

CONSTRUCTION DRAWINGS FOR CITY OF SAN ANGELO

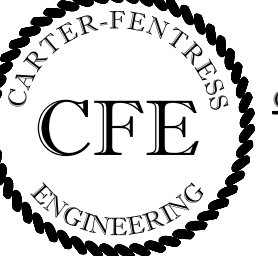
CONCHO RIVER BANK STABILIZATION OCTOBER 2019



LOCATION MAP
NTS

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SHEET 03	GRADING PLAN - LOCATION NO. 1
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SHEET 05	GRADING PLAN - LOCATION NO. 2
SHEET 06	CONSTRUCTION DETAILS

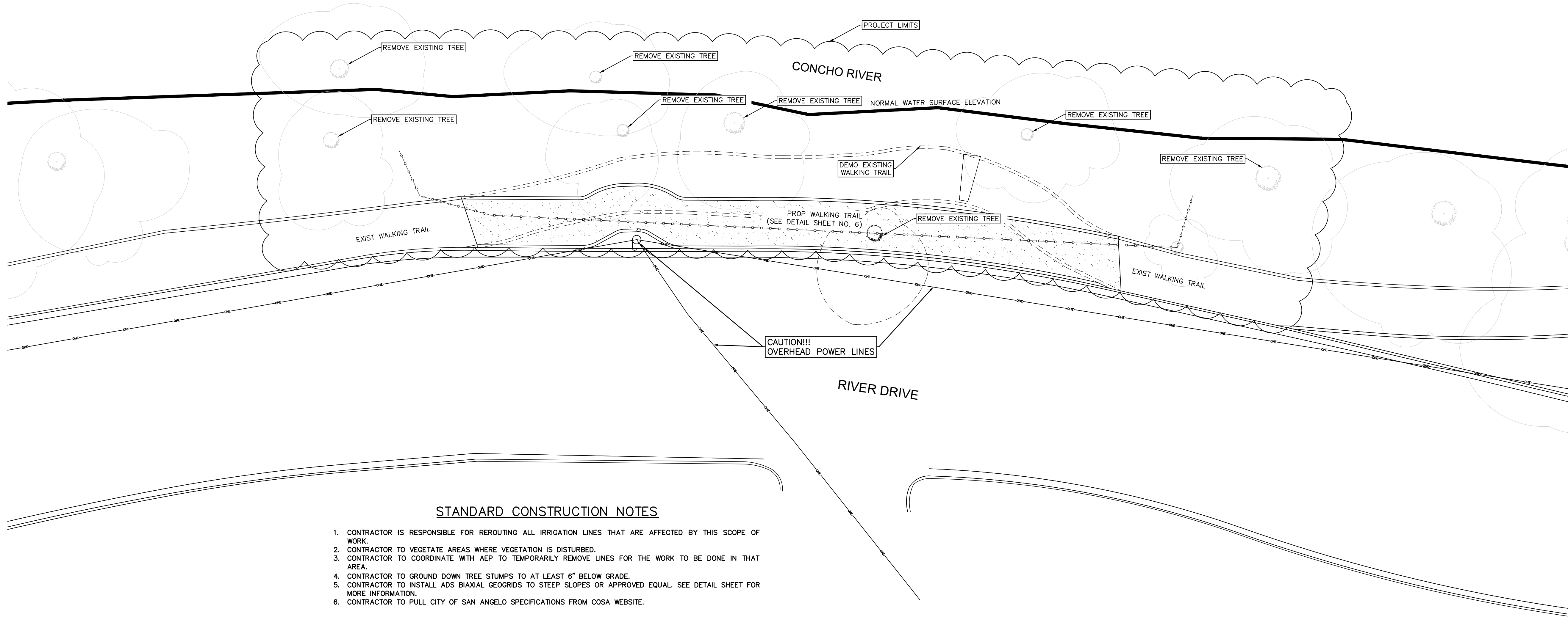
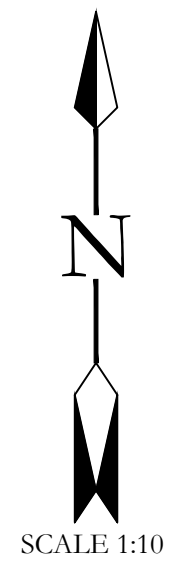
REV.	DATE	BY	APPR.	COMMENT

 CARTER-FENTRESS ENGINEERING MUNICIPAL & DEVELOPMENT SOLUTIONS TEXAS FIRM REGISTRATION NO. 18818 11 EAST TWENTH SAN ANGELO, TEXAS 76903 (325) 215-4332	
CLIENT:	CITY OF SAN ANGELO 52 W. COLLEGE AVE. SAN ANGELO, TEXAS 76903 (325) 657-4239 MR. ALFONSO TORRES

COVER
EMERGENCY CONCHO RIVER BANK STABILIZATION
CITY OF SAN ANGELO TOM GREEN COUNTY, TEXAS

 Erica Carter THE SEAL APPEARING ON THIS DRAWING WAS AUTHORIZED BY ERICA CARTER, P.E. 114215 FENTRESS ENGINEERING #1-18818 OCTOBER 14, 2019

ENGINEER: ERICA CARTER, P.E.
ENG. EMAIL: ECARTER@FENTRESSENG.COM
DESIGNER: EBC
DRAFTER: EBC
PROJECT NO.: 1093
SHEET: 1 OF 6



STANDARD CONSTRUCTION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR REROUTING ALL IRRIGATION LINES THAT ARE AFFECTED BY THIS SCOPE OF WORK.
2. CONTRACTOR TO VEGETATE AREAS WHERE VEGETATION IS DISTURBED.
3. CONTRACTOR TO COORDINATE WITH AEP TO TEMPORARILY REMOVE LINES FOR THE WORK TO BE DONE IN THAT AREA.
4. CONTRACTOR TO GROUND DOWN TREE STUMPS TO AT LEAST 6" BELOW GRADE.
5. CONTRACTOR TO INSTALL ADS BIAXIAL GEOGRIDS TO STEEP SLOPES OR APPROVED EQUAL. SEE DETAIL SHEET FOR MORE INFORMATION.
6. CONTRACTOR TO PULL CITY OF SAN ANGELO SPECIFICATIONS FROM COSA WEBSITE.

REV.	DATE	BY	APPR.	COMMENT

CARTER-FENTRESS ENGINEERING
MUNICIPAL & DEVELOPMENT SOLUTIONS
TEXAS FIRM REGISTRATION NO. 18818
111 EAST TWENTH
SAN ANGELO, TEXAS 76903
(325) 215-4332

CLIENT: CITY OF SAN ANGELO
52 W. COLLEGE AVE.
SAN ANGELO, TEXAS 76903
(325) 657-4239
MR. ALFONSO TORRES

SITE/DEMO PLAN
LOCATION NO. 1

EMERGENCY CONCHO RIVER
BANK STABILIZATION

CITY OF SAN ANGELO
TOM GREEN COUNTY, TEXAS

ERICA CARTER
114215
LICENSED PROFESSIONAL ENGINEER
Erica Carter
THE SEAL APPEARING ON THIS
DRAWING WAS AUTHORIZED BY
ERICA CARTER, P.E. 114215
FENTRESS ENGINEERING #F-18818
OCTOBER 14, 2019

ENGINEER: ERICA CARTER, P.E.

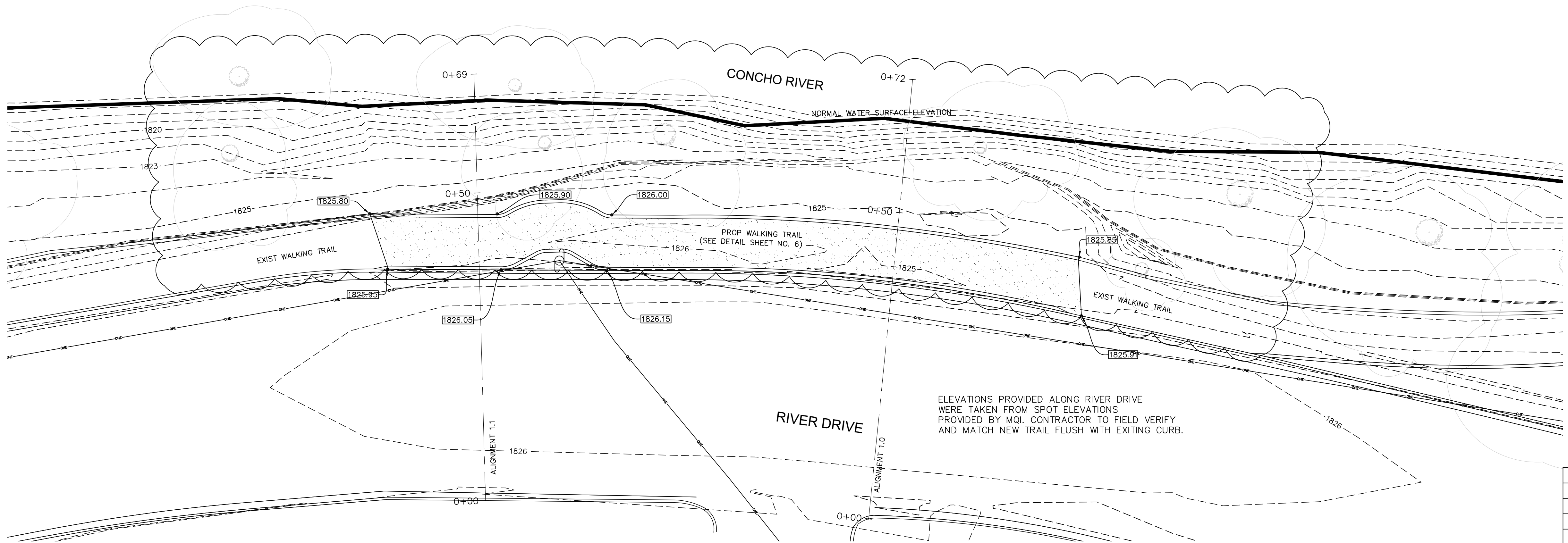
ENG. EMAIL: ECARTER@FENTRESSENG.COM

DESIGNER: EBC

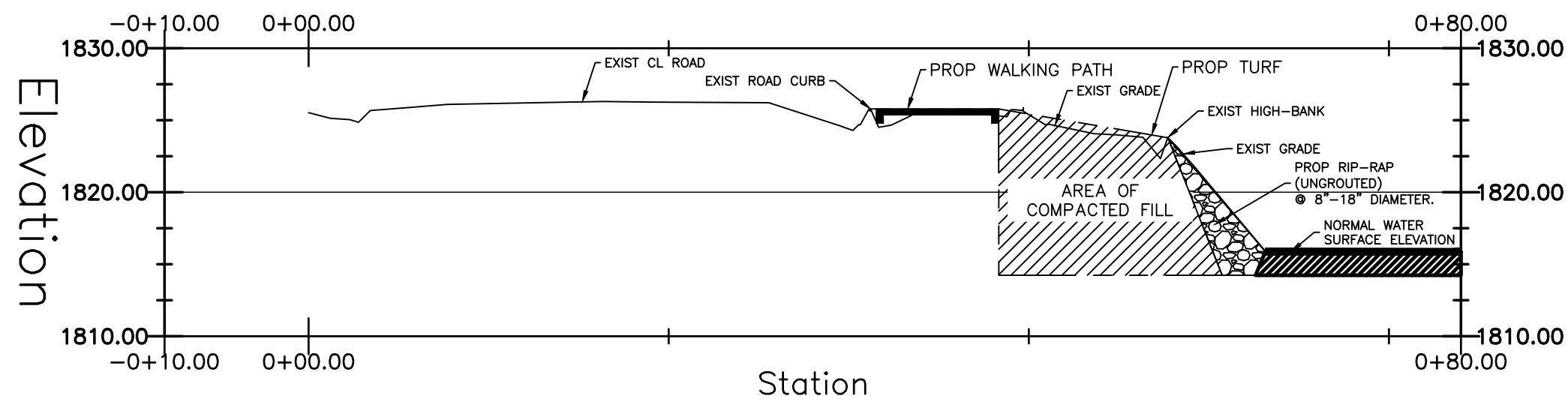
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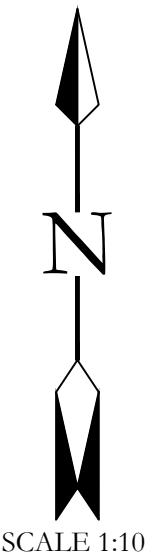
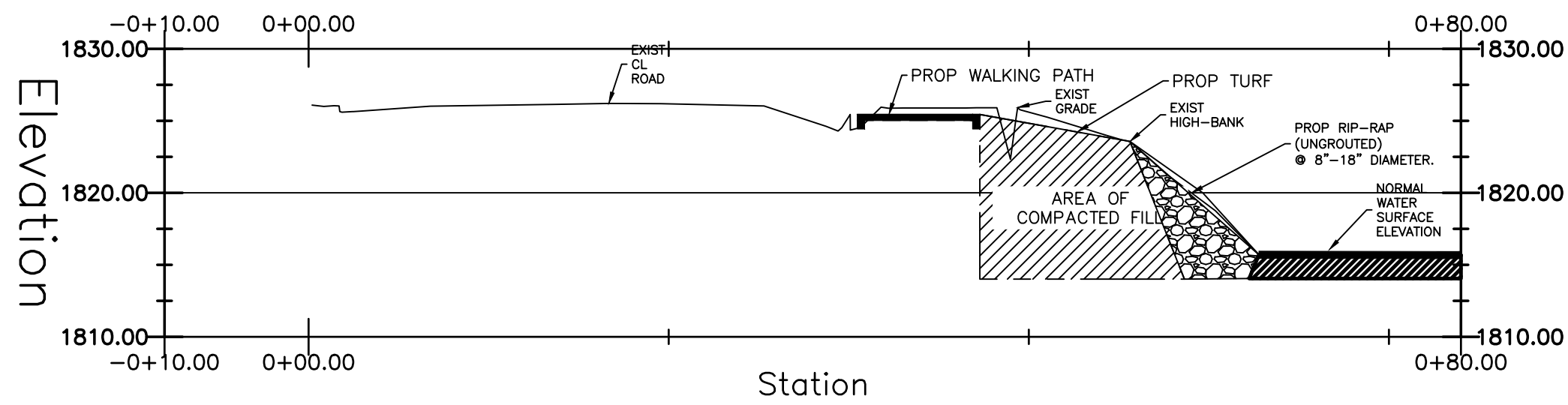
SHEET: 2 OF 6



ALIGNMENT 1.0 PROFILE



ALIGNMENT 1.1 PROFILE



GRADING LEGEND

- 1824--- EXISTING CONTOUR
1825.95 PROPOSED SPOT ELEVATION

REV.	DATE	BY	APPR.	COMMENT

CARTER-FENTRESS ENGINEERING
MUNICIPAL & DEVELOPMENT SOLUTIONS
TEXAS FIRM REGISTRATION NO. 18818
114215
SAN ANGELO, TEXAS 76903
(325) 657-4239

CLIENT: CITY OF SAN ANGELO
52 W. COLLEGE AVE.
SAN ANGELO, TEXAS 76903
(325) 657-4239
MR. ALFONSO TORRES

**GRADING PLAN
LOCATION NO. 1**

EMERGENCY CONCHO RIVER
BANK STABILIZATION

CITY OF SAN ANGELO
TOM GREEN COUNTY, TEXAS

ERICA CARTER
114215
LICENSED PROFESSIONAL ENGINEER
THE SEAL APPEARING ON THIS
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OCTOBER 14, 2019

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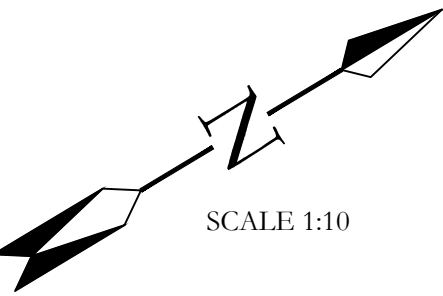
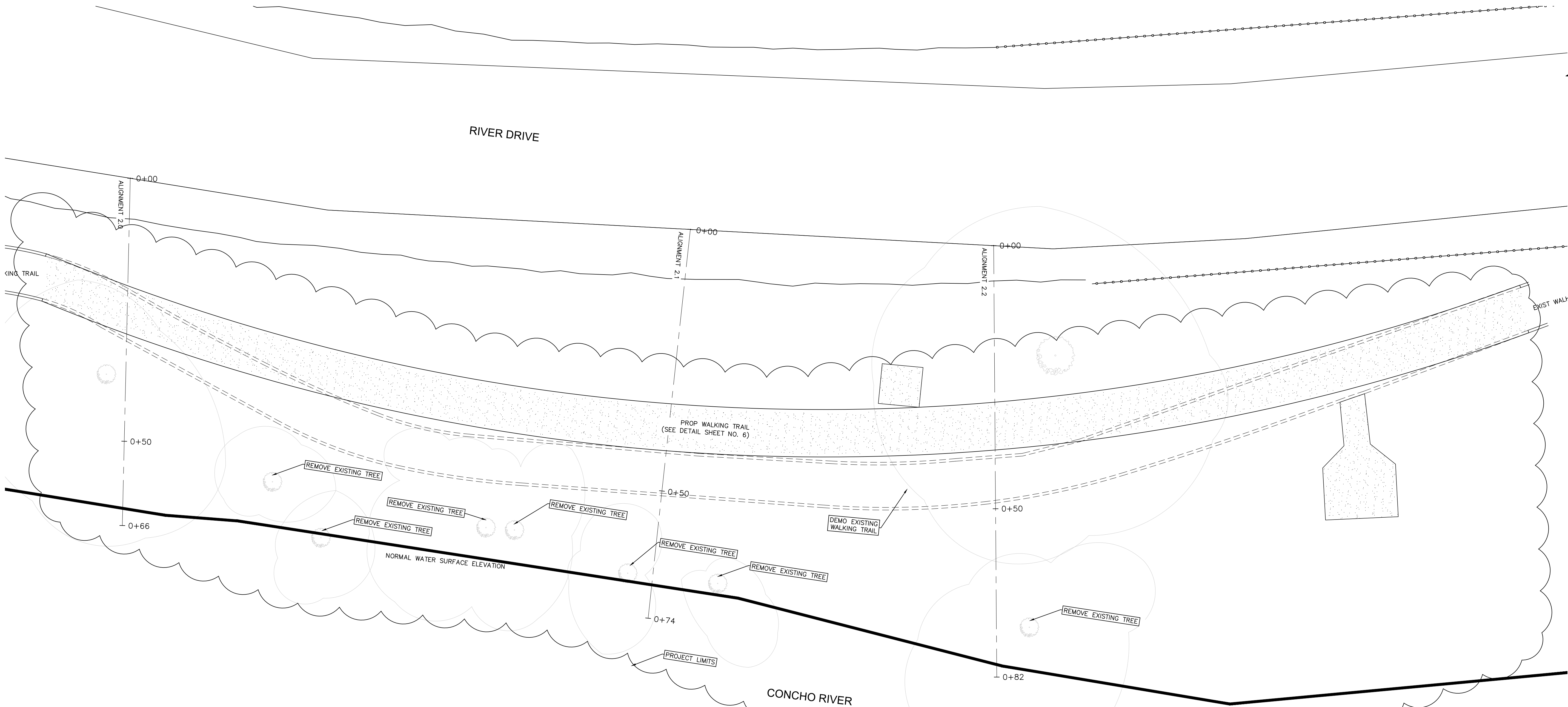
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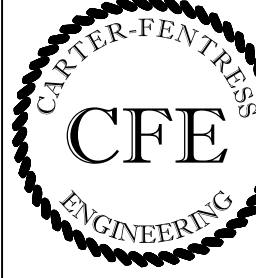
PROJECT NO.: 1093
3 OF 6

SHEET: OF



STANDARD CONSTRUCTION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR REROUTING ALL IRRIGATION LINES THAT ARE AFFECTED BY THIS SCOPE OF WORK.
2. CONTRACTOR TO VEGETATE AREAS WHERE VEGETATION IS DISTURBED.
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4. CONTRACTOR TO INSTALL ADS BIAXIAL GEOGRIDS OR APPROVED EQUAL TO SEEP SLOPES. SEE DETAIL SHEET FOR MORE INFORMATION.
5. CONTRACTOR TO PULL CITY OF SAN ANGELO SPECIFICATIONS FROM THE COSA WEBSITE.

REV.	DATE	BY	APPR.	COMMENT
				
CARTER-FENTRESS ENGINEERING MUNICIPAL & DEVELOPMENT SOLUTIONS TEXAS PROFESSIONAL ENGINEERING NO. 18818 11 EAST TWIGG SAN ANGELO, TEXAS 76903 (325) 255-4332				

CLIENT: CITY OF SAN ANGELO
52 W. COLLEGE AVE.
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(325) 657-4239
MR. ALONSO TORRES

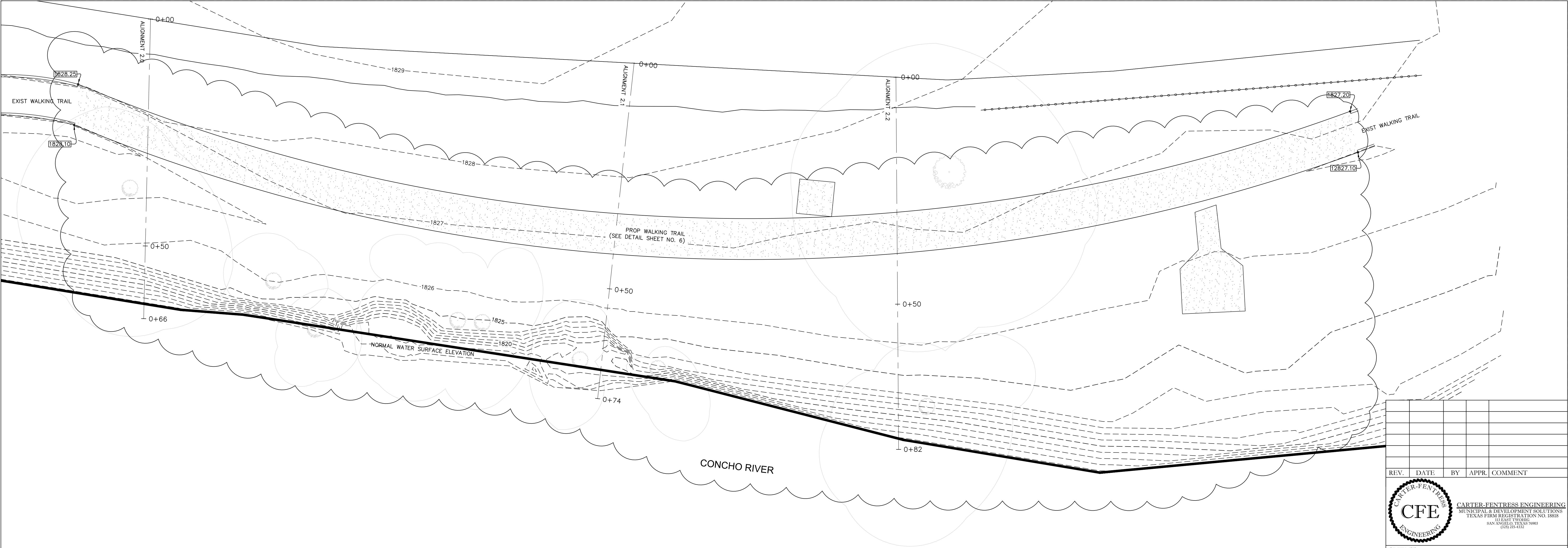
SITE/DEMO PLAN
LOCATION NO. 2

EMERGENCY CONCHO RIVER
BANK STABILIZATION

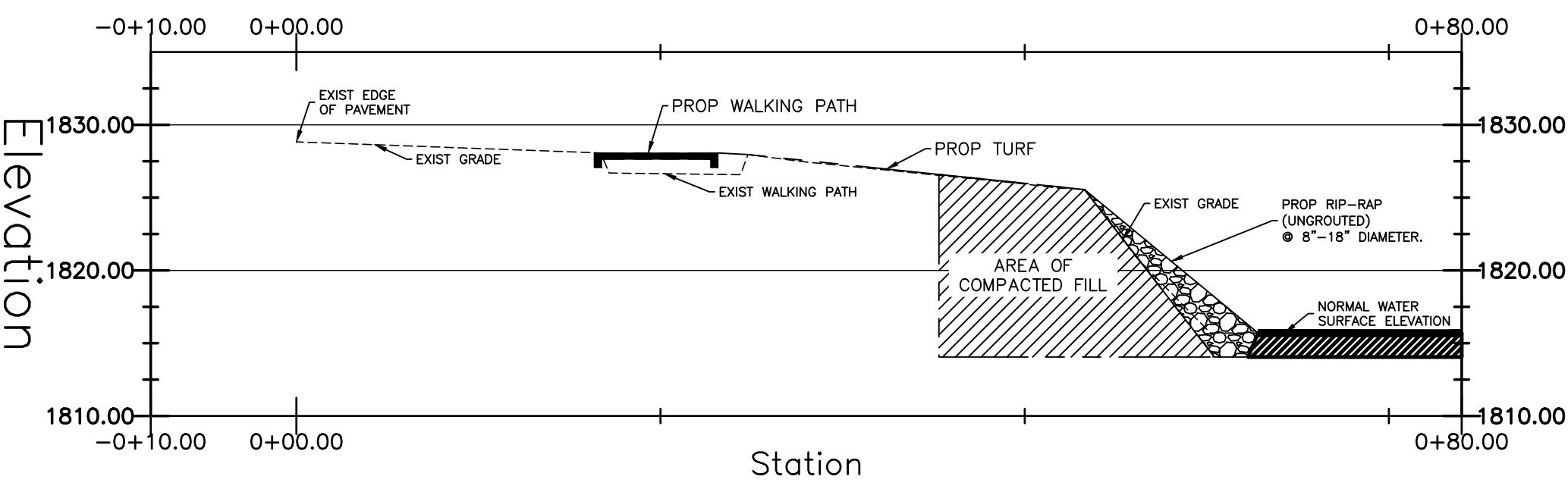
CITY OF SAN ANGELO
TOM GREEN COUNTY, TEXAS


Erica Carter
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OCTOBER 14, 2019

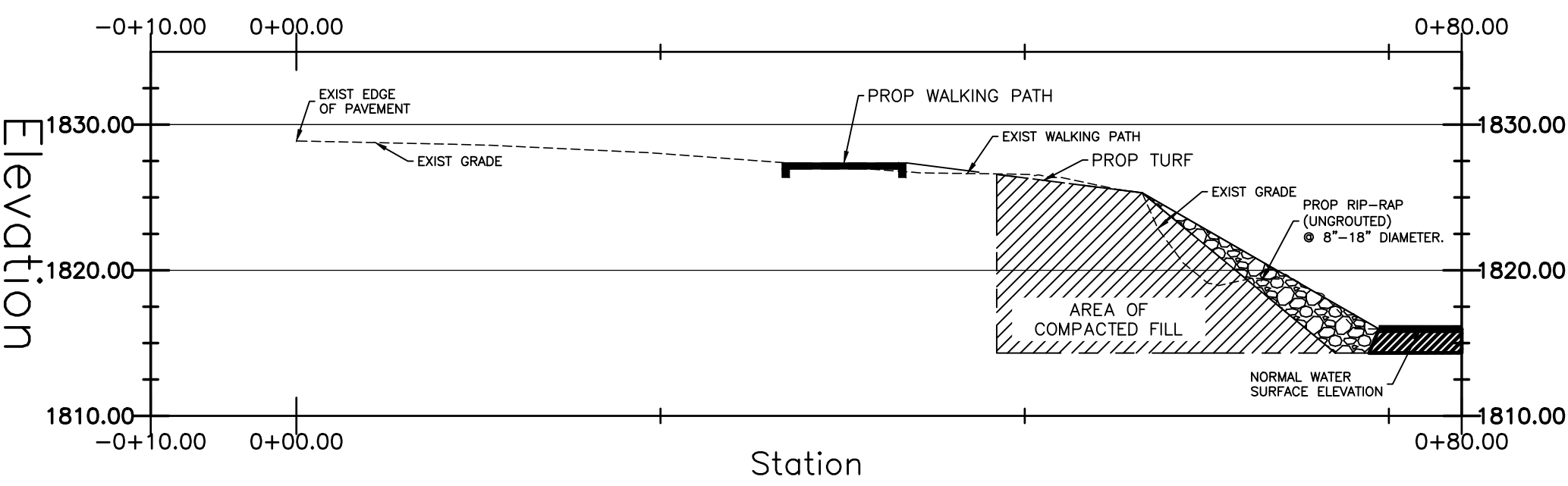
ENGINEER: ERICA CARTER, P.E.
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PROJECT NO.: 1093
SHEET: 4 OF 6



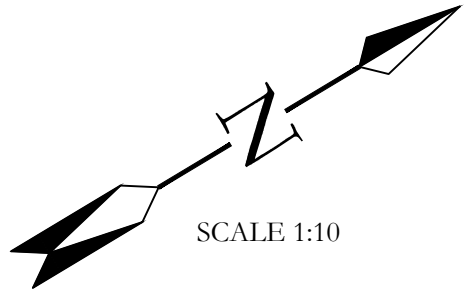
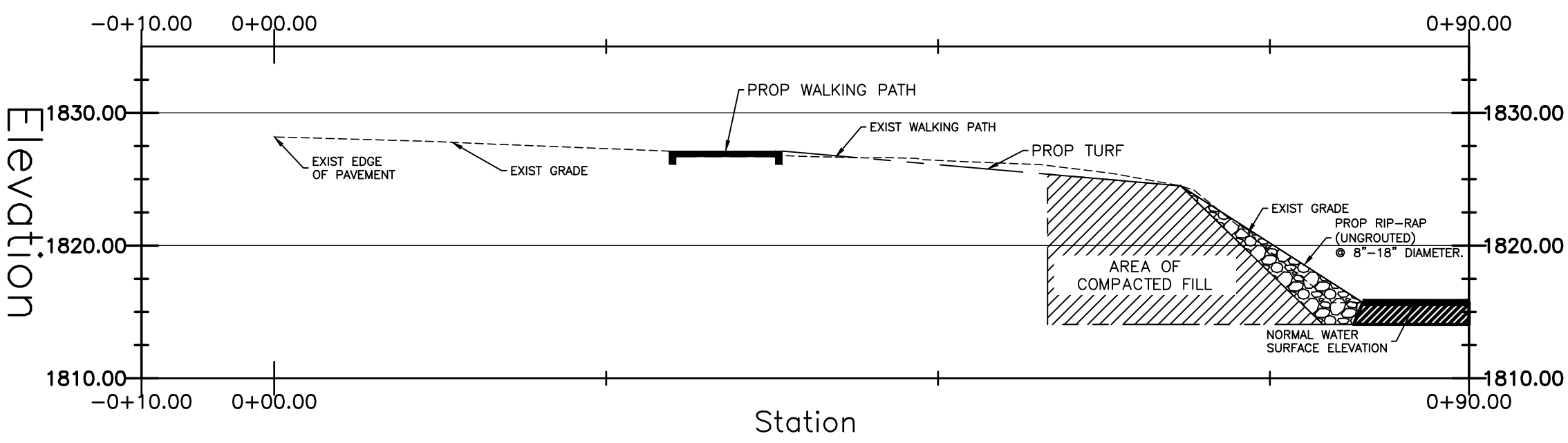
ALIGNMENT 2.0 PROFILE



ALIGNMENT 2.1 PROFILE



ALIGNMENT 2.2 PROFILE



GRADING LEGEND

- 1828--- EXISTING CONTOUR
- 1828.10 PROPOSED SPOT ELEVATION

REV.	DATE	BY	APPR.	COMMENT

Carter-Fentress Engineering
Carter-Fentress Engineering
Municipal & Development Solutions
Texas Firm Registration No. 18818
111 East Twelfth
San Angelo, Texas 76903
(325) 254-4332

CLIENT: CITY OF SAN ANGELO
52 W. COLLEGE AVE.
SAN ANGELO, TEXAS 76903
(325) 657-4239

MR. ALFONSO TORRES

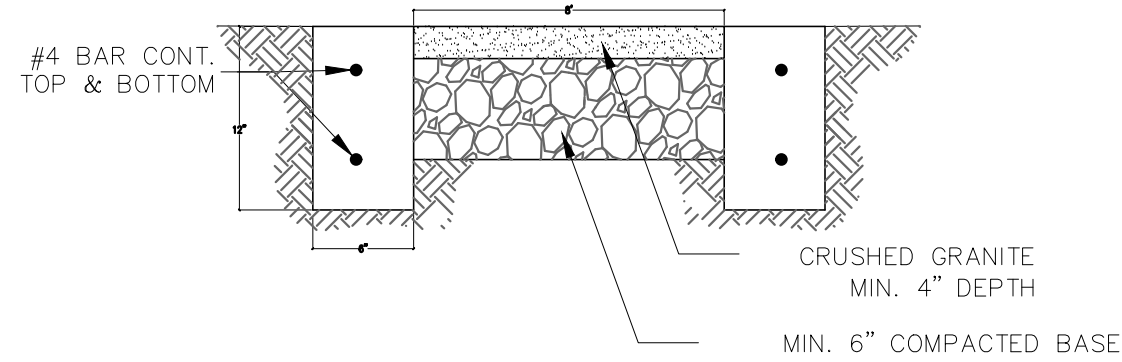
GRADING PLAN
LOCATION NO. 2

EMERGENCY CONCHO RIVER
BANK STABILIZATION

CITY OF SAN ANGELO
TOM GREEN COUNTY, TEXAS

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OCTOBER 14, 2019

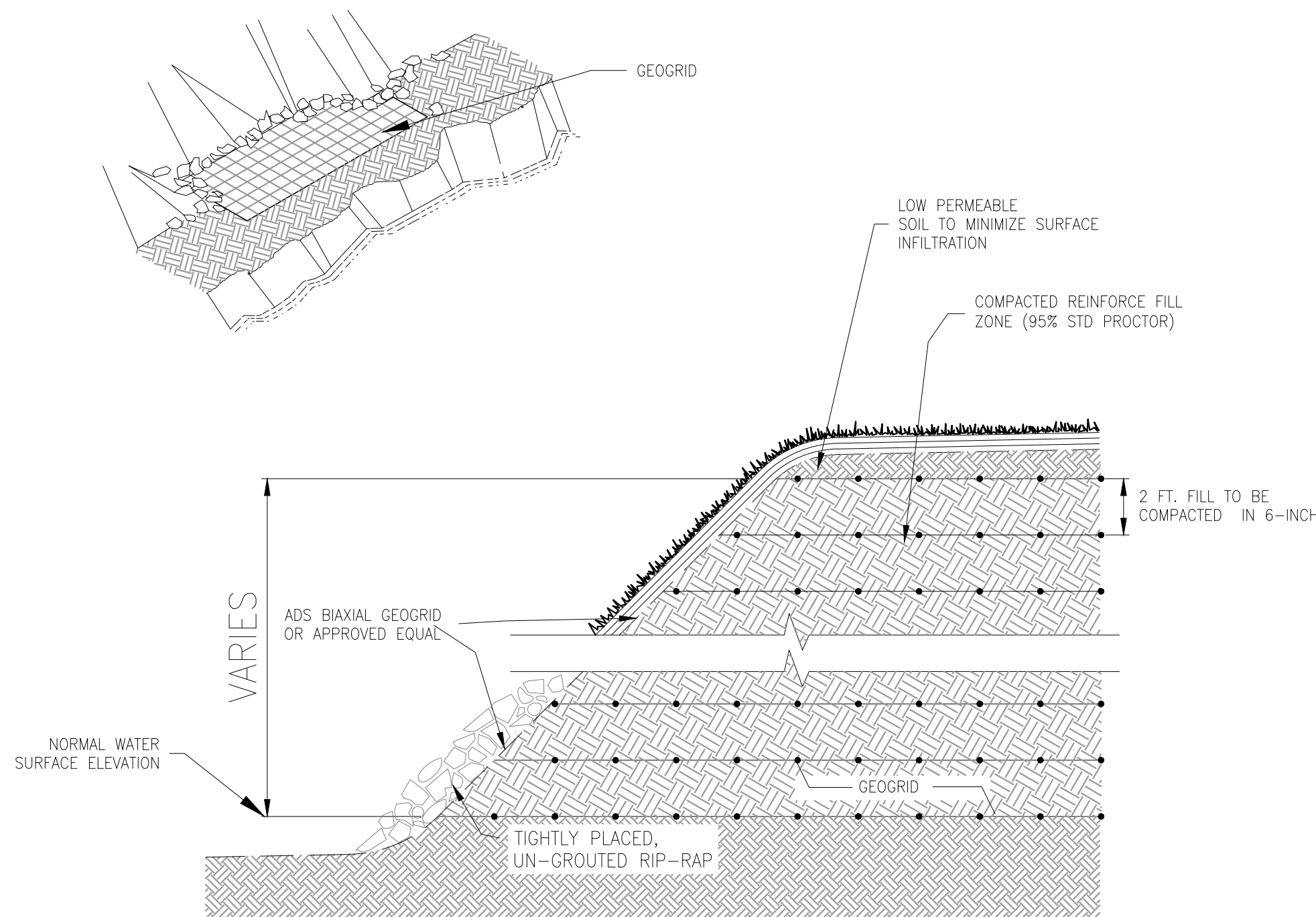
ENGINEER: ERICA CARTER, P.E.
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DESIGNER: EBC
DRAFTER: EBC
PROJECT NO.: 1093
SHEET: 5 OF 6



1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 psi, A SLUMP BETWEEN 4 TO 6 INCHES, AND AN AIR CONTENT BETWEEN 3% AND 6%.
2. EXPANSION JOINTS ARE REQUIRED AT THE BEGINNING AND END OF CURVES, (RADIUS LESS THAN 100') AND ON A SPACING NOT TO EXCEED 50'. PRE-FORMED EXPANSION JOINT MATERIAL SHALL BE USED.
3. DUMMY JOINTS ARE REQUIRED ON 10' CENTERS AND SHALL BE CUT TO A 1" MINIMUM DEPTH.
4. TWO #4 DOWELS 24" LONG TO BE PLACED AT EACH EXPANSION JOINT.

WALKING TRAIL DETAIL

SCALE: NONE



NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. STRUCTURAL GEOGRIDS OFFER A BROAD RANGE OF OPTIONS IN THE CONSTRUCTION OF EARTH RETENTION SYSTEMS. THESE OPTIONS ARE BASED ON THE USE OF GEOGRIDS TO INTERNALLY REINFORCE SOIL, WHICH ALLOWS YOU TO BUILD EARTH STRUCTURES COST EFFECTIVELY AND RELIABLY. NO LONGER LIMITED BY THE NATURAL ANGLE OF REPOSE OF SOILS, LEADING DESIGNERS ARE CREATING STEEPENED, NATURAL SLOPES RATHER THAN CONVENTIONAL CONCRETE RETAINING WALLS. ON SITE FILL CAN BE USED RATHER THAN EXPENSIVE, SELECT GRANULAR BACKFILLS. REINFORCED EARTH RETENTION SYSTEMS LOWER BOTH THE COST AND COMPLEXITY OF CONSTRUCTION. REINFORCED SLOPES HAVE BEEN USED FROM COMMERCIAL DEVELOPMENT AND RESIDENTIAL CONSTRUCTION AS WELL AS FOR CONSTRUCTION OF HIGHWAY ENBANKMENT AND BRIDGE APPROACH RAMPs.

EMBANKMENT REPAIR DETAIL

SCALE: NONE

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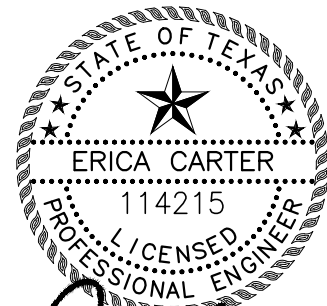
CLIENT:
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MR. ALFONSO TORRES

DETAILS

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BANK STABILIZATION

CITY OF SAN ANGELO
TOM GREEN COUNTY, TEXAS



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SHEET: 6 OF 6