

MATERIALS

MATERIAL PATTERN	MATERIAL NAME	MATERIAL PATTERN	MATERIAL NAME
	EXST'G MATERIAL TO REMAIN		GROUT/MORTAR
	EXST'G MATERIAL TO BE REMOVED		STEEL
	COMPACTED FILL		STEEL REINFORCING
	TOP SOIL		SOLID WD BLOCKING
	CRUSHED STONE		ENGINEER LUMBER
	CONCRETE		RIGID INSULATION

GENERAL SYMBOLS

DETAIL NUMBER.
DRAWING NUMBER WHICH
DETAIL IS KEYED FROM

PLAN DETAIL SYMBOLS

ELEVATION NUMBER.
DRAWING NUMBER WHICH
DETAIL IS KEYED FROM

SECTION NUMBER.
DRAWING NUMBER WHICH
DETAIL IS KEYED FROM

DETAIL NUMBER
TITLE
SCALE:
DRAWING NUMBER WHICH
DETAIL IS KEYED FROM

REVISION CLOUD

CONSULTANT INFORMATION

ARCHITECT:
STONEWATER ARCHITECTURE, LLC
P.O. BOX 208
COLONIA NJ, 07067
PHONE# 908-380-2496

PROJECT ARCHITECT CONTACT:
MICHAEL A. MORITZ
MICHAEL@STONEWATERARCHITECTURE.COM
PHONE# 908-380-2496

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Waste, Management, EH&S
Compliance
100 Franklin Square Drive,
Suite 200
Somerset, NJ 08873

Roberts Engineering Group, LLC
1670 Whitehorse-Hamilton Square
Rd.
Hamilton, New Jersey 08690

STATE OF NEW JERSEY
PROJECT NUMBER T0617-00:
MATERIAL STORAGE BIN INSTALLATION
WEST BERLIN MAINTENANCE YARD
50 WALKER AVENUE
WEST BERLIN, NJ 08091
State of New Jersey
Honorable Philip D. Murphy, Governor
Honorable Tahesha L. Way, Lieutenant Governor

Department of the Treasury
Elizabeth Maher Muoio, State Treasurer
Division of Property Management and Construction
Christopher Chianese, Director
Department of Transportation
Francis K. O'Connor, Commissioner

PROJECT DATA

APPLICABLE CODES:
NEW JERSEY UNIFORM CONSTRUCTION CODE 5:23
BUILDING CODE NJBC 2021
PLUMBING CODE NSPC 2021
ELECTRICAL SUBCODE NEC 2020
MECHANICAL SUBCODE IMC 2021
ENERGY SUBCODE IECC 2021
BARRIER FREE SUBCODE ASHREA CHAPTER 11 18C/202021-NJMC 5:23-7 ICC/A117.1-2017

JOB TYPE:
CONSTRUCTION OF MATERIALS STORAGE BIN

BUILDING CHARACTERISTICS:
EXISTING MAINTENANCE BUILDING (NO CHANGE)
USE GROUP CLASSIFICATION: B
OFFICE: S-1 SERVICE GARAGE
SERVICE GARAGE S-2 LOW HAZARD STORAGE
SALT STORAGE DOME
NEW MATERIAL STORAGE BIN NEW
USE GROUP CLASSIFICATION: S-2 LOW HAZARD STORAGE
SOLET. & VOLUME:
EXISTING MAINTENANCE STRUCTURE: 4,341 SQUARE FEET (NO CHANGE)
EXISTING SALT DTORAGE DOME: 5,000 SQUATE FEET (NO CHANGE)
NEW MATERIAL STORAGE BIN: 2,000 SQUARE FEET (NEW)

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344 West State Street
Trenton, New Jersey 08618
Client
Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625
Project:
T0617-00 West Berlin
Storage Bin Installation
50 Walker Avenue
West Berlin Maintenance Yard,
Camden, New Jersey
Key Plan

Revisions
Date: Description: No.
11/18/21 SCHEMATIC DESIGN
12/22/21 DESIGN DEVELOPMENT
01/22/24 FINAL DESIGN
Issued Documents
Date: Description:
11/18/21 SCHEMATIC DESIGN
12/22/21 DESIGN DEVELOPMENT
01/22/24 FINAL DESIGN
Seal & Signature
Michael A. Moritz
Drawing Title:
Title Sheet
Sheet: Drawing Number:
T001.00

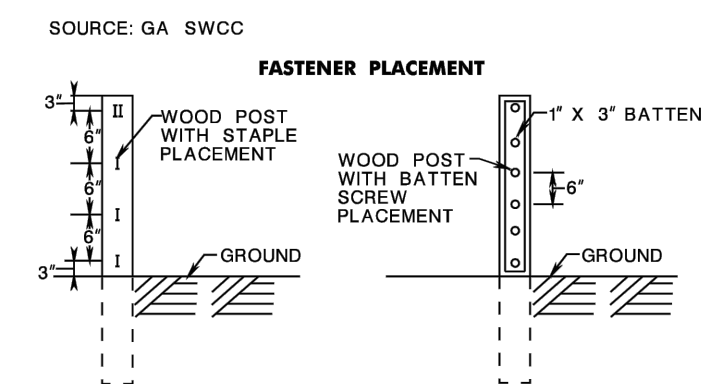
LIST OF DRAWINGS

SH. #	TITLE
T001.00	TITLE SHEET
CIVIL ENGINEERING DRAWINGS	
C001.00	EXISTING CONDITIONS PLAN, NOTES & LEGEND
C002.00	SOIL EROSION & SEDIMENT CONTROL PLAN, NOTES & DETAILS
C003.00	SITE DEMOLITION PLAN
C004.00	SITE CONSTRUCTION PLAN
C005.00	SITE ENVIRONMENTAL PLAN
C006.00	GRADING PLAN
C007.00	SITE LIGHTING PLAN
C008.00	CONSTRUCTION DETAILS
C009.00	CONSTRUCTION DETAILS
FHA PLANS	
FWW-01	PRE-2015 FHA EXISTING CONDITIONS PLAN
FWW-02	RIPARIAN RESTORATION PLAN
ARCHITECTURAL DRAWINGS	
A021.00	EXISTING STORAGE BIN REMOVAL PLAN
A022.00	EXISTING STORAGE BIN REMOVAL ELEVATIONS
A031.00	CHAIN LINK GATE AND GATE DETAILS
A032.00	CHAIN LINK FENCE & DETAILS
A101.00	STORAGE BIN SLAB PLAN
A102.00	STORAGE BIN FIRST FLOOR & ROOF PLANS
A201.00	STORAGE BIN ELEVATIONS
A202.00	STORAGE BIN CROSS SECTIONS
A203.00	STORAGE BIN SECTION
STRUCTURAL DRAWINGS	
S001.00	NOTES & SPECIFICATIONS
S002.00	NOTES & SPECIFICATIONS
S003.00	SPECIAL INSPECTION NOTES
S101.00	FOUNDATION PLAN
S102.00	ROOF FRAMING PLAN
S103.00	DETAILS
S104.00	DETAILS
S105.00	DETAILS
ELECTRICAL DRAWINGS	
E001.00	ELECTRICAL OVERVIEW SHEET
E002.00	ELECTRICAL SITE PLAN
E101.00	ELECTRICAL PLANS AND DETAILS
E201.00	ONE LINE DIAGRAM

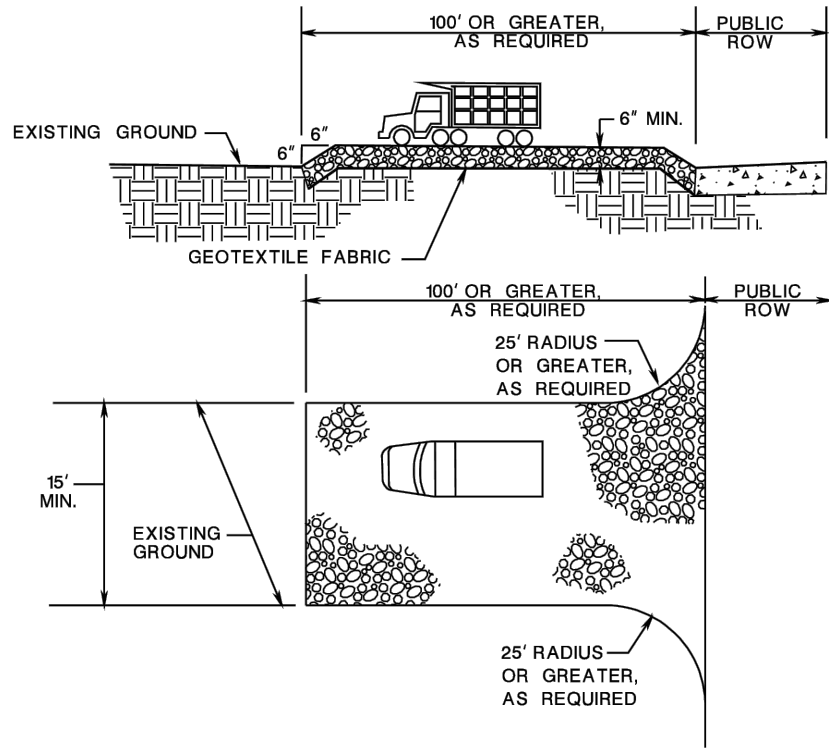
PROJECT VICINITY MAP

PROJECT AERIAL MAP

FASTENERS FOR WOOD POSTS				
WIRE STAPLES	GAUGE 17 MIN.	CROWN 3/4" WIDE	LEGS 1/2" LONG	STAPLES/POST 5 MIN.
SCREWS	LENGTH 2"	PHILLIPS HEADS 2"		SCREW/POST 6 MIN.

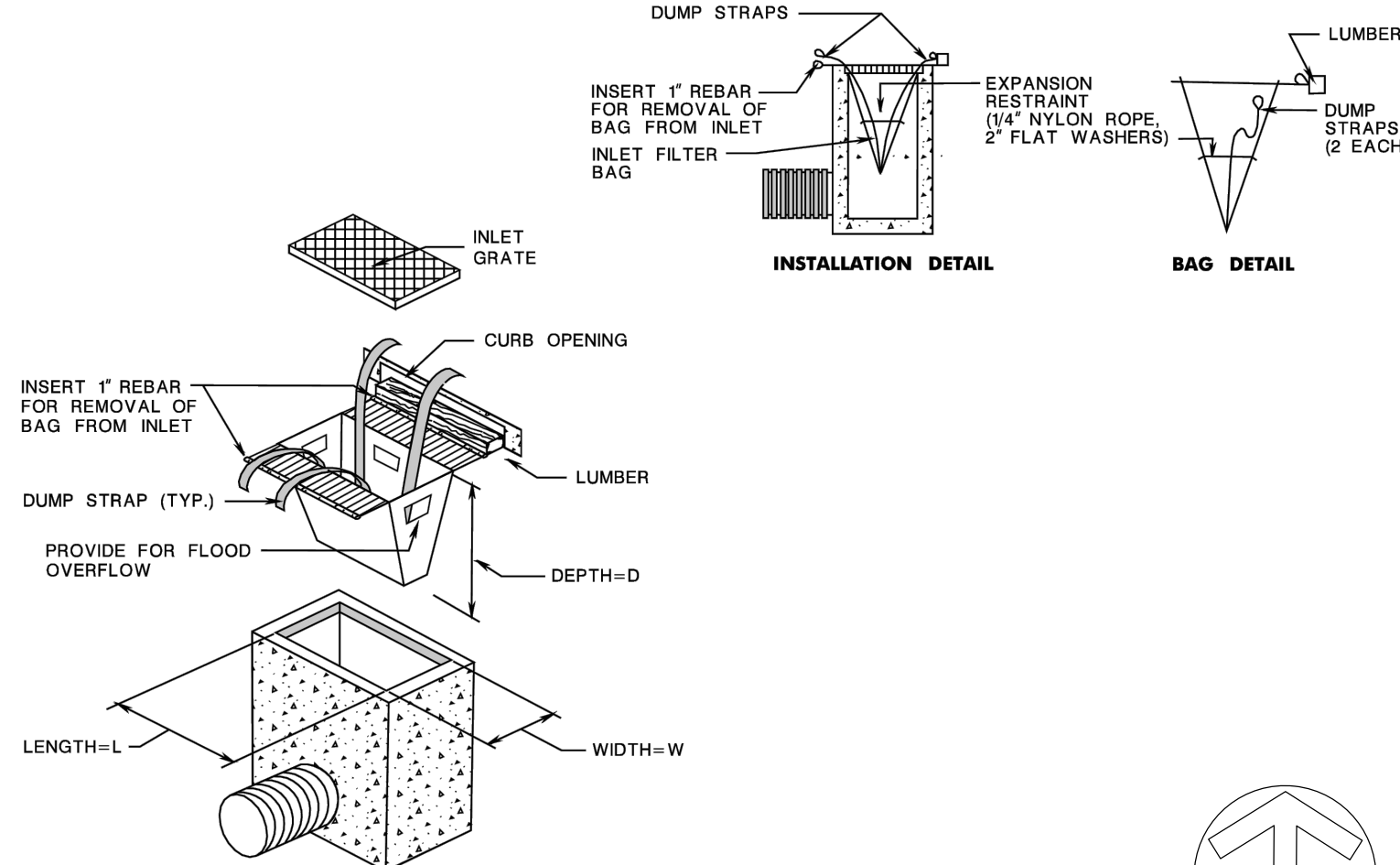


SILT FENCE FASTENER REQUIREMENTS



PROFILE AND PLAN VIEW

STABILIZED CONSTRUCTION DRIVEWAY

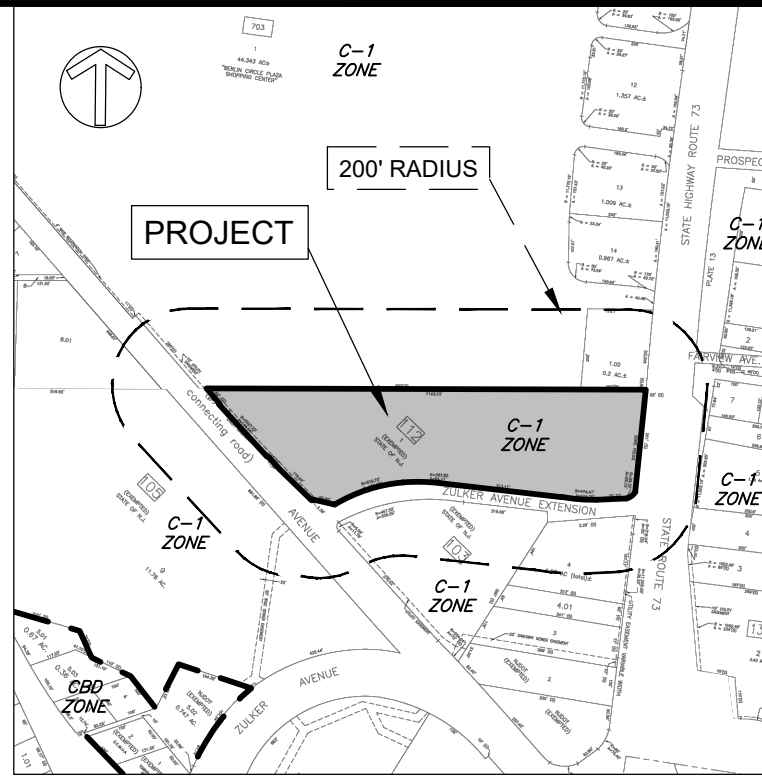


INLET FILTERS, TYPE 2



SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES - 10/2021

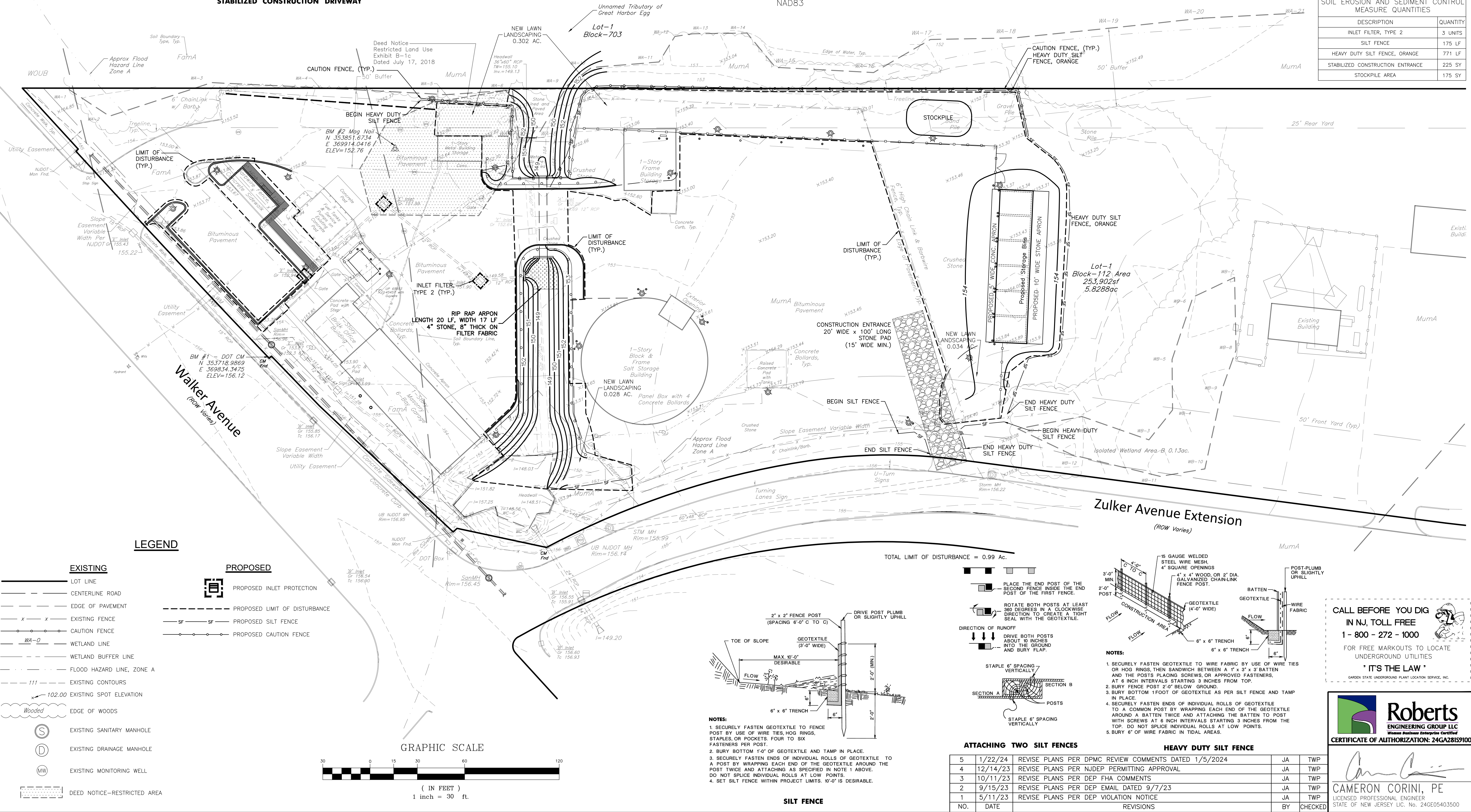
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL AND SECTION 158 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES OR CONSTRUCTION OPERATION IN THEIR PROPER SEQUENCE. AREAS OF PROPOSED CONSTRUCTION SHALL BE CLEARED ONLY AS REQUIRED. CAUTION (SNOW) AND SILT FENCES ARE TO BE INSTALLED PRIOR TO ANY GRUBBING, CLEARING, GRADING OR OTHER EARTH DISTURBING OR CONSTRUCTION OPERATION. ALL INLETS SHALL BE PROTECTED WITH AN INLET FILTER IMMEDIATELY AFTER INITIAL SITE DISTURBANCE. A CONSTRUCTION DRIVEWAY SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 158 OF THE STANDARD SPECIFICATIONS. SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND INSPECTED ON A REGULAR BASIS UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE RE IN CONSULTATION WITH BLAS. ADDITIONAL STABILIZATION MEASURES SHALL BE REQUIRED IF EROSION OCCURS ALONG THE EDGES OF THE PAVEMENT.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT.
- AT THE TIME WHEN PREPARING THE SITE FOR PERMANENT VEGETATIVE STABILIZATION INCLUDE PERMANENT GRASS SEEDING AND PROVISION FOR TEMPORARY SEEDING AS NECESSARY. IF THE REMOVAL OR TREATMENT OF THE SOIL DOES NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATIONS WILL HAVE TO BE EMPLOYED.
- PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH SHALL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS SHALL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO NJDOT. THE REVISED PLANS MUST MEET ALL CURRENT NJDOT SOIL EROSION AND SEDIMENT CONTROL STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF THE ONGOING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM-WATER OUTFALLS OR OFFSITE AS RESULT OF CONSTRUCTION OF THE PROJECT. DEWATERING SHALL NOT BE DISCHARGED DIRECTLY ONTO ANY WATERWAY.
- IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL ANY SOIL HAVING A PH OF 4 OR LESS CONTAINING IRON SULFIDES SHALL BE COVERED WITH A LAYER OF LIMESTONE AND A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION.
- ANY SEDIMENT WASHED, TRACKED, OR SPILLED ONTO PAVED SURFACES SHALL BE REMOVED IMMEDIATELY.
- THE TEMPORARY RIDING SURFACE OF ALL TRENCHES SHALL BE COLD PATCHED OR BASE PAVED PRIOR TO VEHICULAR ACCESS.
- TEMPORARY STOCKPILING ON PAVED SURFACES/ROADWAYS WILL NOT BE PERMITTED.



Key Map

Scale: 1" = 500'

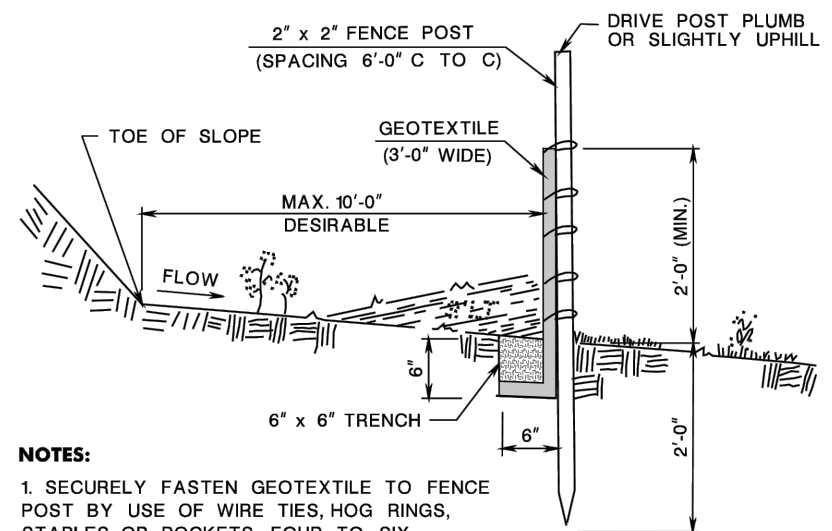
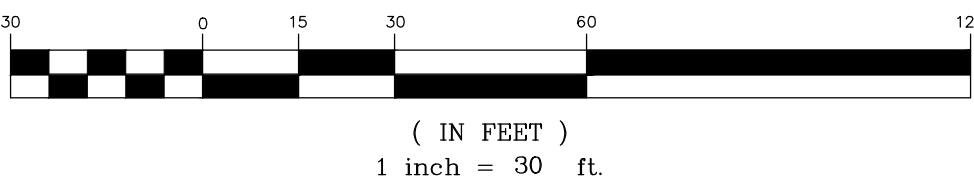
SOIL EROSION AND SEDIMENT CONTROL MEASURE QUANTITIES	
DESCRIPTION	QUANTITY
INLET FILTER, TYPE 2	3 UNITS
SILT FENCE	175 LF
HEAVY DUTY SILT FENCE, ORANGE	771 LF
STABILIZED CONSTRUCTION ENTRANCE	225 SY
STOCKPILE AREA	175 SY



LEGEND

EXISTING	PROPOSED
LOT LINE	PROPOSED INLET PROTECTION
CENTERLINE ROAD	PROPOSED LIMIT OF DISTURBANCE
EDGE OF PAVEMENT	PROPOSED SILT FENCE
EXISTING FENCE	PROPOSED CAUTION FENCE
CAUTION FENCE	
WETLAND LINE	
WETLAND BUFFER LINE	
FLOOD HAZARD LINE, ZONE A	
EXISTING CONTOURS	
102.00 EXISTING SPOT ELEVATION	
EDGE OF WOODS	
EXISTING SANITARY MANHOLE	
EXISTING DRAINAGE MANHOLE	
EXISTING MONITORING WELL	
DEED NOTICE-RESTRICTED AREA	

GRAPHIC SCALE



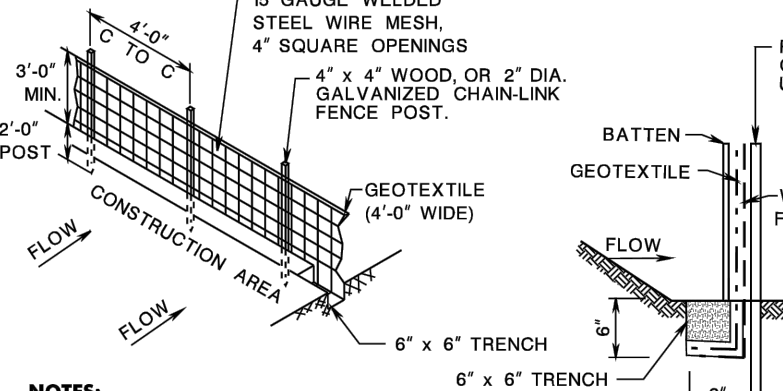
- NOTES:**
- SECURELY FASTEN GEOTEXTILE TO FENCE POST BY USE OF WIRE TIES, HOG RINGS, STAPLES, OR POCKETS. FOUR TO SIX FASTENERS PER POST.
 - BURY BOTTOM 1'-0" OF GEOTEXTILE AND TAMP IN PLACE.
 - SECURELY FASTEN ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE TO A POST BY WRAPPING EACH END OF THE GEOTEXTILE AROUND THE POST TWICE AND ATTACHING AS SPECIFIED IN NOTE 1 ABOVE. DO NOT SPLICE INDIVIDUAL ROLLS AT LOW POINTS.
 - SET SILT FENCE WITHIN PROJECT LIMITS. 10'-0" IS DESIRABLE.

SILT FENCE

ATTACHING TWO SILT FENCES

NO.	DATE	REVISIONS	BY	CHECKED
5	1/22/24	REVISE PLANS PER DPMC REVIEW COMMENTS DATED 1/5/2024	JA	TWP
4	12/14/23	REVISE PLANS PER NJDEP PERMITTING APPROVAL	JA	TWP
3	10/11/23	REVISE PLANS PER DEP FHA COMMENTS	JA	TWP
2	9/15/23	REVISE PLANS PER DEP EMAIL DATED 9/7/23	JA	TWP
1	5/11/23	REVISE PLANS PER DEP VIOLATION NOTICE	JA	TWP

HEAVY DUTY SILT FENCE



- NOTES:**
- SECURELY FASTEN GEOTEXTILE TO WIRE FABRIC BY USE OF WIRE TIES OR HOG RINGS, THEN SANDWICH BETWEEN A 1" x 3" x 3" BATTEN AND THE POSTS PLACING SCREWS OR APPROVED FASTENERS, AT 6 INCH INTERVALS STARTING 3 INCHES FROM TOP.
 - BURY FENCE POST 2'-0" BELOW GROUND.
 - BURY BOTTOM 1'-0" OF GEOTEXTILE AS PER SILT FENCE AND TAMP IN PLACE.
 - SECURELY FASTEN ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE TO A COMMON POST BY WRAPPING EACH END OF THE GEOTEXTILE AROUND A BATTEN TWICE AND ATTACHING THE BATTEN TO POST WITH SCREWS AT 6 INCH INTERVALS STARTING 3 INCHES FROM THE TOP. DO NOT SPLICE INDIVIDUAL ROLLS AT LOW POINTS.
 - BURY 6" OF WIRE FABRIC IN TIDAL AREAS.

CALL BEFORE YOU DIG
IN NJ, TOLL FREE
1 - 800 - 272 - 1000
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
" IT'S THE LAW "

Roberts
ENGINEERING GROUP LLC
WISCONSIN BUSINESS ENTERPRISE CERTIFIED
CERTIFICATE OF AUTHORIZATION: 24GA2819100
CAMERON CORINI, PE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. NO. 24GE05403500



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344 West State Street
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Division of Property Management and
Construction, DPMC
20 West State Street, 3rd Floor
Trenton, NJ 08625

Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:
T0617.00 West Berlin
Storage Bin Installation
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan

Revisions		
Date:	Description:	No.

Issued Documents	
Date:	Description:

Seal & Signature
Michael A Moritz

Drawing Title:
SOIL EROSION & SEDIMENT
CONTROL PLAN, NOTES &
DETAILS

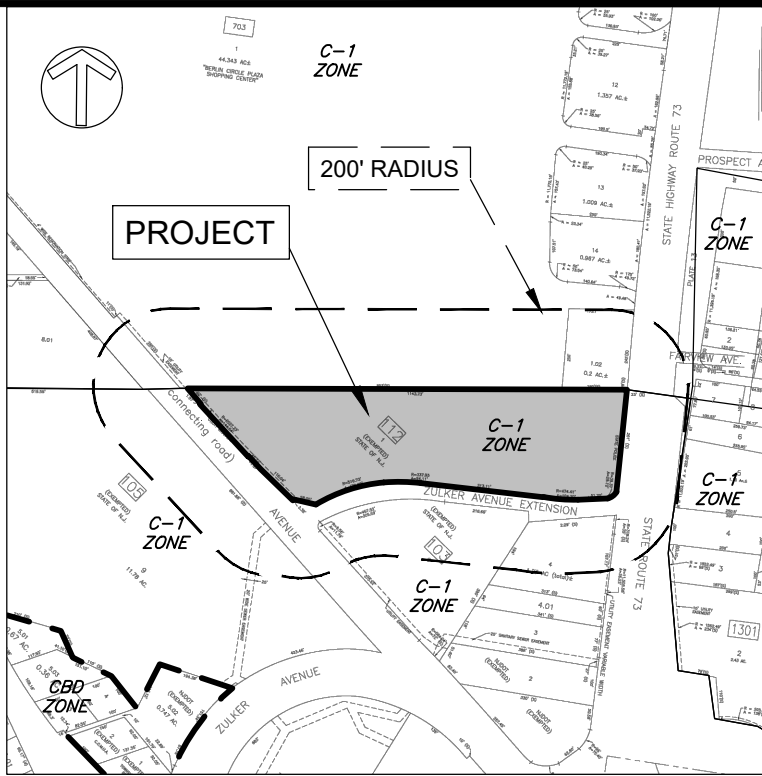
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C002.00

NOTES:

1. THIS PLAN REFLECTS EXISTING SITE CONDITIONS AS THE RESULT OF A FIELD SURVEY PERFORMED BY ROBERTS ENGINEERING GROUP, LLC DATED 10-14-2021 & 11-03-2021.
2. ONLY COPIES OF THE ORIGINAL OF THIS PLAN CLEARLY MARKED WITH THE PROFESSIONAL'S EMBOSSED SEAL SHALL BE CONSIDERED A VALID COPY.
3. HORIZONTAL DATUM BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD83) AND NORTH AMERICAN DATUM 1983 (NAD 83). VERTICAL DATUM IS BASED UPON NAVD 1988.
4. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON; WHEREAS ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PREPARATION OF THIS SURVEY TO LOCATE BURIED UTILITIES OR STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE UNDERGROUND UTILITIES LOCATION SERVICE AT 1-800-242-1776 SHALL BE CONTACTED AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION OR EXCAVATION ACTIVITIES, IN ACCORDANCE WITH APPLICABLE LAWS, RULES, AND REGULATIONS.
5. ALL BUILDINGS, SURFACE AND SUBSURFACE IMPROVEMENTS, ON OR ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN.
6. BLOCK AND LOT NUMBERS AS SHOWN HEREON ARE BASED UPON THE TAX MAPS OF THE TOWNSHIP OF BERLIN, CAMDEN COUNTY, NEW JERSEY.
7. EXISTING UTILITY INFORMATION IS NOT GUARANTEED AS TO ACCURACY OF COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND OR ORDERING MATERIALS AND STRUCTURES.
8. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.
9. THE OWNER, OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21 (e) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926 (f) (OSHA COMPETENT PERSON).

10. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
 - A. N.J. DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", IN ACCORDANCE WITH MOST CURRENT NJDOT RC STANDARDS.
 - B. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
15. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGN SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
16. THESE GENERAL NOTES APPLY TO ALL CIVIL DRAWING SHEETS OF THIS SET OF PLANS.
17. WETLAND DELINEATION LINES WA, WB AND WC WERE DETERMINED BY MICHAEL L. FRANCIS, PH.D., PRINCIPAL CONSULTANT/ENVIRONMENTAL, THE CATALYST GROUP, PRINCETON, NJ ON OCTOBER 12, 2021.
18. THE CONTRACTOR IS ADVISED THAT THIS IS A LUMP SUM CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL QUANTITIES NECESSARY AND REQUIRED FOR COMPLETION OF THE WORK AS SHOWN IN THE DRAWINGS WHICH SHALL BE INCLUDED IN THE BASE BID PRICE. PLEASE BE FURTHER ADVISED THAT ALL QUANTITIES INDICATED ON THESE PLANS ARE FOR NJDEP FILING PURPOSES ONLY AND SHALL NOT BE INTERPRETED AS THE ACTUAL QUANTITIES NECESSARY OR REQUIRED FOR THE PROJECT WORK. THE CONTRACTOR SHALL PROVIDE HIS/HER OWN QUANTITY TAKE OFF AND BE RESPONSIBLE FOR THE FULL QUANTITY OF EACH WORK TYPE OR UNIT REQUIRED FOR THE PROJECT INCLUDING ALL ASSOCIATED COSTS FOR FURNISHING, PROCUREMENT, DELIVERY, INSTALLATION AND THE COMPLETE INSTALLATION IN ACCORDANCE WITH ALL CONTRACT DRAWINGS AND/OR SPECIFICATIONS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING IMPROVEMENTS SHOWN ON THESE SITE CONSTRUCTION PLANS WITH ALL OTHER BID PLANS AND SPECIFICATIONS.
20. 100-YEAR FLOOD ELEVATION = 153.13
500-YEAR FLOOD ELEVATION = 155.24

20. EXISTING CRUSHED STONE TO BE STOCKPILED AND MAY BE RE-USED FOR PAVEMENT SUBBASE IF APPROVED BY THE ENGINEER. IF CRUSHED STONE IS NOT RE-USED, CONTRACTOR TO REMOVE AND DISPOSE OF AT NO ADDITIONAL COST.
21. ALL EXISTING POLE MOUNTED LIGHTING ON SITE TO BE REMOVED. SCOPE OF WORK INCLUDES REMOVAL AND DISPOSAL OF LIGHT POLES, FIXTURES, FOOTING, AND WIRING TO PANEL. CONDUIT TO BE CUT 12-INCHES BELOW GRADE, CAPPED, AND ABANDONED IN PLACE.
22. CONSTRUCTION EQUIPMENT SHALL NOT BE STORED, STAGED, OR DRIVEN WITHIN ANY REGULATED AREAS.
23. CONTRACTOR SHALL INSTALL AND MAINTAIN TURBIDITY BARRIERS AROUND PROPOSED CONSTRUCTION AREA, SUFFICIENT TO PREVENT THE SEDIMENTATION OF ADJACENT TRIBUTARY PRIOR TO CONSTRUCTION.
24. CONSTRUCTION OF THE WATERWAY IS PROHIBITED MAY 1 THROUGH JUNE 30 OF EACH YEAR. ADDITIONALLY, CONSTRUCTION ACTIVITIES WHICH MAY RESULT IN INCREASED TURBIDITY WITHIN THE WATERWAY ARE PROHIBITED DURING THE SAME TIME PERIOD.
25. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF NJDEP FLOOD HAZARD AREA INDIVIDUAL PERMIT AND FRESHWATER WETLANDS TRANSITION AREA WAIVER PERMIT No. 0406-18-0002.1 LUP230001.
25. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO OBTAIN THE DIGITAL CAD FILE FOR STAKE OUT PURPOSES. CONTRACTOR RESPONSIBLE TO PROTECT AND MAINTAIN ON SITE BENCHMARKS; BM#1 (NJDOT CONCRETE MONUMENT) AND BM#2 (MAG NAIL) AS SHOWN ON PLAN.



Key / Zoning Map

Scale: 1" = 500'



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NY Lic. No. 032102

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Seal & Signature

Michael A Moritz

Drawing Title

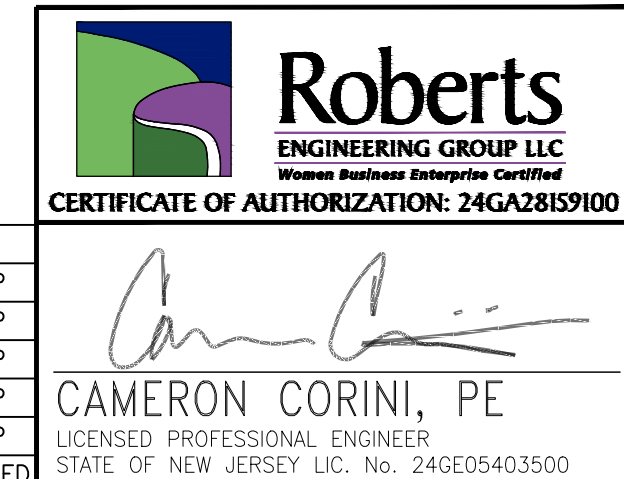
SITE DEMOLITION
PLAN

Sheet

Drawing Number

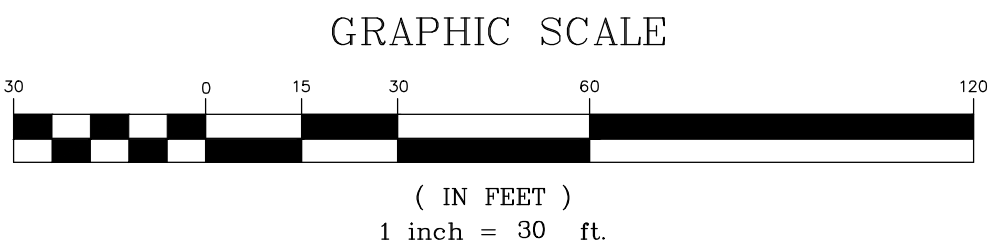
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GARDEN STATE UNDERGROUND PLANT LOCATION SERVICE, INC.

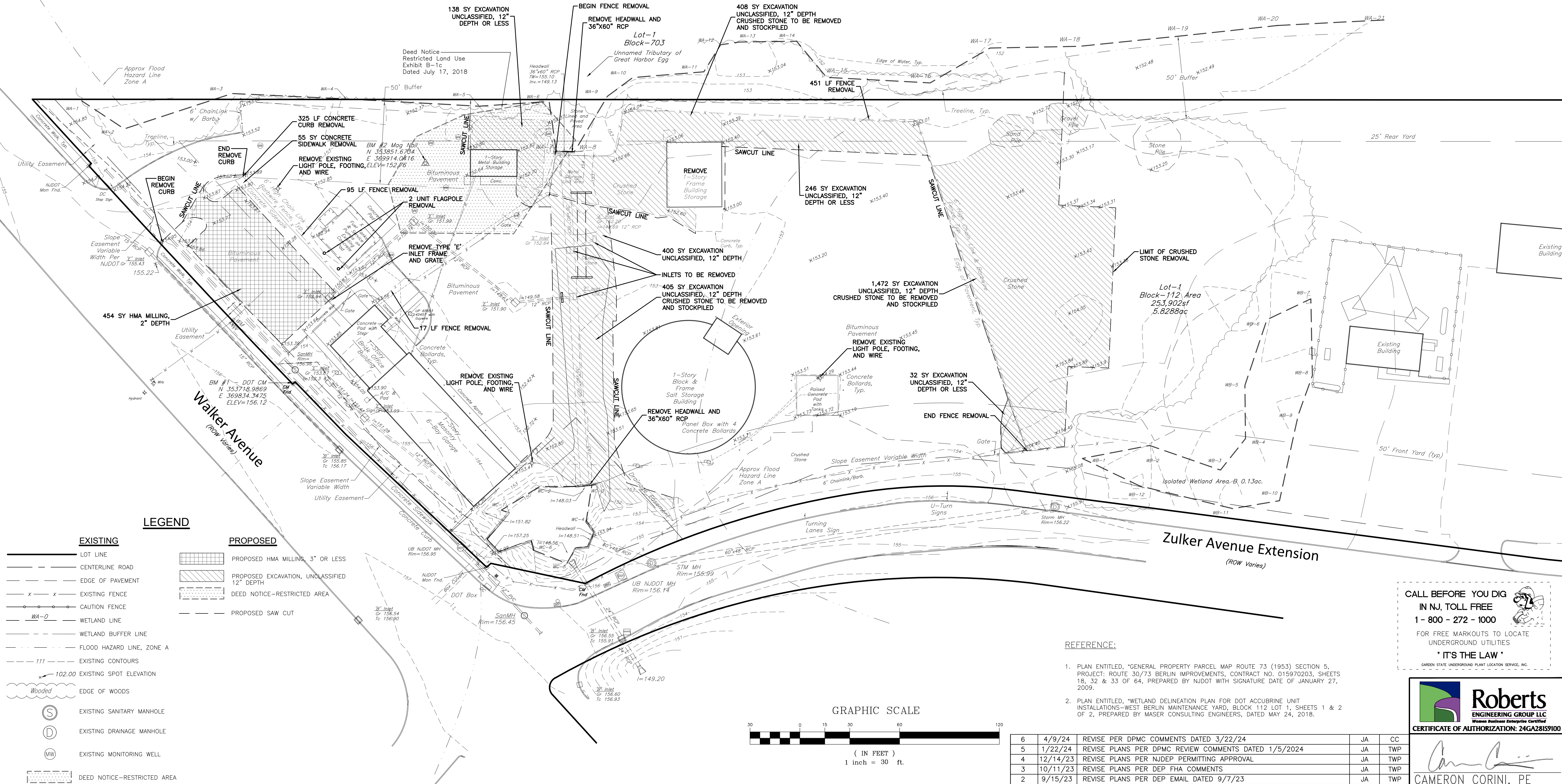


REFERENCE:

1. PLAN ENTITLED, "GENERAL PROPERTY PARCEL MAP ROUTE 73 (1953) SECTION 5, PROJECT: ROUTE 30/73 BERLIN IMPROVEMENTS, CONTRACT NO. 015970203, SHEETS 18, 32 & 33 OF 64, PREPARED BY NJDOT WITH SIGNATURE DATE OF JANUARY 27, 2009.
2. PLAN ENTITLED, "WETLAND DELINEATION PLAN FOR DOT ACCURBINE UNIT INSTALLATIONS-WEST BERLIN MAINTENANCE YARD, BLOCK 112 LOT 1, SHEETS 1 & 2 OF 2, PREPARED BY MASER CONSULTING ENGINEERS, DATED MAY 24, 2018.



NO.	DATE	REVISIONS	BY	CHECKED
6	4/9/24	REVISE PER DPMC COMMENTS DATED 3/22/24	JA	CC
5	1/22/24	REVISE PLANS PER DPMC REVIEW COMMENTS DATED 1/5/2024	JA	TWP
4	12/14/23	REVISE PLANS PER NJDEP PERMITTING APPROVAL	JA	TWP
3	10/11/23	REVISE PLANS PER DEP FHA COMMENTS	JA	TWP
2	9/15/23	REVISE PLANS PER DEP EMAIL DATED 9/7/23	JA	TWP
1	5/11/23	REVISE PLANS PER DEP VIOLATION NOTICE	JA	TWP



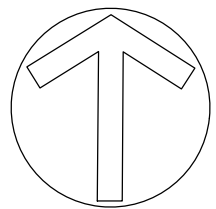
LEGEND

EXISTING

- LOT LINE
- CENTERLINE ROAD
- EDGE OF PAVEMENT
- EXISTING FENCE
- CAUTION FENCE
- WETLAND LINE
- WETLAND BUFFER LINE
- FLOOD HAZARD LINE, ZONE A
- EXISTING CONTOURS
- EXISTING SPOT ELEVATION
- EDGE OF WOODS
- EXISTING SANITARY MANHOLE
- EXISTING DRAINAGE MANHOLE
- EXISTING MONITORING WELL
- DEED NOTICE-RESTRICTED AREA

PROPOSED

- PROPOSED HMA MILLING, 3" OR LESS
- PROPOSED EXCAVATION, UNCLASSIFIED 12" DEPTH
- DEED NOTICE-RESTRICTED AREA
- PROPOSED SAW CUT



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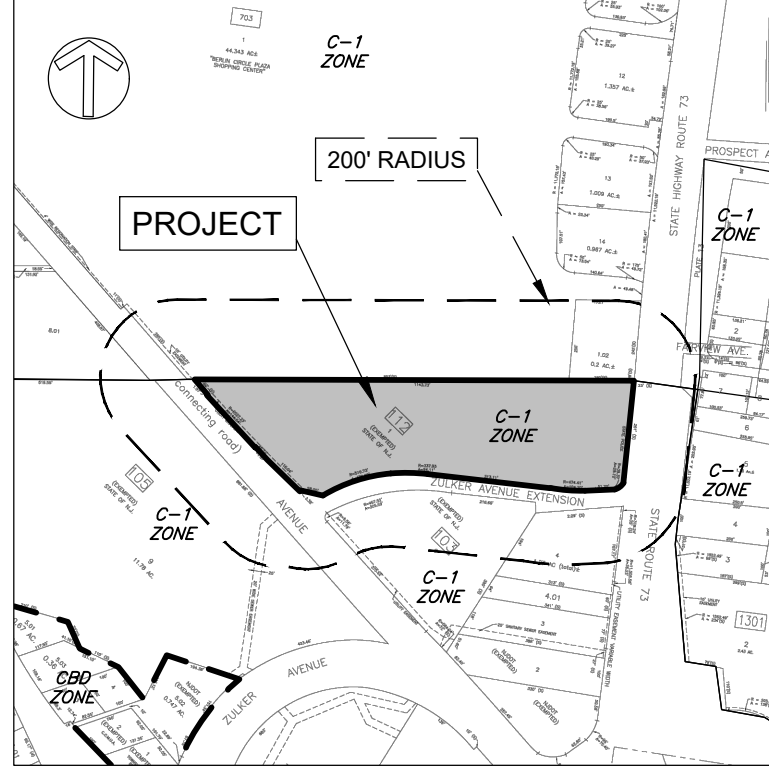
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500-YEAR FLOOD ELEVATION = 155.24
FHA ELEVATION = 153.9 CALCULATED USING METHOD 6.

Site Areas		
0.216	Ac.	Total New Impervious
-0.114	Ac.	Total Less Impervious (to pervious)
0.228	Ac.	Restoration (stone to pervious)
0.342	Ac.	Net Pervious
0.990	Ac.	Limit of Disturbance
0.245	Ac.	Vehicle Surface
0.312	Ac.	Freshwater Wetlands Transition Area Disturbance

Zoning Data (C-1) Highway Commercial			
ITEM	REQUIRED	EXISTING	PROPOSED
Min. Lot Area per Dwelling Unit (sf)	20,000	n/a	n/a
Min. Total Lot Area (sf)	20,000	253,902	253,902
Min. Lot Frontage (ft.)	100	291.5*	291.5*
Min. Lot Depth (ft.)	150	232.4	232.4
Min. Building Setbacks (ft.)			
Front Yard	50	21.2	21.2
Rear Yard	25	30.1	30.1
Side Yard (each)	n/a	n/a	n/a
Side Yard (both)	n/a	n/a	n/a
Max. Building Coverage as Percent of Lot	65/40**	7.1%	7.3%
Max. Height, Stories/ft.	2 1/2/35		

* Along Route 73 (See Sheet C001.00)

** 65% Building coverage if served with sanitary sewer, 40% Building Coverage if not served with sanitary sewer. Site is served.



Key / Zoning Map

Scale: 1" = 500'



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908-380-2496

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Consultants

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Waste Management • EH&S Compliance
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Somerset, New Jersey 08873

Roberts Engineering Group, LLC
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Hamilton, New Jersey 08690

USA Environmental Management, Inc.
344 West State Street
Trenton, New Jersey 08618

Client



New Jersey Department of the
Treasury
Division of Property Management and
Construction, DPMC
20 West State Street, 3rd Floor
Trenton, NJ 08625

Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:

T0617.00 West Berlin
Storage Bin Installation
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan

Revisions

Date:	Description:	No.

Issued Documents

Date:	Description:

Seal & Signature

Michael A Moritz

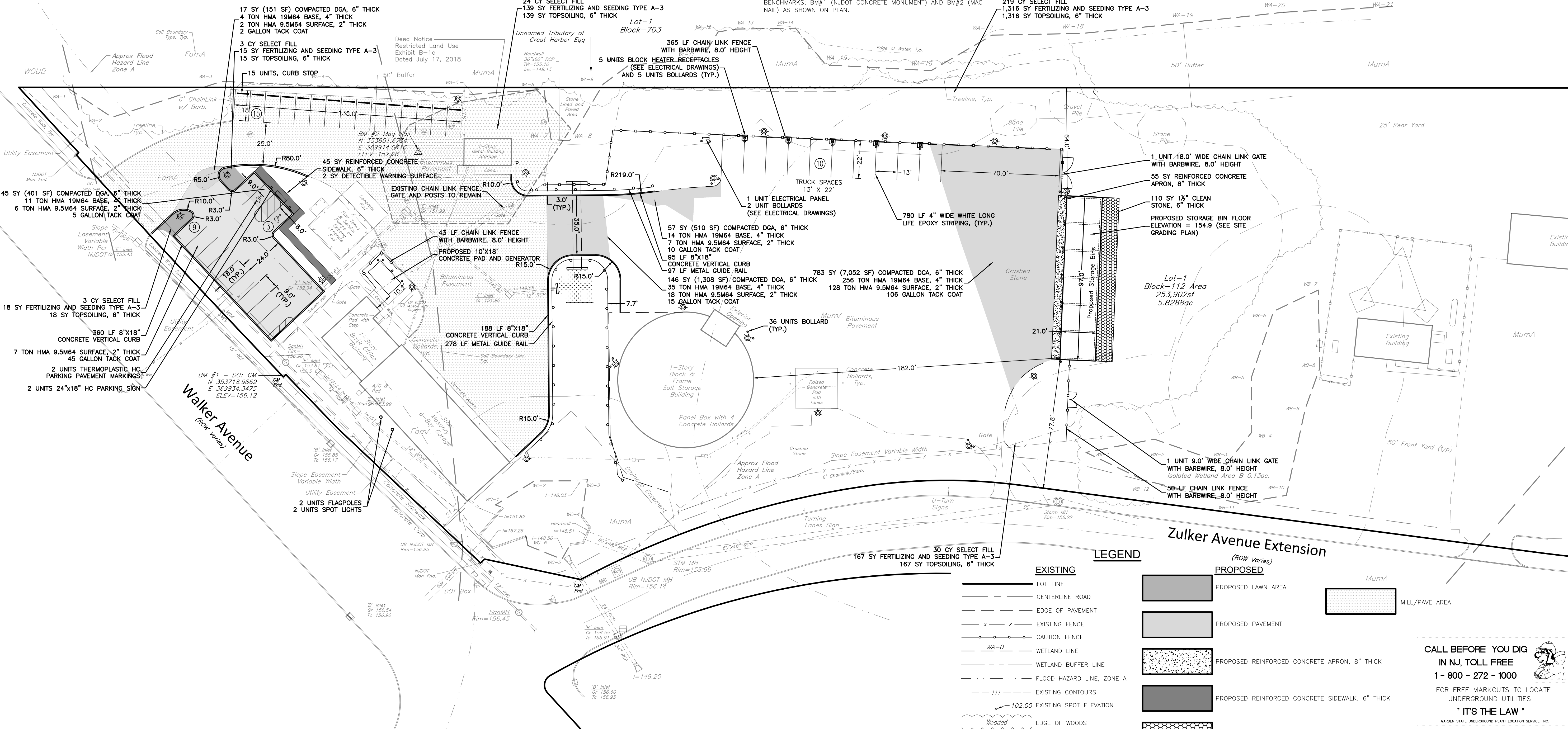
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SITE CONSTRUCTION
PLAN

Sheet

Drawing Number:

C004.00



REFERENCE:

- PLAN ENTITLED, "GENERAL PROPERTY PARCEL MAP ROUTE 73 (1953) SECTION 5, PROJECT: ROUTE 30/73 BERLIN IMPROVEMENTS, CONTRACT NO. 015970203, SHEETS 18, 32 & 33 OF 64, PREPARED BY NJDOT WITH SIGNATURE DATE OF JANUARY 27, 2009.
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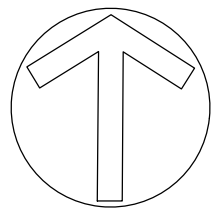
NO.	DATE	REVISIONS	BY	CHECKED
5	1/22/24	REVISE PLANS PER DPMC REVIEW COMMENTS DATED 1/5/2024	JA	TWP

LEGEND

EXISTING	PROPOSED
LOT LINE	PROPOSED LAWN AREA
CENTERLINE ROAD	PROPOSED PAVEMENT
EDGE OF PAVEMENT	PROPOSED REINFORCED CONCRETE APRON, 8" THICK
EXISTING FENCE	PROPOSED REINFORCED CONCRETE SIDEWALK, 6" THICK
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WETLAND LINE	PROPOSED PAVEMENT
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FLOOD HAZARD LINE, ZONE A	PROPOSED LIGHT POLE AND FOOTING
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EXISTING SPOT ELEVATION	
EDGE OF WOODS	
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GARDEN STATE UNDERGROUND UTILITY LOCATION SERVICE, INC.

Roberts
ENGINEERING GROUP LLC
Women Business Enterprise Certified
CERTIFICATE OF AUTHORIZATION: 24GA2819100
CAMERON CORINI, PE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. NO. 24GE05403500



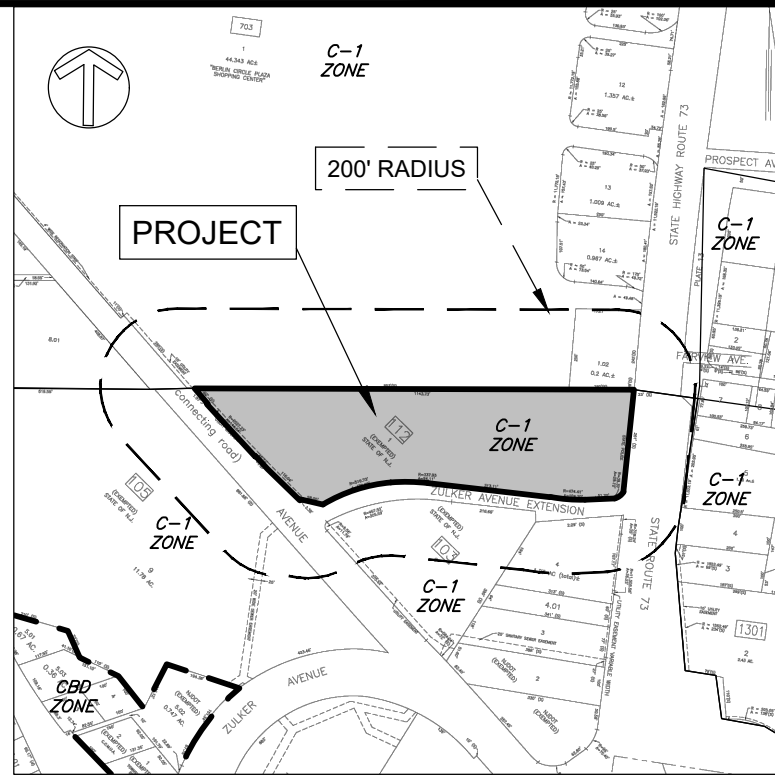
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- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF NJDEP FLOOD HAZARD AREA INDIVIDUAL PERMIT AND FRESHWATER WETLANDS TRANSITION AREA WAIVER PERMIT No. 0406-18-0002.1 LUP230001.
- THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO OBTAIN THE DIGITAL CAD FILE FOR STAKE OUT PURPOSES. CONTRACTOR RESPONSIBLE TO PROTECT AND MAINTAIN ON SITE BENCHMARKS; BM#1 (NJDOT CONCRETE MONUMENT) AND BM#2 (MAG NAIL) AS SHOWN ON PLAN.

Site Areas		
0.216	Ac.	Total New Impervious
-0.11	4	Total Less Impervious (to pervious)
0.228	Ac.	Restoration (stone to pervious)
0.342	Ac.	Net Pervious
0.990	Ac.	Limit of Disturbance
0.245	Ac.	Vehicle Surface
0.312	Ac.	Freshwater Wetlands Transition Area Disturbance
9918	CuYd	Estimated Existing Flood Storage On Site (Pre-2015, 100 Year NJDEPDFE)
1089	CuYd	Estimated Existing Flood Storage On Site (Pre-2015, 10 Year Storm Event)
9918	CuYd	Estimated Proposed Flood Storage Volume of Stream (100- Year NJDEPDFE)
1089	CuYd	Estimated Proposed Flood Storage On Site (10 Year Storm Event)



Key / Zoning Map

Scale: 1" = 500'



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Michael @ StonewaterArchitecture.com
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T0617.00 West Berlin
Storage Bin Installation
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan

Revisions

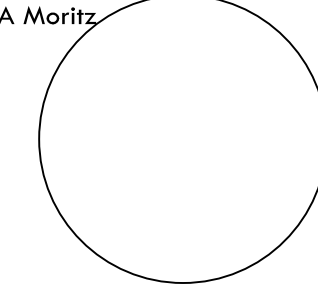
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Issued Documents

Date:	Description:

Seal & Signature

Michael A Moritz



Drawing Title:

SITE ENVIRONMENTAL
PLAN

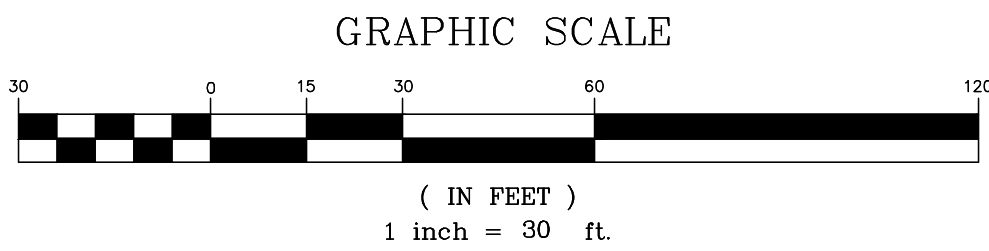
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Drawing Number:

C005.00



CAMERON CORINI, PE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. No. 24GE05403500



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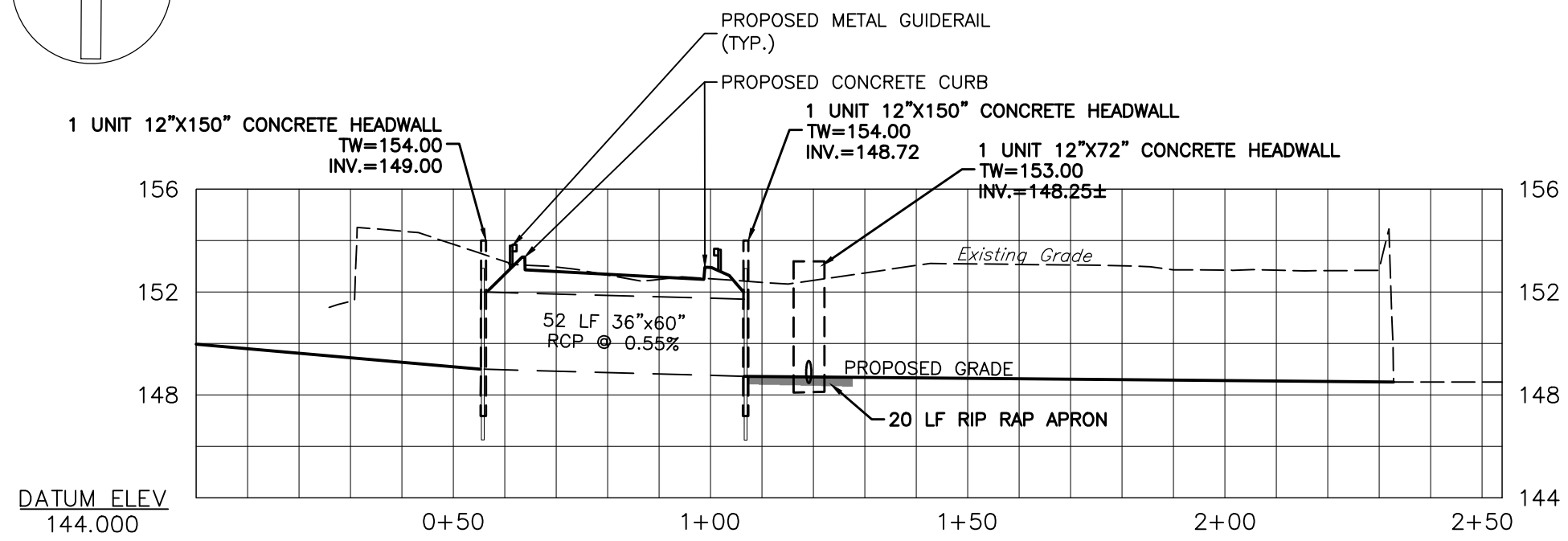
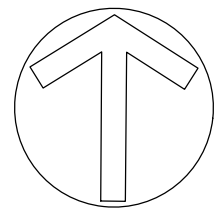
GARDEN STATE UNDERGROUND PLANT LOCATION SERVICE, INC.

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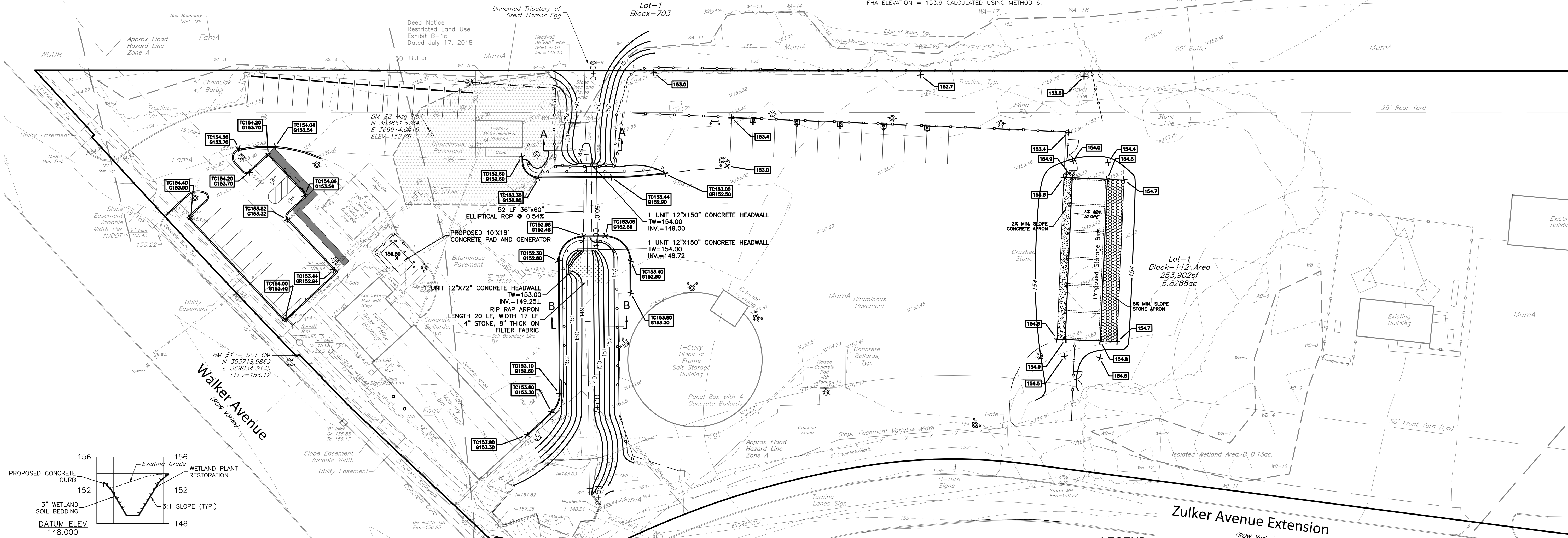
LEGEND

EXISTING	PROPOSED
LOT LINE	FRESHWATER WETLANDS TRANSITION AREA DISTURBANCE
CENTERLINE ROAD	PROPOSED LAWN AREA
EDGE OF PAVEMENT	PROPOSED PAVEMENT
EXISTING FENCE	PROPOSED REINFORCED CONCRETE APRON, 8" THICK
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WETLAND LINE	PROPOSED STONE
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FLOOD HAZARD LINE, ZONE A	PROPOSED PAVEMENT
EXISTING CONTOURS	PROPOSED FENCE
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EDGE OF WOODS	PROPOSED BLOCK HEATER RECEPTACLE
EXISTING SANITARY MANHOLE	
EXISTING DRAINAGE MANHOLE	
EXISTING MONITORING WELL	
DEED NOTICE-RESTRICTED AREA	



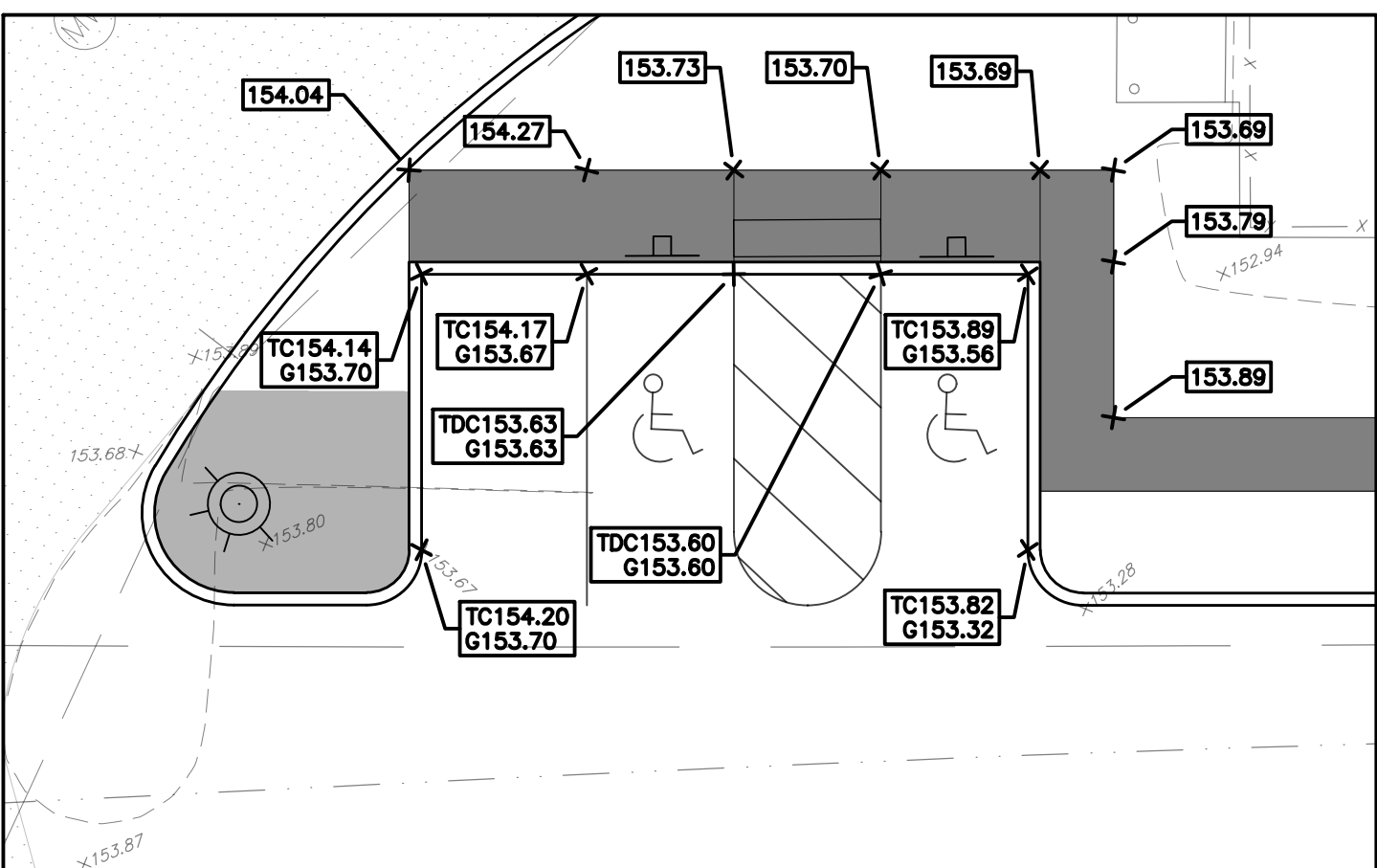
PROPOSED CREEK RESTORATION PROFILE

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=6'



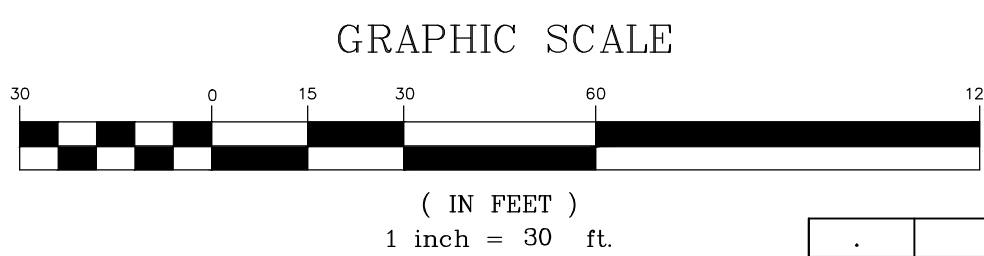
PROPOSED CREEK RESTORATION SECTION A-A

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=6'



ACCESSIBLE RAMP GRADING DETAIL

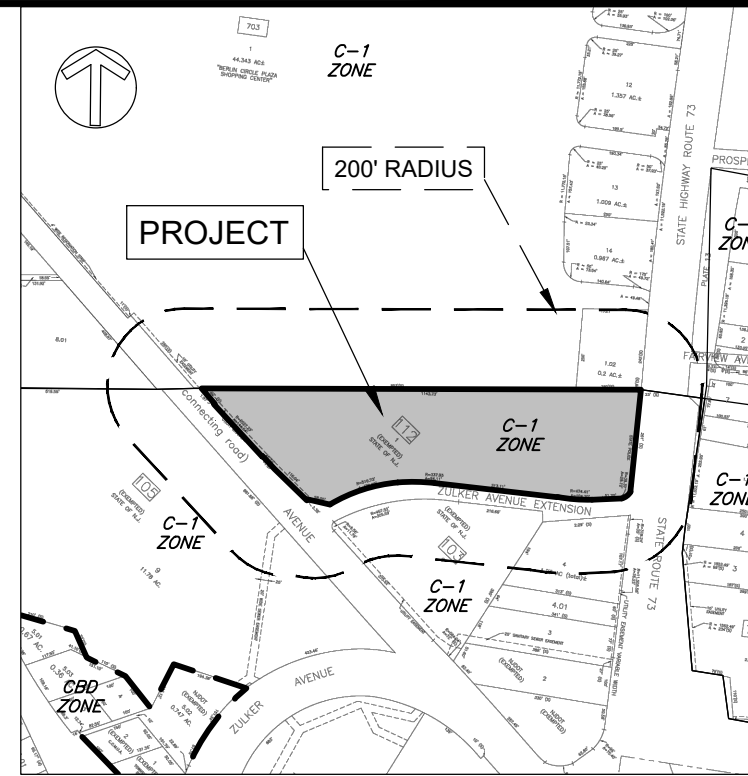
SCALE: 1"=10'



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22. CONTRACTOR SHALL INSTALL AND MAINTAIN TURBIDITY BARRIERS AROUND PROPOSED CONSTRUCTION AREA, SUFFICIENT TO PREVENT THE SEDIMENTATION OF ADJACENT TRIBUTARY PRIOR TO CONSTRUCTION.
23. CONSTRUCTION OF THE WATERWAY IS PROHIBITED MAY 1 THROUGH JUNE 30 OF EACH YEAR. ADDITIONALLY, CONSTRUCTION ACTIVITIES WHICH MAY RESULT IN INCREASED TURBIDITY WITHIN THE WATERWAY ARE PROHIBITED DURING THE SAME TIME PERIOD.
24. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF NJDEP FLOOD HAZARD AREA INDIVIDUAL PERMIT AND FRESHWATER WETLANDS TRANSITION AREA WAIVER PERMIT No. 0406-18-0002.1 LUP230001.
25. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO OBTAIN THE DIGITAL CAD FILE FOR STAKE OUT PURPOSES. CONTRACTOR RESPONSIBLE TO PROTECT AND MAINTAIN ON SITE BENCHMARKS; BM#1 (NJDOT CONCRETE MONUMENT) AND BM#2 (MAG NAIL) AS SHOWN ON PLAN.



Key / Zoning Map

Scale: 1" = 500'



P.O. Box 208
Colonia, New Jersey 07067
908-380-2496

Michael @ StonewaterArchitecture.com
NJ Lic. No. 21A1017266
NY Lic. No. 032102

Consultants

WHITMAN
Environmental • Engineering • Energy
Waste Management • EH&S Compliance
100 Franklin Square Drive, Suite 200
Somerset, New Jersey 08873

Roberts Engineering Group, LLC
1670 Whitehorse-Hamilton Square Road
Hamilton, New Jersey 08690

USA Environmental Management, Inc.
344 West State Street
Trenton, New Jersey 08618

Client



New Jersey Department of the
Treasury
Division of Property Management and
Construction, DPMC
20 West State Street, 3rd Floor
Trenton, NJ 08625

Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:

T0617.00 West Berlin
Storage Bin Installation
West Berlin Maintenance Yard,
Camden, New Jersey

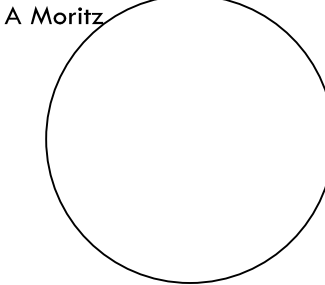
Key Plan

Revisions		
Date:	Description:	No.

Issued Documents	
Date:	Description:

Seal & Signature

Michael A Moritz



Drawing Title

SITE GRADING
PLAN

Sheet

Drawing Number

C006.00

EXISTING		PROPOSED	
—	LOT LINE	■	PROPOSED LAWN AREA
—	CENTERLINE ROAD	■	PROPOSED PAVEMENT
—	EDGE OF PAVEMENT	■	PROPOSED REINFORCED CONCRETE APRON, 8" THICK
x x	EXISTING FENCE	■	PROPOSED REINFORCED CONCRETE SIDEWALK, 6" THICK
—	CAUTION FENCE	■	PROPOSED STONE
WA-0	WETLAND LINE	■	PROPOSED PAVEMENT
—	WETLAND BUFFER LINE	■	PROPOSED FENCE
---	FLOOD HAZARD LINE, ZONE A	■	PROPOSED LIGHT POLE AND FOOTING
---	EXISTING CONTOURS	■	PROPOSED SPOT ELEVATION
102.00	EXISTING SPOT ELEVATION	■	
Wooded	EDGE OF WOODS	■	
(S)	EXISTING SANITARY MANHOLE	■	
(D)	EXISTING DRAINAGE MANHOLE	■	
(MW)	EXISTING MONITORING WELL	■	
Deed Notice	DEED NOTICE-RESTRICTED AREA	■	

PROPOSED CREEK RESTORATION SECTION B-B

REFERENCE:

1. PLAN ENTITLED, "GENERAL PROPERTY PARCEL MAP ROUTE 73 (1953) SECTION 5, PROJECT: ROUTE 30/73 BERLIN IMPROVEMENTS, CONTRACT NO. 015970203, SHEETS 18, 32 & 33 OF 64, PREPARED BY MASER CONSULTING ENGINEERS, DATED JANUARY 27, 2009.
2. PLAN ENTITLED, "WETLAND DELINEATION PLAN FOR DOT ACCUBRINE UNIT INSTALLATIONS-WEST BERLIN MAINTENANCE YARD, BLOCK 112 LOT 1, SHEETS 1 & 2 OF 2, PREPARED BY MASER CONSULTING ENGINEERS, DATED MAY 24, 2018.

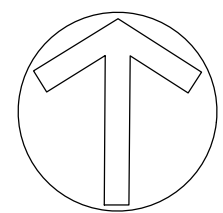
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5	1/22/24	REVISE PLANS PER DPMC REVIEW COMMENTS DATED 1/5/2024	JA	TWP

NO.	DATE	REVISIONS	BY	CHECKED
4	12/14/23	REVISE PLANS PER NJDEP PERMITTING APPROVAL	JA	TWP
3	10/11/23	REVISE PLANS PER DEP FHA COMMENTS	JA	TWP
2	9/15/23	REVISE PLANS PER DEP EMAIL DATED 9/7/23	JA	TWP
1	5/11/23	REVISE PLANS PER DEP VIOLATION NOTICE	JA	TWP

NO.	DATE	REVISIONS	BY	CHECKED
5	1/22/24	REVISE PLANS PER DPMC REVIEW COMMENTS DATED 1/5/2024	JA	TWP

CALL BEFORE YOU DIG
IN NJ, TOLL FREE
1-800-272-1000
FOR FREE MARKOUTS TO LOCATE
UNDERGROUND UTILITIES
"IT'S THE LAW"
GARDEN STATE UNDERGROUND PLANT LOCATION SERVICE, INC.

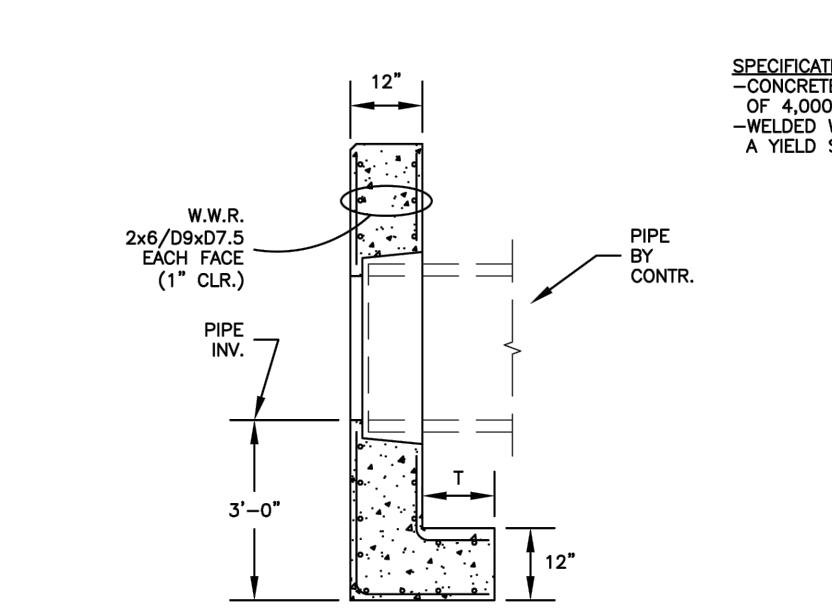
Roberts
ENGINEERING GROUP LLC
Women Business Enterprise Certified
CERTIFICATE OF AUTHORIZATION: 24GA2819100
CAMERON CORINI, PE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. NO. 24GE05403500



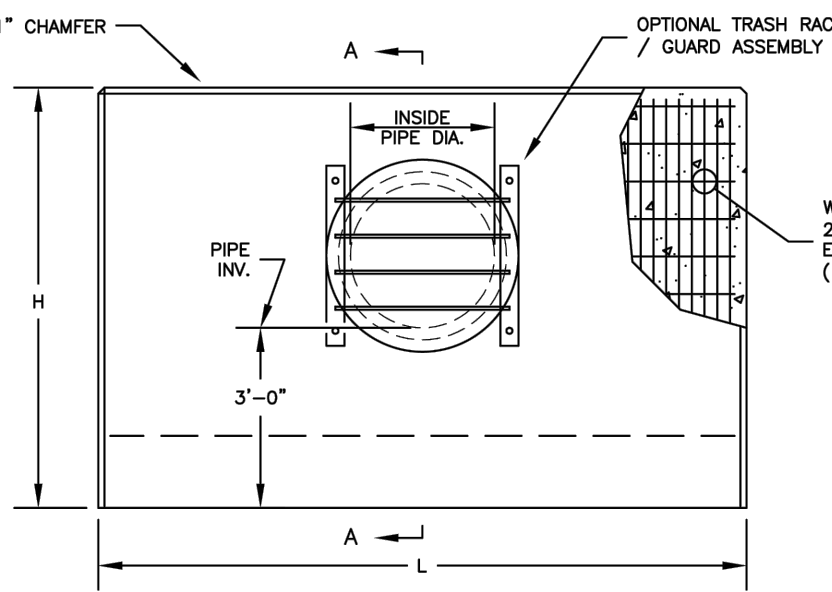
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JUNCTION BOX FOUNDATION "JB"					18" X 36" JUNCTION BOX "JB"						
MARK	SIZE NO. 4 RODS	A	B	C	NO. RODS REQ.	MARK	SIZE NO. 4 RODS	A	B	C	NO. RODS REQ.
1	24"	48"	48"	48"	2	1	48"	48"	48"	48"	4
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6	84"	48"	48"	48"	2	6	48"	48"	48"	48"	4
7	96"	48"	48"	48"	2	7	48"	48"	48"	48"	4
8	108"	48"	48"	48"	2	8	48"	48"	48"	48"	4
9	120"	48"	48"	48"	2	9	48"	48"	48"	48"	4
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14	180"	48"	48"	48"	2	14	48"	48"	48"	48"	4
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19	240"	48"	48"	48"	2	19	48"	48"	48"	48"	4
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Revisions		
Date:	Description:	No.

Issued Documents	
Date:	Description:



SECTION A-A
NOT TO SCALE

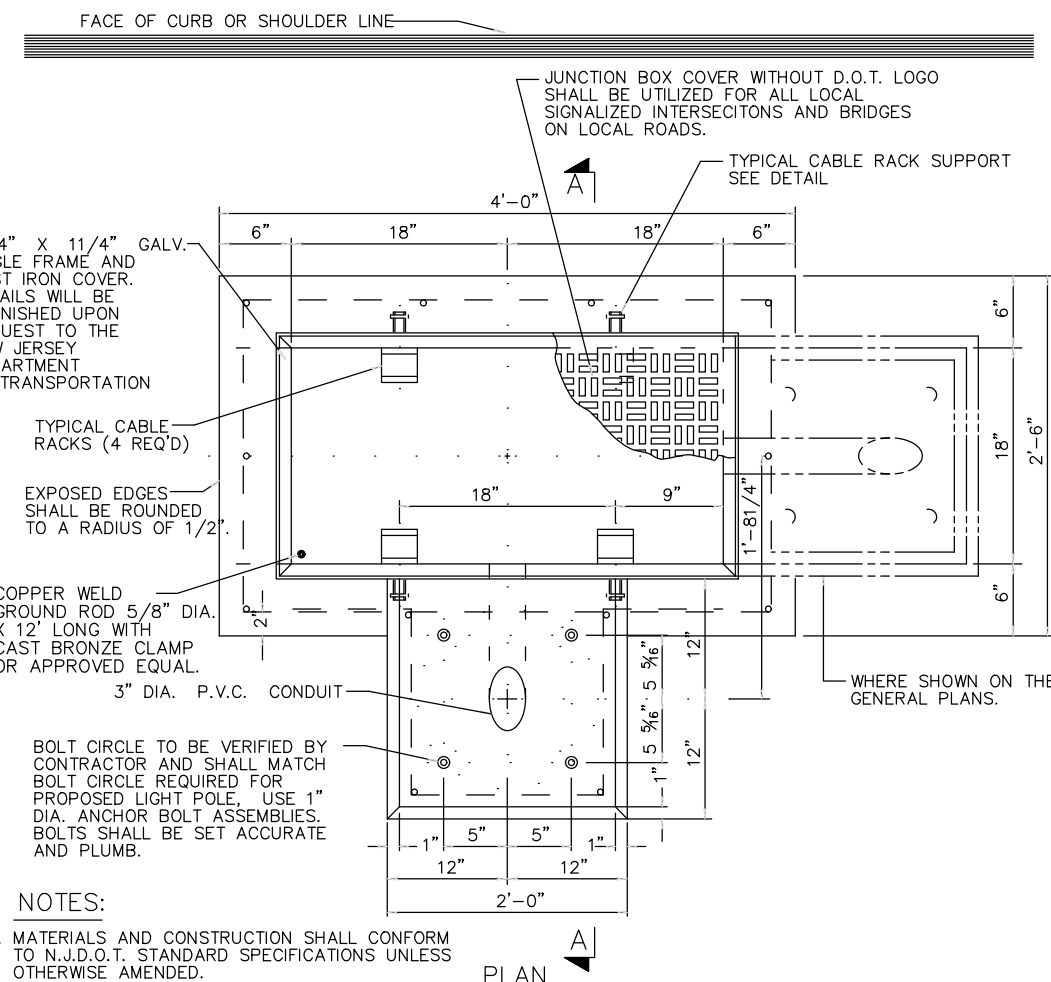


FRONT VIEW
NOT TO SCALE

TYPE	INSIDE PIPE DIA. (IN.)	WEIGHT (LB.)	L (IN.)	H (IN.)	T (IN.)
I	12-15	4360	60	63	12
II	18-21	6490	84	69	12
III	24-27	8620	108	75	18
IV	30-33	12240	132	81	18
V	36	14320	144	84	24
VI	42	17480	168	90	24

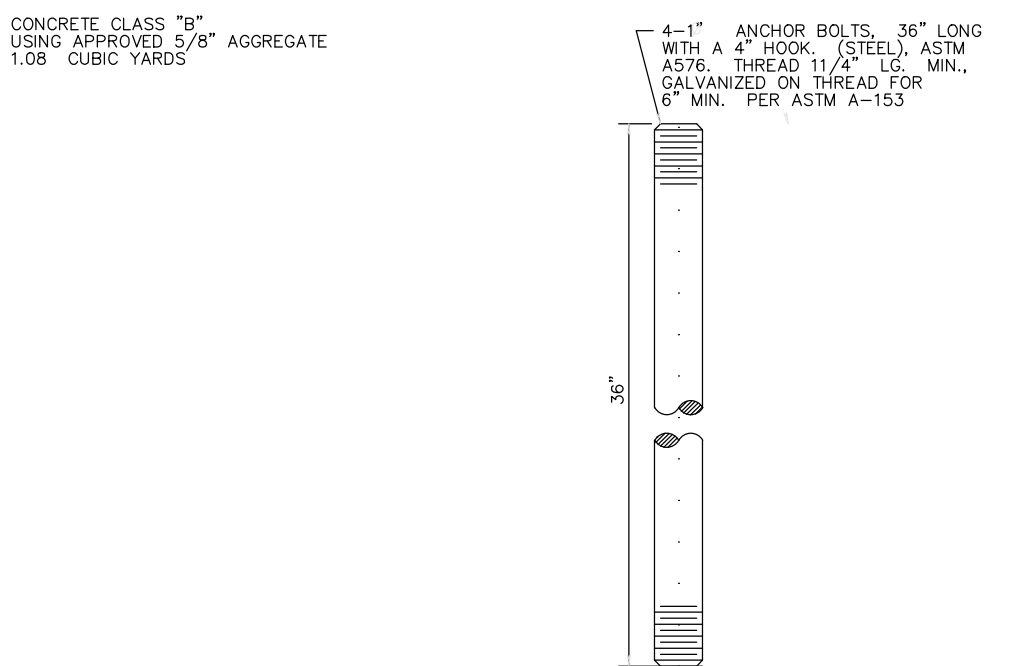
NJDOT TYPE D ENDWALL

N.T.S.

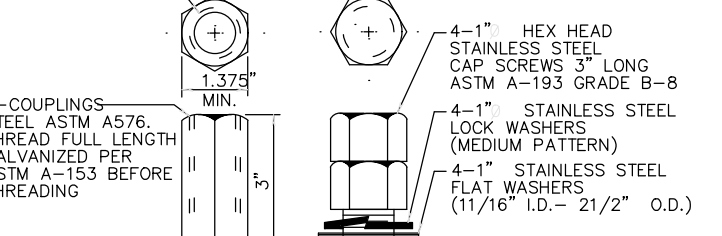


NOTES:

- A. MATERIALS AND CONSTRUCTION SHALL CONFORM TO NJDOT STANDARD SPECIFICATIONS UNLESS OTHERWISE AMENDED.
- B. CONCRETE CLASS "B" USING APPROVED 5/8" AGGREGATE 1/8" CURB YARDS

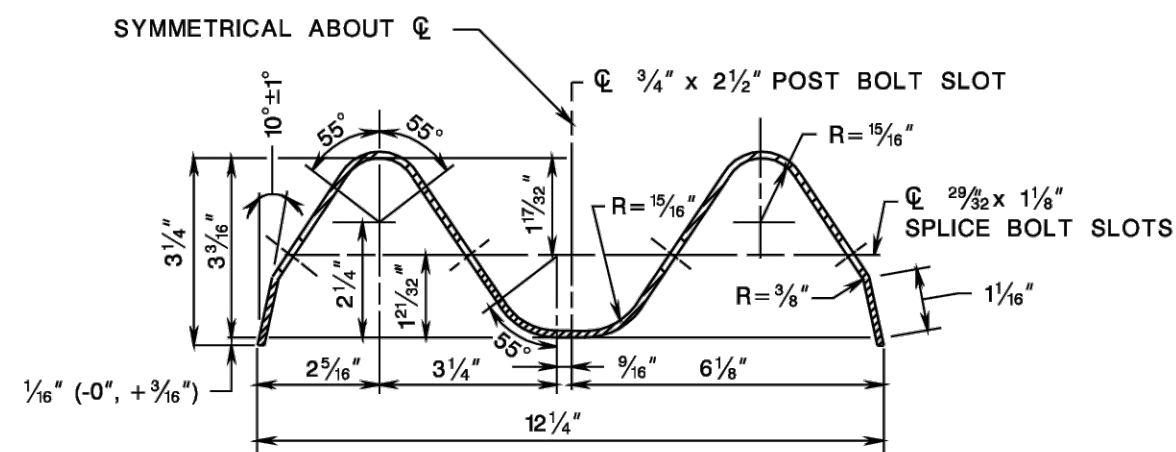


ANCHOR BOLT

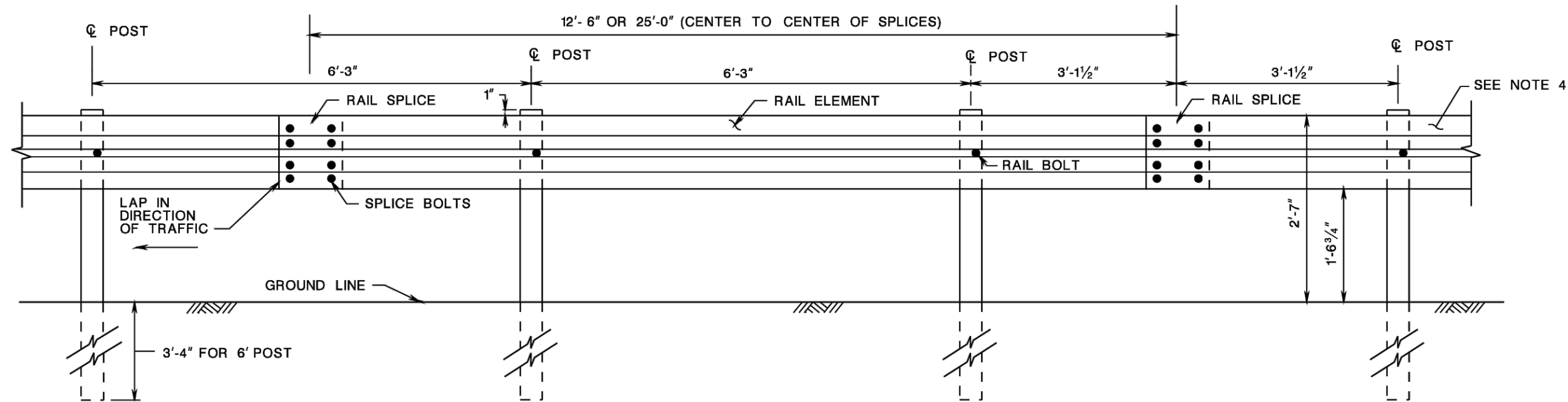


DETAIL OF ANCHOR BOLTS

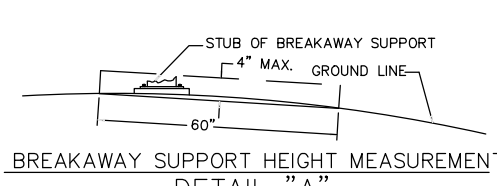
1. ANCHOR BOLTS TO BE SET 11/8" ± 1/16" INTO COUPLINGS SO THAT CAP SCREWS WHEN TIGHTENED, SECURING CLE BASE TO FOUNDATION, WILL NOT BUTT AGAINST TOP OF ANCHOR BOLTS
2. ALL THREADS SHALL BE 8 THREADS PER INCH, NC, FREE FIT CLASS-2.



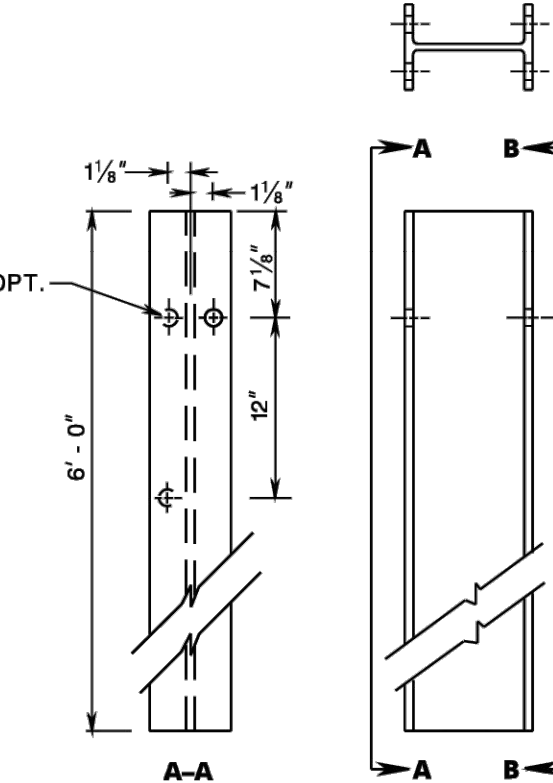
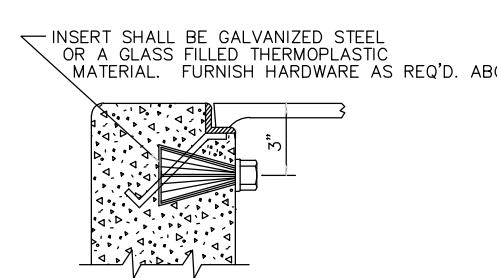
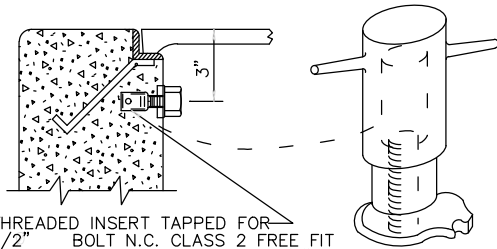
W-BEAM RAIL ELEMENT



BEAM GUIDE RAIL

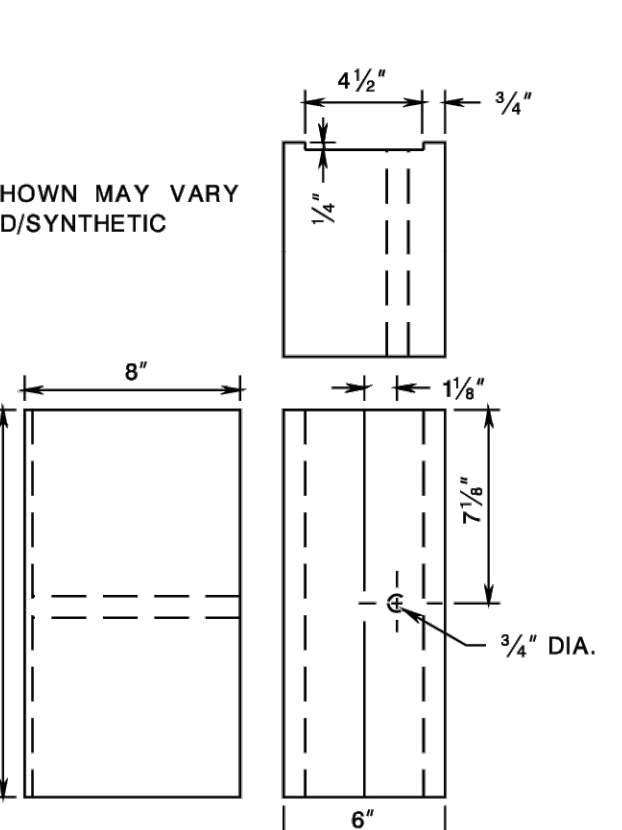


CABLE RACK SUPPORTS

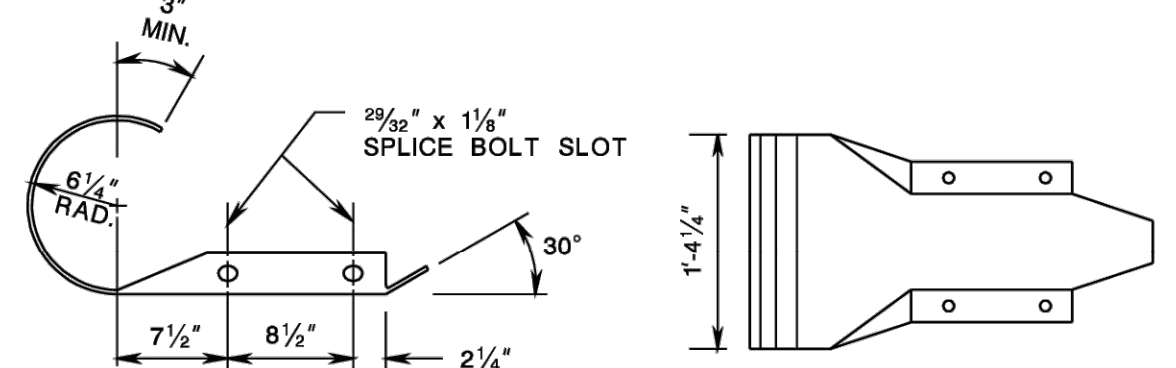


6\" POST

NOTE:
ALL HOLES 3/16" DIA.



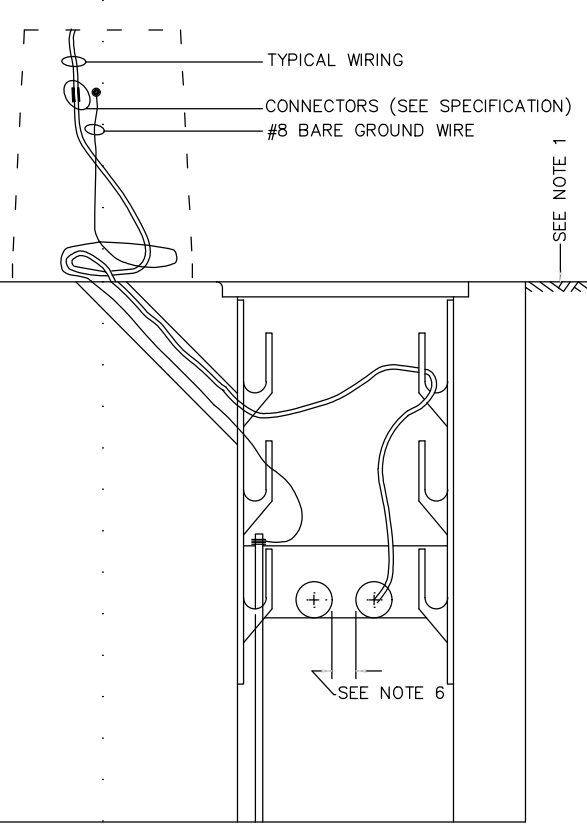
6"x8"x14" BLOCKOUT



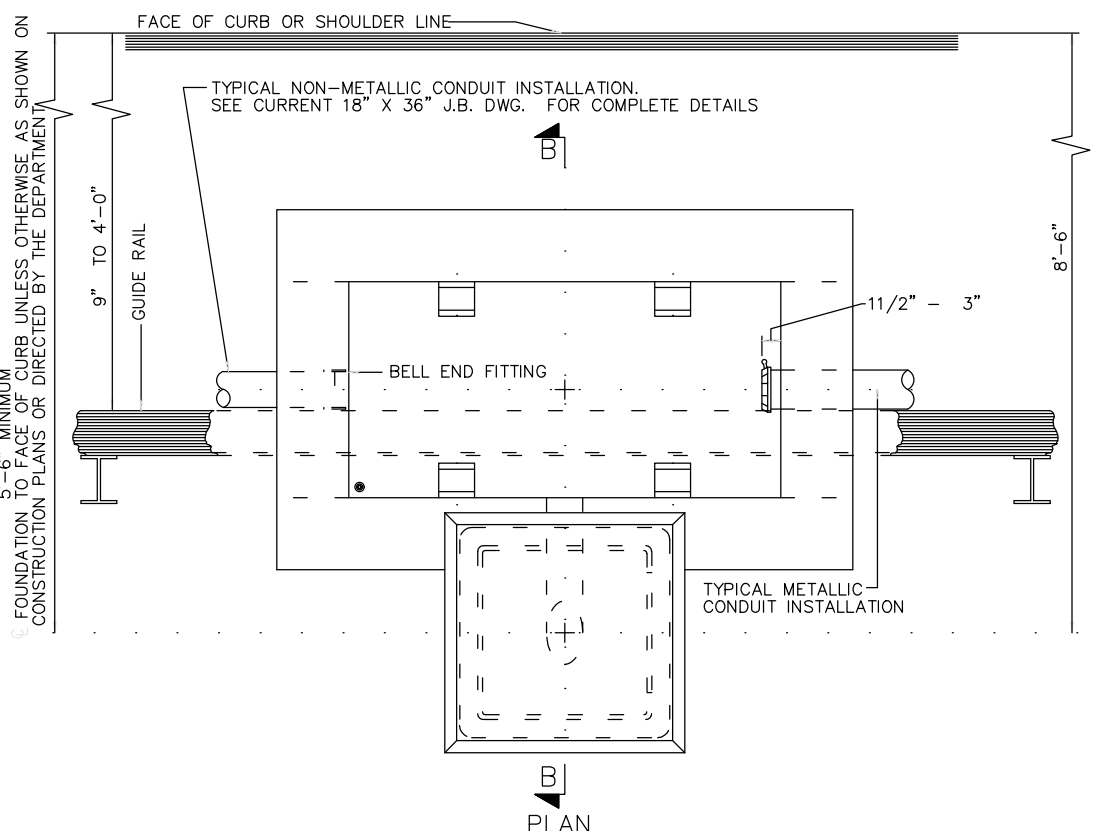
END SECTION (ROUNDED)

NOTES:

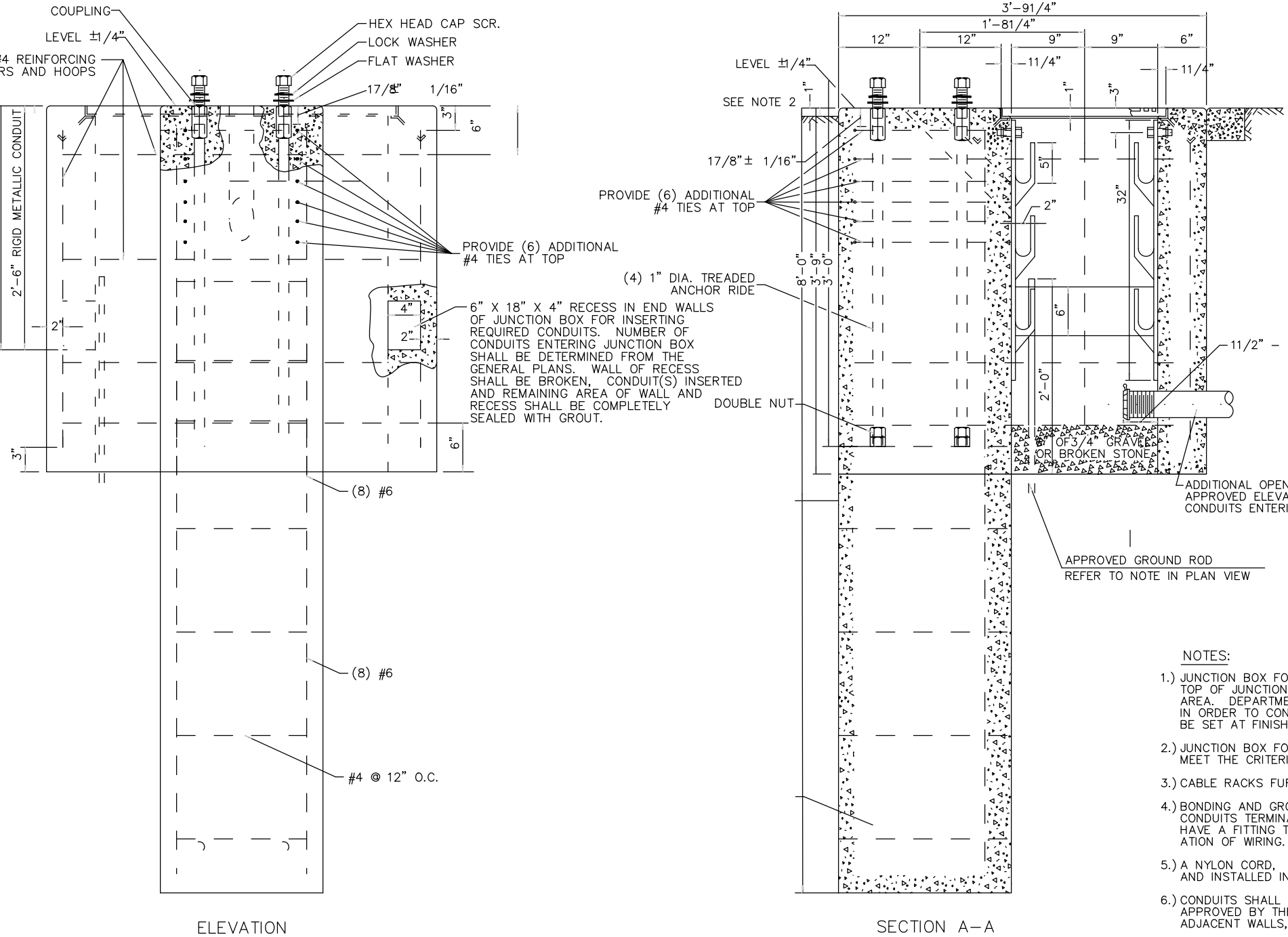
1. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2. FURNISH RAIL ELEMENTS SHOPCURVED, CONCAVE OR CONVEX, FOR RADII BETWEEN 20 AND 150 FEET.
3. WHERE TRANSITIONING TO EXISTING GUIDE RAIL, AN END TERMINAL, OR A CRASH CUSHION MOUNTED AT A HEIGHT OTHER THAN 2'-7", THE VERTICAL TRANSITION TO BE ACCOMPLISHED IN A MINIMUM LENGTH OF 12'-6" FOR EACH 2" OF VERTICAL CHANGE. SEE CD-609-B.
4. INSTALL AN END TERMINAL AS SHOWN ON THE PLANS. USE THE END SECTION (ROUNDED) ON THE END OF THE RAIL ELEMENT WHERE DUAL FACED BEAM GUIDE RAIL ENDS AND SINGLE FACED BEAM GUIDE RAIL BEGINS.



SECTION B-B



PLAN



JUNCTION BOX FOUNDATION 'JBF' DETAIL

N.T.S.

NOTES:

1. JUNCTION BOX FOUNDATION SHALL BE SET PARALLEL TO THE CURB AND TOP OF JUNCTION BOX SHALL BE SET AT GRADE IN SIDEWALK OR PAVED AREA. DEPARTMENT MAY REQUIRE TOP OF JUNCTION BOX TO BE INCLUDED IN ORDER TO CONFORM WITH FIELD CONDITIONS. JUNCTION BOX SHALL BE SET AT FINISH GRADE.
2. JUNCTION BOX FOUNDATION CONSTRUCTED IN DIRT OR GRASS AREAS SHALL MEET THE CRITERIA AS PER DETAIL "A".
3. CABLE RACKS FURNISHED AND INSTALLED AS INDICATED.
4. BONDING AND GROUNDING INSULATED BUSHINGS SHALL BE INSTALLED ON CONDUITS TERMINATING IN JUNCTION BOXES AND/OR FOUNDATIONS AND SHALL HAVE A FITTING TO PREVENT ENTRY OF FOREIGN MATTER PRIOR TO INSTALLATION OF WIRING.
5. A NYLON CORD, 125 POUND MINIMUM TEST STRENGTH, SHALL BE FURNISHED AND INSTALLED IN ALL CONDUITS. SEE SPECIFICATIONS.
6. CONDUITS SHALL ENTER JUNCTION BOX PERPENDICULAR TO WALLS OR AS APPROVED BY THE DEPARTMENT. A 2" SEPARATION SHALL BE MAINTAINED BETWEEN ADJACENT WALLS, CONDUITS, AND CABLE RACK LOCATIONS.
7. ALL NON-METALLIC CONDUITS SHALL TERMINATE WITH BELL END CONSTRUCTION IN JUNCTION BOX.
8. ALL UNUSED CONDUITS SHALL BE PLUGGED OR CAPPED.
9. TERMINAL ENDS OF ALL METALLIC CONDUIT SHALL BE THREADED.
10. JUNCTION BOX FOUNDATION IS INSTALLED ON PROJECT WITHOUT LIGHTING STANDARDS, 1" MINIMUM LONG BOLTS SHALL BE INSTALLED WITH GREASE.
11. CURB IS NOT CONSTRUCTED AND COLORED BITUMINOUS STONE SURFACE TREATMENT IS UTILIZED BEHIND SHOULDER AREA. ENTIRE JUNCTION BOX FOUNDATION SHALL BE ROTATED 180 DEGREES FROM ABOVE SKETCH WITH FOUNDATION PORTION BEHIND GUIDE RAIL.

6	4/9/24	REVISE PER DPMC COMMENTS DATED 3/22/24	JA	CC
5	1/22/24	REVISE PLANS PER DPMC REVIEW COMMENTS DATED 1/5/2024	JA	TWP
4	12/14/23	REVISE PLANS PER NJDEP PERMITTING APPROVAL	JA	TWP
3	10/11/23	REVISE PLANS PER DEP FHA COMMENTS	JA	TWP
2	9/15/23	REVISE PLANS PER DEP EMAIL DATED 9/7/23	JA	TWP
1	5/11/23	REVISE PLANS PER DEP VIOLATION NOTICE	JA	TWP
NO.	DATE	REVISIONS	BY	CHECKED

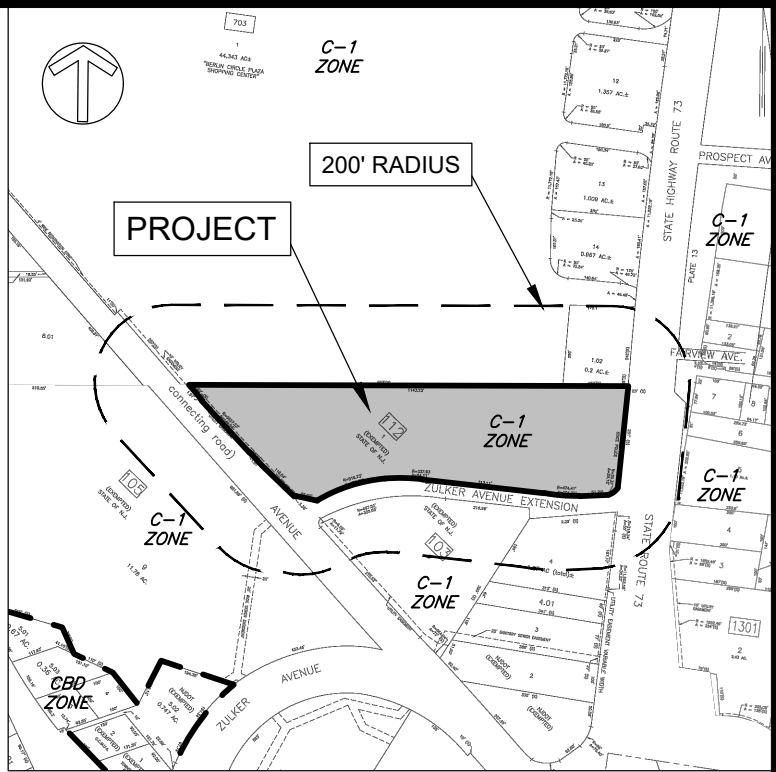
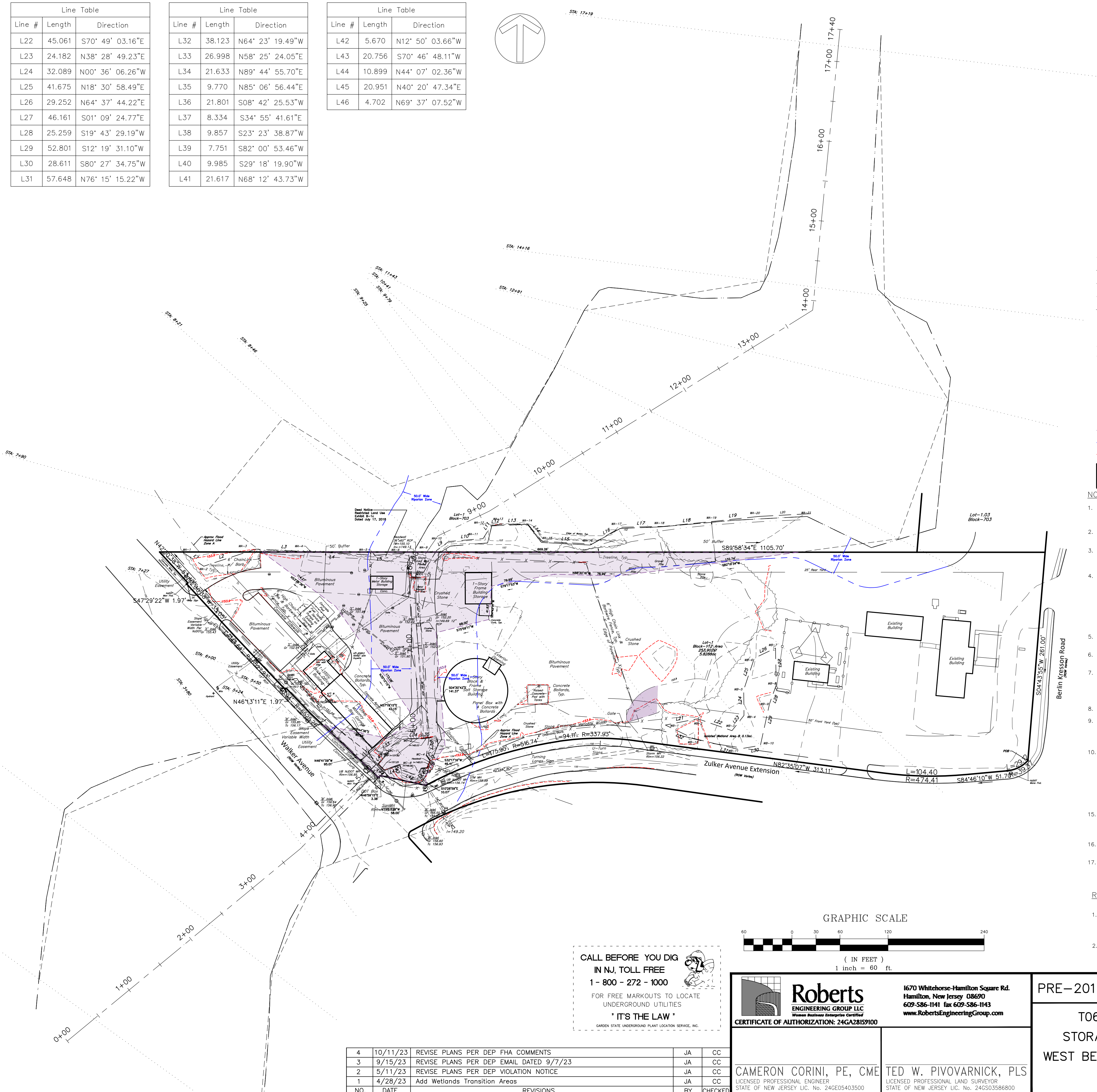
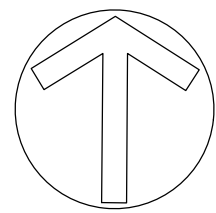
Line Table		
Line #	Length	Direction
L1	30.653	S56° 35' 06.56"E
L2	68.308	N71° 49' 36.57"E
L3	68.705	S87° 15' 34.94"E
L4	80.230	S86° 52' 26.33"E
L5	42.047	N86° 02' 06.26"E
L6	30.079	S08° 03' 40.84"E
L7	11.003	S87° 30' 38.23"E
L8	38.767	N30° 45' 32.92"E
L9	18.961	N53° 30' 52.73"E
L10	42.955	N85° 18' 59.89"E

Line Table		
Line #	Length	Direction
L11	19.082	N31° 45' 53.44"E
L12	11.232	N81° 29' 22.47"E
L13	34.631	N89° 12' 27.15"E
L14	28.246	S39° 39' 50.26"E
L15	62.333	S86° 55' 38.56"E
L16	41.724	N59° 47' 17.92"E
L17	53.441	N88° 54' 34.64"E
L18	65.261	N84° 10' 22.88"E
L19	54.685	N83° 48' 03.90"E
L21	41.265	N79° 04' 58.83"E

Line Table		
Line #	Length	Direction
L22	45.061	S70° 49' 03.16"E
L23	24.182	N38° 28' 49.23"E
L24	32.089	N00° 36' 06.26"W
L25	41.675	N18° 30' 58.49"E
L26	29.252	N64° 37' 44.22"E
L27	46.161	S01° 09' 24.77"E
L28	25.259	S19° 43' 29.19"W
L29	52.801	S12° 19' 31.10"W
L30	28.611	S80° 27' 34.75"W
L31	57.648	N76° 15' 15.22"W

Line Table		
Line #	Length	Direction
L32	38.123	N64° 23' 19.49"W
L33	26.998	N58° 25' 24.05"E
L34	21.633	N89° 44' 55.70"E
L35	9.770	N85° 06' 56.44"E
L36	21.801	S08° 42' 25.53"W
L37	8.334	S34° 55' 41.61"E
L38	9.857	S23° 23' 38.87"W
L39	7.751	S82° 00' 53.46"W
L40	9.985	S29° 18' 19.90"W
L41	21.617	N68° 12' 43.73"W

Line Table		
Line #	Length	Direction
L42	5.670	N12° 50' 03.66"W
L43	20.756	S70° 46' 48.11"W
L44	10.899	N44° 07' 02.36"W
L45	20.951	N40° 20' 47.34"E
L46	4.702	N69° 37' 07.52"W



Key / Zoning Map

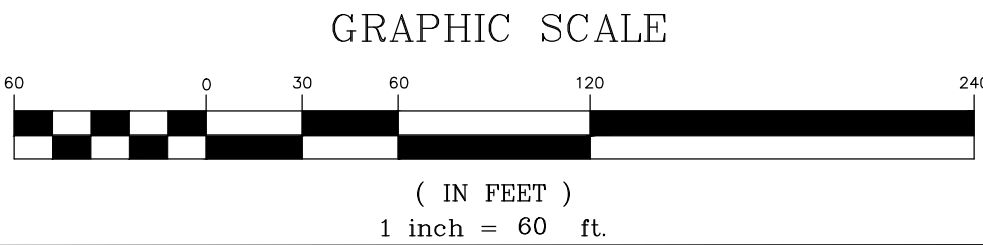
- Scale: 1" = 500'
- EXISTING**
- LOT LINE
 - CENTERLINE ROAD
 - EDGE OF PAVEMENT
 - CAUTION FENCE
 - WETLAND LINE
 - WETLAND BUFFER LINE
 - FLOOD HAZARD LINE, ZONE A
 - EXISTING CONTOURS
 - EXISTING SPOT ELEVATION
 - EDGE OF WOODS
 - EXISTING SANITARY MANHOLE
 - EXISTING DRAINAGE MANHOLE
 - EXISTING MONITORING WELL
 - FLOODWAY LIMIT
 - RIPARIAN ZONE
 - FHA CONTOUR ELEVATION = 153.9
 - FLOODWAY LIMIT

NOTES:

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- THESE GENERAL NOTES APPLY TO ALL CIVIL DRAWING SHEETS OF THIS SET OF PLANS.
- WETLAND DELINEATION LINES WA, WB AND WC WERE DETERMINED BY MICHAEL L. FRANCIS, PH.D., PRINCIPAL CONSULTANT/ENVIRONMENTAL, THE CATALYST GROUP, PRINCETON, NJ ON OCTOBER 12, 2021

REFERENCE:

- PLAN ENTITLED, "GENERAL PROPERTY PARCEL MAP ROUTE 73 (1953) SECTION 5, PROJECT: ROUTE 30/73 BERLIN IMPROVEMENTS, CONTRACT NO. 015970203, SHEETS 18, 32 & 33 OF 64, PREPARED BY NJDOT WITH SIGNATURE DATE OF JANUARY 27, 2009.
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CERTIFICATE OF AUTHORIZATION: 24GA28159100

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609-586-1141 Fax 609-586-1143
www.RobertsEngineeringGroup.com

CAMERON CORINI, PE, CME
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. No. 24GE05403500

TED W. PIVOVARNICK, PLS
LICENSED PROFESSIONAL LAND SURVEYOR
STATE OF NEW JERSEY LIC. No. 24GSO3586800

PRE-2015 FHA EXISTING CONDITIONS PLAN

T0617.00 WEST BERLIN
STORAGE BIN INSTALLATION
WEST BERLIN MAINTENANCE YARD
CAMDEN, NEW JERSEY

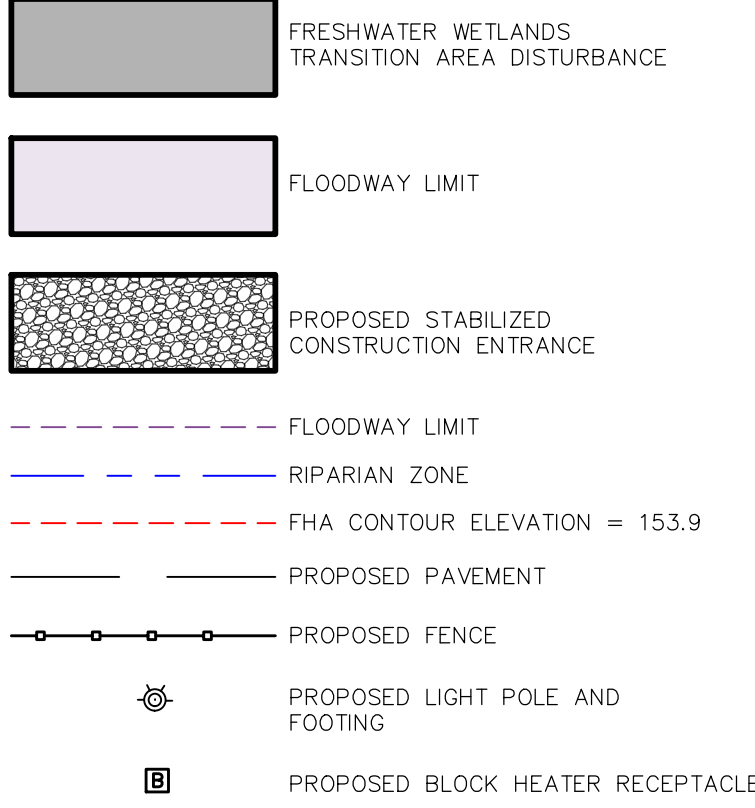
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DESIGNED BY: TWP/JA
DRAWN BY: TWP/JA
DATE: 3/24/2023
SCALE: 1"=60'
DWG. No.: PRE-EX
SHEET No.

FWW-01

4	10/11/23	REVISE PLANS PER DEP FHA COMMENTS	JA	CC
3	9/15/23	REVISE PLANS PER DEP EMAIL DATED 9/7/23	JA	CC
2	5/11/23	REVISE PLANS PER DEP VIOLATION NOTICE	JA	CC
1	4/28/23	Add Wetlands Transition Areas	JA	CC
NO.	DATE	REVISIONS	BY	CHECKED

LEGEND

PROPOSED

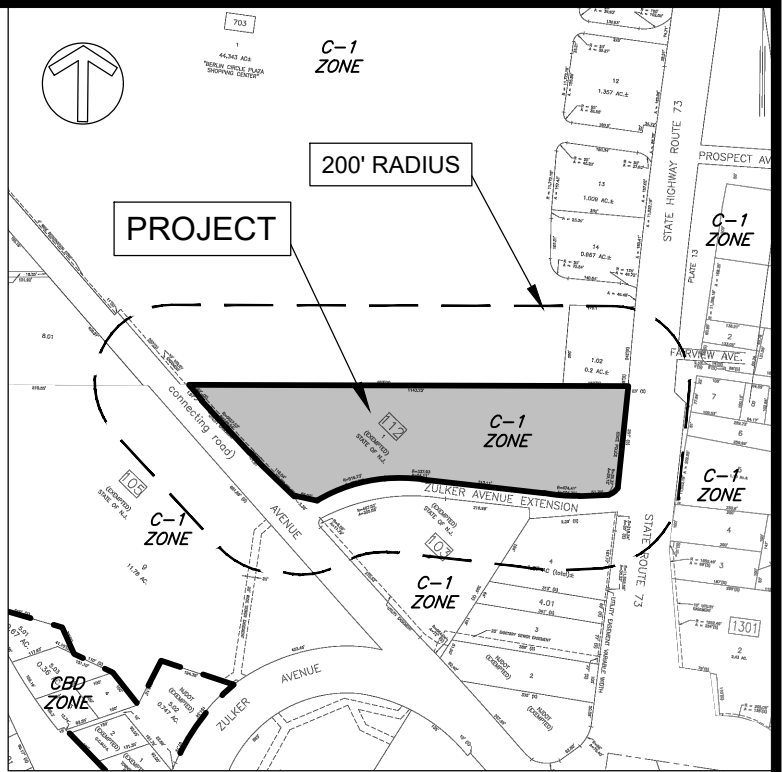
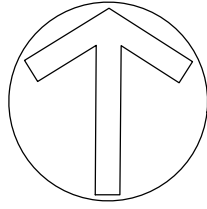


Site Areas		
0.216	Ac.	Total New Impervious
-0.114	Ac.	Total Less Impervious (to pervious)
0.228	Ac.	Restoration (stone to pervious)
0.342	Ac.	Net Pervious
0.990	Ac.	Limit of Disturbance
0.245	Ac.	Vehicle Surface
0.312	Ac.	Freshwater Wetlands Transition Area Disturbance
9918	CuYd	Estimated Existing Flood Storage On Site (Pre-2015, 100 Year NJDEPDFE)
1089	CuYd	Estimated Existing Flood Storage On Site (Pre-2015, 10 Year Storm Event)
9918	CuYd	Estimated Proposed Flood Storage Volume of Stream (100- Year NJDEPDFE)
1089	CuYd	Estimated Proposed Flood Storage On Site (10 Year Storm Event)

Zoning Data (C-1) Highway Commercial

ITEM	REQUIRED	EXISTING	PROPOSED
Min. Lot Area per Dwelling Unit (sf)	20,000	n/a	n/a
Min. Total Lot Area (sf)	20,000	253,902	253,902
Min. Lot Frontage (ft.)	100	291.5*	291.5*
Min. Lot Depth (ft.)	150	232.4	232.4
Min. Building Setbacks (ft.)			
Front Yard	50	21.2	21.2
Rear Yard	25	30.1	30.1
Side Yard (each)	n/a	n/a	n/a
Side Yard (both)	n/a	n/a	n/a
Max. Building Coverage as Percent of Lot	65/40**	7.1%	7.3%
Max. Height, Stories/ft.	2 1/2/35		

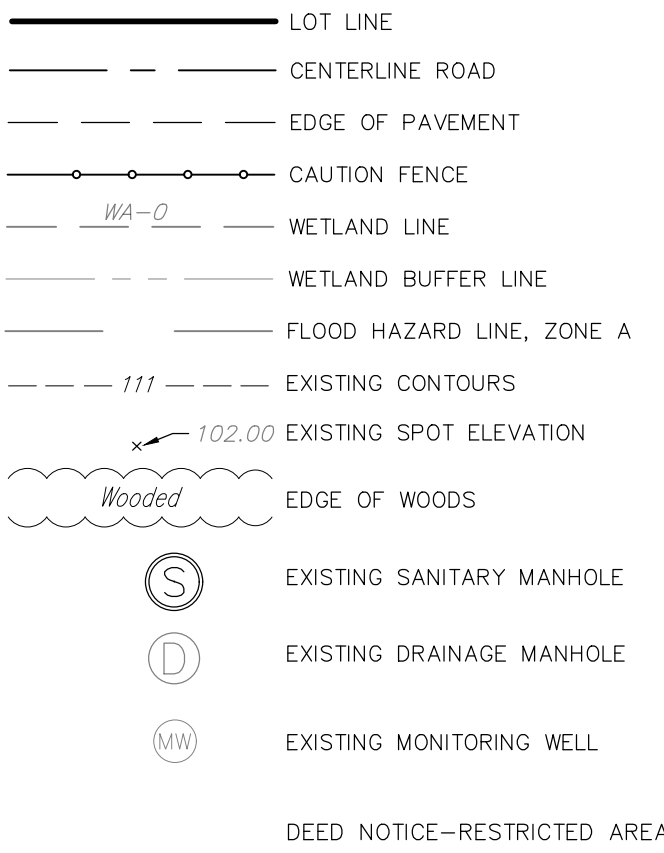
* Along Route 73 (See Sheet C001.00)
** 65% Building coverage if served with sanitary sewer,
40% Building Coverage if not served with sanitary sewer. Site is served.



Key / Zoning Map

Scale: 1" = 500'

EXISTING

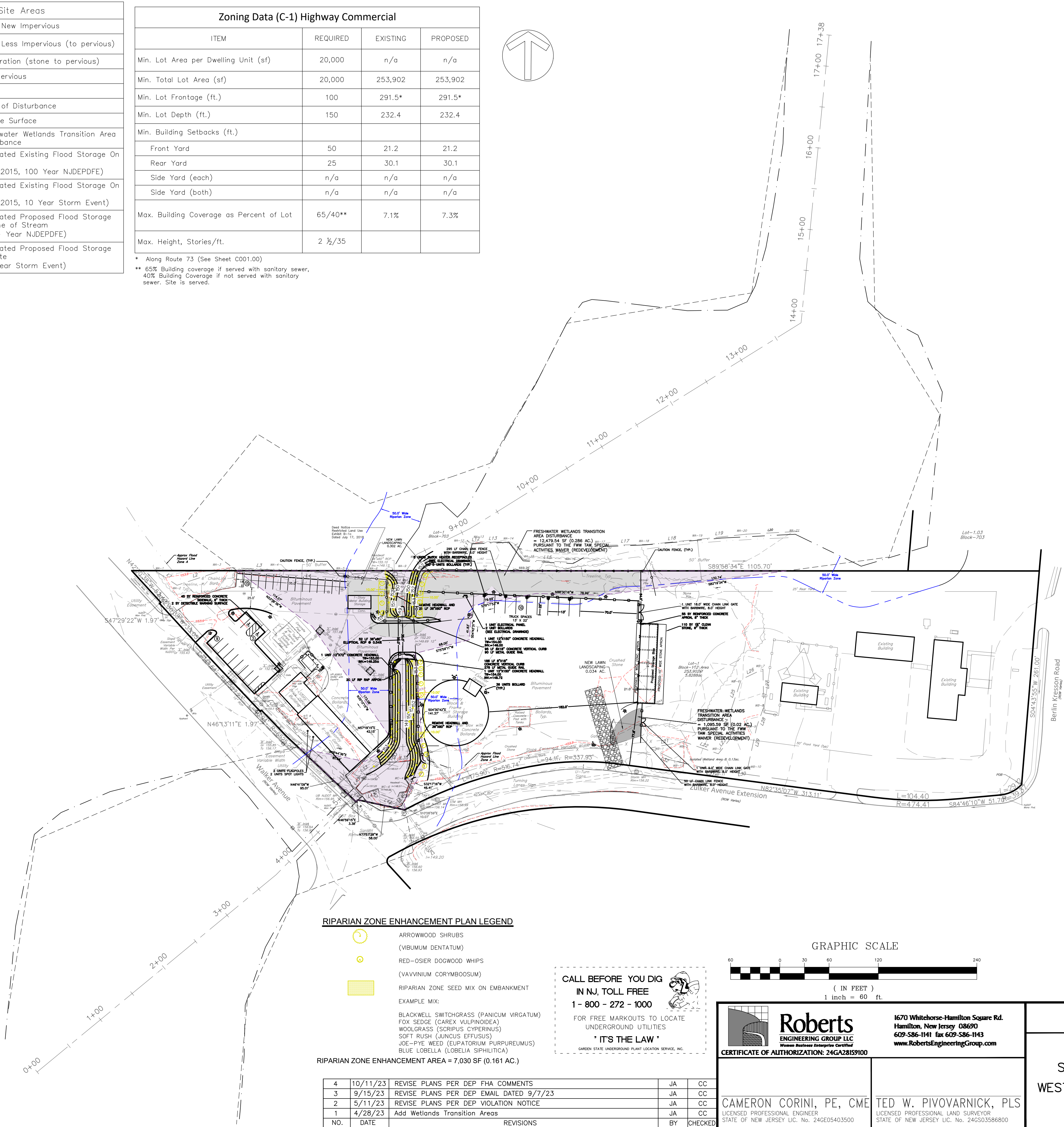


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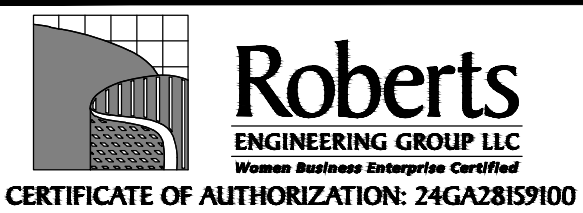
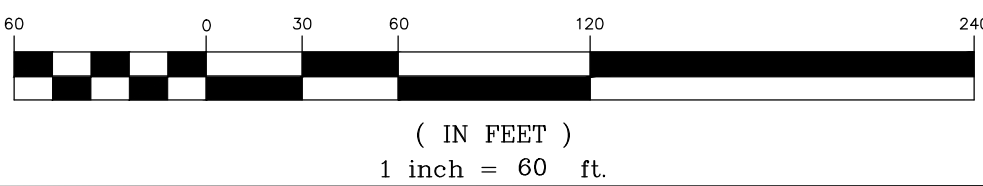
RIPARIAN ZONE ENHANCEMENT PLAN LEGEND

- ARROWWOOD SHRUBS (VIBURNUM DENTATUM)
- RED-OSIER DOGWOOD WHIPS (VAVVINUM CORYMBOOSUM)
- RIPARIAN ZONE SEED MIX ON EMBANKMENT
- EXAMPLE MIX:
 - BLACKWELL SWITCHGRASS (PANICUM VIRGATUM)
 - FOX SEDGE (CAREX VULPINOIDEA)
 - WOOLGRASS (SCRIPUS CYPERINUS)
 - SOFT RUSH (JUNCUS EFFUSUS)
 - JOE-PYE WEEED (EUPATORIUM PURPUREUMUS)
 - BLUE LOBELIA (LOBELIA SIPHILLITICA)

RIPARIAN ZONE ENHANCEMENT AREA = 7,030 SF (0.161 AC.)

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GRAPHIC SCALE



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RIPARIAN RESTORATION PLAN

T0617.00 WEST BERLIN
STORAGE BIN INSTALLATION
WEST BERLIN MAINTENANCE YARD
CAMDEN, NEW JERSEY

FILE NO: 101
DESIGNED BY: TWP/JA
DRAWN BY: TWP/JA
CHECKED BY: TWP
DATE: 3/24/2023
SCALE: 1"=60'
DWG. No.: PR
SHEET No.
FWW-02

NO.	DATE	REVISIONS	BY	CHECKED
4	10/11/23	REVISE PLANS PER DEP FHA COMMENTS	JA	CC
3	9/15/23	REVISE PLANS PER DEP EMAIL DATED 9/7/23	JA	CC
2	5/11/23	REVISE PLANS PER DEP VIOLATION NOTICE	JA	CC
1	4/28/23	Add Wetlands Transition Areas	JA	CC

CAMERON CORINI, PE, CME
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. No. 24GE05403500

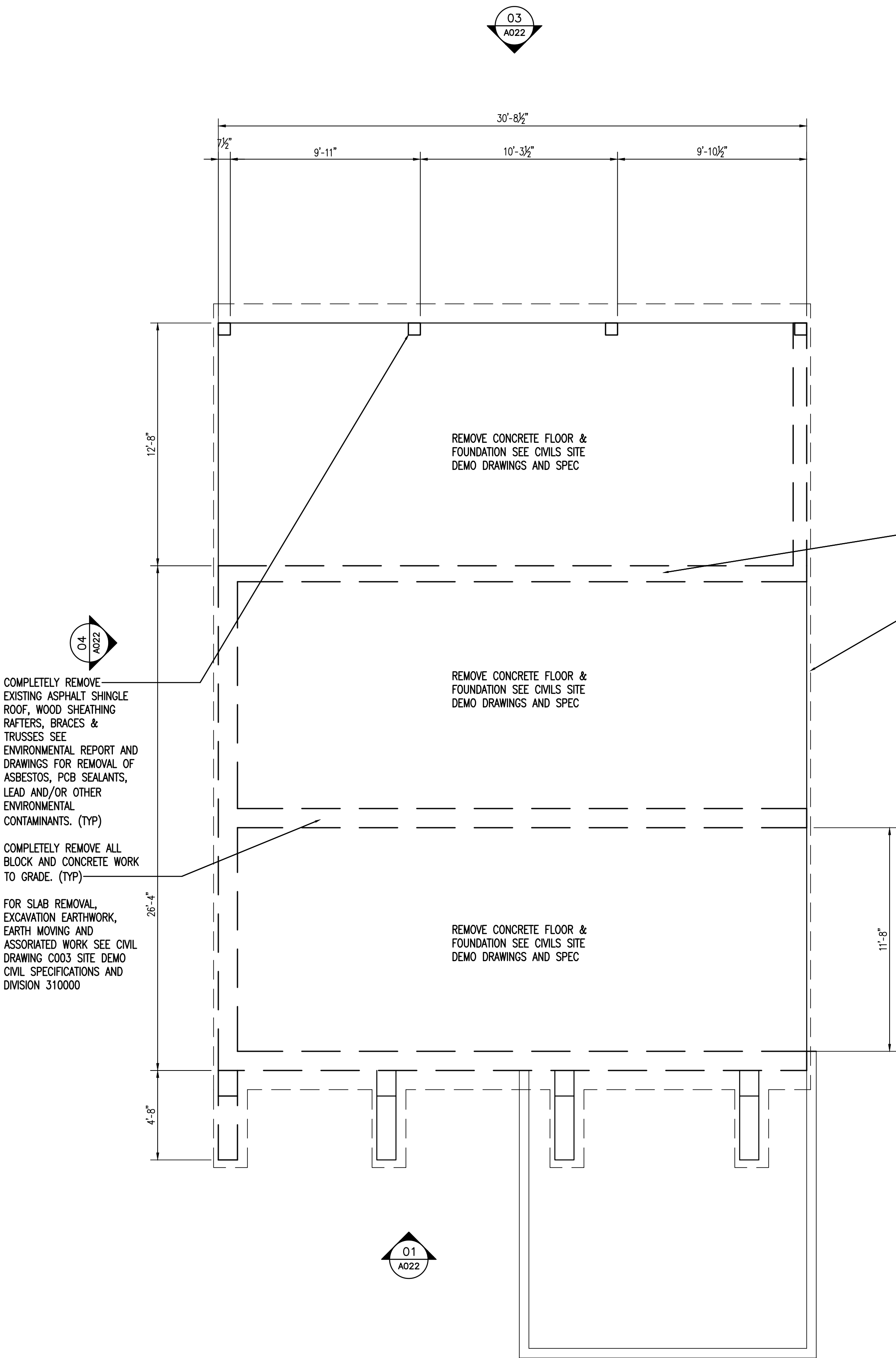
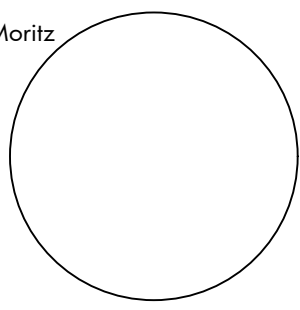
TED W. PIVOVARNICK, PLS
LICENSED PROFESSIONAL LAND SURVEYOR
STATE OF NEW JERSEY LIC. No. 24G503586800



Revisions		
Date:	Description:	No.

Issued Documents	
Date:	Description:
11/18/21	SCHEMATIC DESIGN
12/22/21	DESIGN DEVELOPMENT
01/22/24	FINAL DESIGN

Seal & Signature
Michael A Moritz



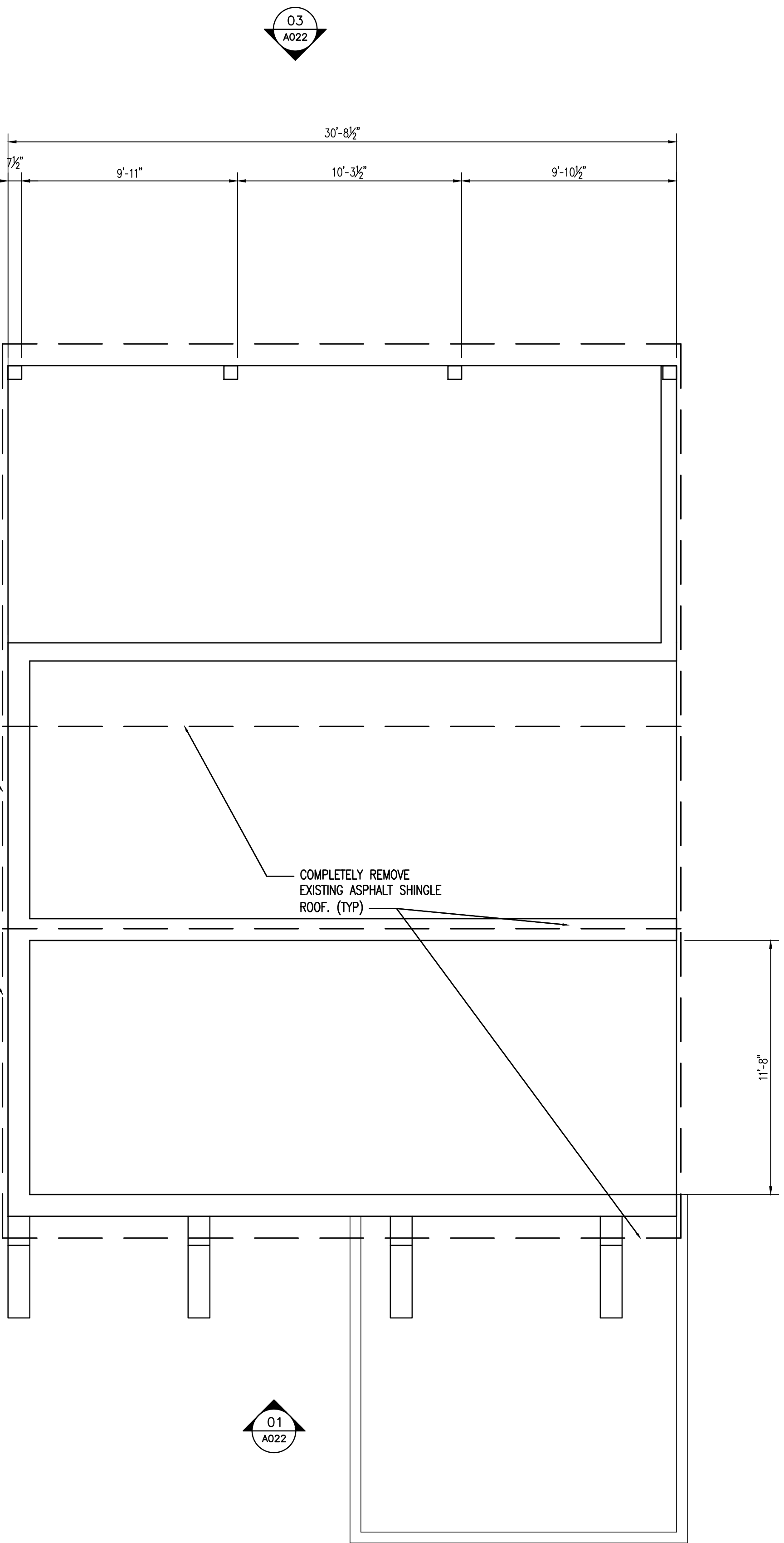
01 FIRST FLOOR STORAGE BIN REMOVAL PLAN
SCALE: 1/4" = 1'-0"

COMPLETELY REMOVE
EXISTING ASPHALT SHINGLE
ROOF, WOOD SHEATHING
RAFTERS, BRACES &
TRUSSES SEE
ENVIRONMENTAL REPORT AND
DRAWINGS FOR REMOVAL OF
ASBESTOS, PCB SEALANTS,
LEAD AND/OR OTHER
ENVIRONMENTAL
CONTAMINANTS. (TYP)

COMPLETELY REMOVE ALL
BLOCK AND CONCRETE WORK
TO GRADE. (TYP)

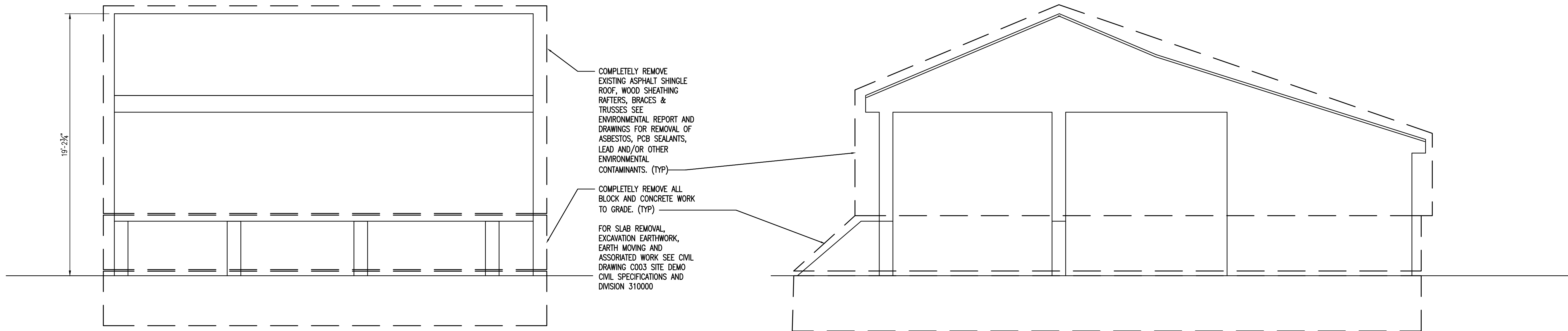
FOR SLAB REMOVAL,
EXCAVATION EARTHWORK,
EARTH MOVING AND
ASSORIATED WORK SEE CIVIL
DRAWING C003 SITE DEMO
CIVIL SPECIFICATIONS AND
DIVISION 310000

NOTE:
SOIL IN THIS AREA IS
SUBJECT TO ENVIRONMENTAL
REGULATIONS CONCERNING
ALL DISTURBANCE, REMOVAL,
STORAGE, REUSE AND
DISPOSAL SEE CIVIL SITE
DEMO DRAWINGS AND SPEC
FOR FURTHER INFORMATION



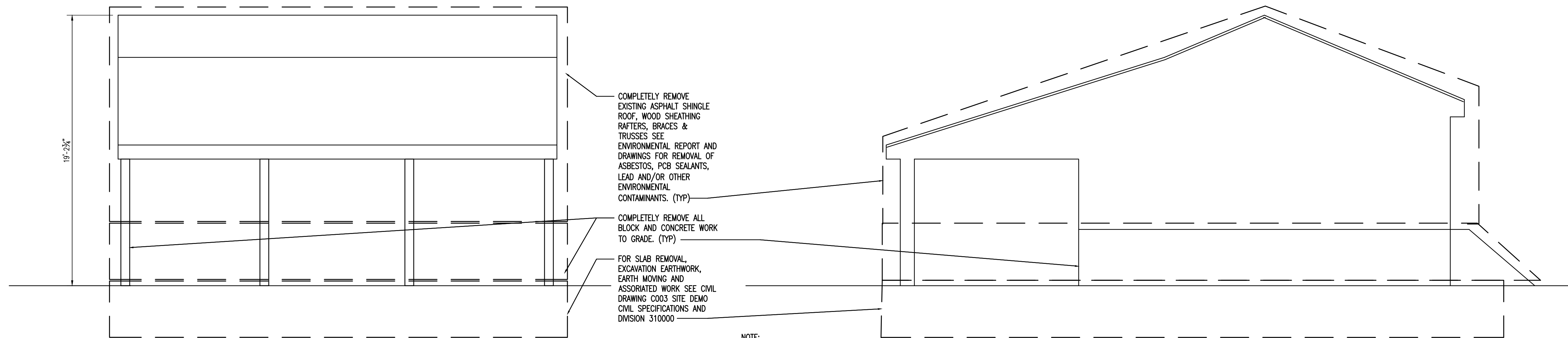
02 ROOF STORAGE BIN REMOVAL PLAN
SCALE: 1/4" = 1'-0"

NOTES:
1. 100 YEAR FLOOD ELEVATION = 153.13'
2. 500 YEAR FLOOD ELEVATION = 155.24'
3. FHA ELEVATION 153.9'
4. FINISHED GRADES AT BUILDING ARE
MORE THAN 1'-0" ABOVE 100-YEAR
FLOOD ELEVATION.



01 STORAGE BIN REMOVAL ELEVATION
SCALE: 1/4" = 1'0"

02 STORAGE BIN REMOVAL ELEVATION
SCALE: 1/4" = 1'0"



03 STORAGE BIN REMOVAL ELEVATION
SCALE: 1/4" = 1'0"

04 STORAGE BIN REMOVAL ELEVATION
SCALE: 1/4" = 1'0"

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STORAGE, REUSE AND
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DEMO DRAWINGS AND SPEC

- NOTES:
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 2. 500 YEAR FLOOD ELEVATION = 155.24'
 3. FEMA ELEVATION 153.9'
 4. FINISHED GRADES AT BUILDING ARE MORE THAN 1'-0" ABOVE 100-YEAR FLOOD ELEVATION.



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Department of Transportation
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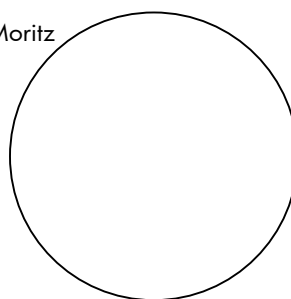
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Storage Bin Installation
50 Walker Avenue
West Berlin Maintenance Yard,
Camden, New Jersey



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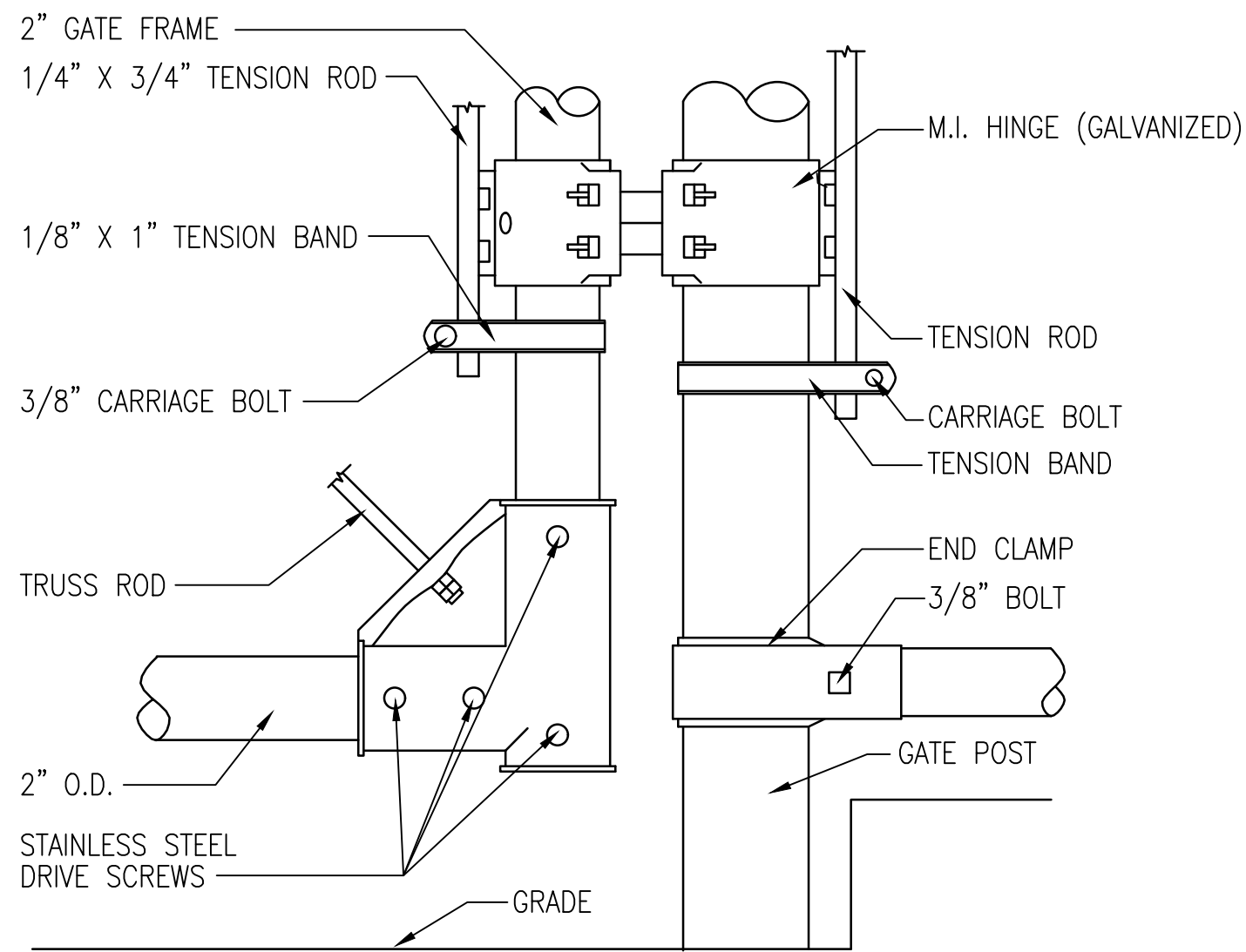
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01/22/24	FINAL DESIGN

Seal & Signature
Michael A Moritz

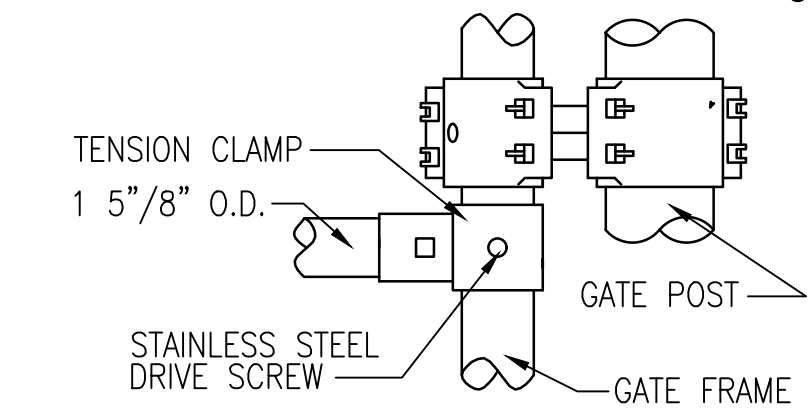


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REMOVAL ELEVATIONS**

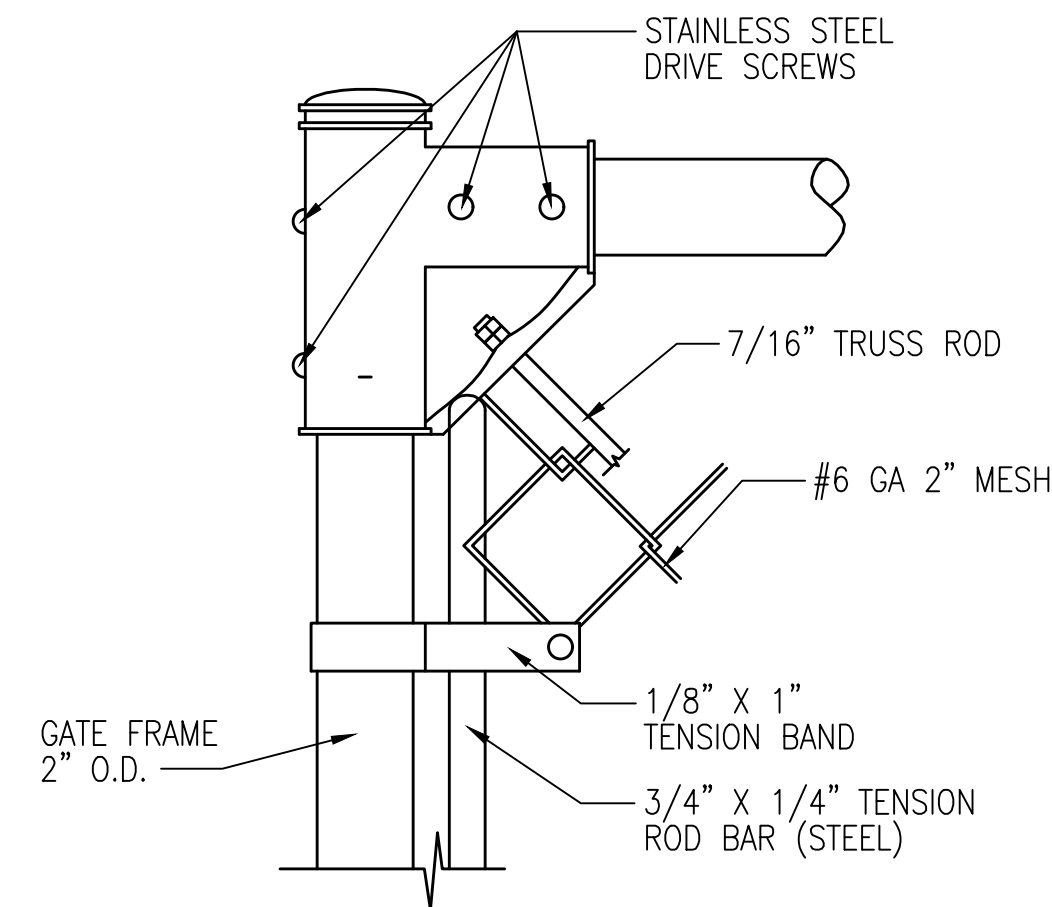
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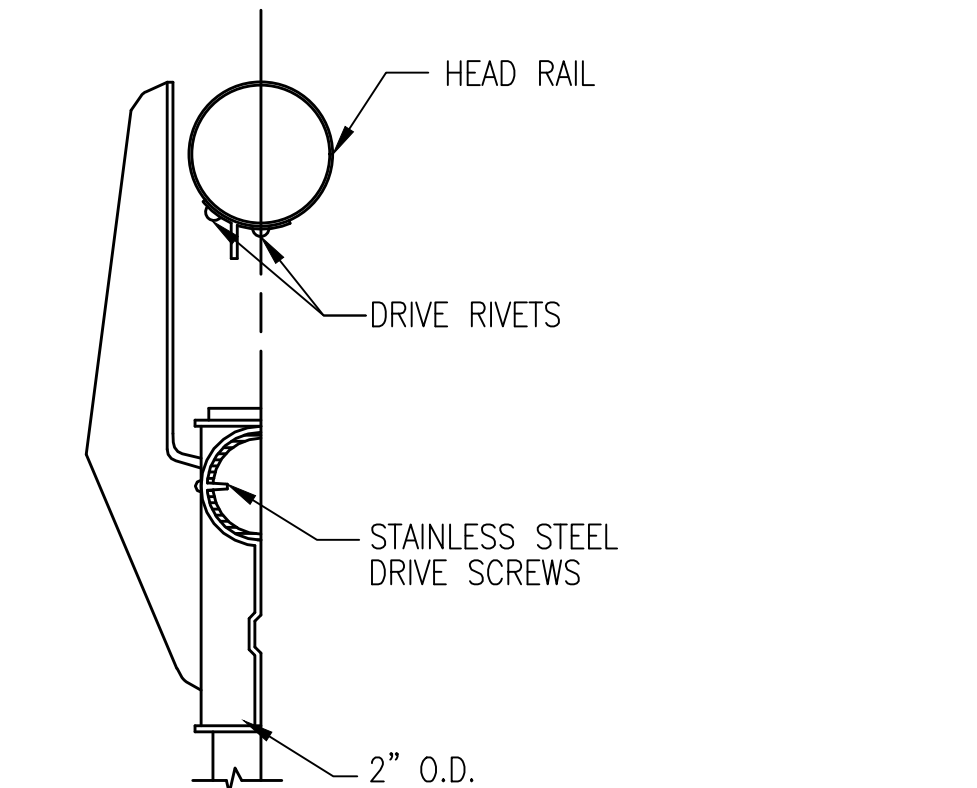
**GATES WITH SLIP FITTINGS
DETAIL 3**
SCALE: 3" = 1'-0"



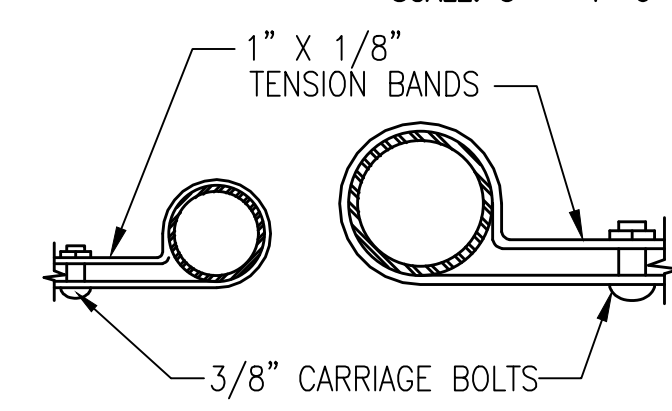
**GATES WITH SLIP FITTINGS
DETAIL 4**
SCALE: 3" = 1'-0"



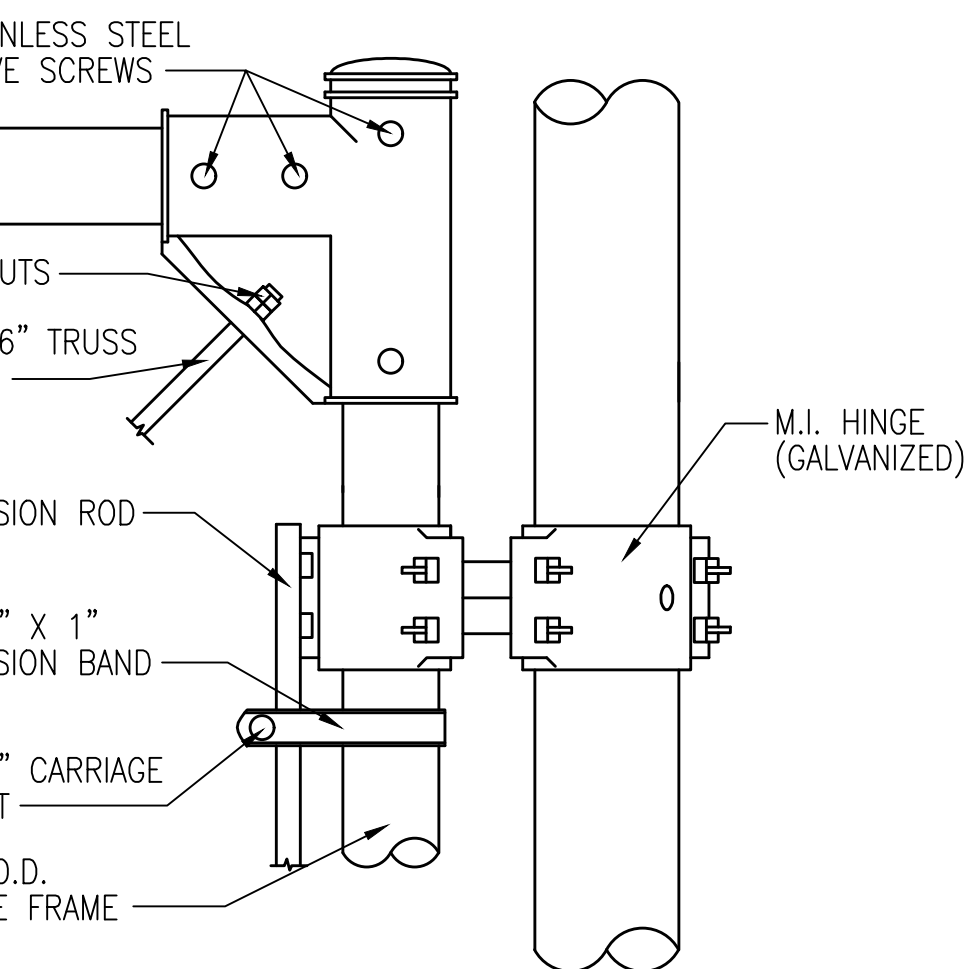
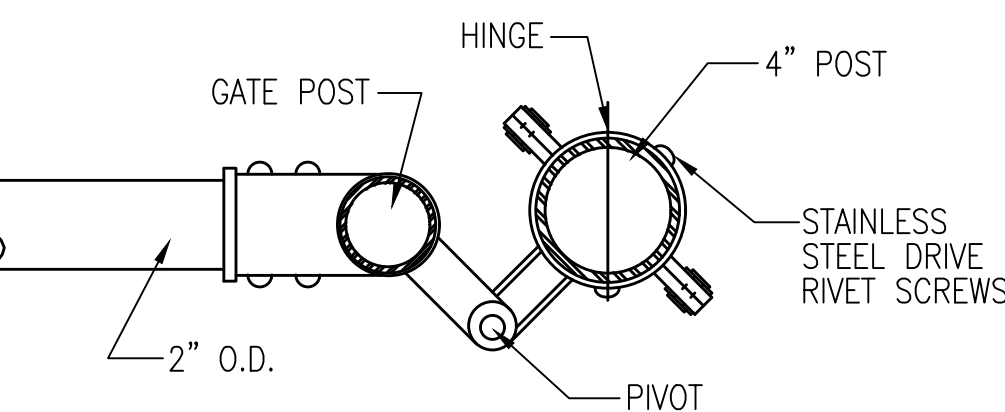
**SLIP FITTING
DETAIL 1**
SCALE: 3" = 1'-0"



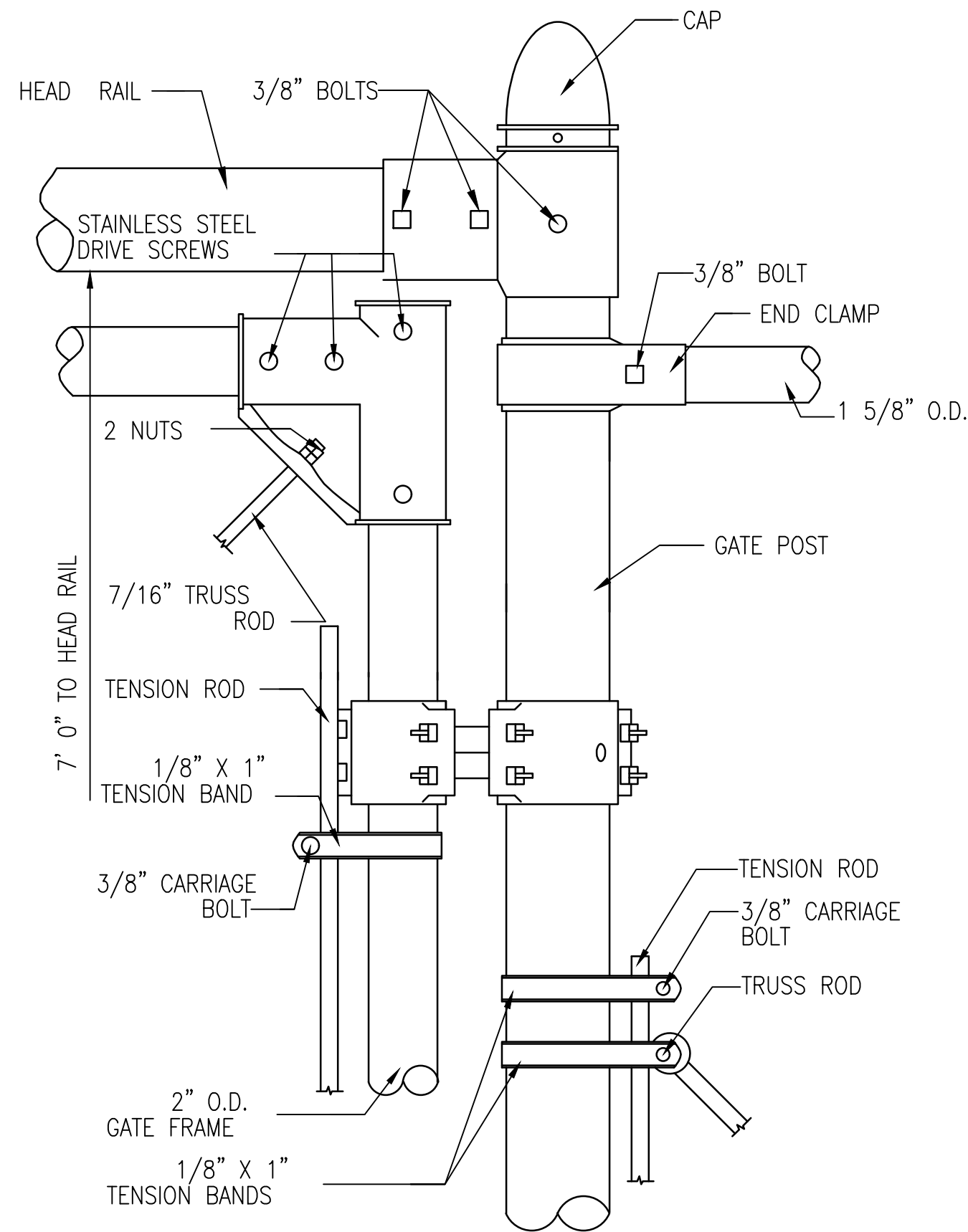
**SLIP FITTING
SECTION**
SCALE: 3" = 1'-0"



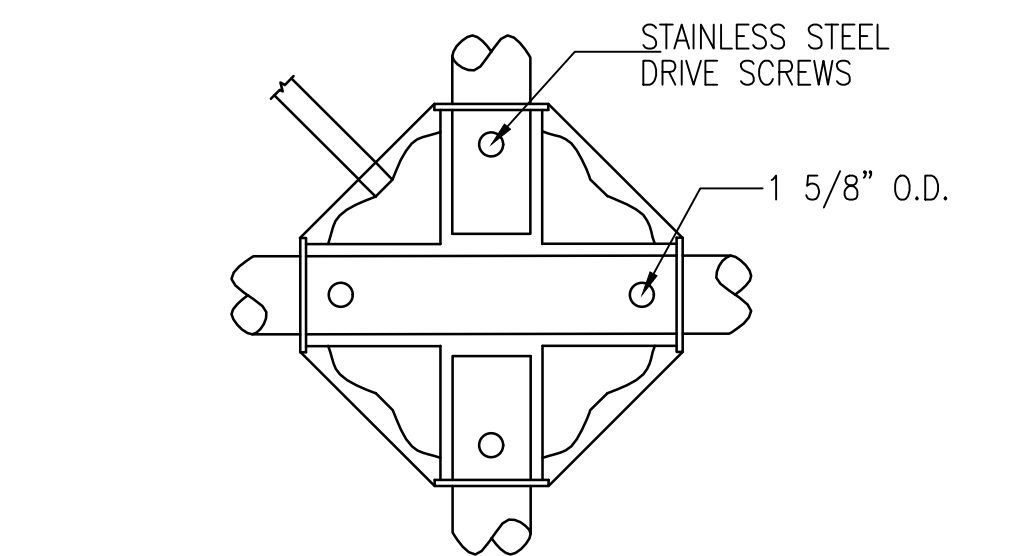
**TENSION MEMBERS
PLAN**
SCALE: 3" = 1'-0"



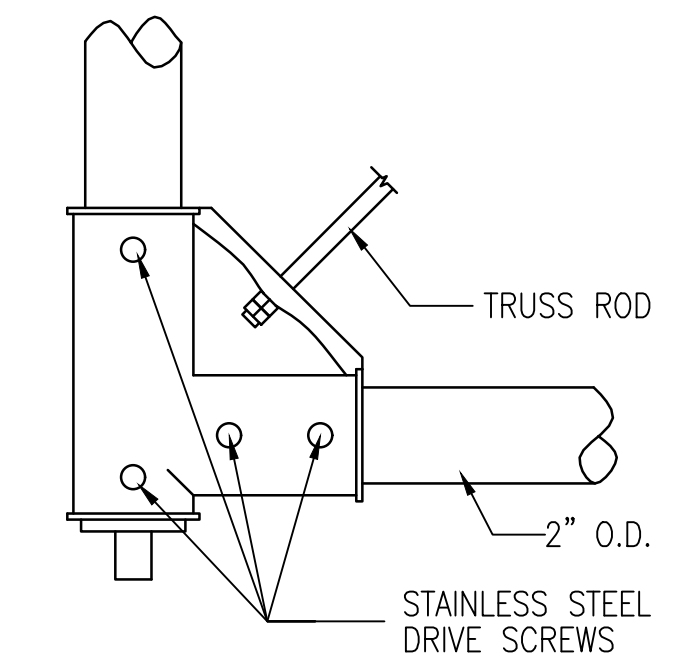
**GATES WITH SLIP FITTINGS
DETAIL 2**
SCALE: 3" = 1'-0"



**GATES WITH SLIP FITTINGS
DETAIL 5**
SCALE: 3" = 1'-0"



**GATES WITH SLIP FITTINGS
DETAIL 7**
SCALE: 3" = 1'-0"



DETAIL 6
SHOE SIMILAR TO GATE STOP 'A'

CHAIN LINK FENCE SIZES OF MEMBERS

8'-0"	HEIGHT OF FENCE
2'-7/8"	DIAMETER OF LINE POSTS
10'-0"	SCHEDULE 40 HIGH STRENGTH POST SPACING MAXIMUM
2'-7/8"	CORNER & END POST
1'-5/8"	TOP RAIL
1'-5/8"	MID RAIL
1'-5/8"	BOTTOM RAIL
3'-0"	LINE POST FOOTING DEPTH
3'-0"	END/CORNER/GATE POST FOOTING DEPTH
10 1-5/8"	HORIZONTAL BRACES @ CORNER & END POSTS
1/2"	DIAGONAL BRACES

FABRIC WIDTHS

8'-0"	HEIGHT OF FENCE
8'-0"	WIDTH OF BOTTOM FABRIC

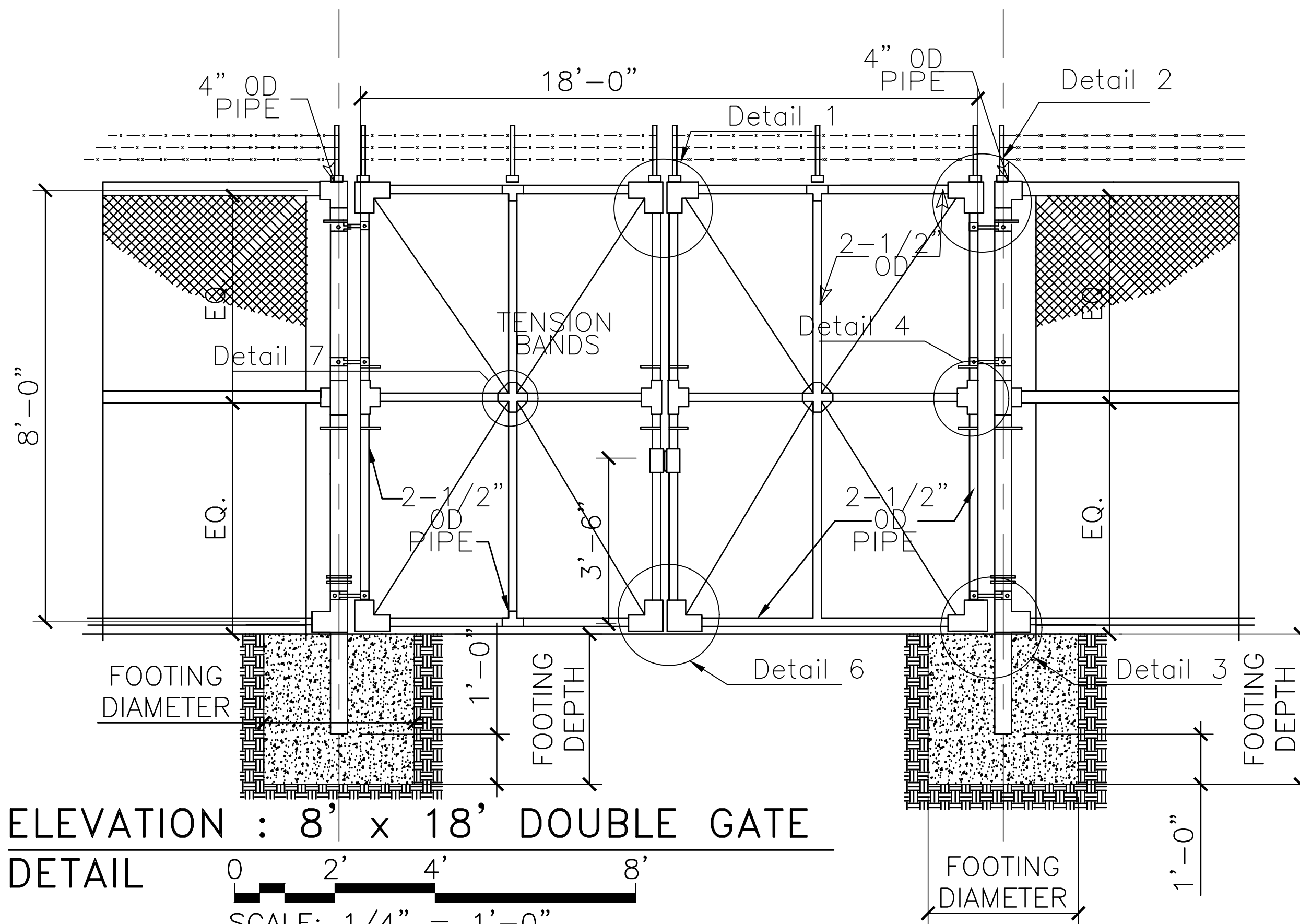
BARB WIRE
(3) STANDS OF BARBED WIRE, EACH CONSISTING OF 2 STRAND LINE WIRE W/4PT BARBS

PIPE SCHEDULE

NOMINAL OUTSIDE DIAMETER	ACTUAL OUTSIDE DIAMETER
1-5/8"	1.660
1-7/8"	1.900
2"	2.000
2 7/8"	2.875
3"	3.000
3 1/2"	3.500
4"	4.000
4 1/2"	4.500

- NOTES**
1. PEEN END OF ALL BOLTS.
 2. BOLTS WHICH ARE INSTALLED 6" OR LESS ABOVE GRADE SHALL NOT PROTRUDE MORE THAN 1/2" BEYOND THE NUT AFTER TIGHTENING. ALL ROUGH EDGES SHALL BE FILED SMOOTH TO THE SATISFACTION OF THE AUTHORITY.
 3. FABRIC TO BE KNUCKLED AT TOP AND BOTTOM OF RAILS ON FENCES UP TO AND INCLUDING 8'-0" HIGH.
 4. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS (INDICATING POST LOCATIONS) & ELEVATIONS OF MEMBERS & FABRIC FOR APPROVAL FROM ARCHITECT PRIOR TO FABRICATION & INSTALLATION.
 5. ALL POSTS AND RAILS TO BE HOT DIP GALVANIZED IN ACCORDANCE WITH SPECIFICATIONS.
 6. DIAGONAL TRUSS RODS ARE REQUIRED AT EACH END AND CORNER POST.
 7. TURNBUCKLES MUST BE TACK WELDED TO PREVENT LOOSENING.
 8. THE MESH SHALL BE PLACED ON THE OUTSIDE OF THE FENCE POSTS OF ALL EXTERIOR CHAIN LINK FENCES.
 9. CHAIN LINK FABRIC MESH SHALL BE 9 GAUGE, MESH SIZE 2".

- NOTES:**
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**ELEVATION : 8' x 18' DOUBLE GATE
DETAIL**
SCALE: 1/4" = 1'-0"

HEIGHT OF FENCE	POST SPACE MAX	GATE POST	HORIZ BRACE AT GATE POST	SIZE OF GATE MEMBERS	HORIZ BRACE ON GATE	SWING GATE SIZE	HEAD RAIL	DEPTH OF POST-FOOTING	DIAMETER OF POST-FOOTING
8'-0"	8'-0"	4"	1'-1 1/2"	2 1/2"	1'-1 1/2"	9'-0" WIDE HT OF FENCE	0	6'-4"	3'-0"

02 TYPICAL GATE ELEVATION
SCALE: 3" = 1'-0"

SCHEDULE OF MEMBER SIZES



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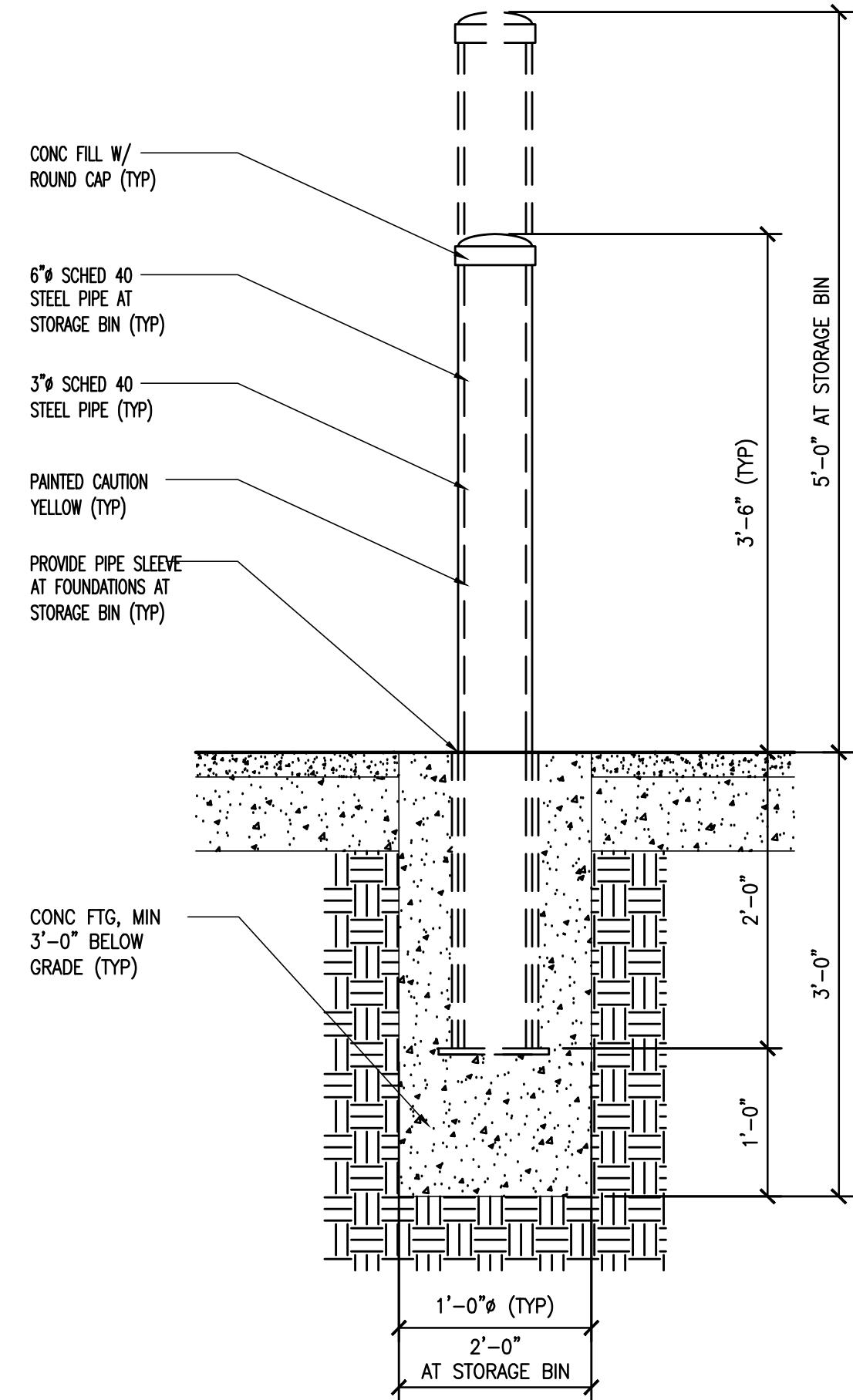
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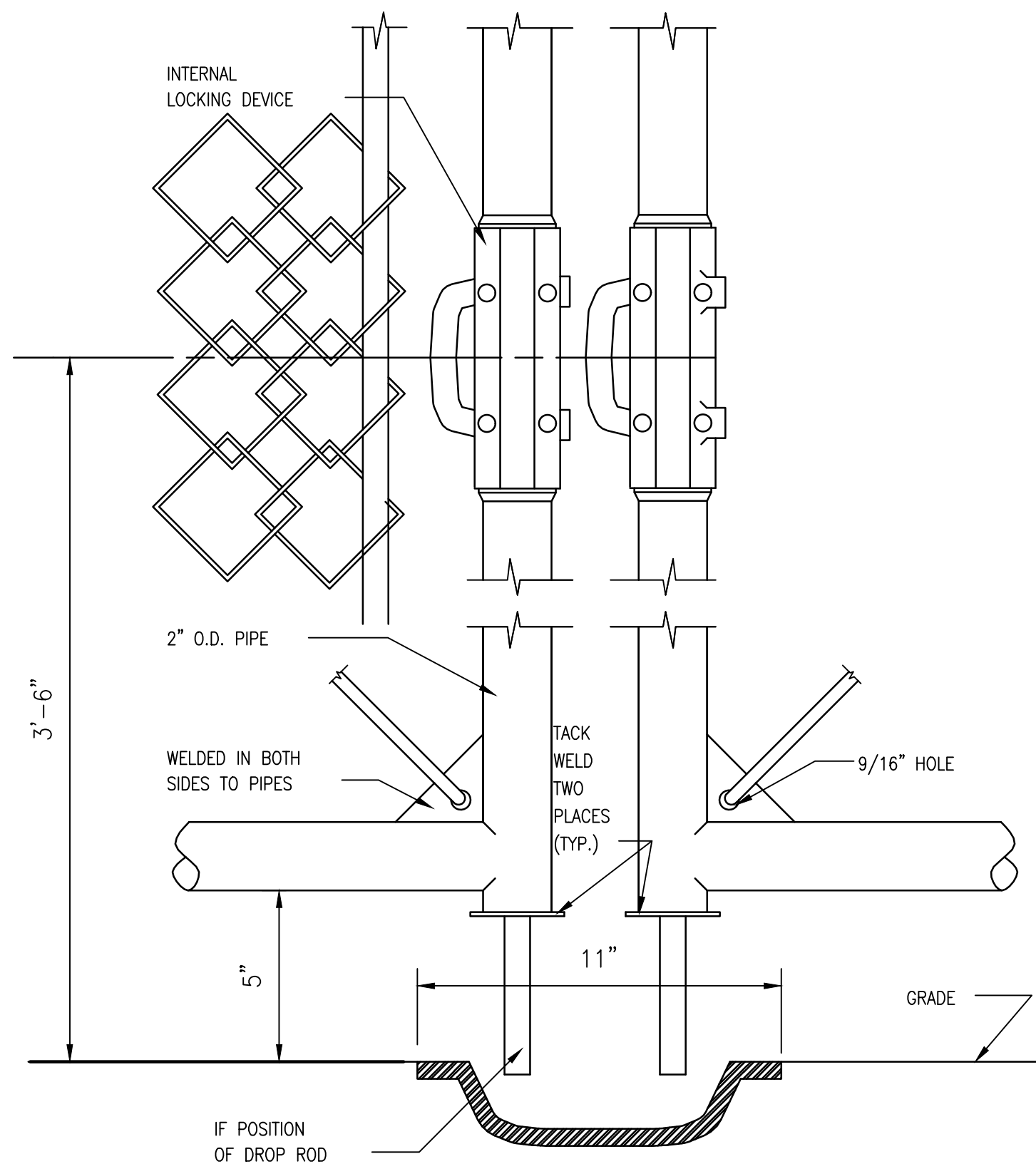
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CHAIN LINK GATE & GATE DETAILS
A031.00

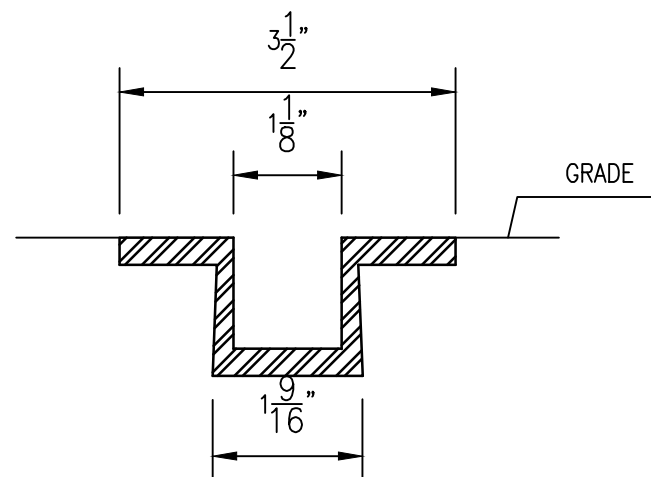
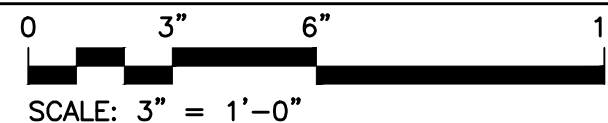
01 GATE DETAILS
SCALE: 3" = 1'-0"



03 TYPICAL BOLLARD DETAIL
SCALE: 1" = 1'-0"

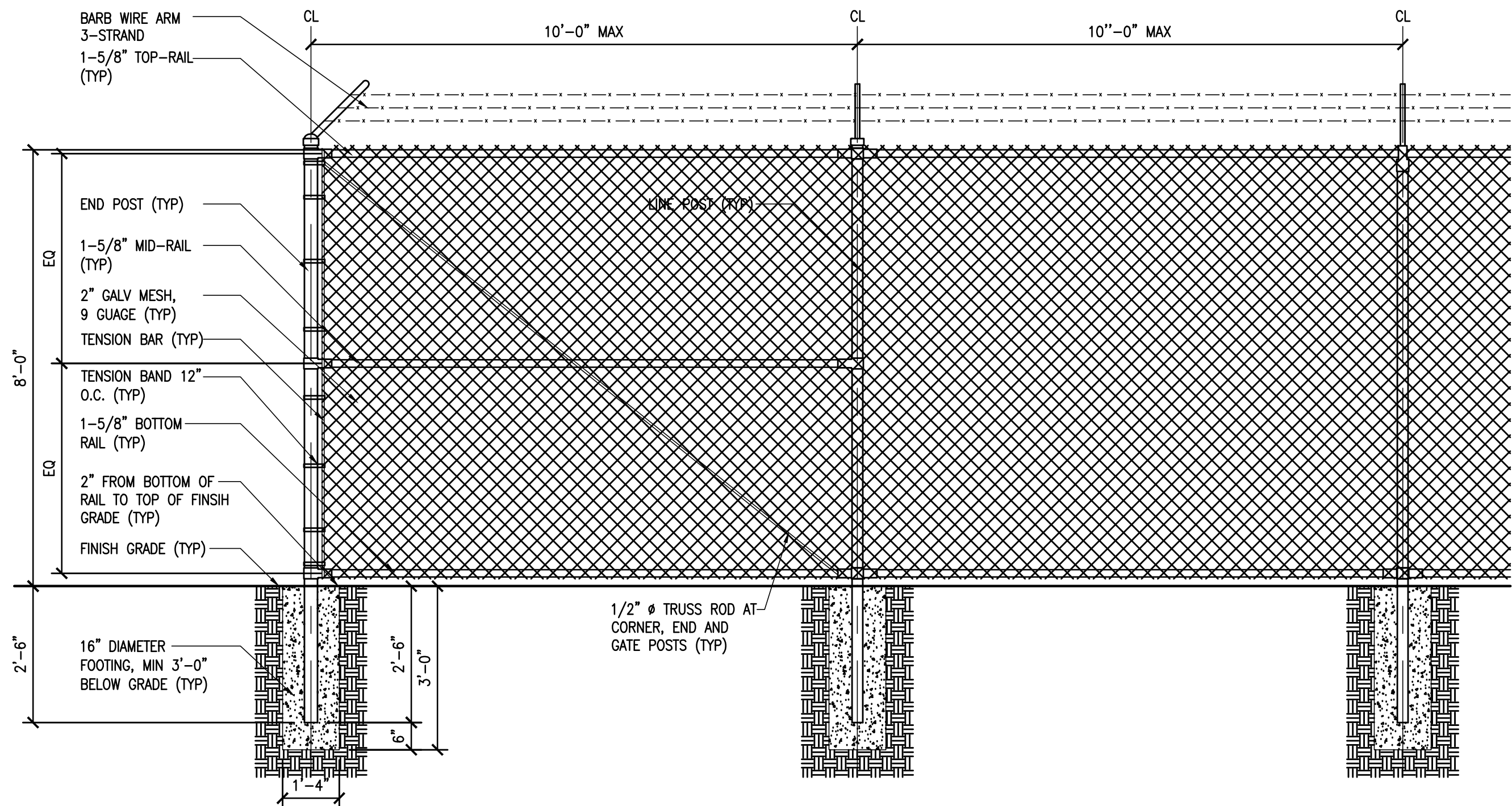


OPTION-WELDED GATE CONSTRUCTION
DETAIL

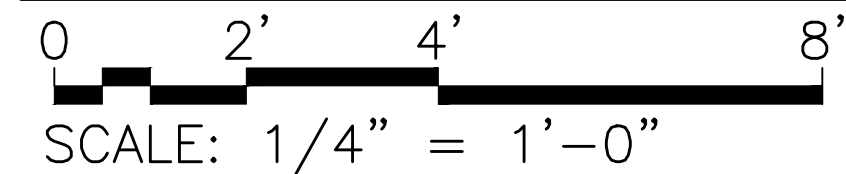


LOCKING DEVICE
DETAIL

NOTE: LOCKING DEVICE SHALL BE CYCLONE FENCE
U.S.S. CORP. (OR APPROVED EQUAL ENCLOSED DEVICE)



FENCE ELEVATION DETAIL: 8' HIGH



CHAIN LINK FENCE SIZES OF MEMBERS	
8'-0"	HEIGHT OF FENCE
2-7/8"	DIAMETER OF LINE POSTS
10'-0"	SCHEDULE 40 HIGH STRENGTH POST SPACING MAXIMUM
2-7/8"	CORNER & END POST
1-5/8"	TOP RAIL
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3'-0"	LINE POST FOOTING DEPTH
3'-0"	END/CORNER/GATE POST FOOTING DEPTH
1@ 1-5/8"	HORIZONTAL BRACES @ CORNER & END POSTS
1/2"	DIAGONAL BRACES

FABRIC WIDTHS	
8'-0"	HEIGHT OF FENCE
8'-0"	WIDTH OF BOTTOM FABRIC

BARB WIRE
(3) STANDS OF BARBED WIRE, EACH
CONSISTING OF 2 STRAND LINE WIRE W/4PT BARBS

NOMINAL OUTSIDE DIAMETER	ACTUAL OUTSIDE DIAMETER
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- NOTES:
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 2. 500 YEAR FLOOD ELEVATION = 155.24'
 3. FHA ELEVATION 153.9'
 4. FINISHED GRADES AT BUILDING ARE MORE THAN 1'-0" ABOVE 100-YEAR FLOOD ELEVATION.



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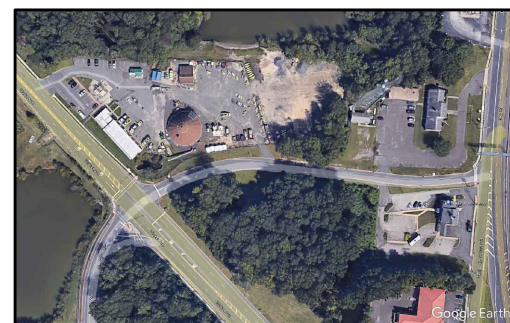
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Project:

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Key Plan



Revisions

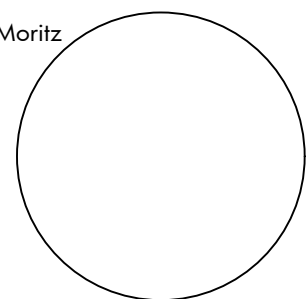
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12/22/21	DESIGN DEVELOPMENT
01/22/24	FINAL DESIGN

Seal & Signature

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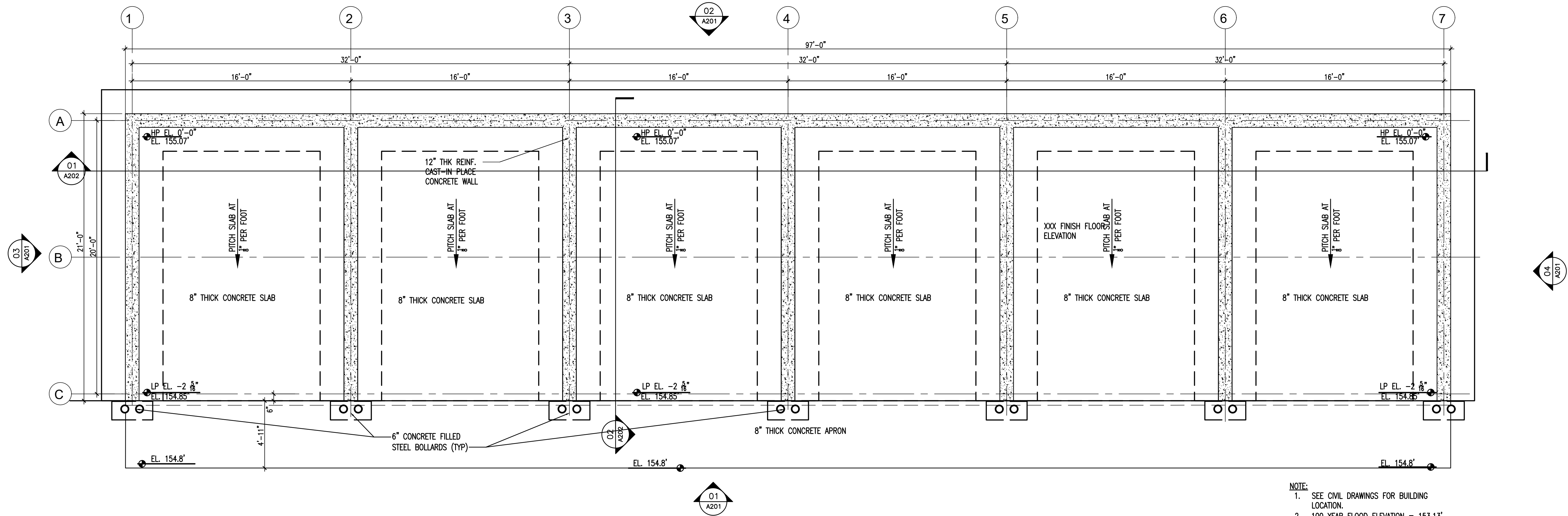


Drawing Title:

CHAIN LINK FENCE &
DETAILS

Sheet:

Drawing Number:
A032.00



01 STORAGE BIN FLOOR SLAB PLAN
SCALE: 1/4" = 1'-0"

- NOTE:
1. SEE CIVIL DRAWINGS FOR BUILDING LOCATION.
 2. 100 YEAR FLOOD ELEVATION = 153.13'
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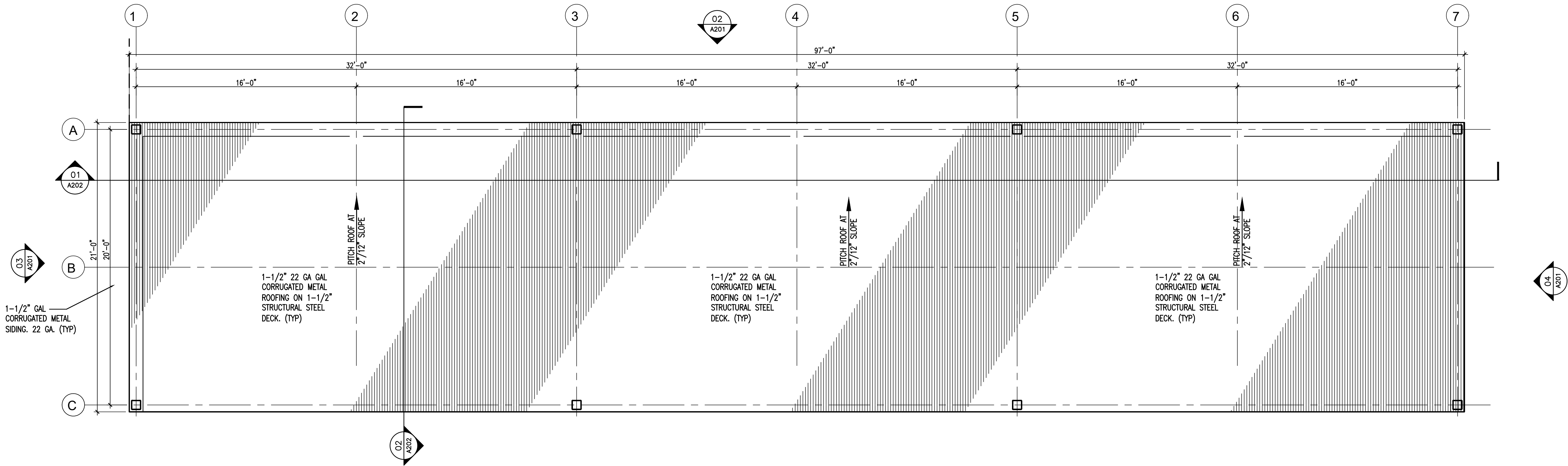


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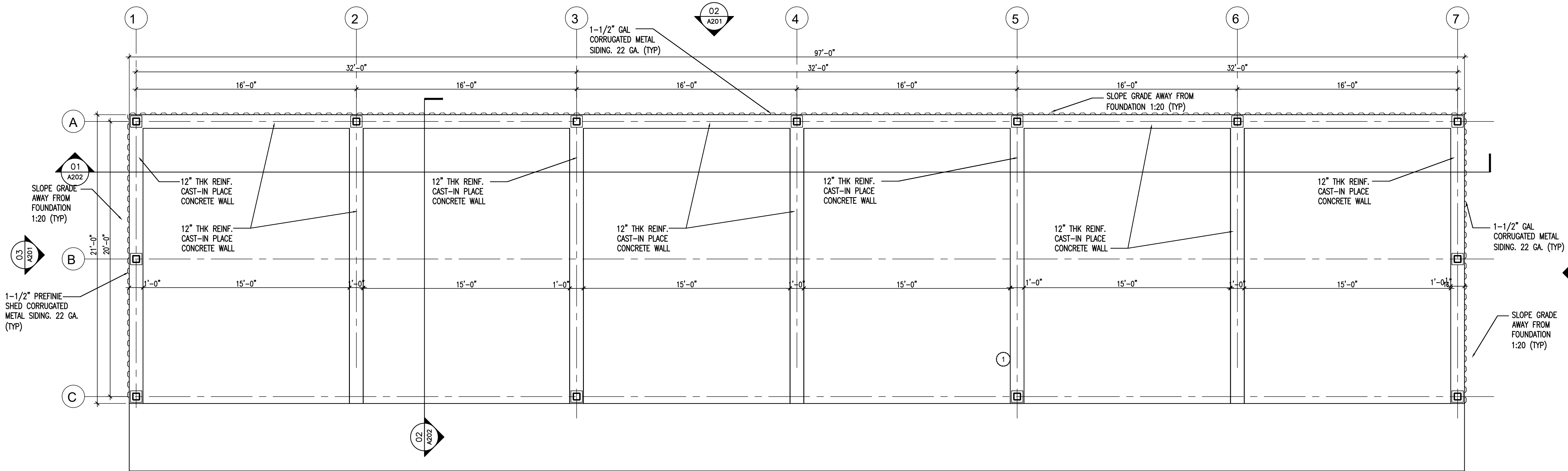
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Drawing Title:
**STORAGE BIN SLAB
PLAN**
Drawing Number:
A101.00



01 STORAGE BIN ROOF PLAN
SCALE: 1/4" = 1'0"



02 STORAGE BIN FIRST FLOOR PLAN
SCALE: 1/4" = 1'0"



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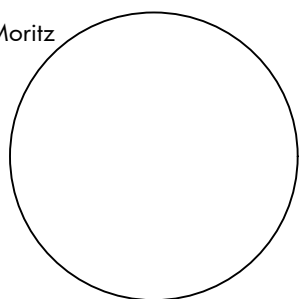
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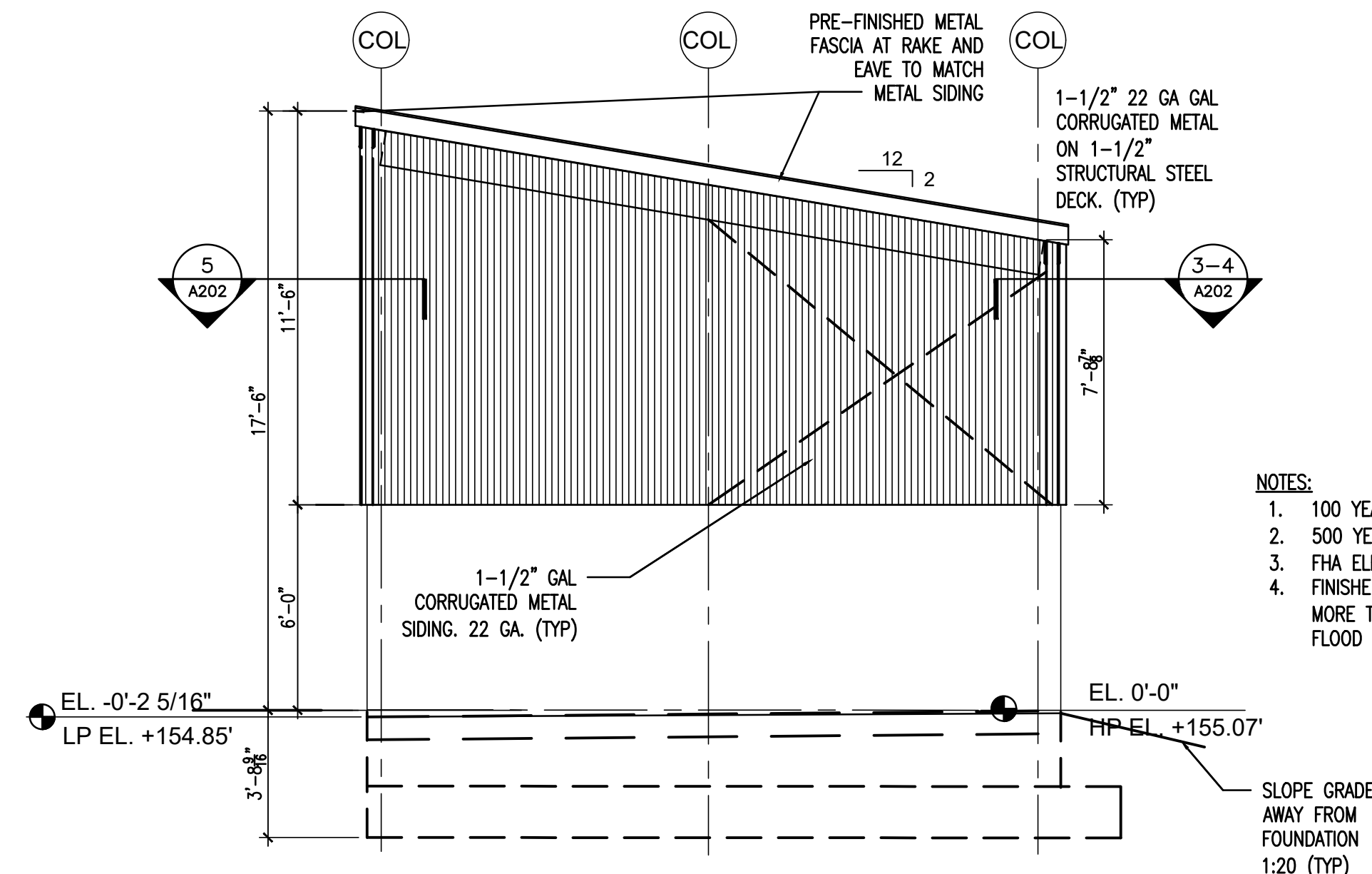
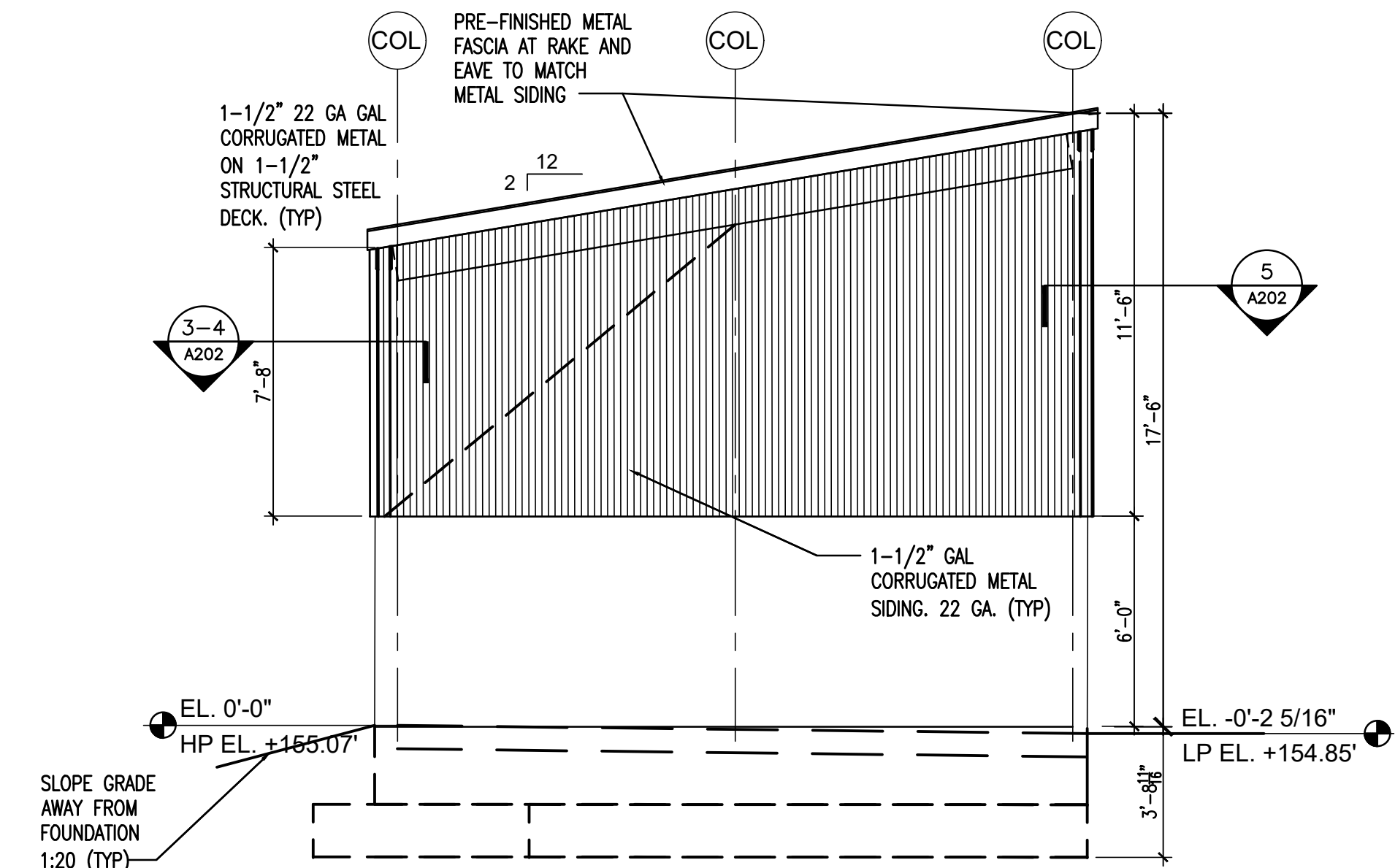
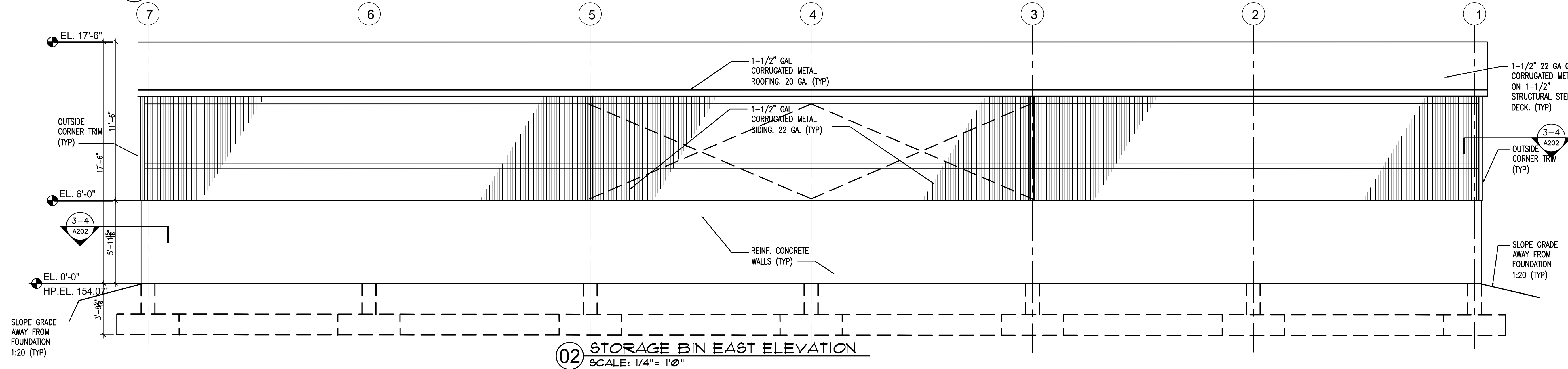
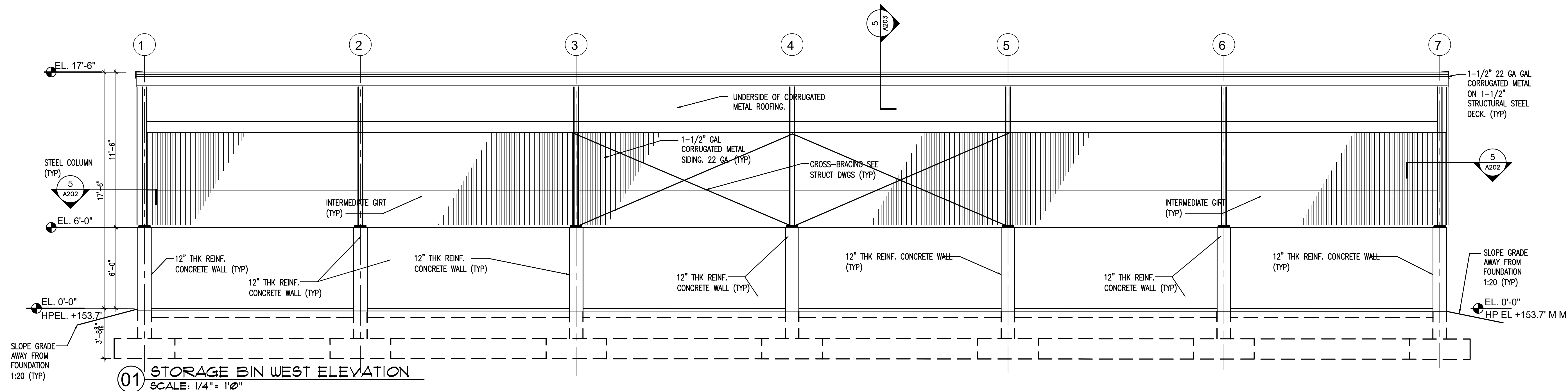
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12/22/21	DESIGN DEVELOPMENT
01/22/24	FINAL DESIGN

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Drawing Title:
**STORAGE BIN FIRST
FLOOR & ROOF PLANS**

Sheet:
A102.00



- NOTES:
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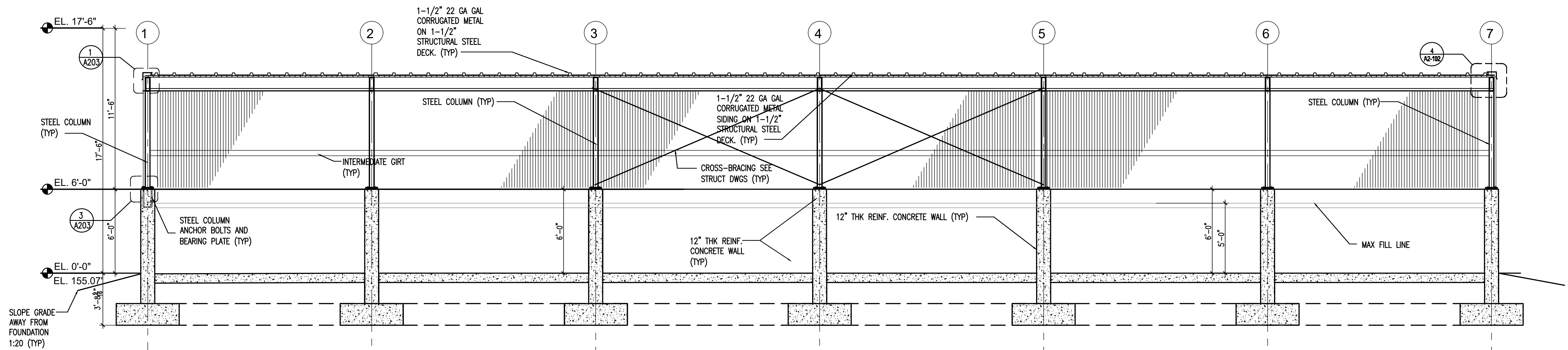


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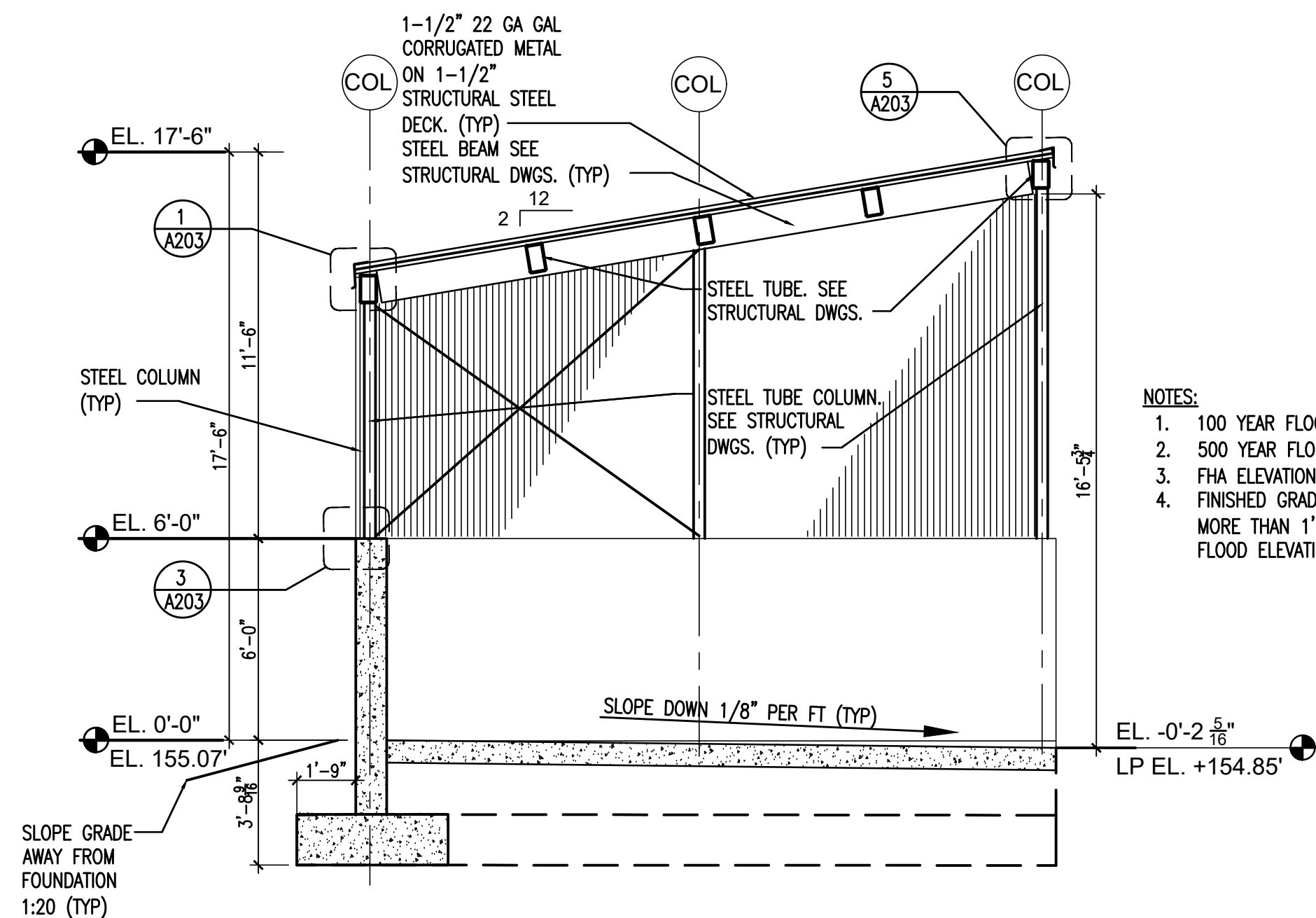
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Drawing Title
**STORAGE BIN
ELEVATIONS**
Drawing Number
A201.00

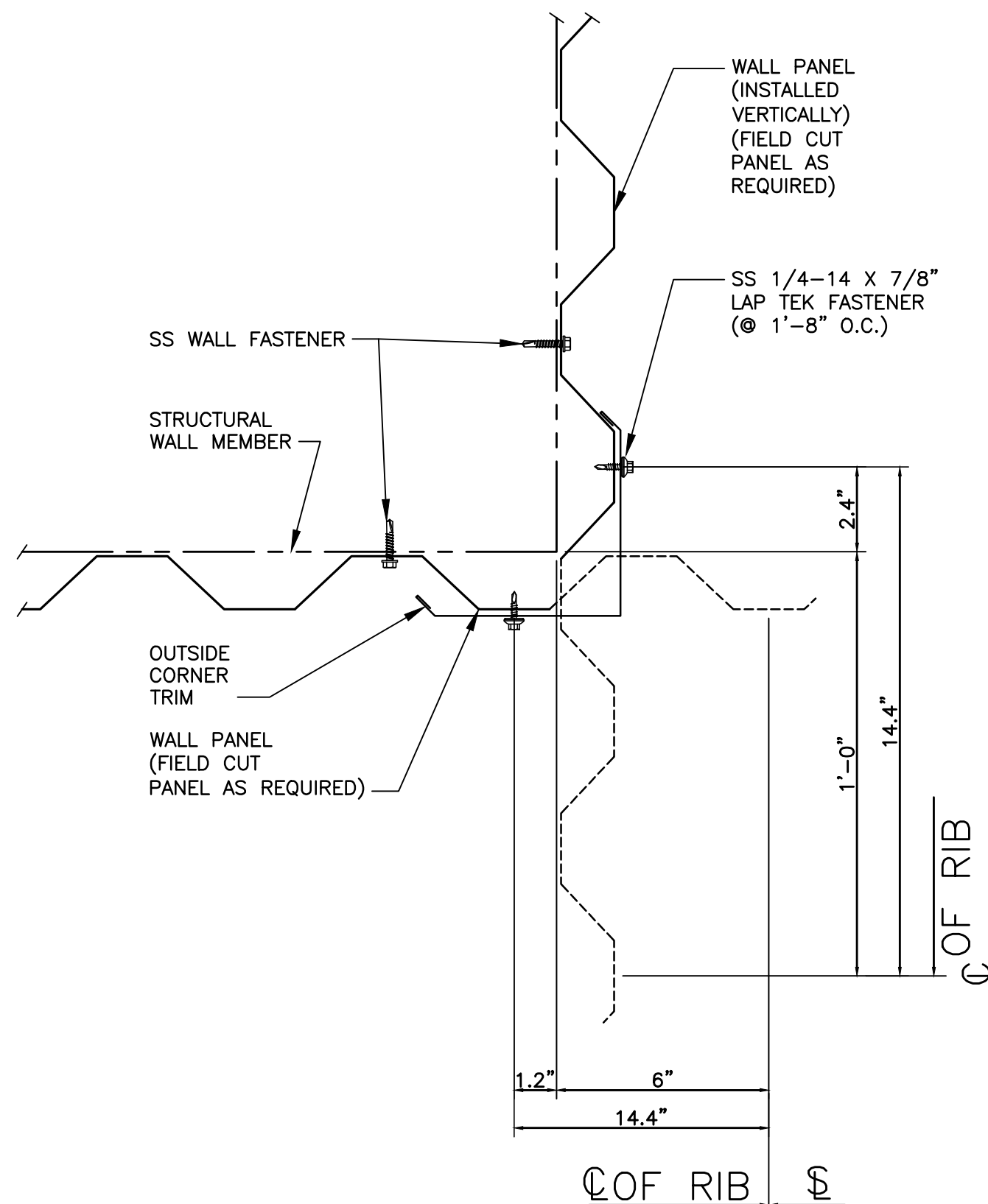


01 STORAGE BIN SECTION
SCALE: 1/4" = 1'-0"

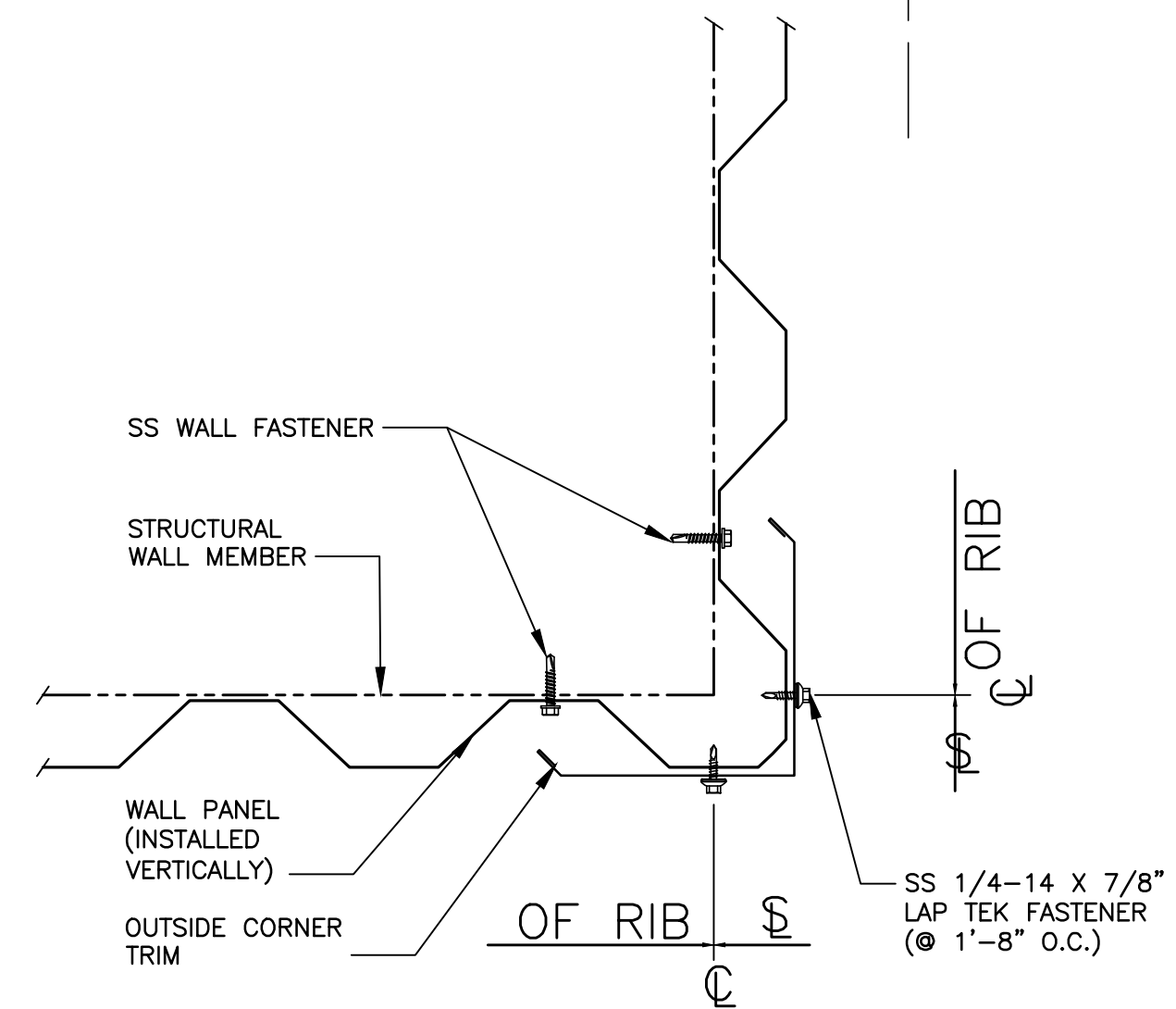


02 STORAGE BIN SECTION
SCALE: 1/4" = 1'-0"

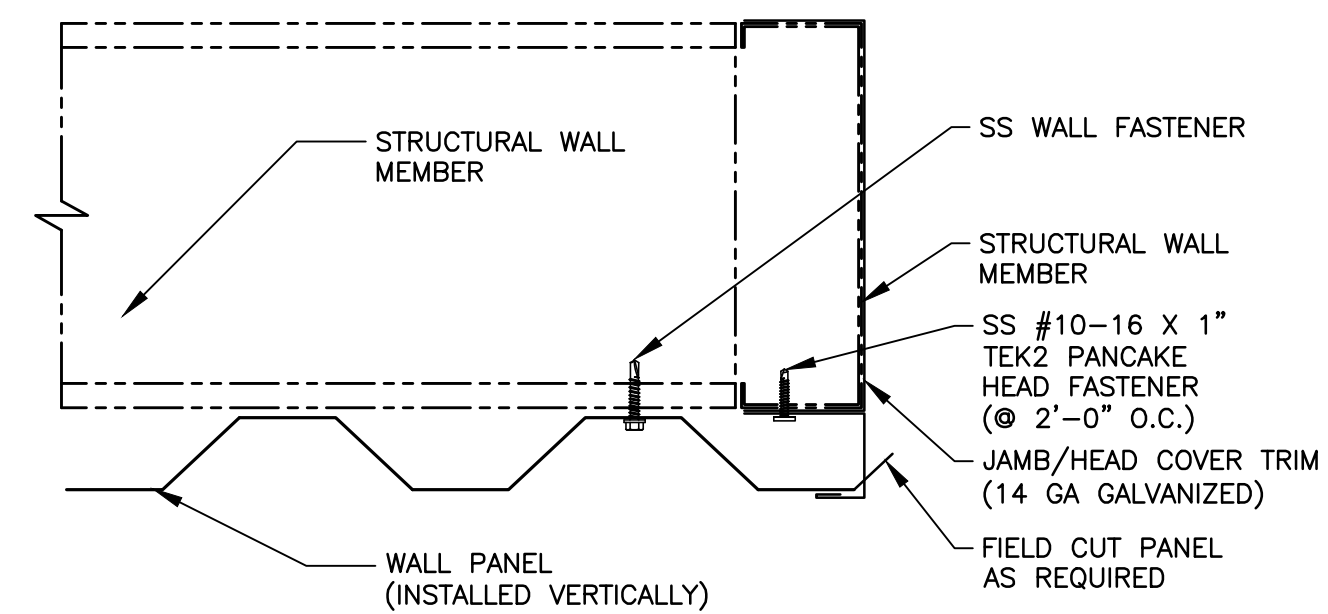
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03 CORNER DETAIL (OFF MODULE)
SCALE: 3" = 1'-0"



04 CORNER DETAIL (ON MODULE)
SCALE: 3" = 1'-0"



05 JAMB DETAIL
SCALE: 3" = 1'-0"

- NOTES:
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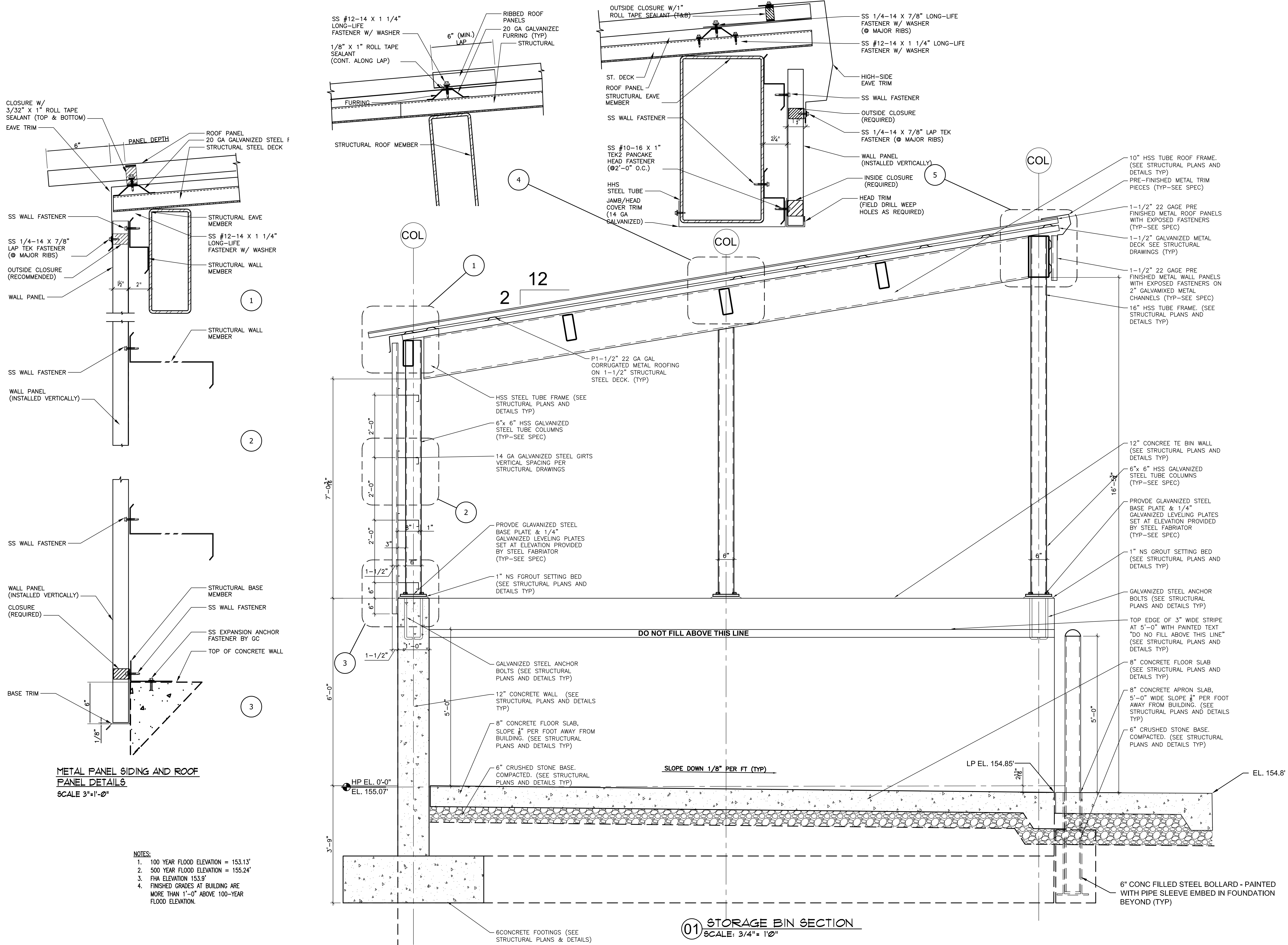
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Issued Documents	
Date:	Description:
11/18/21	SCHEMATIC DESIGN
12/22/21	DESIGN DEVELOPMENT
01/22/24	FINAL DESIGN

Seal & Signature
Michael A. Moritz

Drawing Title
STORAGE BIN CROSS SECTIONS

Drawing Number:
A202.00



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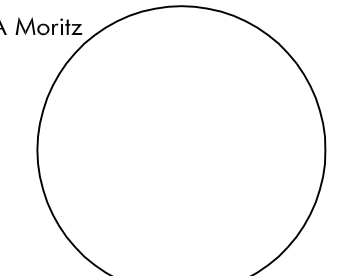
Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:
**T0617-00 West Berlin
Storage Bin Installation
50 Walker Avenue
West Berlin Maintenance Yard,
Camden, New Jersey**



Revisions		
Date:	Description:	No.

Issued Documents	
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11/18/21	SCHEMATIC DESIGN
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Seal & Signature
Michael A Moritz


Drawing Title
STORAGE BIN SECTION

Sheet:	Drawing Number: A203.00
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NOTES & SPECIFICATIONS

GENERAL:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
a. PROJECT GOVERNING CODE(S) AND STANDARDS.
b. DRAWINGS.
c. SPECIFICATIONS.
2. THE STRUCTURAL DRAWINGS ARE INTENDED TO WORK WITH AND BE COMPLEMENTARY TO THE PROJECT SPECIFICATIONS/ARCHITECTURAL DRAWINGS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. IF CERTAIN DETAILS OF THE CONSTRUCTION ARE NOT FULLY SHOWN OR NOTED ON DRAWINGS, THEIR CONSTRUCTION SHALL BE OF THE SAME TYPE AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR NOTED, SUBJECT TO THE STRUCTURAL ENGINEER'S APPROVAL.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE COMMENCING WITH THE WORK AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES WITH THE INFORMATION SHOWN ON THE DRAWINGS.
5. THE CONTRACTOR SHALL USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, SITE/CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, AND ALL OTHER RELEVANT CONSULTANT DRAWINGS.
6. REFER ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
a. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGE IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC., EXCEPT AS SHOWN.
b. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN.
c. FLOOR AND ROOF FINISHES.
d. EDGE OF SLAB LOCATIONS AROUND THE PERIMETER AND AT INTERIOR OPENINGS, EXCEPT AS SHOWN.
e. DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
f. FIREPROOFING.
g. WATERPROOFING.
h. MISCELLANEOUS STEEL REQUIRED FOR SUPPORT OF ARCHITECTURAL ELEMENTS.
7. REFER MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR THE FOLLOWING:
a. PIPE RUNS, SLEEVES, HANGERS, TRENCHES EXCEPT AS SHOWN OR NOTED.
b. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS. CONDUITS SHALL NOT BE CAST IN CONCRETE MEMBERS UNLESS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS.
c. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES. SIZE AND LOCATION OF EQUIPMENT PADS AND EQUIPMENT ANCHORAGE EXCEPT AS SHOWN OR NOTED.
d. ALL LIGHTNING PROTECTION AND/OR GROUND/EARTHING REQUIREMENTS INCLUDING ANY ASSOCIATED ITEMS EMBEDDED IN OR ATTACHED TO STRUCTURE.
8. VERIFY AND COORDINATE ALL OPENINGS, EQUIPMENT PADS, SLEEVES, AND INSERTS WITH REVIEWED SUBMITTALS, AND NOTIFY THE STRUCTURAL ENGINEER USING HIGHLIGHTED DRAWINGS PRODUCED TO SCALE WHERE THESE DEViate IN SIZE OR LOCATION FROM THE STRUCTURAL DRAWINGS.
9. OPENINGS, POCKETS, ETC., LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC. LARGER THAN 6" WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT WHICH ARE IN STRUCTURAL MEMBERS.
10. DEPRESSIONS IN SLABS SHALL NOT BE PLACED UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW DEPRESSIONS WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT WHICH ARE IN STRUCTURAL SLABS.
11. ALL SUSPENDED LOADS (MEP SYSTEMS, ETC.) EXCEEDING 400 POUNDS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION UNLESS SPECIFICALLY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SUBMIT ONE COMPOSITE PLAN PER FLOOR LEVEL WHICH INCLUDES ALL POINT LOADS OF ALL TRADES. ALL LOADS EXCEEDING 100 POUNDS SHALL BE INCLUDED IN THOSE PLANS.
12. THE INFORMATION SHOWN FOR NON-STRUCTURAL ELEMENTS/FINISHES IS GIVEN FOR REFERENCE ONLY, THE CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR THIS INFORMATION.
13. SCALES NOTED ON STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY SCALING FROM THE DRAWINGS. THE CONTRACTOR SHALL VERIFY DIMENSIONS NOT NOTED WITH THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
14. CLADDING/FAÇADE CONNECTIONS TO THE STRUCTURE SHALL NOT INTRODUCE TORSION AND UNACCEPTABLE LOAD ECENTRICITIES TO STRUCTURAL MEMBERS. SUCH CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER WHO MAY REQUIRE ADDITIONAL BRACING TO BE PROVIDED BY THE CLADDING/FAÇADE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE FOR A SAFE AND EFFICIENT METHOD OF SHORING AND BRACING THE STRUCTURE DURING ALL CONSTRUCTION PHASES. ALL SHORING AND BRACING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. SUBMIT AN OUTLINE OF PROPOSED PROCEDURE AND ITS IMPACT ON THE BUILDING STRUCTURE FOR RECORD TO THE ARCHITECT/ENGINEER OF RECORD BEFORE PROCEEDING WITH WORK.
16. WHERE DETAILS FOR SPECIFIC CONDITIONS ARE NOT SHOWN ON THESE DRAWINGS, USE DETAILS FOR THE MOST NEARLY SIMILAR CONDITIONS SHOWN ON THE STRUCTURAL DRAWINGS AS DETERMINED BY THE STRUCTURAL ENGINEER OF RECORD. REPORT ANY COORDINATION ISSUES IMMEDIATELY AS AN RFI FOR REVIEW.
17. ALL WORK SHALL BE MONITORED AND INSPECTED BY DPMC PREQUALIFIED INDEPENDENT TESTING AND INSPECTIONS AGENCY ARRANGED AND PAID FOR BY THE CONTRACTOR TO CARRY OUT ALL REQUIRED TESTING AND INSPECTION WORK IN CONFORMANCE WITH THE PROJECT STATEMENT OF SPECIAL INSPECTIONS AND ALL GOVERNING LOCAL CODES. SUBMIT ALL TESTING AND INSPECTION REPORTS IN PDF FORMAT TO THE ARCHITECT/ENGINEER OF RECORD FOR REVIEW.
18. STRUCTURAL MEMBERS SHALL NOT BE MODIFIED, NO CUTS, NOTCHES, ETC. WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD. ANY ANTICIPATED MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS MUST BE SUBMITTED TO THE ARCHITECT/ENGINEER OF RECORD AS AN RFI FOR REVIEW AND COMMENT.
19. IN THE EVENT OF A CONSTRUCTION OR FABRICATION ERROR, THE CONTRACTOR SHALL PREPARE A SKETCH AND CALCULATIONS, PREPARED BY AN ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED, DOCUMENTING THE PROPOSED CORRECTIVE ACTION AND SUBMIT IT TO THE ARCHITECT/ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO PERFORMING ANY CORRECTIVE WORK. STRUCTURAL WORKSHOP, LLC. WILL NOT CERTIFY ANY UNAUTHORIZED DEVIATIONS TO THE CONSTRUCTION DOCUMENTS.
20. PRIOR TO REQUESTING A SITE VISIT BY STRUCTURAL WORKSHOP, LLC. FOR OBSERVATION OF A COMPLETED STAGE OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A STATEMENT TO THE ARCHITECT/ENGINEER OF RECORD THAT ALL WORK HAS BEEN COMPLETED IN CONFORMANCE WITH THE STRUCTURAL CONTRACT DRAWINGS AND REVIEWED SHOP DRAWINGS WITHOUT EXCEPTION, OR HAS BEEN PERFORMED WITH FORMAL WRITTEN EXCEPTIONS ORIGINATING FROM OR AUTHORIZED BY STRUCTURAL WORKSHOP, LLC.
21. PRIOR TO RELEASE OF THE FINAL PROJECT CERTIFICATION TO THE BUILDING OFFICIAL, STRUCTURAL WORKSHOP, LLC. REQUIRES A LETTER FROM THE CONTRACTOR'S PROJECT EXECUTIVE IN RESPONSIBLE CHARGE STATING THAT ALL WORK INDICATED ON THE STRUCTURAL DRAWINGS HAS BEEN PERFORMED WITHOUT EXCEPTION OR WAS PERFORMED WITH FORMAL WRITTEN EXCEPTIONS ORIGINATING FROM OR AUTHORIZED BY STRUCTURAL WORKSHOP, LLC. IN ADDITION, STRUCTURAL WORKSHOP, LLC. REQUIRES A LETTER FROM THE PRINCIPAL OF THE TESTING AND INSPECTIONS AGENCY CERTIFYING THAT ALL TESTING AND INSPECTIONS WORK HAS BEEN COMPLETED IN CONFORMANCE WITH THE PROJECT STATEMENT OF SPECIAL INSPECTIONS AND THAT ALL STRUCTURAL NONCONFORMANCE CONDITIONS FOUND HAVE BEEN BROUGHT INTO CONFORMANCE WITH THE PROJECT STRUCTURAL REQUIREMENTS PRIOR TO PROJECT COMPLETION.
22. ALL TRADE CONTRACTORS SHALL SUBMIT SHOP AND ERECTION DRAWINGS AS WELL AS

PRODUCT DATA (COLLECTIVELY KNOWN HEREIN AS "SHOP DRAWINGS") FOR REVIEW PRIOR TO PROCEEDING WITH FABRICATION AND/OR CONSTRUCTION. REFER SHOP DRAWINGS AND SUBMITTAL/RFI'S NOTES.

23. ALL ARCHITECTURAL WALL SYSTEMS AND FAÇADE ELEMENTS AND COMPONENTS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE WHERE THE PROJECT OCCURS. SHOP DRAWINGS AND CALCULATIONS, STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT OCCURS, SHALL BE SUBMITTED FOR REVIEW.
24. THE CONTRACTORS SHALL INCLUDE, IN THE BASE CONTRACT, THE COSTS TO EMBED ALL NECESSARY STEEL ELEMENTS AND COMPONENTS FOR ALL ARCHITECTURAL WALL SYSTEMS.
25. DRAWING DATED LATER SUPERSEDE ALL PREVIOUSLY DATED DRAWINGS. THE DRAWINGS OF RECORD ARE THE LATEST DATED HARD COPY MAINTAINED AT THE OFFICES OF STRUCTURAL WORKSHOP, LLC. DRAWINGS TRANSMITTED ELECTRONICALLY ARE A COURTESY ONLY. STRUCTURAL WORKSHOP, LLC. IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO ELECTRONICALLY TRANSMITTED DRAWINGS AFTER THEY LEAVE OUR OFFICE. STRUCTURAL WORKSHOP, LLC. BEAR NO RESPONSIBILITY FOR ANY CLAIMS MADE DUE TO USE OR SUBMISSION OF DRAWINGS WE HAVE ELECTRONICALLY TRANSMITTED AS A COURTESY. THE LATEST DATED HARD COPY ON RECORD AT THE OFFICES OF STRUCTURAL WORKSHOP, LLC. SUPERCEDE ANY AND ALL ELECTRONICALLY SUBMITTED DRAWINGS.

CODES AND STANDARDS:

1. WHERE CODES AND STANDARDS ARE REFERENCED IN THE CONTRACT DOCUMENTS, THEY SHALL BE THE LATEST ADOPTED EDITIONS, UNLESS NOTED OTHERWISE.
2. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF 2021 INTERNATIONAL BUILDING CODE (IBC) NJ EDITION INCLUDING REFERENCE STANDARDS, ADDENDA, AND APPENDICES.
3. IN ADDITION, THE FOLLOWING CODES, STANDARDS, AND SPECIFICATIONS SHALL APPLY WERE MORE STRINGENT AND AS MODIFIED BY THE BUILDING CODE:
a. IBC 2021 NJ EDITION.
b. ASCE7-16: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
c. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.
d. AISI: 360-16 STEEL CONSTRUCTION MANUAL, 15TH EDITION.
4. THE ASTM STANDARDS REFERRED TO IN THE DRAWINGS AND SPECIFICATIONS AND USED IN DESIGN ARE THOSE INCLUDED AS REFERENCED STANDARDS TO THE PROJECT GOVERNING CODE(S). WHERE AN ASTM STANDARD HAS SUBSEQUENTLY BEEN REVISED, CONSTRUCTION SHALL COMPLY WITH BOTH THE LATEST EDITION OF THAT STANDARD AND THE EDITION OF THAT STANDARD REFERENCED IN DESIGN. WHERE IT IS NOT POSSIBLE TO SATISFY THE REQUIREMENTS OF BOTH EDITIONS OF THE STANDARDS DUE TO A CONFLICT BETWEEN THEM, NOTIFY THE ARCHITECT AND ENGINEER BEFORE PROCEEDING.

SHOP DRAWINGS/SUBMITTALS AND RFI'S:

1. THE SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE LATEST EDITION OF THE CODE OF STANDARD PRACTICE FOR EACH RESPECTIVE TRADE-IN CONJUNCTION WITH ADDITIONAL SHOP DRAWING REQUIREMENTS INDICATED ON THESE DRAWINGS.
2. ALL SHOP DRAWINGS SHALL BE FULLY DEVELOPED BY THE TRADE CONTRACTORS OR BY AGENTS OF THE CONTRACTORS. CAD FILES, PHOTOCOPIES, OR OTHER REPRODUCTIONS OF THE CONTRACT DRAWINGS IN WHOLE OR IN PART SHALL NOT BE USED BY THE TRADE CONTRACTORS OR THEIR AGENTS FOR THE PREPARATION AND DEVELOPMENT OF SHOP DRAWINGS WITHOUT THE EXPRESSED WRITTEN CONSENT OF STRUCTURAL WORKSHOP, LLC.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWING AND CALCULATION (IF ANY) SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, AS REQUIRED BY THE SPECIFICATIONS AND ELSEWHERE ON THE STRUCTURAL DRAWINGS, FOR ENGINEER'S APPROVAL
4. ONLY SHOP DRAWINGS MARKED "REVIEWED", "REVIEWED AS NOTED" OR "REVIEWED AS NOTED RESUBMIT FOR RECORD" MAY BE USED BY CONTRACTOR IN THE WORK.
5. THE CONTRACTOR SHALL PREPARE AND MAINTAIN A SCHEDULE OF ALL SUBMITTALS INCLUDING INTENDED DATES AND NUMBERS OF DRAWINGS TO BE SUBMITTED EVERY WEEK. SUBMITTALS WILL BE REVIEWED IN THE ORDER WHICH THEY ARE RECEIVED. THE CONTRACTOR SHALL PLAN ACCORDINGLY.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS AND COMPONENTS, INCLUDING THOSE DESIGNED BY OTHERS IN ACCORDANCE WITH THE SPECIFICATIONS.
7. ALLOW A MINIMUM OF TEN TO FIFTEEN WORKING DAYS FOR ENGINEER'S REVIEW OF SHOP DRAWINGS. SHOP DRAWINGS SHALL BE DIVIDED INTO GROUPS TO ALLOW FOR REVIEW. IF THE CONTRACTOR SUBMITS SHOP DRAWINGS FOR LARGE AREAS OF THE BUILDING OR MULTIPLE FLOORS AT ONCE, THE ENGINEER WILL DIVIDE THE SUBMITTALS INTO SMALLER PACKAGES AT HIS/HER DISCRETION.
8. ALLOW A MINIMUM OF FIVE WORKING DAYS FOR ENGINEER'S REVIEW OF RFI'S. RFI'S THAT REQUIRES ADDITIONAL ANALYSIS OR DETAILING MAY REQUIRE EXTENDED TIME DEPENDING ON THE SCOPE.
9. SHOP DRAWINGS TO BE COORDINATED WITH AND INCLUDE ITEMS ON ARCHITECTURAL, MECHANICAL, SITE, ETC. DRAWINGS. ANY DISCREPANCIES BETWEEN TRADES SHALL BE CLEARLY MARKED ON SHOP DRAWING.
10. ALL DETAILS TO BE BASED ON THE LATEST STRUCTURAL DRAWINGS. BEFORE COMMENCING DETAILING OR SUBMITTING RFI'S, VERIFY DRAWINGS ARE THE LATEST AND HAVE BEEN RELEASED FOR BIDDING OR CONSTRUCTION. CLEARLY LIST DATES OF REFERENCED STRUCTURAL AND ARCHITECTURAL DRAWINGS ON SUBMISSIONS.
11. REPRODUCTION IN ANY WAY OF STRUCTURAL DRAWINGS OR ELECTRONIC FILES FOR USE AS SHOP DRAWINGS IS FORBIDDEN, UNLESS APPROVED BY THE STRUCTURAL ENGINEER. DRAWINGS TRANSMITTED ELECTRONICALLY ARE A COURTESY ONLY. STRUCTURAL WORKSHOP, LLC. IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO ELECTRONICALLY TRANSMITTED DRAWINGS AFTER THEY LEAVE OUR OFFICE. STRUCTURAL WORKSHOP, LLC. BEAR NO RESPONSIBILITY FOR ANY CLAIMS MADE DUE TO USE OR SUBMISSION OF DRAWINGS WE HAVE ELECTRONICALLY TRANSMITTED AS A COURTESY
12. CONTRACTOR'S AND DETAILER'S NAME, ADDRESS, PHONE NUMBER, JOBNAME, JOB LOCATION, DATE, REVISION DATE, ETC. MUST BE CLEARLY IDENTIFIED ON EACH SHOP DRAWING.
13. FABRICATION DONE PRIOR TO APPROVAL OF SHOP DETAILS IS DONE AT CONTRACTOR'S OWN RISK.
14. SHOP DETAILS WILL NOT BE REVIEWED FOR ANY WORK THAT IS ALREADY FABRICATED OR IN PLACE. THE CONTRACTOR SHALL ASSUME THE RISK OF REMOVING AND/OR RETROFITTING ANY ELEMENT THAT WAS ERECTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORDS.
15. NUMBER AND DATE RFI'S AND CLEARLY IDENTIFY PARTY REQUESTING INFORMATION. SUBMIT ALL RFI'S TO ARCHITECT FOR REVIEW AND SUBMISSION TO ENGINEER. ALL RFI'S TO BE IN WRITING. VERBAL ADVICE OR APPROVALS ARE NOT BINDING UNTIL WRITTEN RFI IS RECEIVED AND APPROVED.
16. ALL REVISIONS TO SHOP DRAWINGS AND ERECTION PLANS AFTER FIRST SUBMISSION MUST BE CLEARLY IDENTIFIED ON SUBSEQUENT SUBMISSIONS BOTH IN THE TITLE BLOCK AND WITH A REVISION CLOUD. ENGINEER WILL ONLY REVIEW CHANGES ON RESUBMISSIONS. DETAILER IS RESPONSIBLE FOR IDENTIFYING ALL CHANGES.
17. ENGINEER WILL ONLY ANSWER RFI'S DIRECTLY RELATED TO CLARIFYING HIS WORK. RFI'S BEYOND THIS SCOPE WILL BE BILLED ON AN HOURLY BASIS.
18. SUBSTITUTIONS OR REVIEW OF ALTERNATE DESIGNS OF STRUCTURAL DRAWINGS WILL BE BILLED ON AN HOURLY BASIS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND GET APPROVAL FOR THE ADDITIONAL SCOPE PRIOR TO SUBMITTING THE WORK AND ENGAGING THE STRUCTURAL ENGINEER OF RECORD.
19. CORRECTIONS, COMMENTS, CLARIFICATIONS, ETC. MADE BY THE ENGINEER DURING SHOP DETAIL REVIEW DOES NOT AUTHORIZE ANY CHANGE IN CONTRACT CONDITIONS, PRICE, OR SCHEDULE.
20. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE WITH CONTRACT DRAWINGS. REVIEW DOES NOT AUTHORIZE ANY CHANGE IN CONTRACT PRICE, CONDITIONS, OR SCHEDULE.

21. INFORMATION GIVEN IN RESPONSE TO QUESTIONS OR RFI'S IS INTENDED FOR CLARIFICATION OF THE INTENT OF THE STRUCTURAL DOCUMENTS ONLY AND DOES NOT AUTHORIZE ANY CHANGES IN THE CONTRACT, PRICE, TIME, SCHEDULE, ETC.

MAXIMUM DEFLECTION:

1. SPANDRELS: LIVE LOAD DEFLECTION SHALL BE EQUAL TO THE SPAN LENGTH IN INCHES DIVIDED BY 480. TOTAL DEFLECTION SHALL BE EQUAL TO THE SPAN LENGTH IN INCHES DIVIDED BY 360 UNLESS OTHERWISE NOTED ELSEWHERE IN THE DRAWING.
2. ROOF FRAMING: LIVE LOAD DEFLECTION SHALL BE EQUAL TO THE SPAN LENGTH IN INCHES DIVIDED BY 360. TOTAL DEFLECTION SHALL BE EQUAL TO THE SPAN LENGTH IN INCHES DIVIDED BY 240 UNLESS OTHERWISE NOTED ELSEWHERE IN THE DRAWING.
3. ALL DEFLECTION LIMITS LISTED ABOVE INCLUDE LONG TERM DEFLECTION.
4. ALL FAÇADE ELEMENTS AND COMPONENTS SHALL BE DESIGNED AND DETAILED TO ALLOW FOR SPANDREL ELEMENTS DEFLECTION ACCORDING TO THE LIMITS NOTED. PROVIDE DEFLECTION TRACKS, HEAD, AND CONNECTORS AS REQUIRED BY A FAÇADE ENGINEER/PROVIDER).

TEMPORARY WORK:

1. ALL TEMPORARY WORK, SHORING, SUPPORT OF EXCAVATION, ETC. SHALL BE DESIGNED, INSTALLED, AND CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT GOVERNING CODE(S).
2. THE DRAWINGS INDICATE THE COMPLETED STRUCTURE. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL TEMPORARY MEASURES NECESSARY FOR ERECTION.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE PROPER SHORING AND BRACING WHEREVER NECESSARY. ALL TEMPORARY SHORING/BRACING SHALL BE DESIGNED BY A CIVIL AND/OR STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT OCCURS.
4. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE SHORING DRAWINGS AND CALCULATIONS TO THE AUTHORITY HAVING JURISDICTION AS REQUIRED.
5. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOADS PER SQUARE FOOT AS SHOWN ON THE DRAWINGS. PROVIDE SHORING AND/OR BRACING WHERE THE STRUCTURE HAS NOT ATTAINED ITS DESIGN STRENGTH. THE SAME APPLIES FOR STACKING CONSTRUCTION AND BUILDING MATERIALS AND EQUIPMENT ON FLOOR DECKS.
6. ALL FORM WORK SHALL CONFORM TO ACI 301 SPECIFICALLY SECTION 2: "FORM WORK AND FORM WORK ACCESSORIES"
7. LEAVE FORM WORK AND SHORING IN PLACE TO SUPPORT THE WEIGHT OF ALL CONCRETE STRUCTURAL MEMBERS UNTIL CONCRETE HAS REACHED THE SPECIFIED COMPRESSIVE STRENGTH. ADDITIONAL TIME MAY BE REQUIRED.
8. WHEN RESHORING OR BACK SHORING IS REQUIRED OR PERMITTED, SUBMIT PROCEDURES AND PLAN OF OPERATIONS, BEFORE USED, SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE WORK WILL BE PERFORMED.

SPECIAL INSPECTIONS:

1. UNLESS WAIVED BY THE BUILDING OFFICIAL, A SPECIAL INSPECTIONS PROGRAM SHALL BE ESTABLISHED BY THE OWNER AND COORDINATED WITH THE CONTRACTOR AS REQUIRED BY THE BUILDING CODE FOR THE STATE IN WHICH THE PROJECT IS LOCATED. THE SPECIAL INSPECTIONS PROGRAM SHALL BE MANAGED BY A SPECIAL INSPECTIONS COORDINATOR (ALSO REFERRED TO AS THE SPECIAL INSPECTOR), WHO SHALL BE A DPMC PREQUALIFIED FIRM ARRANGED BY AND PAID BY THE CONTRACTOR.
2. THE SPECIAL INSPECTIONS PROGRAM SHALL NOT RELIEVE THE CONTRACTOR OF QUALITY ASSURANCE AND TESTING REQUIREMENTS OF THE STATE BUILDING CODE AND REFERENCED STANDARDS FOR THE PROJECT IN WHICH THE STATE IS LOCATED AS WELL AS THE CONTRACT DOCUMENTS, WHICH SHALL BE SUPPLEMENTARY TO THE SPECIAL INSPECTIONS PROGRAM.
3. SPECIAL INSPECTIONS SHALL BE PERFORMED FOR ALL STRUCTURAL SYSTEMS INDICATED IN THE STRUCTURAL SPECIAL INSPECTIONS SCHEDULE FOR SPECIFIC TESTING AND INSPECTION REQUIREMENTS.
4. ALL WORK FOR WHICH SPECIAL INSPECTIONS IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTIONS PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS PROGRAM. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE INSPECTIONS TO ALLOW FOR ALL TESTS AND INSPECTIONS TO TAKE PLACE AT THE FREQUENCY INDICATED IN THE STRUCTURAL SPECIAL INSPECTIONS SCHEDULE.
5. ALL NON-CONFORMANCE ITEMS IDENTIFIED BY THE TESTING AND INSPECTION AGENCY AS PART OF THE SPECIAL INSPECTIONS PROGRAM MUST BE REINSPECTED ONCE THE REQUIRED REMEDIAL WORK IS COMPLETED TO CONFIRM THAT THE COMPLETED CONSTRUCTION CONFORMS WITH THE REQUIREMENTS OF THE SPECIAL INSPECTIONS PROGRAM.
6. REINSPECTION AND/OR RETESTING WORK MUST BE DOCUMENTED BY THE TESTING AND INSPECTION AGENCY IN A FIELD REPORT AND MUST BE SUBMITTED TO THE SPECIAL INSPECTIONS COORDINATOR AND DESIGN TEAM FOR RECORD. ALL SUPPLEMENTAL AND FOLLOW-UP REPORTS SUBMITTED TO THE TESTING AND INSPECTION AGENCY MUST CLEARLY CROSS-REFERENCE THE ORIGINAL REPORT FROM WHICH THE NONCONFORMANCE ITEM ORIGINATED.
7. THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION MEETING WITH THE SPECIAL INSPECTIONS COORDINATOR, TESTING AND INSPECTIONS AGENCIES, DESIGN TEAM, AND SUBCONTRACTORS TO REVIEW THE SPECIAL INSPECTIONS PROGRAM AND IDENTIFY ALL PARTICIPANTS' ROLES AND RESPONSIBILITIES.
8. WHEN WORK IS DONE TO THE SATISFACTION OF THE INSPECTOR AND BUILDING OFFICIAL, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT, TO THE BEST OF THEIR KNOWLEDGE, THE WORK WAS COMPLETED IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODES.

CONCRETE:

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318 AND 301 REQUIREMENTS. THIS SHALL INCLUDE PROPORTIONING OF CONCRETE MIX, CONCRETE TESTING, PLACEMENT OF CONCRETE, AND CURING PROCEDURES.
2. MAXIMUM WATER/CEMENT RATIO FOR 4000 PSI CONCRETE - W/C = 0.45 AND FOR 5000 PSI CONCRETE - W/C = 0.40, UNLESS NOTED OTHERWISE.
3. PROVIDE A HIGH-RANGE WATER REDUCING ADMIXTURE IF REQUIRED TO INCREASE WORKABILITY OF THE CONCRETE.
4. STRUCTURAL CONCRETE STRENGTHS AND TYPES USED IN THIS PROJECT SHALL BE AS FOLLOWS: f'c IS THE 28-DAY COMPRESSIVE STRENGTH AS DEFINED IN ACI 318. FOUNDATIONS (FOOTINGS, PILE CAP, GRADE BEAM) 5000PSI (NORMAL WEIGHT) SLABS, COLUMNS, BEAMS, WALLS AND STRUCTURAL TOPPING 5000PSI (NORMAL WEIGHT) ALL OTHER CONCRETE 4000PSI (NORMAL WEIGHT) PROVIDE TOTAL AIR ENTRAINMENT OF 6% (±) FOR ALL CONCRETE EXPOSED TO WEATHER.
5. CONCRETE SHALL MEET THE FOLLOWING MINIMUM PERCENTAGES OF ITS 28 DAY COMPRESSIVE STRENGTH (f'c) PRIOR TO REMOVING FORMS AND/OR SHORES: ALL CONCRETE EXCEPT AS NOTED BELOW 67% BEAM BOTTOMS (IF SHORED) 75% FLOOR SYSTEM 80%
6. ALL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL CONSTRUCTION JOINT DETAILS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS.
7. ALL CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS, EXCEPT WHERE SPECIFICALLY INDICATED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN THE CONCRETE WORK SHALL BE MADE AT MID SPAN. ALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH VERTICAL CONSTRUCTION JOINTS.
8. MAXIMUM STRAIGHT LENGTH OF CONCRETE WALL BETWEEN CONSTRUCTION JOINTS SHALL BE 60 FEET.
9. PROVIDE VERTICAL CONTROL JOINTS AT A MAXIMUM SPACING OF 20 FEET O.C. FOR ALL CONTINUOUS WALLS WITH MORE THAN 12" PROJECTION ABOVE FINISH GRADE.

10. PROVIDE SAW CUT JOINTS IN ALL SLABS ON GRADE USING AN EARLY-ENTRY SAW WITHIN 24 HOURS OF PLACEMENT PER ACI 318. PROVIDE SAW CUTS AT 15'-0" ON CENTER MAX, UNLESS NOTED OTHERWISE, REFER TYPICAL DETAILS.
11. COORDINATE ALL EXPOSED COLD JOINTS, EXPANSION JOIST, ETC. WITH ARCHITECTURAL DRAWINGS.
12. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL CONCRETE CONSTRUCTION JOINT SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED. ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER SHALL BE REMOVED IMMEDIATELY BEFORE NEW CONCRETE IS PLACED. PROVIDE CLASS "B" SPLICE AT ALL REINFORCEMENT CROSSING CONSTRUCTION JOINTS, TYPICAL UNLESS NOTED OTHERWISE.
13. THE PLUMBING SUB-CONTRACTOR SHALL COORDINATE WITH THE CONCRETE SUB-CONTRACTOR FOR UNDERGROUND PIPING/SLEEVE LOCATIONS, ELEVATIONS AND SIZES PRIOR TO THE INSTALLATION OF ANY CONCRETE WORK
14. NOT ALL OPENINGS AND PENETRATIONS THROUGH CONCRETE WALLS AND SLABS ARE SHOWN ON THE STRUCTURAL DRAWINGS. UNLESS NOTED OTHERWISE, FOR PENETRATIONS THROUGH CONCRETE FOUNDATION WALLS EXCEEDING 6" DIAMETER, REINFORCE WALL AROUND THE PERIMETER OF THE OPENING PER THE TYPICAL DETAILS. COORDINATE ALL OPENING LOCATIONS WITH ARCHITECT AND OTHER TRADES. PROVIDE SLEEVES FOR OPENINGS IN CONCRETE WALLS/SLABS BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. PIPES AND/OR CONDUITS SHALL NOT PASS THROUGH COLUMNS AND BEAMS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
15. CORING OF CONCRETE AFTER PLACEMENT IS NOT PERMITTED WITHOUT THE REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER.
16. THE PROJECTING CORNERS OF COLUMNS, BEAMS, WALLS ETC. SHALL BE FORMED WITH 3/4" CHAMFER, UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.
17. CLEAR COVER OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE AS FOLLOWS. ALL REINFORCEMENT INCLUDING WELDED WIRE FABRIC SHALL BE CHAIRED UP.

LOCATION IN STRUCTURE	FACE	CLEAR COVER
WALLS (NOT CASTED AGAINST EARTH)	INTERIOR FACE EXPOSED TO EARTH OR WEATHER	¾" 1½" FOR #5 OR SMALLER 2" FOR #5 OR LARGER
BEAMS, COLUMNS, PIERS (PRIMARY REINF. AND TIES)	INTERIOR FACE EXPOSED TO EARTH OR WEATHER	¾" 1½" FOR #5 OR SMALLER 2" FOR #5 OR LARGER
FOOTINGS, GRADE BEAMS, PILE CAPS	TOP BARS, BOTTOM BARS AND TIES	3"
FOOTINGS, GRADE BEAMS, PILE CAPS	TOP BARS, BOTTOM BARS AND TIES	3"
SLAB ON GRADE	INTERIOR SLAB FROM TOP EXTERIOR SLAB FROM TOP	1½" 2"
FORMED SLABS	INTERIOR SLAB FROM TOP EXTERIOR SLAB FROM TOP	1½" ¾" FOR #5 OR SMALLER 2" FOR #5 OR LARGER
ALL OTHER CONCRETE CAST AGAINST EARTH	ALL FACES	3"

18. PLACE ALL SLABS PER ACI 301 AND ACI 302.1 SPECIFICATIONS. UNLESS NOTED OTHERWISE
19. ALL CONCRETE MIX DESIGNS SHALL COMPLY WITH THE REQUIREMENTS OF THE PROJECT GOVERNING CODE(S) INCLUDING ACI 301 AND 318. PREPARE AND SUBMIT MIX DESIGNS FOR EACH TYPE AND STRENGTH.
20. ALL TRANSIT-MIXED CONCRETE SHALL BE PROVIDED BY A CONCRETE PLANT WHICH COMPLIES FULLY WITH THE REQUIREMENTS OF PROJECT GOVERNING CODE(S) AND HAS BEEN CERTIFIED BY AN AGENCY ACCEPTABLE TO THE BUILDING DEPARTMENT SO THAT BATCH PLANT INSPECTION MAY BE WAIVED.
21. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY AND OWNER 48 HOURS BEFORE POURING OF CONCRETE FOR INSPECTION OF REINFORCEMENT LAYOUT. NO CONCRETE SHALL BE POURED UNLESS ALL REINFORCEMENT AND INSTALLATIONS HAVE BEEN INSPECTED AND APPROVED BY THE TESTING AGENCY.
22. CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED CAST IS COMPLETED.
23. THE DEPTH OF REVEALS IN CONCRETE WALLS SHALL NOT BE GREATER THAN 3/8". WHERE REVEALS OCCUR IN CONCRETE WALLS, ADD 3/8" TO THE CLEAR COVER TO REINFORCEMENT BARS SHOWN ABOVE.
24. NO ALUMINUM SHALL BE CAST IN CONCRETE.
25. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHING AND SLOPE OF ALL EXPOSED CONCRETE SURFACES.
26. ALL CONCRETE MIX DURATION TIMES SHALL BE LESS THAN 60 MINUTES.
27. ALL CONCRETE MUST BE PLACED FROM A HEIGHT NO GREATER THAN 4'-0" ABOVE ITS FINAL POSITION.
28. ALL CONCRETE SLABS SHALL BE WET CURED FOR A MINIMUM OF 7 DAYS.
29. CONCRETE EXTERIOR WALLS AND SLABS SHALL HAVE WATERPROOFING AS REQUIRED PER THE ARCHITECTURAL DRAWINGS. ANY PRODUCT SHALL BE APPLIED IN STRICT CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
30. THE CONTRACTORS SHALL INCLUDE, IN THE BASE CONTRACT, THE COSTS TO EMBED ALL NECESSARY STEEL FOR ALL ARCHITECTURAL WALL SYSTEMS.
31. ALL FORMWORK SHALL CONFORM TO ACI 301 SPECIFICALLY SECTION 2: "FORMWORK AND FORMWORK ACCESSORIES"
32. LEAVE FORMWORK AND SHORING IN PLACE TO SUPPORT THE WEIGHT OF ALL CONCRETE STRUCTURAL MEMBERS UNTIL CONCRETE HAS REACHED THE SPECIFIED COMPRESSIVE STRENGTH. ADDITIONAL TIME MAY BE REQUIRED.



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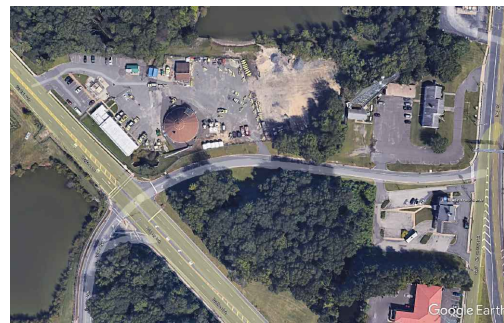


Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:

T0617-00 West Berlin
Storage Bin Installation
50 Walker Avenue
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan



Revisions

Date:	Description:	No.

Issued Documents

Date:	Description:
11/18/21	SCHEMATIC DESIGN
12/22/21	DESIGN DEVELOPMENT
02/16/22	FINAL DESIGN
12/14/23	REV 1. FINAL DESIGN
01/31/24	REV 2. FINAL DESIGN

Seal & Signature

JOSEPH DIPOMPEO



NJ PROFESSIONAL ENGINEER
LICENSE # GE-43453

Drawing Title:

**NOTES &
SPECIFICATIONS**

Sheet:

Drawing Number:

S001.00

NOTES & SPECIFICATIONS

REINFORCING STEEL FOR CONCRETE:

1. ALL REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING MATERIAL SPECIFICATIONS:
- a. REINFORCING BARS: ASTM A615 (Fy=60 KSI, MINIMUM.)
- b. WELDED WIRE REINFORCEMENT: ASTM A185 (Fy=60 KSI, MINIMUM.)
- c. REINFORCING BARS TO BE WELDED: ASTM A615 AND A706 (Fy=60 KSI, MINIMUM.)
- d. EPOXY-COATED REINFORCING BARS: ASTM A775 OR ASTM A934
- e. EPOXY-COATED WELDED WIRE REINFORCEMENT: ASTM A884

2. SET AND TIE ALL REINFORCEMENT PRIOR TO PLACING CONCRETE. SETTING OF DOWELS AND REINFORCEMENT INTO WET CONCRETE SHALL NOT BE PERMITTED. REINFORCING LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI-318 FOR TENSION LAP SPLICES, CLASS B, UNLESS NOTED OTHERWISE.

3. REINFORCING BARS MARKED AS "CONTINUOUS" SHALL BE LAP SPLICED PER LAP SPLICE LENGTH SCHEDULE. REINFORCING BAR SPLICES SHALL BE MADE ONLY WHERE INDICATED ON THE DRAWINGS. WHERE SPLICE LOCATIONS ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL SHOW THEIR PROPOSED SPLICE LOCATIONS ON THE SHOP DRAWINGS.

4. PROVIDE MATCHING DOWELS FOR ALL VERTICAL REINFORCING BARS AT CMU WALLS. DOWEL DIAMETER SHALL MATCH VERTICAL REINFORCING BAR DIAMETER. DOWEL LENGTH SHALL BE 50 BAR DIAMETERS MINIMUM EMBEDMENT LAP UNLESS NOTED OTHERWISE.

5. ALL DOWELS SHALL BE FULLY DEVELOPED IN TENSION PER ACI 318 UNLESS NOTED OTHERWISE.

6. IN SLABS AND BEAMS, LAP SPLICE CONTINUOUS BOTTOM REINFORCEMENT ONLY AT SUPPORT LOCATIONS AND CONTINUOUS TOP REINFORCEMENT ONLY AT CENTERS OF SPANS, UNLESS NOTED OTHERWISE. PROVIDE STANDARD HOOK FOR TOP BARS AT ALL DISCONTINUOUS ENDS AND SUPPORTS.

7. ALL STIRRUPS AND TIES SHALL BE CLOSED TYPE HOOK AND ALL BARS AT NON-CONTINUOUS ENDS SHALL HAVE A STANDARD HOOK. UNLESS OTHERWISE NOTED.

8. ALL WALLS SHALL BE INTERCONNECTED AT CORNERS AND INTERSECTIONS WITH DOWELS MATCHING HORIZONTAL REINFORCEMENT PER TYPICAL DETAILS UNLESS NOTED OTHERWISE.

9. ALL FOUNDATION AND GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH INTERSECTING FOUNDATIONS AND GRADE BEAMS UNLESS NOTED OTHERWISE.

10. PROVIDE CORNER BARS AT ALL WALL CORNERS AND INTERSECTIONS MATCHING HORIZONTAL REINFORCEMENT WITH 2'-6" MINIMUM LAPS.

11. ALL SIDEBARS IN BEAMS SHALL BE CONTINUOUS. DEVELOP IN ADJACENT BEAMS AS REQUIRED AND HOOK AT DISCONTINUOUS ENDS.

12. PROVIDE MINIMUM OF (2) #5 TOP AND BOTTOM CONTINUOUS BARS AROUND THE PERIMETER. PROVIDE HORIZONTAL HOOKS AT CORNERS AS REQUIRED.

13. PROVIDE A MINIMUM OF (1) #5 SUPPORT BAR AT ALL STIRRUP BENDS WHERE PRIMARY BARS DO NOT EXIST.

14. PROVIDE ADDITIONAL REINFORCEMENT AROUND ALL SLAB AND WALL OPENINGS AS SHOWN ON THE TYPICAL DETAILS UNLESS NOTED OTHERWISE.

15. PROVIDE MINIMUM OVERLAP OF WELDED WIRE REINFORCEMENT OF 6" OR ONE FULL MESH PLUS 2", WHICHEVER IS GREATER.

16. WHERE NO REINFORCEMENT IS INDICATED FOR CONCRETE SLABS AND WALLS, PROVIDE A MINIMUM #4 @ 12" O.C. CONTINUOUS EACH WAY, TOP, AND BOTTOM (OR EACH FACE OF WALL).

17. WHERE VERTICAL DOWELS FROM FOUNDATION INTERFERE WITH STEEL COLUMN BASE PLATE, THE CONTRACTOR SHALL RELOCATE THESE DOWELS THREE (3) INCHES FROM EDGE OF BASE PLATE.

18. WELDING OF REINFORCING STEEL BARS SHALL BE IN ACCORDANCE WITH AWS D1.4. WELD REINFORCING BARS ONLY WHERE INDICATED ON THE DRAWINGS. TACK WELDING OR WELDING OF BARS TO PLATES, TEMPLATES, ETC. IS PROHIBITED, UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

19. WHERE NECESSARY DUE TO CONGESTION OF REINFORCEMENT, CONTRACTOR SHALL PROVIDE MECHANICAL BAR COUPLERS AND BAR TERMINATORS IN LIEU OF LAP SPLICES AND HOOKED ENDS. THE CONTRACTOR SHALL INCLUDE THE COST OF SUCH MECHANICAL ACCESSORIES IN BASE CONTRACT. MECHANICAL SPLICES SHALL BE TYPE 2 COUPLERS (UNLESS NOTED OTHERWISE) WITH A CURRENT ICC APPROVAL.

20. BARS SHALL NOT BE BENT OR TWISTED IN THE FIELD, UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.

21. ALL REINFORCING BARS, INSERTS, EMBEDS, ETC. SHALL BE SECURELY HELD IN PLACE TO MAINTAIN THEIR POSITIONS WHILE CONCRETE IS POURED. PROVIDE SUITABLE CHAIRS, TIES, SPACERS, ADDITIONAL BARS, AND STIRRUPS AS REQUIRED.

22. DETAILING OF REINFORCEMENT SHALL BE ACCORDING TO THE LATEST EDITION OF THE ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". PROVIDE BAR SUPPORTS, SPACERS, AND ACCESSORIES RECOMMENDED IN THE LATEST EDITION OF THE ACI DETAILING MANUAL, PUBLICATION SP-66. ALL ACCESSORIES IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC-COATED. PROVIDE SCHEDULE OF ALL ACCESSORIES WITH SHOP DRAWINGS FOR REVIEW.

23. ALL CONCRETE ELEMENTS SHALL BE REINFORCED, NO CONCRETE POUR AGAINST DIRT/GRADE, NO PLAIN CONCRETE IS PERMITTED. ALL CONCRETE ELEMENTS SHALL BE REINFORCED WITH A MINIMUM STEEL AREA OF 0.0018 TIMES THE CROSS-SECTIONAL AREA OF CONCRETE ELEMENT CONTINUOUS IN EACH DIRECTION, TYPICAL UNLESS NOTED OTHERWISE.

FOUNDATIONS:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL APPROPRIATE AGENCIES AND MUNICIPALITIES TO AVOID DAMAGE TO UNDERGROUND UTILITIES PRIOR TO THE START OF ANY SITE WORK.

2. FOUNDATIONS HAVE BEEN DESIGNED FOR A SOIL BEARING CAPACITY OF 3000 PSF PER THE GEOTECHNICAL ENGINEERING REPORT GENERATED BY GEO-TECHNOLOGY ASSOCIATES INC. (GTA JOB NO. 31211885) DATED DECEMBER 20, 2021.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUPPORT OF EXCAVATION DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO: THE SUPPORT OF THE EXISTING SOIL, BRACING, THE SUPPORT OF ALL EXISTING ADJACENT FOOTINGS AND FOUNDATION SYSTEMS, AND EARTH RETENTION SYSTEMS (SUCH AS SHEET PILES, SOLDIER PILES AND LAGGING, ETC) AS REQUIRED THE CONTRACTOR SHALL SUBMIT A DETAILED PROPOSAL FOR ALL SUPPORT OF EXCAVATION PRIOR TO THE START OF CONSTRUCTION. ALL SUCH SUBMISSIONS MUST BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT OCCURS AND MUST BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO BEGINNING WORK.

4. ANY SOIL IMPROVEMENT SYSTEM SHALL BE INSTALLED, AS REQUIRED BELOW ALL FOUNDATION ELEMENTS AND ALL SLAB ON GRADE AREAS, SUCH THAT AN ALLOWABLE SOIL BEARING PRESSURE IS OBTAINED. THESE SOIL IMPROVEMENTS SHALL BE PERFORMED UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. DRAWINGS AND CALCULATIONS, BOTH TO BE STAMPED AND SIGNED BY A PE LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, SHALL BE SUBMITTED FOR REVIEW PRIOR TO PROCEEDING WITH WORK. IN ADDITION, PREPARE SLAB SUBGRADE PER THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.

5. CONTRACTOR SHALL REFER TO THE ABOVE REFERENCED GEOTECHNICAL REPORT FOR INFORMATION ON GENERAL SUBSURFACE PROFILES, SOIL PROPERTIES, EXISTING SITE FEATURES AND ALL OTHER CONDITIONS AFFECTING FOUNDATION INSTALLATION, REQUIREMENTS FOR EXCAVATIONS, GRADING, COMPACTION AND BACKFILLING BEHIND WALLS RETAINING EARTH AND GRADE BEAMS.

6. CONTRACTOR SHALL INCLUDE PROVISIONS IN BASE CONTRACT FOR REMOVAL OF ALL UNSUITABLE MATERIALS AND REPLACEMENT WITH COMPACTED ENGINEERED FILL (AND/OR CRUSHED STONE AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS) UP TO BOTTOM OF

FOUNDATION SYSTEMS AND SLABS. IN ADDITION, THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING ALL GROUNDWATER DURING EXCAVATIONS OF FOUNDATIONS.

8. BACKFILL SHALL NOT BE PLACED AGAINST WALLS RETAINING EARTH (OTHER THAN CANTILEVER WALLS) UNTIL THE ATTACHING FLOORS/SLABS (AT TOP AND BOTTOM OF THE WALL) ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL DESIGN STRENGTH.

9. ALL EXCAVATIONS, COMPACTIONS, AND BACKFILLING SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE PLACEMENT OF CONCRETE.

10. NEW FOUNDATIONS WHICH ARE LOCATED IMMEDIATELY ADJACENT TO EXISTING FOOTINGS SHALL BE FOUNDED AT THE SAME ELEVATION AS THE EXISTING FOOTINGS UNLESS NOTED OTHERWISE. EXISTING ADJACENT FOOTINGS SHALL NOT BE DETERMINED BY EXCAVATION OR NEW CONSTRUCTION. STEP NEW FOOTINGS AS REQUIRED, REFER TYPICAL DETAILS.

11. WATER SHALL NOT BE ALLOWED TO STAND IN TRENCHES BEFORE OR AFTER CONCRETE IS PLACED. IF TRENCHES BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE THE FOOTINGS ARE CAST, THE GEOTECHNICAL ENGINEER SHALL REVIEW THE CONDITIONS AND PROVIDE THE NECESSARY MITIGATION REQUIREMENTS TO THE CONTRACTOR.

12. CONTRACTOR TO COORDINATE AND/OR REFER TO PLUMBING, CIVIL, SITE, AND ARCHITECTURAL DRAWINGS FOR UNDERSLAB DRAINAGE SYSTEM, PERIMETER DRAINAGE BEHIND THE FOUNDATION WALLS AND TRENCH DRAINS.

13. REFER TO SITE AND/OR CIVIL DRAWINGS FOR DRAINAGE SYSTEMS AND SPECIAL GRANULAR FILL MATERIALS FOR SUCH DRAINAGE.

14. ALL FOUNDATION ELEMENTS SHALL BE STEPPED AT A MAXIMUM SLOPE OF 2 HORIZONTAL TO 1 VERTICAL UNLESS NOTED OTHERWISE, REFER TYPICAL DETAILS.

15. STEP ALL FOOTINGS AS REQUIRED AT ADJACENT OR CONTINUOUS FOOTINGS WITH DIFFERENT ELEVATIONS.

16. FOR PENETRATIONS THROUGH SLABS ON GRADE AND GRADE BEAMS, REINFORCE PER TYPICAL DETAILS. PILE CAPS SHALL HAVE NO PENETRATIONS. COORDINATE ALL OPENING LOCATIONS WITH ARCHITECT AND/OR OTHER TRADES.

17. EXTERIOR FOOTINGS SHALL BE FOUNDED AT A MINIMUM DEPTH OF 3'-6" BELOW FINAL GROUND LEVEL UNLESS OTHERWISE NOTED.

18. TEMPORARY FROST PROTECTION SHALL BE PROVIDED DURING COLD WEATHER CONSTRUCTION.

19. PRIOR TO MOBILIZATION THE CONTRACTOR SHALL VERIFY EQUIPMENT ACCESS TO THE SITE, AND TO SCHEDULE THE SEQUENCE OF THE CONSTRUCTION SO AS NOT TO INTERFERE WITH OPERATIONS OF THE SITE, ESPECIALLY ADJACENT TO ANY EXISTING STRUCTURE OR UTILITY.

GROUT UNDER BASE AND BEARING PLATE:

1. ALL GROUT SHALL BE NON-SHRINK GROUT UNLESS OTHERWISE NOTED.
2. ALL GROUTS SHALL BE A COMMERCIALY PRE-MIXED PRODUCT, CONTAINING AS PART OF THE MIX AN ADDITIVE TO CONTROL AND COMPENSATE FOR SHRINKAGE AND SETTLEMENT OF THE GROUT.
3. ALL GROUTS SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF NOT LESS THAN 5000 PSI AT 28 DAYS.
4. ALL GROUT UNDER DYNAMIC LOADED EQUIPMENT SUCH AS FANS, GENERATORS, ETC. SHALL CONFORM TO ASTM C1107, GRADE B.
5. SUBMIT NON-SHRINK DATA SHEET TO ARCHITECT AND ENGINEER OF RECORD FOR APPROVAL.

STRUCTURAL STEEL:

1. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS AND ITS CODE OF STANDARD PRACTICE.
2. MATERIAL SPECIFICATIONS:
- a. SQUARE AND RECTANGULAR HSS ASTM A500, GRADE C (50 KSI)
- b. L SHAPES, MISC. PLATES AND BARS ASTM A36 (36 KSI)
- c. THREADED RODS, THREADED FASTENERS ASTM A36 (36 KSI)
- d. BOLTS ASTM F3125, GRADE A325 OR A490
- e. ANCHOR RODS ASTM F1554, GRADE 36
3. ALL WELDING OPERATIONS SHALL BE PERFORMED BY AWS CERTIFIED WELDERS IN CONFORMANCE WITH ALL APPLICABLE REQUIREMENTS. USE E-70XX WELDING ELECTRODES, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, ALL STRUCTURAL STEEL SHEAR UNLESS NOTED OTHERWISE ALL CONNECTIONS SHALL BE DESIGNED BASED UPON THE MEMBERS' TOTAL UNIFORM LOAD CAPACITY AS DETERMINED FROM THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL (LRFD) ACCORDING TO THE FOLLOWING CRITERIA:
- ALL BEAMS: 0.5 x [TOTAL UNIFORM LOAD CAPACITY]

5. ALL POINT LOAD REACTIONS (E.G. TRANSFERRED COLUMNS) AND BRACE REACTIONS THAT ARE APPLIED TO THE MEMBER SHALL BE ADDED TO THESE SHEAR REACTIONS.

6. BOLTED CONNECTIONS SHALL BE DESIGNED PER THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL (LRFD) AND THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING MINIMUM 3/4" DIAMETER BOLTS WITH GRADES AS SPECIFIED ABOVE.

7. ALL CONNECTIONS FOR ELEMENTS THAT ARE PART OF THE LATERAL FORCE RESISTING SYSTEM SHALL BE DESIGNED FOR THE FORCES INDICATED ON THE STRUCTURAL DRAWINGS BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. WHERE NO FORCES ARE INDICATED, ALL MOMENT CONNECTIONS SHALL DEVELOP THE LESSER OF THE FULL MOMENT CAPACITY OF THE BEAM OR COLUMN.

8. SUBMIT DESIGN CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED AND SHOP DRAWINGS FOR REVIEW. CALCULATIONS ARE REQUIRED FOR ALL MOMENT CONNECTIONS, CONNECTIONS FOR BEAMS TRANSFERRING AXIAL FORCES, AND ALL OTHER NON-STANDARD CONNECTIONS. REPRESENTATIVE CALCULATIONS MAY BE SUBMITTED FOR ALL AISC STANDARD CONNECTIONS.

9. ALL NEW STRUCTURAL STEEL, EXCEPT THAT TO BE GALVANIZED, SHALL BE GIVEN ONE COAT OF AN APPROVED SHOP PRIMER APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS NOTED OTHERWISE. AT A MINIMUM, SURFACE PREPARATION OF STEEL PRIOR TO SHOP PAINTING SHALL CONFORM TO SSPC SP3. COORDINATE ALL SURFACE PREPARATION FOR PAINTED STEEL WITH THE PAINT MANUFACTURER'S REQUIREMENTS. TOUCH-UP ALL SHOP PRIMED COATS DAMAGED DURING TRANSPORTATION AND ERECTION AND PRIME ALL FIELD WELDS USING THE SAME PAINT USED FOR SHOP PRIMING.

10. ALL EXPOSED STRUCTURAL STEEL AND CONNECTIONS SHALL BE HOT-DIP GALVANIZED.

11. ALL HOT-DIP GALVANIZING SURFACE PREPARATION AND OPERATIONS SHALL CONFORM TO ASTM A780. TOUCH UP ALL CONNECTIONS AND SURFACES DAMAGED DURING TRANSPORTATION AND ERECTION WITH COLD GALVANIZING PAINT.

14. STRUCTURAL STEEL FRAME SHALL BE LEVEL AND PLUMB PRIOR TO COMPLETING CONNECTIONS.

15. SURVEY ALL STEEL BEAMS SUPPORTING COMPOSITE SLABS BEFORE AND AFTER PLACING CONCRETE TO ENSURE PROPER CAMBER WAS PROVIDED.

16. ALL COLUMNS BELOW GRADE, BASE PLATES, AND ANCHOR RODS SHALL BE PAINTED WITH BITUMINOUS OR ASPHALTIC PAINT AFTER STRUCTURE IS ERECTED. ALLOW PAINT TO FULLY CURE. THEREAFTER ALL STRUCTURAL STEEL ITEMS TO BE FULLY ENCASED IN CONCRETE.

STEEL DECK:

1. ALL STEEL DECKING SHALL CONFORM TO THE LATEST ADOPTED EDITION OF STEEL DECK INSTITUTE (SDI) APPLICABLE REQUIREMENTS. INSTALLATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS IN ACCORDANCE WITH SDI SPECIFICATIONS.

2. STEEL DECK SHALL TYPICALLY BE STORED OFF THE GROUND AT THE JOBSITE, AND BE PROTECTED FROM THE ELEMENTS WITH A WATERPROOF COVERING WHERE REQUIRED. DO NOT STACK/STORE ON STRUCTURE.

3. DECK SHEETS SHALL BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWINGS (INCLUDING FASTENING SCHEDULE) SUPPLIED BY THE DECK MANUFACTURER, AND IN CONFORMANCE WITH THE MANUFACTURER'S STANDARDS. UNLESS NOTED OTHERWISE, END LAPS SHALL OCCUR OVER SUPPORTS, AND SHALL NOT BE LESS THAN 2 INCHES.

4. ALL STEEL TO BE USED FOR DECKING SHALL BE GALVANIZED, REFER SPECIFIC NOTES AT EACH FRAMING PLAN FOR INFORMATION.

5. UNLESS OTHERWISE NOTED. ON PLANS, THE FOLLOWING DECKING SHALL BE USED:
- a. ROOF DECK/WALL PANEL ENGLERT UNILINE C-36, 7.2 RIB, 1½ DEEP, 22 GA WITH GALVALUME, 20 + KYNAR 500® PAINT.

6. PROVIDE 1/4" THICK (BOTTOM) AND 20 GA. (TOP) GALVANIZED STEEL PLATES AT ALL RIDGES, VALLEYS, AND LOCATIONS WHERE DECK CHANGES DIRECTION FOR CONTINUOUS EVEN SURFACE.

7. REFER TO S104.00 FOR ROOF/WALL DECK ATTACHMENT & FASTENING PATTERN SCHEDULE.

8. ROOF DECK SHALL BE DESIGNED FOR INDICATED WIND UPLIFT LOADS PER THE STATE BUILDING CODE, FM APPROVAL GUIDE, AND "DESIGN LOAD" NOTES.

9. NO PERMANENT SUSPENDED LOADS ARE TO BE SUPPORTED BY STEEL ROOF DECK. THIS INCLUDES PIPING, DUCTWORK, MECHANICAL UNITS, CEILINGS, ETC. THE CONTRACTOR SHALL PROVIDE A SECONDARY FRAMING SYSTEM (I.E. UNISTRUT OR APPROVED EQUAL) ATTACHED TO STRUCTURAL FRAMING TO SUPPORT ALL PERMANENT SUSPENDED LOADS AT THE UNDERSIDE OF ALL STEEL ROOF DECKS. THE SECONDARY FRAMING SYSTEM SHALL SPAN BETWEEN STRUCTURAL STEEL BEAMS AND SHALL NOT BE CONNECTED IN ANY WAY TO THE STEEL DECK.

10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS (IF ANY) STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED FOR REVIEW.

COLD-FORMED METAL FRAMING:

1. ALL FABRICATION AND ERECTION SHALL CONFORM TO AISI SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, AISI STANDARD FOR COLD-FORMED STEEL FRAMING-GENERAL PROVISIONS, AND AWS D1.3 SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES.

2. ALL CONNECTION MATERIAL INCLUDING BOLTS, SCREWS AND ETC. TO BE NON-CORROSIVE AND COMPATIBLE WITH ALL MATERIAL IN CONTACT WITH.

3. ALL METAL STUD WALLS SHALL BE DESIGNED BY THE METAL STUD SUPPLIER IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE BUILDING CODE AND ITS APPLICABLE REFERENCED STANDARDS IN THE STATE OF NEW JERSEY.

4. THE COLD-FORMED METAL STUD SUPPLIER SHALL DESIGN AND FABRICATE THE METAL STUD WALLS AS A SYSTEM. THIS SHALL INCLUDE ALL BEARING WALLS, SHEAR WALLS, STICK FRAMED AND PANELIZED SECTIONS, ALL PERMANENT AND TEMPORARY LATERAL BRACING, AND WALL-REQUIRED CONNECTIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL DETAILS, DIMENSIONS, AND OTHER INFORMATION NOT INCLUDED IN THE STRUCTURAL DRAWINGS.

5. ALL EXTERIOR METAL STUD WALLS SHALL BE DESIGNED PER THE LOADING INFORMATION INCLUDED IN THESE CONSTRUCTION DOCUMENTS AND AS REQUIRED BY THE LOCAL GOVERNING BUILDING CODES.

6. ALL COLD-FORMED METAL STUDS SHALL BE 18 GAUGE MINIMUM UNLESS NOTED OTHERWISE.

7. INSTALLATION, BRIDGING, AND CONNECTIONS SHALL BE DESIGNED IN STRICT ACCORDANCE WITH THE METAL STUD MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

8. SIZES OF COLD-FORMED MEMBERS INDICATED IN DRAWINGS REPRESENT THE MINIMUM FRAMING/SIZE REQUIREMENTS. THE FINAL DESIGN OF ALL COLD-FORMED MEMBERS AND SECTIONS SHALL BE DETERMINED/VERIFIED AND REVISED BY THE COLD-FORMED DESIGNER AS REQUIRED BY THE DESIGN CRITERIA AND SPECIFIED STRUCTURAL DEMAND.

9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY FOR REVIEW.

10. SUBMIT SHOP DRAWINGS FOR REVIEW. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:

- a. FRAMING LAYOUT DEVELOPED BY THE MANUFACTURER/SUPPLIER (COPIES OF STRUCTURAL FRAMING PLANS WILL NOT BE ALLOWED). ALL MEMBERS SHALL BE LABELED AND CROSS-REFERENCED TO ANY OTHER SHOP DRAWINGS SUBMITTED FOR REVIEW. ALL LAYOUT DRAWINGS AND DESIGN SHEETS SHALL BE STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY.

- b. DESIGN DATA AND LOADS INDICATING CONFORMANCE WITH THE CONTRACT DOCUMENTS AND THE BUILDING CODE AND INDUSTRY STANDARDS.

- c. PRODUCT DATA FOR ALL COLD-FORMED METAL COMPONENTS, CONNECTORS, AND FASTENERS. INCLUDE A COPY OF THE ICC APPROVAL OR RESEARCH REPORT FOR THE SYSTEM TO BE USED.

21. IN THE ABSENCE OF A LAYOUT DRAWING STAMPED BY THE DESIGN ENGINEER, THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT STRUCTURAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY TO REVIEW THE COLD-FORMED METAL DESIGN DRAWINGS AND CONFIRM CONFORMANCE TO THE PROJECT DOCUMENTS AND AFFIX THEIR SEAL ON THE LAYOUT DRAWINGS AND CALCULATION PACKAGE. A CONTINGENCY FOR THIS WORK MUST BE CARRIED IN THE BASE CONTRACT.

DESIGN AND LOADS CRITERIA:

1. GENERAL DESIGN REQUIREMENTS IBC 2021, SECTION 1604.
2. RISK CATEGORY II
3. ROOF SNOW LOADS IBC 2021, SECTION 1607.
- a. GROUND SNOW LOADS, Pg 20PSF
- b. SNOW EXPOSURE FACTOR, Ce 1.0, ASCE 7-16, TABLE 7-2
- c. THERMAL FACTOR, Ct 1.1, ASCE 7-16, TABLE 7-3
- d. SNOW LOAD IMPORTANCE FACTOR, Is 1.0, ASCE 7-16, TABLE 1.5-2
- e. DESIGN FLAT ROOF SNOW LOAD, Pf(MINIMUM.) 20 PSF

- e. ROOF LIVE LOAD 20 PSF
4. RAIN LOADS IBC 2021, SECTION 1611.
- STRUCTURE HAS BEEN DESIGNED FOR 4" DEPTH OF STANDING RAINWATER (EQUIVALENT TO MINIMUM ROOF SNOW LOAD), NOT IN COMBINATION WITH ANY OTHER ROOF LIVE OR SNOW LOAD.

5. WIND LOADS IBC 2021, SECTION 1609
- a. BASIC WIND SPEED (ULTIMATE) Vult 115MPH, ASCE 7-16.
- b. ENCLOSURE CLASSIFICATION PARTIALLY ENCLOSED, ASCE 7-16.
- c. WIND EXPOSURE CATEGORY C, ASCE 7-16.
- d. DESIGN BUILDING DIMENSIONS
- i. DESIGN LENGTH/DESIGN WIDTH, L/B 97FT/21FT
- ii. MEAN ROOF HEIGHT, H 17.5FT
- iii. ROOF SLOPE 2IN/FT MINIMUM.
- f. MAIN WIND FORCE RESISTING SYSTEM (MWFRS) DIRECTIONAL PROCEDURE, PART 1 ASCE 7-16

- i. WIND DIRECTIONALITY FACTOR, Kd 0.85, ASCE 7-16, TABLE 26.6-1
- ii. TOPOGRAPHIC FACTOR, Kzt 1, ASCE 7-16, FIG. 26-8.1
- iii. GUST-EFFECT FACTOR, G 0.85, ASCE 7-16
- iv. INTERNAL PRESSURE COEFF. GCpi +/- 0.55, ASCE 7-16
- g. COMPONENTS AND CLADDING ASCE7-10ANALYSIS PROCEDURE H>60 FT, ASCE 7-16

- i. WIND DIRECTIONALITY FACTOR, Kd 0.85, ASCE 7-16, TABLE 26.6-1
- ii. TOPOGRAPHIC FACTOR, Kzt 1, ASCE 7-16, FIG. 26-8.1
- iii. VELOCITY PRESSURE COEFF, Kz 0.9, ASCE 7-16
- iv. INTERNAL PRESSURE COEFF. GCpi +/- 0.55, ASCE 7-16

6. EARTHQUAKE LOADS

- IBC 2021, SECTION 16.13
- h. SITE CLASS
- i. SPECTRAL RESPONSE ACCELERATIONS AND COEFFICIENTS
- ii. Ss 0.168, GEOTECH REPORT
- iii. S1 0.046, GEOTECH REPORT
- iv. Sds 0.179, GEOTECH REPORT
- v. Sd1 0.074, GEOTECH REPORT
- c. SEISMIC DESIGN CATEGORY B,
- d. SEISMIC IMPORTANCE FACTOR 1

FLOOD ELEVATIONS AS PER SITE PLAN BY STONewater ARCHITECTURE, LLC

100-YEAR FLOOD ELEVATION = 153.13

500-YEAR FLOOD ELEVATION = 155.24

FHA ELEVATION = 153.9

1

2



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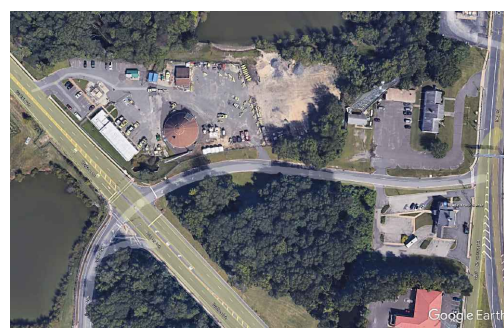


Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:

T0617-00 West Berlin
Storage Bin Installation
50 Walker Avenue
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan



Revisions

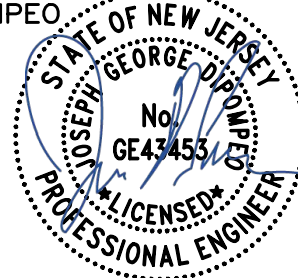
Date:	Description:	No.

Issued Documents

Date:	Description:
11/18/21	SCHEMATIC DESIGN
12/22/21	DESIGN DEVELOPMENT
02/16/22	FINAL DESIGN
12/14/23	REV 1. FINAL DESIGN
01/31/24	REV 2. FINAL DESIGN

Seal & Signature

JOSEPH DIPOMPEO



NJ PROFESSIONAL ENGINEER
LICENSE # GE-43453

Drawing Title:

NOTES &
SPECIFICATIONS

Sheet:

Drawing Number:

S002.00

1. PROVIDE SPECIAL INSPECTIONS IN ACCORDANCE WITH THE BELOW NOTED SECTION OF THE 2021 INTERNATIONAL BUILDING CODE. NJ EDITION
2. WHERE SPECIAL INSPECTION IS REQUIRED, IT SHALL BE PERFORMED BY A REGISTERED DEPUTY INSPECTOR PREQUALIFIED BY THE DPMC AND ARRANGED & PAID FOR BY THE CONTRACTOR. COPIES OF THE INSPECTION REPORTS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND ENGINEER FOR REVIEW.
3. A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION, MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.
4. THESE ITEMS ARE IN ADDITION TO THE BUILDING DEPARTMENT REQUIREMENTS.
5. THE SPECIAL INSPECTOR MUST BE PREQUALIFIED BY THE DPMC AND ARRANGED AND PAID OR BY THE CONTRACTOR.
6. THE TESTING LABORATORY MUST BE PREQUALIFIED BY THE DPMC AND ARRANGED AND PAID FOR BY THE CONTRACTOR.
7. A PROPERTY OWNER'S FINAL REPORT OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED BY THE PROPERTY OWNER, PROPERTY OWNER'S AGENT OF RECORD, DESIGNER OF RECORD,OR ENGINEER OF RECORD AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.
8. THE SPECIAL INSPECTIONS IDENTIFIED ARE IN ADDITION TO THOSE REQUIRED BY SEC.1705 OF THE 2021 IBC, AS AMENDED.SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A LOCAL JURISDICTION INSPECTOR.
9. SOILS SPECIAL INSPECTION SHALL BE PERFORMED BY THE REGISTERED DESIGN PROFESSIONAL AND PAID FOR BY THE CONTRACTOR IN RESPONSIBLE CHARGE (SOILS' ENGINEER OR GEOTECHNICAL ENGINEER OF RECORD), WHO HAS PREPARED THE APPROVED GEOTECHNICAL INVESTIGATION REPORT.
10. THE SPECIAL INSPECTOR MUST BE CERTIFIED BY THE LOCAL BUILDING OFFICIAL, DEVELOPMENT SERVICES, IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION AND PAID FOR BY THE CONTRACTOR.
11. FABRICATOR MUST BE REGISTERED AND APPROVED BY THE LOCAL BUILDING OFFICIAL, DEVELOPMENT SERVICES, FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP AND PAID FOR BY THE CONTRACTOR.
12. FABRICATOR SHALL SUBMIT AN 'APPLICATION TO PERFORM OFF-SITE FABRICATION' TO THE INSPECTION SERVICES DIVISION FOR APPROVAL PRIOR TO COMMENCEMENT OF FABRICATION AND PAID FOR BY THE CONTRACTOR.
13. FABRICATOR SHALL SUBMIT A 'CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION' TO THE INSPECTION SERVICES DIVISION PRIOR TO ERECTION OF FABRICATED ITEMS AND ASSEMBLIES.
14. A PROPERTY OWNER'S FINAL REPORT FORM OF WORK REQUIRED TO HAVE SPECIAL INSPECTION, TESTING AND STRUCTURAL OBSERVATIONS MUST BE COMPLETED BY THE PROPERTY OWNER, PROPERTY OWNER'S AGENT OF RECORD, DESIGNER OF RECORD, OR ENGINEER OF RECORD AND SUBMITTED TO THE INSPECTION SERVICES DIVISION AND PAID FOR BY THE CONTRACTOR.
15. THE SPECIAL INSPECTIONS IDENTIFIED ON PLANS ARE, IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A BUILDING INSPECTOR AND PAID FOR BY THE CONTRACTOR.
16. NOTICE TO THE APPLICANT / OWNER / OWNER'S AGENT / DESIGNER OR ENGINEER OF RECORD: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING OFFICIAL FOR SPECIAL INSPECTIONS, AND THOSE REQUIREMENTS REQUIRED BY THE 2021 IBC, NJ EDITION.
17. NOTICE TO THE CONTRACTOR / BUILDER / INSTALLER / SUB-CONTRACTOR / OWNER-BUILDER: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/ INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE AND ARE AWARE OF, THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING OFFICIAL FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY IBC 2021.
18. ITEMS REQUIRING SPECIAL INSPECTION:

2021 IBC SECTION 1705					
CATEGORY	ITEM #	VERIFICATION & INSPECTION	CONTINUOUS/ PERIODIC	REQ. Y/N	REFERENCE STANDARD OR COMPLIANCE DOCUMENT IBC REFERENCE
1704.2.4 REPORT REQUIREMENT					
REP.	1	SPECIAL INSPECTOR TO KEEP RECORD OF SPECIAL INSPECTIONS AND W FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.	CONTINUOUS	Y	1704.2.4
1704.2.5 INSPECTION OF FABRICATED ITEMS					
FAB.	1	WORK DONE IN FABRICATOR SHOP REQUIRES INSPECTOR UNLESS THE FABRICATOR IS REGISTERED AND APPROVED ACCORDING TO IBC 1704.2.5.1, WHERE FABRICATOR IS APPROVED, PROVIDE FABRICATOR CERTIFICATION DOCUMENT.	PERIODIC	Y	1704.2.5 DOCUMENT REQUIRED
FAB.	2	AT COMPLETION OF FABRICATION, SUBMIT CERTIFICATE OF COMPLIANCE TO BUILDING OFFICIAL STATING THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	Y	1704.2.5.1 DOCUMENT REQUIRED
1704.3 STATEMENT OF SPECIAL INSPECTIONS					
REP.		A REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SHALL PREPARE A STATEMENT OF SPECIAL INSPECTIONS	PERIODIC	Y	1704.3 (THIS DOCUMENT)
1704.4 CONTRACTOR RESPONSIBILITY					
REP.		EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND-OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY.	PERIODIC	N	1704.4 (PAGE 4 DOCUMENT REQUIRED)
1704.5 SUBMITTALS TO THE BUILDING OFFICIAL					
REP.		IN ADDITION TO THE SUBMITTAL REPORTS OF SPECIAL INSPECTIONS AND TESTS IN ACCORDANCE WITH SECTION 1704.2.4, REPORTS AND CERTIFICATES SHALL BE SUBMITTED BY THE OWNER OR OWNER'S AUTHORIZED AGENT TO THE BUILDING OFFICIAL FOR EACH OF THE FOLLOWING.	CONTINUOUS	N	1704.5
REP.	1	CERTIFICATES OF COMPLIANCE FOR THE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES ON THE PREMISES OF A REGISTERED AND APPROVAL FABRICATOR IN ACCORDANCE WITH SECTION 1704.2.5.1	CONTINUOUS	N	SECTION 1704.2.5.1 (FABRICATOR)
REP.	2	REPORTS OF MATERIAL PROPERTIES VERIFYING COMPLIANCE WITH THE REQUIREMENTS OF AWS D1.4 FOR WELDABILITY AS SPECIFIED IN SECTION 26.6.4, OF ACI 318 FOR REINFORCING BAR IN CONCRETE COMPLYING WITH A STANDARD OTHER THAN ASTM A 706 THAT ARE TO BE WELDED	CONTINUOUS	N	AWS D1.4 SECTION 26.6.4 OF ACI 318 ASTM A706

2021 IBC SECTION 1705					
CATEGORY	ITEM #	VERIFICATION & INSPECTION	CONTINUOUS/ US/ PERIODIC	REQ. Y/N	REFERENCE STANDARD OR COMPLIANCE DOCUMENT IBC REFERENCE
1704.6 STRUCTURAL OBSERVATION					
REP.		THE CONTRACTOR SHALL PAY FOR A REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATION. PRIOR TO COMMENCEMENT OF OBSERVATION, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT IDENTIFYING FREQUENCY AND EXTENT OF STRUCTURAL OBSERVATIONS.	PERIODIC	Y	1704.6.1, 1704.6.2, AND 1704.6.3
1705.2.1 STEEL CONSTRUCTION INSPECTION					
STL	1	STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360	PERIODIC	Y	AISC 360
1705.2.2 TO 1705.2.4 STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL INSPECTION					
STL	1	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS	PERIODIC	Y	ASTM STANDARDS
STL	1A	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	PERIODIC	Y	AISC 360, SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS
STL	1B	MANUFACTURER'S CERTIFICATE TEST REPORTS	PERIODIC	Y	
STL	2	INSPECTION OF WELDING	PERIODIC	Y	
STL (STR)	2A	COLD-FORMED STEEL DECK	PERIODIC	Y	
STL (REINF)	2B	REINFORCING STEEL	PERIODIC	Y	
STL (REINF)	2B (1)	VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	PERIODIC	N	AWS D1.4 ACI 318: 3.5.2
STL (REINF)	2B (2)	REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES	CONTINUOUS	Y	AWS D1.4 ACI 318: 3.5.2
STL (REINF)	2B (3)	SHEAR REINFORCEMENT	CONTINUOUS	Y	AWS D1.4 ACI 318: 3.5.2
STL (REINF)	2B (4)	OTHER REINFORCING STEEL	PERIODIC	Y	AWS D1.4 ACI 318: 3.5.2

2021 IBC SECTION 1705					
CATEGORY	ITEM #	VERIFICATION & INSPECTION	CONTINUOUS/ US/ PERIODIC	REQ. Y/N	REFERENCE STANDARD OR COMPLIANCE DOCUMENT IBC REFERENCE
1705.3 CONCRETE CONSTRUCTION					
CONC.	1	REINFORCING BAR WELDING	PERIODIC	Y	
CONC.	1A	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706	PERIODIC	Y	IBC 1905 AWS D1.4 ACI 318: 26.6.4
CONC.	1B	INSPECT SINGLE-PASS WELDS, MAXIMUM 5/16"	PERIODIC	Y	
CONC.	1C	INSPECT ALL OTHER WELDS	CONTINUOUS	Y	
CONC.	2	INSPECTION OF ANCHORS CAST IN CONCRETE	PERIODIC	Y	IBC 1905 ACI 318: 17.8.2
CONC.	3	VERIFYING USE OF REQUIRED DESIGN MIX	PERIODIC	Y	ACI 318: CH. 19, 26.4.3, 26.4.4
CONC.	4	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	CONTINUOUS	Y	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12
CONC.	5	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	CONTINUOUS	Y	ACI 318: 26.5
CONC.	6	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	PERIODIC	Y	ACI 318: 26.5.3 - 26.5.5
CONC.	7	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	PERIODIC	Y	ACI 318: 26.11.1(B)

2021 IBC SECTION 1705					
CATEGORY	ITEM #	VERIFICATION & INSPECTION	CONTINUOUS/ US/ PERIODIC	REQ. Y/N	REFERENCE STANDARD OR COMPLIANCE DOCUMENT IBC REFERENCE
1705.6 SOILS					
SOIL	1	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	PERIODIC	Y	TABLE 1705.6
SOIL	2	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	PERIODIC	Y	TABLE 1705.6
SOIL	3	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	PERIODIC	Y	TABLE 1705.6
SOIL	4	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	CONTINUOUS	Y	TABLE 1705.6
SOIL	5	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUB-GRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	PERIODIC	Y	TABLE 1705.6

2021 IBC SECTION 1705					
CATEGORY	ITEM #	VERIFICATION & INSPECTION	CONTINUOUS/ US/ PERIODIC	REQ. Y/N	REFERENCE STANDARD OR COMPLIANCE DOCUMENT IBC REFERENCE
1705.10 SPECIAL INSPECTIONS FOR FABRICATED ITEMS					
FAB		SPECIAL INSPECTIONS OF FABRICATED ITEMS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 1704.2.5	-	Y	APPROVED GEOTECHNICAL REPORT AND REGISTERED DESIGN PROFESSIONAL SEC. 1704.2.5 AND 1705.10

STRUCTURAL DRAWING LIST	
MARK	DESCRIPTION
S001.00 & S002.00	GENERAL NOTES AND SPECIFICATION
S003.00	SPECIAL INSPECTION NOTES
S101.00	FOUNDATION PLAN
S102.00	ROOF FRAMING PLAN
S103.00 TO S105.00	DETAILS



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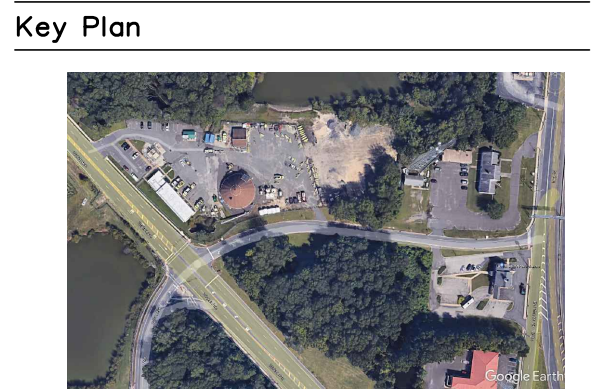
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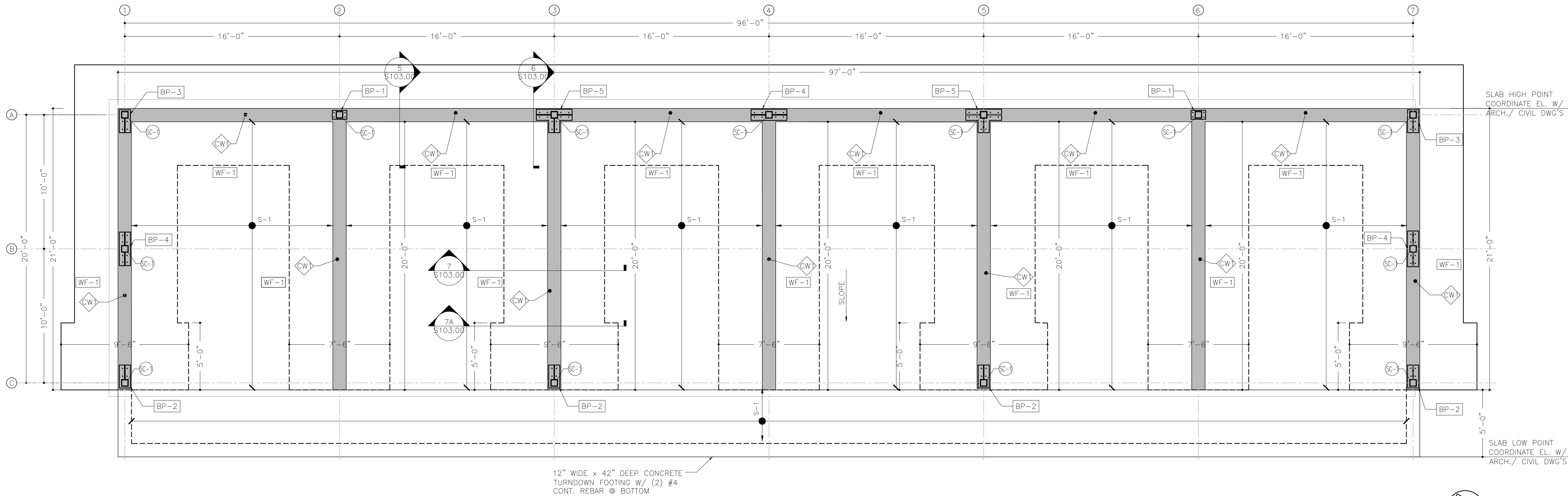


Revisions		
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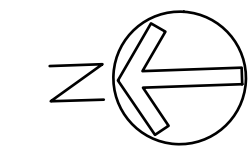
Issued Documents	
Date:	Description:
11/18/21	SCHEMATIC DESIGN
12/22/21	DESIGN DEVELOPMENT
02/16/22	FINAL DESIGN
12/14/23	REV 1. FINAL DESIGN
01/31/24	REV 2. FINAL DESIGN

Seal & Signature
JOSEPH DIPOMPEO

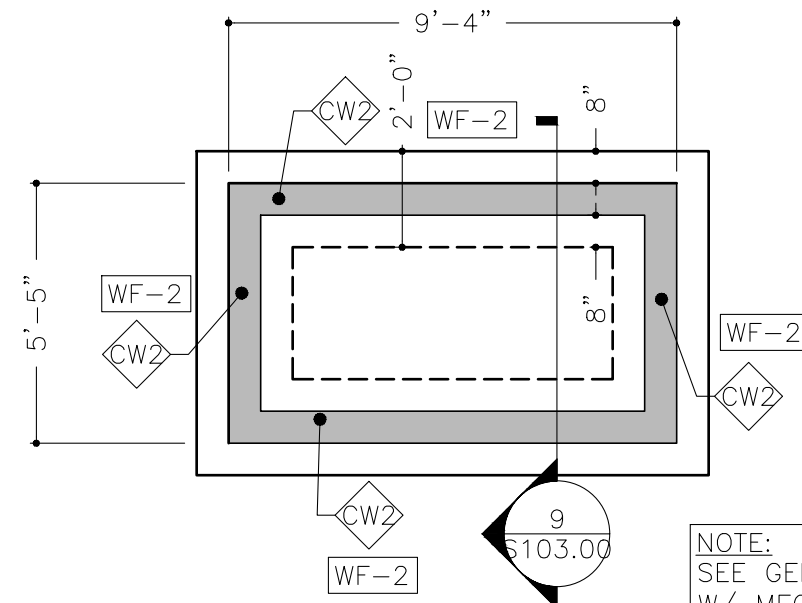
Drawing Title: SPECIAL INSPECTION NOTES
Sheet: Drawing Number: S003.00



1 FOUNDATION PLAN



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



NOTE:
SEE GENERATOR INFO TABLE BELOW AND COORDINATE W/ MECHANICAL/ELECTRICAL DRAWING AS NEEDED.
FASTEN W/ 1/2"Ø F1554 GR 55 ANCHOR RODS AT EACH CORNER, MIN. EMBED 6". IN ADDITION, COORDINATE PAD LOCATION W/ CIVIL & ARCH DWGS AS NEEDED.

2 GENERATOR PAD PLAN

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

BASEMENT AND FOUNDATION PLAN NOTES:

- ALL ELEVATIONS SHOWN ON PLAN ARE ACTUAL ELEVATIONS.
- TOP OF SLAB ELEVATIONS SEE CIVIL & ARCH DWG'S.
- SLAB IS PITCHED BETWEEN HIGH AND LOW POINTS AS SHOWN ON PLAN. REFER TO CIVIL AND ARCHITECTURAL DRAWINGS.
- FOR CONCRETE WALL (CW-XX) SCHEDULE, REFER TO S101.00.
- TOP OF FOOTING ELEVATIONS FOR WALL FOOTING IS (-2'-6") MIN FROM TOP OF CONCRETE SLAB.
- ALL WALL FOOTINGS ELEVATIONS SHALL MATCH ADJACENT TOP OF FOOTING ELEVATION U.O.N. STEP BOTTOM OF FOOTING AS REQUIRED.
- COORDINATE ALL WORK WITH ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO :
 - DIMENSIONS, FINISHING DETAILS, EMBEDMENT, PENETRATIONS, ETC.
 - FINISHED SLAB ELEVATION AND SLAB DEPRESSIONS.
 - REQUIRED SLOPES OF ALL SLABS ON GRADE FOR DRAINAGE.
 - RAMPS GEOMETRY AND SLOPES
- BUILDING LAYOUT AND LOCATIONS OF FOUNDATION WALLS MUST BE FULLY COORDINATED WITH THE LATEST ARCHITECTURAL DRAWINGS AND VERIFIED PRIOR TO CONSTRUCTION.
- COORDINATE THE GEOMETRY OF ALL SLAB EDGES WITH THE ARCHITECTURAL DRAWINGS. SLAB EDGES SHOWN ON STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY.
- CONTRACTOR SHALL OBTAIN THE LATEST COPY OF THE GEOTECHNICAL REPORT GENERATED BY GEO-TECHNOLOGY ASSOCIATES INC. (GTA JOB NO. 31211885) DATED DECEMBER 20, 2021 AND CONFORM TO ALL REQUIREMENTS FOR CONSTRUCTION OF FOUNDATIONS, SLABS ON GRADE, AND THE REMOVAL AND INSTALLATION OF ALL STRUCTURAL FILLS.
- REMOVE EXISTING ROCK/BOULDERS AS REQUIRED TO ALLOW FOR THE INSTALLATION OF NEW FOUNDATIONS. IN SUCH CASES WHERE THE FOUNDATIONS WILL BEAR DIRECTLY ON ROCK, COORDINATE WITH THE STRUCTURAL ENGINEER FOR POTENTIAL REDUCTION IN THE REQUIRED FOOTING SIZE.
- COORDINATE UNDERSLAB AND PERIMETER DRAINAGE SYSTEM WITH THE PLUMBING DRAWINGS INCLUDING ALL PITS, SLEEVES AND MISCELLANEOUS EMBEDDED ITEMS.

- COORDINATE ALL PIPE PENETRATIONS AND UTILITIES PENETRATION WITH CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. DO NOT START CONCRETE WORK BEFORE COORDINATION WITH ALL TRADES.
- WHERE THE PENETRATIONS CONFLICT WITH THE TOP OF THE FOOTING ELEVATION, LOWER THE FOOTING AS REQUIRED AND STEP DOWN THE FOUNDATION WALL TO THE FOOTING AS PER TYPICAL DETAILS.
- THE PLUMBING SUB-CONTRACTOR SHALL COORDINATE WITH THE CONCRETE SUB-CONTRACTOR FOR UNDERGROUND PIPING SLEEVE LOCATIONS, HEIGHTS AND SIZES PRIOR TO THE INSTALLATION OF ANY CONCRETE WORK. THE CONCRETE SUB-CONTRACTOR SHALL SUPPLY AND INSTALL ALL REQUIRED PIPE SLEEVES.
- THE MODIFICATION OF ANY COMPLETED CAST -IN-PLACE CONCRETE WORK SHALL NOT BE PERMITTED.

NOTE:

ALL TEMPORARY WORK, SHORING, SUPPORT OF EXCAVATION ETC. SHALL BE DESIGNED, INSTALLED, AND CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT GOVERNING CODE(S). THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL TEMPORARY MEASURES NECESSARY FOR ERECTION.

NOTE:

GENERAL CONTRACTOR SHALL COORDINATE WITH CONCRETE SLAB CONTRACTOR AND PLUMBING SUB CONTRACTOR FOR UNDERGROUND PIPING AND SLEEVE LOCATIONS, HEIGHTS AND SIZES PRIOR TO THE CONCRETE WORK. ANY MODIFICATION OF COMPLETED CAST IN-PLACE CONCRETE WORK SHALL NOT BE PERMITTED.

SLAB SCHEDULE	
MARK	DESCRIPTION
S-1	8" THICK CONCRETE SLAB W/ #3 @ 8" E.W. OVER 6 MIL VAPOR BARRIER OVER 95% COMPACTED FILL OR UNDISTURBED SOIL

GENERATOR INFO.	
MARK	DESCRIPTION
LENGTH, INCHES	112"
WIDTH, INCHES	41"
HEIGHT, INCHES	94"
WEIGHT OF GENERATOR, LBS	3800

LEGEND	
MARK	DESCRIPTION
	CONCRETE WALL
	FOOTING
	STEEL COLUMNS (SEE COLUMN SCHEDULE)
	COLUMN TAG (SEE COLUMN SCHEDULE)
	WALL TAG (SEE WALL SCHEDULE)

COLUMN SCHEDULE		
MARK	SIZE	DIAGRAM
SC-1	HSS 6x6x1/4"	

WALL FOOTING SCHEDULE				
MARK	WIDTH	THICKNESS	SHORT REINF.	LONG REINF.
WF-1	7'-6"	16"	#5 @ 8" O.C.	#5 @ 8" O.C.
WF-2	2'-0"	12"	#4 @ 12" O.C.	#4 @ 12" O.C.

WALL SCHEDULE	
MARK	DESCRIPTION
CW1	12" THICK CONCRETE WALL WITH #5 @ 12" O.C. VERTICAL AND HORIZONTAL AT EACH FACE
CW2	8" THICK CONCRETE WALL WITH #4 @ 12" O.C. VERTICAL AND HORIZONTAL CENTRALLY PLACED

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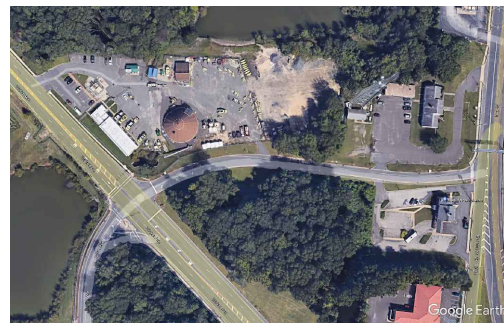


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West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan



Revisions

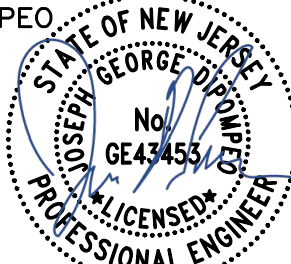
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Seal & Signature

JOSEPH DIPOMPEO



NJ PROFESSIONAL ENGINEER
LICENSE # GE-43453

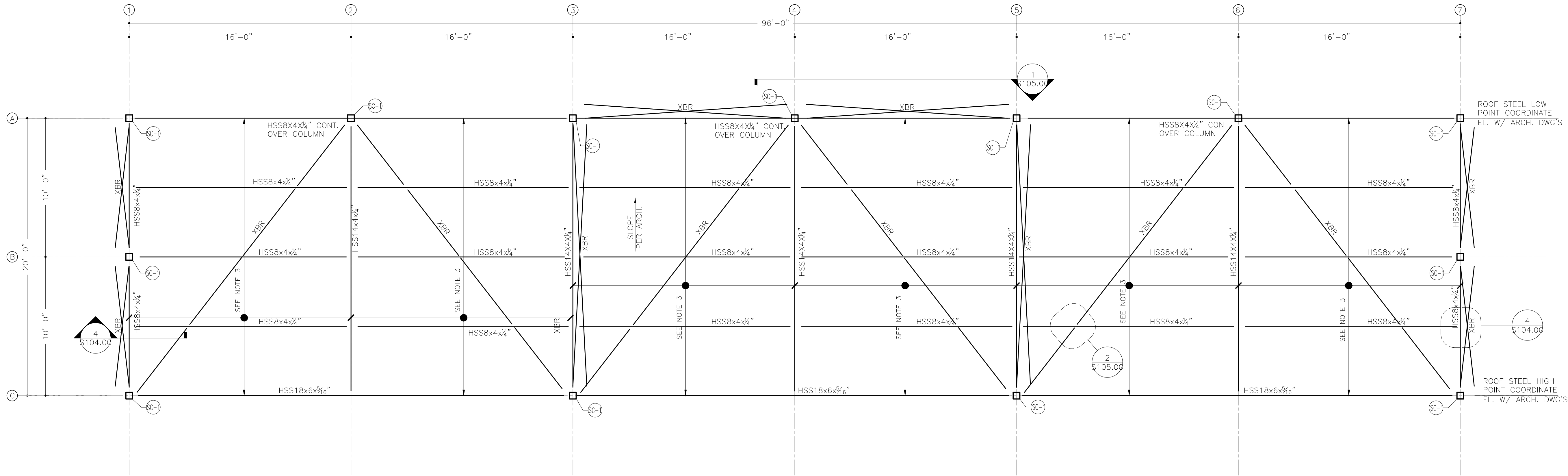
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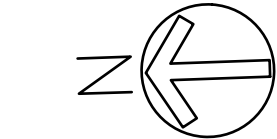
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S101.00



1 ROOF FRAMING PLAN

NOTE:
SEE S105.00 FOR TYPICAL WIND GIRT SIZE &
CONFIGURATION ALONG GRID LINE 1,7 AND A



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

FRAMING NOTES:

- COORDINATE ALL WORK WITH ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO :
 - ROOF GEOMETRY, FINISH DETAILS, PENETRATION ETC.
 - ROOF SLOPES AND ELEVATIONS AT HIGH AND LOW ROOF POINTS.
- ROOF SLOPES BETWEEN HIGH POINTS AND LOW POINT AS PER THE ARCHITECTURAL DRAWINGS.
- FOR ROOF DECK & WALL PANELS USE ENGLERT UNILINE C-36, 7.2 RIB 1 1/2" DEEP, 22GA W/ GALVALUME 120+ KYNAR 500' PAINT, COORDINATE FINISHES W/ ARCH. DWG'S OR APPROVED EQUAL.
- ALL STEEL DECKS SHALL BE INSTALLED IN "TRIPLE SPAN" CONDITION WHEN POSSIBLE.
- SPACE ALL BEAMS IN EQUAL SPACES, TYPICAL UNLESS OTHERWISE NOTED.
- STRUCTURAL STEEL FRAMING MEMBERS SLOPES BETWEEN HIGH POINT (H.P.) AND LOW POINT (L.P.) AS INDICATED ON THE PLAN.
- "S" FOLLOWED BY AN ARROW INDICATED SLOPING BEAMS. THE ARROW INDICATES THE DIRECTION OF THE SLOPE WITH THE HEADS TOWARDS THE LOW POINT.
- FOR COLUMN SCHEDULE, REFER TO DRAWING S101.00 AND S102.00 FOR SIZES AND ADDITIONAL INFORMATION.
- ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.
- COORDINATE ALL ROOF OPENING LOCATIONS AND GEOMETRY WITH THE ARCHITECTURAL AND M.E.P. DRAWINGS. NOT ALL ROOF PENETRATIONS ARE SHOWN ON STRUCTURAL PLANS. FRAME AROUND ALL OPENINGS PER TYPICAL DETAILS.
- ALL EDGES OF DECK SHALL BE DETERMINED BY THE ARCHITECTURAL DRAWINGS. EDGE OF DECK SHOWN ON STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY.
- ALL HSS MEMBERS SHALL CONTAIN WEEP HOLES SUFFICIENT TO DRAIN ALL INCIDENTAL WATER THAT COLLECTS WITHIN THE INTERIORS.

LEGEND	
MARK	DESCRIPTION
	STEEL BEAM
	STEEL COLUMNS (SEE COLUMN SCHEDULE)
	COLUMN TAG (SEE COLUMN SCHEDULE)
XBR	X-BRACING, SEE DETAIL (1/S105.00)

COLUMN SCHEDULE		
MARK	SIZE	DIAGRAM
SC-1	HSS 6x6x1/4"	

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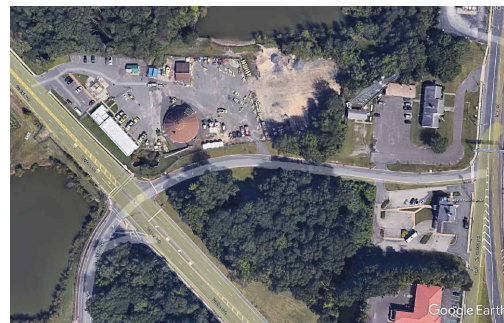


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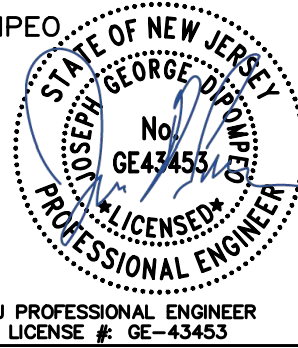
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JOSEPH DIPOMPEO



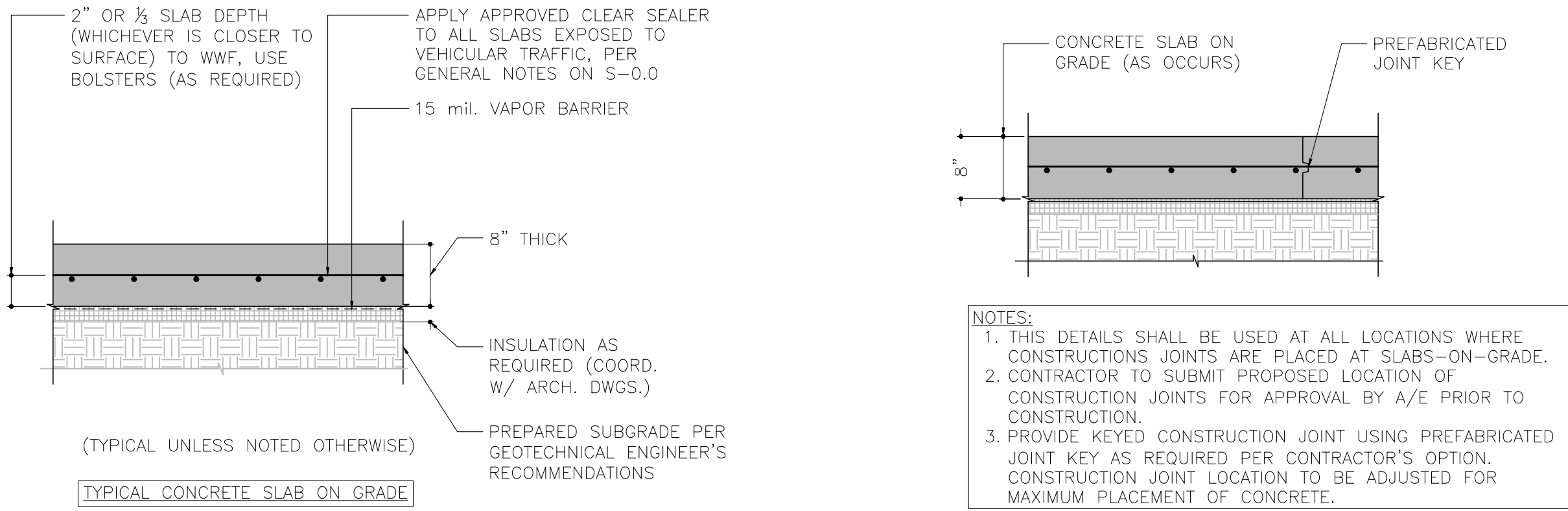
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ROOF FRAMING PLAN

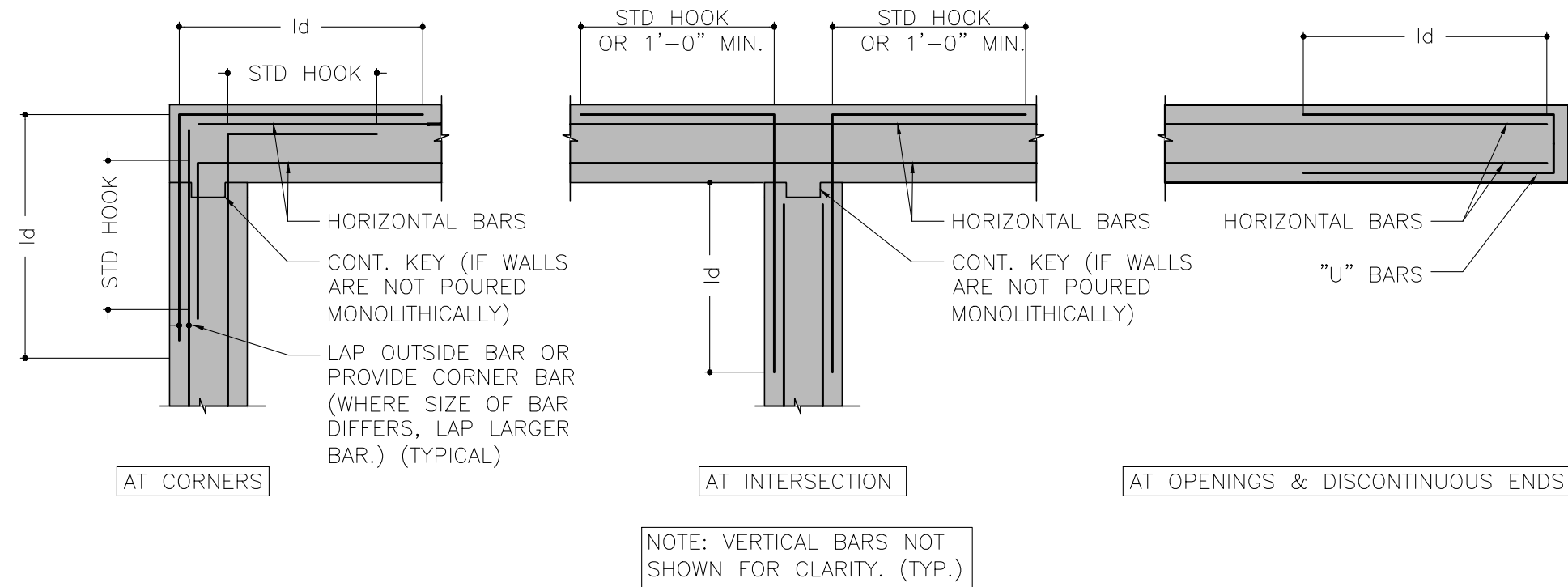
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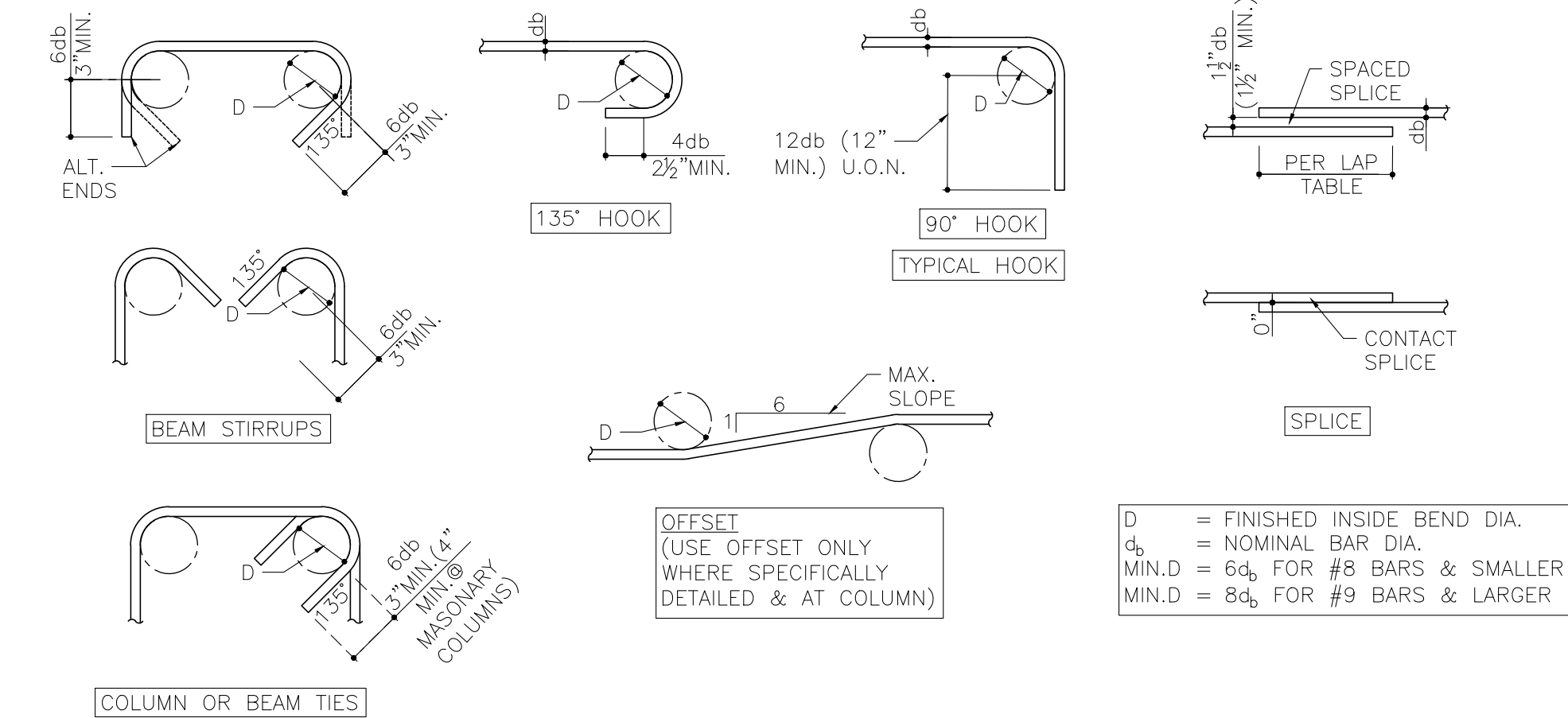
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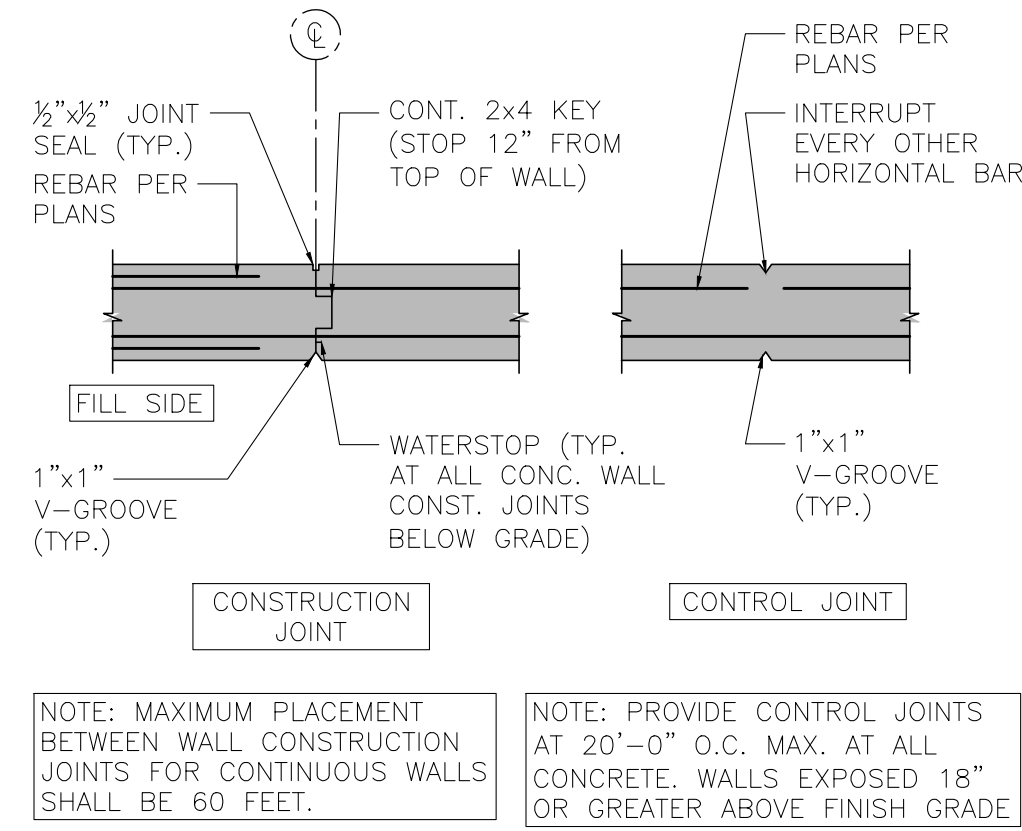
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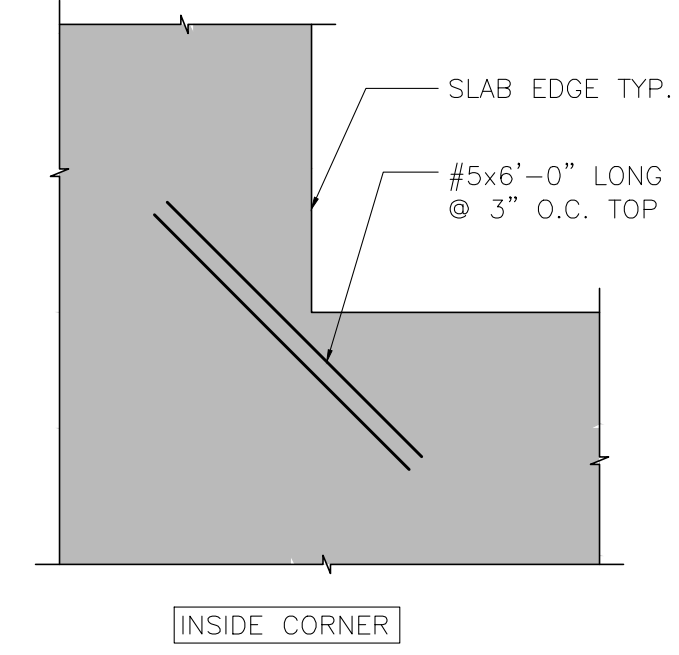
4 TYPICAL PLAN DETAIL AT WALL HORIZONTAL REINFORCEMENT SCALE: 3/4"=1'-0"



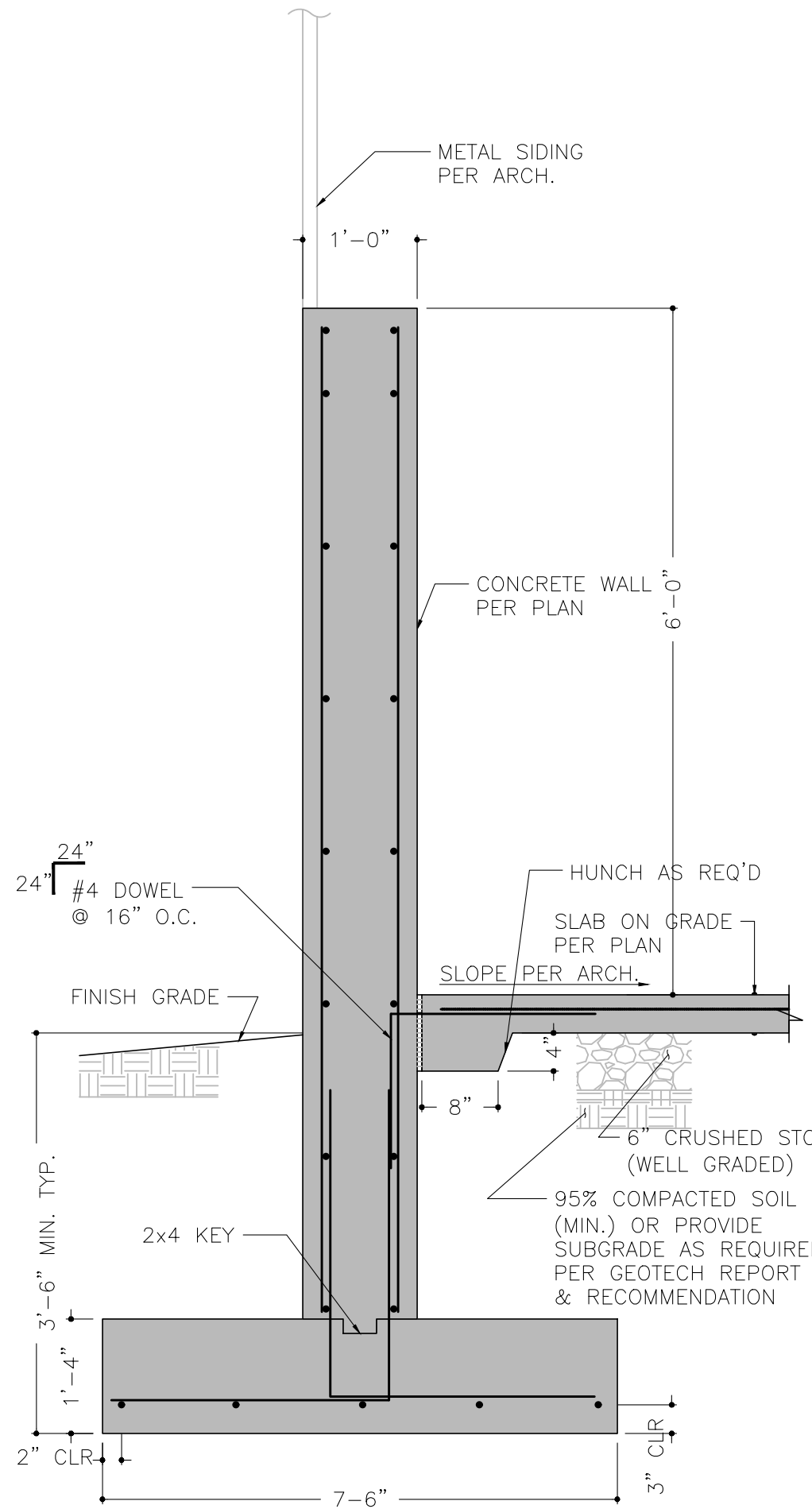
8 TYPICAL REBAR SPLICE SCHEDULE, NOTES AND BARS SCALE: 3/4"=1'-0"



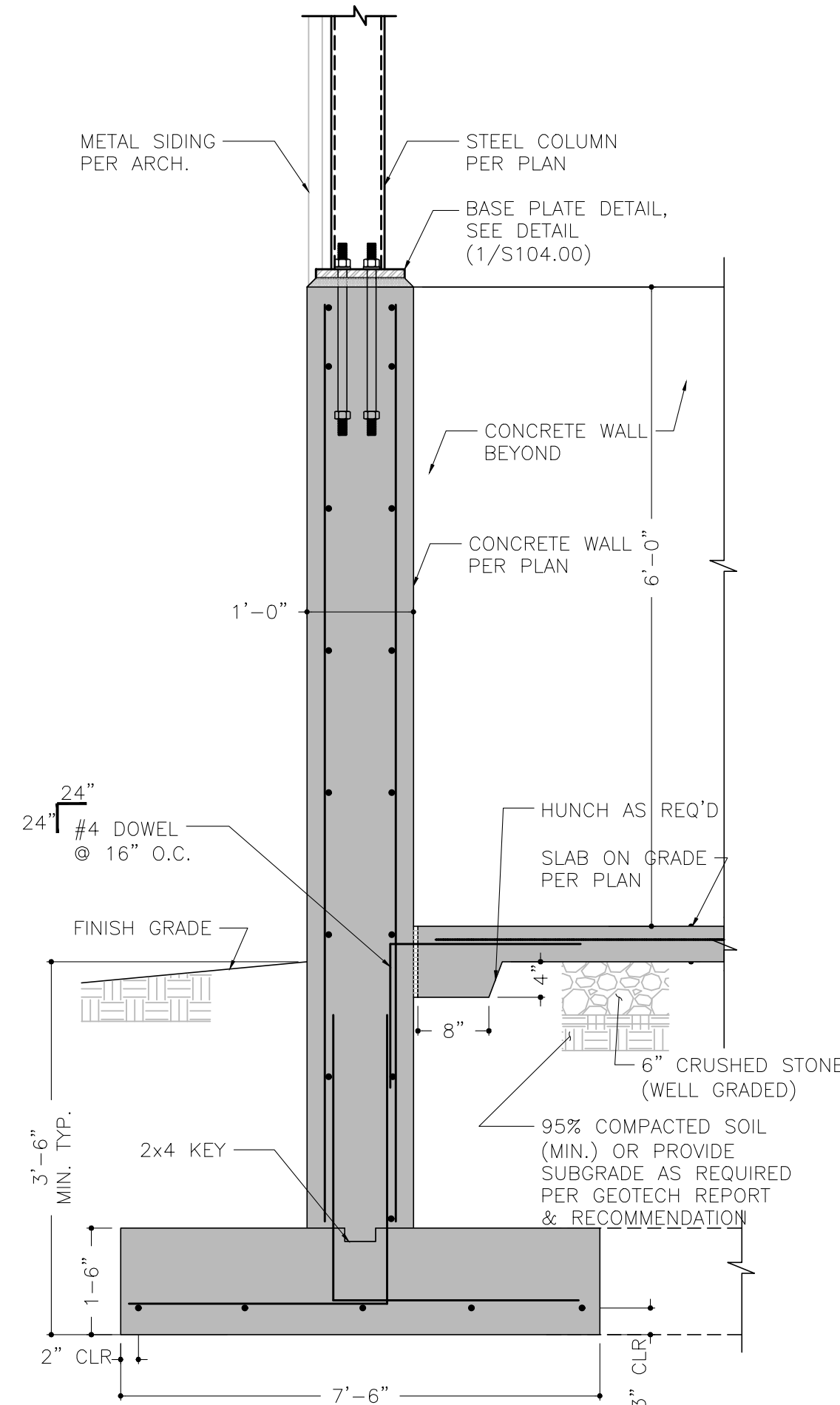
2 TYPICAL CONCRETE WALL JOINT DETAILS SCALE: 3/4"=1'-0"



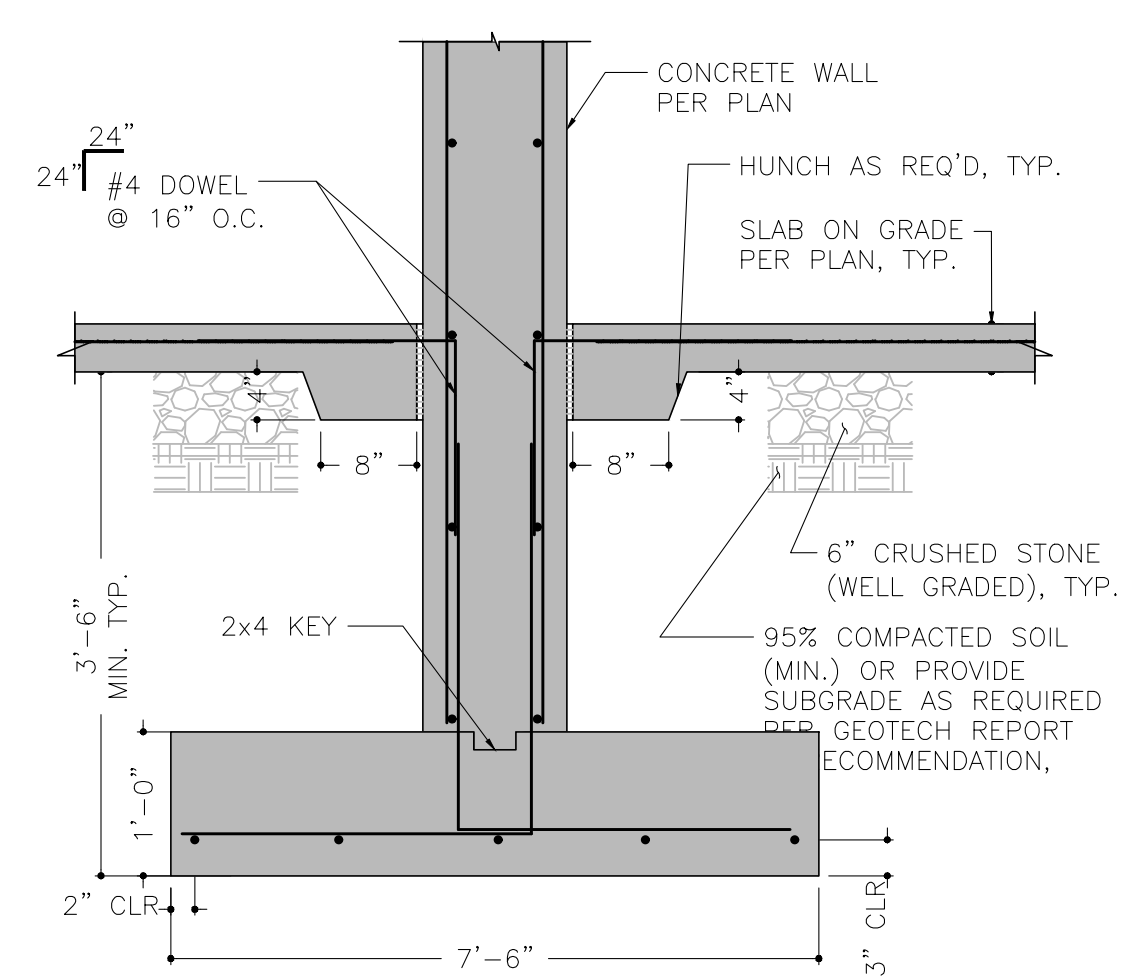
3 TYPICAL ADDITIONAL REINFORCEMENT DETAILS AT RE-ENTRANT CORNERS SCALE: 3/4"=1'-0"



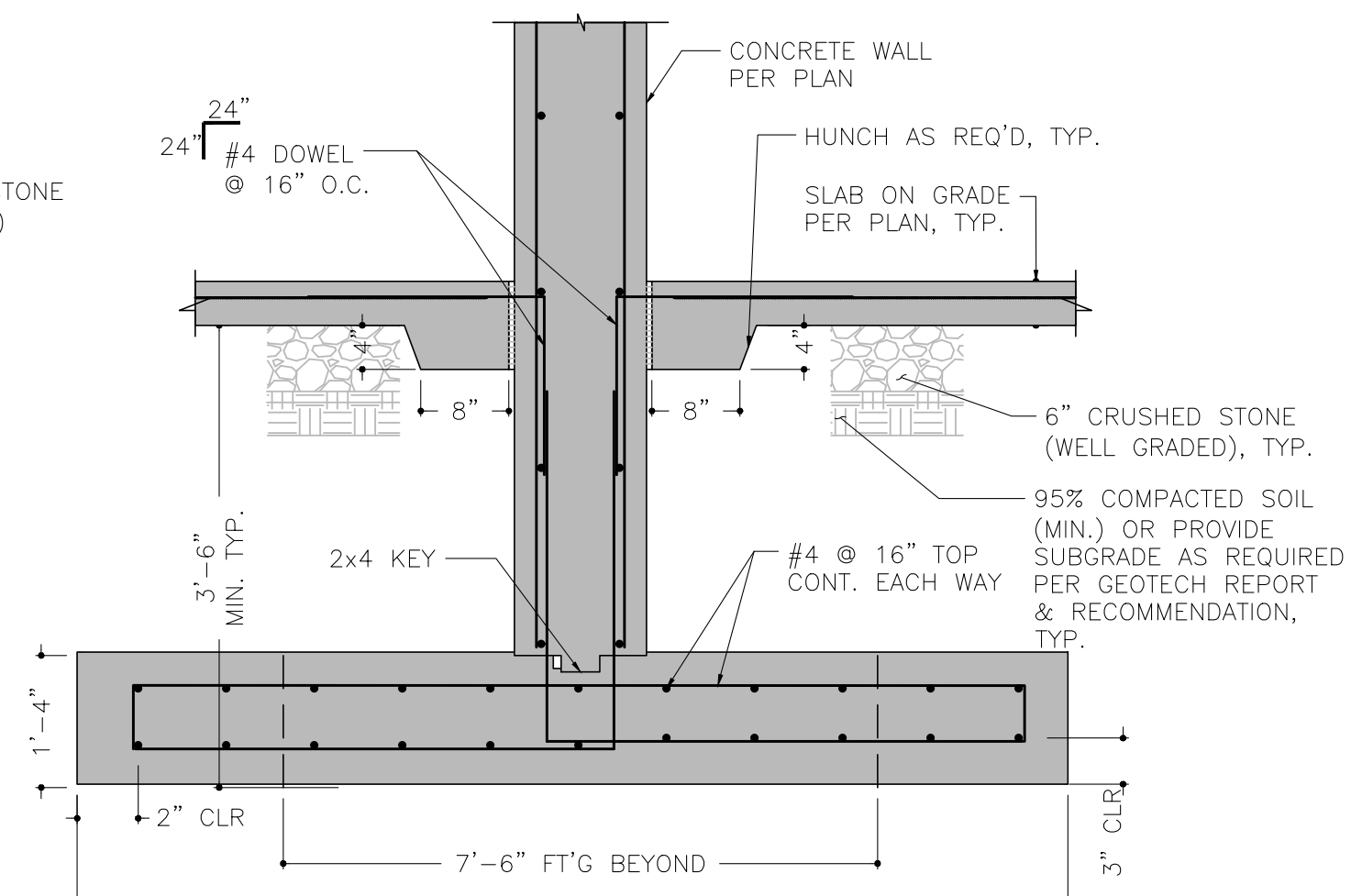
5 DETAIL AT REAR WALL SCALE: 3/4"=1'-0"



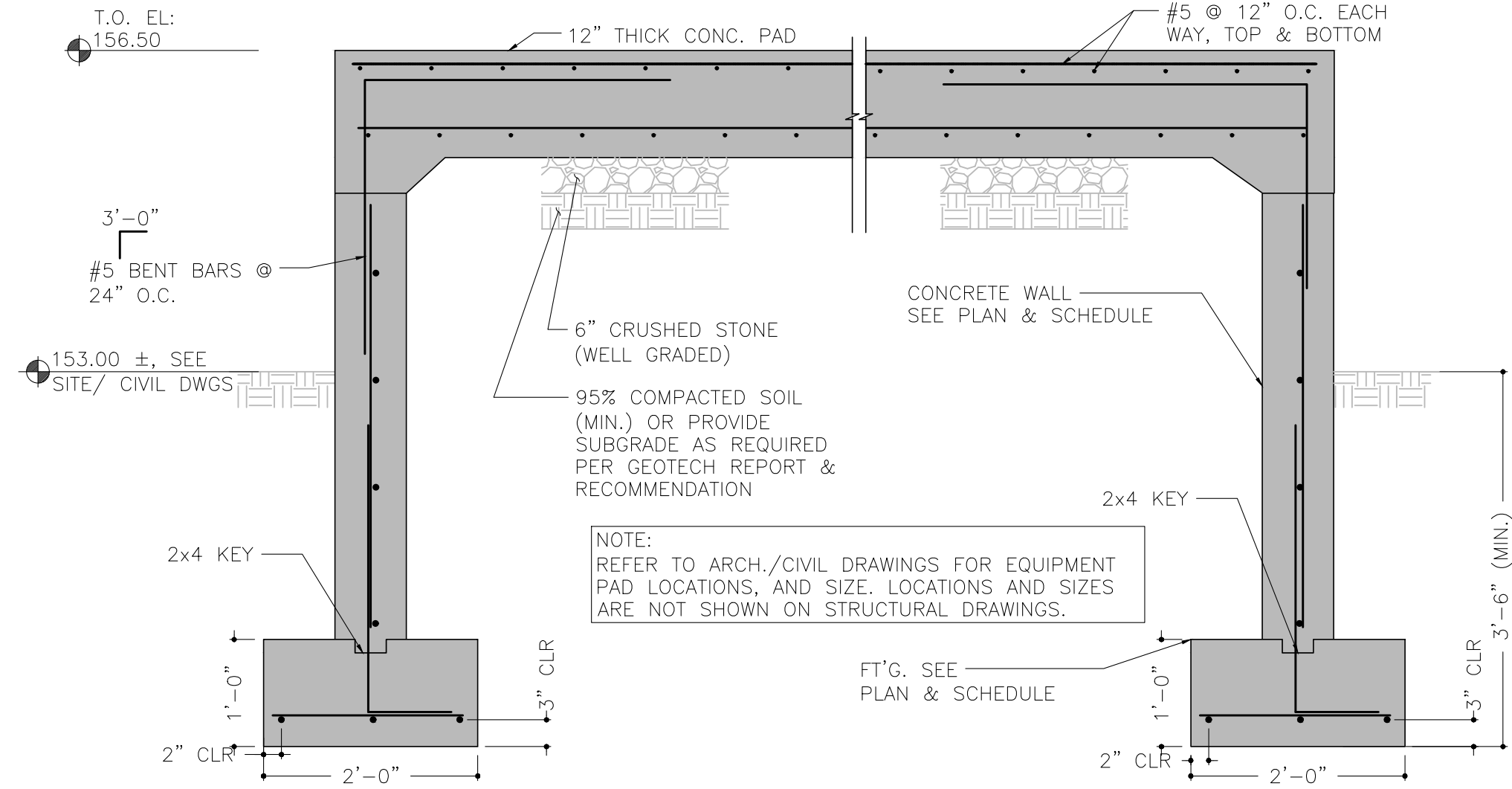
6 DETAIL AT END WALL SCALE: 3/4"=1'-0"



7 DETAIL AT INTERMEDIATE WALL SCALE: 3/4"=1'-0"



8 DETAIL AT INTERMEDIATE WALL SCALE: 3/4"=1'-0"



9 TYPICAL CONCRETE EQUIPMENT PAD DETAIL SCALE: 3/4"=1'-0"



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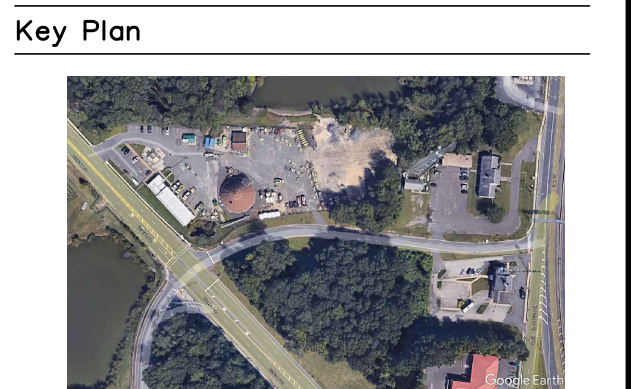
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Seal & Signature
JOSEPH DIPOMPEO

STATE OF NEW JERSEY
JOSEPH DIPOMPEO
No. GE43453/23
LICENSED PROFESSIONAL ENGINEER

NJ PROFESSIONAL ENGINEER
LICENSE # GE-43453

Drawing Title:

DETAILS

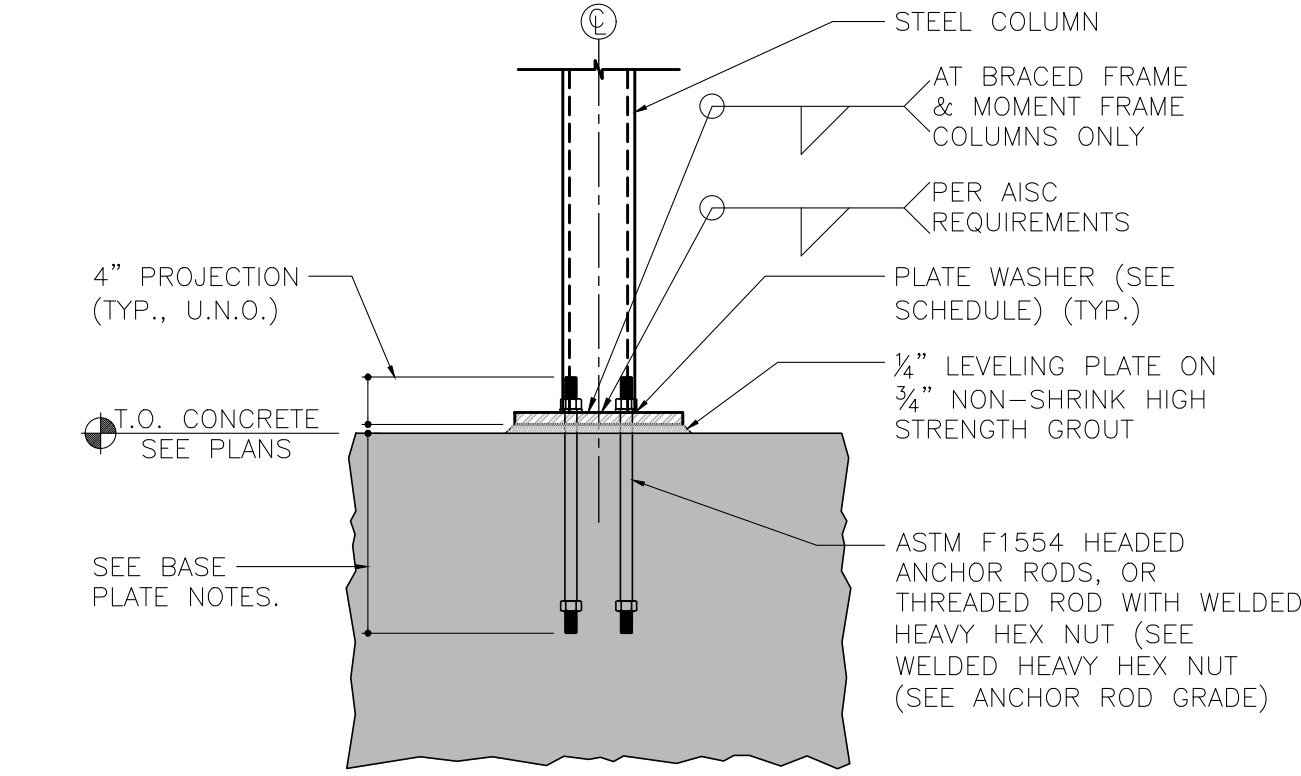
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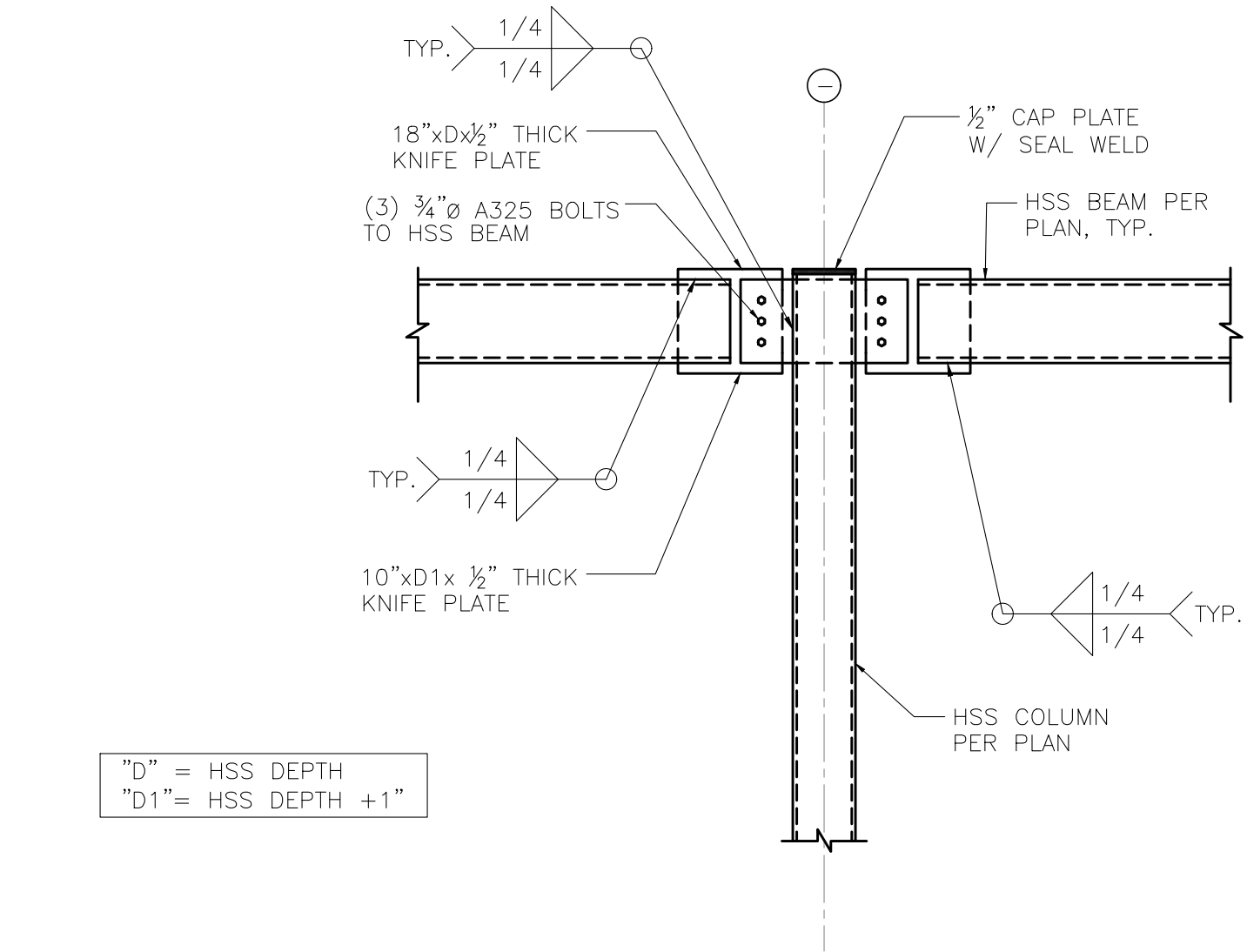
S103.00

- NOTE:
- ALL ANCHORS RODS ARE TO BE ASTM F1554 STEEL. ALL GRADE 55 RODS SHALL BE WELDABLE.
 - REQUIRED ANCHOR ROD EMBEDMENT LENGTHS ARE INDICATED IN THE BASE PLATE DETAILS. MINIMUM ANCHOR RODS EMBEDMENT DEPTH IS 12" EXCEPT WHERE FOOTING IS SHALLOWER THAN 15". CONTRACTOR MUST COORDINATE BASE PLATE DETAILS WITH FOUNDATION DEPTH TO ENSURE THAN NO ANCHOR ROD HAS LESS THAN 3" CLEAR TO THE BOTTOM OF FOOTING.
 - CONTRACTOR MUST ENSURE THAT BASE PLATE AND ANCHORS ROD LAYOUT IS COORDINATED WITH PIER AND FOUNDATION LAYOUT, AND THAT ANCHOR ROD CONFLICTS DO NOT EXIST PRIOR TO FABRICATION OF STEEL.
 - MISPLACED ANCHOR RODS SHOULD BE REPORTED TO THE ARCHITECT/ENGINEER IMMEDIATELY. CONTRACTOR MUST SUBMIT A SKETCH OF THE AS-BUILT CONDITION AND A PROPOSED REPAIR DETAIL AT EACH LOCATION.

SCHEDULE OF BASEPLATE HOLES AND WASHERS			
ANCHORS ROD DIAMETER	HOLE DIAMETER	MINIMUM WASHER WIDTH (OR DIAMETER)	MINIMUM WASHER THICKNESS
3/4"	1 1/8"	2"	3/8"
1"	1 3/8"	3"	3/8"
1 1/4"	2 1/8"	3"	1/2"
1 1/2"	2 3/8"	3 1/2"	1/2"
1 3/4"	2 3/4"	4"	5/8"

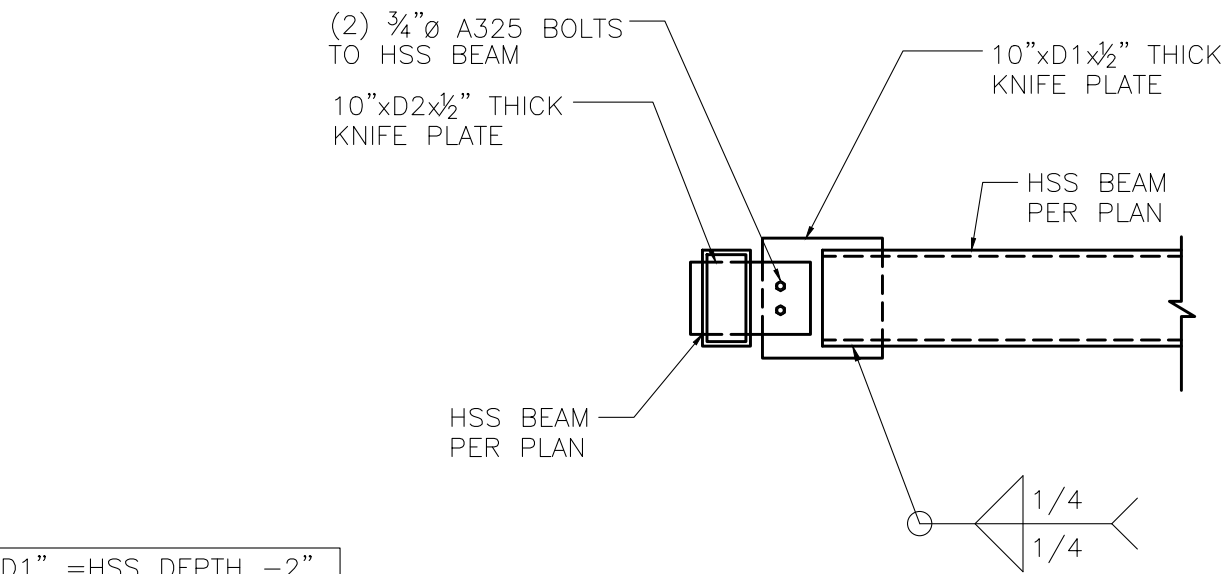


1 TYPICAL BASE PLATE AND ANCHOR ROD DETAILS



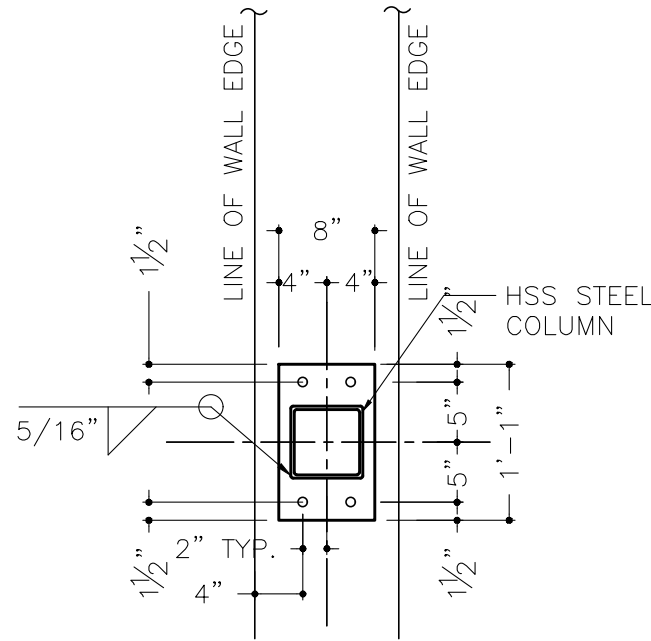
3 DETAIL AT TUBE TO COLUMN CONNECTION

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



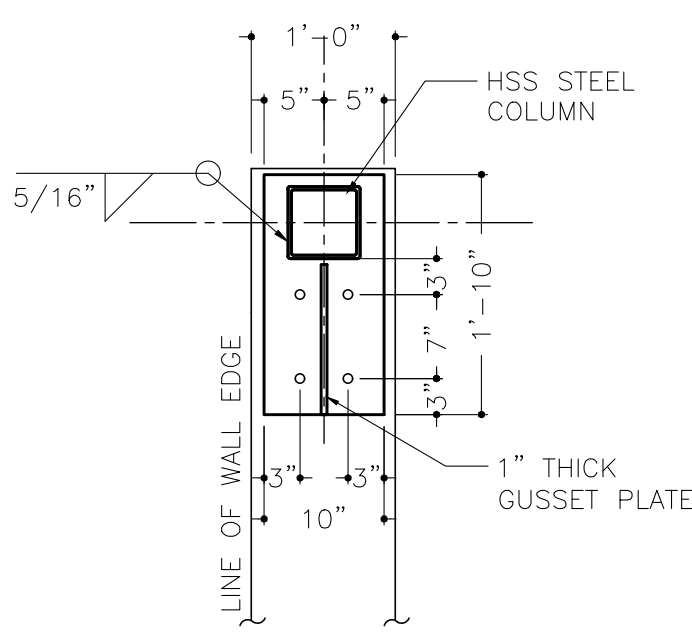
4 DETAIL AT TUBE TO TUBE CONNECTION

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



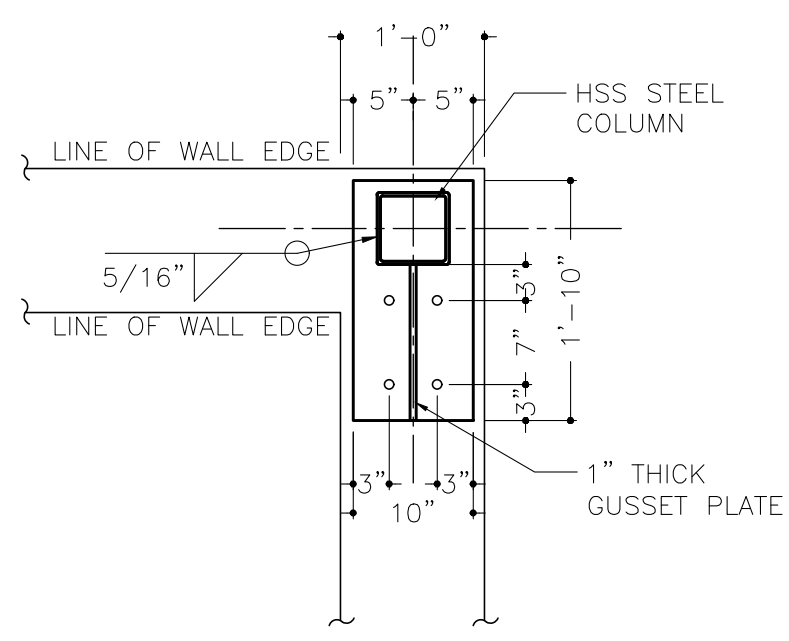
BASE PLATE: 13"x8"x1"
ANCHOR BOLTS: (4) 3/8"Ø (F1554 GR.36)
EMBEDMENT: 14"

TYPE A BP-1



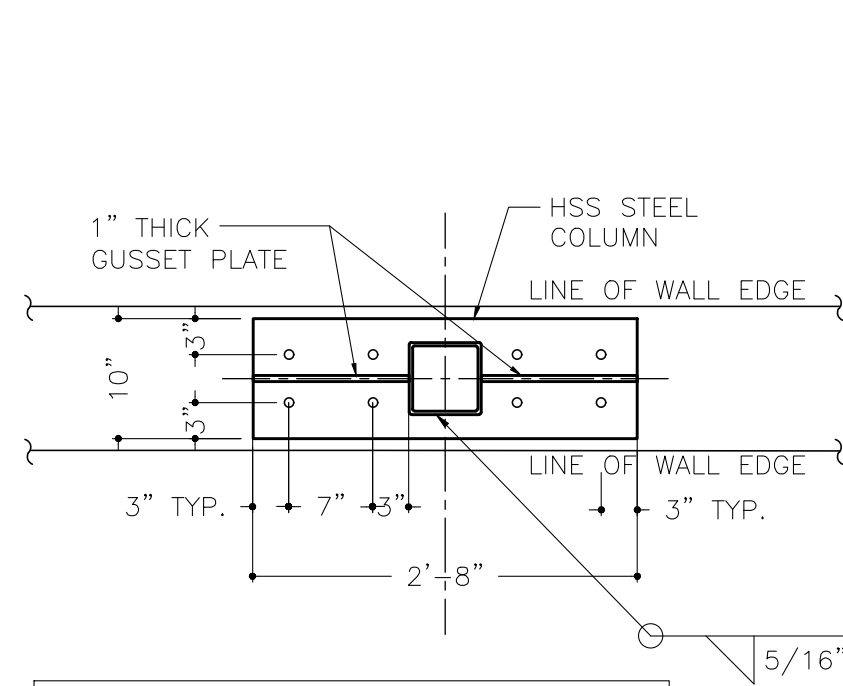
BASE PLATE: 22"x10"x1"
ANCHOR BOLTS: (4) 3/8"Ø (F1554 GR.36)
EMBEDMENT: 14"

TYPE A BP-2



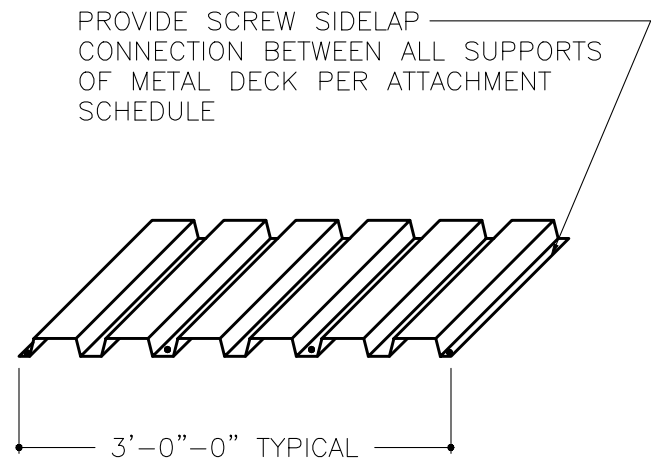
BASE PLATE: 22"x10"x1"
ANCHOR BOLTS: (4) 3/8"Ø (F1554 GR.36)
EMBEDMENT: 14"

TYPE A BP-3



BASE PLATE: 32"x10"x1"
ANCHOR BOLTS: (8) 3/8"Ø (F1554 GR.36)
EMBEDMENT: 14"

TYPE A BP-4



TYPICAL DECK ATTACHMENT

METAL DECK ATTACHMENT SCHEDULE	
DESIGNATION	ALL AREAS
ATTACHMENT AT ALL BOUNDARIES	SIMPSON STRONG DRIVE XE EXTERIOR STRUCTURAL SCREW #10-16x1" (XQ1S1016) @12" O.C.
ATTACHMENT AT SUPPORTS	SIMPSON STRONG DRIVE XE EXTERIOR STRUCTURAL SCREW #10-16x1" (XQ1S1016) 4 PER SHEET
ATTACHMENT AT SIDELAP	SIMPSON STRONG DRIVE XE EXTERIOR STRUCTURAL SCREW #10-16x1" (XQ1S1016)
NOTES: SUBMIT SUBSTITUTIONS TO ENGINEER FOR EVALUATION.	

2 TYPICAL DECK ATTACHMENT DETAIL

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

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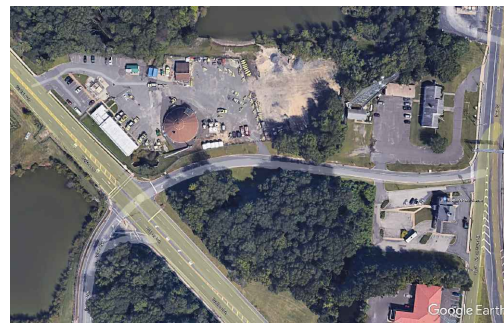


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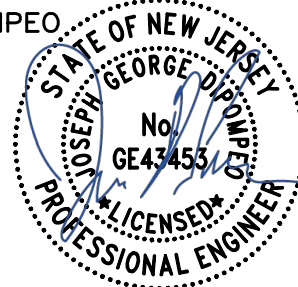
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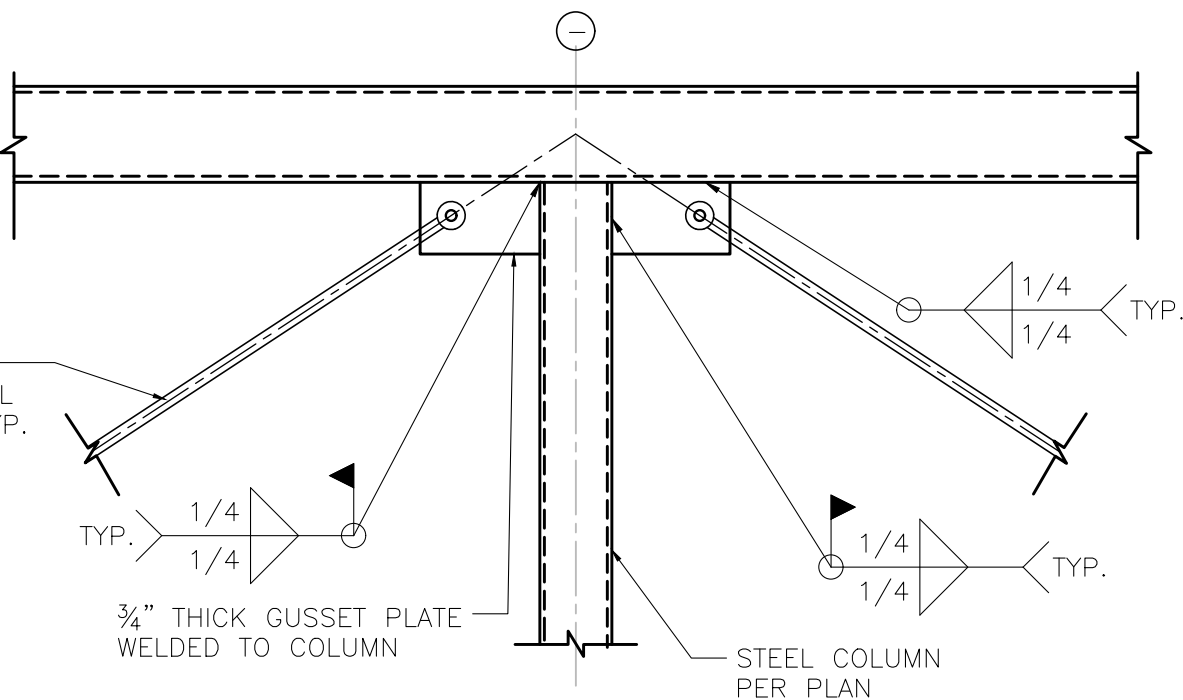
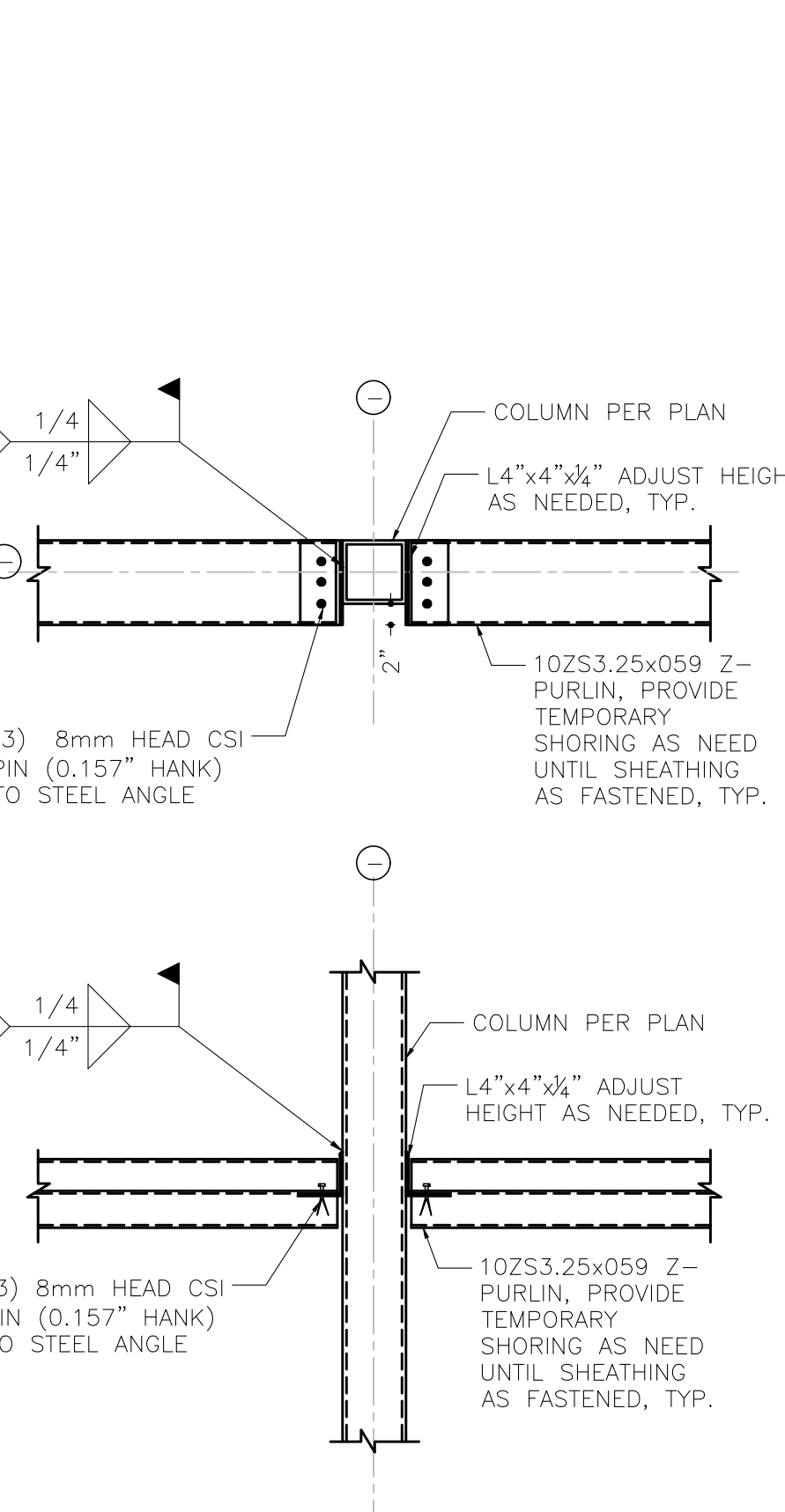
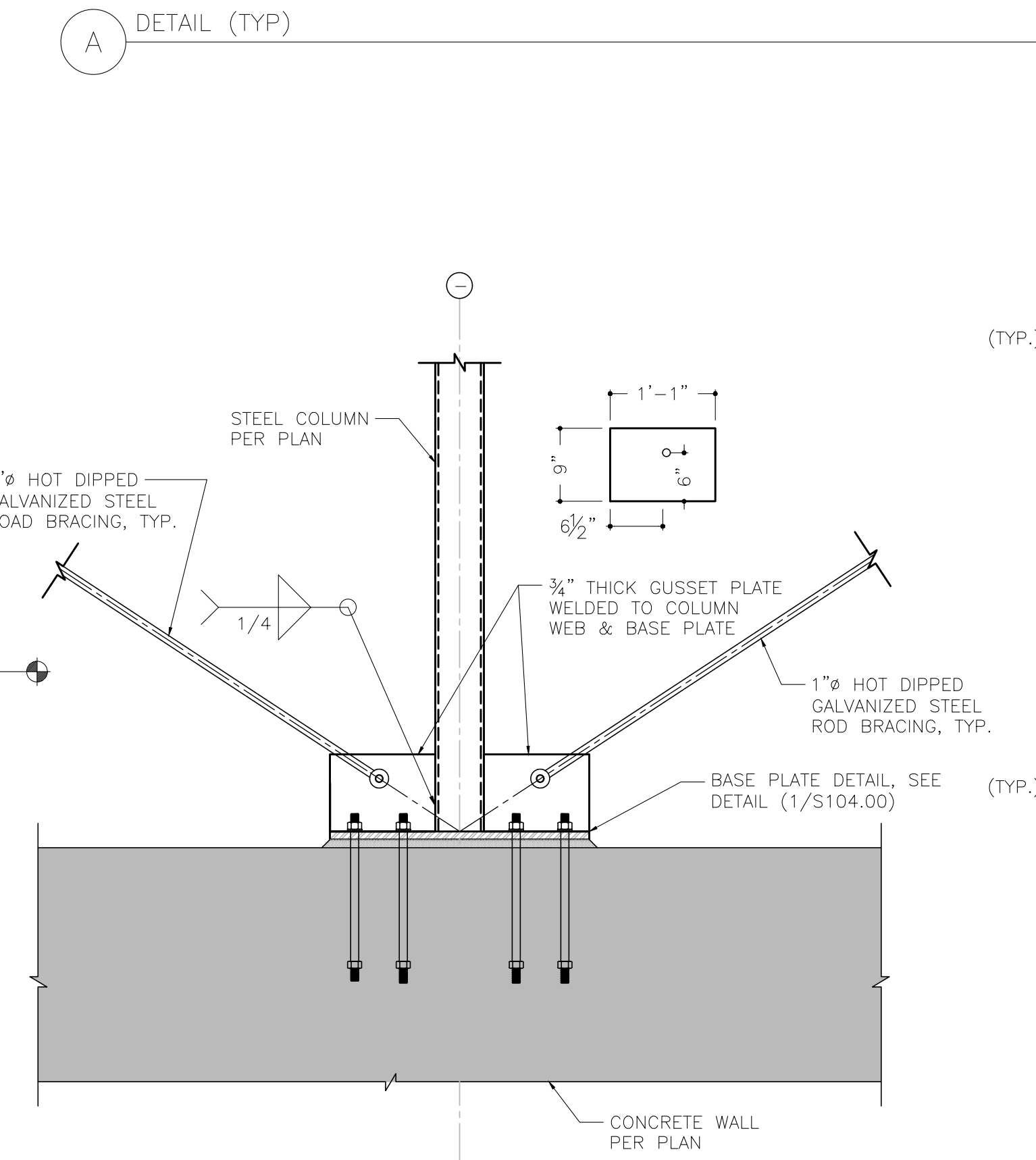
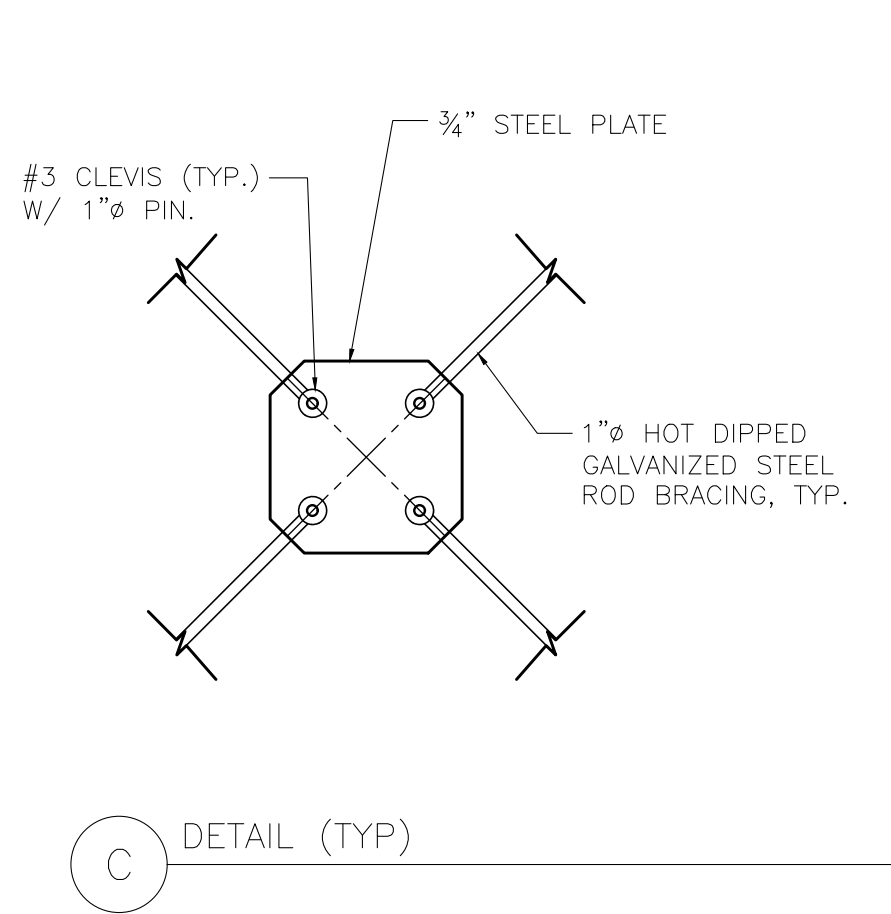
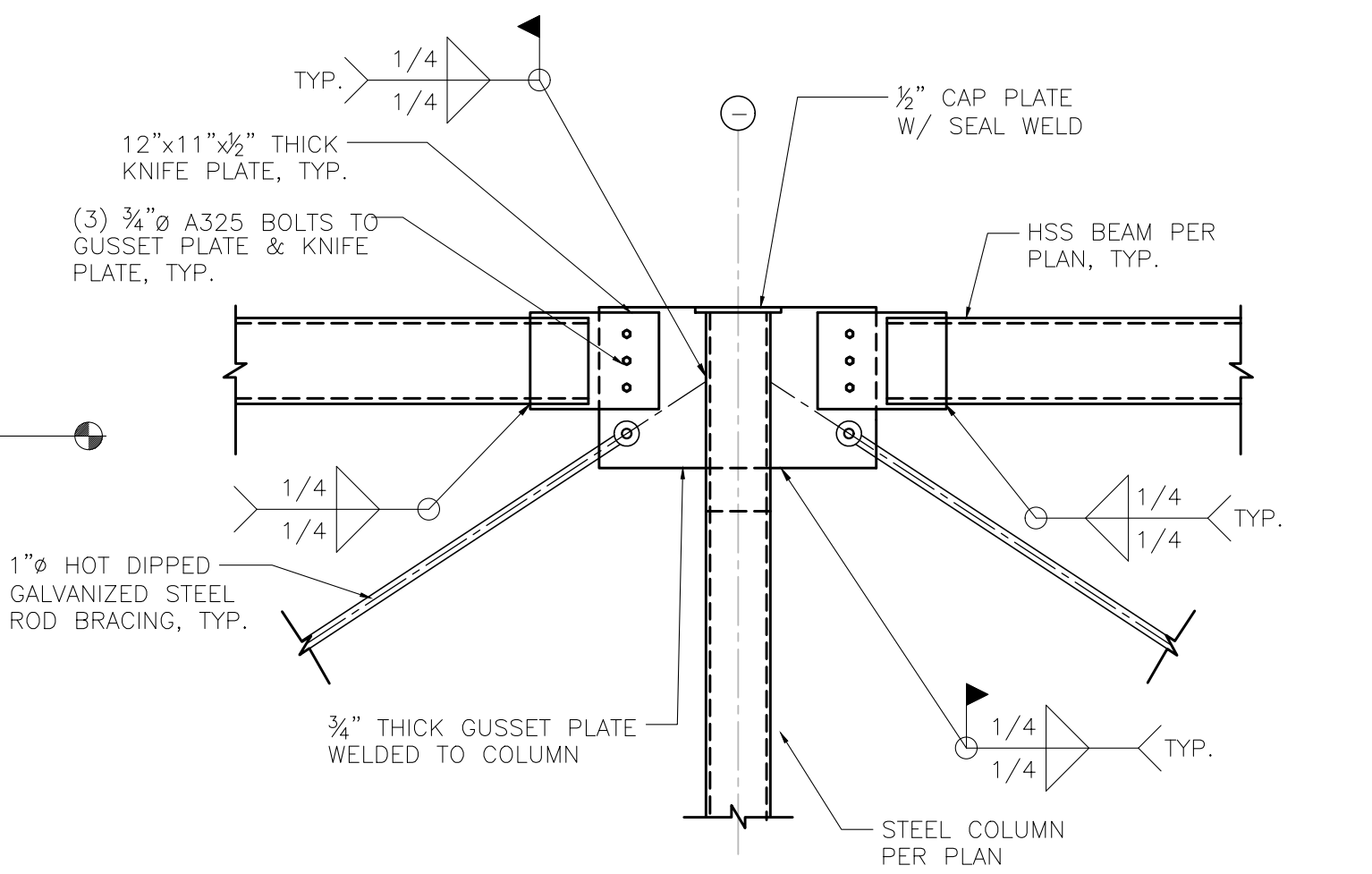
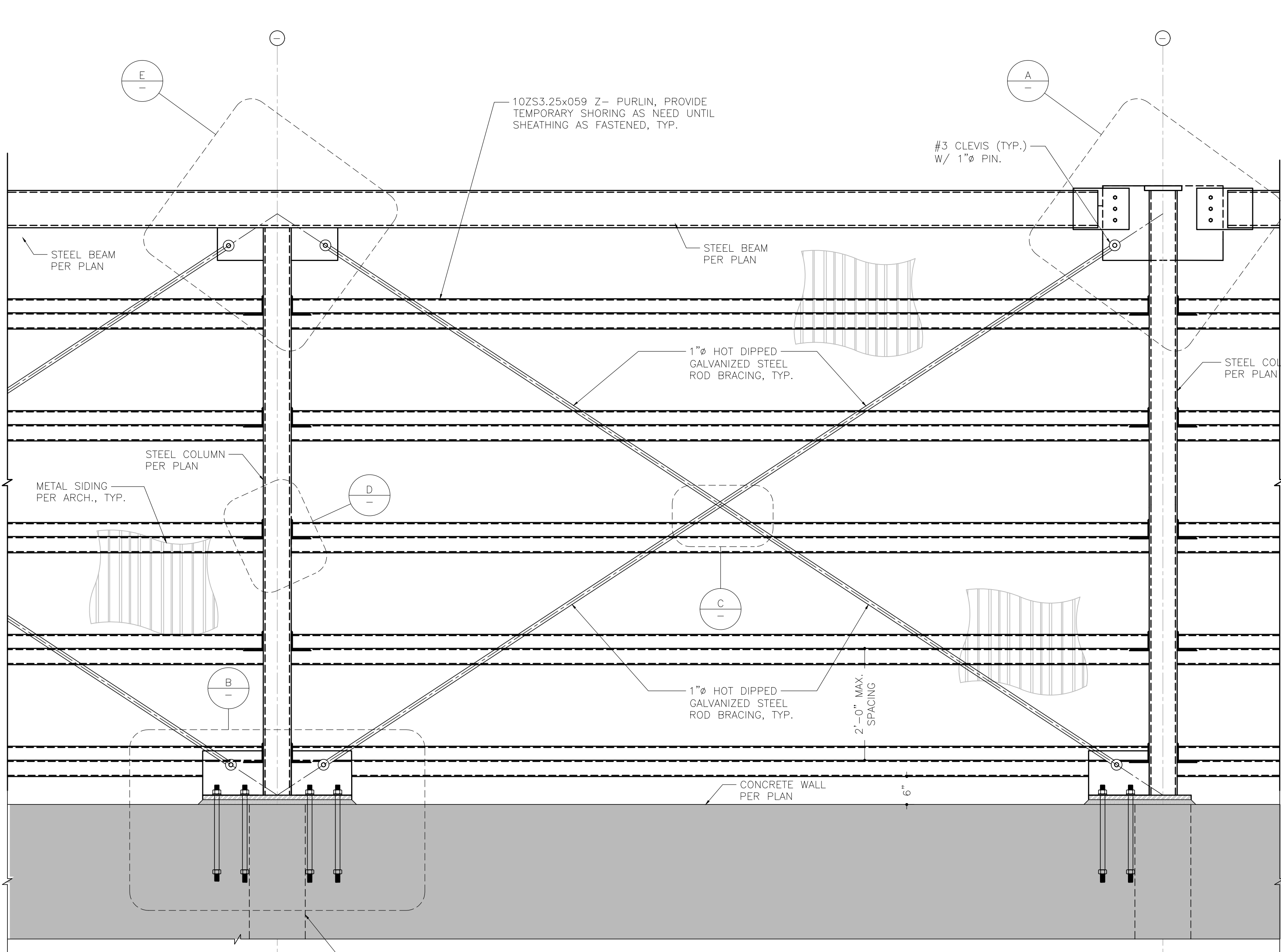
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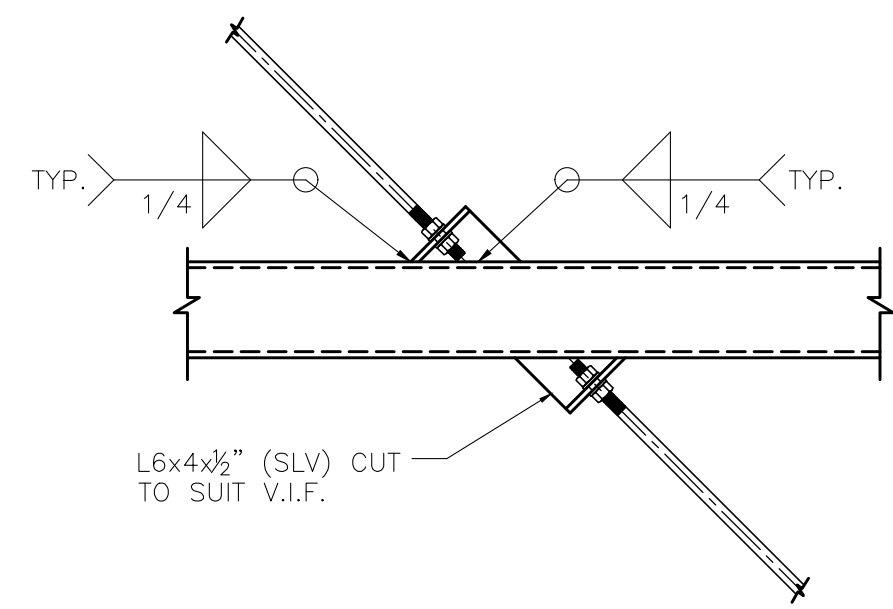
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1 DETAIL AT CROSS BRACING (TYP)



2 DETAIL AT ROOF CROSS BRACING (TYP)
SCALE: 3/4"=1'-0"

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



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STATE OF NEW JERSEY
No. GE43453
LICENSED PROFESSIONAL ENGINEER
NJ PROFESSIONAL ENGINEER
LICENSE # GE-43453

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DETAILS
Sheet:
Drawing Number:
S105.00

ELECTRICAL GENERAL NOTES

- GENERAL:
- A. ALL WORK SHALL CONFORM TO NEC AND LOCAL CODES.
- B. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVAL FROM AUTHORITIES HAVING JURISDICTION AND PAY ALL FEES REQUIRED.
- C. THE WORK, MATERIALS AND EQUIPMENT COVERED BY THE CONSTRUCTION DOCUMENTS/PERMIT DOCUMENTS SHALL COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF STATE, COUNTY AND CITY APPLICABLE ORDINANCES, REGULATIONS, AND CODES. IN ADDITION, THE FOLLOWING PUBLISHED STANDARDS SHALL BE ADHERED TO:
- AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
 - AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
 - UNDERWRITER'S LABORATORIES (UL)
 - NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA)
 - NATIONAL ELECTRICAL CODE (NEC)
- D. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVAL FROM AUTHORITIES HAVING JURISDICTION AND PAYING ALL FEES REQUIRED.
- E. ALL MATERIALS SHALL BE NEW AND SHALL BEAR A UL LABEL, WHERE APPLICABLE.
- F. THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT TO THE ENGINEER AND OBTAIN APPROVAL PRIOR TO INSTALLATION.
- G. ALL WORK SHALL BE DONE UNDER NORMAL WORKING HOURS, UNLESS OTHERWISE REQUIRED. THE BUILDING WILL CONTINUE TO OPERATE ON A NORMAL SCHEDULE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL NOT INTERRUPT ANY BUILDING SYSTEMS.
- H. INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS: ONLY WITH WRITTEN CONSENT OF OWNER. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES. ALARM AND EMERGENCY SYSTEMS ARE NOT TO BE INTERRUPTED.
- I. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, MAINTAIN HEADROOM AND SPACE CONDITIONS.
- J. SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS SHALL BE SUPPORTED AT INTERVALS NOT GREATER THAN 10 FT APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
- K. PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 6 INCHES OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 6 INCHES FROM PIPE COVERS).
- L. FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION.
- M. PRIOR TO STARTING WORK THE CONTRACTOR SHALL VISIT THE SITE AND CONVENE A COORDINATION MEETING WITH CONSTRUCTION MANAGER. THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF ACTIVITIES WITH DURATION TO SATISFY PROJECT SCHEDULE.
- N. BEFORE SUBMITTING PROPOSALS, IT IS MANDATORY THAT EACH BIDDER SHALL VISIT THE SITE OF THE WORK TO BECOME ACQUAINTED WITH EXISTING CONDITIONS AND LIMITATIONS. FAILURE TO DO SO SHALL IN NO MANNER RELIEVE THE CONTRACTOR FROM THE OBLIGATIONS OF THE DRAWINGS, SPECIFICATIONS AND/OR CONTRACT, AS STATED OR IMPLIED.
- O. BEGINNING OF WORK MEANS INSTALLER ACCEPTS EXISTING CONDITIONS.
- P. THESE DRAWINGS ARE REPRESENTATIVE OF THE SCOPE AND NATURE OF WORK. IT IS NOT GUARANTEED TO REPRESENT EXACT FIELD CONDITIONS AND DIMENSIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY FIELD DIMENSIONS AND TO COORDINATE THE WORK WITH THAT OF THE CONSTRUCTION MANAGER.
- Q. ALL MATERIALS SHALL BE LISTED BY UNDERWRITERS LABORATORIES OR OTHER APPROVED INDEPENDENT AGENCY.
- R. ALL MATERIALS USED IN THE WORK SHALL BE NEW, FREE OF DEFECTS, THE BEST OF THEIR RESPECTIVE KINDS, AND SHALL BE INSTALLED BY LABOR THOROUGHLY SKILLED IN THE CLASS OF WORK ANTICIPATED BY THIS CONTRACT.
- S. WHERE CONDUITS PENETRATE EXISTING WALLS, THE CONTRACTOR SHALL INSTALL PROPER UL FIRESTOPPING PER RATING OF THE EXISTING WALL.
- T. THE CONTRACTOR SHALL COORDINATE ALL MOUNTING HEIGHTS, LOCATIONS AND ARCHITECTURAL DRAWINGS.
- U. THE CONTRACTOR SHALL DO ALL CUTTING AND PATCHING OF EXISTING CONSTRUCTION REQUIRED BY HIS WORK. ALL FINISHES SHALL MATCH EXISTING. STRUCTURAL MEMBERS SHALL NOT BE CUT UNLESS APPROVED BY OWNER'S REPRESENTATIVE. WHERE PATCHING/REPAIRING IS REQUIRED CONTRACTOR TO REFINISH AREA TO MATCH EXISTING.
- V. EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT FROM ENVIRONMENTAL AND PHYSICAL DAMAGE UNTIL FINAL ACCEPTANCE. CLOSE AND PROTECT ALL OPENINGS DURING CONSTRUCTION. PROVIDE NEW MATERIALS AND EQUIPMENT TO REPLACE ITEMS DAMAGED.
- W. THE CONTRACTOR SHALL REMOVE, RELOCATE AND REROUTE OTHER TRADES WORK AS REQUIRED TO ACCOMMODATE ELECTRICAL WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THAT WORK AND SHALL PAY ALL REQUIRED COSTS AT NO ADDITIONAL COST TO THE OWNER. WORK SHALL BE PERFORMED BY MECHANICS SKILLED IN THE PARTICULAR TRADE INVOLVED.
- X. ALL MATERIAL SHALL BE INSTALLED IN COMPLIANCE WITH ALL MANUFACTURER'S INSTRUCTIONS AND PRACTICES UNLESS WRITTEN DIRECTION TO THE CONTRARY IS PROVIDED.
- Y. UPON COMPLETION OF THE EQUIPMENT INSTALLATION THE CONTRACTOR SHALL CLEAN AREA AND LEAVE THE AREA IN A NEAT AND ORGANIZED FASHION.
- Z. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION EQUIPMENT, SERVICES AND FACILITIES REQUIRED FOR THE COMPLETE, PROPER AND SUBSTANTIAL INSTALLATION OF ALL WORK WITH REQUIRED TESTING/APPROVALS
- AA. ELECTRICAL DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONAL REQUIREMENTS, COORDINATE WITH ARCHITECTURAL DRAWINGS.
- GROUNDING:
- A. EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL FEEDERS AND BRANCH CIRCUITS. USE GREEN GROUND CONDUCTORS.
- B. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE PROPER GROUNDING OF ALL CIRCUITS AND EQUIPMENT AS PER APPLICABLE CODES.
- C. GROUND METALLIC ENCLOSURES, RACEWAYS, ETC IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE 2017 ARTICLE 250.

- WIRING METHODS:
- A. CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MALE THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
- B. HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED. DO NOT RUN CONDUIT IN PRECAST ROOF SLABS, IN 2 INCH SLABS OR IN TERRAZZO FLOOR FINISH.
- C. SET BOXES SQUARE AND TRUE WITH BUILDING FINISH.
- D. COVERS OF JUNCTION AND PULLBOXES SHALL BE READILY ACCESSIBLE.
- E. PROVIDE PULLBOXES WHERE INDICATED, WHERE REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES.
- F. WIRING FOR COMMUNICATIONS SHALL BE IN RACEWAY SPECIFIED FOR BRANCH CIRCUITS UNLESS SPECIFICALLY NOTED OTHERWISE.
- G. PROVIDE SEALS FOR RACEWAYS PASSING THROUGH FLOORS, ROOFS AND EXTERIOR WALLS.
- H. CONDUCTORS SHALL BE 600 VOLT INSULATION, COPPER, TYPE THHN OR THWN-2.
- I. LIQUID TIGHT FLEXIBLE METAL CONDUIT IN LENGTHS OF 3' OR LESS WITH APPROVED TYPE FITTINGS SHALL BE USED FOR CONNECTIONS TO VIBRATING EQUIPMENT, MOTORS, AND OTHER OUTLETS WHERE WIRING WILL BE EXPOSED TO WEATHER, MOISTURE OR VIBRATIONS.
- J. INSTALL RACEWAYS FROM BOX TO BOX OR TERMINATIONS AS SHOWN ON THE DRAWINGS OR AS REQUIRED TO EFFECT CIRCUITING DESCRIBED WITH CIRCUIT NUMBERS ADJACENT TO EQUIPMENT. GROUPING HOME RUNS OR COMBINING WIRES IN COMMON RACEWAYS WILL BE ALLOWED WITH A MAXIMUM OF THREE SINGLE POLE BRANCH CIRCUITS IN A RACEWAY. INCREASE WIRE SIZES AND RACEWAYS WHERE REQUIRED TO AVOID LOSS OF AMPACITY AS REQUIRED BY NEC.
- K. FLEXIBLE METAL CONDUIT WITH APPROVED TYPE FITTING MAY BE USED IN LIMITED LENGTHS FOR CONNECTIONS TO RECESSED FIXTURES WHERE IT IS NECESSARY TO PROVIDE FLEXIBLE CONNECTIONS. IT MAY ALSO BE USED WHERE STRUCTURAL MEMBERS PRECLUDE THE USE OF ELECTRICAL METALLIC TUBING OR CONDUITS.
- L. INSTALL CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN FOUR(4) 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS AND STEEL SUPPORTS AS REQUIRED. DO NOT SUPPORT CONDUIT FROM SUSPENDED CEILING GRID OR SUSPENSION WIRES. REAM CONDUIT ENDS BEFORE INSTALLATION AND THOROUGHLY CLEAN BEFORE INSTALLATION. OPENINGS SHALL BE PLUGGED OR COVERED TO KEEP CONDUIT CLEAN.
- M. CONDUCTORS SHALL BE CONTINUOUS FROM ORIGIN TO PANEL OR EQUIPMENT WITHOUT SPLICES. WHERE TAP SPLICES ARE NECESSARY AND APPROVED, THEY SHALL BE MADE WITH SUITABLE CONNECTORS IN JUNCTION BOXES.
- N. ALL WIRE AND CABLE AMPACITIES INDICATED ON DRAWINGS ARE BASED ON 75°C TEMPERATURE RATING. ALL LUGS, BREAKERS, SWITCHES AND OTHER TERMINATIONS SHALL HAVE 75°C RATINGS AS A MINIMUM.
- O. SEPARATE NEUTRALS SHALL BE RUN FOR ALL CIRCUITS UTILIZING SWITCH MODE POWER SUPPLIES(EG. COMPUTERS, FLUORESCENT LIGHTING, ETC.).
- WIRING DEVICES:
- A. PROVIDE WIRING DEVICES AS INDICATED ON THE DRAWINGS. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE.
- B. STANDARD RECEPTACLES AND SWITCHES COLORS SHALL BE COORDINATED WITH ARCHITECT.
- C. ALL DEVICE WALL PLATES SHALL BE IVORY OR WHITE SMOOTH PLASTIC OR STAINLESS STEEL.
- D. ALL JUNCTION AND HANDY BOXES SHALL BE METALLIC.
- E. CONTRACTOR TO INSURE THAT DEVICES AND THEIR BOXES ARE PROTECTED. DO NOT PLACE WALL FINISH MATERIALS OVER DEVICES AND DO NOT CUT HOLES FOR BOXES WITH ROUTERS THAT ARE GUIDED BY RIDING AGAINST OUTSIDE OF THE BOXES.
- F. KEEP OUTLET BOXES FREE OF PLASTER, DRYWALL, JOINT COMPOUND, MORTAR, CEMENT, CONCRETE, DUST, PAINT, AND OTHER MATERIAL THAT MAY CONTAMINATE THE RACEWAY SYSTEM, CONDUCTORS, AND CABLES.
- G. INSTALL DEVICE BOXES IN BRICK OR BLOCK WALLS SO THAT THE COVER PLATE DOES NOT CROSS A JOINT UNLESS THE JOINT IS TROWELED FLUSH WITH THE FACE OF THE WALL.
- H. INSTALL WIRING DEVICES AFTER ALL WALL PREPARATION, INCLUDING PAINTING, IS COMPLETE.

- LOW VOLTAGE POWER CONDUCTORS:
- A. MULTI-CONDUCTOR CABLES SHALL COMPLY WITH NEMA WC 70 FOR METAL-CLAD CABLE, TYPE MC
- B. USE ONLY FACTORY-FABRICATED CONNECTORS AND SPLICES OF SIZE, AMPACITY RATING, MATERIAL, TYPE, AND CLASS FOR APPLICATION AND SERVICE INDICATED.
- C. WIRE SIZES #10 AWG AND SMALLER SHALL BE SOLID, #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS SHALL BE COPPER. CONDUCTORS SHALL BE INCREASED IN SIZE (PER NEC VOLTAGE DROP FORMULA) FOR ANY 120 VOLT RUNS LONGER THAN 100 FT OR ANY 208V RUNS LONG THAT 200 FT. MINIMUM WIRE SIZE SHALL BE #12 AWG.
- IDENTIFICATION:
- A. WIRE COLOR CODING: AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT
- a. POWER WIRING: CONSISTENT PHASE IDENTIFICATION OF ALL WIRES SHALL BE MAINTAINED AS FOLLOWS:
- | | | |
|--------------|-----------------------|------------------------|
| PHASE A | 208/120 VOLT, 3Ø 60Hz | 277/480 VOLT, 3Ø 60 Hz |
| PHASE B | BLACK | BROWN |
| PHASE C | RED | ORANGE |
| NEUTRAL WIRE | BLUE | YELLOW |
| GROUND WIRE | WHITE | WHITE WITH GRAY STRIPE |
| | GREEN | |
- B. PROVIDE IDENTIFICATION OF ALL BRANCH CIRCUIT WIRES IN PULL BOXES AND AT TERMINATIONS WITH PANEL AND CIRCUIT NUMBER.
- C. PROVIDE PLASTIC ENGRAVED LABELS ON PANELS, DISCONNECT SWITCHES AND TRANSFORMERS TO INDICATE POWER SOURCE AND VOLTAGE.

ELECTRICAL SYMBOL LIST

SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE, 20A 120V
	QUAD RECEPTACLE, 20A 120V
	DUPLEX RECEPTACLE, 20A 120V COORDINATE MOUNTING HEIGHT WITH ARCHITECT
	QUAD RECEPTACLE, 20A 120V COORDINATE MOUNTING HEIGHT WITH ARCHITECT
	DUPLEX RECEPTACLE, 20A 120V WITH GFCI PROTECTION
	QUAD RECEPTACLE, 20A 120V WITH GFCI PROTECTION
	SPECIAL PURPOSE RECEPTACLE, RATING PER EQUIPMENT MANUFACTUER
	JUNCTION BOX
	SINGLE SWITCH
	KEYED SWITCH
	DESIGNATED SWITCH
	DIMMER SWITCH
	OCCUPANCY SENSOR SWITCH
	CEILING MOUNTED OCCUPANCY SENSOR
	UNFUSED SAFETY SWITCH
	FUSED SAFETY SWITCH (SWITCH/FUSE AMP RATING)
	DATA OUTLET, WITH 3/4" CONDUIT TO ACCESSIBLE CEILING AND CAT 6 PLANTED RATED CABLE TO THE IT RACK
	ELECTRICAL PANEL BOARD
	CABLE TELEVISION OUTLET BOX WITH CONDUIT TO ABOVE HUNG CEILING
	MOTOR
	MAGNETIC DOOR HOLD
	EXIT LIGHT WITH BATTERY BACK UP WITH DIRECTIONAL KNOCKOUT ARROWS
	FIRE ALARM ANNUNCIATOR
	FIRE ALARM HORN/ STROBE
	MANUAL PULL STATION
	FIRE ALARM STROBE
	FIRE ALARM CONTROL PANEL
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM CARBON MONOXIDE DETECTOR
	FIRE ALARM DUCT SMOKE DETECTOR
	KEYNOTE SYMBOL

ELECTRICAL ABBREVIATIONS

SYMBOL	DESCRIPTION
A	AMPERES
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CH	COUNTER HEIGHT
(E)	EXISTING DEVICE TO REMAIN
EM	EMERGENCY FIXTURE
G	GROUND
NL	NIGHTLIGHT FIXTURE
RE	RELOCATED EXISTING
TYP	TYPICAL
V	VOLTS
WP	WEATHERPROOF
WR	WEATHER RESISTANT

CODE AND REGULATIONS INFORMATION

GOVERNING CODES & REFERENCES:

ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW JERSEY UNIFORM CONSTRUCTION CODE AND OTHER NATIONAL AND STATE CODES INCLUDING:

2021 INTERNATIONAL BUILDING CODE WITH NJ EDITS FROM 3.14
2021 NATIONAL STANDARD PLUMBING CODE (NJAC 5:23-3.15)
2020 NATIONAL ELECTRICAL CODE (NFPA 70) (NJAC 5:23-3.16)
2019 ASHRAE 90.1 (COMMERCIAL AND HIGHRISE RESIDENTIAL)
2021 INTERNATIONAL MECHANICAL CODE (NJAC 5:23-3.20)
2021 INTERNATIONAL FUEL GAS CODE (NJAC 5:23-3.22)

SHOULD CONFLICT BETWEEN CODES OR REFERENCES AND THE CONTRACT DRAWINGS OR SPECIFICATIONS BE OBSERVED BY THE CONTRACTOR, THE CODE OR REFERENCE SHALL BE REFERRED TO THE ENGINEER AND A WRITTEN OPINION BY THE ENGINEER SHALL BE OBTAINED.

ELECTRICAL DRAWING LIST

DWG NUMBER	DWG TITLE
E001	ELECTRICAL OVERVIEW SHEET
E002	ELECTRICAL SITE PLAN
E101	ELECTRICAL PLANS AND DETAILS
E201	ONE LINE DIAGRAM



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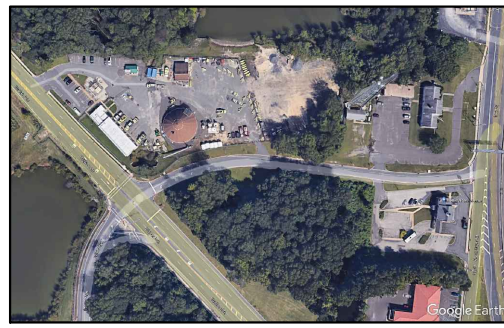
New Jersey Department of the Treasury
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Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:

T0617.00 West Berlin
Storage Bin Installation
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan



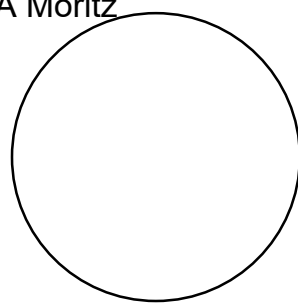
Revisions

Date:	Description:	No.
03/09/22	DPMC COMMENTS	1

Issued Documents

Date:	Description:
12/20/21	DESIGN DEVELOPMENT ISSUE
02/16/22	FINAL DESIGN
12/14/23	FINAL DESIGN

Seal & Signature
Michael A Moritz



Drawing Title:
ELECTRICAL OVERVIEW SHEET

Sheet: Drawing Number:
E001.00

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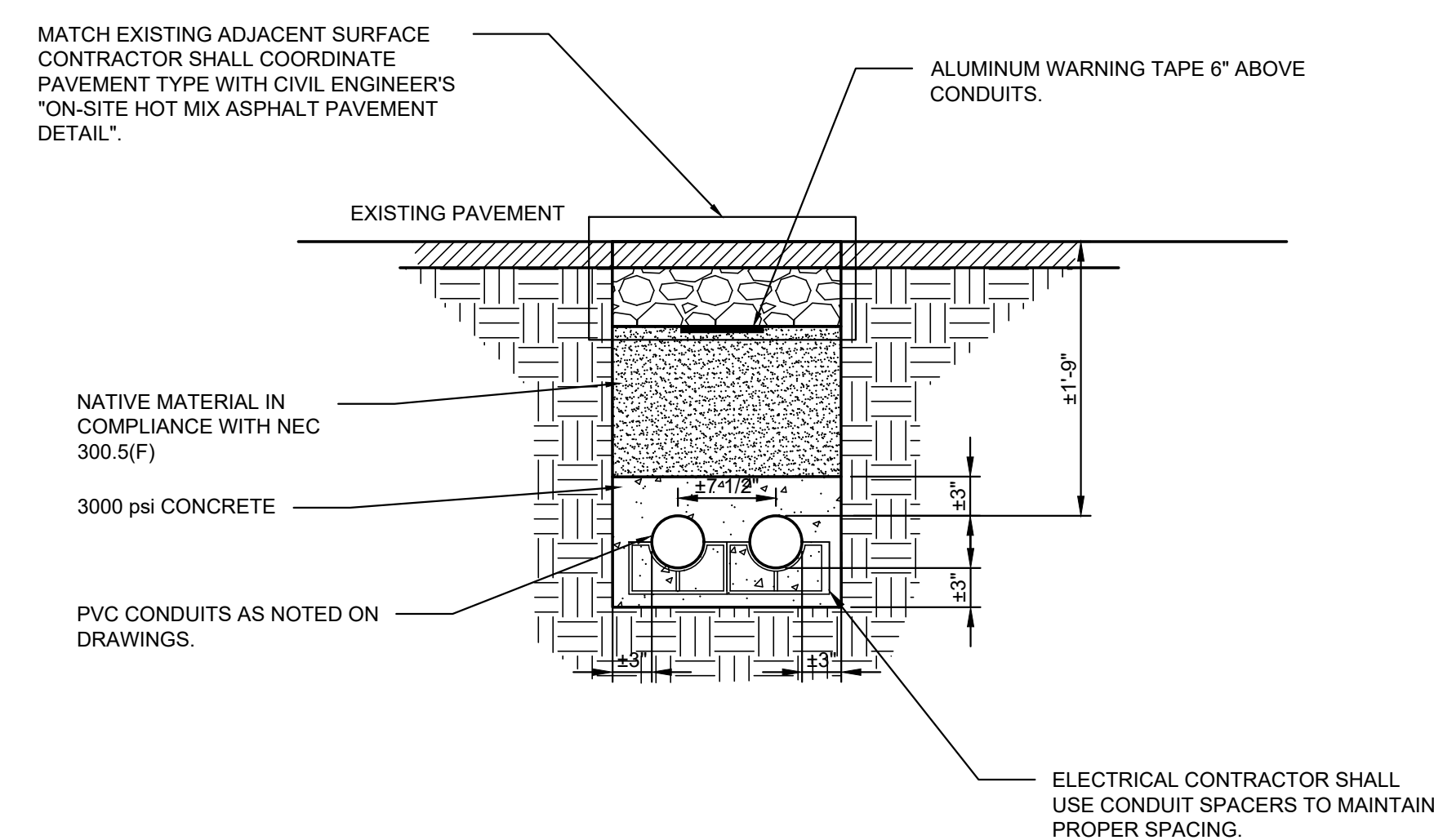
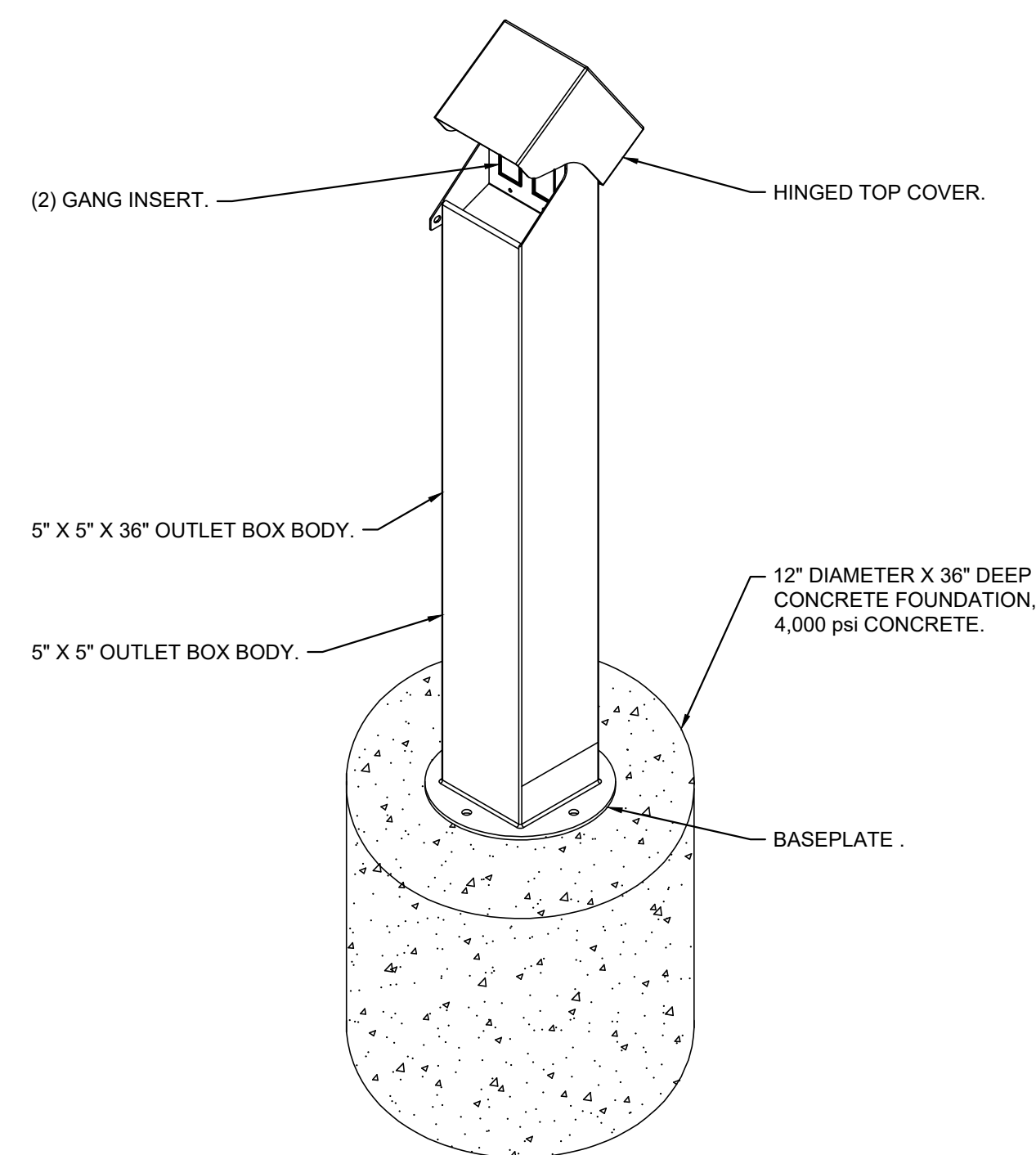
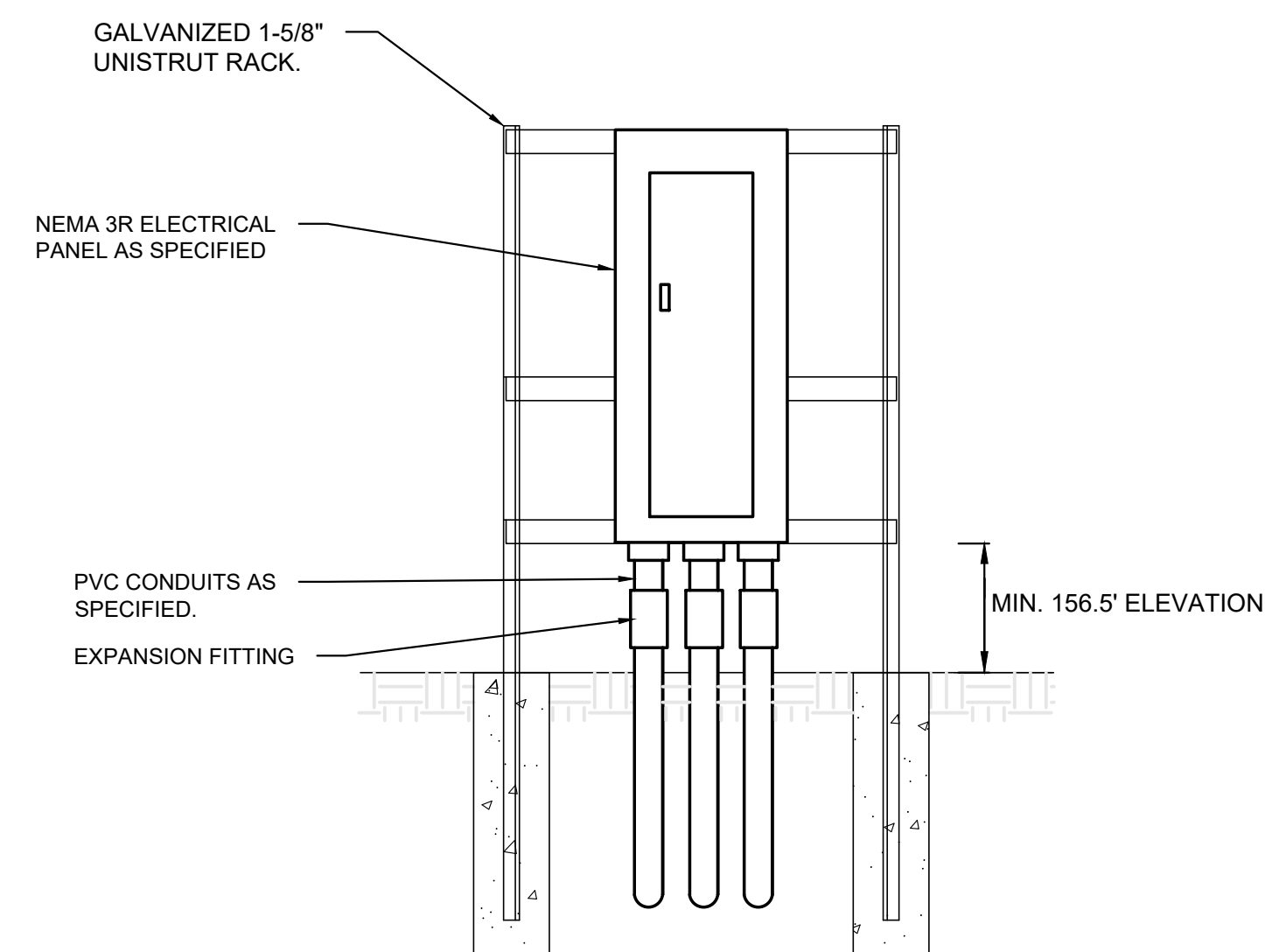
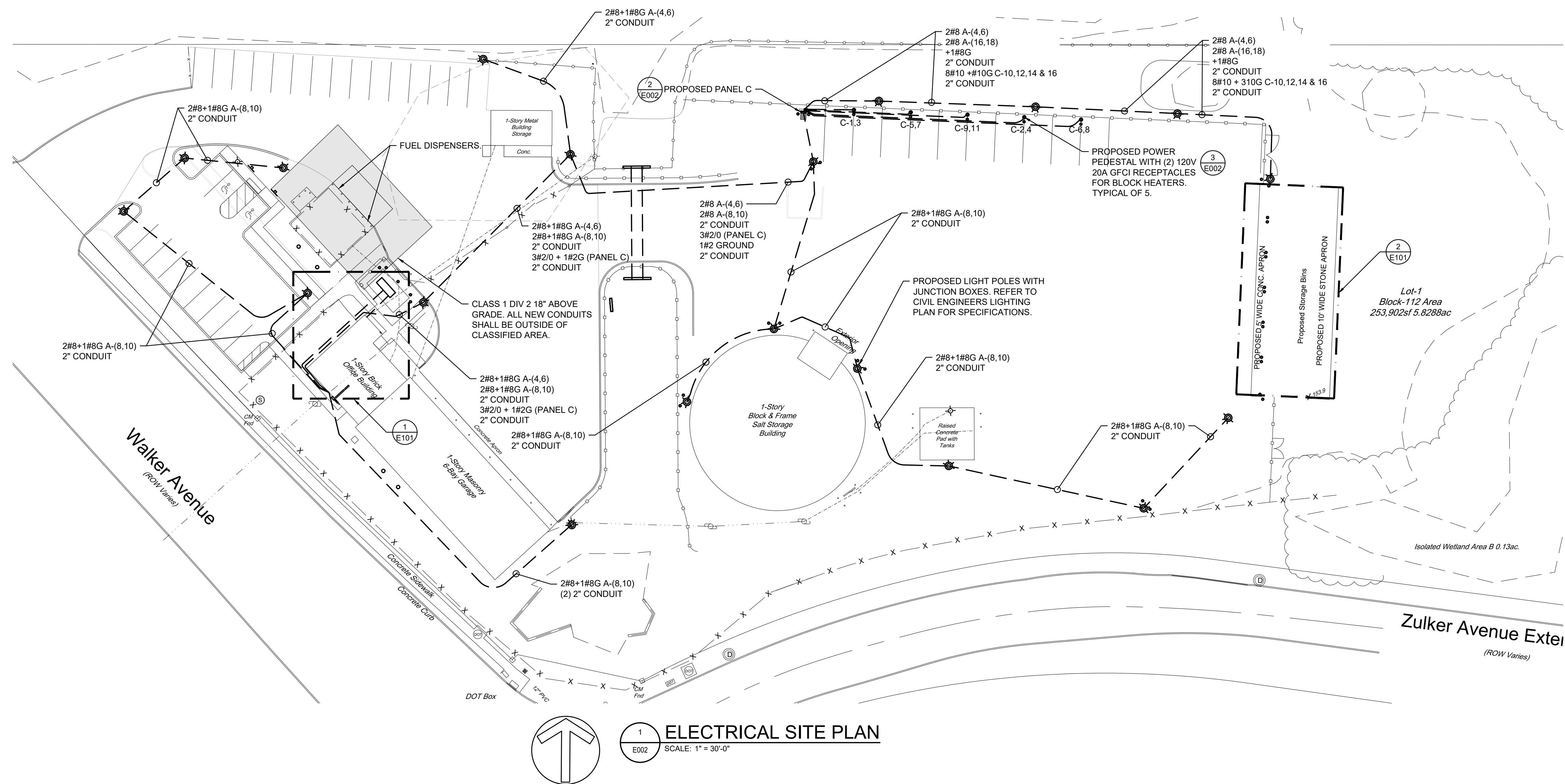
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No. 24GA28009600

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LIC. NO. 24GE04929100

DATE
PROJECT NO. 21-09-24T

W:\2021\21-09-24T STONEWATER ARCHITECTURE - DPMC WEST BERLIN MAINTENANCE YARD\021 ENGINEERING CAD



NOTES:

1. 36" HIGH POWER PEDESTAL WITH (2) 20A 120V FCI RECEPTACLES, PEDOC # 5PS36-C-HT-1-G OR APPROVED EQUAL

REFER TO CIVIL ENGINEERING
DRAWINGS FOR SITE LIGHTING
SCHEDULE AND DETAILS



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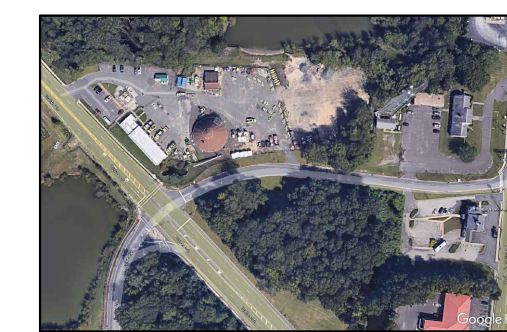
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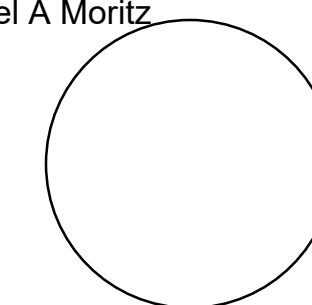
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12/14/23	FINAL DESIGN

Seal & Signature
Michael A Moritz



Drawing Title:
ELECTRICAL SITE PLAN

Sheet:	Drawing Number: E002.00
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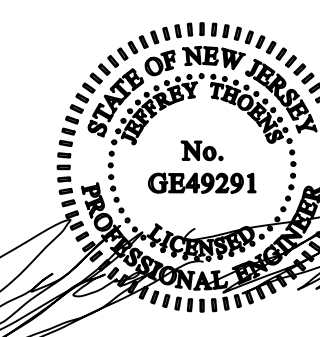


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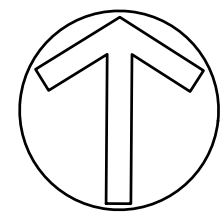
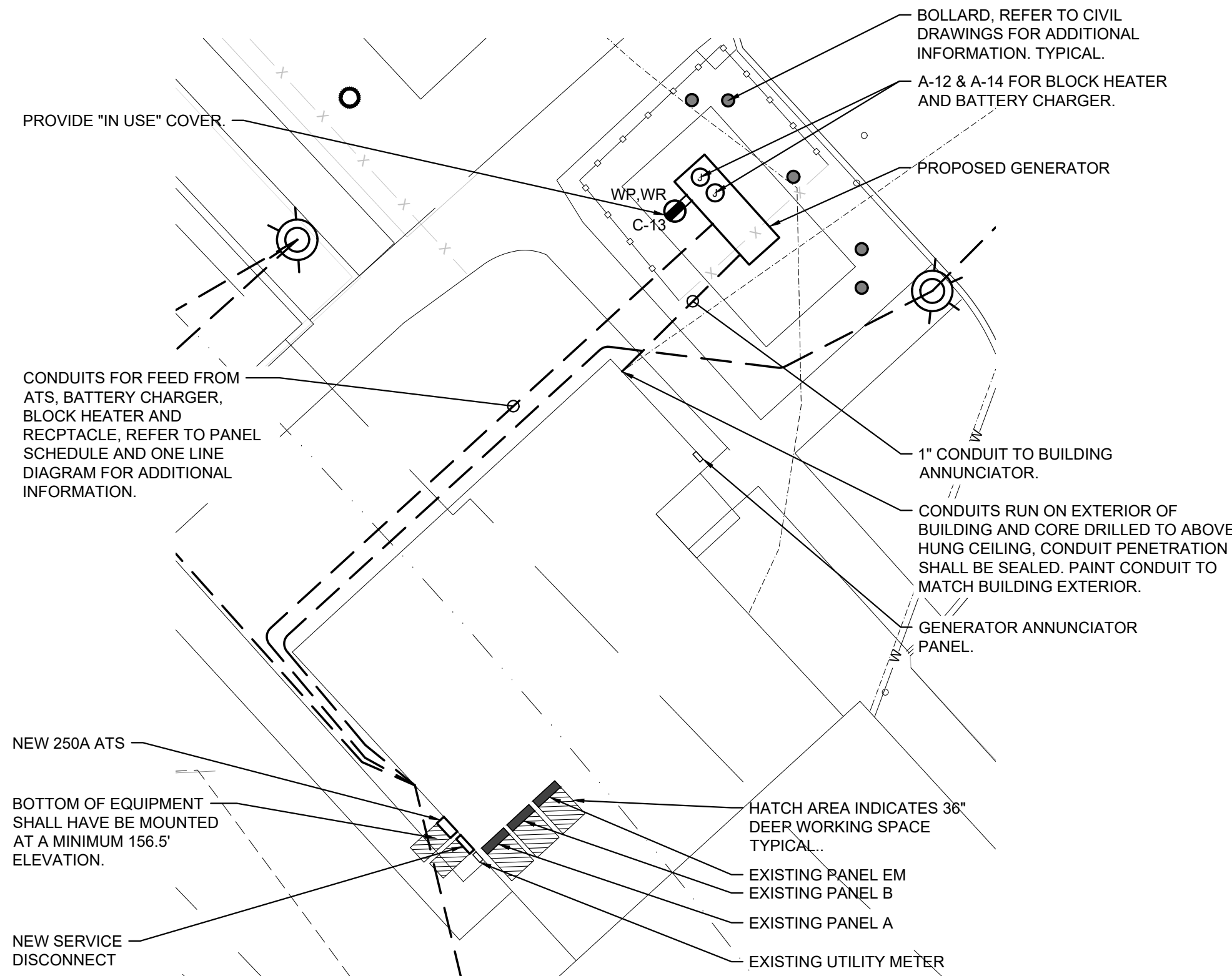


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PROJECT No. 21-09-247

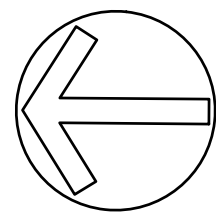
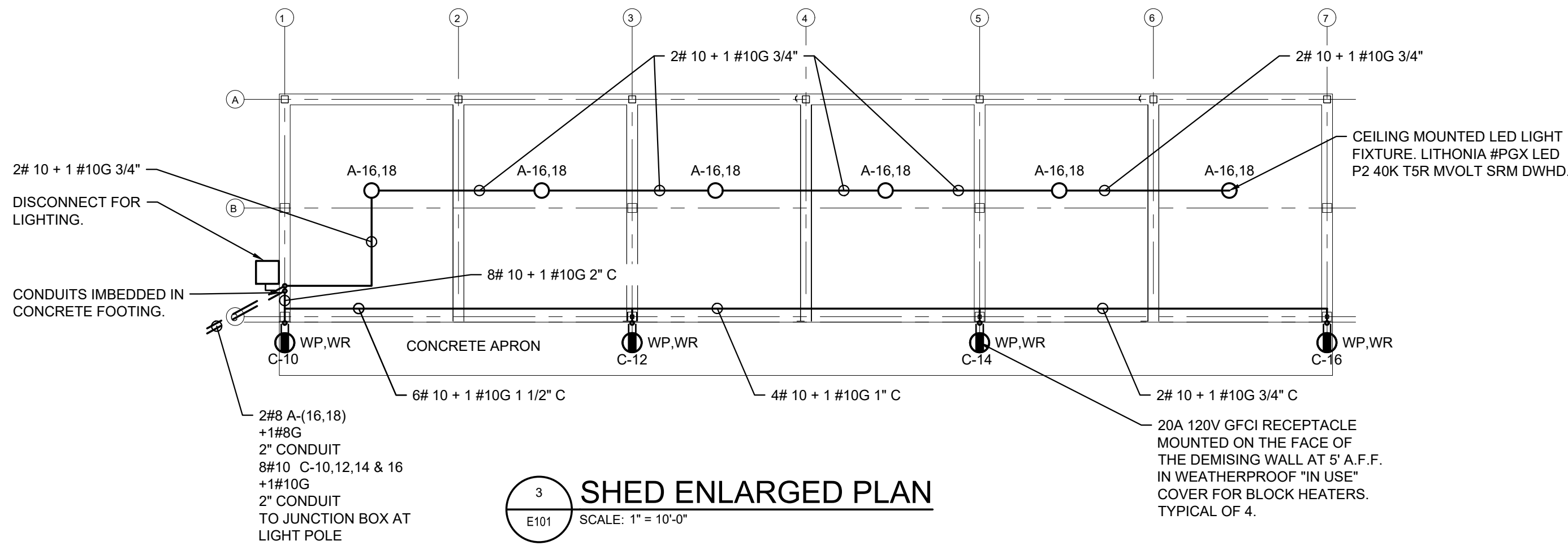
W:\2021\21-09-24T STONEWATER ARCHITECTURE - DPMC WEST BERLIN MAINTENANCE YARD\021 ENGINEERING CAD



2
E101

GENERATOR ENLARGED PLAN

SCALE: 1" = 10'-0"



CONTRACTOR SHALL HAVE ALL
EXPOSED CONDUIT ROUTING
APPROVED BY THE ARCHITECT
PRIOR TO INSTALLATION.



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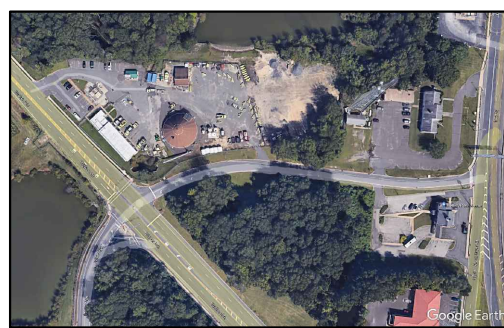
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Revisions

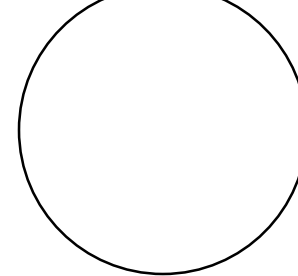
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Drawing Title:
ELECTRICAL PLANS AND DETAILS

Sheet: Drawing Number:
E101.00



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DATE

PROJECT No. 21-09-24T

ONE LINE DIAGRAM LEGEND

- EXISTING TO REMAIN
EXISTING TO BE REMOVED
NEW WORK

PANEL SCHEDULE LEGEND

- "G" UPPERCASE "G" NEXT TO CIRCUIT BREAKER SIZE INDICATES CIRCUIT BREAKER WITH GROUND FAULT CIRCUIT INTERRUPTERS.
"GP" UPPERCASE "GP" NEXT TO CIRCUIT BREAKER SIZE INDICATES GROUND FAULT PROTECTION OF EQUIPMENT (30ms TRIP).
"L" UPPERCASE "L" NEXT TO CIRCUIT BREAKER SIZE INDICATES LOCK OFF DEVICE THAT REMAIN IN PLACE WITHOUT THE LOCK INSTALLED.
"ST" UPPERCASE "ST" NEXT TO CIRCUIT BREAKER SIZE INDICATES CIRCUIT BREAKER WITH SHUNT TRIP.
"N" UPPERCASE "N" NEXT TO CIRCUIT BREAKER SIZE INDICATES NEW CIRCUIT BREAKER IN EXISTING PANEL. ALL NEW BREAKERS INSTALLED SHALL MATCH EXISTING IN TYPE AND RATINGS.
* INDICATED EXISTING CIRCUIT BREAKER.

KEY NOTES (1, 2, 3)

1. EXISTING FEEDER TO PANEL 'A' TO BE DISCONNECTED.
2. PROVIDE NEW FEEDER FROM UTILITY METER TO EXISTING PANEL 'A' VIA NEW MAIN SERVICE DISCONNECT, ATS AND GENERATOR.
3. PROPOSED 400A120/240V 1Ø 10KAIC SERVICE DISCONNECT FUSED AT 250A.
4. PROPOSED 250A 24KAIC AUTOMATIC TRANSFER SWITCH (ATS).
5. PROPOSED 60KW 120/240V 1Ø, 3W, 3W 10KAIC DIESEL STANDBY GENERATOR IN LEVEL 2 ENCLOSURE WITH A MINIMUM OF 24 HOUR RUN TIME TANK.
6. PROPOSED 125A 120/240V 1Ø 3W 10KAIC PANELBOARD FOR TRUCK BLOCK HEATERS.
7. CONTRACTOR SHALL REMOVE EXISTING SERVICE BONDING CONDUCTOR.
8. EXISTING PANELBOARD WITH 10KAIC RATING

SERVICE CALCULATION

THE EXISTING ELECTRICAL SERVICE IS 250-AMPS AT 120/240-VOLT SINGLE PHASE.
PER ATLANTIC CITY ELECTRIC THE EXISTING SERVICE MAX DEMAND LOAD FOR 15.89KW (19.88KVA AT .8 POWER FACTOR) IN THE PAST YEAR
THE ADDITIONAL NEW NEC LOAD IS 6KVA.
PER NEC 220.87 THE EXISTING SERVICE LOAD SHALL BE PERMITTED TO USE THE ACTUAL MAXIMUM DEMAND OVER A ONE YEAR PERIOD AT 125 PERCENT PLUS THE NEW LOADS.
 $19.88KVA * 1.25 + 18KVA = 42.83KVA$, 178 AMPS AT 120/240 VOLT.
THE EXISTING 250 AMP SERVICE IS SIZED ADEQUATE FOR THE NEW LOADS
THE PROPOSED 60KW GENERATOR IS SIZED ABOVE DESIGN LOAD.



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Client



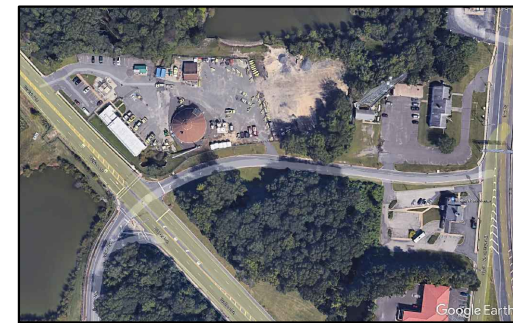
New Jersey Department of the Treasury
Division of Property Management and
Construction, DPMC
20 West State Street, 3rd Floor
Trenton, NJ 08625

Department of Transportation
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625

Project:

T0617.00 West Berlin
Storage Bin Installation
West Berlin Maintenance Yard,
Camden, New Jersey

Key Plan



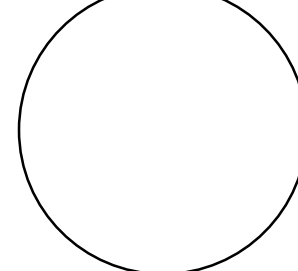
Revisions

Date:	Description:	No.
03/09/22	DPMC COMMENTS	1

Issued Documents

Date:	Description:
12/20/21	DESIGN DEVELOPMENT ISSUE
02/16/22	FINAL DESIGN
12/14/23	FINAL DESIGN

Seal & Signature
Michael A Moritz



Drawing Title:
ONE LINE DIAGRAM

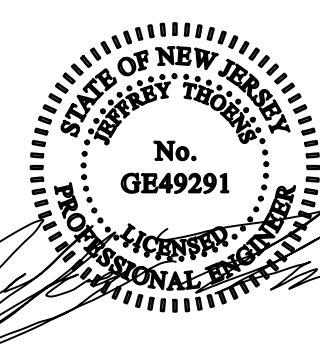
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E201.00



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CERTIFICATE OF AUTHORIZATION
No. 24GA28009600

SEAL:



JEFFREY THOMS, P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. NO. 24GE04929100

DATE

PROJECT No. 21-09-24T

FEEDER SCHEDULE

1Ø, 3 WIRE FEEDERS			
COPPER CONDUCTORS (THWN-2)			
TAG	NO. OF SETS	NO. OF CONDUCTORS AND AWG SIZE	CONDUIT SIZE
A	1	3#250kcmil	2-1/2"
A1	1	3#250kcmil+1#4G	2-1/2"
B	1	3#2/0+1#2G	2"
EX		EXISTING FEEDER TO REMAIN	

DESIGNATION: C				MOUNTING: SURFACE				MAIN CIRCUIT BREAKER 125 Amps							
VOLTAGE: 240/120V, 1 PHASE, 3 WIRE				GROUND BUS: YES				PANEL BUS SIZE: 125 Amps							
KAIC RATING: 10k				NEUTRAL BUS: 100%				NUMBER OF POLES: 24							
ISOLATED GROUND BUS: NO								ENCLOSURE: NEMA 3R							
CIR NO	MINIMUM BRANCH CIRCUIT			LOAD DESCRIPTION	CIRCUIT BREAKER	C.B. LOAD VA	PHASE A	PHASE B	C.B. LOAD VA	CIRCUIT BREAKER	LOAD DESCRIPTION	MINIMUM BRANCH CIRCUIT			CIR NO
	No.	WIRE	GND									P	TRIP	TRIP	
1	2	10	10	BLOCK HEATER	1	20	800	1600	800	20	1	BLOCK HEATER	2	10	2
3	2	10	10	BLOCK HEATER	1	20	800	1600	800	20	1	BLOCK HEATER	2	10	4
5	2	10	10	BLOCK HEATER	1	20	800	1600	800	20	1	BLOCK HEATER	2	10	6
7	2	10	10	BLOCK HEATER	1	20	800	1600	800	20	1	BLOCK HEATER	2	10	8
9	2	10	10	BLOCK HEATER	1	20	800	1600	800	20	1	BLOCK HEATER	2	10	10
11	2	10	10	BLOCK HEATER	1	20	800	1600	800	20	1	BLOCK HEATER	2	10	12
13				SPARE	1	20		800	800	20	1	BLOCK HEATER	2	10	14
15				SPARE	1	20		800	800	20	1	BLOCK HEATER	2	10	16
17				SPARE	1	20		800	800	20	1	BLOCK HEATER	2	10	18
19				SPACE				0				SPACE			20
21				SPACE				0				SPACE			22
23				SPACE				0				SPACE			24
PANEL SECTION PHASE CONNECTED LOAD 6400 5600 VA															
TOTAL PANEL CONNECTED LOAD 12 KVA 50 AMPS															
TOTAL PANEL DEMAND LOAD 12 KVA 50 AMPS															

DESIGNATION: (EXISTING A)					MOUNTING: SURFACE					MAIN CIRCUIT BREAKER 250 Amps				
VOLTAGE: 240/120V, 1 PHASE, 3 WIRE					GROUND BUS: YES					PANEL BUS SIZE: 250 Amps				
KAIC RATING: 10k					NEUTRAL BUS: 100%					NUMBER OF POLES: 18				
										ENCLOSURE: NEMA 1				
CIR NO	MINIMUM BRANCH CIRCUIT No. WIRE GND	LOAD DESCRIPTION	CIRCUIT BREAKER	C.B. LOAD VA	PHASE A	PHASE B	C.B. LOAD VA	CIRCUIT BREAKER	LOAD DESCRIPTION	MINIMUM BRANCH CIRCUIT No. WIRE GND	CIR NO			
												P	TRIP	P
1	EXISTING	TRANSFER SWITCH	2	100	3		3	20	1	UNIT HEATER	EXISTING	2		
3			2	30		560	560	20N	2	NEW SITE LIGHTING	2 8 8	4		
5	EXISTING	EXISTING AC	2	30		560	560	20N	2	NEW SITE LIGHTING	2 8 8	6		
7						770	770	20N	2			8		
9	SEE ONE LINE	NEW PANEL C	2	125N	6400	7170	770	20N	1	BLOCK HEATER	2 12 12	10		
11					5600		6800	1200	20N	1	BATTERY CHARGER	2 12 12	12	
13	2 12 12	RECEPTACLE AT GENERATOR	1	20N	180	680	500	20N	1	STORAGE SHED LITES	2 12 12	14		
15		SPACE					141	141	20N	2		16		
17		SPACE				141		141				18		
PANEL SECTION PHASE CONNECTED LOAD 8554 8271														
EXISTING PANEL B 200 AMP														
TOTAL PANEL CONNECTED LOAD 17 KVA 70 AMPS														
TOTAL PANEL DEMAND LOAD 18 KVA 73 AMPS														

ONE LINE DIAGRAM
E201 SCALE: NOT TO SCALE

