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 Last saved by: KOSTAMOL
 Last Plotted: Project Management Initials: Designer: ##
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 ARCH D 24" x 36"

INDIANA SHIP CANAL AT CANAL STREET BRIDGE DOLPHINS

EAST CHICAGO

ISSUED FOR BIDDING



PROJECT LOCATION

Sheet List	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	DETAILED CONDITIONS DETAILED PLAN
4	PROPOSED PLAN
5	PROPOSED DETAILED PLAN
6	PROPOSED SECTION
7	EROSION CONTROL NOTES



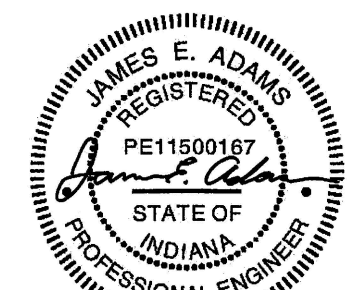
PROJECT
 Indiana Ship Canal
 at Canal Street Bridge
 Dolphins

CLIENT
 East Chicago Water
 Management District

CONSULTANT
 AECOM
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My license expires 7-31-24

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2	3/27/2023	ADDENDUM 1
1	2/21/2023	ISSUED FOR BID

KEY PLAN

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60627610

SHEET TITLE

COVER SHEET

SHEET NUMBER

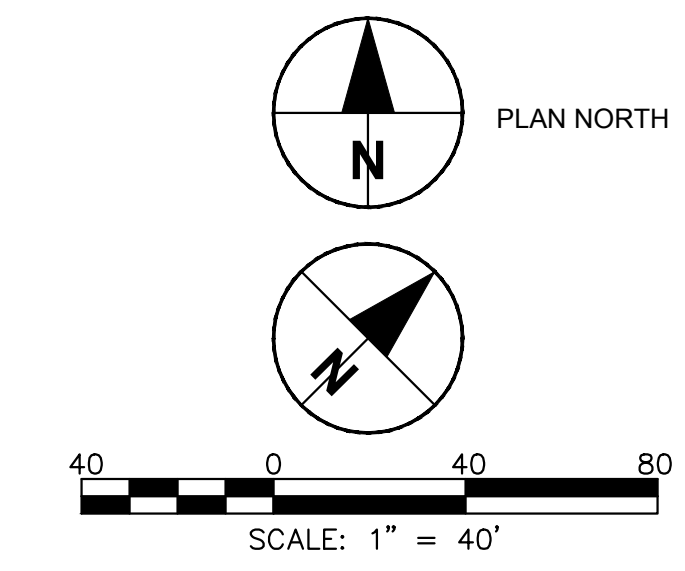
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SHEET 1 OF 7

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1 | **EXISTING PLAN**
 Scale 1" = 40'



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EXISTING CONDITIONS PLAN

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2

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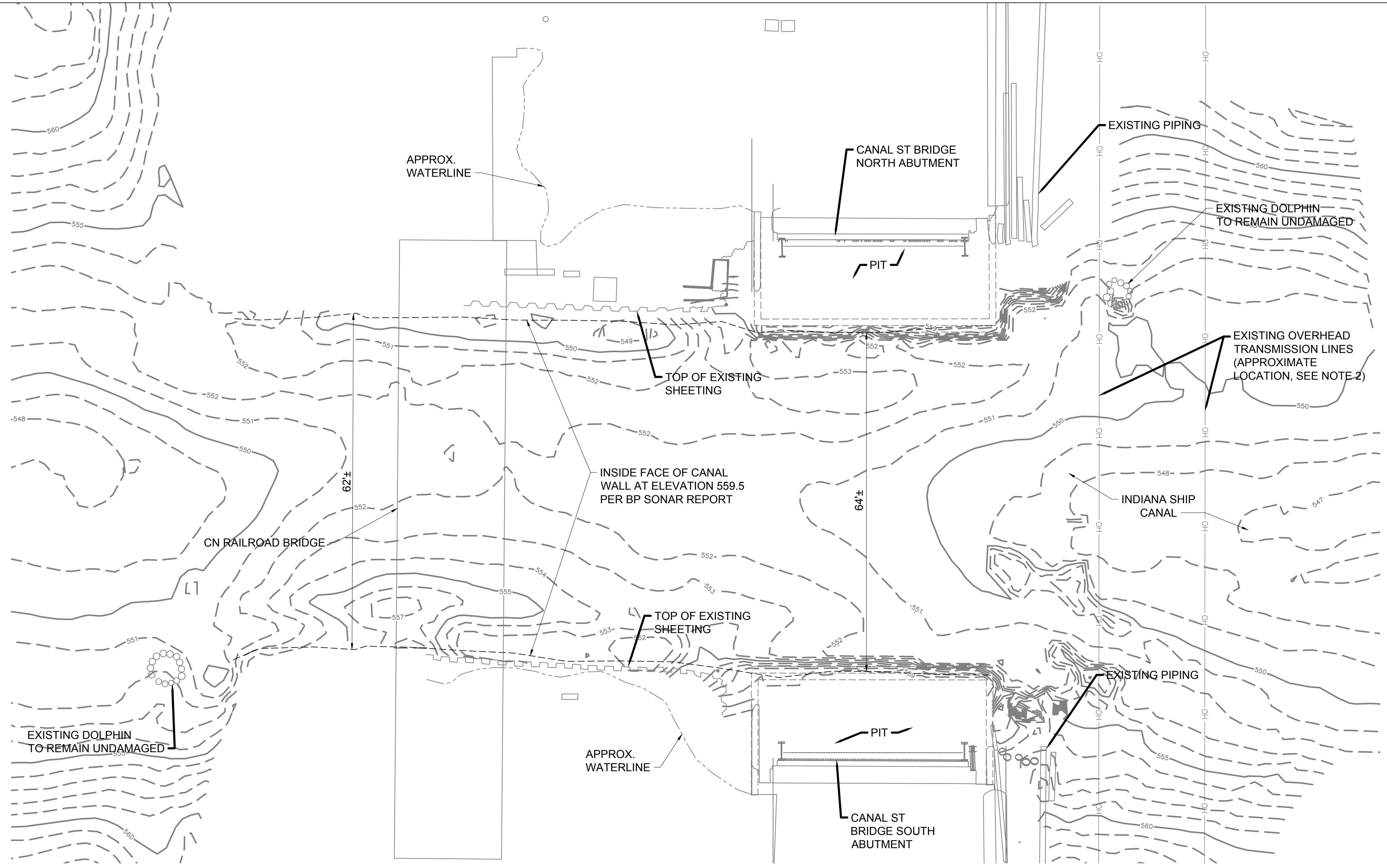
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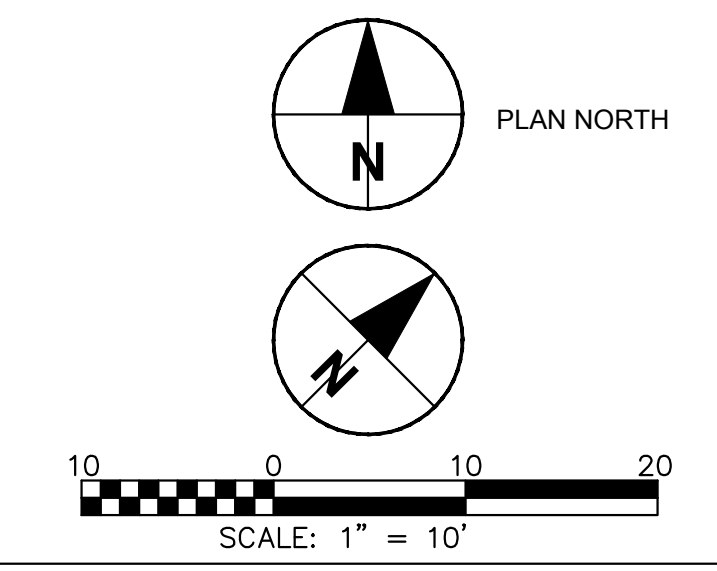
SHEET TITLE
 EXISTING CONDITIONS
 DETAILED PLAN

SHEET NUMBER
 3



- NOTES:**
- ALL ELEVATIONS ARE IN FEET AND ARE REFERENCED TO IGLD85.
 - CONTRACTOR TO VERIFY LOCATIONS OF OVERHEAD TRANSMISSION LINES. NOTIFY ENGINEER IF OSHA REGULATIONS REGARDING EQUIPMENT OPERATIONS NEAR POWER LINES CAN NOT BE MET.

2 EXISTING DETAILED PLAN
 Scale 1" = 10'



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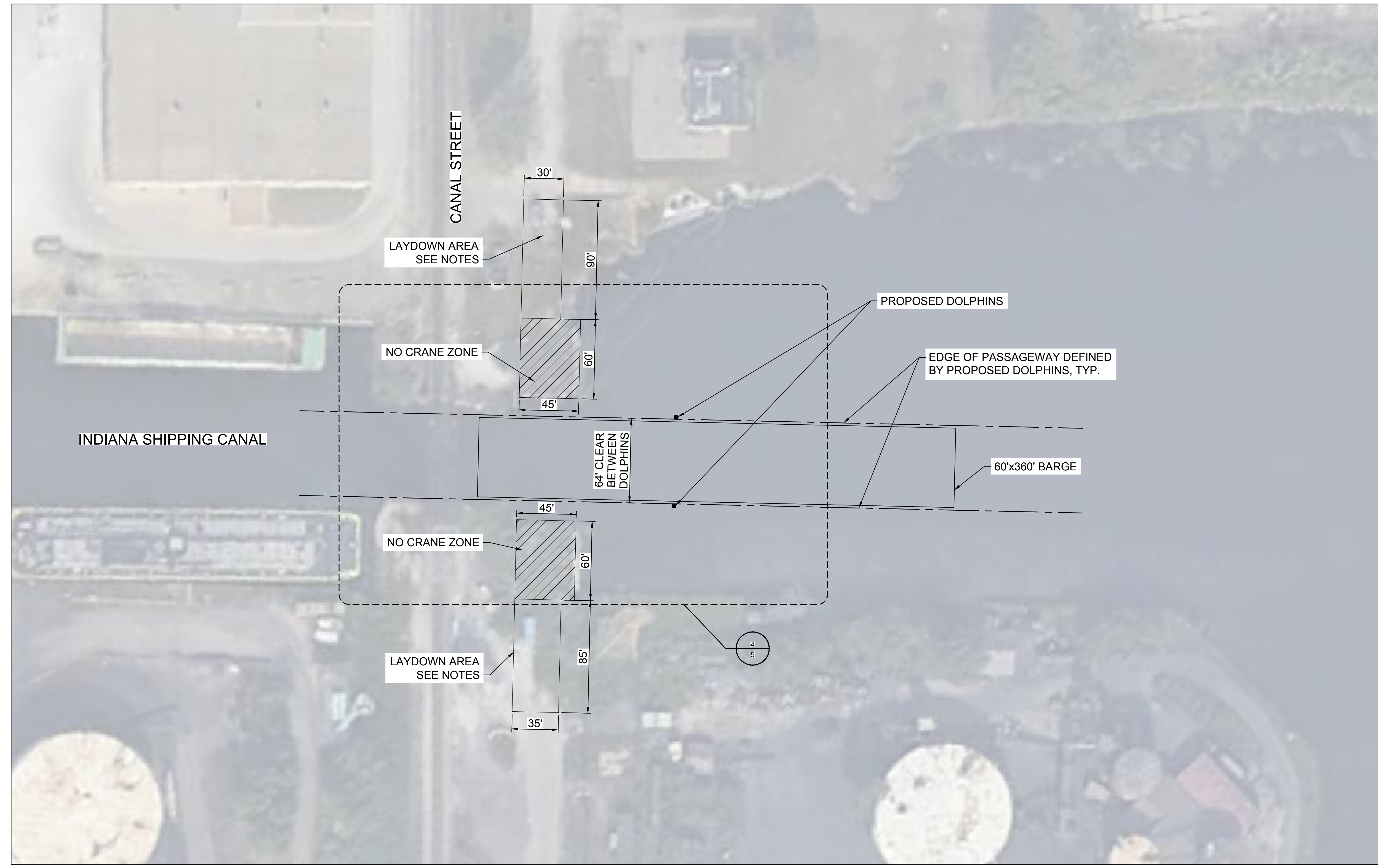
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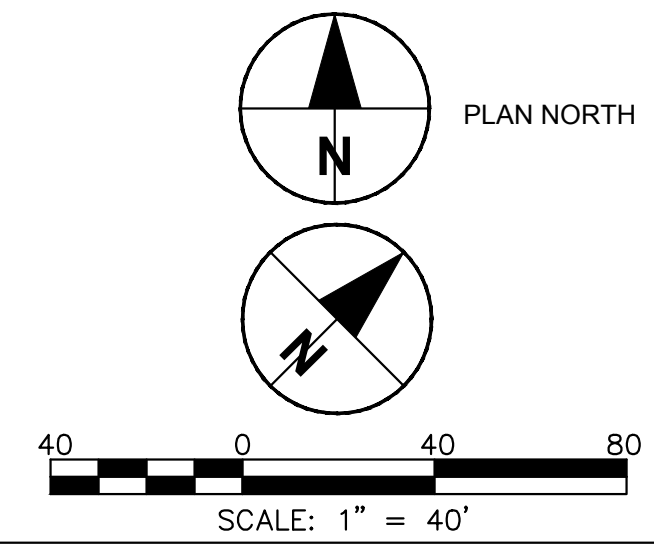
SHEET TITLE
 PROPOSED PLAN

SHEET NUMBER
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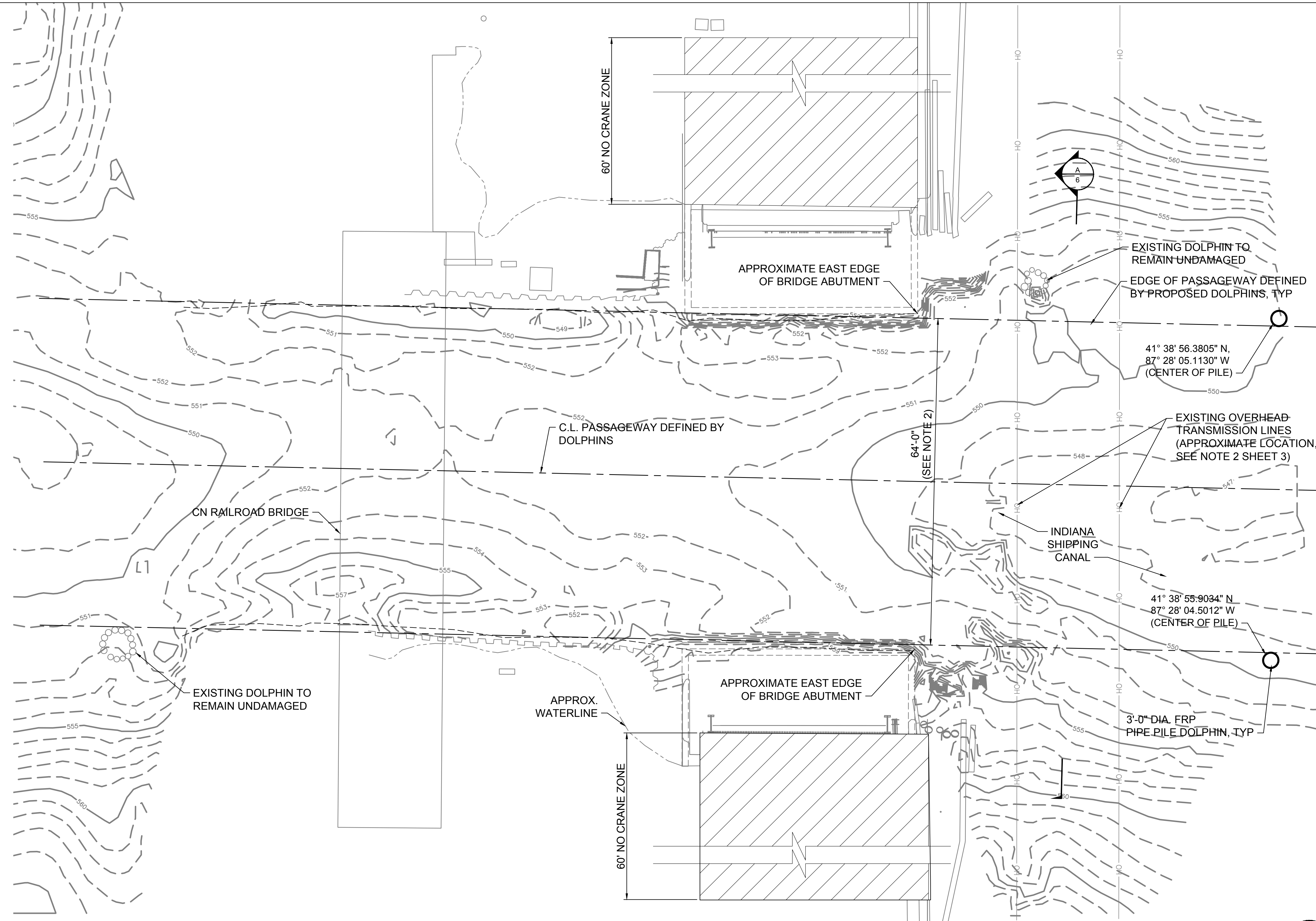


3 | PROPOSED PLAN
 Scale 1" = 40'

- NOTES:**
1. DISTURBED AREAS SHALL BE RESTORED TO THEIR PRIOR CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER.
 2. LAYDOWN AREAS SHALL BE LOCATED WITHIN THE CANAL STREET RIGHT-OF-WAY.



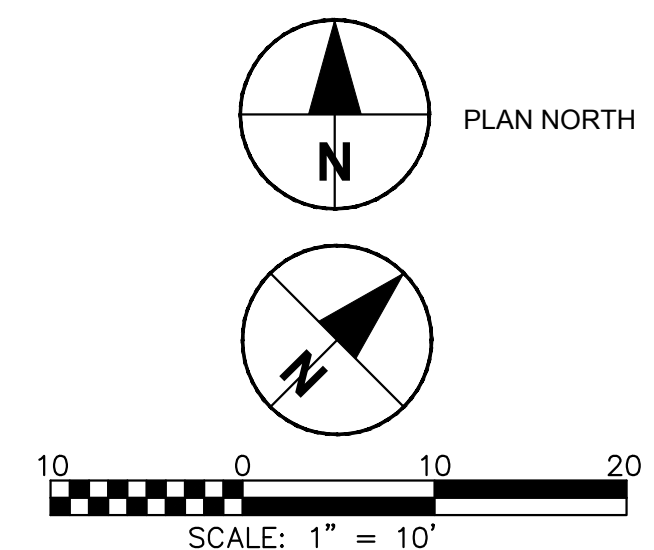
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- NOTES:
- ALL ELEVATIONS ARE IN FEET AND ARE REFERENCED TO IGLD85.
 - DRIVING TOLERANCE FOR PILE LOCATIONS IS ±6 INCHES.

4 | PROPOSED DETAILED PLAN

Scale 1" = 10'



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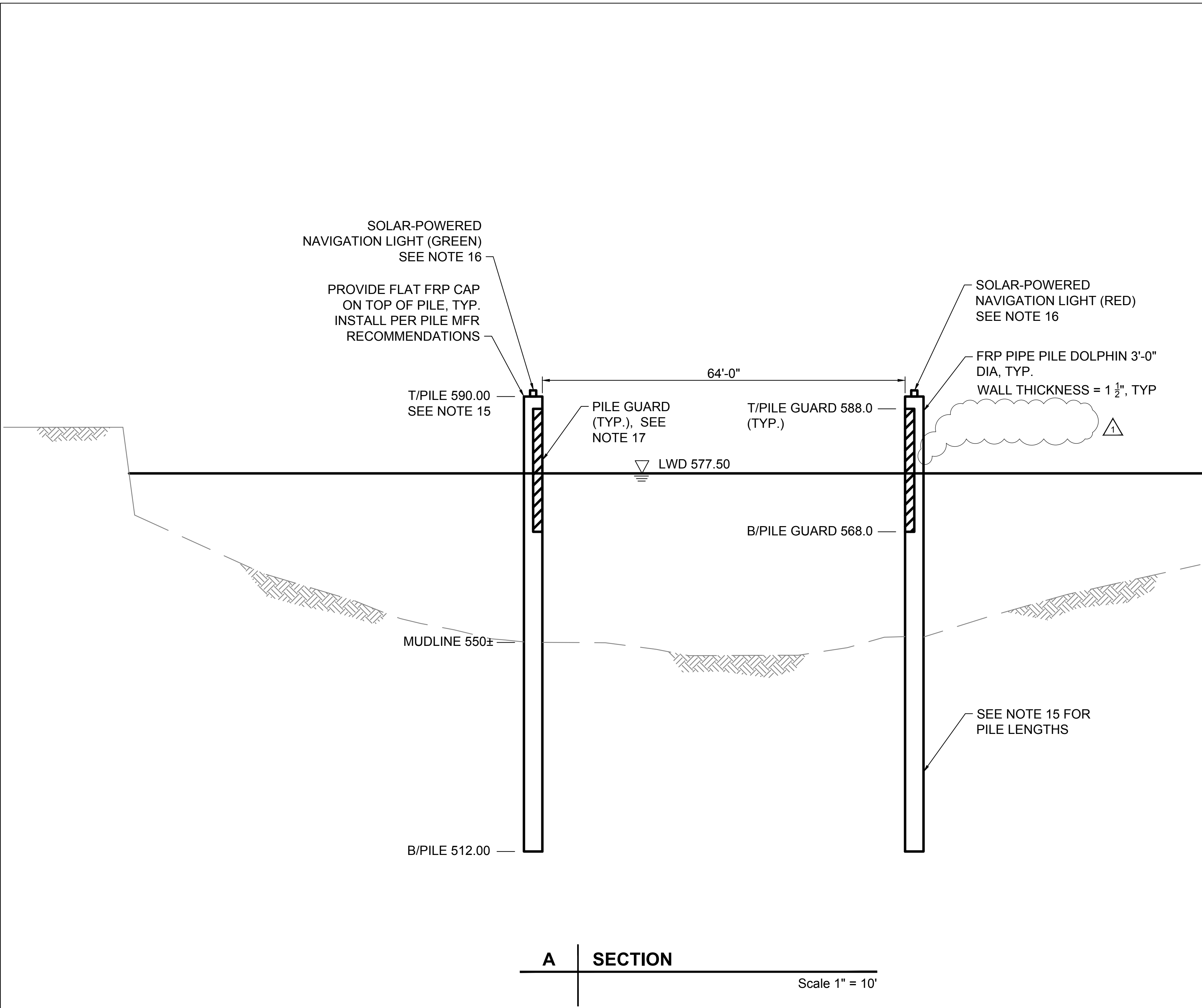
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PROPOSED DETAILED PLAN

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5

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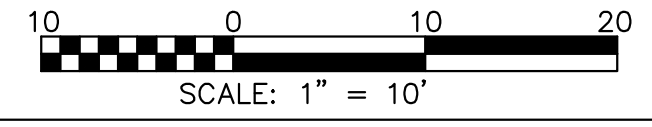


GENERAL NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY, OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
 - a. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO COMMENCING WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND VERIFICATION OF UNDERWATER GRADE ELEVATIONS. CONTRACTOR SHALL PERFORM A BATHYMETRIC SURVEY OF THE AREA PRIOR TO WORK. THE RESULTS OF THE SURVEY SHALL BE SEALED BY A SURVEYOR LICENSED IN THE STATE OF INDIANA AND SUBMITTED TO THE ENGINEER AND OWNER PRIOR TO WORK. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
3. CONTRACTOR SHALL COORDINATE WITH THE VESSEL OWNERS REGARDING SCHEDULING OF DOLPHIN INSTALLATION. CONTRACTOR SHALL SCHEDULE DOLPHIN INSTALLATION TO MINIMIZE IMPACT ON VESSEL OPERATIONS IN THE CANAL. CONTRACTOR SHALL NOTIFY VESSEL OWNERS OF PROPOSED INSTALLATION SCHEDULE A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE.
4. CONTRACTOR SHALL PROVIDE A MINIMUM OF 60 DAYS NOTIFICATION OF PROPOSED DOLPHIN INSTALLATION SCHEDULE TO ENGINEER AND OWNER. SCHEDULE IS SUBJECT TO CHANGE DUE TO UNFORESEEN CONDITIONS.
5. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT. ALL VERIFICATIONS (LOCATION, SIZE, AND DEPTH) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATION IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY SO A REPRESENTATIVE OF THAT UTILITY CAN BE PRESENT TO INSTRUCT AND OBSERVE WORK.
6. SHOWN UNDERWATER GRADES ARE APPROXIMATE AND MAY VARY.
7. CONTRACTOR SHALL ABIDE BY ALL OSHA SAFETY REGULATIONS. TO INCLUDE REGULATION ON EQUIPMENT OPERATION NEAR POWER OR UTILITY LINES.
8. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF BOATS AROUND THE WORK SITE.
9. CONSTRUCTION ACCESS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT TRACKING OF MUD, SOIL, OR TRASH ONTO AREAS ACCESSIBLE TO THE PUBLIC.
10. PAVEMENT AND UTILITIES IN THE LAYDOWN AREAS, ADJACENT STRUCTURES, AND NON-STRUCTURAL ELEMENTS SHALL BE PROTECTED FROM DAMAGE, AND IF DAMAGED SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THEIR OWNER AT NO COST TO THE OWNER.
11. IT IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ERECTION PROCEDURE AND SEQUENCE OF WORK.
12. CONTRACTOR SHALL SUBMIT THE FOLLOWING A MINIMUM OF 30 DAYS PRIOR TO WORK.
 - a. LIFT PLAN, TO INCLUDE THE FOLLOWING:
 - i. CRANE TECHNICAL DATA
 - ii. PICK ANALYSIS WORKSHEET
 - iii. RIGGING INFORMATION
 - iv. ERECTION PROCEDURE
 IF LIFT IS TO BE DONE FROM LAND, ALSO INCLUDE THE FOLLOWING IN THE LIFT PLAN
 - v. PROPOSED CRANE LOCATION
 - vi. PROPOSED CRANE CRIBBING
 - b. FRP PILE DATA, SEE SPECIFICATIONS
13. DESIGN VESSEL PARAMETERS:
 - a. LOADED WEIGHT: 4,300 SHORT TONS
 - b. VESSEL SPEED: 6 MPH
 - c. COLLISION ANGLE: 5 DEGREES
14. CONTRACTOR SHALL EMPLOY A SURVEYOR LICENSED IN THE STATE OF INDIANA TO ASSIST WITH LOCATING THE DOLPHINS. SURVEYOR SHALL SUBMIT A REPORT AFTER DOLPHINS ARE INSTALLED. REPORT SHALL INCLUDE NORTHINGS AND EASTINGS OF THE CENTERS OF INSTALLED DOLPHINS.
15. PROCURE EACH PILE WITH A MINIMUM LENGTH OF 80 FEET (PRIOR TO INSTALLATION). TOP OF PILE ELEVATION PRIOR TO CUT-OFF SHALL BE 592.0, +/- 3 INCHES. CUT OFF TOP OF PILE TO THE FINAL ELEVATION OF 590.0.
16. NAVIGATION LIGHTS SHALL BE CARMANAH M850-96E MARINE LANTERNS, OR APPROVED EQUAL. ATTACH TO PILE CAPS PER LANTERN MFR RECOMMENDATIONS.

GREEN LIGHT:
PERIOD OF FLASH DURATION = 2.5 SEC
FLASH LENGTH = 0.5 SEC.

RED LIGHT:
PERIOD OF FLASH DURATION = 4 SEC.
FLASH LENGTH = 0.4 SEC.
17. PROVIDE POLYSLICK® PILE GUARDS OR APPROVED EQUAL AT EACH PILE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. EACH PILE GUARD SHALL FACE THE CENTER OF THE CANAL. COLOR = YELLOW.
18. CONTRACTOR SHALL ALLOW OWNER'S AND/OR ENGINEER'S REPRESENTATIVE ACCESS TO THE WORK BARGE(S) TO OBSERVE PILE INSTALLATION AND PERFORM INSPECTIONS.
19. CONTRACTOR'S LUMP SUM BID SHALL INCLUDE ANY COSTS ASSOCIATED WITH MATERIAL LAYDOWN, TEMPORARY FACILITIES, AND WATERWAY ACCESS.



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6 SHEET 6 OF 7

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EROSION CONTROL NOTES

SHEET NUMBER

7

SHEET 7 OF 7

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL HAVE A COPY OF THE MOST CURRENT VERSION OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN ON SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN SUCH PLAN TO REFLECT ANY SIGNIFICANT CHANGES IN THE SOIL EROSION AND SEDIMENT CONTROL MEASURES USED ON SITE.
2. PRIOR TO ANY ACTIVITIES, ALL PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED. THESE INCLUDE ALL CONSTRUCTION FENCING, TREE PROTECTION FENCING, AND AGGREGATE CONSTRUCTION ENTRANCES, AS INDICATED ON THE PLAN.
3. HYDROLOGIC DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. CONSTRUCTION WORK SHALL, TO THE EXTENT PRACTICABLE, BE SCHEDULED TO AVOID PERIODS OF SIGNIFICANT RAINFALL AND RUNOFF.
4. AREAS OUTSIDE OF THE WORK LIMITS THAT WILL NOT BE DISTURBED AS PART OF THE WORK SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC AND OTHER HYDROLOGIC DISTURBANCE.
5. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR REDISTURBANCE.
6. THE EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONSTRUCTION MANAGER AND DESIGNATED EROSION CONTROL INSPECTOR WEEKLY, AND WITHIN 24 HOURS FOLLOWING ALL RAINFALL EVENTS GREATER THAN 0.5 INCH OF RAINFALL. INSPECTION RESULTS AND CORRECTIVE ACTIONS SHALL BE DOCUMENTED IN THE SWPPP, COMMUNICATED TO THE ENGINEER AND OWNER, AND MAINTAINED ON SITE.
7. IF INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES MAY BE REQUIRED.
8. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION.
9. ALL STOCKPILES TO REMAIN IN PLACE FOR MORE THAN THREE (3) DAYS SHALL HAVE APPROPRIATE MEASURES TO PREVENT EROSION. STOCKPILES SHALL NOT BE PLACED IN FLOOD PRONE AREAS OR WETLANDS AND DESIGNATED BUFFERS.
10. ALL TRUCKS LEAVING THE SITE SHALL BE LOADED IN A MANNER THAT WILL PREVENT THE DROPPING OF THE MATERIALS ON THE STREETS AND, WHEN NECESSARY, SHALL HAVE SUITABLE TARPULINS FASTENED OVER THE LOAD BEFORE THEY ENTER PUBLIC ROADWAYS. TRUCKS DELIVERING MATERIAL TO THE SITE SHALL BE SIMILARLY LOADED AND COVERED AS NEEDED.
11. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
12. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, CITY OF EAST CHICAGO, OR OTHER GOVERNING AGENCY.
13. IN CASE OF REPEATED FAILURE ON THE PART OF THE CONTRACTOR TO TAKE STEPS PRESCRIBED BY THE ENGINEER TO CONTROL EROSION, THE ENGINEER RESERVES THE RIGHT TO EMPLOY OUTSIDE ASSISTANCE, OR TO USE THEIR OWN FORCES TO PROVIDE THE NECESSARY CORRECTIVE MEASURES AT THE CONTRACTOR EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL MEASURES FROM CONTRACT ISSUANCE UNTIL FINAL STABILIZATION IS ACHIEVED. FINAL STABILIZATION IS DEFINED AS; GREATER THAT 80% VEGETATIVE COVERAGE ON ALL DISTURBED AREAS NOT PERMANENTLY STABILIZED BY AGGREGATE OR OTHER MEANS.
14. THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DEPOSITION OF ALL CONSTRUCTION MATERIAL AND DEBRIS GENERATED DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL NOT DUMP, DEPOSIT, DROP, THROW, DISCARD, OR LEAVE CONSTRUCTION MATERIAL OR DEBRIS UPON THE PROJECT SITE OR INTO ANY STREAM CHANNEL. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A NEAT AND PRESENTABLE CONDITION, FREE FROM DEBRIS AND RUBBISH, AND SHALL CLEAN THE SITE AT THE END OF EACH DAY'S WORK ACTIVITIES.
15. ALL EROSION AND SEDIMENT CONTROL MEASURES INSTALLED BY THE CONTRACTOR SHALL BE MAINTAINED TO CONTROL SEDIMENT DISCHARGES DURING THE CONTRACT PERIOD UNTIL FINAL STABILIZATION.
16. ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
17. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE INDIANA STORM WATER QUALITY MANUAL.
18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ANY SUB-CONTRACTORS WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE ILLINOIS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
19. AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, AND APPROVED BY THE ENGINEER, SHALL BE STABILIZED WITH SOD, MAT, OR BLANKET IN COMBINATION WITH SEEDING.
20. TREE PROTECTION FENCE SHALL BE INSTALLED A MINIMUM OF 1' OUTSIDE OF THE DRIPLINE OF ANY EXISTING TREE WITHIN THE PROJECT WORK LIMITS.