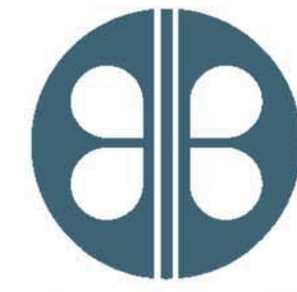


CITY OF LEESBURG VENETIAN GARDENS



BORRELLI + PARTNERS
 ARCHITECTURE PLANNING LANDSCAPE INTERIORS
 AAC 000711

720 Vassar Street, Orlando Fl. 32804
 407.418.1338 :: fax 407.418.1342

16-170

City of Leesburg
 204 N 5th St, Leesburg, FL 34748

PROJECT INDEX

30% Construction Documents

11.20.2017

SHEET LIST

SHEET NUMBER	SHEET NAME
000	COVER SHEET
CIVIL	
C-101	COVER SHEET
C-102	STORMWATER POLLUTION PREVENTION PLAN
C-201	DEMOLITION PLAN
C-301	GEOMETRY PLAN
C-401	GRADING & DRAINAGE PLAN
C-501	UTILITY PLAN
C-601	DETAILS
C-602	DETAILS
C-603	SOIL BORING LOGS
C-604	GENERAL UTILITY DETAILS
C-605	TYPICAL WATER DETAILS
C-606	TYPICAL SEWER DETAILS
STRUCTURAL	
S001	STRUCTURAL GENERAL NOTES
S002	STRUCTURAL GENERAL NOTES
S003	STRUCTURAL GENERAL NOTES
S101	FOUNDATION / SLAB ON GRADE PLAN
S102	ROOF FRAMING PLAN
S501	SECTIONS AND DETAILS
S502	SECTIONS AND DETAILS
S602	SECTIONS AND DETAILS

ARCHITECTURAL	
A000	PERSPECTIVES
A001	ARCHITECTURAL INFORMATION
A002	CODE & LIFE SAFETY ANALYSIS
A100	ARCHITECTURAL SITE PLAN
A101	FLOOR PLAN
A102	ANNOTATION FLOOR PLAN
A110	REFLECTED CEILING PLAN
A201	EXTERIOR BUILDING ELEVATIONS
A202	EXTERIOR BUILDING ELEVATIONS
A301	BUILDING SECTIONS
A401	WALL SECTIONS
A500	RESTROOM ENLARGED PLAN
A600	DOOR & WINDOW ELEVATION & SCHEDULES
MECHANICAL	
M001	HVAC GENERAL NOTES AND SYMBOLS
M101	FLOOR PLAN HVAC
M301	HVAC SCHEDULES
M501	HVAC DETAILS
M502	HVAC DETAILS
PLUMBING	
P001	PLUMBING GENERAL NOTES SYMBOLS AND SCHEDULES
P101	FLOOR PLAN PLUMBING - SANITARY
P102	FLOOR PLAN PLUMBING - DOMESTIC WATER
P501	PLUMBING DETAILS
P502	PLUMBING DETAILS
ELECTRICAL	
E001	ELECTRICAL GENERAL NOTES SYMBOLS AND FIXTURE SCHEDULE
E101	FLOOR PLAN LIGHTING
E201	FLOOR PLAN POWER



201 E Dixie Ave, Leesburg, FL 34748

CONSULTANTS

CIVIL ENGINEERS

RIDDLE-NEWMAN GROUP

115 N Canal St
 Leesburg, Florida 34748

STRUCTURAL ENGINEERS

ADVANCED STRUCTURAL DESIGN INC.

1035 South Semoran Blvd., Suite 1019
 Winter Park, Florida 32792

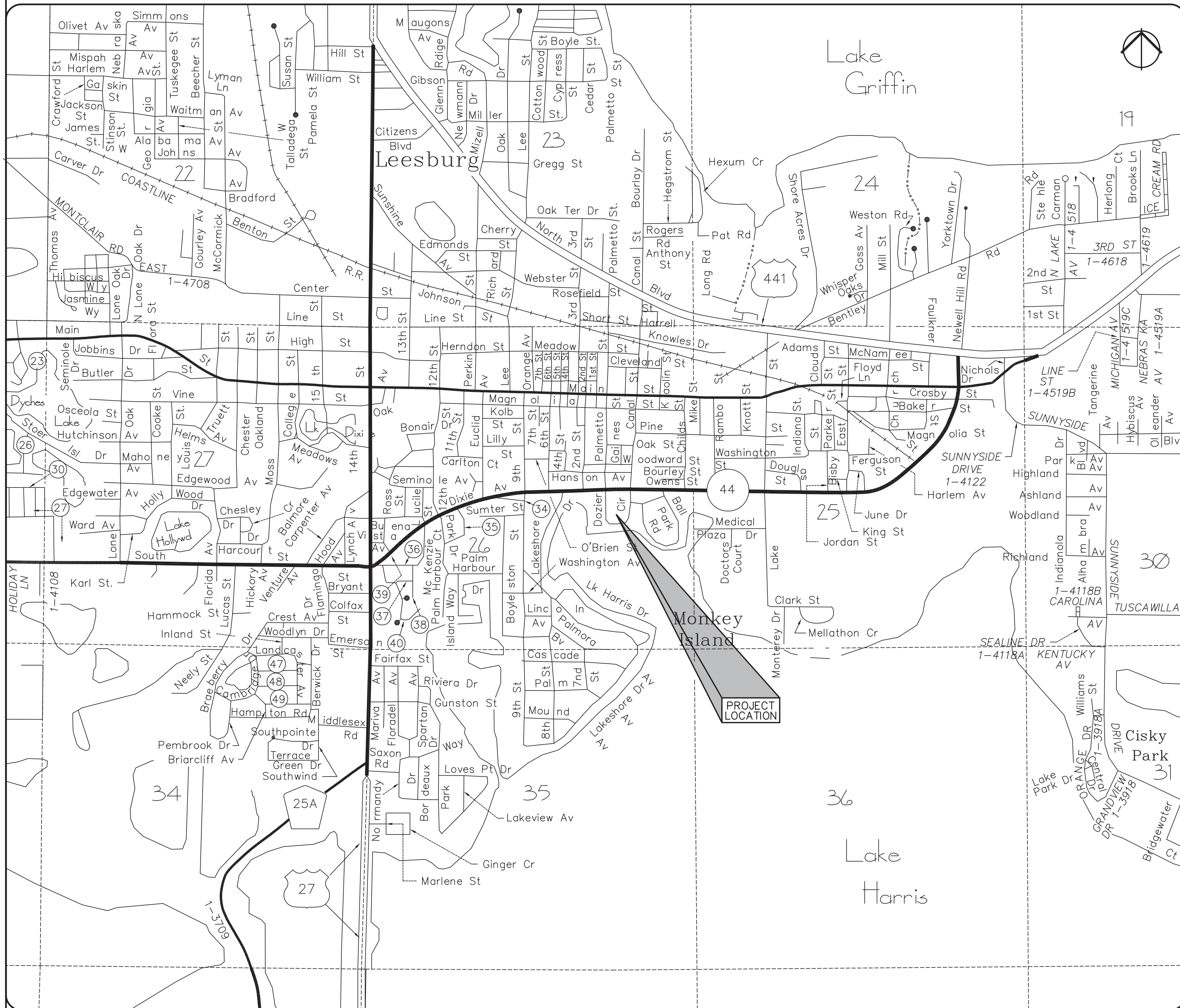
MECHANICAL, PLUMBING &
 ELECTRICAL ENGINEERS

**BOBES ASSOCIATES
 CONSULTING ENGINEERS**

1035 South Semoran Blvd., Suite 1019
 Winter Park, Florida 32792

VENETIAN GARDENS COMMUNITY CENTER

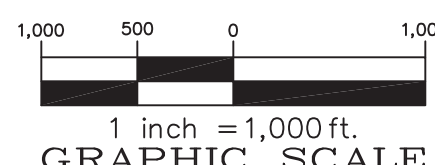
LEESBURG, FLORIDA



SECTION 26, TOWNSHIP 19 SOUTH, RANGE 24 EAST



LOCATION PLAN
SCALE: 1"=1,000'



GENERAL NOTES

- BOUNDARY AND TOPOGRAPHICAL INFORMATION SHOWN ARE PER DRAWINGS PREPARED BY SOUTHEASTERN SURVEYING AND MAPPING, DATED 10/25/17.
- CONTRACTOR SHALL VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER OR ARCHITECT.
- CONTRACTOR SHALL LOCATE AND MAINTAIN IN GOOD WORKING ORDER ALL ABOVE GROUND AND BELOW GROUND UTILITIES. CONTRACTOR SHALL COORDINATE THE RELOCATION OR ALTERATION OF EXISTING UTILITIES AS MAY BE REQUIRED.
- ALL ON-SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF LEESBURG, LAKE COUNTY PUBLIC SERVICES, FLORIDA BUILDING CODE, AND ALL OTHER APPLICABLE CODES. ALL FDOT RIGHT-OF-WAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS.
- ALL DISTURBED OPEN AREAS SHALL BE SODED OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING COMPLETION OF THE BUILDING CONSTRUCTION AS SHOWN ELSEWHERE IN THESE PLANS.
- CONTRACTOR SHALL SUPPLY THE ENGINEER WITH "AS-BUILT" CONDITIONS OF ACTUAL CONSTRUCTION.
- CONSTRUCTION SURVEYING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR TO PAY COST OF WET TAPS INTO CITY OF LEESBURG WATER MAIN.
- ALL WATER & SEWER LINE CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH CITY OF LEESBURG REQUIREMENTS.
- ANY SOIL MATERIAL (EITHER ON-SITE OR IMPORTED) UTILIZED FOR THE CONSTRUCTION OF RETENTION SWALES OR RETENTION PONDS SHALL BE CLEAN FINE SAND (SP) AS DEFINED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM. FINES (MATERIAL PASSING THE NO. 200 SIEVE) SHALL BE LESS THAN 5%.
- THE OWNER WILL OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT AS REGULATED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). CONTRACTOR SHALL BECOME FAMILIAR WITH THE NPDES PERMITTING REQUIREMENTS, DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE CONSTRUCTION SITE IS IN COMPLIANCE WITH NPDES REGULATIONS AND WILL BE RESPONSIBLE FOR ANY VIOLATIONS CITED BY DEP DURING CONSTRUCTION. INFORMATION PERTAINING TO THE NPDES PROGRAM IS AVAILABLE ON LINE AT WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES OR BY CALLING FDEP NPDES STORMWATER SECTION AT 850-245-7522.

LEGAL DESCRIPTION

A portion of the Southeast 1/4 of Section 26, Township 19 South, Range 24 East, lying in Lake County, Florida.

SHEET INDEX

C101	COVER SHEET
C102	STORMWATER POLLUTION PREVENTION PLAN
C201	DEMOLITION PLAN
C301	GEOMETRY PLAN
C401	GRADING & DRAINAGE PLAN
C501	UTILITY PLAN
C601-C606	DETAIL SHEETS

SITE DATA

PROJECT AREA = 389,101 sq.ft. (8.93 ac.)

EXISTING IMPERVIOUS AREA = 140,435 sq.ft. (3.22 ac.)
 EXISTING IMPERVIOUS AREA TO BE REMOVED = 140,435 sq.ft. (3.22 ac.)
 PROPOSED IMPERVIOUS AREA = 204,435 sq.ft. (4.69 ac.)
 TOTAL IMPERVIOUS AREA = 204,435 sq.ft. (4.69 ac.)
 PERCENT IMPERVIOUS AREA = 52.5% (of total area)

PARKING PROVIDED = 239 spaces

ELEVATIONS BASED ON N.A.V.D. 1988 VERTICAL DATUM

OWNER

City of Leesburg
 P.O. Box 490630
 Leesburg, Florida 34749

ARCHITECT

Jorge A. Borrelli, Principal
 Borrelli & Partners
 720 Vassar Street
 Orlando, Florida 32804
 Phone (407) 418-1338
 Fax (407) 418-1342

ENGINEER

Keith E. Riddle, P.E.
 Riddle - Newman Engineering, Inc.
 115 North Canal Street
 Leesburg, Florida 34748
 Phone (352) 787-7482
 Fax (352) 787-7412

SURVEYOR

James L. Petersen
 Southeastern Surveying & Mapping
 6500 All American Boulevard
 Orlando, Florida 32810
 Phone (407) 292-8580

CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS
 ARCHITECTURE PLANNING LANDSCAPE INTERIORS
 720 Vassar Street, Orlando, FL 32804
 407.418.1338 :: Fax 407.418.1342
COMPANY HAS BEEN DESIGNATED AS AN ESSENTIAL BUSINESS AND WILL REMAIN OPEN TO THE PUBLIC. THE COMPANY WILL BE OPERATING AT A LIMITED CAPACITY TO PROVIDE SERVICES TO THE PUBLIC.

KEITH E. RIDDLE, P.E.
 F.L.A. REGIS. NO. 38800

RIDDLE-NEWMAN ENGINEERING, INC.
 115 NORTH CANAL STREET
 LEESBURG, FLORIDA 34748
 PHONE (352) 787-7412
 FAX (352) 787-7412
 keith@riddle-n.com
 C-# 00002883

COVER SHEET

SHEET TITLE

PROJECT ADDRESS
 201 E. Dike Ave., Leesburg, FL 34748

OWNER NAME AND ADDRESS
 City of Leesburg
 204 N 5th St., Leesburg, FL 34748

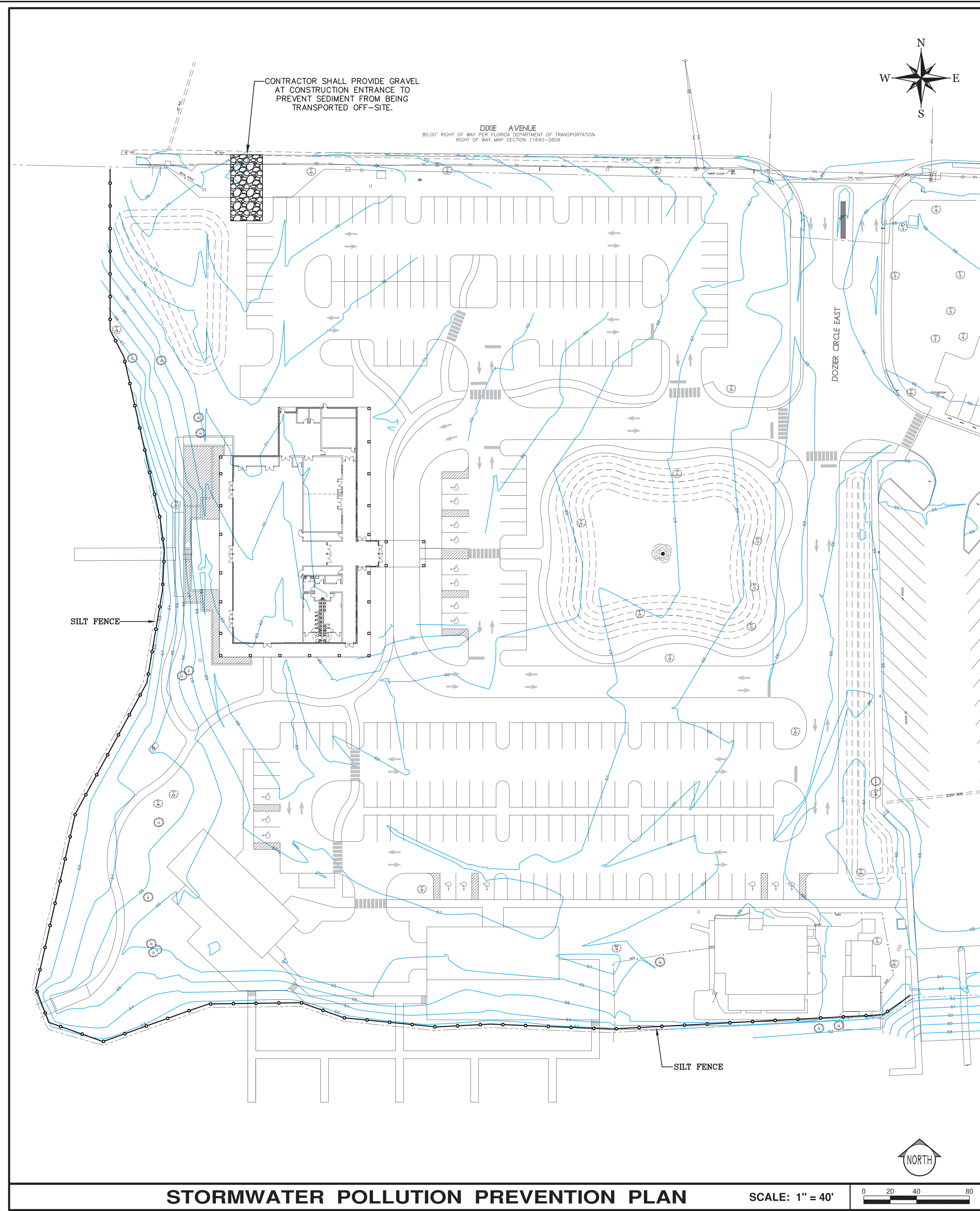
DATE

REV. DESCRIPTION

16-170
 50% Construction Documents
 SCALE 1"=1,000'
 DRAWN BY RSH
 CHECKED BY KER
 DATE 11.20.2017

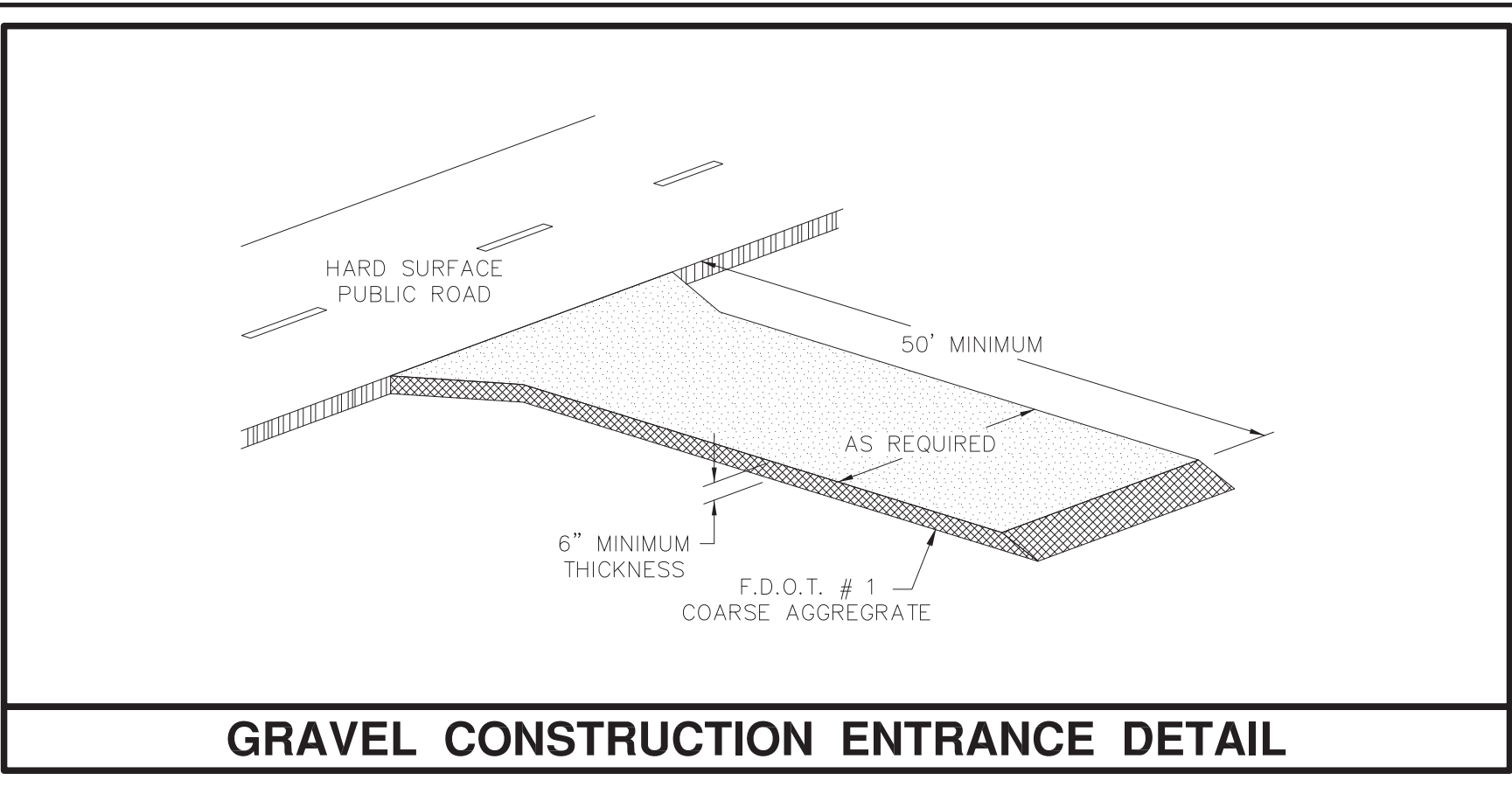
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C101
 OF

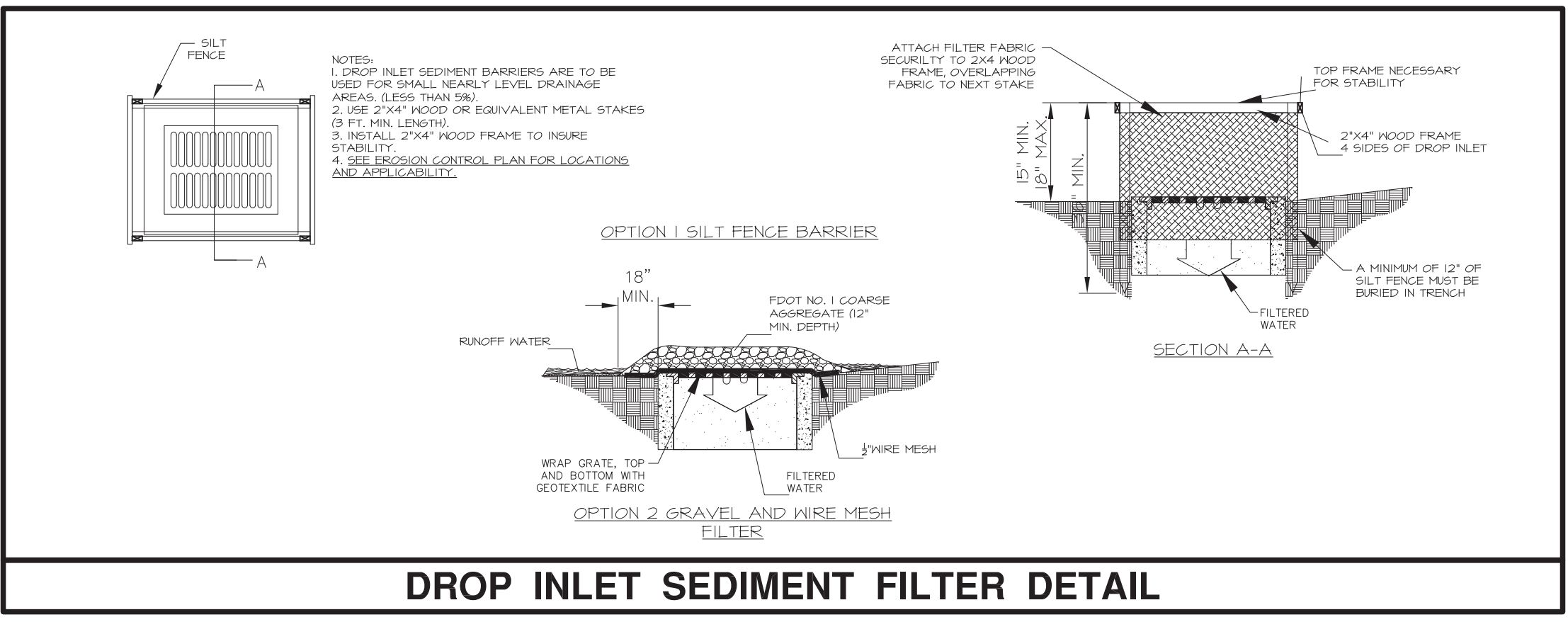


STORMWATER POLLUTION PREVENTION PLAN

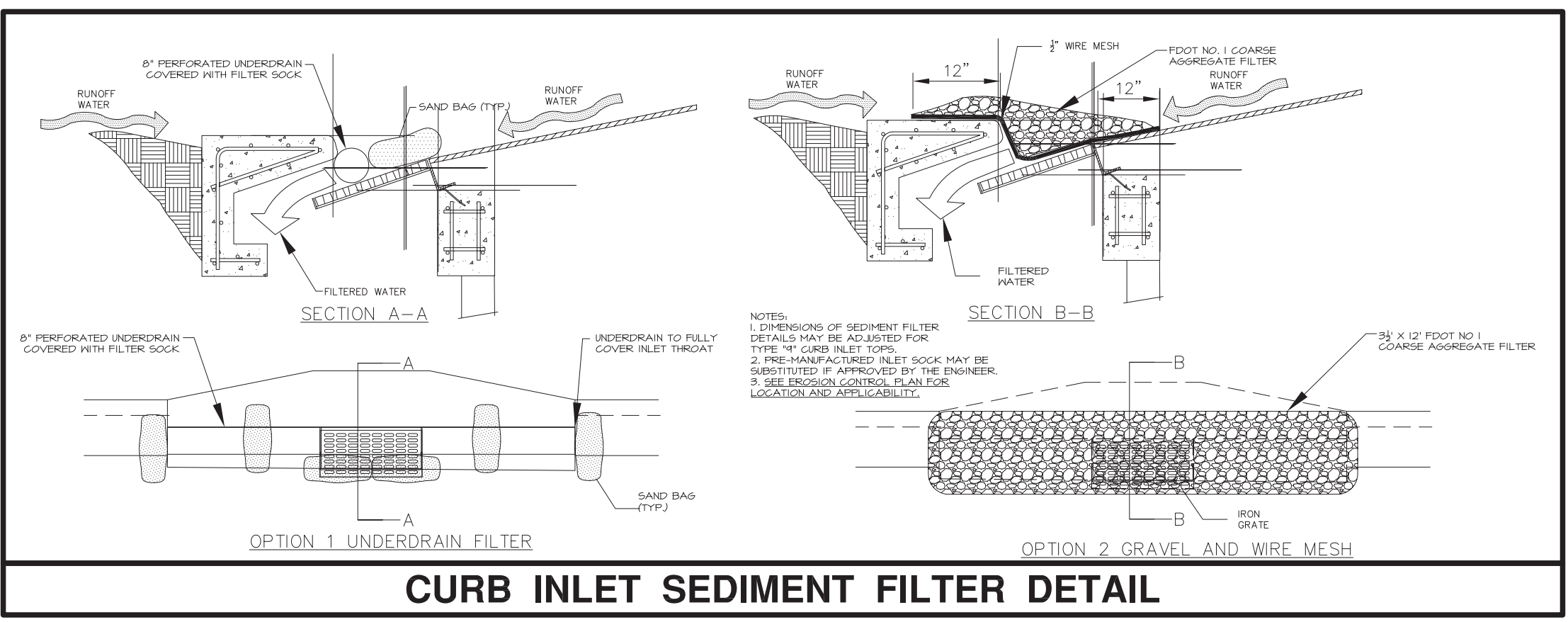
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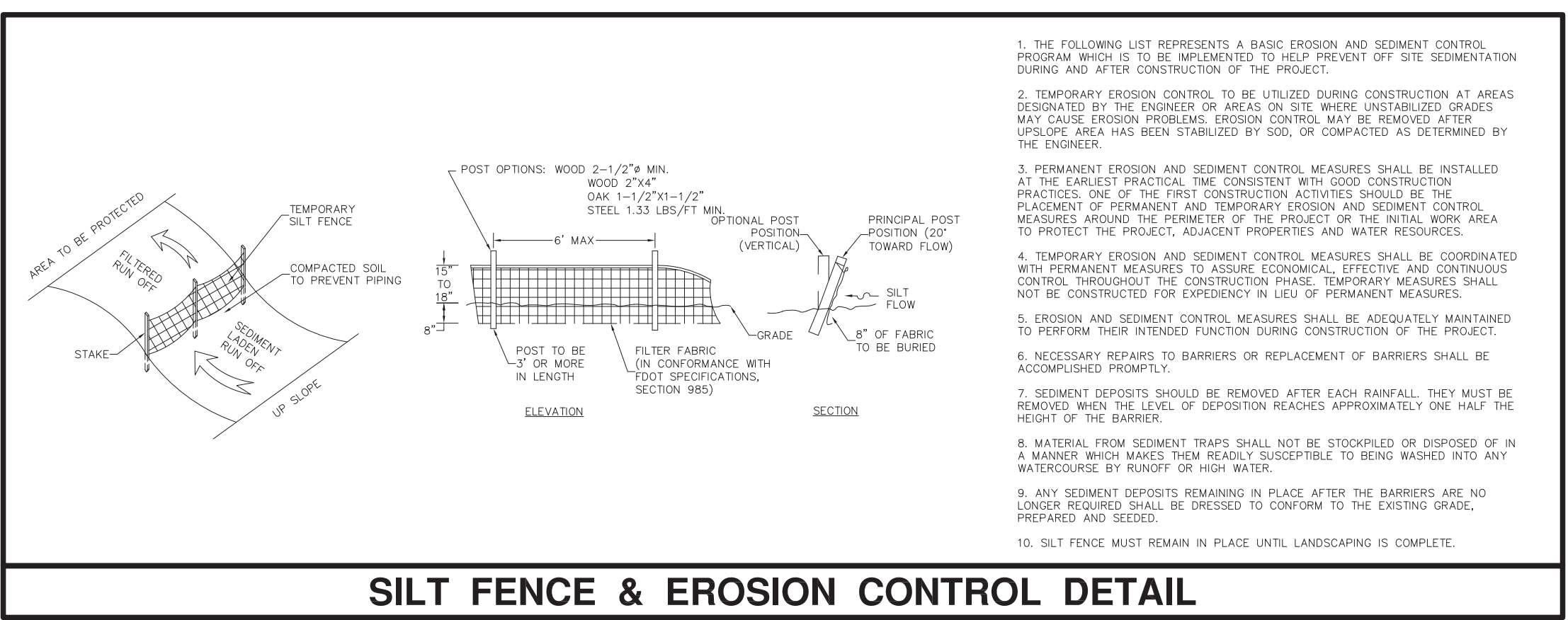
GRAVEL CONSTRUCTION ENTRANCE DETAIL



DROP INLET SEDIMENT FILTER DETAIL



CURB INLET SEDIMENT FILTER DETAIL



SILT FENCE & EROSION CONTROL DETAIL

NPDES Requirements

- Federal Law prohibits all point source discharge of pollutants, which includes the discharge of stormwater associated with large (greater than 5 acres) construction activities or small (less than 5 acres and greater than 1 acre) construction activities, to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. Under the State of Florida's authority to administer the NPDES stormwater program, operators that have stormwater discharge associated with large or small construction activities to surface waters of the State, including through a Municipal Separate Storm Sewer System (MS4, i.e. Town, City or County), shall obtain coverage either under a Generic permit or an Individual permit.
- The owner will obtain the NPDES permit during the permitting process.
- The Contractor shall prepare the Storm Water Pollution Prevention Plan (SWPPP). Contractor may obtain information pertaining to the NPDES program online at www.dep.state.fl.us/water/stormwater/npdes. The Contractor shall be responsible for maintenance of the site in accordance with the SWPPP. The Contractor will be required to comply with all requirements of the SWPPP and have it posted on-site along with the Erosion Control Plan, the NPDES permit, and the completed Inspection Report Forms. The Contractor shall be responsible for all erosion control practices defined in the SWPPP and associated penalties for not complying with the NPDES requirements contained in the SWPPP and the NPDES permit. The cost of all compliance related activities shall be included in the bid submitted by the Contractor.
- The NPDES permit requires at least weekly inspections of the site and inspections within 24 hours following any rainfall event exceeding 0.5" inches. The Contractor is responsible for the weekly inspections and post-rainfall event inspections and these inspections are required to be made by a "Qualified" inspector. These inspections must document compliance with the permit and the SWPPP and the inspector shall complete the Stormwater Pollution Prevention Plan Inspection Report Form. The Contractor can obtain a sample copy of the Inspection Report Form from the Engineer. The Contractor can contact the FDEP at (850) 245-7522 for additional information on qualified inspectors or additional information on the NPDES requirements.

NPDES REQUIREMENTS

CITY OF LEESBURG VENETIAN GARDENS

PROJECT ADDRESS
201 E. Dixie Ave., Leesburg, FL 34748

OWNER NAME AND ADDRESS
City of Leesburg
204 N. 5th St., Leesburg, FL 34748

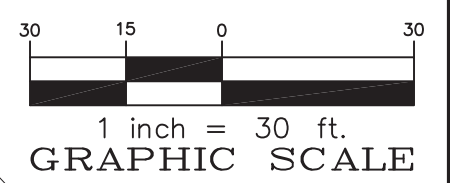
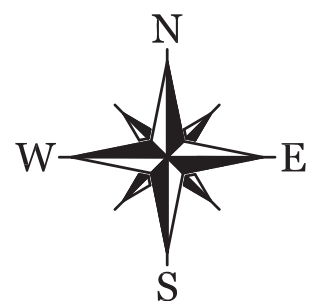
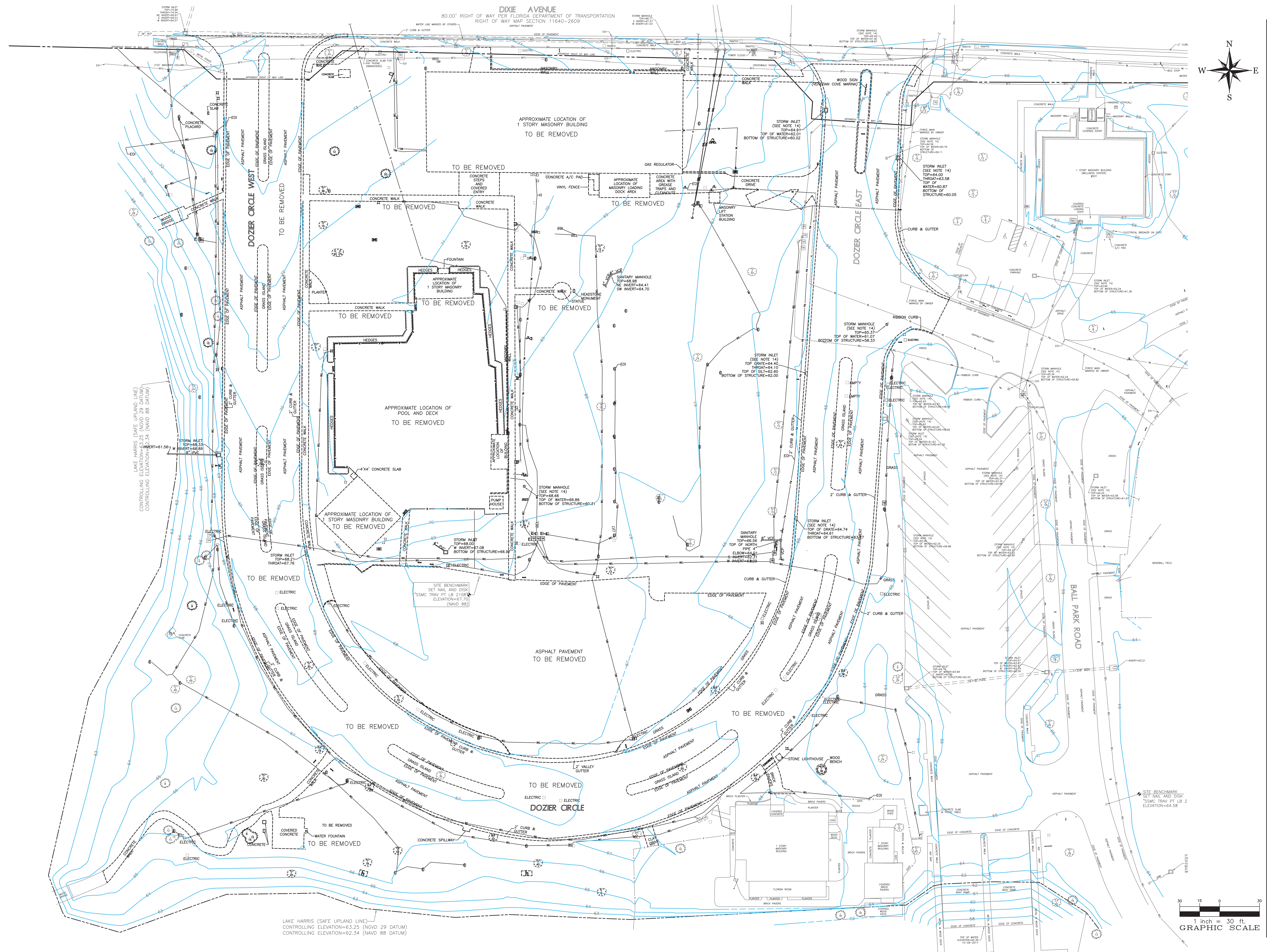
CONSULTANTS
RIDDLE-NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
LEESBURG, FLORIDA 34748
PHONE (352) 787-7412
FAX (352) 787-7412
keith@riddlenewman.com
CA# 0002883

CONTRACTOR
BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: Fax 407.418.1342

PROJECT No. 16-170
PHASE 50% Construction Documents
SCALE 1"=40'
DRAWN BY BSH
CHECKED BY KER
DATE 11.20.2017

17.51 Venetian Gardens Community Center.dwg

C102
OF



CITY OF LEESBURG VENETIAN GARDENS

PROJECT No. 16-170	REV. 16-170	DESCRIPTION	DATE	PROJECT ADDRESS	SHEET TITLE
PHASE 50% Construction Documents				201 E Dixie Ave., Leesburg, FL 34748	DEMOLITION PLAN
SCALE 1" = 50'					
DRAWN BY BSH				OWNER NAME AND ADDRESS	
CHECKED BY KER				City of Leesburg 204 N 5th St., Leesburg, FL 34748	
DATE 11.20.2017					

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

720 Vassar Street, Orlando, FL 32804
407.418.1338 :: Fax 407.418.1342

SIGNATURE AND DATED SEAL

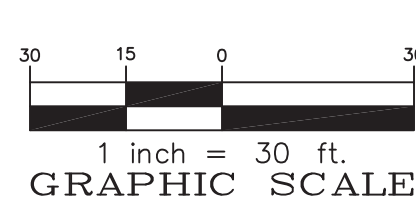
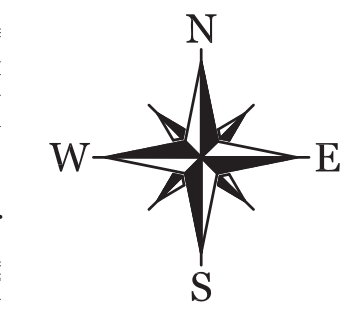
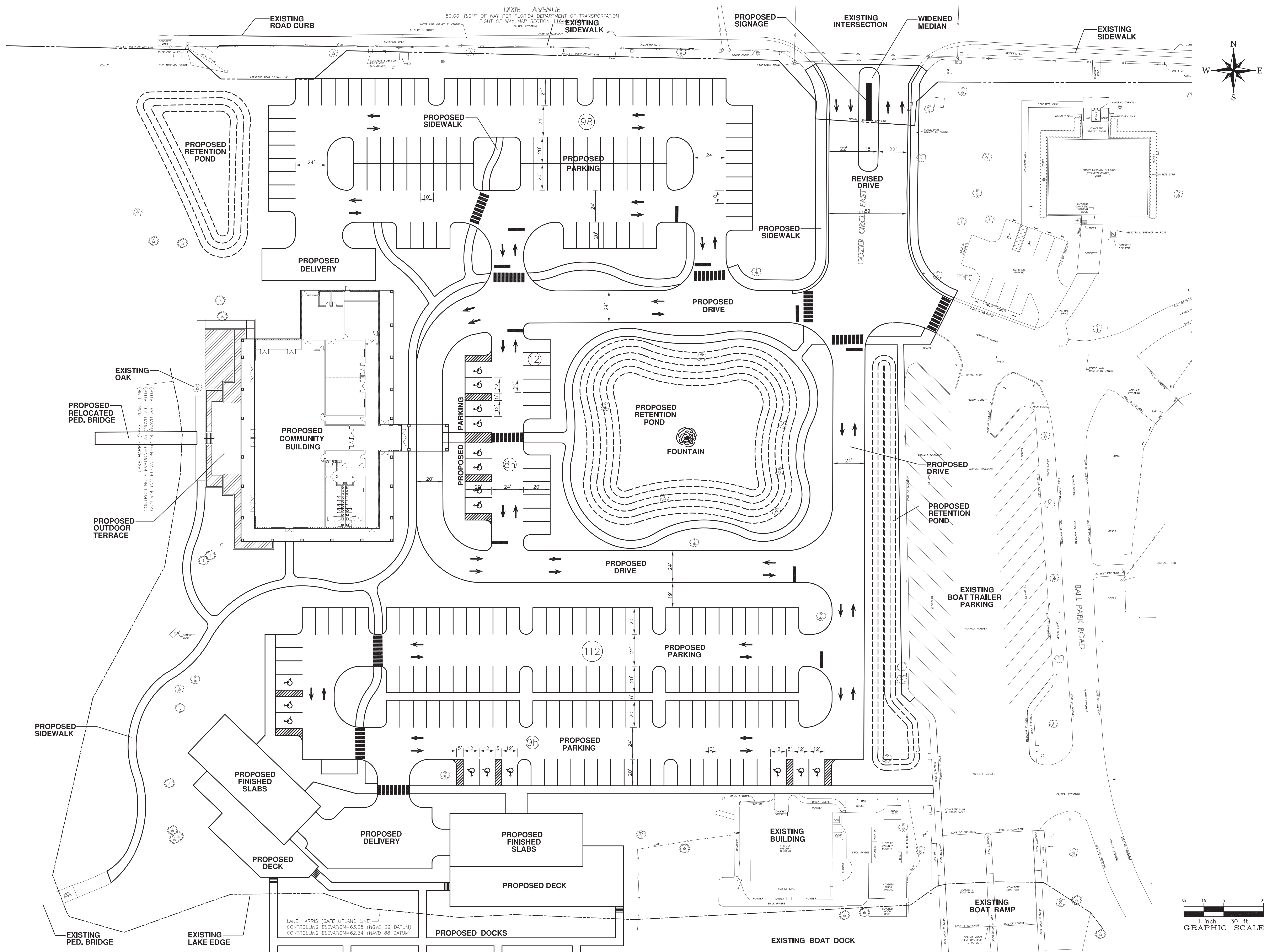
RIDDLE - NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
LEESBURG, FLORIDA 34748
PHONE (352) 787-7448
FAX (352) 787-7412
keith@riddle-n.com
CA# 00002883

CONSULTANTS

CONTRACTOR

DATE 11/16/2017 10:29:47 AM





CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: Fax 407.418.1342
keith@briidle.com

RIDDLE-NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
LEESBURG, FLORIDA 34748
PHONE (352) 787-7412
FAX (352) 787-7412
keith@riddle-neuman.com
CA# 00002883

GEOMETRY PLAN

PROJECT No.	REV.	DESCRIPTION	DATE	PROJECT ADDRESS	DATE	OWNER NAME AND ADDRESS
16-170	16-170	50% Construction Documents		201 E Dixie Ave., Leesburg, FL 34748		City of Leesburg 204 N 5th St., Leesburg, FL 34748
		SCALE	1" = 30'			
		DRAWN BY	BSH			
		CHECKED BY	KER			
		DATE	11.20.2017			

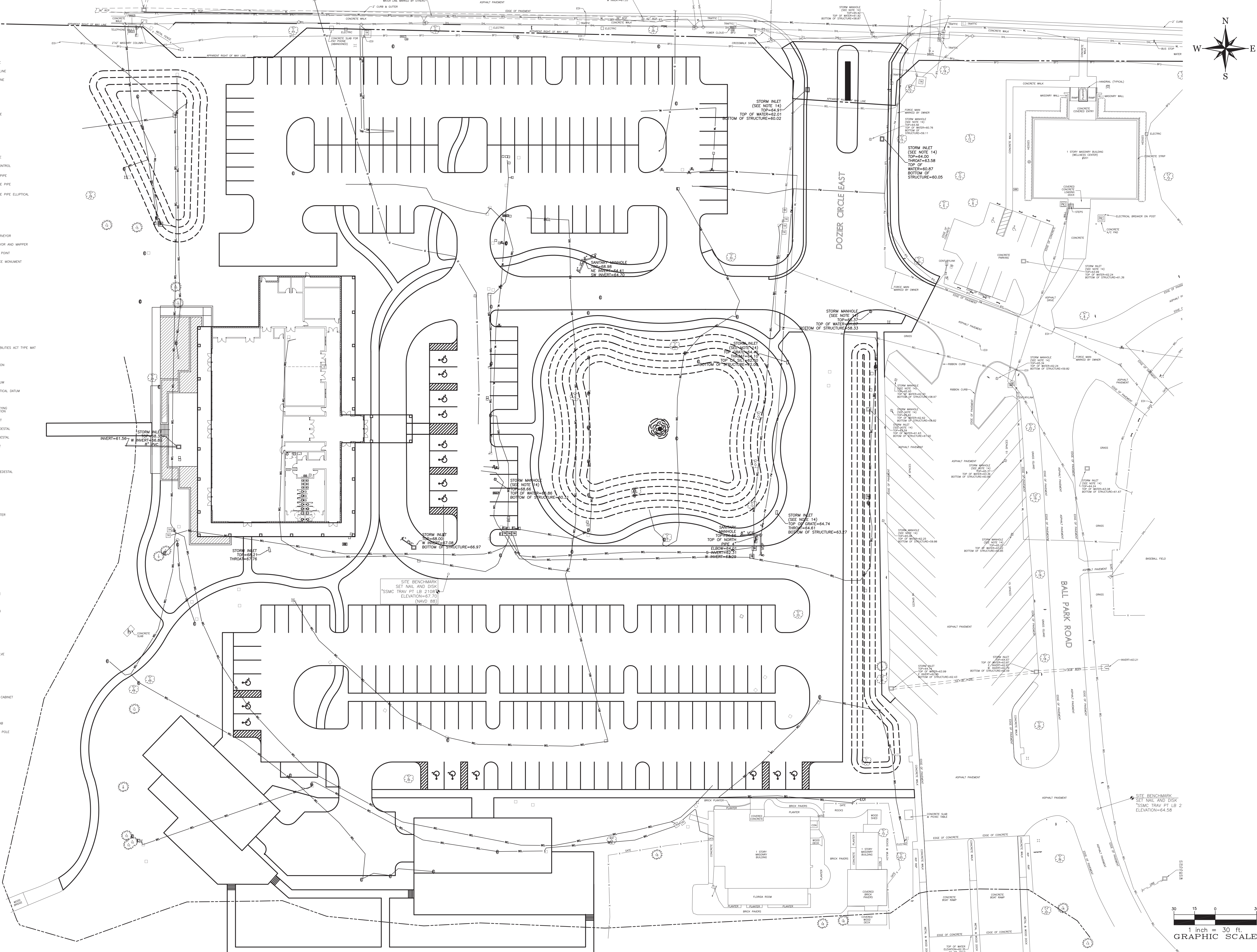
C301
OF

11/16/2017 10:29:47 AM 17.51 Venetian Gardens Community Center.dwg

LEGEND & ABBREVIATIONS:

- A- CHAINLINK FENCE
 - BCL- BURIED CABLE LINE
 - BEL- BURIED ELECTRIC LINE
 - BFO- BURIED FIBER OPTIC LINE
 - BTL- BURIED TELEPHONE LINE
 - COMM- COMMUNICATION LINE
 - G- GAS LINE
 - IRR- IRRIGATION LINE
 - OHL- OVERHEAD UTILITY LINE
 - HL- WATER LINE
 - RCLW- RECLAIM WATER LINE
 - SS- SANITARY SEWER
 - FM- FORCE MAIN
 - UNK- UNKNOWN UTILITY LINE
 - OTC- OVERHEAD TRAFFIC CONTROL
 - PVC- POLYVINYL CHLORIDE PIPE
 - RCP- REINFORCED CONCRETE PIPE
 - RCEPE- REINFORCED CONCRETE PIPE ELLIPTICAL
 - VCP- VITRIFIED CLAY PIPE
 - UNK- UNKNOWN
 - LB- LICENSED BUSINESS
 - LS- LICENSED SURVEYOR
 - RLS- REGISTERED LAND SURVEYOR
 - PSM- PROFESSIONAL SURVEYOR AND MAPPER
 - PCP- PERMANENT CONTROL POINT
 - PRM- PERMANENT REFERENCE MONUMENT
 - ID- IDENTIFICATION
 - ST- STATION
 - LT- LEFT
 - RT- RIGHT
 - L- LENGTH
 - R- RADIUS
 - Δ- DELTA
 - CH- CHORD
 - CB- CHORD BEARING
 - ADA- AMERICANS WITH DISABILITIES ACT TYPE WAY
 - R/W- RIGHT OF WAY
 - FF- FINISH FLOOR ELEVATION
 - EDI- END OF INFORMATION
 - NAD- NORTH AMERICAN DATUM
 - NVD- NORTH AMERICAN VERTICAL DATUM
 - TRAV PT- TRAVERSE POINT
 - SMC- SOUTHEASTERN SURVEYING & MAPPING CORPORATION
 - AU- AIR CONDITIONING UNIT
 - BURIED CABLE TV PEDESTAL
 - BURIED ELECTRIC PEDESTAL
 - BACKFLOW PREVENTER
 - BENCHMARK
 - BENCH
 - BURIED TELEPHONE PEDESTAL
 - CONCRETE MONUMENT
 - CLEAN OUT
 - DRAINAGE MANHOLE
 - ELECTRIC FIXTURE
 - ELECTRIC SERVICE METER
 - FLAT GRADE INLET
 - FIRE HYDRANT
 - FLAGPOLE
 - DOWN GUY
 - WATER SPROUT
 - HAND HOLE
 - IRON ROD
 - IRRIGATION VALVE
 - IRRIGATION VALVE BOX
 - LIGHT POLE
 - MIXED END SECTION
 - MONITORING WELL
 - NAL W/DISC
 - UTILITY POLE
 - POST/BOLLARD
 - RECLAIMED WATER VALVE
 - SANITARY MANHOLE
 - NON-TRAFFIC SIGN
 - SERVICE POLE
 - SEWER VALVE
 - TRAFFIC CONTROLLER CABINET
 - TRAFFIC SIGNAL HEAD
 - TRAFFIC SIGN
 - TRANSFORMER ON SLAB
 - TRAFFIC SIGNAL SPAN POLE
 - UTILITY MARKER
 - VALET
 - WATER METER
 - WIRING PULL BOX
 - WATER VALVE
 - CON- CONCRETE
- SIZE SHOWN IS TRUNK DIAMETER
IN INCHES MEASURED AT CHEST HEIGHT
- CY- CYPRESS
 - EL- ELM
 - H- HOLLY
 - LD- LOCUST
 - MA- MAGNOLIA
 - M- MAPLE
 - Q- OAK
 - U- UNKNOWN
 - S- SYCAMORE

80.00' RIGHT OF WAY PER FLORIDA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY MAP SECTION 11640-2609

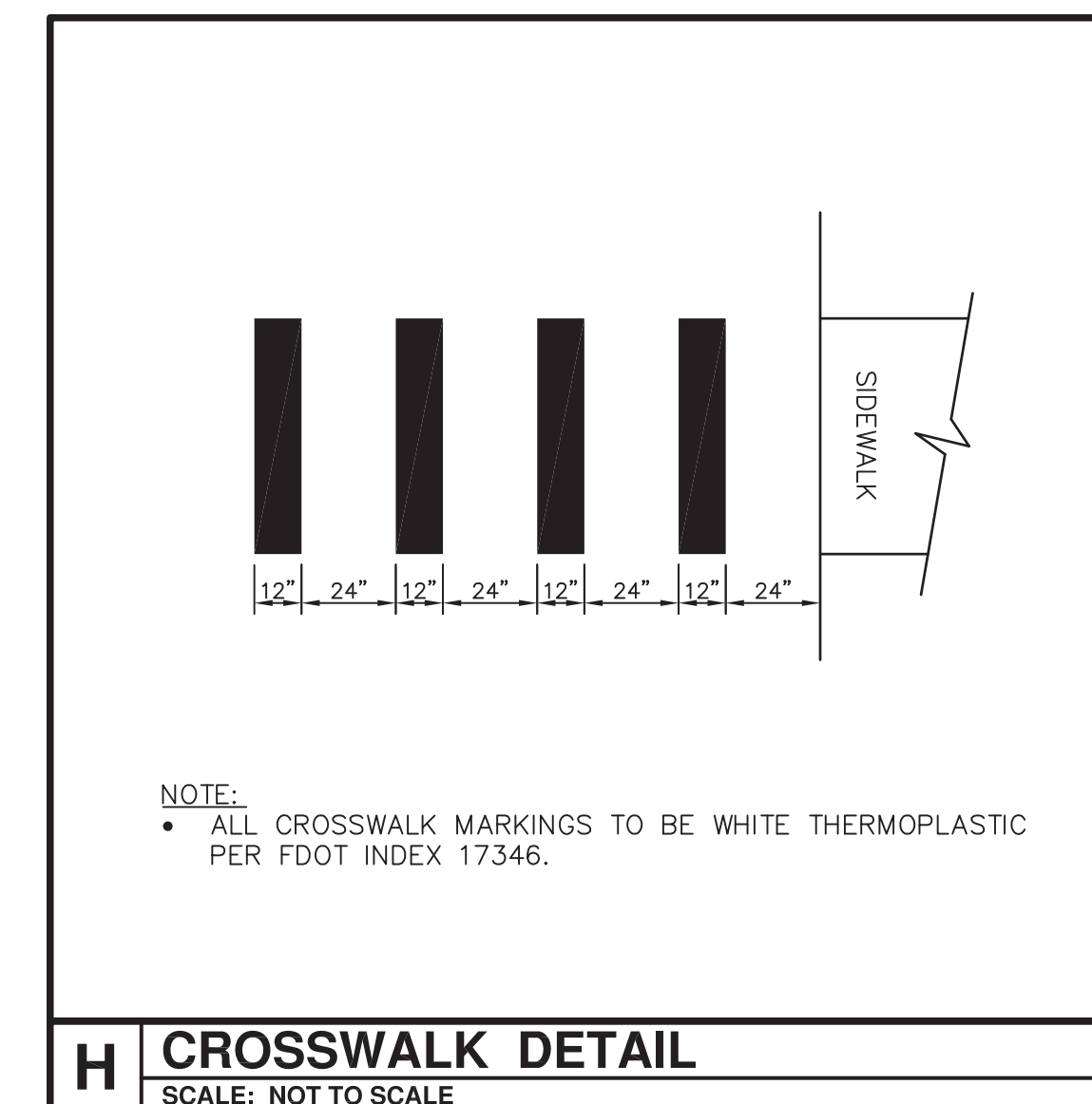
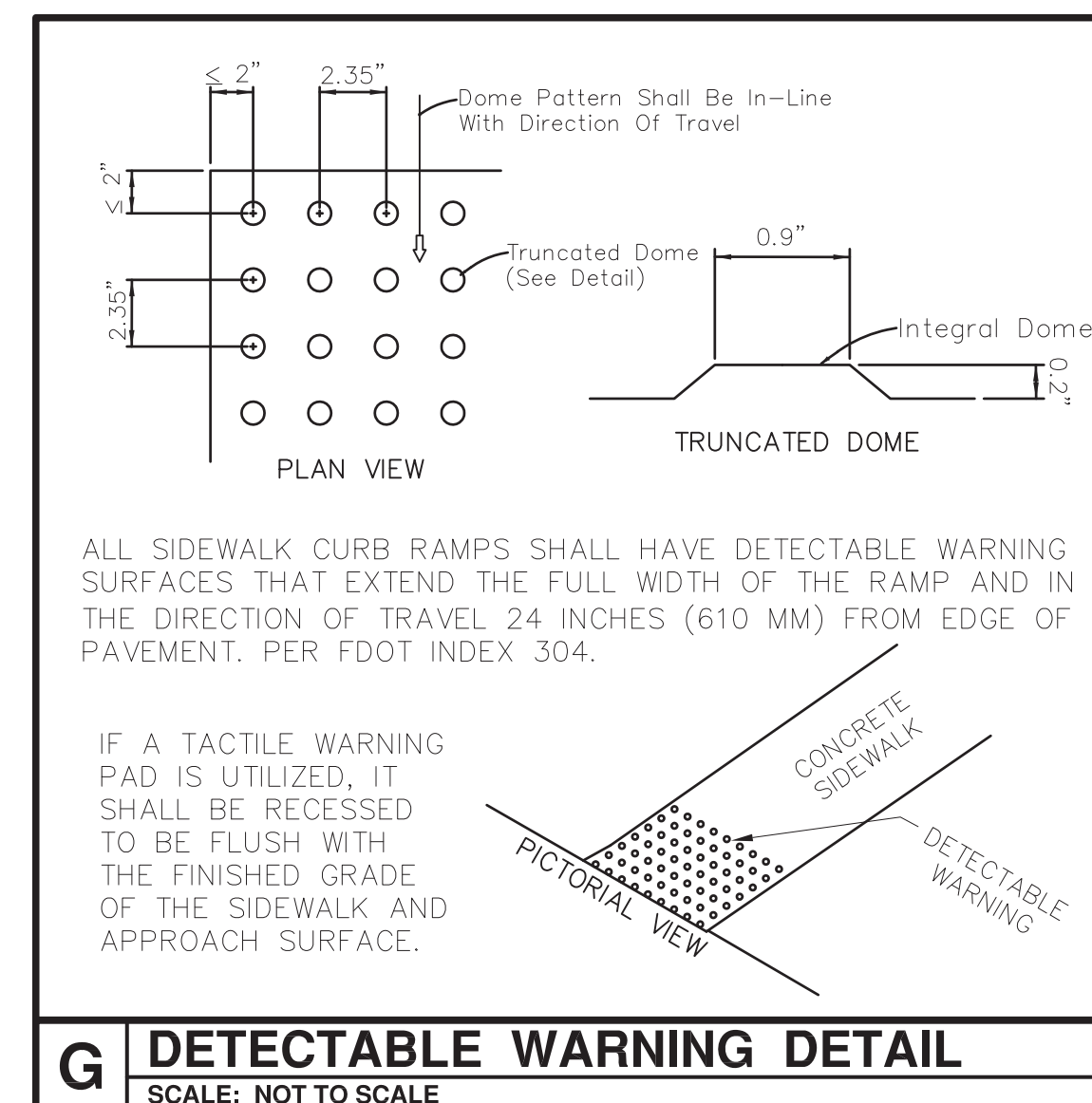
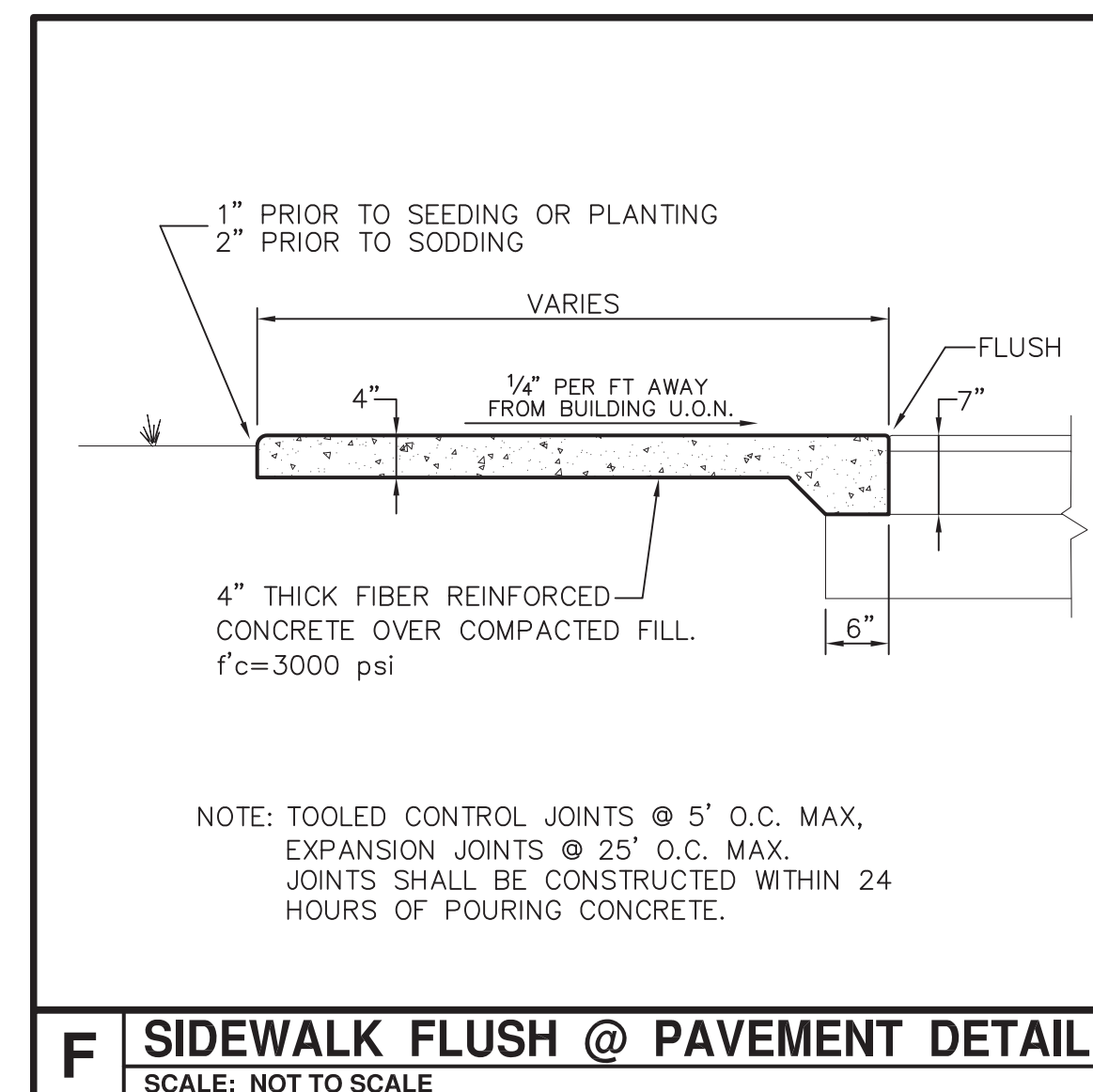
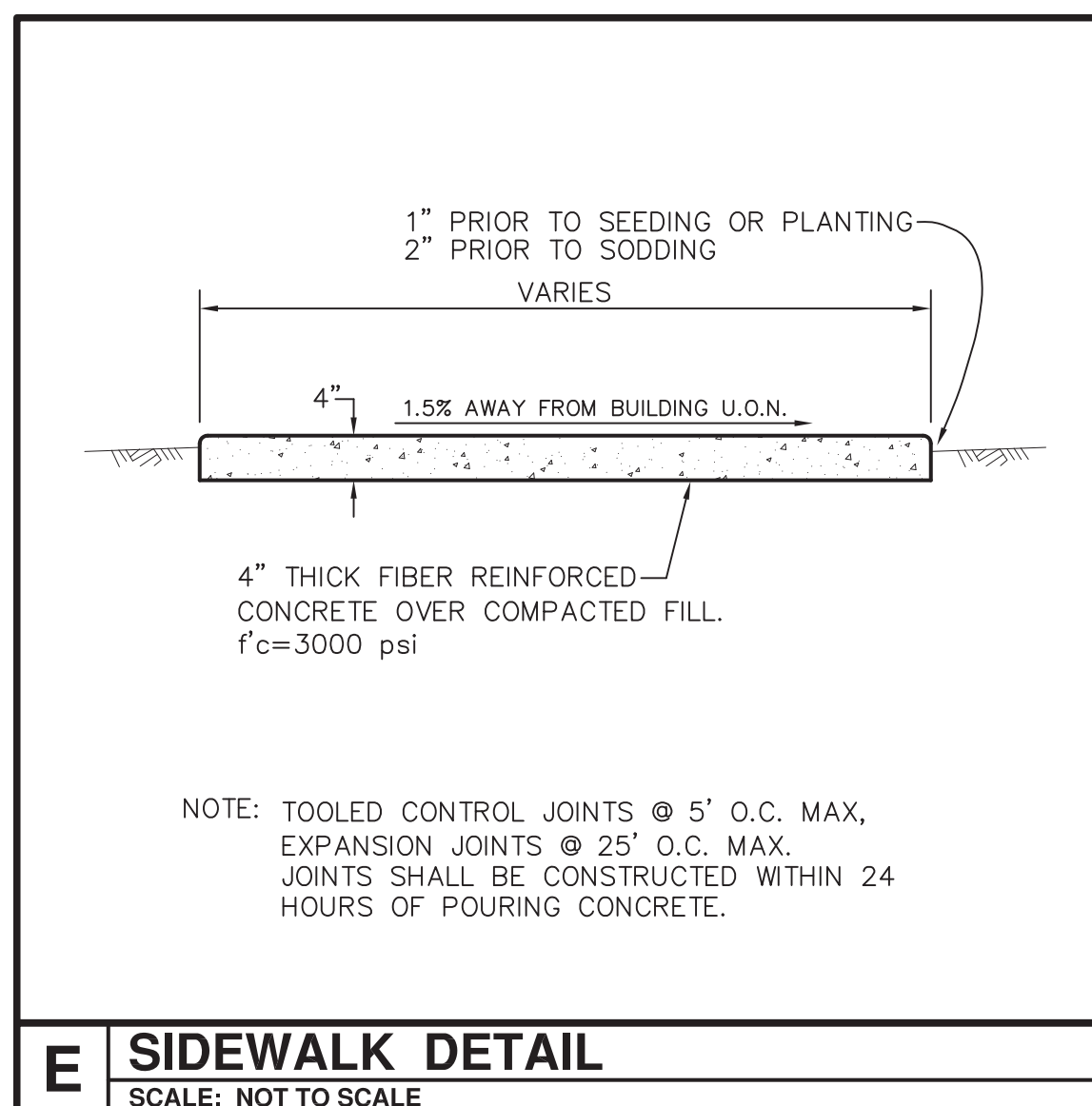
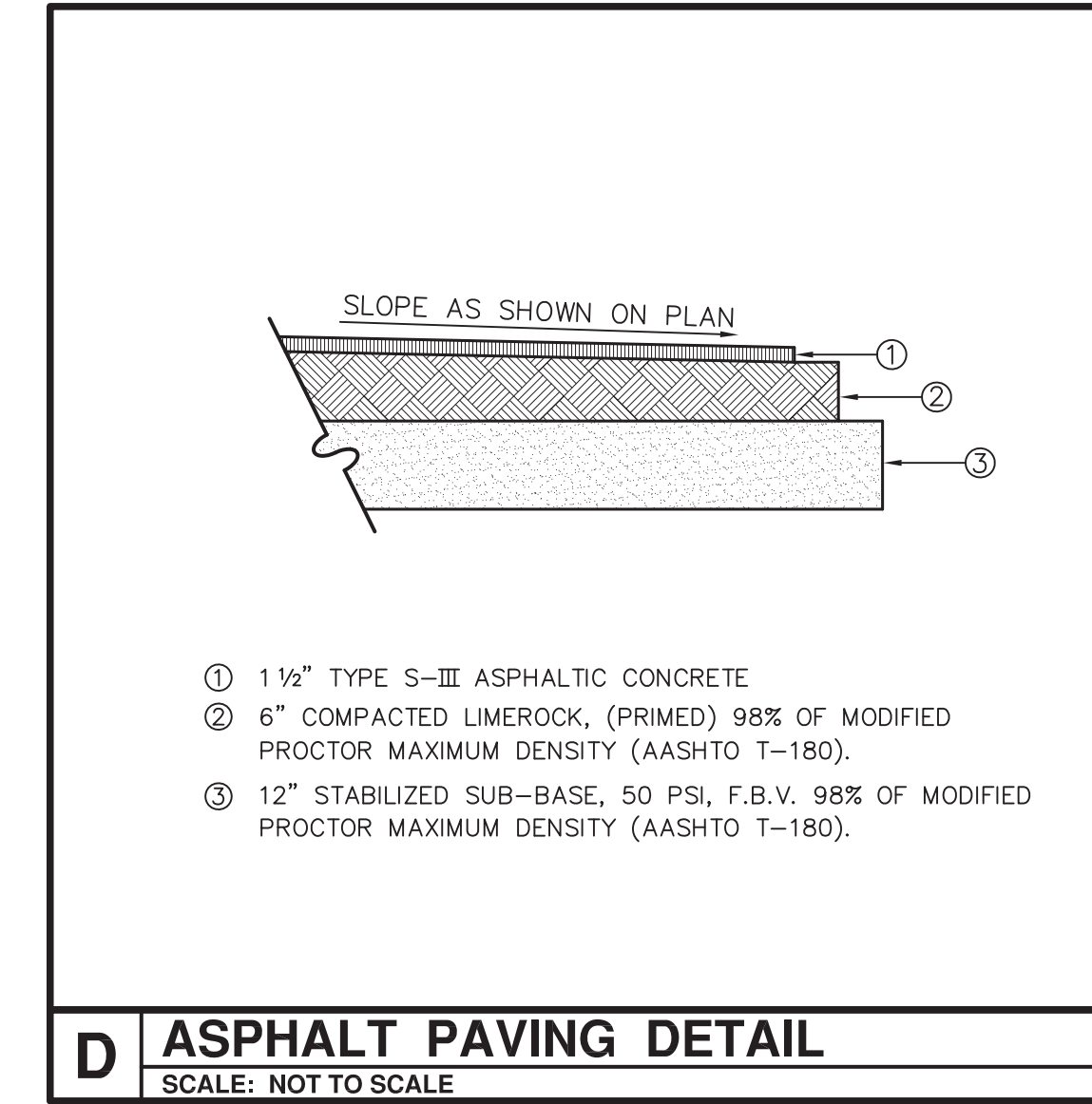
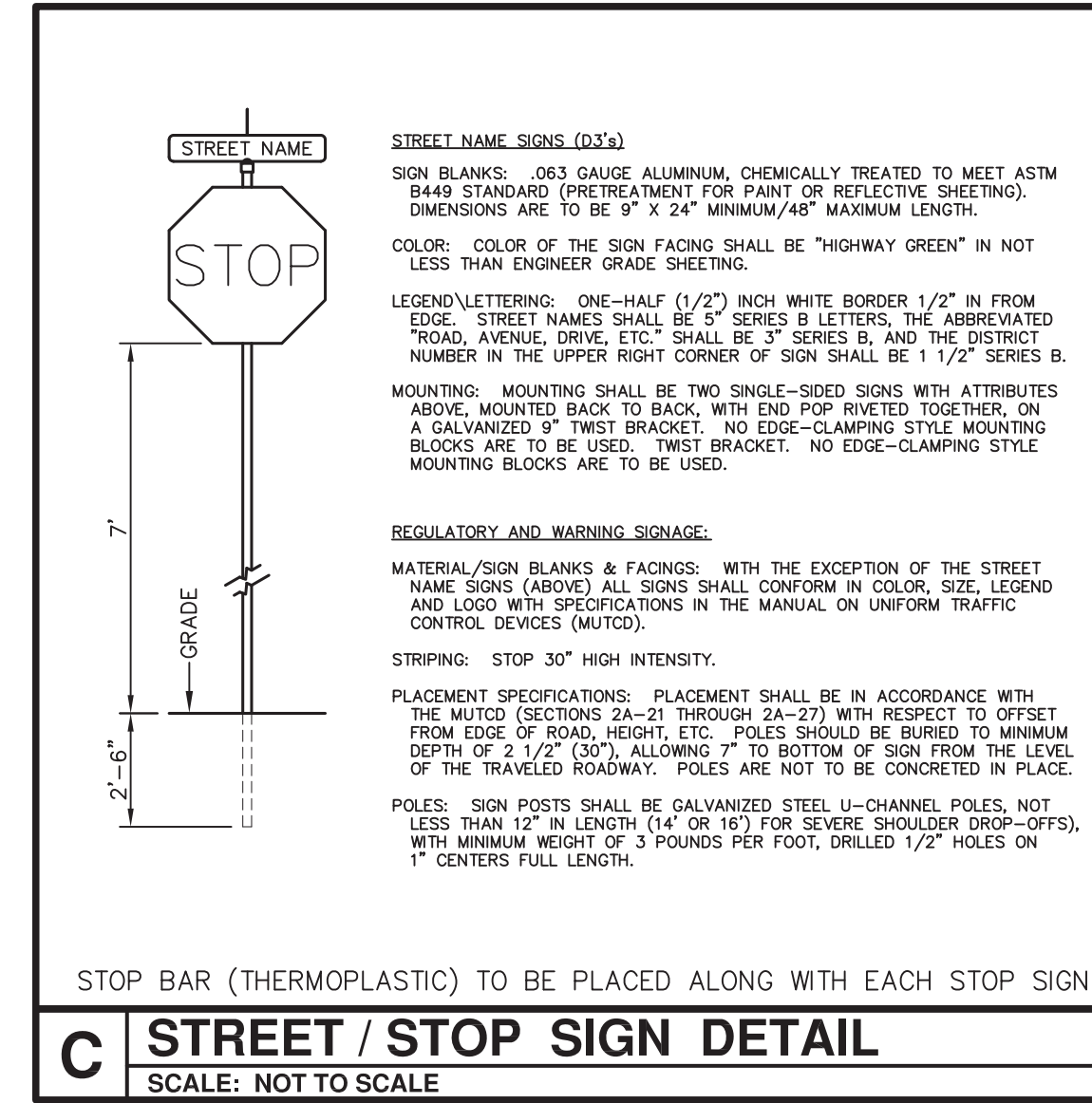
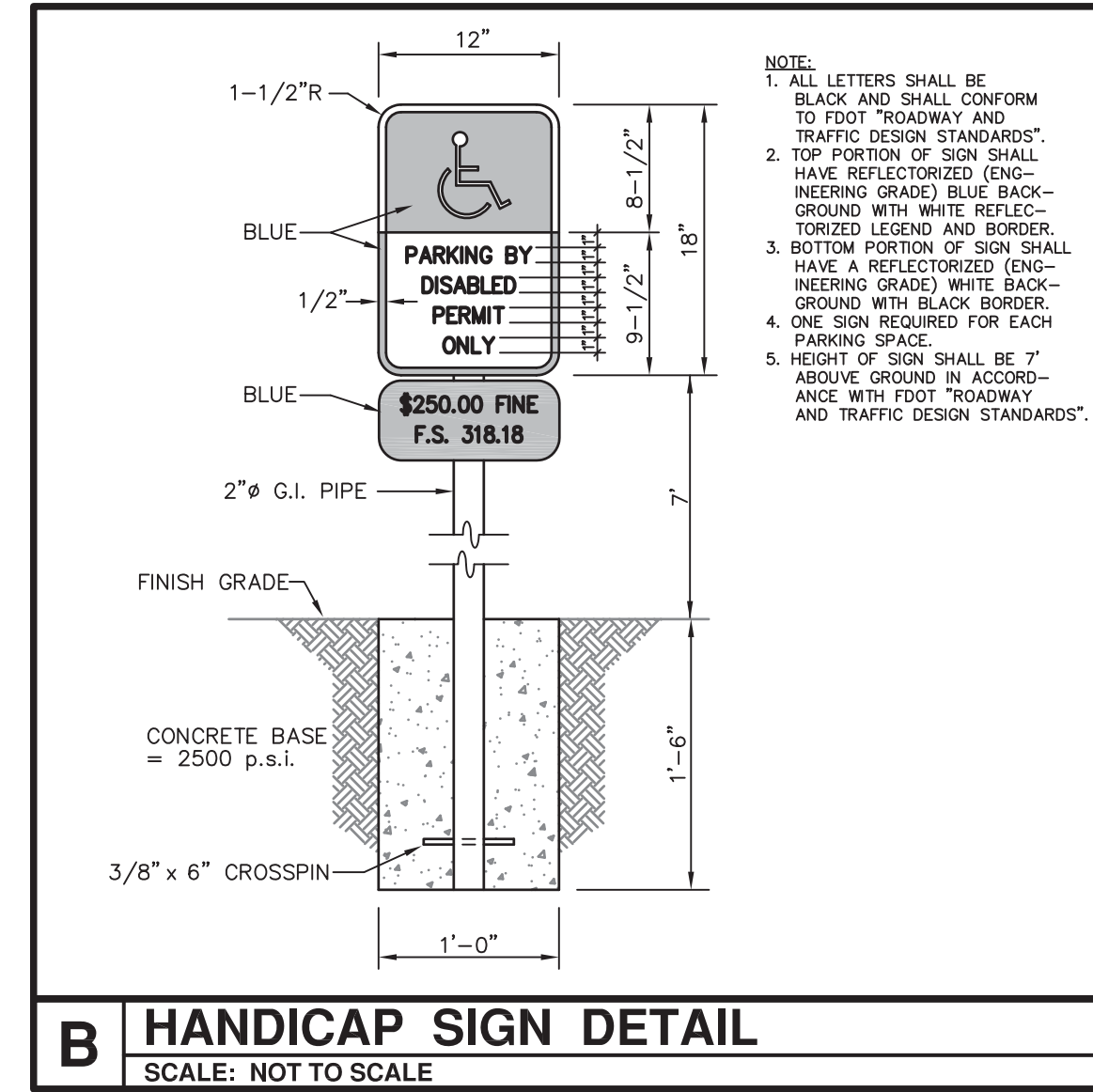
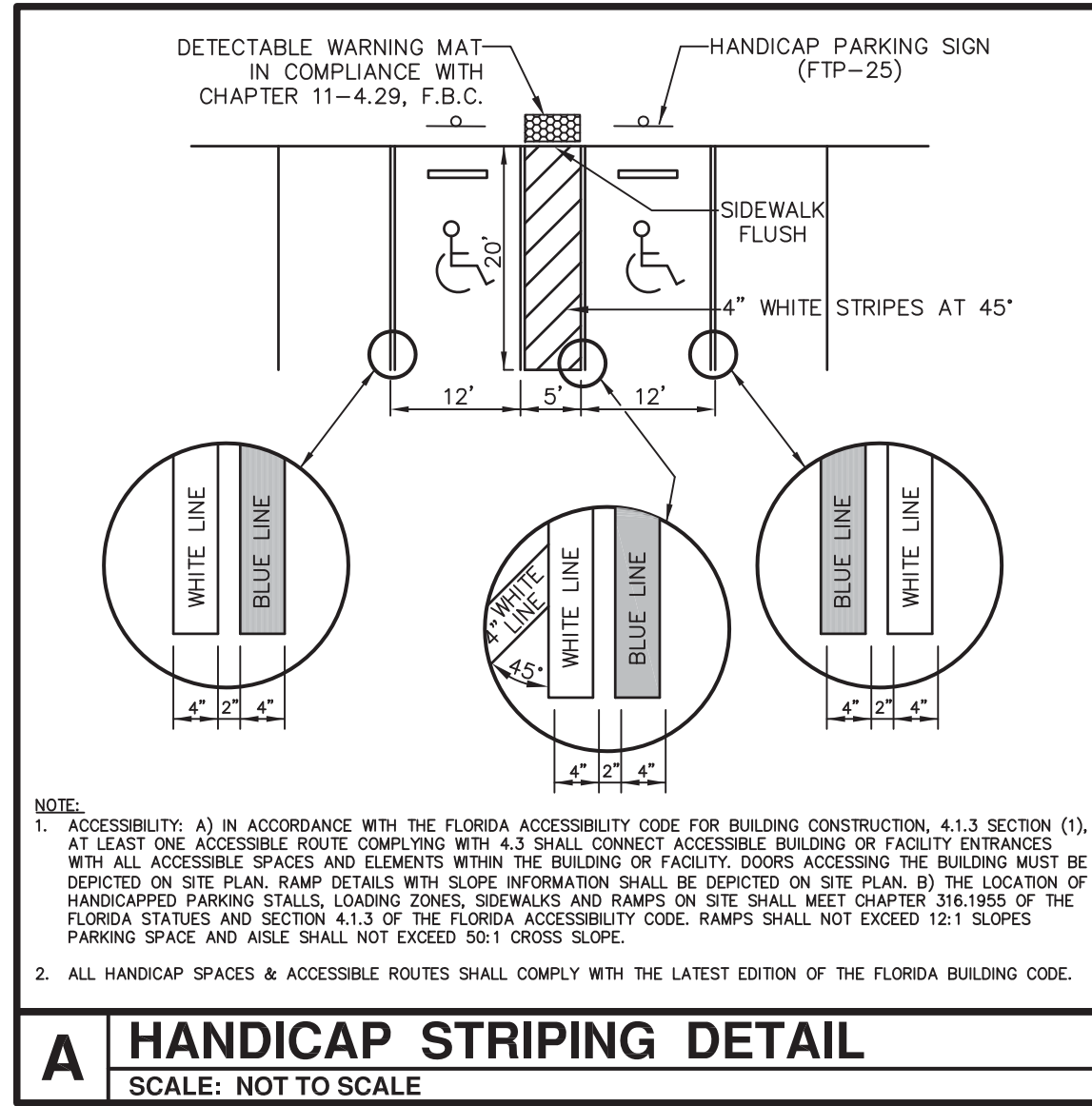


CITY OF LEESBURG VENETIAN GARDENS

<p>BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS</p> <p>720 Vassar Street, Orlando, FL 32804 407.418.1338 :: Fax 407.418.1342</p>		<p>SIGNATURE AND DATED SEAL</p> <p>KEITH E. RIDDLE, P.E. FLA. REGIS. NO. 38800</p>	
<p>RIDDLE-NEWMAN ENGINEERING, INC. 115 NORTH CANAL STREET LEESBURG, FLORIDA 34748 PHONE (352) 787-7412 keith@riddlenewman.com CALL 0002883</p>		<p>CONSULTANTS</p>	
<p>UTILITY PLAN</p>		<p>SHEET TITLE</p>	
PROJECT No.	16-170	REV.	DESCRIPTION
PHASE	50% Construction Documents	DATE	11.20.2017
SCALE	1"=50'	PROJECT ADDRESS	201 E Dixie Ave., Leesburg, FL 34748
DRAWN BY	BSH	OWNER NAME AND ADDRESS	City of Leesburg 204 N 5th St., Leesburg, FL 34748
CHECKED BY	KER	DATE	11.20.2017

C501
OF

11/16/2017 10:29:47 AM
17.51 Venetian Gardens Community Center.dwg



CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: Fax 407.418.1342
www.borrellipartners.com

RIDDLE - NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
LEESBURG, FLORIDA 34748
PH: (352) 787-7412
FAX: (352) 787-7412
keith@riddle-n.com
CA# 00002883

CONSULTANTS

SIGNATURE AND DATED SEAL

DETAILS

PROJECT ADDRESS: 201 E Dixie Ave., Leesburg, FL 34748

OWNER NAME AND ADDRESS: City of Leesburg, 204 N 5th St., Leesburg, FL 34748

REV.	DESCRIPTION	DATE
16-170	30% Construction Documents	
	SCALE	N.T.S.
	DRAWN BY	BSH
	CHECKED BY	KER
	DATE	11.20.2017

PROJECT No. 16-170

PHASE 30% Construction Documents

SCALE N.T.S.

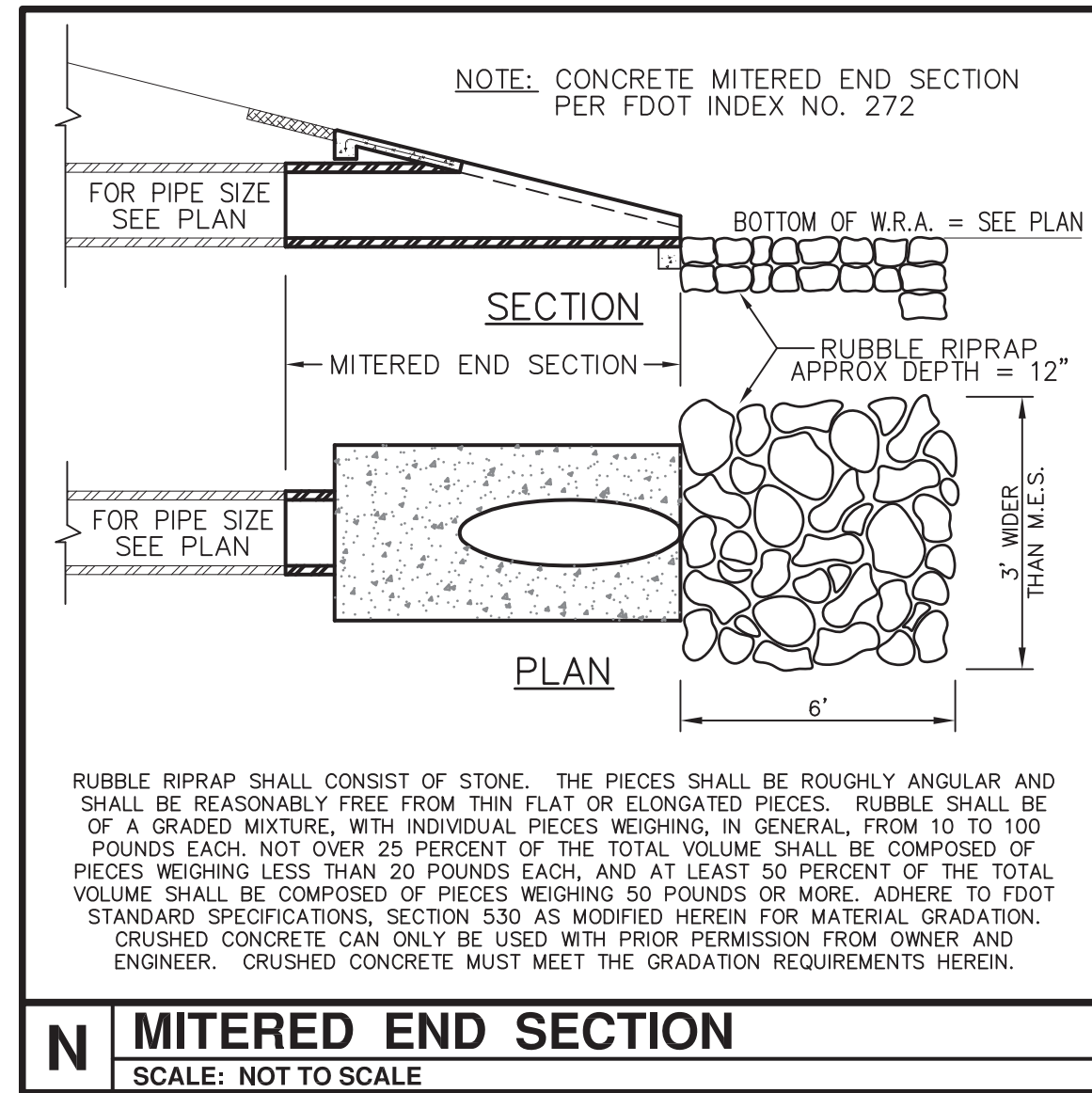
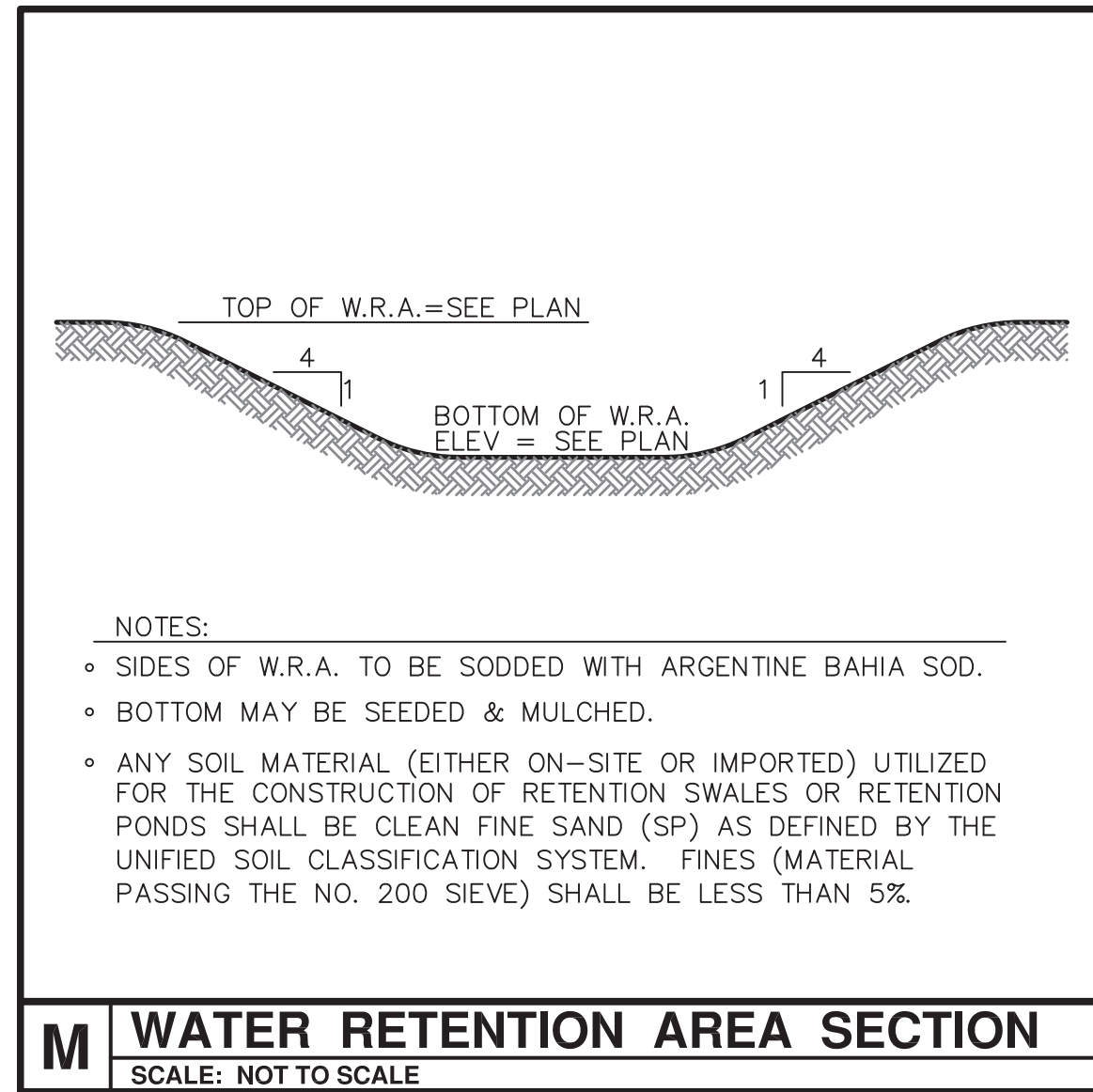
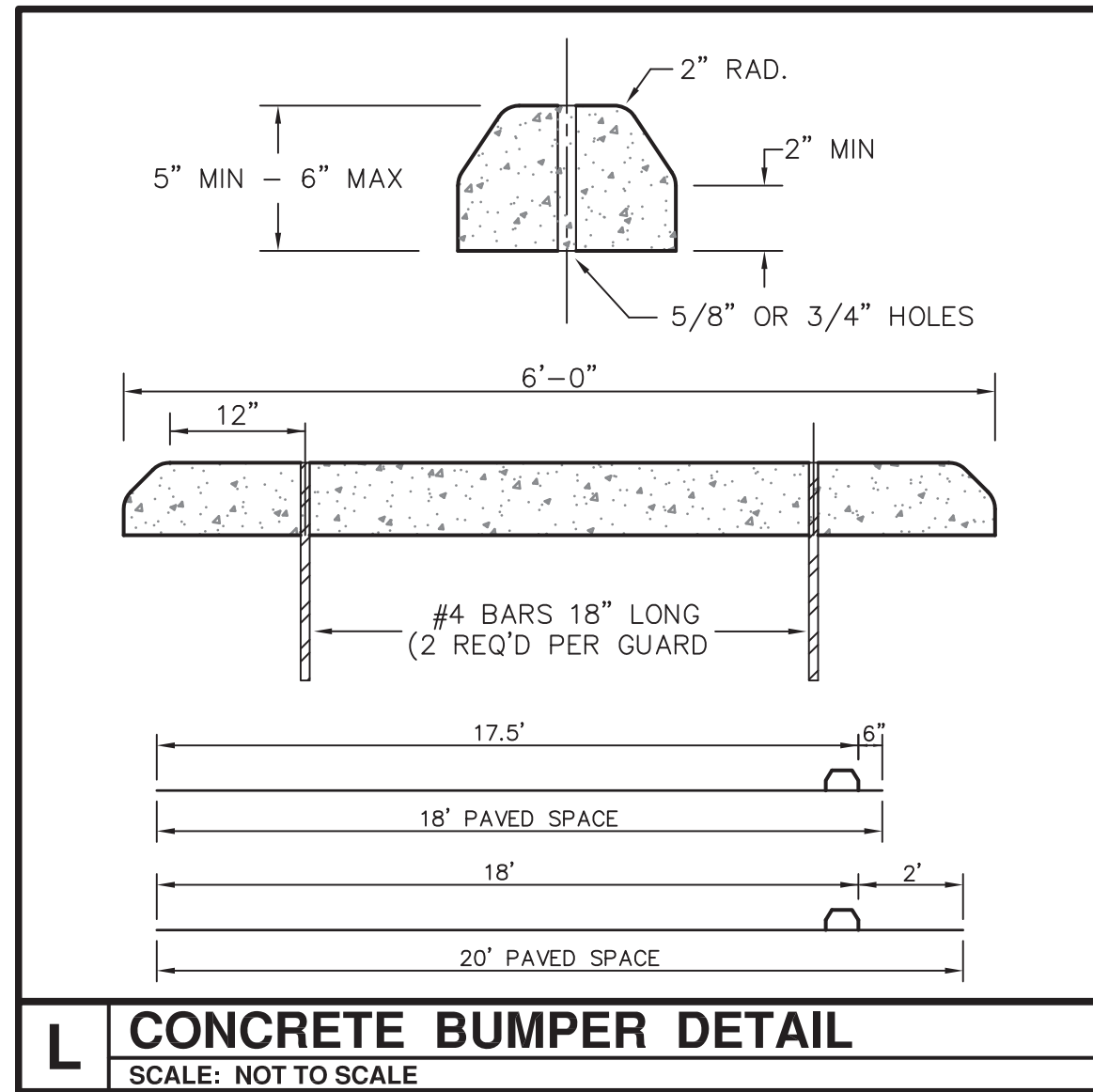
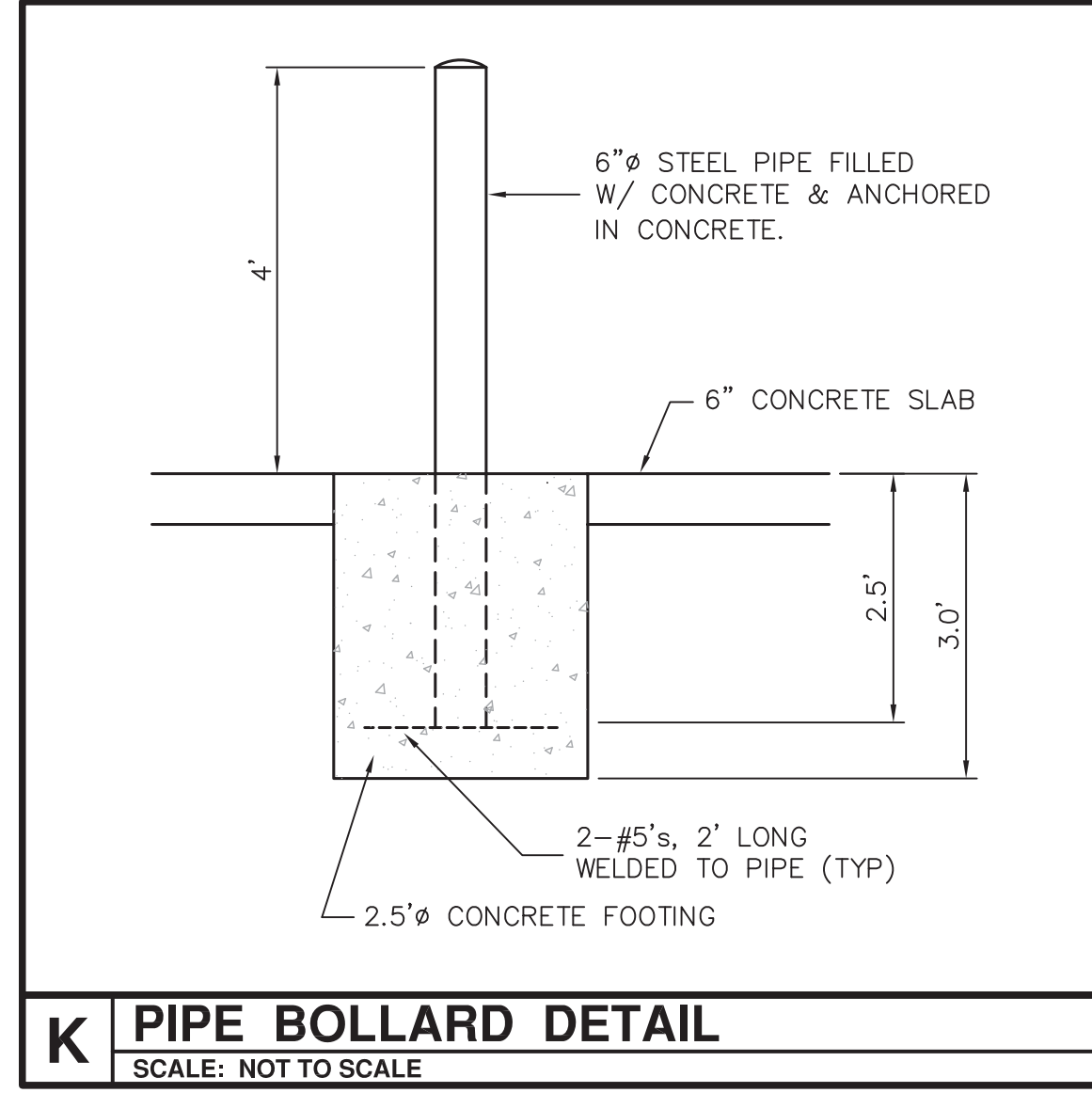
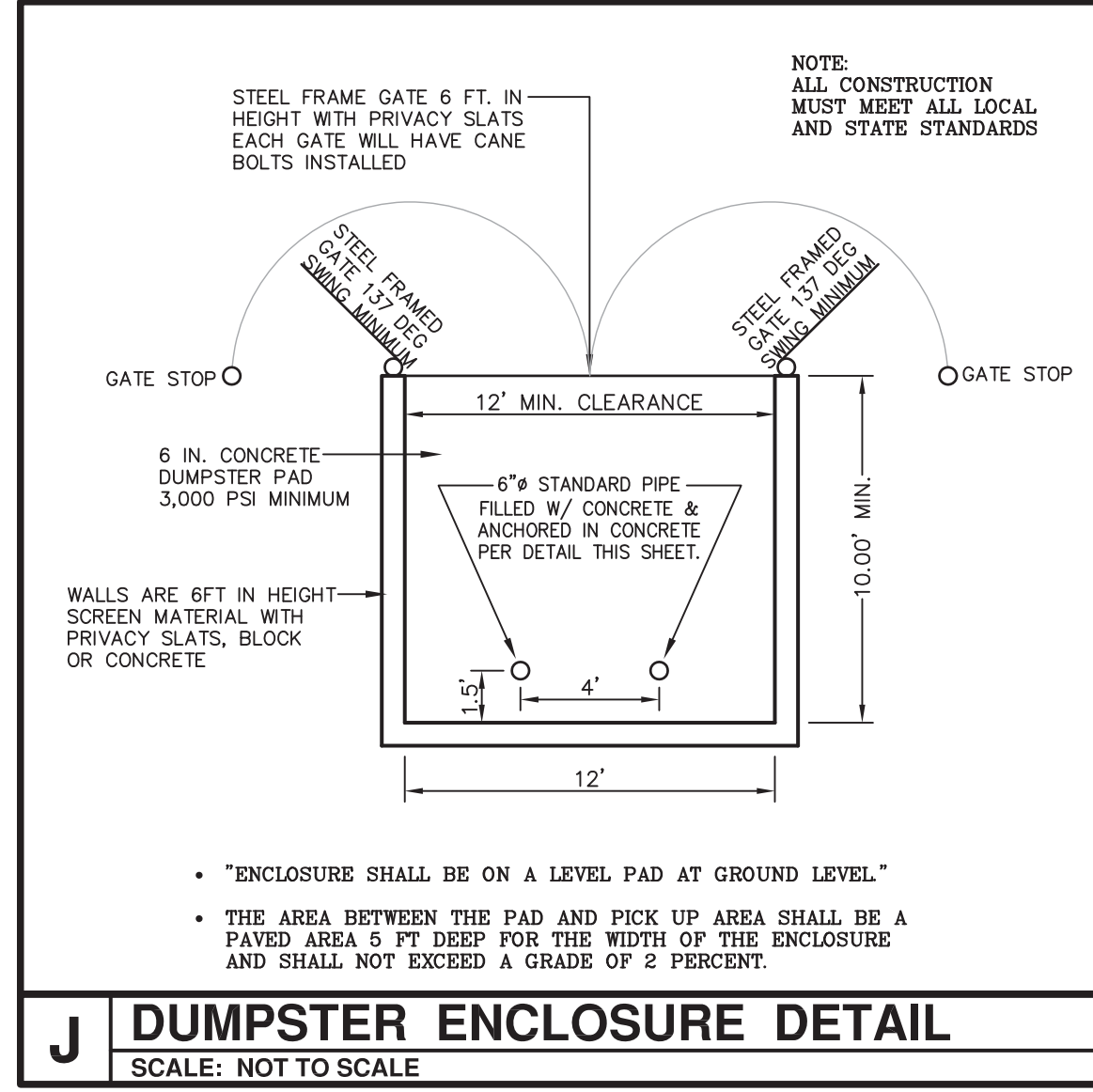
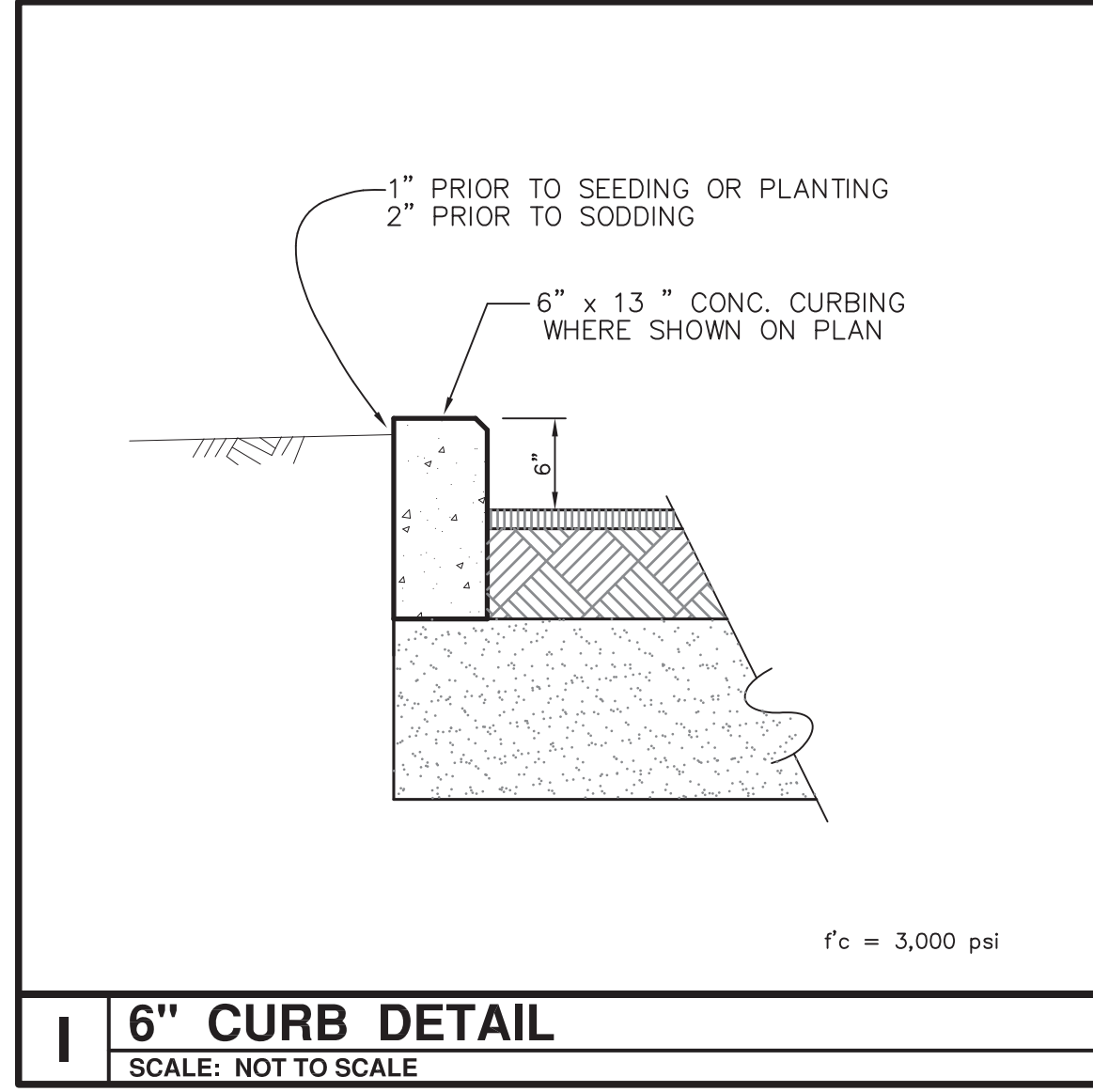
DRAWN BY BSH

CHECKED BY KER

DATE 11.20.2017

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C601 OF



CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR DESIGN
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: Fax 407.418.1342

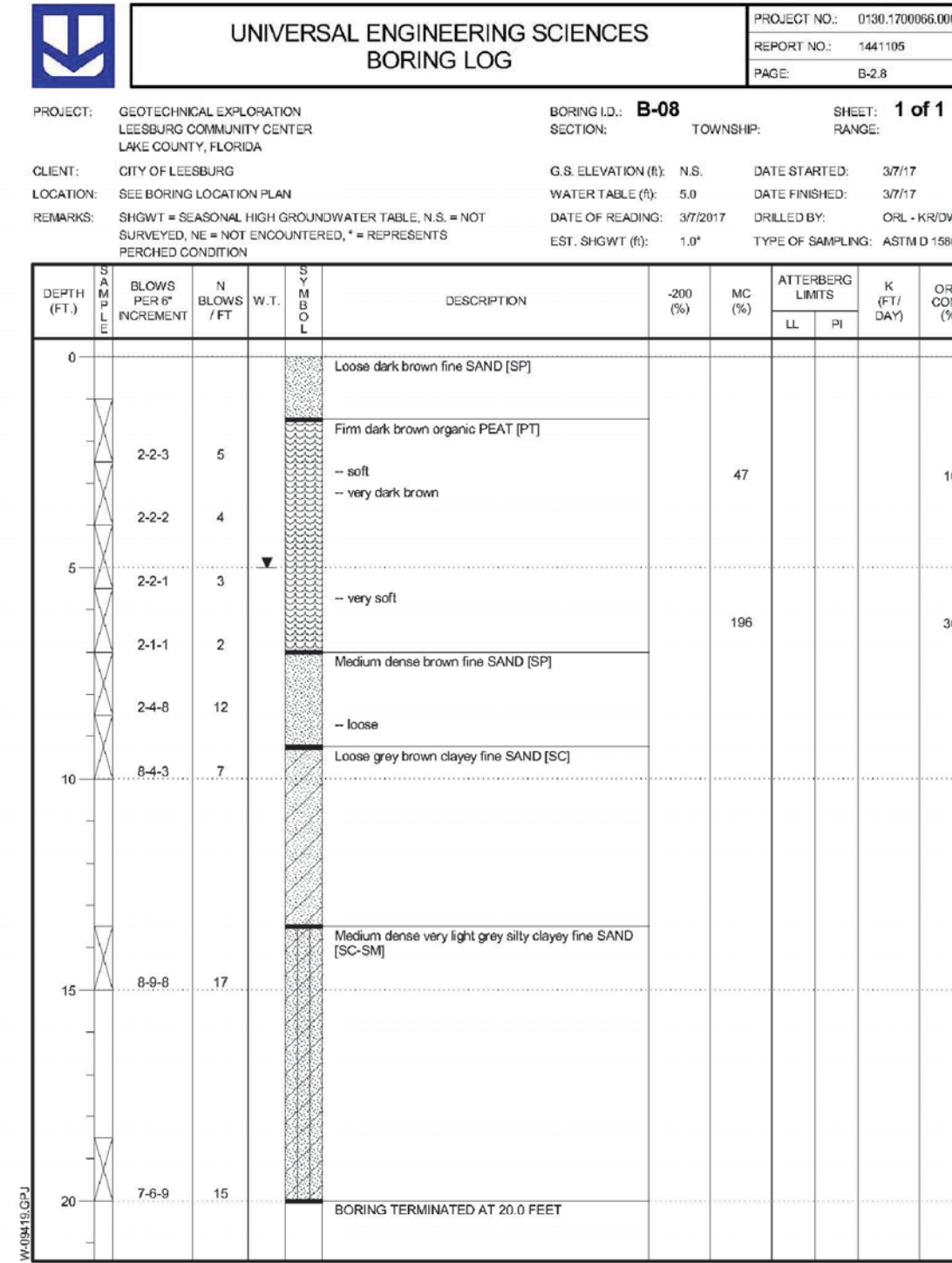
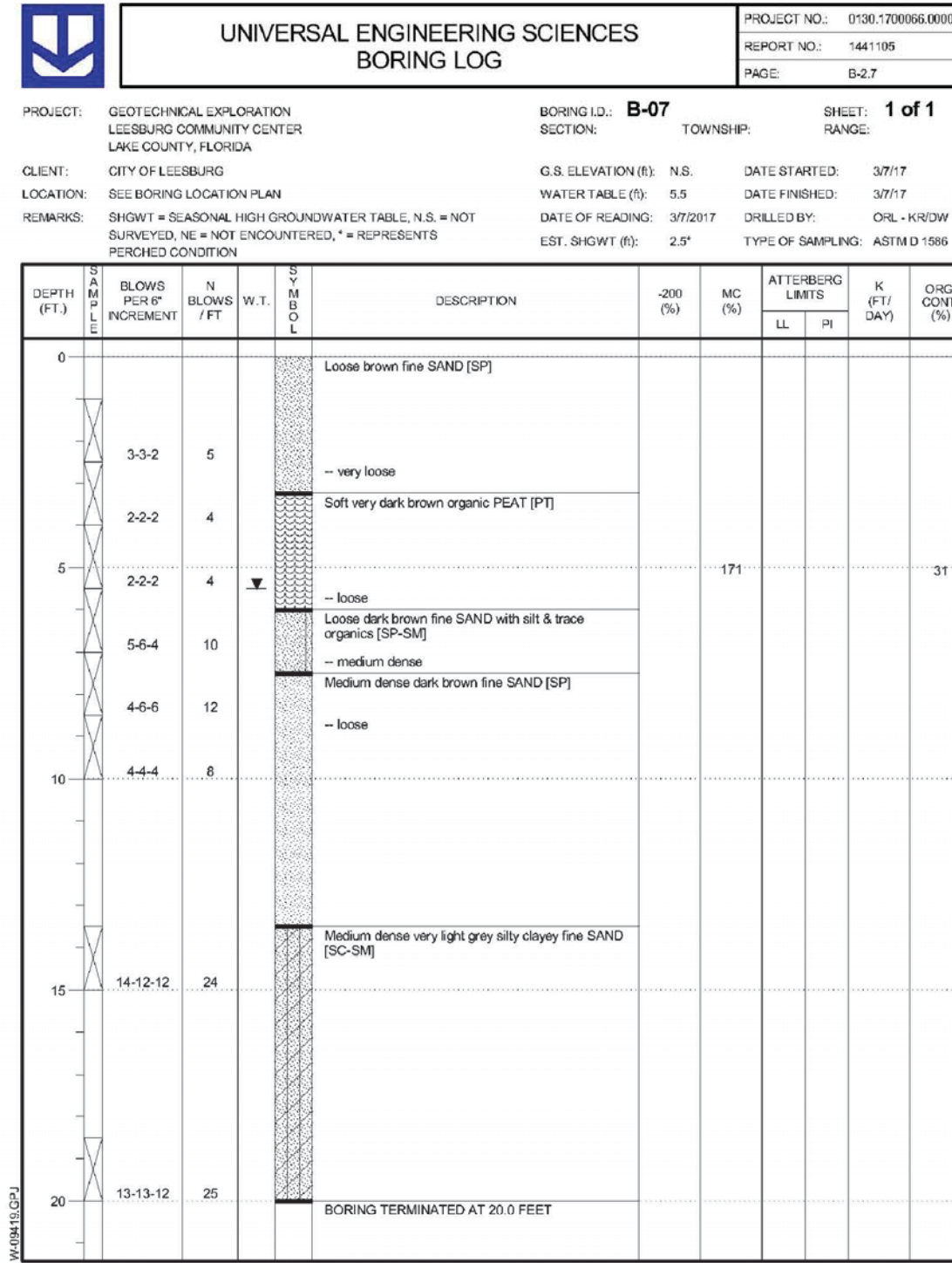
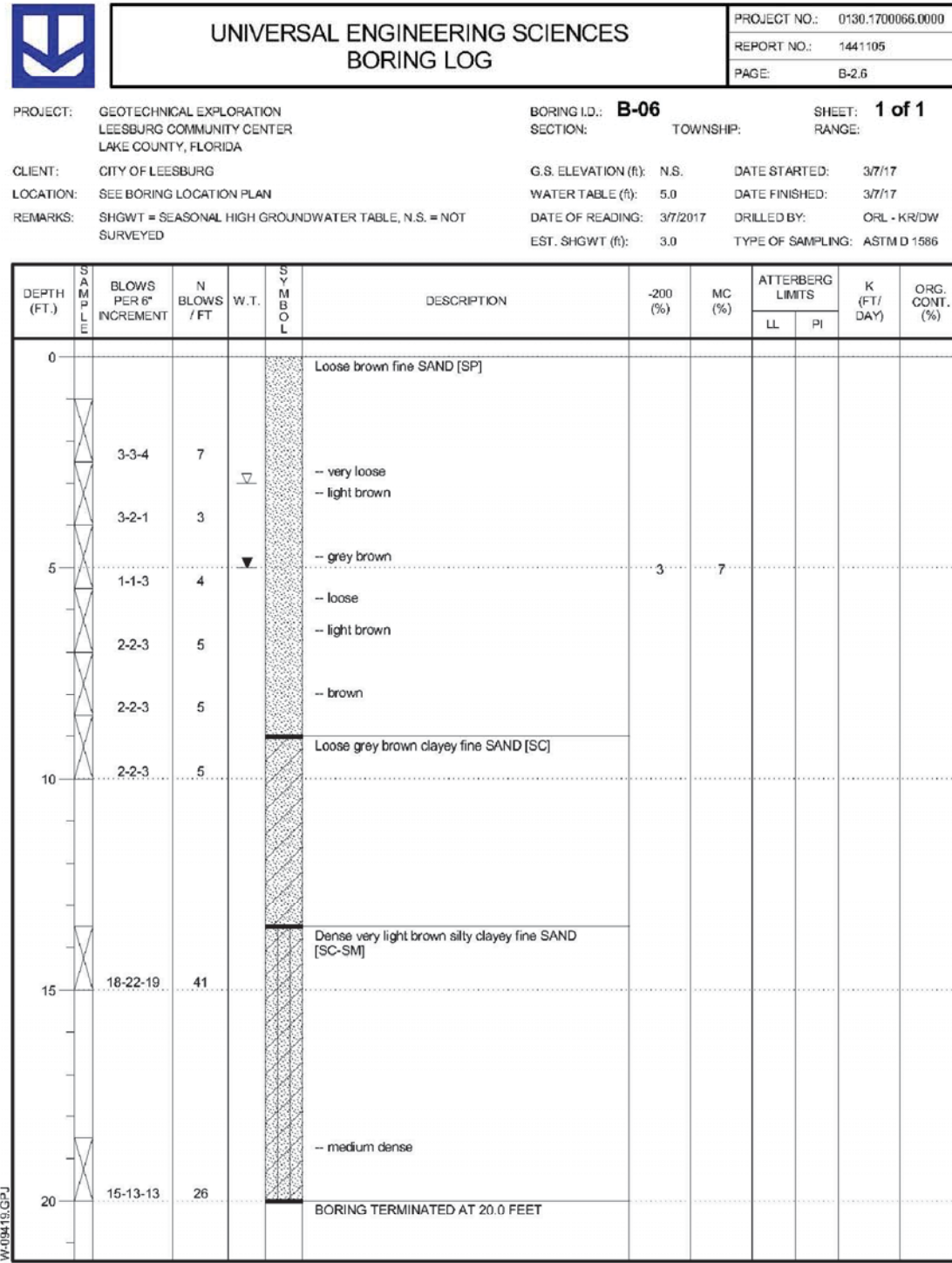
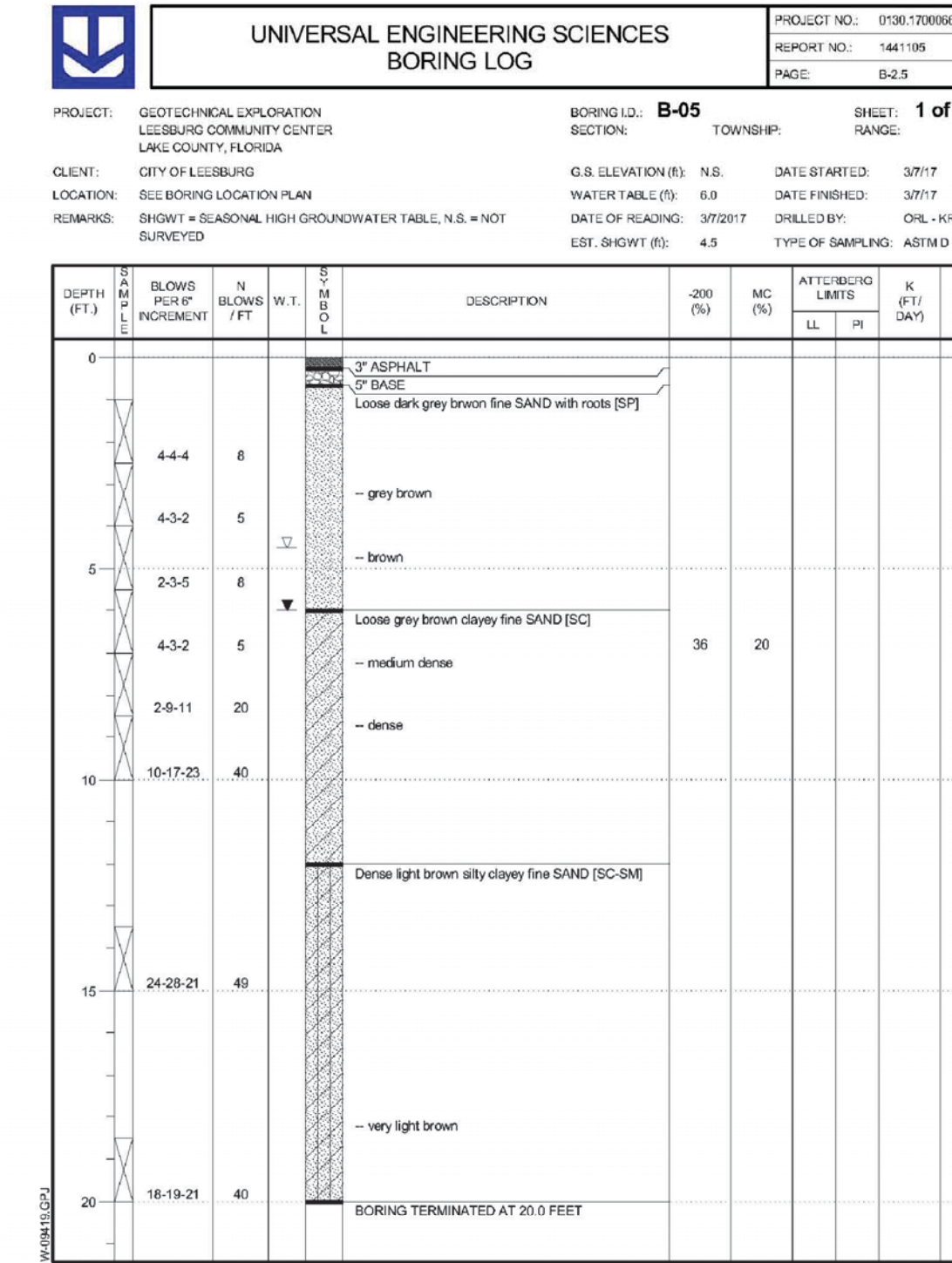
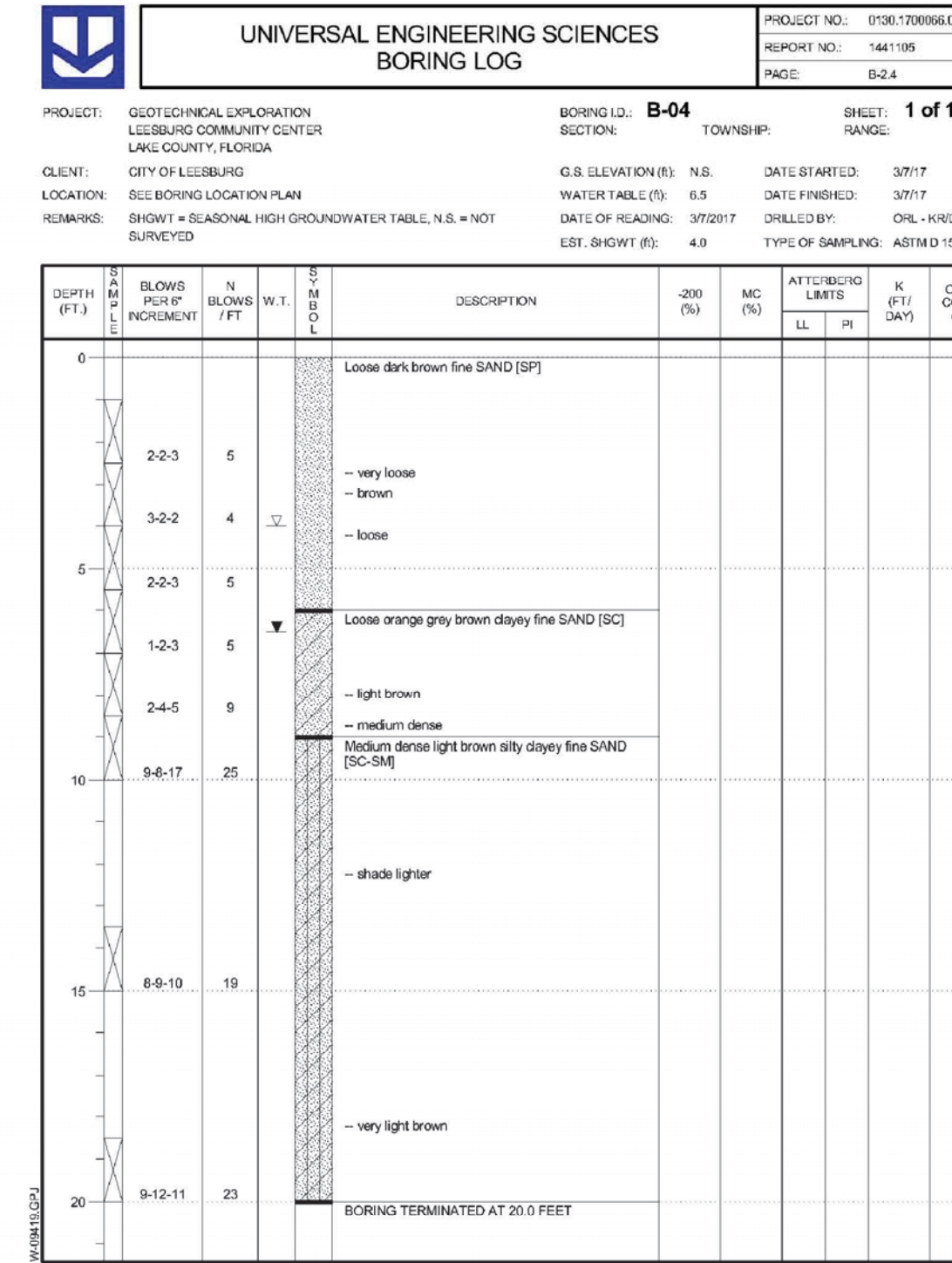
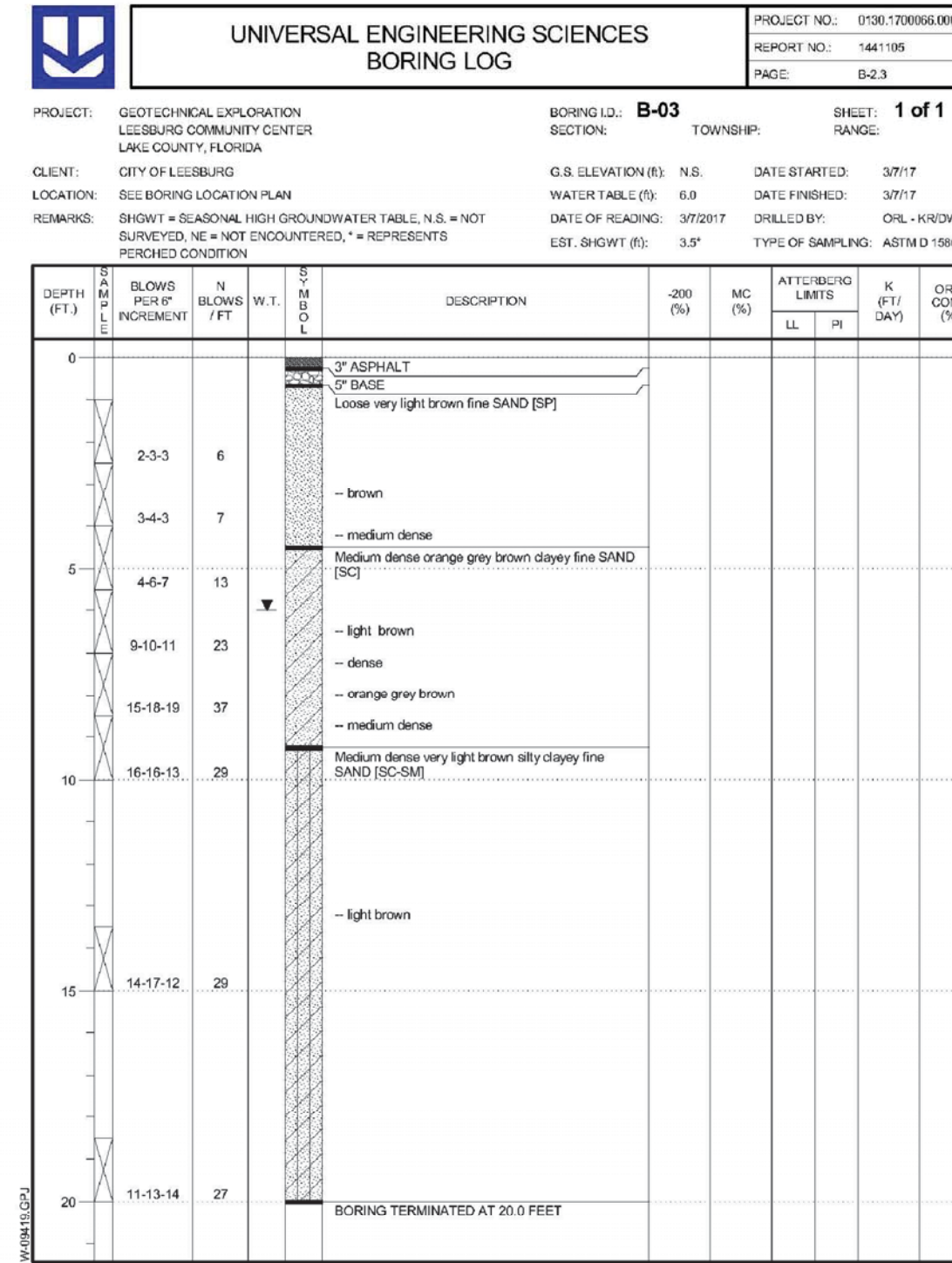
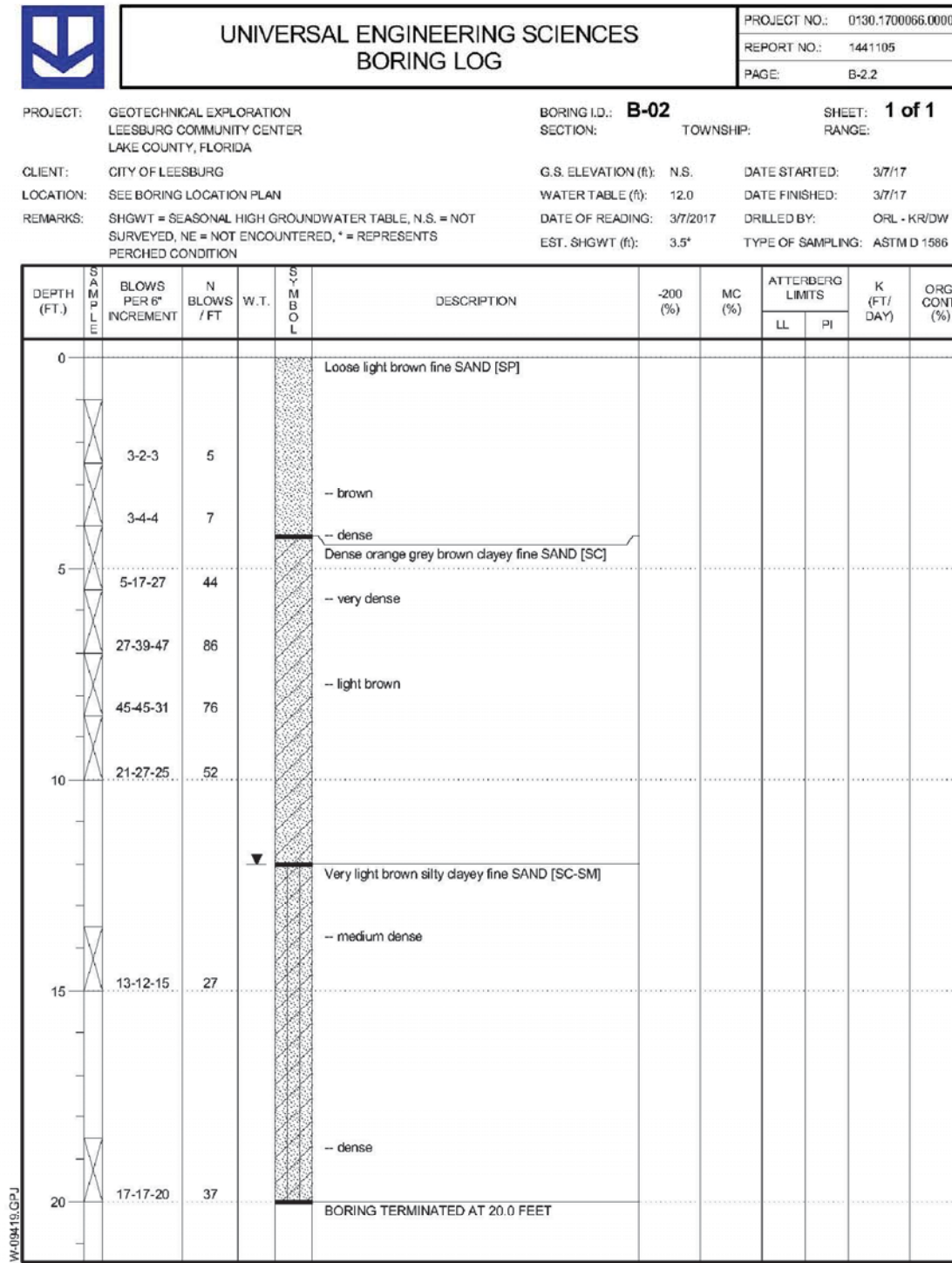
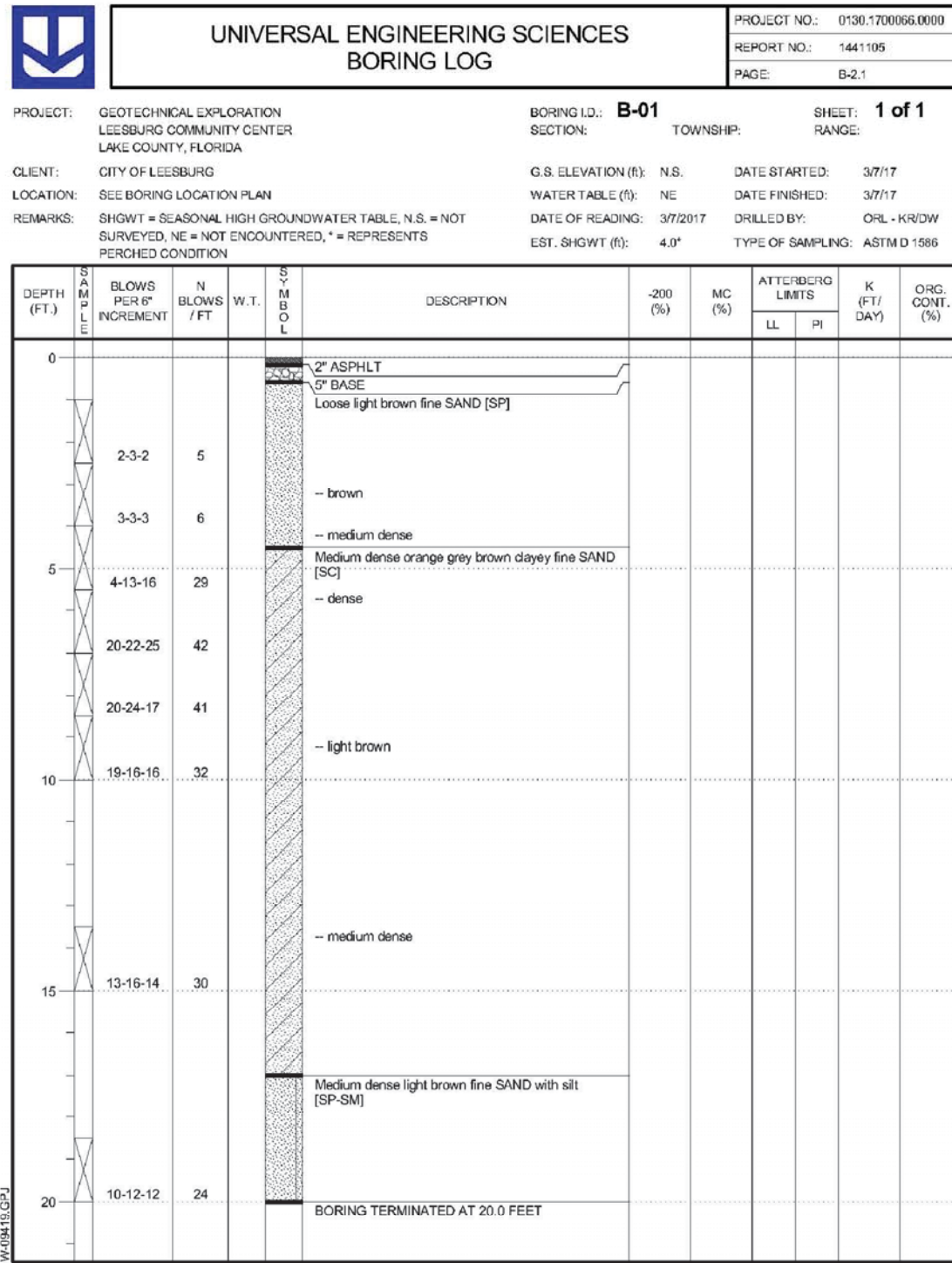
RIDDLE-NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
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PHONE (352) 787-7448
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keith@riddlenewman.com
CA# 0002883

CONSULTANTS
SIGNATURE AND DATED SEAL

PROJECT No.	16-170
PHASE	50% Construction Documents
SCALE	N.T.S.
DRAWN BY	PSH
CHECKED BY	KER
DATE	11.20.2017
PROJECT ADDRESS	201 E. Dixie Ave., Leesburg, FL 34748
OWNER NAME AND ADDRESS	City of Leesburg 204 N 5th St, Leesburg, FL 34748

REV.	DESCRIPTION	DATE

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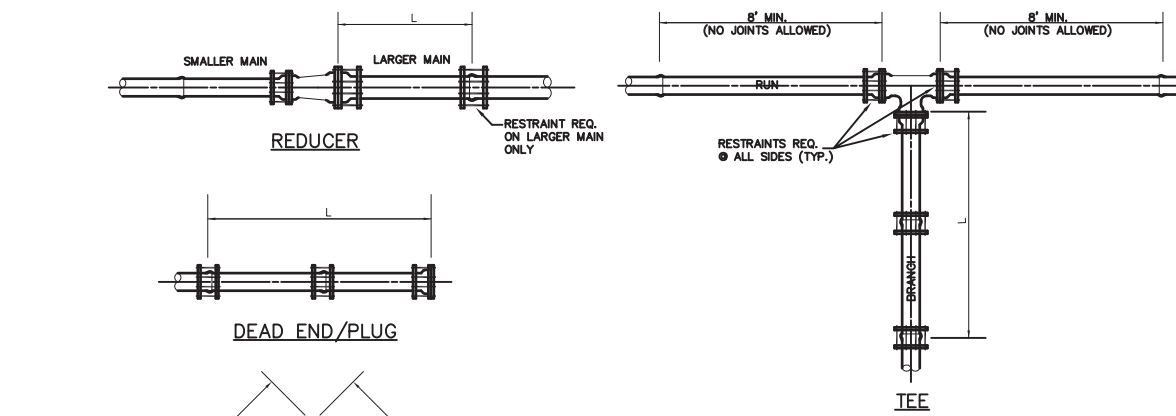


TABLE OF THRUST RESTRAINT LENGTHS

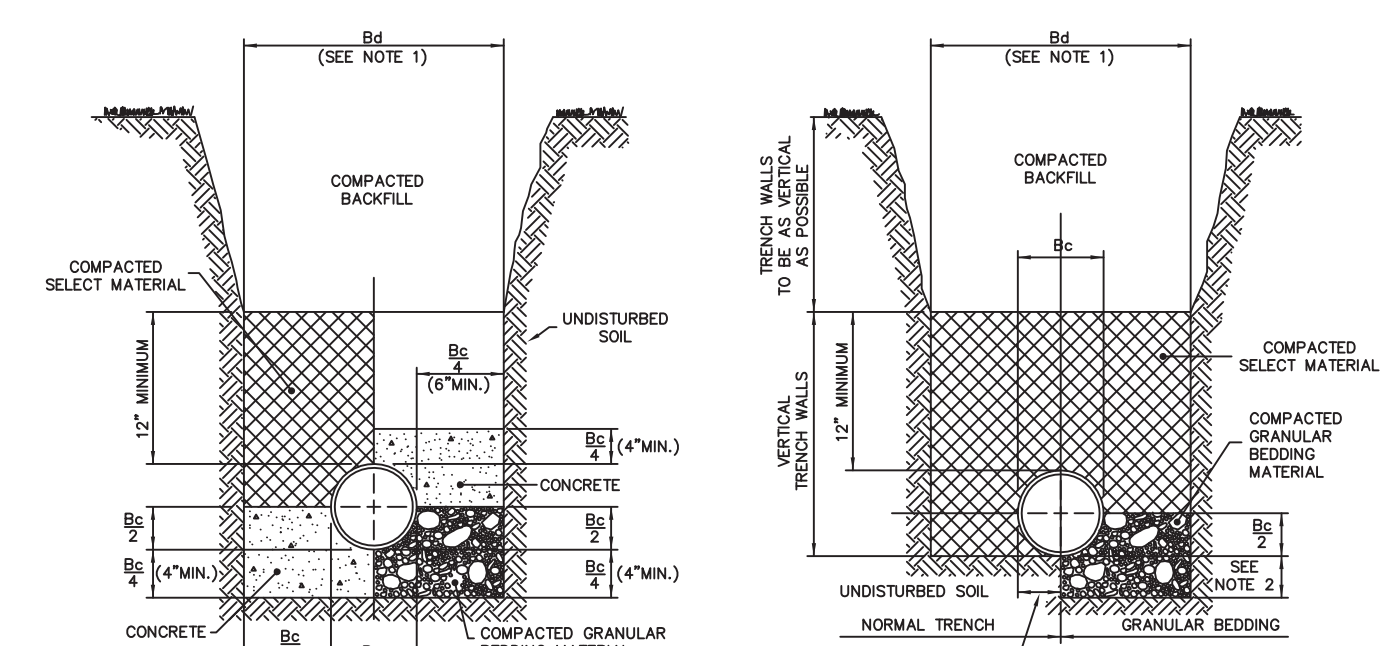
PIPE (INCH)	150 P.S.I.				200 P.S.I.			
	PIPE DIA.	BELL DIA.	FRANCH DIA.	RESTR. DIA.	PIPE DIA.	BELL DIA.	FRANCH DIA.	RESTR. DIA.
4	2.07	1.92	6.1	7.4	2.07	1.92	15.7	19.7
6	2.87	2.72	12.1	15.1	2.87	2.72	21.1	27.1
8	3.67	3.52	17.1	21.1	3.67	3.52	31.1	39.1
10	4.47	4.32	22.1	27.1	4.47	4.32	41.1	51.1
12	5.27	5.12	27.1	33.1	5.27	5.12	51.1	63.1
14	6.07	5.92	32.1	39.1	6.07	5.92	61.1	75.1
16	6.87	6.72	37.1	45.1	6.87	6.72	71.1	87.1
18	7.67	7.52	42.1	51.1	7.67	7.52	81.1	99.1
20	8.47	8.32	47.1	57.1	8.47	8.32	91.1	111.1
24	10.07	9.92	57.1	69.1	10.07	9.92	111.1	135.1

THRUST RESTRAINT DESIGN NOTES

- RESTRAINT JOINTS, FITTINGS & VALVE REQUIREMENTS CALCULATED BY THE THRUST RESTRAINT DESIGN PROGRAM PROVIDED BY UNI-FLANGE, THE FORD METER RESTRAINT CORP., ETC.
- DATA BASED ON MAX. PRESSURE OF 150 P.S.I. UNLESS OTHERWISE SPECIFIED. UNLESS OTHERWISE SPECIFIED, THE UNIFIED SOIL CLASSIFICATION SYSTEM (CONS. TYPE "S"), PIPE BEDDING IN NATIVE SOILS & A MINIMUM OF 2.5" COMPACTED FILL OVER THE PIPE, AND USING A SAFETY FACTOR OF 1.5 FOR THE DATA.
- ALL FITTINGS & VALVES SHALL HAVE RESTRAINT JOINTS PER SPECIFICATIONS & ALL BELL & SPLOOT JOINTS TO BE RESTRAINED WITH A RESTRAINING HARDNESS WITHIN THE REQUIRED LENGTH OF RESTRAINED PIPE (L_R).
- THRUST BLOCKS SHALL BE USED ONLY AS SPECIFIED BY PRODUCT.

THRUST RESTRAINT DETAILS

NOT TO SCALE

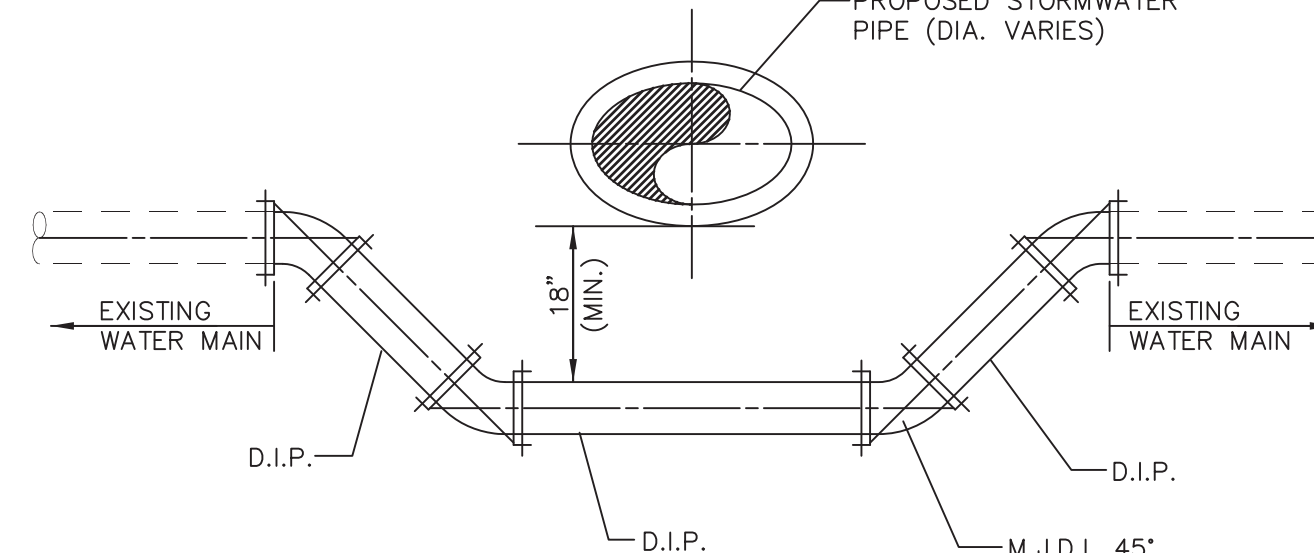


NOTES: FOR BEDDING AND TRENCHING

- Dimension Bc = Pipe O.D.
Dimension Bt = Trench Width at Top of Pipe
Maximum Bf = Bc + 30"
Minimum Bf = Maximum Dimension of Bell + 8" (Unheated Trench)
- Depth for removal for unsuitable material shall be as required to reach suitable foundation. For rock or other non-compacting material, depth shall be 6" below bottom of utility.
- All backfill and select material under all roadways, ditches (including det. ditches), and parking areas shall be compacted to the modified proctor maximum dry density (ASTM D-1557). Backfill and select material under all other areas shall be compacted to 95% of modified proctor maximum dry density (ASTM D-1557) from 12" depth. The top of backfill = 90% of modified proctor maximum dry density (ASTM D-1557).

BEDDING DETAILS

NOT TO SCALE

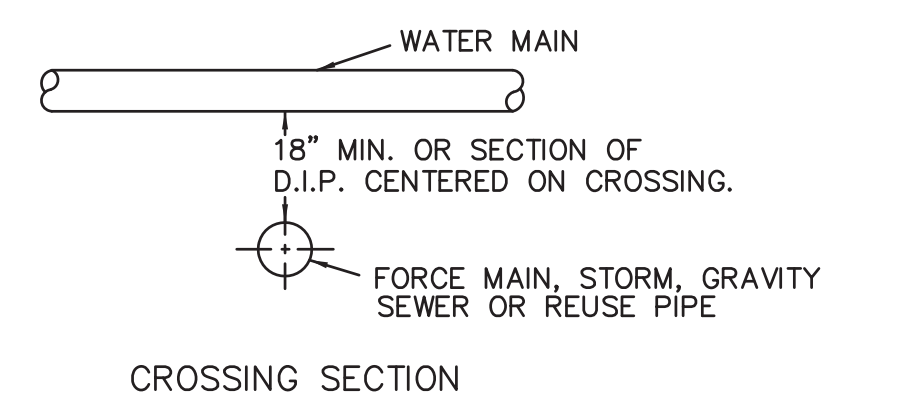


NOTES:

- ALL PROPOSED JOINTS SHALL BE RESTRAINED.
- ALL EXISTING JOINTS WITHIN 12" SHALL BE RESTRAINED.
- ALL PIPING CLEARANCES SHALL BE IN ACCORDANCE WITH CHAPTER 62-555.314 F.A.C.

WATER LINE CROSSING

NOT TO SCALE



CROSSING SECTION

18" MIN. OR SECTION OF D.I.P. CENTERED ON CROSSING.

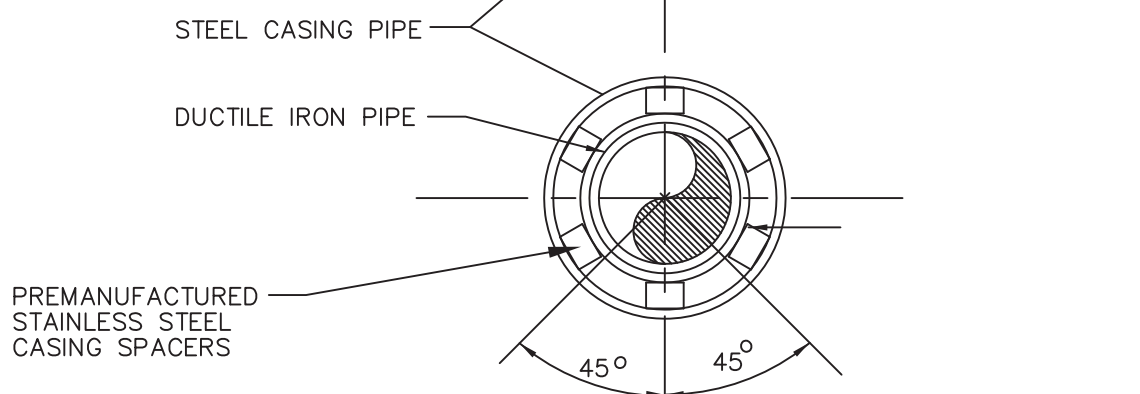
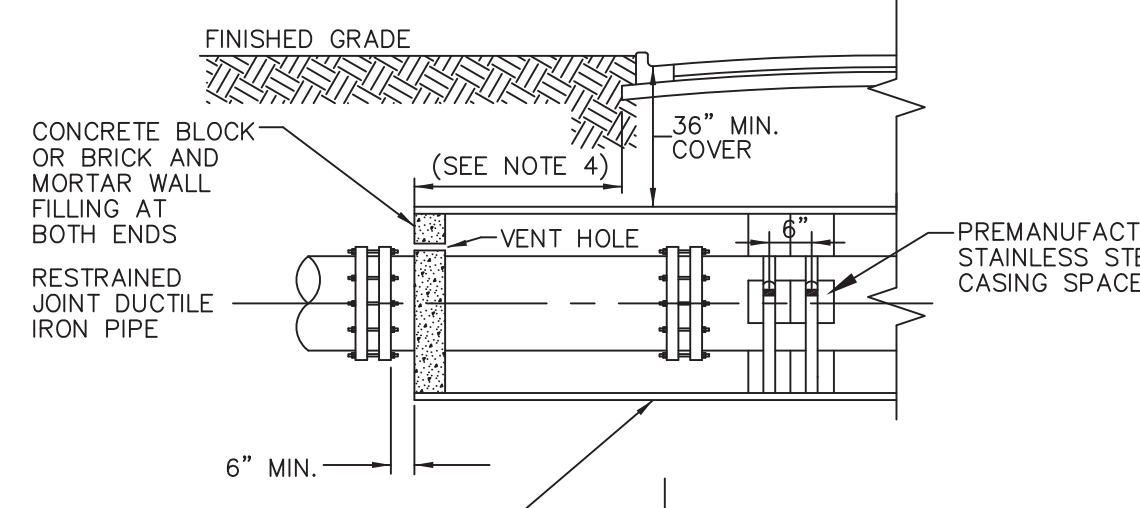
FORCE MAIN, STORM, GRAVITY SEWER OR REUSE PIPE

NOTES:

- IF WATERMAIN IS LESS THAN 18" ABOVE SANITARY OR STORM SEWER, REUSE OR SEWERAGE FORCEMAIN PIPE AT A CROSSING, THEN CENTER ONE FULL LENGTH JOINT OF D.I.P. ON CROSSING POINT.
- ALL PIPING CLEARANCES SHALL BE IN ACCORDANCE WITH CHAPTER 62-555.314, F.A.C.
- DO NOT ENCASE PIPING IN CONCRETE UNLESS SPECIFICALLY AUTHORIZED.
- ALL PIPING SHALL CLEAR OTHER CONSTRUCTION BY 6" MINIMUM.

PIPING CLEARANCES

NOT TO SCALE

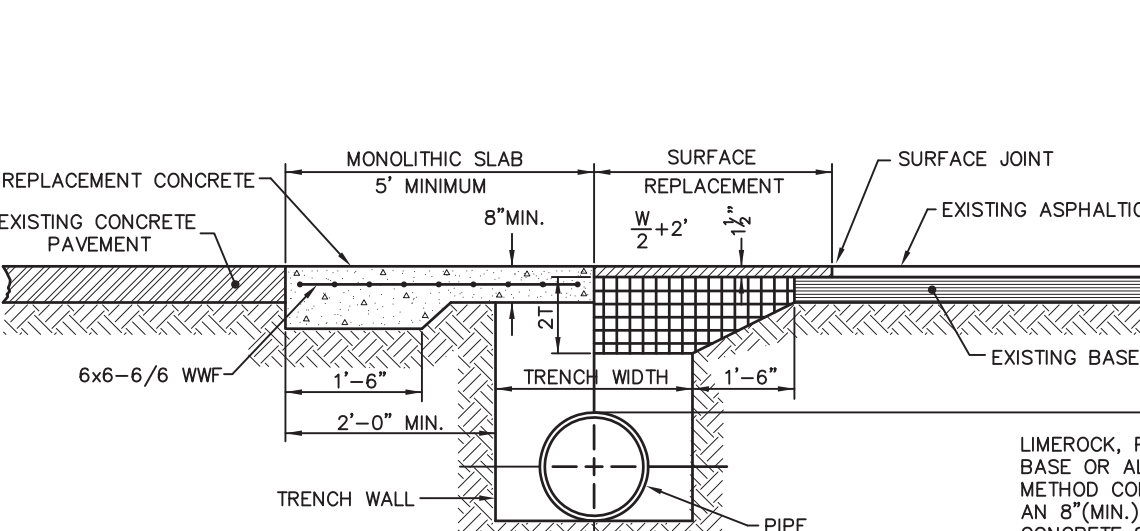


NOTES:

- WHEN CONSTRUCTION IS WITHIN FDOT JURISDICTION, ADDITIONAL REQUIREMENTS OF THE UTILITY ACCOMMODATION GUIDE SHALL BE MET.
- STAINLESS STEEL CASING SPACERS SHALL BE REQUIRED ON ALL BORE AND JACK INSTALLATIONS.
- LARGER SKIDS SHALL BE REQUIRED FOR PIPE GREATER THAN 24" DIAMETER.
- WHERE PRACTICAL, CASING SHALL EXTEND 10' BEYOND EDGE OF PAVEMENT AND SHALL NOT BE LESS THAN 6" BEYOND EDGE OF PAVEMENT IN ANY CASE. THE CITY MAY REQUIRE LONGER CASING FOR DEEPER BORES.

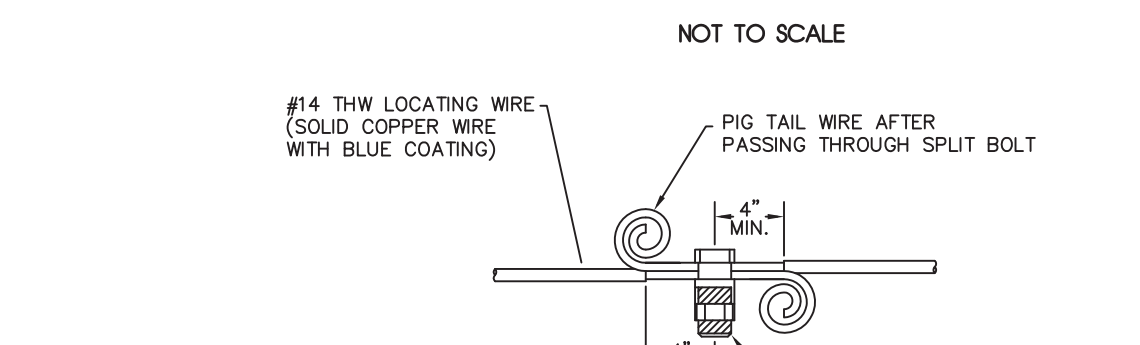
BORING AND JACKING DETAIL

SCALE 1/2" = 1'-0"



OPEN CUT AND REPAIR DETAIL

NOT TO SCALE



NOTES:

- THE ENDS OF ALL LOCATING WIRES, WHETHER THEY ARE SPIGOT, CONNECTED, OR TERMINATED, SHALL HAVE THE LAST THREE INCHES PIG TAILED AS DETAILED HEREON.
- AFTER INSTALLATION OF THE LOCATING WIRE THE SYSTEM SHALL BE SUBJECTED TO TESTING IN THE PRESENCE OF CITY UTILITIES STAFF PRIOR TO BACKFILL, IN ORDER TO THAT THE SYSTEM IS FUNCTIONAL.

LOCATING WIRE SPLICING

NOT TO SCALE

GENERAL PIPE & FITTING SPECIFICATIONS

GENERAL

CONTRACTOR SHALL NOTIFY THE CITY OF LEEBSBURG IN WRITING OF THE PROPOSED DATE OF THE BEGINNING OF CONSTRUCTION OF WATER, SANITARY SEWER, REUSE, ROADWAY, AND/OR STORMWATER FACILITIES.

CONTRACTOR SHALL REVIEW AND BE FAMILIAR WITH THE CITY OF LEEBSBURG CONSTRUCTION SPECIFICATIONS (LATEST EDITION) PRIOR TO BIDDING. ALL MATERIALS, METHODS, TESTING, ETC. SHALL BE IN ACCORDANCE WITH CITY REQUIREMENTS. CONTRACTOR SHALL INCLUDE THE COST OF PROVIDING WORKMANSHIP IN ACCORDANCE WITH CITY REQUIREMENTS. NO ADDITIONAL COMPENSATION WILL BE GRANTED TO COMPLY WITH CITY SPECS. IN THE EVENT OF A DISCREPANCY BETWEEN CITY SPECIFICATIONS AND THESE PLANS THE LATEST EDITION OF THE CITY SPECIFICATIONS SHALL GOVERN.

UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS (FLORIDA REGISTERED SURVEYOR) WHICH SHALL SHOW FINAL LOCATIONS OF SEWER LINES, MANHOLES, VALVES, FITTINGS, MANHOLE RIM AND INVERT ELEVATIONS, WATER MAINS, REUSE MAINS, AIR RELEASE VALVES, AND ALL OTHER PERTINENT INFORMATION RELATED TO THE UTILITY SYSTEMS. SERVICE LINE LOCATION AND MEASUREMENT SHALL BE FROM THE NEXT DOWNSTREAM MANHOLE WITH AN INDICATION OF THE LENGTH OF SERVICE AND DEPTH OF THE END OF SERVICE. AS-BUILTS SHALL SHOW LOCATION OF THE UTILITIES RELATIVE TO THE RIGHT-OF-WAY, EDGE OF PAVEMENT, AND OR BACK-OF-CURB.

ALL UTILITIES SHALL BE LAID "IN THE DRY" UNLESS OTHERWISE APPROVED BY THE CITY. DOWATERING SYSTEMS SHALL BE UTILIZED IN ACCORDANCE WITH GOOD STANDARD PRACTICES AND MUST BE EFFICIENT ENOUGH TO LOWER THE WATER LEVEL IN ADVANCE OF THE EXCAVATION AND MAINTAIN IT CONTINUOUSLY TO KEEP THE TRENCH BOTTOM AND SIDES FIRM AND DRY. COST OF DOWATERING, IF REQUIRED, SHALL BE AT THE CONTRACTOR'S EXPENSE.

ALL WATER, REUSE AND SEWER LINES MUST HAVE A CONTINUOUS METALLIC TRACING TAPE PLACED 18" ABOVE THEM, LABELED WITH THE APPROPRIATE DESIGNATION OF PIPE USE.

ALL WATER MAINS, REUSE MAINS AND SEWER FORCE MAINS MUST HAVE A CONTINUOUS TYPE TWH PVC INSULATED COPPER CONDUCTOR #14 SOLID SINGLE STRAND WIRE STRAPPED TO THE TOP OF PIPE EVERY TEN (10) FEET AND PULLED UP INTO ALL VALVE BOXES AND ALL METER BOXES. ALL WIRES SHALL BE SPIGOTTED AND TAPED BACK 12 INCHES FROM CONNECTION POINT TO INSURE ELECTRICAL CONTINUITY FOR THE ENTIRE LENGTH OF CONSTRUCTED PRESSURE MAIN.

PIPE AND FITTINGS

ALL PIPE AND FITTINGS SHALL BE CLEARLY MARKED WITH THE NAME OR TRADEMARK OF THE MANUFACTURER. ALL PIPE AND FITTINGS SHALL BE SUITABLE FOR 150 P.S.I. WORKING PRESSURE AND SHALL MEET ALL APPLICABLE AWWA SPECIFICATIONS. ALL PIPE INSTALLATIONS SHALL HAVE INDICATOR TAPE RUN WITH PIPE TO INDICATE PURPOSE OF PIPING (WATER, SEWER, FORCE MAIN) AND COPPER TRACING WIRE FOR LOCATION PURPOSES.

NO 3" PIPE SHALL BE ALLOWED FOR USE IN THE CITY'S UTILITY SYSTEMS.

DUCTILE IRON

A) DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH ANSI/AWWA C151/A21.51 PIPE SHALL BE LAID IN ACCORDANCE WITH ANSI/AWWA C150/A21.50. THICKNESS CLASS SHALL BE GOVERNED BY DESIGN CONDITIONS, MINIMUM PRESSURE CLASS SHALL BE 350.

B) CAST AND DUCTILE IRON PIPE FITTINGS SHALL CONFORM TO ANSI/AWWA C110/A21.10 AND ANSI/AWWA C153/A21.53. ALL UNDERGROUND FITTINGS SHALL BE MECHANICAL JOINT, UNLESS OTHERWISE SPECIFIED.

C) JOINTS "PUSH-ON" AND MECHANICAL TYPE JOINTS SHALL BE IN ACCORDANCE WITH ANSI/AWWA C111/A21.11.

RESTRAINED JOINT ASSEMBLIES WITH MECHANICAL JOINT PIPE SHALL BE MECHANICAL JOINT RETAINER GLANDS, "LOCKED-TYPE" JOINTS OF EBBA MEGALUG SERIES 1100 OR APPROVED EQUAL.

FLANGED CONNECTIONS SHALL BE IN ACCORDANCE WITH ANSI/AWWA C115/A21.15, 125 LB. STANDARD.

NO LEADED JOINTS OR CONNECTION OF ANY KIND WILL BE PERMITTED.

PVC FITTINGS FOR PRESSURE MAINS ARE PROHIBITED ABOVE 2 INCHES IN DIAMETER, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE CITY.

D) COATINGS AND LININGS

DUCTILE IRON PIPE AND FITTINGS FOR FORCE MAINS OR WHEN USED AS GRAVITY SEWER SERVICE SHALL RECEIVE AN INTERIOR EPOXY LINING FOR BOTH PIPE AND FITTINGS IN ACCORDANCE WITH ANWWA C210.

DUCTILE IRON PIPE AND FITTINGS FOR WATER AND REUSE SERVICE SHALL BE CEMENT MORTAR LINED IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.

DUCTILE IRON PIPE AND FITTINGS FOR WATER, SEWER AND REUSE SHALL RECEIVE AN EXTERIOR ASPHALTIC COATING APPROXIMATELY 1 MIL THICK. THE COATING SHALL BE APPLIED TO THE EXTERIOR OF ALL PIPE AND FITTINGS UNLESS OTHERWISE SPECIFIED. COATINGS SHALL BE APPLIED IN ACCORDANCE WITH AWWA C110 & C115-FITTINGS, AWWA C115-FLANGED PIPE, AND AWWA C151-DUCTILE IRON PIPE.

POLYVINYL CHLORIDE (PVC)

A) THE PIPE SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL FOR POTABLE WATER PIPE. PIPE WITH DIAMETERS LESS THAN 4" SHALL BE CLASS 200 WITH A MINIMUM STANDARD DIMENSION RATIO (SDR) OF 21 AND SHALL BE IN ACCORDANCE WITH ASTM D-2241.

PIPE WITH DIAMETERS OF 4" TO 12" FOR WATER MAINS SHALL HAVE A MINIMUM DIMENSION RATIO (DR) OF 18, CLASS 150, AND SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA SPECIFICATIONS C-900 LATEST REVISION. PIPE WITH DIAMETERS OF 14" AND LARGER FOR WATER MAINS SHALL HAVE A MINIMUM DIMENSION RATIO (DR) OF 25, CLASS 165, AND SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA SPECIFICATION C-905 LATEST REVISION OR PRESSURE CLASS 350 DUCTILE IRON PIPE MAY BE USED.

PIPE WITH DIAMETERS OF 4" TO 12" FOR SEWER FORCE MAINS SHALL HAVE A MINIMUM DIMENSION RATIO (DR) OF 25, CLASS 100, AND SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA SPECIFICATION C-900 LATEST REVISION. PIPE WITH DIAMETERS OF 14" AND LARGER FOR SEWER FORCE MAINS SHALL HAVE A MINIMUM DIMENSION RATIO (DR) 25, CLASS 165, AND SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA SPECIFICATION C-905 LATEST REVISION OR PRESSURE CLASS 350 DUCTILE IRON PIPE MAY BE USED.

SANITARY GRAVITY SEWER PIPE SHALL HAVE A MINIMUM STANDARD DIMENSIONAL RATIO (SDR) OF 26, AND SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D3034.

PVC PIPE RESTRAINTS SHALL BE EBBA MEGALUG SERIES 2000, OR APPROVED EQUAL.

PVC PIPE COLORS

WATER - BLUE
SEWER - GREEN (FORCE MAIN); GREEN (GRAVITY SEWER)
REUSE - PURPLE

B) CONNECTIONS AND FITTINGS FOR PIPE 1 1/2" AND SMALLER SHALL BE SOLVENT WELDED SLEEVE TYPE JOINT. CONNECTIONS AND FITTINGS FOR PIPE 2" AND 2 1/2" IN DIAMETER SHALL BE RUBBER COMPRESSION RING TYPE. FITTINGS FOR PRESSURE MAINS 3" AND LARGER (WATER LINES OR, SEWAGE FORCE MAINS) SHALL BE DUCTILE IRON WITH MECHANICAL JOINT RUBBER COMPRESSION RING TYPE JOINTS.

HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND TUBING

PIPE AND TUBING SHALL COMPLY WITH AWWA C906, AWWA C800 AND AWWA C901, AND BE CERTIFIED FOR POTABLE WATER SERVICE BY THE NATIONAL SANITATION FOUNDATION.

A) PIPE AND FITTINGS:
THE PIPE SUPPLIED UNDER THIS SPECIFICATION SHALL BE HIGH PERFORMANCE, HIGH MOLECULAR WEIGHT, HIGH DENSITY POLYETHYLENE PIPE, PE 3408. THE PIPE SHALL CONFORM TO ASTM D 1248 (TYPE III, CLASS C CATEGORY 6V5, P.O. 3408). FITTING CONNECTIONS SHALL BE MADE WITH FLANGE ADAPTORS UTILIZING 316 STAINLESS STEEL BACK UP RINGS AND 316 STAINLESS STEEL HARDWARE. A SEPARATE 1/2" SCHEDULE 40 PVC CONDUIT SHALL BE INSTALLED ON THE TOP SIDE OF THE HOPE DIRECTIONAL BORE CONTAINING 14 GAUGE TRACING WIRE. ALL HOPE DIRECTIONAL BORES LARGER THAN 2" IN DIAMETER SHALL HAVE FUSION WELDED FITTINGS AND ENDS FOR CONNECTION.

B) TUBING AND FITTINGS:
THE TUBING SUPPLIED UNDER THIS SPECIFICATION SHALL BE HIGH PERFORMANCE, HIGH MOLECULAR WEIGHT, HIGH DENSITY POLYETHYLENE TUBING, PE 3408. THE PIPE SHALL CONFORM TO ASTM D 1248 (TYPE III, GRADE P34, CLASS A, CATEGORY 5). THE TUBING SHALL BE BLUE AS MANUFACTURED BY END INDUSTRIES OR A DEPARTMENT OF ENVIRONMENTAL SERVICES APPROVED EQUAL. THE FITTINGS SHALL BE BRASS, EQUIPPED WITH COMPRESSION TYPE CONNECTIONS.

C) MATERIAL:
POLYETHYLENE PIPE, TUBING AND FITTINGS MAY BE REJECTED FOR FAILURE TO MEET ANY OF THE REQUIREMENTS OF THESE SPECIFICATIONS.

MATERIAL DIMENSIONS - PIPE FOR SIZES 4" AND LARGER SUPPLIED UNDER THIS SPECIFICATION SHALL HAVE A NOMINAL IPS (IRON PIPE SIZE) O.D. AND SHALL BE RATED FOR A MINIMUM WORKING PRESSURE OF 160 PSI WITH A MINIMUM STANDARD DIMENSION RATIO (SDR) OF 11 FOR FORCE AND WATER MAIN PIPES.

D) HOPE PRESSURE TESTING PROCEDURES:
THE INITIAL PRESSURE TEST SHALL BE CONDUCTED BEFORE THE LINE IS BACKFILLED. HOWEVER, IT IS ADVISABLE TO COVER THE PIPE AT INTERVALS OR PARTICULARLY AT CURVES TO HOLD THE PIPE IN PLACE DURING PRESSURE TEST. FLANGED CONNECTIONS MAY BE LEFT EXPOSED FOR VISUAL LEAK INSPECTION. THE MAIN SHALL BE TESTED AFTER THE FINAL INSTALLATION IS COMPLETED.

TEST PRESSURE SHOULD NOT EXCEED 1.5 TIMES THE RATED OPERATING PRESSURE OF THE PIPE OR THE LOWEST RATED COMPONENT IN THE SYSTEM.

THE INITIAL PRESSURE TEST SHALL BE APPLIED AND ALLOWED TO STAND WITHOUT MAKE UP PRESSURE FOR A SUFFICIENT TIME TO ALLOW FOR DIAMETRIC EXPANSION OR PIPE STRETCHING TO STABILIZE, THIS USUALLY OCCURS WITHIN 2 TO 3 HOURS. AFTER THIS EQUILIBRIUM PERIOD, THE TEST SECTION CAN BE RETURNED TO THE 1.5 TIMES OPERATING PRESSURE, THE PUMP TURNED OFF, AND A FINAL TEST PRESSURE HELD FOR 2 HOURS.

ALLOWABLE AMOUNTS OF MAKE UP WATER FOR EXPANSION DURING PRESSURE TEST IS SHOWN IN CHART 6, TAKEN FROM PPI TECHNICAL REPORT TR 31/9-79. THERE SHALL BE NO VISUAL LEAKS OR PRESSURE DROPS GREATER THAN 0.5 P.S.I. DURING THE FINAL TEST PERIOD.

UNDER NO CIRCUMSTANCES SHALL THE TOTAL TIME UNDER TEST EXCEED 3 HOURS AT 1 1/2 TIMES THE PRESSURE RATING. THE TEST IS NOT COMPLETED BECAUSE OF LEAKAGE, EQUIPMENT FAILURE, OR OTHER REASON, THE TEST SECTION SHALL BE PERMITTED TO "RELAX" FOR 8 HOURS BEFORE THE NEXT TESTING SEQUENCE.

E) POLYETHYLENE PLASTIC TUBING - 2" AND LESS

TUBING SHALL COMPLY WITH AWWA C800 AND AWWA C901, BE APPROVED FOR POTABLE WATER SERVICE BY THE NATIONAL SANITATION FOUNDATION AND BEAR THE NSF SEAL. TUBING SHALL BE ENDOT "ENDODUR" CTS OD TUBING, OR DISCOSULTE PE 3408, SDR9, 200 PSI, TYPE III, GRADE P-34, CLASS C, BLUE IN COLOR. THE PRODUCT SHALL BE RATED FOR A MINIMUM WORKING PRESSURE OF 200 PSI WITH A MINIMUM STANDARD DIMENSION RATIO (SDR) OF 9. FITTINGS SHALL BE BRASS, EQUIPPED WITH COMPRESSION TYPE CONNECTIONS.

F) COPPER PIPE AND TUBING

PIPE OR TUBING SHALL MEET AWWA C-800. FITTINGS SHALL BE BRASS, WITH APPROVED COMPRESSION CONNECTIONS.

G) SPECIAL ITEMS

TAPPING SADDLES
ANY TAP OR VALVE INSTALLATION INTO THE EXISTING CITY SYSTEM SHALL BE MADE BY THE CITY OR APPROVED AGENT AT THE EXPENSE OF THE CONTRACTOR. THE COST FOR TAPS SHALL BE SET BY THE CITY OF LEEBSBURG WATER DEPARTMENT AT CURRENT PRICES AT THE TIME OF THE TAP.

SERVICE SADDLES

SHALL BE FORD #F202 SERIES, DOUBLE STRAP WITH IP OUTLET, OR CITY APPROVED EQUAL. SEALING GASKET SHALL BE BUNA-N RUBBER AND STRAPS SHALL BE STEEL.

VALVES

A) VALVES FOR UNDERGROUND SERVICE
VALVES FROM 2" THRU 12" FOR UNDERGROUND SERVICE SHALL BE IRON BODY GATE VALVES, NON-RISING STEM TYPE AND SHALL BE EQUIPPED WITH A 2" SQUARE CAST IRON OPERATING NUT WITH CORROSION PROTECTION COATING INSIDE AND OUT. RESILIENT SEATED VALVE WHICH MEETS ALL C-509 REQUIREMENTS OF AWWA (WATER). ACCEPTABLE MANUFACTURERS ARE MUELLER #2370-20, AMERICAN DARLING C95-80 OR EQUIVALENT KENNEDY OR CLOW MODELS. END LINE VALVES SHALL BE ADEQUATELY RESTRAINED TO THE PIPELINE SUCH THAT THEY MAY BE EXCAVATED AND THE LINE EXTENDED WITHOUT SHUTTING OFF LINE PRESSURE.

TAPPING VALVES SHALL BE RESILIENT SEAT GATE VALVES AS MANUFACTURED BY EITHER MUELLER OR AMERICAN.

B) VALVES FOR ABOVE-GROUND SERVICE FOR WATER SYSTEMS ONLY

VALVES SHALL BE FLANGED IRON BODY, BRONZE MOUNTED RESILIENT SEAT GATE VALVES, CONFORMING TO AWWA C-509, WITH THE EXCEPTION THAT VALVES SHALL BE OUTSIDE SCREW AND YOKER (OS & Y) RISING STEM TYPE. VALVES SHALL HAVE CAST IRON HAND WHEELS OR CHAIN OPERATORS WITH GALVANIZED STEEL CHAINS, AS REQUIRED.

C) VALVES SMALLER THAN 2 INCHES

VALVES SMALLER THAN 2 INCHES SHALL BE BRONZE BODY GATE VALVE CONFORMING TO FEDERAL SPECIFICATIONS 150 PSI MINIMUM WORKING PRESSURE WITH THREADED JOINTS EQUAL TO AMERICAN 3 FG OR APPROVED EQUAL.

BACKFLOW DEVICES

DOUBLE CHECK VALVES SHALL BE FEMCO 805-Y-BV FOR 3/4" THRU 2" AND FEMCO 805-YD FOR 2 1/2" THRU 10", WATTS #709 SERIES 3/4" THRU 10". DOUBLE CHECK VALVE ASSEMBLY FROM 2 1/2" AND UP SHALL BE FURNISHED WITH OS&Y GATE VALVE SHUT-OFFS.

REDUCED PRESSURE ZONE VALVE SHALL BE FEMCO 825-Y-BV FOR SIZES 3/4" THRU 2" AND FEMCO 825-YD FOR SIZES 2 1/2" THRU 10". WATTS SERIES 909 FOR SIZES 3/4" THRU 10". REDUCED PRESSURE ZONE VALVE ASSEMBLY FROM 2 1/2" AND UP SHALL BE FURNISHED WITH OS&Y GATE VALVE SHUT-OFFS.

PRESSURE VACUUM BREAKER SHALL BE WATTS #900 OR FEMCO #765.

SHUT-OFF VALVES ON BACKFLOW ASSEMBLY FOR SIZES 3/4" INCH THROUGH 2 INCHES SHALL BE PROVIDED WITH BALL VALVES, ASSEMBLED ABOVE 2 INCH SHALL BE PROVIDED WITH RESILIENT SEAT FULL FLOW GATE VALVES.

ALL BACKFLOW PREVENTION DEVICES SHALL SET WITHIN 12" OF THE METER AND SHALL BE SET A MINIMUM OF 12" ABOVE THE 100 YEAR FLOOD PLAIN.

CHECK VALVES

VALVES FOR WASTEWATER APPLICATION SHALL BE IRON BODY, BRONZE MOUNTED STAINLESS STEEL HINGE PIN, OUTSIDE LEVER AND SPRING OPERATED, SWING TYPE, AND EQUIPPED WITH REMOVABLE INSPECTION COVERS. UNITS SHALL BE RATED FOR 150 PSI MINIMUM WORKING PRESSURE AND SHALL PERMIT FULL FLOW AREA EQUAL TO THAT OF THE CONNECTING PIPE. MUELLER #2600-6-02, AMERICAN DARLING #525C, OR KENNEDY OR M & H EQUIVALENTS.

PLUG VALVES

VALVES FOR WASTEWATER APPLICATION SHALL BE EPOXY LINED, SEMI-STEEL BODY, NON-LUBRICATED, ECCENTRIC TYPE PLUG VALVES, WITH RESILIENT FACED PLUGS, AND CAPABLE OF DRIP-TIGHT SHUT-OFF AT THE RATED PRESSURE. PLUG VALVES ARE AVAILABLE WITH APPURTENANCES SHALL BE DEZURIK SERIES 130, AMERICAN-DARLING 150 OR PRATT. ALL VALVES SHALL BE ACCOMPANIED BY A 3-INCH DIAMETER BRONZE VALVE MARKER ANCHORED TO THE VALVE BODY WHICH INDICATES SIZE OF VALVE, TYPE OF VALVE, SERVICE (WATER, SEWER, ETC...) AND DIRECTION AND NUMBER OF TURNS TO OPEN.

BUTTERFLY VALVES

VALVES LARGER THAN 12" SHALL BE CAST IRON BODY, SELF-LUBRICATED, RESILIENT SEATED, ONE-PIECE STAINLESS STEEL SHAFT, AND CAPABLE OF DRIP-TIGHT SHUT-OFF AT THE RATED PRESSURE AND MEET AWWA C504. VALVE OPERATORS SHALL CONFORM TO AWWA C504. VALVE OPERATORS SHALL BE INSTALLED IN A VERTICAL POSITION. VALVES AND APPURTENANCES SHALL BE DEZURIK SERIES 130, AMERICAN-DARLING 150 OR PRATT. ALL VALVES SHALL BE ACCOMPANIED BY A 3-INCH DIAMETER BRONZE VALVE MARKER ANCHORED TO THE VALVE BODY WHICH INDICATES SIZE OF VALVE, TYPE OF VALVE, SERVICE (WATER, SEWER, ETC...) AND DIRECTION AND NUMBER OF TURNS TO OPEN.

VALVE BOXES

UNITS SHALL BE ADJUSTABLE, CAST IRON, MINIMUM INTERIOR DIAMETER OF 5", WITH COVERS CAST WITH THE APPLICABLE INSCRIPTION IN LEGIBLE LETTERING ON THE TOP. "SEWER", "REUSE" OR "WATER". BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE. VALVE BOXES NOT IN THE PAVEMENT SHALL HAVE AROUND THEIR TOPS CONCRETE PADS, WHICH SHALL BE FLUSH WITH THE TOP OF THE CURB, WITH MINIMUM DIMENSIONS OF 24" X 24" X 4" AND REBAR AS PER DETAILS. VALVE BOXES LOCATED IN THE PAVEMENT SHALL HAVE AROUND THEIR TOPS CONCRETE PADS, WHICH WILL BE FLUSH WITH THE TOP OF THE PAVEMENT, WITH MINIMUM DIMENSIONS OF 24" X 24" X 4" AND REBAR AS PER DETAILS. ALL VALVES SHALL BE ACCOMPANIED BY A 3" DIAMETER BRONZE VALVE MARKER ANCHORED IN THE CONCRETE PAD WHICH INDICATES SIZE OF VALVE, TYPE OF VALVE, SERVICE (WATER, REUSE, SEWER, ETC...) AND DIRECTION AND NUMBER OF TURNS TO OPEN.

METER BOXES

PLASTIC METER BOXES SHALL BE BROOKS CATALOG #419 WITH OVERLAP LID, PLASTIC WITH METAL METER READER, OR APPROVED EQUAL.

SERVICE LINES

SERVICE LINES SHALL BE 1" FOR SINGLE AND 2" WITH 1" BRANCH OFF FOR DOUBLE SERVICE. ALL FITTINGS SHALL BE MUELLER, MCDONALD OR FORD BRASS. ONE INCH (1") CORPORATION STOPS SHALL BE FORD FB100, MCDONALD 4704B-22, OR MUELLER 25028. TWO INCH (2") CORPORATION STOPS SHALL BE (MIP X MIP) FORD FB500 OR MCDONALD 3131B. CURB STOPS (LOCK WING), SHALL BE IN ACCORDANCE WITH THE TABLE BELOW:

SIZE	TYPE	FORD	MCDONALD	MUELLER
3/4"	FIP X FIP	B11-233W	6101W	B20200 R
3/4"	COMP X FIP	B41-233W	6102W-22	B25170 R
3/4"	FIP X SPUD	B13-232W	6101MW	B24351 R
3/4"	COMP X SPUD	BR43-232W	6100MW-22	B24350 R
1"	FIP X FIP	B11-344W	6101W	B20200 R
1"	COMP X FIP	B41-344W	6102W-22	B25170 R
1"	FIP X SPUD	B13-344W	6101MW	B24351 R
1"	COMP X SPUD	B43-344W	6100MW-22	B24350 R

JOINT RESTRAINTS

"MEGA-LUG" RESTRAINED JOINTS SHALL BE PROVIDED AT ALL POINTS WHERE THE LINE BENDS GREATER THAN 10 DEGREES AND AT ALL WYES, TEES, CAPS, VALVES, HYDRANTS AND REDUCERS. IF ANY JOINTS ARE WITHIN THE REQUIRED RESTRAINED LENGTH THEY SHALL BE RESTRAINED WITH A RESTRAINING HARDNESS AS REQUIRED. THE RESTRAINTS WILL BE SIZED AND PLACED ACCORDING TO THE PLANS OR ACCORDING TO THE PIPE MANUFACTURER'S RECOMMENDATIONS WHEN NOT SHOWN ON THE PLANS.

CITY OF LEEBSBURG VENETIAN GARDENS

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

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407.418.1338 :: Fax 407.418.1342

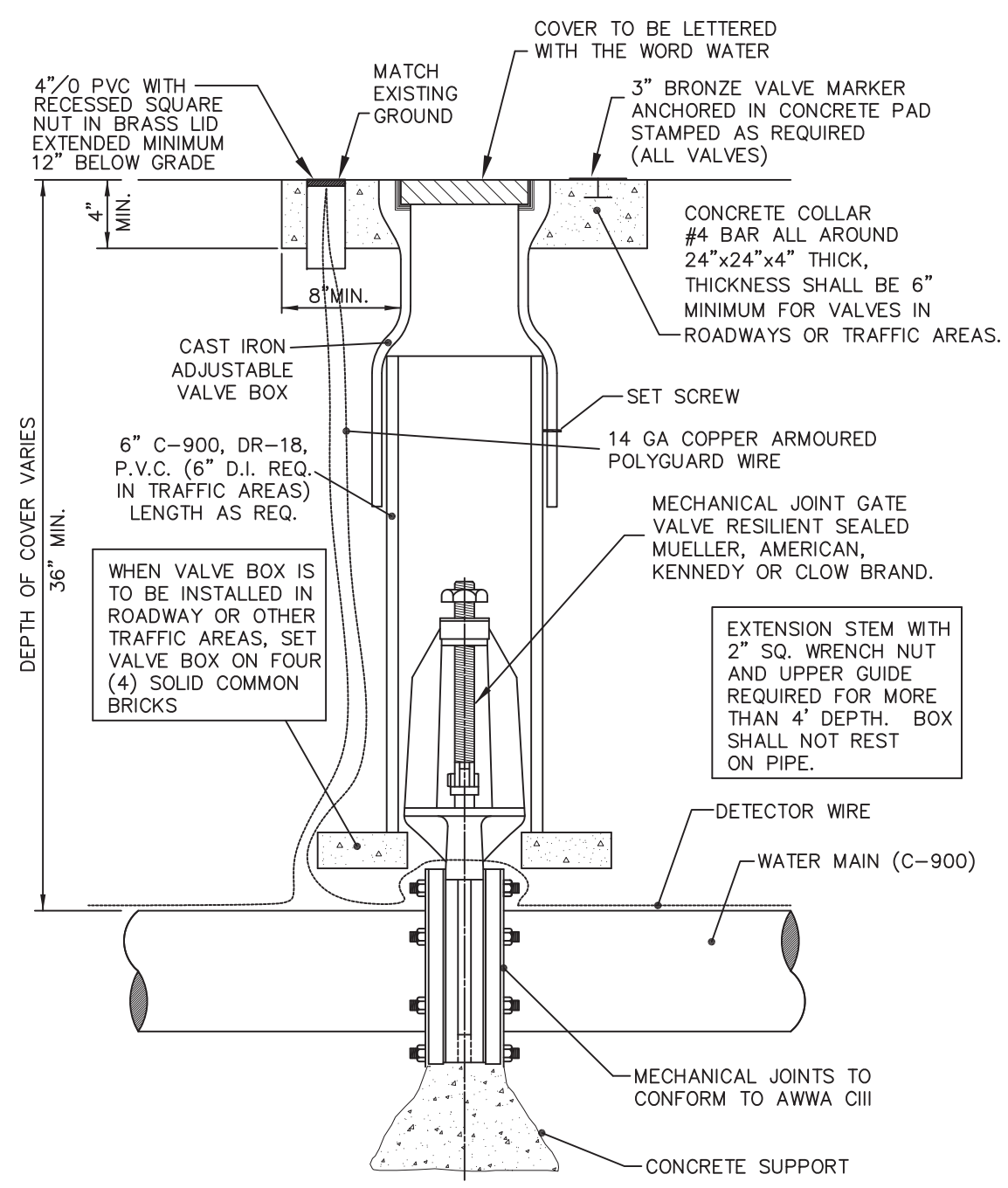
KEITH E. RIDDLE, P.E.
FLA. REGS. NO. 38600

CONSULTANTS

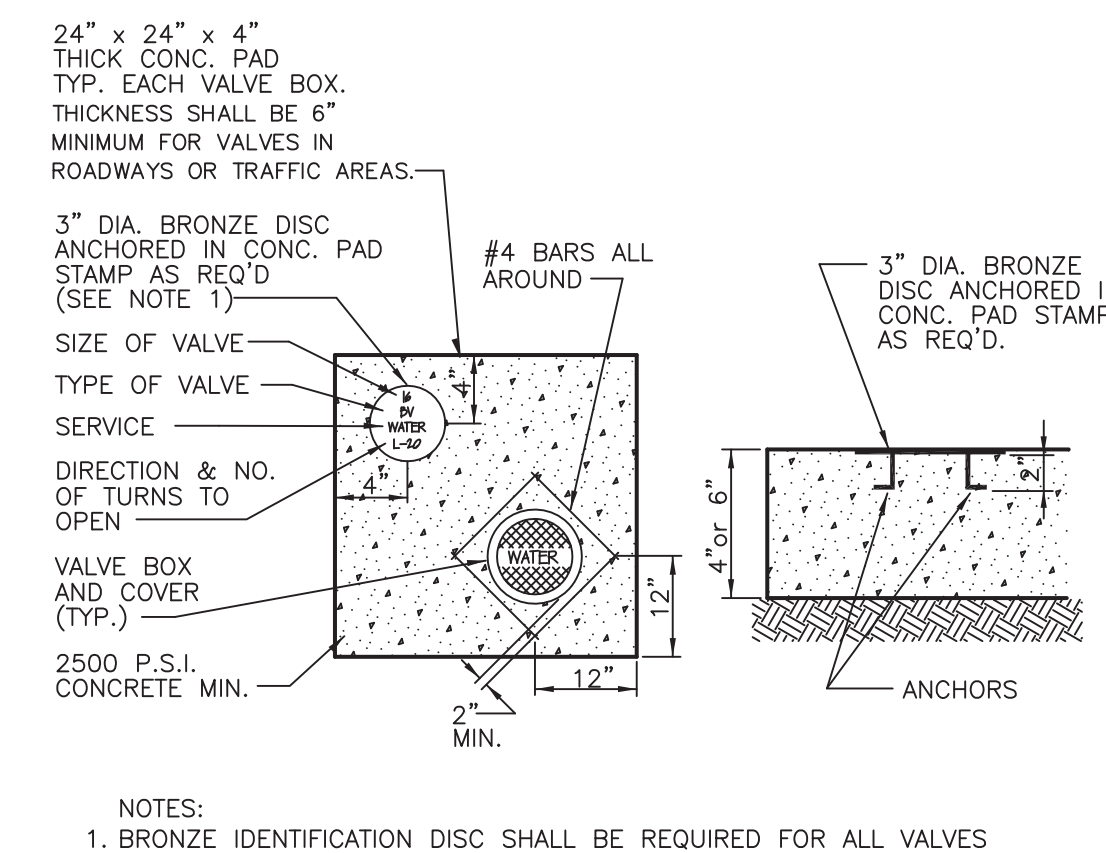
RIDDLE-NEWMAN ENGINEERING, INC.
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LEEBSBURG, FLORIDA 34748
PH: (813) 749-7448
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keith@riddle-n.com
CA# 00002863

GENERAL UTILITY DETAILS

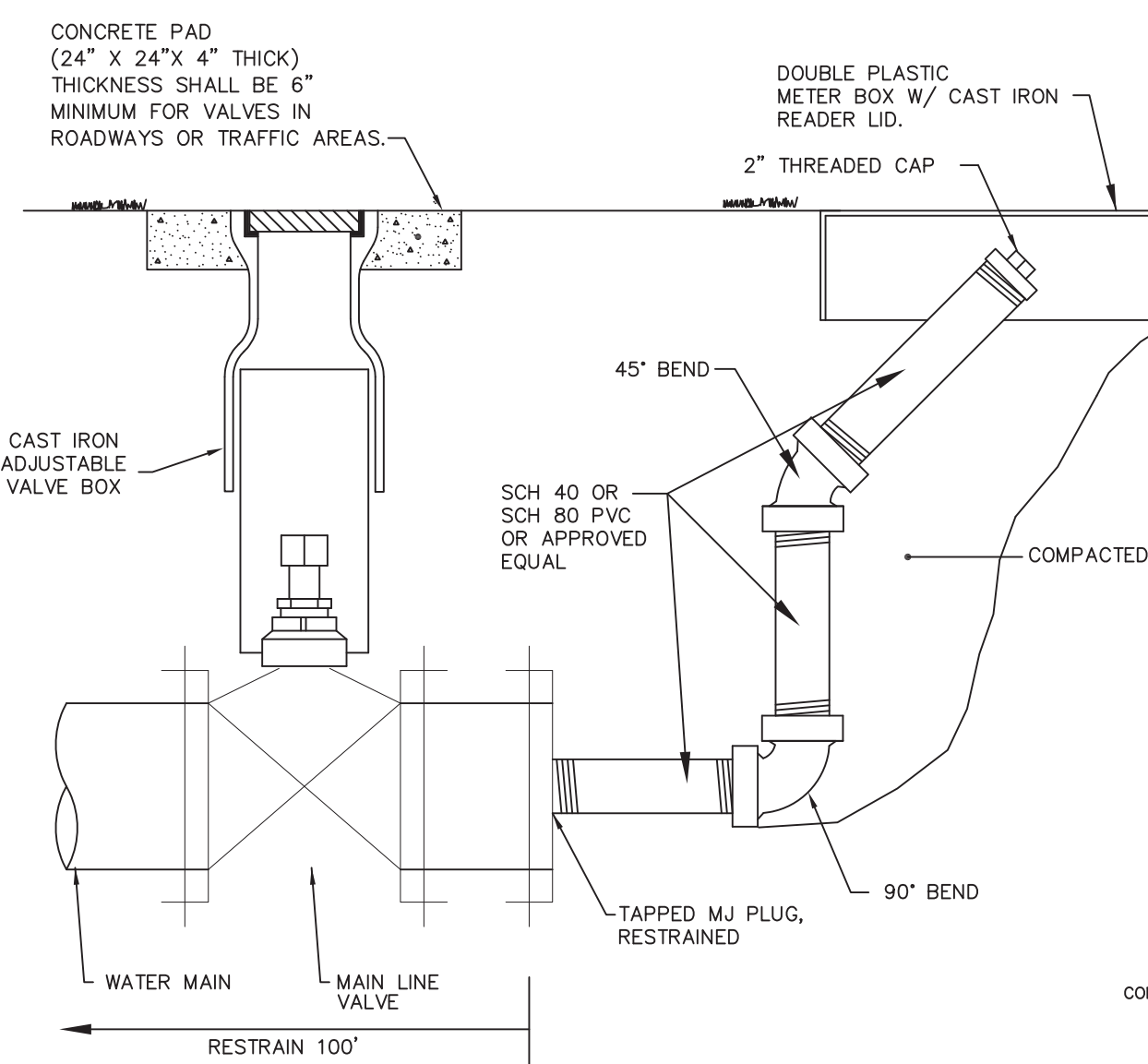
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PHASE	50% Construction Documents	SCALE	N.T.S.	DRAWN BY	BSH
CHECKED BY					



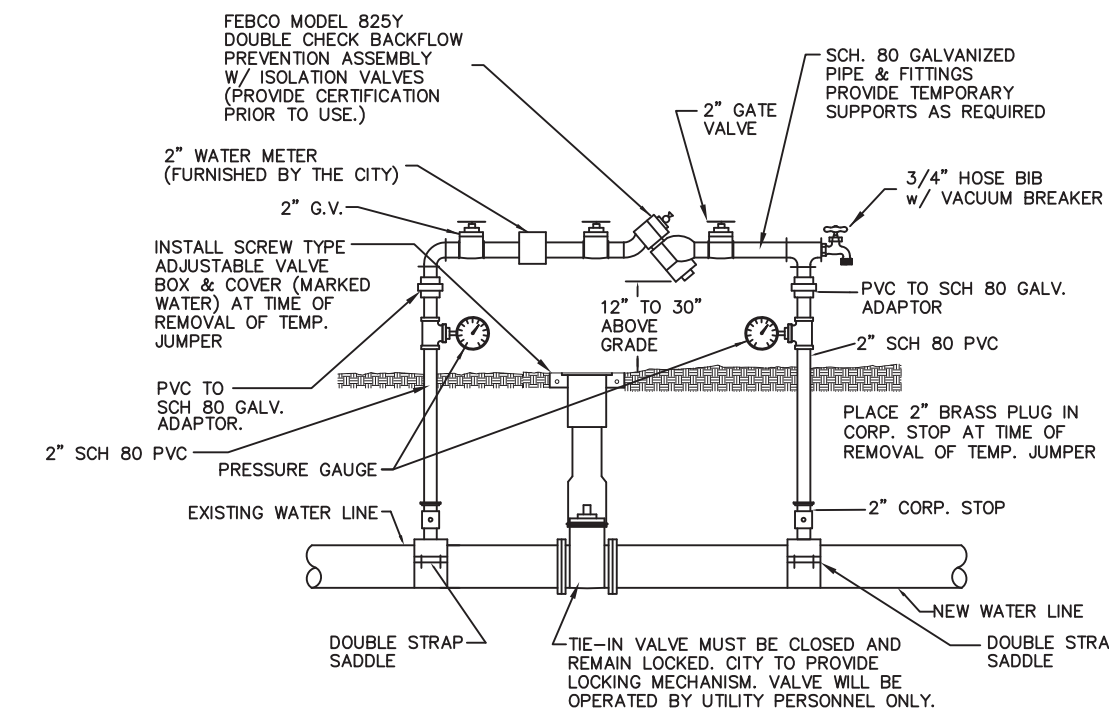
GATE VALVE & BOX
NOT TO SCALE



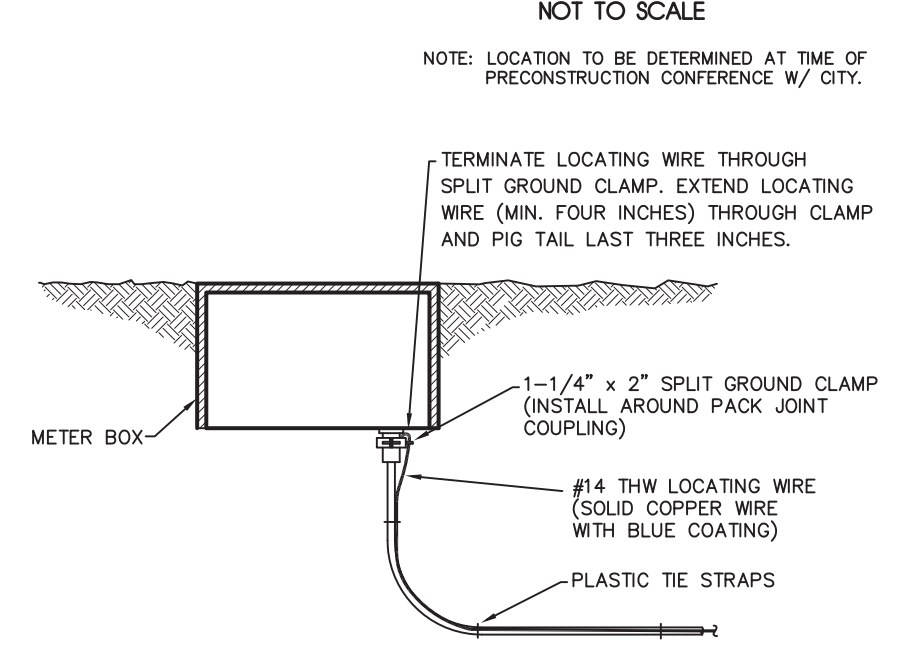
VALVE COLLAR
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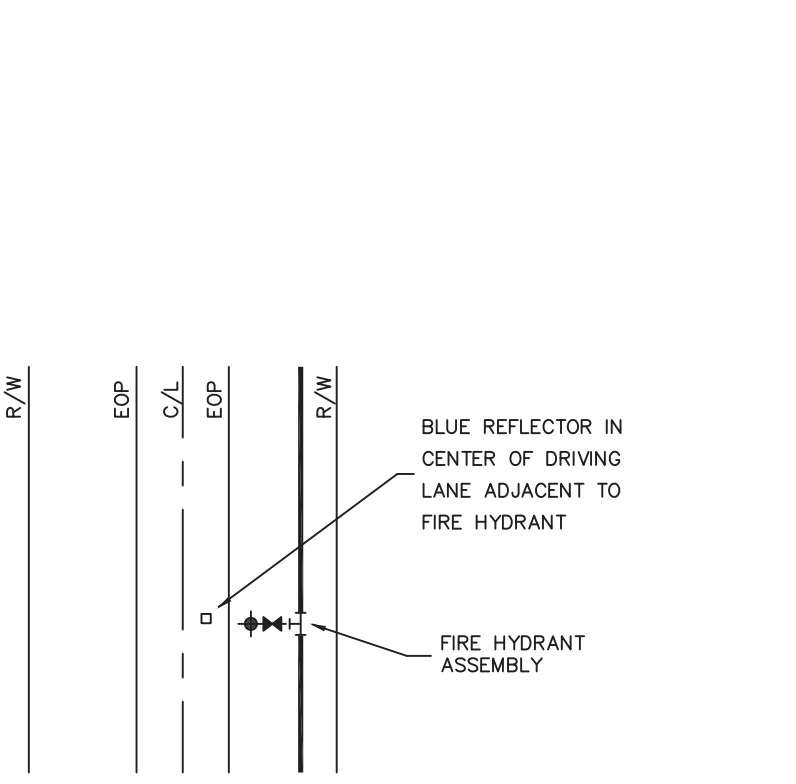
BLOWOFF DETAIL
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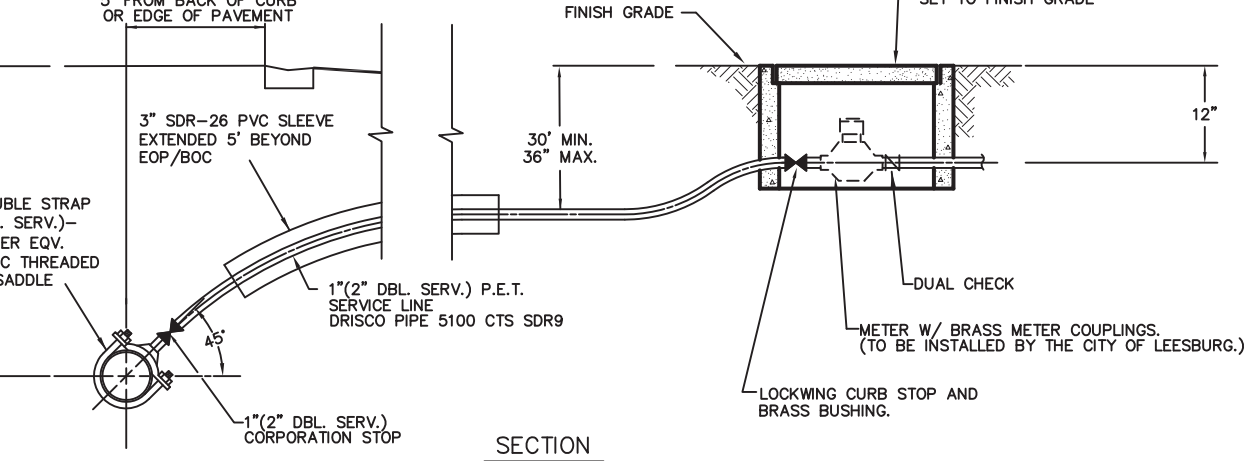
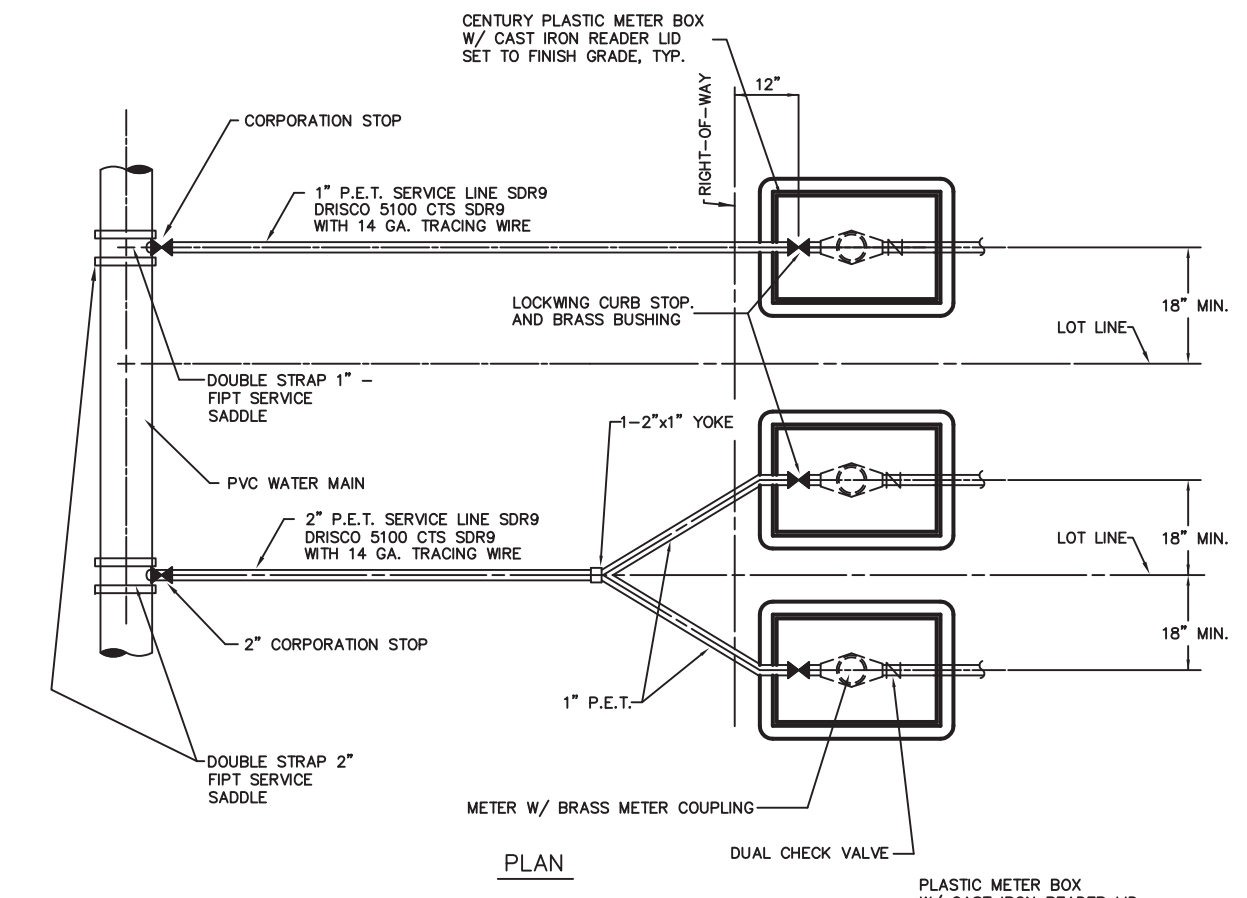
TEMPORARY JUMPER CONNECTION DETAIL
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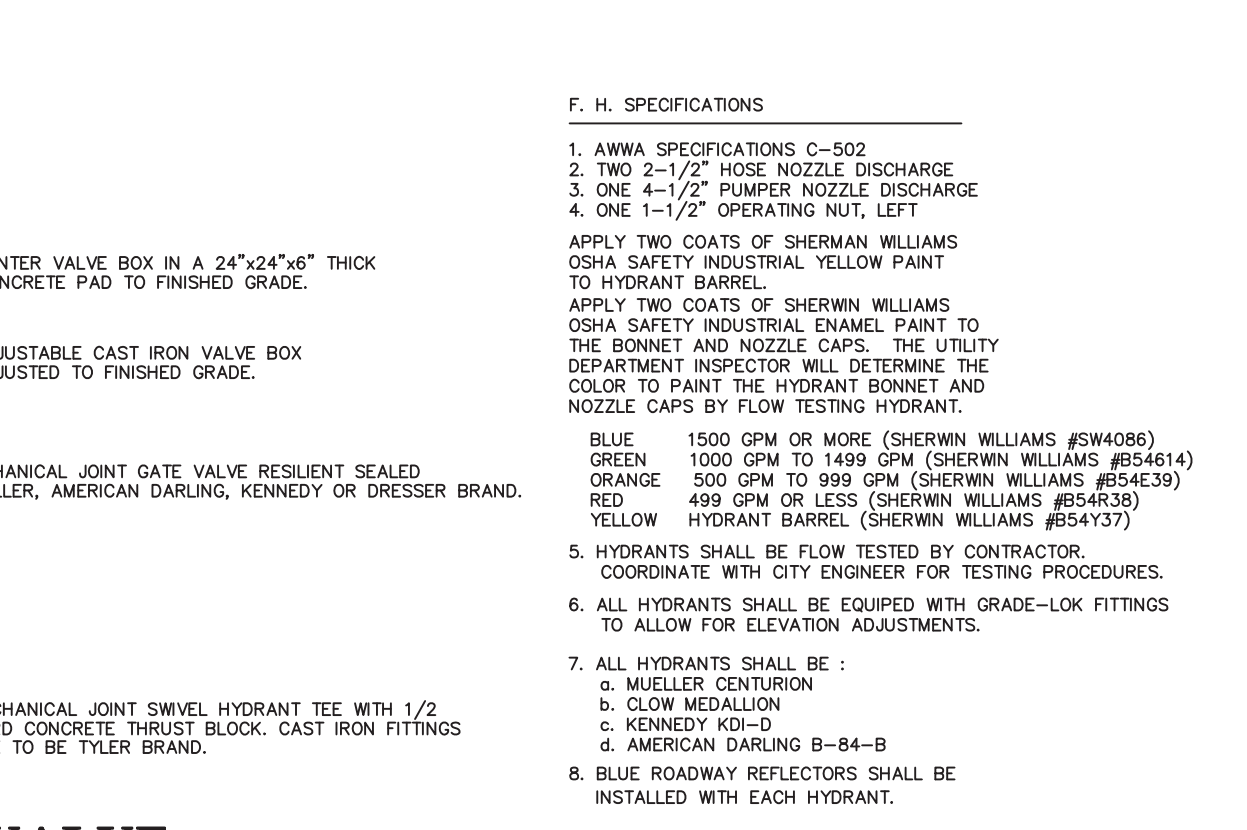
SERVICE AND METER
NOT TO SCALE



FIRE HYDRANT REFLECTOR DETAIL
NOT TO SCALE



WATER SERVICE CONNECTION DETAILS
NOT TO SCALE
(NOTE: METERS TO BE INSTALLED BY CITY OF LEESBURG.)



FIRE HYDRANT WITH VALVE
NOT TO SCALE
(STANDARD FIRE HYDRANT ASSEMBLY)

TEMPORARY JUMPER CONNECTION NOTES

- A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
- THE DETAILS TO BE USED FOR FILING ANY WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE IS OBTAINED. ADEQUATE THRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED, PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION 8 OF AWWA C561-92.
- FLUSHING OF 10" DIAMETER AND LARGER WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE, IN THE PRESENCE OF THE UTILITY DEPARTMENT. THE UTILITY DEPARTMENT WILL NOTIFY IN WRITING 48 HOURS PRIOR TO THE FLUSHING OF SAID MAINS.

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

 - THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO THE TIE-IN. VALVES WHICH ARE NOT WATER TIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
 - THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.
 - FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
 - ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.
 - PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT, THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
 - TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.
 - THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL FLUSHING BEGINS.
 - THE TIE-IN VALVE SHALL BE LOCKED ONLY A FEW TURNS FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE CITY AND OBSERVED BY THE ENGINEER.
 - AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED POSITION BY THE CITY.
- THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE DOUBLE CHECK BACKFLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A QUALIFIED BACKFLOW PREVENTION TECHNICIAN.
- EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSED POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.
- UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE JUMPER CONNECTION, THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.
- ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER SPECIFICATIONS

- WATER SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE.
 - ALL PIPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.
 - ALL PIPE AND PIPE FITTINGS SHALL CONTAIN NO MORE THAN 8% LEAD. ANY SOLDER OR FLUX UTILIZED SHALL CONTAIN NO MORE THAN 0.2% LEAD.
 - DEPTH OF WATER LINES TO BE MINIMUM 36" BELOW FINISHED GRADE.
 - WATER MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
 - ALL WATER MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON AND SHALL EXTEND 5 FEET BEYOND BACK OF CURB, EXCEPT DIRECTIONAL BORES, WHICH SHALL BE SDR 11 HOPE.
 - ALL SLEEVES UNDER PAVEMENT SHALL EXTEND 5 FEET BEYOND BACK OF CURB.
 - MARK ALL POINTS WHERE WATER SERVICES CROSS CURB WITH A "W" MARK IN THE CONCRETE.
 - CONTRACTOR SHALL ENSURE THAT THE INSTALLATION OF THE WATER MAIN COMPLIES WITH THE MINIMUM SEPARATION REQUIREMENTS SHOWN IN THESE PLANS. THE ENGINEER SHALL BE NOTIFIED, PRIOR TO INSTALLATION, OF ALL LOCATIONS WHERE THE MINIMUM DISTANCES CANNOT BE MAINTAINED.
- TESTING**
- THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL WATER DISTRIBUTION SYSTEMS, AS SET FORTH IN THE FOLLOWING AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM THE CITY AND THE ENGINEER, WITH 48 HOURS ADVANCE NOTICE PROVIDED, IN WRITING.
 - PIPING AND APPURTENANCES TO BE TESTED SHALL BE WITHIN SECTIONS BETWEEN VALVES, NOT EXCEEDING 500 FEET UNLESS ALTERNATE METHODS HAVE RECEIVED PRIOR APPROVAL FROM THE CITY. TESTING SHALL NOT PROCEED UNTIL RESTRAINING DEVICES ARE INSTALLED. ALL PIPING SHALL BE THOROUGHLY CLEANED AND FLUSHED PRIOR TO TESTING TO CLEAR THE LINES OF ALL FOREIGN MATTER. WHILE THE PIPING IS BEING FILLED WITH WATER, CARE SHALL BE EXERCISED TO PERMIT THE ESCAPE OF AIR FROM EXTREMITIES OF THE TEST SECTION, WITH ADDITIONAL RELEASE COCKS PROVIDED IF REQUIRED.
 - HYDROSTATIC TESTING SHALL BE PERFORMED AT 150 POUNDS PER SQUARE INCH PRESSURE, UNLESS OTHERWISE APPROVED BY THE CITY, FOR A PERIOD OF NOT LESS THAN TWO (2) HOURS. TESTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE AWWA PROVISIONS FOR PVC-AWWA PUBLICATION M-23 AND FOR DIP-AWWA STANDARD C600, SECTION 4. THE ALLOWABLE RATE OF LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR DETERMINED BY THE FOLLOWING FORMULAS:

$$L = \frac{NDP^{1/2}}{7400}$$

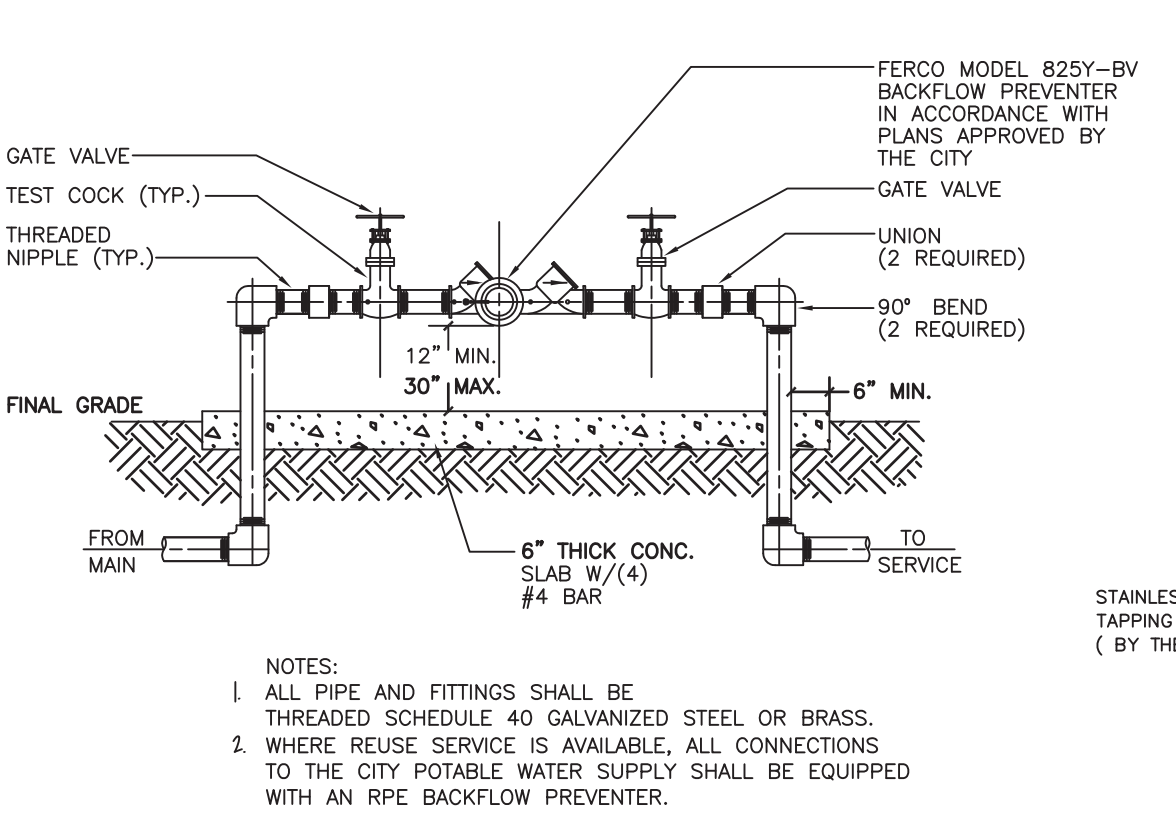
$$L = \frac{SDP^{1/2}}{133,200}$$

FOR 150 PSI TEST: L = 0.00185 ND (PVC)
FOR 150 PSI TEST: L = 0.00092 SD (DIP)

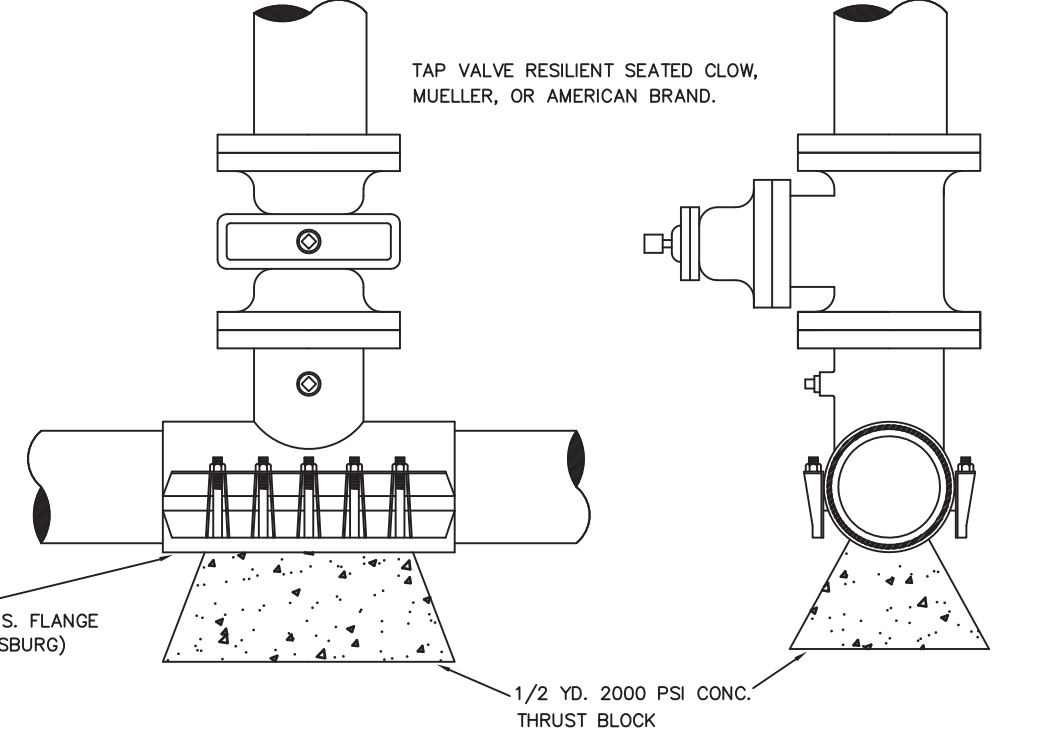
L = ALLOWABLE LEAKAGE IN GALLONS PER HOUR
N = NUMBER OF JOINTS IN SECTION TESTED
S = LENGTH OF PIPE TESTED, IN FEET
D = NOMINAL DIAMETER OF THE PIPE IN INCHES

WATER MAIN SEPARATION REQUIREMENTS			
OTHER PIPE	HORIZONTAL SEPARATION	*CROSSINGS	JOINT SPACING @ CROSSINGS
STORM SEWER RECLAIMED WATER (1)	3 FT MINIMUM	12" IS THE MINIMUM EXCEPT FOR STORM SEWER, THEN 6" IS THE MINIMUM AND 12" IS PREFERRED	FULL JOINT CENTERED ALTERNATE 3" MINIMUM
VACUUM TYPE SANITARY SEWER	1.0 FT PREFERRED 3 FT MINIMUM	12" PREFERRED 6" MINIMUM	FULL JOINT CENTERED ALTERNATE 3" MINIMUM
GRAVITY OR PRESSURE SANITARY SEWER RECLAIMED WATER (2)	1.0 FT PREFERRED 16 FT MINIMUM	12" IS THE MINIMUM EXCEPT FOR GRAVITY SEWER, THEN 6" IS THE MINIMUM AND 12" IS PREFERRED	FULL JOINT CENTERED ALTERNATE 3" MINIMUM

* WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE THE MINIMUM VERTICAL SEPARATION IS 12".
** 3 FT FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.



REDUCED PRESSURE BACKFLOW PREVENTER
NOT TO SCALE



WET TAP SLEEVE & TAP VALVE
NOT TO SCALE

CITY OF LEESBURG VENETIAN GARDENS

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C-# 00002853

KEITH E. RIDDLE, P.E.
FLA. REGIS. NO. 38800

TYPICAL WATER DETAILS

PROJECT ADDRESS: 201 E. Dixie Ave., Leesburg, FL 34748
OWNER NAME AND ADDRESS: City of Leesburg, 204 N. 5th St., Leesburg, FL 34748
DATE: 11.20.2017
REV. DESCRIPTION: 16-170
PHASE: 50% Construction Documents
SCALE: N.T.S.
DRAWN BY: BSH
CHECKED BY: KER
DATE: 11.20.2017

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OF

PROJECT No.	DATE	DESCRIPTION	REV.
16-170			
50% Construction Documents			
SCALE	N.T.S.		
DRAWN BY	BSH		
CHECKED BY	KER		
DATE	11.20.2017		

SANITARY SEWER SPECIFICATIONS

GRAVITY SEWER
 MANHOLES SHALL BE PRECAST CONCRETE. THE MINIMUM INSIDE DIAMETER OF MANHOLES SHALL BE 48 INCHES FOR SEWER SIZED TO 21 INCHES IN DIAMETER OR LESS, WITH SUBMITTAL OF SPECIAL DESIGNS FOR LARGER PIPES.
 PRECAST REINFORCED MANHOLES SHALL BE IN ACCORDANCE WITH ASTM DESIGNATION C478, WITH PRE-FORMED FLEXIBLE PLASTIC JOINT SEALER CONFORMING TO FEDERAL SPECIFICATION SS-S-0210 (GSA-FSS), "RAM-NEK", AS MANUFACTURED BY THE K.T. SNYDER CO., INC., HOUSTON, TEXAS OR APPROVED EQUAL.
 MANHOLE FRAMES AND COVERS SHALL BE GRAY CAST IRON CONFORMING TO ASTM DESIGNATION A48, CLASS 30, AND SHALL HAVE A MINIMUM 22 1/4" OPENING. COVERS SHALL HAVE NO PERFORATIONS AND SHALL BE MARKED WITH THE WORD "SEWER". FRAMES AND COVERS SHALL BE FULLY BEDDED IN MORTAR TO THE CORRECT FINISH GRADE ELEVATION.
 A DROP MANHOLE CONNECTION SHALL BE REQUIRED FOR ALL INVERTS OVER 24" ABOVE THE FLOOR OF THE MANHOLE, IN ACCORDANCE WITH THE ATTACHED DETAILS.
TESTING
 THE CONTRACTOR SHALL PERFORM TESTING OF ALL SANITARY GRAVITY SEWERS, AS SET FORTH IN THESE STANDARDS AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM THE CITY AND/OR OTHER AUTHORIZED AGENCIES WITH 48 HOURS ADVANCE NOTICE PROVIDED.
 SANITARY SEWERS TO BE TESTED SHALL BE WITHIN SECTIONS. TESTING SHALL NOT PROCEED UNTIL ALL FACILITIES ARE IN PLACE AND CONCRETE CURED. ALL PIPING SHALL BE THOROUGHLY CLEANED PRIOR TO TESTING TO CLEAR THE LINES OF ALL FOREIGN MATTER.
 THE CONTRACTOR WILL UTILIZE LOW-PRESSURE AIR TESTING IN ACCORDANCE WITH UNI-BELL PVC PIPE ASSOCIATION, UNI-B-8-90, "RECOMMENDED PRACTICE FOR LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE", LATEST REVISIONS. INFILTRATION AND EXFILTRATION SHALL NOT EXCEED 300 GALLONS PER DAY PER INCH OF DIAMETER PER MILE AS MEASURED BETWEEN MANHOLES. TESTING SHALL PROCEED FOR A CONTINUOUS PERIOD OF TWO (2) HOURS, WITH INFILTRATION AMOUNTS MEASURED BY METHODS APPROVED BY THE ENVIRONMENTAL SERVICES DEPARTMENT.
 SHOULD ANY TEST FAIL, NECESSARY REPAIRS SHALL BE ACCOMPLISHED BY THE CONTRACTOR, AND THE TEST REPEATED UNTIL THE ESTABLISHED LIMITS ARE SATISFIED. ANY REPAIRS SHALL BE PERFORMED UNDER THE SUPERVISION OF THE CITY FORCES AND BY METHODS RECEIVING PRIOR APPROVAL BY THE CITY.

ALL SANITARY GRAVITY SEWER LINES SHALL BE TELEVISED AND LAMPED AT THE EXPENSE OF THE CONTRACTOR. IN THE EVENT THAT THE TELEVISION OF THE LINES REVEALS PROBLEMS (I.E. BELLETS, LATERAL DEFLECTION, ETC.), IT MAY ALSO BE NECESSARY, AT THE DISCRETION OF THE CITY, TO REQUIRE AN APPROVED 9-ARM DEFLECTION MANDREL TO BE PULLED THROUGH THE SEWER TO ENSURE THAT THE LINE IS WITHIN ACCEPTABLE SLOPES AND DEFLECTION DOES NOT EXCEED 5% OF THE AVERAGE DIAMETER, AS ESTABLISHED BY ASTM STANDARDS. ANY PIPE FOUND TO BE OUT OF COMPLIANCE WITH THESE SPECIFICATIONS, OR NOT MEETING THE REQUIREMENTS OF THE CITY IS TO BE REMOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR.
FORCE MAIN
 MINIMUM FORCE MAIN DIAMETER SHALL BE 4" (MINIMUM). SEE PLAN FOR ACTUAL SIZE.
JOINT RESTRAINING
 "MEGA-LUG" RESTRAINED JOINTS SHALL BE PROVIDED AT ALL BENDS, WYES, TEES, CAPS, VALVES, AND REDUCERS. IF ANY JOINTS ARE WITHIN THE REQUIRED RESTRAINED LENGTH THEY SHALL BE RESTRAINED WITH A RESTRAINING HARNESS AS REQUIRED. THE RESTRAINTS WILL BE SIZED AND PLACED ACCORDING TO THE PIPE MANUFACTURER'S RECOMMENDATIONS.
IDENTIFICATION
 IN ORDER TO PRECLUDE POSSIBLE DOMESTIC WATER TAPPING, ALL INSTALLED UNDERGROUND SANITARY SEWAGE FORCE MAINS SHALL BE GREEN (PVC) OR DUCTILE IRON PIPE MARKED WITH A CONTINUOUS GREEN STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE.
TESTING
 THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL SANITARY SEWAGE FORCE MAINS IN THE PRESENCE OF REPRESENTATIVES FROM THE CITY AND/OR OTHER AUTHORIZED AGENCIES WITH 48 HOURS ADVANCE NOTICE PROVIDED.
 PIPING AND APPURTENANCES TO BE TESTED SHALL BE WITHIN SECTIONS BETWEEN VALVES OR ADEQUATE PLUGS, NOT EXCEEDING 2000 FEET WITH PRIOR APPROVAL FROM THE CITY. TESTING SHALL NOT PROCEED UNTIL RESTRAINING DEVICES ARE INSTALLED. ALL PIPING SHALL BE THOROUGHLY CLEANED AND FLUSHED PRIOR TO TESTING TO CLEAR THE LINES OF ALL FOREIGN MATTER. WHILE THE PIPING IS BEING FILLED WITH WATER, CARE SHALL BE EXERCISED TO PERMIT THE ESCAPE OF AIR FROM EXTREMITIES OF THE TEST SECTION, WITH ADDITIONAL RELEASE COCKS PROVIDED IF REQUIRED.
 HYDROSTATIC TESTING SHALL BE PERFORMED AT 100 PSI FOR ALL SIZES OF FORCE MAINS. THE TESTING PROCEDURE SHALL CONTINUE FOR AN UNINTERRUPTED PERIOD OF NOT LESS THAN TWO (2) HOURS. TESTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE AWWA PROVISIONS FOR PVC-AWWA PUBLICATION M-23 AND FOR DIP-AWWA STANDARD C900, SECTION 4. THE ALLOWABLE RATE OF LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR DETERMINED BY THE FOLLOWING FORMULAS:

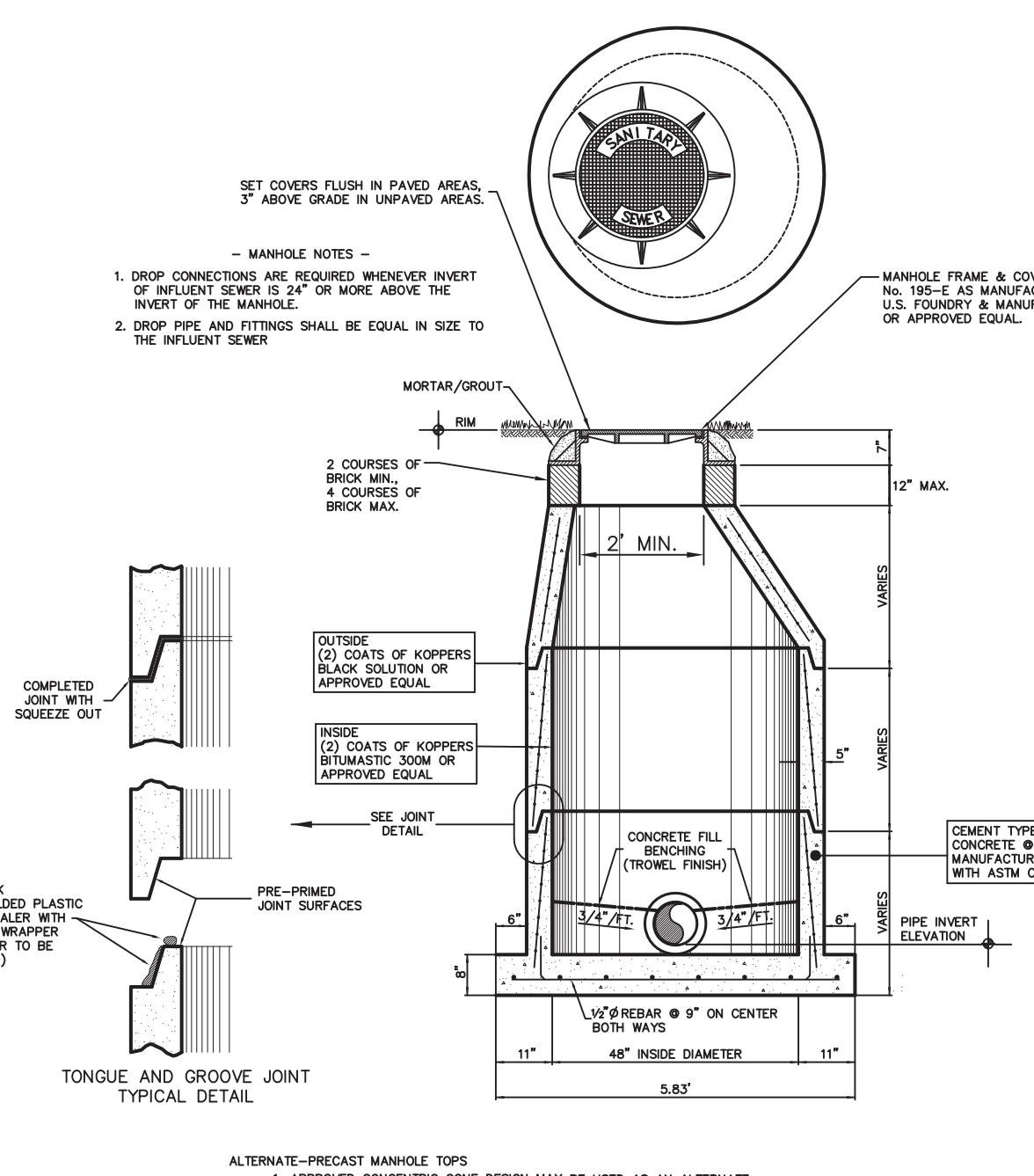
$$L = \frac{NDP}{740d^2}$$

FOR 100 PSI; TEST: L = 0.00135 ND (PVC)
 FOR 100 PSI; TEST: L = 0.000075 SD (DIP)

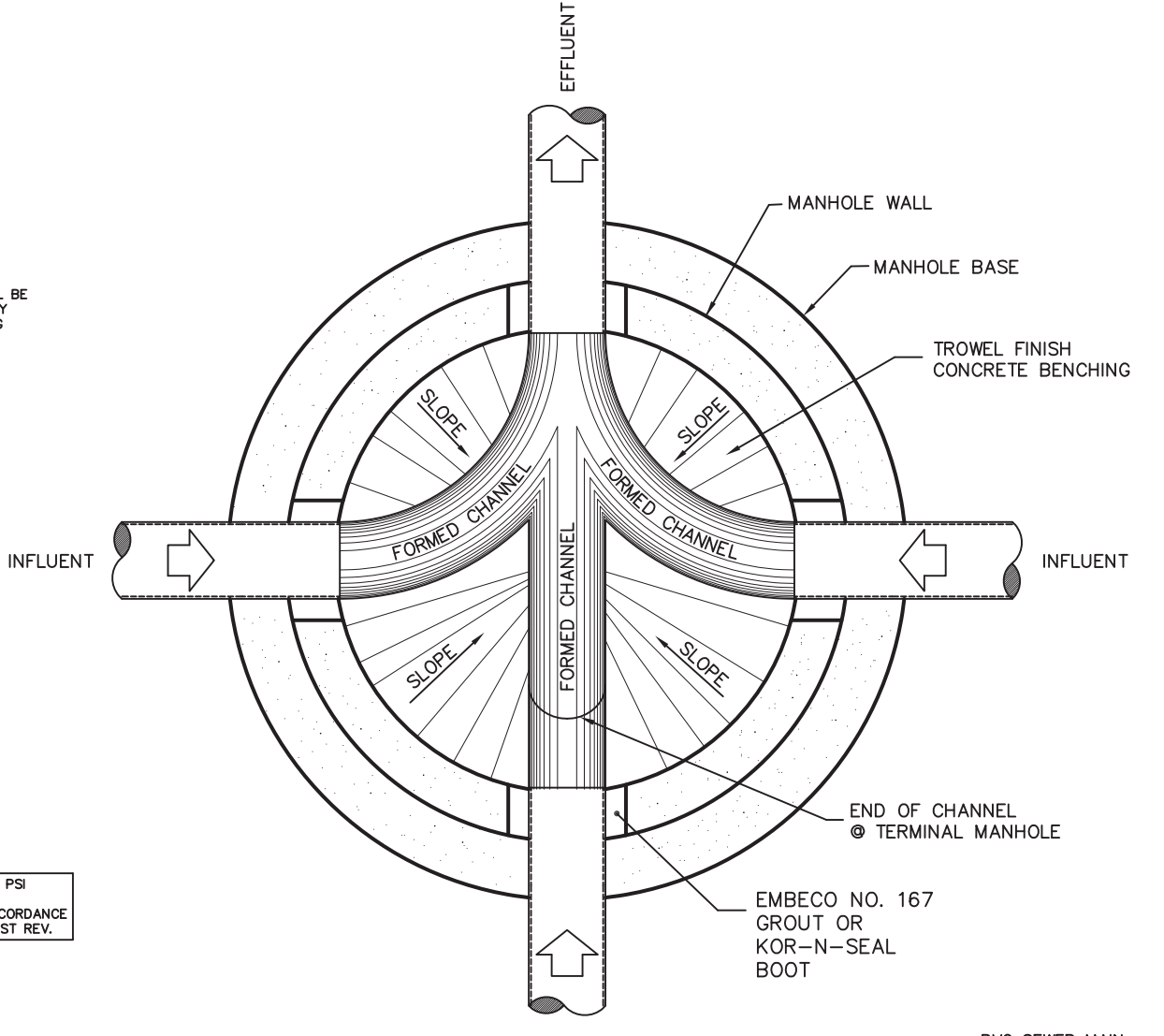
$$L = \frac{NDP}{740d^2}$$

L = ALLOWABLE LEAKAGE IN GALLONS PER HOUR
 N = NUMBER OF JOINTS IN SECTION TESTED
 S = LENGTH OF PIPE TESTED, IN FEET
 D = NOMINAL DIAMETER OF THE PIPE IN INCHES
 P = AVERAGE TEST PRESSURE MAINTAINED DURING THE LEAKAGE TEST IN POUNDS PER SQUARE INCH GAUGE.

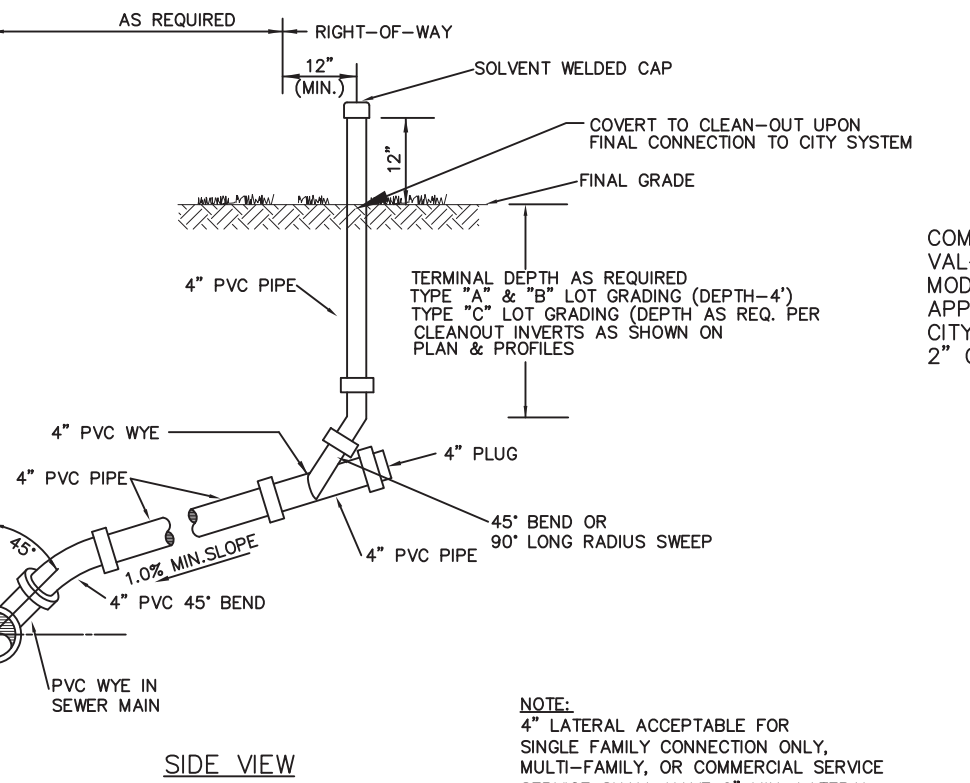
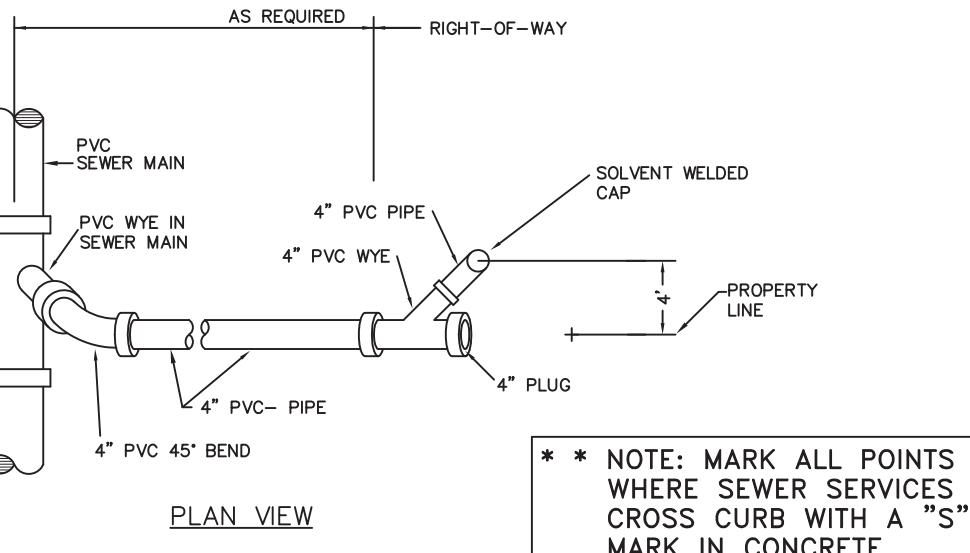
1) THE TESTING PROCEDURE SHALL INCLUDE THE CONTINUED APPLICATION OF THE SPECIFIED PRESSURE TO THE TEST SYSTEM, FOR THE TWO HOUR PERIOD BY WAY OF A PUMP TAKING SUPPLY FROM A CONTAINER SUITABLE FOR MEASURING WATER LOSS. THE AMOUNT OF LOSS SHALL BE DETERMINED BY MEASURING THE VOLUME DISPLACED FROM SAID CONTAINER.
 2) SHOULD THE TEST FAIL, NECESSARY REPAIRS SHALL BE ACCOMPLISHED BY THE CONTRACTOR AND THE TEST REPEATED UNTIL THE ESTABLISHED LIMITS. THE CONTRACTOR SHALL FURNISH THE NECESSARY LABOR, WATER, PUMPS, GAUGES, AND ALL OTHER ITEMS REQUIRED TO CONDUCT THE REQUIRED SANITARY SEWAGE FORCE MAIN TESTING AND SHALL PERFORM THE NECESSARY SYSTEM REPAIRS REQUIRED TO COMPLY WITH THE SPECIFIED HYDROSTATIC TEST.
 3) PIPE SECTIONS TO BE PRESSURE TESTED SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE OF 100 PSI FOR A DURATION OF 2 HOURS BY MEANS OF A PUMP.
 ALL TAPPING SADDLES/VALVES SHALL BE SUBJECT TO A ONE HOUR PRESSURE TEST AT 125 PSI WITH NO ALLOWABLE LEAKAGE



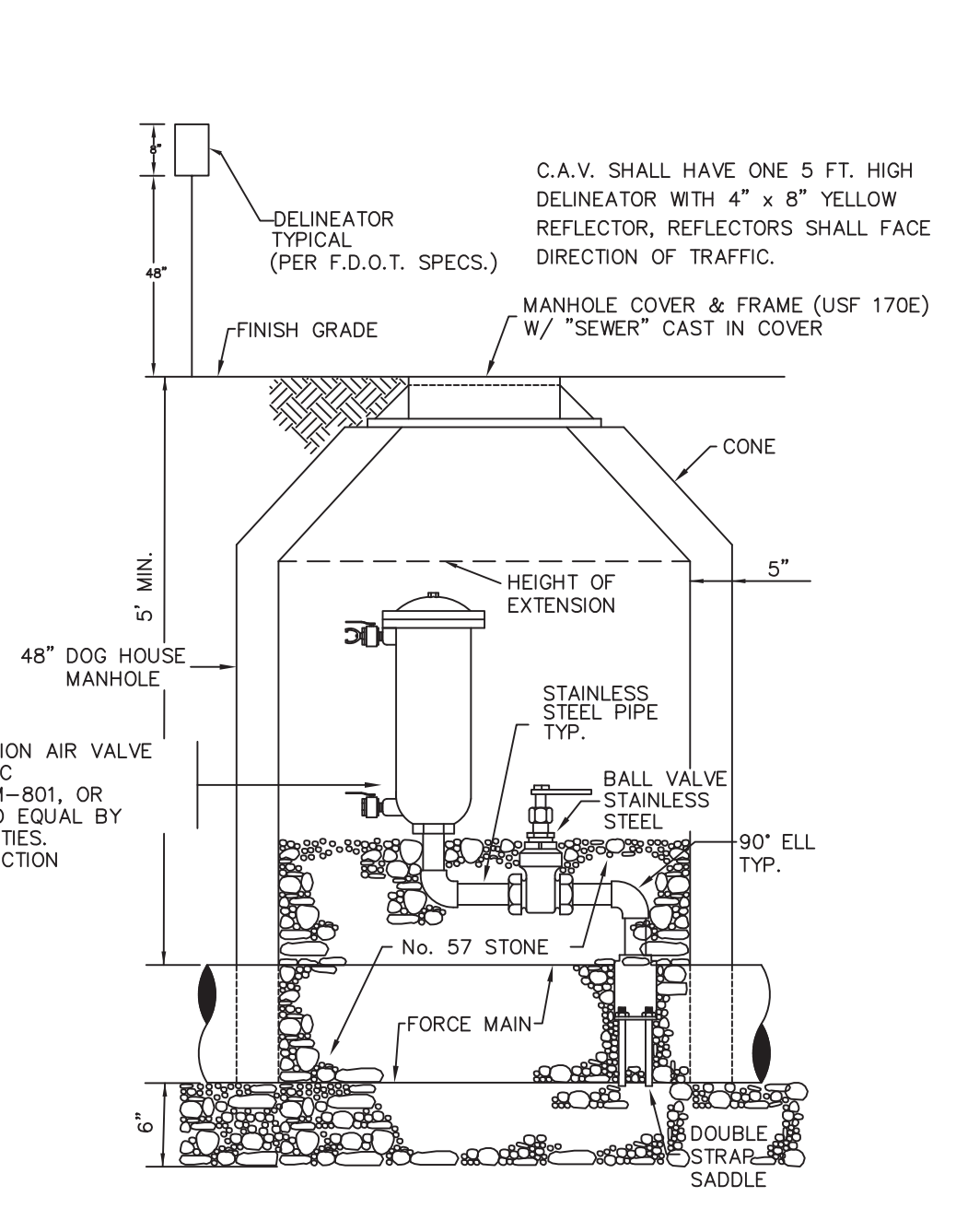
SANITARY PRECAST MANHOLE DETAIL
 NOT TO SCALE



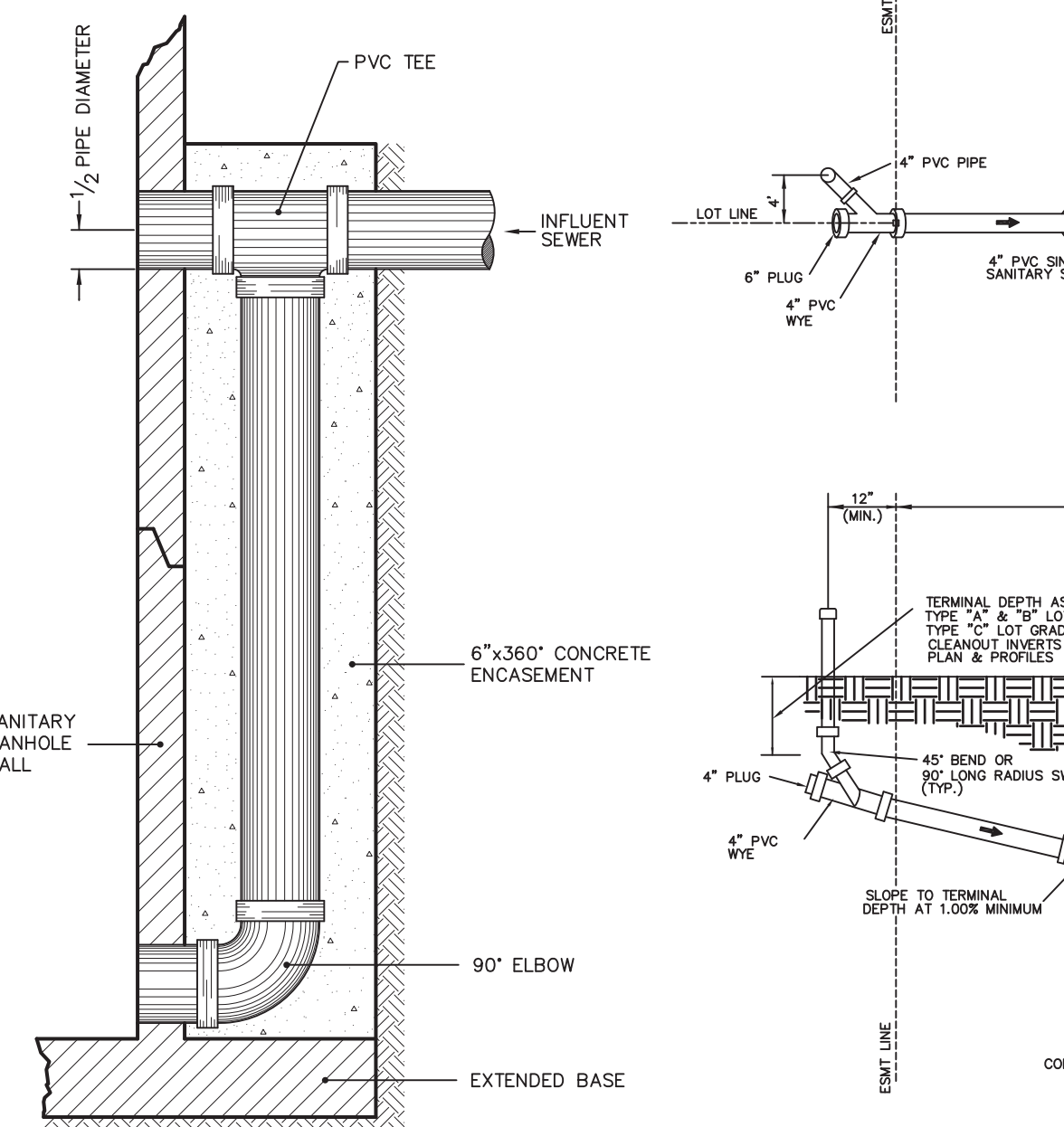
TYPICAL MANHOLE PLAN
 NOT TO SCALE



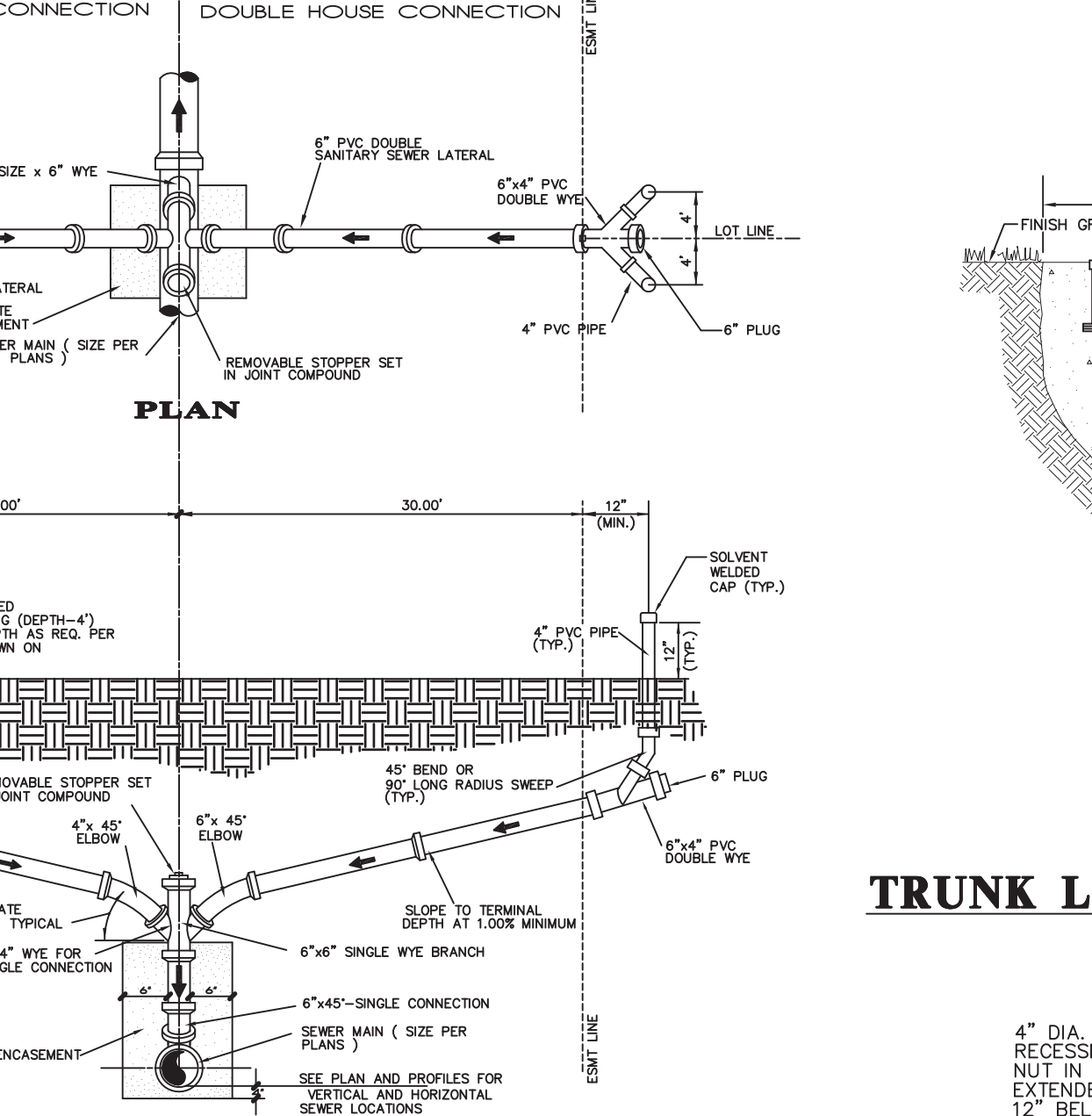
SANITARY SEWER SERVICE
 PVC SINGLE SERVICE
 NOT TO SCALE



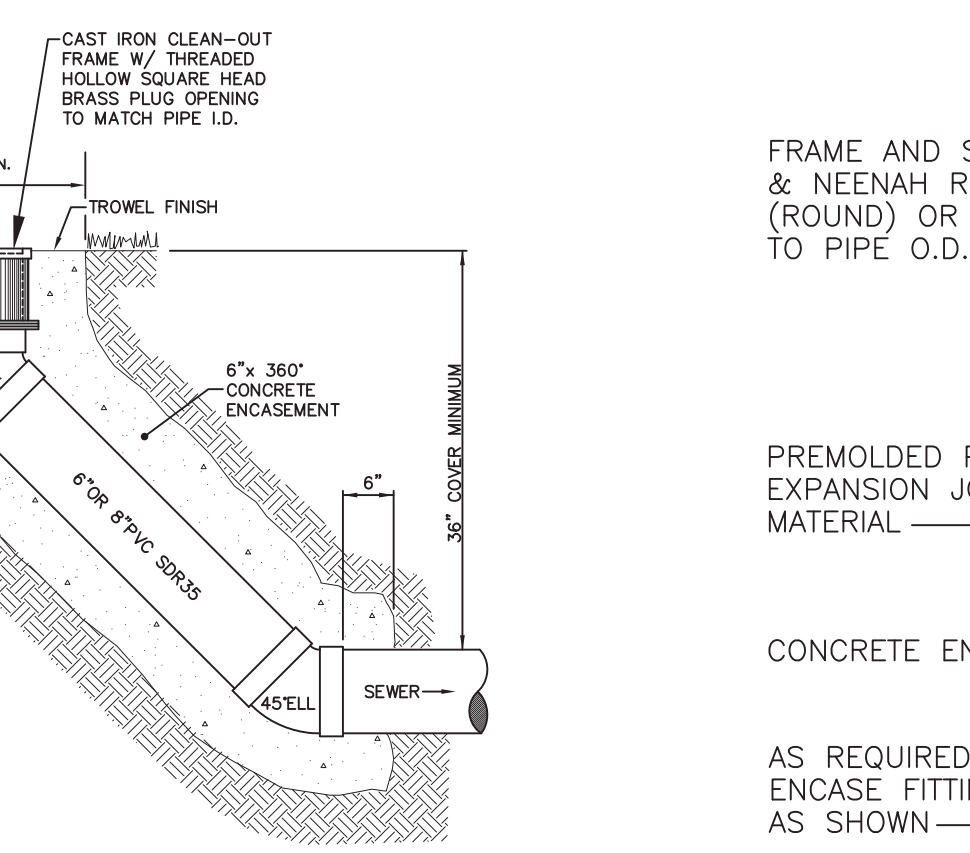
COMBINATION AIR VALVE FOR FORCE MAINS
 NOT TO SCALE



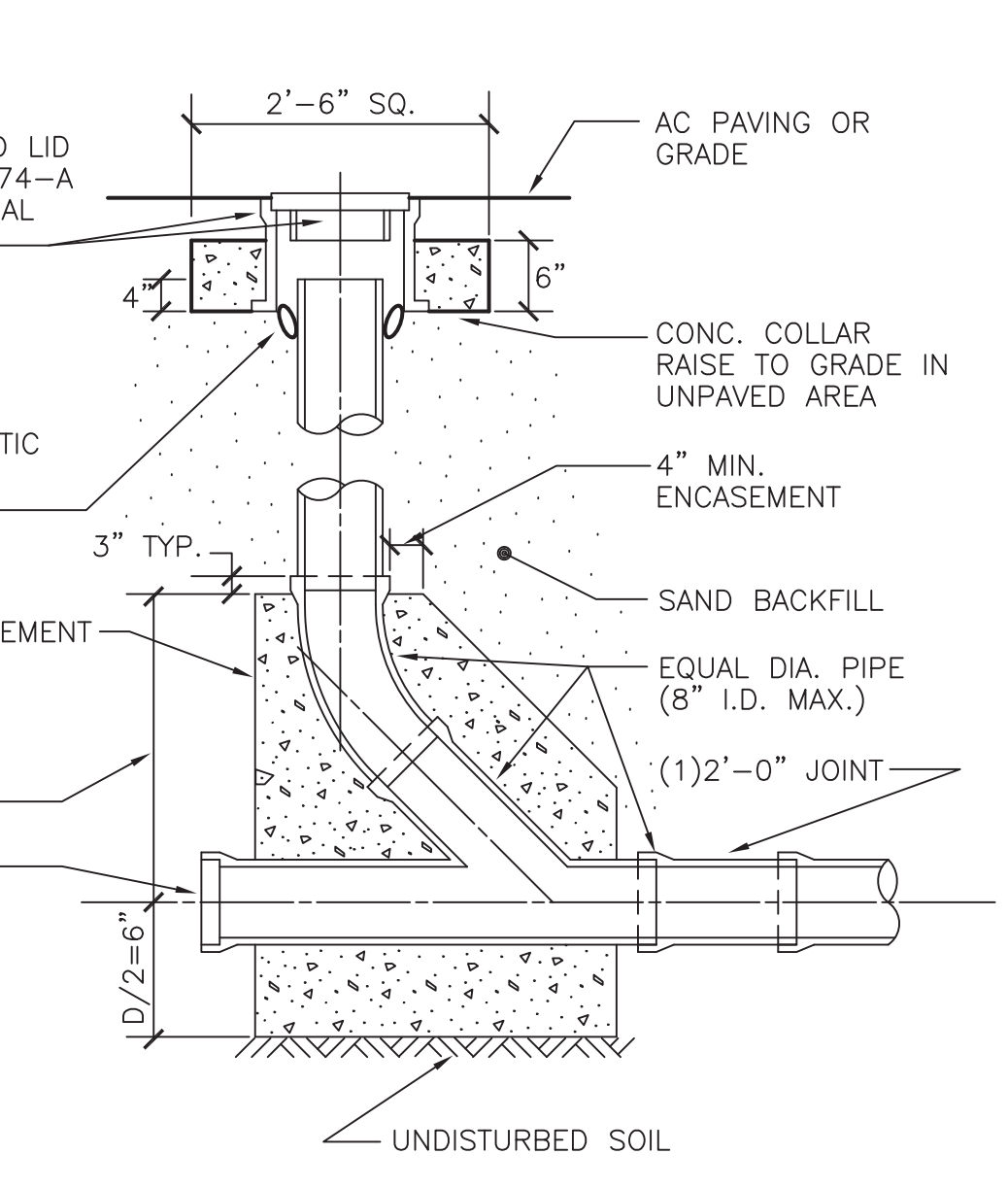
STANDARD DROP MANHOLE CONNECTION
 NOT TO SCALE



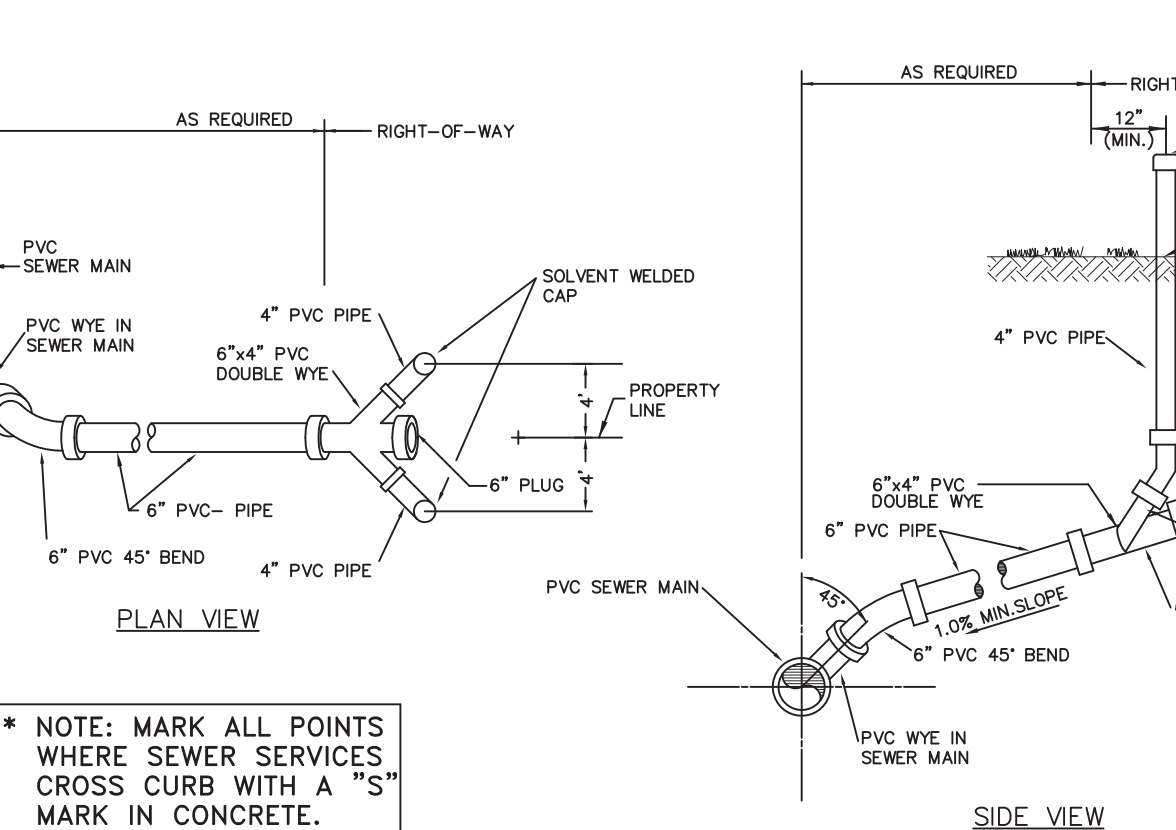
CHIMNEY CONNECTION
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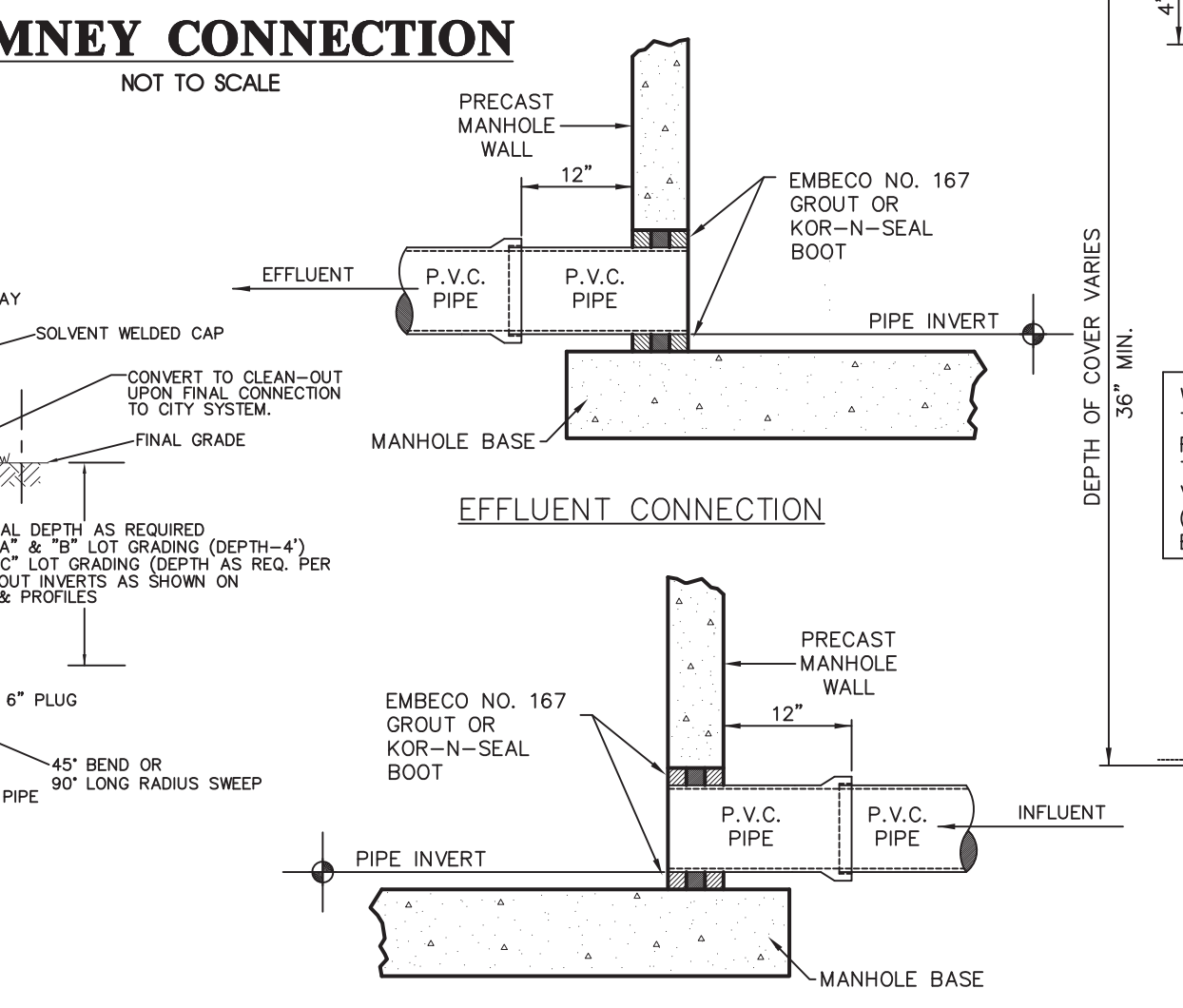
TRUNK LINE CLEAN-OUT DETAIL
 NOT TO SCALE



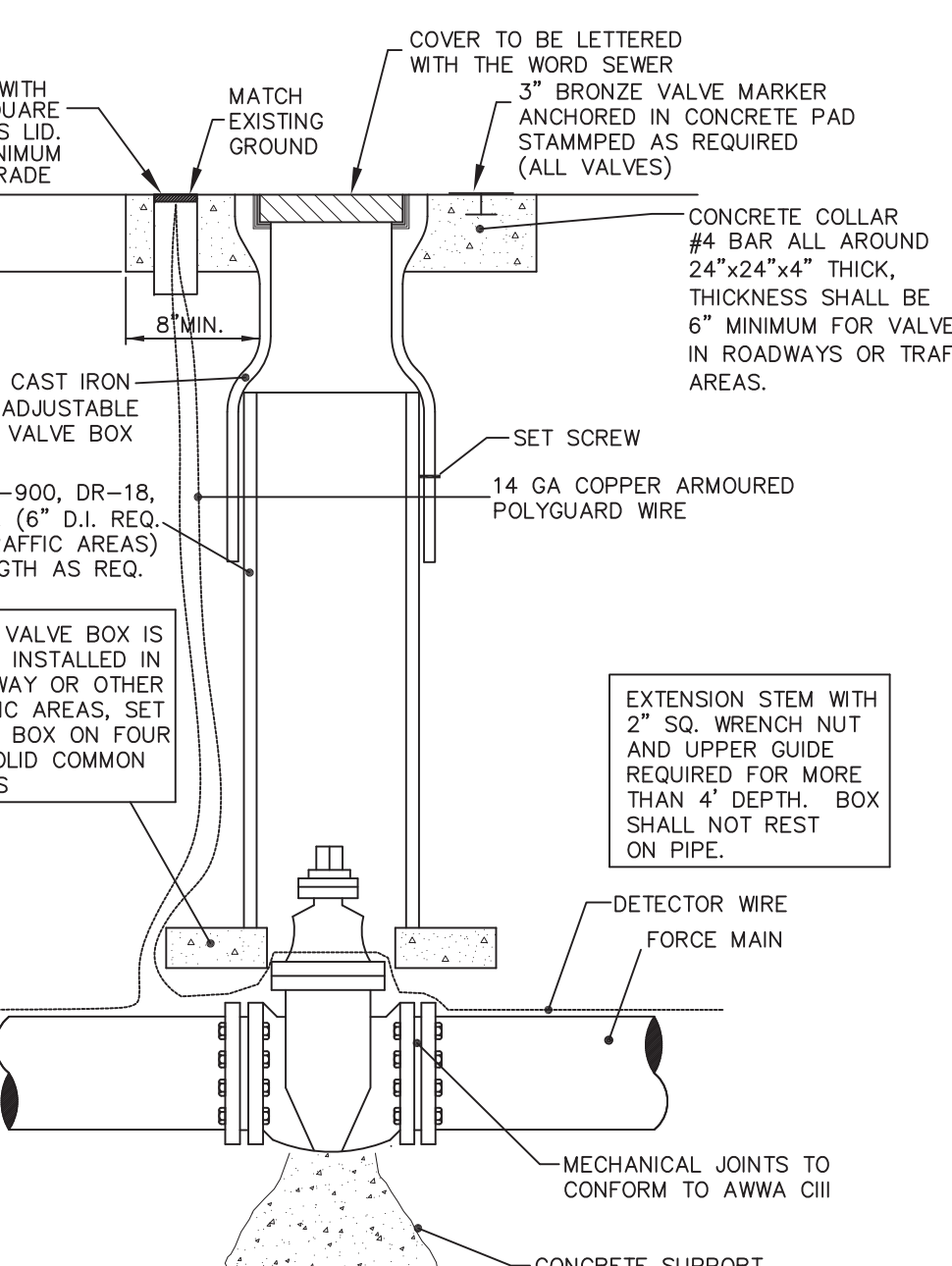
GRAVITY CLEANOUT
 NOT TO SCALE



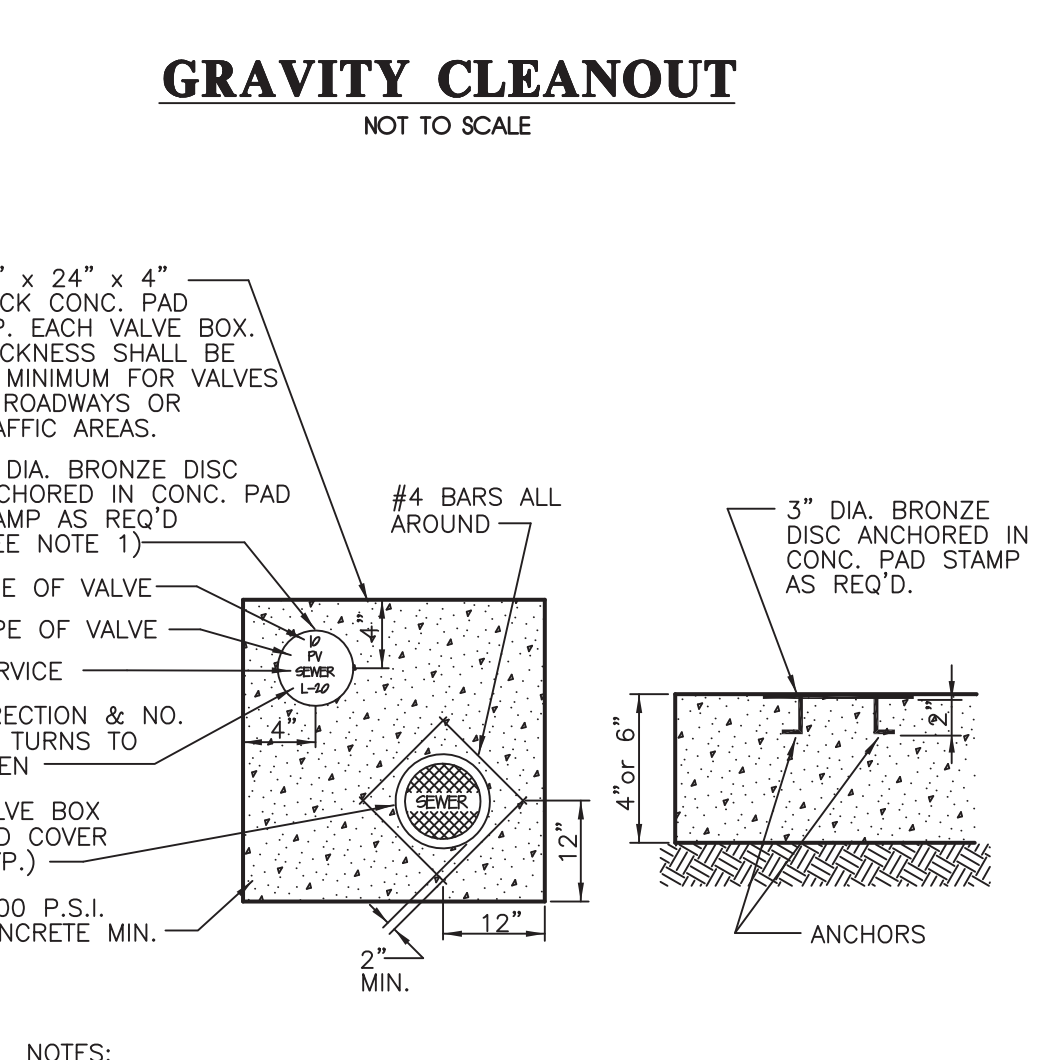
SANITARY SEWER SERVICE
 PVC DOUBLE SERVICE
 NOT TO SCALE



PIPE CONNECTION TO PRECAST SANITARY MANHOLE
 NOT TO SCALE



PLUG VALVE & BOX
 NOT TO SCALE



VALVE COLLAR
 NOT TO SCALE

NOTES:
 1. BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES

STRUCTURAL GENERAL NOTES:

GENERAL

- A. PERFORM CONSTRUCTION AND WORKMANSHIP IN COMPLIANCE WITH CONTRACT DOCUMENTS AND THE FLORIDA BUILDING CODE 2014.
- B. CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.
- C. STRUCTURAL DRAWINGS, AS PART OF CONTRACT DOCUMENTS, INDICATE SUFFICIENT INFORMATION TO CONVEY DESIGN INTENT. IF ERRORS, INCONSISTENCIES OR OMISSIONS ARE DISCOVERED PROMPTLY NOTIFY STRUCTURAL ENGINEER BEFORE PROCEEDING WITH WORK.
- D. NO PORTION OF STRUCTURAL RELATED WORK, INCLUDING SHOP DRAWING DEVELOPMENT, SHALL BE PERFORMED WITHOUT CONSIDERING REQUIREMENTS OF CONTRACT DOCUMENTS IN THEIR ENTIRETY. FOR EXAMPLE, REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS, PENETRATIONS AND EMBEDMENT FOR DUCTS, PIPING, VENTS, CONDUITS AND OTHER ITEMS INCORPORATED IN STRUCTURAL WORK.
- E. OBSERVATION VISITS TO SITE BY FIELD REPRESENTATIVES OF ENGINEER OF RECORD DO NOT INCLUDE INSPECTIONS OF CONSTRUCTION MEANS AND METHODS. OBSERVATIONS PERFORMED BY ENGINEER OF RECORD DURING CONSTRUCTION ARE NOT CONTINUOUS AND DETAILED INSPECTION SERVICES WHICH ARE PERFORMED BY OTHERS. OBSERVATIONS PERFORMED BY ENGINEER OF RECORD ARE PERFORMED SOLELY FOR THE PURPOSE OF DETERMINING IF CONTRACTOR UNDERSTANDS DESIGN INTENT CONVEYED IN DESIGN DOCUMENTS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND ARE NOT TO BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
- F. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBER, AND ERECTION IN THE FIELD.
- G. THE CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
- H. ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL ELEMENTS DURING CONSTRUCTION PROCESS UNTIL LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.
- I. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
- J. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. THE APPLICABILITY OF THE DETAIL TO ITS LOCATION ON THE PLANS CAN BE DETERMINED BY THE TITLE OF THE DETAIL. SUCH DETAILS SHALL APPLY WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. DECISIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.
- K. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, PROCEDURES OF CONSTRUCTION AND TO COMPLY WITH OSHA REGULATIONS.
- L. THE FLORIDA STATE BOARD OF PROFESSIONAL ENGINEERS HAS ISSUED STATEMENTS ON RESPONSIBILITIES OF PROFESSIONAL ENGINEERS, PURSUANT TO RULE 214-19.00(3). CERTAIN COMPONENTS OF THE STRUCTURE REQUIRE THE WORK OF A SPECIALTY ENGINEER FOR THE DESIGN OF THOSE COMPONENTS. ALL PROCEDURES STATED IN THE STATEMENTS SHALL APPLY TO THIS PROJECT.

DESIGN LOADS

- A. LIVE LOADS:
 - 1. UNIFORMLY DISTRIBUTED LIVE LOADS:

- B. DEAD LOADS:
 - 1. UNIFORMLY DISTRIBUTED DEAD LOADS:
 - ROOF 30 PSF

NOTE: DO NOT STACK CONSTRUCTION MATERIAL ON ROOF BEYOND THE LIVE LOAD CAPACITY SHOWN ABOVE

- C. WIND LOADS:
 - 1. WIND LOADS SHALL BE BASED ON THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2014.
 - a) DESIGN WIND SPEED = 144 MPH
 - NOMINAL WIND SPEED (V_{asd}) = 112 MPH
 - b) RISK CATEGORY III
 - c) WIND EXPOSURE C.
 - d) APPLICABLE INTERNAL PRESSURE COEFFICIENT +/- .18.
 - e) NET DESIGN SERVICE LEVEL (ASD) WIND PRESSURES FOR COMPONENTS AND CLADDING :

CLADDING TYPE	TRIB. AREA (SF)	LOCATION	WIND LOAD (PSF)
WALL	10	INTERIOR	+/- 32
WALL	20	INTERIOR	+/- 31
WALL	50	INTERIOR	+/- 29
WALL	100	INTERIOR	+/- 28
WALL	200	INTERIOR	+/- 27
WALL	10	EDGE	+/- 39

CONCRETE

- A. MIXING, BATCHING, TRANSPORTING, PLACING, AND CURING OF ALL CONCRETE, AND SELECTION OF CONCRETE MATERIALS, SHALL CONFORM TO ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS NOTED BELOW. PROPORTIONS OF AGGREGATE TO CEMENTITIOUS PASTE SHALL BE SUCH AS TO PRODUCE A DENSE, WORKABLE MIX THAT CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER.
- B. MIX DESIGNS LISTED BELOW SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND APPROVED PRIOR TO USE. SELECTION OF CONCRETE MIX PROPORTIONS SHALL BE IN ACCORDANCE WITH ACI 301. MIX PROPORTIONS SHALL MEET OR EXCEED THE REQUIREMENTS LISTED BELOW FOR THE LOCATIONS NOTED. THE MORE STRINGENT OF THE REQUIREMENTS LISTED SHALL GOVERN. CONCRETE MIX DESIGN SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.
- C. MAXIMUM SIZE AGGREGATE SHALL BE AS LISTED BELOW. MAXIMUM FLY ASH AS A PERCENTAGE OF TOTAL WEIGHT OF CEMENTITIOUS MATERIAL SHALL BE 20 PERCENT. FLY ASH SHALL BE CLASS F, MEETING ASTM C618 REQUIREMENTS. WATER/CEMENT RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIALS, INCLUDING FLY ASH AND OTHER POZZOLANIC MATERIALS. FLY ASH SHALL NOT BE USED IN CONCRETE EXPOSED TO VIEW.
- D. THE USE OF SUPER PLASTICIZERS AND WATER REDUCERS IS ALLOWED, BUT NOT REQUIRED. ALL ADMIXTURES SHALL BE CHLORIDE FREE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- E. ALL CONCRETE SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.03% MEASURED AT 28 DAYS AFTER CURING IN LIME WATER AS DETERMINED BY ASTM C151 (USING AIR STORAGE).
- F. THE CONTRACTOR SHALL DETERMINE THE SLUMP. SLUMP SHALL CONFORM TO ACI 301. SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, SLUMP SHALL BE MEASURED AT THE DISCHARGED END OF THE PUMP LINE. SLUMP SHALL BE +/- 1 INCHES OF THE SPECIFIED SLUMP.
- G. ALL CONCRETE SHALL BE NORMAL WEIGHT AND CONFORM TO THE REQUIREMENTS AS SPECIFIED IN THE TABLE BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS:

	28 DAY COMP. STRENGTH (PSI)	MAX. SIZE AGGREGATE	MAX. W/C RATIO
FOUNDATION CONCRETE	3000	3/4"	0.45
ALL OTHER CONCRETE	4000	3/8"	0.45
GROUT UNDER TILT-UP PANEL	6000	3/8"	0.45
GROUT UNDER COL. BASE PLATE	6000	NON-SHRINK, NON METALLIC	
GROUT UNDER COL. BASE PLATE		MUST BE COMPLIED AT LEASE 48 HOURS BEFORE 2ND FLOOR CONCRETE POUR OR BEFORE LOADING THE COLUMN.	
- H. CONCRETE MIX DESIGNS MUST BE SUBMITTED 15 DAYS PRIOR TO THE START OF THE WORK FOR ENGINEER'S AND OWNER'S TESTING LABORATORY APPROVAL PRIOR TO PLACEMENT OF CONCRETE IN THE PLANT OR FIELD. ANY ADJUSTMENTS IN APPROVED MIX DESIGNS INCLUDING CHANGES IN ADMIXTURES MUST BE SUBMITTED IN WRITING TO THE ENGINEER AND OWNER'S TESTING LABORATORY FOR APPROVAL PRIOR TO USE IN THE FIELD.
- I. CONCRETE DESIGNED TO BE PUMPED SHALL BE AS NOTED ON THE MIX DESIGNS AND SHALL HAVE MIX PROPORTIONS COMPATIBLE WITH THE PUMPING PROCESS.
- J. SAMPLING AND TESTING OF CONCRETE SHALL BE PERFORMED BY INDEPENDENT TESTING AGENCY. OBTAIN SAMPLES AND CONDUCT TESTS IN ACCORDANCE WITH ACI 301. ADDITIONAL SAMPLES MAY BE REQUIRED TO OBTAIN CONCRETE STRENGTHS AT ALTERNATE INTERVALS THAN SHOWN BELOW.
 - PROVIDE 4 CONCRETE CYLINDERS. TEST 1 CYLINDERS AT 1 DAY, TEST 2 CYLINDERS AT 28 DAYS, AND HOLD 1 CYLINDER IN RESERVE. RESERVE CYLINDER TO BE USE FOR 56 DAYS BREAK AS DIRECTED BY STRUCTURAL ENGINEER IN SITUATIONS WITH LOW 28 DAY BREAKS.
- K. NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE WITHOUT STRUCTURAL ENGINEER PRIOR REVIEW AND APPROVAL.

- L. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED WITH NOT EXCEPTIONS. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE.

FOUNDATION

- A. FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE PRELIMINARY GEOTECHNICAL REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES DATED APRIL 4, 2011. UES REPORT NO. 144105. PERFORM FOUNDATION WORK COMPLYING WITH REPORT. GEOTECHNICAL REPORT HEREBY BECOME PART OF THESE CONTRACT DOCUMENTS AND SHALL BE KEEP ON THE JOB SITE AT ALL TIMES.
- B. FOUNDATION HAS BEEN DESIGNED FOR A MAXIMUM NET SOIL BEARING PRESSURE OF 3000 PSF.
- C. A GEOTECHNICAL ENGINEER REGISTERED IN THE PROJECT STATE SHALL INSPECT THE CONDITION AND ASSURE THE ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, SLABS, AND WALLS. HE SHALL SUBMIT REPORTS TO THE ARCHITECT/ENGINEER DESCRIBING HIS INVESTIGATIONS, INCLUDING ANY NON-CONFORMING WORK.
- D. PLACE FOOTINGS AND BUILDING SLAB ON GRADES ON COMPACTED FILL OR UNDISTURBED NATURAL GRADE AS INDICATED ON GEOTECHNICAL REPORT.
- E. FOUNDATION EXCAVATIONS ARE TO BE OBSERVED BY AND ACCEPTABLE TO A GEOTECHNICAL ENGINEER OR HIS / HER REPRESENTATIVE PRIOR TO PLACEMENT OF FILL, REINFORCING STEEL, OR CONCRETE.
- F. ALL ORGANIC AN/OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM

REINFORCING STEEL

- A. ALL REINFORCING SHALL BE NEW BILLET STOCK ASTM A615, GRADE 60. BARS SHALL SECURELY TIE IN PLACE WITH #6 DOUBLE-ANNEALED IRON WIRE. BARS SHALL BE SUPPORTED ON ACCEPTABLE CHAIRS. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING OF REINFORCED CONCRETE STRUCTURES." CONTRACTOR SHALL COORDINATE REINFORCING STEEL PLACEMENT DETAILS AND PROVIDE TEMPLATES FOR PLACING STEEL IN CONGESTED AREAS AS NECESSARY. SHOP DRAWINGS (INCLUDING PLACING PLANS AND ELEVATIONS) SHALL BE SUBMITTED TO, AND REVIEWED BY, THE ARCHITECTS/ENGINEER BEFORE STARTING FABRICATION.
- B. WELDED WIRE FABRIC SHALL BE ELECTRICALLY WELDED AND CONFORM TO ASTM A185 (FLAT SHEET). YIELD STRENGTH 65,000 PSI. AN 8" MINIMUM LAP SHALL BE PROVIDED FOR SIDE AND END LAP. WELDED WIRE FABRIC SHALL SUPPORTED IN APPROVED CHAIRS. REFER TO NOTE #6 UNDER SLAB ON GRADE CONSTRUCTION FOR FIBROUS REINFORCING OPTION.
- C. NO REINFORCING BARS SHALL BE SPLICED BY WELDING. AT THE CONTRACTOR'S OPTION, MECHANICAL BUTT SPLICING USING AN EXOTHERMIC WELDING PROCESS AND HIGH STRENGTH SLEEVES OR MECHANICAL CONNECTION SPLICING MAY BE USED, PROVIDED THAT THE MECHANICAL SPLICES SHALL BE ICBO APPROVED TO ACHIEVE A MINIMUM TENSILE STRENGTH OF 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR. THE MINIMUM TENSILE STRENGTH REQUIREMENT SHALL BE INCREASED TO 160 PERCENT FOR MECHANICAL SPLICES AT THE INTERFACE OF DIAPHRAGMS AND THE LATERAL SYSTEM, AND FOR MECHANICAL SPLICES WITHIN ELEMENTS OF THE LATERAL SYSTEM. SPLICES DEVICES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. REINFORCING BARS SHALL BE LAP SPLICED FOR TENSION UNLESS NOTED OTHERWISE ON THE DRAWINGS. #4 AND #6 BARS SHALL NOT BE LAP SPLICED.
- D. WELDING OR TACK WELDING OF REINFORCING BARS TO OTHER BARS OR TOE PLATES, ANGLES ETC. IS PROHIBITED, EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER. WHERE WELDING IS APPROVED, IT SHALL BE DONE BY AUIS CERTIFIED WELDERS USING E3018 OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF AUIS D14.
- E. MINIMUM CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 - 1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES.
 - 2. CONCRETE EXPOSED TO EARTH OR WEATHER: 1 1/2 INCHES FOR #5 BAR OR SMALLER, 2 INCHES FOR #6 BAR OR LARGER
 - 3. OTHER CONCRETE:
 - WALLS - INTERIOR FACE: #4 AND #6 BARS - 1 1/2 INCHES, #1 BARS AND SMALLER - 3/4 INCH
 - SLABS AND JOISTS: #1 BARS AND SMALLER - 3/4 INCH
 - BEAMS AND COLUMNS - TIES, STIRRUPS, SPIRALS: INTERIOR FRAMES - 1 1/2 INCHES, EXTERIOR FRAMES - 2 INCHES
- F. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE. SPLICE ONLY AS SHOWN OR APPROVED. STAGGER SPLICES WHERE POSSIBLE. USE TENSION SPLICE CLASS "B" UNLESS NOTED OTHERWISE. DOUELS SHALL MATCH SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH TENSION SPLICES, UNLESS NOTED OTHERWISE. LAP LENGTHS EXPRESSED IN NUMBER OF BAR DIAMETERS SHALL BE AS FOLLOWS:

BAR SIZE	NORMAL WEIGHT CONCRETE, f_c (psi.)				
	CLASS	3000	4000	5000	6000
#6 OR SMALLER	A	44 DIAM.	38 DIAM.	34 DIAM.	31 DIAM.
	B	57 DIAM.	49 DIAM.	44 DIAM.	40 DIAM.
#7 OR LARGER	A	55 DIAM.	47 DIAM.	42 DIAM.	39 DIAM.
	B	71 DIAM.	62 DIAM.	55 DIAM.	50 DIAM.

BAR SIZE	NORMAL WEIGHT CONCRETE, f_c (psi.)				
	CLASS	3000	4000	5000	6000
#6 OR SMALLER	A	44 DIAM.	38 DIAM.	34 DIAM.	31 DIAM.
	B	57 DIAM.	49 DIAM.	44 DIAM.	40 DIAM.
#7 OR LARGER	A	55 DIAM.	47 DIAM.	42 DIAM.	39 DIAM.
	B	71 DIAM.	62 DIAM.	55 DIAM.	50 DIAM.

- LAP SPLICE LENGTH NOTES:
 - 1. TABLE IS BASED ON a) CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN ONE BAR DIAMETER (DB). CLEAR COVER NOT LESS THAN ONE DB, AND STIRRUPS OR TIES THROUGHOUT THE LAP SPLICE LENGTH NOT LESS THAN THE CODE MINIMUM. OR b) CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 2 DB AND CLEAR COVER NOT LESS THAN ONE DB. FOR ALL OTHER CASES, MULTIPLY TENSION LAP BY 15.
 - 2. FOR TENSION REINFORCEMENT WITH MORE THAN 12" OF CONCRETE BELOW, OR FOR VERTICAL REINFORCEMENT, MULTIPLY THE LAP SPLICE LENGTH INDICATED IN THE TABLE BY 13. HOWEVER, THE LAP SPLICE LENGTH SHALL NOT BE LESS THAN 12".
 - 3. FOR TENSION REINFORCEMENT IN LIGHTWEIGHT CONCRETE, MULTIPLY LAP SPLICED LENGTH BY 13.

SLAB ON GRADE CONSTRUCTION

- 1. SPECIFICATION: UNLESS NOTED OTHERWISE, SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF "THE GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R-04".
- 2. SUBGRADE PREPARATION:
 - AREAS CONTAINING SLAB ON GRADE CONSTRUCTION SHALL BE STRIPPED TO SUFFICIENT DEPTH TO REMOVED ALL VEGETATION, TOP SOIL, ORGANIC AND OTHER UNSUITABLE MATERIALS.
- 3. REINFORCING STEEL:
 - A. SEE THE DRAWINGS FOR TYPICAL SLAB REINFORCEMENT REQUIREMENTS.
 - B. LAP CONTINUOUS SLAB ON GRADE REINFORCING STEEL 30 BAR DIAMETERS AT SPLICES BUT NOT LESS THAN 12".
 - C. ALL REINFORCING STEEL FOR SLABS ON GRADE SHALL BE CHAIRED WITH SLAB BOLSTERS DESIGNED FOR SUPPORT ON SOIL TO PROVIDED SPECIFIED COVER TO REINFORCING STEEL.

STRUCTURAL SHEET INDEX	
SHEET NO.	SHEET TITLE:
S001	STRUCTURAL NOTES
S002	STRUCTURAL NOTES
S003	STRUCTURAL NOTES
S101	FOUNDATION / SLAB ON GRADE PLAN
S102	ROOF FRAMING PLAN
S501	SECTIONS AND DETAILS
S502	SECTIONS AND DETAILS
S601	SECTIONS AND DETAILS

REINFORCED MASONRY

A. CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ACI 530/ASCE 5, "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY" AND ACI 530.1/ASCE 6, "SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY. ALL HOLLOW LOAD BEARING CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE 2. ALL UNITS SHALL BE LAID IN RUNNING BOND USING TYPE S MORTAR WITH HEAD JOINTS. MASONRY MINIMUM STRENGTH FM = 1500 PSI. MINIMUM BLOCK COMPRESSIVE STRENGTH IS 1900 PSI.

B. USE TYPE S MORTAR IN ACCORDANCE WITH ASTM C210 EXCEPT TYPE M MORTAR BELOW GRADE. HEAD AND BED JOINTS SHALL BE 3/8" FOR THE THICKNESS OF THE FACE SHELL. WEBS ARE TO BE FULLY MORTARED IN ALL COURSES OF PIERS, COLUMNS AND PILASTERS; IN STARTING COURSES; AND WHERE AN ADJACENT CELL IS TO BE GROUTED, REMOVE MORTAR PROTRUSIONS EXTENDING 1/2" OR MORE INTO THE CELL TO BE GROUTED.

C. USE STANDARD (9 GAUGE) LADDER TYPE HORIZONTAL JOINT REINFORCING CONFORMING TO ASTM A-82 IN EVERY OTHER COURSE. OVERLAP DISCONTINUOUS END 6". USE PREFABRICATED CORNER AND TEES, SEE SPECIFICATION

D. ALL CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLID WITH CONCRETE GROUT CONFORMING TO ASTM C-416. GROUT MIXED SHALL CONTAIN PORTLAND CEMENT ONLY PLUS AGGREGATE. MAXIMUM SIZE OF AGGREGATE SHALL BE 3/8 INCH. SLUMP SHALL BE 8 TO 11 INCHES. WATER REDUCING ADMIXTURES MAY BE USED. GROUT SHALL BE VIBRATED WHILE PLACING TO ENSURE THAT CELLS ARE COMPLETELY FILLED. MINIMUM GROUT COMPRESSIVE STRENGTH BASED ON 28 DAY TEST SHALL BE 2000 PSI USING 3 1/2"x3 1/2"x1" OR 3"x3"x6" TEST SPECIMENS CAST IN MOIST WITH A FIST NON-ABSORBENT BASE AND MASONRY UNITS HAVING THE SAME MOISTURE CONDITIONS AT THOSE BEING LAID FORMING THE SIDE OF THE SPECIMENS. SPECIMEN SHALL BE TESTED ACCORDING TO ASTM C39.

E. VERTICAL BARS SHALL BE HELD IN POSITION AT THE TOP AND THE BOTTOM AND INTERVAL NOT EXCEEDING 8'-0". WHEN A FOUNDATION DOUCEL DOES NOT LINE UP WITH CORRESPONDING VERTICAL BAR, IT SHALL NO BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL.

F. THE MINIMUM SPLICE LENGTH FOR ALL VERTICAL BARS SHALL BE:
45 INCHES FOR #5 BARS
54 INCHES FOR #6 BARS
63 INCHES FOR #7 BARS

G. PROVIDE DOVETAIL ANCHORS AT 16" C/C, UNLESS NOTED OTHERWISE, WHERE MASONRY WALLS ABUT CONCRETE SURFACES.

H. UNLESS NOTED OTHERWISE, PROVIDE 8" DEEP PRECAST "U" LINTEL WITH 2-#5'S AND FILLED SOLID WITH GROUT.

COLD FORMED METAL TRUSSES

A. THE COLD-FORMED STEEL TRUSSES SHALL BE DESIGNED BY TRUSS SUPPLIER USING COLD-FORMED STEEL SYMMETRICAL SHAPES WITH A MINIMUM YIELD STRENGTH OF 33 KSI MEETING THE REQUIREMENTS OF ASTM A653, ASTM A1023, ASTM A500 AND 1936 AISI SECTION A3. PROVIDE COLD FORMED STEEL SECTIONS AND ACCESSORIES WITH PROTECTIVE COATING COMPLYING WITH ASTM A924, MINIMUM G60 COATING. ALL MEMBERS SHALL BE MINIMUM 18 GAGE. ALL TRUSS MEMBER ATTACHMENTS SHALL BE MADE USING WELDED CONNECTIONS IN ACCORDANCE WITH AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL MEMBERS" AND AISC "AMERICAN WELDING SOCIETY".

B. THE FABRICATOR SHALL FURNISH A STRUCTURAL SUBMITTAL BEARING THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. THIS SUBMITTAL SHALL BE CHECKED BY THE CONTRACTOR FOR COMPLETENESS AND CONTENT PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW. THE SUBMITTAL SHALL INCLUDE COMPONENT DETAILS AND SYSTEM LAYOUT DRAWINGS, IT SHALL IDENTIFY THE PROJECT LIST LOADING AND OTHER CRITERIA. THE DRAWINGS SHALL IDENTIFY AND LOCATE COMPONENTS AND SHALL SPECIFY MEMBER SIZES, BRACING, ANCHORAGE, CONNECTIONS & ALL OTHER NECESSARY FABRICATION AND ERECTION INFORMATION. THE SUBMITTAL SHALL INCLUDE CALCULATIONS FOR EACH TRUSS VERIFYING ITS ADEQUACY TO RESIST THE LOADS INDICATED ON THE CONSTRUCTION DOCUMENTS. FABRICATION SHALL NOT COMMENCE UNTIL THIS REVIEW IS COMPLETED.

C. THE COLD FORMED STEEL TRUSSES SHALL BE SHOP FABRICATED BY THE TRUSS SUPPLIER. THE SPECIALTY ENGINEER FOR THE STEEL TRUSSES SHALL INSPECT ALL FABRICATED TRUSSES AND SHALL PROVIDED LETTER CERTIFYING THAT THE TRUSSES ARE FABRICATED IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND WILL SUSTAIN THE DESIGN LOADS SPECIFIED IN THE CONTRACT DOCUMENTS.

D. GENERAL CONTRACTOR SHALL COORDINATE TRUSS REQUIREMENTS WITH M/E/P, HVAC, AND DUCT WORK REQUIREMENTS.

E. ALL ERECTION BRACING (TEMPORARY INSTALLATION), PERMANENT BRACING AND BRIDGING SHALL BE PROVIDED AS REQUIRED BY THE LIGHT GAGE TRUSS MANUFACTURER.

F. TRUSS MANUFACTURER IS RESPONSIBLE FOR OF OVER-BUILT FRAMING AND ITS ATTACHMENT TO THE TRUSSES SUPPORTING IT.

G. MIN. LIGHT GAGE METAL TRUSS BOTTOM CHORD SIZE SHALL BE 3 5/8" DEEP.

H. TRUSS MANUFACTURER IS RESPONSIBLE FOR DESIGN OF HOLD-DOWN ANCHOR FOR WIND UPLIFT AND THE DESIGN OF BLOCKING TO TRANSFER THE LATERAL SHEAR LOAD FROM ROOF DIAPHRAGM TO WALLS.

J. GENERAL CONTRACTOR SHALL FURNISH AND PAY FOR ANCHORAGE OF ALL LIGHT GAGE METAL TRUSS DESIGNED BY SPECIALTY ENGINEER.

K. DESIGN LOADS -

STRUCTURAL STEEL

A. MATERIALS

1. ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A6/A6M-04A.
2. CLEARLY MARK THE GRADE OF THE STEEL ON EACH PIECE WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACE, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS STRUCTURAL STEEL SHALL BE AS FOLLOWS:

- ALL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A992. ASTM A572 GRADE 50 IS ACCEPTABLE AS A SUBSTITUTE FOR A992.
- EDGE ANGLES AND BENT PLATES: ALL EDGE ANGLES AND BENT PLATES SHALL CONFORM TO ASTM A36
- ANGLES HANGERS AND BRACES (KICKERS): ALL HANGERS AND BRACES (KICKERS) SHALL CONFORM TO ASTM A36
- WIDE FLANGE COLUMNS SHALL CONFORM TO ASTM A992. ASTM A572 GRADE 50 IS ACCEPTABLE SUBSTITUTE FOR A992.
- PIPE COLUMN SHALL CONFORM TO ASTM A53 (TYPES E OR S), GRADE B OR ASTM A501
- ALL SQUARE AND RECTANGULAR HSS SECTIONS SHALL CONFORM TO ASTM A500, GRADE B.
- ALL BASE PLATE SHALL CONFORM TO ASTM A36.
- ALL CONNECTION MATERIAL, EXCEPT AS NOTED HERE OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ETC. SHALL BE A36 STEEL UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZE ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
- ANY OTHER STEEL NOT INDICATED OTHERWISE SHALL CONFORM TO ASTM A36.

B. FABRICATION

- FABRICATE AND ASSEMBLE STEEL STRUCTURAL ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.
- DIMENSIONAL TOLERANCES OF FABRICATED STRUCTURAL STEEL SHALL CONFORM TO SECTION 6.4 OF THE AISC CODE OF STANDARD PRACTICE UNLESS NOTED OTHERWISE.
- CAMBER
 - CAMBER OF STEEL STRUCTURAL MEMBERS IS INDICATED ON THE DRAWINGS.
 - WHERE POSSIBLE, CAMBER ON BEAMS SHALL BE APPLIED BY THE COLD BEND PROCESS.
 - THE LOCAL APPLICATION OF HEAT MAY BE USED TO INTRODUCED OR CORRECT CAMBER, CURVATURE, OR STRAIGHTNESS PROVIDED THE TEMPERATURE OF THE HEATED AREA AS MEASURED BY THE TEMPERATURE CRAYONS OR OTHER APPROVED MEANS, DOES NOT EXCEED 1200 F.
 - WHERE INDICATED ON THE DRAWINGS IN A CAMBER DIAGRAM, CANTILEVER OR DOUBLED CANTILEVER BEAMS SHALL BE CAMBERED FOR THE MAIN SPAN AND CANTILEVER END SEPARATELY, EITHER BY STAGED COLD BENDING PROCESS OR BY THE APPLICATION OF HEAT.
 - CAMBER INDICATED ON DRAWINGS ARE INTENDED TO BE FINAL CAMBERS AT THE TIME OF ERECTION. THE FABRICATOR SHALL ACCOUNT FOR CAMBER LOSE IN THE INITIAL CAMBER OPERATION.
- SPECIFIED CAMBER FOR BEAMS AT THE TIME OF ERECTION SHALL BE WITHIN A TOLERANCE OF MINUS ZERO TO PLUS ONE-EIGHTH INCH FOR EACH TEN FEET OF MEMBER LENGTH.
- SPLICING OF STRUCTURAL STEEL MEMBERS IN THE SHOP OR THE FIELD IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ENGINEER. ANY MEMBER HAVING A SPLICE NOT SHOWN AND DETAILED ON APPROVED SHOP DRAWINGS WILL BE REJECTED.
- COMPRESSION JOINTS WHICH DEPEND ON CONTACT BEARING AS PART OF SPLICE CAPACITY SHALL HAVE THE BEARING SURFACES OF THE BEARING SURFACES OF INDIVIDUAL FABRICATED PIECES PREPARED IN A COMMON PLANE BY MILLING, SAWING OR OTHER SUITABLE MEANS.
- THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL MEMBERS.

C. ERECTION

- ERECTION TOLERANCES OF ANCHORS BOLTS, EMBEDDED ITEMS, AND ALL STRUCTURAL STEEL UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS SHALL CONFORM TO AISC CODE OF STANDARD PRACTICE.
- THE DESIGN OF ALL TEMPORARY SHORING AND BRACING NOT SHOWN ON THE DRAWING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. TEMPORARY SHORING AND BRACING IS TO BE DESIGNED BY A FLORIDA PROFESSIONAL ENGINEER.
- FIELD CUTTING OF STRUCTURAL STEEL OR ANY FIELD MODIFICATIONS TO STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER FOR EACH SPECIFIC CASE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES ESPECIALLY WITH RESPECT TO TEMPERATURE DIFFERENTIALS AND ERECTION TOLERANCES.

D. GALVANIZING

- HOT DIP GALVANIZING AFTER FABRICATION ALL STRUCTURAL STEEL ITEMS AND THEIR CONNECTIONS PERMANENTLY EXPOSED TO THE OUTSIDE, WHETHER SPECIFIED ON THE DRAWINGS OR NOT.
- GALVANIZE ALL NUTS, BOLTS AND WASHERS USED IN THE CONNECTION OF SUCH STEEL. FIELD WELDED CONNECTIONS SHALL HAVE WELDS PROTECTED WITH "ZRC. COLD GALVANIZING COMPOUND" AS MANUFACTURED BY ZRC. PRODUCT COMPANY.
- HOT DIP GALVANIZE ALL PERIMETER AND / OR EXTERIOR TILT-UP WALL PANEL EMBEDDED ITEMS SUCH AS BUT NOT LIMITED TO PLATES, HEADED STUD ANCHORS, AND DOVETAIL ANCHORS TO G90 GALVANIZED WHETHER SPECIFIED ON DRAWINGS OR NOT (TYPICAL).
- FIELD PAINT ALL DAMAGED GALVANIZED STEEL WITH GALV. REPAIR PAINT.

E. WELDING

- STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AISC A2.4 SYMBOLS. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH AWS D11. WELDS SHOWN IN THE DRAWINGS ARE THE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES, BASED ON PLATE THICKNESS. THE MINIMUM WELD SIZE SHALL BE 3/16 INCH. FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. WHERE SHOWN, PROPER FIELD WELDING PER AWS D11 SHALL BE USED. WHERE NO FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS.
- ALL PARTIAL PENETRATION GROOVE WELD SIZES SHOWN ON THE DRAWING REFER TO EFFECTIVE THROAT THICKNESS. ALL WELDS SHALL BE MADE USING LOW HYDROGEN ELECTRODES WITH MINIMUM TENSILE STRENGTH PER AWS D11 (MINIMUM 10 KSI). LOW HYDROGEN SMALL ELECTRODES SHALL BE USED

F. STRUCTURAL BOLTS

- ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A325 TYPE 1, HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- MINIMUM BOLT DIAMETER SHALL BE 3/4 INCHES.
- UNLESS NOTED OTHERWISE IN THE DRAWINGS OR IN THESE GENERAL NOTES ALL BOLTED CONNECTION SHALL BE BEARING TYPE CONNECTIONS USING STANDARD HOLES WITH THREAD INCLUDED IN THE PLANES.
- HIGH STRENGTH BEARING BOLTS SHALL BE TIGHTENED USING AN IMPACT WRENCH TO A SNUG TIGHT CONDITION. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED WITH A FEW IMPACT OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH.
- ALL BOLTS SHALL BE WELL LUBRICATED AT THE TIME OF INSTALLATION. DRY, RUSTY BOLTS WILL NOT BE ALLOWED.
- ALL BOLTS SHALL BE NEW AND SHALL NOT BE REUSED.

G. SHEAR CONNECTORS (HEADED STUDS)

- ALL SHEAR CONNECTOR STUDS SHALL BE 3/4" INCH IN DIAMETER UNLESS NOTED OTHERWISE. ACCEPTABLE TYPES SHALL BE TRU-WELD (ICBO #314) OR "NELSON" (ICBO #2614). SHEAR CONNECTOR STUDS SHALL BE AUTOMATICALLY END WELDED IN FIELD FOR COMPOSITE BEAMS AND IN SHOP FOR EMBED PLATES WITH EQUIPMENT RECOMMENDED BY MANUFACTURER OF STUDS. STEEL STUD MATERIAL, WELDING AND INSPECTION SHALL BE IN ACCORDANCE WITH AWS D11. HAND WELDING OF STUDS IS NOT ACCEPTABLE.

H. CONCRETE ANCHOR AND SOLID GROUTED MASONRY ANCHOR

- EXPANSION BOLTS SHALL NOT BE UTILIZED.
- EPOXY ANCHORS AND REINFORCING STEEL SHALL BE PROVIDED WHERE NOTED ON DRAWINGS TO PROVIDE ANCHORAGE TO EXISTING HARDENED CONCRETE OR SOLID GROUTED MASONRY. EPOXY ADHESIVE ANCHORING SYSTEM FOR CONCRETE SHALL BE HILTI HIT-HY 200 WITH HILTI HIT-Z ROD OR APPROVED EQUAL. EPOXY ADHESIVE ANCHORING SYSTEM FOR SOLID GROUTED MASONRY SHALL BE HILTI HIT-HY 150 MAX OR APPROVED EQUAL. ANCHORS SHALL BE ASTM A36 THREADED ROD UNLESS NOTED OTHERWISE. HOLES SHALL BE DRILLED AND ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. THE MINIMUM EMBEDMENT DEPTH SHALL BE 10 BOLTS DIAMETERS FOR ANCHORS AND 14 BOLTS DIAMETERS FOR REINFORCING UNLESS NOTED OTHERWISE ON DRAWINGS. HOLES FOR REINFORCING AND ANCHORS SHALL BE DRILLED WITH ROTARY IMPACT HAMMER OR EQUIVALENT METHOD TO PRODUCE A HOLE WITH A ROUGH INSIDE SURFACE. NO REINFORCEMENT SHALL BE CUT TO INSTALL ANCHORS. EPOXY ADHESIVE SHALL BE MIXED, APPLIED AND CURED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. ALL PLACEMENT AND CURING SHALL BE CONDUCTED WITH CONCRETE AND AIR TEMPERATURE ABOVE 50 DEGREES. APPLY EPOXY ONLY TO DRY, CLEAN CONCRETE. PROVIDE POSITIVE PROTECTION SO DOUELS ARE NOT DISTURBED DURING THE CURING PERIOD. FOR INSTALLATION IN MASONRY, REFER TO MANUFACTURERS FOR ADDITIONAL REQUIREMENTS.

I. ANCHORS BOLTS

- ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 WITH CLASS 1A TREADS UNLESS NOTED OTHERWISE ON DRAWINGS. FURNISH HARDENED PLATE WASHERS, LOCK WASHERS AND MATCHING HEAVY HEX NUTS FOR SECURING THE BASE PLATE TO THE ANCHOR RODS.
- ALL NUTS USED WITH ANCHOR BOLTS SHALL BE HEX HEAD CONFORMING TO ASTM A563.
- WASHERS FOR ALL BASE PLATES SHALL BE 1/4" THICK PLATES EXTENDING MINIMUM 1" FROM EDGE OF BASE PLATE HOLES ON EACH SIDE WITH HOLES 5/16" LARGER THAN THE NOMINAL BOLT DIAMETER. WASHERS SHALL COMFORT TO A36 STEEL.
- ALL ANCHOR BOLTS SET IN CONCRETE SHALL UTILIZE 1/8" THICK STEEL TEMPLATES SAME SIZE THAT BASE PLATE. TEMPLATES SHALL BE DETAILED ON THE SHOP DRAWINGS.
- ANCHOR RODS INSTALLATION SHALL BE COORDINATED WITH REINFORCING AND FORMWORK. AFTER BASE INSTALLATION, ANCHOR RODS NUTS SHALL BE INSTALLED TO A SNUG TIGHT CONDITION. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE MATERIAL SHALL NOT BE ENLARGED.

J. NON SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

- GROUT FOR BASE PLATES AND BEARING PLATES SHALL BE NON METALLIC, SHRINKAGE RESISTANCE, FREMIXED, NON CORROSIVE, NON STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANDS, SHRINKAGE COMPENSATING AGENTS, AND FLUIDITY IMPROVING COMPOUND.
- TWENTY EIGHT DAY COMPRESSIVE STRENGTH AS DETERMINED BY GROUT TUBE TESTS SHALL BE 6000 PSI (MIN).
- GROUT SHALL BE PLACED IN A FLUID FLOWABLE STATE UNDER BASE PLATES THAT HAVE A FORM BUILT AROUND FOR GROUT CONFINEMENT. GROUT SHOULD BE CURED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- MINIMUM THICKNESS OF GROUT UNDER ALL BASE PLATES AND BEARING PLATES SHALL BE 1", UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.

K. BASE PLATES AND EMBEDDED PLATES

- UNLESS NOTED OTHERWISE ON THE DRAWINGS BASE PLATES AND BEARING PLATES SHALL BE WELDED ALL AROUND TO THE COLUMN WITH MINIMUM FILLET WELD AS SPECIFIED IN AISC.
- GROUT BASE PLATES 3 DAYS BEFORE CONCRETE POUR OF FIRST ELEVATED SLAB.
- ALL THE EXTERIOR BASE PLATES, ANCHOR BOLTS, NUTS, WASHERS AND EMBEDDED PLATES SHALL BEHOT-DIP GALVANIZED AFTER FABRICATIONS PER ASTM G90. CLEAN AND FIELD TOUCH-UP WITH GALV. REPAIR PAINT.

L. CONNECTIONS

- TYPICAL CONNECTION DETAILS ARE INDICATED ON THE DRAWINGS
- MINIMUM CONNECTION SHALL BE A TWO BOLT CONNECTION USING 3/4 INCH DIAMETER A325 BOLTS IN SINGLE SHEAR
- ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED, TIGHTENED AND INSPECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. THE CRITERIA FOR SNUG-TIGHT CONNECTIONS SHALL APPLY TO ALL CONNECTIONS UNLESS NOTED OTHERWISE AS SLIP CRITICAL. SLIP CRITICAL CONNECTIONS SHALL USE LOAD INDICATOR WASHERS OR TENSION CONTROLLED BOLTS. ALL BOLTS SHALL BE STANDARD BOLTS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SELECTION OF OPTIONAL DETAILS SHOWN ON THE DRAWINGS.
- WHEN CONDITIONS VARY FROM THOSE SHOWN IN THE "TYPICAL DETAILS" OR

STEEL JOIST

A. STEEL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE " STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES" (2005)" OR THE STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, "LH-SERIES" (2005)" OF THE STEEL JOIST INSTITUTE (SJI).

B. THE JOIST MANUFACTURER SHALL REVIEW THE DRAWINGS AND PROVIDE JOISTS CAPABLE OF CARRYING THE FOLLOWING LOADS:

- ROOF DEAD LOAD: 30 PSF
- LIVE LOAD: 20 PSF
- NET WIND UPLIFT: SEE PLAN

C. THE STEEL JOISTS MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN, ADEQUACY AND SAFETY OF ALL STEEL JOISTS.

D. UNLESS OTHERWISE NOTED, STEEL JOISTS SHALL BE DESIGNATED AS SIMPLY SUPPORTED, UNIFORMLY LOADED TRUSSES WITH TOP CHORD BRACED AGAINST LATERAL BUCKLING. THE UNIFORM DESIGN LOAD SHALL BE THE TOTAL SAFE UNIFORMLY DISTRIBUTED LOAD AS SHOWN IN THE SJI STANDARD LOAD TABLE.

E. WHEN NET UPLIFT FORCES DUE TO WIND ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS AND BRIDGING FOR THE NET UPLIFT. A SINGLE LINE OF BOTTOM CHORD BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL POINTS WHENEVER UPLIFT DUE TO WIND FORCES IS SHOWN ON THE DESIGN DRAWINGS.

F. WHEN NON-UNIFORM OR CONCENTRATED LOADS ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS IN ACCORDANCE WITH PARAGRAPH 4.1 OF "THE STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, "K-SERIES" OR PARAGRAPH 103.1 OF "THE STANDARD SPECIFICATION FOR OPEN WEB STEEL JOIST, "LH-SERIES".

G. STEEL JOIST BRIDGING SHALL BE PROVIDED IN ACCORDANCE WITH THE SJI SPECIFICATION. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE PLACED AND STEEL JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS. BRIDGING THAT TERMINATES AT, OR IS INTERRUPTED BY, STRUCTURAL STEEL BEAMS, MASONRY WALLS OR CONCRETE WALLS SHALL BE ATTACHED THERETO. COORDINATE BRIDGING LOCATIONS TO AVOID INTERFERENCE WITH MECHANICAL, ELECTRICAL AND FIRE PROTECTION EQUIPMENT.

H. MINIMUM BEARING REQUIREMENTS FOR K-SERIES JOISTS, UNLESS NOTED OTHERWISE IS 2 1/2" ON STRUCTURAL STEEL INCLUDING STEEL BEARING SEATS PROJECTING FROM WALLS AND 4" ON STEEL BEARING PLATES DIRECTLY OVER MASONRY OR CONCRETE WALLS.

I. MINIMUM BEARING REQUIREMENTS FOR LH-SERIES JOISTS, UNLESS NOTED OTHERWISE IS 4" ON STRUCTURAL STEEL INCLUDING STEEL BEARING SEATS PROJECTING FROM WALLS AND 6" ON STEEL BEARING PLATES DIRECTLY OVER MASONRY OR CONCRETE WALLS.

J. STEEL JOIST AT COLUMN CENTER LINES SHALL BE BOLTED TO STRUCTURAL STEEL WITH (2)-1/2" DIAMETER BOLTS OR (2)-3/4" DIAMETER BOLTS FOR LH SERIES, WHERE STEEL JOISTS DO NOT SPACE TO COLUMN CENTER LINES, USE BOLTED CONNECTIONS FOR THE STEEL JOIST CLOSEST TO THE CENTER LINE. WHERE THE DRAWINGS INDICATE THAT THE JOIST SEAT IS TO BE WELDED TO THE SUPPORTING STEEL OR JOIST GIRDER, THE BOLTS PROVIDED ARE FOR ERECTION ONLY. ERECTION BOLTS MAY BE REMOVED AFTER WELDS ARE COMPLETED BUT AN ADDITIONAL WELD SHALL BE MADE ALONG THE INSIDE EDGE OF SEAT SLOTS.

K. JOISTS SHOULD BE CAMBERED IN ACCORDANCE WITH S.J.I. STANDARD CAMBERS.

ALUMINUM WALKWAY CANOPIES

A. ALUMINUM WALKWAY CANOPIES AND THEIR FOUNDATIONS SHALL BE DESIGNED BY THE ALUMINUM CANOPY MANUFACTURER SPECIALTY ENGINEER. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY STRUCTURAL ENGINEER REGISTERED IN STATE OF FLORIDA.

COLD FORMED METAL FRAMING

A. DESIGN OF COLD FORMED METAL FRAMING SHALL CONFORM TO THE LATEST EDITION OF "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STRUCTURAL S MEMBERS (AISI).

B. MATERIALS: STUDS, RUNNERS AND ANGLES SHALL MEET THE REQUIREMENTS OF ASTM C955 WITH MINIMUM YIELD STRENGTH AS FOLLOWS:

16, 14, AND 12 GAGE STUDS	50 KSI
22, 20, AND 28 GAGE STUDS	33 KSI
RUNNERS	33 KSI

C. GALVANIZED FINISH SHALL COMPLY WITH ASTM A653/A653M WITH A G90 COATING. ALL WELDS SHALL BE TOUCHED UP WITH A ZINC-RICH PROTECTIVE PAINT FOR CORROSION RESISTANCE.

D. THE FABRICATOR SHALL FURNISH A STRUCTURAL SUBMITTAL BEARING THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. THIS SUBMITTAL SHALL BE CHECKED BY THE CONTRACTOR FOR COMPLETENESS AND CONTENT PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW. THE SUBMITTAL SHALL INCLUDE COMPONENT DETAILS, SYSTEM LAYOUT DRAWINGS, IT SHALL IDENTIFY THE PROJECT LIST LOADING AND OTHER CRITERIA. THE DRAWINGS SHALL IDENTIFY AND LOCATE COMPONENTS & ALL OTHER NECESSARY FABRICATION AND ERECTION INFORMATION. THE SUBMITTAL SHALL INCLUDE CALCULATIONS VERIFYING ITS ADEQUACY TO RESIST THE LOAD INDICATED ON THE CONSTRUCTION DOCUMENTS. FABRICATION SHALL NOT COMMENCE UNTIL THIS REVIEW IS COMPLETED.

E. COLD FORMED STEEL FRAMING INCLUDE BUT NOT LIMITED TO WALLS, EXTERIOR CEILING, FASCIAS, AND SOFFITS.

ROOF METAL DECK

- A. THE DESIGN, FABRICATION AND ERECTION OF ALL METAL DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECK, AND ROOF DECK AS PUBLISHED BY STEEL DECK INSTITUTE (SDI).
- B. ALL ROOF DECK (EXCEPT WHERE SHOWN ON PLAN) SHALL BE 1/2" DEEP 20 GAGE WIDE RIB TYPE B20, MIN. PROPERTIES: T=0.0350, Sp = 0.234 IN*3, Sn = 0.241 IN*3, I=0.212 IN*4 GALVANIZED G90.
- VENTED METAL ROOF DECK SHALL BE PER FBC SECTION 1911.4.1 AND 1911.4.11
- WHERE SHOWN ON PLAN 1/2" DEEP 18 GAGE WIDE RIB SHALL BE TYPE B18, MIN. PROPERTIES: T=0.0474, Sp = 0.318 IN*3, Sn = 0.327 IN*3, I=0.292 IN*4 GALVANIZED G90.
- C. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM DESIGNATION A611 GRADES C, D OR E OR FROM A653/A653M-04a STRUCTURAL QUALITY GRADE 33 OR HIGHER. THE MINIMUM YIELD STRENGTH SHALL BE 33,000 PSI.
- D. ROOF METAL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING WITH ASTM A924/A924M-04a, UNLESS NOTED OTHERWISE. TOUCH UP GALVANIZED SURFACES WITH GALVANIZED REPAIR PAINT APPLIED IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.

E. ATTACHMENT:

- ROOF DECK UNITS SHALL BE WELDED TO EACH STRUCTURAL SUPPORT MEMBER WITH 5/8" DIAMETER PUDDLE WELDS AT ALL RIBS (3/4 FASTENER LAYOUT). WELD SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPs AND SIDE JOINTS AND SHALL BE COMPLETELY FUSED TO THE SUPPORTING MEMBERS. ROOF DECK UNITS SHALL BE ATTACHED TO COLD FORMED STEEL TRUSSES USING #10 TEK SCREWS IN A 3/4 FASTENER LAYOUT.
- SIDE LAPs OF ADJACENT UNITS SHALL BE FASTENED BY WELDING (ON 18 GAUGE OR HEAVIER) SHEET METAL SCREWS (#8'S OR LARGER) SO SPACING BETWEEN FASTENERS AND BETWEEN FIRST FASTENER AND SUPPORT DOES NOT EXCEED 12" ON CENTER. #10 TEK SCREWS FOR COLD FORMED STEEL TRUSSES.
- AT ALL ROOF OPENINGS AND PERIMETER ROOF EDGE CONDITIONS, ROOF DECK UNITS SHALL BE WELDED TO EDGE STEEL USING 5/8" PUDDLE WELDS AT 6" O.C. #10 TEK SCREWS FOR COLD FORMED STEEL TRUSSES.
- END LAPs OF SHEETS SHALL BE A MINIMUM OF 2" AND SHALL OCCUR OVER SUPPORT. ROOF SHALL BE ERECTED BEGINNING AT THE LOW SIDE TO INSURE THE END LAPs ARE SHINGLE FASHION.

- F. PROVIDE A MINIMUM END BEARING OF 1 1/2" FOR ALL DECK SUPPORTS. ALIGN FLUTES AND BUTT DECK AT SUPPORT.

- G. METAL DECK SPAN SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI CRITERIA, WHERE POSSIBLE, ALL METAL DECK SHALL EXTEND OVER THREE OR MORE SUPPORTS. TWO SPAN DECK SHALL BE USED ONLY WHERE DECK LAYOUT DOES NOT PERMIT THE USED OF THREE SPANS. SINGLE SPAN DECK IS NOT PERMITTED.

- H. NO LOADS SHALL BE PERMITTED TO BE SUSPENDED FROM ANY STEEL ROOF DECKING. ALL HANGERS FOR CEILING, DUCTWORK, PIPING, ALL ELECTRICAL DEVICES SUCH AS BUT NOT LIMITED TO LIGHTS SHALL BE SUSPENDED DIRECTLY FROM STRUCTURAL STEEL FRAMING. PROVIDE 4 DESIGN UNISTRUT OR APPROVED EQUAL TO SPAN BETWEEN STEEL FRAMING.

SHOP DRAWINGS

- A. ALL SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL. ALL SUBMITTAL SHALL BE PROVIDED FOR THE ENGINEER REVIEW A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION OR REQUIRED DELIVERY OF MATERIALS. THE ENGINEER SHALL BE PROVIDED A MINIMUM OF (10) BUSINESS DAY TO REVIEW SUBMITTALS. THE CONTRACTOR SHALL MAKE NO CLAIMS FOR DELAY FOR SUBMITTALS NOT PROVIDED IN ACCORDANCE WITH THIS REQUIRED REVIEW PERIOD OR NOT OTHERWISE SUBMITTED IN A TIMELY MANNER. SUBMITTALS SHALL INCLUDE ONE REPRODUCIBLE AND ONE COPY. REPRODUCIBLE WILL BE MARKED AND RETURNED.

- B. THE CONTRACTOR IS TO REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO ARCHITECT AND STRUCTURAL ENGINEER. THE CONTRACTOR IS TO STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:

- SHOP DRAWINGS IS REQUESTED.
- THE SHOP DRAWING IS BASED ON THE LATEST DESIGN.
- THE ARCHITECT'S AND STRUCTURAL ENGINEER'S COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
- THE WORK IS COORDINATED AMONG ALL CONSTRUCTION TRADES.
- REVISIONS FROM PREVIOUS SUBMITALS ARE CLEARLY MARKED BY CIRCLING OR CLOUDS.
- SUBMITTAL IS COMPLETED.

- C. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE THEY SHALL BE VERIFIED BY THE CONTRACTOR.

- D. SHOP DRAWINGS SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHING AND INSTALLED, AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHOD. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWINGS SUBMITTAL AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

E. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW

- SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
- STRUCTURAL STEEL (**)
 - STEEL JOIST
 - STEEL JOIST DESIGN CALCULATIONS (***)
 - REINFORCING STEEL
 - ROOF METAL DECK
 - CONCRETE MIX DESIGN
 - COLD FORMED METAL FRAMING (*)
 - SLAB ON GRADE CONTROL JOINT LAYOUT
 - ALUMINUM CANOPY FRAMING (*)

- ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.

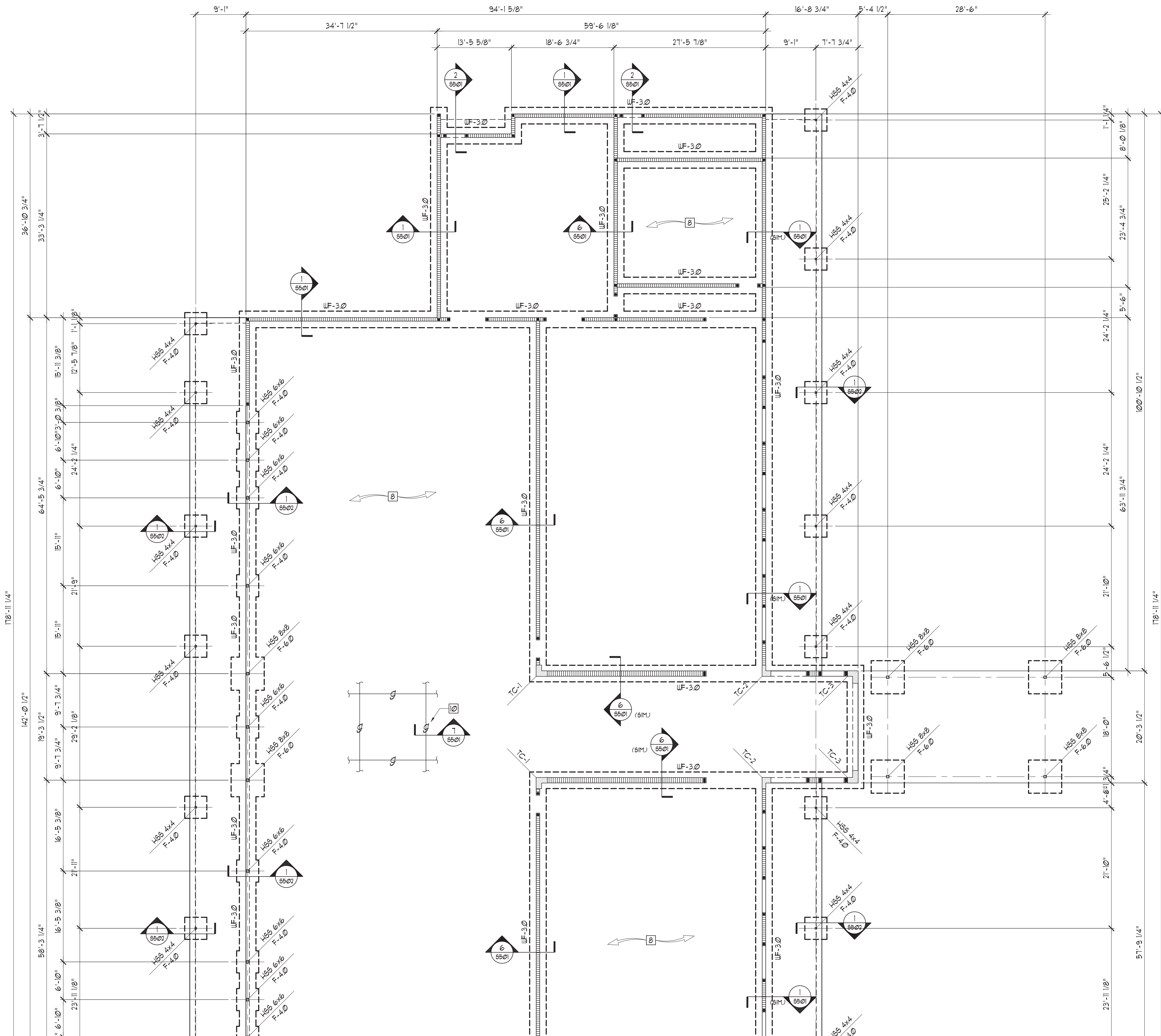
- ITEMS MARKED (**) SHALL HAVE A LETTER FROM PROFESSIONAL ENGINEER LICENSED WITHIN THE STATE OF FLORIDA EMPLOYED BY THE FABRICATOR CERTIFYING THAT THE SHOP DRAWINGS FOR ALL STEEL CONNECTIONS AS INDICATED IN THE CONSTRUCTION DOCUMENTS HAVE BE PREPARED UNDER HIS DIRECT SUPERVISION. THE SHOP DRAWINGS SHALL SHOW COMPLETE DETAILS OF THE ASSEMBLED JOINT WITH ALL BOLTS AND WELDS REQUIRED. THE DESIGN CALCULATIONS FOR THE CONNECTIONS THAT ARE NOT DESIGNED BY THE ENGINEER OF RECORD SHALL BE SIGNED AND SEALED BY THE FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS SUBMITTED THAT ARE NOT IN COMPLIANCE WITH THE ABOVE REQUIREMENTS WILL NOT BE APPROVED.

- ITEMS MARKED (***) SHALL HAVE A LETTER FROM PROFESSIONAL ENGINEER LICENSED WITHIN THE STATE OF FLORIDA CERTIFYING THAT HE HAS CAREFULLY STUDIED THE DESIGN DRAWINGS THAT THE SHOP DRAWINGS HAVE BEEN PREPARED UNDER HIS DIRECT GUIDANCE AND SUPERVISION, AND THAT THE STEEL JOIST WILL MEET OR EXCEED LOADING REQUIREMENTS. SUCH LETTER OF CERTIFICATION MUST BE EVIDENCED BY ENGINEER'S FULL SIGNATURE AND SEAL OF AUTHENTICITY. ARCHITECT/ENGINEER'S REVIEW OF SHOP DRAWINGS WILL NOT BEGIN UNTIL SUCH CERTIFICATION HAS BEEN RECEIVED.

- F. THE STEEL FABRICATOR SHALL NOT OUT SOURCE THE STRUCTURAL STEEL DETAILING OVER SEAS, THE STEEL FABRICATOR SHALL HIRE A QUALIFIED DETAILER WITH A MINIMUM OF 10 YEARS EXPERIENCE LOCATED IN UNITED STATES AND THE DETAILING WORK SHALL BE PERFORMED IN THE UNITED STATES. THE SHOP DRAWING SHALL BE SUBMITTED ELECTRONICALLY IN BLACK AND WHITE "PDF" FORMAT.

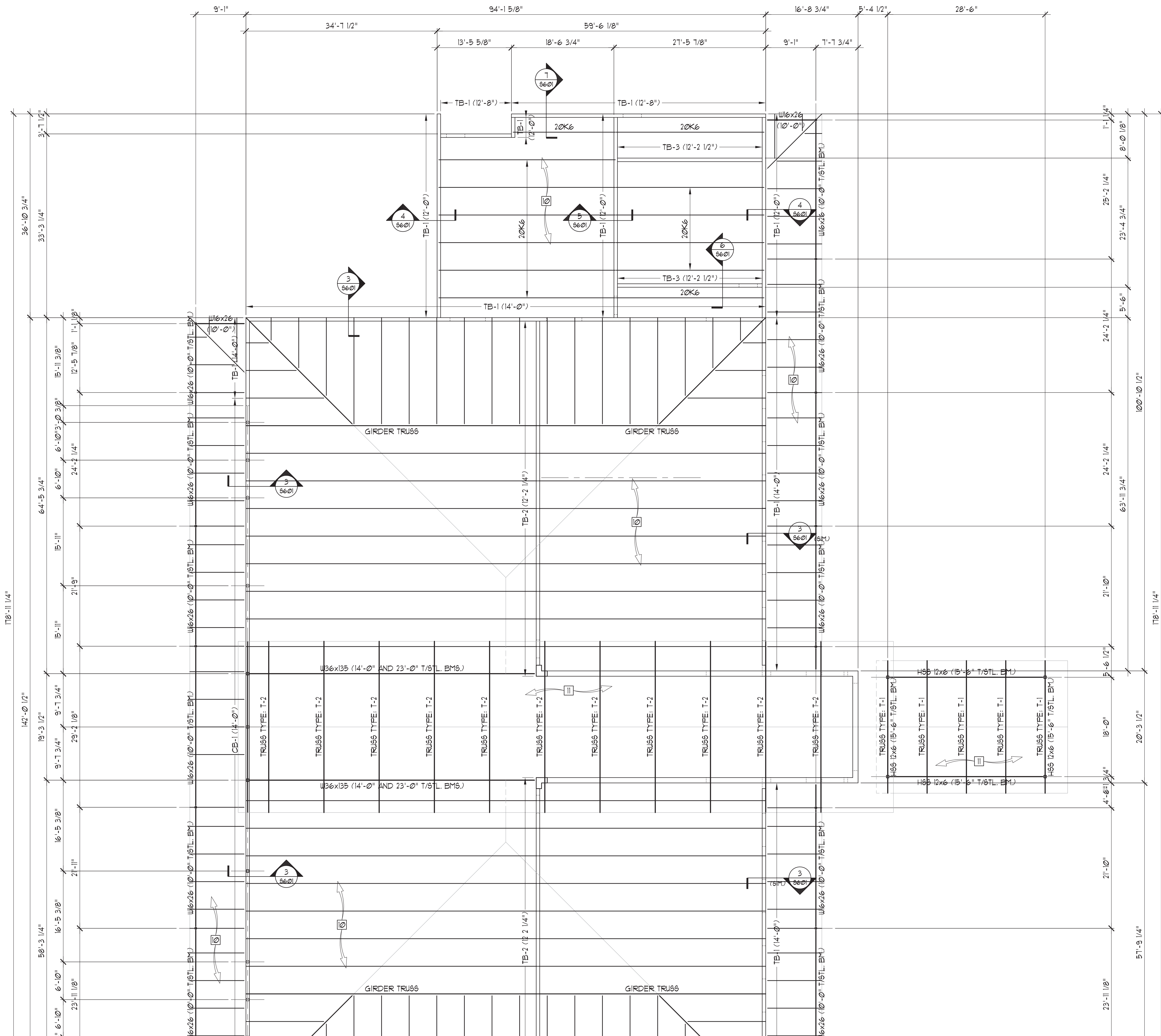
STRUCTURAL ABBREVIATIONS

ABBREV.	ABBREVIATION	LT. WT.	LIGHT WEIGHT
ADD.	ADDITIVE	L.G.	LONG
ADD'L	ADDITIONAL	LLH	LONG LEG HORIZONTAL
ALT.	ALTERNATE/ALTERNATIVE	LLV	LONG LEG VERTICAL
ALUM.	ALUMINUM	MID.	MIDDLE
A.C.I.	AMERICAN CONCRETE INSTITUTE	MFR.	MANUFACTURE/MANUFACTURER
		M.B.	MASONRY BEAM, MACHINE BOLT
A.E.S.S.	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	M.O.	MASONRY OPENING
		MATL.	MATERIAL
A.I.S.C.	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MAX.	MAXIMUM
A.I.S.I.	AMERICAN IRON AND STEEL INSTITUTE	MECH.	MECHANICAL
A.S.T.M.	AMERICAN SOCIETY OF TESTING MATERIALS	MIN.	MINIMUM
A.W.S.	AMERICAN WELDING SOCIETY	MISC.	MISCELLANEOUS
A.B.	ANCHOR BOLTS	MFH.	MILES PER HOUR
ARCH.	ARCHITECTURE/ARCHITECTURAL	MTL.	METAL
ASPH.	ASPHALT	N.S.	NEAR SIDE
B.P.	BASE FLATE	N.I.C.	NOT IN CONTRACT
BM.	BEAM	N.T.S.	NOT TO SCALE
BRG.	BEARING	NO. *	NUMBER
B.M.	BENCH MARK	O.C.	ON CENTER
BIT.	BITUMINOUS, BITUMASTIC	OFNG.	OPENING
BLK.	BLOCK	OF.	OUTSIDE FACE
B/	BOTTOM OF	OD.	OUTSIDE DIAMETER
BLDG.	BUILDING	PEN.	PENETRATION
B.U.	BUILT-UP	PCF.	POUNDS PER CUBIC FEET
BTUN.	BETWEEN	PAR.	PARALLEL
BOT.	BOTTOM	P.J.F.	FREMOLDED BITUMINOUS JOINT FILLER
CIP.	CAST IN PLACE	PLY.	PLYWOOD
C.I.	CAST-IRON	PLF.	POUNDS PER LINEAR FOOT
C.S.	CAST-STEEL	P.S.F.	POUNDS PER SQUARE FOOT
CTR.	CENTER	P.S.I.	POUNDS PER SQUARE INCH
CLR.	CLEAR/CLEARANCE	P.C.	PRECAST CONCRETE
COL.	COLUMN	PREFAB.	PREFABRICATED
CONC.	CONCRETE	P.T.	PRESSURE TREATED
C.B.	CONCRETE BEAM	REF.	REFERENCE
CC.	CONCRETE COLUMN	REINF.	REINFORCING
CM.	CONCRETE MASONRY	R.C.P.	REINFORCED CONCRETE PIPE
CMU.	CONCRETE MASONRY UNIT	REQD.	REQUIRED
COORD.	COORDINATE	R.W.	RETAINING WALL
CONT.	CONTINUOUS	R.D.	ROOF DRAIN
CONN.	CONNECTION	SCHED.	SCHEDULE
CONST.	CONSTRUCTION		
C.J.	CONSTRUCTION/CONTRACTION JOINT	SCH.	SCHEDULE
CF.	CUBIC FEET (FOOT)		
C.Y.	CUBIC YARD	9FC.	SPACE/SPACES
DBA.	DEFORMED BAR ANCHOR	9FECS.	SPECIFICATIONS
DEPT.	DEPARTMENT	9Q.	SQUARE
DIM.	DIMENSION	S.S.	STAINLESS STEEL
DIST.	DISTANCE	STD.	STANDARD
DN.	DOWN	STL.	STEEL
DR.	DRAIN	SYM.	SYMMETRICAL
DWG.	DRAWING	STRUCT.	STRUCTURAL
DIAG.	DIAGONAL	9FCG.	SPACING
DTL.	DETAIL	SIM.	SIMILAR
EA.	EACH	STIFF.	STIFFENER
E.E.	EACH END	TEMP.	TEMPERATURE
E.F.	EACH FACE	TENS.	TENSION
E.S.	EACH SIDE	THK.	THICK
E.W.	EACH WAY	THD.	THREAD/THREADED
ELEC.	ELECTRIC/ELECTRICAL	T.B.	TIE BEAM
EL.ELEV.	ELEVATION, ELEVATOR	TOL.	TOLERANCE
ENGR.	ENGINEER	T4B.	TOP AND BOTTOM
EQ. 9P.	EQUAL 9PACED	T/.	TOP OF
EXIST.	EXISTING	TD.S.	TURN DOWN SLAB
EXP.	EXPANSION	TYP.	TYPICAL
EXT.	EXTERIOR	TS.	TUBE STEEL
F.S.	FAR SIDE	UNO.	UNLESS NOTED OTHERWISE
FT.	FEET/FOOT	VERT.	VERTICAL
FDN.	FOUNDATION	VOL.	VOLUME
FIN.	FINISH	UF.	WALL FOOTING
FIN. GR.	FINISH GRADE	UFE.	WALL FOOTING EXTENSION
FF.	FINISHED FLOOR	UF.	WATERPROOF
FLR.	FLOOR	US.	WELDED STUD
F.D.	FLOOR DRAIN	UW.F.	WELDED WIRE FABRIC
FTG.	FOOTING	W.H.	WEEP HOLE
F.P.	FULL PENETRATION WELD	WT.	WEIGHT, STRUCTURAL TEE SECTION
GA.	GAGE/GAUGE	W.	WIDE FLANGE SECTION
GALV.	GALVANIZED	W/.	WITH
G.C.	GENERAL CONTRACTOR	W/O.	WITHOUT
GEN.	GENERAL	WD.	WOOD
G.S.	GALVANIZED STEEL	W.P.	WORKING POINT
G.L.	GRID LINE	@	AT
HORZ.	HORIZONTAL	#	POUNDS
HSA.	HEADED STUD ANCHOR	K	KIP (1000 LBS)
		±	PLUS OR MINUS
HSS.	HOLLOW STRUCTURAL SECTION	W	WIDE FLANGE
		C	CHANNEL
HT.	HEIGHT	L	ANGLE
H.S.B.	HIGH STRENGTH BOLT	TS.	TUBE STEEL
IN.	INCH	UT	TEE SECTION
I.D.	INSIDE DIAMETER	CL.	CENTER LINE
INT.	INTERIOR	PL.	PLATE
INV.	INVERT	φ	DIAMETER
IF.	INSIDE FACE	+	AND
JT.	JOINT	9p	SECTION MODULUS
JST.	JOIST	Ip	MOMENT OF INERTIA
KWY.	KEYWAY		
LDG.	LANDING		
LGTH.	LENGTH		



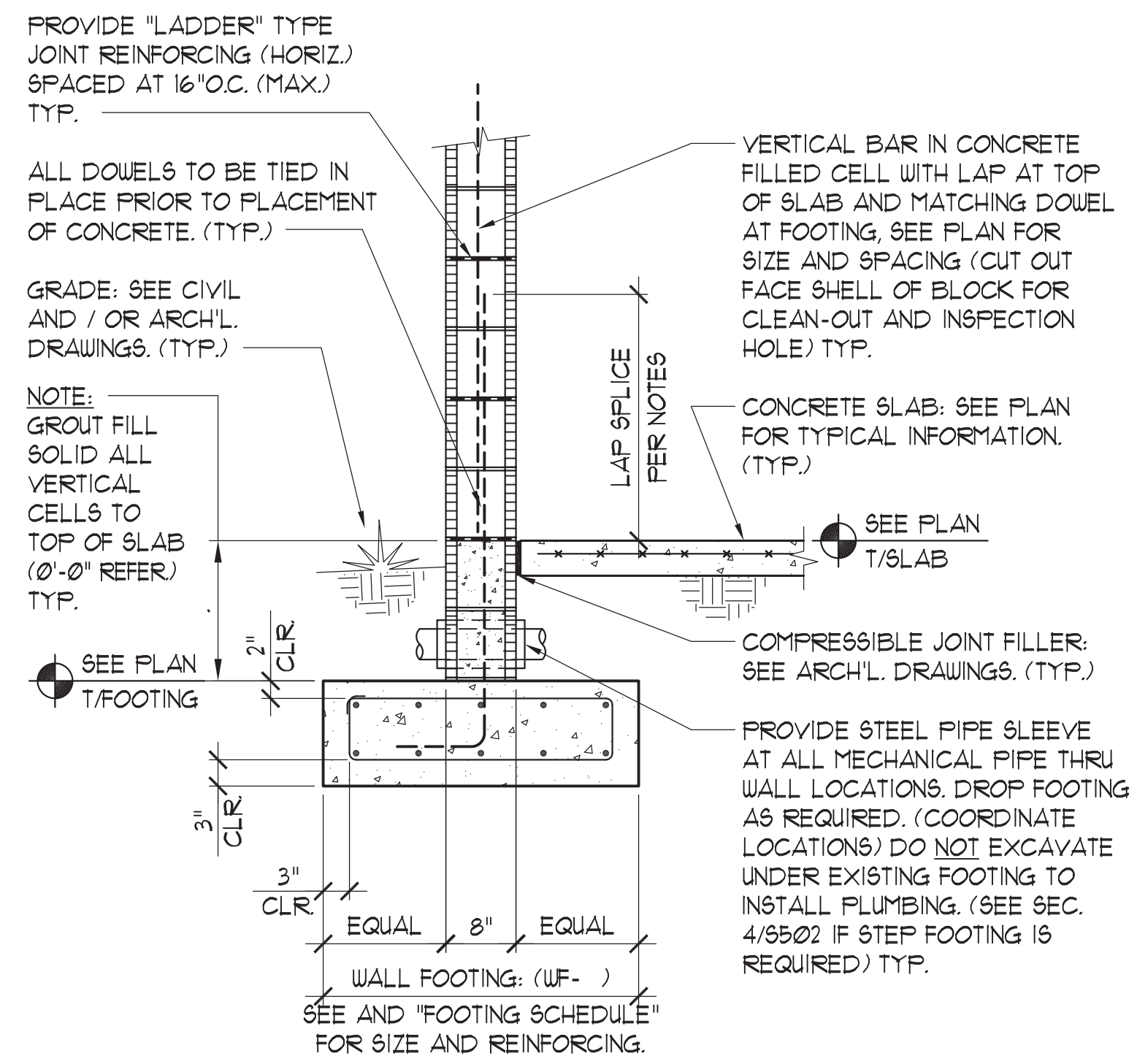
PLAN NOTES:

- 1 SEE SHEET 5001, 5002 AND 5003 FOR ADDITIONAL DIMENSIONS NOT SHOWN.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L DRAWINGS FOR DIMENSIONS WITH ARCH'L. DRAWINGS FOR CONSTRUCTION. IF DISCREPANCIES SHOWN, CONTACT THE ARCHITECT IN WRITING BEFORE PROCEEDING.
- 3 "WF- " (WALL FOOTING) AND "F- " (FLOOR SLAB) INDICATES FOOTING TYPES. SEE PLAN AND SECTION FOR SIZE AND REINFORCING INFORMATION.
- 4 STEP WALL FOOTINGS: (WF-) AS REQUIRED. SEE SECTION FOR ADDITIONAL INFORMATION. FOOTING LOCATIONS WITH ARCH'L. AND SECTION FOR ADDITIONAL INFORMATION.
- 5 PROVIDE CORNER BARS WHERE ALL WALL FOOTINGS: (TSWF-) CHANGE DIRECTION. ALL WALL FOOTINGS: (WF-) CHANGE SECTION 3/5502 FOR ADDITIONAL INFORMATION.
- 6 ■■■■■ INDICATES 8" (LOAD BEARING WALL) REINFORCED WITH (1) - #5 VERTICAL (1) - #5 HORIZONTAL (1) - #5 VERTICAL (1) - #5 HORIZONTAL AT FOOTINGS) IN SOLID GROUT FILLED INTERSECTIONS, ADJACENT MASONRY WALLS AND BETWEEN AT 32" O.C. (MAX.) TYPICAL REINFORCED CELLS APPLIES ABOVE MASONRY OPENINGS. EXTEND VERTICAL THROUGH (SPLICE / LAP AS REQUIRED) TO (MASONRY) BEAM AND CONCRETE TIE STANDARD 90° HOOK. SEE SECTIONS FOR FURTHER INFORMATION.
- 7 ■■■■■ INDICATES 12" (LOAD BEARING WALL) REINFORCED WITH (1) - #5 VERTICAL (1) - #5 HORIZONTAL (1) - #5 VERTICAL (1) - #5 HORIZONTAL AT FOOTINGS) IN SOLID GROUT FILLED INTERSECTIONS, ADJACENT MASONRY WALLS AND BETWEEN AT 32" O.C. (MAX.) TYPICAL REINFORCED CELLS APPLIES ABOVE MASONRY OPENINGS. EXTEND VERTICAL THROUGH (SPLICE / LAP AS REQUIRED) TO (MASONRY) BEAM AND CONCRETE TIE STANDARD 90° HOOK. SEE SECTIONS FOR FURTHER INFORMATION.
- 8 FLOOR SLAB CONSTRUCTION: 4" (TOTAL SLAB REINFORCED WITH 6x6-W2.9x12.9 W/ 16" O.C. (MAX.) EACH WAY ON VAPOR BARRIER) OVER COMPACTED SUBGRADE AND ALL SLAB SLOPES, DEPRESSIONS, SEE ARCH'L. DRAWINGS (FOR ACTUAL TOP SURFACE) AND / OR CIVIL DRAWINGS FOR FURTHER INFORMATION.
- 9 PROVIDE ADDITIONAL RE-ENTRANT CORNER BARS (2) - #4x5'-0" LG. SPACED AT 3" O.C. (V) WITHIN MID-DEPTH OF CONCRETE SLAB (2" CLEAR (HORIZONTALLY) FROM REINFORCING).
- 10 (G) INDICATES SLAB CONTROL JOINTS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL INFORMATION. (COORDINATE WITH ARCH'L. DRAWINGS FOR ADDITIONAL INFORMATION. CONTROL JOINTS SHALL BE MAXIMUM 400 SQUARE FEET (MAX.)

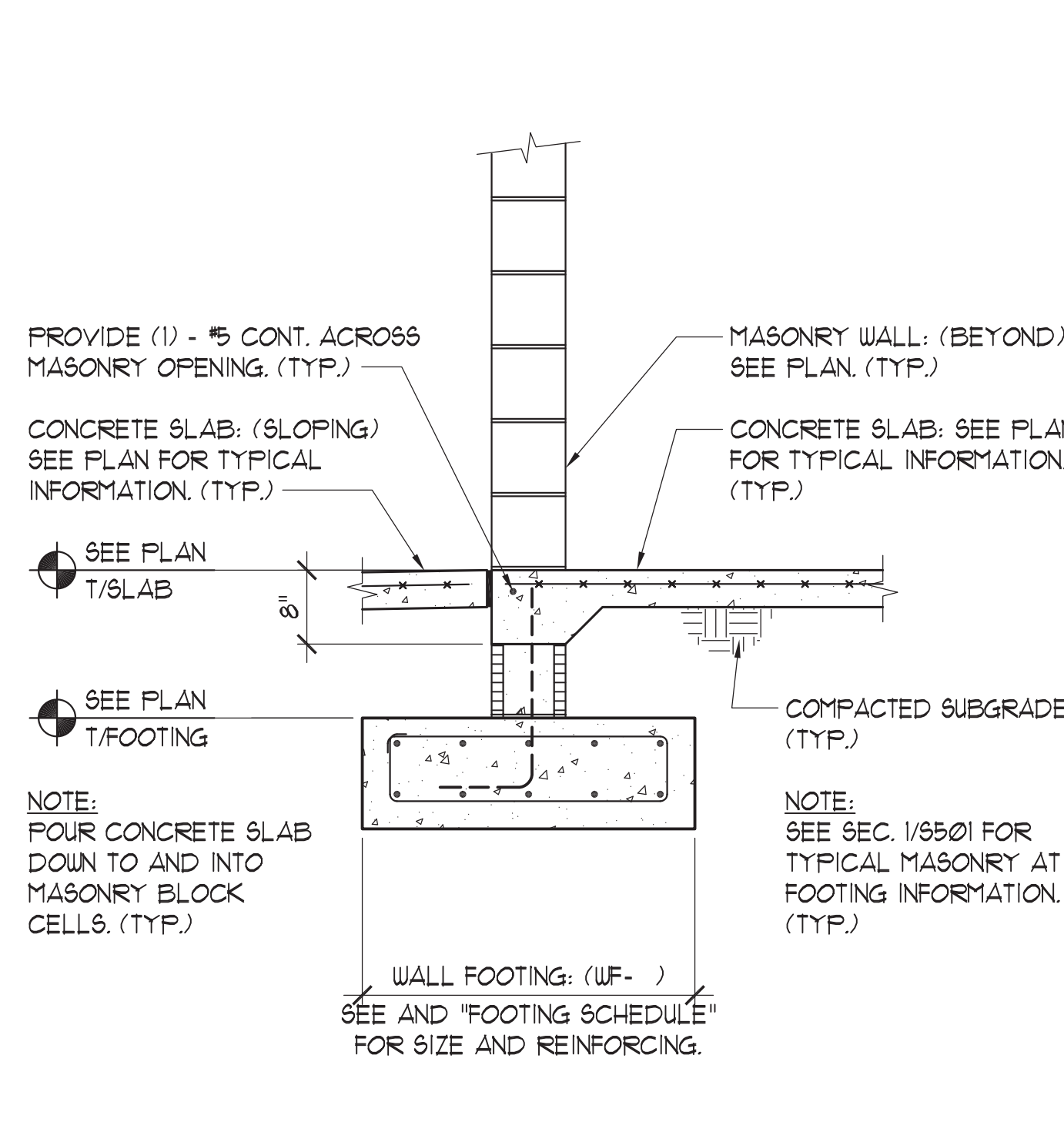


PLAN NOTES:

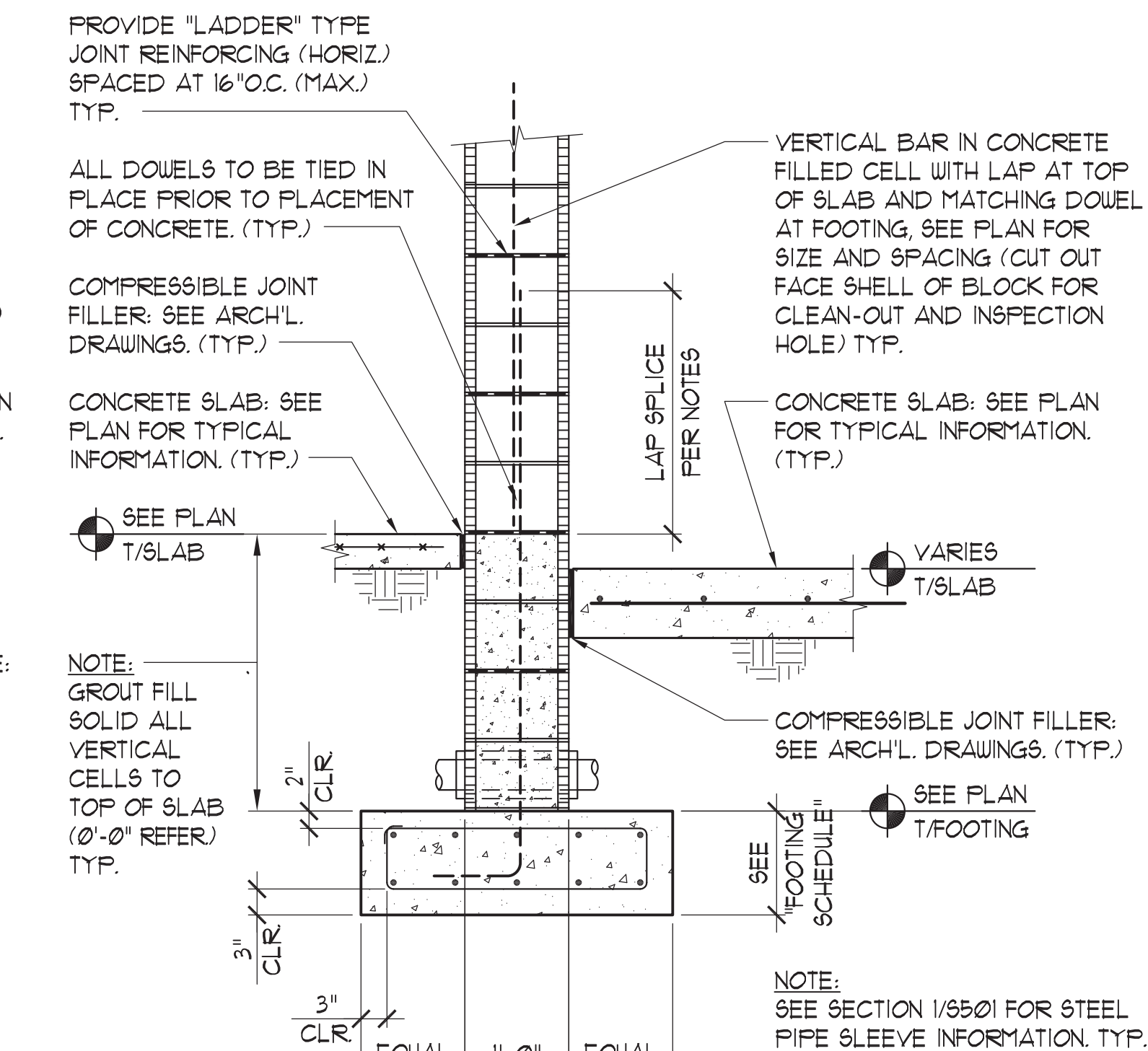
- 1 SEE SHEET 5001, 5002 AND 5003 FOR ADDITIONAL DIMENSIONS NOT SHOWN. DIMENSIONS WITH ARCH'L. DRAWINGS FOR CONSTRUCTION. IF DISCREPANCIES SHOWN CONTACT THE ARCHITECT IN WRITING BEFORE PROCEEDING.
- 2 PROVIDE PRECAST "U" LINTELS OVER MASONRY WALL (COORDINATE EXACT ELEVATIONS WITH ARCH'L. DRAWINGS) "MASONRY LINTEL SCHEDULE". PROVIDE SHORING DURING CONSTRUCTION - IF GREATER THAN 6 (SIX) FEET.
- 3 PROVIDE CORNER BARS WHERE ALL (BB-) CHANGE DIRECTION, AND AT (BB-) INTERSECTIONS. SEE SECTION FOR FURTHER INFORMATION.
- 4 COORDINATE ALL ROOF ELEVATIONS, EXACT JOIST / "W" BEAM LAYOUT WITH STRUCTURAL STEEL SHOP DRAWINGS.
- 5 ----- INDICATES JOIST UPLIFT BRACING AT FIRST PANEL POINT - BOTTOM CHORD BE IN ACCORDANCE WITH "SJI" REQUIREMENTS WITH JOIST MANUFACTURER / SUPPLIER'S SHOP DRAWINGS.
- 6 ----- INDICATES JOIST BRIDGING CONFIGURATIONS AND LOCATIONS SHALL BE IN ACCORDANCE WITH "SJI" REQUIREMENTS. COORDINATE WITH JOIST MANUFACTURER / SUPPLIER'S APPROVED SHOP DRAWINGS.
- 7 PROVIDE CONT. BENT PLATE: 1/4"x4" DRAWINGS) OVER 1 1/2" (DEEP), 20 GAGE METAL DECK (SEE GENERAL STRUCTURE ADDITIONAL INFORMATION)
- 8 ROOF CONSTRUCTION: ROOFING (COORDINATE WITH ARCHITECTURAL DRAWINGS) OVER 3" (DEEP), 20 GAGE METAL DECK (SEE GENERAL STRUCTURE ADDITIONAL INFORMATION)
- 9 COORDINATE ALL THROUGH ROOF PENETRATIONS WITH ALL DISCIPLINE DRAWINGS ARCHITECTURAL, MECHANICAL, ELECTRICAL SEE DETAILS 1/51.106 AND 2/51.106 FOR REQUIREMENTS AND TYPICAL INFORMATION.
- 10 COORDINATE LOCATION OF EQUIPMENT MECHANICAL DRAWINGS. REFER TO TRUSS FRAME ATTACHMENTS TO BEAM AND TRUSS.
- 11 GENERAL CONTRACTOR TO COORDINATE ELEVATIONS, SLOPES AND EXACT JOIST LAYOUT WITH APPROVED STRUCTURAL STEEL SHOP DRAWINGS.
- 12 PRE-ENGINEERED OPEN WEB STEEL JOIST 5'-0" O.C. (MAX.), SEE SHEETS 54.101 AND 54.102 FOR TYPICAL DIAGRAMS.



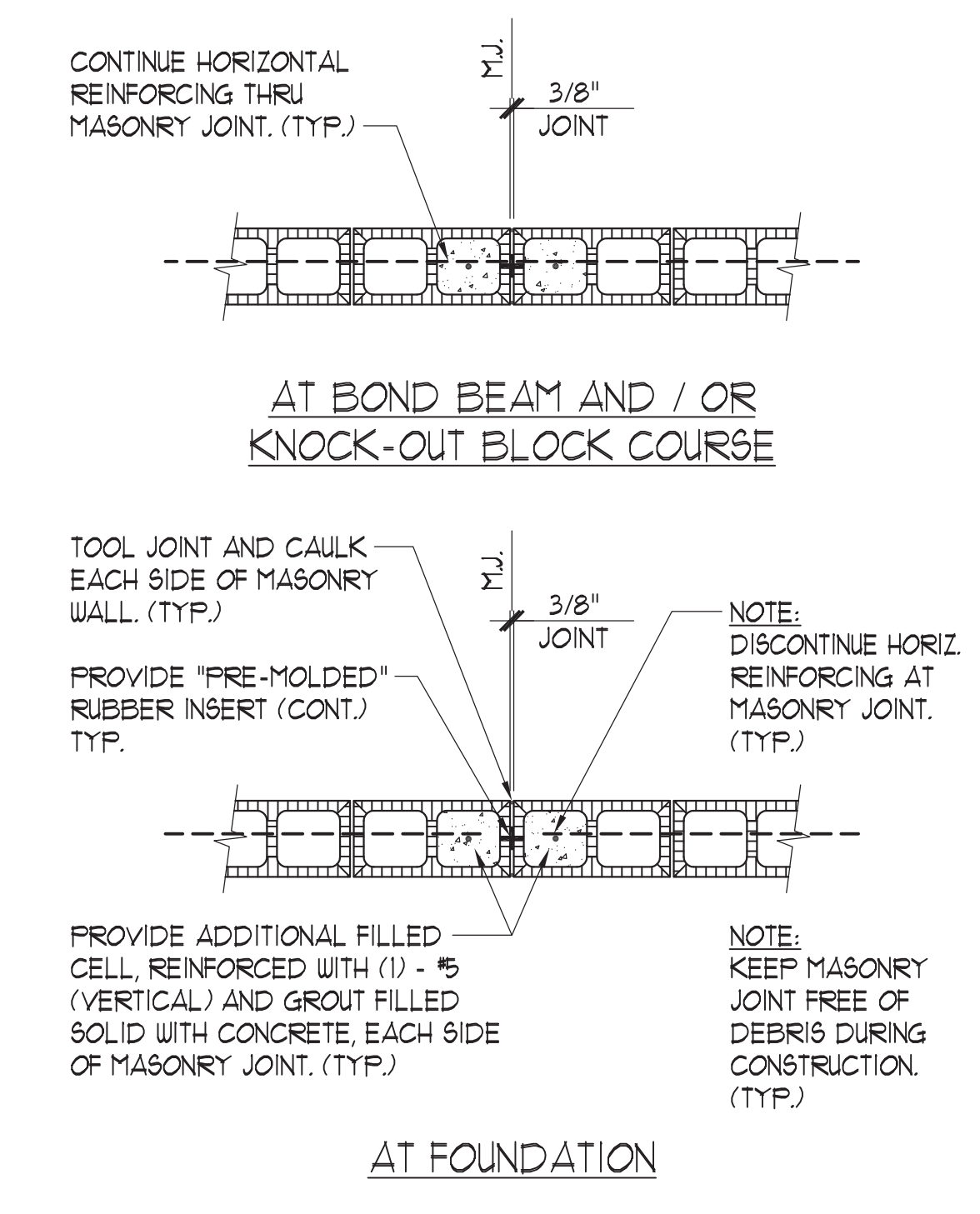
1 EXTERIOR CMU BRG. WALL AT FOOTING
SCALE: 3/4" = 1'-0"



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

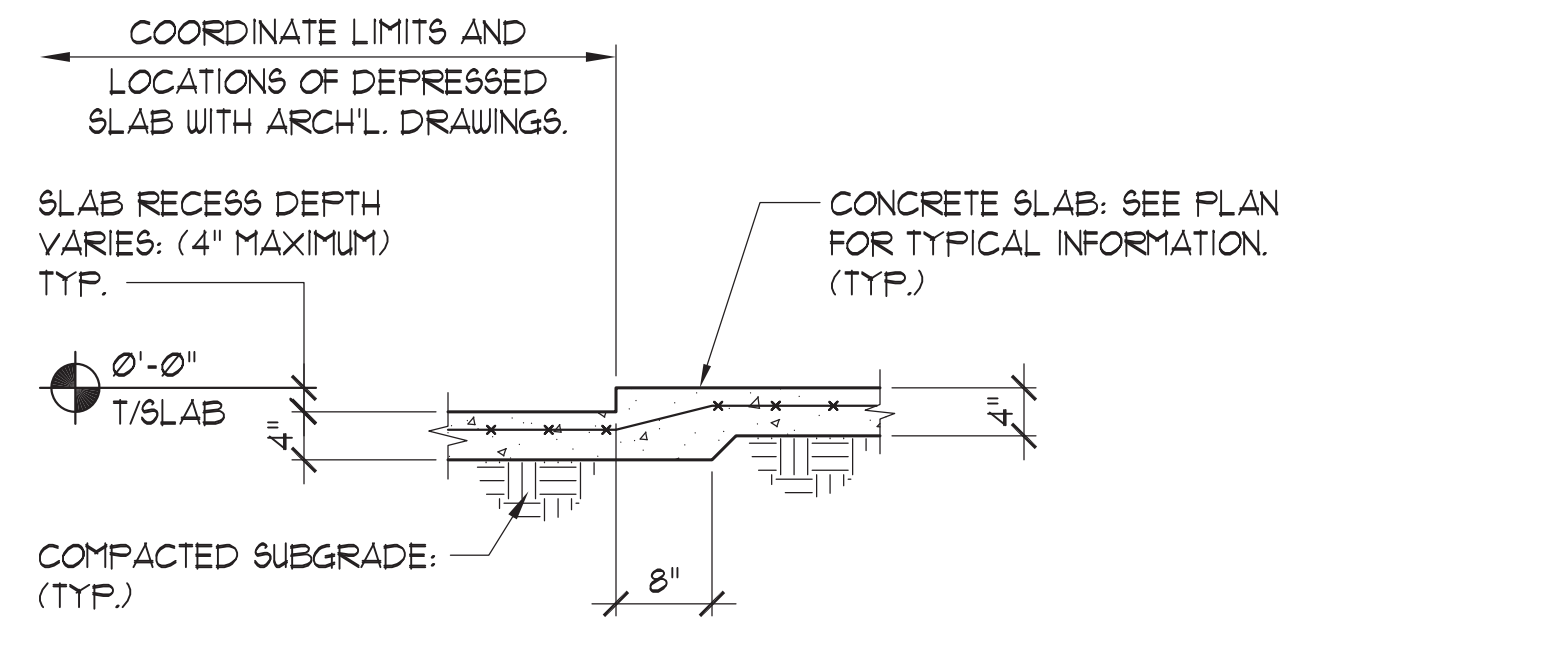


3 INTERIOR CMU BRG. WALL AT FOOTING
SCALE: 3/4" = 1'-0"



4 TYPICAL MASONRY JOINTS
SCALE: 3/4" = 1'-0"

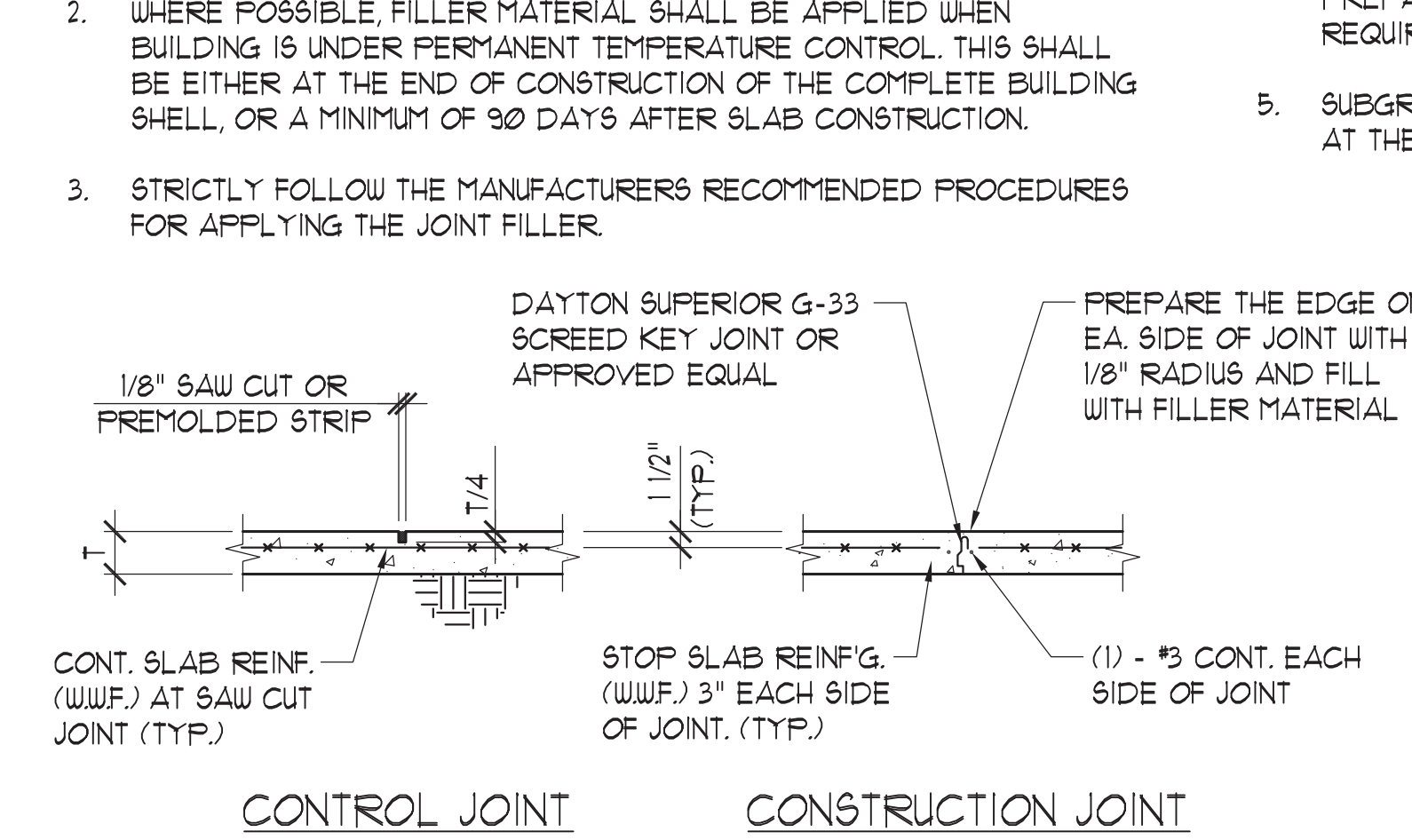
SPACING FOR CONTROL JOINT
1.5 x WALL HEIGHT = MASONRY JOINT SPACING IN FEET (NOT TO EXCEED)
12'-0" FROM WALL CORNERS ZONES AND 24'-0" FOR INTERIOR WALL ZONES



5 DEPRESSED SLAB DETAIL
SCALE: 3/4" = 1'-0"

- SAW CONTROL JOINT NOTES**
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
 2. ALL SAW CUT CONTROL JOINTS SHALL BE "SOFT CUT" WITHIN 2 HOURS AFTER FINAL FINISHING.
 3. CLEAN JOINT PRIOR TO FILLING THE JOINT.
- JOINT FILLER MATERIAL NOTES**
1. FILLER MATERIAL USED SHALL HAVE A MINIMUM SHORE A HARDNESS OF 35, AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. APPROVED JOINT FILLER IS VULKEM 245 AS MANUFACTURED BY MAMECO INTERNATIONAL OR APPROVED EQ.
 2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
 3. STRICTLY FOLLOW THE MANUFACTURERS RECOMMENDED PROCEDURES FOR APPLYING THE JOINT FILLER.

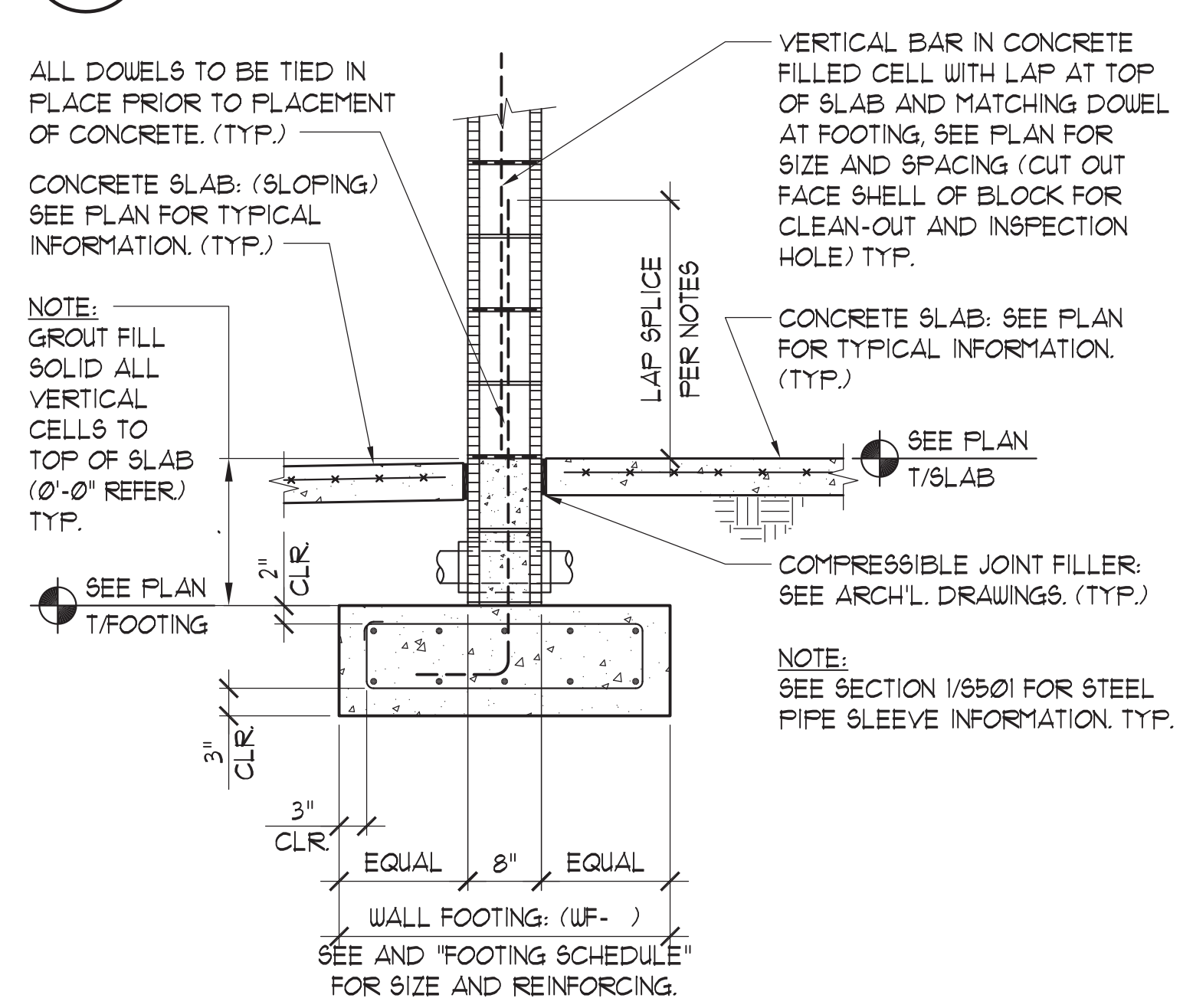
- CONSTRUCTION JOINT NOTES**
1. SEE PLAN FOR SLAB THICKNESS (T) AND REINFORCEMENT.
 2. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS 3'-0" O.C. EA. WAY.
 3. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE OF SLAB AND DOWEL WITH A CURING COMPOUND, ASPHALTIC EMULSION, OR FORM OIL.
 4. REFER TO GENERAL NOTES, GENERAL SPECIFICATIONS, AND DRAWINGS FOR SUB-FLOOR DRAINAGE SYSTEM, SUBGRADE PREPARATION AND/OR MUD SLAB REQUIREMENTS.
 5. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.



7 TYPICAL CONTROL JOINT DETAIL
SCALE: 3/4" = 1'-0"

JOINT SPACING NOTE

1. PROVIDE CONTROL AND / OR CONSTRUCTION JOINTS AT EACH COLUMN LINE AND BETWEEN THE COLUMN LINES SUCH THAT THE JOINT SPACING DOES NOT EXCEED 12 FEET. THE SLAB AREA BETWEEN JOINTS SHALL NOT EXCEED A 2:1 RATIO OF PROPORTION (150 SQ. FT. MAX.)

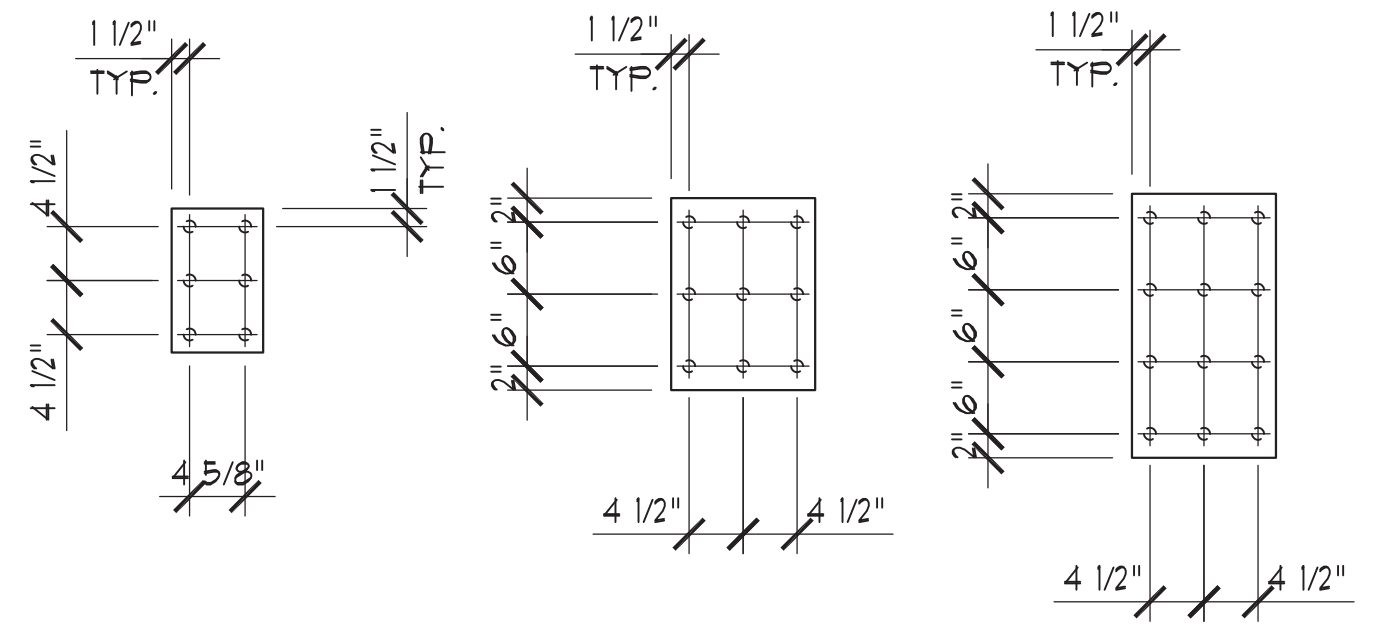


6 EXTERIOR CMU BRG. WALL AT FOOTING
SCALE: 3/4" = 1'-0"

MARK:	SIZE: (WxLxD)	REINFORCING:		REMARKS:
		BOTTOM:	TOP:	
WF-2.0	2'-0"xCONTx14"	(3) - #5, CONT.	(3) - #5, CONT.	#4 STIRRUPS AT 16" O.C.
WF-3.0	3'-0"xCONTx14"	(5) - #5, CONT.	(5) - #5, CONT.	#4 STIRRUPS AT 16" O.C.
WF-4.0	4'-0"xCONTx16"	(6) - #5, CONT.	(6) - #5, CONT.	#4 STIRRUPS AT 12" O.C.
F-3.0	3'-0"x3'-0"x1'-4"	(4) - #5 EACH WAY		
F-3.5	3'-6"x3'-6"x1'-4"	(5) - #5 EACH WAY		
F-4.0	4'-0"x4'-0"x1'-4"	(5) - #5 EACH WAY		
F-5.0	5'-0"x5'-0"x1'-4"	(6) - #5 EACH WAY	(6) - #5 EACH WAY	
F-6.0	6'-0"x6'-0"x1'-4"	(7) - #5 EACH WAY	(7) - #5 EACH WAY	
F-4.0x8.0	4'-0"x8'-0"x1'-4"	(7) - #5 EACH WAY	(7) - #5 EACH WAY	

8 FOOTING SCHEDULE
SCALE: 3/4" = 1'-0"

NOTE:
ALL HEADED STUD ANCHORS
SHALL BE WELDED WITH
AUTOMATIC WELDING MACHINE
DO NOT HAND WELD.



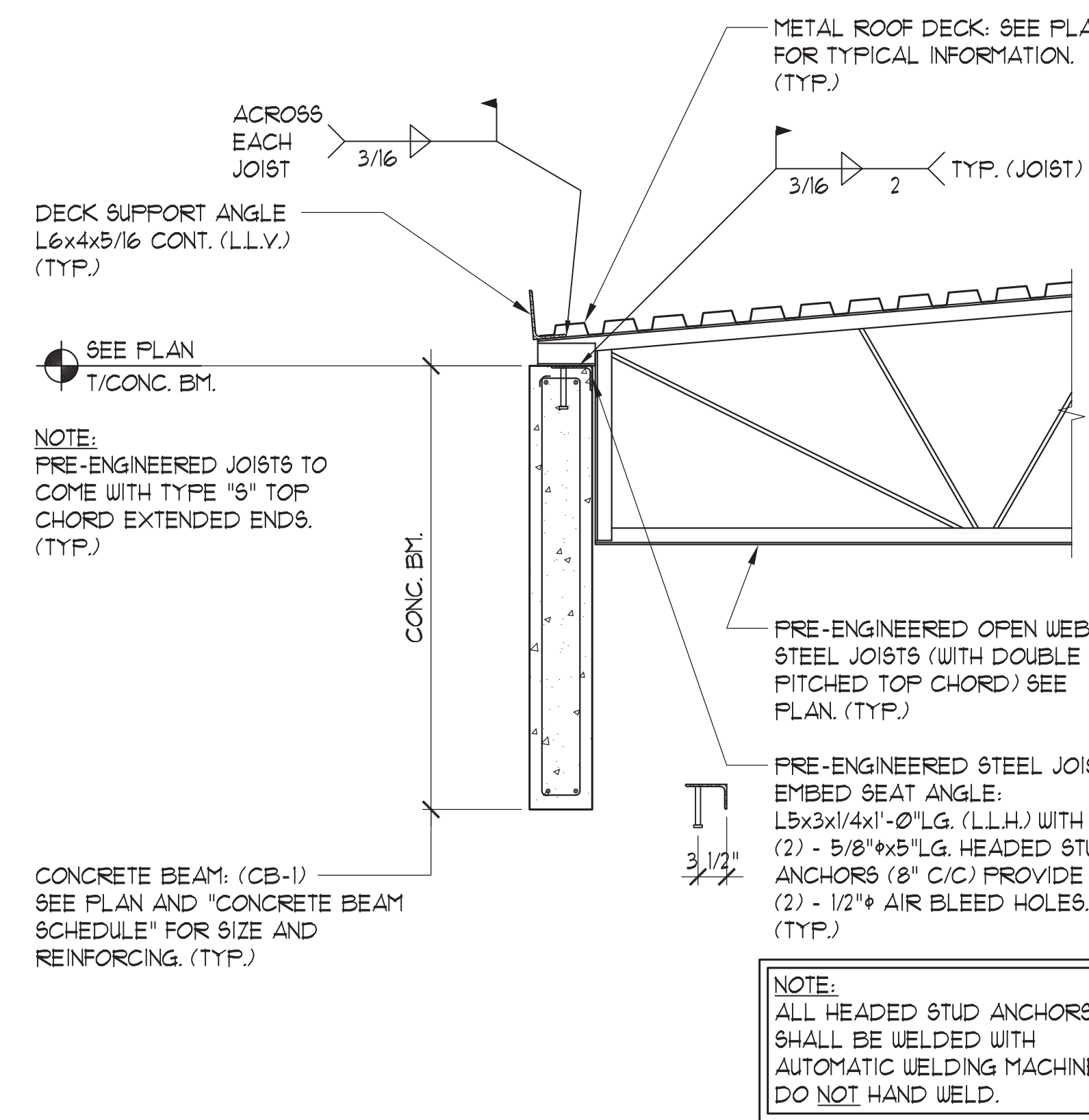
EMBED / WELD PLATE "A"
FOR W8 TO W10 STL. BM.
PLATE: 5/8"x1-0" LG.
W(6)-3/4" DIA x 5" LG.
HEADED STUD ANCHORS

EMBED / WELD PLATE "B"
FOR W12 TO W16 STL. BM.
PLATE: 5/8"x1-4" LG.
W(12)-3/4" DIA x 5" LG.
HEADED STUD ANCHORS

EMBED / WELD PLATE "C"
FOR W21 TO W36 STL. BM.
PLATE: 5/8"x2-10" LG.
W(12)-3/4" DIA x 5" LG.
HEADED STUD ANCHORS

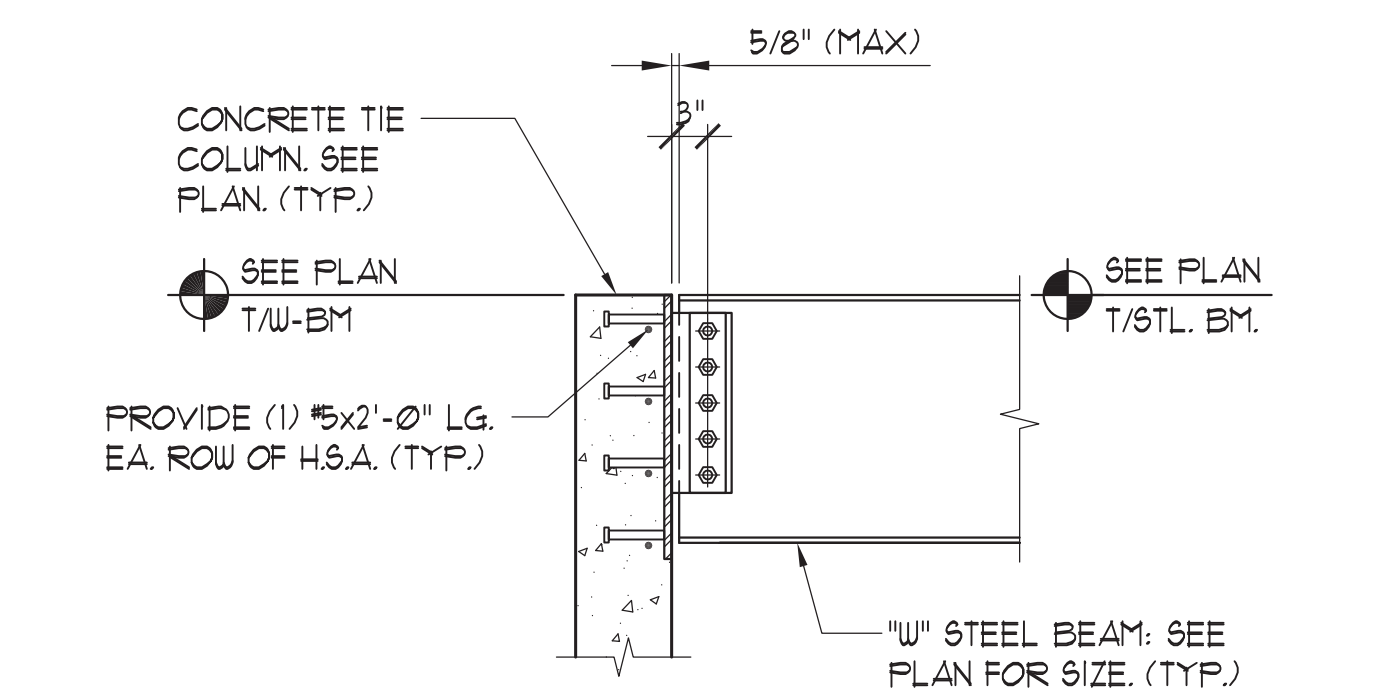
SINGLE PLATE - BEAM TO COLUMN (WF OR HSS) OR CONCRETE EMBED CONNECTIONS USING 3/4" DIA A325-N BOLTS FOR "SIMPLE" BEAMS WITH SHEAR ONLY

MIN. CONNECTION FOR BEAM SIZES SHOWN	MAX. CONNECTION FOR BEAM SIZES SHOWN	NUMBER OF BOLT SPACES	CONNECTION SHEAR VALUE KIPS PLATE = 3/8"	LENGTH OF PLATE
			$\phi = 1/4$	
W8, W10, W12	W8, W10	(1) AT 3" = 0'-3"	19.8	0'-6"
W12, W14	W12, W14	(2) AT 3" = 0'-6"	31.8	0'-9"
W16, W18	W16	(3) AT 3" = 0'-9"	42.4	1'-0"
W21, W24	W18	(4) AT 3" = 1'-0"	53.0	1'-3"
W27, W30	W21	(5) AT 3" = 1'-3"	63.6	1'-6"
W33, W36	W24, W27	(6) AT 3" = 1'-6"	74.2	1'-9"

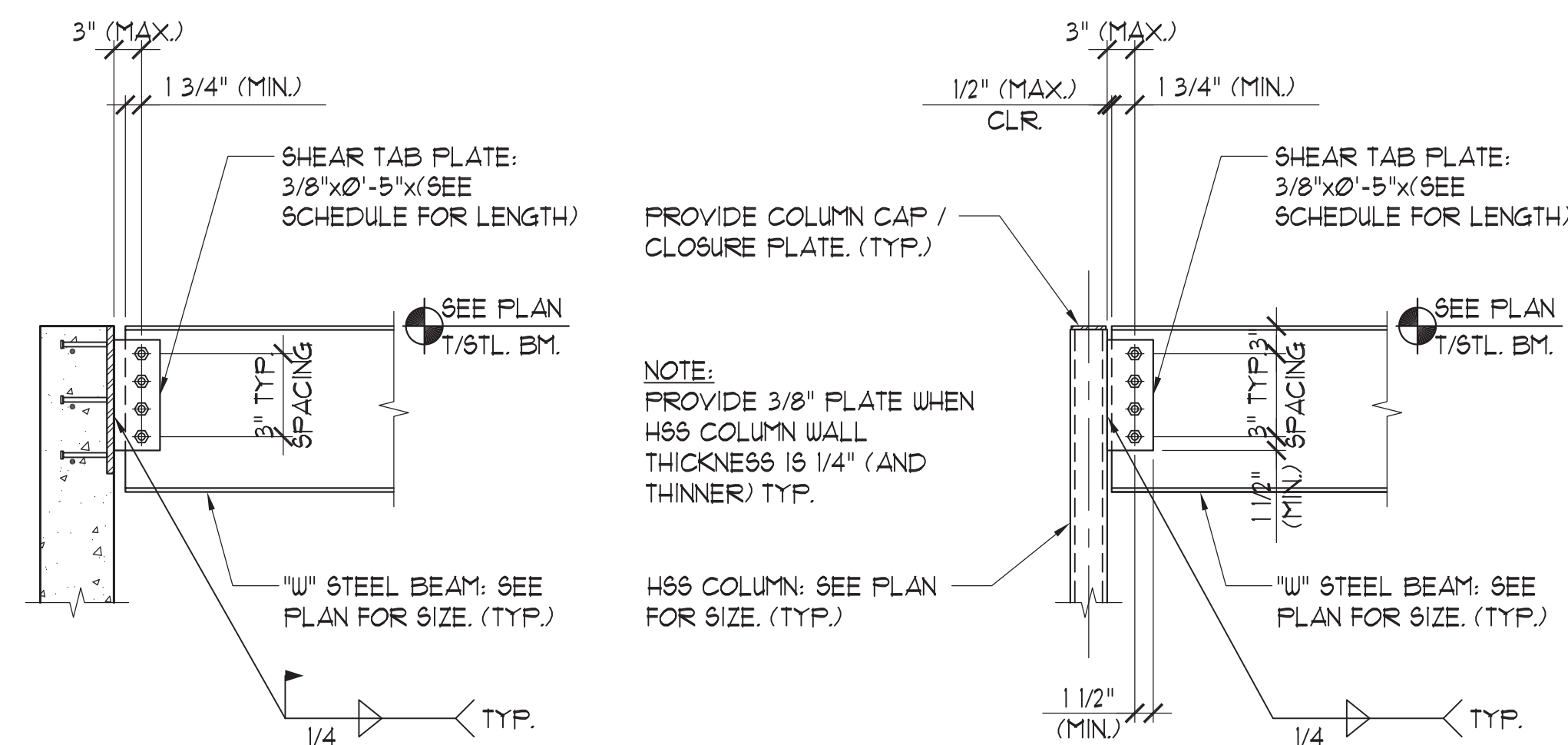


NOTE:
PRE-ENGINEERED JOISTS TO
COME WITH TYPE "S" TOP
CHORD EXTENDED ENDS.
(TYP.)

NOTE:
ALL HEADED STUD ANCHORS
SHALL BE WELDED WITH
AUTOMATIC WELDING MACHINE
DO NOT HAND WELD.



CONCRETE CONNECTION:
PROVIDE LONG SLOTTED
(HORIZ.) HOLES IN SHEAR
TAB PLATE. COVER ALL
SLOTTED HOLES WITH
5/16" (THICK) PLATE
WASHERS OR 5/16" (THICK)
CONTINUOUS BAR. CENTER
BOLTS IN CENTER OF LONG
SLOTTED HOLES AND
FINGER TIGHTEN BOLTS,
AFTER COMPLETED
INSTALLATION, JAM / SPOIL
THREADS. (TYP.)

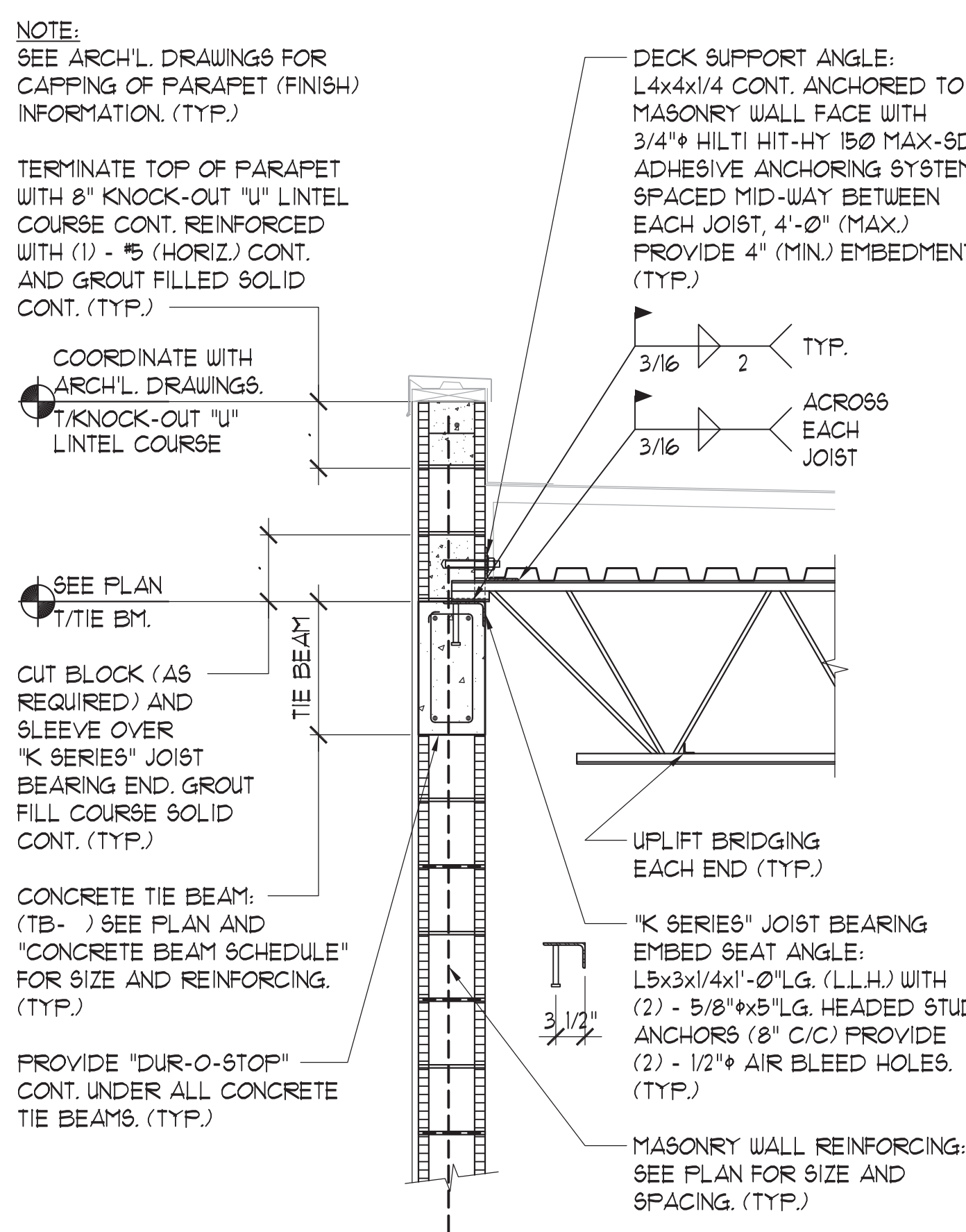


NOTE:
PROVIDE 3/8" PLATE WHEN
HSS COLUMN WALL
THICKNESS IS 1/4" (AND
THINNER) TYP.

1 TYP. W-BM TO CONCRETE
SHEAR CONNECTION DETAIL
SCALE: 3/4" = 1'-0"

2 TYPICAL W-BM. TO EMBED PLATE OF HSS COLUMN SHEAR CONNECTION DETAIL
SCALE: 3/4" = 1'-0"

3 JOIST BRG. AT EXT. CMU WALL
SCALE: 3/4" = 1'-0"

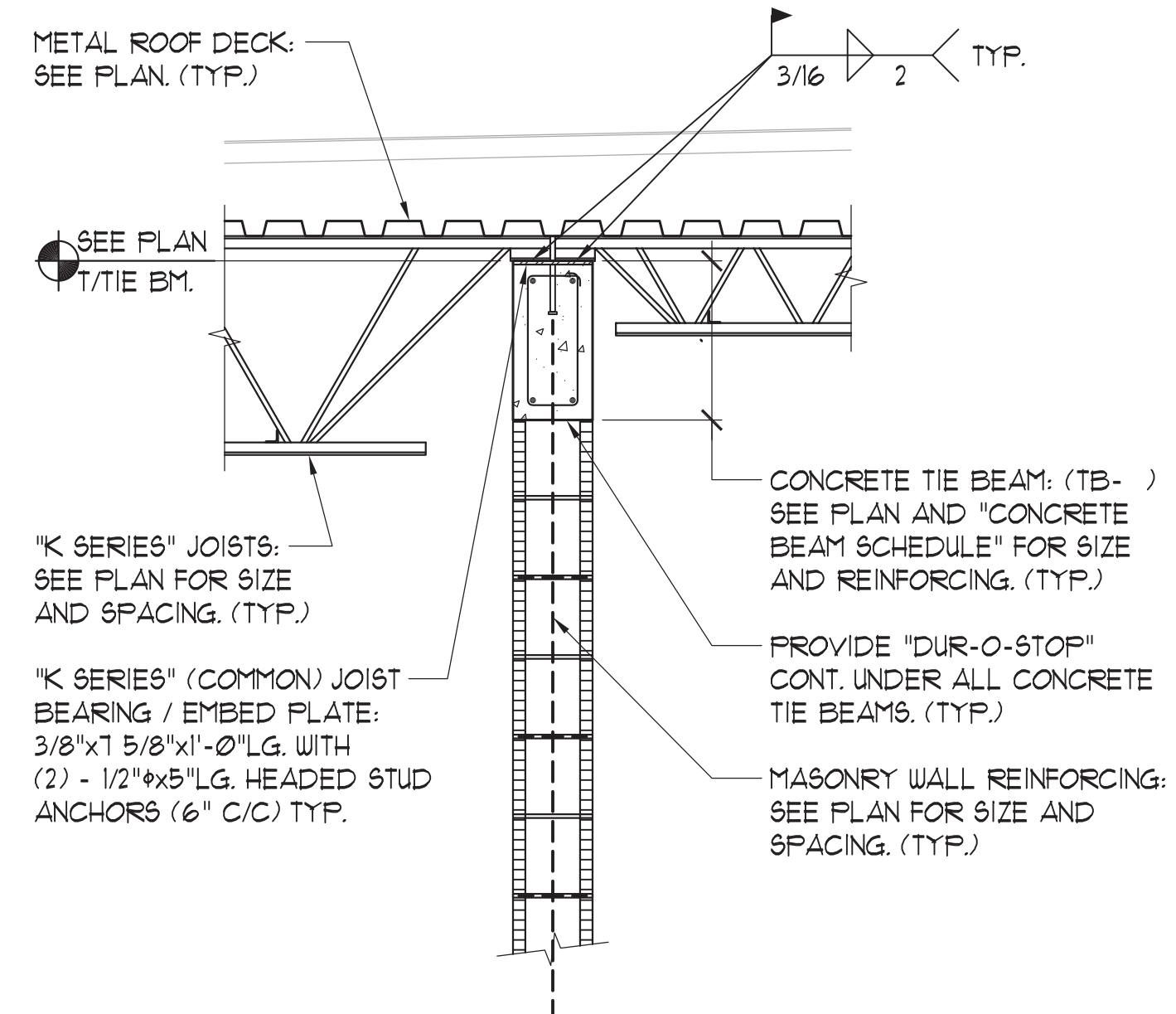


TERMINATE TOP OF PARAPET
WITH 8" KNOCK-OUT "U" LINTEL
COURSE CONT. REINFORCED
WITH (1) - #5 (HORIZ.) CONT.
AND GROUT FILLED SOLID
CONT. (TYP.)

CUT BLOCK (AS
REQUIRED) AND
SLEEVE OVER
"K SERIES" JOIST
BEARING END. GROUT
FILL COURSE SOLID
CONT. (TYP.)

CONCRETE TIE BEAM:
(TB-) SEE PLAN AND
"CONCRETE BEAM SCHEDULE"
FOR SIZE AND REINFORCING.
(TYP.)

PROVIDE "DUR-O-STOP"
CONT. UNDER ALL CONCRETE
TIE BEAMS. (TYP.)



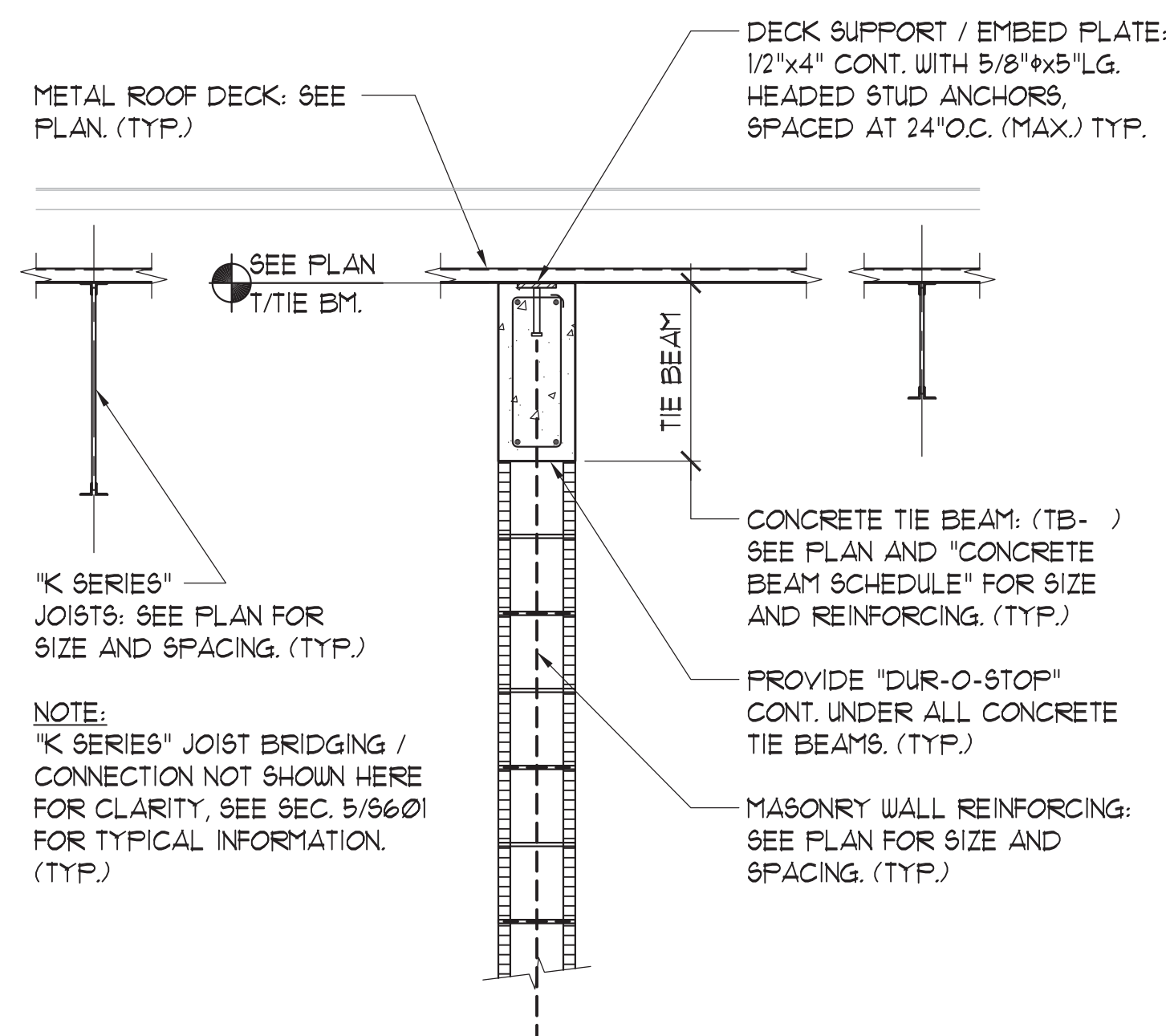
"K SERIES" JOISTS:
SEE PLAN FOR SIZE
AND SPACING. (TYP.)

"K SERIES" (COMMON) JOIST
BEARING / EMBED PLATE:
3/8"x1-0" LG. WITH
(2) - 1/2"x5" LG. HEADED STUD
ANCHORS (6" C/C) TYP.

CONCRETE TIE BEAM: (TB-)
SEE PLAN AND "CONCRETE
BEAM SCHEDULE" FOR SIZE
AND REINFORCING. (TYP.)

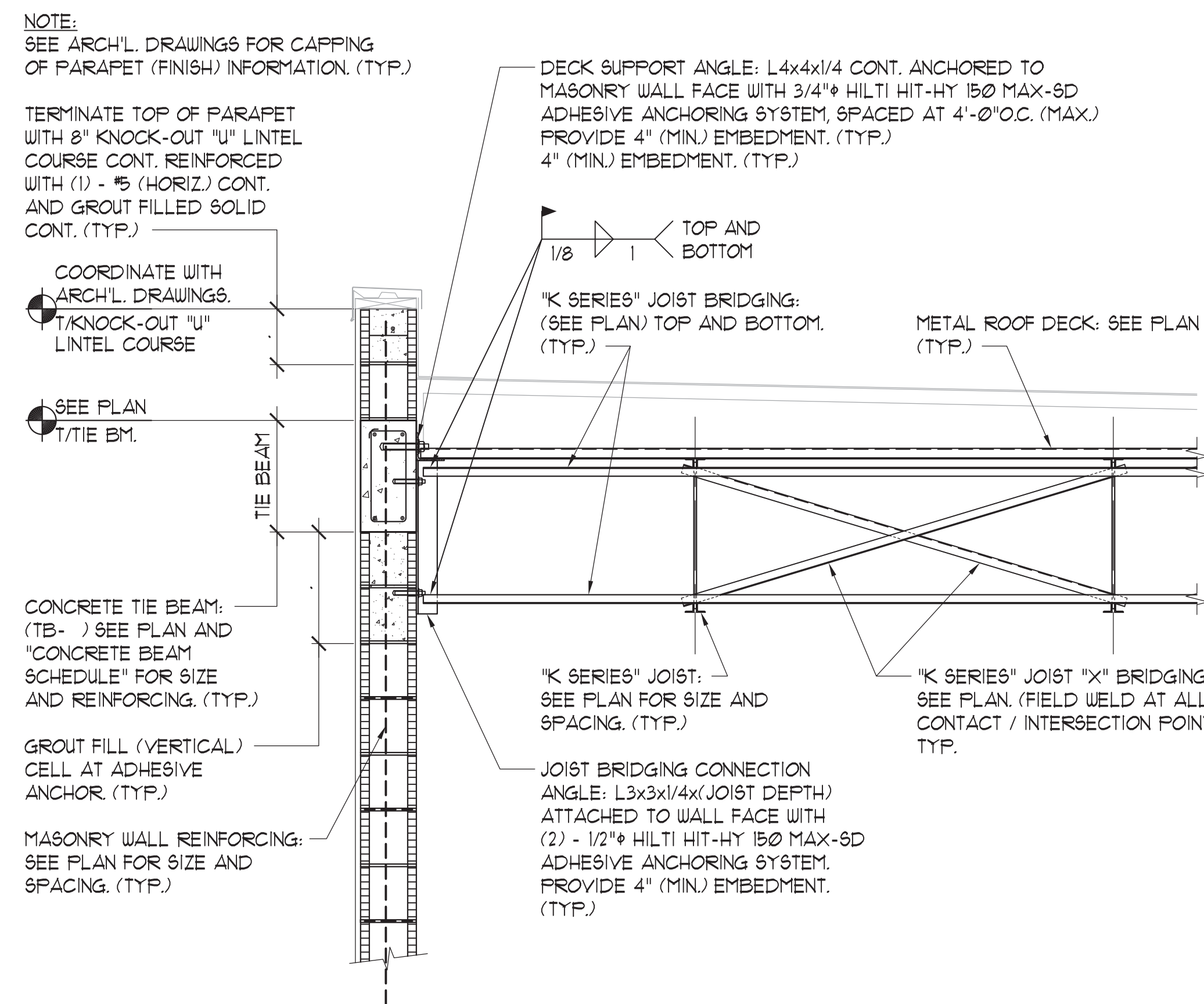
PROVIDE "DUR-O-STOP"
CONT. UNDER ALL CONCRETE
TIE BEAMS. (TYP.)

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



NOTE:
"K SERIES" JOIST BRIDGING /
CONNECTION NOT SHOWN HERE
FOR CLARITY, SEE SEC. 5/5601
FOR TYPICAL INFORMATION.
(TYP.)

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



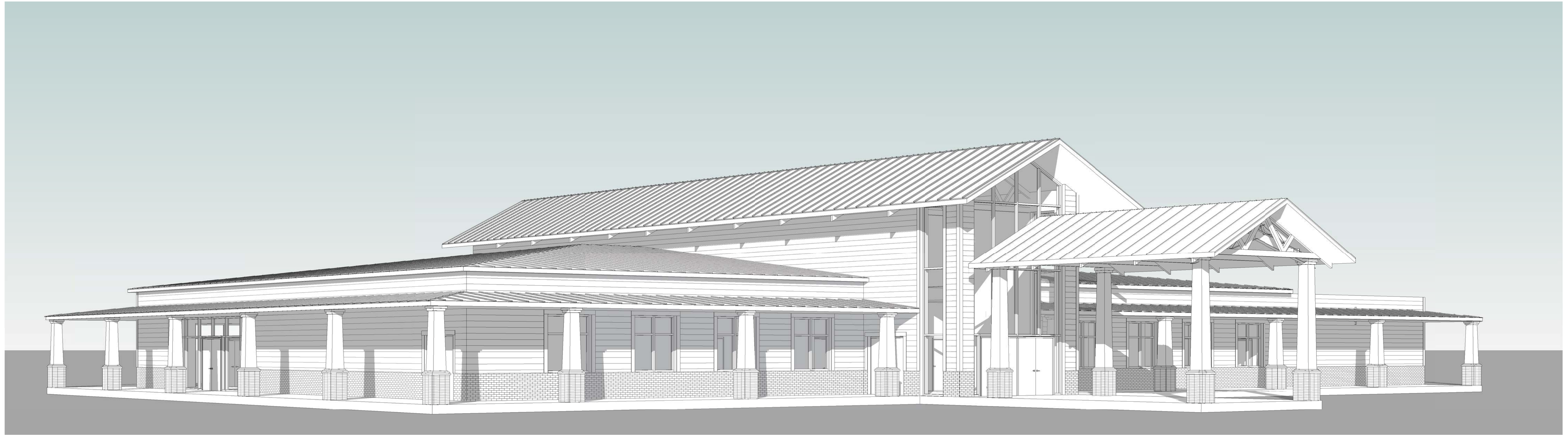
TERMINATE TOP OF PARAPET
WITH 8" KNOCK-OUT "U" LINTEL
COURSE CONT. REINFORCED
WITH (1) - #5 (HORIZ.) CONT.
AND GROUT FILLED SOLID
CONT. (TYP.)

CONCRETE TIE BEAM:
(TB-) SEE PLAN AND
"CONCRETE BEAM SCHEDULE"
FOR SIZE AND REINFORCING.
(TYP.)

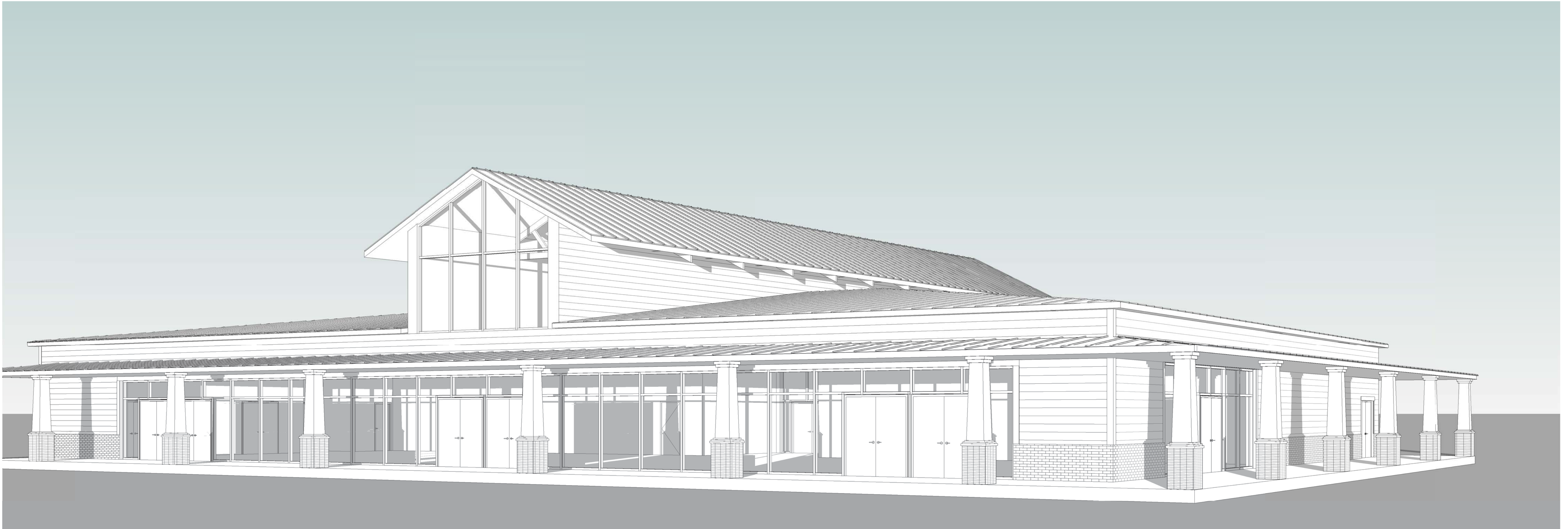
GROUT FILL (VERTICAL)
CELL AT ADHESIVE
ANCHOR. (TYP.)

MASONRY WALL REINFORCING:
SEE PLAN FOR SIZE AND
SPACING. (TYP.)

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



1 East (Entrance) Perspective



2 West Perspective

<p>BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS 720 Vassar Street, Orlando, FL 32804 407.418.1338 :: fax 407.418.1342</p> <p><small>CONTRACTOR: THE BOARD OF COUNTY COMMISSIONERS OF LEESBURG, FLORIDA PROJECT NO. 16-170 DATE: 11/20/2017</small></p>		SIGNATURE AND DATED SEAL	
		CONSULTANTS	
PROJECT No. 16-170		SHEET TITLE	
PHASE 30% Construction Documents		PERSPECTIVES	
SCALE		PROJECT ADDRESS	
DRAWN BY RP		201 E Dixie Ave., Leesburg, FL 34748	
CHECKED BY JLM		OWNER NAME AND ADDRESS	
DATE 11.20.2017		City of Leesburg 204 N 5th St., Leesburg, FL 34748	
<p style="text-align: center;">CITY OF LEESBURG VENETIAN GARDENS</p>			
<p style="text-align: center;">A000 OF</p>			

F:\City of Leesburg Community Center (16-170)\4 B Drawings\A - Active Drawings\1 B B+P\CGB Local\LeesburgCommunityCenter_Local_R16_cgongalez.rvt 11/21/2017 10:26:47 AM

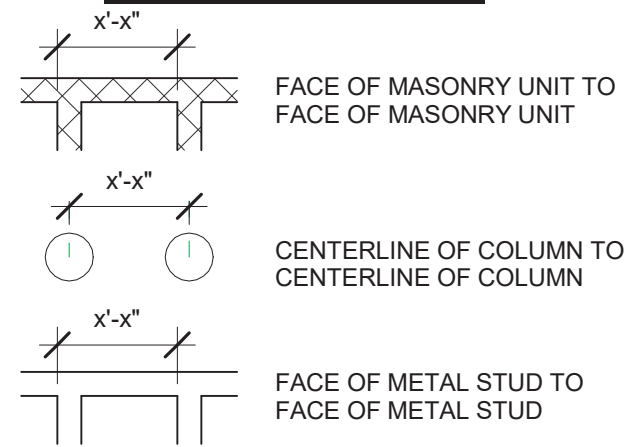
ABBREVIATIONS

AB ANCHOR BOLTS	FD FLOOR DRAIN	PC PORTLAND CEMENT
AC or A/C AIR CONDITIONING	FE FIRE EXTINGUISHER	PI PLATE
ACOUS ACOUSTICAL	FH FULL HEIGHT	PLYWD PLYWOOD
AD ACCESS DOOR	FHC FIRE HOSE CABINET	PR PAIR
AFF ABOVE FINISHED FLOOR	FIN FINISH	PREP PREPARATION
ALUM ALUMINUM	FLR FLOOR	PROJ PROJECTION
APPR APPROVED	FO FINISHED OPENING	QT QUARRY TILE
BD or BRD BOARD	FOS FACE OF STUD	R RISER
BLDG BUILDING	FOU FOUNDATION	RAD RADIUS
BLK BLOOK	FW FACE OF WALL	RD ROOF DRAIN
BM BEAM	FS FLOOR SINK	REF REFERENCE
BOB BOTTOM OF BEAM	FT FEET	REFL REFLECTED
BOT BOTTOM	GA GAUGE	REINF REINFORCE
C/C CENTER TO CENTER	GALV GALVANIZE	REQD REQUIRED
CEM CEMENT	GL GLASS	REV REVERSE
CER CERAMIC	GR GRADE	RM ROOM
CH CEILING HEIGHT	GYP BD GYPSUM BOARD	RO ROUGH OPENING
CJ CONTROL JOINT		
CLG or CEIL CEILING		
CLO CLOSET	HDWD HARDWOOD	SCWD SOLID CORE WOOD DOOR
CLR CLEAR	HM HOLLOW METAL	SECT SECTION
CMU CONCRETE MASONRY UNIT	HORIZ HORIZONTAL	SHT SHEET
COL COLUMN		SIM SIMILAR
COMP COMPOSITION	ID INSIDE DIAMETER	SIMUL SIMULATED
CONC CONCRETE	INSUL INSULATION	SPECS SPECIFICATIONS
CONN CONNECTION	INT INTERIOR	SQ SQUARE
CONT CONTINUOUS	JAN JANITOR	SS STAINLESS STEEL
CORR CORRIDOR	LAV LAVATORY	STD STANDARD
CSK COUNTERSINK	LEV LEVEL	STL STEEL
	LTG LIGHTING	STRUCT STRUCTURAL
	LT WT LIGHT WEIGHT	SUSP SUSPENDED
		SYM SYMMETRICAL
DBL DOUBLE		T TREAD
DF DRINKING FOUNTAIN		TACKBOARD TACKBOARD
DIA DIAMETER		T&G TONGUE AND GROOVE
DIAG DIAGONAL		TEL TEMPERED
DIM DIMENSION	MAINT MAINTENANCE	TEL TELEPHONE
DN DOWN	MATL MATERIAL	THK THICK
DO DOOR OPENING	MAX MAXIMUM	TOC TOP OF CONCRETE / CURB
DR DOOR	MECH MECHANICAL	TOP TOP OF PARAPET
DS DOWNSPOUT	MTL METAL	TOS TOP OF STEEL
DTL DETAIL	MEZZ MEZZANINE	TOW TOP OF WALL
DWG DRAWINGS	MFR MANUFACTURER	TYP TYPICAL
	MIN MINIMUM	
EA EACH	MISC MISCELLANEOUS	UNO UNLESS NOTED OTHERWISE
EJ EXPANSION JOINT	MO MASONRY OPENING	VERT VERTICAL
ELEC ELECTRICAL	MT METAL THRESHOLD	WC WATER CLOSET
ELEV or EL ELEVATION	MULL MULLION	WD WOOD
EQ EQUIPMENT		WI WROUGHT IRON
EXIST EXISTING		WL WATER LEVEL
EXT EXTERIOR		WP WATERPROOFING
EWC ELEC. WATER COOLER		WP WORKING POINT
	N NEW	
	NO NUMBER	
	NR NON-RATED	
	NTS NOT TO SCALE	
	OC ON CENTER	
	OD OUTSIDE DIAMETER	
	OH OPPOSITE HAND	
	OPNG OPENING	
	OPP OPPOSITE	

MATERIALS LEGEND

SYMBOL	LEGEND
	BATT INSULATION
	CONCRETE
	EARTH OR FINISHED GRADE
	GRATING, SPAN DIRECTION INDICATED
	GYPSUM WALLBOARD / PLASTER
	MASONRY - CONCRETE BLOCK (PLAN)
	METAL STUD WALL (PLAN)
	RIGID INSULATION
	STEEL
	PLYWOOD
	WOOD BLOCKING / WOOD FRAMING

DIMENSIONING



ARCHITECTURAL ANNOTATION LEGEND

SYMBOL	LEGEND
	DOOR IDENTIFIER
	LOUVER IDENTIFIER
	WALL TYPE INDICATOR
	WINDOW IDENTIFIER
Room name 	ROOM IDENTIFICATION TAG
Room name 	ROOM IDENTIFICATION TAG + AREA
	LEVEL HEAD INDICATOR
	GRID REFERENCE INDICATOR
	DETAIL INDICATOR / DETAIL CALLOUT
	ELEVATION INDICATOR
	SECTION HEAD INDICATOR
	NORTH ARROW
	DIRECTION OF SLOPE DOWN
	BREAK LINE
	CENTER LINE
	CONTROL JOINT
	EXPANSION JOINT
	REVISION TAG
	LEFT SIDED ELEVATION
	RIGHT SIDED ELEVATION
	TILE TAG

ARCHITECTURAL GENERAL NOTES:

- CONTRACTOR SHALL VISIT AND INSPECT THE PREMISES, PRIOR TO SUBMITTING THEIR PROPOSAL, TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS UNDER WHICH WORK WILL BE PERFORMED. NO SUBSEQUENT EXTRAS OR ADDITIONS WILL BE ALLOWED ON ANY CLAIM DUE TO LACK OF KNOWLEDGE OF CONDITIONS OR CIRCUMSTANCES ABOUT WHICH THE CONTRACTOR COULD HAVE INFORMED THEMSELVES.
- CONTRACTOR SHALL, BEFORE COMMENCING WORK, REVIEW ALL PLANS, NOTES, GENERAL CONDITIONS, AND SPECIFICATIONS AND VERIFY ALL GOVERNING DIMENSIONS ON THE JOB SITE. THE CONTRACTOR SHALL EXAMINE ALL ADJOINING AREAS OR AREA UPON WHICH THE PERFORMANCE OF HIS WORK IS IN ANY WAY DEPENDENT. ALL VARIANCES OR DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO FABRICATION OR ERECTION OF WORK IN QUESTION. ANY VARIANCES OR DISCREPANCIES IN THE DOCUMENTS NOT REPORTED IMMEDIATELY TO THE ARCHITECT SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL MAKE KNOWN TO THE ARCHITECT ANY LIMITATIONS, EXCLUSIONS, OR MODIFICATIONS TO THE DOCUMENTS DURING THE PRICING PHASES OF THE PROJECT. UNLESS ADVISED OTHERWISE IN WRITING, THESE ITEMS SHALL BE PRESUMED INCLUDED IN THE CONTRACTOR'S PRICE.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF HIS MEASUREMENTS AND TOTAL FINISH REQUIREMENTS TO BE FURNISHED. NO REQUESTS FOR MATERIALS OR INSTALLATION EXTRAS WILL BE CONSIDERED DUE TO MEASUREMENT OR TAKEOFF ERRORS BY CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF 100% CONSTRUCTION DOCUMENTS TO ALL TRADES AND NOT THE RESPONSIBILITY OF THE ARCHITECT.
- CONTRACTOR IS TO PROVIDE ALL LABOR AND MATERIALS TO EXECUTE ALL WORK AS SHOWN ON THESE DRAWINGS WITH THE EXCEPTION OF ITEMS OR AREAS MARKED "NOT IN CONTRACT", "N.I.C.", OR "BY OTHERS".
- CONTRACTOR SHALL KEEP SUFFICIENT WORKERS ON THE JOB SITE AT ALL TIMES TO PERFORM THE WORK IN THE MOST EXPEDITIOUS MANNER CONSISTENT WITH GOOD WORKMANSHIP, SOUND BUSINESS PRACTICE AND THE BEST INTEREST OF THE TENANT.
- ALL FEES, TAXES, PERMITS, APPLICATIONS, CERTIFICATES OF INSPECTION AND THE FILING OF ALL WORK WITH GOVERNMENTAL AGENCIES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- CONTRACTOR SHALL NOT PROCEED WITH ANY ADDITIONAL WORK OR CHANGES FOR WHICH THEY EXPECT ADDITIONAL COMPENSATION WITHOUT WRITTEN AUTHORIZATION TO PERFORM SUCH WORK.
- CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE OF ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS OPERATIONS OF THE OPERATIONS OF ANY OTHER CONTRACTORS WITHIN THE AREA OF WORK. METHODS FOR SUCH REMOVAL MUST BE AGREEABLE TO THE OWNER.
- PREMISES SHALL BE SWEEP CLEAN DAILY OF CONSTRUCTION DEBRIS.
- FINAL CLEANING PRIOR TO END USER OCCUPANCY SHALL INCLUDE (BUT NOT BE LIMITED TO): CLEANING OF ALL WOOD AND GLASS SURFACES, DUSTING OF ALL HORIZONTAL SURFACES, VACUUMING OF ALL CARPETED AREAS, REMOVAL OF ALL STAINS, SPOTS, SPILLS, ETC. ON ANY SURFACE, MOP CLEANING AND WAXING OF ALL RESILIENT FLOORS, AND CLEANING ALL VINYL WALL COVERINGS FREE FROM DIRT ADHESIVE OR OTHER FOREIGN MATERIALS.
- GENERAL CONTRACTOR AND HIS VENDORS SHALL DETERMINE AVAILABILITY OF ALL FINISH MATERIALS, TRADES AND ITEMS SHOWN IN THESE DOCUMENTS. ANY DELIVERY THAT MAY CAUSE POTENTIAL PROBLEMS IN MEETING AGREED UPON CONSTRUCTION SCHEDULE SHALL BE BROUGHT TO THE ARCHITECT ATTENTION FOR POSSIBLE REEVALUATION OF MATERIAL DESIGNATION.
- THE CONTRACTOR SHALL BE ANSWERABLE FOR THEIR WORK AND SHALL NOT ACCEPT INSTRUCTION FROM LOCAL PERSONNEL WITHOUT VERIFICATION FROM THE TENANT'S AGREED UPON REPRESENTATIVE. THE CONTRACTOR WILL BE LIABLE FOR ANY EXPENSE CAUSED BY THE EXECUTION AND REMOVAL OF SUCH WORK WITHOUT WRITTEN AUTHORIZATION FROM THE TENANT'S REPRESENTATIVE.
- PROVIDE ALL WOOD BLOCKING NECESSARY FOR THE ATTACHMENT OF MISCELLANEOUS EQUIPMENT INCLUDING BUT NOT LIMITED TO TOILET ACCESSORIES, TV BRACKETS, DOOR HARDWARE, ELECTRICAL DEVICES, EQUIPMENT, GRAB BARS, HANDRAILS, CASEWORK AND MILLWORK, AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH ALL THE RULES AND REGULATIONS OF THE BUILDING AS TO HOURS OF AVAILABILITY OF ELEVATORS, LOADING DOCKS, ETC. FOR THE PURPOSE OF DELIVERY AND THE MANNER OF HANDLING MATERIALS, EQUIPMENT AND DEBRIS, TO AVOID CONFLICT OR INTERFERENCE WITH NORMAL BUILDING OPERATIONS.
- EACH CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH CONSTRUCTION AND OBTAIN ALL MEASUREMENTS REQUIRED FOR PROPER EXECUTION OF WORK. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. WHEN VERIFICATION OF EXISTING DIMENSIONS IS REQUIRED, THE CONTRACTOR REQUIRING SAID VERIFICATION FOR THE CONSTRUCTION OR FABRICATION OF HIS MATERIAL SHALL BE THE CONTRACTOR RESPONSIBLE FOR THE PROCUREMENT OF THE FIELD INFORMATION.
- THE TRANSITION OF DIFFERENT FLOORING MATERIALS AT A DOORWAY SHALL OCCUR AT THE CENTERLINE OF DOOR UNLESS INDICATED OTHERWISE.
- ALL WALL SURFACES, DOOR FRAMES, BULKHEADS AND CEILINGS SHALL RECEIVE PAINT WHEN PAINT IS INDICATED ON THE FINISH SCHEDULE OR FINISH PLANS. PAINT SURFACES BEHIND MOVABLE EQUIPMENT AND FURNITURE SAME AS SIMILAR EXPOSED SURFACES. PAINT SURFACES BEHIND PERMANENTLY FIXED EQUIPMENT OR FURNITURE WITH PRIME COAT ONLY BEFORE FINAL INSTALLATION OF EQUIPMENT. PAINT ALL MECHANICAL AND ELECTRICAL EQUIPMENT EXPOSED IN FINISHED SPACES UNLESS INDICATED OTHERWISE.
- REPAIR ALL SURFACES DAMAGED BY NEW CONSTRUCTION TO MATCH EXISTING ADJACENT OR CONTIGUOUS FINISH.
- CUTTING AND PATCHING AS A RESULT OF NEW CONSTRUCTION SHALL BE PERFORMED IN A WORKMANLIKE MANNER, AND SHALL MATCH IN COLOR, SHAPE, SIZE AND TEXTURE ADJACENT AND/OR CONTIGUOUS FINISHED SURFACES.
- FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED MEASUREMENTS. DO NOT SCALE DRAWINGS.
- DETAILED DRAWINGS AND LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.
- UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TAKEN FROM FACE OF STUDS TO FACE OF STUDS, OR FACE OF FINISH GYP. BD. (CORRIDORS), TO FACE OF FINISH.
- DOORS NOT OTHERWISE DIMENSIONED SHALL BE 8" FROM FACE OF ADJACENT CMU OR CONCRETE WALL TO ROUGH DOOR OPENING, AND 4" FROM FACE OF ADJACENT STUD WALL TO ROUGH DOOR OPENING.
- FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE PRODUCT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND STANDARD DETAILS, IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION REQUIREMENTS AND DESIGN INTENT.
- PLAN NORTH DIFFERS FROM ACTUAL NORTH. ACTUAL NORTH IS INDICATED ON PLAN SHEETS FOR REMAINDER OF DISCIPLINES UNO. ORDINAL DIRECTIONS ON NON-CIVIL PLAN DRAWINGS ARE IN REFERENCE TO PLAN NORTH UNO.
- IF THE CONTRACTOR ENCOUNTERS ANY UNFORESEEN CONDITION, THE ARCHITECT MUST BE MADE AWARE FOR A POSSIBLE CHANGE IN DESIGN.
- THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF CHASE, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THESE DRAWINGS WERE DESIGNED TO BE USED (AND REFERENCED) BY AN EXPERIENCED, QUALIFIED AND FLORIDA LICENSED GENERAL CONTRACTOR. INTERPRETATION OF THE PLANS BY A LAY PERSON IS NOT RECOMMENDED OR AUTHORIZED BY THE ARCHITECT.
- CONTRACTOR SHALL SUBMIT SAMPLES TO THE TENANT FOR REVIEW OF ALL MATERIALS INTENDED TO BE USE IN THE WORK PRIOR TO COMMENCEMENT OF WORK.
- WHEN THE JOB IS SUBSTANTIALLY COMPLETE, THE GENERAL CONTRACTOR SHALL PREPARE A PUNCH LIST OF ITEMS TO BE COMPLETED OR CORRECTED AND SUBMIT THIS LIST TO BUILDING OWNER AND TO THE TENANT. FAILURE TO INCLUDE ANY ITEMS ON THIS LIST DOES NOT ALTER THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE WORK IN ACCORDANCE WITH THESE DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE END USER (IN WRITING) ALL MANUFACTURER'S MANUALS, WARRANTIES, AND RECOMMENDED MAINTENANCE PROCEDURES/SCHEDULES FOR ALL EQUIPMENT AND FINISHES INSTALLED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE GOVERNMENTAL AGENCY HAVING JURISDICTION AND SHALL CONFORM TO ALL LIFE SAFETY AND SANITARY LAWS, CITY, COUNTY, STATE, AND/OR FEDERAL ORDINANCES WHICH APPLY.
- THE MANUFACTURER'S STANDARD DETAILS SHALL APPLY UNLESS OTHERWISE DETAILED IN CONSTRUCTION DOCUMENTS.
- FINISH FLOOR ELEVATION 0'-0" SHOWN ON ARCHITECTURAL DRAWINGS IS EQUAL TO ACTUAL FINISH FLOOR ELEVATIONS SHOWN ON CIVIL DRAWINGS.
- ASBESTOS OR ANY ASBESTOS CONTAINING MATERIAL SHALL NOT BE USED UNDER ANY CIRCUMSTANCES.

CITY OF LEESBURG VENETIAN GARDENS

	BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS 720 Vassar Street, Orlando FL 32804 407.418.1338 :: fax 407.418.1342	SIGNATURE AND DATED SEAL	
CONSULTANTS			
SHEET TITLE		ARCHITECTURAL INFORMATION	
PROJECT ADDRESS	201 E Dixie Ave., Leesburg, FL 34748	OWNER NAME AND ADDRESS	City of Leesburg 204 N 5th St., Leesburg, FL 34748
DATE			
REV.	DESCRIPTION		
16-170	30% Construction Documents		
	SCALE	As indicated	
	DRAWN BY	RP	
	CHECKED BY	JLM	
	DATE	11.20.2017	

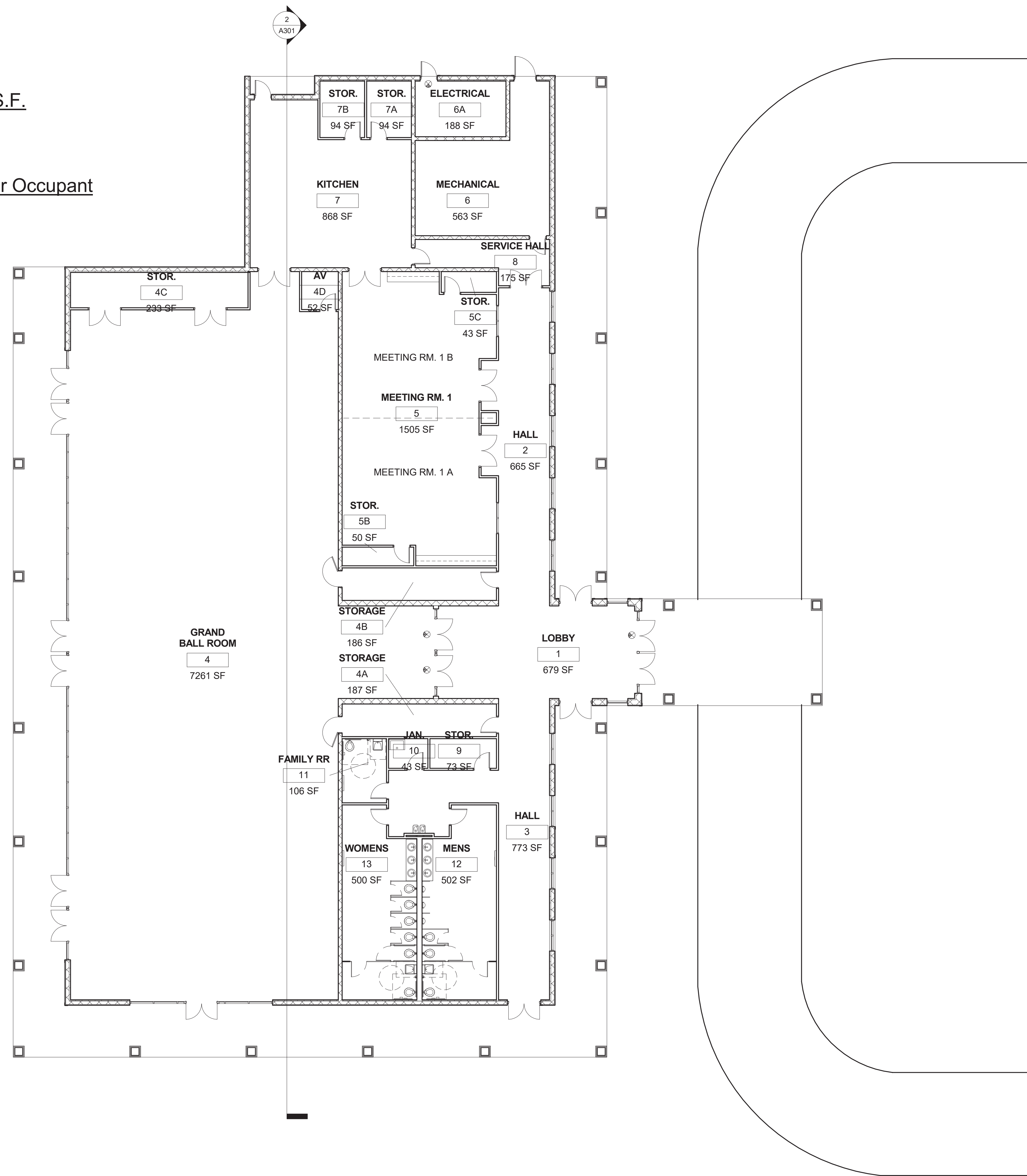
A001

OF

General Information-

Building Area - 15,993 S.F.
 Covered Patio Area - 4,869 S.F.
 Total - 20,868 S.F.

Leasable Space - 8,766 S.F.
 Occupancy Rate - 15 S.F. per Occupant
 Leasable Occupancy - 585



Wall Type

TYPE	INDICATION	DESCRIPTION	COMMENTS
A		Brick Veneer from FF to 3'-0" AFF w/ Hardieboard Siding Above 8" CMU Block Furring w/ 2.5" Rigid Insulation 5/8" Gypsum Board	
B		Hardieboard Siding on Exterior Above 5/8" Gypsum Board when on Interior 12" CMU Block Furring w/ 2.5" Rigid Insulation 5/8" Gypsum Board	
C		8" CMU Block 5/8" Gypsum Board Each Side Paint Both Sides Full Height	
D		3-5/8" Metal Studs @16" O.C. With 5/8" Gypsum Board Each Side	

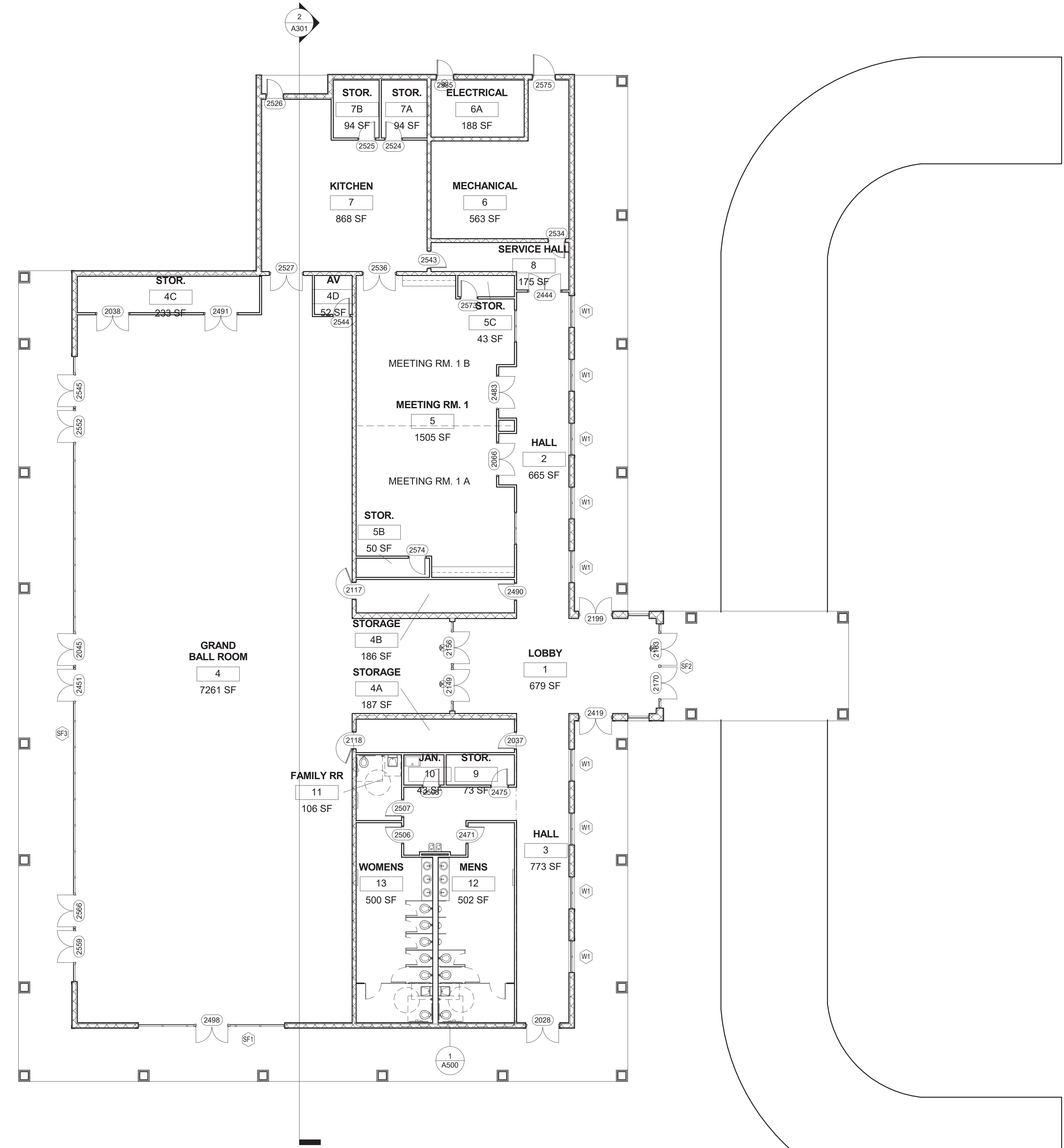
Wall Types
 1/4" = 1'-0"

1 FLOOR PLAN
 3/32" = 1'-0"

CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS 720 Vassar Street, Orlando, FL 32804 407.418.1338 :: fax 407.418.1342		SIGNATURE AND DATED SEAL
CONSULTANTS		FLOOR PLAN
PROJECT ADDRESS 201 E Dixie Ave., Leesburg, FL 34748	PROJECT ADDRESS 201 E Dixie Ave., Leesburg, FL 34748	SHEET TITLE FLOOR PLAN
OWNER NAME AND ADDRESS City of Leesburg 204 N 5th St., Leesburg, FL 34748	OWNER NAME AND ADDRESS City of Leesburg 204 N 5th St., Leesburg, FL 34748	DATE 11.20.2017
REV. DESCRIPTION 16-170 30% Construction Documents SCALE As indicated DRAWN BY RP CHECKED BY JN	DATE 11.20.2017	PROJECT No. 16-170 PHASE 30% Construction Documents SCALE As indicated DRAWN BY RP CHECKED BY JN DATE 11.20.2017

A101
 OF



1 ANNOTATION FLOOR PLAN
3/32" = 1'-0"

CITY OF LEESBURG VENETIAN GARDENS

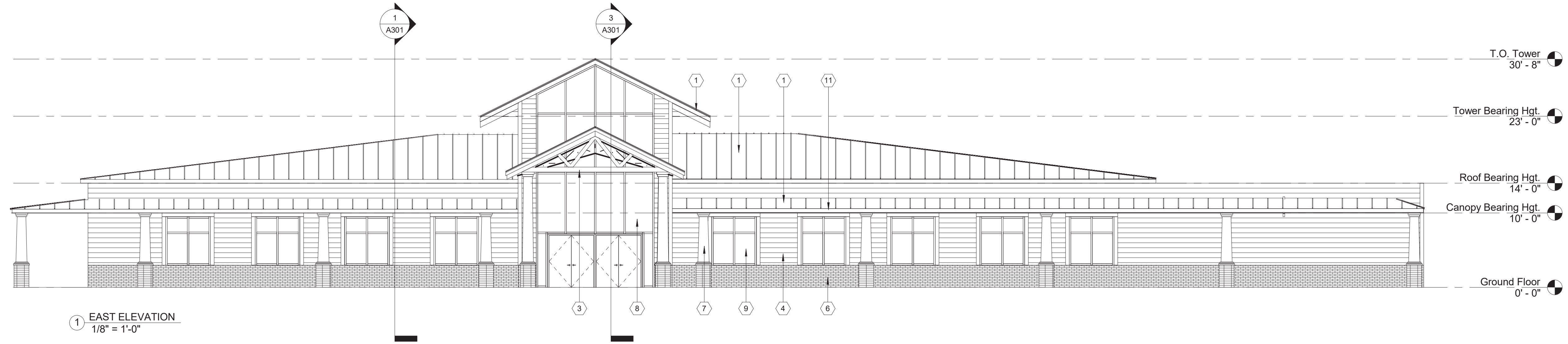
BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: fax 407.418.1342

SIGNATURE AND DATED SEAL

CONSULTANTS

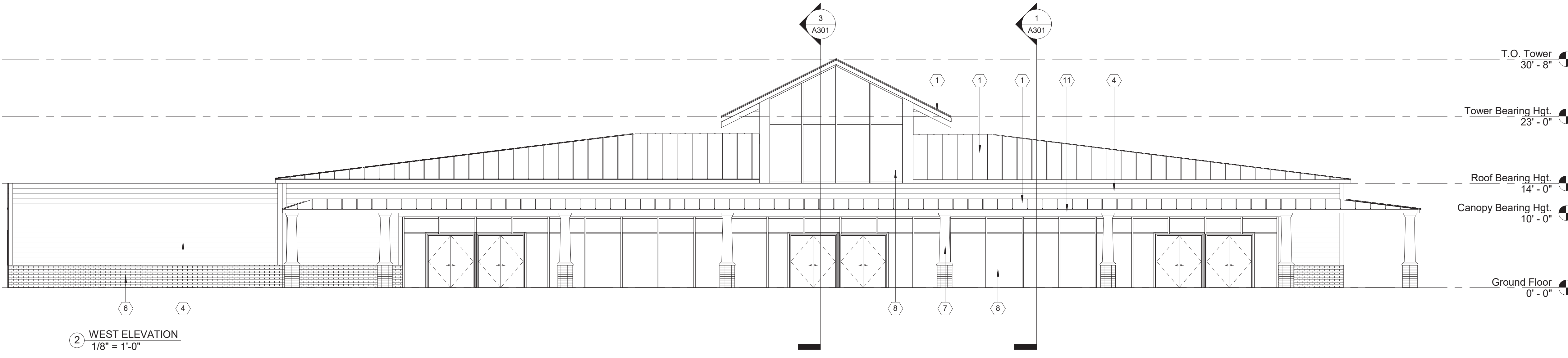
REV.	DESCRIPTION	DATE	PROJECT ADDRESS	SHEET TITLE
16-170				
30%	Construction Documents		2017 E Dixie Ave., Leesburg, FL 34748	ANNOTATION FLOOR PLAN
SCALE	3/32" = 1'-0"			
DRAWN BY	Author			
CHECKED BY	Checker			
DATE	11.20.2017			

A102
OF



1 EAST ELEVATION
1/8" = 1'-0"

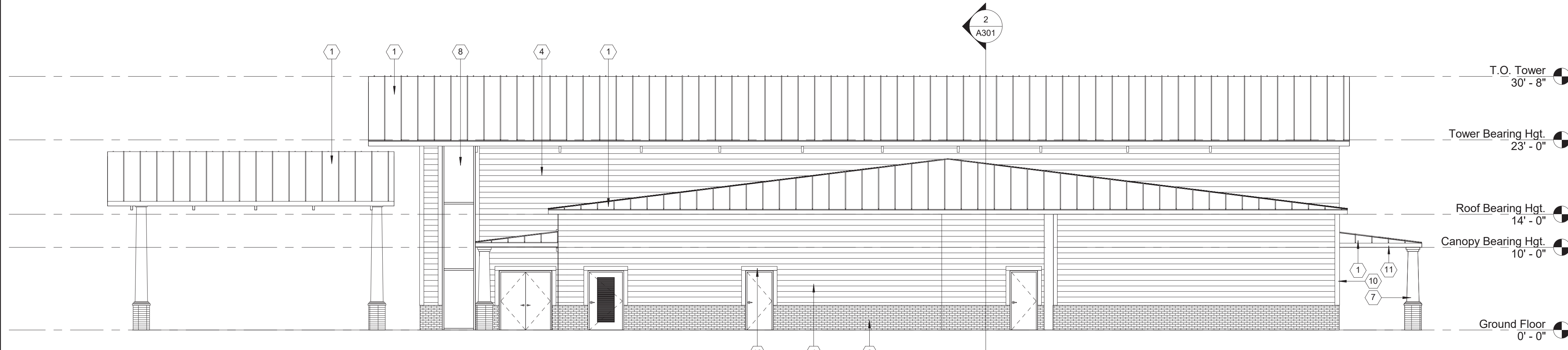
ELEVATION NOTES:	
KEY	DESCRIPTIONS
1	ROOF ASSEMBLY #1 <ul style="list-style-type: none"> STANDING SEAM 22GA METAL ROOF 16" PANEL WIDTH, W/ STANDOFF PANEL CLIPS UNDERLAYMENT OVER SUBSTRATE 5/8" APA RATED CDX PLYWOOD SHEATHING 3" POLYISOCYANURATE ROOF INSULATION METAL DECKING STRUCTURAL SYSTEM - REFER TO STRUCTURAL DRAWINGS
2	ROOF ASSEMBLY #2 <ul style="list-style-type: none"> ROOF MEMBRANE - SINGLE-PLY PVC RECOVERY/HARDBOARD MECH. FASTENED POLYISOCYANURATE INSULATION VAPOR / THERMAL BARRIER METAL DECKING
3	STRUCTURAL SYSTEM (REFER TO STRUC. DWG.)
4	FIBER CEMENT SIDING @ 16" O.C. ON 1X2 P.T. FURRING ON WATER RESISTANT BARRIER
5	EXTERIOR CORNER BOARD
6	BRICK VENEER MECH. FASTENED TO CMU WALL
7	ARCHITECTURAL COLUMN
8	STOREFRONT
9	WINDOW
10	DOOR AND WINDOW TRIM
11	GUTTER - K STYLE
12	OVERFLOW METAL SCUPPER (TYP.)
13	METAL DOWNSPOUT
14	MECHANICAL SYSTEMS (REFER TO MECH. DWG.)



2 WEST ELEVATION
1/8" = 1'-0"

CITY OF LEESBURG VENETIAN GARDENS

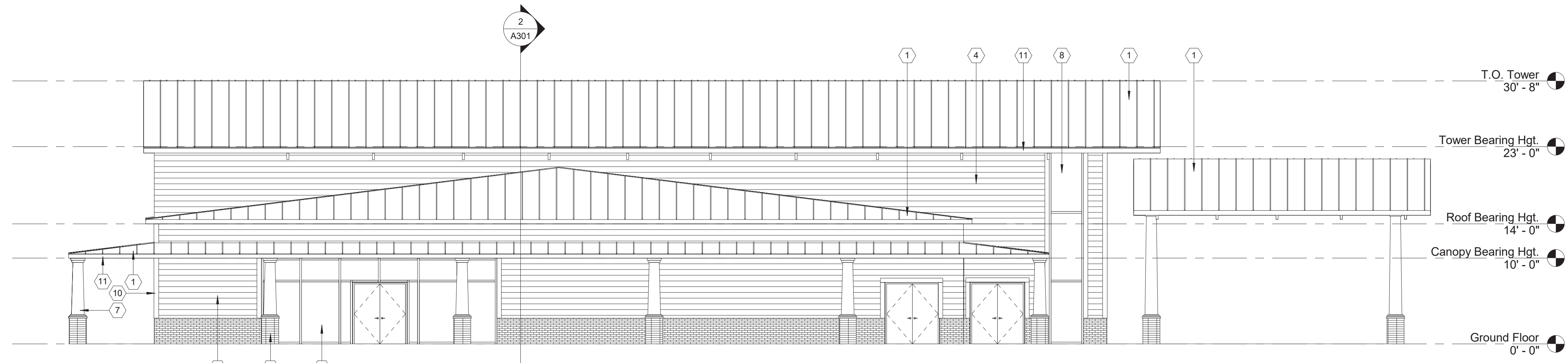
BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS 720 Vassar Street, Orlando, FL 32804 407.418.1338 :: fax 407.418.1342 <small>CONTRACTOR: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LEESBURG. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LEESBURG. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LEESBURG.</small>	
CONSULTANTS EXTERIOR BUILDING ELEVATIONS	SIGNATURE AND DATED SEAL
PROJECT ADDRESS 201 E Dixie Ave., Leesburg, FL 34748	OWNER NAME AND ADDRESS City of Leesburg 204 N 5th St., Leesburg, FL 34748
REV. DESCRIPTION DATE 16-170 30% Construction Documents 1/8" = 1'-0" 11/20/17 DRAWN BY Author CHECKED BY Checker	SHEET TITLE EXTERIOR BUILDING ELEVATIONS
PROJECT No. 16-170 PHASE 30% Construction Documents SCALE 1/8" = 1'-0" DRAWN BY Author CHECKED BY Checker DATE 11/20/17	
F:\City of Leesburg Community Center (16-170)\4 B Drawings\A - Active Drawings\1 B B+A\CGB Local\LeesburgCommunityCenter_Local_R16_cgonzalez.rvt 11/21/2017 10:26:53 AM	



1 NORTH ELEVATION
1/8" = 1'-0"

ELEVATION NOTES:

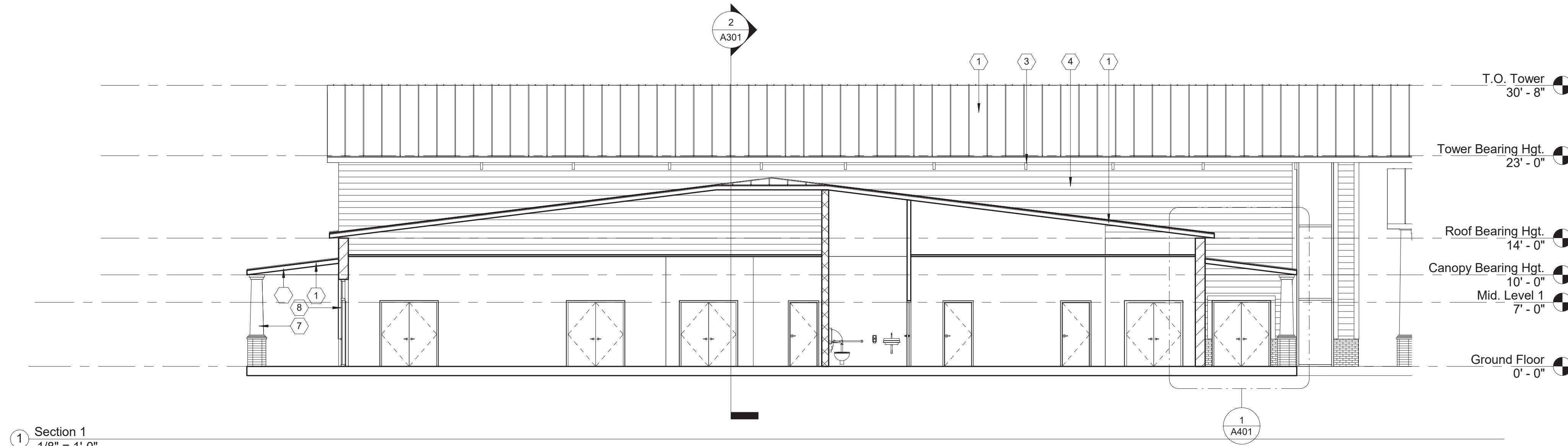
KEY	DESCRIPTIONS
1	ROOF ASSEMBLY #1 <ul style="list-style-type: none"> STANDING SEAM 22GA METAL ROOF 16" PANEL WIDTH, W/ STANDOFF PANEL CLIPS UNDERLAYMENT OVER SUBSTRATE 5/8" APA RATED CDX PLYWOOD SHEATHING 3" POLYISOCYANURATE ROOF INSULATION METAL DECKING STRUCTURAL SYSTEM - REFER TO STRUCTURAL DRAWINGS
2	ROOF ASSEMBLY #2 <ul style="list-style-type: none"> ROOF MEMBRANE - SINGLE-PLY PVC RECOVERY/HARDBOARD MECH. FASTENED POLYISOCYANURATE INSULATION VAPOR / THERMAL BARRIER METAL DECKING
3	STRUCTURAL SYSTEM (REFER TO STRUC. DWG.)
4	FIBER CEMENT SIDING @ 16" O.C. ON 1X2 P.T. FURRING ON WATER RESISTANT BARRIER
5	EXTERIOR CORNER BOARD
6	BRICK VENEER MECH. FASTENED TO CMU WALL
7	ARCHITECTURAL COLUMN
8	STOREFRONT
9	WINDOW
10	DOOR AND WINDOW TRIM
11	GUTTER - K STYLE
12	OVERFLOW METAL SCUPPER (TYP.)
13	METAL DOWNSPOUT
14	MECHANICAL SYSTEMS (REFER TO MECH. DWG.)



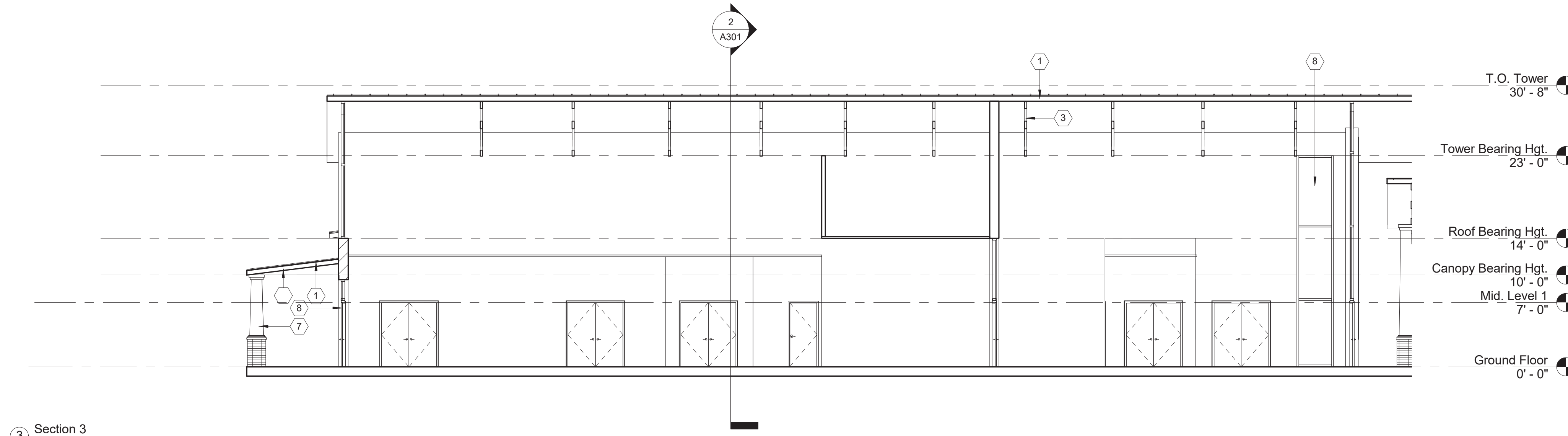
2 SOUTH ELEVATION
1/8" = 1'-0"

CITY OF LEESBURG VENETIAN GARDENS

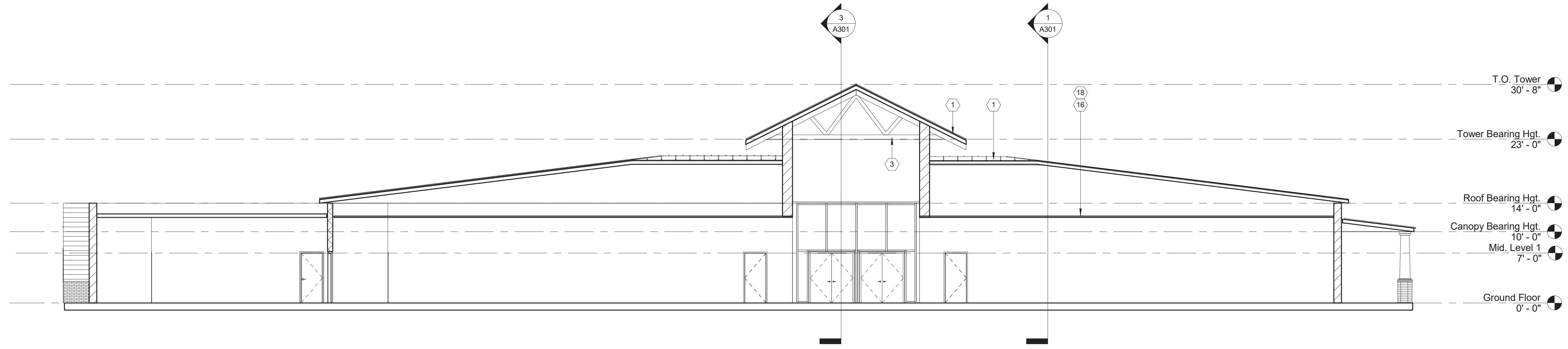
<p>BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS 720 Vassar Street, Orlando, FL 32804 407.418.1338 :: fax 407.418.1342</p>	
<p>CONTRACT NO. 16-170-04 B DRAWINGS LOCAL LEESBURG COMMUNITY CENTER</p>	
<p>PROJECT ADDRESS 201 E Dixie Ave., Leesburg, FL 34748</p>	<p>OWNER NAME AND ADDRESS City of Leesburg 204 N 5th St., Leesburg, FL 34748</p>
<p>PROJECT NO. 16-170</p>	<p>PHASE 30% Construction Documents</p>
<p>SCALE 1/8" = 1'-0"</p>	<p>DRAWN BY Author</p>
<p>CHECKED BY Checker</p>	<p>DATE 11.20.2017</p>
<p>CONSULTANTS</p>	
<p>SHEET TITLE</p>	
<p>EXTERIOR BUILDING ELEVATIONS</p>	
<p>SIGNATURE AND DATED SEAL</p>	



1 Section 1
1/8" = 1'-0"



3 Section 3
1/8" = 1'-0"



2 Section 2
1/8" = 1'-0"

ELEVATION NOTES:

KEY	DESCRIPTIONS
1	ROOF ASSEMBLY #1 <ul style="list-style-type: none"> STANDING SEAM 22GA METAL ROOF 16" PANEL WIDTH, W/ STANDOFF PANEL CLIPS UNDERLAYMENT OVER SUBSTRATE 5/8" APA RATED CDX PLYWOOD SHEATHING 3" POLYISOCYANURATE ROOF INSULATION METAL DECKING STRUCTURAL SYSTEM - REFER TO STRUCTURAL DRAWINGS
2	ROOF ASSEMBLY #2 <ul style="list-style-type: none"> ROOF MEMBRANE - SINGLE-PLY PVC RECOVERY/HARDBOARD MECH. FASTENED POLYISOCYANURATE INSULATION VAPOR / THERMAL BARRIER METAL DECKING
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8	STOREFRONT
9	WINDOW
10	DOOR AND WINDOW TRIM
11	GUTTER - K STYLE
12	OVERFLOW METAL SCUPPER (TYP.)
13	METAL DOWNSPOUT
14	FIBER CEMENT BOARD ON STEEL STUDS
15	TONGUE & GROOVE WOOD PLANK CEILING
16	CEILING SUPPORT - SUSPENSION SYSTEM
17	CEILING SUPPORT - RESILIENT CHANNELS
18	CEILING SYSTEM - ACOUSTICAL CEILING TILES
19	CEILING SYSTEM - GYPSUM BOARD
20	FOOTING (REFER TO STRUCTURAL DWG.)
21	MECHANICAL SYSTEMS (REFER TO MECH. DWG.)

CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: fax 407.418.1342

SIGNATURE AND DATED SEAL

BUILDING SECTIONS

SHEET TITLE

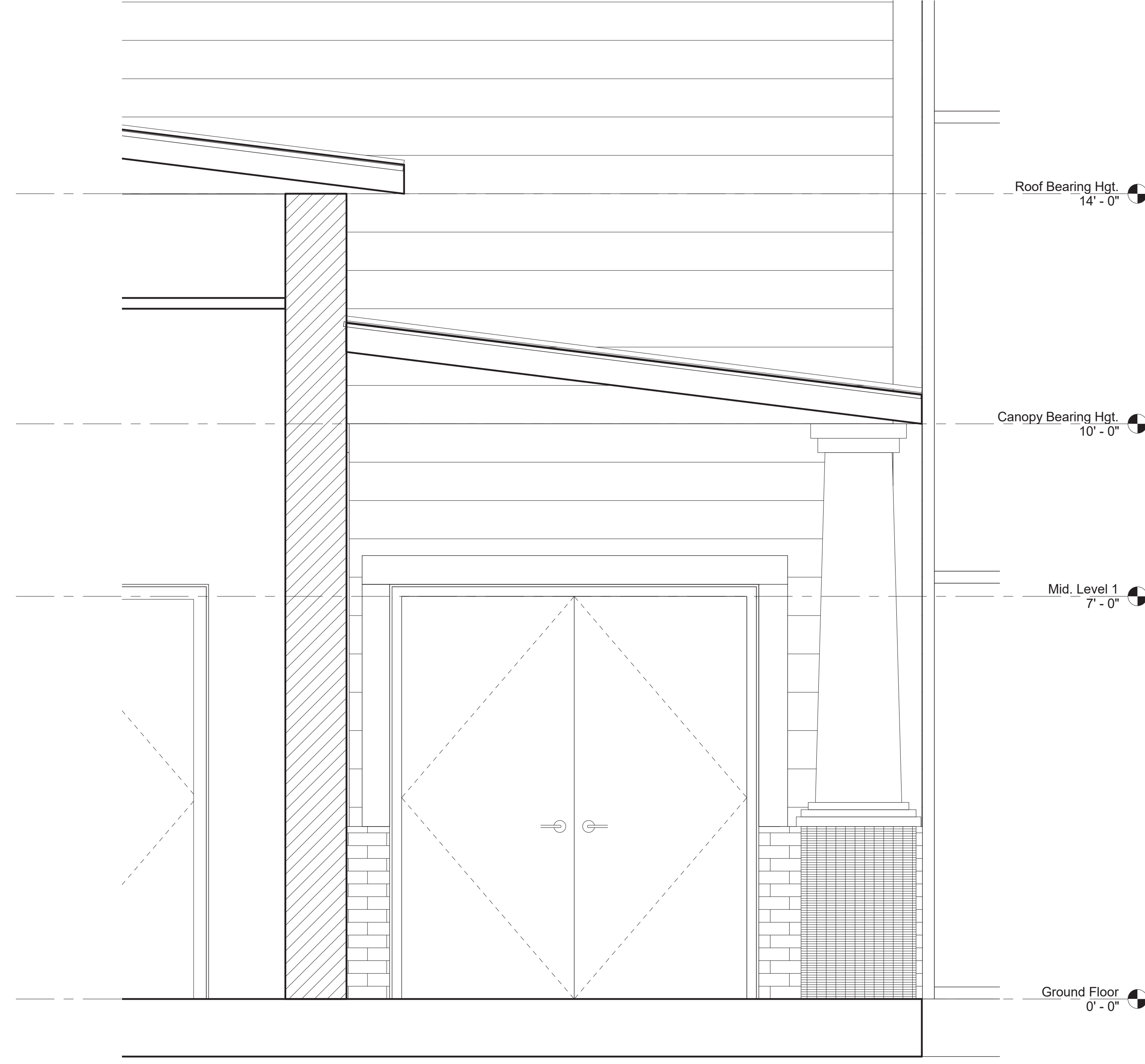
PROJECT ADDRESS
301 E Dixie Ave., Leesburg, FL 34748

OWNER NAME AND ADDRESS
City of Leesburg
204 N 5th St., Leesburg, FL 34748

REV.	DESCRIPTION	DATE
16-170	30% Construction Documents	
1/8" = 1'-0"	SCALE	
RP	DRAWN BY	
JLM	CHECKED BY	
11.20.2017	DATE	

A301
OF

① Section 1 - Callout 1
3/4" = 1'-0"



PROJECT No.	16-170
PHASE	30% Construction Documents
SCALE	3/4" = 1'-0"
DRAWN BY	Author
CHECKED BY	Checker
DATE	11.20.2017

REV.	DESCRIPTION	DATE	PROJECT ADDRESS
			201 E Dixie Ave, Leesburg, FL 34748
			OWNER NAME AND ADDRESS
			City of Leesburg 204 N 5th St, Leesburg, FL 34748

SHEET TITLE	WALL SECTIONS
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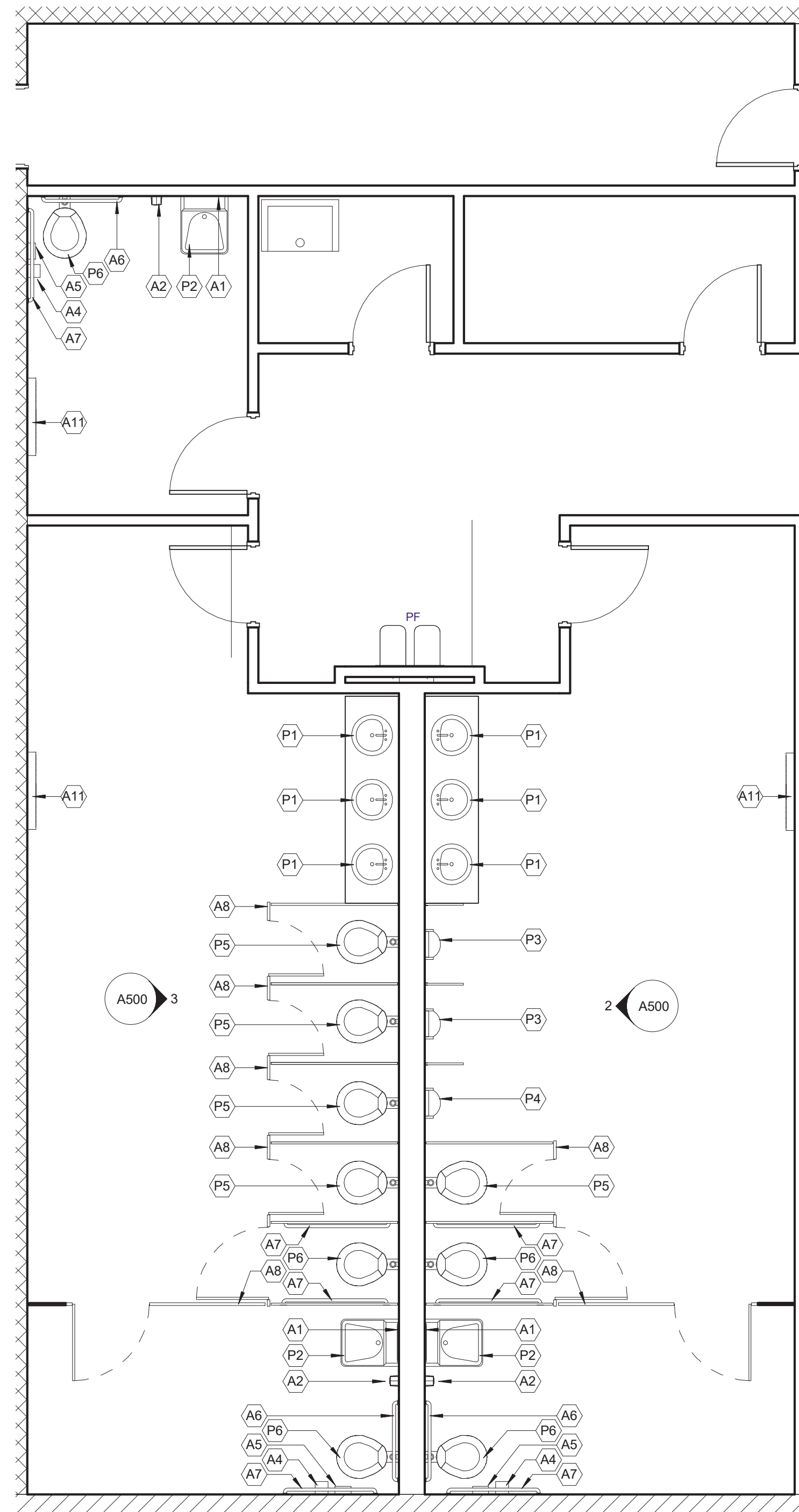
CONSULTANTS	
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SIGNATURE AND DATED SEAL	
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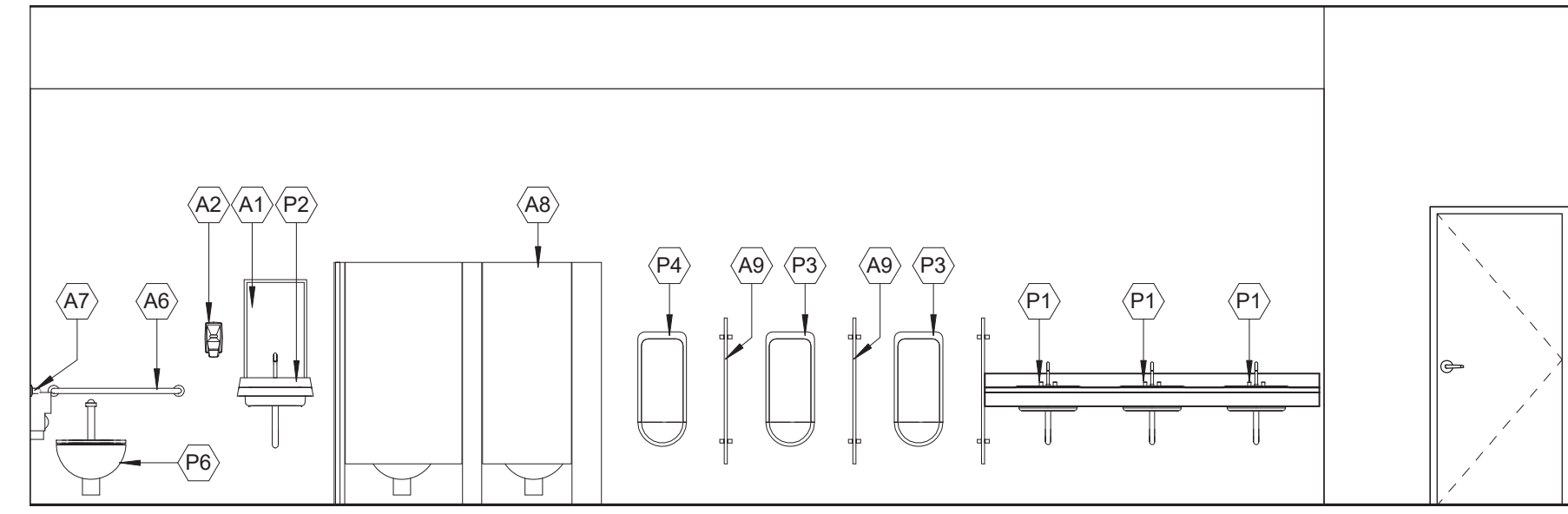
BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando, FL 32804
407.418.1338 :: fax 407.418.1342

CONTRACTOR: THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA
PROJECT LOCATION: 204 N 5TH ST, LEESBURG, FL 34748
DATE: 11/20/2017

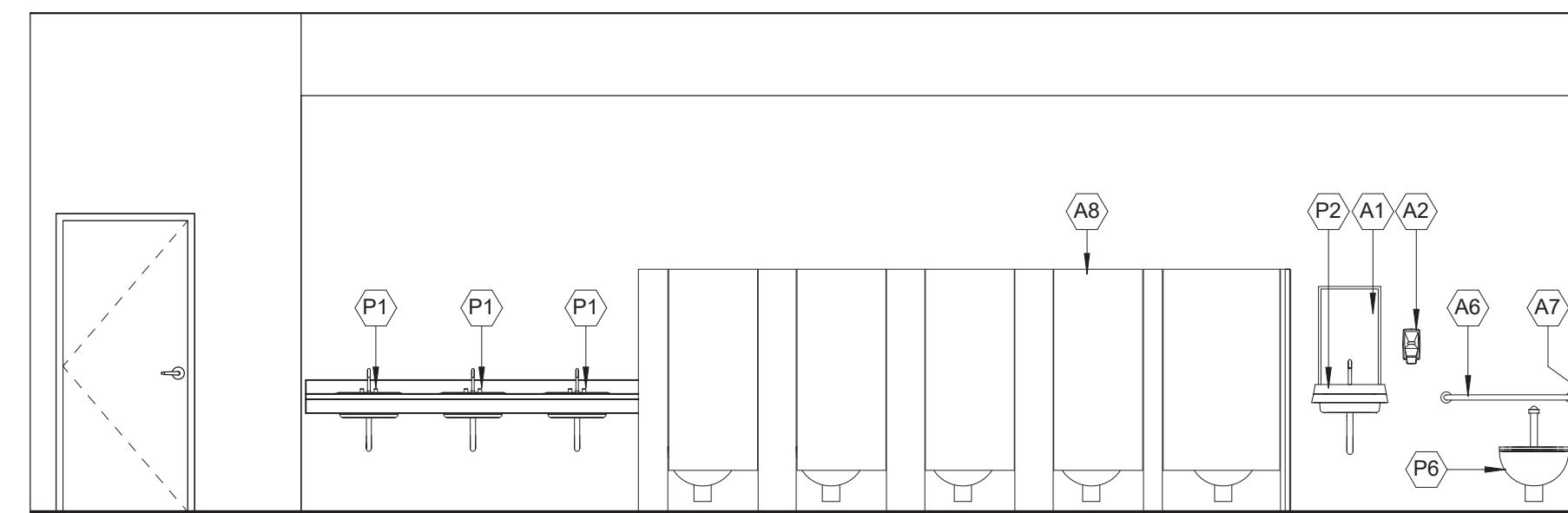
CITY OF LEESBURG VENETIAN GARDENS



1 RESTROOM ENLARGED PLAN
1/4" = 1'-0"



2 RESTROOM ELEVATION
1/4" = 1'-0"



3 RESTROOM ELEVATION
1/4" = 1'-0"

RESTROOM KEYNOTES:

KEY	DESCRIPTIONS
P1	LAVATORY W/ UNDERCOUNTER PIPE GUARD
P2	LAVATORY ADA W/ UNDERCOUNTER PIPE GUARD
P3	URINAL
P4	URINAL ADA
P5	TOILET
P6	TOILET ADA
P7	DRINKING FOUNTAIN / WATER BOTTLE REFILLING STATION
A1	WALL MIRROR
A2	LIQUID SOAP DISPENSER - WALL MOUNTED
A3	ELECTRIC HAND DRYER
A4	TOILET TISSUE DISPENSER - DOUBLE ROLL
A5	SANITARY NAPKIN DISPENSER
A6	36" STRAIGHT GRAB BAR
A7	42" STRAIGHT GRAB BAR
A8	TOILET PARTITION SYSTEM - FLOOR ANCHORED / OVERHEAD BRACED, STANDARD PRIVACY STYLE.
A9	URINAL SCREEN SYSTEM - WALL HUNG
A10	ROBE HOOK
A11	BABY CHANGING STATION
A12	SEMI-RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE

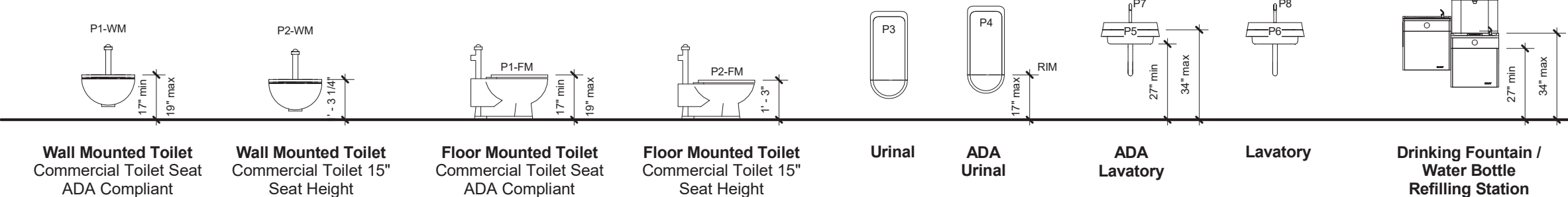
RESTROOM NOTES:

PROVIDE TILE ON ALL WET WALL - REFER TO INTERIOR DRAWINGS FOR MORE DETAILS

FIXTURES & ACCESSORIES MOUNTING HEIGHTS MAY CHANGED DEPENDING ON THE SPECIFIC FIXTURES SELECTED. ALL PROPOSED FIXTURES MUST BE REVIEWED AND APPROVED.

FOR THE MOUNTING HEIGHT OF EACH FIXTURES & ACCESSORIES REFER TO ARCHITECTURAL INFORMATION SHEET. ALL ITEM TO BE MOUNTED IN ACCORDANCE WITH FLORIDA BUILDING CODE 2014 - 5th EDITION

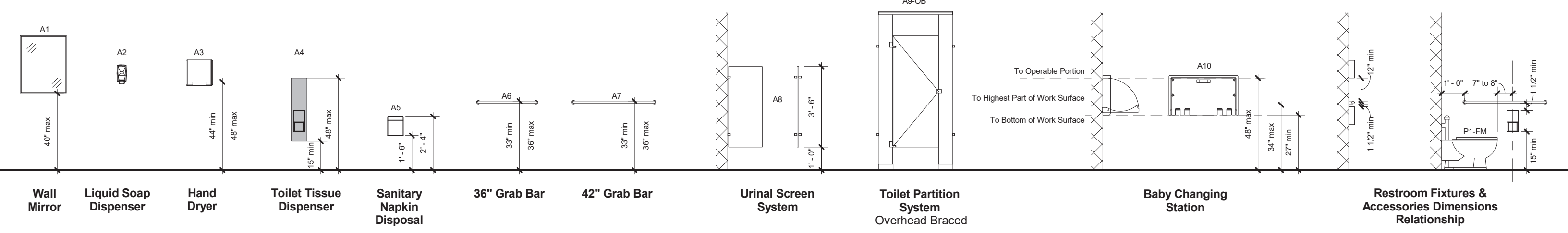
PLUMBING FIXTURES



NOTE:
FIXTURES & ACCESSORIES MOUNTING HEIGHTS MAY CHANGED DEPENDING ON THE SPECIFIC FIXTURES SELECTED. ALL PROPOSED FIXTURES MUST BE REVIEWED AND APPROVED.

ALL ITEM TO BE MOUNTED IN ACCORDANCE WITH FLORIDA BUILDING CODE 2014 - 5th EDITION

SPECIALTY EQUIPMENT



<p>BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS 720 Vassar Street, Orlando, FL 32804 407.418.1338 :: fax 407.418.1342</p>		<p>CONTRACT NO. 16-170 PROJECT ADDRESS: 301 E Dixie Ave., Leesburg, FL 34748 OWNER NAME AND ADDRESS: City of Leesburg, 504 N 5th St., Leesburg, FL 34748 DATE: 11.20.2017</p>	
<p>PROJECT NO. 16-170 PHASE 30% Construction Documents SCALE As indicated DRAWN BY Author CHECKED BY Checker DATE 11.20.2017</p>		<p>SHEET TITLE: RESTROOM ENLARGED PLAN</p>	
<p>CONSULTANTS: SIGNATURE AND DATED SEAL</p>		<p>PROJECT ADDRESS: 301 E Dixie Ave., Leesburg, FL 34748 OWNER NAME AND ADDRESS: City of Leesburg, 504 N 5th St., Leesburg, FL 34748 DATE: 11.20.2017</p>	

HVAC SYMBOL LEGEND		
	DUCT-FIRST DIM. IS WIDTH DUCT-SECOND DIM. IS HEIGHT	DUCT TAKE-OFF W/ VOLUME DAMPER
	DUCT ELBOW DOWN	POINT OF CONNECTION NEW TO EXISTING WORK
	DUCT ELBOW UP	POINT OF EXTENT OF REMOVAL OF EXISTING HVAC
	DUCT RISE	THERMOMETER
	DUCT DOWN	PRESSURE GAUGE
	DUCT UNDER POSITIVE PRESSURE	UNION OR FLANGE
	DUCT UNDER NEGATIVE PRESSURE	BALL OR BUTTERFLY VALVE
	ELBOW W/TURNING VANES	CHECK VALVE
	TAKE-OFF W/EXTRACTOR	MODULATING CONTROL VALVE
	FLEXIBLE DUCT	TWO POSITION CONTROL VALVE
	FLEXIBLE CONNECTION	PLUG VALVE W/ MEMORY
	SUPPLY AIR TERMINAL ARROW INDICATES THROW	FLEXIBLE PIPE
	RETURN OR EXHAUST AIR	STRAINER
	LINEAR DIFFUSERS	MANUAL AIR VENT
	SIDE MOUNTED EHD	AUTOMATIC AIR VENT
	BOTTOM MOUNTED EHD	3/4" HOSE END DRAIN PIPE
	FIRE DAMPER	CHWS - CHILLED WATER SUPPLY
	SMOKE DAMPER	CHWR - CHILLED WATER SUPPLY
	SMOKE AND FIRE DAMPER	HWS - HOT WATER SUPPLY
	VOLUME DAMPER	HWR - HOT WATER RETURN
	REMOTE VOLUME DAMPER	RHG - REFRIGERANT HOT GAS
	MOTORIZED DAMPER	RL - REFRIGERANT LIQUID
	BACKDRAFT DAMPER	RS - REFRIGERANT SUCTION
	SMOKE DETECTOR (DUCT MOUNTED)	D - CONDENSATE DRAIN
	CEILING ACCESS DOOR	PE - PIPE ELBOW DOWN
	DUCT ACCESS DOOR	PEU - PIPE ELBOW UP
	HUMIDITY SENSOR	PE - PIPE ELBOW
	ROOM SENSOR	PT - PIPE TEE DOWN
	THERMOSTAT	PTU - PIPE TEE UP
		R - ROUND

DESIGN CONDITION SCHEDULE		
	SUMMER	WINTER
OUTDOOR	94 °F db/78 °F wb	35 °F db
INDOOR	75 °F db/60%RH MAX	70 °F db

HVAC ABBREVIATIONS			
AC	AIR CONDITIONING	HD	HUB DRAIN
AHU	AIR HANDLING UNIT	HOA	HAND/OFF/AUTOMATIC
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
BDD	BACKDRAFT DAMPER	HVAC	HEATING, VENTILATING & AIR CONDITIONING
BHP	BRAKE HORSEPOWER	H2O	WATER
BMS	BUILDING MANAGEMENT SYSTEM	INIT	INITIAL
BTU	BRITISH THERMAL UNIT	KSU	KITCHEN AIR SUPPLY UNIT
CF	CHEMICAL FEEDER	LAT	LVG. AIR TEMPERATURE
CFM	CUBIC FEET PER MINUTE	LD	LINEAR DIFFUSER
CLG	CEILING	LR	LINEAR RETURN
CYC	CYCLES	LVG	LEAVING
COND	CONDENSATE	LWT	LVG. WATER TEMPERATURE
CC	COOLING COIL	MAU	MAKE UP AIR UNIT (KITCHEN HOOD)
CD	CEILING DIFFUSER	MBH	MEGA BTU PER HOUR
CG	CEILING GRILLE	MD	MOTORIZED DAMPER
DIM	DIMENSION	NC	NOISE CRITERIA
DB	DRY BULB	NIC	NOT IN CONTRACT
°F	DEGREES FAHRENHEIT	OA	OUTSIDE AIR
DWG	DRAWING	OPER	OPERATING
EA	EXHAUST AIR	OV	OUTLET VELOCITY
EAT	ENTERING AIR TEMPERATURE	PCF	PUMP, CHEMICAL FEED
EG	EXHAUST AIR GRILLE	PCH	PUMP, CHILLED WATER
EHC	ELECTRIC HEATING COIL	PD	PRESSURE DROP
EHD	ELECTRIC HEATER, DUCT	PH	PHASE
EHU	ELECTRIC UNIT HEATER	RG	RETURN AIR GRILLE
EHW	ELECTRIC HEATER, WALL	ROT	ROTATION
ENT	ENTERING	RPM	REVOLUTION PER MINUTE
ER	EXHAUST AIR REGISTER	RVD	REMOTE VOLUME DAMPER
EWT	ENT. WATER TEMPERATURE	SA	SUPPLY AIR
F	FILTER	SENS	SENSIBLE
FCU	FAN COIL UNIT	SD	SPLITTER DAMPER
EF	EXHAUST FAN	SP	STATIC PRESSURE
EFG	EXHAUST FAN, GREASE	SR	SUPPLY AIR REGISTER
FF	FLY FAN	TG	TRANSFER AIR GRILLE
FPI	FINS PER INCH	TEMP	TEMPERATURE
FPM	FEET PER MINUTE	UD	UNDERCUT DOOR
FR	FAN, RETURN	VG	VENT, GRAVITY
SF	SUPPLY FAN	W	WATTS
GPM	GALLONS PER MINUTE	WB	WET BULB
		W/	WITH

HVAC GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE (5TH EDITION), THE 2014 FLORIDA MECHANICAL CODE (5TH EDITION), THE 2014 FLORIDA ENERGY EFFICIENCY CODE (5TH EDITION) AND THE CITY OF LEESBURG BUILDING DEPARTMENT REQUIREMENTS AND ALL OTHER APPLICABLE CODES AND STANDARDS.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS IN THE FIELD FOR EQUIPMENT, DUCTWORK AND ROOF PENETRATIONS. PRIOR TO FABRICATION OF ANY DUCTWORK THE CONTRACTOR SHALL PREPARE AND SUBMIT A 1/4" SCALE COORDINATED SHOP DRAWING ON AUTOCAD OF ALL DUCTWORK, PIPING, EQUIPMENT, STRUCTURAL SYSTEM AND LIGHT FIXTURES.
- PRIOR TO ORDERING HVAC EQUIPMENT AND FABRICATION OF ANY DUCTWORK THE CONTRACTOR SHALL PREPARE AND SUBMIT A 1/4" SCALE COORDINATED SHOP DRAWING OF EACH MECHANICAL ROOM. THESE DRAWINGS SHALL INCLUDE THE DIMENSIONS AND REQUIRED MAINTENANCE CLEARANCES OF THE ACTUAL EQUIPMENT PROPOSED FOR THE PROJECT. THESE DRAWINGS SHALL ALSO INCLUDE ALL DUCTWORK, EQUIPMENT, HEATERS, DISCONNECTS, PIPING, AND THEIR REQUIRED ACCESS CLEARANCES. FAILURE TO SUBMIT THESE DRAWINGS RELIEVES THE ENGINEER OF ALL RESPONSIBILITY FOR THE MECHANICAL ROOM LAYOUT.
- REFER TO ARCHITECTURAL DRAWINGS FOR CLEARANCES WITHIN THE CEILING SPACE, MECHANICAL ROOMS, LOCATIONS AND SIZES OF BEAMS AND CEILING AND SOFFIT HEIGHTS.
- DUCTWORK AND EQUIPMENT LOCATIONS AND CLEARANCES SHALL BE COORDINATED WITH GENERAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL CONTRACTORS. REFER TO ARCHITECTURAL PLANS FOR BUILDING SECTIONS AND DETAILS.
- CONNECTION TO ALL EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURERS CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR ALL EQUIPMENT FURNISHED.
- COORDINATE DIFFUSER, REGISTER AND GRILLE LOCATION WITH LIGHTING, SPRINKLER AND ARCHITECTURAL CEILING PLANS. ALSO COORDINATE THE TYPE OF DIFFUSER FRAME WITH THE CEILING TYPE.
- ALL EQUIPMENT SHALL BE PROPERLY SUPPORTED AND ISOLATED TO PREVENT NOISE AND VIBRATION TRANSMISSION. ALL AIR HANDLING EQUIPMENT SHALL BE SUPPORTED OR SUSPENDED WITH SPRING VIBRATION ISOLATORS. ALL CONNECTIONS BETWEEN AIR HANDLING EQUIPMENT AND DUCTWORK SHALL BE CANVAS FLEXIBLE CONNECTORS.
- ALL MECHANICAL EQUIPMENT SHALL BE LOCATED WITH RESPECT TO BUILDING CONSTRUCTION AND OTHER EQUIPMENT SO AS TO PERMIT ACCESS TO THE MECHANICAL EQUIPMENT IN CONFORMITY WITH ANY CLEARANCE WHICH MAY BE RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT. SUFFICIENT CLEARANCE SHALL BE MAINTAINED FOR CLEANING COILS, MOTORS, BURNERS, AS WELL AS CHANGING FILTERS. ALL EQUIPMENT SHALL BE LOCATED WITHIN THE MECHANICAL ROOM AND CEILING SPACES WITH ADEQUATE CLEARANCES FOR REPAIR AND MAINTENANCE. ALL PIPING AND DUCTWORK SHALL BE INSTALLED TO PROVIDE ADEQUATE CLEARANCE FOR ACCESS TO ALL EQUIPMENT. INSTALLATION OF ALL MECHANICAL EQUIPMENT SHALL COMPLY WITH THE MANUFACTURERS SPECIFICATION AND CLEARANCE REQUIREMENT.
- ALL DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS.
- THE INSIDE OF ALL DUCTS VISIBLE THRU THE FACE OF DIFFUSERS, REGISTERS, AND GRILLES SHALL BE PAINTED FLAT BLACK WITH NON TOXIC PAINT.
- ALL SUPPLY AIR, RETURN AIR, OUTSIDE AIR AND EXHAUST AIR DUCTWORK SHALL BE GALVANIZED STEEL SHEETS. FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS FOR A 2 INCH PRESSURE CLASSIFICATION.
- FLEXIBLE DUCTWORK SHALL BE INSULATED VINYL TYPE (R-6) WITH WIRE SPIRAL SUPPORT. FLEXIBLE DUCTWORK SHALL BE RUN IN MAXIMUM LENGTHS OF 12'-0". FLEXIBLE DUCTWORK SHALL BE PROPERLY SUPPORTED WITH GALVANIZED STEEL STRAPS 2" WIDE AND SHALL BE RUN AS STRAIGHT AS POSSIBLE WITH NO KINKS OR BENDS TO RESTRICT AIRFLOW.
- ALL FLEXIBLE BRANCH DUCTS SERVING INDIVIDUAL REGISTERS, GRILLES AND DIFFUSERS SHALL HAVE MANUAL LOCKABLE BALANCING DAMPERS AT THE CONNECTION TO THE MAIN TRUNK DUCT. CONNECTIONS OF THE FLEXIBLE DUCT SHALL BE MADE WITH A TAPERED FITTING (CROWN) OR A BELLMOUTH FITTING (BUCKLEY).
- ALL DUCTWORK, EXCEPT THE EXHAUST SYSTEM, SHALL BE EXTERNALLY INSULATED WITH 2.2" THICK (R-6.0) FIBERGLASS BLANKET INSULATION WITH FOIL JACKETING UNLESS OTHERWISE NOTED. INSULATION R VALUE IS WITH 25% COMPRESSION IN ACCORDANCE WITH FBCM 604.7 IDENTIFICATION.
- ALL DUCT JOINTS SHALL BE SEALED WITH APPROVED MASTIC.
- ALL FIBROUS GLASS INSULATION JOINTS, SEAMS AND CONNECTIONS SHALL BE CONSTRUCTED WITH PRESSURE SENSITIVE TAPE, FAB, STAINLESS STEEL STAPLES AND THEN SEALED WITH MASTIC. HEAT AND PRESSURE SENSITIVE TAPE ARE NOT ACCEPTABLE AS A FINAL CLOSURE.
- PROVIDE HANGER STRAPS FOR ALL DUCTS MADE OF 2" WIDE, 22 GAGE GALVANIZED STEEL-SPACED ACCORDING TO SMACNA STANDARDS AND ALL OTHER APPLICABLE GOVERNING CODES AND STANDARDS.
- ALL DUCT BRANCH TAKE OFFS FROM MAIN DUCT FOR INDIVIDUAL AIR OUTLETS, INLETS AND BOXES SHALL HAVE BALANCING DAMPERS.
- ALL DUCTWORK STORED ON SITE OR ALREADY INSTALLED SHALL HAVE ALL OPEN ENDS SEALED WITH VISQUEINE TO PREVENT DUST AND DEBRIS FROM ACCUMULATING INSIDE OF THE DUCTWORK. INTERIORS OF ALL DUCTWORK SHALL BE THOROUGHLY CLEANED PRIOR TO INSTALLATION.
- ALL DAMPERS AND EXTRACTORS SHALL HAVE LOCKING QUADRANTS AND SHALL BE ACCESSIBLE.
- PROVIDE REMOTE VOLUME DAMPER (RVD) OPERATORS IN ALL NON-ACCESSIBLE CEILING. EQUAL TO YOUNG REGULATOR COMPANY MODEL 270-896C BOWDEN CABLE CONTROL UNIT OR METROPOLITAN AIR. CONTROL FOR EACH REMOTE VOLUME DAMPER SHALL BE LOCATED WITHIN THE DIFFUSER OR REGISTER BEING SERVED.
- BEVELED TAKE OFFS AND DAMPERS SHALL BE INSTALLED IN ALL BRANCH DUCTWORK LEADING FROM MAIN TRUNK LINES.
- ALL SPLITTER DAMPERS SHALL BE BALANCED AND SET PRIOR TO THE INSTALLATION OF THE CEILING.
- PROVIDE ADJUSTABLE PULLEYS WITH CONSTANT VOLUME AIR HANDLING UNITS AND BELT DRIVE FANS.
- EXHAUST FAN OUTLETS SHALL BE INSTALLED A MINIMUM OF 10'-0" FROM FRESH AIR INTAKES OF MECHANICAL EQUIPMENT AS WELL AS 10'-0" FROM ALL OPERABLE WINDOWS AND DOORS.
- ALL FANS AND AIR HANDLING UNITS SHALL BE PROPERLY SUPPORTED AND ISOLATED TO PREVENT NOISE AND VIBRATION TRANSMISSION. ALL AIR HANDLING EQUIPMENT SHALL BE SUPPORTED OR SUSPENDED WITH SPRING ISOLATORS. ALL CONNECTIONS BETWEEN FANS OR AIR HANDLING UNITS AND DUCTWORK SHALL BE CANVAS FLEXIBLE CONNECTORS.
- ALL EQUIPMENT LOCATED WITHIN THE CEILING SPACES SHALL HAVE ADEQUATE CLEARANCES FOR REPAIR AND MAINTENANCE. ALL PIPING AND DUCTWORK SHALL BE INSTALLED TO PROVIDE ADEQUATE CLEARANCE FOR ACCESS TO ALL EQUIPMENT.
- ALL CONDENSING UNITS SHALL BE MOUNTED ON 6" THICK CONCRETE PADS AND SHALL BE SECURED TO THE CONCRETE PAD WITH 2" WIDE 10 GAUGE GALVANIZED STEEL STRAPS EVERY 24" ON CENTER. INSTALLATION SHALL MEET THE WINDLOAD REQUIREMENTS OF THE 2014 FLORIDA BUILDING CODE.
- ALL VERTICAL AIR HANDLING UNITS SHALL BE MOUNTED ON A CUSTOM AIR HANDLING UNIT SUPPORT STAND - SEE DETAIL.
- REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE AND SMOKE RATED PARTITIONS. ALL PENETRATIONS THROUGH FIRE RATED/SMOKE RATED PARTITIONS OR FLOORS AND CEILINGS SHALL HAVE FIRE/SMOKE DAMPERS. ALL FIRE PENETRATIONS SHALL HAVE FIRE DAMPERS. PROVIDE ACCESS DOORS IN WALL OR HARD CEILING FOR THESE DAMPERS.
- ALL FIRE/SMOKE DAMPERS ARE NORMALLY OPENED, 110 VOLTS. ALL DAMPERS SHALL CLOSE WHEN THE SMOKE DETECTOR IN THE AREA DETECTS SMOKE OR IF THE FIRE ALARM SYSTEM IS ACTIVATED. ONCE THE FIRE ALARM SYSTEM IS RESET, THE SMOKE DAMPERS SHALL RETURN TO THE NORMALLY OPENED POSITION.
- PROVIDE ACCESS DOORS (24"x24") FOR ALL FIRE/SMOKE DAMPERS AND FIRE DAMPERS IN NON-ACCESSIBLE CEILING.
- PROVIDE ACCESS PANELS IN DRYWALL CEILING AS REQUIRED FOR ACCESS TO MECHANICAL EQUIPMENT. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE WORK PLATFORMS AS REQUIRED FOR ALL EQUIPMENT LOCATED WITHIN THE CEILING SPACE.
- FURNISH AND INSTALL INSULATED PVC CONDENSATE DRAINS WITH TRAPS FOR ALL COOLING COILS. DRAIN LINE SIZE SHALL MATCH THE OPENING OF THE CONDENSATE DRAIN PAN.
- ALL REFRIGERANT PIPING AND CONDENSATE PIPING SHALL BE FULLY SUPPORTED IT'S ENTIRE LENGTH AND SHALL BE ANCHORED TO PREVENT SWAY AND VIBRATION. PROVIDE SUPPORT EVERY 4'-0" ON CENTER.
- CONTRACTOR SHALL SUPPLY AND WIRE ALL SMOKE DETECTORS IN THE SUPPLY AIR DUCTWORK OF ALL AIR HANDLING UNITS 2000 CFM AND ABOVE TO SHUT DOWN THE FANS IN THE EVENT OF A FIRE. DUCT SMOKE DETECTOR SHALL BE OF PHOTOELECTRIC TYPE AND LOW VOLTAGE. DIVISION 15 CONTRACTOR SHALL INSTALL ALL SMOKE DETECTORS.
- ALL WALL SENSORS, VARIABLE SPEED CONTROL SWITCHES, ON-OFF SWITCHES AND MOTOR STARTERS SHALL BE INDIVIDUALLY LABELED. LABELS SHALL INDICATED THE UNIT CONTROLLED, TYPE OF CONTROL AND AREA SERVED. THE LABELS SHALL BE PLASTIC LAMINATE, PERMANENT TYPE, WHITE WITH BLACK LETTERING, AND SHALL BE MOUNTED INSIDE OF THE COVER PLATE, OF THE CONTROL DEVICE.
- FURNISH ALL DIRECT DRIVE EXHAUST FANS WITH SOLID STATE VARIABLE SPEED CONTROLLER. MOUNT CONTROLLER TO FAN CABINET IN CEILING SPACE. CONTROLLER SHALL BE USED FOR BALANCING THE SYSTEM.
- FURNISH ALL EXHAUST FANS WITH BACK DRAFT DAMPERS.
- COORDINATE ALL CONTROL DEVICES WITH THE ELECTRICAL CONTRACTOR.
- ALL CONTROL WIRING, CONDUIT AND HARDWARE TO COMPLETE THE HVAC CONTROL SYSTEM SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 15 - MECHANICAL.
- ALL CONTROL WIRING AND INTERLOCK WIRING LOCATED IN MECHANICAL ROOMS AND IN NON ACCESSIBLE CEILING SHALL BE IN CONDUIT.
- THERMOSTAT LOCATIONS ARE TENTATIVE. FINAL THERMOSTAT LOCATIONS SHALL BE APPROVED BY THE OWNER PRIOR TO INSTALLATION. THERMOSTATS SHALL BE LOCATED 48"-54" ABOVE THE FINISHED FLOOR IN ACCORDANCE WITH ADA REQUIREMENTS AND THE 2010 FLORIDA ACCESSIBILITY CODE.
- KITCHEN HOODS SHALL BE APPROVED BY THE KITCHEN CONSULTANT AND THE MECHANICAL ENGINEER PRIOR TO FABRICATION.
- ALL GREASE DUCT CONSTRUCTION SHALL BE STAINLESS STEEL, MIN 18 GAGE, OR CARBON STEEL, MIN 16 GAGE, ALL WELDED, LIQUID TIGHT CONSTRUCTION AS PER NFPA 96 LATEST EDITION AND 2014 FBCM SECTION 506.
- ALL GREASE DUCT TO HOOD COLLAR CONNECTIONS SHALL BE MADE AS SHOWN IN FIGURE 7.5.2.2, NFPA 96 LATEST EDITION.
- GREASE EXHAUST DUCT SHALL BE WRAPPED IN A FIRE RATED WRAP THROUGH IT'S ENTIRE LENGTH. MAINTAIN MINIMUM CLEARANCE AS PER NFPA 96, LATEST EDITION. DUCT ENCLOSURE SHALL COMPLY WITH 2014 FBCM SECTION 506.2.10 DUCT ENCLOSURE.
- AIR FILTERS SHALL BE 2" PLEATED 30% EFFICIENT (MIN.) OR EQUAL IN AIR HANDLING EQUIPMENT. FILTERS SHALL BE INSTALLED PRIOR TO UNIT START UP, REPLACED A MINIMUM OF ONCE PER MONTH DURING THE CONSTRUCTION PERIOD, REPLACED PRIOR TO TEST AND BALANCE, AND REPLACED MONTHLY UNTIL FINAL COMPLETION.
- ALL REFRIGERANT LINES FOR SPLIT SYSTEM DX UNITS SHALL HAVE FILTER DRYERS AND SIGHT GLASSES. ALL PIPING BELOW SLAB SHALL BE WITHOUT JOINTS AND RUN IN A PIPING CHASE OR CONDUIT OF SUFFICIENT SIZE TO ALLOW REPLACEMENT OF THE PIPING IN THE FUTURE. EACH END OF THE CHASE SHALL BE SEALED AIR TIGHT AND WATER TIGHT.
- ALL REFRIGERANT PIPING EXPOSED TO THE EXTERIOR SHALL BE INSULATED WITH 1" THICK CLOSED CELL FOAM INSULATION (ARMAFLEX) AND SHALL BE WRAPPED WITH ALUMINUM JACKETING OR PAINTED WITH U.V. INHIBITING ELASTOMERIC PAINT.
- ALL REFRIGERANT PIPING IN CONCEALED CHASES FOR SPLIT SYSTEM DX UNITS SHALL BE SOFT DRAWN TYPE K COPPER. SERVICE FITTINGS FOR REFRIGERANT LINES SHALL BE LOCATED IN A MANNER TO BE INACCESSIBLE TO THE PUBLIC.
- THE CONTRACTOR SHALL HIRE AN INDEPENDANT TEST AND BALANCE FIRM TO TEST AND BALANCE ALL AIR CONDITIONING SYSTEMS-SEE SPECIFICATIONS. THE TEST & BALANCE CONTRACTOR SHALL BE CERTIFIED BY NEBB OR ABMA.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE TEST AND BALANCE FIRM. PRIOR TO TEST AND BALANCE, THE CONTRACTOR SHALL START-UP, PRE-BALANCE THE SYSTEM, AND REPLACE ALL AIR FILTERS FOR EVERY AHU BEING TESTED. ALL DISCREPANCIES, DRIVE CHANGES, ETC. REPORTED BY ENGINEER OR THE TEST AND BALANCE FIRM SHALL BE CORRECTED BY THE CONTRACTOR WITHIN FIVE CALENDAR DAYS AT NO ADDITIONAL COST.
- PROVIDE VANDAL PROOF CAPS ON ALL GROUND MOUNTED CONDENSING UNIT REFRIGERANT SERVICE VALVES TO PREVENT UNAUTHORIZED RELEASE OF REFRIGERANT.
- CONTRACTOR SHALL LABEL ALL EQUIPMENT (FANS, AIR HANDLING UNITS AND CONDENSING UNITS) WITH ENGRAVED TYPE PHENOLIC LABELS PERMANENTLY AFFIXED TO THE EQUIPMENT. CONTRACTOR SHALL INSTALL ADDITIONAL PHENOLIC LABEL TO THE CEILING GRID TEE BELOW ANY CEILING MOUNTED EQUIPMENT LOCATED ABOVE ACOUSTICAL LAY-IN CEILING OR TO THE CEILING ACCESS PANEL LOCATED BELOW ANY CEILING MOUNTED EQUIPMENT LOCATED ABOVE GYPSUM BOARD CEILING.
- THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE THAT SHALL WARRANT ALL WORKMANSHIP AND MATERIALS FOR ONE (1) YEAR. DURING THE FIRST YEAR ALL SYSTEM MALFUNCTIONS SHALL BE REPAIRED AT NO EXPENSE TO THE OWNER. THE COMPRESSORS SHALL HAVE A 5 YEAR WARRANTY (LABOR & MATERIALS).
- OPERATION AND MAINTENANCE MANUALS SHALL INCLUDE AS A SEPARATE SUBMITTAL ITEM, PREVENTATIVE MAINTENANCE REQUIREMENTS ALONG WITH TIME SCHEDULE(S) FOR EACH ITEM. THE SEQUENCE OF OPERATION SHALL ALSO INCLUDE A DEFINITIVE SEQUENCE OF OPERATION OF THE MECHANICAL SYSTEM AND COMPONENTS AS THEY FUNCTION INTEGRALLY AND INDEPENDENTLY WITH THE SYSTEM.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED PERMITS.
- THE CONTRACTOR SHALL PREPARE REDLINED AS-BUILT DRAWINGS OF THE HVAC SYSTEMS AT THE COMPLETION OF THE PROJECT CONSTRUCTION AND SHALL INCLUDE THOSE AS-BUILT DRAWINGS AT PROJECT CLOSEOUT ALONG WITH THE O&M MANUAL.
- PRIOR TO ORDERING ANY HVAC EQUIPMENT, DUCTWORK, DIFFUSERS, GRILLES, PIPING ETC. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL FROM THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE HVAC SHOP DRAWING SUBMITTAL TO THE ENGINEER FOR REVIEW AND APPROVAL. THE HVAC SUBMITTAL SHALL INCLUDE ALL AIR CONDITIONING EQUIPMENT, FANS, HEATERS, PUMP, PIPING DUCTWORK, INSULATION, DIFFUSERS, REGISTERS & GRILLES, CONTROLS, DAMPERS, HANGERS ETC. CONTRACTOR SHALL NOT ORDER ANY HVAC EQUIPMENT UNTIL THIS SUBMITTAL IS REVIEWED AND ACCEPTED BY THE ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT THE SHOP DRAWING AS ONE COMPLETE SUBMITTAL AND SHALL NOT PIECE MEAL THE SUBMITTAL SPREAD OUT OVER THE COURSE OF DAYS AND WEEKS. FAILURE TO SUBMIT A COMPLETE HVAC SHOP DRAWING SUBMITTAL SHALL RESULT IN AN IMMEDIATE REJECTION OF THE SHOP DRAWING SUBMITTAL.

OUTSIDE AIR CALCULATIONS

STANDARD CASE: ASHRAE STD 62.1-2004 VERIFICATION RATE PROCEDURE/2014 FLORIDA BUILDING CODE (MECHANICAL) TABLE 403.3													
ZONE	OCCUPANCY CATEGORY	Az FLOOR AREA (SF)	Rp PEOPLE OUTDOOR AIR RATE (CFM/PERSON)	Ra AREA OUTDOOR AIR RATE (CFM/SF)	Pz ZONE POPULATION	BREATHING ZONE OUTDOOR AIR FLOW (CFM)	TABLE 6-2 ZONE AIR DISTRIBUTION EFFECTIVENESS Ez	ZONE OUTDOOR AIR FLOW (CFM)	TABLE 6-3 SYSTEM VENTILATION EFFICIENCY Ev	REQUIRED OUTDOOR AIR INTAKE FLOW (CFM)	ACTUAL OUTDOOR AIR INTAKE FLOW (CFM)	MEETS STANDARD	UNIT TAG
DINING - 1ST FLOOR	DINING	2099	7.5	.18	96	1097	1.0	1097	1.0	1097	1100	YES	AHU-1.8/AHU-1.9/AHU-1.10
TOTAL													

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SIGNATURE AND DATED SEAL

AUGUSTO E. BORES JR., P.E.
FLORIDA P.E. # 99410

CONSULTANTS

BORES ASSOCIATES
CONSULTING ENGINEERS

11000 W. BOYD AVE., SUITE 200
ORLANDO, FLORIDA 32837

PROJECT ADDRESS

201 Dine Ave. Leesburg, FL 34746

OWNER NAME AND ADDRESS

CITY OF LEESBURG

DATE

11-26-2017

DESCRIPTION

16-170

SCALE

NOT TO SCALE

FILE NAME

16-170 16-001

DRAWN BY

MB

CHECKED BY

MB/J

DATE

11-26-2017

M-001

CITY OF LEESBURG VENETIAN GARDENS

HVAC GENERAL NOTES AND SYMBOLS

AIR HANDLING UNIT SCHEDULE																																			
UNIT NUMBER	NOMINAL CAPACITY (TONS)	LOCATION	AREA SERVED	FAN DATA								DX COOLING COIL DATA								ELECTRIC HEATING COIL						UNIT ELECTRICAL DATA		CONTROLS		FILTER DATA		EFFICIENCY SEER/EER	MANUFACTURER/MODEL	WEIGHT (lbs)	NOTES
				SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	TOTAL STATIC IN. W.G.	EXTERNAL STATIC IN. W.G.	MAX OUTLET VEL. F.P.M.	RPM	BHP	HP	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENT. AIR °F	LVG. AIR °F	F.P. °F	FACE AREA	NO. ROWS	STATIC IN. W.G.	ENT. AIR °F	LVG. AIR °F	KW.	VOLTS	PHASE	CYCLES	HEATER FLA	UNIT MCA	UNIT FUSE	TYPE	CLEAN P.D. IN. W.C.	SIZE				
				DB	WB	DB	WB	14.5	7.42	3	--	70	92.3	20.0	208	1	60	72.3	98.9	100															
AHU-1.1	5.0	MECH. ROOM	KITCHEN	1950	250	--	.60"	1500	--	--	3/4	57.9	45.1	77.9													MERV 6	.10"	21.5" X 20"	14.5	CARRIER FB4CNF-060	157	1-3		
AHU-1.2	50.0	MECH. ROOM	GRAND BALL ROOM	20,000	16,000		1.0"	1500	--	--	20	621.1	478.7														MERV 6	.10"			CARRIER 39MN-40W	4831			
AHU-1.3		MECH. ROOM	MEETING ROOMS 1A & 1B	4-3500	300	--	1.2"	1500	--	--		122.0	91.6														MERV 6	.10"			CARRIER 40RUA12	425			
AHU-1.4		MECH. ROOM	LOBBY / RR / HALL	4-3500	850	--	1.0"	1500	--	--		122.0	91.6																		CARRIER 40RUA12	425			

NOTES
1. AHU SHALL UTILIZE R410A REFRIGERANT.
2. BLOWER MOTOR SHALL BE DIRECT DRIVE.
3. ELECTRIC HEAT IS INDICATED AT NAMEPLATE KW AT 230 VOLT. ACTUAL OUTPUT OF ELECTRIC HEATER AT 208 VOLTS IS 75% OF NAMEPLATE RATING.

CONDENSING UNIT SCHEDULE															
UNIT NUMBER	NOMINAL CAPACITY (TONS)	AREA SERVED	COOLING CAPACITY BTU/HR AT ARI CONDITIONS	EER/ SEER	ELECTRICAL						MANUFACTURER/MODEL	UNIT WEIGHT (lbs)	NOTES		
					COMPRESSOR		FAN	MCA FUSE VOLTS PHASE CYCLE							
					LRA	RLA	FLA	MCA	FUSE	VOLTS				PHASE	CYCLE
CU-1.1	5.0	KITCHEN	57,900	14.5	152.9	28.8	1.3	37.3	60.0	208	1	60	CARRIER 24ACB-60	323	1-4
CU-1.2	50.0	GRAND BALL ROOM	621,200	11.1						208.0	1.0	60	CARRIER 38APD-05064	2120	1-4,6
CU-1.3	10.0	MEETING ROOMS 1A & 1B	117,000	11.2						208	3	60	CARRIER 38AUD-12	516	1-5
CU-1.4	10.0	LOBBY / RR / HALL	117,000	11.2	(2)	(2)				208	3	60	CARRIER 38AUD-12	516	1-5

NOTES
1. CONDENSING UNIT SHALL UTILIZE R-410A REFRIGERANT.
2. PROVIDE FACTORY FABRICATED HAIL GUARD ON CONDENSING UNIT COIL.
3. PROVIDE VANDAL PROOF CAPS ON ALL REFRIGERANT SERVICE VALVES TO PREVENT UNAUTHORIZED RELEASE OF REFRIGERANT.
4. CONTRACTOR SHALL SECURE CONDENSING UNIT TO CONCRETE SERVICE PAD IN ACCORDANCE WITH WIND LOAD REQUIREMENTS AS SET FORTH IN THE 2014 FLORIDA BUILDING CODE (5TH EDITION).
5. UNIT SHALL HAVE 2 COMPRESSORS.

DIFFUSER SCHEDULE													
UNIT NUMBER	SERVICE	MOUNT	NECK SIZE	C.F.M. RANGE	N.C. MAX	MAX. P.D. IN. W.G.	PATTERN	DAMPER	FINISH	SURFACE PANEL	CONSTRUCTION	MANUFACTURER/MODEL	NOTES
CD-1	LAY-IN	CLG	SEE DWG	SEE DWG	21	0.063	4-WAY	NO	WHITE	24x24	ALUMINUM	TITUS TMS-AA/PRICE A5CDA	1
CD-2	SURFACE	CLG	SEE DWG	SEE DWG	21	0.065	4-WAY	NO	WHITE	12x12	ALUMINUM	TITUS TMS-AA/PRICE A5CDA	1, 2, 3

1. ALL GRILLES, REGISTERS AND DIFFUSERS SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50 IN COMPLIANCE WITH SECTIONS 603.15 AND 603.15.1 OF THE FLORIDA BUILDING CODE.
2. PROVIDE T-BAR PLASTER FRAME FOR ALL DIFFUSERS LOCATED IN HARD CEILING APPLICATION.
3. PROVIDE FACTORY INSTALLED R-6 INSULATION ON BACK OF DIFFUSER.

AIR GRILLE + REGISTER SCHEDULE														
UNIT NUMBER	SERVICE	MOUNT	C.F.M. RANGE	SIZE L"xH"	N.C. MAX	FRAME	MAX. P.D. IN. W.G.	PATTERN	DAMPER	GRID	CONSTRUCTION	FINISH	MANUFACTURER/MODEL	NOTES
CG-1	RETURN	CLG	0-100	24x24	24	LAY-IN	0.054	EGG CRATE	NO	1/2"	ALUMINUM	WHITE	TITUS 50F OR EQUAL	1, 2
ER-1	EXHAUST	CLG	SEE DWG	SEE DWG	20	SURFACE	0.073	EGG CRATE	NO	1/2"	ALUMINUM	WHITE	TITUS 50F OR EQUAL	1-3

1. ALL GRILLES, REGISTERS AND DIFFUSERS SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50 IN COMPLIANCE WITH SECTIONS 603.15 AND 603.15.1 OF THE 2010 FLORIDA BUILDING CODE.
2. PAINT FLAT BLACK INSIDE OF DUCTS BEHIND GRILLES.
3. PROVIDE T-BAR PLASTER FRAME FOR ALL REGISTERS & GRILLES LOCATED IN HARD CEILING APPLICATION.

FAN SCHEDULE																			
UNIT NUMBER	AREA SERVED	PERFORMANCE DATA					CONSTRUCTION DATA			MOTOR DATA				ELECTRICAL			WEIGHT (LBS)	NOTES	
		CFM	SP	RPM	SONES	BHP	FAN TYPE	DRIVE TYPE	DISCH	RPM	HP	WATTS	START TYPE	VOLTS	PHASE	CYCLES			
EF-1.1	PUBLIC RESTROOMS	825	.375"	1095	2.5	--	INLINE CENTRIFUGAL	DIRECT	HORIZ	--	--	469	--	120	1	60	GREENHECK CSPA-1050	59	1-4

NOTES
1. FURNISH FAN WITH BACKDRAFT DAMPER.
2. FURNISH FAN WITH WALL CAP.
3. FURNISH FAN WITH SOLID STATE VARIABLE SPEED CONTROLLER. MOUNT CONTROLLER TO FAN CABINET IN AN ACCESSIBLE LOCATION. CONTROLLER TO BE USED FOR SYSTEM BALANCING.
4. FURNISH FAN WITH INTEGRAL ELECTRICAL DISCONNECT.

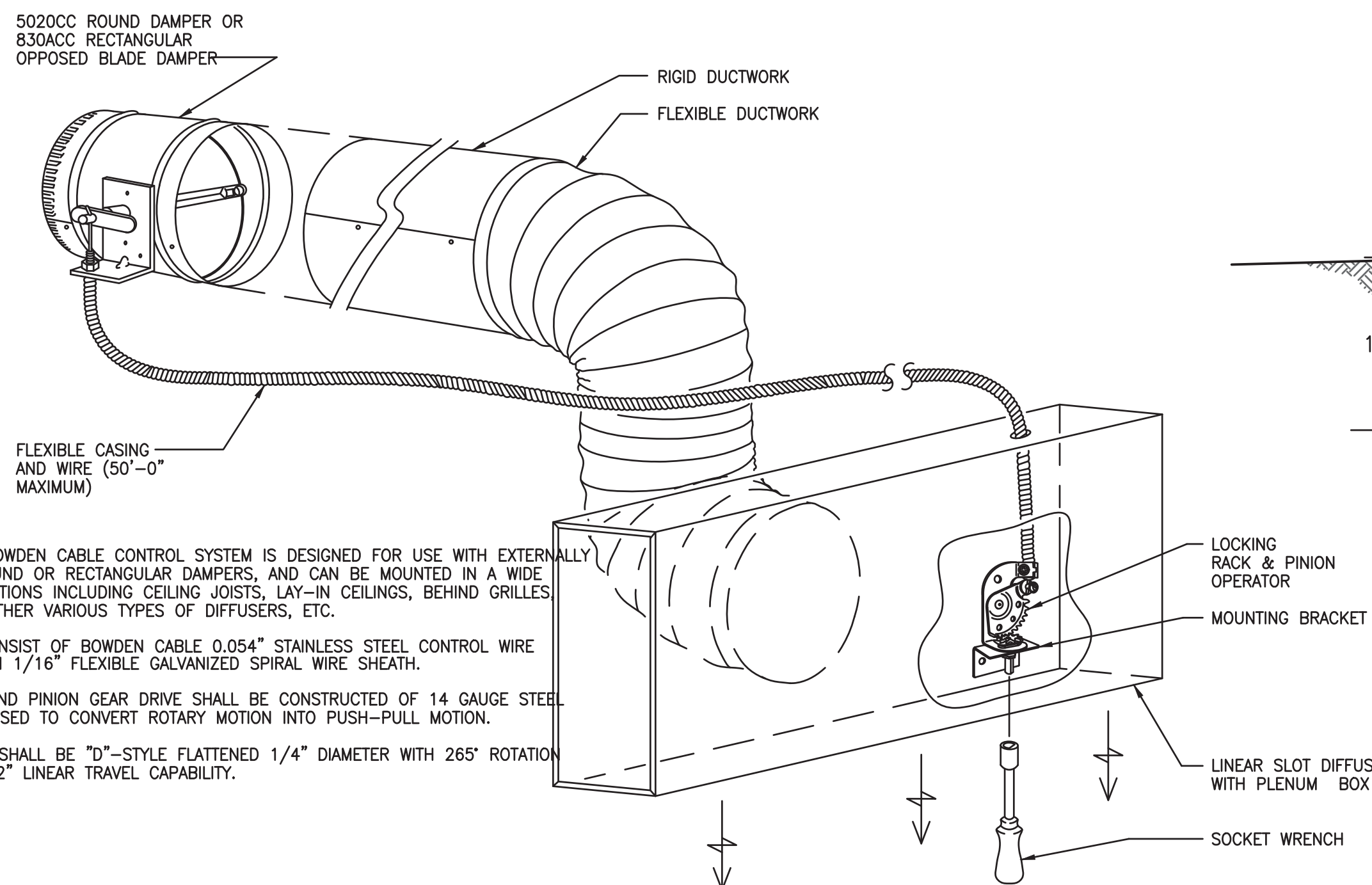
BORRELLI + PARTNERS
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FLORIDA STATE P.E. NUMBER: 5131

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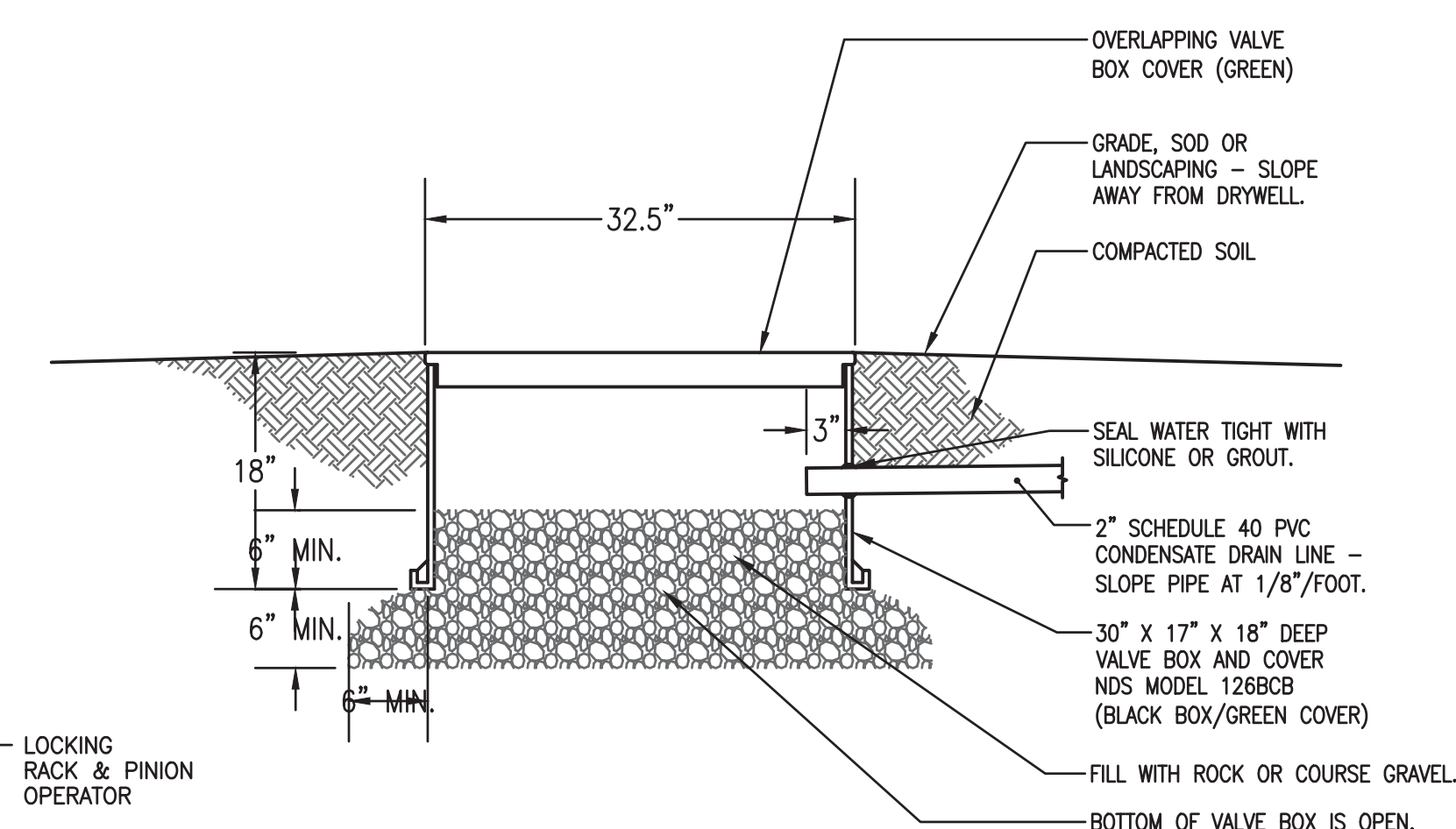
CITY OF LEESBURG VENETIAN GARDENS
DRAWING TITLE
PROJECT ADDRESS
201 Dixie Ave., Leesburg, FL 34748
OWNER NAME AND ADDRESS
CITY OF LEESBURG

M-301

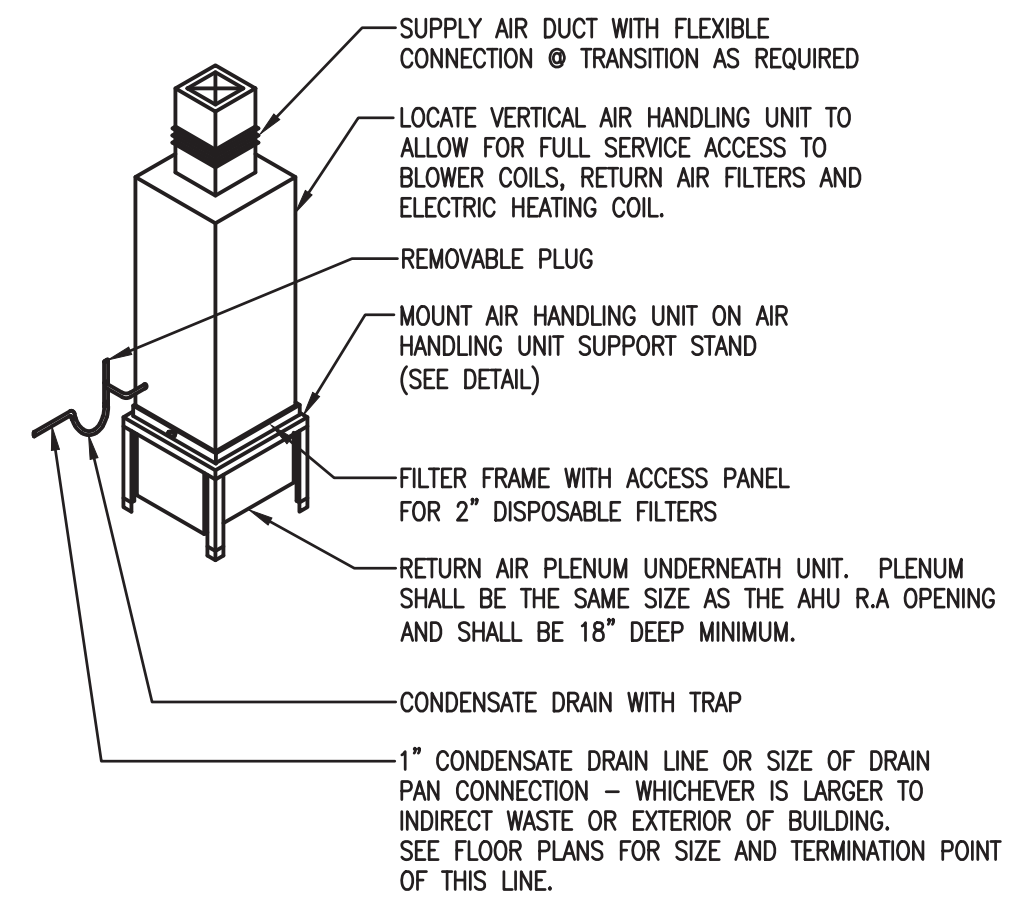


- NOTES:**
- 1) THE 270-275 BOWDEN CABLE CONTROL SYSTEM IS DESIGNED FOR USE WITH EXTERNALLY CONTROLLED ROUND OR RECTANGULAR DAMPERS, AND CAN BE MOUNTED IN A WIDE VARIETY OF LOCATIONS INCLUDING CEILING JOISTS, LAY-IN CEILINGS, BEHIND GRILLES ON OR INSIDE OTHER VARIOUS TYPES OF DIFFUSERS, ETC.
 - 2) CABLE SHALL CONSIST OF BOWDEN CABLE 0.054" STAINLESS STEEL CONTROL WIRE ENCAPSULATED IN 1/16" FLEXIBLE GALVANIZED SPIRAL WIRE SHEATH.
 - 3) LOCKING RACK AND PINION GEAR DRIVE SHALL BE CONSTRUCTED OF 14 GAUGE STEEL AND SHALL BE USED TO CONVERT ROTARY MOTION INTO PUSH-PULL MOTION.
 - 4) CONTROL SHAFT SHALL BE "D"-STYLE FLATTENED 1/4" DIAMETER WITH 265° ROTATION PROVIDING 1-1/2" LINEAR TRAVEL CAPABILITY.

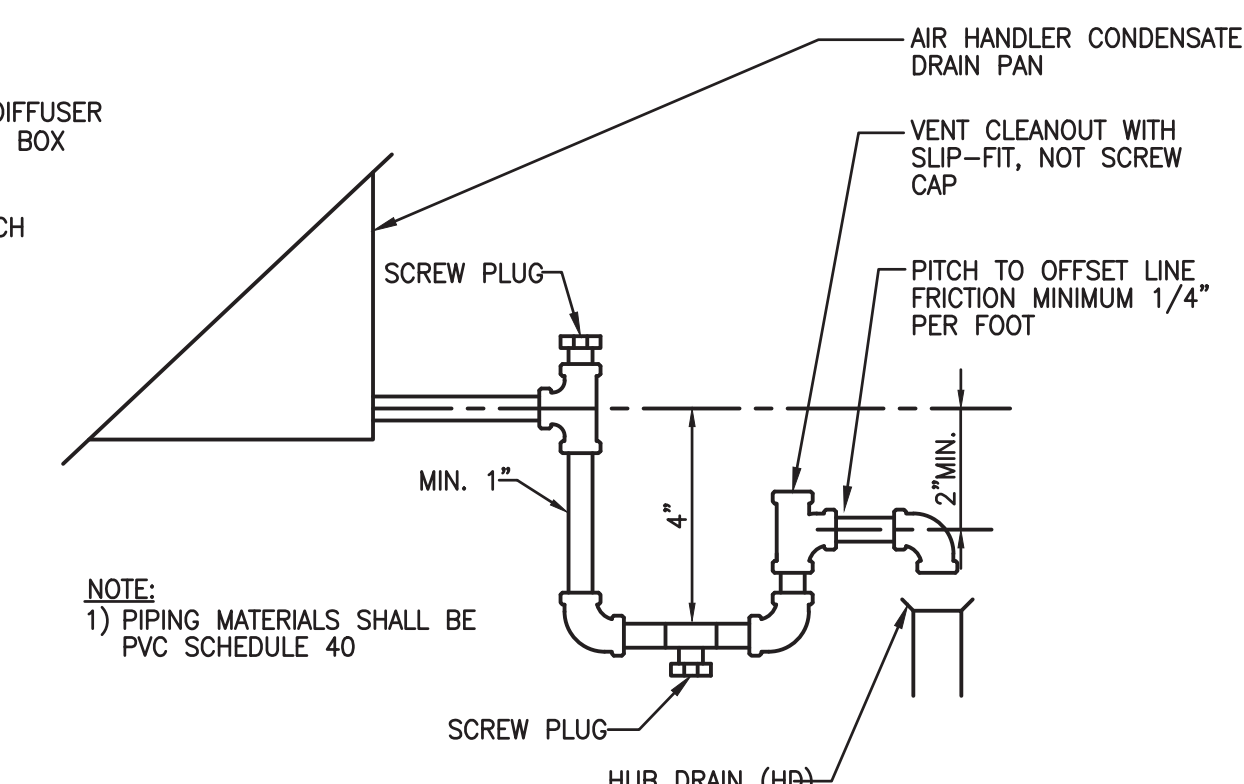
REMOTE VOLUME DAMPER MOUNTING DETAIL - LINEAR DIFFUSER
NOT TO SCALE



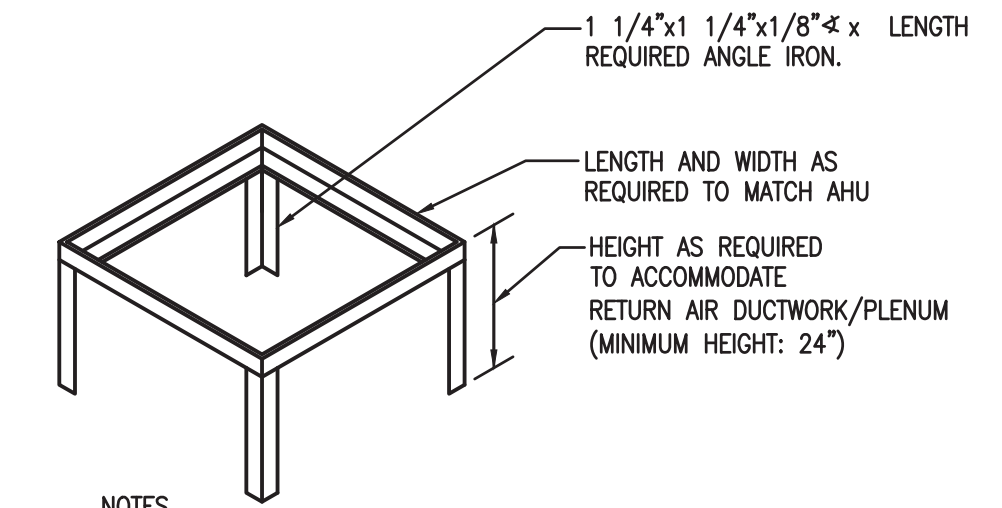
CONDENSATE DRYWELL DETAIL
NOT TO SCALE



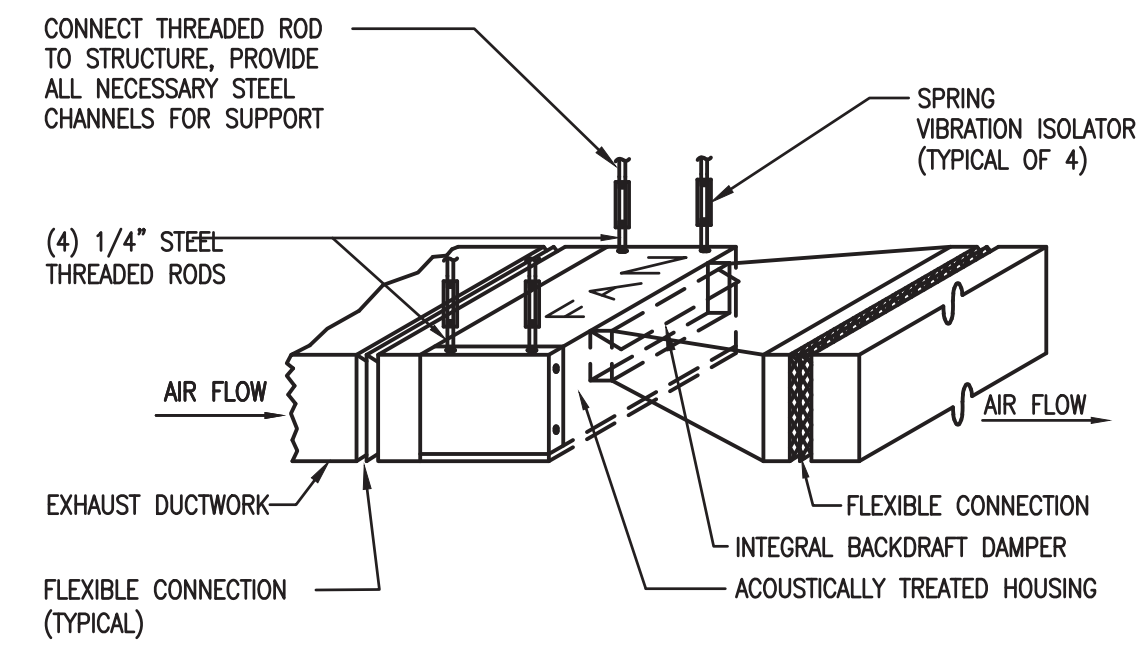
VERTICAL AIR HANDLING UNIT MOUNTING DETAIL
NOT TO SCALE



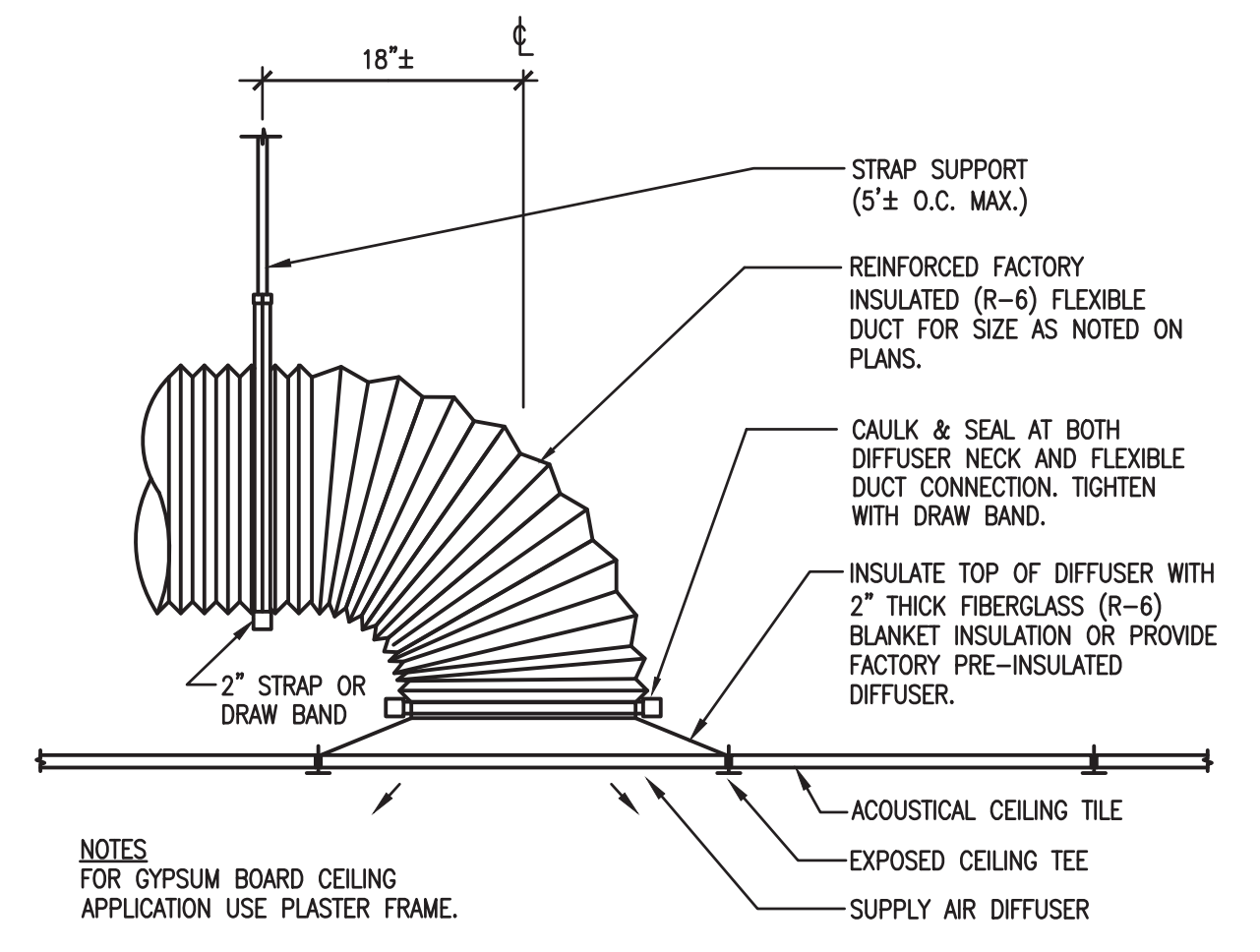
AIR HANDLING UNIT CONDENSATE TRAP DETAIL
NOT TO SCALE



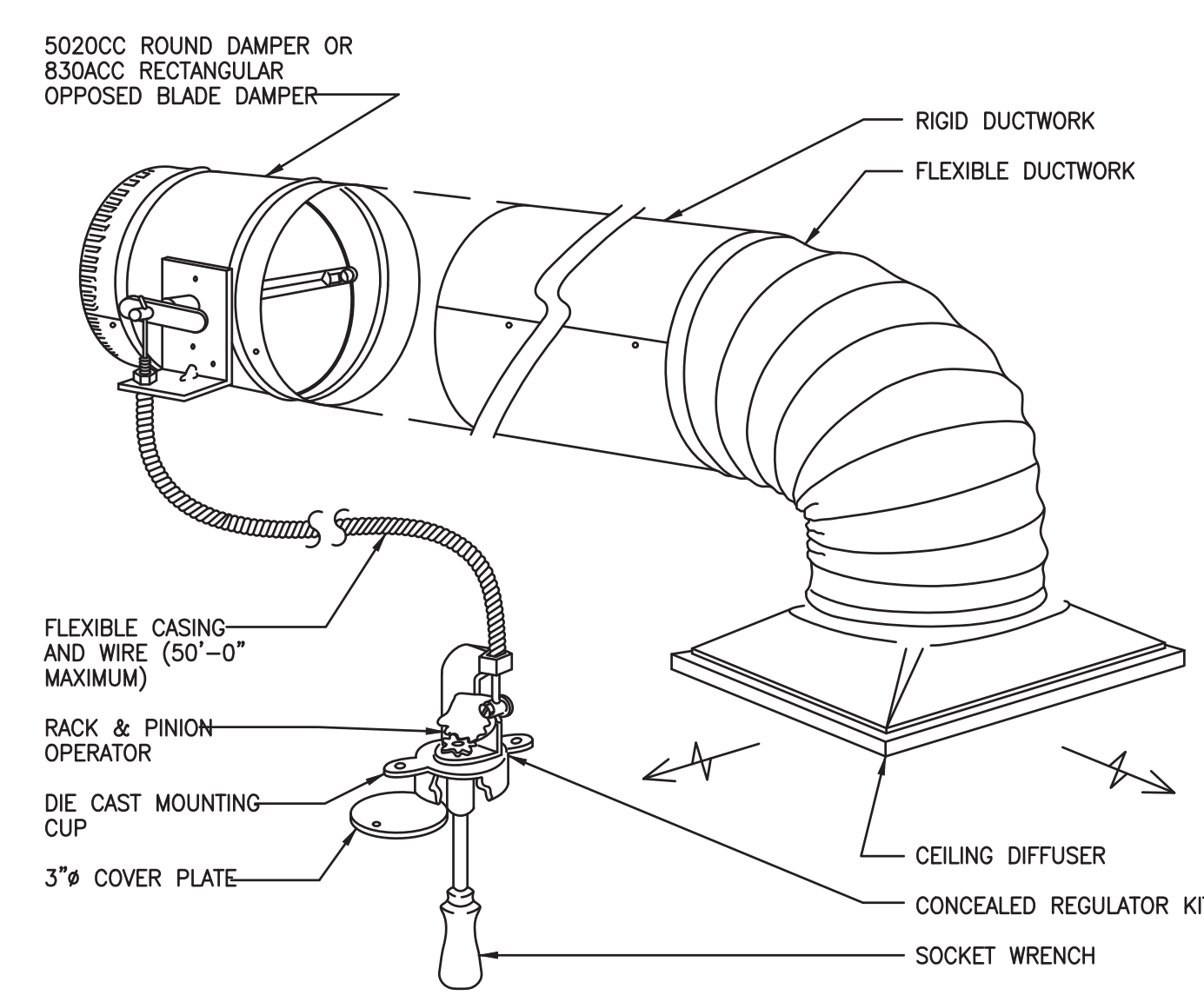
AIR HANDLING UNIT SUPPORT STAND DETAIL
NOT TO SCALE



INLINE EXHAUST FAN DETAIL
NOT TO SCALE

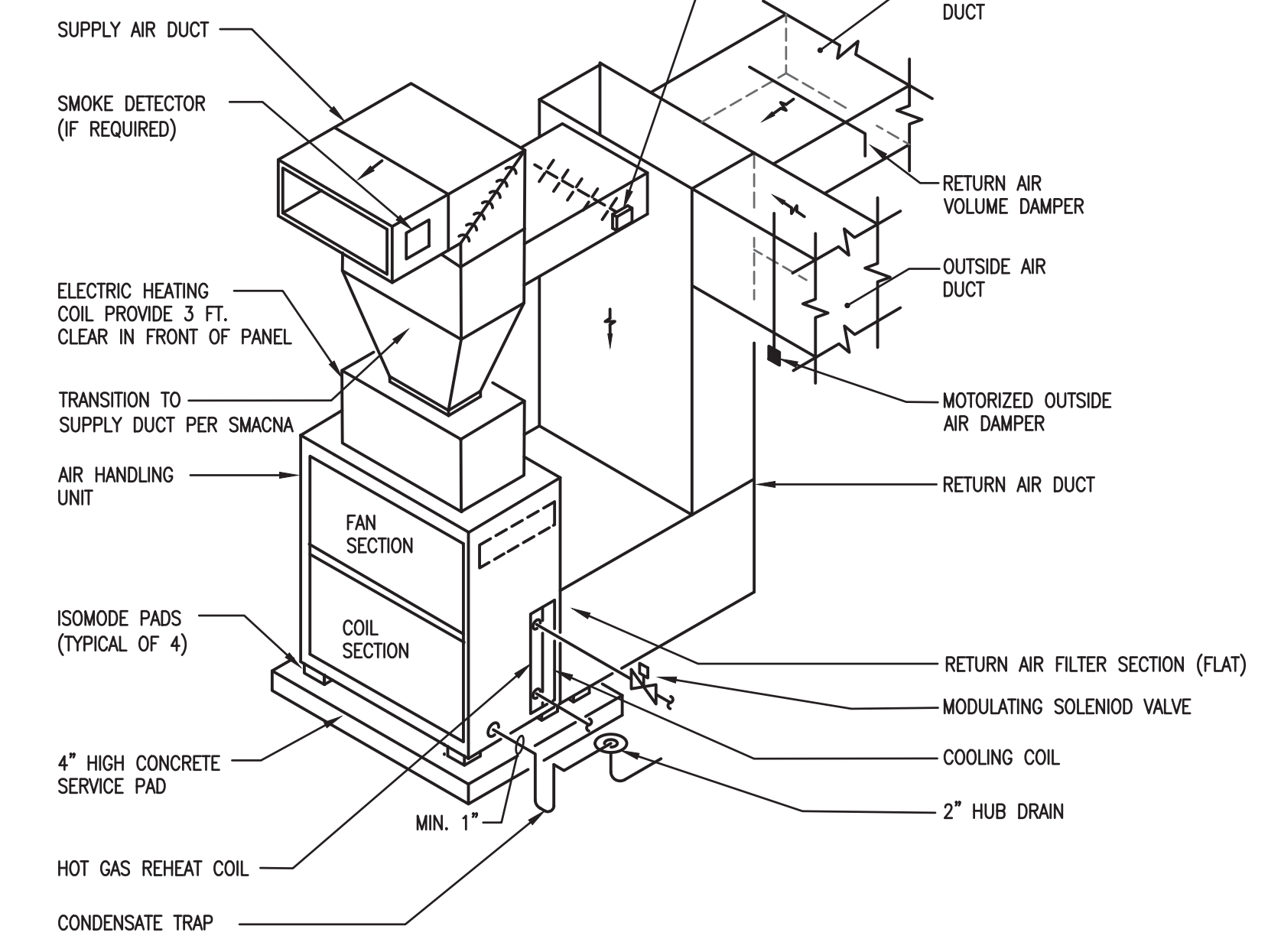


SUPPLY AIR DIFFUSER CONNECTION DETAIL
NOT TO SCALE

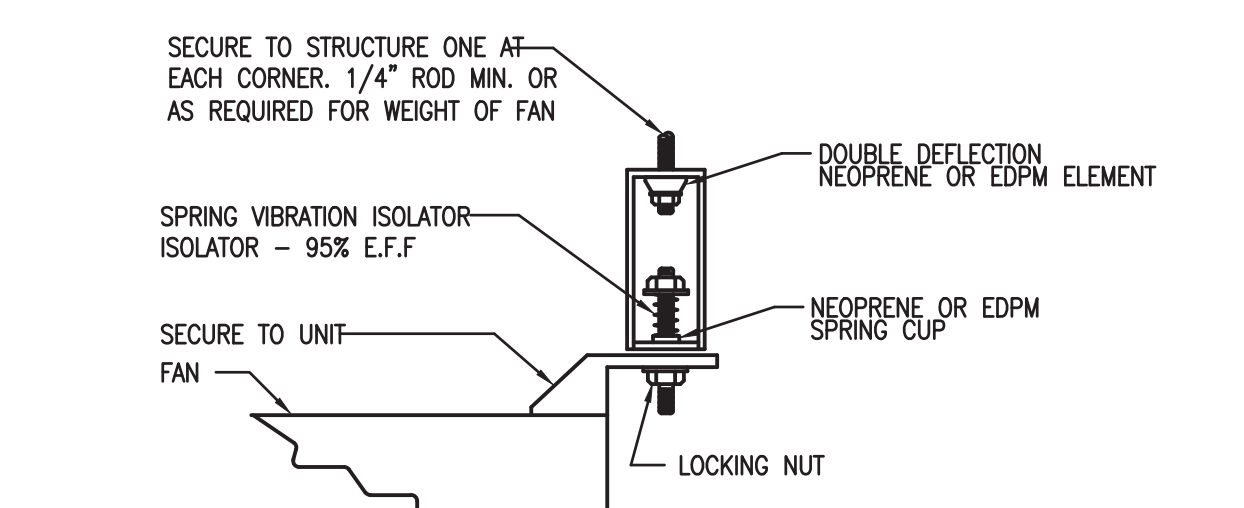


- NOTE:**
- 1) COORDINATE EXACT LOCATION OF CEILING MOUNTED CONCEALED REGULATOR WITH ARCHITECT PRIOR TO INSTALLATION.
 - 2) THE 270-301 BOWDEN CABLE CONTROL SYSTEM IS DESIGNED TO BE IMBEDDED IN THE CEILING FLUSH WITH THE FINISHED SURFACE.
 - 3) CABLE SHALL CONSIST OF BOWDEN CABLE 0.054" STAINLESS STEEL CONTROL WIRE ENCAPSULATED IN 1/16" FLEXIBLE GALVANIZED SPIRAL WIRE SHEATH.
 - 4) LOCKING RACK AND PINION GEAR DRIVE SHALL BE CONSTRUCTED OF 14 GAUGE STEEL AND SHALL BE USED TO CONVERT ROTARY MOTION INTO PUSH-PULL MOTION.
 - 5) CONTROL SHAFT SHALL BE "D"-STYLE FLATTENED 1/4" DIAMETER WITH 265° ROTATION PROVIDING 1-1/2" LINEAR TRAVEL CAPABILITY.

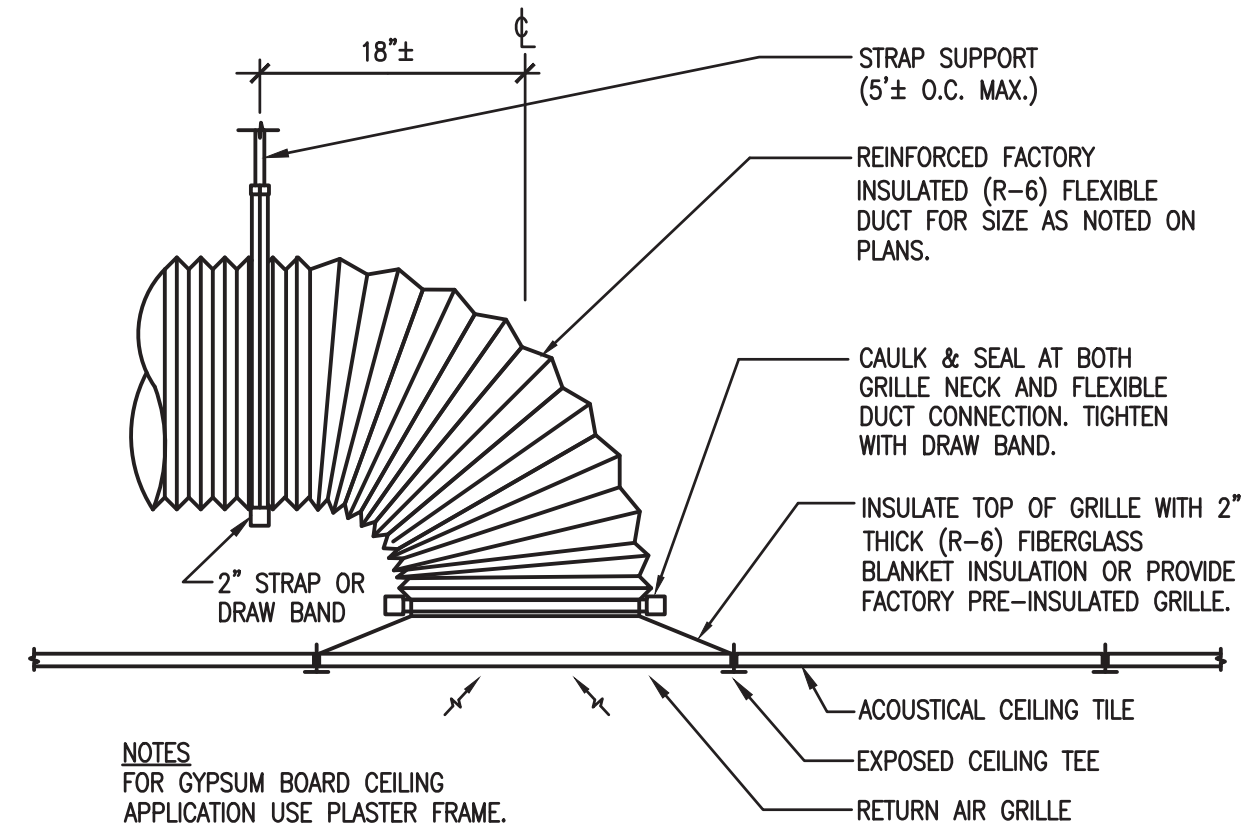
REMOTE VOLUME DAMPER MOUNTING DETAIL - SQUARE DIFFUSER
NOT TO SCALE



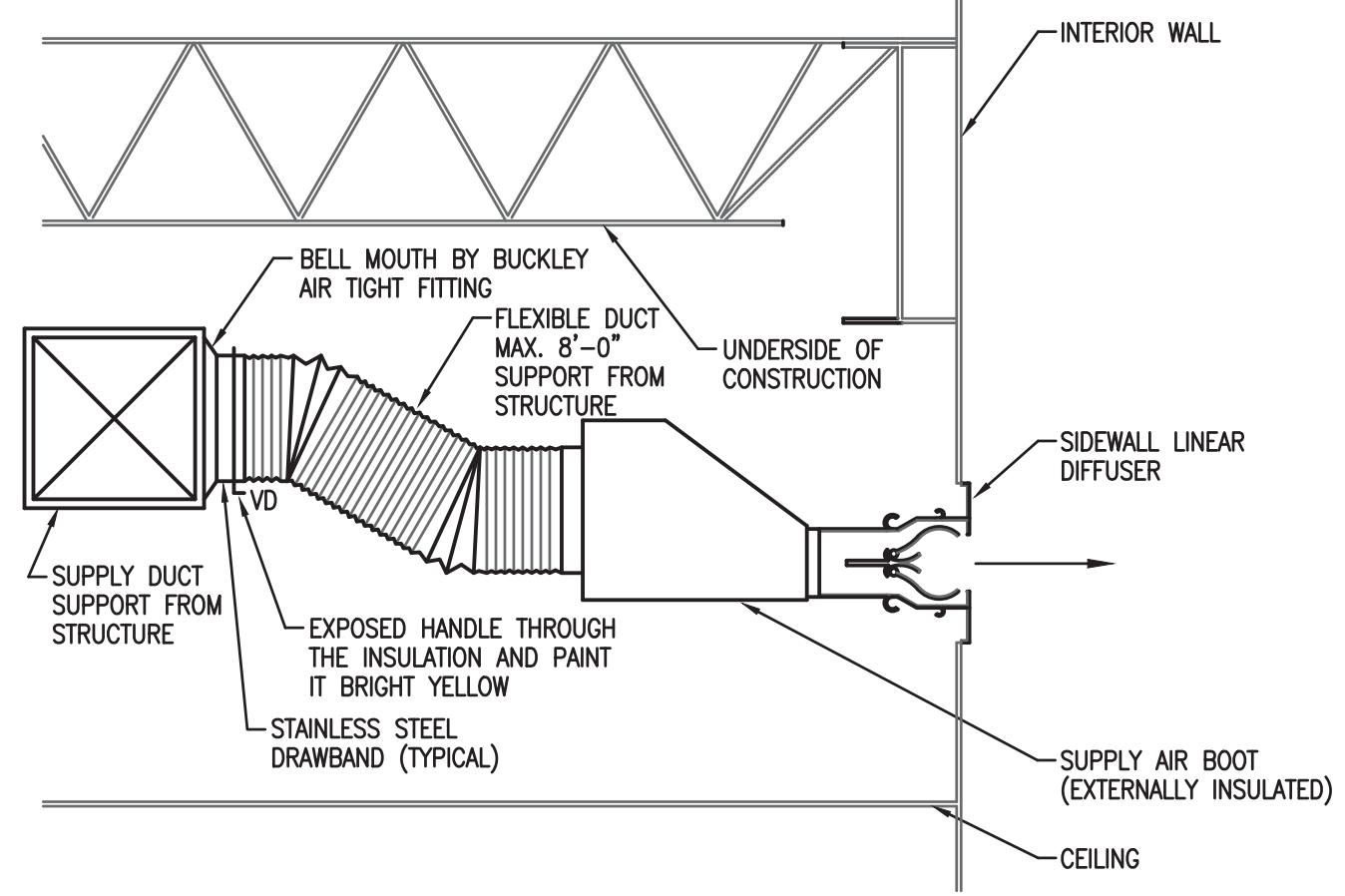
VERTICAL AIR HANDLING UNIT DETAIL (BYPASS)
NOT TO SCALE



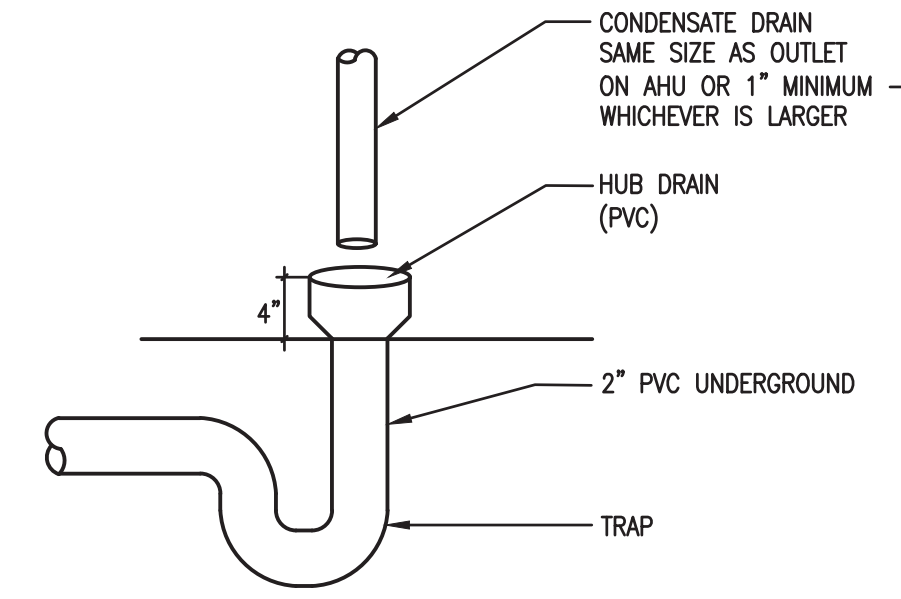
FAN SUSPENSION DETAIL
NOT TO SCALE



RETURN AIR GRILLE CONNECTION DETAIL
NOT TO SCALE



SIDEWALL LINEAR DIFFUSER DETAIL
NOT TO SCALE



CONDENSATE HUB DRAIN DETAIL
NOT TO SCALE

CITY OF LEEBURG VENETIAN GARDENS

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BORRELLI ASSOCIATES
CONSULTANTS

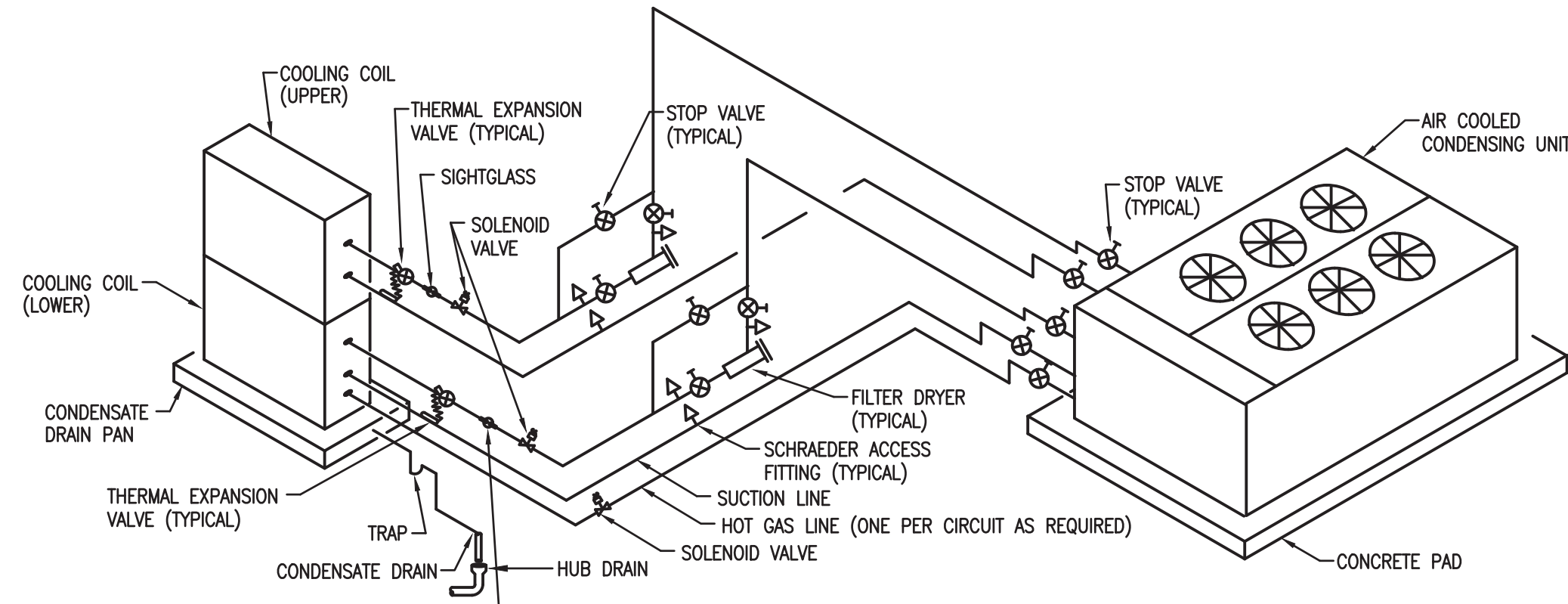
11000 W. US HWY 90, SUITE 200, LEEBURG, FL 34748
FLORIDA STATE P.E. # 39410

HVAC DETAILS

PROJECT NO.	DATE	DESCRIPTION	REV.
16-170	11-20-2017	30% CONSTRUCTION DOCUMENTS	
SCALE	NOT TO SCALE	FILE NAME	16-170 16-501
DRAWN BY	MB	CHECKED BY	MB/J

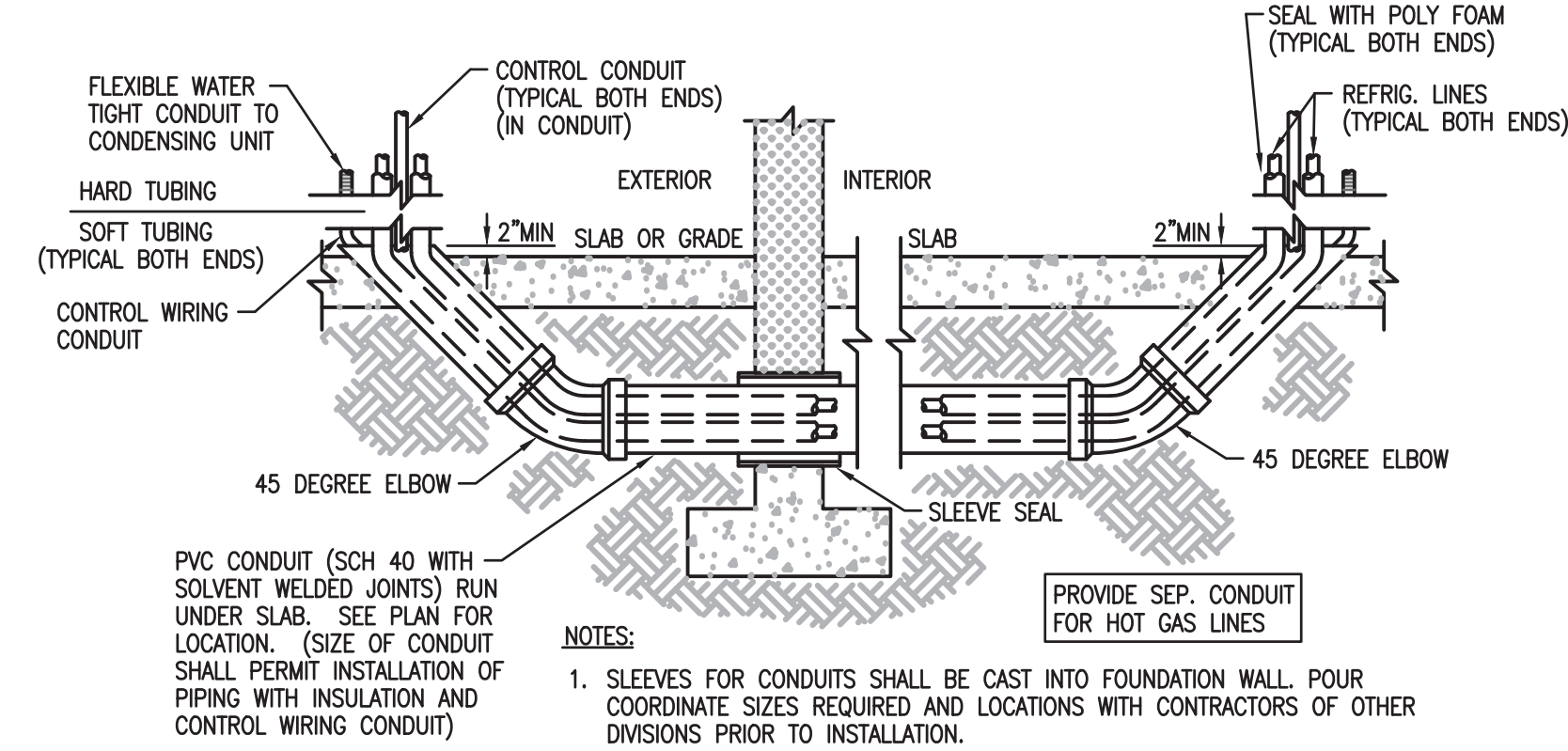
PROJECT ADDRESS: 201 Dixie Ave., Leesburg, FL 34748
OWNER NAME AND ADDRESS: CITY OF LEEBURG

M-501



- NOTE:**
- CONTRACTOR SHALL SUBMIT A REFRIGERANT PIPING DIAGRAM APPROVED BY THE CONDENSING UNIT MANUFACTURER. BEFORE PROCEEDING WITH WORK, SEE SPECIFICATIONS FOR REFRIGERANT PIPING INSTALLATION REQUIREMENTS.
 - DELETE ANY VALVES OR MATERIAL THAT IS FURNISHED WITH UNIT.
 - REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURER OPTIMUM PERFORMANCE RATING.
 - ALL PIPING CONNECTIONS TO EQUIPMENT AND ACCESSORIES SHALL BE SWEAT TYPE AND BRAZED OR SOLDERED ACCORDING TO SPECIFICATIONS.
 - PIPING SHALL BE INSTALLED PARALLEL AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION.
 - PROVIDE FILTER/DRYER IN REFRIGERANT LIQUID LINE AT LOCATIONS RECOMMENDED BY EQUIPMENT MANUFACTURER.
 - SOLENOID VALVES TO BE CONTROLLED AND WIRED PER MANUFACTURERS INSTRUCTIONS.

DUAL CIRCUIT REFRIGERANT PIPING DIAGRAM
NOT TO SCALE

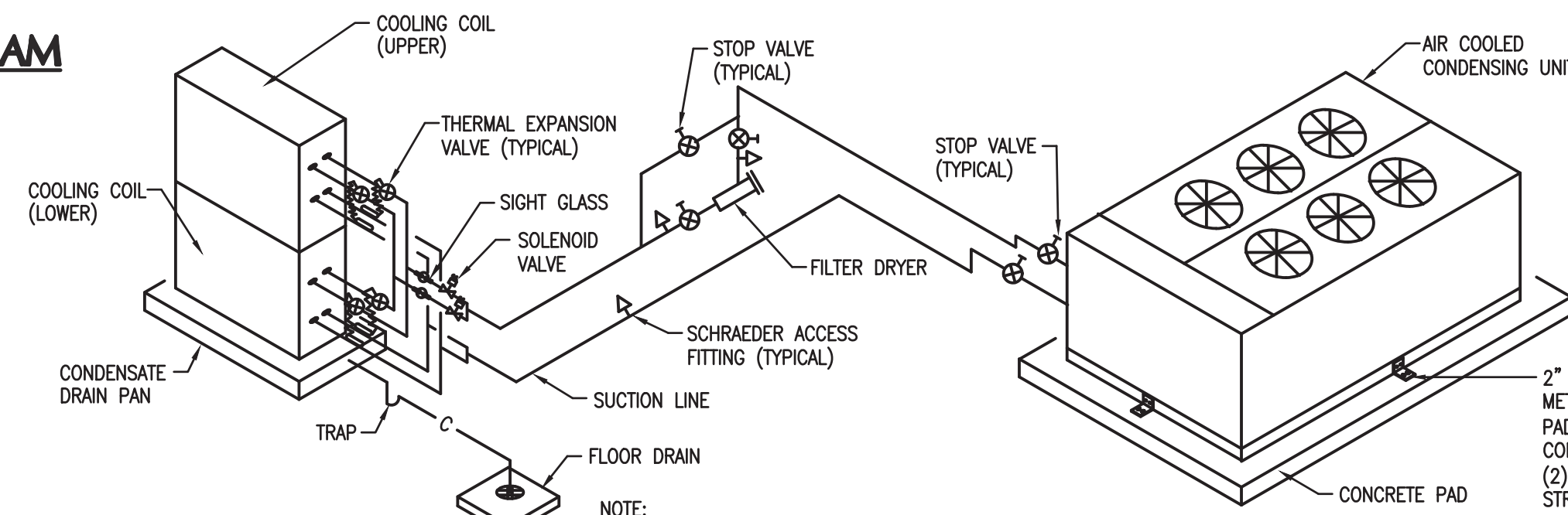


PIPE CHASE SIZES

SUCTION PIPE SIZE	PVC REFRIGERANT PIPE CHASE SIZE
5/8" TO 1 5/8"	4"
1 7/8" TO 2 5/8"	6"
3 1/8" TO 4 1/8"	8"

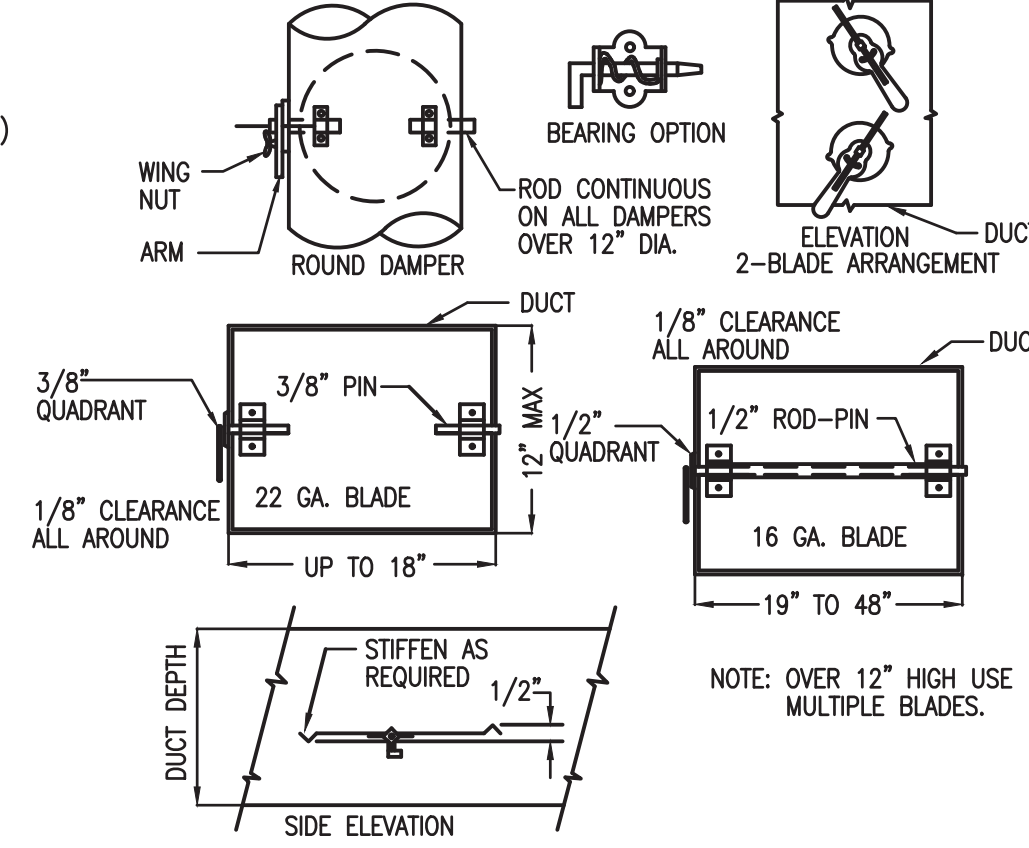
- NOTES:**
- SLEEVES FOR CONDUITS SHALL BE CAST INTO FOUNDATION WALL. POUR COORDINATE SIZES REQUIRED AND LOCATIONS WITH CONTRACTORS OF OTHER DIVISIONS PRIOR TO INSTALLATION.
 - CONDUITS WHICH MUST PASS BELOW STRUCTURAL FOUNDATIONS SHALL HAVE MINIMUM 6" FINE GRAVEL AROUND PERIMETER 2'-0" TO EITHER SIDE OF STRUCTURE - FIRMLY TAMPED.
 - ALL BACKFILLING SHALL BE FIRMLY TAMPED, PRIOR TO LANDSCAPE WORK. EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH DIVISION 15 SPECIFICATIONS.
 - ALL EXPOSED PIPING (INTERIOR AND EXTERIOR) SHALL BE WRAPPED WITH AN ALUMINUM JACKET.

REFRIGERANT PIPING CONDUIT DETAIL
NOT TO SCALE

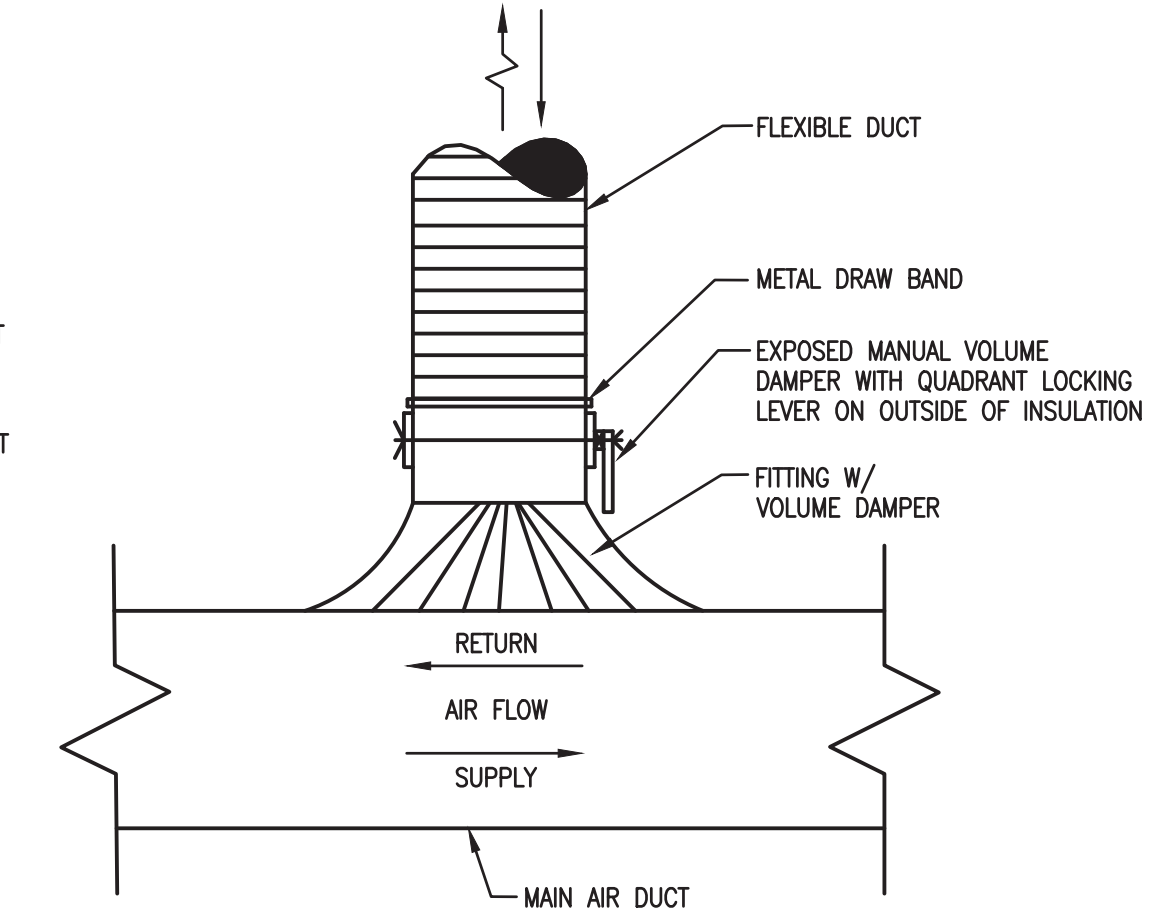


- NOTE:**
- CONTRACTOR SHALL SUBMIT A REFRIGERANT PIPING DIAGRAM APPROVED BY THE CONDENSING UNIT MANUFACTURER. BEFORE PROCEEDING WITH WORK, SEE SPECIFICATIONS FOR REFRIGERANT PIPING INSTALLATION REQUIREMENTS.
 - DELETE ANY VALVES OR MATERIAL THAT IS FURNISHED WITH UNIT.
 - REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURER OPTIMUM PERFORMANCE RATING.
 - ALL PIPING CONNECTIONS TO EQUIPMENT AND ACCESSORIES SHALL BE SWEAT TYPE AND BRAZED OR SOLDERED ACCORDING TO SPECIFICATIONS.
 - DIAGRAM DOES NOT INDICATE HOT GAS REFRIGERANT LINES AND CONTROL VALVE. PROVIDE HOT GAS LINES AND TWO PAIR OF REFRIGERANT LINES FOR SYSTEMS REQUIRING THESE FEATURES.
 - PIPING SHALL BE INSTALLED PARALLEL AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION.
 - PROVIDE FILTER/DRYER IN REFRIGERANT LIQUID LINE AT LOCATIONS RECOMMENDED BY EQUIPMENT MANUFACTURER.
 - SOLENOID VALVES TO BE CONTROLLED AND WIRED PER MANUFACTURERS INSTRUCTIONS.

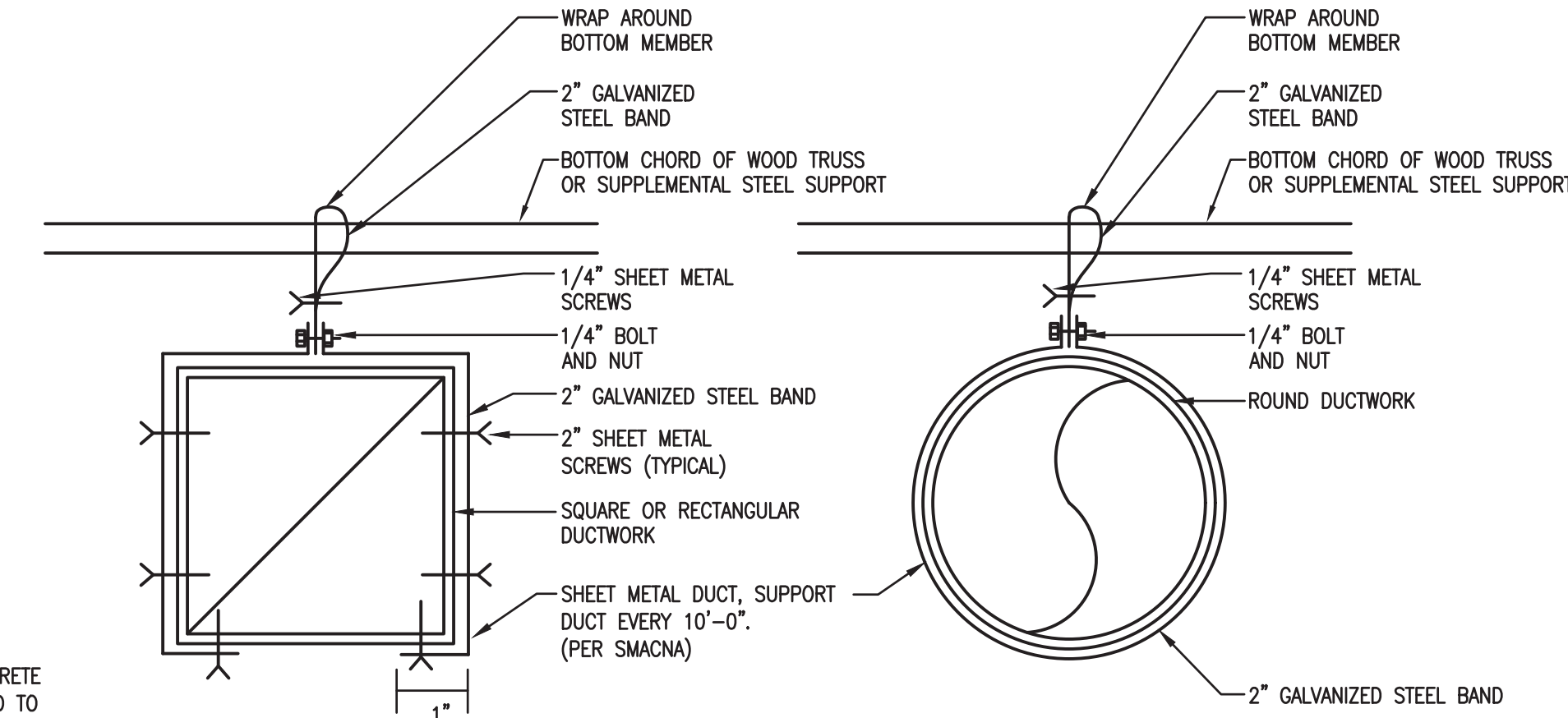
DUAL CIRCUIT REFRIGERANT PIPING DIAGRAM
NOT TO SCALE



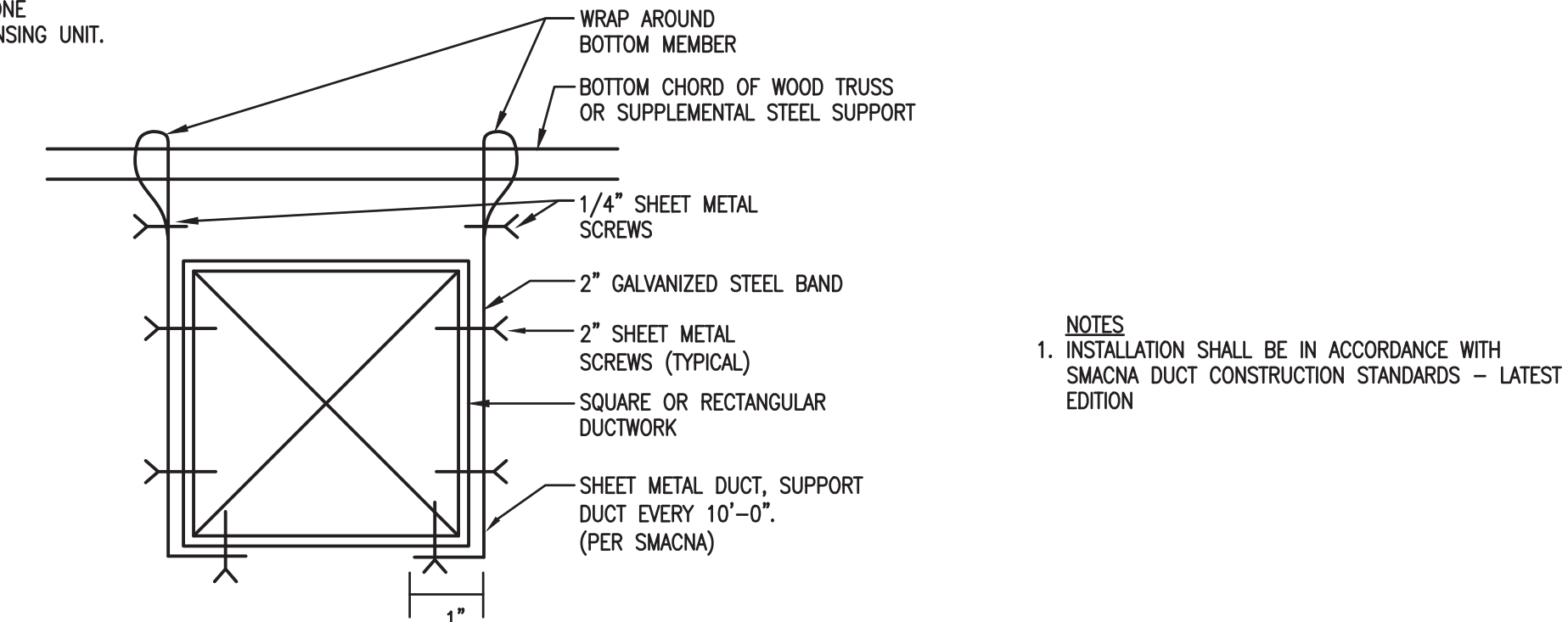
VOLUME DAMPERS-SINGLE BLADE TYPE
NOT TO SCALE



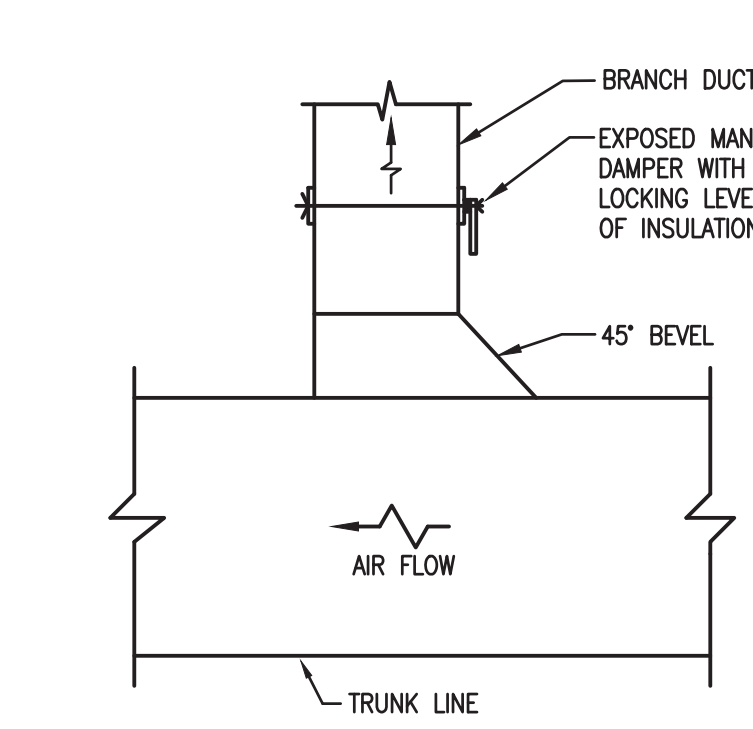
FLEXIBLE DUCT CONNECTION DETAIL - SUPPLY & RETURN
NOT TO SCALE



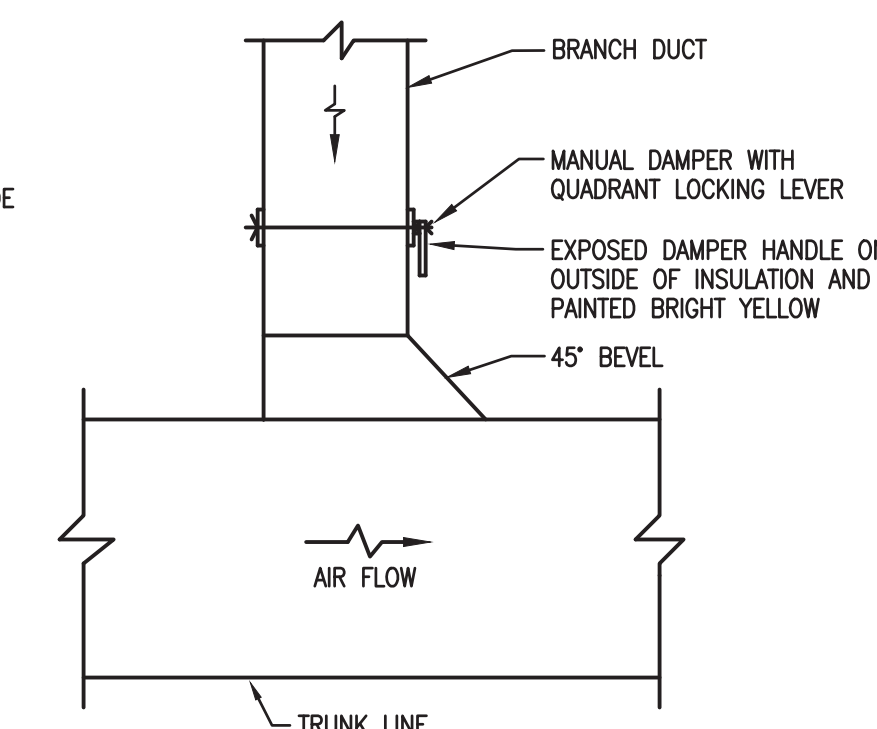
SHEET METAL DUCT HANGING DETAIL
NOT TO SCALE



- NOTES:**
- INSTALLATION SHALL BE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS - LATEST EDITION



SUPPLY AIR DUCT TAKE-OFF INSTALLATION DETAIL
NOT TO SCALE



TYPICAL RETURN AIR OR EXHAUST AIR DUCT CONNECTION DETAIL
NOT TO SCALE

PROJECT NO.	PHASE	SCALE	FILE NAME	DRAWN BY	CHECKED BY	DATE
16-170	30% CONSTRUCTION DOCUMENTS	NOT TO SCALE	16-170 16-502	MB	AB/J	11-29-2017

PLUMBING SYMBOL LEGEND					
-----	SANITARY WASTE LINE-- BELOW FLOOR		PIPE ELBOW UP		WALL MOUNTED LAVATORY
-----	SANITARY WASTE LINE-- ABOVE FLOOR		PIPE ELBOW DOWN	L O	COUNTER TOP LAVATORY
-----	SANITARY VENT LINE	WCO	WALL CLEANOUT		BALL VALVE
-----	DOMESTIC COLD WATER	FOO	FLOOR CLEANOUT		BALL/BUTTERFLY VALVE
-----	DOM. HOT WATER 140° F	GCO	GROUND CLEANOUT		BACKWATER VALVE
-----	DOMESTIC HOT WATER RECIRCULATED	VTR	VENT THRU ROOF		INLINE PUMP
-----	TEMPERED WATER 110° F	RL	ROOF LEADER		UNION
-----	F	RD	ROOF DRAIN		TEMP. & PRESSURE RELIEF VALVE
-----	S	FD	FLOOR DRAIN		COCK
ST	STORM DRAIN -- BELOW FLOOR	HD	HUB DRAIN		GAS COCK
ST	STORM DRAIN -- ABOVE FLOOR		POINT OF CONNECTION NEW TO EXISTING		WATER ARRESTOR
GR	GREASE WASTE LINE-- BELOW FLOOR		LIMIT OF DEMOLITION		BALANCING VALVE
C	CONDENSATE DRAIN	HB	HOSE BIBB		DRAWING HEX NOTE
G	GAS LINE	WC	WATER CLOSET		REVISION DELTA AND NUMBER
A	AIR LINE		URINAL		

PLUMBING ABBREVIATIONS					
AV	AIR ADMITTANCE VALVE	ESE	EMERGENCY SHOWER/ EYEWASH	PW	POWER WASH
AD	AREA DRAIN	EWH	ELECTRIC WATER HEATER	RP	RECIRCULATING PUMP
ADR	AIR DRIER (COMPRESSED AIR)	EW	ELECTRIC WATER COOLER	RWL	RAIN WATER LEADER
AF	AIR FILTER (COMPRESSED AIR)	FD	FLOOR DRAIN	SAN	SANITARY
AF	ABOVE FINISHED FLOOR	FL	FLOOR	S	SINK
AR	AIR RISER DIAGRAM	FS	FLOOR SINK	SR	SANITARY RISER DIAGRAM
BF	BARRIER FREE	GPH	GALLON PER HOUR	SD	STORM DRAIN
BTU	BRITISH THERMAL UNIT	GR	GAS RISER DIAGRAM	SE	SEWAGE EJECTOR
B/S	BELOW SLAB	GWH	GAS WATER HEATER	SH	SHOWER
CA	COMPRESSOR (COMPRESSED AIR)	HB	HOSE BIBB	SS	SERVICE SINK
CLG	CEILING	HD	HUB DRAIN	ST	STORM
CHDW	CHILLER, DRINKING WATER	HW	HOT WATER	TEMP	TEMPERATURE
CP	CONDENSATE PUMP	HWR	HOT WATER RECIRCULATING	TW	TEMPERED WATER
CS	COUNTER SINK	IEWH	INSTANTANEOUS ELECTRIC WATER HEATER	TMW	TEMPERING/MIXING VALVE
CW	COLD WATER	IM	ICE MAKER	UR	URINAL
'F	DEGREES FAHRENHEIT	KS	KITCHEN SINK	UG	UNDERGROUND
C.O.	CLEAN OUT	KW	KILOWATT	VTR	VENT THRU ROOF
DISP	DISPOSER	LAV, L	LAVATORY	WC	WATER CLOSET
DN	DOWN	MBH	MEGA BTU PER HOUR	W/	WITH
DF	DRINKING FOUNTAIN	MS	MOP SINK	WH	WATER HEATER
Δ	TEMP. DIFFERENCE IN °F	NIC	NOT IN CONTRACT	WHA	WATER HAMMER ARRESTOR
DWG	DRAWING	OD	OVER FLOOR DRAIN	WF	WATER FILTER
EDF	ELECTRIC DRINKING FOUNTAIN	PC	PUMP, CIRCULATING (DOMESTIC HOT WATER)	WR	WATER RISER DIAGRAM
EFF	EFFICIENCY	PD	PLANTER DRAIN	WS	WATER SOFTENER
		PS	PUMP, SUMP	V	VACUUM

GREASE INTERCEPTOR SIZING CALCULATION

THE FOLLOWING CALCULATION IS IN ACCORDANCE WITH THE PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-G101 FOR SIZING OF GREASE INTERCEPTORS.

THE MAIN FIXTURE DRAINING INTO THIS GREASE INTERCEPTOR IS A 3 COMPARTMENT SINK. THERE ARE OTHER FIXTURES DRAINING INTO THIS INTERCEPTOR BUT THESE ARE MAINLY FLOOR DRAINS AND A MOP SINK. ASSUME THAT ALL THREE COMPARTMENTS WILL BE UTILIZED AT ONE TIME.

3 COMPARTMENT SINK
 VOLUME = 18" X 18" X 12" X 3 (COMP) = 11,664 CUBIC INCHES
 PER PDI ASSUME THAT EACH COMPARTMENT IS 75% FULL

11,644 CUBIC INCHES X .75 = 8748 CUBIC INCHES

8748 CUBIC INCHES / 231 CUBIC INCH/GALLON = 37.87 GALLONS

ASSUME A 2 MINUTE DRAIN TIME, THE FLOW FROM THIS FIXTURE IS 37.87 GALLONS/2 MIN = 18.93 GPM.

MOP SINK
 VOLUME = 18" X 16" X 10" = 2880 CUBIC INCHES
 PER PDI ASSUME THAT THE SINK IS 75% FULL

2880 CUBIC INCHES X .75 = 2160 CUBIC INCHES

2160 CUBIC INCHES / 231 CUBIC INCH/GALLON = 9.35 GALLONS

ASSUME A 2 MINUTE DRAIN TIME, THE FLOW FROM THIS FIXTURE IS 9.35 GALLONS/2 MIN = 4.7 GPM

FLOOR DRAINS
 THERE ARE A TOTAL OF 32 FLOOR DRAINS AT EACH CONCESSION. EACH 3" FLOOR DRAIN FLOWS 5 GPM

32 FLOOR DRAINS X 5 GPM/FD = 160 GPM

TOTAL FLOW = (3 COMP. SINK FLOW) + (MOP SINK FLOW) + (FLOOR DRAIN FLOW) = 18.93 + 4.7 + 160 = 183.6 GPM

HAND SINKS
 HAND SINKS ARE NOT ACCOUNTED FOR IN THIS CALCULATION BECAUSE THEY ARE USED FOR A VERY SHORT PERIOD OF TIME AND WILL NOT IMPACT THE FLOW THROUGH THE GREASE INTERCEPTOR.

PER PDI THE GREASE RETENTION CAPACITY (lbs) MUST BE TWICE THE FLOW RATE (GPM).
 THE REQUIRED CAPACITY IS : 183.6 X 2 = 367.2 lbs

THE 367.2 lbs OF GREASE CAPACITY IS MET BY THE 1250 GALLON GREASE TRAP SERVING THIS CONCESSION WHICH HAS A GREASE HOLDING CAPACITY OF 8750 lbs.

PLUMBING FIXTURE SCHEDULE

WC-1	WATER CLOSET: FLOOR MOUNTED, INFRARED SENSOR, BATTERY POWERED FLUSH VALVE, TOP SPOUT, SIPHON JET, ELONGATED, WATER SAVER 1.1 GPF, WHITE VITREOUS CHINA, WHITE OPEN FRONT SEAT. ZURN Z5655.444 TOILET SYSTEM. FURNISH WITH 5 YEAR WARRANTY ON FIXTURE/FLUSH VALVE COMBINATION.	ODT-1	OVERFLOW TRAP TERMINATION: NICKEL BRONZE BODY, THREADED INLET WITH DECORATIVE FACE WALL FALNGE AND OUTLET NOZZLE. ZURN ZAN8199.
WC-2	HANDICAP WATER CLOSET: FLOOR MOUNTED, INFRARED SENSOR, BATTERY POWERED FLUSH VALVE, TOP SPOUT, SIPHON JET, ELONGATED, WATER SAVER 1.1 GPF, WHITE VITREOUS CHINA, WHITE OPEN FRONT SEAT. ZURN Z5665.444 TOILET SYSTEM. ADA APPROVED FOR HANDICAP ACCESSIBILITY. MOUNT AT ADA APPROVED HANDICAP ACCESSIBLE HEIGHT. FURNISH WITH 5 YEAR WARRANTY ON FIXTURE/FLUSH VALVE COMBINATION.	MS-1	MOP SINK: 24" X 24" X 10" MOLDED STONE, FLOOR MOUNTED, WITH WALL MOUNTED FAUCET WITH 3/4" HOSE THREAD SPOUT, INTEGRAL STOPS, WALL BRACKET, FAUCET WITH PAL HOOK AND VACUUM BREAKER, HOSE AND HOSE BRACKET, MOP HANGER, STAINLESS STEEL FLAT GRID STRAINER, WALL GUARD AND EDGE GUARD. FIAT MSB-2424, B30-AA SERVICE, T&S B665-BSTR, T&S B653 OR T&S B654 FAUCET, B32-AA HOSE AND BRACKET, 889-CC MOP HANGER, 1453-BB STRAINER, MSQ 2424 WALL GUARD, E-88-AA EDGE GUARD.
UR-1	URINAL: WALL HUNG, TOP SPOUT, WATER CONSERVING 1/8 GPM, INFRARED SENSOR, BATTERY OPERATED FLUSH VALVE, WASHOUT, WHITE VITREOUS CHINA, FLOOR MOUNTED CARRIER. ZURN Z-5755.205.00 URINAL SYSTEM. FURNISH WITH 5 YEAR WARRANTY ON FIXTURE/FLUSH VALVE COMBINATION.	HB-1	HOSE BIBB: RECESSED, WALL MOUNTED IN BRASS BOX WITH LOCKING COVER, BRASS, CHROME PLATED, VACUUM BREAKER, 3/4" HOSE THREAD SPOUT, REMOVABLE KEY. ZURN Z1335 OR WATTS H7330.
UR-2	HANDICAP URINAL: WALL HUNG, TOP SPOUT, WATER CONSERVING 1/8 GPM INFRARED SENSOR, BATTERY POWERED FLUSH VALVE, WASHOUT, WHITE VITREOUS CHINA, FLOOR MOUNTED CARRIER. ZURN Z-5755.205.00 URINAL SYSTEM. ADA APPROVED FIXTURE FOR HANDICAP ACCESSIBILITY, MOUNT AT ADA APPROVED HANDICAP ACCESSIBLE HEIGHT. FURNISH WITH 5 YEAR WARRANTY ON FIXTURE/FLUSH VALVE COMBINATION.	BP-1	BACKFLOW PREVENTER: REDUCED PRESSURE, LEAD FREE, BRONZE BODY, THREADED INLET AND OUTLET. SIZE AS PER SUPPLY LINE. WILKINS 975XUMS OR WATTS 9190T.
L-1	LAVATORY: FLOOR MOUNTED, SELF PRIMING, WHITE VITREOUS CHINA, INFRARED SENSOR, BATTERY POWERED FAUCET WITH FLAT GRID STRAINER, BRASS P-TRAP, SUPPLIES WITH STOP. INSULATE WATER AND WASTE PIPING BELOW LAVATORY. AMERICAN STANDARD "LUCERNE" 0355.012, ZURN Z6915-XL FAUCET.	S-1	STRAINER: BRONZE BODY, Y-TYPE DOMESTICALLY MANUFACTURED, 125 PSI RATED, 100 MESH STAINLESS STEEL SCREEN. SIZE TO MATCH WATER LINE IT IS SERVING. WILKINS YB-100 OR WATTS 7775.
L-2	HANDICAP LAVATORY: 20" X 18" WALL HUNG, WHITE VITREOUS CHINA, FLOOR MOUNTED CARRIER, INFRARED SENSOR, BATTERY POWERED FAUCET WITH FLAT GRID STRAINER, BRASS P-TRAP, SUPPLIES WITH STOP. INSULATE WATER AND WASTE PIPING BELOW LAVATORY. AMERICAN STANDARD "LUCERNE" 0355.012, ZURN Z6915-XL FAUCET.	IOB-1	ICE MAKER OUTLET BOX: RECESSED IMPACT POLYSTYRENE BOX WITH 2 SUPPORT BRACKETS AND SNAP-ON FACEPLATE, 1/4 TURN BRASS BALL VALVE. OATEY 38681.
EW-1	ELECTRIC WATER COOLER: WALL HUNG, TWIN OVAL RECEPTORS, HI-LOW, RECESSED COOLER, STAINLESS STEEL FINISH, HANDICAP ACCESSIBLE, 180 DEGREE WATER, FRONT PUSH BARS, SUPPLY WITH STOP, BRASS P-TRAP, 8.0 GPH OF 50 DEGREE WATER, 1/5 HP, 3.5 FLA, 115 VOLT, 1 PHASE, 60 CYCLE. HALSEY TAYLOR OVL-II-SER-Q, ELKAY ERP628RAC OR OASIS M8CR.	TMW-2	THERMOSTATIC MIXING VALVE: WATER MIXING VALVE WITH MINIMUM FLOW OF 2.0 GPM, MAXIMUM FLOW OF 10 GPM, DIAL THERMOMETER, ADJUSTABLE HIGH TEMPERATURE LIMIT STOP, INLET CHECK STOP, AND LOCKING TEMPERATURE REGULATOR, BRONZE BODY & CAP WITH STAINLESS STEEL PISTON & LINER, MANUFACTURER TO FURNISH WALL OR CEILING MOUNTING BRACKET. 3/4" INLETS, 3/4" OUTLET. BRADLEY S59-2025-1.
HD-1	HUB DRAIN: CAST IRON BODY WITH INTEGRAL TRAP, SIDE OUTLET, COMBINATION INVERTABLE MEMBRANE CLAMP, ADJUSTABLE TYPE E NICKEL BRONZE STRAINER WITH 4" FUNNEL, SEEPAGE SLOTS, TRAP PRIMER CONNECTION, ZURN Z400E-P.	TMV-4	TEMPERING MIXING VALVE: INDIVIDUAL FIXTURE MIXING VALVE WITH INTEGRAL FILTER, TWO BACK CHECKS AND 3/8" COMPRESSION FITTING INLETS AND OUTLETS. ZURN P6900-MW-XL.
FS-1	FLOOR SINK: 12" X 12" CAST IRON WITH ACID RESISTING WHITE ENAMEL BODY INTERIOR, NICKEL BRONZE SQUARE FRAME WITH FULL, SQUARE HOLE LOOSE SET GRATE, ALUMINUM ANTI-SPLASH INTERIOR DOME STRAINER, SEEPAGE SLOT TRAP PRIMER CONNECTION. ZURN Z-1900, ZN1900-P OR WATTS F5730P-7.		WATER ARRESTOR EQUAL TO ZURN SHOCKTROL MODEL Z1700 OR WATTS SG (COPPER WATER HAMMER ARRESTOR), 65 PSI MAX. RATING MAX. PIPING LENGTH COVERED BY AN ARRESTOR SHALL BE 20 LINEAR FT. TYPE "A" = 11 FU MAX, TYPE "B" = 30 FU MAX, TYPE "C" = 60 FU MAX.
RD-1	ROOF DRAIN: CAST IRON BODY, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, LOW SILHOUETTE POLY-DOME, UNDERDECK CLAMP. ZURN Z-100-C OR WATTS RD-300-D.	WCO	WALL CLEANOUTS: FINISHED AREAS EQUAL TO: ZURN, ZS-1469-VP-7" UNFINISHED AREAS ZURN, ZAB-1469-VP-7"
RD-2	ROOF DRAIN: COMBINATION ROOF DRAIN/OVERFLOW DRAIN, DURA-COATED CAST IRON BODY WITH DEEP SUMP, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, LOW SILHOUETTE POLY-DOME, UNDERDECK CLAMP, 45" PRIMARY OUTLET. FROET 100 SERIES OR ZURN Z103-45-20F-C.	FCO	FLOOR CLEANOUTS: FINISHED AREAS EQUAL TO: ZURN, ZN-2400-2, ZN-1400 OR WATTS CO-200P-R CARPETED AREAS ZURN, ZN-1400-14, ZN-1400 OR WATTS CO-200P-RC
RD-3	ROOF DRAIN: COMBINATION ROOF DRAIN/OVERFLOW DRAIN, SIDE BY SIDE CONFIGURATION, DURA-COATED CAST IRON BODY, COMBINATION MEMBRANE FLASHING CLAMP WITH INTEGRAL GRAVEL GUARD, ROOF SUMP RECEIVER, CAST IRON DOME STRAINERS (2) UNDER DECK CLAMP. ZURN Z-RD2130-C.	RP-1	UNFINISHED AREAS ZURN, ZN-1420-27, Z-1400 OR WATTS CO-200P-RX-4 HEAVY DUTY HIGH TRAFFIC AREAS ZURN, Z-1400-DC
			RECIRCULATING PUMP: INLINE, BRASS, CENTRIFUGAL, 3 GPM AT 15' HEAD, 1750 RPM, 1/25 HP, 115V, 1Φ, 60 CYCLE, GROUNDFOSS MODEL UP15-42B5.

PLUMBING FIXTURE CONNECTION SCHEDULE

SYMBOL	DESCRIPTION	CW	TW	HW	WASTE	VENT	REMARKS
WC-1	WATER CLOSET	1"	--	--	3"	2"	-- --
WC-2	WATER CLOSET	1"	--	--	3"	2"	ADA/HANDICAP
UR-1	URINAL	3/4"	--	--	2"	1 1/2"	-- --
UR-2	URINAL	3/4"	--	--	2"	1 1/2"	ADA/HANDICAP
L-1	LAVATORY	1/2"	1/2"	--	1 1/2"	1 1/4"	COUNTER
L-2	LAVATORY	1/2"	1/2"	--	1 1/2"	1 1/4"	ADA/HANDICAP
EW-1	ELECTRIC WATER COOLER	1/2"	--	--	1 1/4"	1 1/4"	ADA/HANDICAP
MS-1	MOP SINK	1/2"	1/2"	1/2"	3"	1 1/2"	-- --
HB-1	HOSE BIBB	3/4"	--	--	--	--	RECESSED

SPECIAL KITCHEN / CONCESSIONS GENERAL NOTES

- CONTRACTOR SHALL STUDY AND COORDINATE ALL HIS WORK WITH THE KITCHEN EQUIPMENT DRAWINGS AND THE KITCHEN EQUIPMENT CONTRACTOR.
- NUMEROUS PLUMBING FIXTURES INCLUDING HAND SINKS, SERVICE SINKS, 3 COMPARTMENT SINKS AND PREP SINKS ARE FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER BUT SHALL BE INSTALLED UNDER THIS CONTRACT. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO KITCHEN EQUIPMENT, PLUMBING FIXTURES AND ALL INDIRECT WASTE CONNECTIONS FROM KITCHEN EQUIPMENT TO FLOOR SINKS USING TYPE "M" COPPER. ALL NECESSARY MATERIAL, TRAPS, VALVES AND FLEXIBLE CONNECTIONS, INCLUDING GAS SOLENOID VALVES SHALL BE PROVIDED BY THIS CONTRACTOR.
- CONTRACTOR SHALL FOLLOW THE KITCHEN ROUGH-IN PLAN AND SCHEDULES FOR EXACT SIZE AND LOCATION OF WATER AND GAS SERVICE TO THE KITCHEN EQUIPMENT.
- GREASE WASTE PIPING SERVING A HIGH TEMPERATURE DISHWASHING MACHINE (140°F OR HIGHER) SHALL BE CAST IRON FOR 15'-0" DOWNSTREAM OF THE DISHWASHING MACHINE. ALL OTHER GREASE WASTE PIPING SHALL BE SCHEDULE 40 PVC IN ACCORDANCE WITH GENERAL NOTE #7.

HEALTH DEPARTMENT SPECIAL NOTES

- THE CONCESSIONS AREA HAS BEEN ASSIGNED LAVATORIES WITH HOT/TEMPERED WATER AT ADJACENT RESTROOM LAVATORIES (ONE MEN'S AND ONE WOMEN'S) FOR HAND WASHING BY FOOD SERVICE/CONCESSIONS WORKERS UTILIZING THE RESTROOM.
- EACH DESIGNATED HAND WASHING LAVATORY SHALL BE LABELED AND IDENTIFIED WITH SIGNAGE INDICATING THAT IT IS TO BE USED BY THE FOOD SERVICE EMPLOYEES.
- SEE PLUMBING FLOOR PLANS P-102 AND P-102A FOR DESIGNATED LAVATORIES (KEY NOTE 1) AS WELL AS THE PLUMBING RISER DIAGRAMS.

PLUMBING GENERAL NOTES

- ALL WORK SHALL CONFORM WITH THE 2014 FLORIDA PLUMBING CODE (5TH EDITION), THE 2014 FLORIDA BUILDING CODE (5TH EDITION), THE 2014 FLORIDA ACCESSIBILITY CODE (5TH EDITION), 2014 FLORIDA GAS CODE (5TH EDITION), THE CITY OF LEESBURG BUILDING DEPARTMENT AND ALL OTHER APPLICABLE CODES AND STANDARDS.
- ALL HANDICAP FIXTURES SHALL BE MOUNTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE 2014 FLORIDA ACCESSIBILITY CODE CHAPTER 11 - FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL UTILITIES IN THE FIELD.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING CONDITIONS.
- COORDINATE WORK WITH ALL OTHER TRADES TO AVOID INTERFERENCES.
- INSTALL ALL WATER, WASTE AND VENT PIPING IN ACCORDANCE WITH ALL APPLICABLE CODES.
- SOIL, WASTE AND VENT PIPING SHALL BE SOLID WALL SCHEDULE 40 PVC DWV PIPING IN ACCORDANCE WITH ASTM D 2865. FITTINGS SHALL BE SCHEDULE 40 PVC DWV FITTINGS AND SHALL BE IN ACCORDANCE WITH ASTM D 3311. JOINTS SHALL BE SOLVENT CEMENTED IN ACCORDANCE WITH ASTM D 2855 USING SOLVENT CEMENT IN COMPLIANCE WITH ASTM D 2564.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
- ALL PIPING SHALL BE CONCEALED WITHIN THE CEILING SPACE, WALLS AND CHASES AS SHOWN ON PLANS.
- ALL EXPOSED PIPING AT PLUMBING FIXTURES SHALL BE CHROME PLATED BRASS WITH ESCUTCHEON PLATES AT THE WALL, FLOOR OR CEILING PENETRATIONS.
- ALL ABOVE SLAB COLD WATER, HOT WATER AND TEMPERED WATER PIPING SHALL BE SCHEDULE 40 CPVC IN ACCORDANCE WITH ASTM F 441. PIPE FITTINGS SHALL BE IN ACCORDANCE WITH ASTM F 483. JOINTS SHALL BE SOLVENT CEMENTED IN ACCORDANCE WITH ASTM D 2846 USING SOLVENT CEMENT IN COMPLIANCE WITH ASTM F 493.
- ALL BELOW SLAB COLD WATER, HOT WATER AND TEMPERED WATER PIPING SHALL BE TYPE "K" SOFT COPPER.
- ALL COPPER WATER LINE PENETRATIONS THROUGH WALLS AND FOOTERS SHALL BE SLEEVED.
- INSULATE ALL HOT WATER, TEMPERED WATER AND HOT WATER RECIRCULATION PIPING WITH 1" THICK FIBERGLASS INSULATION WITH SELF SEALING VAPOR RETARDANT AND FOIL JACKET (R-4.35/INCH).
- INSULATE ALL EXPOSED PIPES AND SURFACES UNDER ACCESSIBLE LAVATORIES PER ADA 4.19.4 AND ANSI-A117.1. PROVIDE ONE PIECE PROTECTOR WITH FULL ROTATION OPTIC CONSISTING OF INTERNAL GROOVE LOCKING RING FOR NON SEPARATION AND EXTERNAL LOCKING RING WITH STAINLESS STEEL SECURITY SCREW TO INSURE EXTRA LONG TERM TAMPER RESISTANCE ANTIMICROBIAL U.V. INHIBITED UNIVERSAL FIT, 3-M DUAL LOCK (TM) FASTENERS SECURED WITH SELF LOCKING APPROVED NYLON STRAPS. FURNISH ONE PIECE VALVE/ANGLE STEP PROTECTOR, ONE PIECE OFFSET PROTECTOR AND ONE PIECE P-TRAP PROTECTOR. PRO-XTRME BY PLUMBERX.
- ALL PIPING SHALL BE FIRMLY ANCHORED AND SUPPORTED IT'S ENTIRE LENGTH TO PREVENT SWAY AND VIBRATION.
- CONTRACTOR SHALL FURNISH AND INSTALL WATER SHOCK ARRESTERS EQUAL TO ZURN SHOCKTROL AS SHOWN ON PLANS AND AS PER MANUFACTURER'S RECOMMENDATIONS. AIR CHAMBERS SHALL NOT BE SUBSTITUTED FOR FACTORY FABRICATED WATER SHOCK ARRESTORS.
- ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER. TRAP PRIMER SHALL BE OF THE WATER SAVER TYPE EQUAL TO ZURN Z 1021 MOUNTED TO THE 1/4" SINK OUTLET AND CONNECTED VIA FLEXIBLE COPPER TO THE TRAP PRIMER CONNECTION AT THE FLOOR DRAIN.
- FURNISH SUPPLIES WITH STOP VALVES FOR ALL PLUMBING FIXTURES.
- ALL SHUT-OFF VALVES SHALL BE BALL VALVES.
- ALL PLUMBING ROOF VENTS SHALL BE COORDINATED TO PENETRATE THE STANDING SEAM METAL ROOF IN THE CENTER OF THE ROOF PANEL AND NOT ON A SEAM.
- ALL WATER PIPING SHALL BE SLOPED TO DRAIN.
- ALL SOIL, WASTE, AND VENT PIPING SHALL BE SLOPED 1/4" PER FOOT (2%) FOR PIPES 2 1/2" AND SMALLER AND 1/8" PER FOOT (1%) FOR PIPES 3" AND LARGER.
- PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS OF DISSIMILAR METALS.
- FURNISH AND INSTALL A TIME CLOCK FOR EACH WATER HEATER.
- FURNISH AND INSTALL A TIME CLOCK FOR THE HOT/TEMPERED WATER RECIRCULATION PUMP.
- SET WATER HEATER THERMOSTAT TO PREVENT PROMOTION OF LEGIONELLA (140° F). FURNISH TEMPERING MIXING VALVE TO PROVIDE 110°F WATER AT THE PLUMBING FIXTURES.
- FURNISH AN EXPANSION TANK WITH EVERY STORAGE TYPE WATER HEATER. CONTRACTOR SHALL CHARGE EACH EXPANSION TANK TO EQUAL THE STREET WATER PRESSURE.

ELECTRIC WATER HEATER SCHEDULE

UNIT NUMBER	KW	STORAGE (GAL)	RECOVERY GPH AT 70° RISE	ENERGY FACTOR	DIAMETER	HEIGHT	INLET WATER CONNECTION	OUTLET WATER CONNECTION	POWER REQUIRED			FUSE	MANUFACTURER/MODEL	WEIGHT (OPERATING)	NOTES
									VOLTS	PHASE	CYCLES				
EVH-1.1	(2) 4.5	80		59"	24"	59"	3/4"	3/4"	208	1	60		LOCHINVAR LTA082KK		1-3, 5-9, 11
EVH-1.2	3.0	20			18"	24-3/4"	3/4"	3/4"	208	1	60		LOCHINVAR JRJ020H		1-9, 11

- NOTES
- WATER HEATER SHALL MEET THE ENERGY EFFECIENCY REQUIREMENTS AS SET FORTH IN THE 2014 FLORIDA ENERGY CODE.
 - WATER HEATER SHALL BE U.L. LISTED
 - FURNISH WITH 6 YEAR LIMITED WARRANTY.
 - FURNISH WITH WATER HEATER SUPPORT STAND (SEE DETAIL).
 - FURNISH WITH R-16 INSULATION (NON CFC FOAM).
 - FURNISH WITH BRASS DRAIN VALVE
 - FURNISH WITH GLASS LINED STEEL TANK.
 - FURNISH WITH ADJUSTABLE THERMOSTAT CONTROL
 - FURNISH WITH DUAL NON-SIMULTANEOUS UPPER & LOWER ELEMENTS.
 - FURNISH WITH WALL MOUNTING WATER HEATER SHELF.
 - FURNISH WITH EXPANSION TANK.

GREASE TRAP SIZING CALCULATION

THE FOLLOWING SIZING CALCULATION IS FOR CAPACITY OR GREASE PRODUCTION FOR A 90 DAY PUMP OUT CYCLE. THIS IS BASED ON THE PREMISE THAT EACH MEAL SERVED WILL PRODUCE A QUANTITY OF FOG (FOOD, OIL, GREASE). SCHIER TAKES INTO CONSIDERATION CUISINE TYPE AND WHETHER FOOD IS SERVED ON DISPOSABLE PACKAGING, OR DISHES ARE WASHED. FOR THIS ESTABLISHMENT WE CONSIDER THEM A HIGH GREASE PRODUCER. THE NEXT FACTOR IS MEALS PER DAY (MPD), SINCE THIS IS UNKNOWN WE CAN USE DATA FROM THE NATIONAL RESTAURANT ASSOCIATION (NRA) BASING SEAT TURNS ON AVERAGE MEAL COST. ASSUMING MEALS ARE THAN \$15 PER PERSON THE AVERAGE SEAT TURN IS 2.3 TURNS PER SEAT. WE CAN NOW PLUS THIS INFORMATION INTO OUR GREASE PRODUCTION CALCULATION:

MPD = MEALS PER DAY
 MPD = SEATS X 2.3 TURNS PER SEAT (ROUND UP 3.0 TURNS/SEAT)
 MPD = 61 SEATS X 3.0 = 183 MPD

GREASE OUTPUT PER QUARTER = MPD X GREASE lbs. PER PLATE X 90 DAY PUMP CYCLE
 GREASE OUTPUT PER QUARTER = 183 MPD (ROUNDED UP TO 3 TURNS PER SEAT) X .0455 (lbs./MEAL FOR HIGH GREASE PRODUCER WITH REUSABLE DISHES) X 90 DAY PUMP CYCLE
 = 750 lbs OF GREASE PER QUARTER

A GR-250 IS 3RD PARTY CERTIFIED TO STORE 1,076 lbs OF GREASE AND EXCEEDS THE QUARTERLY REQUIREMENT. BASED ON THE UNITS CAPACITY IT CAN HANDLE 263 MEALS PER DAY FOR 90-DAYS STRAIGHT. THIS IS 4.3 TURNS PER EVERY SEAT FOR 90 DAYS.

THE 750 lbs OF GREASE OUTPUT PER QUARTER IS MET BY ONE GR-250 GREASE INTERCEPTOR WHICH HAS A GREASE HOLDING CAPACITY OF 1,076 lbs.

BORRELLI + PARTNERS
 ARCHITECTURE PLANNING LANDSCAPE INTERIORS
 720 Vassar Street, Orlando FL 32804
 407.418.1338 :: fax 407.418.1342

PROJECT ADDRESS: 201 Dixie Ave. Leesburg, FL 34746
 DATE: 11-29-2017
 PROJECT NO.: 16-170
 PHASE: 30% CONSTRUCTION DOCUMENTS
 SCALE: NOT TO SCALE
 FILE NAME: 16-170 16-001
 DRAWN BY: MB
 CHECKED BY: AB/JF
 DATE: 11-29-2017

BORRELLI + PARTNERS
 ARCHITECTURE PLANNING LANDSCAPE INTERIORS

PROJECT ADDRESS: 201 Dixie Ave. Leesburg, FL 34746
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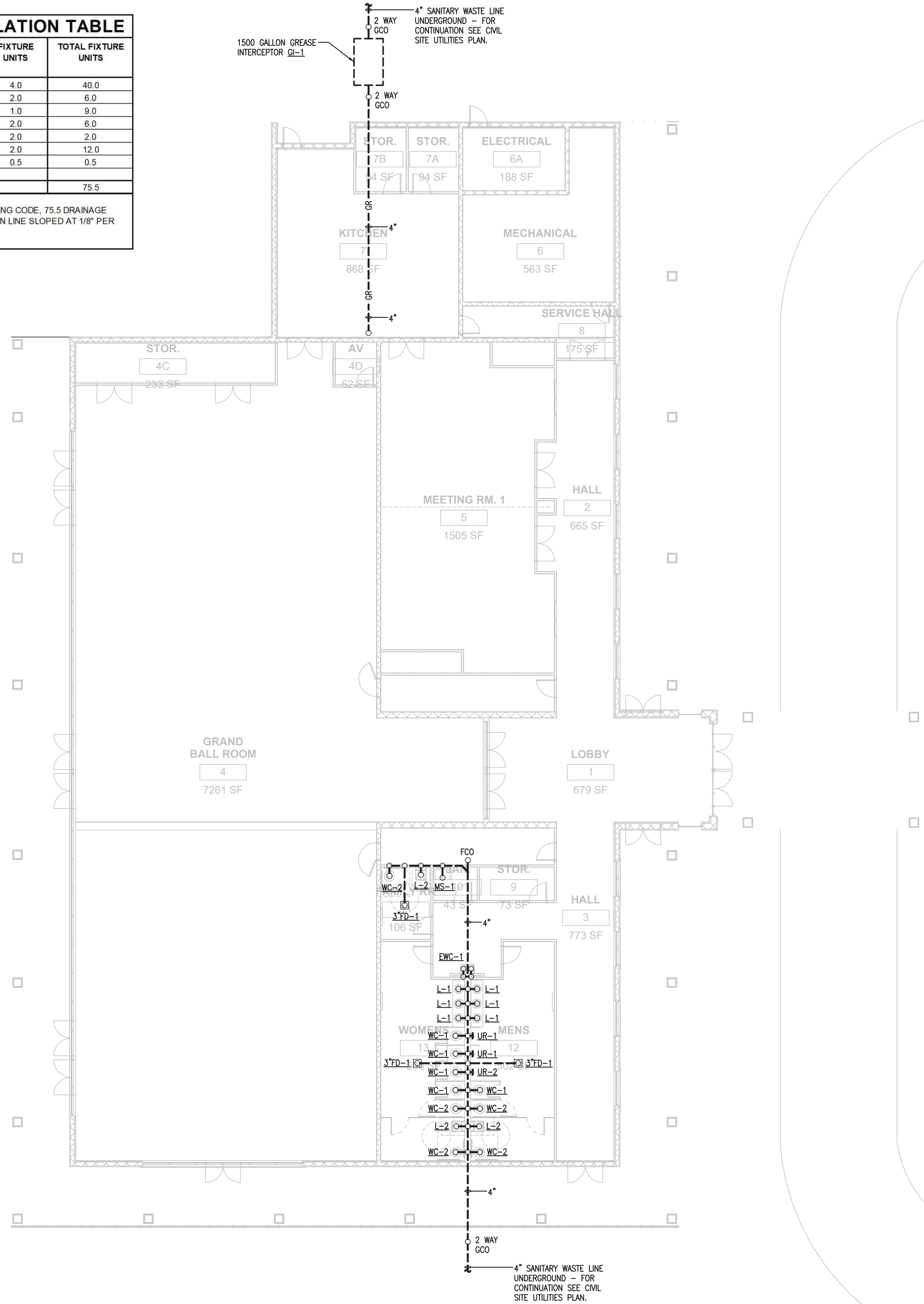
PROJECT ADDRESS: 201 Dixie Ave. Leesburg, FL 34746
 DATE: 11-29-2017
 PROJECT NO.: 16-170
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 FILE NAME: 16-170 16-001
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 ARCHITECTURE PLANNING LANDSCAPE INTERIORS

SANITARY DEMAND CALCULATION TABLE

FIXTURE	QUANTITY	FIXTURE UNITS	TOTAL FIXTURE UNITS
WATER CLOSET	10	4.0	40.0
URINAL	3	2.0	6.0
LAVATORY	9	1.0	9.0
SINK	3	2.0	6.0
MOP SINK	1	2.0	2.0
FLOOR DRAINS	6	2.0	12.0
ELECTRIC WATER COOLER	1	0.5	0.5
TOTAL			75.5

ACCORDING TO TABLE 71001(1) OF THE 2014 FLORIDA PLUMBING CODE, 75.5 DRAINAGE FIXTURE UNITS WILL REQUIRE A 4" DIAMETER SANITARY DRAIN LINE SLOPED AT 1/8" PER FOOT.



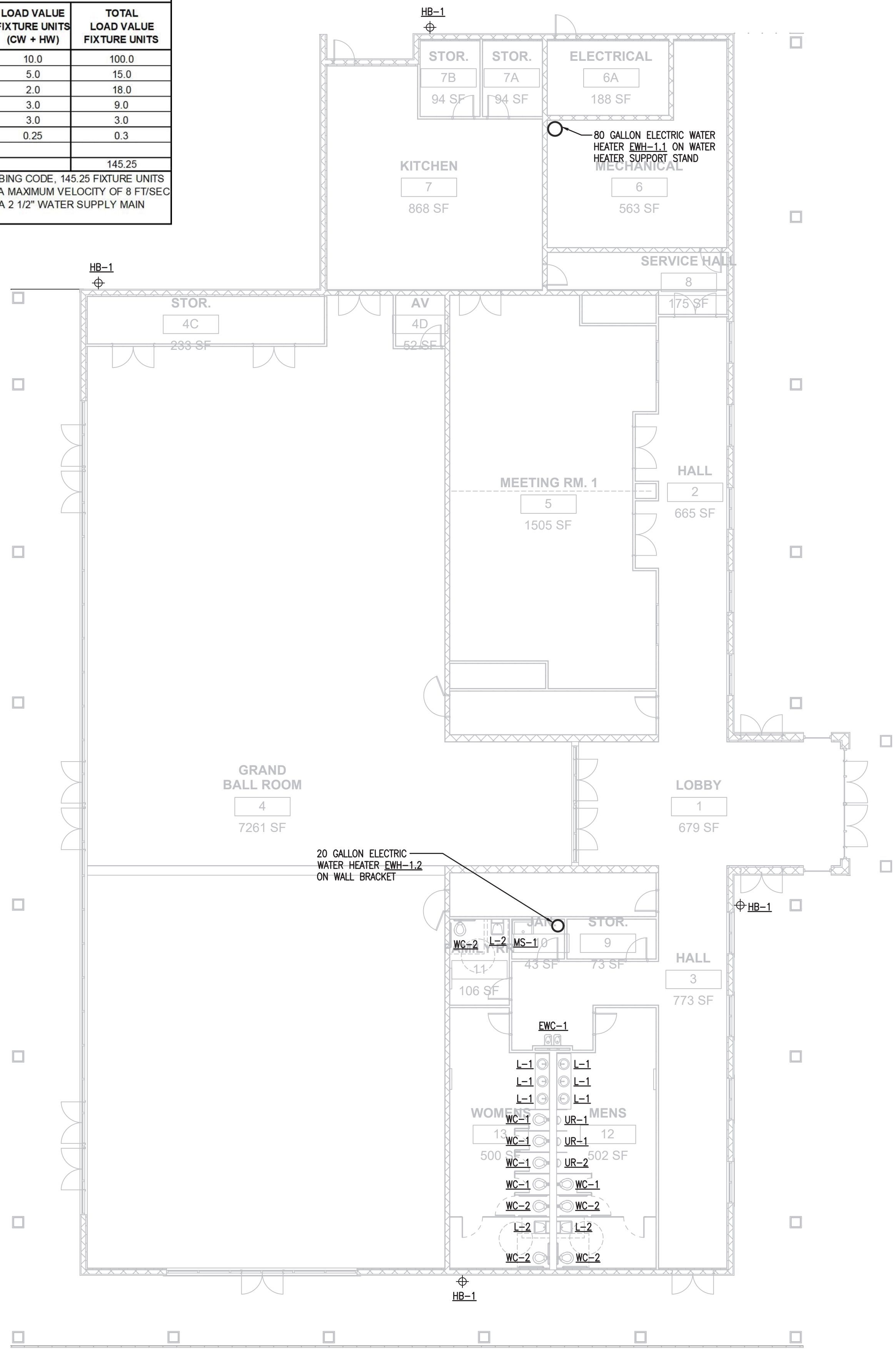
1 FLOOR PLAN - PLUMBING - SANITARY
P-101 3/32'-1'-0"

CITY OF LEESBURG VENETIAN GARDENS

<p>BORRELLI + PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIORS</p> <p>720 Vassar Street, Orlando, FL 32804 407.418.1358 :: Fax 407.418.1342</p>	<p>SIGNATURE AND DATED SEAL</p>	<p>CONSULTANTS</p> <p>A B C E</p> <p>BORRES ASSOCIATES CONSULTANTS 1100 N. UNIVERSITY BLVD., SUITE 2253 LEESBURG, FL 34748 FLORIDA STATE P.E. NUMBER: 8131</p>	<p>DRAWING TITLE</p> <p>FLOOR PLAN PLUMBING - SANITARY</p>	<p>PROJECT NO.</p> <p>16-170</p>	<p>PROJECT ADDRESS</p> <p>201 E. Dixie Ave., Leesburg, FL 34748</p>	<p>DATE</p>	<p>DESCRIPTION</p>	<p>REV.</p>	<p>DATE</p>	<p>OWNER NAME AND ADDRESS</p> <p>CITY OF LEESBURG</p>	<p>CHECKED BY</p> <p>AB/J</p>	<p>DATE</p> <p>1/26/2017</p>
				<p>PHASE</p> <p>30% CONSTRUCTION DOCUMENTS</p>	<p>SCALE</p> <p>3/32"=1'-0"</p>	<p>FILE NAME</p> <p>16-170 P-101</p>	<p>DRAWN BY</p> <p>MB</p>	<p>DATE</p> <p>1/26/2017</p>				

WATER DEMAND CALCULATION			
FIXTURE	QUANTITY	LOAD VALUE FIXTURE UNITS (CW + HW)	TOTAL LOAD VALUE FIXTURE UNITS
WATER CLOSET	10	10.0	100.0
URINAL	3	5.0	15.0
LAVATORY	9	2.0	18.0
SINK	3	3.0	9.0
MOP SINK	1	3.0	3.0
WATER COOLER	1	0.25	0.3
TOTAL			145.25

ACCORDING TO TABLE E103.3 OF THE 2014 FLORIDA PLUMBING CODE, 145.25 FIXTURE UNITS RESULTS IN A DEMAND OF APPROXIMATELY 78.0 GPM AT A MAXIMUM VELOCITY OF 8 FT/SEC IN ACCORDANCE WITH FIGURE E103.3(3). THIS REQUIRES A 2 1/2" WATER SUPPLY MAIN WHICH IS WHAT IS BEING PROVIDED.



1 FLOOR PLAN - PLUMBING - DOMESTIC WATER
P-101 3/32'-1'-0"

CITY OF LEESBURG VENETIAN GARDENS

PROJECT NO.	16-170	PHASE	30% CONSTRUCTION DOCUMENTS	SCALE	3/32"=1'-0"	FILE NAME	16-170 P-102	DRAWN BY	MB	CHECKED BY	AB/J	DATE	11/26/2017
PROJECT ADDRESS	201 E Dixie Ave, Leesburg, FL 34748		OWNER NAME AND ADDRESS	CITY OF LEESBURG									
DESCRIPTION	FLOOR PLAN - PLUMBING - DOMESTIC WATER												
REV.													
DATE													
DATE													

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

720 Vassar Street, Orlando FL 32804
407.418.1358 :: Fax 407.418.1342

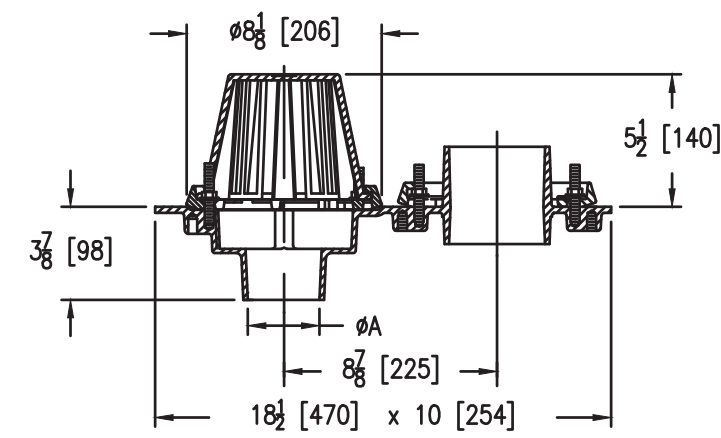
SIGNATURE AND DATED SEAL

AUGUSTO E. BORRES JR., P.E.
FLORIDA P.E. # 39410 LICENSE # 148117

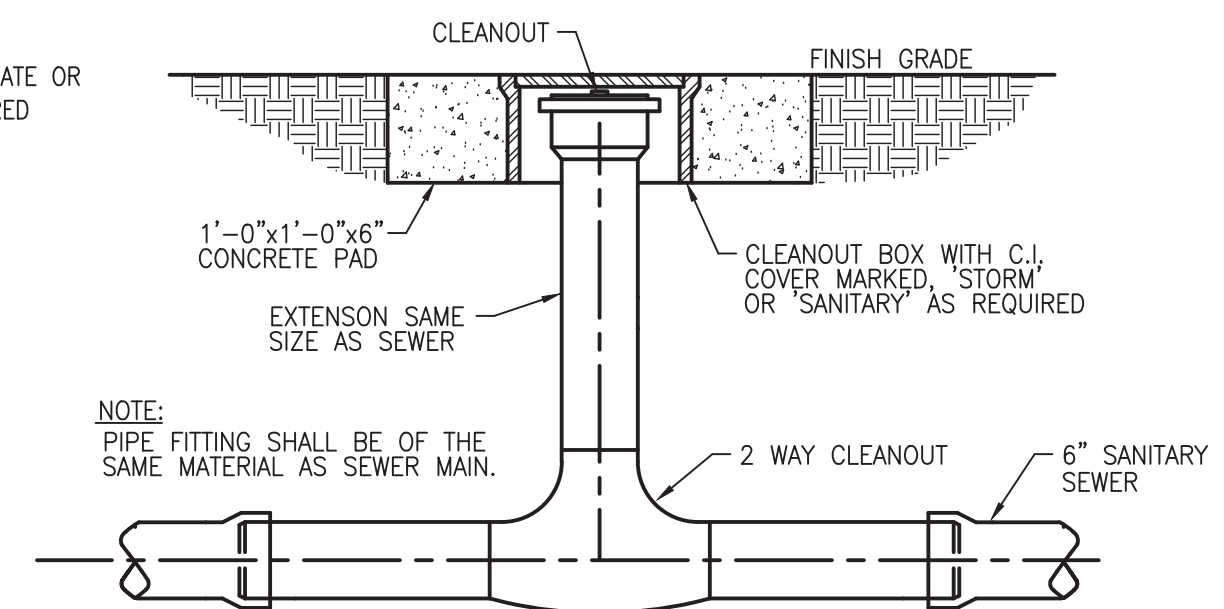
CONSULTANTS

BORRES ASSOCIATES
CONSULTING ENGINEERS
1100 W. UNIVERSITY BLVD., SUITE 2253
LEESBURG, FLORIDA 34748
FLORIDA STATE P.E. NUMBER: 8131

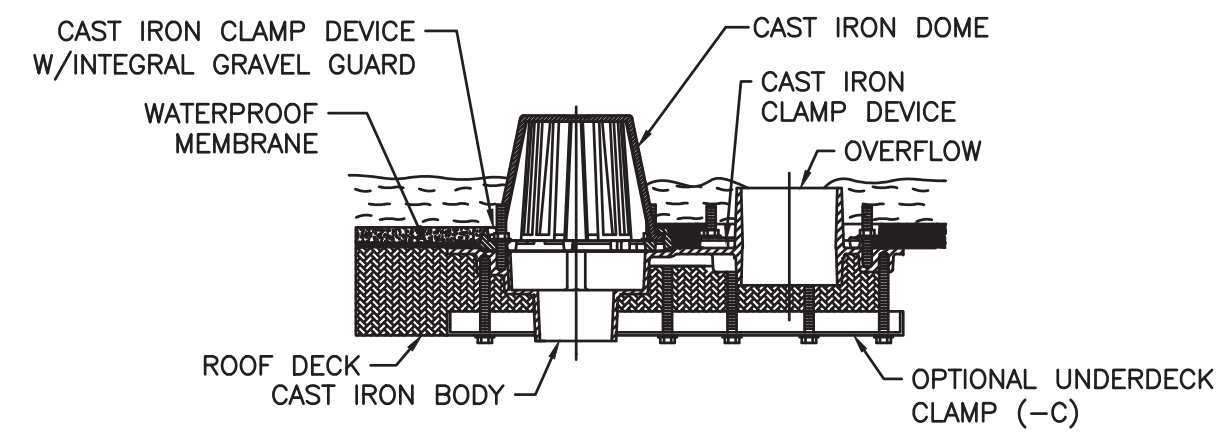
P-102



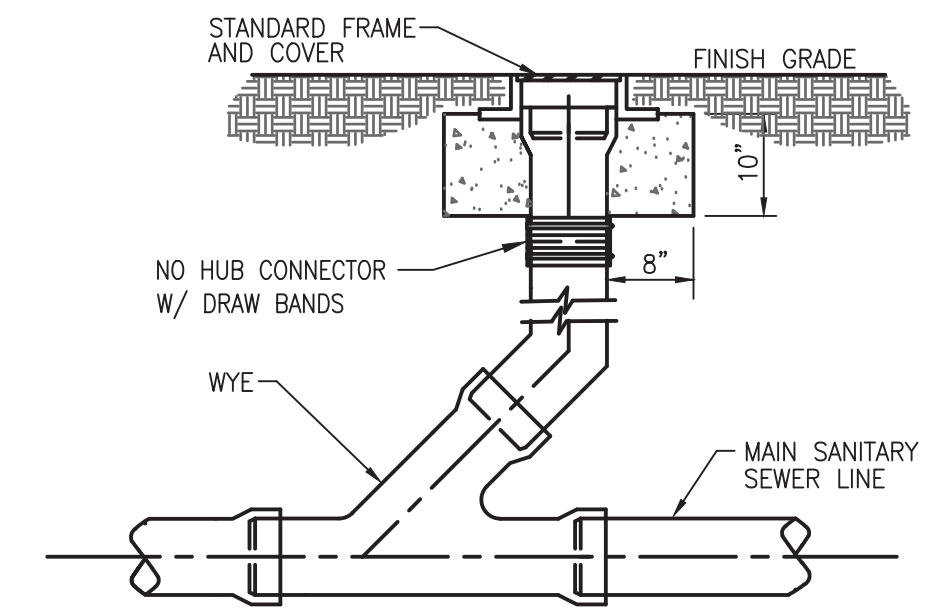
FLOOR SINK DETAIL
NOT TO SCALE



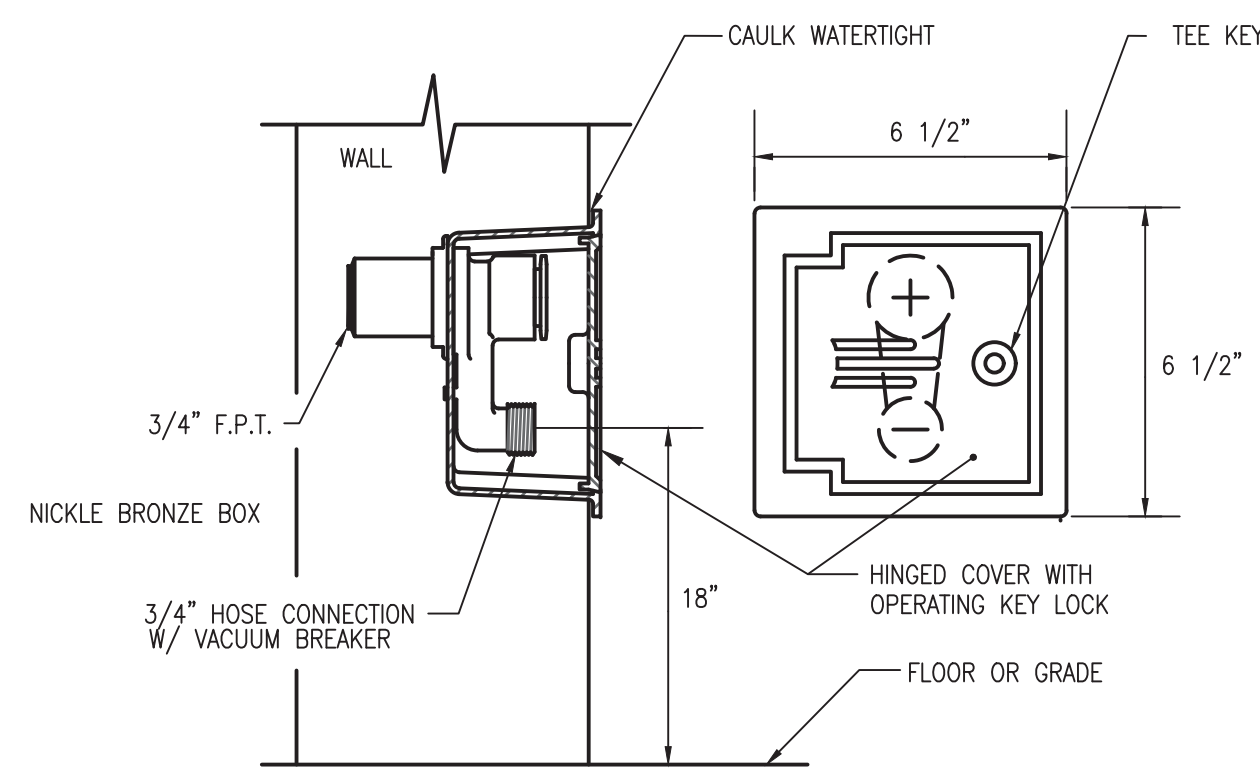
TWO WAY GROUND CLEANOUT DETAIL
NOT TO SCALE



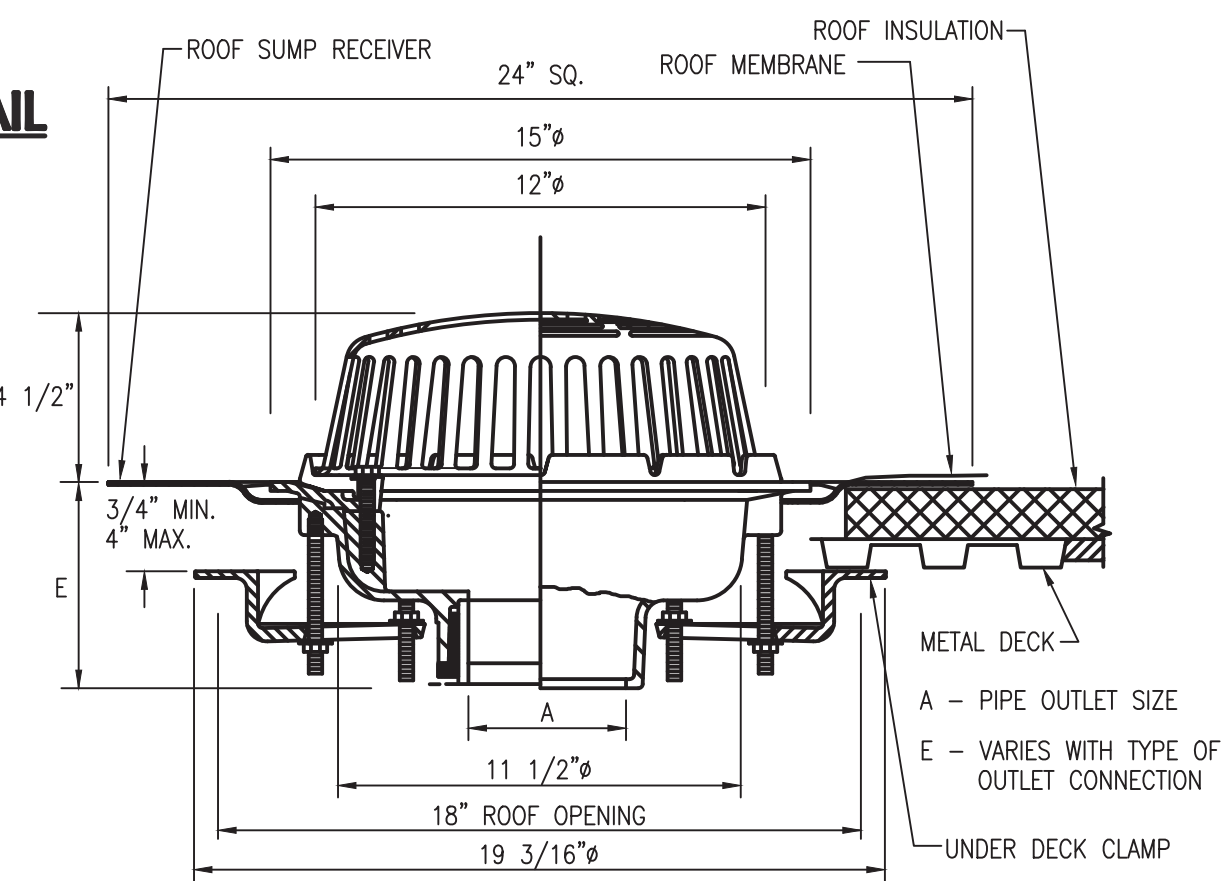
COMBINATION ROOF DRAIN/OVERFLOW DRAIN DETAIL
NOT TO SCALE



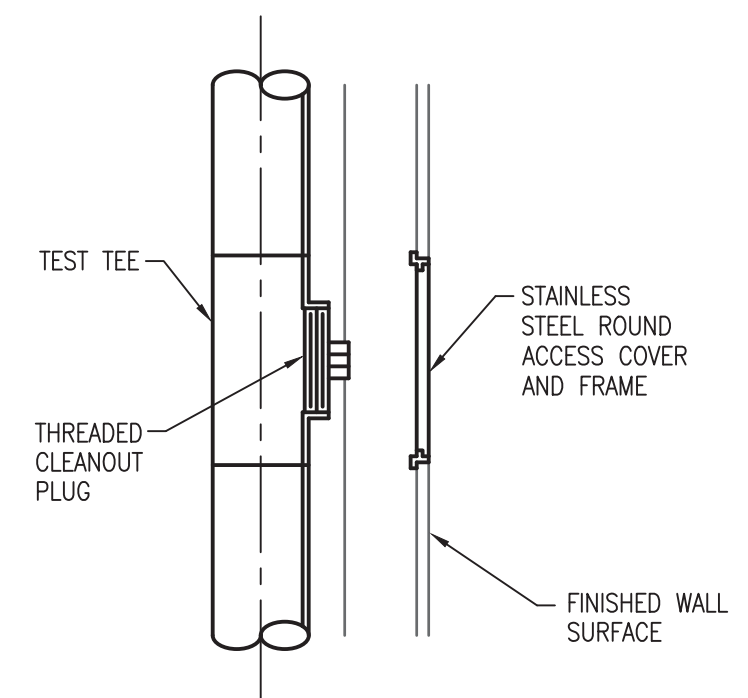
GRADE CLEANOUT DETAIL
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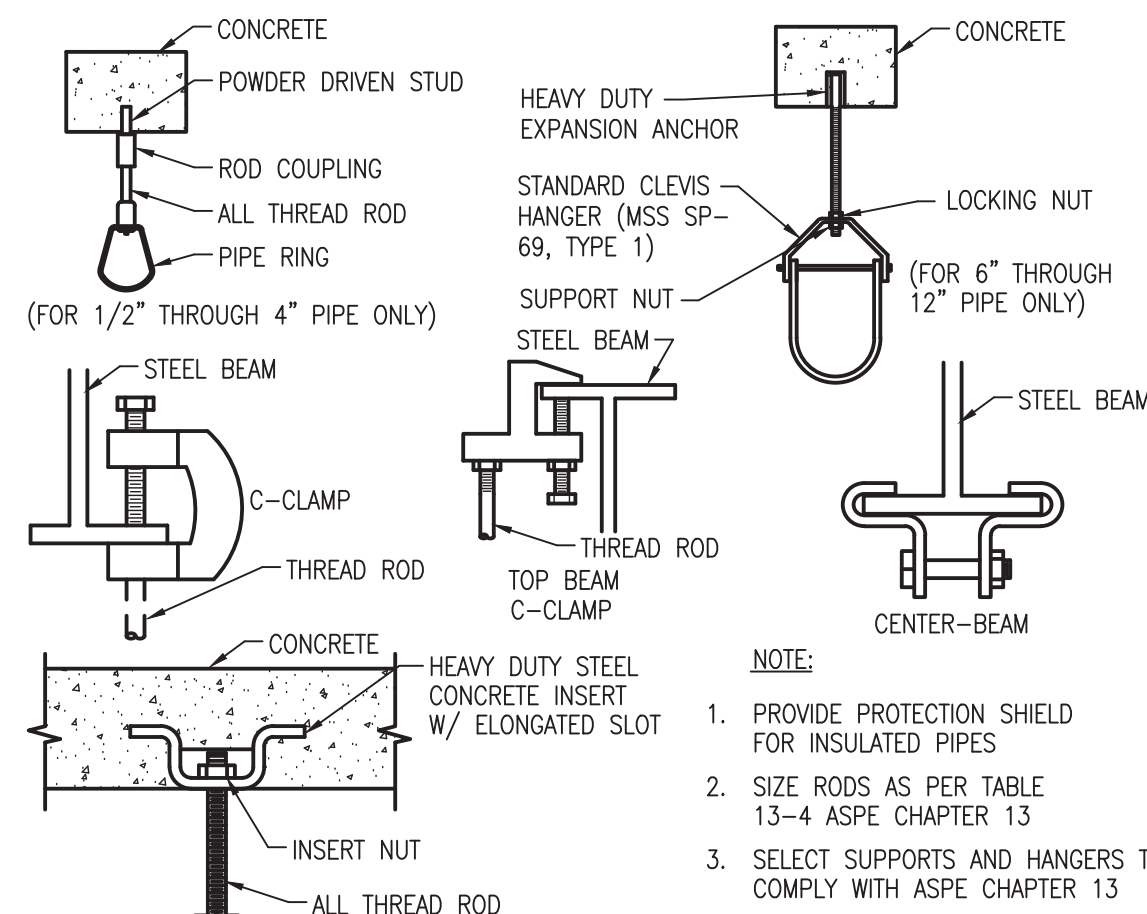
RECESSED HOSE BIBB DETAIL
NOT TO SCALE



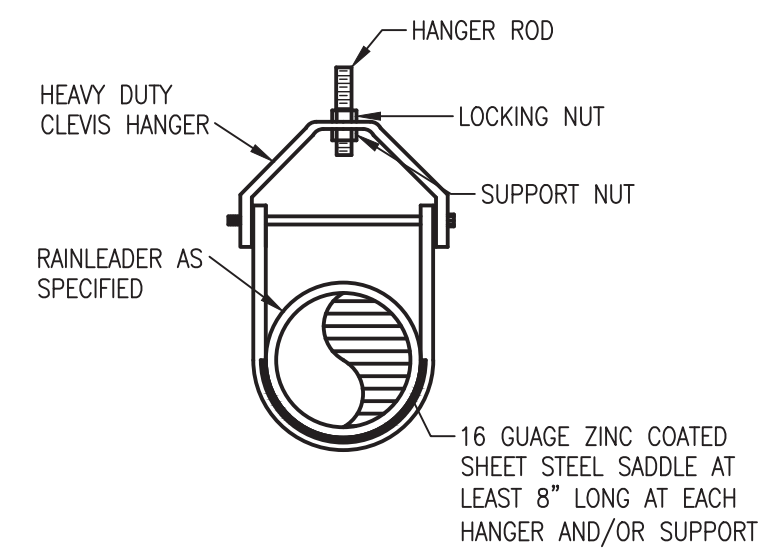
ROOF DRAIN DETAIL
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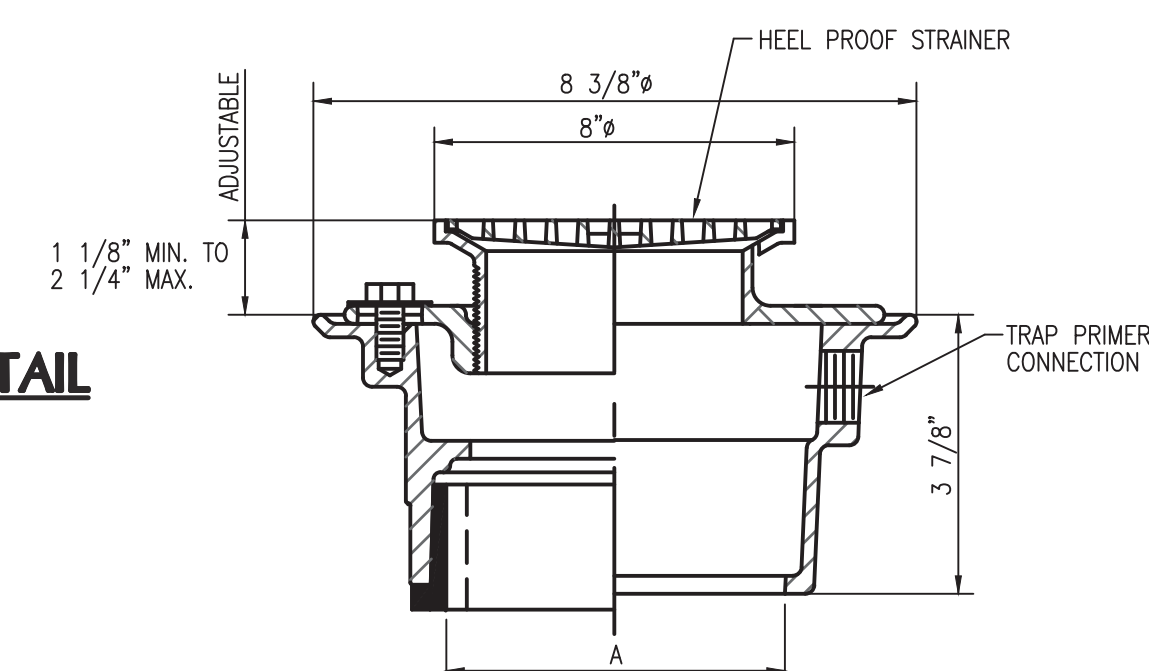
WALL CLEANOUT DETAIL
NOT TO SCALE



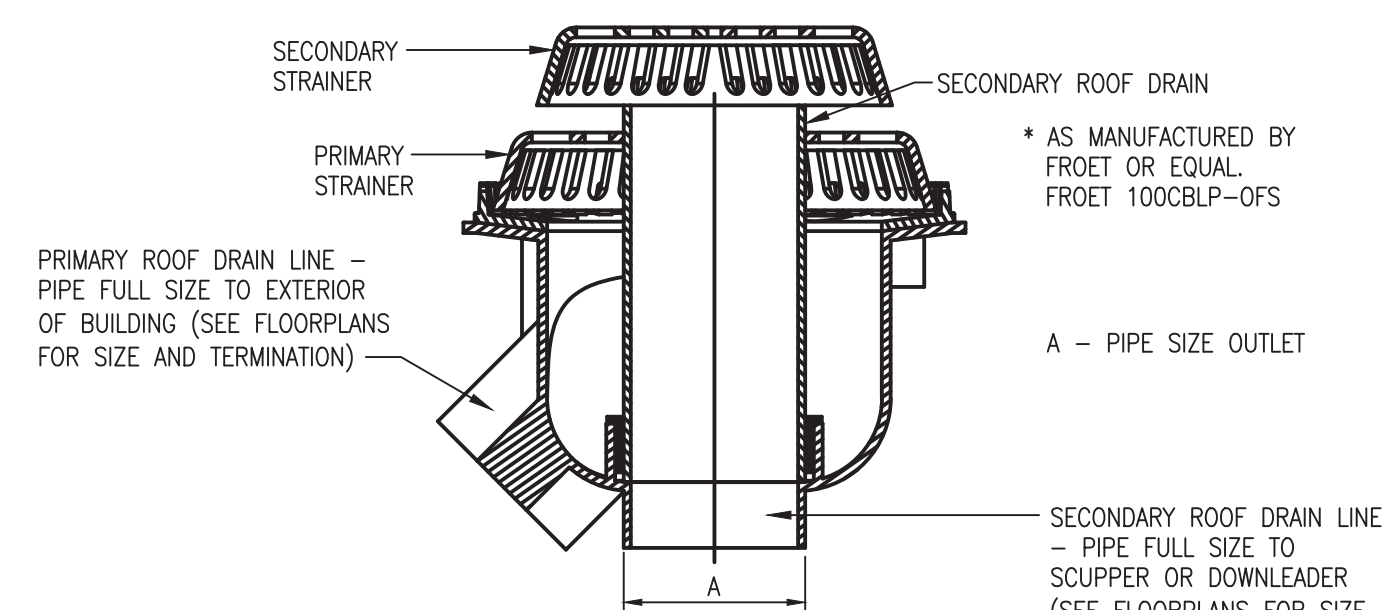
PIPE HANGERS AND SUPPORTS DETAIL
NOT TO SCALE



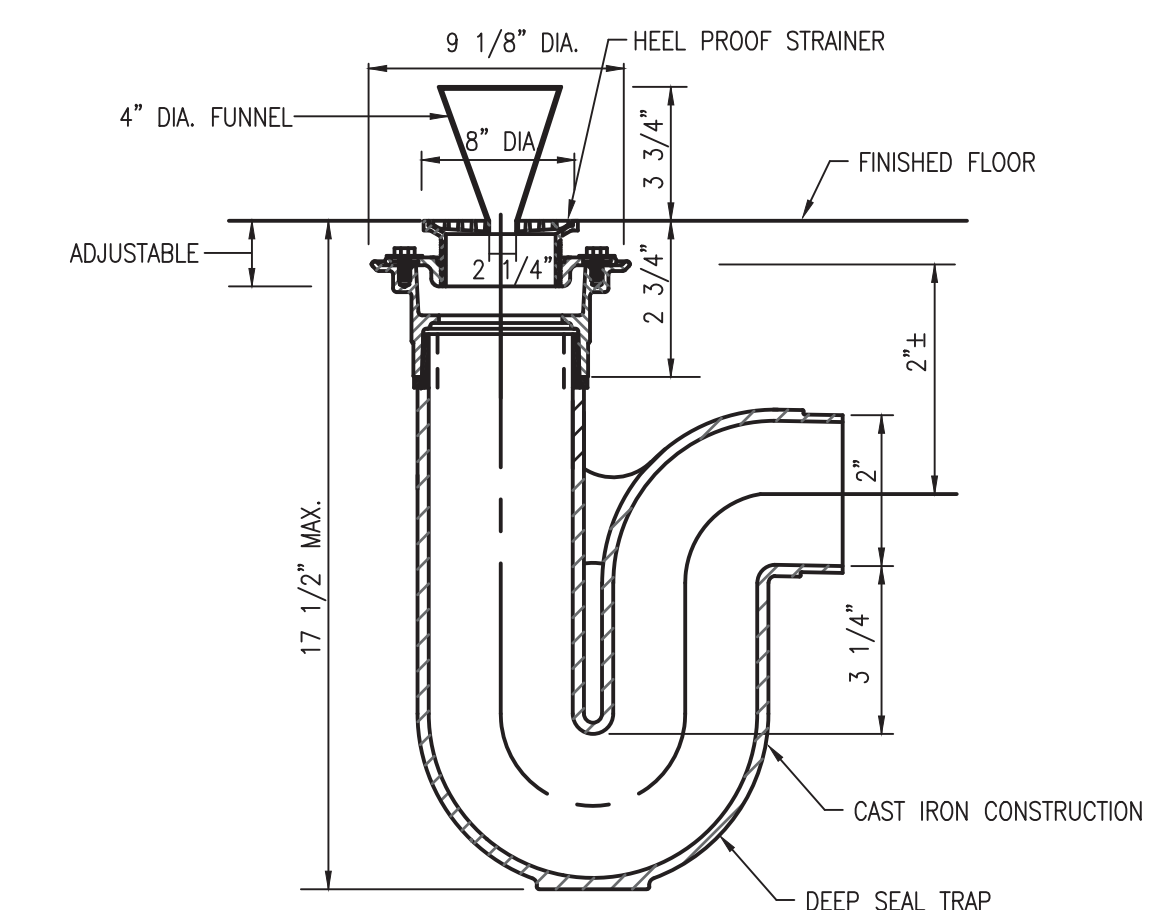
HORIZONTAL RAINLEADER SUPPORT DETAIL
NOT TO SCALE



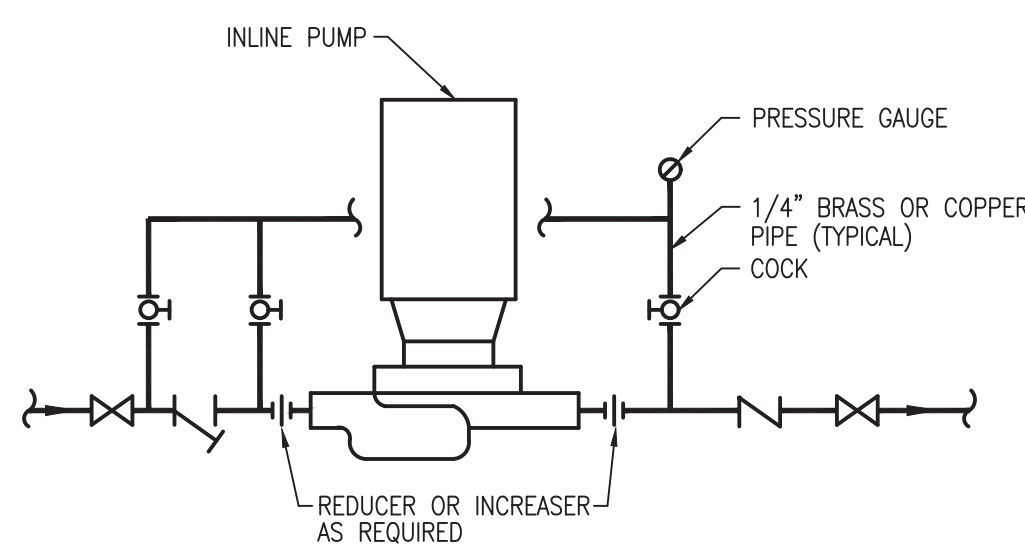
FLOOR DRAIN DETAIL
NOT TO SCALE



COMBINATION PRIMARY/SECONDARY ROOF DRAIN DETAIL
NOT TO SCALE

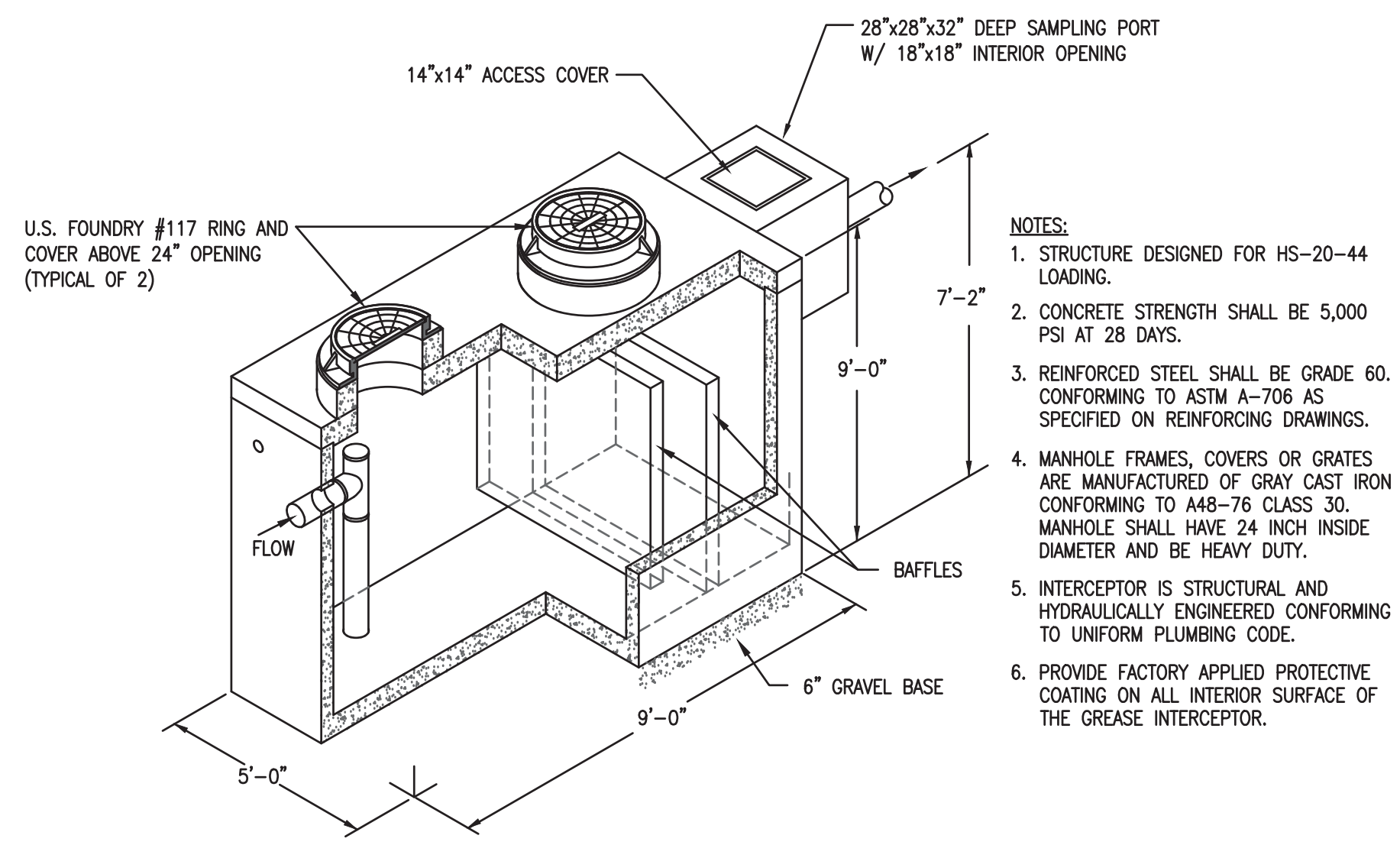


HUB DRAIN DETAIL
NOT TO SCALE



INLINE PUMP PIPING DETAIL
NOT TO SCALE

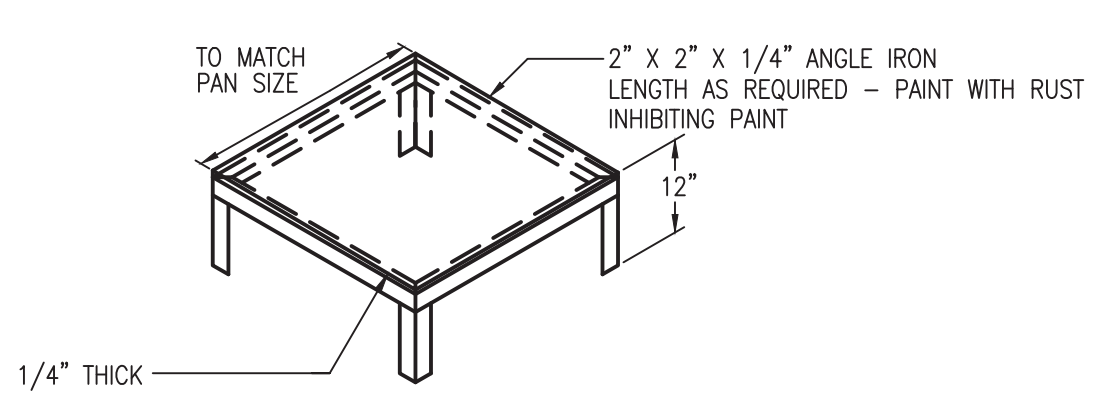
PROJECT NO.	PHASE	SCALE	FILE NAME	DRAWN BY	CHECKED BY	DATE
16-170	30%-CONSTRUCTION DOCUMENTS	NOT TO SCALE	16-170 P-501	MB	AB/J	11-29-2017



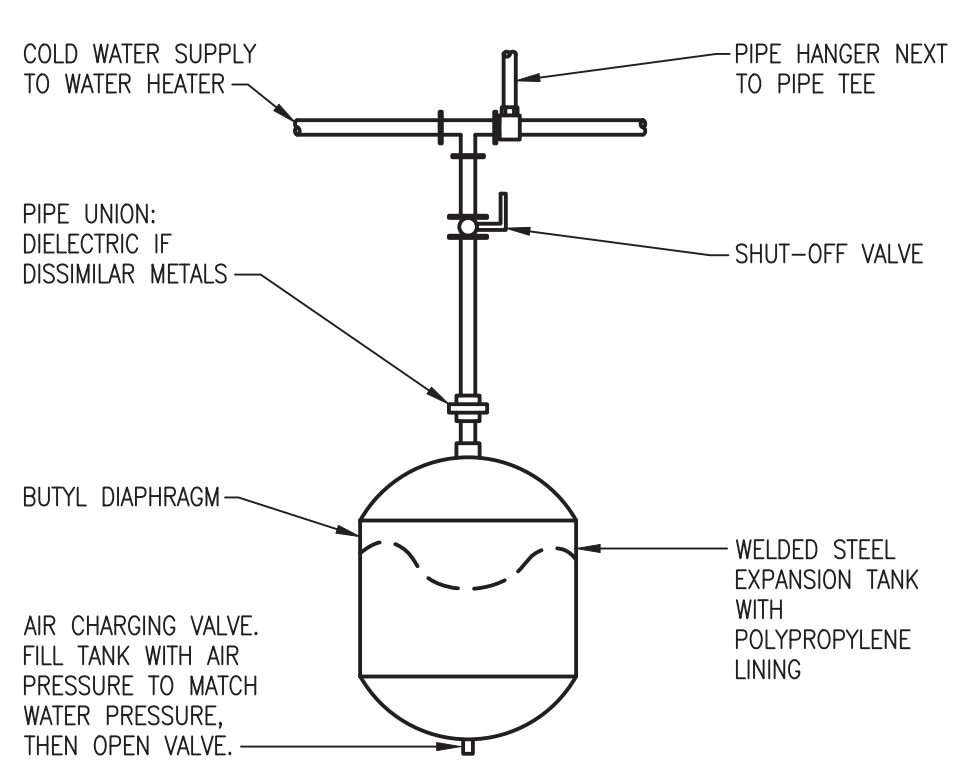
1500 GALLON GREASE INTERCEPTOR
NOT TO SCALE

* OLDCASTLE MODEL
48-1500-GI
(407)855-7580

- NOTES:**
- STRUCTURE DESIGNED FOR HS-20-44 LOADING.
 - CONCRETE STRENGTH SHALL BE 5,000 PSI AT 28 DAYS.
 - REINFORCED STEEL SHALL BE GRADE 60, CONFORMING TO ASTM A-706 AS SPECIFIED ON REINFORCING DRAWINGS.
 - MANHOLE FRAMES, COVERS OR GRATES ARE MANUFACTURED OF GRAY CAST IRON CONFORMING TO A48-76 CLASS 30. MANHOLE SHALL HAVE 24 INCH INSIDE DIAMETER AND BE HEAVY DUTY.
 - INTERCEPTOR IS STRUCTURAL AND HYDRAULICALLY ENGINEERED CONFORMING TO UNIFORM PLUMBING CODE.
 - PROVIDE FACTORY APPLIED PROTECTIVE COATING ON ALL INTERIOR SURFACE OF THE GREASE INTERCEPTOR.

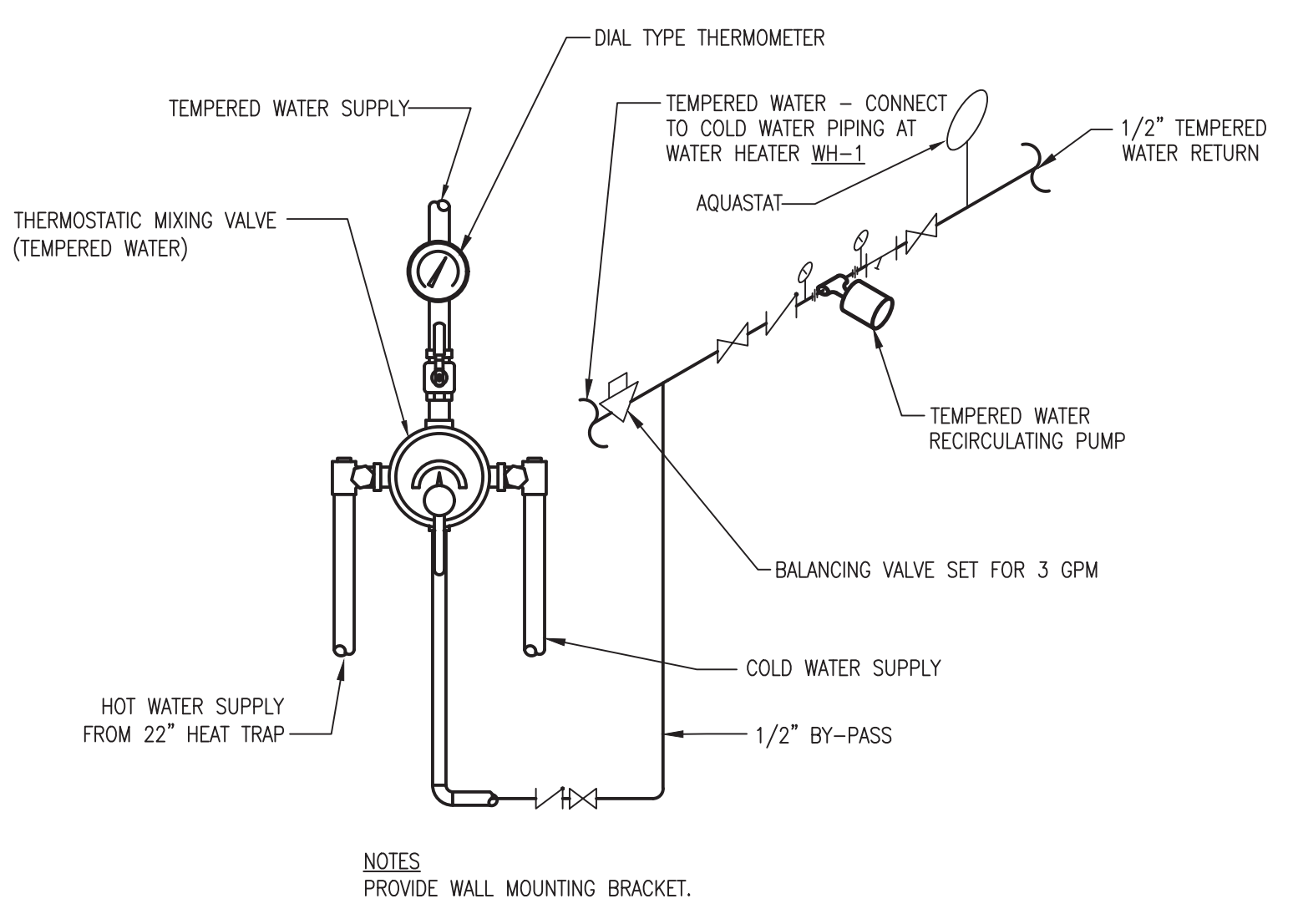


WATER HEATER SUPPORT BASE DETAIL
NOT TO SCALE

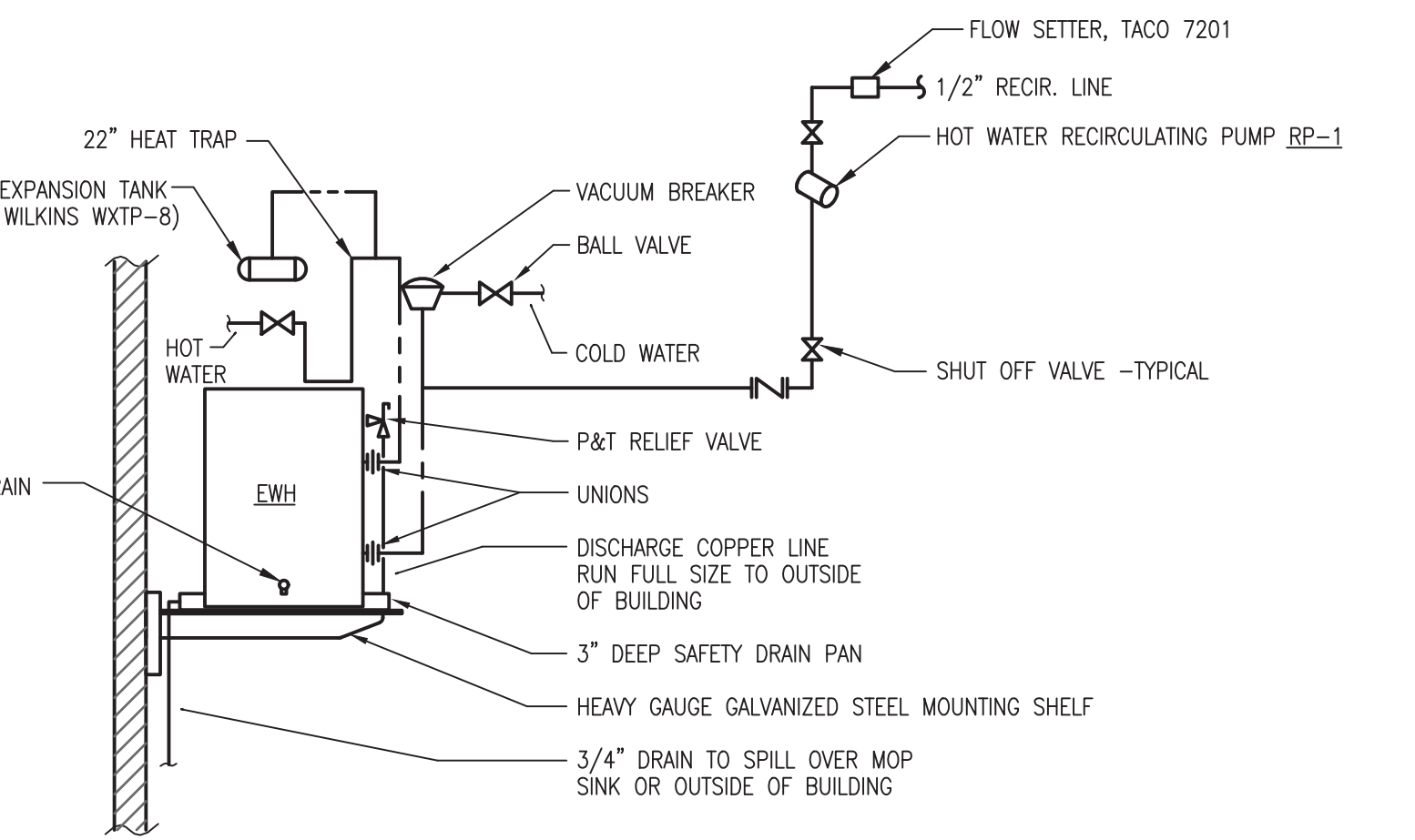


PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. MAKE PIPE SAME SIZE AS TANK FITTING. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION PROCEDURE. VERIFY PROPER OPERATION WHEN INSTALLED.

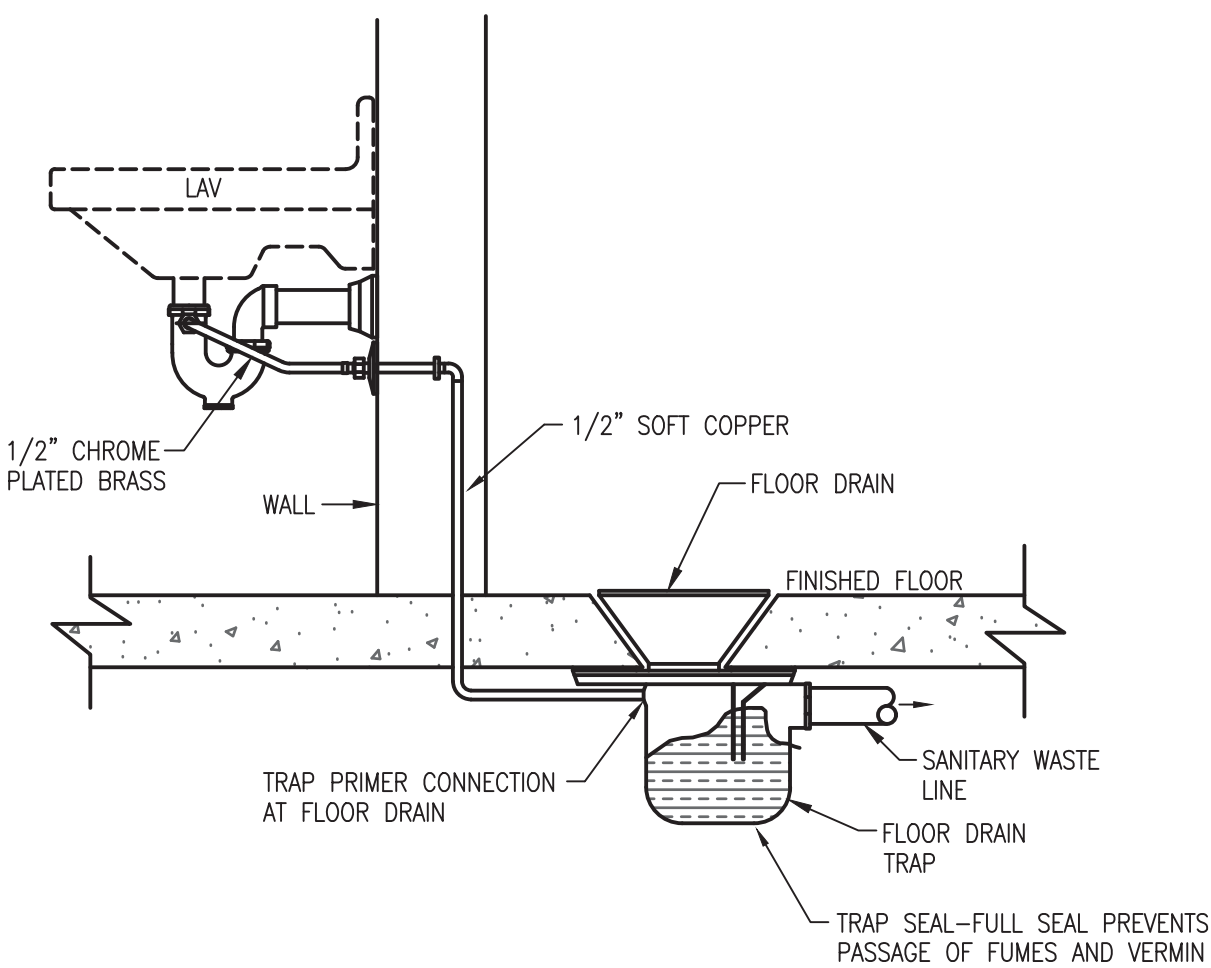
EXPANSION TANK DETAIL
NOT TO SCALE



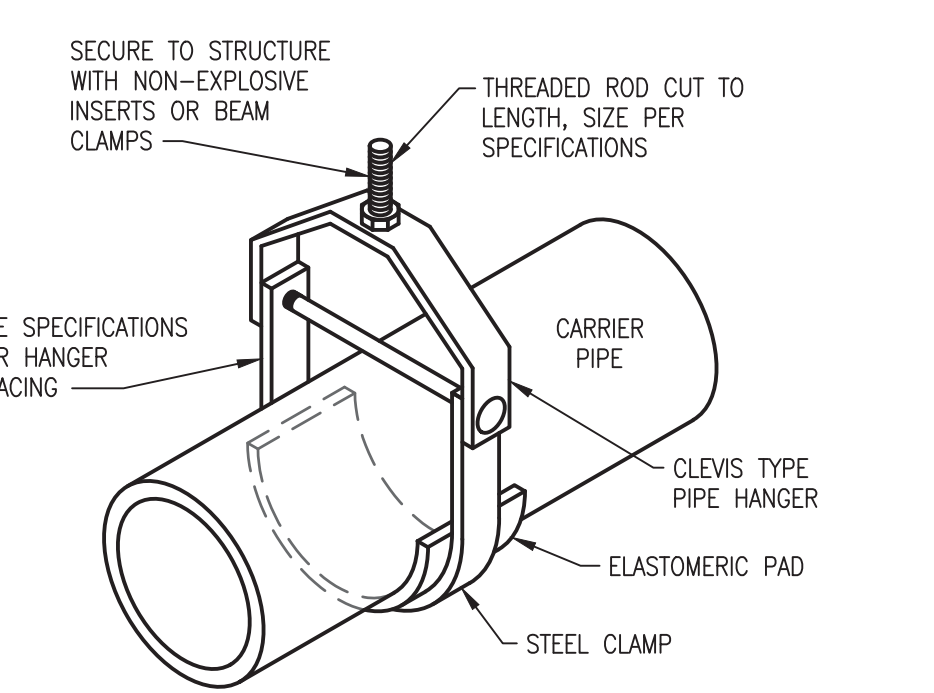
THERMOSTATIC MIXING VALVE DETAIL
NOT TO SCALE



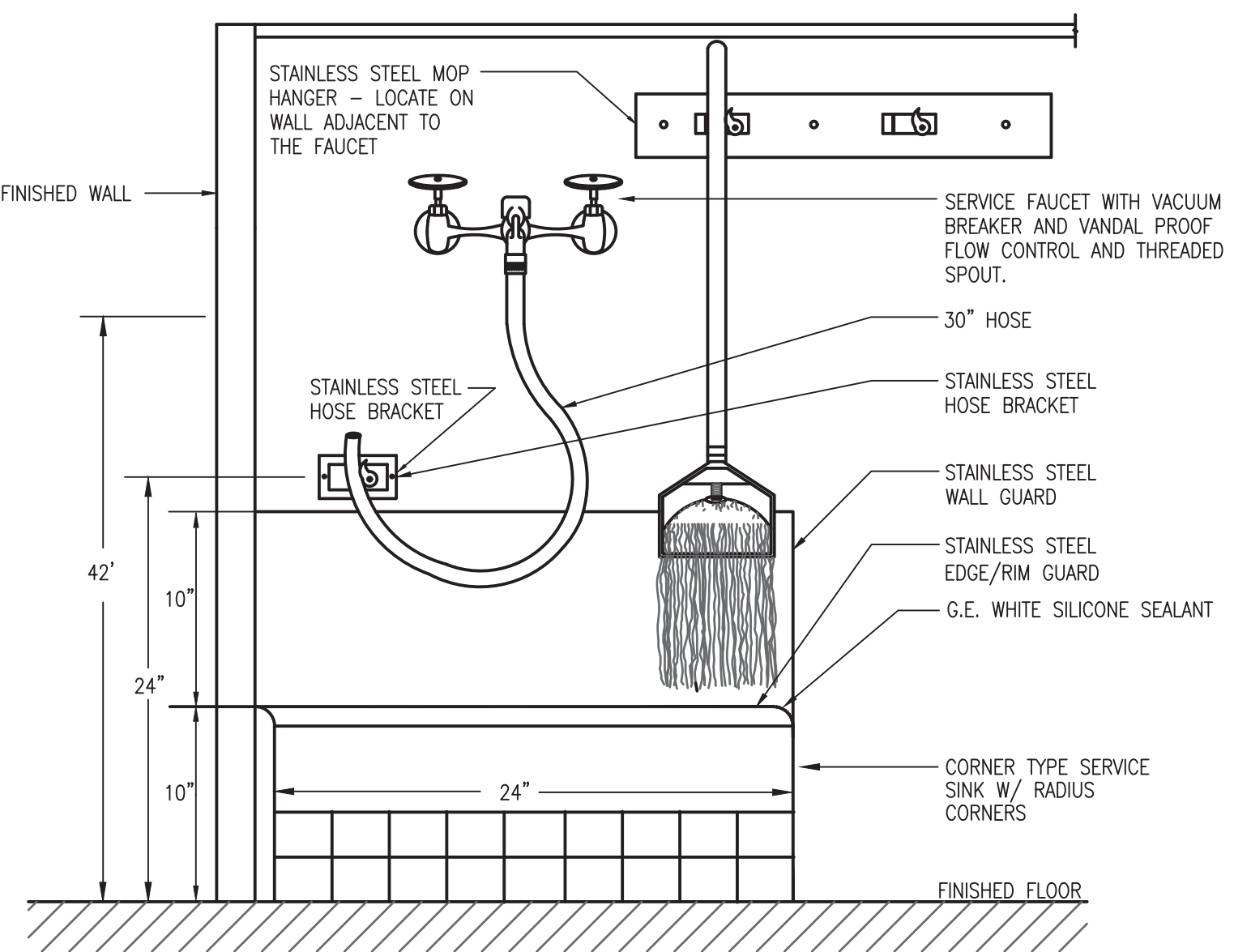
WALL MOUNTED ELECTRIC WATER HEATER DETAIL
NOT TO SCALE



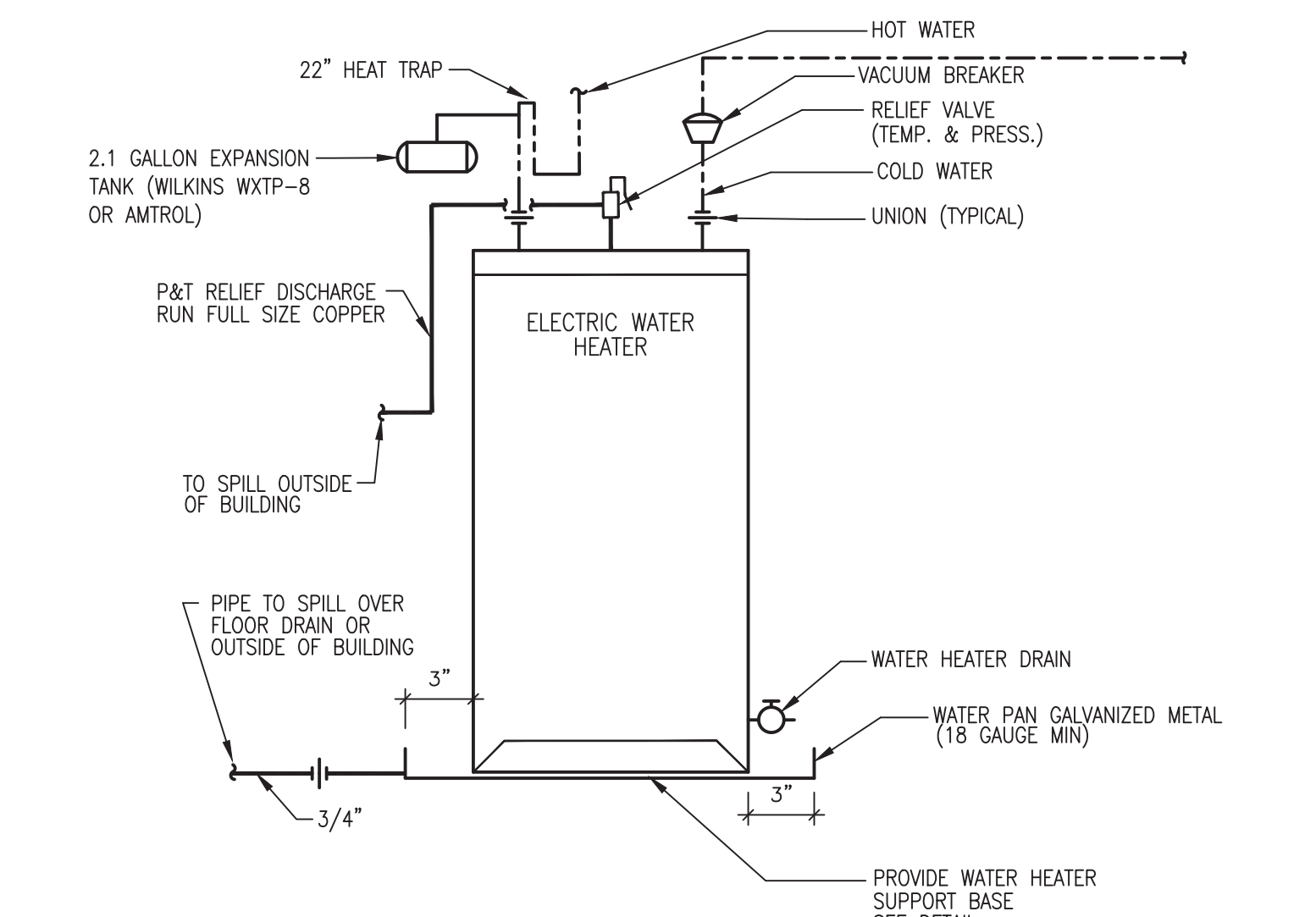
TRAP PRIMER PIPING DETAIL
NOT TO SCALE



CLEVIS TYPE PIPE HANGER FOR NON-INSULATED PIPING DETAIL
NOT TO SCALE



MOP SINK DETAIL
NOT TO SCALE



ELECTRIC WATER HEATER DETAIL
NOT TO SCALE

CITY OF LEESBURG VENETIAN GARDENS

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

BORRELLI ASSOCIATES
CONSULTANTS

PLUMBING DETAILS

DRAWING TITLE

PROJECT NO.	16-170	PROJECT ADDRESS	201 Dixie Ave. Leesburg, FL 34748
PHASE	30% CONSTRUCTION DOCUMENTS	DATE	
SCALE	NOT TO SCALE	DESCRIPTION	
FILE NAME	16-170 P-502	OWNER NAME AND ADDRESS	CITY OF LEESBURG
DRAWN BY	MB		
CHECKED BY	AB/J		
DATE	11-28-2017		

P-502

GENERAL NOTES
(APPLIES TO ALL DRAWINGS)

- BRANCH WIRING IS NOT SHOWN GRAPHICALLY ON DRAWING AND IS INDICATED BY CIRCUIT NUMBERS BESIDE FIXTURES, DEVICES AND EQUIPMENT. PROVIDE COMPLETE WIRING SYSTEM WHETHER OR NOT INDICATED GRAPHICALLY.
- LIGHTING FIXTURES ARE SHOWN FOR QUANTITY AND CIRCUITING ONLY. FOR EXACT LOCATION OF LIGHTING FIXTURES, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS. COORDINATE WORK WITH CEILING CONTRACTOR. PROVIDE PROPER FIXTURE FRAMES FOR TYPE OF CEILING INDICATED.
- FOR EXACT ARCHITECTURAL LAYOUT AND DIMENSIONS, COORDINATE WITH ARCHITECTURAL DRAWINGS. ELECTRICAL DRAWINGS ARE FOR REFERENCE ONLY.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND 2011 NATIONAL ELECTRICAL CODE (NEC).
- COORDINATE ALL WORK DONE UNDER THIS DIVISION WITH WORK TO BE PERFORMED UNDER DIVISION 15.
- COORDINATE WITH OTHER TRADES FOR EXACT LOCATIONS OF ALL MOTORS AND OTHER EQUIPMENT TO BE INSTALLED AND/OR WIRED UNDER THIS DIVISION BUT FURNISHED UNDER ANOTHER DIVISION OF THE SPECIFICATIONS.
- ALL BRANCH CIRCUITS FOR 120 VOLT, 20 AMP CIRCUITS EXCEEDING EIGHTY FEET IN LENGTH SHALL BE INCREASED IN SIZE AS REQUIRED TO ALLOW FOR VOLTAGE DROP LOSSES.
- PACK ALL SLEEVES FOR CONDUITS PASSING THROUGH FIRE RATED WALLS AND FLOOR SLABS WITH FIRE RESISTANT MATERIALS. ALL PENETRATIONS SHALL BE UL RATED.
- ALL EMPTY CONDUITS (EC) SHALL BE PROVIDED WITH NYLON PULL WIRES.
- TYPE AC CABLE AND ELECTRICAL NON-METALLIC TUBING SHALL NOT BE PERMITTED. TYPE MC CABLE IS PERMITTED AS LONG AS IT IS ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ).
- COORDINATE THE REQUIRED SIZE OF ALL CIRCUIT BREAKERS FEEDING EQUIPMENT (I.E. MOTORS, HVAC, KITCHEN EQUIPMENT, SPECIAL PURPOSE OUTLETS, OWNER FURNISHED EQUIPMENT, ETC.) WITH APPROVED EQUIPMENT SHOP DRAWINGS AND OWNER REPRESENTATIVES PRIOR TO ORDERING PANELBOARDS. BREAKERS SHALL BE SIZED PER THE NEC, THE EQUIPMENT NAME PLATE AND MANUFACTURER'S RECOMMENDATIONS.
- THE POWER COMPANY SHALL BE CONTACTED WITHIN 10 DAYS OF THE AWARD OF THE CONTRACT BY THE CONTRACTOR TO VERIFY THE ACTUAL AVAILABLE SHORT CIRCUIT FAULT CURRENT (SCC) AT THE TRANSFORMER SECONDARY BUSHINGS. THE CONTRACTOR SHALL PROVIDE ELECTRICAL DISTRIBUTION AND UTILIZATION EQUIPMENT AND PANELBOARDS WHICH HAVE AIC/WITHSTAND RATINGS GREATER THAN THE AVAILABLE SCC.
- ALL CONDUITS IN OR UNDER SLAB OR UNDERGROUND SHALL BE PVC SCHEDULE 40.
- ALL CONDUITS ABOVE SLAB, WHETHER EXPOSED OR CONCEALED, SHALL BE EMT, IMC, OR RIGID GALVANIZED STEEL.
- FLEXIBLE METAL RACEWAYS SHALL NOT EXCEED 6' IN LENGTH.
- "LIQUID-TIGHT" TYPE FLEXIBLE WEATHERPROOF RACEWAYS SHALL HAVE A METALLIC INTERIOR AND NOT EXCEED 6' IN LENGTH.
- ALL BOXES, PLASTER RINGS, EXTENSION RINGS, AND BOX COVERS SHALL BE METAL.
- ALL CONDUITS SHALL BE PARALLEL AND PERPENDICULAR TO STRUCTURAL MEMBERS.
- ALL BENDS SHALL BE MADE IN CONDUIT USING PROPER EQUIPMENT AND MEET NATIONAL ELECTRICAL CODE (NEC) REQUIREMENTS.
- ALL WIRE, INCLUDING BUT NOT LIMITED TO FEEDERS AND BRANCH CIRCUIT WIRING, SHALL BE COPPER - #12 AWG THWN MINIMUM EXCEPT FOR LOW-VOLTAGE WIRING FOR COMMUNICATIONS SYSTEMS, WHICH MAY BE SMALLER.
- ALL BREAKERS SHALL BE "FULL SIZE". NO TANDEM, PIGGY BACK, TWIN, OR HALF SIZE BREAKERS WILL BE ACCEPTED.
- ALL DEVICES SHALL BE COMMERCIAL OR SPECIFICATION GRADE.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY POWER AND TEMPORARY LIGHTING DURING CONSTRUCTION. TEMPORARY POWER SHALL PROVIDE ADEQUATE POWER FOR NORMAL CONSTRUCTION USE. TEMPORARY LIGHTING SHALL PROVIDE ADEQUATE LIGHT SO THAT THE INDIVIDUAL TRADES WORK CAN BE COMPLETED.
- ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED.
- A GREEN INSULATED COPPER GROUND CONDUCTOR SHALL BE INSTALLED IN ALL RACEWAYS.
- GROUNDING SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250 AND APPLICABLE REQUIREMENTS OF IEEE STANDARDS 142 AND 241.
- TEST RESISTANCE TO GROUND (EARTHING CONNECTION) WITH RESISTANCE TESTER SUBSEQUENT TO FINAL INSTALLATION. WHERE TEST INDICATES RESISTANCE TO GROUND IS OVER 5 OHMS, TAKE APPROPRIATE ACTION TO REDUCE RESISTANCE TO 5 OHMS OR LESS BY DRIVING ADDITIONAL PROPERLY SPACED GROUND RODS AND TREATING SOIL IN PROXIMITY OF GROUND RODS WITH COMMON SALT, COPPER SULFATE OR MAGNESIUM SULFATE. RETEST TO DEMONSTRATE COMPLIANCE.
- CONDUCTORS ARE SIZED FOR VOLTAGE DROP PER N.E.C. ARTICLE 210.19(A)(1) FPN No. 4 AND THE 2014 F.B.C. ENERGY CONSERVATION CODE C405.7.3.1&2. ELECTRICAL CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS IN ACCORDANCE WITH N.E.C. ARTICLE 210.19 (A)(1) FPN No. 4 AND THE 2014 F.B.C. ENERGY CONSERVATION CODE C405.7.3.1&2 ON ANY CIRCUITS THAT ARE INSTALLED THAT DIFFER FROM THE DESIGN SHOWN IN THESE PLANS. FEEDER CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2% AND BRANCH CIRCUIT CONDUCTORS 3% AT DESIGN LOAD.
- LIGHT FIXTURES SUPPORTED BY CEILING GRID SHALL BE SUPPORTED AS PER FIELD TECHNICAL INFORMATION NO. 40. LIGHT FIXTURES WEIGHING LESS THAN 10 POUNDS SHALL HAVE ONE 12 GAGE HANGER WIRE CONNECTED FROM THE FIXTURE TO THE STRUCTURE ABOVE. LIGHT FIXTURES WEIGHING MORE THAN 10 POUNDS SHALL HAVE TWO 12 GAGE WIRES ATTACHED AT OPPOSING CORNERS OF EACH LIGHT FIXTURE.
- ELECTRICAL CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERABLE FIRE ALARM SYSTEM WITH VOICE EVACUATION INCLUDING ALL REQUIRED EQUIPMENT, DEVICES, COMPONENTS, PERMITS, INSPECTIONS AND CERTIFICATIONS AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
- PROVIDE A COMPLETE LIGHTNING PROTECTION SYSTEM FOR THE BUILDING TO COMPLY WITH THE REQUIREMENTS OF NFPA 70, NFPA 780, LPI STANDARDS 175, 176, AND 177. PROVIDE COMPONENTS WHICH ARE UL-LISTED AND MASTER LABELED.

ELECTRICAL SYMBOL LIST
(SOME SYMBOLS MAY NOT BE USED ON THIS PROJECT.)

- RECESSED LED FIXTURE
- SURFACE MOUNTED LED FIXTURE
- WALL MOUNTED LED FIXTURE
- DOWNLIGHT OR PENDANT LED FIXTURE
- WALL MOUNTED LED FIXTURE
- CEILING MOUNTED EXIT LIGHT. ARROW INDICATES DIRECTIONAL ARROW ON FIXTURE, SHADED AREA INDICATES FACE OF FIXTURE.
- WALL OR END MOUNTED EXIT LIGHT
- EMERGENCY FIXTURE
- PHOTOCELL
- SINGLE POLE SWITCH, SUBSCRIPT LETTER INDICATES FIXTURE CONTROLLED. (3 = 3 WAY, 4 = 4 WAY, K = KEY OPERATED) MOUNTED 48" AFF
- DIMMER SWITCH, TYPE AND WATTAGE TO CONTROL FIXTURE
- QUAD RECEPTACLE
- 20A, 2 POLE, 125V GROUNDED DUPLEX RECEPTACLE. 18" AFF UNLESS OTHERWISE NOTED. G = GROUND FAULT INTERRUPTER
- 20A, 2 POLE, 125V GROUNDED DUPLEX RECEPTACLE. MOUNTED ABOVE COUNTERTOP UNLESS OTHERWISE NOTED.
- TELEPHONE WALL OUTLET 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 1" EC TO CEILING SPACE.
- TELEPHONE AND DATA DUPLEX OUTLET, LEVITON CAT. #41688-1 OR EQUAL. 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 1" EC TO CEILING SPACE.
- TELEVISION OUTLET WITH 1" EC TO TTB. 18" AFF UNLESS OTHERWISE NOTED.
- CEILING MOUNTED JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- CONNECTION TO EQUIPMENT
- PUSHBUTTON
- MOTOR HORSEPOWER RATED TOGGLE SWITCH BY DIVISION 15
- NONFUSED DISCONNECT SWITCH. NUMBERS INDICATE SWITCH SIZE.
- FUSED DISCONNECT SWITCH. FUSES SIZED AS SHOWN ON DRAWINGS.
- MOTOR
- PANELBOARD
- FIRE ALARM/SECURITY CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- INTERROOM
- CEILING SPEAKER
- TELEPHONE TERMINAL BOARD (TTB)
- FIRE ALARM STROBE LIGHT, MOUNTED 80" AFF
- FIRE ALARM MANUAL PULL STATION, MOUNTED 48" AFF
- FIRE ALARM SPEAKER WITH STROBE LIGHT, MOUNTED 80" AFF
- SPRINKLER FLOW SWITCH
- SPRINKLER TAMPER SWITCH
- KEY LOCK BOX
- HEAT DETECTOR
- DUCT SMOKE DETECTOR
- SMOKE DETECTOR
- HOOD FIRE SUPPRESSION SYSTEM PULL STATION
- AHU FIRE ALARM SHUTDOWN RELAY
- SECURITY SYSTEM DOOR CONTACT
- SECURITY SYSTEM ALARM HORN
- ABOVE FINISHED FLOOR
- FINISHED FLOOR
- AIR HANDLING UNIT
- EMPTY CONDUIT
- EXHAUST FAN
- ELECTRIC WATER COOLER
- ELECTRIC WATER HEATER
- GROUND FAULT INTERRUPTER
- CONDENSING UNIT
- WEATHERPROOF (NEMA-3R)
- NIGHT LIGHT
- SHUNT TRIP
- ISOLATED GROUND

LIGHTING FIXTURE SCHEDULE							
TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	SOURCE/UMENS/WM	VOLTS	WATTAGE	COMMENTS
P	Brain Light	TBD	Custom pendant	LED		0-10V	U.S. manufacturer
R1	Introna	SS603DR-0X-159-ED-0VHC338-MZ-SFW	Recessed 6" downlight	LED		0-10V	recessed
R3	Beghelli	PLX-E2-WT35-106-277V	2x2 flat panel	LED		0-10V	recessed
R4	Fineline	FP-W65W-40-0X-0-335-00-0-0-0-0-0-SW/P-E-L-P-E-R-0X	Recessed linear fixture	LED		0-10V	recessed
L1	Philips	F55E2-440L-035-10V-V-P5TH	Linear strip	LED			surface
EXTERIOR LIGHTING FIXTURE SCHEDULE							
R2	Introna	SS603DR-0X-159-ED-0VHC338-MZ-SFW-SB	Recessed 6" linear downlight	LED			recessed
M1	Brain Light	TBD	Decorative wall sconce	LED			U.S. manufacturer
EMERGENCY LIGHTING FIXTURE SCHEDULE							
MP1	LVS	CEPS	Indicator	LED			
X1	Beghelli	CRY-9A-LR-1X-C-5-0X	Edge lit LED exit sign	LED			
X2	Beghelli	V4-A-9A-0X	NiCd led exit sign	LED			
LIGHTING CONTROLS							
WATTSTOPPER		SEE LIGHTING CONTROL OCCUPANCY SENSOR RISER DIMMER (S)A CONTROLS DEVICES FOR SPECIFICATIONS, QUANTITIES AND LOCATION(S)					
WATTSTOPPER		SEE LIGHTING CONTROL OCCUPANCY SENSOR RISER DIMMER (S)A CONTROLS DEVICES FOR SPECIFICATIONS, QUANTITIES AND LOCATION(S)					
CRESTRON		SEE LIGHTING CONTROL RISER DIMMER (S)A AND LIGHTING CONTROLS DEVICES FOR SPECIFICATIONS, QUANTITIES AND LOCATION(S)					
LIGHTING SCHEDULE NOTES:							
The specified fixtures have been selected based on photometric performance, electrical characteristics, visual comfort and aesthetic interpretation and as such any contractor wishing to propose alternate fixtures must submit such request, in writing, fifteen (15) work days prior to bid. The request shall include two complete sets of color catalog cut sheets of all fixtures for review. In many cases, samples will be required. Approvals shall only be issued by the architect in the form of an addendum to the bid documents.							

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

720 Vassar Street, Orlando FL 32804
407.418.1358 :: Fax 407.418.1342

SIGNATURE AND DATED SEAL

BORRELLI + PARTNERS

AUGUSTO E. BORRELLI, P.E.
FLORIDA P.E. # 39410
LICENSE #

BORRELLI + PARTNERS
CONSULTANTS

A B C E

ELECTRICAL GENERAL NOTES
SYMBOLS AND FIXTURE SCHEDULE

BORRELLI + PARTNERS
CONSULTANTS

720 VASSAR STREET, ORLANDO, FL 32804
407.418.1358

CITY OF LEESBURG VENETIAN GARDENS

DRAWING TITLE

PROJECT ADDRESS
201 Dixie Ave. Leesburg, FL 34746

OWNER NAME AND ADDRESS
CITY OF LEESBURG

PROJECT NO. 16-170

PHASE 30% CONSTRUCTION DOCUMENTS

SCALE NOT TO SCALE

FILE NAME 16-170 E-001

DRAWN BY MB

CHECKED BY AB/J

DATE 11-26-2017

DATE

DESCRIPTION

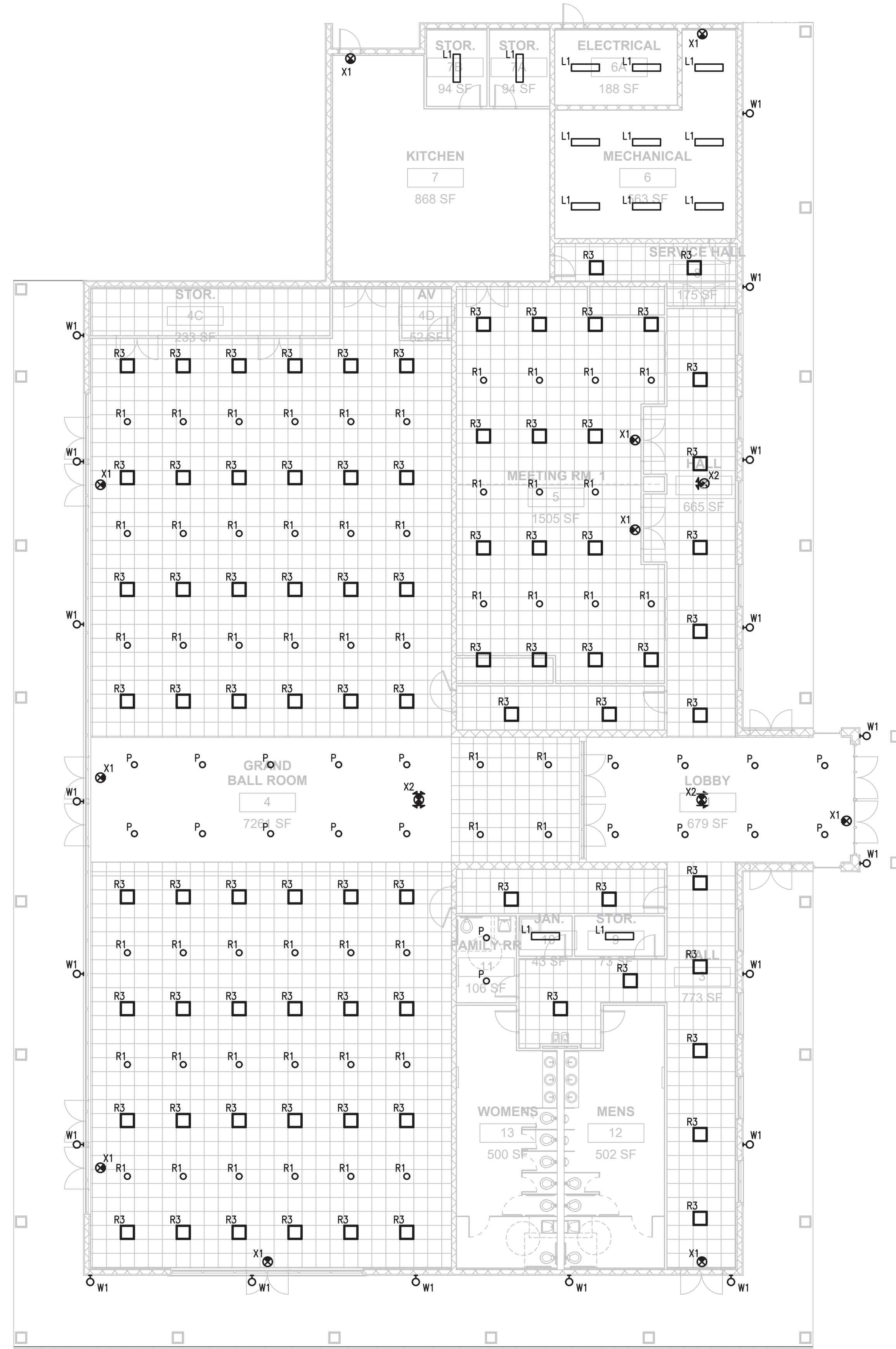
REV.

DATE

DESCRIPTION

REV.

E-001



1 FLOOR PLAN - LIGHTING
E-101 3/32'-1'-0"

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando FL 32804
407.418.1358 :: Fax 407.418.1342

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AUGUSTO E. BORGES JR., P.E.
FLORIDA P.E. # 39410
LICENSE #

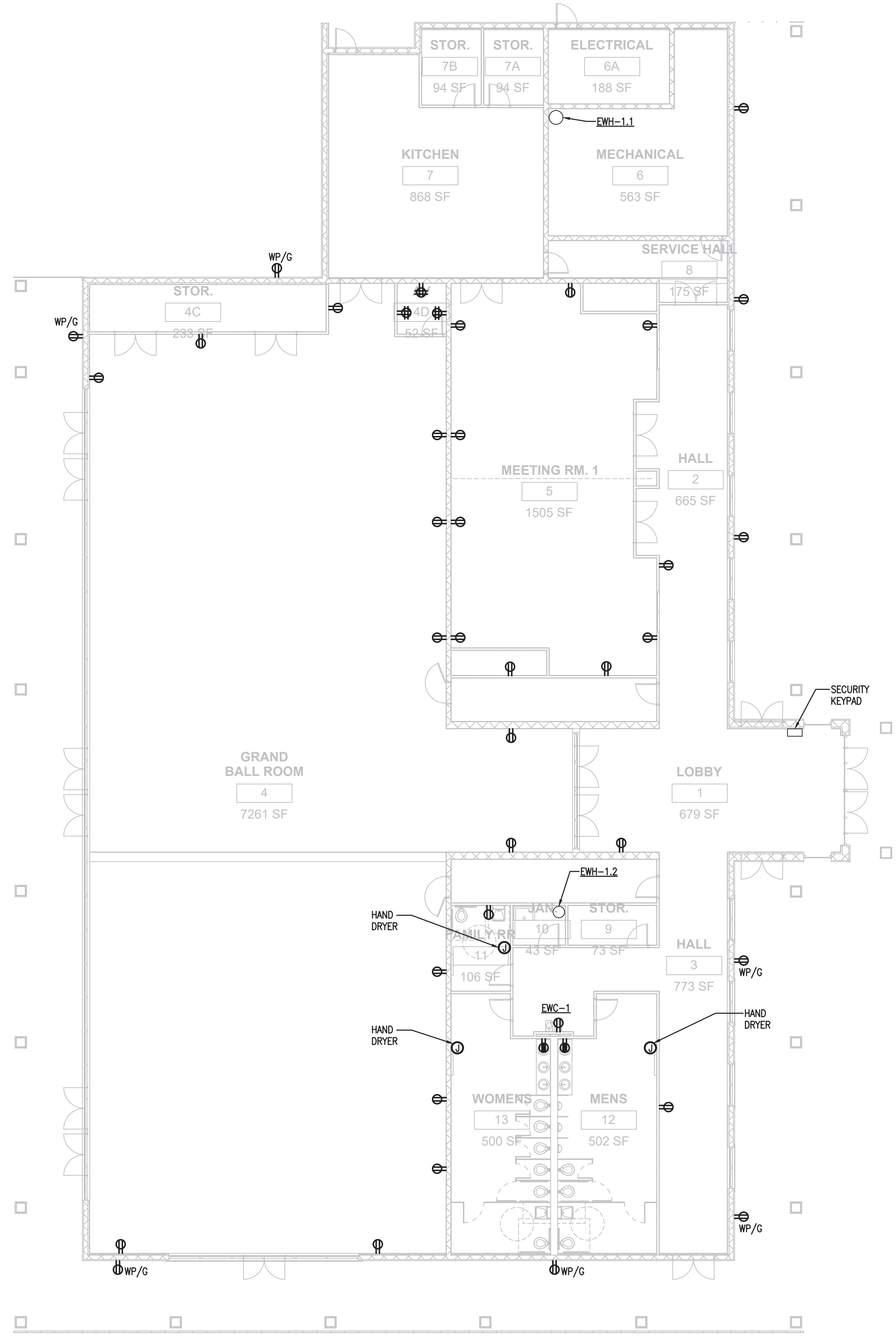
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BORGES ASSOCIATES
CONSULTANTS
11000 W. BOYD AVE. SUITE 200
MIRAGE, FL 32951
FLORIDA STATE P.E. NUMBER: 8131

DRAWING TITLE
FLOOR PLAN LIGHTING

PROJECT ADDRESS
201 Dixie Ave. Leesburg, FL 34748
OWNER NAME AND ADDRESS
CITY OF LEESBURG

PROJECT NO.	REV.	DESCRIPTION	DATE
16-170			
304-CONSTRUCTION DOCUMENTS			
SCALE	3/32'-1'-0"		
FILE NAME	16-170 E-101		
DRAWN BY	MB		
CHECKED BY	ABJ		
DATE	11-28-2017		

E-101



1 FLOOR PLAN - POWER
E-201 3/32'-1'-0"

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
720 Vassar Street, Orlando FL 32804
407.418.1358 :: Fax 407.418.1342

SIGNATURE AND DATED SEAL
AUGUSTO E. BORRES JR., P.E.
FLORIDA P.E. # 39410
DATE: 11/26/2017

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SUITE 200
ORLANDO, FL 32835
FLORIDA STATE P.E. NUMBER: 8131

DRAWING TITLE
**FLOOR PLAN
POWER**

PROJECT ADDRESS
201 E Dixie Ave, Leesburg, FL
34748
OWNER NAME AND ADDRESS
CITY OF LEESBURG

PROJECT NO.	PHASE	SCALE	FILE NAME	DRAWN BY	CHECKED BY	DATE
16-170	30%-CONSTRUCTION DOCUMENTS	3/32'-1'-0"	16-170 E-201	MB	AB/J	11/26/2017

E-201

CITY OF LEESBURG VENETIAN GARDENS