

**LETTER OF TRANSMITTAL**

**DATE:** December 4, 2024

**TO:** All Prospective Bidders

**FROM:** Andy Macias, P.E.

**RE:** St. Joseph Regional Port Authority Sheet Pile Wall – St. Joseph, Missouri  
MoDOT Project # ARPA23PORTSGRANT141  
**Addendum No. 2**

**CONTENT:** The following is Addendum No. 2 for the above reference project. **Please complete the confirmation portion from this addendum and fax it back to our office at (816) 364-6086 or scan and email to [akatakis@snyder-associates.com](mailto:akatakis@snyder-associates.com)** to ensure that you have received the addendum.

**CONFIRMATION OF RECEIPT  
ADDENDUM NO. 2**

This is to confirm that we did receive Addendum No. 2 for the above referenced project on this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

Company: \_\_\_\_\_

By: \_\_\_\_\_

**Addendum No. 2****St. Joseph Regional Port Authority Sheet Pile Wall  
St. Joseph, Missouri**

All Prospective Bidders:

The contract documents are hereby amended in the following particulars only. All other terms and conditions remain unchanged.

**A. SPECIFICATIONS**

1. Replace original Bid Sheets 10 and 11 with revised Bid Sheets 10A and 11A. Alternate wall pricing/S.F. has been added. The owner will evaluate the base bid wall and alternate wall pricing and will choose wall system which achieves the long-term goals of the project.

**B. PLANS**

1. Remove all references to fenders on Plan Sheets C3.0, C3.1, C3.2, C3.3, and C3.4. No Fenders will be required.
2. Sheet pile lift holes may be left in place.
3. Alternate sheet pile wall details are attached. Alternate sheet pile wall with tiebacks will be based on attached details. S.F. pricing to include piling, installation, tiebacks, waler, and other miscellaneous parts as shown in the attached details.
4. Plan Sheet C1.1 Alternate wall pricing/S.F. has been added.

The above interpretations and alterations are hereby made a part of the contract documents and supersede all other addenda or interpretations.

Issued this Forth (4<sup>th</sup>) day of December 2024.

**SNYDER & ASSOCIATES**

Andy Macias, P.E.

**Alternate No. 3**

1	Sheet Pile Wall	SF	7,000	\$_____	\$_____
2	Excavation & Haul Off (River Side)	CY	836	\$_____	\$_____
3	Excavation & Hall Off (Land Side)	CY	686	\$_____	\$_____
4	Type 2 Rock Blanket	SY	783	\$_____	\$_____
5	Geotextile Fabric	SY	783	\$_____	\$_____
6	Erosion Control	LS	1	\$_____	\$_____

**Alternate No. 3 in words and figures:** \_\_\_\_\_  
 \_\_\_\_\_ (\$\_\_\_\_\_)

**Alternate No. 4**

1	Sheet Pile Wall	SF	6,790	\$_____	\$_____
2	Excavation & Haul Off (River Side)	CY	1,537	\$_____	\$_____
3	Excavation & Hall Off (Land Side)	CY	17	\$_____	\$_____
4	Type 2 Rock Blanket	SY	-97	\$_____	\$_____
5	Geotextile Fabric	SY	-97	\$_____	\$_____
6	Erosion Control	LS	1	\$_____	\$_____

**Alternate No. 4 in words and figures:** \_\_\_\_\_  
 \_\_\_\_\_ (\$\_\_\_\_\_)

**Sheet Pile & Associated Work:**

1	10 Horizontal feet of sheet pile and associated work	EA		\$_____
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**SHEET PILE & ASSOCIATED WORK IN WORDS AND FIGURES:** \_\_\_\_\_  
 \_\_\_\_\_ (\$\_\_\_\_\_)

**Alternate Wall & Associated Work:**

1	Alternate Wall (Includes sheet pile, tiebacks, waler & miscellaneous parts	SF		\$_____
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**TOTAL BID (BASE BID) in words and figures:** \_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_)

**TOTAL BID (BASE BID + ALT NO. 1) in words and figures:** \_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_)

**TOTAL BID (BASE BID + ALT NO. 1 + ALT NO. 2) in words and figures:** \_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_)

**TOTAL BID (BASE BID + ALT NO. 1 + ALT NO. 3) in words and figures:** \_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_)

**TOTAL BID (BASE BID + ALT NO. 1 + ALT NO. 3 + ALT NO. 4) in words and figures:** \_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_)

**Alternates will be selected in the numerical order listed. Each alternate may be divided into smaller sections of wall as follows:**

**Based on the owner's budget any alternate may be subdivided in increments of 10 horizontal feet. The bid alternate for each 10 horizontal feet of sheet pile wall shall include the following: Sheet pile wall, furnished and installed as shown on the plans, excavation, rock blanket and geotextile fabric. The unit cost for "10' additional sheet pile wall" shall include those items listed and any subsidiary work to complete each 10' section of sheet pile wall. This will be considered a deduct for any alternate.**

**COMPANY:** \_\_\_\_\_

**SIGNED BY:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**GENERAL NOTES**

COMPLETE WORK IN ACCORDANCE WITH APWA, CITY OF ST. JOSEPH AND OWNERS SPECIFICATIONS.

NOTIFY CITY, ENGINEER AND PROPERTY OWNERS 48 HOURS PRIOR TO CONSTRUCTION.

PROPOSED CONTOURS AND SPOT ELEVATION REPRESENT FINISH GRADE. FINISH GRADE CONSISTS OF TOP OF PAVEMENT, SIDEWALK, OR TOP OF EARTH, DEPENDING ON SITE LOCATION.

CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES UPON THE COMPLETION OF GRADING.

SITE TOPOGRAPHY TAKEN FROM SURVEY COMPLETED BY SNYDER & ASSOCIATES AND MIDLAND SURVEYING. CONTRACTOR TO VERIFY EXISTING CONDITIONS OF THE SITE THAT MAY NOT BE REPRESENTATIVE OF CONSTRUCTION PLANS.

EXISTING UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, STRUCTURE, FENCES, AND/OR INCIDENTALS NOT DESIGNED FOR REMOVAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ANY ADDITIONAL EXCAVATION REQUIRED FOR RE-SHAPING OF ADJACENT AREAS TO PROVIDE FOR DRAINAGE IS CONSIDERED INCIDENTAL.

DO NOT RESTRICT DRAINAGE CHANNELS. PROTECT EXISTING DRAINAGE STRUCTURES UNLESS SPECIFICALLY NOTED OTHERWISE. REPAIR ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY CONTRACTOR'S ACTION OR INACTION IN THE HANDLING OF STORM WATER FLOWS DURING CONSTRUCTION.

PROVIDE EROSION CONTROL MEASURES NECESSARY TO PROTECT AGAINST SILTATION, EROSION, AND DUST POLLUTION ON THE PROJECT. COMPLY WITH THE SOIL EROSION CONTROL REQUIREMENTS OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND LOCAL ORDINANCES.

NOTIFY UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. COORDINATE AND COOPERATE WITH UTILITY COMPANIES TO ALLOW RELOCATIONS DURING THE CONSTRUCTION PERIOD. VERIFY THE ACTUAL LOCATION OF ALL UTILITIES BY EXCAVATING IN ADVANCE OF WORK AT CRITICAL LOCATIONS. PROTECT UTILITIES AND SERVICES DURING CONSTRUCTION.

PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETED.

IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.

ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.

**ADDITIONAL NOTES**

A MISSOURI STATE OPERATING PERMIT FOR STORM WATER DISCHARGE IS REQUIRED IF CONSTRUCTION ACTIVITY DISTURBS ONE ACRE OR MORE IN ACCORDANCE WITH THE MISSOURI DEPARTMENT OF NATURAL RESOURCES' REGULATION (10 CSR 20-6.200). COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED IN THIS INSTANCE. A CONSTRUCTION PERMIT FOR LAND DISTURBANCE WILL BE SECURED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND PROVIDED TO THE CONTRACTOR.

SLOPES ARE TO BE LEFT IN A ROUGHENED CONDITION DURING GRADING.

EROSION CONTROL MEASURES SHALL BE CONSTRUCTED PRIOR TO BEGINNING GRADING OPERATIONS WHERE POSSIBLE. ALL REMAINING EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IMMEDIATELY FOLLOWING GRADING OPERATIONS.

CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY.

ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED IF UNFORESEEN EROSION PROBLEMS ARISE OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED.

**A. EROSION PROTECTION**

1. CODE COMPLIANCE: THE CONTRACTOR SHALL COMPLY WITH SOIL EROSION CONTROL REQUIREMENTS OF THE MISSOURI CODE, THE MISSOURI DEPARTMENT OF NATURAL RESOURCES NPDES PERMIT, AND LOCAL ORDINANCE. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASUREMENTS TO PROTECT AGAINST EROSION AND DUST POLLUTION ON THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.

2. DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER, ARCHITECT AND ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.

3. ALL AREAS DISTURBED BY CONSTRUCTION ON THIS PROJECT WILL BE SUBJECT TO CURRENT REGULATORY REQUIREMENTS AND THESE STANDARDS.

**B. STORM WATER DISCHARGE PERMIT:**

1. THIS PROJECT REQUIRES A LAND DISTURBANCE PERMIT FROM THE CITY OF ST. JOSEPH. THE OWNER SHALL OBTAIN THE PERMIT. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE AND FULFILLING ALL REQUIREMENTS OF THE PERMIT INCLUDING THE STORM WATER POLLUTION PREVENTION PLAN.

2. ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO THE JURISDICTION UPON REQUEST WHICH INCLUDE THE NOTICE OF INTENT, PROOF OF PUBLICATION, POLLUTION PREVENTION PLAN, PROJECT INSPECTION DIARY, AND OTHER ITEMS. FAILURE TO COMPLY WITH THE DISCHARGE REQUIREMENTS IS IN VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF MISSOURI.

3. UPON FINAL STABILIZATION OF THE DISTURBED AREA, A "NOTICE OF DISCONTINUATION" MUST BE FILED BY THE OWNER WITH THE JURISDICTION. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN RECORD COPY AND PROVIDE ORIGINAL DOCUMENTS TO THE OWNER UPON ISSUANCE OF THE NOTICE OF DISCONTINUATION.

**POLLUTION PREVENTION PLAN:**

1. SITE DESCRIPTION: THIS PROJECT IS FOR THE CONSTRUCTION OF ROUGH GRADING FOR COMMERCIAL DEVELOPMENT. THE ENTIRE PROJECT COVERS APPROXIMATELY 0.23 ACRES. THE ESTIMATED AVERAGE RUNOFF COEFFICIENT WILL BE 0.75 RUNOFF FROM THIS PROJECT SITE AND WILL BE ROUTED THROUGH THE EXISTING CITY STORM SEWER.

2. POTENTIAL SOURCES OF POLLUTION FOR THIS PROJECT RELATE TO SILTS, SEDIMENT, AND OTHER MATERIALS WHICH MAY BE TRANSPORTED FROM THE CONSTRUCTION SITE AS THE RESULT OF A STORM EVENT.

3. RESPONSIBILITY: THIS POLLUTION PREVENTION PLAN ILLUSTRATES GENERAL MEASURES TO BE TAKEN FOR COMPLIANCE WITH THE PERMIT. ALL MITIGATION MEASURES REQUIRED, AS A RESULT OF ACTIVITIES, ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL ACTIONS NECESSARY FOR INSTALLATION OF CONTROL MEASURES FOR COMPLIANCE WITH PERMIT REQUIREMENTS.

4. CONTROLS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND FULFILLING ALL THE REQUIREMENTS OF THE GENERAL PERMIT INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

- A. THE CONTRACTOR SHALL PROTECT ADJOINING PROPERTY INCLUDING PUBLIC UTILITIES, SANITARY AND STORM DRAINAGE SYSTEMS, AND STREETS FROM ANY DAMAGE RESULTING FROM MOVEMENT OF EARTH OR OTHER DEBRIS FROM PROJECT SITE. REPAIR ANY DAMAGE IMMEDIATELY AT NO ADDITIONAL COST.
- B. THE CONTRACTOR SHALL PREVENT ACCUMULATION OF EARTH, SILTATION, OR DEBRIS ON ADJOINING PUBLIC OR PRIVATE PROPERTY FROM PROJECT SITE. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR PREVENTION.
- C. PRIOR TO SITE CLEARING AND GRADING OPERATIONS, CONTRACTOR SHALL INSTALL SILT FENCE ALONG THE PERIMETER OF THE PROJECT DOWNSTREAM OF DISTURBING ACTIVITIES AS REQUIRED AND AS SHOWN ON THE PLANS.
- D. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION.

**EROSION CONTROL & POLLUTION PREVENTION PLAN - GENERAL NOTES**

- 1. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS.
- 2. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT.
- 3. THE SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:
  - A. INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.
  - B. PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.
  - C. MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.
  - D. INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDING OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION.
  - E. PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.
  - F. INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.
  - G. COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, AND CONCRETE WASHOUT FACILITY. BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.
  - K. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

**UTILITY NOTES**

THE EXISTING UTILITIES SHOWN ON THESE PLANS ARE IN THEIR APPROXIMATE LOCATION ONLY, AND ARE BASED ON AVAILABLE INFORMATION FOR THIS SITE. CONTRACTOR TO VERIFY THE EXACT LOCATION OF ALL UTILITIES BY CALLING A UTILITY LOCATOR. CONTRACTOR MAY ALSO NEED TO POTHOLE OR USE OTHER METHODS AS NECESSARY TO LOCATE UTILITIES AND TO DETERMINE EXISTING PIPE SIZES. CONTRACTOR TO FOLLOW ALL LAWS AND REGULATIONS WHEN INSTALLING UNDERGROUND UTILITIES.

**UTILITY WARNING**

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN, [AND ALL OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWINGS] BY VERIFICATION OF THEIR LOCATION IN THE FIELD PRIOR TO THE INITIATION OF THE ACTUAL PORTION OF THEIR WORK.

**SURVEY NOTES**

- 1. BUILDING LINES AND CORNERS ARE FOR USE IN PREPARING CIVIL SITE PLAN DOCUMENTS. BUILDING CORNERS AND BUILDING LINES SHOULD BE SPECIFICALLY VERIFIED, AS NECESSARY, PRIOR TO DESIGN FOR CONSTRUCTION OF ANY PROPOSED EXPANSION OR CONNECTION OF BUILDING COMPONENTS.
- 2. FOR CLARITY PURPOSES, SURVEY SPOT ELEVATIONS ARE NOT SHOWN ON THIS SURVEY, BUT ARE CONTAINED WITHIN THE DIGITAL CADD FILES.
- 3. FOR THE PURPOSE OF THIS SURVEY, STORM SEWER, SANITARY SEWER AND WATER MAIN LINES ARE ASSUMED TO FOLLOW A STRAIGHT LINE FROM STRUCTURE TO STRUCTURE.
- 4. UTILITY SERVICE LINES TO BUILDINGS ARE APPROXIMATE ONLY. AN INTERNAL BUILDING INVESTIGATION, EXCAVATION AND/OR SUBSURFACE LOCATING/DESIGNATING WOULD NEED TO BE PERFORMED TO DETERMINE THE LOCATION OF SERVICES ENTERING THE BUILDING.
- 5. BOUNDARY LINES SHOWN ON THE EXISTING SITE SURVEY ARE TO FACILITATE DESIGN OR CONCEPT NEEDS AND ENABLE CREATION OF SAID CONSTRUCTION DOCUMENTS. THESE LINES DO NOT CONSTITUTE A CERTIFIED BOUNDARY SURVEY AND MISSING MONUMENTS WILL NOT BE SET.

ESTIMATED QUANTITIES - (BASE BID)			
ITEM NO.	DESCRIPTION	UNIT	QTY.
1	MOBILIZATION	LS	1
2	SHEET PILE WALL	SF	14,000
3	EXCAVATION & HAUL OFF (RIVER SIDE)	CY	1,728
4	EXCAVATION & HAUL OFF (LAND SIDE)	CY	703
5	TYPE 2 ROCK BLANKET	SY	631
6	GEOTEXTILE FABRIC	SY	631
7	EROSION CONTROL	LS	1

ESTIMATED QUANTITIES - (ALT-1)			
ITEM NO.	DESCRIPTION	UNIT	QTY.
1	SHEET PILE WALL	SF	4,970
2	EXCAVATION & HAUL OFF (RIVER SIDE)	CY	565
3	EXCAVATION & HAUL OFF (LAND SIDE)	CY	74
4	TYPE 2 ROCK BLANKET	SY	205
5	GEOTEXTILE FABRIC	SY	205
6	EROSION CONTROL	LS	1

ESTIMATED QUANTITIES - (ALT-2)			
ITEM NO.	DESCRIPTION	UNIT	QTY.
1	EXCAVATION & HAUL OFF (LAND SIDE)	CY	1,024
2	TYPE 2 ROCK BLANKET	SY	866
3	GEOTEXTILE FABRIC	SY	866
4	EROSION CONTROL	LS	1

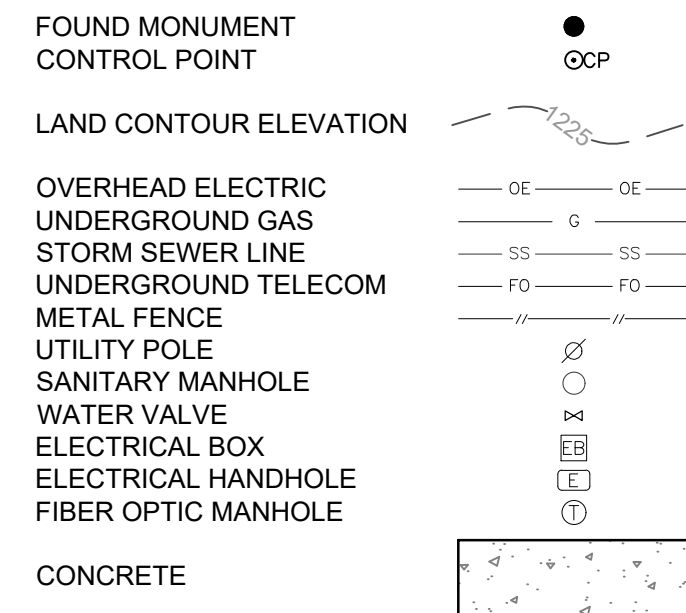
ESTIMATED QUANTITIES - (ALT-3)			
ITEM NO.	DESCRIPTION	UNIT	QTY.
1	SHEET PILE WALL	SF	7,000
2	EXCAVATION & HAUL OFF (RIVER SIDE)	CY	836
3	EXCAVATION & HAUL OFF (LAND SIDE)	CY	686
4	TYPE 2 ROCK BLANKET	SY	783
5	GEOTEXTILE FABRIC	SY	783
6	EROSION CONTROL	LS	1

ESTIMATED QUANTITIES - (ALT-4)			
ITEM NO.	DESCRIPTION	UNIT	QTY.
1	SHEET PILE WALL	SF	6,790
2	EXCAVATION & HAUL OFF (RIVER SIDE)	CY	1,537
3	EXCAVATION & HAUL OFF (LAND SIDE)	CY	17
4	TYPE 2 ROCK BLANKET	SY	-97
5	GEOTEXTILE FABRIC	SY	-97
6	EROSION CONTROL	LS	1

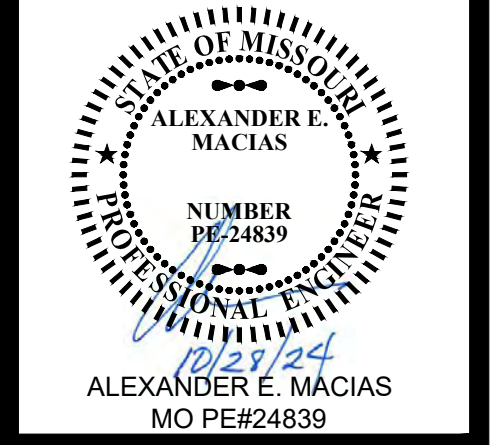
- NOTES:**
- 1) IF ALTERNATE-3 IS CHOSEN, ALTERNATE-2 QUANTITIES AND ASSOCIATED COSTS WILL BE NOT BE INCLUDED.
  - 2) IF ALTERNATE-4 IS CHOSEN, THE EXCAVATION AND ROCK BLANKET WORK BEYOND ALTERNATE-3 SHEET PILE WALL WILL BE DELETED FROM THE RESPECTIVE ALTERNATE-4 QUANTITIES.

ALTERNATE WALL COST INCLUDING TIEBACKS AND WATER COST / SQ FT.

**LEGEND: EXISTING FEATURES**



ADDENDUM 2-GENERAL NOTES UPDATE	12/04/24	BN
ADDENDUM 1-TIEBACK ANCHOR DETAILS	12/04/24	BN
MARK	DATE	BY
REVISION	DATE	BY
Checked By: AEM	Scale: 1" = ##	
Engineer: AEM	Date: 10-28-2024	
Technician: BN	T-R-S: 57N-35W-17	

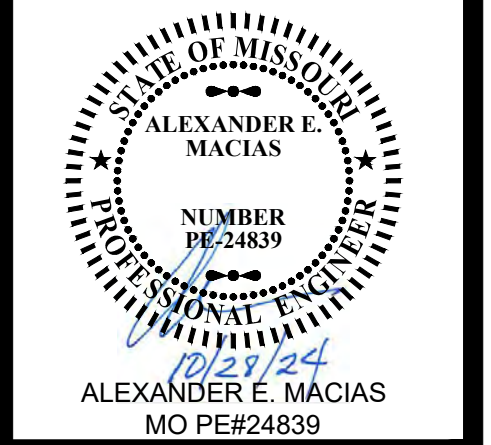


ST. JOSEPH REGIONAL PORT AUTHORITY - SHEET PILE WALL  
 GENERAL NOTES & QUANTITIES  
 ST. JOSEPH, BUCHANAN COUNTY, MO  
**SNYDER & ASSOCIATES**  
 ENGINEERS & PLANNERS, INC.  
 802 FRANCIS STREET  
 ST. JOSEPH, MISSOURI 64501  
 816-364-5222 | www.snyder-associates.com



V:\Projects\2024\124.0711.11\CADD\SSP - 124.0711 - PLAN - Final.dwg BRYAN WICKHOUS - 22:54 EXHIBIT L - 2024/12/04 - 1:20 PM ANS B (11.0 X 17.0 INCHES)

MARK	REVISION	DATE	BY
ADDENDUM 1-TIEBACK ANCHOR DETAILS	12/01/24	BN	
Engineer: AEM	Checked By: AEM	Scale: 1" = 10'	
Technician: BN	Date: 10-28-2024	T-R-S: 57N-39V-17	



**ST. JOSEPH REGIONAL PORT AUTHORITY - SHEET PILE WALL**

**DETAILS**

**ST JOSEPH, BUCHANAN COUNTY, MO**

**SNYDER & ASSOCIATES**  
ENGINEERS & PLANNERS, INC.

802 FRANCIS STREET  
ST. JOSEPH, MISSOURI 64501  
816-364-5222 | www.snyder-associates.com



Project No: 124.0711.11  
Sheet C5.1

### HELICAL PILE GENERAL NOTES

- GENERAL:
1. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS PRIOR TO COMMENCING FABRICATION OR CONSTRUCTION.
  2. ALL OF THE WORK TO BE DONE UNDER THIS CONTRACT SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS, THE GENERAL REQUIREMENTS OF DIVISION ONE, THE GENERAL CONDITIONS, THE SPECIFICATIONS, AND ANY ADDENDA THERETO.
  3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUAINT THEMSELVES AND ALL SUPERVISORY PERSONNEL WITH THE ABOVE-NAMED DRAWINGS AND DOCUMENTS.
  4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE OF THE PROPOSED WORK TO SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS RELATIVE TO THE CONTRACT.
  5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY SHORING/BRACING, AS REQUIRED BY ALL FEDERAL, STATE AND LOCAL AGENCIES HAVING JURISDICTION, UNTIL ALL PERMANENT FRAMING IS INSTALLED.
  6. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. SHOULD ANY UTILITIES BE FOUND, THEY SHALL BE PROTECTED IN PLACE AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
  7. ALL CONSTRUCTION SHALL CONFORM TO INTERNATIONAL BUILDING CODE 2018 UNLESS NOTED OTHERWISE.

DESIGN LOADS:  
LIVE LOAD STAIRS: 40 PSF  
LIVE LOAD PLATFORM: 60 PSF  
SNOW:  
DRIFT PER IBC 2018  
Pg = 20 PSF  
Is = 0.80  
Ce = 0.90  
Ct = 1.20

WIND: BASIC WIND SPEED (3-SECOND GUST) = 105 MPH  
Iw = 1.00  
OCCUPANCY CATEGORY I  
EXPOSURE C

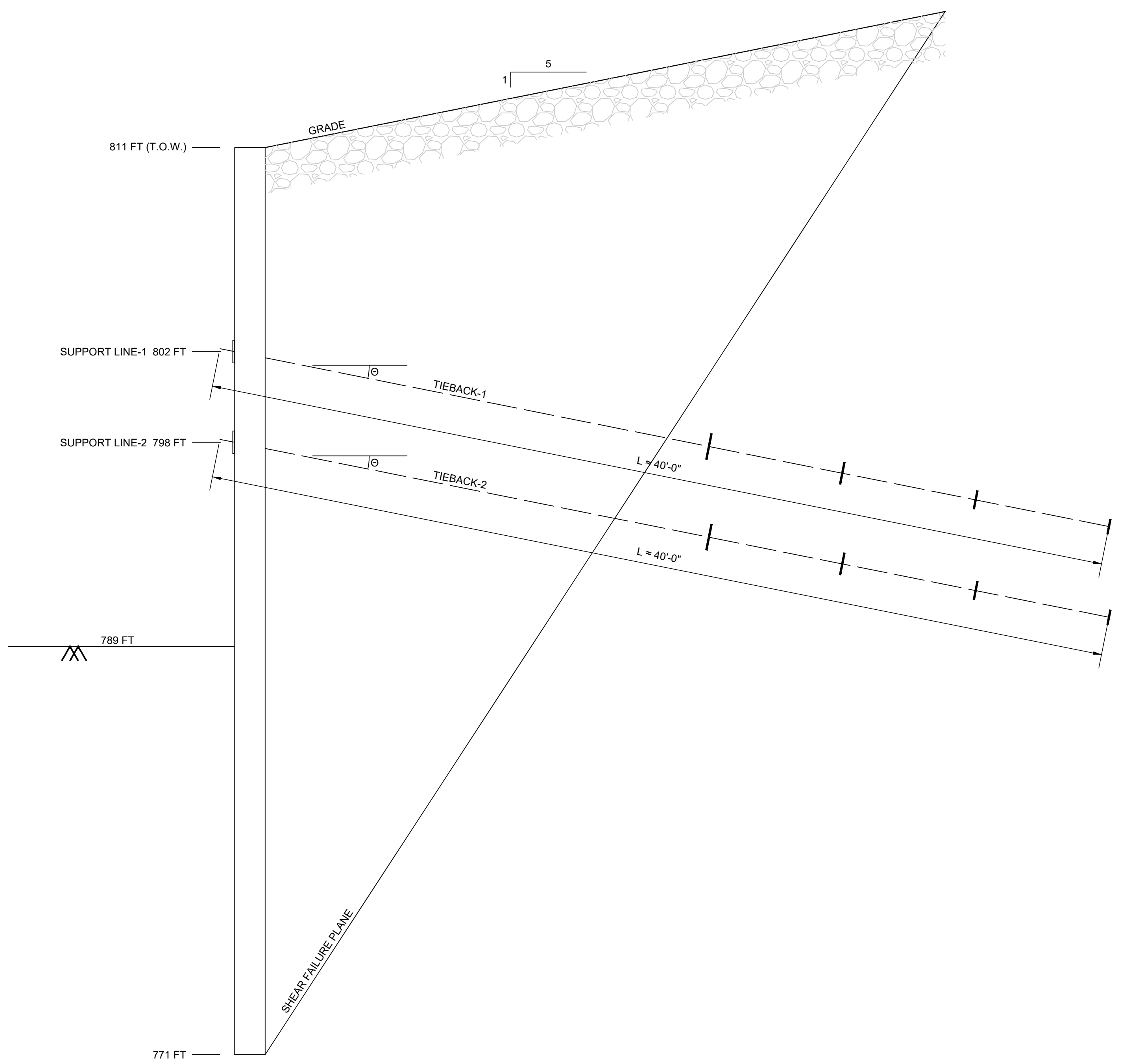
SEISMIC:  
SITE CLASS D  
Ie = 1.00  
OCCUPANCY CATEGORY I  
Ss = 0.329 SMs = 0.506 SDs = 0.337  
S1 = 0.151 SM1 = 0.348 SD1 = 0.232  
SEISMIC DESIGN CATEGORY D

8. IF CONFLICTS ARE FOUND BETWEEN DETAILS OR DIMENSIONS SHOWN ON STRUCTURAL PLANS AND THOSE SHOWN ON OTHER DISCIPLINES' PLANS, NOTIFY ENGINEER IMMEDIATELY FOR CLARIFICATION PRIOR TO PERFORMING WORK.
9. IN ANY CASE OF CONFLICT BETWEEN THE NOTES, DETAILS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
10. DO NOT UNDERMINE EXISTING CRANE PAD FOUNDATIONS.

- PILES:
1. MINIMUM OF TEN TEST PILES REQUIRED TO VERIFY SUFFICIENT LOAD CAPACITY. TEST PILES MAY BE INCORPORATED INTO WORK IF THE CAPACITY MEETS SPECIFICATIONS.
  2. PILES SHALL BE DESIGNED BY A MISSOURI REGISTERED ENGINEER BASED ON THE LOADS PROVIDED ABOVE.
  3. ALL PILE INSTALLATION SHALL BE DONE IN THE PRESENCE OF THE OWNER'S GEOTECHNICAL REPRESENTATIVE ON SITE.
  4. A COMPLETE, ACCURATE LOG OF PILING INSTALLED SHALL BE MAINTAINED AND FURNISHED TO THE CONTRACTOR, OWNER AND ENGINEER. THE LOG SHALL INDICATE THE FOLLOWING:
    - A. PILE LOCATION
    - B. DIAMETER
    - C. LENGTH
    - D. ELEVATION OF TIP AND TOP OF PILE
    - E. QUANTITY OF GROUT (IF USED) IN EACH PILE
    - F. DATE OF INSTALLATION
    - G. TYPE OF PILE
    - H. INSTALLATION DATA VERIFYING LOAD CAPACITY

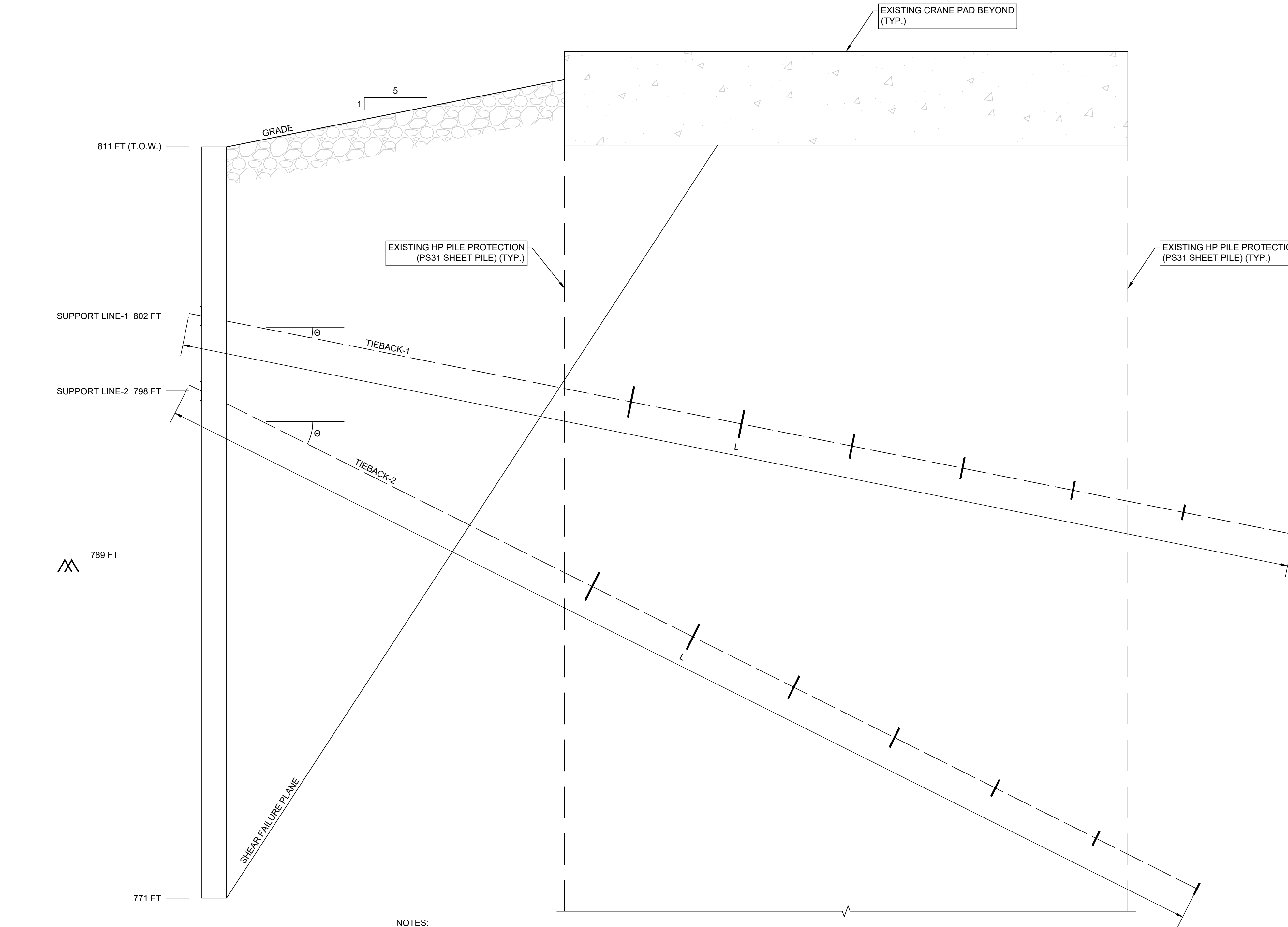
- SPECIAL INSPECTION:
1. SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1704 OF THE 2018 INTERNATIONAL BUILDING CODE, AND ICBO MODEL PROGRAM FOR SPECIAL INSPECTION.
  2. THE OWNER WILL EMPLOY AN APPROVED AGENCY TO PERFORM THE SPECIAL INSPECTION SERVICES.
  3. SPECIAL INSPECTION WILL BE PERFORMED IN ACCORDANCE WITH AND IN ADDITION TO THE INSPECTION AND TESTING REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.
  4. THE FOLLOWING ITEMS ARE INCLUDED IN THE SPECIAL INSPECTION:

SOILS:  
PILES



- NOTES:
1. MINIMUM SHEET SECTION MODULUS = 24 CUBIC INCHES PER FT (PZC 13).
  2. TIEBACK LENGTH AND SIZE SHOWN FOR SCHEMATIC PURPOSES ONLY. MICRO PILE TIE BACK TO BE DESIGNED BY A MISSOURI REGISTERED ENGINEER BASED ON THE LOADS PROVIDED.
  3. TIEBACK LENGTH L, AND ROTATION  $\theta$  TO BE DETERMINED BY MICRO PILE DESIGNER. TIEBACKS BE DESIGNED BASED ON THE LOADS PROVIDED.
  4. SUPPORT LINE 1 TO BE DESIGNED FOR 4.7 KIP/FT.
  5. SUPPORT LINE 2 TO BE DESIGNED FOR 12.2 KIP/FT.
  6. A FACTOR OF SAFETY OF 2.0 SHALL BE APPLIED TO THESE LOADS.
  7. SEE SHEET C5.3 FOR TIEBACK ANCHOR DETAILS.

**TYPICAL HELICAL PILE DETAIL**  
(N.T.S.)



**NOTES:**

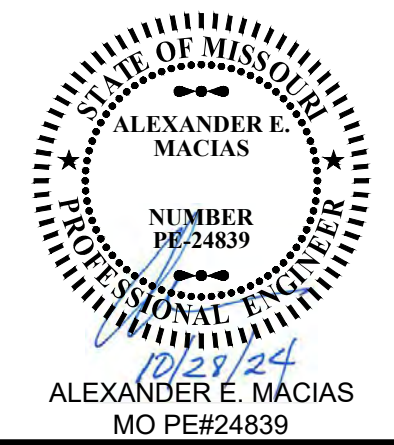
1. SEE SHEET C5.1 FOR HELICAL PILE GENERAL NOTES.
2. MINIMUM SHEET SECTION MODULUS = 24 CUBIC INCHES PER FT (PZC 13).
3. TIEBACK LENGTH AND SIZE SHOWN FOR SCHEMATIC PURPOSES ONLY. MICRO PILE TIE BACK TO BE DESIGNED BY A MISSOURI REGISTERED ENGINEER BASED ON THE LOADS PROVIDED.
4. TIEBACK LENGTH L, ROTATION  $\Theta$  AND ANGLE  $\Phi$  TO BE DETERMINED BY MICRO PILE DESIGNER. TIEBACKS TO BE DESIGNED BASED ON THE LOADS PROVIDED. ENSURE TIEBACKS MISS THE EXISTING CRANE PAD FOUNDATION INCLUDING THE HP PILE SHEET PILE PROTECTION.
5. SUPPORT LINE 1 TO BE DESIGNED FOR 4.7 KIP/FT.
6. SUPPORT LINE 2 TO BE DESIGNED FOR 12.2 KIP/FT.
7. A FACTOR OF SAFETY OF 2.0 SHALL BE APPLIED TO THESE LOADS.
8. SEE SHEET C5.3 FOR TIEBACK ANCHOR DETAILS.

**HELICAL PILES NEAR EXISTING CRANE PADS DETAIL**

(N.T.S.)

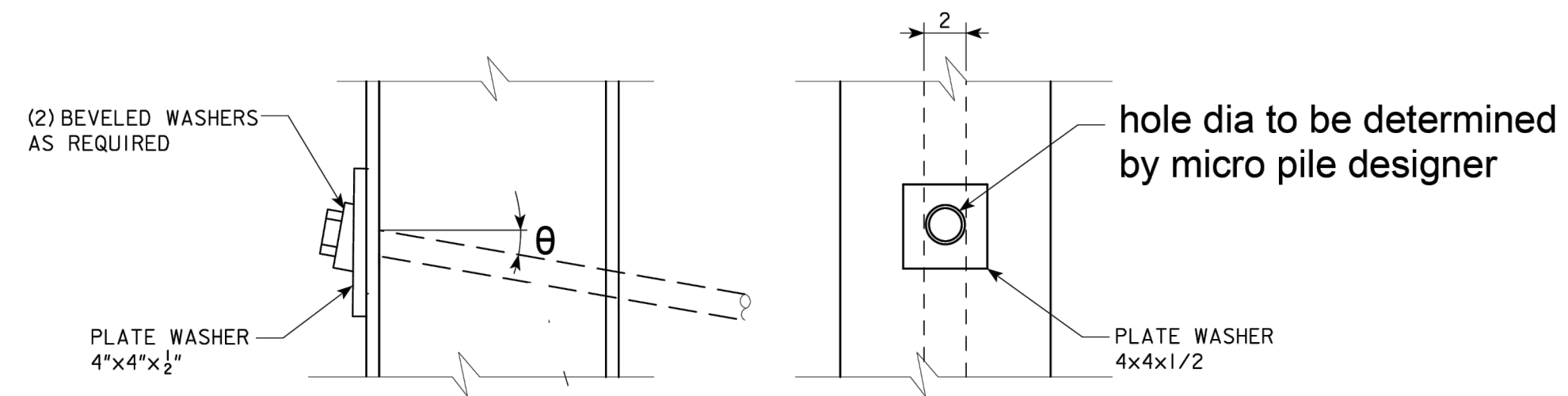
MARK	REVISION	DATE	BY
A	ADDENDUM 1-TIEBACK ANCHOR DETAILS	12/01/24	BN
Engineer: AEM	Checked By: AEM	Date: 10-28-2024	Scale: 1" = 10'
Technician: BN			T-R-S: 57N-39W-17

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Missouri State Certificate of Authority #200608544



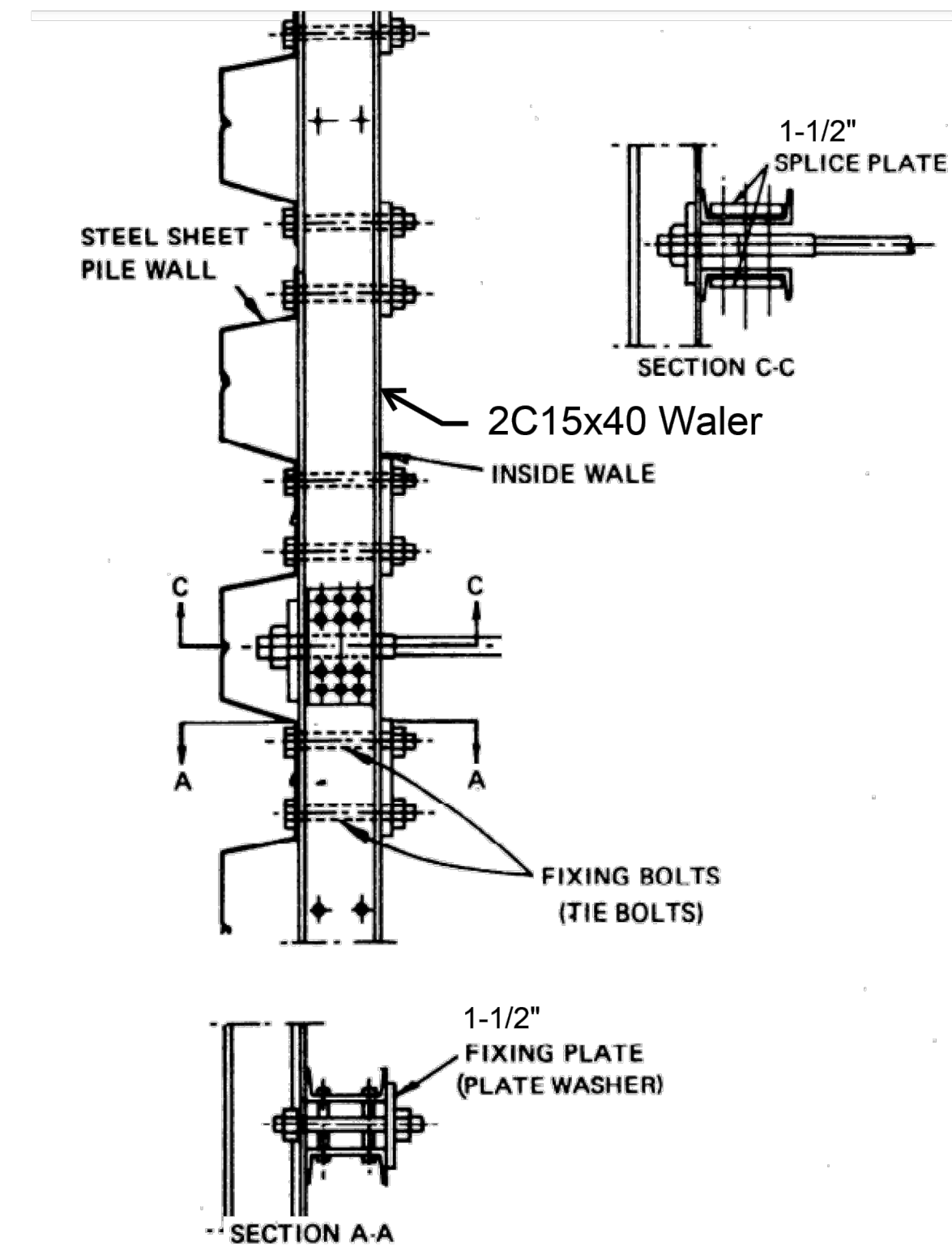
ST. JOSEPH REGIONAL PORT AUTHORITY - SHEET PILE WALL  
**DETAILS**  
 ST JOSEPH, BUCHANAN COUNTY, MO  
**SNYDER & ASSOCIATES**  
 ENGINEERS & PLANNERS, INC.  
 802 FRANCIS STREET  
 ST. JOSEPH, MISSOURI 64501  
 816-364-5222 | www.snyder-associates.com





Direct TIE BACK ANCHOR CONNECTION DETAIL

Direct tieback anchor connection detail to be used if anchor spacing is 2ft or less.  
 Waler tie back anchor connection detail to be used if anchor spacing is between 10ft and 2ft.

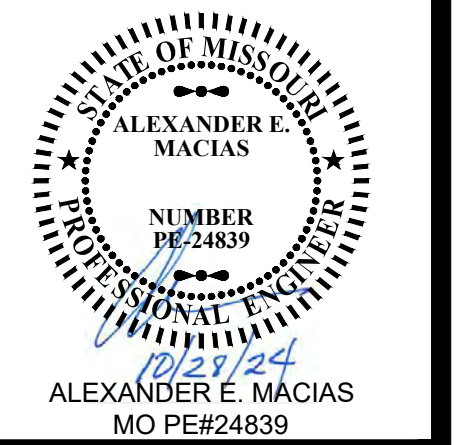


Waler tieback anchor connection detail

TIEBACK ANCHOR DETAILS  
 (N.T.S.)

MARK	REVISION	DATE	BY
ADDENDUM 1-TIEBACK ANCHOR DETAILS		12/01/24	BN
Engineer: AEM	Checked By: AEM	Scale: 1" = ##'	
Technician: BN	Date: 10-28-2024	T-R-S: 57N-35W-17	

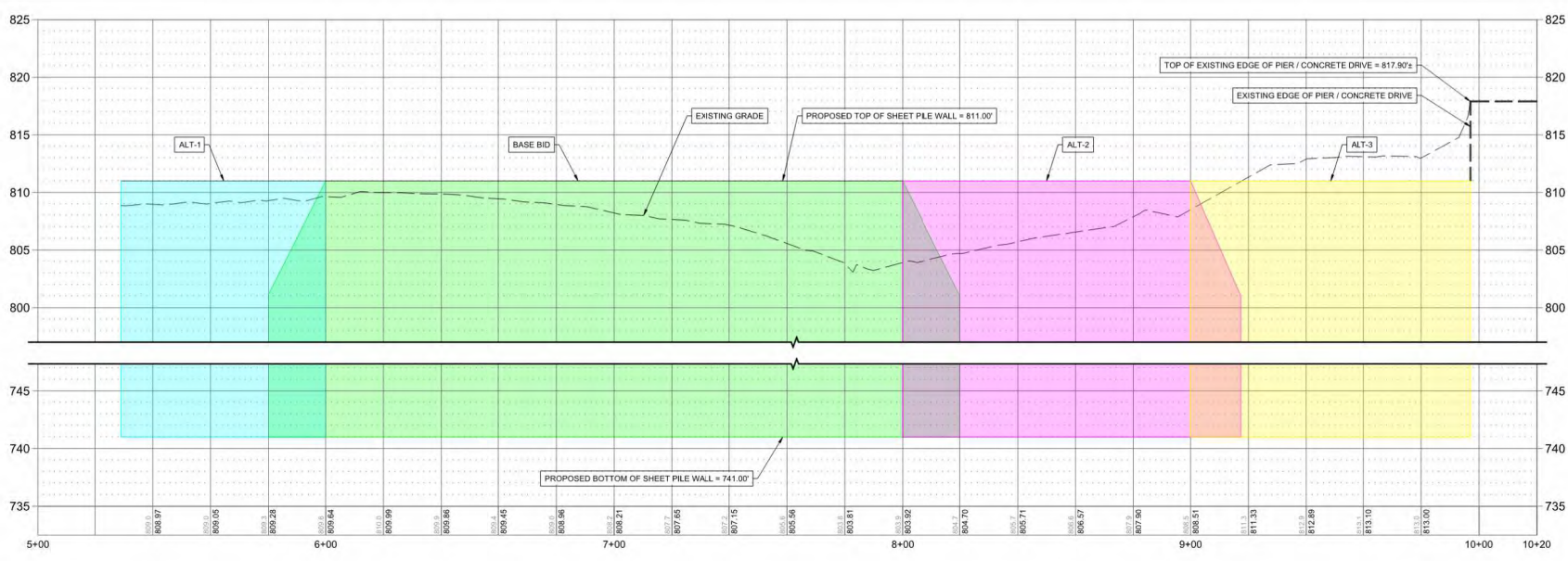
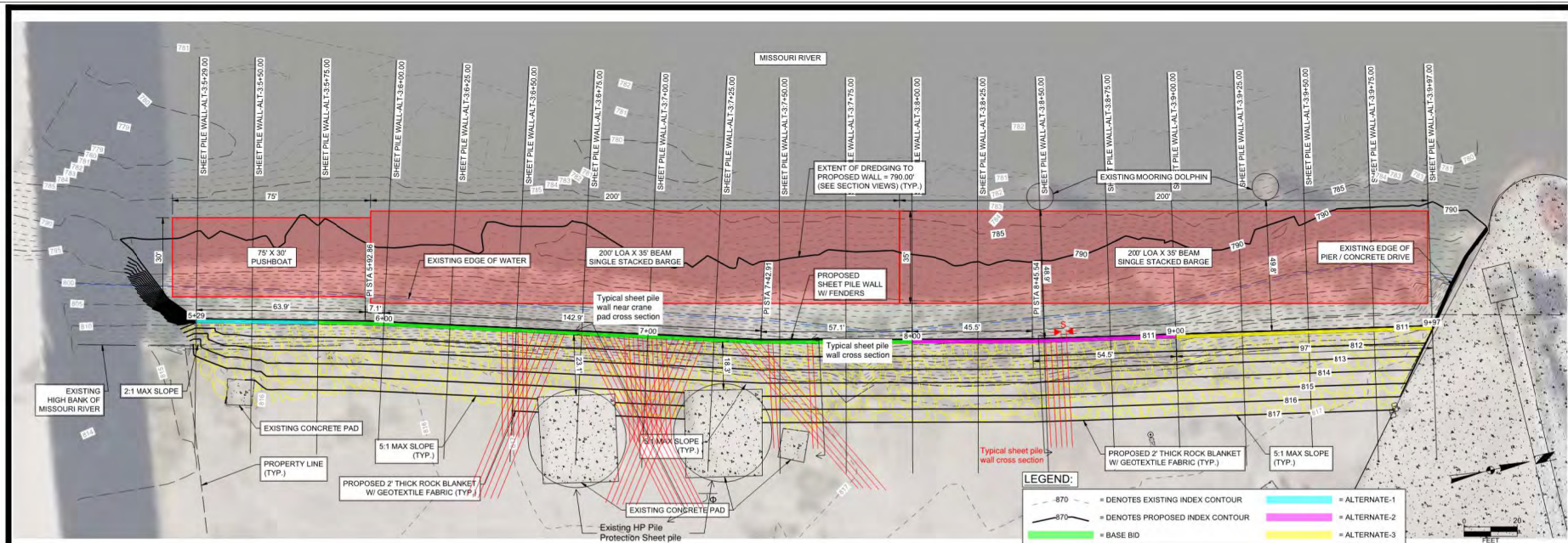
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ST. JOSEPH REGIONAL PORT AUTHORITY - SHEET PILE WALL  
 DETAILS  
 ST. JOSEPH, BUCHANAN COUNTY, MO  
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 ST. JOSEPH, MISSOURI 64501  
 816-364-5222 | www.snyder-associates.com







NO.	DATE	BY

NO.	REVISION	DATE	BY

MARK: \_\_\_\_\_  
 Engineer: AEM  
 Checked By: CHND  
 Inclusion: BIN  
 Date: 10/20/2017  
 Project: ST. JOSEPH RPA - SHEET PILE WALL  
 Project No.: 124.0711.11  
 Scale: 1" = 50'  
 F.R.S.: STN-50W-17  
 Snyder & Associates Engineers & Planners, Inc.  
 Missouri State Certificate of Authority #20060544

**ST. JOSEPH RPA - SHEET PILE WALL**  
**ST. JOSEPH, BUCHANAN COUNTY, MO**  
**SNYDER & ASSOCIATES**  
 ENGINEERS & PLANNERS, INC.  
 805 FRANCIS STREET  
 ST. JOSEPH, MISSOURI 64501  
 816-594-5222 | www.snyder-associates.com

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Project No.: 124.0711.11  
 Sheet C4.3

TIEBACK LAYOUT