	0
SS-	SHRUB SMALL		
DB	Dietes bicolor		
	BICOLOR IRIS	1g	0
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	5g	0
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	0
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	64
NO	Nolvavisgua grummondii		
	TURK'S CAP	1g	0
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	20
SM-	SHRUB MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera hispidula		
	TEXAS LANTANA	5g	22
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	0
VM-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES CANOPY		
CI	Carya illinoinensis		
	PECAN	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	2"c	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTEREY OAK	4"c	0
	MONTEREY OAK	3"c	0
	MONTEREY OAK	2"c	0
	MONTEREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
ST	SMALL TREES		
CT	Cercis canadensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitebud'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana		
	MEXICAN PLUM	1"c	0
US	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	1,770
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRECK 1197 STATE OF TEXAS 10/11/05

TEAM MEMBER DALLAS/FORT WORTH

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
ENLARGED LANDSCAPE PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 20'

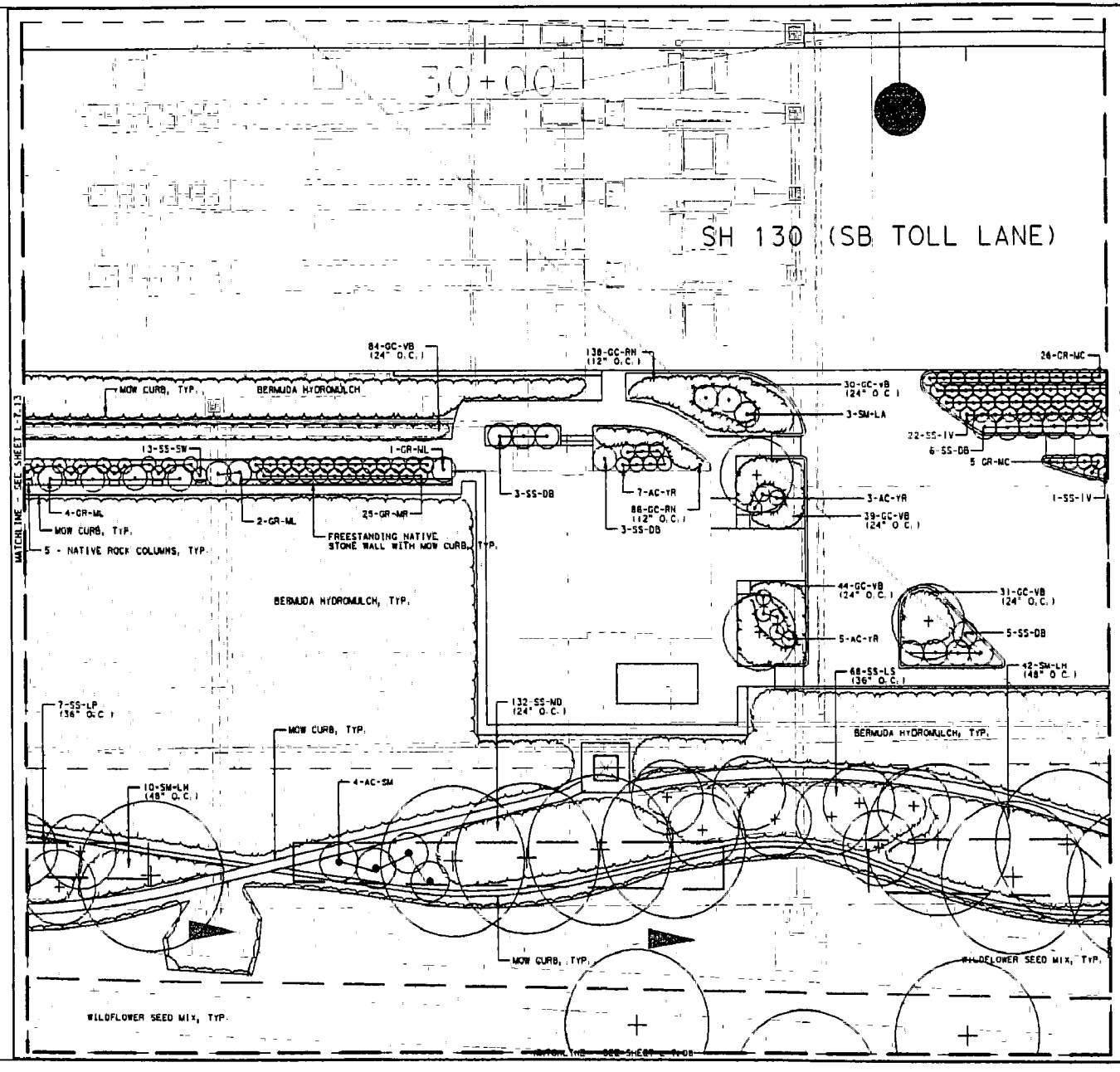
SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: DRD	DATE:
DRAWN BY: LBJ	CHECKED BY:	DATE: 09.29.05
APPROVED BY:	DATE:	FINAL: NO

FED. RD. DIV.	FED. AID PROJECT NO.	SHEET NAME	DWG. NO.
6	86-2XXD8001		L-7.13

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
0440	08	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

NO	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
NC	Muhlenbergia capillaris		
	GULF MUHLY	1g	31
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	7
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	25
GC-	GROUND COVER		
RH	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	224
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	228
AC-	ACCENT		
SM	Sabal Minor		
	TEXAS PALMETTO	5g	4
YR	Yucca rupicola		
	SOFTLEAF YUCCA	1g	15
SS-	SHRUB - SMALL		
DB	Dieteg bicolor		
	BICOLOR TIETA	1g	15
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	23
LH	Lantana hybrida "New Gold"		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida "Silver Mound"		
	SILVER MOUND LANTANA	1g	78
LP	Lantana hybrida "Purple Trailing"		
	PURPLE TRAILING LANTANA	1g	7
ND	Nepeta cataria grandiflora		
	CATMINT CAT	1g	132
SW	Salvia greggii "White"		
	WHITE AUTUMN SAGE	1g	13
SM-	SHRUB - MEDIUM		
LA	Leucophyllum frutescens		
	WHITE HONEYSUCKLE	5g	3
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lonicera hispidula		
	TEXAS LANTANA	5g	42
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	0
SL	SHRUB - LARGE		
WC	Myrica cerifera		
	WAX MYRTLE	5g	0
VN-	VINES		
HS	Nemo setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoiensis		
	PECAN	2"c	0
PO	Platanus occidentalis		
	SYCAMORE	2"c	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	2"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"c	0
	CEDAR ELM	2"c	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
ST-	SMALL TREES		
CT	Cercis texensis		
	TEXAS REDBUD	2"c	0
CTW	Cercis texensis 'Whitewing'		
	TEXAS WHITEBUD	2"c	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"c	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana		
	MEXICAN PLUM	1"c	0
UE	Ungnadia speciosa		
	MEXICAN BUCKEYE	2"c	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	1,700
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING - WILDFLOWER	ACRES	0
	SEEDING - BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINGRUCK 1197 STATE OF TEXAS 10/11/05

TEAM MEMBER PARSONS-HARRIS

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SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
ENLARGED PLANTING PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 20'

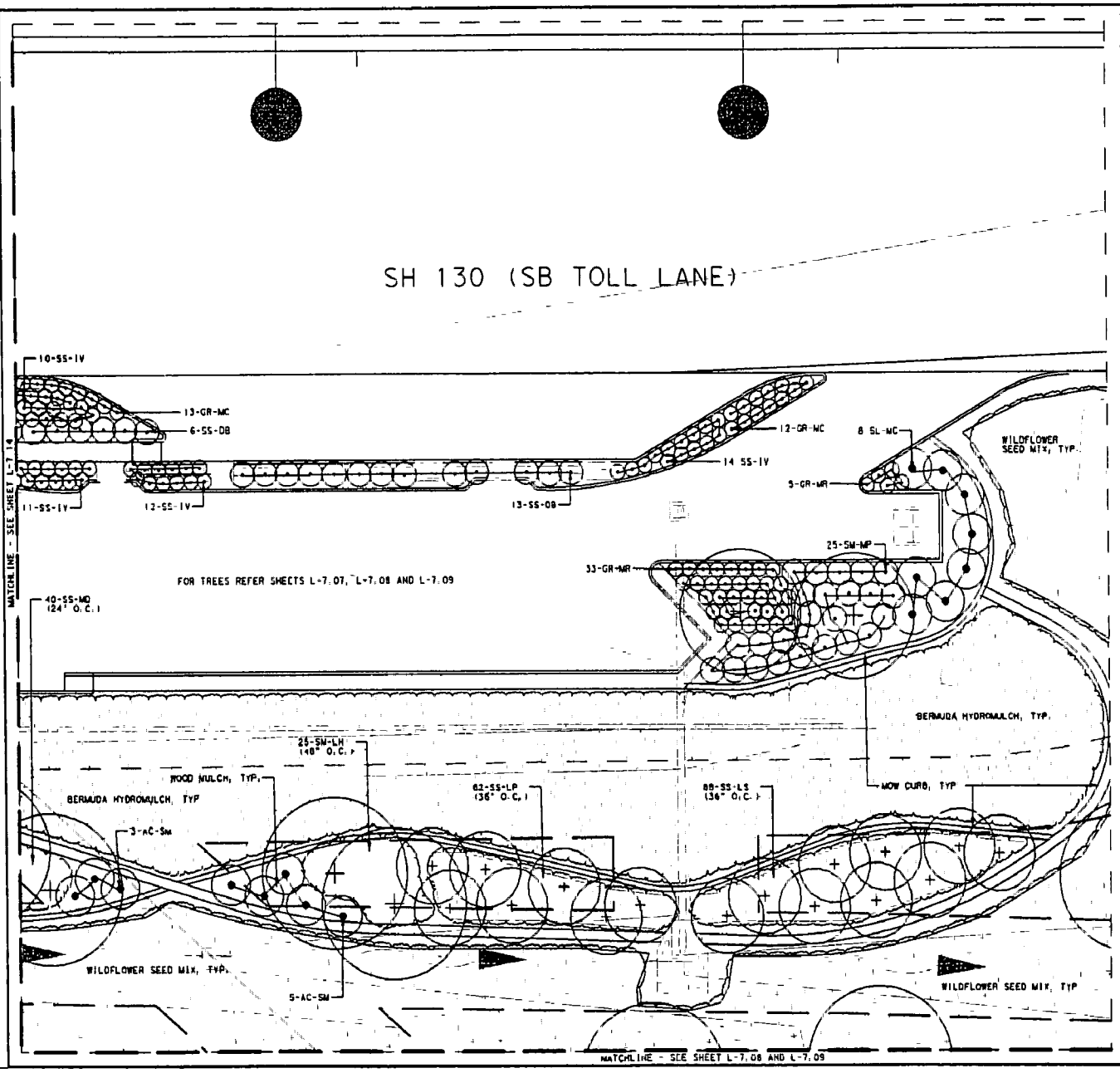
SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RMJ	DATE:
DRAWN BY:	CHECKED BY:	DATE: 04-30-05
APPROVED BY:	DATE:	PROJECT NO.

FED. RD. DIV.	FED. AID PROJECT NO.	SHEET NAME	SHEET NO.
6	BS-2XXDB001		L-7.14

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
0440	06	004	SH130



NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
GR-	GRASSES		
MC	Muhlenbergia capillaris		
	GULF MUHLY	1g	25
ML	Muhlenbergia lindheimeri		
	LINDHEIMER MUHLY	5g	0
MR	Muhlenbergia rigens		
	DEER MUHLY	1g	36
GC-	GROUND COVER		
RN	Ruellia nudiflora		
	VIOLET RUELLIA	4"p	0
VB	Verbena bipinnatifida		
	PRAIRIE VERBENA	1g	0
AC-	ACCENT		
SW	Sabal minor		
	TEXAS PALMETTO	5g	8
YR	Yucca rosecrucis		
	SOFT LEAF YUCCA	1g	0
SS-	SHRUB - SMALL		
DB	Viteas bicolor		
	BICOLOR TAITE	1g	19
IV	Ilex vomitoria var. nana		
	DWARF YAUPON	3g	47
LH	Lantana hybrida 'New Gold'		
	NEW GOLD LANTANA	1g	0
LS	Lantana hybrida 'Silver Mound'		
	SILVER MOUND LANTANA	1g	88
LP	Lantana hybrida 'Purple Trailing'		
	PURPLE TRAILING LANTANA	1g	62
MD	Malvaviscus drummondii		
	TURK'S CAP	1g	40
SW	Salvia greggii 'White'		
	WHITE AUTUMN SAGE	1g	0
SM-	SHRUB - MEDIUM		
LA	Lonicera albiflora		
	WHITE HONEYSUCKLE	5g	0
LF	Leucophyllum frutescens		
	TEXAS SAGE	5g	0
LH	Lantana horrida		
	TEXAS LANTANA	5g	25
MP	Myrica pusilla		
	DWARF WAX MYRTLE	5g	25
SL	SHRUB - LARGE		
MC	Myrica cerifera		
	WAX MYRTLE	5g	8
VH-	VINES		
RS	Rosa setigera		
	CLIMBING PRAIRIE ROSE	5g	0
TC-	TREES - CANOPY		
CI	Carya illinoinensis		
	PECAN	2"g	0
PO	Platanus occidentalis		
	SYCAMORE	2"g	0
QM	Quercus macrocarpa		
	BUR OAK	4"c	0
QP	Quercus polymorpha		
	MONTERREY OAK	4"c	0
	MONTERREY OAK	3"c	0
	MONTERREY OAK	2"c	0
	MONTERREY OAK	1"c	0
QV	Quercus virginiana		
	LIVE OAK	4"c	0
	LIVE OAK	2"c	0
TD	Taxodium distichum		
	BALD CYPRESS	4"c	0
	BALD CYPRESS	3"c	0
	BALD CYPRESS	1"c	0
UC	Ulmus crassifolia		
	CEDAR ELM	4"g	0
	CEDAR ELM	2"g	0

PLANT LEGEND

SYMB	Botanical name / COMMON NAME	SIZE	QTY
ST-	SMALL TREES		
CT	Cercis texensis		
	TEXAS REDBUD	2"g	0
CTW	Cercis texensis 'Whitewood'		
	TEXAS WHITEBUD	2"g	0
ID	Ilex decidua		
	POSSUMHAW HOLLY	2"c	0
IV	Ilex vomitoria		
	YAUPON HOLLY	2"g	0
	YAUPON HOLLY	1"c	0
PM	Prunus mexicana		
	MEXICAN PLUM	1"c	0
US	Unangia speciosa		
	MEXICAN BUCKEYE	2"g	0

PLANTING SETBACK LINE

	GRANITE MULCH	S.F.	0
	WOOD MULCH	S.F.	4,350
	COMMON BERMUDA HYDROMULCH	ACRES	0
	SEEDING WILDFLOWER	ACRES	0
	SEEDING BLACK LAND PRAIRIE	ACRES	0

REGISTERED LANDSCAPE ARCHITECT DIANE STEINBRUCK 11197 STATE OF TEXAS

14/10/05

TEAM WEWER ARCHITECTS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
ENLARGED PLANTING PLAN

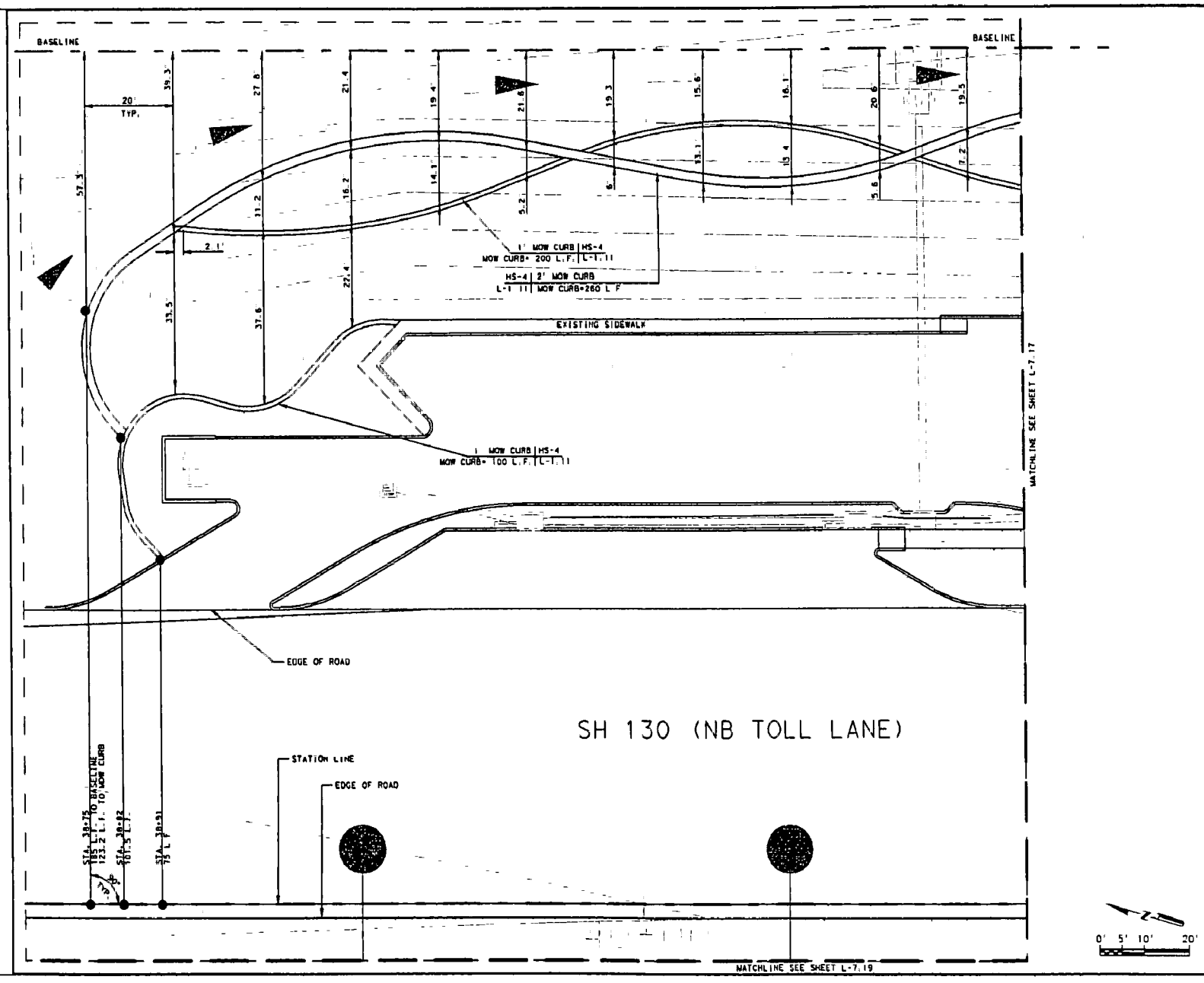
MAINLINE TOLL PLAZA #6

SCALE: 1" = 20

SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RMD	DATE:	
DRAWN BY: LEA	ORIGINAL BY:	DATE: 09-28-05	
APPROVED BY:	DATE:	TRANSIT NO.	
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2*XDB001		L-7.15

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0140	06	004	SH130



REV	DATE		DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	300
2' CONCRETE MOW CURB	L.F.	260
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / X-XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION ©2005

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

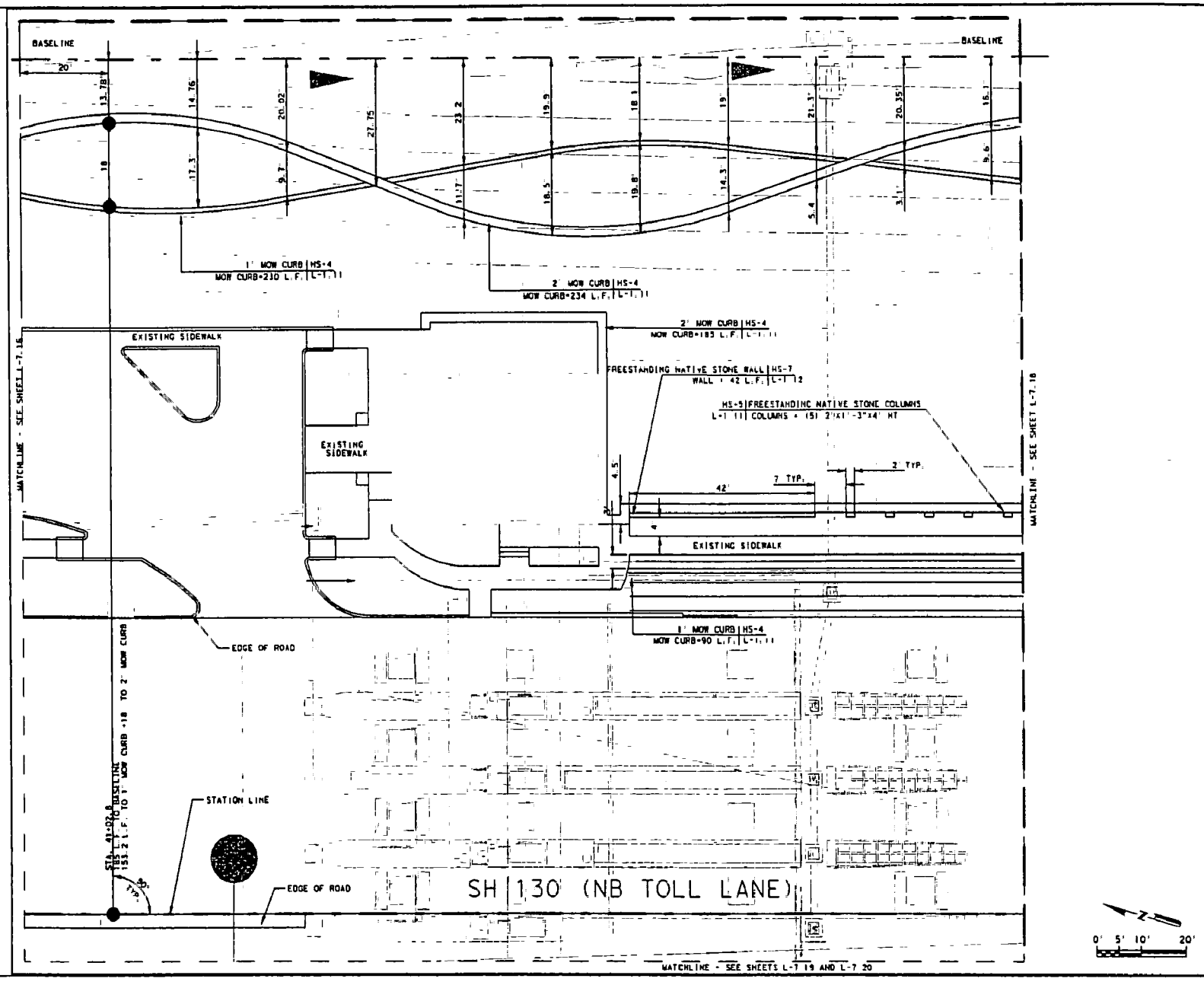
SCALE: 1" = 20'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RBO	DATE:
DRAWN BY: CLS	CHECKED BY:	DATE:
APPROVED BY:		PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-7 16

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE		DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	320
2' CONCRETE MOW CURB	L.F.	419
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	42
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	Ea.	3
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DAVIN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

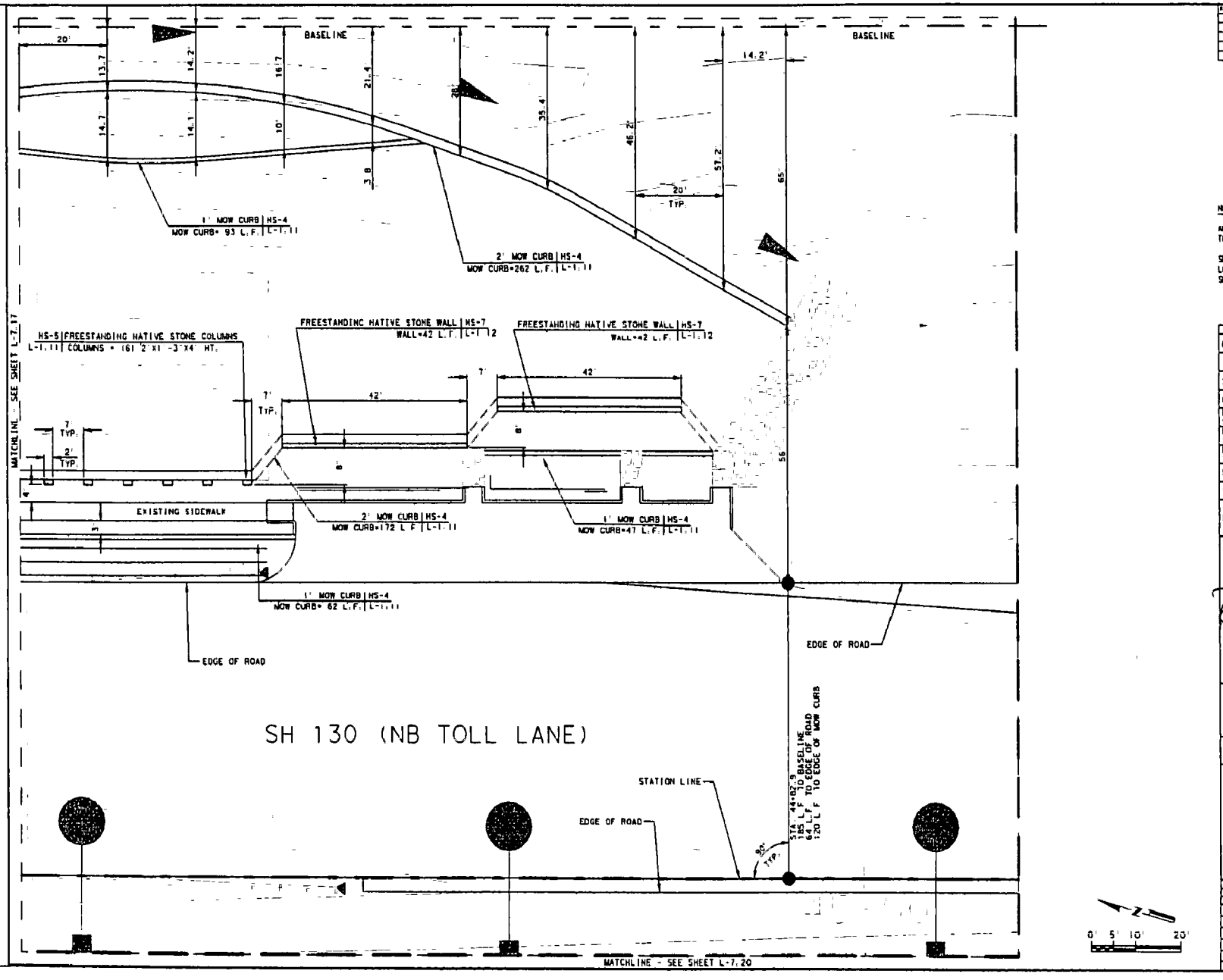
SCALE: 1" = 20'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWG	DATE:
DRAWN BY: LSA	CHECKED BY:	DATE: 09-20-05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-7.17

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130



REV	DATE		DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	202
2' CONCRETE MOW CURB	L.F.	415
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	84
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	6
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DNUN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

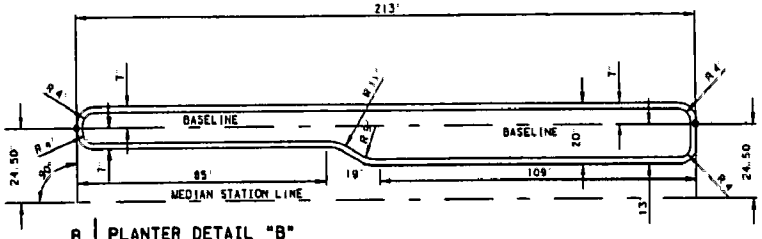
SCALE: 1" = 20'

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-7.18

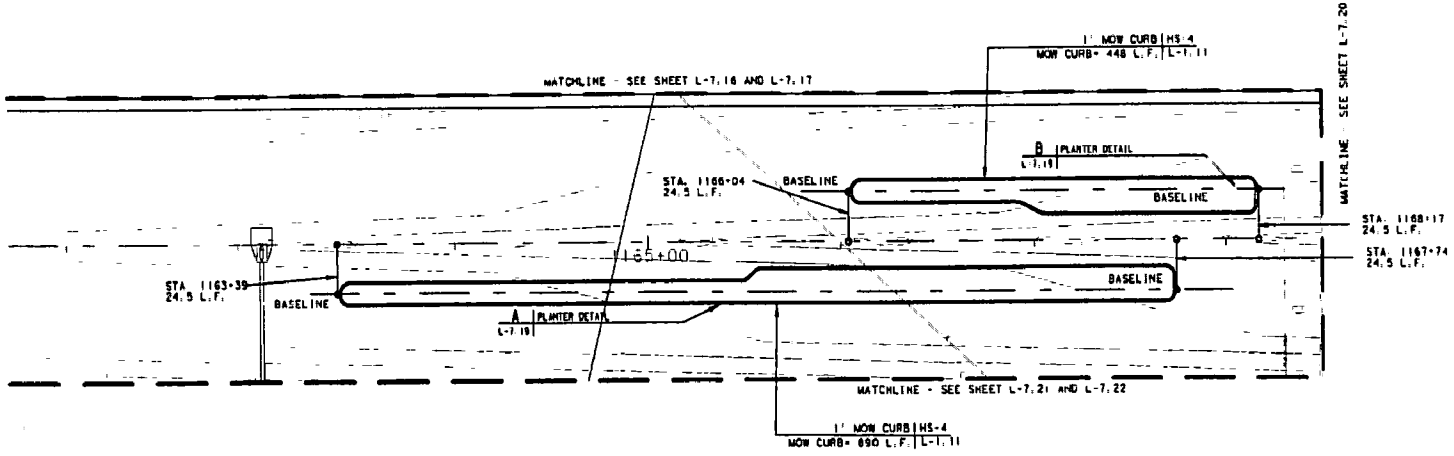
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130

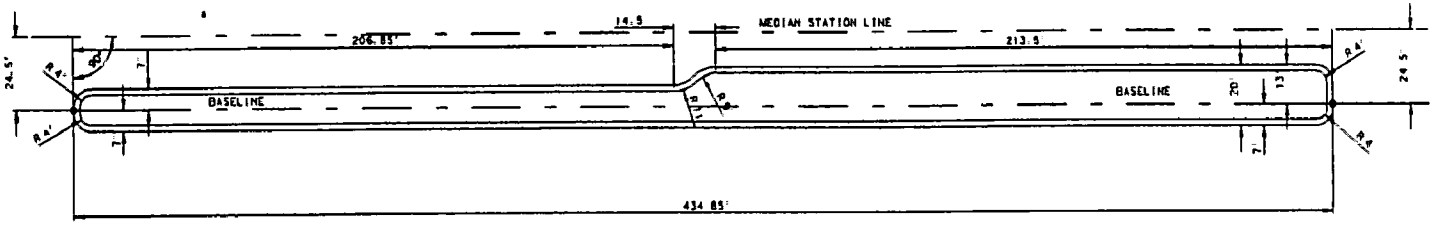
REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION



B | PLANTER DETAIL "B"

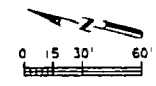
SCALE = 1"=40' 0"





A | PLANTER DETAIL "A"

SCALE = 1"=40' 0"



NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

SEE SHEET L-1.09, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	1,338
2' CONCRETE MOW CURB	L.F.	0
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / X XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAVIS-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

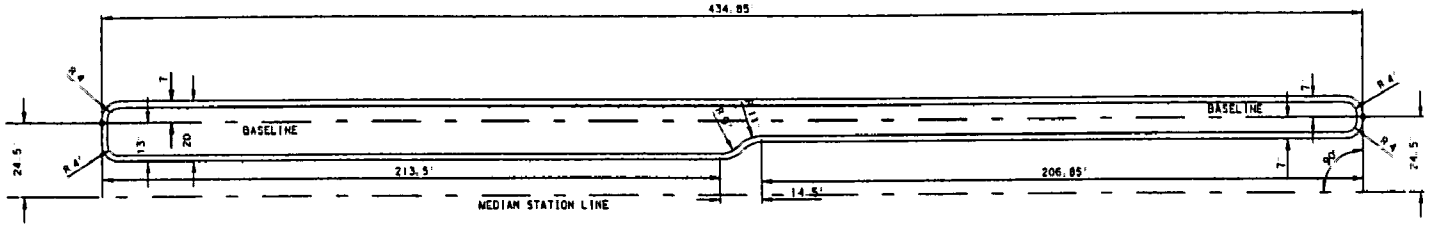
SCALE: 1" = 60'

SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-7.19

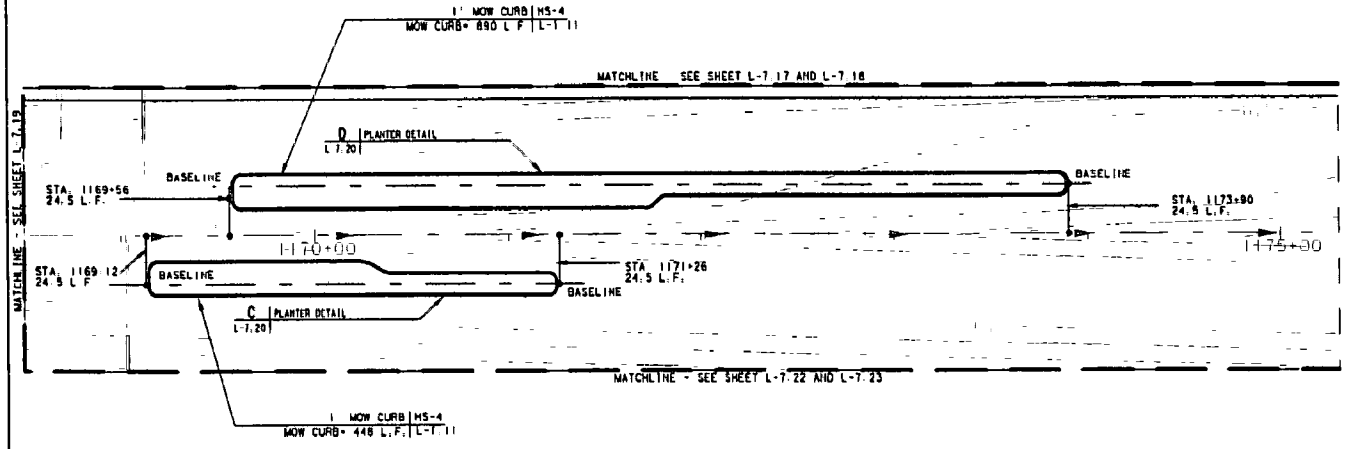
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

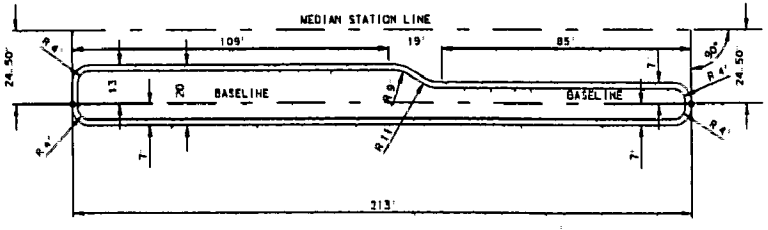
REV	DATE	BY	DESCRIPTION
0	08-11-2003	CJ	APPROVED FOR CONSTRUCTION



D | PLANTER DETAIL "D"

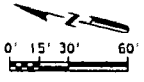
SCALE = 1"=40' 0"





C | PLANTER DETAIL "C"

SCALE 1"=40' 0"



NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	1,338
2' CONCRETE MOW CURB	L.F.	0
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X.XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUCK
1197
STATE OF TEXAS
10/4/05

TEAM MEMBER DRAWINGS

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SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

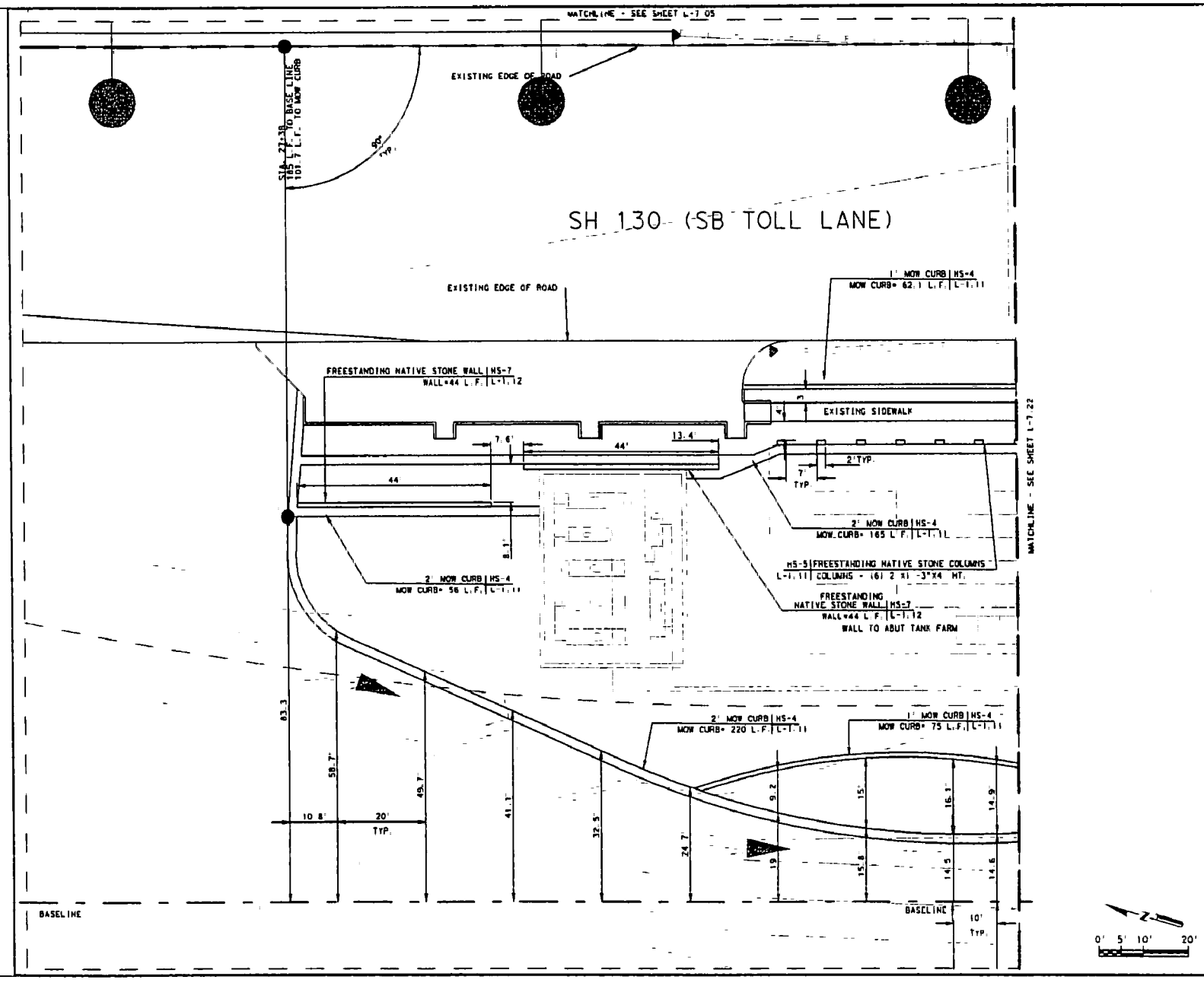
SCALE: 1" = 60

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: RWO	DATE:
DRAWN BY: LSA	CHECKED BY:	DATE: 06-23-03
APPROVED BY:	DATE:	TRACKING NO.

FED	FED RD PROJECT NO	SHEET NAME	CNTL NO
6	86-2(X)08001		L-7.20

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	08	004	SH130



REV	DATE		DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L 1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	137
2' CONCRETE MOW CURB	L.F.	411
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	68
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	8
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX DETAIL # / XXX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

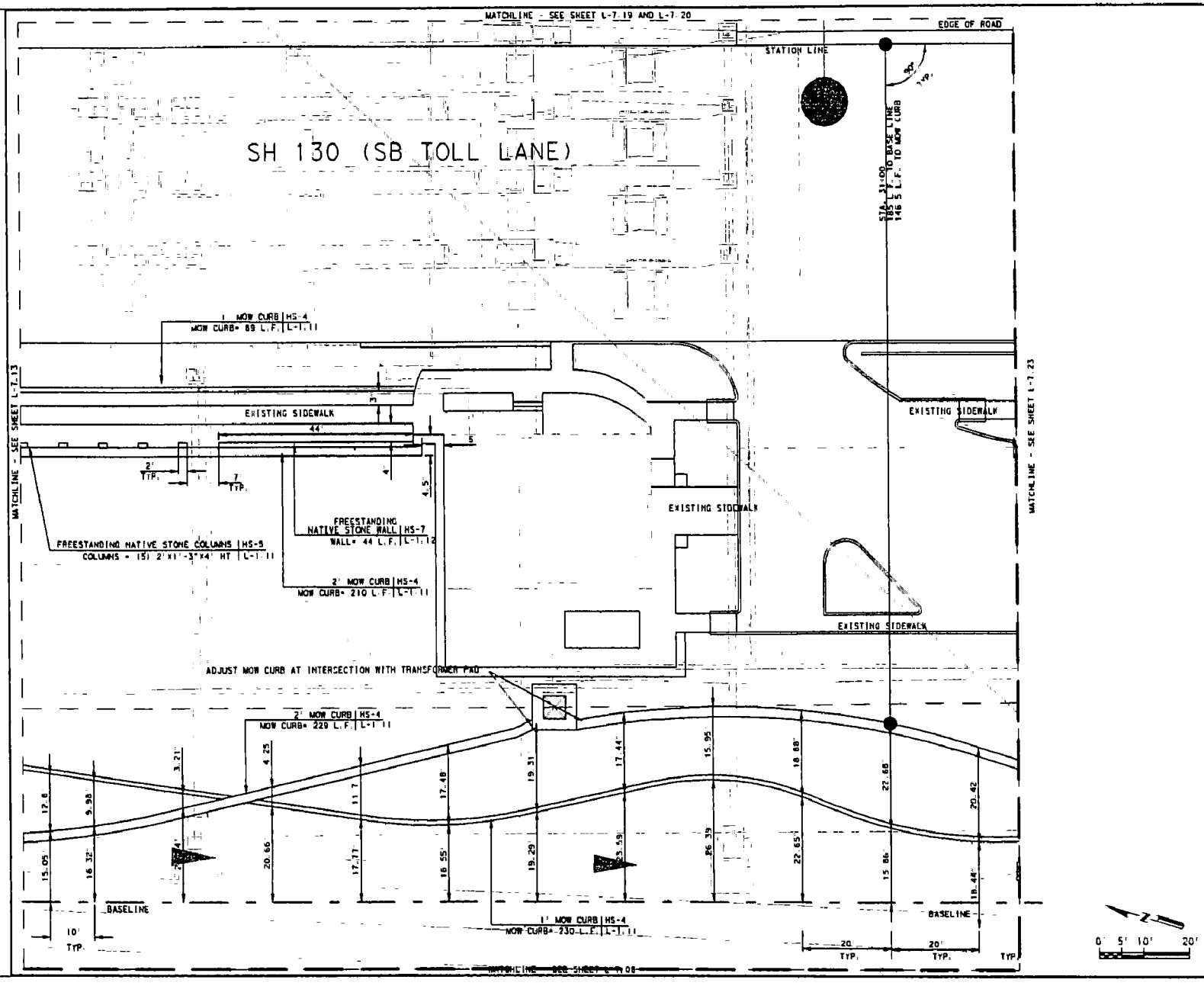
MAINLINE TOLL PLAZA #6

SCALE: 1" = 20

SHEET OF SHEETS

FED. RD. DIV. NO.	FED. AID PROJECT NO.	SHEET NAME	DWG. NO.
6	86-2XXDB001		L-7.21

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0440	06	004	SH130



REV	DATE		DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	319
2' CONCRETE MOW CURB	L.F.	439
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	44
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	5
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	150	
DETAIL REFERENCE	XX DETAIL # / X-XX SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DMJM+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

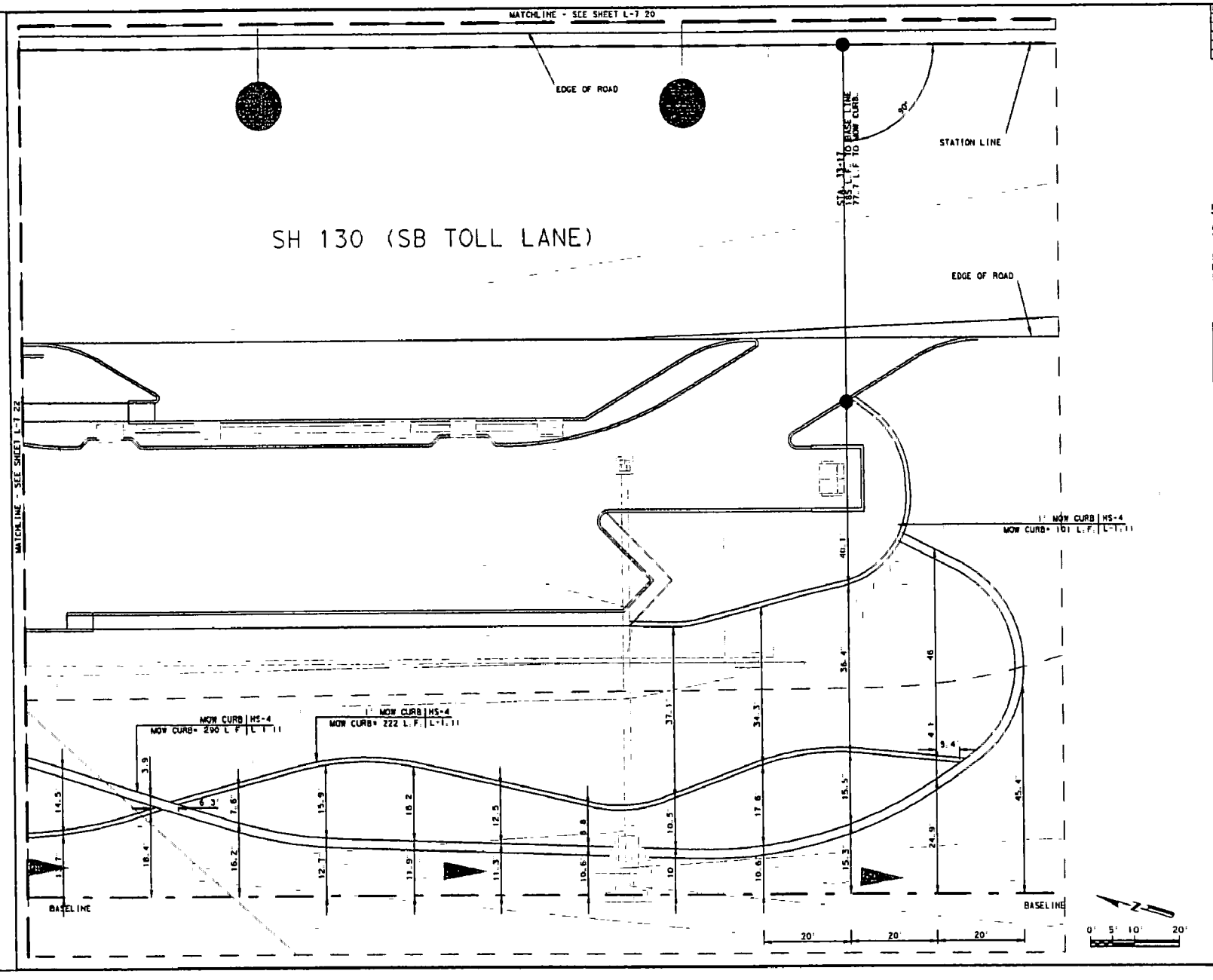
SCALE: 1" = 20'

SHEET OF SHEETS

DESIGNED BY: DLB	CHECKED BY: RWO	DATE:
DRAWN BY: EBJ	CHECKED BY:	DATE: 06-10-05
APPROVED BY:	DATE:	FIGURE NO.

FED	FED AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-7.22

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130



REV	DATE	DESCRIPTION
0	10/11/2005	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1 05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QUANTITY
1' CONCRETE MOW CURB	L.F.	323
2' CONCRETE MOW CURB	L.F.	290
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	F.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DAUN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

MAINLINE TOLL PLAZA #6

SCALE: 1" = 20'

SHEET OF SHEETS

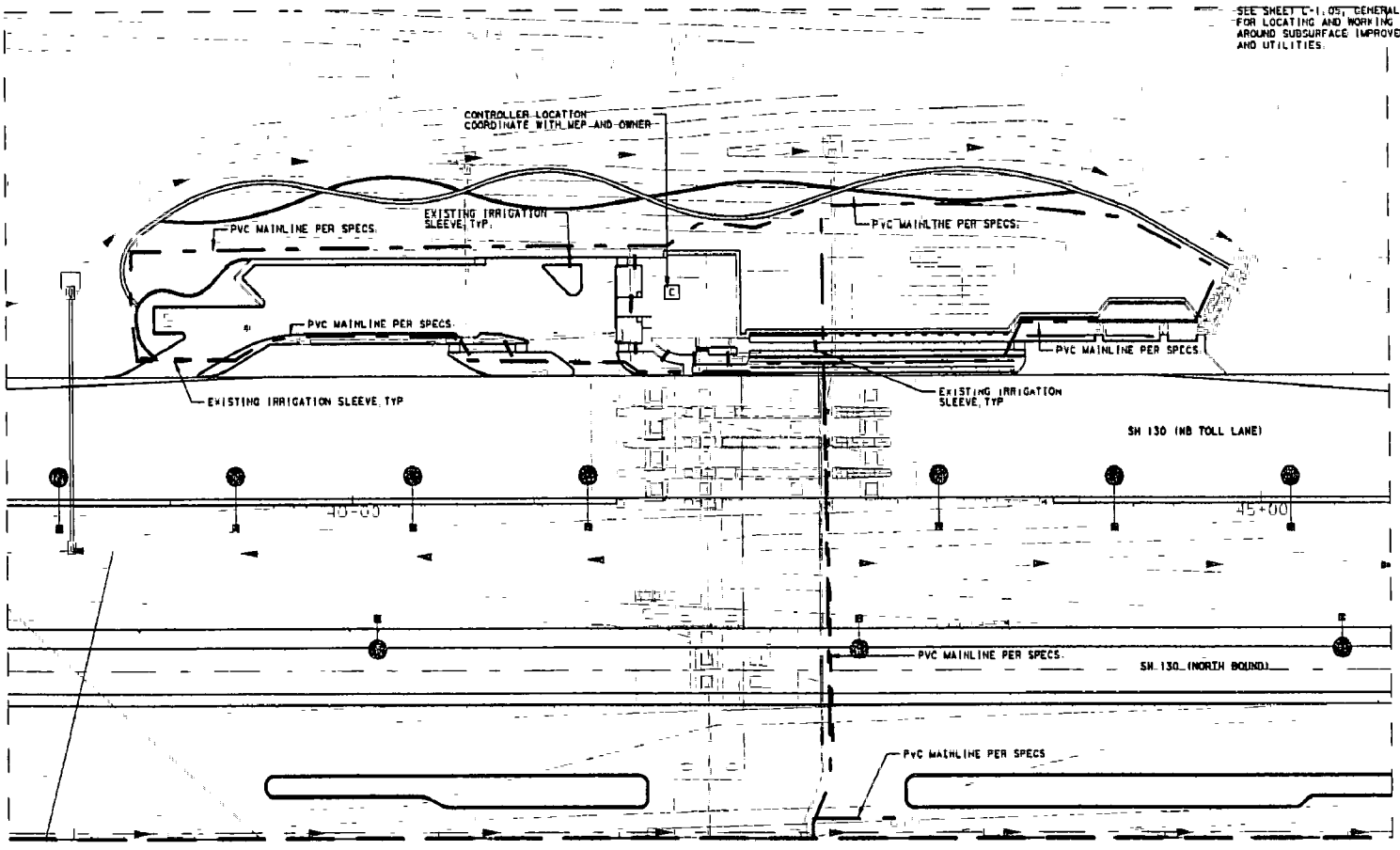
FED AID PROJECT NO	SHEET NAME	DWG NO
6 86-2XXDB001		L-7.23

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

NOTE:

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.



MATCHLINE - SEE SHEET L-7 25

0' 15' 30' 60'

REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

POINT OF CONNECTION LOCATED AT WEST PLAZA

IRRIGATION LEGEND		
DESCRIPTION	SIZE	QUANTITY
PVC MAINLINE	L.F.	1,710
BACKFLOW PREVENTER	EA	
CONTROLLER	EA.	1

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER DMJNNHARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 08
LANDSCAPE PLANS
IRRIGATION PLAN

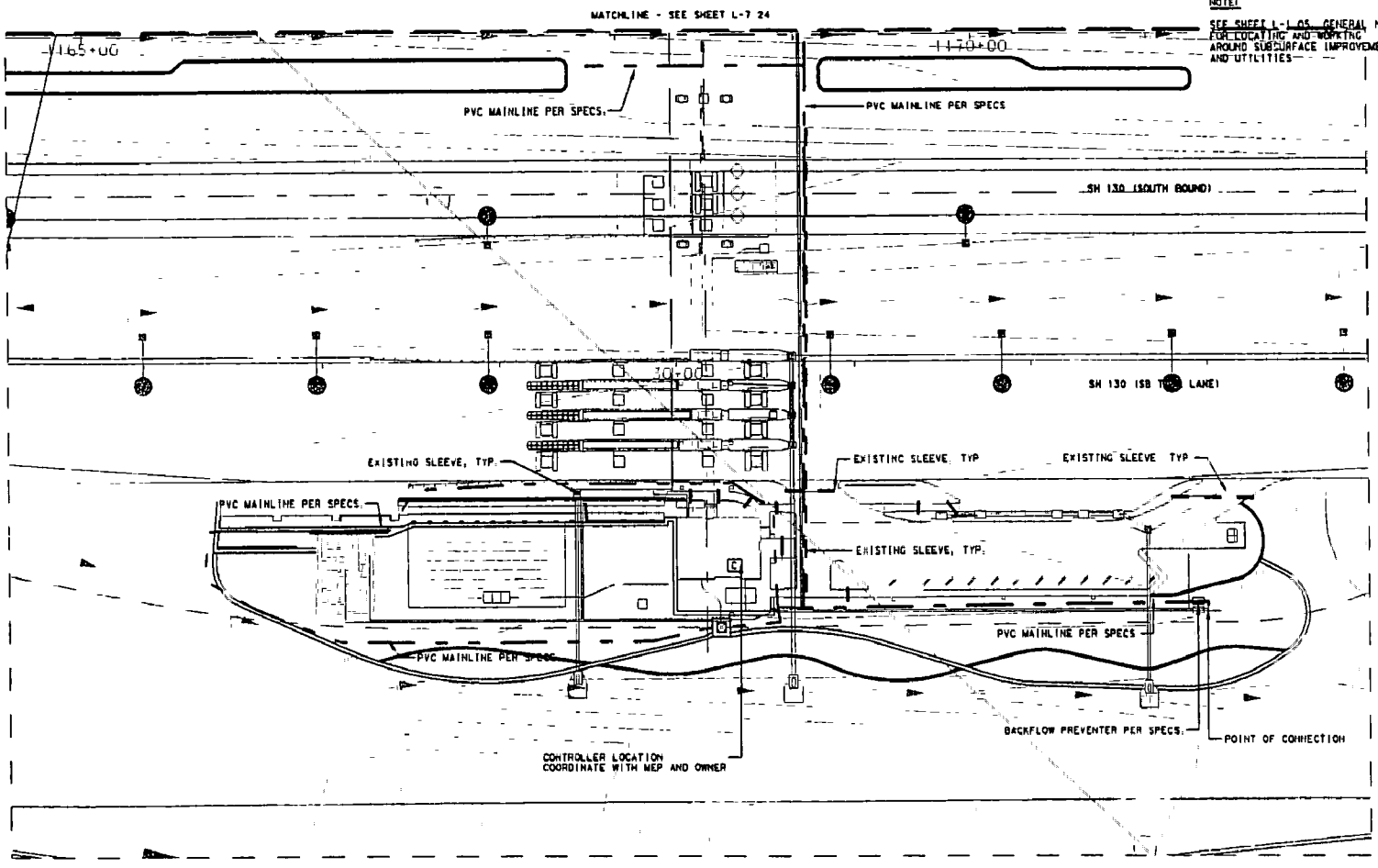
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: CLG	CHECKED BY: RWO	DATE:
DRAWN BY: CBJ	CHECKED BY:	DATE: 08-10-05
APPROVED BY:	DATE:	FINAL:

FED	FED. RD. PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-7 24

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130



NOTE:
SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION

IRRIGATION LEGEND		
DESCRIPTION	SIZE	QUANTITY
PVC MAINLINE	L.F.	1,410
BACKFLOW PREVENTER	EA.	1
CONTROLLER	EA.	1

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAUN+HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
IRRIGATION PLAN

SCALE: 1" = 60'

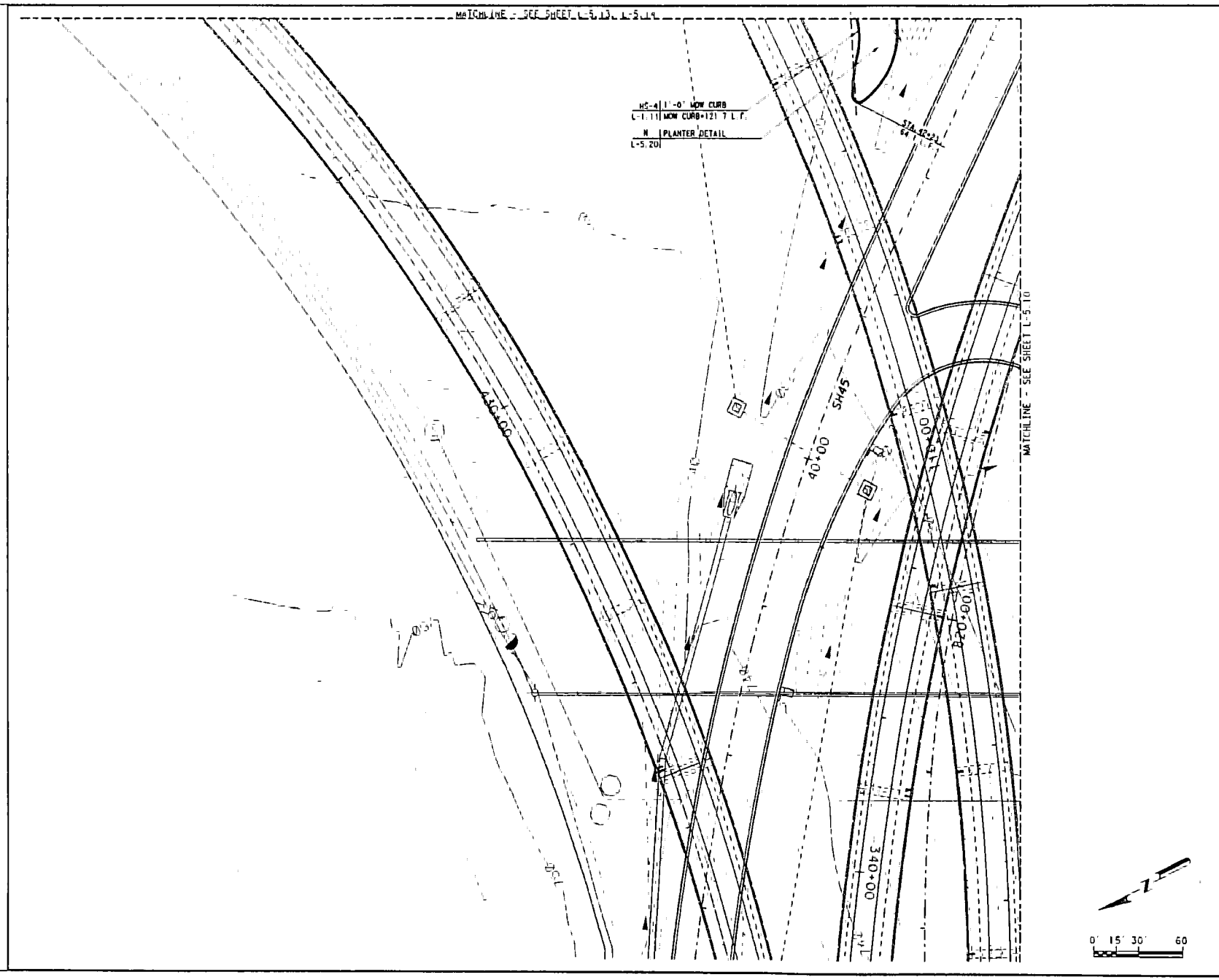
SHEET OF SHEETS

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2xxDB001		L-7.25

STATE	DISTRICT	COUNTY
TX	AUS	TRAVIS

CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130

0' 15' 30' 60'



REV	DATE	BY	DESCRIPTION
12	10/10/05		

NOTES:

1. ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

2. SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND		
DESCRIPTION	SIZE	QTY
1'-0" CONCRETE MOW CURB	L.F.	122
2'-0" CONCRETE MOW CURB	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	0
TOP OF WALL	(TW)	
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	750	
DETAIL REFERENCE	XX / X-XX	DETAIL # / SHEET #

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/10/05

TEAM MEMBER
DM-IM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2, SECTION 06
LANDSCAPE PLANS
HARDSCAPE PLAN

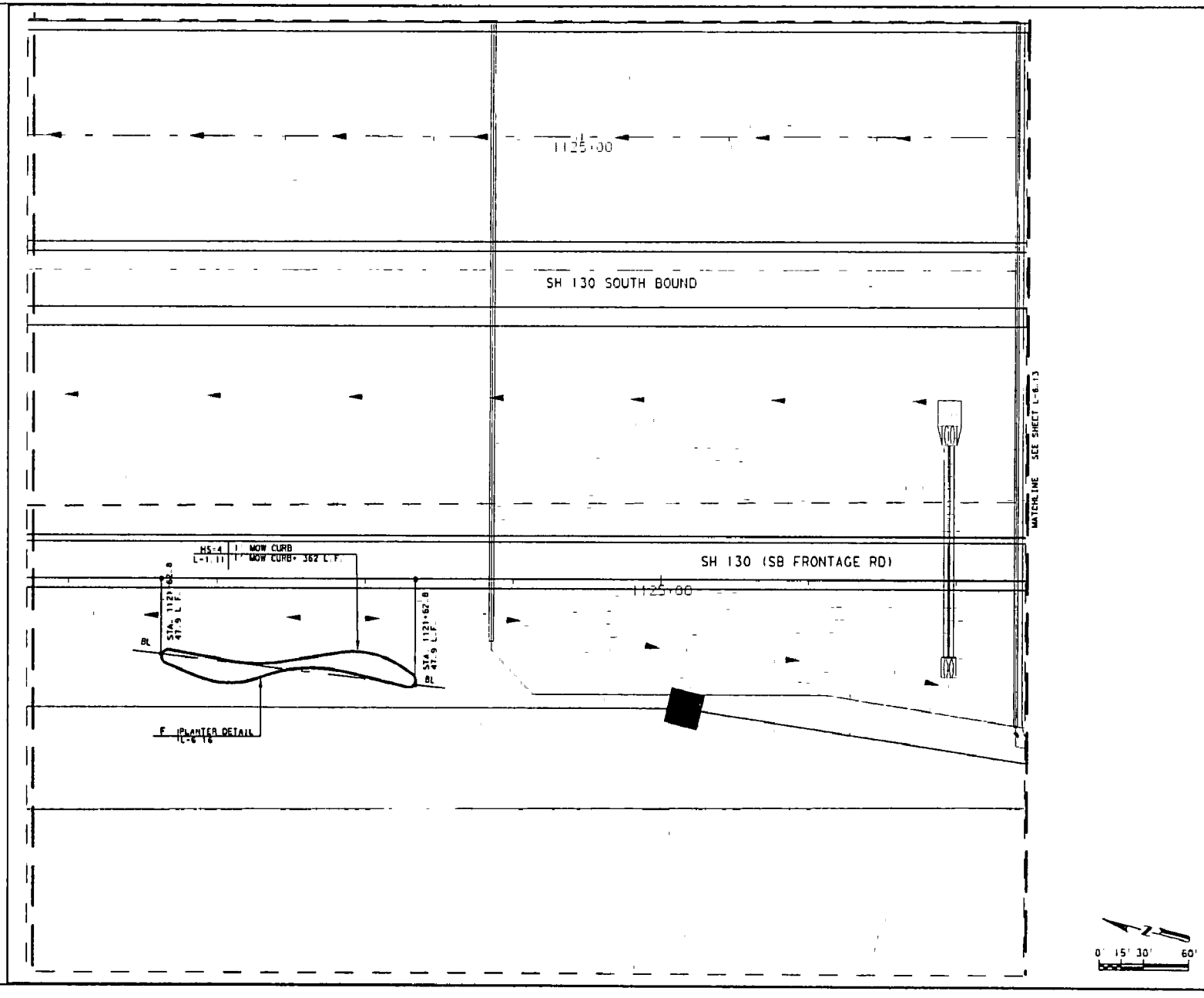
SCALE: 1" = 60'

SHEET OF SHEETS

DESIGNED BY: RWG	CHECKED BY: DS	DATE:
DRAWN BY: AMR	CHECKED BY:	DATE: 06.20.05
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-5.16

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0440	06	004	SH130



REV	DATE	BY	DESCRIPTION
0	10-11-2005	CJ	APPROVED FOR CONSTRUCTION

NOTE:

ALL STATION OFFSETS TO BE AT 90 DEGREES TO THE STATION LINE.

SEE SHEET L-1.05, GENERAL NOTE #3 FOR LOCATING AND WORKING AROUND SUBSURFACE IMPROVEMENTS AND UTILITIES.

HARDSCAPE LEGEND

DESCRIPTION	SIZE	QUANTITY
1" CONCRETE MOW CURB	L.F.	362
2" CONCRETE MOW CURB	L.F.	0
1" RAISED PLANTER	L.F.	0
CEDAR RAIL FENCE	L.F.	0
FREESTANDING NATIVE STONE WALL	L.F.	0
DRY STACKED NATIVE STONE WALL	L.F.	0
FREESTANDING NATIVE STONE COLUMN	EA.	0
BASELINE FOR DIMENSIONS	BL	
SPOT ELEVATION	150	
DETAIL REFERENCE	XX / X XX — DETAIL # / SHEET #	

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM MEMBER
DAUN-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
HARDSCAPE PLAN

PECAN STREET GATEWAY

SCALE: 1" = 60'

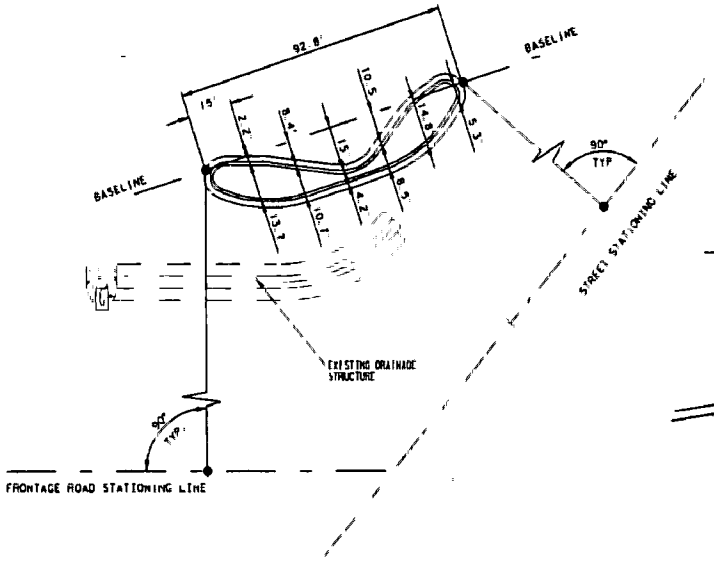
SHEET OF SHEETS

DESIGNED BY: CLG	CHECKED BY: RMO	DATE
DRAWN BY: CBJ	CHECKED BY:	DATE: 06 20 05
APPROVED BY:	DATE:	TRANSLT NO:

FED. RD. DIV.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001		L-6.12

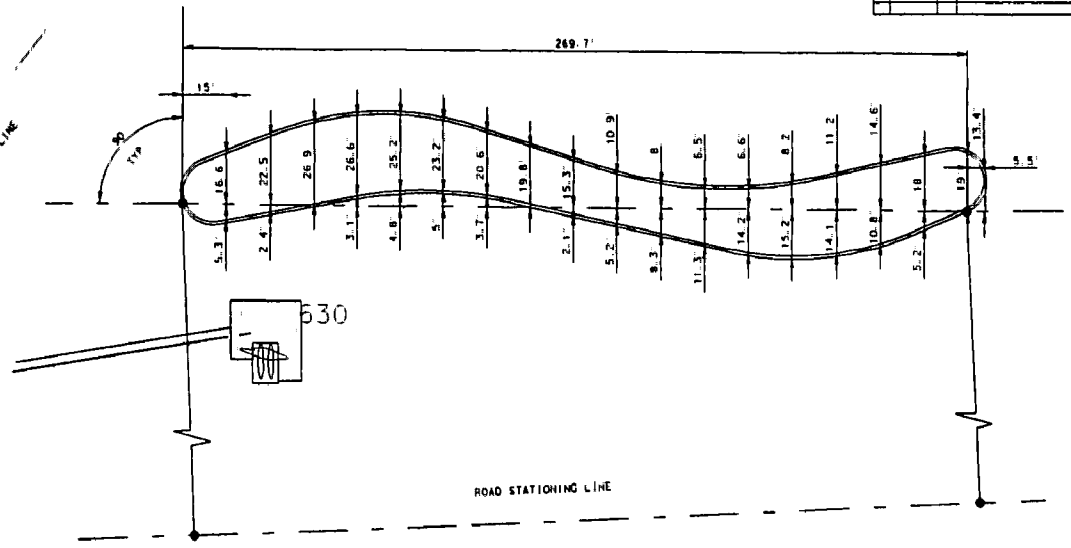
STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO.
0440	06	004	SH130

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION



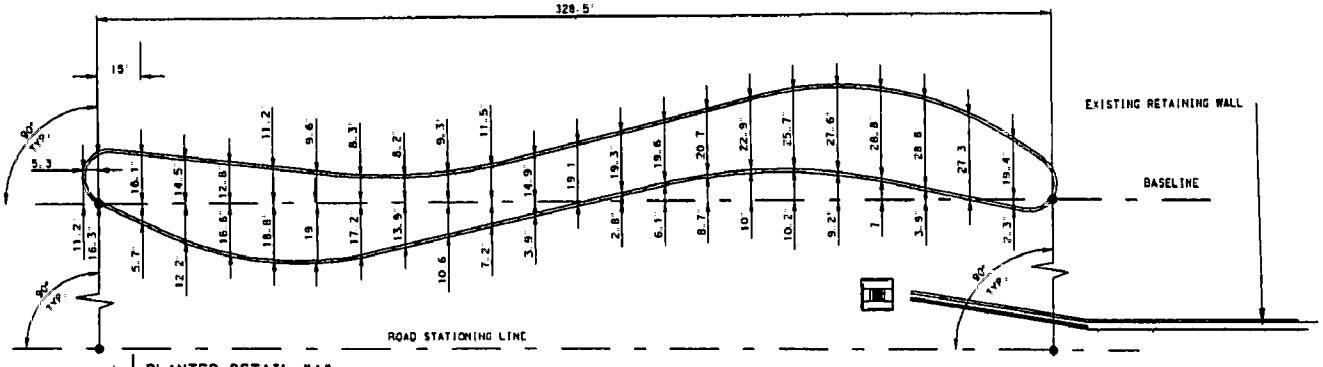
B | PLANTER DETAIL "B"

SCALE = 1" =40' -0"



C | PLANTER DETAIL "C"

SCALE = 1" 40'-0"



A | PLANTER DETAIL "A"

SCALE = 1"=10' 0"

REGISTERED LANDSCAPE ARCHITECT
DIANE STEINBRUECK
1197
STATE OF TEXAS
10/11/05

TEAM HOUCKER
DAN-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SEGMENT 2 , SECTION 08
LANDSCAPE PLANS
PLANTER DETAILS

PECAN STREET GATEWAY

SCALE: 1" = 40'

SHEET OF SHEETS

DESIGNED BY: DLS	CHECKED BY: PRD	DATE:
DRAWN BY: SS	LINE = = :	9-11 09 10 03
APPROVED BY:	DATE:	PROJECT NO.

FED	FED AID PROJECT NO	SHEET NAME	DRG NO
6	86-2xxD8001		L-6.15

STATE	DISTRICT	COUNTY	
TX	AUS	TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
0140	06	004	SH130

REV	DATE	BY	DESCRIPTION
0	10/11/05	APC	

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			L-1.04	NOTES & SPECIAL PROVISIONS
			L-1.05	NOTES & SPECIAL PROVISIONS
			L-1.06	NOTES & SPECIAL PROVISIONS
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			L-1.08	IRRIGATION DETAILS
			L-1.09	IRRIGATION DETAILS
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			L-2.04	PLANTING PLAN
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			L-2.08	HARDSCAPE PLAN
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			L-7.23	HARDSCAPE PLAN
			L-7.24	IRRIGATION PLAN
			L-7.25	IRRIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADNEY
2134
STATE OF TEXAS
10/14/05

TEAM MEMBER
DRAWN: HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

SH130 CORRIDOR WIDE STANDARD
LANDSCAPE PLANS
INDEX OF SHEETS

SCALE: NTS

SHEET OF SHEETS

DESIGNED BY: DS	CHECKED BY: RWG	DATE:
DRAWN BY: HARR	CHECKED BY:	DATE: OCT 10-05
APPROVED BY:	DATE:	PAGE: 1 NO

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXDB001		L-1.02

STATE	DISTRICT	COUNTY
TX	AUS	

CONT	SECT	JOB	HIGHWAY NO
			SH130

SPECIFICATIONS

THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REFERENCING THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, 1993 FOR SPECIFICATION ITEMS NOT LISTED BUT RELATED TO THE WORK OF THIS PROJECT. WHERE NOTED BELOW, SOME ITEMS HAVE BEEN MODIFIED OR EXPANDED TO MORE CLEARLY APPLY TO THE SPECIFIC REQUIREMENTS OF THIS PROJECT.

FURNISHING AND PLACING TOPSOIL, ITEM 160
MATERIALS, ITEM 160.2 (1)

1. TOPSOIL USED FOR PLANTING BEDS AND IN BACKFILL MIXES SHALL BE OF HIGH QUALITY, SIMILAR IN GENERAL MAKEUP TO NATIVE SOILS NEAR THE PLANTING SITE, AND SHALL NOT COME FROM SITES INFESTED WITH WEEDS, PARTICULARLY JOHNSON GRASS AND NUT GRASS. SOIL TO BE USED IS TO BE TESTED BY A SOILS LABORATORY FOR GROUNDCOVER AND ORNAMENTAL PLANTING APPLICATIONS. ORGANIC CONTENT SHALL BE BETWEEN 5% AND 25%. PH SHALL NOT EXCEED 8.2. FOLLOW LABORATORY RECOMMENDATIONS FOR THE ADDITION OF NITROGEN, PHOSPHORUS AND POTASSIUM. PROVIDE ADDITIONAL ORGANIC CONTENT IN THE FORM OF COMPOST (192.3(7) ITEM 2).

SODDING FOR EROSION CONTROL, ITEM 162

162.1 DESCRIPTION

1. ALL SOD TO BE INSTALLED AS A PART OF THIS WORK SHALL BE BUFFALO GRASS, TOPGUN VARIETY. ALL SODDING SHALL BE SOLID SOD IN THE AREAS SHOWN ON THE PLANS WITH EACH SOD PIECE BUTTED SNUGLY AGAINST THE ADJACENT PIECES. VERTICAL JOINTS SHALL BE STAGGERED, AND SOD ON SLOPES SHALL BE ARRANGED SO THAT LONG JOINTS ARE PERPENDICULAR TO THE SLOPE. TOP OF SOIL ELEVATION FOR SOD SHALL BE ½" TO 1" BELOW ADJACENT PAVEMENTS SUCH AS MOW CURBS, CURBS, WALKWAYS, FOOTINGS OR WALLS

162.3(10) FINISHING

1. ROLL ALL SOD AFTER INSTALLATION TO ENSURE GOOD CONTACT BETWEEN THE SOD AND UNDERLYING SOIL. SMOOTH OUT UNEVEN AREAS. DO NOT LEAVE LOW SPOTS THAT WILL COLLECT WATER - ADD UP TO ½" OF A 50/50 MIX OF TOPSOIL AND SAND IN LOW AREAS. IF LOW AREAS ARE MORE THAN ½" LOW, REMOVE SOD, ADD SOIL BENEATH, RE-SOD AND RE-ROLL. LOW AREAS GREATER THAN 25 S.F. IN SIZE SHALL BE FILLED WITH THE SAME PROCEDURE, REGARDLESS OF DEPTH OF THE LOW AREAS.

FERTILIZER, ITEM 166

166.2 MATERIALS

1. FERTILIZER TO BE USED FOR ORNAMENTAL PLANTINGS AND TREES SHALL HAVE AN ANALYSIS AS RECOMMENDED BY THE SOIL TESTING AGENCY BASED ON THE TOPSOIL SAMPLE SUBMITTED BY THE SUBCONTRACTOR.

IRRIGATION SYSTEM, ITEM 170

170.1 DESCRIPTION

1. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REFERENCING ITEM 170 OF THE TEXAS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES 1993 FOR ITEMS NOT SHOWN. UNLESS SPECIFICALLY NOTED, ALL INFORMATION IN 170 SHALL APPLY AS WRITTEN WITH THE FOLLOWING SPECIFICATIONS BEING CONSIDERED 'IN ADDITION'. REFERENCES TO INFORMATION SHOWN ON THE PLANS SHALL BE CONSTRUED TO REFER TO INFORMATION SHOWN ON THE APPROVED PLANS PREPARED BY THE SUBCONTRACTOR AS NOTED IN 170.1.

2. 170.1. REPLACE AS FOLLOWS: THIS ITEM SHALL GOVERN FOR THE CONSTRUCTION OF A PERMANENT IRRIGATION SYSTEM IN THE AREAS SHOWN ON THE PLANS PROVIDED BY THE COMPANY. THE SUBCONTRACTOR IS TO PROVIDE A DETAILED, SCALED DRAWING OF THE SYSTEM SHOWING THE LOCATIONS OF ALL HEADS, LATERAL LINES, MAIN LINES, REMOTE CONTROL VALVES, BACKFLOW PREVENTERS, POWER AND CONTROL LOCATIONS, CONNECTIONS TO WATER SOURCE, AND ALL OTHER ANCILLARY VALVES, COMPONENTS AND PARTS. ALL PIPE SIZES SHALL BE LABELED. THE PLAN SHALL INCORPORATE A VALVE SCHEDULE DESCRIBING THE GENERAL LOCATION OF EACH VALVED SECTION, THE TYPE OF HEADS, THE SIZE OF THE VALVE, THE GALLONS PER MINUTE AND PRESSURE REQUIREMENTS FOR EACH SECTION. THIS PLAN SHALL BE SUBMITTED TO THE COMPANY FOR REVIEW AND APPROVAL, PRIOR TO COMMENCEMENT OF INSTALLATION.

3. VERIFY THAT SLEEVES FOR THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS HAVE BEEN INSTALLED. NO OTHER CUTTING OF PAVEMENTS OR CURBS WILL BE ALLOWED. VERIFY SLEEVE LOCATIONS, SIZES AND QUANTITIES PRIOR TO PLAN DEVELOPMENT. MARK THE LOCATION OF SLEEVES BY PLACING A BRASS NAIL IN THE CURB ABOVE THEIR LOCATION FOR EASE OF LOCATING IN THE FUTURE. IF AN EXISTING SLEEVE IS NOT AVAILABLE WHERE NEEDED THE SUBCONTRACTOR SHALL BORE UNDER EXISTING ROADWAYS, CURBS AND SIDEWALKS. THE SUBCONTRACTOR SHALL MARK THE SLEEVE LOCATION AS NOTED PREVIOUSLY.

4. AREAS OF DIFFERING PLANT MATERIALS SHALL BE IRRIGATED SEPARATELY. SEPARATE VALVED ZONES SHALL BE PROVIDED FOR TURF AREAS, BED AREAS, GROUNDCOVER AREAS, AND TREE BUBBLERS.

170.2 GENERAL

1. LICENSE REQUIREMENTS, 170.2. THE LICENSED IRRIGATOR SHALL HOLD A VALID LICENSE AS ISSUED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, IRRIGATORS' DIVISION.

170.3 MATERIALS

1. ALL MATERIALS ARE TO BE NEW AND UNUSED, DELIVERED TO THE SITE IN THE MANUFACTURER'S LABEL BOXES.

2. ALL EQUIPMENT USED ON THE PROJECT SHALL BE COMMERCIAL GRADE AS TYPICALLY USED IN SIMILARLY SIZED LANDSCAPE IRRIGATION INSTALLATIONS

3. ALL SPRINKLERS AND ROTORS USED SHALL BE CAPABLE OF PROVIDING MATCHED PRECIPITATION RATES THROUGHOUT A VALVED SECTION. BODIES SHALL BE CAPABLE OF 'POP UP' ACTION SO THEY ARE COMPLETELY AT OR BELOW GRADE LEVEL WHEN NOT OPERATIONAL. ADJUSTABLE HEADS SHALL OPERATE FROM 30 TO 360 DEGREES WITH INTERCHANGEABLE NOZZLES. THEY SHALL BE CAPABLE OF BEING SERVICED AND ADJUSTED FROM THE TOP OF EACH NOZZLE. ALL HEADS LOCATED IN TURF AREAS ARE TO BE INSTALLED WITH TRIPLE SWING JOINT OR FLEXIBLE RISER ASSEMBLIES.

4. AUTOMATIC REMOTE CONTROL VALVES SHALL BE OPERATED WITH AN ELECTRIC SOLENOID. VALVES SHALL BE NORMALLY CLOSED, DIAPHRAGM TYPE, SLOW OPENING AND CLOSING. THEY SHALL HAVE MANUAL FLOW CONTROL AND MANUAL BLEED

5. ISOLATION VALVES SHALL HAVE BELL OR SPIGOT ENDS, FLANGES OR SCREW JOINTS AS REQUIRED FOR THE PIPING IN WHICH THEY ARE INSTALLED. ISOLATION VALVES SHALL BE DESIGNED AND RATED FOR A MINIMUM WATER WORKING PRESSURE OF 150 PSI.

6. DOUBLE-CHECK BACKFLOW PREVENTION DEVICES SHALL CONSIST OF TWO INDEPENDENTLY OPERATING CHECK VALVES WITH AN INLET AND OUTLET SHUT-OFF VALVE AND FOUR TEST COCKS. EACH CHECK VALVE IS A 'Y' PATTERN, SPRING LOADED, CENTER GUIDED POPPET TYPE. IT SHALL BE CONSTRUCTED SO THAT ALL INTERNAL PARTS CAN BE SERVICED WITHOUT REMOVING THE DEVICE FROM THE LINE. THEY SHALL BE RATED TO 175 PSI WATER WORKING PRESSURE AND WATER TEMPERATURES FROM 32 DEGREES F. TO 140 DEGREES F. AN ISOLATION VALVE SHALL PRECEDE EACH BACKFLOW PREVENTER.

170.5 CONSTRUCTION METHODS

1. DEPTH TO THE TOP OF MAIN LINES SHALL BE 18". DEPTH TO THE TOP OF LATERAL LINES SHALL BE 12"

2. RUN ALL WIRES FROM CONTROLLER TO VALVES IN A BUNDLED GROUP, LOOSELY TIED TO THE MAIN LINE AT 20' INTERVALS.

WILDFLOWER SEEDING, ITEM 180

1. DESCRIPTION, 180.1. THIS ITEM SHALL ALSO GOVERN FOR GROUND PREPARATION, SUPPLYING AND SOWING OF SPECIFIED NATIVE GRASS SEEDS FOR BLACKLAND PRAIRIE ESTABLISHMENT AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THIS ITEM. SEEDING OF BLACKLAND PRAIRIE ESTABLISHMENT SHALL FOLLOW THIS ITEM AND NOT ITEM 164 (SEEDING FOR EROSION CONTROL.)

2. MATERIALS, 180.2. THE FOLLOWING SEED MIXES ARE TO BE USED IN THE AREAS SHOWN ON THE PLANS AT THE FOLLOWING RATES PER TYPE. ALL SEED TYPES SHOWN ARE TO BE USED.

WILDFLOWER OVERSEED MIX

POUNDS PER ACRE

.05 LBS.	LAZY DAISY
.05 LBS.	TALL ASTER
.15 LBS.	ANNUAL WINECUP
.55 LBS.	PARTRIDGE PEA
.05 LBS.	INDIAN PAINTBRUSH
.30 LBS.	AMERICAN BASKETFLOWER
.30 LBS.	LANCELEAF COREOPSIS
.05 LBS.	PLAINS COREOPSIS
.40 LBS.	ILLINOIS BUNDLEFLOWER
.30 LBS.	PURPLE CONEFLOWER
.50 LBS.	CUTLEAF DAISY
.30 LBS.	INDIAN BLANKETFLOWER
.05 LBS.	WHITE GAURA
.15 LBS.	COMMON SUNFLOWER
.10 LBS.	MAXIMILIAN SUNFLOWER
.20 LBS.	STANDING CYPRESS
.30 LBS.	GAYFEATHER
.30 LBS.	TEXAS YELLOW STAR
.20 LBS.	BLUE FLAX
.55 LBS.	TEXAS BLUEBONNET W/ INNOCULANT
.10 LBS.	LEMON MINT
.15 LBS.	MISSOURI PRIMROSE
.05 LBS.	PINK EVENING PRIMROSE
.10 LBS.	WILD FOXGLOVE
.10 LBS.	WHITE PRAIRIE CLOVER
.10 LBS.	PURPLE PRAIRIE CLOVER
.05 LBS.	OBEDIENT PLANT
.05 LBS.	MEXICAN HAT
.10 LBS.	CLASPING CONEFLOWER
.05 LBS.	BLACK-EYED SUSAN
.10 LBS.	PITCHER SAGE
.15 LBS.	MEALY BLUE SAGE
.15 LBS.	BUSH SUNFLOWER
.15 LBS.	GREENTHREAD
.05 LBS.	PRAIRIE VERBENA

6.45 TOTAL POUNDS PER ACRE

BLACKLAND PRAIRIE NATIVE GRASS OVERSEED MIX

POUNDS PER ACRE

.15 LBS.	BLUE GRAMA (HACHITA)
.30 LBS.	BIG BLUESTEM (KAW)
.20 LBS.	BLACKWELL SWITCHGRASS
.30 LBS.	GALLETA (VIVA)
.15 LBS.	PLAINS BRISTLEGRASS
.10 LBS.	ALKALI SACATON
.15 LBS.	PURPLE PRAIRIECLOVER
.60 LBS.	PARTRIDGE PEA (COMANCHE)
.15 LBS.	SUNFLOWER (MAXIMILIAN)
.60 LBS.	ILLINOIS BUNDLEFLOWER (SABINE)
.60 LBS.	EASTERN GAMAGRASS
.10 LBS.	BUSHY BLUESTEM
.50 LBS.	PRAIRIE WILDRYE
.20 LBS.	PURPLE THREE-AWN
.10 LBS.	BLUE PANICUM
.10 LBS.	TALL DROPSEED

4.3 TOTAL POUNDS PER ACRE

WILDFLOWER AND NATIVE GRASS ESTABLISHMENT - SEED MIX

POUNDS PER ACRE

.05 LBS.	LAZY DAISY
.05 LBS.	TALL ASTER
.15 LBS.	ANNUAL WINECUP
.55 LBS.	PARTRIDGE PEA
.05 LBS.	INDIAN PAINTBRUSH
.30 LBS.	AMERICAN BASKETFLOWER
.30 LBS.	LANCELEAF COREOPSIS
.05 LBS.	PLAINS COREOPSIS
.40 LBS.	ILLINOIS BUNDLEFLOWER
.30 LBS.	PURPLE CONEFLOWER
.50 LBS.	CUTLEAF DAISY
.30 LBS.	INDIAN BLANKETFLOWER
.05 LBS.	WHITE GAURA
.15 LBS.	COMMON SUNFLOWER
.10 LBS.	MAXIMILIAN SUNFLOWER
.20 LBS.	STANDING CYPRESS
.30 LBS.	GAYFEATHER
.30 LBS.	TEXAS YELLOW STAR
.20 LBS.	BLUE FLAX
.55 LBS.	TEXAS BLUEBONNET W/ INNOCULANT
.10 LBS.	LEMON MINT
.15 LBS.	MISSOURI PRIMROSE
.05 LBS.	PINK EVENING PRIMROSE
.10 LBS.	WILD FOXGLOVE
.10 LBS.	WHITE PRAIRIE CLOVER
.10 LBS.	PURPLE PRAIRIE CLOVER
.05 LBS.	OBEDIENT PLANT
.05 LBS.	MEXICAN HAT
.10 LBS.	CLASPING CONEFLOWER
.05 LBS.	BLACK-EYED SUSAN
.10 LBS.	PITCHER SAGE
.15 LBS.	MEALY BLUE SAGE
.15 LBS.	BUSH SUNFLOWER
.15 LBS.	GREENTHREAD
.05 LBS.	PRAIRIE VERBENA
.10 LBS.	GREEN SPRANGLETOP
.15 LBS.	SIDEOATS GRAMA
1.0 LBS.	BUFFALOGRASS

7.70 TOTAL POUNDS PER ACRE

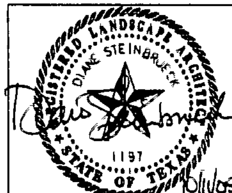
BLACKLAND PRAIRIE NATIVE GRASS ESTABLISHMENT - SEED MIX

POUNDS PER ACRE

.20 LBS.	GREEN SPRANGLETOP
.15 LBS.	BLUE GRAMA (HACHITA)
.30 LBS.	BIG BLUESTEM (KAW)
.20 LBS.	LITTLE BLUESTEM (CIMMARON)
.25 LBS.	INDIANGRASS (LOMETA)
2.0 LBS.	BUFFALOGRASS
.25 LBS.	SIDEOATS GRAMA (HASKELL)
.20 LBS.	BLACKWELL SWITCHGRASS
.30 LBS.	GALLETA (VIVA)
.15 LBS.	PLAINS BRISTLEGRASS
.10 LBS.	ALKALI SACATON
.15 LBS.	PURPLE PRAIRIECLOVER
.60 LBS.	PARTRIDGE PEA (COMANCHE)
.15 LBS.	SUNFLOWER (MAXIMILIAN)
.60 LBS.	ILLINOIS BUNDLEFLOWER (SABINE)
.60 LBS.	EASTERN GAMAGRASS
.10 LBS.	BUSHY BLUESTEM
.50 LBS.	PRAIRIE WILDRYE
.20 LBS.	PURPLE THREE-AWN
.10 LBS.	BLUE PANICUM
.10 LBS.	TALL DROPSEED

7.2 TOTAL POUNDS PER ACRE

REV	DATE	BY	DESCRIPTION
0	10 11 2005	CJ	APPROVED FOR CONSTRUCTION



TEAM WONSER DAAN-HARRIS

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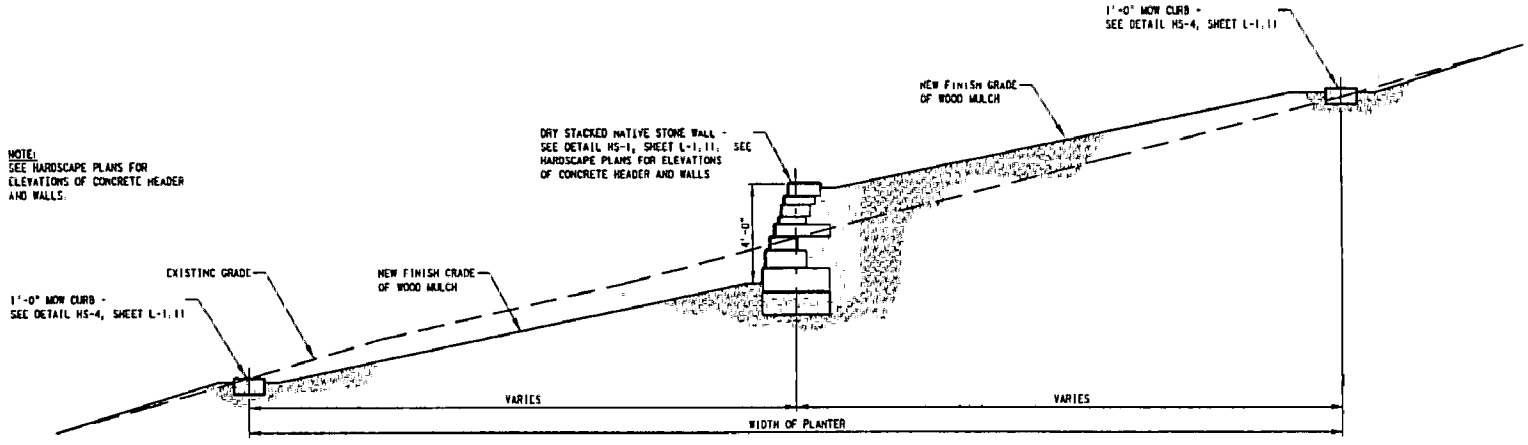
SH130 CORRIDOR WIDE STANDARDS
LANDSCAPE PLANS
SPECIFICATIONS

SCALE: NTS

SHEET 3 OF SHEETS

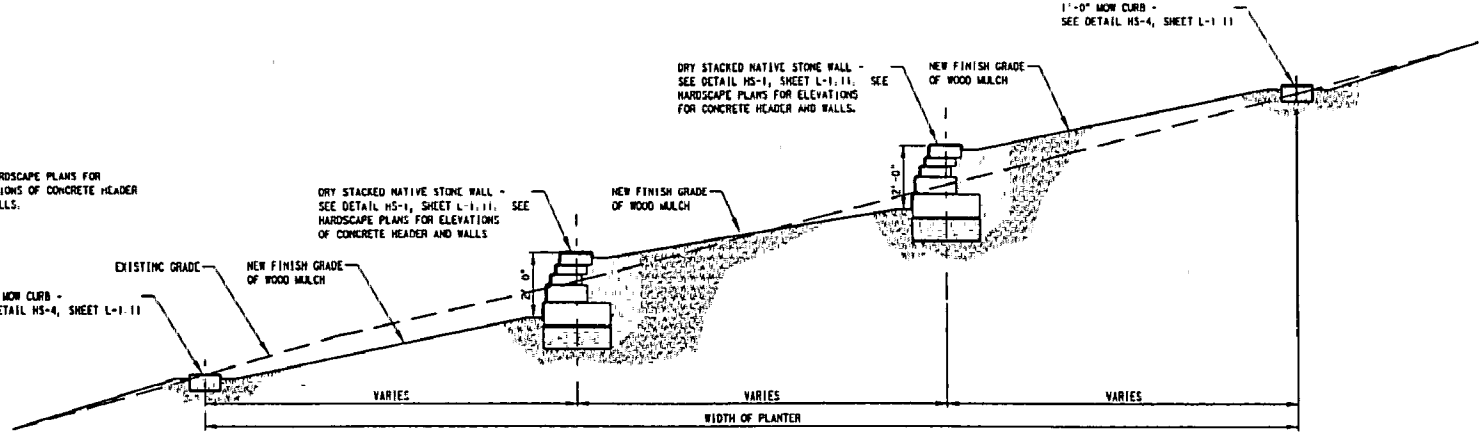
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86 2XXDB001		L-1.03
STATE	DISTRICT	COUNTY	
TX	AUS	WILLIAMSON, TRAVIS	
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
0	10/15/07	[illegible]	



NOTE:
SEE HARDSCAPE PLANS FOR
ELEVATIONS OF CONCRETE HEADER
AND WALLS.

OPTION B



NOTE:
SEE HARDSCAPE PLANS FOR
ELEVATIONS OF CONCRETE HEADER
AND WALLS.

OPTION A

HS-10 | TYPICAL SLOPING PLANTER CROSS SECTION DETAILS

NOT TO SCALE

REGISTERED LANDSCAPE ARCHITECT
ROBERT W. GLADWIN
2134
STATE OF TEXAS
10/15/07

TEAM MEMBER
DRAW-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

SH130 CORRIDOR WIDE STANDARD
LANDSCAPE PLANS
HARDSCAPE DETAILS

SCALE: NTS

SHEET OF SHEETS

DESIGNED BY: GS	CHECKED BY: RWB	DATE:
DRAWN BY: [illegible]	CHECKED BY:	DATE: Oct 18 05
APPROVED BY:	DATE:	PROJECT NO

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXD8001		L-1.13

STATE	DISTRICT	COUNTY
TX	AUS	

CONT	SECT	JOB	HIGHWAY NO
			SH130

BRIDGE PROJECT STANDARDS 9/20/05

SECTION	BRIDGE NO	BRIDGE NAME	RIPRAP: RIPRAP AT ABUTMENT	RIPRAP: RIPRAP SEALED	ABUTMENT: AESTHETIC RAIL TREATMENT (6)	NO AESTHETIC TREATMENT	BRIDGE COLUMNS AND BENT CAPS: AESTHETIC ROUND COLUMNS	AESTHETIC SQUARE COLUMNS	AESTHETIC DIRECT CONNECTOR	RUSTICATION JOINT (1)	STAR END TREATMENT	SUPER COLOR OPTION (8)	BAT ROOST (2)	LIGHTING: AESTHETIC LIGHTING ON BRIDGE (3)	OVERHEAD LIGHTING (3)	UNDERPASS LIGHTING FEED (4)	ELECTRICAL: DUCTS ON BRIDGE (5)(9)	TTA DUCT BANK	DUCT BANK PULLING STATION
1	2	IH35 SB FRONTAGE RD OVER DRY BERRY CREEK	X			X						NONE							
	4NB & SB	IH35 MAINLANE OVER DRY BERRY CREEK (WIDENING)	X			X						NONE			NB & SB				
	7	SH195 WB FRONTAGE RD OVER IH35	X		X			X			X	B				X-ABUT 1	1 1" RMC		
	8	SH195 EB FRONTAGE RD OVER IH35	X		X			X			X	B				X-ABUT 1	1 1" RMC		
	11	IH35 SB FRONTAGE RD OVER BERRY CREEK	X			X						NONE							
	13	IH35 MAINLANES OVER BERRY CREEK	X			X						NONE			X				
	16	SH130 NB FRONTAGE RD OVER IH35	X		X			X			X	B				X-ABUT 1	1 1" RMC		
	17	SH130 SB FRONTAGE RD OVER IH35	X		X			X			X	B				X-ABUT 1	1 4" RMC		
	18	DC FROM NB SH130 TO NB IH35 (NBNB)	X						X	X	X	B							
	19	DC FROM SB IH35 TO SB SH130 (SBSB)	X						X	X	X	B				X-BENT 4			
2	20NB & SB	SH130 MAINLANE OVER CR152	X				X				X	B			SB				
	21NB & SB	SH130 MAINLANE OVER PECAN BRANCH	X				X				X	A						NB BRIDGE	
	24NB & SB	SH130 MAINLANE OVER FM971	X				X				X	B							
	25NB & SB	SH130 MAINLANE OVER GEORGETOWN COUNTY RR	X				X				X	A					NB 1 2" RMC	NB BRIDGE	
	27NB & SB	SH130 MAINLANE OVER SAN GABRIEL RIVER	X				X				X	A	X					NB BRIDGE	
	29	SH29 OVER SH130 MAINLANES	X		X		X				X	B					1 1" RMC		
3	30NB	SH130 MAINLANE OVER CR104 AND MANKINS BRANCH	X				X				X	B							
	30SB	SH130 MAINLANE OVER CR104 AND MANKINS BRANCH	X				X				X	B							
	31	CR104 SB ENTRANCE RAMP OVER MANKINS BRANCH	X				X				X	A							
	32	CR104 NB EXIT RAMP OVER MANKINS BRANCH	X				X				X	A						BRIDGE	
	33NB & SB	SH130 MAINLANE OVER CR105 AND MANKINS BRANCH	X				X				X	B						NB BRIDGE	
4	34	CHANDLER ROAD OVER SH130 MAINLANES	X		X		X				X	B				X-ABUT 1 & 4	2 1" RMC		
	35NB & SB	SH130 MAINLANE OVER CR118	X				X				X	B							
	40NB & SB	SH130 MAINLANE OVER CR109	X				X				X	B							
5	37NB & SB	SH130 MAINLANE OVER US79 & UNION PACIFIC RR	X					X			X	B							
	38A	US 79 WB OVER CHANNEL CREEK	X			X						NONE					1 2" RMC		
	38B	US 79 WB OVER CARMEL CREEK	X			X						NONE							
	38C	US 79 EB OVER CHANNEL CREEK	X			X						NONE			X				
	38D	US 79 EB OVER CARMEL CREEK	X			X						NONE							
	39	US 79 EB OVER SH130 FRONTAGE RD	X					X			X	B							
	40	US 79 WB OVER SH130 FRONTAGE RD	X					X			X	B							
	41	UNION PACIFIC RR OVER SH130 SBFR	X			X						NONE							
	42	UNION PACIFIC RR OVER SH130 NBFR	X			X						NONE							
6	43NB & SB	SH130 MAINLANE OVER BRUSHY CREEK	X				X				X	A	X		NB & SB			SB BRIDGE	
	47NB & SB	SH130 MAINLANE OVER FM685 NORTH	X				X				X	B							
	48	GATTIS SCHOOL ROAD OVER SH130 MAINLANE	X		X		X				X	B					2 3" & 1 2" RMC		
	50NB & SB	SH130 MAINLANE OVER KELLY LANE (SH43)	X					X			X	B							
	51	DC FROM SB SH130 TO WB SH45 (SBWB)	X						X	X	X	B							
	52	DC FROM EB SH45 TO NB SH130 (EBNB)	X						X	X	X	B				X BENT 11			
	53	DC FROM NB SH130 TO WB SH45 (NBWB)	X						X	X	X	B				X BENT 1			
	54	DC FROM EB SH45 TO SB SH130 (EBSB)	X						X	X	X	B							
7	55	FM685 SOUTH OVER SH130 MAINLANE	X		X			X			X	B				X-ABUT (1)	2 1" RMC (10)		
8	56NB & SB	SH130 MAINLANE OVER PFLUGER LANE	X				X				X	B							
	57NB & SB	SH130 MAINLANE OVER WILBARGER CREEK	X				X				X	A	X						
	58	SH130 SBFR OVER WILBARGER CREEK	X				X				X	A						BRIDGE	
	59	SH130 NBFR OVER WILBARGER CREEK	X				X				X	A							
	60	PFLUGERVILLE ROAD (PECAN) OVER SH130 MAINLANE	X		X		X				X	B				X ABUT 4	2 1" RMC (10)		
	62NB & SB	SH130 MAINLANE OVER CAMERON ROAD	X				X				X	B			SB				
9	65NB & SB	SH130 MAINLANE OVER HOWARD LANE	X				X				X	B							
	66NB & SB	SH130 MAINLANE OVER GILLELAND CREEK	X				X				X	A	X		NB & SB			SB BRIDGE	
	67NB & SB	SH130 MAINLANE OVER PARMER LANE	X				X				X	B			NB & SB				
10	68	DC FROM EB US290 TO NB SH130 (EBNB)	X						X	X	X	B			X	X ABUT 41			
	69C	US290 EBFR OVER SH130	X		X			X			X	B				X-ABUT 1	1-1" RMC		
	69D	US290 WBFR OVER SH130	X		X			X			X	B				X ABUT 1	1 1" RMC		
11	70NB & SB	SH130 MAINLANE OVER CMTA RR	X				X				X	A			SB			SB BRIDGE	
	71NB & SB	SH130 MAINLANE OVER BLUE BLUFF ROAD	X				X				X	B							
	77	FM973 OVER SH130 MAINLANES	X		X		X				X	B					2 3" RMC		
12	78NB & SB	SH130 MAINLANE OVER DECKER CREEK	X				X				X	A			NB			NB BRIDGE	
	79NB & SB	SH130 MAINLANE OVER FM969	X				X				X	B							
	80NB & SB	SH130 MAINLANE OVER ELM CREEK	X				X				X	A							
	81	SH130 SB FRONTAGE RD OVER ELM CREEK	X				X				X	A							
	87	SH130 NB FRONTAGE RD OVER ELM CREEK	X				X				X	A							
	83NB & SB	SH130 MAINLANE OVER HAROLD GREEN ROAD	X				X				X	A						BRIDGE	
13	84A-NB & SB	SH130 MAINLANE OVER COLORADO RIVER	X				X				X	B			NB			NB BRIDGE	
	84B NB & SB	SH130 MAINLANE OVER SH71	X					X			X	B							
	84C NB & SB	SH130 MAINLANE OVER ONION CREEK	X				X				X	A			NB & SB	X-		NB BRIDGE	
	88	DC FROM EB SH71 TO NB SH130 (EBNB)	X						X	X	X	B				BENT 19			
(7) 14	96NB & SB	SH130 MAINLANE OVER PEARCE LANE	X				X				X	B							
	97A	ELROY ROAD OVER SH130	X		X		X				X	B					2 3" & 1-2" RMC		
	98NB & SB	SH130 MAINLANE OVER MCANGUS ROAD	X				X				X	B							
(7) 15A	98A	NB SH130 MAINLANE OVER N FORK DRY CREEK	X				X				X	A							
	98B	SB SH130 MAINLANE OVER N FORK DRY CREEK	X				X				X	A							
	98C	SH130 NB FRONTAGE RD OVER N FORK DRY CREEK	X				X				X	A					1 2" RMC	BRIDGE	
	98D	SH130 SB FRONTAGE RD OVER N FORK DRY CREEK	X				X				X	A					1 1" RMC		
	99NB & SB	SH130 MAINLANE OVER FM812	X				X				X	B							
	100NB & SB	SH130 MAINLANE OVER S FORK DRY CREEK	X				X				X	A							
	101	SH130 SB FRONTAGE RD OVER S FORK DRY CREEK	X				X				X	A					1 2" RMC		
	102	SH130 NB FRONTAGE RD OVER S FORK DRY CREEK	X				X				X	A					1 2" RMC	BRIDGE	
	103	FM812 OVER S FORK DRY CREEK	X			X						NONE					2-1 RMC		
	104A	MOORE ROAD OVER SH130	X		X		X				X	B							

GENERAL NOTES:

(1) RUSTICATION JOINTS ARE LOCATED ON HAMMERHEAD COLUMNS AND STRADDLE BENTS ONLY

(2) LOCATION OF BAT ROOST IS SHOWN ON THE BRIDGE LAYOUT DRAWINGS

(3) LOCATION OF LIGHTING IS INDICATED ON THE BRIDGE LAYOUT DRAWINGS.

(4) LOCATION OF UNDERPASS LIGHTING IS FOUND ON ILLUMINATION LAYOUT DRAWINGS. FEED INDICATES STRUCTURAL ELEMENTS WHICH MUST ACCOMMODATE POWER FEED (CONDUIT) TO SUPPORT UNDERPASS LIGHTING.

(5) DUCTS OTHER THAN FOR AESTHETIC LIGHTING ON BRIDGE, UNDERPASS LIGHTING, OR TTA DUCT BANK.

(6) AESTHETIC TREATMENT FOR RAIL TO BE AS INDICATED ON THIS DRAWING. AESTHETIC TREATMENT MAY NOT NECESSARILY BE REFERENCED ON THE INDIVIDUAL BRIDGE LAYOUT DRAWINGS OR MAY BE LISTED AS AESTHETIC OR STAR TREATMENT.

(7) TRAFFIC DOCUMENTS ARE NOT AFC'D. THEREFORE LIGHTING AND ELECTRICAL DATA ARE SUBJECT TO CHANGE

(8) SEE AES1+(SPL) FOR ADDITIONAL DETAILS.

(9) AT THE CONTRACTOR'S OPTION EACH 1" DIA DUCT MAY BE SUBSTITUTED WITH TWO ?" DIA DUCTS

(10) AT THE CONTRACTOR'S OPTION DUCT MAY BE PLACED IN EITHER THE BRIDGE RAIL OR IN THE SIDE WALK. NOTE THAT NO MORE THAN TWO 2" CONDUIT CAN BE PLACED IN EACH RAIL.

REV	DATE	BY	DESCRIPTION
4	01/13/05	BWD	NOC 326 AFC
5	03/28/05	BWD	NOC 318 AFC
6	05/03/05	BWD	NOC 395 AFC
7	06/06/05	BWD	NOC 416 AFC
8	08/16/05	BWD	NOC 452/ FCR 309 AFC

STATE OF TEXAS
BRIAN W. DODSON
90826
LICENSED PROFESSIONAL ENGINEER

8/16/05

TEAM MEMBER DMJM HARRIS

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AESTHETIC DETAILS
SUMMARY TABLE
AEST01(SPL)

SHEET 1 OF 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		
6	86-2XX08001	BRS-099	
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
0	12/09/04	WD	APPROVED FOR CONST
1	01/13/05	WD	MOC 126 AFC
2	06/16/05	WD	MOC 116 AFC

SECTION	BRIDGE NO.	BRIDGE NAME	RIPRAP: RIPRAP AT ABUTMENT	RIPRAP: RIPRAP SEALED	ABUTMENT: AESTHETIC RAIL TREATMENT (5)	BRIDGE COLUMNS AND BENT CAPS: NO AESTHETIC TREATMENT	AESTHETIC ROUND COLUMNS	AESTHETIC SQUARE COLUMNS	AESTHETIC DIRECT CONNECTOR	RUSTICATION JOINT (1)	STAIR END TREATMENT	SUPER. COLOR OPTION (8)	BAT ROOST (2)	LIGHTING: AESTHETIC LIGHTING ON BRIDGE (3)	OVERHEAD LIGHTING (3)	UNDERPASS LIGHTING FEED (4)	ELECTRICAL: DUCTS ON BRIDGE (5)	TTA DUCT BANK	DUCT BANK PULLING STATION
15B	105A	NB SH130 MAINLANE OVER LORENA TRIBUTARY	X	X			X				X	A							
	105B	SB SH130 MAINLANE OVER LORENA TRIBUTARY	X	X			X				X	A						BRIDGE	
	105C	SH130 NB FRONTAGE RD OVER LORENA TRIBUTARY	X	X			X				X	A							
	105D	SH130 SB FRONTAGE RD OVER LORENA TRIBUTARY	X	X			X				X	A							
	106	YOW QUINTUS ROAD OVER SH130	X	X	X		X				X	B				X-ABUT 1	2 3 PVC		
	107NB & SB	SH130 MAINLANE OVER MAMA LOOP	X	X				X			X	B							
	108EB & WB	SH45 MAINLANE OVER US 183	X	X				X			X	B							
	109	US 183 OVER MAMA CREEK				X						NONE							

SEE SHEET 1 OF 2 FOR GENERAL NOTES.

SECTION	WALL NO.	AESTHETIC STAR PANEL
1	WL01-1S (2)	
	WL01-2AN (18)	X
	WL01-2BN (18)	X
	WL01-3AS (19)	X
	WL01-3BS (19)	X
	WL01-4S (16)	X
	WL01-5S (17)	X
	WL01-6N (18)	X
	WL01-7S (19)	X
	WL01-8N	
2	WL02-1N (25)	
	WL02-2S (29)	
	WL02-3S (29)	
	WL02-4N (29)	
	WL02-5S (24)	
	WL02-6N (24)	
	WL02-7S	
	WL02-8S (30)	
3	WL03-1N (30)	
4	WL04-1N (34)	
	WL04-2S (34)	
5	WL05-1S (37)	
	WL05-2N (37)	
	WL05-3N (40)	
	WL05-4S (39)	
	WL05-5N (40)	
	WL05-6S (39)	
	WL05-7S (41)	
	WL05-8S (41)	
	WL05-9N (42)	
	WL05-10N (42)	
6	WL06-1N (47)	
	WL06-2N (47)	
	WL06-3S (48)	
	WL06-4N (48)	
	WL06-5N	
	WL06-6S (51)	
	WL06-7S (51)	X
	WL06-8N (52)	X
	WL06-9N (52)	X
	WL06-10S (54)	X
	WL06-11S (54)	X
	WL06-12N (53)	X
	WL06-13N (51-53)	
	WL06-14N (51-53)	X
	WL06-15S (52-54)	X
	WL06-16N	
	WL06-19S (53)	
7	WL07-1S (55)	
	WL07-2N (55)	
8	WL08-1N	
	WL08-2S (60)	
	WL08-3N (60)	
	WL08-4S (62)	
	WL08-5N (62)	
9	WL09-1S (65)	
	WL09-2N (65)	
	WL09-3S (65)	
	WL09-4S (67)	
	WL09-5S (67)	
	WL09-6N (67)	
10	WL10-1N (68)	X
	WL10-2N (68)	X
	WL10-3S (69A-D)	
	WL10-4N (69A-D)	
	WL10-5S (68)	X

SECTION	WALL NO.	AESTHETIC STAR PANEL
11	WL11-1S	
	WL11-2S (77)	
	WL11-3N (77)	
	WL11-4N	
	WL11-5S	
12	WL12-3N	
	WL12-4S	
13	WL13-1N (88)	
	WL13-4N (88)	
	WL13-7N (84B)	
	WL13-8S (84B)	
	WL13-10S (84B)	
	WL13-11N (84C)	
	WL13-12S (84C)	
	WL13-13E (88)	
14	WL14-1N(97A)	
	WL14-2S(97A)	
15A	WL15-1S(104)	
	WL15-2N(104)	
	WL15-3S(106)	
	WL15-4N(106)	

TRAFFIC RAIL

STANDARD DRAWING SSTR IS UTILIZED AT ALL BRIDGE LOCATIONS WITH THE FOLLOWING EXCEPTIONS.

STANDARD DRAWING	MINIMUM RAIL HEIGHT	BRIDGE
SSTRISPLI	51" (8)	1B, 3S-LEFT; 6D; 69C RIGHT; 69D LEFT, 97A
SSTRISPLI	42"	29; 34
SSTRINOOI	36"	16-LEFT; 69C-LEFT, 69D-RIGHT 17-RIGHT; 7-LEFT; 8-RIGHT
T501	36"	2; 4NB; 4SB; 11 AND 13

(8) RAIL HEIGHT SHOWN IS BASED ON MAXIMUM HEIGHT REQUIRED IN ORDER TO OBTAIN A HEIGHT OF 42" ABOVE TOP OF RAISED SIDEWALK

RELEASED FOR CONSTRUCTION
JUN 23 2005
Lone Star Infrastructure

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER

6/3/05

TEAM MEMBER

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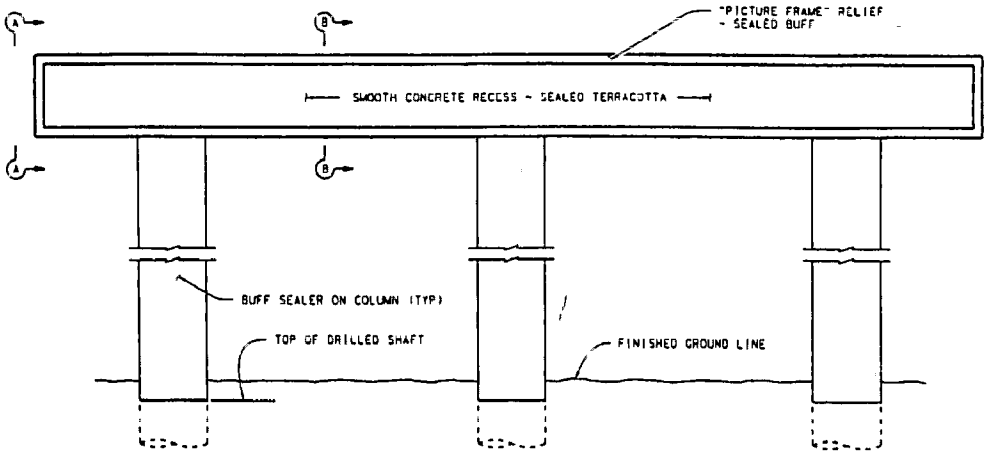
AESTHETIC DETAILS
SUMMARY SHEET
AESTOISPLI

SHEET 2 OF 2

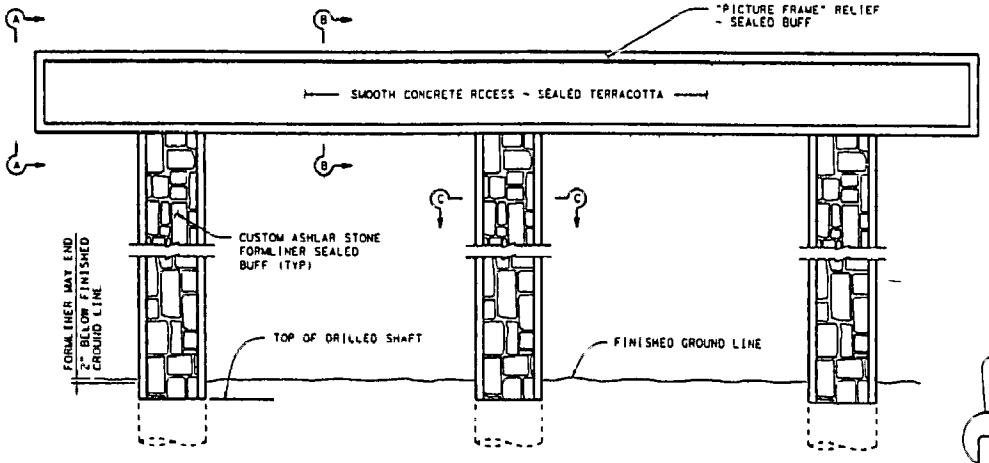
DESIGNED BY: BWD	CHECKED BY:	DATE: 11-08-04
DRAWN BY: TLM	CHECKED BY: BWD	DATE: 11-08-04
APPROVED BY:	DATE:	PROJECT NO:

FED. RD. DIV.	FED. AID PROJECT NO.	SHEET NAME	DWG. NO.
6	86-2XXDB001		

STATE	DISTRICT	COUNTY	
TX	AUS		
CONT.	SECT.	JOB	HIGHWAY NO.
			SH130

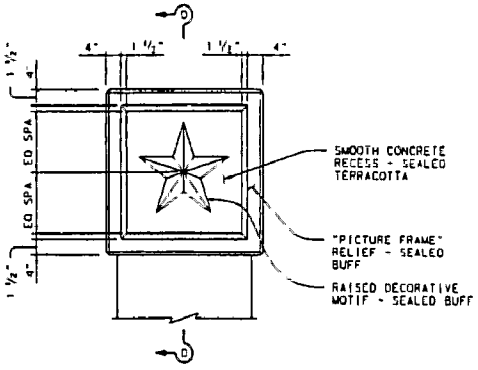


ELEVATION ~ ROUND COLUMNS

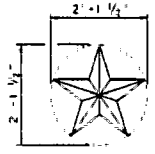


ELEVATION ~ SQUARE COLUMNS

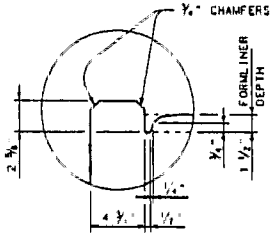
GENERAL NOTES:
1. CHAMFER ALL EXPOSED CAP EDGES ¾".
2. FOR ASHLAR STONE FORM LINER DETAILS SEE AEST4(SPL) (BRS-109) SHEET.
3. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
4. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711
5. SEALER SHALL NOT BE APPLIED TO THE BEARING SEATS



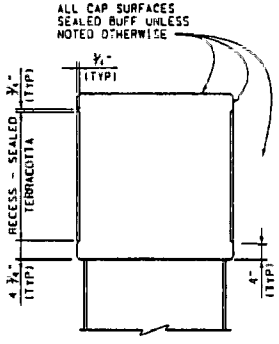
SECTION A-A
SHOWING ROUND COLUMN



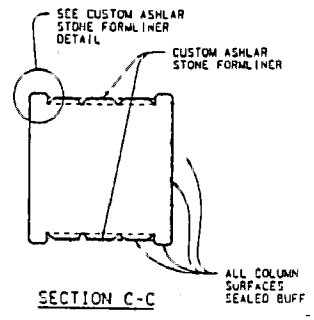
STAR DETAIL
1 ½" RAISED STAR MOTIF INSCRIBED BY A 2'-1 ½" DIAMETER CIRCLE.



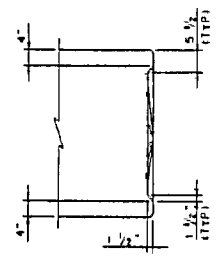
CUSTOM ASHLAR FORMLINER DETAIL



SECTION B-B
SHOWING SQUARE COLUMN



SECTION C-C



SECTION D-D

REV	DATE	BY	DESCRIPTION
0	02.11.04	BD	APPROVED FOR CONST

BRIDGEFARMER & ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The BOAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP

☐ Approved except as noted: See Design Exception Letter No.

Design Quality Assurance Manager
Mansoor Ahsan, PE

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
11-FEB-04

TEAM MEMBER
DMJM-HARRIS

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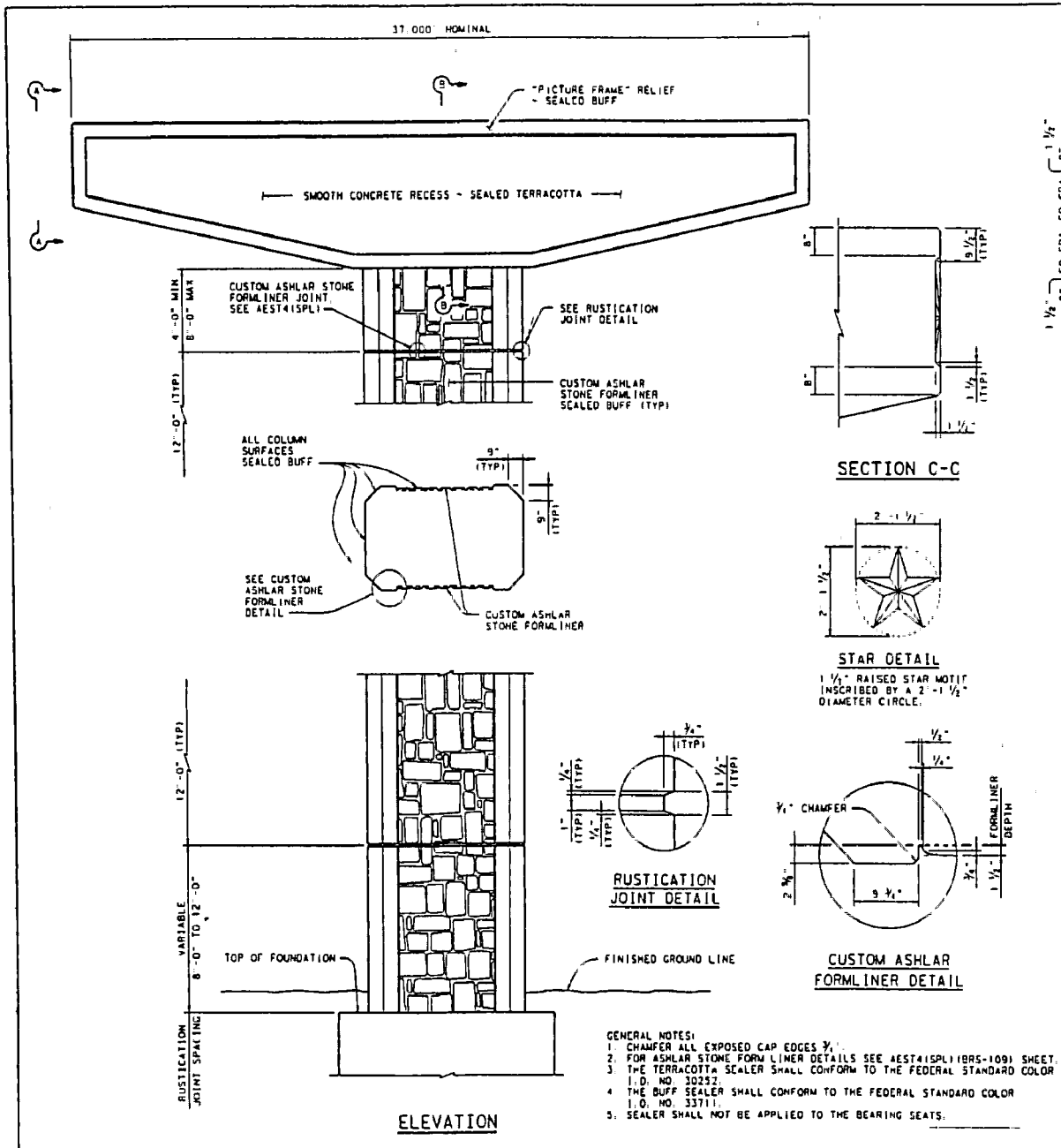
TEXAS DEPARTMENT OF TRANSPORTATION

AESTHETIC DETAILS
MULTI-COLUMN BENT
AEST1 (SPL)

SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XXDB001	BRS-100	
STATE	DISTRICT	COUNTY	
Tx	AUS		
CONT	TEXT	JOB	HIGHWAY NO.



GENERAL NOTES:
1. CHAMFER ALL EXPOSED CAP EDGES 3/4".
2. FOR ASHLAR STONE FORM LINER DETAILS SEE AEST4(SPL)(BRS-109) SHEET.
3. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
4. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711.
5. SEALER SHALL NOT BE APPLIED TO THE BEARING SEATS.

REV	DATE	BY	DESCRIPTION
3	02/11/04	BO	APPROVED FOR CONST

BRIDGEFARMER & ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The DQAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP.

☐ Approved except as noted: See Design Exception Letter No. ____

Design Quality Assurance Manager
Mansoor Ansari, P.E.

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
11-FEB-04

TEAM MEMBER
DMJM/HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

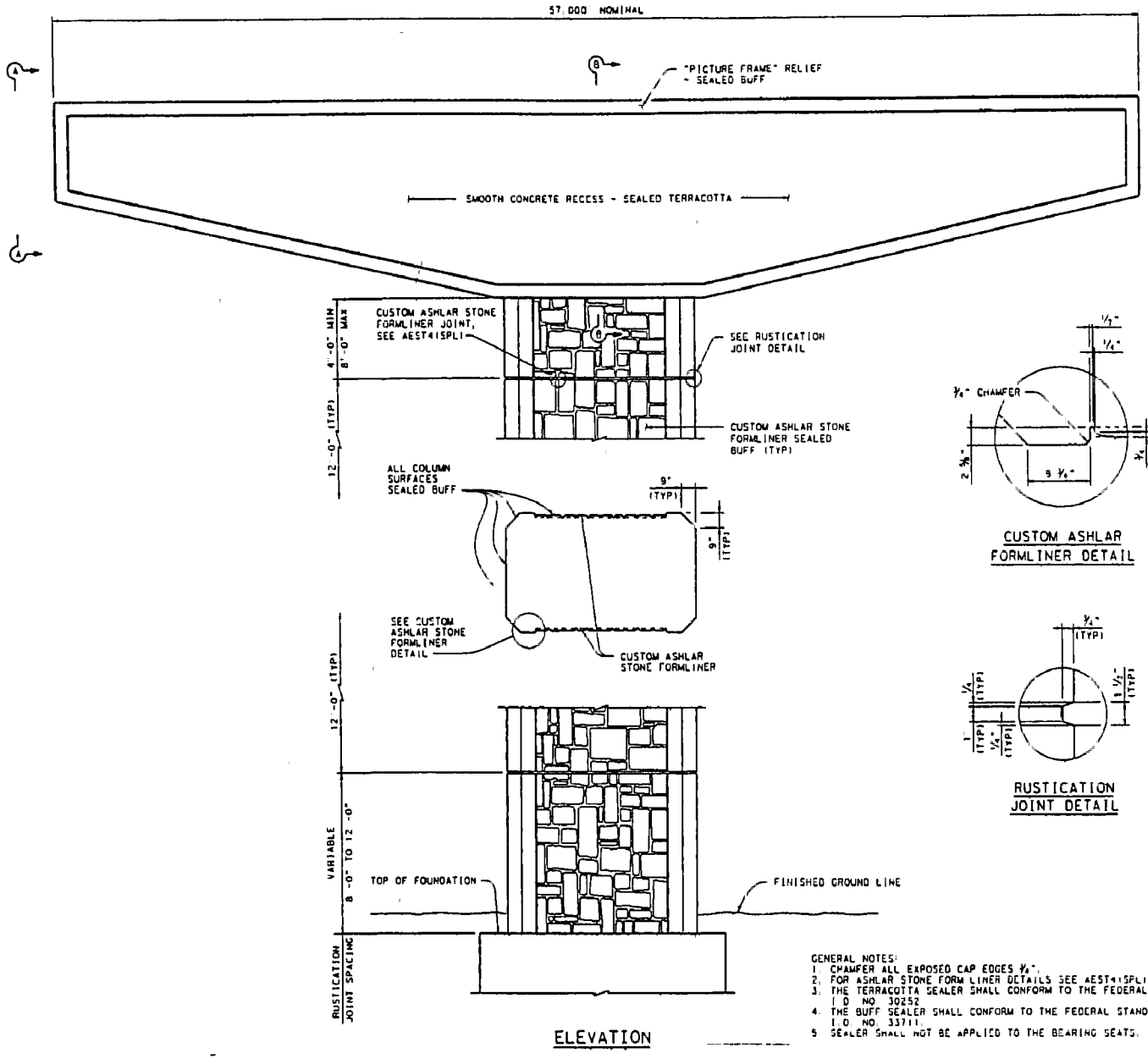
AESTHETIC DETAILS
37 FT - HAMMER HEAD BENT
AEST2(SPL)

SHEET 1 OF 1

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86 2XX08001	BRS-101	

STATE	DISTRICT	COUNTY
TX	AUS	

CONT	SECT	JOB	HIGHWAY NO



GENERAL NOTES:
1. CHAMFER ALL EXPOSED CAP EDGES 3/4".
2. FOR ASHLAR STONE FORM LINER DETAILS SEE AEST4(SPL)(BRS-109) SHEET.
3. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
4. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711.
5. SEALER SHALL NOT BE APPLIED TO THE BEARING SEATS.

REV	DATE	BY	DESCRIPTION
0	07/11/04	BD	APPROVED FOR CONST

BRIDGEFARMER & ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The DGAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP

☐ Approved except as noted: See Design Exception Letter No.

Design Quality Assurance Manager
Mansoor Ahsan, P.E.

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
11-FEB-04

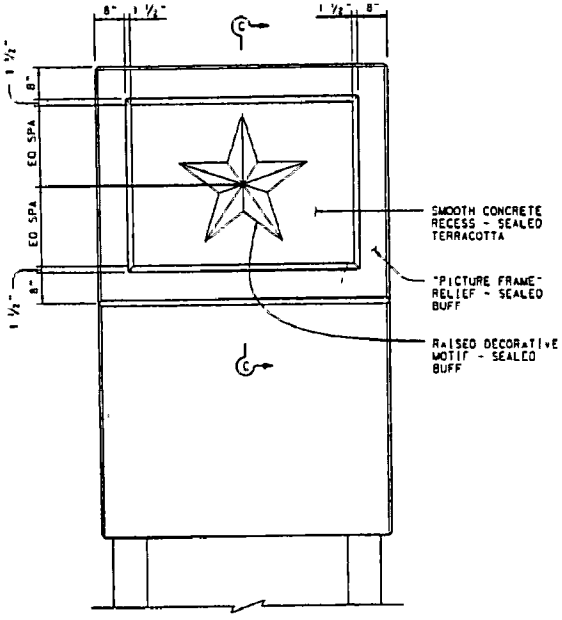
TEAM MEMBER
DMJM-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

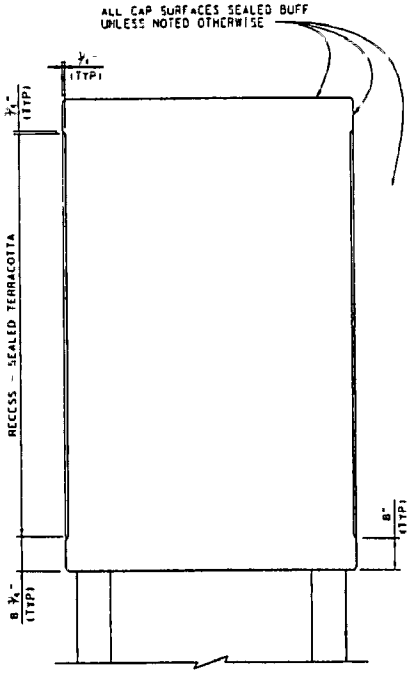
AESTHETIC DETAILS
57 FT HAMMER HEAD BENT
AEST3(SPL)

SHEET 1 OF 2

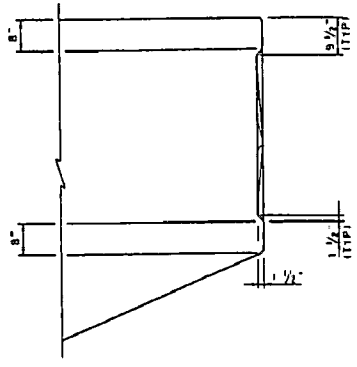
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86 2XXDB001	BRS-102	
STATE	DESIGNER	COUNTY	
TX	AUS		
LONG	SECT	JOB	HIGHWAY NO
			SH130



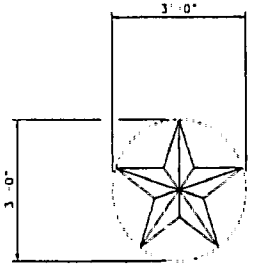
SECTION A-A



SECTION B-B



SECTION C-C



STAR DETAIL

1 1/2" RAISED STAR MOTIF INSCRIBED BY A 3'-0" DIAMETER CIRCLE.

REV	DATE	BY	DESCRIPTION
3	02/11/04	BD	APPROVED FOR CONST

BRIDGEFARMER & ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The DOAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP.

☐ Approved except as noted: See Design Exception Letter No. 02/12/04

Design Quality Assurance Manager
Mansoor Ahsan, P.E.

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
11-FEB-04

TEAM MEMBER
DMJM-HARRIS

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TEXAS DEPARTMENT OF TRANSPORTATION

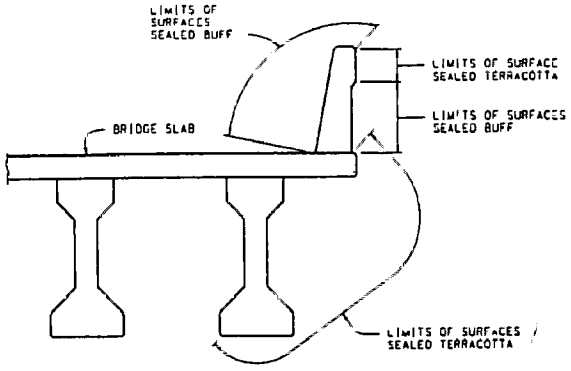
AESTHETIC DETAILS
57 FT - HAMMER HEAD BENT
AEST3(SPL)

SHEET 2 OF 2

FID	FID-ID PROJECT NO	SHEET NAME	DWG NO
6	86-2XX08001	BRS-103	

STATE	DISTRICT	COUNTY
TX	AUS	

CONT	SECT	JOB	HIGHWAY NO
			SH130



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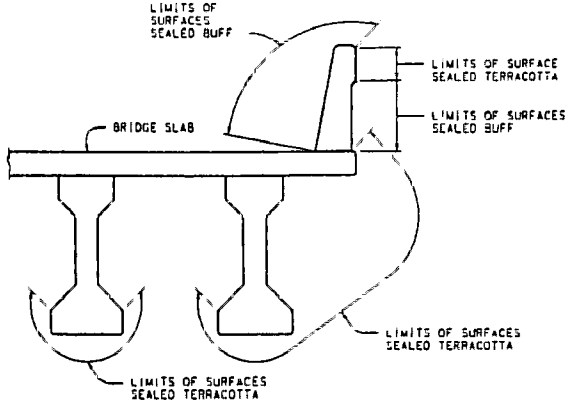

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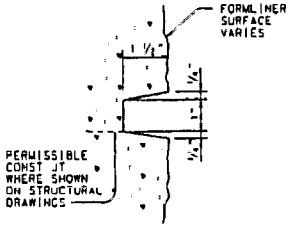
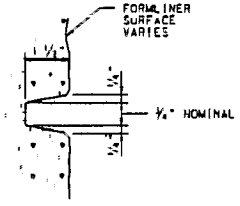
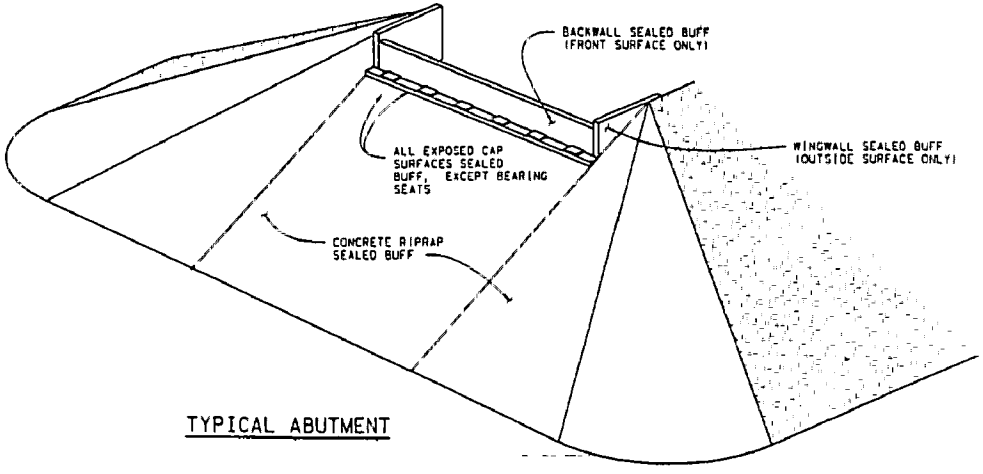


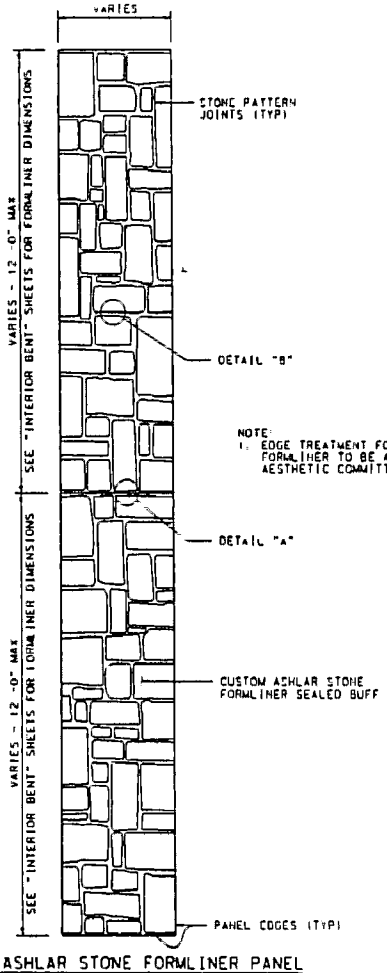
DETAIL A



DETAIL B



TYPICAL ABUTMENT



NOTE:
1. EDGE TREATMENT FOR ASHLAR FORMLINER TO BE APPROVED BY AESTHETIC COMMITTEE CHAIRMAN

CUSTOM ASHLAR STONE FORMLINER PANEL FOR BENTS AND SIGN BRIDGE COLUMNS

GENERAL NOTES:
1. THE FABRICATOR SHALL NOT SPLICE, CUT AND JOIN, OR GLUE THE FORMLINER PANELS TOGETHER. EACH PANEL SHALL BE FABRICATED TO FORM A ONE PIECE UNIT TO THE SIZE AND SPECIFICATIONS SET FORTH IN THE PLAN SHEETS. FORMLINERS SHALL BE WASHED AND CLEANED AFTER EACH USE. FORMLINERS THAT HAVE BECOME DAMAGED OR WORN SHALL BE REPLACED BY THE CONTRACTOR.
2. ALL FORMLINER SURFACES SHALL RECEIVE A SURFACE AREA 1, CLASS B FINISH USING OPAQUE CONCRETE SEALER AS NOTED IN SPECIAL PROVISION.
3. ALL FORMLINER PANEL JOINTS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE ENGINEER, TO PREVENT LEAKAGE AT THE SURFACE UPON CASTING OF CONCRETE.
4. CHAMFER ALL EXPOSED CAP EDGES 3/4".
5. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
6. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711.

REV	DATE	BY	DESCRIPTION
0	02/11/04	BD	APPROVED FOR CONST

BRIDGEFARMER & ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The DQAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP.

☐ Approved except as noted: See Design Exception Letter No. 02/12/04

Design Quality Assurance Manager
Mansoor Ahsan, P.E.

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
11-FEB-04

TEAM MEMBER
DMJM-HARRIS

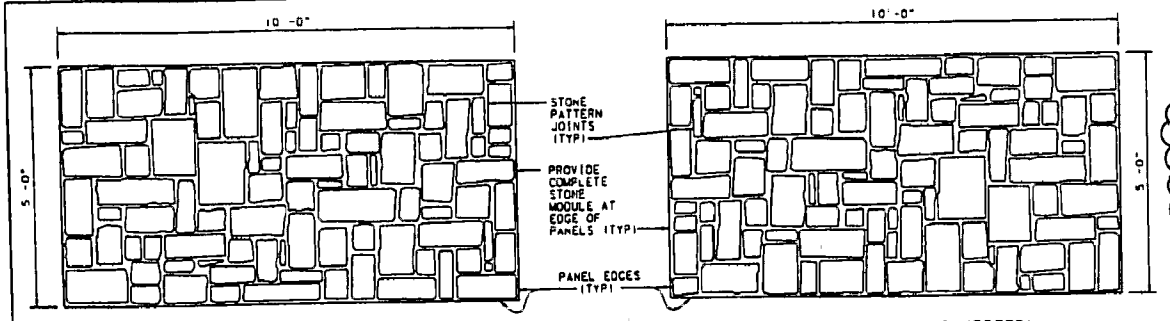
TEXAS DEPARTMENT OF TRANSPORTATION

AESTHETIC DETAILS
MISCELLANEOUS DETAILS
AEST4(SPL)

SHEET 1 OF 1

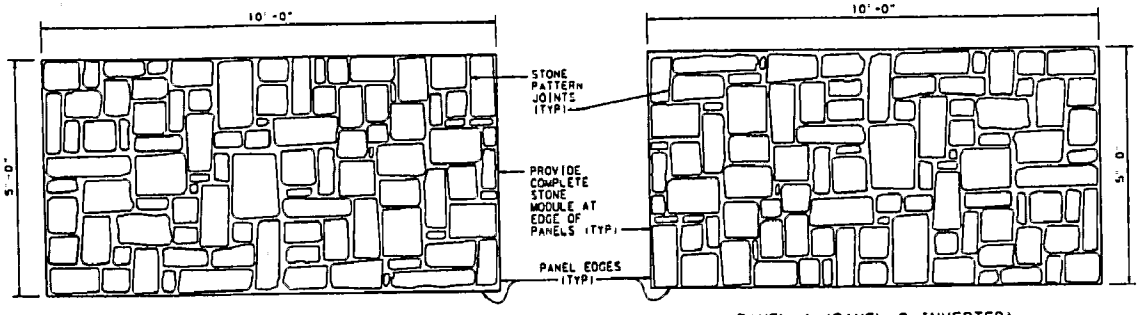
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XX08001	BRS-109	
STATE	DISTRICT	COUNTY	
TX	AUS		
CONT	SECT	JOB	HIGHWAY NO
			SH130

REV	DATE	BY	DESCRIPTION
0	03/11/04	BD	APPROVED FOR CONST
1	03/01/04	BD	NOC 107 APPROVED FOR CONST
2	10/20/04	BD	NOC 276 APPROVED FOR CONST
3	11/03/04	BD	NOC 281 APPROVED FOR CONST
4	06/06/05	BD	NOC 416 APPROVED FOR CONST



PANEL 1

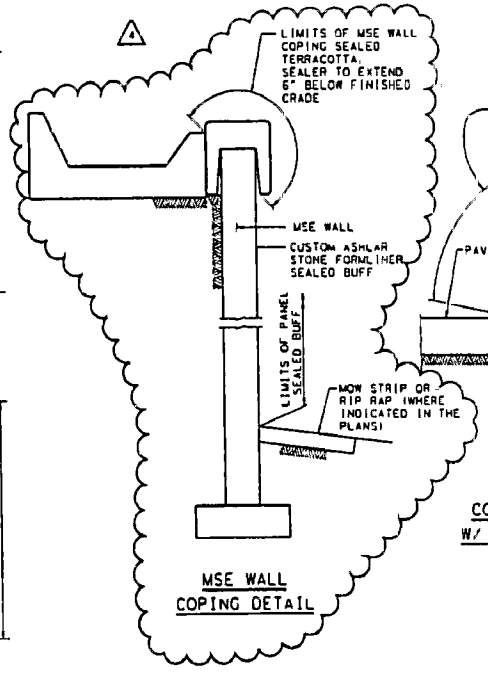
PANEL 3 (PANEL 1 INVERTED)



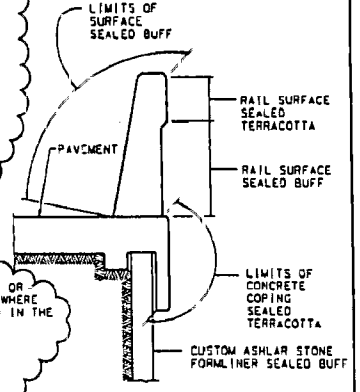
PANEL 2

PANEL 4 (PANEL 2 INVERTED)

CUSTOM ASHLAR FORMLINER FOR MSE AND CIP WALLS

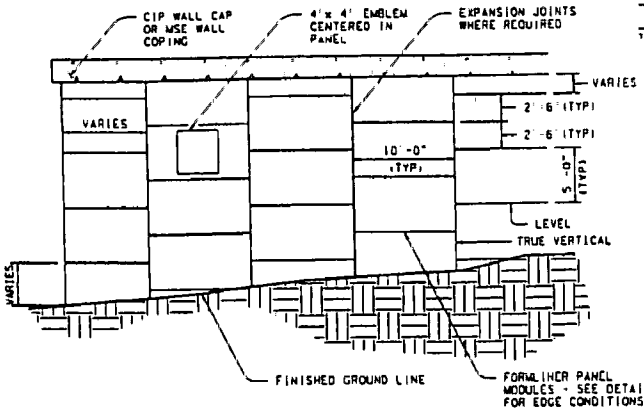


MSE WALL COPING DETAIL

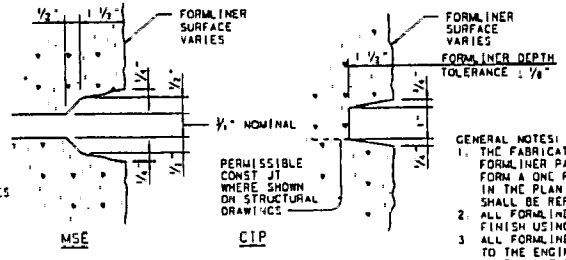


COPING DETAIL W/ TRAFFIC RAIL

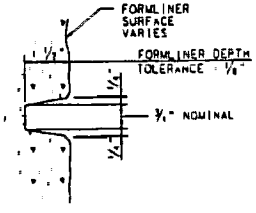
RELEASED FOR CONSTRUCTION
JUN 23 2005
Lone Star Infrastructure



WALL FORMLINER ELEVATION



PANEL EDGES



STONE PATTERN JOINTS

GENERAL NOTES:

1. THE FABRICATOR SHALL NOT SPLICE, CUT AND JOIN, OR GLUE THE FORMLINER PANELS TOGETHER. EACH PANEL SHALL BE FABRICATED TO FORM A ONE PIECE UNIT TO THE SIZE AND SPECIFICATIONS SET FORTH IN THE PLAN SHEETS. FORMLINERS THAT HAVE BECOME DAMAGED OR WORN SHALL BE REPLACED BY THE CONTRACTOR.
2. ALL FORMLINER SURFACES SHALL RECEIVE A SURFACE AREA 1, CLASS B FINISH USING OPAQUE CONCRETE SEALER AS NOTED IN SPECIAL PROVISION
3. ALL FORMLINER PANEL JOINTS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE ENGINEER OF RECORD, TO PREVENT LEAKAGE AT THE SURFACE UPON CASTING OF CONCRETE.
4. PANEL DIMENSIONS INDICATED ARE NOMINAL AND SUBJECT TO FINAL APPROVAL OF THE ENGINEER OF RECORD
5. AN APPROXIMATELY EQUAL NUMBER OF PANELS SHALL BE PRODUCED AND RANDOMLY PLACED ON THE RETAINING WALL. CARE SHOULD BE TAKEN TO AVOID:
   IN WALLS COMPOSED OF A NON-STAGGERED SINGLE ROW OF PANELS, NO TWO ADJACENT HORIZONTAL PANELS SHALL BE OF THE SAME (ASHLAR STONE PATTERN) TYPE.
   IN WALLS CONTAINING MULTIPLE ROWS OF STAGGERED PANELS, NO TWO FULL SIZE VERTICALLY ADJACENT PANELS INCORPORATED IN THE SAME VERTICAL PANEL BAY(OR LINE) SHALL BE OF THE SAME (ASHLAR STONE PATTERN) TYPE. DEVIATIONS TO THIS PANEL PLACEMENT PROTOCOL ARE SUBJECT TO THE APPROVAL OF TxDOT.
6. CHAMFER ALL EXPOSED CAP EDGES 3/4".
7. THE TERRA COTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
8. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711.
9. CORNER ELEMENTS FOR THIS PROJECT SHALL HAVE A PLAIN SMOOTH FINISH.
10. PANELS WILL BE CAST WITH NON-COLORED CONCRETE AND WILL NOT RECEIVE A SANDBLAST TREATMENT

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
6/3/05

TEAM MEMBER DRAWING

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AESTHETIC DETAILS
CUSTOM ASHLAR FORMLINER
AESTS(SPL)

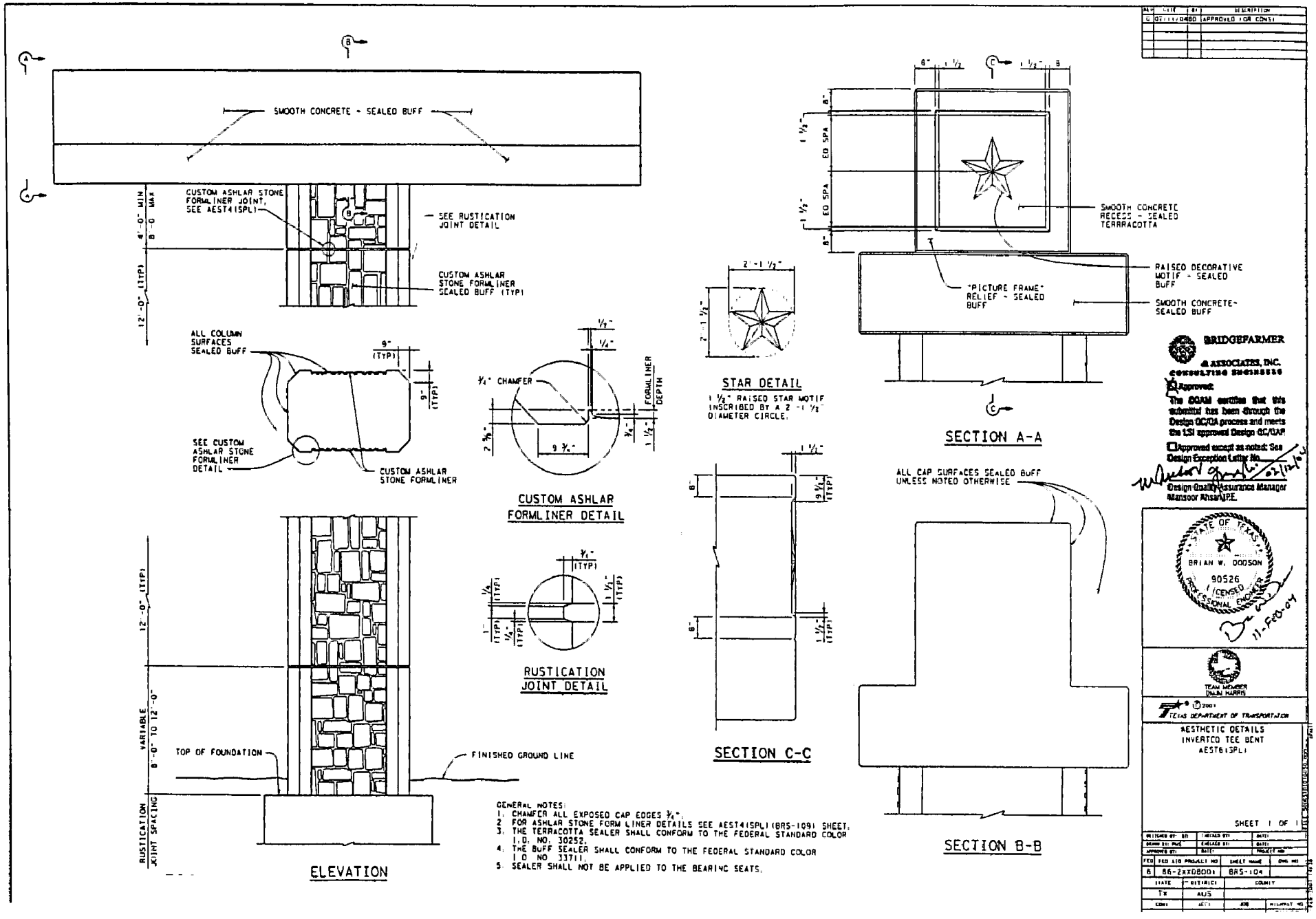
SHEET 1 OF 1

DESIGNED BY: BD	CHECKED BY:	DATE:
DRAWN BY: PMS	CHECKED BY: BD	DATE:
APPROVED BY: BWD	DATE:	PROJECT NO.

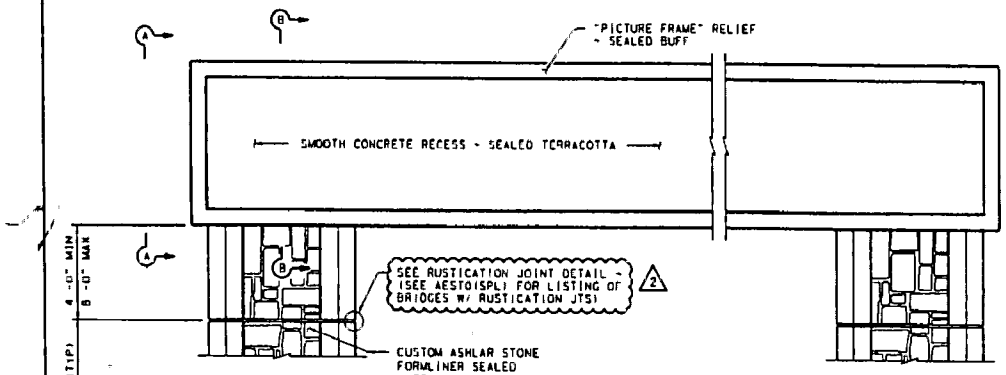
FED. RD. DIV.	PROJECT NO.	SHEET NAME	DWG NO.
6	86 2xxDB001	BRS-110	

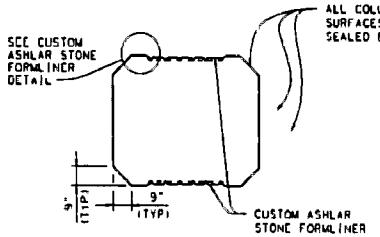
STATE	DISTRICT	COUNTY
TX	AUS	

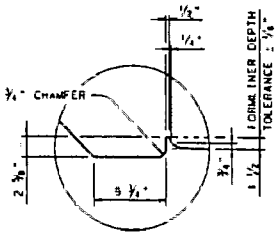
CONT	SECT	JOB	HIGHWAY NO.
			SH130


SMOOTH CONCRETE - SEALED BUFF
CUSTOM ASHLAR STONE FORMLINER JOINT, SEE AEST4(SPL)
SEE RUSTICATION JOINT DETAIL
CUSTOM ASHLAR STONE FORMLINER SEALED BUFF (TYP)
4'-0" MIN
8'-0" MAX
12'-0" (TYP)
ALL COLUMN SURFACES SEALED BUFF
9" (TYP)
SEE CUSTOM ASHLAR STONE FORMLINER DETAIL
CUSTOM ASHLAR STONE FORMLINER
CUSTOM ASHLAR FORMLINER DETAIL
3/4" CHAMFER
FORMLINER DEPTH
9 3/4"
RUSTICATION JOINT DETAIL
TOP OF FOUNDATION
FINISHED GROUND LINE
VARIABLE 8'-0" TO 12'-0"
RUSTICATION JOINT SPACING
ELEVATION
STAR DETAIL
1 1/2" RAISED STAR MOTIF INSCRIBED BY A 2'-1 1/2" DIAMETER CIRCLE.
SECTION C-C
SMOOTH CONCRETE RECESS - SEALED TERRACOTTA
RAISED DECORATIVE MOTIF - SEALED BUFF
"PICTURE FRAME" RELIEF - SEALED BUFF
SMOOTH CONCRETE-SEALED BUFF
SECTION A-A
ALL CAP SURFACES SEALED BUFF UNLESS NOTED OTHERWISE
SECTION B-B
GENERAL NOTES:
1. CHAMFER ALL EXPOSED CAP EDGES 3/4".
2. FOR ASHLAR STONE FORM LINER DETAILS SEE AEST4(SPL)(BRS-109) SHEET.
3. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
4. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711.
5. SEALER SHALL NOT BE APPLIED TO THE BEARING SEATS.
BRIDGEFARMER & ASSOCIATES, INC. CONSULTING ENGINEERS
Approved:
The DQAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP.
Approved except as noted; See Design Exception Letter No.
Design Quality Assurance Manager Mansoor Ahsan, P.E.
STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED PROFESSIONAL ENGINEER
11-FEB-04
TEAM MEMBER DMJM HARRIS
TEXAS DEPARTMENT OF TRANSPORTATION
AESTHETIC DETAILS
INVERTED TEE BENT
AEST6(SPL)
SHEET 1 OF 1
FED 6
FED AID PROJECT NO 86-2XXD8001
SHEET NAME BRS-104
STATE TX
DISTRICT AUS
COUNTY

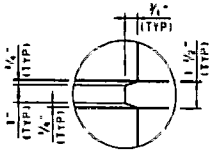
REV	DATE	BY	DESCRIPTION
0	03/09/04	BRG	APPROVED FOR CONST
1	04/13/04	BRG	NOC 139 APPROV FOR CONST
2	05/05/04	BRG	NOC 161 APPROV FOR CONST



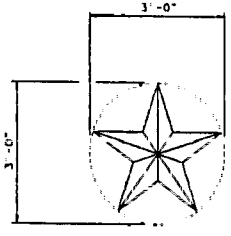




CUSTOM ASHLAR FORMLINER DETAIL

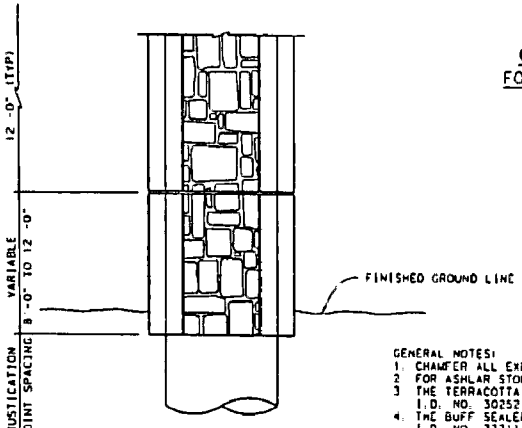


RUSTICATION JOINT DETAIL

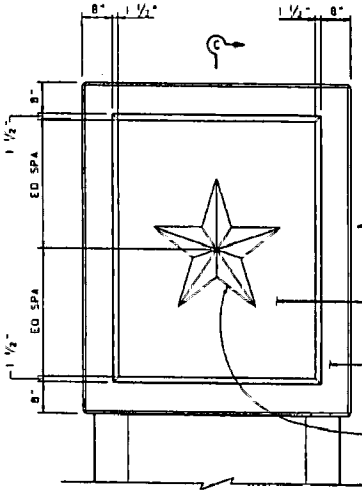


STAR DETAIL

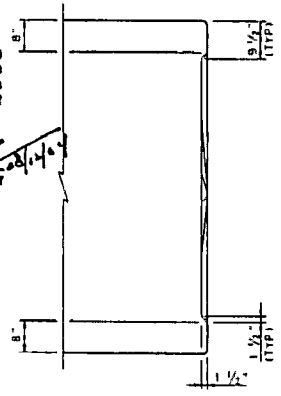
1 1/2" RAISED STAR MOTIF INSCRIBED BY A 3'-0" DIAMETER CIRCLE.



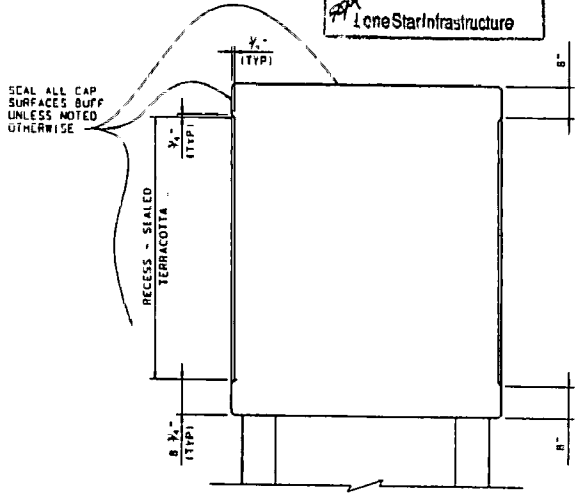
ELEVATION



SECTION A-A



SECTION C-C



SECTION B-B

BRIDGEFARMER & ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The DQAM certifies that this submittal has been through the Design QC/QA process and meets the LSI approved Design QC/QAP.
☐ Approved except as noted: See Design Exception Letter No. ____
Design Quality Assurance Manager
Mansoor Ansari, P.E.

RELEASED FOR CONSTRUCTION
MAY 12 2004
LoneStarInfrastructure

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
5-MAY-04

TEAM MEMBER
DILAN HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

AESTHETIC DETAILS
STRADDLE BENT
AEST71SPL1

SHEET 1 OF 1

DESIGNED BY: BG	CHECKED BY:	DATE: 01-01-01
DRAWN BY: PWS	CHECKED BY:	DATE: 01-01-04
APPROVED BY:	DATE:	PROJECT NO.

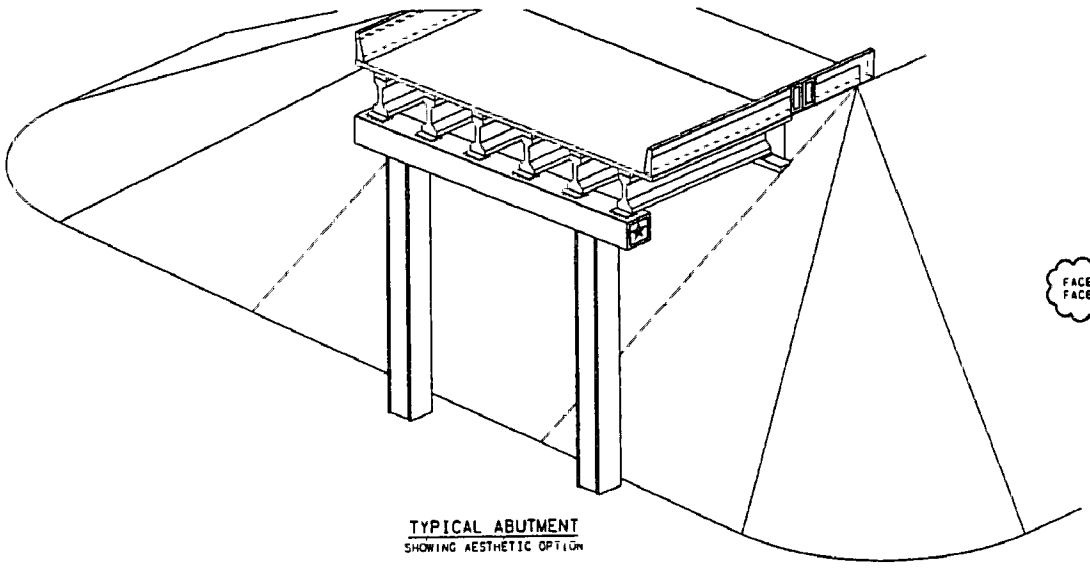
FED. RD. DIV.	FED. AID PROJECT NO.	SHEET NAME	DWG NO.
6	86-2XX0800	BRS-105	

STATE	DISTRICT	COUNTY
TX	AUS	

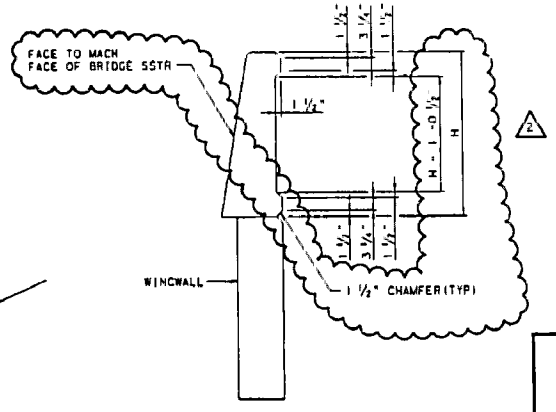
CONT	SECT	JOB	HIGHWAY NO.

GENERAL NOTES:
1. CHAMFER ALL EXPOSED CAP EDGES 3/4".
2. FOR ASHLAR STONE FORM LINER DETAILS SEE AEST41SPL1 (BRS-109) SHEET.
3. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
4. THE BUFF SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 33711.
5. SEALER SHALL NOT BE APPLIED TO THE BEARING SEATS.
6. CLEAR COVER AT CUSTOM ASHLAR FORMLINER MAY VARY TO A MINIMUM OF 1 1/2".
7. CLEAR COVER AT RUSTICATION JOINT SHALL BE A MINIMUM OF 2".

REV	DATE	BY	DESCRIPTION
0	05/25/04	BWD	APPROVED FOR CONST
1	03/28/05	BWD	NDC 378 AFC
2	05/03/05	BWD	NDC 395 AFC

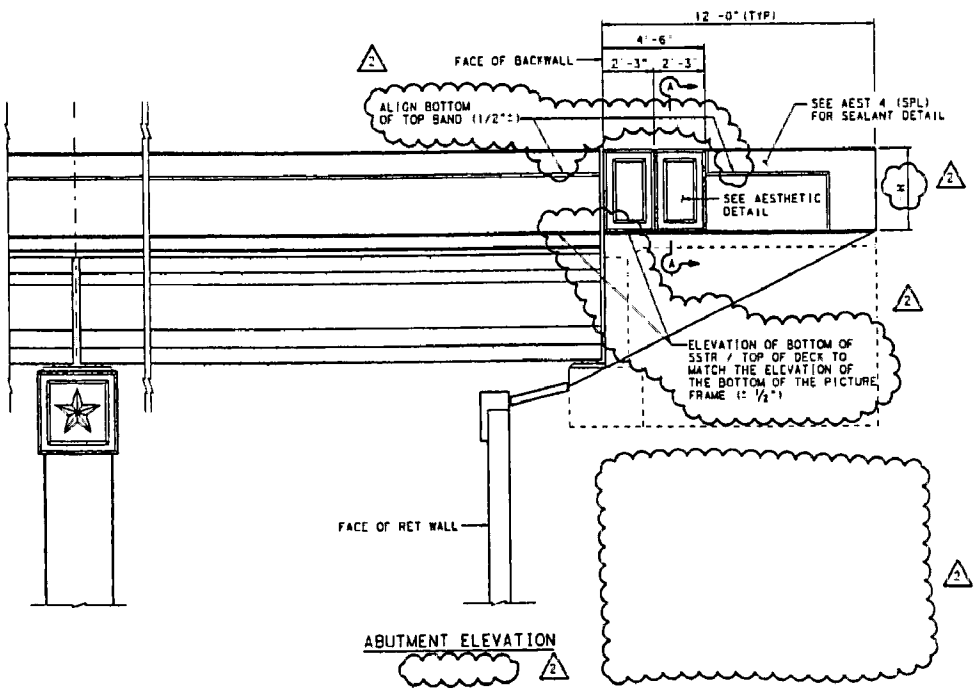


TYPICAL ABUTMENT
SHOWING AESTHETIC OPTION

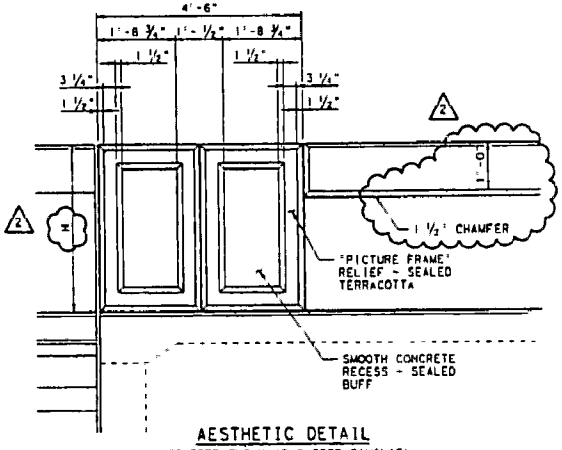


SECTION A-A

H = HEIGHT OF SSTR



ABUTMENT ELEVATION



AESTHETIC DETAIL
42" SSTR SHOWN (36" SSTR SIMILAR)

RELEASED FOR CONSTRUCTION
MAY 16 2005
Lone Star Infrastructure

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER

5/3/05

TEAM MEMBER
DAVIS-HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

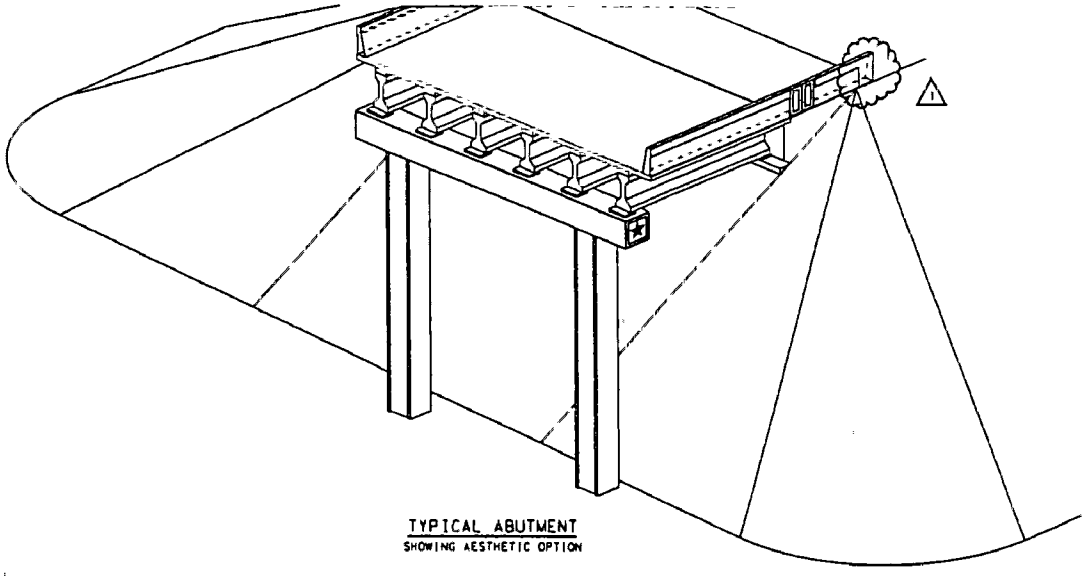
AESTHETIC DETAILS
ABUT/SSTR AESTHETIC DETAILS
AEST8(SPL)

SHEET 1 OF 1

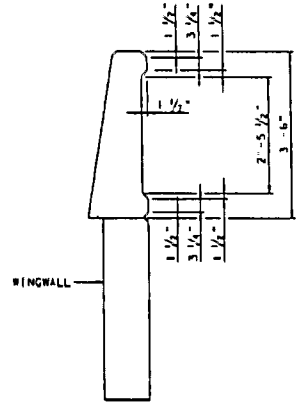
FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	BG-2XX08001	BRS-111	

STATE	DISTRICT	COUNTY
TX	AUS	

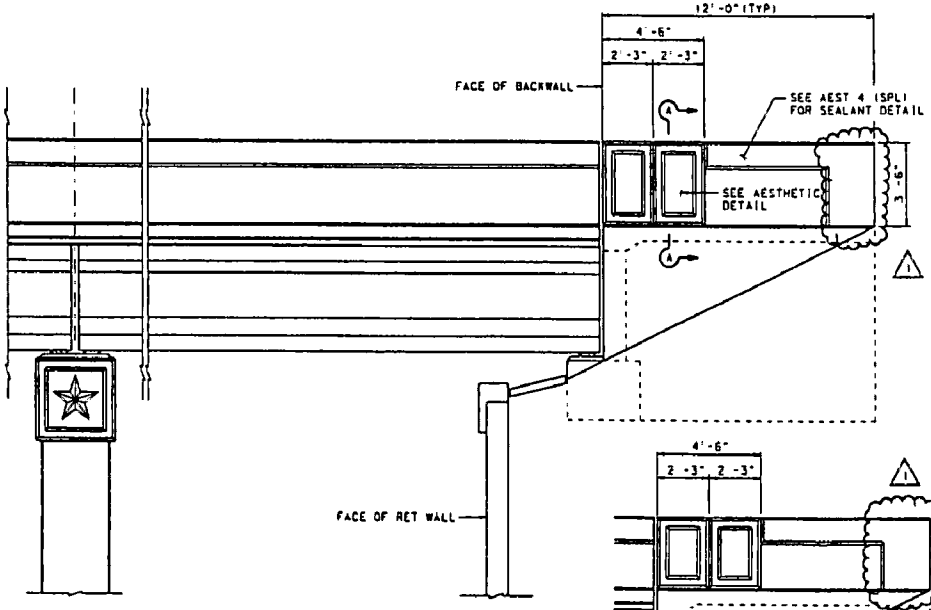
CONT	SECT	JOB	HIGHWAY NO
			SH130



TYPICAL ABUTMENT
SHOWING AESTHETIC OPTION

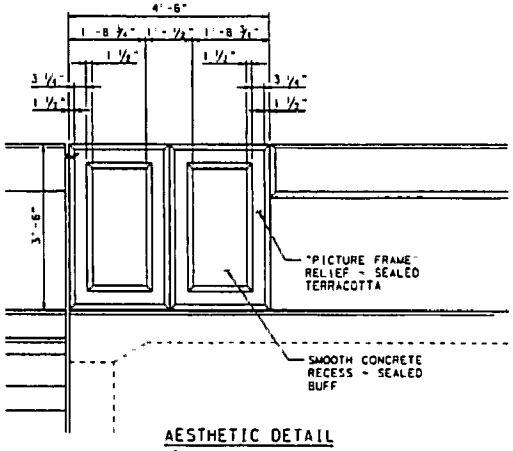


SECTION A-A
42" SSTR SHOWN (36" SSTR SIMILAR)



ABUTMENT ELEVATION
42" SSTR SHOWN

36" SSTR RAIL OPTION



AESTHETIC DETAIL
42" SSTR SHOWN (36" SSTR SIMILAR)

REV	DATE	BY	DESCRIPTION
0	03/25/04	BWD	APPROVED FOR CONST
1	03/28/05	BWD	NDC 378 AFC

RELEASED FOR CONSTRUCTION
APR 12 2005
Lone Star Infrastructure

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
3/28/05

TEAM MEMBER
DMJM-HARRIS

© 2005
TEXAS DEPARTMENT OF TRANSPORTATION

AESTHETIC DETAILS
ABUT/SSTR AESTHETIC DETAILS
AEST8(SPL)

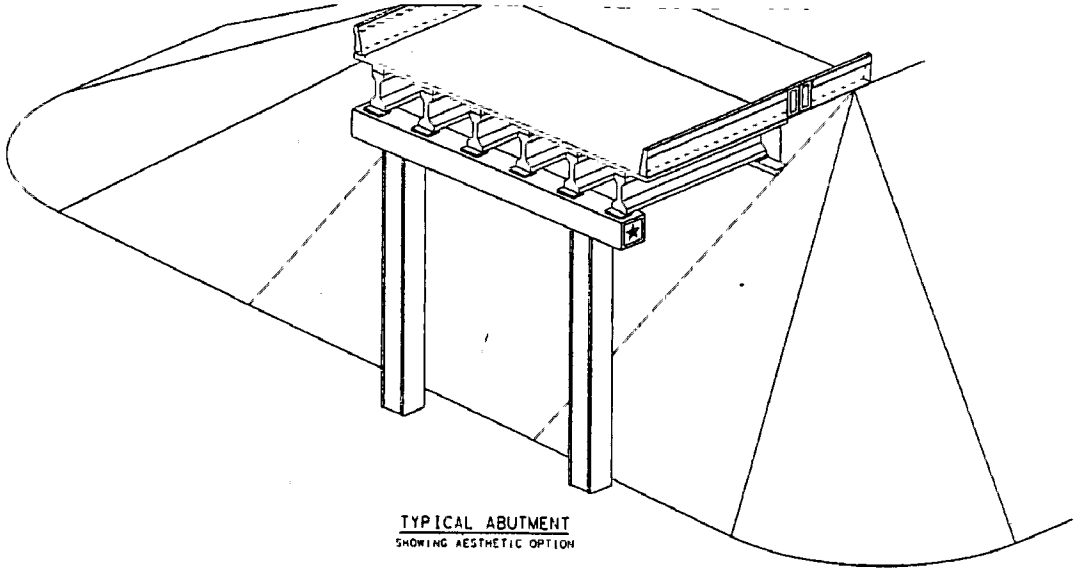
SHEET 1 OF 1

FED	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86 2XX08001	BRS-111	

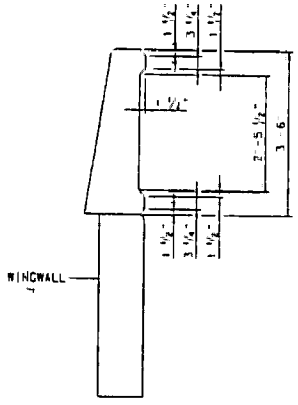
STATE	DISTRICT	COUNTY
TX	AUS	

CONT	SECT	JOB	HIGHWAY NO

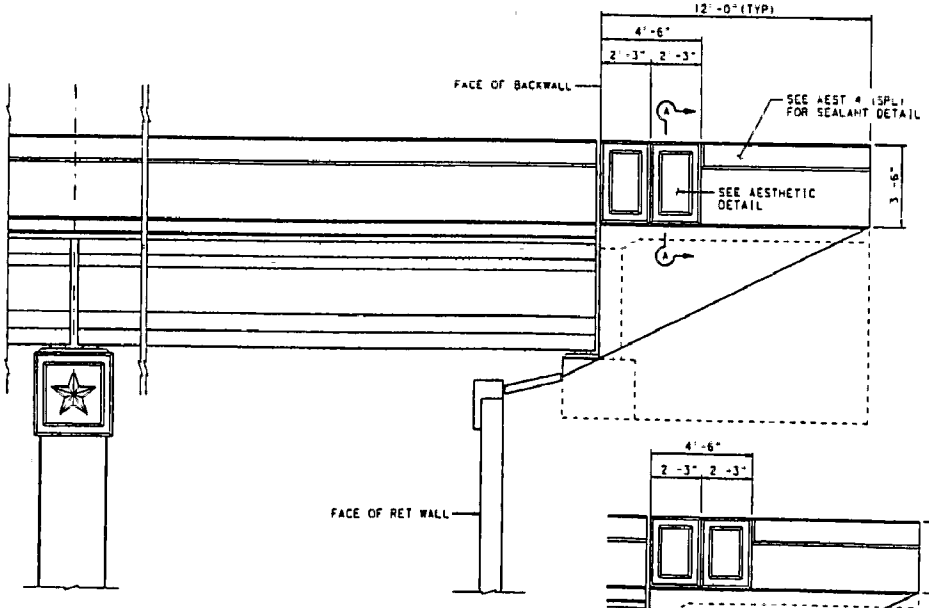
REV	DATE	BY	REVISION
0	03/29/04	BWD	APPROVED FOR CONST



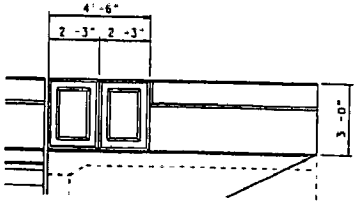
TYPICAL ABUTMENT
SHOWING AESTHETIC OPTION



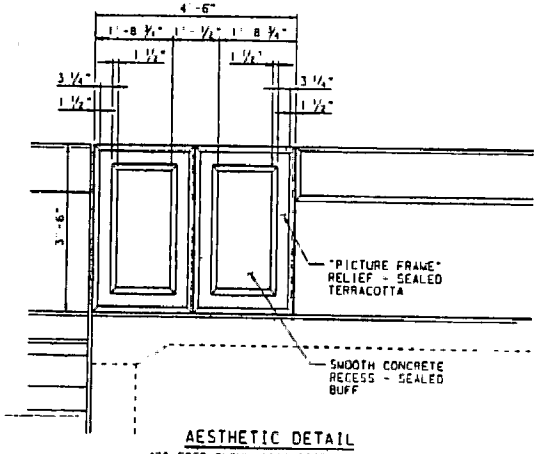
SECTION A-A
42" SSTR SHOWN (36" SSTR SIMILAR)



ABUTMENT ELEVATION
42" SSTR SHOWN



36" SSTR RAIL OPTION



AESTHETIC DETAIL
42" SSTR SHOWN (36" SSTR SIMILAR)

BRIDGEPARTNERS
& ASSOCIATES, INC.
CONSULTING ENGINEERS

☒ Approved:
The DQAM certifies that this submittal has been through the Design QC/QA process and meets the ILSI approved Design QC/QAP.

☐ Approved except as noted. See Design Exception Letter No. _____

Design Quality Assurance Manager
Mansoor Ahsan, P.E.

STATE OF TEXAS
BRIAN W. DODSON
90526
LICENSED
PROFESSIONAL ENGINEER
5/25/04

TEAM MEMBER
DAVID HARRIS

© 1996
TEXAS DEPARTMENT OF TRANSPORTATION

AESTHETIC DETAILS
ABUT, SSTR AESTHETIC DETAILS
AEST8 (SPL)

SHEET 1 OF 1

DESIGNED BY: BB	CHECKED BY: KLM	DATE: OCT 11-04
DRAWN BY: TLM	CHECKED BY: BD	DATE: 03-11-04
APPROVED BY:	DATE:	PROJECT NO:

FED RD DIV	FED AID PROJECT NO	SHEET NAME	DWG NO
6	86-2XXOBOO1	BRS-111	

STATE	DISTRICT	COUNTY
TX	AUS	
CONT	SECT	JOB

Texas Department of Transportation
Technical Requirements
SH 130 Segments 5 and 6
Attachment 11 – Performance and Measurement Table Baseline

Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
1) ROADWAY									
							Unless stated otherwise, measurements shall be conducted using procedures, techniques, and measuring equipment consistent with TxDOT's Pavement Management Information System Rater's Manual		
	1.1	Obstructions and Debris	Roadway and clear zone free from obstructions and debris	2 hrs	N/A	N/A	Visual Inspection	Number of obstructions and debris	Zero
	1.2	Pavement	All roadways have a smooth and quiet surface course (including bridge decks, covers, gratings, frames and boxes) with adequate skid resistance and free from Defects.	24 hrs	28 days	6 months	**a) Pavement Condition Score** Measurements and inspections necessary to derive Pavement Condition Score	Pavement Condition Score for each Auditable Section exceeding: • Mainlanes, and ramps – 90 • Frontage roads – 70	 100% 100%
							b) Ruts – Mainlanes, shoulders & ramps Depth as measured using an automated device in compliance with Technical Documents Straight edge used to measure rut depth for localized areas.	Percentage of wheel path length with ruts greater than ¼" in depth in each Auditable Section • Mainlanes, shoulders and ramps – 3% • Frontage roads – 10% Depth of rut at any location greater than 0.5"	 Zero Zero Zero
							c) Ride quality Measurement of International Roughness Index (IRI) according to TxDOT standard Tex-1001-S, Operating Inertial Profilers and Evaluating Pavement Profiles (Renewal Work and new construction subject to construction quality standards)	IRI measured throughout 98% of Auditable Section of less than or equal to: • Mainlanes, ramps 95** inches per mile • Frontage roads – 120 inches per mile ** For concrete mainlane pavements IRI to be 100	 100% 100%
							d) Failures Instances of failures exceeding the failure criteria set forth in the TxDOT PMIS Rater's Manual, including potholes, base failures, punchouts and jointed concrete pavement failures	Occurrence of any failure	Zero

* - Items in these columns shall be reviewed annually by Developer as part of the FMP to comply with Technical Requirements, Technical Documents and/or Good Industry Practice.

Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair	INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
1) ROADWAY									
	1.2 cont.			24 Hrs	28 Days	6 Months	**e) Edge drop-offs** Physical measurement of edge drop-off level compared to adjacent surface	Instances of edge drop-off greater than 2" (Number)	Zero
							f) Skid resistance ASTM E 274 Standard Test Method for Skid Resistance Testing of Paved Surfaces at 50 MPH using a full scale smooth tire meeting the requirements of ASTM E 524 .	• Mainlanes, shoulders and ramps – Number of sections investigated as to potential risk of skidding accident and appropriate remedial action taken where average Skid Number for 0.5 mile section of frontage roads is in excess of mean Skid Number measured for TxDOT equivalent roads	100%
								• Frontage roads –Number of sections investigated as to potential risk of skidding accident and appropriate remedial action taken where average Skid Number for 0.5 mile section of frontage roads is in excess of mean Skid Number measured for TxDOT equivalent roads	100%
								• Average for 0.5 mile sections categorized as high risk, in accordance with standard methodology and design criteria, investigated as to potential risk of skidding accident and appropriate remedial action taken where Skid Number in excess of 25	100%
			Road users warned of potential skidding hazards	24hrs	7days	N/A	**Skid resistance** (as above)	Instances where road users warned of potential skidding hazard where remedial action is identified.	100%
	1.3	Crossovers and other paved areas	Crossovers and other paved areas are free of Defects				**a) Potholes**	Potholes of low severity or higher (Number)	Zero
							b) Base failures	Base failures of low severity or higher (Number)	Zero
	1.4	Joints in concrete	Joints in concrete paving are sealed and watertight				Visual inspection of joints	Length unsealed joints greater than ¼"	Zero
			Longitudinal joint separation				Measurement of joint width and level difference of two sides of joints	Joint width more than 1" or faulting more than ¼"	Zero
	1.5	Curbs	Curbs are free of Defects				Visual inspection	Length out of alignment	Zero
								Length cracked or missing	Zero

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
2) DRAINAGE									
	2.1	Pipes and channels	Each element of the drainage system is maintained in its proper function by cleaning, clearing and/or emptying as appropriate from the point at which water drains from the travel way to the outfall or drainage way.	24 hrs	28 days	6 months	Visual inspection supplemented by CCTV where required to inspect buried pipe work	Length with less than 90% of cross section clear (feet)	Zero
	2.2	Drainage treatment devices	Drainage treatment and balancing systems, flow and spillage control devices function correctly and their location and means of operation is recorded adequately to permit their correct operation in Emergency.	24 hrs	28 days	6 months	Visual inspection	Devices functioning correctly with means of operation displayed (Number)	100%
	2.3	Travel way	The travel way is free from water to the extent that such water would represent a hazard by virtue of its position and depth.	24 hrs	28 days	6 months	Visual inspection of water on surface	Instances of hazardous water build-up	Zero
	2.4	Discharge systems	Surface water discharge systems perform their proper function and discharge to groundwater and waterways complies with the relevant Laws and Governmental Approvals.				Visual inspection and records	Non-compliances with Laws or Governmental Approvals	Zero
	2.5	Protected species	Named species and habitats are protected.				Visual inspection	Compliance with the requirement	100%
3) STRUCTURES									
	3.1	Structures having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or springlines of arches or extreme ends of openings or multiple boxes	Substructures and superstructures are free of: • graffiti • undesirable vegetation • debris and bird droppings • blocked drains, weep pipes manholes and chambers • blocked drainage holes in structural components • defects in joint sealants • defects in pedestrian protection measures • scour damage • corrosion of rebar • paint system failures • impact damage	24 hrs	28 days	6 months	Inspection and assessment in accordance with the requirements of federal National Bridge Inspection Standards (NBIS) of the Code of Federal Regulations, 23 Highways – Part 650, the TxDOT Bridge inspection Manual.	Records as required in the TxDOT Bridge Inspection Manual Occurrences of condition rating below seven for any deck, superstructure or substructure All condition states to be one for all structure components	 Zero 100%

* - Items in these columns shall be reviewed annually by Developer as part of the FMP to comply with Technical Requirements, Technical Documents and/or Good Industry Practice.

Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
3) STRUCTURES									
	3.2	Structure components	i) Expansion joints are free of: • dirt debris and vegetation • defects in drainage systems • loose nuts and bolts • defects in gaskets ii) The deck drainage system is free of all and operates as intended. iii) Parapets are free of: • loose nuts or bolts • blockages of hollow section drain holes • graffiti • vegetation • accident damage iv) Bearings and bearing shelves are clean. v) Sliding and roller surfaces are clean and greased to ensure satisfactory performance. Additional advice contained in bearing manufacturers' instructions is followed. Special finishes are clean and perform to the appropriate standards. vii) All non-structural items such as hoists and electrical fixings, operate correctly, are clean and lubricated as appropriate, in accordance with the manufacturer's recommendations and certification of lifting devices are maintained.	24 hrs	28 days	6 months	Inspection and assessment in accordance with the requirements of federal National Bridge Inspection Standards (NBIS) of the Code of Federal Regulations, 23 Highways – Part 650, the TxDOT Bridge inspection Manual.	Records as required in the TxDOT Bridge Inspection Manual Occurrences of condition rating below seven for any deck, superstructure or substructure All condition states to be one for all structure components	 Zero 100%
	3.3	Non-bridge class culverts	Non-bridge-class culverts are free of: • vegetation and debris and silt • defects in sealant to movement joints • scour damage	24 hrs	28 days	6 months	Visual inspection	Number with vegetation, debris and silt Number with defects in sealant and movement joints Number with scour damage	Zero Zero Zero
	3.4	Gantries and high masts	Sign signal gantries, high masts are structurally sound and free of: • loose nuts and bolts • defects in surface protection systems • graffiti				Visual inspection	Number with loose assemblies Number with defects in surface protection Number with graffiti	Zero Zero Zero
	3.5	Load ratings	All structures maintain the design load capacity				Load rating calculations in accordance with the TxDOT Bridge Manual Load restriction requirements as per the TxDOT Bridge Manual.	Number of load restrictions for Texas legal loads (including legally permitted vehicles)	Zero

* - Items in these columns shall be reviewed annually by Developer as part of the FMP to comply with Technical Requirements, Technical Documents and/or Good Industry Practice.

Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
4) PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS									
	4.1	Pavement markings	Pavement markings are: • clean and visible during the day and at night • whole and complete and of the correct color, type, width and length • placed to meet the TMUTCD	24 hrs	28 days	6 months	a) Markings - general Portable retroreflectometer, which uses 30 meter geometry meeting the requirements described in ASTM E 1710 Physical measurement	Length meeting the minimum retroreflectivity 175 mcd/sqm/lx for white Length meeting the minimum retroreflectivity 125 mcd/sqm/lx for yellow Length with more than 5% loss of area of material at any point Length with spread more than 10% of specified dimensions.	100% 100% Zero Zero
							b) Profile markings Visual inspection	Length performing its intended function and compliant with relevant regulations	100%
	4.2	Raised reflective markers	Raised reflective pavement markers, object markers and delineators are: • clean and clearly visible • of the correct colour and type • reflective or retroreflective as TxDOT standard • correctly located, aligned and at the correct level • are firmly fixed • are in a condition that will ensure that they remain at the correct level.	24 hrs	28 days	6 months	Visual inspection	Number of markers associated with road markings that are ineffective in any 10 consecutive markers. (Ineffective includes missing, damaged, settled or sunk) A minimum of four markers should be visible at 80' spacing when viewed under low beam headlights. Uniformity (replacement raised pavement marker (rpms) having equivalent physical and performance characteristics to adjacent markers).	Zero 100%
	4.3	Delineators and markers	Object markers, mail box markers and delineators are: • clean and visible • of the correct color and type • legible and reflective • Straight and vertical				Visual inspection	Number of object markers or delineators defective or missing	Zero

5) GUARDRAILS, SAFETY BARRIERS AND IMPACT ATTENUATORS

* - Items in these columns shall be reviewed annually by Developer as part of the FMP to comply with Technical Requirements, Technical Documents and/or Good Industry Practice.

Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
	5.1	Guard rails and safety barriers	All guardrails, safety barriers, concrete barriers, etc.) are maintained free of Defects. They are appropriately placed and correctly installed at the correct height and distance from roadway or obstacles. Installation and repairs shall be carried out in accordance with the requirements of NCHRP 350 standards	24 hrs	28 days	6 months	Visual inspection	Length of road restraint systems correctly installed Length free from defects Length at correct height Length at correct distance from roadway and obstacle	100% 100% 100% 100%
	5.2	Impact attenuators	All impact attenuators are appropriately placed and correctly installed.	24 hrs	7 days	6 months	Visual inspection	Number correctly placed and installed	100%
6) TRAFFIC SIGNS									
	6.1	General – all signs	i) Signs are clean, correctly located, clearly visible, legible, reflective, at the correct height and free from structural and electrical defects ii) Identification markers are provided, correctly located, visible, clean and legible iii) Sign mounting posts are vertical, structurally sound and rust free iv) All break-away sign mounts are clear of silt or other debris that could impede break-away features and shall have correct stub heights v) Obsolete and redundant signs are removed or replaced as appropriate vi) Visibility distances meet the stated requirements vii) Sign information is of the correct size, location, type and wording to meet its intended purpose and any statutory requirements viii) All structures and elements of the signing system are kept clean and free from debris and have clear access provided. ix) All replacement and repair materials and equipment are in accordance with the requirements of the TMUTCD x) Dynamic message signs are in an operational condition	24 hrs	28 days	6 months	**a) Retroreflectivity** Coefficient of retro reflectivity	Number of signs with reflectivity below the requirements of TxDOT's TMUTCD	Zero
							b) Face damage Visual inspection	Number of signs with face damage greater than 5% of area	Zero
							c) Placement Visual inspection	Signs are placed in accordance with TxDOT's Sign Crew Field Book including not twisted or leaning	100%
							d) Obsolete signs Visual inspection	Number of obsolete signs	Zero
							e) Sign Information Visual inspection	Sign information is of the correct size, location, type and wording to meet its intended purpose	100%
							f) Dynamic Message Signs Visual inspection	Dynamic message signs are fully functioning	100%
	6.2	General - safety critical signs	Requirements as 6.1, Plus: "Stop," "Yield," "Do Not Enter," "One Way" and "Wrong Way" signs are clean legible and undamaged.	2hrs	1 week	6 months	Visual inspection	Number of damaged Safety critical signs	Zero
7) TRAFFIC SIGNALS									

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair	INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
	7.1	General	i) Traffic Signals and their associated equipment are: • clean and visible • correctly aligned and operational • free from damage caused by accident or vandalism • correctly aligned and operational ii) Signal timing and operation is correct iii) Contingency plans are in place to rectify Category 1 Defects not immediately repairable to assure alternative traffic control is provided during a period of failure	2 hrs	24 hrs	6 months	**a) General condition** Visual inspection	Signals are clean and visible	100%
							b) Damage Visual inspection	Signals are undamaged	100%
							c) Signal timing Timed measurements	Installations have correct signal timings	100%
							d) Contingency plans Records review	Full contingency plans are in place	100%
	7.2	Soundness	Traffic signals are structurally and electrically sound	24 hrs	28 days	6 months	**a) Structural soundness** Visual inspection		
							b) Electrical soundness Testing to meet NEC regulations	Inspection records showing safe installation and maintenance	100%
	7.3	Identification marking	Signals have identification markers and the telephone number for reporting faults are correctly located, clearly visible, clean and legible	N/A	28 days	6 months	Visual inspection	Inspection records showing identification markers and other information are easily readable	100%
	7.4	Pedestrian elements and vehicle detectors	All pedestrian elements and vehicle detectors are correctly positioned and fully functional at all times	24 hrs	28 days	6 months	Visual inspection	Inspection records showing compliance	100%
8) LIGHTING									
	8.1	Roadway lighting – general	i) All lighting is free from defects and provides acceptable uniform lighting quality ii) Lanterns are clean and correctly positioned iii) Lighting units are free from accidental damage or vandalism iv) Columns are upright, correctly founded, visually acceptable and structurally sound	24 hrs	28 days	6 months	**a) Mainlane lights operable** Night time inspection or automated logs	Number of sections with less than 90% of lights functioning correctly at all times	Zero
							b) Mainlane lights out of action Night time inspection or automated logs	Instances of more than two consecutive lights out of action	Zero
	8.2	Sign lighting	Sign lighting is fully operational				Night time inspection or automated logs	Instances of more than one bulb per sign not working	Zero
	8.3	Electrical supply	Electricity supply, feeder pillars, cabinets, switches and fittings are electrically, mechanically and structurally sound and functioning	24 Hrs	7 Days	1 Month	Testing to meet NEC regulations, visual inspection	Inspection records showing safe installation and maintenance	100%
	8.4	Access panels	All access panels in place at all times.				Visual inspection	Instances of missing access panels	Zero

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
	8.5	High mast lighting	i) All high mast luminaries functioning on each pole ii) All obstruction lights are present and working (if required) iii) Compartment door is secure with all bolts in place iv) All winch and safety equipment is correctly functioning and maintained without rusting or corrosion (for structural requirements refer to Element Category 3)	24 hrs	48 hrs	1 Month	Yearly inspection and night time inspections or automated logs	Instances of two or more lamps not working per high mast pole Identification of other Defects	Zero Zero
9) FENCES, WALLS AND SOUND ABATEMENT									
	9.1	Design and location	Fences and walls act as designed and serve the purpose for which they were intended	24 hrs	28 days	6 months	Visual inspection	Inspection records showing compliance	100%
	9.2	Construction	Integrity and structural condition of the fence is maintained				Structural assessment if visual inspection warrants	Inspection records showing compliance	100%
10) ROADSIDE MANAGEMENT									
	10.1	Vegetated areas – except landscaped areas – general	Vegetation is maintained so that: i) Height of grass and weeds is kept within the limits described for urban and rural areas. Mowing begins before vegetation reaches the maximum height. ii) Spot mowing at intersections, ramps or other areas maintains visibility of appurtenances and sight distance iii) Grass or vegetation does not encroach into or on paved shoulders, main lanes, sidewalks, islands, riprap, traffic barrier or curbs iv) A herbicide program is undertaken in accordance with the TxDOT Herbicide Manual to control noxious weeds and to eliminate grass in pavement or concrete. v) A full width mowing cycle is completed after the first frost. vi) Wildflowers are preserved utilizing the guidelines in the mowing specifications and TXDOT *Roadside Vegetation Manual.*	24 hrs	7 days	28 days	**a) Urban areas** Physical measurement of height of grass and weeds	Individual measurement areas to have 95% of height of grass and weeds between 5 in. and 18 in	100%
							b) Rural areas Physical measurement of height of grass and weeds	Individual measurement areas to have 95% of height of grass and weeds between 5 in. and 30 in	100%
							c) Encroachment Visual inspection of instances of encroachment of vegetation	Occurrences of vegetation encroachment in each auditable section	Zero
							d) Wildflowers Visual inspection with audit of process.	Adherence to vegetation management manuals	100%
							e) Sight lines Visual inspection	Instances of impairment of sight lines or sight distance to signs	Zero
10) ROADSIDE MANAGEMENT									

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
	10.2	Landscaped areas	i) All landscaped areas are maintained to their originally constructed condition. Landscaped areas are as designated in the plans. ii) Mowing, litter pickup, irrigation system maintenance and operation, plant maintenance, pruning, insect, disease and pest control, fertilization, mulching, bed maintenance; watering is undertaken as per FMP. iii) The height of grass and weeds is kept between 2"and 8". Mowing begins before vegetation reaches 8 in iv) Damaged or dead vegetation is replaced	24 hrs	7 days	28 days	Visual inspection	Inspection records showing compliance	100%
	10.3	Fire hazards	Fire hazards are controlled				Visual inspection	Instances of dry brush or vegetation forming fire hazard	Zero
	10.4	Trees, brush and ornamentals	i) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with Technical Documents ii) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance, or inhibit the visibility of signs. iii) Dead trees, brush, ornamentals and branches are removed. Potentially dangerous trees or limbs are removed. iv) All undesirable trees and vegetation are removed. Diseased trees or limbs are treated or removed by licensed contractors				Visual inspection	Inspection records showing compliance	100%
	10.5	Wetlands	Wetlands are managed in accordance with the permit requirements				Visual inspection, assessment of permit issuers	Instances of permit requirements not met	Zero

11) REST AREAS AND PICNIC AREAS

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF.	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 *Permanent *Remedy	Cat 2 Permanent Repair			
	11.1	Rest areas and picnic areas	i) Picnic areas are clean and neat in appearance. ii) Trash barrels are painted and attached to their supports to prevent stealing. iii) Site free of any visible litter, all litter properly disposed. Litter removed from the picnic area grounds and barrels before being allowed to accumulate outside of the barrels. iv) All vehicles used in transporting litter are equipped to prevent the accumulated litter from being strewn along the roadway. v) Vegetation damaged due to improper or careless mowing and trimming operations or any other reason is replaced. vi) Weeds, grass and other undesirable growth are removed from beds of plants and shrubs as needed. Trees and shrubs are trimmed neatly. All curbs and sidewalks are edged and repaired. vii) All picnic tables are clean, free of stains and free of any Defect. viii) All directional, informational, safety and any other sign are properly installed, contain accurate information and are visible from a reasonable distance. ix) All striping is intact and all parking and travel areas are clearly marked. x) All curbs are in place and intact.	24 hrs	28 days	6 months	Inspection records showing compliance	Instances where 90% of measured area shall have grass and weeds height between 2 in. and 8 in. Mowing shall begin before vegetation reaches 8 in. Number of bare ground areas larger than 5 square feet Number of prohibited, invasive or noxious weeds present. Occurrences of encroachment of vegetation or debris for more than 2 in. onto any curb or sidewalk located throughout each rest area. Occurrences of Deviation of soil or mulch above or below the top of the curb. Paved surfaces maintained clean and safe with minimal obstruction Occurrences of undermining greater than 2 in. Number of unsealed cracks > ½ inch Number of lights fully functional	100% 100% Zero Zero Zero Zero 100% Zero Zero 100%
12) EARTHWORKS, EMBANKMENTS AND CUTTINGS									
	12.1	Slope failure	All structural or natural failures of the embankment and cut slopes of the Facility are repaired	24 hrs	28 days	6 months	Visual inspection by geotechnical specialist and further tests as recommended by the specialist	Recorded instances of slope failure	Zero
	12.2	Slopes - general	Slopes are maintained in general conformance to the original graded cross-sections, the replacement of landscaping materials, reseeding and re-vegetation for erosion control purposes and removal and disposal of all eroded materials from the roadway and shoulders					Inspection records showing compliance	100%
13) ETCS EQUIPMENT									

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
	13 1	ETCS equipment - operations	All ETCS equipment is fully functional and housing is functioning and free of Defects Backup power supply system to be available at all times.	24 hrs	28 days	1 month	Defect measurement dependent on equipment	Inspection records showing compliance	100%
	13.2	ETCS equipment – maintenance	i) ETCS equipment and cabinet identification numbers are visible, sites are well drained and access is clear. ii) Steps, handrails and accesses are kept in a good condition. iii) Access to all communication hubs, ground boxes, cabinets and sites is clear, iv) All drainage is operational and all external fixtures and fittings are in a satisfactory condition. v) All communications cable markers, cable joint markers and duct markers are visible and missing markers are replaced.	24 hrs	28 days	1 month	Visual inspection	Inspection records showing compliance	100%
	13.3	VES equipment	All VES equipment is kept clean, the identification numbers are visible, and accesses are kept clear.				Visual inspection	Inspection records showing compliance	100%
	13.4	UCS equipment	• Operational problems are repaired immediately upon discovery • Inoperable loops are replaced • All elements are correctly grounded				• Loop circuit's inductance to be > 50 and < 1,000 micro henries. • Insulation resistance to be > 50 meg ohms.	Instances of loops out of compliance	Zero
14) TOLLING – not used									
15) AMENITY									
	15.1	Graffiti	Graffiti is removed in a manner and using matenals that restore the surface to a like appearance similar to adjoining surfaces	24 hrs	28 days	6 months	All graffiti is considered a Category 1 Defect	Inspection records showing compliance	100%
16) SNOW AND ICE CONTROL									

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
	16 1	Travel lanes	Maintain travel way free from snow and ice	2hrs	N/A	N/A	Maximum 1hr response time to complete manning and loading of spreading vehicles Maximum 2hrs from departure from loading point to complete treatment and return to loading point Maximum 1hr response time for snow and ice clearance vehicles to depart from base	Inspection records showing compliance	100%
	16.2	Weather forecasting	Weather forecast information is obtained and assessed and appropriate precautionary treatment is carried out to prevent ice forming on the travel way				Operations plan details the process and procedures in place and followed	Inspection records showing compliance	100%
	16.3	Operational plans	Operate snow and ice clearance plans to maintain traffic flows during and after snowfall and restore the travel way to a clear condition as soon as possible.				Operations plan details the process and procedures in place and followed	Inspection records showing compliance	100%
17) INCIDENT RESPONSE									
	17 1	General	Respond to Incidents in accordance with Section 22 of the Technical Requirements.	1 hr	N/A	N/A	Response times met for 98% of Incidents measured on a 1-year rolling basis. No complaints from Emergency services	Inspection records showing compliance	100%
	17.2	Hazardous Materials	For any Hazardous Materials spills, comply with the requirements of Section 22 of the Technical Requirements.				FMP details the process and procedures in place and followed.	Inspection records showing compliance	100%
	17.3	Structural assessment	Evaluate structural damage to structures and liaise with Emergency Services to ensure safe working in clearing the Incident	1hr	N/A	N/A	Inspections and surveys as required by Incident	Incident reports showing compliance	100%
	17.4	Temporary and permanent remedy	Propose and implement temporary measures or permanent repairs to Defects arising from the Incident. Ensure the structural safety of any structures affected by the Incident	24hrs	28 days	N/A	Review and inspection of the Incident site	Auditable inspection records showing compliance	100%
18) CUSTOMER RESPONSE									
	18.1	Response to inquiries	Timely and effective response to customer inquiries and complaints.	48 hrs	28 days	N/A	Contact the customer within 48 hours following initial customer inquiry All work resulting from customer requests is scheduled within 48 hours of customer contact. Follow-up contact with the customer within 72 hours of initial inquiry. All customer concerns/requests are resolved to TxDOT's satisfaction within 2 weeks of the initial inquiry.	Number of responses within specified times	100%
19) SWEEPING AND CLEANING									

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Performance and Measurement Table Baseline

ELEMENT CATEGORY	REF #	ELEMENT	PERFORMANCE REQUIREMENT	RESPONSE TO DEFECTS			INSPECTION AND MEASUREMENT METHOD*	MEASUREMENT RECORD*	TARGET
				Cat 1 Hazard Mitigation	Cat 1 Permanent Remedy	Cat 2 Permanent Repair			
	19 1	Sweeping	i) Keep all channels, hard shoulders, gore areas, ramps, intersections, islands and frontage roads swept clean, ii) Clear and remove debris from traffic lanes, hard shoulders, verges and central reservations, footways and cycle ways iii) Remove all sweepings without stockpiling in the right of way and dispose of at approved tip.	24 hrs	28 days	6 months	Buildup of dirt, ice rock, debris, etc. on roadways and bridges not to accumulate greater than 24 in. wide or 1/2 in. deep	Inspection records showing compliance	100%
	19.2	Litter	i) Keep the right of way in a neat condition, remove litter regularly ii) Pick up large litter items before mowing operations. iii) Dispose of all litter and debris collected at an approved solid waste site.				No more than 20 pieces of litter per roadside mile shall be visible when traveling at highway speed.	Inspection records showing compliance	100%

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