

Iowa Deptment of Natural Resouces

Construction Drawings
for
Fishing Pier Renovations
(REBID)
at
Lake Ahquabi
Warren County, Iowa



PROJECT # 22-05-91-08
Plans Prepared by
Land and Water Bureau
Conservation and Recreation Division

Professional Engineer seals for Ryan E. Richey (Architect) and Donald R. Labate (Structural Engineer) with their respective license numbers and renewal dates.

SHEET INDEX table with columns for SHEET NO. and SHEET TITLE, listing architectural and structural sheets from A-001 to S-300.

IOWA DEPARTMENT OF
NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034
P: 515.725.8200
F: 515.725.8202



DIRECTORY table with columns for OWNER and ARCHITECT, detailing contact information for the Iowa Department of Natural Resources and Ryan Richey.

Large empty rectangular area for drawing content or notes.

PROJECT DESCRIPTION
THE EXISTING FISHING PIER AT LAKE AHQUABI WAS BUILT IN THE EARLY 1990s. THE PIER NEEDS A RENOVATION AS THE DECKING BOARDS, SHELTER, AND HANDRAILS ARE IN POOR CONDITION AND NEED TO BE REPLACED.

AUTHORIZATION TO BID form with fields for ENGINEERING BUREAU CHIEF, DATE, and AUTHORIZED - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT.

BID ITEMS table with columns for ITEM NUMBER, ITEM DESCRIPTION, and ESTIMATED QUANTITY, listing 10 items from Mobilization to Site Restoration.

COVER SHEET information including project name 'Lake Ahquabi State Park', location 'Indianola, IA', and sheet number 'A-001'.

DIMENSION NOTES

- IN INTERIOR SPACES THE ACTUAL DIMENSIONS MAY BE LESS IMPORTANT THAN IF AT TWO ELEMENTS IN THE BUILDING WERE TO BE EQUAL. IN THESE CASES, THE WORD "EQUAL OR EQ" IS USED IN LIEU OF THE ACTUAL DIMENSIONS.
- WHEN A ROOM CENTERLINE IS INDICATED ONLY ONE SIDE OF THE ROOMS ELEMENTS MAY BE DIMENSIONED.
- COLUMN IDENTIFICATION: DETAILS WILL GOVERN ALL DIMENSIONS AND NO DIMENSIONS WILL BE SHOWN ON SMALL SCALE PLANS.
- PARTITION CENTERED ON COLUMN OR GRID LINES WILL NOT BE DIMENSIONED ON SMALL SCALE PLANS.
- PARTITION WITH A FINISHED FACE FLUSH WITH FINISH FACE OF COLUMN WILL NOT BE DIMENSIONED ON SMALL SCALE PLANS.
- PARTITION FINISH FACE ON COLUMN OR GRID LINE WILL NOT BE DIMENSIONED ON SMALL SCALE PLANS.
- WHEN ONE JAMB OCCURS AT A COLUMN OR GRID LINE NO DIMENSIONS WILL BE SHOWN ON THE SMALL SCALE PLANS. THE OPENING WIDTH WILL BE GOVERNED BY CRITERIA OR SCHEDULES.
- WHEN NEITHER JAMB OCCURS AT A COLUMN OR GRID LINE ONE JAMB WILL BE DIMENSIONED.
- DOOR LOCATIONS ARE TO BE LOCATED BY ONE OF FOLLOWING:
 - ONE JAMB FACE LOCATED BY A PARTITION AT RIGHT ANGLE. 4" TYPICAL UNLESS INDICATED ON PLAN.
 - OR AS DIMENSIONED ON PLAN.
- PARTITIONS ARE DIMENSIONED TO FACE OF CMU OR FACE OF STUD UNLESS OTHERWISE NOTED.
- DIMENSIONS ARE INDICATED IN THE DOCUMENTS. THE DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.

MATERIAL LEGEND

	EARTH		CONCRETE MASONRY UNIT		GYPSUM / STUCCO		MASONRY
	COMPACTED EARTH		METAL STUD		GROUT		CONCRETE
	GRASS		PARTICLE BOARD		TURF		CRUSHED STONE/SAND
	GRAVEL		PLYWOOD		FOAM INSULATION		CAST STONE/STONE
	CLAY		BATT INSULATION		RIGID INSULATION		STONE
	FENCE		ACOUSTICAL CEILING TILE		ALUMINUM		GLASS
	TURF BLOCK		PLASTIC		STEEL		WOOD BLOCKING
	PAVERS		CARPET		FINISHED WOOD		CONTINUOUS WOOD

SYMBOL LEGEND

	NORTH AAROW		ROOM /SPACE IDENTIFICATION
	DRAWING / DETAIL IDENTIFICATION		DOOR TAG
	SECTION REFERENCE		WINDOW TAG
	DETAIL REFERENCE		WALL TYPE REFERENCE
	EXTERIOR ELEVATION		KEYNOTE - NEW/RENOVATION
	INTERIOR ELEVATION		KEYNOTE - FINISH/ACCESSORY
	ELEVATION TARGET		PROPERTY LINE REFERENCE
	COLUMN GRID		CENTER LINE REFERENCE
	MATCH LINES		LEVEL CHANGE REFERENCE
			DETAIL CUT LINE
			REVISION NUMBER AND CLOUD

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES SHALL PERTAIN TO THE ENTIRE SET OF CONTRACT DOCUMENTS
- A GENERAL CONTRACTOR SHALL NOTE THAT THE ARCHITECTURAL DRAWINGS ARE ESTABLISHING A MINIMUM MATERIAL OR CONSTRUCTION METHOD STANDARD. THE GENERAL CONTRACTOR SHALL PROVIDE A BID PRICE BASED ON THE SPECIFIC MATERIALS NOTED.
 - DO NOT SCALE DRAWINGS; IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
 - GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL PERFORM THEIR WORK IN ACCORDANCE WITH ALL APPLICABLE CODES GOVERNING EACH TRADE.
 - THE CONTRACTOR SHALL MAINTAIN A CLEAN AND ORGANIZED JOB SITE, ACCEPTABLE TO THE OWNER.
 - THE CONTRACTOR SHALL COORDINATE THE SEQUENCE OF WORK WITH THE OWNER REPRESENTATIVE.
 - THERE SHALL BE NO DEVIATION BY THE GENERAL CONTRACTOR FROM THE CONSTRUCTION DOCUMENTS UNLESS APPROVED IN WRITING BY THE ARCHITECT.
 - EACH CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR TO THE INITIATION OF WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONDITIONS INTERFERING WITH THE ABILITY OF THE CONTRACTOR TO COMPLETE WORK AS OUTLINED ON THE CONSTRUCTION DRAWINGS.
 - ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH OTHER TRADES. LACK OF THIS COORDINATION RESULTING IN ADDED COST TO THE CONTRACT WILL BE BORNE BY THE CONTRACTOR.
 - GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE EXISTING BUILDING WATER TIGHT DURING CONSTRUCTION.
 - THE CONTRACTOR WILL VERIFY THAT EXIT EGRESS IS MAINTAINED FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT ALL PHASES OF CONSTRUCTION.
 - PLAN DIMENSIONS ARE GIVEN TO FACE OF STUD OR BLOCK WALL. "CLEAR" DIMENSIONS ARE GIVEN TO THE FACE THE OWNER WILL ASSUME ALL LIABILITY AND SHALL TAKE PERSONAL RESPONSIBILITY FOR ANY DECISIONS THAT THEY MAKE TO CHANGE OR ALTER THE CONSTRUCTION DOCUMENTS WITHOUT THE ARCHITECT'S WRITTEN APPROVAL.
 - PROTECT ALL EXISTING FINISHES AND MATERIALS TO REMAIN, IN ACCORDANCE WITH ACCEPTABLE TRADE PRACTICES, MANUFACTURER, RECOMMENDATIONS, OR AS DIRECTED BY THE ARCHITECT.
 - CUTTING OF EXISTING CONSTRUCTION FOR THE INSTALLATION OF ALL NEW WORK BY ALL TRADES, AND THE SUBSEQUENT PATCHING THEREOF, SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR, WHETHER THE WORK IS DONE BY HIS OWN FORCES OR NOT. GRINDING OF MATERIALS FOR REMOVAL SHALL NOT BE PERMITTED. CUTTING SHALL BE TO STRAIGHT LINE. UNWORKMAN-LIKE CUTTING, DAMAGE RESULTING THEREFROM AND UNACCEPTABLE PATCHING SHALL BE REPAIRED AND/OR REPLACED TO AN ACCEPTABLE CONDITION APPROVED BY THE ARCHITECT. A OWNER PROJECT REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO CUTTING OF ANY STRUCTURAL ITEM (I.E. CONCRETE FLOOR, MASONRY, WALL, ETC.) WITHIN THE EXISTING BUILDING. METHOD OF CUTTING SHALL BE APPROVED BY THE OWNER PROJECT REPRESENTATIVE.
 - PATCHING MATERIAL SHALL MATCH EXISTING ADJACENT MATERIALS AS CLOSELY AS POSSIBLE IN COLOR, PATTERNS, AND/OR TEXTURES.
 - ALL SALVAGE MATERIALS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER. ALL NON-SALVAGE CONSTRUCTION MATERIALS AND DEBRIS FROM DEMOLITION WORK SHALL BE REMOVED FROM THE SITE AS WORK PROGRESSES, UNLESS OTHERWISE NOTED.
 - ISOLATE ALL DISSIMILAR METALS. G SHALL REQUEST APPROVAL BY THE ARCHITECT FOR MATERIALS USED FOR THIS PURPOSE, PRIOR TO INSTALLATION.
 - SEALANTS SHALL BE COMPATIBLE WITH ADJACENT SURFACE(S) THAT ARE IN CONTACT. REFER TO SPECIFICATIONS FOR APPROVED MANUFACTURERS AND PROCEDURES.
 - CAULK JOINTS OF DISSIMILAR EXPOSED TO VIEW MATERIALS AS REQUIRED BY THE ARCHITECT.
 - ALL DOOR HARDWARE TO BE FL ADA COMPLIANT.
 - ALL EXTERIOR WALLS, DOORS AND WINDOWS ARE EXISTING U.N.O.
 - ALL FINISHES TO BE PER CLASS INDICATED ON A-004
 - NO CONSTRUCTION SHALL OCCUR WITHOUT SHOP DRAWING APPROVAL. SHOP DRAWINGS TO BE PROVIDED TO ARCHITECT FOR REVIEW UPON BEING REVIEWED AND SIGNED/DATED BY THE GENERAL CONTRACTOR AND SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:
 - CABINETS/ MILLWORK
 - RUNNING TRIM AND CASING PROFILES
 - PAINT/LAMINATE COLOR SAMPLES
 - ACOUSTICAL CEILING AND GRID
 - TOILET ACCESSORIES
 - KITCHEN EQUIPMENT
 - ROOF PENETRATIONS
 - HVAC EQUIPMENT
 - PLUMBING EQUIPMENT AND FIXTURES
 - ELECTRICAL EQUIPMENT AND FIXTURES
 - PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SUBMIT (2) COPIES OF MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL PRODUCTS USED TO PERFORM THE WORK.

VERIFY ACTUAL LOCATIONS AND ELEVATIONS WITH DNR ENGINEER.
ALL WORK SHALL CONFORM TO AND BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.

THE CONTRACTOR SHALL VISIT THE SITE AND INSPECT THE PROJECT AREA AND THOROUGHLY FAMILIARIZE THEMSELVES WITH THE ACTUAL JOB CONDITIONS PRIOR TO BIDDING AND THE START OF WORK. FAILURE TO VISIT THE PROJECT SITE SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING THE WORK IN ACCORDANCE TO THE PLANS, SPECIFICATION, SPECIAL PROVISIONS AND CONTRACT.

THE CONTRACTOR SHALL VERIFY, AT THE SITE, ALL DIMENSIONS AND CONDITIONS SHOWN ON THE PLANS AND SHALL NOTIFY THE DNR ENGINEER OF ANY DISCREPANCIES, OMISSIONS, AND/OR CONFLICTS PRIOR TO PROCEEDING WITH THE WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL OR BROKEN CONCRETE) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. NO MATERIAL SHALL BE PLACED WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY STATED IN THE PLANS OR APPROVED BY THE DNR ENGINEER.

THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE DNR ENGINEER.

WHERE UTILITIES AND FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DNR ENGINEER OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL BE AFFORDED ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

THE CONTRACTOR SHALL SHAPE GRADED AREA TO MAINTAIN SURFACE DRAINAGE. ALL ELEVATIONS ARE TO FINISH GRADE.

THE CONTRACTOR IS EXPECTED TO HAVE MATERIALS, EQUIPMENT, AND LABOR AVAILABLE ON A DAILY BASIS TO INSTALL AND MAINTAIN EROSION CONTROL FEATURES ON THE PROJECT. THIS MAY INVOLVE SEEDING, SILT FENCE, ROCK DITCH CHECKS, SILT BASINS OR SILT DIKES.

PROJECT NARRATIVE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL ITEMS WITHIN THIS NARRATIVE, THE DRAWINGS, AND PROJECT MANUAL UNLESS SPECIFICALLY NOTED OTHERWISE. THIS NARRATIVE IS NOT MEANT TO BE A COMPREHENSIVE ACCOUNT OF ALL ITEMS TO BE COVERED BY THE CONTRACT, REVIEW ALL DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND ESTABLISHING ALL QUANTITIES THAT ARE DICTATED AS "LUMP SUM".

LAKE AHQUABI IS CURRENTLY DRAINED DOWN AND WILL BE FOR THE NEXT YEAR. WHILE THIS LAKE IS DOWN, A RENOVATION PROJECT ON THE FISHING PIER WILL TAKE PLACE. THE PROJECT WILL PLACE ALL NEW WOOD STRUCTURE OVER THE EXISTING STEEL STRUCTURE, NEW COMPOSITE DECKING, NEW RAILINGS, AND NEW STEEL SHELTER ON THE PIER.

CONTRACTOR SHALL RELOCATE ELECTRICAL PANEL TO SHORE IN LOCATION SHOWN. THE CONTRACTOR SHALL RUN NEW ELECTRIC UNDERGROUND FROM THE EXISTING PEDESTAL TO THE SITE LIGHTS AND PIER IN 2", NEMA 4X WATER-PROOF CONDUIT AND SHALL BE NEC COMPLIANT AND INSTALLED BY A LICENSED ELECTRICIAN. CONTRACTOR TO RUN NEW NEMA 4X EXTERIOR RATED (WATER-PROOF) ELECTRICAL OUT TO THE PIER TO TWO (2) 120V DUPLEX LOCATIONS. CONTRACTOR SHALL INSTALL A NEW POLE MOUNTED LIGHT WITH TWO HEADS AS SHOWN ON SITE PLAN.

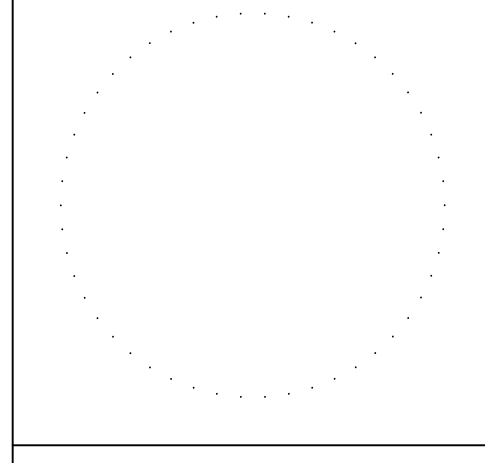
CONTRACTOR SHALL DEMOLISH THE EXISTING ASPHALT TRAIL, CONCRETE SLAB, AND CONCESSION BUILDING CONCRETE FOOTING 12" BELOW GRADE LEVEL OF GRADE. THE CONTRACTOR SHALL REMOVE THE WOOD BOARDWALK ATTACHED TO THE SEAWALL AND ALL OF THE ASSOCIATED STEEL STRUCTURE AND PATCH ANY HOLES IN THE CONCRETE WITH NON-SHRINK EPOXY GROUT. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WOOD FROM THE PIER (DECKING, RAILINGS, JOISTS, NAILERS, ETC.) DOWN TO THE STEEL SUPERSTRUCTURE. CONTRACTOR TO CLEAN AND PREP STEEL STRUCTURE FOR INSTALLATION OF NEW WOOD FRAMING AND COMPOSITE DECKING. THE CONTRACTOR SHALL ALSO REMOVE ALL ELECTRICAL ON THE PIER BACK TO THE EXISTING ELECTRICAL PEDESTAL AND PREP FOR NEW ELECTRICAL CONDUIT AND INSTALL.

CONTRACTOR SHALL THEN POUR A NEW CONCRETE SEAWALL SIDEWALK WITH A TREATED 4X4 CURB ALONG THE SEAWALL. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS THEN HYDRO-SEED THE DISTURBED AREAS. CONTRACTOR SHALL INSTALL TWO (2) 8"-0" BENCHES ADJACENT TO THE SIDEWALK.

CONTRACTOR SHALL INSTALL THE NEW STEEL BEAMS FOR THE SHELTER SUPPORT. THE CONTRACTOR SHALL INSTALL THE NEW STEEL SHELTER ON THE MODIFIED STRUCTURE BELOW, AS SHOWN ON STRUCTURAL PAGES S-100 - S-300. THE CONTRACTOR SHALL THEN INSTALL ALL NEW NAILER BOARDS, DECKING JOISTS, AND RIM JOISTS. THE CONTRACTOR SHALL INSTALL HANDRAILS AROUND THE PERIMETER OF THE PIER AND TWO NEW FISH CLEANING TABLES, AS SHOWN. THE CONTRACTOR SHALL INSTALL FOUR (4) PICNIC BENCHES ON THE PIER IN THE LOCATIONS SHOWN. THE CONTRACTOR SHALL THEN INSTALL ALL NEW COMPOSITE DECKING AND ALUMINUM TRANSITION PLATE FROM THE NEW CONCRETE SEAWALL SIDEWALK. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS THEN HYDRO-SEED THE DISTURBED AREAS.

*DIVISIONS 20-41 OF THE STANDARD SPECIFICATIONS FOR BRIDGE AND HIGHWAY CONSTRUCTION, CURRENT EDITION WITH GS-15011 SHALL APPLY TO THIS PROJECT.

CONSULTANT:



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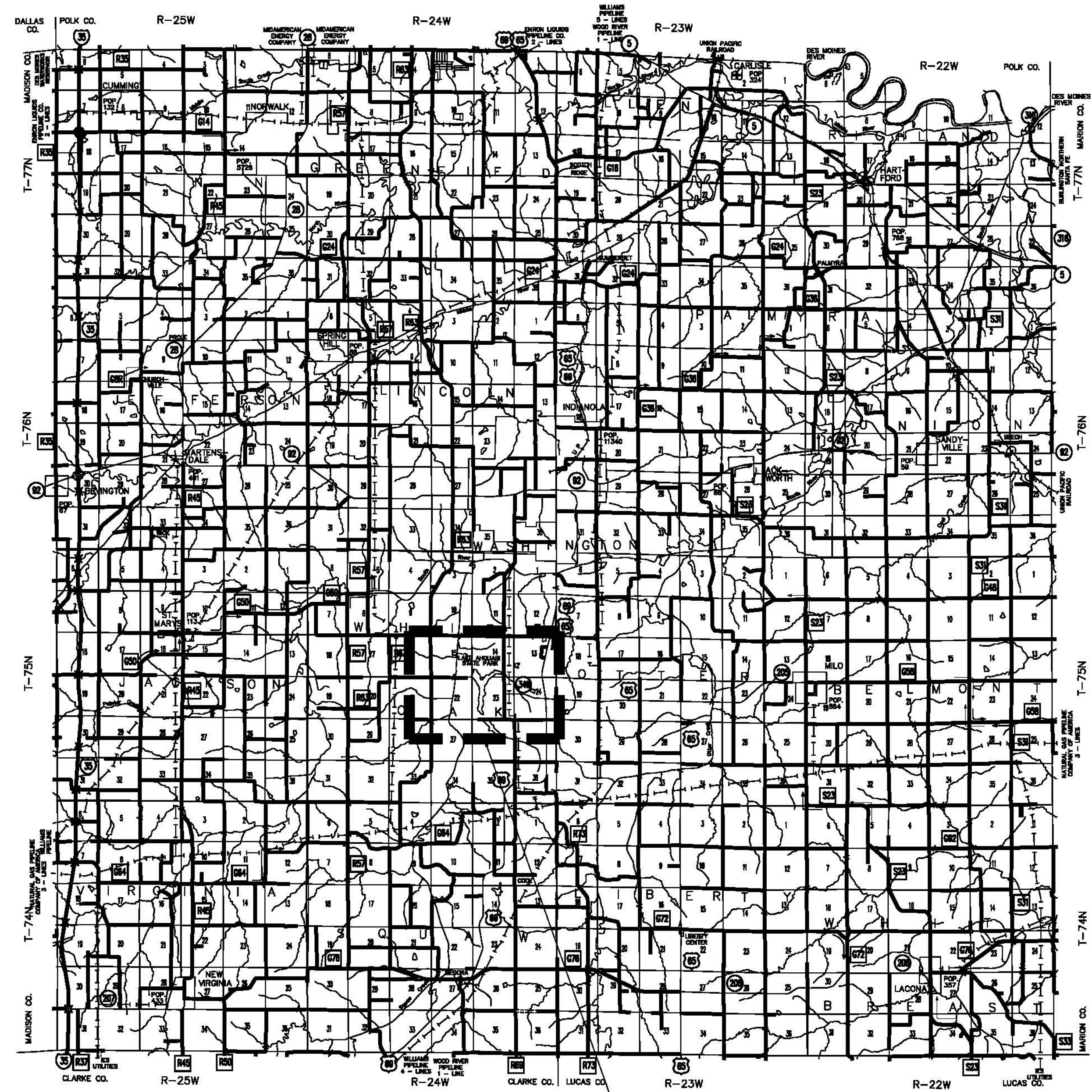
NOTES AND PROJECT NARRATIVE

Fishing Pier Renovations for:
Lake Ahquabi State Park
Indianola, IA
16510 118th Avenue

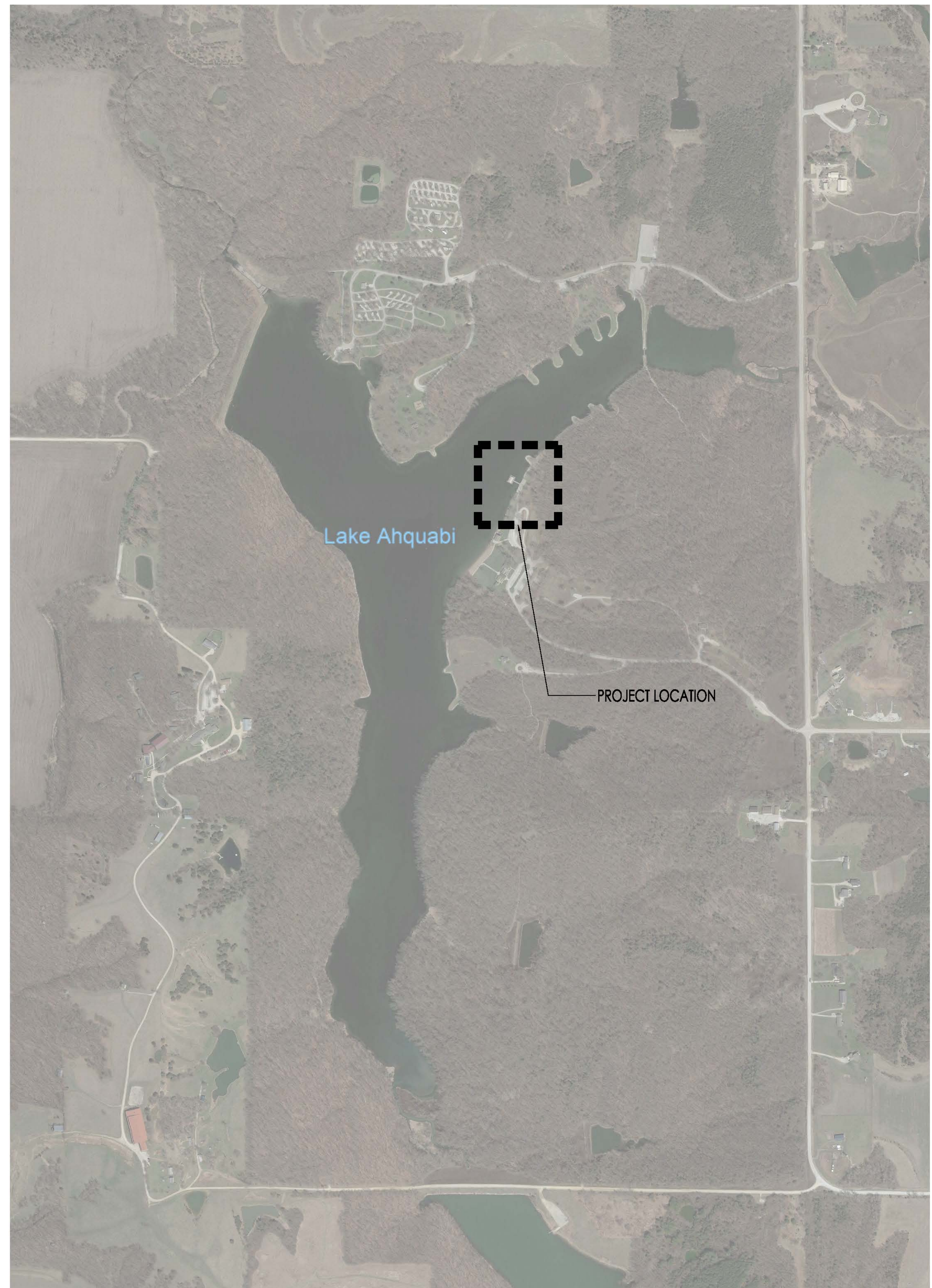
NO.	DATE	REVISION

DRAWN BY: PROJECT NUMBER:
22-05-91-08
CHK'D BY: DATE:
01.18.2022

SHEET No: **A-002**



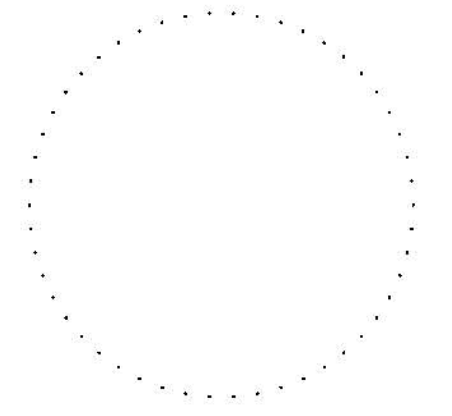
LAKE AHQUABI



Lake Ahquabi

PROJECT LOCATION

CONSULTANT:



**IOWA DEPARTMENT OF
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PROJECT LOCATION

Fishing Pier Renovations for:

Lake Ahquabi State Park

16510 118th Avenue

Iowa, IA

NO. BY DATE REVISION

DRAWN BY: PROJECT NUMBER:
22-05-91-08

CHKD BY: DATE:
01.18.2022

SHEET No:

A-003



Google Earth

01 DEMOLITION SITE PLAN
SCALE: NTS

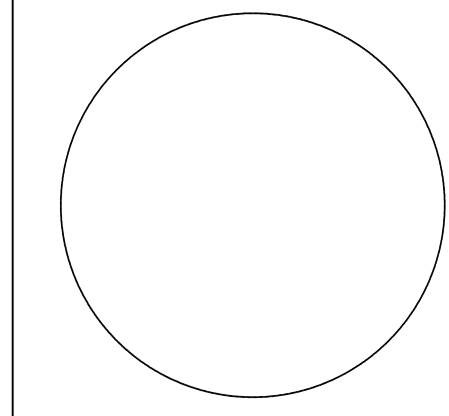
KEYNOTES

1. DEMOLISH EXISTING SIDEWALK, PREP AND GRADE FOR NEW ACCESSIBLE SIDEWALK.
2. PREP AND GRADE EXISTING PARKING AREA FOR CONCRETE ADA PARKING SPACE AND AISLE.
3. EXISTING ROADWAY TO REMAIN.
4. DEMOLISH ENTIRE CONCRETE BUILDING SLAB, STOCKPILE CONCRETE AS DIRECTED BY DNR INSPECTOR. CONCRETE SEAWALL TO REMAIN, PREP FOR NEW SEAWALL SIDEWALK.
5. DEMOLISH EXISTING WOOD BOARDWALK AND ALL STEEL ANGLE SUPPORTS FROM SEAWALL.
6. EXISTING FISHING PIER, REMOVE ALL EXISTING WOOD DECKING, PERIMETER GUARDRAILS, FLOOR JOISTS, AND WOOD NAILERS, PREP FOR INSTALL OF NEW NAILERS, JOISTS, AND DECKING. STEEL STRUCTURE BELOW TO REMAIN.
7. DEMOLISH EXISTING SHELTER STRUCTURE, REMOVE ALL EXISTING ELECTRICAL.

GENERAL NOTES

- A. REFER TO FINISH & DOOR SCHEDULE, SHEET A-600.
- B. ALL ELECTRICAL SHALL BE NEC COMPLIANT AND UP TO ALL CODES AND LOCAL ORDINANCES REQUIRED BY LAW. ALL OUTLETS TO BE MOUNTED AT 36" A.F.F., AND IN WEATHER PROOF AND LOCKABLE BOXES.
- C. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- D. CONTRACTOR TO HAVE THIS BUILDING TRUSSES ENGINEERED TO LOCAL CODE.
- E. ALL STRUCTURAL STEEL IS FY 50 KSI.
- F. ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
- G. ALL CONNECTION HARDWARE (NUTS, WASHERS, BOLTS, ETC.) TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL SCREWS TO BE STAINLESS STEEL.
- H. ALL LIGHTING TO BE CONTROLLED BY PHOTOCELL AND TIMER.
- I. SUBMIT SAMPLES FOR ALL EXTERIOR FINISHES.

CONSULTANT:



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DEMOLITION SITE PLAN

Fishing Pier Renovations for:
Lake Ahquabi State Park

16510 118th Avenue
Indianola, IA

NO.	BY	DATE	REVISION

DRAWN BY: PROJECT NUMBER:
22-05-91-08

CHK'D BY: DATE:
01.18.2022

SHEET No:

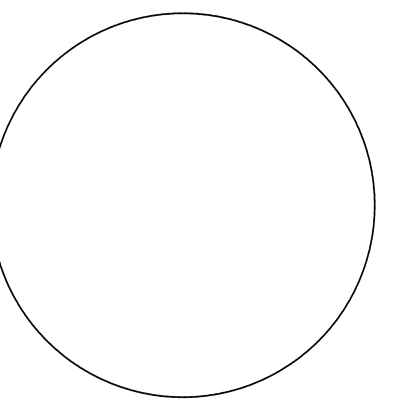
A-005



Google Earth

01 SITE PLAN
SCALE: 3/64" = 1'-0"

CONSULTANT:



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DEMOLITION SITE PLAN

Fishing Pier Renovations for:
Lake Ahquabi State Park
16510 118th Avenue
Indianola, IA

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DRAWN BY: PROJECT NUMBER:
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CHK'D BY: DATE:
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SHEET NO:

A-010

KEYNOTES

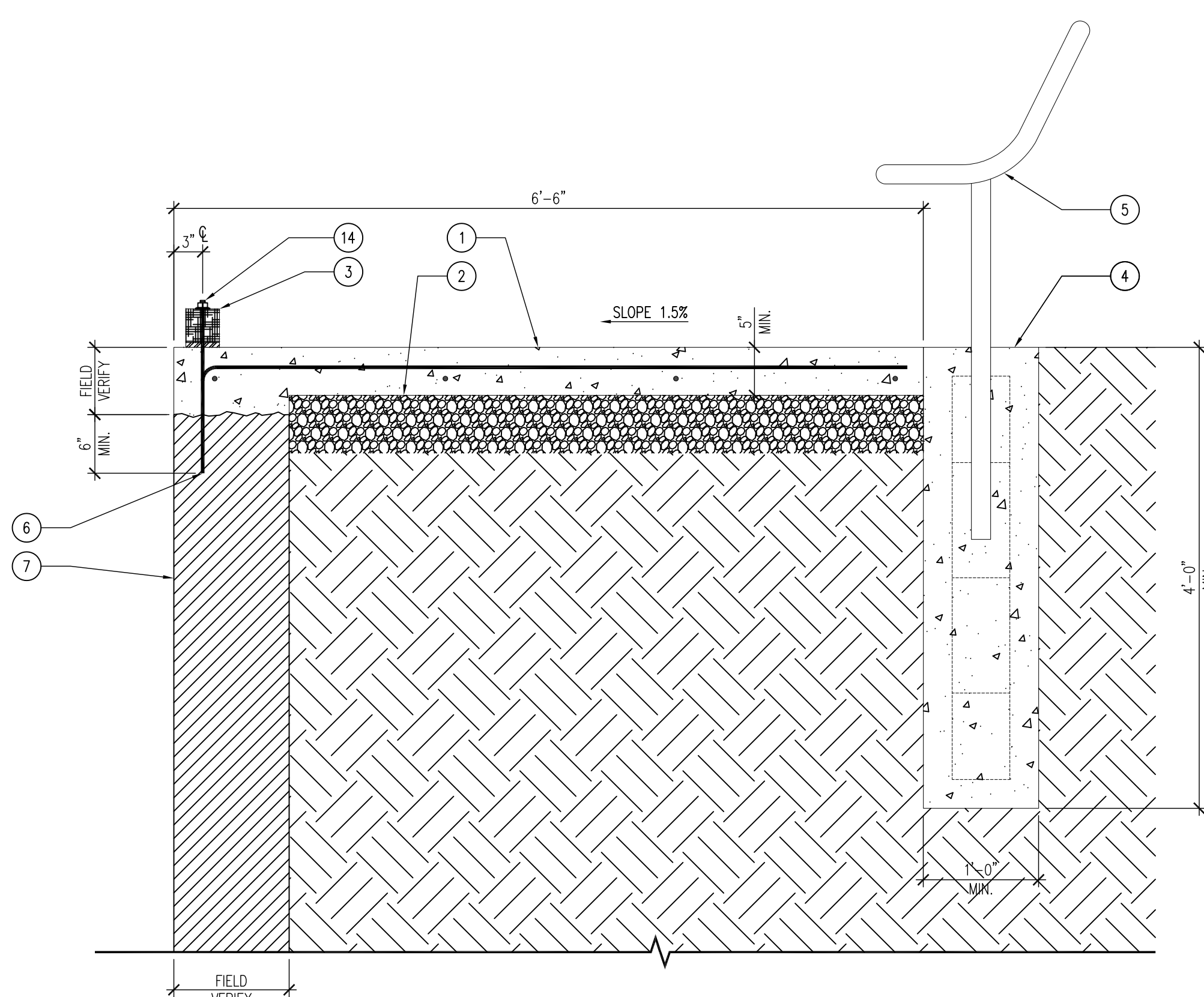
- POLE LIGHTS (LITHONIA DSX0-LED-40C-700-TFTM-MVOLT-SPA LIGHT, OR APPROVED EQUAL), 20'-0" SQUARE POLE, AND CONCRETE BASE. REFER TO DETAIL SHEET A-012.
- 5" THICK X 6'-6" WIDE PCC CONCRETE BOARDWALK WITH #4 REBAR 24" O.C. BOTH DIRECTIONS, WITH TREATED 4X4 EDGE PROTECTION BEAM. REFER TO SHEET A-012.
- EXISTING TRANSFORMER AND METER TO REMAIN, ADD TWO (2) 20AMP GFCI BREAKERS FOR ELECTRICAL SERVICE TO PIER, AND POLE LIGHTS.
- EXISTING ROADWAY TO REMAIN.
- EXISTING FISHING PIER TO RECEIVE NEW WOOD JOISTS AND COMPOSITE DECKING, REFER TO SHEET A-100.
- EXISTING CONCRETE SEAWALL ABUTMENT TO REMAIN. NEW #4 DOWELED J-HOOKS, EPOXY EMBED DOWELS 6" DEEP MINIMUM INTO SEAWALL 24" O.C., TIE INTO NEW SIDEWALK.
- NEW ELECTRICAL SERVICE TO PIER, RUN NEW 2" CONDUIT TO POLE LIGHT AND FISHING PIER OUTLETS. ALL ELECTRICAL TO BE NEMA 4X WATER PROOF CONDUIT AND OUTLETS. PLACE HANDHOLES AND OTHER ACCESSORIES REQUIRED BY CODE.
- PILOT ROCK SWRB-8 BENCH, OR APPROVED EQUAL, POWDER COAT BLACK. INSTALL BEHIND SEAWALL SIDEWALK AS SHOWN ON SHEET A-012.
- FOUR (4) UT/06TP/E PILOT ROCK PICNIC TABLES, OR APPROVED EQUAL, POWDER COAT BLACK. FASTEN TO DECK WITH FOUR (4) 304 SS 1 1/2" PIPE STRAPS AND GRK-RSS 3/8" X 3" SCREWS, EACH LEG FOR A TOTAL OF FOUR (4) PER TABLE. 2X BLOCKING REQUIRED WHERE TABLE DOES NOT LAND ON JOISTS.

GENERAL NOTES

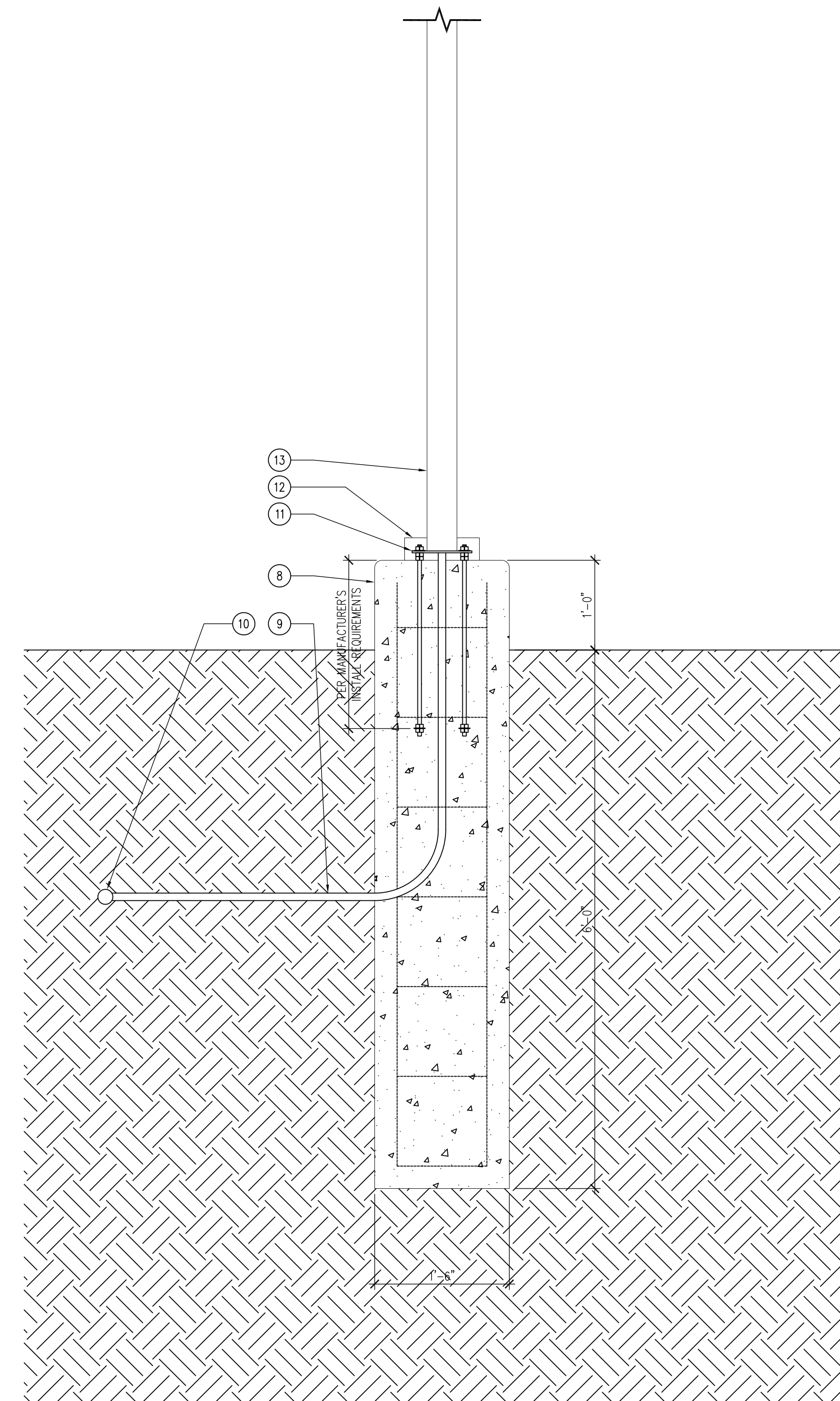
- ALL ELECTRICAL SHALL BE NEC COMPLIANT AND UP TO ALL CODES AND LOCAL ORDINANCES REQUIRED BY LAW. ALL OUTLETS TO BE MOUNTED AT 24" A.F.F., AND IN WEATHER PROOF NEMA 4X BOXES.
 - FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
 - ALL STRUCTURAL STEEL IS FY 50 KSI.
 - ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
 - ALL CONNECTION HARDWARE (NUTS, WASHERS, BOLTS, ETC.) TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL SCREWS TO BE STAINLESS STEEL.
 - SITE LIGHTING TO BE CONTROLLED BY PHOTOCELL (DUSK TO DAWN) AND MOTION DETECTOR. LIGHTING OPERATION TO DIM TO 25% AFTER 10 MINUTES OF NO MOTION AND 100% WHEN MOTION IS DETECTED.
- *DIVISIONS 20-41 OF THE STANDARD SPECIFICATIONS FOR BRIDGE AND HIGHWAY CONSTRUCTION, CURRENT EDITION WITH GS-15011 SHALL APPLY TO THIS PROJECT.

05 NOT USED
SCALE: NTS

03 NOT USED
SCALE: NTS



02 SECTION - SEAWALL SIDEWALK
SCALE: 1" = 1'-0"



01 DETAIL - LIGHT POLE BASE
SCALE: NTS

04 NOT USED
SCALE: NTS

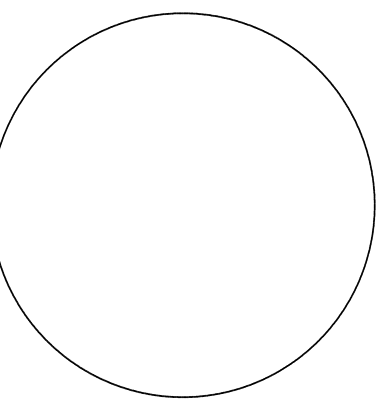
KEYNOTES

1. 5" THICK PCC SEAWALL SIDEWALK WITH #4 REBAR 24" O.C. BOTH DIRECTIONS.
2. 5" SUBBASE, COMPACTED FOR CONCRETE POUR.
3. TREATED 4X4 POST, ENTIRE LENGTH OF CONCRETE BOARDWALK. SHIM WITH 3.5" X 3.5" X 1/2" THICK STEEL SPACERS 3'-0" O.C., RUN THREADED DOWEL THROUGH CENTER HOLE (3/8" DIAMETER) OF SHIM.
4. 1'-0" DIAMETER CONCRETE FOOTING FOR BENCH WITH WIRE REBAR CAGE. INSTALL FOOTING PER BENCH MANUFACTURER'S RECOMMENDATIONS.
5. PILOT ROCK, SHWB-B REDWOOD CONTOUR BENCH, OR APPROVED EQUAL, POWDER COAT BLACK.
6. #4 DOWEL PINS, EPOXY EMBED INTO EXISTING SEAWALL 6" MINIMUM, 24" O.C.
7. EXISTING SEAWALL TO REMAIN, PATCH ALL EXISTING HOLES WITH NON-SHRINK GROUT.
8. 18" DIAMETER CONCRETE POLE LIGHT PEDESTAL, TOOL 1/2" RADIUS TOP EDGE.
9. 1" CONDUIT FOR ELECTRICAL TO LIGHT POLE.
10. 2" CONDUIT FOR ELECTRICAL TO LIGHT POLE AND PIER, REFER TO SHEET A-010.
11. LIGHT POLE LEVELING PLATE, PER LIGHT POLE MANUFACTURER.
12. LIGHT POLE BASE COVER, PER LIGHT POLE MANUFACTURER, POWDER COAT BLACK.
13. 20'-0" TALL X 4" SQUARE STEEL LIGHT POLE, POWDER COAT BLACK WITH BASE COVER.
14. HOT DIPPED GALVANIZED OR STAINLESS 3/8" THREADED DOWEL, EMBED 6" MINIMUM, 3'-0" O.C., RUN THROUGH STEEL SHIM AND 4X4 TREATED POST. HDG OR SS FENDER-WASHER, LOCK-WASHER, THEN NUT ON TOP OF 4X4 BEAM.

GENERAL NOTES

- A. ALL ELECTRICAL SHALL BE NEC COMPLIANT AND UP TO ALL CODES AND LOCAL ORDINANCES REQUIRED BY LAW. ALL OUTLETS TO BE MOUNTED AT 24" A.F.F., AND IN WEATHER PROOF NEMA 4X BOXES.
 - B. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
 - C. ALL STRUCTURAL STEEL IS FY 50 KSI.
 - D. ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
 - E. ALL CONNECTION HARDWARE (NUTS, WASHERS, BOLTS, ETC.) TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL SCREWS TO BE STAINLESS STEEL.
 - F. SITE LIGHTING TO BE CONTROLLED BY PHOTOCELL (DUSK TO DAWN) AND MOTION DETECTOR. LIGHTING OPERATION TO DIM TO 25% AFTER 10 MINUTES OF NO MOTION AND 100% WHEN MOTION IS DETECTED.
- *DIVISIONS 20-41 OF THE STANDARD SPECIFICATIONS FOR BRIDGE AND HIGHWAY CONSTRUCTION, CURRENT EDITION WITH GS-15011 SHALL APPLY TO THIS PROJECT.

CONSULTANT:



**IOWA DEPARTMENT OF
NATURAL RESOURCES**
ENGINEERING SERVICES - WALLACE BUILDING
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P: 515.725.6200
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SITE DETAILS

Fishing Pier Renovations for:

Lake Ahquabi State Park

Indianola, IA

16510 118th Avenue

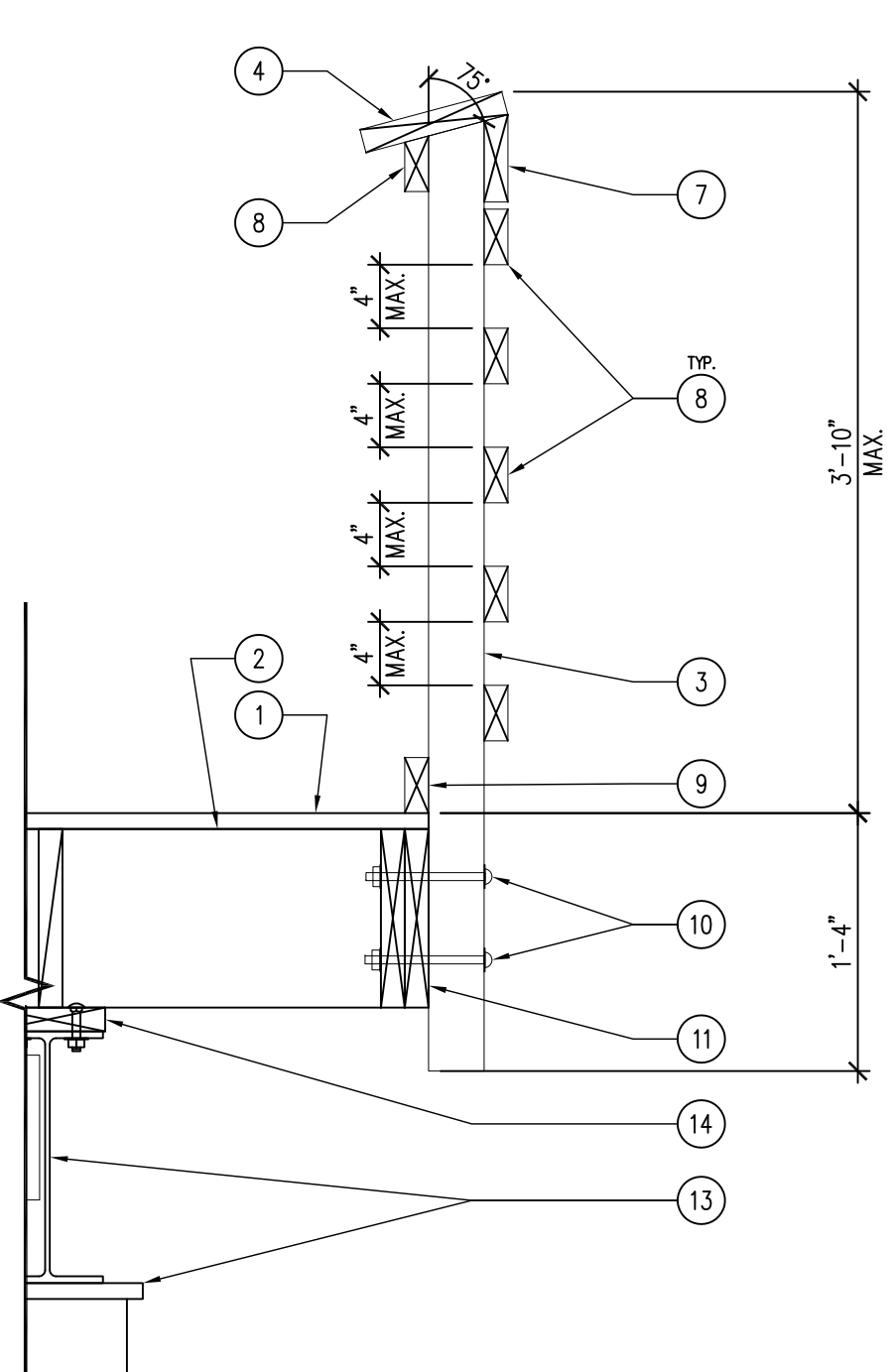
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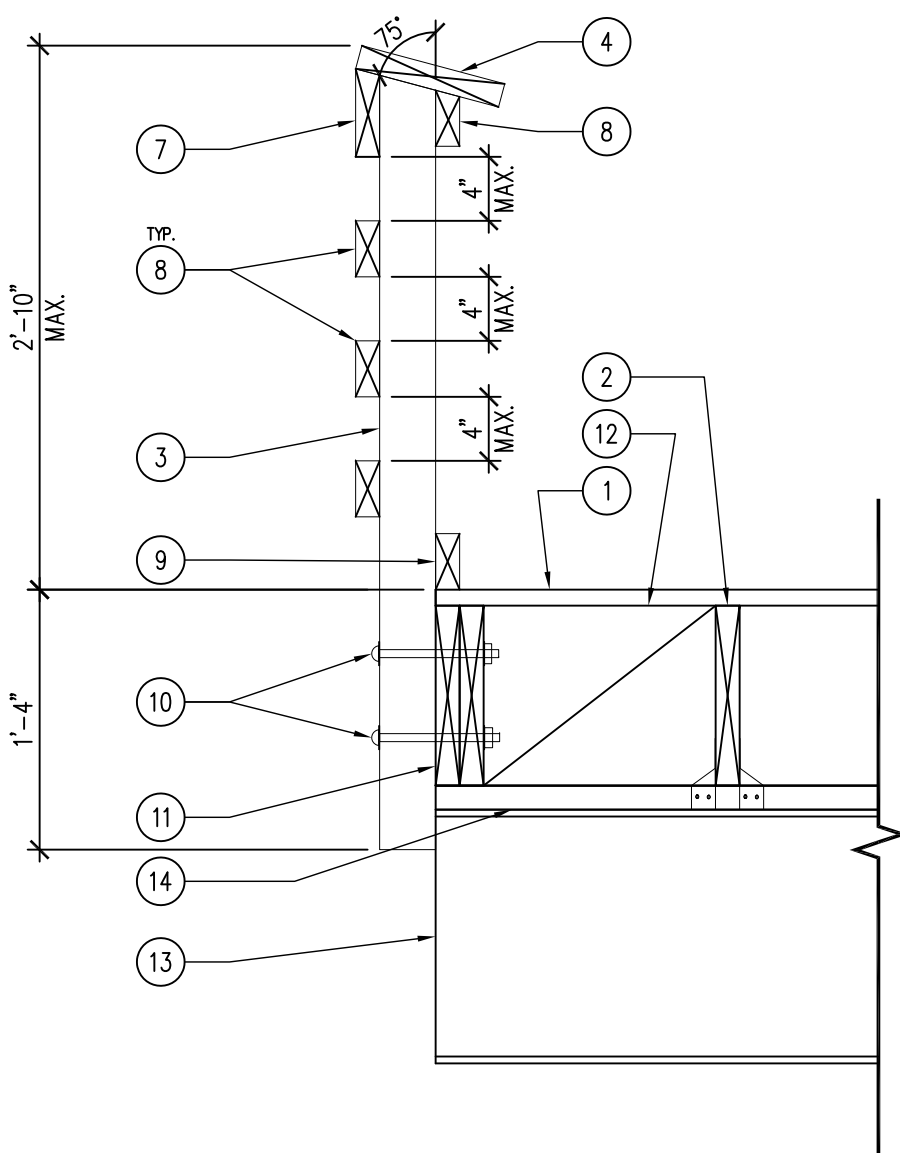
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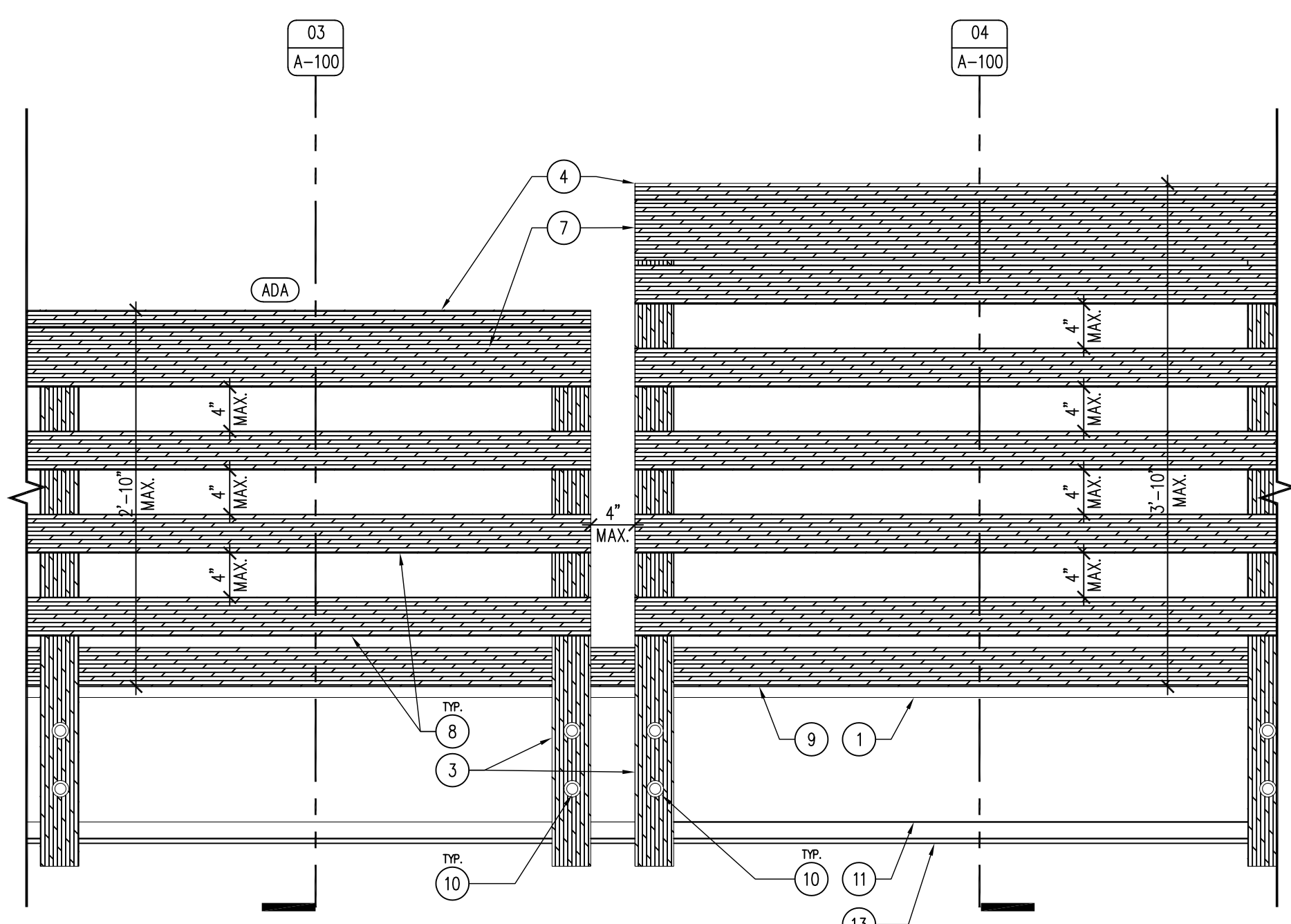
A-012



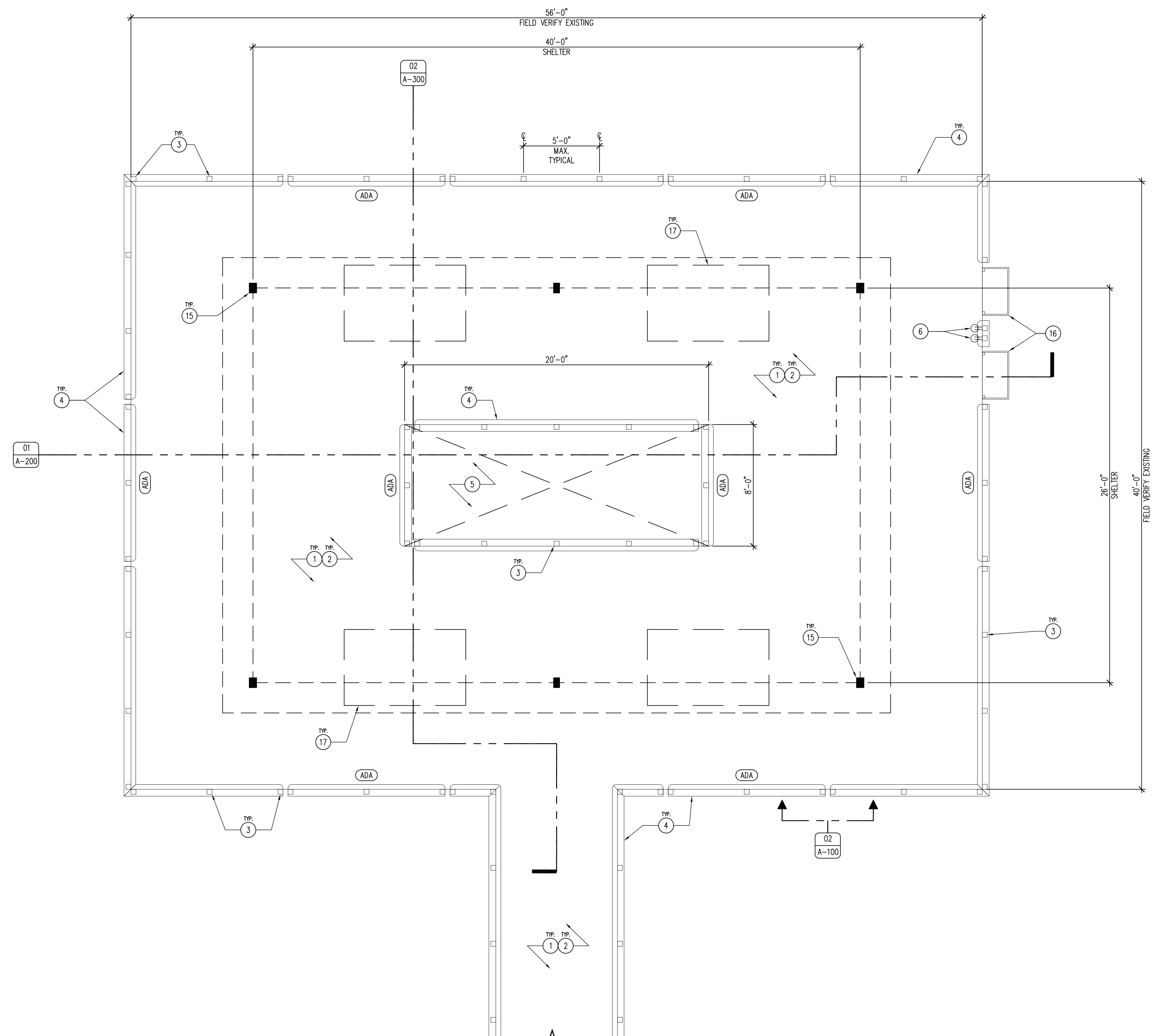
04 DETAIL – HANDRAIL ELEVATION
SCALE: 1" = 1'-0"



03 DETAIL – ADA HANDRAIL SECTION
SCALE: 1" = 1'-0"




02 DETAIL – HANDRAIL ELEVATION – STANDARD AND ADA HEIGHT
SCALE: 1" = 1'-0"



01 REFERENCE FLOOR PLAN
SCALE: 1/4" = 1'-0"

- | KEYNOTES | GENERAL NOTES |
|--|---|
| 1. TREX SELECT COMPOSITE DECKING OR APPROVED EQUAL, ATTACH TO JOISTS WITH STAINLESS STEEL COUNTER-SUNK, FACE-SCREWED FASTENER SYSTEM, PER MANUFACTURER'S INSTALL INSTRUCTIONS
2. 2X10 PRESSURE TREATED JOISTS, 16" O.C., ATTACH TO NAILER WITH H3 STRAPS, 2X10 PRESSURE TREATED TRANSVERSE BLOCKING EVERY 4'-0" O.C. REFER TO STRUCTURAL DRAWINGS.
3. 4X4 PRESSURE TREATED WOOD HANDRAIL POST, REFER TO DETAILS 03 & 04/A-100.
4. 2X10 CONTINUOUS PRESSURE TREATED HANDRAIL, VARYING HEIGHTS FOR ADA AND STANDARD HEIGHTS, REFER TO DETAILS 03 & 04/A-100. INSTALL WITH GRK-RSS 3/8" X 4" SCREWS EVERY 12" O.C. ALTERNATING FROM FRONT AND REAR SUPPORT BOARD.
5. FISHING WELL, OPEN TO BELOW.
6. 120V GFCI DUPLEX OUTLET, NEMA 4X WEATHER PROOF. RUN NEW 2" CONDUIT TO LOCATION FROM EXISTING METER PEDESTAL, REFER TO SHEET A-010.
7. 2X6 CONTINUOUS PRESSURE TREATED SUPPORT RAIL. STOP SUPPORT RAIL AND LEAVE GAP WHERE HANDRAIL HEIGHT VARIES. REFER TO DETAIL 02/A-100. INSTALL WITH TWO (2) GRK-RSS 3/8" X 4" SCREWS AT EVERY VERTICAL POST LOCATION.
8. 2X4 CONTINUOUS PRESSURE TREATED RAIL. STOP RAIL AND LEAVE GAP WHERE HANDRAIL HEIGHT VARIES. REFER TO DETAIL 02/A-100. INSTALL WITH TWO (2) GRK-RSS 3/8" X 4" SCREWS AT EVERY VERTICAL POST LOCATION.
9. 2X4 CONTINUOUS PRESSURE TREATED EDGE PROTECTION, ENTIRE PERIMETER OF PIER. INSTALL WITH TWO (2) GRK-RSS 3/8" X 4" SCREWS AT EVERY VERTICAL POST LOCATION.
10. TWO (2) 2" X 8" HOT DIPPED GALVANIZED HEX-HEAD BOLTS, NUTS, AND WASHERS BOTH SIDES, PER VERTICAL POST.
11. TWO (2) 2X10 TREATED RM JOISTS CONTINUOUS, 2X10 TREATED BLOCKING 16" O.C. ON .
12. 2X10 TREATED BLOCKING RIM JOIST BLOCKING 16" O.C.
13. EXISTING STEEL STRUCTURE.
14. 2X6 PRESSURE TREATED NAILER, CONTINUOUS OVER STEEL BEAM.
15. 40'-0" X 26'-0" GABLE END SHELTER BY SUPERIOR RECREATIONAL PRODUCTS, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND STRUCTURAL SHEETS S-100 & S-200.
16. DEEP BLUE OH38 DOCK SIDE FILET TABLE, OR APPROVED EQUAL, MOUNT DIRECTLY TO RIM JOIST OF PIER, RUN GUARDRAILS THROUGH OPENINGS OF TABLE LEGS AS SHOWN.
17. FOUR (4) U7/G6TP/E PILOT ROCK PICNIC TABLES, OR APPROVED EQUAL, POWDER COAT BLACK. PERMANENTLY FASTEN TO DECK WITH FOUR (4) 304 SS 1 3/8" PIPE STRAPS AND GRK-RSS 3/8" X 3" SCREWS, EACH LEG FOR A TOTAL OF FOUR (4) PER TABLE. 2X BLOCKING REQUIRED WHERE TABLE DOES NOT LAND ON JOISTS. | A. ALL ELECTRICAL SHALL BE NEC COMPLIANT AND UP TO ALL CODES AND LOCAL ORDINANCES REQUIRED BY LAW. ALL OUTLETS TO BE MOUNTED AT 24" A.F.F., AND IN WEATHER PROOF NEMA 4X BOXES.
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D. ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
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F. SITE LIGHTING TO BE CONTROLLED BY PHOTOCELL (DUSK TO DAWN) AND MOTION DETECTOR. LIGHTING OPERATION TO DIM TO 25% AFTER 10 MINUTES OF NO MOTION AND 100% WHEN MOTION IS DETECTED.

*DIVISIONS 20-41 OF THE STANDARD SPECIFICATIONS FOR BRIDGE AND HIGHWAY CONSTRUCTION, CURRENT EDITION WITH GS-15011 SHALL APPLY TO THIS PROJECT. |


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 ENGINEERING SERVICES - WALLACE BUILDING
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 P: 515.725.6200 F: 515.725.6202

REFERENCE FLOOR PLAN AND DETAILS
 Fishing Pier Renovations for:
Lake Ahquabi State Park
 Indianapolis, IA
 14510 118th Avenue

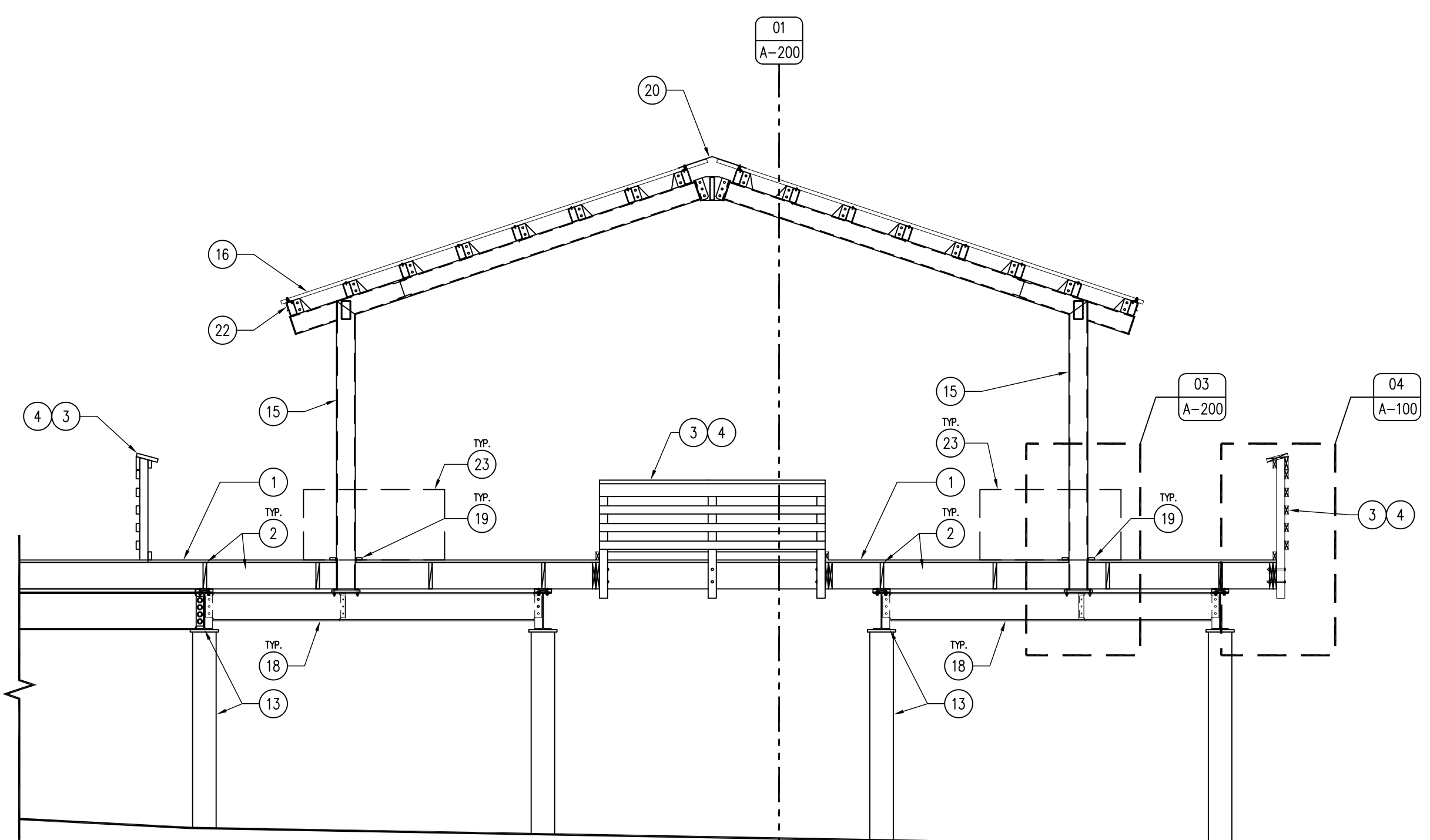
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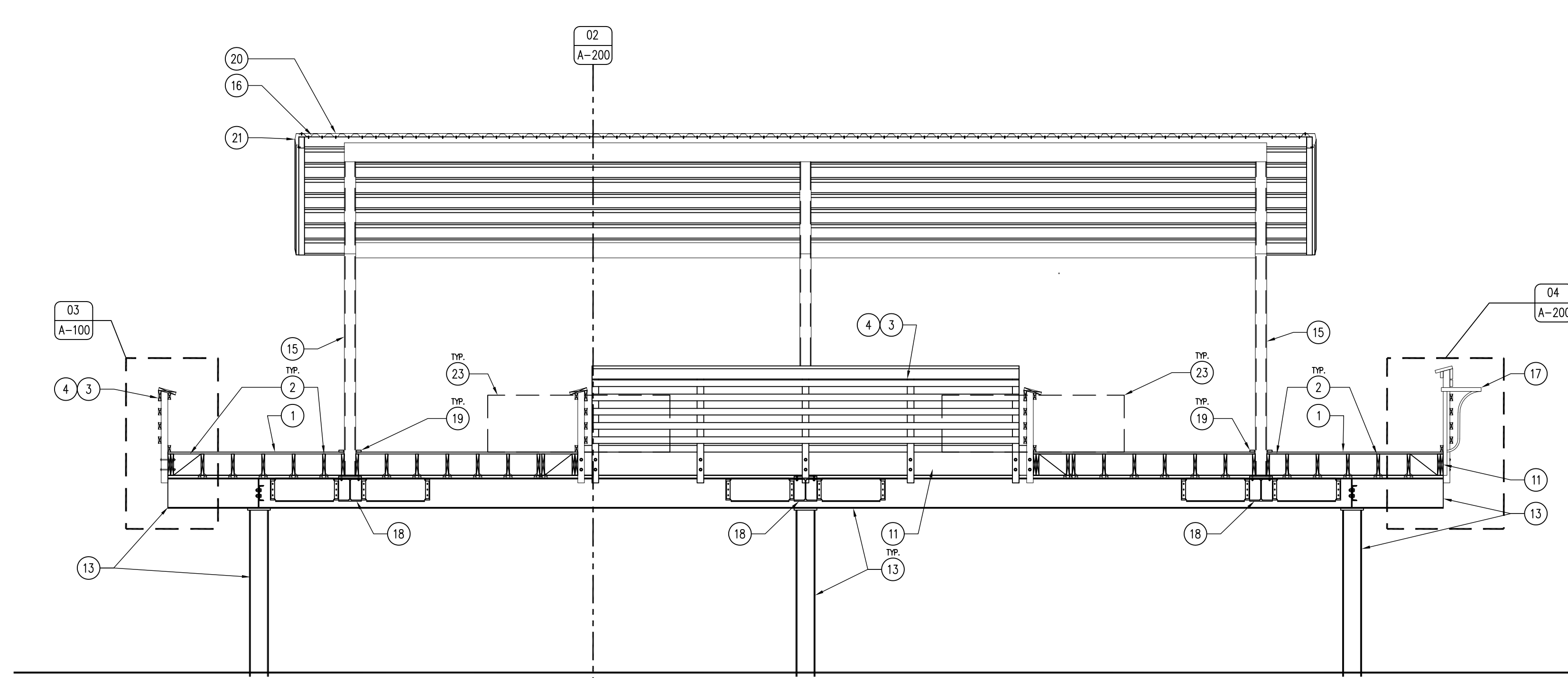
04 NOT USED
05

04 DETAIL - FISH CLEANING TABLE
SCALE: 1" = 1'-0"

03 DETAIL - SHELTER COLUMN CONNECTION
SCALE: 1" = 1'-0"



02 PIER SECTION
SCALE: 1/4" = 1'-0"



01 PIER SECTION
SCALE: 1/4" = 1'-0"

KEYNOTES

GENERAL NOTES

- 1. TREX SELECT COMPOSITE DECKING OR APPROVED EQUAL, ATTACH TO JOISTS WITH STAINLESS STEEL COUNTER-SUNK, FACE-SCREWED FASTENER SYSTEM, PER MANUFACTURER'S INSTALL INSTRUCTIONS.
- 2. 2X10 PRESSURE TREATED JOISTS, 16" O.C., ATTACH TO NAILER WITH H3 STRAPS. 2X10 PRESSURE TREATED TRANSVERSE BLOCKING EVERY 4'-0" O.C. REFER TO STRUCTURAL DRAWINGS.
- 3. 4X4 PRESSURE TREATED WOOD HANDRAIL POST. REFER TO DETAILS 03 & 04/A-100.
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- 9. 2X4 CONTINUOUS PRESSURE TREATED EDGE PROTECTION, ENTIRE PERIMETER OF PIER. INSTALL WITH TWO (2) GRK-RSS 5/8" X 4" SCREWS AT EVERY VERTICAL POST LOCATION.
- 10. TWO (2) 2" X 8" HOT DIPPED GALVANIZED HEX-HEAD BOLTS, NUTS, AND WASHERS BOTH SIDES, PER VERTICAL POST.
- 11. TWO (2) 2X10 TREATED RIM JOISTS CONTINUOUS, 2X10 TREATED BLOCKING 16" O.C. OUTRIGGER SIDE.
- 12. 2X10 TREATED BLOCKING RIM JOIST BLOCKING 16" O.C.
- 13. EXISTING STEEL STRUCTURE.
- 14. 2X6 PRESSURE TREATED NAILER, CONTINUOUS OVER STEEL BEAM.
- 15. 40'-0" X 26'-0" STEEL GABLE SHELTER, REFER TO S-100/200/300 FOR MORE INFORMATION. POWDER COAT ALL STEEL SHAPES BLACK. SUBMIT SHOP DRAWINGS FOR APPROVAL.
- 16. 24GA STEEL, AZ50 GALVALUME 7.2 RIB ROOFING WITH PVDF FINISH, COLOR TBD, SUBMIT SAMPLES. INSTALL PANELS PER MANUFACTURER'S INSTRUCTIONS.
- 17. DEEP BLUE OH38 DOCK SIDE FILET TABLE, OR APPROVED EQUAL, MOUNT DIRECTLY TO RIM JOIST OF PIER, RUN GUARDRAILS THROUGH OPENINGS OF TABLE LEGS AS SHOWN.
- 18. SHELTER SUPPORT AND CONNECTION STEEL, REFER TO SHEET S-100 FOR MORE INFORMATION.
- 19. COMPOSITE DECKING COLUMN/DECKING ESCUTCHEON, WRAP COMPOSITE AROUND PERIMETER OF COLUMN TO HIDE TRIMMED DECK BOARDS, MITER CORNERS.
- 20. UNVENTED STEEL ROOFING CAP WITH PVDF FINISH, BY ROOFING MANUFACTURER, MATCH ROOF COLOR.
- 21. GABLE RAKE END CAP WITH PVDF FINISH, BY ROOFING MANUFACTURER, MATCH ROOF COLOR.
- 22. EAVE END DRIP EDGE WITH PVDF FINISH, BY ROOFING MANUFACTURER, MATCH ROOF COLOR.
- 23. FOUR (4) UT/68TP/E PILOT ROCK PICNIC TABLES, OR APPROVED EQUAL, POWDER COAT BLACK. PERMANENTLY FASTEN TO DECK WITH FOUR (4) 304 SS 1 1/8" PIPE STRAPS AND GRK-RSS 5/8" X 3" SCREWS, EACH LEG FOR A TOTAL OF FOUR (4) PER TABLE. 2X BLOCKING REQUIRED WHERE TABLE DOES NOT LAND ON JOISTS.

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PIER SECTIONS AND ELEVATIONS

Fishing Pier Renovations for:
Lake Ahquabi State Park

Indianola, IA

16510 118th Avenue

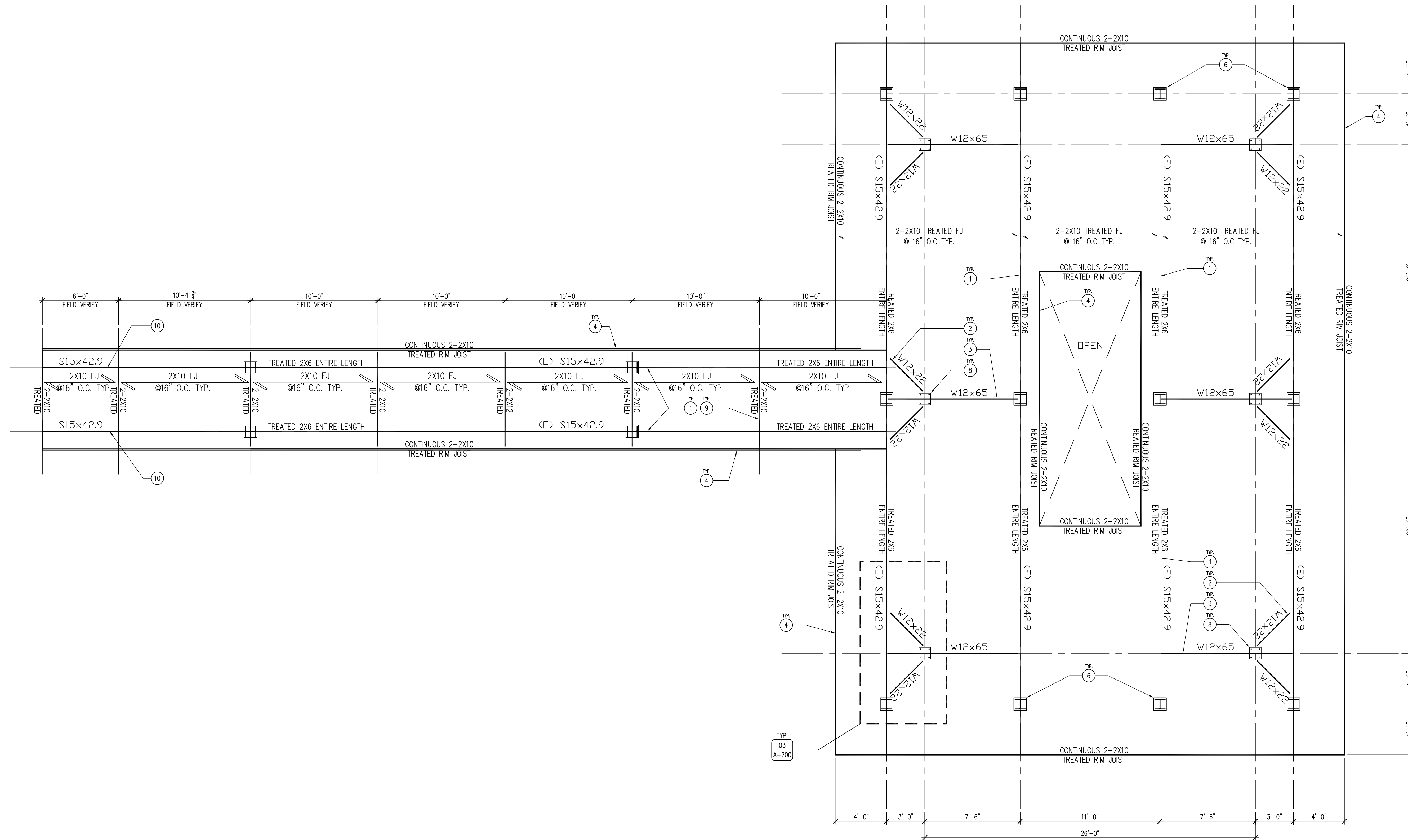
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22-05-91-08

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01.18.2022

SHEET NO.:

A-200



01 REFERENCE STRUCTURAL PLAN
SCALE: 1/4" = 1'-0"

STRUCTURAL NARRATIVE

ALL STRUCTURAL STEEL EXCEPT ADDITIONAL STRUCTURE ADDED FOR STEEL SHELTER SUPPORT, IS EXISTING AND WILL REMAIN IN PLACE. NEW SHELTER SUPPORT STEEL SHALL BE FY 50KSI, W12X65 RUNNING GIRDER TO GIRDER, AND W12X22 ANGLED LATERAL SUPPORT. AS SHOWN IN THE STRUCTURAL PLANS. SHELTER TO BE BOLTED DIRECTLY TO THE W12X65 BEAMS, PER DETAILS.

ALL FLOOR JOISTS AND 2X6 NAILERS TO BE TREATED SOUTHERN PINE #1 OR BETTER. GALVANIZED "U" HANGERS FOR THE JOIST TO RIM JOIST CONNECTIONS, AND "RTU" CLIPS FOR ALL JOIST TO NAILER CONNECTIONS

DOUBLE RIM JOISTS TO BE BLOCKED AT 48" O.C. WHEN PARALLEL TO JOISTS FOR SUPPORTING THE RAILINGS ON PIER AND BOARDWALK. PROVIDE BLOCKED DOUBLE JOISTS UNDER PARALLEL WALLS AS INDICATED WITH SOLID BLOCKING AT 24" O.C. JOISTS SHALL BE NAILED TO THAT BLOCKING WITH 4-16D AT EACH BLOCK. (BOTH SIDES). JOISTS CAN LAP OVER THE BEAMS AS SHOWN AND SPLICED WITH 4-16D NAILS.

CONCRETE FOUNDATION SEAWALL SHALL REMAIN IN PLACE. INSTALL STEEL ANGLE ONTO CONCRETE SEAWALL, REST NEW EXTENSION BEAMS ON ANGLE WITH SLOTTED CONNECTION. CONTRACTOR TO PLACE 1/2" END PLATE ON THE TWO BEAMS TO STIFFEN THE JOINT.

ALL NAILS, BOLTS, NUTS, WASHERS, SCREWS, HANGERS, CLIPS AND OTHER ASSOCIATED STRUCTURAL CONNECTION HARDWARE FOR WOOD TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.

STEEL SHELTER TO BE CONSTRUCTED ON-SITE FROM FABRICATED PARTS. ALL STEEL SHALL BE SHOP PAINTED WITH GRAY PRIMER AND THEN POWDER COATED BLACK. FIELD TOUCH-UP PAINT AS REQUIRED. THE SHELTER IS DESIGNED AS A PINNED BOTTOM THREE-HINGED ARCH. THE COLUMNS SHALL BE BUILT AS "TREES" AS DETAILED AND THE FRAME BEAMS SHALL BE FULL PENETRATION WELDED TO THE COLUMNS ON-SITE. ALL OTHER FIELD JOINTS SHALL BE BOLTED UNLESS THE CONTRACTOR PROVIDED A DNR APPROVED ALTERNATE PLAN. ALL FASTENERS SHALL BE A325-F BOLTS. ALL WELDS SHALL BE MADE WITH E70-XX ELECTRODES.

KEYNOTES

- EXISTING STEEL GIRDER, ATTACH A 2X6 TREATED NAILER PLATE AND FIX WITH 3/4" HOT-DIPPED GALVANIZED HEX-HEAD BOLTS, WITH FENDER WASHERS AND LOCK WASHERS, STAGGERED 24" O.C. BOTH SIDES.
- W12X22 STEEL SUPPORT BEAM. BOLT CONNECTION TO W12X65 SUPPORT BEAM WITH BOLTED CONNECTIONS AND WELDED TABS, REFER TO DETAILS SHEET S-200.
- W12X65 STEEL BEAM, CONNECT TO EXISTING GIRDERS WITH BOLTED CONNECTIONS AND WELDED TABS, REFER TO DETAILS SHEET S-200.
- DOUBLE (2) 2X10 TREATED RIM JOISTS, CONTINUOUS.
- 2X10 TREATED JOISTS 16" O.C., CONNECT TO NAILERS WITH H3 CLIPS BOTH SIDES AT ALL NAILER LOCATIONS.
- EXISTING STEEL PILE, TO REMAIN.
- 2X10 TREATED BLOCKING 4'-0" O.C.
- STEEL SHELTER STRUCTURE CONNECTION PLATE, BY MANUFACTURER. REFER TO SHEET S-200.
- DOUBLE (2) 2X10 TREATED BOARDWALK BEAMS, CONNECT TO NAILER PLATE WITH DSP CONNECTOR BOTH SIDES FOR SUPPORT. CONNECT JOISTS WITH "U" HANGERS TO WOOD BEAMS.
- ADD SECTION OF S15X42.9 FROM EXISTING STEEL STRUCTURE TO EXISTING SEAWALL, REFER TO SHEET S-200 FOR MORE INFORMATION.

GENERAL NOTES

- FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- ALL STRUCTURAL STEEL IS FY 50 KSI.
- ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
- ALL CONNECTION HARDWARE (NUTS, WASHERS, BOLTS, ETC.) TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL SCREWS TO BE STAINLESS STEEL.

STRUCTURAL PLAN AND NARRATIVE

Fishing Pier Renovations for:
Lake Ahquabi State Park

Indianola, IA
16510 118th Avenue

**IOWA DEPARTMENT OF
NATURAL RESOURCES**
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034
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CONSULTANT:

NO. BY REVISION

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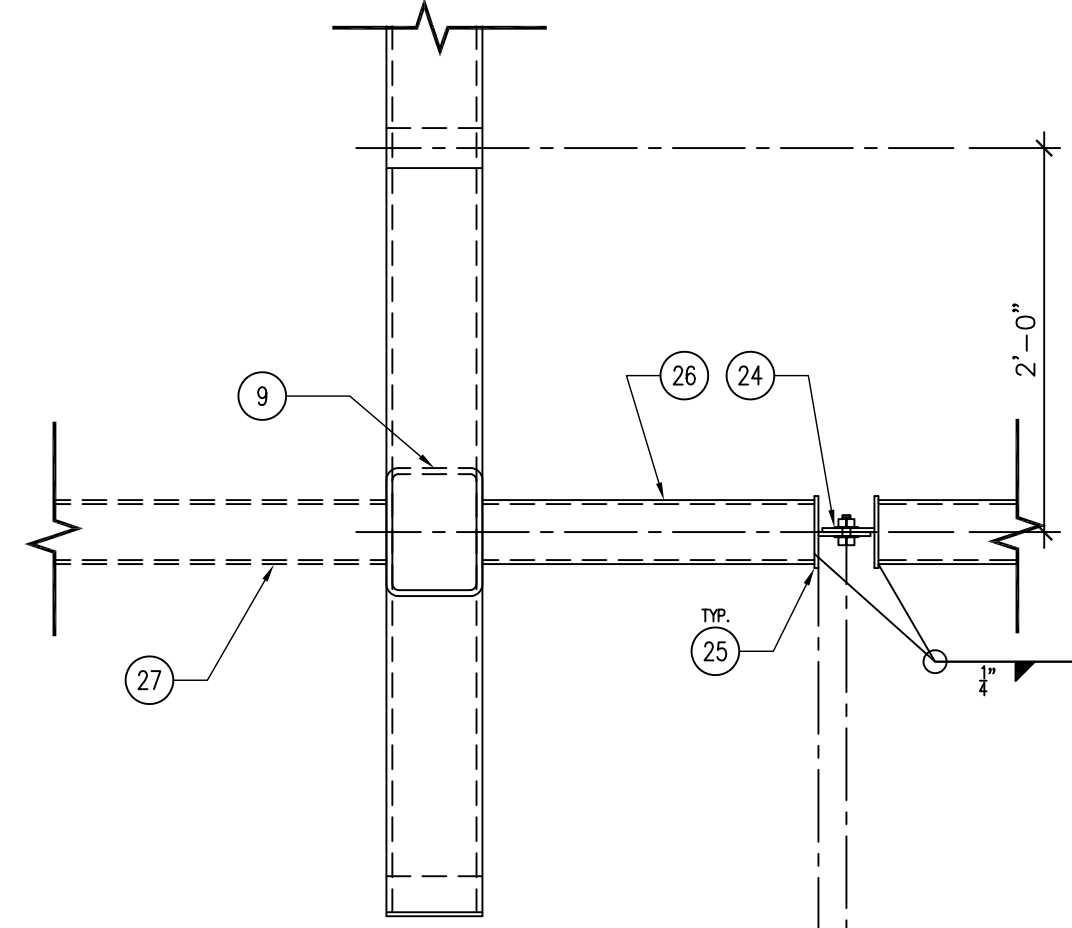
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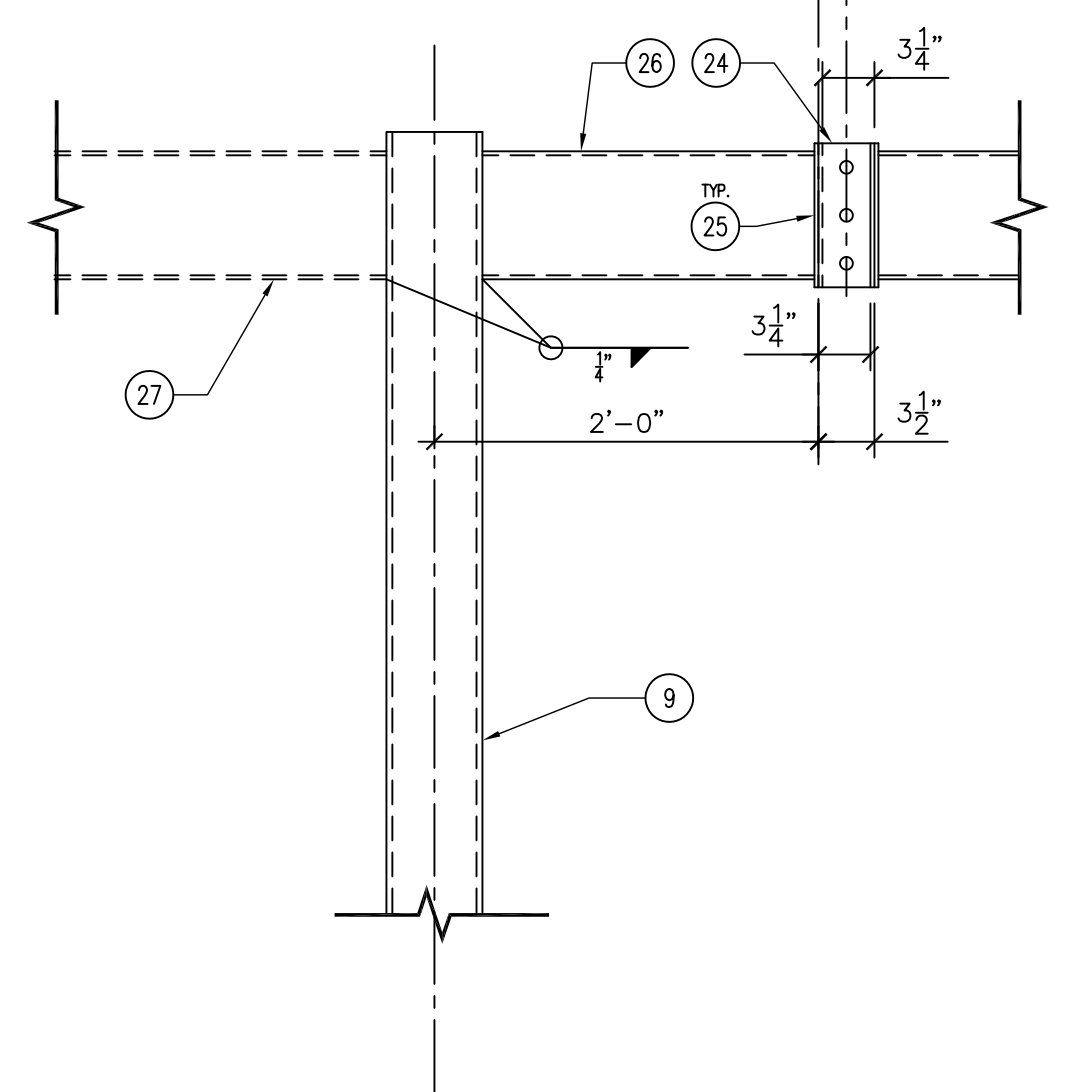
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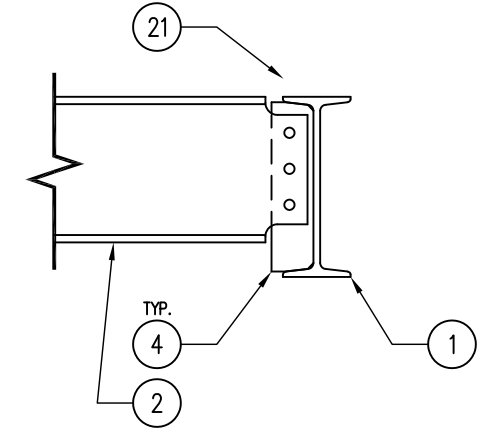


PLAN

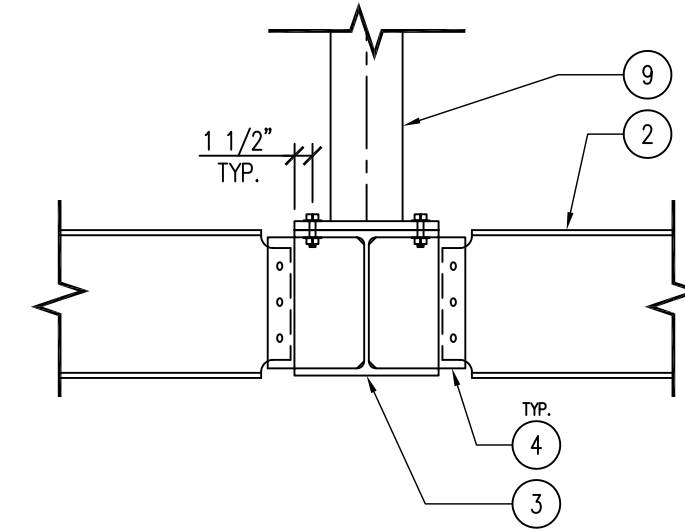


ELEVATION

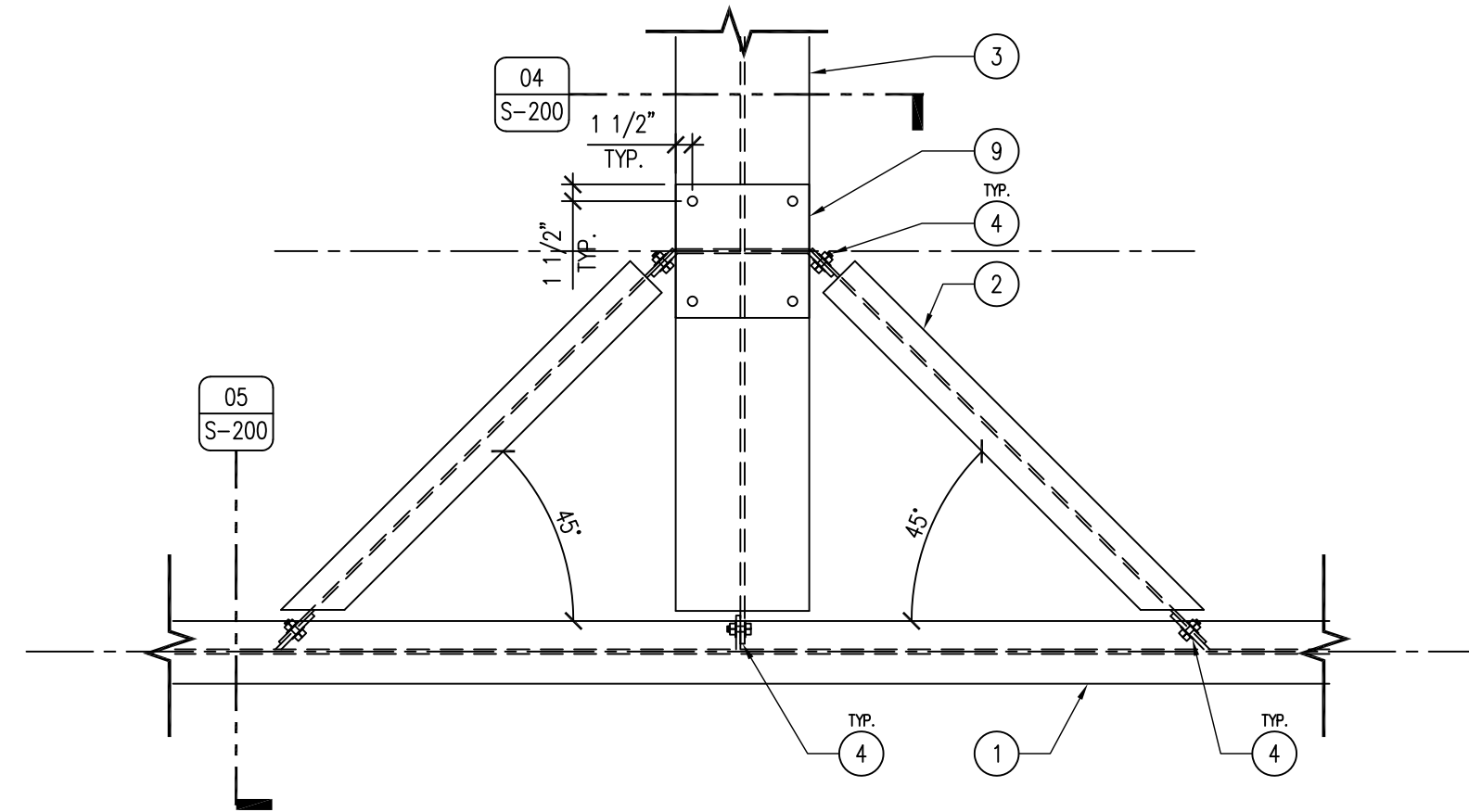
06 DETAIL - COLUMN AND EAVE BEAM SPLICE
SCALE: 1" = 1'-0"



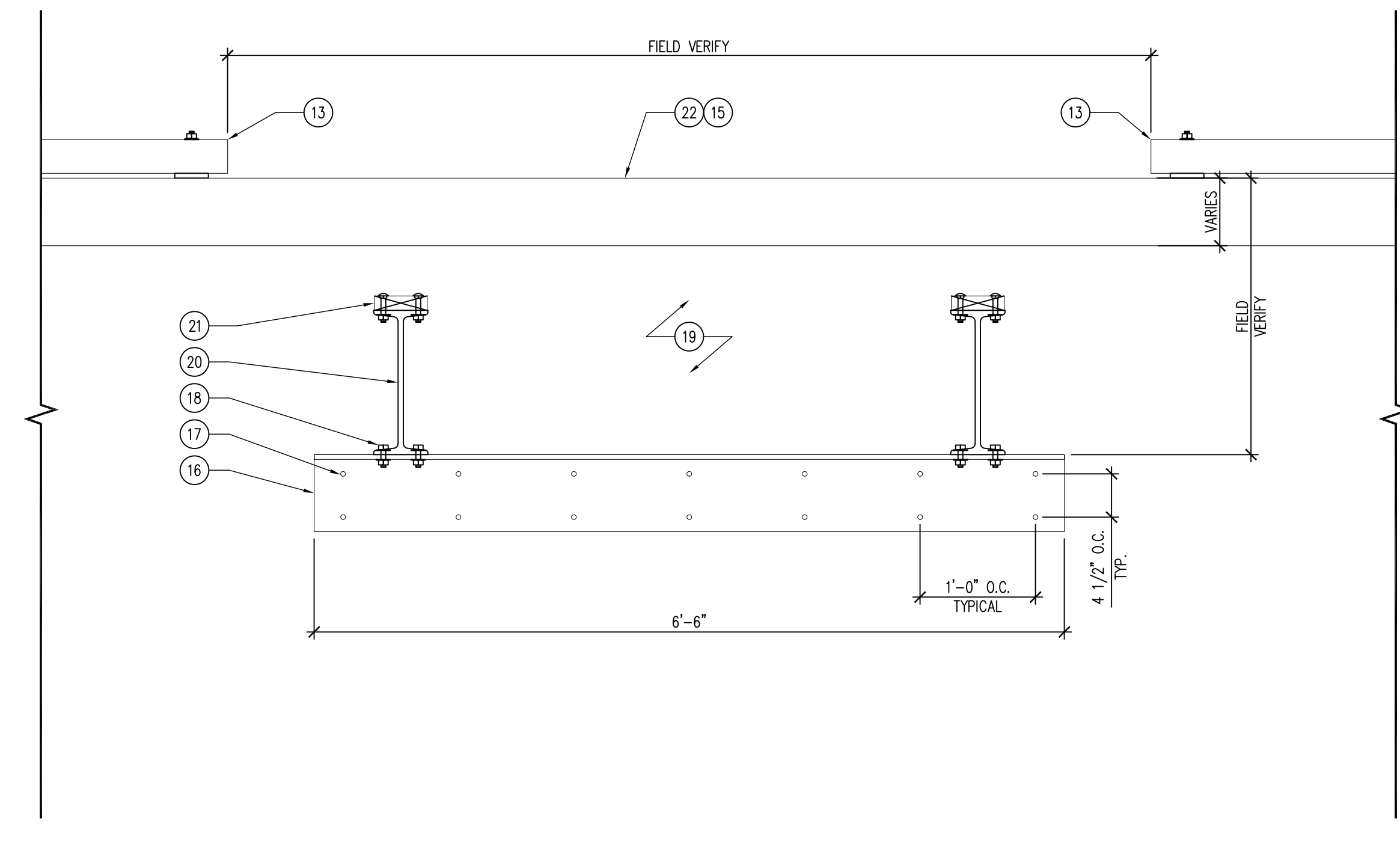
05 DETAIL - SHELTER TO STRUCTURE CONNECTION (SECTION)
SCALE: 3/4" = 1'-0"



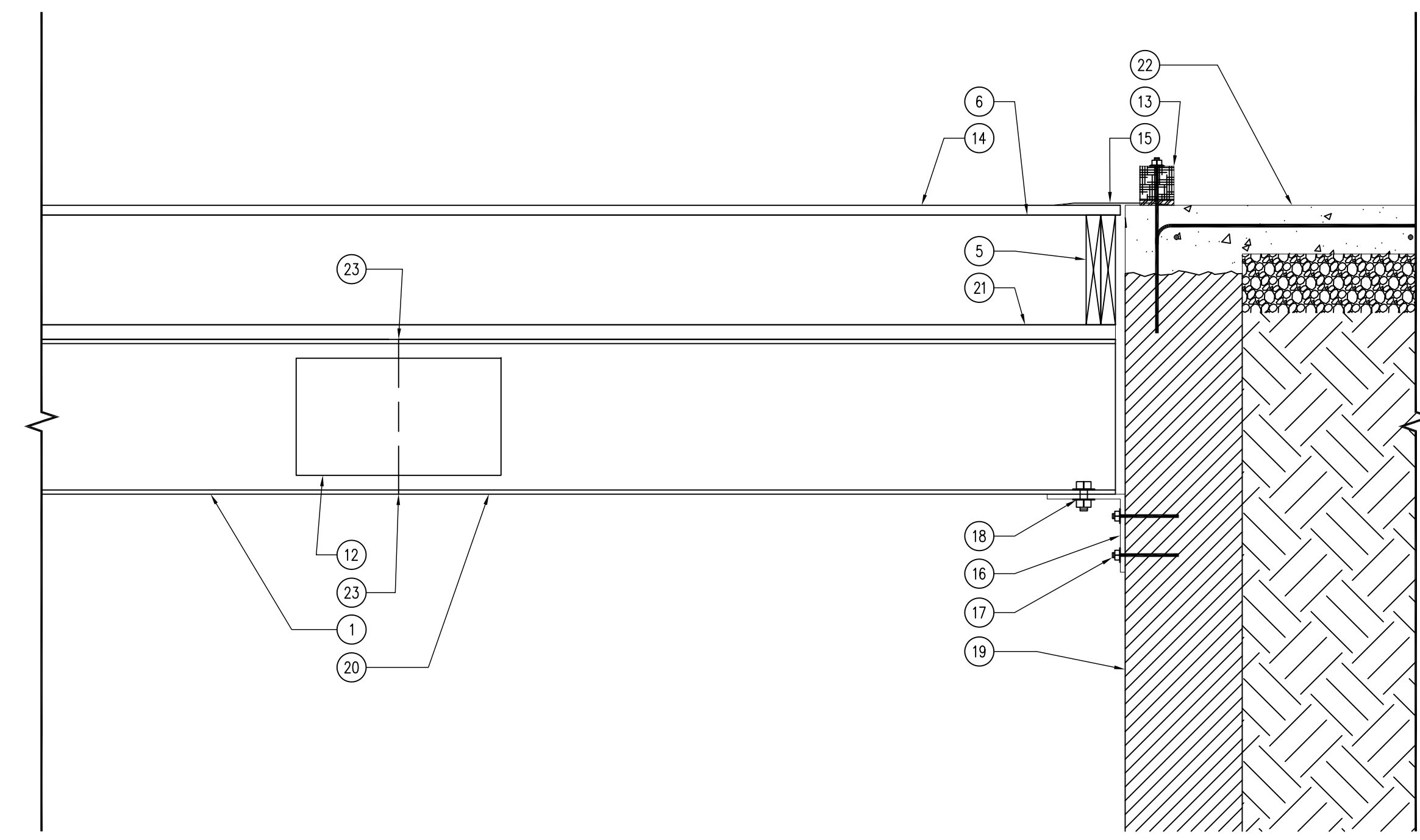
04 DETAIL - SHELTER TO STRUCTURE CONNECTION (SECTION)
SCALE: 3/4" = 1'-0"



03 DETAIL - SHELTER TO STRUCTURE CONNECTION (PLAN)
SCALE: 3/4" = 1'-0"



02 SECTION - GANGWAY TO SEAWALL CONNECTION
SCALE: 1" = 1'-0"



01 SECTION - GANGWAY EXTENSION
SCALE: 1" = 1'-0"

KEYNOTES

- EXISTING S15X42.9 STEEL GIRDER.
- W12X22 STEEL SUPPORT BEAM WITH 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS.
- W12X65 SUPPORT BEAM WITH 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS.
- 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS WELDED TO EXISTING STEEL BEAM
- DOUBLE (2) 2X10 TREATED RM JOISTS, CONTINUOUS.
- 2X10 TREATED JOISTS 16" O.C.
- EXISTING STEEL PILE, TO REMAIN.
- 2X10 TREATED BLOCKING 4'-0" O.C.
- STEEL SHELTER COLUMN PER PLAN ON SHEET S-300. BASEPLATE SHALL BE 1"X12"X1'-0" WITH (4) 3/4" @ A325 BOLTS TO NEW SUPPORT BEAM. SEE SHEET S-300 FOR PLANS.
- DOUBLE (2) 2X10 TREATED BOARDWALK BEAMS, CONNECT TO NAILER PLATE WITH DSP CONNECTOR BOTH SIDES FOR SUPPORT. CONNECT JOISTS WITH "U" HANGERS TO WOOD BEAMS.
- ADD SECTION OF S15X42.9 FROM EXISTING STEEL STRUCTURE TO EXISTING SEAWALL, REFER TO DETAILS FOR MORE INFORMATION.
- 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS, OPTIONAL WELD.
- TREATED 4X4 EDGE PROTECTION POST, REFER TO SHEET A-012 FOR MORE INFORMATION.
- DECKING AS SPECIFIED ON SHEET A-100.
- ADJUSTABLE PIANO-HINGED ALUMINUM GANGWAY LEVELING PLATE, FULL WIDTH OF GANGWAY (ROUGHLY 8'-0" WIDE, FIELD VERIFY AND CUT TO LENGTH).
- 8X8X3/8" STEEL ANGLE, ANCHOR TO EXISTING SEAWALL.
- 3/4" DIAMETER A307 THREADED RODS, EPOXIED 8" MINIMUM INTO EXISTING WALL, SEE DETAIL 02/S-200.
- PROVIDE LONG SLOTTED HOLES IN SUPPORT ANGLE, LEAVE 1" GAP AT SEAWALL, BOLT WITH TWO (2) 3/4" DIAMETER A325 BOLTS AND TAPERED WASHERS EACH CONNECTION, AS SHOWN.
- EXISTING SEAWALL TO REMAIN, PATCH HOLES FROM PREVIOUS BOARDWALK WITH NON-SHRINK GROUT.
- S15X42.9 EXTENSION FROM EXISTING BEAM TO SEAWALL ANGLE SUPPORT.
- 2X6 TREATED NAILER PLATE AND FIX WITH 3/4" HOT-DIPPED GALVANIZED HEX-HEAD BOLTS, WITH FENDER WASHERS AND LOCK WASHERS, STAGGERED 24" O.C. BOTH SIDES.
- PCC SEAWALL SIDEWALK, REFER TO SHEET A-012. NO CURBING AT GANGWAY ENTRANCE, ROUGHLY 8'-0" OPENING, FIELD VERIFY.
- PREP EXISTING STEEL BEAM AND PROVIDE FULL PENETRATION WELD AT FLANGE TO FLANGE TOP AND BOTTOM OF BEAM EXTENSION.
- 3/4" X 3 3/4" X 9" SHEAR PLATES WITH (3) 3/4" A325F BOLTS.
- 3/4" X 4 3/4" X 9" END PLATE, TYP.
- BEAM PER PLAN. TOP OF BEAM PER SECTION 02/S-300.
- CONDITION AT FRAME 2 SHOWN DASHED. MIRROR IMAGE EACH SIDE.

GENERAL NOTES

- FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- ALL STRUCTURAL STEEL IS FY 36 KSI.
- ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
- ALL CONNECTION HARDWARE (NUTS, WASHERS, BOLTS, ETC.) TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL SCREWS TO BE STAINLESS STEEL.

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NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034
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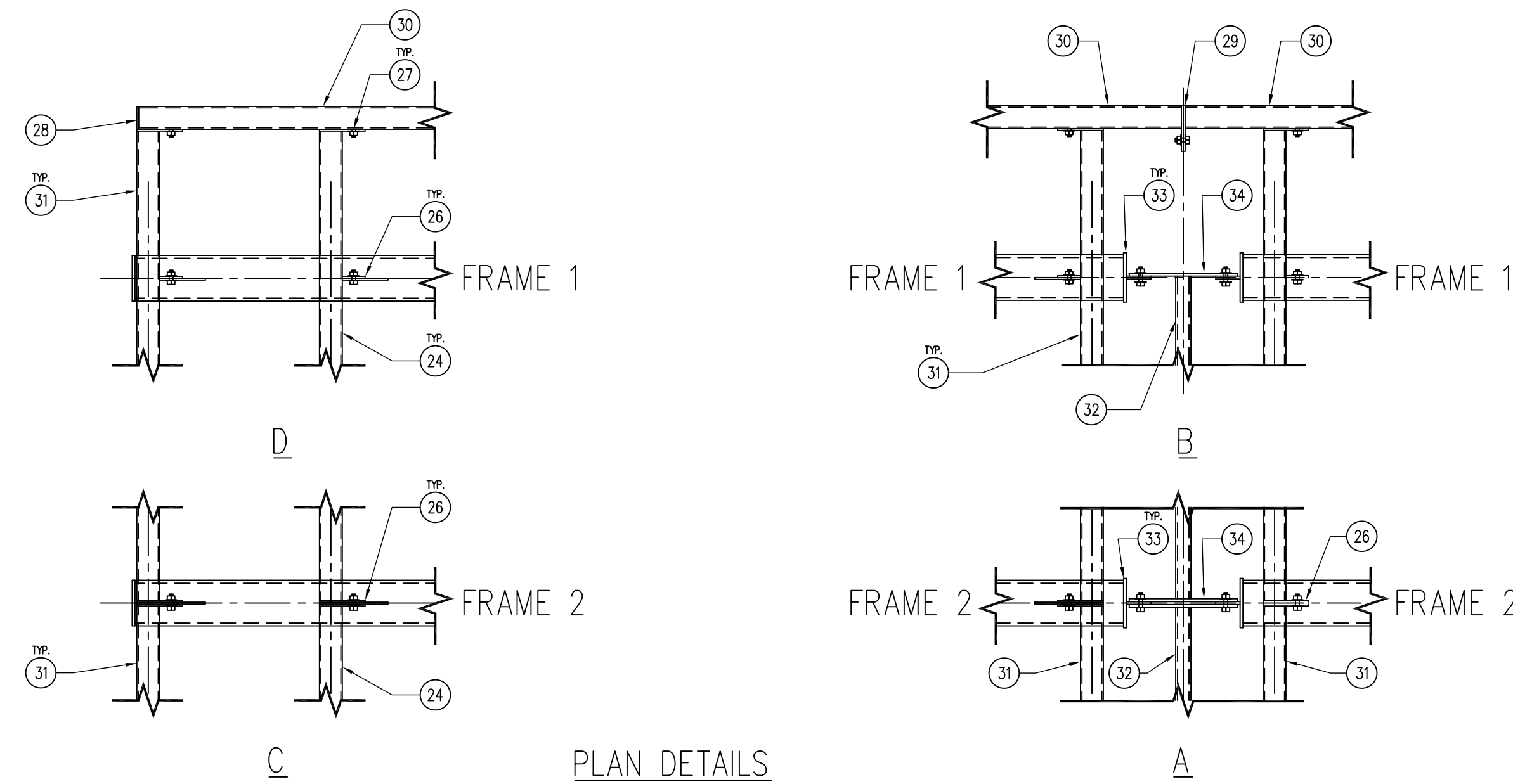
STRUCTURAL PLAN AND NARRATIVE

Fishing Pier Renovations for:
Lake Ahquabi State Park
Indiana, IA
16510 118th Avenue

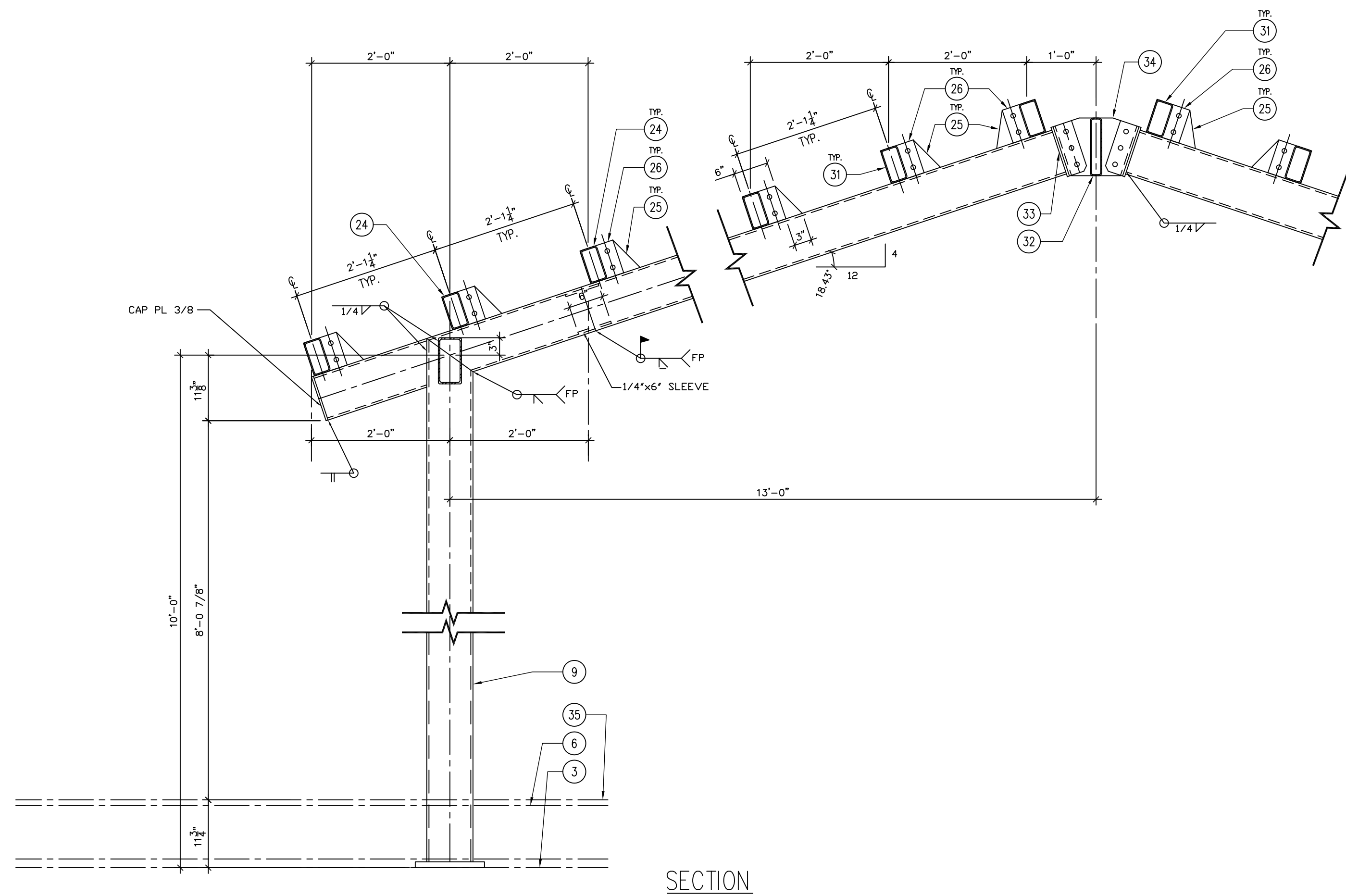
NO.	BY	DATE	REVISION

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22-05-91-08
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01.18.2022

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S-200

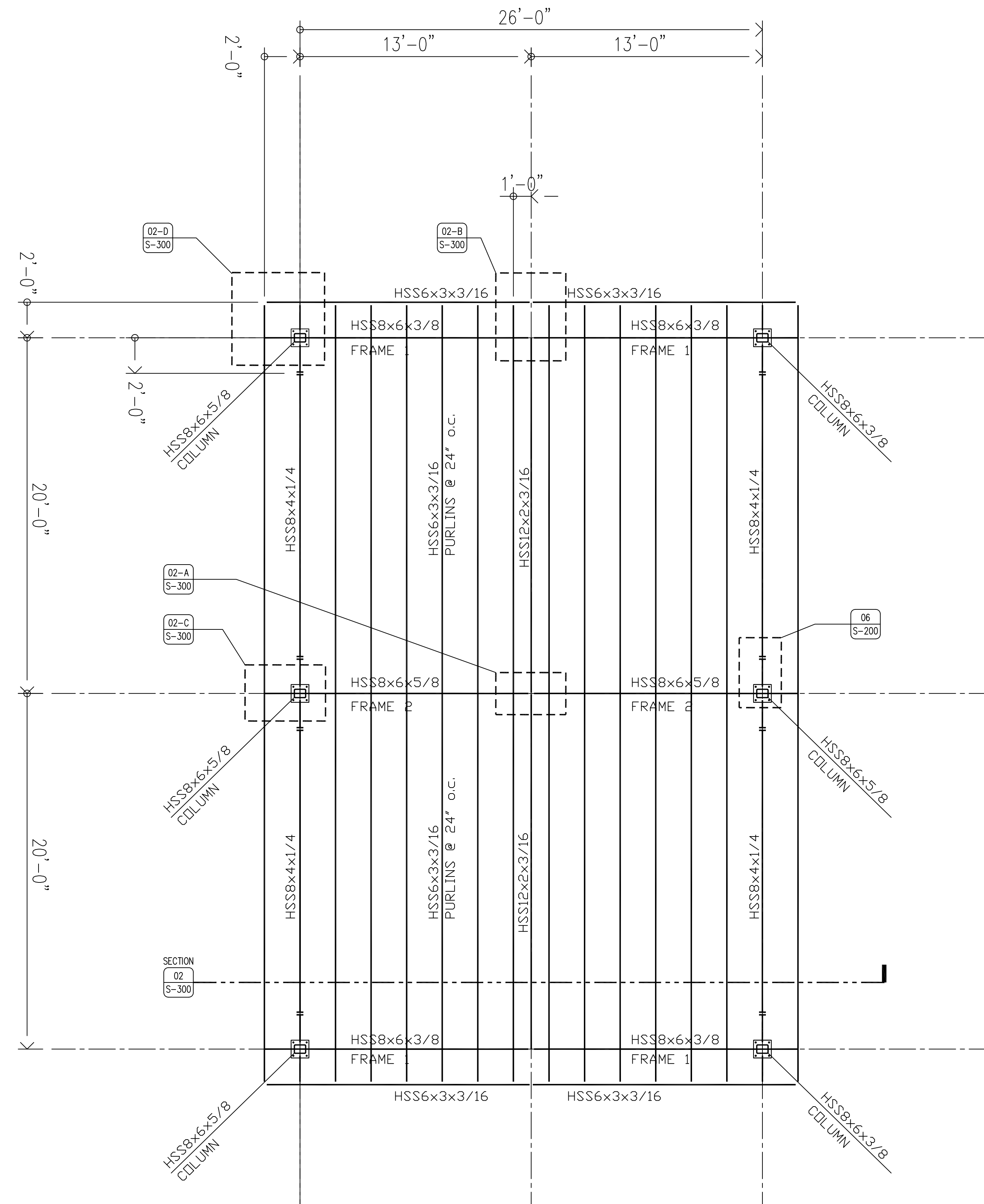


PLAN DETAILS



SECTION

02 DETAIL - COLUMN AND BEAM
SCALE: 1" = 1'-0"



01 PLAN - STEEL SHELTER STRUCTURE
SCALE: 1/4" = 1'-0"

KEYNOTES

1. EXISTING S15X42.9 STEEL GIRDER.
2. W12X22 STEEL SUPPORT BEAM WITH 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS.
3. W12X65 SUPPORT BEAM WITH 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS.
4. 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS WELDED TO EXISTING STEEL BEAM.
5. DOUBLE (2) 2X10 TREATED RM JOISTS, CONTINUOUS.
6. 2X10 TREATED JOISTS 16" O.C.
7. EXISTING STEEL PILE, TO REMAIN.
8. 2X10 TREATED BLOCKING 4'-0" O.C.
9. STEEL SHELTER COLUMN PER PLAN ON SHEET S-300. BASEPLATE SHALL BE 1" X 12" X 1'-0" WITH (4) 3/4" A325 BOLTS TO NEW SUPPORT BEAM. SEE SHEET S-300 FOR PLANS.
10. DOUBLE (2) 2X10 TREATED BOARDWALK BEAMS, CONNECT TO NAILER PLATE WITH DSP CONNECTOR BOTH SIDES FOR SUPPORT. CONNECT JOISTS WITH "U" HANGERS TO WOOD BEAMS.
11. ADD SECTION OF S15X42.9 FROM EXISTING STEEL STRUCTURE TO EXISTING SEAWALL, REFER TO DETAILS FOR MORE INFORMATION.
12. 3/8" SHEAR PLATE WITH THREE (3) 3/4" DIAMETER A325 BOLTS, OPTIONAL WELD.
13. TREATED 4X4 EDGE PROTECTION POST, REFER TO SHEET A-012 FOR MORE INFORMATION.
14. DECKING AS SPECIFIED ON SHEET A-100.
15. ADJUSTABLE PLANO-HINGED ALUMINUM GANGWAY LEVELING PLATE, FULL WIDTH OF GANGWAY (ROUGHLY 8'-0" WIDE, FIELD VERIFY AND CUT TO LENGTH).
16. 8X8X1/2" STEEL ANGLE, ANCHOR TO EXISTING SEAWALL.
17. 3/4" DIAMETER A307 THREADED RODS, EPOXIED 8" MINIMUM INTO EXISTING WALL, SEE DETAIL 02/S-200.
18. PROVIDE LONG SLOTTED HOLES IN SUPPORT ANGLE, LEAVE 1" GAP AT SEAWALL, BOLT WITH TWO (2) 3/4" DIAMETER A325 BOLTS AND TAPERED WASHERS EACH CONNECTION, AS SHOWN.
19. EXISTING SEAWALL TO REMAIN, PATCH HOLES FROM PREVIOUS BOARDWALK WITH NON-SHRINK GROUT.
20. S15X42.9 EXTENSION FROM EXISTING BEAM TO SEAWALL ANGLE SUPPORT.
21. 2X6 TREATED NAILER PLATE AND FIX WITH 3/4" HOT-DIPPED GALVANIZED HEX-HEAD BOLTS, WITH FENDER WASHERS AND LOCK WASHERS, STAGGERED 24" O.C. BOTH SIDES.
22. PCC SEAWALL SIDEWALK, REFER TO SHEET A-012. NO CURBING AT GANGWAY ENTRANCE, ROUGHLY 8'-0" OPENING, FIELD VERIFY.
23. PREP EXISTING STEEL BEAM AND PROVIDE FULL PENETRATION WELD AT FLANGE TO FLANGE TOP AND BOTTOM OF BEAM EXTENSION.
24. PURLIN LAYOUT PER PLAN, CENTERLINE AT TOP OF PURLIN IS COLUMN CENTERLINE.
25. 3/4" SHEAR PLATE TYP. 3" TOP LENGTH AT END CONDITION.
26. 1" X 6" END PLATE AT FRAME 2. 1" X 6" SHEAR PLATE AT FRAME 1. TWO (2) 3/4" A325F BOLTS.
27. 1" X 6" END PLATE AT PURLIN ENDS WITH TWO (2) 3/4" A325F STUDS WELDED TO RAKE BEAM.
28. 1" END PLATE, TYP.
29. 1" X 6" END PLATES AT RAKE BEAMS. TWO (2) A325F BOLTS AT 3" O.C.
30. RAKE BEAM PER PLAN.
31. PURLINS PER PLAN.
32. RIDGE BEAM PER PLAN.
33. 3/4" X 6 1/2" X 9" END PLATE WITH 3/4" X 3 1/4" SHEAR PLATE AND THREE (3) 3/4" A325F BOLTS.
34. 3/4" X 6" END PLATE X 12" TALL (TWO (2) AT FRAME 2) WELDED TO RIDGE BEAM.
35. COMPOSITE DECKING, REFER TO SHEET A-100.

GENERAL NOTES

- A. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- B. ALL STRUCTURAL STEEL IS FY 50 KSI.
- C. ALL STRUCTURAL WOOD TO BE SOUTHERN YELLOW PINE #1 OR BETTER.
- D. ALL CONNECTION HARDWARE (NUTS, WASHERS, BOLTS, ETC.) TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL SCREWS TO BE STAINLESS STEEL.

CONSULTANT:

IOWA DEPARTMENT OF
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S-300