ADDENDUM NO. 2

Issue Date: May 11, 2023
By Texas Department of Transportation
Aviation Division

Dallas Executive Airport

TxDOT CSJ No. 2318DALAS

The following revisions and clarifications are to be incorporated into your bid for the above referenced project. Acknowledgment of receipt of this addendum is required on the signature page of the bid form. Failure to acknowledge all addenda could render your bid out of form and result in a non-responsive bid.

See attached Addendum No. 2 document.

14160 N. Dallas Parkway
Suite 850
Dallas, TX 75254

TEL 214.451.2950

www.GarverUSA.com

ADDENDUM NO. 2

Date:	**May 11, 2023**
Project Name:	**Taxiway E Extension – Phase I**
Owner:	**Dallas Executive Airport**
TxDOT CSJ No.:	**2318DALAS**
Garver Project No.	**23A11120**

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents, and Specifications with which it might conflict. This addendum, including all attachments, shall become part of the Contract and all provisions of the Contract shall apply thereto. The time provided for completion of the Contract has not been changed as noted in this addendum. Acknowledgement of receipt of this Addendum must be provided on TxDOT Bid Form page 4 included in the Contract Documents.

Questions asked before May 11th , 2023 include:

1. Bid Item D-752-5.1 1 EA 24" SAFETY END TREATMENT SETB-SW-0 is not what is shown to be constructed on Sheet CC-201 per the note on Sheet CG-101.

   The bid item description is calling for more of a Type B flared wingwalls-like structure, generally cast in place on site. The PSET-RP shown on CC-201 would most likely be a precast concrete unit, and as a single 24" RCP, per the standard detail, will not have safety pipe runners unless specifically designated as required by the Engineer.

   Please clarify what is going to be required, and whether a riprap apron will be required around the structure as well.

   - The bid form, technical specification D-752, and the summary of quantities plan sheet (GI-003) were updated to reflect item D-752-5.1 being modified to "24" SAFETY END TREATMENT PSET-RP." The revised bid form, technical specification D-752, and plan sheet "GI-003 Summary of Quantities" are attached to this addendum.
   - Safety pipe runners are required for the Safety End Treatment PSET-RP structure.
   - A Tx-432 riprap apron is required around the drainage Safety End Treatment PSET-RP structure. The riprap apron will be considered subsidiary to item D-752-5.1 "24" SAFETY END TREATMENT PSET-RP". Technical Specification Tx-432 Riprap will be included in this addendum.

2. On Sheet Number 10 Drawing Number GC-201 the contract time specifically has Phase B1 (30 Days) starting before Phase B2 (10 Days). Can the contractor begin on the Phase B2 stage at the start of the 30 days instead of at the end?

   What are the working hours for the DEA airport and what are the working days allowed?

   - The Contractor may start Phase B2 on any day during Phase B1. As noted in the plans, Phase B2 work is to be no longer than 10 days.

- There are no restrictions on working hours or working days as the Contractor may work 24 hours, 7 days a week.

Revisions or additions made to the Contract Documents and Plans:

A. Bid Form

1. Revised the TxDOT Bid Form to update Item D-752-5.1 description to be "24" SAFETY END TREATMENT PSET-RP."

B. Specifications

1. Updated the "Index of Technical Specifications" to include TxDOT Standard Specifications (Civil) Item Tx-432 Riprap.

2. Added "TX Item 432 Riprap" in its entirety.

3. Revise "D-752 Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures" Changes include:
   - Revised Section D-752-5.1 to update the payment item D-752-5.1 to state "24" Safety End Treatment PSET-RP – per each."

B. Plans

1. Updated Spec Number D-752-5.1 description to be "24" SAFETY END TREATMENT PSET-RP" on sheet "GI-003 Summary of Quantities."

2. Updated note 2 on sheets "GC-201 Construction Safety and Phasing Plan – Phase B1" and "GC-202 Construction Safety and Phasing Plan – Phase B2" to revise "Phase B1" to be "Phase B2."

3. Update the callout note for the Safety End Treatment Structure on sheet "CG-101 Grading Plan" to clarify its installation details.

4. Update note 5 on sheet "CC-201 Storm Drain Details" to clarify the Safety End Treatment Structure installation details.

By: _____

Tonjanika Robinson, PE
Project Manager

STATE OF TEXAS
TONJANIKA ROBINSON
137558
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 05/11/2023

Attachments:

1. Bid Form
2. Index of Technical Specifications
3. TX Item 432 Riprap
4. D-752 Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures
5. GI-003 Summary of Quantities
6. GC-201 Construction Safety and Phasing Plan – Phase B1
7. GC-202 Construction Safety and Phasing Plan – Phase B2
8. CG-101 Grading Plan
9. CC-201 Storm Drain Details

Bid Form

Bid: TxDOT CSJ No. 2318DALAS

Project Description:
Taxiway E Program - Phase 1
This project involves the 830 foot extension of Taxiway E and the construction of E2, as well as ancillary drainage and electrical improvements.

Bid by: Name of Bidder _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ Fax: _____

Email Address: _____

To the Texas Department of Transportation hereinafter called the Agent.

Pursuant to the foregoing Instruction to Bidders, the undersigned bidder having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all the conditions surrounding the construction of the project hereby proposes to furnish all necessary superintendence, labor, machinery, equipment, tools materials and supplies to complete all the work upon which is bid in accordance with the contract documents, within the time set forth and at the prices stated below.

Table Description: BASE BID

Item	Qty	Unit	Description	Unit Price	Total Price
SS-120-3.1	1	LS	CONSTRUCTION SAFETY AND SECURITY		$0.00
SS-140-5.1	1	EA	INLET REMOVAL		$0.00
SS-272-5.1	22,919	SY	EROSION CONTROL MATTING		$0.00
SS-300-5.1	1	LS	LOCKOUT/TAGOUT AND CONSTANT CURRENT REGULATOR CALIBRATION PROCEDURES		$0.00
SS-301-5.1	1	EA	EXISTING STAKE MOUNTED EDGE LIGHT, REMOVED		$0.00
SS-301-5.2	1	EA	EXISTING BASE MOUNTED RUNWAY EDGE LIGHT, REMOVED		$0.00
C-100-14.1	1	LS	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)		$0.00
C-102-5.1a	2,000	LF	INSTALLATION AND REMOVAL OF SILT FENCE		$0.00

Item	Qty	Unit	Description	Unit Price	Total Price
C-102-5.1b	1	EA	INSTALLATION AND REMOVAL OF WATTLE DROP INLET PROTECTION		$0.00
C-102-5.1c	2	EA	INSTALLATION AND REMOVAL OF HEADWALL SILT TRAP		$0.00
C-102-5.1d	1	EA	INSTALLATION AND REMOVAL OF SANDBAG DITCH CHECKS		$0.00
C-102-5.1e	5	ACRE	TEMPORARY SEEDING AND MULCHING		$0.00
C-105-6.1	1	LS	MOBILIZATION		$0.00
D-752-5.1	1	EA	24" SAFETY END TREATMENT PSET-RP		$0.00
P-101-5.1	450	SY	CONCRETE PAVEMENT REMOVAL		$0.00
P-151-4.1	1	ACRE	CLEARING AND GRUBBING		$0.00
P-152-4.1	5,122	CY	UNCLASSIFIED EXCAVATION		$0.00
P-152-4.2	130	CY	ROCK EXCAVATION		$0.00
P-152-4.3	1,500	CY	UNSUITABLE EXCAVATION		$0.00
P-152-4.4	9,282	CY	EMBANKMENT - SELECT FILL (BORROW)		$0.00
P-208-5.1	6,622	SY	AGGREGATE BASE COURSE (6" THICKNESS)		$0.00
P-501-8.1	6,143	SY	PORTLAND CEMENT CONCRETE PAVEMENT (10" THICKNESS)		$0.00
P-620-5.1A	2,395	SF	FINAL PAVEMENT MARKINGS (YELLOW) WITH REFLECTIVE MEDIA		$0.00
P-620-5.1B	405	SF	FINAL PAVEMENT MARKINGS (WHITE) WITH REFLECTIVE MEDIA		$0.00
P-620-5.1C	4,556	SF	FINAL PAVEMENT MARKINGS (BLACK) WITHOUT REFLECTIVE MEDIA		$0.00
P-620-5.2	900	SF	PAVEMENT MARKING REMOVAL		$0.00
T-901-5.1	4.3	ACRE	SEEDING		$0.00
T-904-5.1	2,528	SY	SODDING		$0.00
T-905-5.1	22,919	SY	TOPSOIL (4" THICKNESS)		$0.00
L-108-5.1	3,600	LF	NO. 8 AWG, 5 kV, L-824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK OR CONDUIT		$0.00
L-108-5.2	2,820	LF	NO. 6 AWG, SOLID, BARE COUNTERPOISE WIRE, INSTALLED IN TRENCH, ABOVE THE DUCT BANK OR CONDUIT, INCLUDING GROUND RODS AND GROUND CONNECTORS		$0.00

Item	Qty	Unit	Description	Unit Price	Total Price
L-110-5.1	200	LF	CONCRETE ENCASED ELECTRICAL CONDUIT, 1-WAY 2"C		$0.00
L-110-5.2	2,500	LF	NON-ENCASED ELECTRICAL CONDUIT, 1-WAY 2"C		$0.00
L-110-5.4	120	LF	CONCRETE ENCASED ELECTRICAL DUCT BANK, 2-WAY 2"C		$0.00
L-115-5.1	2	EA	CONCRETE ENCASED ELECTRICAL JUNCTION STRUCTURE CAN PLAZA, TWO L-867 CLASS 1, SIZE 16" DIAMETER BY 24" DEPTH CANS, INSTALLED		$0.00
L-115-5.2	7	EA	CONCRETE ENCASED, ELECTRICAL JUNCTION STRUCTURE, L-867 CLASS 1, SIZE 12" DIAMETER BY 24" DEPTH, INSTALLED		$0.00
L-125-5.1	27	EA	L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT, INSTALLED		$0.00
L-125-5.2	2	EA	L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT, INSTALLED IN NEW CONCRETE SHOULDER		$0.00
L-125-5.3	1	EA	L-852D(L) LOW PROFILE BASE MOUNTED, IN-PAVEMENT RUNWAY EDGE LIGHT, INSTALLED		$0.00
L-125-5.4	6	EA	L-853 ELEVATED RETROREFLECTIVE MARKER, INSTALLED		$0.00
L-125-5.5	2	EA	L-858(L) BASE MOUNTED, LED 2-MODULE GUIDANCE SIGN, INSTALLED		$0.00
L-125-5.6	3	EA	L-858(L) BASE MOUNTED, LED 3-MODULE GUIDANCE SIGN, INSTALLED		$0.00
L-125-5.7	1	EA	CONTRACTOR FURNISHED CONTRACTOR INSTALLED (CFCI) GUIDANCE SIGN PANEL, INSTALLED IN EXISTING SIGN		$0.00
L-125-5.8	5	EA	OWNER FURNISHED CONTRACTOR INSTALLED (OFCI) GUIDANCE SIGN PANEL, INSTALLED IN EXISTING SIGN		$0.00

Total Base Bid: $0.00

Table 2 Description: ADDITIVE ALTERNATE #1

Item	Qty	Unit	Description	Unit Price	Total Price
SS-272-5.1	-2,600	SY	EROSION CONTROL MATTING		0.00
P-101-5.1	124	SY	CONCRETE PAVEMENT REMOVAL		0.00
P-152-4.1	248	CY	UNCLASSIFIED EXCAVATION		0.00
P-152-4.3	500	CY	UNSUITABLE EXCAVATION		0.00
P-152-4.4	-245	CY	EMBANKMENT - SELECT FILL (BORROW)		0.00

Item	Qty	Unit	Description	Unit Price	Total Price
P-208-5.1	1,921	SY	AGGREGATE BASE COURSE (6" THICKNESS)		0.00
P-501-8.1	1,917	SY	PORTLAND CEMENT CONCRETE PAVEMENT (10" THICKNESS)		0.00
T-901-5.1	-0.6	ACRE	SEEDING		0.00
T-904-5.1	-49	SY	SODDING		0.00
T-905-5.1	-2,600	SY	TOPSOIL (4" THICKNESS)		0.00

Total Additive Alternate 1 Base Bid: 0.00

BID SUMMARY 1:

	Subtotal
Subtotal BASE BID	
Subtotal ADDITIVE ALTERNATE #1	

Subtotal _____

It is understood the quantities of work to be done at unit prices are approximate and are intended for bidding purposes only.

Bidders must fill bid proposal for the base bid and all additive alternates. Basis of award shall be the lowest aggregate of the base bid that are within the available project funding.

Bidders understand the Agent reserves the right to reject any irregular bid and the right to waive technicalities if such waiver is in the best interest of the Owner or Agent and conforms to State and local laws and ordinances pertaining to the letting of construction contracts. Funding availability will be considered in selecting the bid award. The bidder agrees this bid shall be honored and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Upon receipt of the written "Notice of Award", the bidder will execute the formal contract agreement within 14 days and deliver a surety bond or bonds as required under the contract documents. The bid security attached, two percent (2%) of the total bid price stated in the bid, in the sum of $ 000.00 is to become the property of the Agent in the event the contract is not executed as set forth in the contract documents as liquidated damages for the delay and additional expense caused thereby.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in a written “Notice to Proceed” and to fully complete the project within 180 calendar days thereafter. Bidder further agrees to pay as liquidated damages the sum of $1,500 for each calendar day to complete the work beyond the allotted time or as extended by an approved Change Order or Supplemental Agreement.

By submission of a bid under this solicitation, bidder certifies the only persons or parties interested in this proposal are those named and the bidder has not directly or indirectly participated in collusion, entered into an agreement or otherwise taken any action in restraint of free competitive bidding in connection with the project.

Signature	Title
Printed Name	Phone
Mailing Address	City, State, Zip Code

Addendum:

The undersigned Bidder certifies that he has acknowledged the addendum(s) to the contract as indicated below.

Addendum No.		Dated:	
Addendum No.		Dated:	
Addendum No.		Dated:	

Qualification Acknowledgment:

The undersigned Bidder certifies they are a prequalified bidder with the Texas Department of Transportation (TxDOT) and is on the current TxDOT "Bidder's List" as indicated below:

☐ Full Prequalification

☐ Bidder's Questionnaire

OR

The undersigned Bidder is not a pre-qualified TxDOT bidder and has enclosed the bidder's qualifications per General Provision 20-02, Prequalification of Bidders.

☐ I have enclosed qualification statements.

Qualification Acknowledgment Signature:

Signature	Title
Mailing Address	City, State, Zip Code

Note: The bidder may also submit an electronically printed bid. The bid must have pay items in the same order and with the exact information as on this bid form. If submitting an electronically printed bid, please submit qualification/signature page. The bidder is responsible for incorrect information and will be considered non-responsive if pay items are incorrect.

Lock Form
(TxDOT Use Only)

Submit by E-mail

DALLAS EXECUTIVE AIRPORT
TAXIWAY E PROGRAM – PHASE I

INDEX OF TECHNICAL SPECIFICATIONS

SUPPLEMENTAL SPECIFICATIONS (CIVIL)

SS-101	Safety Plan Compliance Document (SPCD)	SS-101-1
SS-110	Standard Specifications	SS-110-1
SS-120	Construction Safety and Security	SS-120-1
SS-140	Demolition and Disposal	SS-140-1
SS-272	Erosion Control Matting	SS-272-1

SUPPLEMENTAL SPECIFICATIONS (ELECTRICAL)

SS-300	Basic Electrical Requirements	SS-300-1
SS-301	Electrical Demolition Work	SS-301-1
SS-310	Airport Lighting Systems	SS-310-1

TXDOT STANDARD SPECIFICATIONS (CIVIL)

TX-432	Riprap	TX-432-1

FAA STANDARD SPECIFICATIONS (CIVIL)

C-100	Contractor Quality Control Program (CQCP)	C-100-1
C-102	Temporary Air and Water Pollution, Soil Erosion, and Siltation Control	C-102-1
C-105	Mobilization	C-105-1
D-752	Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures	D-752-1
P-101	Preparation/Removal of Existing Pavements	P-101-1
P-151	Clearing and Grubbing	P-151-1
P-152	Excavation, Subgrade, and Embankment	P-152-1
P-153	Controlled Low-Strength Material (CLSM)	P-153-1
P-208	Aggregate Base Course	P-208-1
P-501	Cement Concrete Pavement	P-501-1
P-604	Compression Joint Seals for Concrete Pavements	P-604-1
P-605	Joint Sealants for Pavements	P-605-1
P-610	Concrete for Miscellaneous Structures	P-610-1
P-620	Runway and Taxiway Marking	P-620-1
T-901	Seeding	T-901-1
T-904	Sodding	T-904-1
T-905	Topsoil	T-905-1

FAA STANDARD SPECIFICATIONS (ELECTRICAL)

L-108	Underground Power Cable for Airports	L-108-1
L-110	Airport Underground Electrical Duct Banks and Conduits	L-110-1
L-115	Electrical Manholes and Junction Structures	L-115-1
L-125	Installation of Airport Lighting Systems	L-125-1

PAGE INTENTIONALLY BLANK

Item 432
Riprap

1. DESCRIPTION

Furnish and place ~~concrete~~, stone, ~~cement-stabilized, or special~~ riprap.

2. MATERIALS

Furnish materials in accordance with the following Items.

- ~~Item 420, "Concrete Substructures,"~~
- Item 421, "Hydraulic Cement Concrete,"
- ~~Item 431, "Pneumatically Placed Concrete,"~~
- ~~Item 440, "Reinforcement for Concrete," and~~
- DMS-6200, "Filter Fabric."

~~2.1. Concrete Riprap. Use Class B Concrete unless otherwise shown on the plans.~~

~~2.2. Pneumatically Placed Concrete Riprap. Use Class II concrete that meets Item 431, "Pneumatically Placed Concrete," unless otherwise shown on the plans.~~

2.3. Stone Riprap. Use durable natural stone with a bulk specific gravity of at least 2.50 as determined by Tex-403-A unless otherwise shown on the plans. Provide stone that, when tested in accordance with Tex-411-A, has weight loss of no more than 18% after 5 cycles of magnesium sulfate solution.

Perform a size verification test on the first 5,000 sq. yd. of finished riprap stone for all types of stone riprap at a location determined by the Engineer. Test the riprap stone in accordance with ASTM D5519. Additional tests may be required. Do not place additional riprap until the initial 5,000 sq. yd. of riprap has been approved.

Provide grout or mortar in accordance with Item 421, "Hydraulic Cement Concrete," ~~when specified~~. Provide grout with a consistency that will flow into and fill all voids.

Provide filter fabric in accordance with DMS-6200, "Filter Fabric." Provide Type 2 filter fabric for protection stone riprap unless otherwise shown on the plans. Provide Type 2 filter fabric for Type R, F, or Common stone riprap when shown on the plans.

~~2.3.1. Type R. Use stones between 50 and 250 lb. with at least 50% of the stones heavier than 100 lb.~~

2.3.2. Type F. Use stones between 50 and 250 lb. with at least 40% of the stones heavier than 100 lb. Use stones with at least 1 broad flat surface.

~~2.3.3. Common. Use stones between 50 and 250 lb. Use stones that are at least 3 in. in their least dimension. Use stones that are at least twice as wide as they are thick. When shown on the plans or approved, material may~~

~~consist of broken concrete removed under the Contract or from other approved sources. Cut exposed reinforcement flush with all surfaces before placement of each piece of broken concrete.~~

2.3.4. Protection. Use boulders or quarried rock that meets the gradation requirements of Table 1. Both the width and the thickness of each piece of riprap must be at least 1/3 of the length. When shown on the plans or as approved, material may consist of broken concrete removed under the Contract or from other approved sources. Cut exposed reinforcement flush with all surfaces before placement of each piece of broken concrete. ~~Determine gradation of the finished, in-place, riprap stone under the direct supervision of the Engineer in accordance with ASTM D5519.~~

Table 1
Protection Riprap Gradation Requirements

Sieve Size (Sq. Mesh)	% by Weight Passing
15 in.	100
12 in.	70-100
8 in.	45-75
6 in.	30-55
3 in.	10-30
1-1/2 in.	0-10

~~The Engineer may require in-place verification of the stone size. Determine the in-place size of the riprap stone by taking linear transects along the riprap and measuring the intermediate axis of the stone at select intervals. Place a tape measure along the riprap and determine the intermediate axis size of the stone at 2 ft. intervals. Measure a minimum of 100 stones, either in a single transect or in multiple transects, then follow ASTM D5519 Test Procedure Part B to determine the gradation. Table 2 is a guide for comparing the stone size in inches to the stone weight shown in Table 1.~~

~~Table 2~~
~~Protection Riprap Stone Size[1]~~

~~Size~~	~~Dmax (in.)~~	~~D90 (in.)~~	~~D50 (in.)~~	~~D8 (in.)~~
~~12 in.~~	~~13.76~~	~~10.14–13.29~~	~~7.31–9.92~~	~~3.39~~
~~15 in.~~	~~16.10~~	~~13.04–15.75~~	~~9.21–12.91~~	~~6.39~~
~~18 in.~~	~~19.04~~	~~15.58–18.36~~	~~11.10–14.21~~	~~6.59~~
~~21 in.~~	~~21.85~~	~~18.17–21.09~~	~~13.16–15.75~~	~~6.88~~
~~24 in.~~	~~23.53~~	~~19.28–22.29~~	~~13.76–16.18~~	~~7.31~~
~~30 in.~~	~~32.36~~	~~24.65–30.84~~	~~17.34–22.72~~	~~8.05~~

~~1. Based on a Specific Gravity of 2.5 and using the following equation for the intermediate axis diameter $D = \{(12*W)/(Gs*62.4*0.85)\}^{1/3}$~~

~~where:~~
~~D = intermediate axis diameter in in.;~~
~~W = weight of stone in lbs.;~~
~~Gs = Specific Gravity of stone.~~
~~Note—If the Specific Gravity of the stone is different than 2.5, then the above equation can be used to determine the appropriate size using the actual Specific Gravity.~~

~~If required,~~ Provide bedding stone that~~, in place,~~ meets the gradation requirements shown in Table 3 or as otherwise shown on the plans. Determine the size distribution in Table 3 in accordance with ASTM D6913.

Table 3
Protection Riprap Bedding Material Gradation Requirements

Sieve Size (Sq. Mesh)	% by Weight Passing
3"	100
1-1/2"	55-100
3/4"	25-60
3/8"	5-30
#4	0–10

~~2.4. Cement-Stabilized Riprap. Provide aggregate that meets Item 247, "Flexible Base," for the type and grade shown on the plans. Use cement-stabilized riprap with 7% hydraulic cement by dry weight of the aggregate.~~

~~2.5. Special Riprap. Furnish materials for special riprap according to the plans.~~

3. CONSTRUCTION

Dress slopes and protected areas to the line and grade shown on the plans before the placement of riprap. Place riprap and toe walls according to details and dimensions shown on the plans or as directed.

~~3.1. Concrete Riprap. Reinforce concrete riprap with 6 × 6 – W2.9 × W2.9 welded wire fabric or with No. 3 or No. 4 reinforcing bars spaced at a maximum of 18 in. in each direction unless otherwise shown. Alternative styles of welded wire fabric that provide at least 0.058 sq. in. of steel per foot in both directions may be used if approved. A combination of welded wire fabric and reinforcing bars may be provided when both are permitted. Provide a minimum 6-in. lap at all splices. Provide horizontal cover of at least 1 in. and no more than 3 in. at the edge of the riprap. Place the first parallel bar no more than 6 in. from the edge of concrete. Use approved supports to hold the reinforcement approximately equidistant from the top and bottom surface of the slab. Adjust reinforcement during concrete placement to maintain correct position.~~

~~Sprinkle or sprinkle and consolidate the subgrade before the concrete is placed as directed. All surfaces must be moist when concrete is placed.~~

~~Compact and shape the concrete once it has been placed to conform to the dimensions shown on the plans. Finish the surface with a wood float after it has set sufficiently to avoid slumping to secure a smooth surface or broom finish as approved.~~

~~Cure the riprap immediately after the finishing operation according to Item 420, "Concrete Substructures."~~

3.2. Stone Riprap. Provide the following types of stone riprap when shown on the plans:

- Dry Riprap. Stone riprap with voids filled with only spalls or small stones.
- Grouted Riprap. Type R, F, or Common stone riprap with voids grouted after all the stones are in place.
- ~~Mortared Riprap. Type F stone riprap laid and mortared as each stone is placed.~~

Use spalls and small stones lighter than 25 lb. to fill open joints and voids in stone riprap, and place to a tight fit.

Place mortar or grout only when the air temperature is above 35°F. Protect work from rapid drying for at least 3 days after placement.

Place filter fabric with the length running up and down the slope unless otherwise approved. Ensure fabric has a minimum overlap of 2 ft. Secure fabric with nails or pins. Use nails at least 2 in. long with washers or

U-shaped pins with legs at least 9 in. long. Space nails or pins at a maximum of 10 ft. in each direction and 5 ft. along the seams. Alternative anchorage and spacing may be used when approved.

~~3.2.1. Type R. Construct riprap as shown in Figure 1 on the *Stone Riprap Standard* and as shown on the plans. Place stones in a single layer with close joints so most of their weight is carried by the earth and not the adjacent stones. Place the upright axis of the stones at an angle of approximately 90° to the embankment slope. Place each course from the bottom of the embankment upward with the larger stones in the lower courses.~~

~~Fill open joints between stones with spalls. Place stones to create a uniform finished top surface. Do not exceed a 6-in. variation between the tops of adjacent stones. Replace, embed deeper, or chip away stones that project more than the allowable amount above the finished surface.~~

~~Prevent earth, sand, or foreign material from filling the spaces between the stones when the plans require Type R stone riprap to be grouted. Wet the stones thoroughly after they are in place, fill the spaces between the stones with grout, and pack. Sweep the surface of the riprap with a stiff broom after grouting.~~

3.2.2. Type F.

3.2.2.1. Dry Placement. Construct riprap as shown in Figure 2 on the *Stone Riprap Standard*. Set the flat surface on a prepared horizontal earth bed, and overlap the underlying course to secure a lapped surface. Place the large stones first, roughly arranged in close contact. Fill the spaces between the large stones with suitably sized stones placed to leave the surface evenly stepped and conforming to the contour required. Place stone to drain water down the face of the slope.

3.2.2.2. Grouting. Construct riprap as shown in Figure 3 on the *Stone Riprap Standard*. Size, shape, and lay large flat-surfaced stones to produce an even surface with minimal voids. Place stones with the flat surface facing upward parallel to the slope. Place the largest stones near the base of the slope. Fill spaces between the larger stones with stones of suitable size, leaving the surface smooth, tight, and conforming to the contour required. Place the stones to create a plane surface with a variation no more than 6 in. in 10 ft. from true plane. Provide the same degree of accuracy for warped and curved surfaces. Prevent earth, sand, or foreign material from filling the spaces between the stones. Wet the stones thoroughly after they are in place, fill the spaces between them with grout, and pack. Sweep the surface with a stiff broom after grouting.

~~3.2.2.3. Mortaring. Construct riprap as shown in Figure 2 on the *Stone Riprap Standard*. Lap courses as described for dry placement. Wet the stones thoroughly before placing mortar. Bed the larger stones in fresh mortar as they are being place and shove adjacent stones into contact with one another. Spread excess mortar forced out during placement of the stones uniformly over them to fill all voids completely. Point up all joints roughly either with flush joints or shallow, smooth-raked joints as directed.~~

~~3.2.3. Common. Construct riprap as shown in Figure 4 on the *Stone Riprap Standard*. Place stones on a bed excavated for the base course. Bed the base course of stone well into the ground with the edges in contact. Bed and place each succeeding course in even contact with the preceding course. Use spalls and small stones to fill any open joints and voids in the riprap. Ensure the finished surface presents an even, tight surface, true to the line and grades of the typical sections.~~

~~Prevent earth, sand, or foreign material from filling the spaces between the stones when the plans require grouting common stone riprap. Wet the stones thoroughly after they are in place; fill the spaces between them with grout; and pack. Sweep the surface with a stiff broom after grouting.~~

~~3.2.4. Protection. Construct riprap as shown in Figure 5 on the *Stone Riprap Standard*. Place riprap stone on the slopes within the limits shown on the plans. Place stone for riprap on the filter fabric to produce a reasonably well-graded mass of riprap with the minimum practicable percentage of voids. Construct the riprap to the~~

lines and grades shown on the plans or staked in the field. A tolerance of +6 in. and −0 in. from the slope line and grades shown on the plans is allowed in the finished surface of the riprap. Place riprap to its full thickness in a single operation. Avoid displacing the filter fabric. Ensure the entire mass of stones in their final position is free from objectionable pockets of small stones and clusters of larger stones. Do not place riprap in layers, and do not place it by dumping it into chutes, dumping it from the top of the slope, pushing it from the top of the slope, or any method likely to cause segregation of the various sizes. Obtain the desired distribution of the various sizes of stones throughout the mass by selective loading of material at the quarry or other source or by other methods of placement that will produce the specified results. Rearrange individual stones by mechanical equipment or by hand if necessary to obtain a reasonably well-graded distribution of stone sizes. Use the bedding thickness shown and place stone for riprap on the bedding material to produce a reasonably well-graded mass of riprap with the minimum practicable percentage of voids if required on the plans.

3.3. Pneumatically Placed Concrete Riprap, Class II. Meet Item 431, "Pneumatically Placed Concrete." Provide reinforcement following the details on the plans and Item 440, "Reinforcement for Concrete." Support reinforcement with approved supports throughout placement of concrete.

Give the surface a wood-float finish or a gun finish as directed. Cure the riprap with membrane-curing compound immediately after the finishing operation in accordance with Item 420, "Concrete Substructures."

3.4. Cement-Stabilized Riprap. Follow the requirements of the plans and the provisions for concrete riprap except when reinforcement is not required. The Engineer will approve the design and mixing of the cement-stabilized riprap.

3.5. Special Riprap. Construct special riprap according to the plans.

4. MEASUREMENT

This Item will be measured by the square yard of material complete in place. Volume will be computed on the basis of the measured area in place and the thickness and toe wall width shown on the plans.

This item will not be measured for separate payment but shall instead be considered subsidiary to the drainage structure installation.

If required on the plans, the pay quantity of the bedding material for stone riprap for protection to be paid for will be measured by the cubic yard as computed from the measured area in place and the bedding thickness shown on the plans.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Riprap" of the type, thickness, and void-filling technique (Dry, Grout, Mortar) specified, as applicable. This price is full compensation for furnishing, hauling, and placing riprap and for filter fabric, expansion joint material, concrete and reinforcing steel, grout and mortar, scales, test weights, equipment, labor, tools, and incidentals.

Payment for excavation of toe wall trenches, for all necessary excavation below natural ground or bottom of excavated channel, and for shaping of slopes for riprap will be included in the unit price bid per square yard of riprap.

When bedding is required for protection stone riprap, payment will be made at the unit price for "Bedding Material" of the thickness specified. This price is full compensation for furnishing, hauling, placing, and

~~maintaining the bedding material until placement of the riprap cover is completed and accepted; excavation required for placement of bedding material; and equipment, scales, test weights, labor, tools, and incidentals. No payment will be made for excess thickness of bedding nor for material required to replace embankment material lost by rain wash, wind erosion, or otherwise.~~

This item shall not be paid for separately but shall instead be considered subsidiary to item D-752-5.1 '24" Safety End Treatment PSET-RP' as indicated in the plans.

ITEM D-752 CONCRETE CULVERTS, HEADWALLS, AND MISCELLANEOUS DRAINAGE STRUCTURES

DESCRIPTION

752-1.1 This item shall consist of reinforced concrete culverts, headwalls, and miscellaneous drainage structures constructed in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the RPR.

MATERIALS

752-2.1 Concrete. Reinforced concrete shall meet the requirements of Item P-610.

CONSTRUCTION METHODS

752-3.1 Unclassified excavation.

a. Trenches and foundation pits for structures or structure footings shall be excavated to the lines and grades and elevations shown on the plans. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximate only; and the RPR may approve, in writing, changes in dimensions or elevations of footings necessary to secure a satisfactory foundation.

b. Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the RPR. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. When concrete will rest on a surface other than rock, the bottom of the excavation shall not be disturbed and excavation to final grade shall not be made until immediately before the concrete or reinforcing steel is placed.

c. The Contractor shall do all bracing, sheathing, or shoring necessary to perform and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for excavation.

d. All bracing, sheathing, or shoring shall be removed by the Contractor after the completion of the structure. Removal shall not disturb or damage the finished concrete. The cost of removal shall be included in the unit price bid for excavation.

e. After each excavation is completed, the Contractor shall notify the RPR. No concrete or reinforcing steel shall be placed until the RPR has approved the depth of the excavation and the character of the foundation material.

752-3.2 Backfilling.

a. After a structure has been completed, backfilling with approved material shall be accomplished by applying the fill in horizontal layers not to exceed 8 inches in loose depth, and compacted. The field density of the compacted material shall be at least 90% of the maximum density for cohesive soils and 95% of the maximum density for noncohesive soils. The maximum density shall be determined in accordance with ASTM D698. The field density shall be determined in accordance with ASTM D1556.

b. No backfilling shall be placed against any structure until approved by the RPR. For concrete, approval shall not be given until the concrete has been in place seven (7) days, or until tests establish that the concrete has attained sufficient strength to withstand any pressure created by the backfill or the placement methods.

c. Fill placed around concrete culverts shall be deposited on each side at the same time and to approximately the same elevation. All slopes bounding or within the areas to be backfilled shall be stepped or serrated to prevent wedge action against the structure.

d. Backfill will not be measured for direct payment. Performance of this work shall be considered as a subsidiary obligation of the Contractor, ~~covered under the *item which it is contained. contract unit price for "unclassified excavation for structures."*~~

752-3.3 Weep holes. Weep holes shall be constructed as shown on the plans.

752-3.4 Cleaning and restoration of site. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankment, shoulders, or as approved by the RPR. The Contractor shall restore all disturbed areas to their original condition. The Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

METHOD OF MEASUREMENT

~~**752-4.1** The quantity of unclassified excavation for structures shall be the number of cubic yards measured in original position, of material excavated in accordance with the plans, or as approved by the RPR; but in no case shall any yardage be included in the measurement for payment which is outside of a volume bounded by vertical planes 18 inches outside of and parallel to the neat lines of the footings.~~

~~**752-4.2** Concrete shall be measured by the number of cubic yards of concrete, complete in place and accepted. In computing the yardage of concrete for payment, the dimensions used shall be those shown on the plans or approved by the RPR. No measurements or other allowances shall be made for forms, false work, cofferdams, pumping, bracing, expansion joints, or finishing of the concrete. No deductions in yardage shall be made for the volumes of reinforcing steel or embedded items.~~

~~**752-4.3** The quantity of reinforcing steel shall be the calculated theoretical number of pounds placed as shown on the plans, complete in place and accepted. The unit weight used for deformed bars shall be the weight of plain square or round bars, as the case may be, of equal nominal size.~~

752-4.1 *Safety end treatments shall be measured by the unit, completed in place and accepted.*

752-4.2 *Reinforcing steel shall not be measured for separate payment but shall be considered subsidiary to the structure in which it is contained.*

BASIS OF PAYMENT

~~**752-5.1** Payment will be made at the contract unit price per cubic yard for unclassified excavation for structures.~~

~~**752-5.2** Payment will be made at the contract unit price per cubic yard for concrete for the structures.~~

~~**752-5.3** Payment will be made at the contract unit price per pound for reinforcing steel.~~

752-5.1 *Payment will be made at the contract unit price per each safety end treatment. These prices shall be full compensation for furnishing all materials and for all preparation, excavation, and placing the materials, furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plan; and for all labor, equipment, tools, and incidentals necessary to complete the structure.*

Payment will be made under:

Item D-752-5.1 24" Safety End Treatment PSET-RP — per Each

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft^3 (600 kN-m/m^3))
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method

END OF ITEM D-752

PAGE INTENTIONALLY LEFT BLANK

BASE BID

SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
SS-120-3.1	CONSTRUCTION SAFETY AND SECURITY	L.S.	1
SS-140-5.1	INLET REMOVAL	EA.	1
SS-272-5.1	EROSION CONTROL MATTING	S.Y.	22,919
SS-300-5.1	LOCKOUT/TAGOUT AND CONSTANT CURRENT REGULATOR CALIBRATION PROCEDURES	L.S.	1
SS-301-5.1	EXISTING STAKE MOUNTED EDGE LIGHT, REMOVED	EA.	1
SS-301-5.2	EXISTING BASE MOUNTED RUNWAY EDGE LIGHT, REMOVED	EA.	1
C-100-14.1	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	L.S.	1
C-102-5.1a	INSTALLATION AND REMOVAL OF SILT FENCE	L.F.	2,000
C-102-5.1b	INSTALLATION AND REMOVAL OF WATTLE DROP INLET PROTECTION	EA.	1
C-102-5.1c	INSTALLATION AND REMOVAL OF HEADWALL SILT TRAP	EA.	2
C-102-5.1d	INSTALLATION AND REMOVAL OF SANDBAG DITCH CHECKS	EA.	1
C-102-5.1e	TEMPORARY SEEDING AND MULCHING	ACRE	5.0
C-105-6.1	MOBILIZATION	L.S.	1
D-752-5.1	24" SAFETY END TREATMENT PSET-RP	EA.	1
P-101-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	450
P-151-4.1	CLEARING AND GRUBBING	ACRE	1.0
P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	5,122
P-152-4.2	ROCK EXCAVATION	C.Y.	130
P-152-4.3	UNSUITABLE EXCAVATION	C.Y.	1,500
P-152-4.4	EMBANKMENT - SELECT FILL (BORROW)	C.Y.	9,282
P-208-5.1	AGGREGATE BASE COURSE (6" THICKNESS)	S.Y.	6,622
P-501-8.1	PORTLAND CEMENT CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	6,143
P-620-5.1a	FINAL PAVEMENT MARKINGS (YELLOW) WITH REFLECTIVE MEDIA	S.F.	2,395
P-620-5.1b	FINAL PAVEMENT MARKINGS (WHITE) WITH REFLECTIVE MEDIA	S.F.	405
P-620-5.1c	FINAL PAVEMENT MARKINGS (BLACK) WITHOUT REFLECTIVE MEDIA	S.F.	4,556
P-620-5.2	PAVEMENT MARKING REMOVAL	S.F.	900
T-901-5.1	SEEDING	ACRE	4.3
T-904-5.1	SODDING	S.Y.	2,528
T-905-5.1	TOPSOIL (4" THICKNESS)	S.Y.	22,919
L-108-5.1	NO. 8 AWG, 5 kV, L-824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK OR CONDUIT	L.F.	3,600
L-108-5.2	NO. 6 AWG, SOLID, BARE COUNTERPOISE WIRE, INSTALLED IN TRENCH, ABOVE THE DUCT BANK OR CONDUIT, INCLUDING GROUND RODS AND GROUND CONNECTORS	L.F.	2,820
L-110-5.1	CONCRETE ENCASED ELECTRICAL CONDUIT, 1-WAY 2"C	L.F.	200
L-110-5.2	NON-ENCASED ELECTRICAL CONDUIT, 1-WAY 2"C	L.F.	2,500
L-110-5.4	CONCRETE ENCASED ELECTRICAL DUCT BANK, 2-WAY 2"C	L.F.	120
L-115-5.1	CONCRETE ENCASED ELECTRICAL JUNCTION STRUCTURE CAN PLAZA, TWO L-867 CLASS 1, SIZE 16" DIAMETER BY 24" DEPTH CANS, INSTALLED	EA.	2
L-115-5.2	CONCRETE ENCASED, ELECTRICAL JUNCTION STRUCTURE, L-867 CLASS 1, SIZE 12" DIAMETER BY 24" DEPTH, INSTALLED	EA.	7
L-125-5.1	L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT, INSTALLED	EA.	27
L-125-5.2	L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT, INSTALLED IN NEW CONCRETE SHOULDER	EA.	2
L-125-5.3	L-852D(L) LOW PROFILE BASE MOUNTED, IN-PAVEMENT RUNWAY EDGE LIGHT, INSTALLED	EA.	1
L-125-5.4	L-853 ELEVATED RETROREFLECTIVE MARKER, INSTALLED	EA.	6
L-125-5.5	L-858(L) BASE MOUNTED, LED 2-MODULE GUIDANCE SIGN, INSTALLED	EA.	2
L-125-5.6	L-858(L) BASE MOUNTED, LED 3-MODULE GUIDANCE SIGN, INSTALLED	EA.	3
L-125-5.7	CONTRACTOR FURNISHED CONTRACTOR INSTALLED (CFCI) GUIDANCE SIGN PANEL, INSTALLED IN EXISTING SIGN	EA.	1
L-125-5.8	OWNER FURNISHED CONTRACTOR INSTALLED (OFCI) GUIDANCE SIGN PANEL, INSTALLED IN EXISTING SIGN	EA.	25

2

ADDITIVE ALTERNATE 1

SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
SS-272-5.1	EROSION CONTROL MATTING	S.Y.	(2,600)
P-101-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	124
P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	248
P-152-4.3	UNSUITABLE EXCAVATION	C.Y.	500
P-152-4.4	EMBANKMENT - SELECT FILL (BORROW)	C.Y.	(245)
P-208-5.1	AGGREGATE BASE COURSE (6" THICKNESS)	S.Y.	1,921
P-501-8.1	PORTLAND CEMENT CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	1,917
T-901-5.1	SEEDING	ACRE	(0.6)
T-904-5.1	SODDING	S.Y.	(49)
T-905-5.1	TOPSOIL (4" THICKNESS)	S.Y.	(2,600)

STATE OF TEXAS
KEN K. RUTABANA
135165
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 05/11/2023

REV	DATE	DESCRIPTION	BY
2	05/11/23	ADDENDUM NO. 2	KKR

DALLAS EXECUTIVE AIRPORT
DALLAS, TEXAS
Dallas Executive Airport
TAXIWAY E PROGRAM - PHASE I

SUMMARY OF QUANTITIES

JOB NO.: 21A11120
DATE: JAN. 2023
DESIGNED BY: DAG
DRAWN BY: MH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
GI-003

SHEET NUMBER **3**

LEGEND

- NEW FULL-STRENGTH PAVEMENT* (1)
- PHASE A PROJECT AREA
- PHASE B PROJECT AREA
- AG — ACCESS GATE
- SP — EXCAVATION STOCKPILE SITE
- CS — CONTRACTOR'S STAGING
- BP — CONCRETE BATCH PLANT SITE
- CT — CONTRACTOR TRAILERS
- RSA — RUNWAY SAFETY AREA
- OFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- CONTRACTOR AND VEHICLE ACCESS
- AIRCRAFT ROUTE
- LIGHTED BARRICADE
- LIGHTED RUNWAY CLOSURE MARKER
- EP — CONTRACTOR'S EMPLOYEE PARKING
- CE — CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT AREA (2 / GC-402)

*CONSTRUCTION DRAWINGS SHOW TDG3 PAVEMENT GEOMETRY. (1)

PHASE B1 - ITEMS OF WORK

1. CONTRACTOR SHALL NOTIFY THE ENGINEER AND AIRPORT 5 DAYS IN ADVANCE OF BEGINNING PHASE B1 - NOTAMS WILL BE ISSUED BY THE AIRPORT BEFORE PHASE B1 BEGINS.
2. PLACE BARRICADES AS INDICATED ON PLANS. SEE SHEET G-303 FOR DETAIL. COVER LIGHTS AND SIGNS FOR TAXIWAYS A1 AND A2. LOCKOUT RUNWAY 13-31 EDGE LIGHT CIRCUIT, PAPI CIRCUIT, AND TAXIWAY B EDGE LIGHT CIRCUIT. REQUEST MAINTENANCE CLOSURE AND NOTAM OF RUNWAY 31 ILS OUTAGE. COMPLETE WORK BELOW.
3. CONSTRUCT PAVEMENT SECTION FOR CONNECTOR TAXIWAY E2 WITHIN THE PHASE B WORK AREA.
4. INSTALL TAXIWAY EDGE LIGHTS AND GUIDANCE SIGNS. MODIFY EXISTING RUNWAY EDGE LIGHTS, SIGNS, AND CIRCUIT DUE TO THE CONSTRUCTION OF THE NEW CONNECTING TAXIWAY.
5. INSTALL PAVEMENT MARKINGS ON RUNWAY 13-31, PROPOSED TAXIWAY E AND E2 AS INDICATED ON THE PLANS.

CONTRACT TIME

PHASE	CALENDAR DAYS	AIRFIELD IMPACTS
PHASE B1 (30 DAYS)		RW 13-31 REDUCED TO B-II
PHASE B2 (10 DAYS)		RW 13-31 AND ASSOCIATED TAXIWAYS CLOSED

0 30 60 90 120 150 180 210 240

NOTES:

1. ENGINEER AND OWNER RESERVE THE RIGHT TO SUSPEND CONTRACT TIME UP TO 30 CALENDAR DAYS TO ACCOMMODATE AIRFIELD OPERATIONS BETWEEN PHASES WITHOUT ANY ADDITIONAL COST TO THE OWNER.
2. PHASE B DURATION WILL NOT EXCEED 30 DAYS. PHASE B2 IS A SUBPHASE OF PHASE B AND SHALL NOT EXCEED 10 DAYS. (2)
3. AIRPORT MAY REQUEST HAUL ROUTE TO REMAIN AT THE END OF THE PROJECT FOR FUTURE PROJECT.

(1)

0 150' 300' 600' 900'
(IN FEET)

GARVER

STATE OF TEXAS
KEN K. RUTABANA
135165
PROFESSIONAL ENGINEER

Digitally Signed 05/11/2023

REV	DATE	DESCRIPTION	BY
1	04/27/23	ADDENDUM NO. 1	KKR
2	05/11/23	ADDENDUM NO. 2	KKR

DALLAS EXECUTIVE AIRPORT
DALLAS, TEXAS

Dallas Executive Airport

TAXIWAY E PROGRAM - PHASE I

CONSTRUCTION SAFETY AND PHASING PLAN - PHASE B1

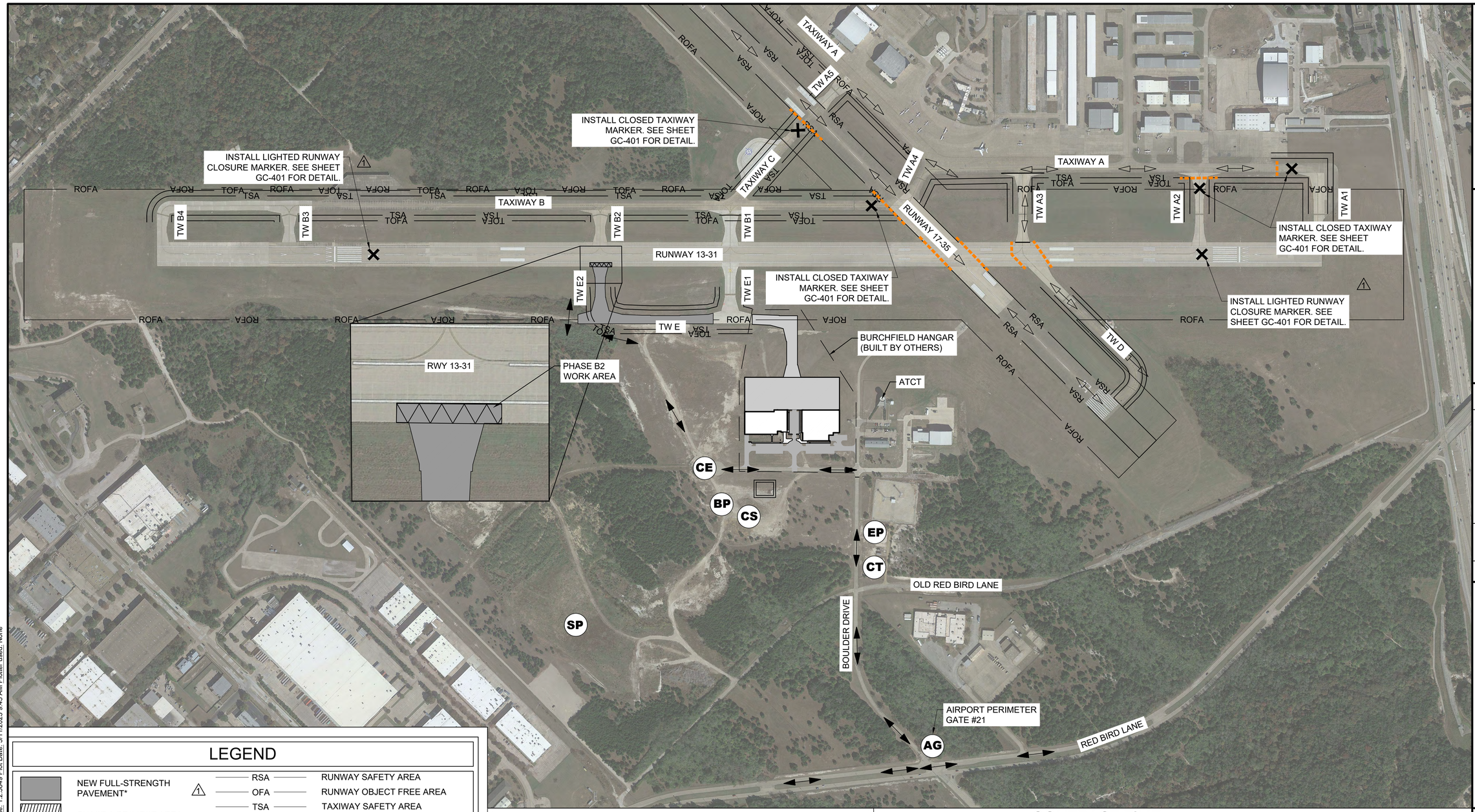
JOB NO.: 21A11120
DATE: JAN. 2023
DESIGNED BY: DAG
DRAWN BY: MH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
GC-201

SHEET NUMBER **10**

File: L:\2021\21a11120 - rbd taxiway echo extension\Drawings\RBD_TWEI-GC-201.dwg Last Saves: 4/27/2023 12:52 PM Last saved by: KKRutabana
Last plotted by: Rutabana, Ken K. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 5/11/2023 9:43 AM Plotter used: None



LEGEND

- NEW FULL-STRENGTH PAVEMENT* (1)
- PHASE A PROJECT AREA
- PHASE B PROJECT AREA
- AG — ACCESS GATE
- SP — EXCAVATION STOCKPILE SITE
- CS — CONTRACTOR'S STAGING
- BP — CONCRETE BATCH PLANT SITE
- CT — CONTRACTOR TRAILERS
- RSA — RUNWAY SAFETY AREA
- OFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- CONTRACTOR AND VEHICLE ACCESS
- AIRCRAFT ROUTE
- LIGHTED BARRICADE
- LIGHTED RUNWAY CLOSURE MARKER
- EP — CONTRACTOR'S EMPLOYEE PARKING
- CE — CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT AREA (2 / GC-402)

*CONSTRUCTION DRAWINGS SHOW TDG3 PAVEMENT GEOMETRY. (1)

PHASE B2 - ITEMS OF WORK

1. CONTRACTOR SHALL NOTIFY THE ENGINEER AND AIRPORT 5 DAYS IN ADVANCE OF BEGINNING PHASE B2 - NOTAMS WILL BE ISSUED BY THE AIRPORT BEFORE PHASE B2 BEGINS.
2. PLACE BARRICADES AS INDICATED ON PLANS. SEE SHEET G-303 FOR DETAIL. COVER LIGHTS AND SIGNS FOR TAXIWAYS A1 AND A2. LOCKOUT RUNWAY 13-31 EDGE LIGHT CIRCUIT, PAPI CIRCUIT, AND TAXIWAY B EDGE LIGHT CIRCUIT. REQUEST MAINTENANCE CLOSURE AND NOTAM OF RUNWAY 31 ILS OUTAGE. COMPLETE WORK BELOW.
3. CONSTRUCT PAVEMENT SECTION FOR CONNECTOR TAXIWAY E2 WITHIN THE PHASE B WORK AREA.
4. INSTALL TAXIWAY EDGE LIGHTS AND GUIDANCE SIGNS. MODIFY EXISTING RUNWAY EDGE LIGHTS, SIGNS, AND CIRCUIT DUE TO THE CONSTRUCTION OF THE NEW CONNECTING TAXIWAY.
5. INSTALL PAVEMENT MARKINGS ON RUNWAY 13-31, PROPOSED TAXIWAY E AND E2 AS INDICATED ON THE PLANS.

CONTRACT TIME

PHASE	CALENDAR DAYS	AIRFIELD IMPACTS
PHASE B1 (30 DAYS)		RW 13-31 REDUCED TO B-II
PHASE B2 (10 DAYS)		RW 13-31 AND ASSOCIATED TAXIWAYS CLOSED

0 30 60 90 120 150 180 210 240

NOTES:

1. ENGINEER AND OWNER RESERVE THE RIGHT TO SUSPEND CONTRACT TIME UP TO 30 CALENDAR DAYS TO ACCOMMODATE AIRFIELD OPERATIONS BETWEEN PHASES WITHOUT ANY ADDITIONAL COST TO THE OWNER.
2. PHASE B DURATION WILL NOT EXCEED 30 DAYS. PHASE B2 IS A SUBPHASE OF PHASE B AND SHALL NOT EXCEED 10 DAYS. (2)
3. AIRPORT MAY REQUEST HAUL ROUTE TO REMAIN AT THE END OF THE PROJECT FOR FUTURE PROJECT.

(1)

0 150' 300' 600' 900'
(IN FEET)

GARVER

STATE OF TEXAS
KEN K. RUTABANA
135165
REGISTERED/LICENSED PROFESSIONAL ENGINEER

Digitally Signed 05/11/2023

REV	DATE	DESCRIPTION	BY
1	04/27/23	ADDENDUM NO. 1	KKR
2	05/11/23	ADDENDUM NO. 2	KKR

DALLAS EXECUTIVE AIRPORT
DALLAS, TEXAS

Dallas Executive Airport

TAXIWAY E PROGRAM - PHASE I

CONSTRUCTION SAFETY AND PHASING PLAN - PHASE B2

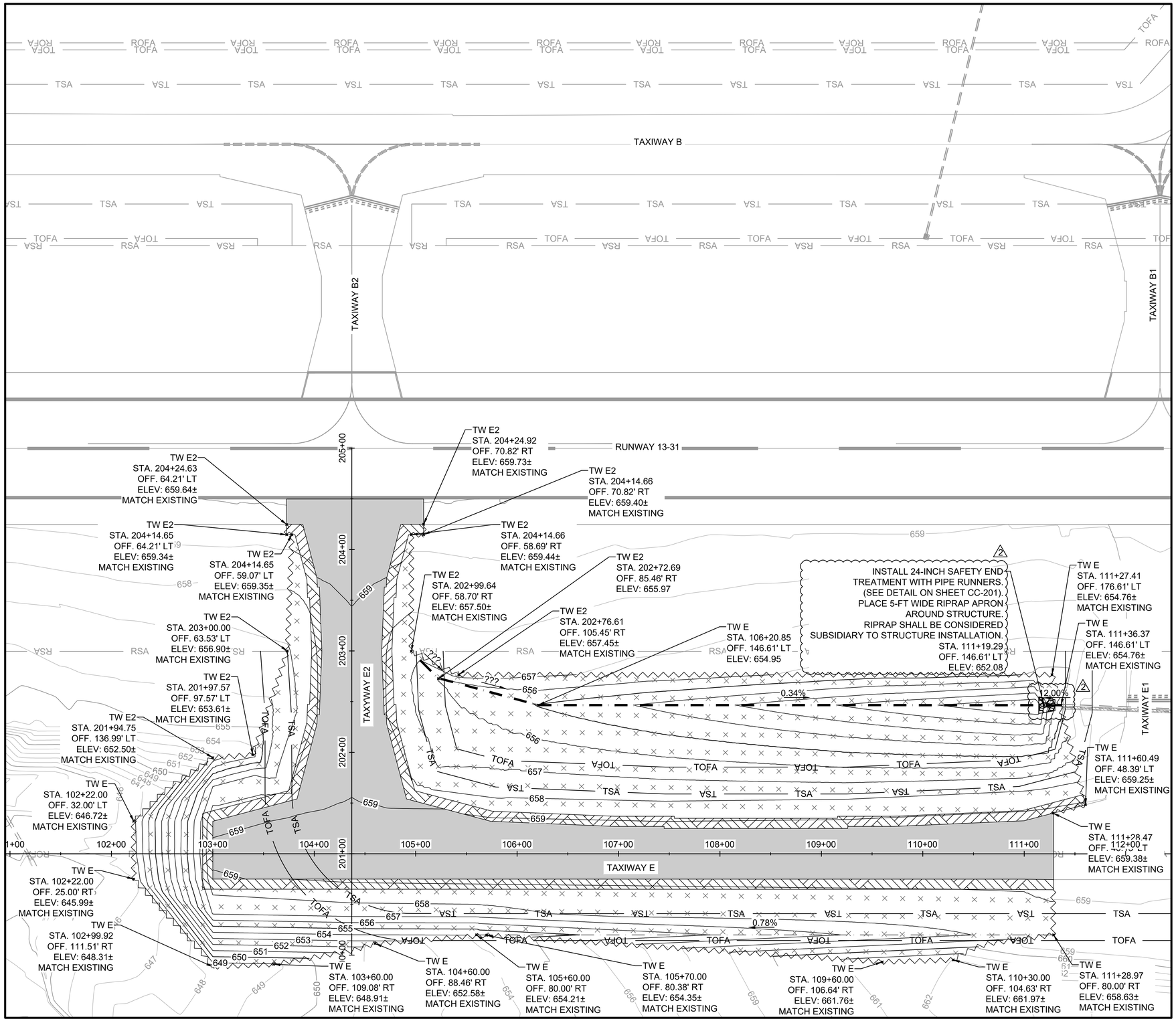
JOB NO.: 21A11120
DATE: JAN. 2023
DESIGNED BY: DAG
DRAWN BY: MH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
GC-202

SHEET NUMBER **11**

File: L:\2021\21a11120 - rbd taxiway echo extension\Drawings\RBD_TWEI-GC-201.dwg Last Save: 4/27/2023 12:52 PM Last saved by: KKRutabana
Last plotted by: Rutabana, Ken K. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 5/11/2023 9:45 AM Plotter used: None



0 25' 50' 100' 150'

(IN FEET)

LEGEND

- EXISTING CONCRETE PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRADING LIMITS
- PROPOSED DITCH FLOWLINE
- RSA — RUNWAY SAFETY AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- XXX — PROPOSED CONTOUR
- XXX — EXISTING CONTOUR
- PROPOSED DRAINAGE STRUCTURE
- EXISTING DRAINAGE STRUCTURE
- X.XX% — PROPOSED CULVERT SLOPE
- EXISTING STORM DRAIN PIPE
- PROPOSED SODDING AND EROSION CONTROL MATTING
- PROPOSED SEEDING AND ERSOSION CONTROL MATTING

NOTES:

1. SEE SHEET CC-201 FOR DRAINAGE DETAILS.
2. CONTRACTOR SHALL LOCATE AND CONFIRM LOCATION, SIZE, AND FLOWLINE FOR EXISTING STORM DRAIN LINES IN THE VICINITY OF PROPOSED DRAINAGE INFRASTRUCTURE PRIOR TO BEGINNING WORK ON NEW STROM DRAIN LINES. ALL CONFLICTS SHALL BE REPORTED TO THE ENGINEER PRIOR TO BEGINNING WORK.

KEYMAP

GARVER

STATE OF TEXAS
KEN K. RUTABANA
135165
FOR A LICENSED PROFESSIONAL ENGINEER

Digitally Signed 05/11/2023

REV.	DATE	DESCRIPTION	BY
2	05/11/23	ADDENDUM NO. 2	KKR

DALLAS EXECUTIVE AIRPORT
DALLAS, TEXAS

Dallas Executive Airport

TAXIWAY E PROGRAM - PHASE I

GRADING PLAN

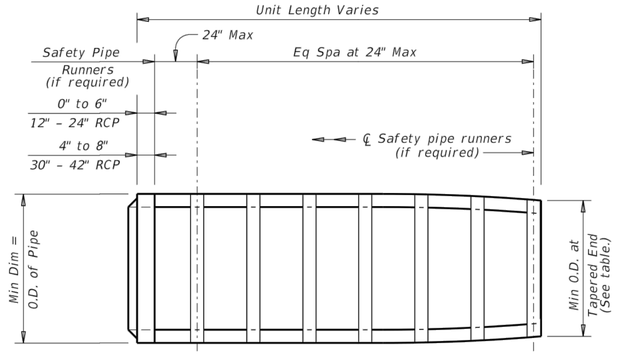
JOB NO.: 21A11120
DATE: JAN. 2023
DESIGNED BY: DAG
DRAWN BY: MH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWING NUMBER
CG-101

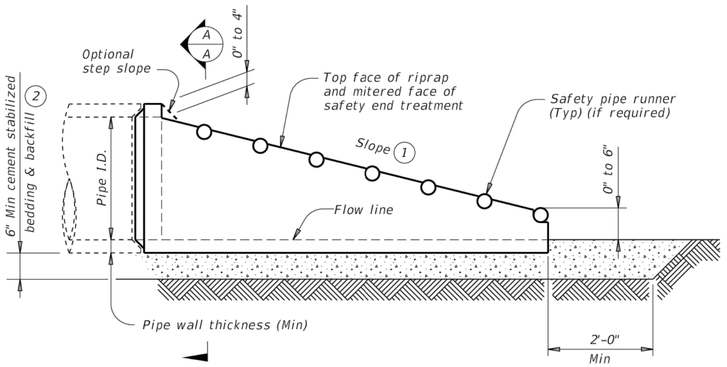
SHEET NUMBER **20**

File: L:\2021\21a11120 - rbd taxiway echo extension\Drawings\RBD_TWEI-CG-101.dwg Last Save: 5/10/2023 5:01 PM Last saved by: KKRutabana
Last plotted by: Rutabana, Ken K. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 5/11/2023 9:53 AM Plotter used: None



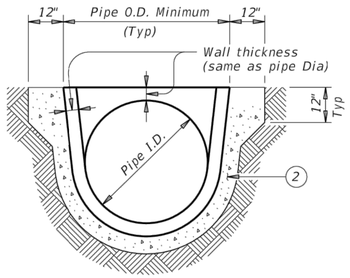
PLAN VIEW – 12" THRU 24"

(Showing spigot end connection.)

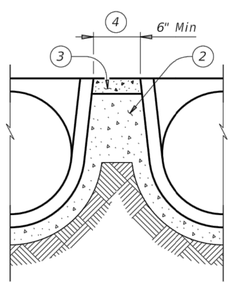


LONGITUDINAL ELEVATION - 12" THRU 24"

(Showing spigot end connection.)



SECTION A-A



MULTIPLE PIPE INSTALLATION

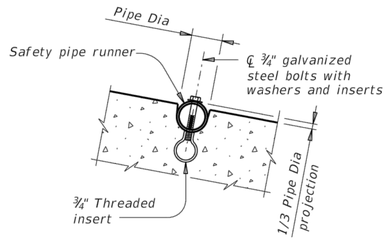
(1) Slope as shown elsewhere in the plans. Slope of 6:1 or flatter is required for vehicle safety.

(2) Provide cement stabilized bedding and backfill in accordance with the Item, "Excavation and Backfill for Structures". Bedding and backfill is considered subsidiary to the Item 467, "Safety End Treatment". When concrete riprap is specified around the safety end treatment, backfill as directed by Engineer.

(3) Fill the top 4" of void between precast end treatments with concrete riprap. Concrete riprap is considered subsidiary to the Item 467, "Safety End Treatment".

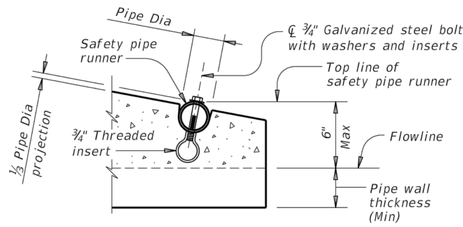
(4) Adjust clear distance between pipes to provide for the minimum distance between safety end treatments. (2)

(5) Safety pipe runners are required ~~for multiple pipe culverts with more than two pipes~~.

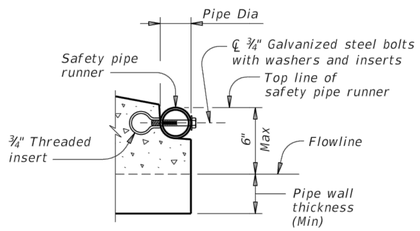


INSTALLATION DETAIL FOR SAFETY PIPE RUNNERS

(If required)



OPTION A



OPTION B

END DETAILS FOR INSTALLATION OF SAFETY PIPE RUNNERS

(If required)

REQUIREMENTS FOR CULVERT PIPES AND SAFETY PIPE RUNNERS

Pipe I.D.	Min Wall Thickness	Min O.D.	Min O.D. at Tapered End	Min Reinf Requirements (sq. in. per ft. of Pipe)	Max Slope	Min Length of Unit	Pipe Runner Requirements		Required Pipe Runner Sizes		
							Single Pipe	Multiple Pipe	Nominal Dia	O.D.	I.D.
12"	2"	16"	16"	0.07 Circ.	6:1	4'–0"	No	(5)	3" STD	3.500"	3.068"
15"	2 ¼"	19 ½"	19"	0.07 Circ.	6:1	5'–8"	No	(5)	3" STD	3.500"	3.068"
18"	2 ½"	23"	21 ½"	0.07 Circ.	6:1	7'–3"	No	(5)	3" STD	3.500"	3.068"
24"	3"	30"	27"	0.07 Circ.	6:1	10'–6"	No	(5)	3" STD	3.500"	3.068"
30"	3 ½"	37"	31"	0.18 Circ.	6:1	12'–1"	No	Yes	4" STD	4.500"	4.026"
36"	4"	44"	36"	0.19 Ellip.	6:1	15'–4"	Yes	Yes	4" STD	4.500"	4.026"
42"	4 ½"	51"	41 ½"	0.23 Ellip.	6:1	18'–7"	Yes	Yes	4" STD	4.500"	4.026"

MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Provide pipe runners meeting the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 Gr B, or API 5LX52.

Galvanize steel components except reinforcing steel after fabrication. Repair galvanizing damaged during transport or construction in accordance with the specifications.

GENERAL NOTES:

Precast safety end treatment for reinforced concrete pipe (RCP) may be used for TYPE II end treatment as specified in Item 467, "Safety End Treatment".

When precast safety end treatment is used as a Contractor's alternate to mitered RCP, riprap will not be required unless noted otherwise on the plans.

Manufacture precast concrete end sections in accordance with Item 464, "Reinforced Concrete Pipe" and in accordance with ASTM Specification C-76, Class III, Wall B for circular pipe.

Provide precast concrete end sections with a spigot or bell end for compatibility to upstream or downstream end conditions with sufficient annular space to allow for grout, mortar, cold applied asphalt joint compound or pre-formed plastic gasket material.

Methods of lifting shall be provided by the manufacturer for ease of loading, unloading and installation.

Pipe runners are designed for a traversing load of 10,000 Lbs at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.

DATE:
FILE:

STATE OF TEXAS
KEN K. RUTABANA
135165
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 05/11/2023

REV.	DATE	DESCRIPTION	BY
3	05/11/23	ADDENDUM NO. 2	KKR

DALLAS EXECUTIVE AIRPORT
DALLAS, TEXAS
Dallas Executive Airport
TAXIWAY E PROGRAM - PHASE I

Texas Department of Transportation
Bridge Division Standard

PRECAST SAFETY END TREATMENT

TYPE II ~ PARALLEL DRAINAGE

PSET-RP

STORM DRAIN DETAILS

JOB NO.: 21A11120
DATE: JAN. 2023
DESIGNED BY: DAG
DRAWN BY: MH

FILE: psetrpss-20.dgn	DN: RLW	CK: KLR	DW: JTR	CK: GAF
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
CC-201

SHEET NUMBER 21

File: L:\2021\21a11120 - rbd taxiway echo extension\Drawings\RBD_TWEI-CC-201.dwg Last Save: 8/10/2022 6:39 PM Last saved by: MHernandez
Last plotted by: Rutabana, Ken K. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 5/11/2023 9:52 AM Plotter used: None