



Cleveland Metroparks

FLATS EAST AND WEST BANK WATER TAXI SITE AND BUILDING RENOVATIONS

1170 OLD RIVER ROAD, CLEVELAND, OHIO 44113
OHIO & ERIE CANAL RESERVATION

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CODE INFORMATION / BUILDING INFORMATION

Work shall comply with all local provisions of the O.B.C., Ohio Building Code (2011 Edition) and ICC A117.1

Existing Building: The building was originally constructed in the 1950's and was last operated as an office for the previous water taxi. The Use and Occupancy does not change.

Scope of Work: The work generally described herein is related to the interior renovations and exterior improvements to the existing building on the East bank and site improvements to both the East and West bank properties.

Use Group B: BUSINESS

Construction Type Type 5B (not sprinkled)

Building Size

Building Area - Existing 747 Gross Square Feet
Building Area - Renovated 792 Gross Square Feet

Occupant Load

Business Areas (100 gross) 8 persons

Maximum Travel Distance 27'-0" feet

Structural: Structural work will included new roof and masonry openings in the existing roof and walls. Also, new load bearing walls and roof structure at the building element on the Northeast corner of the building.

Mechanical/Electrical: Mechanical and electrical work will include completely new systems throughout the existing building.

ARCHITECTURAL

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D-201 DEMOLITION ELEVATIONS
A-101 FLOOR PLANS, DETAILS AND NOTES
A-102 REFLECTED CEILING AND ROOF PLANS AND DETAILS
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A-301 WALL SECTIONS AND DETAILS
A-302 WALL SECTIONS AND DETAILS
A-303 WALL SECTIONS AND DETAILS
A-401 INTERIOR ELEVATIONS AND DETAILS
A-501 ROOM FINISH AND DOOR SCHEDULES, DOOR AND WINDOW TYPES, DETAILS
A-601 ROOM FINISH AND DOOR SCHEDULES, DOOR AND FRAME TYPES AND DETAILS

MECHANICAL

M-101 MECHANICAL PLANS AND SCHEDULES
M-201 MECHANICAL SPECIFICATIONS

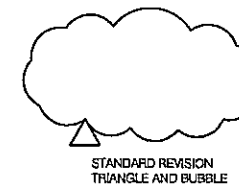
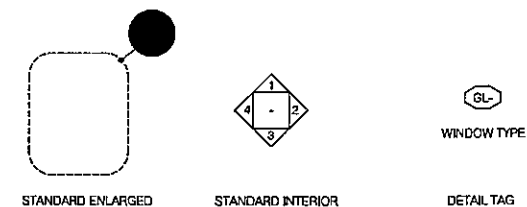
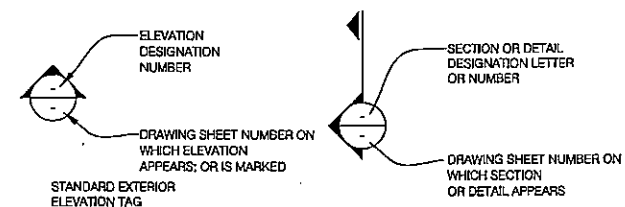
PLUMBING

P-101 PLUMBING PLANS AND SCHEDULES
P-201 PLUMBING DIAGRAMS AND DETAILS

ELECTRICAL

ES-101 ELECTRICAL SITE PLAN - EAST BANK
ES-102 ELECTRICAL SITE PLAN - WEST BANK
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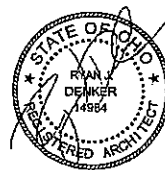
ARCHITECTURAL SYMBOL LEGEND



VICINITY MAP

EAST BANK
SITE LOCATION
(UNDER BRIDGE)
WEST BANK
SITE LOCATION
(UNDER BRIDGE)

RYAN L. DENKER, LICENSE #44894
EXPIRATION DATE 12/31/2015



Cleveland Metroparks
PROJECT NUMBER: ###
www.clevelandmetroparks.com

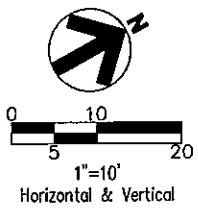
EAST BANK
BUILDING RENOVATIONS
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	REVISIONS	DATE	BY
1	ISSUE FOR BID AND PERMIT	12/23/2014	RJD

DATE: DECEMBER 23, 2014
SHEET NO.

G-101

PRINTED: 12/23/2014 @ 8:39AM
FILE NAME: G:\PDR\Reservations\Projects\Canal\Water_Taxi\Working Drawings\WaterTaxi_C-101.dwg



LEGEND

	CONSTRUCTION KEYNOTES
	PROPOSED ELECTRIC TRANSFORMER

NOTES:
 1. ALL UTILITY CROSSING SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
 2. ALL FINISH GRADE ELEVATIONS AND RIMS SHALL BE PER THE PROPOSED GRADING PLAN.
 3. ALL DISTURBED AREAS SHALL BE RESTORED TO BETTER THAN EXISTING NEW CONDITIONS. CONCRETE REMOVAL AND REPLACEMENTS SHALL BE TO THE NEAREST FULL JOINT.
 4. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

REV	DATE	DESCRIPTION



12/18/14

WATER TAXI
EAST BANK BUILDING RENOVATIONS
 1170 OLD RIVER RD., CLEVELAND, OH

UTILITY CONNECTION PLAN

ISSUED FOR:

PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
MN	KB

JOB NO.
2014381.00

BENCHMARKS:
 BASIS OF BEARING IS STATE PLANE GRID NORTH, NAD83 (CORRS90), GROUND NORTH ZONE ELEVATIONS ARE NAVD88

BENCHMARK #1 - 5/8" LP. SET IN CONC.
 APPROX. 40.5' NW CL. FRONT AVE. & 4.4' SW CL. WEST 9TH ST
 N 669577.0010
 E 2186814.5300
 ELEVATION= 617.42

BENCHMARK #2 - 5/8" LP. SET IN CONC.
 APPROX. 37.1' SE CL. FRONT AVE. & 677.8' SW CL. W 9TH ST
 N 669228.2110
 E 2186231.4330
 ELEVATION= 583.21

BENCHMARK #3 - PK. NAIL SET
 APPROX. 47.5' SE PROP. CL. MAIN AVE. & 576.8' SW CL. W 9TH ST
 N 668867.7860
 E 2186585.7120
 ELEVATION= 589.10

EXISTING WATER MAIN FITTING SCHEDULE

ITEM	STATION	OFFSET
TAPPING SLEEVE & VALVE	67+74.98	14.87' RT.

SERVICE SANITARY TEST TEE TABLE

ITEM	STATION	OFFSET	RIM	INVERT
TT5A	17+98.64	32.44' RT.	578.95	6" NE - 569.00 4" SW - 575.00

EXISTING SANITARY TEST TEE TABLE

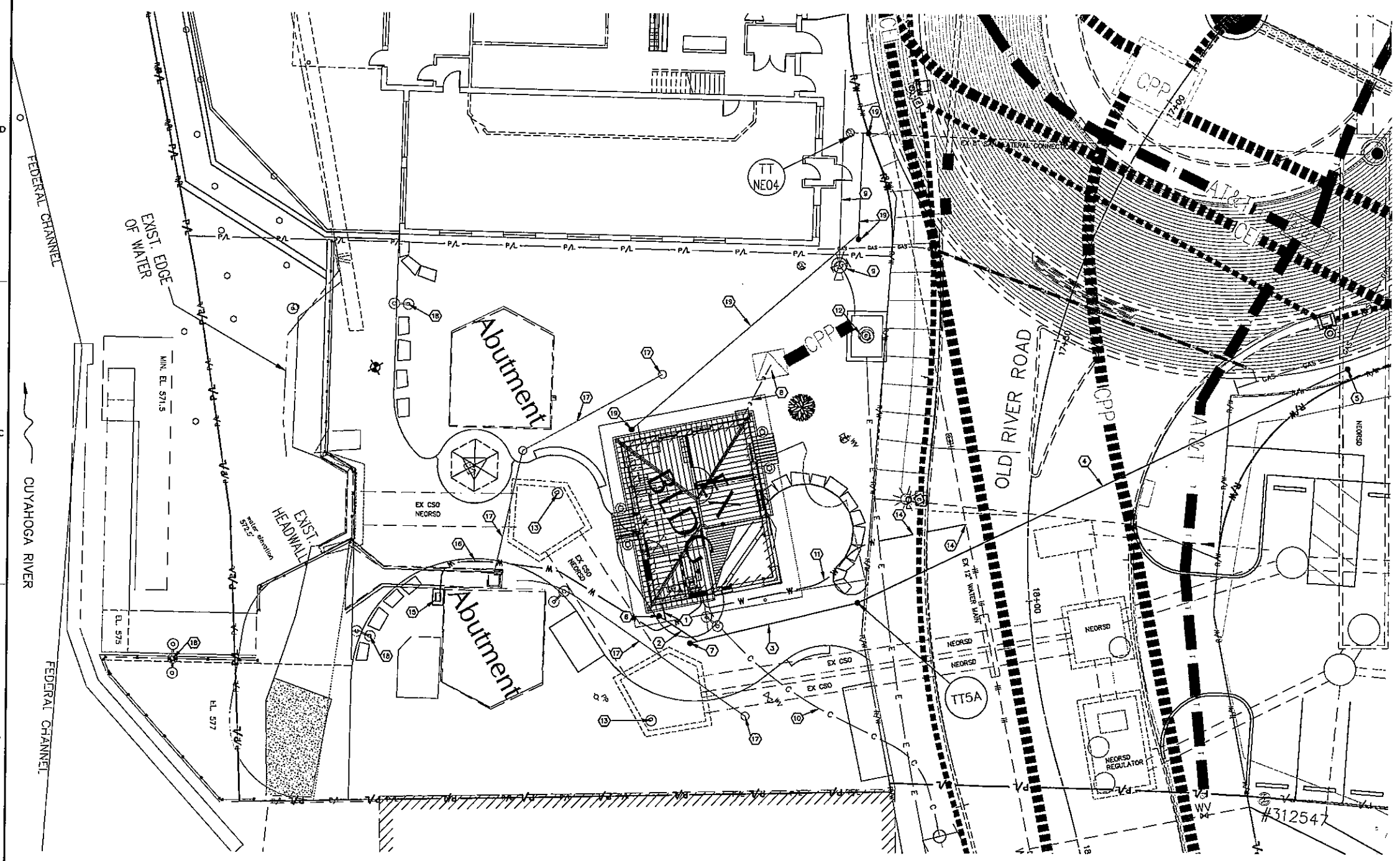
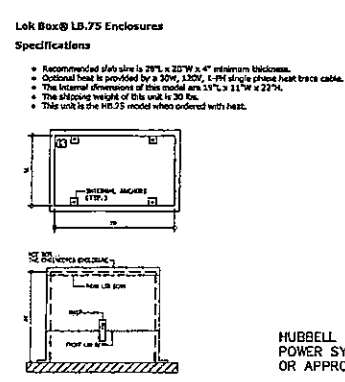
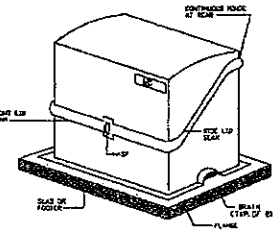
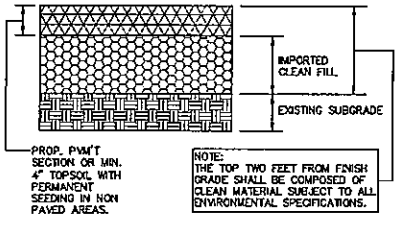
ITEM	RIM	INVERT
TT NE04	581.77	8" (E) - 573.48

Underground Utilities

2 Working Days Before You Dig
 Call 800-362-2764 (Toll Free)
 Ohio Utilities Protection Service

Non-members Must Be Called Directly
 Call 800-925-0988 (Toll Free)
 Oil & Gas Producers Utility Protection Service

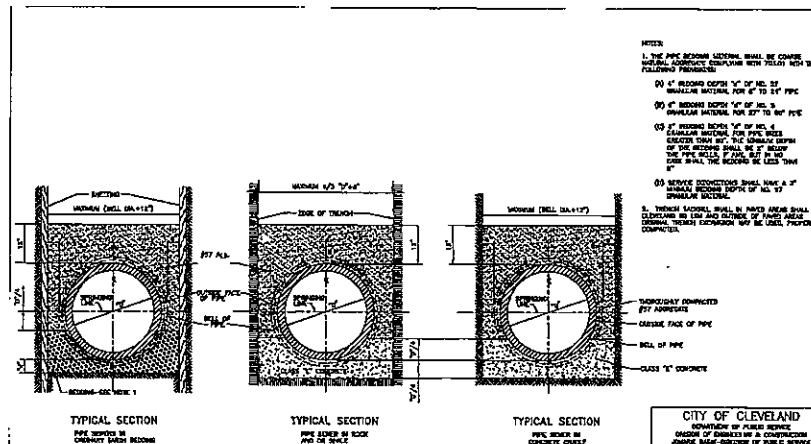
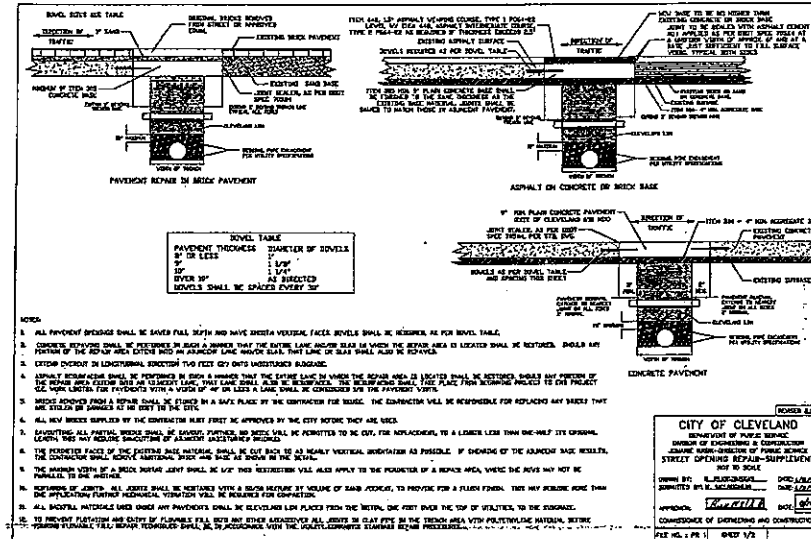
- CONSTRUCTION KEYNOTES**
- PROPOSED 3 LF 4" PVC SANITARY @ 1.0%
 - PROPOSED 9 LF 4" PVC SANITARY @ 1.0%
 - PROPOSED 33 LF 4" PVC SANITARY @ 1.0% WITH RISER AT TEST TEE. SEE SHEET C-112.
 - PROPOSED 103 LF 6" VCP SANITARY @ 1.0%
 - PROPOSED RISER WITH WATER TIGHT CONNECTION TO EXISTING SEWER. SEE SHEET C-112.
 - PROPOSED CLEANOUT, RIM=578.00, INV=575.40. SEE SHEET C-112.
 - PROPOSED CLEANOUT, RIM=578.00, INV=575.33. SEE SHEET C-112.
 - PROPOSED TRANSFORMER AND 11 LF SERVICES CONNECTION TO BLDG. REFER TO SHEET ES-101.
 - EXISTING OVERHEAD UTILITY TO BE RELOCATED BY OTHERS.
 - PROPOSED 67 LF UNDERGROUND COAL SERVICE. REFER TO SHEET ES-101.
 - PROPOSED 50 LF 3/4" TYPE K COPPER WATER SERVICE CONNECTION TYPE K COPPER WITH CURB STOP.
 - EXISTING CPP VAULT
 - EXISTING SEWER MANHOLE
 - EXISTING WATER SERVICE CONNECTION, EXISTING TAPPING SLEEVE AND VALVE COMPLETED BY CMO, REFER TO FITTING SCHEDULE.
 - PROPOSED YARD HYDRANT HOSE BIB HOOKUP IN LOCKABLE ENCLOSURE (SEE DETAIL THIS SHEET) WITH LOCK, MOUNTED ON 2'x3' CONCRETE SLAB AND ASSOCIATED.
 - PROPOSED 60 LF 3/4" TYPE K COPPER WATER CONNECTION TO YARD HYDRANT, FOR SEASONAL USE, TO BE WATERED EVERY YEAR.
 - PROPOSED YARD DRAIN AND PIPING. SEE OTHER PLAN SHEETS FOR MORE INFORMATION.
 - PROPOSED SITE LIGHTING. REFER TO SHEET ES-101 FOR MORE INFORMATION.
 - ALTERNATE PROPOSED 81 LF 6" PVC SANITARY @ 1.0% WITH WYE CONNECTION TO EXISTING 4" LATERAL WITH NEW PROPOSED TEST TEE ON EXISTING LATERAL CONNECTION AT RIGHT OF WAY, STARTING INVERT AT BUILDING FINISH FLOOR - 3.5FT WITH CLEANOUTS AT ALL BENDS. SEE SHEET C-112.



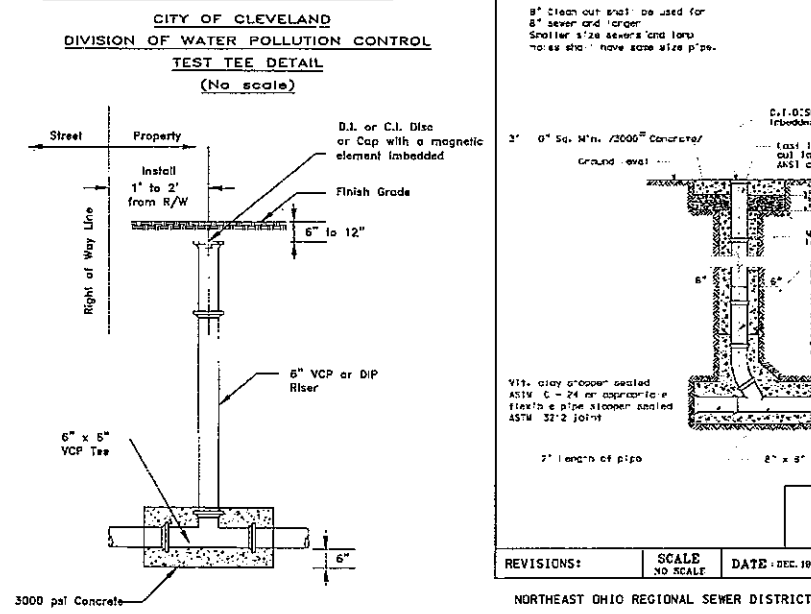
- UTILITY CONTACT LIST**
- | | |
|---|---|
| MR. JAMES FERGUSON
CLEVELAND PUBLIC POWER
1300 LAKESIDE AVENUE
CLEVELAND, OHIO 44114
216-664-4600 | MR. RACHID ZOGHAIB
CLEVELAND WATER POLLUTION
12302 KIRBY ROAD
CLEVELAND, OHIO 44108
216-664-3785 |
| MR. MATTHEW SPRONZ
MAYOR'S OFFICE OF CAPITAL PROJECTS
601 LAKESIDE AVENUE ROOM 518
CLEVELAND, OHIO 44114
216-664-2231 | CLEVELAND WATER DEPARTMENT
1201 LAKESIDE AVENUE
CLEVELAND, OHIO 44114
216-664-2444 |
| MR. BRIAN PAIGE
N.E.O.R.S.D.
3900 EUCLID AVENUE
CLEVELAND, OHIO 44115
216-881-6800 | MS. JULIA FISCHULLA
DOMINION/EAST OHIO GAS
1201 E. 55TH STREET
CLEVELAND, OHIO 44103 |
| MR. RICHARD J. SWITALSKI
CLEVELAND DIVISION OF ENGINEERING AND CONSTRUCTION
601 LAKESIDE AVE.
CLEVELAND, OHIO 44114
PHONE: 216-664-2381 | MS. DANA T. COSTA JR.
FACILITIES ENGINEER
SPRINT
789 BROOKSIDE BLVD.
WESTERVILLE OH 43081
OFFICE 614-818-2241
FAX 614-901-3245
CELL 513-254-4348 |

GENERAL NOTES

- 1. PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED... 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY... 3. THE EXISTING CONDITIONS OF SURFACE FEATURES SHOWN ON THESE PLANS SHALL BE CONSIDERED ADDITIONAL INFORMATION TO THESE PLANS... 4. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS... 5. ALL DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON EXISTING CONDITIONS PRIOR TO CONSTRUCTION... 6. ALL WORK WITHIN THE EXISTING AND FUTURE RIGHTS OF WAY SHALL BE IN ACCORDANCE WITH THE CITY OF CLEVELAND ORDINANCES AND SPECIFICATIONS... 7. CONTRACTOR SHALL COORDINATE ANY MAINTENANCE OF TRAFFIC WITH THE OWNER'S REPRESENTATIVE AND THE CITY OF CLEVELAND PRIOR TO CONSTRUCTION... 8. CONTRACTOR SHALL AT ALL TIMES ENSURE THAT SWPPP MEASURES PROTECTING EXISTING DRAINAGE FACILITIES BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY PHASE OF THE SITE CONSTRUCTION OR LAND ALTERATION... 9. THE CONTRACTOR WILL, UPON BECOMING AWARE OF SUBSURFACE OR LATENT PHYSICAL CONDITIONS DIFFERING FROM THOSE DISCLOSED BY THE ORIGINAL SOIL EXPLORATION WORK, PROMPTLY NOTIFY THE OWNER VERBALLY TO PERMIT VERIFICATION OF THE CONDITIONS AND IN WRITING, AS TO THE NATURE OF THE DIFFERING CONDITIONS... 10. ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SEWERS ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST WPC, N.E.O.R.S., CUYAHOGA COUNTY UNIFORM STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS, ODOT, AND THE ORDINANCES OF THE CITY OF CLEVELAND... 11. ALL STORM SEWER SERVICE CONNECTIONS IN TO THE RIGHT OF WAYS SHALL BE VITRIFIED CLAY PIPE (VCP) ASTM C-700 EXTRA STRENGTH OR DUCTILE IRON AS SHOWN ON THE PLAN AND SHALL HAVE A JOINTING MATERIAL OF THE COMPRESSION TYPE PREMIUM JOINT PER A.S.T.M. D-3212 OR APPROVED EQUAL PIPE WITH PREMIUM JOINTS OF THE SIZE AS SHOWN ON THE PLANS INSTALLED AT A MINIMUM GRADE OF 1.00% TO ACHIEVE PROPER CLEAN-OUT VELOCITIES... 12. ALL SANITARY SEWER AND CONNECTIONS SHALL BE OF THE PIPE SIZE AND MATERIAL SHOWN ON THE PLANS AND BE V.C.P., ASTM C-700 EXTRA STRENGTH WITH PREMIUM JOINTS, WITHIN THE RIGHT OF WAYS, INSTALLED AT A GRADE SHOWN ON THE PLANS. ALL CONNECTIONS SHOULD BE EXTENDED AS SHOWN ON THE PLAN... 13. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS PREPARED BY THE ENGINEER AND APPROVED BY THE CITY ENGINEER AND RECORD AS-BUILT MEASUREMENTS ON ALL SERVICE CONNECTIONS ARE REQUIRED TO BE SUBMITTED BY THE CONTRACTOR TO THE OWNER WITHIN 60 DAYS AFTER IMPROVEMENTS HAVE BEEN ACCEPTED... 14. NEW STORM SEWER PIPE WITHIN THE LIMITS OF DEDICATED RIGHT OF WAYS SHALL BE CONSTRUCTED OF REINFORCED CONCRETE PIPE (RCP) ASTM C-76, CLASS IV WITH PREMIUM JOINTS OR VITRIFIED CLAY PIPE (VCP) ASTM C-700 EXTRA STRENGTH OR DUCTILE IRON AS SHOWN ON THE PLAN AND SHALL HAVE A JOINTING MATERIAL OF THE COMPRESSION TYPE PREMIUM JOINT PER A.S.T.M. D-3212 OR APPROVED EQUAL AND SHALL BE APPROVED BY THE CITY ENGINEER... 15. ALL NEW STORM SEWER PIPE OUTSIDE OF DEDICATED AND FUTURE RIGHT OF WAYS ON PRIVATE PROPERTY SHALL BE CONSTRUCTED OF P.V.C. SDR 35 OR H.D.P.E. DOUBLE WALL PIPE OR APPROVED EQUAL OF THE SIZE AND SLOPE SHOWN ON THE PLANS. ALL PIPING SHALL HAVE WATER TIGHT JOINTS MEETING ASTM 3212... 16. THE CONTRACTOR SHALL SO CONDUCT HIS OPERATIONS THAT THE FLOW OF ALL EXISTING SEWERS AND LATERALS WILL BE MAINTAINED AT ALL TIMES. ANY ADDITIONAL LABOR, EQUIPMENT OR COST INVOLVED IN MAINTAINING THIS FLOW BY PUMPING OR BY ANY OTHER APPROVED METHOD, WHICH IS NECESSARY FOR COMPLETION OF THIS PROJECT... 17. ALL SEWER MAINS, CONNECTIONS, ETC. SHALL HAVE A BEDDING AND COVER AS SHOWN ON THE TRENCH DETAIL... 18. THE CONTRACTOR SHALL SUPPORT ALL EXISTING UTILITIES AND EXISTING SERVICE CONNECTIONS DURING CONSTRUCTION. THE PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS... 19. ANY EXISTING UTILITIES AND EXISTING SERVICE CONNECTIONS WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND RESTORED AT NO ADDITIONAL COST TO THE CITY AND OWNER... 20. THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE AND THE OIL AND GAS PRODUCERS UNDERGROUND PROTECTION SERVICE TWO WORKING DAYS PRIOR TO STARTING THE JOB... 21. THE CONTRACTOR IS TO PROTECT AND USE CAUTION NOT TO DAMAGE AND/OR DISTURB THE EXISTING OVERHEAD AND UNDERGROUND FIBER OPTICS, ELECTRICAL, TELEPHONE AND/OR CABLE TELEVISION WIRES AND DWELLING SERVICE WIRES. IF ANY WORK IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANY AT NO ADDITIONAL COST TO THE CITY OR OWNER... 22. WHERE THE PLANS PROVIDE FOR PROPOSED SEWER TO BE CONNECTED TO AND/OR TO CROSS EITHER OVER OR UNDER AN EXISTING UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING UTILITY BOTH AS TO LINE AND GRADE, BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT... 23. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES DURING THE CONSTRUCTION AND SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN ETC. AS REQUIRED BY THE CITY. TRAFFIC CONTROL SHALL BE AS SET FORTH BY THE CITY OF CLEVELAND TRAFFIC DEPARTMENT AND IN THE LATEST EDITION OF "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"... 24. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS AND CARRY OUT THE WORK IN A MANNER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH NORMAL FLOW OF TRAFFIC WITHIN THE CONSTRUCTION AREAS. THE CONTRACTOR SHALL NOTIFY THE CLEVELAND POLICE, FIRE AND ENGINEERING DEPARTMENTS A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING STARTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND THE CONTROL OF TRAFFIC AND THE PROTECTION OF THE TRAVELING PUBLIC FROM ALL DAMAGE. IN ORDER THAT ALL UNNECESSARY DELAY TO THE TRAVELING PUBLIC MAY BE AVOIDED, THE CONTRACTOR SHALL PROVIDE AND STATION COMPETENT FLAGMEN WHOSE SOLE DUTIES SHALL CONSIST OF DIRECTING THE MOVEMENT OF PUBLIC AND VEHICLE TRAFFIC EITHER THROUGH OR AROUND THE WORK AREAS... 25. ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE CITY AND OWNER WITHOUT ANY EXTRA COST... 26. ALL NEW SEWERS, MANHOLES AND/OR INLET BASINS WITHIN THE PROJECT AREA MUST BE CLEANED AT THE END OF CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE CITY AND OWNER... 27. COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 IS REQUIRED OF ALL CONTRACTORS ON THIS PROJECT... 28. EXISTING RIGID PAVEMENT AND / OR CURBS SHALL BE REMOVED BY FULL DEPTH SAW CUTTING AT THE NEAREST FULL JOINT PER CITY SPECIFICATIONS OR OTHER METHOD APPROVED BY THE CITY... 29. ALL EXCAVATION UNDER OR NEAR EXISTING OR FUTURE PAVEMENT, DRIVE AND SIDEWALKS SHALL BE BACKFILLED WITH APPROVED EXCAVATED GRANULAR MATERIAL OR PREMIUM BACKFILL (LIMESTONE ODOT 304) COMPACTED TO CITY REQUIREMENTS FOR AREAS OUTSIDE OF THE CURRENT AND FUTURE RIGHT OF WAYS. ALL EXCAVATIONS WITHIN THE CURRENT AND FUTURE RIGHT OF WAYS SHALL BE BACKFILLED WITH LSM OR AS NOTED ON THE PLANS. THE DECISION OF THE CITY ENGINEER SHALL PREVAIL... 30. WITHIN THE PROJECT AREA THE CONTRACTOR SHALL ADJUST TO THE NEW GRADE ANY AND ALL UTILITIES INTENDED TO BE AT FINISH GRADE INCLUDING, BUT NOT LIMITED TO: WATER VALVE BOXES, GAS VALVES, WATER SERVICE CONNECTION STOP BOXES, HYDRANTS WITH HYDRANT VALVE BOXES, STORM AND/OR SANITARY CLEANOUTS, STORM AND/OR SANITARY MANHOLES OR SIMILAR STRUCTURES, LIGHT POLES, PULLBOXES AND OTHERS, WHETHER SHOWN ON THE PLANS OR NOT, IN ACCORDANCE WITH ITEM 604 IN THE O.D.O.T. SPECIFICATIONS AND THE UTILITY OWNERS REQUIREMENTS... 31. ALL WORK CONTEMPLATED IS SUBJECT TO THE DIRECT INSPECTION OF THE CITY ENGINEER OF CLEVELAND OR HIS DULY AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL NOTIFY TOM BOYER, DESIGN SECTION HEAD, AT (216) 664-2379 TO ARRANGE A PRE-CONSTRUCTION MEETING TWO (2) WEEKS PRIOR TO BEGINNING WORK. THE ENGINEERING DEPARTMENT WILL INSPECT ALL UNDERGROUND INSTALLATION OF SANITARY AND STORM SEWERS. CONTRACTOR MUST CALL THE CITY FORTY EIGHT (48) HOURS PRIOR TO BEGINNING WORK... 32. ALL PAVEMENT AND CURB JOINTS HORIZONTAL AND VERTICAL SHALL BE PROPERLY SEALED IN ACCORDANCE WITH CITY OF CLEVELAND STANDARDS AND SPECIFICATIONS... 33. ALL UTILITY COVERS SHALL HAVE ALL ASSOCIATED HARDWARE INSTALLED AS INTENDED... 34. ALL PAVEMENTS AND CURBS SHALL HAVE THE APPROPRIATE JOINTS AND SAW CUTS TO PREVENT CRACKING... 35. ALL REQUIRED MATERIALS, LABOR, AND ASSOCIATED SHALL BE INCLUDED BY CONTRACTOR AND SUBCONTRACTORS TO INSTALL THE COMPLETE INTENT OF THESE PLANS. ALL ITEMS IDENTIFIED WITHIN THESE PLANS AND ALL ITEMS THAT MAY BE CONSIDERED TO BE INCIDENTAL OR ARE OTHERWISE NOT IDENTIFIED IN THE PLANS AND ARE REQUIRED TO COMPLETE THE IMPROVEMENTS SHALL BE INCLUDED IN THE CONTRACTOR'S ORIGINAL BID COST. IF THE CONTRACTOR DISCOVERS ANY MISSING ITEMS OR INFORMATION THAT IS NECESSARY TO COMPLETE THE PROJECT, A WRITTEN REQUEST (RFI) SHALL BE SUBMITTED PRIOR TO BID DATE... 36. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AT THE COMPLETION OF THE PROJECT... 37. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PROVISIONS RELATED TO PUBLIC IMPROVEMENTS IN SECTION 163.09 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OHIO UTILITIES PROTECTION SERVICE (O.U.P.S.) AT 1-800-362-2764 AND THOSE OWNERS OF UNDERGROUND UTILITIES IN THE VICINITY OF ANY WORK... 38. ALL WATER SERVICE CONNECTIONS SHALL BE LAID NOT LESS THAN SIX (6) FEET BELOW ESTABLISHED STREET GRADE NOT LESS THAN FIVE AND ONE HALF FEET (5'-1 1/2') BELOW GROUND SURFACE. THE BUILDER/DEVELOPER/OR AGENT IS HEREBY NOTIFIED TO FURNISH SPACE AND ACCESS FOR WATER METER INSTALLATION IN BASEMENT OR LOWEST LEVEL OF SAID PREMISES. PIPING WILL BE CLEVELAND DIVISION OF WATER STANDARDS. WATER FOR BUILDING PURPOSES WILL BE AVAILABLE AT FIRE HYDRANTS. PERMITS TO USE HYDRANTS WILL BE OBTAINED FROM THE PERMITS AND SALES SECTION AT 664-2444 EXTENSION 5201... 39. WIRE FOR READOMATIC INSTALLATION MUST BE RUN BY THE BUILDER/DEVELOPER/OR AGENT. WIRE CAN BE SECURED BY CONTACTING THE METER SHOP AT 348-7277 EXTENSION 3100... 40. WHEN A WATER SERVICE CONNECTION IS DISTURBED OR DISCONNECTED DURING TRENCH OR SHEETING EXCAVATION, THE CONTRACTOR WILL REPLACE THE WATER CONNECTION WITH ALL NEW MATERIAL FROM THE CORPORATION SHUT-OFF TO THE CURB SHUT-OFF VALVE... 41. THRUST BLOCKS (CONCRETE PIERS) ARE REQUIRED BEHIND ALL TEES, HORIZONTAL BENDS, AND HYDRANT ELBOWS. THE CONTRACTOR SHALL INSTALL A CONCRETE THRUST BLOCK BEHIND ALL BRANCH SLEEVES IN WHICH THE NOMINAL TAP SIZE IS ONE-HALF OR GREATER THAN THE NOMINAL DIAMETER OF THE PIPE TO BE TAPPED. THE CONCRETE PIER SHALL BE IN PLACE AND CURED PRIOR TO THE HYDROSTATIC TESTING OF THE CONNECTING MAINS. THE CONCRETE PIER BEHIND THE TAPPING SLEEVE IS REQUIRED ON ALL CONNECTING MAINS AND SERVICE CONNECTIONS... 42. THE PROPOSED FACILITY WILL MAINTAIN A MINIMUM 35 P.S.I. PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS... 43. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS WITHOUT APPROVAL THROUGH MECHANICAL ENGINEER AND CWD... 44. ALL WATER INSTALLATIONS SHALL BE PER CWD SPECIFICATIONS AND DETAILS... 45. WATER CONNECTIONS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY AND ARE NOT PART OF THE WATER MAIN APPROVAL. ADDITIONAL PERMITS FOR SERVICE CONNECTIONS MUST BE OBTAINED FROM THE DIVISION OF WATER PRIOR TO INSTALLATION OF ANY PORTION OF THE SERVICE CONNECTION(S). IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR PERMITS FOR ALL SIZE WATER SERVICE CONNECTIONS BEFORE PERFORMING ANY WORK. THE AMOUNT OF THE CHARGES CAN BE OBTAINED FROM THE DIVISION OF WATER, PERMITS AND SALES SECTION AT 216-664-2444 X5203.



Underground Utilities
2 Working Days Before You Dig
Call 800-362-2764 (Toll Free) Ohio Utilities Protection Service
Non-members Must Be Called Directly
Call 800-925-0988 (Toll Free) Oil & Gas Producers Utility Protection Service



CITY OF CLEVELAND
DIVISION OF WATER POLLUTION CONTROL (WPC)
POLICY STATEMENTS.

NOTE: SECTION 541 OF THE CODIFIED ORDINANCES OF THE CITY OF CLEVELAND AND ALL RELATED ORDINANCES SHALL APPLY.

- 1. A SEWER CONNECTION PLAN WILL NOT BE STAMPED APPROVED BY W.P.C. ENGINEERING UNTIL IT IS APPROVED BY THE PLUMBING DEPARTMENT FIRST (STATE AND FEDERAL PROJECTS EXEMPTED)... 2. TO RECEIVE A CONNECTION PERMIT THE CONTRACTOR MUST BE A LICENSED AND BONDED SEWER BUILDER WITH THE CITY OF CLEVELAND, DEPARTMENT OF PUBLIC UTILITIES... 3. A SUBMITTED SEWER CONNECTION PLAN SHOULD SHOW DISTANCES FROM MANHOLE/MANHOLES THAT A CONNECTION IS BEING MADE. THE PLAN MUST ALSO SHOW APPROXIMATE INVERT ELEVATION... 4. A PREMIUM JOINT VITRIFIED CLAY PIPE (V.C.P.) TEST TEE MUST BE PROVIDED WITH EVERY CONNECTION. A MANHOLE MAY BE REQUIRED IN SOME CASES WHICH WILL BE DETERMINED BY W.P.C. ENGINEERING SECTION... 5. EXISTING CONNECTION(S) SHOULD BE USED WHEN POSSIBLE... 6. A DROP MANHOLE IS NOT REQUIRED FOR STORM SEWER CONNECTION TO MANHOLES UNLESS THE DROP IS MORE THAN 10 FEET... 7. A DROP MANHOLE IS NOT REQUIRED FOR SANITARY SEWERS IF THE HEIGHT DIFFERENCE BETWEEN INVERTS IS LESS THAN 24 INCHES... 8. THERE ARE TO BE NO INSIDE DROPS ON MANHOLES... 9. P.V.C. PIPE MAY NOT BE USED INSIDE THE CITY'S RIGHT OF WAY... 10. WITHIN THE CITY'S RIGHT OF WAY, ALL PIPE 18" AND SMALLER SHOULD BE V.C.P. WITH PREMIUM JOINTS. (CAST IRON OR DUCTILE IRON PIPE MAY BE USED IN SOME LOCATIONS INCLUDING THE TEST TEE)... 11. WITHIN THE CITY'S RIGHT OF WAY, ALL PIPE 21" AND LARGER MUST BE R.C.P. WITH PREMIUM JOINTS... 12. A MANHOLE MUST BE USED WHEN A NEW CONNECTION WOULD DESTROY THE STRUCTURAL INTEGRITY OF A PIPE IT IS JOINING... 13. WHEN A CONNECTION IS BEING MADE TO A SEWER PIPE (LARGER THAN 18 INCHES) IN WHICH A MANHOLE IS NOT NEEDED, W.P.C. REQUIRES THAT A SADDLE BE USED, CONNECTING TO AN EXISTING MANHOLE WOULD BE PREFERRED... 14. WHEN A CONNECTION IS BEING MADE TO A SEWER PIPE (18 INCHES AND SMALLER) IN WHICH A MANHOLE IS NOT NEEDED W.P.C. REQUIRES THAT A WYE BRANCH BE USED. (NO SADDLES)... 15. CONNECTIONS TO CATCH BASINS ARE NOT PERMITTED... 16. ALL CATCH BASINS LOCATED WITHIN THE PRIVATE PROPERTY AND HAVE AN OUTLET TO THE MAIN SEWER OR SEWER APPURTENANCES SHALL HAVE A TRAP AND 2 FOOT MINIMUM SUMP... 17. STORM FLOW AND/OR STORM DETENTION CALCULATIONS SHOULD BE SUBMITTED WITH STORM CONNECTION PLANS (HOUSE CONNECTIONS ARE EXCLUDED)... 18. THE CONTRACTOR SHOULD NOTIFY THE DIVISION OF WATER POLLUTION CONTROL (W.P.C.) PRIOR TO THE START OF CONSTRUCTION. CALL THE ENGINEERING OFFICE AT (216)664-2756 OR (216)664-2787 TO COORDINATE SEWER WORK... 19. THE CONTRACTOR IS REQUIRED TO SUBMIT SEWER SHOP DRAWINGS TO W.P.C. PRIOR TO SEWER INSTALLATION. THE DRAWINGS SHOULD INCLUDE THE SEWER PIPES, MANHOLES, CATCH BASINS AND OTHER SEWER APPURTENANCES... 20. W.P.C. WILL INSPECT THE CITY SEWER INSTALLATION. THE COST OF THE FULL TIME INSPECTION SHALL BE PAID BY THE CONTRACTOR. AN INSPECTION DEPOSIT SHALL BE SUBMITTED TO W.P.C. PRIOR TO THE START OF CONSTRUCTION... 21. THE PROPOSED SEWERS SHOULD BE CONSTRUCTED IN ACCORDANCE TO THE PLANS AND SPECIFICATIONS APPROVED BY W.P.C. ANY DEVIATIONS FROM THE APPROVED PLANS OR SPECIFICATIONS REQUIRE A NEW PLAN SUBMITTAL REFLECTING THE CHANGES. UPON REVIEW OF THE REVISED ITEMS W.P.C. WILL RE-ISSUE A NEW APPROVAL. IT IS STRICTLY PROHIBITED TO CONSTRUCT ANY SEWERS UNLESS THEY ARE APPROVED BY THE W.P.C... 22. UPON COMPLETION OF THE SEWER INSTALLATION THE CONTRACTOR IS REQUIRED TO SUBMIT A HARD COPY AND AN ELECTRONIC COPY OF THE AS BUILT PLANS, AND A CCTV COPY OF THE NEW CITY SEWERS. W.P.C. RESERVES THE RIGHT TO DISAPPROVE ANY SEWER THAT DOES NOT MEET THE CITY REQUIREMENTS... 23. THE CONTRACTOR IS RESPONSIBLE FOR THE PLAN REVIEW FEES OF THE NEW CITY MAIN SEWERS... 24. THE CONTRACTOR IS REQUIRED TO OBTAIN PERMITS FOR ALL PROPOSED OF EXISTING SEWER CONNECTIONS THAT WILL SERVICE THE PROPERTIES.

GPD GROUP
370 South Main Street
Akron, Ohio 44311
330.572.1000 Fax 330.572.2189
Graphic: C&A, P&C, S&C, B&D, D&W, Inc. 2014

Table with columns: REV, DATE, DESCRIPTION



12/18/14

WATER TAXI
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD., CLEVELAND, OH
NOTES AND DETAILS
PLAN

Table with columns: ISSUED FOR, PERMIT, BID, CONSTRUCTION, RECORD, PROJECT MANAGER, DESIGNER, JOB NO. 2014381.06

Drawing Name: D:\2014\2014381\000\dwg\Civil\Utility Connections Plan.dwg
December 17, 2014 - hnkowak

General:

The project manual and contract documents shall govern this improvement. This project references ODOT Construction and Materials Specifications (2008 Edition). References to ODOT specifications shall govern this work where noted on the drawings or referenced in the Technical Specs. Otherwise the Project Manual and Contract Drawings will prevail. References to Owner, Director, Engineer shall be construed to mean Cleveland Metroparks and/or their authorized representatives.

The Contractor shall be solely responsible for complying with all Federal, State and local safety requirements and exercise precautions at all times for the protection of all persons including employees and property.

Contractor shall comply with all OSHA requirements at all times, particularly when near overhead electrical crossings. Min. clearance from 138 kv lines is 12', min. from lines less than 138kv is 10'.

Any defects in construction, including materials and/or workmanship shall be corrected by removal and replacement, or other approved method by Owner. Cost of work shall be borne by the Contractor.

All disturbed and damaged areas outside the Work Limits shall be restored to their original condition by the Contractor at no additional cost to the Owner.

Survey/Layout:

The Contractors surveyor shall be responsible all staking/restaking as necessary to accurately identify the location/grade of all elements. Staking shall be performed prior to construction for Owner approval, and maintained throughout construction as necessary for the accurate construction of the work.

The elevation datum is NGVD 1988, The State Plane Coordinates are based upon NAD 1983.

The Contractor shall confine all activities to the project within the Work Limits and shall not trespass on private property without prior written permission of Owner.

The Contractor shall keep all streets, parking areas adjacent to the project clean and free of any debris/ mud, construction equipment, stockpiled materials at all times.

The Contractor shall provide the Owner a final set of as-built drawings (both hard copy and electronically, marked in red, certified by the Contractor as including all field changes which occurred during the construction as documented by field directives, change orders or otherwise. Costs shall be included in the Base Bid.

Protection/Restoration of Property:

The Contractor shall be responsible for all damage or injury to property of any character during the execution of the work, resulting from any act, omission, neglect or misconduct of his manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until project is accepted.

When or where any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof by the contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or shall make good such damage or injury in an acceptable manner.

The Contractor shall thoroughly review the site and become familiar with all public utilities (gas, water, sewer, electric, cable) within the limits which may interfere with the work. If it should become necessary to relocate/protect, in the the Contractor's opinion, during construction of the proposed improvements, the Contractor shall pay the total cost and/or charge by the utility company for the relocation/protection and the cost shall be included in the "Lump Sum" project bid submitted by the Contractor.

Construction Access:

Both the East Bank and West Bank sites are very tight with limited space for the stockpiling of construction debris/materials and access. The Contractor shall submit an access plan and construction schedule to the Owner at the pre-construction meeting and prior to the commencement of construction for approval. There shall be no access over adjacent properties to the site. Any other access shall be agreed to in writing prior to the access, and all access points shall be restored to their original character at no added cost to the project.

Utilities:

Investigation, support, protection and restoration of all existing utilities shall be the responsibility of the Contractor. Costs shall be included in the Base Bid. Listed below are the utilities located within the Construction limits:

Dominion East Ohio Gas
Northeast Ohio Regional Sewer District
Cuyahoga County Sanitary Engineers
AT&T
Cleveland Public Power
Time Warner Cable
Cleveland Water Department

The location of existing utilities and structures shown on the plans are based on records at the time of survey and information provided by the utility companies and is shown as accurately as possible. The Owner assumes no responsibility as to the accuracy of the underground facilities shown on the drawings. The Contractor is responsible prior to construction, to determine the actual location of all existing utilities whether shown on the plans or not. The Contractor shall call OUPS at 800-362-2764, and OGPUPS at 800-925-0988 a min, of 2 working days prior to the start of construction.

Earthwork:

Blasting/burning is not permitted on this project.

Prior to beginning construction the Contractor shall provide temporary and any permanent soil erosion and sediment control per the Standards and Specifications of the "Water Management and Sediment Control for Urbanizing Areas" Manual. Once installed the controls shall be inspected daily and any necessary repairs or replacement shall be made within 24 hours.

Owner shall approve rough grading prior to finish grading, and finish grading prior to seeding. Maintain uniform, positive slopes on all graded surfaces.

Traffic Control:

The Contractor shall furnish, erect and maintain all traffic control devices as required herein and in compliance with the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways (OMUTCD) and per the City of Cleveland. The Contractor shall apply for and secure City required Road Opening Permit if required by the Work.

The Contractor shall schedule the work in such a way as to minimize both the extent and duration of disruption of traffic. The Contractor shall notify the City Engineers office 48 hours before the disruption occurs.

The Contractor shall secure the work site by installing a 6' high chain link fence around the perimeter with a lockable swing gate. A used fence system can be installed if structurally sufficient to prevent unauthorized access to the work site. Refer to Project Site Plans for specific instruction for location of fenced Limits of Construction.

Dewatering:

No runoff from construction operations shall be permitted to enter the storm sewer system. Erosion control measures such as inlet filters, compost socks and hay bales can be used to prefilter runoff.

Prohibited Construction Activities:

Unsuitable or excess excavated/dredged materials, debris are not be permitted to be disposed of in the River, and shall be hauled off-site and disposed of properly. bales can be used.

Pumping of sediment-laden water from excavations shall not be released directly into the River without being properly filtered or settled first.

Construction Waste Management:

Contractors shall submit a Construction Waste Management Plan which includes all demolition items and construction waste shall be disposed of off site at an approved facility. Dredged materials shall be dewatered on site prior to transport or shipped in water-tight trailers to prevent muddy water from running onto the pavement during transport to approved facility.

Drainage:

Where plans call for crossing existing utilities, Contractor shall locate existing utilities/pipes both as to line and grade before starting to install proposed conduit.

Should the plan elevations differ from actual field conditions notify the Owner immediately.

All new storm pipe shall be reinforced concrete pipe conforming to 706.02 unless noted otherwise. Backfill shall be Class "B" Bedding, unless otherwise noted.

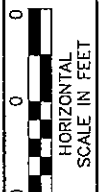
Best Management Practices:

The location and timing of all erosion and sediment controls shall be field adjusted to prevent significant impact on the receiving waters (River). Implementation and Maintenance shall continue throughout the duration of the work or until such time that all non-paved, exposed surfaces are stabilized. Prior to disturbing upland portions of the site, the Contractor shall install silt fence/compost socks to minimize any overland sediment runoff from entering the Cuyahoga River.

Project Coordination:

The Owner recognizes both the East and West Bank sites are very tight and will require all Contractors to be remain flexible while on-site to facilitate the construction of the work to progress in an organized, efficient manner. There is very limited room on both sites for material delivery/staging area, with no long term on-site storage of materials available. The Owner suggests the projects begin with construction of riverside tasks and then work back away from the River.

The Owner is requiring precise coordination between the contractors at all times throughout this project due to the confinement of the site to assure all work is completed in a timely manner which will not prevent or delay the work of each contractor.



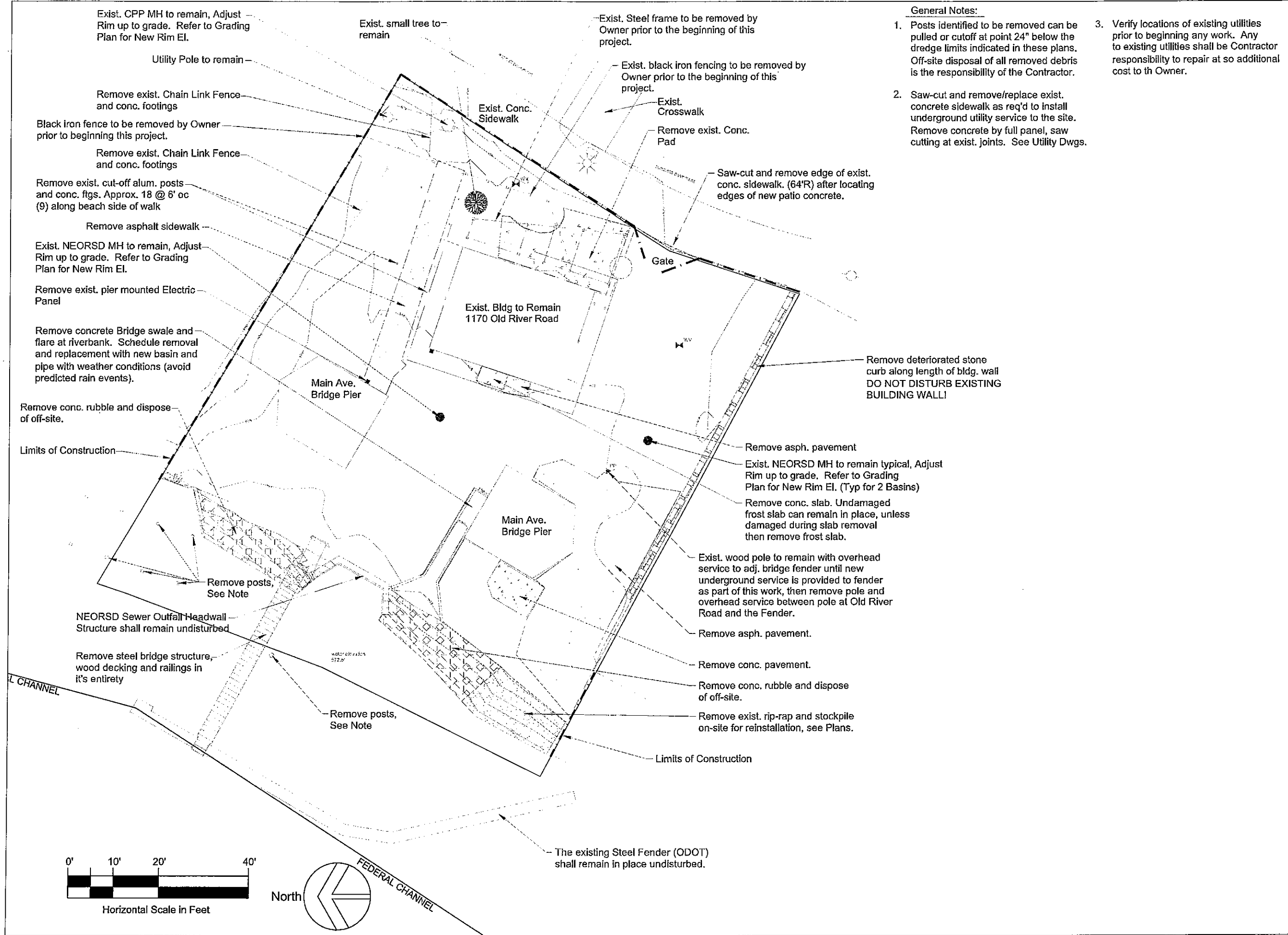
10-17-14
jgc

General Notes
Water/Taxi

Water Taxi Site Improvements

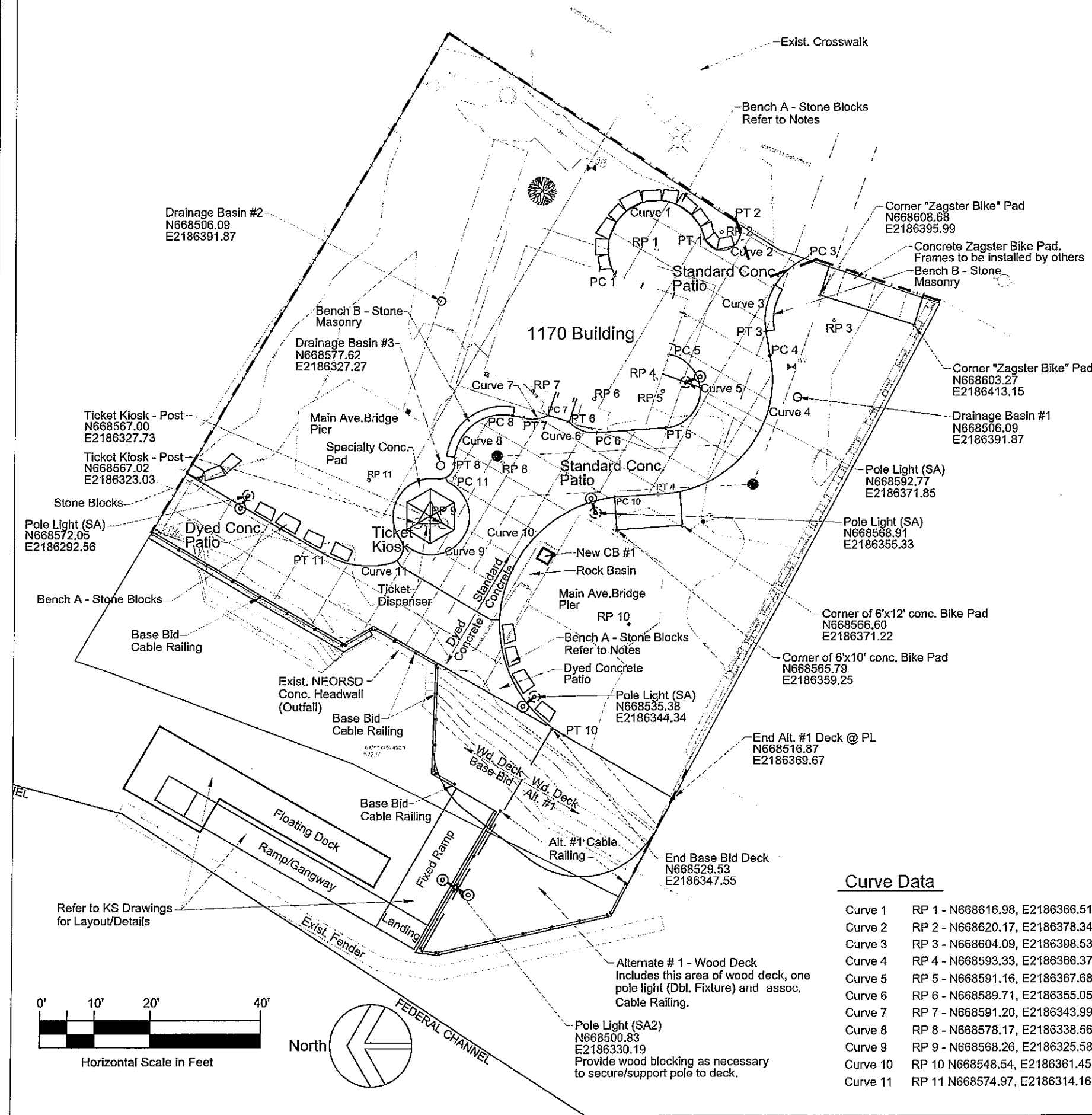
12-23-14
SHEET
Sd-1

Cleveland Metroparks



- General Notes:**
1. Posts identified to be removed can be pulled or cutoff at point 24" below the dredge limits indicated in these plans. Off-site disposal of all removed debris is the responsibility of the Contractor.
 2. Saw-cut and remove/replace exist. concrete sidewalk as req'd to install underground utility service to the site. Remove concrete by full panel, saw cutting at exist. joints. See Utility Dwgs.
 3. Verify locations of existing utilities prior to beginning any work. Any to existing utilities shall be Contractor responsibility to repair at so additional cost to th Owner.

REVISIONS	
NO.	DESCRIPTION
1	Issued for Bids
DATE	12-23-14
BY	



Layout Notes:

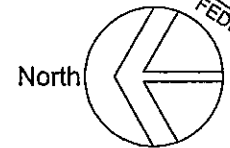
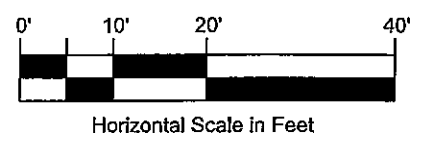
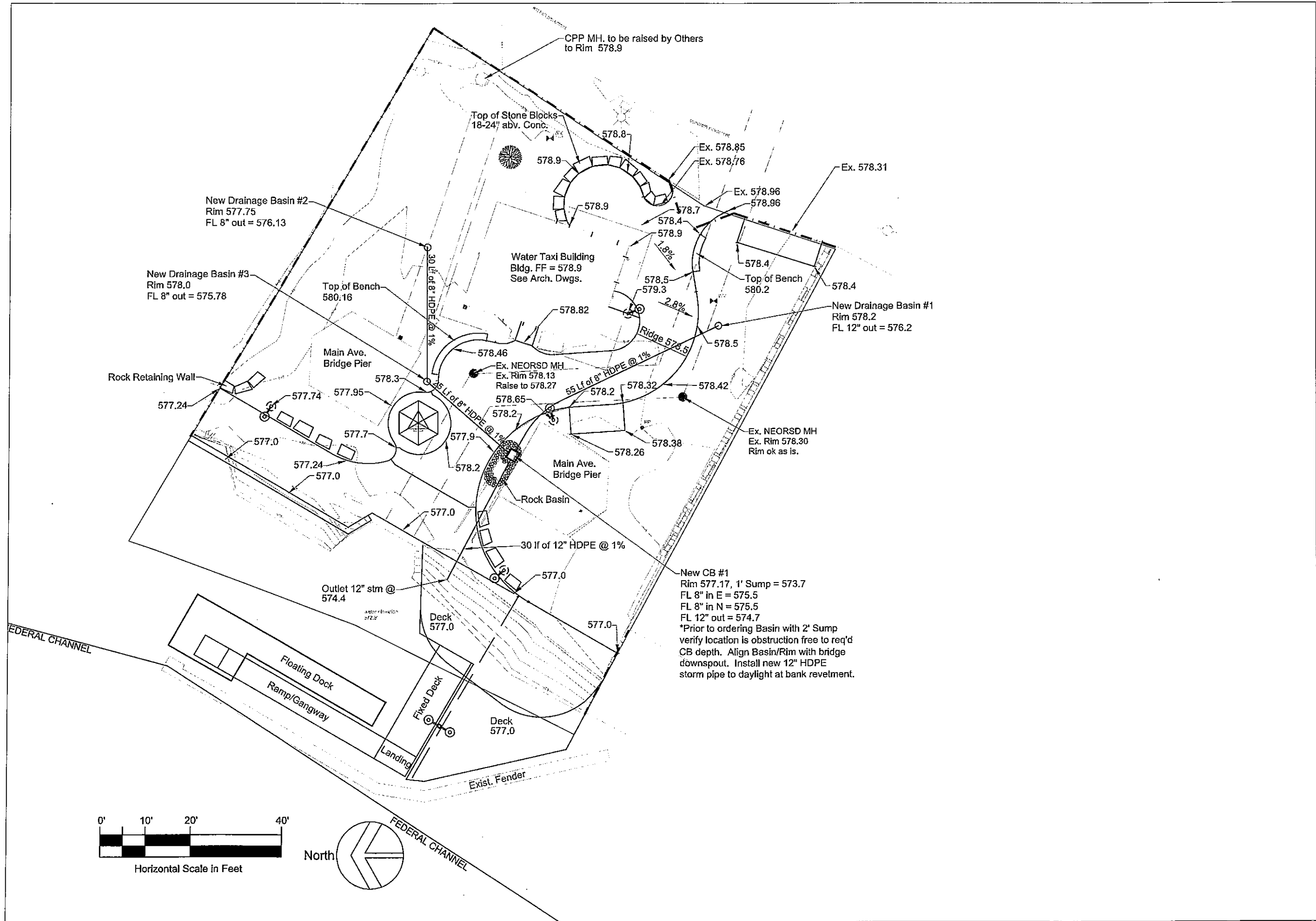
1. The Contractor shall contact the Owner immediately if the indicated existing conditions indicated on these plans differs from actual field conditions.
2. Refer to KS Drawings for Dock, Deck Layout and Details.
3. CB #1 shall be centered below existing Main Ave. Bridge 12" downspout, (typical).
4. There are two different bike racks on this project. The first "Zagster Bikes" will have the conc. pad installed by this Contractor. The Zagster Bike Rack is by others. The second "Bike Rack" will have both the conc. pad and bike rack provided and installed by this Contractor. The bike rack shall be a Draper Bike Rack - Traditional Style, 10' long #505330 (single-sided) 765-856-1226; or other approved.
5. Refer to Architectural Dwgs. for Ticket Kiosk Details. The Kiosk fabrication/installation including sub-panel/lighting, conduit stub and wiring shall be included in the installation. Refer to Elec. Dwgs. and Arch. Dwgs. for details.
6. Provide steel plates as required to protect exist. sidewalk. Contractor shall replace all existing sidewalk damaged during construction,

Curve Data

Curve	RP	Radius	PC	PT
Curve 1	RP 1 - N668616.98, E2186366.51	Radius = 8.95'	PC 1 N668612.33, E2186358.86	PT 1 N668618.82, E2186375.27
Curve 2	RP 2 - N668620.17, E2186378.34	Radius = 3.36'	PC 2 N668613.44, E2186355.54	PT 2 N668622.52, E2186380.74
Curve 3	RP 3 - N668604.09, E2186398.53	Radius = 12.47'	PC 3 N668615.69, E2186393.94	PT 3 N668602.00, E2186386.22
Curve 4	RP 4 - N668593.33, E2186366.37	Radius = 21.02'	PC 4 N668597.66, E2186386.94	PT 4 N668572.32, E2186366.82
Curve 5	RP 5 - N668591.16, E2186367.68	Radius = 6.74'	PC 5 N668597.80, E2186368.78	PT 5 N668584.44, E2186368.26
Curve 6	RP 6 - N668589.71, E2186355.05	Radius = 6.15'	PC 6 N668583.57, E2186355.47	PT 6 N668587.17, E2186352.29
Curve 7	RP 7 - N668591.20, E2186343.99	Radius = 5.16'	PC 7 N668586.78, E2186346.70	PT 7 N668586.32, E2186342.32
Curve 8	RP 8 - N668578.17, E2186338.56	Radius = 8.75'	PC 8 N668586.73, E2186340.36	PT 8 N668577.92, E2186329.82
Curve 9	RP 9 - N668568.26, E2186325.58	Radius = 7'		
Curve 10	RP 10 N668548.54, E2186361.45	Radius = 23.38'	PC 10 N668571.77, E2186358.84	PT 10 N668528.32, E2186349.71
Curve 11	RP 11 N668574.97, E2186314.16	Radius = 15.74'	PC 11 N668575.42, E2186329.89	PT 11 N668561.37, E2186306.25

NO.	DESCRIPTION	DATE
1	Issued for Bids	12-23-14

DATE: OCTOBER 31, 2014
SHEET NO. SD-3

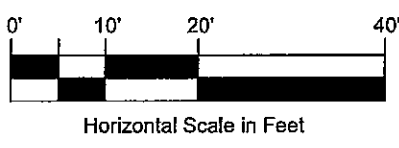
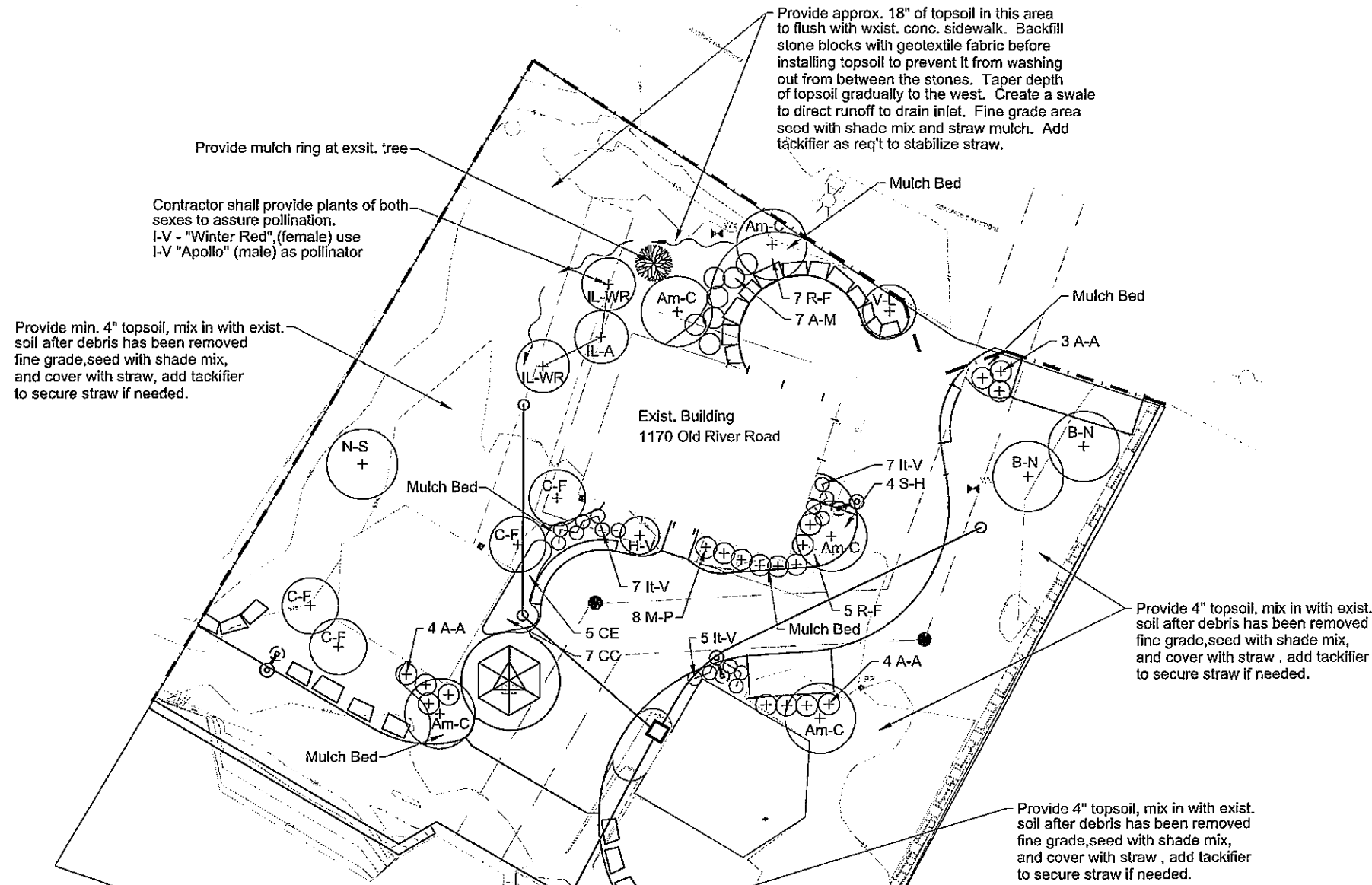


NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR BIDS	12-23-14	

SCALE CHECK: THIS DRAWING SHOULD BE MEASURED EXACTLY AS SHOWN PLOTTED

OCTOBER 31, 2014

SHEET NO. SD-4



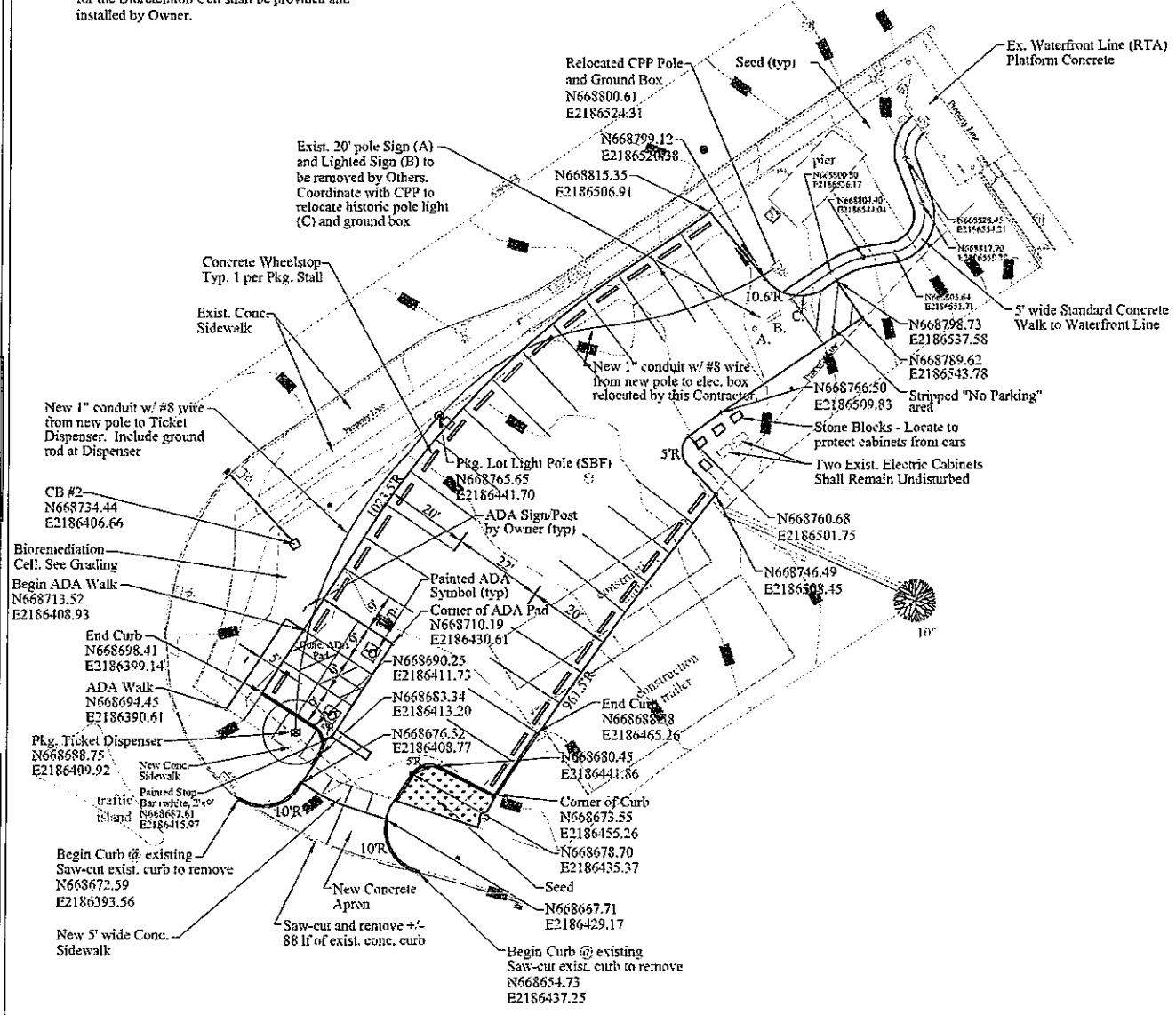
Plant Material List

Key	Quantity	Botanical Name	Common Name	Size	Remarks
Am-C	5	Amelanchier canadensis	Serviceberry	6' B&B	Clump
A-A	11	Aronia arbutifolia	Red Chokeberry	18", #3 cont.	
A-M	7	Aronia melanocarpa	Black Chokeberry	18", #3 cont.	
B-N	2	Betula Nigra	River Birch	6' B&B	Clump
C-F	4	Calycanthus floridas	Sweetshrub	18", #3 cont.	
H-V	1	Hamamelis virginica	Common Witchhazel	18", #3 cont.	
IL-WR	2	Ilex verticillata 'Winter Red'	Winter Red Winterberry	18", #3 cont.	Female
IL-A	1	Ilex s. v. 'Apollo'	Apollo Winterberry	18", #3 cont.	Male Pollinator
It-V	19	Itea virginica	Virginia Sweetpire	18", #3 cont.	
M-P	8	Myrica pennsylvanica	Northern Bayberry	18", #3 cont.	
N-S	1	Nyssa sylvatica	Black Gum	1 1/2" B&B	
C-C	7	Carex crinita	Fringed Sedge	1 Gal.	
C-E	5	Carex emoryi	Emory's Sedge	1 Gal.	
R-F	12	Rudbeckia f. 'Goldstrum'	Black-eyed Susan	#2 cont.	Clump
V-L	1	Viburnum lentago	Nannyberry Viburnum	5', B&B	Clump

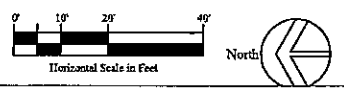
NO.	DESCRIPTION	DATE	BY
1	Issued for Bids	12-23-14	

Layout Notes:

1. The site for this parking lot is currently occupied and will not be available to the Contractor until April 1, 2015.
2. The Contractor shall be responsible for securing any permit from the City of Cleveland for the installation of the curb cut and new apron.
3. Provide steel plates as necessary to protect exist. sidewalk. Repair sidewalk if damaged.
4. These fixtures (A, B, and C) were installed by others and do not work. Contractor shall remove the 20' tall RTA sign and relocate/rewire/repair the Waterfront Line sign and historic light pole (w/ ground box). Once relocated continue conduit from ground box to power parking lot pole (SBF).
5. The sod on the slopes on the parking lot side of the Bioretention Cell is by Contractor. The plants for the Bioretention Cell shall be provided and installed by Owner.

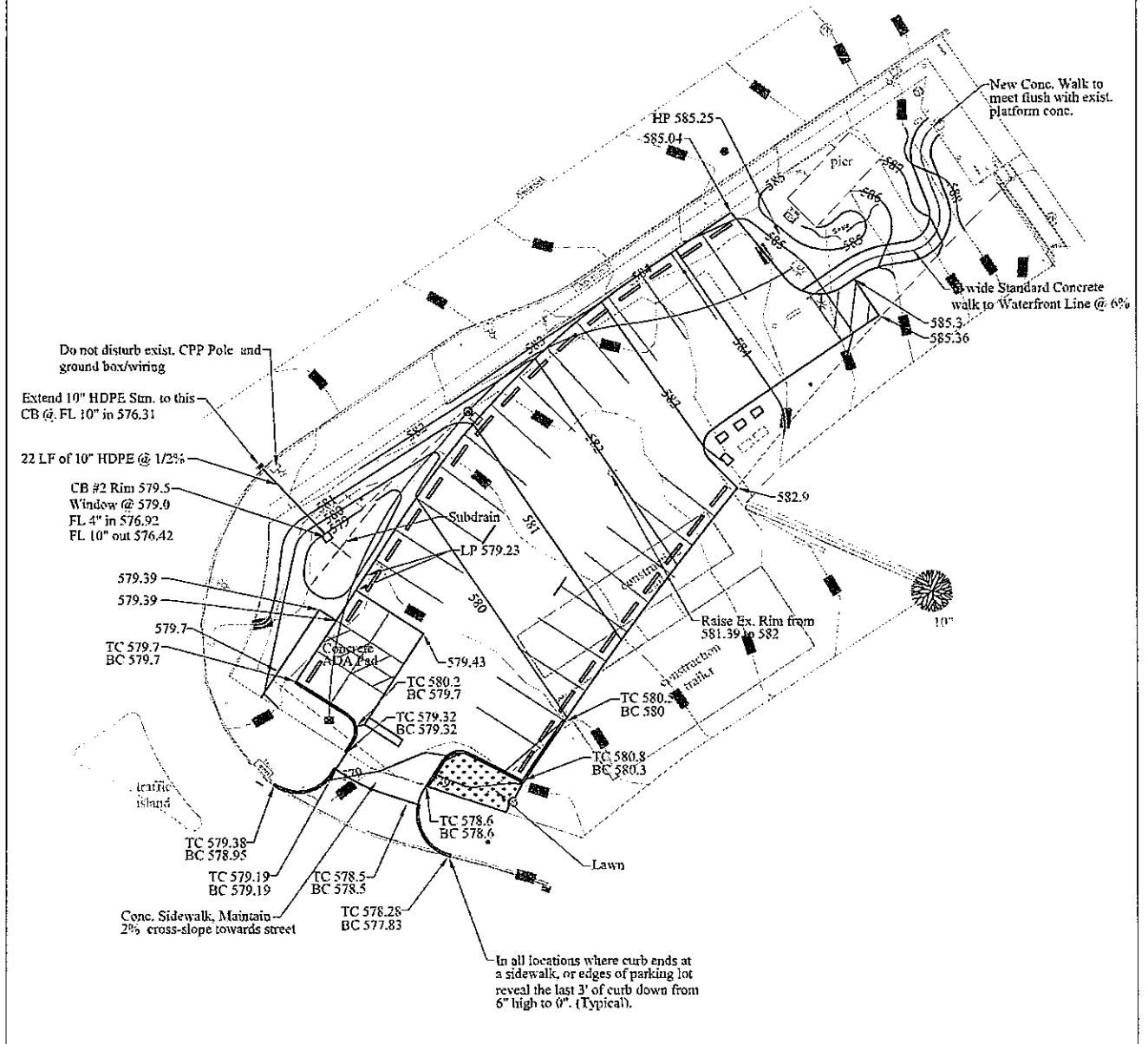


Layout Plan

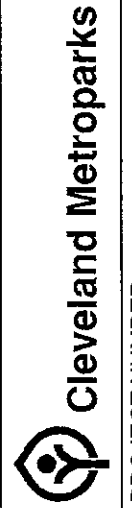
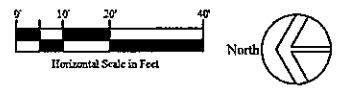


Grading Notes:

1. The Contractor shall verify the outlets of the existing Catch Basin identified to be tied in to from the new Bioretention Cell at the NW corner of this site.
2. Existing aggregate, if kept clean from contamination can be retained on-site and supplemented with imported 304 limestone agg. as req'd per Grading Plan.



Grading Plan



PROJECT NUMBER: www.clevelandmetroparks.com

East Bank - Parking Lot Plan

WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

REVISIONS	NO.	DATE	BY
Issued for Bids		12-23-14	

DATE: OCTOBER 31, 2014
SHEET NO.

SD-6

Water Elevation 571.8' IGLD85 6/3/2014

CUYAHOGA RIVER
FEDERAL CHANNEL

Demolition Notes:

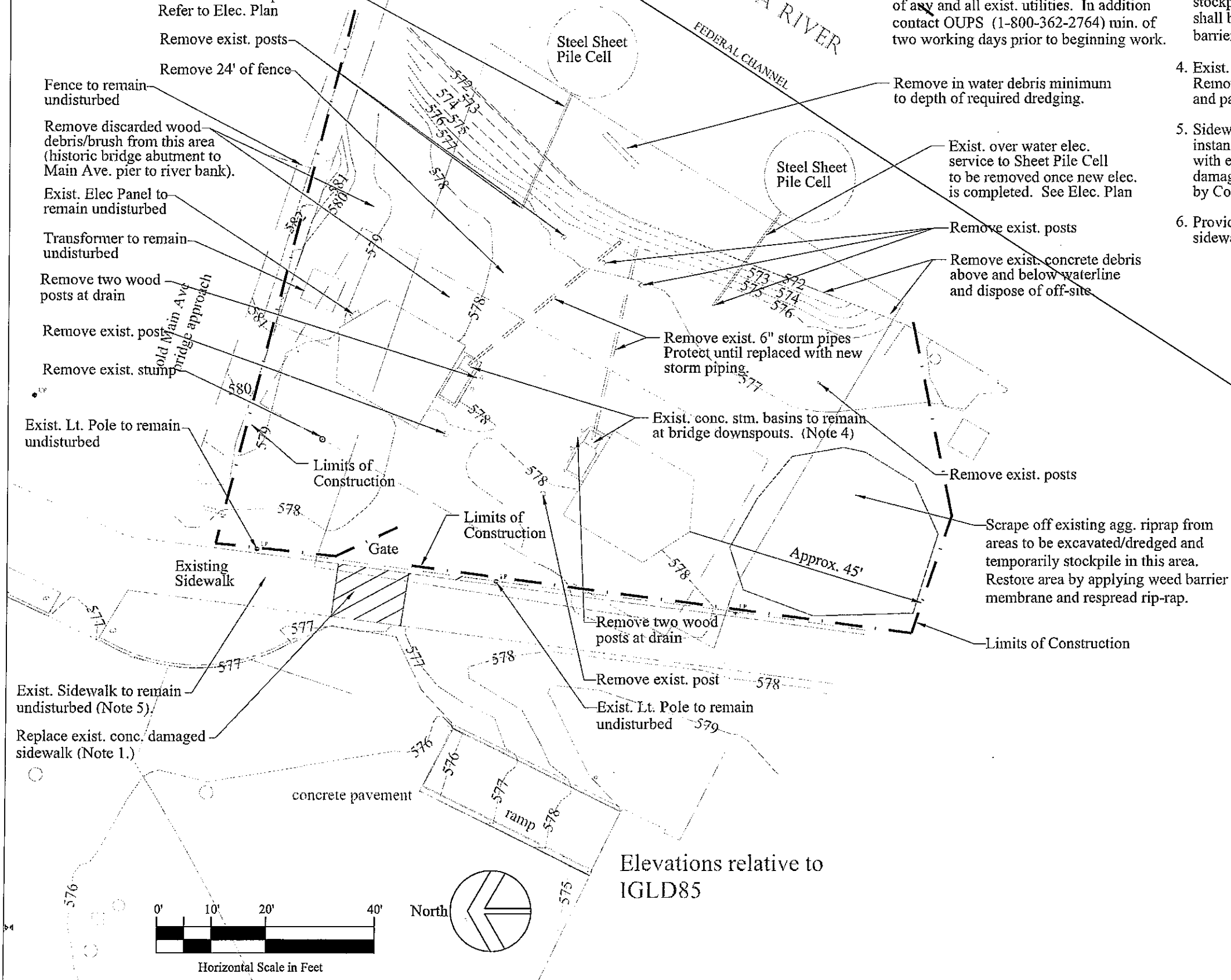
1. Saw-cut damaged exist. conc. walk to nearest joint and replace with 5 1/2" Class C concrete with fibers. Broom finish.
2. Contractor shall field verify the locations of any and all exist. utilities. In addition contact OUPS (1-800-362-2764) min. of two working days prior to beginning work.

3. The "Limits of Construction" shall be the Steel Sheet Pile Cells to the east, Property Line to the south, existing sidewalk to the west and the former Main Ave. Bridge Abutment to the north. Note: The location of the Limits of Construction fence can be adjusted to accommodate the riprap stockpile. The area used for temp. stockpile shall be completely restored including weed barrier membrane and rip rap.

4. Exist. concrete stm. basins shall remain in place. Remove any loose/chipped portions of basin curb and patch to smooth with adj. conc. surfaces.

5. Sidewalk shall remain open to public except for instances when Contractor is actively crossing it with equipment/materials. Any portion of walk damaged during construction shall be repaired by Contractor at no add. cost to Owner.

6. Provide steel plates as necessary to protect exist. sidewalk. Repair sidewalk if damaged.



Elevations relative to IGLD85



PROJECT NUMBER :
www.clevelandmetroparks.com

West Bank - Demolition Plan

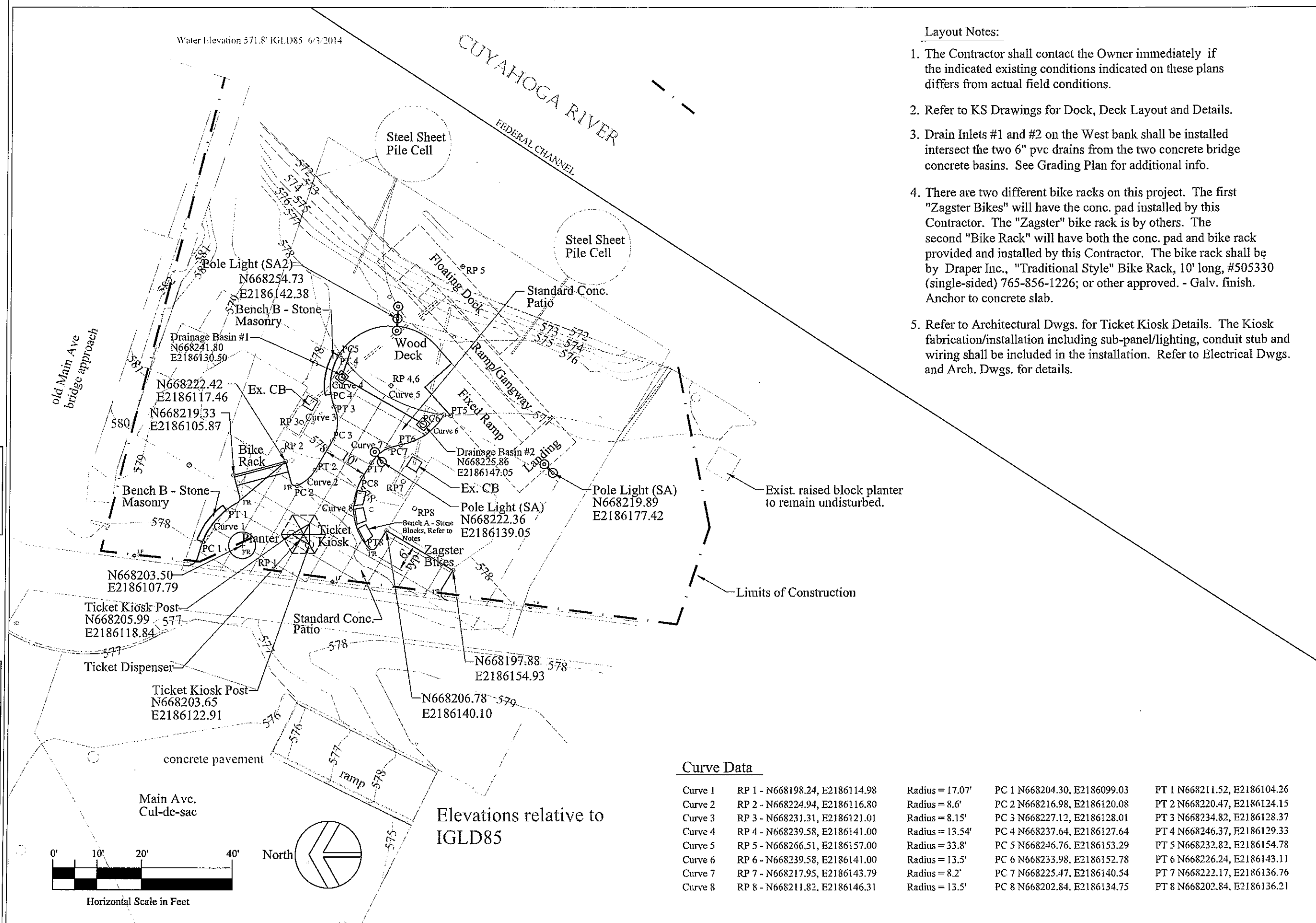
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
1	Issued for Bids	12-23-14	

DATE: OCTOBER 31, 2014

SHEET NO. SD-7

Water Elevation 571.8' IGLD85 6/3/2014

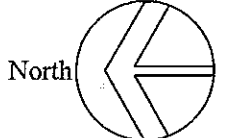
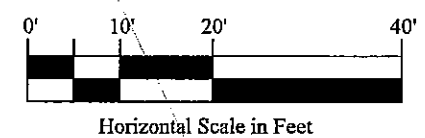


- Layout Notes:
1. The Contractor shall contact the Owner immediately if the indicated existing conditions indicated on these plans differs from actual field conditions.
 2. Refer to KS Drawings for Dock, Deck Layout and Details.
 3. Drain Inlets #1 and #2 on the West bank shall be installed intersect the two 6" pvc drains from the two concrete bridge concrete basins. See Grading Plan for additional info.
 4. There are two different bike racks on this project. The first "Zagster Bikes" will have the conc. pad installed by this Contractor. The "Zagster" bike rack is by others. The second "Bike Rack" will have both the conc. pad and bike rack provided and installed by this Contractor. The bike rack shall be by Draper Inc., "Traditional Style" Bike Rack, 10' long, #505330 (single-sided) 765-856-1226; or other approved. - Galv. finish. Anchor to concrete slab.
 5. Refer to Architectural Dwgs. for Ticket Kiosk Details. The Kiosk fabrication/installation including sub-panel/lighting, conduit stub and wiring shall be included in the installation. Refer to Electrical Dwgs. and Arch. Dwgs. for details.

Curve Data

Curve 1	RP 1 - N668198.24, E2186114.98	Radius = 17.07'	PC 1 N668204.30, E2186099.03	PT 1 N668211.52, E2186104.26
Curve 2	RP 2 - N668224.94, E2186116.80	Radius = 8.6'	PC 2 N668216.98, E2186120.08	PT 2 N668220.47, E2186124.15
Curve 3	RP 3 - N668231.31, E2186121.01	Radius = 8.15'	PC 3 N668227.12, E2186128.01	PT 3 N668234.82, E2186128.37
Curve 4	RP 4 - N668239.58, E2186141.00	Radius = 13.54'	PC 4 N668237.64, E2186127.64	PT 4 N668246.37, E2186129.33
Curve 5	RP 5 - N668266.51, E2186157.00	Radius = 33.8'	PC 5 N668246.76, E2186153.29	PT 5 N668232.82, E2186154.78
Curve 6	RP 6 - N668239.58, E2186141.00	Radius = 13.5'	PC 6 N668233.98, E2186152.78	PT 6 N668226.24, E2186143.11
Curve 7	RP 7 - N668217.95, E2186143.79	Radius = 8.2'	PC 7 N668225.47, E2186140.54	PT 7 N668222.17, E2186136.76
Curve 8	RP 8 - N668211.82, E2186146.31	Radius = 13.5'	PC 8 N668202.84, E2186134.75	PT 8 N668202.84, E2186136.21

Elevations relative to IGLD85



West Bank - Layout Plan

WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE
1	Issued for Bids	12-23-14

DATE: OCTOBER 31, 2014
SHEET NO.

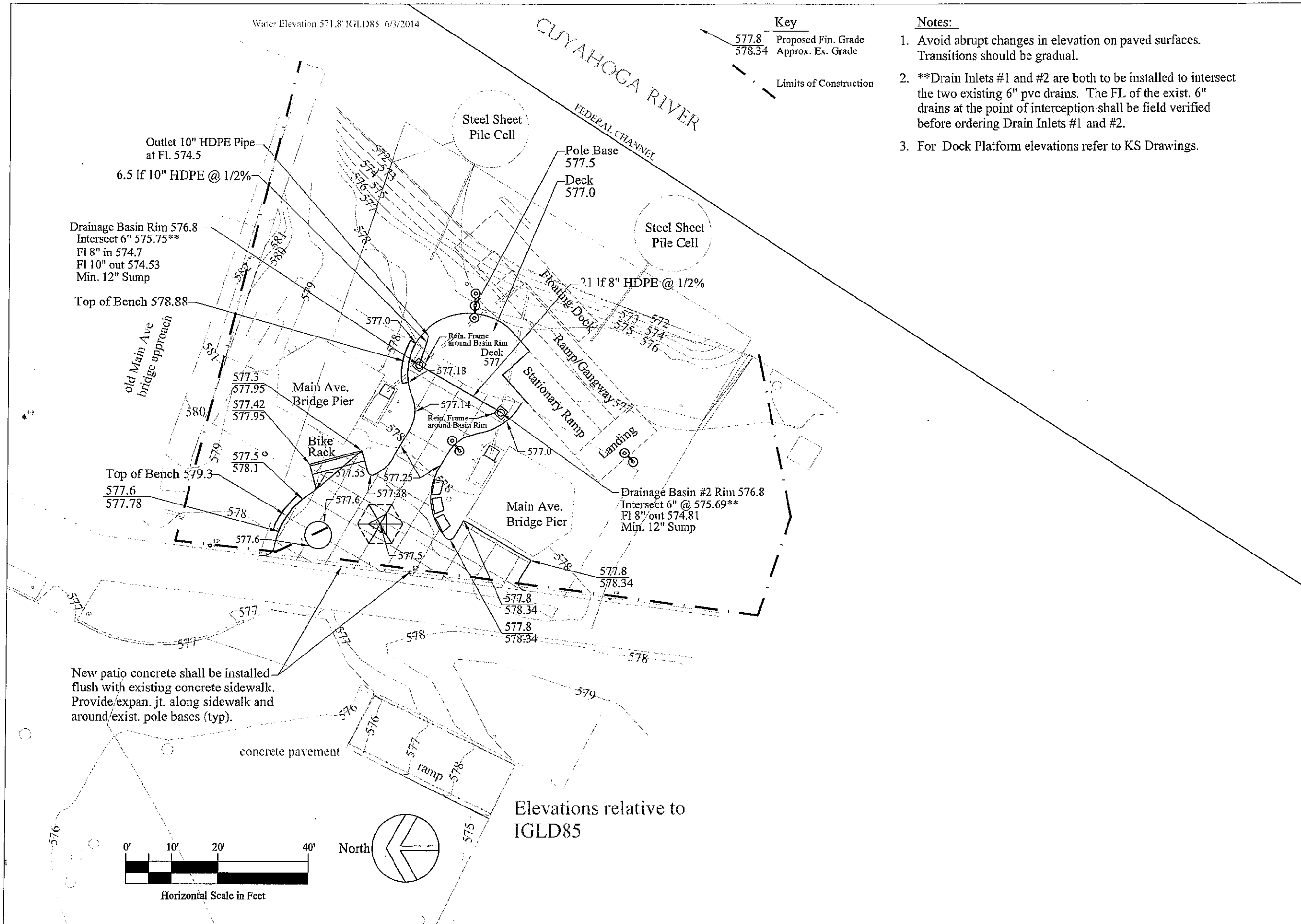
SD-8

Water Elevation 571.8' IGLD85 6/3/2014

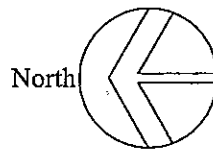
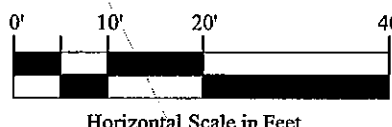
CUYAHOGA RIVER
FEDERAL CHANNEL

Key
 577.8 Proposed Fin. Grade
 578.34 Approx. Ex. Grade
 --- Limits of Construction

Notes:
 1. Avoid abrupt changes in elevation on paved surfaces. Transitions should be gradual.
 2. **Drain Inlets #1 and #2 are both to be installed to intersect the two existing 6" pvc drains. The FL of the exist. 6" drains at the point of interception shall be field verified before ordering Drain Inlets #1 and #2.
 3. For Dock Platform elevations refer to KS Drawings.



New patio concrete shall be installed flush with existing concrete sidewalk. Provide expan. jt. along sidewalk and around/exist. pole bases (typ).



Elevations relative to IGLD85

Cleveland Metroparks
 PROJECT NUMBER: www.clevelandmetroparks.com

West Bank - Grading Plan
 WATER TAXI
 OHIO & ERIE CANAL RESERVATION
 1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
1	Issued for Bids	12-23-14	

SCALE CHECK: _____ THIS DRAWING SHOULD BE USED EXACTLY AS SHOWN PLOTTED

OCTOBER 31, 2014
 SHEET NO.

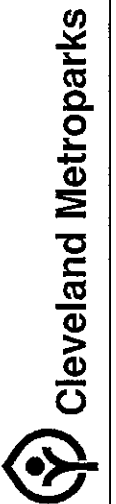
SD-9

Water Elevation 571.8' IGLD85 6/3/2014

CUYAHOGA RIVER
FEDERAL CHANNEL

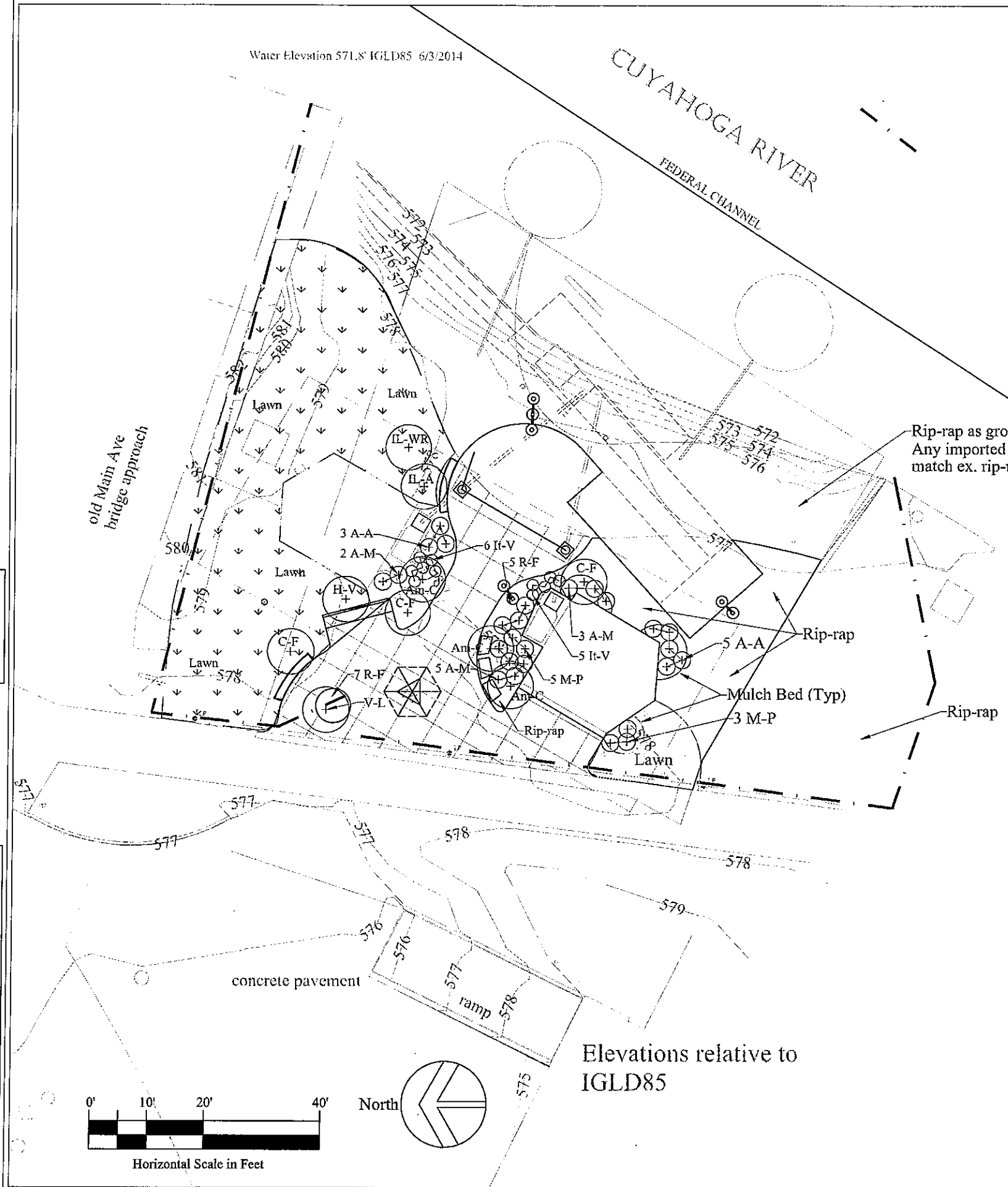
Landscape Notes

1. Reinstall Rip-rap in areas not occupied by Lawn or mulched plant beds. Install geotextile weed barrier before installing rip-rap.
2. Individual large shrubs shall each be mulched with a mulch ring, min. 5' dia. Shrub groups shall be mulched as a single massing.
3. Seed lawn areas with a Fine Fescue mix consisting of 33% Creeping Red Fescue, 33% Hard Fescue Grass, 23% Chewings fescue and 11% Annual Rye. Properly prepare seed bed, after mixing in 4" of imported topsoil, straw mulch with tackifier.
4. Contractor shall be responsible for watering/weeding of lawn areas until they are developed, or 12 months. Poorly developed lawn areas shall be reseeded and maintained until established.



PROJECT NUMBER:
 www.clevelandmetroparks.com

West Bank - Landscape Plan
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113



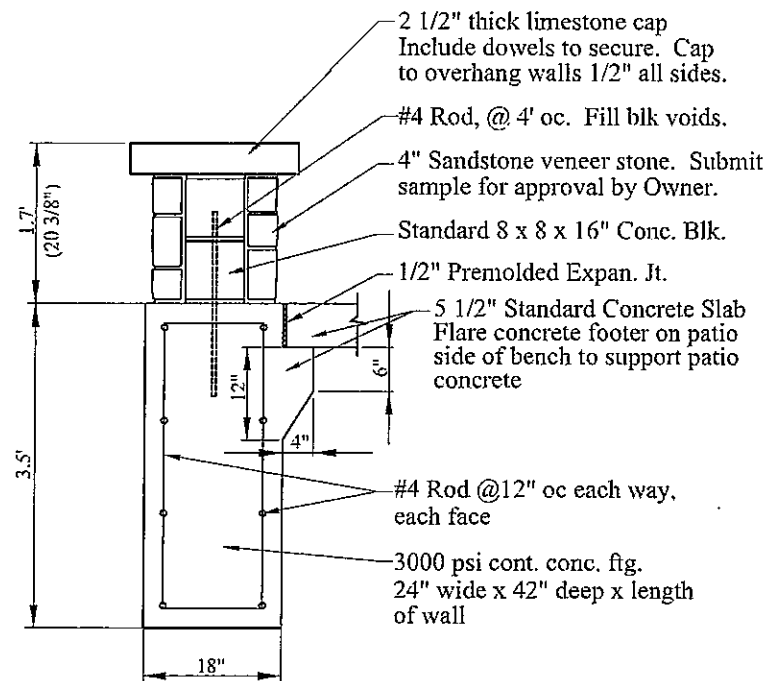
Plant Material List

Key	Quantity	Botanical Name	Common Name	Size	Remarks
Am-C	3	Amelanchier canadensis	Serviceberry	6' B&B	Clump
A-A	8	Aronia arbutifolia	Red Chokeberry	18", #3 cont.	
A-M	10	Aronia melanocarpa	Black Chokeberry	18", #3 cont.	
C-F	3	Calycanthus floridas	Sweetshrub	18", #3 cont.	
H-V	1	Hamamelis virginica	Common Witchhazel	18", #3 cont.	
Il-WR	1	Ilex verticillata 'Winter Red'	Winter Red Winterberry	18", #3 cont.	Female
Il-A	1	Ilex s. v. 'Apollo'	Apollo Winterberry	18", #3 cont.	Male Pollinator
It-V	11	Itea virginica	Virginia Sweetpire	18", #3 cont.	
M-P	8	Myrica pennsylvanica	Northern Bayberry	18", #3 cont.	
R-F	12	Rudbeckia f. 'Goldstrum'	Black-eyed Susan	#2 cont.	Clump
V-L	1	Viburnum lentago	Nannyberry Viburnum	5' B&B	Clump

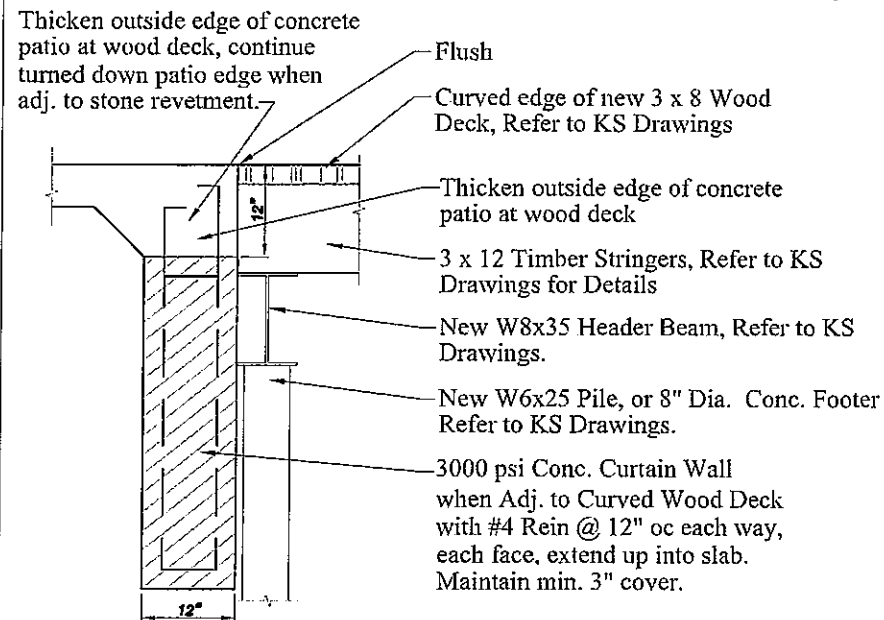
NO.	DESCRIPTION	DATE	BY
	Issued for Bids	12-23-14	

DATE: OCTOBER 31, 2014

SHEET NO. SD-10



Bench B - Stone Masonry
Scale 1-1'
East and West Banks

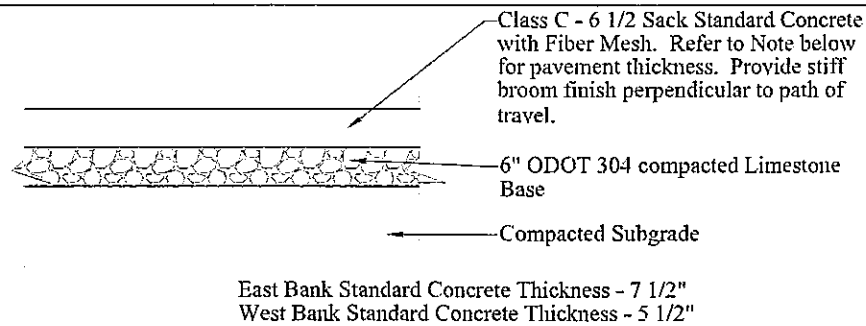


Patio at Wood Deck Detail
Scale 1-1'
West Bank

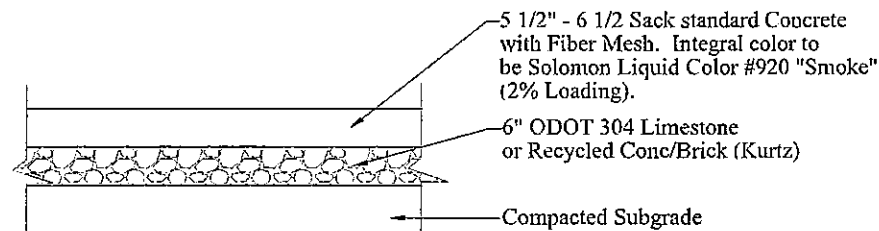
1/4" dia. 18" long dowel rods & expan. jts. Lubricate end of bar w/ cop. Provide pre-molded expan. mat. at jt. Provide expan. jts. at 40' oc. and at tangent points.

Note: Contractor apply DEET Item 407 Tack Coat between curb and asphalt pavement. Install 1/2" preformed expan. jt. material, if adj. to conc. pavement.

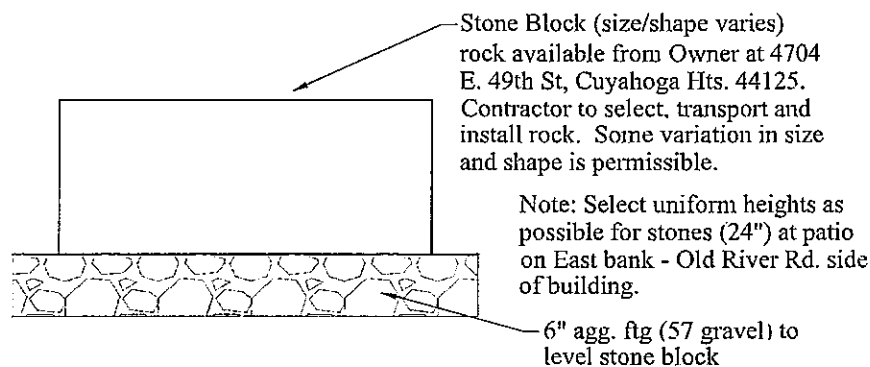
Type 6 Concrete Curb
Not to Scale
East Bank Parking Lot



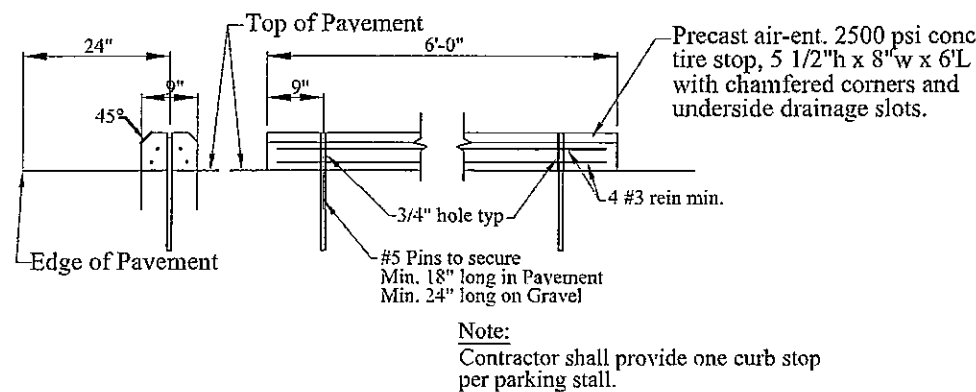
Standard Concrete Detail
Not to Scale
East and West Banks



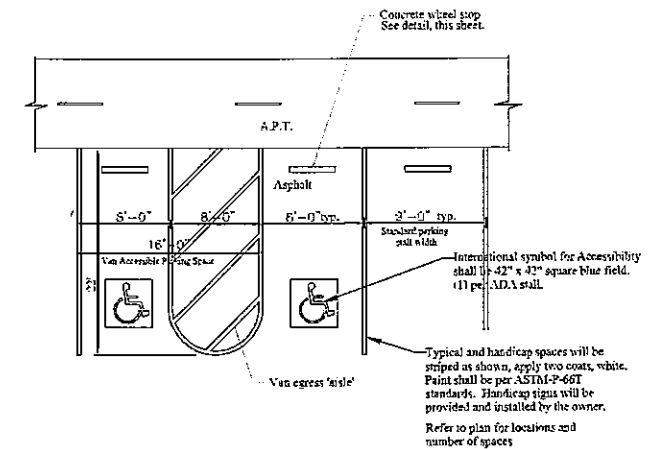
Dyed Concrete Detail
Not to Scale
East Bank Only



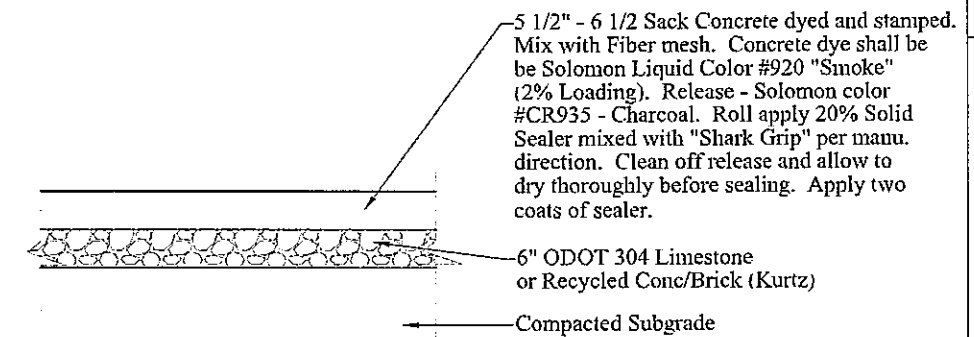
Bench A - Stone Blocks
Not to Scale
East and West Banks



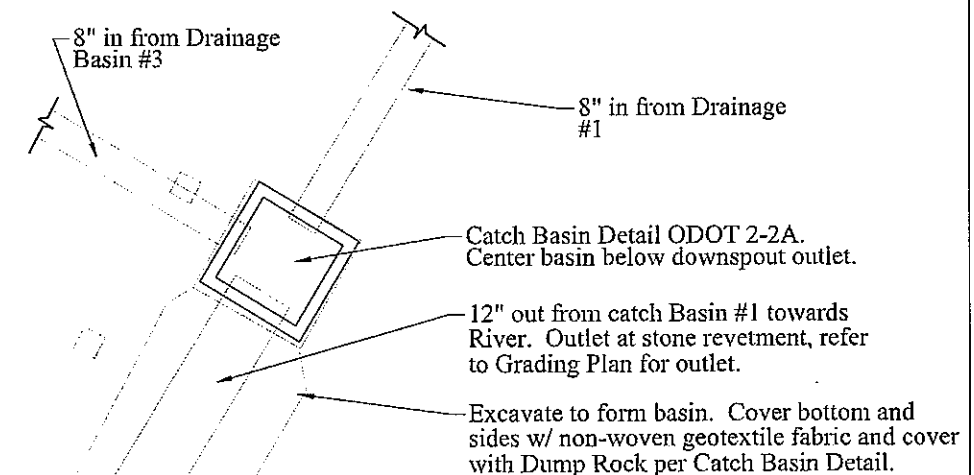
Concrete Wheelstops
Scale 1-1'
East Bank Parking Lot



Parking Stall Striping
Not to Scale
East Bank Parking Lot



Specialty Concrete Detail
Not to Scale
East Bank Only



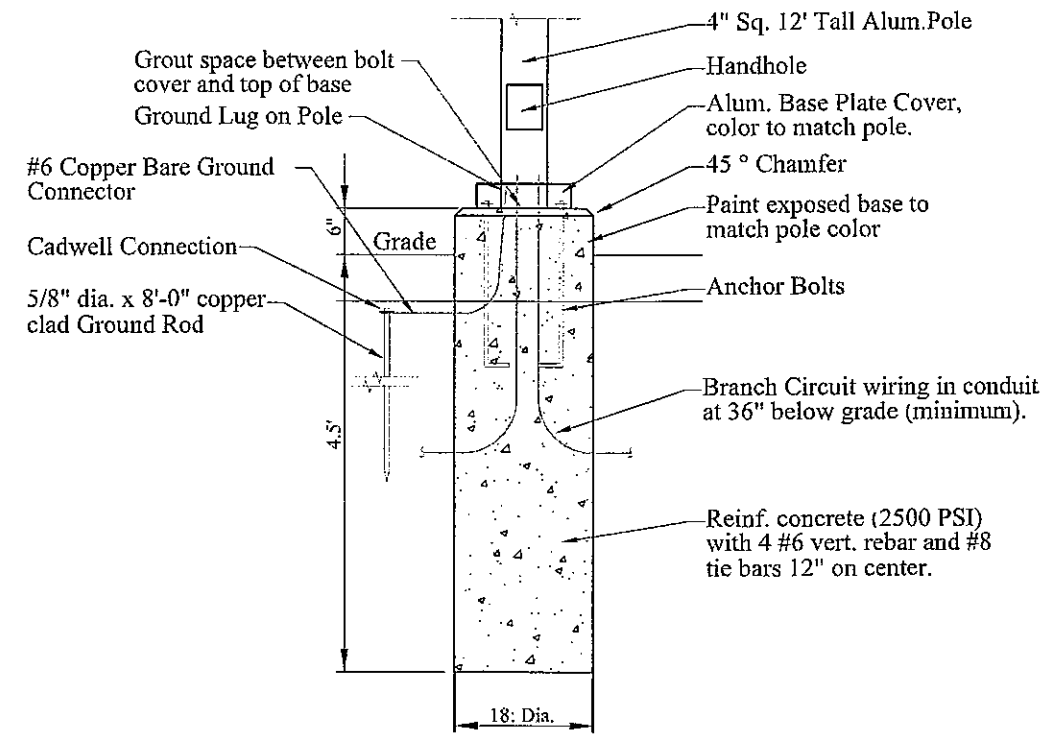
Rock Basin Detail
Not to Scale
East Bank

NO.	DESCRIPTION	DATE	BY
	Issued for Bids	12-23-14	

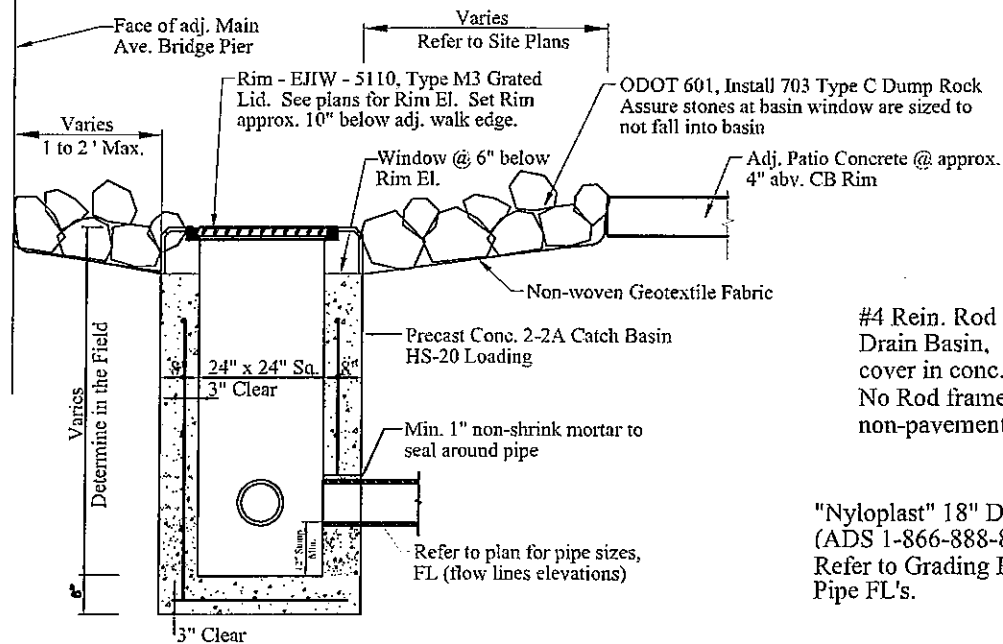
DATE: **OCTOBER 31, 2014**

Luminaire Schedule - East and West Banks

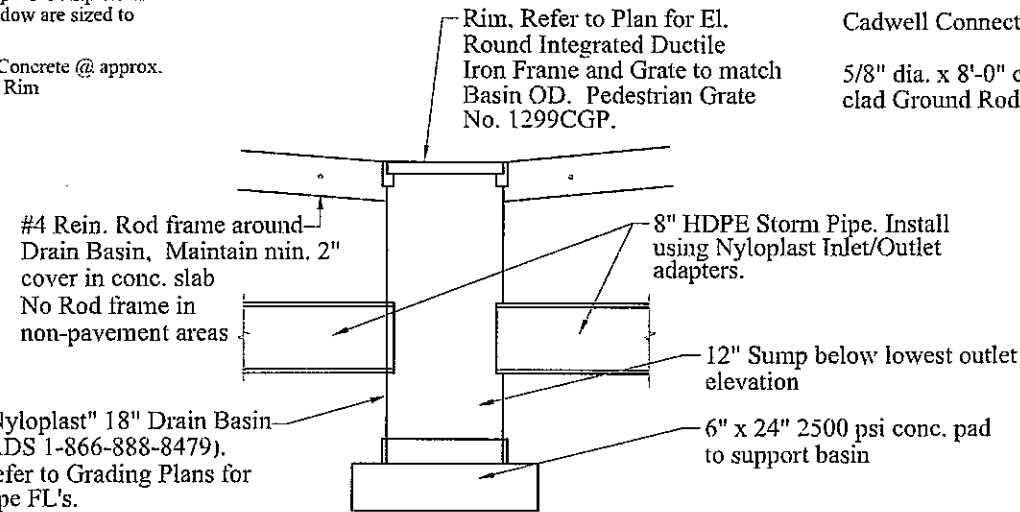
Symbol	Luminaire		Lamp Type	Description	Mounting	Manufacturer	Catalog Number	Remarks
	Watts	Volts						
SA	180	208	Metal Halide	Decorative Walkway Pole Light with Single Head	Post 4" Square Straight Aluminum 12' Tall	Holophane	GY 15DMH MA 1 Z U 21C S-64402 Lyon Glaswerks 2 with Uplight, Lamp Included With SSA 1244C D1 R2 AZ 3 Pole and HZ 24 BOR BZ Mounting Arm	No Festoon Box
SA2	180	208	Metal Halide	Decorative Walkway Pole Light with Double Head	Post 4" Square Straight Aluminum 12' Tall	Holophane	(2) GY 15DMH MA 1Z S 21C S-64402 Lyon Glaswerks 2 with Uplight, Lamp Included With SSA 1244C D1 R 2 AS 13 Pole and (2) HZ 24 BOR BZ Mounting Arm	No Festoon Box
SBF	285	208	LED	Pole Mounted exterior LED Luminaire with 28' Tall Pole, (12) Lightbars with Accused Type 111 Optics	Post 6" Square Straight Aluminum 28' Tall	McGraw Edison	VTS-B12-LED E1-T3	



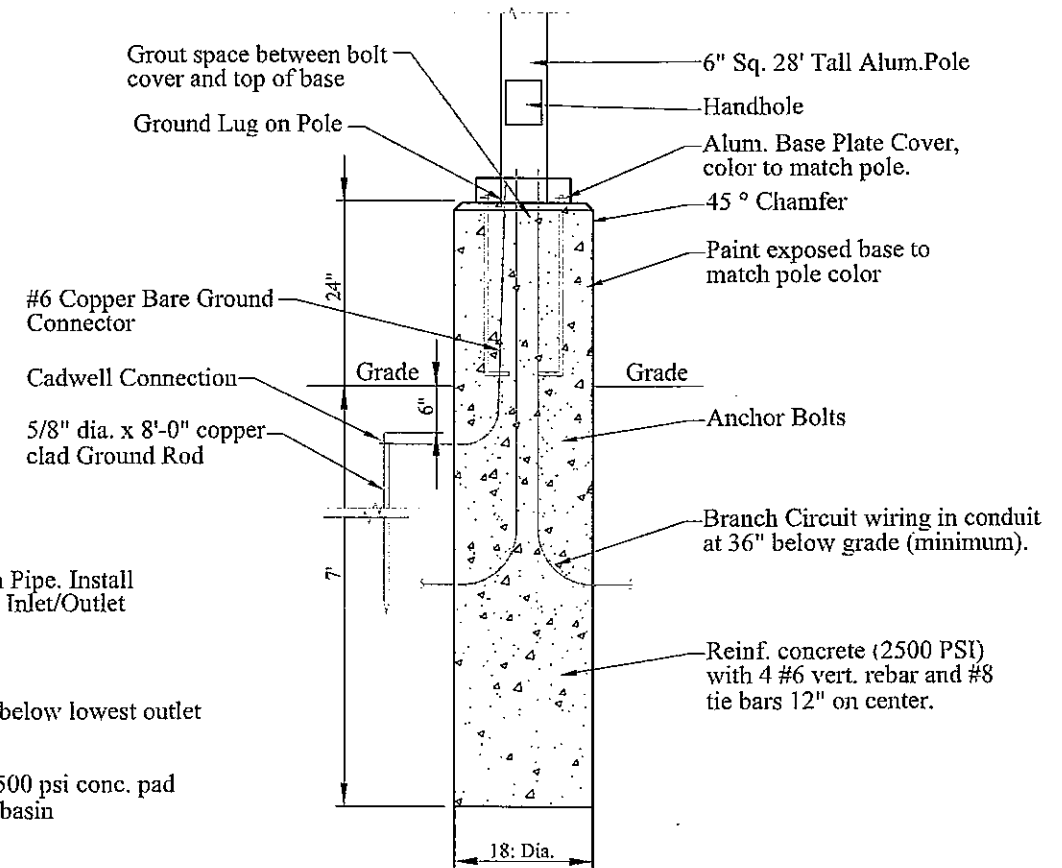
Lighting Pole Base - SA, SA2
Scale 1"=1'-0"
East and West Banks



Catch Basin Detail - ODOT 2-2A
Not to Scale
East Bank

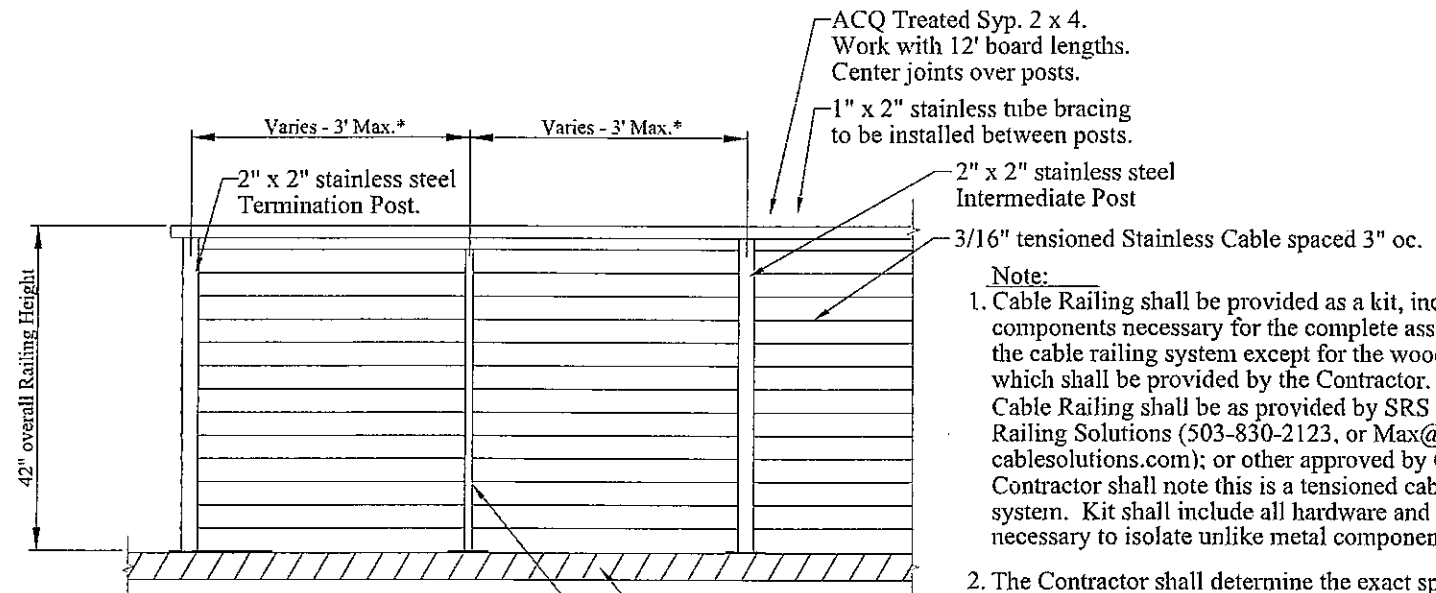


Drainage Basin Detail
Scale 1"=1'-0"
East and West Banks



Lighting Pole Base - SBF
Scale 1"=1'-0"
East Bank Parking Lot

NO.	DESCRIPTION	DATE	BY
1	Issued for Bids	12-23-14	



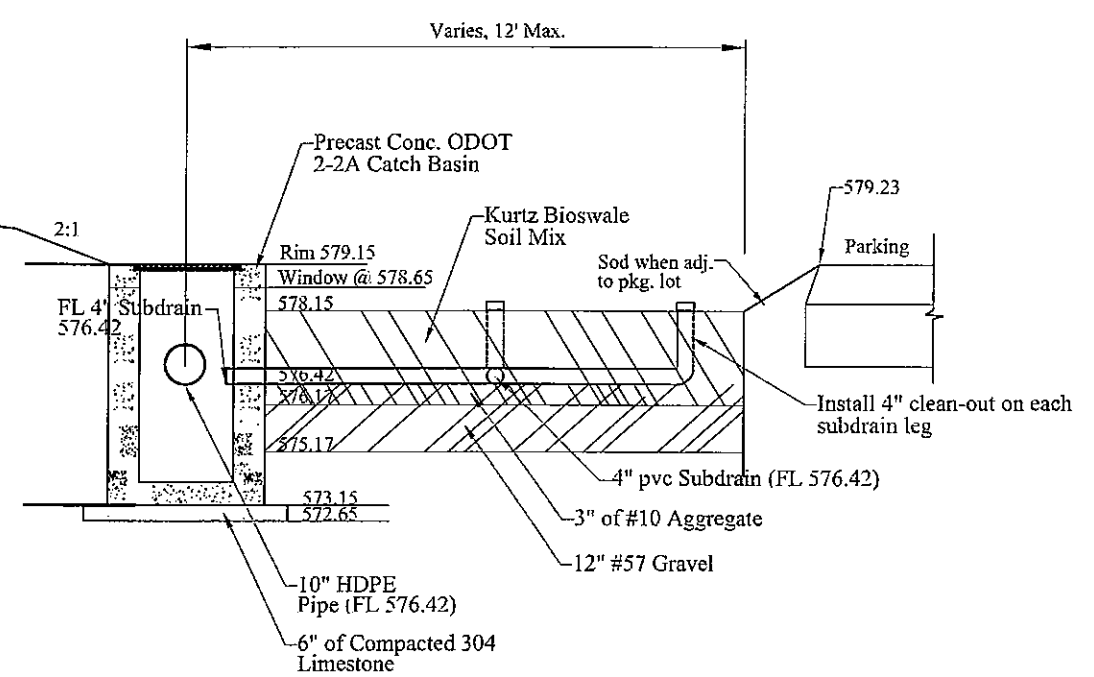
Note:
Installation shall include thru bolting the post/picket bases to the specified wood deck or steel bulkhead cap; or drill and anchor into the identified concrete pavement. Each of these conditions exist on this project.

The specified cable railing system has been recently installed at Rivergate (1785 Merwin Ave. Cleveland 44113) along the riverside Boardwalk.

- Note:**
1. Cable Railing shall be provided as a kit, including all components necessary for the complete assembly of the cable railing system except for the wood top rail which shall be provided by the Contractor. The spec'd Cable Railing shall be as provided by SRS Stainless Railing Solutions (503-830-2123, or Max@stainlesscablesolutions.com); or other approved by Owner. Contractor shall note this is a tensioned cable railing system. Kit shall include all hardware and any gaskets necessary to isolate unlike metal components.
 2. The Contractor shall determine the exact spacing between Posts based upon actual field measurements while maintaining equal spacing between all posts of each run as close to 6' oc spacing as possible without exceeding 6' oc. Pickets shall be centered between posts.
 3. All posts shall be thru drilled at 3/8" dia. holes and all pickets drilled to 1/4" to accommodate 12 strands of 3/16" stainless cable at 3" oc.

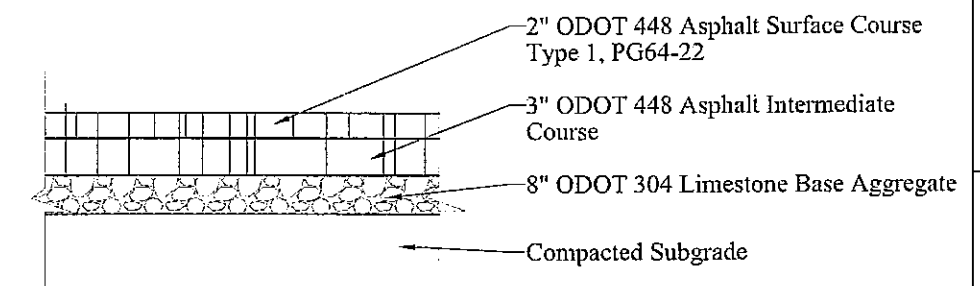
Cable Rail Details

Scale 1"-1'-0" East and West Banks



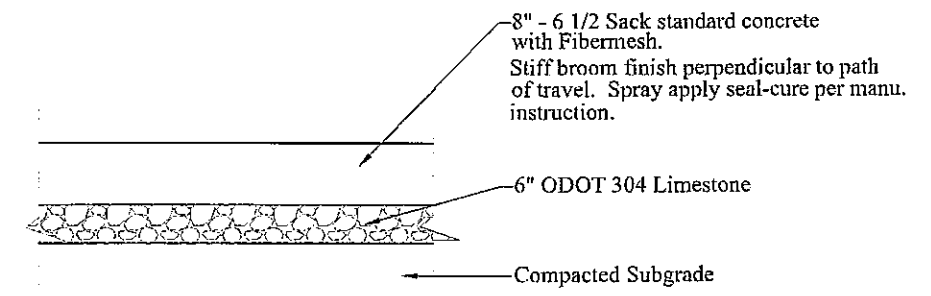
Bioretention Cell CB

Scale 1=.5' East Bank Parking Lot



Asphalt Pvm't Detail

East Bank Parking Lot



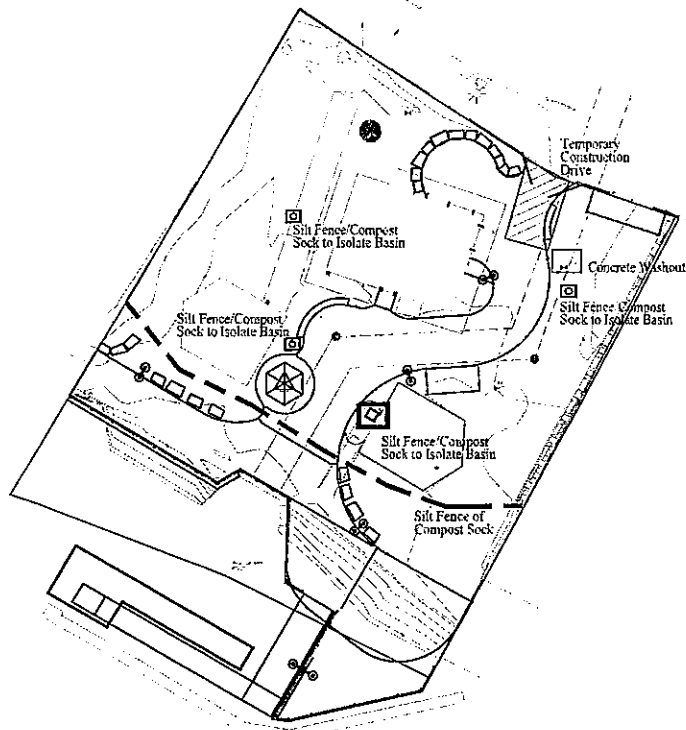
Concrete Apron

Not to Scale East Bank Parking Lot

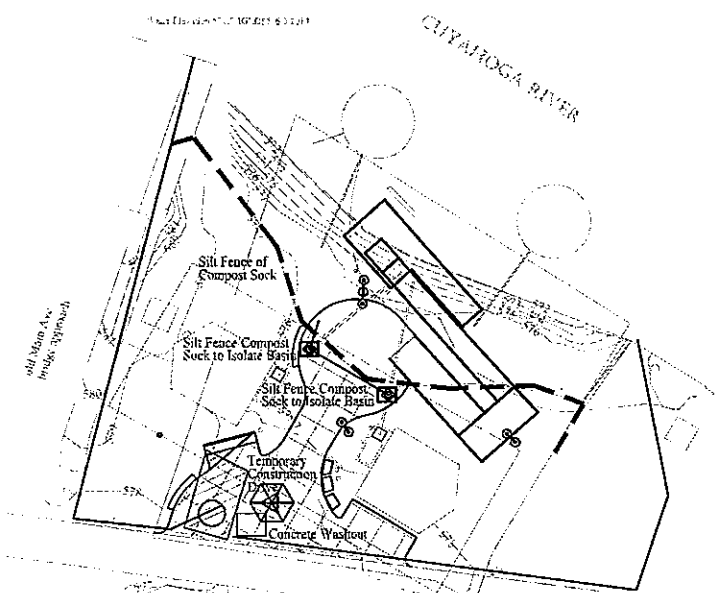
NO.	DESCRIPTION	DATE	BY
1	Issued for Bids	12-23-14	

SCALE: AS SHOWN
THIS DRAWING MEASURES EXACTLY AS NOTED

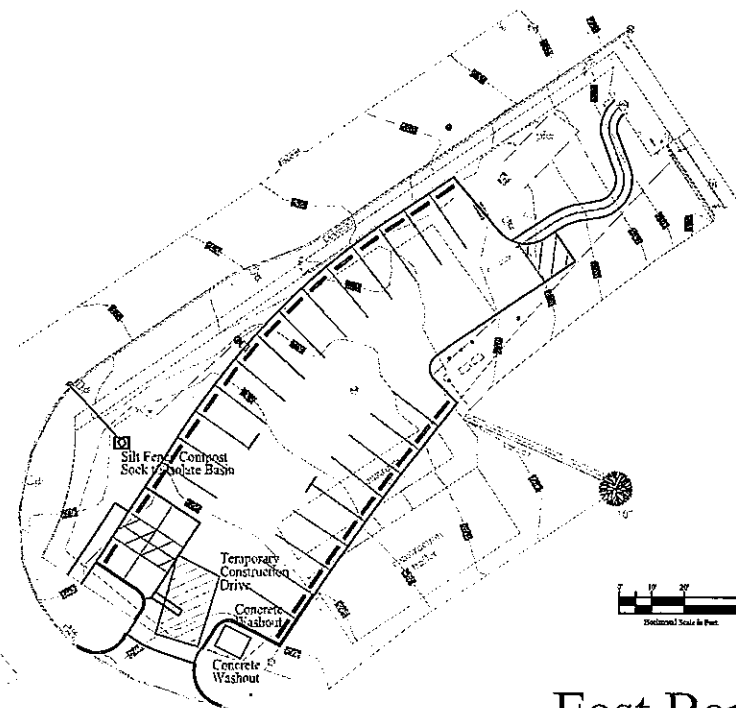
DATE: OCTOBER 31, 2014
SHEET NO.



East Bank Site



West Bank Site



East Bank Parking

SWPPP - General Notes

- The Contractor is solely responsible for the installation and maintenance of all sediment controls to the standards of Cuyahoga Soil and Water Conservation District.
- The Temporary Construction Drives shall be maintained by the Contractor as dirt/mud clogs the rock. Plugged rock material (#1 & #2's) shall be removed and replaced with new stone as necessary to maintain a properly functioning temporary construction drive. The rock mull shall be removed at the completion of construction and the void filled per the development plans.
- Construct the sediment controls in accordance with these plans, ODOT Standard Construction Drawing MC-11, and the Ohio Water Management and Sediment Control Manual for Urbanizing Areas, and per NPDES Permit #OH-C006003.
- Disturbed areas shall be stabilized within (7) days if they are to remain undisturbed for more than 21 days. Areas within 50 feet of any stream or wetland shall be stabilized within (2) days. Once at final grade permanent temporary stabilization shall take place within (7) days. When seasonal conditions prohibit the application of perm. temp. seeding, mulching or matting shall be used. Temporary seeding shall be applied with (2) tons of straw mulch per acre.
- Any disturbed area which is not going to be worked on for 21 days or more shall be seeded and mulched by November 1 or must have a dormant seeding with mulch cover applied between November 1 and March 1.
- Install all erosion controls before any clearing, grubbing or earthwork activities are begun, and maintain them as required until final stabilization has properly developed.
- All construction and demolition debris (CD&D) waste shall be disposed of in an Ohio EPA approved CD&D Landfill as req'd. by Ohio Revised Code 3714 and local regulations.
- The Contractor shall maintain permanent records of maintenance and inspections throughout the project a minimum of once every (7) days and after storms greater than .5"/24 hour period. Provide the name of the inspector, observations, inspection date, Certification of Compliance and corrective measures taken. A copy of the form to be completed has been with the Specifications.
- Any erosion control measures, devices, or structures shall be repaired within 24 hours of discovery/notification.
- Concrete truck wash-out shall only be permitted exclusively in the wash-out facility provided by the Contractor for that use. The facility shall be replaced by Contractor as usage dictates. On this Water taxi Project one Concrete Washout shall be constructed and maintained at both the East and West Bank Sites.

- The following practices shall be executed to reduce the risks of spills or accidental exposure of materials and substances to stormwater run-off. The site superintendent is responsible for ensuring these practices are followed:
 - Store the minimum amount of product required to complete the job under roof or in a containment area. Products shall remain in their original containers. The label shall be legible.
 - Manufacturer's recommendation shall be followed for disposal.
 - Product shall, if possible, be used entirely before disposal.
 - Material Safety Data Sheets (MSDS) shall be posted in the immediate area of product storage for all substances with hazardous properties.
 - No spilled hazardous materials shall be allowed to come in contact with stormwater discharges. In the event of a spill the following procedure shall be followed:
 - All spills shall be cleaned up immediately after discovery.
 - Immediately notify the Project Manager and Engineer of Record.
 - Toxic or hazardous spills shall be reported to appropriate Local, State or Federal Agency. Notify the EPA National Response Center (800-424-8802) when a spill exceeds reportable quantity of a substance (as per reg. 40 CFR 110.114 and 302).
- Fuel - On this Water Taxi project there shall be no on-site storage of fuel. Equipment shall be fueled from mobile fuel sources. Should there be a spill of more than 25 gallons the Contractor shall contact EPA (800-282-9378) and the local fire dept. be notified within 30 minutes of the spill.
- Fertilizers - The manufacturer's recommended quantities shall be applied and worked into the soil to limit exposure to stormwater.
- The Contractor may substitute on-site blown-in mulch or compost filled filter socks for silt fence particularly in areas which may be difficult to maintain silt fence. Filter socks shall be min. 12" dia. and staked in place to secure.
- Turbidity controls (silt curtains or similar cloth material) shall be installed prior to beginning creek crossings and maintained downstream from the project area. Mechanical equipment shall be operated in such a way as to minimize turbidity. Instream activities shall not result in permanent destabilization of river banks.
- Once aggregate and/or Bioretention Soil is being installed into the Bioretention Cell, isolate the entire cell with silt fence which shall remain in place until the adjacent slopes have been stabilized with sod/germinated grass. Once bioretention is installed cover with plastic sheeting until planting.
- During construction, should any excavated soil material be excavated and stockpiled on-site, even temporarily, the stockpiled material shall be entirely surrounded by silt fence or compost sock if soil material is to remain stockpiled overnight or if the forecast is for rain. Stockpiles to remain for more than 5 days shall be covered (anchored tarps).

Site Description

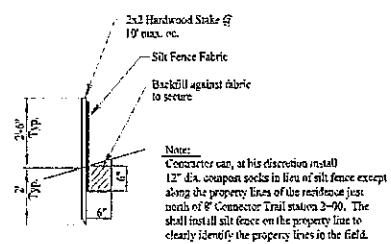
Subdivision ()	Total Disturbed Area	26 Acres (East Bank)
Commercial ()		11 Acres (East Bank Parking)
Residential ()		15 Acres (West Bank)
P.U.D. ()		.75 Acres - Total
Other () Park		C = .85 Selected Trees
Previous Land Use - Spruce Urban Land	Pre-Dev. Runoff Coef.	0 Acres, no exist. vegetation
Project Site Acres	Area to be Cleared	.75 Acres (Total)
	Area to be Excavated	C = .96
	Post-Dev. Runoff Coef.	0.00 Acres
	Pre-Dev. Impervious Area	.50 Acres (Total)
	Post-Dev. Impervious Area	

Soil Types:

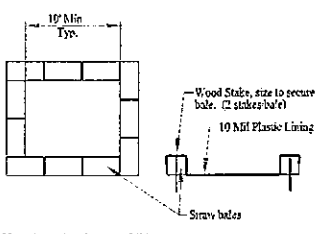
Urban

Site Location Information:

City: Cleveland
 County: Cuyahoga
 State: Ohio
 Watershed Receiving Waters: Cuyahoga River
 Site Address: 6200 Pearl Road, Parma Heights, Ohio 44134
 Owner: Cleveland Metroparks
 Owner Address: 4101 Fulton Parkway, Cleveland Ohio 44144



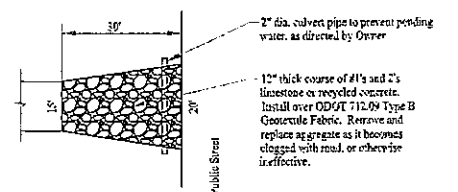
Silt Fence



Note: As a washout becomes full it shall be removed and replaced. Secure plastic liner to prevent it from slipping below concrete level.

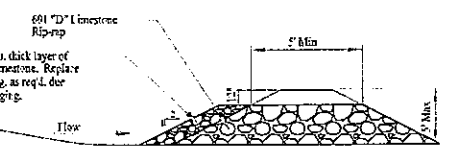
Concrete Washout

Not to Scale



Temporary Construction Drive

Not to Scale



Stone Weir

Not to Scale

NO.	DESCRIPTION	DATE
1	Issued for Bids	12-23-14

DATE: **OCTOBER 31, 2014**

SHEET NO.: **SD-14**

PROJECT NUMBER: **www.clevelandmetroparks.com**

THIS DRAWING SHOULD BE MADE EXACTLY TO WHICH PLATTED



●CONTROL POINT 2
DRILL HOLE
EL. 580.69

●CONTROL POINT 1
DRILL HOLE
EL. 578.48



SUBMITTAL



PROJECT NUMBER:
www.clevelandmetroparks.com

EAST BANK
MARINE CONSTRUCTION SITE PLAN
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BIDS	12-25-14	

DATE
DECEMBER 9, 2014

SHEET NO.
KS-1

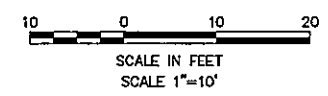
FLATS EAST DEVELOPMENT
LLC
PARCEL ID: 10113036
1146 MAIN AVENUE
CLEVELAND, OHIO 44113

CUYAHOGA COUNTY BOARD OF COMMISSIONERS
LEASED TO CLEVELAND METROPARKS
1170 OLD RIVER ROAD
CLEVELAND, OHIO 44113

TELECOM ACQUISITION CORP.
PARCEL ID: 10113027
1198 OLD RIVER ROAD
CLEVELAND, OHIO 44113

CUYAHOGA RIVER

SITE PLAN



NOTES

1. VERTICAL DATUM IS IGLD 1985.
2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
3. EXISTING CONCRETE SPILLWAY FOR BRIDGE DRAIN TO BE REMOVED AND REPLACED WITH 12" DIA. PVC PIPE THROUGH PROPOSED REVETMENT.
4. ALL DREDGED MATERIAL TO BE PLACED IN AN UPLAND DISPOSAL SITE TO BE PROVIDED BY THE CONTRACTOR.
5. CONTRACTOR SHALL CLEAR DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING STEEL SHEET PILING.
6. ALL DECKING, SUPPORT STRUCTURE AND STEEL PILES SOUTHEAST OF THE BREAK LINE (ALONG THE FIXED RAMP) ARE INCLUDED IN THE ADDITIVE BID. THE ENTIRE REVETMENT IS INCLUDED IN THE BASIC BID.

PRINTED: 12/25/14 @ 9:18AM

FILE NAME: R:\1\0001\4232\Drawings\2014-12-09 Bid Drawings\14232 East Bank Drawings 120514.dwg

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260 Burns Road, Suite 100
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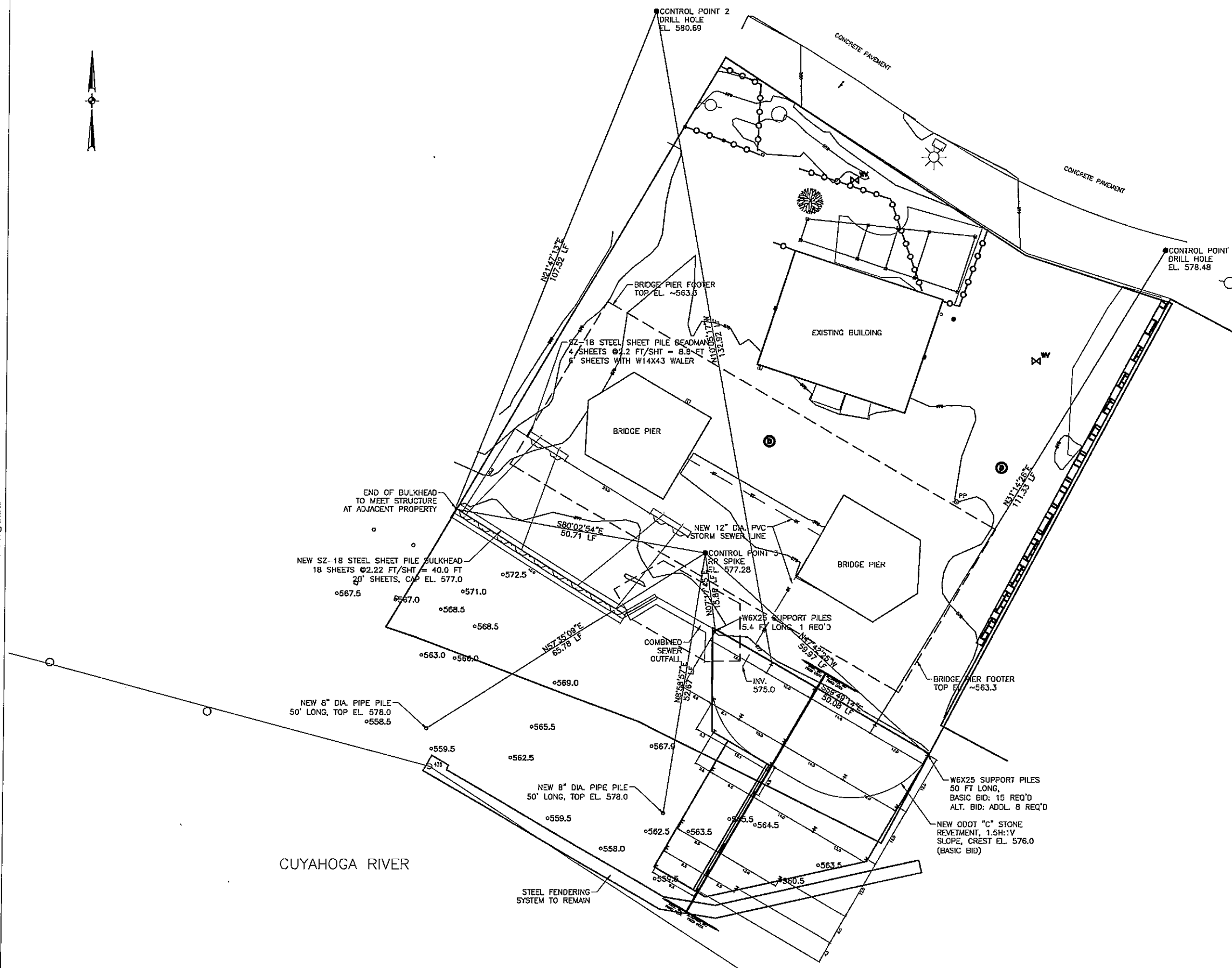
PROJECT NUMBER: www.clevelandmetroparks.com

EAST BANK
PILE LOCATION PLAN
WATER TAXI

OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BIDS	12-23-14	

DATE: DECEMBER 9, 2014
SHEET NO: KS-2



PILE LOCATION PLAN
SCALE IN FEET
SCALE 1"=10'

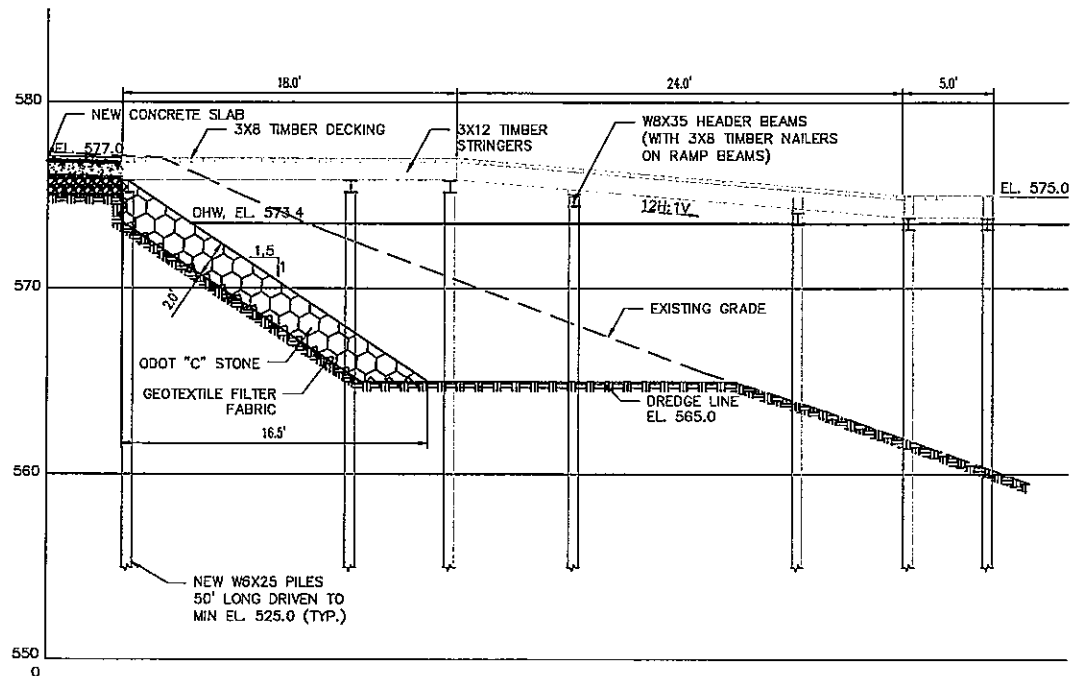
- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
 3. CONTRACTOR SHALL CLEAR DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING STEEL SHEET PILING.
 4. ALL PILES SOUTHEAST OF THE BREAK LINE (ALONG THE FIXED RAMP) ARE INCLUDED IN THE ADDITIVE BID. THE ENTIRE REVETMENT IS INCLUDED IN THE BASIC BID.

PRINTED: 12/22/2014 @ 8:19AM
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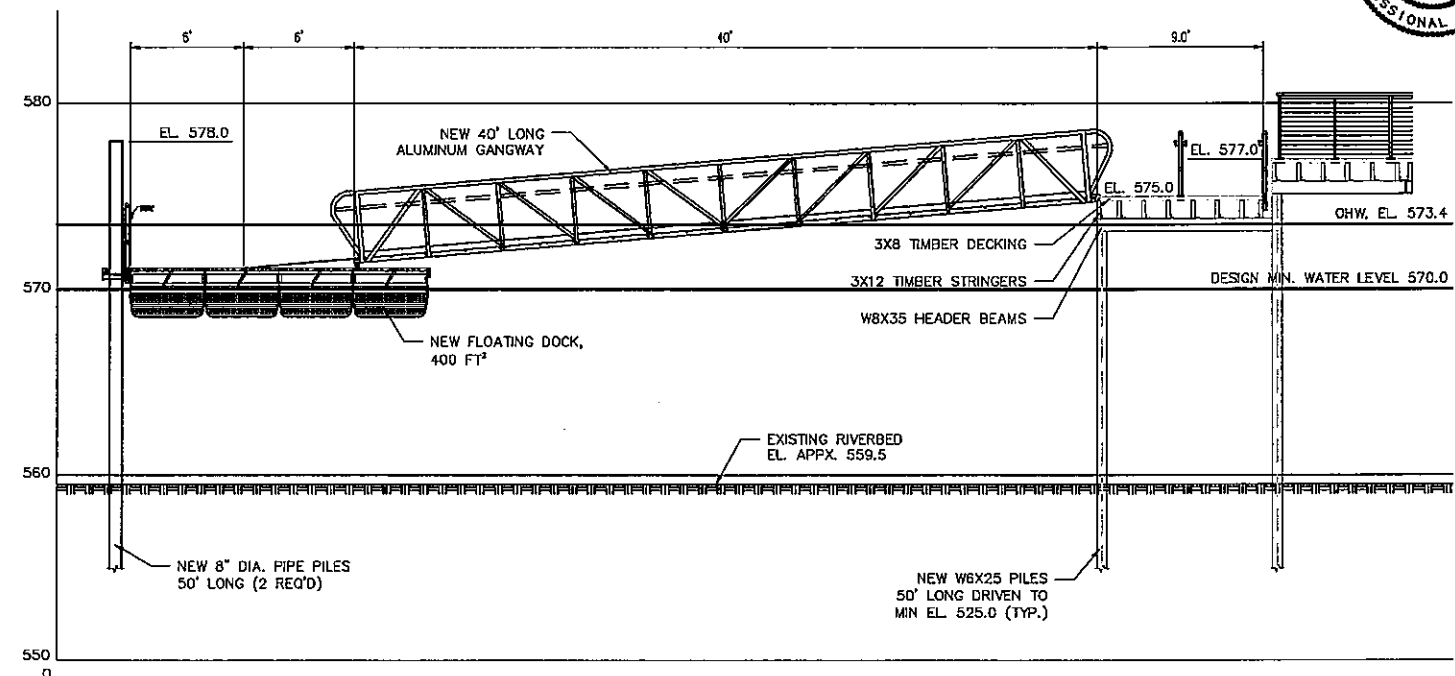
KS Associates, Inc.
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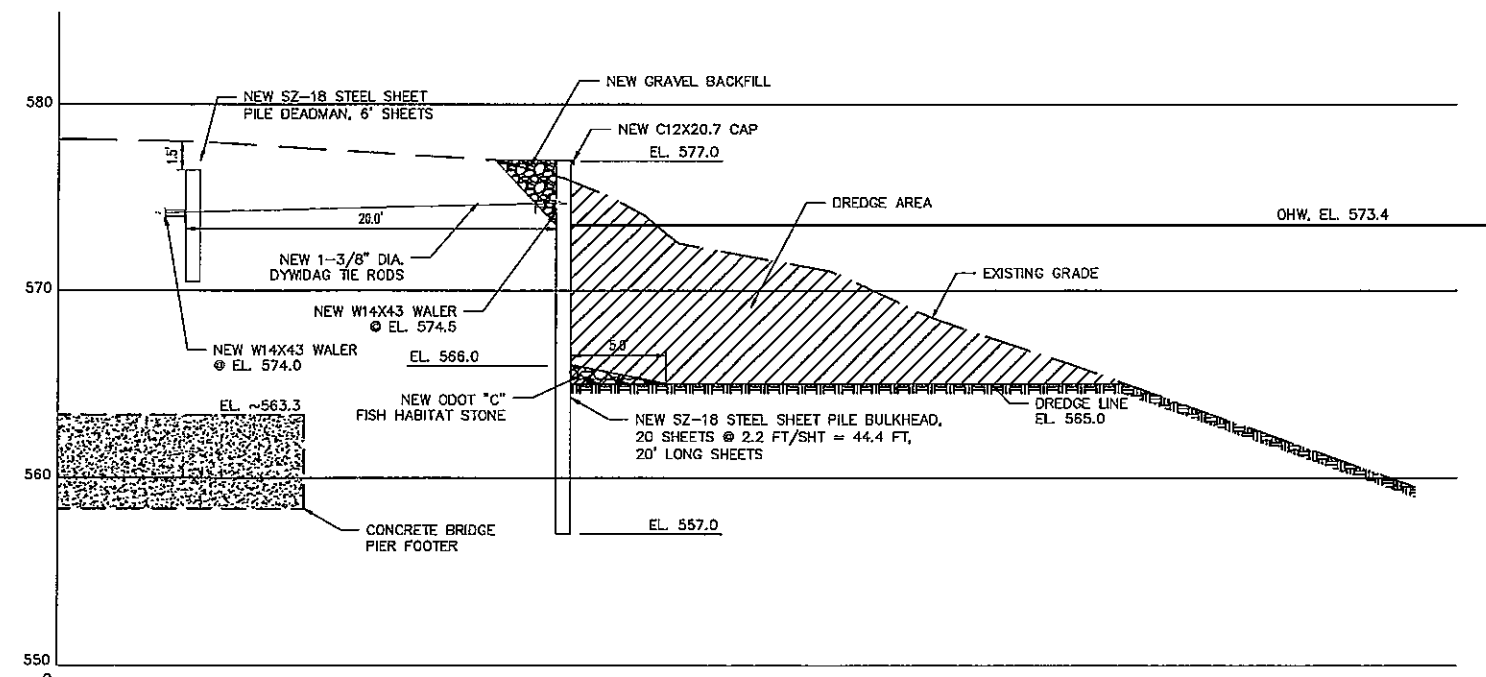
SUBMITTAL



SECTION A-A
SCALE IN FEET
SCALE 1"=5'



SECTION B-B
SCALE IN FEET
SCALE 1"=5'



SECTION C-C
SCALE IN FEET
SCALE 1"=5'

- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
 3. EXISTING CONCRETE SPILLWAY FOR BRIDGE DRAIN TO BE REMOVED AND REPLACED WITH 12" DIA. PVC PIPE THROUGH PROPOSED REVETMENT.
 4. ALL DREDGED MATERIAL TO BE PLACED IN AN UPLAND DISPOSAL SITE TO BE PROVIDED BY THE CONTRACTOR.
 5. THE CONTRACTOR SHALL CLEAR THE DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING THE STEEL SHEET PILING.

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EAST BANK SECTIONS WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BIDS	12-23-14	

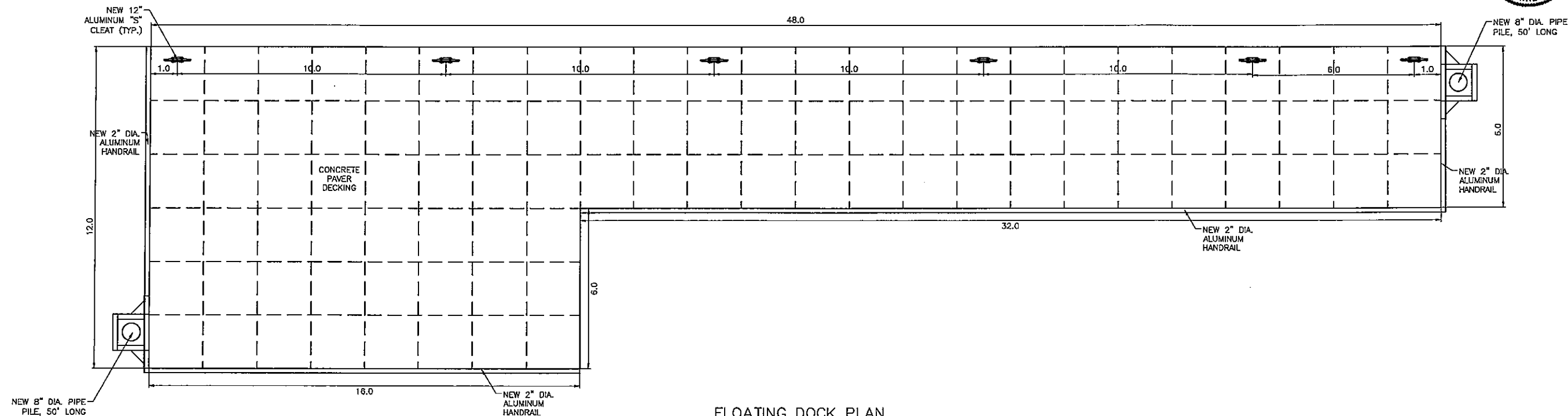
DATE: DECEMBER 9, 2014
SHEET NO.: **KS-3**

PRINTED: 12/23/14 @ 9:20AM
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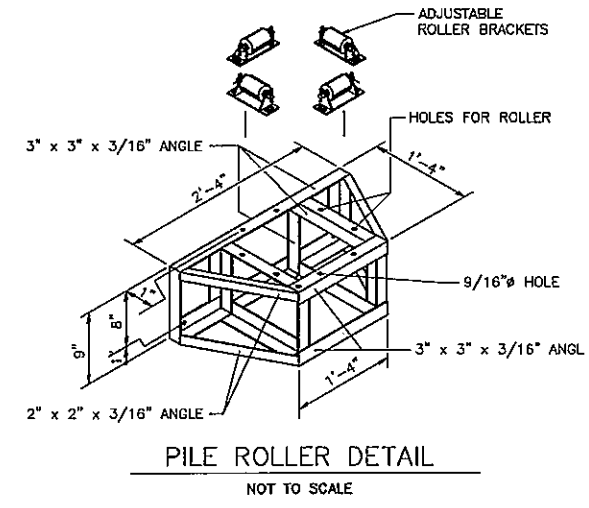
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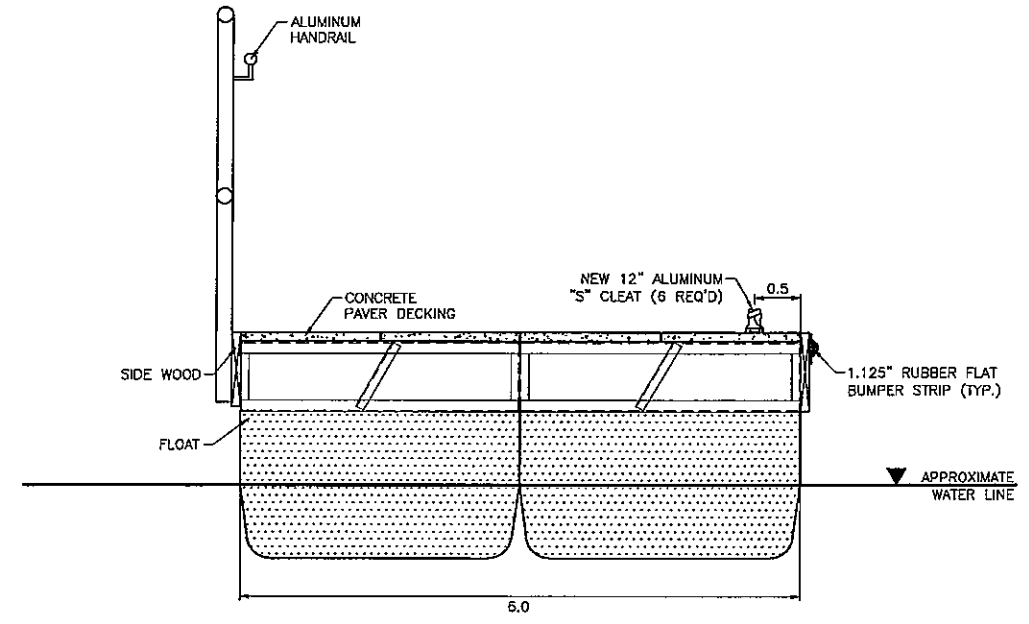
SUBMITTAL



FLOATING DOCK PLAN
SCALE IN FEET
SCALE 1"=2'



PILE ROLLER DETAIL
NOT TO SCALE



TYPICAL DOCK SECTION
SCALE IN FEET
SCALE 1"=1'

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 PROJECT NUMBER :

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EAST BANK
 FLOATING DOCK DETAILS
 WATER TAXI
 OHIO & ERIE CANAL RESERVATION
 1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	REVISIONS	DATE
	DESCRIPTION	
	ISSUED FOR BIDS	12-23-14

DATE: DECEMBER 9, 2014
SHEET NO.

KS-4

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- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
 3. DOCK HARDWARE TO BE FASTENED PER MANUFACTURERS INSTRUCTIONS.
 4. FINAL CLEAT LOCATION TO BE DETERMINED BASED ON FINAL CROSSBY YACHTS DECK HARDWARE PLAN.



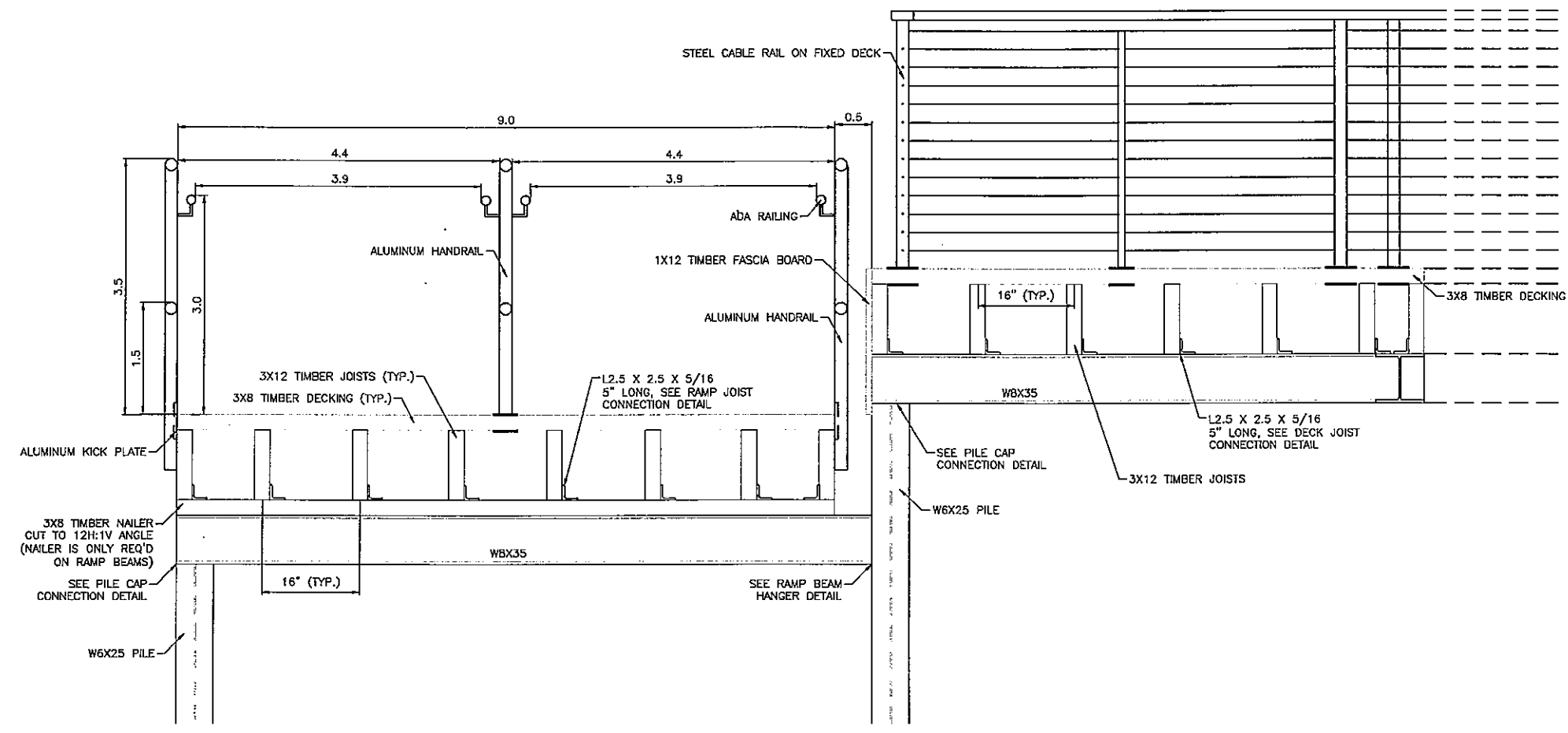
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 PROJECT NUMBER : www.clevelandmetroparks.com

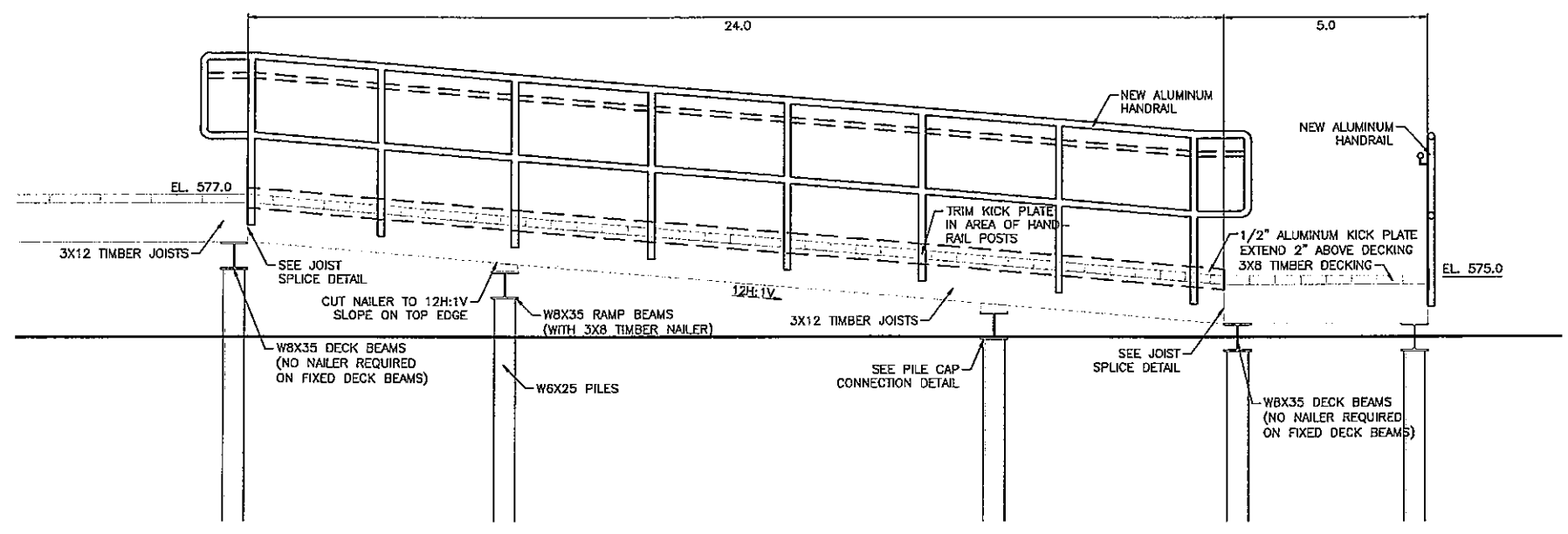
**EAST BANK
 FIXED RAMP DETAILS
 WATER TAXI**
 OHIO & ERIE CANAL RESERVATION
 1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE
1	ISSUED FOR BIDS	12-23-14

REVISIONS
 NO. DESCRIPTION DATE
 1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
 SHEET NO. **KS-6**



FIXED RAMP SECTION
 SCALE IN FEET
 SCALE 1"=1'



FIXED RAMP PROFILE
 SCALE IN FEET
 SCALE 0.5"=1'

PRINTED: 12/23/14 @ 9:22AM

FILE NAME: R:\140014232\Drawings\2014-12-09 Bid Drawings\14232 East Bank Drawings 120914.dwg


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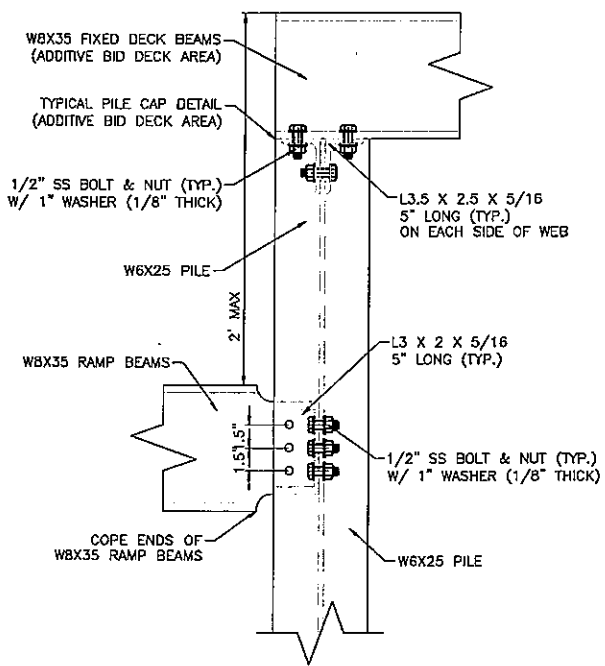
NOTES
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 2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.



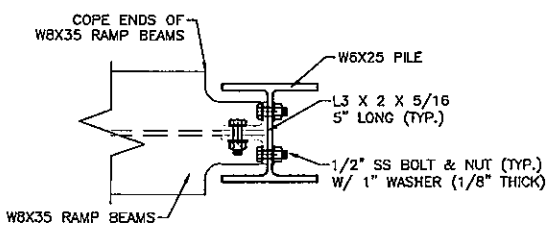
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PROJECT NUMBER: www.clevelandmetroparks.com

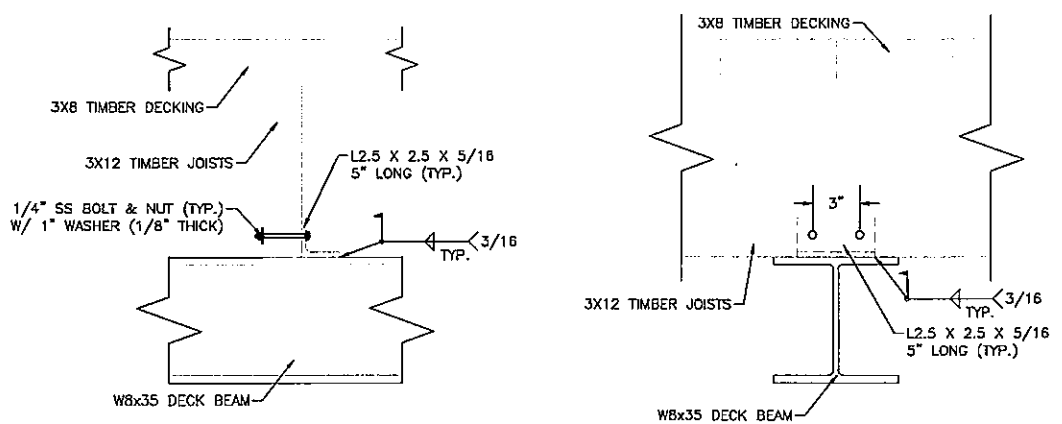
EAST BANK
DECK CONSTRUCTION DETAILS
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113



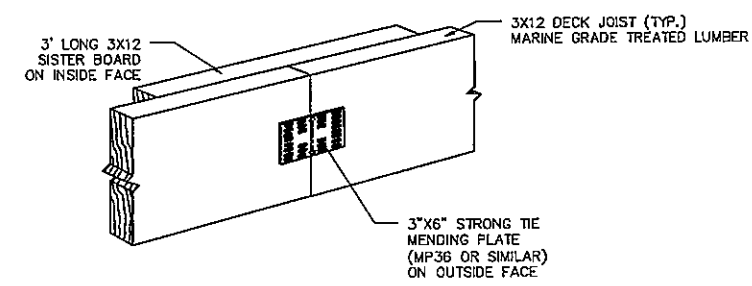
**RAMP BEAM CONNECTION
PROFILE VIEW**
SCALE IN FEET
SCALE 2"=1'



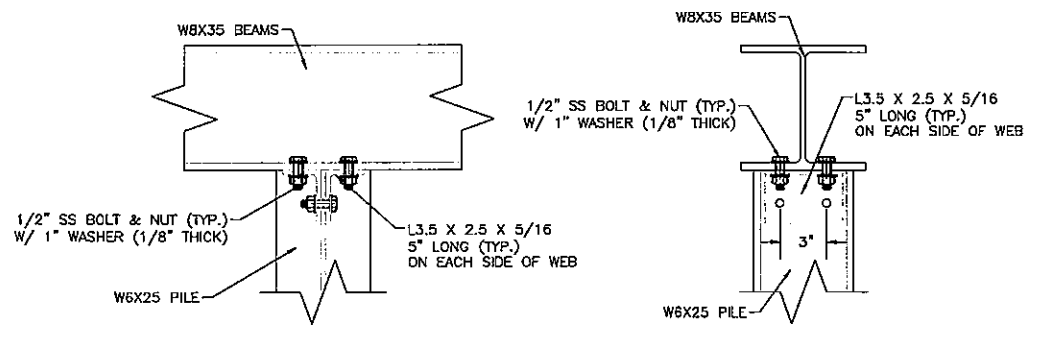
**RAMP BEAM CONNECTION
PLAN VIEW**
SCALE IN FEET
SCALE 2"=1'



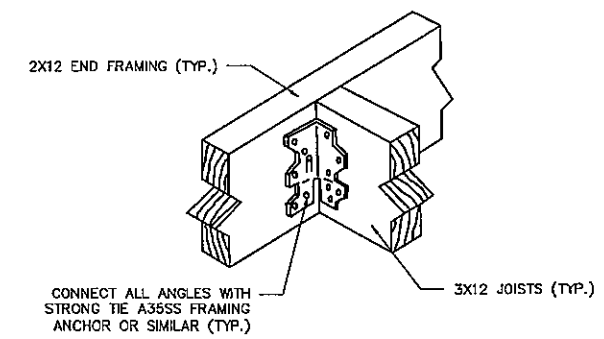
JOIST CONNECTION DETAIL
SCALE IN FEET
SCALE 2"=1'



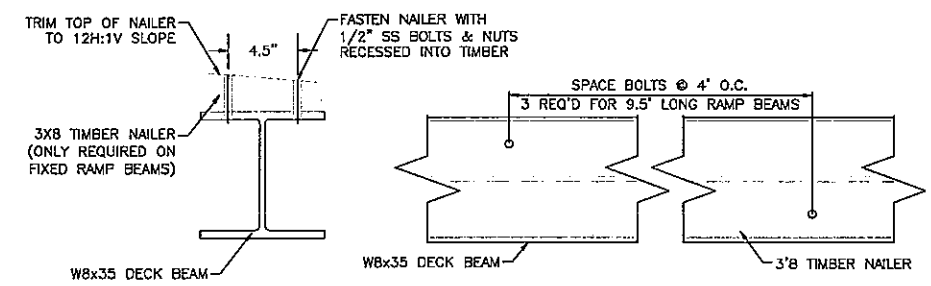
JOIST SPLICE DETAIL
NOT TO SCALE



PILE CAP DETAIL
SCALE IN FEET
SCALE 2"=1'



JOIST ANGLE DETAIL
NOT TO SCALE



FIXED RAMP BEAM NAILER DETAIL
SCALE IN FEET
SCALE 2"=1'

- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
 3. 3X8 TIMBER NAILER ONLY REQUIRED ON FIXED RAMP BEAMS. NOT REQUIRED ON LEVEL PLATFORM BEAMS.

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BIDS	12-23-14	

DATE: DECEMBER 9, 2014
SHEET NO.:

KS-7

PRINTED: 12/22/2014 @ 9:23AM

FILE NAME: R:\140001\4232\Drawings\2014-12-09 Bid Drawings\East Bank Drawings\20B1.dwg

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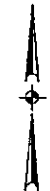
WEST BANK
MARINE CONSTRUCTION SITE PLAN
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR BIDS	12-23-14	

DATE
DECEMBER 9, 2014

SHEET NO.

KS-8



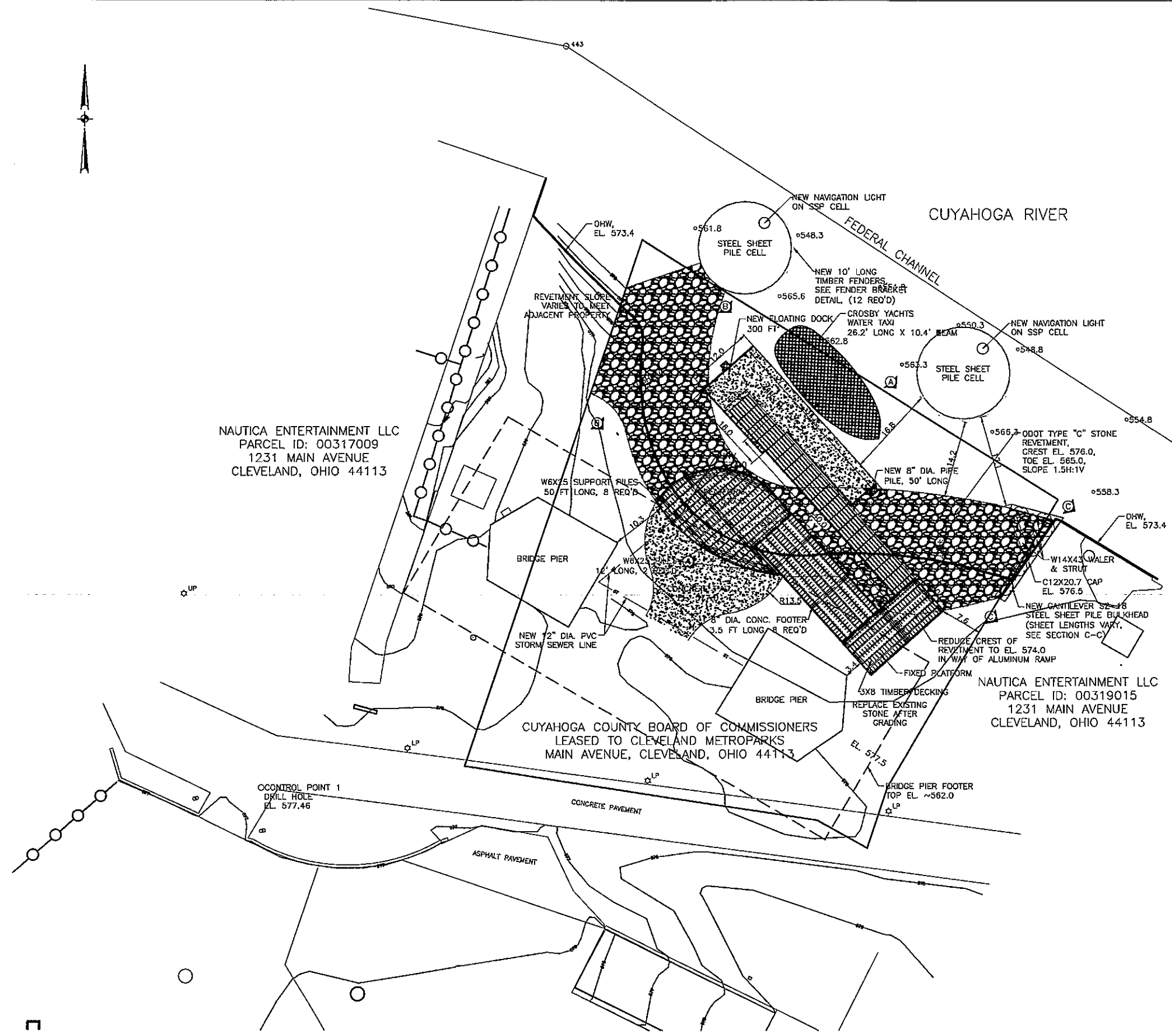
NAUTICA ENTERTAINMENT LLC
PARCEL ID: 00317009
1231 MAIN AVENUE
CLEVELAND, OHIO 44113

CUYAHOGA RIVER

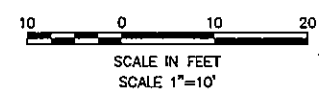
FEDERAL CHANNEL

CUYAHOGA COUNTY BOARD OF COMMISSIONERS
LEASED TO CLEVELAND METROPARKS
MAIN AVENUE, CLEVELAND, OHIO 44113

NAUTICA ENTERTAINMENT LLC
PARCEL ID: 00319015
1231 MAIN AVENUE
CLEVELAND, OHIO 44113



SITE PLAN



NOTES

1. VERTICAL DATUM IS IGLD 1985.
2. WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.
3. ALL DREDGED MATERIAL TO BE PLACED IN AN UPLAND DISPOSAL SITE TO BE PROVIDED BY THE CONTRACTOR.
4. CONTRACTOR SHALL CLEAR DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING STEEL SHEET PILING.

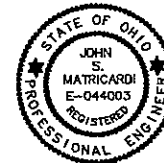
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SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1"=10' (VERTICAL)



SUBMITTAL



PROJECT NUMBER: www.clevelandmetroparks.com

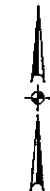
WEST BANK
PILE LOCATION PLAN
WATER TAXI

OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR BIDS	12-23-14	

DATE: DECEMBER 9, 2014

KS-9

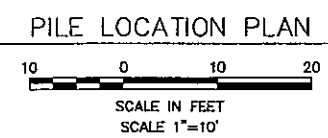
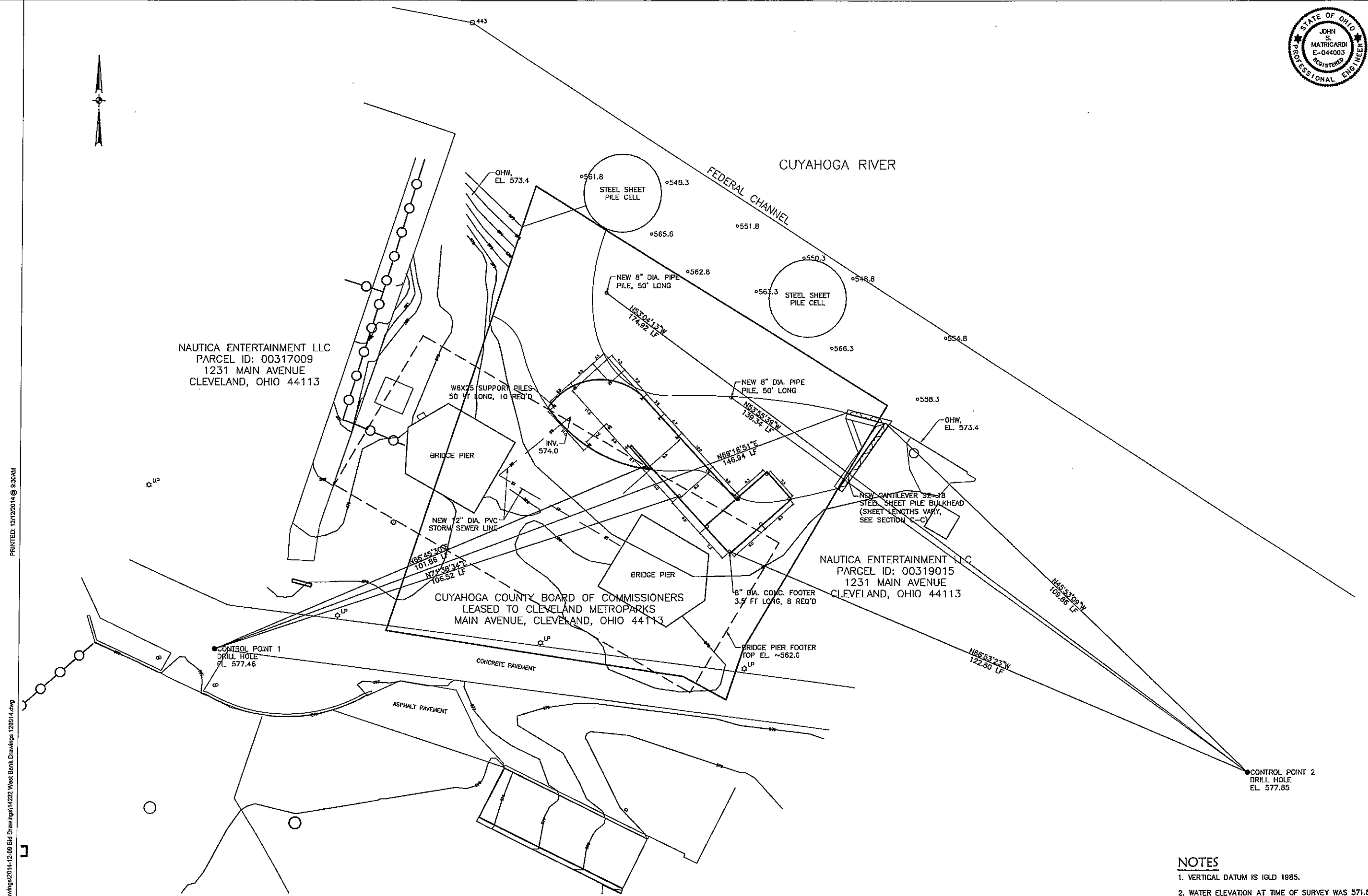


NAUTICA ENTERTAINMENT LLC
PARCEL ID: 00317009
1231 MAIN AVENUE
CLEVELAND, OHIO 44113

CUYAHOGA COUNTY BOARD OF COMMISSIONERS
LEASED TO CLEVELAND METROPARKS
MAIN AVENUE, CLEVELAND, OHIO 44113

NAUTICA ENTERTAINMENT LLC
PARCEL ID: 00319015
1231 MAIN AVENUE
CLEVELAND, OHIO 44113

CUYAHOGA RIVER
FEDERAL CHANNEL



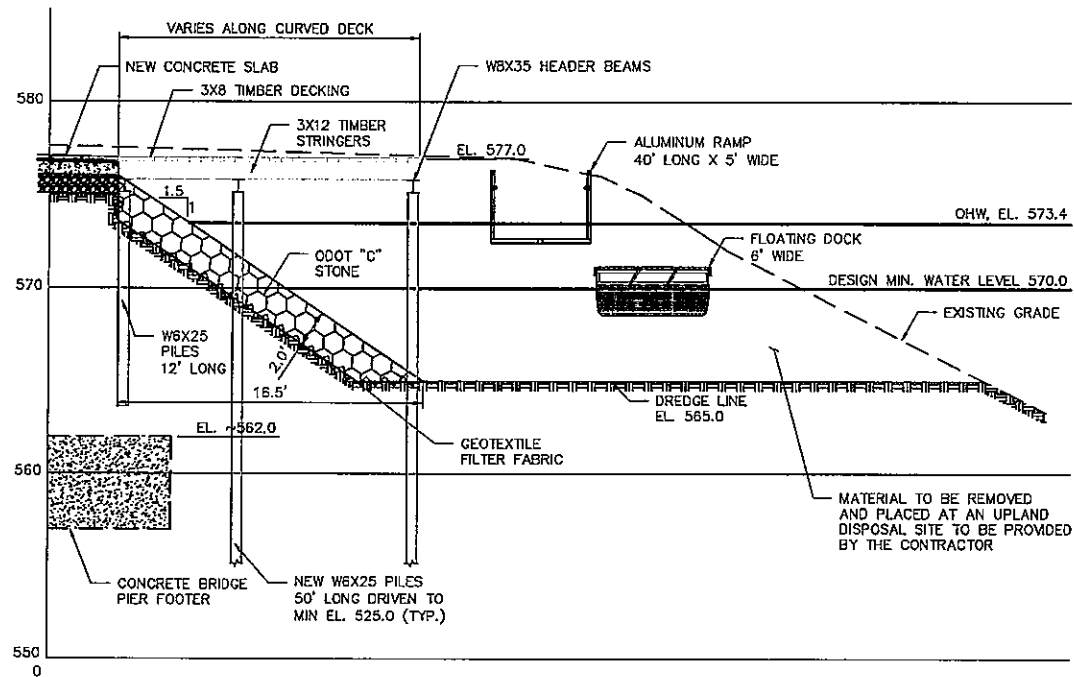
- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.
 3. ALL DREDGED MATERIAL TO BE PLACED IN AN UPLAND DISPOSAL SITE TO BE PROVIDED BY THE CONTRACTOR.
 4. CONTRACTOR SHALL CLEAR DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING STEEL SHEET PILING.

PRINTED: 12/23/14 @ 9:30AM
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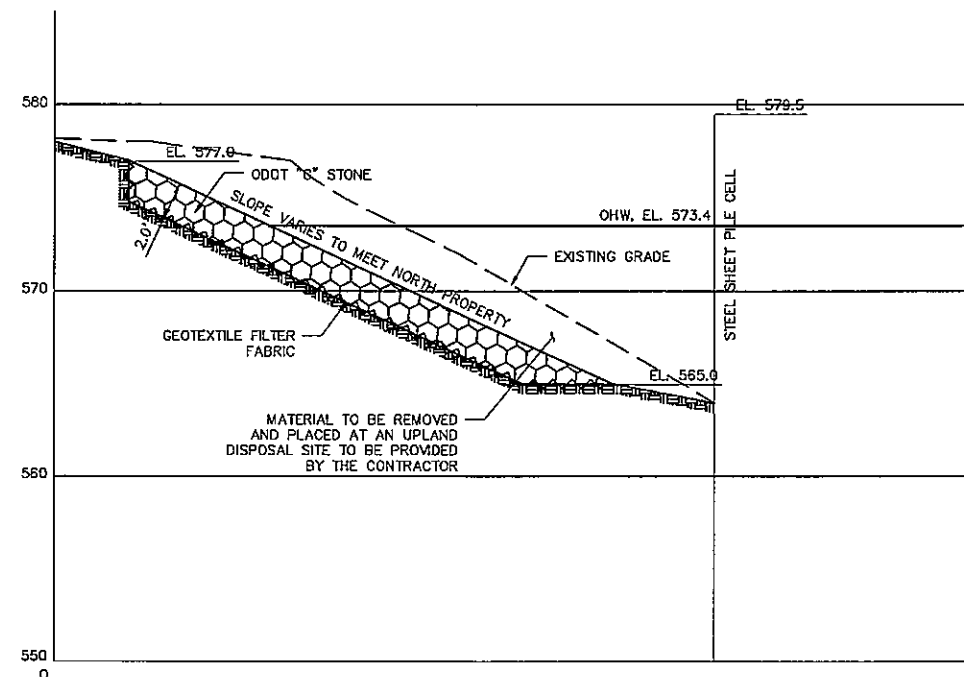
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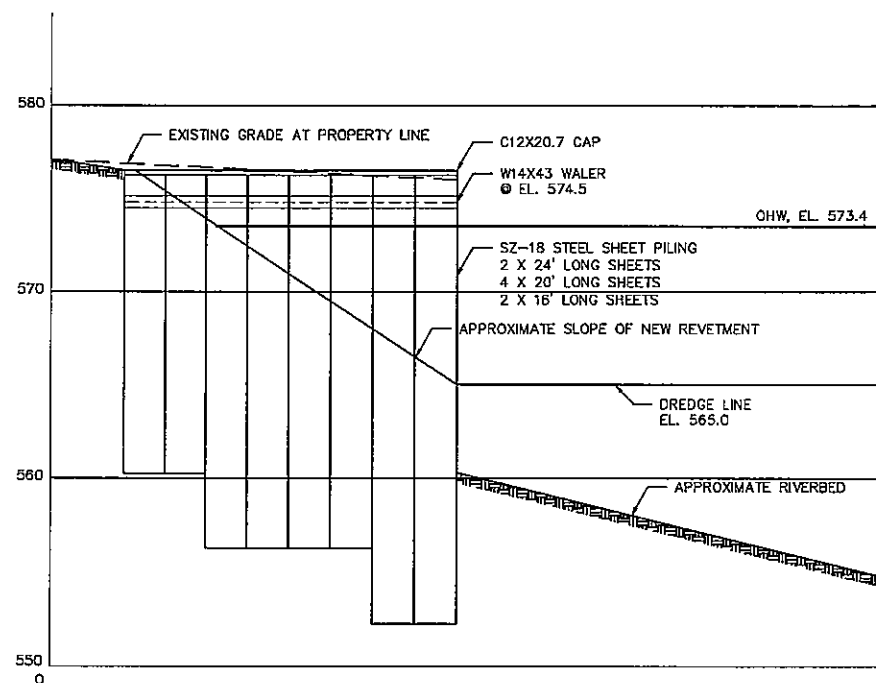
SUBMITTAL



SECTION A-A
SCALE IN FEET
SCALE 1"=5'



SECTION B-B
SCALE IN FEET
SCALE 1"=5'



SECTION C-C
SCALE IN FEET
SCALE 1"=5'

NOTES

1. VERTICAL DATUM IS IGLD 1985.
2. WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.
3. ALL DREDGED MATERIAL TO BE PLACED IN AN UPLAND DISPOSAL SITE TO BE PROVIDED BY THE CONTRACTOR.
4. CONTRACTOR SHALL CLEAR DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING STEEL SHEET PILING.

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WEST BANK SECTIONS
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BIDS	12-23-14	

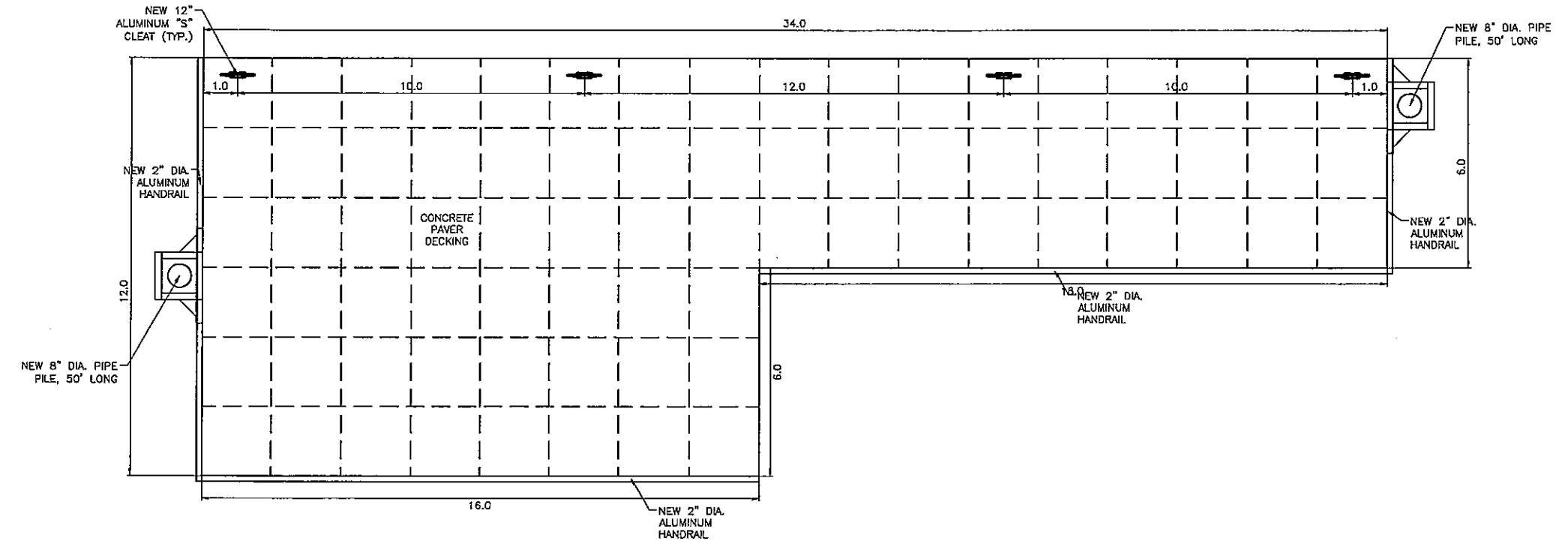
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SHEET NO.: KS-10

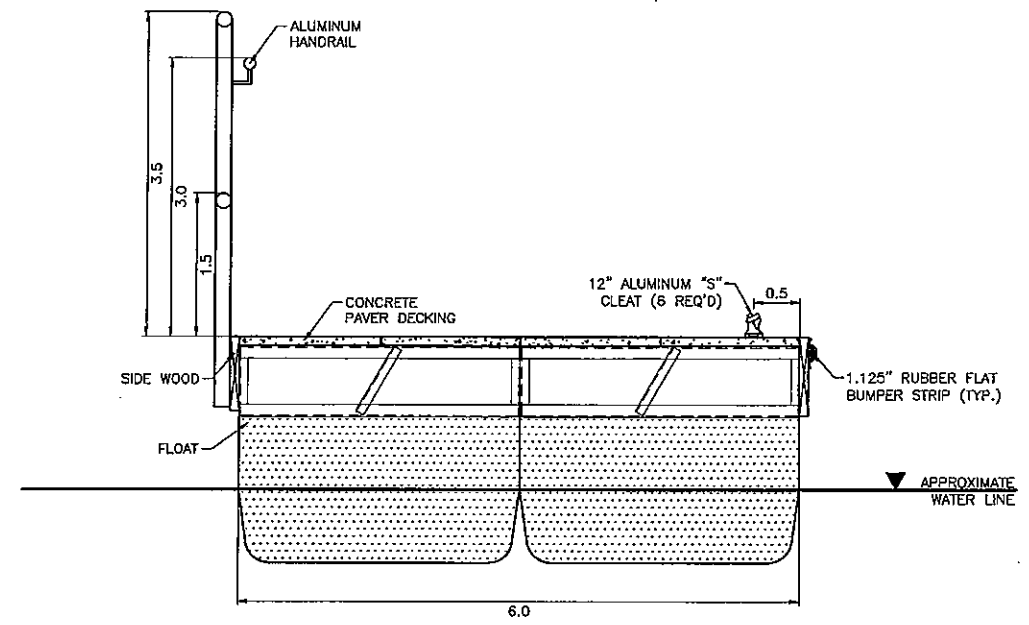
PROJECT NUMBER: www.clevelandmetroparks.com



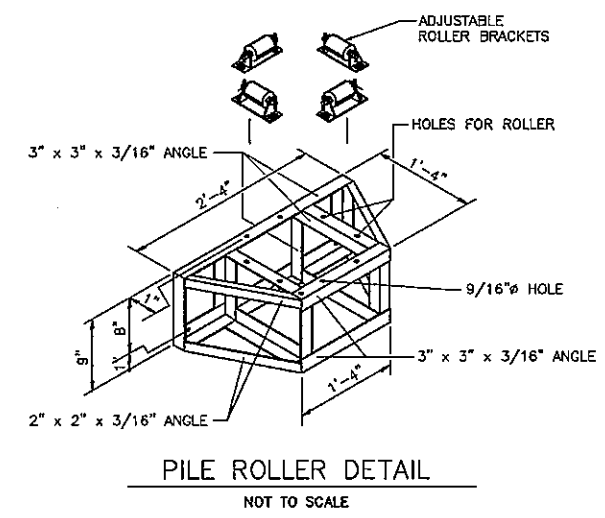
SUBMITTAL



FLOATING DOCK PLAN
 SCALE IN FEET
 SCALE 1"=2'



TYPICAL DOCK SECTION
 SCALE IN FEET
 SCALE 1"=1'



PILE ROLLER DETAIL
 NOT TO SCALE

- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.
 3. DOCK HARDWARE TO BE FASTENED PER MANUFACTURERS INSTRUCTIONS.
 4. FINAL CLEAT LOCATION TO BE DETERMINED BASED ON FINAL CROSBY YACHTS DECK HARDWARE PLAN.

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WEST BANK
 FLOATING DOCK DETAILS
 WATER TAXI
 OHIO & ERIE CANAL RESERVATION
 1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR BIDS	12-23-14	

DATE: DECEMBER 9, 2014
 SHEET NO.

KS-11

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SCALE CHECK: THIS DRAWING SHOULD MEASURE EXACTLY 1" WHEN PLOTTED



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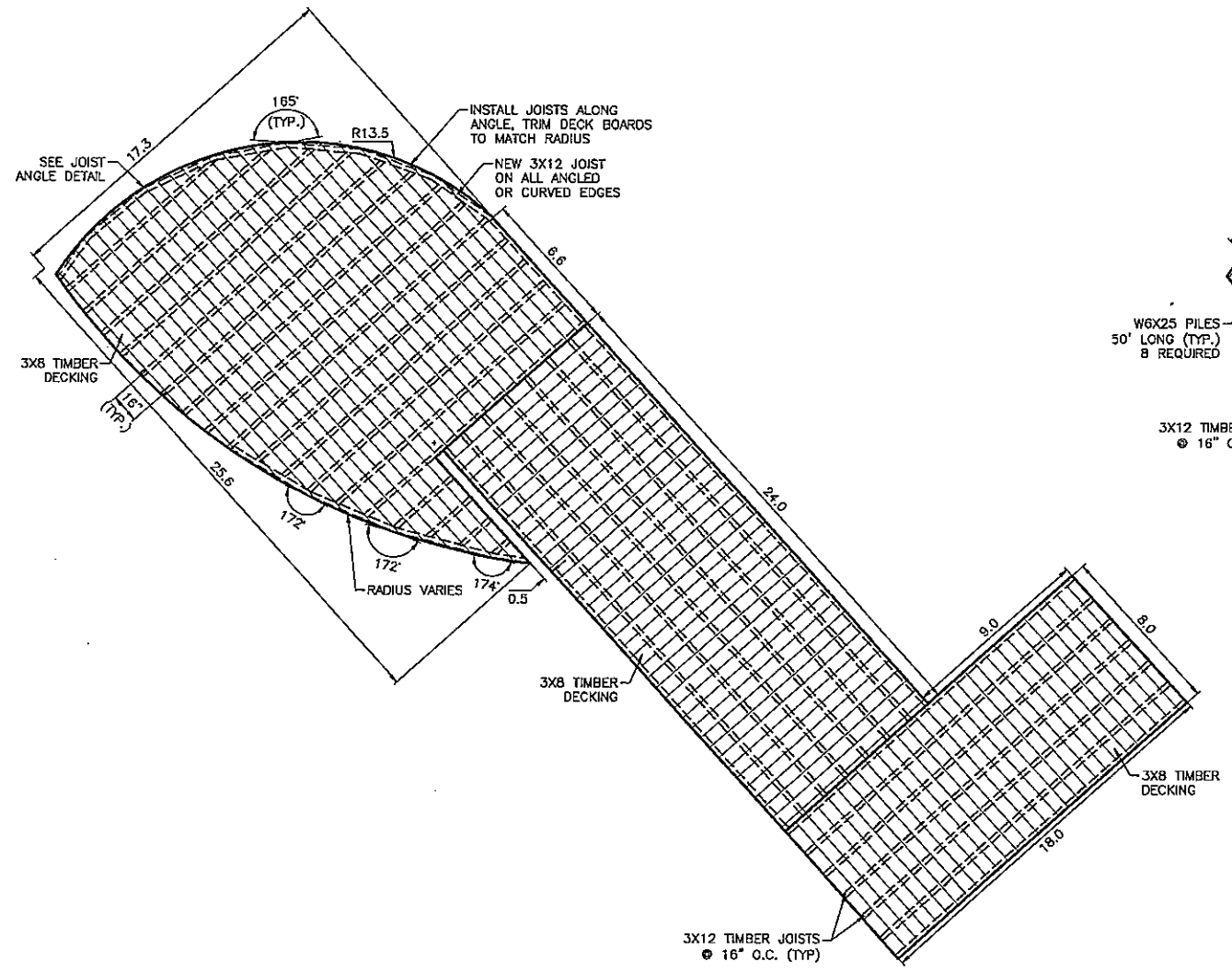
PROJECT NUMBER: www.clevelandmetroparks.com

WEST BANK
FIXED DECK PLANS
WATER TAXI

OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	REVISIONS	DATE	BY
1	ISSUED FOR BIDS	12-23-14	

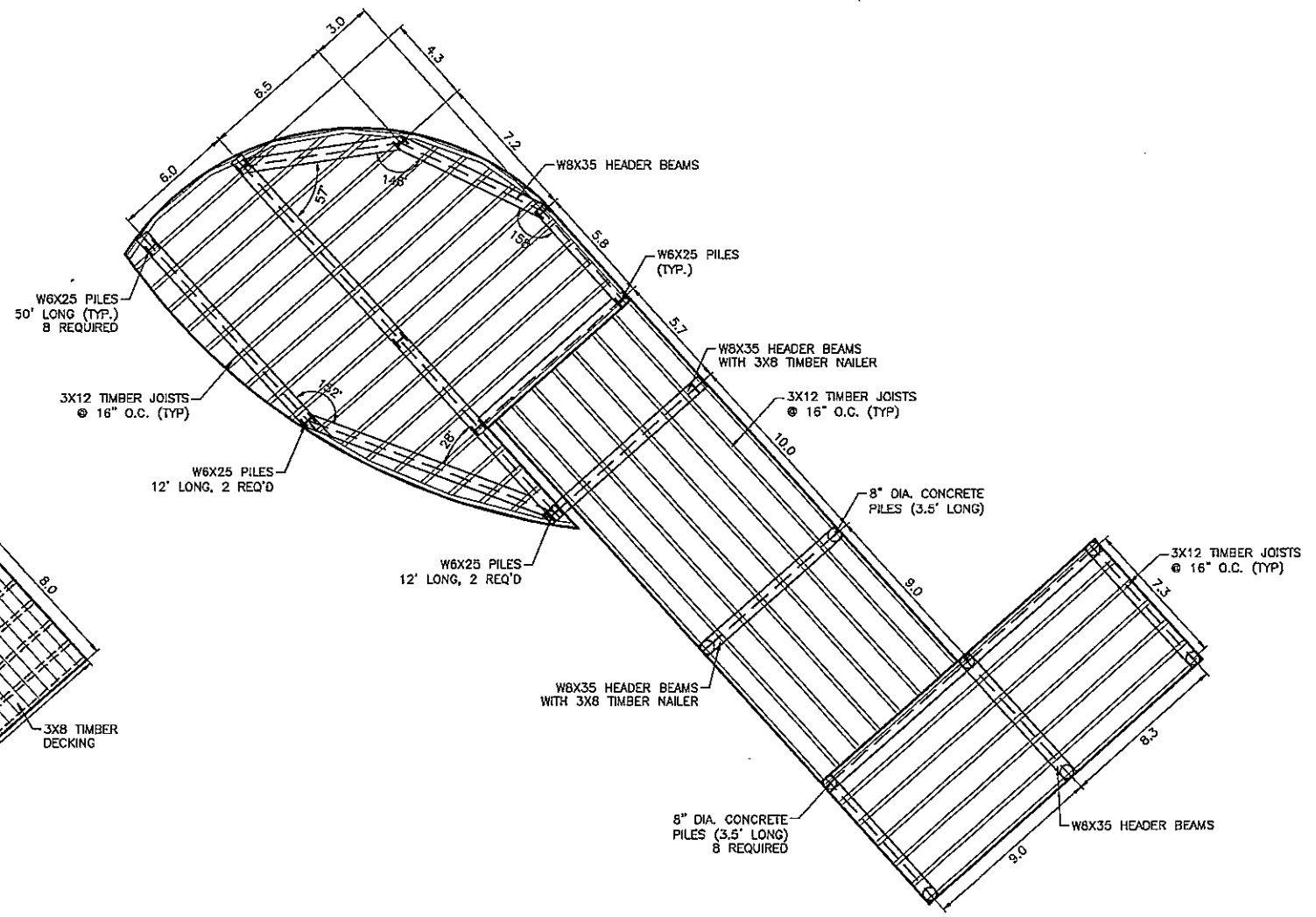
DATE: DECEMBER 9, 2014
SHEET NO.: KS-12



DECKING PLAN

4 0 4 8

SCALE IN FEET
SCALE 1"=4'



FRAMING PLAN

4 0 4 8

SCALE IN FEET
SCALE 1"=4'

- NOTES**
1. VERTICAL DATUM IS IGLD 1985.
 2. WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.

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FILE NAME: R:\140001\4232\Drawings\2014-12-09 Bid Drawings\14232 West Bank Deck Drawings 120914.dwg

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WEST BANK
FIXED RAMP DETAILS
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

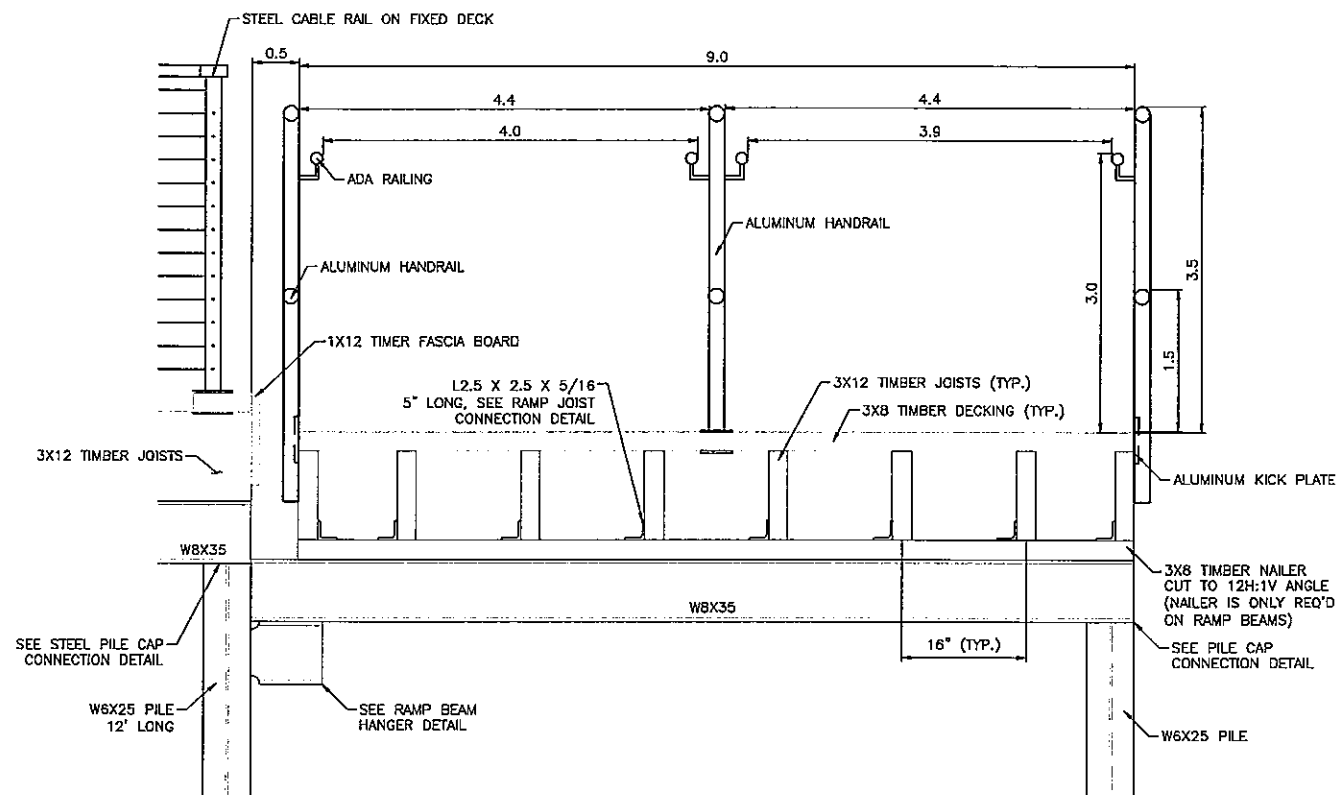
NO.	REVISIONS	DATE	BY
1	ISSUED FOR BIDS	12-23-14	

THIS MARK SHOULD MEASURE EXACTLY WHEN REPORTED

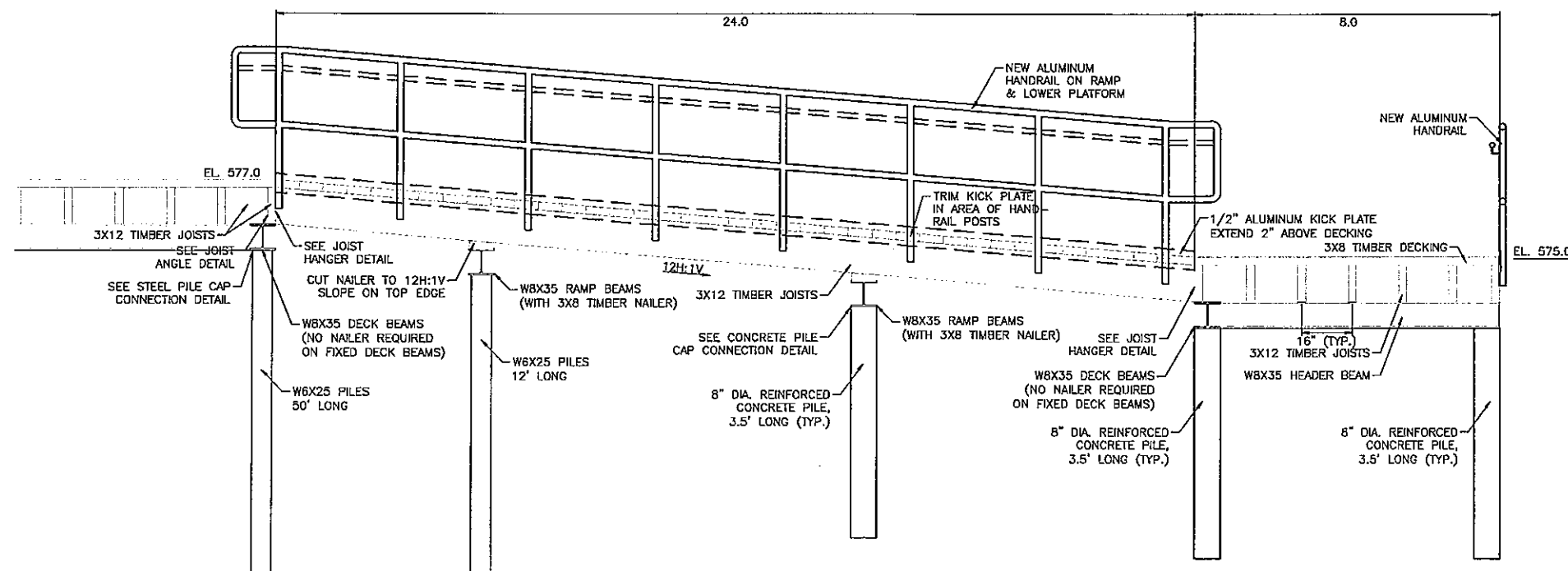
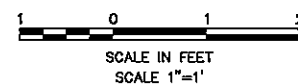
DECEMBER 9, 2014

SHEET NO.

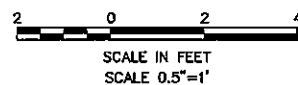
KS-13



FIXED RAMP SECTION THROUGH UPPER DECK BEAM



FIXED RAMP PROFILE



NOTES

- VERTICAL DATUM IS IGLD 1985.
- WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.

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FILE NAME: R:\1400014232\Drawings\2014-12-09 Bid Drawings\14232 West Bank Drawings\120914.dwg

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Cleveland Metroparks

PROJECT NUMBER: www.clevelandmetroparks.com

WEST BANK
DECK CONSTRUCTION DETAILS

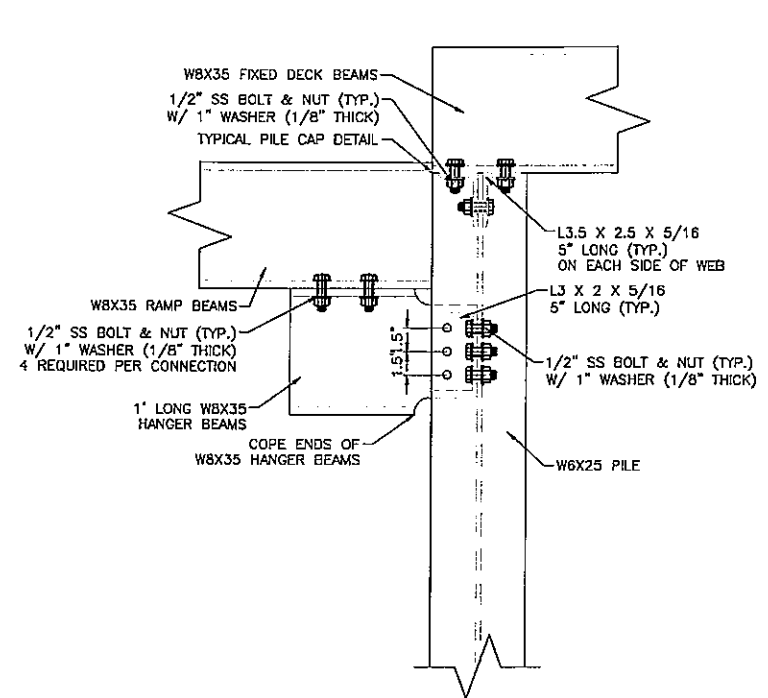
WATER TAXI

OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

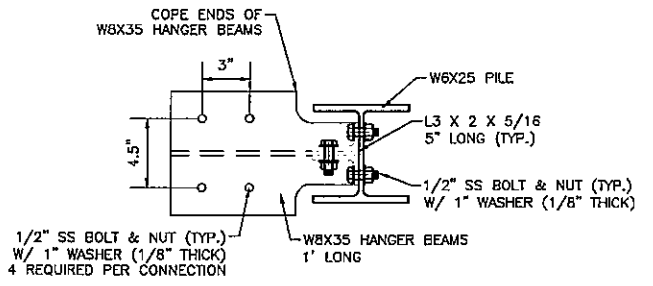
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BIDS	12-23-14	

DATE: DECEMBER 9, 2014
SHEET NO.

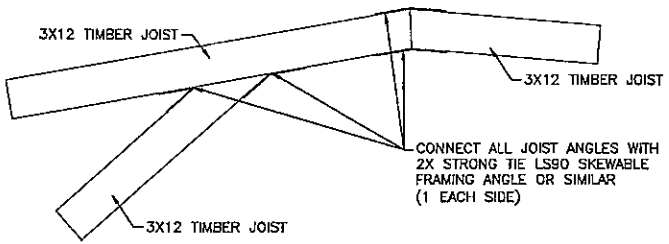
KS-14



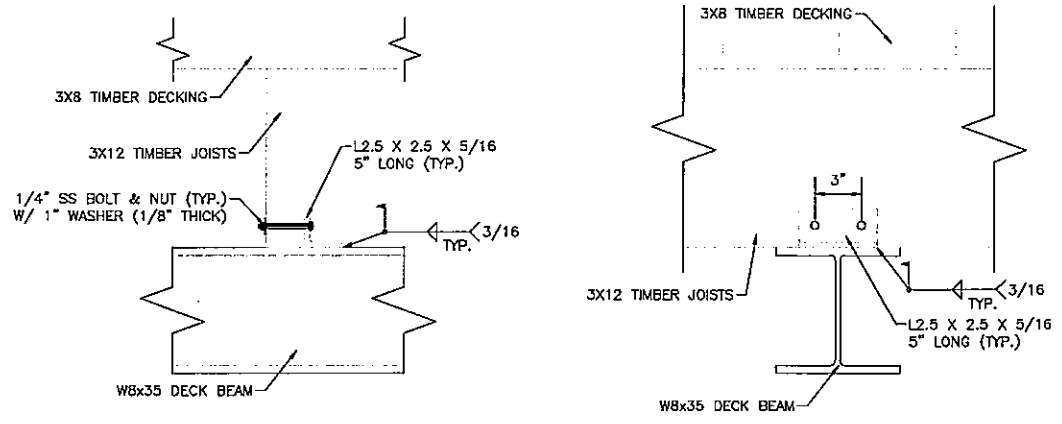
RAMP BEAM CONNECTION
PROFILE VIEW
SCALE IN FEET
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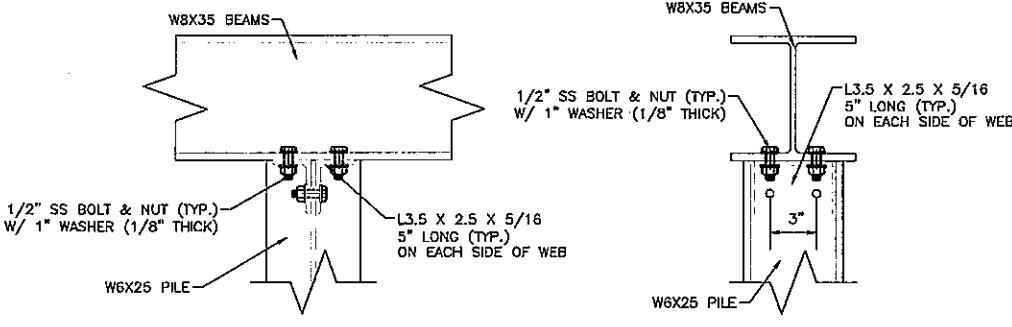
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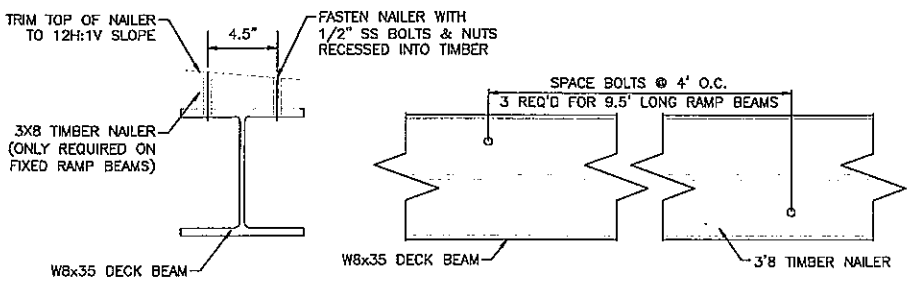
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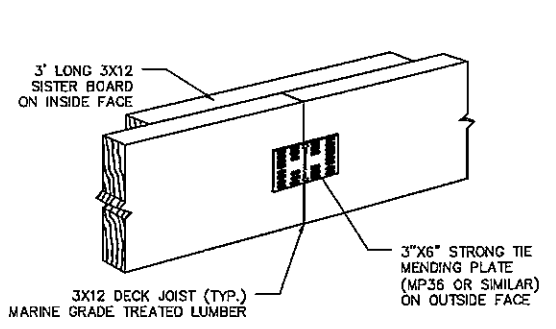
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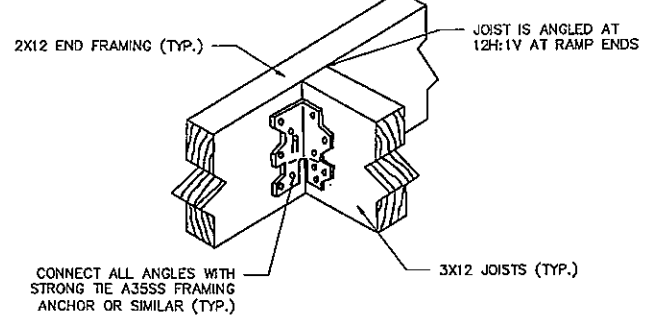
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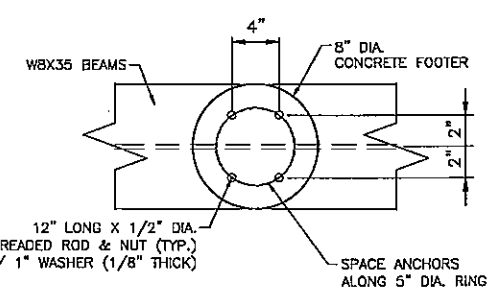
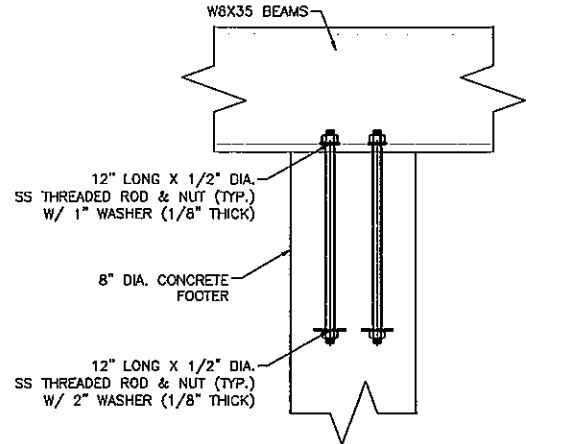
FIXED RAMP BEAM NAILER DETAIL
SCALE IN FEET
SCALE 2"=1'



JOIST SPLICE DETAIL
NOT TO SCALE



JOIST 90° ANGLE DETAIL
© JOIST HANGER DETAIL
NOT TO SCALE



FIXED RAMP BEAM NAILER DETAIL
SCALE IN FEET
SCALE 2"=1'

NOTES

1. VERTICAL DATUM IS IGLD 1985.
2. WATER ELEVATION AT TIME OF SURVEY WAS 571.8 FEET IGLD 1985 ON JUNE 3, 2014.
3. 3X8 TIMBER NAILER ONLY REQUIRED ON FIXED RAMP BEAMS. NOT REQUIRED ON LEVEL PLATFORM BEAMS.

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260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

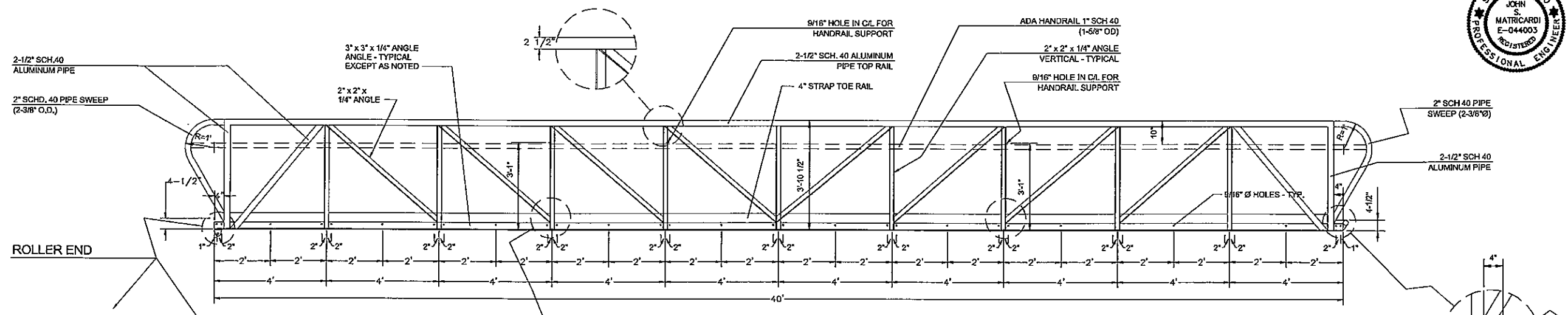


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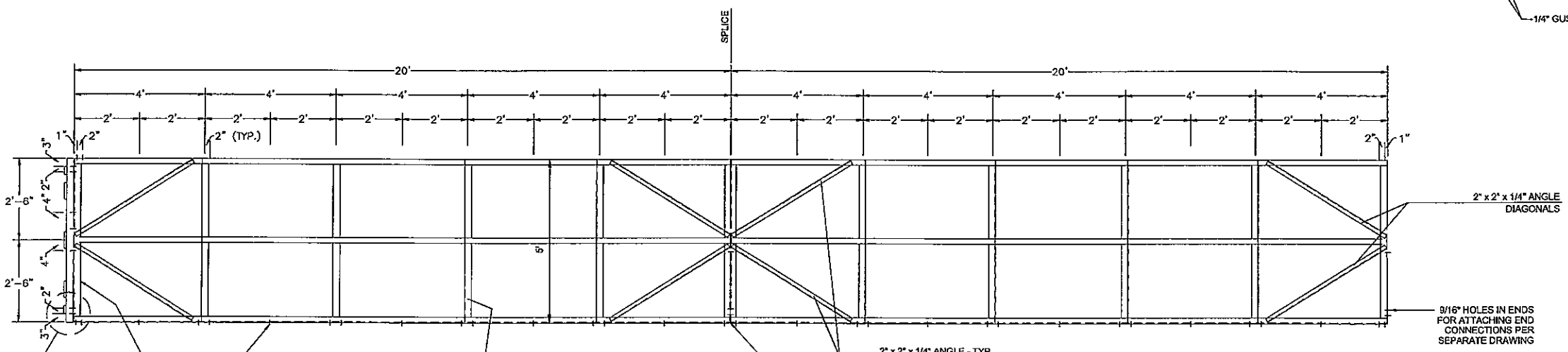
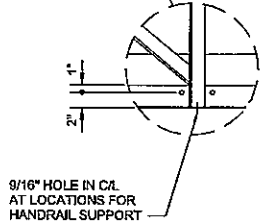
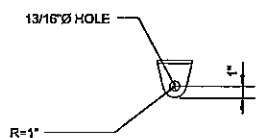
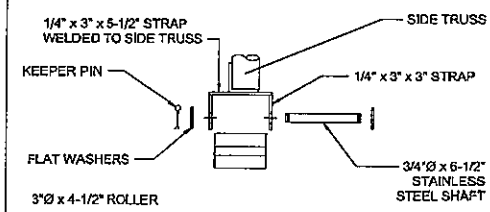
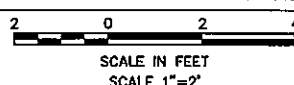
Cleveland Metroparks

PROJECT NUMBER: www.clevelandmetroparks.com

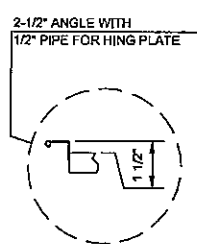
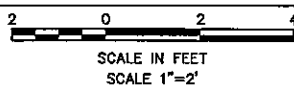
EAST & WEST BANKS
40-FOOT ALUMINUM RAMP
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113



SIDE TRUSS - SIDE VIEW



BOTTOM TRUSS - TOP VIEW



NOTE:
SIDE CHORDS, BACKBONE AND
END ANGLES ARE ALL FLUSH W/
TOP.

NOTES

1. VERTICAL DATUM IS IGLD 1985.
2. WATER ELEVATION AT TIME OF SURVEY WAS 572.5 FEET IGLD 1985 ON SEPTEMBER 5, 2014.
3. ALUMINUM RAMP SHALL BE ASSEMBLED AND INSTALLED PER MANUFACTURERS INSTRUCTIONS.
4. ALUMINUM RAMP IS SIMILAR ON EAST AND WEST BANKS.

40-FOOT ALUMINUM RAMP

KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
KS ASSOCIATES www.ksassociates.com

NO.	REVISIONS	DATE
1	ISSUED FOR BIDS	12-29-14

DATE: DECEMBER 9, 2014

SHEET NO. KS-15

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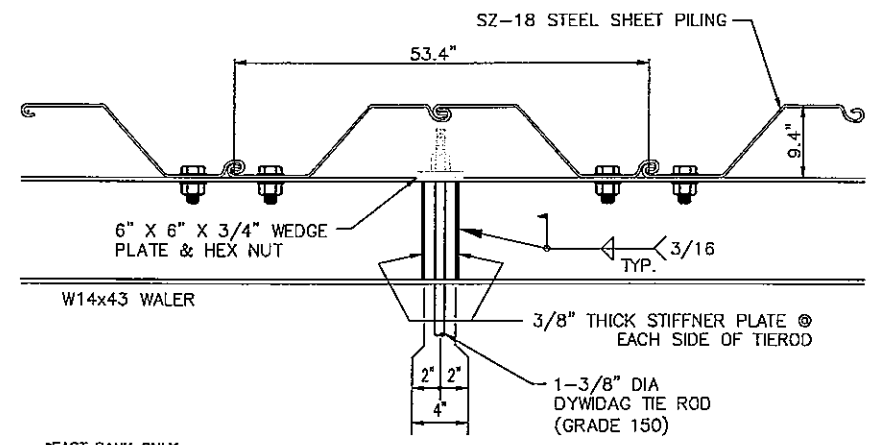
SUBMITTAL

Cleveland Metroparks
PROJECT NUMBER: www.clevelandmetroparks.com

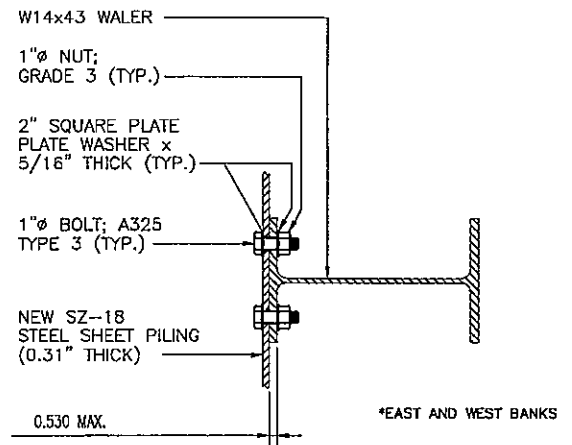
EAST & WEST BANKS
SHEET PILE DETAILS
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	REVISIONS	DATE
1	ISSUED FOR BIDS	12-25-14

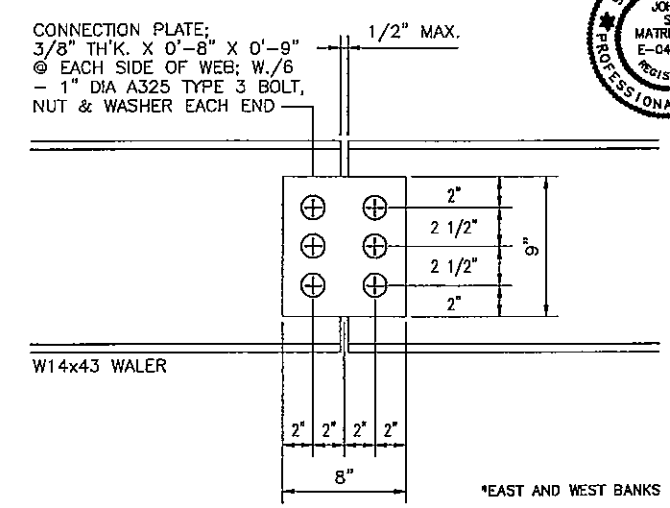
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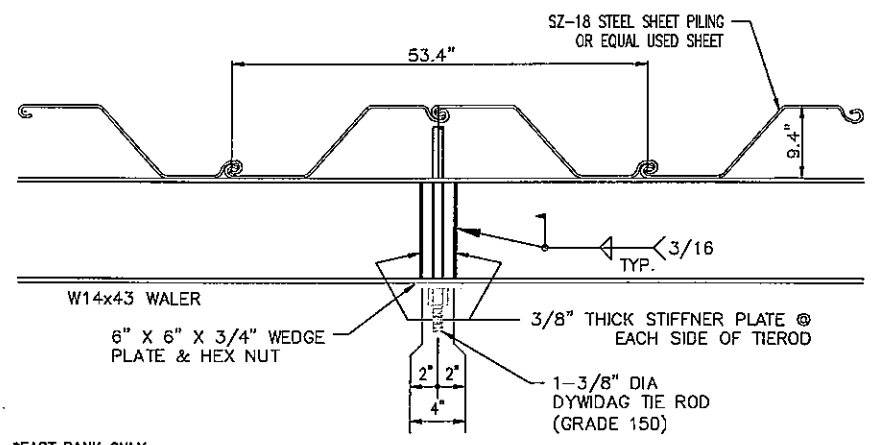
BULKHEAD/TIEROD CONNECTION DETAIL
SCALE IN FEET
SCALE 1"=1'



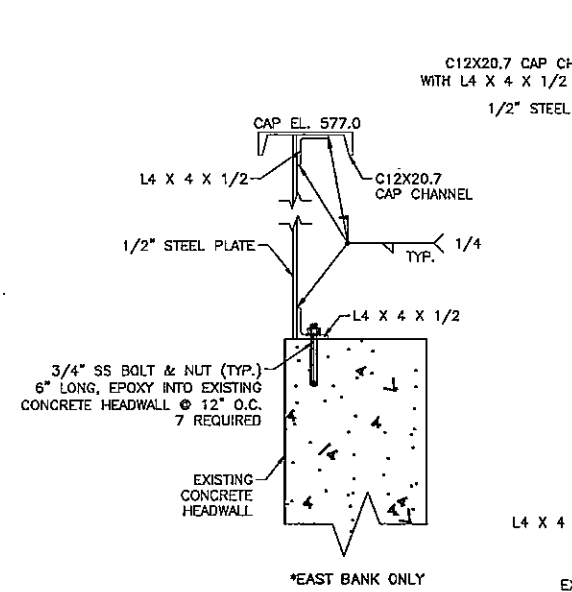
BULKHEAD/WALER CONNECTION DETAIL
SCALE IN FEET
SCALE 2"=1'



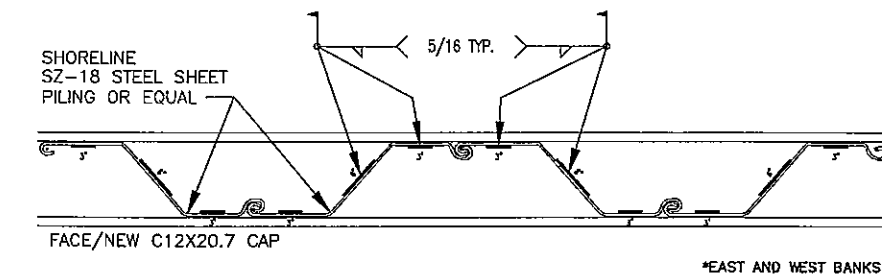
WALER SPLICE DETAIL
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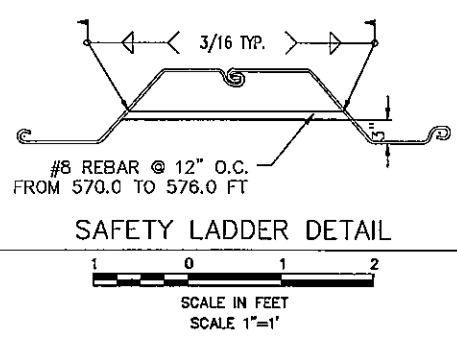
DEADMAN/TIEROD CONNECTION DETAIL
SCALE IN FEET
SCALE 1"=1'



EAST BANK END PLATE DETAIL
SCALE IN FEET
SCALE 1"=1'



CAP WELDING DETAIL
SCALE IN FEET
SCALE 1"=1'



SAFETY LADDER DETAIL
SCALE IN FEET
SCALE 1"=1'

NOTES
1. VERTICAL DATUM IS IGLD 1985.
2. CONTRACTOR SHALL CLEAR DRIVE LINE OF ALL OBSTRUCTIONS PRIOR TO INSTALLING SHEET PILING.

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KS ASSOCIATES
KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

GENERAL NOTES

GENERAL PROVISIONS:

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2011 OHIO BUILDING CODE, MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.

THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE JOB CONDITIONS AND RESTRICTIONS.

FOR DIMENSIONS AND DETAILS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.

LOADINGS:

Table listing various loadings: DEAD LOADS (ROOF FRAMING: 28.5 PSF, INTERMEDIATE FRAMING: 22 PSF, WALL FRAMING: 21 PSF), SNOW LOADS, WIND LOADS, SEISMIC LOADS, and FRAMING SYSTEMS.

PROOFROLLING:

PRIOR TO EXCAVATION FOR STRUCTURES, PROOFROLL BUILDING AND PAVEMENT AREAS USING A HEAVY LOADED DUMP TRUCK OR SIMILARLY HEAVILY LOADED VEHICLE. ALL SOFT, LOOSE OR UNSTABLE AREAS ARE TO BE STABILIZED WITH ADDITIONAL COMPACTION OR UNDERCUT AND REPLACED WITH ENGINEERED FILL.

ENGINEERED FILL:

FILL SHALL BE WELL GRADED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL, FROZEN MATERIALS, BRICK, LIME, CONCRETE AND OTHER MATERIALS THAT WOULD PREVENT ADEQUATE PERFORMANCE. FILL SHALL CONFORM TO ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP OR SM.

THE PROPOSED ENGINEERED FILL MATERIALS ARE TO BE PLACED IN LIFTS NOT EXCEEDING EIGHT (8) INCHES IN LOOSE MEASURED THICKNESS. EACH LIFT IS TO BE COMPACTED A MINIMUM OF 98% MAXIMUM DENSITY BY ASTM D698.

THE EARTHWORK PROGRAM SHOULD BE CONDUCTED UNDER THE SUPERVISION OF A SOILS LABORATORY.

THE IN-PLACE DENSITIES ACHIEVED ARE TO BE VERIFIED BY TEST.

FOUNDATION SYSTEM:

THE CONTRACTOR SHALL EXERCISE GREAT CARE DURING EXCAVATION. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL PREDETERMINE UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY IF DEVIATION FROM PLANS EXIST. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFE SUPPORT OF UTILITIES ACROSS EXCAVATIONS.

A SOILS TESTING LABORATORY SHALL BE RETAINED BY THE OWNER TO PROVIDE CONSTRUCTION REVIEW TO INSURE CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS DURING THE EXCAVATIONS, BACKFILL, AND FOUNDATION PHASES OF THE PROJECT.

IT IS THE TESTING LABORATORIES RESPONSIBILITY TO DETERMINE TOPSOIL AND EXCAVATION STRIPPING DEPTH, INSPECT ALL SUBSOIL EXPOSED DURING STRIPPING, SITE GRADING, AND EXCAVATION OPERATIONS; APPROVED FILL MATERIALS, PERFORM DENSITY TESTS OF FILLS TO INSURE PLACEMENT PER SPECIFICATION REQUIREMENTS; INSPECT FOUNDATION BEARING SURFACES.

ALL FOUNDATIONS ARE TO REST ON FIRM UNDISTURBED SOIL OR COMPACTED FILL FREE FROM ORGANIC MATTER. IF POOR SOIL CONDITIONS ARE ENCOUNTERED AT FOUNDATION DEPTHS SHOWN, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH CONSTRUCTION.

FOUNDATION DESIGN IS BASED ON AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF.

GEO-SCI, INC. PERFORMED A SUBSURFACE EXPLORATION DATED NOVEMBER 13, 2014 (GEO-SCI PROJECT NO. 34187.11). EARTHWORK OPERATIONS ARE TO BE PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

STEP FOOTINGS AT A RATIO OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL WITH A MAXIMUM VERTICAL STEP OF 2'-0" UNLESS NOTED OTHERWISE.

INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES, WHICH WILL RESULT IN DETERIORATION OF BEARING FORMATIONS, SHALL BE PREVENTED. FOOTINGS SHALL BE PLACED IMMEDIATELY FOLLOWING FOOTING EXCAVATIONS AND BEARING SURFACE INSPECTION.

CONCRETE WORK:

ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-08, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" AND ACI 302, 305 AND 306 UNLESS NOTED OTHERWISE.

ALL DETAILING, FABRICATION AND PLACING OF CONCRETE SHALL CONFORM TO ACI 318-08, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAIL REINFORCED CONCRETE STRUCTURES" UNLESS NOTED OTHERWISE.

SAFETY AND PERFORMANCE OF THE STRUCTURE ARE THE RESPONSIBILITY OF THE CONTRACTOR INsofar AS THEY ARE AFFECTED BY THE LOCATION AND DETAILS OF CONSTRUCTION JOINTS. SHOP DRAWINGS OF THE PROPOSED CONSTRUCTION JOINT LOCATIONS AND DETAILS ARE TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.

ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS:

ALL CONCRETE - 4000 PSI

ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 6% (± 1%) AIR ENTRAINMENT.

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.

WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A185 AND BE FURNISHED IN FLAT SHEETS AND INSTALLED ON CHAIRS OR PRECAST CONCRETE BLOCKS.

NO TACK WELDING OF REINFORCING IN THE FIELD IS PERMITTED.

PROVIDE CORNER BARS AT ALL LOCATIONS WHERE REINFORCEMENT CHANGES DIRECTION.

PROVIDE STRAIGHT AND DIAGONAL BARS AT EDGES OF ALL OPENINGS.

REINFORCING EMBEDMENT AND LAP SPLICES (INCHES) FOR 4000 PSI CONCRETE

Table showing bar sizes, anchorage, other splice, anchorage, and top splice values for different bar sizes (#3 to #6).

* HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW BAR

MASONRY:

ALL BRICK MASONRY SHALL COMPLY WITH THE RECOMMENDATIONS OF BRICK INSTITUTE OF AMERICA (BIA AND LOCAL BUILDING CODE REQUIREMENTS.)

ALL CONCRETE MASONRY SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530-08/ASCE 5-08/TMS 402-08) AND "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1-08/ASCE 6-08/TMS 602-08) AND LOCAL BUILDING CODE REQUIREMENTS.

CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, TYPE I OR II.

ASTM C270, TYPE "S" MORTAR WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI SHALL BE USED FOR ALL MASONRY WALLS.

GROUT TO FILL CORES SHALL BE ASTM C476, COARSE GROUT (3/8" MAXIMUM AGGREGATE) WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS.

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.

LAY MASONRY UNITS WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. BED WEBS IN MORTAR IN STARTING COURSE OF FOOTINGS AND IN ALL COURSES OF COLUMNS AND PILASTERS, AND WHERE ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT.

MASONRY SHALL BE LAID IN RUNNING BOND, UNLESS NOTED OTHERWISE.

VERTICAL REINFORCING LAP SPLICES SHALL BE 48 BAR DIAMETERS.

PROVIDE LADDER TYPE HORIZONTAL JOINT REINFORCING WITH 9 GAGE SIDE AND CROSS RODS (GALVANIZED) SPACED AT 16" ON CENTER VERTICALLY. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF (2) CROSS BARS OR 6", WHICHEVER IS GREATER.

MAXIMUM GROUT POUR SHALL BE 5 FEET. CONSOLIDATE BY MECHANICAL VIBRATION.

MORTAR PROTRUSIONS, EXTENDING INTO CELLS OR CAVITIES TO BE REINFORCED AND FILLED, SHALL BE REMOVED.

GROUT A MINIMUM OF 16 INCHES x 24 INCHES WIDE UNDER ALL BEAM BEARINGS.

GROUT CORES SOLID A MINIMUM OF ONE COURSE BELOW ANY CHANGE IN WALL THICKNESS.

THE COLLAR-JOINT IN MULTI-WYTHE WALLS BELOW GRADE SHALL BE FULLY GROUTED AS THE WALL IS CONSTRUCTED.

FILL ALL BEARING POCKETS WITH SOLID MASONRY AFTER INSTALLING BEAMS.

COLD-FORMED STEEL STUDS AND JOISTS:

DESIGN OF EXTERIOR WALL METAL STUD FRAMING IS BASED ON VALUES PROVIDED BY DIETRICH INDUSTRIES, INC. SECTION PROPERTIES AND ALLOWABLE RESISTING MOMENT CAPACITY. ALTERNATE MANUFACTURER'S FRAMING SIZE SHALL MEET THE MINIMUM SECTION PROPERTIES AND ALLOWABLE RESISTING MOMENT CAPACITY OF THE MEMBERS INDICATED ON THE DESIGN DRAWINGS.

ALL LIGHT GAGE FRAMING SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."

ALL 6" OR SMALLER METAL STUD FRAMING MEMBERS SHALL MEET THE REQUIREMENTS OF ASTM A653N SS, ASTM A792 SS, OR ASTM A875 SS, WITH A MINIMUM YIELD STRENGTH OF 33 KSI, UNO.

ALL 8" OR LARGER METAL STUD FRAMING MEMBERS SHALL MEET THE REQUIREMENTS OF ASTM A653N SS, ASTM A792 SS, OR ASTM A875 SS, WITH A MINIMUM YIELD STRENGTH OF 50 KSI, UNO.

ALL FRAMING SHALL BE GALVANIZED.

ALL CONNECTIONS SHALL BE SCREWED OR WELDED. POWDER DRIVEN FASTENERS ARE NOT ACCEPTABLE FOR ANY STRUCTURAL APPLICATIONS.

ALL WELDS SHALL BE TOUCHED UP WITH A ZINC-RICH PAINT.

ALL CONSTRUCTION CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR DIETRICH METAL FRAMING UNLESS APPROVED PRIOR TO CONSTRUCTION BY THE ARCHITECT. ALL CONNECTIONS SHALL BE FASTENED PER THE MANUFACTURER'S RECOMMENDATIONS.

ALTERNATE CONNECTION REQUESTS MUST BE SUBMITTED TO ARCHITECT FOR REVIEW ALONG WITH THE MANUFACTURER'S SPEC SHEETS & CALCULATIONS. ANY ADDITIONAL COSTS IN ALTERNATE CONNECTIONS SHALL BE BORNE BY THE CONTRACTOR.

STANDING SEAM ROOF SYSTEM:

ALL METAL DECKING SHALL COMPLY WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS.

DECK AND ACCESSORIES SHALL BE OF THE MATERIAL, GAGE AND FINISH NOTED IN THE SPECIFICATIONS.

THE ROOFING SYSTEM AND IT'S ATTACHMENT TO THE BUILDING STRUCTURE SHALL MEET UNDERWRITERS LABORATORIES U.L. 90 UPLIFT RATING.

INSTALLATION OF THE ROOFING SYSTEM SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

PANEL INSTALLATION SHALL BE COMPATIBLE WITH THE BUILDING FRAME ALLOWING EXPANSION OR CONTRACTION FROM THE INSTALLED POSITION.

METAL ROOF DECKS:

DECK AND ACCESSORIES SHALL BE CLEANED AND GIVEN A PHOSPHATE TREATMENT AND A SHOP PRIME COAT OF RUST INHIBITIVE PAINT.

DECK AND ACCESSORIES THAT ARE TO RECEIVE SPRAY FIREPROOFING SHALL BE GALVANIZED.

CONNECTIONS TO STEEL SUPPORTS SHALL BE PER THE CONTRACT DRAWINGS.

NO LIGHT GAGE FRAMING, MECHANICAL, ELECTRICAL OR OTHER EQUIPMENT SHALL BE SUSPENDED FROM ANY METAL ROOF DECK.

OPENINGS SMALLER THAN 12" SQUARE ARE TO BE CUT BY INDIVIDUAL TRADE AND FLASHED BY ROOFING/SIDING CONTRACTOR. ALL LARGER OPENINGS TO BE CUT AND FLASHED BY ROOFING/SIDING CONTRACTOR WITH OPEN EDGES SUPPORTED BY STRUCTURAL STEEL.

STRUCTURAL STEEL:

WT SHAPES: ASTM A992 (Fy = 50 KSI)
ANCHOR RODS: ASTM A36 (HOT-DIPPED GALVANIZED)

DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE LATEST AISC SPECIFICATIONS.

GENERAL CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS, OPENING DIMENSIONS AND WEIGHTS PRIOR TO STRUCTURAL STEEL FABRICATION, NOTIFY ENGINEER IF DIFFERENT FROM THAT SHOWN ON DRAWINGS.

ALL WELDING SHALL BE DONE USING E-70XX ELECTRODES IN ACCORDANCE WITH THE LATEST AWS SPECIFICATIONS.

FIELD VERIFY ALL CONDITIONS AT AND CONNECTIONS TO THE EXISTING CONSTRUCTION BEFORE FABRICATION.

PRIME ALL STEEL WITH FABRICATORS STANDARD PRIMER.

WOOD:

DETAIL, FABRICATE AND ERECT STRUCTURAL WOOD IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS-05), THE PROJECT SPECIFICATIONS AND THESE DRAWINGS.

FRAMING LUMBER 2X6 AND LARGER SHALL BE SPRUCE PINE FIR NO. 2 USED AT A MAXIMUM MOISTURE CONTENT OF 19% WITH THE FOLLOWING MINIMUM ALLOWABLE STRESSES:

Fb = 600 PSI
Fv = 125 PSI
Fc = 425 PSI
E = 1,000,000 PSI

ALL WOOD IN CONTACT WITH CONCRETE OR STEEL SHALL BE PRESERVATIVE TREATED.

NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED UNLESS SPECIFICALLY SHOWN, NOTED, OR APPROVED BY THE ENGINEER.

ALL WOOD CONSTRUCTION CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY AND SHALL BE FASTENED PER THE MANUFACTURER'S RECOMMENDATIONS.

SPECIAL INSPECTIONS:

SPECIAL INSPECTION IS TO BE PROVIDED IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE DEPARTMENT OF BUILDING SAFETY AND SHALL NOT BE CONSTRUED TO RELIEVE THE OWNER OR HIS AUTHORIZED AGENT FROM REQUESTING THE PERIODIC AND CALLED INSPECTIONS REQUIRED BY THE BUILDING CODE. SPECIAL INSPECTION SHALL BE PAID BY THE OWNER.

REQUIRED SPECIAL INSPECTIONS:

IN ADDITION TO THE REGULAR INSPECTIONS, THE FOLLOWING ITEMS WILL ALSO REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH THE BUILDING CODE.

- 1. SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION (COMPACTING FILL, SPECIAL GRADING)
2. STRUCTURAL CONCRETE OVER 2,500 PSI
3. STRUCTURAL STEEL FABRICATION
4. FIELD WELDING
5. HIGH STRENGTH BOLTS

SPECIAL INSPECTOR SHALL MEET THE QUALIFICATIONS AS STATED IN THE BUILDING CODE AND SHALL PERFORM THE DUTIES AND RESPONSIBILITIES AS OUTLINED IN THE BUILDING CODE.

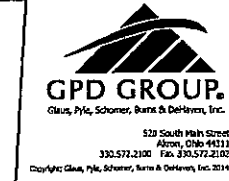


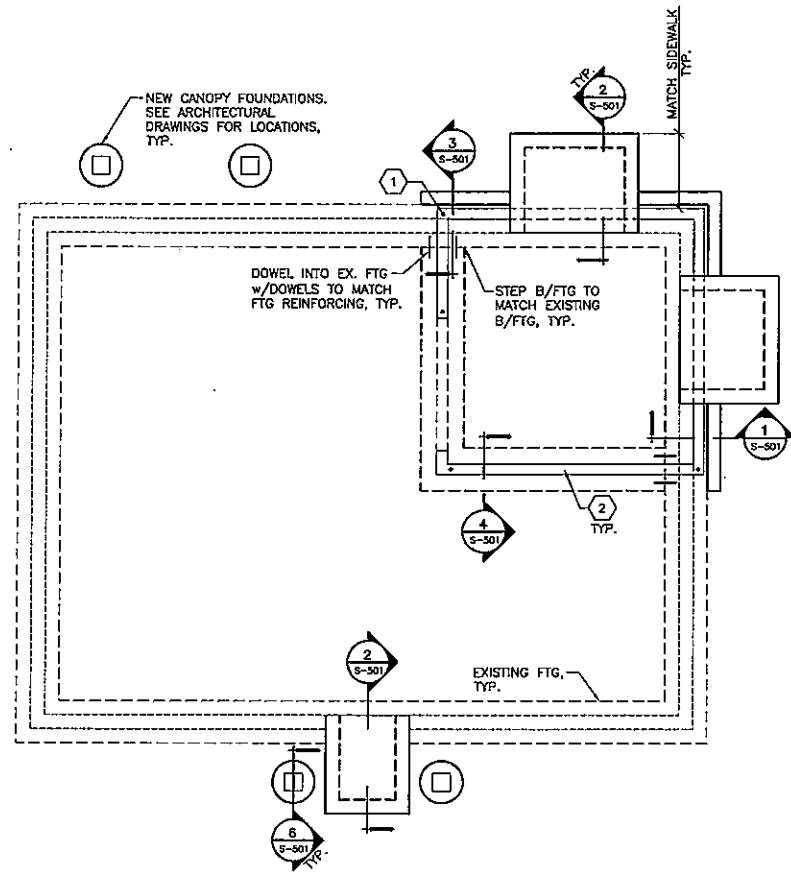
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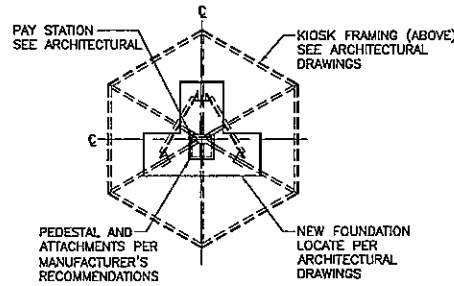
Water Tax and Building Renovations information, including address and general notes.

Table with columns for ISSUED FOR, PERMIT, BID, CONSTRUCTION, RECORD, PROJECT MANAGER, and DESIGNER.

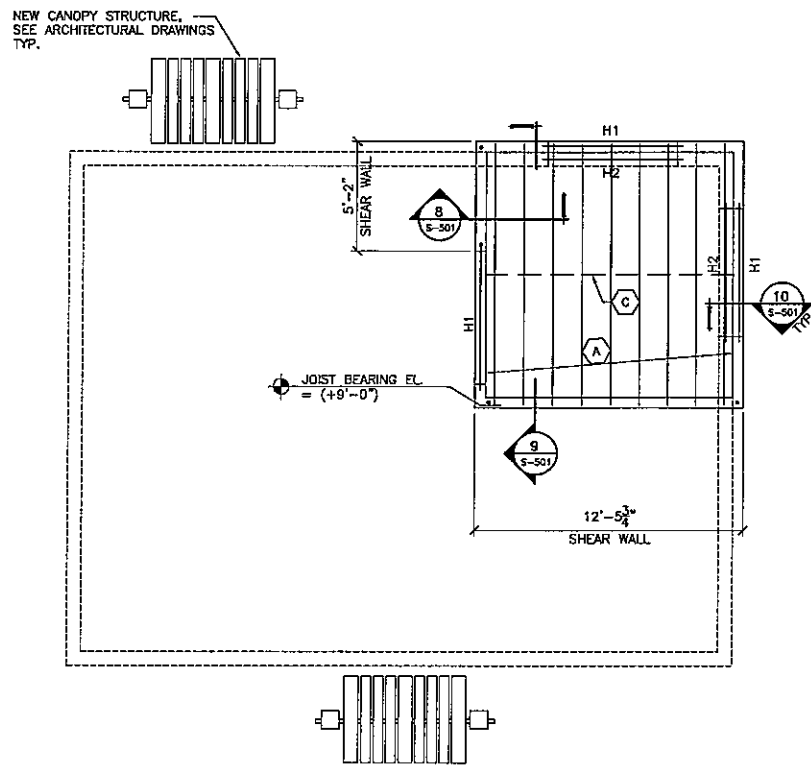
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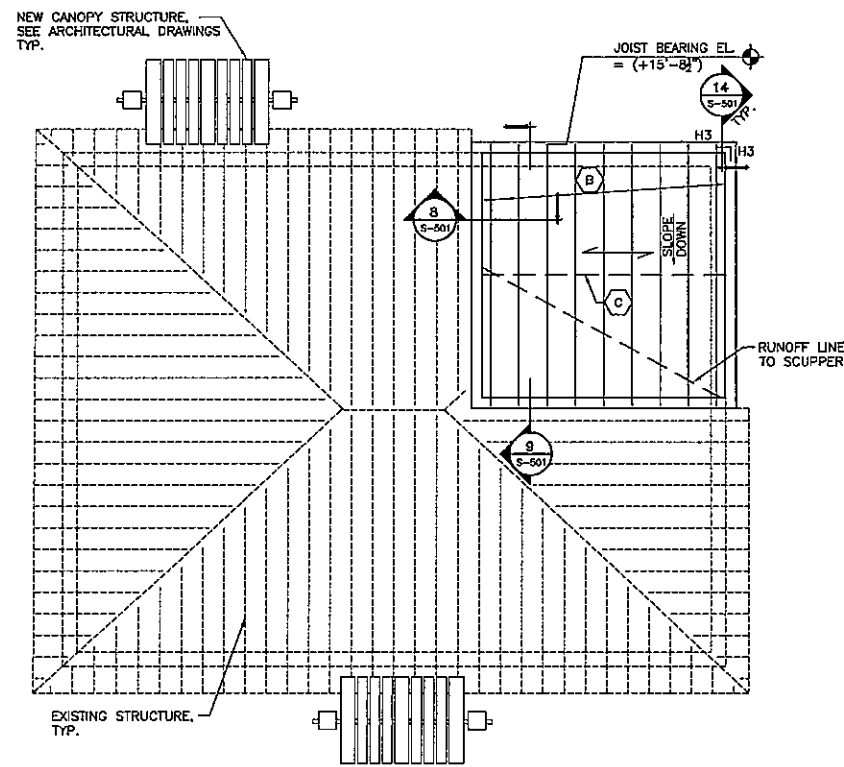
A FOUNDATION PLAN
1/4"=1'-0"



B KIOSK FOUNDATION PLAN
1/4"=1'-0"



C INTERMEDIATE FRAMING PLAN
1/4"=1'-0"



D ROOF FRAMING PLAN
1/4"=1'-0"

GENERAL SHEET NOTES (FRAMING)

- TOP OF SLAB ELEV. = 578.9' (0'-0"). ALL OTHER ELEVATIONS ARE REFERENCED FROM THIS ELEVATION.
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- ALL WALL FRAMING SHALL BE 600S300-68 STUDS @ 1'-4" O.C., w/600T200-68 TRACK T&B. CONNECT TRACK w/#10 SCREWS INTO EACH SIDE OF TRACK AT EACH STUD (T&B).
- ALL BLOCKING SHALL BE 18 GA MIN. SEE S-501 FOR DETAILS.
- ALL WALL SHEATHING SHALL BE 32/16 APA RATED 5/8" SHEATHING, EXPOSURE 1. FASTEN w/#10 SCREWS @ 6" O.C. @ SUPPORTED PLYWOOD EDGES AND 12" O.C. @ INTERMEDIATE SUPPORT, UNO.
- ALL ROOF DECK SHALL BE 1 1/2"x22GA WIDE RIB ROOF DECK (TYPE B). ATTACH ROOF DECK w/#10 SELF TAPPING SCREWS @ 36/5 SUPPORT FASTENER LAYOUT AND DECK PANELS SHALL BE FASTENED TOGETHER @ SIDE LAP JOINTS w/#10 SELF TAPPING SCREWS @ 18" O.C.
- H1 HEADER SHALL BE (2)-600S200-54 STUDS w/600T200-54 TRACK T&B w/H546 HEADER HANGERS w/(20)-#10 SCREWS EA. SIDE EA. END. ALL HEADERS SHALL BE SUPPORTED BY (2) TRIMMER STUDS ADJACENT TO (2) FULL HEIGHT STUDS, UNLESS NOTED OTHERWISE.
- H2 DENOTES WTSx16.5 STEEL LINTEL. SEE 10/S-501 FOR DETAILS.
- H3 HEADER SHALL BE (2)-600S200-33 STUDS w/600T200-33 TRACK T&B. CONNECT HEADERS AT CORNER w/LSS43 SUPPORT CLIPS w/(4)-#10 SCREWS PER LEG AND TO (2) FULL HEIGHT WALL STUDS AT ENDS w/LSS43 SUPPORT CLIPS w/(4)-#10 SCREWS PER LEG T&B. HEADER SHALL BE SUPPORTED BY 250S200-68 STUDS @ 1'-4" O.C. w/250T200-68 TRACK T&B. CONNECT TRACK w/#10 SCREWS INTO EACH SIDE OF TRACK AT EACH STUD (T&B). SEE SECTION 14/S-501 FOR MORE INFORMATION.

SHEET KEYNOTES (FRAMING)

- 800S200-43 JOISTS @ 1'-4" O.C.
- 800S200-54 JOISTS @ 1'-4" O.C.
- JOIST BRIDGING SHALL BE T20 TENSION BRACING AT JOIST MIDSPAN (BOTH AT THE INTERMEDIATE AND ROOF FRAMING LEVELS).

GENERAL SHEET NOTES (FOUNDATION)

- TOP OF SLAB ELEV. = 578.9' (0'-0"). ALL OTHER ELEVATIONS ARE REFERENCED FROM THIS ELEVATION.
- THE TOP OF FOOTING ELEVATION IS (-1'-4") UNO.
- SEE ARCH. DRAWINGS FOR DIMENSIONS NOT SHOWN.
- SEE S-501 FOR TYPICAL FOUNDATION AND SLAB DETAILS.
- EXISTING WALL CONSTRUCTION ASSUMED TO BE 4" CMU AND 4" VENEER. EXISTING FOOTINGS ASSUMED TO BE 1'-4" WIDE AT BEARING AND T/FOOTING AT (-1'-4"). FIELD VERIFY. MAJOR DISCREPANCIES FROM THESE ASSUMPTIONS SHALL BE REPORTED TO THE STRUCTURAL ENGINEER.
- PROVIDE TEMPORARY SHORING/BRACING OF ADEQUATE STRENGTH TO SUPPORT THE EXISTING ROOF STRUCTURE AND THE EXISTING WALLS IN THE NEW AREA OF WORK. SHORING SHALL REMAIN IN PLACE UNTIL THE NEW BEAM AND COLUMNS HAVE BEEN INSTALLED, AND GROUT HAS CURED FOR (3) DAYS ABOVE MASONRY LINTEL. THE DESIGN OF THE SHORING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- SEE 13/S-501 FOR TYPICAL LIGHT POLE FOUNDATION DETAILS. SEE ELECTRICAL DRAWINGS FOR LOCATIONS AND ADDITIONAL INFORMATION.

SHEET KEYNOTES (FOUNDATION)

- SIMPSON S/HDU4 HOLD-DOWN (TYP. OF 4 LOCATIONS). SEE DETAILS 3&7/S-501 FOR ADDITIONAL INFO.
- ALL STUD WALL TRACKS SHALL BE ANCHORED TO THE FOUNDATION w/ 3/8" SIMPSON TITEN HD MINI CONCRETE SCREW ANCHORS (1 1/2" EMBED.) @ 1'-4" O.C.



REV.	DATE	DESCRIPTION



12/18/14

WATER TAXI
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD, CLEVELAND, OH

PARTIAL FOUNDATION AND FRAMING PLANS

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	
RECORD	

PROJECT MANAGER	DESIGNER
BMM	JCG

JOB NO.
2014381.00



REV.	DATE	DESCRIPTION

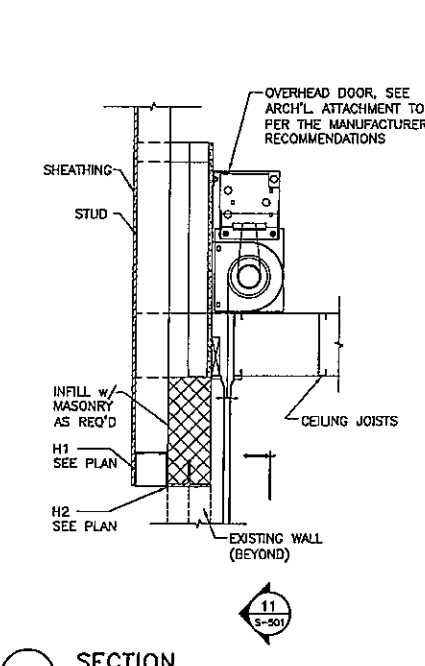
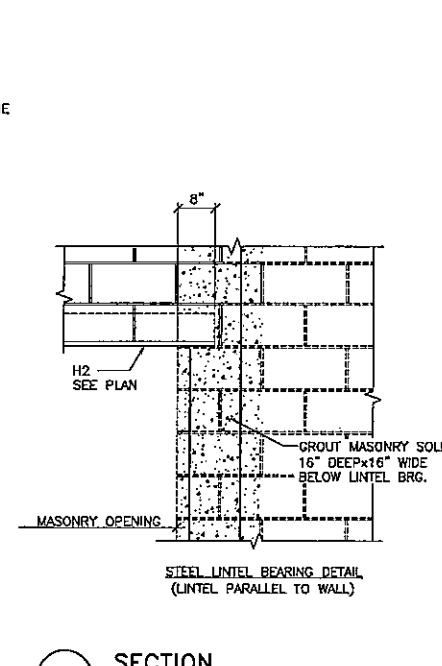
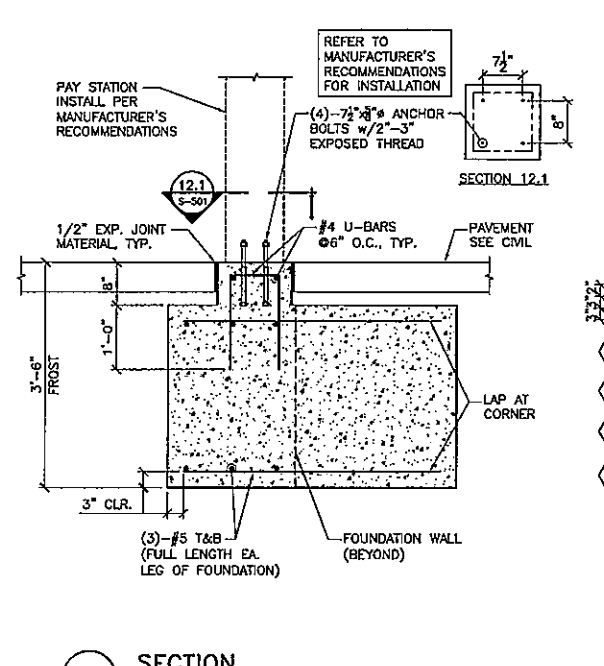
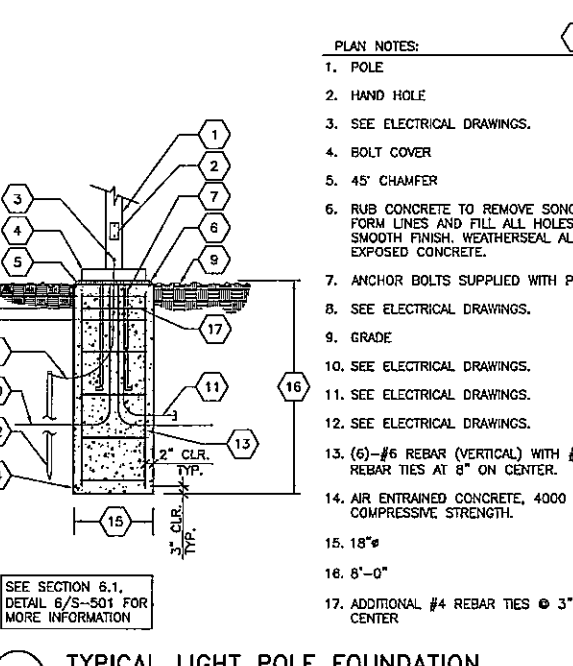
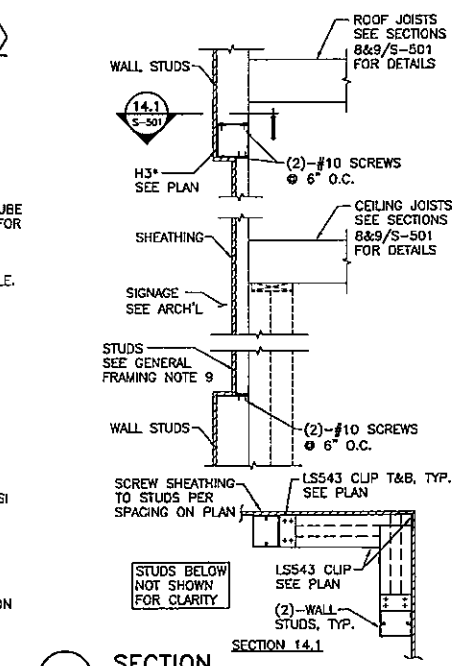
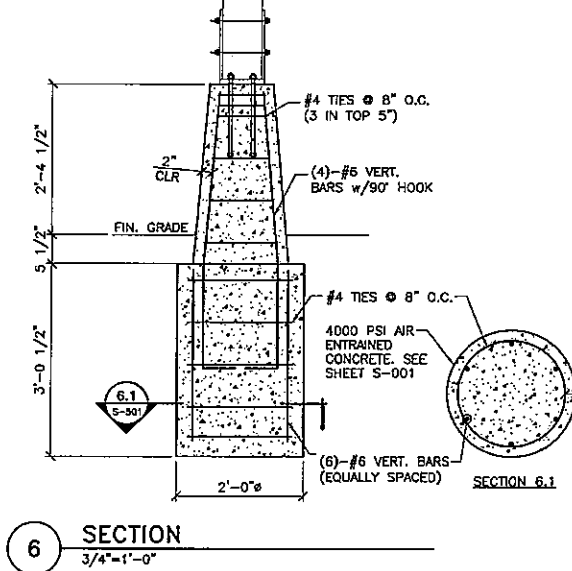
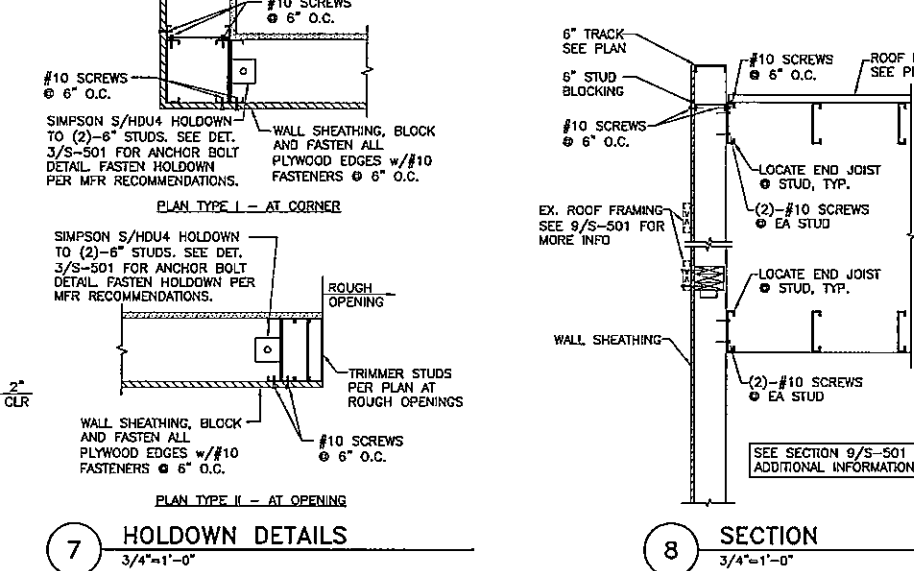
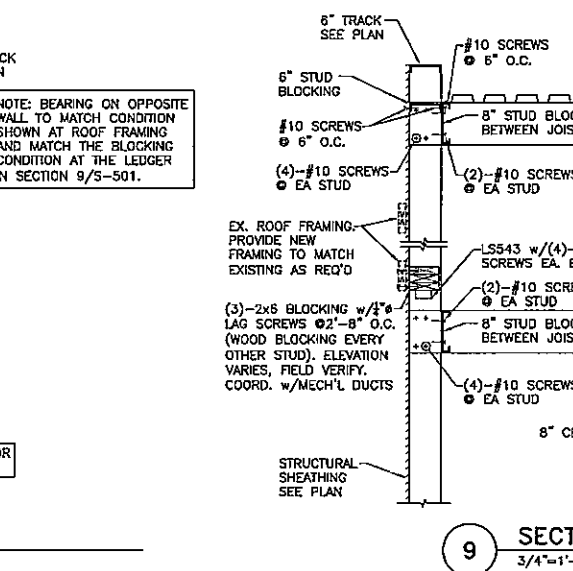
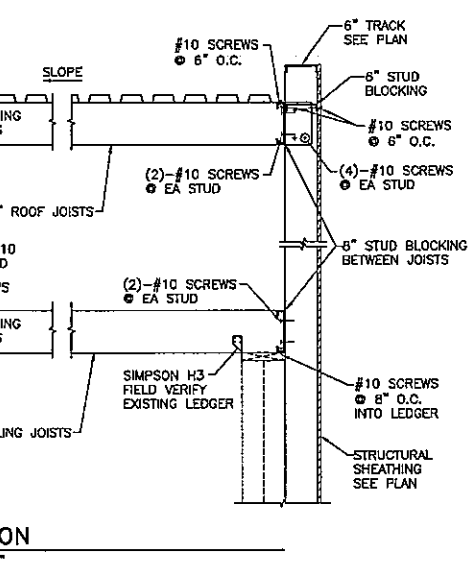
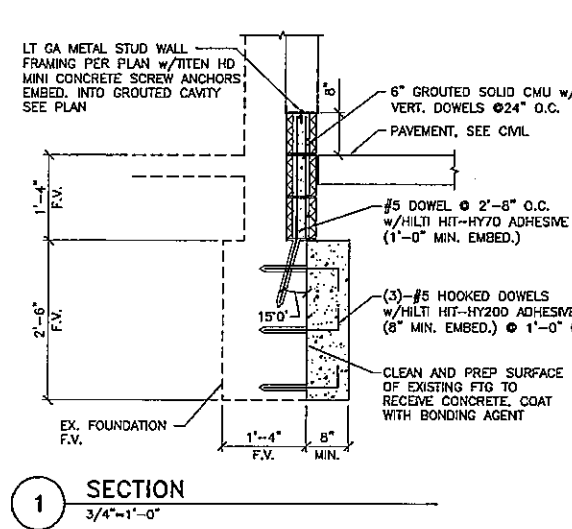
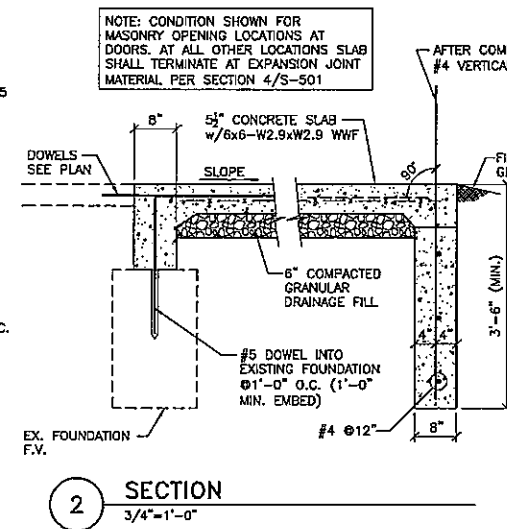
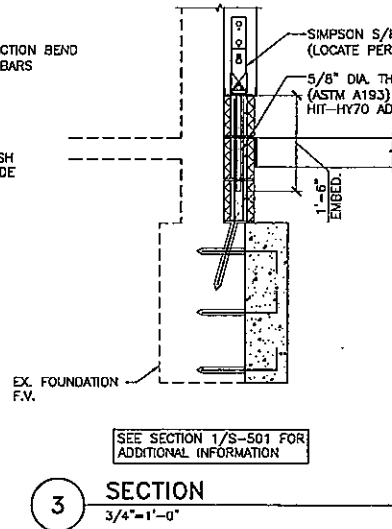
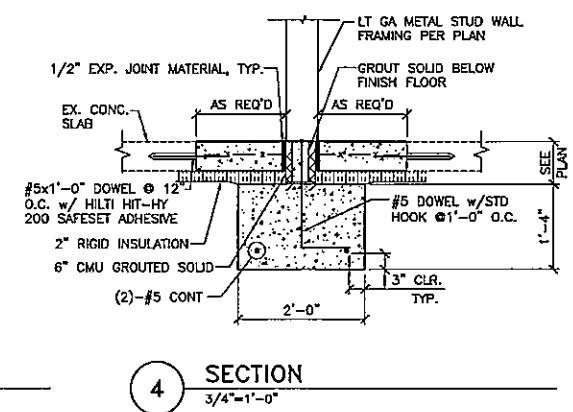
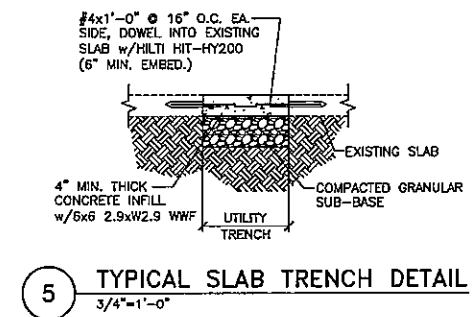
12/18/14

WATER TAXI
 EAST BANK BUILDING RENOVATIONS
 1170 OLD RIVER RD, CLEVELAND, OH

FOUNDATION & FRAMING DETAILS

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DESIGNER
BMM	JCG

JOB NO.
2014381.00



- PLAN NOTES:**
- POLE
 - HAND HOLE
 - SEE ELECTRICAL DRAWINGS.
 - BOLT COVER
 - 45° CHAMFER
 - RUB CONCRETE TO REMOVE SONOTUBE FORM LINES AND FILL ALL HOLES FOR SMOOTH FINISH. WEATHERSEAL ALL EXPOSED CONCRETE.
 - ANCHOR BOLTS SUPPLIED WITH POLE.
 - SEE ELECTRICAL DRAWINGS.
 - GRADE
 - SEE ELECTRICAL DRAWINGS.
 - SEE ELECTRICAL DRAWINGS.
 - SEE ELECTRICAL DRAWINGS.
 - (6)-#6 REBAR (VERTICAL) WITH #4 REBAR TIES AT 8" ON CENTER.
 - AIR ENTRAINED CONCRETE, 4000 PSI COMPRESSIVE STRENGTH.
 - 18"
 - 8'-0"
 - ADDITIONAL #4 REBAR TIES @ 3" ON CENTER



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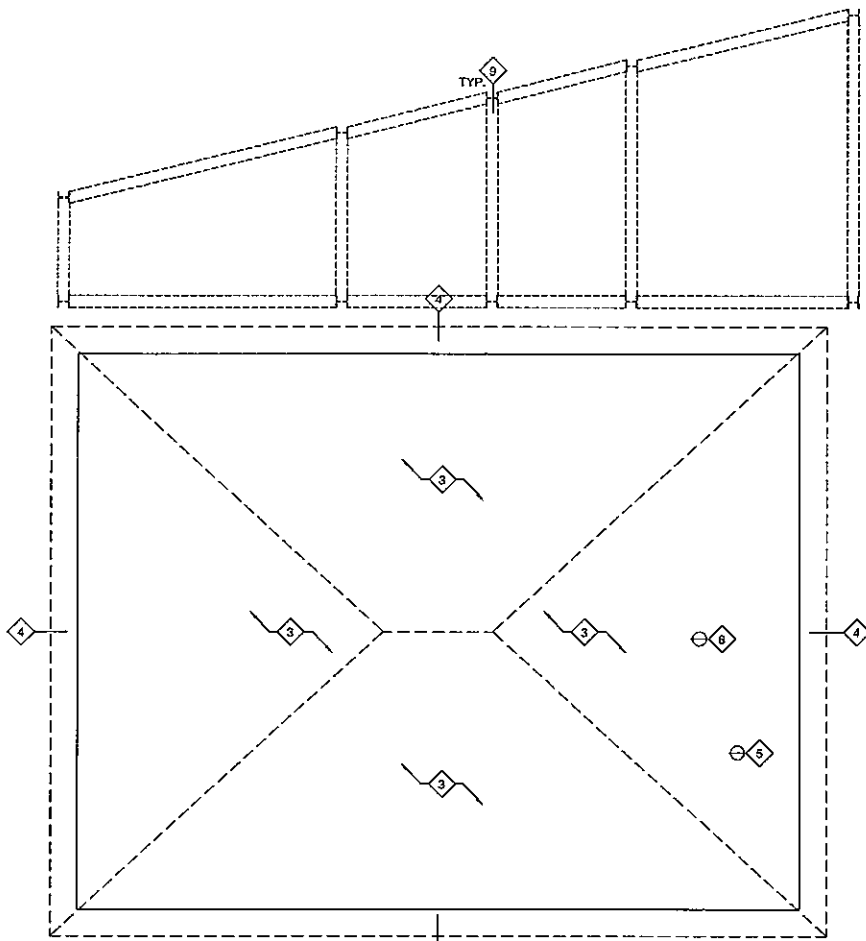
**EAST BANK
 BUILDING RENOVATIONS
 WATER TAXI**
 OHIO & ERIE CANAL RESERVATION
 1170 OLD RIVER ROAD, CLEVELAND, OH 44113

NO.	DESCRIPTION	DATE	BY	RJD
	ISSUE FOR BID AND PERMIT	12/23/2014		

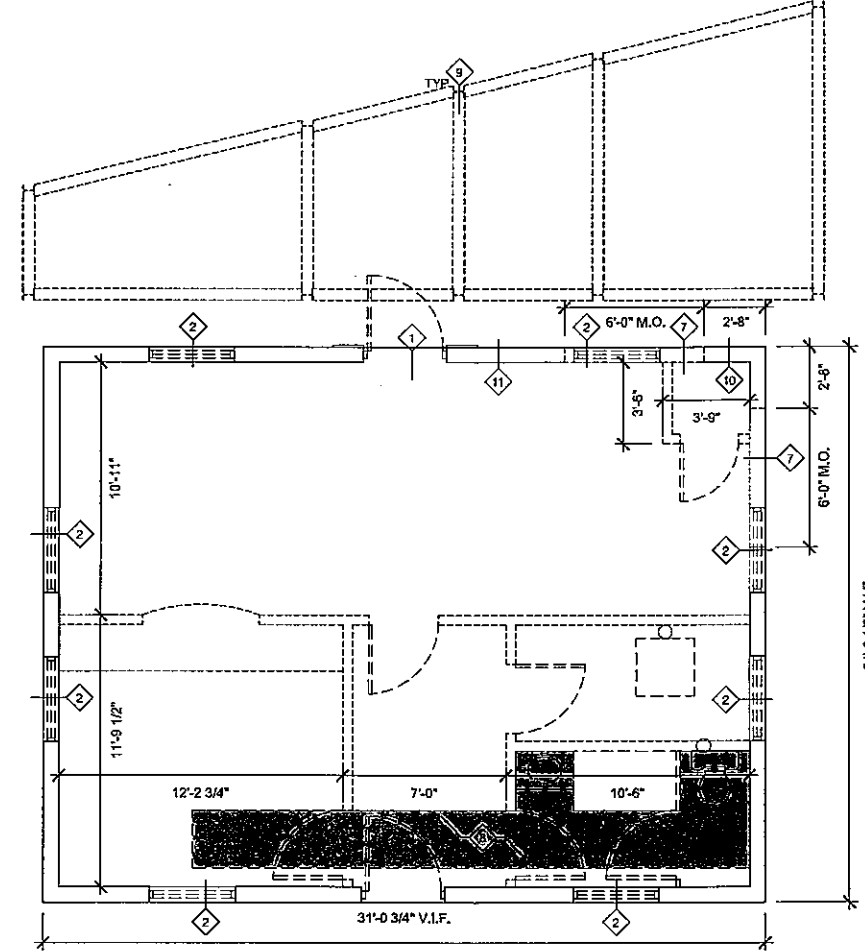
DATE: DECEMBER 23, 2014
 SHEET NO.

D-101

DEMOLITION SCHEDULE	
	EXISTING CONSTRUCTION TO REMAIN
	EXISTING CONSTRUCTION TO BE REMOVED



2 DEMOLITION ROOF PLAN
 D-101 SCALE: 1/4" = 1'-0"



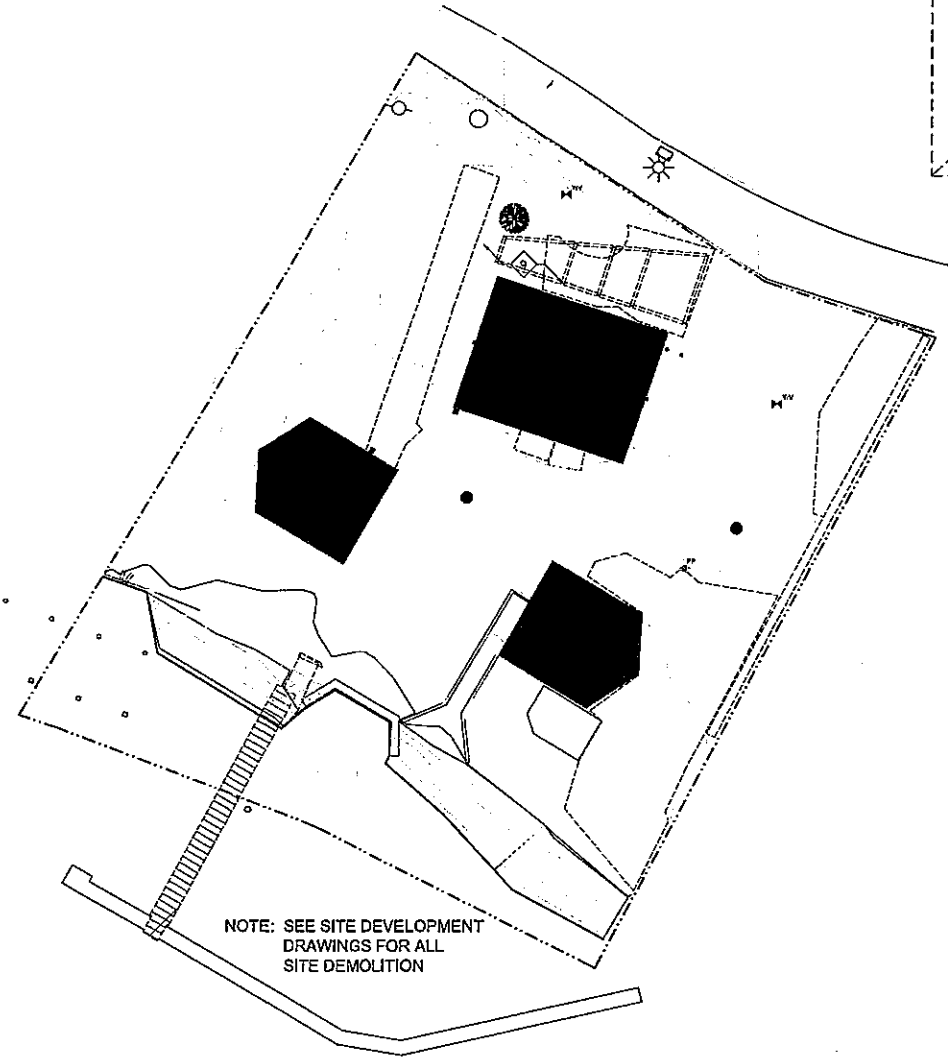
1 DEMOLITION FLOOR PLAN
 D-101 SCALE: 1/4" = 1'-0"

GENERAL DEMOLITION NOTES:

- 1) DE-ENERGIZE, DISCONNECT AND REMOVE ANY EXISTING ELECTRICAL COMPONENTS WITHIN WALLS TO BE DEMOLISHED. REMOVE ITEMS BACK TO PORTION OF WALL THAT IS SCHEDULED TO REMAIN AND TERMINATE MEETING THE REQUIREMENTS OF THE NEC AND AUTHORITIES HAVING JURISDICTION, TYP.
- 2) DE-ENERGIZE, DISCONNECT AND REMOVE ALL EXISTING INTERIOR AND EXTERIOR LIGHT FIXTURES. TEMPORARILY CAP ELECTRICAL SCHEDULED TO BE REUSED IN RENOVATION. ELECTRICAL NOT SCHEDULED TO BE REUSED SHOULD BE REMOVED BACK TO SOURCE OR EXISTING WALL SCHEDULED TO REMAIN AND CAP MEETING REQUIREMENTS OF THE NEC AND AUTHORITIES HAVING JURISDICTION.
- 3) REMOVE EXISTING PLUMBING IN WALLS SCHEDULED TO BE DEMOLISHED. REMOVE PIPING BACK TO SOURCE OR EXISTING WALL SCHEDULED TO REMAIN AND CAP MEETING REQUIREMENTS OF THE IPC AND AUTHORITIES HAVING JURISDICTION.
- 4) REMOVE ALL EXISTING ROOFING SYSTEMS AND RELATED FLASHING.
- 5) REMOVE AND DISCARD EXISTING PARTITION WALLS DESIGNATED FOR REMOVAL, NOT TO DISTURB STRUCTURAL INTEGRITY, SEE WALL SCHEDULE FOR WALL DEMOLITION DESIGNATION.
- 6) REMOVE EXISTING TEMPORARY CONSTRUCTION DOOR(S), FRAMES AND RELATED HARDWARE DESIGNATED FOR REMOVAL.
- 7) APPROVED FIRE EXTINGUISHERS SHALL BE PROVIDED BY THE GC AND BE PRESENT AND REMAIN ON SITE DURING DEMOLITION AND CONSTRUCTION.
- 8) G.C. IS TO FIELD VERIFY ALL UNDERGROUND UTILITIES LOCATIONS PRIOR TO PERFORMING ANY WORK CUTTING, DIGGING, ETC. TO COMPLETE UNDERGROUND WORK.
- 9) PROVIDE AND MAINTAIN TEMPORARY ENCLOSURES/SHEATHING ON ALL OPENINGS AS REQUIRED TO MAINTAIN A SECURE BUILDING AND SITE THROUGHOUT CONSTRUCTION.
- 10) SEE SITE DEVELOPMENT DRAWINGS FOR SITE DEMOLITION.
- 11) SEE STRUCTURAL DRAWINGS FOR STRUCTURAL DEMOLITION.
- 12) SEE ELECTRICAL DRAWINGS FOR ELECTRICAL DEMOLITION.
- 13) SEE MECHANICAL DRAWINGS FOR HVAC DEMOLITION.
- 14) SEE PLUMBING DRAWINGS FOR PLUMBING DEMOLITION.

DEMOLITION SCHEDULE

DEMO TAG	DEMOLITION NOTE
1	REMOVE TEMPORARY CONSTRUCTION DOOR, FRAME AND ALL RELATED HARDWARE AT AN APPROPRIATE TIME DURING CONSTRUCTION TO MAINTAIN A SECURE BUILDING
2	REMOVE EXISTING WINDOW AND ALL RELATED HARDWARE AND FLASHING, PATCH EXISTING MASONRY OPENING AS REQUIRED
3	REMOVE ENTIRE EXISTING ASPHALT ROOFING SYSTEM, INCLUDING ALL FASTENERS, DRIP EDGES, ETC., EXISTING ROOF SHEATHING TO REMAIN.
4	REMOVE ALL EXISTING EXTERIOR TRIM, GUTTERS/DOWN SPOUT MOUNTING HARDWARE.
5	EXISTING PLUMBING STACK VENT, SEE MECHANICAL DRAWINGS
6	EXISTING HVAC VENT, SEE MECHANICAL DRAWINGS
7	SAWCUT AND REMOVE EXISTING MASONRY (BRICK/CMU) WALL FROM -0'-8" TO +7'-8" ABOVE FINISHED FLOOR. PROVIDE TEMPORARY SHORING AS REQUIRED AT THE NEW OPENING UNTIL THE NEW STRUCTURAL LINTEL IS INSTALLED.
8	SHADED AREA DENOTES APPROXIMATE AREA OF EXISTING CONCRETE FLOOR SLAB TO BE SAWCUT, REMOVED AND REPLACED TO MATCH EXISTING FOR NEW UNDERGROUND PLUMBING WORK. FIELD VERIFY AND COORDINATE LOCATIONS WITH PLUMBING DRAWINGS. SEE STRUCTURAL DRAWINGS FOR SLAB PATCHING DETAILS.
9	EXISTING STEEL, FENCE POSTS, AND RELATED FOUNDATIONS CUT OFF AT GRADE/PAVING SHALL BE REMOVED IN THEIR ENTIRETY, VERIFY LOCATIONS AND QUANTITIES IN FIELD
10	REMOVE EXISTING LINTEL AND CMU INFILL (AREA APPROXIMATELY 24"x24") AND INFILL WITH NEW 4" CMU TO MATCH EXISTING, TOOTH NEW CMU INTO EXISTING AS REQUIRED
11	REMOVE, REPLACE AND/OR REPAIR EXISTING DAMAGED AND LOOSE CMU BETWEEN EXISTING DOOR AND WINDOW OPENING (AREA APPROXIMATELY 48"x72", V.I.F.) AND INFILL WITH NEW 4" CMU TO MATCH EXISTING, TOOTH NEW CMU INTO EXISTING AS REQUIRED.
	NOTE: PORTIONS OF INTERIOR AND EXTERIOR DEMOLITION OF THE EXISTING BUILDING WILL BE COMPLETED BY OTHERS, AND ARE SHOWN FOR REFERENCE PURPOSES ONLY. THESE ITEMS INCLUDE THE REMOVAL OF DOORS, INTERIOR WALLS, INTERIOR FINISHES, FIXTURES AND EQUIPMENT, HVAC EQUIPMENT, PLUMBING FIXTURES, EXTERIOR FASCIAS AND SOFFITS, SITE FENCING AND MISCELLANEOUS STEEL STRUCTURES.



A EXISTING ARCHITECTURAL SITE PLAN
 D-101 SCALE: 1/16" = 1'-0"

NOTE: SEE SITE DEVELOPMENT DRAWINGS FOR ALL SITE DEMOLITION

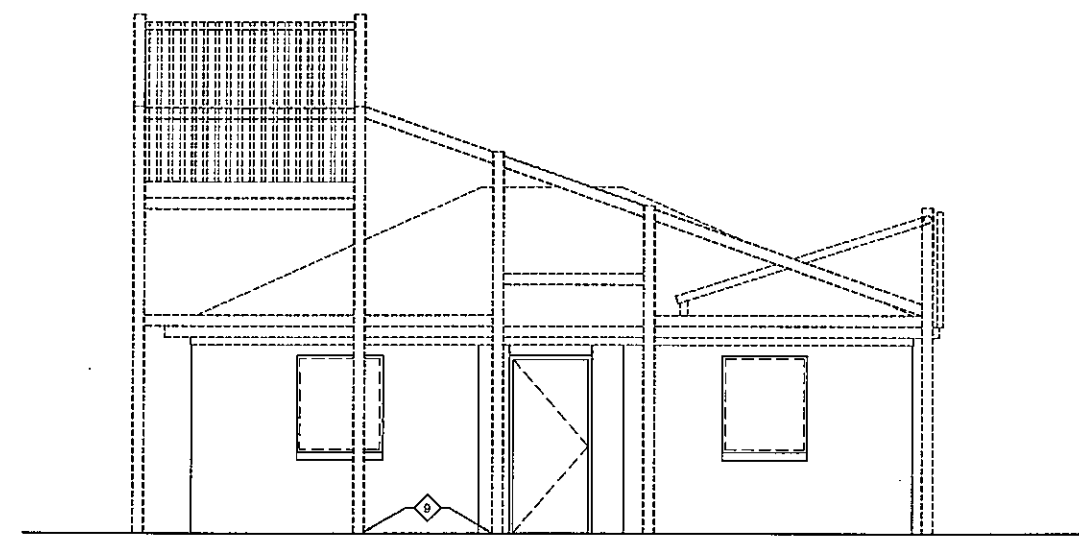
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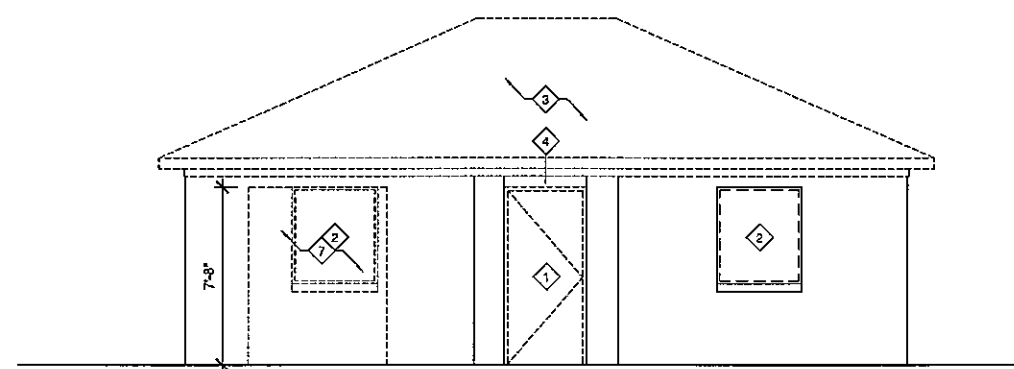


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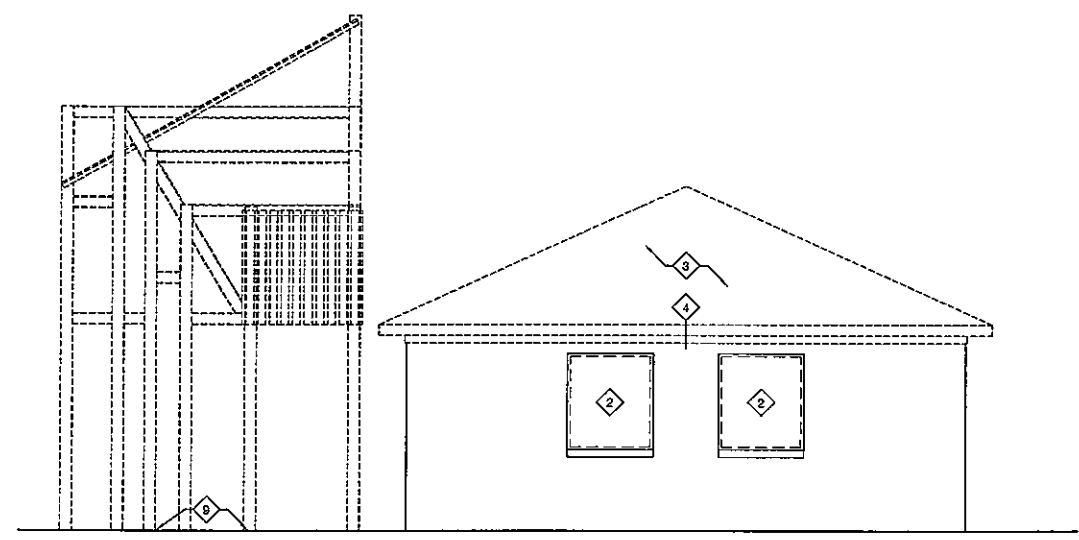
**EAST BANK
 BUILDING RENOVATIONS
 WATER TAXI**
 OHIO & ERIE CANAL RESERVATION
 1170 OLD RIVER ROAD, CLEVELAND, OH 44113



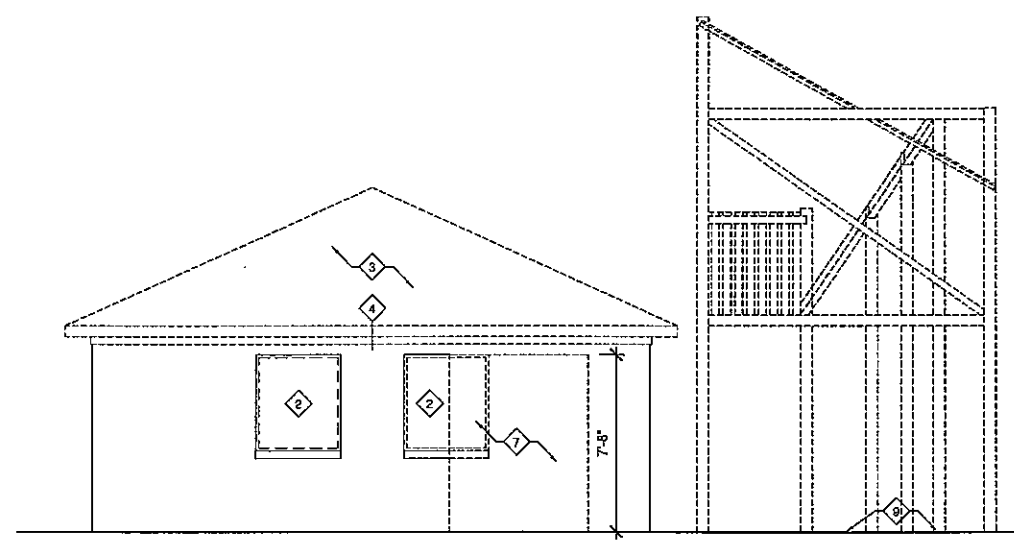
A EXISTING NORTH ELEVATION
 A-201 SCALE: 1/4"=1'-0"



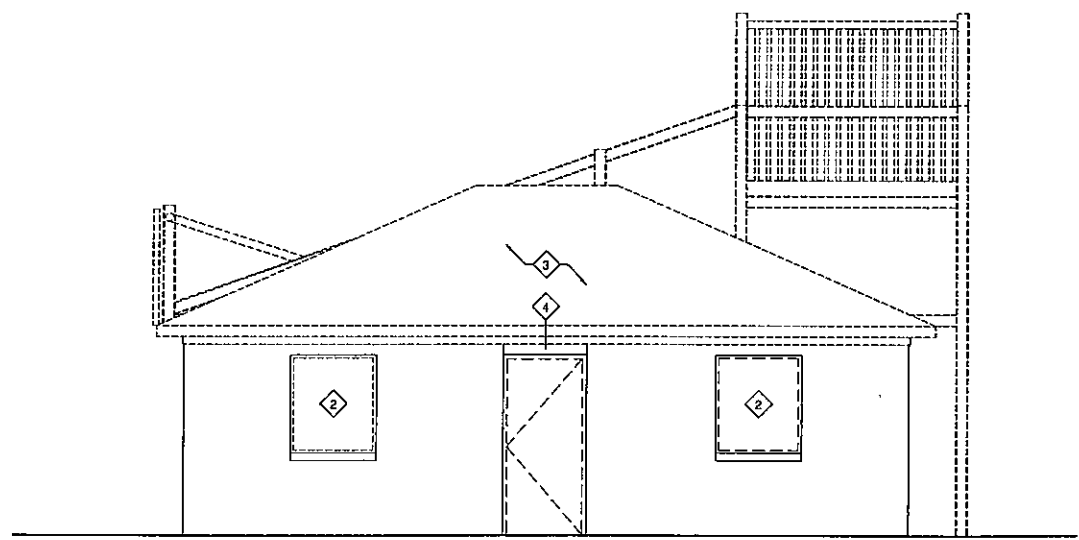
B EXISTING NORTH ELEVATION
 A-201 SCALE: 1/4"=1'-0"



C EXISTING WEST ELEVATION
 A-201 SCALE: 1/4"=1'-0"



D EXISTING EAST ELEVATION
 A-201 SCALE: 1/4"=1'-0"



E EXISTING SOUTH ELEVATION
 A-201 SCALE: 1/4"=1'-0"

DEMOLITION SCHEDULE

DEMO TAG	DEMOLITION NOTE
1	REMOVE TEMPORARY CONSTRUCTION DOOR DOOR, FRAME AND ALL RELATED HARDWARE AT AN APPROPRIATE TIME DURING CONSTRUCTION TO MAINTAIN A SECURE BUILDING
2	REMOVE EXISTING WINDOW AND ALL RELATED HARDWARE AND FLASHING, PATCH EXISTING MASONRY OPENING AS REQUIRED
3	REMOVE ENTIRE EXISTING ASPHALT ROOFING SYSTEM, INCLUDING ALL FASTENERS, DRIP EDGES, ETC., EXISTING ROOF SHEATHING TO REMAIN.
4	REMOVE ALL EXISTING EXTERIOR TRIM, GUTTERS/DOWN SPOUT MOUNTING HARDWARE.
5	EXISTING PLUMBING STACK VENT, SEE MECHANICAL DRAWINGS
6	EXISTING HVAC VENT, SEE MECHANICAL DRAWINGS
7	SAWCUT AND REMOVE EXISTING MASONRY (BRICK/CMU) WALL FROM -0'-8" TO +7'-8" ABOVE FINISHED FLOOR. PROVIDE TEMPORARY SHORING AS REQUIRED AT THE NEW OPENING UNTIL THE NEW STRUCTURAL LINTEL IS INSTALLED.
8	SHADED AREA DENOTES APPROXIMATE AREA OF EXISTING CONCRETE FLOOR SLAB TO BE SAWCUT, REMOVED AND REPLACED TO MATCH EXISTING FOR NEW UNDERGROUND PLUMBING WORK. FIELD VERIFY AND COORDINATE LOCATIONS WITH PLUMBING DRAWINGS. SEE STRUCTURAL DRAWINGS FOR SLAB PATCHING DETAILS.
9	EXISTING STEEL, FENCE POSTS, AND RELATED FOUNDATIONS CUT OFF AT GRADE/PAVING SHALL BE REMOVED IN THEIR ENTIRETY, VERIFY LOCATIONS AND QUANTITIES IN FIELD
10	REMOVE EXISTING LINTEL AND CMU INFILL (AREA APPROXIMATELY 24"x24") AND INFILL WITH NEW 4" CMU TO MATCH EXISTING, TOOTH NEW CMU INTO EXISTING AS REQUIRED
11	REMOVE, REPLACE AND/OR REPAIR EXISTING DAMAGED AND LOOSE CMU BETWEEN EXISTING DOOR AND WINDOW OPENING (AREA APPROXIMATELY 48"x72", V.I.F.) AND INFILL WITH NEW 4" CMU TO MATCH EXISTING, TOOTH NEW CMU INTO EXISTING AS REQUIRED.
NOTE: PORTIONS OF INTERIOR AND EXTERIOR DEMOLITION OF THE EXISTING BUILDING WILL BE COMPLETED BY OTHERS, AND ARE SHOWN FOR REFERENCE PURPOSES ONLY. THESE ITEMS INCLUDE THE REMOVAL OF DOORS, INTERIOR WALLS, INTERIOR FINISHES, FIXTURES AND EQUIPMENT, HVAC EQUIPMENT, PLUMBING FIXTURES, EXTERIOR FASCIAS AND SOFFITS, SITE FENCING AND MISCELLANEOUS STEEL STRUCTURES.	

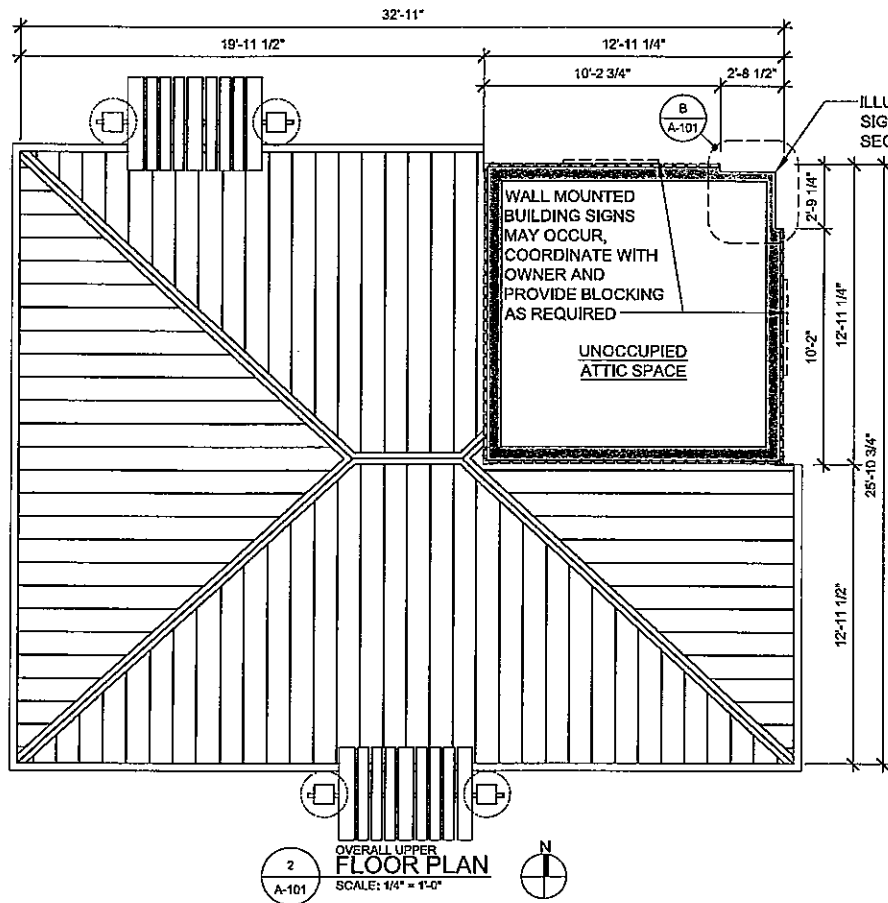
NO.	REVISIONS	DATE	BY	RJD
	ISSUE FOR BID AND PERMIT	12/23/2014		

DATE: DECEMBER 23, 2014
 SHEET NO.

D-201

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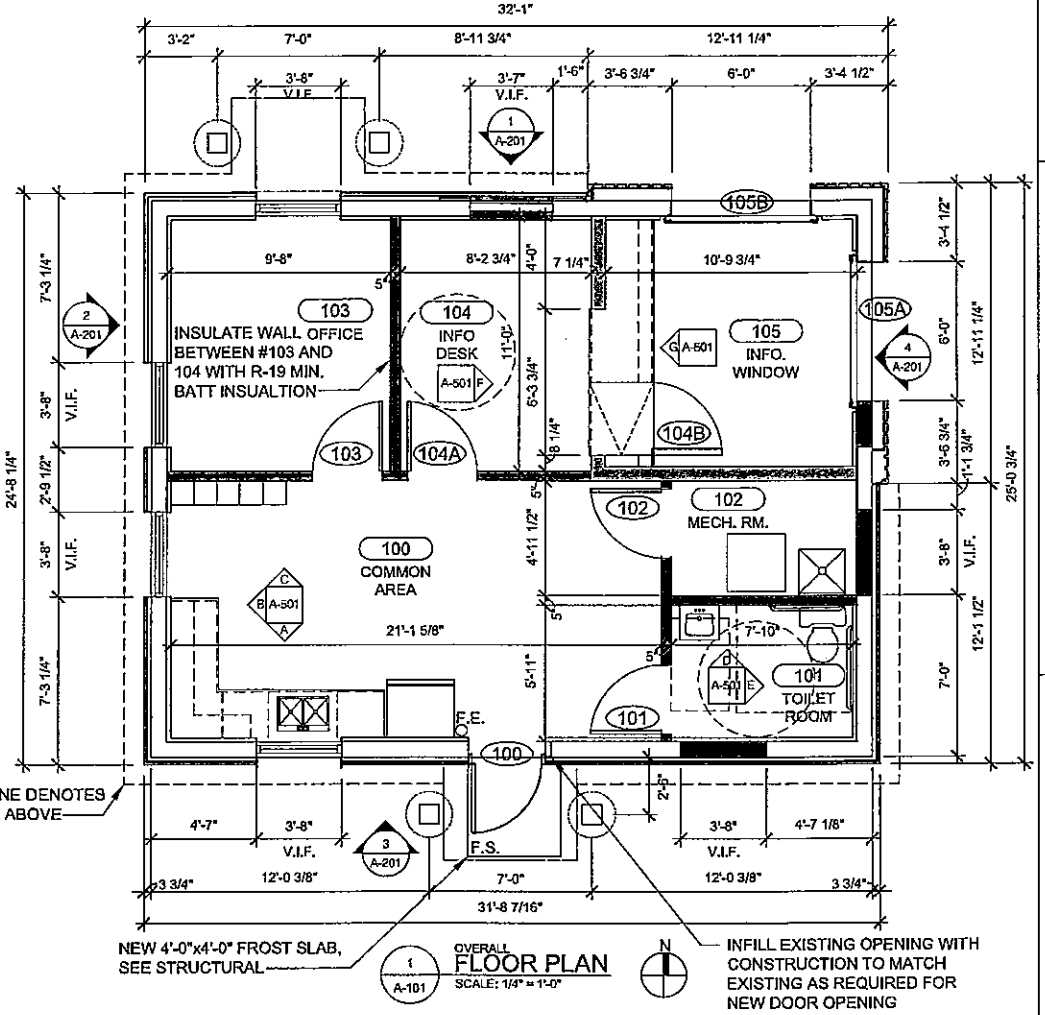
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OVERALL UPPER FLOOR PLAN
SCALE: 1/4" = 1'-0"
N

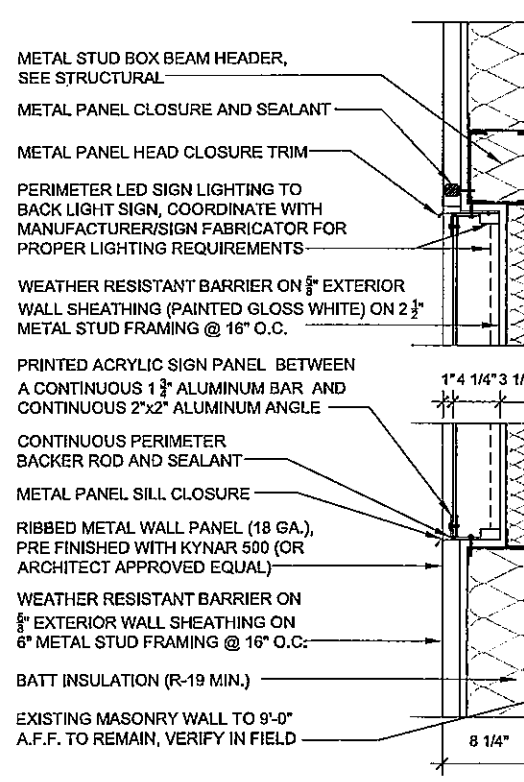
WALL SCHEDULE

- EXISTING CONSTRUCTION TO REMAIN
 - 3 5/8" METAL STUDS AT 16" O.C. FROM FLOOR TO EXISTING STRUCTURE ABOVE WITH 5/8" TYPE-X GYPSUM WALL BOARD ON EACH SIDE, STUD CAVITY TO BE FULLY INSULATED WITH ACOUSTICAL BATT INSULATION. EXTEND GYPSUM WALL BOARD TO 6" ABOVE LAY-IN ACOUSTICAL CEILING SYSTEM AND/OR TO FINISHED FACED OF GYPSUM WALL BOARD CEILING/SOFFIT.
 - 6" METAL STUDS AT 16" O.C. FROM FLOOR TO EXISTING STRUCTURE ABOVE WITH 5/8" TYPE-X GYPSUM WALL BOARD ON INTERIOR FACE(S) AND EXTERIOR SHEATHING (SEE STRUCTURAL) ON THE EXTERIOR FACE, STUD CAVITY TO BE FULLY INSULATED WITH ACOUSTICAL BATT INSULATION. EXTEND GYPSUM WALL BOARD TO FINISHED FACED OF GYPSUM WALL BOARD CEILING/SOFFIT.
 - 5/8" TYPE-X GYPSUM WALL BOARD ON EXISTING FRAMING TO REMAIN
- GENERAL NOTES:
1. SEE STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR METAL STUD GAUGE AND ANCHORING.

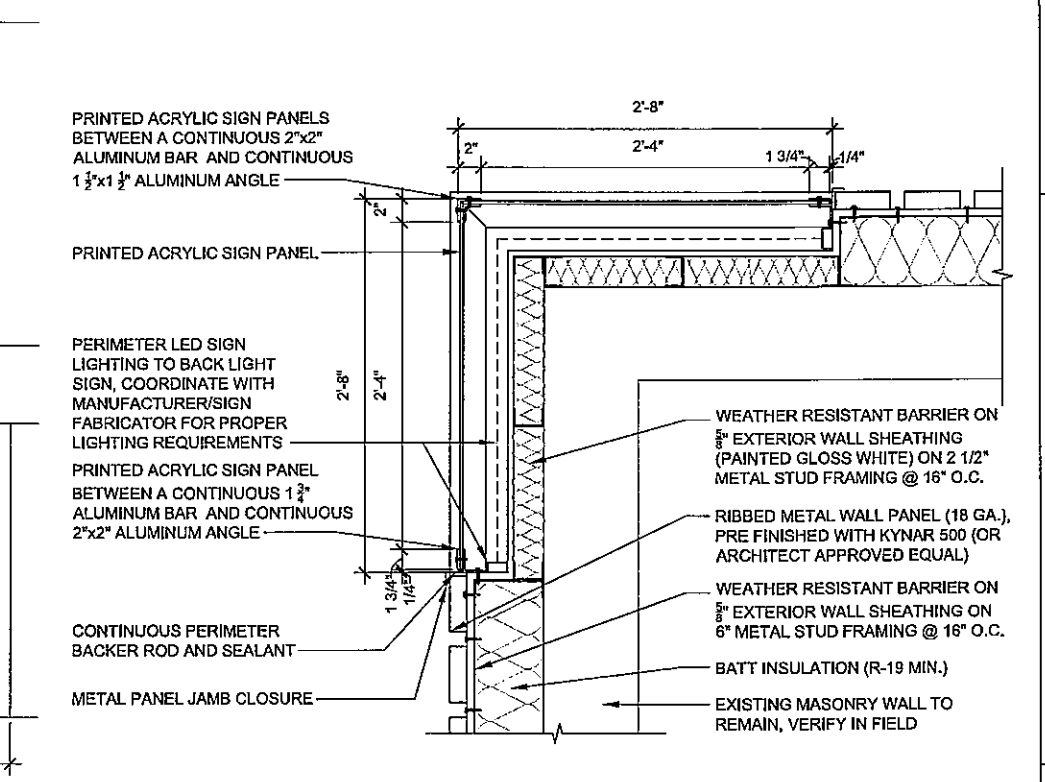


OVERALL FLOOR PLAN
SCALE: 1/4" = 1'-0"
N

- GENERAL ARCHITECTURAL NOTES:**
- ALL DIMENSIONS SHOULD BE VERIFIED AT THE JOB SITE BY THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR. THE ARCHITECT MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
 - DIMENSIONS ARE WITNESSED TO FACE OF MASONRY OR TO FINISHED FACE OF GYPSUM WALLBOARD PARTITIONS UNLESS NOTED OTHERWISE.
 - CUTTING INTO NEW WORK OF OTHER TRADES SHALL BE DONE BY THE TRADE REQUIRING THE CUTTING. ALL CUTTING SHALL BE DONE IN A NEAT MANNER, USING SAWS WHERE POSSIBLE. ANY DAMAGE DONE TO THE WORK OF THE OTHER TRADES IN EXCESS OF THE CUTTING REQUIRED, WHICH, IN THE OPINION OF THE ARCHITECT, IS DUE TO NEGLIGENCE, SHALL BE REPAIRED AT THE EXPENSE OF THE TRADE WHO DID THE CUTTING. ALL PATCHING AND PAINTING AS A RESULT OF THIS CUTTING AND NOT DUE TO NEGLIGENT ACTION SHALL BE DONE BY THE CONTRACTOR.
 - DO NOT CUT OR PATCH ANY WORK WHICH WILL IMPAIR THE STRUCTURES LOAD CARRYING CAPACITY OR REDUCE THE LOAD/DEFLECTION RATIO.
 - PROVIDE ADEQUATE TEMPORARY SUPPORT FOR WORK BEING CUT AND PATCHED TO PREVENT FAILURE. DO NOT ENDANGER OTHER WORK. PROVIDE ADEQUATE PROTECTION OF OTHER WORK DURING CUTTING AND PATCHING TO PREVENT DAMAGE. CUT WORK BY METHOD LEAST LIKELY TO DAMAGE WORK TO BE RETAINED AND ADJOINING WORK.
 - PROPERLY PREPARE ALL SURFACES FOR NEW FINISHES. PATCH WITH SEAMS WHICH ARE DURABLE AND AS INVISIBLE AS POSSIBLE. COMPLY WITH SPECIFIC TOLERANCES FOR THE TYPE OF WORK BEING DONE.
 - CONSTRUCTION JOINTS PERMITTED ONLY AS SHOWN OR AS APPROVED BY THE ARCHITECT.
 - ALL CONNECTIONS ARE TO DEVELOP THE FULL STRENGTH OF THE FRAMING MEMBERS UNLESS OTHERWISE APPROVED.
 - PROVIDE LINTELS OR HEADERS OVER ALL OPENINGS INCLUDING THOSE FOR DUCTWORK, PIPES, LOUVERS, GRILLES, DAMPERS, ETC.
 - EQUIPMENT FRAMING LOADS, OPENINGS AND STRUCTURE RELATED IN ANY WAY TO HVAC, PLUMBING, OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSE ONLY. CONTRACTORS SHALL OBTAIN APPROVAL OF THE INVOLVED TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS TO BE BORNE BY THE APPROPRIATE CONTRACTOR.
 - SIZE AND LOCATION OF ALL FLOOR, ROOF AND/OR WALL OPENINGS TO BE VERIFIED WITH TRADE AFFECTED BEFORE PROCEEDING WITH THE WORK.
 - COORDINATE LOCATIONS AND/OR ELEVATIONS OF FLOOR DRAINS, REGISTERS, ACCESS PANELS, GRILLES, LOUVERS, CONVECTORS, CABINET UNIT HEATERS, PANELS, ETC., WITH MECHANICAL AND ELECTRICAL CONTRACTORS.
 - IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW THE APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
 - OBTAIN ARCHITECT'S SPECIFIC APPROVAL PRIOR TO DEVIATING FROM THE DRAWINGS. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE ITEMS SHOWN ON THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLY WITH STANDARD BUILDING AND CONSTRUCTION PRACTICES AND MANUFACTURER'S RECOMMENDATIONS FOR ALL ITEMS NOT SPECIFICALLY INDICATED AND DETAILED ON THE DRAWINGS. FOLLOW THE BEST TRADE PRACTICES AND ENGINEERING FOR THE ITEMS NOT SPECIFICALLY DETAILED AND INDICATED.
 - SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE NOTES, STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
 - CONTRACTORS SHALL NOTIFY THE ARCHITECT IMMEDIATELY UPON THE DISCOVERY OF ANY DISCREPANCIES DUE TO CONCEALED CONDITIONS.
 - ALL WOOD BLOCKING IN NON-LOAD BEARING PARTITIONS SHALL BE FIRE RETARDANT TREATED WOOD IN ACCORDANCE WITH OBC SECTION 603.1.
 - FIRE EXTINGUISHERS OF PROPER SIZE, TYPE, AND QUANTITIES ARE TO BE PROVIDED AND VERIFIED/COORDINATED BY GC WITH LOCAL FIRE OFFICIALS.
 - PROVIDE WALL MOUNTED MOP AND BROOM RACK AND PAPER TOWEL DISPENSERS, AND ALL ASSOCIATED BLOCKING. COORDINATE MOUNTING LOCATIONS WITH OWNER IN THE FIELD.
 - OWNER SUPPLIED SECURITY SYSTEM MAY BE PROVIDED. CONTRACTOR SHALL COORDINATE PROJECT AND WORK SCHEDULE WITH OWNER AND SECURITY CONTRACTOR.
 - PATCH AND FILL ALL EXISTING HOLES AND CRACKS IN EXISTING CMU TO MATCH EXISTING.



BUILDING SIGN SECTION DETAIL
SCALE: 1 1/2" = 1'-0"
A-101



BUILDING SIGN PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
A-101



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A-101

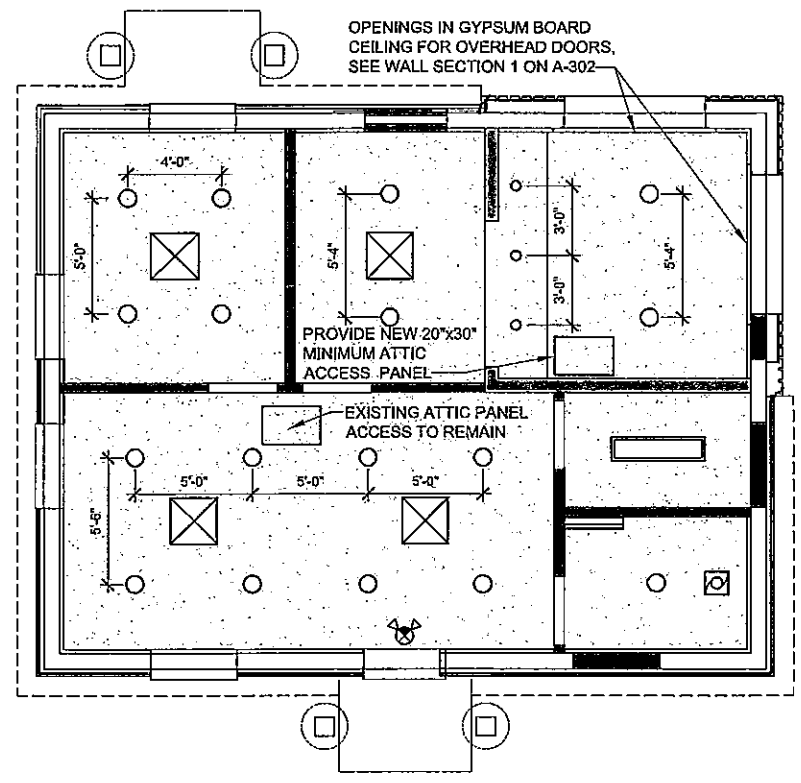
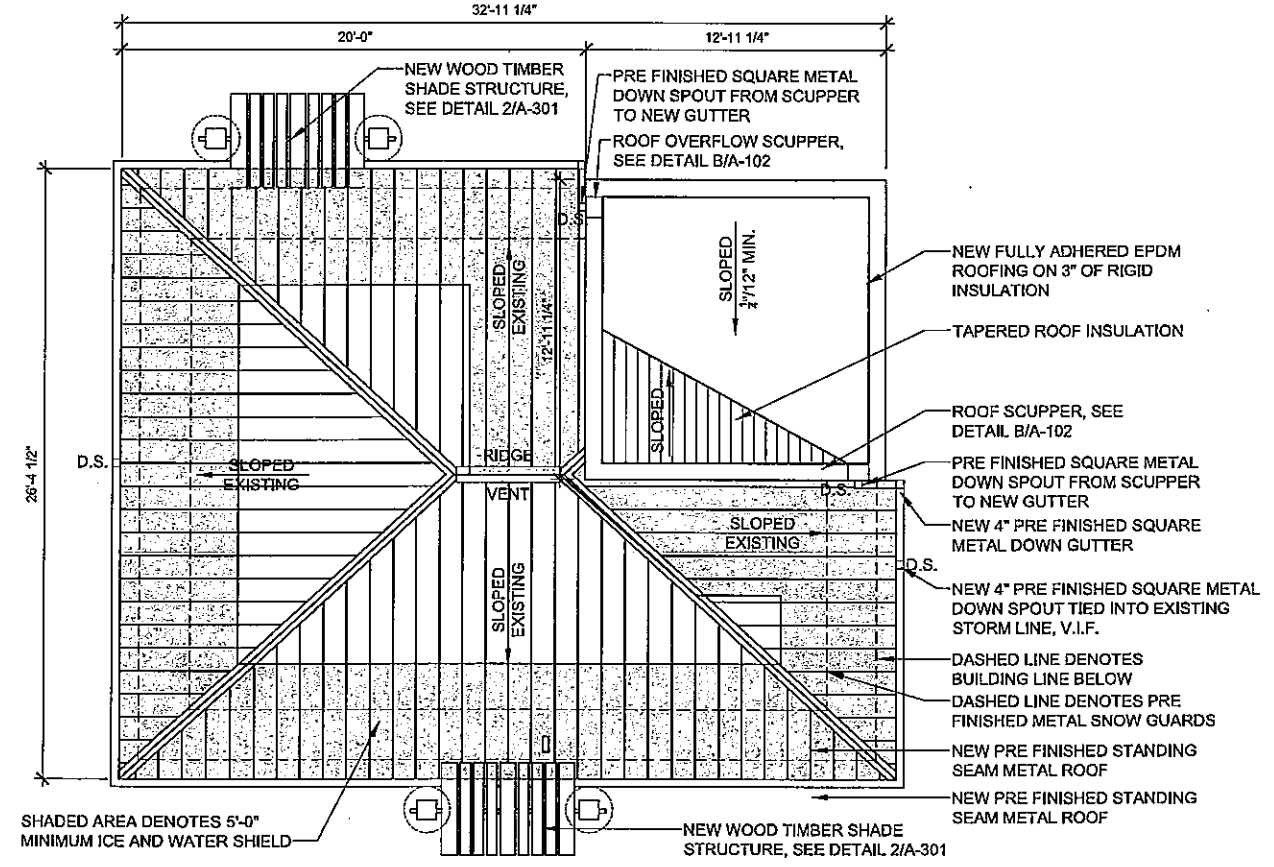
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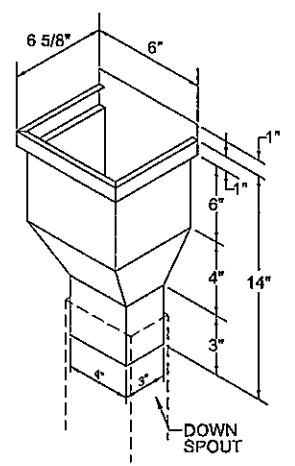
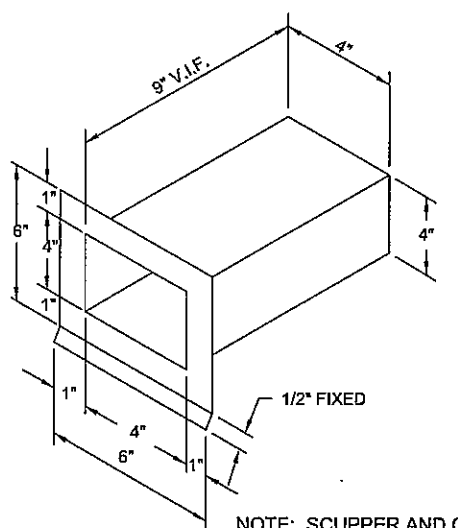
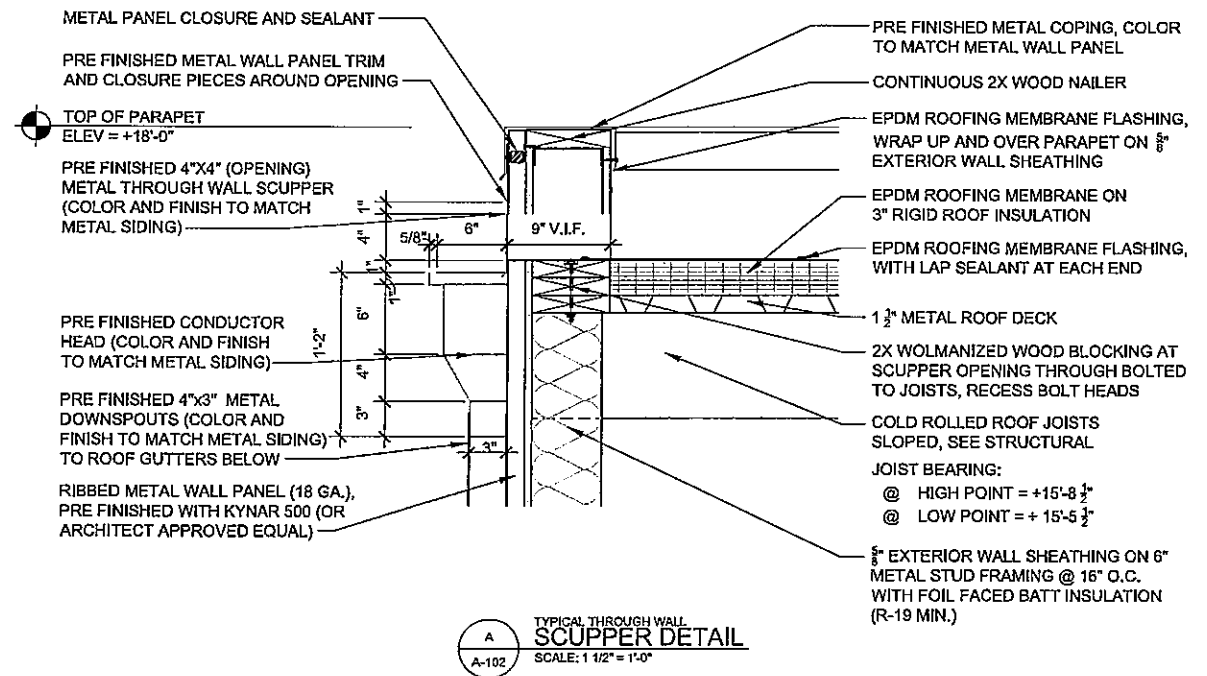
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2 OVERALL ROOF PLAN
 A-102 SCALE: 1/4" = 1'-0"

1 OVERALL REFLECTED CEILING PLAN
 A-102 SCALE: 1/4" = 1'-0"



THROUGH WALL SCUPPER

CONDUCTOR HEAD

NOTE: SCUPPER AND CONDUCTOR HEAD COLOR TO MATCH METAL BUILDING PANEL

A TYPICAL THROUGH WALL SCUPPER DETAIL
 A-102 SCALE: 1 1/2" = 1'-0"

B TYPICAL SCUPPER DETAIL
 A-102 NOT TO SCALE

SYMBOL LEGEND	
	NEW GYPSUM WALL BOARD CEILING MOUNTED ON 6" METAL STUD FRAMING @ 16" O.C.
	RECESSED DOWNLIGHT WITH LED LAMPS
	WALL MOUNTED VANITY LIGHT FIXTURE WITH LED LAMPS
	NEW 1'x4' SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE
	NEW OR RELOCATED SUPPLY AIR DIFFUSER
	NEW OR RELOCATED RETURN AIR GRILLE
	NEW DUCTED TO NEW EXHAUST FAN
	NEW COMBO ILLUMINATED EXIT SIGN/EMERGENCY LIGHT

GENERAL NOTES:
 1. ALL LIGHT FIXTURE LAYOUTS SHOULD BE CENTERED IN ROOM UNLESS OTHERWISE NOTED
 2. SEE ELECTRICAL DRAWINGS FOR FIXTURE LAYOUT AND TYPE.
 3. SEE MECHANICAL DRAWINGS FOR NEW H.V.A.C LAY-OUT.

NO.	DESCRIPTION	DATE	BY	R/J/D
1	ISSUE FOR BID AND PERMIT	12/23/2014		

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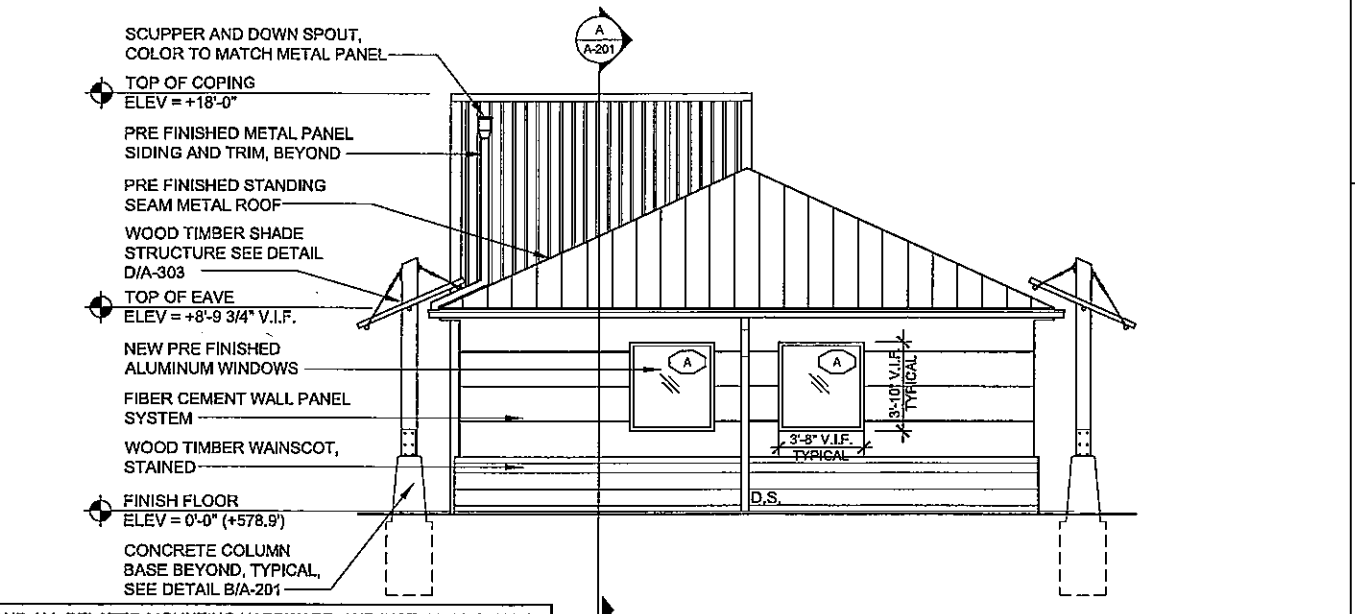
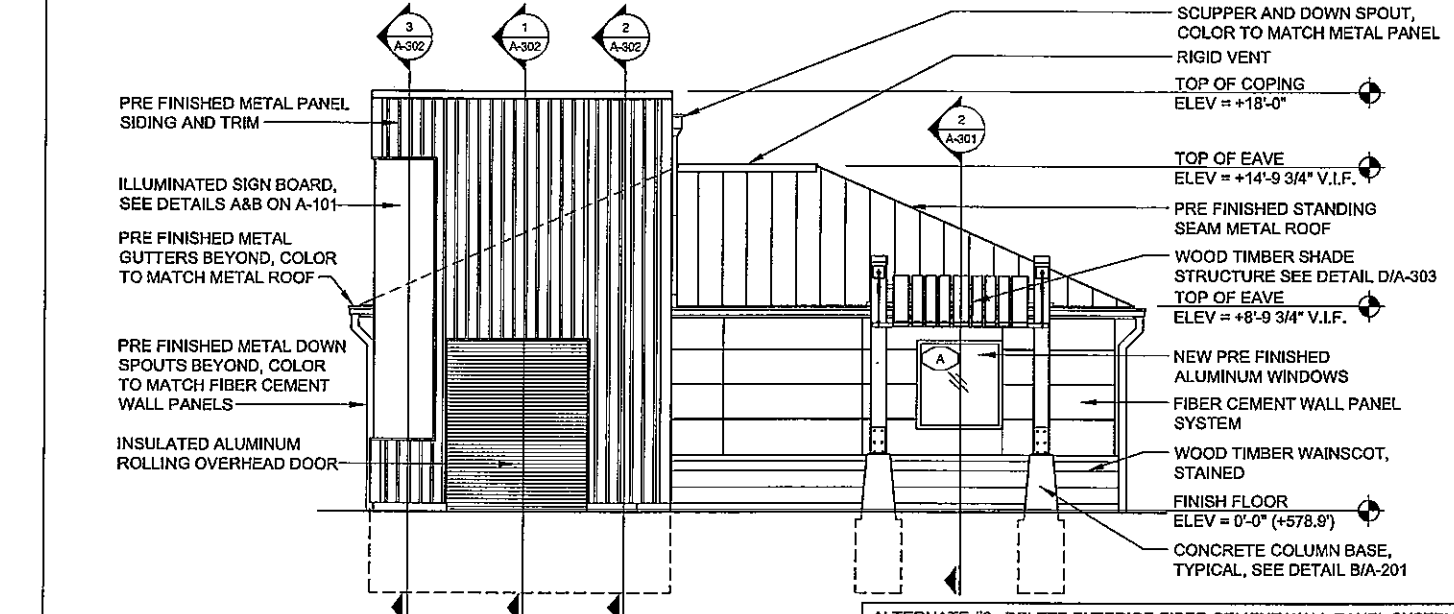
A-102

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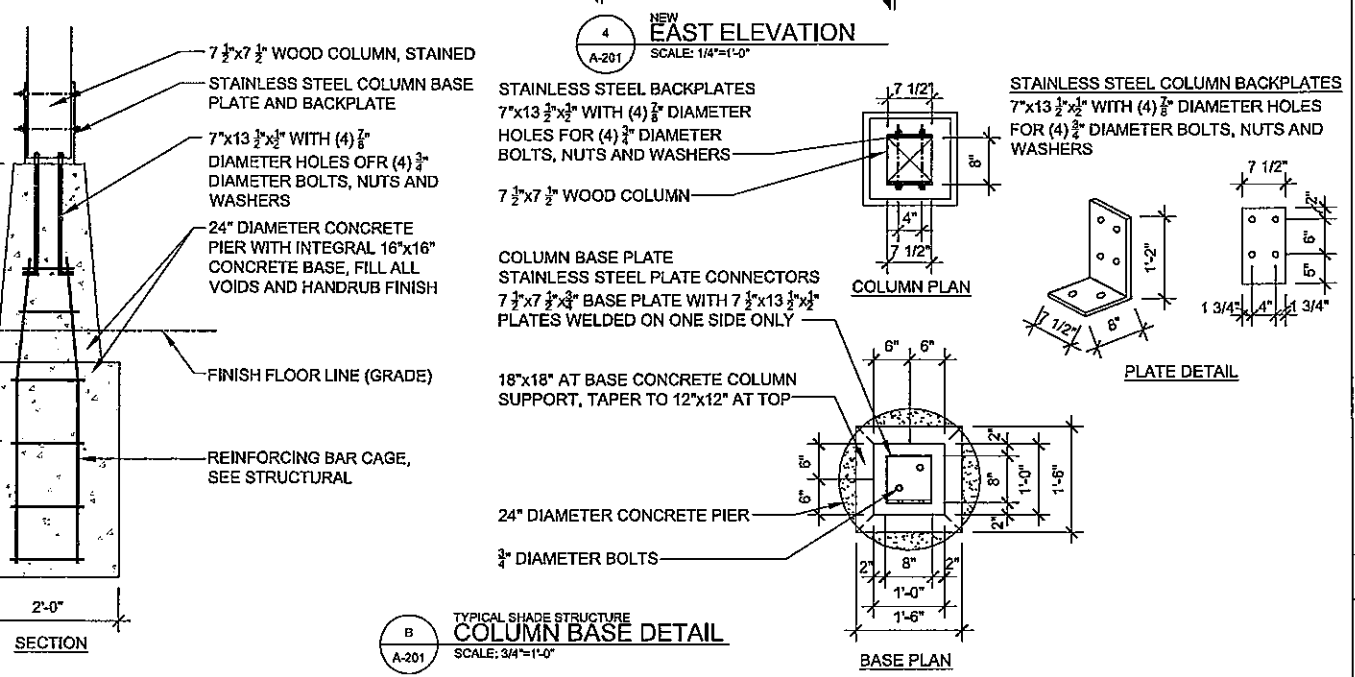
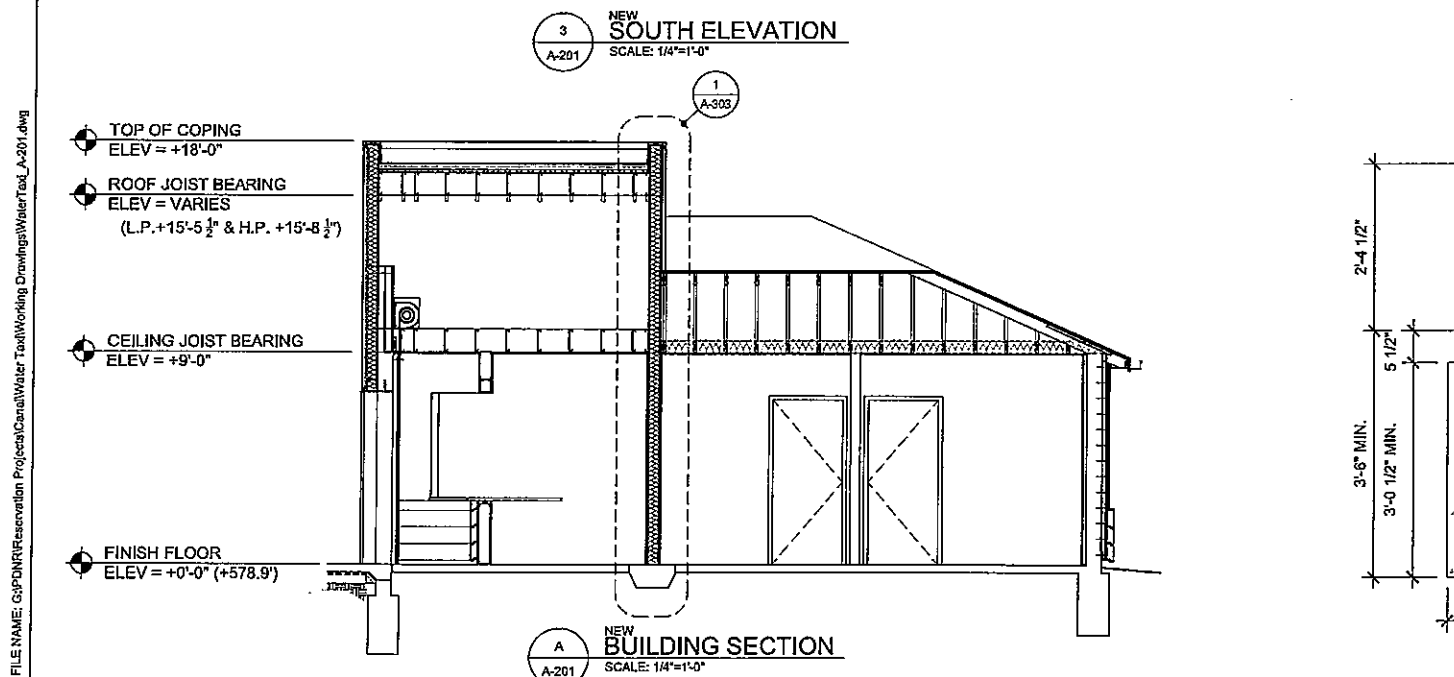
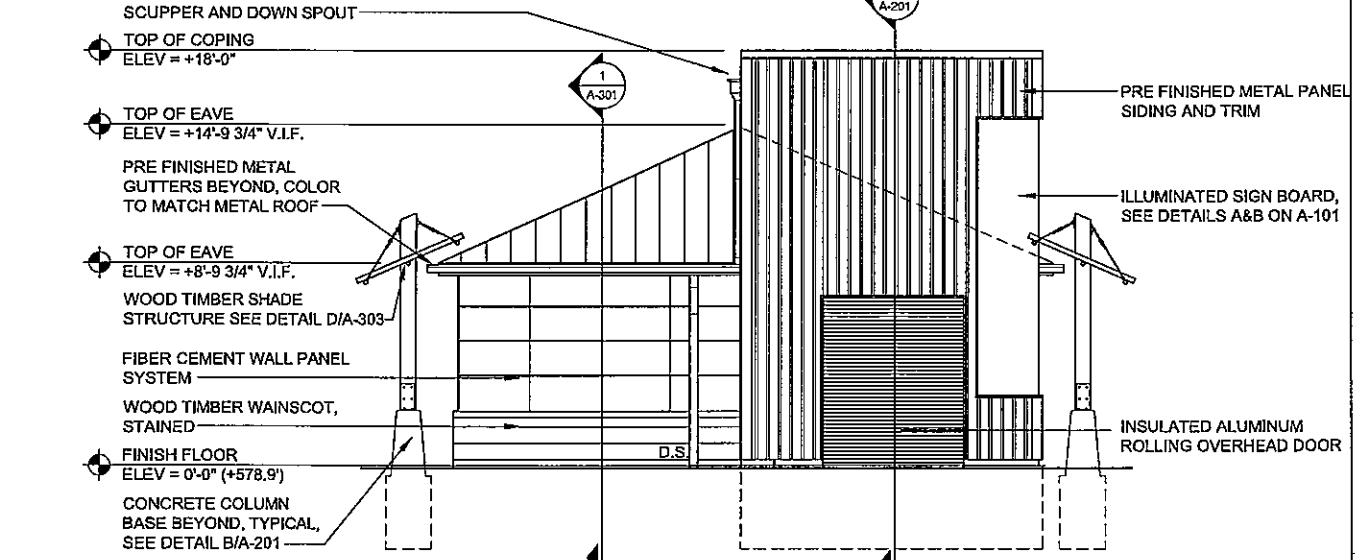
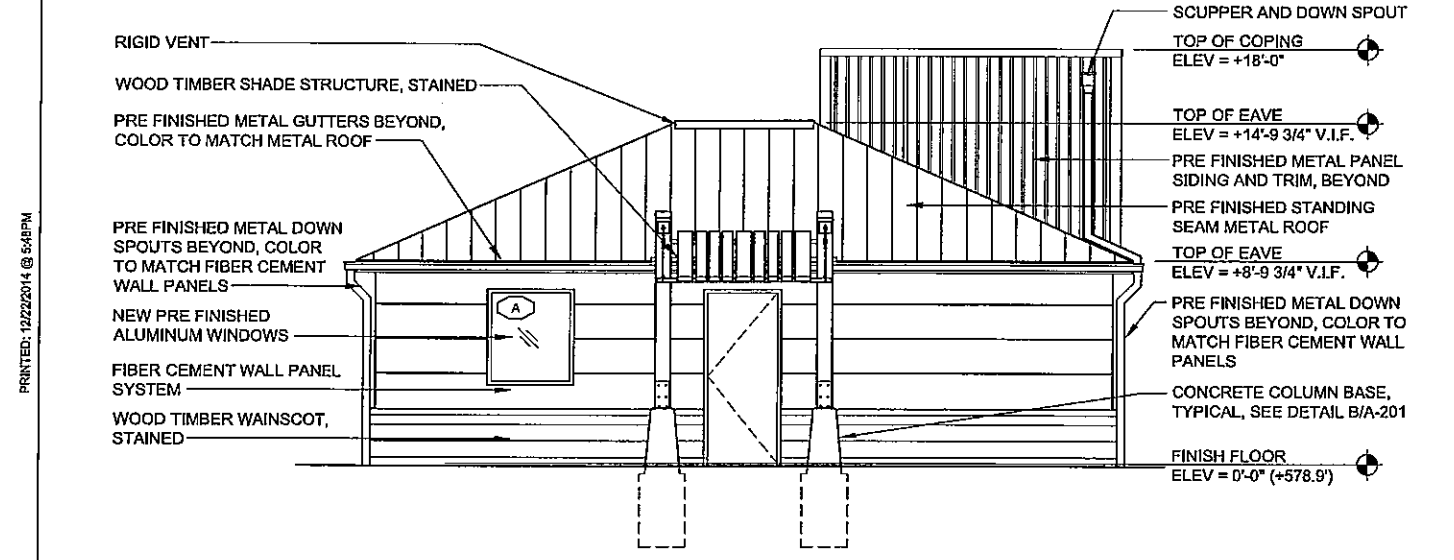
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NO.	DESCRIPTION	DATE	BY	RJD
1	ISSUE FOR BID AND PERMIT	12/22/2014		
2				
3				
4				



ALTERNATE #2: DELETE EXTERIOR FIBER CEMENT WALL PANEL SYSTEM AND ALL RELATED MOUNTING HARDWARE, AND INSTALL 20 GAUGE, CONCEALED FASTENER, 12" EXTERIOR METAL PANELS INSTALL HORIZONTALLY WITH PVDF KYNAR 500 FINISH, OR ARCHITECT APPROVED EQUAL. PANEL COLOR SHALL BE SELECTED BY THE ARCHITECT FROM THE MANUFACTURER'S FULL LINE OF AVAILABLE COLORS. ALTERNATE SHALL INCLUDE ALL RELATED MOUNTING HARDWARE, FLASHING, ETC. AS RECOMMENDED BY THE MANUFACTURER'S SPECIFICATIONS AND WRITTEN RECOMMENDATIONS. BASIS OF DESIGN TLC-1 BY MS METAL SALES, OR ARCHITECT APPROVED EQUAL.



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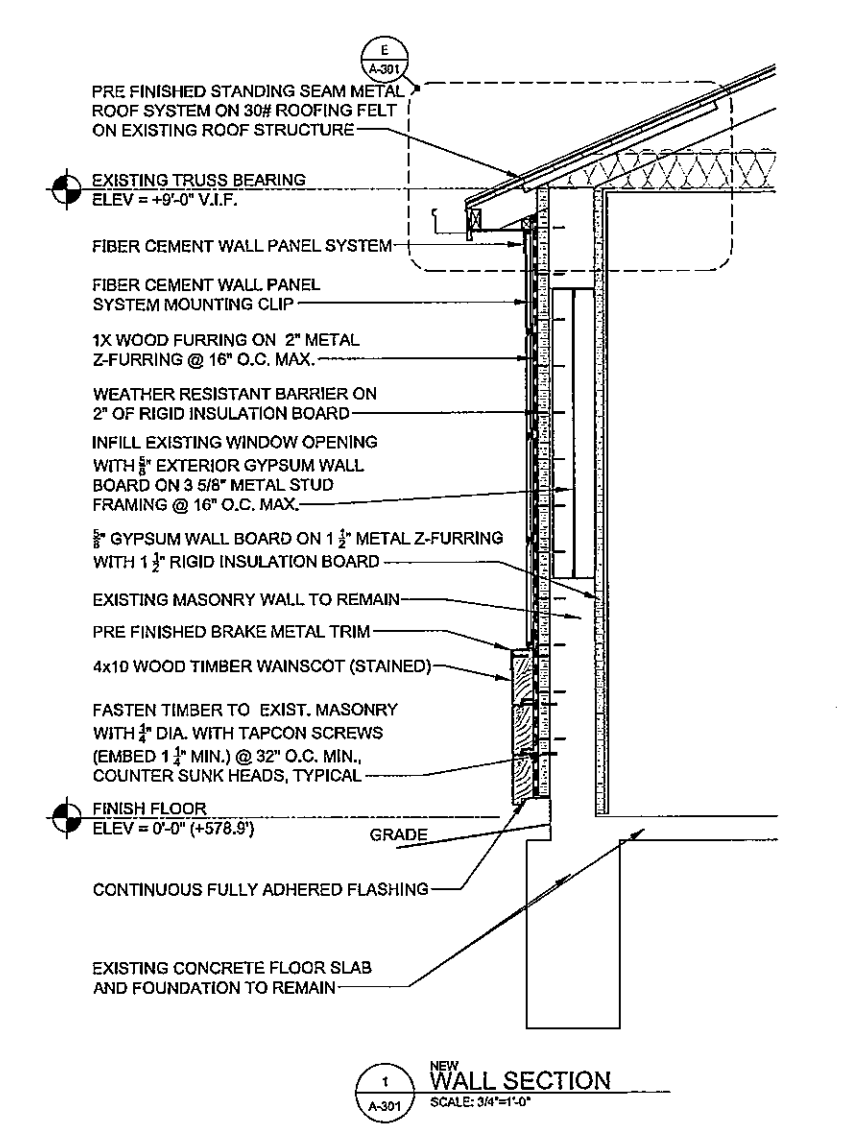
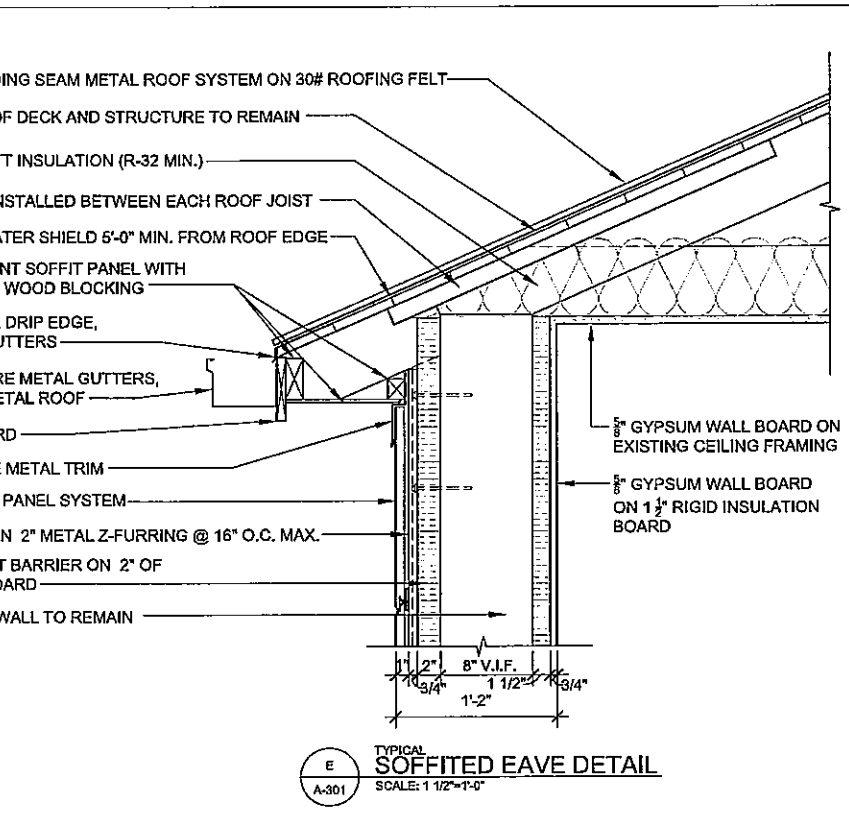
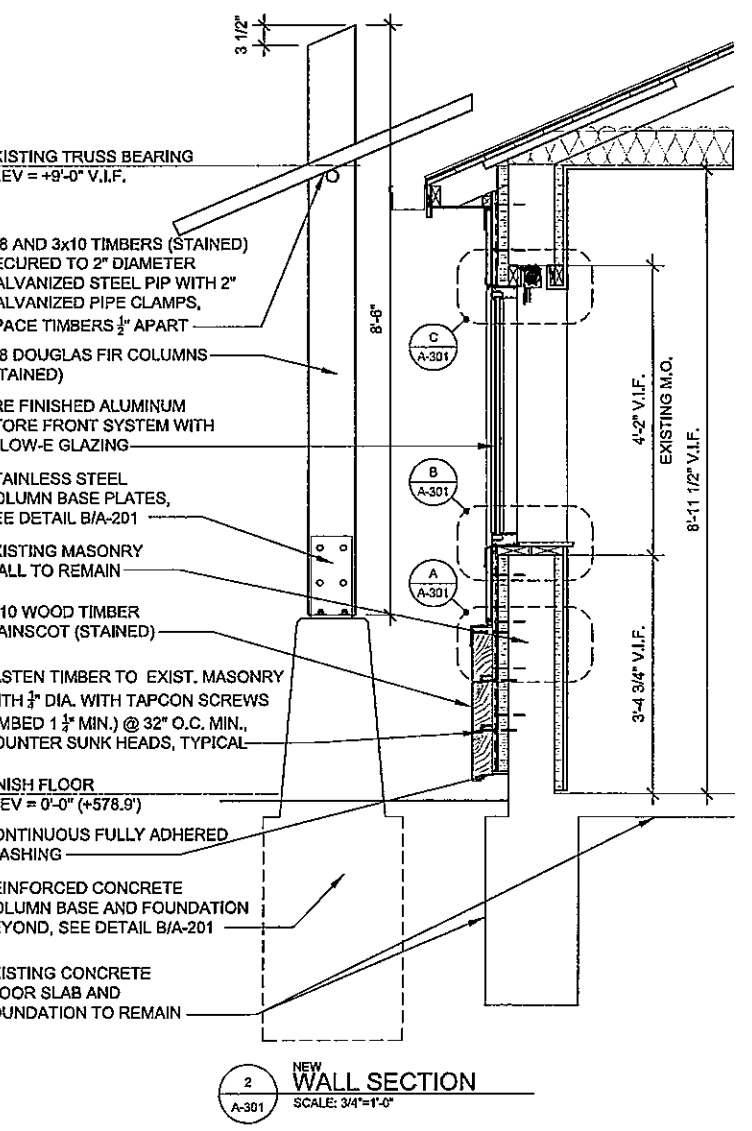
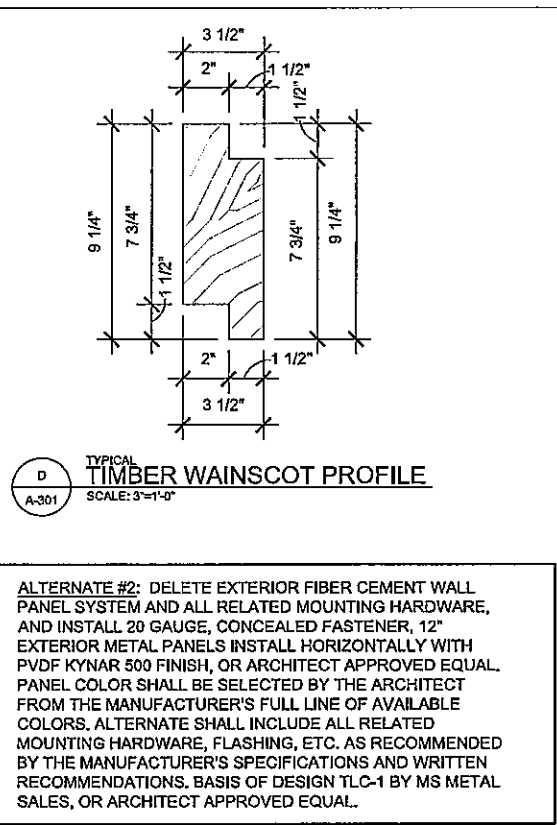
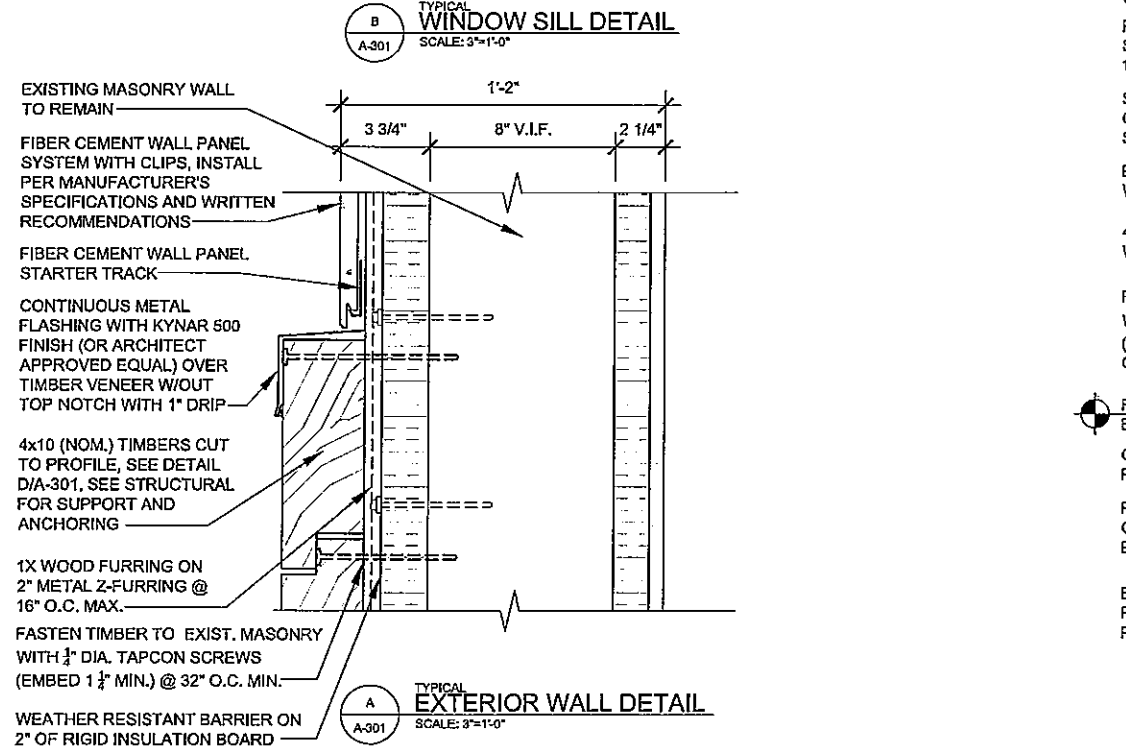
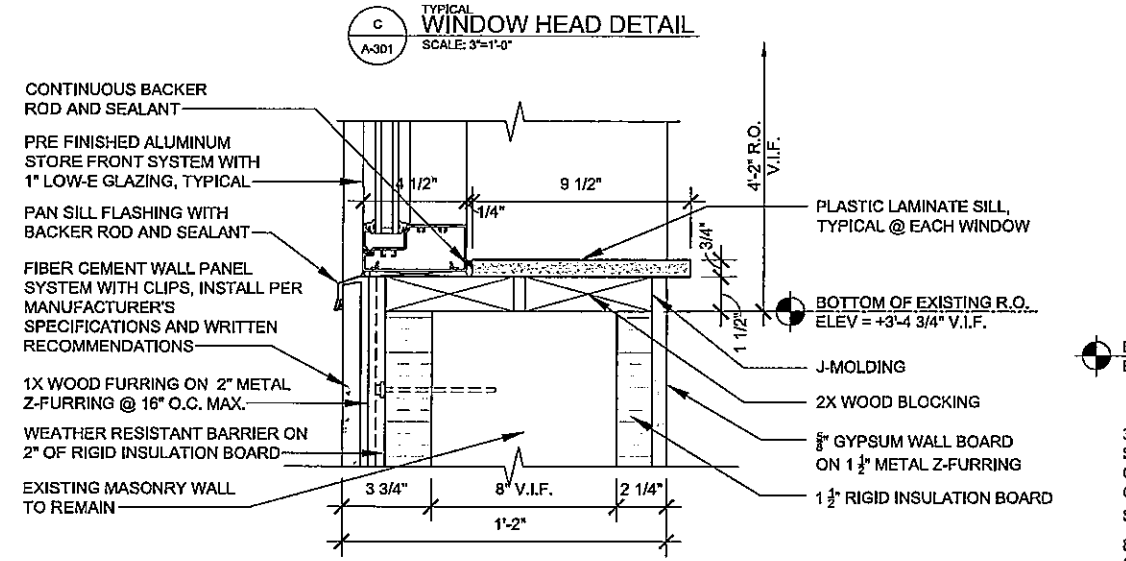
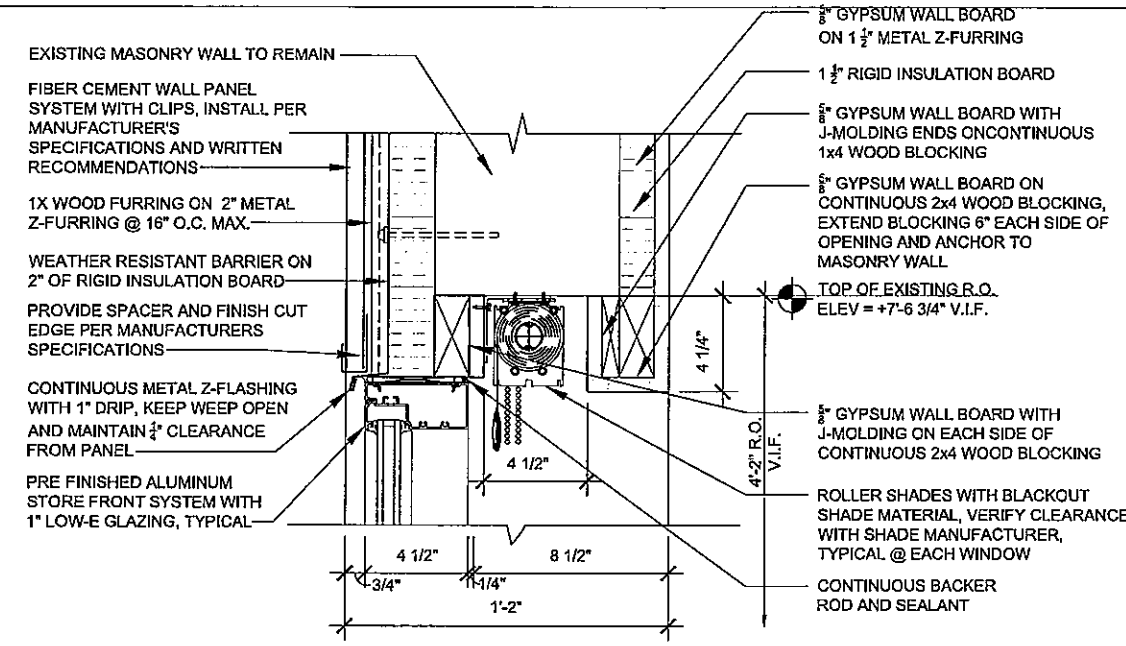
NO.	DESCRIPTION	DATE	BY	R/D
	ISSUE FOR BID AND PERMIT	12/23/2014		

REVISIONS

DATE: DECEMBER 23, 2014
 SHEET NO. A-301

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FILE NAME: G:\P\DNRR\Reservations\Projects\Canal\Water Taxi\Working Drawings\WaterTaxi_A-301.dwg





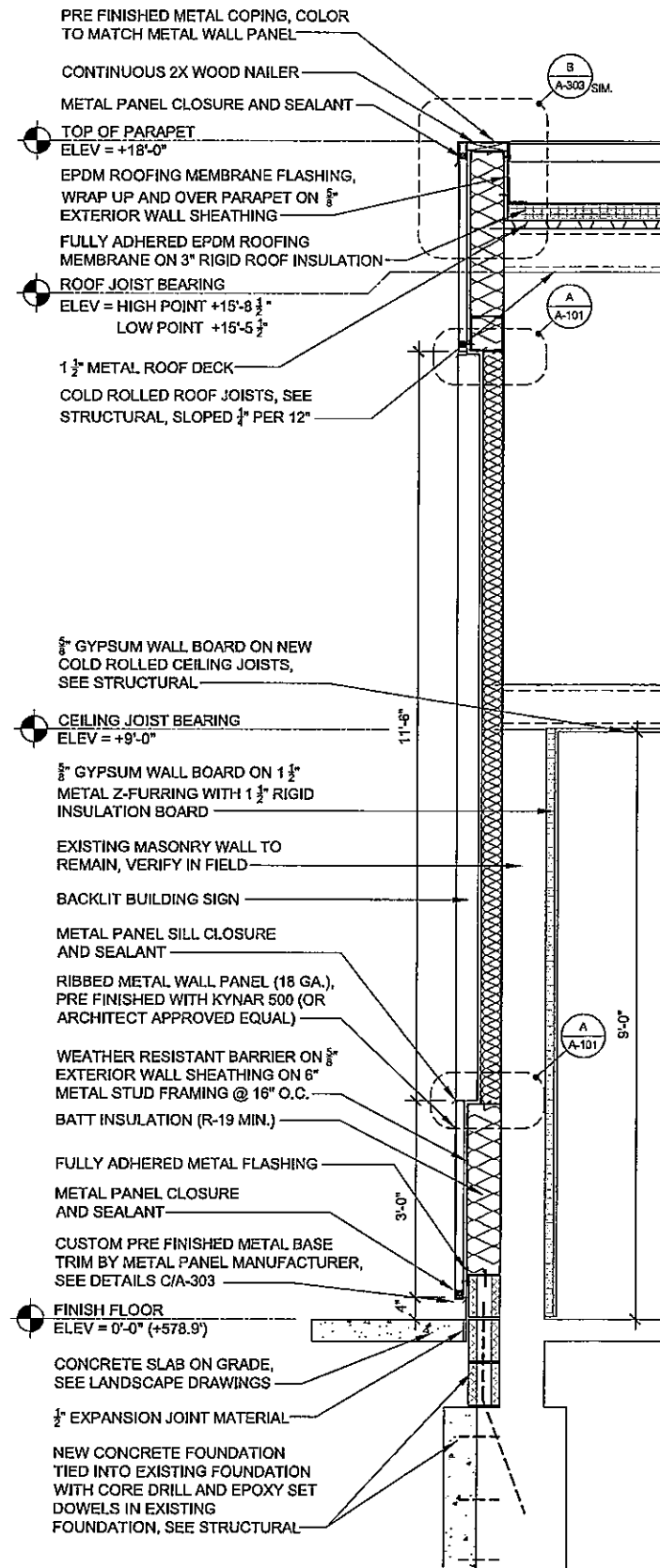
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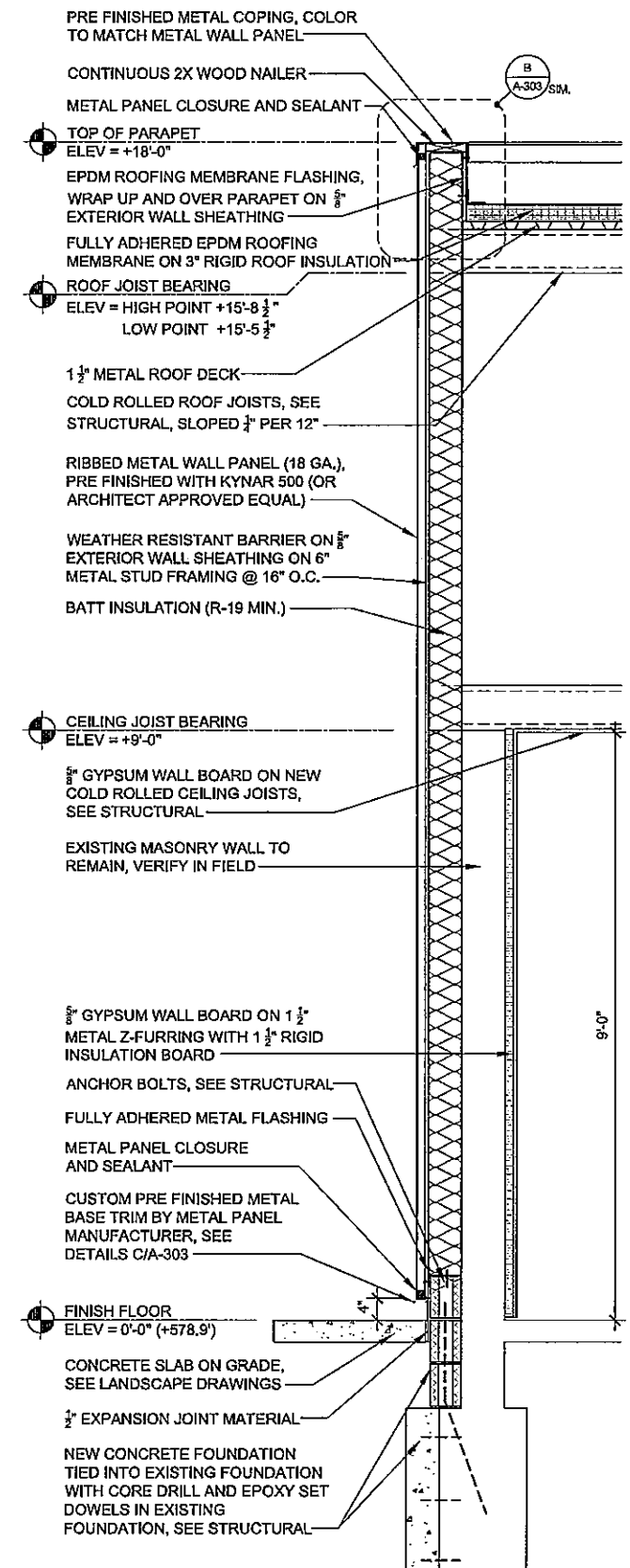
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1	ISSUE FOR BID AND PERMIT	12/23/2014		

DATE: DECEMBER 23, 2014
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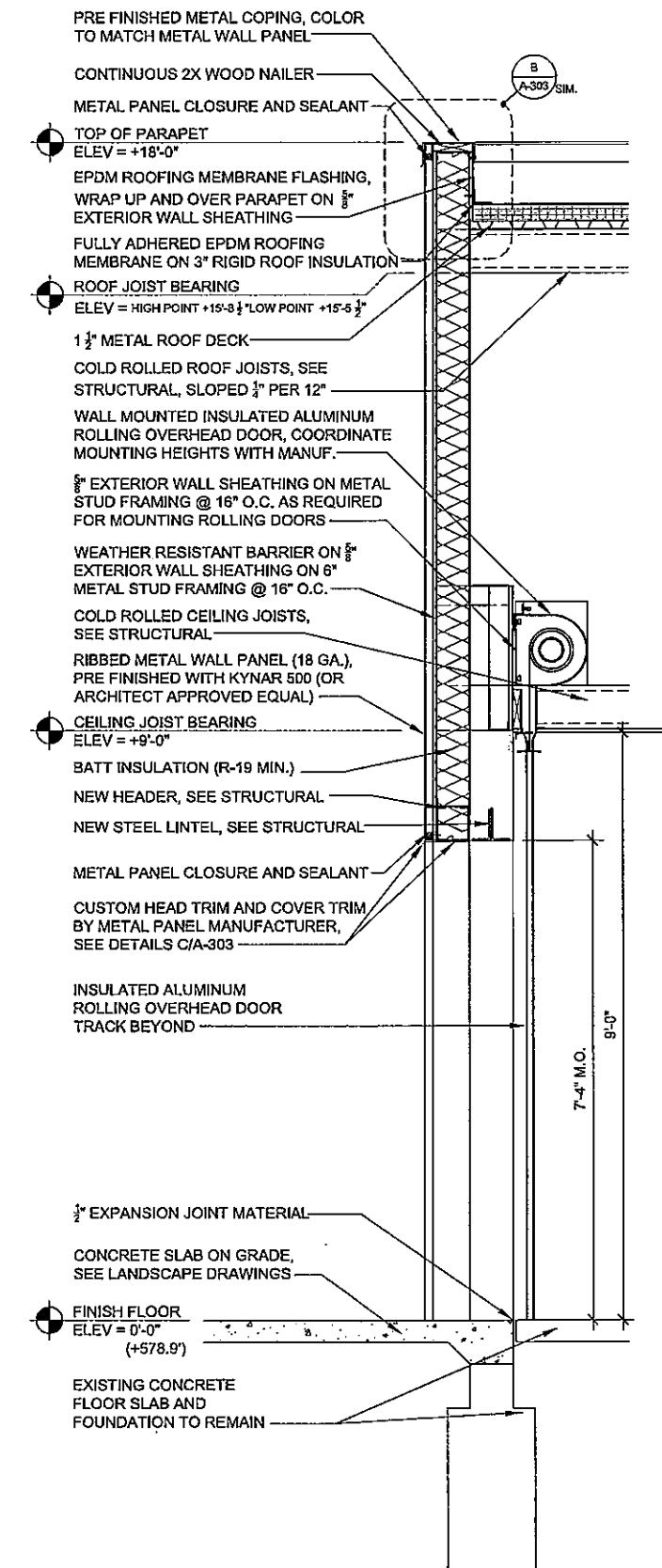
A-302



3 NEW WALL SECTION
 A-302 SCALE: 3/4"=1'-0"



2 NEW WALL SECTION
 A-302 SCALE: 3/4"=1'-0"



1 NEW WALL SECTION
 A-302 SCALE: 3/4"=1'-0"

FILE NAME: G:\PDR\Reservation Projects\CanalWater_Taxi\Working Drawings\WaterTaxi_A-301.dwg
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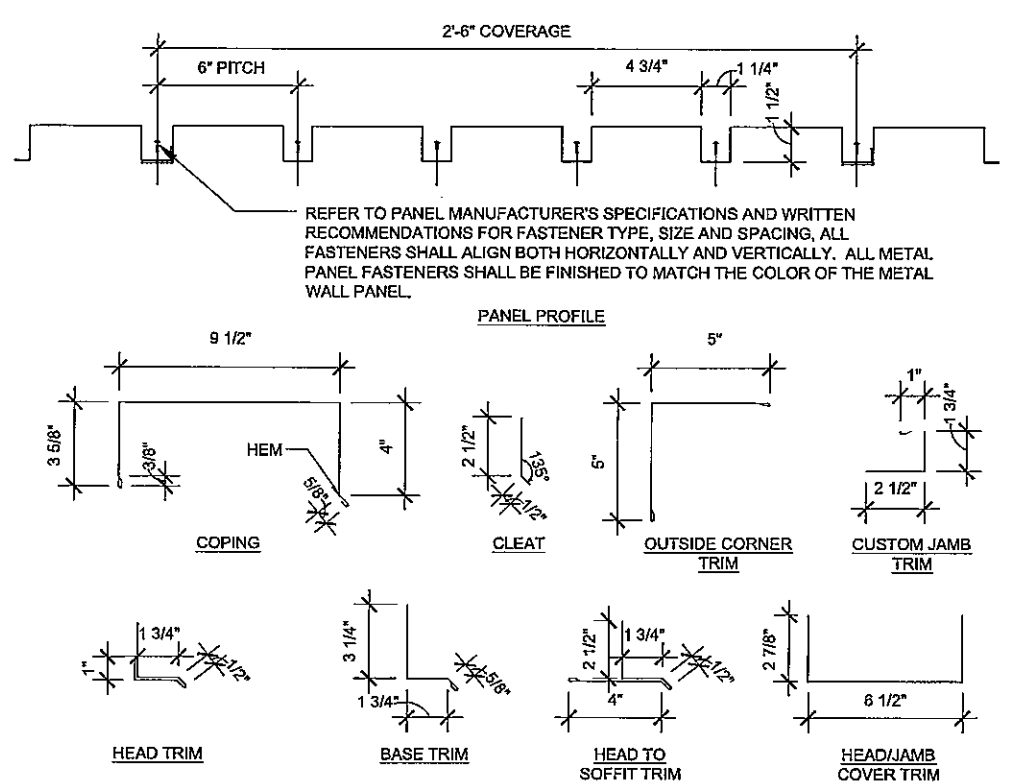
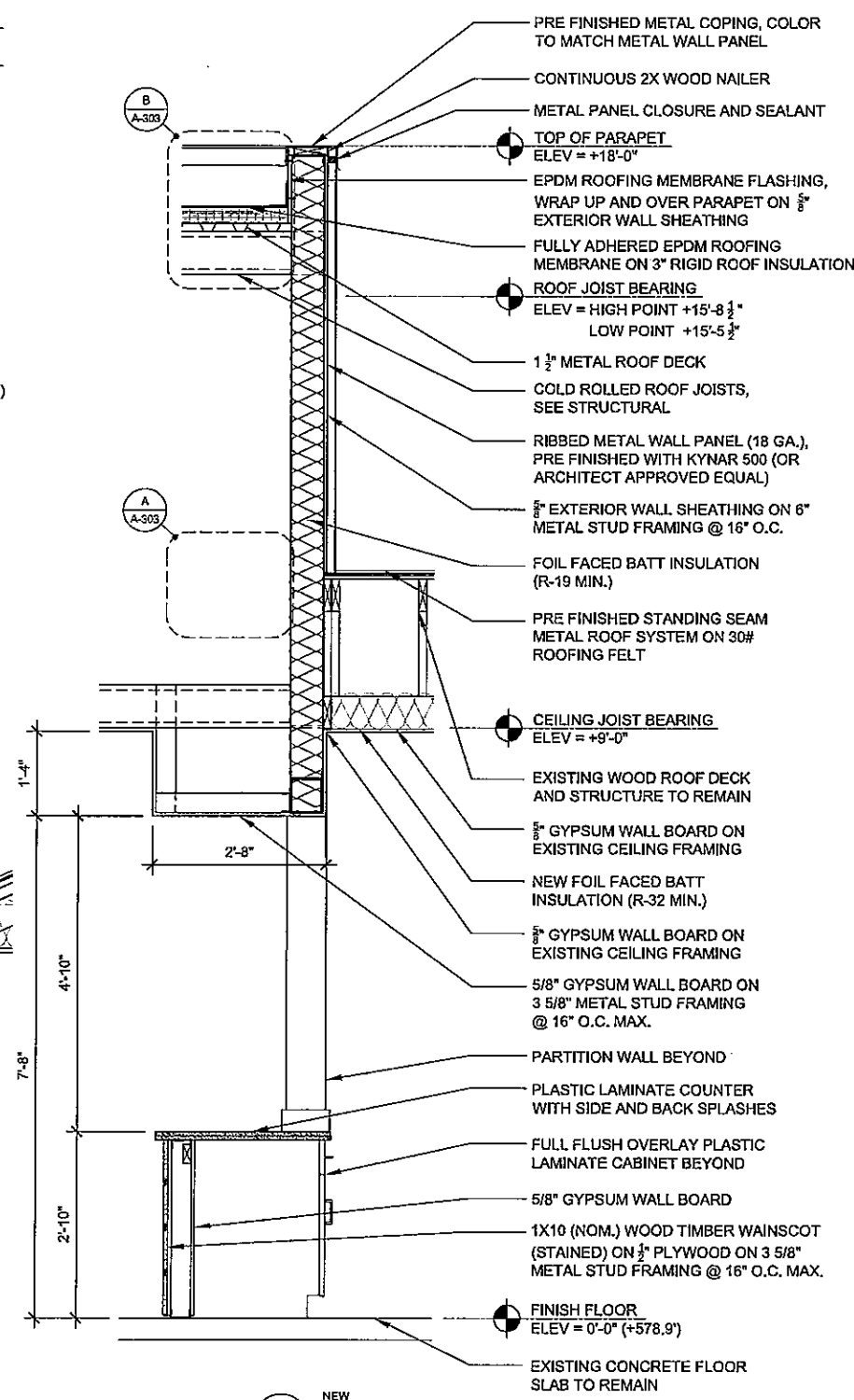
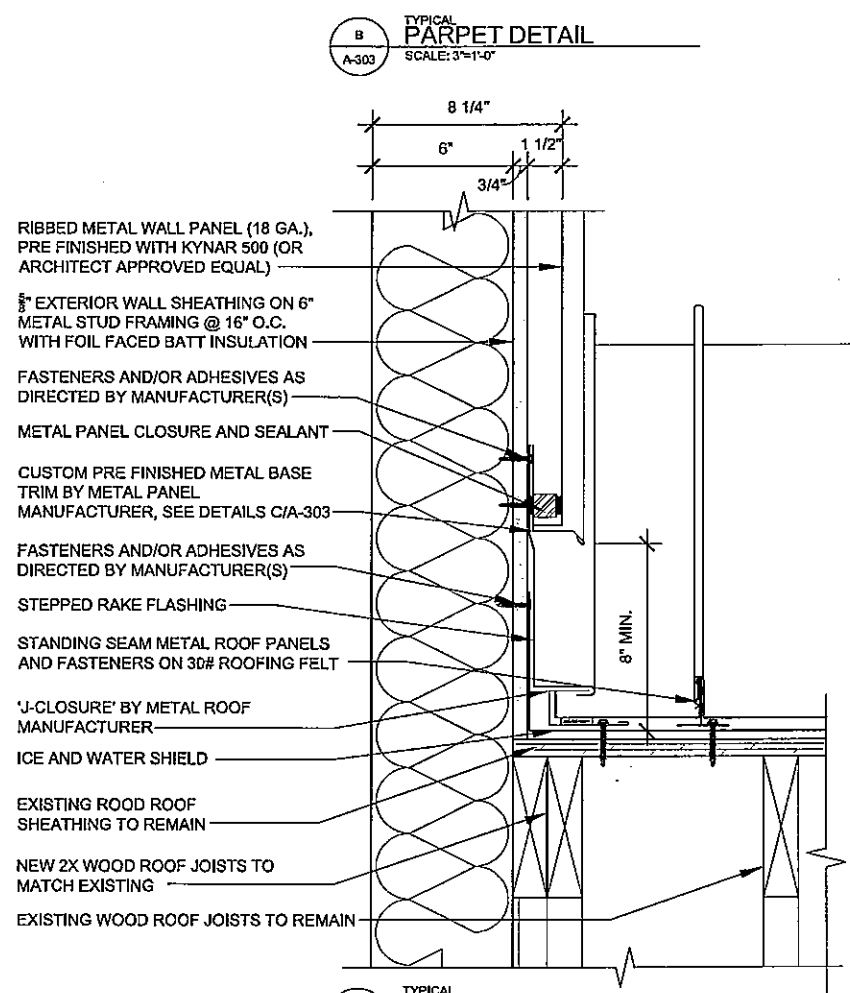
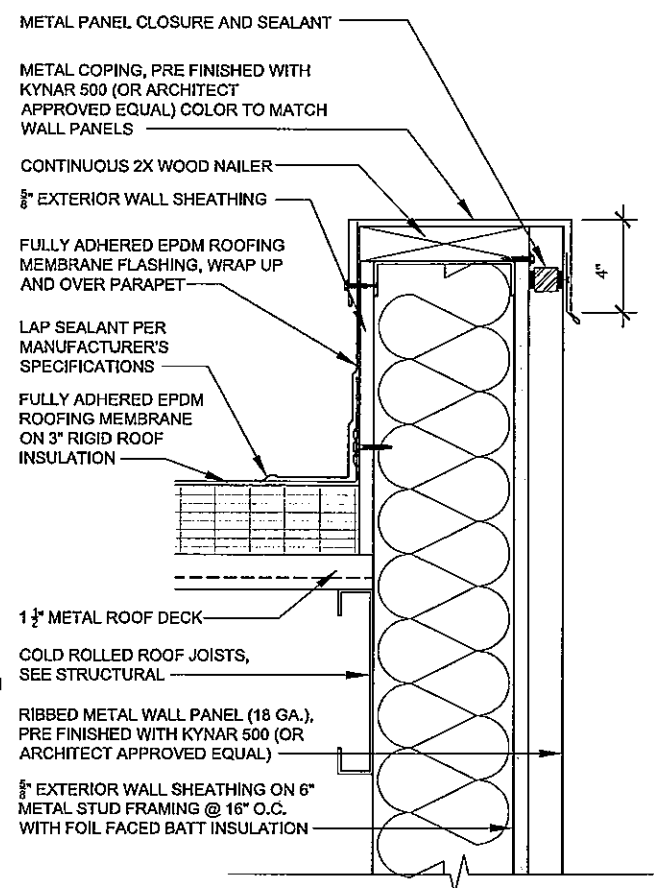
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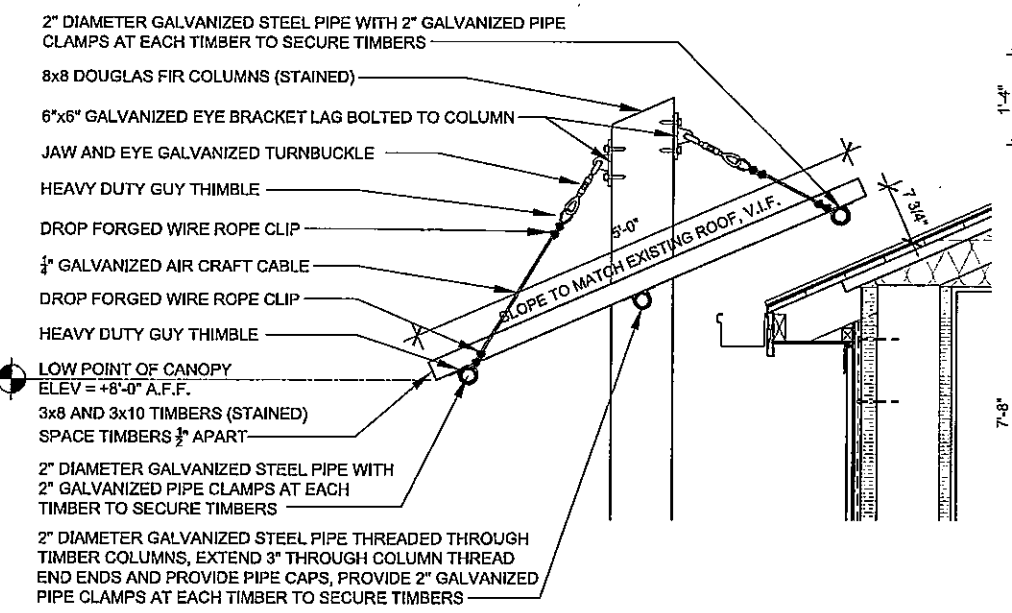
NO.	DESCRIPTION	DATE	BY	RD
1	ISSUE FOR BID AND PERMIT	10/23/2014		

DATE: DECEMBER 23, 2014
 SHEET NO.

A-303



NOTE: ALL METAL PANEL COPING, TRIM, CLEATS AND CLOSURES SHALL BE PROVIDED BY THE METAL WALL PANEL MANUFACTURER, AND SHALL BE THE SAME COLOR AS THE METAL WALL PANEL. COLOR (KYNAR 500) SHALL BE SELECTED BY THE ARCHITECT FROM THE MANUFACTURER'S FULL LINE OF AVAILABLE COLORS.

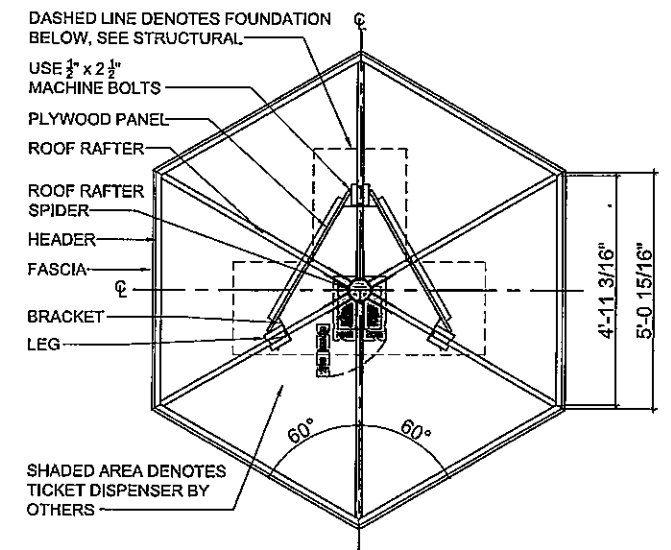


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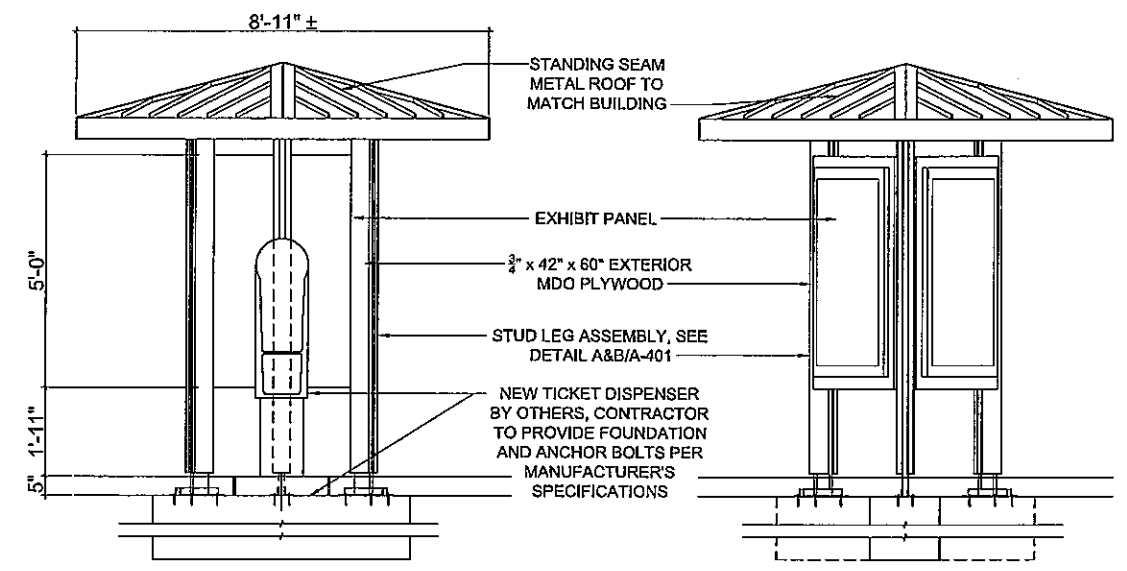


NO.	DESCRIPTION	DATE	BY
1	ISSUE FOR BID AND PERMIT	12/23/2014	RJD

DATE: DECEMBER 23, 2014
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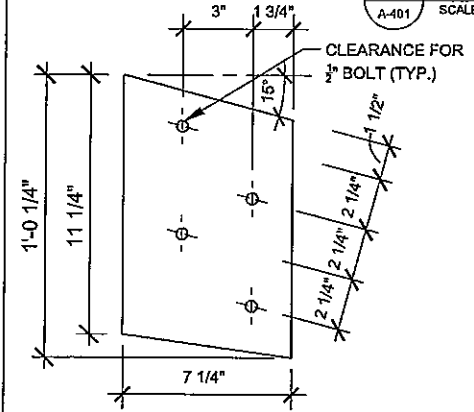


1 KIOSK ROOF RAFTER PLAN
 SCALE: 1/2"=1'-0"

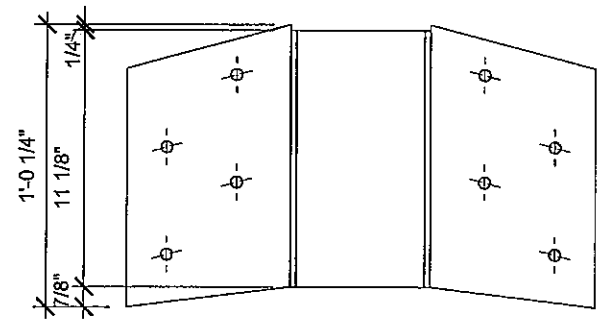


2 KIOSK FRONT ELEVATION
 SCALE: 1/2"=1'-0"

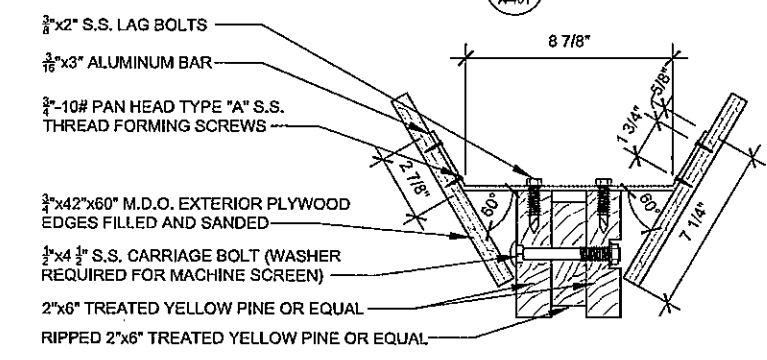
3 KIOSK BACK ELEVATION
 SCALE: 1/2"=1'-0"



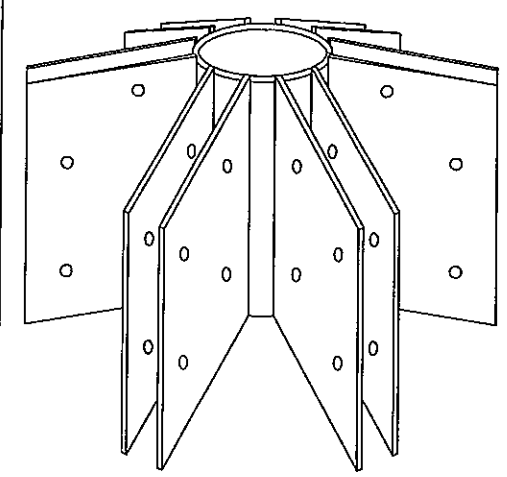
FLANGE DETAIL



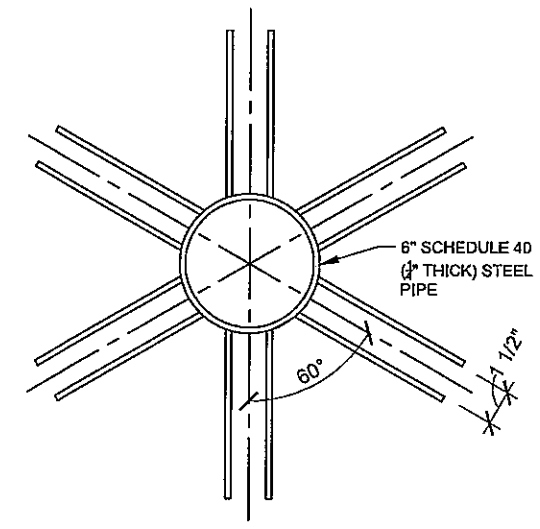
FLANGE SECTION



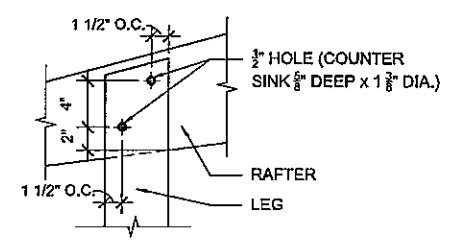
C KIOSK SECTION DETAIL
 SCALE: 3/4"=1'-0"



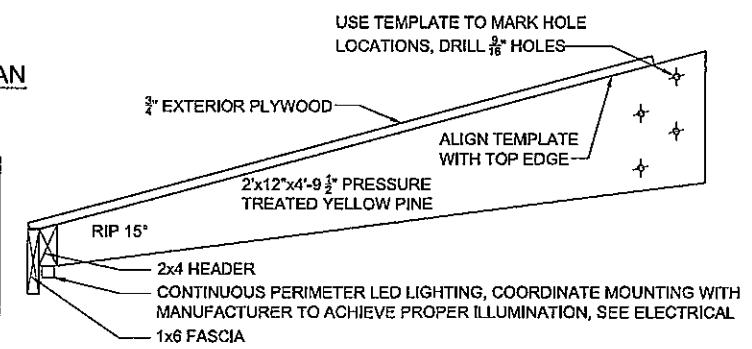
FLANGE ISOMETRIC



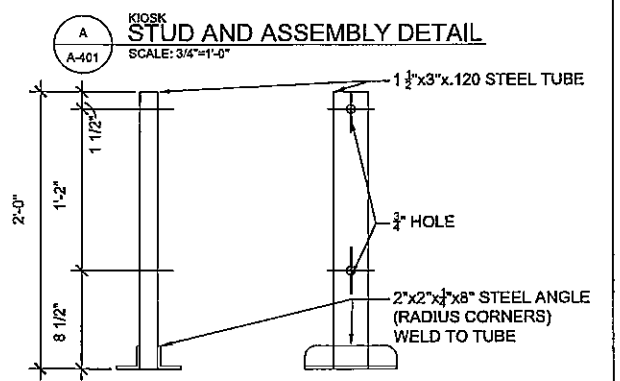
FLANGE PLAN



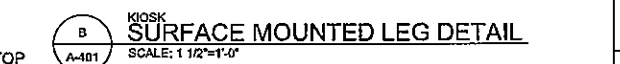
E KIOSK RAFTER AND LEG ASSEMBLY DETAIL
 SCALE: 1 1/2"=1'-0"



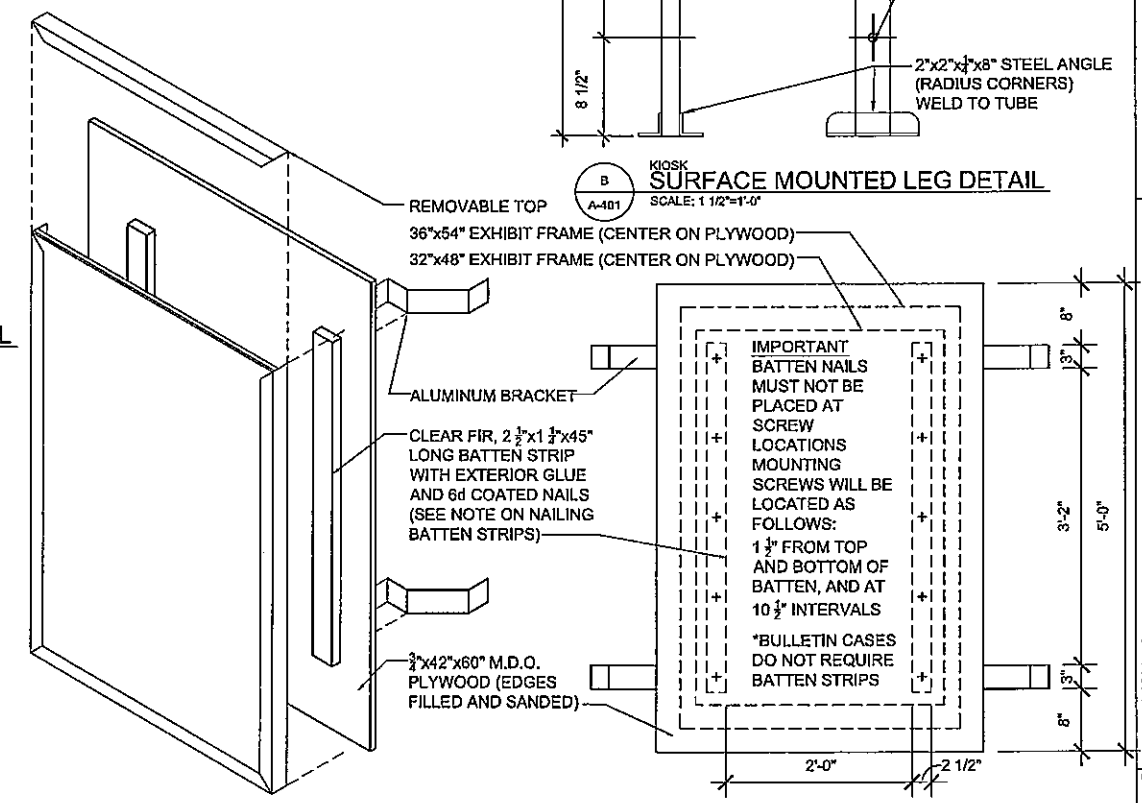
F KIOSK RAFTER DETAIL
 SCALE: 1 1/2"=1'-0"



A KIOSK STUD AND ASSEMBLY DETAIL
 SCALE: 3/4"=1'-0"



B KIOSK SURFACE MOUNTED LEG DETAIL
 SCALE: 1 1/2"=1'-0"

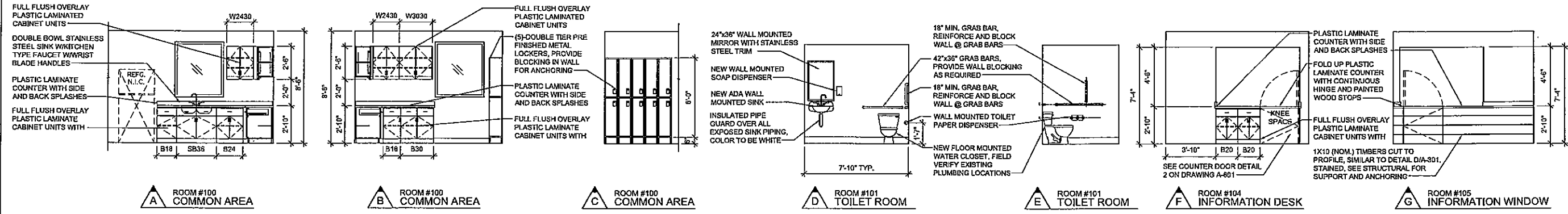


NOTE: DO NOT PAINT PLYWOOD SURFACE AT BATTEN LOCATION

D KIOSK ROOF RAFTER PLAN
 SCALE: 1"=1'-0"

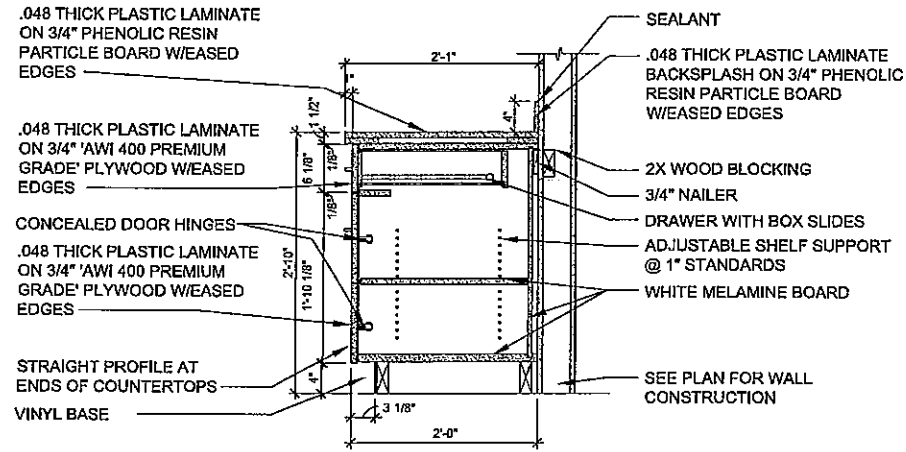
NOTE: ROOF RAFTER SPIDER FLANGES (SEE DETAIL G/A-401) WILL BE FABRICATED AND PROVIDED BY THE OWNER, AND INSTALLED BY THE BUILDING CONTRACTOR. THE KIOSK FABRICATION AND INSTALLATION SHALL BE BY BUILDING CONTRACTOR. THE SITE CONTRACTOR SHALL PROVIDE AND INSTALL BASE BRACKETS (1 PER KIOSK POST, FOOTERS, SLAB AND ELECTRICAL STUB UP (EXACT LOCATION SHALL BE COORDINATED WITH THE OWNER IN THE FIELD.

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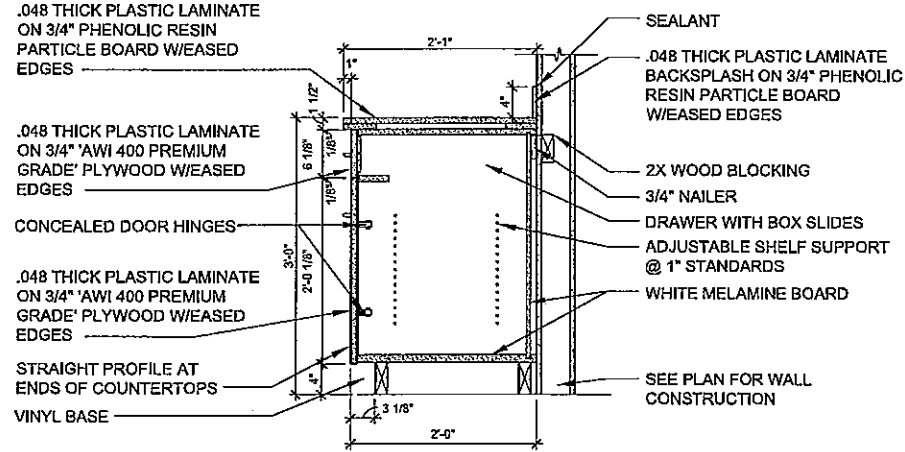


INTERIOR ELEVATIONS

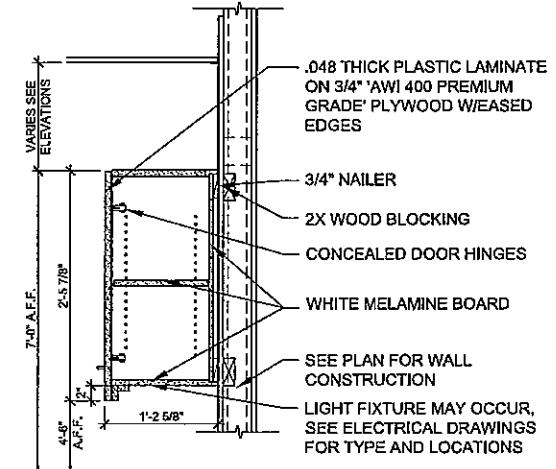
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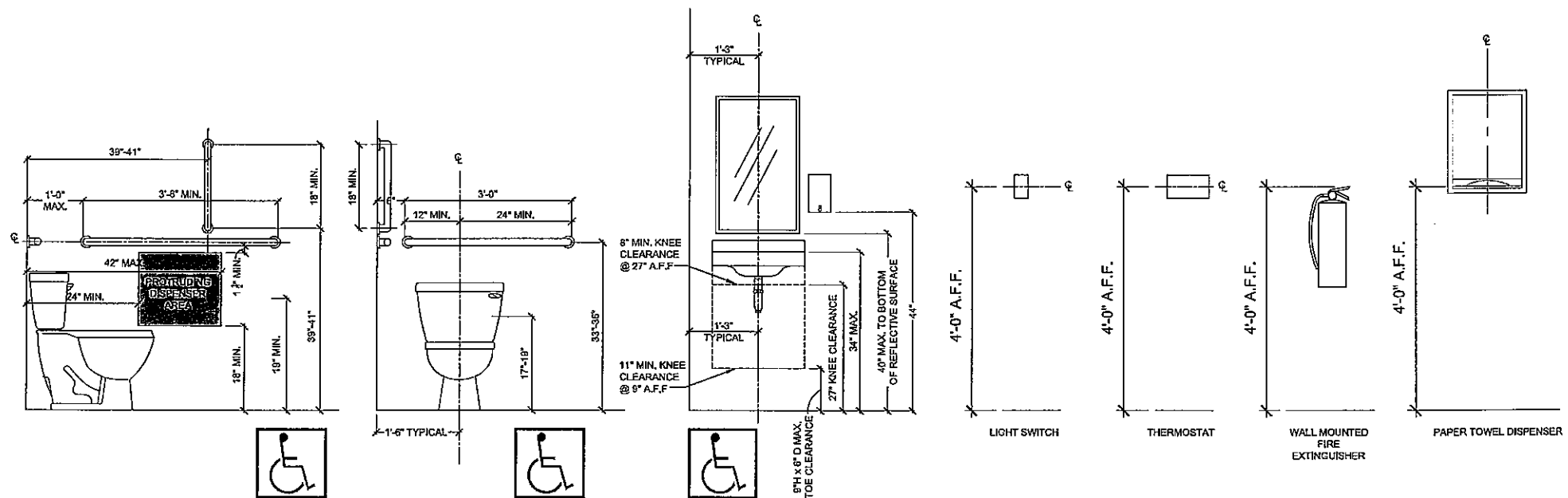
1 TYPICAL BASE CABINET DETAIL
SCALE: 1"=1'-0"



2 TYPICAL SINK CABINET DETAIL
SCALE: 1"=1'-0"



3 TYPICAL WALL CABINET DETAIL
SCALE: 1"=1'-0"



TYPICAL MOUNTING HEIGHTS

SCALE: 3/4"=1'-0"



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1	ISSUE FOR BID AND PERMIT	12/23/2014		

DATE: DECEMBER 23, 2014
SHEET NO.

A-501

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FILE NAME: G:\PDR\Reservations\Projects\Canal\WaterTaxi\Working Drawings\WaterTaxi_A-501.dwg

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				CEILING	HT. (A.F.F.)	REMARKS
				NORTH	SOUTH	EAST	WEST			
100	COMMON AREA	POLISHED CONCRETE	4 1/2" RUBBER BASE	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	9'-0"	STAINED AND SEALED
101	TOILET ROOM	VCT	6 3/8" RUBBER BASE	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	8'-0"	
102	MECHANICAL ROOM	POLISHED CONCRETE	4 1/2" RUBBER BASE	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	9'-0"	STAINED AND SEALED
103	OFFICE	POLISHED CONCRETE	4 1/2" RUBBER BASE	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	9'-0"	STAINED AND SEALED
104	INFORMATION DESK	POLISHED CONCRETE	4 1/2" RUBBER BASE	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	9'-0"	STAINED AND SEALED
105	INFORMATION WINDOW	POLISHED CONCRETE	4 1/2" RUBBER BASE	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	PTD. GWB.	9'-0"	STAINED AND SEALED

FINISH NOTES:

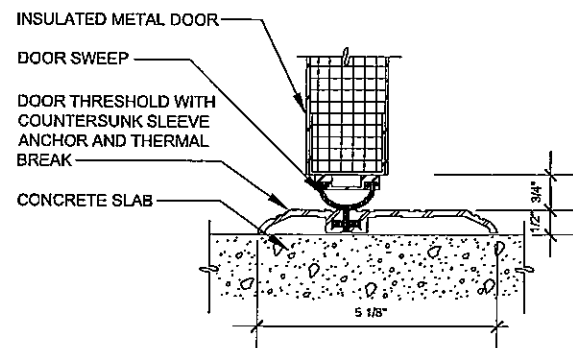
- INSTALL REDUCER/TRANSITION STRIPS AT ALL CHANGES OF FLOOR FINISH, COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL LINE OF COLORS
- CEILING HTS. ARE MAX. HTS. MINOR FIELD MODIFICATIONS MAY HAVE TO BE EXPECTED. G.C. TO SURVEY EACH ROOM AND NOTIFY ARCHITECT PRIOR TO MAKING ANY ADJUSTMENTS.
- EXISTING WALLS SCHEDULED TO REMAIN IN AREA OF EXPANSION ARE TO BE PATCHED AND REPAIRED AS NEEDED, PRIMED, AND PAINTED TO MATCH NEW CONSTRUCTION.
- ALL EXISTING AND PATCHED CONCRETE FLOORS TO HAVE A POLISHED, STAINED AND SEALED FINISH FLOOR SHALL RECEIVE AN APPLICATION OF SELF LEVELING CONCRETE TOPPING TO THE REQUIRED THICKNESS THAT WILL ALLOW FLOOR TO BE POLISHED, STAINED AND SEALED.
- ALL PAINTS, STAINS AND FLOORING/BASE COLORS SHALL BE SELECTED BY THE ARCHITECT FROM THE MANUFACTURER'S FULL LINE OF AVAILABLE COLORS.

DOOR SCHEDULE

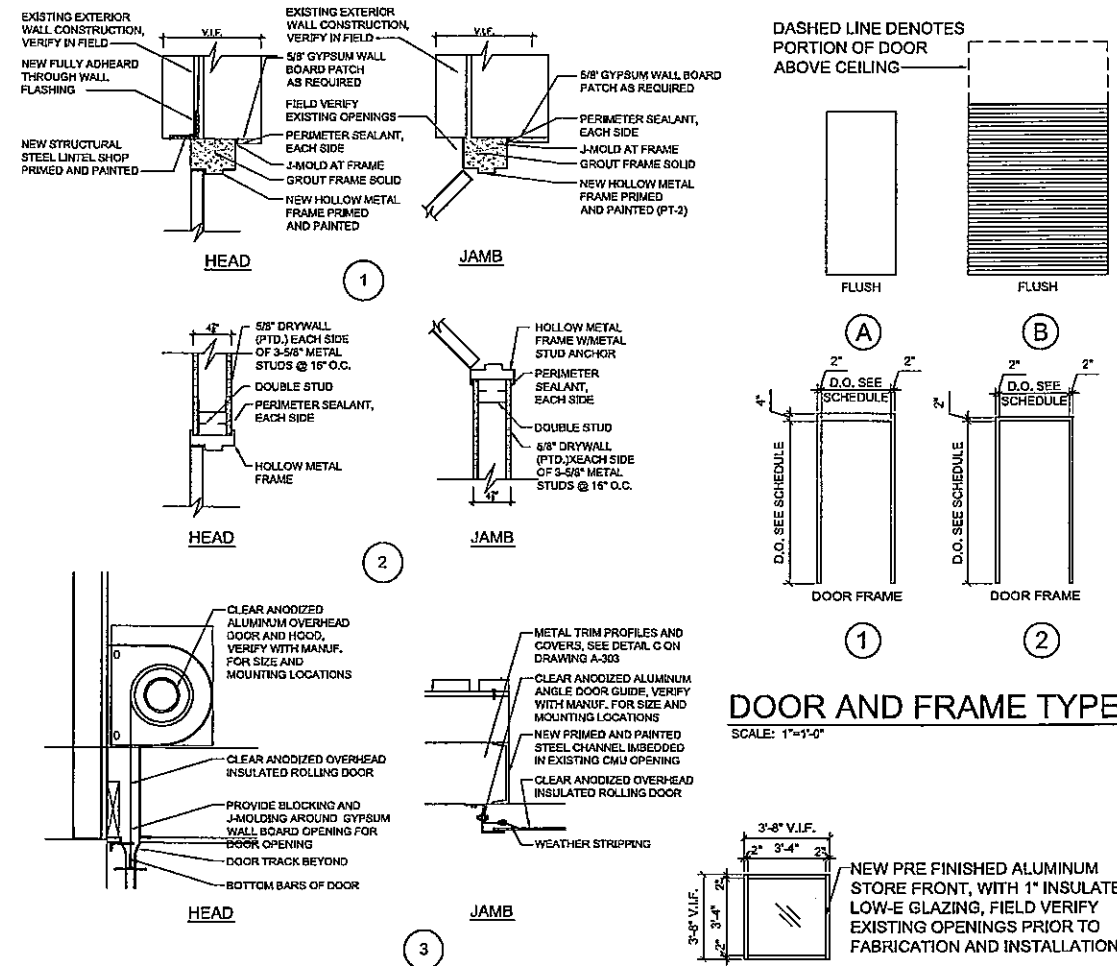
TAG	SIZE	DOOR		FRAME MATERIAL	DETAIL		DOOR TYPE	CLOSER	FIRE RATED	HARDWARE	REMARKS
		THICKNESS	MATERIAL		JAMB	HEAD					
100	3'-0" x 7'-0"	1 3/4"	INSULATED METAL	HOLLOW METAL	1	1	A	YES	-	ENTRY	NEW THRESHOLD
101	3'-0" x 7'-0"	1 3/4"	S.C. WOOD	HOLLOW METAL	2	2	A	NO	-	PRIVACY	UNDERCUT DOORS 1"
102	3'-0" x 7'-0"	1 3/4"	S.C. WOOD	HOLLOW METAL	2	2	A	NO	-	PASSAGE	PROVIDE WOOD LOUVER, SEE MECH. FOR SIZE
103	3'-0" x 7'-0"	1 3/4"	S.C. WOOD	HOLLOW METAL	2	2	A	NO	-	OFFICE	
104A	3'-0" x 7'-0"	1 3/4"	INSULATED METAL	HOLLOW METAL	1	1	A	YES	-	PASSAGE	PROVIDE KICK DOWN DOOR HOLDER PROVIDE DOOR SWEEP
104B	3'-0" x 2'-8"	1 3/4"	S.C. WOOD	WOOD	DETAIL 2/A-601	DETAIL 2/A-601	-	NO	-	SLIDE LATCH	SEE PLAN DETAIL 2/A-601 PROVIDE HEAD AND SILL CLEARANCES AS REQUIRED
105A	6'-0" x 10'-0"	-	INSULATED ALUMINUM	-	3	3	B	NO	-	SLIDE LATCHES	PUSH-UP OPERATED, LOCKABLE ROLLING OVERHEAD DOOR
105B	6'-0" x 10'-0"	-	INSULATED ALUMINUM	-	3	3	B	NO	-	SLIDE LATCHES	PUSH-UP OPERATED, LOCKABLE ROLLING OVERHEAD DOOR

GENERAL DOOR NOTES:

- S.C. WOOD: SOLID CORE WOOD DOOR TO BE FACTORY FINISHED
- ALL HARDWARE SHALL BE IN COMPLIANCE WITH ICC A117.1-209



1 TYPICAL THRESHOLD DETAIL
A-601 SCALE: 6"=1'-0"



DOOR AND FRAME TYPES

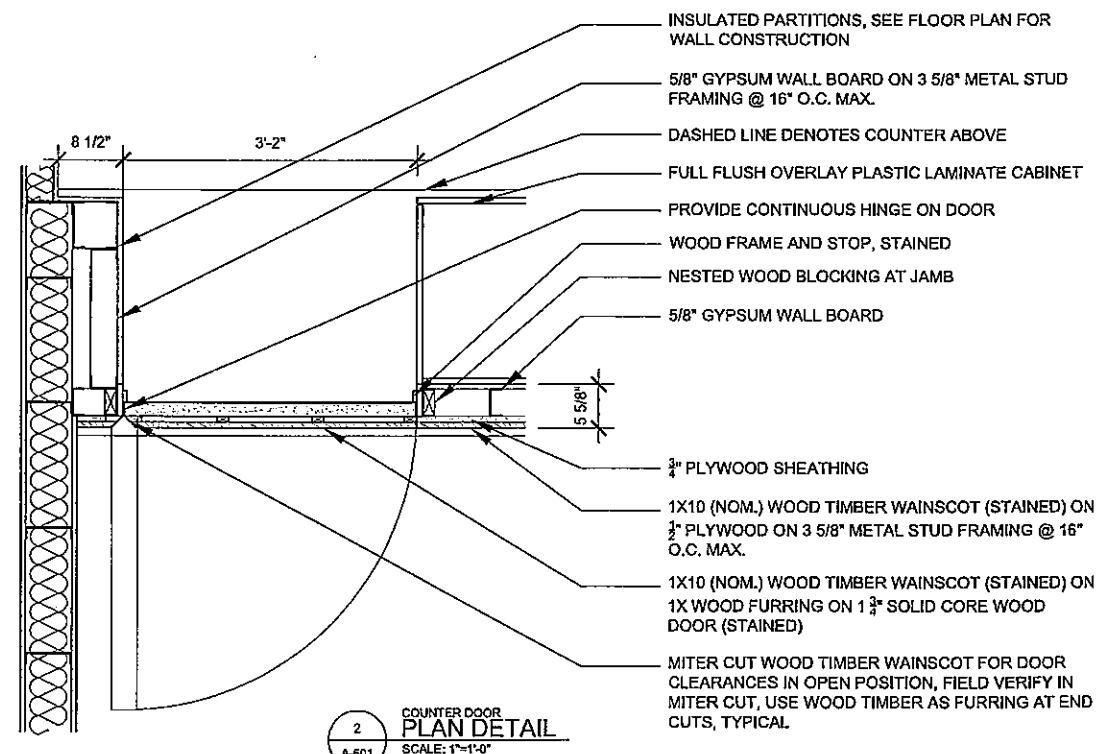
SCALE: 1"=1'-0"

FRAME DETAILS

SCALE: 1"=1'-0"

WINDOW TYPES

SCALE: 1"=1'-0"



2 COUNTER DOOR PLAN DETAIL
A-601 SCALE: 1"=1'-0"



Cleveland Metroparks
PROJECT NUMBER: ###
www.clevelandmetroparks.com

EAST BANK
BUILDING RENOVATIONS
WATER TAXI
OHIO & ERIE CANAL RESERVATION
1170 OLD RIVER ROAD, CLEVELAND, OH 44113

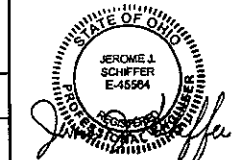
NO.	DESCRIPTION	DATE	BY	RJD
1	ISSUE FOR BID AND PERMIT	12/23/2014		

DATE: DECEMBER 23, 2014
SHEET NO. A-601

GENERAL SHEET NOTES

- COORDINATE THE INSTALLATION OF ALL MECHANICAL MATERIALS WITH ALL OTHER TRADES ON THE PROJECT INCLUDING ELECTRICAL, PLUMBING AND GENERAL TRADES CONTRACTORS.
- THE ENTIRE INSTALLATION SHALL CONFORM WITH THE LATEST STATE OF OHIO MECHANICAL CODE AND ALL THE CURRENT LOCAL CODES AND ORDINANCES.
- ALL OF THE DUCTWORK SIZES SHOWN ON THE PLANS ARE THE "AIRWAY" DIMENSIONS. IF INTERNAL LINING TYPE INSULATION IS INSTALLED AS SPECIFIED, THE DUCTWORK SIZES SHALL BE INCREASED TO ACCOUNT FOR THE LINING.
- PROVIDE TURNING VANES IN ALL SUPPLY AND RETURN 90° ELBOWS.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL TRADES CONTRACTOR ON THE AVAILABLE SPACE TO RUN DUCTWORK ABOVE CEILINGS. DEPENDING ON THE CLEARANCES, DUCTWORK MODIFICATIONS MAY BE NECESSARY. COORDINATE ACTUAL SPACE AVAILABLE PRIOR TO FABRICATING ANY DUCTWORK FOR THE PROJECT.
- SEE SHEET M-201 FOR MECHANICAL SPECIFICATIONS.

REV.	DATE	DESCRIPTION



12/18/14

WATER TAXI
 EAST BANK BUILDING RENOVATIONS
 1170 OLD RIVER RD., CLEVELAND, OH

NEW WORK - FLOOR PLAN - HVAC

ISSUED FOR:	
PERMIT:	12/23/14
BID:	12/23/14
CONSTRUCTION:	-
RECORD:	-
PROJECT MANAGER:	DESIGNER:
BMM	CAH

JOB NO.
2014381.00



MECHANICAL SYMBOLS		
SYMBOL & ABBREVIATION	DESCRIPTION	
	SA/SUP	SUPPLY AIR (RISE/DROP)
	RA/RET	RETURN AIR DUCT (RISE/DROP)
	EA/EXH	EXHAUST AIR DUCT (RISE/DROP)
	CD/SR	CEILING DIFFUSER/SUPPLY REGISTER (ARROWHEAD REPRESENTS NUMBER OF THROW)
	RR/REG	RETURN REGISTER/GRILLE
	ER/EG	EXHAUST REGISTER/GRILLE
	FC	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	MVD	FLEXIBLE CONNECTION
	F	MANUAL VOLUME DAMPER
	DL	FIRE DAMPER
	(L)	DUCT LINING (1" THICK UNLESS OTHERWISE NOTED)
	T	SINGLE LINE DUCT BRANCH TAKE-OFF
	FLEX	DUCT TRANSITION (RECTANGULAR TO ROUND)
	T-STAT	PROGRAMMABLE THERMOSTAT, HONEYWELL T-7300.
	DL	DOOR LOUVER
	AC-1	MECHANICAL EQUIPMENT DESIGNATION DESIGNATED NUMBER
	RS	REFRIGERANT SUCTION
	RL	REFRIGERANT LIQUID

VENTILATION SCHEDULE based on ASHRAE 62.1 - 2010													
Zone Identification	Occupancy Category	Zone Floor Area A _z (ft ²)	Area Outdoor Airflow Rate R _a (CFM/ft ²)	People Outdoor Airflow Rate R _p (CFM/person)	Occupant Density (#/1000ft ²)	Zone Population P _z (People)	Zone Air Effectiveness E _z	Breathing Zone Outdoor Airflow V _{bz} (CFM)	Exhaust Rate (CFM/ft ²)	Required Exhaust Airflow (CFM)	Actual Provided Outdoor Airflow (CFM)	Actual Provided Exhaust Airflow (CFM)	Mechanical Unit
100 - Common Area	Break Room	235	0.06	5	25	6	0.80	54	0	0	59	0	FC-1/CU-1
103 - Information Office	Office Space	90	0.05	5	5	1	0.80	13	0	0	16	0	FC-1/CU-1
104 - Captain's Office	Office Space	105	0.05	5	5	1	0.80	11	0	0	33	0	FC-1/CU-1
105 - Information Desk	Office Space	80	0.06	5	5	1	0.80	12	0	0	13	0	FC-1/CU-1
106 Information Window	Office Space	60	0.06	5	5	1	0.80	11	0	0	36	0	FC-1/CU-1
Total:								102		0	156	0	

FAN COIL UNIT SCHEDULE														
MARK	MANUFACTURER MODEL NUMBER	SIZE (TONS)	SUPPLY CFM	ESP IN. W.G.	COOLING COIL CAPACITY			HEATING COIL KW/STAGES	MOTOR HP	ELECTRICAL (VOLTS/ϕ/Hz)	MCA	MOCP	WEIGHT (LBS.)	REMARKS
					TOTAL MBH	SENS. MBH	S.F./ROWS							
FC-1	CARRIER FE4NB003L00	3	1200	0.8	36.6	27.8	-	3.8 KW/1 STAGE	1/2	208/1/60	31.2	35	175	①②③

- PROVIDE UNIT WITH DISCONNECT SWITCH, LEAK DETECTION KIT, CONDENSATE DRAIN, 2" MERV 8 AIR FILTER.
- PROVIDE UNIT WITH 156 CFM OF OUTSIDE AIR.
- PROVIDE WITH INFINITY TOUCH CONTROLS.

AIR COOLED HEAT PUMP SCHEDULE												
MARK	MANUFACTURER MODEL NUMBER	SERVICE	SIZE (TONS)	MCA	MOCP	FAN MOTOR				REFRIGERANT CONNECTION SIZES AT EQUIPMENT	WEIGHT (LBS.)	REMARKS
						No.	H.P.	ϕ	VOLTS			
HP-1	CARRIER 25HNB936A003	-	3	24.8	40	1	1/5	1	208	7/8" 3/8"	325	①②

- PROVIDE UNIT WITH DISCONNECT SWITCH AND 4" THICK HOUSEKEEPING PAD, 6" LARGER THAN UNIT IN ALL DIRECTIONS.
- HEATING CAPACITY AT 47F -- 38.0 MBH, AT 17F -- 24.0 MBH.

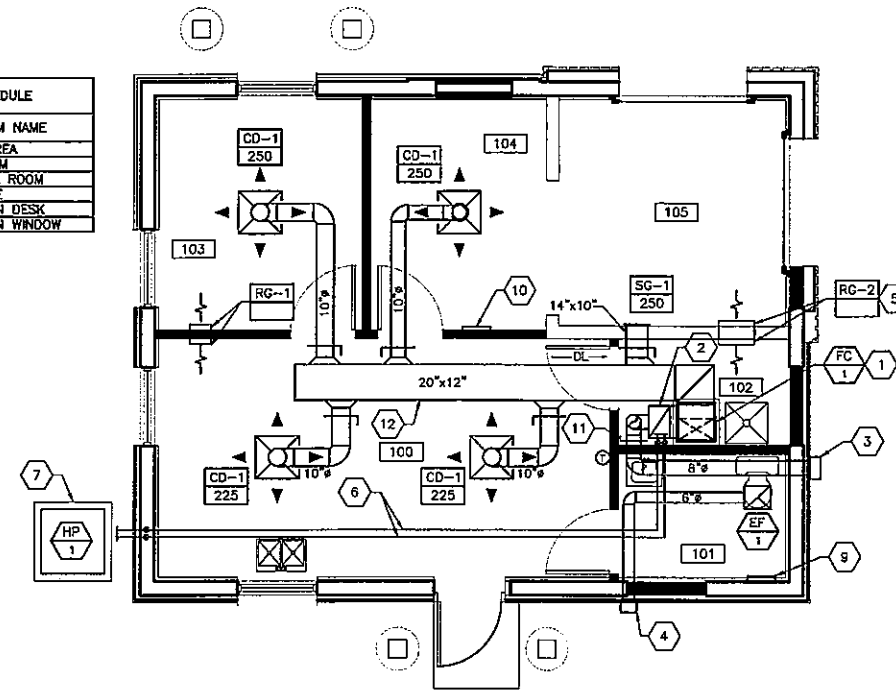
EXHAUST FAN SCHEDULE									
MARK	MANUFACTURER MODEL NO.	CAP. CFM	ESP INCHES	FAN HP/W	DRIVE TYPE	ELEC.	FAN TYPE	ACTIVATED	REMARKS
EF-1	GREENHECK SP-890	75	0.25	70W	DIRECT	120/1	CEILING CABINET	LIGHTING	①②③

- MOTOR WITH THERMAL OVERLOADS.
- INTEGRAL BACKDRAFT DAMPER.
- SPEED CONTROLLER AT FAN HOUSING.

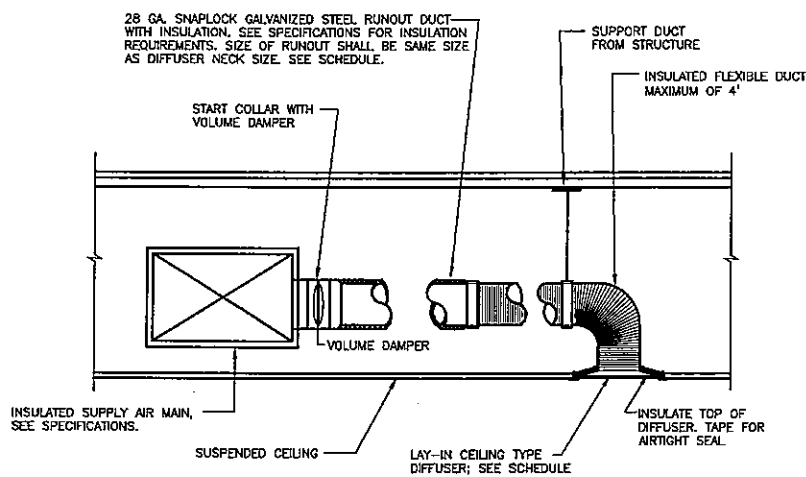
DIFFUSER AND GRILLE SCHEDULE								
MARK	MANUFACTURER MODEL NO.	NECK SIZE	FACE SIZE	MOUNTING	MAX. CFM	PATTERN	SP @ MAX. CFM	REMARKS
CD-1	PRICE #5CD	8"Ø	24"x24"	LAY-IN	300	360°	.10	①②③④
SG-1	HART & COOLEY #821	14"x10"	16"x12"	WALL	250	-	.10	①②③④⑤
RG-1	PRICE #530	10"x8"	12"x10"	WALL	250	-	.10	①②④
RG-2	HART & COOLEY #821	18"x12"	20"x14"	WALL	500	-	.10	①②④⑤

- MAXIMUM NC-22 □ MAXIMUM CFM NOTED.
- FINISH & COLOR SELECTED BY ARCHITECT FROM MANUFACTURERS STANDARDS. - SUBMIT SAMPLES OF FULL RANGE OF AVAILABLE STANDARD COLORS.
- BRANCH RUNOUT SHALL BE THE SAME SIZE AS NECK UNLESS NOTED OTHERWISE.
- S.P. LISTED FOR MAX. CFM.
- PROVIDE WITH MULTI-SHUTTER VALVE, TO ALLOW MANUAL OPEN/CLOSE.

ROOM SCHEDULE	
ROOM NUMBER	ROOM NAME
100	COMMON AREA
101	TOILET ROOM
102	MECHANICAL ROOM
103	INFO OFFICE
104	INFORMATION DESK
105	INFORMATION WINDOW



A3 NEW WORK - FLOOR PLAN - HVAC
 1/4"=1'-0"



A1 SUPPLY DIFFUSER CONNECTION DETAIL
 N.T.S.

BASIC MECHANICAL REQUIREMENTS - 15010

- A. THE TERM CONTRACTOR IN THIS SPECIFICATION SHALL BE CONSTRUED TO MEAN A "LICENSED CONTRACTOR" IN THE MECHANICAL AND PLUMBING TRADES. LICENSES SHALL BE CURRENT AND VALIDATED BY THE STATE OR LOCAL MUNICIPALITY HAVING JURISDICTION IN THE EXECUTION OF THE TRADE ON THIS PROJECT.
B. CONTRACTOR SHALL SUBMIT MANUFACTURER'S CATALOG DATA FOR EACH MANUFACTURED ITEM. SUBMITTAL SHALL INCLUDE ENOUGH INFORMATION TO SHOW COMPLIANCE WITH CONTRACT DOCUMENT REQUIREMENTS. MARK CATALOG DATA TO INDICATE SPECIFIC ITEM WITH APPLICABLE DATA UNDERLINED. PROVIDE ENOUGH QUANTITIES OF SHOP DRAWINGS FOR JO-ANN STORES, I.E. TO RETAIN TWO COPIES FOR THEIR RECORDS.
C. CONTRACTOR SHALL SUBMIT "AS-BUILT" DRAWINGS AT THE COMPLETION OF PROJECT. DRAWINGS SHALL RECORD DIFFERENCES BETWEEN MECHANICAL WORK AS INSTALLED AND AS SHOWN IN CONTRACT DOCUMENTS.
D. CONTRACTOR SHALL SUBMIT AN "OPERATION AND MAINTENANCE MANUAL" (O&M) AT THE COMPLETION OF THE PROJECT. THE MANUAL SHALL CONTAIN COPIES OF ALL WARRANTIES REQUIRED IN DIVISION 15, MANUFACTURER'S PRINTED OPERATING PROCEDURES FOR NORMAL AND EMERGENCY CONDITIONS, MAINTENANCE PROCEDURES FOR ROUTINE PREVENTION MAINTENANCE AND TROUBLE SHOOTING AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS.
E. CONTRACTOR SHALL VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
F. SEQUENCE, COORDINATE AND INTEGRATE THE VARIOUS ELEMENTS OF MECHANICAL SYSTEMS, MATERIALS AND EQUIPMENT. PERFORM CUTTING AND PATCHING FOR MECHANICAL SYSTEMS AS REQUIRED FOR INSTALLATION. SEAL EXTERIOR OPENINGS WEATHERTIGHT.

BASIC MECHANICAL MATERIALS AND METHODS - 15050

- A. REFER TO INDIVIDUAL PIPING SYSTEM SPECIFICATION SECTIONS FOR PIPE, FITTING, JOINING MATERIALS AND METHODS. PIPE THREADS SHALL COMPLY WITH ASME B1.20.1 FOR FACTORY-THREADED PIPE AND PIPE FITTINGS.
B. FURNISH AND INSTALL MANUFACTURED ESCUTCHEONS FOR EXPOSED WALL AND CEILING PENETRATIONS. INSTALL DIELECTRIC UNIONS WHEREVER JOINING DISSIMILAR METALS TO PREVENT GALVANIC ACTION AND CORROSION.
C. FURNISH AND INSTALL SLEEVES FOR WALL, FLOOR SLAB AND ROOF PENETRATIONS WITH A MIN. TWO SIZES LARGER THAN PIPE OR INSULATION. STEEL PIPE: ASTM A53, GRA. SCH. 40 GALV. PLAIN ENDS. PVC PLASTIC PIPE: ASTM D1785, SCH. 40.
D. FURNISH AND INSTALL EQUIPMENT NAMEPLATES IDENTIFYING UNIT NUMBER AND AREA SERVED BY UNIT. PIPING SYSTEMS SHALL HAVE SNAP-ON PLASTIC PIPE MARKERS TO INDICATE SERVICE AND FLOW DIRECTION.
E. INSTALL PIPING FREE OF SAGS AND BENDS TIGHT TO SLABS, TRUSSES, JOISTS, COLUMNS, WALLS, AND OTHER BUILDING COMPONENTS. ALLOW SUFFICIENT SPACE ABOVE REMOVABLE LAY-IN CEILINGS FOR PANEL REMOVAL.
F. REFER TO DIVISION 9 SECTION "PAINTING" FOR FIELD PAINTING REQUIREMENTS.
G. VALVES:
1. BALL VALVES, 2" AND SMALLER: RATED FOR 400 PSI WOG - TWO PIECE CONSTRUCTION WITH TEFZON SEATS AND SEALS. VALVES SHALL BE NIBCO MODEL 5-580-BR OR APPROVED EQUAL.
2. PLUG VALVES, 2 1/2" AND LARGER: RATED AT 175 PSI WOG, LUBRICATED PLUG TYPE, SEMI-STEEL BODY, WRENCH OPERATED WITH FLANGED ENDS. VALVES SHALL BE NORDSTROM 143 OR APPROVED EQUAL.
3. CHECK VALVES, 2" AND SMALLER: RATED AT 200 PSI WOG, CAST BRONZE BODY, HORIZONTAL SWING, Y-PATTERN AND BRONZE DISC. VALVES SHALL BE NIBCO MODEL 5413 OR APPROVED EQUAL.
4. OTHER APPROVED MANUFACTURERS: CRANE, HAMMOND, JAMESBURY, JENKINS, KEYSTONE, POWELL, STOCKHAM, AND WATTS.
H. HANGERS AND SUPPORT COMPONENTS SHALL BE FACTORY FABRICATED OF MATERIALS, DESIGN AND MANUFACTURER COMPLYING WITH MSS SP-58.
1. DOMESTIC WATER PIPING 2 1/2" DIA. AND SMALLER: GRINNELL FIG. NO. CT-68 TUBING HANGER WITH FIG NO. 167 PROTECTION SHIELD.
2. STORM/SANITARY WASTE AND VENT PIPING: GRINNELL FIG. NO. 260 ADJ STEEL CLEVIS HANGER FOR HORIZONTAL PIPING, GRINNELL FIG. NO. 261 STEEL RISER CLAMP FOR VERTICAL PIPING WHERE PIPING IS SUPPORTED FROM OVERHEAD WOOD TRUSSES. USE GRINNELL FIG. NO. 153 PIPE HANGER FLANGE.
3. HANGER RODS SHALL BE ASTM A-107 CONTINUOUS THREADED WITH THE FOLLOWING LOADING: 3/8" - 610 LBS., 1/2" - 1130 LBS., 5/8" - 1810 LBS. AND 3/4" - 2710 LBS.
4. HANGER SPACING AS FOLLOWS:
a. STEEL PIPE - AT INTERVALS NOT EXCEEDING 12'-0".
b. COPPER PIPE - 1 1/4" AND SMALLER 6'-0" INTERVALS 1 1/2" AND LARGER 10'-0" INTERVALS.
c. CAST IRON PIPE - AT INTERVALS NOT EXCEEDING 10'-0".
d. PLASTIC SCH. 40 PIPE - AT INTERVALS NOT EXCEEDING 4'-0".
5. HANGERS MANUFACTURED BY FEE AND MASON, B LINE AND HYDRA-ZORB ARE ALSO ACCEPTABLE.
I. MISCELLANEOUS STEEL PLATES, SHAPES AND BARS: ASTM A36.
J. PIPE SUPPORTS:
1. COPPER TUBING: ADJUSTABLE STEEL CLEVIS HANGER, B-LINE B3104CT.
2. UNINSULATED PIPING: ADJUSTABLE STEEL CLEVIS HANGER, B-LINE B3104 OR B3100.
3. INSULATED HOT PIPING (2 INCH AND SMALLER): ADJUSTABLE STEEL CLEVIS HANGER WITH GALVANIZED SHEET METAL SHIELD, B-LINE B3104 WITH B3151 SERIES.
4. INSULATED COLD PIPING (4 INCH AND SMALLER): ADJUSTABLE STEEL CLEVIS HANGER WITH GALVANIZED SHEET METAL SHIELD, B-LINE B3100 WITH B3151 SERIES.
5. PLASTIC PIPING: ADJUSTABLE V-BOTTOM STEEL CLEVIS HANGER WITH GALVANIZED 18 GAUGE CONTINUOUS SUPPORT CHANNEL, B-LINE B3106 WITH B3106V SERIES. MANUFACTURERS: B-LINE, ANML (GRINNELL), MICHIGAN, PHD, HILTI, HOLDRITE OR APPROVED EQUAL.
K. MULTIPLE OR TRAPEZE HANGERS: 12 GAUGE, ROLL FORMED, ASTM A570 GRADE 33 STRUCTURAL STEEL CHANNEL, 1 5/8 INCH X 1 5/8 INCH COATED STEEL CHANNELS WITH SPACERS AND HANGER RODS, B-LINE B22 STRUT OR STRONGER AS REQUIRED. MOUNT PIPES TO TRAPEZE WITH TWO-PIECE PIPE STRAPS SIZED FOR OUTSIDE DIAMETER OF PIPE/INSULATION, B-LINE B2000 SERIES. MANUFACTURERS: B-LINE, UNISTRUT, SUPERSTRUT OR APPROVED EQUAL.
L. WALL SUPPORT: (PIPE SIZES TO 3 INCH): CARBON STEEL HOOK, B-LINE B3191, MICHIGAN, PHD, HILTI, HOLDRITE OR APPROVED EQUAL.
M. VERTICAL SUPPORT: STEEL RISER CLAMP SIZED TO FIT OUTSIDE DIAMETER OF PIPE, B-LINE B3373, MICHIGAN, PHD, HILTI, HOLDRITE OR APPROVED EQUAL.
N. FLOOR SUPPORT (HOT PIPE SIZES TO 6 INCH AND ALL COLD PIPE SIZES): CARBON STEEL ADJUSTABLE PIPE SADDLE (SCREWED OR WELDED TO APPROPRIATE BASE STAND) AND NIPPLE ATTACHED TO STEEL BASE STAND SIZED FOR PIPE ELEVATION, B-LINE B3093, B3068T, B3090 OR B3088, MICHIGAN, PHD, HILTI, HOLDRITE OR APPROVED EQUAL.
O. HANGERS SHALL BE DESIGNED TO IMPED EISENGAGEMENT BY MOVEMENT OF SUPPORTED PIPE.
P. PROVIDE STONEMAN TRISULATORS OR EQUIVALENT OR 1/4 INCH THICK HAIR FELT AT ALL COPPER PIPE HANGERS OR SUPPORTS, EXCEPT NONE REQUIRED FOR INSULATED HOT PIPES. HANGERS AND CLAMPS FOR SUPPORT OF BARE COPPER TUBING SHALL BE COATED WITH COPPER-COLORED EPOXY PAINT. AN ADDITIONAL PVC COATING OF THE EPOXY-COATED HANGER SHALL BE APPLIED WHERE REQUIRED BY THE TENANT'S AUTHORIZED REPRESENTATIVE.
Q. HANGERS FOR OTHER THAN BARE COPPER PIPING SHALL BE ZINC PLATED IN ACCORDANCE WITH ASTM B633-SC3 OR SHALL HAVE AN ELECTRO-DEPOSITED GREEN EPOXY FINISH.
R. STRUT CHANNELS SHALL BE PRE-GALVANIZED IN ACCORDANCE WITH ASTM A653-690 OR HAVE AN ELECTRO-DEPOSITED EPOXY FINISH.

MECHANICAL INSULATION - 15050

- A. GENERAL:
1. FURNISH AND INSTALL INSULATION FOR DUCTWORK AND PIPING AS DESCRIBED IN CONTRACT DOCUMENTS. SUBMIT PRODUCT DATA FOR EACH TYPE OF MECHANICAL INSULATION FOR THE DATA FOR EACH TYPE OF MECHANICAL INSULATION FOR THE PROJECT, IDENTIFYING R-VALUE, THICKNESS, AND ACCESSORIES.
2. INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS.
3. SCHEDULE INSULATION APPLICATION AFTER DUCT AND PIPING TESTS HAVE BEEN COMPLETED.
B. PRODUCTS:
1. GLASS FIBER: INORGANIC GLASS FIBERS, BONDED WITH A THERMOSETTING RESIN.
a. BLANKET: 1-1/2" THICK WITH ALUMINUM FOIL SCRIM KRAFT FACING AND 1 LB/CU. FT. DENSITY, OWENS-CORNING FRK.
b. PREFORMED PIPE INSULATION: 1" THICK WITH REINFORCED ALL SERVICE VAPOR RETARDER JACKETING, OWENS-CORNING FIBERGLASS ASJ.
c. OTHER APPROVED MANUFACTURERS: CERTAINTED, KNAUF, AND MANVILLE.
C. EXECUTION:
1. SELECT ACCESSORIES COMPATIBLE WITH MATERIALS SUITABLE FOR THE SERVICE THAT DO NOT CORRODE, SOFTEN, OR OTHERWISE ATTACK THE INSULATION OR JACKET.
2. SLIP INSULATION ON THE COLD AND HOT WATER PIPE AND SEAL JOINTS WITH ADHESIVE. WHERE THE SLIP ON TECHNIQUE IS NOT POSSIBLE, CUT ONE SIDE LONGITUDINALLY AND APPLY TO THE PIPE. SEAL SEAMS AND JOINTS WITH ADHESIVE.
3. INSULATE FINISHED PLUMBING LINES TO FIXTURES ACCESSIBLE TO THE DISABLED WITH 3/8" ARMSTRONG ARMAFLEX OR EQUAL.
4. DUCTWORK APPLICATION:
a. ALL RETURN AIR DUCTWORK IS TO BE LINED WITH DUCT LINER.
b. ALL SUPPLY AND OUTDOOR AIR DUCTWORK IS TO BE WRAPPED WITH BLANKET INSULATION.
5. DOMESTIC COLD AND HOT WATER PIPING IS TO BE INSULATED WITH 1" PREFORMED PIPE INSULATION.

PLUMBING PIPING - 15410

- A. GENERAL:
1. FURNISH AND INSTALL PLUMBING PIPING AS SHOWN ON DWGS.
2. FURNISH AND INSTALL WATER METER (IF REQUIRED) IN COMPLIANCE WITH THE LOCAL WATER UTILITY COMPANY'S STANDARDS.
B. SUMMARY:
1. THIS SECTION INCLUDES PLUMBING PIPING SYSTEMS AS SHOWN ON DWGS AND CONNECTING INTO SYSTEMS AS REQUIRED. SYSTEMS INCLUDE THE FOLLOWING:
a. POTABLE WATER DISTRIBUTION, INCLUDING COLD AND HOT WATER SUPPLY.
b. DRAINAGE AND VENT SYSTEMS, INCLUDING SANITARY AND STORM.
C. DOMESTIC WATER PIPING SYSTEMS
1. ALL ABOVE-GROUND PIPING SHALL BE TYPE "L" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS.
2. SWEAT COPPER JOINTS WITH 95/5 TIN-ANTIMONY SOLDER FOR ABOVE GROUND PIPING. SOIL, WASTE, AND VENT PIPING
1. PIPE AND FITTINGS
a. ABS (ASTM D2568) OR PVC (ASTM D2665) PLASTIC PIPE & FITTINGS. PROVIDE APPROVED CLEANER & GLUE FOR ABS OR PVC FITTINGS.
b. VENT PIPING SHALL BE TYPE "L" HARD COPPER WITH WROUGHT COPPER FITTINGS OR STEEL PIPING WITH NO HUB CONNECTIONS WHERE RETURN AIR PLENUM IS UTILIZED.
E. VALVES
1. SECTIONAL VALVES: INSTALL SECTIONAL VALVES CLOSE TO MAIN ON EACH BRANCH OR EQUIPMENT CONNECTIONS AND WHERE INDICATED. USE BALL VALVES FOR SECTIONAL VALVES 2 INCHES AND SMALLER.
2. SHUTOFF VALVES: INSTALL SHUTOFF VALVES ON INLET TO EACH PLUMBING EQUIPMENT ITEM, ON EACH SUPPLY TO EACH PLUMBING FIXTURE NOT HAVING STOPS ON SUPPLIES, AND ELSEWHERE AS INDICATED. FOR SHUTOFF VALVES 2 INCHES AND SMALLER, USE BALL VALVES.
F. CONNECTIONS
1. SUPPLY RUNOUTS TO FIXTURES: INSTALL HOT AND COLD WATER SUPPLY PIPING RUNOUTS TO FIXTURES INDICATED, BUT NOT SMALLER THAN REQUIRED BY PLUMBING CODE TO FIXTURES.
2. DRAINAGE RUNOUTS TO FIXTURES: PROVIDE DRAINAGE AND VENT PIPING RUNOUTS, WITH APPROVED TRAP, OF SIZES INDICATED, BUT NOT SMALLER THAN REQUIRED BY PLUMBING CODE, TO PLUMBING FIXTURES AND DRAINS.
G. FIELD QUALITY CONTROL
1. INSPECT WATER DISTRIBUTION PIPING AND DRAINAGE PIPING.
a. DO NOT ENCLOSE, COVER, OR PUT INTO OPERATION WATER DISTRIBUTION PIPING SYSTEM UNTIL IT HAS BEEN INSPECTED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
2. TEST WATER DISTRIBUTION PIPING AS FOLLOWS:
a. TEST FOR LEAKS AND DEFECTS IN NEW WATER DISTRIBUTION PIPING SYSTEM.
b. CAP AND SUBJECT THE PIPING SYSTEM TO A STATIC WATER PRESSURE TWICE THE OPERATING PRESSURE WITHOUT EXCEEDING PRESSURE RATING OF PIPING SYSTEM MATERIALS. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR 4 HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.
c. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.
3. DRAINAGE AND VENT PIPING TEST:
a. TEST DRAINAGE AND VENT SYSTEM ACCORDING TO PROCEDURES OF AUTHORITY HAVING JURISDICTION.

PLUMBING FIXTURES - 15440

- A. GENERAL:
1. PROVIDE PLUMBING FIXTURES AND TRIM, FITTINGS, OTHER COMPONENTS AND SUPPORTS AS SPECIFIED ON THE DRAWINGS IN THE PLUMBING FIXTURE SCHEDULE.
2. FAUCETS: UNLESS OTHERWISE SPECIFIED, PROVIDE FAUCETS THAT ARE CAST BRASS WITH POLISHED CHROME-PLATED FINISH.
3. FURNISH WALL CARRIERS FOR THE FOLLOWING FIXTURES:
a. WALL HUNG LAVATORIES AND SINKS
B. FIELD QUALITY CONTROL
1. INSPECT EACH INSTALLED FIXTURE FOR DAMAGE. REPLACE DAMAGED FIXTURES AND COMPONENTS.
C. ADJUSTING AND CLEANING
1. OPERATE AND ADJUST FAUCETS AND CONTROLS. REPLACE DAMAGED AND MALFUNCTIONING FIXTURES, FITTINGS, AND CONTROLS.
2. ADJUST WATER PRESSURE AT FAUCETS, AND FLOWMETERS HAVING CONTROLS, TO PROVIDE PROPER FLOW AND STREAM.
3. REPLACE WASHERS OF LEAKING AND DRIPPING FAUCETS AND STOPS.
4. CLEAN FIXTURES, FITTINGS, AND SPOUT AND DRAIN STRAINERS WITH MANUFACTURERS' RECOMMENDED CLEANING METHODS AND MATERIALS.
D. PROTECTION
1. PROVIDE PROTECTIVE COVERING FOR INSTALLED FIXTURES AND FITTINGS.
2. DO NOT ALLOW USE OF FIXTURES AS TEMPORARY FACILITIES.

PLUMBING EQUIPMENT - 15460

- A. ELECTRIC DOMESTIC WATER HEATER: PROVIDE COMMERCIAL ELECTRIC WATER HEATERS OF SIZE, CAPACITY AND ELECTRICAL CHARACTERISTICS AS SCHEDULED ON THE DRAWINGS. COMPLY WITH ANSI/ASHRAE/IES 90A FOR ENERGY EFFICIENCY. PROVIDE UL LISTING, AND NSF APPROVAL.
1. TANK: HEAVY-GAUGE STEEL TANK; WORKING PRESSURE OF 150 PSIG; ACCESS PANEL; GLASS LINING FUSED TO THE TANK.
2. JACKET: INSULATE TANK WITH CFC-FREE POLYURETHANE CLOSED CELL FOAM OR FIBERGLASS INSULATION. PROVIDE OUTER STEEL JACKET WITH BAKED ENAMEL FINISH OVER BONDED UNDERCOATING.
3. HEAVY-DUTY MEDIUM WATT DENSITY, WITH INCOLOY SHEATH, THERMOSTAT STEPPED THROUGH MAGNETIC CONTACTORS.
4. CONTROLS: ADJUSTABLE IMMERSION THERMOSTAT; POWER CIRCUIT FUSING; PILOT LIGHT AND SWITCH CONTROLLING CONTROL CIRCUIT.
5. SAFETY CONTROLS: DOUBLE POLE, MANUAL RESET, HIGH LIMIT; PROBE TYPE ELECTRIC LOW WATER CUTOFF; BOTH FACTORY WIRED.
6. ACCESSORIES: PROVIDE FACTORY-INSTALLED DIELECTRIC NIPPLES; TOP- OR SIDE-MOUNTED PRESSURE AND TEMPERATURE RELIEF VALVE (3/4 INCH, ASME RATED TO DISCHARGE AT 210°F/125 PSIG); BRASS DRAIN VALVE; STEEL LEGS; RADIANT FLOOR SHIELD; ALUMINUM DRAIN PAN (SIZED A MINIMUM OF 4 INCHES GREATER IN DIAMETER THAN THE TANK).
7. WARRANTY: FURNISH SIX YEAR LIMITED WARRANTY FOR TANK LEAKAGE.
B. MANUFACTURERS: LOCHINVAR, A.O. SMITH, RHEEM/RUUD OR STATE.
1. PROVIDE THERMAL EXPANSION TANK OF THE SIZE AND CAPACITY AS SCHEDULED ON THE DRAWINGS. UNIT SHALL BE HIGH-STRENGTH DEEP DRAWN STEEL TANK; SEPARATE, SEALED-IN RIGID POLYPROPYLENE LINER; HEAVY-DUTY BUTYL DIAPHRAGM BARRIER; ADJUSTABLE, FACTORY-CHARGED, SEALED AIR CUSHION; NST THREADED CONNECTION; AIR CHARGING VALVE WITH PROTECTIVE CAP. UNIT SHALL BE SUITABLE FOR POTABLE WATER USAGE.
2. MANUFACTURERS: AMTROL, WATTS OR TACO.

POWER VENTILATORS - 15800

- A. GENERAL:
1. INSTALL POWER VENTILATORS AS DESCRIBED IN CONTRACT DOCUMENTS.
B. PRODUCTS:
1. AS SCHEDULED ON DRAWINGS. OTHER APPROVED MANUFACTURERS INCLUDE BROAN, CARNES, GREENHECK, AND PENN.
2. CEILING MOUNTED EXHAUST FANS SHALL BE ACoustically INSULATED WITH A SOUND LEVEL RATING OF 4.5 SONES MAXIMUM. PROVIDE EXHAUST GRILLE, SHUTTER/ROOF BACK DRAFT DAMPER, ROOF CAP AND RUBBER - IN SHEAR VIBRATION ISOLATORS.
C. EXECUTION:
1. INSTALL FANS LEVEL AND PLUMB, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. SECURE UNITS TO STRUCTURE OR CURB.
2. CHECK EXHAUST FANS FOR ANYTHING THAT WILL AFFECT ITS OPERATION AND TAKE CORRECTIVE ACTION BEFORE START-UP.

METAL DUCTWORK - 15900

- A. GENERAL:
1. FURNISH AND INSTALL RECTANGULAR AND ROUND METAL DUCTS AND PLENUMS FOR HVAC SYSTEMS PER THE CONTRACT DOCUMENTS.
2. COMPLY WITH NFPA 90A, "STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS."
B. PRODUCTS:
1. FABRICATE DUCTS OF LOCK FORMING QUALITY, ASTM A 527, COATING DESIGNATION G90, IN CONFORMANCE WITH ALL "SMACNA" STANDARDS. PROVIDE MILL PHOSPHATED FINISH FOR EXPOSED SURFACES OF DUCTS EXPOSED TO VIEW. SEAL JOINTS AND SEAMS WITH UNLINED DUCT SEAL OR EQUAL.
2. VOLUME DAMPERS IN MAIN AND BRANCH DUCTS SHALL BE FACTORY FABRICATED MULTIPLE OPPOSED BLADE DESIGN WITH STANDARD LEAKAGE RATING, LOCKING QUADRANT AS MANUFACTURED BY AIR CONTROL PRODUCTS TCD-09 OR EQUAL.
3. FIRE DAMPERS SHALL BE "RUSKIN" I902 TYPE B, 165X127 FUSIBLE LINK, 1 1/2" HOUR RATED, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR AS REQUIRED BY LOCAL BUILDING CODE, REGULATIONS.
4. DUCT HANGERS SHALL BE 1" X 18 GA. GALV. STEEL STRAPS SPACED NOT MORE THAN 8 FT. APART.
5. PROVIDE TURNING VANES IN ALL S.A. AND R.A. ELBOWS. TURNING VANES SHALL BE SINGLE BLADE VANES WITH TRAILING EDGE, 1-1/4" WIDE VANE BALL.
6. FLEXIBLE DUCTS SHALL COMPLY WITH UL-181, CLASS 1, FACTORY-FABRICATED, INSULATED ROUND DUCT WITH AN OUTER GLASS-REINFORCED SILVER MYLAR JACKET ENCLOSING 1-1/2" THICK GLASS FIBER INSULATION AROUND A CONTINUOUS INNER LINER. REINFORCEMENT SHALL BE A STEEL-WIRE HELIX ENCAPSULATED IN THE POLYETHYLENE FILM INNER LINER.
7. MAXIMUM FLEXIBLE DUCT RUN TO BE 5'-0".
C. EXECUTION:
1. CONSTRUCT AND INSTALL EACH DUCT SYSTEM FOR THE SPECIFIC DUCT PRESSURE CLASSIFICATION INDICATED PER SMACNA AND LOCAL CODE. INSTALL DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER PERMANENT ELEMENTS OF THE BUILDING.
2. ADJUST VOLUME CONTROL DAMPERS AS REQUIRED BY THE TESTING AND BALANCING PROCEDURES. VACUUM DUCT SYSTEMS PRIOR TO FINAL ACCEPTANCE.
3. ALL SUPPORTS FOR FLEXIBLE DUCT SHALL INCORPORATE A 1" WIDE BAND CLAMP. SUPPORT SYSTEM MUST NOT DAMAGE NEW DUCT OR CAUSE OUT OF ROUND SHAPE. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0".

AIR OUTLETS AND INLETS - 15950

- A. GENERAL:
1. INSTALL CEILING AIR DIFFUSERS AND GRILLES AS DESCRIBED IN CONTRACT DOCUMENTS. AIR OUTLETS AND INLETS SHALL COMPLY WITH ARI 650 STANDARD.
B. PRODUCTS:
1. AS SCHEDULED ON DRAWINGS. OTHER APPROVED MANUFACTURERS INCLUDE: ANEMOSTAT, CARNES, KRUEGER, TUTTLE AND BAILEY.
2. ALL DIFFUSERS SHALL HAVE BORDER STYLES COMPATIBLE WITH ADJACENT CEILING SYSTEMS.
3. REGISTERS, DIFFUSERS, AND GRILLES SHALL HAVE A SEMI-GLOSS WHITE ENAMEL FACTORY FINISH UNLESS NOTED OTHERWISE.
C. EXECUTION:
1. INSTALL AIR OUTLETS AND INLETS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATION OF CEILING DIFFUSERS AND GRILLES WITH THE REFLECTED CEILING PLAN. ANCHOR SECURELY INTO OPENINGS.
2. CONTRACTOR TO TEMPORARILY INSTALL MERV-8 FILTER ON RETURN AIR INLET DURING CONSTRUCTION PERIOD. FILTER SHALL BE CHANGED WEEKLY DURING CONSTRUCTION PERIOD.

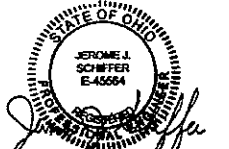
TESTING, ADJUSTING, AND BALANCING - 15990

- A. GENERAL:
1. FURNISH TESTING, BALANCING, AND ADJUSTING OF HEATING, COOLING AND EXHAUST SYSTEMS. TESTING AGENCY SHALL HAVE FIVE YEARS EXPERIENCE WITH PROJECTS OF SIMILAR SIZE AND SCOPE.
2. SUBMIT FOUR COPIES OF COMPLETE TEST DATA FOR EVALUATION AND APPROVAL. SUBMIT FORMS PREPARED BY AABC.
3. TEST, ADJUST, AND BALANCE THE AIR CONDITIONING SYSTEM DURING THE SUMMER SEASON AND HEATING SYSTEM DURING THE WINTER SEASON.
B. EXECUTION:
1. PERFORM TESTING AND BALANCING IN COMPLETE ACCORDANCE WITH THE ASSOCIATED AIR BALANCE COUNCIL "STANDARDS FOR FIELD MEASUREMENTS AND INSTRUCTIONS."
2. INSTRUMENTS USED BY AGENCY SHALL BE ACCURATELY CALIBRATED AND MAINTAINED IN GOOD WORKING ORDER.
3. AIR TESTING AND BALANCING PROCEDURE
a. CHECK FILTERS. DO NOT PROCEED WITHOUT CORRECT, CLEAN FILTERS.
b. TEST AND ADJUST BLOWER RPM TO DESIGN REQUIREMENTS.
c. TEST AND RECORD MOTOR FULL LOAD AMPS.
d. TEST AND RECORD SUPPLY AIR, RETURN AIR AND EXHAUST AIR CFM, STATIC PRESSURES, SUCTION AND DISCHARGE.
e. TEST AND RECORD ENTERING AND LEAVING AIR TEMPERATURES. BOTH HEATING AND COOLING.
f. TEST AND ADJUST EACH DIFFUSER, GRILLE, AND REGISTER TO WITHIN 10% OF DESIGN REQUIREMENTS. IDENTIFY EACH DIFFUSER, GRILLE, AND REGISTER BY MANUFACTURER, TYPE, SIZE, AND COMPARISON BETWEEN REQUIRED CFM AND TESTED.
C. REPORT IS PART OF THE REQUIRED CLOSEOUT PACKAGE.



Cleveland Metroparks logo

Table with 2 columns: REV. DATE, DESCRIPTION



WATER TAXI EAST BANK BUILDING RENOVATIONS 1170 OLD RIVER RD., CLEVELAND, OH 12/18/14 MECHANICAL SPECIFICATIONS

Table with 2 columns: ISSUED FOR, PERMIT, BID, CONSTRUCTION, RECORD, PROJECT MANAGER, DESIGNER

JOB NO. 2014381.00 M-2 logo

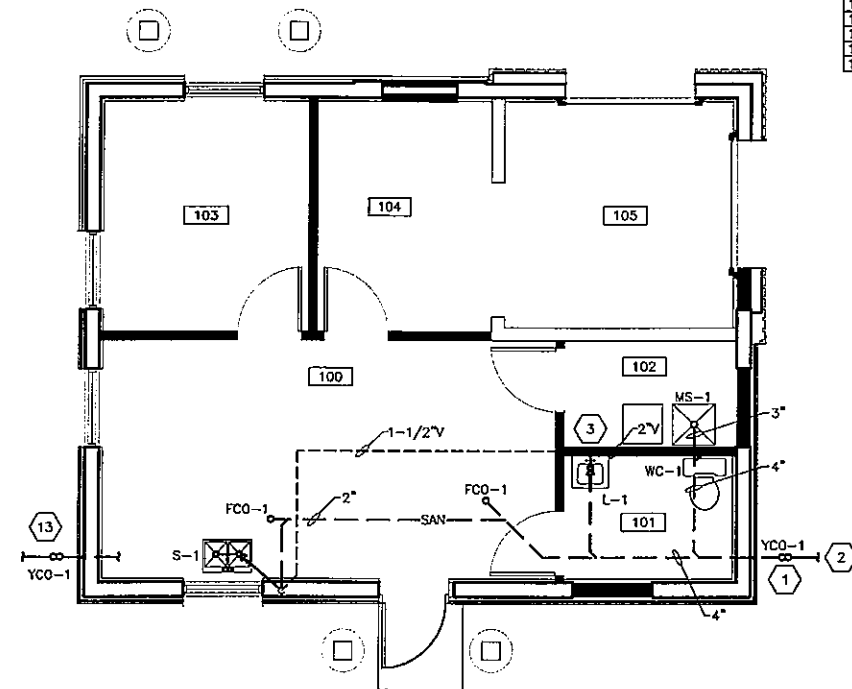
PLUMBING LEGEND	
---	UNDERGROUND SANITARY PIPING
---	SANITARY VENT PIPING
---	COLD WATER PIPING
---	HOT WATER PIPING
---	CONDENSATE DRAIN PIPING
	BALL VALVE
	CHECK VALVE
	UNION
	WALL HYDRANT
	RISER DOWN - ELBOW
	RISER UP - ELBOW
WC	WATER CLOSET
L	LAVATORY
S	SINK
MS	MOP SINK
VTR	VENT THRU ROOF
CD	CONDENSATE DRAIN
AFF	ABOVE FINISHED FLOOR
AD	ACCESS DOOR
W	WASTE PIPING
V	VENT PIPING
SAN	SANITARY PIPING, DETERMINED BY LINETYPE.

PLUMBING FIXTURE SCHEDULE							
SYM.	MFR.	MODEL No.	DESCRIPTION	CONNECTIONS			
				CW	HW	WASTE	VENT
WC-1	AMERICAN STANDARD	2002.014	"CHAMPION" FLOOR MOUNTED ADA VITREOUS CHINA ELONGATED 1.6 GPF CLOSE-COUPLED TWO-PIECE WASHDOWN WATER CLOSET, FLUSH TANK WITH 12" ROUGH-IN. PROVIDE OPEN-FACED SEAT.	1/2"	-	4"	2"
L-1	AMERICAN STANDARD	0355.012	"LUCERNE" WALL MOUNTED VITREOUS CHINA LAVATORY, 20"x18" WITH FRONT OVERFLOW AND FAUCET HOLES ON 4" CENTERS, PROVIDE W/"MONTERREY" FAUCET MODEL #5502.145 WITH LEVER HANDLES, GRID DRAIN AND 3/8" CHROME ANGLE STOP ON TEMPERED AND COLD WATER SUPPLIES WITH LOOSE KEY HANDLES, PROVIDE WITH OFFSET DRAIN, INSULATION KIT AND CONCEALED ARM CARRIER AS REQUIRED. PROVIDE WITH ASSE 1070 POINT-OF-USE THERMOSTATIC MIXING VALVE.	1/2"	1/2"	1 1/2"	1 1/2"
S-1	JUST	DL-ADA-1625	LEDGE TYPE, 18 GAUGE TYPE 304 STAINLESS STEEL SELF RIM DOUBLE BOWL SINK, OVERALL SIZE 25"x16"x6.5" DEEP WITH BASKET STRAINERS, SUPPLY STOPS AND P-TRAP, USE 3/8" CHROME ANGLE STOPS ON HOT AND COLD WATER WITH LOOSE KEY HANDLES. ADA COMPLIANT. FAUCET SHALL BE CHICAGO FAUCETS "1895-LBAGCP", TWO HOLES, 4" CENTERS, 8" L-TYPE SWING SPOUT, 2.2 GPM AERATOR AND 2" VANDAL PROOF SINGLE WING HANDLES. PROVIDE WITH ASSE 1070 POINT-OF-USE THERMOSTATIC MIXING VALVE.	1/2"	1/2"	1 1/2"	1 1/2"
MS-1	MUSTEE	63M	24"x24"x10" MOLDED FIBERGLASS MOP SERVICE BASIN. PROVIDE UNIT COMPLETE WITH SERVICE FAUCET AND VACUUM BREAKER, PAIL HOOK, WALL GUARD, RIM GUARD, HOSE AND HOSE CLAMPS.	3/4"	3/4"	3"	1 1/2"
EW-1	A.O. SMITH	DEL-10	2.5 KW 208V/1PH, 10 GALLON WATER HEATER; PROVIDE DRAIN PAN UNDER SHELF MOUNTED WATER HEATER; TERMINATE DRAIN LINE IN MOP SINK; INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE FULL SIZE T&P RELIEF LINE, TERMINATE 2" ABOVE MOP SINK. HEATER TO BE MOUNTED ABOVE MOP SINK ON SHELF.	3/4"	3/4"	-	-
FCO-1	JOSAM	56010	DUCO CAST IRON FLUSH WITH FLOOR CLEANOUT WITH ROUND ADJUSTABLE SCORRIATED SECURED NICKEL BRONZE TOP.	-	-	2"	-
WH-1	J.R. SMITH	5509QT	NON-FREEZE WALL HYDRANT ENCLOSED IN STAINLESS STEEL BOX WITH LOCKING COVER, BRONZE HYDRANT, BRONZE CASING, HOSE CONNECTION WITH INTEGRAL VACUUM BREAKER UNIVERSAL INLET CONNECTION AND REMOVABLE "T" HANDLE KEY.	3/4"	-	-	-

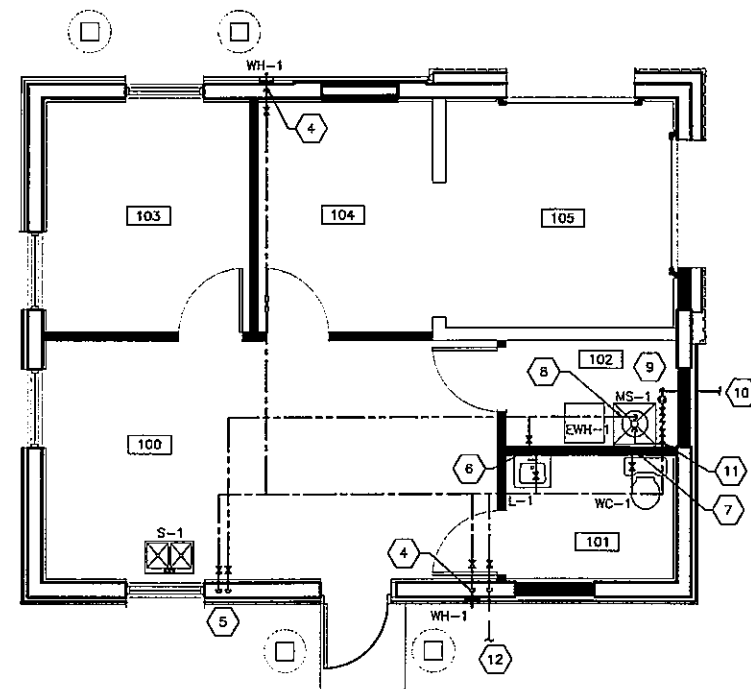
NOTES:

- SEE SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS.
- MODEL NUMBERS AND FIXTURE DESCRIPTIONS SHOWN ABOVE MAY NOT BE COMPLETE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIRED OPTIONS AND ACCESSORIES.

ROOM SCHEDULE	
ROOM NUMBER	ROOM NAME
100	COMMON AREA
101	TOILET ROOM
102	MECHANICAL ROOM
103	INFO OFFICE
104	INFORMATION DESK
105	INFORMATION WINDOW



A1 NEW WORK - FLOOR PLAN - WASTE
1/4"=1'-0"



A3 NEW WORK - FLOOR PLAN - PIPING
1/4"=1'-0"

GENERAL SHEET NOTES

- THE ENTIRE INSTALLATION SHALL CONFORM WITH THE LATEST EDITION OF THE STATE OF OHIO PLUMBING CODE AND ALL OTHER LOCAL CODES AND ORDINANCES.
- COORDINATE THE INSTALLATION OF ALL PLUMBING MATERIALS WITH ALL OTHER TRADES ON THE PROJECT INCLUDING ELECTRICAL, MECHANICAL, AND GENERAL TRADES CONTRACTORS.
- SEE THE ARCHITECTURAL PLANS AND ELEVATION SHEETS FOR THE EXACT LOCATION AND HEIGHT OF ALL PLUMBING FIXTURES, INCLUDING THE ADA COMPLIANT FIXTURES.
- FOR SANITARY AND VENT LINE DETAILS, SEE THE PLUMBING ISOMETRIC DRAWINGS ON SHEET P-201.
- PROVIDE FULL FLOW SHUTOFF VALVES ABOVE CEILING TO EACH WALL HYDRANT.
- EXTERIOR WALL HYDRANTS SHALL BE INSTALLED 18" ABOVE SURROUNDING FINISHED GRADE.
- SHUTOFF VALVE/EQUIPMENT LOCATIONS ARE APPROXIMATE. LOCATE SHUTOFF VALVES/EQUIPMENT DIRECTLY ABOVE LAY-IN CEILINGS FOR ACCESS. WHERE SHUTOFF VALVE/EQUIPMENT IS INSTALLED ABOVE A GYPSUM (PERMANENT) CEILING, INSTALL AN ACCESS PANEL FOR MAINTENANCE. COORDINATE WITH THE G.C. LOCATION OF ACCESS PANEL.
- CONTRACTOR SHALL PROVIDE SUFFICIENT APPROVED WATER HAMMER ARRESTORS TO PREVENT WATER WATER HAMMER, SEE SPECIFICATIONS. VERIFY THAT ALL SANITARY VENTS THRU ROOF ARE A MINIMUM OF 10'-0" AWAY FOR ANY OUTSIDE AIR BUILDING INTAKES.
- ALL HVAC EQUIPMENT P-TRAPS ARE TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.
- SEE SHEET M-201 FOR PLUMBING SPECIFICATIONS.

SHEET KEYNOTES

- 2-WAY YARD CLEANOUT, TYLER PIPE MODEL 003533 SERIES OR EQUAL.
- 4" SANITARY PIPING. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 3/4" VENT THRU ROOF.
- 3/4" DOMESTIC COLD WATER DOWN IN WALL TO WALL HYDRANT. INSTALL SHUT-OFF VALVE PRIOR TO DROP.
- 1/2" DOMESTIC HOT AND COLD WATER DOWN IN WALL TO SINK. OFFSET PIPING BELOW COUNTER AS REQUIRED.
- 1/2" DOMESTIC HOT AND COLD WATER DOWN IN WALL TO LAV.
- 1/2" DOMESTIC COLD WATER DOWN IN WALL TO WATER CLOSET.
- ELECTRIC WATER HEATER MOUNTED ON SHELF ABOVE MOP BASIN. SEE DETAIL ON SHEET P-201.
- 3/4" RPZ TYPE DOMESTIC WATER BACKFLOW PREVENTER AND METER. COORDINATE INSTALLATION REQUIREMENTS PER LOCAL UTILITY. ROUTE DRAIN FROM BACKFLOW PREVENTER TO MOP SINK.
- 3/4" DOMESTIC WATER SERVICE. SEE CIVIL DRAWINGS FOR CONTINUATION.
- INSTALL DRAIN VALVE AT DOMESTIC WATER SYSTEM LOW POINT TO ACCOMMODATE SYSTEM DRAINING TO WINTERIZE BUILDING.
- 3/4" DOMESTIC COLD WATER PIPING TO YARD HYDRANT. SEE CIVIL DRAWINGS FOR CONNECTION.
- ALTERNATE BID ITEM: PROVIDE ALTERNATE BID FOR SANITARY EXIT AT THIS LOCATION IN LIEU OF LOCATION SHOWN. INCLUDE SANITARY AND VENT PIPING MODIFICATIONS TO ACCOMMODATE THIS LOCATION.



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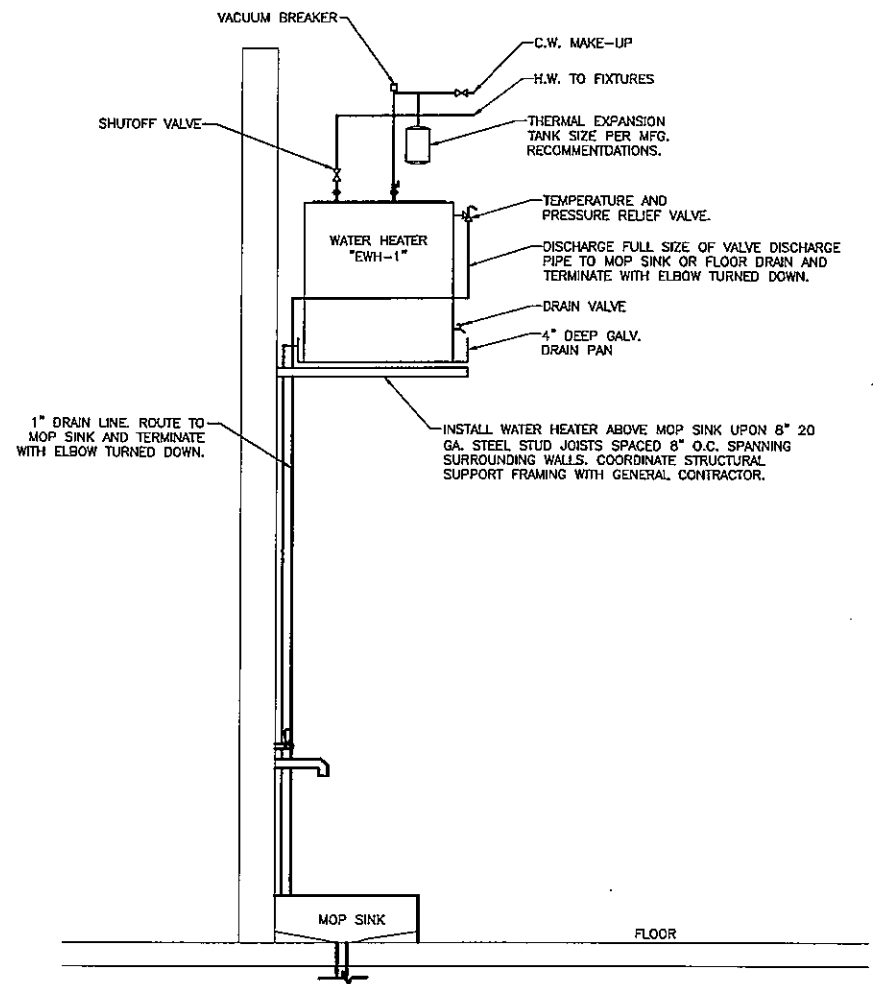


WATER TAXI
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD, CLEVELAND, OH 44115
12/18/14
NEW WORK - FLOOR PLAN - PLUMBING

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DESIGNER
BMM	CAH

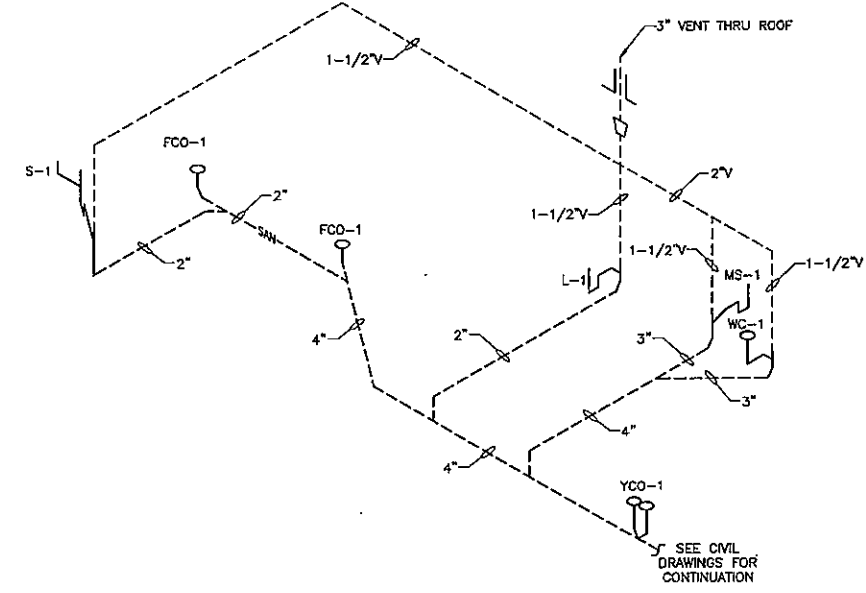
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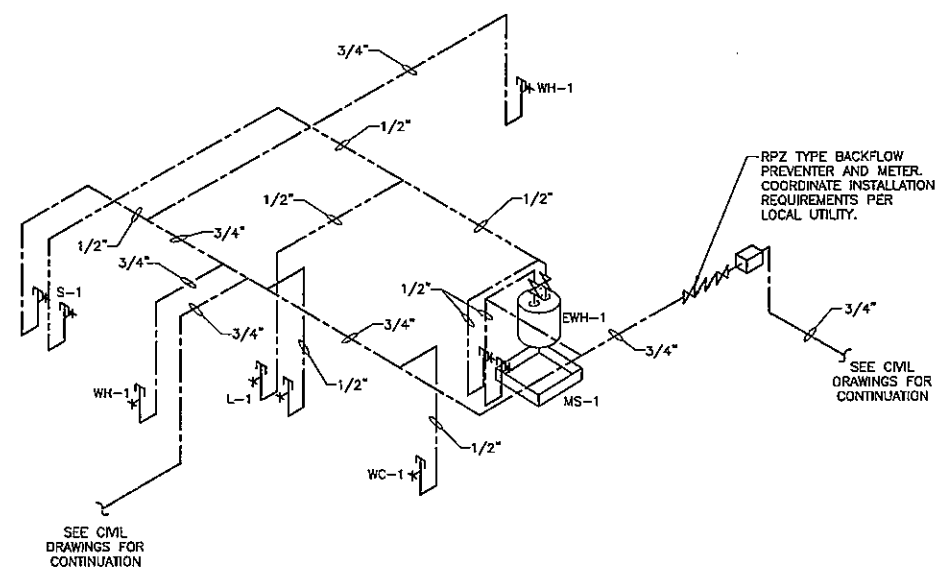


B2 MOP SINK DETAIL
NOT TO SCALE

NOTE:
 PLUMBING VENTS SHALL TERMINATE MINIMUM 10'-0" HORIZONTALLY FROM ALL AIR INTAKES, DOORS AND PROPERTY LINES AND 2'-0" ABOVE AIR INTAKES AND DOORS. SEE EXTERIOR ELEVATIONS FOR EXACT LOCATIONS.



C4 NEW WORK - FLOOR PLAN - WASTE
NOT TO SCALE



A4 NEW WORK - FLOOR PLAN - PIPING
NOT TO SCALE

REV	DATE	DESCRIPTION



12/18/14

WATER TAXI
 EAST BANK BUILDING RENOVATIONS
 1170 OLD RIVER RD, CLEVELAND, OH

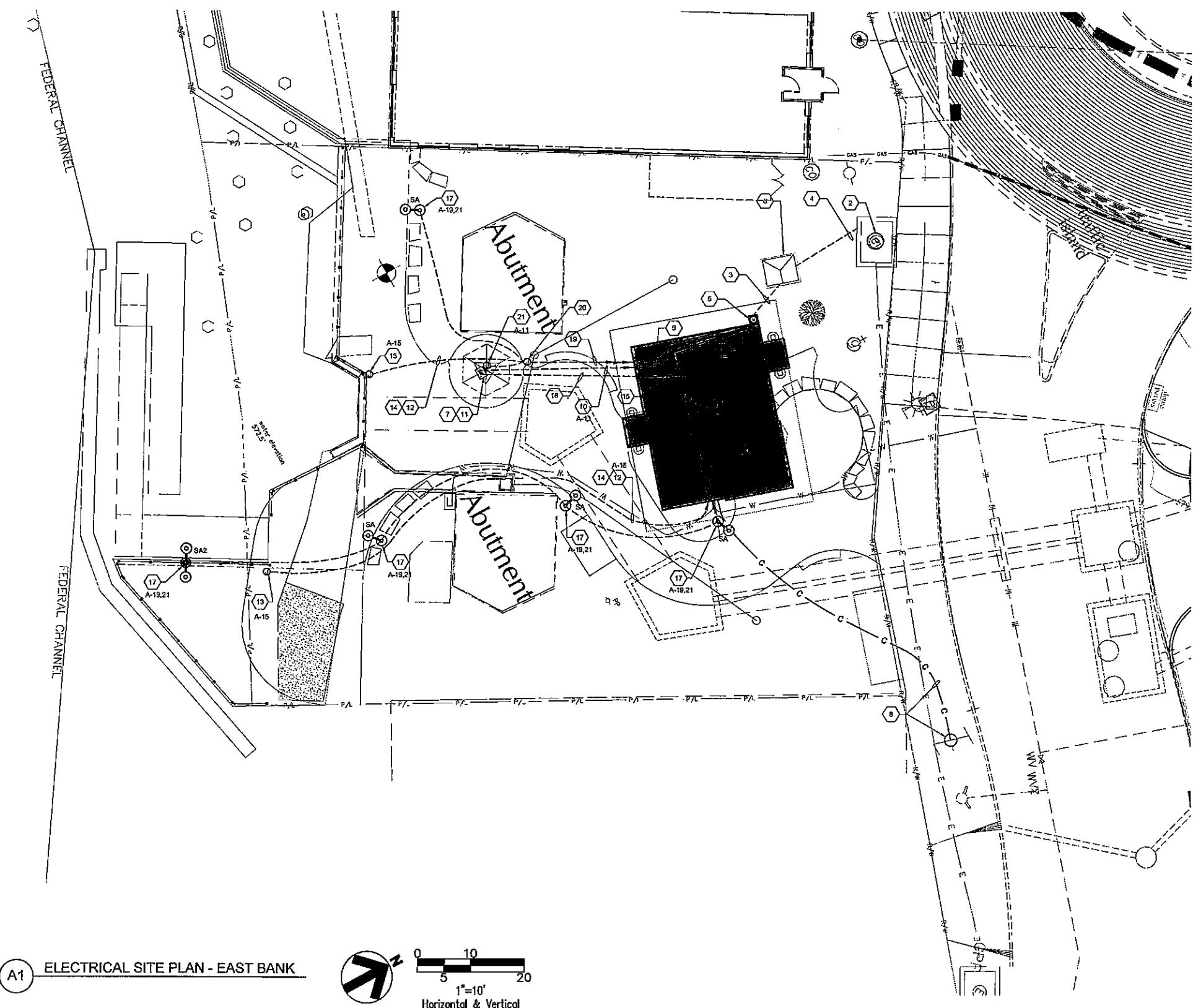
PLUMBING
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BID	12/23/14
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
BMM	CAH

JOB NO.
2014381.00





GENERAL NOTES

1. REFER TO SHEET E-504 FOR LIGHTING FIXTURE SCHEDULE.
2. REFER TO SHEET E-601 FOR RISER DIAGRAM.
3. ALL BRANCH CIRCUIT WIRING TO KIOSK LIGHTING, KIOSK TICKET DISPENSER, SITE LIGHTING, AND ODOT DOCK LIGHTING SHALL BE #10'S MINIMUM IN 1" C MINIMUM. REFER TO TRENCH DETAIL 'A1' ON SHEET E-501 FOR MORE INFORMATION. CONTRACTOR SHALL CALCULATE VOLTAGE DROP ON EACH BRANCH CIRCUIT BASED UPON ACTUAL CONDUIT ROUTING TO ENSURE THAT VOLTAGE DROP IS LESS THAN 3% AS RECOMMENDED BY NEC. INCREASE CONDUCTOR SIZES IF REQUIRED.
4. REFER TO TRENCH DETAIL ON SHEET E-601 FOR BRANCH CIRCUIT(S) TO PANEL 'MDP'. FIELD VERIFY EXACT ROUTING WITH G.C. PRIOR TO COMMENCING WORK.

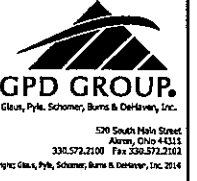
SHEET NOTES

1. APPROXIMATE LOCATION OF 'MDP' LOCATED IN CAPTAIN'S OFFICE, ROOM # 104. REFER TO SHEET E-102 FOR LOCATION.
2. EXISTING CPP ELECTRIC VAULT TO BE USED TO EXTEND ELECTRIC UNDERGROUND TO NEARBY PROPERTIES.
3. APPROX. ROUTING OF SERVICE ENTRANCE CONDUCTORS BELOW GRADE FROM PADMOUNTED TRANSFORMER THRU METER SOCKET AND UTILITY METER TO TERMINATE IN PANEL 'MDP'.
4. PROVIDE TWO (2) 4" SCHEDULE 40 PVC WITH PULLWIRE, ONE IS SPARE AND SHALL BE CAPPED WITHIN TRANSFORMER VAULT/ OR STUBBED UP THRU CONCRETE PAD FOR ASSOCIATED TRANSFORMER AND CAPPED AS DIRECTED BY CPP IN FIELD.
5. APPROXIMATE LOCATION OF CPP ELECTRIC METER AND METER SOCKET. VERIFY EXACT LOCATION WITH CPP METERING DEPARTMENT PRIOR TO TRENCHING. REFER TO SHEET E-501 FOR METER CENTER DETAIL.
6. VERIFY SIZE OF CONCRETE PAD OR PADMOUNTED TRANSFORMER VAULT AND EXACT LOCATION WITH CPP PRIOR TO COMMENCING WORK.
7. REFER TO ENLARGED KIOSK PLAN ON SHEET E-101 FOR ASSOCIATED WORK.
8. ANTICIPATED ROUTING OF COMMUNICATION CONDUITS FROM EXISTING CEI UTILITY POLE #47840 AND STUBBED UP INTO MECH/ELEC ROOM AT LOCATION DIRECTED BY COMMUNICATIONS COMPANIES. PROVIDE ONE (1) 2" CONDUIT WITH PULLSTRING FOR PHONE AND ONE (1) 3" CONDUIT WITH (2) 1" ORANGE INNERDUCTS WITH PULLWIRES FOR FIBER AND CABLE SERVICES. PROVIDE CONDUIT STUB-UPS AT BASE OF EXISTING POLE AND CAP AS DIRECTED BY SERVICE PROVIDER(S). SERVICE PROVIDERS WILL EXTEND CABLE DROPS DOWN POLE AND PROVIDE WITH U-GUARD PROTECTION. PER AT&T REQUIREMENTS, THERE SHALL BE NO MORE THAN TWO (2) SWEEPING 90 DEGREE BENDS WITH A 3" RADIUS.
9. ROUTE CONDUIT(S) FROM PANEL 'MDP' ABOVE GYPSUM BOARD CEILING TO EXTERIOR WALL AND TRANSITION TO BELOW GRADE. PROVIDE ACCESS PANELS IN INACCESSIBLE CEILING AS REQUIRED. COORDINATE ANY ACCESS PANEL LOCATIONS WITH ARCHITECT.
10. EXTEND BRANCH CIRCUITS TO KIOSK TICKET DISPENSER. REFER TO SHEET E-101 FOR ASSOCIATED WORK.
11. LOCATION OF TICKET DISPENSER WITHIN KIOSK.
12. ROUTE BRANCH CIRCUIT WIRING TO J-BOX PROVIDED BY ODOT ALONG PATH OF LED DOCK LIGHTS FOR PASSING BOATS INSTALLED BY ODOT. COORDINATE THE DISCONNECTION OF POWER TO DOCK LIGHTS WITH ODOT AND CEI AND REFEED LED DOCK LIGHTS WITH NEW BRANCH CIRCUIT WIRING PROVIDED UNDER THIS PROJECT.
13. FIELD VERIFY EXACT LOCATION OF J-BOX BEING PROVIDED BY OTHERS ALONG CONDUIT RUN TO EACH ODOT LED DOCK LIGHT.
14. DOCK LIGHTING IS TO BE ENERGIZED AT ALL TIMES AND SHALL BE ABLE TO BE TURNED OFF AT BREAKER IN PANEL.
15. ROUTE 1-1/2" EMPTY CONDUIT WITH PULLWIRE FROM TELEPHONE BACKBOARD ABOVE GYPSUM BOARD CEILING TO EXTERIOR WALL AND TRANSITION TO BELOW GRADE. PROVIDE ACCESS PANELS IN INACCESSIBLE CEILING AS REQUIRED. COORDINATE ANY ACCESS PANEL LOCATIONS WITH ARCHITECT.
16. 1-1/2" EMPTY CONDUIT WITH PULLWIRE FOR COMMUNICATION CABLING SHALL BE STUBBED UP INTO TICKET DISPENSER AS INDICATED ON SHEET E-101. ROUTE CONDUIT PARALLEL TO THE POWER BRANCH CIRCUIT WIRING. A MINIMUM OF 12" HORIZONTAL AND VERTICAL DISTANCE SHALL SEPARATE THE CONDUIT(S) FOR THE POWER WIRING AND THIS CONDUIT.
17. SITE LIGHTING POLE. REFER TO LIGHTING FIXTURE SCHEDULE AND FIXTURE BASE DETAIL ON SHEET E-504 FOR MORE INFORMATION.
18. CONDUIT ROUTINGS SHOWN ARE TO CONVEY DESIGN INTENT. ALL CONDUITS SHALL ADHERE TO SPECIFICATIONS AND SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS.
19. CONDUIT(S) FOR BRANCH CIRCUIT WIRING FOR SITE LIGHTING, KIOSK LIGHTING, AND ODOT DOCK LIGHTING SHALL BE ROUTED THRU THIS SPLICE BOX. CONTRACTOR MAY COMBINE CIRCUITS INTO ONE CONDUIT, SIZED PER NEC. DERATE CONDUCTORS ACCORDINGLY.
20. PROVIDE SYNTECH FLUSH MOUNTED SPLICE BOX SIMILAR TO EXISTING SPLICE BOXES INSTALLED FOR ODOT LIGHTING. BOX SHALL BE SIZED PER NEC AND INSTALLED FLUSH MOUNTED AT LOCATION FIELD-DIRECTED BY ARCHITECT.
21. EXTEND BRANCH CIRCUIT WIRING TO KIOSK FOR KIOSK LIGHTING. REFER TO SHEET E-101 FOR ASSOCIATED WORK.

UTILITY CONTACTS

POWER COMPANY
 BRIAN DEAN
 SURVEY DEPARTMENT
 1300 LAKE SIDE AVE., EAST
 CLEVELAND, OHIO
 PHONE: (216) 664-3922, X-175
 e-mail: bdean@CPP.ORG

TELEPHONE CO. / CABLE TV / FIBEROPTIC COMMUNICATIONS
 CHRIS CLEMENTS
 AT&T OHIO
 CLEVELAND ENGINEERING
 CELL: 216-262-7156
 WORK: 216-478-8264
 e-mail: cc495@att.com



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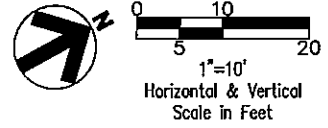


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 RECORD -

PROJECT MANAGER DESIGNER
 BM GMM

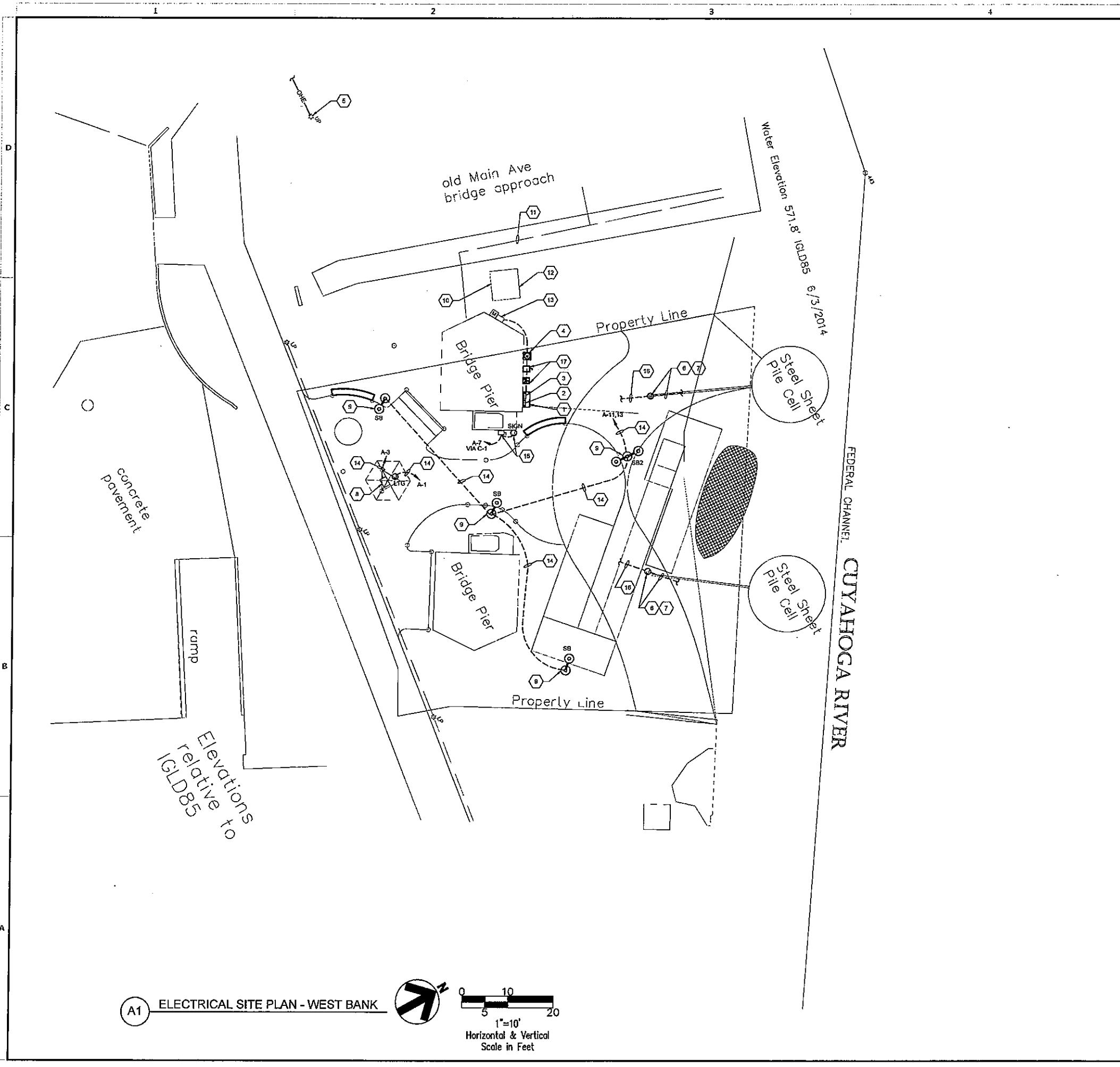
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A1 ELECTRICAL SITE PLAN - EAST BANK

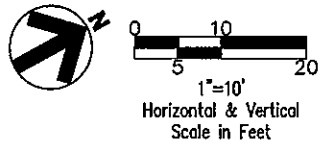


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 December 22, 2014 - gmyers

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 December 23, 2014 - gnyes



A1 ELECTRICAL SITE PLAN - WEST BANK



GENERAL NOTES

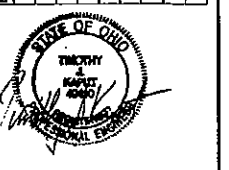
- REFER TO SHEET E-604 FOR LIGHTING FIXTURE SCHEDULE.
- REFER TO SHEET E-601 FOR RISER DIAGRAM.
- ALL BRANCH CIRCUIT WIRING TO KIOSK LIGHTING, KIOSK TICKET DISPENSER, SITE LIGHTING, AND ODOT DOCK LIGHTING SHALL BE #10'S MINIMUM IN 1" C MINIMUM. REFER TO TRENCH DETAIL 'A1' ON SHEET E-601 FOR MORE INFORMATION. CONTRACTOR SHALL CALCULATE VOLTAGE DROP ON EACH BRANCH CIRCUIT BASED UPON ACTUAL CONDUIT ROUTING TO ENSURE THAT VOLTAGE DROP IS LESS THAN 3% AS RECOMMENDED BY NEC. INCREASE CONDUCTOR SIZES IF REQUIRED.

SHEET NOTES

- APPROXIMATE LOCATION OF ENCLOSURE HOUSING SERVICE ENTRANCE RATED PANEL 'A' AND LIGHTING CONTROLS. REFER TO SHEET E-503 FOR LIGHTING CONTROLS AND SHEET E-602 FOR METER CENTER DETAIL AND GROUNDING DETAIL.
- LOCATION OF PANEL 'A' WITHIN ENCLOSURE.
- LOCATION OF LIGHTING CONTROLS WITHIN ENCLOSURE.
- APPROXIMATE LOCATION OF CPP ELECTRIC METER AND METER SOCKET. VERIFY EXACT LOCATION WITH CPP METERING DEPARTMENT PRIOR TO TRENCHING. REFER TO SHEET E-502 FOR METER CENTER DETAIL.
- APPROXIMATE LOCATION OF CEI UTILITY POLE #701117 THAT PROVIDES OVERHEAD POWER FOR THE AREA. SHOWN FOR REFERENCE ONLY.
- ROUTE BRANCH CIRCUIT WIRING TO J-BOX PROVIDED BY ODOT ALONG PATH OF LED DOCK WARNING LIGHTS FOR PASSING BOATS, INSTALLED BY ODOT. COORDINATE THE DISCONNECTION OF POWER TO DOCK LIGHTS WITH ODOT AND CEI (OVERHEAD POWER FEED) AND REFEED LED DOCK LIGHTS WITH NEW BRANCH CIRCUIT WIRING UNDER THIS PROJECT (FROM UNDERGROUND CPP POWER GRID).
- DOCK LIGHTING IS TO BE ENERGIZED AT ALL TIMES AND SHALL BE ABLE TO BE TURNED OFF AT BREAKER IN PANEL.
- LOCATION OF TICKET DISPENSER WITHIN KIOSK. REFER TO ENLARGED PLAN ON E-101 FOR MORE INFORMATION REGARDING POWER TO TICKET DISPENSER AND KIOSK LIGHTING.
- SITE LIGHTING POLE. REFER TO LIGHTING FIXTURE SCHEDULE AND FIXTURE BASE DETAIL ON SHEET E-604 FOR MORE INFORMATION.
- FRONT OF EXISTING CPP PADMOUNTED TRANSFORMER. LEFT SIDE OF TRANSFORMER IS THE PRIMARY VOLTAGE SIDE. RIGHT SIDE OF TRANSFORMER IS THE SECONDARY VOLTAGE SIDE.
- LOCATION OF EXISTING FENCE. SHOWN FOR REFERENCE ONLY.
- EXISTING CPP PADMOUNTED TRANSFORMER. REFER TO SINGLE LINE ON SHEET E-601 FOR MORE INFORMATION AND ASSOCIATED WORK.
- EXISTING ENCLOSURE WITH CPP METER ON SIDE AND PANEL INSIDE. REFER TO SINGLE LINE ON SHEET E-601 FOR MORE INFORMATION AND ASSOCIATED WORK.
- REFER TO TRENCH DETAIL ON SHEET E-601 FOR BRANCH CIRCUIT(S) TO PANEL 'A'. FIELD VERIFY EXACT ROUTING WITH G.C. PRIOR TO COMMENCING WORK.
- PROVIDE ROUGH-IN HIGH ON PIER FOR POWER TO SIGNAGE. PROVIDE STAINLESS STEEL ENCLOSURE FOR LOCKABLE DISCONNECT SWITCH REQUIRED BY NEC TO BE ADJACENT TO SIGNAGE. COORDINATE EXACT POWER REQUIREMENTS AND ROUGH-IN LOCATIONS WITH SIGNAGE VENDOR. ROUTE CONDUITS EXPOSED AS DIRECTED BY ARCHITECT.
- ROUTE CONDUITS INSTALLED WITHIN METAL RACEWAY. COORDINATE SIZE, ROUTING, AND TYPE OF RACEWAY BEING PROVIDED BY G.C. WITH ARCHITECT PRIOR TO BIDDING. CONDUIT ROUTING SHALL EXTEND TO PANEL 'A' CIRCUIT.
- APPROX LOCATION OF NEW SERVICE ENTRANCE DISCONNECT SWITCH AND NEW TRANSFORMER. REFER TO SINGLE LINE DIAGRAM ON SHEET E-601 FOR MORE DETAILS.



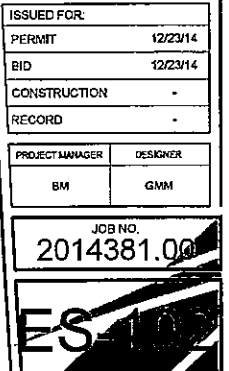
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ELECTRICAL SYMBOLS

ABBREVIATIONS:

A-1
 HOMERUN ROUTED CONCEALED IN FINISHED AREAS AND ROUTED EXPOSED IN UNFINISHED AREAS. DESIGNATION INDICATES HOMERUN TO PANEL "A" INDICATING CIRCUIT NUMBER(S) - ALL WIRING SHALL BE #12 WITH GROUND WIRE UON (INCREASE TO #10 FOR CIRCUITS OVER 75 FT.) - ALL HOMERUNS SHALL BE CONNECTED TO A 20 AMPERE, 1 POLE CIRCUIT BREAKER UON - QUANTITY OF CONDUCTORS AS NECESSARY TO ACCOMMODATE CIRCUITS AND CONTROL INDICATOR CONTRACTOR SHALL SIZE CONDUIT TO ACCOMMODATE QUANTITY OF WIRES WITHIN EACH HOMERUN - 3/4" CONDUIT MINIMUM. ANY HOMERUN THAT SERVES AN ISOLATED GROUND RECEPTACLE SHALL BE PROVIDED AN ISOLATED GROUND (SIZED TO MATCH THE EQUIPMENT GROUND) IN ADDITION TO AN EQUIPMENT GROUND.

BRANCH CIRCUIT WIRING ON NORMAL POWER ROUTED CONCEALED IN FINISHED AREAS AND ROUTED EXPOSED IN UNFINISHED AREAS. PROVIDE WIRING AND SIZE CONDUIT AS NOTED FOR HOMERUN SYMBOL ABOVE - 3/4" CONDUIT MINIMUM.

CONDUIT INSTALLED BFG OR ROUTED BELOW FINISHED FLOOR UON. PROVIDE WIRING AND SIZE CONDUIT AS NOTED FOR HOMERUN SYMBOL ABOVE - 3/4" CONDUIT MINIMUM.

SWITCH - 20 AMPERE, 120/277 VOLT, SINGLE POLE - MTD AT 48" AFF TO CENTERLINE OF DEVICE (44" TO BOTTOM) UON. SUBSCRIPTS INDICATE THE FOLLOWING 3=3-WAY; 4=4-WAY; K=KEY OPERATED; P=PILOT LIGHT, T=TIMER, LV=LOW VOLTAGE, MOMENTARY SWITCH

PUSHBUTTON - MOUNTED AT 48" AFF TO CENTERLINE OF DEVICE (44" TO BOTTOM) UON. REFER TO DRAWINGS FOR MORE INFORMATION.

DUPLEX RECEPTACLE - 20 AMPERE, 125 VOLT, GROUNDING TYPE - MOUNTED AT 18" AFF TO CENTERLINE OF DEVICE UON.

DUPLEX RECEPTACLE - 20 AMPERE, 125 VOLT, ISOLATED GROUND TYPE WITH ORANGE TRIANGLE. COLOR OF DEVICE TO MATCH RECEPTACLES SERVING COMPUTERS OR OTHER ELECTRONIC EQUIPMENT - MOUNTED AT 18" AFF TO CENTERLINE OF DEVICE UON.

DOUBLE DUPLEX RECEPTACLE (QUAD) - TWO (2) DUPLEX 20 AMPERE, 125 VOLT, GROUNDING TYPE RECEPTACLES WITH COMMON BACKBOX AND COMMON FACEPLATE - MOUNTED AT 18" AFF TO CENTERLINE OF DEVICE UON.

DOUBLE DUPLEX RECEPTACLE (QUAD) - TWO (2) DUPLEX 20 AMPERE, 125 VOLT, GROUND FAULT CIRCUIT INTERRUPTER TYPE - MOUNTED AT 18" AFF TO CENTERLINE OF DEVICE UON.

DUPLEX RECEPTACLE - 20 AMPERE, 125 VOLT - GROUND FAULT CIRCUIT INTERRUPTER TYPE - MOUNTED AT 18" AFF TO CENTERLINE OF DEVICE UON.

DUPLEX RECEPTACLE - 20 AMPERE, 125 VOLT - GROUND FAULT CIRCUIT INTERRUPTER TYPE WITH WEATHERPROOF WHILE-IN-USE LOCKABLE HINGED COVER - MOUNTED AT 24" AFF TO CENTERLINE OF DEVICE UON

SINGLE GANG DEDICATED RECEPTACLE, 20 AMPERE, 125 VOLT, GROUND TYPE, MOUNTED AT 18" AFF TO CENTER LINE OF DEVICE UON.

SPECIAL RECEPTACLE. SEE DRAWINGS FOR DETAILS.

ELECTRICAL PULL BOX, SIZED PER NEC

ELECTRICAL HANDHOLE

CONTROL TRANSFORMER

COMBINATION STARTER WITH DISCONNECT

MOTOR STARTER

NON-FUSED DISCONNECT SWITCH

FUSED DISCONNECT SWITCH

MANUAL MOTOR STARTER WITH RED PILOT LIGHT TO ILLUMINATE WHEN MOTOR IS ENERGIZED. PROVIDE THERMAL OVERLOADS SIZED AS REQUIRED TO PROTECT MOTOR. MOUNT ON OR NEAR MOTOR HOUSING AS REQUIRED TO SUIT LOCAL CONDITIONS AND AS PERMITTED BY EQUIPMENT MANUFACTURER.

TRANSFORMER

THERMOSTAT - E.C. SHALL PROVIDE A SINGLE-GANG BACKBOX MTD. AT 48" AFF TO CENTERLINE OF DEVICE (44" TO BOTTOM) UON, AND SHALL STUB 3/4" EMPTY CONDUIT WITH PULLSTRING TO UNIT BEING SERVED. COORDINATE LOCATIONS WITH M.C. PRIOR TO ROUGH-IN. 120 VOLT THERMOSTATS ARE FURNISHED BY M.C., INSTALLED AND WIRED BY E.C.; LOW VOLTAGE THERMOSTATS ARE FURNISHED BY M.C., ROUGHED-IN BY E.C. AND WIRED BY T.C.C.

SENSOR (THERMISTOR) - E.C. SHALL PROVIDE THE FOLLOWING ROUGH-IN FOR DEVICES FURNISHED BY THE M.C.: SINGLE-GANG BACKBOX MTD. AT 48" AFF TO CENTERLINE OF DEVICE (44" TO BOTTOM) UON, AND SHALL STUB 3/4" EMPTY CONDUIT WITH PULLSTRING INTO SPACE ABOVE ACCESSIBLE CEILING. COORDINATE LOCATIONS WITH M.C. PRIOR TO ROUGH-IN. LOW VOLTAGE WIRING BY T.C.C.

SYMBOL INDICATES APPROXIMATE LOCATION OF 120V POWER CIRCUIT PROVIDED IN THE GENERAL VICINITY OF DAMPER(S) BY M.C. INDICATED AS VVT OR BPD ON MECHANICAL DRAWINGS.

SINGLE OR THREE PHASE MOTOR - SEE DRAWINGS FOR DESCRIPTION

AUTOMATIC DOOR OPERATOR AND PUSHPLATES FURNISHED AND INSTALLED BY G.C. ALL ROUGH-IN (CONDUIT & J-BOXES) AND WIRING BY E.C. COORDINATE EXACT LOCATION OF PUSHPLATES WITH ARCHITECT PRIOR TO ROUGH-IN.

CONNECTION POINT OF EQUIPMENT. E.C. SHALL PROVIDE ALL INTERWIRING AS REQUIRED BY MANUFACTURER.

E.C. SHALL PROVIDE A SINGLE POLE SWITCH NEAR UNIT FOR DISCONNECTING MEANS.

JUNCTION BOX - MOUNTING HEIGHT AND SIZE AS REQUIRED BY CODE OR AS NOTED ON DRAWINGS.

MECHANICAL TAG. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR DETAILS OF EQUIPMENT AND ELECTRICAL REQUIREMENTS.

208/120 VOLT, 3 PHASE, 4 WIRE PANELBOARD

SURFACE MOUNTED FLUORESCENT FIXTURE. REFER TO LIGHTING FIXTURE SCHEDULE FOR MORE DETAILS.

EMERGENCY SURFACE MOUNTED FLUORESCENT FIXTURE. REFER TO LIGHTING FIXTURE SCHEDULE FOR MORE DETAILS.

DOWNLIGHT. REFER TO LIGHTING FIXTURE SCHEDULE FOR MORE DETAILS.

WALL MOUNTED EXTERIOR FIXTURE. REFER TO LIGHTING FIXTURE SCHEDULE FOR MORE DETAILS.

CEILING MOUNTED EXIT SIGN, SHADED AREA INDICATES ORIENTATION OF FACE. REFER TO FLOOR PLANS FOR QUANTITY OF FACES, DIRECTIONAL CHEVRONS, AND MOUNTING REQUIREMENTS. PER NFPA 110, MEANS OF EGRESS, BOTTOM OF THE SIGN SHALL BE INSTALLED A MAXIMUM VERTICAL DISTANCE OF 6"-8" ABOVE THE TOP EDGE OF THE EGRESS OPENING INTENDED FOR DESIGNATION BY THE SIGN. REFER TO LIGHTING FIXTURE SCHEDULE FOR MORE DETAILS.

WALL MOUNTED EXIT SIGN, SHADED AREA INDICATES ORIENTATION OF FACE. REFER TO FLOOR PLANS FOR QUANTITY OF FACES, DIRECTIONAL CHEVRONS, AND MOUNTING REQUIREMENTS. THE SIGN SHALL BE INSTALLED CENTERED OVER EGRESS OPENING (IF POSSIBLE) AND THE BOTTOM OF THE SIGN SHALL BE APPROX. 6" ABOVE THE TOP OF THE EGRESS OPENING. PER NFPA 110, MEANS OF EGRESS, BOTTOM OF THE SIGN SHALL BE INSTALLED A MAXIMUM VERTICAL DISTANCE OF 6"-8" ABOVE THE TOP EDGE OF THE EGRESS OPENING INTENDED FOR DESIGNATION BY THE SIGN. REFER TO LIGHTING FIXTURE SCHEDULE FOR MORE DETAILS.

TELEPHONE TERMINAL BOARD, 4" X 8" X 3/4" THICK PLYWOOD, PAINTED WITH TWO (2) COATS OF FIRE RESISTANT PAINT.

TELE/DATA DEVICE LOCATION. E.C. SHALL PROVIDE A RECESSED 2-GANG (4-1/2" SQ) BACKBOX WITH A SINGLE GANG PLASTER RING MOUNTED AT 18" AFF TO CENTERLINE OF DEVICE AND 1" EMPTY CONDUIT WITH PULLSTRING ROUTED FROM BACKBOX AND STUBBED ABOVE TELEPHONE BACKBOARD. PROVIDE PLASTIC GROMMET ON CONDUIT ENDS. ALL COMMUNICATION AND TECHNOLOGY WIRING, DEVICE(S) AND FACEPLATE SHALL BE FURNISHED AND INSTALLED BY OWNER.

SYMBOL INDICATES APPROXIMATE LOCATION OF SECURITY/DOOR ACCESS DEVICE ROUGH-IN ABOVE GYPSUM BOARD CEILING. E.C. SHALL PROVIDE A 4-1/2" SQ. J-BOX ABOVE GYPSUM BOARD CEILING AND 1" MINIMUM CONDUIT ROUTED ABOVE CEILING AND SHALL STUB IN THRU CEILING ABOVE TELEPHONE BACKBOARD NEAR FUTURE SECURITY EQUIPMENT LOCATION. PROVIDE PLASTIC GROMMET ON CONDUIT ENDS. FIELD VERIFY QUANTITY AND LOCATION OF EACH DEVICE ROUGH-IN AND SECURITY HEAD-END EQUIPMENT WITH OWNER PRIOR TO ROUGH-IN. DEVICES ANTICIPATED SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING: CCTV CAMERA, DOOR CONTACT MONITOR, KEYPAD, MOTION SENSOR, DOOR ELECTRIC LATCH, ETC. ALL SECURITY DEVICES, LOW VOLTAGE CABLING, SECURITY EQUIPMENT AND ALL OTHER ANCILLARY COMPONENTS SHALL BE FURNISHED AND INSTALLED BY OWNER.

SYMBOL INDICATES APPROXIMATE LOCATION OF 120V BRANCH CIRCUIT WIRING FOR EACH SECURITY DEVICE. PRIOR TO ROUGH-IN, CONFIRM WITH OWNER AND SECURITY SYSTEM VENDOR/INSTALLER IF SYSTEM IS 120V OR LOW VOLTAGE AND IF THIS ROUGH-IN IS REQUIRED.

HUBBELL #LHMTS: DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SWITCH WITH DUAL VOLTAGE CAPABILITY FOR USE IN ROOMS APPROX. 10'X10'. SUBSCRIPTS: 3=3-WAY.

HUBBELL #TD200: DIGITAL TIME SWITCH, 120/277V SUBSCRIPTS: 3=3-WAY.

LOW VOLTAGE 2 BUTTON ON/OFF OVER-RIDE SWITCH TIED INTO MAIN LIGHTING CONTROL SYSTEM. MANUFACTURER SHALL BE SAME AS MAIN LIGHTING CONTROL SYSTEM.

HUBBELL #LO-DT-RP: WALL MOUNTED IN CORNER OF ROOM, DUAL TECHNOLOGY SENSOR MOUNTED BETWEEN 8"-10" AFF TO SUIT LOCAL CONDITIONS. IF ROOM HAS PENDANT MOUNTED FIXTURES, MOUNT SENSOR ON WALL EVEN WITH BOTTOM OF FIXTURE. 110° VIEWING, 1600 SQ. FT. COVERAGE (32'X32' LARGE MOVEMENTS, 23'X23' SMALL HAND MOTIONS). PROVIDE ISOLATED RELAY FOR POSSIBLE TIE-IN TO BAS.

HUBBELL #OMNI-DT2000-RP: CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 380° VIEWING, 2000 SQ. FT. COVERAGE (64'X32' LARGE MOVEMENTS, 45'X23' SMALL HAND MOTIONS). PROVIDE ISOLATED RELAY FOR POSSIBLE TIE-IN TO BAS. ARROWS INDICATE ORIENTATION. MOUNT DEVICE AS REQUIRED TO PROVIDE 8' DEAD ZONE ALONG DOOR ENTRANCE. PROVIDE EXTRA 10"-12" OF WIRING COULD AT EACH SENSOR FOR FLEXIBILITY IF SENSOR MUST BE MOVED TO MEET SENSING CRITERIA TO SATISFACTION OF OWNER.

HUBBELL #OMNI-DT1000-RP: CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 180° VIEWING, 1000 SQ. FT. COVERAGE (32'X32' LARGE MOVEMENTS, 23'X23' SMALL HAND MOTIONS). PROVIDE ISOLATED RELAY FOR POSSIBLE TIE-IN TO BAS. ARROWS INDICATE ORIENTATION.

HUBBELL #OMNI-DT500-RP: CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 180° VIEWING, 500 SQ. FT. COVERAGE (23'X23' LARGE MOVEMENTS, 15'X15' SMALL HAND MOTIONS). PROVIDE ISOLATED RELAY FOR POSSIBLE TIE-IN TO BAS. ARROWS INDICATE ORIENTATION.

HUBBELL #LX-OMNI-2K: CEILING MOUNTED (HALLWAY), DUAL TECHNOLOGY OCCUPANCY SENSOR, 360° VIEWING, 2000 SQ. FT. AREA COVERAGE (64'X32' LARGE MOVEMENTS, 45'X23' SMALL HAND MOTIONS). APPROX. 50 LINEAR FOOT SPACING. ARROWS INDICATE ORIENTATION.

DESIGNER NOTES: HUBBELL DOES NOT HAVE A SENSOR THAT WILL WORK IN HIGH-BAY AREAS. OTHER METHODS FOR MONITORING/CONTROL SHALL BE DESIGNED FOR.

CEILING MOUNTED, DENSE COVERAGE, WIDE ANGLE, DUAL TECHNOLOGY OCCUPANCY SENSOR WITH ISOLATED RELAY AND AUTOMATIC SENSITIVITY ADJUSTMENT AND TIME DELAY FEATURE. APPROX. 32'X32' FOR SMALL HAND MOVEMENTS AND 360° COVERAGE. WATTSTOPPER #DT-300 OR EQUAL BY NOVITAS OR LEVITON.

CORNER WALL MOUNTED, DUAL TECHNOLOGY (INFRARED & ULTRASONIC) OCCUPANCY SENSOR WITH ISOLATED RELAY, DENSE COVERAGE, 110° VIEWING, WIDE ANGLE LENS, 30" X 30" AREA COVERAGE FOR SMALL HAND MOVEMENTS. WATTSTOPPER #DT-200 OR EQUAL BY NOVITAS OR LEVITON.

CEILING MOUNTED, ONE-SIDED WIDE ANGLE VIEWING, DENSE COVERAGE ULTRASONIC OCCUPANCY SENSOR WITH ISOLATED RELAY. APPROX. 28'X22'. WATTSTOPPER #WT-600 OR EQUAL BY NOVITAS OR LEVITON.

LOW VOLTAGE CEILING MOUNTED, STANDARD RANGE LENS, PASSIVE INFRARED SENSOR WITH ISOLATED RELAY, APPROX. 24'X24' FOR SMALL HAND MOVEMENTS, AND APPROX. 40'X40' FOR LARGE BODY MOVEMENTS AND MOUNTED UP TO 28" AFF 360° COVERAGE. WATTSTOPPER #CI-200 OR EQUAL BY NOVITAS OR LEVITON. MOUNT BELOW HVAC DUCTWORK, PIPING, AND SUSPENDED LIGHT FIXTURES ON A 4" SQ. BOX WITH A 3" ROUND MUDRING IN MECHANICAL ROOMS WITH OPEN CEILING CONSTRUCTION.

LOW VOLTAGE CEILING MOUNTED, STANDARD RANGE LENS, PASSIVE INFRARED SENSOR WITH ISOLATED RELAY AND AUTOMATIC SENSITIVITY ADJUSTMENT AND TIME DELAY FEATURE. APPROX. 40'X40' FOR LARGE BODY MOVEMENTS AND MOUNTED UP TO 28" AFF 360° COVERAGE. WATTSTOPPER #CI-300 OR EQUAL BY NOVITAS OR LEVITON. MOUNT BELOW HVAC DUCTWORK, AND SUSPENDED LIGHT FIXTURES ON A 4" SQ. BOX WITH A 3" ROUND MUDRING IN AREAS WITH OPEN CEILING CONSTRUCTION.

CEILING MOUNTED, DENSE COVERAGE, WIDE ANGLE, ULTRASONIC OCCUPANCY SENSOR WITH ISOLATED RELAY, APPROX. 30'X30' FOR SMALL HAND MOVEMENTS, AND APPROX. 40'X50' MOUNTED 12" AFF MAX. FOR LARGE BODY MOVEMENTS AND 360° COVERAGE. WATTSTOPPER #WT-2200 OR EQUAL BY NOVITAS OR LEVITON.

DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR WITH ISOLATED RELAY, AUTO-ADJUST FEATURE, 180 DEGREE VIEWING, AND DUAL VOLTAGE CAPABILITY. USE IN ROOMS APPROX. 10'X10'. NOTE: 120 VOLT LIGHTING HAS 800 WATT LIMIT, 277 VOLT LIGHTING HAS 1200 WATT LIMIT. WATTSTOPPER #DW-100 OR EQUAL BY NOVITAS OR LEVITON.

DIGITAL TIME SWITCH, 120/277V. WATTSTOPPER #TS-4000R EQUAL BY NOVITAS OR LEVITON. 120 VOLT LIGHTING HAS 800 WATT LIMIT, 277 VOLT LIGHTING HAS 1200 WATT LIMIT.

AC	SUBSCRIPT "AC" INDICATES DEVICE MOUNTED AT 8" ABOVE COUNTER TO CENTERLINE OF DEVICE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BAS	BUILDING AUTOMATION SYSTEM SPECIFIED BY OTHERS
BB	SUBSCRIPT "BB" INDICATES DEVICE MOUNTED IN EXISTING BACKBOX MAINTAINED DURING RENOVATION
BC	SUBSCRIPT "BC" INDICATES DEVICE MOUNTED BELOW COUNTER AS DIRECTED
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BKR	(CIRCUIT) BREAKER
CLG	DEVICE MOUNTED IN CEILING
CKT	CIRCUIT
DE	DUAL ELEMENT (FUSES)
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ETR	EXISTING DEVICE TO REMAIN
EWG	ELECTRICAL WATER COOLER
FLR	FLOOR
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
GF/CI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HPF	HIGH POWER FACTOR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IG	ISOLATED GROUND
LTG	LIGHTING
MFR	MANUFACTURER
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCCP	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
NEC	NATIONAL ELECTRICAL CODE
NF	NON FUSED
NFPA	NATIONAL FIRE PROTECTION AGENCY
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
OFE	OWNER FURNISHED EQUIPMENT
PC	PLUMBING CONTRACTOR
PRT	PRINTER
RF	RETURN FAN
RL	SUBSCRIPT "RL" INDICATES RELOCATED DEVICE
SF	SUPPLY FAN
SM	SUBSCRIPT "SM" INDICATES SURFACE MOUNTED DEVICE
SPD	SURGE PROTECTION DEVICE
SR	SUBSCRIPT "SR" INDICATES DEVICE MOUNTED WITHIN SURFACE RACEWAY
TCC	TEMPERATURE CONTROL CONTRACTOR
T-STAT	THERMOSTAT
UC	UNDER COUNTER
UON	UNLESS OTHERWISE NOTED
WG	WIREGUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

GENERAL NOTE:
 NOT ALL SYMBOLS USED.

GPD GROUP.
 Glen, P.M., Schorner, Burns & Delaney, Inc.
 130 South Main Street
 Akron, Ohio 44312
 330.572.2300 Fax 330.572.1191
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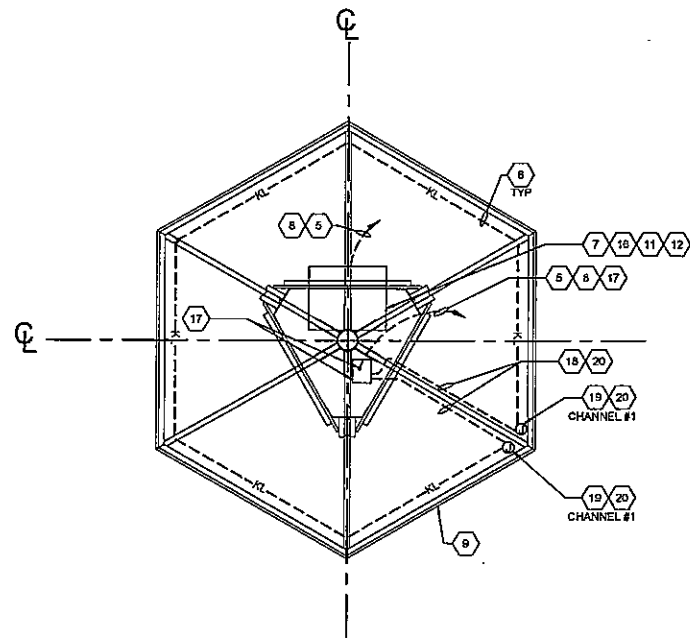
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WATER TAXI
 EAST BANK BUILDING RENOVATIONS
 1170 OLD RIVER RD., CLEVELAND, OH

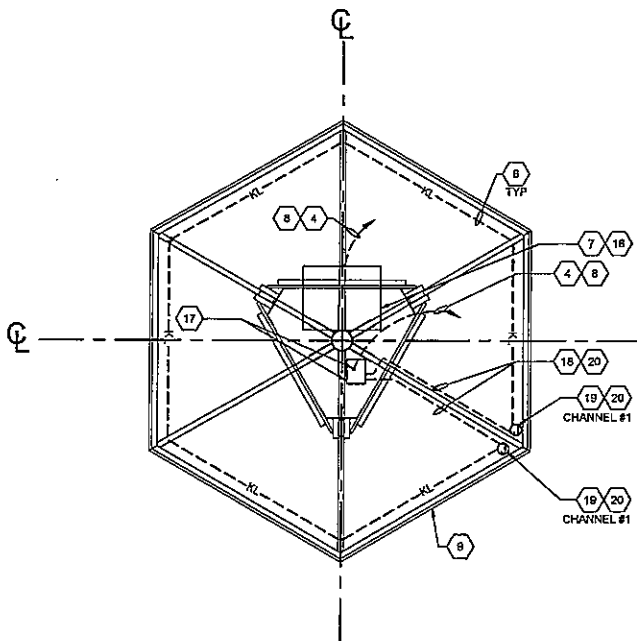
ELECTRICAL SYMBOLS

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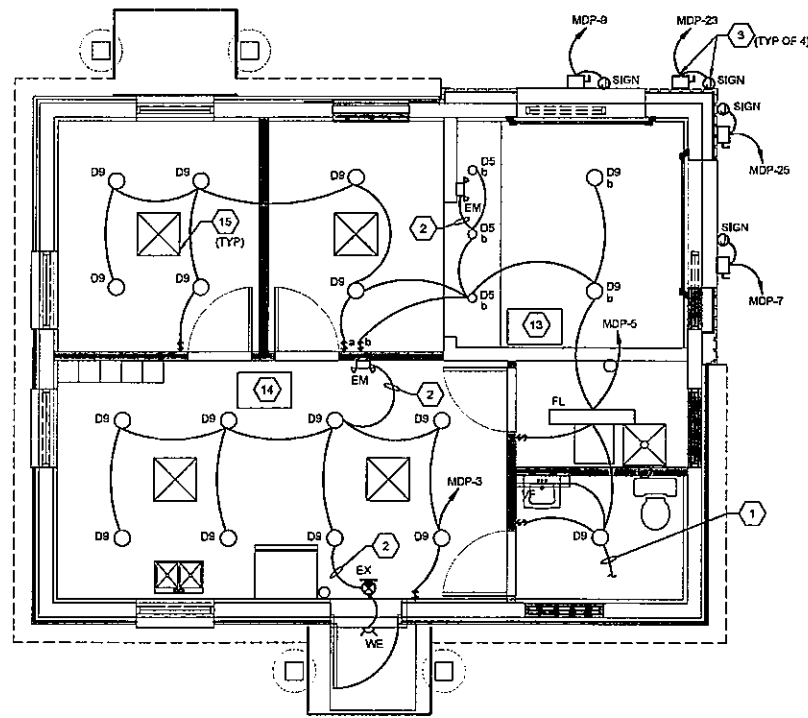
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C1 KIOSK ELECTRICAL PLAN - WEST BANK
1/2" = 1'-0"



A1 KIOSK ELECTRICAL PLAN - EAST BANK
1/2" = 1'-0"



A2 FIRST FLOOR LIGHTING PLAN
1/4" = 1'-0"

GENERAL SHEET NOTES

- REFER TO LIGHTING FIXTURE SCHEDULE ON SHEET E-504.
- PROVIDE ACCESS PANELS IN GYPSUM BOARD CEILINGS AS REQUIRED FOR ACCESS TO ALL JUNCTION BOXES, SPLICE BOXES, ETC. INSTALLED ABOVE CEILING IN ACCORDANCE WITH NEC. COORDINATE THIS WORK WITH THE ARCHITECT.

SHEET KEYNOTES

- EXTEND 120V LIGHTING CIRCUIT TO EXHAUST FAN IN ROOM.
- CONNECT TO LIGHTING CIRCUIT WITHIN ROOM AHEAD OF LOCAL CONTROLS.
- PROVIDE A 240V, 50A/2P H.D., NF, NEMA 4X STAINLESS STEEL DISCONNECT SWITCH AS REQUIRED BY NEC ADJACENT TO BUILDING SIGNAGE. LOCATE J-BOX AND DISCONNECT SWITCH AS REQUIRED BY SIGN VENDOR THRU LIGHTING CONTROLS SHOWN ON SHEET E-503. COORDINATE THIS WORK WITH OWNER PRIOR TO ROUGH-IN.
- REFER TO SHEET ES-101 FOR BRANCH CIRCUIT WIRING AND ROUTING OF CONDUITS.
- REFER TO SHEET ES-102 FOR BRANCH CIRCUIT WIRING AND ROUTING OF CONDUITS.
- EXTERIOR LED LIGHTING TO BE INSTALLED ALONG EDGE OF KIOSK UNDER ROOF BEHIND FACIA AS REQUIRED TO BE INCONSPICUOUS YET ABLE TO ILLUMINATE UNDERSIDE OF OPEN KIOSK.
- KIOSK TICKET DISPENSER, GROUND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.
- REFER TO SHEET E-503 FOR ASSOCIATED LIGHTING CONTROLS.
- REFER TO ELECTRICAL SITE PLANS FOR ORIENTATION OF KIOSK.
- STUB UP ALL CONDUITS THRU CONCRETE PAD FOR POWER WIRING AND FUTURE COMMUNICATION CABLING AND INTO THE BOTTOM OF THE OPENING IN THE BOTTOM OF THE PEDESTAL OF THE DISPENSER. USE LIQUIDTITE FLEXIBLE METAL CONDUITS TO ROUTE THE BRANCH CIRCUIT WIRING AND CABLING INSIDE THE DISPENSER ENCLOSURE AS INDICATED BY THE MANUFACTURER'S INSTALLATION DETAILS.
- EMPTY CONDUIT PROVIDED FOR COMMUNICATION CABLING (CABLING TO BE PROVIDED BY OWNER) TO KIOSK TICKET DISPENSER NOTED ON SHEET ES-101 SHALL BE STUBBED UP THRU CONCRETE SLAB AT LOCATION DIRECTED BY KIOSK SUPPLIER/INSTALLER. EXTEND CONDUIT INTO DISPENSER HOUSING PER MANUFACTURER'S INSTALLATION DETAILS.
- THE FOLLOWING IS PROVIDED FOR REFERENCE IF OWNER DECIDES TO HAVE THE TWO (2) TICKET DISPENSERS ELECTRONICALLY MONITORED FROM THE COMPUTER SYSTEM FROM WITHIN THE INFORMATION CENTER.
- OWNER SHALL PROVIDE CAT 5E CABLING (MINIMUM) IN CONDUIT FOR WEB-BASED ACCESS TO REPORTING WHILE ALSO FACILITATING APPLICATIONS THAT MAY INCLUDE REAL-TIME CREDIT CARD PROCESSING.
- OWNER SHALL PROVIDE A WIFI NETWORKED CONFIGURATION WITH A DEDICATED IP ADDRESS FOR EACH TICKET DISPENSER. A TOTAL OF TWO (2) TICKET DISPENSERS (EAST BANK AND WEST BANK) MAY BE ABLE TO COMMUNICATE TO THIS ONE LOCATION DUE TO THE TRANSMISSION ACROSS THE WATER AND THE ABILITY TO TRANSMIT UP TO 300 FEET.
- APPROX. LOCATION OF ACCESS PANEL SHOWN FOR REFERENCE.
- APPROX. LOCATION OF EXISTING ATTIC PANEL ACCESS TO REMAIN.
- APPROX. LOCATION OF CEILING DIFFUSER SHOWN FOR REFERENCE.
- STUB UP CONDUIT UP THRU CONCRETE PAD FOR POWER WIRING AND INTO THE BOTTOM OF THE OPENING IN THE BOTTOM OF THE PEDESTAL OF THE DISPENSER. USE LIQUIDTITE FLEXIBLE METAL CONDUIT TO ROUTE THE BRANCH CIRCUIT WIRING INSIDE THE DISPENSER ENCLOSURE AS INDICATED BY THE MANUFACTURER'S INSTALLATION DETAILS.
- ROUTE LIGHTING BRANCH CIRCUIT WIRING IN CONDUIT UP THRU CONCRETE SLAB. ROUTE CONDUIT EXPOSED UP THRU MIDDLE OF KIOSK TO BE BEST CONCEALED BY VERTICAL PANELS OF THE KIOSK. TERMINATE CONDUCTORS IN LED DRIVER INSTALLED IN A VET LOCATION LISTED ENCLOSURE AND INSTALLED ABOVE SIGN. DRIVER SHALL BE PROVIDED WITH THE LED LIGHTING AND SHALL HAVE A 120V AC INPUT TO 6V DC OUTPUT WHICH SUPPORTS 2 OUTPUT (CHANNELS) OF 20 FOOT MAXIMUM LENGTH OF LED FIXTURES.
- ROUTE LOW VOLTAGE (SECONDARY CABLING) IN EXPOSED CONDUIT DOWN BEHIND ROOF RAFTER TO LOCATION OF SURFACE MOUNTED LED FIXTURES (MODULES SPACED +/- 2' O.C.).
- CHANNEL #1 SHALL FEED HALF OF THE KIOSK, CHANNEL #2 SHALL FEED OTHER HALF OF THE KIOSK. EACH CHANNEL SHALL BE A MAXIMUM LENGTH OF 50' DUE TO VOLTAGE DROP. REFER TO MANUFACTURER'S INSTALLATION DETAILS FOR PROPER SIZING OF CONDUCTORS.
- ROUTE CONDUIT EXPOSED ALONG ROOF RAFTER(S). INSTALL LIGHT FIXTURES BEHIND ROOF FACIA TO CONNECTION POINT(S) OF LOW VOLTAGE LED EXTERIOR LIGHTING. FIELD VERIFY WITH ARCHITECT LOCATION AND SIZE OF OPENING REQUIRED TO INSTALL THE LIGHT FIXTURES CONTINUOUSLY THRU THE ROOF RAFTERS BEHIND THE FACIA. PAINT CONDUIT AND ALL J-BOXES TO MATCH RAFTER AND FACIA TO BEST CONCEAL. ALL ROUTING OF CONDUIT AND LOCATION OF DRIVER ENCLOSURE AND ASSOCIATED J-BOXES SHALL BE FIELD-VERIFIED WITH ARCHITECT PRIOR TO ROUGH-IN.



Cleveland Metroparks

REV.	DATE	DESCRIPTION



12/22/14
WATER TAXI
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD., CLEVELAND, OH
LIGHTING FLOOR PLAN &
KIOSK LIGHTING PLANS

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
BM	GMM

JOB NO.
2014381.00



Drawing Name: O:\2014\2014381\2014381026.dwg
 December 22, 2014 - gmmvnt

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GENERAL SHEET NOTES

- REFER TO SHEET E-601 FOR SINGLE LINE DIAGRAM, PANEL SCHEDULE, GROUNDING DETAIL, ETC.
- PROVIDE ACCESS PANELS IN GYPSUM BOARD CEILINGS AS REQUIRED FOR ACCESS TO ALL JUNCTION BOXES, SPLICE BOXES, ETC. INSTALLED ABOVE CEILING IN ACCORDANCE WITH NEC. COORDINATE THIS WORK AND WITH THE G.C. AND ARCHITECT PRIOR TO BIDDING.
- COORDINATE RECEPTACLE LOCATIONS WITH THE TELEDATA OUTLETS SO THAT THEY ARE ADJACENT TO EACH OTHER.
- FIELD VERIFY EACH RECEPTACLE AND SYSTEM DEVICE WITH OWNER PRIOR TO ROUGH-IN.



Cleveland Metroparks

SHEET KEYNOTES

- IF SECURITY SYSTEM REQUIRES 120V POWER WIRING TO EACH MONITORED DEVICE, PROVIDE AN ADDITIONAL J-BOX ABOVE CEILING NEAR MONITORED DOOR, WINDOW, ETC. AS DIRECTED BY OWNER AND PROVIDE 2#12, 1# 12 GND IN 3/4" C FROM CIRCUIT MDP-1 TO EACH J-BOX SHOWN. COORDINATE THIS WORK AND ALL POINTS TO BE MONITORED WITH THE G.C. AND OWNER PRIOR TO BIDDING.
- PROVIDE 3/4" THICK x 6W x 4H PLYWOOD BACKBOARD PAINTED ON ALL SIDES AND EDGES WITH 2 COATS OF GREY RETARDANT PAINT.
- COMMUNICATION CABLING ROUTED BELOW GRADE TO AN EXISTING UTILITY POLE AS SHOWN ON SHEET ES-101. TRANSITION CONDUIT FROM BELOW GRADE (EXTERIOR TO BUILDING) TO EXPOSED WITHIN ROOM AS DIRECTED BY ARCHITECT. COORDINATE WITH SERVICE PROVIDERS OF PHONE, INTERNET, CABLE, ETC. EXACTLY WHERE CONDUIT SHALL BE STUBBED NEAR COMMUNICATION BACKBOARD PRIOR TO COMMENCING ASSOCIATED WORK.
- LOCATION OF MDP:
- PROVIDE 3/4" EMPTY CONDUIT FROM HP-1 UNIT BACK TO FC-1 FOR LOW VOLTAGE CONTROL WIRING BY M.C. COORDINATE ROUTING WITH M.C. PRIOR TO ROUGH-IN.
- UTILITY METER AND METER SOCKET. FIELD VERIFY EXACT LOCATION WITH UTILITY COMPANY METERING DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL 91 ON SHEET E-601 FOR MORE INFORMATION.
- REFER TO SHEET ES-101 FOR CONTINUATION OF SERVICE ENTRANCE CONDUITS TO PADMOUNTED TRANSFORMER. REFER TO SHEET E-601 FOR TRENCH DETAIL.
- FC-1, FAN COIL UNIT, 35A MOCP, 51.2 MCA, 3.8 KW HEATING COIL PROVIDED WITH DISCONNECT SWITCH. PROVIDE FUSIBLE DISCONNECT SWITCH AS REQUIRED BY NEC AND INSTALL TO SUIT CONDITIONS AND REMAIN READILY ACCESSIBLE. CONNECT TO MDP-18,20 (35A/2P) WITH 3#8, 1#10 GND, 1" C.
- EF-1, 1/2 HP, 120V, 1Ø. CONNECT TO LIGHTING BRANCH CIRCUIT WITHIN ROOM. FAN SHALL BE CONTROLLED WITH LIGHT SWITCH. SEE EF-1 WIRING DIAGRAM ON SHEET E-604 FOR MORE INFORMATION.
- HEAT PUMP, HP-1, 4Ø MOCP, 24.8 MCA, 208V, 1Ø, FURNISHED WITH DISCONNECT SWITCH.
- ELECTRIC WATER HEATER, EWH-1, 2.5KW, 208V, 1Ø, LOCATED ON SHELF ABOVE MDP SINK. PROVIDE A SINGLE POLE SWITCH ADJACENT TO UNIT FOR DISCONNECTING MEANS. CONNECT TO MDP-10,12 (2ØA/2P) WITH 2#12, 1#12 GND, 3/4" C.
- WALL MOUNTED HEATER, 1.8 KW, 15 AMPS, 120V, 1Ø WITH INTEGRAL T-STAT AND DISCONNECT SWITCH. CONNECT TO MDP-8, (2ØA/1P) WITH 2#12, 1#12 GND, 3/4" C.
- WALL MOUNTED HEATER, 4.8 KW, 23.1 AMPS, 208V, 1Ø WITH INTEGRAL T-STAT AND DISCONNECT SWITCH. CONNECT TO MDP-2,4 (2ØA/2P) WITH 2#10, 1#10 GND, 3/4" C.
- PROVIDE DEVICES INDICATED UNDER COUNTER WITHIN "KNEE-SPACES". SEE ARCHITECTURAL ELEVATIONS FOR MORE INFORMATION.

REV.	DATE	DESCRIPTION



12/22/14

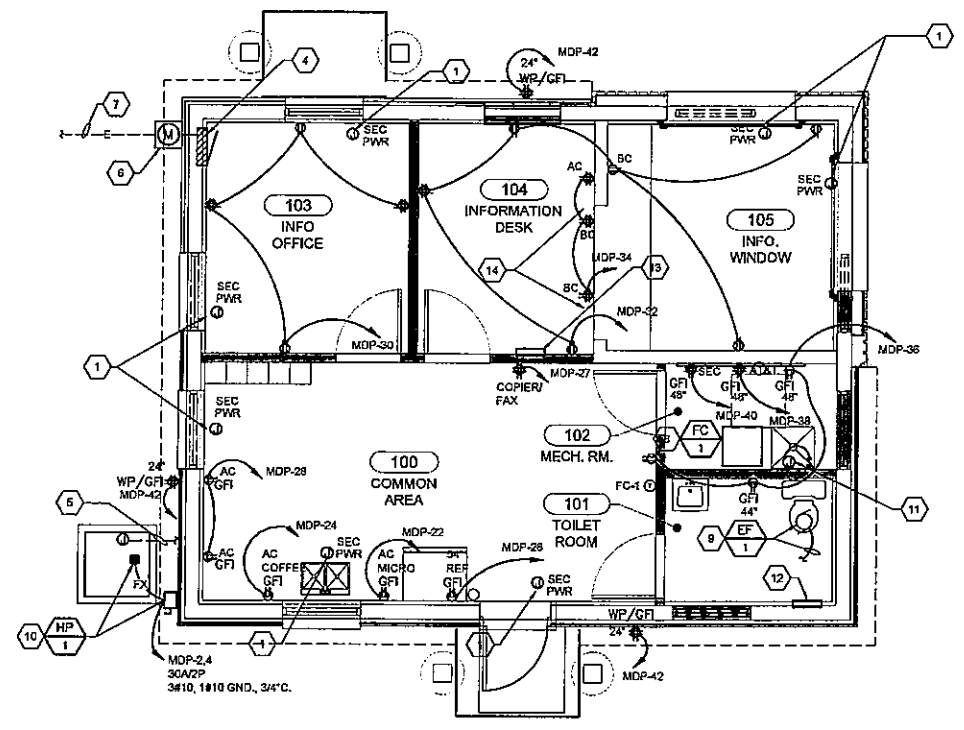
WATER TAXI
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD., CLEVELAND, OH

POWER AND SYSTEMS
FLOOR PLANS

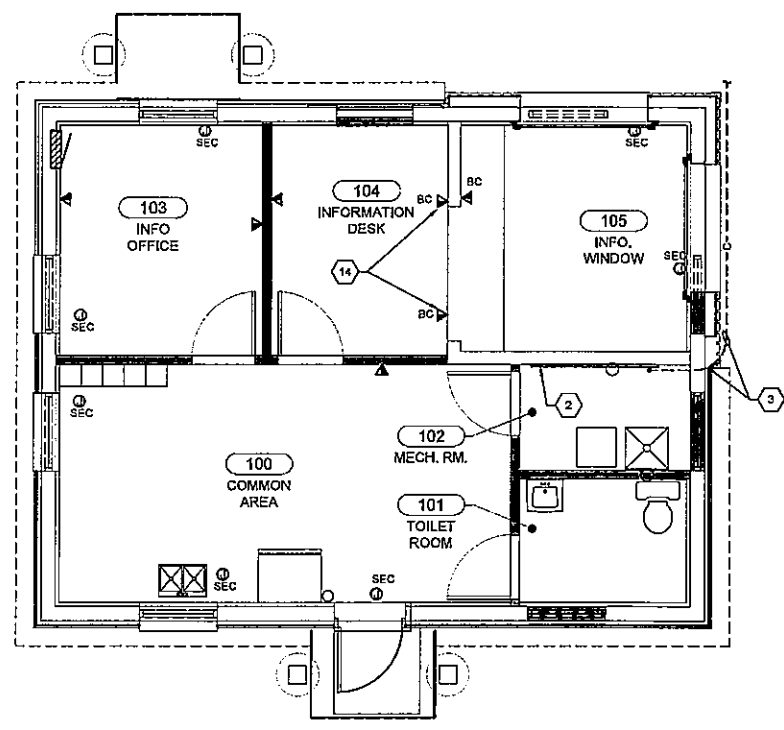
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PROJECT MANAGER	DESIGNER
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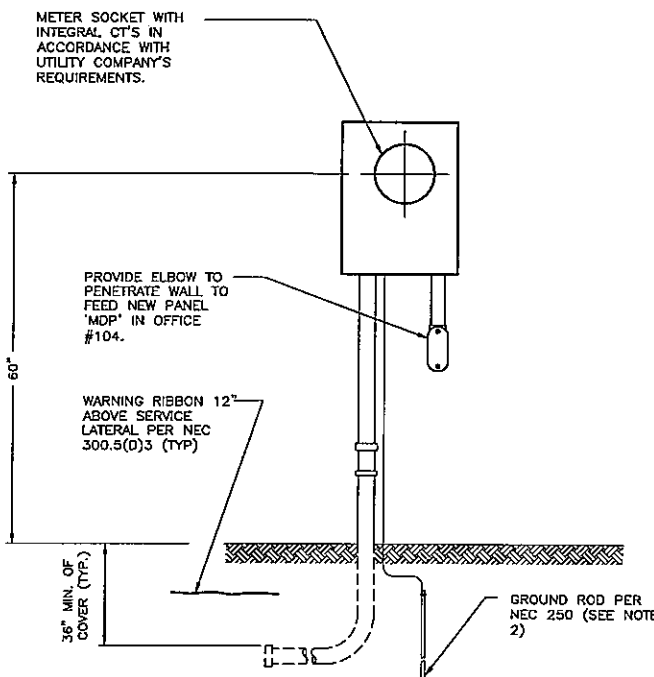
A2 POWER FLOOR PLAN
1/4" = 1'-0"



A2 SYSTEMS FLOOR PLAN
1/4" = 1'-0"



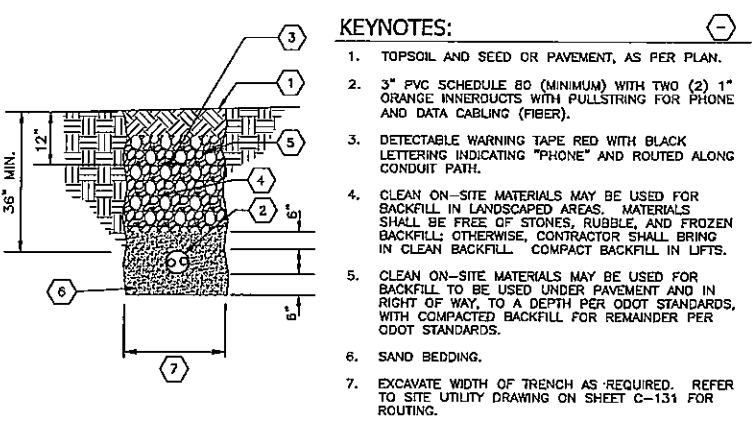
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December 22, 2014 - gmm



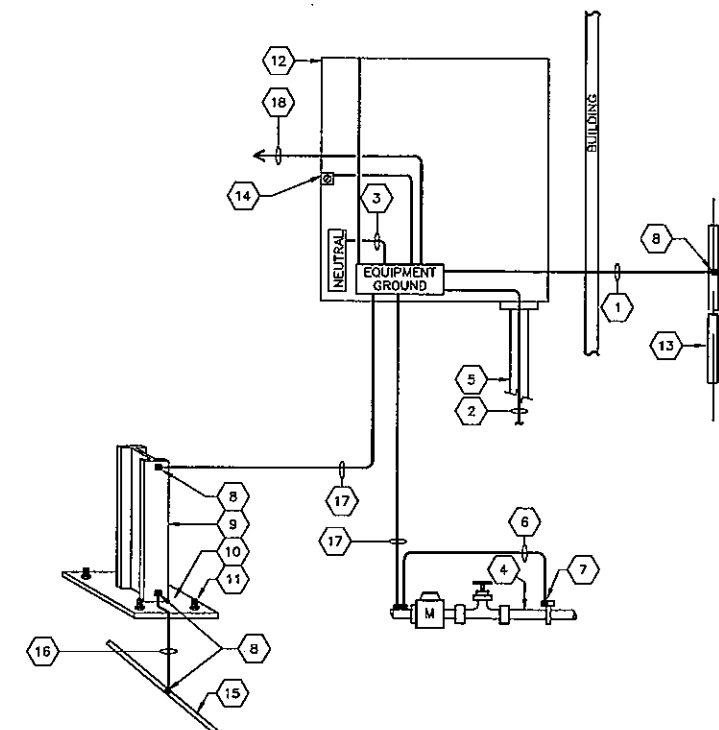
- NOTES:**
- SUPPLY SIDE CONDUIT SHALL BE RIGID GALVANIZED OR SCHEDULE 80 PVC (ELECTRICAL GRADE.)
 - METER SOCKET(S) MAY BE CONNECTED TO AN EXTERNAL GROUND ROD IF REQUIRED BY LOCAL INSPECTION AUTHORITIES.
 - SEE MATRIX BELOW FOR E.C./ UTILITY COMPANY RESPONSIBILITIES.

UNDERGROUND SERVICE MATERIAL GUIDELINES AND RESPONSIBILITY MATRIX		
MATERIAL	SUPPLIED BY	INSTALLED BY
SERVICE LATERAL (CABLE)	E.C.	E.C.
TRENCH/ BACKFILL	E.C.	E.C.
SERVICE ENTRANCE RISER- CONDUIT	E.C.	E.C.
CONNECTORS @ SOURCE TRANSFORMER OR HANDHOLE	COMMERCIAL- CUSTOMER	CLEVELAND PUBLIC POWER
CONNECTORS @ METER SOCKET	E.C.	E.C.
METER SOCKET 200 AMP OR LESS	E.C.	E.C.

B1 METER CENTER FOR SERVICE UNDERGROUND TO WATER TAXI INFORMATION CENTER (EAST BANK)
N.T.S.



A1 COMMUNICATION TRENCH DETAIL FOR WATER TAXI INFORMATION CENTER (EAST BANK)
N.T.S.



- SERVICE GROUNDING DETAIL NOTES:**
- #4 AWG GROUNDING ELECTRODE CONDUCTOR CONNECTED TO AN APPROVED GROUNDING ELECTRODE.
 - SERVICE ENTRANCE CONDUCTORS WITH GROUND (NEUTRAL) CONDUCTOR.
 - #4 AWG MAIN BONDING JUMPER.
 - UNDERGROUND METAL WATER LINE IN DIRECT CONTACT WITH EARTH FOR AT LEAST 10'.
 - INCOMING SERVICE FROM UTILITY COMPANY TRANSFORMER WITH SECONDARY GROUNDING PER UTILITY COMPANY REQUIREMENTS.
 - GROUNDING JUMPER AROUND METER AND ANY NONMETALLIC PIPE SECTIONS.
 - CONNECTION SHALL MADE WITHIN 5' OF BUILDING ENTRANCE.
 - CADWELD EXOTHERMIC CONNECTION (TYPICAL).
 - EFFECTIVELY GROUNDING BUILDING STEEL COLUMN.
 - STEEL BASE PLATE.
 - BASE PLATE NUT AND ANCHOR BOLT INTO REINFORCED CONCRETE PIER OR FOOTING. ANCHOR BOLT BONDED TO CONCRETE REINFORCING.
 - MAIN SERVICE SWITCH OR DISTRIBUTION PANELBOARD.
 - 10' X 3/4" COPPER CLAD GROUND ROD IN EARTH. QUANTITY AS REQUIRED TO MEET OR EXCEED NEC 250.53 OR AS OTHERWISE STATED ON THE DRAWINGS AND/OR SPECIFICATIONS WHICHEVER IS MORE RESTRICTIVE.
 - ENCLOSURE GROUND.
 - CONCRETE-ENCASED ELECTRODE (REBAR) PER NEC 250.52.
 - BOND CONCRETE-ENCASED ELECTRODE (REBAR) TO BUILDING STEEL WITH #4 AWG MINIMUM PER NEC 250.52.
 - #4 AWG GROUNDING SUPPLEMENTAL ELECTRODE TO THE GROUNDING ELECTRODE SYSTEM PER NEC 250.53.
 - BONDING JUMPER BONDED TO SYSTEM AND TO OTHER POINTS AND EQUIPMENT AS REQUIRED BY NEC ARTICLE 250.

B2 SERVICE GROUNDING ELECTRODE SYSTEM WIRING DIAGRAM FOR WATER TAXI INFORMATION CENTER EAST BANK
N.T.S.

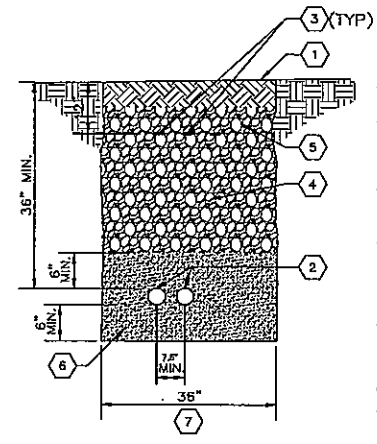
QUALIFIED WORKERS ONLY Appropriate PPE Required	
7.5	Inches Flash Hazard Boundary
Category 0	Flash Hazard Category
0.4	Cal/cm ² Flash Hazard at 35.8 Inches
5.0	kA Bolted Fault Current
Arc Flash boundary at energy < 1.2 cal/cm ²	
SHOCK HAZARD	
480	Volts Shock Hazard when cover is removed
00	Glove Class with Leather Protectors
120 inches	Limited Approach Boundary
12 inches	Restricted Approach Boundary
1 inches	Prohibited Approach Boundary
Equipment Name: 01 Date: Jan. 1, 2013	

- "WARNING" ARC FLASH LABEL NOTES:**
- REFER TO SPECIFICATIONS AND NEC 110.16 FOR FURTHER DESCRIPTION.
 - FOR HAZARD/RISK CATEGORY 0,1,2,3,& 4) 0-40 cal/cm², USE ORANGE "WARNING" LABELS WITH SOLID BLACK LETTERS.
 - ALL LABELS SHALL BE PRINTED WITH PERMANENT INK ON WEATHERPROOF LABELS WITH SELF-STICKING ADHESIVE.
 - ANY ELECTRICAL EQUIPMENT THAT HAS A DOOR SHALL BE PROVIDED WITH A LABEL ON BOTH SIDES OF THE DOOR.

DANGER QUALIFIED WORKERS ONLY Appropriate PPE Required	
25	Inches Flash Hazard Boundary
Category >4	Flash Hazard Category
45	Cal/cm ² Flash Hazard at 35.8 Inches
5.0	kA Bolted Fault Current
Arc Flash boundary at energy < 1.2 cal/cm ²	
SHOCK HAZARD	
480	Volts Shock Hazard when cover is removed
00	Glove Class with Leather Protectors
120 inches	Limited Approach Boundary
12 inches	Restricted Approach Boundary
1 inches	Prohibited Approach Boundary
Equipment Name: 01 Date: Jan. 1, 2013	

- "DANGER" ARC FLASH LABEL NOTES:**
- REFER TO SPECIFICATIONS AND NEC 110.16 FOR FURTHER DESCRIPTION.
 - FOR EQUIPMENT LABELS WITH INCIDENT ENERGY LEVELS >40 cal/cm², USE RED "WARNING" LABELS WITH SOLID WHITE LETTERS.
 - ALL LABELS SHALL BE PRINTED WITH PERMANENT INK ON WEATHERPROOF LABELS WITH SELF-STICKING ADHESIVE.
 - ANY ELECTRICAL EQUIPMENT THAT HAS A DOOR SHALL BE PROVIDED WITH A LABEL ON BOTH SIDES OF THE DOOR.

C4 WATER TAXI INFORMATION CENTER (EAST BANK) ELECTRICAL ARC FLASH WARNING LABELS
N.T.S.



B4 SERVICE ENTRANCE (EAST BANK) TRENCH (SECONDARY FEEDERS)
N.T.S.

- KEYNOTES:**
- TOPSOIL AND SEED OR PAVEMENT, AS PER PLAN.
 - TWO (2) 4" PVC SCHEDULE 80 CONDUITS (ONE IS SPARE WITH NYLON PULLSTRING.), FROM SERVICE UTILITY TRANSFORMER ON PDE TO "MDP". PROVIDE SWEEPING NON-ACUTE ANGLED BENDS FOR ALL CONDUITS.
 - DETECTABLE WARNING TAPE RED WITH BLACK LETTERING INDICATING "ELECTRIC" AND ROUTED ALONG CONDUIT PATH.
 - CLEAN ON-SITE MATERIALS MAY BE USED FOR BACKFILL IN LANDSCAPED AREAS. MATERIALS SHALL BE FREE OF STONES, RUBBLE, AND FROZEN BACKFILL; OTHERWISE, CONTRACTOR SHALL BRING IN CLEAN BACKFILL. COMPACT BACKFILL IN LIFTS.
 - GRANULAR BACKFILL (ODOT ITEM 304 LESTONE) TO BE USED UNDER PAVEMENT AND IN RIGHT OF WAY, TO A DEPTH PER ODOT STANDARDS, WITH COMPACTED BACKFILL FOR REMAINDER PER ODOT STANDARDS.
 - SAND BEDDING.
 - VERIFY WIDTH OF TRENCH REQUIRED. REFER TO CIVIL UTILITY PLAN ON SHEET C-131 FOR ROUTING AND SINGLE LINE DIAGRAM ON SHEET E-601 FOR CONDUIT FILL.

GPD GROUP.
Cleveland, Ohio 44115
313.572.2100 Fax 313.572.2109
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Cleveland Metroparks

DESCRIPTION	REV	DATE

STATE OF OHIO
THIRTY
DAYES
PERMIT
NO. 2014381.00

12/18/14

WATER TAXI BUILDING RENOVATIONS
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD., CLEVELAND, OH

ELECTRICAL DETAILS
EAST BANK

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
BM	GMM

Underground Utilities

2 Working Days
Before You Dig
Call 800-362-2764 (Toll Free)
Ohio Utilities Protection Service

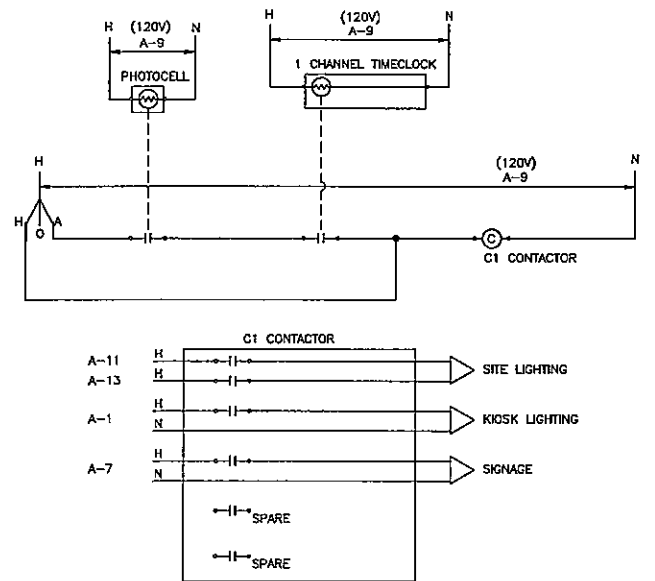
Non-members
Must Be Called Directly
Call 800-925-0988 (Toll Free)
Oil & Gas Producers Utility Protection Service

JOB NO.
2014381.00

E-501

CONTACTOR SCHEDULE FOR WEST BANK KIOSK						
NUMBER	COIL VOLTAGE	CONTACTOR AMPERAGE	CONTACTOR VOLTAGE	QUANTITY OF POLES	CONTROL	REMARKS
C1	120	30	300	6 (2 SPARE)	PHOTOCELL ON/TIMECLOCK OFF (CHANNEL #1)	KIOSK AND SIGNAGE LIGHTING

NOTES:
 1. REFER TO SITE LIGHTING CONTROLS DETAIL FOR WEST BANK KIOSK FOR INDIVIDUAL CIRCUITS CONTROLLED BY CONTACTORS.
 2. PROVIDE NEMA 1 ENCLOSURE SIZED TO ACCOMMODATE THE CONTACTORS LISTED.
 3. SITE LIGHTING CONTROLS SHALL BE INSTALLED WITHIN SAME NEMA 4X (STAINLESS STEEL LOCKABLE) ENCLOSURE WITH SERVICE ENTRANCE RATED PANELBOARD. REFER TO SHEET E-502 FOR METER CENTER DETAIL.

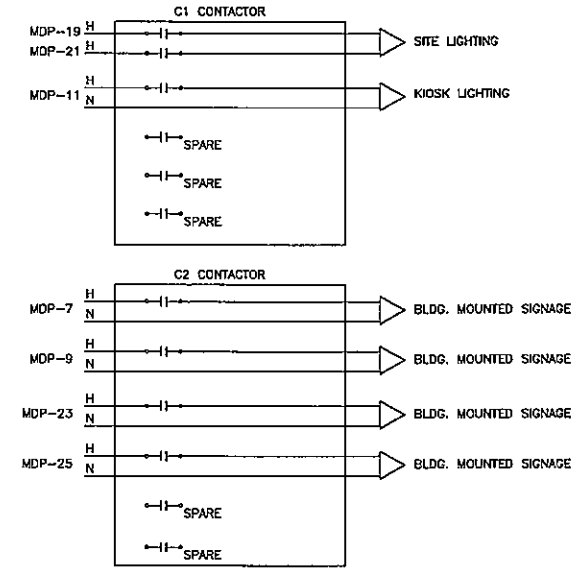
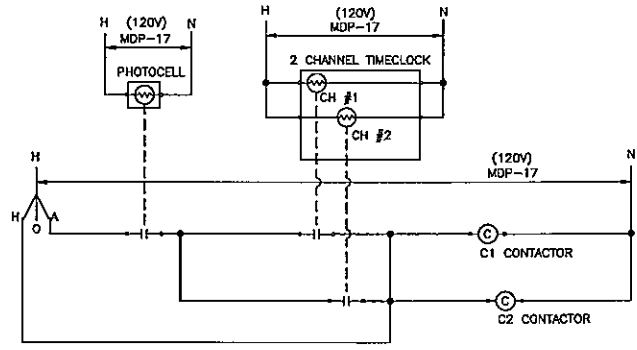


- NOTES:
1. PROVIDE TORK #2001 SERIES AIMABLE PHOTOCELL OR APPROVED EQUAL (120V).
 2. PROVIDE TORK #DZM200A, 2 CHANNEL DIGITAL TIMECLOCK WITH 365 DAY, SEASONAL SCHEDULING, ASTRONOMIC OPTION, LITHIUM BATTERY BACKUP, 120V OR APPROVED EQUAL.
 3. ONE HAND-OFF-AUTO FOR OVERRIDE OF CONTROLS DUE TO CONCERN REGARDING VANDALISM, SWITCH SHALL BE MOUNTED WITHIN NEMA 4X (STAINLESS STEEL) ENCLOSURE HOUSING SERVICE ENTRANCE PANEL.
 4. REFER TO CONTACTOR SCHEDULE FOR ADDITIONAL INFORMATION.
 5. ALL CONTROLS SHALL BE ABLE TO WITHSTAND UNCONDITIONED ENVIRONMENT DOWN TO -20°F.

A2 SITE LIGHTING CONTROLS
 WATER TAXI WEST BANK KIOSK
 N.T.S.

CONTACTOR SCHEDULE FOR WATER TAXI INFORMATION CENTER & EAST KIOSK						
NUMBER	COIL VOLTAGE	CONTACTOR AMPERAGE	CONTACTOR VOLTAGE	QUANTITY OF POLES	CONTROL	REMARKS
C1	120	30	300	6 (3 SPARE)	PHOTOCELL ON/TIMECLOCK OFF (CHANNEL #1)	KIOSK LIGHTING
C2	120	30	300	6 (2 SPARE)	PHOTOCELL ON/TIMECLOCK OFF (CHANNEL #2)	BUILDING MOUNTED SIGNAGE

NOTES:
 1. REFER TO SITE LIGHTING CONTROLS DETAIL FOR INFORMATION CENTER AND EAST BANK KIOSK FOR INDIVIDUAL CIRCUITS CONTROLLED BY CONTACTORS.
 2. PROVIDE NEMA 1 ENCLOSURE SIZED TO ACCOMMODATE THE CONTACTORS LISTED.



- NOTES:
1. PROVIDE TORK #2001 SERIES AIMABLE PHOTOCELL OR APPROVED EQUAL (120V).
 2. PROVIDE TORK #DZM200A, 2 CHANNEL DIGITAL TIMECLOCK WITH 365 DAY, SEASONAL SCHEDULING, ASTRONOMIC OPTION, LITHIUM BATTERY BACKUP, 120V OR APPROVED EQUAL.
 3. ONE HAND-OFF-AUTO FOR SHARED OVERRIDE OF BOTH CHANNELS.
 4. REFER TO CONTACTOR SCHEDULE FOR ADDITIONAL INFORMATION.

A4 SITE LIGHTING CONTROLS
 WATER TAXI INFORMATION CENTER & EAST BANK KIOSK
 N.T.S.

REV.	DATE	DESCRIPTION



12/18/14

WATER TAXI
EAST BANK BUILDING RENOVATIONS
 1170 OLD RIVER RD., CLEVELAND, OH
ELECTRICAL DETAILS

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
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RECORD	-

PROJECT MANAGER	DESIGNER
BM	GMM

JOB NO.
2014381.06

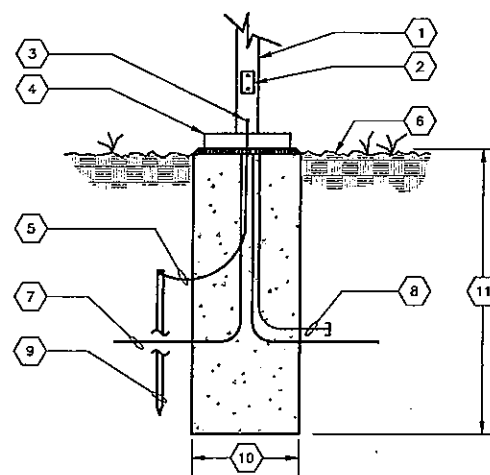


LUMINAIRE SCHEDULE - EAST BANK

TYPE	VA	VOLTS	LAMPS	DESCRIPTION	MOUNTING	MANUFACTURER	CAT SERIES	REMARKS
SA	225	208, 1φ	150W METAL HALIDE	DECORATIVE WALKWAY POLE LIGHT WITH SINGLE HEAD. LUMINAIRE AND POLE SHALL HAVE BRONZE ANODIZE FINISH WITH TAMPER RESISTANT FASTENERS.	POST 4" SQUARE STRAIGHT ALUMINUM 12' TALL	HOLOPHANE	GY-150MH-MA-1-Z-U-21C-S-64402 LYON GLASWERKS 2 WITH UPLIGHT, LAMP INCLUDED WITH POLE. SSA-1244C-01-RZ-AZ-3 AND HZ-24-BOR-BZ MOUNTING ARMS	NO FESTOON BOX. REFER TO CONCRETE BASE DETAIL ON THIS SHEET FOR MORE INFORMATION.
SA2	225/HEAD (450 VA TOTAL)	208, 1φ	150W METAL HALIDE	DECORATIVE WALKWAY POLE LIGHT WITH DOUBLE HEAD ORIENTED AT 180°. LUMINAIRES AND POLE SHALL HAVE BRONZE ANODIZE FINISH WITH TAMPER RESISTANT FASTENERS.	POST 4" SQUARE STRAIGHT ALUMINUM 12' TALL	HOLOPHANE	(2) GY-150MH-MA-1-Z-S-21C-S-64402 LYON GLASWERKS 2 WITH UPLIGHT, LAMP INCLUDED WITH POLE. SSA-1244C-01-RZ-AZ-3 AND (2) HZ-24-BOR-BZ MOUNTING ARMS	NO FESTOON BOX. REFER TO CONCRETE BASE DETAIL ON THIS SHEET FOR MORE INFORMATION.
WE	65	120	2 32W CF	COMPACT FLUORESCENT EXTERIOR WALL MOUNTED FIXTURE WITH FULL OUTPUT. WET LOCATION LISTED. FOR OPERATION IN -20°F. BUTTON PHOTOCELL AND A REMOTE EMERGENCY BATTERY BALLAST FOR USE AS EMERGENCY EGRESS LIGHTING. PROVIDE WITH BRONZE FINISH.	WALL CENTERED ABOVE DOOR(S)	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	WST-2/35TRT-MQ-120-ELDR OR ELDRP'S FIXTURE WIRED FOR A REMOTE EMERGENCY BATTERY PACK. ORDER BATTERY PACK REQUIRED PER MANUF.	
KL	5 PER LF	120VAC INPUT 6V DC OUTPUT	LED	SURFACE MOUNT EXTERIOR RATED LED FIXTURE, 3000K, 48W LED MODULES, 2" SPACING, PROVIDED WITH NYLON MOUNTING CLAMP WITH CONCEALED STAINLESS STEEL FASTENER. PROVIDE WET LOCATION LISTED POWER SUPPLY MOUNTED NEAR ROOF OF KIOSK TO BEST CONCEAL AS FIELD-DIRECTED BY OWNER.	AS RECOMMENDED BY MANUFACTURER FOR APPLICATION	TOKSTAR TOKLUM OR OWNER-APPROVED EQUIVALENT	LUM-50-1W, LENGTHS TO FIT BETWEEN EACH ROOF RAFTER. FIELD VERIFY EXACT LENGTHS WITH KIOSK PRIOR TO ORDERING.	CONTACT GREG SHICK AT BRIGHT FOCUS SALES (216) 751-8384 FOR ORDERING INFORMATION PRIOR TO BIDDING. REFER TO SHEET E-101 FOR ASSOCIATED LAYOUT.
DL	2.8W/4.2W	120	LED, RED GREEN	EXISTING DOCK LIGHTS FURNISHED AND INSTALLED BY ODOT AS WARNING LIGHTS FOR BOATERS, 2.8W FOR RED STROBE, 4.2W FOR GREEN STROBE	INSTALLED BY ODOT ALONG DOCK AREA	B&B ROADWAY MANUFACTURER		NAVIGATIONAL LIGHTS TO BE FURNISHED AND INSTALLED BY ODOT. EXACT LOCATION AND QUANTITIES SHALL BE FIELD VERIFIED PRIOR TO BIDDING DUE TO WORK ASSOCIATED WITH REFEEDING THE EXISTING LIGHTS FROM THIS PROJECT.
DS	25	120	(1) 18W CF	5 OR 6" DIAMETER COMPACT FLUORESCENT DOWNLIGHT WITH SEMI-SPECULAR REFLECTOR CLEAR CROSS-BAFFLE, HORIZONTAL LAMPS, AND WHITE TRIM.	RECESSED IN GYPSUM BOARD CEILING	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	AF-1-18TRT-CR-1VOLT	LOCATE ABOVE COUNTER
DS	65	120	(2) 26W CF	8 OR 9" DIAMETER COMPACT FLUORESCENT DOWNLIGHT WITH SEMI-SPECULAR REFLECTOR, HORIZONTAL LAMPS, AND WHITE TRIM.	RECESSED IN GYPSUM BOARD CEILING	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	AFZ-2-26DIT-8-4AR-1VOLT	
FL	65	120	(2) 32W TB	1'W X 4' LONG RECESSED FLUORESCENT FLANGED FIXTURE WITH PRISMATIC ACRYLIC LENS AND WHITE STEEL HOUSING AND HINGED DOOR.	RECESSED IN GYPSUM BOARD CEILING	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	SPS-F-232-A12125	
VF	65	120	(2) 32W TB	30"W X 6" X 6" DEEP FLUORESCENT VANITY FIXTURE TO BE CENTERED OVER SINK.	WALL MOUNTED	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	WF-224-FCL12125V-1VOLT-GE31RPS	FIELD VERIFY WITH ARCHITECT STYLE THAT WALL MOUNTED FIXTURE IS APPROVED PRIOR TO ORDERING.
EM	5	120	(2) LED AMBLES HEADS	QUANTUM SERIES, EMERGENCY LIGHTING UNIT WITH WHITE POLYCARBONATE HOUSING AND BATTERY AND SELF-DIAGNOSTICS.	WALL MOUNTED	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	ELM1781-1P-SD	
EX	5	120	INTEGRAL LED'S	EXIT SIGN WITH WHITE POLYCARBONATE HOUSING, RED STENCIL, FACE AND BATTERY BACKUP AND SELF-DIAGNOSTICS. SHADING OF SYMBOL INDICATES FACE. REFER TO FLOOR PLANS FOR NUMBER OF FACES AND ARROWS REQUIRED.	WALL OR CEILING MOUNTED AS DIRECTED BY OWNER.	LITHONIA, OR OWNER-APPROVED EQUIVALENT.	LOM-S-3-R-120/277-EL-N-SD	

LUMINAIRE SCHEDULE - WEST BANK

TYPE	VA	VOLTS	LAMPS	DESCRIPTION	MOUNTING	MANUFACTURER	CAT SERIES	REMARKS
SA	225	240, 1φ	150W METAL HALIDE	DECORATIVE WALKWAY POLE LIGHT WITH SINGLE HEAD. LUMINAIRE AND POLE SHALL HAVE BRONZE ANODIZE FINISH WITH TAMPER RESISTANT FASTENERS. VOLTAGE IS ANTICIPATED TO BE 240V, 1φ ON WEST BANK.	POST 4" SQUARE STRAIGHT ALUMINUM 12' TALL	HOLOPHANE	GY-150MH-MA-1-Z-U-21C-S-64402 LYON GLASWERKS 2 WITH UPLIGHT, LAMP INCLUDED WITH POLE. SSA-1244C-01-RZ-AZ-3 AND HZ-24-BOR-BZ MOUNTING ARMS	NO FESTOON BOX. REFER TO CONCRETE BASE DETAIL ON THIS SHEET FOR MORE INFORMATION.
SA2	225/HEAD (450 VA TOTAL)	240, 1φ	150W METAL HALIDE	DECORATIVE WALKWAY POLE LIGHT WITH DOUBLE HEAD ORIENTED AT 180°. LUMINAIRES AND POLE SHALL HAVE BRONZE ANODIZE FINISH WITH TAMPER RESISTANT FASTENERS. VOLTAGE IS ANTICIPATED TO BE 240V, 1φ ON WEST BANK.	POST 4" SQUARE STRAIGHT ALUMINUM 12' TALL	HOLOPHANE	(2) GY-150MH-MA-1-Z-S-21C-S-64402 LYON GLASWERKS 2 WITH UPLIGHT, LAMP INCLUDED WITH POLE. SSA-1244C-01-RZ-AZ-3 AND (2) HZ-24-BOR-BZ MOUNTING ARMS	NO FESTOON BOX. REFER TO CONCRETE BASE DETAIL ON THIS SHEET FOR MORE INFORMATION.
KL	5 PER LF	120VAC INPUT 6V DC OUTPUT	LED	SURFACE MOUNT EXTERIOR RATED LED FIXTURE, 3000K, 48W LED MODULES, 2" SPACING, PROVIDED WITH NYLON MOUNTING CLAMP WITH CONCEALED STAINLESS STEEL FASTENER. PROVIDE WET LOCATION LISTED POWER SUPPLY MOUNTED NEAR ROOF OF KIOSK TO BEST CONCEAL AS FIELD-DIRECTED BY OWNER.	AS RECOMMENDED BY MANUFACTURER FOR APPLICATION	TOKSTAR TOKLUM OR OWNER-APPROVED EQUIVALENT	LUM-50-1W, LENGTHS TO FIT BETWEEN EACH ROOF RAFTER. FIELD VERIFY EXACT LENGTHS WITH KIOSK PRIOR TO ORDERING.	CONTACT GREG SHICK AT BRIGHT FOCUS SALES (216) 751-8384 FOR ORDERING INFORMATION PRIOR TO BIDDING. REFER TO SHEET E-101 FOR ASSOCIATED LAYOUT.
DL	2.8W FOR RED STROBE, 4.2W FOR GREEN STROBE	120	LED, RED GREEN	EXISTING DOCK LIGHTS FURNISHED AND INSTALLED BY ODOT AS WARNING LIGHTS FOR BOATERS.	INSTALLED BY ODOT ALONG DOCK AREA	B&B ROADWAY MANUFACTURER		NAVIGATIONAL LIGHTS TO BE FURNISHED AND INSTALLED BY ODOT. EXACT LOCATION AND QUANTITIES SHALL BE FIELD VERIFIED PRIOR TO BIDDING DUE TO WORK ASSOCIATED WITH REFEEDING THE EXISTING LIGHTS FROM THIS PROJECT.



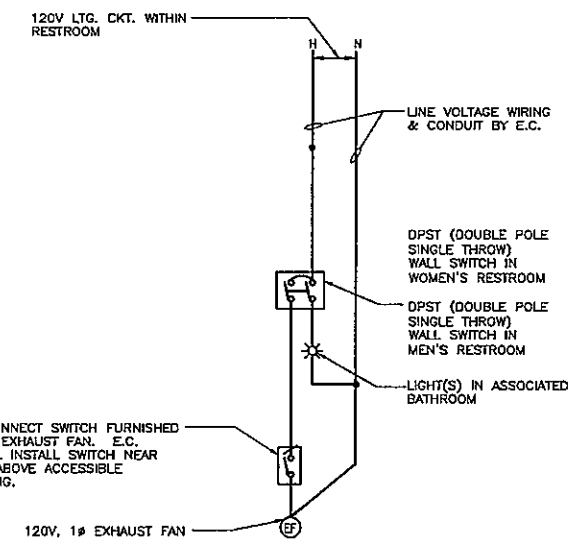
- PLAN NOTES:**
- POLE
 - HAND HOLE
 - GROUND LUG
 - BOLT COVER
 - (1) #1/0 COPPER BASE GROUND CONDUCTOR
 - GRADE
 - BRANCH CIRCUIT WIRING IN CONDUIT AT 24" (MINIMUM) BELOW GRADE
 - 1" SPARE CONDUIT STUBBED INTO POLE BASE & CAPPED 12" FROM BASE
 - 3/4"x10'-0" COPPER CLAD GROUND ROD
 - 10, 18"φ
 - 8'-0"
- REFER TO STRUCTURAL DRAWINGS FOR SIMILAR DETAIL FOR STRUCTURAL ELEMENTS.

LIGHTING FIXTURE GENERAL NOTES

- E.C. SHALL VERIFY CEILING TYPES AND DETERMINE PROPER MOUNTING HARDWARE PRIOR TO ORDERING FIXTURES.
- ALL EXIT SIGNS, NIGHTLIGHTS, AND EMERGENCY EGRESS LIGHTING FIXTURES SHALL BE WIRED AHEAD OF LOCAL SWITCHES TO REMAIN ENERGIZED.
- ALL ACRYLIC PRISMATIC LENSES SHALL BE 0.125" THICK AND HAVE A #12 PATTERN.
- ALL BALLASTS SHALL BE ELECTRONIC TYPE WITH LESS THAN 10% THD (TOTAL HARMONIC DISTORTION) IF AVAILABLE.
- ALL NON-DIMMED LIGHT FIXTURES WITH T8, T5, & TSHO LAMPS SHALL BE PROVIDED WITH PROGRAMMED START BALLASTS.
- PROVIDE LOCAL DISCONNECTING MEANS FOR INDOOR FLUORESCENT LUMINAIRES THAT CONTAIN BALLASTS, USE DOUBLE-ENDED LAMPS, AND CAN BE SERVICED IN PLACE PER 2011 NEC 410.130 (G).

GENERAL NOTES:

- THE E.C. SHALL VISIT AND EXAMINE CAREFULLY THE AREAS AFFECTED BY THIS WORK TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND WITH THE DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THIS WORK. NO ADDITIONAL PAYMENTS WILL BE APPROVED REGARDING ADDITIONAL WORK REQUIRED BECAUSE OF EXISTING CONDITIONS. SUBMITTAL OF A BID WILL ACKNOWLEDGE THE ACCEPTANCE OF THIS RESPONSIBILITY.
- WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE E.C. SHALL CORE DRILL OR CUT AND CHASE WALLS AND FLOORS AS REQUIRED TO PERMIT PASSAGE OF CONDUITS AND RACEWAYS. AT COMPLETION OF INSTALLATIONS, E.C. SHALL FILL IN AND WATERPROOF OR FIREPROOF, TO RATING OF STRUCTURE PENETRATED. FILL ALL OPENINGS WITH MATERIALS AS DIRECTED BY THE ARCHITECT AND FINISH TO MATCH SURROUNDING AREAS. ALL OPENINGS REQUIRED SHALL BE APPROVED BY THE ARCHITECT PRIOR TO DEMOLITION OR CORE DRILLING.
- PROVIDE AN UPDATED, TYPED PANELBOARD SCHEDULE AND INSTALL IT ON THE INSIDE COVER OF EACH EXISTING PANEL WHOSE INFORMATION HAS CHANGED DUE TO DEMOLITION OR NEW WORK ASSOCIATED WITH PANEL.
- ALL CONDUIT PENETRATIONS THROUGH NEW FIRE RATED WALLS, FLOORS, OR SHAFTS SHALL BE SEALED IN ACCORDANCE WITH SPECIFICATIONS.
- ROUTING OF ALL SURFACE MOUNTED/EXPOSED CONDUIT IN UNFINISHED AREAS (OR WHERE NOTED ON THE DRAWINGS) SHALL BE COORDINATED WITH, AND SHALL BE APPROVED BY THE OWNER PRIOR TO INSTALLATION.
- FIELD VERIFY EXACT LOCATION OF EQUIPMENT WITH OWNER AND ASSOCIATED EQUIPMENT INSTALLER PRIOR TO ROUGH-IN. EXACT ELECTRICAL REQUIREMENTS SHALL BE VERIFIED IN THE FIELD WITH THE EQUIPMENT'S NAMEPLATE DATA. E.C. SHALL MAKE APPROPRIATE ADJUSTMENTS TO ASSOCIATED BREAKERS/DISCONNECT SWITCHES, BRANCH CIRCUIT WIRING, AND SIZE FUSES PER MANUFACTURER'S RECOMMENDATIONS.
- THE PHRASE "PROVIDED BY" USED WITHIN THESE DOCUMENTS SHALL EXPLICITLY REPRESENT "FURNISHED AND INSTALLED BY".
- ALL WIRING SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT SHALL BE A MINIMUM OF 3/4".
- CIRCUITS SHALL BE REARRANGED AS REQUIRED TO MAINTAIN THE MOST BALANCED LOADS ON EACH PHASE WITHIN EACH PANEL. E.C. SHALL PROVIDE A TYPED PANELBOARD SCHEDULE AND INSTALL IT ON INSIDE COVER OF EACH PANEL.
- ANY DEVICES THAT ARE TO BE INSTALLED BACK-TO-BACK IN A COMMON WALL SHALL BE SEPARATED BY 8" MINIMUM TO MINIMIZE SOUND TRANSFER.
- DRAWINGS ARE DIAGRAMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE INSTALLATION WITH OTHER TRADES TO VERIFY THE ACTUAL SPACE CONDITIONS, HEADROOM, ETC. THAT IS TO BE MAINTAINED. NO ADDITIONAL PAYMENT WILL BE APPROVED FOR FAILURE TO COMPLY.
- WIRE SIZE OF BRANCH CIRCUITS SHALL BE ADJUSTED TO COMPENSATE FOR VOLTAGE DROP BASED UPON ACTUAL CONDUIT ROUTING. E.C. SHALL MAINTAIN VOLTAGE DROP AS RECOMMENDED BY NEC (NOT TO EXCEED 3%).
- PROVIDE 3/4" MINIMUM EMPTY CONDUIT WITH PULLWIRE FOR CONTROL WIRING BETWEEN HVAC EQUIPMENT AND REMOTE LOCATED CONTROL PANELS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- ALL BRANCH CIRCUITS SHALL BE PROVIDED WITH A SEPARATE NEUTRAL CONDUCTOR. NEUTRALS SHALL NOT BE SHARED PER 2014 NEC 210.4 (B).
- COORDINATE WITH THE FOLLOWING PRIOR TO ROUGH-IN: MECHANICAL/PLUMBING CONTRACTOR AND MECHANICAL/PLUMBING DRAWINGS. E.C. SHALL PROVIDE ALL EQUIPMENT, DEVICES, WIRING AND CONDUITS AS SHOWN OR IMPLIED ON THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- CONNECT CORD AND PLUG COMPONENTS SHIPPED LOOSE WITH ANY EQUIPMENT FURNISHED BY OTHER TRADES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.



A4 WIRING DIAGRAM FOR EF-1
N.T.S.



Cleveland Metroparks

REV#	DATE	DESCRIPTION



12/23/14

WATER TAXI
EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD., CLEVELAND, OH

ELECTRICAL
DETAILS AND SCHEDULES

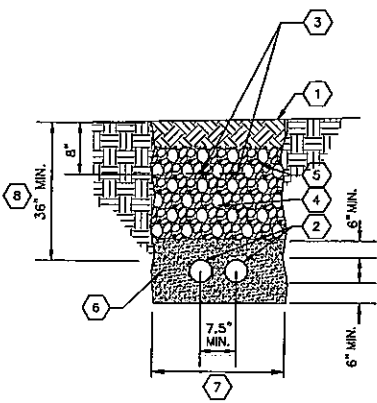
ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DESIGNER
BM	GMM

JOB NO.
2014381.00



KEYNOTES:

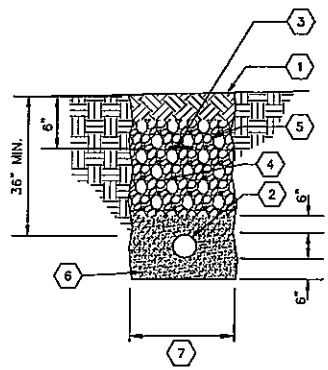
- TOPSOIL AND SEED OR PAVEMENT, AS PER PLAN.
- 2-4" PVC SCHEDULE 80 CONDUITS WITH NYLON PULLSTRINGS FROM UTILITY TRANSFORMER TO UTILITY DIP POLE. E.C. SHALL PROVIDE RISERS AND MOUNTING HARDWARE UP POLE AS DIRECTED BY UTILITY COMPANY. E.C. SHALL COORDINATE MATERIALS PROVIDED BY UTILITY COMPANY AND WORK PERFORMED BY CONTRACTOR FOR COMPLETE COVERAGE IN BASE BID. PROVIDE CONDUITS IN CONCRETE ENCASUREMENT WHERE ROUTED UNDER ANY DRIVEWAY, ROADWAY, AND PARKING LOTS AND SHALL EXTEND 3' PAST EACH EDGE. CONCRETE ENCASUREMENT SHALL BE 18" W X 12" D UNLESS OTHERWISE DIRECTED BY UTILITY COMPANY.
- DETECTABLE WARNING TAPE RED WITH BLACK LETTERING INDICATING "ELECTRIC" AND ROUTED ALONG CONDUIT PATH.
- CLEAN ON-SITE MATERIALS MAY BE USED FOR BACKFILL IN LANDSCAPED AREAS. MATERIALS SHALL BE FREE OF STONES, RUBBLE, AND FROZEN BACKFILL; OTHERWISE, CONTRACTOR SHALL BRING IN CLEAN BACKFILL. COMPACT BACKFILL IN LIFTS.
- GRANULAR BACKFILL (ODOT ITEM 304 LESTONITE) TO BE USED UNDER PAVEMENT AND IN RIGHT OF WAY, TO A DEPTH PER ODOT STANDARDS, WITH COMPACTED BACKFILL FOR REMAINDER PER ODOT STANDARDS.
- SAND BEDDING.
- EXCAVATE WIDTH OF TRENCH AS REQUIRED. REFER TO SITE UTILITY DRAWING ON SHEET ES-101 & ES-102 FOR ROUTING AND SINGLE LINE DIAGRAM ON SHEET E-501 FOR MORE DETAILS.
- VERIFY DEPTH WITH UTILITY COMPANY PRIOR TO COMMENCING TRENCHING.



C1 PRIMARY ELECTRIC SERVICE TRENCH
N.T.S.

KEYNOTES:

- TOPSOIL AND SEED OR PAVEMENT, AS PER PLAN.
- 1" PVC SCHEDULE 40 (MINIMUM). SEE ELECTRICAL SITE PLANS FOR SIZE AND QUANTITY OF CONDUITS REQUIRED ALONG TRENCH. IF MULTIPLE CONDUITS ARE ROUTED TOGETHER IN A COMMON TRENCH, PROVIDE 6" (MINIMUM) OF SOIL SEPARATION BETWEEN THE EXTERIOR OF EACH CONDUIT.
- DETECTABLE WARNING TAPE RED WITH BLACK LETTERING INDICATING "ELECTRIC" AND ROUTED ALONG CONDUIT PATH.
- CLEAN ON-SITE MATERIALS MAY BE USED FOR BACKFILL IN LANDSCAPED AREAS. MATERIALS SHALL BE FREE OF STONES, RUBBLE, AND FROZEN BACKFILL; OTHERWISE, CONTRACTOR SHALL BRING IN CLEAN BACKFILL. COMPACT BACKFILL IN LIFTS.
- CLEAN ON-SITE MATERIALS MAY BE USED FOR BACKFILL TO BE USED UNDER PAVEMENT AND IN RIGHT OF WAY, TO A DEPTH PER ODOT STANDARDS, WITH COMPACTED BACKFILL FOR REMAINDER PER ODOT STANDARDS.
- SAND BEDDING.
- EXCAVATE WIDTH OF TRENCH AS REQUIRED. REFER TO SITE UTILITY DRAWING ON SHEET ES-101 & ES-102 FOR ROUTING.



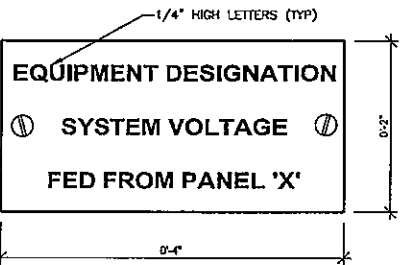
A1 MISC. ELECTRIC BRANCH CIRCUIT/ FEEDER TRENCH DETAIL
N.T.S.

PANEL 'A' - (WEST BANK)

DESCRIPTION	Phase A KW	Phase B KW	Phase C KW	Ckt. #	Phase A KW	Phase B KW	Phase C KW	DESCRIPTION	
C1				1				RECEPT AT PANEL	
				2					
				3					
				4					
				5					
				6					
				7					
				8					
				9					
				10					
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				36					
				37					
				38					
				39					
				40					
				41					
				42					
Connected				KW 5.40 4.40					
				AMPS 45.00 36.67					
				Total KW 9.80					
				Total AMPS 48.83					
				Voltage 120/240 PHASE 1 N.O. OF WIRE 3 NEMA 1 ENCLOSURE					
				MAIN ✓ CB _____ LUGS _____ BUS 100 AMP 42 KAIC (SEE NOTE BELOW)					
				SERVICE ENTRANCE RATED _____ ISO. C.W.I. BUS _____					

PANELBOARD NOTES

- PROVIDE CIRCUIT BREAKER WITH LOCK-ON CLIP.
- PROVIDE CIRCUIT BREAKER WITH RED LOCK-ON CLIP.
- PROVIDE A GFCI BREAKER COMPLIANT TO "UL 943 CLASS A" FOR PERSONNEL PROTECTION (TRIP LEVEL 4-6 mA) WHERE ASSOCIATED BREAKER FEEDS NON-GFCI RECEPTACLE(S) WITHIN 6 FEET OF A WATER SOURCE AS REQUIRED BY NEC 210.8(2011), OR "UL 943 CLASS B" FOR EQUIPMENT PROTECTION (TRIP LEVEL 20-30 mA) WHICH INCLUDES HEAT TRACE AS REQUIRED BY NEC 427.22(2011). VERIFY WITH EQUIPMENT MANUFACTURER SIZE RECOMMENDED FOR GFCI TRIP PRIOR TO ORDERING BREAKER TO COMPLY WITH "UL 943 CLASS B".
- PROVIDE HACR RATED BREAKER FOR ALL HVAC EQUIPMENT.
- PROVIDE TYPED, UPDATED PANELBOARD SCHEDULE FOR FRONT COVER OF PANEL.
- PROVIDE EQUIPMENT WITH SUFFICIENT INTERRUPTING CAPACITY (AIC) REQUIRED FOR A SAFE INSTALLATION. AIC RATING NOTED ON EACH PANELBOARD SCHEDULE IS MINIMUM RATING ACCEPTED WITHOUT ADDITIONAL DOCUMENTATION THAT INDICATES DIFFERENTLY. REFER TO SINGLE LINE DIAGRAM NOTE #1 FOR MORE DETAILS.
- PROVIDE A LAMACOID NAMEPLATE ATTACHED WITH SCREWS TO THE FRONT OF EACH PANELBOARD. REFER TO NAMEPLATE DETAIL FOR EXACT REQUIREMENTS.
- "C" INDICATES CIRCUIT IS CONTROLLED THRU LIGHTING CONTACTOR #.



- NOTES:**
- PROVIDE LAMACOID NAMEPLATE ENGRAVED WITH WHITE LETTERS.
 - NAMEPLATE SHALL BE THE FOLLOWING COLORS: BLACK - NORMAL POWER ON 208/120 VOLT SYSTEM
 - SECURE NAMEPLATE TO EQUIPMENT WITH TWO SHEET METAL SCREWS.
 - PROVIDE A NAMEPLATE FOR EVERY MAJOR ELECTRICAL DEVICE OR ELECTRICAL CONTROLS SUCH AS: SWITCHBOARDS, DISTRIBUTION PANELS, PANELBOARDS, LIGHTING CONTROL PANELS, STARTERS, DISCONNECT SWITCHES, ETC. (AS APPLICABLE).
 - EQUIPMENT DESIGNATION SHOULD INDICATE NAME OF PANELBOARD OR TYPE OF EQUIPMENT BE SERVED (I.E. "PANEL LPA", "PUMP CWP-1").
 - SYSTEM VOLTAGE SHALL INDICATE VOLTAGE AND PHASE SUCH AS: 208/120V,3P.
 - THE THIRD LINE OF TEXT SHALL INDICATE UPSTREAM POWER SOURCE IDENTIFIED BY ITS NAME, SUCH AS "TRANSFORMER T1", "PANEL 'LPA'", ETC.

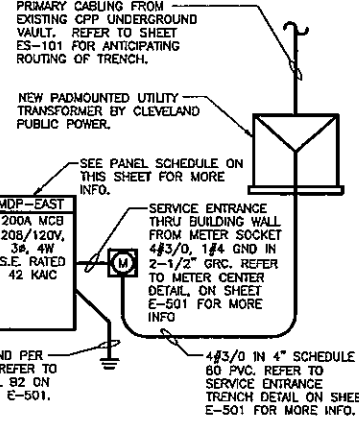
A2 NAMEPLATE DETAIL
N.T.S.

PANEL MDP - (EAST BANK)

DESCRIPTION	Phase A KW	Phase B KW	Phase C KW	Ckt. #	Phase A KW	Phase B KW	Phase C KW	DESCRIPTION	
C2				1				WALL MTD HEATER, RM 105	
				2					
				3				WALL MTD HEATER, RM 101	
				4				SPARE	
				5					
				6					
				7					
				8					
				9					
				10					
				11					
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				38					
				39					
				40					
				41					
				42					
CONNECTED				KW 19.50 19.00 15.90					
				AMPS 162.30 158.33 132.50					
				Total KW 54.40					
				Total AMPS 151.00					
				Voltage 208 Y/120 PHASE 3 N.O. OF WIRES 4 NEMA 1 ENCLOSURE					
				MAIN 200 CR 3 POLES _____ LUGS _____ BUS 225 AMPS _____ 42 KAIC OFF NOTF ROWS					
				SERVICE ENTRANCE RATED _____ SHU _____ ISOLATED GROUNDING BUS _____ SUBSPACE _____					
				200% RATED NEUTRAL _____ FULLY RATED _____ FLUSH _____					

SINGLE LINE DIAGRAM NOTES

- VERIFY FAULT CURRENT AVAILABLE AT THE SECONDARY OF THE UTILITY TRANSFORMER WITH THE POWER COMPANY. CONDUCT A FAULT CURRENT ANALYSIS AS REQUIRED BY THE SPECIFICATIONS TO DETERMINE THE INTERRUPTING CAPACITY (AIC RATING) OF THE ELECTRICAL EQUIPMENT. FURNISH THE RESULTS OF THE STUDY/ANALYSIS WITH THE EQUIPMENT SUBMITTALS TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING EQUIPMENT. ANY EQUIPMENT SUBMITTED FOR REVIEW WITHOUT THIS DOCUMENTATION WILL BE REJECTED AND RETURNED TO THE E.C. FOR REPROCESSING.
- PROVIDE LAMACOID NAMEPLATES AS REQUIRED BY DRAWINGS AND/OR SPECIFICATIONS.
- CONTRACTOR SHALL PERFORM ARC FLASH CALCULATIONS AS REQUIRED IN THE FOLLOWING: NFPA 70; NFPA 70E; OSHA 29; AND IEEE STANDARDS 1584. CONTRACTOR SHALL OBTAIN ALL NECESSARY INFORMATION FROM POWER COMPANY TO CALCULATE FLASH PROTECTION BOUNDARIES, INCIDENT ENERGY LEVELS, AND SHALL DETERMINE MINIMUM PPE REQUIREMENTS FOR COMPLETING THE WARNING LABELS. PROVIDE WARNING LABELS CONTAINING ALL THE LATEST INFORMATION AS REQUIRED BY LOCAL JURISDICTION, STATE AND FEDERAL CODES AND LAWS.



B4 EAST BANK SINGLE LINE DIAGRAM
N.T.S.

OPTION #2 REFER TO SHEET E-502 FOR METER CENTER DETAIL FOR DESCRIPTIONS OF OPTIONS. OPTION #2 IS BEING PROVIDED FOR REFERENCE ONLY PRIOR TO BIDDING. PROVIDE 2#4, 1#6 GND IN 2" RMC FROM INTERCEPTION POINT OF 480V, 1# SECONDARY AS DIRECTED BY CPP TO METER LOCATION.

PROVIDE 2#4, 1#6 GND IN 2" RMC FROM METER TO S.E. RATED DISCONNECT SWITCH.

PROVIDE NEW 100A/2P, HD, SERVICE ENTRANCE RATED, 600V FUSIBLE DISCONNECT SWITCH IN NEMA 4X (STAINLESS STEEL) LOCKABLE ENCLOSURE WITH (2) 70 AMP DUAL ELEMENT FUSES.

2#4, 1#6 GND, 1-1/2" GRC

NEW 25KVA 480V, 1# TO 240/120 V, 1# XFMR WITH NEMA 4X (SS) DRY TYPE TOTALLY ENCLOSED TRANSFORMER AND MOUNT ON METER CENTER SUPPORT STRUCTURE WITH OTHER ELECTRICAL EQUIPMENT. REFER TO DETAIL 'A1' ON SHEET E-502 FOR MORE INFORMATION.

SEE PANEL SCHEDULE ON THIS SHEET FOR MORE INFO.

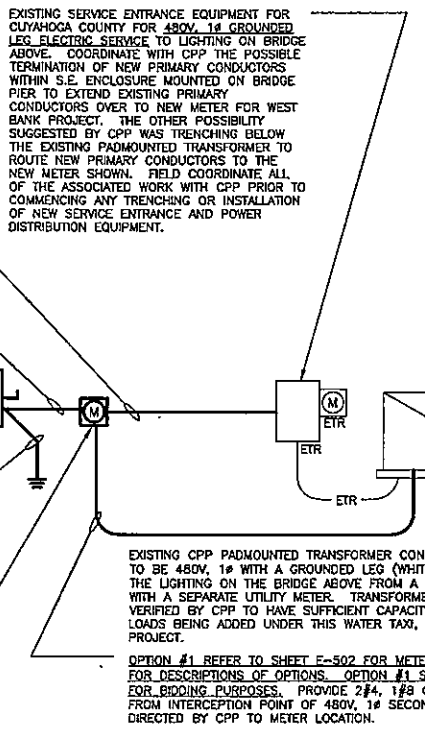
3#1, 1#6 GND, 2" GRC

1C #6 CU GROUND. REFER TO DETAIL 'B4' ON SHEET E-502.

1C #8 CU GROUND. REFER TO DETAIL 'B4' ON SHEET E-502.

PROVIDE METER SOCKET AND METER PER CPP REQUIREMENTS AND INSTALL AT LOCATION DIRECTED BY METERING DEPARTMENT. FIELD VERIFY PRIOR TO ROUGH-IN AND TRENCHING. CONFIRM WHO IS RESPONSIBLE FOR PROVIDING METER AND METER SOCKET DUE TO LOCATION OF S.E. RATED DISCONNECT SWITCH ALONG PRIMARY CONDUCTORS.

A4 WEST BANK SINGLE LINE DIAGRAM
N.T.S.



DESCRIPTION	REV	DATE



12/22/14

WATER TAXI EAST BANK BUILDING RENOVATIONS
1170 OLD RIVER RD, CLEVELAND, OH

SINGLE LINE DIAGRAM AND SCHEDULES AND ELECTRICAL DETAILS

ISSUED FOR:	
PERMIT	12/23/14
BID	12/23/14
CONSTRUCTION	
RECORD	

PROJECT MANAGER	DESIGNER
BM	GMM

JOB NO. 2014381.00