

ADDENDUM NO. 1

Date: January 27, 2023
Project: Sea Island Circle Beach Access Amenity Improvements (2023-SL01)
 LJA Project No. 275-21181

Prospective bidders are hereby notified of the following modifications to the contract documents. These modifications shall become a part of the contract documents. The provisions of the contract documents not specifically affected by the addendum shall remain unchanged.

I. CONTRACT DOCUMENTS

DELETE: Section III. PROPOSAL, in its entirety.

ADD: Revised Section III. Proposal (Attachment No. 1). To revised Bid Item A30 to 168 LF instead of 977 LF.

II. PLANS

DELETE: Plan Sheet C14

ADD: Revised Plan C14, 8" Full Depth Pavement Repair (FDPR) and Paver Ribbon Curb. (Attachment No. 2).

III. QUESTIONS/CLARIFICATIONS

1. **Can we use a Cashier Check for 5% Bid Bond?** *Yes. Refer to Special Provisions of Agreement, page 2 of 14, Item A-5 Explanation of Proposal and Items to be Submitted with Proposal, Note 1.*
2. **Can we use Caliche Base instead of Crushed Limestone?** *Yes, if the clayey gravel and caliche materials meet the gradation requirements of TxDOT Item 247, Type B, Grade 1-2 or 3 as specified in the 2014 TxDOT Standard Specifications Manual and a Plasticity Index between 7 and 20. (Attachment No. 3).*
3. **Can we use Crush Concrete Instead of Crushed Limestone Base?** *Yes, if crushed concrete material meets the requirements of 2014 TxDOT as specified in the 2014 TxDOT Standard Specifications Manual Item 247, Type A, or D, Grade 1-2 or 3. The select fill materials should be free of organic material and debris and should not contain stones larger than 2 inches in the maximum dimension. (Attachment No. 3).*
4. **Can we replace the 6" Type B HMAC Base for Type D, for a Full Depth of 8" Type D Pavement Repair?** *Yes, Contractor must follow maximum and minimum compacted lift thickness guidelines for mixture type below.*

Mixture Type	Compacted Lift Thickness Guidelines	
	Min (in)	Max (in)
B	2.5	5
D	1.5	3

5. It is a requirement to leave the treated plywood forms in place underneath the slab, shown on the plans, that are required to be left in place only for the gusset from the slab to the footing or are you all requiring there be plywood all the way underneath the slab? *No, the plywood on Sheet C10, DP-1 detail is not required all the way underneath the concrete foundation. It is part of the concrete form to build the DP angular corner. It is for construction purposes only, and it does not serve as a structural member.*
6. Restrooms - The plans for the restrooms are not provided in the approved sealed plans. They call for 18" x 30' piers for the restroom foundations. At South Padre Island is achievable that depth, because the soft sand and water layer below that depth were compromising the integrity of the pier. Due to the small foundations and the constrained construction area, it is difficult to get large equipment on the construction site. We could use smaller equipment for the 20' L piers to reduce costs. Are geotechnical reports available? *No, there is no geotechnical report available. Design was based on similar bore-logs in the vicinity area, for silty sand (SM); loose material with water table encountered at 4.5 to 5.5 feet approximately. Yes, you can use 20 height piers by 24" diameter to achieve the same area.*
7. Restrooms - CMU burnished block. Minimum orders are 1200 to fabricate. The job only requires 300. Is there an alternative block to use? *Yes, you can submit approved equal after project is awarded.*
8. Utilities Connections – Have the waterline and Wastewater Connection been approved by The Laguna Madre Water District? *No, we don't have approved plans yet. We will coordinate with them and provide approved plans after project is awarded.*

Please acknowledge receipt of this addendum in the appropriate place in your PROPOSAL FORM.

End of Addendum No. 1



Yesenia Singleton 1/27/2023
Yesenia Singleton, PE
Project Engineer

III.
PROPOSAL

PROPOSAL OF: _____
(COMPANY NAME)

FOR: SEA ISLAND CIRCLE BEACH ACCESS AMENITY IMPROVEMENTS (2023-SL01)

**TO: CITY OF SOUTH PADRE ISLAND
4601 PADRE BLVD.
SOUTH PADRE ISLAND, TEXAS 78597**

THE UNDERSIGNED, AS BIDDER, DECLARES THAT THE ONLY PERSON OR PARTIES INTERESTED IN THIS PROPOSAL AS PRINCIPALS ARE THOSE NAMED HEREIN; THAT THIS PROPOSAL IS MADE WITHOUT COLLUSION WITH ANY OTHER PERSON, FIRM, CORPORATION; THAT HE HAS CAREFULLY EXAMINED THE PLANS THEREIN REFERRED TO, AND HAS CAREFULLY EXAMINED THE LOCATIONS, CONDITIONS, AND CLASSES OF MATERIALS OF THE PROPOSED WORK, AND AGREES THAT HE WILL PROVIDE ALL THE NECESSARY MACHINERY, TOOLS, APPARATUS, AND OTHER MEANS OF CONSTRUCTION AND WILL DO ALL THE WORK AND FURNISH ALL THE MATERIALS CALLED FOR IN THE CONTRACT AND SPECIFICATIONS IN THE MANNER PRESCRIBED THEREIN AND ACCORDING TO THE REQUIREMENTS OF THE ENGINEER AS THEREIN SET FORTH.

BIDDER FURTHER DECLARES THAT HE HAS EXAMINED THE SITE OF THE WORK AND THAT HE WILL PROVIDE, IF HE IS THE SUCCESSFUL BIDDER, THOSE ITEMS LISTED IN SECTIONS A-21, A-22, AND A-23 OF SECTION VII. SPECIAL PROVISIONS OF THE AGREEMENT. **SEE ITEM NO. 9 CONTRACTORS QUALIFICATIONS, SECTION II. INSTRUCTIONS TO BIDDERS.**

III.
PROPOSAL

BASE BID – SCHEDULE ‘A’

I	II	III	IV	V
ITEM	QTY & UNIT	DESCRIPTION	UNIT PRICE	TOTAL
I. GENERAL				
A1	1 LS	Mobilization/Demobilization, Complete in Place per Lump Sum.	\$ _____	\$ _____
A2	1 LS	Traffic Control, Complete in Place per Lump Sum.	\$ _____	\$ _____
A3	1 LS	Storm Water Pollution Prevention Plan, Complete in Place per Lump Sum.	\$ _____	\$ _____
A4	0.07 AC	Site Clearing, Grubbing, and Grading, Complete in Place per Acre.	\$ _____	\$ _____
A5	1 LS	Allowance for Unanticipated Adjustments, Complete in Place per Lump Sum.	\$ <u>100,000.00</u>	\$ <u>100,000.00</u>
II. SITEWORK				
A6	75 SY	Saw Cut and Remove Existing Asphalt Road and Parking Lot to Accommodate Utilities Installation, Complete in Place per Square Yard.	\$ _____	\$ _____
A7	75 SY	Full-Depth Asphalt Pavement Repair, Complete in Place per Square Yard.	\$ _____	\$ _____
A8	2 EA	Restrooms per Construction Plans and Specifications, Complete in Place Each.	\$ _____	\$ _____
A9	1 LS	Changing Room (Double Unit) per Construction Plans and Specifications, Complete in Place per Lump Sum.	\$ _____	\$ _____
A10	1 LS	ADA Foot Bath Station per Construction Plans and Specifications, Complete in Place per Lump Sum.	\$ _____	\$ _____
A11	1 LS	Rinse Station per Construction Plans and Specifications, Complete in Place per Lump Sum.	\$ _____	\$ _____
A12	50 LF	4" Striping and "NO PARKING" Lettering, Complete in Place per Linear Foot.	\$ _____	\$ _____
A13	1 EA	Pavement Handicap Accessible Symbol, Complete in Place per Each.	\$ _____	\$ _____
A14	1 EA	Handicap Parking Stall Sign, Complete in Place per Each.	\$ _____	\$ _____

**III.
PROPOSAL**

BASE BID – SCHEDULE ‘A’

I	II	III	IV	V
ITEM	QTY & UNIT	DESCRIPTION	UNIT PRICE	TOTAL
II. SITEWORK (CONT'D)				
A15	185 LF	Concrete Header Curb, Complete in Place per Linear Foot.	\$ _____	\$ _____
A16	477 SF	Pavers, Complete in Place per Square Foot.	\$ _____	\$ _____
III. UTILITIES				
A17	1 EA	Tie In New 4" Wastewater Line to Existing 12" Wastewater Main (10'-12' Depth), Complete in Place per Each.	\$ _____	\$ _____
A18	129 LF	4" ASTM D-3034 PVC (SDR 26) Wastewater Line (0'-6' Depth), Complete in Place per Linear Foot.	\$ _____	\$ _____
A19	1 EA	4" Wastewater Clean Out (Traffic Rated), Complete in Place per Each.	\$ _____	\$ _____
A20	3 EA	4" Wastewater Clean Out, Complete in Place per Each.	\$ _____	\$ _____
A21	1 EA	4" SCH 40 45° Bend, Complete in Place per Each.	\$ _____	\$ _____
A22	3 EA	4" SCH 40 Wye Bend, Complete in Place per Each.	\$ _____	\$ _____
A23	1 EA	Tie In New 2" C-900 PVC Waterline To Existing 2" Waterline, Complete in Place per Each.	\$ _____	\$ _____
A24	168 LF	2" C-900 PVC (SDR 21) Waterline, Complete in Place per Linear Foot.	\$ _____	\$ _____
A25	3 EA	2" x 2" x 2" Tee, Complete in Place per Each.	\$ _____	\$ _____
A26	2 EA	2" 90° Bend, Complete in Place per Each.	\$ _____	\$ _____
A27	2 EA	2" 45° Bend, Complete in Place per Each.	\$ _____	\$ _____
A28	4 EA	2" Water Valve, Complete in Place per Each.	\$ _____	\$ _____
A29	1 LS	Water System Testing And Approval By City Water Department, Complete And In Place Per Lump Sum.	\$ _____	\$ _____

**III.
PROPOSAL**

BASE BID – SCHEDULE ‘A’

I	II	III	IV	V
ITEM	QTY & UNIT	DESCRIPTION	UNIT PRICE	TOTAL
III. UTILITIES (CONT'D)				
A30	168 LF	Trench Safety Related to 2" C-900 PVC Waterline Improvements (All Depths), Complete In Place Per Linear Foot.	\$ _____	\$ _____
A31	129 LF	OSHA Trench Protection For Wastewater Line (All Depths), Complete In Place Per Linear Foot.	\$ _____	\$ _____
A32	1 LS	Restrooms Plumbing Improvements per Construction Plans and Specifications, Complete In Place Per Lump Sum.	\$ _____	\$ _____
IV. ELECTRICAL				
A33	1 LS	Electrical Improvements per Construction Plans and Specifications, Complete in Place Lump Sum.	\$ _____	\$ _____
TOTAL BASE BID – SCHEDULE ‘A’ (ITEMS A1-A33):				\$ _____

BID SUMMARY

BASE BID SCHEDULE ‘A’ (ITEMS A1 – A33): \$ _____

The undersigned hereby declares that he has visited the site and has carefully examined the plans, specifications and contract documents relating to the work covered by his bid or bids, that he agrees to do the work, and that no representations made by the City are in any sense a warranty but are mere estimates for the guidance of the Contractor.

III.
PROPOSAL

THE UNDERSIGNED AGREES TO COMPLETE THE WORK FOR **SEA ISLAND CIRCLE BEACH ACCESS AMENITY IMPROVEMENTS (2023-SL01)** WITHIN **150 CALENDAR DAYS**, FROM THE DATE DESIGNATED BY THE NOTICE TO PROCEED. **(1) CONTRACTOR SHALL NOTE** THE SCHEDULE LISTED IN SECTION II. INSTRUCTIONS TO BIDDERS, ITEM NO. 10 AND SPECIFICATION 011100, CONSTRUCTION SEQUENCE ITEMS AND CONSTRUCTION SCHEDULE.

ADDENDUM _____ DATE _____

ADDENDUM _____ DATE _____

ADDENDUM _____ DATE _____

ENCLOSED WITH THE PROPOSAL IS A CASHIER'S CHECK OR BIDDER'S BOND IN THE AMOUNT OF \$ _____ (AT LEAST 5 PERCENT OF THE LARGEST BASE BID SHOWN IN THIS PROPOSAL). UNDERSIGNED AGREES THAT THIS AMOUNT IS THE MEASURE OF LIQUIDATED DAMAGES WHICH OWNER WILL SUSTAIN BY THE FAILURE OF THE UNDERSIGNED TO EXECUTE AND DELIVER THE ABOVE NAMED CONTRACT AND BONDS, AND FURTHER AGREES THAT THIS CHECK OR BIDDER'S BOND SHALL BE COLLECTED AND RETAINED BY OWNER AS LIQUIDATED DAMAGES IN THE EVENT THIS PROPOSAL IS ACCEPTED BY OWNER WITHIN 60 DAYS AFTER THE DATE OF THE OPENING OF BIDS AND THE UNDERSIGNED FAILS TO EXECUTE THE CONTRACT AND THE REQUIRED BONDS WITH OWNER WITH THE CONDITIONS THEREOF, WITHIN TEN (10) DAYS AFTER THE DATE CONTRACT DOCUMENTS ARE RECEIVED BY THE UNDERSIGNED, OTHERWISE SAID CHECK OR BOND SHALL BE RETURNED TO THE UNDERSIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE INVITATION TO BIDDERS.

VERY TRULY YOURS,

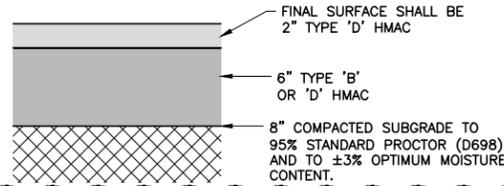
BY: _____

TITLE: _____

ADDRESS: _____

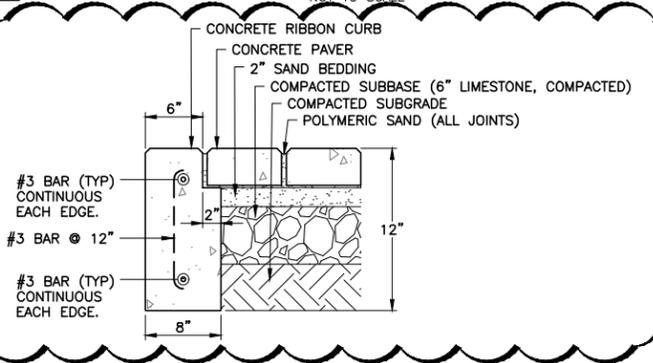
(SEAL – IF BID IS BY A CORPORATION) _____

ATTEST: _____ DATE: _____

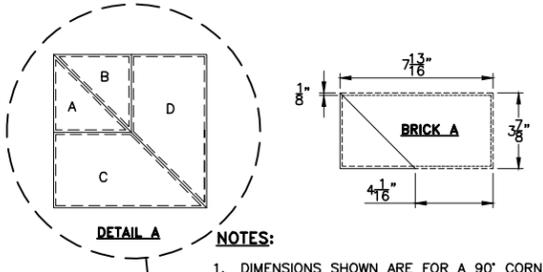


MIXTURE TYPE	COMPACTED LIFT THICKNESS GUIDELINES	
	MIN (IN)	MAX (IN)
B	2.5	5
D	1.5	3

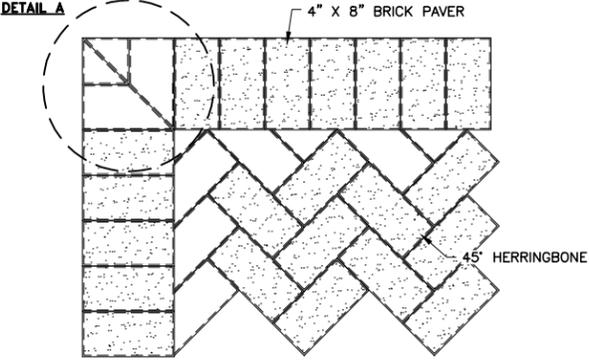
8" FULL DEPTH PAVEMENT REPAIR (FDPR)



PAVER INSTALLATION DETAIL



- NOTES:**
- DIMENSIONS SHOWN ARE FOR A 90° CORNER. ADJUST DIMENSIONS ACCORDINGLY FOR OTHER ANGLED CORNERS.
 - ALL MITER CUTS TO BE EVEN AND CONSISTENT.



PAVER DETAIL - 90° MITER

GENERAL SPECIFICATIONS INSTALLATION

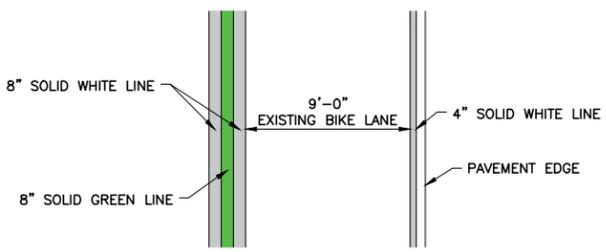
- EXCAVATE UNSUITABLE, UNSTABLE OR UNCONSOLIDATED SUBGRADE MATERIAL AND COMPACT THE AREA WHICH HAS BEEN CLEARED. THEN BACKFILL AND LEVEL WITH DENSE GRADED AGGREGATE SUITABLE FOR SUBBASE MATERIAL (6" OF COMPACTED LESTONE).
- PLACE BEDDING COURSE OF WASHED CONCRETE SAND CONFORMING TO THE GRADING REQUIREMENTS OF ASTM C33 TO A UNIFORM DEPTH OF 1" TO 1 1/2" (25-38MM) SCREED TO THE GRADE AND PROFILE REQUIRED.
- INSTALL PAVERS WITH JOINTS APPROXIMATELY 1/8" (3MM). (PAVERS WITH SPACER RIBS AUTOMATICALLY PROVIDE MINIMUM JOINT WIDTH.)
- WHERE REQUIRED, CUT PAVERS WITH AN APPROVED CUTTER TO FIT ACCURATELY, NEATLY AND WITHOUT DAMAGED EDGES.
- TAMP PAVERS WITH A PLATE COMPACTOR, UNFORMLY LEVEL, TRUE TO GRADE AND FREE OF MOVEMENT.
- FILL JOINTS WITH POLYMERIC SAND BINDER (SANDLOCK OR APPROVED EQUAL.)

NOTES

- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- DO NOT SCALE DRAWINGS.
- CONFIRM COLOR AND SIZE WITH OWNER PRIOR TO INSTALLATION
- CONTRACTOR TO PROVIDE 6'x6' MOCKUP OF PAVING TO INCLUDE FIELD PATTERN, BORDER PATTERN AND COLORS.

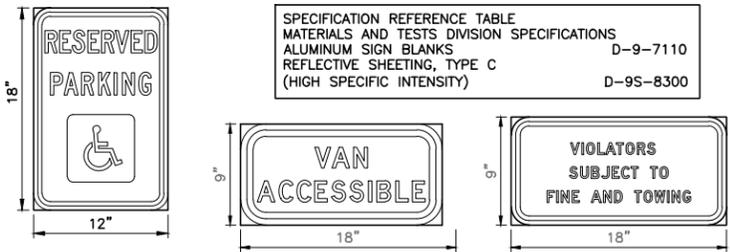
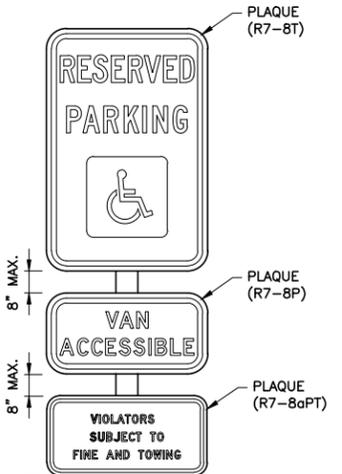
PAVING NOTES

- CONTRACTOR SHALL REVIEW AND COORDINATE WITH EXISTING CONDITIONS. LOCATE AND PROTECT ALL UNDERGROUND UTILITIES, DRAINS, ELECTRICAL, ETC.
- CONTRACTOR TO FOLLOW CIVIL ENGINEER'S GRADING/DRAINAGE PLANS. ENSURE PROPER DRAINAGE AWAY FROM ALL BUILDINGS TO DRAIN INLETS PER GRADING/DRAINAGE PLANS.
- CONTRACTOR SHALL STAKE OUT ALL PAVING AREAS FOR SSP APPROVAL PRIOR TO STARTING ANY PAVING WORK.
- CONTRACTOR SHALL STRIP/REMOVE EXISTING UNSUITABLE SOIL/SOD/GRASS IN ALL PAVEMENT AREAS.
- CONTRACTOR SHALL SUPPLY/INSTALL SELECT FILL, SUB-BASE, MOISTURE CONDITION, AND COMPACT SUB GRADE TO 95% PROCTOR DENSITY (ASTM D698).
- CONTRACTOR SHALL SUPPLY/APPLY PRE-EMERGENT HERBICIDE TO SUB-BASE OF ALL PAVEMENT AREAS. USE 'RONSTAR' PRE-EMERGENT HERBICIDE OR APPROVED EQUAL.
- CONTRACTOR SHALL SUPPLY/INSTALL PAVERS AS INDICATED IN SCHEDULE
- CONTRACTOR SHALL CUT/MITRE ALL RADII AND CORNERS USING MASONRY SAW AS DETAILED.
- CONTRACTOR SHALL FILL/SWEEP ALL JOINTS WITH MIXTURE OF JOINT SAND AND 'SANDLOCK' JOINT STABILIZER. MI. 3-4 LBS. OF 'SANDLOCK' PER 100 LBS OF JOINT SAND. SWEEP ADDITIONAL 'SANDLOCK' ONTO FINAL SURFACE AND INTO ALL JOINTS THEN SATURATE WITH WATER TO ACTIVATE STABILIZER.
- CONTRACTOR SHALL NOTIFY SSP BEFORE INSTALLATION FOR INSPECTIONS/APPROVALS OF ALL WORK.
- CONTRACTOR SHALL WARRANT ALL MATERIALS AND LABOR FOR A PERIOD OF TWO YEARS. WARRANTY
- INCLUDED RE-SANDING IF REQUIRED, HERBICIDE TREATMENT AND REPAIR OF ALL SUBGRADE FAILURES IF REQUIRED.



BIKE LANE PAVEMENT MARKINGS

NOT TO SCALE



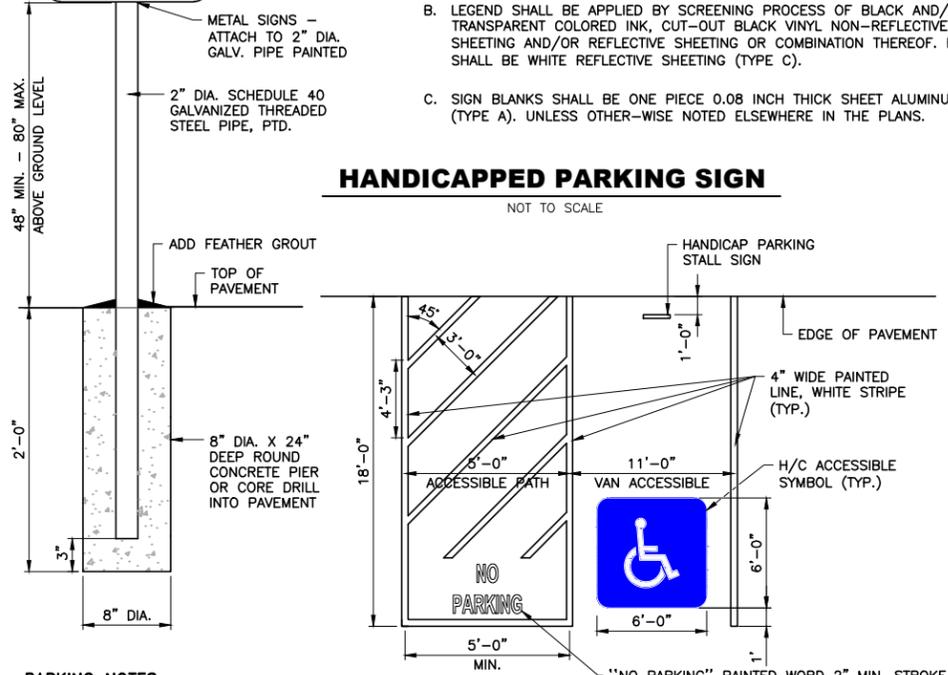
- R7-8T**
LEGEND AND BORDER: GREEN
WHITE SYMBOL ON BLUE
BACKGROUND
BACKGROUND: WHITE
- R7-8P**
LEGEND AND BORDER: GREEN
BACKGROUND: WHITE
- R7-8aPT**
LEGEND AND BORDER: GREEN
BACKGROUND: WHITE

HANDICAPPED PARKING SIGN NOTES:

- THE ALPHABETS AND LATERAL SPACING BETWEEN LETTERS AND NUMERALS SHALL CONFORM WITH THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION, AND ANY APPROVED CHANGES THERETO. LATERAL SPACING OF TEXT SHALL PROVIDE A BALANCED APPEARANCE. ALL MATERIALS SHALL CONFORM TO DEPARTMENT SPECIFICATIONS.
- LEGEND SHALL BE APPLIED BY SCREENING PROCESS OF BLACK AND/OR TRANSPARENT COLORED INK, CUT-OUT BLACK VINYL NON-REFLECTIVE DECAL SHEETING AND/OR REFLECTIVE SHEETING OR COMBINATION THEREOF. BACKGROUND SHALL BE WHITE REFLECTIVE SHEETING (TYPE C).
- SIGN BLANKS SHALL BE ONE PIECE 0.08 INCH THICK SHEET ALUMINUM ALLOY (TYPE A). UNLESS OTHER-WISE NOTED ELSEWHERE IN THE PLANS.

HANDICAPPED PARKING SIGN

NOT TO SCALE



PARKING NOTES:

- ALL PARKING SPACE LIMIT LINES SHALL BE 4" SOLID WHITE LINES.
- AISLE MARKINGS SHOWN ARE EXAMPLES ONLY. OTHER METHODS TO INDICATE A NO PARKING AREA ARE ACCEPTABLE. AISLE MARKINGS SHALL BE WHITE.
- DIMENSIONS OF LIMIT LINES, AISLE MARKINGS AND SYMBOLS (WITH OR WITHOUT BACKGROUND) MAY VARY + 10%.
- PAVEMENT MARKING SYMBOLS (WITH BACKGROUND):
A. ARE REQUIRED UNLESS STATED ELSEWHERE IN THE PLANS.
B. SHOULD BE PLACED TOWARD THE FAR END OF THE PARKING SPACES SO AS TO BE VISIBLE TO MOTORISTS IN THE TRAVEL LANE.
C. MAY BE PAINTED OR PREFABRICATED MATERIAL AND
D. SHALL BE 30"x30" MINIMUM.
- WITH APPROVAL OF THE ENGINEER, PREFABRICATED PAVEMENT MARKING SYMBOLS WITH BACKGROUND OF OTHER DIMENSIONS EXCEEDING THE 30"x30" MINIMUM MAY BE USED. ALTERNATIVE DESIGNS SHALL INCLUDE A PROPORTION SIZED SYMBOL OF ACCESSIBILITY AND SHALL CONFORM TO THE ILLUSTRATED COLORS FOR BACKGROUND, SYMBOL AND BORDER.
- AN R7-8 SIGN:
A. SHALL BE REQUIRED FOR EACH ACCESSIBLE PARKING SPACE.
B. SHALL NOT BE PLACED BETWEEN TWO ACCESSIBLE PARKING SPACES.
C. SHALL NOT BE PLACED IN A LOCATION THAT RESTRICTS MOVEMENT OF WHEELCHAIRS WITHIN THE ADJACENT SIDEWALK, AND
D. SHALL HAVE MINIMUM MOUNTING HEIGHT OF 7 FEET. IF MOUNTED TO WALL OR LOCATED SO AS NOT TO BE NEAR PEDESTRIAN TRAFFIC MINIMUM MOUNTING HEIGHT MAY BE 7 FEET.
- POST MOUNTED SIGNS SHOULD BE PLACED APPROXIMATELY 1 FOOT (OR GREATER) BEHIND THE CURB TO PREVENT DAMAGE FROM VEHICLE OVERHANG.
- SIGNS MAY BE MOUNTED DIRECTLY TO AN ADJACENT WALL OF A BUILDING WHEN POST MOUNTING IS IMPRACTICAL.

STRIPING NOTES:

- PAINT FOR STRIPING PER SPECIFICATION SECTION 025807, PAVEMENT MARKINGS (S-45) PAINT AND THERMOPLASTIC.
- PAINT SHALL BE APPLIED UNIFORMLY BY SUITABLE EQUIPMENT AT A RATE OF NOT LESS THAN 105 NOR MORE THAN 115 SQUARE FEET PER GALLON.
- AFTER APPLICATION, ALL MARKINGS SHALL BE PROTECTED WHILE DRYING. THE FRESH MARKINGS SHALL BE PROTECTED FROM DAMAGE OF ANY KIND.

TYPICAL ACCESS PARKING

NOT TO SCALE

Addendum No.1
Attachment No. 2

PAVING MATERIAL SCHEDULE		
DESCRIPTION	NOTES	QUANTITY
BRICK PAVERS	4"x8" MM KEYSTONE HOLLANDSTONE BRICK PAVERS BAND (LIGHT BROWN/TAN MIX)	
BRICK PAVERS BAND	4"x8" MM KEYSTONE HOLLANDSTONE BRICK PAVERS BAND (DARK BROWN)	

NOTE CONTRACTOR TO PROVIDE AVAILABLE PAVEMENT COLORS FOR APPROVAL BY CITY BEFORE OFFERING MATERIAL

R:\CLIENTS\CITY OF SOUTH PADRE - 275\21181 - Sea Island Circle Amenities\CAD\MISCELLANEOUS NOTES.dwg mfaicam Wed, Jan 25 2023 @ 2:47:28 pm

PROJECT No.:
C275-21181

Yesenia Singleton
102398
LICENSED PROFESSIONAL ENGINEER
JANUARY 10, 2023

LJA ENGINEERING
TJBE FIRM REG. NO. F-1386

South Padre Island

SEA ISLAND CIRCLE
BEACH ACCESS AMENITY IMPROVEMENTS
2300 GULF BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

MISCELLANEOUS DETAILS

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	
JOB NO.	C275-21181

C14

ITEM 247
FLEXIBLE BASE

1. DESCRIPTION

Construct a foundation course composed of flexible base.

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications. Notify the Engineer of the proposed material sources and of changes to material sources. The Engineer may sample and test project materials at any time before compaction throughout the duration of the project to assure specification compliance. Use Tex-100-E material definitions.

- A. AGGREGATE.** Furnish aggregate of the type and grade shown on the plans and conforming to the requirements of Table 1. Each source must meet Table 1 requirements for liquid limit, plasticity index, and wet ball mill for the grade specified. Do not use additives such as but not limited to lime, cement, or fly ash to modify aggregates to meet the requirements of Table 1, unless shown on the plans.

**Table 1
Material Requirements**

Property	Test Method	Grade 1	Grade 2	Grade 3	Grade 4
Master gradation sieve size (% retained)	Tex-110-E				As shown on the plans
2-1/2 in.		–	0	0	
1-3/4 in.		0	0–10	0–10	
7/8 in.		10–35	–	–	
3/8 in.		30–50	–	–	
No. 4		45–65	45–75	45–75	
No. 40		70–85	60–85	50–85	
Liquid limit, % max. ¹	Tex-104-E	35	40	40	As shown on the plans
Plasticity index, max. ¹	Tex-106-E	10	12	12	As shown on the plans
Plasticity index, min. ¹		As shown on the plans			
Wet ball mill, % max. ²	Tex-116-E	40	45	–	As shown on the plans
Wet ball mill, % max. increase passing the No. 40 sieve		20	20	–	
Classification ³	Tex-117-E	1.0	1.1–2.3	–	As shown on the plans
Min. compressive strength ³ , psi					As shown on the plans
lateral pressure 0 psi		45	35	–	
lateral pressure 15 psi		175	175	–	

1. Determine plastic index in accordance with Tex-107-E (linear shrinkage) when liquid limit is unattainable as defined in Tex-104-E.
2. When a soundness value is required by the plans, test material in accordance with Tex-411-A.
3. Meet both the classification and the minimum compressive strength, unless otherwise shown on the plans.

- 1. MATERIAL TOLERANCES.** The Engineer may accept material if no more than 1 of the 5 most recent gradation tests has an individual sieve outside the specified limits of the gradation. When target grading is required by the plans, no single failing test may exceed the master grading by more than 5 percentage points on sieves No. 4 and larger or 3 percentage points on sieves smaller than No. 4.

The Engineer may accept material if no more than 1 of the 5 most recent plasticity index tests is outside the specified limit. No single failing test may exceed the allowable limit by more than 2 points.

- 2. MATERIAL TYPES.** Do not use fillers or binders unless approved. Furnish the type specified on the plans in accordance with the following.

- a. **Type A.** Crushed stone produced and graded from oversize quarried aggregate that originates from a single, naturally occurring source. Do not use gravel or multiple sources.
 - b. **Type B.** Crushed or uncrushed gravel. Blending of 2 or more sources is allowed.
 - c. **Type C.** Crushed gravel with a minimum of 60% of the particles retained on a No. 4 sieve with 2 or more crushed faces as determined by Tex-460-A, Part I. Blending of 2 or more sources is allowed.
 - d. **Type D.** Type A material or crushed concrete. Crushed concrete containing gravel will be considered Type D material. Crushed concrete must meet the requirements in Section 247.2.A.3.b, "Recycled Material (Including Crushed Concrete) Requirements," and be managed in a way to provide for uniform quality. The Engineer may require separate dedicated stockpiles in order to verify compliance.
 - e. **Type E.** As shown on the plans.
3. **RECYCLED MATERIAL.** Recycled asphalt pavement (RAP) and other recycled materials may be used when shown on the plans. Request approval to blend 2 or more sources of recycled materials.
- a. **Limits on Percentage.** When RAP is allowed, do not exceed 20% RAP by weight unless otherwise shown on the plans. The percentage limitations for other recycled materials will be as shown on the plans.
 - b. **Recycled Material (Including Crushed Concrete) Requirements.**
CONTRACTOR FURNISHED RECYCLED MATERIALS. When the Contractor furnishes the recycled materials, including crushed concrete, the final product will be subject to the requirements of Table 1 for the grade specified. Certify compliance with DMS-11000, "Evaluating and Using Nonhazardous Recyclable Materials Guidelines," for Contractor furnished recycled materials. In addition, recycled materials must be free from reinforcing steel and other objectionable material and have at most 1.5% deleterious material when tested in accordance with Tex-413-A. For RAP, do not exceed a maximum percent loss from decantation of 5.0% when tested in accordance with Tex-406-A. Test RAP without removing the asphalt.
- (1) DEPARTMENT FURNISHED REQUIRED RECYCLED MATERIALS.** When the Department furnishes and requires the use of recycled materials, unless otherwise shown on the plans:
- Department required recycled material will not be subject to the requirements in Table 1,
 - Contractor furnished materials are subject to the requirements in Table 1 and this Item,
 - the final product, blended, will be subject to the requirements in Table 1, and
 - For final product, unblended (100% Department furnished required recycled material), the liquid limit, plasticity index, wet ball mill, classification, and compressive strength is waived. Crush Department-furnished RAP so that 100% passes the 2 in. sieve. The Contractor is responsible for uniformly blending to meet the percentage required.

(2) DEPARTMENT FURNISHED AND ALLOWED RECYCLED MATERIALS.

When the Department furnishes and allows the use of recycled materials or allows the Contractor to furnish recycled materials, the final blended product is subject to the requirements of Table 1 and the plans.

- c. Recycled Material Sources.** Department-owned recycled material is available to the Contractor only when shown on the plans. Return unused Department-owned recycled materials to the Department stockpile location designated by the Engineer unless otherwise shown on the plans.

The use of Contractor-owned recycled materials is allowed when shown on the plans. Contractor-owned surplus recycled materials remain the property of the Contractor. Remove Contractor-owned recycled materials from the project and dispose of them in accordance with federal, state, and local regulations before project acceptance. Do not intermingle Contractor-owned recycled material with Department-owned recycled material unless approved by the Engineer.

B. WATER. Furnish water free of industrial wastes and other objectionable matter.

C. MATERIAL SOURCES. When non-commercial sources are used, expose the vertical faces of all strata of material proposed for use. Secure and process the material by successive vertical cuts extending through all exposed strata, when directed.

3. EQUIPMENT

Provide machinery, tools, and equipment necessary for proper execution of the work. Provide rollers in accordance with Item 210, "Rolling." Provide proof rollers in accordance with Item 216, "Proof Rolling," when required.

4. CONSTRUCTION

Construct each layer uniformly, free of loose or segregated areas, and with the required density and moisture content. Provide a smooth surface that conforms to the typical sections, lines, and grades shown on the plans or as directed.

Stockpile base material temporarily at an approved location before delivery to the roadway. Build stockpiles in layers no greater than 2 ft. thick. Stockpiles must have a total height between 10 and 16 ft. unless otherwise shown on the plans. After construction and acceptance of the stockpile, loading from the stockpile for delivery is allowed. Load by making successive vertical cuts through the entire depth of the stockpile.

Do not add or remove material from temporary stockpiles that require sampling and testing before delivery unless otherwise approved. Charges for additional sampling and testing required as a result of adding or removing material will be deducted from the Contractor's estimates.

Haul approved flexible base in clean trucks. Deliver the required quantity to each 100-ft. station or designated stockpile site as shown on the plans. Prepare stockpile sites as directed. When delivery is to the 100-ft. station, manipulate in accordance with the applicable Items.

A. PREPARATION OF SUBGRADE OR EXISTING BASE. Remove or scarify existing asphalt concrete pavement in accordance with Item 105, "Removing Stabilized Base and Asphalt Pavement," when shown on the plans or as directed. Shape the subgrade or existing base to conform to the typical sections shown on the plans or as directed.

When new base is required to be mixed with existing base, deliver, place, and spread the new flexible base in the required amount per station. Manipulate and thoroughly mix the new base with existing material to provide a uniform mixture to the specified depth before shaping.

When shown on the plans or directed, proof roll the roadbed in accordance with Item 216, "Proof Rolling," before pulverizing or scarifying. Correct soft spots as directed.

- B. PLACING.** Spread and shape flexible base into a uniform layer with an approved spreader the same day as delivered unless otherwise approved. Construct layers to the thickness shown on the plans. Maintain the shape of the course. Control dust by sprinkling, as directed. Correct or replace segregated areas as directed at no additional expense to the Department. Place successive base courses and finish courses using the same construction methods required for the first course.
- C. COMPACTION.** Compact using density control unless otherwise shown on the plans. Multiple lifts are permitted when shown on the plans or approved. Bring each layer to the moisture content directed. When necessary, sprinkle the material in accordance with Item 204, "Sprinkling."

Begin rolling longitudinally at the sides and proceed towards the center, overlapping on successive trips by at least 1/2 the width of the roller unit. On super elevated curves, begin rolling at the low side and progress toward the high side. Offset alternate trips of the roller. Operate rollers at a speed between 2 and 6 mph as directed.

Rework, recompact, and refinish material that fails to meet or that loses required moisture, density, stability, or finish before the next course is placed or the project is accepted. Continue work until specification requirements are met. Perform the work at no additional expense to the Department.

- 1. Ordinary Compaction.** Roll with approved compaction equipment as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding, or removing approved material as required, reshaping, and recompacting.
 - 2. Density Control.** Compact to at least 100% of the maximum density determined by Tex-113-E unless otherwise shown on the plans. Determine the moisture content of the material at the beginning and during compaction in accordance with Tex-103-E. The Engineer will determine roadway density of completed sections in accordance with Tex-115-E. The Engineer may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no more than 3 pcf below the specified density.
- D. FINISHING.** After completing compaction, clip, skin, or tight blade the surface with a maintainer or subgrade trimmer to a depth of approximately 1/4 in. Remove loosened material and dispose of it at an approved location. Seal the clipped surface immediately by rolling with a pneumatic tire roller until a smooth surface is attained. Add small increments of water as needed during rolling. Shape and maintain the course and surface in conformity with the typical sections, lines, and grades as shown on the plans or as directed. In areas where surfacing is to be placed, correct grade deviations greater than 1/4 in. in 16 ft. measured longitudinally or greater than 1/4 in. over the entire width of the cross-section. Correct by loosening, adding, or removing material. Reshape and recompact in accordance with Section 247.4.C, "Compaction."

- E. **CURING.** Cure the finished section until the moisture content is at least 2 percentage points below optimum or as directed before applying the next successive course or prime coat.

5. MEASUREMENT

Flexible base will be measured as follows:

- **Flexible Base (Complete In Place).** The ton, square yard, or any cubic yard method.
- **Flexible Base (Roadway Delivery).** The ton or cubic yard in vehicle.
- **Flexible Base (Stockpile Delivery).** The ton, cubic yard in vehicle, or cubic yard in stockpile.

Measurement by the cubic yard in final position and square yard is a plans quantity measurement. The quantity to be paid for is the quantity shown in the proposal unless modified by Article 9.2, "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Measurement is further defined for payment as follows.

- A. **CUBIC YARD IN VEHICLE.** By the cubic yard in vehicles of uniform capacity at the point of delivery.
- B. **CUBIC YARD IN STOCKPILE.** By the cubic yard in the final stockpile position by the method of average end areas.
- C. **CUBIC YARD IN FINAL POSITION.** By the cubic yard in the completed and accepted final position. The volume of base course is computed in place by the method of average end areas between the original subgrade or existing base surfaces and the lines, grades, and slopes of the accepted base course as shown on the plans.
- D. **SQUARE YARD.** By the square yard of surface area in the completed and accepted final position. The surface area of the base course is based on the width of flexible base as shown on the plans.
- E. **TON.** By the ton of dry weight in vehicles as delivered. The dry weight is determined by deducting the weight of the moisture in the material at the time of weighing from the gross weight of the material. The Engineer will determine the moisture content in the material in accordance with Tex-103-E from samples taken at the time of weighing.

When material is measured in trucks, the weight of the material will be determined on certified scales, or the Contractor must provide a set of standard platform truck scales at a location approved by the Engineer. Scales must conform to the requirements of Item 520, "Weighing and Measuring Equipment."

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 the types of work shown below. No additional payment will be made for thickness or width exceeding that shown on the typical section or provided on the plans for cubic yard in the final position or square yard measurement. Sprinkling and rolling, except proof rolling, will not be paid for directly but will be subsidiary to this Item unless otherwise shown on the plans. Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this project, correction of soft spots in the subgrade will be paid in accordance with pertinent Items.

- A. FLEXIBLE BASE (COMPLETE IN PLACE).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. For square yard measurement, a depth will be specified. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, spreading, blading, mixing, shaping, placing, compacting, reworking, finishing, correcting locations where thickness is deficient, curing, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.