CONSTRUCTION PLANS HYATT PLACE - NEW SMYRNA BEACH 429 E. 3RD AVENUE, NEW SMYRNA BEACH, FLORIDA

PARCEL I.D. No. 3798066

SITE VICINITY MAP

OWNER/APPLICANT: LAGOON HOSPITALITY, LLC / WATERVIEW NSB, LLC

111 W. CASTLEWOOD AVENUE FRIENDSWOOD, TX 77546 PHONE: 832-755-7331

EMAIL: TEXMCHENRY@COMCAST.NET

ARCHITECT: BASE4

2901 CLINT MOORE ROAD, #114 BOCA RATON, FLORIDA 33496 PHONE: 954-812-6650 **EMAIL: RICK@BASE4.COM**

GEOTECHNICAL: PROFESSIONAL SERVICES INDUSTRIES, INC.

1748 33RD STREET

ORLANDO, FLORIDA 32839 PHONE: 407-304-5560

EMAIL: ROBERT.TROMPKE@PSIUSA.COM

SURVEYOR: ABEL SURVEYING

1780 DOYLE ROAD, SUITE 6 **DELTONA, FLORIDA 32725** PHONE: 386-860-1866

EMAIL: ABELSURVEYING@CFL.RR.COM

PERMITTING AGENCIES

CITY OF NEW SMYRNA BEACH - SITE PLAN APPROVAL F.D.E.P. - N.O.I., WATER AND WASTEWATER SYSTEMS

S.J.R.W.M.D. - ENVIRONMENTAL RESOURCE

UTILITY COMMISSION OF NEW SMYRNA BEACH - WATER AND WASTEWATER SYSTEMS

F.D.O.T. - DRIVEWAY, UTILITY

UTILITY COMPANIES

386-424-3026 WATER **UTILITIES COMMISSION OF NSB SEWER UTILITIES COMMISSION OF NSB** 386-424-3026 **ELECTRIC** 386-424-3026 **UTILITIES COMMISSION OF NSB** 561-997-0240 **PHONE** AT&T 386-668-9826 **FLORIDA PUBLIC UTILITIES**

GAS **CATV** 813-684-6100 **CHARTER COMMUNICATIONS**

PLANS CAN BE APPROVED WITH THE PROPOSED SEAWALL BEING DESIGNED AND PERMITTED BY OTHERS, BUT NONE OF THE VERTICAL IMPROVEMENTS CAN BE CONSTRUCTED UNTIL THE PROPOSED SEAWALL IS APPROVED, CONSTRUCTED, CERTIFIED, AND APPROVED BY THE CITY BUILDING OFFICIAL AND THE CITY ENGINEER.

NOT TO SCALE

9.50± ACRES PROJECT AREA: **ZONING:** PUD

HOTEL:

114 ROOMS 24 EMPLOYEES **RESTAURANT:** TYPE D (OUTDOOR SEATING) 8,550 SF (278 SEATS)

PLAN INDEX

BOUNDARY AND TOPOGRAPHIC SURVEY BOUNDARY AND TOPOGRAPHIC SURVEY

BOUNDARY AND TOPOGRAPHIC SURVEY

STORMWATER POLLUTION PREVENTION AND DEMOLITION PLAN

C-7A PARKING COUNT PLAN

SITE PAVING. GRADING AND DRAINAGE PLAN

C-10 SITE UTILITY PLAN

C-11 OFFSITE IMPROVEMENTS C-12 CROSS SECTIONS

C-13 CROSS SECTIONS

C-14 UTILITY SECTIONS C-15 SITE CONSTRUCTION DETAILS

C-15A SITE CONSTRUCTION DETAILS

UTILITY COMMISSION NEW SMYRNA BEACH WATER SPECIFICATIONS

UTILITY COMMISSION NEW SMYRNA BEACH WATER DETAILS

CONTECH CMP STORMWATER STORAGE SYSTEM (DETAILS)

SITE IRRIGATION PLAN

A2.1 FLOOR PLAN -FIRST FLOOR PLAN

A2.2 SECOND FLOOR PLAN

A2.3 THIRD FLOOR PLAN **A2.4 FOURTH FLOOR PLAN**

A3.1 EXTERIOR ELEVATIONS - NORTH (FRONT) & WEST (RIGHT)

A3.2 EXTERIOR ELEVATIONS - SOUTH (REAR) & EAST (LEFT) A-101 FLOOR PLAN & NOTES (RIPTIDE)

EC-1 EXTERIOR ELEVATIONS COLORS & SIGN DETAILS (RIPTIDE)

E-601 ELECTRICAL DIAGRAMS (RIPTIDE)

E-602 PANEL SCHEDULES (RIPTIDE)

SL001 GENERAL NOTES AND SITE LIGHTING NOTES

SL002 SITE PHOTOMETRICS PLAN SEAWALL PLANS

CVR COVER - INDEX & LOCATION MAP

C-02 DEMOLITION PLAN

C-05 TYPICAL BULKHEAD CROSS-SECTIONS

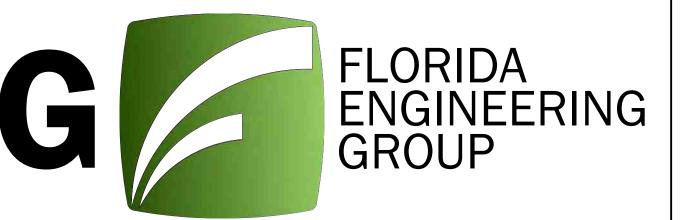
C-06 BULKHEAD PROFILE 1 OF 3

C-09 SHEET PILE DETAILS

CONCRETE CAP CROSS-SECTIONS

C-11 CONCRETE CAP JOINTS DETAILS

C-20 ENVIRONMENTAL NOTES



Engineering the Future

5127 S. Orange Avenue, Suite 200 Orlando, FL 32809

Phone: 407-895-0324

Fax: 407-895-0325

www.feg-inc.us

SIGNED AND SEALED BY: GREGORY R. CRAWFORD, P.E.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF VOLUSIA, STATE OF FLORIDA, AND IS DESCRIBED AS FOLLOWS:

LOTS 5 THROUGH 13, INCLUSIVE, BLOCK 24, PLAT OF FIRST ADDITION TO J. Y. DETWILER SUBDIVISION OF NEW SMYRNA BEACH, AS SHOWN ON MAP BOOK 22, PAGE 129, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, TOGETHER WITH A STRIP OF LAND (OR STREET) LYING WESTERLY OF SAID LOT 13, AND EXTENDING SOUTHERLY FROM THE SOUTHERLY PROLONGATION OF THE SAID WESTERLY LINE OF LOT 13, AND A PORTION OF U.S. LOT 5, SECTION 16, TOWNSHIP 17 SOUTH, RANGE 34 EAST, ALL BEING MORE PARTICULARLY DESCRIBED AS

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 5; THENCE SOUTH ALONG THE EASTERLY LINE OF SAID LOT 5 AND ITS SOUTHERLY PROLONGATION THEREOF, A DISTANCE OF 175.00 FEET; THENCE EAST AND PARALLEL TO THE NORTH LINE OF SAID BLOCK 24, A DISTANCE OF 200.00 FEET TO THE WESTERLY LINE OF THE SOUTHERLY PROLONGATION OF COOPER STREET, FORMERLY AVENUE E AS SHOWN ON SAID DETWILER SUBDIVISION; THENCE SOUTH ALONG THE LAST DESCRIBED LINE, A DISTANCE OF 245.00 FEET; THENCE WEST A DISTANCE OF 1110.00 FEET TO A POINT ON THE EAST BANK OF THE CALLALISA CREEK; THENCE NORTH 12 DEGREES 00' 00' WEST ALONG THE BANK OF SAID CREEK, A DISTANCE OF 338.00 FEET; THENCE NORTH 30 DEGREES 15' 00" WEST ALONG SAID CREEK, A DISTANCE OF 103.48 FEET TO THE POINT OF INTERSECTION OF THE WESTERLY PROLONGATION OF THE SOUTHERLY LINE OF STATE ROAD A1A, ALSO DESCRIBED AS THIRD STREET OR DETWILER BLVD. AS SHOWN ON SAID DETWILER SUBDIVISION; THENCE EAST ALONG THE LAST DESCRIBED LINE, A DISTANCE OF 1032.40 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT FROM THE FOREGOING DESCRIBED PROPERTY THE

LOTS 5 THROUGH 8, INCLUSIVE, AND A PART OF THE EASTERLY 35.00 FEET OF LOT 9, BLOCK 24, PLAT OF FIRST ADDITION TO J. Y. DETWILER SUBDIVISION OF NEW SMYRNA BEACH, AS SHOWN ON MAP BOOK 22, PAGE 129, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, TOGETHER WITH A PORTION OF U.S. LOT 5, SECTION 16, TOWNSHIP 17 SOUTH, RANGE 34 EAST, ALL BEING MORE PARTICULARLY DESCRIBED AS

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 5; THENCE SOUTH 00 DEGREES 00' 00" EAST ALONG THE EASTERLY LINE OF SAID LOT 5 AND ITS SOUTHERLY PROLONGATION THEREOF, A DISTANCE OF 160,00 FEET; THENCE NORTH 90 DEGREES 00' 00" WEST AND PARALLEL TO THE NORTH LINE OF SAID BLOCK 24, A DISTANCE OF 235.00 FEET; THENCE NORTH 00 DEGREES 00' 00" EAST, A DISTANCE OF 89.32 FEET TO A POINT ON THE EDGE OF AN EXISTING ASPHALT DRIVE; THENCE ALONG THE CURVE CONCAVE TO THE NORTHWEST, SAID CURVE HAVING A RADIUS OF 148.74 FEET, A CENTRAL ANGLE OF 18 DEGREES 04' 04", AND THROUGH AN ARC DISTANCE OF 46.90 FEET TO THE POINT OF TANGENCY OF SAID CURVE; THENCE NORTH 00 DEGREES 00' 00" EAST, A DISTANCE OF 24.55 FEET ALONG THE EDGE OF AN ASPHALT DRIVE TO THE POINT OF INTERSECTION OF THE WESTERLY PROLONGATION OF THE SOUTHERLY LINE OF STATE ROAD A1A, ALSO DESCRIBED AS THIRD STREET OR DETWILER BLVD., A 100 FOOT R/W AS SHOWN ON SAID DETWILER SUBDIVISION; THENCE NORTH 90 DEGREES 00' 00" EAST ALONG THE LAST DESCRIBED LINE, A DISTANCE OF 227.67 FEET TO THE POINT OF BEGINNING.

SURVEYOR'S NOTES:

Bearings shown hereon are based on the Florida State Plane Coordinate System, (East Zone) as determined by the Florida Department of Transportations "FPRN" cellular GPS network.

There may be easements and restrictions of record and/or private agreements not furnished to this surveyor or shown on this boundary survey that may affect property rights and/or land use rights of the subject property.

F.E.M.A Firm Map number 12127C0544 J, dated 9/29/2017.

There may be environmental issues and/or other matters regulated by various Departments of Federal, State or Local Governments affecting the subject property not shown on this survey.

hereon and shall not be relied upon by any other entity or individual whomsoever.

This Survey is not valid without the signature and original raised seal of the Florida licensed Professional surveyor and mapper named in the signature block.

Underground utilities and improvements were not located, unless shown hereon.

Elevations shown hereon are based on the NAVD 1988 vertical datum, as determined by the Florida Department of Transportations "FPRN" cellular GPS network.

Wetland lines were not delineated or field located.

Parcels 1, 2 and 3 are contiguous along their common Boundary line without gap, gore or hiatus and together describe the same Parcel of land as the Overall Property.

The recorded legal description of the property as described in Schedule A and on the survey are in fact one and the same parcel of land irrespective of the minor discrepancies in the courses and/or distances."

Subject property falls within Flood Zone "AE" and "X—SHADED", according to the

This Survey was performed without the benefit of an Insurance Title Commitment.

This Survey was performed for the sole and exclusive benefit of the entities listed

DELTONA, FLORIDA 32725 (386) 860-1866

JOB NUMBER: ______2018-119 FIELD DATE: 7-2-2018 DRAWING SCALE: 1" = 30 FEET CALCULATED BY: WHA FIELDWORK BY: SEAN/JOHNNY

DRAWN BY: WHA

REVISION 9-30-2018 REVISED LEGAL DESCRIPTION 4-23-2019 ADDED MORE SITE ELEVATION 3-26-2020 REMOVE PARCEL SPLITS

8-8-2021 ADDED STARBUCKS ENTRANCE SHEET 1 OF 3 NOT VALID WITHOUT ALL SHEETS

FOR THE LICENSED BUSINESS # 7213 BY:

WILLIAM H. ABEL JR. P.S.M. # 6165 SIGNATURE DATE: 8-12-2021

AREA TABULATION TABLE

TOTAL PROPERTY = 413,403,33 SQUARE FEET OR 9,4904 ACRES MORE OR LESS BETWEEN SEAWALLS AND CURBS = 208,096.42 SQUARE FEET OR 4.7772 ACRES MORE OR LESS ABOVE NORMAL HIGH WATER = 319,582.45 SQUARE FEET OR 7.3366 ACRES MORE OR LESS BELOW NORMAL HIGH WATER = 93,820.88 SQUARE FEET OR 2.1538 ACRES MORE OR LESS

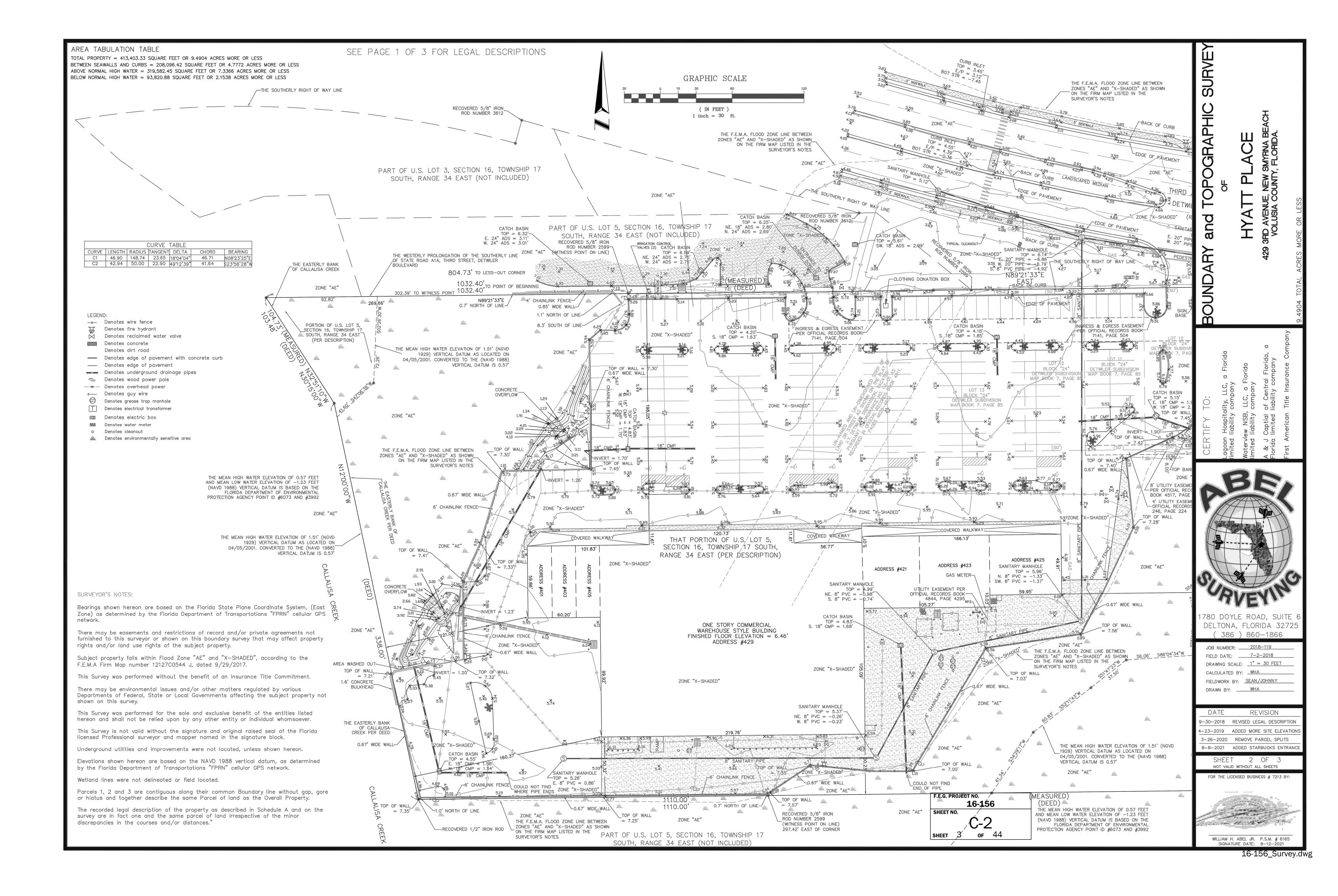
SEE PAGES 2 AND 3 FOR DRAWING AND LEGEND

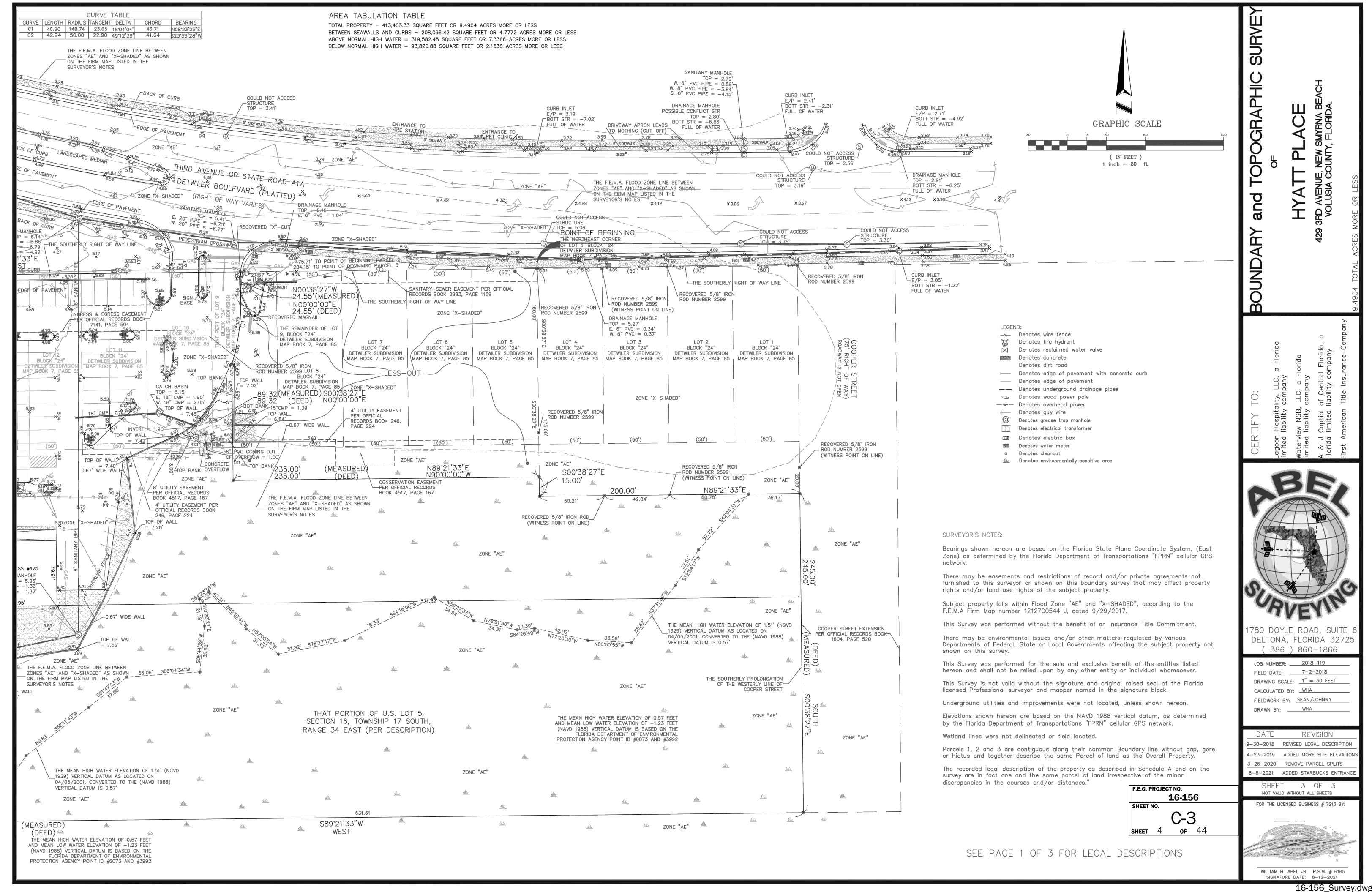
F.E.G. PROJECT NO.

SHEET NO.

16-156

SHEET 2 OF 44





GENERAL NOTES:

- . THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.
- . IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRÙĆTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN.
- . THE SPECIFICATIONS, NOTES, AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH & INSTALL THE WORK IN ALL DETAILS AND READY FOR OPERATION
- H. ALL EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED, TESTED, AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- . ALL WORK SHALL BE ACCOMPLISHED TO THE HIGHEST QUALITY CRAFTSMANSHIP STANDARDS AS APPROVED BY THE ENGINEER.
- 6. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS.
- . APPARENT ERRORS, DISCREPANCIES, OR OMISSIONS ON THE DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING. 3. AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PERFORM SITE CLEAN—UP OPERATIONS FOR REMOVAL OF ALL TRASH. DEBRI EXCESS MATERIAL, AND EQUIPMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD
-). THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS, AND SPECIFICATIONS OF CITY OF NEW SMYRNA BEACH FOR SITE IMPROVEMENT IN THE ABSENCE OF A PARTICULAR REQUIREMENT.
- IO. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, OR RIGHT—OF—WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING, AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).
- 1. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV COMPANIES.
- 12. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON, OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
- 13. THE CONTRACTOR SHALL FURNISH OWNER WITH ACCURATE RECORD DRAWINGS PREPARED BY A LICENSED PROFESSIONAL SURVEYOR SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY THE ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW DATA ADDED. ADDITIONAL REQUIREMENTS ARE NOTED IN PAVING, GRADING, DRAINAGE, WATER, AND SEWER NOTES.
- 14. ALL PRIVATE AND PUBLIC PROPERTIES AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. THE COST FOR SUCH RESTORATION SHALL BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- 15. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS IN PREPARING THE SITE FOR CONSTRUCTION; THIS INCLUDES REMOVAL OF ANY EXISTING ORGANIC SOILS, DELETERIOUS MATERIAL, VEGETATION, AND/OR DEBRIS FROM WITHIN THE LIMITS OF CONSTRUCTION AS IDENTIFIED BY THE GEOTECHNICAL ENGINEER; PROOFROLLING OF THE NATURAL SOILS WHERE REQUIRED; AND OTHER GENERAL SITE PREPARATION REQUIREMENTS. SPECIFIC PROOFROLLING COMPACTION REQUIREMENTS SHOULD BE CONSISTENT WITH THE APPLICABLE DESIGN DOCUMENTS AND GEOTECHNICAL ENGINEER'S RECOMENDATIONS. IF THERE IS A CONFLICT BETWEEN THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND THE DESIGN DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

GEOMETRY NOTES:

- THESE PLANS ARE BASED ON A SURVEY PREPARED FOR THE OWNER BY ABEL SURVEYING, DATED 7/19/2018 AND REVISED 8/8/2021.
- . REFER TO SHEET C-2 FOR REFERENCED BENCHMARK.
- CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE GEOMETRIC DATA PROVIDED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE & CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL & VERTICAL, PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY APPARENT DISCREPANCIES ARE FOUND.
- . ALL DIMENSIONS ARE TO THE FACE OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
- . CONTRACTOR SHALL VERIFY THE ACCURACY OF THE BUILDING GEOMETRY SHOWN WITH THAT IN THE FINAL ARCHITECTURAL DRAWINGS, PRIOR TO STAKE-OUT, & SHALL NOTIFY OWNER & ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

MARKING, STRIPING, & SIGNAGE NOTES:

- ALL MARKINGS MUST COMPLY WITH THE F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. LATEST EDITION, AND THE CITY OF NEW SMYRNA BEACH LAND DEVELOPMENT CODE. PARKING SPACES MAY BE F.D.O.T. RATED PAINT. ALL OTHER MARKINGS MUST BE THERMOPLASTIC.
- HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND OTHER APPLICABLE STANDARDS. REFER TO F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS INDEX 17355 FOR HANDICAP SYMBOL.
- HANDICAP SIGN SHALL BE F.D.O.T. SPECIFICATION FTP 25.

PAVING, GRADING, & DRAINAGE NOTES:

- ALL CONSTRUCTION, INCLUDING SIDEWALKS, SHALL BE IN ACCORDANCE WITH CITY OF NEW SMYRNA BEACH CONSTRUCTION SPECIFICATIONS AND OTHER GENERAL AND SPECIAL SPECIFICATIONS, AND THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, UNLESS STATED OTHERWISE IN THE SPECIFICATIONS OR ON THE PLANS.
- SUBSURFACE INFORMATION PROVIDED WITH THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.
- . THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR T THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- 1. ALL FILL MATERIAL IN GENERAL IMPROVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T—180. SPECIFIC SITE PREPARATION METHODS, TYPE OF FILL TO BE USED FOR PARKING AND BUILDING AREAS, AND COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS (SEE GEOTECHNICAL REPORT PREPARED BY PROFESSIONAL SERVICES INDUSTRIES, INC; PROJECT NO. 07571934) REFER TO STRUCTURAL ARCHITECTURAL, AND GEOTECHNICAL DOCUMENTS FOR ANY WORK RELATED TO BUILDINGS AND OTHER VERTICAL ELEMENTS FOR SPECIFIC SITE IMPROVEMENT AND FILL REQUIREMENTS. THIS PLAN ONLY COVERS SITE RELATED IMPROVEMENTS AND INFRASTRUCTURE. REFER TO PAVEMENT SECTION DETAILS FOR MATERIAL AND COMPACTION REQUIREMENTS OF PAVEMENT SUBGRADE.
- . ALL UNDERGROUND UTILITIES INCLUDING CONDUIT FOR ELECTRICAL, CABLE TV, AND TELEPHONE SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
- S. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY PROBLEMS REQUIRING DEVIATION FROM THESE PLANS AND SPECIFICATIONS. . THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT. UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER, THE CONTRACTOR MAY PROCEED WITH THE WORK.
- 3. ALL DISTURBED AREAS MUST BE SODDED, UNLESS OTHERWISE NOTED ON THE PLANS. ALL SODDING MUST BE DONE IN ACCORDANCE WITH SECTION 570 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION. LATEST
- 9. PROVIDE HANDICAP ACCESS WHERE SIDEWALKS MEET CURBS.

EROSION CONTROL NOTES:

11/24/21

11/12/2021

8/13/2021

3/19/2020

9/26/2019

8/19/2019

DATE

- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM WITH CITY OF NEW SMYRNA BEACH SPECIFICATIONS, SUBJECT TO AUTHORIZED AND APPROVED VARIANCES, WAIVERS AND/OR CONDITIONAL CHANGES.
- EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTATION OF SILT OFF THE SITE.
- CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION AND SEDIMENTATION DURING CONSTRUCTION.
- 1. ALL CLEARED AREAS FOR IMPROVEMENT AND/OR CONSTRUCTION SHALL BE WATERED TO PREVENT WIND EROSION.
- PRIOR TO LAND CLEARING THE CONTRACTOR SHALL PROVIDE TREE PROTECTION BARRIERS TO MEET THE REQUIREMENTS OF CITY OF NEW SMYRNA BEACH.

REVISIONS

. THE CONTRACTOR SHALL SELECTIVELY CLEAR ONLY THE AREAS REQUIRED FOR CONSTRUCTION AND STABILIZE ANY POTENTIAL EROSION AREAS

PER CITY COMMENTS CONSTRUCTION PLANS REVISED PER CITY AND HYATT HOTEL COMMENTS JWM | GRC REVISED PER CITY AND HYATT HOTEL COMMENTS JWM | HYATT PLACE - NEW SMYRNA BEACH REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS JWM | GRC 429 E. 3RD AVENUE, NEW SMYRNA BEACH CPN REVISED PER SJRWMD COMMENTS **FLORIDA** | CPN | GRC CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS

BY CHECKED

WATER & SEWER UTILITY NOTES:

F.D.E.P. CONSTRUCTION NOTES:

PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

C. PVC (WITH NATIONAL SANITATION FOUNDATION SEAL)

E. POLYETHYLENE PIPE (4" - 63") - AWWA C906.

G. METERS PER AWWA SERIES C700 THROUGH C710.

PRIOR TO THE PRE-CONSTRUCTION MEETING.

CONNECTION TO EXISTING WATER MAINS:

FILLING OF WATERMAINS:

1. AWWA C900/ASTM 1784 (4" TO 12") WITH DR25 MINIMUM;

USED FOR EITHER OF THESE TYPES SHALL BE PER ASTM D1784.

F. FIRE HYDRANTS & VALVES PER AWWA SERIES C500 THROUGH C560

POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:

(OBSERVED BY ENGINEER) AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.

7. SITE UTILITY WORK SHALL TERMINATE 5 FEET FROM BUILDINGS UNLESS OTHERWISE STATED.

ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE

INSPECTION AND ACCEPTANCE.

RECEIVED BY THE OWNER.

<u>UTILITY SEPARATION - VERTICAL CLEARANCE:</u>

UTILITY SEPARATION HORIZONTAL SEPARATION:

CONSTRUCTION NOTES:

. CONTRACTOR SHALL COORDINATE WITH UTILITIES COMMISSION OF NSB AND FOR CONSTRUCTION OF THE WATER AND SEWER SYSTEMS, RESPECTIVELY

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THEIR SPECIFICATIONS AND REQUIREMENTS, AS APPLICABLE AND WILL BE SUBJECT TO THEIR

CONTRACTOR SHALL COORDINATE ALL WATER AND SEWER SYSTEM TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE AND PROVIDE FIVE (5)

WORKING DAYS NOTICE OF WATER AND SEWER TESTS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT

3. ENGINEER RESERVES THE RIGHT TO WITHHOLD APPROVAL FOR ANY PORTION OF THE WATER OR SEWER PIPE WORK WHICH HAS NOT BEEN TESTED

6. CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS MARKED UP WITH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION ON LOCATION OF

8. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN

. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY

OR VACUUM— TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12" BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE—TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR

PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER

2. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW
THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE <u>OR</u> THE PIPES SHALL BE ARRANGED SO
THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM—TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE
MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62—610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS

IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER

. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM—TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III CHAPTER 62—610, F.A.C.; A HORIZONTAL DISTANCE OF

AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED

GRAVITY—TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST (6") SIX INCHES ABOVE THE TOP OF THE SEWER): A
HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED
PRESSURE—TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER
62—610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR

. THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL NEWLY—INSTALLED WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE UTILITIES COMMISSION OF NSB & IN ACCORDANCE WITH AWWA STANDARD C600 FOR DUCTILE—IRON PIPE. TESTING SHALL BE IN ACCORDANCE

. THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE F.D.E.P. WATER PERMIT, & RECEIVE

THE <u>PERMITTEE</u> SHALL BE SEPARATELY RESPONSIBLE FOR APPROPRIATE CONSTRUCTION, DISINFECTION & TESTING BEYOND THE METER TO ASSURE POTABILITY AT THE POINT OF USE.

3. POTABLE PIPES WILL BE HYDROSTATICLY TESTED IN ACCORDANCE WITH SPECIFICATION NUMBERS C600 & C605/M23 FOR DUCTILE IRON & PVC PIPES,

B. DUCTILE IRON PIPE (3" TO 64") - AWWA C150/AWWA C151; LINING PER AWWA C104, COATING PER AWWA C116, ENCASEMENT PER AWWA C105,

3. PRESSURE RATED PIPE (SDR SERIES) SHALL BE ASTM D2241, SCHEDULE 40, 80, & 120 PVC PIPES PER ASTM D1785. THE COMPOUNDS

E. NON-AWWA PVC PIPES (ALLOWED ONLY FOR SIZES LESS THAN 4 INCHES) MUST HAVE A MINIMUM PRESSURE CLASS OF 200 PSI AND MUST BEAR THE NSF MARK ON EACH INSTALLED LENGTH.

. IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20

IMMINENT PUBLIC HEALTH THREAT BY THE D.E.P. CENTRAL DISTRICT OR WILL AFFECT BACTERIOLOGICAL QUALITY OF THE DRINKING WATER

B. IN CASES OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN

A. PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASES OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH DEEMED AN

1. FILLING OF PROPOSED WATER MAINS FROM EXISTING WATER MAINS WILL BE DONE IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.

CONSTRUCTION SHALL ADHERE TO THE CITY'S CONSTRUCTION SITE MANAGEMENT GUIDELINES, REQUIRING SUCH ELEMENTS AS SCREENED

FENCING, (i,e. WITH FABRIC), DUST CONTROL MEASURES, (SUCH AS INDICATED ON SHEET 6) AND A DEFINED PLAN PROVIDED TO THE CITY

UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER

"DISINFECTING WATER MAINS". SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS".

A. POTABLE WATER PIPES MUST BE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING AWWA SPECIFICATIONS:

FLANGED PIPE PER ÀWWA C115, GASKET JOINTS PER AWWA C111 AND FITTINGS PER AWWA C110 OR AWWA C153

2. POTABLE WATER PIPES WILL BE DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.

D. POLYETHYLENE PIPE (1/2" - 3") - AWWA C901 WITH VALVES & FITTINGS (AWWA C800);

QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.

WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.

APPROVAL THEREOF FROM THE LOCAL WATER UTILITY, ENGINEER OF RECORD, & F.D.E.P., PRIOR TO PLACING IN SERVICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THE F.D.E.P. WATER & SEWER PERMITS FROM THE PERMITS FROM THE OWNER & MAINTAIN THEM ON THE JOB SITE AT ALL TIMES. DISINFECTION OF THE WATER DISTRIBUTION SYSTEM SHALL SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651

4. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR.

WATER MAINS, FITTINGS, AND WATER SERVICES LOCATED FROM CENTERLINE OF NEAREST FIRE HYDRANT OR NEAREST MANHOLE.

5. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS.

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MATERIAL SPECIFICATIONS:

FOUR SIDES. GRATES SHALL BE CAST IRON UNLESS BICYCLE TRAFFIC IS ANTICIPATED.

HAVE A COPY OF UTILITIES COMMISSION OF NSB'S SPECIFICATION STANDARDS MANUAL

COMMISSION, CITY OF NEW SMYRNA BEACH - OCTOBER 2010 EDITION AND THE NEC 2014.

SPECIFICATIONS, UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH - AUGUST 2015 EDITION.

I. PAVING MATERIALS SHALL CONFORM WITH F.D.O.T. STANDARDS & SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION. LATEST EDITION.

. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE

3. ALL STORM STRUCTURES SHALL CONFORM WITH F.D.O.T. STANDARD INDEX DRAWINGS & SPECIFICATIONS EXCEPT THAT DITCH BOTTOM INLETS IN PAVED AREAS SHALL HAVE TRAVERSABLE, TRAFFIC BEARING, GRATES SUPPORTED BY STEEL ANGLE SEATS OR SUPPORTED ON

4. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED & SHALL HAVE 4 FEET MINIMUM DIAMETER.

5. ALL AFFECTED SIDEWALKS, RAMPS, AND CROSSWALKS SHALL BE BUILT AND INSPECTED TO MEET CURRENT A.D.A. REQUIREMENTS.

MATERIAL USED IN THE CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL ADHERE TO THE REQUIREMENTS OUTLINED IN THE

UTILITIES COMMISSION OF NSB WATER DISTRIBUTION'S SPECIFICATION STANDARDS MANUAL. THE FOLLOWING INFORMATION IS TO PROVIDE

GENERAL GUIDANCE IN THE PREPARATION OF CONSTRUCTION PLANS AND SPECIFICATIONS, AND IN NO WAY LIMITS UTILITIES COMMISSION OF

NSB'S RIGHTS TO APPROVE OR DISAPPROVE PLANS, SPECIFICATIONS OF INSTALLATIONS. MOST CENTRAL FLORIDA UTILITY SUPPLY COMPANIES

UTILITIES COMMISSION OF NSB SPECIFICATIONS OFTEN ADD TO THE MANUFACTURER'S SPECIFICATIONS. IF YOU HAVE ANY QUESTIONS, PLEASE

CONTACT: UTILITIES COMMISSION OF NSB WATER DISTRIBUTION STANDARDS AND SPECIFICATIONS 386-424-3026 OR VISIT WEB SITE AT:

SEE UTILITIES COMMISSION OF NSB WATER MATERIAL SPECIFICATIONS ON SHEET C-16 AND SHEET C-17 FOR DETAILS.

SEE UTILITIES COMMISSION OF NSB WASTEWATER MATERIAL SPECIFICATIONS ON SHEET C-18 AND SHEET C-19 FOR DETAILS.

ALL ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ELECTRICAL SERVICES RULES AND STANDARDS, UTILITIES

ALL WATER SERVICE CONSTRUCTION SHALL BE IN ACCORDANCE WITH POTABLE WATER RULES, DESIGN AND CONSTRUCTION

ALL SANITARY SEWER SERVICE CONSTRUCTION SHALL BE IN ACCORDANCE WITH WASTEWATER RULES, DESIGN AND

CONSTRUCTION SPECIFICATIONS, UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH - AUGUST 2015 EDITION.

PAVING, GRADING, & DRAINAGE:

GENERAL MATERIAL SPECIFICATIONS

WATER MATERIAL:

SPECIAL NOTICE:

HTTPS: //WWW.UCNSB.ORG

LEGEND. NOTES AND SPECIFICATIONS

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GRC

NOTED OF 44

LEGEND SITE

POLE SIGN SMALL PYLON SIGN LARGE PYLON SIGN RIGHT TURN DIRECTIONAL ARROW STRAIGHT DIRECTIONAL ARROW

LEFT TURN DIRECTIONAL ARROW STRAIGHT AND LEFT TURN

DIRECTIONAL ARROW STRAIGHT AND RIGHT TURN DIRECTIONAL ARROW HANDICAP PARKING SYMBOL

F.D.O.T. TYPE "D" CURB F.D.O.T. TYPE "F" CURB AND GUTTER GATE VALVE BOX, WV= WATER, FV=FIRE, IV=IRRIGATION, & SSV=SANITARY SEWER × × CHAINLINK FENCE

DECORATIVE WOOD OR ALUMINUM FENCE O * O * O BARB WIRE FENCE → HANDRAIL

SCREEN/RETAINING WALL, AS NOTED. BIKE RACK PARKING COUNT SYMBOL PER ROW

ROAD CENTERLINE SYMBOL GRADING & DRAINAGE

F.D.O.T. TYPE "C" DRAINAGE INLET

F.D.O.T. TYPE "D" DRAINAGE INLET F.D.O.T. TYPE "E" DRAINAGE INLET F.D.O.T. TYPE "1" DRAINAGE INLET F.D.O.T. TYPE "2" DRAINAGE INLET

F.D.O.T. TYPE "3" DRAINAGE INLET F.D.O.T. TYPE "4" DRAINAGE INLET F.D.O.T. TYPE "5" DRAINAGE INLET

F.D.O.T. TYPE "6" DRAINAGE INLET STORM DRAINAGE MANHOLE

MITERED END SECTION

STORM DRAINAGE PIPE DRAINAGE FLOW DIRECTIONAL ARROW (S-1) DRAINAGE STRUCTURE BUBBLE

GRADE ELEVATION -90 CONTOUR ELEVATION

■ ■ ■ EROSION CONTROL SILT FENCE

UTILITY

DCDA - DOUBLE CHECK DETECTOR ASSEMBLY DCVA - DOUBLE CHECK MNVALVE ASSEMBLY RPZ - REDUCED PRESSURE ZONE DEVICE DOMESTIC METER IRRIGATION METER GATE VALVE

BLOW-OFF GATE VALVE REDUCER

WET WELL

11.25° PIPE BEND 22.5° PIPE BEND

30° PIPE BEND 45° PIPE BEND

60° PIPE BEND

90° PIPE BEND TEE

CROSS FIRE HYDRANT ASSEMBLY •

00

W/ UNOBSTRUCTED AREA CLEARANCES AS REQUIRED BY FIRE MARSHALL FIRE DEPARTMENT CONNECTION

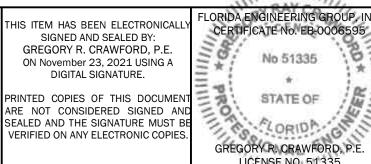
CLEAN OUT LIFT STATION

GREASE TRAP

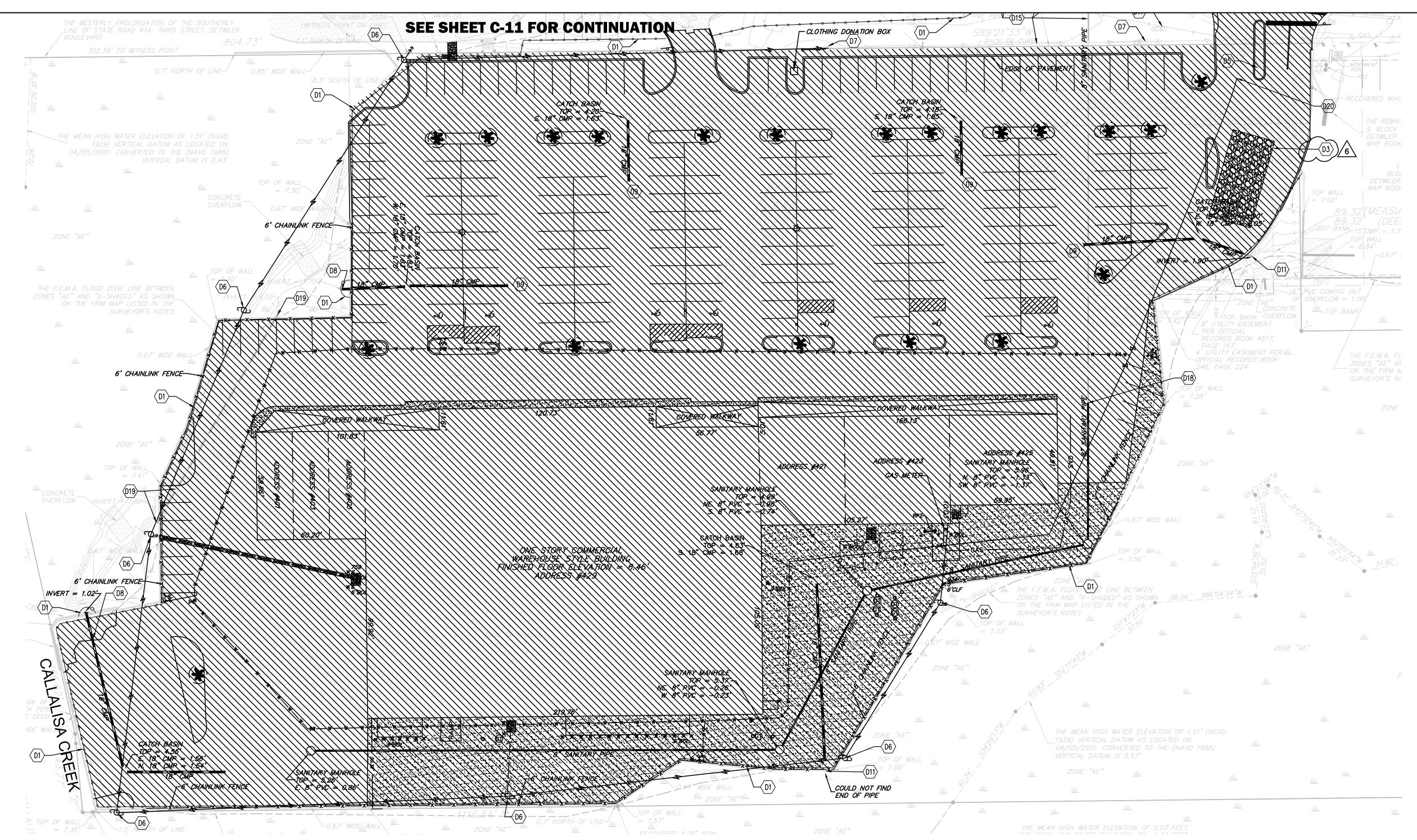
SITE LIGHTING

 \bigoplus DECORATIVE SITE LIGHTING UTILITY POLE

IS ITEM HAS BEEN ELECTRONICALL SIGNED AND SEALED BY: GREGORY R. CRAWFORD, P.E. ON November 23, 2021 USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMEN' ARE NOT CONSIDERED SIGNED AND



LICENSE NO. 51335 16-156_GeneralNotes.dwg



DEMOLITION KEYNOTES

- D1. INSTALL F.D.O.T. TYPE "III" SILT FENCE EROSION CONTROL BARRIER. SEE SHEET C-6 FOR DETAIL.
- D2. INSTALL INLET INSERT SEDIMENT CONTAINMENT SYSTEM (SEE SHEET C-6 FOR DETAIL).
- D3. CONSTRUCT 12'x50' (MIN.) SOIL TRACKING PREVENTION DEVICE (SEE SHEET C-6 FOR DETAIL).
- D4. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.
- D5. EXISTING POLE SIGN TO BE REMOVED.
- D6 EXISTING UTILITY POLE TO BE REMOVED (TO BE DETERMINED AND COMPLETED BY THE UTILITIES COMMISSION).
- D7. EXISTING UTILITY POLE TO REMAIN.
- D8 CONTRACTOR TO REMOVE EXISTING STORM PIPE. TIMING OF PIPE REMOVAL SHOULD BE TO ALLOW THE INSTALLATION OF PROPOSED 24" PIPE.
- D9. CONTRACTOR SHALL VERIFY EXISTING STORM SYSTEM TO DETERMINE THE EXTENT OF THE STORM PIPE TO BE REMOVED (PRIOR TO BID).
- D10. EXISTING WALK TO REMAIN.
- D11. CONTRACTOR SHALL REMOVE EXISTING STORM PIPE TO WITHIN 1.0' OF SEAWALL. CONTRACTOR SHALL SEAL THE REMAINING PORTION OF THE EXISTING PIPE, FILLING IT WITH CONCRETE THROUGH THE SEAWALL PENETRATION.

- D12. CONTRACTOR SHALL SAW-CUT EXISTING CURB AND REMOVE (TYP.).
- D13. EXISTING CURB TO REMAIN.
- D14. CONTRACTOR SHALL COORDINATE RELOCATION OF EXISTING LIGHT POLE, ELEC. BOX, AND SIGNAGE.
- D15. CONTRACTOR TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN (TYP.).
- D16. CONTRACTOR TO REMOVE EXISTING ASPHALT AS REQUIRED TO PROVIDE "LOW-POINT" FOR POSITIVE DRAINAGE AT PROPOSED TRAFFIC SEPARATOR DRAINAGE OPENING.
- D17. CONTRACTOR TO PROTECT EXISTING AT&T UTILITY DURING CONSTRUCTION AND GRADING OPERATIONS AND COORDINATE ADJUSTMENT TO PROPOSED GRADE WITH SERVICE PROVIDER.
- D18. CONTRACTOR SHALL PROVIDE TEMPORARY PLUGGING AND CAPPING OF THE EXISTING GRAVITY SEWER LINE TO REMAIN UNDER THE SUPERVISION OF THE UTILITIES COMMISSION ENGINEERING DEPARTMENT INSPECTOR (PROVIDE 48 HOUR NOTICE).
- D19. PIPE TO REMAIN. CONTRACTOR TO PROTECT THE EXISTING STORM PIPE AND SHALL VIDEO THE CONDITION OF THE FULL LENGTH OF PIPE AND THE SEAWALL PENETRATIONS AND PROVIDE TO FEG FOR REVIEW AT THE TIME OF DEMOLITION AND PRIOR TO SHOP DRAWING REVIEW.

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- D20. CONTRACTOR TO CAP END OF EXISTING 6 INCH WATER LINE AND REMOVE THE WATER LINE SOUTH OF CAP.
- D21. CONTRACTOR SHALL PROVIDE PROPER MAINTENANCE OF TRAFFIC FOR PEDESTRIAN WITH THE SIDEWALK UNDER CONSTRUCTION.

GRAPHIC SCALE

1" = 30'

PLAN LEGEND

SAW CUT & REMOVE EXISTING ASPHALT & CONCRETE IN HATCHED AREAS.



EXISTING OVERHEAD ELECTRIC LINE

EXISTING TREE TO BE REMOVED.

SYNTHETIC EROSION CONTROL BARRIER FLOATING TURBIDITY BARRIER

DEMOLITION NOTES

- 1. THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF EXISTING UTILITIES & OTHER FEATURES ARE SHOWN ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF ALL EXISTING UTILITIES & OTHER FEATURES AFFECTING THE WORK PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY FEG OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROPOSED WORK.
- 2. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.
- THE CONTRACTOR SHALL, PRIOR TO INITIATION OF ANY SITE CLEARING OR OTHER CONSTRUCTION ACTIVITIES, INSTALL SILT SCREENS DOWNSTREAM OF ALL AREAS WHICH HAVE POTENTIAL OF EROSION OR SEDIMENT TRANSPORT OFFSITE OR TO WATER BODIES. THE CONTRACTOR SHALL IMPLEMENT OTHER STRUCTURAL EROSION CONTROL MEASURES IF REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFF-SITE AREAS & WATER BODIES.
- 4. ALL TRASH, DEBRIS, & OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS.
- 5. ANY EXCAVATED TRENCHES ARE TO BE BACKFILLED WITH CLEAN SAND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (AASHTO T-180). REFER TO GEOTECHNICAL REPORT FOR SPECIFIC COMPACTION REQUIREMENTS UNDER' BUILDING & OTHER STRUCTURES.
- ALL EXISTING CONCRETE TO BE REMOVED SHALL BE SAWCUT & REMOVED @ THE FIRST AVAILABLE GOOD JOINT & REPLACED TO MATCH EXISTING.
- 7. THE CONTRACTOR SHALL CONTACT THE GAS UTILITY FOR LOCATION BEFORE EXCAVATION. CHAPTER 17-153 F.S. REQUIRES THAT AN EXCAVATOR NOTIFIES ALL GAS UTILITIES AT LEAST TWO DAYS PRIOR TO EXCAVATING. ALSO CALL 1-800-432-4770 FOR SUNSHINE LOCATES. F.S. 556.101 THROUGH 111.
- 8. CONTRACTOR TO PROVIDE TREE PROTECTION AS REQUIRED BY THE LOCAL JURISDICTION.
- 9. REMOVAL OF EXISTING BUILDINGS SHALL INCLUDE THE CONCRETE SLAB, FOOTERS, WATER, SEWER, GREASE TRAPS, ETC. ASSOCIATED WITH THE BUILDING.
- 10. REMOVAL OF EXISTING SOD, TREES, SHRUBS, ETC. SHALL INCLUDE ROOTS AND IRRIGATION SYSTEMS.
- 11. REMOVAL OF EXISTING PAVEMENT SHALL INCLUDE THE EXISTING BASE MATERIAL AND
- 12. CONTRACTOR SHALL COORDINATE WITH THE APPLICABLE UTILITY COMPANIES TO DISCONNECT THE UTILITIES AT, OR NEAR, THE PROPERTY LINE TO ALLOW THE INTEGRAL LINES AND FIXTURES TO BE REMOVED. THIS SHALL APPLY TO POWER, TELEPHONE, CABLE, WATER AND SEWER SYSTEMS.
- 13. THE EXISTING STORM INLETS, PIPES, YARD DRAINS, MANHOLES, ETC. SHALL BE REMOVED AND BACKFILLED.
- 14. FOR THE EXISTING POWER POLES AND OVERHEAD POWER LINES, THE UTILITIES COMMISSION ENGINEERING DEPARTMENT SHALL DETERMINE THE LIMITS OF
- 15. THE CONTRACTOR SHALL PROTECT THE EXISTING SEAWALL WHICH IS TO REMAIN. A NEW RETAINING WALL IS PROPOSED TO BE CONSTRUCTED ON THE OUITSIDE OF THE EXISTING RETAINING WALL THAT WILL BE DESIGNED AND PERMITTED BY OTHERS.
- 16. CONTRACTOR SHALL OBTAIN A DEMOLITION PERMIT WITH THE APPLICABLE MUNICIPALITIES AND GOVERNMENTAL AGENCIES PRIOR TO COMMENCING ANY WORK ONSITE (INCLUDES BUILDING AND UNDERGROUND).

11/24/21	6	PER CITY COMMENTS	JWM	GRC
11/12/2021	<u></u>	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC
8/13/2021	4	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC
3/19/2020	3	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC
9/26/2019	/2	REVISED PER SJRWMD COMMENTS	CPN	GRC
8/19/2019	$\sqrt{1}$	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC
DATE		REVISIONS	BY	CHECKED

CONSTRUCTION PLANS HYATT PLACE - NEW SMYRNA BEACH 429 E. 3RD AVENUE, NEW SMYRNA BEACH **FLORIDA**



5127 S. Orange Avenue, Suite 200 Orlando, FL 32809 Phone: 407-895-0324 Fax: 407-895-0325

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STORMWATER POLLUTION PREVENTION AND DEMOLITION PLAN

CHECKED BY

GRC

DRAWN BY

CPN

<u>1" = 30'</u> APPROVED BY GRC

IS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY: GREGORY R. CRAWFORD, P.E. ON November 23, 2021 USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMEN' ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST I VERIFIED ON ANY ELECTRONIC COPIES.



EROSION CONTROL SITE DESCRIPTION NOTES:

- THE PROPOSED CONSTRUCTION ACTIVITY WILL ENTAIL THE CLEARING & GRUBBING OF A 9.5 ACRE SITE LOCATED AT 429 E. 3RD AVENUE, NEW SMYRNA BEACH, FLORIDA ITS ASSOCIATED PARKING, DRAINAGE &
- 2. THE SEQUENCE OF SOILS DISTURBANCE ACTIVITY IS AS FOLLOWS:
- A. INSTALL SILT FENCE AS SHOWN ON THE PLANS & PROVIDE TREE PROTECTION ON SITE, IF APPLICABLE.
- B. ROUGH GRADE PROPOSED POND AREA(S) OR TEMPORARY SEDIMENTATION BASIN(S).
- C. CLEAR & GRUB THE AREA TO BE DISTURBED. ENSURE THAT DRAINAGE FROM SITE DURING CONSTRUCTION IS CONVEYED TO THE POND(S) OR TEMPORARY SEDIMENTATION BASIN(S).
- D. PLACE FILL ON-SITE TO BRING THE SITE UP TO THE PROPOSED GRADES.
- E. BEGIN COMPACTION / STABILIZATION PROCESS.
- 3. THE TOTAL SITE AREA IS 9.5± ACRES & THE AREA TO BE DISTURBED IS 4.77± ACRES.
- 4. THE EXISTING SOIL IS CANAVERAL SAND, HYDRAQUENTS, TRUNBULL VARIANT SAND. THE QUALITY OF THE STORMWATER DISCHARGE IS CONSISTENT W/ THE RUNOFF GENERATED BY A COMMERCIAL SITE.
- 5. THE TOTAL DRAINAGE AREA FOR THE PROJECT IS APPROXIMATELY 4.77 ACRES.
- 6. THE LATITUDE & LONGITUDE FOR THE DISCHARGE POINTS IS <u>LAT: 29° 01' 40" LONG: 80° 54' 02"</u>. THE RECEIVING WATER BODY IS <u>UNDERGROUND STORMWATER SYSTEM</u>, THEN EVENTUALLY DISCHARGES TO CALLALISA CREEK.
- . WASTE DISPOSAL SHALL BE IMPLEMENTED IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS. ALL TRUCKS EXITING THE SITE WILL BE HOSED, ITS LOAD COVERED and THE COVER PROPERLY SECURED. THE STORAGE, APPLICATION, GENERATION & MIGRATION OF ALL FERTILIZERS, HERBICIDES, PESTICIDES & TOXIC MATERIAL SHALL BE IN ACCORDANCE W/ LOCAL, STATE & FEDERAL REGULATIONS.
- 8. CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) RESPONSIBLE FOR THE WEEKLY & REQUIRED INSPECTIONS. A REPORTING SYSTEM ENTAILING THE ITEMS TO BE INSPECTED & THEIR CONDITION SHOULD BE DOCUMENTED & PLACED IN A DEDICATED FILING SYSTEM THAT WILL REMAIN ON THE PROJECT SITE, ACCESSIBLE TO THE CONSTRUCTION TEAM & TO THE F.D.E.P. INSPECTORS.
- 9. INSPECTIONS: CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER AFTER EACH RAINFALL GREATER THAN 0.5 INCH. A RAIN GAUGE WILL BE ON SITE TO MEASURE THE RAINFALL

EROSION CONTROL NOTES:

- . THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, & LOCAL CODES, ORDINANCES, & REGULATIONS GOVERNING POLLUTION OF THE ENVIRONMENT & SHALL IMPLEMENT ALL MEASURES NEEDED TO ENSURE ADEQUATE EROSION & SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES SHALL CONFORM TO CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. — ENVIRONMENTAL RESOURCE, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, & FLORIDA DEPARTMENT OF TRANSPORTATION REQUIREMENTS. INSTALLATION OF SILT FENCES & TURBIDITY BARRIERS SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS & STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.
- . EROSION & SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTATION OF SILT & SEDIMENTS OFF THE PROJECT SITE OR INTO ADJACENT WATER BODIES OR WETLANDS.
- 3. THE CONTRACTOR SHALL PREPARE & IMPLEMENT AN EROSION CONTROL PLAN AS PART OF THE SCOPE OF WORK COVERED BY THESE PLANS. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION & SEDIMENT TRANSPORT DURING CONSTRUCTION. THE FLORIDA DEVELOPMENT MANUAL "A GUIDE TO SOUND LAND & WATER MANAGEMENT" MAY BE USED AS REFERENCE FOR RECOMMENDED BEST MANAGEMENT PRACTICES RELATED TO EROSION & SEDIMENT CONTROL.
- 4. THE CONTRACTOR SHALL SUBMIT THE EROSION CONTROL PLAN TO THE OWNER FOR APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 5. ALL EROSION & SEDIMENT CONTROL MEASURES WHICH ARE NECESSARY TO LIMIT THE TRANSPORT OF SILTS & SEDIMENTS TO OUTSIDE THE LIMITS OF THE WORK AREA OR TO WATER BODIES OR WETLANDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE BEST MANAGEMENT PRACTICES & IMPLEMENT STRUCTURAL MEASURES AS NEEDED TO PREVENT EROSION & SEDIMENT TRANSPORT FROM THE WORK AREAS. THE FOLLOWING ARE MINIMUM RECOMMENDED GUIDELINES TO BE IMPLEMENTED DURING CONSTRUCTION AS PART OF THE EROSION & SEDIMENT CONTROL PLAN:

A. STOCKPILING OF MATERIAL

NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

B. EXPOSED AREA LIMITATION & PROTECTION

THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF OFF-SITE SEDIMENT TRANSPORT. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING EFFECTIVE EROSION & SEDIMENT CONTROL MEASURES SUCH AS SILT SCREENS, SYNTHETIC BALES, TURBIDITY BARRIERS, SWALES, OR A COMBINATION OF THESE & OTHER MEASURES AS WARRANTED.

C. INLET PROTECTION

INLETS & CATCH BASINS SHALL BE PROTECTED DURING CONSTRUCTION FROM SEDIMENT LADEN STORMWATER RUNOFF BY PROVIDING A COMBINATION OF SILT SCREENS, SYNTHETIC BALES, FILTER FABRIC COVERS OR OTHER MEASURES AS NECESSARY TO CONTROL THE TRANSPORT OF SEDIMENT.

D. TEMPORARY GRASSING

AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES. THE SEEDED OR SEEDED & MULCHED AREAS SHALL BE ROLLED & WATERED AS NEEDED TO ENSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. IF AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% OF GOOD GRASS COVER, THE AREAS WILL BE REWORKED & ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER. REWORKED & ADDITIONAL SEED APPLIED

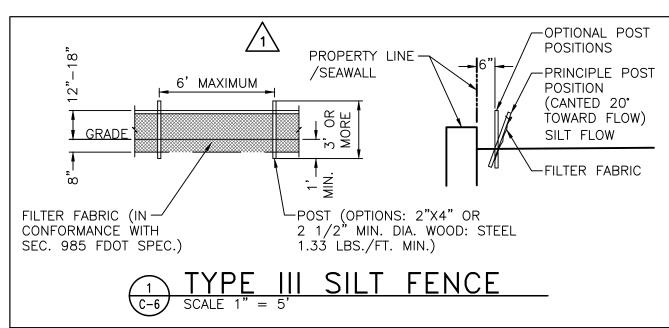
E. MAINTENANCE

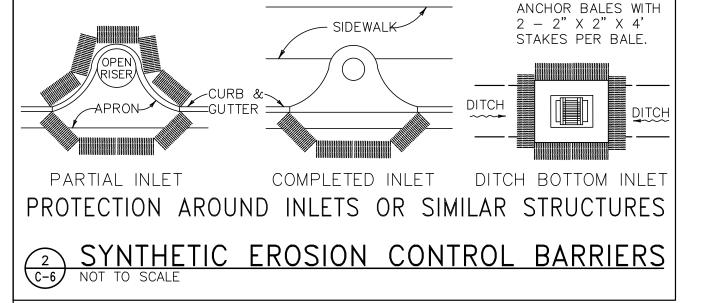
EROSION & SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE EROSION & CONTROL MEASURES ON A WEEKLY BASIS & 24 HOURS FOLLOWING RAINFALL EVENTS (0.5" OR GREATER) & IMMEDIATELY REPAIR ANY OBSERVED DAMAGED CONTROLS. ALL EROSION & SEDIMENT CONTROLS SHALL BE MAINTAINED AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

3. AREAS OF SOILS DISTURBANCE IS LIMITED TO THE AREA WITHIN THE SILT FENCE LIMITS AS SHOWN ON

7. ALL DISTURBED PERVIOUS AREAS WILL BE SODDED, UNLESS OTHERWISE NOTED.

8. NO WETLANDS & SURFACE WATERS EXIST WITHIN THE PROJECT AREA.





STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION: JULY 2013

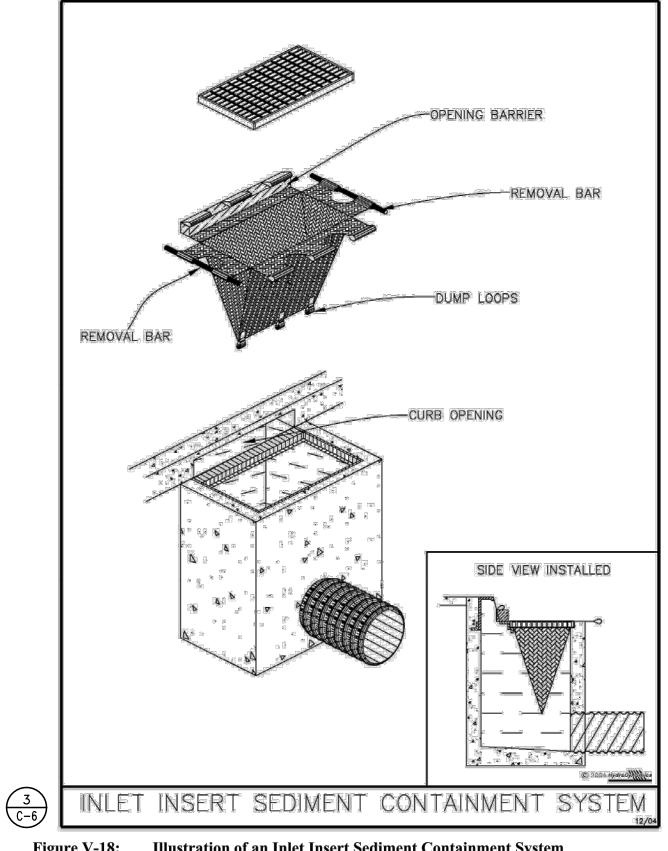


Illustration of an Inlet Insert Sediment Containment System Figure V-18:

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V-42

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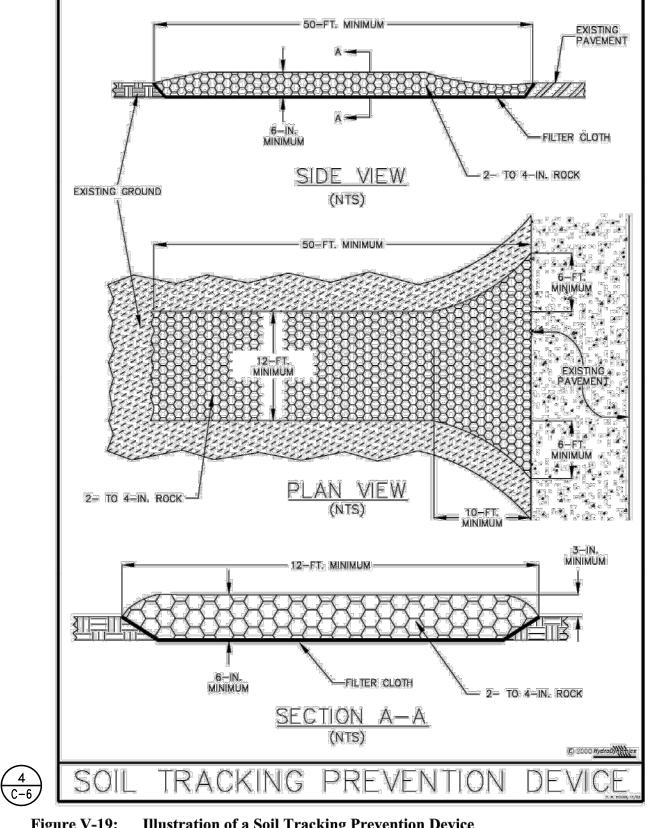


Figure V-19: Illustration of a Soil Tracking Prevention Device

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V-44

SOIL TRACKING PREVENTION

- 1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT THE LOCATION SHOWN ON THE PLANS. TRAFFIC FROM UNSTABILIZED AREAS OF CONSTRUCTION SHALL BE DIRECTED THRU THE STPD BARRIER. FLAGGING OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT & DIRECT VEHICULAR EGRESS ACROSS THE STPD.
- 2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED & APPROVED BY THE ENGINEER &/OR CITY OF NEW SMYRNA BEACH PRIOR TO ITS USE.
- 3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE & CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER &/OR CITY OF NEW SMYRNA BEACH
- 4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT & ARE UNSUITABLE.
- 5. THE STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE STPD SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT THE MUD TRACKED.

EROSION CONTROLS FOR NON STORMWATER DISCHARGES: A) WASTE DISPOSAL:

WASTE MATERIAL:

ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN A METAL DUMPSTER WHICH WILL BE MAINTAINED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY IN CITY OF NEW SMYRNA BEACH. THE DUMPSTER WILL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS OFTEN AS NECESSARY TO NOT CAUSE ON-SITE DISPOSAL OF WASTE. THE TRASH WILL BE HAULED TO A LANDFILL APPROVED BY CITY OF NEW SMYRNA BEACH. NO CONSTRUCTION WASTE WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

HAZARDOUS WASTE:

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR HAZARDOUS WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY LOCAL REGULATION.

B) OFFSITE VEHICLE TRACKING:

A GRAVEL CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

SPECIFIC NOTES

1. DEMOLITION LIMITS FOR SIDEWALKS, CURBS AND OTHER EXISTING IMPROVEMENTS ARE SHOWN BASED ON ENGINEER'S ESTIMATE OF WHAT IS NEEDED TO CONSTRUCT THE IMPROVEMENTS SHOWN. ANY DEMOLITION BEYOND THE LIMITS SHOWN DEEMED NECESSARY BY THE CONTRACTOR SHALL BE VERIFIED DURING THE BID PROCESS AND COORDINATED WITH OWNER AND LOCAL JURISDICTION. RESTORATION OF ALL AREAS IMPACTED BY THE CONSTRUCTION SHALL BE MADE AS PART OF THE BASE BID FOR THE PROJECT TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS.

DUST CONTROL & PREVENTION:

THE SURFACE AREA OF OPEN, RAW ERODIBLE SOILS EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF DUST

- PRODUCTION. IN ADDITION, 1. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING DUST CONTROL CONTROL MEASURES SUCH AS STABLIZING EXPOSED SOILS USING VEGETATION, MULCHING, SPRAY-ON ADHESIVES, CALCIUM CHLORIDE, WET SUPRESSION (WATERING) AND STONE/GRAVEL LAYERING AS APPLICABLE FOR THE PROJECT AND DEEMED NEECESSARY BY THE CONTRACTOR TO CONTROL DUST.
- 2. ONSITE VEHICLE TRAFFIC SHOULD BE LIMITED TO A MAXIMUM 15 MPH SPEED, AND THE NUMBER AND ACTIVITY OF VEHICLES SHOULD BE CONROLLED AT ANY GIVEN TIME.
- 3. A MOBLE UNIT SHOULD BE AVAILABLE TO APPLY WATER TO CONTROL DUST WHEN NEEDED.
- 4. COVERS SHALL BE PROVIDED FOR ALL HAUL TRUCKS TRASPORTING MATERIALS THAT CONTRIBTURE TO
- 5. IF CHEMICAL STABILIZATION METHOD IS USED, THE CHEMICALS SHOULD BE APPROVED FOR USE BY THE APPROPRIATE REGULATORY AGENCIES AND SHALL NOT CREATE ANY ADVERSE IMPACTS TO STORMWATER, PLANT LIFE, WATER BODIES, GROUNDWATER, OR FISH AND WILDLIFE.

NPDES NOTE

A NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NDPES) IS REQUIRED FOR THE PROJECT. UNLESS OBTAINED BY THE OWNER, THE CONTRACTOR SHALL APPLY AND OBTAIN A NOI NPDES PRIOR TO START OF CONSTRUCTION ACTIVITIES.

11/24/21	PER CITY COMMENTS	JWM	GRC	
11/12/2021	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
8/13/2021	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
3/19/2020	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC	4
9/26/2019	REVISED PER SJRWMD COMMENTS	CPN	GRC	42
8/19/2019	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
DATE	REVISIONS	BY	CHECKED	

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STORMWATER POLLUTION PREVENTION

PLAN (NOTES AND DETAILS) DESIGNED BY CHECKED BY APPROVED BY DRAWN BY GRC CPN CPN

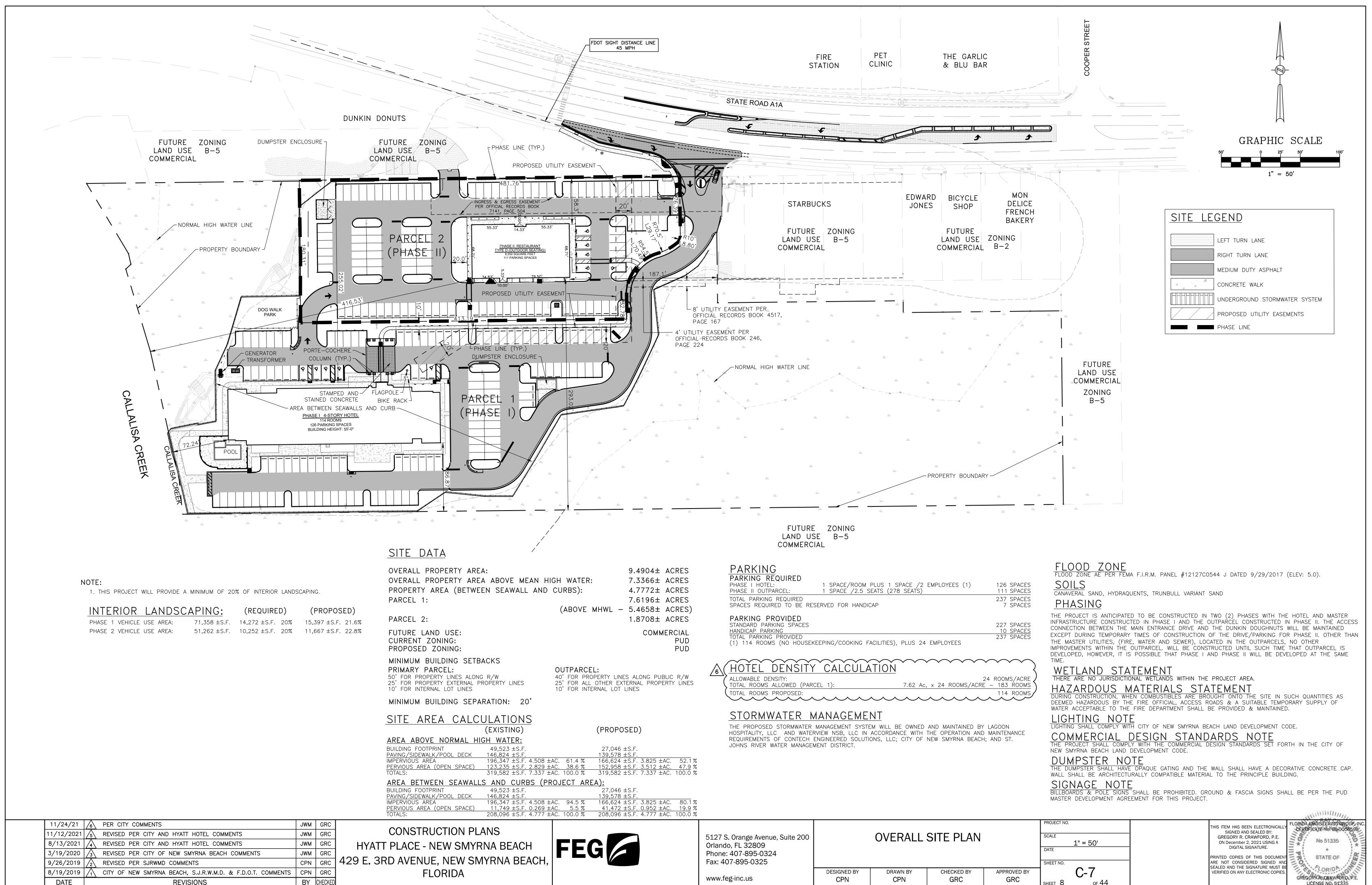
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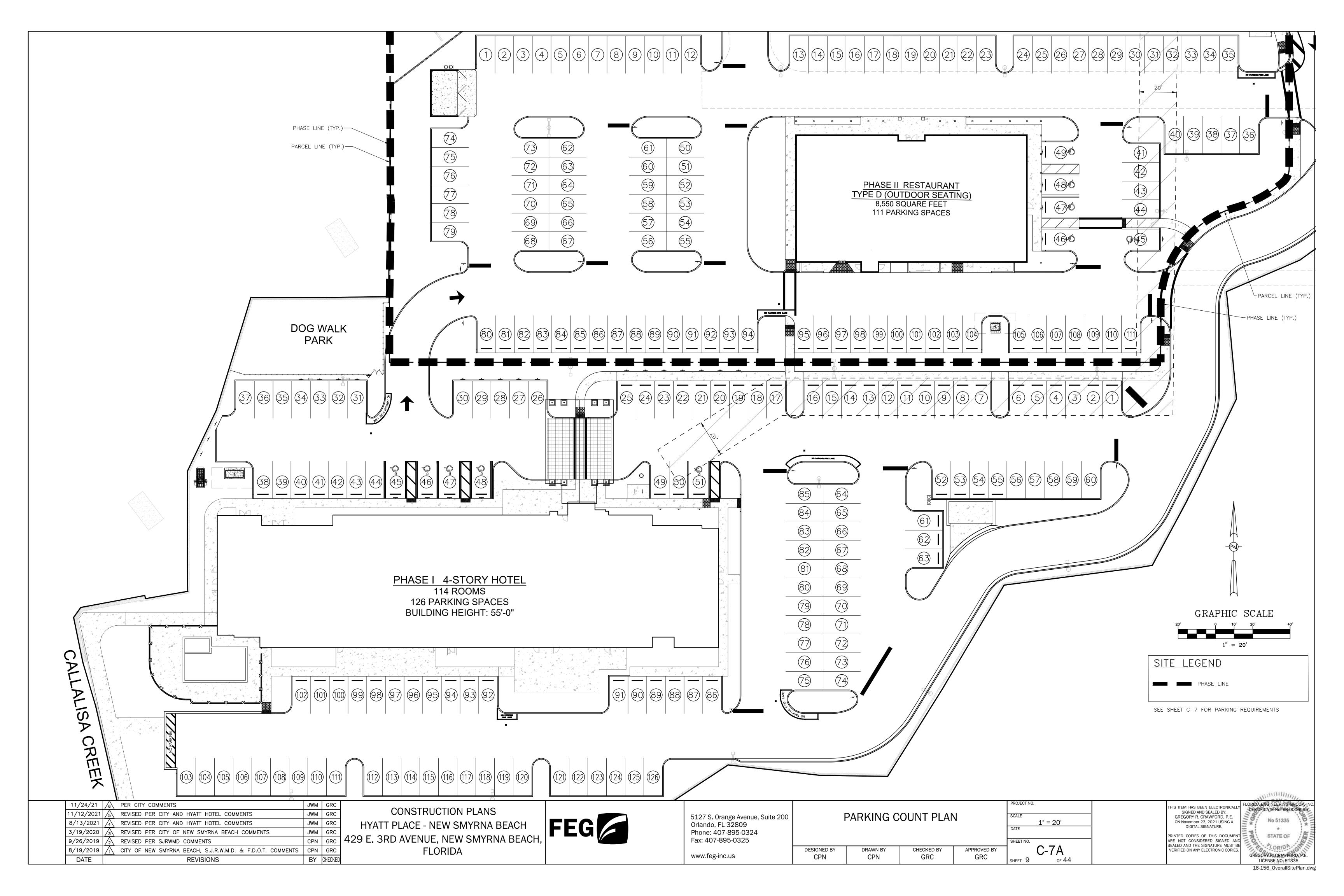
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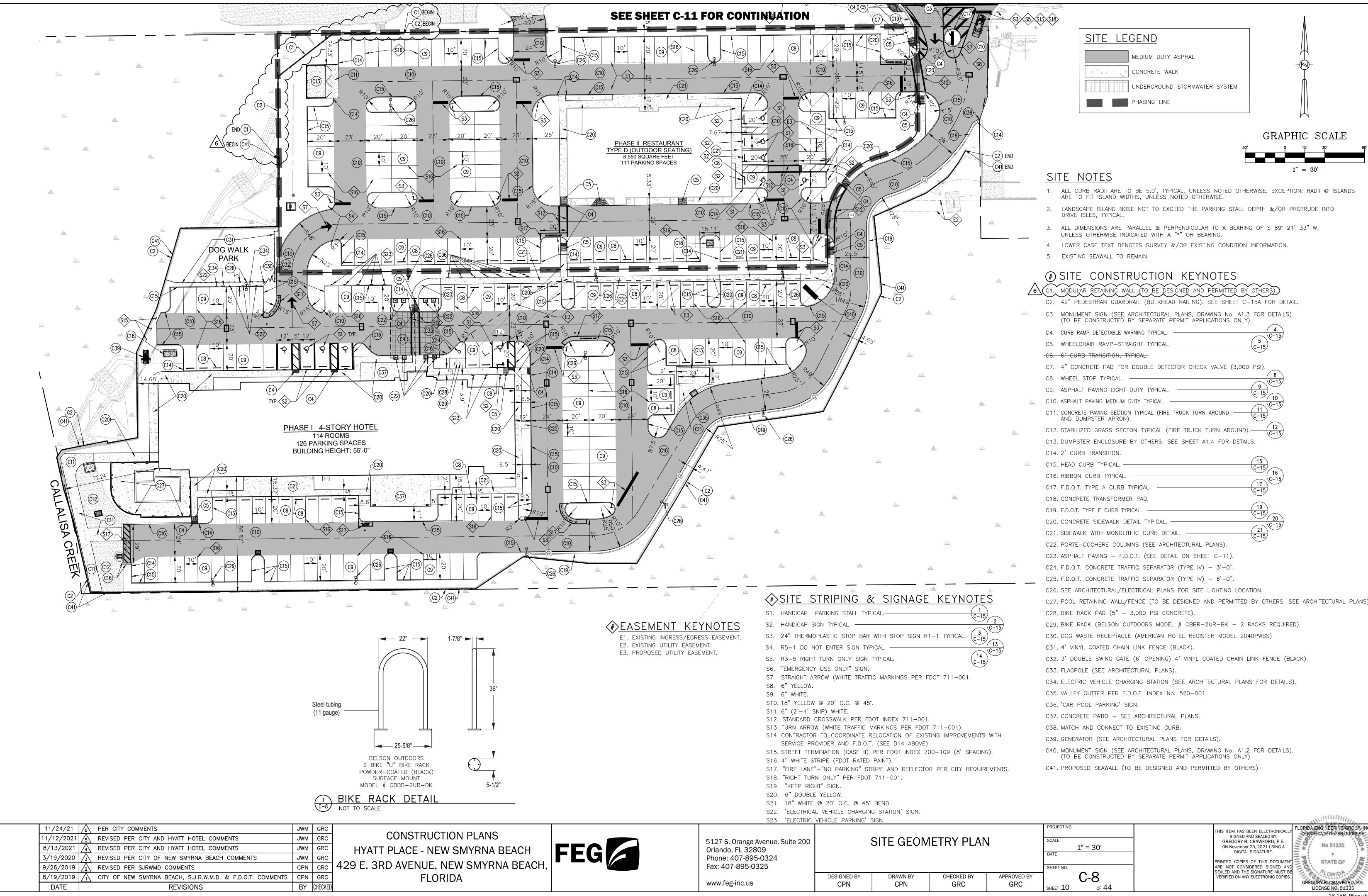
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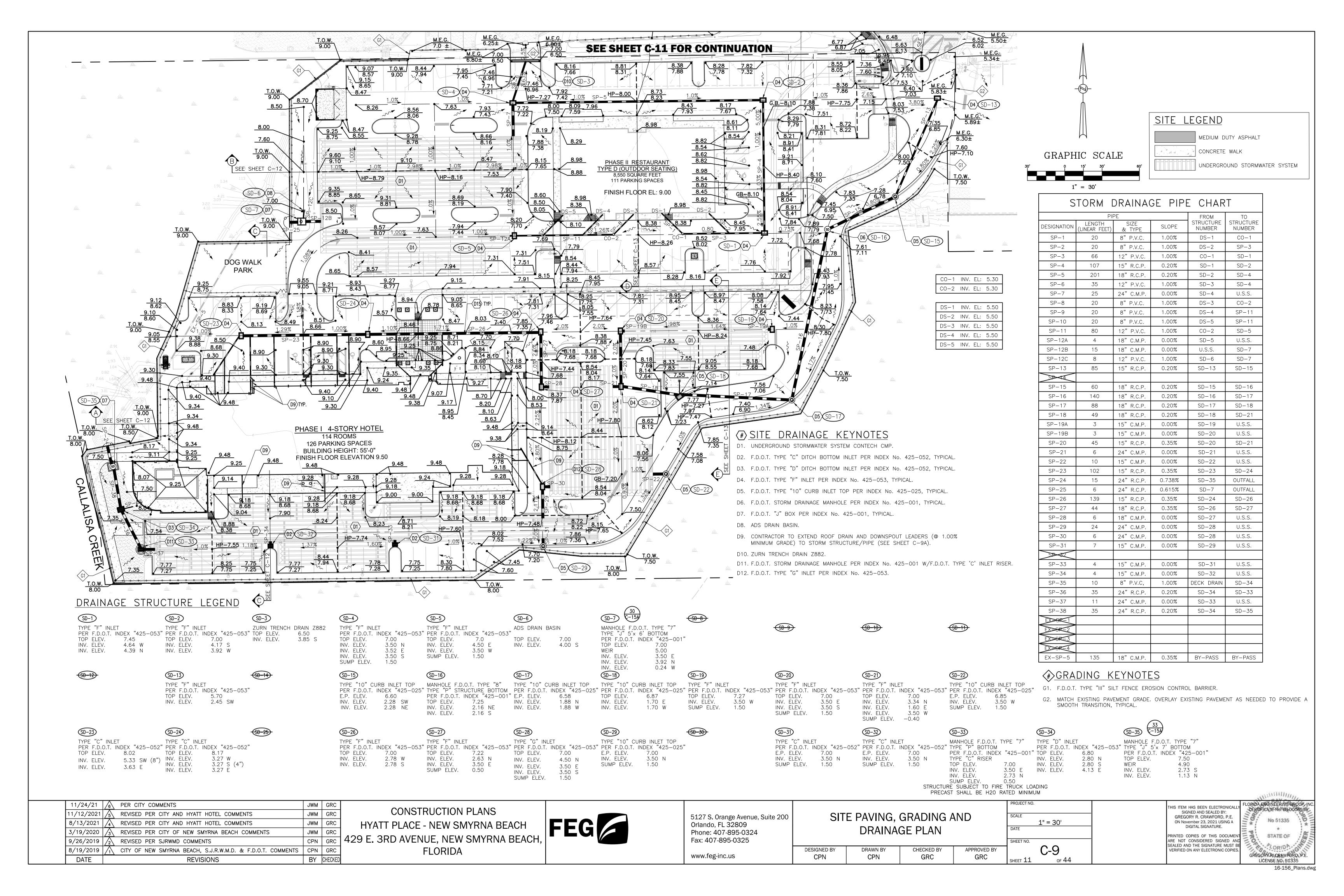




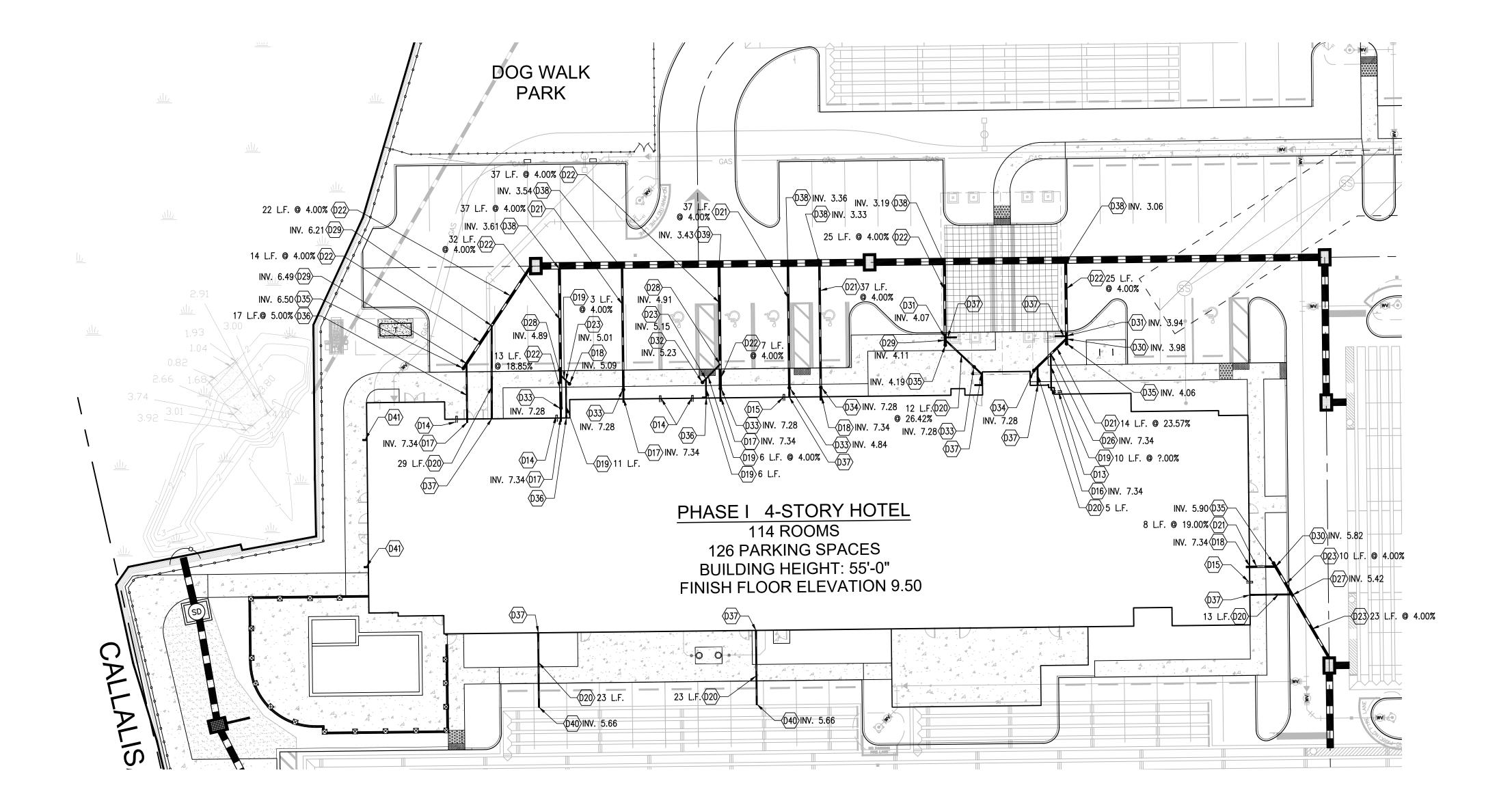
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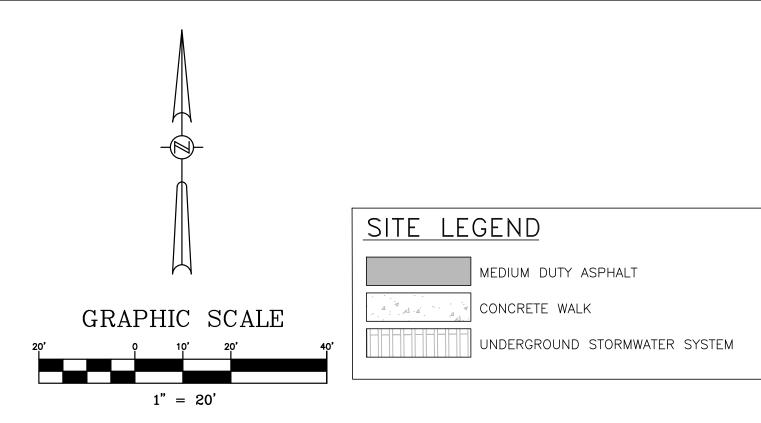






SEE SHEET C-11 FOR CONTINUATION





(#) SITE DRAINAGE KEYNOTES

D1. UNDERGROUND STORMWATER SYSTEM CONTECH CMP.

- D2. F.D.O.T. TYPE "C" DITCH BOTTOM INLET PER INDEX No. 425-052, TYPICAL.
- D3. F.D.O.T. TYPE "D" DITCH BOTTOM INLET PER INDEX No. 425-052, TYPICAL.
- D4. F.D.O.T. TYPE "F" INLET PER INDEX No. 425-053, TYPICAL.
- D5. F.D.O.T. TYPE "10" CURB INLET TOP PER INDEX No. 425-025, TYPICAL.
- D6. F.D.O.T. STORM DRAINAGE MANHOLE PER INDEX No. 425-001, TYPICAL.
- D7. F.D.O.T. "J" BOX PER INDEX No. 425-001, TYPICAL.
- D8. ADS DRAIN BASIN.
- D9. CONTRACTOR TO EXTEND ROOF DRAIN AND DOWNSPOUT LEADERS (@ 1.00% MINIMUM GRADE) TO STORM STRUCTURE/PIPE (SEE SHEET C-9A). D10. ZURN TRENCH DRAIN Z882.
- D11. F.D.O.T. STORM DRAINAGE MANHOLE PER INDEX No. 425-001 W/F.D.O.T. TYPE 'C' INLET RISER.
- D12. F.D.O.T. TYPE "G" INLET PER INDEX No. 425-053.
- D13. 3" ORD RELEASE TO ABOVE GROUND. D14. 4" ORD RELEASE TO ABOVE GROUND.
- D15. 6" ORD RELEASE TO ABOVE GROUND.
- D16. 3" ROOF DRAIN CONNECTION.
- D17. 4" ROOF DRAIN CONNECTION.
- D18. 6" ROOF DRAIN CONNECTION.
- D19. 3" PVC (SDR-26) @ 1.00% MINIMUM GRADE.
- D20. 4" PVC (SDR-26) @ 1.00% MINIMUM GRADE.
- D21. 6" PVC (SDR-26) @ 1.00% MINIMUM GRADE.
- D22. 8" PVC (SDR-26) @ 1.00% MINIMUM GRADE.
- D23. 3" WYE.
- D24. 3"x4" WYE.
- D25. 4" WYE.
- D26. 4"x6" WYE.
- D28. 8"x3" WYE. D29. 8"x4" WYE.
- D30. 8"x6" WYE.
- D31. 8"x4" TEE.
- D32. 3" ROOF DRAIN LEADER CLEANOUT.
- D33. 4" ROOF DRAIN LEADER CLEANOUT.
- D34. 6" ROOF DRAIN LEADER CLEANOUT.
- D35. 8" ROOF DRAIN LEADER CLEANOUT.
- D36. 3"x2" DOWNSPOUT CONNECTION. D37. 4"x3" DOWNSPOUT CONNECTION.
- D38. 15"x6" INSERTA-TEE CONNECTOR.
- D39. 15"x8" INSERTA-TEE CONNECTOR.
- D40. CONNECT TO UNDERGROUND STORM SYSTEM.
- D41. CONTRACTOR TO EXTEND DOWNSPOUT LEADERS TO STORM STRUCTURE/PIPE

THROUGH BUILDING (SEE ARCHITECTURAL PLANS, DRAWING NO. UG-001).

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11/12/2021	<u></u>	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
8/13/2021	4	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
3/19/2020	3	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC	
9/26/2019	2	REVISED PER SJRWMD COMMENTS	CPN	GRC	Z
8/19/2019	$\sqrt{1}$	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
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ROOF DRAIN PLAN	

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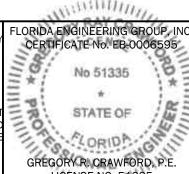
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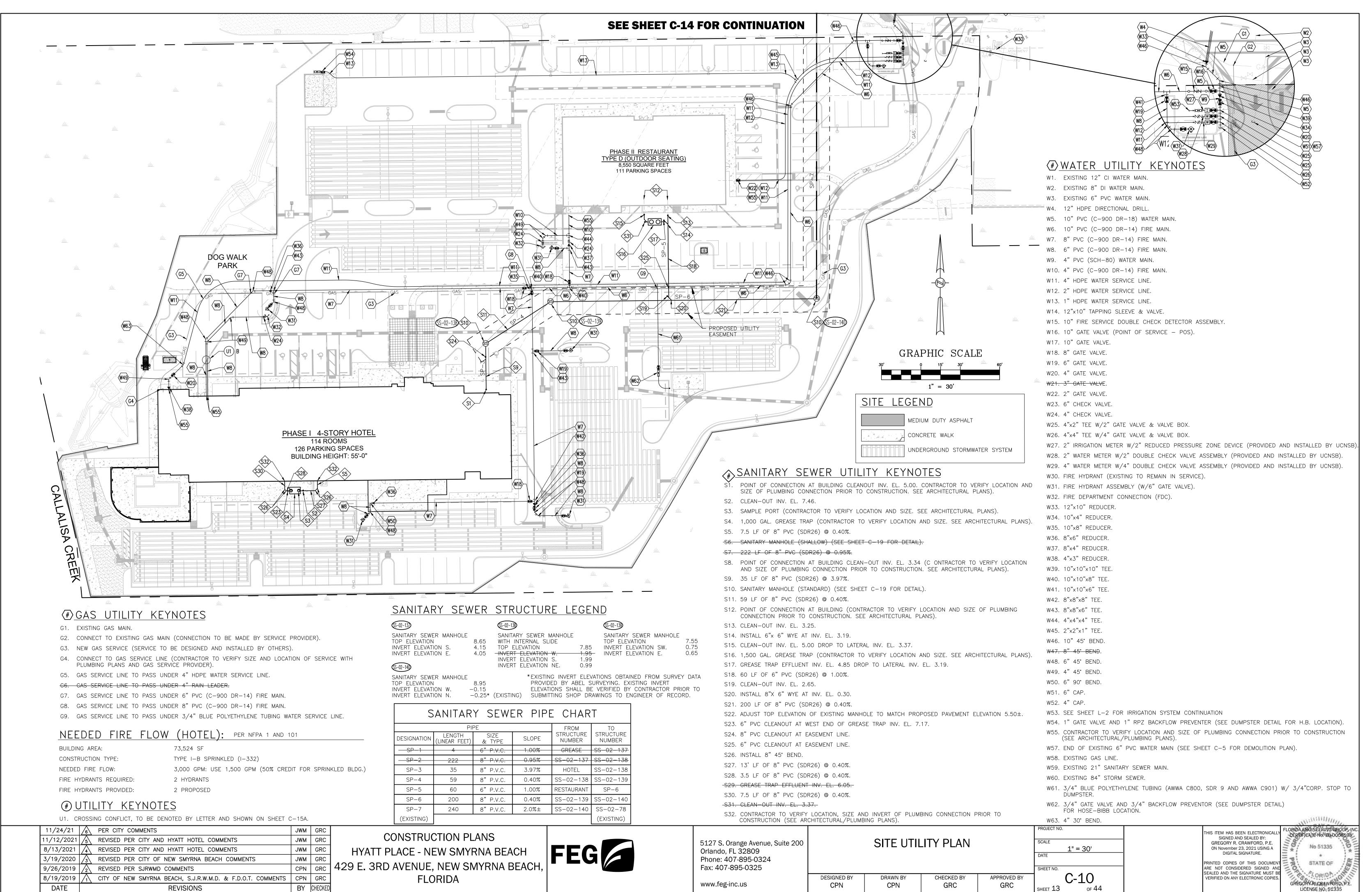
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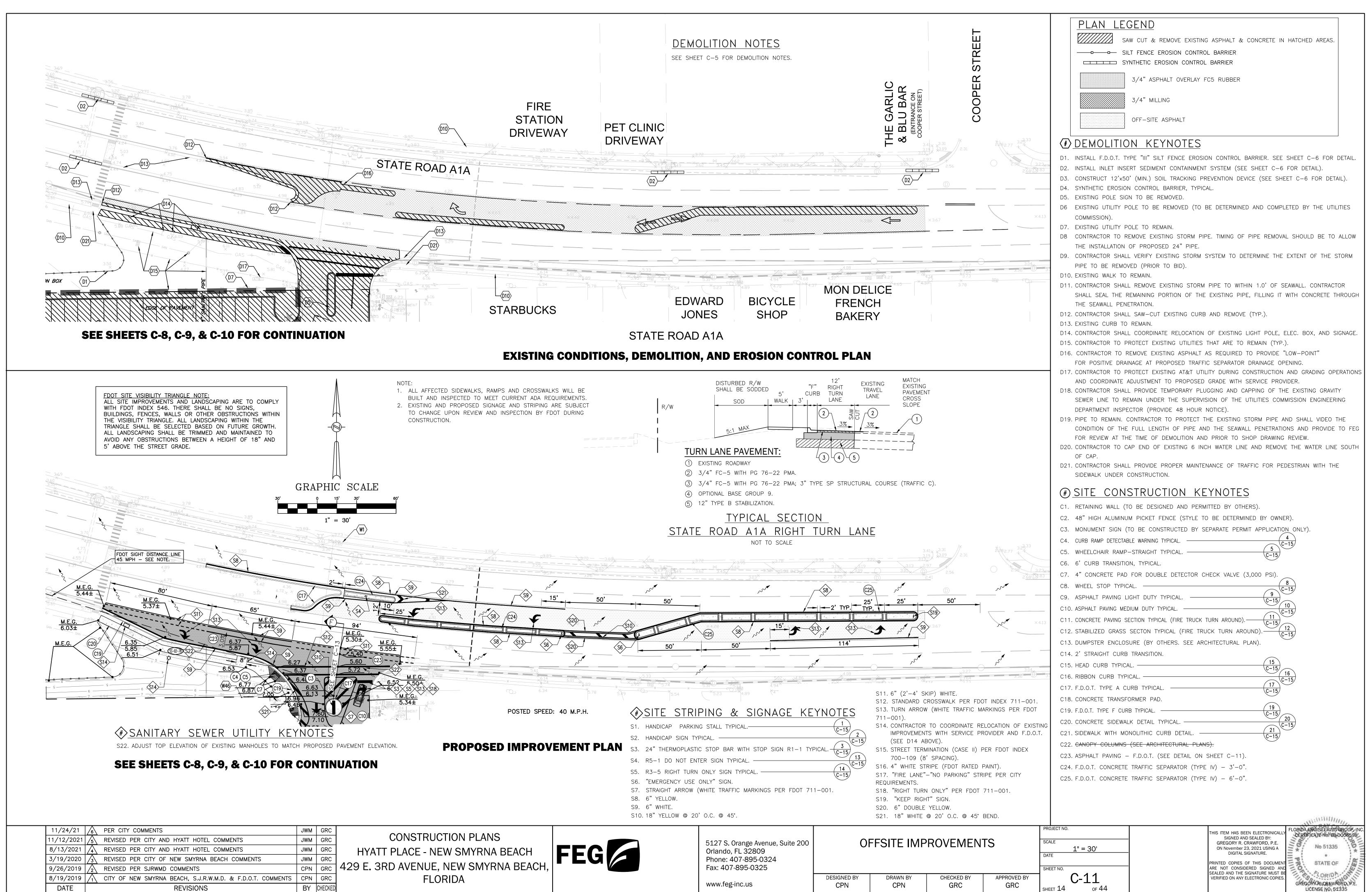
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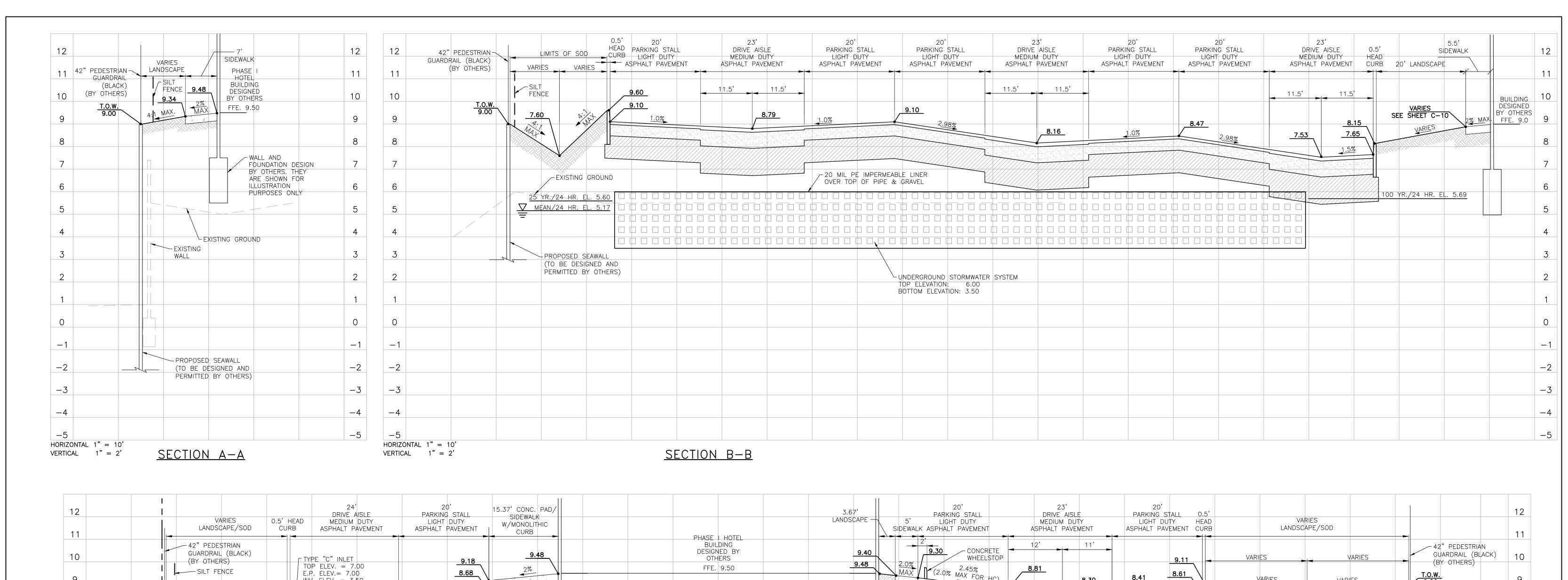
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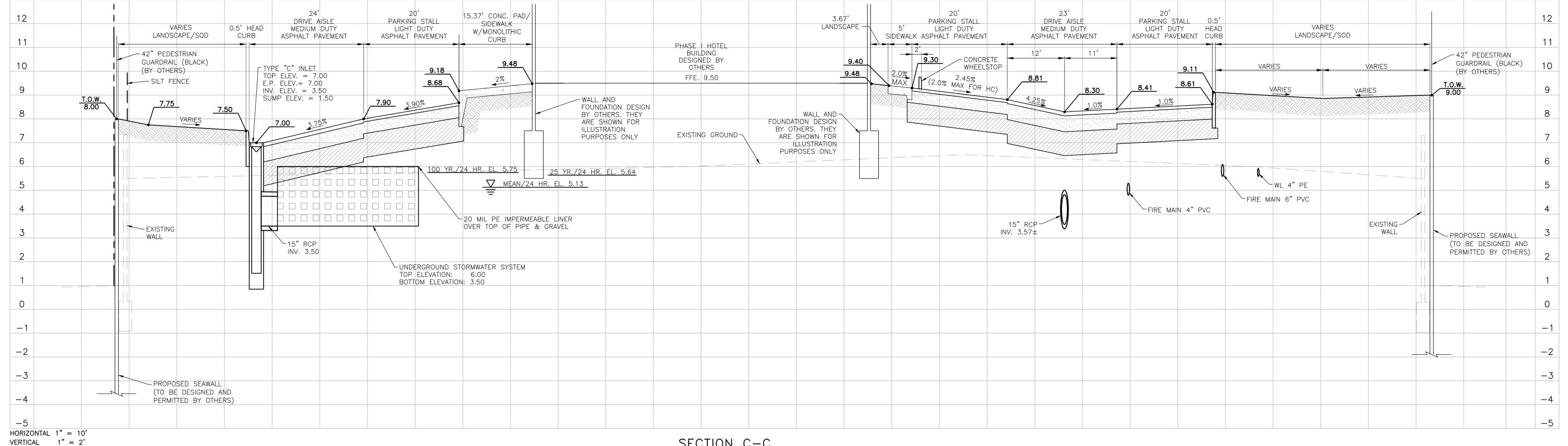


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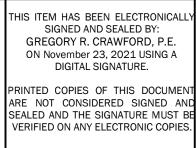
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3/19/2020	3	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC	_ ا
9/26/2019	2	REVISED PER SJRWMD COMMENTS	CPN	GRC] 4
8/19/2019	1	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
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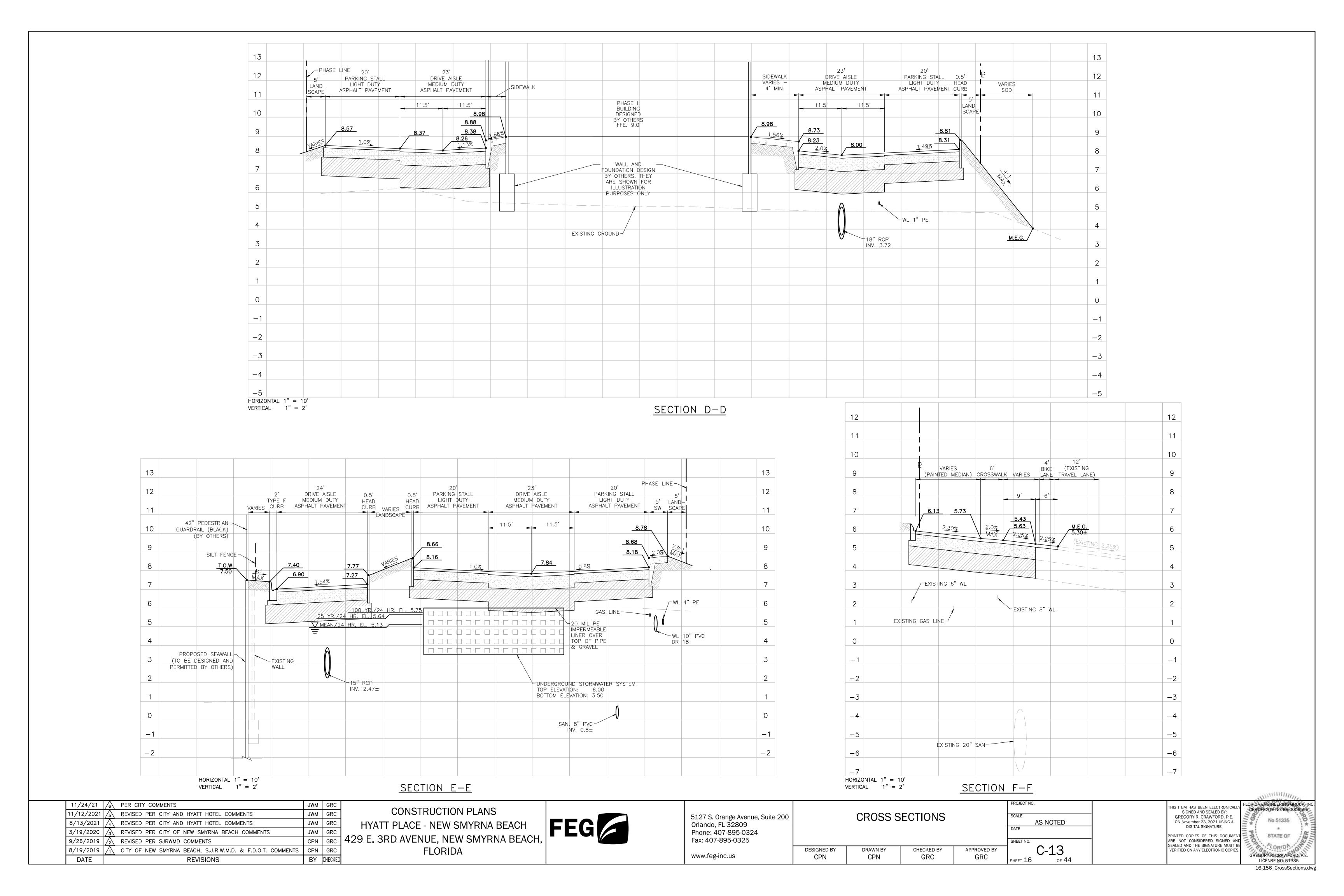
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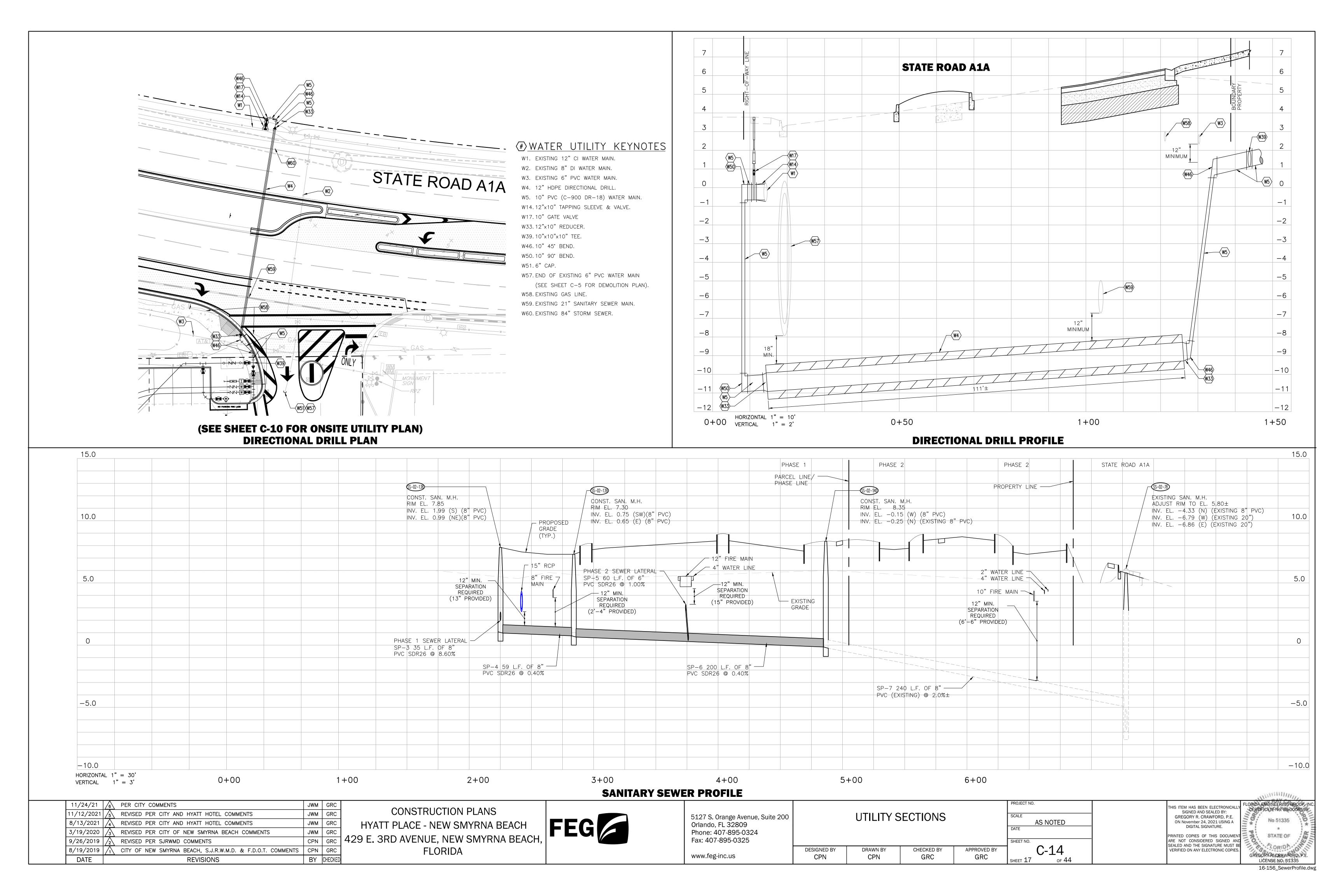
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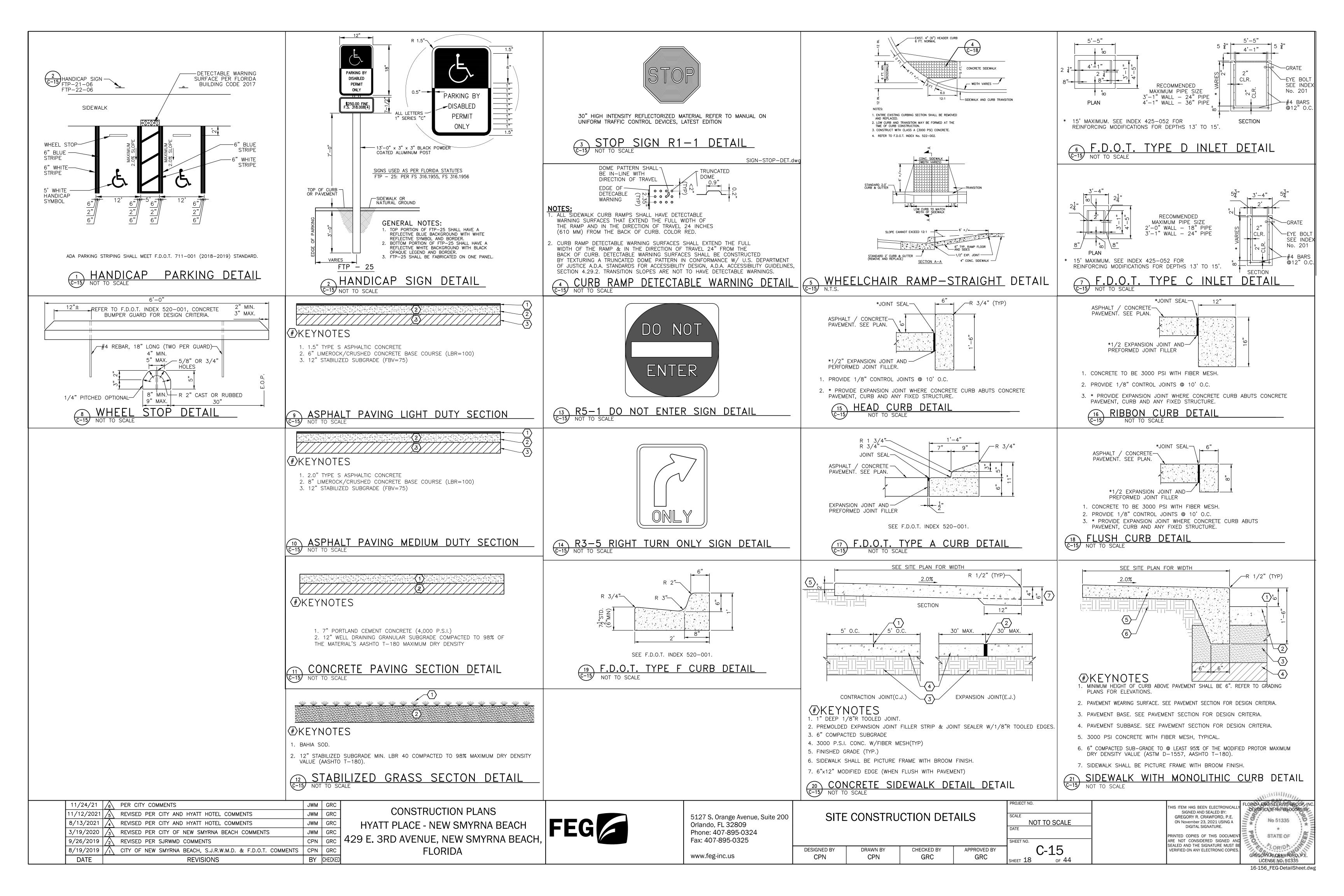


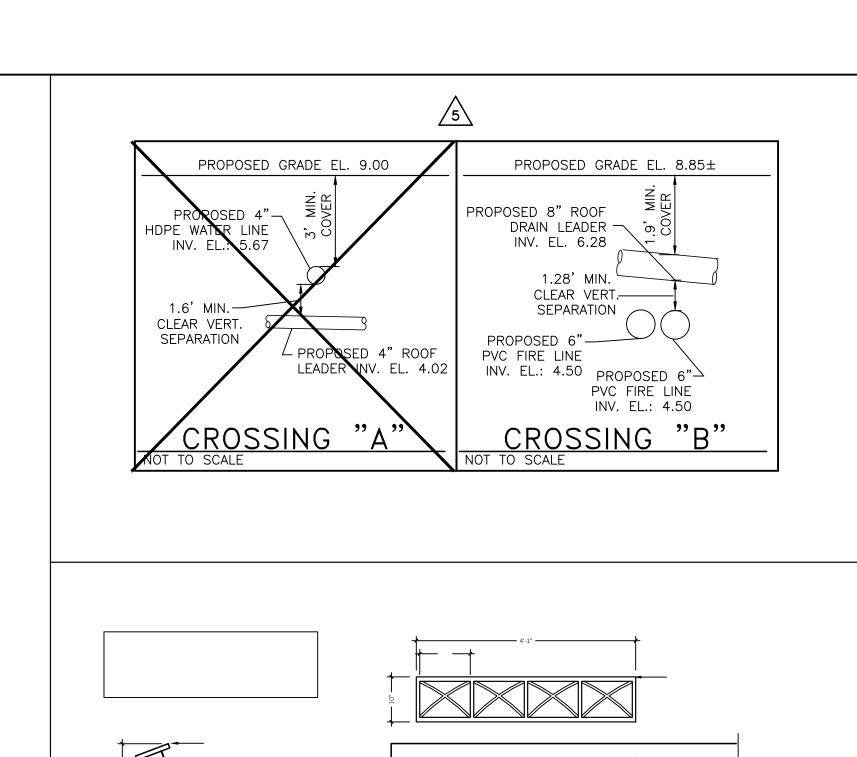


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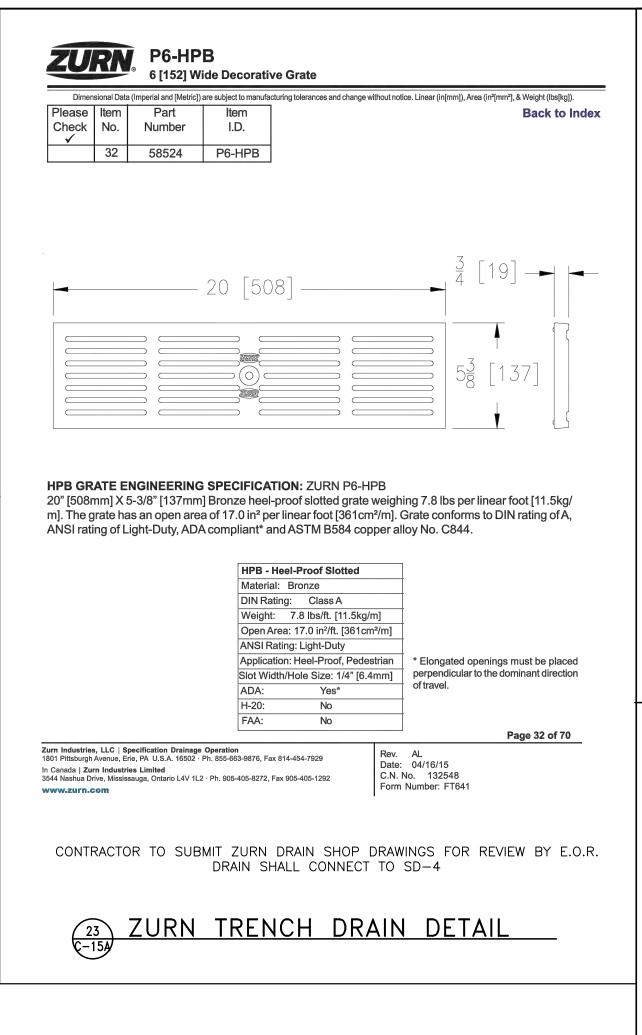


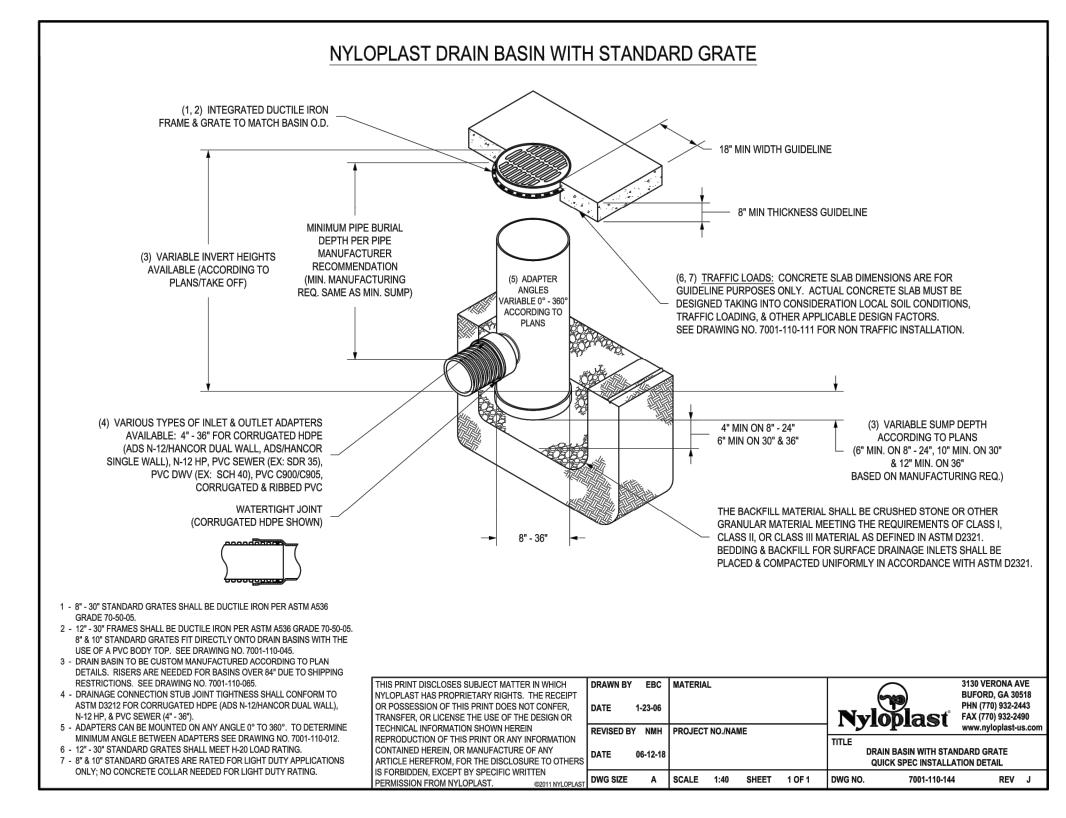




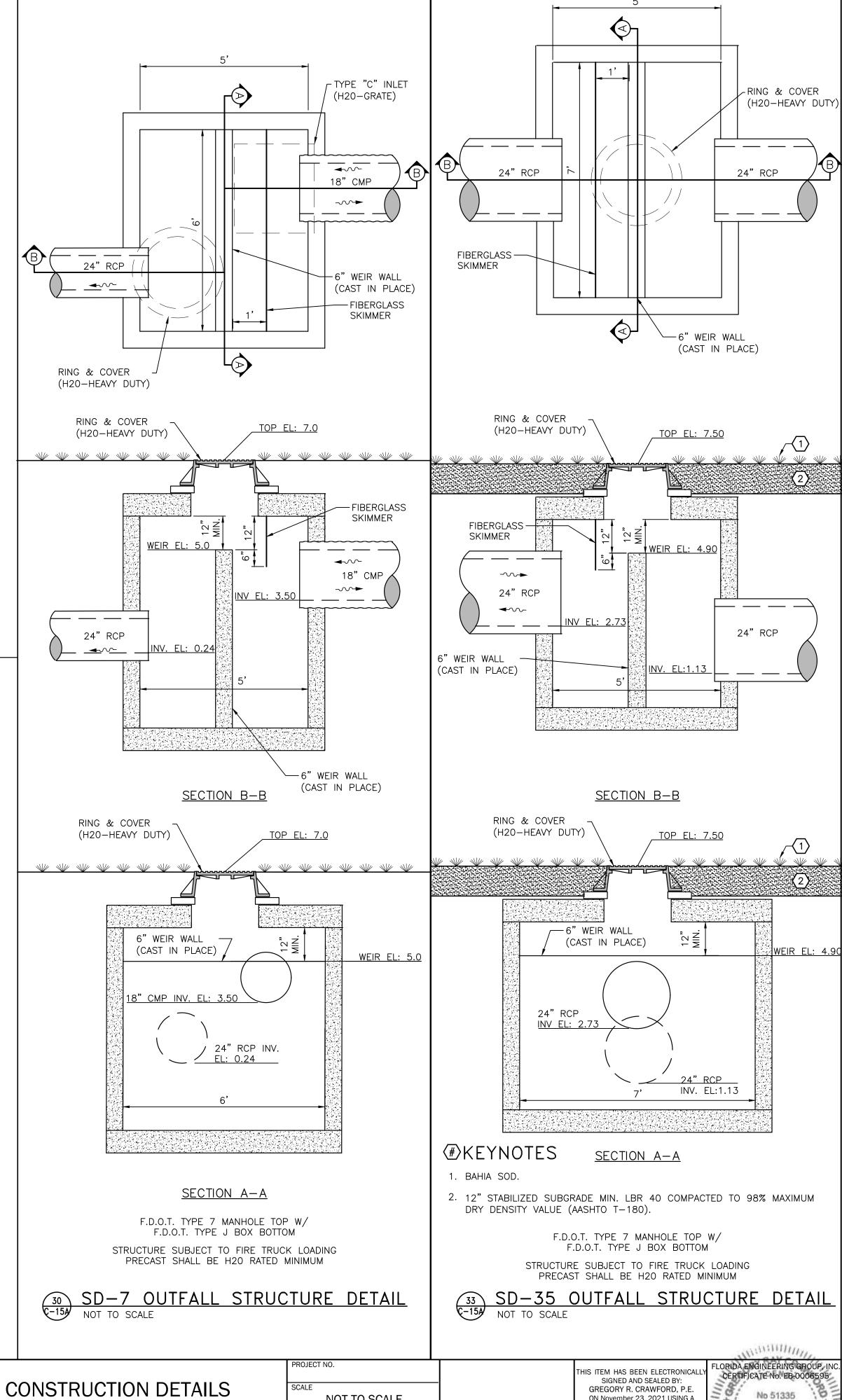
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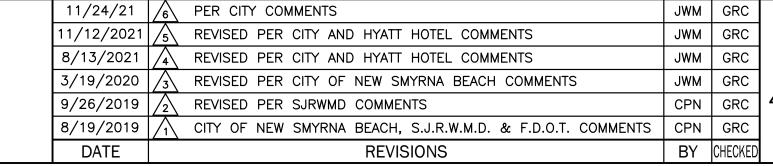
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22 AREA DRAIN DETAIL





CONSTRUCTION PLANS
HYATT PLACE - NEW SMYRNA BEACH
429 E. 3RD AVENUE, NEW SMYRNA BEACH,
FLORIDA



P-CO-DAY-01

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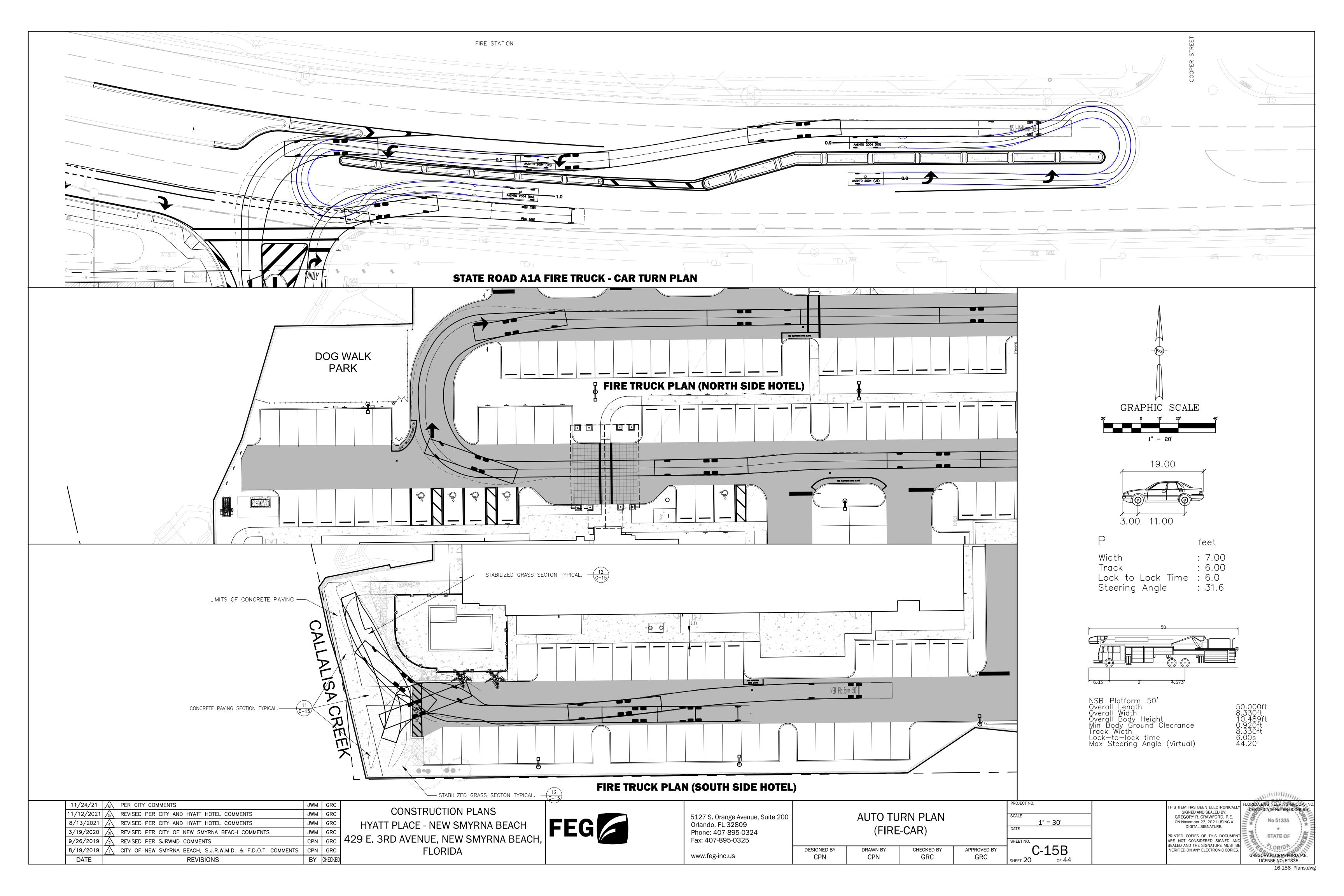
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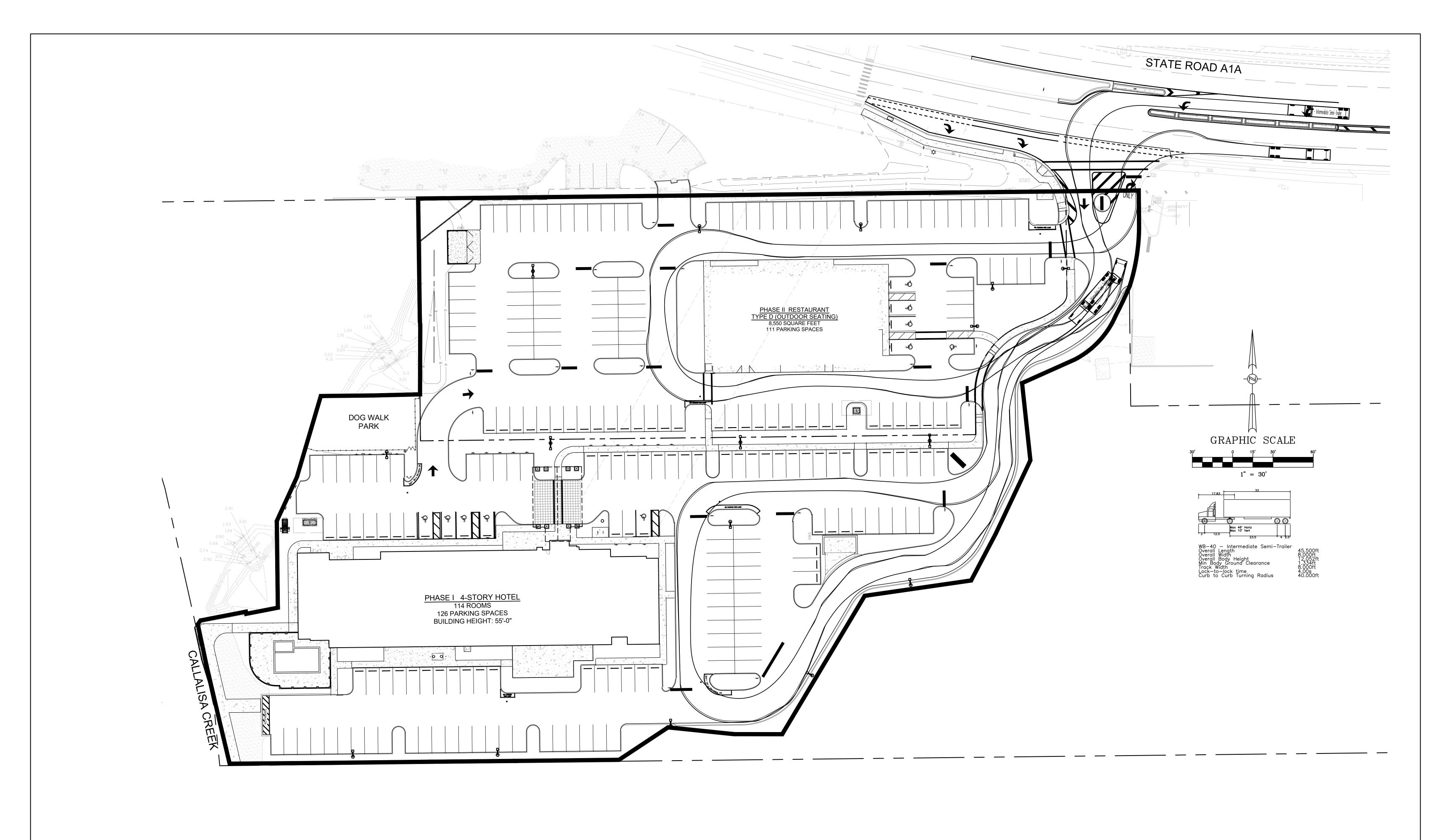
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STATE OF





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11/12/2021	5	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
8/13/2021	4	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
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9/26/2019	2	REVISED PER SJRWMD COMMENTS	CPN	GRC	4
8/19/2019	1	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
DATE		REVISIONS	BY	CHECKED	

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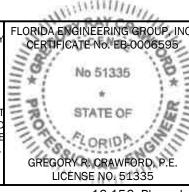
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1.01 Developers

Owners of commercial or residential developments are required to enter into a Developer's Agreement and Addendum with the UCNSB. Contact the UCNSB Engineering Department's New Business Specialist for further details and assistance The Developer's Agreement and Addendum is available for download on the UCNSB website under Engineering.

The UCNSB reserves the right to require a Memorandum of Understanding (MOU) if a Developer's Agreement and Addendum is not required to help delineate the esponsibility of each party.

Customer's premises.

more information.

The UCNSB purchases and installs meter sets and backflow preventers, including all appurtenances, for potable water and fire services provided a proper account is

The UCNSB ownership terminates at the back side of the meter set or backflow preventer and is not responsible for any potable water facilities beyond this point. Duly authorized agents of the UCNSB shall have access to UCNSB facilities on the

Water purchased from the UCNSB shall be used by the Customer only for the intention specified in the application for service and shall not be re-metered for the purpose of

Customers shall reference the UCNSB's Rates, Charges and Fees, current edition, for

SECTION 1 - GENERAL

Potable Water Rules, Design and Construction Specification

SECTION 3 - MATERIALS

All materials used in potable water facilities, or that come into contact with potable water

- Comply with the latest requirements of the Federal Safe Drinking Water Act; • Comply with NSF/ANSI Standard 61: Drinking Water System Components – Health
- Be adequately identified by the color blue; Be lead-free brass:
- Be marked with the manufacturer, batch number and strength designation; Conform to Ductile Iron Pipe Size (D.I.P.S.) Standards and • Have stainless steel nuts and bolts per ASTM F593, where applicable.

3.01 Pipe

A. Ductile Iron

Ductile iron pipe, including fittings and restraints, shall conform to ASTM A536 and AWWA C104, C110, C111, C115, C116, C153 and C600. Ductile iron pipe shall be Pressure Class 350.

B. Polyvinyl Chloride (PVC)

PVC pipe shall conform to ASTM D1784 and AWWA C900, C905 and C605 and shall have minimum dimension ratio (DR) 18. PVC pipe must be capable of connecting to standard ductile iron valves and fittings using mechanical joints.

C. High Density Polyethylene (HDPE) HDPE pipe shall have minimum standard dimension ratio (SDR) 11. HDPE shall match

D. Fusible PVC Fusible PVC may be used with UCNSB Engineering Department approval as shown in drawings approved by the Engineering Manager

E. Steel Black or Galvanized Steel (GS) pipe is prohibited.

SECTION 3 - MATERIAL

Potable Water Rules, Design and Construction Specification:

3.02 Fire Hydrants

Fire Hydrants shall conform to AWWA C503 and be manufactured by American Flow Control or Mueller Company. Fire hydrants shall be traffic breakaway type designed to break upon traffic impact to prevent further damage to the hydrant and piping and

- Fire hydrants shall have: 6" (minimum) ductile iron piping, gate valve and mechanical joint base;
- 5 ¼" barrel, one 4 ½" pumper nozzle and two 2 ½" hose nozzles (with caps and
- Operating nut opening in the counterclockwise direction with an arrow cast on the open direction; Closed weep hole and
- Stainless steel bolts on top and bottom flange (ASTM F593).

11/24/21

The valve type, size, rating, flow direction arrow and manufacturer shall be clearly marked on each unit, as applicable. Valves shall open in the counterclockwise directio with an arrow cast on the operating nut in the open direction. Hand wheels require UCNSB Engineering Department approval. Valve boxes shall be cast iron with a round cover labeled WATER.

A. Gate Valves

Gate valves shall be used for potable water mains 24" or less and conform to AWWA C509 and C515. Gate valves shall have a ductile iron body, non-rising stem type, resilient seat and shall be equipped with 2" square cast iron wrench nuts.

B. Butterfly Valves Butterfly valves shall be used for potable water mains 26" or larger and conform to AWWA C504. Valves shall be cast or ductile iron body, alloy cast iron or ductile iron disc, body mounted seat, one-piece stainless steel shaft (short or long body type) and the valve class, shaft size and other special requirements selected in accordance with the specific design. Valve operation shall be by approved gear actuators, with sealed required. Units shall be equipped with actuating nuts, cast iron hand-wheels or chain

SECTION 3 - MATERIALS

operators, with galvanized steel chains, as appropriate for the installation

Appurtenances shall be furnished by the valve manufacturer

PER CITY COMMENTS

${\it Potable\ Water\ Rules,\ Design\ and\ Construction\ Specifications}$

Air release valves shall be A.R.I. Flow Control Accessories D-040 2" Combination Air Valve, or approved equal.

D. Tapping Valves and Sleeves Tapping sleeves shall be full length, stainless steel, mechanical type, with test port, and

suitable for either wet or dry installation. Tapping valves shall be resilient seat gate

E. Blow Off Valves

Blow off valves shall be a 2" lock type valve (curb stop) and shall be installed in an 11" x 18" flared wall meter box with Tier 22 rating.

3.04 Services

Potable water services 1" or 2" shall be polyethylene (PE) tubing, PE4710 pressure pipe and conform to AWWA C901, ASTM D2737 & ASTM D2239. Service saddles shall be double banded with epoxy coated ductile iron body with stainless steel straps and bolts.

Curb stops shall conform to AWWA C800, be ball valve type and have padlock wing and

Corporation stops shall conform to AWWA C800 and be ball valve type with a

Potable water services 3" and larger and fire services shall conform to Sections 3.01 and

3.05 Vaults

See Section 2.04.

compression connections.

SECTION 3 - MATERIALS

Potable Water Rules, Design and Construction Specification

3.06 Casings

A. Ductile Iron

See Section 3.01

PVC casings for 1" or 2" potable water services shall be Schedule 40.

 $\ensuremath{\mathsf{PVC}}$ casings for water mains shall be DR 25, minimum.

C. HDPE

HDPE casings shall be DR 13.5, minimum.

D. Fusible PVC

Fusible PVC casings require UCNSB Engineering Department approval.

Steel shall conform to ASTM A139 Grade B and have a black protective bituminous coating, minimum of 5 mils thick, inside and out.

SECTION 3 - MATERIALS

Potable Water Rules, Design and Construction Specifications

SECTION 4 - CONSTRUCTION

Prior to construction: • A preconstruction meeting shall be scheduled by the Developer or Engineer of Record. In attendance shall be the UCNSB, the licensed Contractor, including all Sub-Contractors, the Developer and the Engineer of Record. Shop drawings shall be submitted to and approved by the UCNSB Engineering

Department. Shop drawings will not be accepted unless stamped with approval by the Engineer of Record and the Contractor A minimum notice of 48 hours shall be provided to the UCNSB Engineering Department Inspector.

 All permits, shop drawings and construction plans shall be retained by the Contractor on-site. Failure to produce such items on-site will result in work stoppage. The Contractor, under no circumstances, shall operate an existing UCNSB potable water

valve and/or allow flow into an existing potable water main without Final Acceptance and approval from the UCNSB Engineering Department. • The Contractor is responsible for all water used during construction and setting up an account to use a UCNSB construction meter. The Contractor will be responsible for the construction meter until returned to the UCNSB and the deposit is refunded. Use of a private meter is prohibited.

• The Contractor is responsible for all utility locates. 4.01 Installation

A. Potable Water Mains

Pipe shall remain free of dirt and foreign materials during construction. When work is stopped, for any reason, the Contractor shall securely seal the open ends of the pipe. Bell and spigot surfaces shall be wiped free of debris prior to applying lubricant sealer and jointed within 5 minutes of application. The spigot end shall be centered into the bell and properly seated by moderate force by hand or push bar with a cushion block.

Over-homed pipes will be rejected. It is recommended that human force be used to home bell and spigots for pipe sizes 12" or less. If mechanical equipment is used to home bell and spigot pipe, an insertion limiting device will be required at each joint to prevent over-homing, e.g., <u>EBBA Mega Stop Series 5000</u> or approved equal.

Concrete encasement at utility crossings must be approved by the UCNSB Engineering

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specifications

The Contractor shall install blue coated copper 14 gauge locate wire adhered to the top of all new pipe and appurtenances. The wire shall be bundled in each valve box to extend 2' above finished grade and 6' within vaults. A duplicate wire shall be installed on all pipe directionally drilled. Upon construction completion, the Contractor will be

The Contractor shall install detectable underground utility marking tape 18" below finished grade labeled CAUTION WATER MAIN BELOW The Contractor shall install blue valve markers, 3' above and 3' below finished grade,

Fittings and appurtenances must not bear on the pipe when installed and must be fully and independently supported on the trench bedding. The maximum deflection of pipes and fittings shall not exceed the manufacturer's recommendations. Fittings shall be installed in accordance with AWWA C600 and C605, along with the manufacturer's

The Contractor shall install electronic markers at each:

where required by the UCNSB Engineering Department

- Main connection; Fitting; In-line valve and
- Blow off valve assembly
- B. Fire Hydrants
- Fire hydrants shall be installed: With the pumper nozzle facing the street, access or fire lane;
- Restrained to the potable water main supplying it; With the manufacturer's bury/ground line visible; With the base flange 12" above finished grade maximum;

• With the pumper nozzle between 18" and 30" above sod and

• With 6" of FDOT #57 stone under the base and valve.

Valves shall be cleared of all foreign matter before installation and installed to prevent debris from becoming lodged in the seat. Valves shall be installed with stems vertically above the centerline of the pipe. Under each valve and at the pipe connection 6" of FDOT #57 stone shall be installed. Valves shall be inspected in the opened and closed

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specification

surface loads directly to either the pipe or valve. Valve box extensions shall be PVC SDR Valve boxes in paved areas shall be flush with finished grade. In unpaved areas, valve

Valve boxes shall be centered over the operating nut. Valve boxes shall not transmit

lids shall be 2" above finished grade and have precast concrete collars. Valve covers shall be painted blue. After Final Acceptance, terminal valves shall be

permanently closed with the cover painted red. D. Services 1" or 2" potable water services shall terminate with a curb stop stubbed 2' to 3' above

finished grade supported by a 6' long 4" diameter PVC pipe secured with cable tie straps, be marked with a ' $\!\Lambda'$ in curbs or at edge of pavement painted blue and be installed in a casing under roadways.

Vaults shall be installed plumb on 6" of FDOT #57 stone. Rings and covers in paved

areas shall be flush with finished grade. In unpaved areas, rings and covers shall be 4"

4.02 Delivery and Handling of Materials

Potable water services 3" and larger and fire services shall conform to Sections 3.01 and

See <u>Section 2.04</u> for supplemental information.

The UCNSB Engineering Department Inspector has the right to refuse any damaged or dropped materials. All materials shall be delivered and distributed at the site by the Contractor. All pipe, fittings, valves and appurtenances shall be loaded and unloaded by hoists or skidding so as to prevent shock or damage to the material. Under no circumstances shall material he dropped. Pine that is misshaped andor has lining/coating damage will be rejected. Concrete structures with holes or honeycombs

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specification: 4.03 Excavation and Trenching

Trenches shall be a depth which will provide cover from top of pipe to finished grade as shown on approved construction drawings. Excess excavated material, unsalvageable material, and debris shall be wasted and disposed of by the Contractor.

All excavated material retained for backfill shall be piled in such a manner as not to endanger the work or obstruct sidewalks, driveways or drainage. Fire hydrants, valve covers, vault hatches and other utility controls shall not be obstructed and shall remain accessible at all times during construction.

The Contractor shall exercise sound construction practices in excavating and maintaining the pipe trench to prevent damage to any foundation, structure, pole line, pipeline or other facility. If, as a result of the excavation, a foundation, structure, pole line, pipeline or other facility is endangered, the Contractor shall immediately take remedial action at his own expense. No act of the UCNSB shall in any way affect the liability of the Contractor for damages, expenses or costs that may result from trench

Sheet piling, shoring, sheeting, bracing or other supports required for construction shall be designed, furnished, placed, maintained and removed by the Contractor. Sheet piling and timbers used in trench excavations shall be withdrawn in such a manner so as to prevent subsequent settlement of the pipe or additional backfill loadings which might

All existing underground utilities, whether or not they are shown on the approved Construction Drawings or their locations are made known to the Contractor prior to excavation, shall be protected from damage and, if damaged, shall be repaired to equal the prior serviceability or replaced in kind at the Contractor's expense. The UCNSB does not assume responsibility for the correctness of the approved Construction Drawings. Repairs or replacements shall be made at the earliest practicable time and in no case shall the Contractor leave the job at the end of the day without making all such repairs or satisfactory arrangements for subsequent repairs.

Wherever excavation exposes unsuitable materials such as muck, the Contractor shall

remove and replace with suitable bedding and backfill material. Muck shall be removed full depth from trench limits. Trees, stumps and roots within the limits of the trench excavation shall be removed to a depth of at least 12" below the bottom of the trench Stump and root holes shall be refilled to existing grade and compacted. No stumps, roots, or organic matter of any description shall remain. Rock excavation shall be carried to a depth of at least 6" below the required pipe invert. Blasting is prohibited.

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specifications

No pipe or structures shall be installed in a wet trench. All bedding material must be dry and firm. The free water surface shall be lowered to at least 6" below the bedding surface before installing pipe or structures. The UCNSB Engineering Departmen Inspector's judgement shall be used to determine if the trench is acceptable, which includes requiring rock or stopping wor

The bottom of the trench shall be shaped to give sufficient uniform circumferential support to the lower one-fourth of each pipe. In addition, bell holes shall be excavated so that after placement only the barrel of the pipe receives bearing pressure from, and is uniformly supported by, the bottom of the trench.

The use of horizontal struts below the barrel of the pipe or the use of the pipe as support for trench bracing will not be permitted. In pipeline construction the use of the soldier pile and horizontal lagging method of support or the use of a traveling shield shall require UCNSB Engineering Department approval.

4.04 Backfill

All backfill and bedding material shall be in accordance with ASTM D422 and shall meet UCNSB Engineering Department approval. Bedding material in areas above the natural ground water table shall be fine sand or shell, or a mixture of both. Bedding material in areas where trench bottom is below natural ground water table shall be FDOT #57

Backfill material from trench bottom to 12" above top of pipe shall be select granular material free of organic matter. Backfill material from 12" above top of pipe to finished grade shall be common fill material free of organic matter. Backfill material shall not be btained from the trench walls.

After the pipe has been properly laid and inspected, backfill material shall be compacted in 12" lifts to prevent settlement. The Contractor shall achieve the specified maximum dry density/optimum moisture content per the approved Construction Drawings. The Contractor shall submit all field density tests to the UCNSB Engineering Department prior to final acceptance. Any depression that forms adjacent to or within the trencl line will be rejected.

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specification

The Contractor shall furnish, install and operate all necessary machinery, appliances, and equipment to keep excavations free from water during construction and shall dewater and dispose of the water so as not to cause injury to public or private property or to cause a nuisance or a menace to the public. The Contractor shall at all times have on hand sufficient pumping equipment and machinery in good working condition for

The control of groundwater shall be such that softening of the bottom of the excavations or formation of quick conditions or boils shall be prevented. Dewatering systems shall be designed and operated so as to prevent the removal of the natural soils. The static water level shall be drawn down below the bottom of the excavation so as to maintain the undisturbed state of the natural soils and allow the placement of

The UCNSB Engineering Department will not accept pipe that floats due to lack of groundwater control and shall require the Contractor to reinstall any pipe that is

4.06 Maintenance of Traffic (MOT)

backfill to the required density.

MOT must follow the Manual on Uniform Traffic Control Devices (MUTCD), the FDOT Design Standards (current edition) and all applicable Right-of-Way Use Permit

4.07 Restoration

Road surfaces, curb and gutter, driveways, sidewalks, parking locations and any other type of surface materials that require removal for the purpose of installation of underground utilities shall be replaced as soon as practicable after compaction of the backfill and in accordance with City. County or Florida Department of Transportation standards or as indicated on the respective permit. These surface materials shall be separated from other excavated materials and will not be permitted to be included in the backfill but shall be satisfactorily disposed of by the Contractor. Surface material to be removed shall be cut, if necessary, vertically with a power-driven friction saw prior to

Under no condition shall pavement be cut with a trenching machine, power shovel or backhoe. The width of cut of the pavement or sidewalk shall be the width of the trench

SECTION 4 - CONSTRUCTION

removal. The surface shall be scored in sufficient depth to provide uniform straight

Potable Water Rules, Design and Construction Specification

plus one-half the trench width, or a minimum of 2' on either side. In the event that the trench excavation becomes wider than the initial cut, the pavement or sidewalk shall be re-cut to at least 2' back from all edges of the actual excavation by the Contractor at his own expense. Utility crossing and installations along state highways shall be made in full compliance with Florida Department of Transportation (FDOT) require

The Contractor shall sod or seed and mulch the disturbed work area per the approved

Construction Drawings and shall protect road shoulders, ditch banks, and other natural or artificial slopes subject to rapid erosion.

The Contractor is responsible to present a clean work area to the UCNSB Engineering Department Inspector prior to Final Acceptance

4.08 Boring Methods

The Contractor shall manage and control all drilling practices to prevent damage to existing utilities. The Contractor shall make a diligent effort to locate evidence of any other potential subsurface obstructions, e.g. piles. Subsidence and heave within the construction limits of the project shall be limited to values that avoid damage. The Contractor shall be responsible for all damage and repairs as a result of drilling

The Contractor shall be responsible for all underground utility locates via soft digs prior

Bore logs shall be provided to the UCNSB Engineering Department in 10-foot segments. During construction, any deviations greater than 5' in any direction shall immediately be reported to the UCNSB Engineering Department. Pipe testing shall follow the requirements of these Specifications.

The casing pipe shall have the nominal diameter and wall thickness as shown on the

approved Construction Drawings. Field and shop welds of the casing pipes shall conform to the American Welding Society standard specifications. Field welds shall be complete penetration, single-vee groove or

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specifications

The carrier pipe shall be ductile iron pipe per these Specifications. Carrier pipes to be

The casing shall be jacked in one continuous operation at the locations specified. In no event shall jacking be discontinued for sufficient period to cause the partially jacked sleeve to freeze in place. Proper alignment and elevation of the sleeve shall be consistently maintained throughout the jacking operation.

Jacking pits shall be shored with sheeting or other such materials as required. Sheeting shall be driven to a sufficient depth below the invert of the casing to resist any pressure developed by the soil outside the jacking pit. Sheeting shall terminate not less than 3.5' above existing grade. At the completion of the jacking operations, the Contractor will be required to leave all sheeting in place; however, the top of the sheeting shall be cut off 30" below finished grade upon completion of the jack and bore.

The Contractor shall be responsible for preventing the occurrence of voids outside the casing and if they do occur, the Contractor may be directed to fill them with grout in a method approved by the UCNSB Engineering Department. The Contractor shall constantly exercise care in the removal of the earth from within the sleeve sufficiently close to the forward end to prevent voids.

The Contractor shall be responsible for removing any type of material or equipment used for backing up the jack.

The carrier pipe shall be supported by spacers as shown on the approved construction

A masonry bulkhead 8" wide shall be placed in the ends of the casing.

drawings and per manufacturer's recommendation B. Directional Drilling

Prior to drilling, the Contractor shall utilize all verified locate information to determine

The entry and exit point shall be within 5' of the location shown on the approved diameter, the pipe shall be pulled with a swivel and reamer in front of the pipe to compact the bore hole walls. The pullback section of the pipe shall be supported during pullback operations so that it

moves freely and does not damage the pipe. The Contractor shall cease operations if the pipe is damaged and shall remove the pipe from the bore hole and repair the pipe resuming installation.

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specification

Any asbestos-cement pipe identified shall be reported to the UCNSB Engineering

Department Inspector immediatel

A Contractor that disturbs, maintains, repairs or demolishes shall comply with: Environmental Protection Agency's (EPA) 40 CFR Part 61, Subpart M and 40 CFR

• Florida Administrative Code (FAC) 62-257 Occupational Safety and Health Administration (OSHA) Standard 1910.1001 and 1926.1101

The following are UCNSB guidelines for asbestos-cement pipe disposal: 1) Notify the UCNSB Engineering Project Manager: a. Location of job site.

b. Pipe size. c. Proposed operation. 2) File a FDEP <u>Notice of Demolition or Asbestos Renovation</u> form. Mark area to minimize the number of persons exposed

4) Post warning signs demarcating the area that reads "DANGER - ASBESTOS -CANCER AND LUNG DISEASE HAZARD". Put on personal protective equipment such as coveralls, gloves, eye wear, etc.

6) Put on face mask or respirator. Adequately wet pipe during and after removal operation. 8) Use equipment least likely to cause pipe to crumble and/or fray, such as snap cutters, carbide-tipped blade cutters or wheel-type cutters. See 12b.

d. Replace pipe using compression, coupling, sleeve or repair clamp.

9) Remove entire section of pipe: Wet coupling. b. Cover pipe with drop cloth. Use hammer, chisel and pry bar to break coupling.

10) Contain all waste: a. Wrap in 6 mil plastic bags or polyethylene sheets. b. Large pieces shall be double wrapped Duct tape all open seams and edges.

d. Label waste with "DANGER ASBESTOS-CONTAINING MATERIAL". 1) Transport waste in approved, closed truck. 12) At no time shall asbestos-containing material:

 a. Be disturbed in any way when dry. b. Cut with a chain or circular saw, grinder, jack hammer, drills, etc. c. Crushed in place. 13) UCNSB will have a continuing contract arrangement for asbestos handling, transport and disposal.

SECTION 4 - CONSTRUCTION

Potable Water Rules, Design and Construction Specification

SECTION 5 - TESTING The Contractor shall perform all tests on newly constructed pipe and appurtenances in the presence of the UCNSB Engineering Department Inspector, including a locate wire continuity

All required tests shall be satisfactorily completed prior to Final Acceptance. All labor, equipment and materials required to complete tests shall be furnished by the Contractor and approved by the UCNSB Engineering Department Inspector. Testing shall not proceed until new construction is complete, including adequate cover (pipe in

paved areas will require base material) and pipe is thoroughly cleaned of all foreign matter.

repair or replacement shall be at the Contractor's expense. All temporary connections, approved by the UCNSB Engineering Department, necessary to test pipe and appurtenances shall be installed by the Contractor.

New construction and existing facilities shall not be interconnected until Final Acceptance. The

 ${\bf Contractor}\ is\ responsible\ for\ plugging/capping\ pipe\ and\ appurtenances,\ where\ necessary.$

Cracked or defective pipes, fittings or valves, leaks, bellies, etc. will not be accepted and the

Potable water pipe and appurtenances shall be thoroughly flushed to remove all sand, debris, and other foreign material which may be in the pipe. Flushing shall continue

until clean, clear water flows from a hydrant, blow off or curb stop. The Engineer of Record shall submit a plan for flushing to obtain 2.5 feet per second to the UCNSB Engineering Department for review and approval.

Flushing water shall be discharged in a manner that will not cause erosion or structural damage on-site or off site, nor cause pollution as determined by State Water Quality Standards in receiving surface waters. The Contractor shall provide adequate extension pipe, sedimentation basins and/or diffusion devices necessary to prevent such damage

SECTION 5 - TESTING

Potable Water Rules, Design and Construction Specifications

5.02 Pressure Test

Unless otherwise specified, the allowable leakage rate shall not exceed that required by AWWA Standard C600 or C605, calculated by the following equation:

Pipe shall be hydrostatically leak (pressure) tested at 150 psi for a minimum duration of

 $L = (S \times D \times P1/2) \div 148,000$

D = Nominal diameter of the pipe in inches P = Average test pressure in pounds per square inch (psi) Not more than 1,000' of pipe, or as directed by the UCNSB Engineering Department

L = Allowable leakage rate in gallon per hour (gph)

S = Length of pipe tested in feet

UCNSB Engineering Department Inspector.

There shall be no additional leakage allowance made for bends, fittings or valves. If a leak is visible or if the allowable leakage is exceeded, the Contractor shall make the necessary repairs and repeat the pressure test until the result is acceptable to the

5.03 Bacteriological Test

certified laboratory.

It is the Contractor's responsibility to secure passing bacteriological samples through a

Potable water pipe and appurtenances shall be chlorinated in accordance with AWWA C651. Chlorine concentration shall be 50 ppm, minimum, at any point in the system and shall have a minimum contact period of twenty-four hours before being flushed out. Flushing shall continue until the residual chlorine tests comply with the Safe Drinking

After the pipe and appurtenances are disinfected and flushed as specified herein, a certified laboratory shall take bacteriological samples (observed by the UCNSB Engineering Department Inspector) from designated sample points with chrome hose

If the samples indicate the presence of coliform bacteria, the disinfection and flushing shall be repeated until samples indicate the absence of such bacteria for two

SECTION 5 - TESTING

Potable Water Rules, Design and Construction Specificatio

SECTION 6 - PERMITS

All applicable permits shall be obtained and submitted to the UCNSB Engineering Department prior to construction. The UCNSB is not responsible for any fees required by permitting

6.01 Volusia County Health Department

A Florida Department of Environmental Protection (FDEP) permit, approved through the Volusia County Health Department, is required when a potable water main is extended. One (1) original $\underline{\sf FDEP\ Form\ 62\text{-}555.900(1)}$ or $\underline{\sf 62\text{-}555.900(7)}$ and one (1) set of approved

Construction Drawings, signed/sealed by a Florida registered Professional Engineer, shall

be submitted to the UCNSB Engineering Department for UCNSB's approval and

endorsement, and then submitted to the Volusia County Health Department fo

Construction Drawings, signed/sealed by a Florida registered Professional Engineer, shall

be submitted to the UCNSB Engineering Department for UCNSB's approval and

A Volusia County Use Permit must be obtained for any work within the County right-of-

issuance of a construction permit. When applicable, a permit determination may be

6.02 Florida Department of Transportation (FDOT)

An FDOT permit must be obtained for any work within the FDOT right-of-way. One (1) original FDOT Utility Permit Form 710-010-85 and one (1) set of approved

endorsement. Then digital files of the permit application and drawings will be required for issuance of an FDOT construction permit through $\underline{\sf FDOT\ One\text{-}Stop\ Permitting.}$ 6.03 Volusia County

A <u>City Right-of-Way Use Permit</u> must be obtained for any work within the City right-ofway. An archaeological permit may be required. 6.05 Florida East Coast (FEC) Railway

A permit is required when a potable water main is installed in the <u>FEC</u> right-of-way. Work adjacent to the right-of-way may require an FEC Flagger.

SECTION 6 -PERMIT

Potable Water Rules, Design and Construction Specification

SECTION 7 - FINAL ACCEPTANCE

The following shall be completed in order to obtain Final Acceptance and place new potable water facilities in service:

7.01 CERTIFICATION One (1) original FDEP Form 62-555.900(9) and as-built record drawings shall be submitted to the UCNSB Engineering Department for UCNSB's approval and endorsement, and then submitted to the Volusia County Health Department for

The as-built record drawing shall be signed/sealed by a Florida registered Professional

The as-built record drawing submittal shall include one (1) bond copy, a multi-page

Adobe PDF file and an AutoCAD DWG file (AutoCAD 2000 or later version) with plot style

As-built record drawings shall comply, at a minimum, with the following: Identify the vertical and horizontal datum used; · Show a north arrow and scale in each viewport

· List the horizontal and vertical scales in profile view;

 Show a legend on each sheet; Freeze, or show with gray line types, all layers that are not the subject of the as-• Show and label all street names, right-of-way lines, lot lines, and lot numbers

with black lines having a line weight thinner than that of new construction;

Show and label all pipe, valves and fittings with length, size, type, degree of bend

and location (by using tie dimensions or stationing) with deflections clearly indicated, e.g., 500 LF of $8^{\prime\prime}$ PVC WM, (2) $8^{\prime\prime}$ GV (gate valve) or (1) $2^{\prime\prime}$ BOV (blow off valve) and Show and label all diameters of reducers, tees and crosses (by calling out the run diameter first and the branch diameter second), e.g., 12" x 8" tee indicates a 12"

run with an 8" branch, with reducers and crosses noted similarly.

SECTION 7 -FINAL ACCEPTANCE

A COMPLETE COPY OF THE UTILITIES COMMISSION OF NSB SPECIFICATIONS AND DETAILS ARE AVAILABLE AT: HTTPS://WWW.UCNSB.ORG/DEPARTMENT/ENGINEERING

UTILITY COMMISSION NEW SMYRNA BEACH

APPROVED BY GRC

A final inspection shall be scheduled, once all tests have been passed and all clearances received, with the UCNSB Engineering Department Inspector and Engineer, a representative from the UCNSB Water Resources Department, the Engineer of Record

All operation and maintenance manuals shall be submitted to the UCNSB Engineering

Department prior to the final inspection and shall include two (2) hard copies and an

Potable Water Rules, Design and Construction Specifications

The Contractor shall make all necessary corrections noted during the final inspection

prior to Final Acceptance

7.02 INSPECTION

7.03 TRANSFER OF FACILITIES The following documentation shall be submitted in order to transfer the potable water facilities to the UCNSB's ownership

material and workmanship. The Maintenance Bond shall be 25% of the total

itemized cost and begin upon the date of Final Acceptance, specified by the

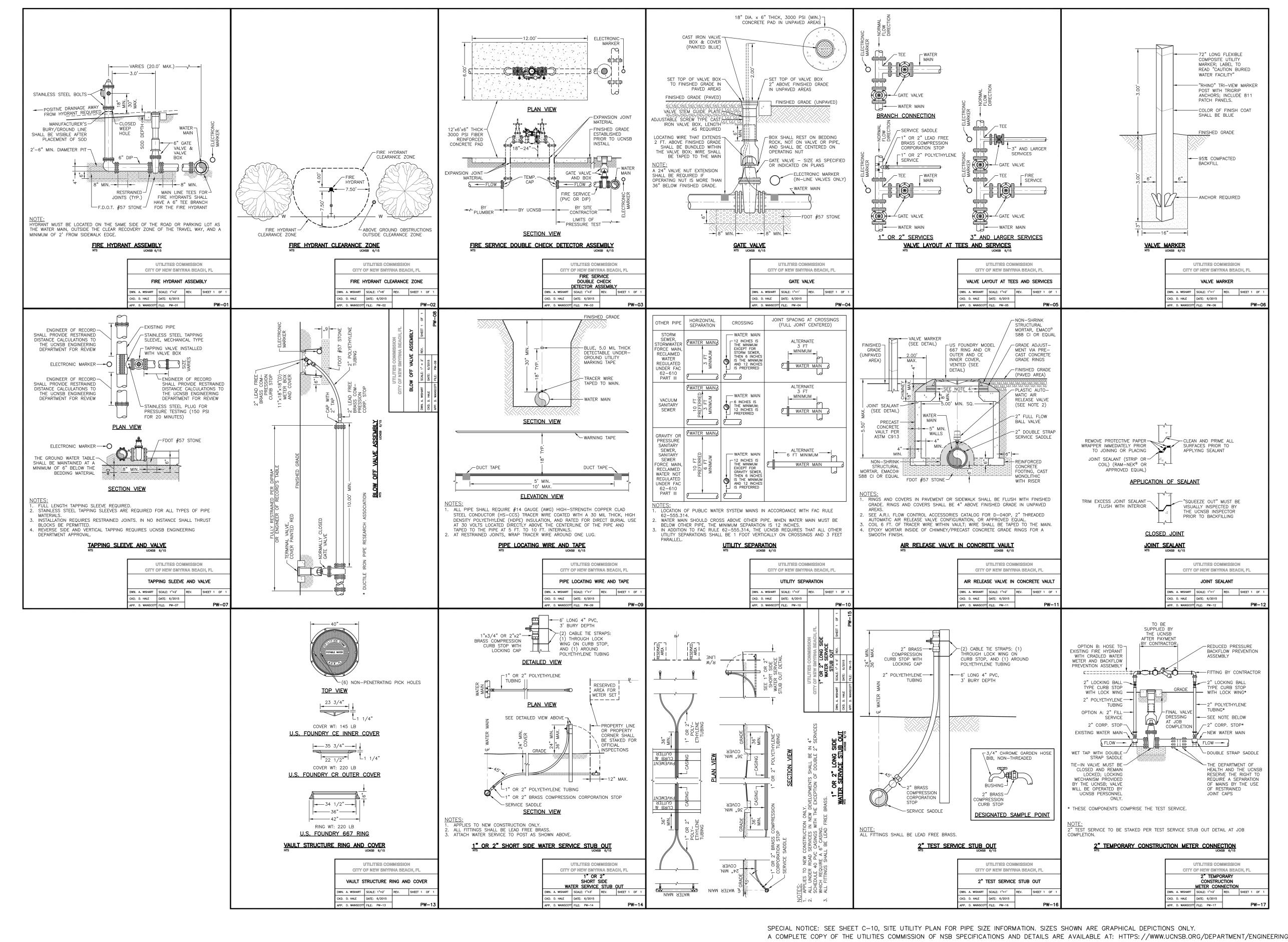
 A Bill of Sale accompanied by an itemized cost including labor, materials and All recorded plat(s) and easement(s), or proof thereof. A Maintenance Bond with a one (1) year warranty period against all defects in

SECTION 7 -FINAL ACCEPTANCE

CONSTRUCTION PLANS 11/12/2021 REVISED PER CITY AND HYATT HOTEL COMMENTS 5127 S. Orange Avenue, Suite 200 HYATT PLACE - NEW SMYRNA BEACH 8/13/2021 REVISED PER CITY AND HYATT HOTEL COMMENTS JWM GRC Orlando, FL 32809 JWM | GRC Phone: 407-895-0324 3/19/2020 REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS WATER SPECIFICATIONS 429 E. 3RD AVENUE, NEW SMYRNA BEACH Fax: 407-895-0325 CPN REVISED PER SJRWMD COMMENTS C-16 **FLORIDA** CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS | CPN | GRC DESIGNED BY DRAWN BY CHECKED BY www.feg-inc.us CPN GRC CPN REVISIONS BY CHECKED EET 22

16-156_UtilityDetails.dwg

9/26/2019 8/19/2019 DATE



11/24/21	\ <u></u>	6	PER CITY COMMENTS	JWM	GRC	
11/12/2021	<u>/</u> 5	5	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
8/13/2021	4	4	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
3/19/2020	/3	3\	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC	
9/26/2019	/2	2	REVISED PER SJRWMD COMMENTS	CPN	GRC	4
8/19/2019	1	1	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
DATE			REVISIONS	BY	CHECKED	

CONSTRUCTION PLANS
HYATT PLACE - NEW SMYRNA BEACH
429 E. 3RD AVENUE, NEW SMYRNA BEACH
FLORIDA



5127 S. Orange Avenue, Suite 200 Orlando, FL 32809 Phone: 407-895-0324 Fax: 407-895-0325
www.feg-inc.us

DESIGNED BY CPN

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SHEET 23 OF 44	

The UCNSB reserves the right to require a Memorandum of Understanding (MOU) if a Developer's Agreement and Addendum is not required to help delineate the

proper account is established and all payments are made to the UCNSB Billing The UCNSB ownership terminates at the right-of-way line or easement line and/or at the

The UCNSB will allow plumbing to be connected to a sanitary sewer lateral provided a

clean out and is not responsible for any wastewater facilities beyond this point. Duly authorized agents of the UCNSB shall have access to UCNSB facilities on the

Customers shall reference the UCNSB's Rates, Charges and Fees, current edition, for

SECTION 1 - GENERAL

Wastewater Rules, Design and Construction Specification

SECTION 3 - MATERIALS All materials used in wastewater facilities, or that come into contact with wastewater, shall:

 Be adequately identified by the color green; Be marked with the manufacturer, batch number and strength designation;

 Conform to Ductile Iron Pipe Size (D.I.P.S.) Standards and Have Type 316 Stainless Steel materials, conforming to ASTM F593, where applicable.

Ductile iron pipe, including fittings and restraints, shall conform to ASTM A536 and AWWA C104, C110, C111, C115, C116, C153 and C600. Ductile iron pipe shall be Pressure Class 350.

B. Polyvinyl Chloride (PVC)

PVC pipe shall conform to ASTM D1784. 1) Gravity Sanitary Sewer Mains

PVC gravity sanitary sewer pipe and fittings shall conform to ASTM D3034 and F1336 and shall have minimum standard dimension ratio (SDR) 35.

PVC force main pipe shall conform to AWWA C900, C905 and C605 and have minimum dimension ratio (DR) 25. PVC force main pipe shall be capable of

connecting to standard ductile iron valves and fittings using mechanical joints.

HDPE pipe shall have minimum standard dimension ratio (SDR) 11. HDPE shall be sized to match the inside pipe diameter to which it is connected

D. Fusible PVC Fusible PVC may be used with UCNSB Engineering Department approval as shown in drawings approved by the Engineering Manager.

SECTION 3 - MATERIALS

E. Steel

Black or Galvanized Steel (GS) pipe is prohibited.

Wastewater Rules, Design and Construction Specification

3.02 Valves

The valve type, size, rating, flow direction arrow and manufacturer shall be clearly marked on each unit, as applicable. Valves shall open in the counterclockwise dire with an arrow cast on the operating nut in the open direction. Hand wheels require UCNSB Engineering Department approval. Valve boxes shall be cast iron and the cover

A. Plug Valves

Plug valves shall conform to AWWA C517 and be DeZurik Eccentric Plug Valve, or approved equal. B. Check Valves

Check valves shall conform to AWWA C508 and be American Flow Control Series 2100, Flomatic 745 or approved equal.

Air release valves shall be A.R.I. Flow Control Accessories D-025 2" Combination Air Valve for Wastewater (Short Version), or approved equal.

D. Tapping Valves and Sleeves

Tapping sleeves shall be full length, stainless steel, mechanical type, with test port, and suitable for either wet or dry installation. Tapping valves shall be resilient seat gate

3.03 Sanitary Sewer Laterals

Lateral pipe shall be PVC SDR 35. See Section 3.01

PER CITY COMMENTS

PVC fittings and clean outs shall be <u>Multi Fittings</u>, <u>Spears Manufacturing</u>, <u>GPK Products</u> or approved equal.

Clean outs in paved areas shall be cast iron and be <u>Star Pipe Product 7610 Handhole</u> Ring & Cover "S" (MB-0036), or approved equal. 3.04 Concrete Structures

See Section 2.03

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DATE

SECTION 3 - MATERIALS

Wastewater Rules, Design and Construction Specifications

A. Ductile Iron

See Section 3.01

PVC casings shall be DR 25, minimum.

HDPE casings shall be DR 13.5, minimum.

D. Fusible PVC

Fusible PVC casings require UCNSB Engineering Department approval.

Steel shall conform to ASTM A139 Grade B and have a black protective bituminous

SECTION 3 - MATERIALS

Wastewater Rules, Design and Construction Specification

SECTION 4 - CONSTRUCTION

the Developer and the Engineer of Record.

private meter is prohibited.

1) Gravity Sanitary Sewer Mains

4.01 Installation

 A preconstruction meeting shall be scheduled by the Developer or Engineer of Record. In attendance shall be the UCNSB, the licensed Contractor, including all Sub-Contractors,

• Shop drawings shall be submitted to and approved by the UCNSB Engineering Department. Shop drawings will not be accepted unless stamped with approval by the Engineer of Record and the Contractor. A minimum notice of 48 hours shall be provided to the UCNSB Engineering Department

During construction: All permits, shop drawings and construction plans shall be retained by the Contractor

on-site. Failure to produce such items on-site will result in work stoppage The Contractor, under no circumstances, shall operate an existing UCNSB plug valve, new plug valve and/or allow flow into an existing gravity sanitary sewer main or manhole without Final Acceptance and approval from the UCNSB Engineering • The Contractor is responsible for all water used during construction and setting up an

construction meter until returned to the UCNSB and the deposit is refunded. Use of a The Contractor is responsible for all utility locates.

Pipe shall remain free of dirt and foreign materials during construction. When work is stopped, for any reason, the Contractor shall securely seal the open ends of the pipe. Bell and spigot surfaces shall be wiped free of debris prior to applying lubricant seale or satisfactory arrangements for subsequent repairs. and jointed within 5 minutes of application. The spigot end shall be centered into the bell and properly seated by moderate force by hand or push bar with a cushion block.

home bell and spigots for pipe sizes 12" or less. If mechanical equipment is used to home bell and spigot pipe, an insertion limiting device will be required at each joint to prevent over-homing, e.g., <u>EBBA Mega Stop Series 5000</u> or approved equal.

Over-homed pipes will be rejected. It is recommended that human force be used to

Concrete encasement at utility crossings must be approved by the UCNSB Engineering

SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specification

The Contractor shall utilize a laser instrument with target to install pipe straight witl a consistent slope per the approved construction drawings.

Connections to existing gravity sanitary sewer mains or manholes, approved by the UCNSB Engineering Department, shall be made by a power driven abrasive wheel or saw with inspection by the UCNSB Engineering Department Inspector. No hammer taps are allowed.

The Contractor shall install green coated copper 14 gauge locate wire adhered to the top of all new pipe and appurtenances. The wire shall be bundled in each valve box to extend 2' above finished grade and 6' within vaults. A duplicate wire shall be installed on all pipe directionally drilled. Upon construction completion, the Contractor will be required to test the locate wire for continuity.

The Contractor shall install detectable underground utility marking tape 18" below

The Contractor shall install green valve markers, 3' above and 3' below finished grade, where required by the UCNSB Engineering Department

Fittings and appurtenances must not bear on the pipe when installed and must be fully and independently supported on the trench bedding. The maximum deflection of pipes and fittings shall not exceed the manufacturer's recommendations. Fitting shall be installed in accordance with AWWA C600 and C605, along with the

The Contractor shall install electronic markers at each: Main connection;

 Fitting and In-line plug valve.

BY CHECKED

B. Concrete Structures

Concrete structures shall be installed plumb on 6" of FDOT #57 stone. Pipe shall be connected to manholes using Kor-N-Seal rubber boots, or approved equal, with stainless

Manhole inverts and benches shall be constructed with a minimum compressive strength of 3,000 psi concrete at 28 days. Manhole chimneys shall be grouted and have a smooth finish. Invert and flow channels shall be smooth and semicircular in shape. SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specifications August 2015

Rings and covers in paved areas shall be flush with finished grade. In unpaved areas, rings and covers shall be 4" above finished grade. Only precast concrete rings may be used to adjust manhole ring and cover to finished grade.

See Section 2.03 for supplemental information.

C. Sanitary Sewer Laterals

ateral terminations shall have an air-tight clean out cap and marked with a PVC stake 3'. to 4' above finished grade. Laterals shall be marked with a 'V' in curbs or at edge of pavement and painted green.

Clean outs in paved areas shall be flush with finished grade. In unpaved areas, clean outs shall be 3" above finished grade.

Valves shall be cleared of all foreign matter before installation and installed to prevent debris from becoming lodged in the seat. Valves shall be installed with stems vertically above the centerline of the pipe. Under each valve and at the pipe connection 6" of

FDOT #57 stone shall be installed. Valves shall be inspected in the opened and closed

Valve boxes shall be centered over the operating nut. Valve boxes shall not transmit surface loads directly to either the pipe or valve. Valve box extensions shall be PVC SDR

Valve boxes in paved areas shall be flush with finished grade. In unpaved areas, valve lids shall be 2" above finished grade and have precast concrete collars.

Valve covers shall be painted green. After Final Acceptance, terminal valves shall be permanently closed with the cover painted red.

4.02 Delivery and Handling of Materials

The UCNSB Engineering Department Inspector has the right to refuse any damaged of dropped materials. All materials shall be delivered and distributed at the site by the Contractor. All pipe, fittings, valves and appurtenances shall be loaded and unloaded by noists or skidding so as to prevent shock or damage to the material. Under no circumstances shall material be dropped. Pipe that is misshaped and/or has lining/coating damage will be rejected. Concrete structures with holes or honeycombs

SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specification

4.03 Excavation and Trenching

renches shall be a depth which will provide cover from top of pipe to finished grade as shown on approved construction drawings. Excess excavated material, unsalvageable material, and debris shall be wasted and disposed of by the Contractor.

endanger the work or obstruct sidewalks, driveways or drainage. Fire hydrants, valve covers, vault hatches and other utility controls shall not be obstructed and shall remain The Contractor shall exercise sound construction practices in excavating and naintaining the pipe trench to prevent damage to any foundation, structure, pole line, pipeline or other facility. If, as a result of the excavation, a foundation, structure, pole

line, pipeline or other facility is endangered, the Contractor shall immediately take

prevent subsequent settlement of the pipe or additional backfill loadings which might

All excavated material retained for backfill shall be piled in such a manner as not to

emedial action at his own expense. No act of the UCNSB shall in any way affect the liability of the Contractor for damages, expenses or costs that may result from trench Sheet piling, shoring, sheeting, bracing or other supports required for construction shall be designed, furnished, placed, maintained and removed by the Contractor. Sheet piling and timbers used in trench excavations shall be withdrawn in such a manner so as to

overload the pipe. All existing underground utilities, whether or not they are shown on the approved Construction Drawings or their locations are made known to the Contractor prior to cavation, shall be protected from damage and, if damaged, shall be repaired to equal the prior serviceability or replaced in kind at the Contractor's expense. The UCNSB does not assume responsibility for the correctness of the approved Construction Drawings. Repairs or replacements shall be made at the earliest practicable time and in no case shall the Contractor leave the job at the end of the day without making all such repairs

Wherever excavation exposes unsuitable materials such as muck, the Contractor sh remove and replace with suitable bedding and backfill material. Muck shall be removed full depth, from trench limits. Trees, stumps and roots within the limits of the trench excavation shall be removed to a depth of at least 12" below the bottom of the trench. Stump and root holes shall be refilled to existing grade and compacted. No stumps, roots, or organic matter of any description shall remain. Rock excavation shall be carried to a depth of at least 6" below the required pipe invert. Blasting is prohibited.

SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specification No pipe or structures shall be installed in a wet trench. All bedding material must be dry

and firm. The free water surface shall be lowered to at least 6" below the bedding surface before installing pipe or structures. The UCNSB Engineering Departmen Inspector's judgement shall be used to determine if the trench is acceptable, which

The bottom of the trench shall be shaped to give sufficient uniform circumferential support to the lower one-fourth of each pipe. In addition, bell holes shall be excavated so that after placement only the barrel of the pipe receives bearing pressure from, and is uniformly supported by, the bottom of the trench.

The use of horizontal struts below the barrel of the pipe or the use of the pipe as support for trench bracing will not be permitted. In pipeline construction the use of the soldier pile and horizontal lagging method of support or the use of a traveling shield shall require UCNSB Engineering Department approval.

All backfill and bedding material shall be in accordance with ASTM D422 and shall meet UCNSB Engineering Department approval. Bedding material in areas above the natural ground water table shall be fine sand or shell, or a mixture of both. Bedding material in areas where trench bottom is below natural ground water table shall be FDOT #57

Backfill material from trench bottom to 12" above top of pipe shall be select granular material free of organic matter. Backfill material from 12" above top of pipe to finished grade shall be common fill material free of organic matter. Backfill material shall not be stained from the trench walls.

After the pipe has been properly laid and inspected, backfill material shall be compacted in 12" lifts to prevent settlement. The Contractor shall achieve the specified maximu dry density/optimum moisture content per the approved Construction Drawings. The Contractor shall submit all field density tests to the UCNSB Engineering Department prior to final acceptance. Any depression that forms adjacent to or within the trench line will be rejected.

SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specification

The Contractor shall furnish, install and operate all necessary machinery, appliances, and equipment to keep excavations free from water during construction and shall dewater and dispose of the water so as not to cause injury to public or private property or to cause a nuisance or a menace to the public. The Contractor shall at all times have

The control of groundwater shall be such that softening of the bottom of the systems shall be designed and operated so as to prevent the removal of the natural soils. The static water level shall be drawn down below the bottom of the excavation so as to maintain the undisturbed state of the natural soils and allow the placement of backfill to the required density.

on hand sufficient pumping equipment and machinery in good working condition for

The UCNSB Engineering Department will not accept pipe that floats due to lack of groundwater control and shall require the Contractor to reinstall any pipe that is

MOT must follow the Manual on Uniform Traffic Control Devices (MUTCD), the FDOT Design Standards (current edition) and all applicable Right-of-Way Use Permit

4.07 Restoration

4.06 Maintenance of Traffic (MOT)

Road surfaces, curb and gutter, driveways, sidewalks, parking locations and any other type of surface materials that require removal for the purpose of installation of derground utilities shall be replaced as soon as practicable after compaction of the backfill and in accordance with City, County or Florida Department of Transportation standards or as indicated on the respective permit. These surface materials shall be separated from other excavated materials and will not be permitted to be included in the backfill but shall be satisfactorily disposed of by the Contractor. Surface material to be removed shall be cut, if necessary, vertically with a power-driven friction saw prior to moval. The surface shall be scored in sufficient depth to provide uniform straight

Under no condition shall pavement be cut with a trenching machine, power shovel or backhoe. The width of cut of the payement or sidewalk shall be the width of the trench

SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specification

plus one-half the trench width, or a minimum of 2' on either side. In the event that the trench excavation becomes wider than the initial cut, the pavement or sidewalk shall be re-cut to at least 2' back from all edges of the actual excavation by the Contractor at his own expense. Utility crossing and installations along state highways shall be made in

full compliance with Florida Department of Transportation (FDOT) requirements The Contractor shall sod or seed and mulch the disturbed work area per the approved

or artificial slopes subject to rapid erosion. The Contractor is responsible to present a clean work area to the UCNSB Engineering

Construction Drawings and shall protect road shoulders, ditch banks, and other natural

The Contractor shall manage and control all drilling practices to prevent damage to existing utilities. The Contractor shall make a diligent effort to locate evidence of any other potential subsurface obstructions, e.g. piles. Subsidence and heave within the construction limits of the project shall be limited to values that avoid damage. The

The Contractor shall be responsible for all underground utility locates via soft digs prior

to boring so that adjustments can be made if necessary.

Contractor shall be responsible for all damage and repairs as a result of drilling

Bore logs shall be provided to the UCNSB Engineering Department in 10-foot segments During construction, any deviations greater than 5' in any direction shall immediately be reported to the UCNSB Engineering Department. Pipe testing shall follow the

The casing pipe shall have the nominal diameter and wall thickness as shown on the Field and shop welds of the casing pipes shall conform to the American Welding Society standard specifications. Field welds shall be complete penetration, single-vee groove or

SECTION 4 - CONSTRUCTIO

Wastewater Rules, Design and Construction Specification The carrier pipe shall be ductile iron pipe per these Specifications. Carrier pipes to be

installed within the specified casings shall be equipped with restrained joint connectors The casing shall be jacked in one continuous operation at the locations specified. In no event shall jacking be discontinued for sufficient period to cause the partially jacked sleeve to freeze in place. Proper alignment and elevation of the sleeve shall be consistently maintained throughout the jacking operation

shall be driven to a sufficient depth below the invert of the casing to resist any pressure developed by the soil outside the jacking pit. Sheeting shall terminate not less than 3.5 above existing grade. At the completion of the jacking operations, the Contractor will be required to leave all sheeting in place; however, the top of the sheeting shall be cut off 30" below finished grade upon completion of the jack and bore. The Contractor shall be responsible for preventing the occurrence of voids outside the

Jacking pits shall be shored with sheeting or other such materials as required. Sheeting

method approved by the UCNSB Engineering Department. The Contractor shall constantly exercise care in the removal of the earth from within the sleeve sufficiently The Contractor shall be responsible for removing any type of material or equipment

casing and if they do occur, the Contractor may be directed to fill them with grout in a

used for backing up the jack. A masonry bulkhead 8" wide shall be placed in the ends of the casing. The carrier pipe shall be supported by spacers as shown on the approved construction

Prior to drilling, the Contractor shall utilize all verified locate information to determine the drill pathway in conjunction with the approved Construction Drawings

drawings and per manufacturer's recommendation

The entry and exit point shall be within 5' of the location shown on the approved Construction Drawings. After successfully reaming the bore hole to the required diameter, the pipe shall be pulled with a swivel and reamer in front of the pipe to The pullback section of the pipe shall be supported during pullback operations so that it

moves freely and does not damage the pipe. The Contractor shall cease operations if

the pipe is damaged and shall remove the pipe from the bore hole and repair the pipe

using the manufacturer's recommended procedure or replace the damaged pipe before resuming installation. SECTION 4 - CONSTRUCTION

Wastewater Rules, Design and Construction Specifications

Any asbestos-cement pipe identified shall be reported to the UCNSB Engineering

A Contractor that disturbs, maintains, repairs or demolishes shall comply with:

 Environmental Protection Agency's (EPA) 40 CFR Part 61, Subpart M and 40 CFR Part 763, Subpart E Florida Administrative Code (FAC) 62-257

 Occupational Safety and Health Administration (OSHA) Standard 1910.1001 and The following are UCNSB guidelines for asbestos-cement pipe disposal:

a. Location of job site. b. Pipe size. c. Proposed operation

. Crushed in place.

transport and disposal.

1) Notify the UCNSB Engineering Project Manager:

2) File a FDEP <u>Notice of Demolition or Asbestos Renovation</u> form. Mark area to minimize the number of persons exposed. 4) Post warning signs demarcating the area that reads "DANGER - ASBESTOS -

CANCER AND LUNG DISEASE HAZARD 5) Put on personal protective equipment such as coveralls, gloves, eye wear, etc. 6) Put on face mask or respirator.

7) Adequately wet pipe during and after removal operation. 8) Use equipment least likely to cause pipe to crumble and/or fray, such as snap cutters, carbide-tipped blade cutters or wheel-type cutters. See 12b. 9) Remove entire section of pipe:

 Wet coupling. b. Cover pipe with drop cloth. c. Use hammer, chisel and pry bar to break coupling. d. Replace pipe using compression, coupling, sleeve or repair clamp.

10) Contain all waste: a. Wrap in 6 mil plastic bags or polyethylene sheets. b. Large pieces shall be double wrapped. c. Duct tape all open seams and edges. d. Label waste with "DANGER ASBESTOS-CONTAINING MATERIAL".

11) Transport waste in approved, closed truck. 12) At no time shall asbestos-containing material: a. Be disturbed in any way when dry. b. Cut with a chain or circular saw, grinder, jack hammer, drills, etc.

13) UCNSB will have a continuing contract arrangement for asbestos handling,

Wastewater Rules, Design and Construction Specification

SECTION 6 - TESTING The Contractor shall perform all tests on newly constructed pipe and appurtenances in the

 $presence\ of\ the\ UCNSB\ Engineering\ Department\ Inspector,\ including\ a\ locate\ wire\ continuity$ All required tests shall be satisfactorily completed prior to Final Acceptance. All labor, equipment and materials required to complete tests shall be furnished by the Contractor and

approved by the UCNSB Engineering Department Inspector. Testing shall not proceed until new construction is complete, including adequate cover (pipe in paved areas will require base material) and pipe is thoroughly cleaned of all foreign matter.

Cracked or defective pipes, fittings or valves, leaks, bellies, etc. will not be accepted and the repair or replacement shall be at the Contractor's expense All temporary connections, approved by the UCNSB Engineering Department, necessary to test

New construction and existing facilities shall not be interconnected until Final Acceptance. The Contractor is responsible for plugging/capping pipe and appurtenances, where necessary.

pipe and appurtenances shall be installed by the Contractor

Pipe shall be visually inspected by lamping between manholes in order to ascertain that

6.01 Gravity Sanitary Sewer Mains

shall be such that the diameter of said image shall have no vertical or horizontal reduction from that of the pipe inside diameter.

All gravity sanitary sewer mains shall be televised and recorded. The video shall be

provided to the UCNSB Engineering Department for review/approval. The UCNSB

the pipe is clear and to correct alignment. The concentricity of the lamp image received

Engineering Department may also require the laterals to be televised.

Wastewater Rules, Design and Construction Specification

SECTION 6 - TESTING

C. Deflection Test Deflection tests shall be conducted using a mandrel. Mandrels shall be rigid and nonadjustable. The mandrel shall be fabricated of metal, fitted with pulling rings at

each end and stamped with the nominal pipe size and mandrel outside diameter. The length of the minimum radius portion of the mandrel shall not be less than one-third of the nominal diameter of the pipe tested. The pipe shall be flushed and cleaned by the Contractor prior to testing. The mandrel shall be hand-pulled. All pipe with deflections in excess of 5% of the base internal diameter shall be repaired or replaced.

The water tightness of sewer, having a crown one inch or more above groundwater level, shall be tested by filling the pipe with water to produce a hydrostatic head of two feet or more above the crown of the sewer at the upper end of the test section or the water table outside of the sewer, whichever is higher, then measuring the exfiltration.

The water tightness of a sewer which has a crown lying below groundwater level shall

permitted for each additional two feet of head over the basic two-foot minimum Testing shall proceed for a continuous period of twenty-four (24) hours with exfiltration or infiltration amounts measured by methods approved by the UCNSB. Upor application of internal hydrostatic pressure for exfiltration testing, care shall be taken to preclude unseating of the joint gaskets for a specific type of pipe exceeding the pressure

capability thereof. Should the test fail, necessary repairs shall be accomplished by the

UTILITY COMMISSION NEW SMYRNA

In no case shall the infiltration or exfiltration exceed 0.10 gallons/inch of

exfiltration testing is required, an allowance of an additional 10% gallonage shall be

diameter/hour/1,000 feet of line when field tested by actual infiltration conditions. If

Contractor and the test repeated until within the established limits E. Low Pressure Air Exfiltration Test

> All service laterals, stubs and fittings shall be capped or plugged properly not to allow for air loss. Where necessary, restrain and seal caps, plugs or short pipe to prevent blowouts and leaks. Groundwater shall be determined prior to testing and the pressure test shall be adjusted accordingly. Low pressure shall be slowly introduced into the sealed line until the internal pressure reaches 4.0 psi greater than the average back pressure of any groundwater above the invert of the pipe, but not greater than 9.0 psi The monitoring pressure gauge shall be observed while the pressure is decreased to no less than 3.5 psi (greater than the average groundwater back pressure) in which timing shall commence

> > SECTION 6 - TESTING

Wastewater Rules, Design and Construction Specification

If the time for the designated pipe size and length elapses before the air pressure drops 1.0 psi, it is a passing result. If the pressure drops 1.0 psi before the appropriate time has elapsed, the air loss rate shall be considered excessive and that section of the pipe shall have a failing result. Should any section of pipe fail, the sources of leakage shall be repaired and the test repeated until the section is within specified limits.

Low Pressure Air Exfiltration Tests shall conform to the requirements of UNI-B-6-98 Recommend Practice for Low-Pressure Air Testing of Installed Sewer Pipe by Uni-Bell

6.02 Force Mains

Pipe shall be hydrostatically leak (pressure) tested at 100 psi for a minimum duration of

Unless otherwise specified, the allowable leakage rate shall not exceed that required by AWWA Standard C600 or C605, calculated by the following equation:

> $L = (S \times D \times P1/2) \div 148,000$ L = Allowable leakage rate in gallon per hour (gph)

S = Length of pipe tested in feet D = Nominal diameter of the pipe in inches P = Average test pressure in pounds per square inch (psi)

UCNSB Engineering Department Inspector.

Not more than 1,000' of pipe, or as directed by the UCNSB Engineering Department There shall be no additional leakage allowance made for bends, fittings or valves. If a leak is visible or if the allowable leakage is exceeded, the Contractor shall make the

necessary repairs and repeat the pressure test until the result is acceptable to the

SECTION 6 - TESTING

Wastewater Rules, Design and Construction Specification

SECTION 7 – PERMITS

All applicable permits shall be obtained and submitted to the UCNSB Engineering Department prior to construction. The UCNSB is not responsible for any fees required by permitting

7.01 Florida Department of Environmental Protection (FDEP) An FDEP permit is required when a gravity sanitary sewer main and/or force main is

One (1) original FDEP Form 62-604.300(8)(a) and one (1) set of approved Construction

Drawings, signed/sealed by a Florida registered Professional Engineer, shall be

submitted to the UCNSB Engineering Department for UCNSB's approval and

endorsement, and then submitted to the FDEP for issuance of a construction permit. When applicable, a permit determination may be required.

7.02 Florida Department of Transportation (FDOT)

An FDOT permit must be obtained for any work within the FDOT right-of-way. One (1) original FDOT Utility Permit Form 710-010-85 and one (1) set of approved Construction Drawings, signed/sealed by a Florida registered Professional Engineer, shall

7.04 City of New Smyrna Beach

A <u>Volusia County Use Permit</u> must be obtained for any work within the County right-of-

way. An archaeological permit may also be required.

7.05 Florida East Coast (FEC) Railway A permit is required when a gravity sanitary sewer main and/or force main is installed in the FEC right-of-way. Work adjacent to the right-of-way may require an FEC Flagger.

Wastewater Rules, Design and Construction Specification

wastewater facilities in service: 8.01 CERTIFICATION

> One (1) original FDEP Form 62-604.300(8)(b) and as-built record drawings shall be submitted to the UCNSB Engineering Department for UCNSB's approval and endorsement, and then submitted to the FDEP for issuance of a clearance certification.

The as-built record drawing submittal shall include one (1) bond copy, a multi-page

 Identify the vertical and horizontal datum used; Show a north arrow and scale in each viewport; List the horizontal and vertical scales in profile view; Show a legend on each sheet;

with black lines having a line weight thinner than that of new construct For gravity sanitary sewer mains, show manhole numbers and stationing in plan and profile view, label rims, inverts, diameters, materials, slopes and lengths (from manhole centerline) in profile view and call out all sanitary sewer laterals

with a station and direction (left or right of the main), e.g., 2+00R and

• For force mains, show and label all pipe, valves and fittings with length, size

deflections clearly indicated, e.g., 100 LF of 4" FM and 4" PV (plug valve).

type, degree of bend and location (by using tie dimensions or stationing) with

SECTION 8 - FINAL ACCEPTANCE

8.03 TRANSFER OF FACILITIES

received, with the UCNSB Engineering Department Inspector and Engineer, a representative from the UCNSB Water Resources Department, the Engineer of Record and the Contractor.

A final inspection shall be scheduled, once all tests have been passed and all clearances

Wastewater Rules, Design and Construction Specification

All operation and maintenance manuals shall be submitted to the UCNSB Engineering Department prior to the final inspection and shall include two (2) hard copies and an

The Contractor shall make all necessary corrections noted during the final inspection prior to Final Acceptance

The following documentation shall be submitted in order to transfer the wastewater facilities to the UCNSB's ownership: A Bill of Sale accompanied by an itemized cost including labor, materials and

All recorded plat(s) and easement(s), or proof thereof.

 A Maintenance Bond with a one (1) year warranty period against all defects in material and workmanship. The Maintenance Bond shall be 25% of the total itemized cost and begin upon the date of Final Acceptance, specified by the

SECTION 8 - FINAL ACCEPTANCE

be submitted to the UCNSB Engineering Department for UCNSB's approval and endorsement. Then digital files of the permit application and drawings will be required for issuance of an FDOT construction permit through FDOT One-Stop Permitting. A City Right-of-Way Use Permit must be obtained for any work within the City right-of-

SECTION 8 - FINAL ACCEPTANCE The following shall be completed in order to obtain Final Acceptance and place new

The as-built record drawing shall be signed/sealed by a Florida registered Professional

Adobe PDF file and an AutoCAD DWG file (AutoCAD 2000 or later version) with plot style

As-built record drawings shall comply, at a minimum, with the following:

 Freeze, or show with gray line types, all layers that are not the subject of the as-• Show and label all street names, right-of-way lines, lot lines, and lot numbers

A COMPLETE COPY OF THE UTILITIES COMMISSION OF NSB SPECIFICATIONS AND DETAILS ARE AVAILABLE AT: HTTPS://WWW.UCNSB.ORG/DEPARTMENT/ENGINEERING

BEACH WASTEWATER SPECIFICATIONS C-18 APPROVED BY DESIGNED BY DRAWN BY CHECKED BY CPN GRC GRC CPN

11/12/2021 REVISED PER CITY AND HYATT HOTEL COMMENTS 8/13/2021 REVISED PER CITY AND HYATT HOTEL COMMENTS 3/19/2020 REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS JWM | GRC 9/26/2019 REVISED PER SJRWMD COMMENTS CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS | CPN | GRC 8/19/2019

REVISIONS

CONSTRUCTION PLANS HYATT PLACE - NEW SMYRNA BEACH 429 E. 3RD AVENUE, NEW SMYRNA BEACH **FLORIDA**

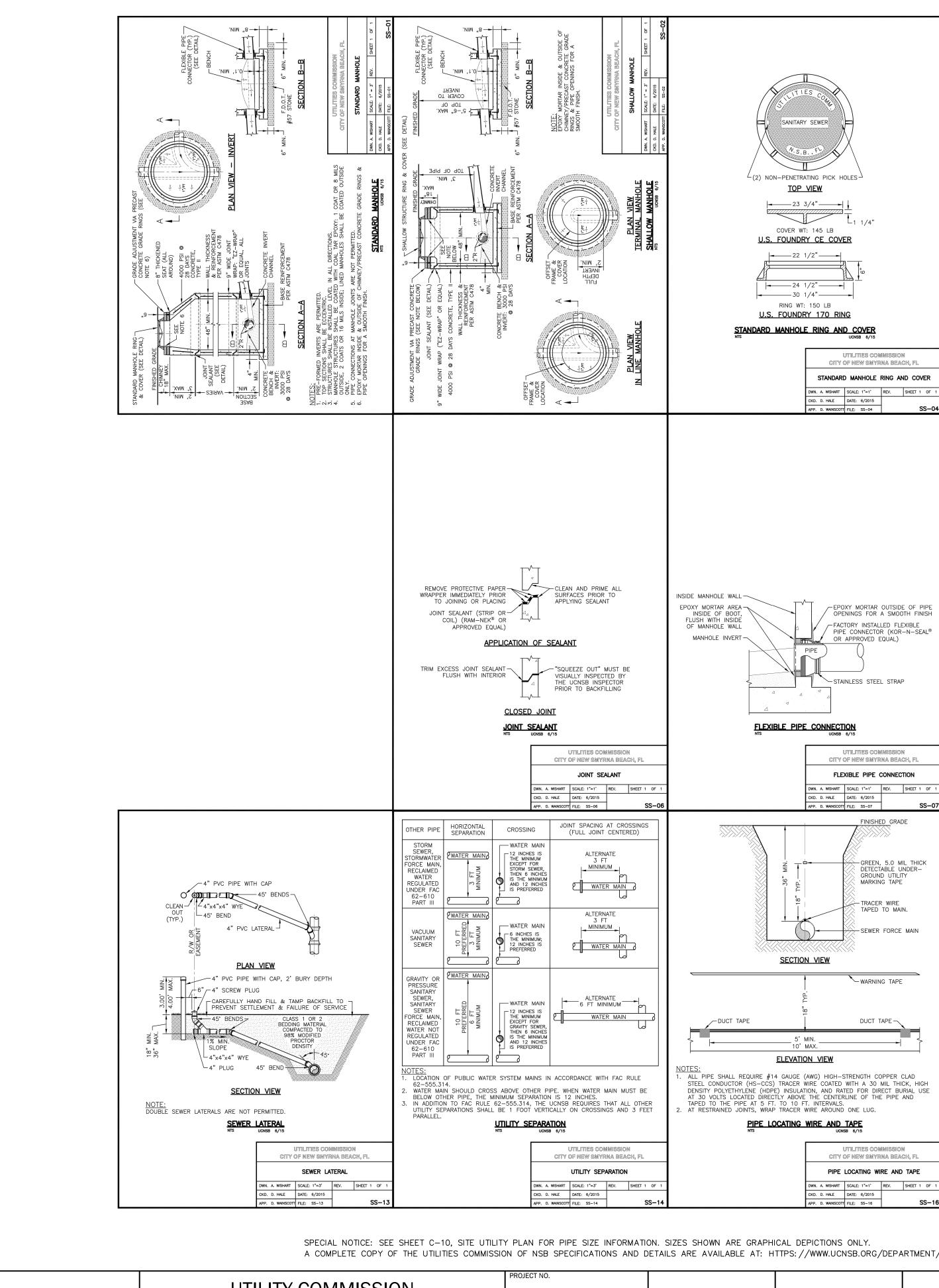


5127 S. Orange Avenue, Suite 200 Orlando, FL 32809 Phone: 407-895-0324 Fax: 407-895-0325

www.feg-inc.us

HEET 24

16-156_UtilityDetails.dwg



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11/24/21	PER CITY COMMENTS	JWM	GRC	
11/12/2021	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
8/13/2021	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
3/19/2020	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC	
9/26/2019	REVISED PER SJRWMD COMMENTS	CPN	GRC	Z
8/19/2019	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
DATE	REVISIONS	BY	CHECKED	

CONSTRUCTION PLANS HYATT PLACE - NEW SMYRNA BEACH 429 E. 3RD AVENUE, NEW SMYRNA BEACH, FLORIDA



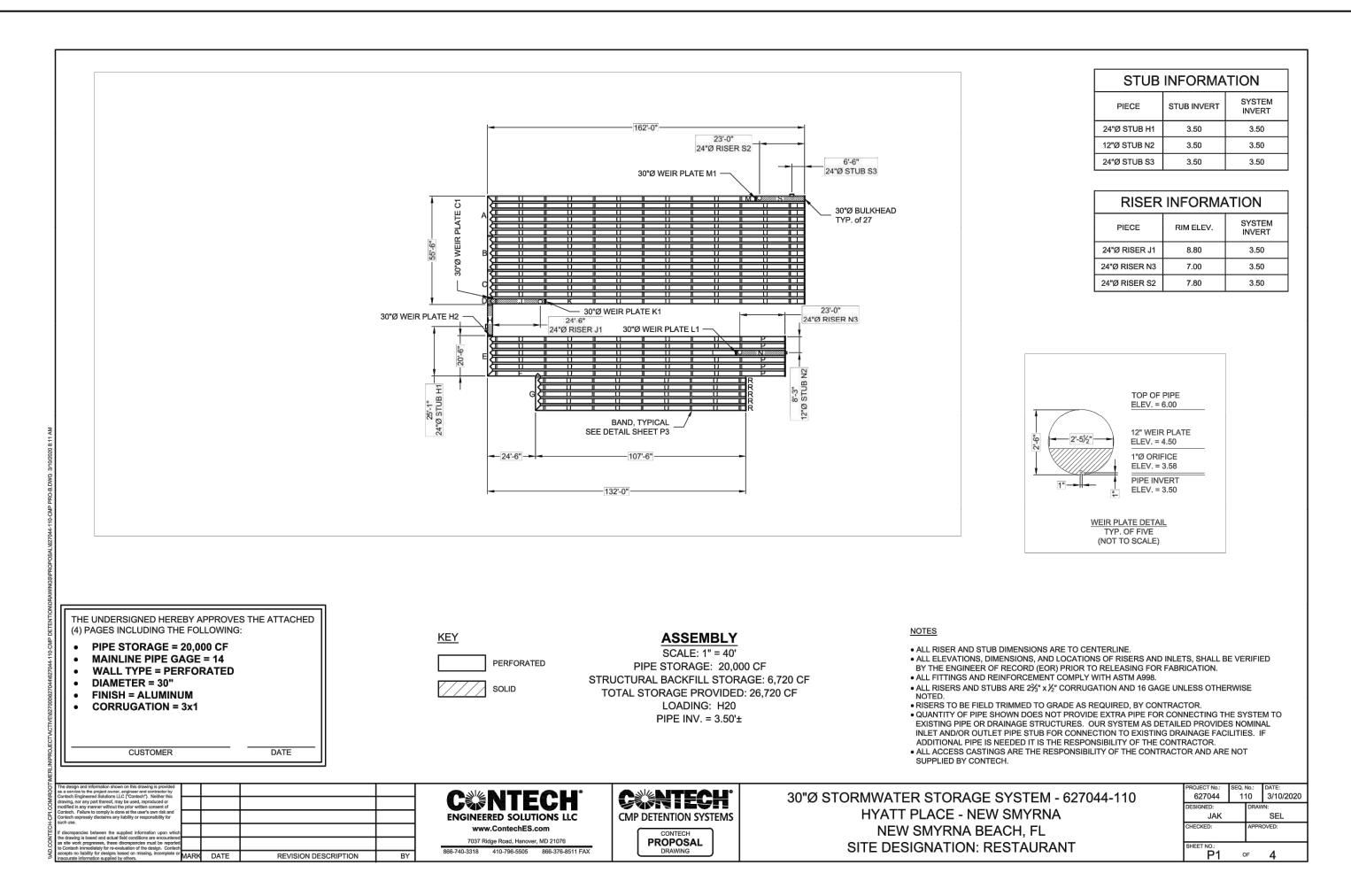
5127 S. Orange Avenue, Suite 200 Orlando, FL 32809 Phone: 407-895-0324 Fax: 407-895-0325 www.feg-inc.us

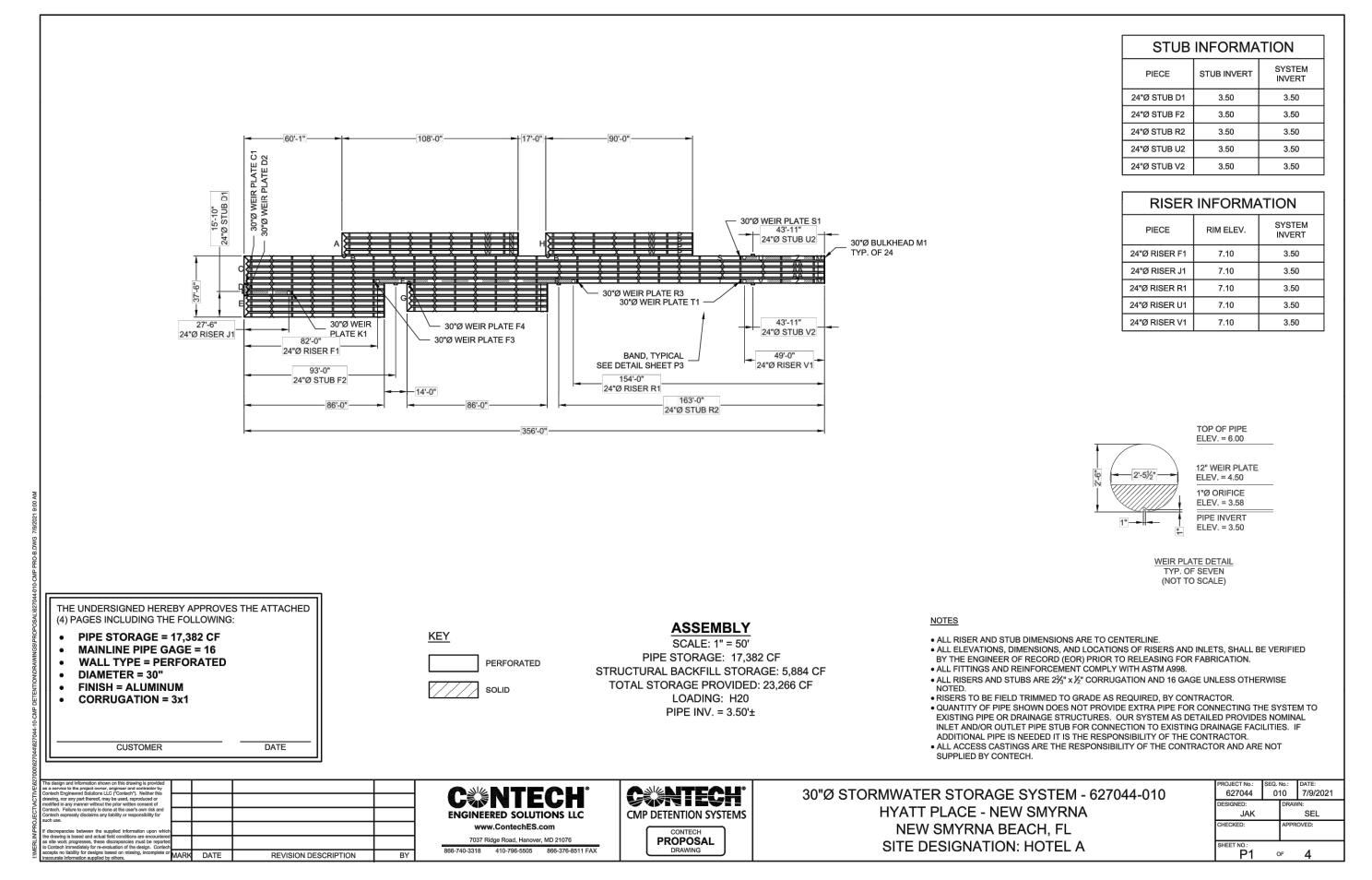
DESIGNED BY

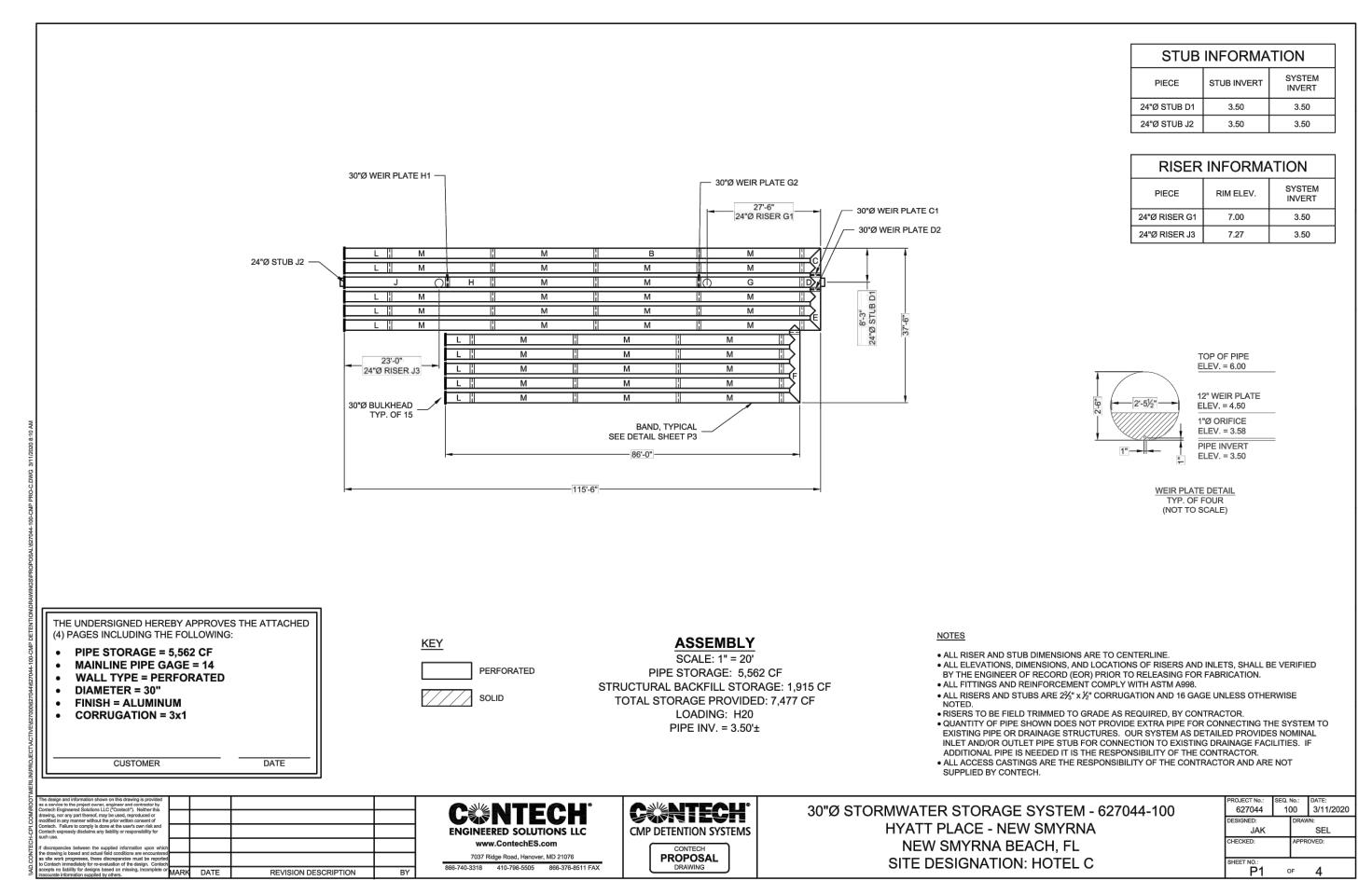
CPN

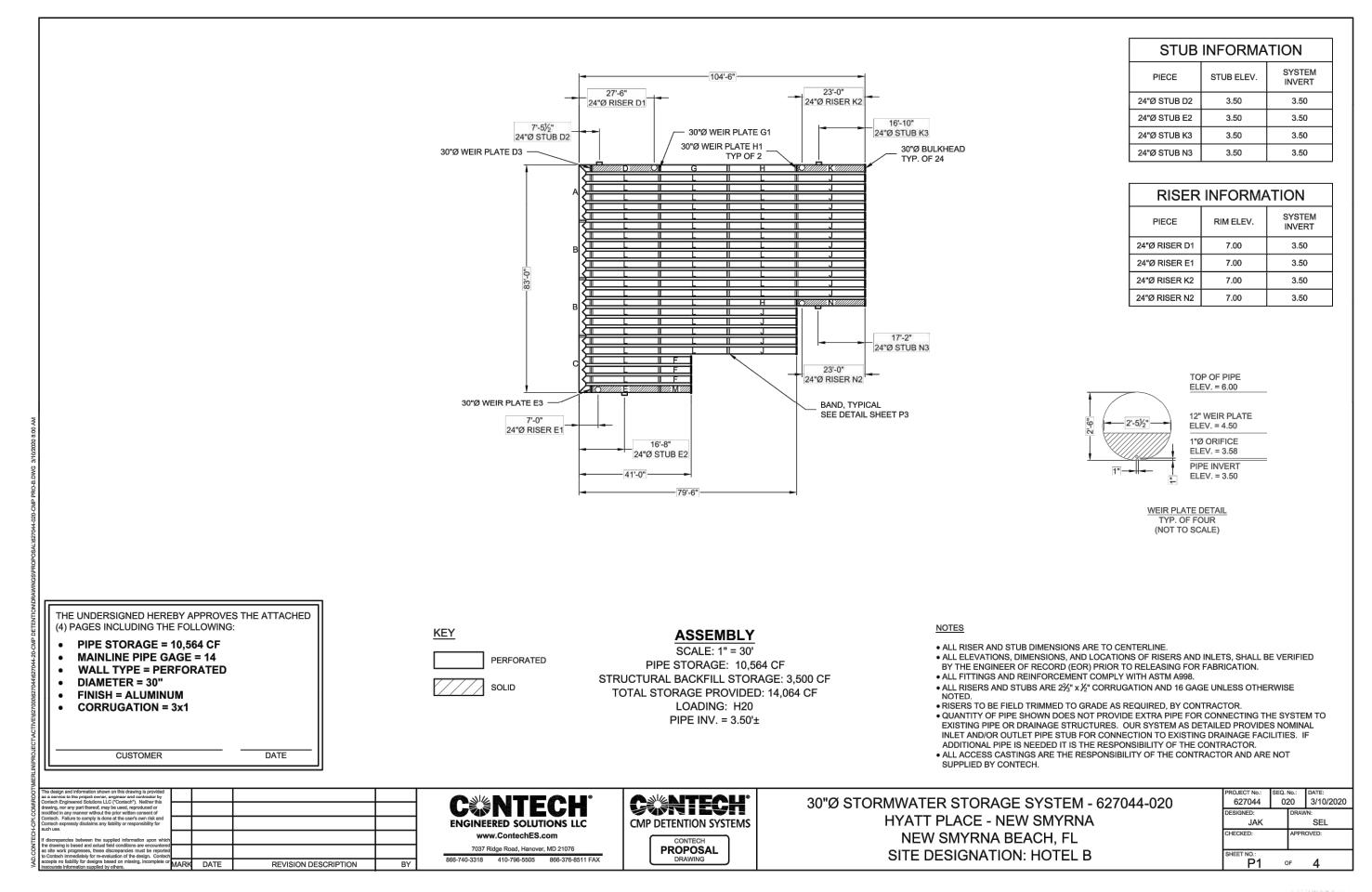
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	NEW SMYF			SCALE	
	VASTEWAT			DATE	
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	DRAWN BY	CHECKED BY	APPROVED BY		(
	CPN	GRC	GRC	sнеет 25	

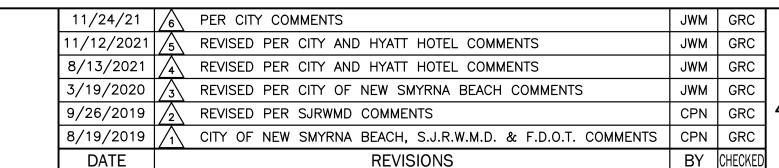
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C-19 of 44	
HEET 25 OF 44	











CONSTRUCTION PLANS
HYATT PLACE - NEW SMYRNA BEACH
429 E. 3RD AVENUE, NEW SMYRNA BEACH
FLORIDA



5127 S. Orange Avenue, Suite 200 Orlando, FL 32809 Phone: 407-895-0324 Fax: 407-895-0325

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DESIGNED BY

CONTECH CMP STORMWATER STORAGE SYSTEM (PLAN)

CHECKED BY

GRC

APPROVED BY

GRC

DRAWN BY

CPN

PROJECT NO.

SCALE

NTS

DATE

SHEET NO.

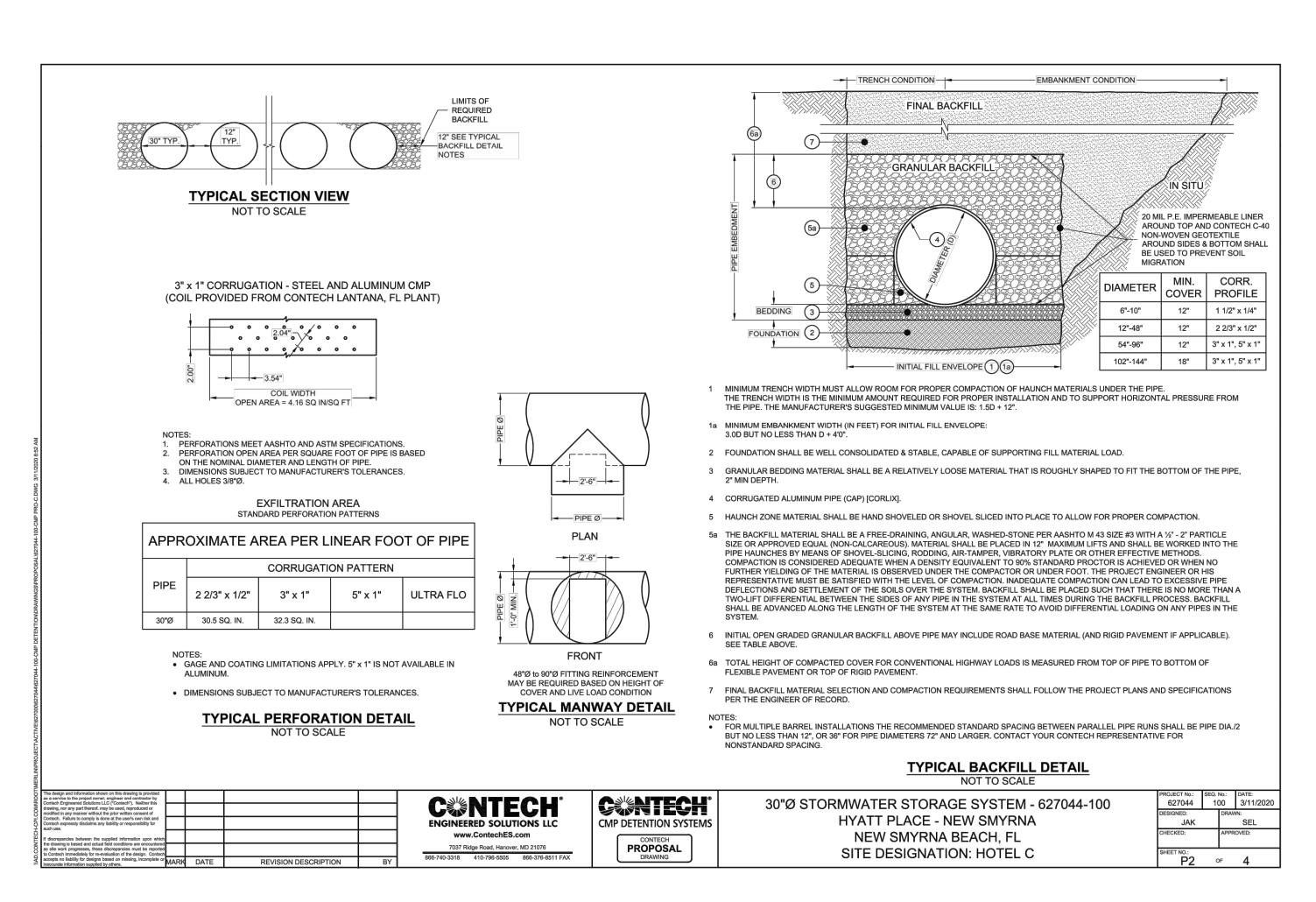
C-20

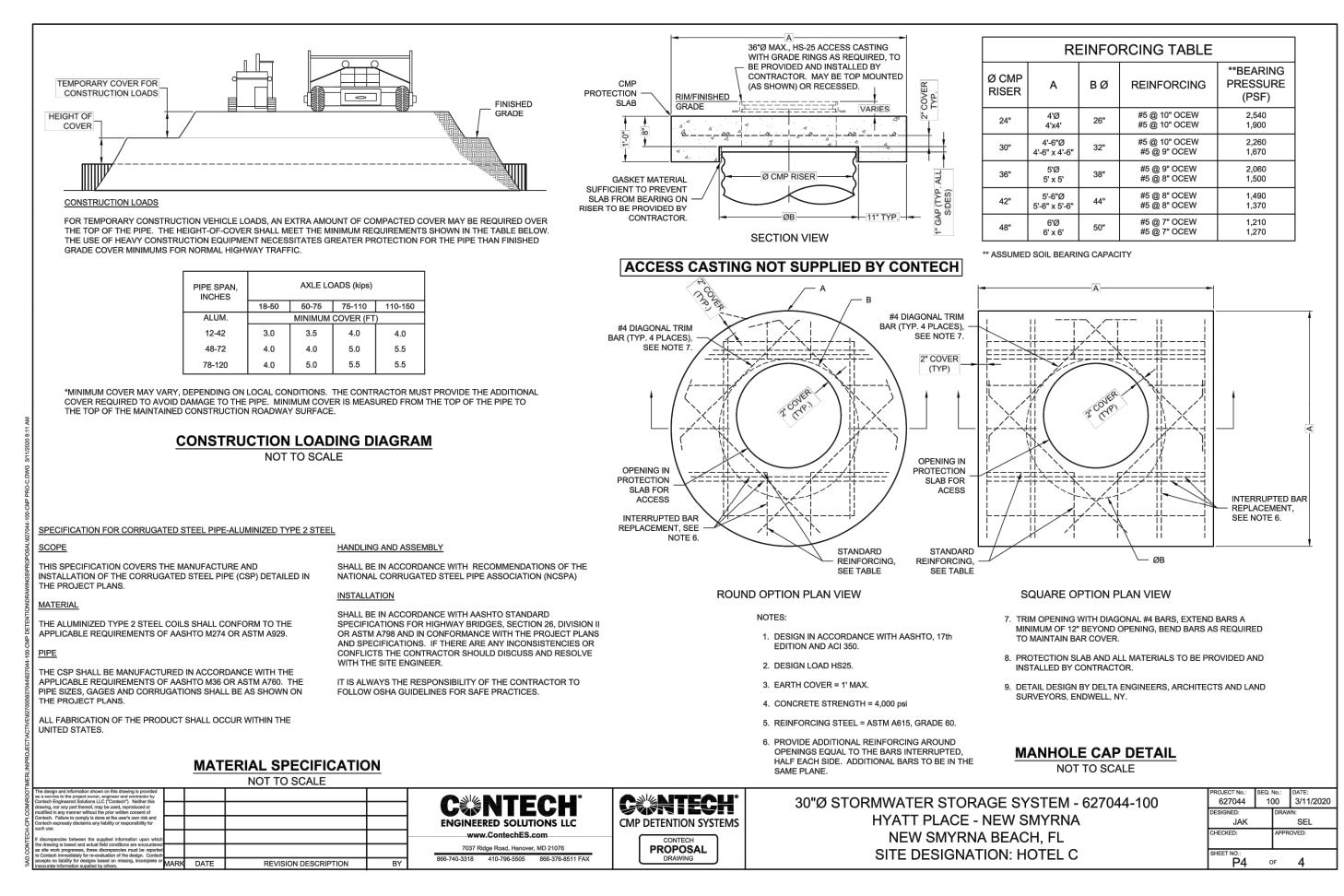
неет 26

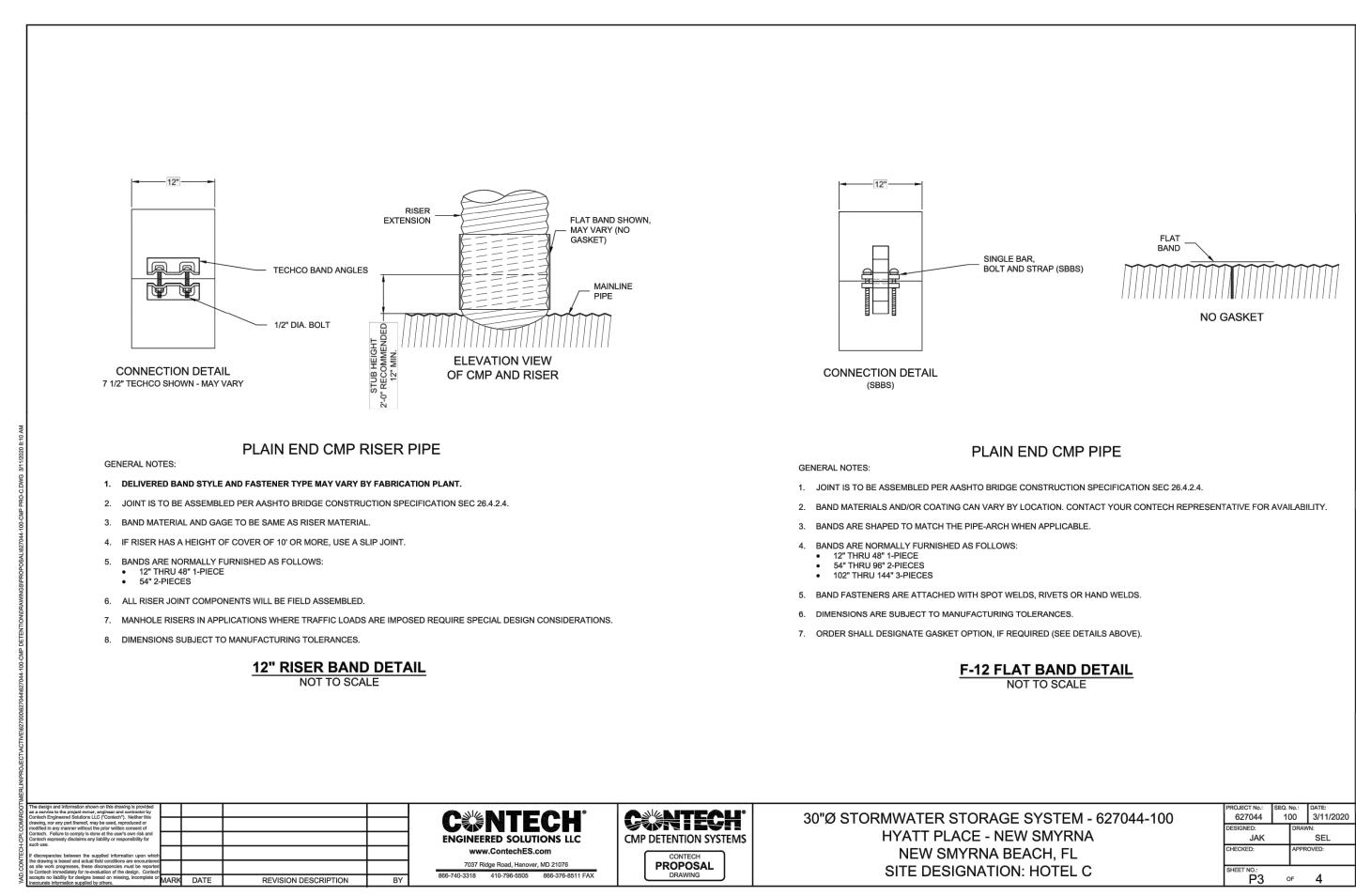
THIS ITEM HAS BEEN ELECTRONICALLY
SIGNED AND SEALED BY:
GREGORY R. CRAWFORD, P.E.
ON November 23, 2021 USING A
DIGITAL SIGNATURE.

PRINTED COPIES OF THIS DOCUMENT
ARE NOT CONSIDERED SIGNED AND
SEALED AND THE SIGNATURE MUST BE
VERIFIED ON ANY ELECTRONIC COPIES.









11/24/21	6	PER CITY COMMENTS	JWM	GRC	
11/12/2021	5	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
8/13/2021	4	REVISED PER CITY AND HYATT HOTEL COMMENTS	JWM	GRC	
3/19/2020	3	REVISED PER CITY OF NEW SMYRNA BEACH COMMENTS	JWM	GRC	
9/26/2019	2	REVISED PER SJRWMD COMMENTS	CPN	GRC	4
8/19/2019	1	CITY OF NEW SMYRNA BEACH, S.J.R.W.M.D. & F.D.O.T. COMMENTS	CPN	GRC	
DATE		REVISIONS	BY	CHECKED	

CONSTRUCTION PLANS
HYATT PLACE - NEW SMYRNA BEACH
429 E. 3RD AVENUE, NEW SMYRNA BEACH,
FLORIDA



5127 S. Orange Avenue, Suite 200 Orlando, FL 32809 Phone: 407-895-0324 Fax: 407-895-0325

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CONTECH CMP STORMWAT
STORAGE SYSTEM (DETAIL

DRAWN BY

CPN

CHECKED BY

GRC

DESIGNED BY

CPN

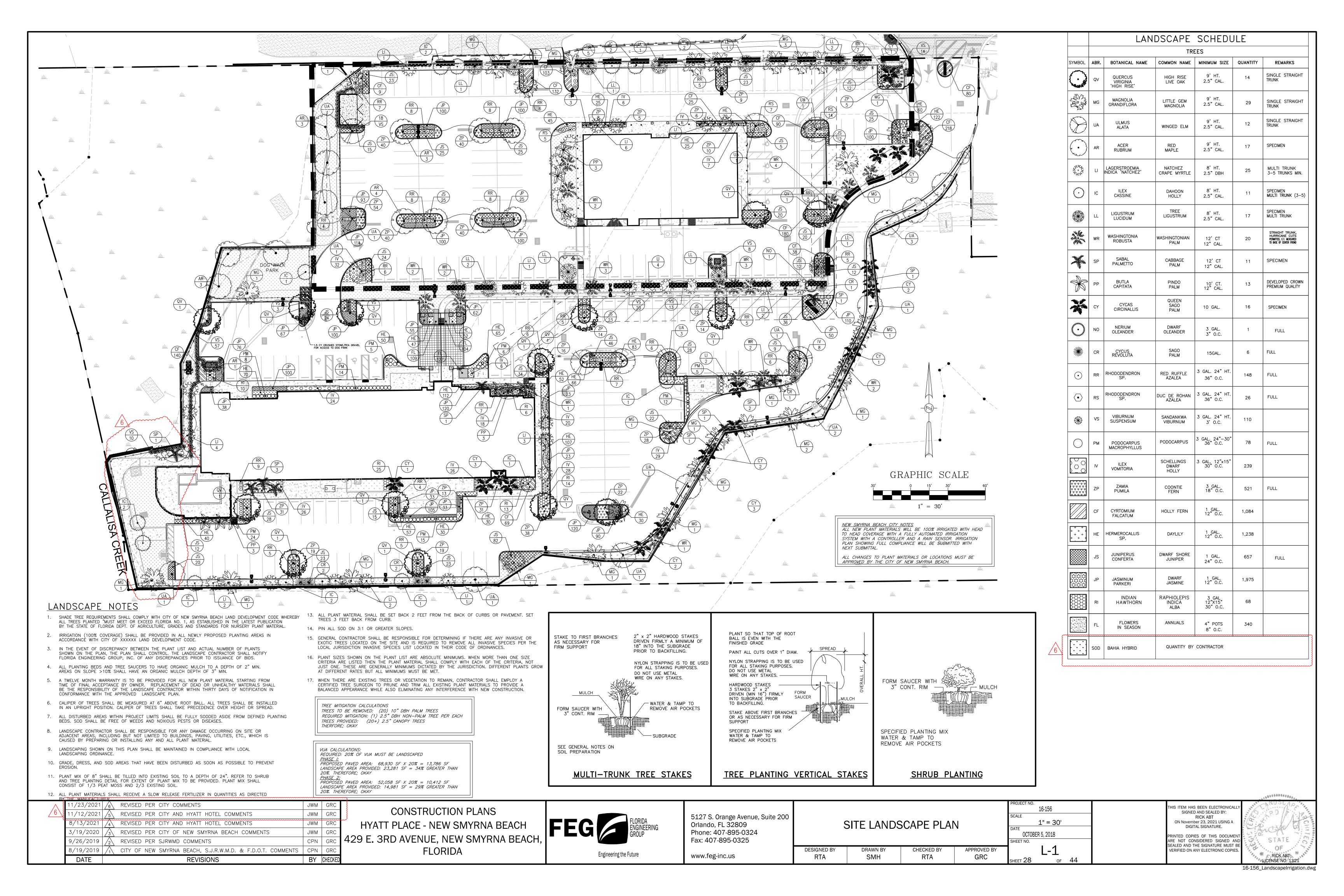
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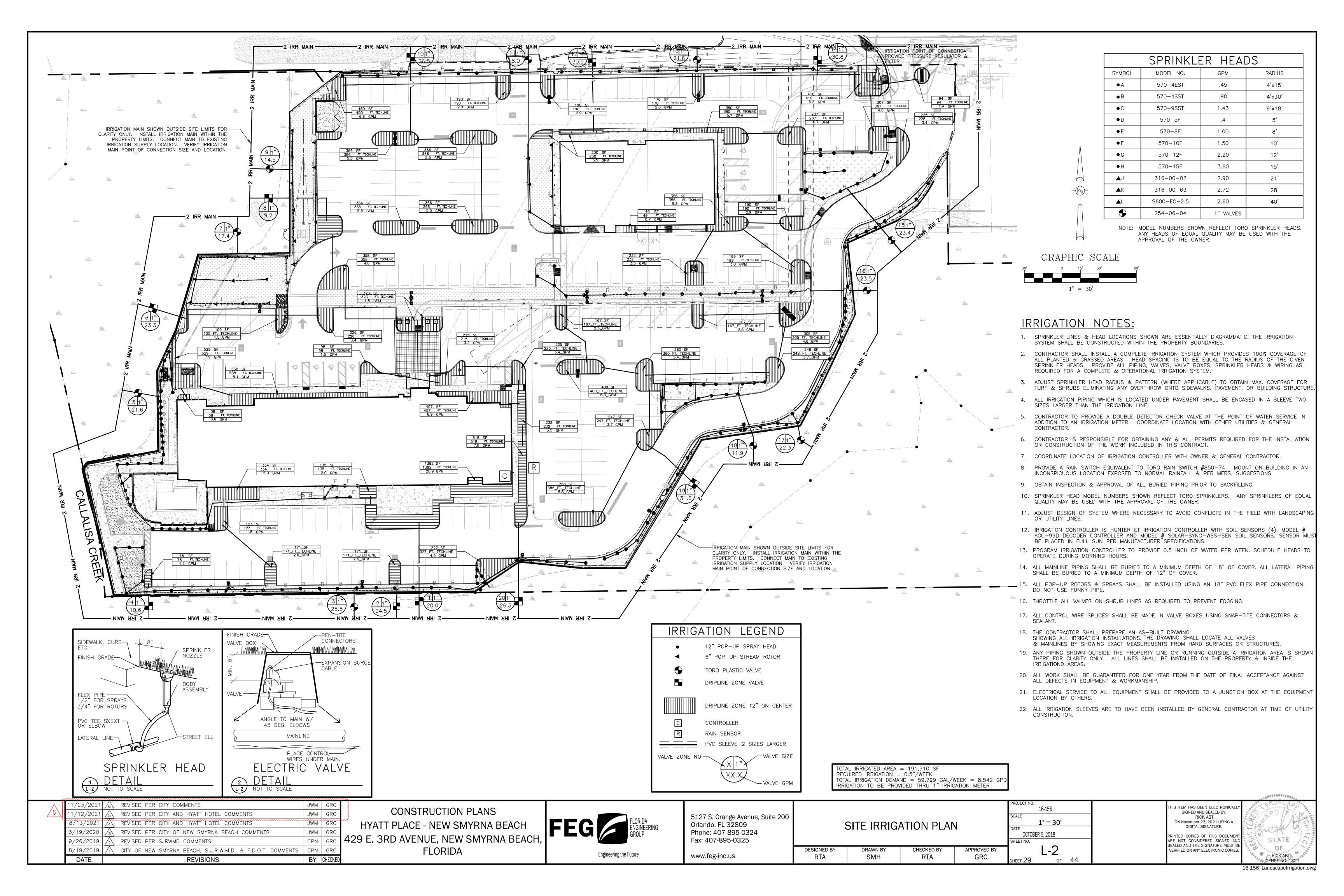
of **44**

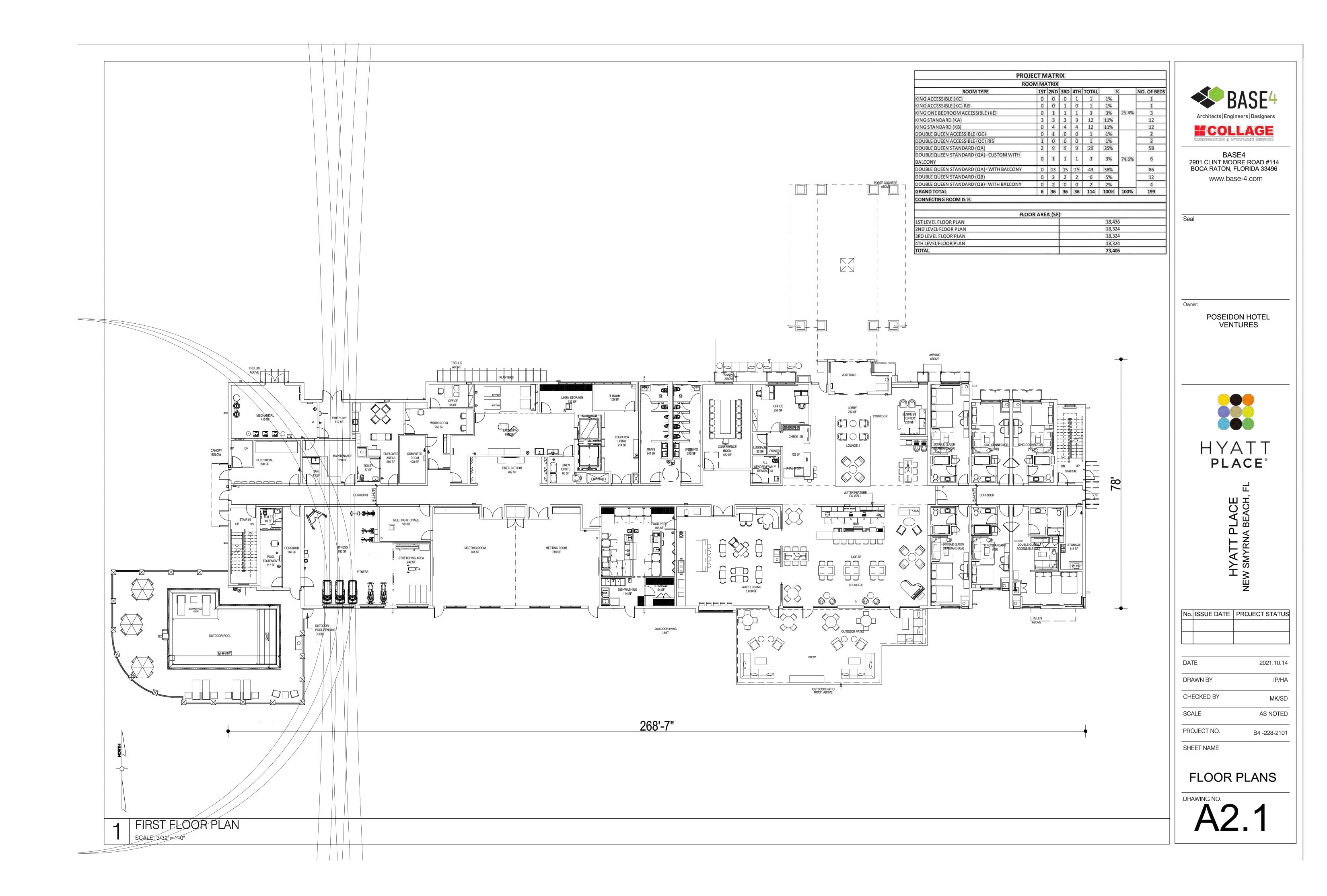
THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY:
GREGORY R. CRAWFORD, P.E.
ON November 23, 2021 USING A DIGITAL SIGNATURE.

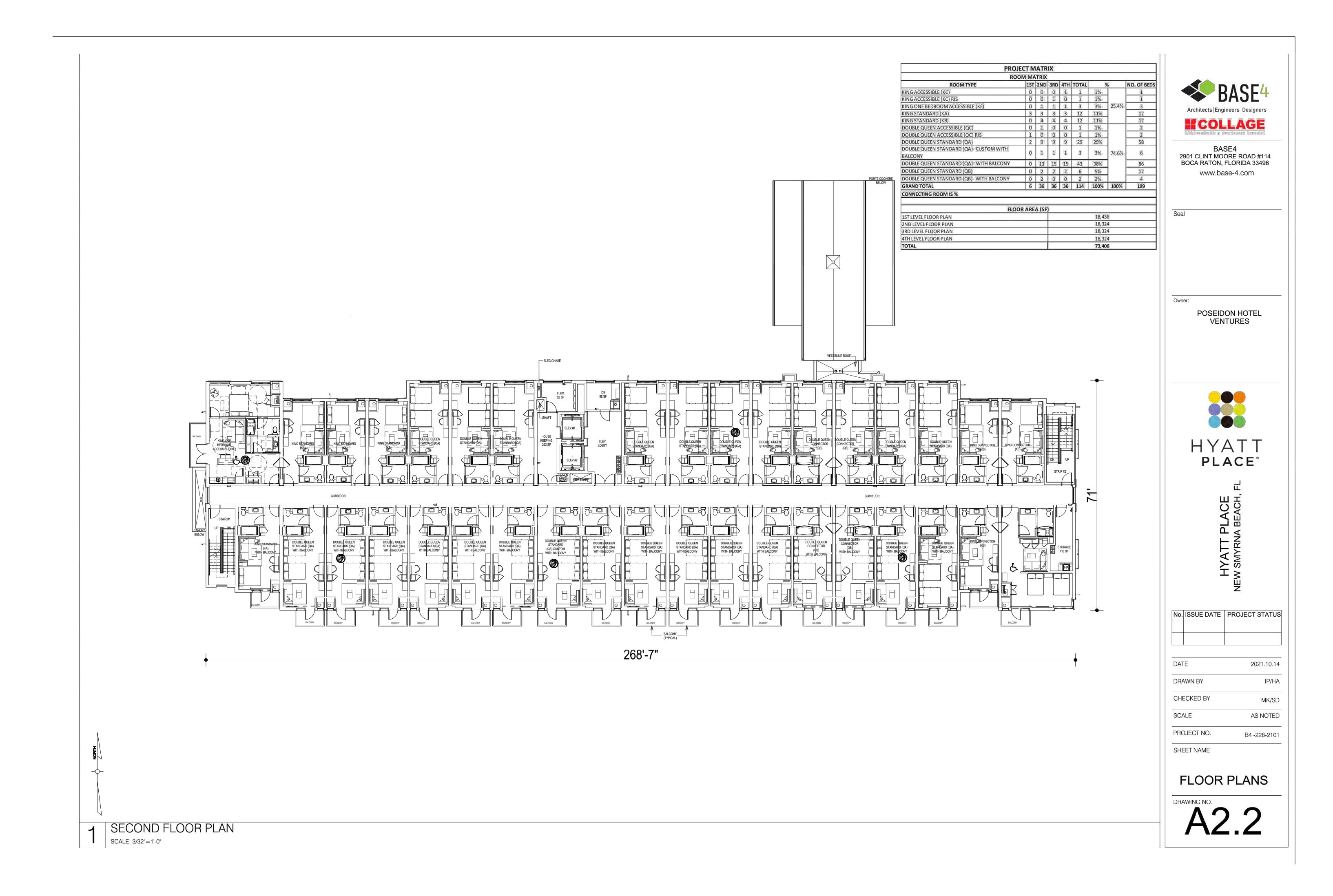
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BASE4
2901 CLINT MOORE ROAD #114
BOCA RATON, FLORIDA 33496
www.base-4.com

Seal

Owner:

POSEIDON HOTEL VENTURES



HYATT PLACE NEW SMYRNA BEACH, FL

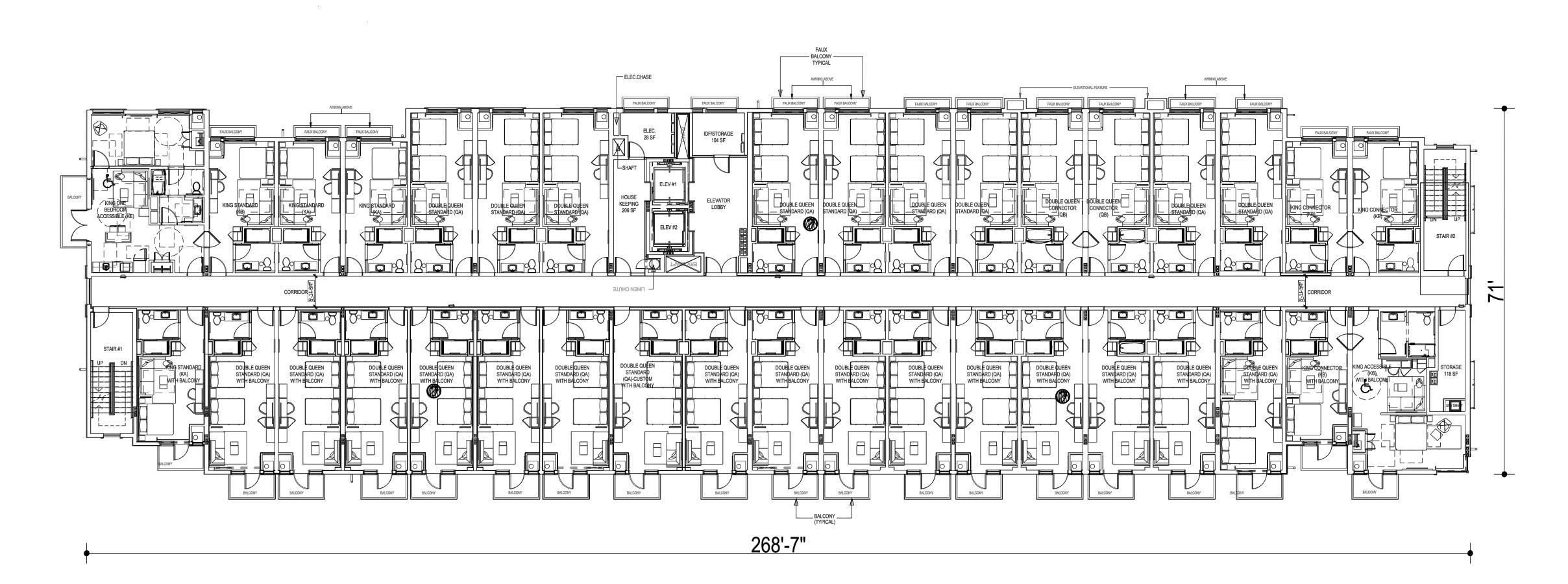
No.	ISSUE DATE	PROJECT STATUS

DATE	2021.10.
DRAWN BY	IP/H
CHECKED BY	MK/S
SCALE	AS NOTE
PROJECT NO.	B4 -228-21

SHEET NAME

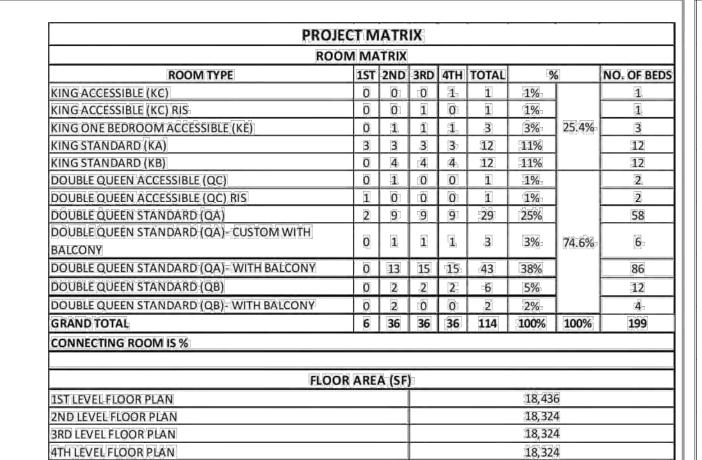
FLOOR PLANS

RAWING NO.



THIRD FLOOR PLAN

SCALE: 3/32"=1'-0"





BASE4 2901 CLINT MOORE ROAD #114 BOCA RATON, FLORIDA 33496 www.base-4.com

73,406

Owner:

POSEIDON HOTEL VENTURES

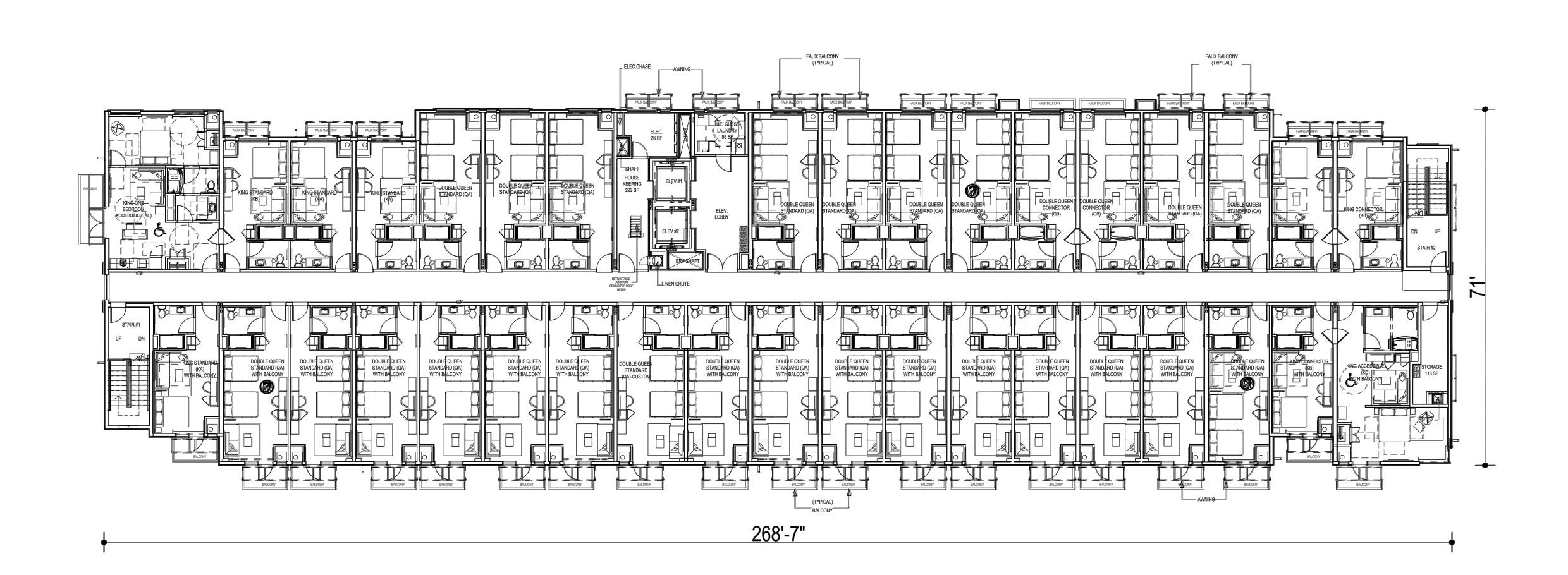


	No.	ISSUE DATE	PROJECT STATUS
			I

DATE 2021.10.14 DRAWN BY IP/HA CHECKED BY MK/SD SCALE AS NOTED PROJECT NO. B4 -228-2101

FLOOR PLANS

SHEET NAME



FOURTH FLOOR PLAN SCALE: 3/32"=1'-0"



	LEGEND-EXTERIOR FINISHES					
MARK	MTL-BRAND	FINISH-COLOR	IMAGE			
01	EIFS	SW 6142 MACADAMIA				
02 PAINT		WHITE HERON				
03	EIFS	SW 9055 BILLOWY BREEZE				
04	METAL ROOF	CITYSCAPE				
05	STONE	COASTALREEF-SANIBEL	15 1			
06 моор		SPRUCE WOOD				
07	PAINT	DARK TAN COLOR				

Note:

North building sign shall have a maximum copy area of one hundred twenty (120) square feet.
 West building sign shall have a maximum copy area of eighty (80) square feet.
 West building sign shall have an intensity of 120 lumens per square foot, with a decrease in luminosity of 50% by10:00p.m every evening.



BASE4 2901 CLINT MOORE ROAD #114 BOCA RATON, FLORIDA 33496

www.base-4.com

Seal

Owner:

POSEIDON HOTEL VENTURES



HYATT PLACE VEW SMYRNA BEACH, FL

No. ISSUE DATE PROJECT STATUS

DATE 2021.11.11

DRAWN BY HA

CHECKED BY MK/SD

SCALE AS NOTED

PROJECT NO. B4 -228-2101

SHEET NAME

DRAWING NO.

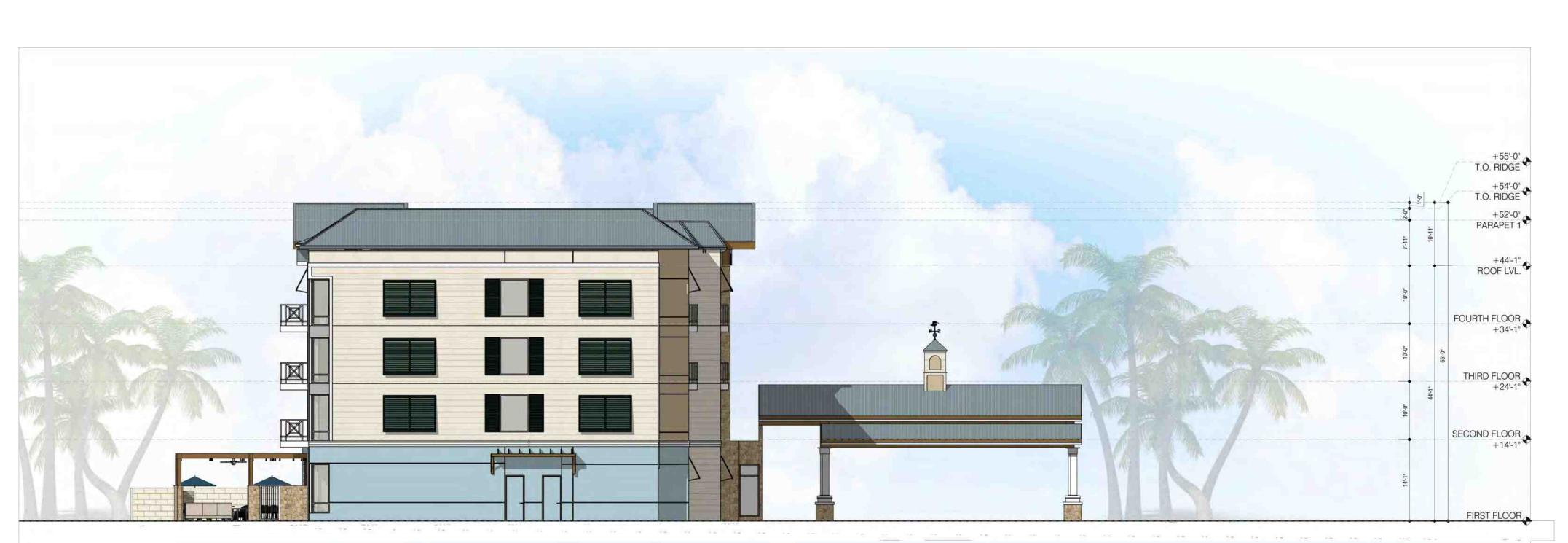
ELEVATIONS

TO RESE TO A RESET TO A RESE TO A RESET TO A RESET

NORTH ELEVATIONS

2 WEST ELEVATIONS
SCALE: 3/32"-1'-0"

SCALE: 3/32"-1'-0"



2 EAST ELEVATIONS
SCALE: 3/32"-1'-0"

SOUTH ELEVATIONS

SCALE: 3/32"-1'-0"

LEGEND-EXTERIOR FINISHES			
MARK	MTL-BRAND	FINISH-COLOR	IMAGE
01	EIFS	SW 6142 MACADAMIA	
02	PAINT	WHITE HERON	
03	EIFS	SW 9055 BILLOWY BREEZE	
04	METAL ROOF	CITYSCAPE	
05	STONE	COASTALREEF-SANIBEL	15
06	WOOD	SPRUCE WOOD	
07	PAINT	DARK TAN COLOR	

Not

North building sign shall have a maximum copy area of one hundred twenty (120) square feet.
 West building sign shall have a maximum

- 2. West building sign shall have a maximul copy area of eighty (80) square feet.3. West building sign shall have
- 3. West building sign shall have an intensity of 120 lumens per square foot, with a decrease in luminosity of 50% by10:00p.m every evening.



BASE4
2901 CLINT MOORE ROAD #114
BOCA RATON, FLORIDA 33496
www.base-4.com

Owner:

POSEIDON HOTEL VENTURES



HYATT PLACE JEW SMYRNA BEACH, FL

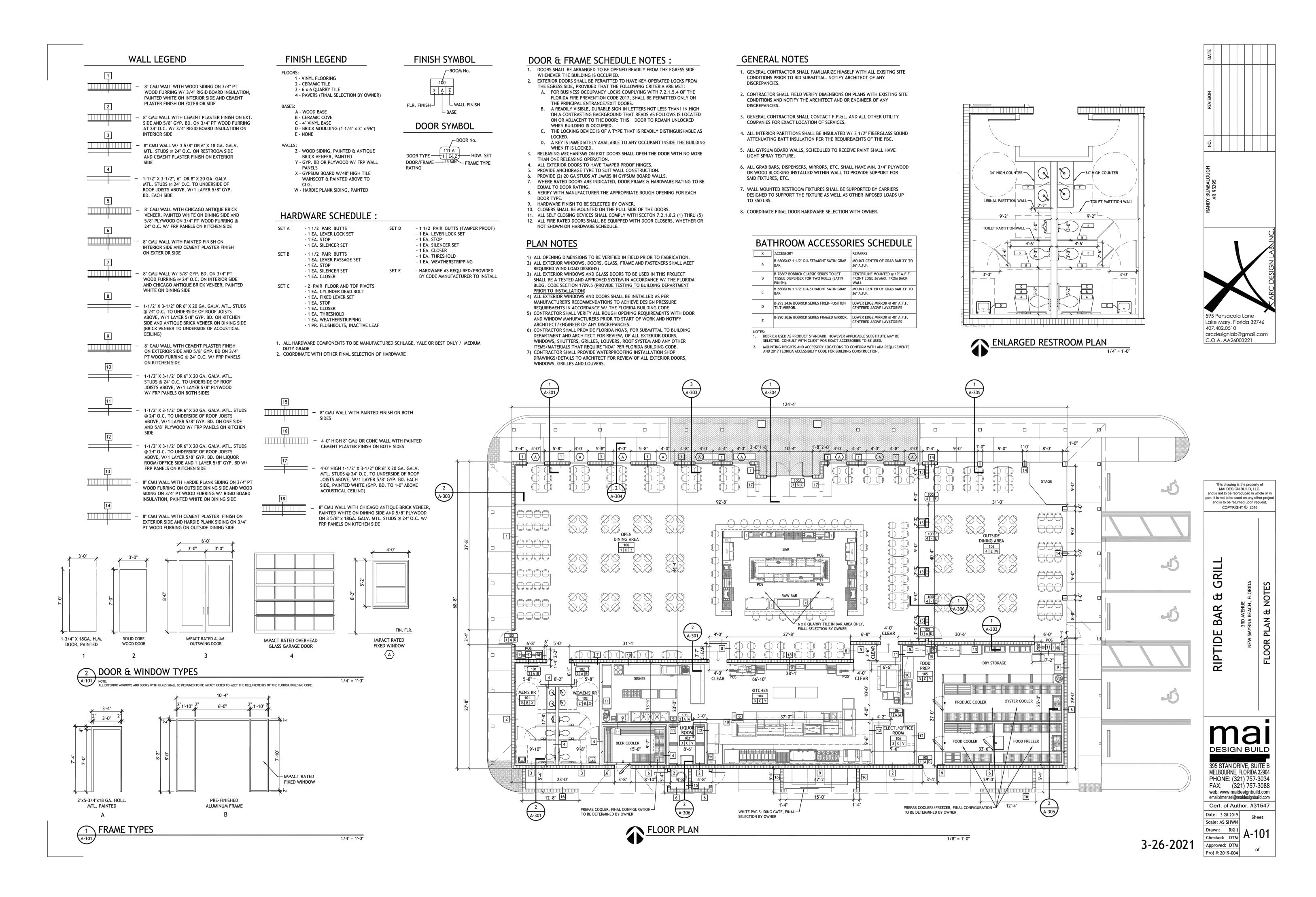
No. ISSUE DATE PROJECT STATUS

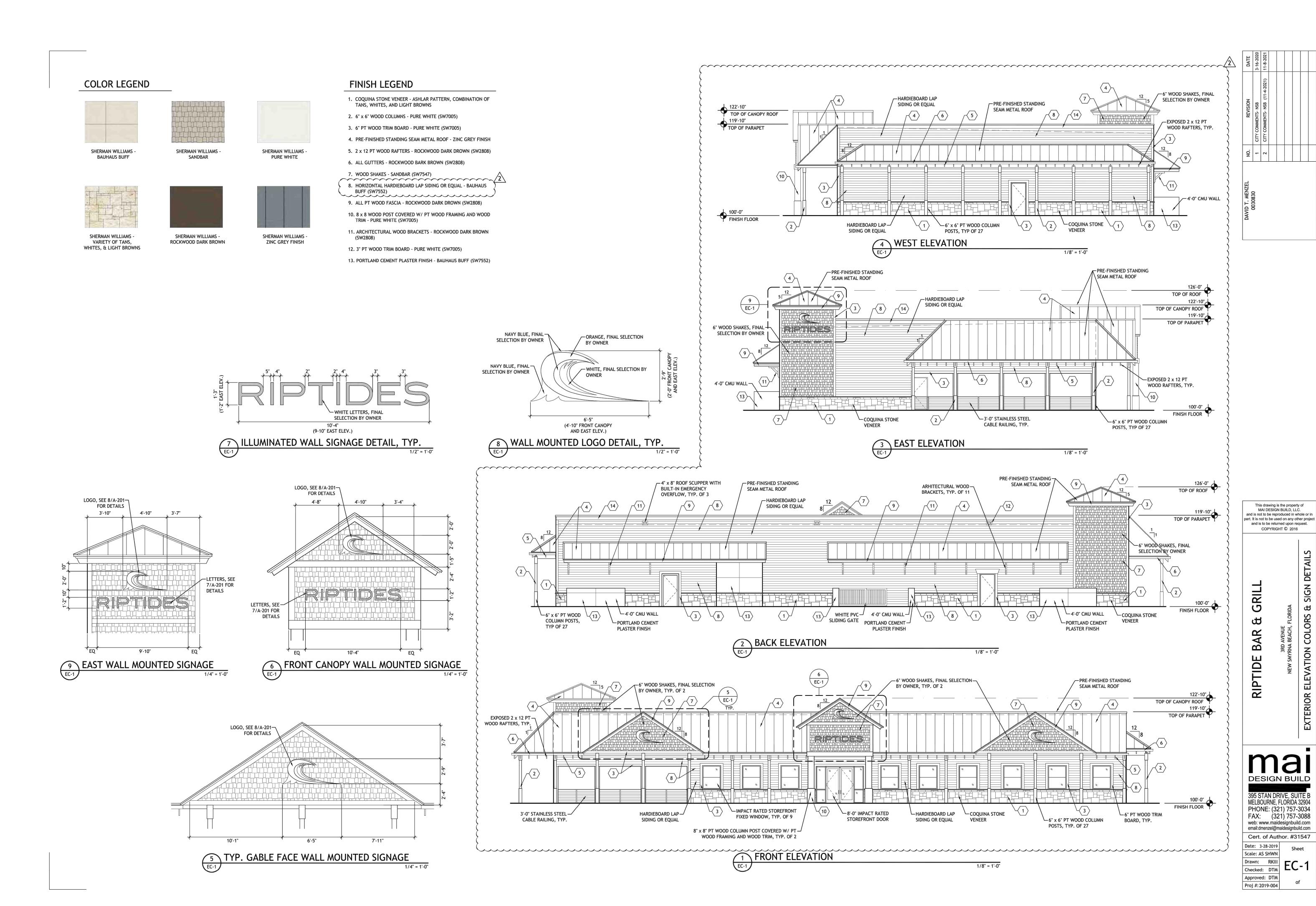
DATE	2021.11.11
DRAWN BY	НА
CHECKED BY	MK/SD
SCALE	AS NOTED
PROJECT NO.	B4 -228-2101

ELEVATIONS

DRAWING NO.

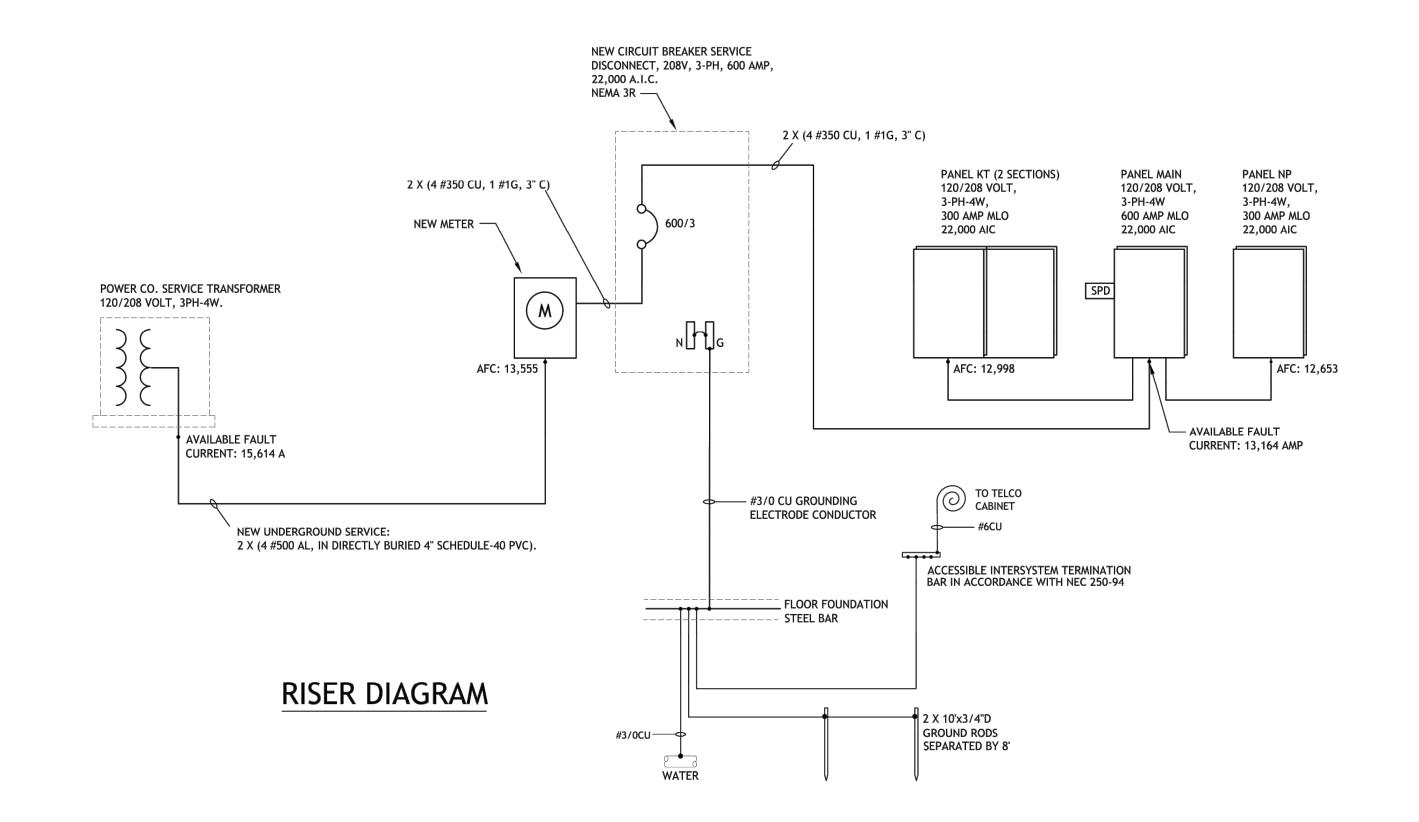




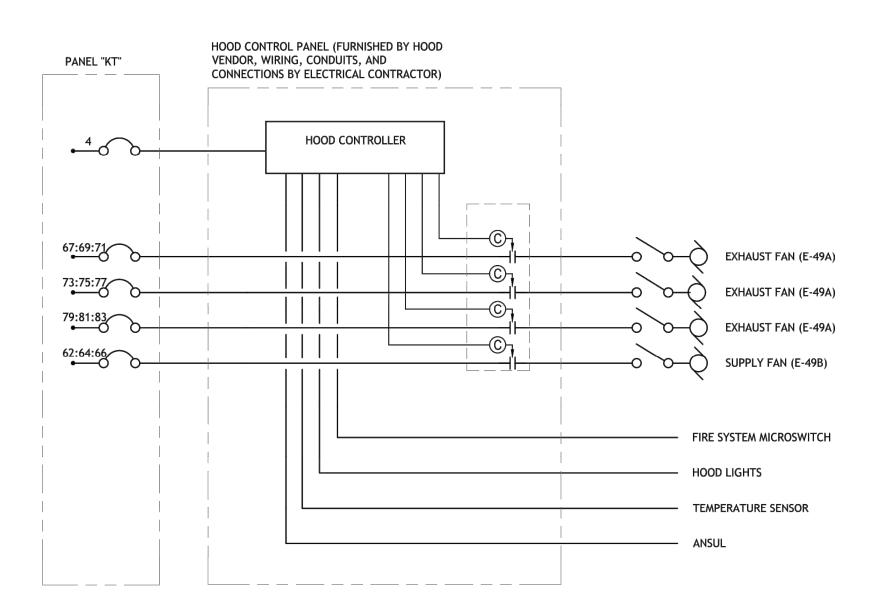




- ALL CONDUCTORS SHALL BE COPPER THWN UNLESS OTHERWISE NOTED.
- 2. ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC WELD.
- PROVIDE TESTS IN ACCORDANCE WITH IEEE 81, VERIFY GROUND RESISTANCE DOES NOT EXCEED 5 OHMS.
- 4. GROUNDING SYSTEM SHALL COMPLY WITH NEC 250.
- 5. FAULT CURRENTS ARE CALCULATED UNDER THE ASSUMPTION OF ONE 225 KVA UTILITY TRANSFORMER WITH 4% IMPEDANCE. UPON OBTAINING FAULT CURRENT LETTER FROM THE UTILITY, CONTRACTOR SHALL VERIFY ACTUAL FAULT CURRENT IS EQUAL OR LESS THAN SHOWN. IF ACTUAL FAULT CURRENT IS LARGER THAN SHOWN, CONTRACTOR SHALL REQUEST A NEW FAULT ANALYSIS FROM THE ENGINEER AND ADJUST EQUIPMENT AIC RATINGS AS REQUIRED AT NO COST FOR THE OWNER.
- 6. FEEDER SIZES HAVE BEEN UP-SIZED WHERE APPLICABLE FOR A MAXIMUM 2% VOLTAGE DROP, FROM POWER COMPANY TRANSFORMER TO FARTHEST DISTRIBUTION PANEL.
- 7. LOCATE METER PER POWER COMPANY
 REQUIREMENTS. METER CAN FURNISHED BY EC,
 METER PROVIDED BY POWER CO. PROVIDE
 TRANSFORMER PAD PER POWER CO REQUIREMENTS.
- 8. PROVIDE ARC-FLASH LABELS IN ACCORDANCE WITH NEC 110.16 AND FAULT CURRENT LABEL PER NEC 110.24

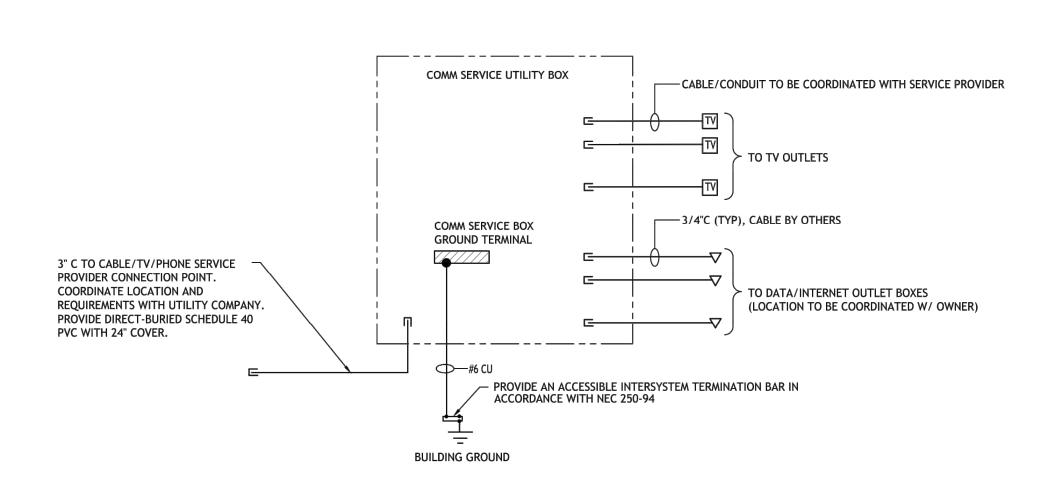


	VOLTA	GE DRC	P AI	ND SH	HOR	RT (CIR	CUI	T C	AL	C SI	UM	MARY	
#	PANEL/BREAKER	FROM	DIST (ft)	VOLT	AMP	Ph	#	М	Ø	N	GND	С	Volt Drop (%)	AIC (AMP)
1	METER	MAIN XFMR	45	208	600	3	2	Al	500	500	-	4"	0.49%	8.378
2	MAIN	BREAKER	12	208	600	3	2	Cu	350	350	1	3"	0.43%	8.240
3	NP	MAIN	8	208	300	3	1	Cu	350	350	4	3"	0.09%	8.063
4	КТ	MAIN	8	208	300	3	1	Cu	350	350	4	3"	0.06%	8.063

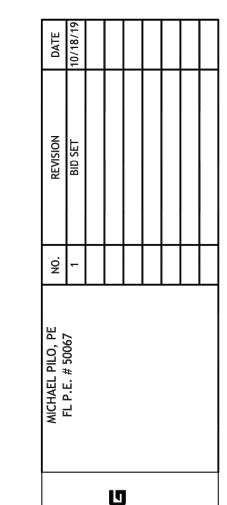


THIE DESIGN ASSUMES CONTROL/STARTER FOR HOOD EXHAUST AND SUPPLY FANS SHALL BE FURNISHED BY HOOD SUPPLIER AND SHALL BE INCLUDED WITH HOOD CONTROL PANEL, THE ACTUAL REQUIREMENTS SHALL BE COORDINATED WITH THE EQUIPMENT VENDOR. COORDINATE ELECTRICAL REQUIREMENTS FOR HOOD FAN CONTROL SYSTEM AND PROVIDE AS REQUIRED. PROVIDE INTERFACE WITH ANSUL EQUIPMENT AS REQUIRED. PROVIDE SHUTDOWN OF ELECTRICAL EQUIPMENT UNDER HOOD AS REQUIRED

HOOD WIRING DIAGRAM



COMM SERVICE RISER



	PILO ENGINEERING	540 HIBISCUS BLVD MERRITT ISLAND, FL 32952 (321) 427-3644	MP-PILOENG*CFL.RR.COM
1 1	PILO ENGINEERII	540 HIBISCUS BLVD MERRITT ISLAND, FL 32952 (321) 427-3644	MP-PILOENG-CFL BR.COM



RIPTIDE BAR & GRILL

3RD AVENUE
NEW SMYRNA BEACH, FLORIDA



Cert. of	Auti	nor.	#31547
Date: 10-16-	2019	,	Sheet
Scale: AS SI	HWN		Silect
Drawn:	DP		-601
Checked:	MP	∟.	-001
Approved:	MP		
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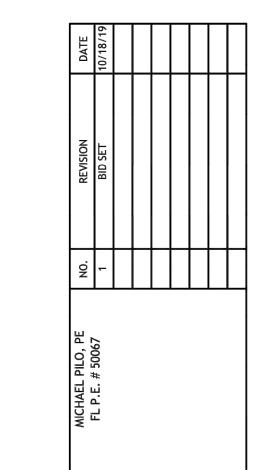
DΛ	NEL: MAIN			F	RATIN	lG:			L-L	L-N	Ph	W	LUG LOCATION:	BOT	TOM				A.	I.C.:	<u>22,</u>	000
FA	MAIN			60	00	MCB	S	ERV:	208	120	3	4	MOUNTING:	SURI	FACE							
скт.	EQUIPMENT SERVED		KVA		СКТ	. BRK.	ı	BRANC	H CIRCL	JIT		CKT.	EQUIPMENT SERVED		KVA		CKT.	BRK.	BF	ANCH C	IRCU	JIΤ
No.	EQUIFMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С		No.	EQUIPMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С
1	PANEL NP	23.1			3	300	350	350	1	3"		2										
3	u		23.1			"	n					4										
5				23.1			-					6										
7	PANEL KT	24.7			3	300	350	350	1	3"		8										
9	а		24.7			"	"					10										
11	п			24.7		"	"					12										
13												14										
15												16	SPD				3	30	10	10	10	3/4"
17												18	п					"	"			
19												20	п					"	"			
	TOTAL	47.8	47.8	47.8								TOTAL	TOTAL									
EQUIP	MENT SERVED					CON	IN. LO	۸D	L	.F	0	F	DESIGN LOAD									
	ING & RECEPTACLES						13.8		1	.0	1	.0	13.8		PRO	/IDE P	ANEL	DIREC	TORY			
EQUIP	MENT						74.1		1	.0	1	.0	74.1									
HVAC							55.5		1	.0		.0	55.5									
											٦	TOTAL	143.4									
												AMPS	398.0									

1 REST. WEST WALL RCPT. 1.4 1 20 12 12 12 3/4" 2 RESTAURANT (INT) LIGHTS 0.2 1 20 12	DΛ	NEI • ND			F	RATIN	lG:			L-L	L-N	Ph	W	LUG LOCATION:	ВОТ	ТОМ				A.	I.C.:	22,	000
REST, WESTWALK REPT.		MINEL. NP			30	00	MLO	S	ERV:	208	120	3	4	MOUNTING:	SUR	FACE							
No. No.	CKT.	FOLUDAENT SERVED		KVA		СКТ	. BRK.		BRANC	H CIRCL	JIT		CKT.	EQUIDMENT SERVED		KVA		CKT.	BRK.	BF	RANCH	CIRCU	ĴΙΤ
3 SIGN RCPT. 3 5 5 6 1 20 12 12 12 3/4" 4 RESTAURANT (INT) LIGHTS 0 0.4 1 20 12 12 12 12 12 12	No.	EQUIPMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С		No.	EQUIFMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С
September Sept	1	REST. WEST WALL RCPT.	1.4			1	20	12	12	12	3/4"		2	RESTAURANT (INT) LIGHTS	0.2			1	20	12	12	12	3/4"
For the content of	3	SIGN RCPT.		0.5		1	20	12	12	12	3/4"		4	RESTAURANT (INT) LIGHTS		0.4		1	20	12	12	12	3/4"
P REST. EAST WALL RCPT.	5	REST. WEST/NORTH WALL RCPT.			1.3	1	20	12	12	12	3/4"		6	KITCHEN LIGHTS			0.7	1	20	12	12	12	3/4"
11 REST. SOUTH POS RCPT. 1.1 0.7 1 20 12 12 12 3/4" 12 RESTAURANT (EXT) LIGHTS 1.2 0.2 1 20 12 12 12 14 15 REST. SOUTH WALL RCPT. 1.1 1 1 20 12 12 12 3/4" 14 RESTAURANT (EXT) LIGHTS 1.2 0.2 1 1 20 12 12 12 12 14 15 REST. EXTERN WALL RCPT. 1.1 1 1 20 12 12 12 3/4" 16 EXTERIOR LIGHTS 1.6 1 20 12 12 12 12 14 15 REST. EXTERN WALL RCPT. 1.1 1 1 20 12 12 12 3/4" 18 REST. EXTERN WALL RCPT. 1.1 1 1 20 12 12 12 3/4" 18 REST. EXTERN WALL RCPT. 1.2 1 ROF RCPT 1.3 REST. EXTERN WALL RCPT. 1.4 1 20 12 12 12 3/4" 18 RESTAURANT (EXT) LIGHTS 1.5 REST. EXTERN WALL RCPT. 1.6 1 1 20 12 12 12 12 3/4" 18 RESTAURANT (EXT) LIGHTS 1.7 REST. EXTERN WALL RCPT. 1.8 REST. EXTERN WALL RCPT. 1.9 REST. EXTERN WALL RCPT. 1.0 1 1 20 12 12 12 3/4" 18 RESTAURANT (EXT) LIGHTS 1.0 REST. EXTERN WALL RCPT. 1.1 1 20 12 12 12 12 3/4" 18 RESTAURANT (EXT) LIGHTS 1.0 REST. EXTERN WALL RCPT. 1.1 1 20 12 12 12 12 3/4" 18 RESTAURANT (EXT) LIGHTS 1.0 REST. EXTERN WALL RCPT. 1.1 1 20 12 12 12 12 12 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 REST. EXTERN WALL RCPT. 1.1 1 20 12 12 12 1/2 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 REST. EXTERN WALL RCPT. 1.1 1 20 12 12 12 1/2 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 REST. EXTERN WALL RCPT. 1.1 1 4 REST. EXTERN WALL RCPT. 1.0 1 20 12 12 12 1/2 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 1 20 12 12 12 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 1 20 12 12 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 20 12 12 12 1/4" 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 20 12 12 12 1/4" 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 20 12 12 12 1/4" 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 20 12 12 12 1/4" 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 20 12 12 12 1/4" 1/4" 18 RESTAURANT (EXT) LIGHTS 1.0 1 20 12 12 1/4" 1/4" 1/4" 1/4" 1/4" 1/4" 1/4" 1/4"	7	REST. EAST WALL RCPT.	1.1			1	20	12	12	12	3/4"		8	STORAGE LIGHTS	0.2			1	20	12	12	12	3/4"
13 REST. SOUTH WALL RCPT.	9	REST. EAST WALL RCPT.		0.7		1	20	12	12	12	3/4"		10	RESTROOM LIGHTS & RCPT.		0.6		1	20	12	12	12	3/4"
15 REST. EXTERN WALL RCPT.	11	REST. SOUTH POS RCPT.			0.7	1	20	12	12	12	3/4"		12	RESTAURANT (EXT) LIGHTS			0.2	1	20	12	12	12	3/4"
17 REST. EXTERN WALL RCPT.	13	REST. SOUTH WALL RCPT.	1.1			1	20	12	12	12	3/4"		14	RESTAURANT (EXT) LIGHTS	0.2			1	20	12	12	12	3/4"
PREST. NORTH POS RCPT.	15	REST. EXTERN WALL RCPT.		1.1		1	20	12	12	12	3/4"		16	EXTERIOR LIGHTS		1.6		1	20	12	12	12	3/4"
21 ROOF RCPT	17	REST. EXTERN WALL RCPT.			1.1	1	20	12	12	12	3/4"		18										
23	19	REST. NORTH POS RCPT.	0.7			1	20	12	12	12	3/4"		20										
25 RTU-1	21	ROOF RCPT		0.5		1	20	12	12	12	3/4"		22										
27 "	23												24										
27	25	RTU-1	7.5			3	100	2	-	8	1.5"		26										
STATE STAT	27	"		7.5			11	"					28										
33 "	29	"			7.5		"	"					30										
35 3.0 5.0	31	RTU-2	5.0			3	80	4	-	8	1.5"		32										
37 RTU-3 6.0 3 100 2 - 8 1.5" 38	33	"		5.0			"	"					34										
39 "	35	"			5.0		"	"					36										
41 "	37	RTU-3	6.0			3	100	2	-	8	1.5"		38										
41	39	"		6.0			"	"					40										
EQUIPMENT SERVED CONN. LOAD LF DF DESIGN LOAD LIGHTING & RECEPTACLES 13.8 1.0 1.0 13.8 PROVIDE PANEL DIRECTORY	41	"			6.0		"	"					42										
LIGHTING & RECEPTACLES 13.8 1.0 1.0 13.8 PROVIDE PANEL DIRECTORY		TOTAL	22.8	21.4	21.6				•				TOTAL	TOTAL	0.6	2.6	0.9						
13.6 1.0 1.0 1.5 1.5 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	EQUIP	MENT SERVED					CON	N. LO	AD.	L	.F	D	F	DESIGN LOAD			DANIE:	010-	CTOS				
EQUIPMENT	l⊢——														PRC	VIDE	PANEI	L DIRE	CIOR	Υ			
	<u> </u>																						
HVAC 55.5 1.0 1.0 55.5	HVAC							55.5		1	.0												
TOTAL 69.3 AMPS 192.4																							

DΛ	NEL: KT (SECTION 1)			F	RATIN	IG:			L-L	L-N	Ph	W	LUG LOCATION:	ВОТ	TOM				A.	I.C.:	22	,000
ГА	INLL. KI (SECTION 1)			30	00	MLO	SI	ERV:	208	120	3	4	MOUNTING:	SUR	FACE	<u> </u>						
скт.	FOLIDAENT SERVED		KVA		СКТ	. BRK.	E	BRANCI	H CIRCU	IIT		скт.	FOLIDAENT SERVED		KVA		СКТ	BRK.	В	RANCH	CIRC	UIT
No.	EQUIPMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С		No.	EQUIPMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С
1	DUPLEX CONV. OUT.	1.1			1	20	12	12	12	3/4"		2	DUPLEX CONV. OUT. **	0.5			1	20	12	12	12	3/4"
3	SODA SYSTEM (E-29)		1.5		1	20	12	12	12	3/4"		4	CONTROL PANEL	0.2			1	15	12	12	12	3/4"
5	SODA SYSTEM (E-29)			1.5	1	20	12	12	12	3/4"		6	SPARE				1	20				
7	SODA SYSTEM (E-29)	1.5			1	20	12	12	12	3/4"		8	POS (E-57A)	0.5			1	20	12	12	12	3/4"
9	SODA SYSTEM (E-29)		1.5		1	20	12	12	12	3/4"		10	CAFE BREWER (E-52)		0.6	İ	2	20	12	-	12	3/4"
11	WALK-IN COOLER (E-32)			1.5	1	20	12	12	12	3/4"		12	и			0.6		"	"			
13	EVAP. COIL, WALK-IN COOL. (E-32A)	0.2			1	20	12	12	12	3/4"		14	UNDERCOUNTER REFRIGERATOR (E-18)	0.7			1	20	12	12	12	3/4"
15	COND., REMOTE, WALK-IN COOLER (E-32B)		0.6		2	20	12	-	12	3/4"		16	TEA BREWER (E-54)		1.2		1	20	12	12	12	3/4"
17	п			0.6		"	"					18	SODA DISPENSER (E-55)			0.6	1	20	12	12	12	3/4"
19	WALK-IN FREEZER (E-33)	1.5			1	20	12	12	12	3/4"		20	SODA DISPENSER (E-55)	0.6			1	20	12	12	12	3/4"
21	EVAP. COIL, WALK-IN FREEZER (E-33A)		0.6		2	20	12	-	12	3/4"		22	POS (E-57A)		0.5		1	20	12	12	12	3/4"
23	n .			0.6		ır						24	DUPLEX CONV. OUT.			0.2	1	20	12	12	12	3/4"
25	COND., REMOTE, WALK-IN FREEZER (E-33B)	0.6			2	20	12	-	12	3/4"		26	PREP. REFRIGERATOR (E-22) **	0.4			1	20	12	12	12	3/4"
27	n		0.6			"	.,					28	MICROWAVE (E-12)		1.4	İ	2	20	12	-	12	3/4"
29	WALK-IN PRODUCE/OYSTER COOLER (E-34)			1.5	1	20	12	12	12	3/4"		30	и			1.4		"	"			
31	EVAP. COIL, WALK-IN COOLER (E-34A)	0.2			1	20	12	12	12	3/4"		32	PREP. REFRIGERATOR (E-21) **	0.4			1	20	12	12	12	3/4"
33	EVAP. COIL, WALK-IN COOLER (E-34A)		0.2		1	20	12	12	12	3/4"		34	PREP. REFRIGERATOR (E-20) **		0.4		1	20	12	12	12	3/4"
35	COND., REMOTE, WALK-IN COOLER (E-34B)			0.6	2	20	12	-	12	3/4"		36	COLD FOOD WELL (E-31B) **			0.6	1	20	12	12	12	3/4"
37	"	0.6				"	"					38	HOT FOOD WELL (E-31A) **	1.8			1	20	12	12	12	3/4"
39	COND., REMOTE, WALK-IN COOLER (E-34B)		0.6		2	20	12	-	12	3/4"		40	HEAT LAMP (E-31E)		1.8		1	20	12	12	12	3/4"
41	"			0.6		"	"					42	HEAT LAMP (E-31E)			1.8	1	20	12	12	12	3/4"
43	WALK-IN BEER COOLER (E-35)	1.5			1	20	12	12	12	3/4"		44	HEAT LAMP (E-31E)	1.8			1	20	12	12	12	3/4"
45	EVAP. COIL, WALK-IN COOLER (E-35A)		0.2		1	20	12	12	12	3/4"		46	HEAT LAMP (E-31E)		1.8		1	20	12	12	12	3/4"
47	COND., REMOTE, WALK-IN COOLER (E-35B)			0.6	2	20	12	-	12	3/4"		48	WARMING DRAWER (E-31F)			0.5	1	20	12	12	12	3/4"
49	n	0.6				"	"					50	HOT FOOD WELL (E-31D)	0.6			1	20	12	12	12	3/4"
51	BEER SYSTEM (E-61)		1.5		1	20	12	12	12	3/4"		52	COLD FOOD WELL (E-31C)		0.6	İ	1	20	12	12	12	3/4"
53	WATER SOFTENER (E-63)			0.5	1	20	12	12	12	3/4"		54	PREP. REFRIGERATOR (E-11)			0.4	1	20	12	12	12	3/4"
	TOTAL	7.8	7.3	8.0							7	FOTAL	TOTAL	7.5	8.3	6.1		•	•	•	•	
EQUIPA	AENT SERVED					CON	N. LOA	/D	L	.F	D	F	DESIGN LOAD									
	NG & RECEPTACLES						0.0		1	.0	1.	.0	0.0	_	PRO	OVIDE	PANE	L DIRE	CTOR	Y		
EQUIPA	AENT						45.0		1		0.		36.0									
HVAC							0.0		1	.0	1.		0.0	-								
												OTAL	36.0	-								
												AMPS	100.0									

D۸	NEL: KT (SECTION 2)			F	RATIN	lG:			L-L	L-N	Ph	W	LUG LOCATION:	ВОТ	TOM				A.	I.C.:	22,	000
ГА	ANLL. KI (SECTION 2)			30	00	MLO	S	ERV:	208	120	3	4	MOUNTING:	SUR	FACE							
CKT.	FOURDMENT SERVED		KVA		СКТ	. BRK.	E	BRANCI	H CIRCU	IIT		скт.	FOURDMENT CEDVED		KVA		скт.	BRK.	BF	RANCH	CIRCL	ЛΤ
No.	EQUIPMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С		No.	EQUIPMENT SERVED	Α	В	С	PL.	TP.	ø	N	GND	С
53	WATER SOFTENER (E-63)			0.5	1	20	12	12	12	3/4"		54	PREP. REFRIGERATOR (E-11)			0.4	1	20	12	12	12	3/4"
55	FREEZER (E-15)	1.3			1	20	12	12	12	3/4"		56	REFRIGERATOR (E-19)	0.3			1	20	12	12	12	3/4"
57	HEATED HOLDING CABINET (E-9) **		1.9		1	20	12	12	12	3/4"		58	FIRE SUPPRESION SYSTEM (E-49C)		1.5		1	20	12	12	12	3/4"
59	FRYER FILTER (E-1A) **			1.2	1	20	12	12	12	3/4"		60	EXHAUST FAN FOR DISHWASHER (E-49A.1)			0.4	1	20	12	12	12	3/4"
61	MAIN COOKLINE EXHAUST HOOD (E-49)	1.5			1	20	12	12	12	3/4"		62	EXHAUST HOOD SUPPLY FAN (E-49B)	1.7			3	20	12	12	12	3/4"
63	MAIN COOKLINE EXHAUST HOOD (E-49)		1.5		1	20	12	12	12	3/4"		64	и		1.7			"	"			
65	MAIN COOKLINE EXHAUST HOOD (E-49)			1.5	1	20	12	12	12	3/4"		66	и			1.7		u	n			
67	EXHAUST FAN (E-49A)	0.5			3	20	12	12	12	3/4"		68	DOUBLE CONVECTION OVEN (E-8) **	0.7			1	20	12	12	12	3/4"
69	п		0.5			"	и					70	DOUBLE CONVECTION OVEN (E-8) **		0.7		1	20	12	12	12	3/4"
71	п			0.5		"						72	REFRIG. EQUIPMENT STAND (E-16) **			0.4	1	20	12	12	12	3/4"
73	EXHAUST FAN (E-49A)	0.5			3	20	12	12	12	3/4"		74	REFRIG. EQUIPMENT STAND (E-7) **	0.4			1	20	12	12	12	3/4"
75	п		0.5			"	п					76	TRIPLE DECK CONVEYOR OVEN (E-2) **		0.3		2	20	12	-	12	3/4"
77	я			0.5		"	19					78	и			0.3		"	"			
79	EXHAUST FAN (E-49A)	0.5			3	20	12	12	12	3/4"		80	STEAMER (E-13) **	2.7			3	30	10	10	10	3/4"
81	п		0.5			"						82	и		2.7			"	"			
83	п			0.5		"	.,					84	и			2.7		"				
85	DUPLEX CONV. OUT.	1.1			1	20	12	12	12	3/4"		86	POS AT BAR (E-57)	1.0			1	20	12	12	12	3/4"
87	BOTTLE COOLER (2x E-44)		1.0		1	20	12	12	12	3/4"		88	POS AT BAR (E-57)		1.0		1	20	12	12	12	3/4"
89	REFRIGERATED BACK BAR CAB. (2x E-45)			0.7	1	20	12	12	12	3/4"		90	GARBAGE DISPOSER (E-23)	0.8			3	20	12	-	12	3/4"
91	UNDERCOUNTER REFRIGERATOR (2x E-46)	0.3			1	20	12	12	12	3/4"		92	"		0.8			"	"			
93	UNDERCOUNTER FREEZER (2x E-47)		0.3		1	20	12	12	12	3/4"		94	и			0.8		"	"			
95	UNDERCOUNTER REFRIGERATOR (2x E-19A)			0.4	1	20	12	12	12	3/4"		96	DISHWASHER (E-26)	0.7			3	70	12	-	12	3/4"
97	ICE MACHINE (E-10)	1.5			2	20	12	-	12	3/4"		98	и		0.7			"	"			
99	п		1.5			"						100	и			0.7		"	"			
101	ICE MACHINE (E-10)			1.5	2	20	12	-	12	3/4"		102	SPARE				1	20				
103	n	1.5				"						104	SPARE				1	20				
105	SPARE				1	20						106	SPARE				1	20				
107	SPARE				1	20						108	SPARE				1	20				
	TOTAL	5.7	6.2	5.8							7	TOTAL	TOTAL	8.3	8.7	6.7		•				_
EQUIP/	MENT SERVED					CON	N. LO	AD.	L	.F	D	F	DESIGN LOAD					_	_			
	ING & RECEPTACLES						0.0		1	.0	1.	.0	0.0] P	ROVIE	DE PAI	NEL DI	RECTO	ORY			
EQUIP/	MENT					-	48.8		-	.0		.8	39.0									
HVAC							0.0		1	.0		.0	0.0	4								
											T	TOTAL	39.0									

** ITEMS WITH DOUBLE ASTERISK ARE LOCATED UNDER THE KITCHEN HOOD AND MUST BE SHUT DOWN ON HOOD FIRE SUPPRESSION ACTIVATION, PROVIDE RELAY CONTROL OR AUTOMATIC CONTROL SYSTEM SHUT-DOWN AS REQUIRED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.





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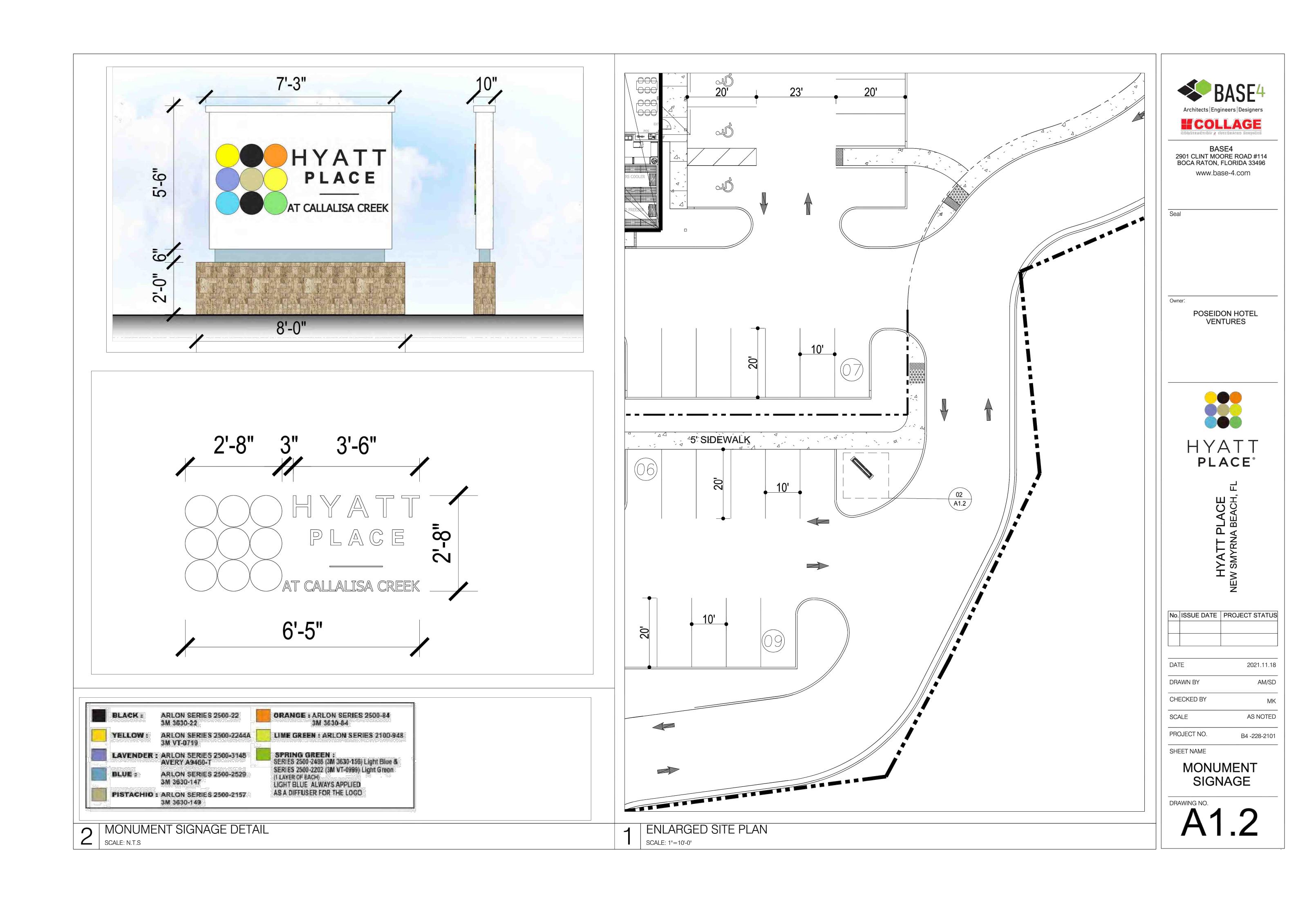
BAR

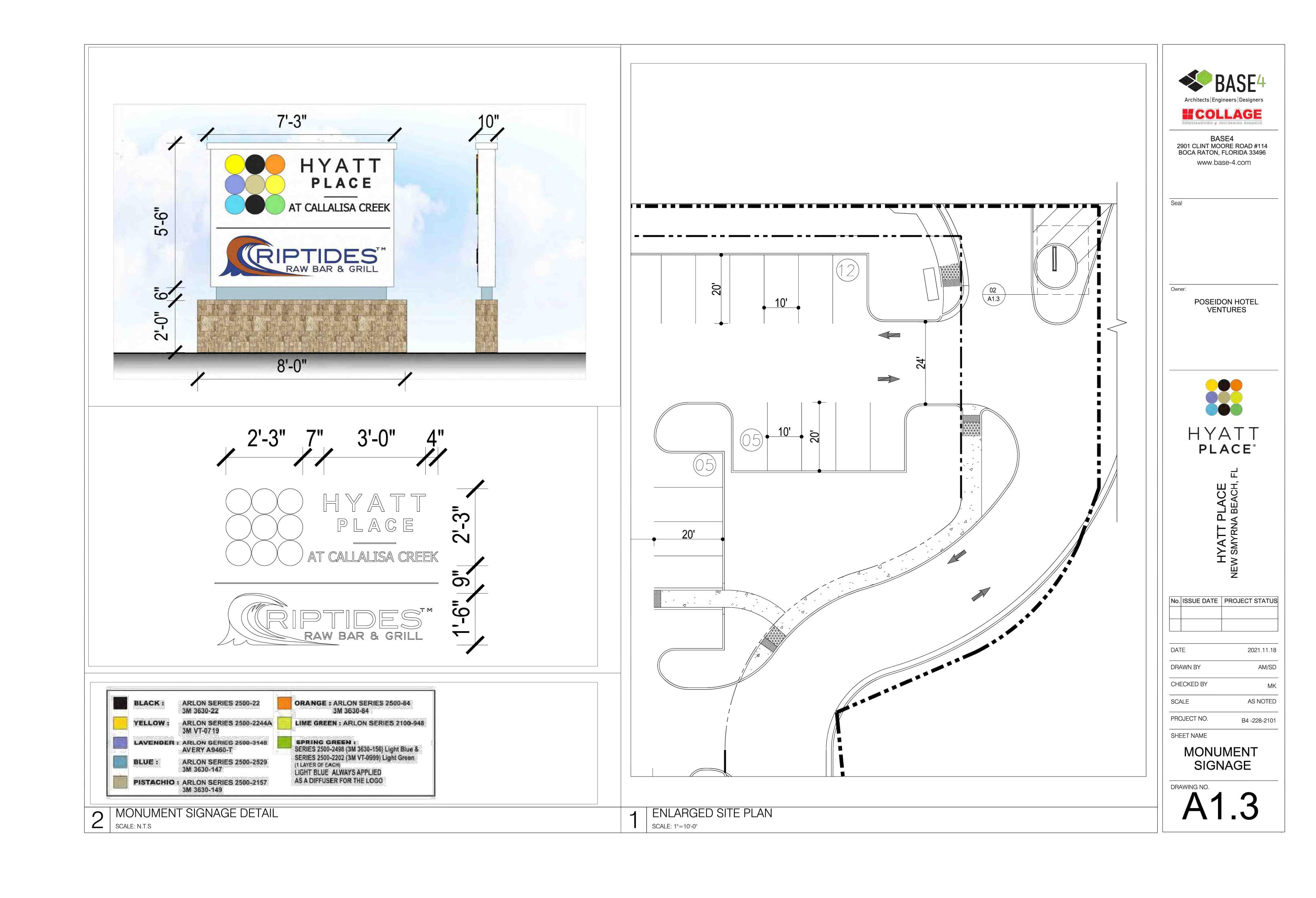
RIPTIDE

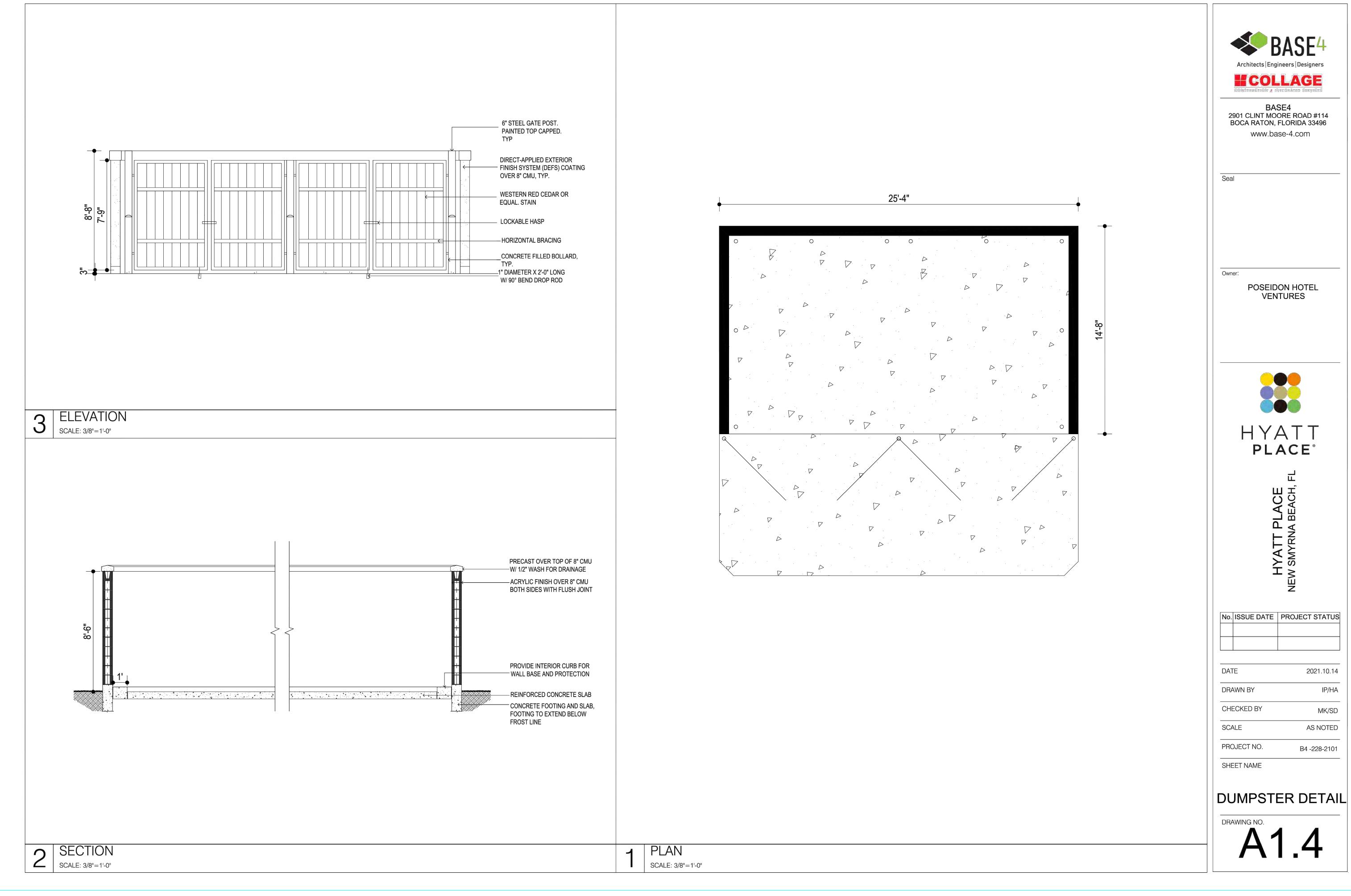


Cert. of Author. #31547

Date: 10-16-2019 Scale: AS SHWN







2021.10.14 IP/HA MK/SD AS NOTED B4 -228-2101

GENERAL NOTES

- COORDINATION: ALL ELECTRICAL WORK SHALL BE COORDINATE THROUGH THE DESIGN/BUILD CONTRACTOR.
- 2. CODE COMPLIANCE: ALL ELECTRICAL WORK SHALL COMPLY WITH OR SURPASS THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, NFPA 70, AND THE LATEST EDITION OF NESC. ALL WORK SHALL COMPLY WITH ALL APPLICABLE SERVING POWER AND COMMUNICATION UTILITIES' CODES, ORDINANCES, RULES AND REGULATION.
- 3. MEET ALL REQUIREMENTS: ALL WORK SHALL MEET THE REQUIREMENTS OF THE AFORE MENTIONED CODES AND ALL CODES AND STANDARDS REFERENCED IN THE SPECIFICATION. ALTHOUGH THE DETAILS OF SUCH WORK MAY NOT BE SHOWN ON THE DRAWINGS OR REFERENCED IN THE SPECIFICATIONS.
- 4. CONFLICTS: CONFLICTS BETWEEN THE APPLICABLE CODES, STANDARDS AND THE PLANS AND SPECIFICATION MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN/BUILD CONTRACTOR, PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
- 5. CONFLICTING STANDARDS: IN THE CASE OF CONFLICT BETWEEN THE CONTRACTOR DOCUMENTS AND A GOVERNING CODE OR ORDINANCE, THE MORE STRINGENT STANDARD SHALL APPLY.
- 6. ACCEPTANCE OF CONDITIONS: INTIATING WORK CONSTITUTES SUBCONTRACTOR ACCEPTANCE OF THE EXISTING CONDITION ASSOCIATED WITH THE WORK IN QUESTION.
- 7. TRADE LICENSE: THE ELECTRICAL SUBCONTRACTOR SHALL BE CURRENTLY LICENSED TO PERFORM THIS WORK WITHIN THE JURISDICTION HAVING AUTHORITY. ALL REQUIRED LICENSING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK.
- 8. SAFE: THE ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR OVERSEEING THE SAFE OPERATION OF ALL EQUIPMENT IN HIS USE. THE ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL OF THE EQUIPMENT IN HIS USE IN A SAFE CONDITION. KEEP DEAD FRONT EQUIPMENT IN PLACE WHEN EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATION IN A SAFE MANNER FOR EMPLOYEES. AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC.. AS REQUIRED FOR SAFETY. ALL ELECTRICIANS MUST PERFORM THIER WORK IN ACCORDANCE TO THE GUIDELINES SET FORTH BY THE NFPA 70E.
- 9. PROFESSIONALISM AND APPEARANCE OF WORK: WORKMANSHIP OF ALL INSTALLATION SHALL BE IN ACCORDANCE WITH ACCEPTED PRACTICES OF THIS TRADE. INSTALLATION METHODS SHALL CONFORM TO MANUFACTURERS SPECIFICATION. THE SUBCONTRACTOR TRADE FOR THE DURATION OF THE JOB WITH QUALIFIED JOURNEYMEN AND EMPLOYEES IN THIS TO COMMUNICATE WITH AND KEEP THE DESIGN/BUILD CONTRACTOR APPRAISED OF CHANGES OR CLARIFICATIONS.
- 10. WORKMANSHIP: ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT, DURABLE , AND WORKMANLIKE MANNER.
- 11. STORAGE AND EQUIPMENT ,STORAGE OF EQUIPMENT FOR THE JOB IS THE RESPONSIBILITY OF THE ELECTRICAL SUBCONTRACTOR AND SHALL BE SCHEDULED FOR DELIVERY TO THE SITE AS THE EQUIPMENT IS REQUIRED. DAMAGE TO THE EQUIPMENT DELIVERED TO THE SITE OR IN TRANSPORT TO THE JOB SHALL BE THE RESPONSIBILITY THE ELECTRICAL SUBCONTRACTOR.
- 12. UTILITY COORDINATION: ELECTRICAL SUBCONTRACTOR SHALL CONTACT ALL UTILITIES AND VERIFY ALL UTILITY REQUIREMENTS PRIOR TO COMMENCING OR ORDERING ANY MATERIALS WHATSOEVER. CONFLICTS BETWEEN UTILITY REQUIREMENTS AND THE PLANS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF OF THE DESIGN/BUILD CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION OR ORDERING ANY MATERIALS WHATSOEVER, SUBCONTRACTOR SHALL CALL FOR A PRE-CONSTRUCTION FACE-TO-FACE MEETING WITH THE UTILITY COMPANIES TO REVIEW REQUIREMENTS AND PLANS.
- 13. METHODS OF CONSTRUCTION: UNLESS OTHERWISE NOTED OR SHOWN, THESE DRAWINGS AND SPECIFICATIONS DO NOT INDICATE METHODS OF CONSTRUCTION. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFE WORK PRACTICES.
- 14. THE EXACT LOCATION AND THE ARRANGEMENTS OF ALL PARTS SHALL BE DETERMINED AS THE WORK PROGRESSES. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM.
- 15. INCIDENTAL ITEMS: INCIDENTAL ITEMS NOT INDICATED ON DRAWINGS, NOT MENTIONED IN THE SPECIFICATIONS THAT CAN BE LEGITIMATELY AND REASONABLY INFERRED TO BELONG TO THE WORK DESCRIBED OR NECESSARY IN GOOD PRACTICE TO PROVIDE A COMPLETE SYSTEM, SHALL BE FURNISHED AND INSTALLED AS TOUGH ITEMIZED HERE IN EVERY DETAIL.
- 16. DAMAGE RESPONSIBILITY: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ANY LOSS OR DAMAGE CAUSED BY HIM OR HIS WORKMEN TO THE FACILITY DURING THE COURSE OF CONSTRUCTION, AND SHALL BE FULLY RESPONSIBLE FOR REPAIRING OR REPLACING AS REQUIRED TO INSURE RESTORATION TO ORIGINAL CONDITION.
- 17. COMPLETE AND FUNCTIONAL SYSTEM: SUBCONTRACTOR SHALL FURNISH MATERIALS, TOOLS, SERVICES, LABOR, ETC. FOR A COMPLETE AND FULLY FUNCTIONAL ELECTRICAL INSTALLATION UNLESS OTHERWISE NOTED ON PLANS.
- 18. COORDINATION WITH OTHER TRADES: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ELECTRICAL INSTALLATION WITH ALL OTHER TRADES TO AVOID ANY CONFLICTS.
- 19. SUBCONTRACTOR SHALL DETERMINE EXACT LOCATION IN THE FIELD. FEEDERS SHALL NOT BE INCREASED IN LENGTHS SHOWN WITHOUT ENGINEERING APPROVAL.
- 20. EQUIPMENT OUTDOOR RATINGS: ALL ELECTRICAL EQUIPMENT EXPOSED OR INSTALLED OUTDOORS SHALL BE NEMA 3R (WEATHER PROOF) OR NEMA 4 (WET LOCATION) RATED.
- 21. SUBMITTAL /SHOP DRAWINGS: ALL SUBMITTAL /SHOP DRAWINGS SHALL CONTAIN COMPLETE INFORMATION NECESSARY TO DETERMINE THAT THE ITEM IS APPROPRIATE FOR THE PURPOSE INTENDED. ALL/SUBMITTA /SHOP DRAWINGS SHALL CONTAIN THE MANUFACTURES CONTACT PERSON AND CURRENT TELEPHONE NUMBER.
- 22. INDICATED LOCATION OF EQUIPMENT :LOCATION OF EQUIPMENT ,CONDUIT, AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH THE CIVIL AND ARCHITECTURAL DRAWINGS.
- 23. NRTL LISTING: ALL ELECTRICAL EQUIPMENT SHALL BE NEW, IN FIRST CLASS CONDITION AND LISTED BY NATIONALLY RECOGNIZED TESTING LABORATORY, (NRTL)SUCH AS U.L. IF SUCH A LISTING EXIST FOR COMPARABLE EQUIPMENT.
- 24. GENERAL SUBCONTRACTOR WORK: ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR WORK OF A GENERAL CONTRACTING NATURE SPECIFIED ON ELECTRICAL PLANS INCLUDING, BUT NOT NECESSARILY LIMITED TO THE FOLLOWING.

 A. CONCRETE FOOTINGS INCLUDING REBAR AND MOUNTING BOLTS FOR
- B. TRENCHING AND BACKFILLING OF TRENCHES.C. SUPPLY AND INSTALLATION OF ALL EQUIPMENT PADS AND SPLICE BOXES UNLESS
- NOTED OTHERWISE.
- 25. WORKING SPACE :WORKING SPACE SHALL MEET OR EXCEED THE NEC REQUIREMENT FOR ALL ELECTRICAL EQUIPMENT .(SEE NFPA 70-2005, SEC 110-26)

PLACEMENTS OF LIGHTS FIXTURE POLES.

26. EQUIPMENT ACCECIBILITY :IT SHALL BE THE RESPONSIBILITY OF SUBCONTRACTOR TO SEE THAT ALL THE ELECTRICAL EQUIPMENT SHALL BE MADE ACCESSIBLE ,SUCH AS JUNCTION BOXES ,PULL BOXES PANELBOARDS ,SWITCHES ,CONTROLS AND SUCH OTHER APPARATUS AS MAY REQUIRE MAINTENANCE AND OPERATION FROM TIME TO TIME

- 27. EQUIPMENT PROTECTION: AFTER INSTALLATION, ELECTRICAL EQUIPMENT SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONSTRUCTION PERIOD.OPENINGS IN CONDUITS AN BOXES SHALL BE CLOSED TO PREVENT THE ENTRANCE OF FOREIGN MATERIALS.
- 28. AS BUILD RECORD DRAWINGS: PROVIDE RECORD DRAWING TO THE D/B CONTRACTING OFFICER WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT . RECORD DRAWINGS SHALL BE SIGN AND DATED BY SUBCONTRACTOR .
- 29. SHOP DRAWINGS:SUBMIT SHOP DRAWINGS AND MATERIALS LIST FOR REVIEW PRIOR TO COMMENCING ANY WORK. ALL EQUIPMENT TO BEAR U.L. LABEL OR THAT OF ANOTHER ACCEPTABLE TESTING LABORATORY, WHEN SUCH LISTINGS EXIST FOR COMPARABLE EQUIPMENT .SHOP DRAWING MUST BE STAMPED BY THE SUBCONTRACTOR FOR

CONFORMANCE PRIOR TO SUBMITTAL.

- 30. DIGGING PERMITS AND OUTAGE REQUESTS :ALL DIGGING PERMITS AND OUTAGE REQUESTS ARE THE RESPONSIBILITY OF THE SUBCONTRACTOR. COPIES SHALL BE PROVIDED TO THE D/B CONTRACTOR BEFORE CONSTRUCTION BEGINS.
- 30. DIGGING PERMITS AND OUTAGE REQUESTS: ALL DIGGING PERMITS AND OUTAGE REQUESTS ARE THE RESPONSIBILITY OF THE SUBCONTRACTOR. COPIES SHALL BE PROVIDED TO THE D/B CONTRACTOR BEFORE CONSTRUCTION BEGINS.
- 31. ATTRACTIVE NUISANCES: OPEN TRENCHES, ELECTRICAL EQUIPMENT AND DEVICES SHALL NOT PRESENT AN ATTRACTIVE NUISANCE TO CHILDREN. ALL ELECTRICAL EQUIPMENT SHALL BE TOTALLY INACCESSIBLE. DEAD FRONT AND LOCKABLE.
- 32. ROUTING AND LOCATION: THE ROUTING OF THE NEW UNDERGROUND FEEDERS SHALL BE APPROVED BY AND COORDINATED WITH THE DESIGN/BUILD CONTRACTOR. EXCEPT FOR CROSSINGS, ELECTRICAL AND COMMUNICATIONS UTILITIES SHALL NOT BE LOCATED UNDER STREETS.
- 33. UPON COMPLETION OF WORK THE SUBCONTRACTOR SHALL PROVIDE THE D/B CONTRACTOR WITH ONE (1) SPARE SET OF FUSES OF EACH SIZE AND TYPE INSTALLED
- 34. THE SUBCONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE DESIGN/BUILD CONTRACTOR FOR REMOVING, LOCATING, CAPPING AND OR RELOCATION OF ANY ELECTRIC FACILITIES WHICH ARE NOT TO REMAIN IN SERVICE AND TO INSTALL FACILITIES AS REQUIRED TO MAINTAIN CONTINUOUS SERVICE TO DWELLING UNITS OR BUILDING STRUCTURES THAT WILL REMAIN,
- 35. NON-METALLIC WEATHERPROOF ENCLOSURES SHALL BE CONSTRUCTED OF GLASS FIBER REINFORCED POLYESTER RESIN, WITH PIGMENTED HEAT RESISTANT HIGH GLOSS SURFACING SEALER ON THE INTERIOR, WITH PIGMENTED, ULTRAVIOLET LIGHT STABILIZED WEATHER RESISTANT SURFACE COAT ON THE EXTERIOR. EACH SECTION SHALL BE MOLDED IN ONE PIECE, SECTIONAL COMPONENTS JOINED BY BOLTING RIVETING OR USE OF ADHESIVES ARE NOT ACCEPTABLE. ALL HARDWARE SHALL CONSIST OF TYPE 304 STAINLESS STEEL AND SHALL INCLUDE PENTAGONAL BOLTS AND PROVISIONS FOR PADLOCKING. DIMENSIONS OF ENCLOSURES SHALL BE AS REQUIRED TO ACCOMMODATE EQUIPMENT AND/OR FUNCTIONS SPECIFIED, BUT IN NO CLASS SMALLER THAN INDICATED.
- 36. PROVIDE LOCKS AT ALL ELECTRICAL ENCLOSURES SUCH AS TRANSFORMERS, FUSE AND SPLICE CABINETS. LOCKS ARE TO BE COMPATIBLE WITH EXISTING LOCKS USED BY BASE ELECTRICAL.
- 37. PROVIDE ENGRAVED PLASTIC NAME PLATES FOR SWITCHBOARDS, PANELS, TERMINAL CABINETS, AND ANY OTHER MAJOR ELECTRICAL ITEM. SCREW-ON ATTACHMENT ONLY-NO ADHESIVE.
- 38. EQUIPMENT LOCATIONS ARE APPROXIMATE. EXACT ROUTING AND EQUIPMENT LOCATION IS TO BE COORDINATED WITH OTHER TRADES AND APPROVED BY THE D/B CONTRACTOR WHERE SHOWN EQUIPMENT IS TO BE CLUSTERED. COORDINATE CLUSTERED LOCATIONS WITH LANDSCAPE CONTRACTOR FOR SHIELDING. MAINTAIN WORKING CLEARANCES. A MINIMUM DISTANCE OF 4' IS REQUIRED BETWEEN PRIMARY ELECTRICAL LINES AND WET UTILITIES.
- 39. TRENCHING IS TO AVOID DRIP LINES ON TREES AS SHOWN ON PLANS. ALL TRENCHING WITHIN DRIP LINES TO BE APPROVED BY THE D/B CONTRACTOR.
- 40. STAKING OF ELECTRICAL EQUIPMENT PADS: ALL ELECTRICAL EQUIPMENT, INCLUDING TRANSFORMERS, SWITCHES, METERS, JUNCTION CABINETS, LIGHTING POLE BASES, ETC. ARE TO BE STAKED BY THE ASSIGNED PROJECT SURVEYORS FOR FINAL ELEVATION AND LOCATION OF PADS OR ANCHORS. ELEVATIONS ARE TO BE DETERMINED BY THE SITE CIVIL DESIGN ENGINEER. IN CONSISTENCIES AND INTERFERENCES ARE TO BE REPORTED TO THE D/B CONTRACTOR. THE ELECTRICAL SUBCONTRACTOR IS TO VERIFY THAT EQUIPMENT PAD ELEVATIONS ARE AS STAKED.
- 41. STAKING OF ELECTRICAL TRENCHES: AFTER ELECTRICAL TRENCHES ARE MARKED FOR ROUTING BY THE ELECTRICAL SUBCONTRACTOR, ARRANGEMENTS ARE TO BE MADE FOR THE ASSIGNED PROJECT SURVEYORS TO LOCATE THE MARKED ROUTE AND TRANSFER THIS INFORMATION TO THE SITE CIVIL DESIGN ENGINEER TO ASSIGN FINISH GRADES. THESE FINISH GRADES SHALL BE TRANSFERRED BACK TO THE ASSIGNED PROJECT SURVEYOR TO PROVIDE TRENCH STAKING INDICATING FINAL GRADE TO INSURE THAT MINIMUM BURIAL DEPTHS ARE MAINTAINED. THE ELECTRICAL SUBCONTRACTOR IS TO VERIFY THAT TRENCH DEPTHS RELATIVE TO FINISH GRADE ARE AS STAKED.
- 42. ALL SPARE/EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL LINE.
- 43. INSTALLATION GUIDELINES SHALL CONFIRM TO CURRENT NFPA 70 NEC.
- 44. ALL EQUIPMENT INCLUDING POLE RISERS, PAD MOUNTED GEAR, LIGHT POLES AND ISC. EQUIPMENTS SHALL BE GROUNDED.
- 45. EQUIPMENT GROUNDING: ONE 3/4 INCH BY 10 FOOT COPPER CLAD GROUND ROD SHALL BE INSTALLED IN A CONDUIT WINDOW OF EACH EQUIPMENT PAD (WHERE TRANSFORMER PADS HAVE MORE THAN ONE CONDUIT WINDOW. THE GROUND RODS SHALL BE INSTALLED IN SECONDARY/LOW VOLTAGE WINDOW). ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE CONNECTIONS.

SITE LIGHTING GENERAL NOTES:

- 1. CONTRACTOR SHALL CO-ORDINATE WITH OWNER/CIVIL ENGINEER FOR SITE LIGHTING DETAILS. BASE4 HAS PROPOSED PANEL FOR SITE POWER CONTRACTOR SHALL USE THAT FOR FUTURE REFERENCE.
- 2. LIGHTING NOT DESIGNATED FOR DUST-TO-DAWN OPERATION SHALL BE CONTROLLED BY EITHER A COMBINATION OF A PHOTOSENSOR AND A TIME SWITCH, OR AN ASTRONOMINAL TIME SWITCH. LIGHTING DESIGNATED FOR DESK-TO-DAWN OPEATION SHALL BE CONTROLLED BY AN ASTRONOMICAL TIME SWITCH OR PHOTOSENSOR. ALL TIME SWITCHES SHALL RETAIN PROGRAMMING AND THE TIME SETTING DURING LOSS OF POWER FOR A PERIOD OF AT LEAST 10 HOURS, LIGHTING DESIGNATED TO OPERATE MORE THAN 2000 HOURS PER YEAR FOR UNCOVERED PARKING AREAS SHALL BE EQUIPPED WITH MOTION SENSORS THAT WILL REDUCE THE LUMINARIES POWER BY 33 PERCENT OR TURN OFF ONE THIRD THE LUMINARIES WHEN NO ACTIVITY IS DETECTED.
- 3. POLE BASE COVERS ARE TO BE INSTALLED SO THAT THE BASE COVER FITS FLUSH TO THE TOP OF THE CONCRETE BASE. LEVELING SHIMS AND NUTS SHALL NOT CAUSE A GAP BETWEEN THE POLE BASE AND THE BASE COVER.
- 4. ALL WIRING IS TO BE #12 AWG AND #12 AWG GROUND MINIMUM THHN/THWN (90 DEG. C) IN 1" SCHEDULE 40 PVC (MINIMUM SIZE). TRENCH 30" DEEP. CLEAN BACKFILL USING SITE MATERIALS CAN BE USED. PROVIDE PREMIUM BACKFILL WHERE SITE MATERIALS ARE NOT ACCEPTABLE FOR USE.
- 5. THE HEIGHT MEASURED FROM THE TOP OF THE STAND TO THE GROUND OF THE POLES CANNOT EXCEED 25' IN COMMERCIAL DISTRICTS.

SR NO.	LABEL	MOUNTING HEIGHT	REMARK
1.	Z01	MH: 0 FT	NOTE THE
2.	Z99	MH: 3.75 FT	NOTE-THE
3.	Z64	MH: 25 FT	HEIGHT IS
4.	Z78	MH: 12 FT	MEASURED IN TERMS OF
5.	M1	MH: 10 FT	FEET ABOVE
6.	M2	MH: 10 FT	FINISHED
7.	Z64B	MH: 25FT	GRADE.
8.	Z64A	MH: 25FT	GIADE.

6. CONTRACTOR SHALL FOLLOW THE BELOW TABLE FOR MOUNTING HEIGHT OF EACH FIXTURES.



BASE4 2901 CLINT MOORE ROAD, #114 BOCA RATON, FLORIDA 33496 888.901.8008 www.base-4.com

RICARDO J. MUNIZ-GUILLET, AIA 2030 HABERSHAM TRCE, CUMMING, GA 30041

MEP ENGINEER
GARRY VERMAAS PhD, PE
2183 S BERRYS CHAPEL ROAD
FRANKLIN, TN 37069

Seal:

Owner:

LAGOON HOSPITALITY LLC

GARTH MCHENRY,

texmchenry@comcast.net 832.755.7331



SUE DELTA ISSUE DATE DESCRIPTION

RELEASE DATE: MAY 06, 2019

CURRENT ISSUE

ISSUED FOR PERMIT

CURRENT ISSUE DATE 2021.10.14

DRAWN BY

CHECKED BY

PROJECT NO.

B4-228-2101 SHEET NAME

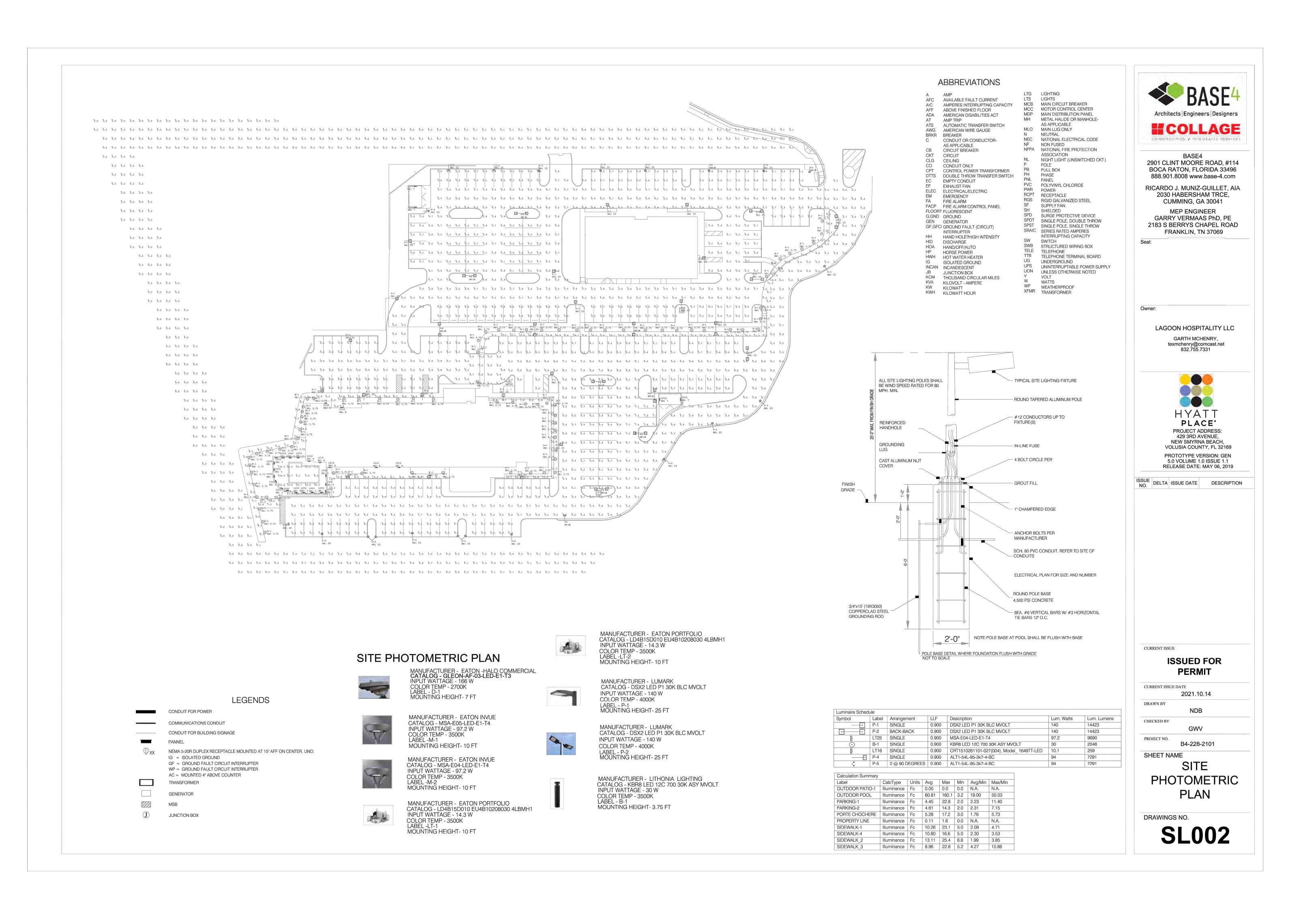
NDB

GWV

GENERAL NOTES AND SITE LIGHTING NOTES

DRAWINGS NO.

SL001



PRELIMINARY PLANS (NOT FOR CONSTRUCTION)

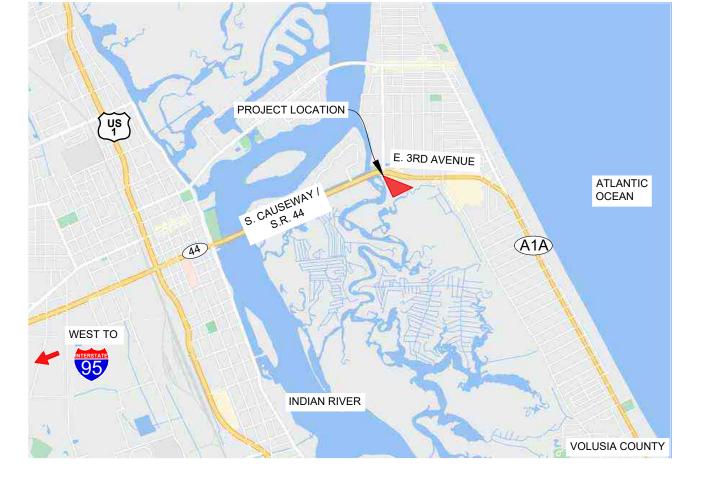
THE COLLAGE COMPANIES **HYATT PLACE BULKHEAD** REHABILITATION

DECEMBER 09, 2021

PROJECT LOCATION MAP SECTION 16, TOWNSHIP 17, RANGE 34



THE COLLAGE COMPANIES 585 TECHNOLOGY PARK LAKE MARY, FL 32746



Know what's **below**. Call before you dig.

NOTE TO CONTRACTOR:

SHEET

CVR

C-01

C-02

C-03 C-04

C-05

C-06

C-07 C-08

C-09

C-10 C-11

C-13

C-14

C-15

C-16

C-17

C-19

C-20

THESE DRAWINGS AND THE PROJECT SPECIFICATIONS ARE COMPLEMENTARY, AND ANY REQUIREMENT OF ONE SHALL BE A REQUIREMENT OF THE OTHER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE DRAWINGS AND SPECIFICATIONS AND TO COMPARE THE REQUIREMENTS OF EACH DIVISION AND ENSURE THAT EACH TRADE OR SUBCONTRACTOR IS MAKING THE ALLOWANCES NECESSARY TO PROVIDE THE OWNER A COMPLETE FACILITY, OPERATIONAL IN ALL RESPECTS, UNLESS OTHERWISE SPECIFICALLY STATED IN THE DRAWINGS OR PROJECT MANUAL.

INDEX

DESCRIPTION

DEMOLITION PLAN

AERIAL

SITE PLAN

INDEX & LOCATION MAP

DEMOLITION CROSS-SECTIONS

BULKHEAD PROFILE 1 OF 3

BULKHEAD PROFILE 2 OF 3

BULKHEAD PROFILE 3 OF 3

SHEET PILE DETAILS CONCRETE CAP DETAILS

RAILING DETAILS

OUTFALL DETAILS

OUTFALL DETAILS

GENERAL NOTES

GENERAL NOTES

GENERAL NOTES

GENERAL NOTES

GENERAL NOTES

ENVIRONMENTAL NOTES

CONCRETE CAP JOINTS

TYPICAL BULKHEAD CROSS-SECTIONS

VOLUSIA COUNTY

IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR DISCREPANCIES AMONG THE DIVISIONS OF THE DRAWING AND SPECIFICATIONS PRIOR TO THE DEADLINE FOR BID SUBMITTAL. NEITHER THE OWNER OR ENGINEER WILL BE RESPONSIBLE FOR ANY DEFICIENCIES OR DISCREPANCIES RAISED AFTER THE BID OPENING. ACCORDINGLY, IN LIGHT OF THESE OBLIGATIONS, THE ENGINEER IS OBLIGATED TO INTERPRET THE DRAWINGS SPECIFICATIONS IN A MANNER THAT WILL PROVIDE THE OWNER WITH A COMPLETE, FUNCTIONING FACILITY FOR THE BID PRICE.

ENGINEER CERTIFICATION:

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA PRACTICING WITH DMC, DREDGING & MARINE CONSULTANTS LLC, A CORPORATION, AUTHORIZED TO OPERATE AS AN ENGINEERING BUSINESS, CERTIFICATE OF AUTHORIZATION # 9410, BY THE STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION, AND THAT I, OR OTHERS UNDER MY DIRECT SUPERVISION, HAVE PREPARED OR APPROVED THE EVALUATIONS, FINDINGS, OPINIONS, CALCULATIONS, CONCLUSIONS OR TECHNICAL ADVICE HEREBY REPRESENTED BY THESE DRAWINGS.

STEPHEN J. KUHN, P.E. FLORIDA LICENSE No. 67486 **REPRODUCTION SCALE:**

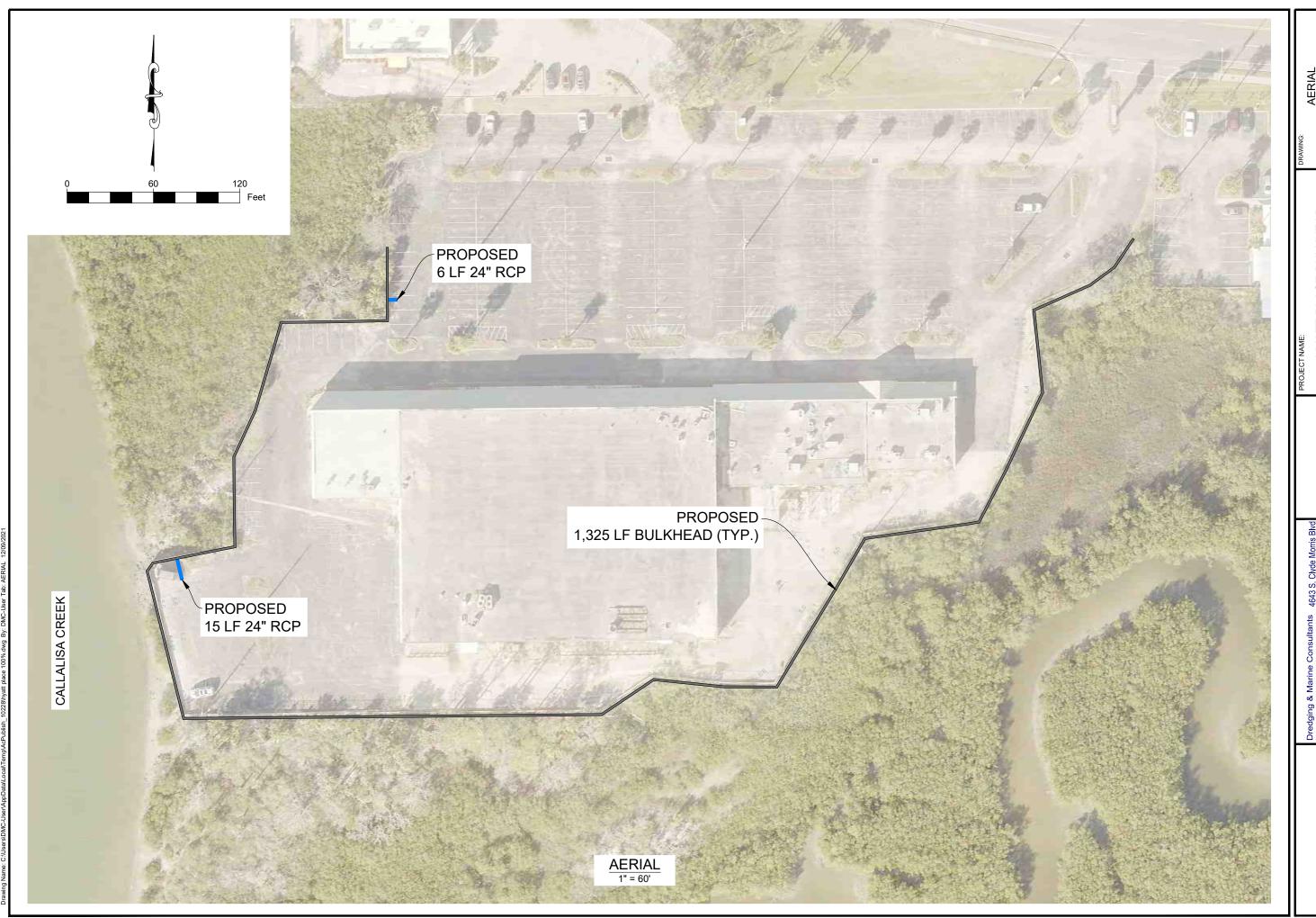
THESE PLANS SHALL BE PRINTED IN COLOR AND ARE SCALED TO ACCURATELY BE REPRODUCED ON 11X17 SIZED SHEETS. ALL OTHER SHEET SIZES ARE NOT TO SCALE.

Dredging & Marine Consultants 4643 S. Clyde Morris Blvd

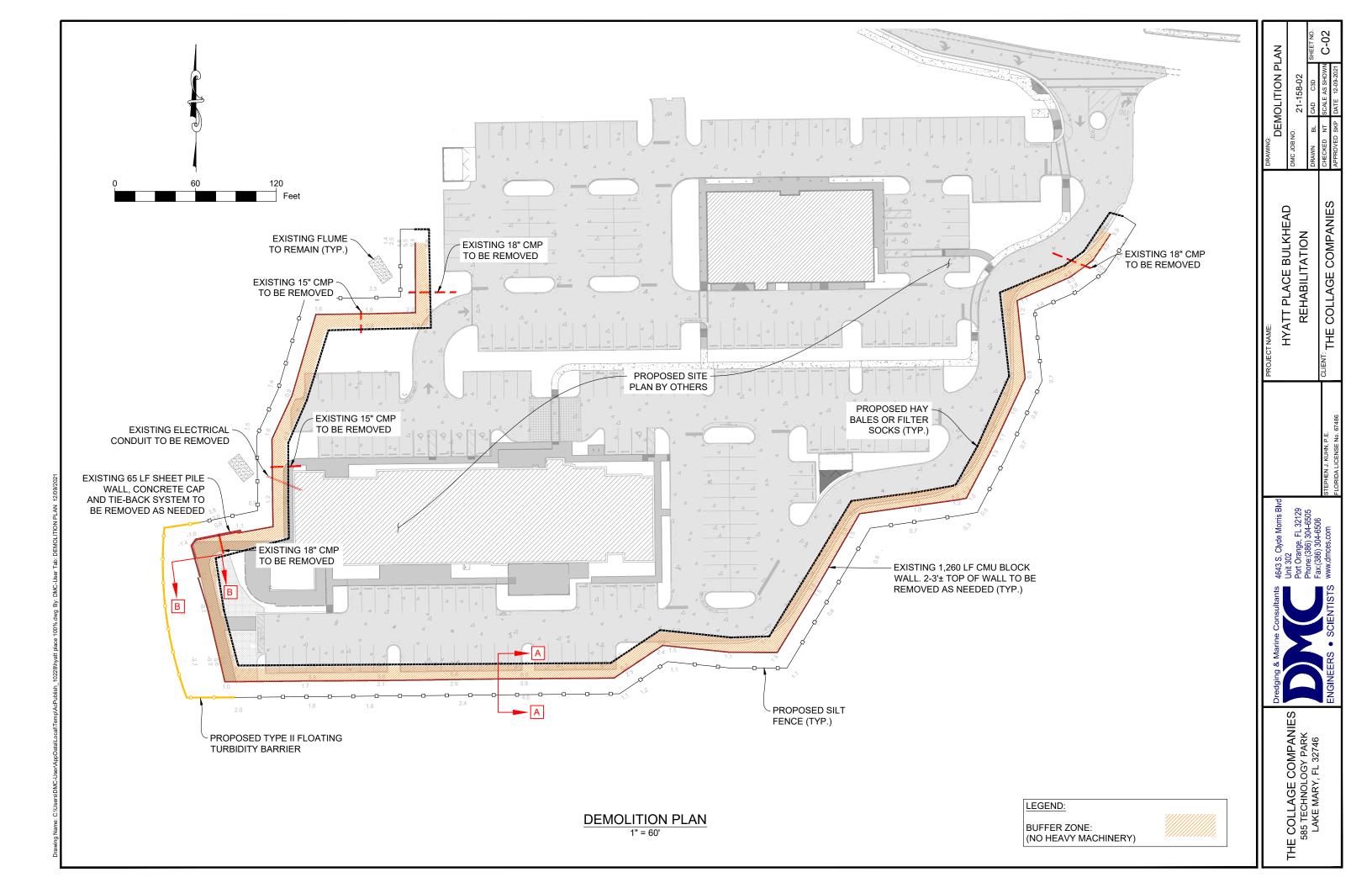


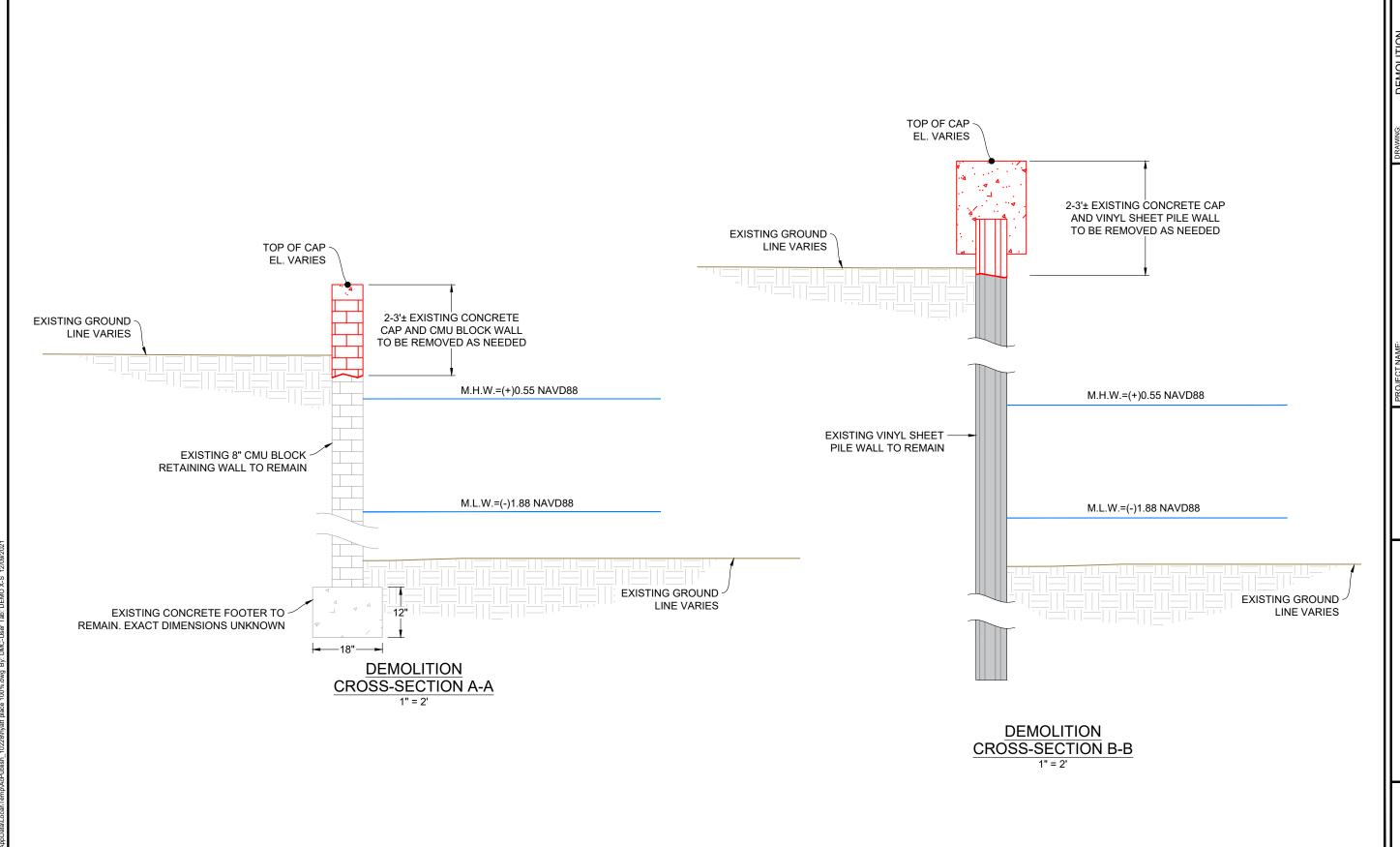
Unit 302 Port Orange, FL 32129 Phone:(386) 304-6505



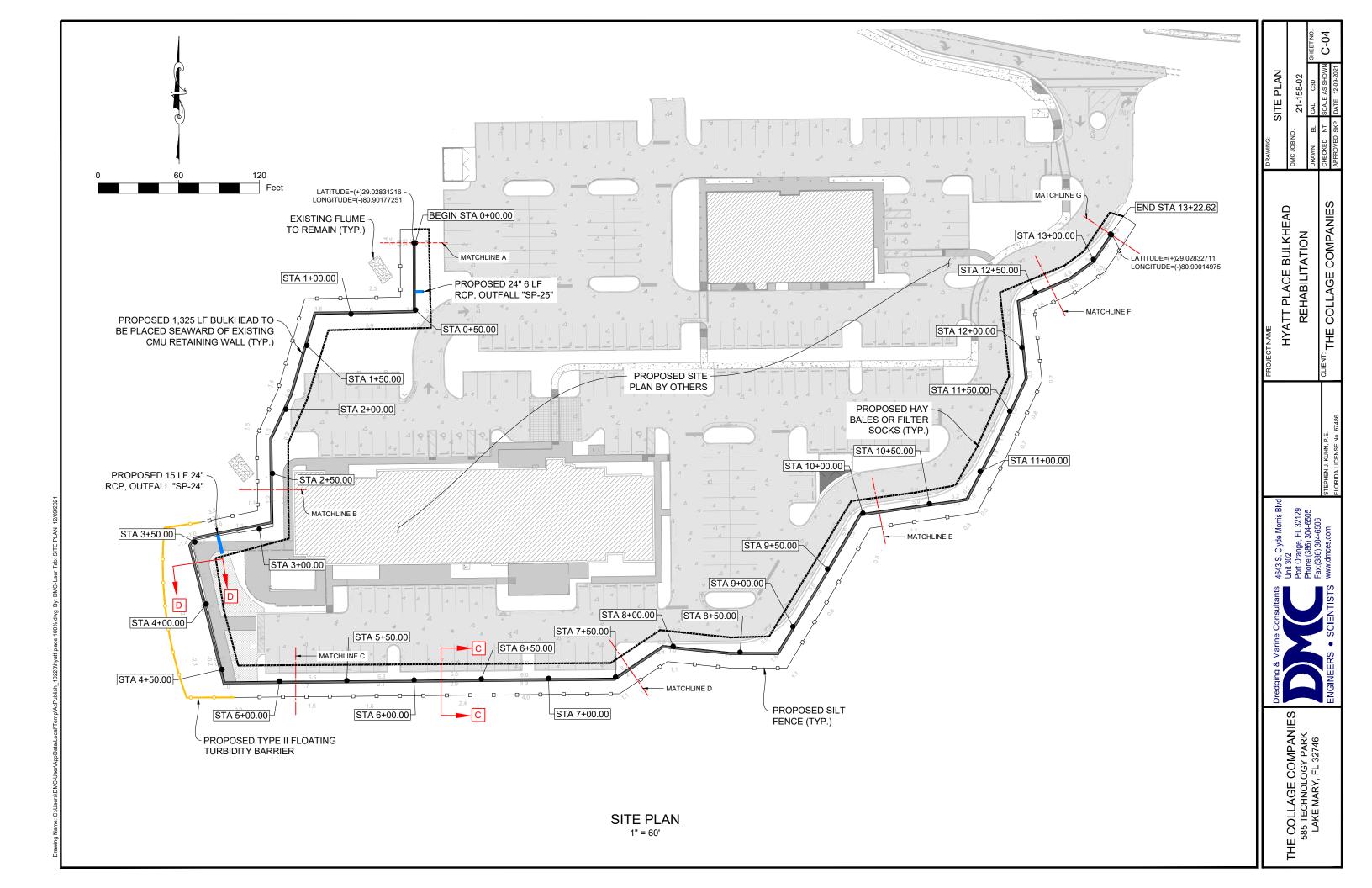


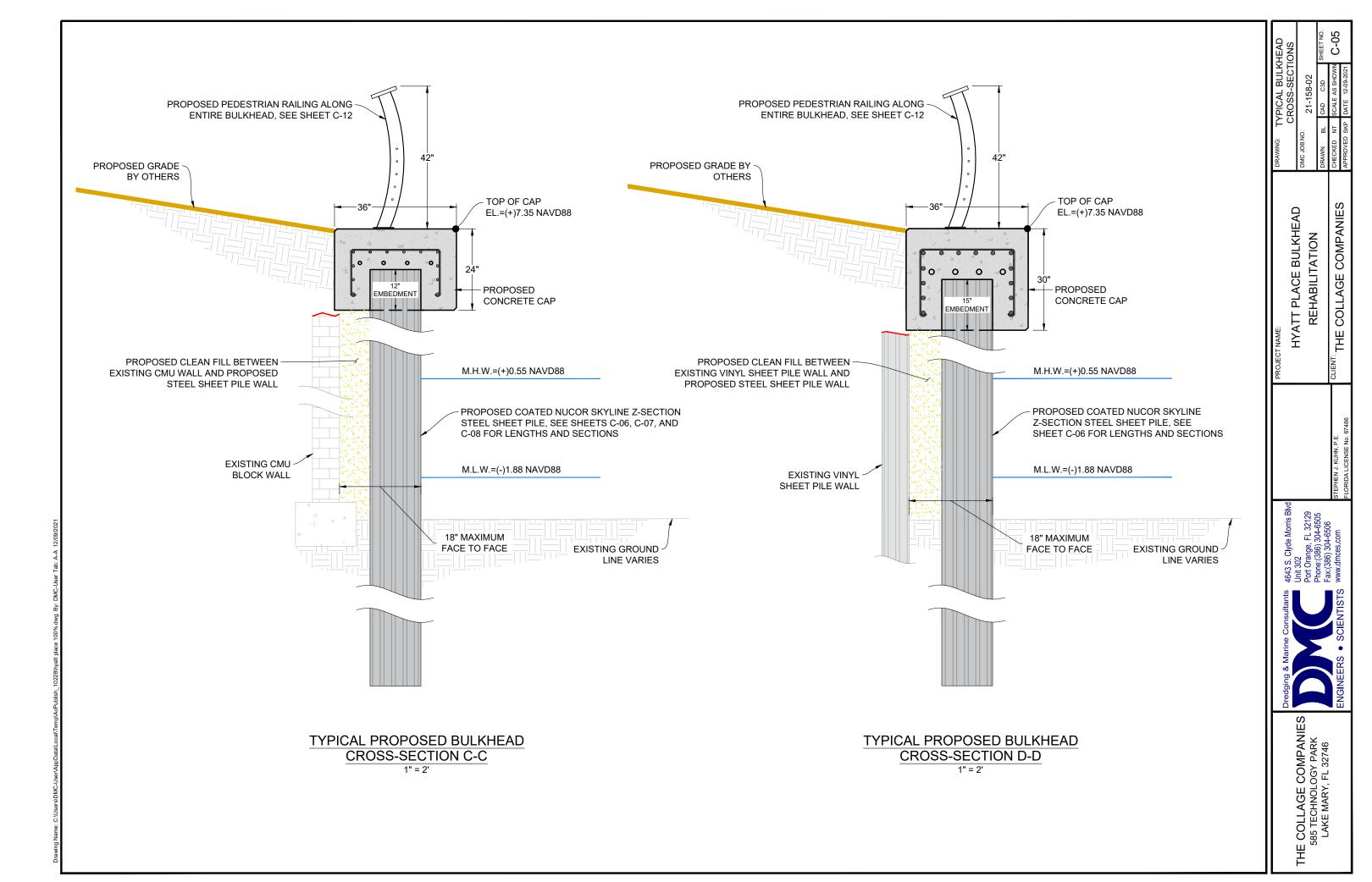
THE COLLAGE COMPANIES HYATT PLACE BULKHEAD
REHABILITATION

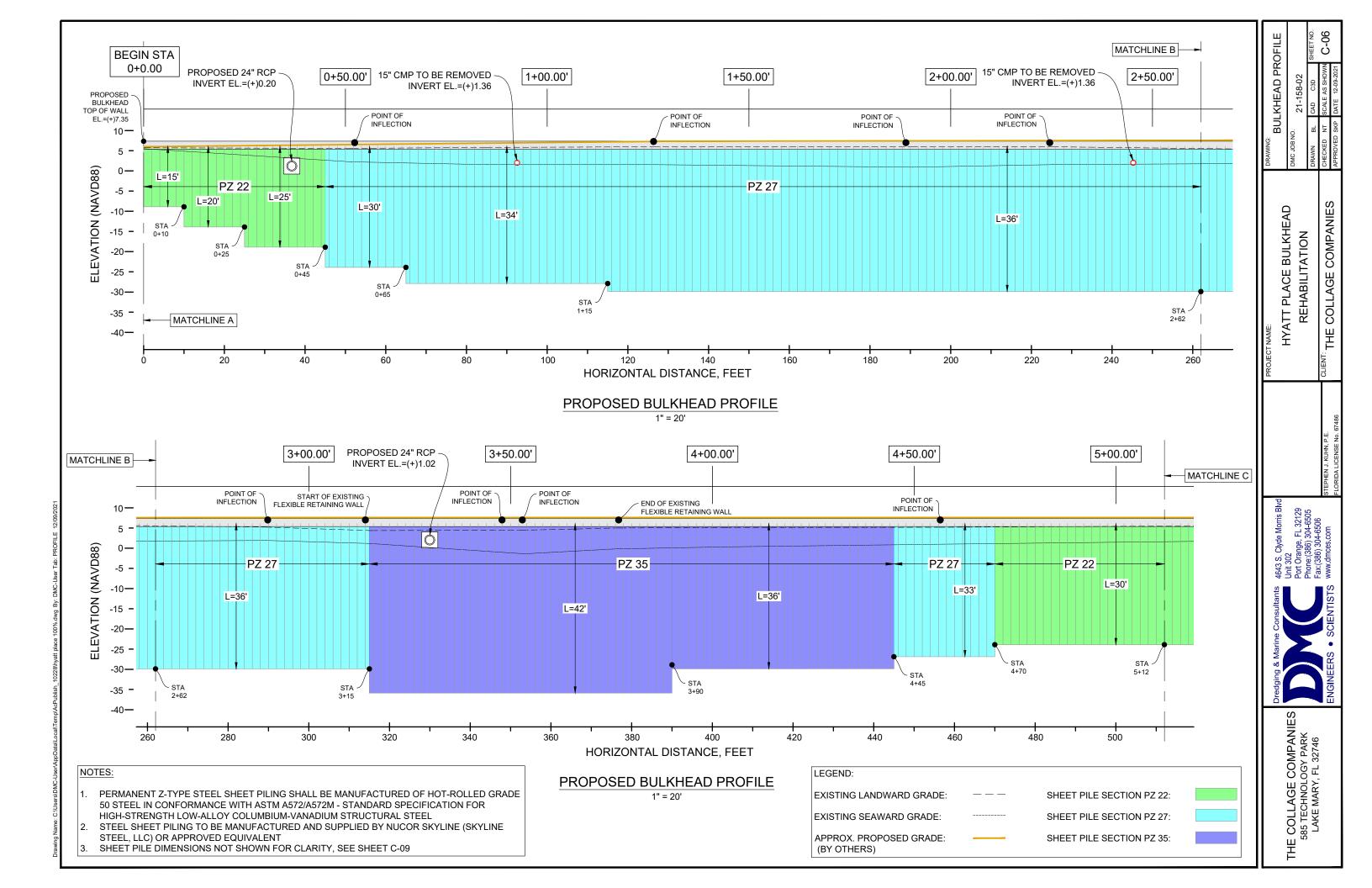


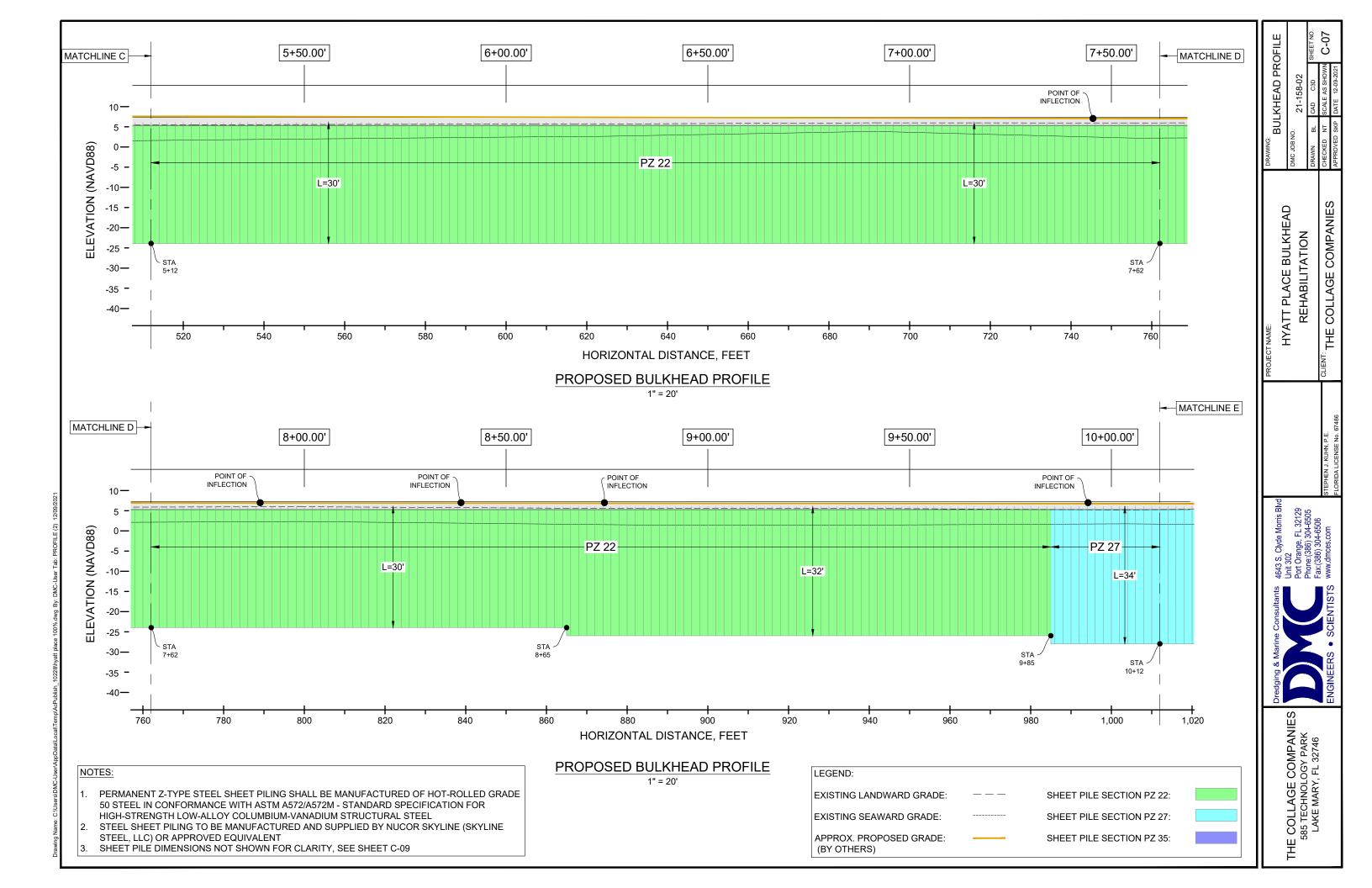


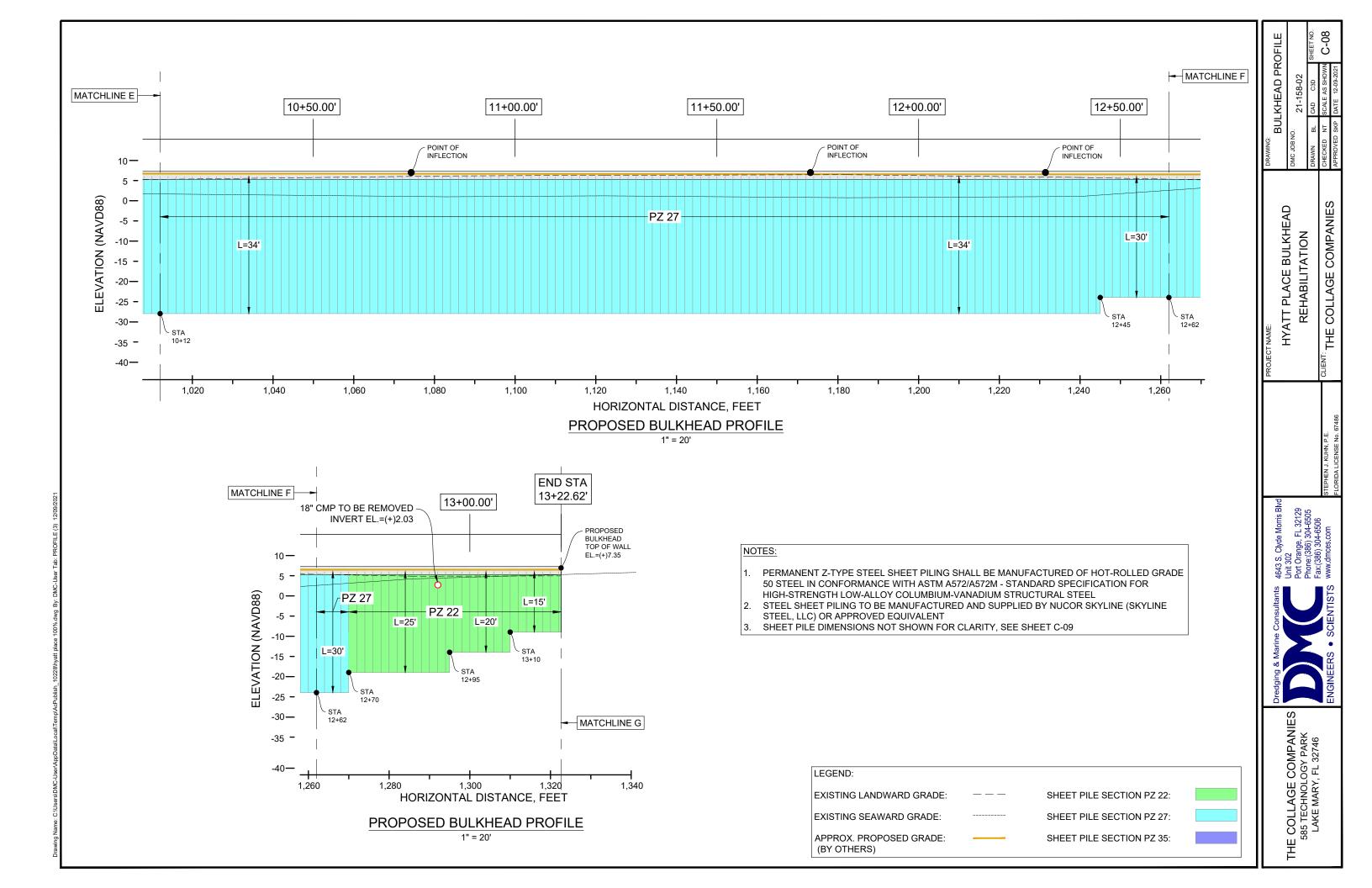
THE COLLAGE COMPANIES HYATT PLACE BULKHEAD REHABILITATION THE COLLAGE COMPANIES 585 TECHNOLOGY PARK LAKE MARY, FL 32746













SHEET PILE DETAIL

COMPANIES

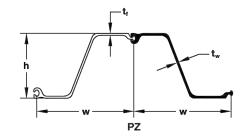
THE COLLAGE

HYATT PLACE BULKHEAD REHABILITATION

THE COLLAGE COMPANIES 585 TECHNOLOGY PARK LAKE MARY, FL 32746

PZ

PZ Hot Rolled Steel Sheet Pile



			THICK	CNESS	Cross	Wei	GHT	SECTION	MODULUS		COATING	AREA
SECTION	Width (w)	Height (h)	Flange (t _f)	Web (t _w)	Sectional Area in th	Pile Ib/ft	Wall Is/III	Elastic in/ft	Plestic in th	Moment of Inertia	Both Sides ni/it of single	Wall Surface nº/nº
PZ 22	22.00 559	9.0 229	0.375 9.50	0.375 9.50	6.47 136.9	40.3 60.0	22.0 107.4	18.1 973	21.79 1171.4	84.38 11500	4.48 1.37	1.22 1.22
PZ 27	18.00 457	12.0 305	0.375 9.50	0.375 9.50	7.94 168.1	40.5 60.3	27.0 131.8	30.2 1620	36.49 1961.9	184.20 25200	4.48 1.37	1.49 1.49
PZ 35	22.64 575	14.9 378	0.600 15.21	0.500 12.67	10.29 217.8	66.0 98.2	35.0 170.9	48.5 2608	57.17 3073.5	361.22 49300	5.37 1.64	1.42 1.42
PZ 40	19.69 500	16.1 409	0.600 15.21	0.500 12.67	11.77 249.1	65.6 97.6	40.0 195.3	60.7 3263	71.92 3866.7	490.85 67000	5.37 1.64	1.64 1.64

PZ

PZ Hot Rolled Steel Sheet Pile

Available Steel Grades

	PZ	
ASTM	YIELD S	TRENGTH
Mar III	ksi	4.00
1328	39	270
A572 Grade 50	50	hara
1572 Grade 60	60	415
A588	50	345
A690	50	345

Hullighted fluid: represent the most commonly used and readily available steel grades.

Corner Piles



SKP90

Gr: A572 Gr. 60

13.3 kg/m

Wt: 8.97 lb/ft

A: 1.24" 31.5 mm

B: 1.76" 37.1 mm









Gr: A572 Gr. 60 Wt: 11.30 lb/ft 16.8 kg/m A: 1.23" 31,2 mm

A: 0.96" 24,4 mm B: 1.46" 37.1 mm

SKPF

Gr: S355 GP/ Gr. 60

Wt: 6.13 lb/ft

9.1 kg/m

SKPM Gr: S355 GP/ Gr. 60 Wt: 6.13 lb/ft

9.1 kg/m

A: 1.26" 32.0 mm

1.97" 0.69"

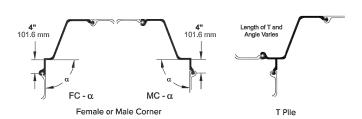
Transitional Piles



SKAP Gr: A572 Gr. 60

Wt: 8.95 lb/ft 13.3 kg/m 1.61" 40.9 mm 0.02" 0.5 mm

Fabricated Corner Piles



Delivery Conditions & Tolerances

Mass ± 2.5% +5 inches Length

Maximum Rolled Lengths*

 $\ensuremath{^*}$ Longer lengths may be possible upon request.

Interlock Combinations



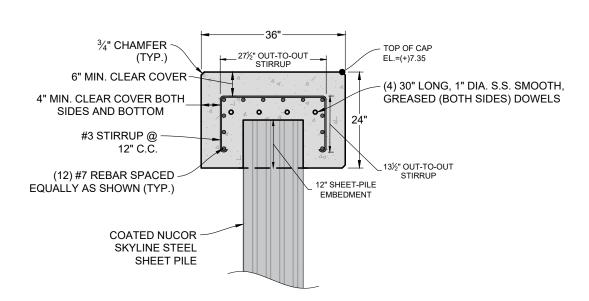
PΖ 105.0 feet

Technical Hotline: 1-866-875-9546 ↓ engineering@nucorskyline.com

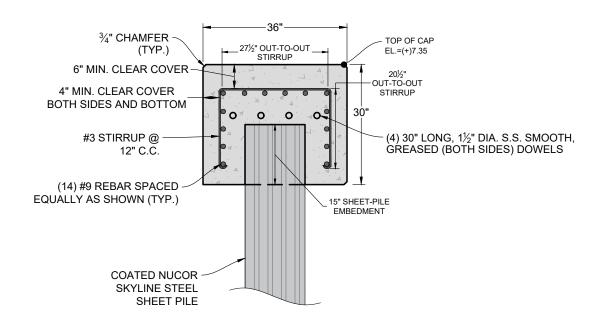
- 0 inches

(32.0 m)

www.nucorskyline.com



PROPOSED CONCRETE CAP -STA 0+0.00 TO STA 0+52.00 AND STA 12+78.80 TO STA 13+22.62



PROPOSED CONCRETE CAP -STA 2+89.50 TO STA 4+56.50

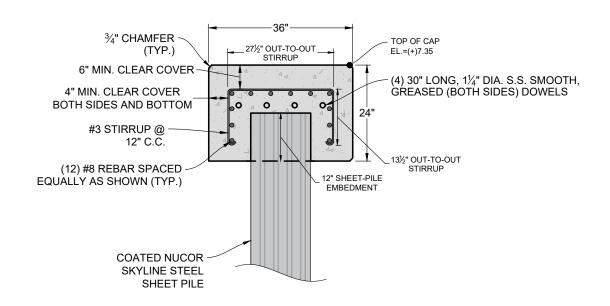
CONCRETE CAP MIX:

- f'c ≥ 6,000 PSI
- $w/c \le 0.40$
- 6% MICROSILICA
- NO PEA GRAVEL
- OTHER SPECIFICATION, SEE

GENERAL NOTES

3/4" CHAMFER TOP OF CAP 27½" OUT-TO-OUT (TYP.) EL.=(+)7.35 6" MIN. CLEAR COVER-(4) 30" LONG, 11/4" DIA. S.S. SMOOTH, 4" MIN. CLEAR COVER GREASED (BOTH SIDES) DOWELS BOTH SIDES AND BOTTOM 0 0 #3 STIRRUP @ 12" C.C. 13½" OUT-TO-OUT STIRRUP (12) #9 REBAR SPACED 12" SHEET-PILE **EQUALLY AS SHOWN (TYP.) EMBEDMENT** COATED NUCOR SKYLINE STEEL SHEET PILE

PROPOSED CONCRETE CAP -STA 0+52.00 TO STA 2+89.50 1" = 2'



PROPOSED CONCRETE CAP -STA 4+56.50 TO STA 12+78.80

- ALL DOWELS TO BE CENTERED ON EXPANSION JOINT, PLACED LEVEL, IN-LINE WITH LONG

		PROJECT NAME:	DRAWING:	!
aging & Marine Consultants 4643 S. Clyde Morris Blvd	þ	HVATT DI ACE BI II KHEAD	CONCRE	CONCRETE CAP D
Unit 302		טלאוואיסט אסלא ו ווע ווי	DMC JOB NO.	
Port Orange, FL 32129		REHABILITATION		21-158-02
FIIOIIE.(300) 304-0303 Eav.(386) 304-6506			DRAWN BL CAD C3D	скр сзр
SOCIENTICE OF THE MANY CHOCKS COM	STEPHEN J. KUHN, P.E.	CLIENT: THE COLLACE COMBANIES	CHECKED NT SCALE AS SHOWN	SCALE AS SHOWN
SINEERS • SOIENIISIS	FLORIDA LICENSE No. 67486		APPROVED SKP DATE 12-09-2021	DATE 12-09-2021

E COLLAGE COMPANIES 585 TECHNOLOGY PARK LAKE MARY, FL 32746

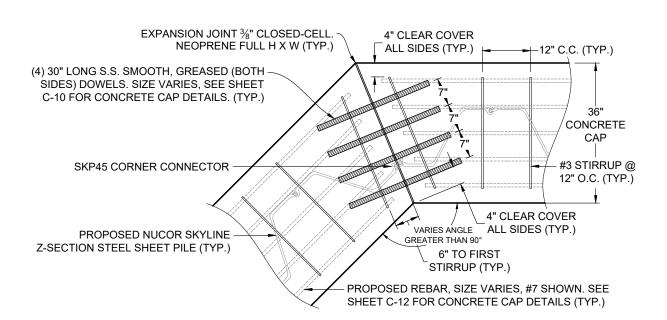
DETAILS

EXPANSION JOINTS TO BE PLACED EVERY 40' MAXIMUM AND AT ALL CORNERS.

AXIS OF CAP AND 11/2" MIN. CLEAR SPACE FROM ANY REINFORCEMENT AND 11/2" MIN. FROM ANY REINFORCEMENT OR SHEET-PILE.

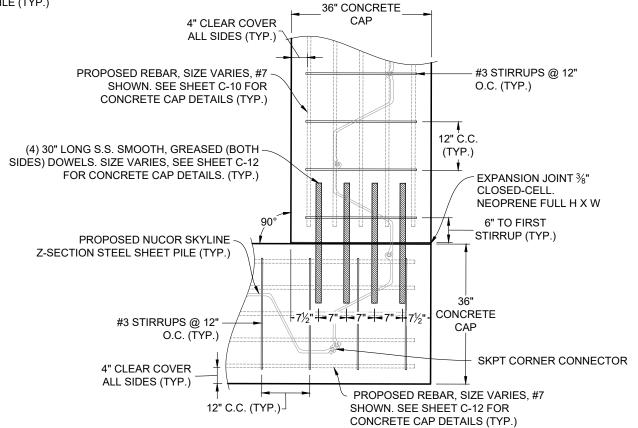
SHEET PILE DIMENSIONS NOT SHOWN FOR CLARITY, SEE SHEET C-09.

IN-LINE EXPANSION JOINT - PLAN



CORNER EXPANSION JOINT - PLAN

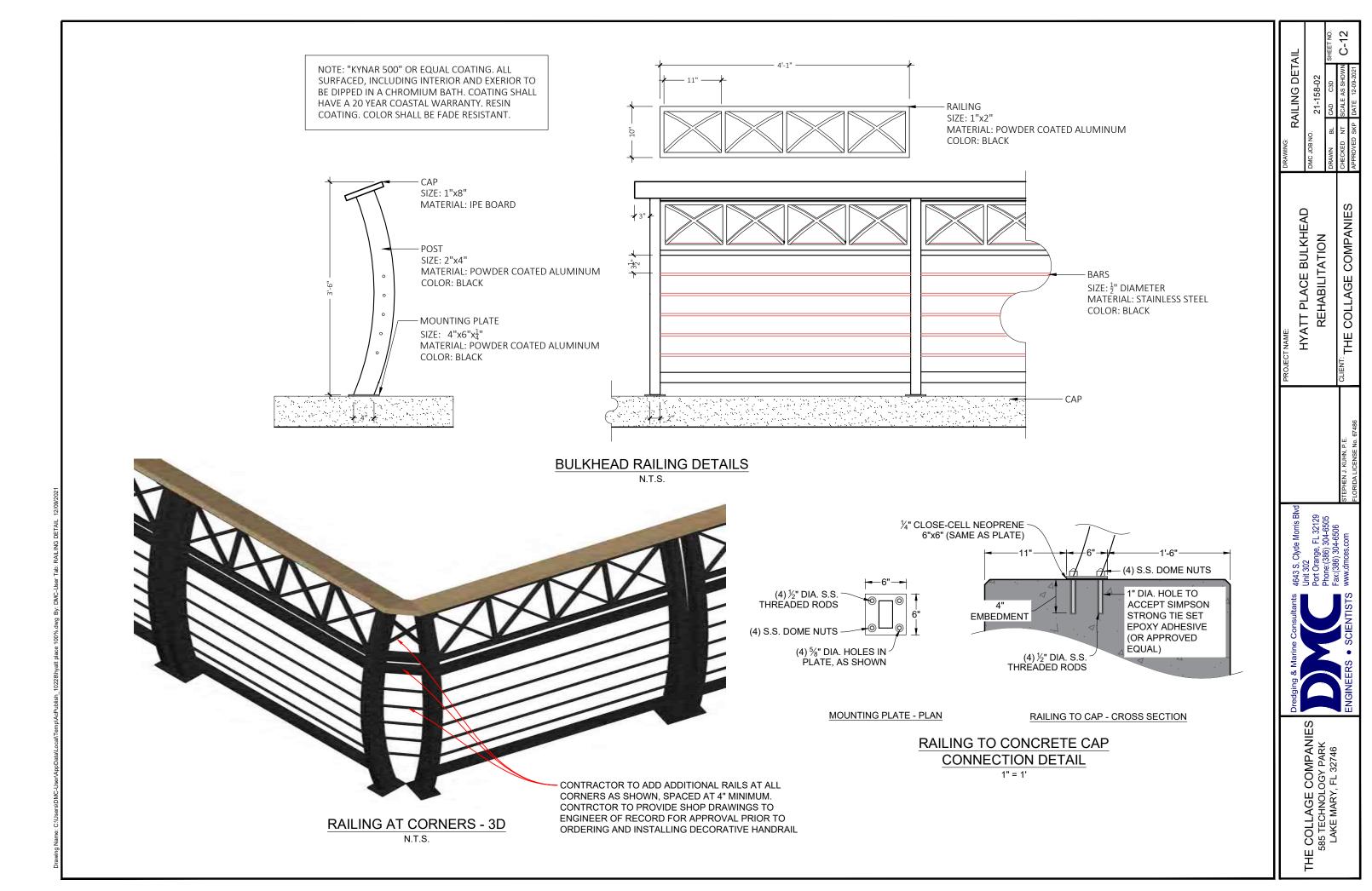
1" = 2'

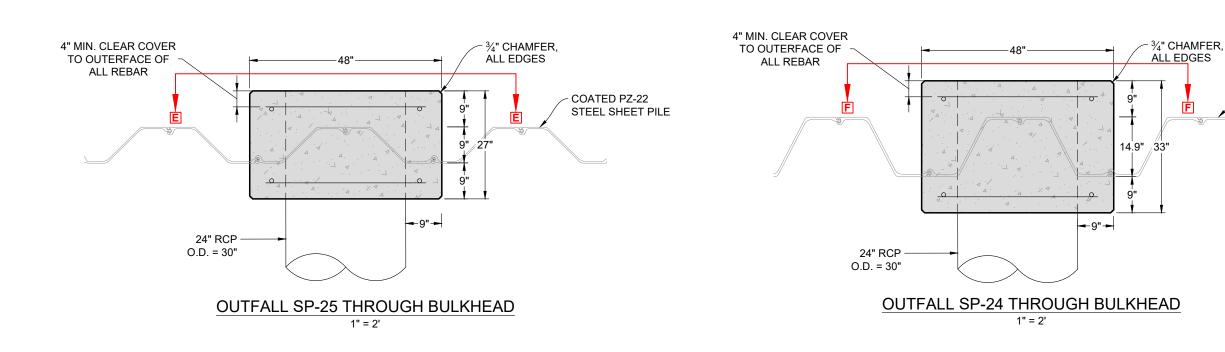


90° EXPANSION JOINT - PLAN

- 1. EXPANSION JOINTS TO BE PLACED EVERY 40' MAXIMUM AND AT ALL CORNERS.
- ALL DOWELS TO BE CENTERED ON EXPANSION JOINT, PLACED LEVEL, IN-LINE WITH LONG AXIS OF CAP AND 1½" MIN. CLEAR SPACE FROM ANY REINFORCEMENT AND 11/2" MIN. FROM ANY REINFORCEMENT OR
- SHEET PILE DIMENSIONS NOT SHOWN FOR CLARITY, SEE SHEET C-09.

DETAILS





OUTFALL DETAILS

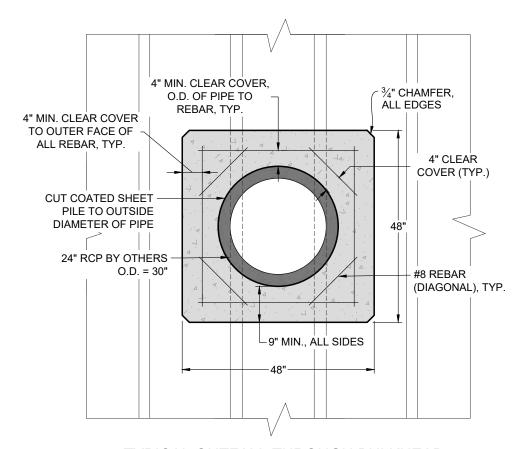
THE COLLAGE COMPANIES

HYATT PLACE BULKHEAD REHABILITATION

THE COLLAGE COMPANIES 585 TECHNOLOGY PARK LAKE MARY, FL 32746

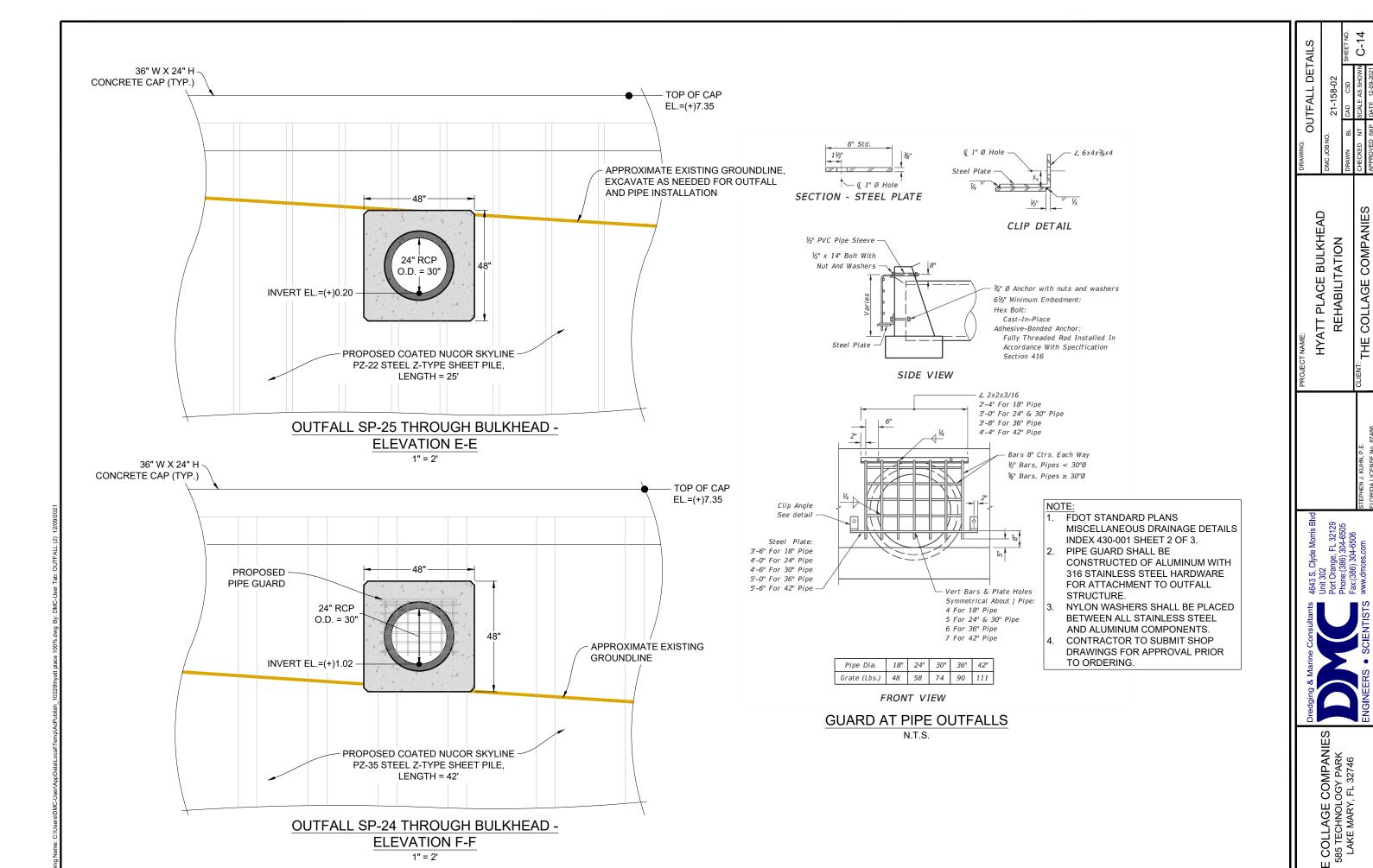
COATED PZ-35

STEEL SHEET PILE



TYPICAL OUTFALL THROUGH BULKHEAD

1" = 2'



COLLAGE

- 1. The Contractor shall keep a pile driving log as specified in the plans and may not cut off piles until the Engineer has given approval to do so. The Contractor must provide advanced notification of a request to cut off piles so that the Engineer may make field observations, if necessary. The Engineer will not make a structure certification if the Contractor does not comply with this requirement. If a vibratory hammer, auger or jetting equipment is used to install piles, the time needed to hammer and/or jet and/or auger each pile shall be recorded.
- The Contractor shall retain all material delivery tickets, material testing reports and cut-sheets/shop drawings for manufactured products for the project and provide copies to the Engineer on a weekly basis. The Engineer will not make a structure certification if the Contractor does not comply with this requirement.
- 3. The Engineer must be given advanced notice of the critical stages of construction such as initial construction stakeout, false-work, forming and rebar placement prior to placing concrete, first casting of concrete, etc. The Engineer will not make a structure certification if the Contractor does not comply with this requirement.
- 4. The location of existing utilities, utility services, facilities, and structural features shown on these plans has been determined from the information available at the time of the preparation of these plans, but do not purport to be absolutely correct and are provided for only the convenience of the Contractor. Any inaccuracy or omission in such information shall not relieve the Contractor of its responsibility to protect the existing features from damage and unscheduled interruption of service or from the responsibility to relocate utilities are required. Should a discrepancy arise between these plans and actual field conditions which would appreciably affect the execution of the plans the Contractor shall stop construction and notify the County and utility or facility owner immediately. The Contractor shall verify, prior to construction, the exact location, elevation, dimensions of all existing utilities, facilities, structures, and other features (weather or not shown in the plans). The Contractor shall be solely responsible for coordination of any utilities to be adjusted by others for the construction of this project and shall coordinate with other utilities and entitles as required to ensure the successful implementation of this project.
- A pre-construction meeting must be scheduled before start of construction and all parties
 are to attend including: Owner or Owner's Representative, Engineer, Prime Contractor,
 Subcontractor(s), Surveyor, Applicable Tradesmen, etc. The Engineer will lead the
 meeting and provide a list of critical items to discuss.

GENERAL:

- Owner hereinafter refers to Owner's Representative, City, County, Town, Developer or Private Entity.
- . All elevations in the project plans are referenced to feet N.A.V.D. 88.
- The project shall be straight, plumbed, level, and elevations are correct as shown in plans
- Any deviation from these plans, notes or specifications must be approved in writing by the Owner or Engineer, or else the deviation will be considered construction non-compliant with the plans and specifications.
- Any discrepancies amongst the plans, notes, specifications and other bid documents must be resolved in writing by the Owner or Engineer prior to continuing the work in question.
- These plans, notes and specifications, along with the other components of the project bidding documents, constitute the only instructions to bidders/contractors, unless written addenda are issued.
- 7. All construction, manufacturing, fabrication and testing of materials shall be performed under the guidelines set forth in applicable local, state and federal codes, and/or under recommendations provided in technical publications of respected professional or industry organizations. Material testing programs, where applicable, shall be presented to the Engineer for review and approval prior to construction.
- 8. All products constructed or manufactured/supplied for the project shall be accompanied by industry acceptable warranties or guarantees.
- 9. For the purpose of these specifications. "Project Completion" is defined as completion of an agreed upon list of punchlist items compiled in a planned project walkthrough held at a time the Contractor considers the project to be "Substantially Complete". The Contractor shall notify the Owner and Engineer at least 72 hours in advance of substantial completion and schedule a mutually agreeable walkthrough.
- A portion of the site lies within flood zones "AE" with a base flood elevation of 5.0 as indicated on Federal Emergency Management Agency Flood Insurance Rate Map Community Panel No.12127C0542J dated September 29, 2017.
- 11. Any materials interfering with construction, and all abandoned utility lines, pipes, structures and other subterranean objects to be removed, shall be disposed of as directed by the Owner. All materials not claimed by the Owner shall be disposed of at the Contractor's expense in areas provided by the Contractor.
- 12. All materials to be removed from the existing structures per the construction plans.
- 13. The Contractor shall provide all sheeting, shoring and bracing required to meet the requirements of the "Trench Safety Act" and to protect adjacent structures or to minimize trench width. Where a separate pay item is not provided, the cost for all sheeting, shoring and bracing required shall be included in the contract price for the item of work for which sheeting, shoring and bracing is anticipated to be required.

- 14. The Contractor shall endeavor to protect private property. Any damage caused by the Contractor in the performance of his work shall be corrected to the satisfaction of the Engineer at the Contractor's expense. Payment shall not be made for this work.
- 15. Any damage to state, county, or local roads caused by the Contractor's hauling or excavation equipment shall be repaired by the Contractor to the satisfaction of the Engineer. Payment shall not be made for this work.
- 16. The construction lengths indicated in these plans are approximate. Actual limits may be set in the fields as directed by the Engineer.
- 17. During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing, or to place soil deposits, debris, solvents, construction material, machinery or other equipment of any kind within the dripline of a tree to remain on site unless approved by the Engineer.
- All trimming undertaken on a tree protected by provisions of the land development code shall be pruned in accordance with the National Arborist Association (NAA) Pruning Standards
- The Owner and the Engineer reserve the right to perform quality assurance testing on all materials delivered to project and to reject all materials not meeting acceptable standards
- 20. The Contractor shall be responsible for the complete stake-out of the project, i.e., line, grade, slope stake, utility relocations or any other stake-out that may be required to complete the project in accordance with the plans and specifications. Any and all expenses incurred for this work shall be included in the unit price bid for other items. No additional payment shall be made for this work. Contractor shall also be required to provide a certified as-built survey of the grading, drainage and earthwork improvements and meet any minimum requirements of Owner.
- 21. Overall cleanup shall be accomplished by the Contractor in accordance with Owner standards or as directed by the Engineer. Any and all expenses incurred for this work shall be included in the unit price bid for other items.
- 22. If, during construction activities, any evidence of historic resources including, but not limited to, aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, historic trash pits, or historic building foundations are discovered, work shall come to an immediate stop and the client and the Florida Division of Historical Resources shall be notified within two working days.
- All materials and construction shall be in accordance with the more stringent of the current FDOT Standards and Specifications or Volusia County Standards and Specifications.
- 24. Contractor shall be responsible for independently calculating all quantities for the project including earthwork. It is the Contractors responsibility to verify the Engineers estimated quantities included on the bid schedule.
- 25. The Contractor shall provide pumping equipment and devices to properly remove and dispose of water during construction, if needed.
- 26. Refer to construction pollution prevention plan for erosion control notes.

SURVEY INFORMATION:

Topographic information shown hereon from survey performed by Arc Surveying & Mapping, Inc. October 26, 2021. Referenced on the North American Vertical Datum of 1988 (N.A.V.D. 88).

SOIL BORINGS:

Structural calculations based on the Geotechnical Evaluation, dated November 16, 2021 by Universal Engineering Sciences. The Geotechnical Evaluation has a total of twenty borings, B-1 through B-10 and AB-1 through AB-10. Refer to the Geotechnical Report.

ENVIRONMENTAL AND PERMITS:

- The U.S. Army Corps of Engineers (USACE), Florida Water Management District (FWMD), Florida Department of Environmental Protection (FDEP) and the local city or county may exert jurisdiction over construction of the project. The Contractor shall be responsible to understand and comply with all applicable permit conditions imposed by the jurisdictional agencies, if permits are necessary. If not, the Contractor must at least comply with general state water quality standards for siltation and guidelines for encounters with threatened and endangered species.
- All building and construction-related permits from the local (city or county) or state authorities are the responsibility of the Contractor.
- The Contractor shall be responsible for penalties and/or fines levied due to work that is not in accordance with permit conditions.
- 4. National Marine Fisheries Services has special conditions for manatees. See details.

SUBMITTALS:

All submittals shall be made to the Engineer of Record for review and approval, in writing, prior to ordering and before construction. Submittals also include but are not limited to, shop drawings, mark-up drawings, sketches, cut-sheets, product literature, additional specifications, photographs and letters.

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REHABILITATION

Submittals list:

- 1. Schedule for completion of work with tasks and durations defined.
- 2. Shipping, Stockpile and Site Administration Plan (SSSAP).
- 3. Temporary Traffic Control plan (TTC) for vehicles and pedestrians, including material deliveries, stockpile area(s), worker's parking and construction equipment.
- 4. Site-Specific Safety Plan shall be distributed and reviewed with all site workers prior to said workers commencing work on the project site. See "Site Safety" heading.
- 5. Complete list of required shop drawing submittals shall be provided by the Engineer at the preconstruction meeting.
- Changes, alternates or other methods different from project plans must be approved, in writing, via submittals required by the Engineer and/or Owner.
- 7. After completing the punchlist in the field, the Contractor must submit a itemized punchlist, as-built survey and record drawings for final changes and the Engineer of Record approving in writing.
- 8. The Contractor shall be responsible for keeping a log of change orders, RFI's and shop drawings. The log shall be updated and available upon request.

INSPECTION COORDINATION:

- 1. The Engineer will be conducting routine observations and observations at critical stages of construction. A minimum of 72 hours notice shall be given to the Engineer prior to commencing the critical stages of construction. In general, critical stages are the initial work on the major structure components. Examples of critical stages of construction include: completion of construction stakeout, initial sheet piling installation, framing, concrete forming and rebar placement prior to casting concrete, first section of concrete casting and finishing, first section of backfilling and compaction, etc.
- The local city or county may perform their own construction observations in addition to the Engineer. No observers other than the Engineer or his/her designated representative shall have the authority to determine compliance with plans and specifications.
- Other observers may relay information to the Engineer, but it will be the Contractor's
 ultimate responsibility to maintain contact and resolve disputes, questions, field changes,
 payment requests, etc. directly with the Owner or Engineer.

CONSTRUCTION SURVEYING:

- 1. Stake-out survey of the project is the responsibility of the Contractor. Beginning and end points will be provided by the Owner or Engineer in the project drawings.
- The staked project must be approved by the Engineer prior to commencing construction. The Engineer reserves the right to make alignment changes based on conditions portrayed by the initial stakeout.
- 3. Methods and frequency of continuing stake-out during construction shall be submitted to the Engineer for approval prior to beginning construction.
- The Contractor must perform an independent construction record survey (as-built survey) as a check for compliance at the end of the project. The record survey must be signed and sealed by a State of Florida Licensed Professional Surveyor. The record survey must be referenced to feet N.A.V.D. 88.
- 5. The Prime Contractor is advised that certification of the project elevations and alignment is required by the Engineer for final acceptance of work.

SITE SAFETY:

The Contractor shall prepare and adhere to a Site-Specific Safety Plan. The contents of the plan are:

- 1. Identification of potential hazards and injuries pertaining to the specific site and project.
- Location of nearest hospital.
- 3. Assure availability of at least one working cell phone and one vehicle on site at all times.
- Emergency contacts within the Subcontractor's organization and at the Prime Contractor's organization.
- All field personnel shall wear appropriate safety attire and utilize appropriate personal
 protection equipment for a given task/operation such as safety glasses/goggles, masks,
 shields, gloves, harnesses, hard hats, steel-toed boots,etc.
- 6. Safety kit shall be available onsite at all times with appropriate materials for potential hazards and injuries.
- The Site-Specific Safety Plan shall be distributed and reviewed with all site workers prior to said workers commencing work on the project site.
- The Contractor shall follow all applicable local, state, and federal codes regarding site safety.
- 9. The Contractor shall adjust the means and methods of this plan as appropriate for maintaining site and operational safety.

SITE MAINTENANCE:

- The Contractor shall maintain a clean and neat site, void of loose debris, trash, remnant
- Trash receptacles and removal service shall be maintained by the Contractor specifically for this project. Pre-existing trash/debris facilities shall not be used to maintain the
- Temporary debris piles shall be limited in number as much as practical and contained in designated areas until removal. Debris and trash shall not be scattered in areas outside the limited designated areas at any time.
- Removal of trash/debris shall be scheduled as appropriate to not allow piles to reach five-feet in height or greater than ten-feet in diameter. Debris individually larger than these dimensions shall be removed from the site within five working days. Receptacles shall not overflow at any time.
- Where necessary, the Contractor shall employ a Temporary Traffic Control plan (TTC) for vehicles and pedestrians, including material deliveries, stockpile area(s), worker parking and construction equipment. The plan must be in writing, including sketches or drawings, and must be submitted to the Owner or Engineer for review and approval before commencement of any work
- The Contractor shall follow all applicable local, state and federal codes regarding site maintenance

MOBILIZATION AND DEMOBILIZATION:

- 1. It is understood that this project will require work in and over water. Access to near water construction areas is required for material storing, hauling, erection and construction. All facilities, public or private, used for such purposes shall be repaired to their original condition following "Completion" of the project, including grade and topping (sod, tree/vegetation cover, established road, etc.)
- The Contractor shall present a Shipping, Stockpile and Site Administration Plan (SSSAP) to the Owner or Engineer for approval. The plan shall be specific to the project requirements for the particular materials to be delivered to the site, describing delivery points, stockpile areas, temporary debris/trash storage areas, temporary field office (including utilities maintained there), fencing, security and a statement of commitment and details for maintaining safety on the site.
- The Owner or Engineer shall have the right to exercise reasonable alterations or additions to the SSSAP.
- It is the Contractor's responsibility to coordinate, and pay for, necessary utilities to occupy the site and perform the work
- The Contractor shall not demobilize until project completion, and all parties have agreed and signed off in writing.

TECHNICAL SPECIFICATIONS FOR SITE PLAN TESTING:

MATERIAL

The inspection and testing of materials and finished articles to be incorporated in the work shall be made by bureaus, laboratories, or agencies approved by the Engineer of Record. The Contractor shall submit such samples, or such special or test pieces of materials as the Engineer of Record may require. The Contractor shall not incorporate any material or finished article into the work until the results of the inspections or tests are known and the Contractor has been notified by the Engineer of Record that the material or finished article is accepted. All materials must be of the specified quality and be equal to the approved sample if a sample has been submitted. Certified copies of all tests made shall be submitted to the Engineer of Record as well as to the Owner's designated site inspector. The Owner's designated site inspector must receive copies of all testing reports and certificates prior to the Engineer of Record requesting a final project inspection from the

LABORATORY CONTROL AND CERTIFICATES SPECIFICATIONS: Sampling, testing, and laboratory methods shall be in accordance with the standard specifications of the AASHTO or ASTM. Where AASHTO or ASTM specifications are used, the reference shall be construed to be the most recent standard specifications or tentative specifications of the AASHTO or ASTM in force on the date of the test. **TEST AND CERTIFICATES:**

The Contractor shall engage an approved testing laboratory to provide the following tests and certifications signed by a registered Engineer of the State of Florida. All technicians performing the tests shall be state certified for the testing performed. Additional tests that may be required by either the Engineer of Record or the Owner shall also be provided by the Contractor, and the following shall not be taken as a complete and exhaustive list of the Contractor's testing responsibilities.

- a. Soil analysis for structural fill material prior to installation.
- Proctor densities, moisture content, compacted field densities and Atterberg

FILL MATERIAL AND SURFACE TREATMENT:

- 1. Fill material shall be from an upland source and shall be clean, construction-quality sand, free from organics, oils, grease and debris. The source company shall provide a sieve analysis to the Engineer for approval prior to shipping material.
- 2. Fill material shall be placed in maximum 12-inch lifts and compacted to minimum 98% percent optimum proctor moisture content and density. The bottom, middle and top of fill shall be tested, at the expense of the Contractor, by a qualified independent testing company. The testing company name, qualifications and contact information shall be provided to the Owner or Engineer for approval prior to commencing soil testing.
- Backfilling shall not be performed until after the cap has sufficiently cured to design
- 4. The filling and compaction should be performed with the smallest practical equipment to reduce surcharge on the structure during the operation. Heavy equipment shall not be operated within 25 feet of the sand-cement back headwall/bulkhead/seawall. The Contractor shall review backfilling procedure with the Engineer prior to commencing.
- Area to be filled shall be stripped of organic materials prior to filling.
- If any muck material is discovered, it shall be required to be removed and replaced with a suitable material that is properly filled, compacted and tested using AASHTO T-180 modified proctor method.

EROSION AND TURBIDITY CONTROL:

The following measures represent minimum standards to be adhered to by the Contractor throughout the construction of this project. The Owner reserves the right to require additional measures to be employed when warranted by extreme conditions and/or the failure of the Contractor to employ the appropriate erosion and turbidity control best management practices. Failure to comply with these provisions shall result in the issuance of a "stop work order".

- 1. It shall be the responsibility of the Contractor to have all protective vegetation barricades, erosion and turbidity control structures and measures in place prior to the commencement of any work. These measures include, but are not limited to, temporary construction fences, hay bales, silt fences, and floating turbidity barriers. Further, it shall be the responsibility of the Contractor to maintain all erosion control devices throughout the duration of the entire project. Maintenance shall include periodic inspection and removal of debris abutting erosion control devices.
- 2. Prior to the installation of any fill materials on subject site, silt fences shall be installed (1) along subject site boundary and property lines. (2) at the edge of conservation easements and wetlands, (3) adjacent to natural landscape buffers, (4) around the perimeter of existing storm water treatment facilities, and (5) at any additional areas that the Owner deems necessary to be protected from potential erosion impacts during construction. These conditions shall apply in all instances where fill material is being installed within 25 feet of any of the aforementioned locations. While these items represent the minimum requirements, the Owner reserves the right to impose additional protective measures, as determined during actual site visits conducted throughout project
- At a minimum, the Contractor shall seed and mulch all disturbed areas. Sufficient grass coverage is to be established within thirty days.
- Soils are to be stabilized by water or other means during construction. This is intended to reduce soil erosion and the impact to neighboring communities. Adequate watering methods should be employed to allow daily coverage of the entire limits of all areas that do not have an established vegetative cover. Methods to be employed include, but are not limited to, water trucks, permanent irrigation systems, temporary sprinkler systems operated by pumping units connected to wet retention ponds, water cannons, temporary irrigation systems mounted atop stockpile areas, and other methods as deemed necessary by the Owner.
- Any permitted demolition or removal from submerged lands or adjacent uplands shall be fully contained within siltation devices such that permit turbidity requirements and state water quality standards are met.

DEMOLITION, CLEARING AND RESTORATION:

- Demolition or clearing may require permits. The Contractor shall acquire all necessary building permits from the local municipality prior to commencing work.
- Clearing and removal of vegetation, rocks and debris will be required within the project structure footprint.
- Demolition or removal of objects, debris, or material specified or obstructing construction shall take place only to the extent necessary.
- The site shall be restored by removing and finishing all evidence of construction including temporary haul roads, vehicle ruts, stockpile areas, shoreline slopes and vegetation, sod and areas subject to project work.

AS-BUILT SURVEY AND RECORD DRAWINGS:

- As-built survey and record drawings shall be submitted at the time of the punchlist review and shall be reviewed by the Engineer for completeness and correctness.
- The record drawings shall be a designated set of drawings maintained on site for the purpose of hand-making all changes and deviations from the original design, no matter how slight. Color markings are preferred.
- 3. The record drawings shall also contain any and all field changes with respect to location, alignment, height, width, length, depth, materials, products, etc.

DESIGN SPECIFICATIONS:

- 1. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition), as amended by contract documents.
- American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications and approved interims as specified in the Structures Design Guidelines. FDOT Structures Design Guidelines, January 2009.
- Reinforced Concrete Design, Wang & Salmon, First Edition, 1976.
- Introductory Soil Mechanics & Foundations, Sowers & Sowers, Third Edition, 1970.
- Florida Safety Code, Latest edition.
- ASCE 7-10, Wind Loads on Other Structures, Section 29.5, 2010.
- ASCE 7-10, Impact Loads (Debris), Section C.5.4.5, 2010.
- ASCE 7-10, Hydrodynamic Loads (Current), Section 5.4.3, 2010.
- Volusia County Engineering and Construction Standards.
- 10. Shore Protection Manual, U.S. Army Corps of Engineers, 1984.
- 11. U.S.A.C.E. Engineering Manual, Design of Pile Foundations, EM 110-1-2906, 1991.
- 12. Florida Building Code: Accessibility, Latest Edition.
- 13. Wind calculations per ASCE 7-10, "Other Standards", Section 29.5, Page 308.
- 14. Florida Department of Environmental Protection Permit Specifications.
- 15. Florida Fire Prevention Code, 5th Edition.

STEEL/MISCELLANEOUS:

- All reinforcing steel shall be ASTM A615, Grade 60.
- 2. All structural steel and miscellaneous metal items (other than aluminum) shall be in accordance with structural steel, Grade 316 Stainless Steel or ASTM A36 Steel.

GENERAL NOTES COMPANIES BULKHEAD REHABILITATION HYATT PLACE COLLAGE COMPANIE OGY PARK ', FL 32746

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INSTALLATION OF PERMANENT SHEET PILE RETAINING WALL SYSTEM ELEMENTS AND APPURTENANCES - SUBMITTALS AND WARRANTIES

- The Contractor shall submit a sheet pile installation plan for approval by the Engineer prior to commencement of the work.
- The Contractor shall certify as part of the Contractor's sheet pile installation plan that the protective coatings will be applied in conformance with the intent of the design and the relevant specifications regarding the adequate provision of protective coatings on the interior and exterior surfaces of the permanent sheet piling and appurtenances.
- The Contractor shall submit details, plans, and schematics relevant to the fabrication and erection of permanent sheet piling and accessories as part of the Contractor's sheet pile
- The Contractor shall certify as part of the Contractor's sheet pile installation plan that the composition, dimensions, and material properties of the permanent sheet piling satisfy the intent of the design and are selected in conformance with the relevant specifications.
- The Contractor shall provide all pile-driving equipment specifications as part of the Contractor's sheet pile installation plan, which shall include the following information: make and model of pile driving hammer(s); weight of capblock assembly; and the dimensions, intrinsic composition, and stiffness of the pile and hammer cushions.
- 6. The Manufacturer shall warrant the equipment, materials, and products specified in these specifications with the Manufacturer's standardized warranty, which shall remain in effect for no less than one (1) year following the date of substantial completion.
- The Contractor shall warrant the completed work against defects over a period of one (1) year following the date of substantial completion.

INSTALLATION OF PERMANENT SHEET PILE RETAINING WALL SYSTEM ELEMENTS AND APPURTENANCES - SATISFACTORY MAINTENANCE OF SHEET PILE INSTALLATION RECORDS:

- The Contractor shall maintain and submit daily sheet piling system installation records to the Engineer for review during the installation of permanent sheet piling system elements and appurtenances, which shall incorporate the following provisions:
 - a. Pile number and relative location. Record piling identification data including: piling type, chemical composition, mechanical properties, and section
 - Piling dimensions, i.e., driven piling lengths before and after cut-off.
 - Top and bottom elevations of installed piling before and after cut-off.
 - Ground surface elevation during installation.
 - Descriptions of sheet piling driving equipment including: type and size of hammers, helmets, extractors, protection caps, cushion materials, capblock assemblage, and other equipment.
 - Driving equipment performance data, i.e., pressure gauge readings or
 - Piling penetration rate data including blows required per foot of penetration and final driving resistance in blows over the final 6 inches.
 - Date and time of day pile is driven and prevailing climactic conditions.
 - Heaving, pulling, and redriving data.
 - Reheading or cutting data.
 - Results of interlocked joint strength in tension testing (if applicable).
 - Miscellaneous remarks and commentary regarding the performance of pile-driving operations. Record any anomalous pile driving problems encountered during installation.
- The Contractor shall provide adequate accessibility to all work areas as requested by the Engineer for the sufficient execution of inspective services during the installation of sheet pile system elements and appurtenances.

INSTALLATION OF PERMANENT SHEET PILE RETAINING WALL SYSTEM ELEMENTS AND APPURTENANCES - CONTRACTOR'S RESPONSIBILITIES:

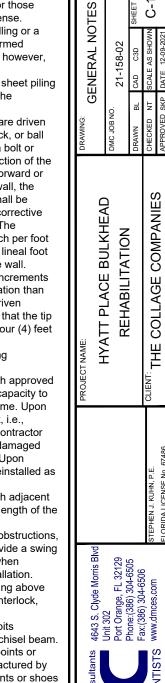
- The Contractor shall be responsible for the adequate installation of permanent sheet piling system elements and appurtenances at the locations, and to the dimensions, elevations, grades and lines as shown in the Drawings.
- 2. The Contractor shall be competent in the installation of sheet piling and protective coatings and shall demonstrate a minimum of five (5) years of relevant experience.
- The Contractor shall establish surveyed benchmarks and monitoring devices, which shall be referenced during the installation of the proposed sheet piling system elements and
- The Contractor to clearly mark each pile at uniform increments of one (1) foot along its entire length with the exception of the final foot, which shall be clearly marked at increments one (1) inch, so as to permit the satisfactory maintenance of accurate sheet pile installation records during driving.
- The Contractor shall provide steel sheet piling in accordance with the following
 - The nominal dimensions of permanent Z-type sheet piling shall be of sufficient depth, length, width, and thickness as shown in the Drawings.
 - The nominal moment of inertia and section modulus of permanent Z-type sheet piling shall be as shown in the Drawings.

- c. Permanent Z-type sheet piling shall be manufactured of hot-rolled carbon grade steel conforming to ASTM A328/A328M - Standard Specification for Steel Sheet Piling; the installation of cold-rolled and/or cold-formed sheet piling is strictly prohibited.
- Sheet piling shall not have a camber or sweep in excess of the permitted mill
- e. The tips of permanent Z-type sheet piling shall be protected with sheet pile points or shoes. Sheet pile points or shoes shall be reinforced with protector as manufactured by Associated Pile and Fitting Corporation or Engineer-approved equivalent. Points or shoes shall be welded to the pile tips in accordance with the Manufacturer's recommendations and in conformance with the latest iteration of the structural welding code for steel, i.e., AWS D1.1.
- 6. The Contractor shall utilize equipment, which is capable of delivering sufficient force or energy to the piling during driving.
- The Contractor shall utilize an approved vibratory hammer to initially drive sheet piling. The use of vibratory hammers, however, shall be discontinued when the penetration rate is one (1) foot or less per minute.
- 8. The Contractor shall provide equipment for driving steel sheet piling as necessitated to complete the pile driving operations as specified as follows:
 - a. The sheet piling shall be driven with an approved single-acting, partial double-acting, or double-acting air, diesel, or steam impact hammer.
 - The pile driving hammer shall be continually operated at the speeds and conditions, which are recommended by the hammer Manufacturer.
 - The boiler or compressor capacities for the steam or air-operated impact hammers shall be sufficient to operate the hammer continuously at the full-rated speed and energy.
 - d. For either the steam-operated or air-operated impact hammers, the Contractor shall provide a pressure gauge, which is conveniently situated on the hammer steam or air line such that the instrument can be clearly interpreted by the operator.
 - e. For double-acting diesel impact hammers, the Contractor shall provide a pressure gauge, which is conveniently situated such that the instrument can be clearly interpreted by the operator.
 - For single-acting diesel impact hammers, the Contractor shall mark the ram as approved by the Engineer to permit determination of the stroke.
- 9. The Contractor shall apply protective coatings to all sheet piling. The coating system shall be selected and applied in conformance with the applicable specifications.

INSTALLATION OF PERMANENT SHEET PILE RETAINING WALL SYSTEM ELEMENTS AND APPURTENANCES - EXECUTION:

- 1. The Contractor shall place sheet piling at the locations, and to the dimensions, elevations, grades, and lines as shown in the Drawings. The top of the piling shall be within a horizontal tolerance of one-half (1/2) inch and a vertical tolerance of two (2) inches following cut-off
- The Contractor shall install sheet piling to the tip bearing elevations as indicated in the Drawings.
- The Contractor shall not install sheet piling until inspected and approved for driving.
- The Contractor shall provide templates to locate the position of the sheet piling relative to the proposed horizontal alignment. Templates shall not displace when supporting sheet
- The Contractor shall affix wood blocking to templates to support the web of each alternate sheet pile element and employ either straps or restraints to preclude warping or meandering of the sheet piling during installation.
- The Contractor shall not install sheet piling within a lateral distance of 100 feet of concrete less than seven (7) days old, unless authorized by the Engineer.
- The Contractor shall install sheet piling in contact with surrounding soil materials and leave all permanent piling in place.
- The Contractor shall not install coated sheet piling until the protective coating has cured over a minimum duration of one (1) week, or seven (7) days.
- Prior to driving sheet piling in water, the Contractor shall delineate a horizontal reference line on both sides of the sheet piling at a fixed distance from the bottom so that it is visible above the water line after installation. This line shall indicate the profile of the bottom elevation of installed sheet piling so potential problematic areas can be identified by abrupt changes in elevation.
- 10. The Contractor shall install sheet piling with the proper size hammer and by approved methods to ensure that the piling sustains no damage and proper interlocking occurs over the entire lengths of the piling during driving. Driving hammers shall be maintained in proper alignment during driving operations via the utilization of leads or guides attached to the hammer. Precautions shall be taken during the sustained employment of vibratory hammers when respectively dense to very dense subsurface stratigraphic geologic materials are encountered during driving to avoid interlock melt and/or other damage. The use of vibratory hammers should be terminated, and impact hammers should be employed whenever the vibratory penetration rate is equivalent to one (1) foot or less per

- 11. The Contractor shall employ a protective cap during driving when using impact hammers to prevent damage to the tops of the pilings. Pilings damaged during driving or those driven out of interlock shall be removed and replaced at the Contractor's expense.
- 12. The Contractor shall install sheet piling without the assistance of either predrilling or a water jet, unless authorized by the Engineer. Authorized jetting shall be performed simultaneously on both sides of the sheet piling; jetting shall be discontinued, however, over the final five (5) feet of pile penetration.
- The Contractor shall perform continuous inspections during the installation of sheet piling system elements and appurtenances. Inspect all piling for conformance with the tolerances as specified herein.
- 14. Adequate precautions shall be taken by the Contractor to ensure that pilings are driven plumb. If possible, the Contractor shall drive sheet piling with the male interlock, or ball end leading. If the female interlock, or open socket end is leading, however, a bolt or similar object shall be placed in the bottom of the interlock to minimize obstruction of the interlock and facilitate installation of the subsequent piling. If at any time the forward or leading edge of the piling wall is found to be out of plumb in the plane of the wall, the piling being driven shall be driven to the required depth and tapered pilings shall be driven to interlock with the out-of-plumb leading edge. If approved, alternate corrective measures may be employed to ensure the plumbness of succeeding pilings. The maximum permissible taper for any tapered piling shall be one-eighth (1/8) inch per foot of length. Alternatively, the piling should not be driven more than 1/8-inch per lineal foot out of plumb either in the plane of the wall or perpendicular to the plane of the wall.
- The Contractor shall install sheet piling in each continuous run alternately in increments of depth to the required tip elevation. No piling shall be driven to a lower elevation than those behind it in the same run except when the pilings behind it cannot be driven deeper. The Contractor shall incrementally sequence driving operations such that the tip of any individual sheet pile shall not be installed to a depth that is more than four (4) feet below that of any adjacent sheet piling.
- 16. The Contractor shall not manipulate, i.e., force, sheet piling into position during
- 17. The Contractor shall provide extraction holes in sheet piling in compliance with approved supplemental shop drawings. Extractors shall be of sufficient type, size, and capacity to avoid damage to the piling during extraction. Extract one sheet of piling at a time. Upon extraction, any piling that is found to be substantially and structurally deficient, i.e., damaged, shall be removed and replaced at the Contractor's expense. The Contractor shall not be compensated for the extraction of pilings, which are found to be damaged beyond structural use as a consequence of improper care during extraction. Upon extraction and inspection, any piling that is found to be satisfactory shall be reinstalled as directed by the Engineer
- 18. Pilings, which are properly driven in place, shall be adequately interlocked with adjacent pilings to form a contiquous and continuous diaphragm throughout the entire length of the
- 19. The Contractor shall ensure that the interlocks are free-sliding and devoid of obstructions, i.e., soil and/or debris, during sheet piling installation. The interlocks shall provide a swing angle suitable for the intended installation but not less than five (5) degrees when interlocked. The Contractor shall maintain continuous interlocking during installation.
- 20. The Contractor shall scrutinize interlocked joints of driven sheet piling extending above the ground surface during installation, and piling, which is found to be out of interlock, shall be removed and replaced at the Contractor's expense.
- 21. The Contractor shall discontinue driving of sheet piling if an obstruction prohibits adequate penetration; all obstructions shall be removed or penetrated with a chisel beam.
- The Contractor shall protect the tips of the sheet piling with either sheet pile points or shoes. Sheet pile points or shoes shall be reinforced with protector as manufactured by Associated Pile and Fitting Corporation or Engineer-approved equivalent. Points or shoes shall be welded to the pile tips in accordance with the Manufacturer's recommendations and in conformance with the latest iteration of the structural welding code for steel, i.e.,
- 23. The Contractor shall cut sheet piling in a direction that is perpendicular to the vertical axis of the pile and to within one-half (1/2) inch of the cutoff elevation as indicated in the
- 24. The Contractor shall remove the portion of the pile, which is cut off, from the work site.
- 25. The Contractor shall remove excess excavated materials if excavation is required to effectively cut sheet piling.
- The Contractor shall not splice sheet piling unless authorized by the Engineer.
- 27. The Engineer will evaluate the acceptability of all installed sheet piling and may reject piling that does not conform to the requirements of these specifications. Sheet piling, which is damaged by use of a pile hammer, shall be either remediated or replaced at the Contractor's expense. Piling that is substantially damaged shall be replaced with new and undamaged piling of equivalent manufacturer, type, shape, composition, dimensions, weight, interlocks, moment of inertia, and section modulus.



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PROTECTIVE COATINGS - REGULATORY REQUIREMENTS:

- 14. The Contractor shall provide coating materials that conform to the restrictions of the local and regional jurisdictions.
- 15. Notify the Engineer of any coating specified herein that fails to conform to the requirements for the location of the work or location of application.
- 16. The Contractor shall apply coatings that are completely lead-free.
- 17. The Contractor shall not apply coatings containing zinc-chromate or strontium
- 18. The Contractor shall apply coatings that are completely asbestos-free.
- 19. The Contractor shall not apply coatings containing mercury or mercury compounds.
- 20. The specified maximum volatile organic compounds (VOC) content shall apply to the unthinned product.

PROTECTIVE COATINGS - SUBMITTALS:

- 1. The Contractor shall submit a schedule of products and coating systems to be used to the Engineer prior to commencement of the work.
- 2. The Contractor's schedule of products and coating systems shall at a minimum include the following information:
 - a. Surfaces designated for coating system application
 - Method of surface preparation
 - Degree of surface cleanliness
 - Coating product Manufacturer and contact information
 - Application methodologies
 - Dry film thickness per coat of coating system during supplication
- The Contractor shall submit color charts for selection and acceptance.
- 4. The Contractor shall submit product information including the following:
 - a. Manufacturer's data sheet for each proposed product
 - Technical and performance data demonstrating compliance with coating system performance and material requirements
 - Manufacturer's instructions and recommendations regarding surface preparation and product application
 - Material Safety Data Sheets (MSDS) for each of the proposed products
 - Compatibility of shop and field applied coating systems
- 5. The Contractor shall submit the Manufacturer's certifications. The certifications shall indicate that each coating is suitable for use and the materials are selected in conformance with the requirements of the specifications.
- 6. The Contractor shall submit certifications, which indicate that all applicators are qualified to adequately prepare the surfaces and subsequently apply the coating systems in conformance with the requirements of the specifications
- 7. The Contractor shall submit representative samples of each paint, finish, and other miscellaneous coating material on separate specimens of sheet piling sized at approximately 8-1/2-inches by 11 inches to the OWNER and Engineer for approval prior to commencement of the work.
- 8. The Contractor shall submit two (2) sets of representative color samples selected from the Manufacturer's color charts to the OWNER for approval prior to commencement of the work. The color designation should be provided on the reverse side of the color samples.

PROTECTIVE COATINGS - QUALITY ASSURANCE

- 1. The Contractor's applicator shall be SSPC certified. The designated applicator must possess a SSPC-QP 1 accreditation for work without hazardous point removal and a SSPC-QP 2 accreditation for work with hazardous paint removal.
- 2. The Contractor's designated applicator's accreditation(s) must remain active and valid throughout the duration of the work, and any request for a delay in production due to an expired accreditation will not be considered.
- 3. The Contractor's designated applicator shall be certified in the application of similar products and systems on projects of similar size and scope, as demonstrated by prior successful installations, and shall be approved by the Manufacturer in writing.
- 4. The Contractor shall demonstrate that the products originate from a Manufacturer with a minimum of ten (10) years of experience in producing and supplying the materials required for the performance of the work.
- 5. A pre-coating conference shall be scheduled with representatives of the OWNER, Engineer, Contractor, Contractor's applicator, and the coating Manufacturer's technical representative in attendance
- 6. The agenda for the pre-coating conference shall include a discussion of means and methods employed during surface preparation and subsequent application of coating
- 7. The coating Manufacturer's technical representative shall regularly inspect the work performed by the Contractor's designated coating applicator. If a problem occurs with the coating system, or surface preparation or application processes, the Contractor's designated coating applicator and coating Manufacturer's technical representative shall promptly investigate the problem, provide a solution, and submit the results of the investigation to the Engineer for review.

- 8. The Contractor shall provide and employ a wet-film gauge to verify film thicknesses at an approximate frequency of one measurement per every fifteen (15) minutes. The gauge shall be calibrated on metal identical in composition to that being coated. Calibrating instructions, thickness standards, and calibrating tool (if necessitated) shall be procured from the gauge Manufacturer or supplier.
- 9. The Contractor shall provide and regularly employ holiday and pinhole detection instrumentation to locate and remediate voids or irregularities during application.
- 10. The Contractor shall provide and employ a sling psychrometer to perform periodic verifications of both ambient temperature and relative humidity.
- 11. The Contractor shall regularly verify the temperature of the surface substrate; the temperature of the surface substrate should be five (5) degrees Fahrenheit or more above the dew point.
- 12. The Manufacturer shall warrant the equipment, materials, and products specified in these specifications with the Manufacturer's standardized warranty, which shall remain in effect for no less than five (5) years following the date of substantial completion.
- 13. The Contractor shall warrant the completed work against defects over a period of one (1) year following the date of substantial completion.

PROTECTIVE COATINGS - PRODUCTS:

- 1. The Contractor shall procure coating materials from one of the following reputable
 - a. PPG Industries, Incorporated (Pittsburgh Plate Glass Company)
 - Carboline Company
 - **BASF Building Systems**
 - ICI Devoe Coating Company
 - The Euclid Chemical Company
 - Tnemec Company, Incorporated **Xypex Chemical Corporation**
 - Kryton International, Incorporated
 - Sika Corporation
 - GML Coatings, LLC
 - Wasser Corporation
 - **Xymax Coatings, Incorporated**
 - Benjamin Moore & Company
 - Sherwin-Williams
 - o. PPC Coatings
 - p. International Fire-Resistant Systems, Incorporated
- 2. The Contractor must furnish materials for the coating system, which are compatible
- 3. The Contractor must select materials in each coating system from the same coating Manufacturer to ensure compatibility.
- 4. The Contractor shall remove coatings of dubious composition before the application of
- 5. The Contractor shall ensure that the finishing products will be compatible with shop coating systems if shop-coated surfaces are painted in the field.
- 6. The Contractor shall match finish coatings with the accepted color samples.
- 7. The Contractor shall apply an alternate color or tint the surface of the second coat to enable visual coverage inspection of the third coat if the second and finish coats of the coating system are of the same type.
- 8. The Contractor shall provide a label on all material containers including the following information:
 - a. Manufacturer's name, product name, and identification number
 - Type of coating and generic nomenclature
 - Color nomenclature and identification number
 - Storage and temperature limitations
 - Mixing and application instructions including necessary precautions
 - f. Drying, recoat, and curing times

PROTECTIVE COATINGS - APPLICATION:

- 1. The Contractor shall apply coating systems to all designated surfaces as shown in the Drawings.
- 2. The Contractor shall apply a moisture-cured urethane coating on all steel sheet piling. The first coat shall consist of moisture-cured urethane zinc primer without micaceous iron oxide (MIO). The second and third coats shall consist of moisture-cured urethane
- 3. The Contractor shall apply a coating system with a minimum dry film thickness of 15.0 mils. Discontinuities in the thickness of the coating system shall be detected with pinhole or holiday detection instrumentation.
- 4. The Contractor shall ensure that the volatile organic content of the coating system is below 2.8 pounds per gallon.
- 5. For best results, the following product ManufacturerS are recommended: Wasser Corporation, Sherwin-Williams, Tnemec Company, Incorporated, and Xymax Coatings,

- 6. For best results, the following products are recommended for the first coat: MC-Zinc 100 by Wasser Corporation, Zinc CLAD 221 MCU by Sherwin-Williams, Series 90-1K97 Tnemec-Zinc by Tnemec Company, Incorporated, and Xymax Mono Zinc Ultra 2401 by Xymax Coatings, Incorporated.
- 7. For best results, the following products are recommended for the second and third coats: MC-Tar 100 by Wasser Corporation. Corothane I Coal Tar Moisture-Cure Urethane Black by Sherwin-Williams, Omnithane Hydrocarb X 546 by Tnemec Company, Incorporated, and Mono Guard 6201 by Xymax Coatings, Incorporated.
- 8. The Contractor shall apply coatings in accordance with coating Manufacturer's recommendations. Materials shall be thoroughly stirred, strained, and kept at uniform consistency during application. Coatings from different ManufacturerS shall not be homogenized.
- 9. The Contractor shall employ properly designed brushes, rollers, and spray equipment for all applications.
- 10. The Contractor shall apply the first coat of the coating system the same day as surface preparation on unprimed surfaces.
- 11. Prepared surfaces and each coat shall be inspected prior to the application of the succeeding coat. The Contractor shall schedule such inspection with the OWNER. Engineer, and Manufacturer's technical representative in advance.
- 12. The Contractor shall ensure that all blast-cleaned all ferrous metal surfaces are coated before any rusting or corrosion of the surface occurs. Blast cleaning shall be limited to only those surfaces that can be coated in the same working day.
- 13. The Contractor shall employ strip painting methods for edges, angles, weld seams, flanges, nuts and bolts, and other places where insufficient film thicknesses are likely to
- 14. The Contractor shall ensure that the maximum dry-film thickness does not exceed the specified minimum dry film thickness by more than twenty (20) percent of the specified minimum dry film thickness.
- 15. The Contractor shall not employ shop and field-coating methodologies within three (3) inches of any unprepared surface of any substrate, which may include areas to be welded or bolted.
- 16. The Contractor shall not apply coatings when the ambient temperature is fifty (50) degrees Fahrenheit or less.
- 17. The Contractor shall not apply coatings during inclement weather.
- 18. The Contractor shall not apply coatings when excessive wind velocities are anticipated to preclude overspray or fallout.
- 19. The Contractor shall not apply coatings when the relative humidity is eighty-five (85) percent or higher.
- 20. The Contractor shall ensure that all areas are adequately ventilated during application of the coating system.
- 21. The Contractor shall recoat within the Manufacturer's recommended time limitation(s). If the Manufacturer's recommended time limitation(s) is exceeded prior to recoating, the Contractor shall prepare the previously coated surface in compliance with the Manufacturer's recommendations for surface preparation.
- 22. The Contractor shall cover or protect surfaces not to be coated and remove protective materials when appropriate.
- 23. The Contractor shall provide cover or shielding materials to prevent surface preparation media and coating materials from penetrating orifices in electrical and mechanical equipment, i.e., ventilation systems in operation during surface preparation.
- 24. The Contractor shall establish signage to protect freshly coated surfaces.
- 25. The Contractor shall cleanup both storage and work areas daily to sufficiently remove paint refuse, trash, rags, thinners, brushes, rollers, etc. All refuse must be properly disposed of in accordance with applicable environmental regulations.

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PROTECTIVE COATINGS - SURFACE PREPARATION:

- 10. The Contractor shall adequately prepare surfaces for each coating system in conformance with both SSPC and ASTM standards.
- 11. The Contractor shall clean all surfaces, which are designated to receive the coating system, prior to application.
- 12. The Contractor shall inspect all surfaces to be coated and shall remediate all surficial defects prior to application.
- 13. The Contractor shall restore all marred and abraded surfaces on shop-primed or factory-finished surfaces prior to application. Surfaces, which are designated to receive coating systems, shall be dry and devoid of dust.
- 14. The Contractor shall protect all surfaces, which are designated not to receive coating systems. Surfaces, which are designated not to receive protective coatings, shall be protected during surface preparation, cleaning, and coating application operations.
- 15. The Contractor shall employ drop cloths to prevent coating materials from marring adjacent surfaces, objects, and machinery.
- 16. The Contractor shall protect adjacent work areas during the performance of blast cleaning operations. The Contractor shall be responsible for damage to adjacent work or adjoining property during the execution of blast cleaning and coating operations.
- 17. The Contractor shall protect newly coated surfaces during the execution of blast cleaning and coating operations within adjacent work areas.
- 18. The Contractor shall remove grease, oils, and surface irregularities such as burrs, sharp edges, and weld spatter prior to surface preparation. All sharp edges shall be rounded or chamfered, and all burrs, surface defects, and splatter shall be ground smooth prior to the performance of blast cleaning.
- 19. The Contractor shall prepare surfaces and apply the first coat of the coating system during the same day.
- 20. The Contractor shall select the type and size of abrasive materials to produce a surface profile that satisfies the requirements for surface preparation specified for the coating product(s).
- 21. The Contractor shall employ clean, hard, and sharp crushed slag as abrasives for severe service coating systems.
- 22. The Contractor shall not employ automatic blasting systems for surface preparation for submerged service coating systems. Rather, either metal shot or grit shall be employed for surfaces that will be in submerged service.
- 23. The Contractor may reuse abrasives during surface preparation for unsubmerged service coating systems.
- 24. The Contractor shall utilize clean, oil-free abrasives with a minimum grit proportion of fifty (50) percent during surface preparation for unsubmerged service coating systems.
- 25. The Contractor may employ automated blasting systems during the execution of surface preparation for unsubmerged service coating systems.
- 26. The Contractor shall regularly maintain air compressors, which are employed for blast cleaning. Compressors shall be equipped with oil and moisture separators capable of removing a minimum of ninety-five (95) percent of potential contaminants.
- 27. The Contractor shall thoroughly clean all surfaces of dust and residual particulates during surface preparation via dry air blasting or vacuuming prior to coating application.
- 28. The Contractor shall remediate all defective coating(s) via blast cleaning methodologies to satisfy the surface preparation requirements prior to recoating.
- 29. The Contractor shall mitigate the accumulation of dust particulates in enclosed areas.
- 30. The Contractor shall delimit the area to be cleaning to within one hundred (100) square feet if abrasive blast cleaning is deemed detrimental to the adjacent work.
- 31. The Contractor shall completely remove coating of unknown composition, i.e., shop-applied temporary coatings. Temporary coatings shall be completely removed via the employment of solvent cleaning prior to the commencement of blast cleaning operations.

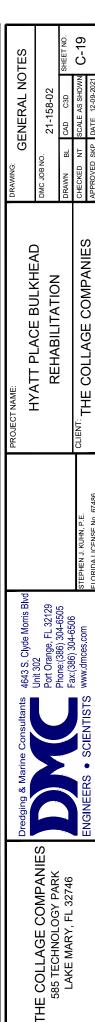
CONCRETE - CAP AND OUTFALL STRUCTURES:

- 1. All mix designs by the concrete supplier or Contractor must be submitted to the Engineer for approval prior to submitting order.
- All cast-in-place cap and outfall structure concrete shall be of the same mix design as follows:
 - a. Compressive Strength: 6,000 psi minimum (4,500 psi minimum concrete plugs)
- b. Water-cement ratio </= 0.40
- c. Air Entrainment: Minimum 2 to 3%
- d. Potable water, no chlorides
- e. Type I Cement.
- f. 6% addition of microsilica per weight of binders.
- g. Large and small aggregates washed and free of chlorides or reactive chemicals.
- h. No pea gravel allowed.
- Retarders or accelerators not allowed unless justified to the Engineer prior to their use.
- 3. Concrete cover from all exterior faces shall be 4-inch clear to the outmost face of any reinforcement, including stirrups, unless otherwise noted in the plans.
- 4. No greater than 45 minutes may transpire between individual castings. Trucks may not sit on for grater than 45 minutes. Trucks sitting full on site for grater than 45 minutes shall be rejected at the Contractor's expense. Delays in casting a given form greater than 45 minutes shall be rejected unless an acceptable construction join can be made.

- A working concrete vibrator must be on site prior to delivery of first concrete. The owner, owner's representative or Engineer shall not allow concrete to be cast otherwise.
- Vibrate concrete fully, particularly at corners and edges, in a continuous vertical plunging motion, never allowing the vibrator to become motionless in the concrete. Concrete with substantial voids or honeycombing will be rejected.
- 7. Use non-metallic chairs and spacers in reinforcement placing, or for any other necessary in-form attachments or alignments.
- 8. Continually wet water cure horizontal surfaces for at least three days and all exposed concrete surfaces after concrete is set. For the purpose of this specification "set" is when the concrete surface is hard enough so that when "knocked" with the knuckles the concrete is not dented. The Contractor is responsible for arranging a water source for curing purposes prior to commencing casting of concrete.
- Apply Master Builders/BASF "ConFilm" or Euclid Chemical "Eucobar" product immediately after first float and then after final finish. Refer to Manufacturer's recommendations for mixing and application.
- 10. The final alignment of the concrete cap shell be straight and level per elevations and plans provided.
- 11. Concrete materials testing per acceptable ASTM methods and intervals. A material testing program must be prepared by the Contractor and/or manufacture for review and approval by the Engineer. At least one set of four cylinders shall be cast for any one day's work, or work between construction joints, or more if prescribed by ASTM.

VERTICAL JOINTS IN CONCRETE CAP:

- 1. Joints shall be placed where shown in the plans with a full cross-section width of 3/8-inch.
- 2. Closed-cell neoprene shall be placed the full width and height of the concrete cap with a thickness of 3/8-inch.
- 3. 30-inch long, 1-inch diameter, stainless steel, smooth, greased dowels (both sides) as shown in plans.
- 4. Concrete cap reinforcing shall stop 4 inches from the ends of each segment as shown in the plans.



The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads Caution: Boaters must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office 263 13th Avenue South St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006 O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

