

Iowa Department of Natural Resources
 Construction Documents
 Dock Installation and Site Repairs
 for
 Storm Lake Marina
 Buena Vista County, IA
 Project #23-01-11-01
 Plans prepared by
 Land and Waters Bureau
 Conservation and Recreation Division

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I hereby certify that this architectural document was prepared by me or under my direct personal supervision and that I am a duly Registered Professional Architect under the laws of the State of Iowa.

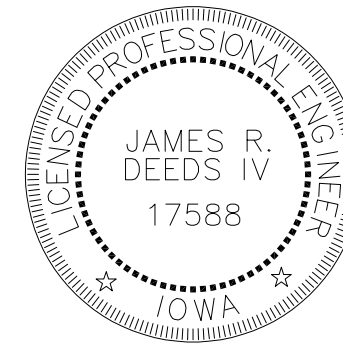
Ryan E Richey
Digitally signed by Ryan E Richey
 DN: C=US, E=ryan.richey@dnr.iowa.gov, O=Iowa Department of Natural Resources, OU=Engineering Section - L&W Bureau, CN=Ryan E Richey
 Date: 2022.09.20 08:20:27-05'00'

RYAN E. RICHEY _____ DATE

My license renewal date is June 30, 2023.

Pages or sheets covered by this seal:

A-001 – A-103



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly LICENSED Professional ENGINEER under the laws of the State of Iowa.

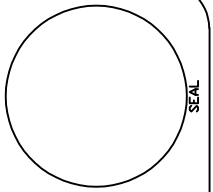
James Deeds
Digitally signed by James Deeds
 DN: C=US, E=jdeeds@kclengineering.com, O=KCL Engineering, CN=James Deeds
 Date: 2022.09.20 09:55:11-05'00'

JAMES R. DEEDS IV _____ DATE

My license renewal date is DECEMBER 31, 2022.

Pages or sheets covered by this seal:

E0 – E9



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ENGINEERING SERVICES - WALLACE BUILDING
 502 E. 9TH ST., DES MOINES, IA 50319-0034
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 F: 515.725.8202



AUTHORIZATION TO BID

_____	DATE	_____	DATE
BUREAU CHIEF - LAND AND WATERS		PARKS WILDLIFE FISHERIES LAW ENFORCEMENT	

DIRECTORY

Architect		DNR Inspector	
COMPANY	Iowa Department of Natural Resources	COMPANY	Iowa Department of Natural Resources
ADDRESS	502 E 9th Street	ADDRESS	-
CITY,STATE,ZIP	Des Moines, IA 50319	CITY,STATE,ZIP	Hinton, IA
CONTACT	Ryan Richey	CONTACT	Jeff Felts
TELEPHONE	515-979-0107	TELEPHONE	515-250-3712
FAX	-	FAX	-
EMAIL	ryan.richey@dnr.iowa.gov	EMAIL	jeff.felts@dnr.iowa.gov

Storm Lake Marina was constructed in 2008 and the current dock system is original. This dock system is old and in need of replacement. A new dock system by EZ Dock shall be installed in this project with new electrical panels, site lighting, sidewalks and stoop footing approaches.

Dock Installation and Site Repairs for:

Storm Lake Marina

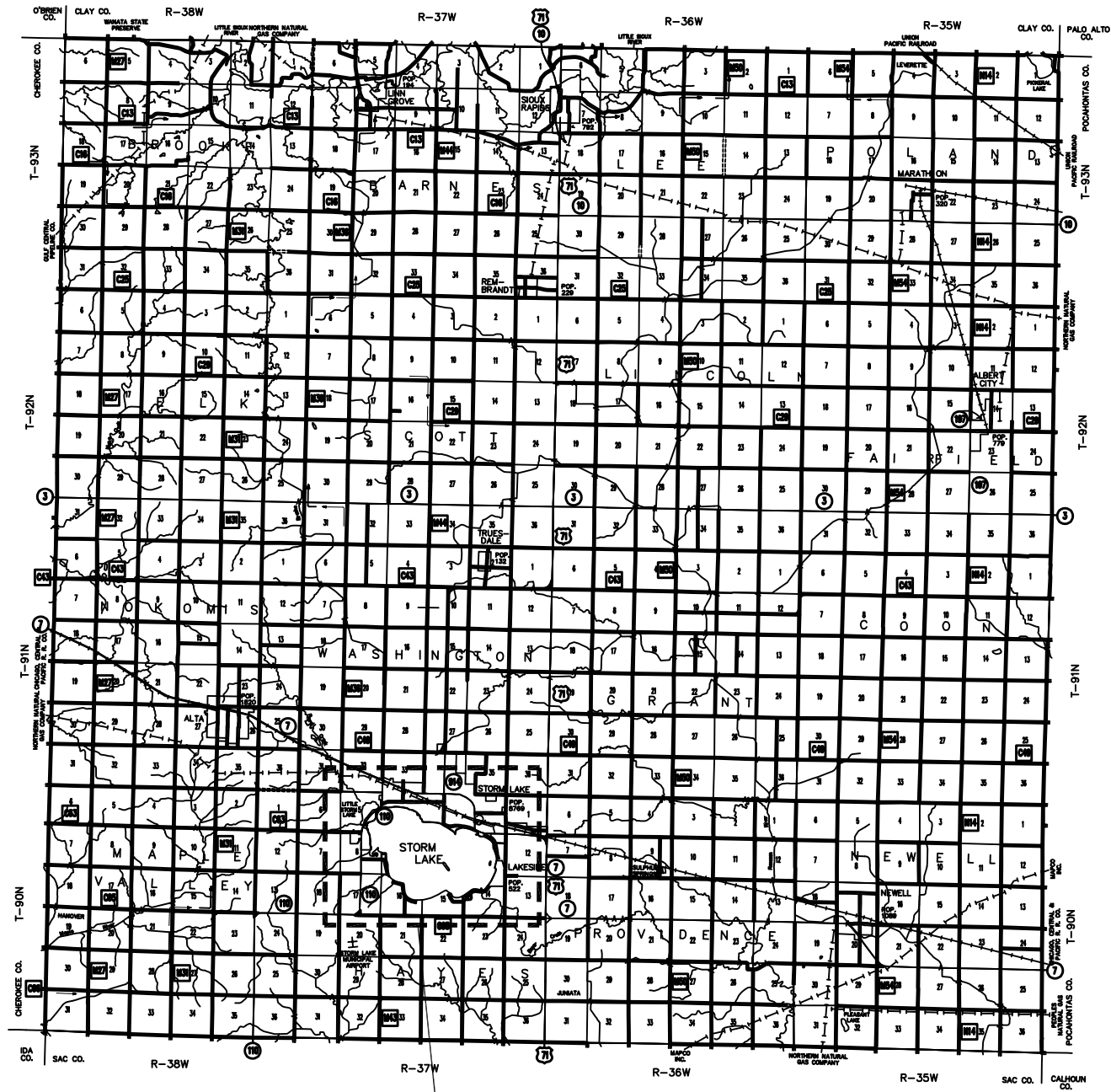
Storm Lake, IA 50588

207 W Marina Road

DRAWN BY:	PROJECT NUMBER:
CHK'D BY:	DATE:
	08.23.2022

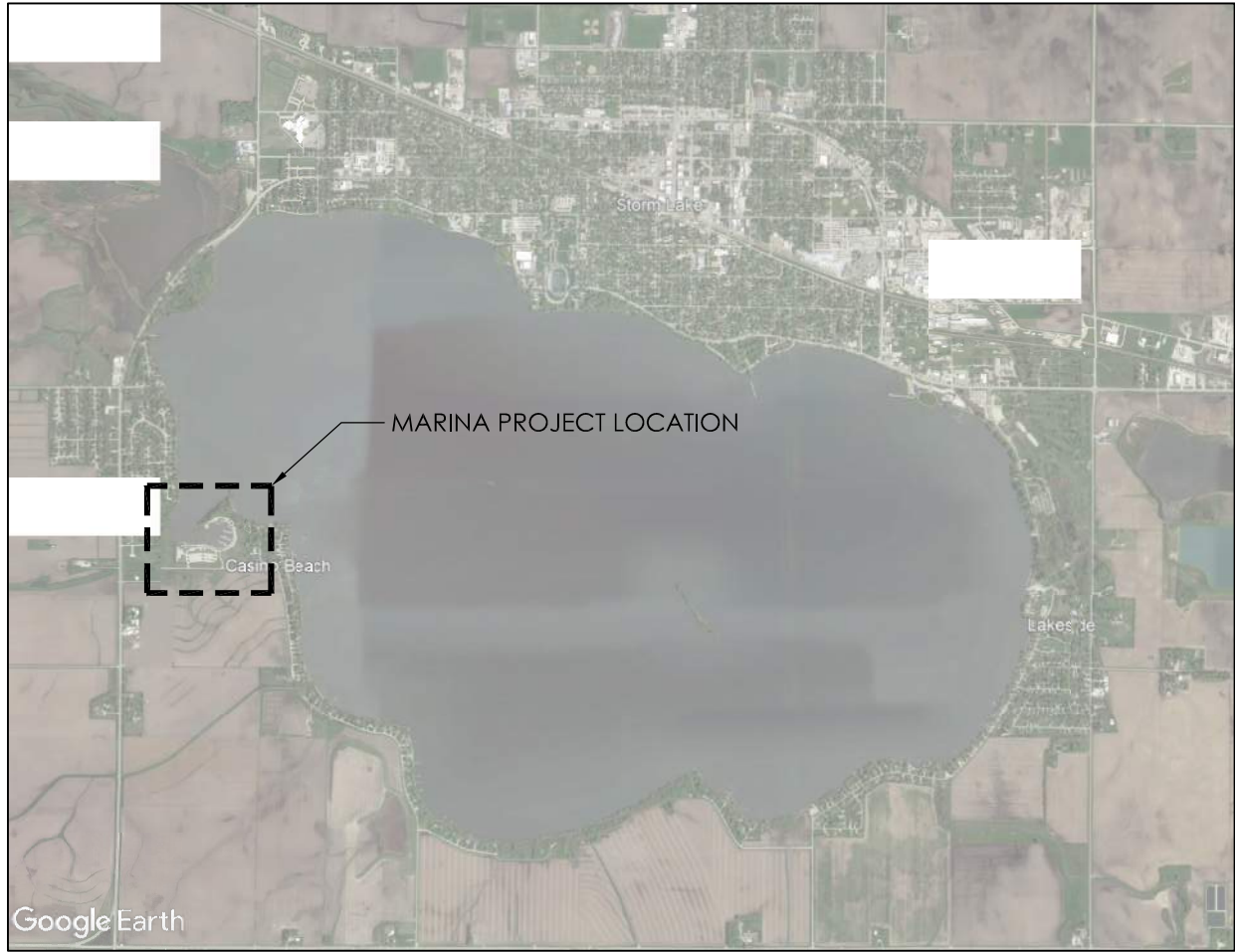
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A-001



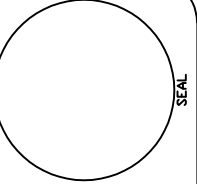
PROJECT LOCATION

02 BUENA VISTA COUNTY – STORM LAKE
SCALE: NTS



MARINA PROJECT LOCATION

01 STORM LAKE – PROJECT LOCATION
SCALE: NTS



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Dock Installation and Site Repairs for:
Storm Lake Marina
207 W Marina Road Storm Lake, IA 50588

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DATE:	08.23.2022
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A-002

GENERAL CONSTRUCTION NOTES

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.

All construction shall be in accordance with Statewide Urban Standard Design Specifications for public improvements (SUDAS). All construction testing to be in accordance with SUDAS and is the expense of the contractors.

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".

This project, for Storm Lake Marina – Dock Installation and Site Repairs, shall commence when all contracts are executed and in place. Construction shall be completed no later than May 12, 2023.

The contractor shall demolish all seven (7) concrete dock approaches of varying size, three (3) fences and gates, three (3) electrical panels, three (3) site lights.

Contractor shall then install three (3) new electrical sub-panels, three (3) new site lights, and six (6) new concrete stoop approaches of varying sizes. Contractor shall then reattached three (3) existing courtesy docks to the new concrete approaches and install three (3) new EZ Dock systems in the rental slip area, as shown.

Contractor to follow all EZ Dock installation instructions and recommendations. Contractor shall have or shall sub-contract an EZ Dock installer with a minimum of 5 years experience and 5 projects of similar size and scope, to install this dock system. Contractor to submit credentials with references and experience for approval.

KEYNOTES

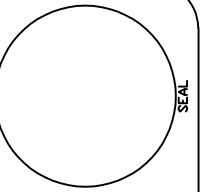
1. EXISTING DOCKS HAVE BEEN PREVIOUSLY REMOVED. PREP AREA PER EZ DOCKS INSTRUCTIONS.
2. EXISTING COURTESY DOCKS AND PIERS TO BE TEMPORARILY DISCONNECTED FROM CONCRETE APPROACH. SAVE ALL HARDWARE AND GANGWAY ACCESSORIES FOR REINSTALLATION OF EXISTING DOCK STRUCTURES.
3. DEMOLISH CONCRETE DOCK APPROACH AND SIDEWALK AS SHOWN. SAW-CUT SIDEWALK, PREP FOR NEW STOOP FOOTING APPROACH.
4. DEMOLISH CONCRETE DOCK APPROACH ONLY, FILL IN VOID AND SHORELINE WITH RIP-RAP ARMORING ROCK.
5. DEMOLISH EXISTING FENCING AND GATES, PREP AREA FOR NEW FENCING AND GATES.
6. DEMOLISH EXISTING SITE POLE LIGHTING, PREP FOR NEW POLE LIGHT.
7. DEMOLISH EXISTING ELECTRICAL SUB-PANEL, PREP FOR NEW ELECTRICAL PANEL.
8. EXISTING BUILDING TO REMAIN.
9. EXISTING FISHING PIER TO REMAIN.
10. PROTECT FUEL LINE AND ELECTRIC IN PLACE.
11. 6" THICK X 5'-0" X 5'-0" SECTION OF SIDEWALK OVER 6" SUBBASE WITH THREE (3) #4 REBAR FROM NEW STAIR LANDING/APPROACH. DOWEL INTO EXISTING SIDEWALK, FOLLOW DETAIL 03/A-102.
12. CONCRETE STOOP FOOTING DOCK APPROACH WITH #4 REBAR 12" O.C. ALL DIRECTIONS OVER 6" SUBBASE, THREE (3) #4 X 12" DOWELS INTO ADJACENT SIDEWALKS WITH 1/2" EXPANSION JOINT AND POLYURETHANE SEALANT CONTINUOUS, REFER TO 01 & 02/A-102. ATTACH NEW EZ DOCK GANGWAY WITH PROVIDED HARDWARE PER MANUFACTURER'S INSTRUCTIONS.
13. CONCRETE STAIR STOOP LANDING/DOCK APPROACH WITH #4 REBAR 12" O.C. ALL DIRECTIONS OVER 6" SUBBASE, RUN THREE (3) #4 REBAR INTO ADJACENT NEW SIDEWALK SECTION, AND DOWEL INTO EXISTING STAIR FOOTING. MATCH EXISTING LANDING AREA DIMENSIONS (ROUGHLY 10'-0" X 12'-0"). REATTACH DOCK GANGWAY WITH EXISTING HARDWARE.
14. CONCRETE STOOP FOOTING DOCK APPROACH WITH #4 REBAR 12" O.C. ALL DIRECTIONS OVER 6" SUBBASE, THREE (3) #4 X 12" DOWELS INTO ADJACENT SIDEWALKS WITH 1/2" EXPANSION JOINT AND POLYURETHANE SEALANT CONTINUOUS. LANDING AREA DIMENSIONS TO BE 6'-0" X 11'-0". REATTACH DOCK GANGWAY WITH EXISTING HARDWARE.
15. 1/2" EXPANSION MATERIAL WITH SELF-LEVELING, POLYURETHANE SEALANT CONTINUOUS.
16. EXISTING WATER LINE TO REMAIN.
17. EXISTING HYDRANT TO REMAIN.
18. EXISTING ELECTRICAL LINE TO REMAIN.
19. EXISTING DISTRIBUTION PANEL TO REMAIN.
20. ELECTRICAL SUB-PANEL, REFER TO ELECTRICAL DRAWINGS.
21. ELECTRICAL LINE, REFER TO ELECTRICAL DRAWINGS.
22. EXISTING STAIRS TO REMAIN, DOWEL NEW STOOP INTO STAIR FOOTING.
23. EXISTING SIDEWALK TO REMAIN, DOWEL NEW SIDEWALK INTO EXISTING.
24. 1'-0" LONG, #4 DOWELS, 18" O.C.
25. HAND-HOLE BOX, REFER TO ELECTRICAL DRAWINGS.

GENERAL NOTES

- A. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO WORK COMMENCING.
- B. CONTRACTOR SHALL HAVE ALL ELECTRICAL WORK TO BE DONE BY A LICENSED PROFESSIONAL AND ABIDE BY ALL CODES AND LOCAL ORDINANCES.

BID ITEMS

ITEM #	ITEM DESCRIPTION	ITEM NUMBER
1	Mobilization	Lump Sum
2	Demolition	Lump Sum
3	Concrete Stoops and Sidewalks	Lump Sum
4	Dock Installation and All Associated Items	Lump Sum
5	Site Lighting, Bases, and All Associated Items	3 EA
6	Electrical, Panels, and All Associated Items	Lump Sum
7	Iowa DOT Class D Revetment	10 TONS



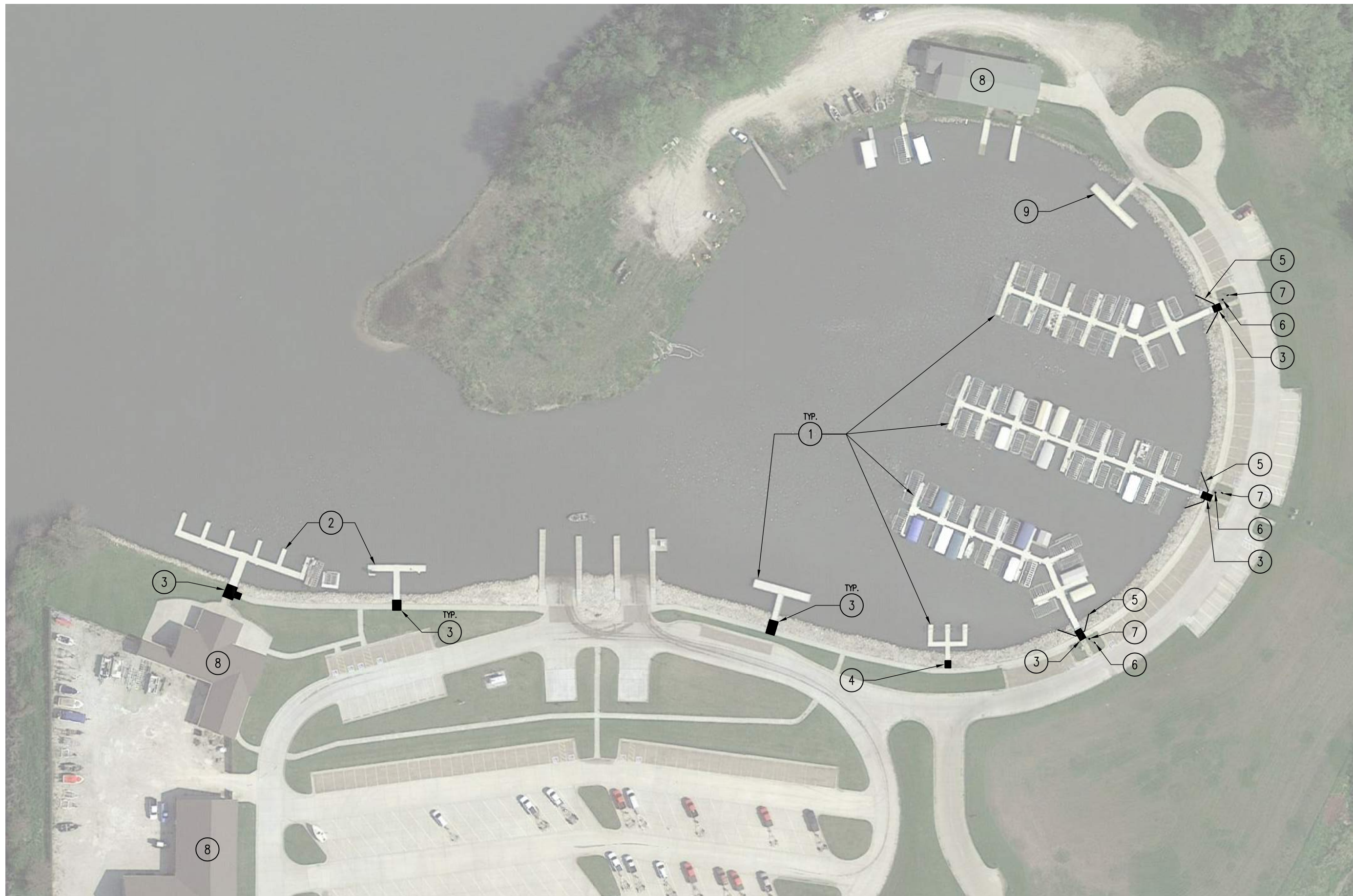
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Dock Installation and Site Repairs for:
Storm Lake Marina
 207 W Marina Road
 Storm Lake, IA 50588

DRAWN BY: PROJECT NUMBER: 23-01-11-01
 CHECK BY: DATE: 08.23.2022
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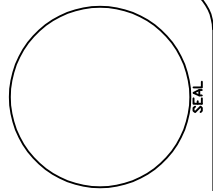
A-003



01

OVERALL DEMOLITION SITE PLAN

SCALE: NTS



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23-01-11-01

CHECKED BY: DATE:
08.23.2022

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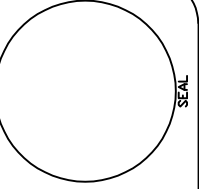
A-050



01

ENLARGED PLAN – PIER DEMOLITION

SCALE: NTS



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Dock Installation and Site Repairs for:

Storm Lake Marina

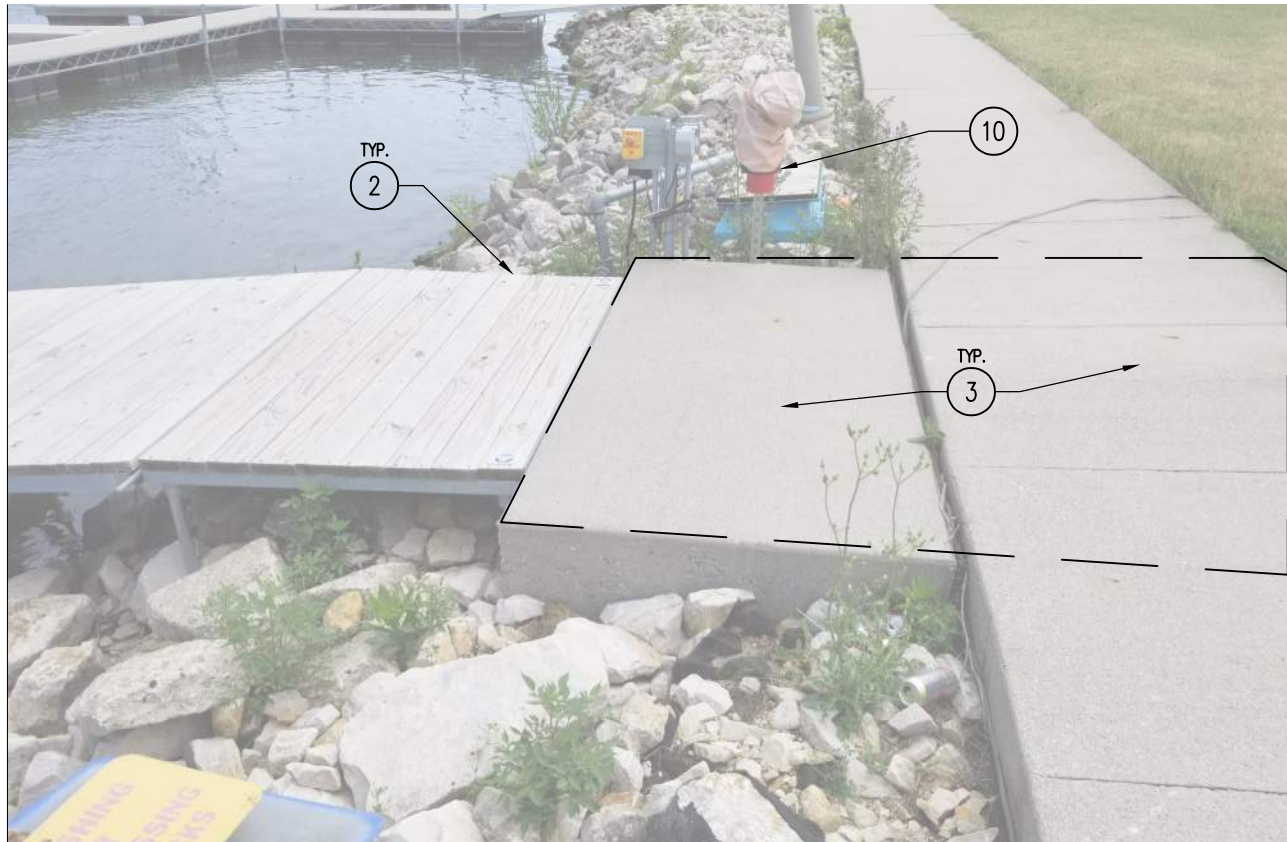
207 W Marina Road

Storm Lake, IA 50588

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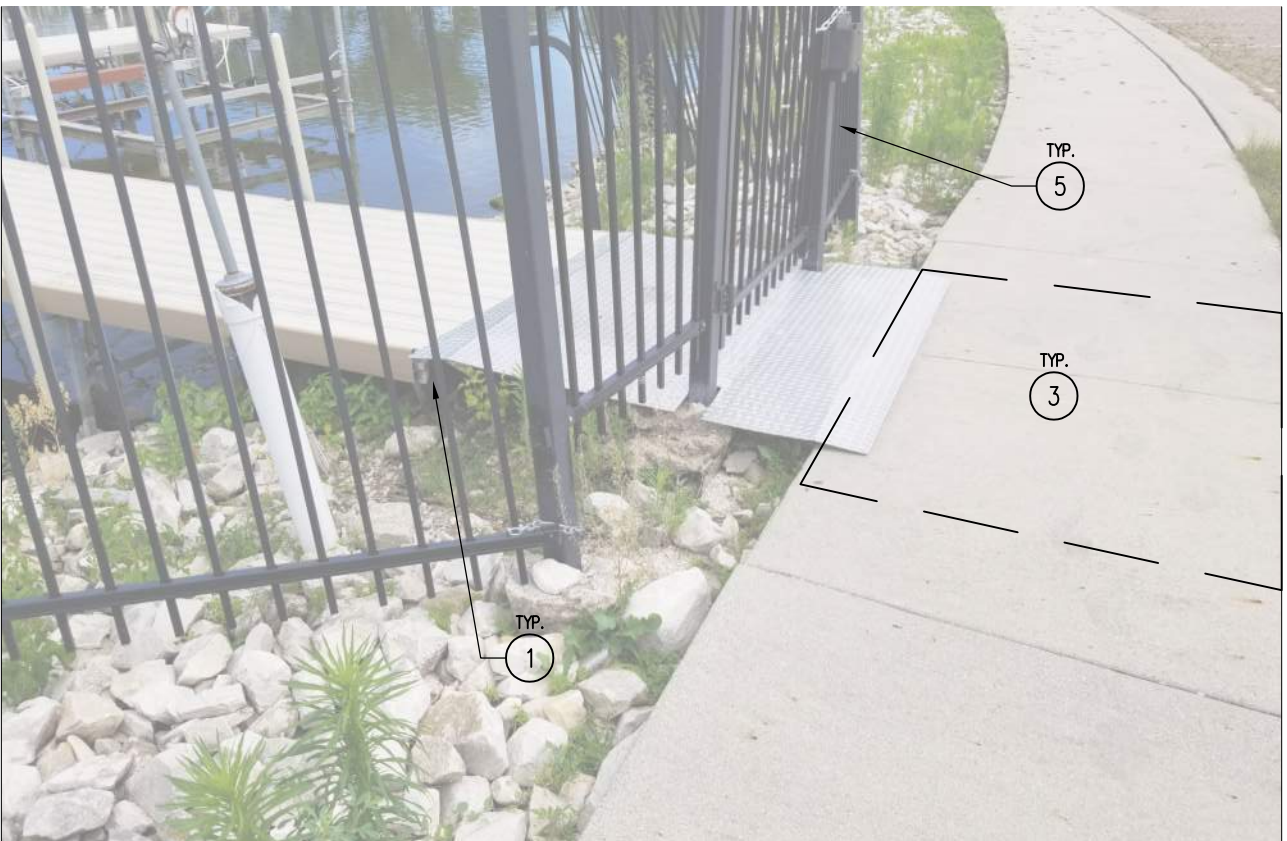
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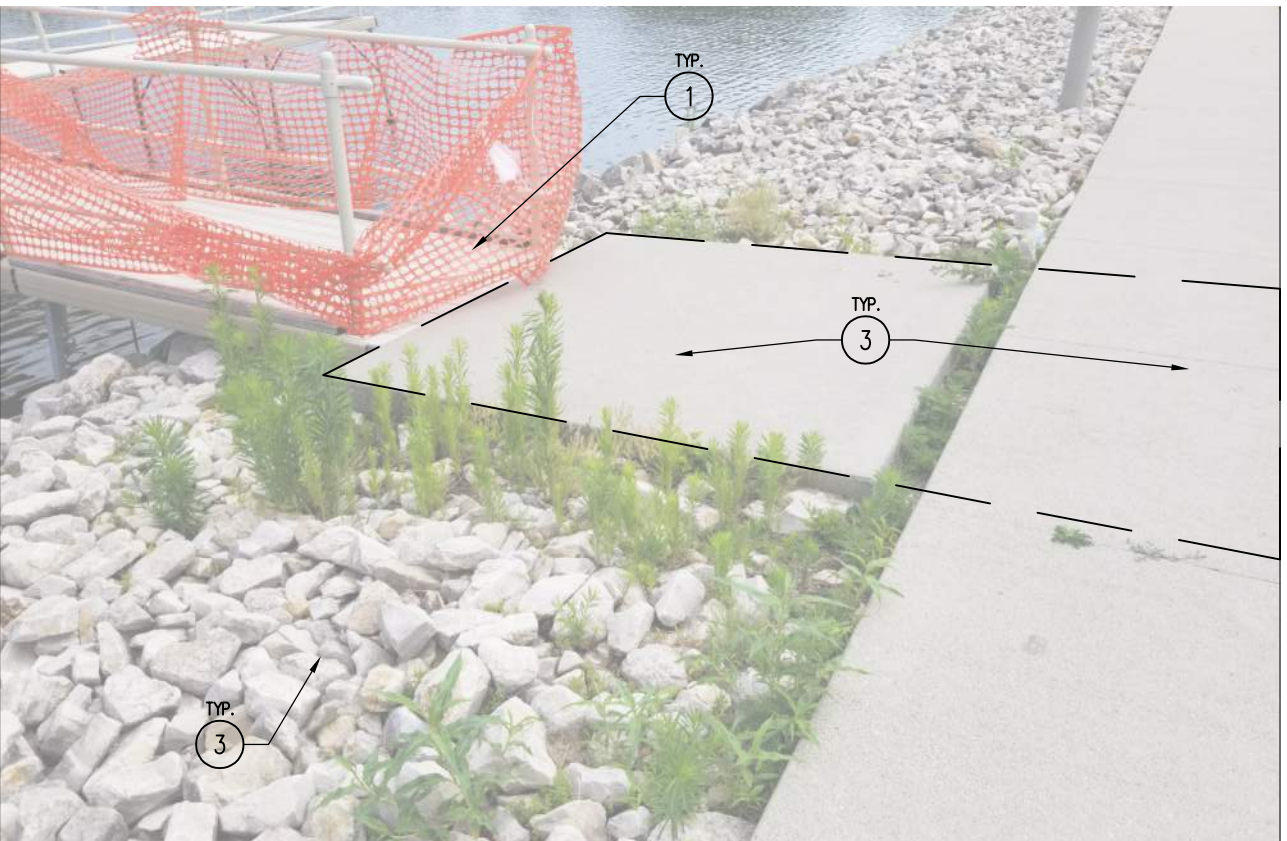
04 PHOTO - GAS DOCK
SCALE: NTS



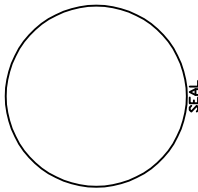
03 PHOTO - JET SKI STAIR
SCALE: NTS



02 PHOTO - PIER GATE
SCALE: NTS



01 PHOTO - FISHING PIER
SCALE: NTS



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Dock Installation and Site Repairs for:
Storm Lake Marina
207 W Marina Road Storm Lake, IA 50588

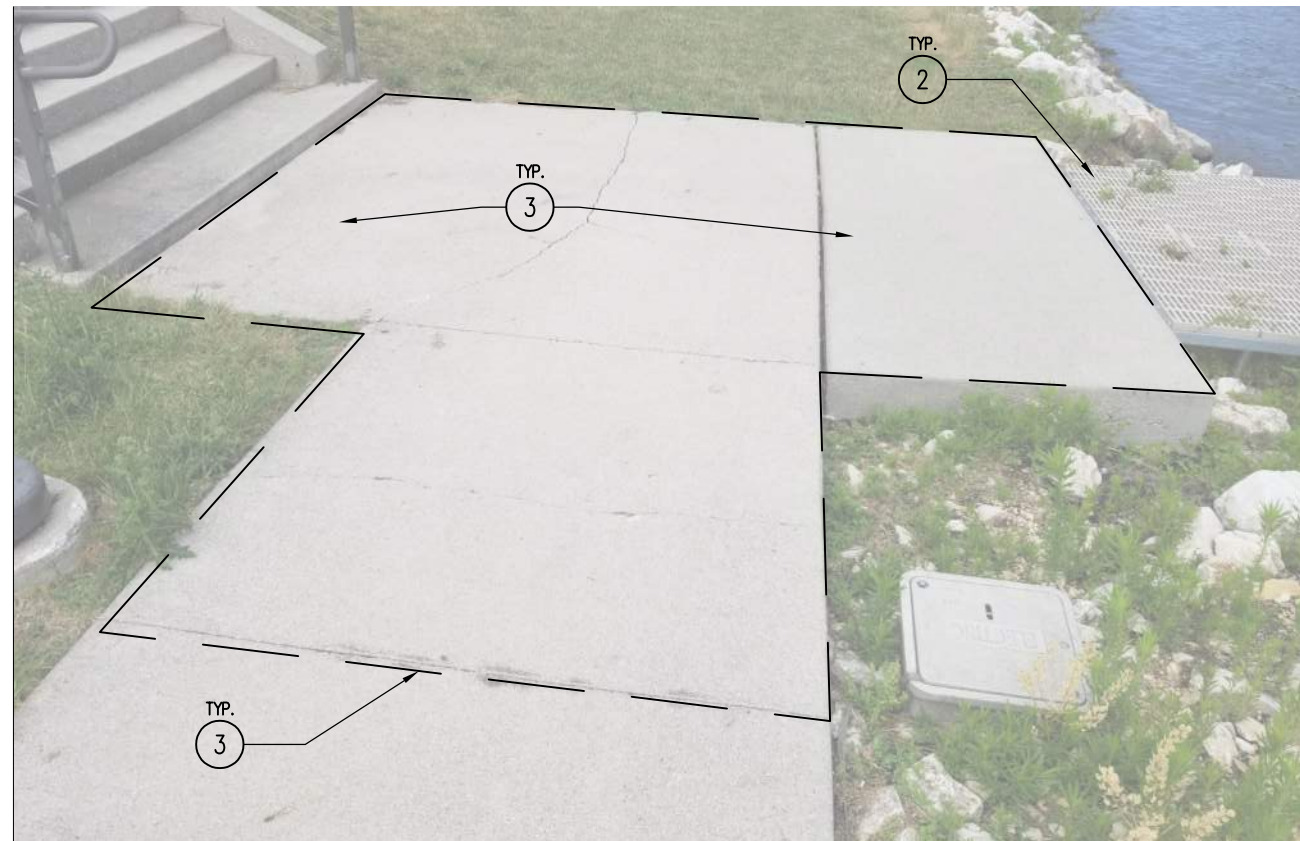
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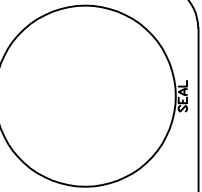


03 PHOTO - ELECTRICAL SUBPANEL
SCALE: NTS

02 NOT USED
SCALE: NTS



01 PHOTO - STAIR LANDING
SCALE: NTS



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Dock Installation and Site Repairs for:

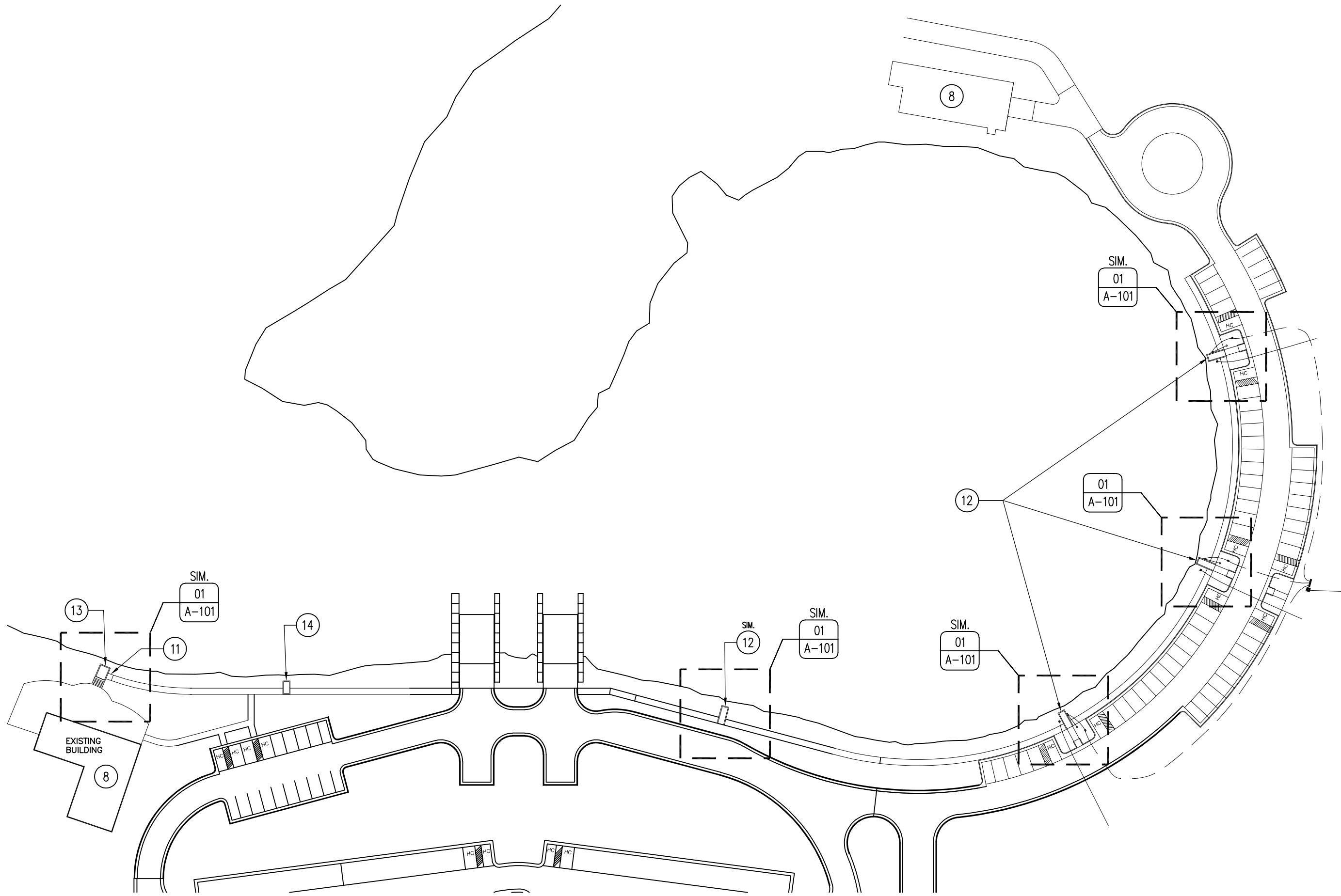
Storm Lake Marina

207 W Marina Road

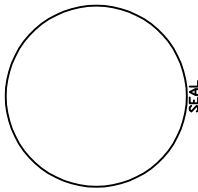
Storm Lake, IA 50588

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A-053



01 REFERENCE SITE PLAN
SCALE: NTS



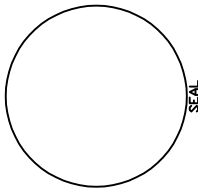
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A-100



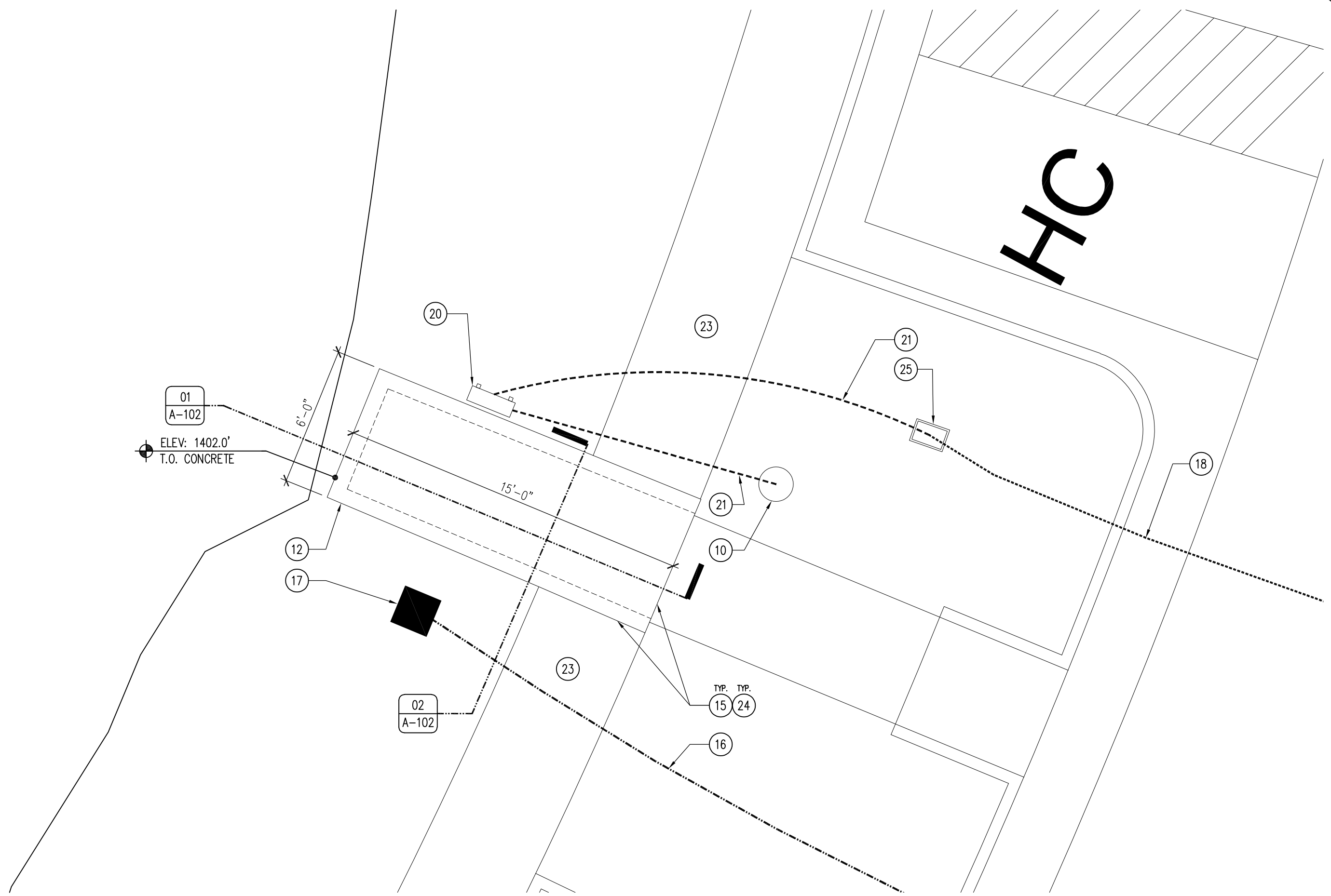
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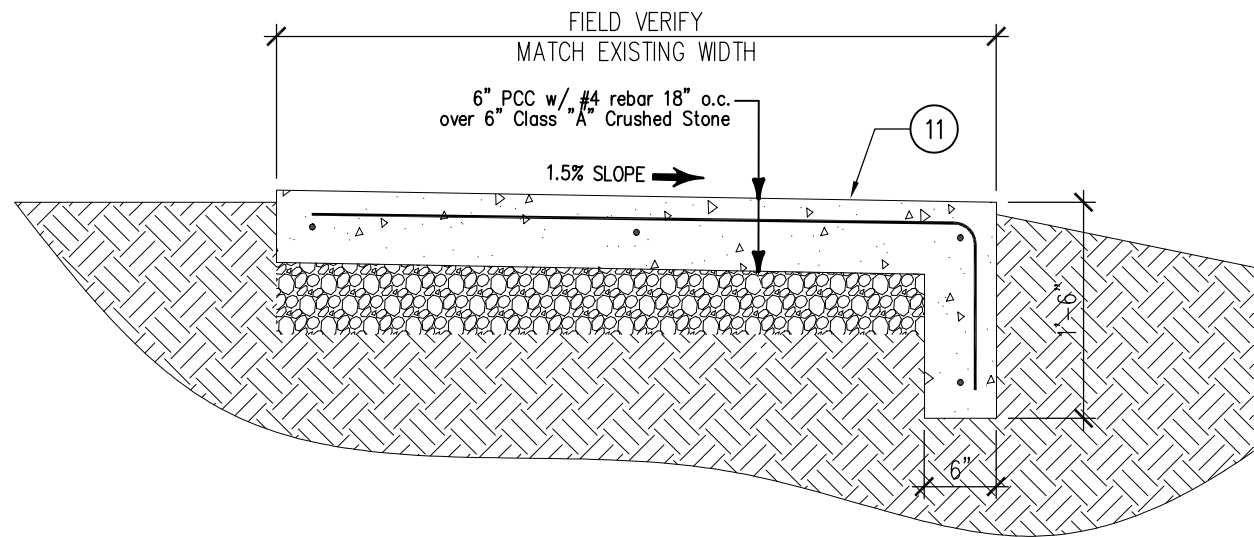
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207 W Marina Road Storm Lake, IA 50588

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A-101

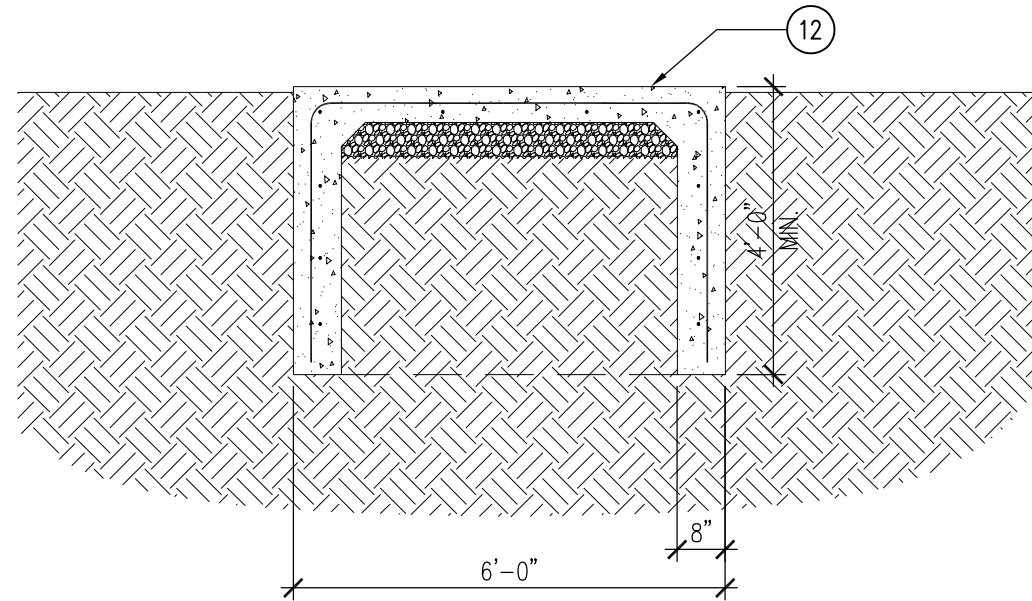


01 ENLARGED PLAN - PIER APPROACH STOOP FOOTING
SCALE: 1/4" = 1'-0"

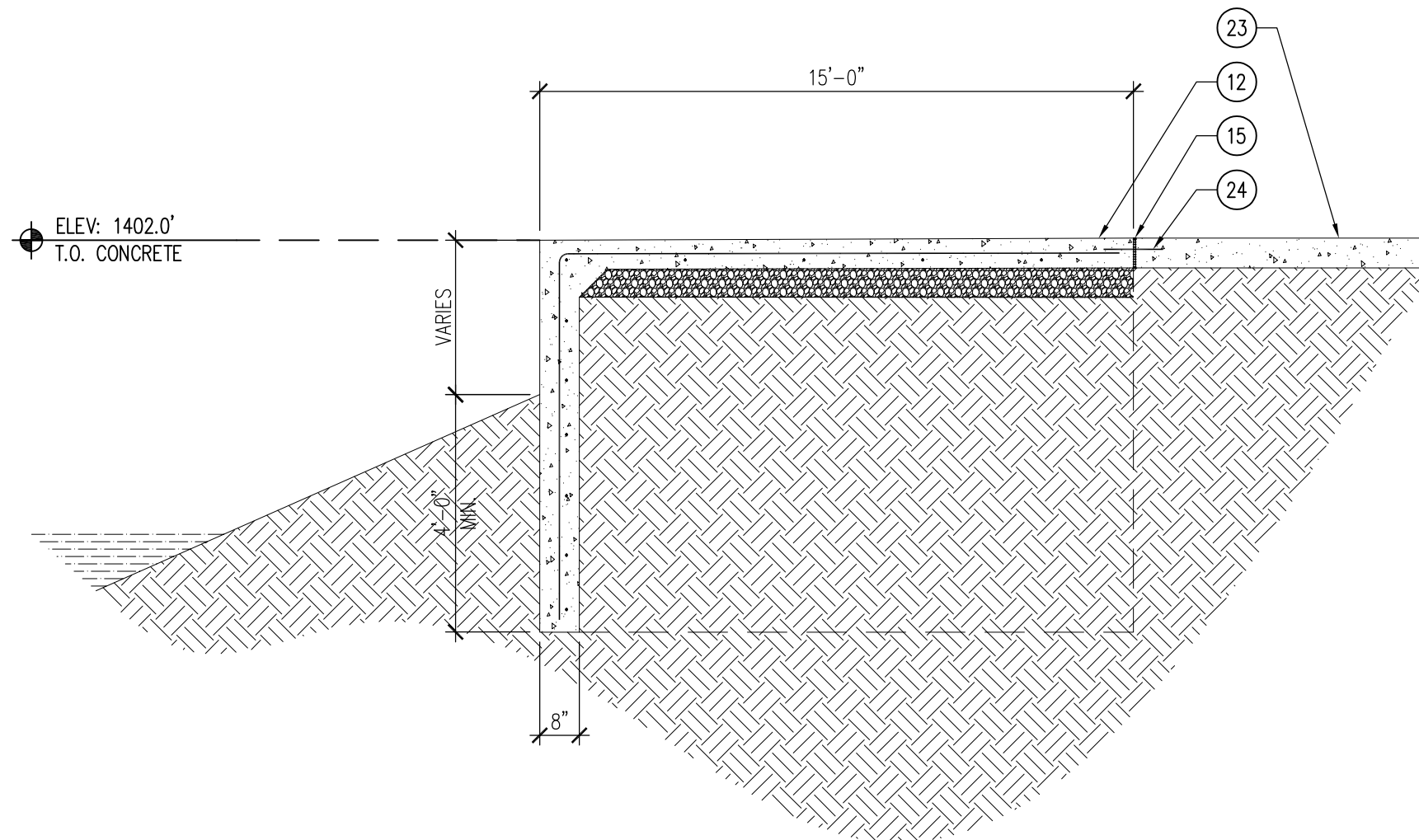


Reinforce concrete with #4 bars, 18" O.C. Longitudinally, and #4 bars spaced 3' on center transverse to sidewalk.

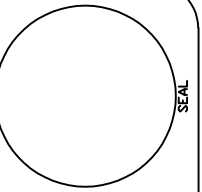
03 SECTION – TYPICAL SIDEWALK
SCALE: 3/4" = 1'-0"



02 SECTION – PIER APPROACH STOOP CROSS-SECTION
SCALE: 3/8" = 1'-0"



01 SECTION – PIER APPROACH STOOP FOOTING
SCALE: 3/8" = 1'-0"



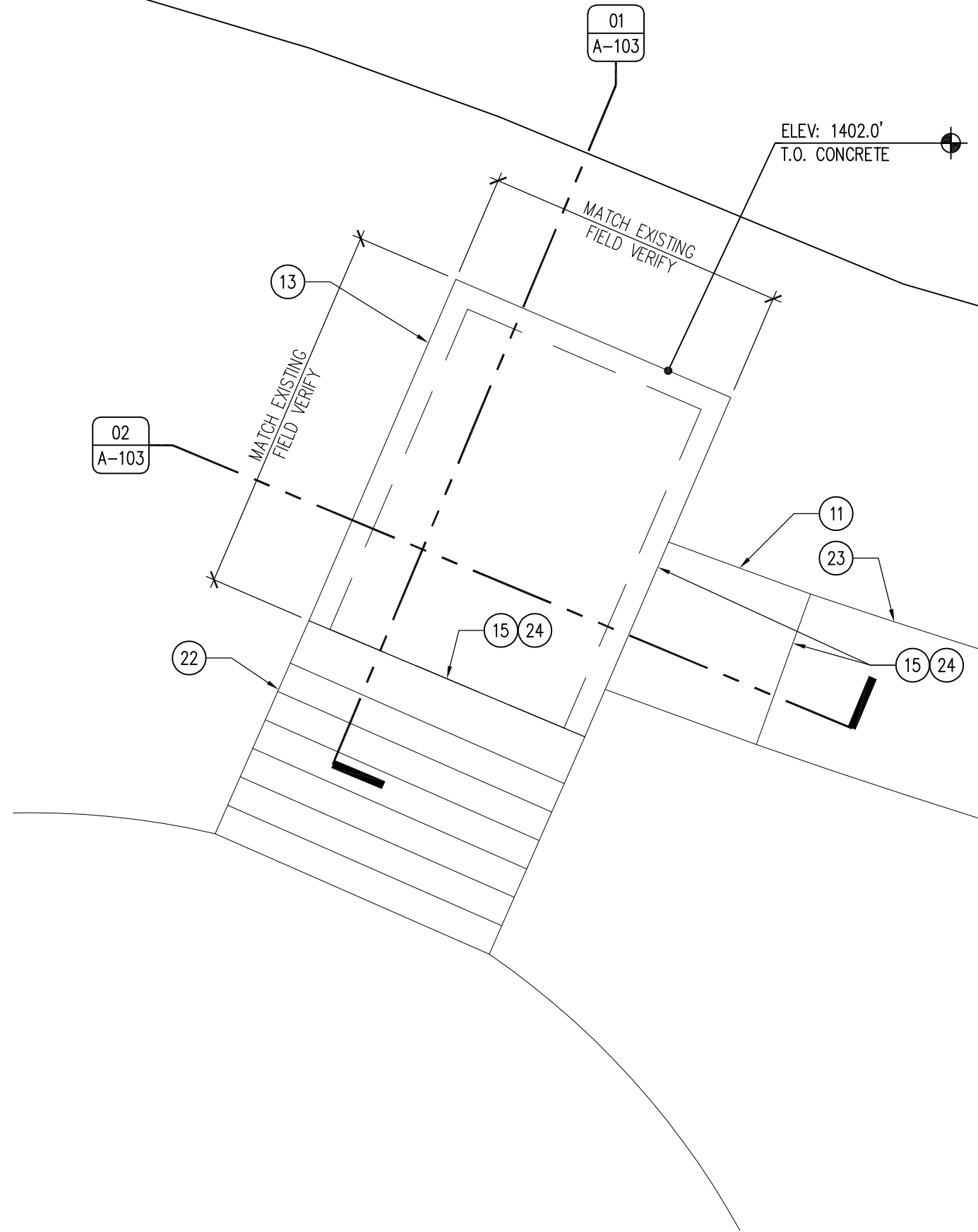
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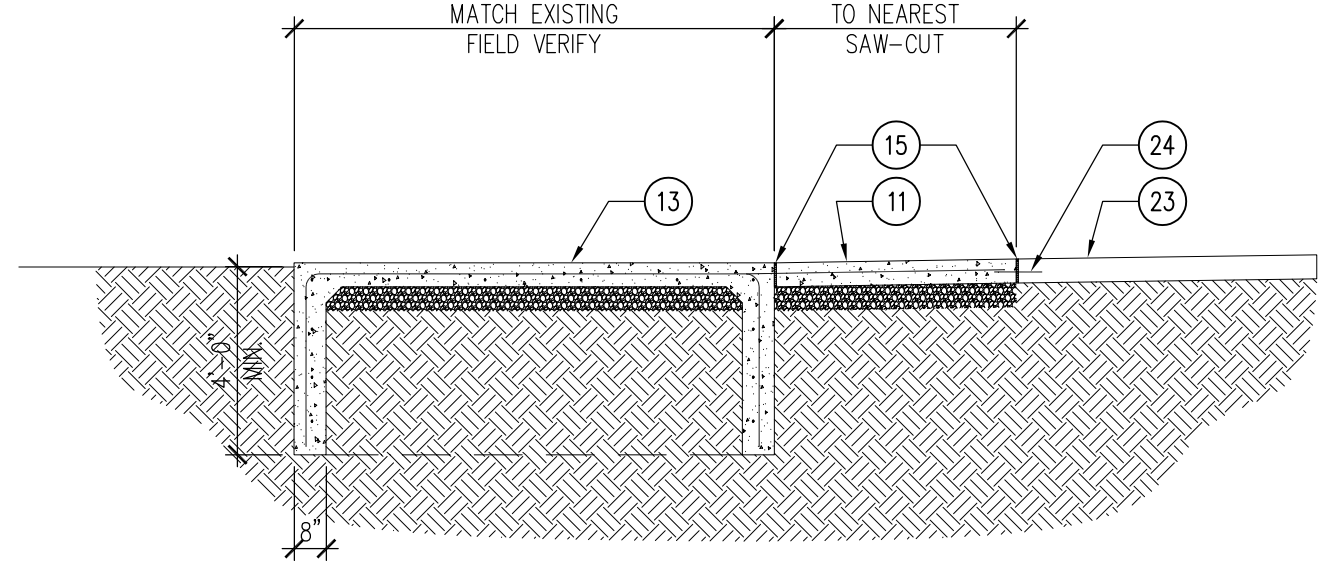
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207 W Marina Road
Storm Lake, IA 50588

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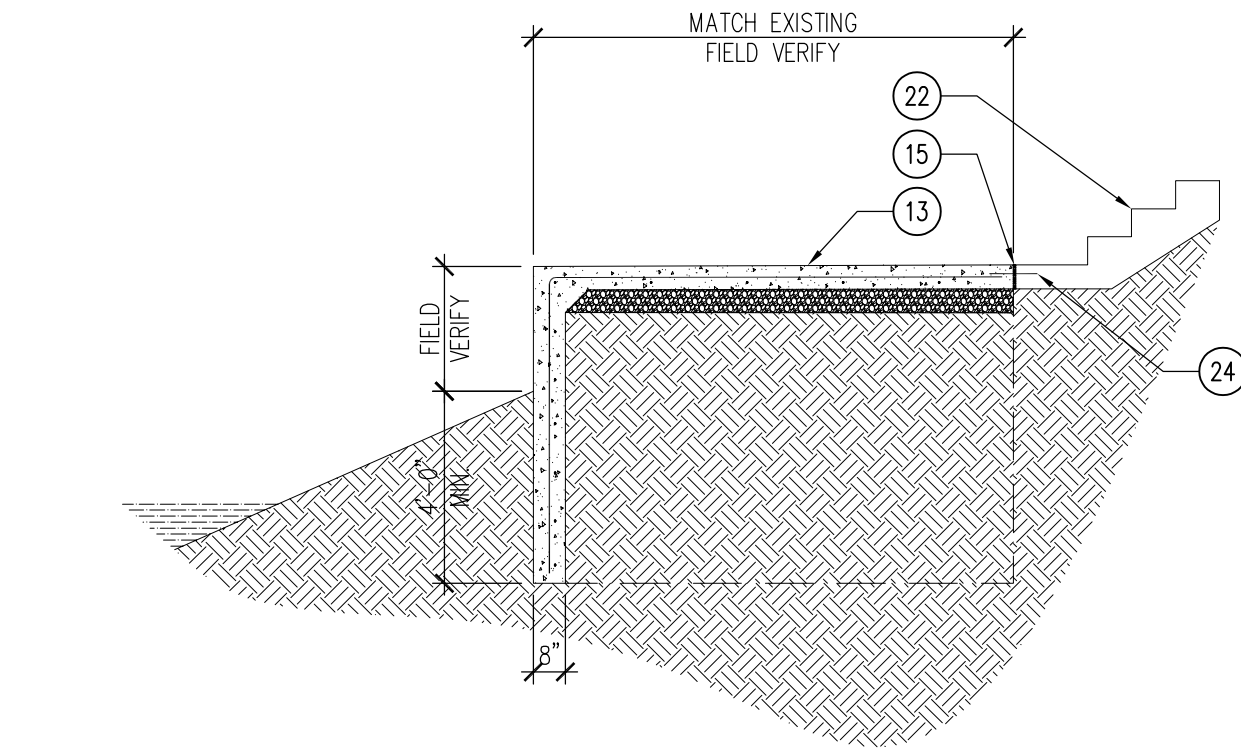
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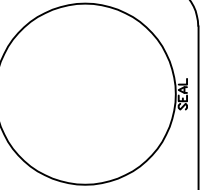
03 ENLARGED PLAN - STAIR LANDING
SCALE: 1/4" = 1'-0"



02 SECTION - STAIR LANDING STOOP FOOTING
SCALE: 1/4" = 1'-0"



01 SECTION - STAIR LANDING STOOP FOOTING
SCALE: 1/4" = 1'-0"



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Dock Installation and Site Repairs for:

Storm Lake Marina

Storm Lake, IA 50588

207 W Marina Road

DRAWN BY:	PROJECT NUMBER:
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A-103

GENERAL NOTES - ELECTRICAL

- A. COORDINATE LOCATION/INSTALLATION OF ELECTRICAL WORK WITH OTHER TRADES. DO NOT PROCEED WITH SYSTEM INSTALLATION OR ROUGH-IN UNTIL PROPER AND TIMELY COORDINATION HAS OCCURRED WITH TRADES ASSOCIATED WITH THE INSTALLATION. COORDINATION ITEMS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: DOCK STRUCTURE, SHEET METAL, PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS. REFER TO ALL GENERAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR EXPENSES ASSOCIATED WITH REWORK OF INSTALLED EQUIPMENT OR SYSTEMS NOT COORDINATED IN THE FIELD.
- B. ELECTRICAL DRAWINGS ARE ONLY A PORTION OF THE COMPLETE SET OF PLANS AND CONTRACT DOCUMENTS. THE ELECTRICAL SCOPE OF WORK IS DEFINED BY THE COMPLETE SET OF CONTRACT DOCUMENTS. THIS INCLUDES BUT IS NOT LIMITED TO REFERENCING; ARCHITECTURAL PLANS FOR DIMENSIONS AND DETAILS; EQUIPMENT PLANS FOR ROUGH-IN REQUIREMENTS, MECHANICAL PLANS FOR EQUIPMENT SIZES AND LOCATIONS.

INSTALLATION NOTES - ELECTRICAL

- A. BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BID.
- B. INCREASE CONDUCTOR SIZES ON 20A 120V-1 PHASE CIRCUITS EXCEEDING 100 FEET TO CENTER OF LOAD TO ACCOUNT FOR VOLTAGE DROP.
- C. RACEWAYS AND BOXES ARE SHOWN DIAGRAMMATICALLY ONLY AND INDICATE GENERAL AND APPROXIMATE LOCATIONS. LAYOUTS DO NOT ALWAYS SHOW THE TOTAL NUMBER OF RACEWAYS OR BOXES FOR THE CIRCUITS REQUIRED, NOR ARE THE LOCATIONS OF INDICATED RUNS INTENDED TO SHOW THE ACTUAL ROUTING OF THE RACEWAYS.
- D. LIGHT FIXTURES, SWITCHES, DEVICES, ETC. ARE SHOWN IN PREFERRED LOCATION. E.C. IS RESPONSIBLE FOR MODIFYING CONDUIT, HANGERS, CIRCUITING, ETC. TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- E. PROVIDE A DEDICATED GREEN INSULATED GROUND CONDUCTOR TO ALL DEVICES. DO NOT UTILIZE CONDUIT SYSTEM AS THE ONLY EQUIPMENT GROUNDING METHOD.
- F. BALANCE PANEL LOADS DURING INSTALLATION. CIRCUIT NUMBERING SHOWN ON PLANS MAY BE ADJUSTED TO ACCOMMODATE.
- G. PROVIDE TYPED PANEL DIRECTORY AT PROJECT COMPLETION FOR NEW PANELS AND EXISTING PANELS WITH CIRCUITS MODIFIED AS A RESULT OF THIS PROJECT. UTILIZE OWNER'S CURRENT ROOM NUMBERS AND EQUIPMENT NAMES AND RECEIVE APPROVAL PRIOR TO FINAL PLACEMENT.

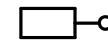



CODE NOTES - ELECTRICAL

- A. PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES.
- B. THE CURRENT ADOPTED EDITION OF THE ELECTRICAL CODE SHALL BE THE STANDARD FOR THE ELECTRICAL INSTALLATION. VERIFY WITH LOCAL OFFICIALS WHEN PERMITS ARE OBTAINED. NOTIFY DESIGN TEAM OF ANY DISCREPANCIES BETWEEN THE PROJECT MANUAL OR DRAWINGS AND THE GOVERNING CODE.
- C. INSTALLATION SHALL FOLLOW REQUIREMENTS OF THE ADAAG – AMERICANS WITH DISABILITIES ACT.
- D. REFER TO PROJECT MANUAL AND PROJECT CODE REVIEW SHEET FOR LIST OF APPLICABLE CODES.

SITE NOTES - ELECTRICAL

- A. UTILITIES SHOWN ON ELECTRICAL SITE PLAN ARE SCHEMATIC ONLY. VERIFY ALL SITE CONDITIONS AND DIMENSIONS ON SITE PRIOR TO COMPLETING BID AND ORDERING OF EQUIPMENT.
- B. REPAIR ALL AFFECTED SURFACES AND RESTORE TO EXISTING CONDITIONS AT COMPLETION OF PROJECT.
- C. WARNING - CALL 48 HOURS BEFORE YOU DIG: - IOWA LAW REQUIRES ANYONE DOING ANY EXCAVATION, FENCING, PLANTING OR DRILLING TO CALL 48 HOURS IN ADVANCE. HAND DIG WITHIN 18 INCHES OF ANY LOCATE MARK OR FLAG. IOWA ONE-CALL 1-800-292-8989.

POWER AND LIGHTING SYMBOLS

-  EXTERIOR POLE MOUNTED LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
-  EQUIPMENT CONNECTION, REFER TO ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR CONNECTION TYPE
-  UTILITY TRANSFORMER
-  PANELBOARD - SURFACE MOUNTED

ELECTRICAL ABBREVIATIONS

ATS	AUTOMATIC TRANSFER SWITCH	NTS	NOT TO SCALE
C	CEILING	R	EXISTING ITEM TO BE REMOVED
CB	CIRCUIT BREAKER	RR	EXISTING ITEM TO BE REMOVED AND RELOCATED
CT	CURRENT TRANSFORMER	RN	EXISTING ITEM TO BE REMOVED AND REPLACED WITH NEW
E	EXISTING ITEM TO REMAIN	SCCR	SHORT CIRCUIT CURRENT RATING
EC	ELECTRICAL CONTRACTOR	TYP	TYPICAL
EM	EMERGENCY LIGHT FIXTURE	V	VOLTS
ER	NEW LOCATION OF EXISTING ITEM	VA	VOLT-AMPERES
F	ROUGH IN FOR FUTURE DEVICE	+24"	INDICATES MOUNTING HEIGHT CENTER LINE OF DEVICE TO FINISHED FLOOR
G	GROUND FAULT CIRCUIT INTERRUPTER		
GND	GROUND		
KVA	KILO-VOLT-AMPERES		
KW	KILOWATTS		
MCB	MAIN CIRCUIT BREAKER		
MDP	MAIN DISTRIBUTION PANEL		
MLO	MAIN LUGS ONLY		
N	NEW DEVICE IN EXISTING LOCATION		



GENERAL NOTE:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS ALSO POSSIBLE THAT THERE MAY BE OTHER UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES IN EXISTENCE THAT ARE NOT SHOWN. IT IS THE RESPONSIBILITY OF EACH INDIVIDUAL PARTY REFERENCING THIS PLAN TO DETERMINE THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. HAND EXCAVATE AT CRITICAL POINTS AS NECESSARY TO VERIFY LOCATIONS, SIZES, ELEVATIONS, FLOW LINES, ETC. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.



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



Dock Installation and Site Repairs for:
Storm Lake Marina
207 W Marina Road, Storm Lake, IA 50588

DRAWN BY: KCL PROJECT NUMBER: 23-01-11-01

CHKD BY: KCL DATE: 09.20.2022

SHEET No:

EO

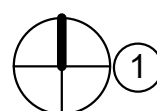
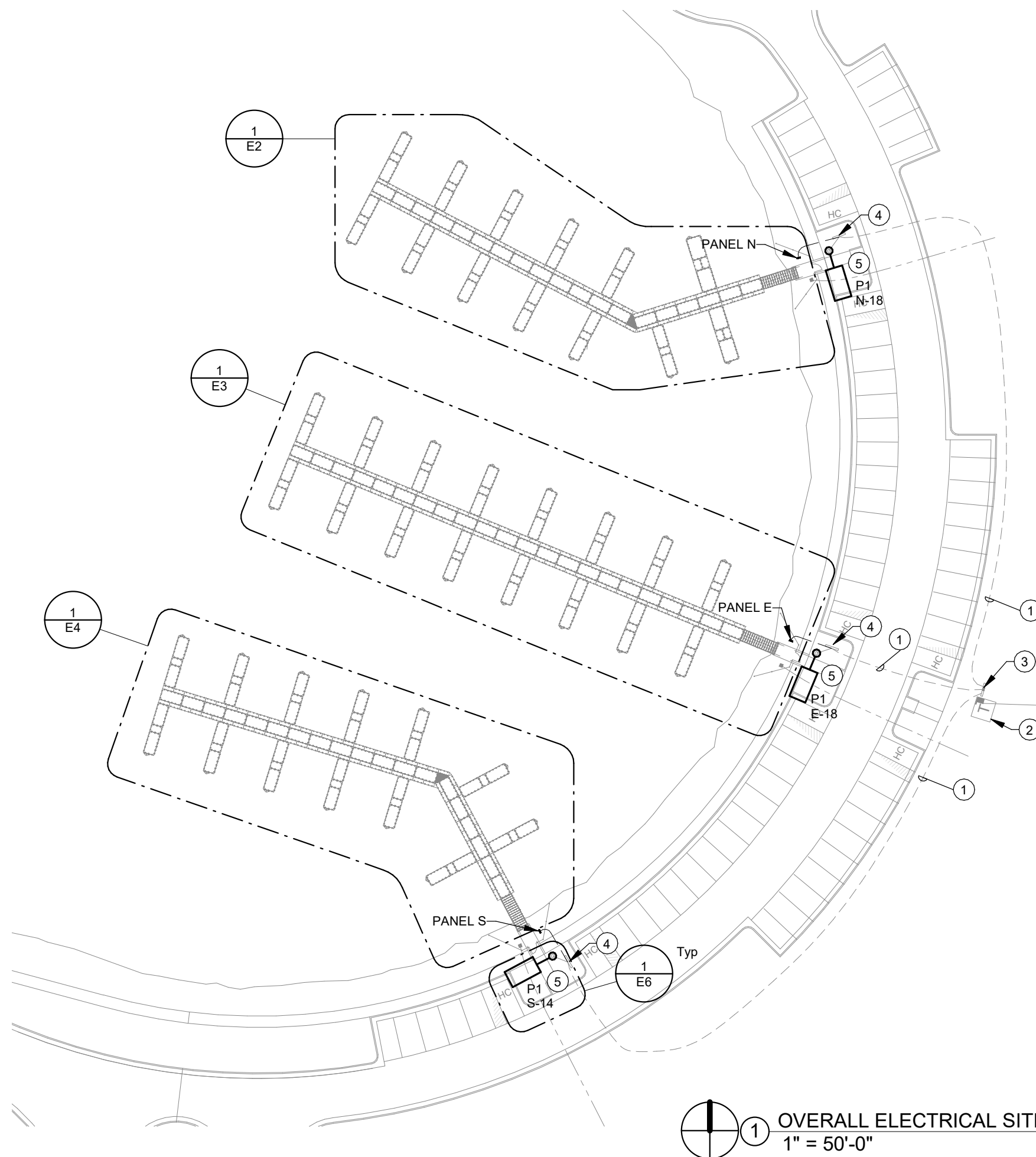


GENERAL SITE ELECTRICAL NOTES

- A. COORDINATE LOCATION/INSTALLATION OF ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: SHEET METAL, PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, ETC. REFER TO ALL GENERAL, CIVIL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
- B. VERIFY FINAL SITE DIMENSIONS PRIOR TO ROUGH-IN.
- C. COORDINATE CRITICAL CROSSING POINTS WITH OTHER TRADES AND UNDERGROUND UTILITIES. ADJUST CONDUIT DEPTH TO AVOID CONFLICT.
- D. PROPOSED PATHWAYS ARE APPROXIMATE ONLY. FINAL ROUTING AND LENGTHS SHALL BE COORDINATED WITH OTHER TRADES. INSTALL UNDERGROUND PULLBOXES SIZED ACCORDINGLY WHERE NECESSARY. QUAZITE POLYMER CONCRETE OR EQUAL WITH GASKET BOLTED LID AND ENGRAVED "ELECTRICAL" LABEL.
- E. CONTRACTOR SHALL HAVE OPTION TO INSTALL SITE FEEDERS/CONDUITS BY TRENCHING OR DIRECTIONAL BORING.

KEYNOTES #

- 1 EXISTING UNDERGROUND SERVICE.
- 2 EXISTING UTILITY TRANSFORMER.
- 3 EXISTING MAIN DISTRIBUTION PANEL.
- 4 RELOCATE EXISTING PANEL TO NEW LOCATION AS SHOWN PER DOCK. LOCATE HAND HOLE AT EXISTING LOCATION AND SPLICE/EXTEND EXISTING CONDUCTORS TO NEW PANEL LOCATION. REFER TO ONE-LINE DIAGRAM 1/E5. PROVIDE NEW LOCKABLE NEMA 3R RATED FRONT COVER FOR EACH PANEL.
- 5 NEW POLE MOUNTED LED AREA LIGHT IN EXISTING LOCATION. CONNECT TO NEW 20A-1P BREAKER IN ADJACENT PANEL USING MINIMUM #12 CONDUCTORS IN 3/4" PVC CONDUIT.



1 OVERALL ELECTRICAL SITE PLAN
1" = 50'-0"



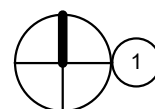
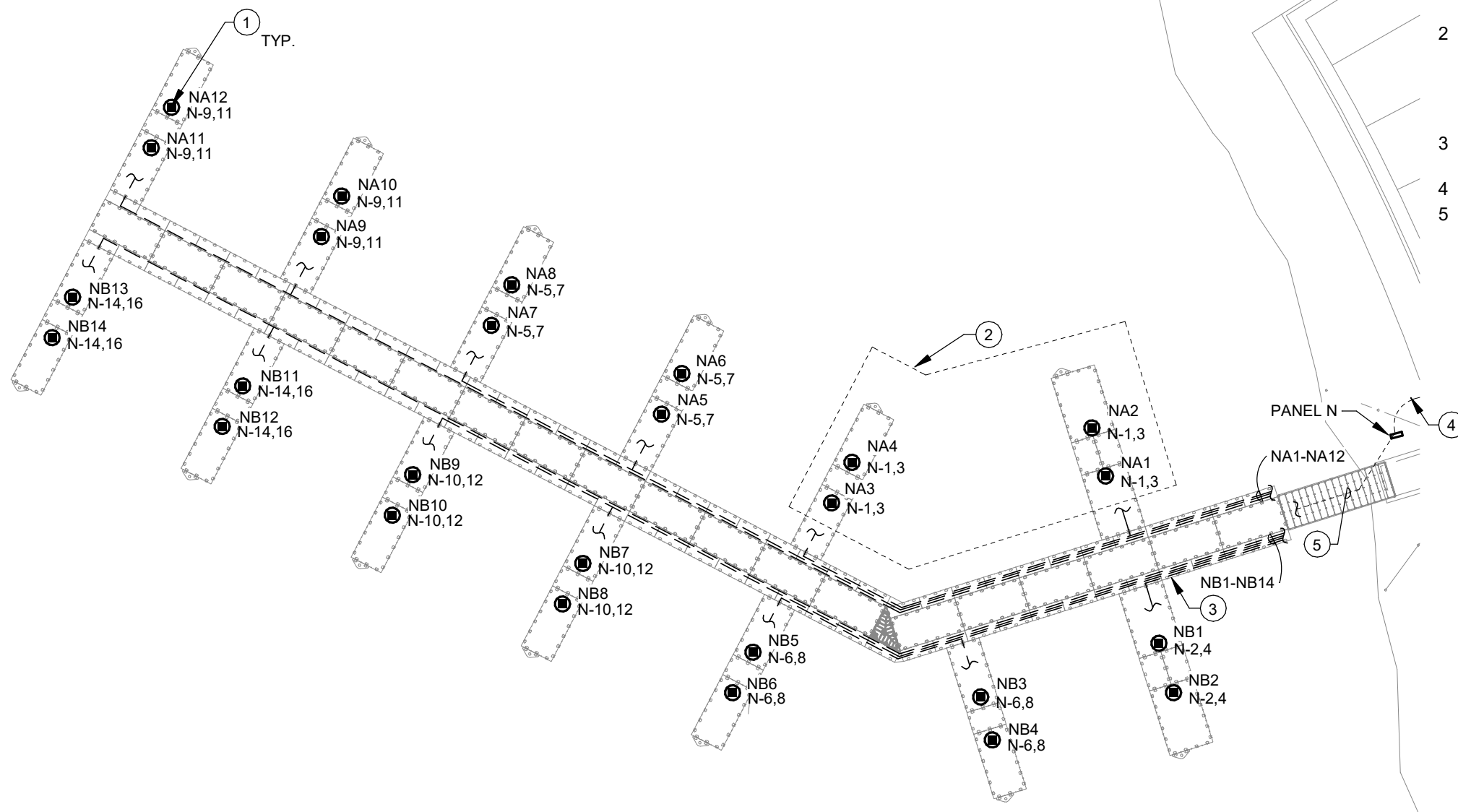
Dock Installation and Site Repairs for:

Storm Lake Marina

207 W Marina Road, Storm Lake, IA 50588

KEYNOTES #

- 1 DOCK MOUNTED POWER PEDESTAL(S) WITH STAND. BOLT TO EZ DOCK SYSTEM PER DOCK MANUFACTURER RECOMMENDATIONS. REFER TO PROJECT SPECIFICATIONS FOR PEDESTAL INFORMATION. LOOP FEED BRANCH CIRCUIT VIA INTEGRAL MECHANICAL BUS BAR RATED UP TO 250A. CONTRACTOR SHALL USE INTEGRAL WIRE TRENCH WITHIN DOCK SYSTEM AS MEANS FOR PATHWAY TO EACH PEDESTAL LOCATION. COORDINATE FINAL LOCATION WITH OWNER AND EZ DOCK MANUFACTURER PRIOR TO ROUGH-IN.
- 2 TYPICAL CIRCUIT SUPPLIES MAXIMUM (4) PEDESTALS. RESPECTIVE TO EACH DOCK'S LOCATION, THE FIRST PEDESTAL IS REFERENCED AS "NA1", "EA1", OR "SA1". COORDINATE FINAL PEDESTAL IDENTIFICATION WITH OWNER AND PROVIDE LABELING PER PROJECT MANUAL.
- 3 2-CHANNEL DOCK SYSTEM. PROVIDE WEATHERPROOF CABLE WITHIN DOCK CHANNEL, TYP.
- 4 REFER TO ONE-LINE DIAGRAM 1/E5.
- 5 PROPOSED PATHWAY OF DOCK BRANCH CIRCUITS. FROM PANEL TO INTEGRAL DOCK WIRE TRENCH. PROVIDE FLEXIBLE WATERTIGHT CONDUIT UNDERSIDE OF APRON WITH 12" WHIP TO ALLOW FOR CHANGE IN RISE OR DROP OF WATER LEVEL. VERIFY FINAL ROUTE AND LENGTH WITH OWNER PRIOR TO ROUGH-IN.



1 ENLARGED DOCK PLAN - NORTH
1" = 20'-0"

DRAWN BY:	PROJECT NUMBER:
KCL	23-01-11-01
CHKD BY:	DATE:
KCL	09.20.2022

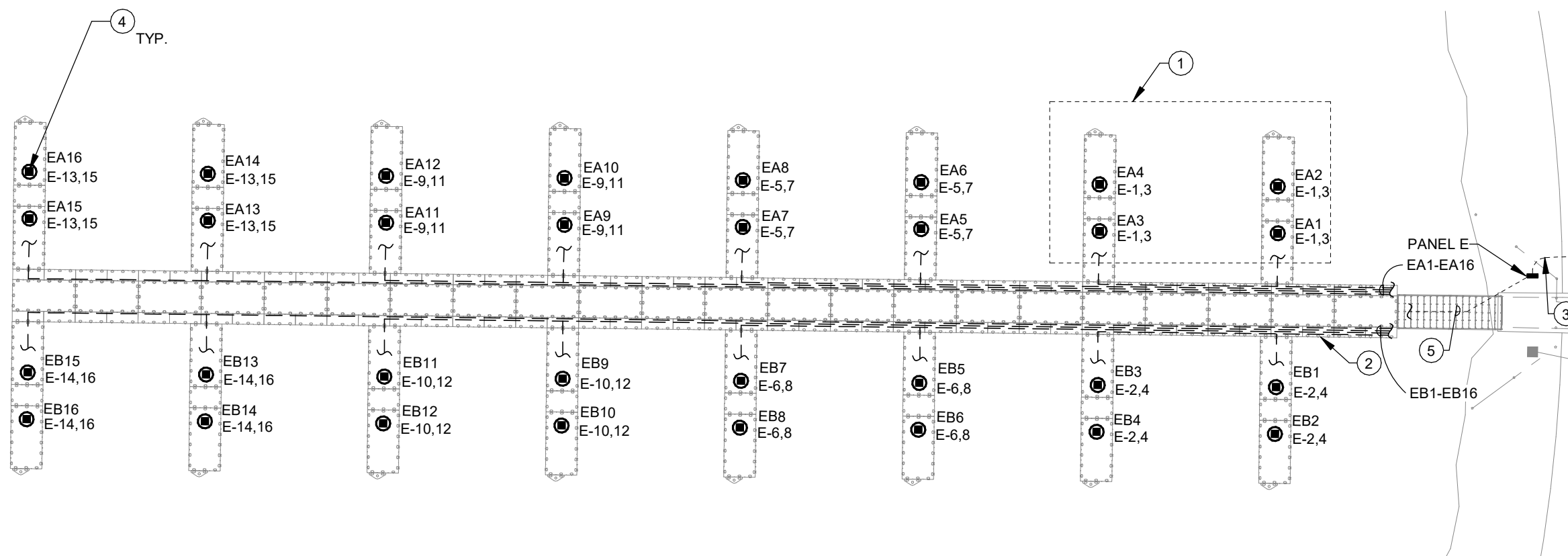
SHEET No:

E2



KEYNOTES #

- 1 TYPICAL CIRCUIT SUPPLIES MAXIMUM (4) PEDESTALS. RESPECTIVE TO EACH DOCK'S LOCATION, THE FIRST PEDESTAL IS REFERENCED AS "NA1", "EA1", OR "SA1". COORDINATE FINAL PEDESTAL IDENTIFICATION WITH OWNER AND PROVIDE LABELING PER PROJECT MANUAL.
- 2 4-CHANNEL DOCK SYSTEM. PROVIDE WEATHERPROOF CABLE WITHIN DOCK CHANNEL, TYP.
- 3 REFER TO ONE-LINE DIAGRAM 1/E5.
- 4 DOCK MOUNTED POWER PEDESTAL(S) WITH STAND. BOLT TO EZ DOCK SYSTEM PER DOCK MANUFACTURER RECOMMENDATIONS. REFER TO PROJECT SPECIFICATIONS FOR PEDESTAL INFORMATION. LOOP FEED BRANCH CIRCUIT VIA INTEGRAL MECHANICAL BUS BAR RATED UP TO 250A. CONTRACTOR SHALL USE INTEGRAL WIRE TRENCH WITHIN DOCK SYSTEM AS MEANS FOR PATHWAY TO EACH PEDESTAL LOCATION. COORDINATE FINAL LOCATION WITH OWNER AND EZ DOCK MANUFACTURER PRIOR TO ROUGH-IN.
- 5 PROPOSED PATHWAY OF DOCK BRANCH CIRCUITS. FROM PANEL TO INTEGRAL DOCK WIRE TRENCH. PROVIDE FLEXIBLE WATERTIGHT CONDUIT UNDERSIDE OF APRON WITH 12" WHIP TO ALLOW FOR CHANGE IN RISE OR DROP OF WATER LEVEL. VERIFY FINAL ROUTE AND LENGTH WITH OWNER PRIOR TO ROUGH-IN.



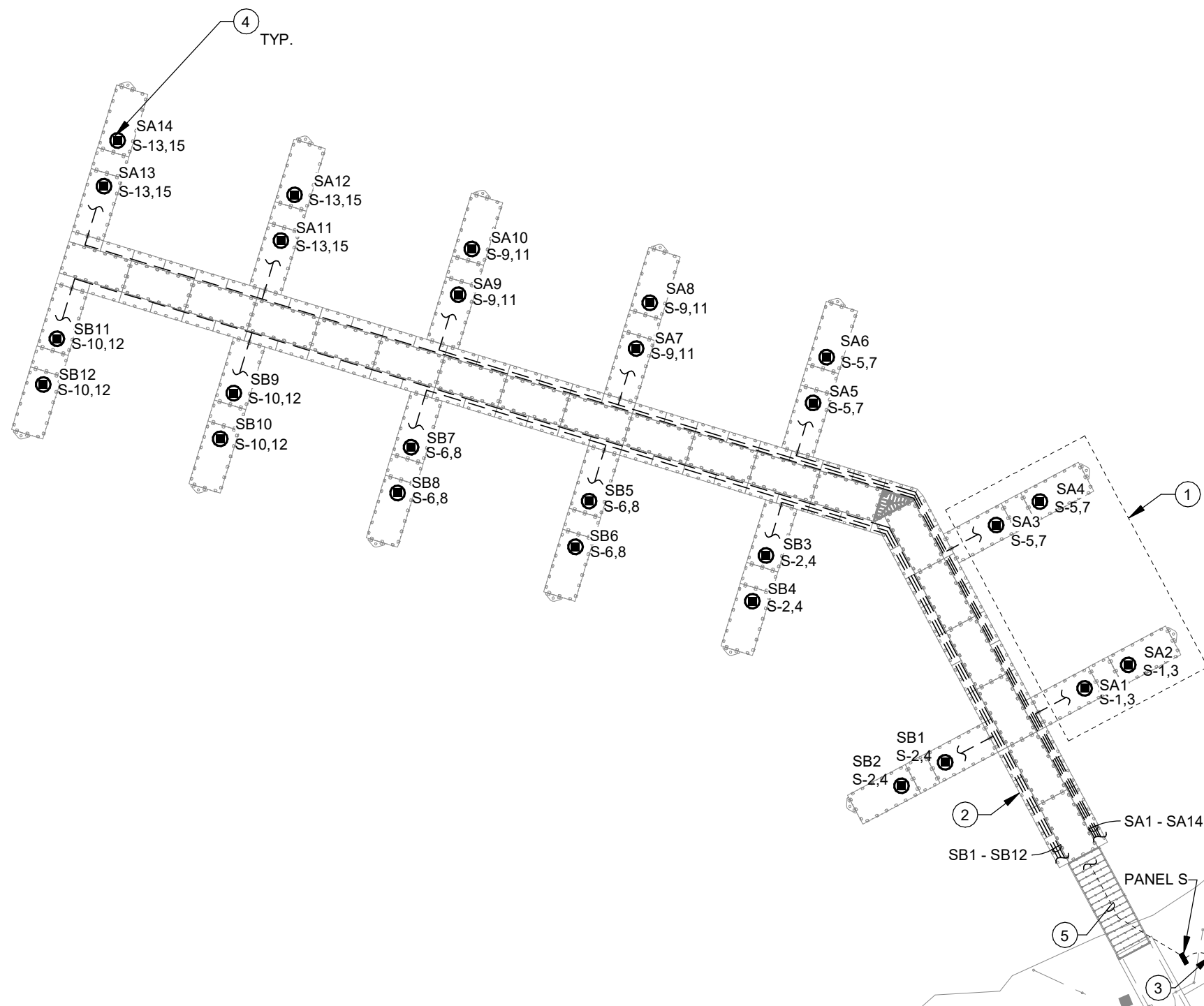
1 ENLARGED DOCK PLAN - EAST
1" = 20'-0"



DRAWN BY: KCL	PROJECT NUMBER: 23-01-11-01
CHKD BY: KCL	DATE: 09.20.2022
SHEET No: E4	

KEYNOTES #

- 1 TYPICAL CIRCUIT SUPPLIES MAXIMUM (4) PEDESTALS. RESPECTIVE TO EACH DOCK'S LOCATION, THE FIRST PEDESTAL IS REFERENCED AS "NA1", "EA1", OR "SA1". COORDINATE FINAL PEDESTAL IDENTIFICATION WITH OWNER AND PROVIDE LABELING PER PROJECT MANUAL.
- 2 2-CHANNEL DOCK SYSTEM. PROVIDE WEATHERPROOF CABLE WITHIN DOCK CHANNEL, TYP.
- 3 REFER TO ONE-LINE DIAGRAM 1/E5.
- 4 DOCK MOUNTED POWER PEDESTAL(S) WITH STAND. BOLT TO EZ DOCK SYSTEM PER DOCK MANUFACTURER RECOMMENDATIONS. REFER TO PROJECT SPECIFICATIONS FOR PEDESTAL INFORMATION. LOOP FEED BRANCH CIRCUIT VIA INTEGRAL MECHANICAL BUS BAR RATED UP TO 250A. CONTRACTOR SHALL USE INTEGRAL WIRE TRENCH WITHIN DOCK SYSTEM AS MEANS FOR PATHWAY TO EACH PEDESTAL LOCATION. COORDINATE FINAL LOCATION WITH OWNER AND EZ DOCK MANUFACTURER PRIOR TO ROUGH-IN.
- 5 PROPOSED PATHWAY OF DOCK BRANCH CIRCUITS. FROM PANEL TO INTEGRAL DOCK WIRE TRENCH. PROVIDE FLEXIBLE WATERTIGHT CONDUIT UNDERSIDE OF APRON WITH 12" WHIP TO ALLOW FOR CHANGE IN RISE OR DROP OF WATER LEVEL. VERIFY FINAL ROUTE AND LENGTH WITH OWNER PRIOR TO ROUGH-IN.

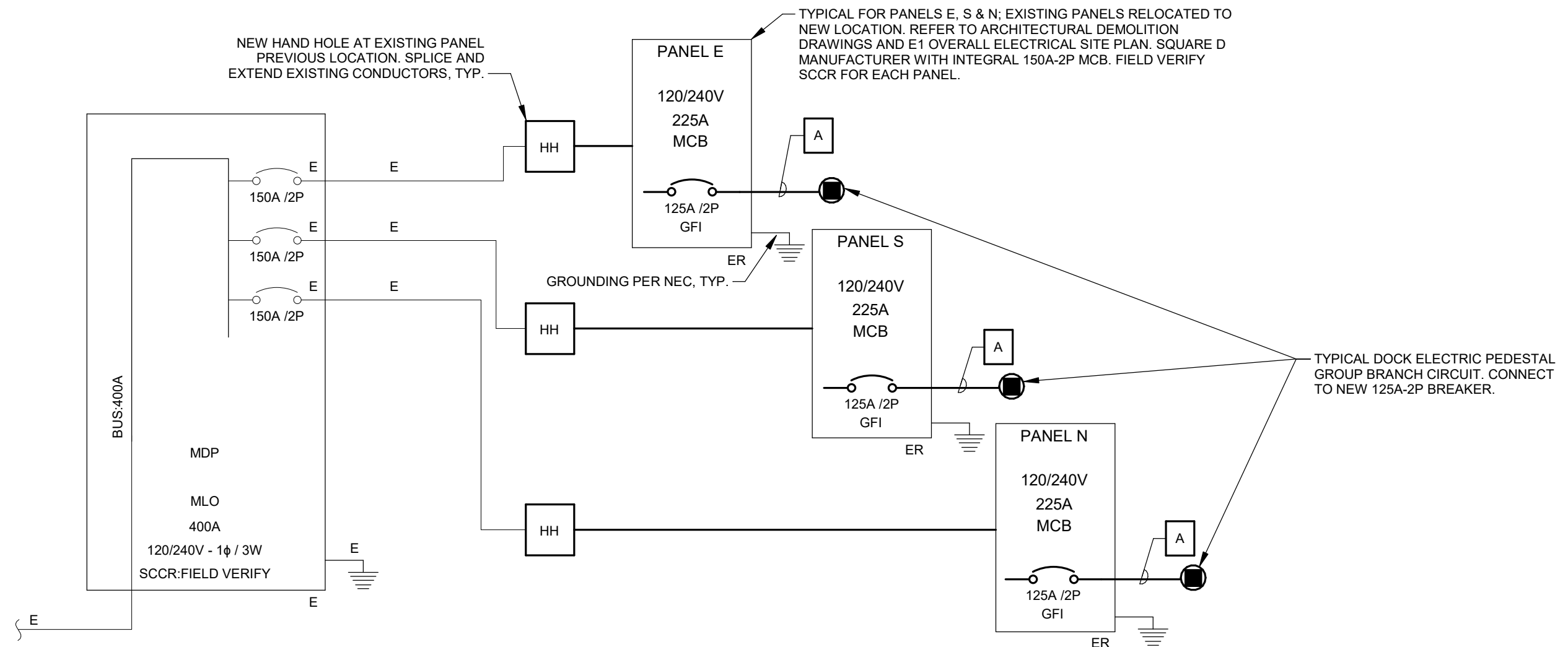


1 ENLARGED DOCK PLAN - SOUTH
1" = 20'-0"

RISER DIAGRAM GENERAL NOTES

- A. DIAGRAM INDICATES OVERALL LAYOUT OF ELECTRICAL DISTRIBUTION SYSTEM. REFER TO SITE PLANS FOR EQUIPMENT LOCATIONS.
- B. USE COPPER CONDUCTORS UNLESS OTHERWISE INDICATED.
- C. MATCH NEUTRAL CONDUCTOR SIZE TO THE PHASE CONDUCTORS UNLESS OTHERWISE NOTED.
- D. ALL WIRING SHALL BE IN RACEWAY AS NOTED. REFER TO SPECIFICATIONS FOR CONDUIT APPLICATION REQUIREMENTS.

FEEDER SCHEDULE			
NOTE: ALL CONDUCTORS THHN COPPER UNLESS OTHERWISE NOTED.			
TAG	PHASE	GROUND	CONDUIT
A	1- SET (3) #1	#6	(1) 1 1/2"



1 ONE-LINE DIAGRAM NOT TO SCALE



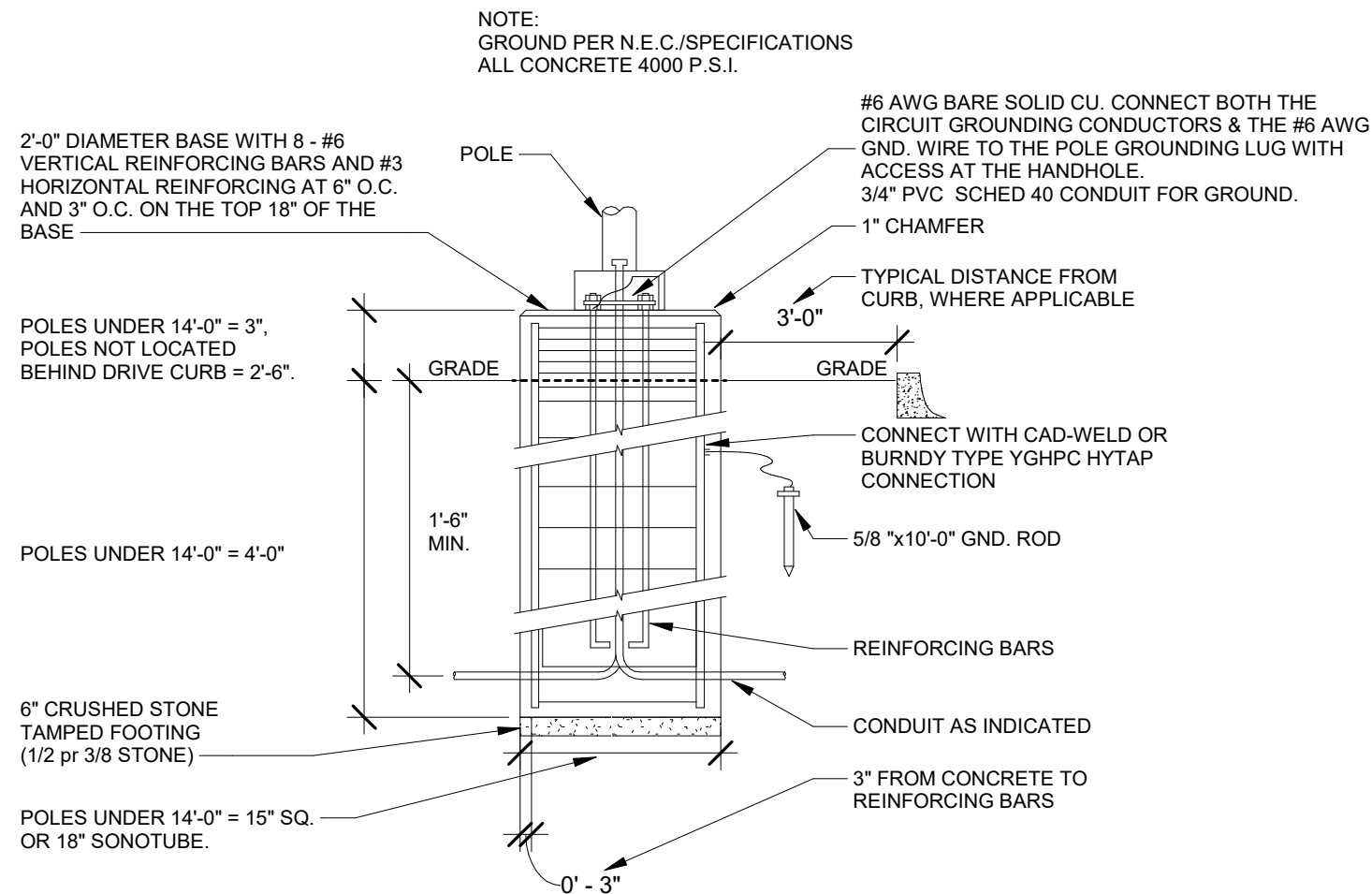
LIGHTING FIXTURE SCHEDULE

NOTES:

1. ALL FIXTURES SHALL BE U.L. OR SIMILARLY LISTED.
2. REFER TO CIVIL DOCUMENTS FOR EXACT MOUNTING LOCATIONS, DETAILS, AND CONFIGURATIONS OF ALL LUMINAIRES. IF CIVIL DRAWINGS DO NOT CLARIFY EXACT MOUNTING LOCATION OR DETAIL, ISSUE AN RFI FOR CIVIL TO SPECIFICALLY CLARIFY PRIOR TO FIXTURE ROUGH-IN.
3. VERIFY COMPATIBILITY OF LIGHT FIXTURES WITH ADJACENT CONSTRUCTION, AND ADJACENT FINISHES PRIOR TO SHOP DRAWINGS SUBMITTAL NOTIFY THE ARCHITECT OF ANY CONFLICTS WITH THE PROPOSED INSTALLATION.
4. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE NECESSARY TO INSTALL AND SUPPORT THE LUMINAIRES.
5. AIM AND TARGET ADJUSTABLE INTERIOR AND EXTERIOR LIGHT FIXTURES UNDER THE OBSERVATION AND IN COMPLIANCE WITH RECOMMENDATIONS OF THE ARCHITECT. INCLUDE LABOR AND MATERIAL COSTS MADE NECESSARY BY THIS REQUIREMENT.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FILLING OUT ALL UTILITY REBATE FORMS FOR OWNER.

DESIGNED BY: JL

TYPE	MANUFACTURER	MODEL	DESCRIPTION	VOLTAGE	LOAD-VA	LAMP TYPE	APPROVED EQUALS
P1	LITHONIA LIGHTING	DSX1LED-P3-40 K-T2M-120-RPA- RPUMBA-PIR-DB LXD	POLE MOUNTED AREA LUMINAIRE. TYPE 2 MEDIUM DISTRIBUTION. BLACK FINISH. INTEGRAL DAYLIGHT SENSOR. INTEGRAL MOTION SENSOR. 100% OUTPUT UPON DETECTED MOTION, OTHERWISE MINIMUM 50% OUTPUT. OAH 20' TAPERED STEEL ROUND PRE-DRILLED POLE. PROVIDE BOLTS AND BASE COVER.	120 V	102 VA	4000K, 70+ CRI, 10,000 LUMENS	COOPER LUMARK, OR KIM LIGHTING



1 POUR-IN-PLACE POLE BASE DETAIL
NOT TO SCALE



**Dock Installation and Site Repairs for:
Storm Lake Marina**
207 W Marina Road, Storm Lake, IA 50588

DRAWN BY:	PROJECT NUMBER:
KCL	23-01-11-01
CHKD BY:	DATE:
KCL	09.20.2022

SHEET No: **E6**

BRANCH PANEL: N

LOCATION: SHORE LINE
SUPPLY FROM: MDP
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

VOLTAGE: 120/240 SINGLE
PHASES: 1
WIRES: 3

SCCR RATING: FIELD VERIFY
MAINS TYPE: MCB
MAINS RATING: 225 A
MCB RATING: 150 A

NOTES:

CIRCUIT DESCRIPTION	P	AMP	CKT NO	A		B		CKT NO	AMP	P	CIRCUIT DESCRIPTION
PEDESTALS NA1-NA4	2	G 125 A	1	11200	5600			2	125 A G	2	PEDESTALS NB1-NB2
			3			11200	5600	4			
PEDESTALS NA5-NA8	2	G 125 A	5	11200	11200			6	125 A G	2	PEDESTALS NB3-NB6
			7			11200	11200	8			
PEDESTALS NA9-NA12	2	G 125 A	9	11200	11200			10	125 A G	2	PEDESTALS NB7-NB10
			11			11200	11200	12			
SPARE	1	-- 20 A	13	0	11200			14	125 A G	2	PEDESTALS NB11-NB14
SPARE	1	-- 20 A	15			0	11200	16			
SPARE	1	-- 20 A	17	0	102			18	20 A	1	LIGHTING
SPARE	1	-- 20 A	19			0	0	20	20 A --	1	SPARE
(EXISTING)	1	-- --	21	--	--			22	-- --	1	(EXISTING)
(EXISTING)	1	-- --	23			--	--	24	-- --	1	(EXISTING)
(EXISTING)	1	-- --	25	--	--			26	-- --	1	(EXISTING)
(EXISTING)	1	-- --	27			--	--	28	-- --	1	(EXISTING)
(EXISTING)	1	-- --	29	--	--			30	-- --	1	(EXISTING)
				72902 VA		72800 VA					
				608 A		607 A					

LEGEND:
"G" INDICATES GFCI TYPE BREAKER.

NOTES:



**IOWA DEPARTMENT OF
NATURAL RESOURCES**
ENGINEERING SERVICES - WALLACE
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502 E. 9TH ST., DES MOINES, IA 50319-0034
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Dock Installation and Site Repairs for:
Storm Lake Marina
207 W Marina Road, Storm Lake, IA 50588

DRAWN BY: KCL PROJECT NUMBER: 23-01-11-01

CHKD BY: KCL DATE: 09.20.2022

SHEET No:

E7

BRANCH PANEL: E

LOCATION: SHORE LINE
SUPPLY FROM: MDP
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

VOLTAGE: 120/240 SINGLE
PHASES: 1
WIRES: 3

SCCR RATING: FIELD VERIFY
MAINS TYPE: MCB
MAINS RATING: 225 A
MCB RATING: 150 A

NOTES:

CIRCUIT DESCRIPTION	P	AMP	CKT NO	A		B		CKT NO	AMP	P	CIRCUIT DESCRIPTION
PEDESTALS EA1-EA4	2	G 125 A	1	11200	11200			2	125 A G	2	PEDESTALS EB1-EB4
			3			11200	11200	4			
PEDESTALS EA5-EA8	2	G 125 A	5	11200	11200			6	125 A G	2	PEDESTALS EB5-EB8
			7			11200	11200	8			
PEDESTALS EA9-EA12	2	G 125 A	9	11200	11200			10	125 A G	2	PEDESTALS EB9-EB12
			11			11200	11200	12			
PEDESTALS EA13-EA16	2	G 125 A	13	11200	11200			14	125 A G	2	PEDESTALS EB13-EB16
			15			11200	11200	16			
SPARE	1	-- 20 A	17	0	102			18	20 A	1	LIGHTING
SPARE	1	-- 20 A	19			0	0	20	20 A --	1	SPARE
(EXISTING)	1	-- --	21	--	--			22	-- --	1	(EXISTING)
(EXISTING)	1	-- --	23			--	--	24	-- --	1	(EXISTING)
(EXISTING)	1	-- --	25	--	--			26	-- --	1	(EXISTING)
(EXISTING)	1	-- --	27			--	--	28	-- --	1	(EXISTING)
(EXISTING)	1	-- --	29	--	--			30	-- --	1	(EXISTING)
				89702 VA		89600 VA					
				748 A		747 A					

LEGEND:
"G" INDICATES GFCI TYPE BREAKER.

NOTES:



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Dock Installation and Site Repairs for:
Storm Lake Marina
207 W Marina Road, Storm Lake, IA 50588

DRAWN BY: KCL	PROJECT NUMBER: 23-01-11-01
CHKD BY: KCL	DATE: 09.20.2022
SHEET No: E8	

BRANCH PANEL: S

LOCATION: SHORE LINE
SUPPLY FROM: MDP
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

VOLTAGE: 120/240 SINGLE
PHASES: 1
WIRES: 3

SCCR RATING: FIELD VERIFY
MAINS TYPE: MCB
MAINS RATING: 225 A
MCB RATING: 150 A

NOTES:

CIRCUIT DESCRIPTION	P	AMP	CKT NO	A		B		CKT NO	AMP	P	CIRCUIT DESCRIPTION
PEDESTALS SA1-SA2	2	G 125 A	1	5600	11200			2	125 A G	2	PEDESTALS SB1-SB4
			3			5600	11200	4			
PEDESTALS SA3-SA6	2	G 125 A	5	11200	11200			6	125 A G	2	PEDESTALS SB5-SB8
			7			11200	11200	8			
PEDESTALS SA7-SA10	2	G 125 A	9	11200	11200			10	125 A G	2	PEDESTALS SB9-SB12
			11			11200	11200	12			
PEDESTALS SA11-SA14	2	G 125 A	13	11200	102			14	20 A	1	LIGHTING
			15			11200	0	16	20 A --	1	SPARE
SPARE	1	-- 20 A	17	0	0			18	20 A --	1	SPARE
SPARE	1	-- 20 A	19			0	0	20	20 A --	1	SPARE
(EXISTING)	1	-- --	21	--	--			22	-- --	1	(EXISTING)
(EXISTING)	1	-- --	23			--	--	24	-- --	1	(EXISTING)
(EXISTING)	1	-- --	25	--	--			26	-- --	1	(EXISTING)
(EXISTING)	1	-- --	27			--	--	28	-- --	1	(EXISTING)
(EXISTING)	1	-- --	29	--	--			30	-- --	1	(EXISTING)
				72902 VA		72800 VA					
				608 A		607 A					

LEGEND:
"G" INDICATES GFCI TYPE BREAKER.

NOTES:



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Dock Installation and Site Repairs for:
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207 W Marina Road, Storm Lake, IA 50588

DRAWN BY: KCL	PROJECT NUMBER: 23-01-11-01
CHKD BY: KCL	DATE: 09.20.2022
SHEET No: E9	