

# CORNERSTONE CHARTER ACADEMY CONSTRUCTION PLANS CITY OF BELLE ISLE, FLORIDA

**APPLICANT/ OWNER:**

**CORNERSTONE CHARTER ACADEMY, INC.**  
906 WALTHAM AVE.  
CITY OF BELLE ISLE, FL 32809  
407-608-7171

**RENEE PANCOAST, Ed.D**  
rpancoast@cornerstonecharter.com

**GEOTECHNICAL  
ENGINEER:**

**ECS FLORIDA, LLC**  
2815 DIRECTORS ROW #500,  
ORLANDO, FL 32809  
PHONE: (407) 859-8378

**ARCHITECT:**

**CIVICA ARCHITECTURE & URBAN DESIGN**  
8323 NW 12th St. SUITE 106  
DORAL, FL 33126  
PHONE: (305) 593-9959

**TRAFFIC:**

**TRAFFIC PLANNING & DESIGN, INC.**  
535 VERSAILLES DR. SUITE #200  
MAITLAND, FL 32751  
PHONE: (305) 923-7103

**SURVEYOR:**

**BISHMAN SURVEYING & MAPPING, INC.**  
32 W. PLANT STREET  
WINTER GARDEN, FL 34787  
PHONE: (407) 905-8877  
FAX: (407) 905-8875

**PERMITTING AGENCIES**

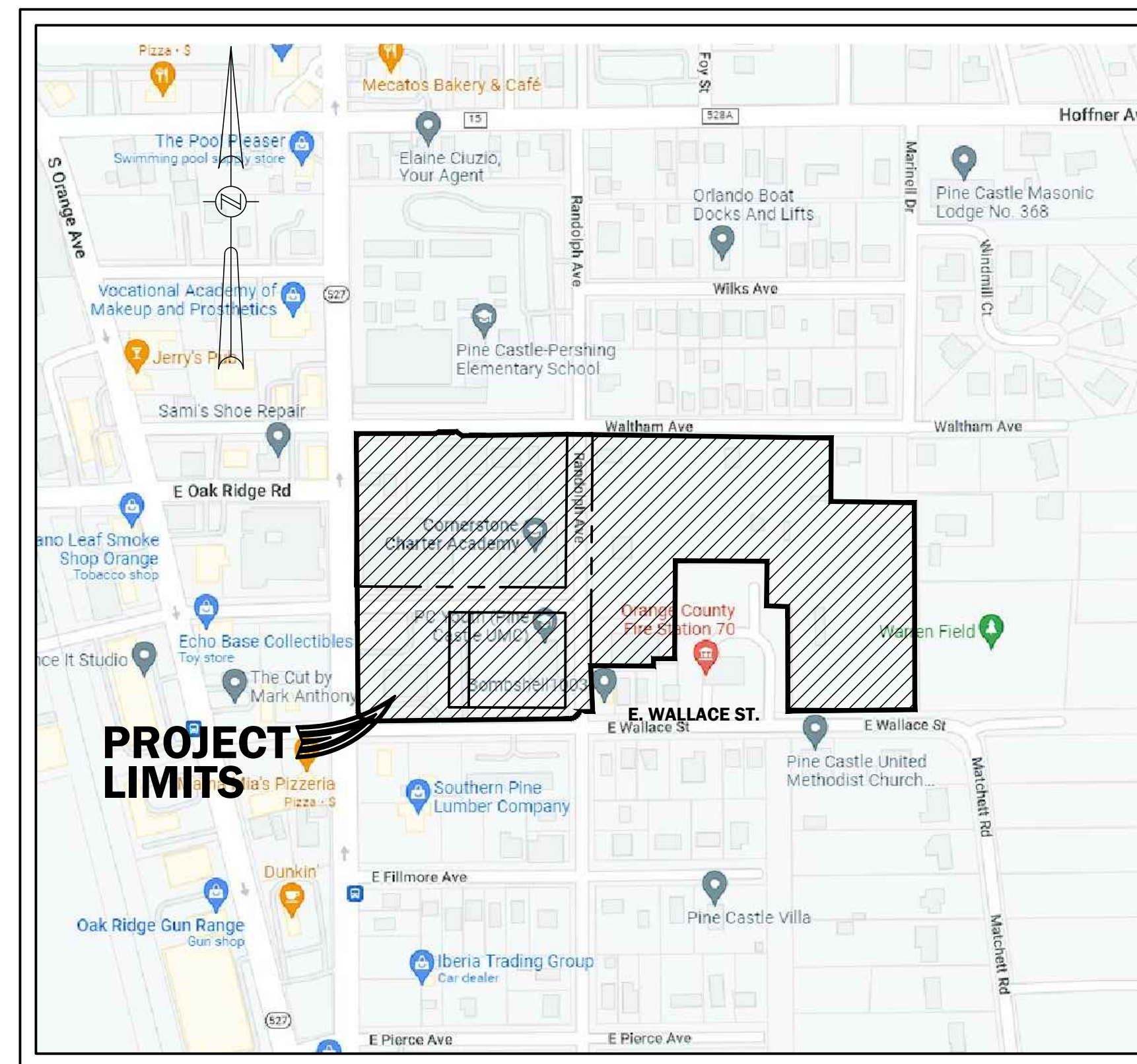
**S.J.R.W.M.D.:** ENVIRONMENTAL RESOURCE PERMIT  
**F.D.E.P.:** WATER AND WASTEWATER SYSTEM PERMITS  
**CITY OF BELLE ISLE:** SITE PLAN APPROVAL  
**ORANGE COUNTY UTILITIES:** FIRE AND SEWER  
**FLORIDA DEPARTMENT OF TRANSPORTATION**  
**ORLANDO UTILITIES COMMISSION**

**UTILITY COMPANIES**

**WATER:** (407)-423-9018  
**SEWER:** (407)-254-9764  
**ELECTRIC:** (877)-372-8477  
**TELEPHONE:** (800)-288-2020  
**CABLE:** (855)-317-1263

**ORLANDO UTILITIES COMMISSION**  
**ORANGE COUNTY UTILITIES**  
**DUKE ENERGY**  
**AT&T**  
**CHARTER SPECTRUM**

**SITE VICINITY MAP**



NOT TO SCALE

OCU PROJECT NUMBER: 23-U-066

THE DESIGN IS BASED ON OCU MANUAL 2021

THE PLANS ARE DESIGNED BASED ON  
2023-24 FDOT STD. PLANS.

**PLAN INDEX**

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- C-37-C-39 CONTECH - EXFILTRATION 1 DETAILS**
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- SP-1 SITE PLAN - PHOTOMETRIC CALCS**
- SP-2 LIGHT FIXTURE CUT SHEETS & AREAS**

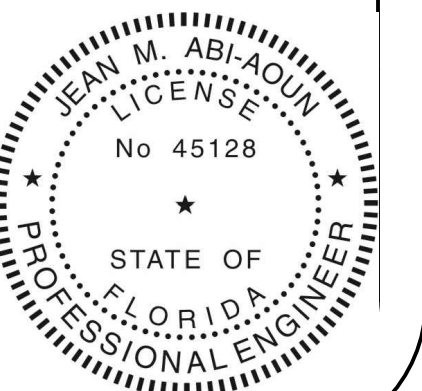
**FEG** FLORIDA  
ENGINEERING  
GROUP



Engineering the Future

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

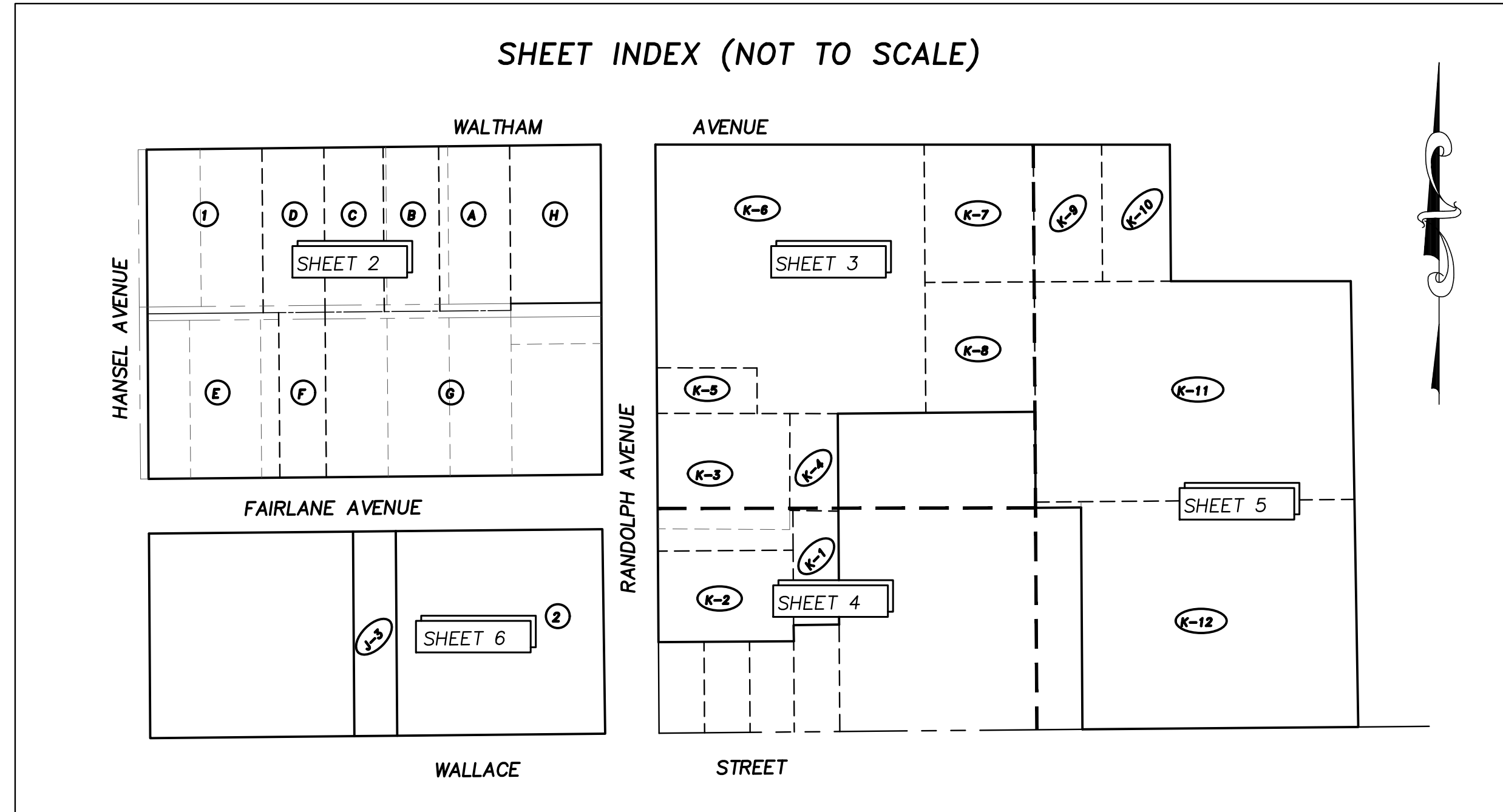
www.feg-inc.us



# BOUNDARY AND TOPOGRAPHIC SURVEY

## CORNERSTONE CHARTER ACADEMY

SHEET INDEX (NOT TO SCALE)



**SURVEYORS NOTES:**

1. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL, OR DIGITAL SIGNATURE AND SEAL, OF A FLORIDA LICENSED SURVEYOR AND MAPPER. PRINTED COPIES OF A DIGITAL SIGNED AND SEALED SURVEY ARE NOT VALID.
2. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS OF WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD, BY THIS FIRM.
3. REVISIONS DO NOT CONSTITUTE A RE-CERTIFICATION OF THE EXISTING FIELD CONDITIONS OF THIS SURVEY.
4. BEARINGS SHOWN HEREON ARE BASED ON THE NNORTH RIGHT-OF-WAY LINE OF FAIRLANE AVENUE AS BEING S89°27'20"W (ASSUMED).
5. THE DESCRIPTION SHOWN HEREON WAS SUPPLIED BY THE CLIENT.
6. UNDERGROUND IMPROVEMENTS AND INSTALLATIONS HAVE NOT BEEN LOCATED.
7. THE LANDS SHOWN HEREON LIE ENTIRELY WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD) ACCORDING TO "FIRM" MAP NO. 12095C0430 F, COMMUNITY NO. 120179, DATED SEPTEMBER 25, 2009.
8. THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER S1316-035 BEING A BOX CUT ON TOP OF CURB INLET, ELEVATION = 101.52 (NAVD 1988).
9. SITE BENCHMARKS ARE SHOWN HEREON
10. THE ELECTRONIC FILE FOR THIS PROJECT IS THE PROPERTY OF BISHMAN SURVEYING AND MAPPING, INC. AND IS NOT THE PROPERTY OF THE CLIENT.

**LEGEND/ABBREVIATIONS:**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED</p> <p>R RADIUS<br/>Δ CENTRAL ANGLE<br/>L LENGTH<br/>CH CHORD<br/>CB CHORD BEARING<br/>R.B. RADIAL BEARING<br/>(M) MEASURED<br/>(P) PLAT<br/>(C) CALCULATED<br/>(D) DESCRIPTION<br/>POB POINT OF BEGINNING<br/>POC POINT OF COMMENCEMENT<br/>O.R. OFFICIAL RECORDS BOOK<br/>PG PAGE<br/>TRP TYPICAL<br/>P.T. POINT OF TANGENCY<br/>P.C. POINT OF CURVATURE<br/>● IRON ROD &amp; CAP<br/>● MAL &amp; DISC<br/>□ 4"x4" CONCRETE MONUMENT<br/>○ IRON PIPE<br/>- BARBED WIRE FENCE<br/>- METAL FENCE<br/>- CHAIN LINK FENCE<br/>E CENTERLINE<br/>LB LICENSED BUSINESS<br/>PSM PROFESSIONAL SURVEYOR &amp; MAPPER</p> | <p>WELL<br/>ELECTRICAL OUTLET<br/>TELEPHONE RISER<br/>FIRE HYDRANT<br/>MASTER WATER ASSEMBLY<br/>SEWER VALVE<br/>WATER VALVE<br/>RECLAIMED WATER VALVE<br/>IRRIGATION VALVE<br/>GAS VALVE<br/>SANITARY MANHOLE<br/>DRAINAGE MANHOLE<br/>TELEPHONE MANHOLE<br/>GREASE TRAP MANHOLE<br/>POWER MANHOLE<br/>WATER SHUT-OFF VALVE<br/>POWER TRANSFORMER<br/>WATER METER<br/>GAS METER<br/>POWER METER<br/>WATER BLOW-OFF VALVE<br/>CLEAN-OUT</p> | <p>PLS PROFESSIONAL LAND SURVEYOR<br/>PVC POLYVINYL CHLORIDE PIPE<br/>RCP REINFORCED CONCRETE PIPE<br/>CMP CORRUGATED METAL PIPE<br/>DIP DUCTILE IRON PIPE<br/>VCP VITRIOUS CLAY PIPE<br/>CPP CORRUGATED PLASTIC PIPE<br/>--- OHW --- OVERHEAD UTILITY WIRES<br/>--- UGP --- UNDERGROUND POWER LINE<br/>--- UGS --- UNDERGROUND GAS LINE<br/>--- UGT --- UNDERGROUND TELEPHONE LINE<br/>--- UGC --- UNDERGROUND CABLE TELEVISION<br/>--- FOC --- FIBER OPTIC CABLE<br/>◇ WOODEN UTILITY POLE<br/>◇ CONCRETE UTILITY POLE<br/>◇ GUY POLE<br/>◇ GUY ANCHOR<br/>▽+68.73 INVERT ELEVATION<br/>+ 68.51 EXISTING GROUND ELEVATION<br/>- 60' EXISTING GROUND CONTOUR<br/>--- SINGLE POST SIGN<br/>--- DOUBLE POST SIGN<br/>--- HANDICAPPED PARKING SPACE (H/C)<br/>● SITE BENCH MARK (AS INDICATED)</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**DESCRIPTION:**

**PARCEL A**  
Lot 1 and the East 10 feet of Lot 2 of J.G. TYNER'S SUBDIVISION, according to the Plat thereof, as recorded in Plat Book F, Page 44, of the Public Records of Orange County, Florida.

TOGETHER WITH North Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

**PARCEL B**  
The West 58 feet of Lot 2 and the East 3 feet of Lot 3, of J.G. TYNER'S SUBDIVISION, of a part of the North 391.8 feet of Lot 9, HARNEY'S HOMESTEAD, according to the Plat thereof, filed for record August 19, 1912, in Plat Book F, Page 44, Public Records of Orange County, Florida.

TOGETHER WITH The North Half of vacated alleyway as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

**PARCEL C**  
Lot 3, LESS the East 3 feet thereof, of J.G. TYNER'S SUBDIVISION of a part of the North 391.8 feet of Lot 9, HARNEY'S HOMESTEAD, according to the Plat thereof, filed for record August 19, 1912, in Plat Book F, Page 44, Public Records of Orange County, Florida.

TOGETHER WITH The North Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

**PARCEL D**  
Lot 4 of J.G. TYNER'S SUBDIVISION of a part of North 391.8 feet of Lot 9, of HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.

TOGETHER WITH The North Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

**PARCEL E**  
Lots Seven(7) and Eight(8) and the West Twenty Feet(20) of Lot Nine (9) of J.G. TYNER'S SUBDIVISION, according to the Plat thereof, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.

TOGETHER WITH South Half of vacated alley way lying North of said Lots 7 and 8 and the South Half of vacated alley way lying North of said West 20 feet of said Lot 9 as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

**PARCEL F**  
Lot 9 (LESS the West 20 feet), J.G. TYNER'S SUBDIVISION, according to the Plat thereof, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.

TOGETHER WITH South Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

**PARCEL G**  
Lots 10, 11, 12 and 13, of J.G. TYNER'S SUBDIVISION of a part of North 391.8 feet of Lot 9, HARNEY'S HOMESTEAD, according to the Map or Plat of said HARNEY'S SUBDIVISION, being recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.

ALSO, beginning at the Northwest corner of Lot 13, of J.G. TYNER'S SUBDIVISION, of a part of the North 391.8 feet of Lot 9, of HARNEY'S HOMESTEAD, according to the Map or Plat of said HARNEY'S HOMESTEAD on record, run North 28.8 feet; thence run East 100 feet; thence run South 29.8 feet; thence run West 100 feet to the POINT OF BEGINNING. Said land being located in Section 24, Township 23 South, Range 29 East, Orange County, Florida.

TOGETHER WITH The South Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.

AND

Extension of said 15 foot alley Easterly through a portion of Lot 9 of HARNEY'S HOMESTEAD, more particularly described as follows:  
The North 15 feet of the South 44.8 feet of the North 217.8 feet of the East 100 feet of said Lot 9, together with any other interest of party of the first part in and to that part of said Lot 9, lying North of Lot 13, of J.G. TYNER'S SUBDIVISION, (Plat Book F, Page 44), recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

**DESCRIPTION (CONTINUED)**

**PARCEL H**  
The North 173 feet of the East 100 feet of Lot 9 of HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida. ALSO DESCRIBED AS:  
Begin at a stone at the Northeast corner of land formerly belonging to C.J. SWEET AT PINE CASTLE, FLORIDA, situated in Section 24, Township 23 South, Range 29 East, run South 173 feet; thence West 100 feet; thence North 173 feet; thence East 100 feet to the POINT OF BEGINNING.

AND

**PARCEL J-3**  
Lot 9 of the HARNEY HOMESTEAD, as recorded in Plat "C", Page 53, of the Public Records of Orange County, Florida, LESS the Easterly 228.47 feet AND LESS the North 391.8 feet AND LESS the West 224.28 feet thereon;

AND LESS the road right-of-way on the South and being more particularly described as follows:  
Commence at the Southwest corner of Lot 9 of the HARNEY HOMESTEAD, as recorded in Plat Book "C", Page 53, of the Public Records of Orange County, Florida; thence run North 89 degrees 57 minutes 29 seconds East along the North right-of-way line of Wallace Street as shown and depicted on the plat of KEEN-CASTLE as recorded in Plat Book "F", Page 1, of said public records, a distance of 224.28 feet to the POINT OF BEGINNING; thence North 00 degrees 04 minutes 16 seconds East along the East line of the West 224.28 feet of said Lot 9, a distance of 224.70 feet to a point on the South right-of-way line of Fairlane Avenue; thence along said South line North 89 degrees 58 minutes 20 seconds East, a distance of 47.00 feet; thence leaving said South line South 00 degrees 18 minutes 58 seconds East, a distance of 224.67 feet to a point on the North right-of-way line of Wallace Street; thence along said North line South 89 degrees 57 minutes 29 seconds West, a distance of 47.00 feet to the POINT OF BEGINNING.

AND

**PARCEL K-1**  
North 126 feet of the South 243.7 feet of East 50 feet of West 198.5 feet of Lot 10, Subdivision of the HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, of the Public Records of Orange County, Florida.

AND

**PARCEL K-2**  
The North 100 feet of the South 200 feet of the West 148.5 feet of Lot 10, SUBDIVISION OF THE HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**DESCRIPTION (CONTINUED)**

**PARCEL K-3:**  
Begin at the Northwest corner of Lot 10, run East 145.0 feet along the North line of Lot 10, thence run South 00 degrees 07 minutes 04 seconds East 105.5 feet, thence run South 89 degrees 59 minutes 34 seconds East 3.5 feet more or less, to the Northwest corner of the above described Parcel K-1, thence South 00 degrees 07 minutes 04 seconds East 43.5 feet more or less, to the Northwest corner of the above described Parcel K-2, thence run North 89 degrees 59 minutes 34 seconds West along the North line of Parcel K-2, 148.5 feet more or less, to the Northwest corner of Parcel K-2, thence North 00 degrees 07 minutes 04 seconds West 148.0 feet more or less, to the POINT OF BEGINNING, all within the SUBDIVISION OF THE HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

From the Northwest corner of Lot 10, run East 145.0 feet along the North line of Lot 10; thence run South 00 degrees 02 minutes 36 seconds West 105.5 feet to the POINT OF BEGINNING; thence run East 3.5 feet to the Northwest corner of the above described Parcel K-1, thence South 00 degrees 02 minutes 36 seconds West 43.5 feet to the Northeast corner of the above described Parcel K-2, thence run West along the North line of Parcel K-2, 148.5 feet to the Northwest corner of Parcel K-2, thence North 00 degrees 02 minutes 36 seconds East 24.53 feet; thence South 89 degrees 13 minutes 04 seconds East 145.01 feet; thence North 00 degrees 02 minutes 36 seconds East 21.15 feet to the POINT OF BEGINNING, all within the SUBDIVISION OF HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-4:**  
A portion of Lot 10, SUBDIVISION OF HARNEY HOMESTEAD, as recorded in Plat Book C, Page 53, of the Public Records of Orange County, Florida, being more particularly described as follows:  
Commence at the Northwest corner of said Lot 10; thence due East 145.00 feet along the North line of said Lot 10 for a POINT OF BEGINNING; thence continue along said North line, due East 53.50 feet to the intersection of said North line and the Northerly prolongation of the East line of the North 126 feet of the South 243.7 feet of the East 50.00 feet of the West 198.50 feet of said Lot 10; thence along said East line, South 00 degrees 08 minutes 50 seconds West 105.50 feet to the Northeast corner of the North 126 feet of the South 243.7 feet of the East 50.00 feet of the West 198.50 feet of said Lot 10; thence from said point, due West 53.50 feet; thence North 00 degrees 08 minutes 50 seconds East 105.50 feet to the POINT OF BEGINNING.

AND

**PARCEL K-5**  
The West 110 feet of South 50 feet of Lot 8, SUBDIVISION OF THE HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-6:**  
Lot 8, LESS the West 110 feet of South 50 feet of Lot 8, SUBDIVISION OF THE HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-7**  
The West 119.83 feet of the North 150 feet of Lot 7, SUBDIVISION OF THE HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-8:**  
The West 120 feet of the South 145 feet of Lot 7, SUBDIVISION OF THE HARNEY HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-9:**  
The East 75 feet of the West 194.83 feet of the North 150 feet of Lot 7, HARNEY HOMESTEAD, according to the Map or Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-10:**  
The East 75 feet of the West 269.83 feet of the North 150 feet of Lot 7, HARNEY HOMESTEAD, according to the Map or Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

AND

**PARCEL K-11:**  
Begin 763 feet East and 250 feet North of the South west corner of Lot 10, HARNEY HOMESTEAD, as per Plat thereof, recorded in Plat Book C, Page 53, Public Records of Orange County, Florida, run North 251.51 feet, West 348 feet, South 251.5 feet, East 348 feet to POINT OF BEGINNING.

Less and except there from, that portion thereof conveyed by Pine Castle Methodist Church, Inc., a Florida corporation, to Charles E. Mauli, Jr. and June L. Mauli, by Quit Claim Deed recorded August 21, 2003 in Official Records Book 7061, Page 4692, Public Records of Orange County, Florida, more particularly described as follows:  
A portion of Lot 7, Subdivision of HARNEY HOMESTEAD, Plat Book "C", page 53, Public Records of Orange County, Florida, being more particularly described as follows:  
Begin at the Southeast corner of the East 75 feet of the West 269.83 feet of the North 150 feet of said Lot 7; thence East 197.48 feet along the South line of the North 150 feet of said Lot 7 to a point on the East line of lands described in Official Records Book 6253, Page 6332, Public Records of Orange County, Florida; thence South 00 degrees 28 minutes 01 seconds East 11.10 feet along said East line; thence North 89 degrees 42 minutes 36 seconds West 197.60 feet to a point on a southerly projection of the East line of the East 75 feet of the West 269.83 feet of the North 150 feet of said Lot 7; thence North 00 degrees 08 minutes 50 seconds East 10.10 feet along said southerly projection to the POINT OF BEGINNING.

AND

**PARCEL K-12:**  
Beginning 465 feet East of the Southwest corner of Lot 10, HARNEY HOMESTEAD, in Section 24, Township 23 South, Range 29 East, as per Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida, run East 298 feet, North 250 feet, West 298 feet, and South 250 feet to the POINT OF BEGINNING.

**DESCRIPTION (CONTINUED)**

AND

**PARCEL 1:**  
Lots 5 and 6, less the West 10 feet of lot 6 for road right-of-way, J.G. TYNER SUBDIVISION, according to the map or lot thereof recorded among the Public Records of Orange County, Florida in Plat Book F, Page 44.

AND

**PARCEL 2:**  
The East 100 feet of Lot 9, (less the North 391.8 feet thereof), HARNEY HOMESTEAD, Plat Book C, Page 53, Public Records of Orange County, Florida.

|                              |
|------------------------------|
| F.E.C. PROJECT NO.<br>22-010 |
| SHEET NO.<br><b>C-2</b>      |
| SHEET 2 OF 50                |

SECTION 24

TOWNSHIP 23 SOUTH

RANGE 29 EAST

SHEET 1 OF 6

REVISIONS:

JOB NUMBER: 14090

SURVEY DATE: 8-24-2021

FIELD BY: T. CONARD

FIELD BOOK: 2002

PAGES: 34-39, 73-76

FIELD FILE: 14090-3.MXF

DRAWING FILE: 14090-4.DWG

F.L.S. PROJECT NO. 22-010

SHEET NO. C-2

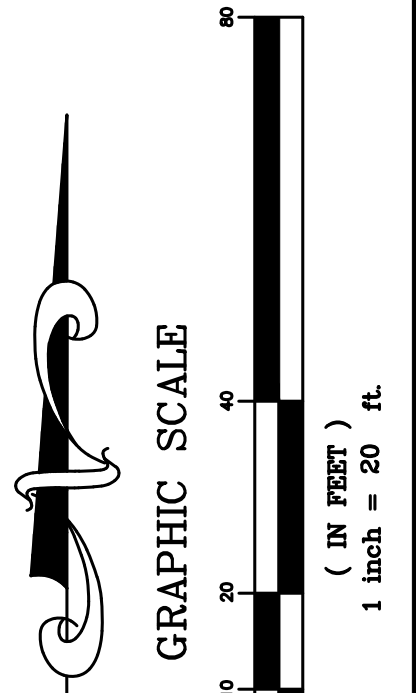
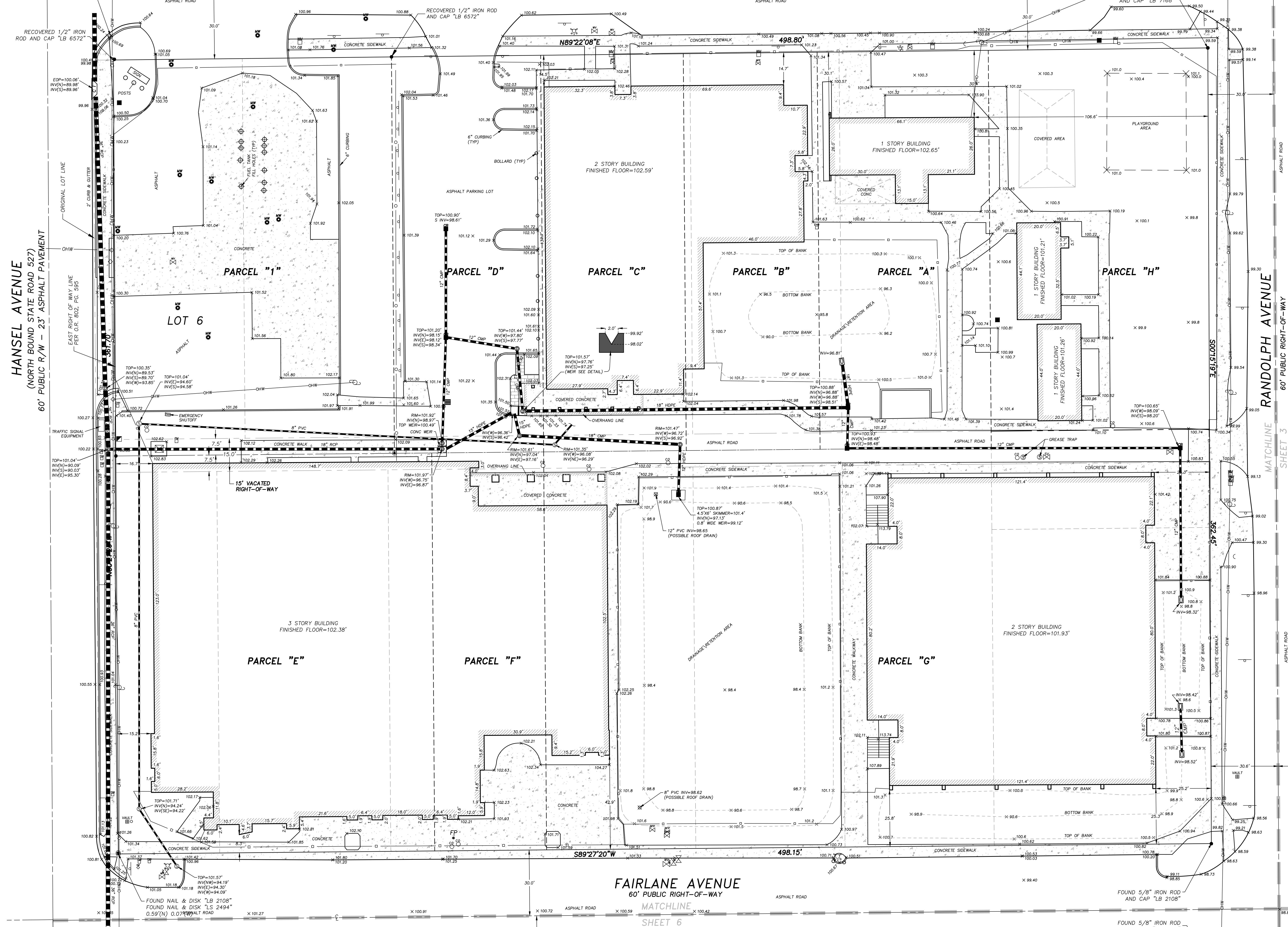
SHEET 2 OF 50

CERTIFICATE OF AUTHORIZATION LB 7274  
32 W. PLANT STREET Phone No. 407.905.8877  
WINTER GARDEN, FL 34787 Fax No. 407.905.8875

ARON D. BISHMAN, P.S.M. FLORIDA REGISTRATION NO. 5668

SITE BENCHMARK  
SET NAIL AND DISK "TRAV PT LB 7274"  
IN CONCRETE CURBING  
ELEVATION = 100.62'

WALTHAM AVENUE  
60' PUBLIC RIGHT-OF-WAY



SHEET 2 OF 6  
SECTION 24  
TOWNSHIP 23 SOUTH  
RANGE 29 EAST

CERTIFICATE OF AUTHORIZATION LB 7274  
32 W. PLANT STREET Phone No. 407.905.8877  
WINTER GARDEN, FL 34787 Fax No. 407.905.8875

HANSEL AVENUE  
(NORTH BOUND STATE ROAD 527)  
60' PUBLIC R/W - 23' ASPHALT PAVEMENT

RANDOLPH AVENUE  
60' PUBLIC RIGHT-OF-WAY

FAIRLAINE AVENUE  
60' PUBLIC RIGHT-OF-WAY

LEGEND/ABBREVIATIONS:  
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

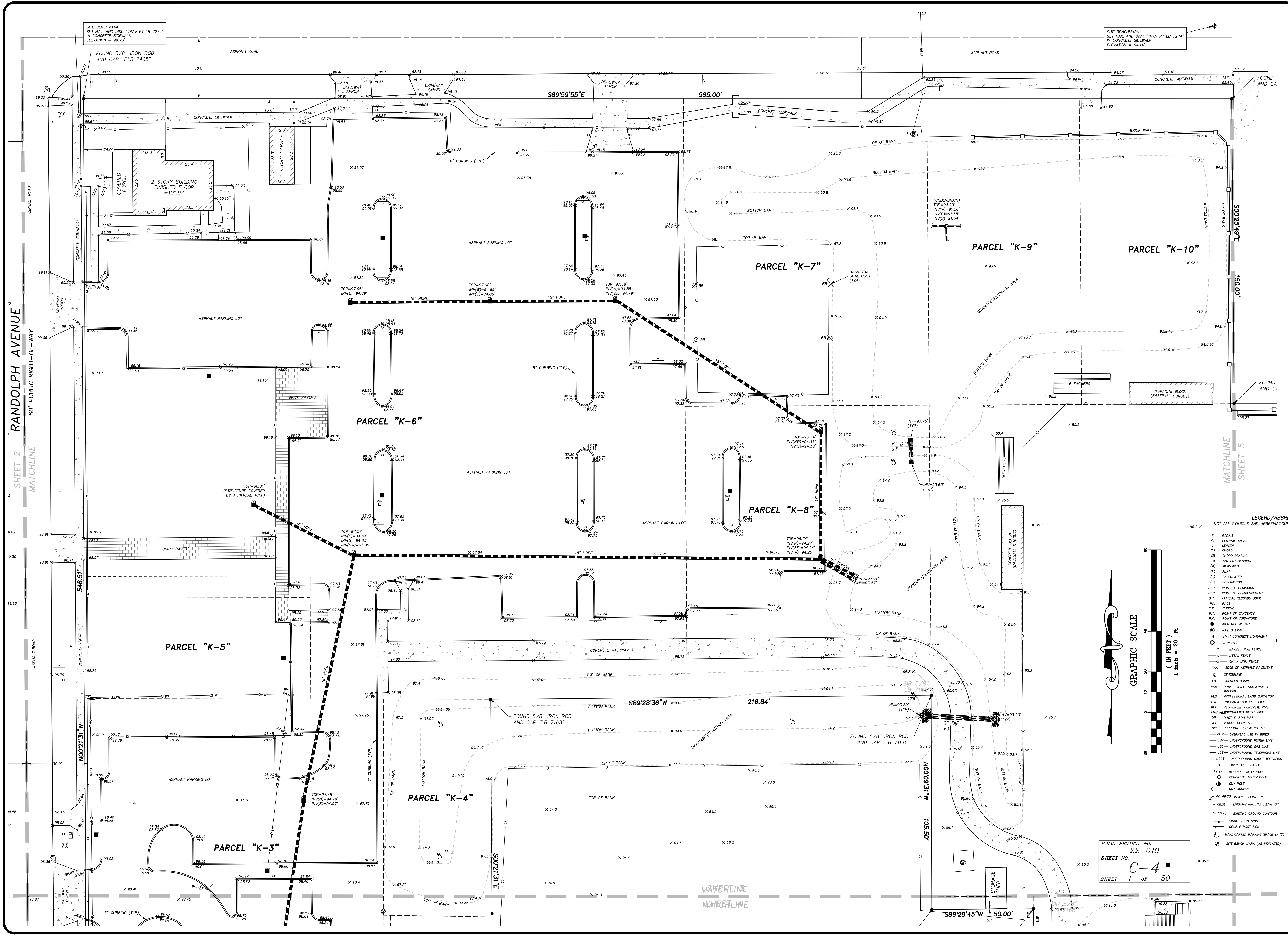
|      |                                 |   |                               |                                 |
|------|---------------------------------|---|-------------------------------|---------------------------------|
| R    | RADIUS                          | ⊕ | WELL                          |                                 |
| L    | CENTRAL ANGLE                   | ⊖ | ELECTRICAL OUTLET             |                                 |
| L    | LENGTH                          | ⊕ | TELEPHONE RISER               |                                 |
| CH   | CHORD                           | ⊕ | FIRE HYDRANT                  |                                 |
| CB   | CHORD BEARING                   | ⊕ | MASTER WATER ASSEMBLY         |                                 |
| T.B. | TANGENT BEARING                 | ⊕ | SEWER VALVE                   |                                 |
| NO   | NEARBY                          | ⊕ | WATER VALVE                   |                                 |
| (P)  | PLAT                            | ⊕ | RECLAIMED WATER VALVE         |                                 |
| (C)  | CALCULATED                      | ⊕ | IRRIGATION VALVE              |                                 |
| (D)  | DESCRIPTION                     | ⊕ | GAS VALVE                     |                                 |
| POB  | POINT OF BEGINNING              | ⊕ | SANITARY MANHOLE              |                                 |
| POC  | POINT OF COMMENCEMENT           | ⊕ | DRAINAGE MANHOLE              |                                 |
| O.R. | OFFICIAL RECORDS BOOK           | ⊕ | TELEPHONE MANHOLE             |                                 |
| P.S. | PLAT                            | ⊕ | GREASE TRAP MANHOLE           |                                 |
| TYP. | TYPICAL                         | ⊕ | POWER MANHOLE                 |                                 |
| P.T. | POINT OF TANGENCY               | ⊕ | WATER SHUT-OFF VALVE          |                                 |
| P.C. | POINT OF CURVATURE              | ⊕ | POWER TRANSFORMER             |                                 |
| ⊕    | IRON ROD & CAP                  | ⊕ | WATER METER                   |                                 |
| ⊕    | NAIL & DISK                     | ⊕ | GAS METER                     |                                 |
| ⊕    | 4"x4" CONCRETE MONUMENT         | ⊕ | POWER METER                   |                                 |
| ⊕    | IRON PIPE                       | ⊕ | WATER BLOW-OFF VALVE          |                                 |
| ⊕    | BARRIED WIRE FENCE              | ⊕ | CLEAN-OUT                     |                                 |
| ⊕    | METAL FENCE                     | ⊕ | FIRE DEPARTMENT CONTROL VALVE |                                 |
| ⊕    | CHAIN LINK FENCE                | ⊕ | ELECTRIC HAND HOLE            |                                 |
| ⊕    | EDGE OF ASPHALT PAVEMENT        | ⊕ | CABLE TELEVISION RISER        |                                 |
| E    | ENTRANCE                        | ⊕ | TELEPHONE ACCESS CABINET      |                                 |
| LB   | LICENSED BUSINESS               | ⊕ | CATCH BASIN                   |                                 |
| PSM  | PROFESSIONAL SURVEYOR & MAPPER  | ⊕ | DRAIN                         |                                 |
| PLS  | PROFESSIONAL LAND SURVEYOR      | ⊕ | CURB INLET                    |                                 |
| PVC  | POLYVINYL CHLORIDE PIPE         | ⊕ | CURB INLET WITHOUT MANHOLE    |                                 |
| RCP  | REINFORCED CONCRETE PIPE        | ⊕ | METERED END SECTION           |                                 |
| CMP  | CORRUGATED METAL PIPE           | ⊕ | UTILITY VAULT                 |                                 |
| DP   | DUCTILE IRON PIPE               | ⊕ | ⊕                             | FIBER OPTIC CABLE               |
| VCP  | VITRIOUS CLAY PIPE              | ⊕ | A/C                           | AIR CONDITIONER                 |
| OP   | CORRUGATED PLASTIC PIPE         | ⊕ | ⊕                             | POWER BOX                       |
| —    | OVERHEAD UTILITY WIRES          | ⊕ | ⊕                             | MONITORING WELL                 |
| —    | UNDERGROUND POWER LINE          | ⊕ | ⊕                             | LIGHT POLE                      |
| —    | UNDERGROUND GAS LINE            | ⊕ | ⊕                             | WALKWAY LIGHT                   |
| —    | UNDERGROUND TELEPHONE LINE      | ⊕ | ⊕                             | TRAFFIC SIGNAL BOX              |
| —    | UNDERGROUND CABLE TELEVISION    | ⊕ | ⊕                             | BEARER                          |
| —    | FIBER OPTIC CABLE               | ⊕ | ⊕                             | FLAD POLE                       |
| ⊕    | WOODEN UTILITY POLE             | ⊕ | ⊕                             | SINGLE POST SIGN                |
| ⊕    | CONCRETE UTILITY POLE           | ⊕ | ⊕                             | DOUBLE POST SIGN                |
| ⊕    | GUY POLE                        | ⊕ | ⊕                             | HANDICAPPED PARKING SPACE (H/C) |
| ⊕    | GUY ANCHOR                      | ⊕ | ⊕                             | TRAFFIC FLOW ARROW              |
| ⊕    | INVERT ELEVATION                | ⊕ | ⊕                             | SOIL BORING                     |
| ⊕    | 6851 EXISTING GROUND ELEVATION  | ⊕ | ⊕                             |                                 |
| ⊕    | 60' EXISTING GROUND CONTOUR     | ⊕ | ⊕                             |                                 |
| ⊕    | SINGLE POST SIGN                | ⊕ | ⊕                             |                                 |
| ⊕    | DOUBLE POST SIGN                | ⊕ | ⊕                             |                                 |
| ⊕    | HANDICAPPED PARKING SPACE (H/C) | ⊕ | ⊕                             |                                 |
| ⊕    | TRAFFIC FLOW ARROW              | ⊕ | ⊕                             |                                 |
| ⊕    | SOIL BORING                     | ⊕ | ⊕                             |                                 |

F.E.C. PROJECT NO. 22-010  
SHEET NO. C-3  
SHEET 3 OF 50

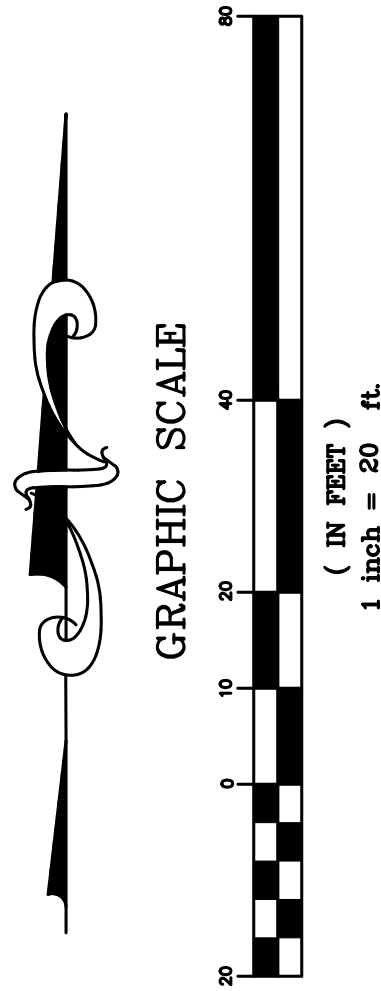
JOB NUMBER: 14090  
DRAWING FILE: 14090-4.DWG

MATCHLINE  
SHEET 6

CERTIFICATE OF AUTHORIZATION LB 7274  
 32 W. PLANT STREET Phone No. 407.905.8877  
 WINTER GARDEN, FL 34787 Fax No. 407.905.8875

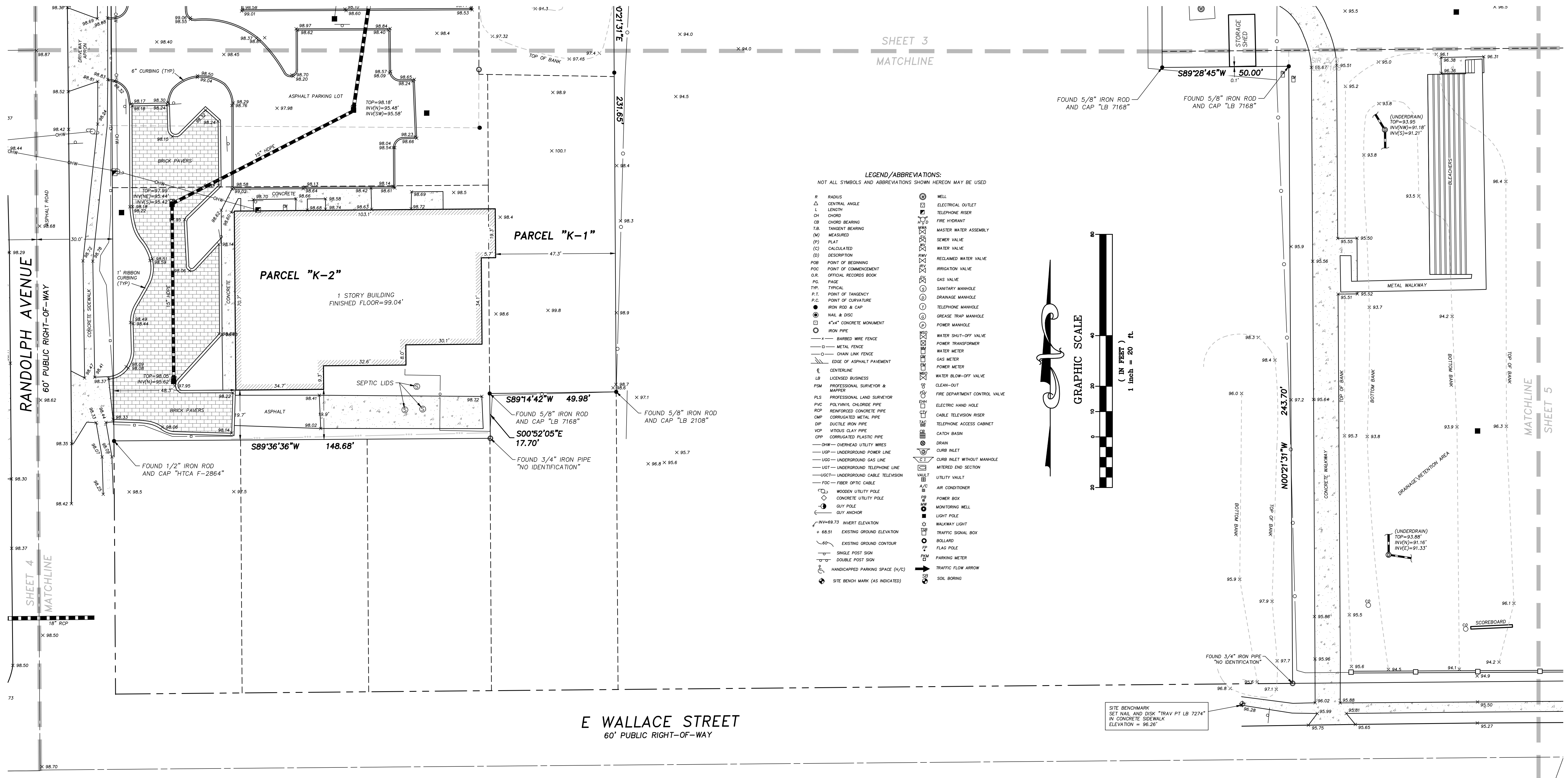


- LEGEND/ABBREVIATIONS:  
 NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED
- R RADIUS
  - Δ CENTRAL ANGLE
  - L LENGTH
  - CH CHORD
  - CB CHORD BEARING
  - T.B. TANGENT BEARING
  - (M) MEASURED
  - (P) PLAT
  - (C) CALCULATED
  - (D) DESCRIPTION
  - POB POINT OF BEGINNING
  - POC POINT OF COMMENCEMENT
  - O.R. OFFICIAL RECORD BOOK
  - PG. PAGE
  - TR. TYPICAL
  - P.T. POINT OF TANGENCY
  - P.C. POINT OF CURVATURE
  - NAIL & DISK
  - 4"X4" CONCRETE MONUMENT
  - IRON PIPE
  - BARBED WIRE FENCE
  - METAL FENCE
  - CHAIN LINK FENCE
  - EDGE OF ASPHALT PAVEMENT
  - CENTERLINE
  - LB LICENSED BUSINESS
  - FSM PROFESSIONAL SURVEYOR & MAPPER
  - PLS PROFESSIONAL LAND SURVEYOR
  - PVC POLYVINYL CHLORIDE PIPE
  - ROP REINFORCED CONCRETE PIPE
  - CMP CORRUGATED METAL PIPE
  - DIP DUCTILE IRON PIPE
  - VCP VITROUS CLAY PIPE
  - CPP CORRUGATED PLASTIC PIPE
  - DRW — OVERHEAD UTILITY WIRES
  - UGP — UNDERGROUND POWER LINE
  - UGL — UNDERGROUND GAS LINE
  - UGT — UNDERGROUND TELEPHONE LINE
  - UGC — UNDERGROUND CABLE TELEVISION
  - FOC — FIBER OPTIC CABLE
  - WUP — WOODEN UTILITY POLE
  - CUP — CONCRETE UTILITY POLE
  - GUY POLE
  - GUY ANCHOR
  - ▽ INVERT ELEVATION
  - + E.S.I. EXISTING GROUND ELEVATION
  - EXISTING GROUND CONTOUR
  - SINGLE POST SIGN
  - DOUBLE POST SIGN
  - HANDICAPPED PARKING SPACE (H/C)
  - GUY ANCHOR
  - SOL BORING
  - WELL
  - ELECTRICAL OUTLET
  - TELEPHONE RISER
  - FIRE HYDRANT
  - MASTER WATER ASSEMBLY
  - SEWER VALVE
  - WATER VALVE
  - RECLAIMED WATER VALVE
  - IRRIGATION VALVE
  - DRAINAGE MANHOLE
  - SANITARY MANHOLE
  - TELEPHONE MANHOLE
  - GREASE TRAP MANHOLE
  - POWER MANHOLE
  - WATER SHUT-OFF VALVE
  - POWER TRANSFORMER
  - WATER METER
  - GAS METER
  - POWER METER
  - WATER BLOW-OFF VALVE
  - CLEAN-OUT
  - FIRE DEPARTMENT CONTROL VALVE
  - ELECTRIC HAND HOLE
  - CABLE TELEVISION RISER
  - TELEPHONE ACCESS CABINET
  - CATCH BASIN
  - DRAIN
  - CURB INLET
  - CURB INLET WITHOUT MANHOLE
  - INTERED END SECTION
  - UTILITY VAULT
  - AIR CONDITIONER
  - POWER BOX
  - MONITORING WELL
  - LIGHT POLE
  - WALKWAY LIGHT
  - TRAFFIC SIGNAL BOX
  - EXISTING GROUND CONTOUR
  - FLAG POLE
  - PARKING METER
  - TRAFFIC FLOW ARROW
  - SOL BORING



F.E.C. PROJECT NO. 22-010  
 SHEET NO. C-4  
 SHEET 4 OF 50

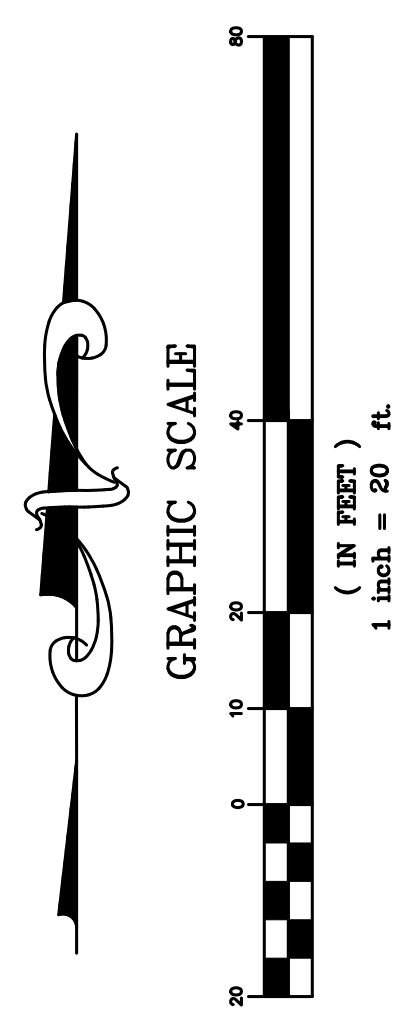
CERTIFICATE OF AUTHORIZATION LB 7274  
 32 W. PLANT STREET, Phone No. 407.905.8877  
 WINTER GARDEN, FL 34787 Fax No. 407.905.8875



SHEET 3  
 MATCHLINE

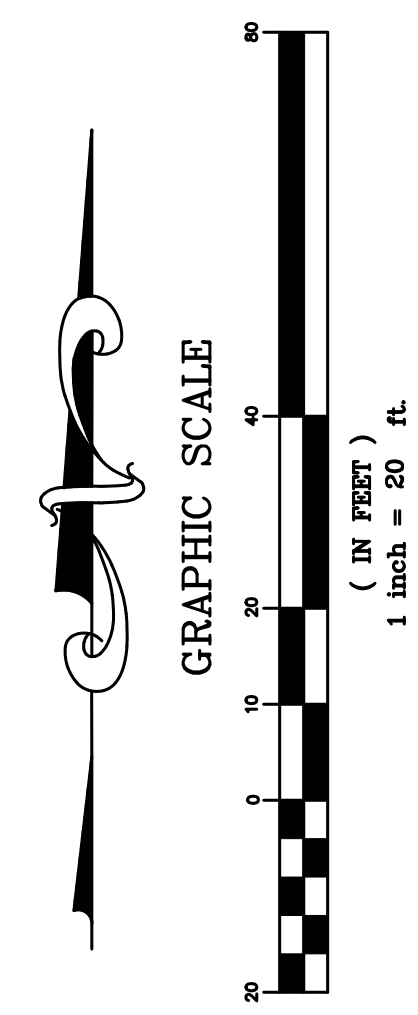
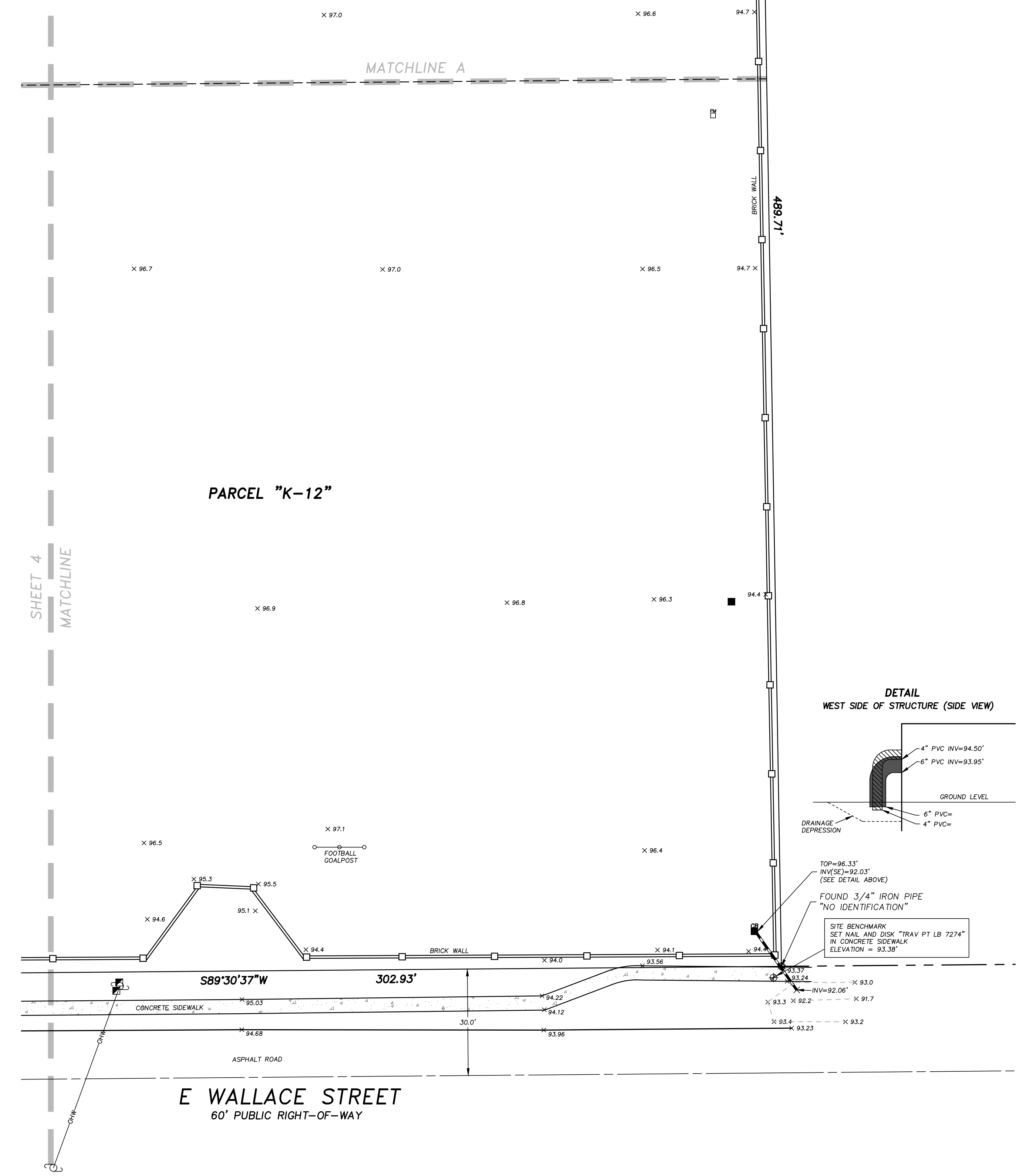
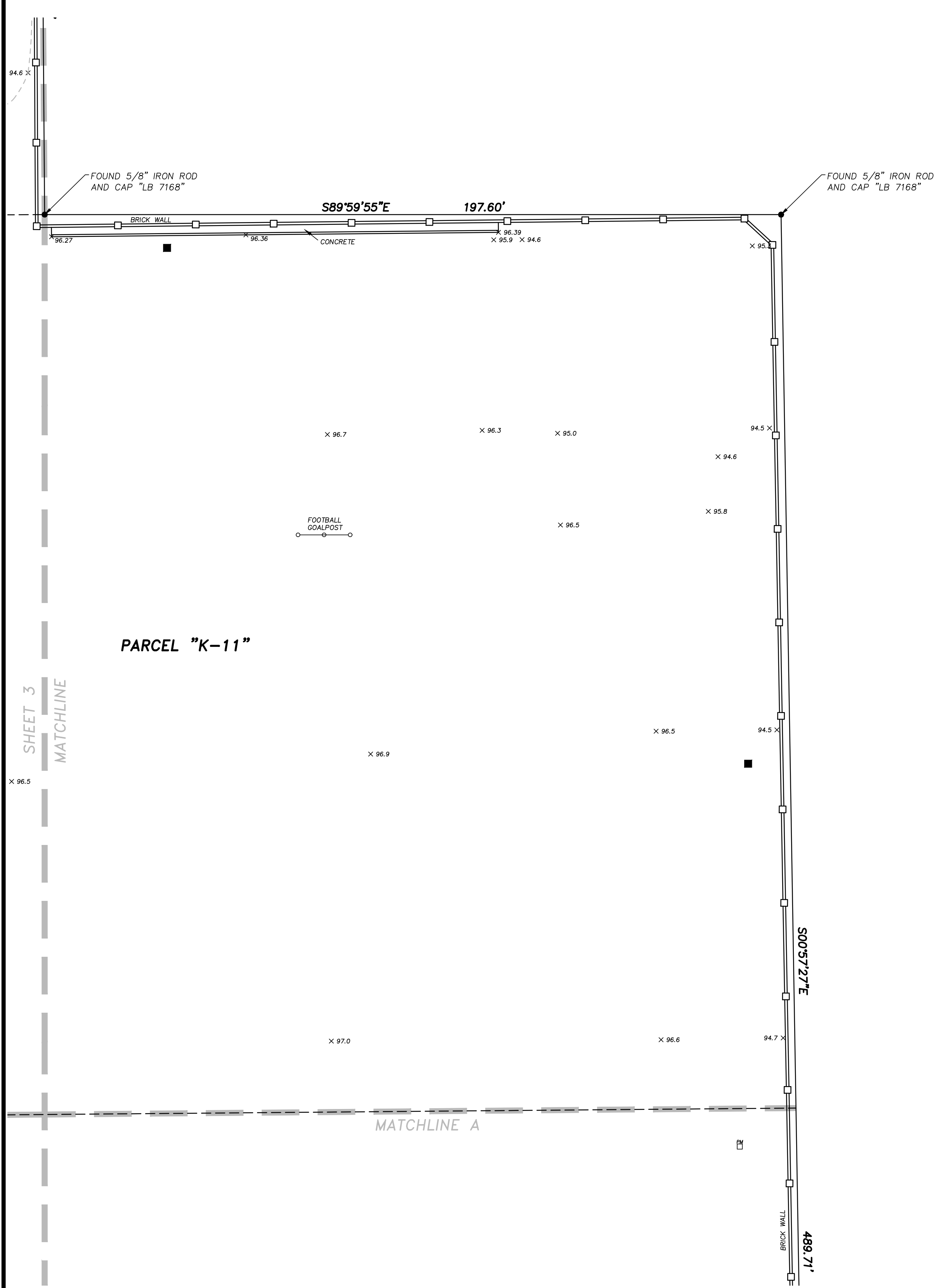
MATCHLINE  
 SHEET 5

- LEGEND/ABBREVIATIONS:  
 NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED
- |        |                                 |   |                               |
|--------|---------------------------------|---|-------------------------------|
| R      | RADIUS                          | ⊙ | WELL                          |
| Δ      | CENTRAL ANGLE                   | ⊖ | ELECTRICAL OUTLET             |
| L      | LENGTH                          | ⊕ | TELEPHONE RISER               |
| CH     | CHORD                           | ⊖ | FIRE HYDRANT                  |
| CB     | CHORD BEARING                   | ⊕ | MASTER WATER ASSEMBLY         |
| T.B.   | TANGENT BEARING                 | ⊖ | SEWER VALVE                   |
| (M)    | MEASURED                        | ⊕ | WATER VALVE                   |
| (C)    | FLAT                            | ⊖ | RECLAIMED WATER VALVE         |
| (D)    | DESCRPTION                      | ⊕ | IRRIGATION VALVE              |
| P.O.M. | POINT OF BEGINNING              | ⊖ | GAS VALVE                     |
| P.O.C. | POINT OF COMMENCEMENT           | ⊕ | SANITARY MANHOLE              |
| O.R.   | OFFICIAL RECORDS BOOK           | ⊖ | DRAINAGE MANHOLE              |
| P.G.   | PAGE                            | ⊕ | TELEPHONE MANHOLE             |
| T.M.   | TYPICAL                         | ⊖ | GREASE TRAP MANHOLE           |
| P.T.   | POINT OF TANGENCY               | ⊕ | POWER MANHOLE                 |
| P.C.   | POINT OF CURVATURE              | ⊖ | WATER SHUT-OFF VALVE          |
| ●      | IRON ROD & CAP                  | ⊕ | CLEAN-OUT                     |
| ⊙      | NAIL & DISC                     | ⊖ | FIRE DEPARTMENT CONTROL VALVE |
| ⊕      | 4"x4" CONCRETE MONUMENT         | ⊕ | ELECTRIC HAND HOLE            |
| —      | BARBED WIRE FENCE               | ⊖ | CABLE TELEVISION RISER        |
| —      | METAL FENCE                     | ⊕ | TELEPHONE ACCESS CABINET      |
| —      | CHAIN LINK FENCE                | ⊖ | CATCH BASIN                   |
| —      | EDGE OF ASPHALT PAVEMENT        | ⊕ | DRAIN                         |
| —      | CENTERLINE                      | ⊖ | CURB INLET                    |
| LB     | LICENSED BUSINESS               | ⊕ | CURB INLET WITHOUT MANHOLE    |
| PSM    | PROFESSIONAL SURVEYOR & MAPPER  | ⊖ | MITERED END SECTION           |
| PLS    | PROFESSIONAL LAND SURVEYOR      | ⊕ | UTILITY VAULT                 |
| PVC    | POLYVINYL CHLORIDE PIPE         | ⊖ | AIR CONDITIONER               |
| RCP    | REINFORCED CONCRETE PIPE        | ⊕ | POWER BOX                     |
| CMP    | CORRUGATED METAL PIPE           | ⊖ | MONITORING WELL               |
| DIP    | DUCTILE IRON PIPE               | ⊕ | LIGHT POLE                    |
| VCP    | VITRIFIED CLAY PIPE             | ⊖ | WALKWAY LIGHT                 |
| CPP    | CORRUGATED PLASTIC PIPE         | ⊕ | TRAFFIC SIGNAL BOX            |
| —      | OVERHEAD UTILITY WIRES          | ⊖ | BOLLARD                       |
| —      | UNDERGROUND POWER LINE          | ⊕ | FLAG POLE                     |
| —      | UNDERGROUND GAS LINE            | ⊖ | PARKING METER                 |
| —      | UNDERGROUND TELEPHONE LINE      | ⊕ | TRAFFIC FLOW ARROW            |
| —      | UNDERGROUND CABLE TELEVISION    | ⊖ | SOIL BORING                   |
| —      | FIBER OPTIC CABLE               |   |                               |
| ⊕      | WOODEN UTILITY POLE             |   |                               |
| ⊕      | CONCRETE UTILITY POLE           |   |                               |
| ⊕      | GUY POLE                        |   |                               |
| ⊕      | GUY ANCHOR                      |   |                               |
| ⊕      | INVERT ELEVATION                |   |                               |
| +      | EXISTING GROUND ELEVATION       |   |                               |
| —      | EXISTING GROUND CONTOUR         |   |                               |
| —      | SINGLE POST SIGN                |   |                               |
| —      | DOUBLE POST SIGN                |   |                               |
| —      | HANDICAPPED PARKING SPACE (H/C) |   |                               |
| ⊕      | SITE BENCH MARK (AS INDICATED)  |   |                               |



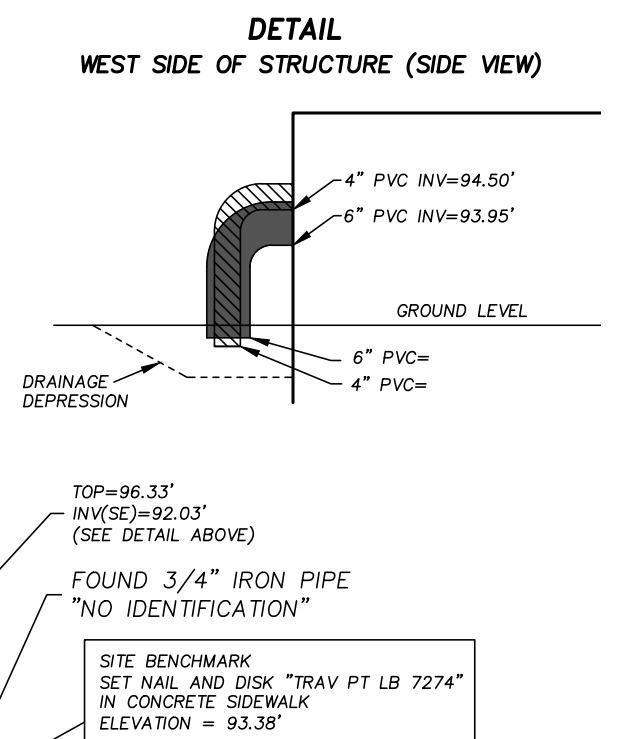
F.E.C. PROJECT NO.  
 22-010  
 SHEET NO.  
**C-5**  
 SHEET 5 OF 50

CERTIFICATE OF AUTHORIZATION LB 7274  
 32 W. PLANT STREET Phone No. 407.905.8877  
 WINTER GARDEN, FL 34787 Fax No. 407.905.8875



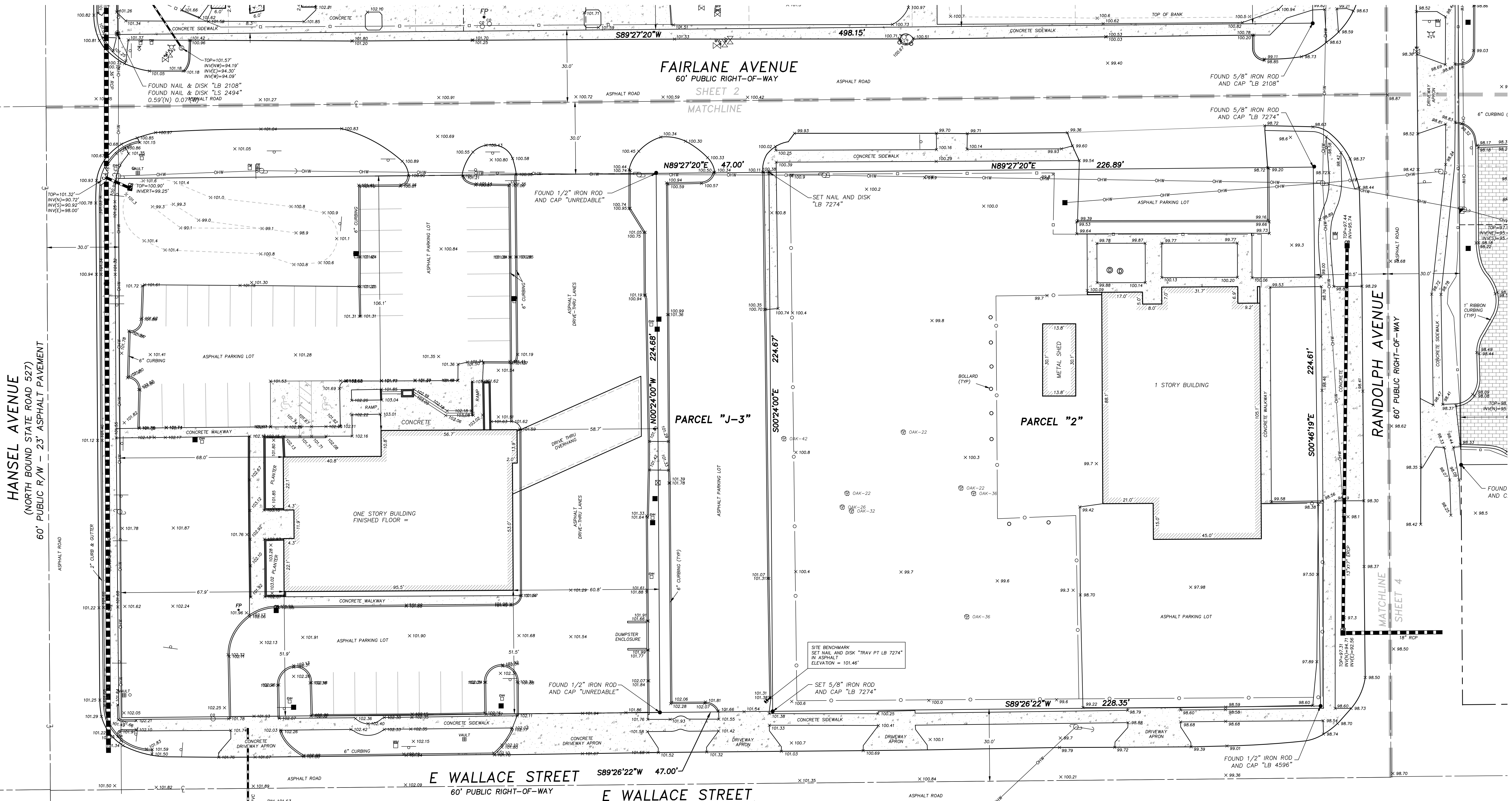
**LEGEND/ABBREVIATIONS:**  
 NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

|         |                                     |   |                               |
|---------|-------------------------------------|---|-------------------------------|
| R       | RADIUS                              | ⊙ | WELL                          |
| Δ       | CENTRAL ANGLE                       | ⊠ | ELECTRICAL OUTLET             |
| L       | LENGTH                              | ⊞ | TELEPHONE RISER               |
| CH      | CHORD                               | ⊞ | FIRE HYDRANT                  |
| CB      | CHORD BEARING                       | ⊞ | MASTER WATER ASSEMBLY         |
| T.B.    | TANGENT BEARING                     | ⊞ | SEWER VALVE                   |
| (M)     | MEASURED                            | ⊞ | WATER VALVE                   |
| (P)     | PLAT                                | ⊞ | RECLAIMED WATER VALVE         |
| (C)     | CALCULATED                          | ⊞ | IRRIGATION VALVE              |
| (D)     | DESCRIPTION                         | ⊞ | CLEAN-OUT                     |
| P.B.    | POINT OF BEGINNING                  | ⊞ | GAS VALVE                     |
| P.O.C.  | POINT OF COMMENCEMENT               | ⊞ | SAUNTIARY MANHOLE             |
| O.R.    | OFFICIAL RECORDS BOOK               | ⊞ | DRAINAGE MANHOLE              |
| P.S.    | PAISE                               | ⊞ | TELEPHONE MANHOLE             |
| T.P.    | TYPICAL                             | ⊞ | GREASE TRAP MANHOLE           |
| P.T.    | POINT OF TANGENCY                   | ⊞ | POWER MANHOLE                 |
| P.C.    | POINT OF CURVATURE                  | ⊞ | WATER SHUT-OFF VALVE          |
| ●       | IRON ROD & CAP                      | ⊞ | POWER TRANSFORMER             |
| ⊙       | NAIL & DISC                         | ⊞ | WATER METER                   |
| ⊞       | 4"x4" CONCRETE MONUMENT             | ⊞ | POWER METER                   |
| ⊞       | IRON PIPE                           | ⊞ | WATER BLOW-OFF VALVE          |
| ⊞       | BARBED WIRE FENCE                   | ⊞ | CLEAN-OUT                     |
| ⊞       | METAL FENCE                         | ⊞ | FIRE DEPARTMENT CONTROL VALVE |
| ⊞       | CHAIN LINK FENCE                    | ⊞ | ELECTRIC HAND HOLE            |
| ⊞       | EDGE OF ASPHALT PAVEMENT            | ⊞ | CABLE TELEVISION RISER        |
| ⊞       | CENTERLINE                          | ⊞ | TELEPHONE ACCESS CABINET      |
| LB      | LICENSED BUSINESS                   | ⊞ | CATCH BASIN                   |
| PLS     | PROFESSIONAL LAND SURVEYOR & MAPPER | ⊞ | DRAIN                         |
| PVC     | POLYVINYL CHLORIDE PIPE             | ⊞ | CURB INLET                    |
| RCP     | REINFORCED CONCRETE PIPE            | ⊞ | CURB INLET WITHOUT MANHOLE    |
| CMP     | CORRUGATED METAL PIPE               | ⊞ | MATCHED END SECTION           |
| DIP     | DUCTILE IRON PIPE                   | ⊞ | UTILITY HAULT                 |
| VSP     | VITRIFIED SLAY PIPE                 | ⊞ | AIR CONDITIONER               |
| OSP     | CORRUGATED PLASTIC PIPE             | ⊞ | POWER BOX                     |
| OHV     | OVERHEAD UTILITY WIRES              | ⊞ | MONITORING WELL               |
| UOP     | UNDERGROUND POWER LINE              | ⊞ | LIGHT POLE                    |
| UGG     | UNDERGROUND GAS LINE                | ⊞ | WALKWAY LIGHT                 |
| UST     | UNDERGROUND TELEPHONE LINE          | ⊞ | TRAFFIC SIGNAL BOX            |
| UCCT    | UNDERGROUND CABLE TELEVISION        | ⊞ | BOLLARD                       |
| FOC     | FIBER OPTIC CABLE                   | ⊞ | FLAG POLE                     |
| ⊞       | WOODEN UTILITY POLE                 | ⊞ | PARKING METER                 |
| ⊞       | CONCRETE UTILITY POLE               | ⊞ | TRAFFIC FLOW ARROW            |
| ⊞       | GUY POLE                            | ⊞ | SOL BORING                    |
| ⊞       | GUY ANCHOR                          |   |                               |
| ⊞       | INVERT ELEVATION                    |   |                               |
| + 68.51 | EXISTING GROUND ELEVATION           |   |                               |
| ⊞       | EXISTING GROUND CONTOUR             |   |                               |
| ⊞       | SINGLE POST SIGN                    |   |                               |
| ⊞       | DOUBLE POST SIGN                    |   |                               |
| ⊞       | HANDICAPPED PARKING SPACE (H/C)     |   |                               |
| ⊞       | SITE BENCH MARK (AS INDICATED)      |   |                               |



F.E.C. PROJECT NO. 22-010  
 SHEET NO. C-6  
 SHEET 6 OF 50

HANSEL AVENUE  
 (NORTH BOUND STATE ROAD 527)  
 60' PUBLIC R/W - 23' ASPHALT PAVEMENT



CERTIFICATE OF AUTHORIZATION LB 7274  
 32 W. PLANT STREET Phone No. 407.905.8877  
 WINTER GARDEN, FL 34787 Fax No. 407.905.8875

|                    |         |
|--------------------|---------|
| F.E.C. PROJECT NO. | 22-010  |
| SHEET NO.          | C-7     |
| SHEET              | 7 OF 50 |

JOB NUMBER: 14090  
 DRAWING FILE: 14090-4.DWG

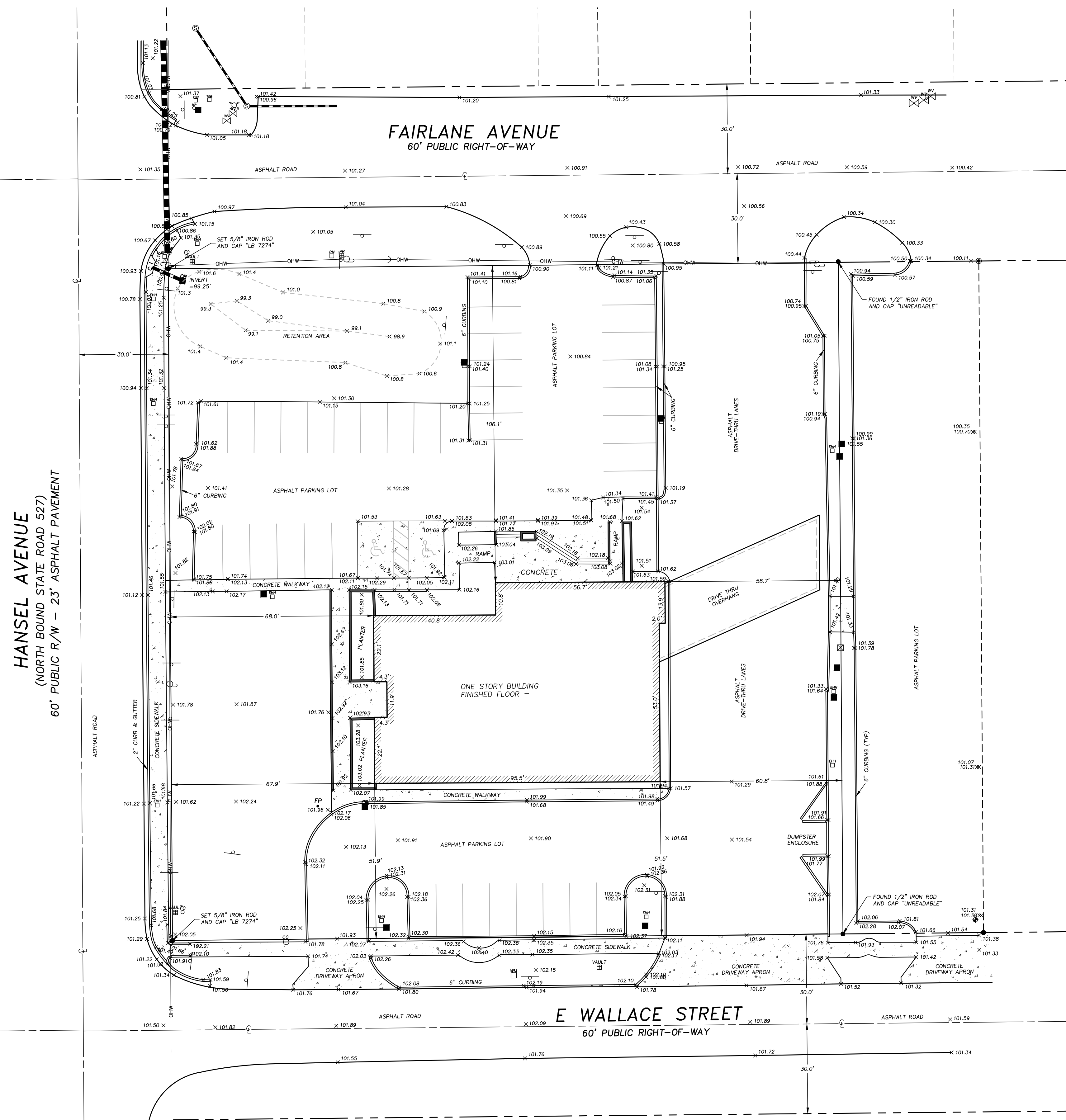
# BOUNDARY AND TOPOGRAPHIC SURVEY

SECTION 24  
TOWNSHIP 23 SOUTH  
RANGE 29 EAST

SHEET 1 OF 1

CERTIFICATE OF AUTHORIZATION LB 7274  
301 N. TUBB STREET, SUITE 106, OAKLAND, FLORIDA 34760  
Phone No. 407.905.8877

ARON D. BISHMAN, P.S.M. FLORIDA REGISTRATION NO. 5668



**DESCRIPTION:**

LOT 9 OF HARNEY HOMESTEAD, AS RECORDED IN PLAT BOOK C, PAGE 53, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LESS THE EAST 100 FEET THEREOF; LESS THE NORTH 391.8 FEET THEREOF; LESS PORTIONS OF ROAD RIGHT-OF-WAY ON THE NORTH, BOUNDED BY FAIRLANE AVENUE, AND ON THE SOUTH, BOUNDED BY EAST WALLACE STREET, AS THE SAME MAY HAVE BEEN CONVEYED TO OR TAKEN BY THE CITY OF BELLE ISLE OF ORANGE COUNTY, FLORIDA FOR ROAD WIDENING PURPOSES.

**LESS AND EXCEPT:**

THAT PART OF LOT 9 CONVEYED TO THE STATE OF FLORIDA BY SPECIAL WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 779, PAGE 14, OF THE OFFICIAL RECORDS OF ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:

THAT PART OF LOT 9, HARNEY HOMESTEAD SUBDIVISION, AS SHOWN IN PLAT BOOK "C", PAGE 53, SAID PUBLIC RECORDS, LESS THE NORTH 391.8 FEET OF SAID LOT 9; LYING WITHIN 30 FEET EASTERLY OF THE SURVEY LINE OF STATE ROAD 527, SECTION 75040, SAID SURVEY LINE BEING DESCRIBED AS FOLLOWS:

BEGIN AT THE EASTERLY EXTENSION OF THE NORTH LINE OF LOT 18, JOHN KEEN'S SUBDIVISION, PLAT BOOK "H", PAGE 11, PUBLIC RECORDS, ORANGE COUNTY, FLORIDA, AT A POINT 31.16 FEET EAST OF THE NORTHEAST CORNER OF SAID LOT 18, AND RUN THENCE NORTH 00°15'17" WEST, 579.36 FEET TO THE CENTER OF SECTION 24, TOWNSHIP 23 SOUTH, RANGE 29 EAST;

ALSO, THE EAST 30 FEET OF THE WEST 60 FEET OF THE SOUTH 30 FEET OF THE NORTH 421.8 FEET OF SAID LOT 9, HARNEY HOMESTEAD;

ALSO, THAT PART OF SAID LOT 9, HARNEY HOMESTEAD, LYING WITHIN 30 FEET NORTHERLY OF A LINE DESCRIBED AS FOLLOWS: COMMENCE ON THE EASTERLY EXTENSION OF THE NORTH LINE OF LOT 18, JOHN KEEN'S SUBDIVISION, PLAT BOOK "H", PAGE 11, PUBLIC RECORDS, ORANGE COUNTY, FLORIDA, AT A POINT 31.16 FEET EAST OF THE NORTHEAST CORNER OF SAID LOT 18, AND RUN THENCE NORTH 00°15'47" WEST, 33.70 FEET FOR A POINT OF BEGINNING; FROM SAID POINT OF BEGINNING RUN SOUTH 89°42'47" EAST, 60 FEET.

**FURTHER LESS AND EXCEPT:**

THAT PART CONVEYED TO PINE CASTLE METHODIST CHURCH, INC. BY SPECIAL WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 8382, PAGE 274, OF THE OFFICIAL RECORDS OF ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF LOT 9 OF THE HARNEY HOMESTEAD, AS RECORDED IN PLAT BOOK "C", PAGE 53, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, THENCE RUN NORTH 89°57'29" EAST ALONG THE NORTH RIGHT-OF-WAY LINE OF WALLACE STREET AS SHOWN AND DEPICTED ON THE PLAT OF KEEN-CASTLE, AS RECORDED IN PLAT BOOK "H", PAGE "1", OF SAID PUBLIC RECORDS, A DISTANCE OF 224.28 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°4'16" EAST ALONG THE EAST LINE OF THE WEST 224.28 FEET OF SAID LOT 9, A DISTANCE OF 224.70 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF FAIRLANE AVENUE; THENCE ALONG SAID SOUTH LINE SOUTH 00°15'56" EAST ALONG THE WEST LINE OF THE EAST 100.00 FEET OF SAID LOT 9, A DISTANCE OF 224.65 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WALLACE STREET; THENCE ALONG SAID NORTH LINE SOUTH 89°57'29" WEST, A DISTANCE OF 175.47 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS A TOTAL OF 1.156 ACRES, MORE OR LESS.

**SURVEYORS NOTES:**

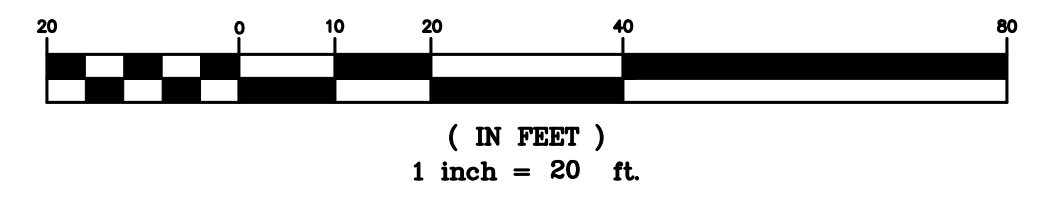
1. NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL, OR DIGITAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. PRINTED COPIES OF A DIGITAL SIGNED AND SEALED SURVEY ARE NOT VALID.
2. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS OF WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD, BY THIS FIRM.
3. REVISIONS DO NOT CONSTITUTE A RE-CERTIFICATION OF THE EXISTING FIELD CONDITIONS OF THIS SURVEY.
4. BEARINGS SHOWN HEREON ARE BASED ON THE NORTH RIGHT-OF-WAY LINE OF E WALLACE STREET (ASSUMED).
5. THE DESCRIPTION SHOWN HEREON WAS SUPPLIED BY THE CLIENT.
6. UNDERGROUND IMPROVEMENTS AND INSTALLATIONS HAVE NOT BEEN LOCATED.
7. THE LANDS SHOWN HEREON LIE ENTIRELY WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD) ACCORDING TO "FIRM" MAP NO. 12095C0430F, DATED SEPTEMBER 25, 2009.
8. THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER 51316-035 BEING A BOX CUT ON TOP OF CURB INLET, ELEVATION = 101.52 (NAVD 1988).
9. SITE BENCHMARK IS SHOWN HEREON.
10. THIS SURVEY WAS PERFORMED IN ACCORDANCE WITH THE STANDARDS OF PRACTICE SET FORTH IN RULE 5J-17.052 ADOPTED BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS, PURSUANT TO FLORIDA STATUTES 472.027.

**LEGEND/ABBREVIATIONS:**

NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

|      |                                   |   |                                 |
|------|-----------------------------------|---|---------------------------------|
| R    | RADIUS                            | ⊙ | WELL                            |
| Δ    | CENTRAL ANGLE                     | ⊖ | ELECTRICAL OUTLET               |
| L    | LENGTH                            | ⊕ | TELEPHONE RISER                 |
| CH   | CHORD                             | ⊕ | FIRE HYDRANT                    |
| CB   | CHORD BEARING                     | ⊕ | MASTER WATER ASSEMBLY           |
| T.B. | TANGENT BEARING                   | ⊕ | SEWER VALVE                     |
| (M)  | MEASURED                          | ⊕ | WATER VALVE                     |
| (C)  | CALCULATED                        | ⊕ | RECLAIMED WATER VALVE           |
| (D)  | DESCRIPTION                       | ⊕ | IRRIGATION VALVE                |
| POB  | POINT OF BEGINNING                | ⊕ | GAS VALVE                       |
| POC  | POINT OF COMMENCEMENT             | ⊕ | SANITARY MANHOLE                |
| O.R. | OFFICIAL RECORDS BOOK             | ⊕ | DRAINAGE MANHOLE                |
| P.G. | PAGE                              | ⊕ | TELEPHONE MANHOLE               |
| TYP. | TYPICAL                           | ⊕ | GREASE TRAP MANHOLE             |
| P.T. | POINT OF TANGENCY                 | ⊕ | POWER MANHOLE                   |
| P.C. | POINT OF CURVATURE                | ⊕ | WATER SHUT-OFF VALVE            |
| ●    | IRON ROD & CAP                    | ⊕ | POWER TRANSFORMER               |
| ⊙    | NAIL & DISC                       | ⊕ | WATER METER                     |
| ⊕    | 4"x4" CONCRETE MONUMENT           | ⊕ | GAS METER                       |
| ⊕    | IRON PIPE                         | ⊕ | POWER METER                     |
| ⊕    | BARBED WIRE FENCE                 | ⊕ | WATER BLOW-OFF VALVE            |
| ⊕    | WOOD FENCE                        | ⊕ | CLEAN-OUT                       |
| ⊕    | CHAIN LINK FENCE                  | ⊕ | FIRE DEPARTMENT CONTROL VALVE   |
| ⊕    | EDGE OF ASPHALT PAVEMENT          | ⊕ | ELECTRIC HAND HOLE              |
| ⊕    | CENTERLINE                        | ⊕ | CABLE TELEVISION RISER          |
| ⊕    | LICENSED BUSINESS                 | ⊕ | TELEPHONE ACCESS CABINET        |
| ⊕    | PROFESSIONAL SURVEYOR & MAPPER    | ⊕ | CATCH BASIN                     |
| ⊕    | PROFESSIONAL LAND SURVEYOR        | ⊕ | DRAIN                           |
| ⊕    | PVC POLYVINYL CHLORIDE PIPE       | ⊕ | CURB INLET                      |
| ⊕    | RPC REINFORCED CONCRETE PIPE      | ⊕ | CURB INLET WITHOUT MANHOLE      |
| ⊕    | OMP CORRUGATED METAL PIPE         | ⊕ | MITERED END SECTION             |
| ⊕    | DIP DUCTILE IRON PIPE             | ⊕ | UTILITY VAULT                   |
| ⊕    | VSP VITIOUS CLAY PIPE             | ⊕ | AIR CONDITIONER                 |
| ⊕    | OPP CORRUGATED PLASTIC PIPE       | ⊕ | WOODEN UTILITY POLE             |
| ⊕    | DHW OVERHEAD UTILITY WIRES        | ⊕ | CONCRETE UTILITY POLE           |
| ⊕    | USP UNDERGROUND POWER LINE        | ⊕ | GUY POLE                        |
| ⊕    | UGG UNDERGROUND GAS LINE          | ⊕ | GUY ANCHOR                      |
| ⊕    | UT UNDERGROUND TELEPHONE LINE     | ⊕ | INVERT ELEVATION                |
| ⊕    | UCCT UNDERGROUND CABLE TELEVISION | ⊕ | EXISTING GROUND ELEVATION       |
| ⊕    | FOC FIBER OPTIC CABLE             | ⊕ | EXISTING GROUND CONTOUR         |
| ⊕    | WOODEN UTILITY POLE               | ⊕ | SINGLE POST SIGN                |
| ⊕    | CONCRETE UTILITY POLE             | ⊕ | DOUBLE POST SIGN                |
| ⊕    | GUY POLE                          | ⊕ | HANDICAPPED PARKING SPACE (H/C) |
| ⊕    | GUY ANCHOR                        | ⊕ | SITE BENCH MARK (AS INDICATED)  |
| ⊕    | INVERT ELEVATION                  | ⊕ |                                 |
| ⊕    | EXISTING GROUND ELEVATION         | ⊕ |                                 |
| ⊕    | EXISTING GROUND CONTOUR           | ⊕ |                                 |
| ⊕    | SINGLE POST SIGN                  | ⊕ |                                 |
| ⊕    | DOUBLE POST SIGN                  | ⊕ |                                 |
| ⊕    | HANDICAPPED PARKING SPACE (H/C)   | ⊕ |                                 |
| ⊕    | SITE BENCH MARK (AS INDICATED)    | ⊕ |                                 |

**GRAPHIC SCALE**



**REVISIONS:**

|               |             |
|---------------|-------------|
| JOB NUMBER:   | 22029.000   |
| SURVEY DATE:  | 3-15-2022   |
| FIELD BY:     | T. CONWARD  |
| FIELD BOOK:   | 2201        |
| PAGES:        | 46-47       |
| FIELD FILE:   | 14090-3.MUF |
| DRAWING FILE: | 22029.DWG   |

F.E.C. PROJECT NO.  
**22-010**  
SHEET NO.  
**C-8**  
SHEET 8 OF 50







**SITE DATA**

PROPERTY LOCATION: 5903 RANDOLPH AVE., BELLE ISLE, FL 32809

TOTAL PROJECT AREA

14.84± ACRES \*

(ROADWAY NOT INCLUDED)

| PARCEL ID:                      | EXISTING USE    | EXISTING ZONING | FUTURE LAND USE    |
|---------------------------------|-----------------|-----------------|--------------------|
| PARCEL ID: 24-23-29-8820-00-050 | EXISTING SCHOOL | C-1             | LOW-MEDIUM DENSITY |
| PARCEL ID: 24-23-29-3400-00-073 | EXISTING SCHOOL | C-2, R-1A, R2   | LOW-MEDIUM DENSITY |
| PARCEL ID: 24-23-29-3400-00-092 | EXISTING SCHOOL | C-1, R-2        | LOW-MEDIUM DENSITY |
| PARCEL ID: 24-23-29-3400-00-093 | EXISTING CHURCH | C-1             | COMMERCIAL         |
| PARCEL ID: 24-23-29-3400-00-094 | EXISTING BANK   | C-1             | COMMERCIAL         |
| PARCEL ID: 24-23-29-3400-00-095 | EXISTING BANK   | C-1             | COMMERCIAL         |
| PARCEL ID: 24-23-29-3400-00-114 | EXISTING SCHOOL | C-2             | COMMERCIAL         |
| PARCEL ID:                      | PROPOSED USE:   | PROPOSED ZONING | FUTURE LAND USE    |
| PARCEL ID: 24-23-29-8820-00-050 | SCHOOL          | PD              | LOW-MEDIUM DENSITY |
| PARCEL ID: 24-23-29-3400-00-073 | SCHOOL          | PD              | LOW-MEDIUM DENSITY |
| PARCEL ID: 24-23-29-3400-00-092 | SCHOOL          | PD              | LOW-MEDIUM DENSITY |
| PARCEL ID: 24-23-29-3400-00-093 | SCHOOL          | PD              | COMMERCIAL         |
| PARCEL ID: 24-23-29-3400-00-094 | SCHOOL          | PD              | COMMERCIAL         |
| PARCEL ID: 24-23-29-3400-00-095 | SCHOOL          | PD              | COMMERCIAL         |
| PARCEL ID: 24-23-29-3400-00-114 | SCHOOL          | PD              | COMMERCIAL         |

**EXISTING BUILDINGS AREA:**

| BUILDINGS AREA:                              | AREA        |
|----------------------------------------------|-------------|
| BUILDING A (EX. ELEMENTARY SCHOOL):          | 39,288 SF.  |
| BUILDING B (EX. MIDDLE SCHOOL):              | 36,720 SF.  |
| BUILDING C (EX. MIDDLE/HIGH SCHOOL):         | 60,500 SF.  |
| BUILDING F (EX. FIELD HOUSE):                | 6,172 SF.   |
| BUILDING H (EX. HOUSE):                      | 1,100 SF.   |
| BUILDING I (EX. OASIS BUILDING):             | 6,462 SF.   |
| TOTAL BUILDINGS AREA (INCLUDING ALL FLOORS): | 150,242 SF. |

**NEW BUILDING HEIGHT:**

| BUILDING HEIGHT (ALLOWABLE): | HEIGHT |
|------------------------------|--------|
| BUILDING A1:                 | 57'    |
| BUILDING D:                  | 56'    |
| BUILDING E:                  | 54'    |
| BUILDING G:                  | 44'    |
| BUILDING J:                  | 50'    |
| BUILDING I:                  | 16'    |

**PROPOSED BUILDINGS AREA:**

| BUILDINGS AREA:                                | AREA        |
|------------------------------------------------|-------------|
| BUILDING A1 (PROPOSED ELEMENTARY-4 STORY):     | 33,750 SF.  |
| BUILDING D (PROPOSED HIGH SCHOOL-3 STORY):     | 44,500 SF.  |
| BUILDING E (STUDENT SERVICE-2 STORY):          | 14,100 SF.  |
| BUILDING G (PROPOSED GYMNASIUM -2 STORY):      | 16,100 SF.  |
| BUILDING J (CONCESSION, RESTROOM & PRESS BOX): | 1,740 SF.   |
| TOTAL BUILDINGS AREA (INCLUDING ALL FLOORS):   | 110,190 SF. |

FLOOR AREA RATIO (ALLOWABLE): 0.45  
 FLOOR AREA RATIO (PROPOSED AND EXISTING): (5.98 AC/ 14.84 AC) 0.40

**PARKING**

| STUDENTS                                                             | 2,420 STUDENTS/13 GRADES = (186/ GRADE X 2) X 10% (*) | 37 SPACES   |
|----------------------------------------------------------------------|-------------------------------------------------------|-------------|
| STAFF                                                                | 2,420 X 1/15 X (1 SPACE PER STAFF)                    | 161 SPACES  |
| VISITOR                                                              | 2,420/100 (1 SPACE PER 100 STUDENTS)                  | 24 SPACES   |
| TOTAL PARKING REQUIRED                                               |                                                       | 222 SPACES  |
| SPACES REQUIRED TO BE RESERVED FOR HANDICAP (*) HIGH SCHOOL STUDENTS |                                                       | 7 SPACES    |
| PARKING PROVIDED                                                     |                                                       | 302 SPACES  |
| EXISTING PARKING SPACES TO BE REMOVED                                |                                                       | -122 SPACES |
| NEW PARKING SPACES                                                   |                                                       | 121 SPACES  |
| HANDICAP PARKING (3 EXISTING + 6 NEW)                                |                                                       | 9 SPACES    |
| TOTAL PARKING PROVIDED                                               |                                                       | 310 SPACES  |

**SITE AREA CALCULATIONS (EXISTING)**

| BUILDINGS FOOTPRINT | EXISTING BUILDINGS | EXISTING IMPERVIOUS TO BE REMOVED (OLD TEXACO SITE & OTHERS) | EXISTING IMPERVIOUS TO BE REMOVED (OLD BANK OF AMER. SITE) | EXISTING CONCRETE, SIDEWALK & ASPHALT (*) | TOTAL IMPERVIOUS AREA | POND AREAS    | PERVIOUS AREA | TOTAL SITE AREA |
|---------------------|--------------------|--------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------|-----------------------|---------------|---------------|-----------------|
|                     | 75,729 ±S.F.       | 47,450 ±S.F.                                                 | 41,222 ±S.F.                                               | 35,340 ±S.F.                              | 110,898 ±S.F.         | 263,189 ±S.F. | 55,222 ±S.F.  | 327,891 ±S.F.   |
|                     | 6.04 ±AC.          | 1.27 ±AC.                                                    | 7.53 ±AC.                                                  | 14.84 ±AC.*                               | 6.04 ±AC.             | 1.27 ±AC.     | 7.53 ±AC.     | 14.84 ±AC.*     |
|                     | 40.70 %            | 8.56 %                                                       | 50.74 %                                                    | 100.00 %                                  | 40.70 %               | 8.56 %        | 50.74 %       | 100.00 %        |

**SITE AREA CALCULATIONS (PROPOSED & EXISTING)**

| BUILDINGS FOOTPRINT (FIRST FLOOR) | EXISTING BUILDINGS | PROPOSED BUILDINGS | PROPOSED & EXISTING CONCRETE, SIDEWALK & ASPHALT (*) | IMPERVIOUS AREA | POND AREAS   | PERVIOUS AREA | TOTAL SITE AREA |
|-----------------------------------|--------------------|--------------------|------------------------------------------------------|-----------------|--------------|---------------|-----------------|
|                                   | 75,729 ±S.F.       | 47,450 ±S.F.       | 168,777 ±S.F.                                        | 291,956 ±S.F.   | 71,185 ±S.F. | 283,161 ±S.F. | 646,302 ±S.F.   |
|                                   | 6.70 ±AC.          | 1.63 ±AC.          | 6.51 ±AC.                                            | 6.70 ±AC.       | 1.63 ±AC.    | 6.51 ±AC.     | 14.84 ±AC.*     |
|                                   | 45.16 %            | 10.98 %            | 43.86 %                                              | 45.16 %         | 10.98 %      | 43.86 %       | 100.00 %        |

**MAXIMUM IMPERVIOUS REQUIREMENTS**

CITY OF BELLE ISLE  
 ALLOWABLE IMPERVIOUS SURFACE RATIO - ISR 0.70  
 PROPOSED IMPERVIOUS SURFACE RATIO - ISR 0.45  
 (SEE SITE AREA CALCULATIONS ABOVE)

**BUILDING SETBACKS**

| STREET            | BUILDINGS            | REQUIRED | PROPOSED |
|-------------------|----------------------|----------|----------|
| HANSEL AVENUE     | (BUILDINGS D & E)    | 15'      | 15.5'    |
| WALTHAM AVENUE    | (BUILDINGS A1 & E)   | 14'      | 14.6'    |
| FAIRLANE AVENUE   | (BUILDINGS B, C & D) | 7'       | 7.5'     |
| E. WALLACE STREET | (BUILDING D)         | 4'       | 4.3' (*) |
| RANDOLPH AVENUE   | (BUILDING G)         | 5'       | 5'       |

(\*) DUMPSTER WALL: ZERO SETBACK

**LANDSCAPE BUFFERS (REQUIRED)**

| STREET            | REQUIRED | LANDSCAPE BUFFERS (PROPOSED) |
|-------------------|----------|------------------------------|
| HANSEL AVENUE     | 15'      | 15'                          |
| WALTHAM AVENUE    | 14'      | 14'                          |
| FAIRLANE AVENUE   | 7'       | 7'                           |
| E. WALLACE STREET | 4'       | 4'                           |
| RANDOLPH AVENUE   | 5'       | 5'                           |

**OPEN SPACE CALCULATIONS**

OPEN SPACE PROVIDED: 44%

**RECREATION AREA:**

SPORT FIELD AREA: 2.66 AC

**LIGHTING NOTE:**  
 LIGHTING SHALL MEET CITY OF BELLE ISLE REQUIREMENTS.

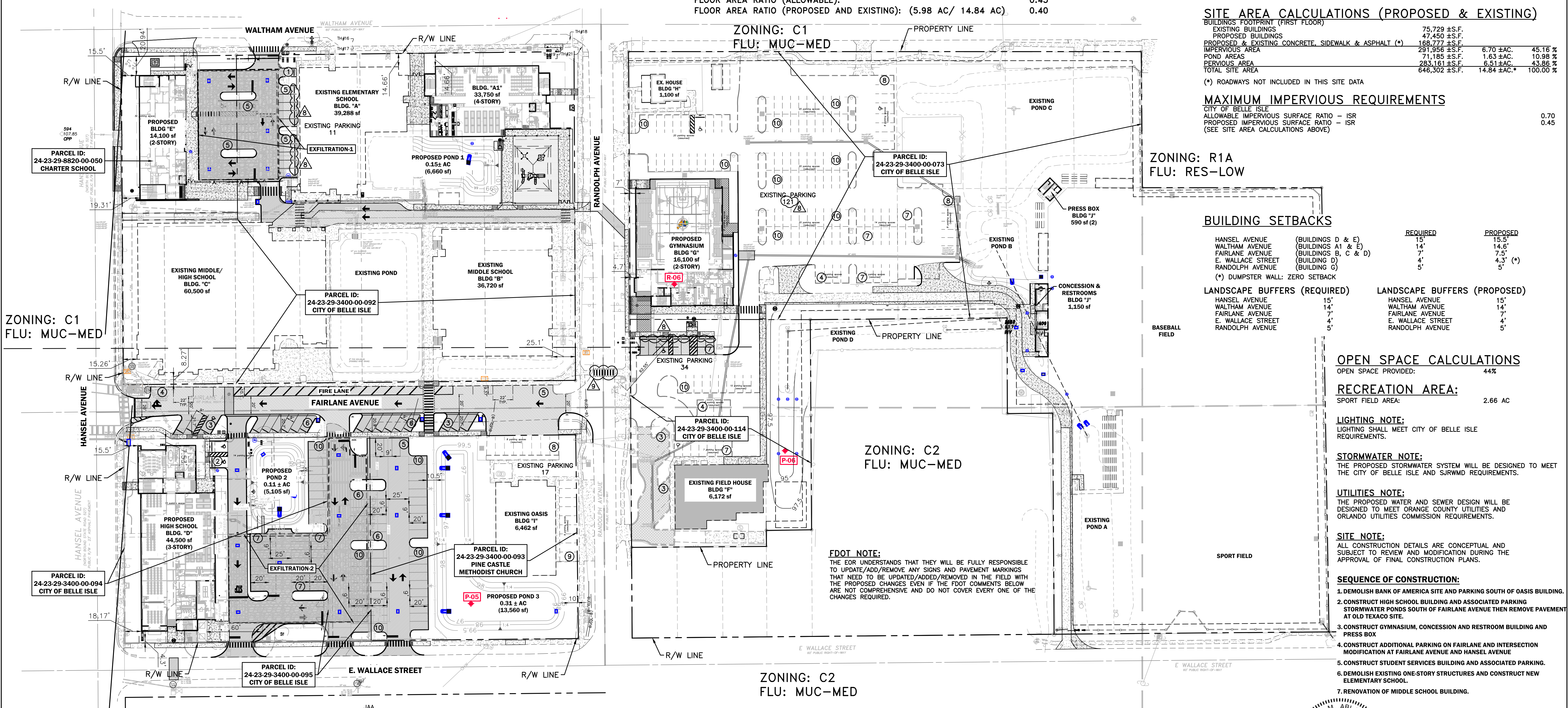
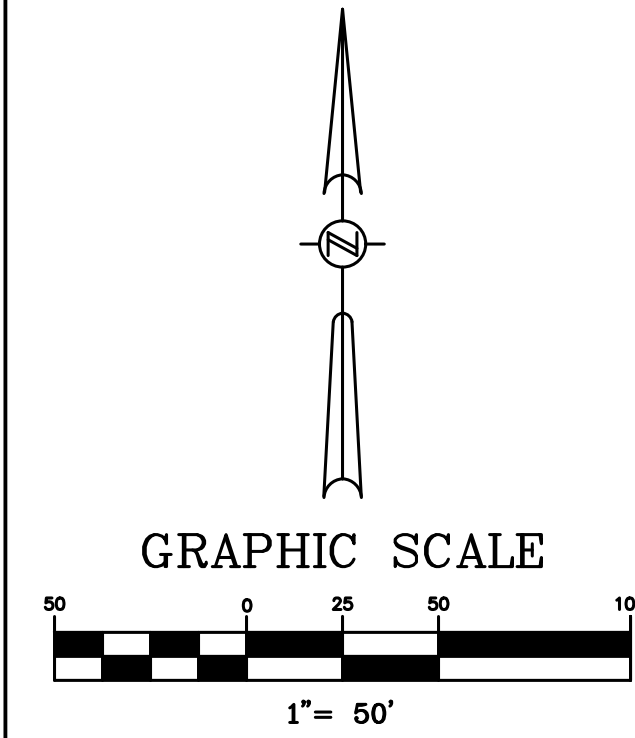
**STORMWATER NOTE:**  
 THE PROPOSED STORMWATER SYSTEM WILL BE DESIGNED TO MEET THE CITY OF BELLE ISLE AND SJRWMD REQUIREMENTS.

**UTILITIES NOTE:**  
 THE PROPOSED WATER AND SEWER DESIGN WILL BE DESIGNED TO MEET ORANGE COUNTY UTILITIES AND ORLANDO UTILITIES COMMISSION REQUIREMENTS.

**SITE NOTE:**  
 ALL CONSTRUCTION DETAILS ARE CONCEPTUAL AND SUBJECT TO REVIEW AND MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.

**SEQUENCE OF CONSTRUCTION:**

- DEMOLISH BANK OF AMERICA SITE AND PARKING SOUTH OF OASIS BUILDING.
- CONSTRUCT HIGH SCHOOL BUILDING AND ASSOCIATED PARKING STORMWATER PONDS SOUTH OF FAIRLANE AVENUE THEN REMOVE PAVEMENT AT OLD TEXACO SITE.
- CONSTRUCT GYMNASIUM, CONCESSION AND RESTROOM BUILDING AND PRESS BOX
- CONSTRUCT ADDITIONAL PARKING ON FAIRLANE AND INTERSECTION MODIFICATION AT FAIRLANE AVENUE AND HANSEL AVENUE
- CONSTRUCT STUDENT SERVICES BUILDING AND ASSOCIATED PARKING.
- DEMOLISH EXISTING ONE-STORY STRUCTURES AND CONSTRUCT NEW ELEMENTARY SCHOOL.
- RENOVATION OF MIDDLE SCHOOL BUILDING.



| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

**CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA**

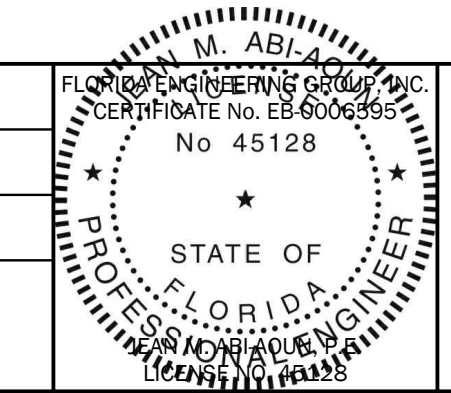


5127 S. Orange Avenue, Suite 200  
 Orlando, FL 32809  
 Phone: 407-895-0324  
 Fax: 407-895-0325  
 www.feg-inc.us

**OVERALL MASTER SITE PLAN**

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 50'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-11          |
| SHEET       | 11 OF 50      |



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY (ENGINEER), P.E. ON (DATE) USING A SHA-1 AUTHENTICATION CODE.  
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

**CONCRETE CONSTRUCTION NOTES**

1. CONCRETE PRE-CONSTRUCTION MEETING
  - A. THE CONCRETE CONTRACTOR ALONG WITH THE CONCRETE PRODUCER MAY REQUEST THROUGH THE GENERAL CONTRACTOR FOR A PRE-CONSTRUCTION MEETING PRIOR TO CONCRETE PLACEMENT.
  - B. ATTENDEE: CONCRETE CONTRACTOR, CONCRETE PRODUCER, GENERAL CONTRACTOR, OWNER OR OWNER'S REPRESENTATIVE(S), ENGINEER OF RECORD, ARCHITECT, SITE CONTRACTOR, GEOTECHNICAL REPRESENTATIVE(S), ETC.
  - C. AGENDA: INCLUDE BUT NOT LIMITED TO THE FOLLOWINGS: (CONTRACTOR MAY CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION FOR PRE-CONSTRUCTION MEETING CHECK LISTS)
    - i. MIXTURE(S) APPROVAL
    - ii. CONCRETE TESTING: TYPE, LOCATION OF SAMPLINGS, ETC.
    - iii. CONCRETE DELIVERY: QUANTITY/HR, PUMP, CONVEYOR, ETC.
    - iv. PLACEMENT: METHOD, QUANTITY/DAY, STAGING & CLEAN OUT LOCATION, ETC.
    - v. FINISHING: CURING, JOINTING, ETC.

2. JOINTS FOR CONCRETE SLABS
  - A. GENERAL - A JOINTING PLAN FOR THE ENTIRE PAVING AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE ENGINEER OF RECORD (EOR) 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. THE CONTRACTOR MAY ALSO CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION (FC&PA) FOR TECHNICAL RESOURCES AND ASSISTANT.

**CONCRETE CONSTRUCTION NOTES (cont.)**

- i. A SQUARE JOINTING PATTERN IS REQUIRED WHERE POSSIBLE. IF NECESSARY, RECTANGULAR PANELS CAN BE USED IF THE LONG DIMENSION IS NO MORE THAN 1.5 TIMES THE SHORT (e.g. 8' x 12'). JOINT SPACING SHALL NOT EXCEED THE FOLLOWING: 10 FEET IN A 4" THICK SLAB, 12 FEET IN A 5" THICK SLAB OR 15 FEET IN SLAB WITH THICKNESS OF 6" OR GREATER.
  - ii. BOX OUT AREA AROUND MANHOLES, CATCH BASINS, DRAINAGE STRUCTURES & OTHER BUILT-IN STRUCTURES WITHIN THE PAVING AREA SHALL BE CIRCULAR WHERE POSSIBLE. A MINIMUM OFFSET OF 12" FROM ANY EDGE OF THE STRUCTURE. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE. CONSTRUCTION & CONTROL JOINTS SHALL BE CONTINUOUS THROUGH ADJACENT LANES & EXTEND THROUGH INTEGRAL CURB. JOINTS CAN BE TERMINATED & OFFSET AT ISOLATION JOINTS, WHERE JOINTS INTERFERE ANY RADIUS OR CURVATURE, OFFSET A MINIMUM OF 12" FROM EDGE OF PAVEMENT AND FORM JOINT 90 DEGREE TO EDGE OF PAVEMENT TO AVOID ACUTE ANGLE OR SMALL WEDGES OF CONCRETE AT CURVATURES. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE.
- B. CONSTRUCTION JOINTS - A CONSTRUCTION JOINT SEPARATES ONE DAY PLACEMENT TO THE NEXT DAY PLACEMENT. A CONSTRUCTION JOINT SHALL BE A MINIMUM OF 5 FEET FROM ANY ADJACENT CONTROL JOINT. NEXT DAY PLACEMENT SHALL BUTT UP TO THE EXISTING PAVEMENT AS A COLD JOINT. THE CONSTRUCTION JOINT MAY BE HAND-TOOLED WITH MAXIMUM 0.25" RADIUS AT THE EDGE OF THE JOINT. CONTROL JOINTS FROM BOTH PLACEMENT AREAS SHALL MATCH AND BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT.
- C. CONTROL/CONTRACTION JOINTS - CONTROL JOINTS ARE JOINTS WITHIN THE PAVING AREA FORMED THROUGH TOOLING OR SAW CUTTING. CONTROL JOINTS ESTABLISH WEAK PLANES TO RELIEVE STRESSES DUE TO SHRINKAGE OR TEMPERATURE CHANGE. INSTALL CONTROL JOINTS WITHIN 12 HRS FROM THE TIME THE CONCRETE HITS THE GROUND OR OBTAIN IN WRITING APPROVAL FROM THE EOR BEYOND THE 12-HR TIME LIMIT.

**CONCRETE CONSTRUCTION NOTES (cont.)**

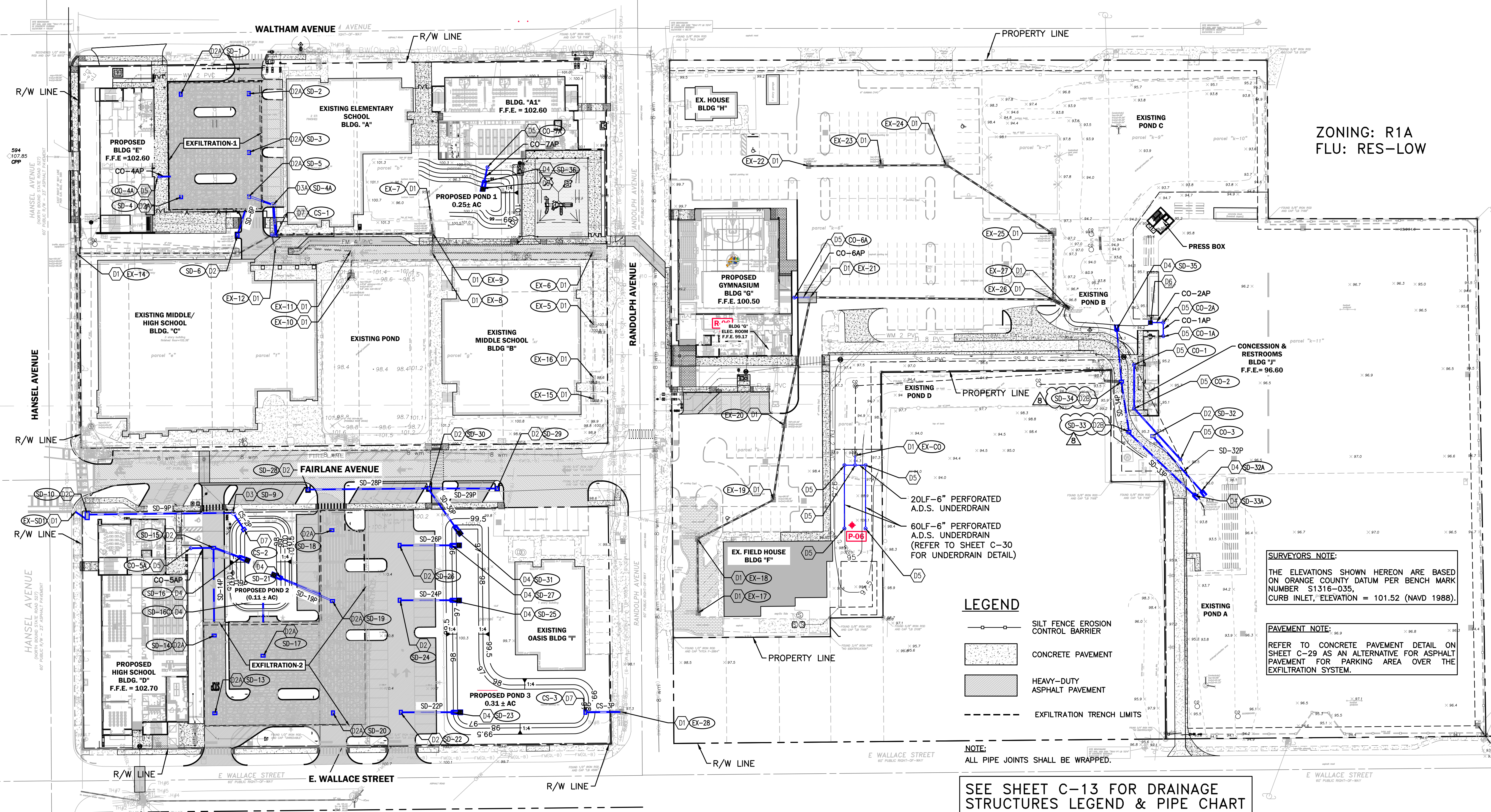
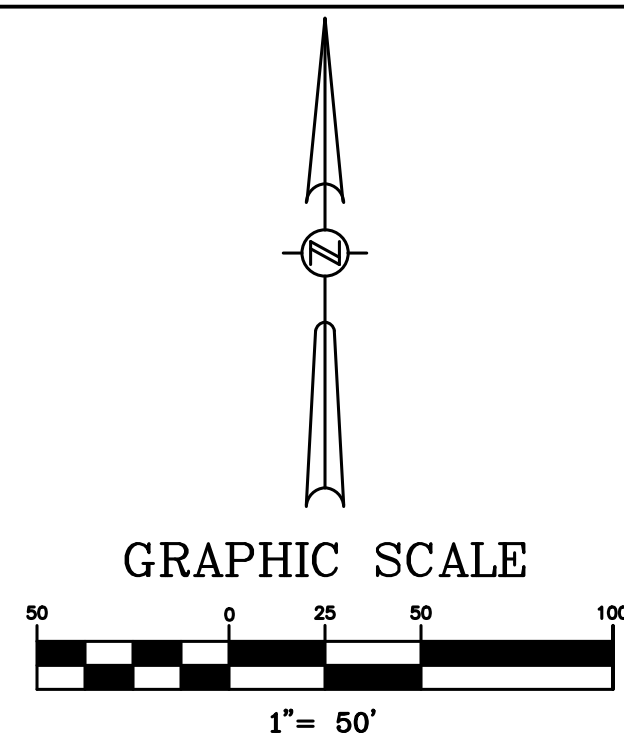
- i. EARLY-ENTRY SAW CUTTING METHOD: CUT JOINT TO A MINIMUM OF 1/4 OF DEPTH FOR PAVEMENT THICKNESS UP TO 8". CUTTING OF JOINT SHALL NOT CAUSE RAVELING TO THE EDGES OR DEFORMATION OF THE SURFACE DUE TO EQUIPMENT OR WORKER.
  - j. OTHER METHODS: INSTALL JOINT TO A MINIMUM OF 1/4 OF PAVEMENT DEPTH. FINISH EDGES WITH 0.25" RADIUS. OPERATION SHALL NOT CAUSE ANY DEFORMATION OF THE SURFACE.
- D. ISOLATION JOINTS - THESE JOINTS USE ISOLATION MATERIALS TO PREVENT FRESH CONCRETE FROM BONDING TO HARDENED CONCRETE SUCH AS, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, SIDEWALKS, DRAINAGE STRUCTURES, LIGHTING & SIGNAGE BASES, RETAINING WALLS, CURBS, ETC. THE ISOLATION MATERIAL SHALL EXTEND THE FULL-DEPTH OF THE FRESH CONCRETE THICKNESS. FROM ONE DAY PLACEMENT TO THE NEXT, WHERE JOINTS ARE MATCHED, ISOLATION MATERIAL IS NOT NECESSARY. (E.G. ONE LANE PAVING TO THE NEXT, INTEGRAL CURBS)
- E. ISOLATION JOINTS BETWEEN SLABS AT SAME GRADE SHALL BE FORMED WITH 0.25 INCH THICK NEOPRENE OR 0.50 INCH THICK ASPHALT IMPREGNATED FIBER FILLED WITH HYDROCARBON RESISTANT ELASTOMERIC FILL MATERIAL AS SEALER. ALL EDGES TO BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.
- F. A SATISFACTORY ISOLATION JOINT CAN BE FORMED AT METAL BUILDING CURBS BY PLACING A STRIP OF CURING PAPER AGAINST THE METAL FORM & THEN PLACING THE FRESH CONCRETE AGAINST THE PAPER. THE EDGES OF THE SLAB SHALL BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.

**# SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET WITH STEEL GRATE PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. 5'X5' CRUSHED CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE. (EXISTING OUTFALL STRUCTURE TO BE REMOVED AND REPLACED WITH NEW ONE)

**◆ GRADING KEYNOTES**

- G1. SILT FENCE EROSION CONTROL BARRIER, TYPICAL.
- G2. MATCH EXISTING PAVEMENT GRADE.



**LEGEND**

- SILT FENCE EROSION CONTROL BARRIER
- CONCRETE PAVEMENT
- HEAVY-DUTY ASPHALT PAVEMENT
- EXFILTRATION TRENCH LIMITS

**NOTE:**  
ALL PIPE JOINTS SHALL BE WRAPPED.

**SEE SHEET C-13 FOR DRAINAGE STRUCTURES LEGEND & PIPE CHART**

**SURVEYORS NOTE:**  
THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER 51316-035, CURB INLET, ELEVATION = 101.52 (NAVD 1988).

**PAVEMENT NOTE:**  
REFER TO CONCRETE PAVEMENT DETAIL ON SHEET C-29 AS AN ALTERNATIVE FOR ASPHALT PAVEMENT FOR PARKING AREA OVER THE EXFILTRATION SYSTEM.

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
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**CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA**

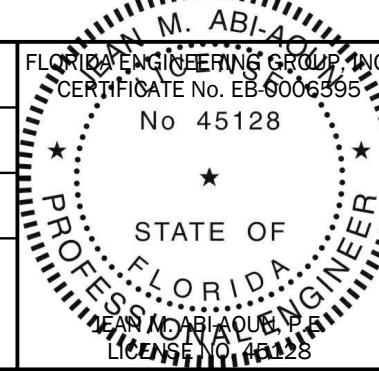


5127 S. Orange Avenue, Suite 200  
Orlando, FL 32809  
Phone: 407-895-0324  
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**OVERALL MASTER PAVING, GRADING AND DRAINAGE PLAN**

|             |          |            |             |
|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 50'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-12          |
| SHEET       | 12 OF 50      |



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STRUCTURE TABLE (CornerstoneStormPipe) with columns: STRUCTURE NAME, DETAILS, PIPES IN, PIPES OUT. Includes entries for CO-1 through CO-7A and SD-1 through SD-16C.

STRUCTURE TABLE (CornerstoneStormPipe) with columns: STRUCTURE NAME, DETAILS, PIPES IN, PIPES OUT. Includes entries for SD-17 through SD-36.

EX-28 EXISTING STORM STRUCTURE (FDOT)
EX-SD1 EXISTING STORM STRUCTURE (FDOT)
Includes top and invert elevations for each structure.

(\*) CONTRACTOR SHALL VERIFY BUILDING ROOF DRAIN INVERT WITH STORM CLEAN-OUT INVERT AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO BEGINNING ANY WORK.
(\*\*) CONTRACTOR TO CHECK EXISTING PIPE INVERT AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO BEGINNING WORK.

PIPE TABLE (CornerstoneStormPipe) with columns: PIPE NAME, SIZE, LENGTH, SLOPE, FROM STRUCTURE, TO STRUCTURE. Includes entries for CO-1P through CO-7AP and SD-1P through SD-19P.

PIPE TABLE (CornerstoneStormPipe) with columns: PIPE NAME, SIZE, LENGTH, SLOPE, FROM STRUCTURE, TO STRUCTURE. Includes entries for SD-20P through SD-35P.

Handwritten note in a cloud shape: INV. 97.00 - 34" PIPE

Revisions table with columns: DATE, REVISIONS, BY. Lists dates from 08/14/2023 to 10/09/2023 and corresponding revision descriptions.

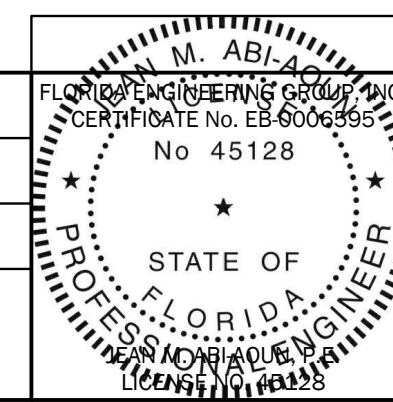
CORNERSTONE CHARTER ACADEMY CONSTRUCTION PLANS CITY OF BELLE ISLE, FLORIDA



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

DESIGNED BY: JAA, DRAWN BY: VP, CHECKED BY: JAA, APPROVED BY: JAA

PROJECT NO. 22-010 SCALE 1" = 50' DATE JUNE 23, 2023 SHEET NO. C-13 SHEET 13 OF 50



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**OCU UTILITY NOTES**

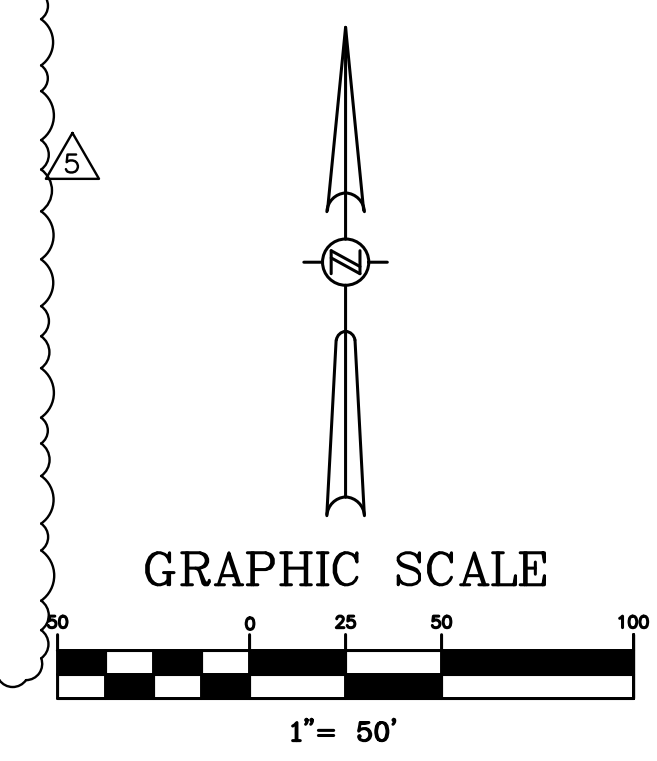
1. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO START OF ANY CONSTRUCTION AND NOTIFY ENGINEER OF RECORD OF ANY CHANGES OR DISCREPANCIES. THE CONTRACTOR SHALL MAKE PROVISIONS TO AVOID CONFLICTS WHILE MAINTAINING THE DESIGN INTENT & MEETING O.C.U. & F.D.E.P. SEPARATION REQUIREMENTS & CONSTRUCTION STANDARDS. ANY CHANGES TO THE DESIGN INTENT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD. THE ENGINEER SHALL COORDINATE ANY DISCREPANCIES WITH O.C.U.
2. REFER TO O.U.C. &/OR ORANGE COUNTY STANDARD DETAILS FOR ALL UTILITY DESIGN INFORMATION. ALL WATER UTILITY CONSTRUCTION TO BE PER O.U.C. REQUIREMENTS. ALL SANITARY SEWER UTILITY CONSTRUCTION TO BE PER ORANGE COUNTY REQUIREMENTS. PUMPED FIRE LINE CONSTRUCTION AND TESTING TO BE PER ORANGE COUNTY AND ORANGE COUNTY FIRE RESCUE DIVISION REQUIREMENTS.
3. ALL UTILITIES (INCLUDING PUMP STATION) LOCATED OUTSIDE PUBLIC R.O.W. & PUBLIC EASEMENT SHALL BE PRIVATELY OWNED & MAINTAINED.
4. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3' COVER OVER ALL PROPOSED UTILITIES.
5. CONTRACTOR SHALL NOTIFY THE ORANGE COUNTY PUBLIC UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION PH. # 407-254-9798.
6. THE CONSTRUCTION OF ALL UTILITIES PROPOSED FOR CONNECTION TO THE ORANGE COUNTY UTILITY SYSTEM SHALL BE IN CONFORMANCE WITH THE ORANGE COUNTY FEBRUARY 2011 STANDARDS & CONSTRUCTION SPECIFICATIONS MANUAL.
7. FOR PVC PIPES THAT WILL BE OWNED & MAINTAINED BY ORANGE COUNTY, ALIGNMENT CHANGES SHALL BE MADE ONLY WITH FITTINGS. LONG RADIUS CURVES EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTING AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION.

**SANITARY SEWER - LIFT STATION**

| ASSET TYPE           | I.D. NUMBER | PLAN SHEET NUMBER | EASTING | NORTHING | ELEVATION | VOLUME | COMMENTS |
|----------------------|-------------|-------------------|---------|----------|-----------|--------|----------|
| BENCH MARK           | BM-1        | C-25              |         |          |           |        |          |
| PRIVATE LIFT STATION | LS-1        | C-25              |         |          |           |        |          |
| PRIVATE LIFT STATION | LS-2        | C-23              |         |          |           |        |          |

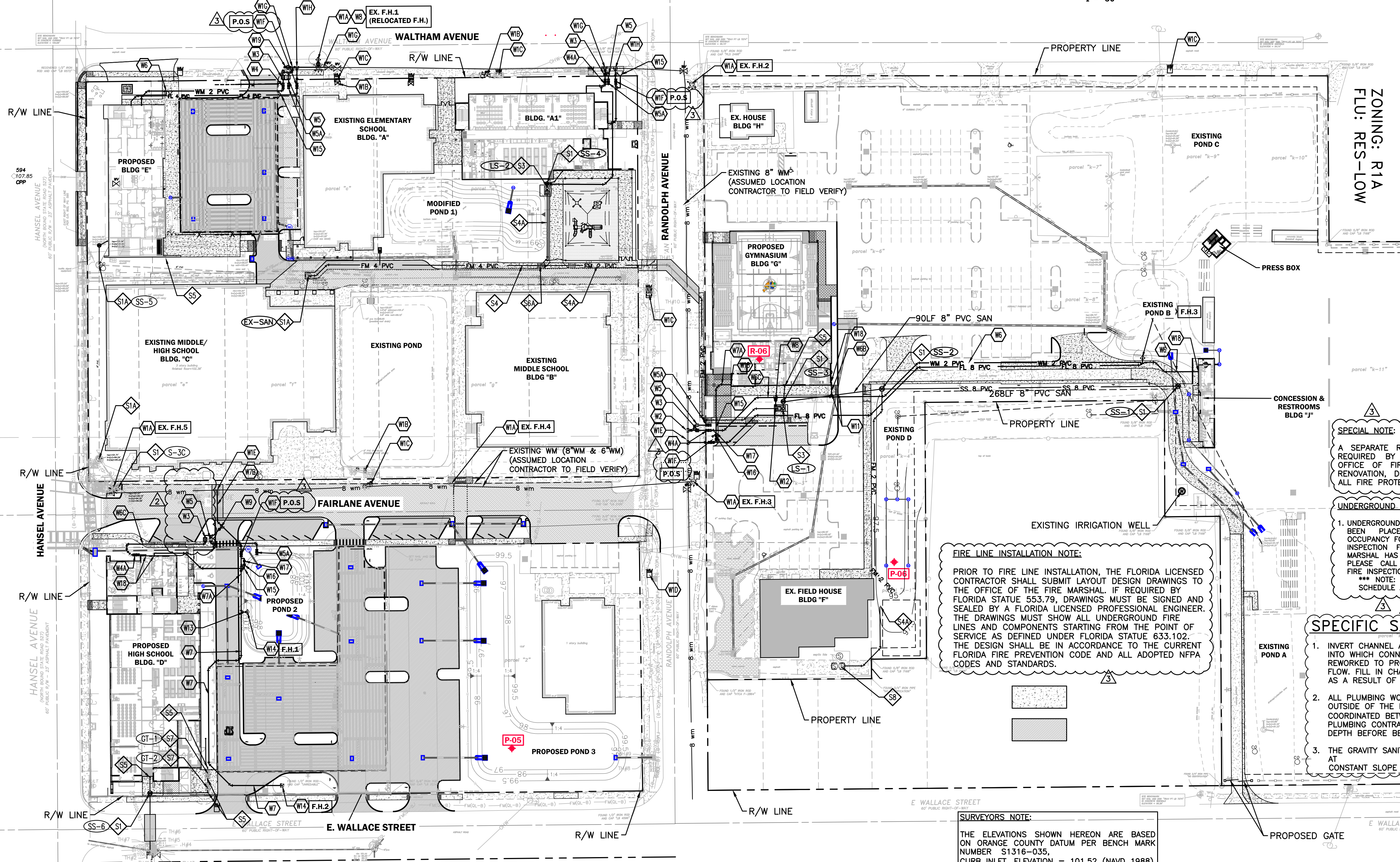
**GREASE INTERCEPTOR**

| ASSET TYPE  | I.D. NUMBER | PLAN SHEET NUMBER | EASTING | NORTHING | RIM ELEVATION | VOLUME (GALLONS) | COMMENTS |
|-------------|-------------|-------------------|---------|----------|---------------|------------------|----------|
| BENCH MARK  | BM-1        |                   |         |          |               |                  |          |
| GREASE TRAP | GR-1        |                   |         |          |               |                  |          |



**WATER UTILITY KEYNOTES**

- W1A. EXISTING FIRE HYDRANT.
- W1B. EXISTING BACKFLOW PREVENTER.
- W1C. NOT USED.
- W1D. EXISTING FDC.
- W1E. CONNECT TO EXISTING OUC 8" WATER MAIN WITH 8"x8" FULL BODY TAPPING SLEEVE AND VALVE BY AN OUC APPROVED TAPPING CONTRACTOR FOR SIZE ON WET TAPS. SEE OUC WATER ENGINEERING FOR APPROVED CONTRACTOR LIST.
- W1F. REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) BY CONTRACTOR PER OUC STANDARD DETAILS AND 5/8" DETECTOR METER BY OUC. SEE PLAN FOR SIZE.
- W1G. CONNECT TO EXISTING 6" OUC DIP WM WITH 6"x3" FULL BODY TAPPING SLEEVE AND 3" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
- W1H. CONNECT TO EXISTING 6" OUC DIP WM WITH 6"x4" FULL BODY TAPPING SLEEVE AND 4" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
- W2. CONNECT TO EXISTING 8" OUC DIP WM WITH 8"x3" FULL BODY TAPPING SLEEVE AND 3" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
- W3. 2" WATER METER TO BE PROVIDED BY OUC. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
- W4. 2" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
- W4A. 3" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
- W5. 1" IRRIGATION METER TO BE PROVIDED BY OUC DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
- W5A. 1 1/2" IRRIGATION WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
- W5B. 1 1/2" CLASS 200, SDR 21 PVC IRRIGATION MAIN. SEE PLAN FOR LENGTH.
- W6. 2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W6A. 1" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W6B. 2 1/2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W6C. 3" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W7. 8" PVC C-900 DR-18 WATER LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
- W7A. 4" PVC C-900 DR-14 FIRE LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
- W7B. 8" DIP WATER MAIN PER OUC STANDARDS. SEE PLAN FOR LENGTH.
- W8. GATE VALVE. SEE PLAN FOR SIZE, TYPICAL.
- W9. TEE. SEE PLAN FOR SIZE, TYPICAL.
- W10. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
- W11. REDUCER. SEE PLAN FOR SIZE.
- W12. HOSE BIB.
- W13. 6" PVC C-900 DR-18 WATER LINE. SEE PLAN FOR LENGTH.
- W13A. 6" D.I.P WATER MAIN. SEE PLAN FOR LENGTH.
- W14. FIRE HYDRANT ASSEMBLY PER OUC STANDARD DETAIL, TYPICAL UNLESS NOTED OTHERWISE. FIRE HYDRANTS TO HAVE 7.5' MIN. CLEARANCE ON FRONT & SIDES AND 4' MIN. CLEARANCE ON REAR SIDE.
- W15. FIRE DEPARTMENT CONNECTION.
- W16. CHECK VALVE. SEE PLAN FOR SIZE.
- W17. POST INDICATOR VALVE. SEE PLAN FOR SIZE.
- W18. COORDINATE CONTINUATION WITH PLUMBING AND ARCHITECTURAL PLANS.
- W19. PERMANENT BLOW-OFF PER OUC STANDARD.



**SPECIAL NOTE:**  
A SEPARATE REVIEW AND COUNTY PERMIT IS REQUIRED BY THE CONTRACTOR FROM THE OFFICE OF FIRE MARSHAL FOR INSTALLATION, RENOVATION, DEMOLITION OR MODIFICATION OF ALL FIRE PROTECTION SYSTEMS.

**UNDERGROUND & FIRE HYDRANT NOTE:**  
1. UNDERGROUND AND FIRE HYDRANT HOLDS HAVE BEEN PLACED ON THE CERTIFICATE OF OCCUPANCY FOR THIS PERMIT UNTIL A FINAL FIRE INSPECTION FROM THE OFFICE OF THE FIRE MARSHAL HAS BEEN CONDUCTED AND APPROVED. PLEASE CALL 407-836-0070 TO SCHEDULE A FIRE INSPECTION.  
\*\*\* NOTE: 48 HOUR NOTICE IS REQUIRED TO SCHEDULE AN INSPECTION \*\*\*

**FIRE LINE INSTALLATION NOTE:**  
PRIOR TO FIRE LINE INSTALLATION, THE FLORIDA LICENSED CONTRACTOR SHALL SUBMIT LAYOUT DESIGN DRAWINGS TO THE OFFICE OF THE FIRE MARSHAL. IF REQUIRED BY FLORIDA STATUTE 553.79, DRAWINGS MUST BE SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER. THE DRAWINGS MUST SHOW ALL UNDERGROUND FIRE LINES AND COMPONENTS STARTING FROM THE POINT OF SERVICE AS DEFINED UNDER FLORIDA STATUTE 633.102. THE DESIGN SHALL BE IN ACCORDANCE TO THE CURRENT FLORIDA FIRE PREVENTION CODE AND ALL ADOPTED NFPA CODES AND STANDARDS.

**SPECIFIC SANITARY NOTES:**

1. INVERT CHANNEL AND BENCH OF THE MANHOLE INTO WHICH CONNECTIONS WILL BE MADE SHALL BE REWORKED TO PROVIDE A SMOOTH CHANNELIZED FLOW. FILL IN CHANNELS THAT WILL NOT BE USED AS A RESULT OF EXISTING SEWER PIPE REMOVAL.
2. ALL PLUMBING WORK SHALL EXTENDED TO 5FT. OUTSIDE OF THE BUILDING AND IS TO BE COORDINATED BETWEEN SITE AND BUILDING/ PLUMBING CONTRACTOR AS TO SIZE, LOCATION AND DEPTH BEFORE BEGINNING WORK.
3. THE GRAVITY SANITARY SEWER MAINS SHALL BE LAID AT CONSTANT SLOPE FROM MANHOLE TO MANHOLE.

**SURVEYORS NOTE:**  
THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER S1316-035, CURB INLET, ELEVATION = 101.52 (NAVD 1988).

**SANITARY SEWER UTILITY KEYNOTES**

- S1. SANITARY SEWER MANHOLE (ALL SANITARY MANHOLES ARE PRIVATE).
- S1A. EXISTING SANITARY SEWER MANHOLE.
- S2. 8" PVC ASTM D3034 SDR26 SANITARY MAIN @ MIN. 0.4% SLOPE.
- S2A. 4" PVC ASTM D3034 SDR26 SANITARY LATERAL.
- S3. PRIVATE SANITARY LIFT STATION. REFER TO SHEETS C-35 & C-36 FOR DETAILS.
- S4. 4" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S4A. 2" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S5. SANITARY CLEANOUT TOP ELEVATION TO MATCH PROPOSED GRADE. SEE PLANS FOR INVERT.
- S6. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
- S6A. 2"x2"x4" WYE CONNECTION.
- S7. GREASE INTERCEPTOR (SEE SHEET C-30 FOR DETAILS).
- S8. EXISTING SANITARY PUMP. CONTRACTOR TO VERIFY.

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

**CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA**

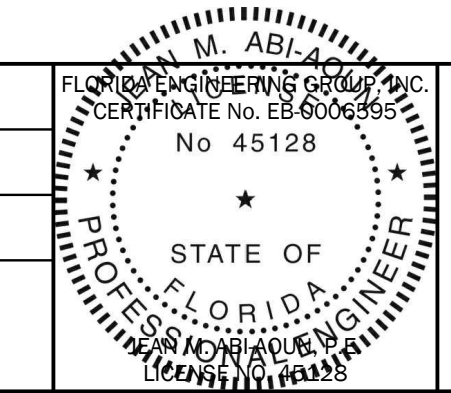


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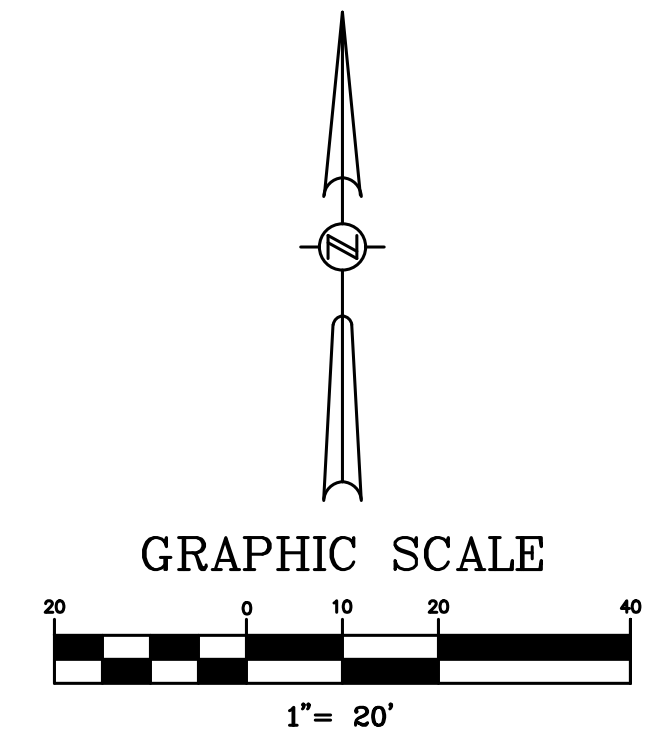
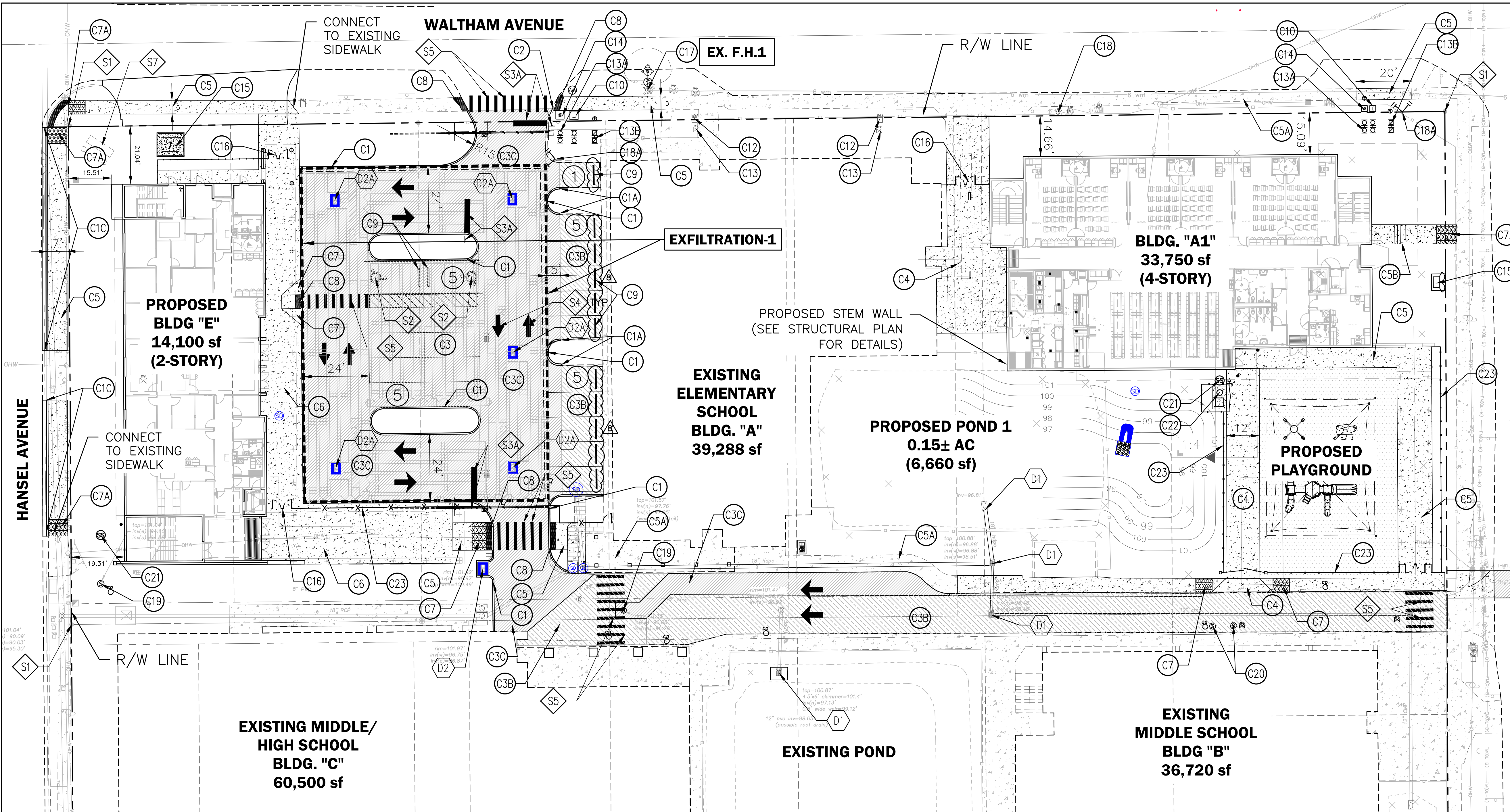
**OVERALL SITE UTILITY PLAN**

|             |          |            |             |
|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 50'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-14          |
| SHEET       | 14 OF 50      |



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MATCH LINE - SEE SHEET C-17

**① SITE CONSTRUCTION KEYNOTES**

- C1. 6" HEAD CURB, TYPICAL.
- C1A. CONNECT TO EXISTING CURB.
- C1B. 2' DROP CURB.
- C1C. REMOVE EXISTING CURB & CONSTRUCT 2' TYPE F CURB & GUTTER.
- C1D. RIBBON CURB.
- C2. EXISTING CURB TO REMAIN.
- C3. LIGHT-DUTY ASPHALT PAVEMENT.
- C3A. EXISTING ASPHALT PAVEMENT.
- C3B. SEAL COAT & RE-STRIPE.
- C3C. HEAVY-DUTY ASPHALT PAVEMENT.
- C4. CONCRETE PAVEMENT, TYPICAL.
- C5. NEW CONCRETE SIDEWALK, TYPICAL.
- C5A. EXISTING CONCRETE SIDEWALK.
- C5B. CONCRETE SIDEWALK STEPS. SEE PLAN FOR NUMBER OF STEPS.
- C6. MONOLITHIC CURB & SIDEWALK, TYPICAL.
- C6A. BRICK PAVER.
- C7. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.
- C7A. CURB CUT RAMPS PER F.D.O.T. STD. PLANS 522-001, FOR HANDICAP ACCESS.
- C7B. EXISTING HANDICAP ACCESS RAMP.
- C8. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE.
- C9. WHEEL STOP PER F.D.O.T. STD. PLANS 520-001, TYPICAL.
- C10. IRRIGATION METER.
- C11. DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLAN FOR DETAILS)
- C12. EXISTING DOMESTIC WATER METER.
- C13. EXISTING DOMESTIC BACKFLOW PREVENTER.
- C13A. NEW DOMESTIC BACKFLOW PREVENTER.
- C13B. NEW REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA).
- C14. NEW WATER METER.
- C15. ELECTRICAL TRANSFORMER.
- C16. PROPOSED DOUBLE SWING GATE.
- C17. EXISTING FIRE HYDRANT.
- C17A. NEW FIRE HYDRANT.
- C18. EXISTING FDC.
- C18A. NEW FDC.
- C19. EXISTING SANITARY MANHOLE.
- C20. EXISTING GREASE TRAP.
- C21. NEW SANITARY MANHOLE.
- C22. NEW LIFT STATION.
- C23. NEW 6' HIGH CHAIN LINK FENCE PVC COATED (SEE ARCHITECTURAL PLAN A501).
- C24. PROPOSED ACCESS GATE (SEE ARCHITECTURAL PLAN FOR DETAILS).

**② SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET WITH STEEL GRATE PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE.

**③ SITE STRIPING & SIGNAGE KEYNOTES**

- S1. PROPERTY BOUNDARY.
- S2. HANDICAP PARKING STALL, TYPICAL.
- S3. 24" THERMOPLASTIC STOP BAR WITH R1-1 HIGH INTENSITY REFLECTORIZED "STOP" SIGN.
- S3A. 24" THERMOPLASTIC STOP BAR & "STOP" LETTERS.
- S3B. 24" THERMOPLASTIC STOP BAR.
- S3C. NO PARKING SIGN.
- S4. DIRECTIONAL ARROWS PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5. CROSSWALK STRIPING PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5A. INFRARED SENSOR CROSSWALK LIGHT.
- S6. GORE STRIPING PER F.D.O.T. STD. PLANS 711-003 (THERMOPLASTIC).
- S7. EXISTING SIGN TO REMAIN.
- S8. DO NOT ENTER SIGN.
- S9. LEFT TURN ONLY SIGN.
- S10. ONE-WAY SIGN.

**ADA NOTE:**  
**EOR WILL CERTIFY THAT ALL PROPOSED ADA PATHWAYS AND PARKING AREAS ARE COMPLIANT PER DESIGN UPON COMPLETION OF CONSTRUCTION AND REVIEW OF AS-BUILT PLANS.**

**M.O.T NOTE:**

1. CONTRACTOR SHALL PREPARE A MAINTENANCE OF TRAFFIC PLAN BASED ON 2023-24 FDOT STANDARD PLANS No. 102-602 FOR THE CONSTRUCTION OF SIDEWALK & CURB ALONG HANSEL AVE. BETWEEN WALTHAM AVE. & FAIRLANE AVE.

**LEGEND:**

|  |                      |
|--|----------------------|
|  | SEAL COAT & RESTRIPE |
|  | NEW ASPHALT PAVEMENT |
|  | CONCRETE PAVEMENT    |
|  | BRICK PAVER PAVEMENT |

MATCH LINE - SEE SHEET C-16

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA

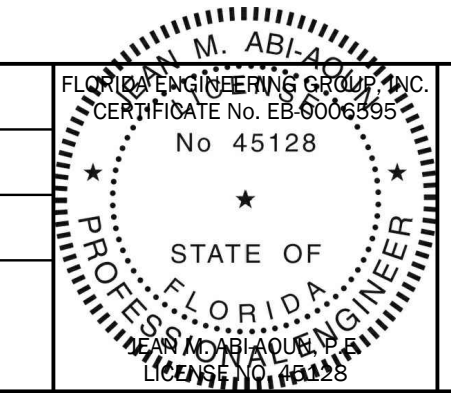


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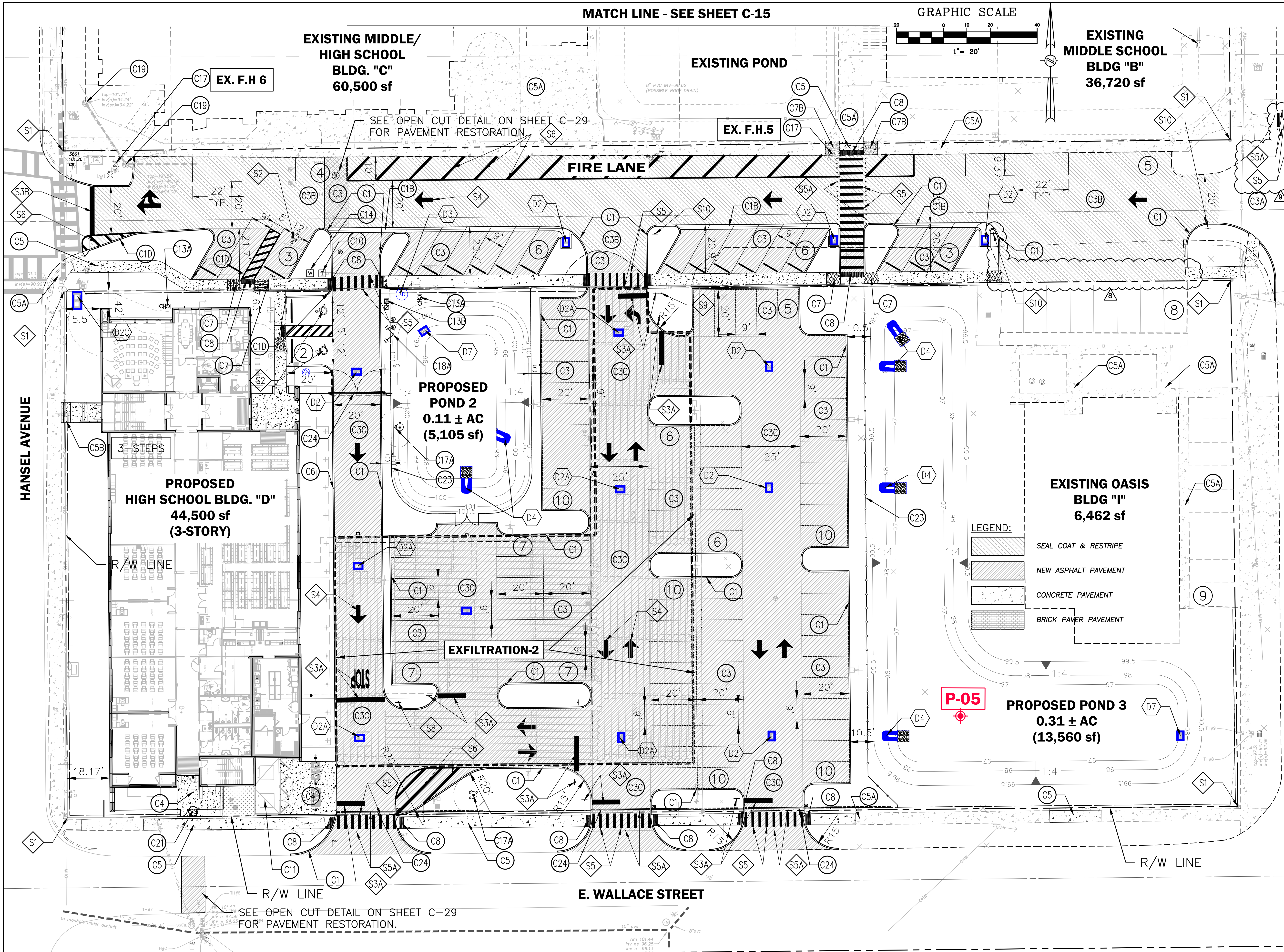
**SITE GEOMETRY (1 OF 4)**

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

|                       |
|-----------------------|
| PROJECT NO.<br>22-010 |
| SCALE<br>1" = 20'     |
| DATE<br>JUNE 23, 2023 |
| SHEET NO.<br>C-15     |
| SHEET 15 OF 50        |



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**Ⓢ SITE CONSTRUCTION KEYNOTES**

- C1. 6" HEAD CURB, TYPICAL.
- C1A. CONNECT TO EXISTING CURB.
- C1B. 2' DROP CURB.
- C1C. REMOVE EXISTING CURB & CONSTRUCT 2' TYPE F CURB & GUTTER.
- C1D. RIBBON CURB.
- C2. EXISTING CURB TO REMAIN.
- C3. LIGHT-DUTY ASPHALT PAVEMENT.
- C3A. EXISTING ASPHALT PAVEMENT.
- C3B. SEAL COAT & RE-STRIPE.
- C3C. HEAVY-DUTY ASPHALT PAVEMENT.
- C4. CONCRETE PAVEMENT, TYPICAL.
- C5. NEW CONCRETE SIDEWALK, TYPICAL.
- C5A. EXISTING CONCRETE SIDEWALK.
- C5B. CONCRETE SIDEWALK STEPS. SEE PLAN FOR NUMBER OF STEPS.
- C6. MONOLITHIC CURB & SIDEWALK, TYPICAL.
- C6A. BRICK PAVER.
- C7. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.
- C7A. CURB CUT RAMPS PER F.D.O.T. STD. PLANS 522-001, FOR HANDICAP ACCESS.
- C7B. EXISTING HANDICAP ACCESS RAMP.
- C8. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE.
- C9. WHEEL STOP PER F.D.O.T. STD. PLANS 520-001, TYPICAL.
- C10. IRRIGATION METER.
- C11. DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLAN FOR DETAILS)
- C12. EXISTING DOMESTIC WATER METER.
- C13. EXISTING DOMESTIC BACKFLOW PREVENTER.
- C13A. NEW DOMESTIC BACKFLOW PREVENTER.
- C13B. NEW REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA).
- C14. NEW WATER METER.
- C15. ELECTRICAL TRANSFORMER.
- C16. PROPOSED DOUBLE SWING GATE.
- C17. EXISTING FIRE HYDRANT.
- C17A. NEW FIRE HYDRANT.
- C18. EXISTING FDC.
- C18A. NEW FDC.
- C19. EXISTING SANITARY MANHOLE.
- C20. EXISTING GREASE TRAP.
- C21. NEW SANITARY MANHOLE.
- C22. NEW LIFT STATION.
- C23. NEW 6" HIGH CHAIN LINK FENCE PVC COATED (SEE ARCHITECTURAL PLAN A501).
- C24. PROPOSED ACCESS GATE (SEE ARCHITECTURAL PLAN FOR DETAILS).

**Ⓢ SITE STRIPING & SIGNAGE KEYNOTES**

- S1. PROPERTY BOUNDARY.
- S2. HANDICAP PARKING STALL, TYPICAL.
- S3. 24" THERMOPLASTIC STOP BAR WITH R1-1 HIGH INTENSITY REFLECTORIZED "STOP" SIGN.
- S3A. 24" THERMOPLASTIC STOP BAR & "STOP" LETTERS.
- S3B. 24" THERMOPLASTIC STOP BAR.
- S3C. NO PARKING SIGN.
- S4. DIRECTIONAL ARROWS PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5. CROSSWALK STRIPING PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5A. INFRARED SENSOR CROSSWALK LIGHT.
- S6. GORE STRIPING PER F.D.O.T. STD. PLANS 711-003 (THERMOPLASTIC).
- S7. EXISTING SIGN TO REMAIN.
- S8. DO NOT ENTER SIGN.
- S9. LEFT TURN ONLY SIGN.
- S10. ONE-WAY SIGN.

**Ⓢ SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET WITH STEEL GRATE PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE.

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCJ COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

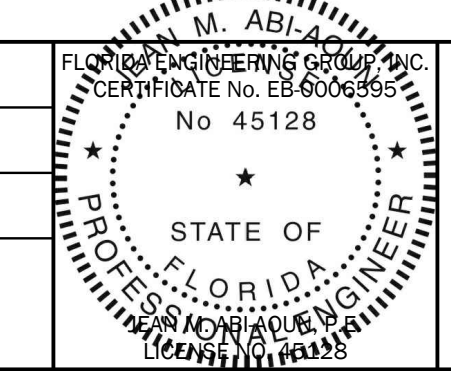


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**SITE GEOMETRY (2 OF 4)**

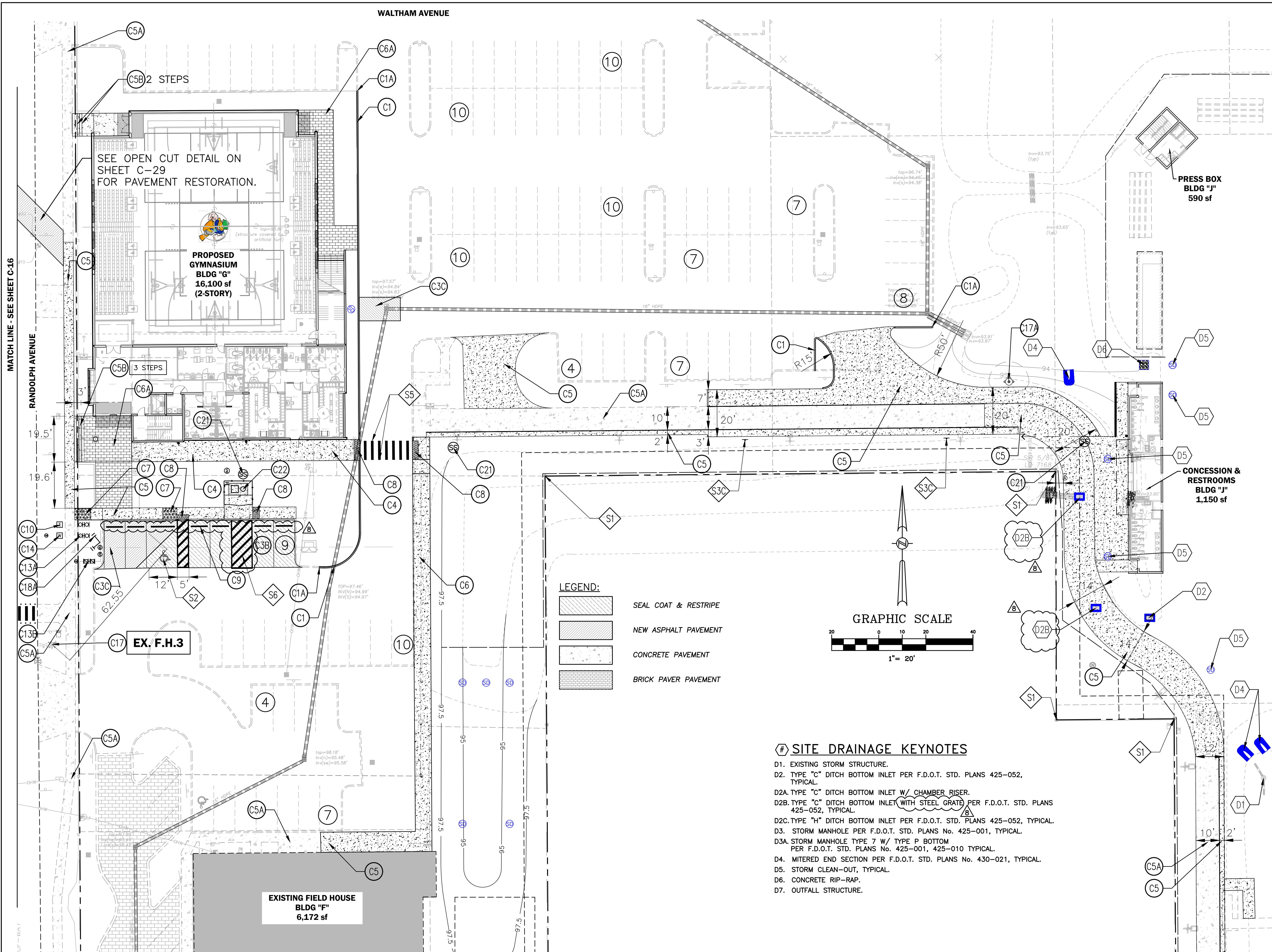
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|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 20'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-16          |
| SHEET       | 16 OF 50      |



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY (ENGINEER), P.E. ON (DATE) USING A SHA-1 AUTHENTICATION CODE.  
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**# SITE CONSTRUCTION KEYNOTES**

- C1. 6" HEAD CURB, TYPICAL.
- C1A. CONNECT TO EXISTING CURB.
- C1B. 2' DROP CURB.
- C1C. REMOVE EXISTING CURB & CONSTRUCT 2' TYPE F CURB & GUTTER.
- C1D. RIBBON CURB.
- C2. EXISTING CURB TO REMAIN.
- C3. LIGHT-DUTY ASPHALT PAVEMENT.
- C3A. EXISTING ASPHALT PAVEMENT.
- C3B. SEAL COAT & RE-STRIPE.
- C3C. HEAVY-DUTY ASPHALT PAVEMENT.
- C4. CONCRETE PAVEMENT, TYPICAL.
- C5. NEW CONCRETE SIDEWALK, TYPICAL.
- C5A. EXISTING CONCRETE SIDEWALK.
- C5B. CONCRETE SIDEWALK STEPS. SEE PLAN FOR NUMBER OF STEPS.
- C6. MONOLITHIC CURB & SIDEWALK, TYPICAL.
- C6A. BRICK PAVER.
- C7. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.
- C7A. CURB CUT RAMPS PER F.D.O.T. STD. PLANS 522-001, FOR HANDICAP ACCESS.
- C7B. EXISTING HANDICAP ACCESS RAMP.
- C8. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE.
- C9. WHEEL STOP PER F.D.O.T. STD. PLANS 520-001, TYPICAL.
- C10. IRRIGATION METER.
- C11. DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLAN FOR DETAILS)
- C12. EXISTING DOMESTIC WATER METER.
- C13. EXISTING DOMESTIC BACKFLOW PREVENTER.
- C13A. NEW DOMESTIC BACKFLOW PREVENTER.
- C13B. NEW REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA).
- C14. NEW WATER METER.
- C15. ELECTRICAL TRANSFORMER.
- C16. PROPOSED DOUBLE SWING GATE.
- C17. EXISTING FIRE HYDRANT.
- C17A. NEW FIRE HYDRANT.
- C18. EXISTING FDC.
- C18A. NEW FDC.
- C19. EXISTING SANITARY MANHOLE.
- C20. EXISTING GREASE TRAP.
- C21. NEW SANITARY MANHOLE.
- C22. NEW LIFT STATION.
- C23. NEW 6' HIGH CHAIN LINK FENCE PVC COATED (SEE ARCHITECTURAL PLAN A501).

**# SITE STRIPING & SIGNAGE KEYNOTES**

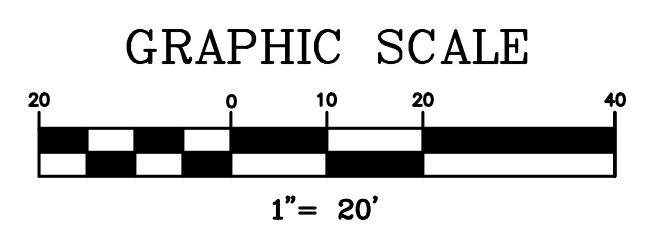
- S1. PROPERTY BOUNDARY.
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- S3. 24" THERMOPLASTIC STOP BAR WITH R1-1 HIGH INTENSITY REFLECTORIZED "STOP" SIGN.
- S3A. 24" THERMOPLASTIC STOP BAR & "STOP" LETTERS.
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- S3C. NO PARKING SIGN.
- S4. DIRECTIONAL ARROWS PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5. CROSSWALK STRIPING PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5A. INFRARED SENSOR CROSSWALK LIGHT.
- S6. GORE STRIPING PER F.D.O.T. STD. PLANS 711-003 (THERMOPLASTIC).
- S7. EXISTING SIGN TO REMAIN.
- S8. DO NOT ENTER SIGN.
- S9. LEFT TURN ONLY SIGN.
- S10. ONE-WAY SIGN.

**# SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET WITH STEEL GRATE PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE.

**LEGEND:**

- SEAL COAT & RESTRIPE
- NEW ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- BRICK PAVER PAVEMENT



| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
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CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

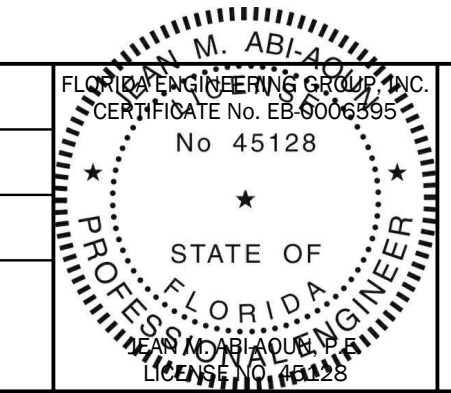


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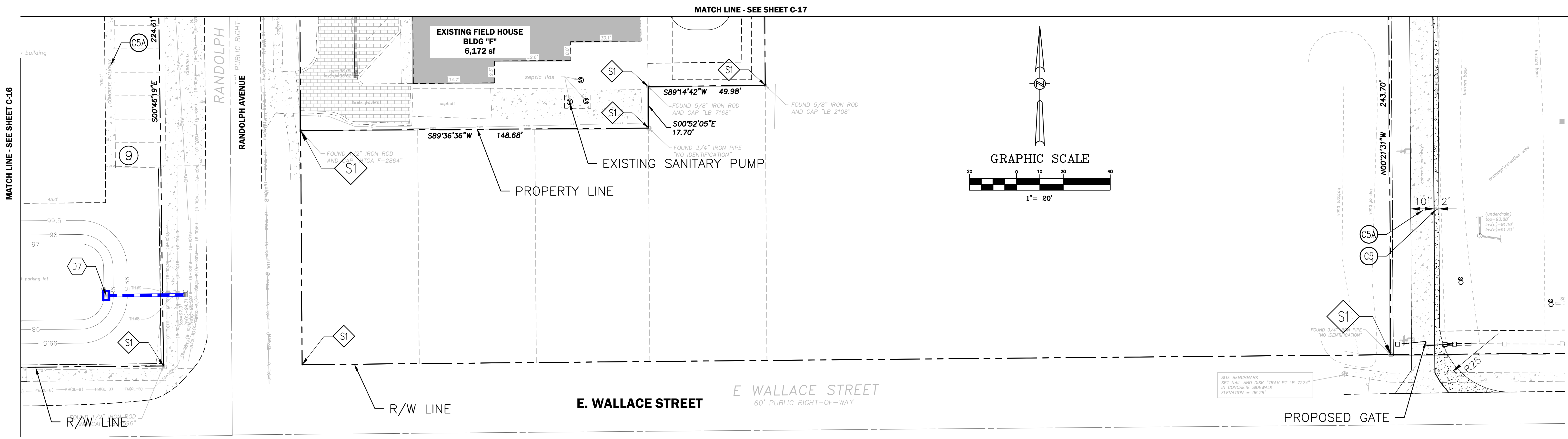
SITE GEOMETRY (3 OF 4)

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

|                       |                   |
|-----------------------|-------------------|
| PROJECT NO.<br>22-010 | SCALE<br>1" = 20' |
| DATE<br>JUNE 23, 2023 | SHEET NO.<br>C-17 |
| SHEET 17 OF 50        |                   |



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**◆ SITE STRIPING & SIGNAGE KEYNOTES**

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- S4. DIRECTIONAL ARROWS PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5. CROSSWALK STRIPING PER F.D.O.T. STD. PLANS 711-001, TYPICAL (THERMOPLASTIC).
- S5A. INFRARED SENSOR CROSSWALK LIGHT.
- S6. GORE STRIPING PER F.D.O.T. STD. PLANS 711-003 (THERMOPLASTIC).
- S7. EXISTING SIGN TO REMAIN.
- S8. DO NOT ENTER SIGN.
- S9. LEFT TURN ONLY SIGN.
- S10. ONE-WAY SIGN.

**⚠ SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET WITH STEEL GRATE PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE.

**Ⓢ SITE CONSTRUCTION KEYNOTES**

- C1. 6" HEAD CURB, TYPICAL.
- C1A. CONNECT TO EXISTING CURB.
- C1B. 2' DROP CURB.
- C1C. REMOVE EXISTING CURB & CONSTRUCT 2' TYPE F CURB & GUTTER.
- C1D. RIBBON CURB.
- C2. EXISTING CURB TO REMAIN.
- C3. LIGHT-DUTY ASPHALT PAVEMENT.
- C3A. EXISTING ASPHALT PAVEMENT.
- C3B. SEAL COAT & RE-STRIPING.
- C3C. HEAVY-DUTY ASPHALT PAVEMENT.
- C4. CONCRETE PAVEMENT, TYPICAL.
- C5. NEW CONCRETE SIDEWALK, TYPICAL.
- C5A. EXISTING CONCRETE SIDEWALK.
- C5B. CONCRETE SIDEWALK STEPS. SEE PLAN FOR NUMBER OF STEPS.
- C6. MONOLITHIC CURB & SIDEWALK, TYPICAL.
- C6A. BRICK PAVER.
- C7. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.
- C7A. CURB CUT RAMPS PER F.D.O.T. STD. PLANS 522-001, FOR HANDICAP ACCESS.
- C7B. EXISTING HANDICAP ACCESS RAMP.
- C8. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE.
- C9. WHEEL STOP PER F.D.O.T. STD. PLANS 520-001, TYPICAL.
- C10. IRRIGATION METER.
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- C22. NEW LIFT STATION.
- C23. NEW 6' HIGH CHAIN LINK FENCE PVC COATED (SEE ARCHITECTURAL PLAN A501).
- C24. PROPOSED ACCESS GATE (SEE ARCHITECTURAL PLAN FOR DETAILS).

| DATE       | REVISIONS                                                   | BY    | CHECKED |
|------------|-------------------------------------------------------------|-------|---------|
| 08/14/2023 | 3. REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | 4. REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | 5. REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | 6. REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | 7. REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | 8. REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

**CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA**

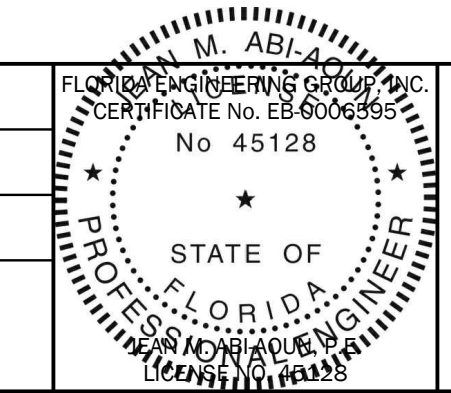


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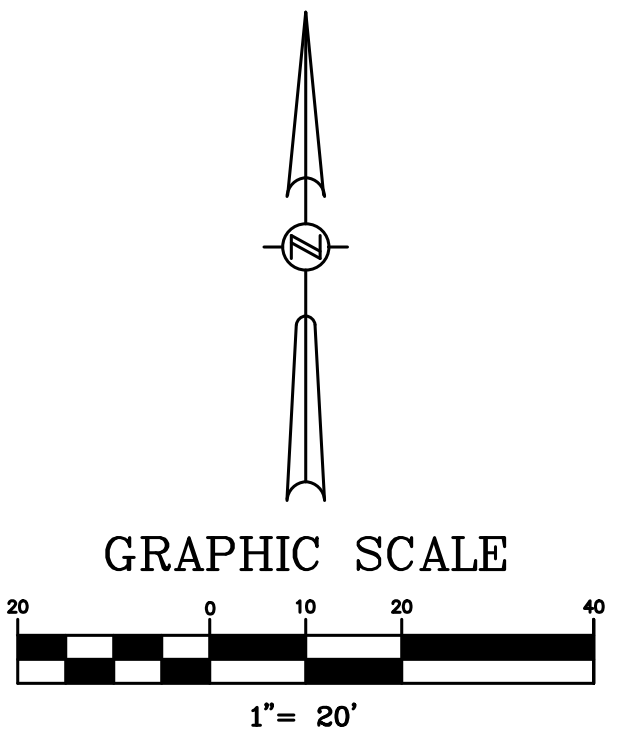
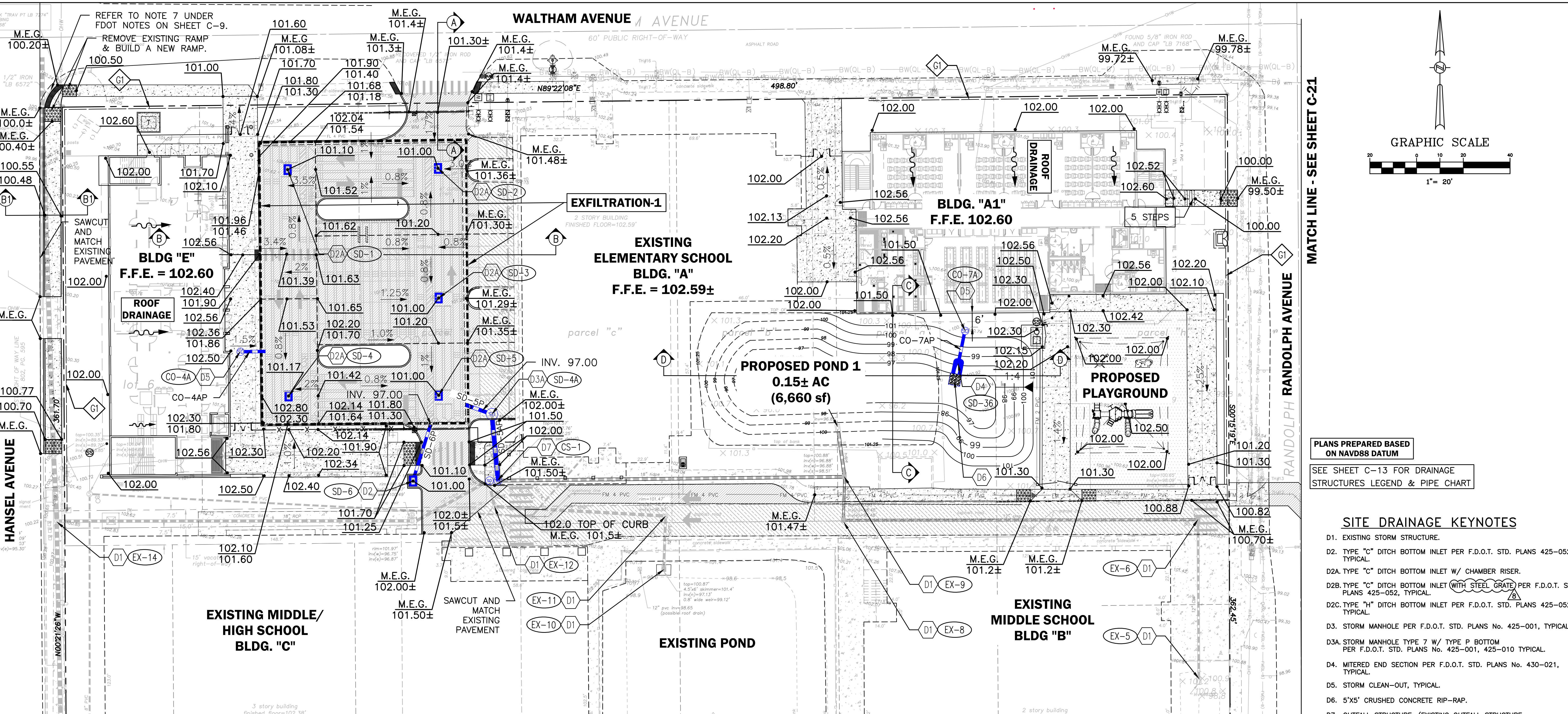
**SITE GEOMETRY (4 OF 4)**

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

|                       |
|-----------------------|
| PROJECT NO.<br>22-010 |
| SCALE<br>1" = 20'     |
| DATE<br>JUNE 23, 2023 |
| SHEET NO.<br>C-18     |
| SHEET<br>18 OF 50     |



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MATCH LINE - SEE SHEET C-21

PLANS PREPARED BASED ON NAVD88 DATUM  
SEE SHEET C-13 FOR DRAINAGE STRUCTURES LEGEND & PIPE CHART

**SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET (WITH STEEL GRATE) PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. 5'x5' CRUSHED CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE. (EXISTING OUTFALL STRUCTURE TO BE REMOVED AND REPLACED WITH NEW ONE)

**GRADING KEYNOTES**

- G1. SILT FENCE EROSION CONTROL BARRIER, TYPICAL.
- G2. MATCH EXISTING PAVEMENT GRADE.

**LEGEND:**

|  |                      |
|--|----------------------|
|  | SEAL COAT & RESTRIPE |
|  | NEW ASPHALT PAVEMENT |
|  | CONCRETE PAVEMENT    |
|  | BRICK PAVER PAVEMENT |

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
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| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

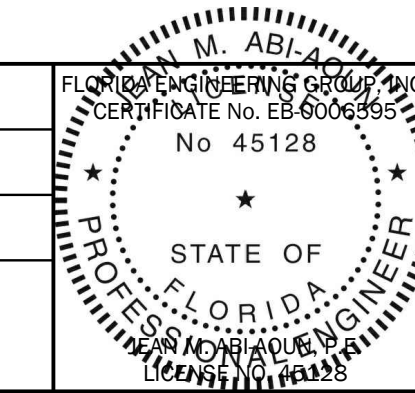


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SITE PAVING, GRADING AND DRAINAGE (1 OF 4)

|                 |             |                |                 |
|-----------------|-------------|----------------|-----------------|
| DESIGNED BY JAA | DRAWN BY VP | CHECKED BY JAA | APPROVED BY JAA |
|-----------------|-------------|----------------|-----------------|

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 20'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-19          |
| SHEET       | 19 OF 50      |



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22-010\_SitePGDPlan.dwg

MATCH LINE - SEE SHEET C-19

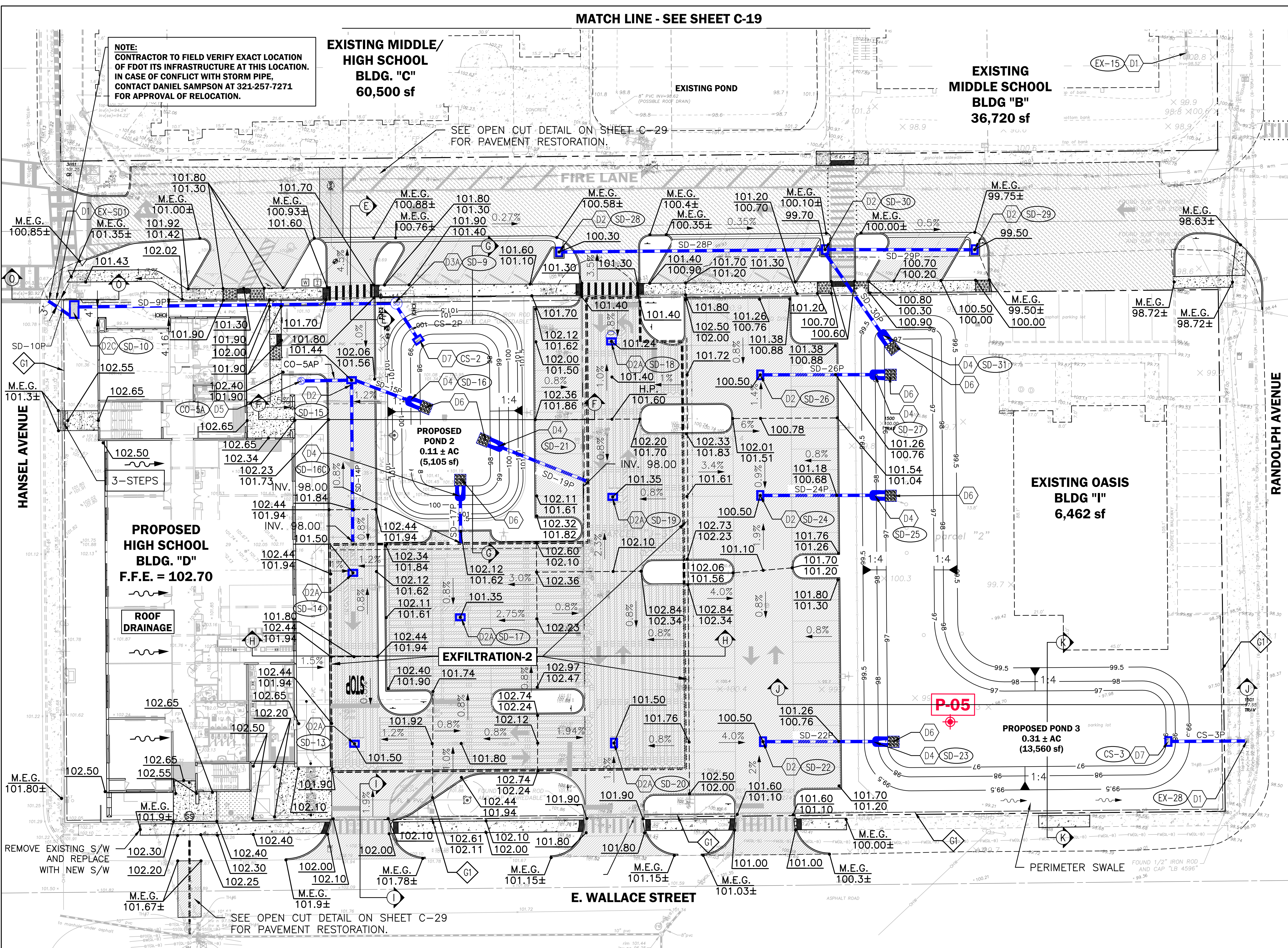
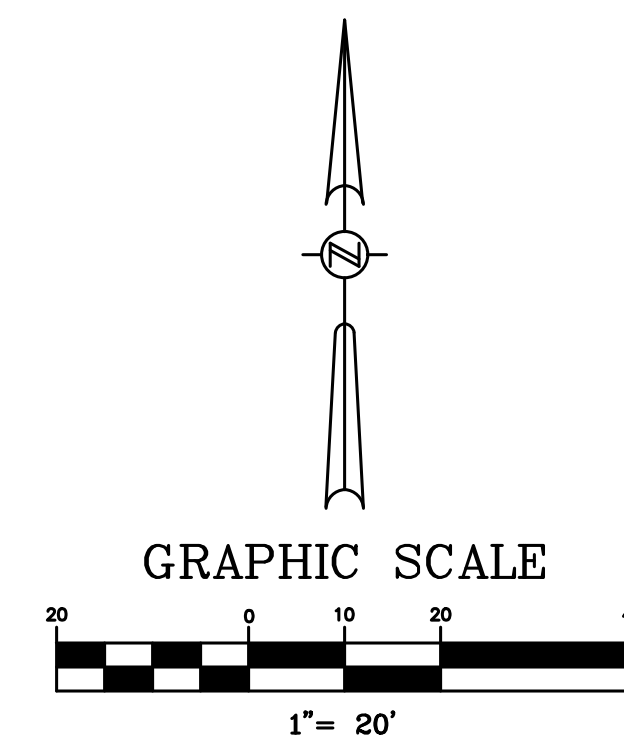
NOTE: CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF FDOT ITS INFRASTRUCTURE AT THIS LOCATION. IN CASE OF CONFLICT WITH STORM PIPE, CONTACT DANIEL SAMPSON AT 321-257-7271 FOR APPROVAL OF RELOCATION.

EXISTING MIDDLE/ HIGH SCHOOL BLDG. "C" 60,500 sf

EXISTING POND

EXISTING MIDDLE SCHOOL BLDG "B" 36,720 sf

SEE OPEN CUT DETAIL ON SHEET C-29 FOR PAVEMENT RESTORATION.



MATCH LINE - SEE SHEET C-21

SITE DRAINAGE KEYNOTES

- D1. EXISTING STORM STRUCTURE.
D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
D2B. TYPE "C" DITCH BOTTOM INLET (WITH STEEL GRATE) PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
D5. STORM CLEAN-OUT, TYPICAL.
D6. 5'X5' CRUSHED CONCRETE RIP-RAP.
D7. OUTFALL STRUCTURE. (EXISTING OUTFALL STRUCTURE TO BE REMOVED AND REPLACED WITH NEW ONE)

GRADING KEYNOTES

- G1. SILT FENCE EROSION CONTROL BARRIER, TYPICAL.
G2. MATCH EXISTING PAVEMENT GRADE.

PLANS PREPARED BASED ON NAVD8S DATUM
SEE SHEET C-13 FOR DRAINAGE STRUCTURES LEGEND & PIPE CHART

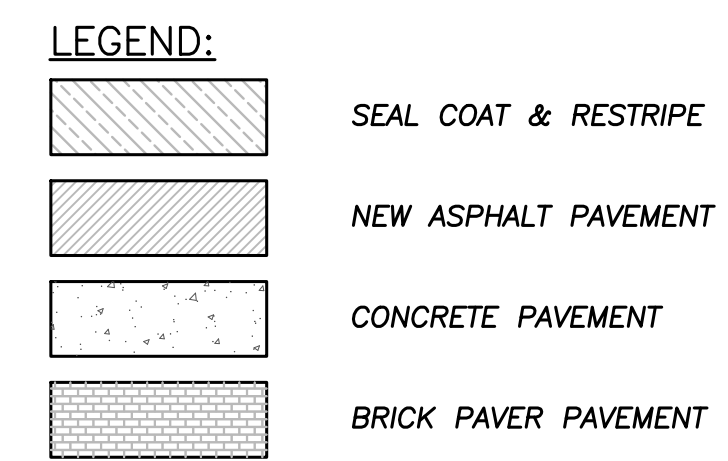


Table with 4 columns: DATE, REVISIONS, BY, CHECKED. Contains revision history from 08/14/2023 to 10/09/2023.

CORNERSTONE CHARTER ACADEMY CONSTRUCTION PLANS CITY OF BELLE ISLE, FLORIDA

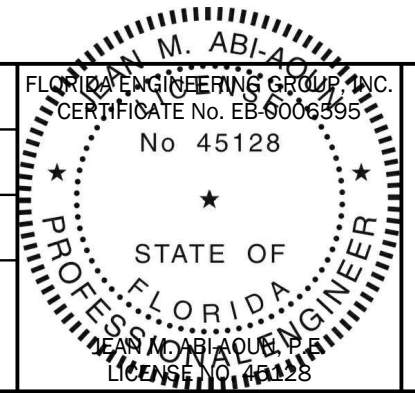


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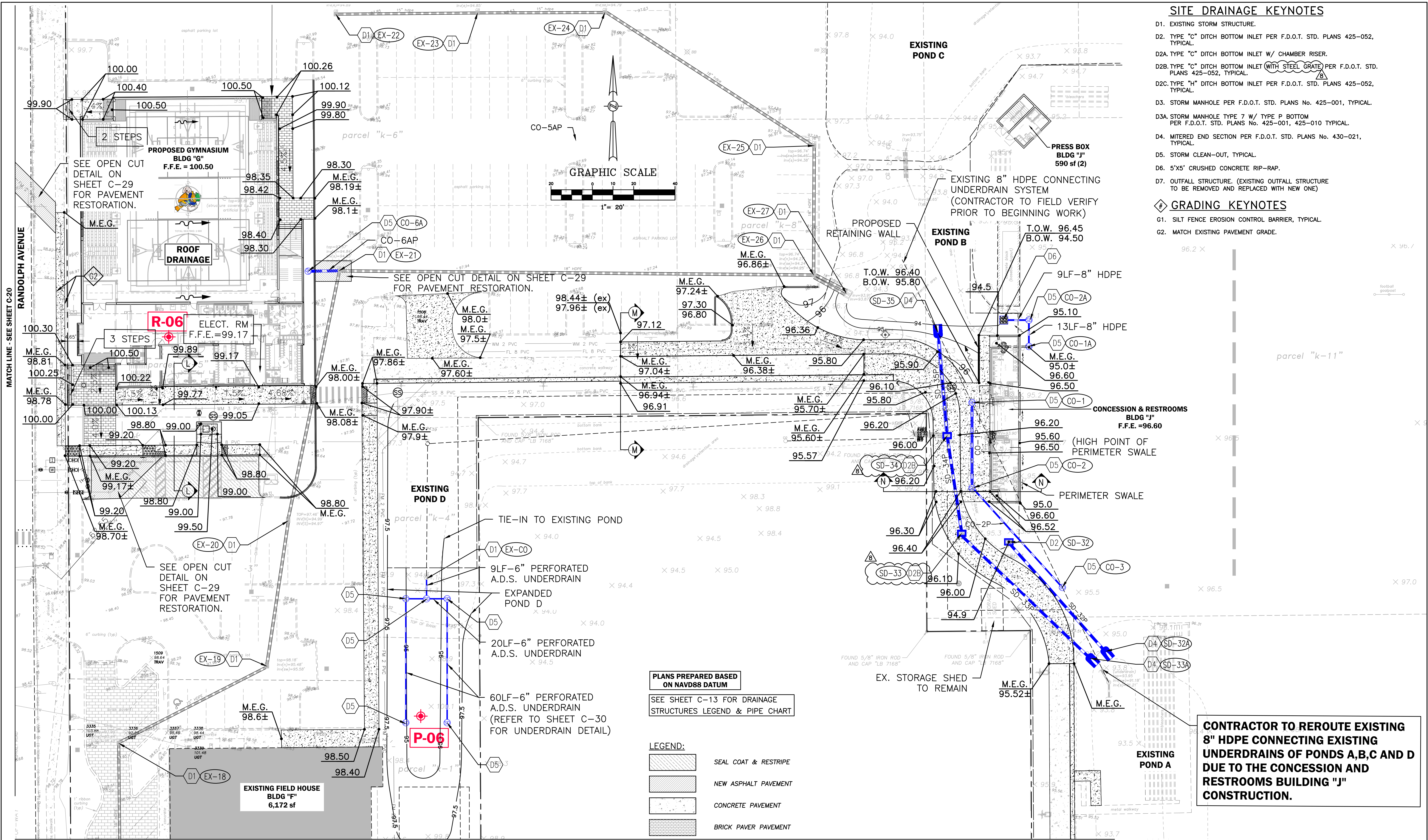
SITE PAVING, GRADING AND DRAINAGE (2 OF 4)

Table with 4 columns: DESIGNED BY (JAA), DRAWN BY (VP), CHECKED BY (JAA), APPROVED BY (JAA)

PROJECT NO. 22-010 SCALE 1"=20' DATE JUNE 23, 2023 SHEET NO. C-20 SHEET 20 OF 50



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**SITE DRAINAGE KEYNOTES**

- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET (WITH STEEL GRATE) PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
- D4. MITERED END SECTION PER F.D.O.T. STD. PLANS No. 430-021, TYPICAL.
- D5. STORM CLEAN-OUT, TYPICAL.
- D6. 5'X5' CRUSHED CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE. (EXISTING OUTFALL STRUCTURE TO BE REMOVED AND REPLACED WITH NEW ONE)

**GRADING KEYNOTES**

- G1. SILT FENCE EROSION CONTROL BARRIER, TYPICAL.
- G2. MATCH EXISTING PAVEMENT GRADE.

**PLANS PREPARED BASED ON NAVD88 DATUM**  
 SEE SHEET C-13 FOR DRAINAGE STRUCTURES LEGEND & PIPE CHART

**LEGEND:**

|  |                      |
|--|----------------------|
|  | SEAL COAT & RESTRIPE |
|  | NEW ASPHALT PAVEMENT |
|  | CONCRETE PAVEMENT    |
|  | BRICK PAVER PAVEMENT |

**CONTRACTOR TO REROUTE EXISTING 8" HDPE CONNECTING EXISTING UNDERDRAINS OF PONDS A, B, C AND D DUE TO THE CONCESSION AND RESTROOMS BUILDING "J" CONSTRUCTION.**

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

**CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA**

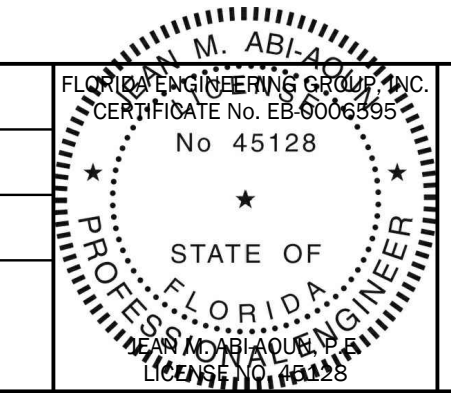


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**SITE PAVING, GRADING AND DRAINAGE  
 (3 OF 4)**

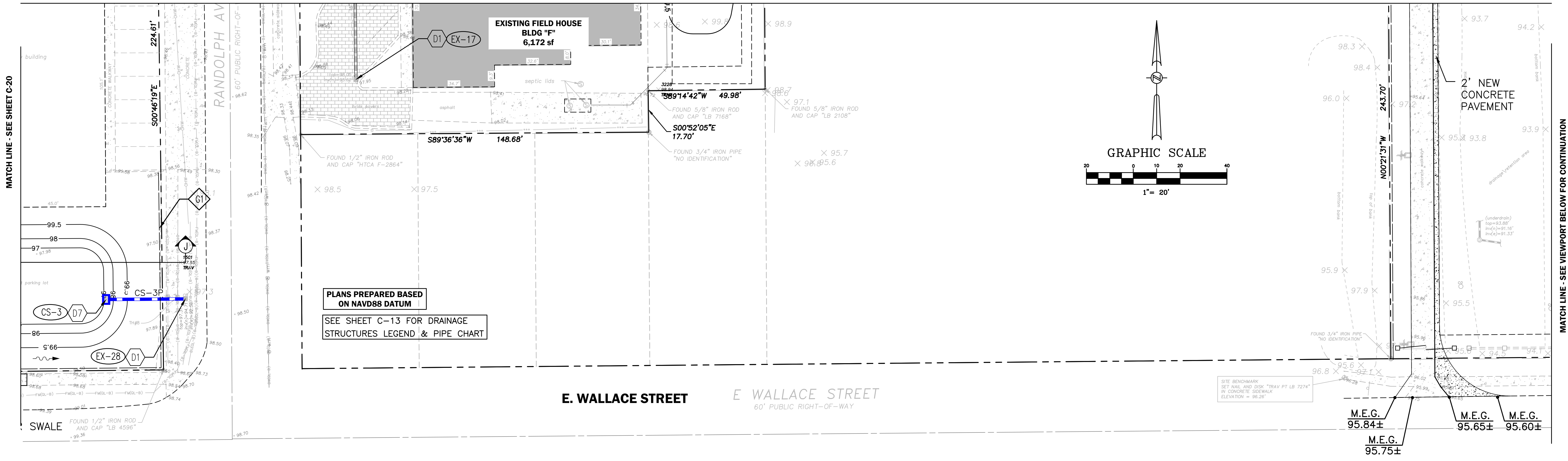
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|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 20'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-21          |
| SHEET       | 21 OF 50      |



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MATCH LINE - SEE SHEET C-21



**SITE DRAINAGE KEYNOTES**

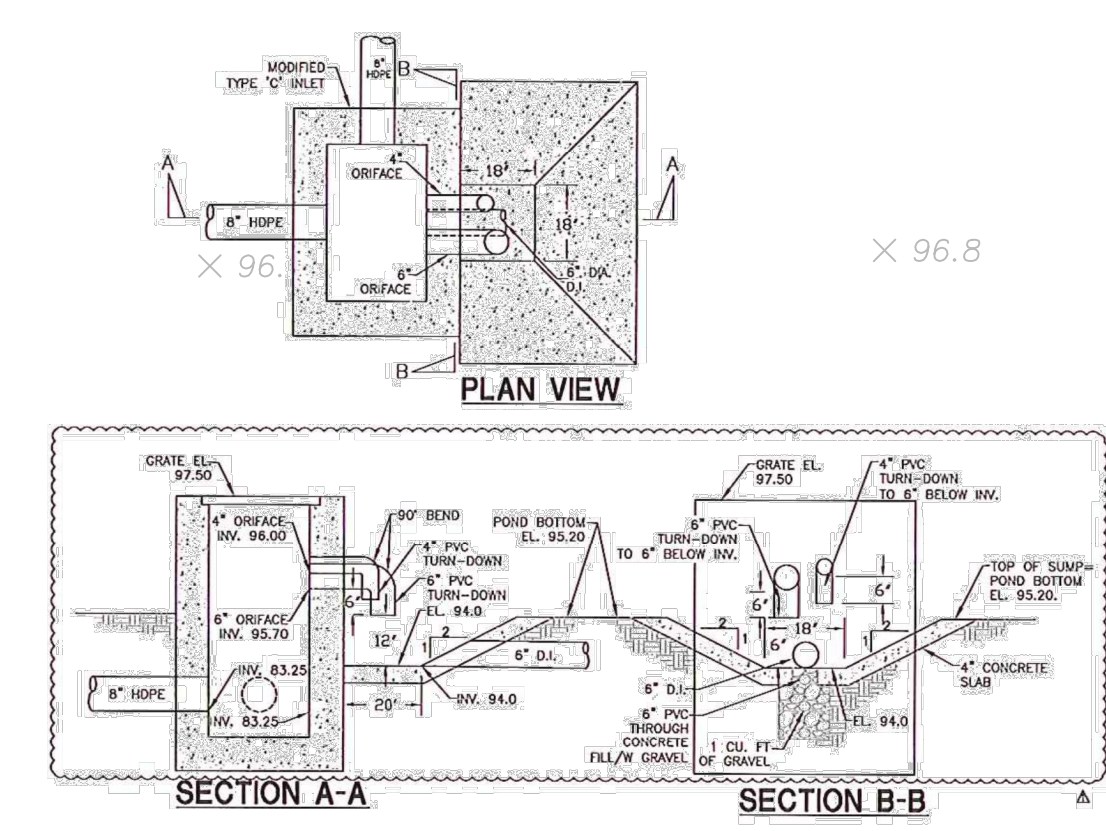
- D1. EXISTING STORM STRUCTURE.
- D2. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2A. TYPE "C" DITCH BOTTOM INLET W/ CHAMBER RISER.
- D2B. TYPE "C" DITCH BOTTOM INLET (WITH STEEL GRATE) PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D2C. TYPE "H" DITCH BOTTOM INLET PER F.D.O.T. STD. PLANS 425-052, TYPICAL.
- D3. STORM MANHOLE PER F.D.O.T. STD. PLANS No. 425-001, TYPICAL.
- D3A. STORM MANHOLE TYPE 7 W/ TYPE P BOTTOM PER F.D.O.T. STD. PLANS No. 425-001, 425-010 TYPICAL.
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- D6. 5'X5' CRUSHED CONCRETE RIP-RAP.
- D7. OUTFALL STRUCTURE. (EXISTING OUTFALL STRUCTURE TO BE REMOVED AND REPLACED WITH NEW ONE)

**GRADING KEYNOTES**

- G1. SILT FENCE EROSION CONTROL BARRIER, TYPICAL.
- G2. MATCH EXISTING PAVEMENT GRADE.

**LEGEND:**

|  |                      |
|--|----------------------|
|  | SEAL COAT & RESTRIPE |
|  | NEW ASPHALT PAVEMENT |
|  | CONCRETE PAVEMENT    |
|  | BRICK PAVER PAVEMENT |

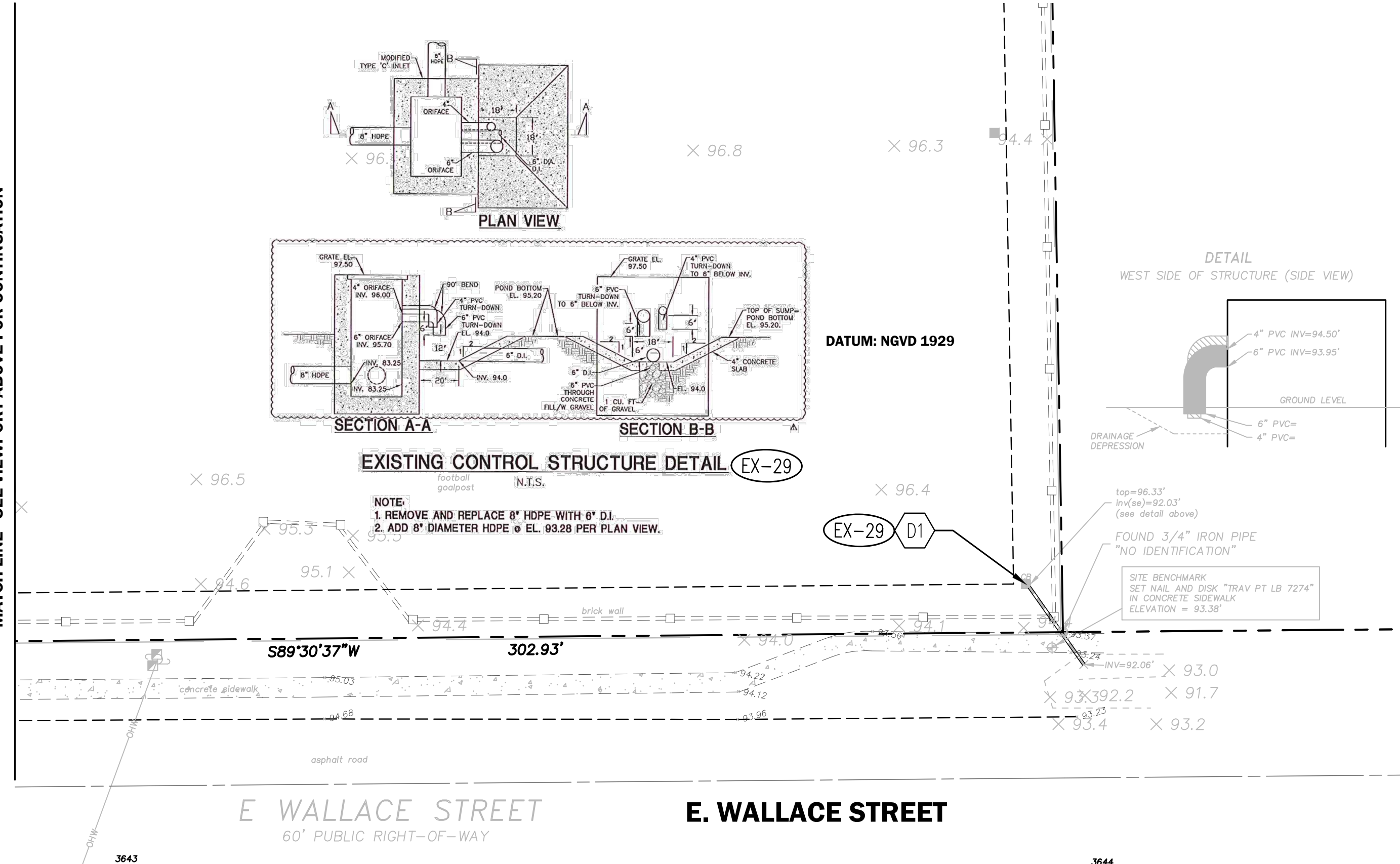


EXISTING CONTROL STRUCTURE DETAIL (EX-29)

NOTE:  
1. REMOVE AND REPLACE 8" HOPE WITH 8" D.I.  
2. ADD 8" DIAMETER HOPE @ EL. 93.28 PER PLAN VIEW.

DATUM: NGVD 1929

MATCH LINE - SEE VIEWPORT ABOVE FOR CONTINUATION



MATCH LINE - SEE VIEWPORT BELOW FOR CONTINUATION

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
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**CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA**

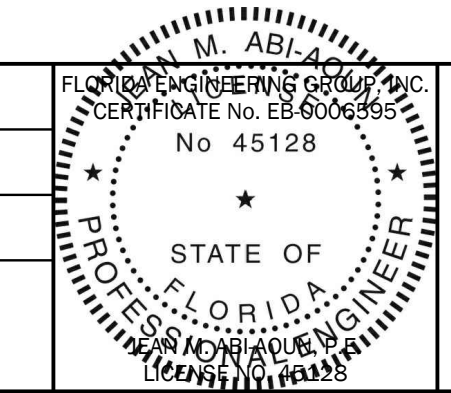


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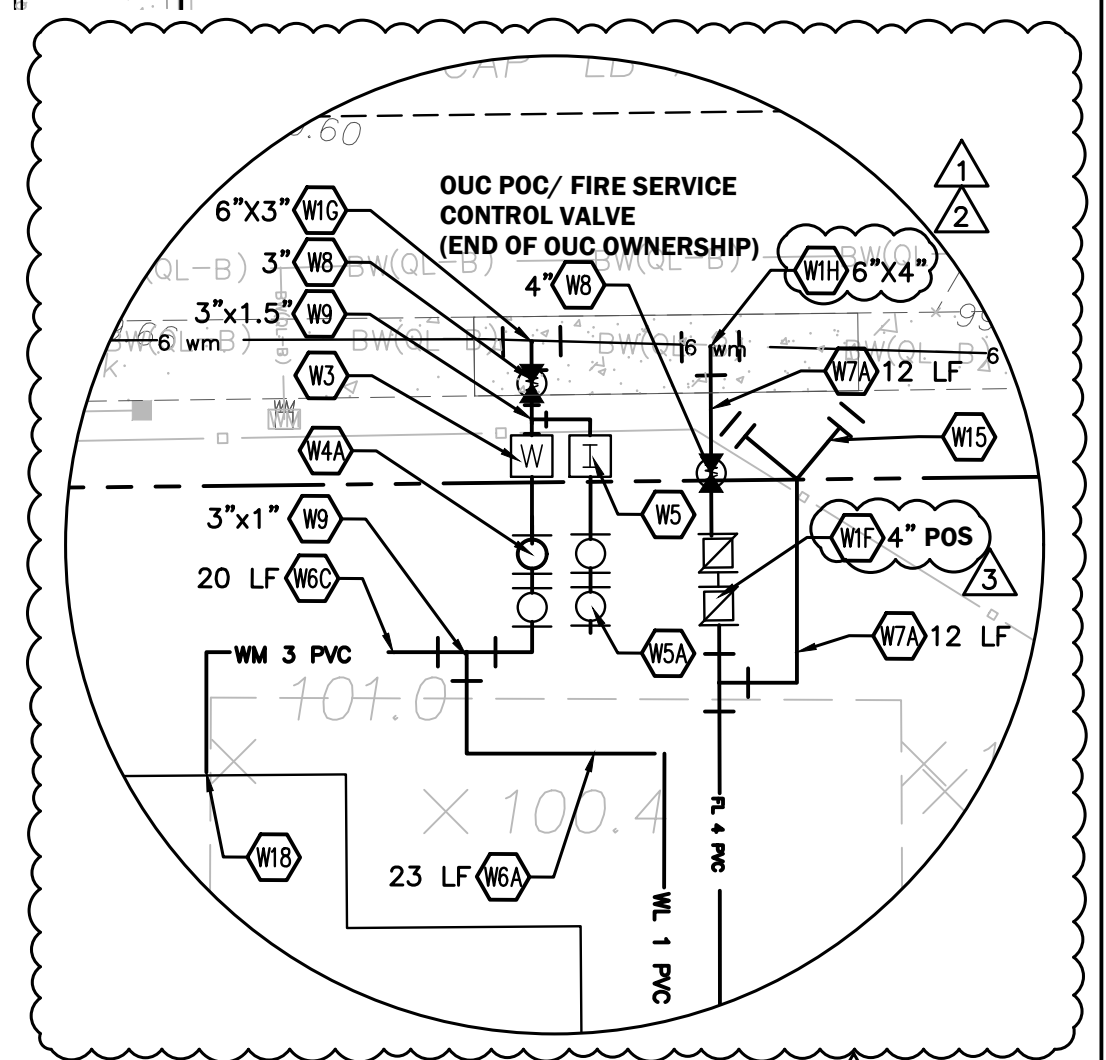
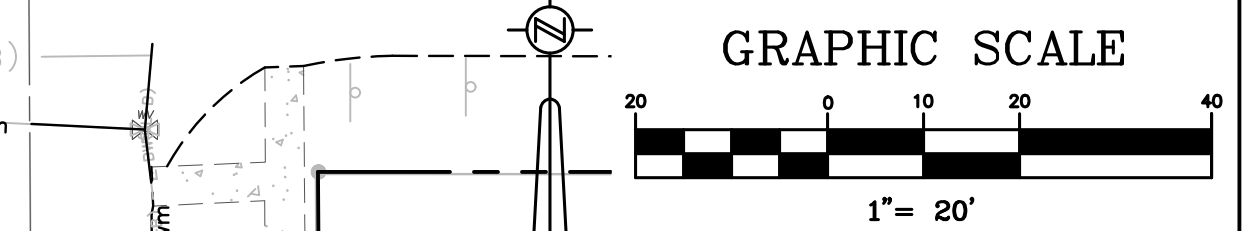
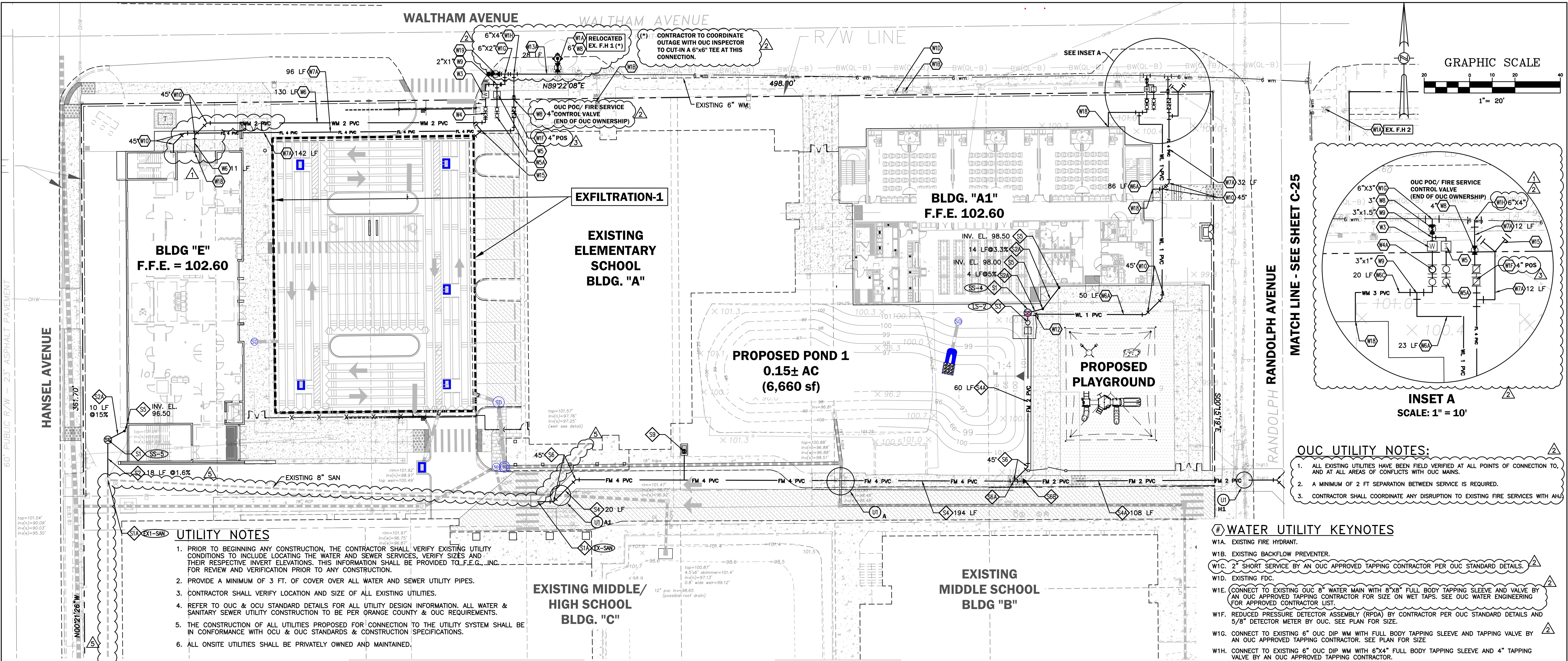
**SITE PAVING, GRADING AND DRAINAGE  
(4 OF 4)**

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

|                       |                   |
|-----------------------|-------------------|
| PROJECT NO.<br>22-010 | SCALE<br>1" = 20' |
| DATE<br>JUNE 23, 2023 | SHEET NO.<br>C-22 |
| SHEET 22 OF 50        |                   |



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- OUO UTILITY NOTES:**
- ALL EXISTING UTILITIES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICTS WITH OUO MAINS.
  - A MINIMUM OF 2 FT SEPARATION BETWEEN SERVICE IS REQUIRED.
  - CONTRACTOR SHALL COORDINATE ANY DISRUPTION TO EXISTING FIRE SERVICES WITH AFD.

- UTILITY NOTES**
- PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING UTILITY CONDITIONS TO INCLUDE LOCATING THE WATER AND SEWER SERVICES, VERIFY SIZES AND THEIR RESPECTIVE INVERT ELEVATIONS. THIS INFORMATION SHALL BE PROVIDED TO F.E.C., INC. FOR REVIEW AND VERIFICATION PRIOR TO ANY CONSTRUCTION.
  - PROVIDE A MINIMUM OF 3 FT. OF COVER OVER ALL WATER AND SEWER UTILITY PIPES.
  - CONTRACTOR SHALL VERIFY LOCATION AND SIZE OF ALL EXISTING UTILITIES.
  - REFER TO OUO & OCU STANDARD DETAILS FOR ALL UTILITY DESIGN INFORMATION. ALL WATER & SANITARY SEWER UTILITY CONSTRUCTION TO BE PER ORANGE COUNTY & OUO REQUIREMENTS.
  - THE CONSTRUCTION OF ALL UTILITIES PROPOSED FOR CONNECTION TO THE UTILITY SYSTEM SHALL BE IN CONFORMANCE WITH OUO & OUC STANDARDS & CONSTRUCTION SPECIFICATIONS.
  - ALL ONSITE UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.

- WATER UTILITY KEYNOTES**
- W1A. EXISTING FIRE HYDRANT.
  - W1B. EXISTING BACKFLOW PREVENTER.
  - W1C. 2" SHORT SERVICE BY AN OUO APPROVED TAPPING CONTRACTOR PER OUO STANDARD DETAILS.
  - W1D. EXISTING FDC.
  - W1E. CONNECT TO EXISTING OUO 8" WATER MAIN WITH 8"x8" FULL BODY TAPPING SLEEVE AND VALVE BY AN OUO APPROVED TAPPING CONTRACTOR FOR SIZE ON WET TAPS. SEE OUO WATER ENGINEERING FOR APPROVED CONTRACTOR LIST.
  - W1F. REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) BY CONTRACTOR PER OUO STANDARD DETAILS AND 5/8" DETECTOR METER BY OUO. SEE PLAN FOR SIZE.
  - W1G. CONNECT TO EXISTING 6" OUO DIP WM WITH FULL BODY TAPPING SLEEVE AND TAPPING VALVE BY AN OUO APPROVED TAPPING CONTRACTOR. SEE PLAN FOR SIZE.
  - W1H. CONNECT TO EXISTING 6" OUO DIP WM WITH 6"x4" FULL BODY TAPPING SLEEVE AND 4" TAPPING VALVE BY AN OUO APPROVED TAPPING CONTRACTOR.
  - W2. CONNECT TO EXISTING 8" OUO DIP WM WITH 8"x3" FULL BODY TAPPING SLEEVE AND 3" TAPPING VALVE BY AN OUO APPROVED TAPPING CONTRACTOR.
  - W3. 2" WATER METER TO BE PROVIDED BY OUO. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
  - W4. 2" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
  - W4A. 3" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
  - W5. 1" IRRIGATION METER TO BE PROVIDED BY OUO. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
  - W5A. 1 1/2" IRRIGATION WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
  - W5B. 1 1/2" CLASS 200, SDR 21 PVC IRRIGATION MAIN. SEE PLAN FOR LENGTH.
  - W6. 2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W6A. 1" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W6B. 2 1/2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W6C. 3" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W7. 8" PVC C-900 DR-18 WATER LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
  - W7A. 4" PVC C-900 DR-14 FIRE LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
  - W7B. 8" DIP WATER MAIN PER OUO STANDARDS. SEE PLAN FOR LENGTH.
  - W8. GATE VALVE. SEE PLAN FOR SIZE, TYPICAL.
  - W9. TEE. SEE PLAN FOR SIZE, TYPICAL.
  - W10. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
  - W11. REDUCER. SEE PLAN FOR SIZE.
  - W12. HOSE BIB.

- WATER UTILITY KEYNOTES (CONT.):**
- W13. 6" PVC C-900 DR-18 WATER LINE. SEE PLAN FOR LENGTH.
  - W13A. 6" D.I.P WATER MAIN. SEE PLAN FOR LENGTH.
  - W14. FIRE HYDRANT ASSEMBLY PER OUC STANDARD DETAIL. TYPICAL, UNLESS NOTED OTHERWISE. FIRE HYDRANTS TO HAVE 7.5' MIN. CLEARANCE ON FRONT & SIDES AND 4' MIN. CLEARANCE ON REAR SIDE.
  - W15. FIRE DEPARTMENT CONNECTION.
  - W16. CHECK VALVE. SEE PLAN FOR SIZE.
  - W17. POST INDICATOR VALVE. SEE PLAN FOR SIZE.
  - W18. COORDINATE CONTINUATION WITH PLUMBING AND ARCHITECTURAL PLANS.
  - W19. PERMANENT BLOW-OFF PER OUO STANDARD.

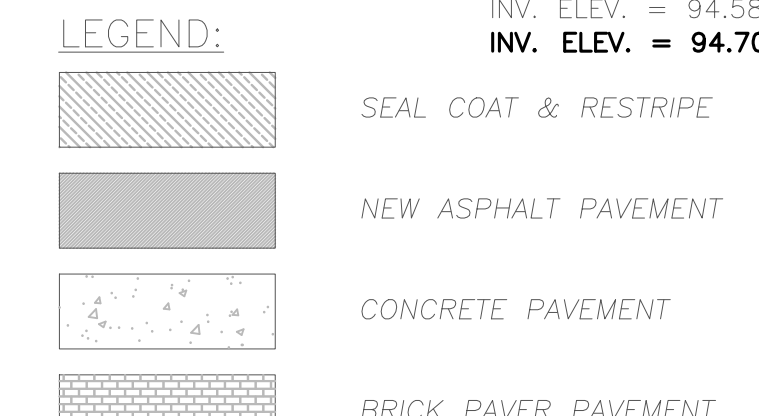
- SPECIFIC SANITARY NOTES:**
- INVERT CHANNEL AND BENCH OF THE MANHOLE INTO WHICH CONNECTIONS WILL BE MADE SHALL BE REWORKED TO PROVIDE A SMOOTH CHANNELIZED FLOW. FILL IN CHANNELS THAT WILL NOT BE USED AS A RESULT OF EXISTING SEWER PIPE REMOVAL.
  - ALL PLUMBING WORK SHALL EXTENDED TO 5FT. OUTSIDE OF THE BUILDING AND IS TO BE COORDINATED BETWEEN SITE AND BUILDING/ PLUMBING CONTRACTOR AS TO SIZE, LOCATION AND DEPTH BEFORE BEGINNING WORK.
  - THE GRAVITY SANITARY SEWER MAINS SHALL BE LAID AT CONSTANT SLOPE FROM MANHOLE TO MANHOLE.

**SANITARY SEWER STRUCTURE LEGEND**

- SS-4 SANITARY SEWER MANHOLE (DROP MANHOLE)  
TOP ELEV. = 102.50  
INV. ELEV. = 97.13 W (FUTURE CONNECTION)  
INV. ELEV. = 97.03 S  
INV. ELEV. = 97.80 NE
- LS-2 LIFT STATION  
TOP ELEV. = 102.30  
INV. ELEV. = 96.50 E
- EX1-SAN EXISTING SANITARY SEWER  
TOP ELEV. = 101.04  
INV. ELEV. = 94.60 E  
INV. ELEV. = 94.58 S  
INV. ELEV. = 94.70 N (CORE DRILL)
- SS-5 SANITARY SEWER MANHOLE  
TOP ELEV. = 101.00  
INV. ELEV. = 95.00 S

**SANITARY SEWER UTILITY KEYNOTES**

- S1. SANITARY SEWER MANHOLE (ALL SANITARY MANHOLES ARE PRIVATE).
- S1A. EXISTING SANITARY SEWER MANHOLE.
- S2. 8" PVC ASTM D3034 SDR26 SANITARY MAIN @ MIN. 0.4% SLOPE.
- S2A. 6" PVC ASTM D3034 SDR26 SANITARY LATERAL.
- S3. PRIVATE SANITARY LIFT STATION. REFER TO SHEETS C-35 & C-36 FOR DETAILS.
- S4. 4" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S4A. 2" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S5. SANITARY CLEANOUT TOP ELEVATION TO MATCH PROPOSED GRADE. SEE PLANS FOR INVERT.
- S6. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
- S6A. 2"x4" WYE CONNECTION.
- S6B. 2"x4" REDUCER.
- S7. GREASE INTERCEPTOR (SEE SHEET C-30 FOR DETAILS).
- S8. EXISTING SANITARY PUMP. CONTRACTOR TO VERIFY.
- S9. 1" AIR RELEASE VALVE.



| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
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CITY OF BELLE ISLE, FLORIDA



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**SITE UTILITY PLAN (1 OF 4)**

|             |          |            |             |
|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 20'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-23          |
| SHEET       | 23 OF 50      |

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22-010\_SiteUtilityPlan.dwg

MATCH LINE - SEE SHEET C-23

EXISTING MIDDLE/  
HIGH SCHOOL  
BLDG. "C"

EXISTING POND

EXISTING  
MIDDLE SCHOOL  
BLDG "B"

**◇ SANITARY SEWER UTILITY KEYNOTES**

- S1. SANITARY SEWER MANHOLE (ALL SANITARY MANHOLES ARE PRIVATE).
- S1A. EXISTING SANITARY SEWER MANHOLE.
- S2. 8" PVC ASTM D3034 SDR26 SANITARY MAIN @ MIN. 0.4% SLOPE.
- S2A. 6" PVC ASTM D3034 SDR26 SANITARY LATERAL.
- S3. PRIVATE SANITARY LIFT STATION. REFER TO SHEETS C-35 & C-36 FOR DETAILS.
- S4. 4" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S4A. 2" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S5. SANITARY CLEANOUT TOP ELEVATION TO MATCH PROPOSED GRADE. SEE PLANS FOR INVERT.
- S6. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
- S6A. 2"x4" WYE CONNECTION.
- S6B. 2"x4" REDUCER.
- S7. GREASE INTERCEPTOR (SEE SHEET C-30 FOR DETAILS).
- S8. EXISTING SANITARY PUMP. CONTRACTOR TO VERIFY.
- S9. 1" AIR RELEASE VALVE.

**⊕ UTILITY KEYNOTES**

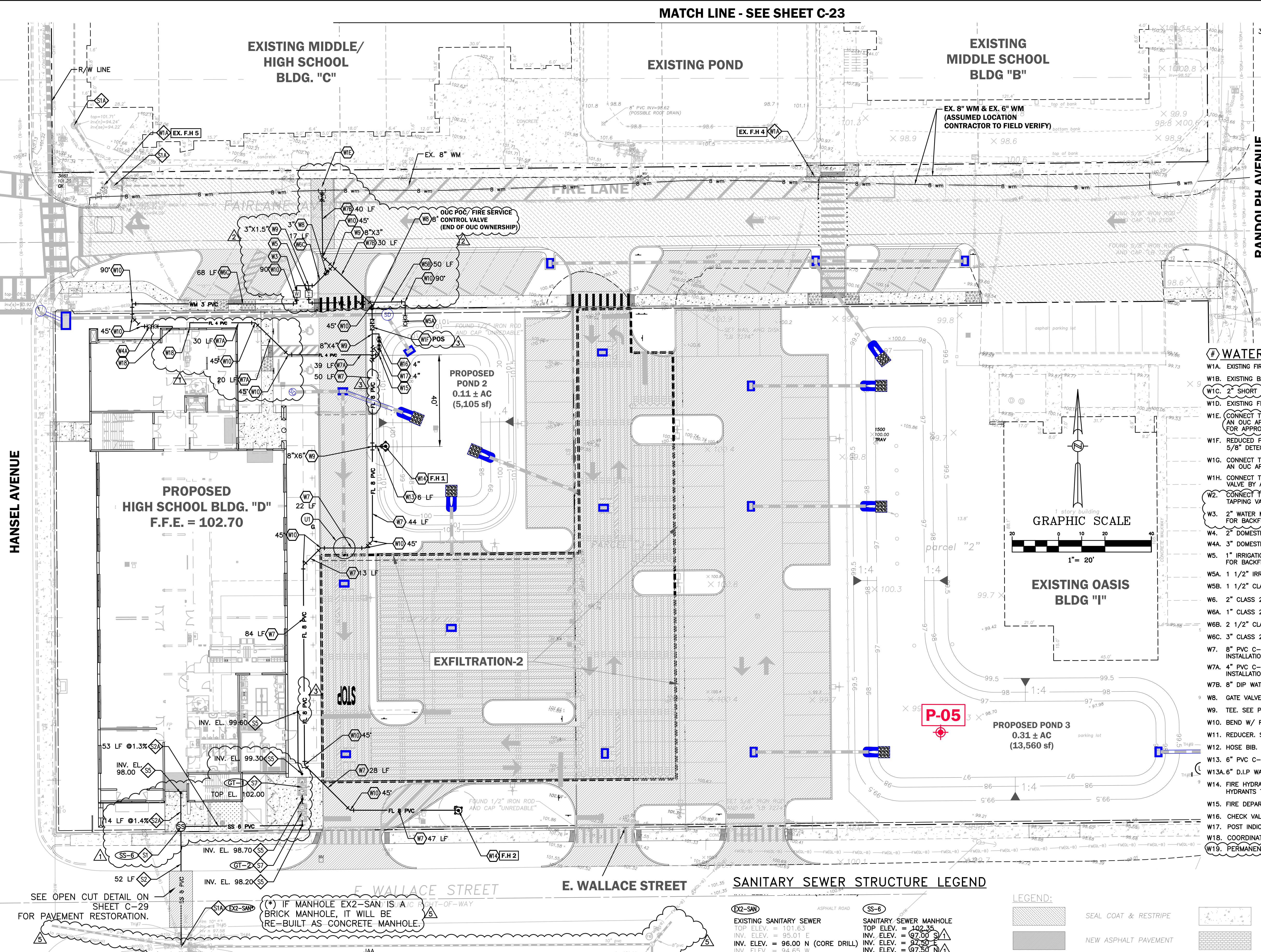
- U1. UTILITY CROSSING TO BE DENOTED BY LETTER AND SHOWN ON SHEETS C-26.

**⊕ WATER UTILITY KEYNOTES**

- W1A. EXISTING FIRE HYDRANT.
- W1B. EXISTING BACKFLOW PREVENTER.
- W1C. 2" SHORT SERVICE BY AN OUC APPROVED TAPPING CONTRACTOR PER OUC STANDARD DETAILS.
- W1D. EXISTING FDC.
- W1E. CONNECT TO EXISTING OUC 8" WATER MAIN WITH 8"x8" FULL BODY TAPPING SLEEVE AND VALVE BY AN OUC APPROVED TAPPING CONTRACTOR FOR SIZE ON WET TAPS. SEE OUC WATER ENGINEERING FOR APPROVED CONTRACTOR LIST.
- W1F. REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) BY CONTRACTOR PER OUC STANDARD DETAILS AND 5/8" DETECTOR METER BY OUC. SEE PLAN FOR SIZE.
- W1G. CONNECT TO EXISTING 6" OUC DIP WM WITH FULL BODY TAPPING SLEEVE AND TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR. SEE PLAN FOR SIZE.
- W1H. CONNECT TO EXISTING 6" OUC DIP WM WITH 6"x4" FULL BODY TAPPING SLEEVE AND 4" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
- W2. CONNECT TO EXISTING 8" OUC DIP WM WITH 8"x3" FULL BODY TAPPING SLEEVE AND 3" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
- W3. 2" WATER METER TO BE PROVIDED BY OUC. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
- W4. 2" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
- W4A. 3" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
- W5. 1" IRRIGATION METER TO BE PROVIDED BY OUC. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
- W5A. 1 1/2" IRRIGATION WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
- W5B. 1 1/2" CLASS 200, SDR 21 PVC IRRIGATION MAIN. SEE PLAN FOR LENGTH.
- W6. 2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W6A. 1" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W6B. 2 1/2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W6C. 3" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
- W7. 8" PVC C-900 DR-18 WATER LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
- W7A. 4" PVC C-900 DR-14 FIRE LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
- W7B. 8" DIP WATER MAIN PER OUC STANDARDS. SEE PLAN FOR LENGTH.
- W8. GATE VALVE. SEE PLAN FOR SIZE, TYPICAL.
- W9. TEE. SEE PLAN FOR SIZE, TYPICAL.
- W10. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
- W11. REDUCER. SEE PLAN FOR SIZE.
- W12. HOSE BIB.
- W13. 6" PVC C-900 DR-18 WATER LINE. SEE PLAN FOR LENGTH.
- W13A. 6" D.I.P WATER MAIN. SEE PLAN FOR LENGTH.
- W14. FIRE HYDRANT ASSEMBLY PER OUC STANDARD DETAIL. TYPICAL, UNLESS NOTED OTHERWISE. FIRE HYDRANTS TO HAVE 7.5' MIN. CLEARANCE ON FRONT & SIDES AND 4' MIN. CLEARANCE ON REAR SIDE.
- W15. FIRE DEPARTMENT CONNECTION.
- W16. CHECK VALVE. SEE PLAN FOR SIZE.
- W17. POST INDICATOR VALVE. SEE PLAN FOR SIZE.
- W18. COORDINATE CONTINUATION WITH PLUMBING AND ARCHITECTURAL PLANS.
- W19. PERMANENT BLOW-OFF PER OUC STANDARD.

HANSEL AVENUE

RANDOLPH AVENUE  
MATCH LINE - SEE SHEET C-25



**SANITARY SEWER STRUCTURE LEGEND**

|                |                                                                                                                                    |             |                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------|
| <b>EX2-SAN</b> | EXISTING SANITARY SEWER<br>TOP ELEV. = 101.63<br>INV. ELEV. = 98.01 E<br>INV. ELEV. = 96.00 N (CORE DRILL)<br>INV. ELEV. = 94.65 W | <b>SS-6</b> | SANITARY SEWER MANHOLE<br>TOP ELEV. = 102.35<br>INV. ELEV. = 97.00 E<br>INV. ELEV. = 97.50 W<br>INV. ELEV. = 97.50 N |
|----------------|------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------|

**LEGEND:**

|  |                      |  |                      |
|--|----------------------|--|----------------------|
|  | SEAL COAT & RESTRIPE |  | CONCRETE PAVEMENT    |
|  | NEW ASPHALT PAVEMENT |  | BRICK PAVER PAVEMENT |

SEE OPEN CUT DETAIL ON SHEET C-29 FOR PAVEMENT RESTORATION.

(\* IF MANHOLE EX2-SAN IS A BRICK MANHOLE, IT WILL BE RE-BUILT AS CONCRETE MANHOLE.

| DATE       | REVISIONS                                              | BY    | CHECKED |
|------------|--------------------------------------------------------|-------|---------|
| 08/14/2023 | REVIS PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVIS PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVIS PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVIS PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVIS PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVIS PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

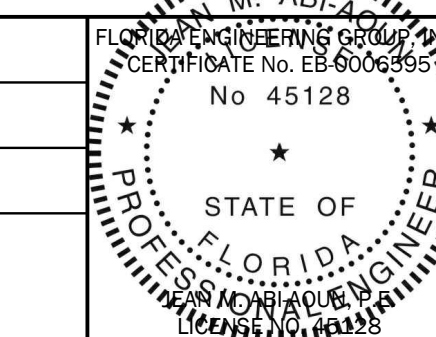


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**SITE UTILITY PLAN (2 OF 4)**

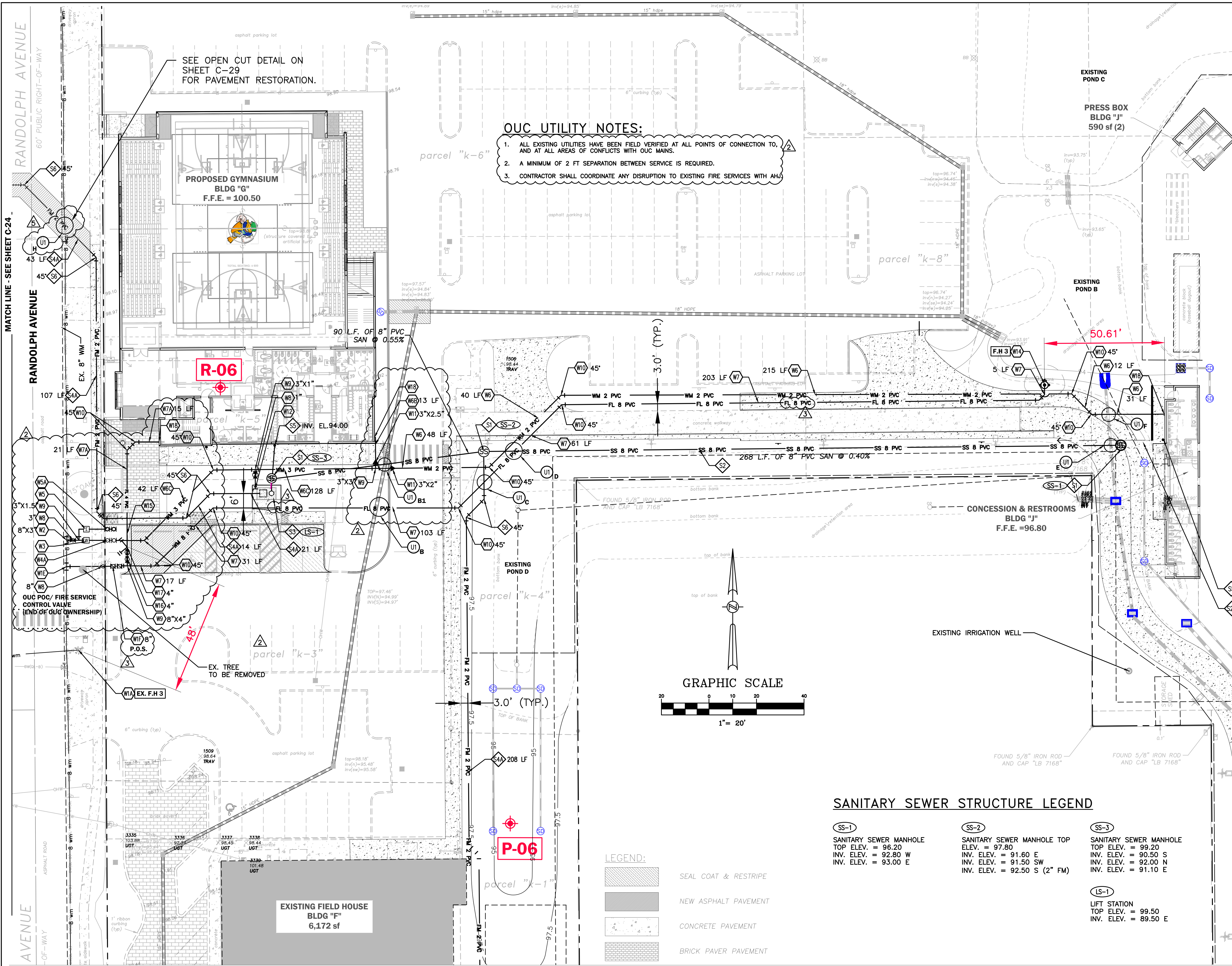
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|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 20'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-24          |
| SHEET       | 24 OF 50      |



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- ### WATER UTILITY KEYNOTES
- W1A. EXISTING FIRE HYDRANT.
  - W1B. EXISTING BACKFLOW PREVENTER.
  - W1C. 2" SHORT SERVICE BY AN OUC APPROVED TAPPING CONTRACTOR PER OUC STANDARD DETAILS.
  - W1D. EXISTING FDC.
  - W1E. CONNECT TO EXISTING OUC 8" WATER MAIN WITH 8"x8" FULL BODY TAPPING SLEEVE AND VALVE BY AN OUC APPROVED TAPPING CONTRACTOR FOR SIZE ON WET TAPS. SEE OUC WATER ENGINEERING FOR APPROVED CONTRACTOR LIST.
  - W1F. REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) BY CONTRACTOR PER OUC STANDARD DETAILS AND 5/8" DETECTOR METER BY OUC. SEE PLAN FOR SIZE.
  - W1G. CONNECT TO EXISTING 6" OUC DIP WM WITH FULL BODY TAPPING SLEEVE AND TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR. SEE PLAN FOR SIZE.
  - W1H. CONNECT TO EXISTING 6" OUC DIP WM WITH 6"x4" FULL BODY TAPPING SLEEVE AND 4" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
  - W2. CONNECT TO EXISTING 8" OUC DIP WM WITH 8"x4" FULL BODY TAPPING SLEEVE AND 3" TAPPING VALVE BY AN OUC APPROVED TAPPING CONTRACTOR.
  - W3. 2" WATER METER TO BE PROVIDED BY OUC. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
  - W4. 2" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
  - W4A. 3" DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
  - W5. 1" IRRIGATION METER TO BE PROVIDED BY OUC. DEVELOPER'S CONTRACTOR IS RESPONSIBLE FOR BACKFLOW PREVENTER AND SERVICE LINE FROM BACKFLOW PREVENTER TO BUILDING.
  - W5A. 1 1/2" IRRIGATION WATER REDUCED PRESSURE BACKFLOW PREVENTER (BY CONTRACTOR).
  - W5B. 1 1/2" CLASS 200, SDR 21 PVC IRRIGATION MAIN. SEE PLAN FOR LENGTH.
  - W6. 2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W6A. 1" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W6B. 2 1/2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W6C. 3" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. SEE PLAN FOR LENGTH.
  - W7. 8" PVC C-900 DR-18 WATER LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
  - W7A. 4" PVC C-900 DR-14 FIRE LINE. LENGTH SEE PLAN. FIRE CONSULTANT TO CONFIRM SIZE PRIOR TO INSTALLATION.
  - W7B. 8" DIP WATER MAIN PER OUC STANDARDS. SEE PLAN FOR LENGTH.
  - W8. GATE VALVE. SEE PLAN FOR SIZE, TYPICAL.
  - W9. TEE. SEE PLAN FOR SIZE, TYPICAL.
  - W10. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
  - W11. REDUCER. SEE PLAN FOR SIZE.
  - W12. HOSE BIB.
  - W13. 6" PVC C-900 DR-18 WATER LINE. SEE PLAN FOR LENGTH.
  - W13A. 6" D.I.P WATER MAIN. SEE PLAN FOR LENGTH.
  - W14. FIRE HYDRANT ASSEMBLY PER OUC STANDARD DETAIL. TYPICAL, UNLESS NOTED OTHERWISE. FIRE HYDRANTS TO HAVE 7.5' MIN. CLEARANCE ON FRONT & SIDES AND 4' MIN. CLEARANCE ON REAR SIDE.
  - W15. FIRE DEPARTMENT CONNECTION.
  - W16. CHECK VALVE. SEE PLAN FOR SIZE.
  - W17. POST INDICATOR VALVE. SEE PLAN FOR SIZE.
  - W18. COORDINATE CONTINUATION WITH PLUMBING AND ARCHITECTURAL PLANS.
  - W19. PERMANENT BLOW-OFF PER OUC STANDARD.

- ### OUC UTILITY NOTES:
1. ALL EXISTING UTILITIES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICTS WITH OUC MAINS.
  2. A MINIMUM OF 2 FT SEPARATION BETWEEN SERVICE IS REQUIRED.
  3. CONTRACTOR SHALL COORDINATE ANY DISRUPTION TO EXISTING FIRE SERVICES WITH AHA.

### SANITARY SEWER UTILITY KEYNOTES

- S1. SANITARY SEWER MANHOLE (ALL SANITARY MANHOLES ARE PRIVATE).
- S1A. EXISTING SANITARY SEWER MANHOLE.
- S2. 8" PVC ASTM D3034 SDR26 SANITARY MAIN @ MIN. 0.4% SLOPE.
- S2A. 6" PVC ASTM D3034 SDR26 SANITARY LATERAL.
- S3. PRIVATE SANITARY LIFT STATION. REFER TO SHEETS C-35 & C-36 FOR DET.
- S4. 4" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S4A. 2" PVC FORCE MAIN. FORCE MAIN SHALL HAVE A MINIMUM OF 3' OF COVER. SEE PLAN FOR LENGTHS.
- S5. SANITARY CLEANOUT TOP ELEVATION TO MATCH PROPOSED GRADE. SEE PLANS FOR INVERT.
- S6. BEND W/ RESTRAINED JOINTS, TYPICAL. SEE PLAN FOR ANGLE.
- S6A. 2"x4" WYE CONNECTION.
- S6B. 2"x4" REDUCER.
- S7. GREASE INTERCEPTOR (SEE SHEET C-30 FOR DETAILS).
- S8. EXISTING SANITARY PUMP. CONTRACTOR TO VERIFY.
- S9. 1" AIR RELEASE VALVE.

### UTILITY KEYNOTES

- U1. UTILITY CROSSING TO BE DENOTED BY LETTER AND SHOWN ON SHEETS C-26.

### SANITARY SEWER STRUCTURE LEGEND

- SS-1 SANITARY SEWER MANHOLE  
TOP ELEV. = 96.20  
INV. ELEV. = 92.80 W  
INV. ELEV. = 93.00 E
- SS-2 SANITARY SEWER MANHOLE TOP  
ELEV. = 97.80  
INV. ELEV. = 91.60 E  
INV. ELEV. = 91.50 SW  
INV. ELEV. = 92.50 S (2" FM)
- SS-3 SANITARY SEWER MANHOLE  
TOP ELEV. = 99.20  
INV. ELEV. = 90.50 S  
INV. ELEV. = 92.00 N  
INV. ELEV. = 91.10 E
- LS-1 LIFT STATION  
TOP ELEV. = 99.50  
INV. ELEV. = 89.50 E

- ### LEGEND:
- SEAL COAT & RESTRIPE
  - NEW ASPHALT PAVEMENT
  - CONCRETE PAVEMENT
  - BRICK PAVER PAVEMENT

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
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| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

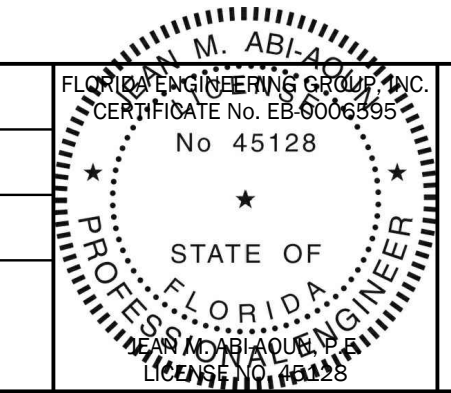


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### SITE UTILITY PLAN (3 OF 4)

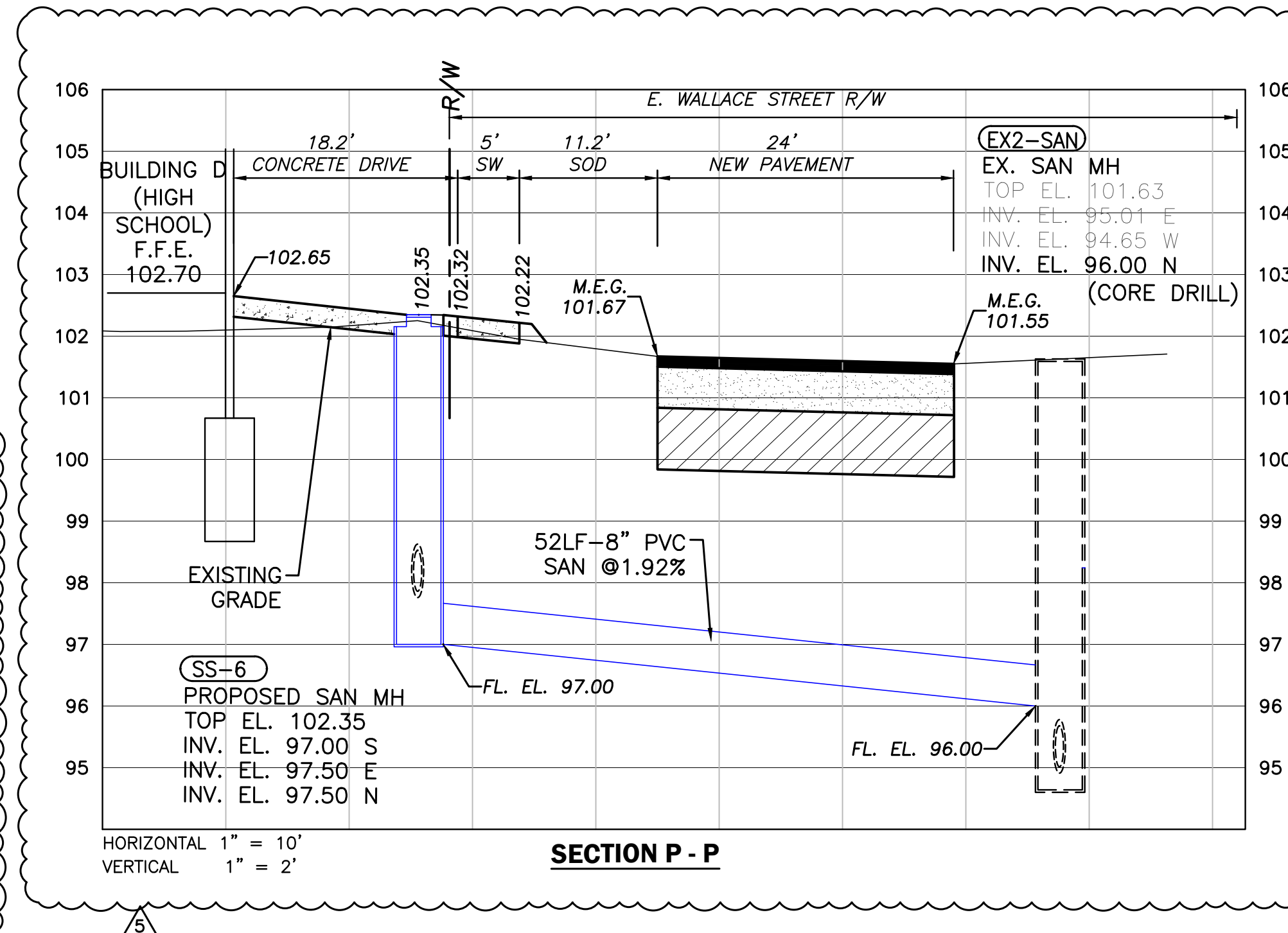
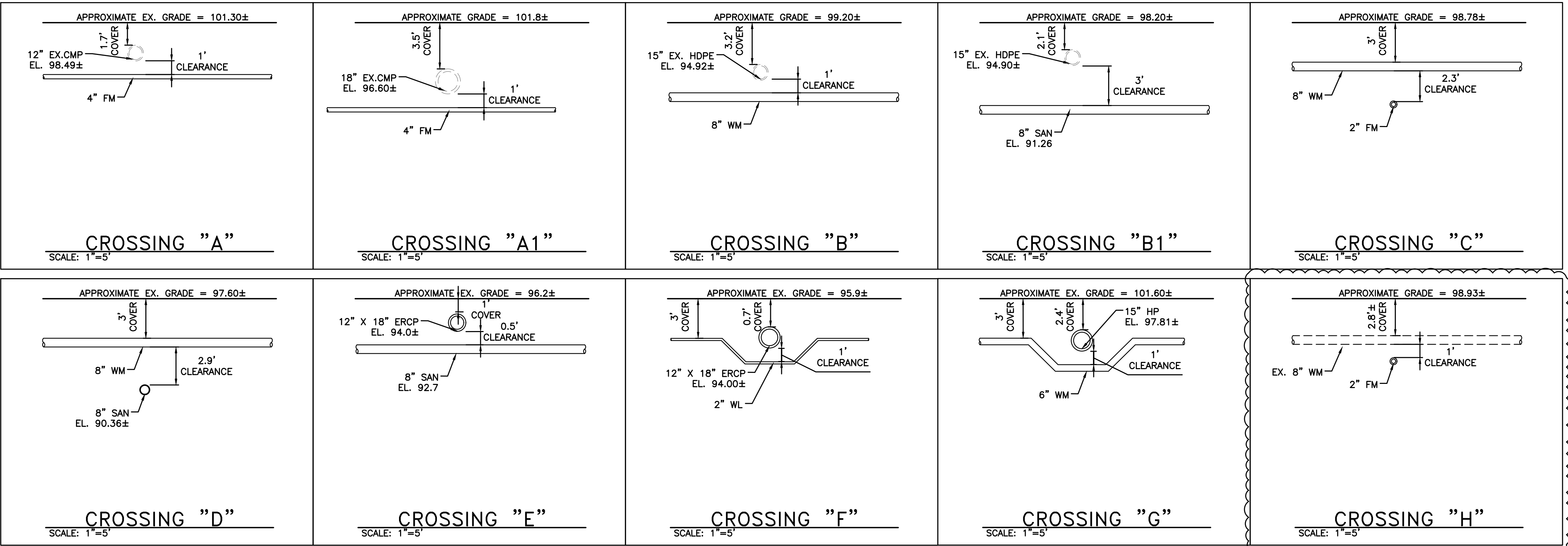
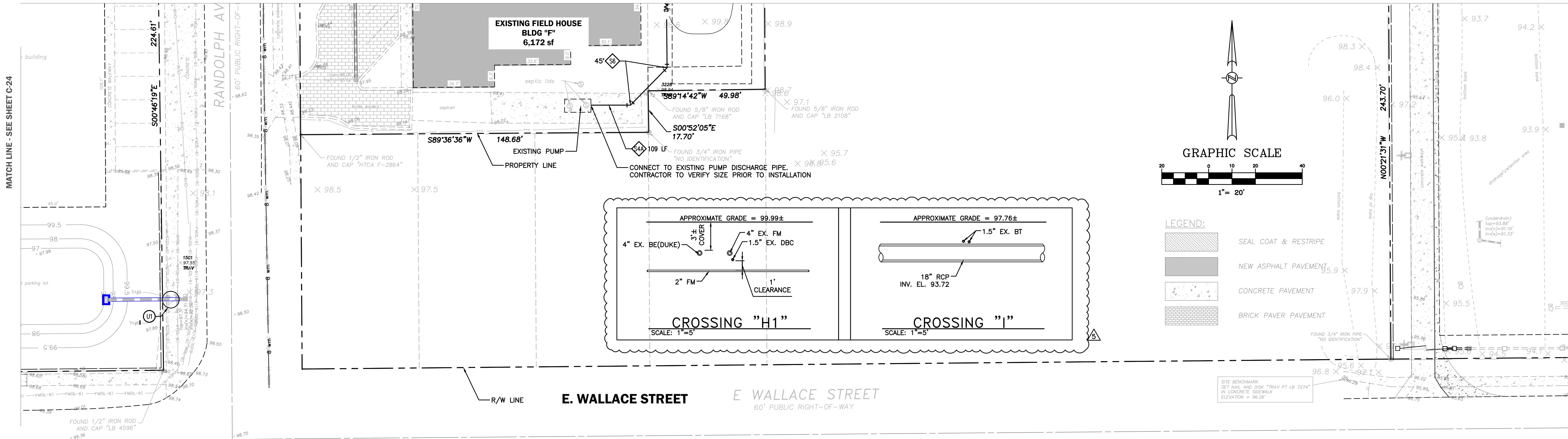
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|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 20'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-25          |
| SHEET       | 25 OF 50      |



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MATCH LINE - SEE SHEET C-25



| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
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| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

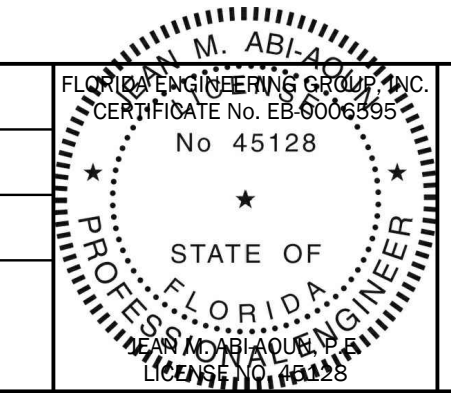


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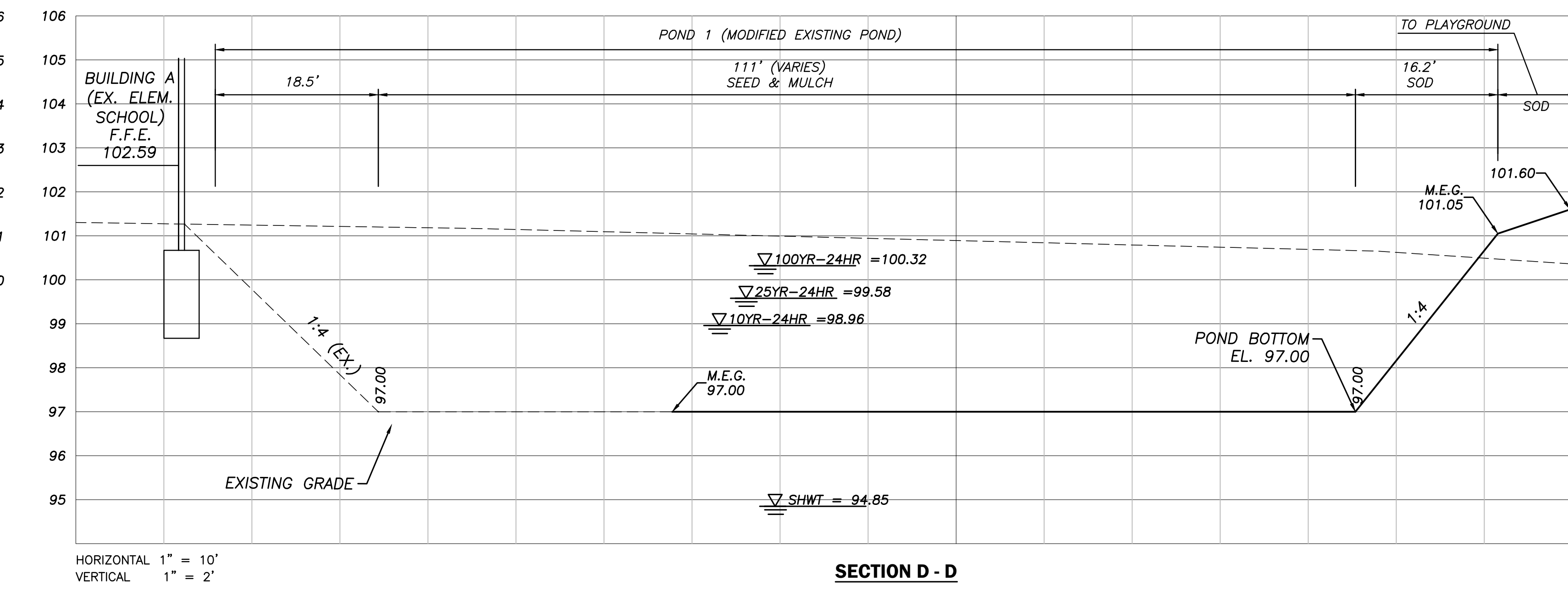
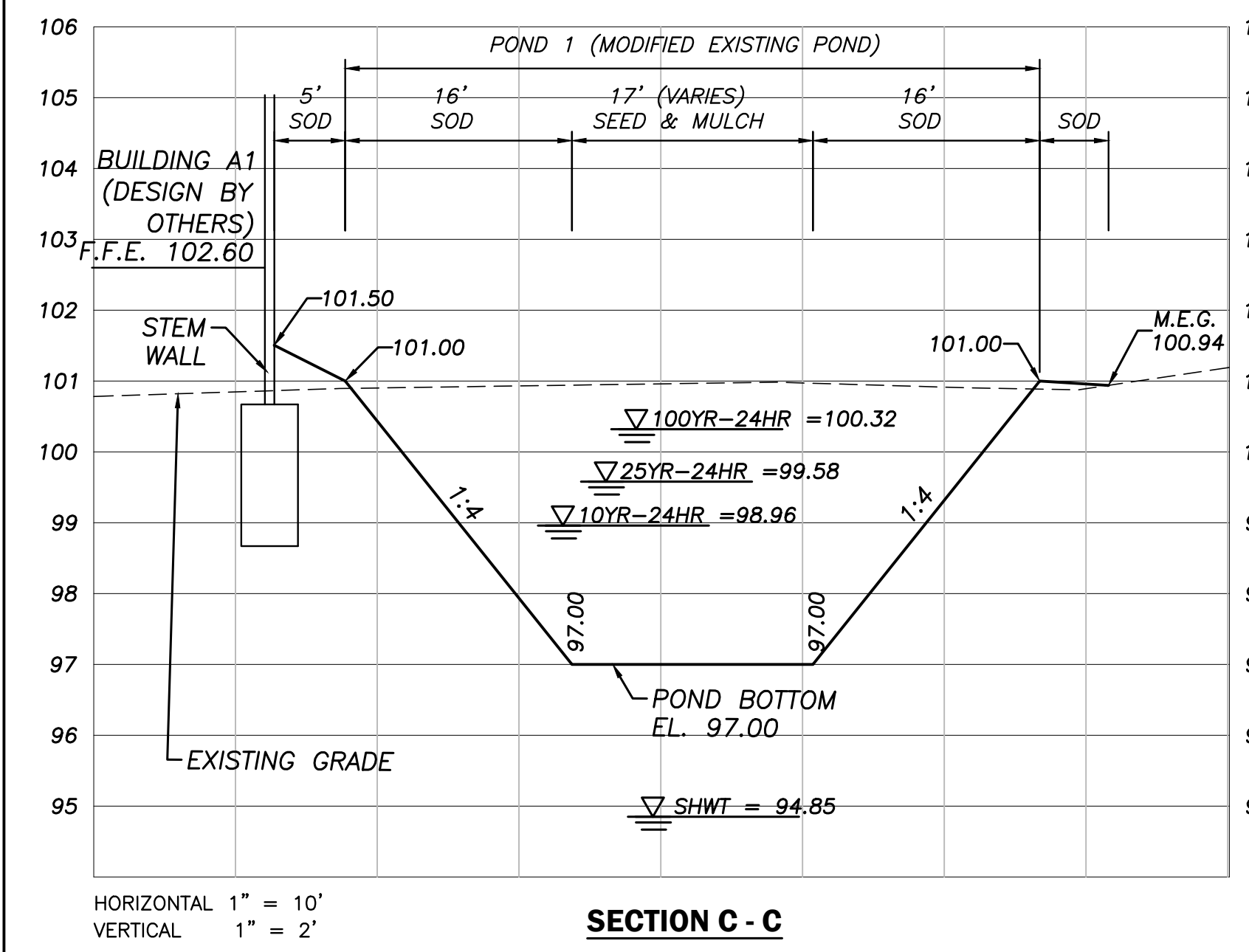
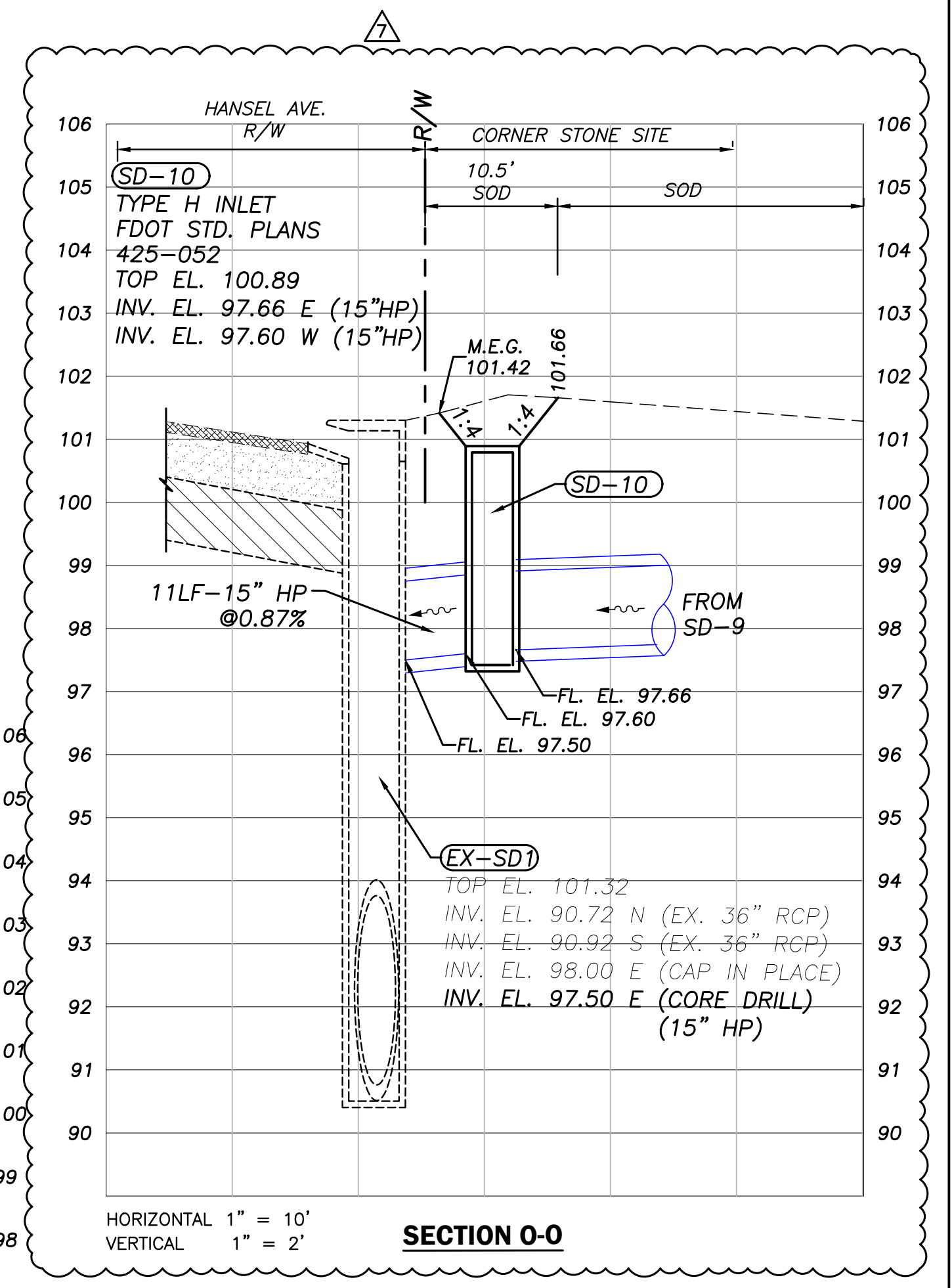
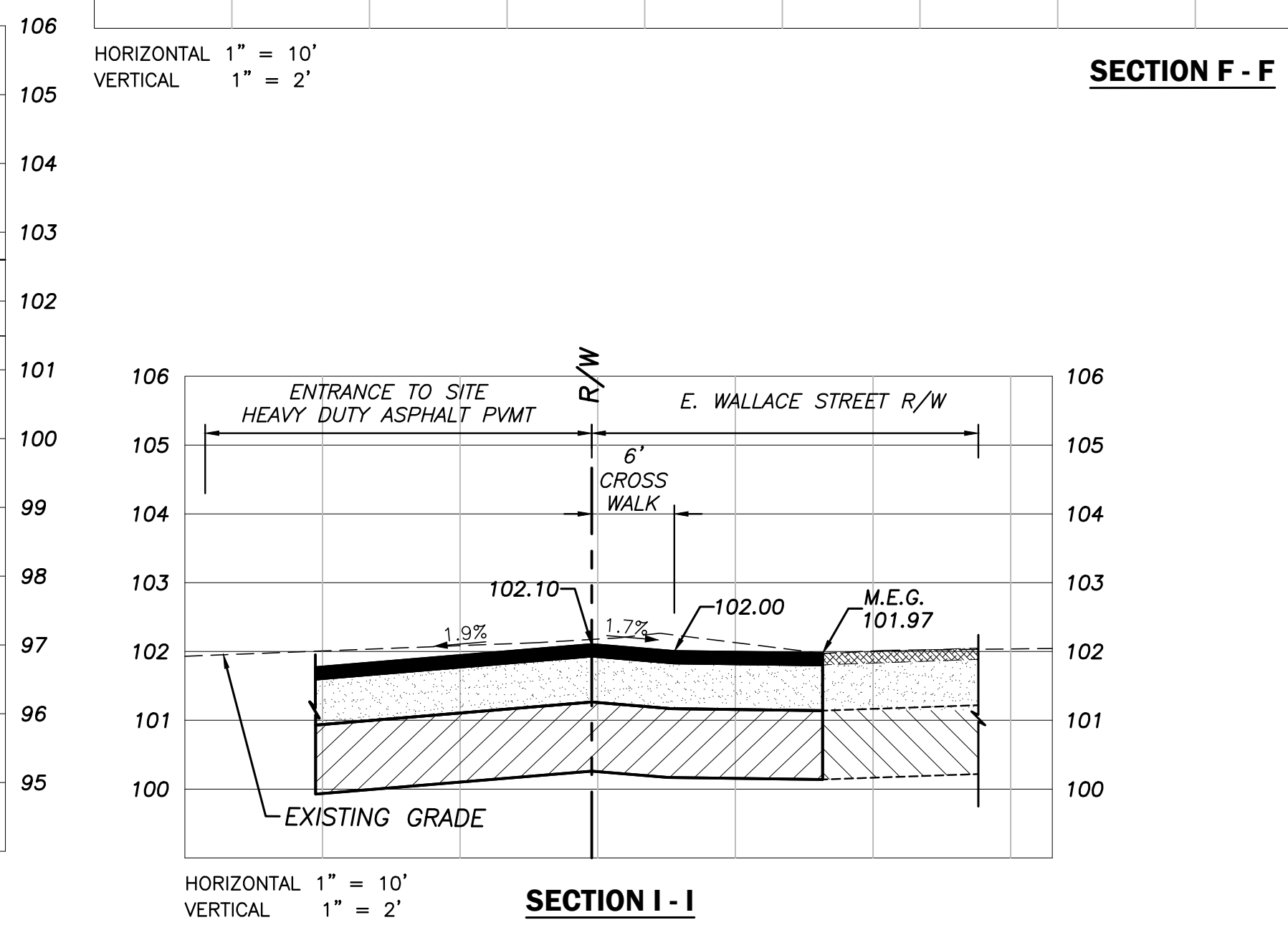
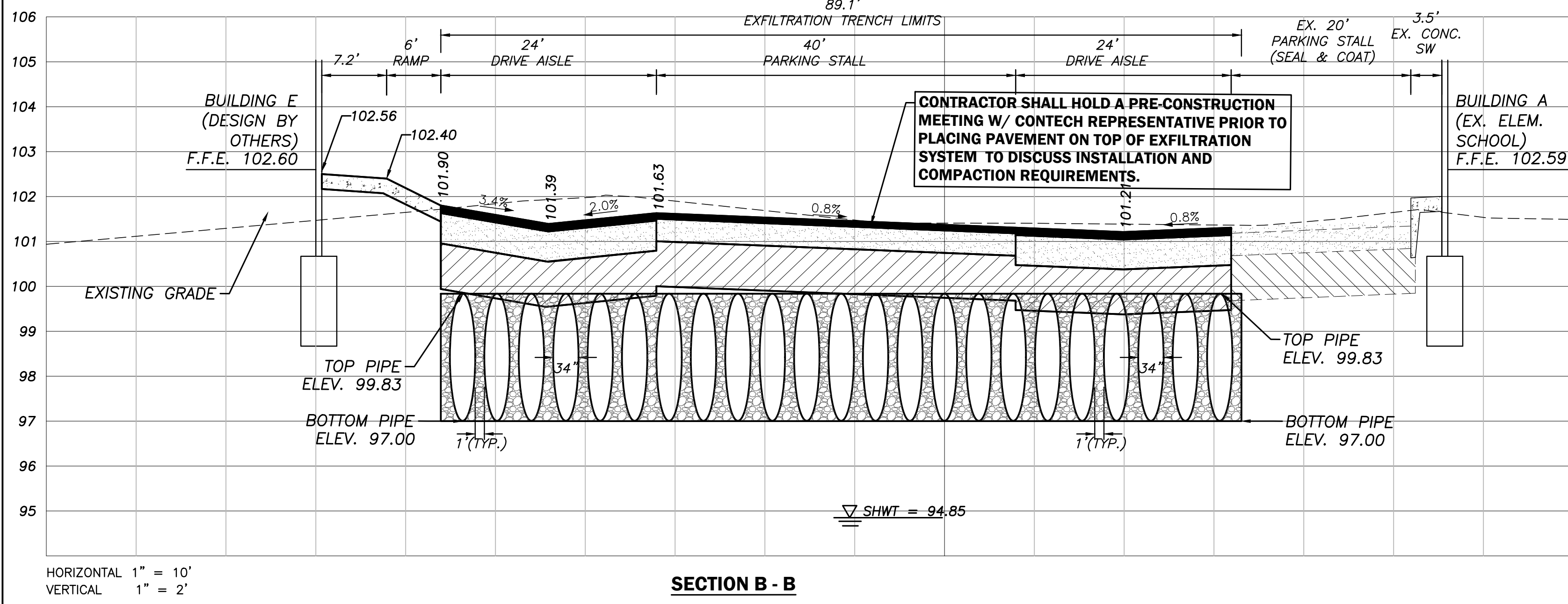
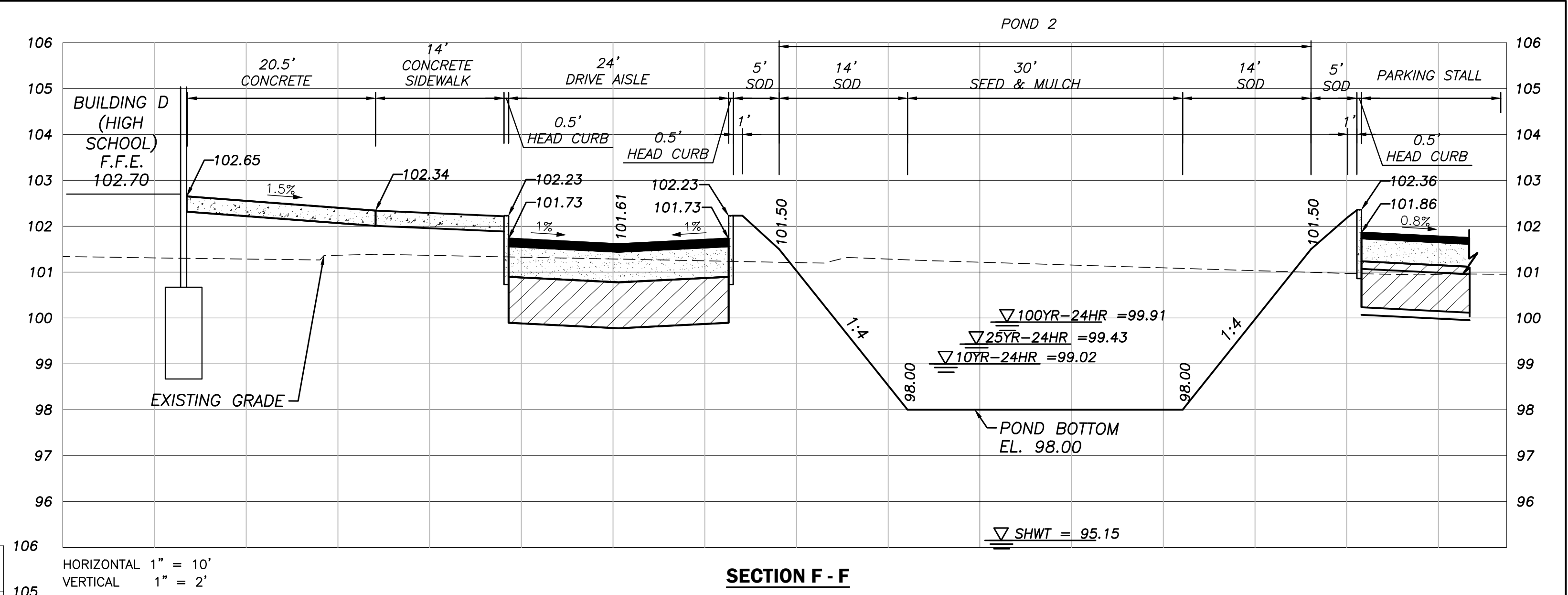
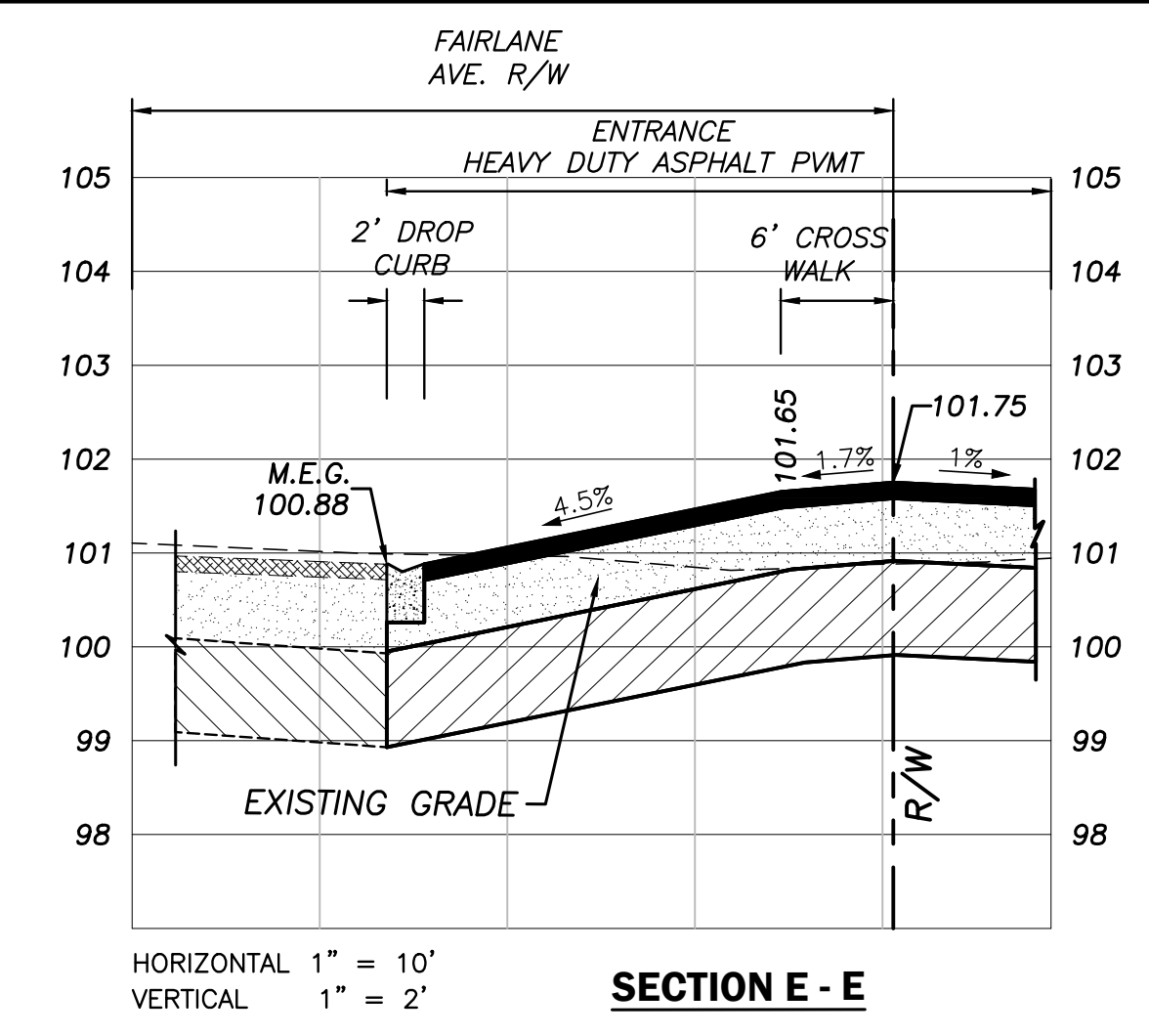
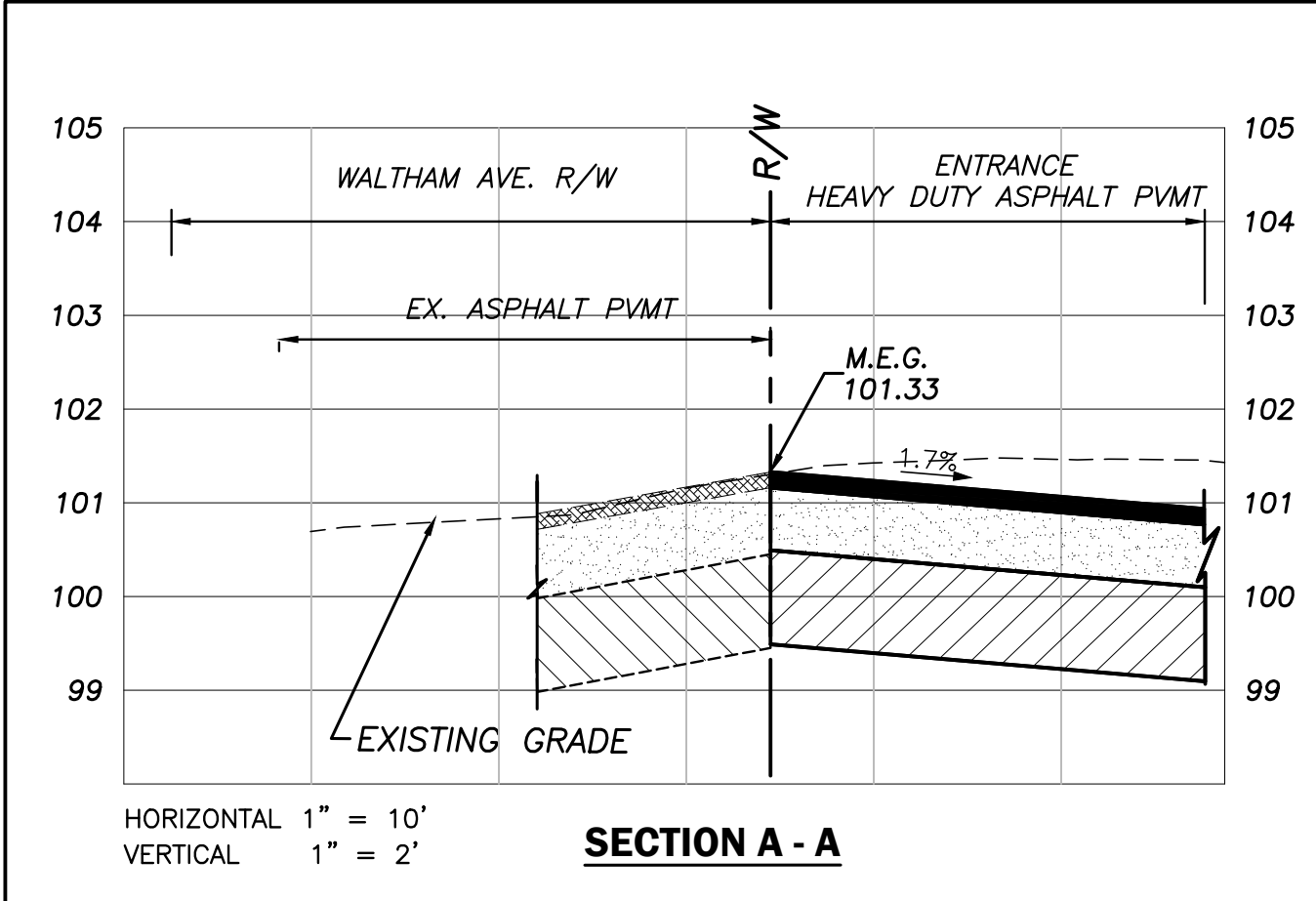
**SITE UTILITY PLAN (4 OF 4)**

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

|                       |                   |
|-----------------------|-------------------|
| PROJECT NO.<br>22-010 | SCALE<br>AS SHOWN |
| DATE<br>JUNE 23, 2023 | SHEET NO.<br>C-26 |
| SHEET 26 OF 50        |                   |



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CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA

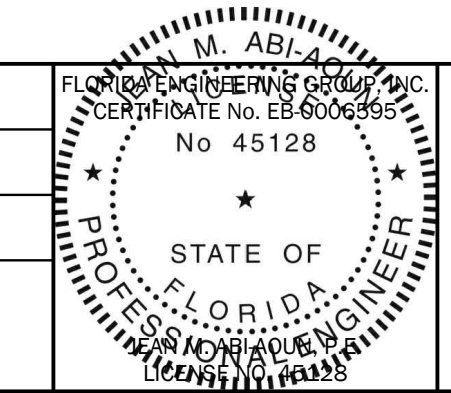


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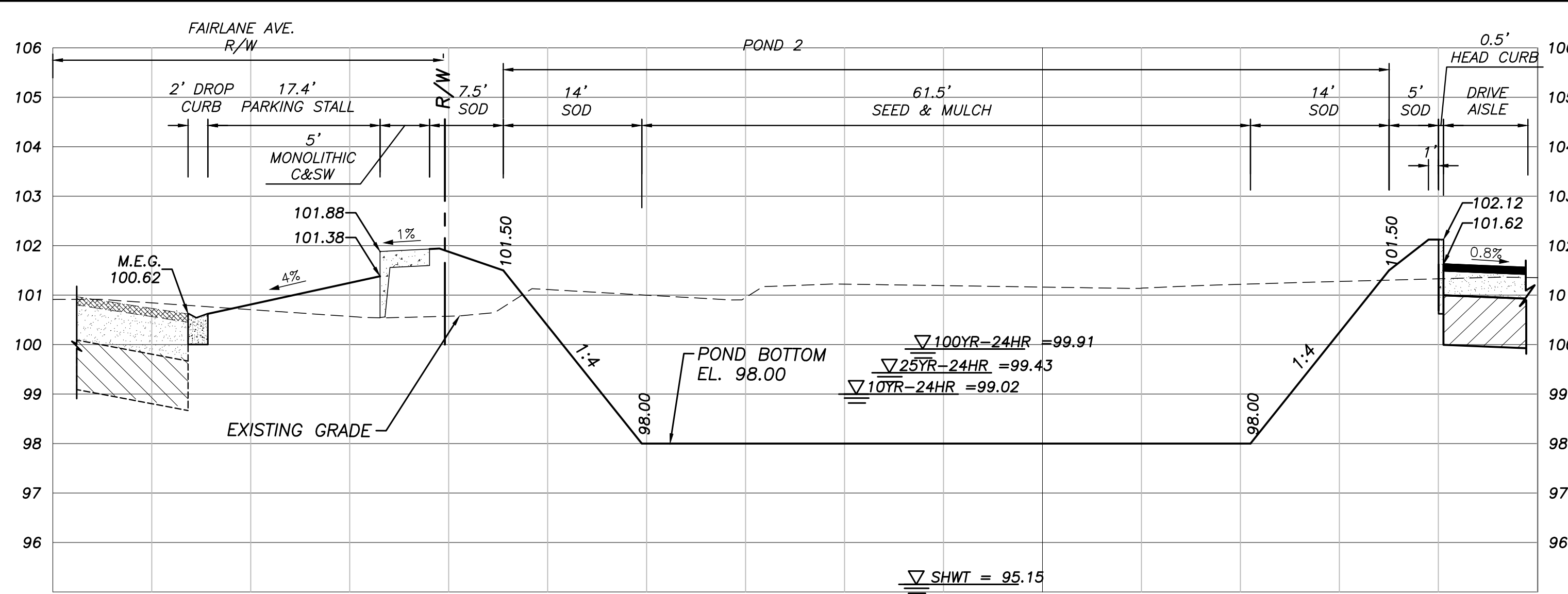
SITE CROSS SECTIONS (1)

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| JAA         | VP       | JAA        | JAA         |

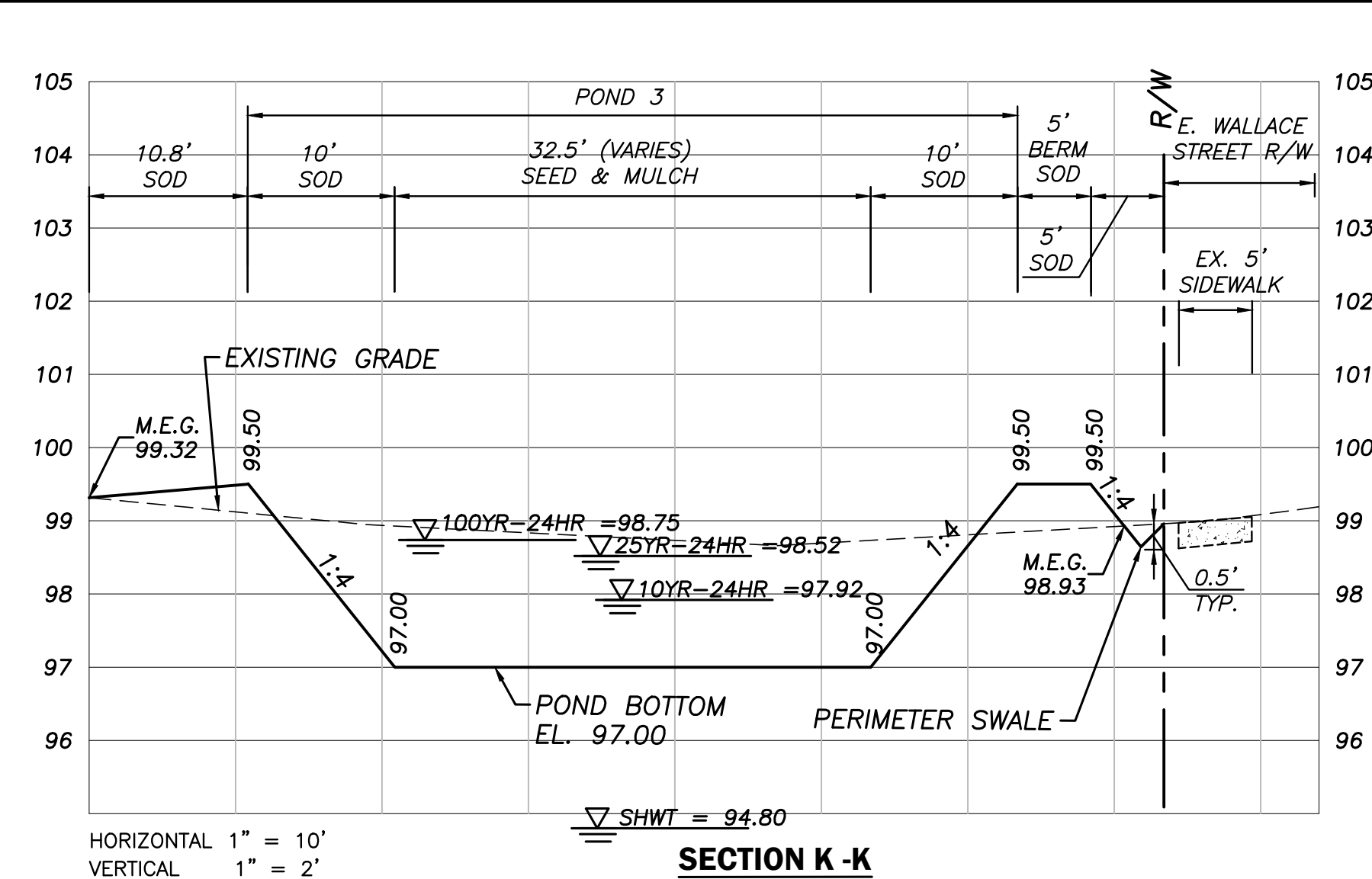
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| SCALE       | H: 1"=10'; V: 1"=2' |
| DATE        | JUNE 23, 2023       |
| SHEET NO.   | C-27                |
| SHEET       | 27 OF 50            |



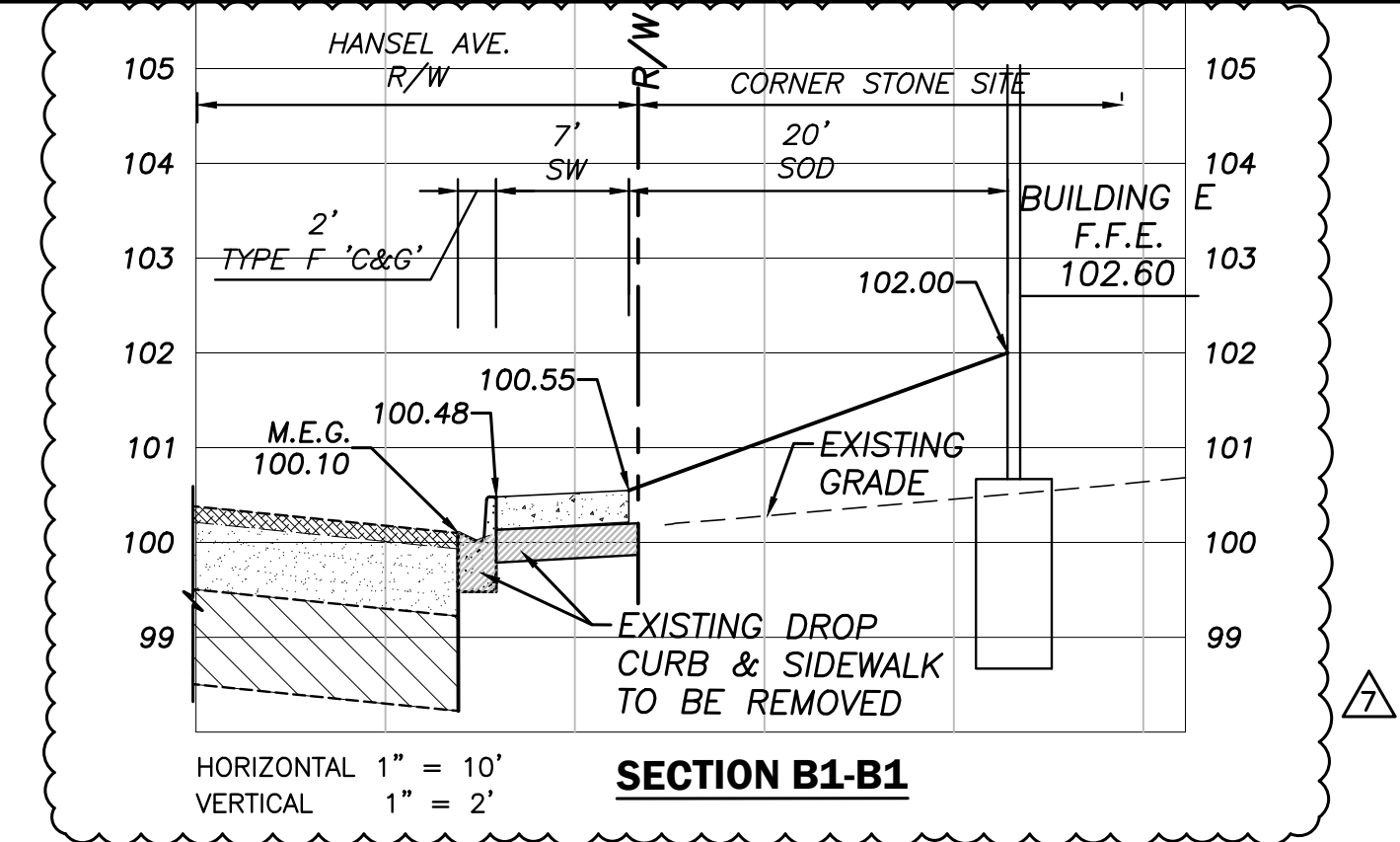
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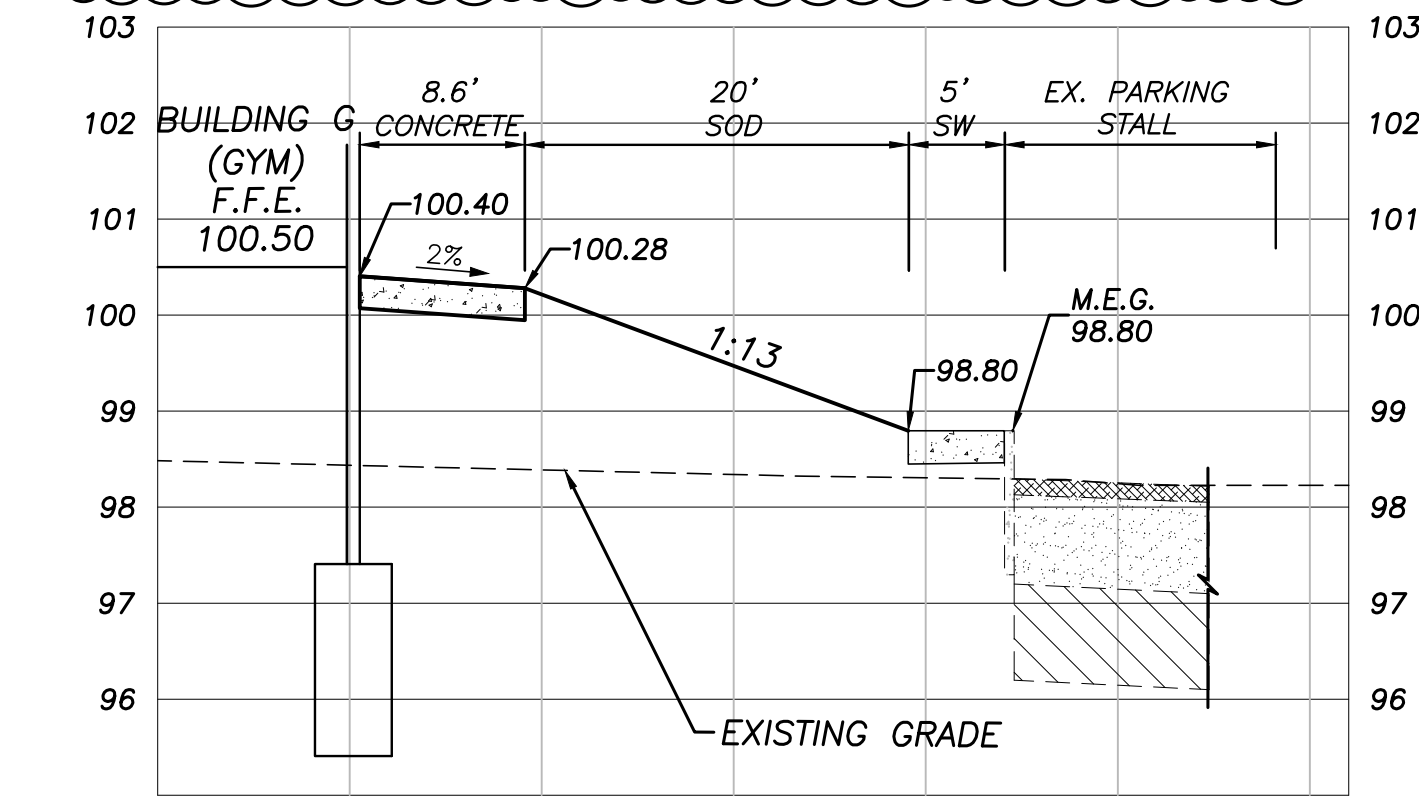
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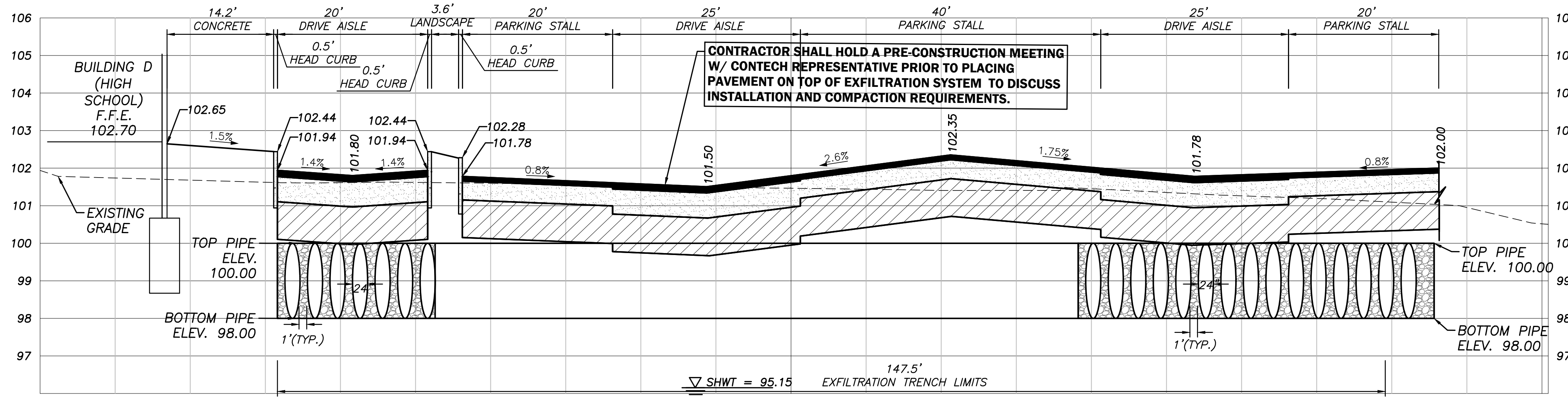
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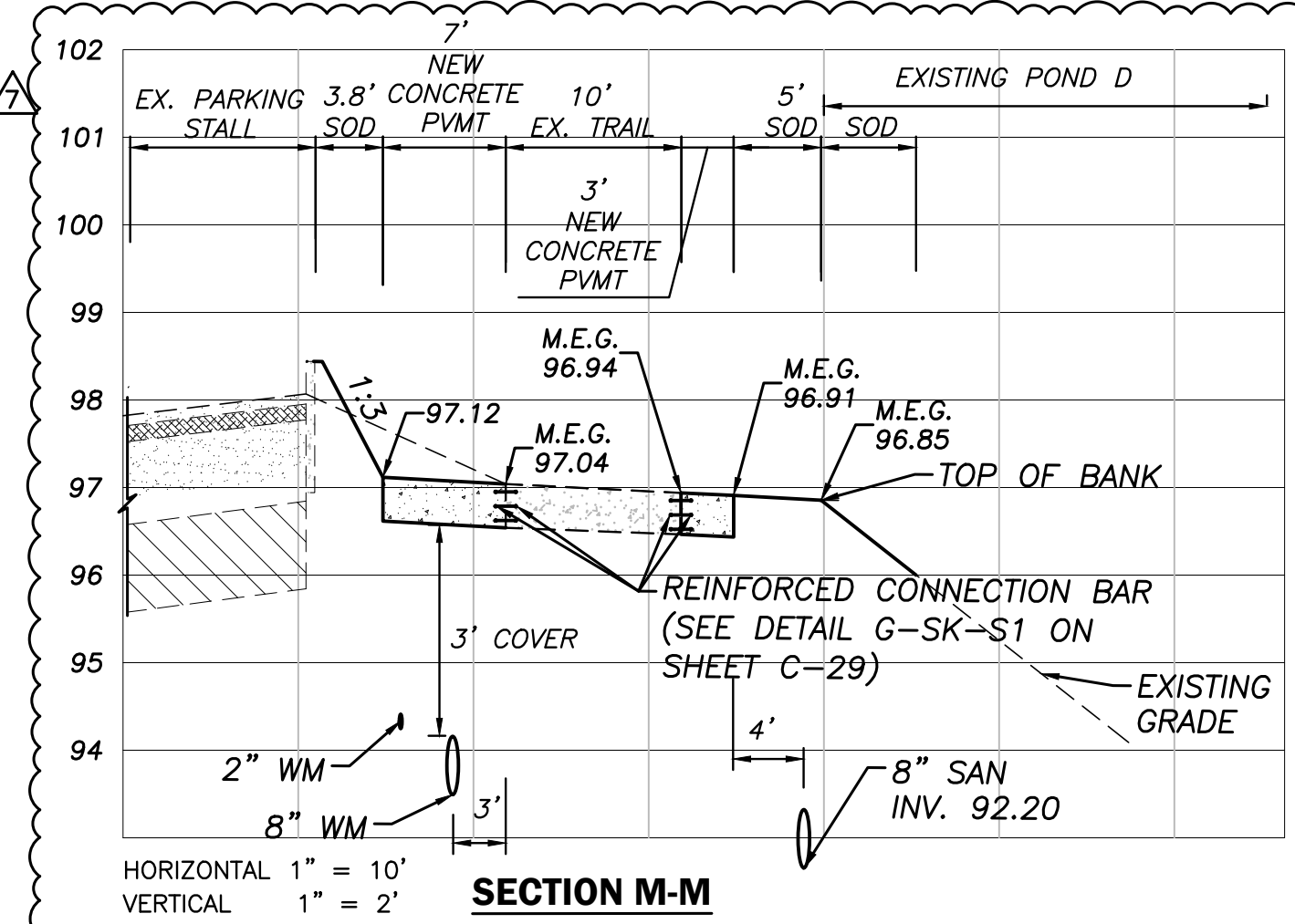
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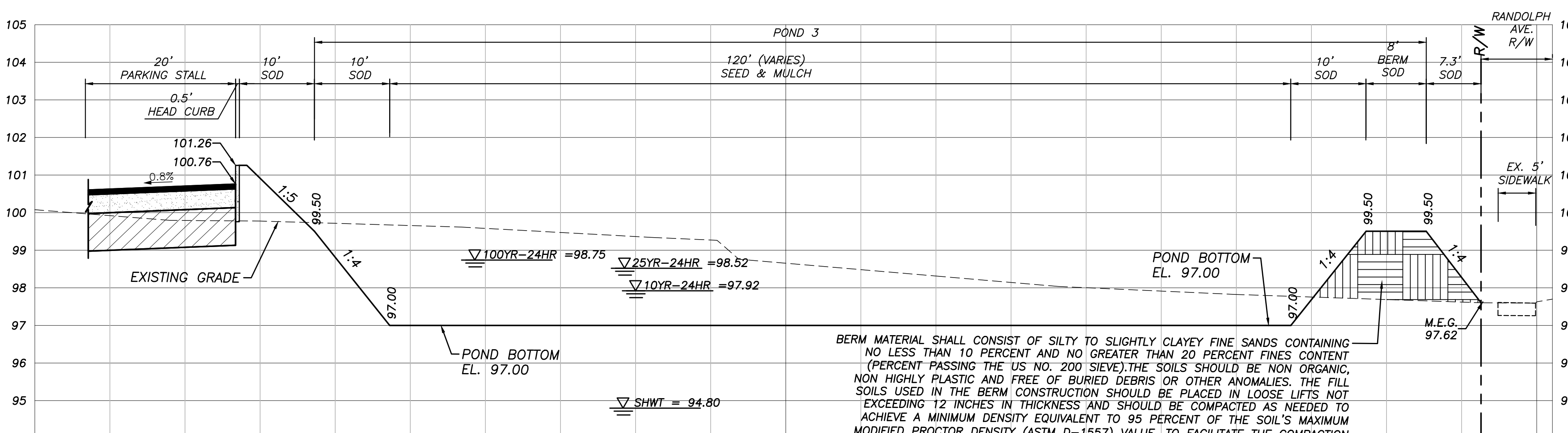
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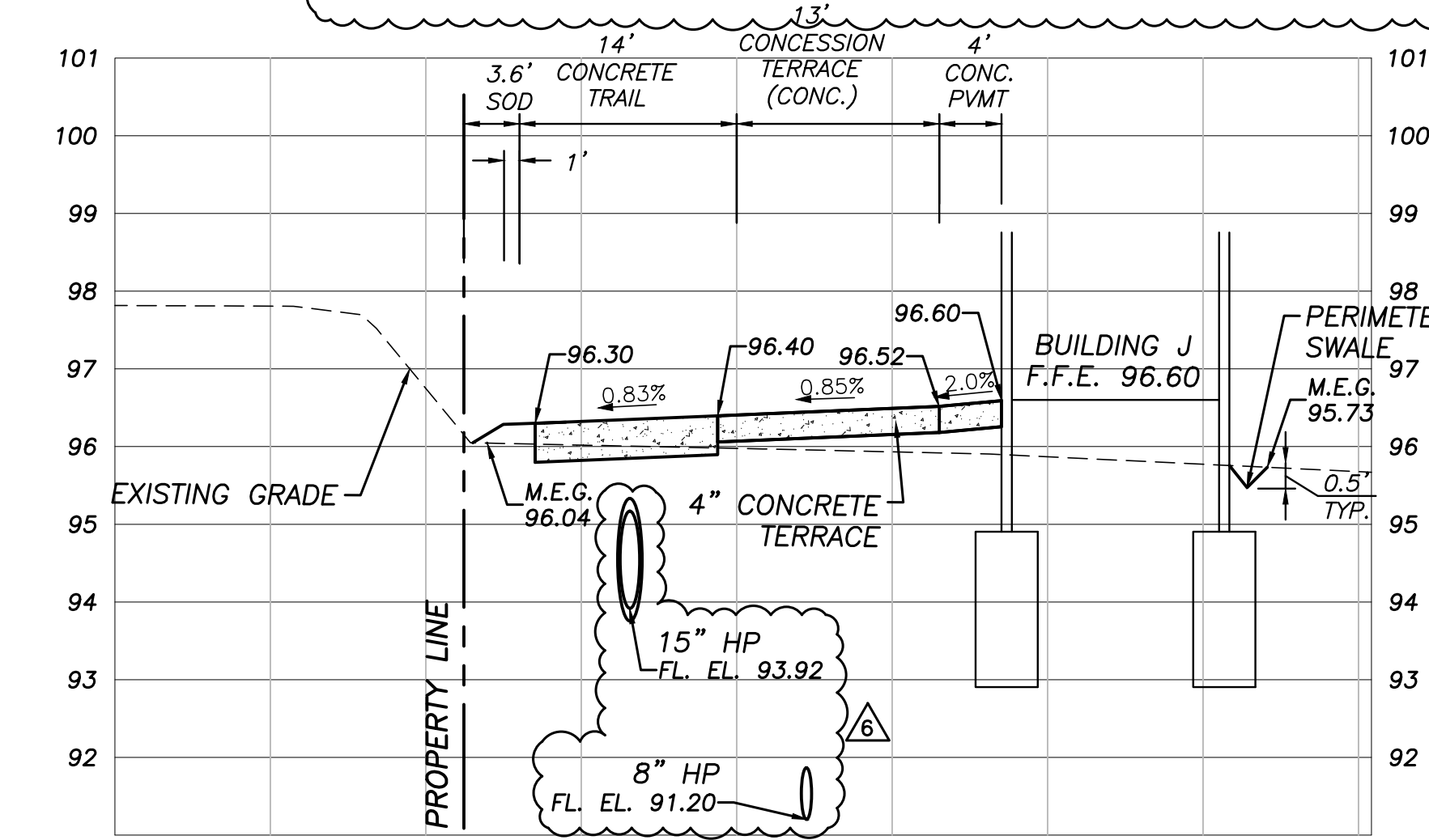
SECTION H - H



SECTION M - M



SECTION J - J



SECTION N - N

BERM MATERIAL SHALL CONSIST OF SILTY TO SLIGHTLY CLAYEY FINE SANDS CONTAINING NO LESS THAN 10 PERCENT AND NO GREATER THAN 20 PERCENT FINES CONTENT (PERCENT PASSING THE US NO. 200 SIEVE). THE SOILS SHOULD BE NON ORGANIC, NON HIGHLY PLASTIC AND FREE OF BURIED DEBRIS OR OTHER ANOMALIES. THE FILL SOILS USED IN THE BERM CONSTRUCTION SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES IN THICKNESS AND SHOULD BE COMPACTED AS NEEDED TO ACHIEVE A MINIMUM DENSITY EQUIVALENT TO 95 PERCENT OF THE SOIL'S MAXIMUM MODIFIED PROCTOR DENSITY (ASTM D-1557) VALUE. TO FACILITATE THE COMPACTION EFFORTS, THE FILL SOILS SHOULD HAVE A MOISTURE CONTENT THAT IS WITHIN 2 PERCENT OF THE SOIL'S OPTIMUM MOISTURE CONTENT.

| DATE       | REVISIONS                                               | BY    | CHECKED |
|------------|---------------------------------------------------------|-------|---------|
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| 08/15/2023 | REVISD PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISD PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISD PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISD PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISD PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

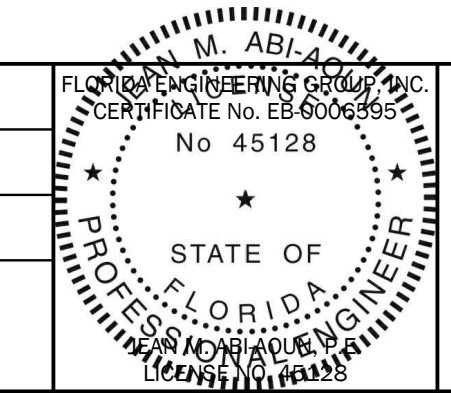


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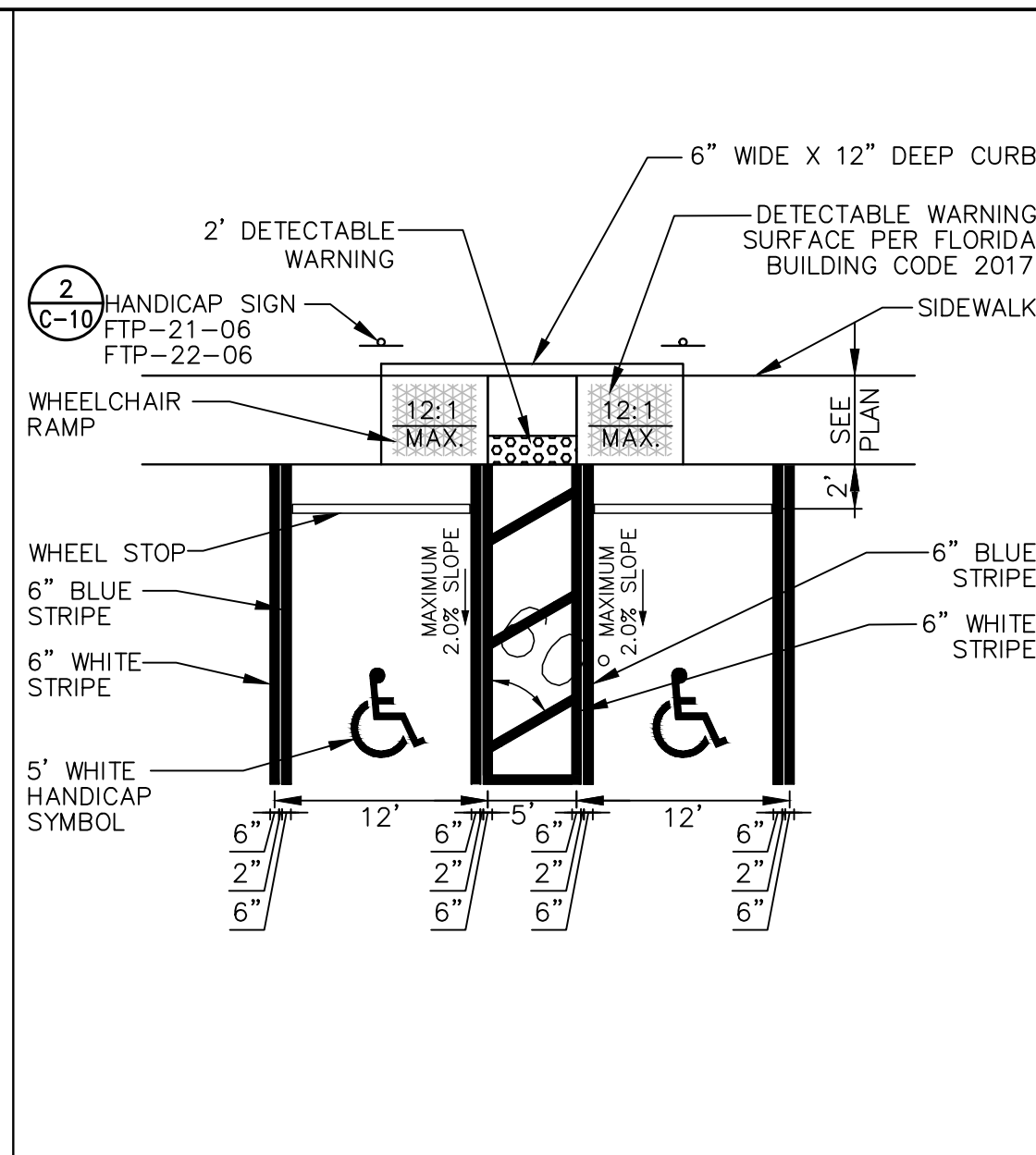
SITE CROSS SECTIONS (2)

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| JAA         | VP       | JAA        | JAA         |

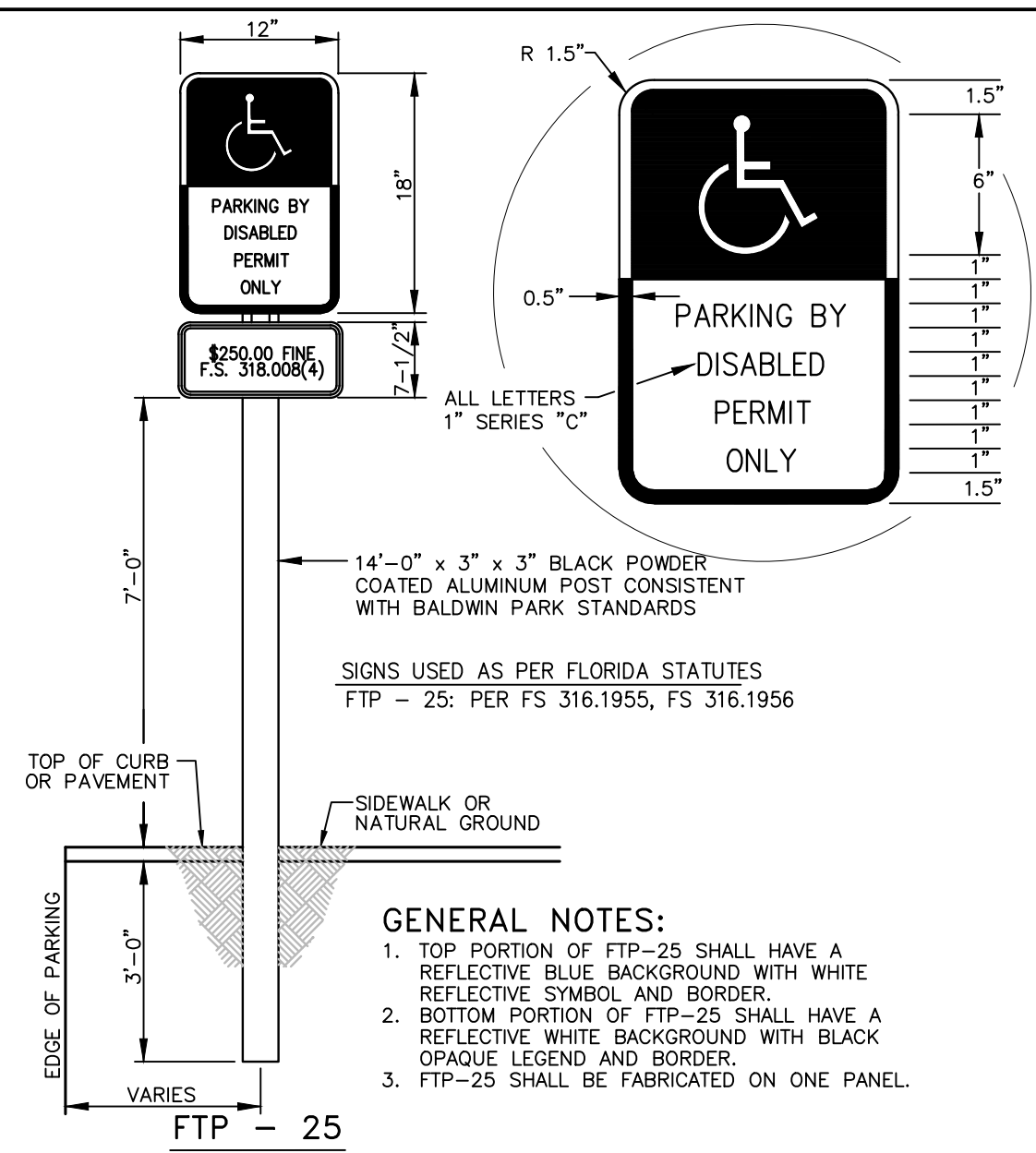
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|-------------|---------------------|
| PROJECT NO. | 22-010              |
| SCALE       | H: 1"=10'; V: 1"=2' |
| DATE        | JUNE 23, 2023       |
| SHEET NO.   | C-28                |
| SHEET       | 28 OF 50            |



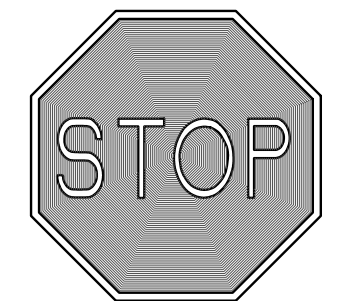
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**1 HANDICAP PARKING DETAIL**  
SCALE 1" = 10'

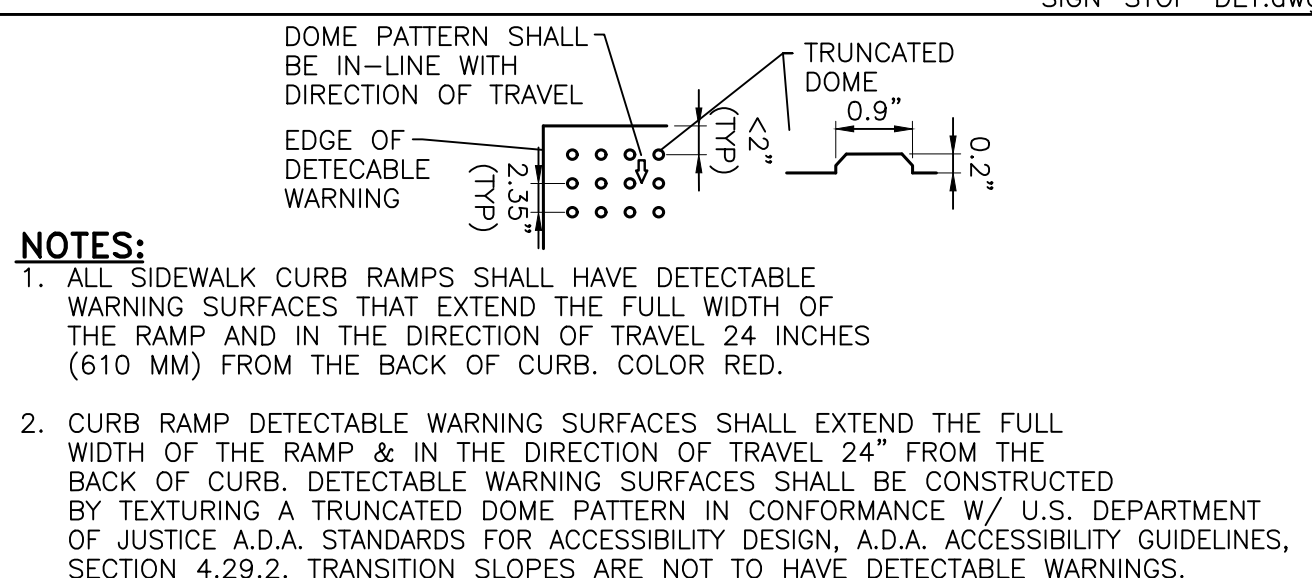


**2 HANDICAP SIGN DETAIL**  
SCALE 1" = 1'

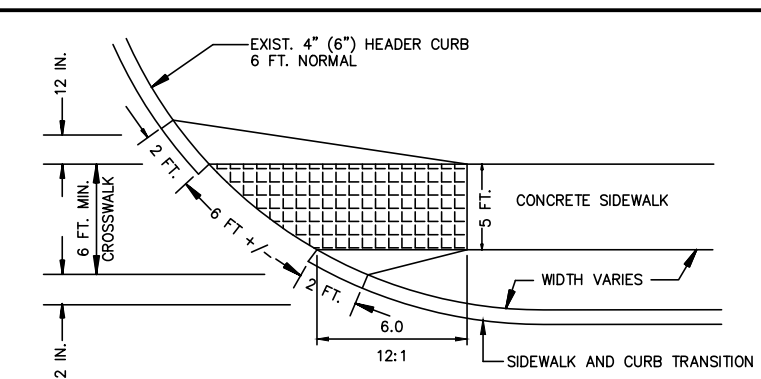


30" HIGH INTENSITY REFLECTORIZED MATERIAL REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION

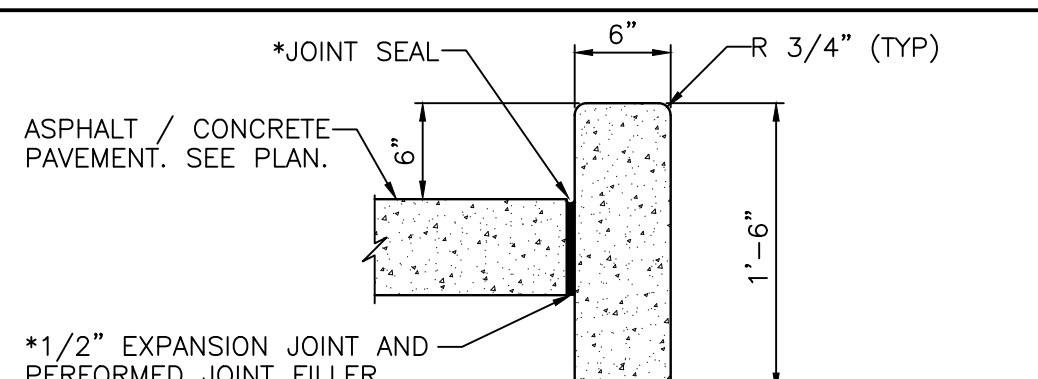
**3 R1-1 STOP SIGN DETAIL**  
NOT TO SCALE



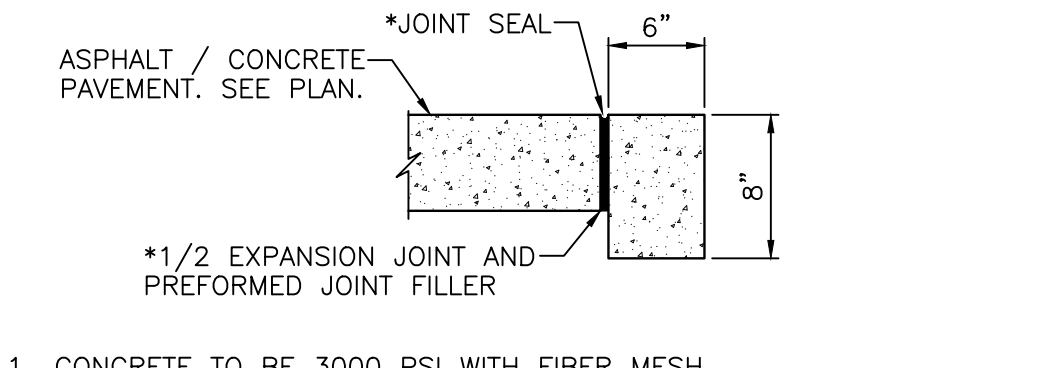
**4 CURB RAMP DETECTABLE WARNING DETAIL**  
NOT TO SCALE



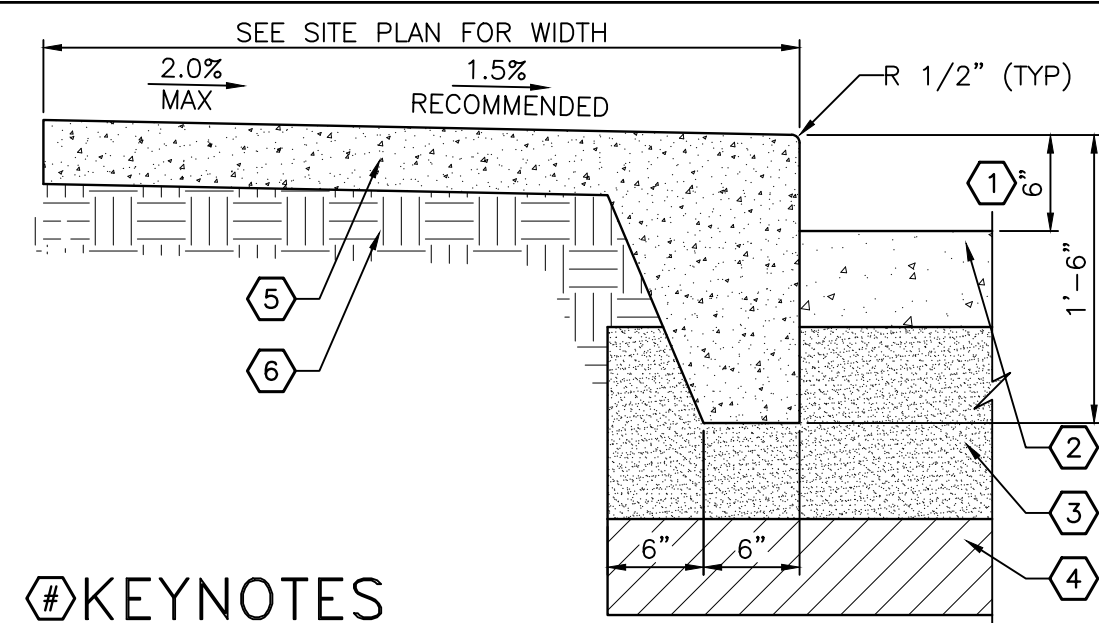
**5 WHEELCHAIR RAMP-STRAIGHT**  
N.T.S.



**6 HEAD CURB**  
SCALE 1" = 1'

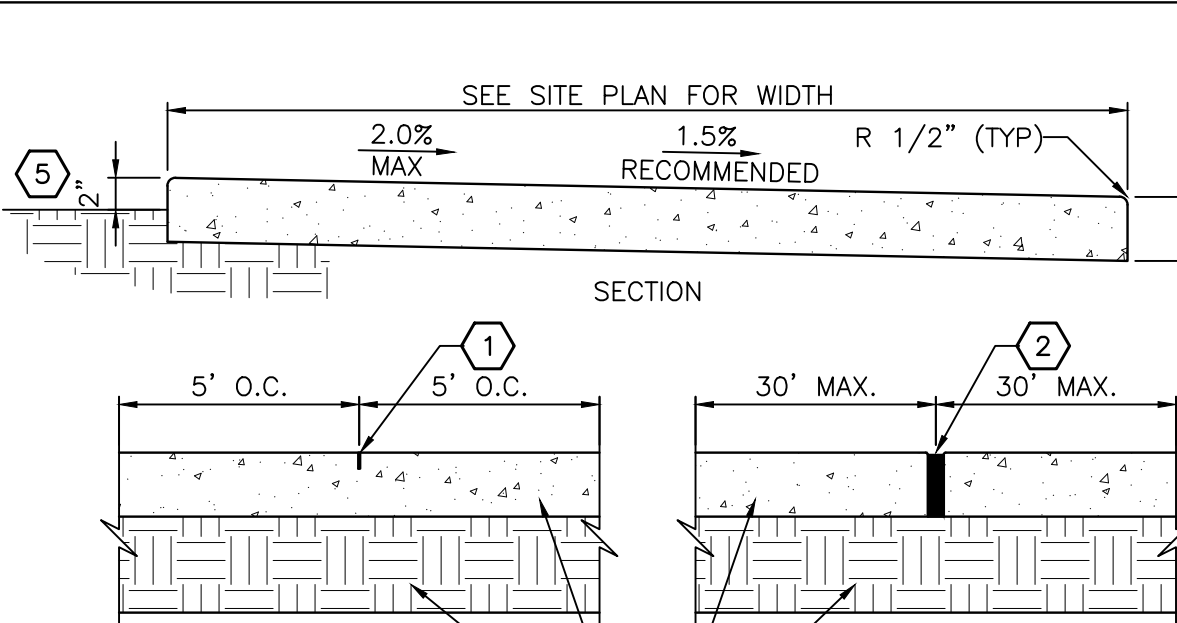


**7 6" x 8" RIBBON CURB**  
SCALE 1" = 1'



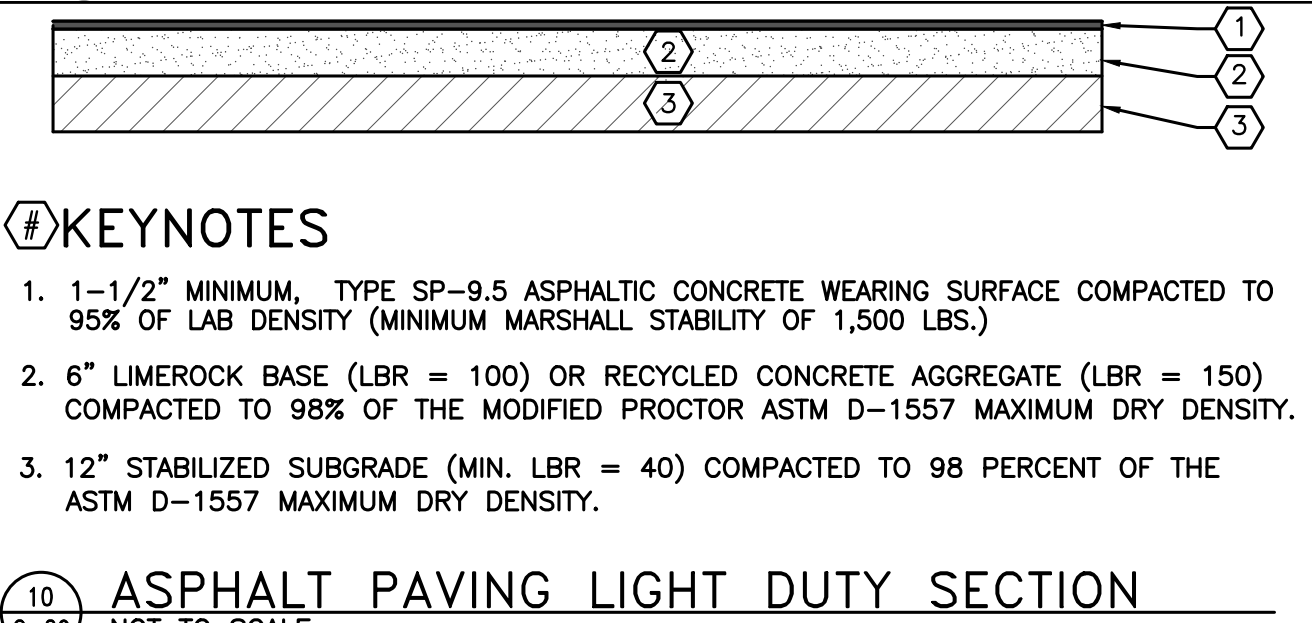
- #KEYNOTES**
- MINIMUM HEIGHT OF CURB ABOVE PAVEMENT SHALL BE 6". REFER TO GRADING PLANS FOR ELEVATIONS.
  - PAVEMENT WEARING SURFACE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
  - PAVEMENT BASE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
  - PAVEMENT SUBBASE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
  - 3000 PSI CONCRETE WITH FIBER MESH, TYPICAL.
  - 6" COMPACTED SUB-GRADE TO @ LEAST 95% OF THE MODIFIED PROTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).
  - SIDEWALK SHALL BE PICTURE FRAME WITH BROOM FINISH.

**8 SIDEWALK WITH MONOLITHIC CURB**  
N.T.S.



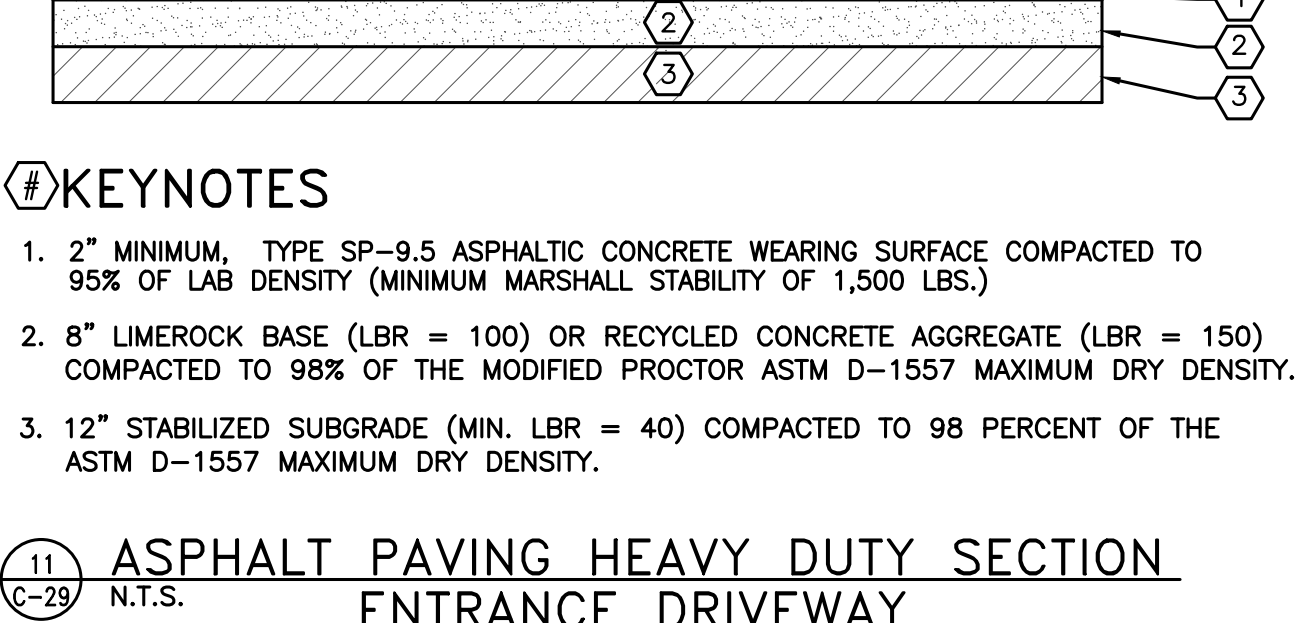
- #KEYNOTES**
- 1" DEEP 1/8" R TOOLED JOINT.
  - PREMOLDED EXPANSION JOINT FILLER STRIP & JOINT SEALER W/1/8" R TOOLED EDGES.
  - 6" COMPACTED SUBGRADE
  - 3000 P.S.I. CONC. W/FIBER MESH(TYP)
  - FINISHED GRADE (TYP.)
  - SIDEWALK SHALL BE PICTURE FRAME WITH BROOM FINISH.

**9 CONCRETE SIDEWALK**  
SCALE 1" = 1'



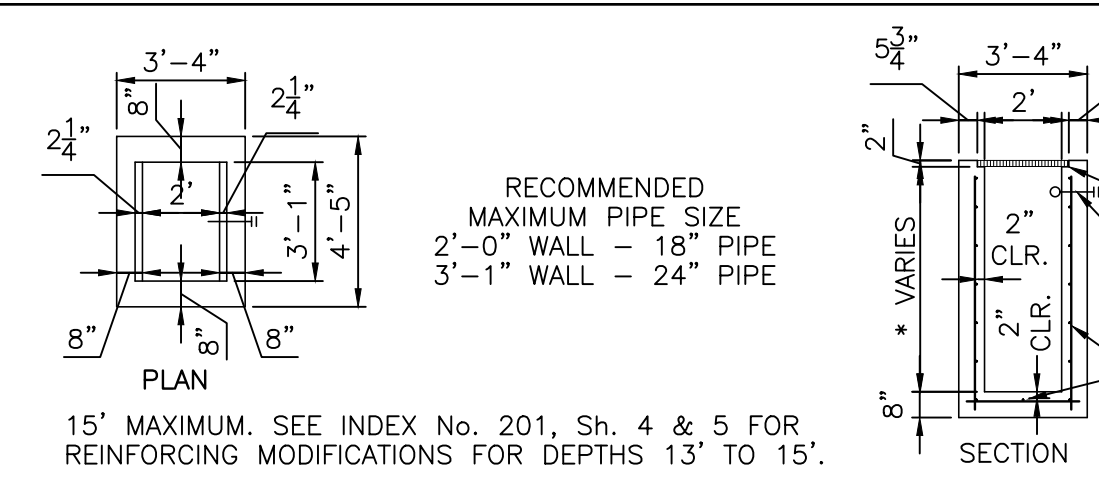
- #KEYNOTES**
- 1-1/2" MINIMUM, TYPE SP-9.5 ASPHALTIC CONCRETE WEARING SURFACE COMPACTED TO 95% OF LAB DENSITY (MINIMUM MARSHALL STABILITY OF 1,500 LBS.)
  - 6" LIMEROCK BASE (LBR = 100) OR RECYCLED CONCRETE AGGREGATE (LBR = 150) COMPACTED TO 98% OF THE MODIFIED PROCTOR ASTM D-1557 MAXIMUM DRY DENSITY.
  - 12" STABILIZED SUBGRADE (MIN. LBR = 40) COMPACTED TO 98 PERCENT OF THE ASTM D-1557 MAXIMUM DRY DENSITY.

**10 ASPHALT PAVING LIGHT DUTY SECTION**  
NOT TO SCALE

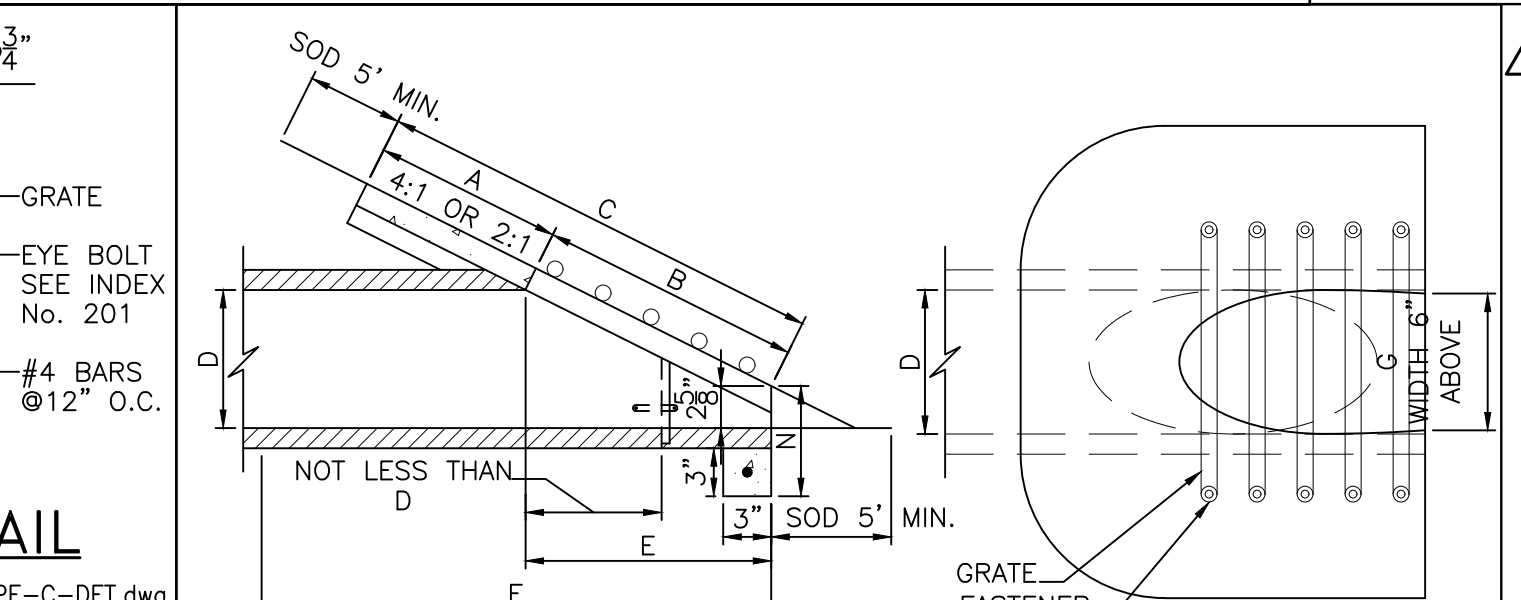


- #KEYNOTES**
- 2" MINIMUM, TYPE SP-9.5 ASPHALTIC CONCRETE WEARING SURFACE COMPACTED TO 95% OF LAB DENSITY (MINIMUM MARSHALL STABILITY OF 1,500 LBS.)
  - 8" LIMEROCK BASE (LBR = 100) OR RECYCLED CONCRETE AGGREGATE (LBR = 150) COMPACTED TO 98% OF THE MODIFIED PROCTOR ASTM D-1557 MAXIMUM DRY DENSITY.
  - 12" STABILIZED SUBGRADE (MIN. LBR = 40) COMPACTED TO 98 PERCENT OF THE ASTM D-1557 MAXIMUM DRY DENSITY.

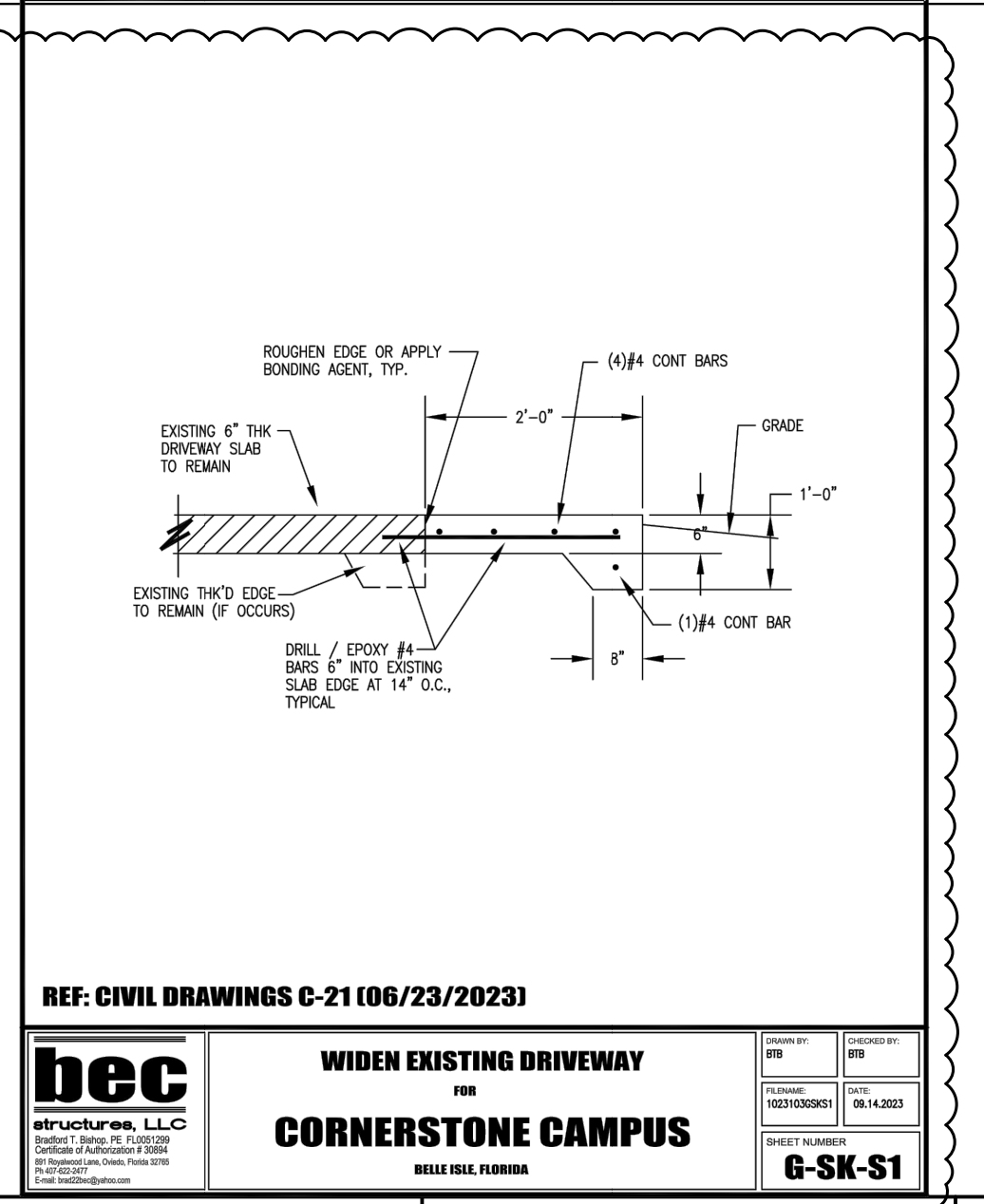
**11 ASPHALT PAVING HEAVY DUTY SECTION ENTRANCE DRIVEWAY**  
N.T.S.



**15 F.D.O.T. TYPE "C" INLET DETAIL**  
SCALE 1" = 5'



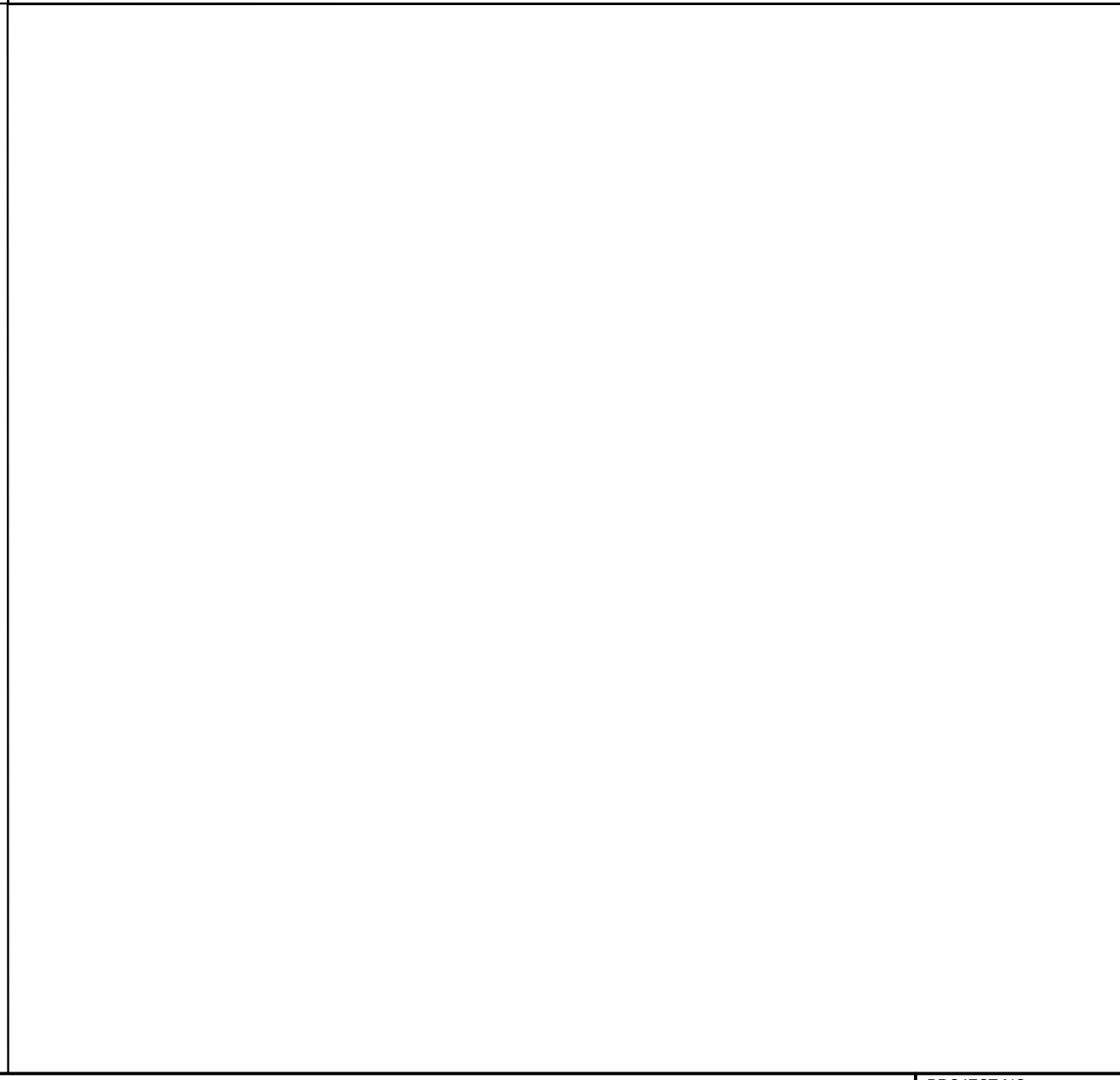
**16 F.D.O.T. MITERED END SECTION**  
NOT TO SCALE



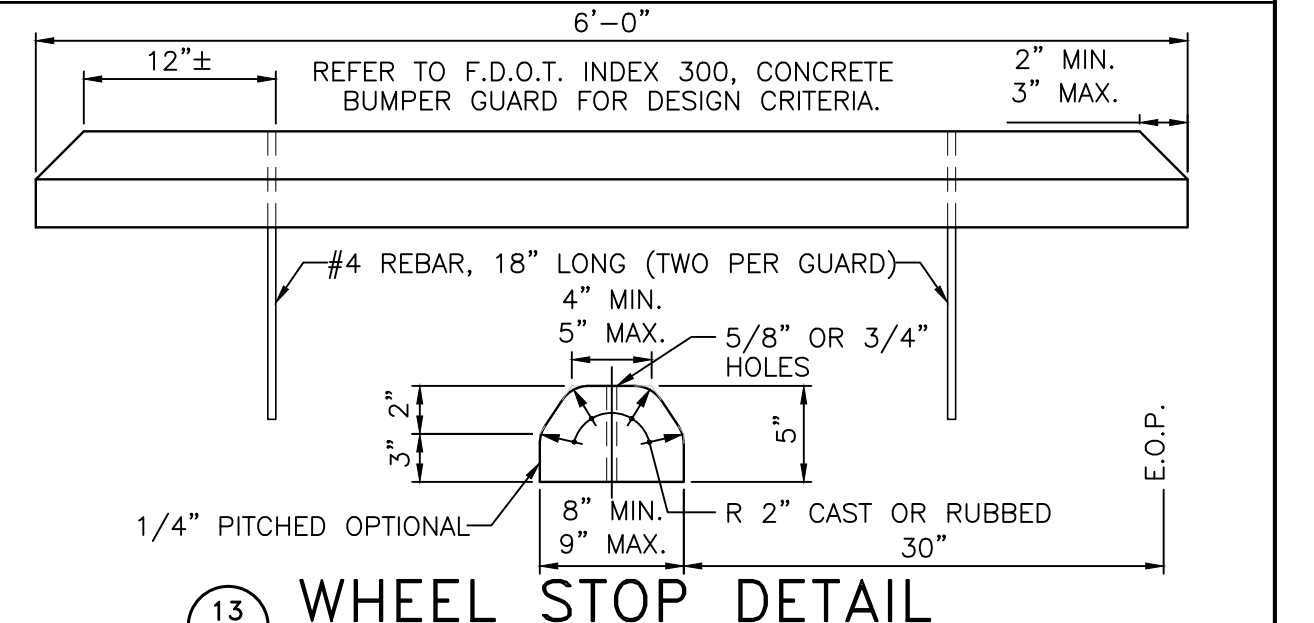
REF: CIVIL DRAWINGS C-21 106/23/2023

**bec** WIDEN EXISTING DRIVEWAY FOR CORNERSTONE CAMPUS

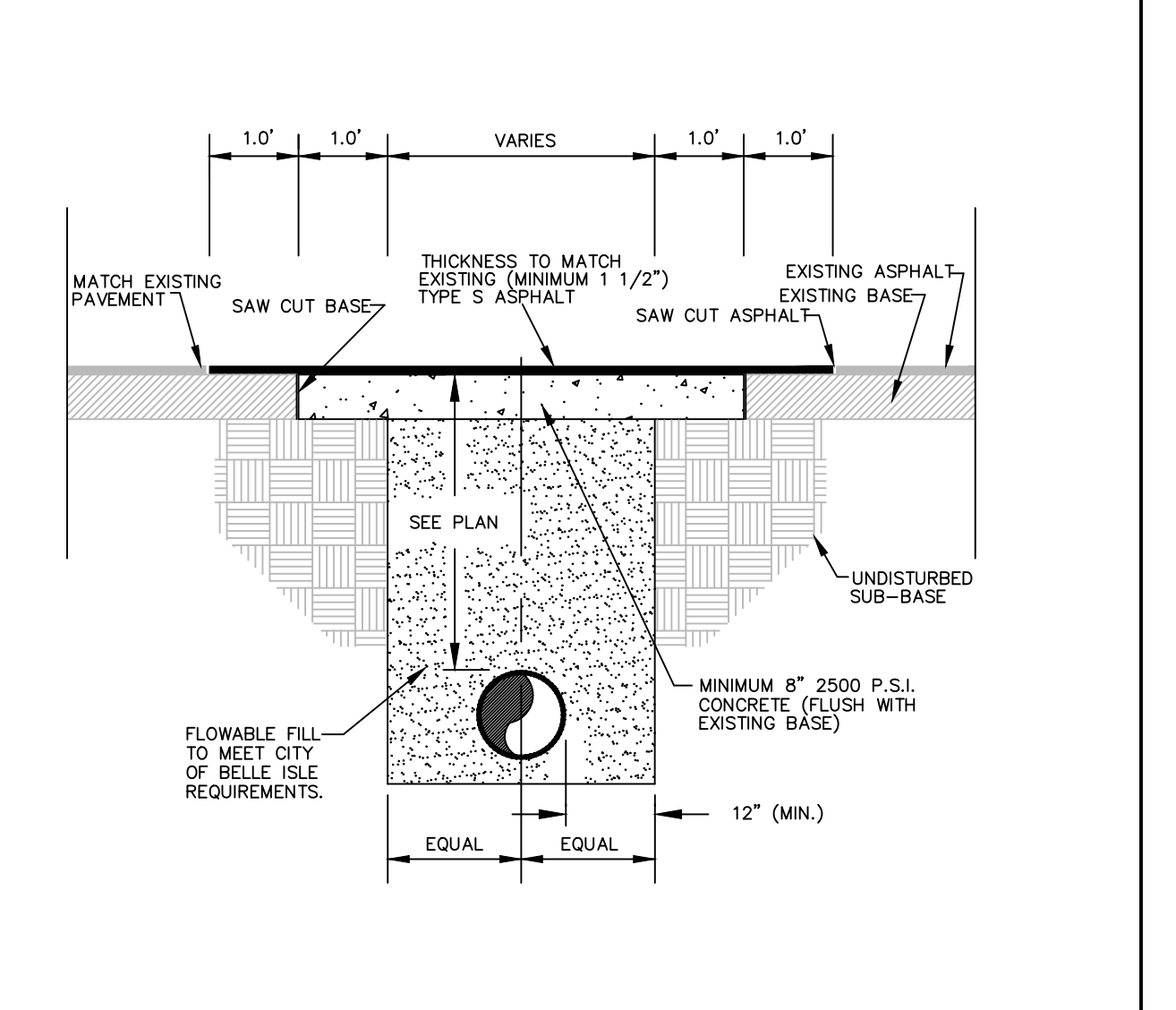
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**12 CONCRETE PAVEMENT DETAIL ALTERNATIVE BID OVER EXFILTRATION SYSTEM**  
N.T.S.



**13 WHEEL STOP DETAIL**  
SCALE 1" = 1'



**14 OPEN CUT DETAIL - ASPHALT**  
SCALE N.T.S.

|            |   |                                                          |       |         |
|------------|---|----------------------------------------------------------|-------|---------|
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| 08/15/2023 | 4 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | 5 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | 6 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | 7 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | 8 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |
| DATE       |   | REVISIONS                                                | BY    | CHECKED |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

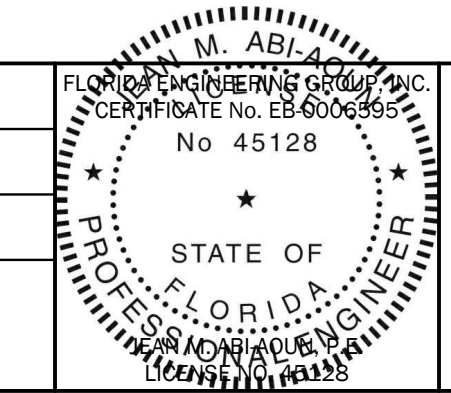


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**SITE CONSTRUCTION DETAILS (1 OF 2)**

|             |          |            |             |
|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

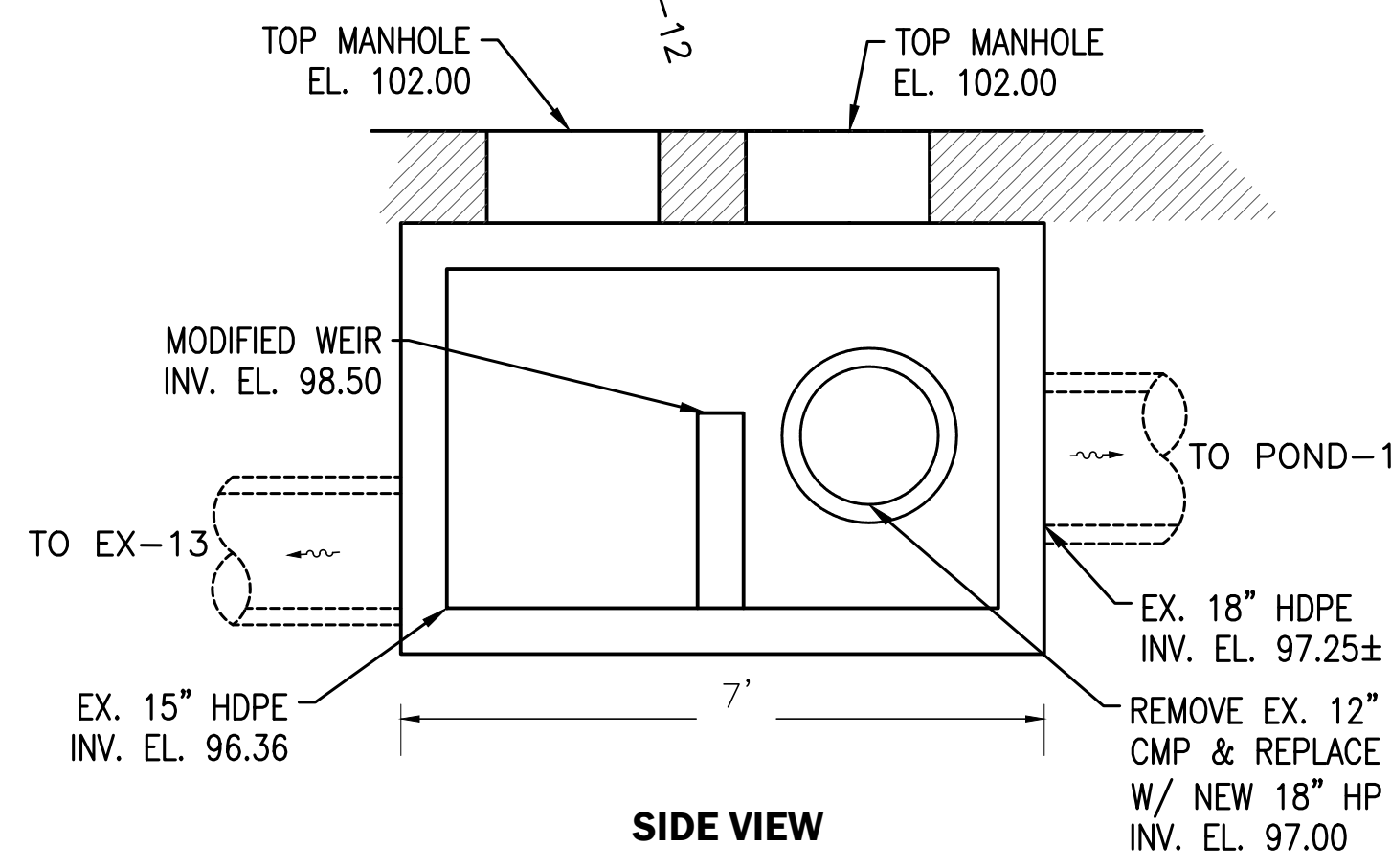
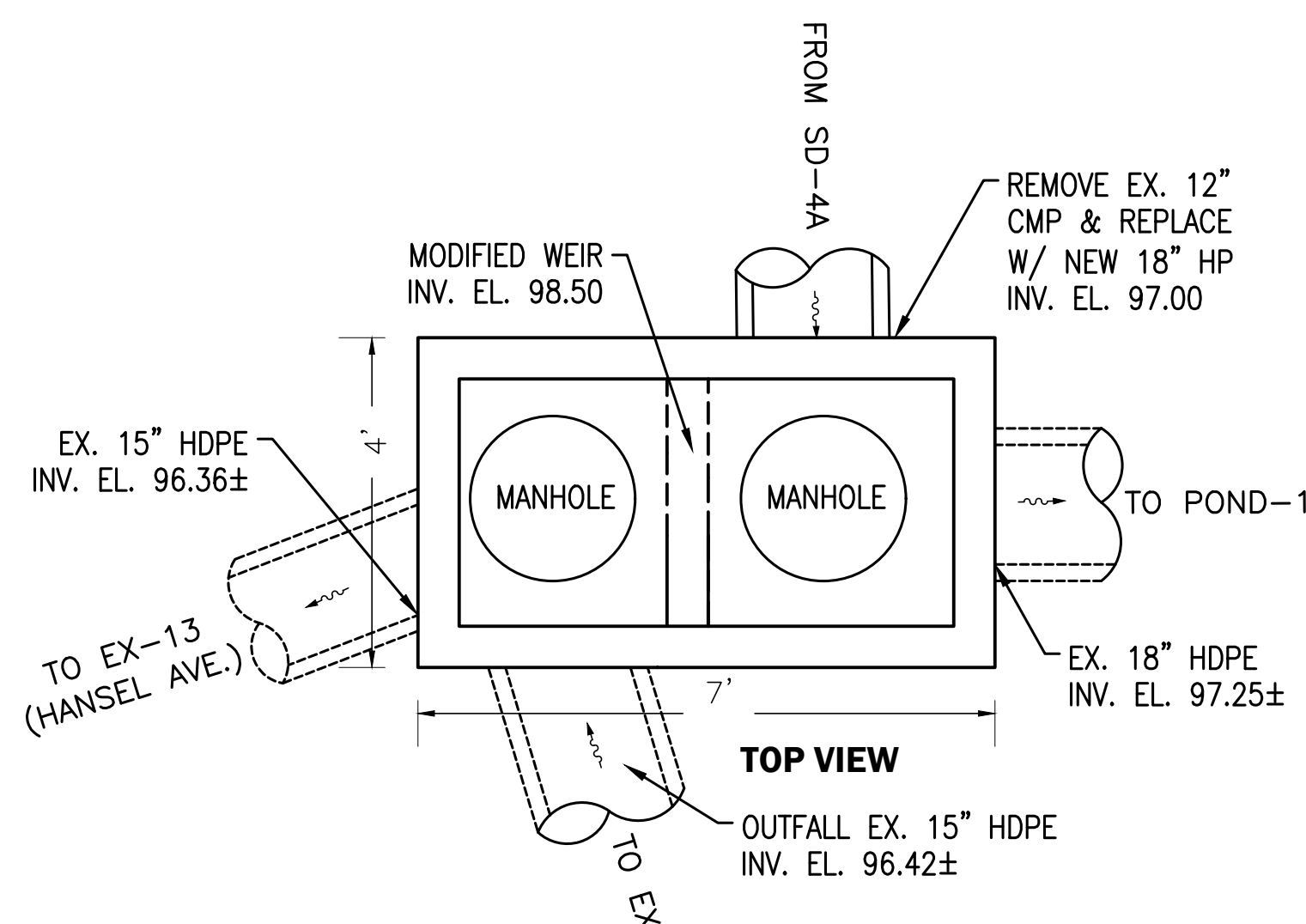
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| PROJECT NO. | 22-010        |
| SCALE       | N.T.S.        |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-29          |
| SHEET       | 29 OF 50      |



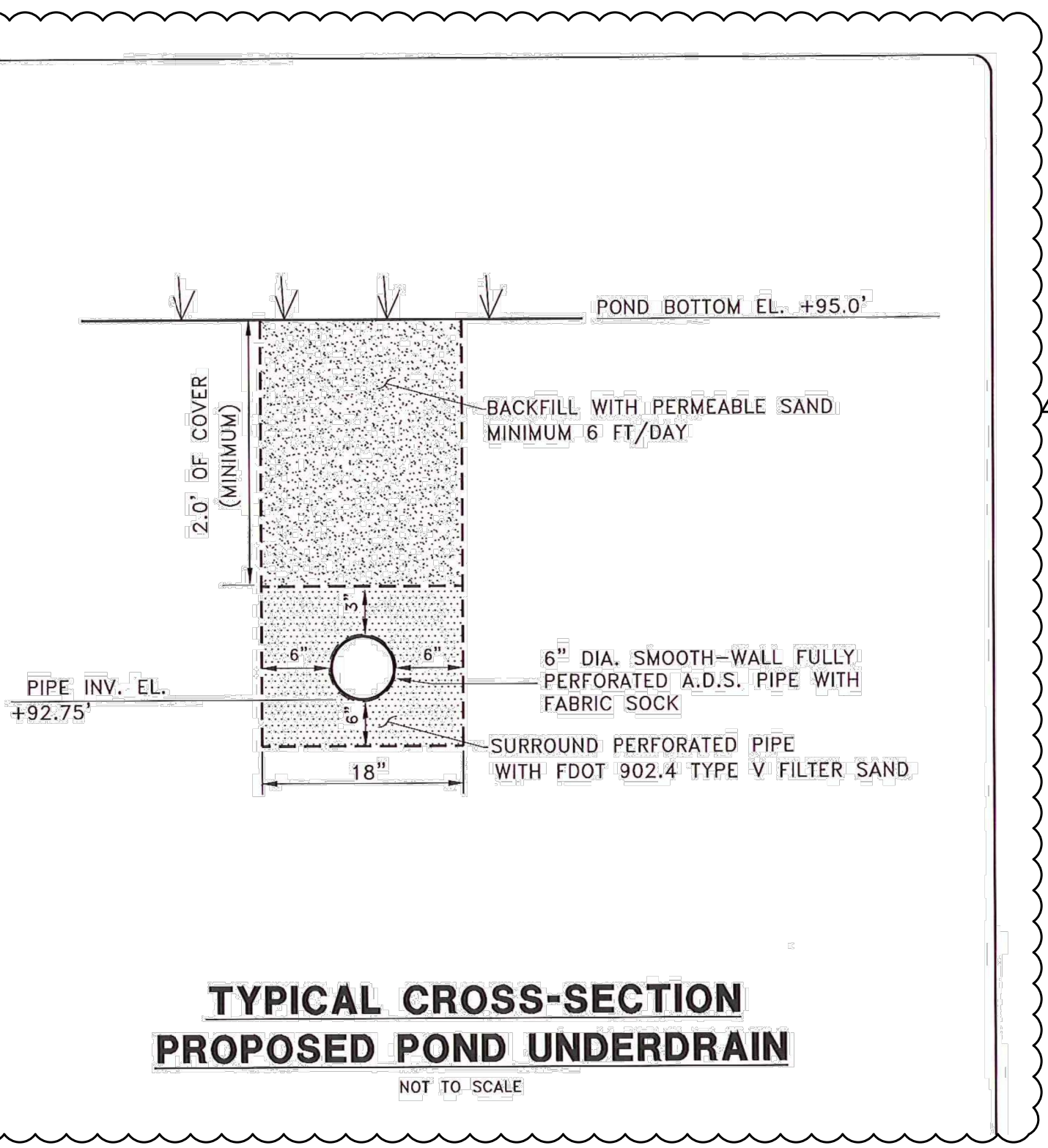
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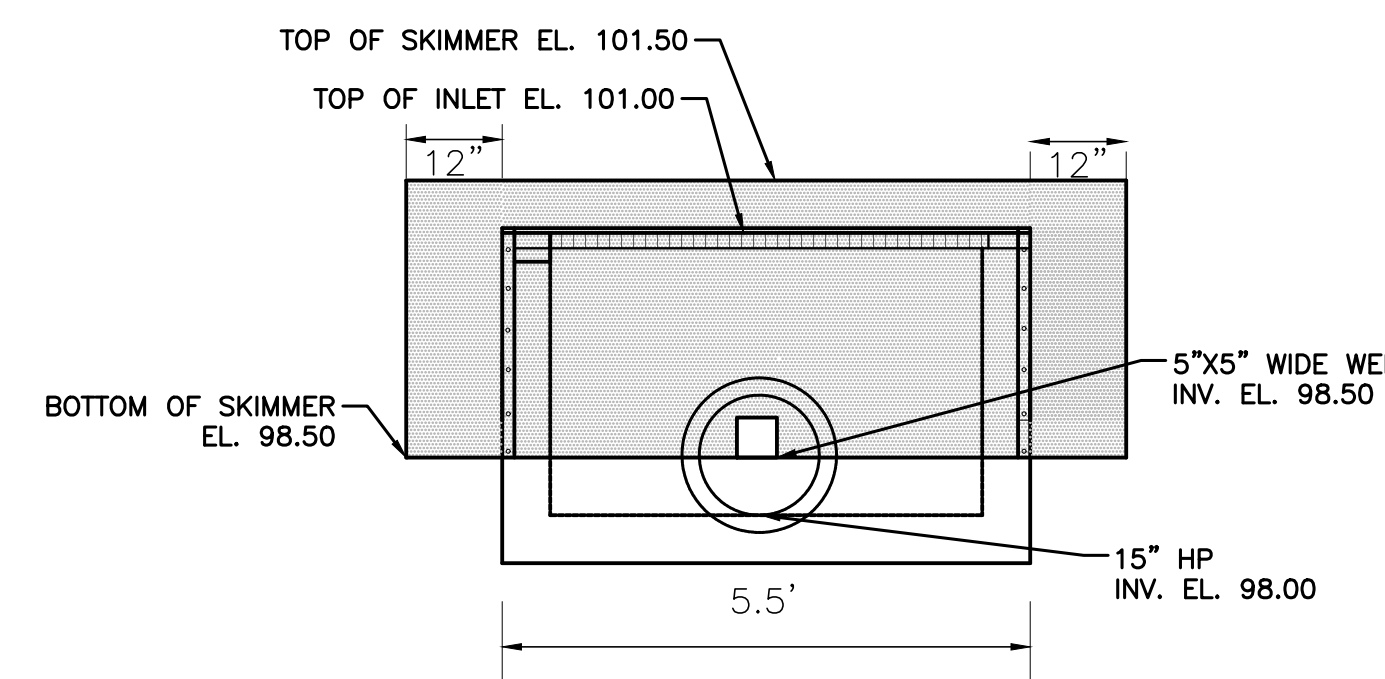
22-010\_ConstructionDetails.dwg



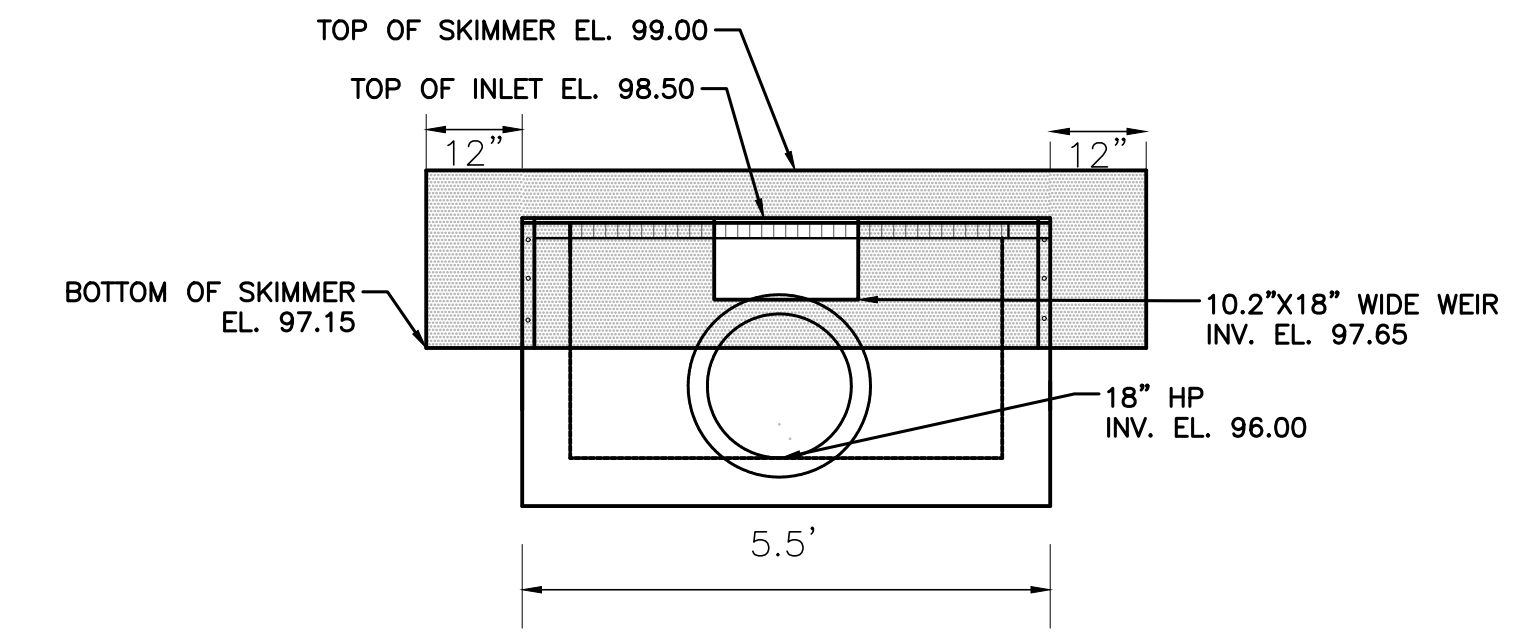
1  
C-30 N.T.S.  
**OUTFALL STRUCTURE CS-1 (POND 1)  
MODIFIED STORM MANHOLE TYPE 7 W/  
TYPE P BOTTOM PER FDOT STD PLANS**



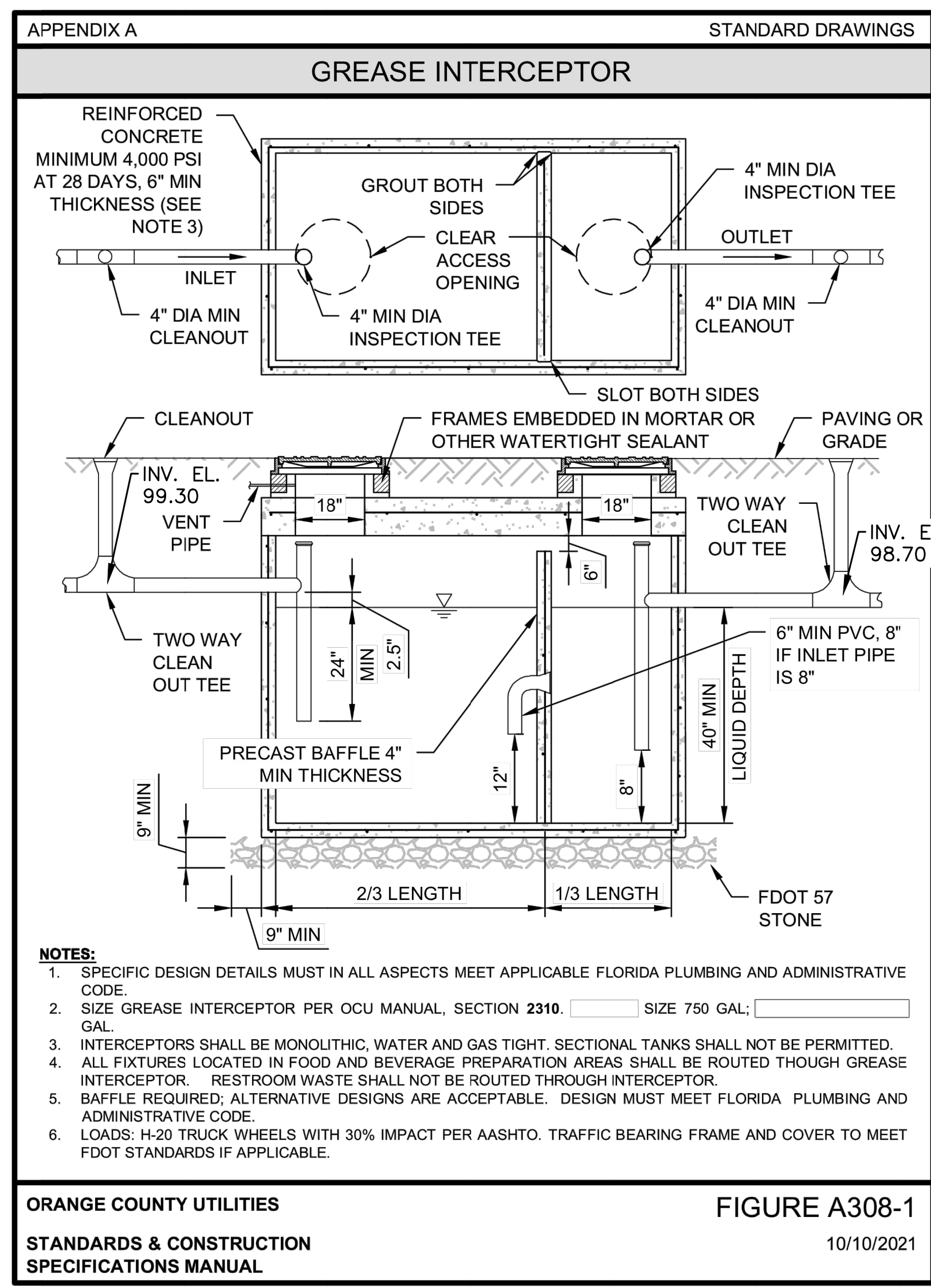
**TYPICAL CROSS-SECTION  
PROPOSED POND UNDERDRAIN**  
NOT TO SCALE



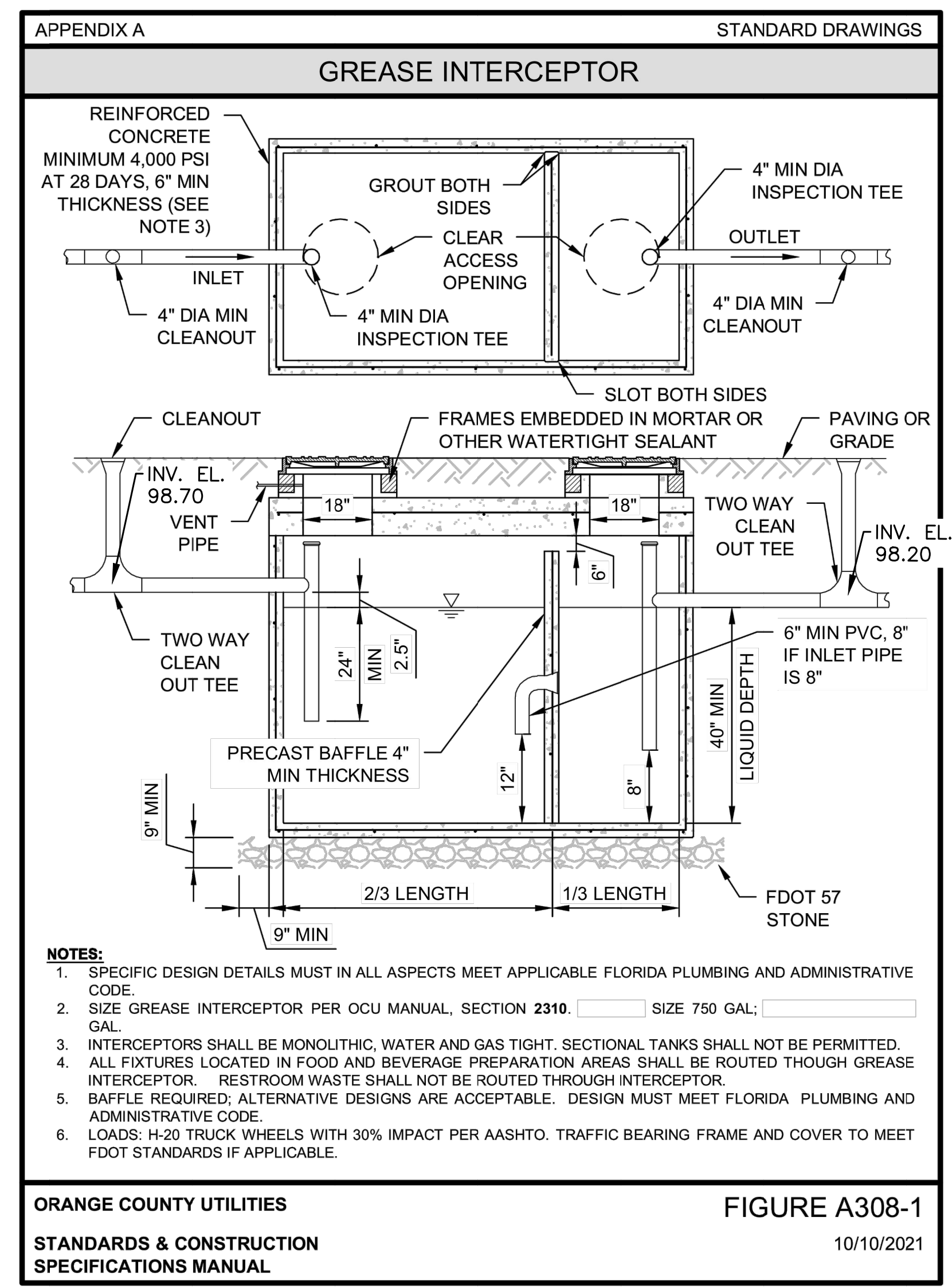
2  
C-30 N.T.S.  
**OUTFALL STRUCTURE CS-2 (POND 2)  
TYPE D MODIFIED INLET  
PER FDOT STD. PLANS 425-052**



3  
C-30 N.T.S.  
**OUTFALL STRUCTURE CS-3 (POND 3)  
TYPE D MODIFIED INLET  
PER FDOT STD. PLANS 425-052**



**GT-1  
GREASE INTERCEPTOR**  
N.T.S.



**GT-2  
GREASE INTERCEPTOR**  
N.T.S.

| DATE       | REVISIONS                                                | BY    | CHECKED |
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CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

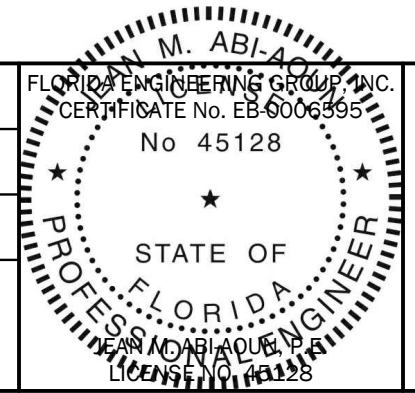


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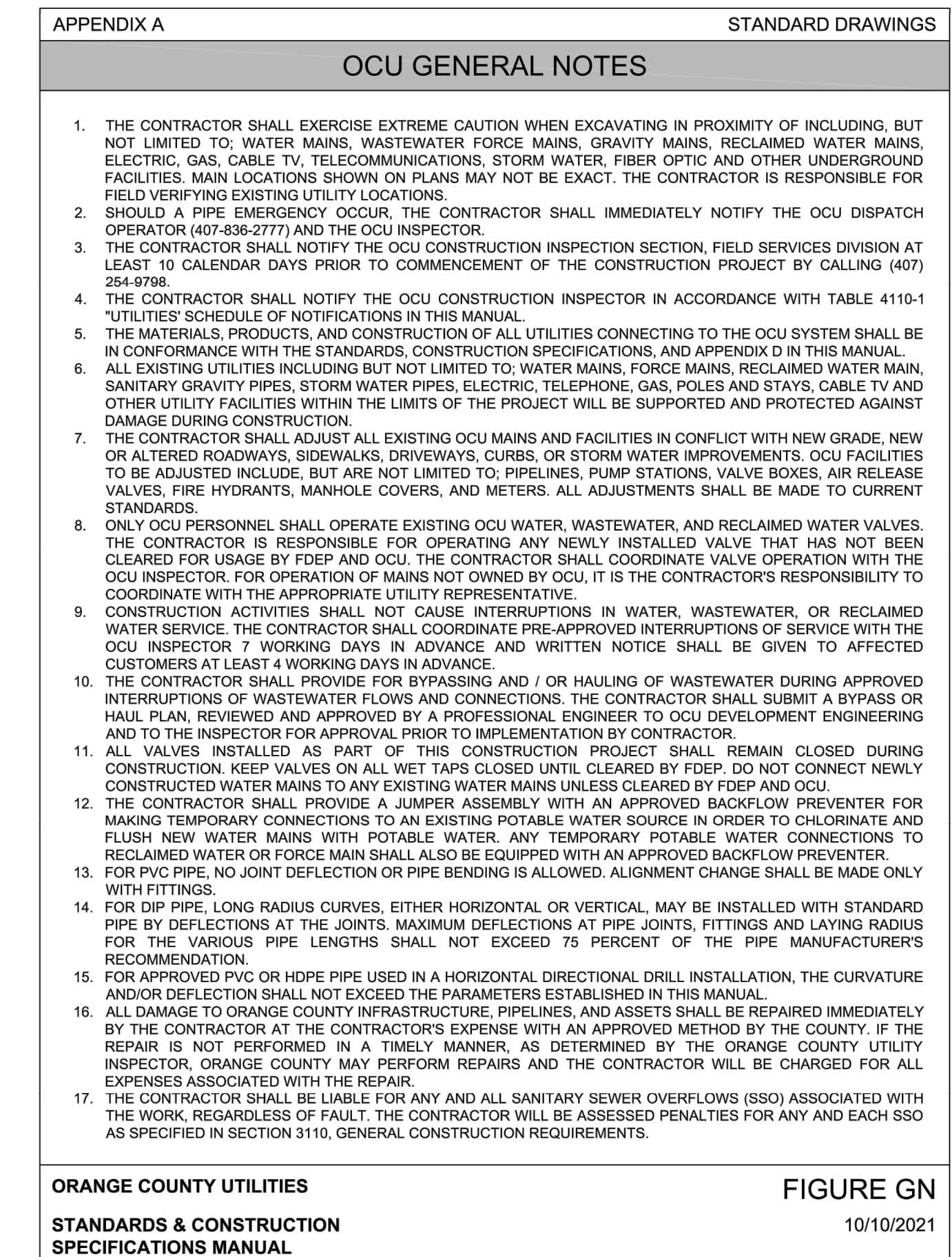
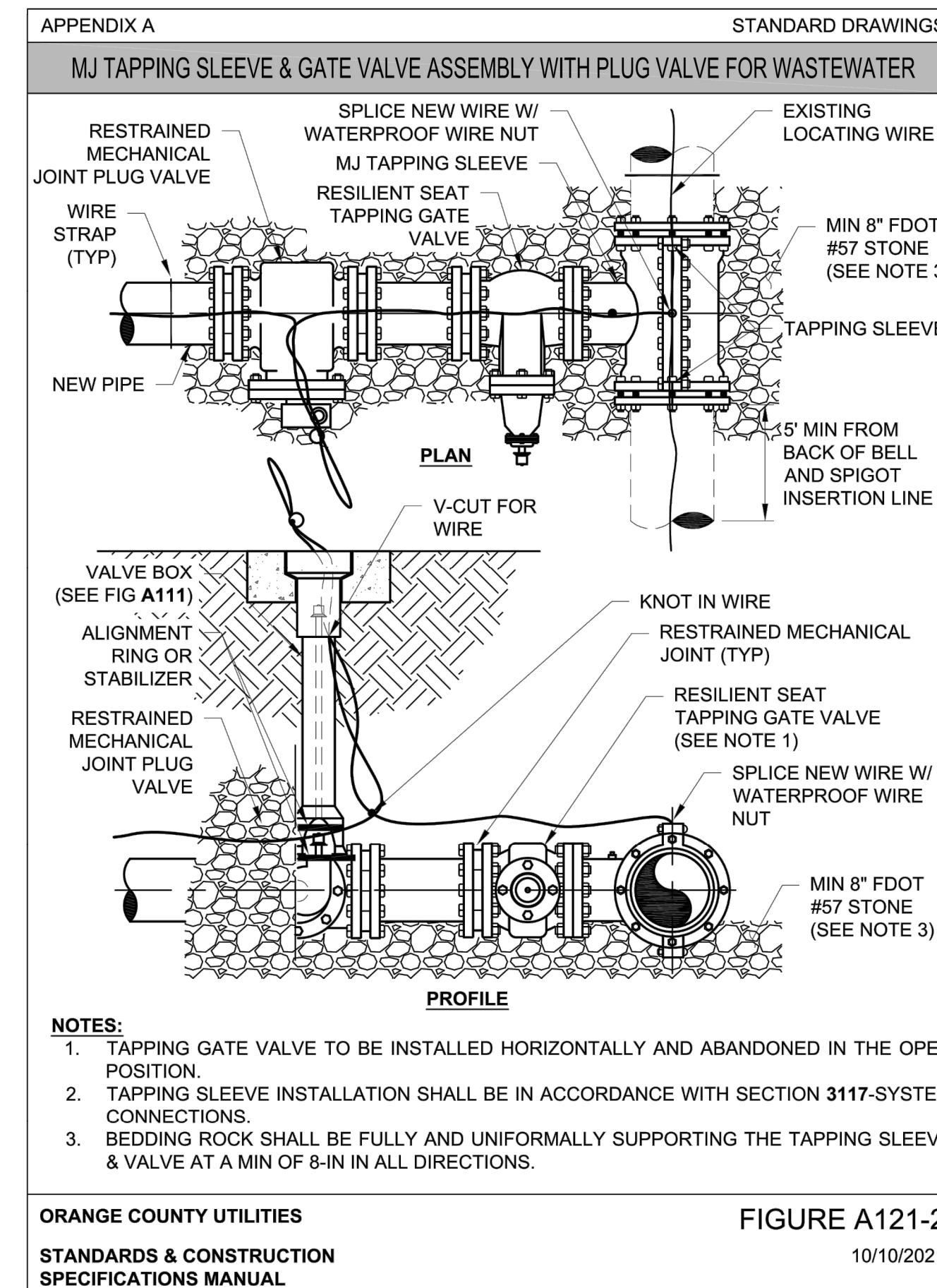
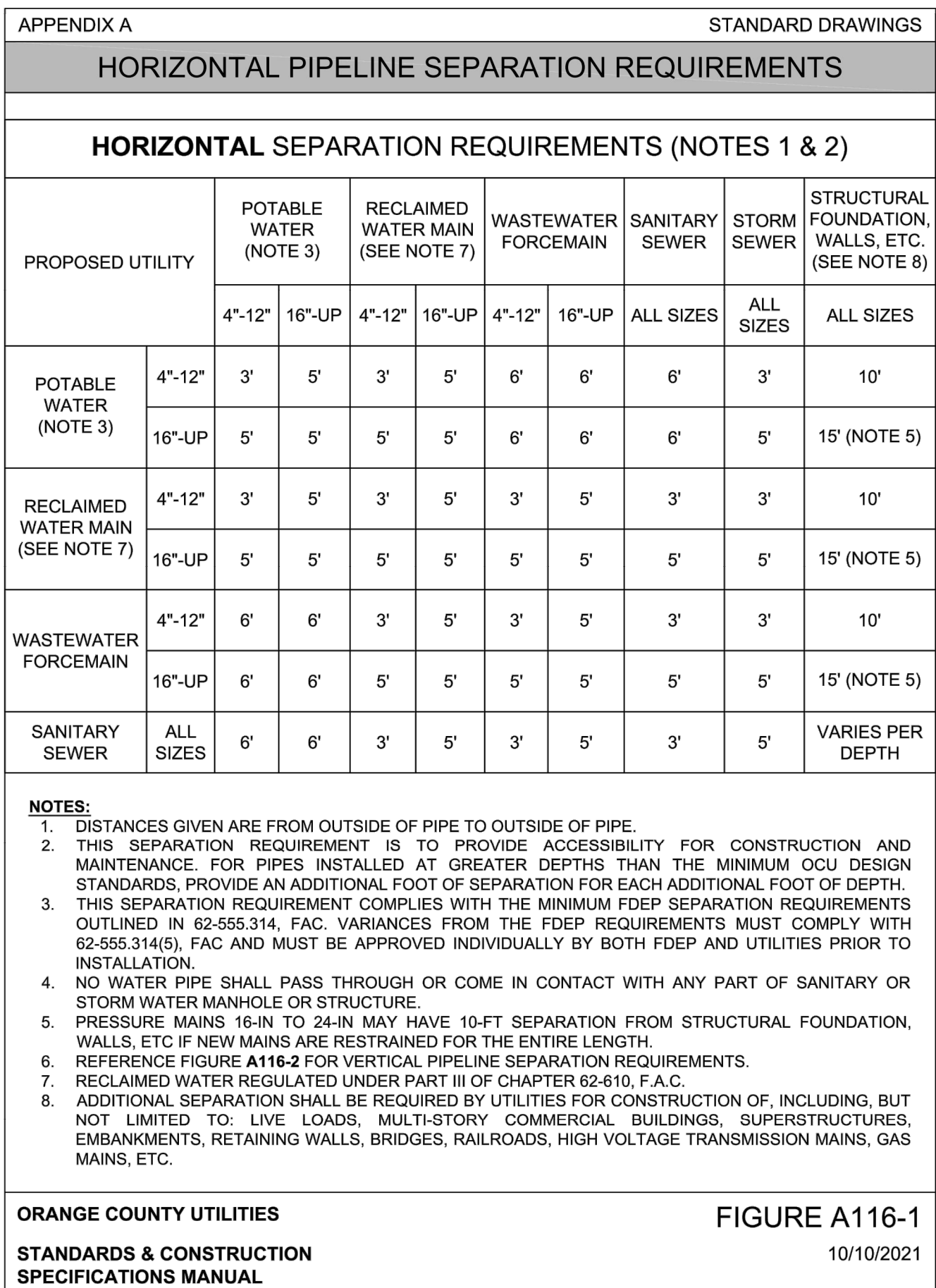
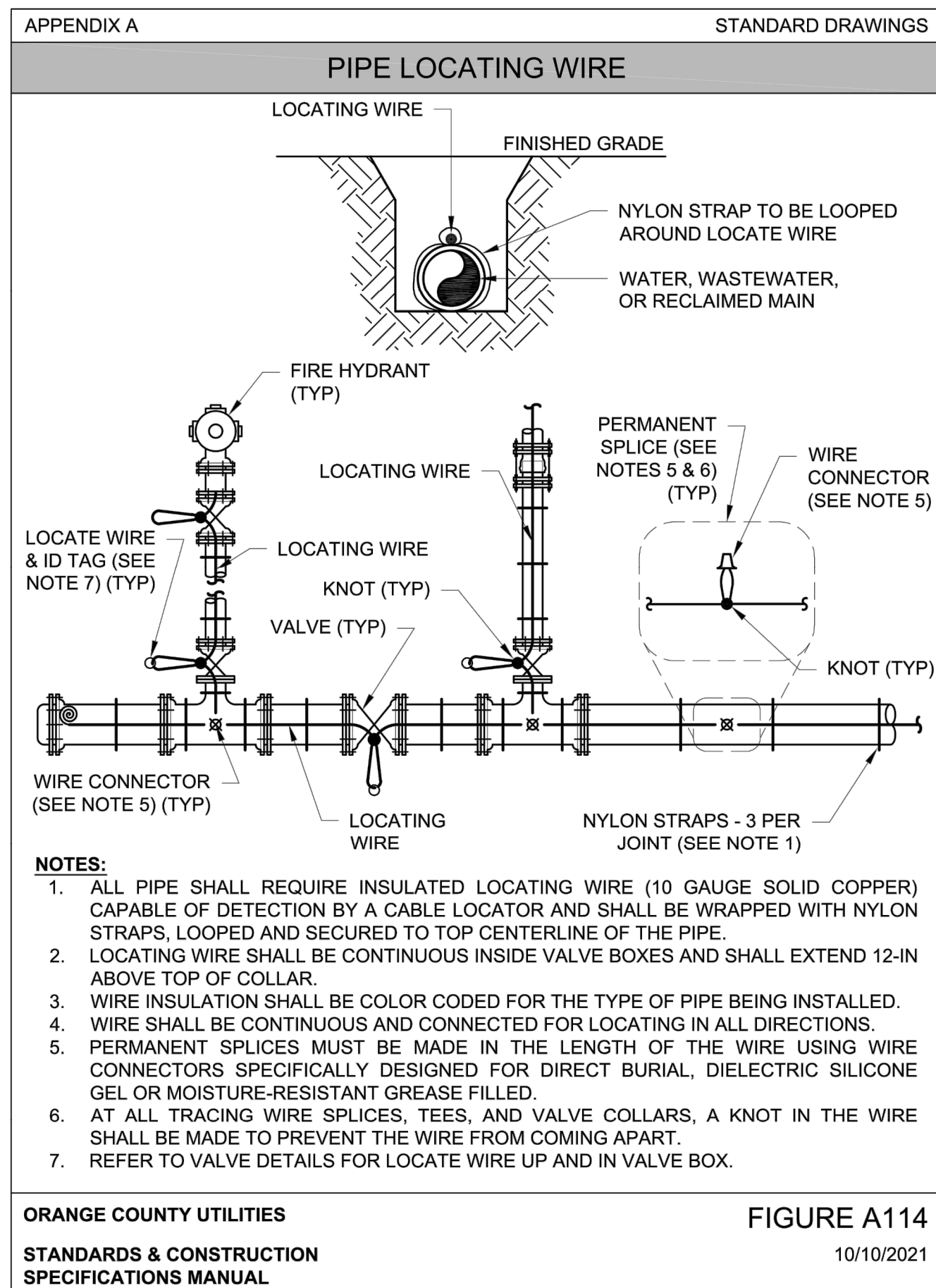
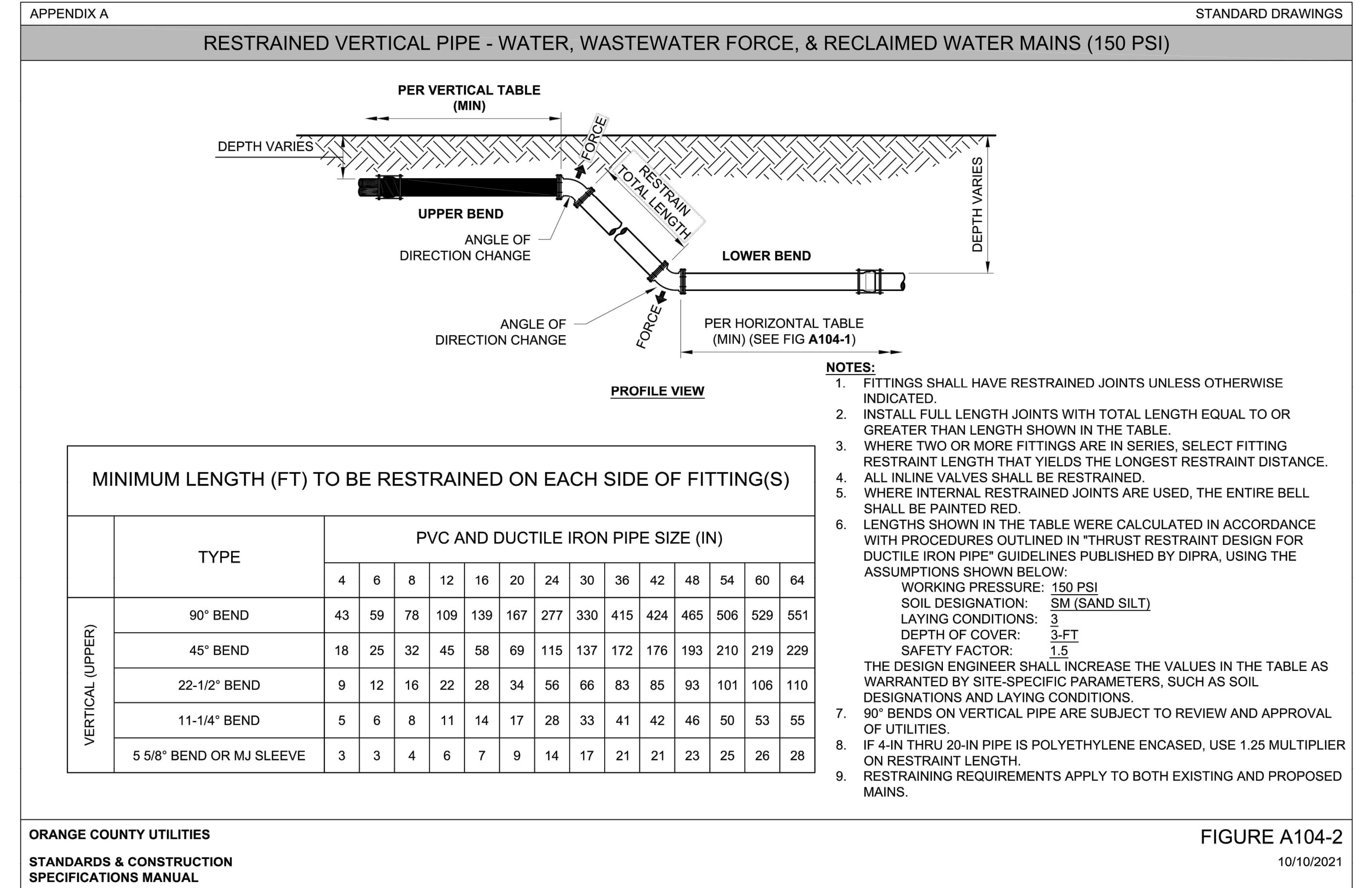
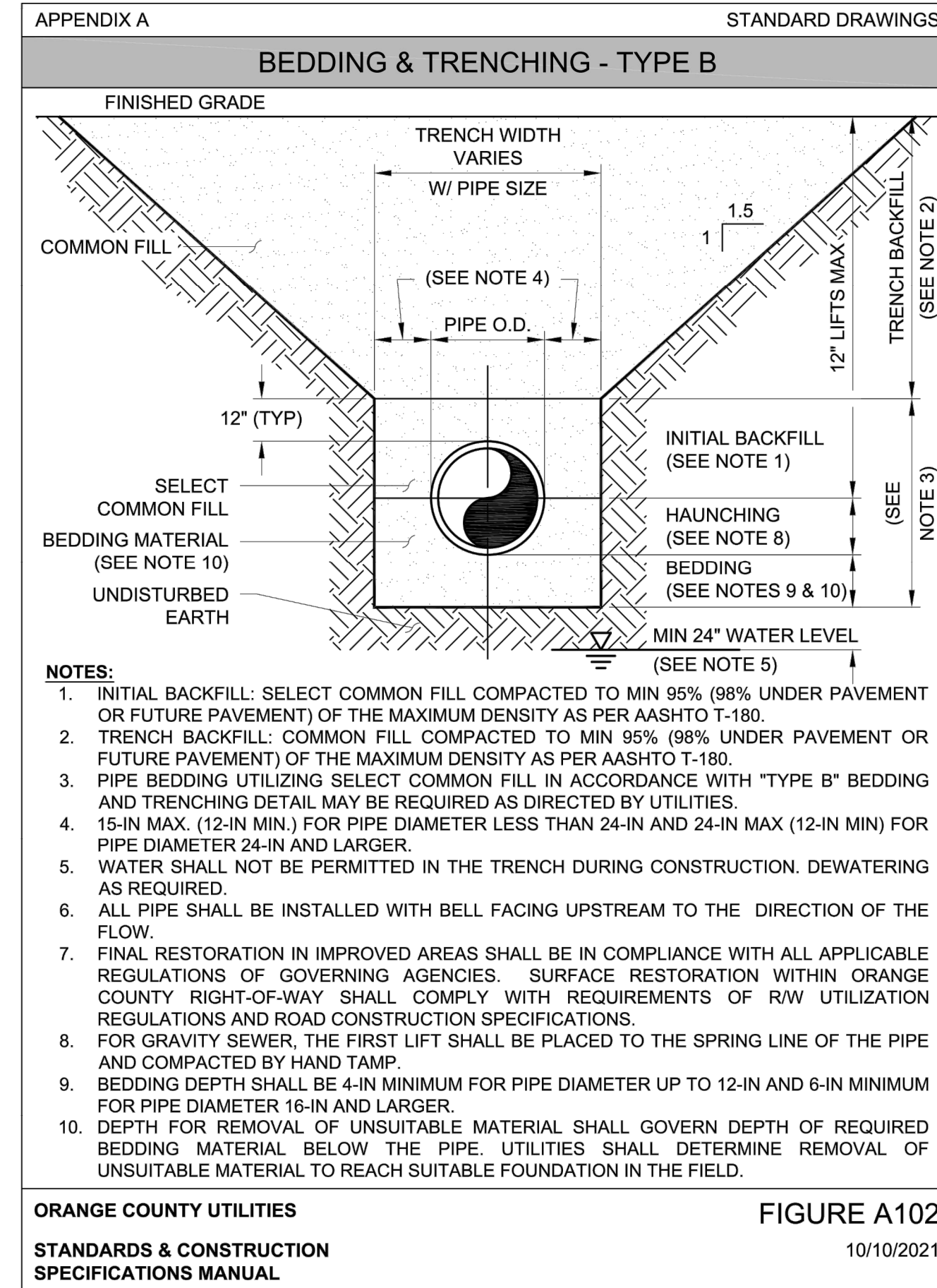
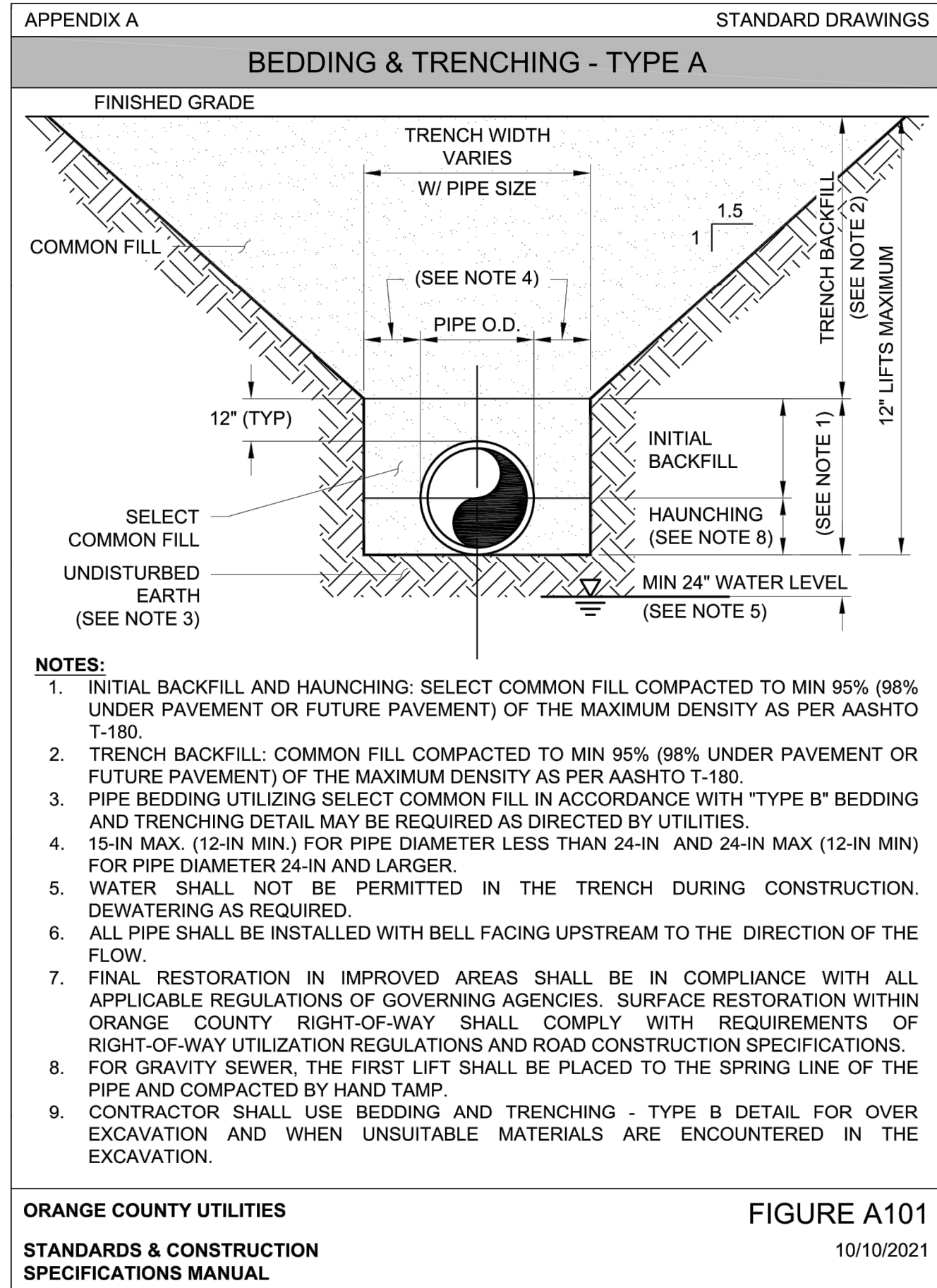
SITE CONSTRUCTION DETAILS (2 OF 2)

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

|                       |                   |
|-----------------------|-------------------|
| PROJECT NO.<br>22-010 | SCALE<br>N.T.S.   |
| DATE<br>JUNE 23, 2023 | SHEET NO.<br>C-30 |
| SHEET 30 OF 50        |                   |



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| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA



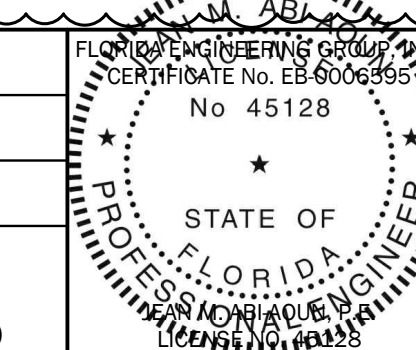
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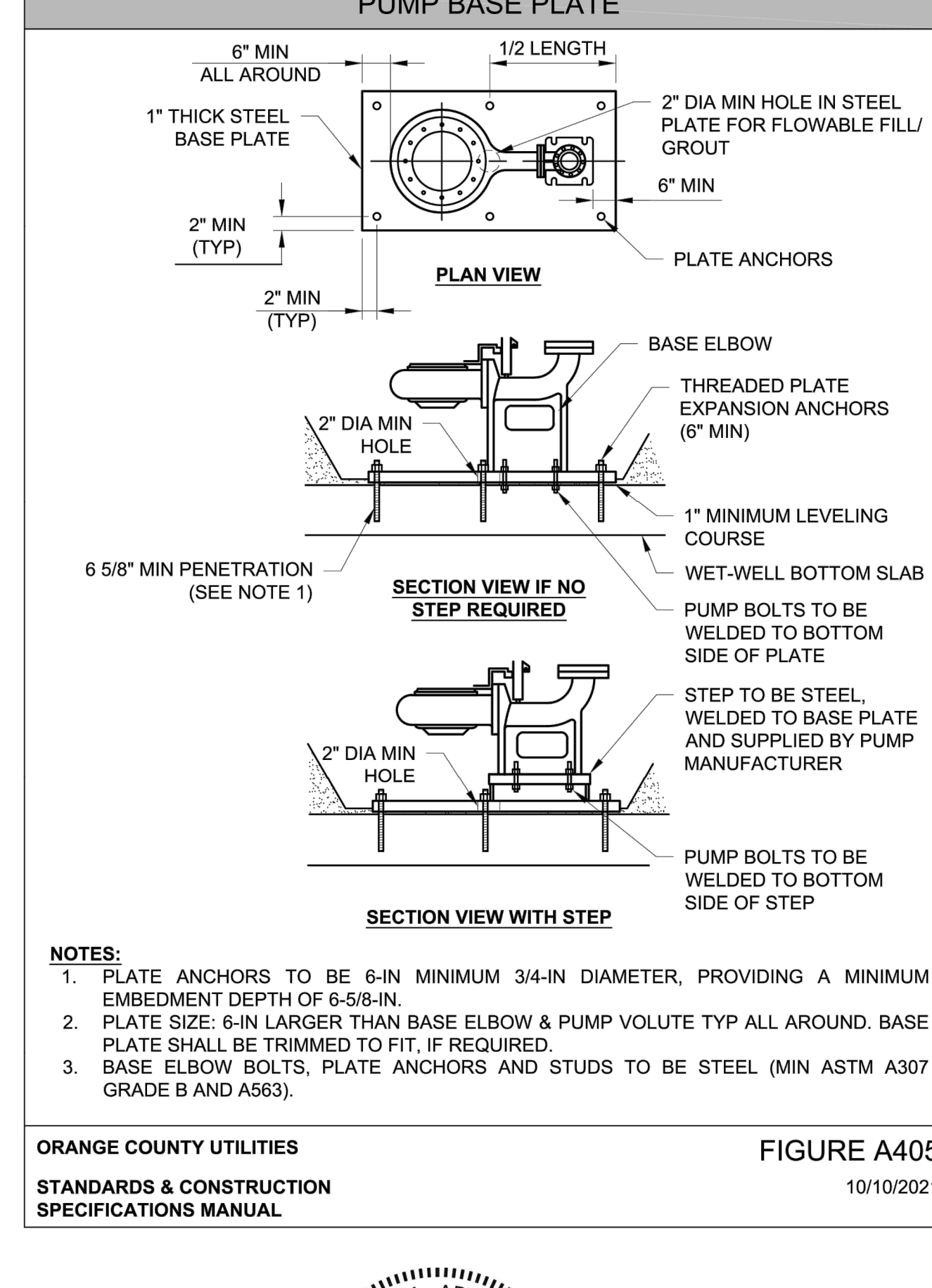
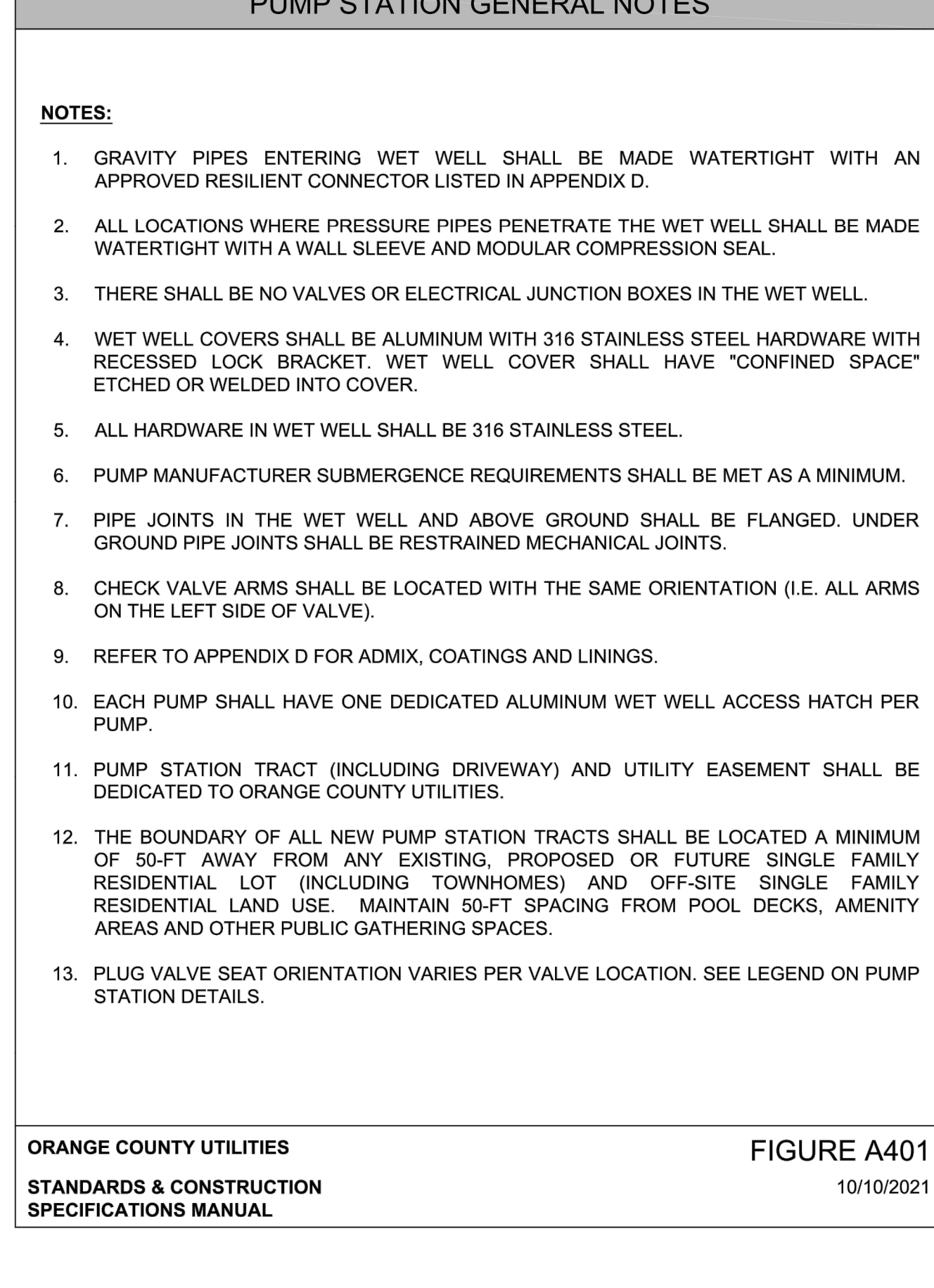
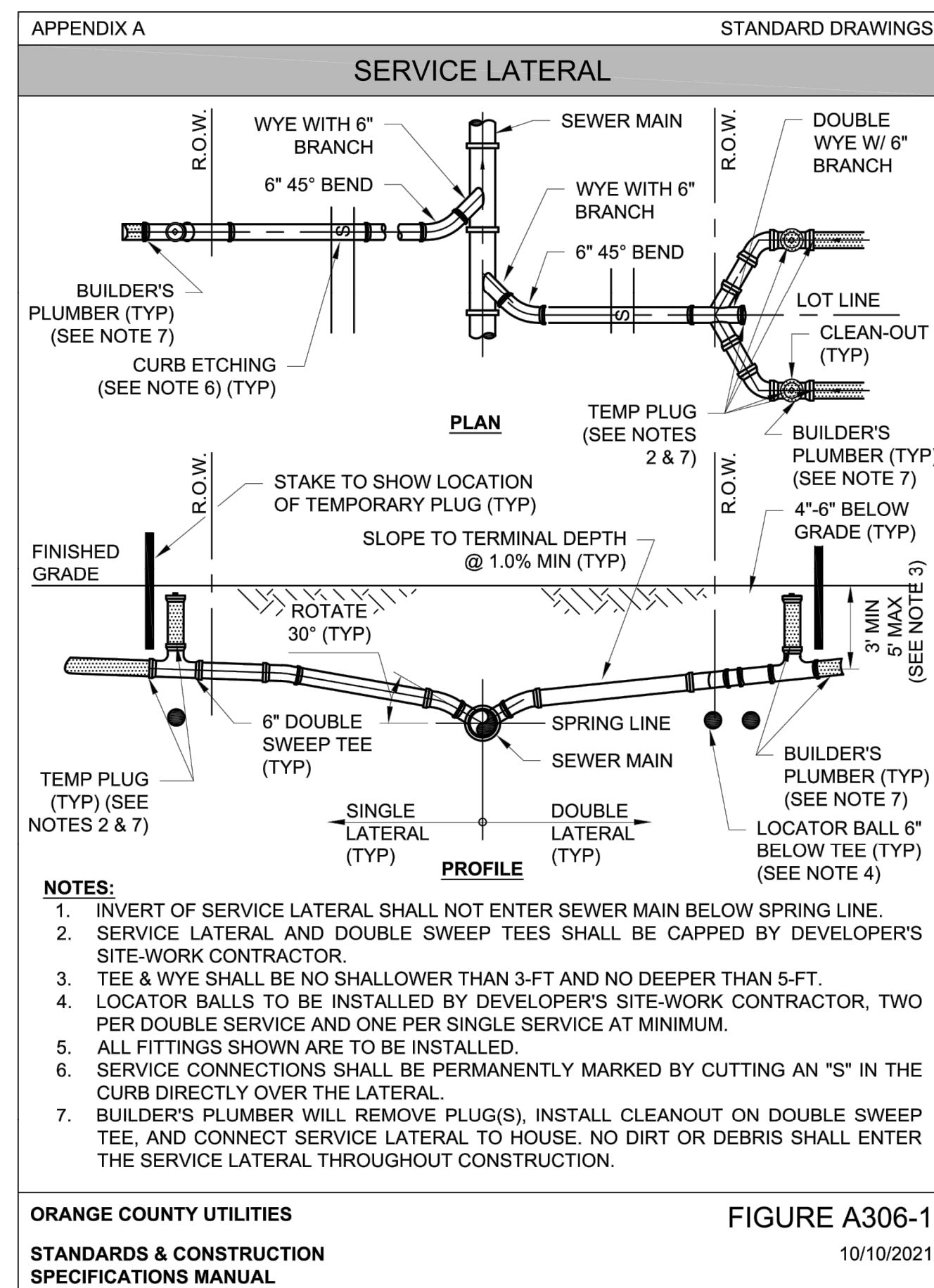
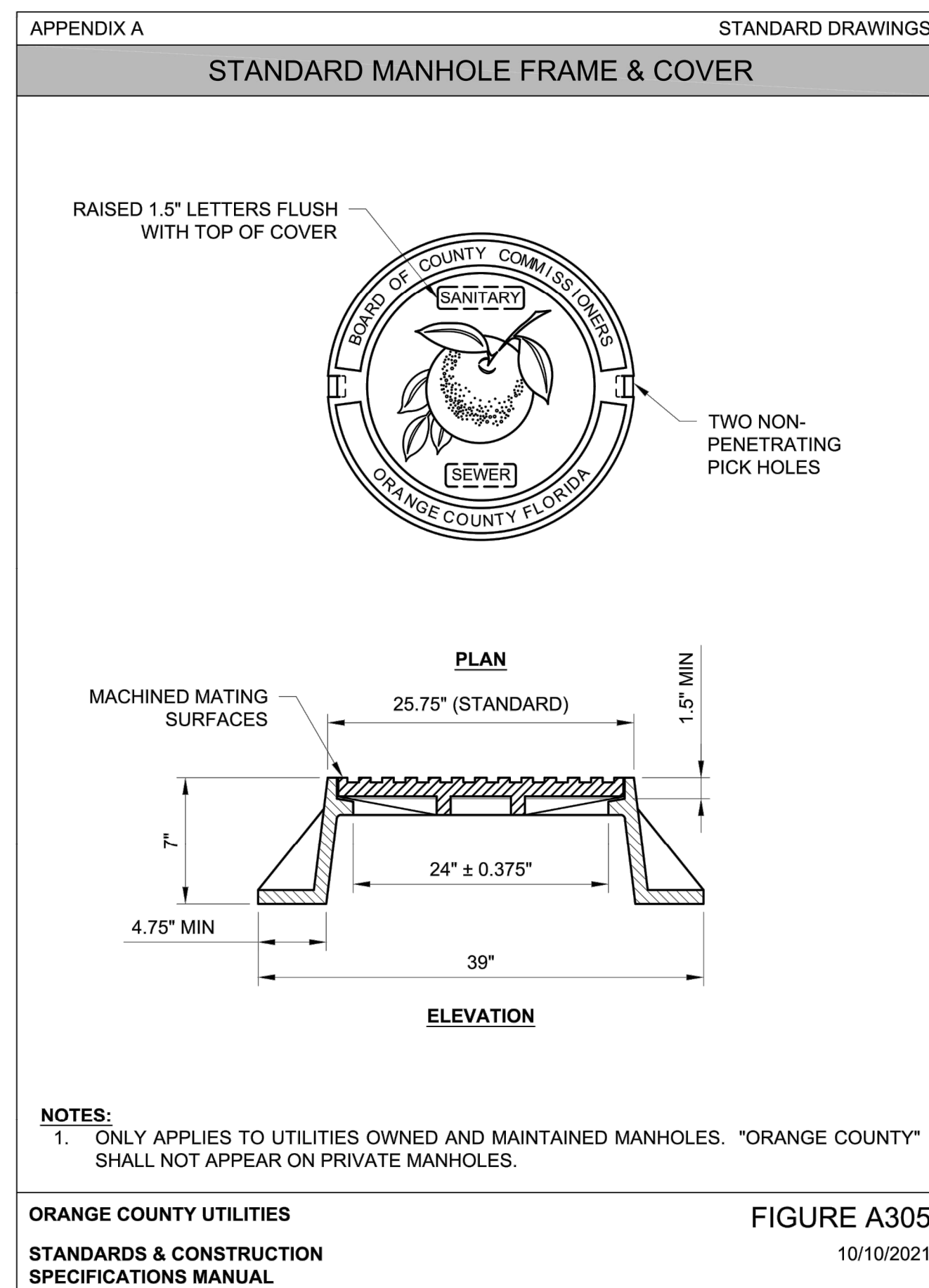
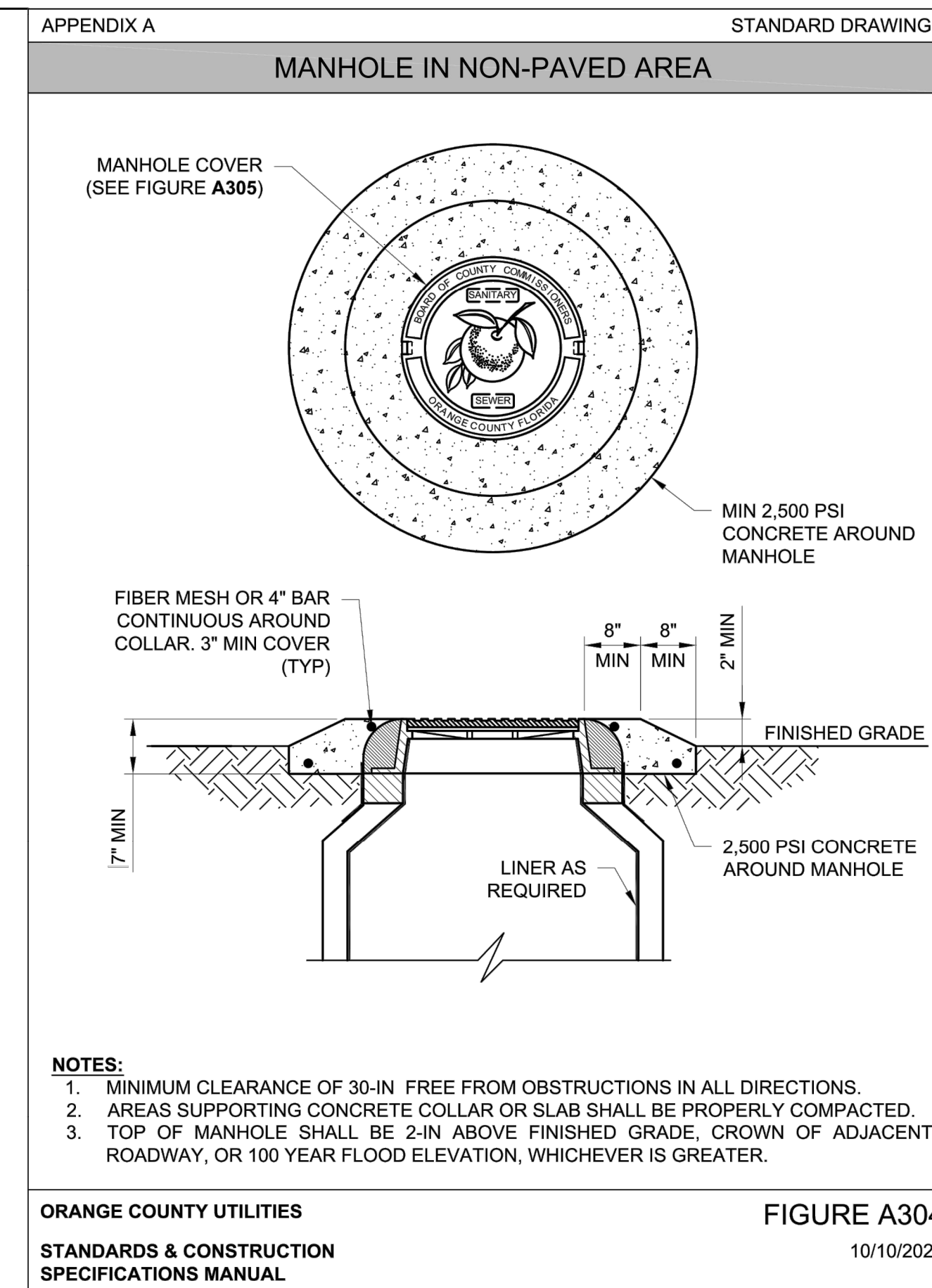
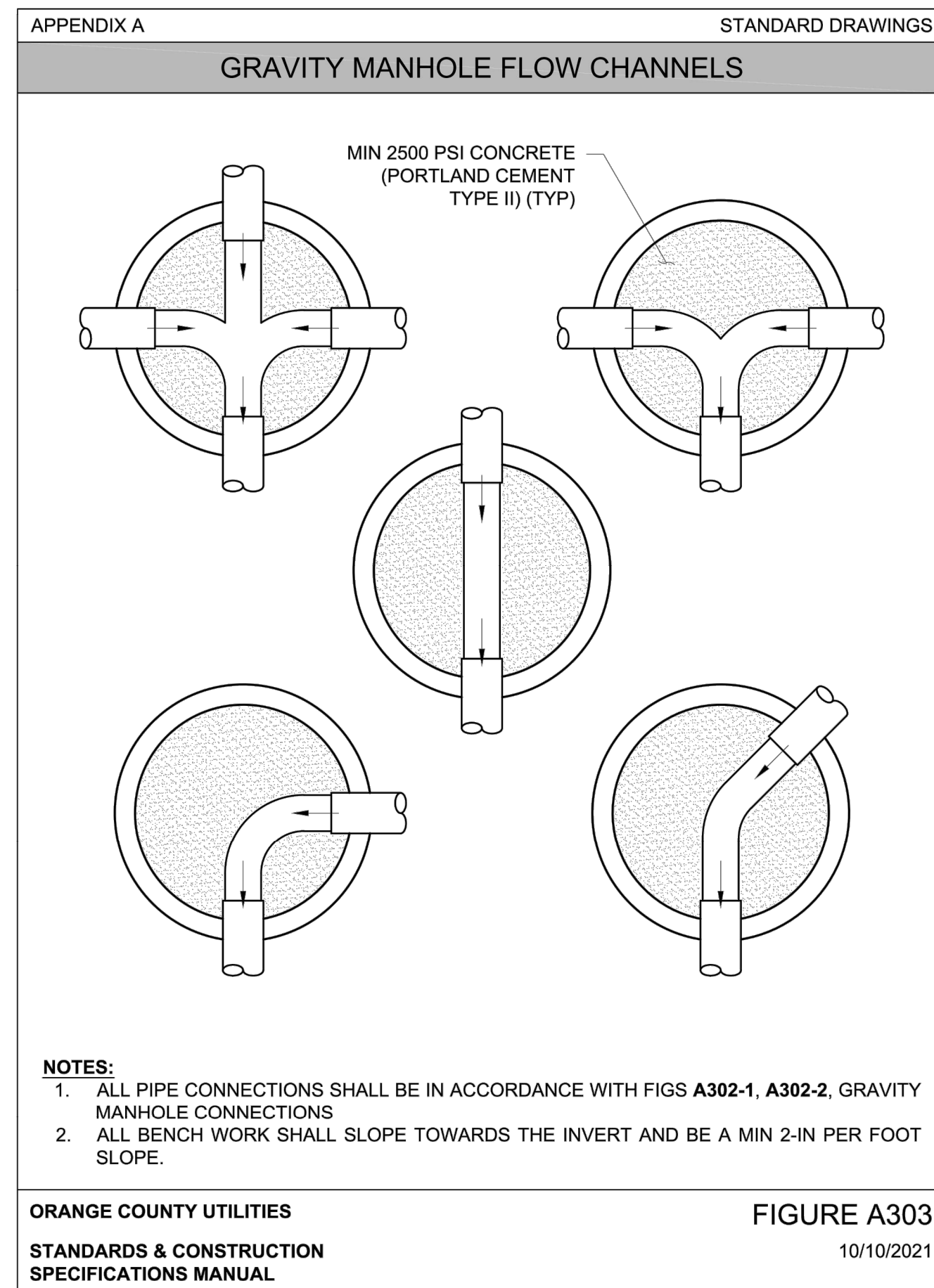
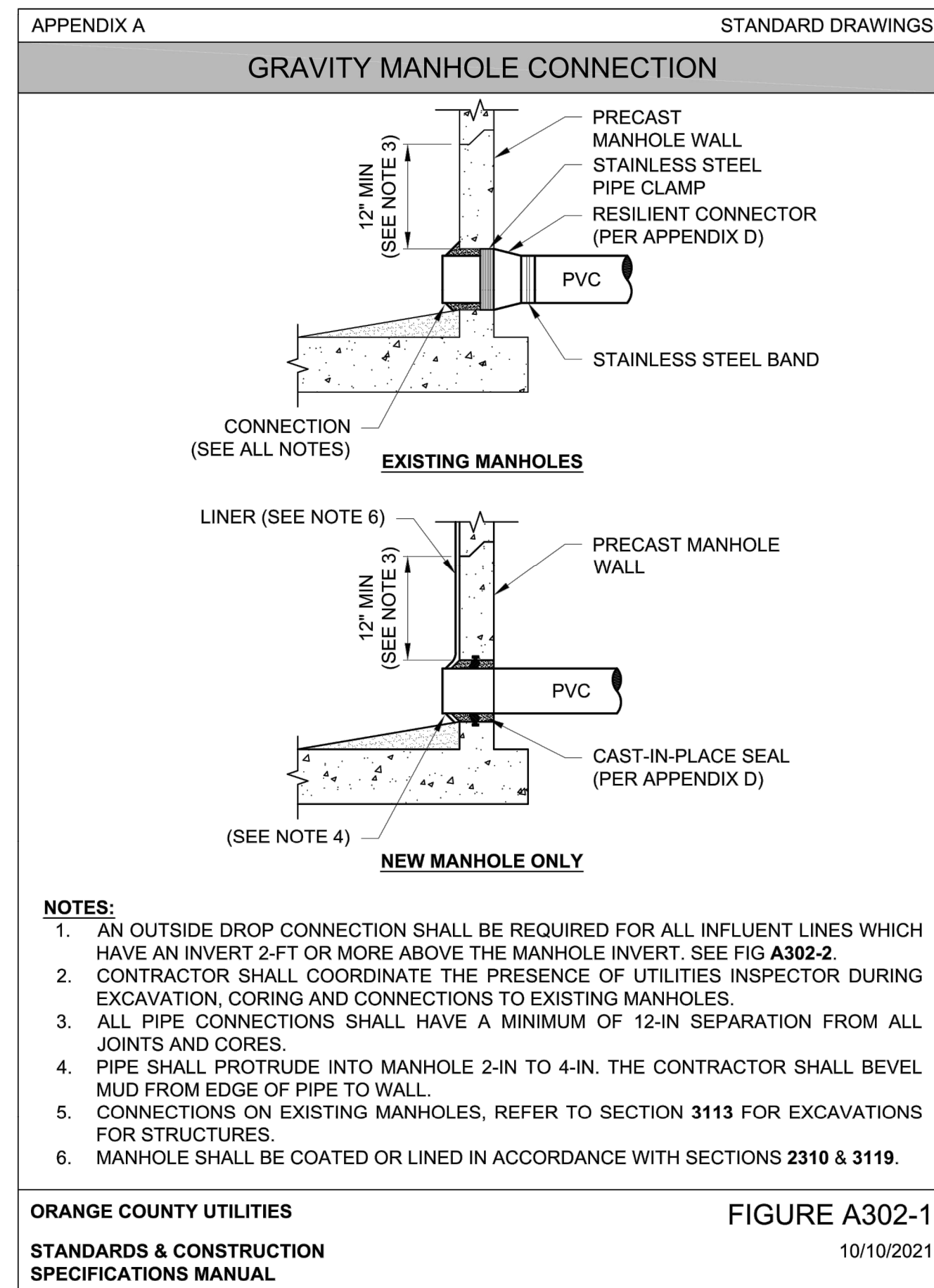
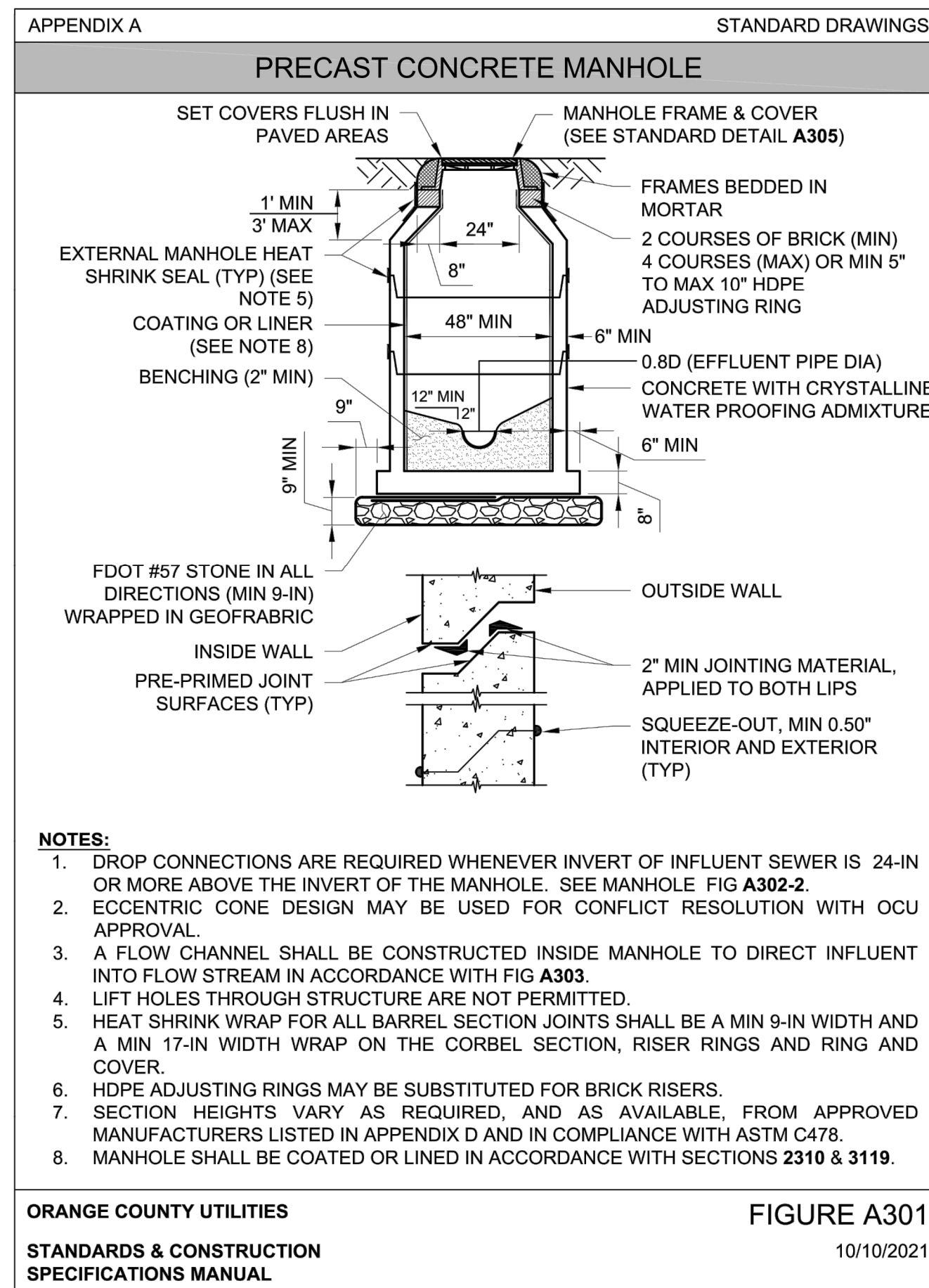
ORANGE COUNTY  
UTILITY DETAILS (1 OF 2)

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | N.T.S.        |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-31          |
| SHEET       | 31 OF 50      |



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CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

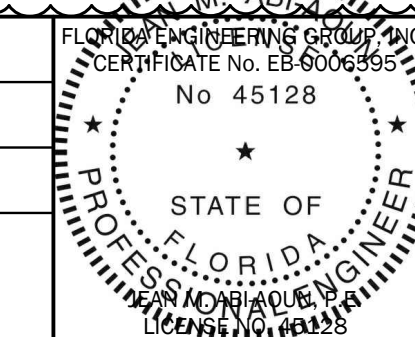


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Orlando, FL 32809  
Phone: 407-895-0324  
Fax: 407-895-0325  
www.feg-inc.us

ORANGE COUNTY  
UTILITY DETAILS (2 OF 2)

|                    |                |                   |                    |
|--------------------|----------------|-------------------|--------------------|
| DESIGNED BY<br>JAA | DRAWN BY<br>VP | CHECKED BY<br>JAA | APPROVED BY<br>JAA |
|--------------------|----------------|-------------------|--------------------|

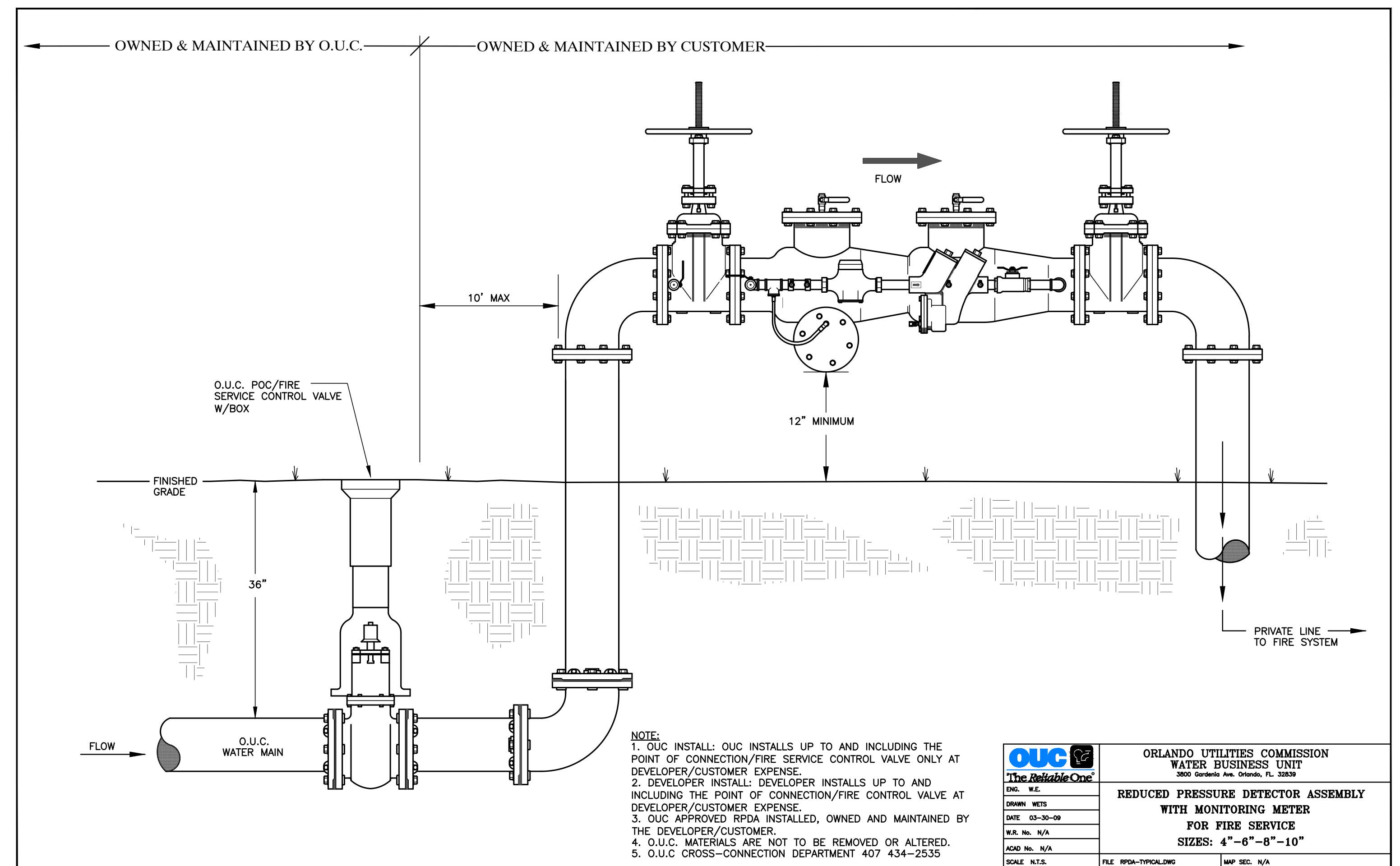
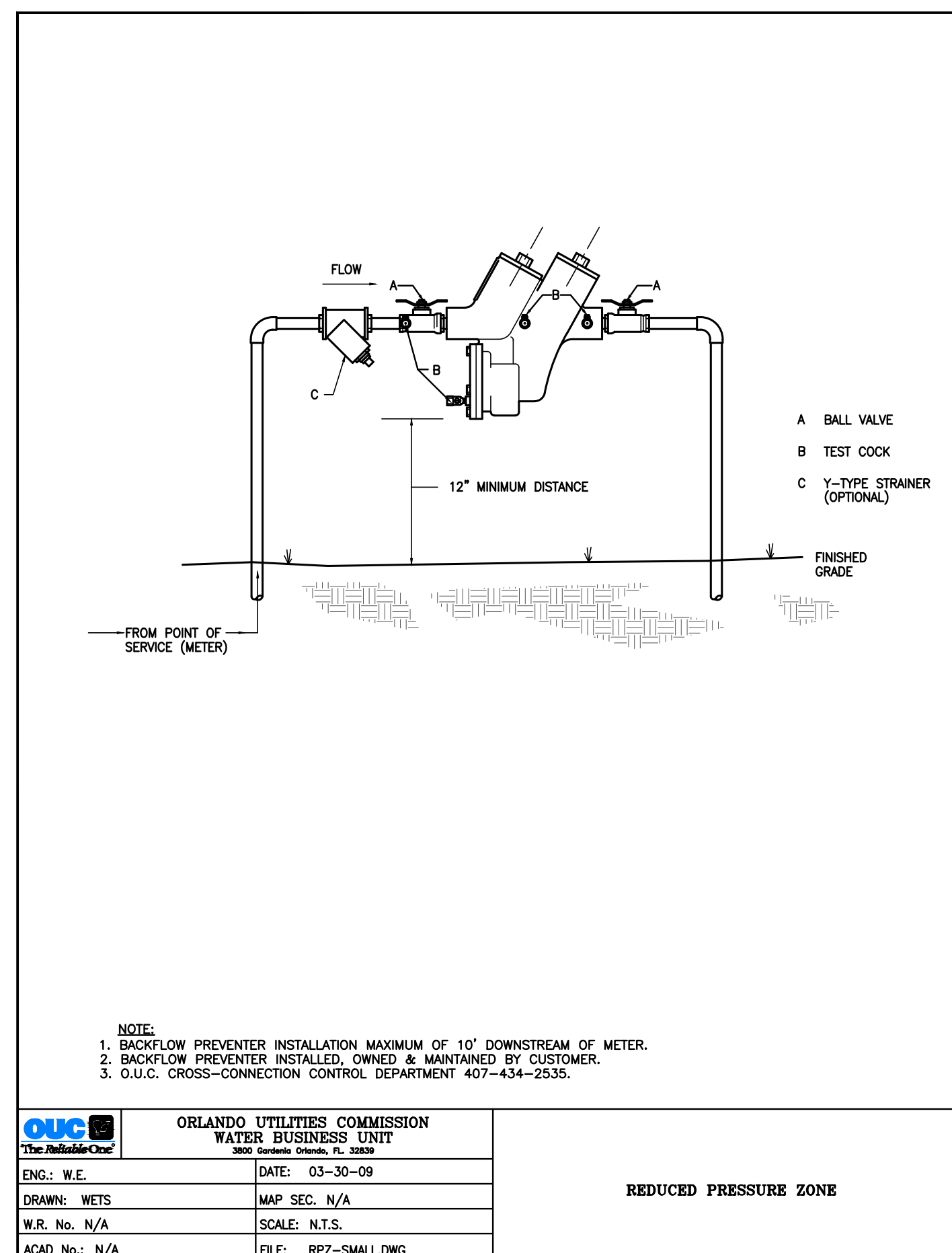
|                       |                   |
|-----------------------|-------------------|
| PROJECT NO.<br>22-010 | SCALE<br>N.T.S.   |
| DATE<br>JUNE 23, 2023 | SHEET NO.<br>C-32 |
| SHEET 32 OF 50        |                   |



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY (ENGINEER), P.E. ON (DATE) USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.







**OUC Water Engineering Notes (Rev. 10/30/13):**

The developer/customer shall accomplish all water main and service work through the point of service/control valve and water meters and deed to OUC. OUC will own and operate up to and including the OUC point of service/control valve and meters only. The required work shall be performed per current OUC guidelines, OUC Water Distribution Standard Specifications and OUC Water Distribution Material Specifications and water detail sheet under OUC inspection. The developer/customer must contact OUC Inspection at 407-649-4428 to schedule a pre-construction meeting prior to any water construction.

A minimum 4' clearance (including landscaping) must be maintained around meter assembly.

Domestic/fire master meter assembly will be provided by OUC at the developer/customers expense and shall be installed by the developer/customer. After payment, allow 30 days for receipt of the meter by OUC. The developer/customer shall arrange pickup from the OUC warehouse facility through the OUC inspector.

Contact OUC Inspection department for approved material and construction specifications pertaining to the installation of ductile iron pipe via directional or jack and bore method.

The developer/customer shall field verify the horizontal and vertical location of existing OUC water facilities before commencement of construction.

**For water wet taps, use only OUC approved tapping contractors:**

- Action Industries, Inc. 352-732-6941 or 800-216-4464
- Central Florida Tapping and Construction Services, Inc. 407-834-8271
- Mac Tapping, Inc. 407-468-0557
- Rangeline Tapping Services, Inc. 800-346-5971
- TDW Services, Inc. 407-843-2800
- T & R Tapping Service, Inc. 407-339-3685
- EA Services 407-880-6786

**Easements:**

All on-site OUC water facilities (mains, services, meters, and fire hydrants) shall be located within a utility easement in accordance with current OUC private property guidelines. The developer is to furnish all necessary information, including legal description(s) to prepare and document this easement. Water metes and fire services will not be activated until the final easement(s) have been received and approved by OUC. Any questions or comments please contact OUC Property and Right of Way department at 407-434-2158.

**Connection to Existing valve**

Contractor to verify location, condition and pressure test existing valve prior to connection. If valve does not hold required pressure test additional valve will be required at developers/contractor's expense.

**OUC Backflow Prevention Requirements:**

Backflow devices will be owned and maintained by customer unless otherwise noted. Any questions contact OUC Backflow Prevention Department at 407-649-4428.

**Domestic and Irrigation**

The Developer/Customer is responsible for the required Reduced Pressure Backflow Preventer. Residential domestic backflow preventers are required in areas where reclaimed or other water supply, i.e. well, is provided to the site.

**Fire Line:**

The Developer/Customer is responsible for the required Reduced Pressure Detector Check Assembly w/Monitoring meter for backflow prevention.

**As - Built Drawings**

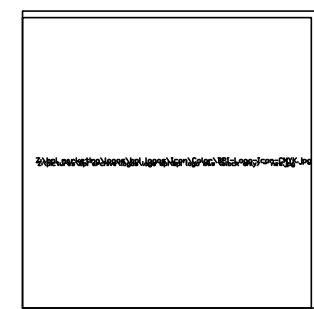
The customer/developer shall provide vertical and horizontal as-built information relative to all constructed utilities and structures. The submittal will include a signed and sealed drawing and a CD with the as built information in AutoCAD 2004 format.

State Planes Coordinates, East Florida, NAD 1983-90 is the preferred coordinate system. If a project coordinate system is used, all drawings will be based on this system and existing features i.e. edge of pavement, road intersections, buildings must be referenced to aid in the locating of project infrastructure in OUC's Geographic Information System. If no existing features are shown at least 2 State Plane Coordinate points must be surveyed and bench marked.

As-Built information for the water system shall include, but not be limited to, the following:

1. Location of all valves, fittings, hydrants, and services.
2. Location of the water main tied horizontally to the back of curb or edge of pavement.
3. Certification as to the system meeting the minimum cover requirements.
4. Horizontal and vertical data for any construction which deviates from the approved engineering plans.

The contractor shall cut "W" in the top curb of each water service and a "V" at all valve locations. Cut W's and V's shall be highlighted with blue paint.



# BARNEY'S PUMPS, INC.

PO BOX 3529, LAKELAND, FL 33802

PHONE: (863) 665-8500 FAX: (863) 666-3858

## DUPLIX FIBERGLASS GRINDER LIFT STATION

### GENERAL NOTES

PUMPS SHALL BE OF THE SUBMERSIBLE TYPE (MANUFACTURED BY HYDRAMATIC OR HOMA). EACH PUMP SHALL BE MOUNTED ON A 8" RAIL SYSTEM. THE RAIL SYSTEM SHALL BE SELF ENGAGING RESULTING IN A LEAKPROOF COUPLING. THE RAIL SYSTEM SHALL INCLUDE THE BASE ELBOW, DISCHARGE FLANGE ASSEMBLY, 316SS GUIDE RAILS, 316SS UPPER GUIDE BRACKET, 316SS LIFTING RAIL AND CABLE, AND A SIX-HOOK 316SS CABLE HOLDER. THE RAIL SYSTEM SHALL BE MOUNTED AND PRE-PIPED BY THE PUMP SUPPLIER.

#### PUMP CONSTRUCTION

THE PUMP VOLUTE, MOTOR AND SEAL HOUSING SHALL BE CONSTRUCTED OF CAST IRON. ALL EXTERNAL FASTENERS SHALL BE SERIES 300 STAINLESS STEEL. THE PUMP SHAFT SHALL BE CONSTRUCTED OF SERIES 416 STAINLESS STEEL.

#### IMPELLER

THE IMPELLER SHALL BE OF MULTI-VANE, SEMI-OPEN CONSTRUCTION. THE IMPELLER SHALL BE STATICALLY AND HYDRAULICALLY BALANCED.

#### CUTTERS

A CUTTER ASSEMBLY SHALL BE MOUNTED ON THE SUCTION SIDE OF THE PUMP WITH DIRECT DISCHARGE INTO THE PUMP IMPELLER. THE GRINDER SHALL BE CAPABLE OF GRINDING MATERIALS FOUND IN NORMAL, DOMESTIC SEWAGE. BOTH THE STATIONARY AND ROTATING CUTTERS SHALL BE CONSTRUCTED OF HARDENED STEEL.

#### MOTOR

THE MOTOR SHALL BE MOUNTED IN A SEALED, SUBMERSIBLE TYPE HOUSING. THE STATOR SHALL BE SECURELY HELD IN PLACE WITH A REMOVABLE END RING AND THREADED FASTENERS FOR EASE OF REMOVAL WITHOUT THE USE OF HEAT OR A PRESS. THE MOTOR WILL HAVE TWO HEAVY-DUTY BALL BEARINGS; ONE UPPER (RADIAL) AND ONE LOWER (THRUST), TO SUPPORT THE SHAFT. THE MOTOR SHALL BE EQUIPPED WITH A WINDING THERMOSTAT THAT IS WIRED TO SHUT THE MOTOR OFF IN CASE OF MOTOR OVERHEATING.

#### SEAL CHAMBER

THE PUMP SHALL HAVE TWO MECHANICAL SEALS, MOUNTED IN TANDEM WITH AN OIL CHAMBER BETWEEN THE SEALS. THE PUMP SHALL BE EQUIPPED WITH A SEAL LEAK DETECTION PROBE AND WARNING SYSTEM BY USING A SEAL FAILURE SENSOR INSTALLED IN THE SEAL CHAMBER.

#### WET WELL

THE PUMP SUPPLIER SHALL PROVIDE THE WET WELL. THIS GLASS FIBER-REINFORCED POLYESTER BASIN SHALL BE CONSTRUCTED OF A COMMERCIAL GRADE OF GLASS FIBER AND SHALL BE PROVIDED WITH FILLET AND AN ANTI-FLOTATION RING WITH A MINIMUM DIAMETER OF THREE INCHES LARGER THAN THE BASIN DIAMETER. THE RAIL SYSTEM, INTERNAL PIPING AND DISCHARGE CONNECTIONS SHALL BE PRE-INSTALLED BY THE PUMP SUPPLIER. WET WELL SHALL MEET ASTM STANDARD NO. D3753.

#### HATCH COVER

THE HATCH COVER SHALL BE 2/3 HINGED TO ALLOW FOR MAXIMUM ACCESS TO THE WET WELL. THE HATCH COVER SHALL BE ALUMINUM WITH STAINLESS STEEL HARDWARE, RATED FOR 300 PSF OR GREATER. THE HATCH COVER SHALL INCLUDE A SINGLE OR DUAL DOOR OF DIMENSIONS SPECIFIED BY THE PUMP MANUFACTURER FOR PROPER PUMP CLEARANCE. THE COVER SHALL BE MANUFACTURED BY USF FABRICATION, OR EQUAL.

#### VALVE BOX

THE VALVE BOX IS FIBERGLASS WITH ALUMINUM LOCKABLE COVER. STANDARD SIZE VALVE BOX IS 32"x30"x25".

#### VALVES

VALVES SHALL BE SEWAGE SWING CHECK WITH CLEAN-OUT PORTS AND BRASS GATE VALVES.

#### FLOATS

FLOATS SHALL BE ANCHOR SCIENTIFIC ROTO-FLOATS OR EQUAL.

#### CONTROLS

THE CONTROL PANEL SHALL BE UL508 LISTED. ENCLOSURE SHALL BE PROVIDED IN 4X POLYCARBONATE. THE PANEL SHALL INCLUDE AN ALTERNATING CONTROL SCHEME (DUPLIX AND ABOVE), MAIN CIRCUIT BREAKER, GENERATOR RECEPTACLE, HIGH LEVEL ALARM LIGHT AND HORN, ELAPSED TIME METERS, VOLTAGE OR PHASE MONITOR, SEAL FAILURE AND OVERLOAD SENSORS. THE LIGHTNING ARRESTOR SHALL BE PROVIDED BY BARNEY'S PUMPS AND INSTALLED BY CONTRACTOR.

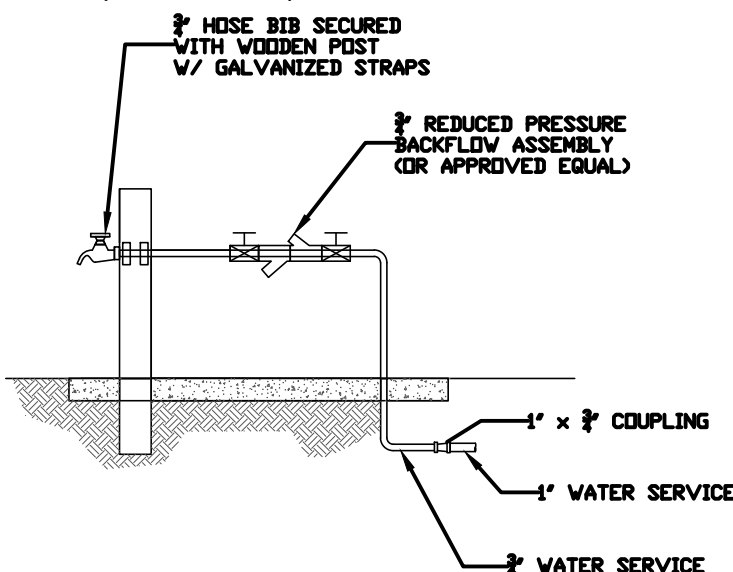
#### ELECTRICAL

ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.

#### SUPPLIER

PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, FIBERGLASS BASIN AND VALVE BOX, CONTROL PANEL, FLOAT SWITCHES, ALUMINUM HATCHES AND ACCESSORIES TO INSURE PROPER OPERATIONS AND WARRANTY. THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, RAIL ASSEMBLIES, AND DISCHARGE PIPING ASSEMBLED BY BARNEY'S PUMPS INC. READY FOR FIELD INSTALLATION.

PUMP PACKAGE SHALL BE SUPPLIED BY BARNEY'S PUMPS INC. IN LAKELAND (863-665-8500), CORAL SPRINGS (954-348-0669), OR JACKSONVILLE (904-280-0669), FL.

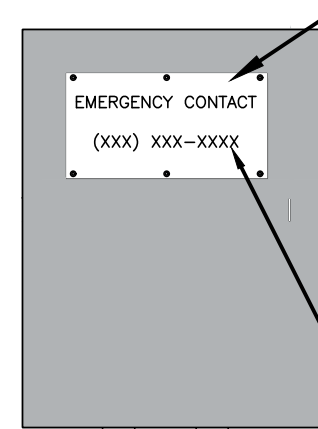


HOSE BIB DETAIL (LOCAL CODES PREVAIL)  
N.T.S. (SUPPLIED BY CONTRACTOR)

#### FDEP REQUIREMENTS

PROVIDE 3/4" WATER LINE WITH A 3/4" RPZ. ALL ELECTRICAL PANELS SHALL BE ABOVE THE 100 YEAR FLOOD ELEVATION.

SIGN SUPPLIED BY CONTRACTOR. SIGN TO BE MADE OF ALUMINUM AND BE ATTACHED TO COVER BY RIVETS. THREE ON TOP AND THREE ON BOTTOM.



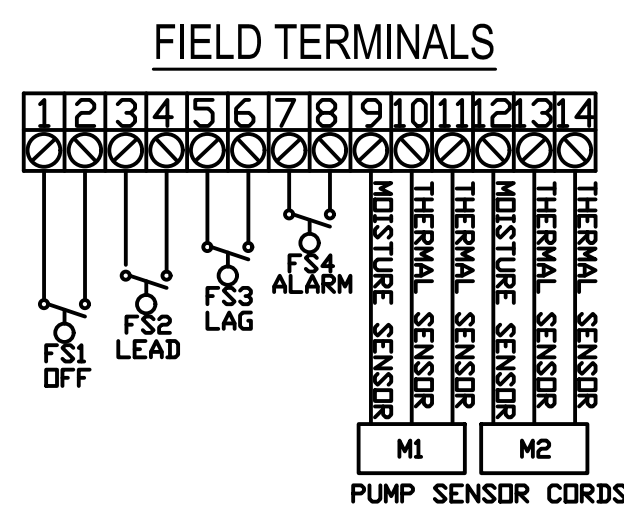
WHITE LETTER RED BACKGROUND EMERGENCY CONTACT INFORMATION SIGN TO BE PLACED ON THE FRONT COVER OF CONTROL PANEL. SIGN LETTERS TO BE 2" MIN. HEIGHT.

#### EMERGENCY NOTICE SIGN

CONTRACTOR IS TO PROVIDE AND POST AN UNOBSTRUCTED SIGN (12"x12" WITH 2" LETTERING) MADE OF DURABLE WEATHER RESISTANT MATERIAL AT A LOCATION VISIBLE TO THE PUBLIC WITH A TELEPHONE NUMBER FOR A POINT OF CONTACT IN CASE OF EMERGENCY AS SHOWN ABOVE.

| PUMP DATA TABLE                               |                            |
|-----------------------------------------------|----------------------------|
| PUMP MODEL                                    | HYDRAMATIC-HPGH/HPGH X-750 |
| IMPELLER DIAMETER                             | 6.87"                      |
| PUMP DESIGN CAPACITY                          | 98 GPM                     |
| PUMP DESIGN TDH                               | 100.65 FT                  |
| HORSEPOWER                                    | 7.5 HP                     |
| VOLTAGE                                       | 230 V                      |
| PHASE                                         | 3 PH                       |
| DISCHARGE SIZE                                | 2"                         |
| NOTES: CONTRACTOR TO VERIFY VOLTAGE AND PHASE |                            |

| ELEVATIONS             |       |
|------------------------|-------|
| (A) TOP OF WET WELL    | 99.50 |
| (B) INLET INVERT       | 89.50 |
| (C) HIGH WATER ALARM   | 89.50 |
| (D) LAG PUMP ON        | 88.50 |
| (E) LEAD PUMP ON       | 88.00 |
| (F) PUMP OFF           | 87.00 |
| (G) BOTTOM OF WET WELL | 85.00 |



### LEGEND

| ABBR.  | DESCRIPTION                       |
|--------|-----------------------------------|
| ENC    | ENCLOSURE, POLYCARBONATE, NEMA 4X |
| MCB    | MAIN CIRCUIT BREAKER              |
| ECB    | EMERGENCY CIRCUIT BREAKER         |
| PCB1,2 | PUMP CIRCUIT BREAKER              |
| CCB    | CONTROL CIRCUIT BREAKER           |
| GFICB  | GFI CIRCUIT BREAKER               |
| GR     | GENERATOR RECEPTACLE              |
| GFI    | GFI RECEPTACLE                    |
| AL     | ALARM LIGHT                       |
| AH     | ALARM HORN                        |
| ASB    | ALARM SILENCE BUTTON              |
| SFM    | SEAL FAIL MODULE                  |
| HOA    | HAND OFF AUTO SWITCH              |
| RL     | RUN LIGHT, GREEN                  |
| ETM    | ELAPSED TIME METER                |

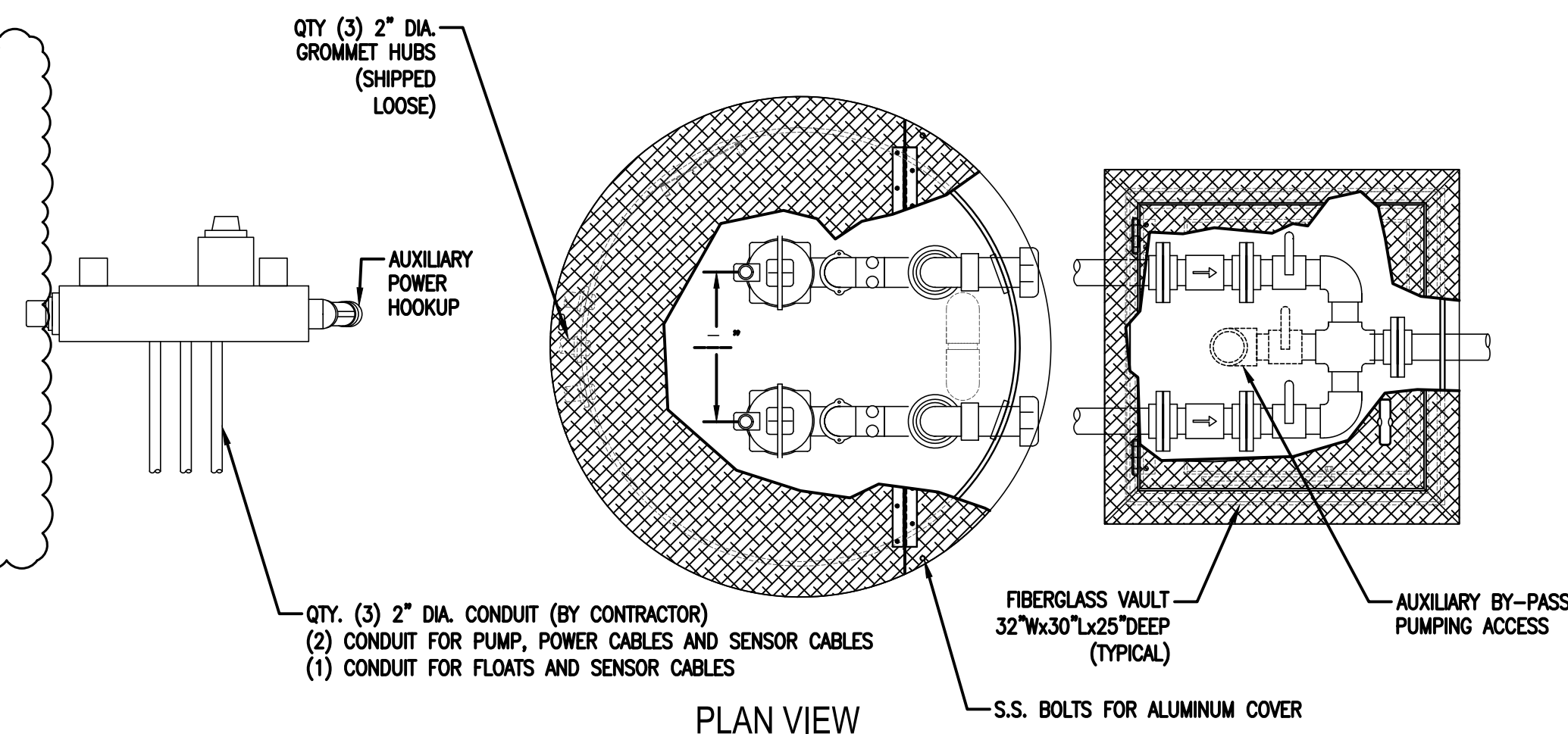
### PANEL NOTES

- ALL PANELS SHALL BE UL LISTED AND CONFORM TO FLORIDA DEP 62-604
- GENERATOR RECEPTACLE WITH INTERLOCK FOR EMERGENCY POWER CONNECTION.
- SURGE AND LIGHTNING PROTECTION SHALL BE PROVIDED BY CONTRACTOR AND MOUNTED EXTERNAL TO THE CONTROL PANEL.
- PHASE OR VOLTAGE MONITOR SHALL BE PROVIDED IN CONTROL PANEL.
- ALL PANELS, WET WELL, VALVE BOX, AND ACCESS DOORS SHALL HAVE LOCKABLE MECHANISMS. CONTRACTOR TO PROVIDE KEYS.
- POST UNOBSTRUCTED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL WITH THE FOLLOWING: PUBLIC NOTICE: IN CASE OF EMERGENCY CONTACT:
- THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.
- FLOAT SWITCHES SHALL BE UL LISTED.
- SHAFT SEAL FAIL DETECTION

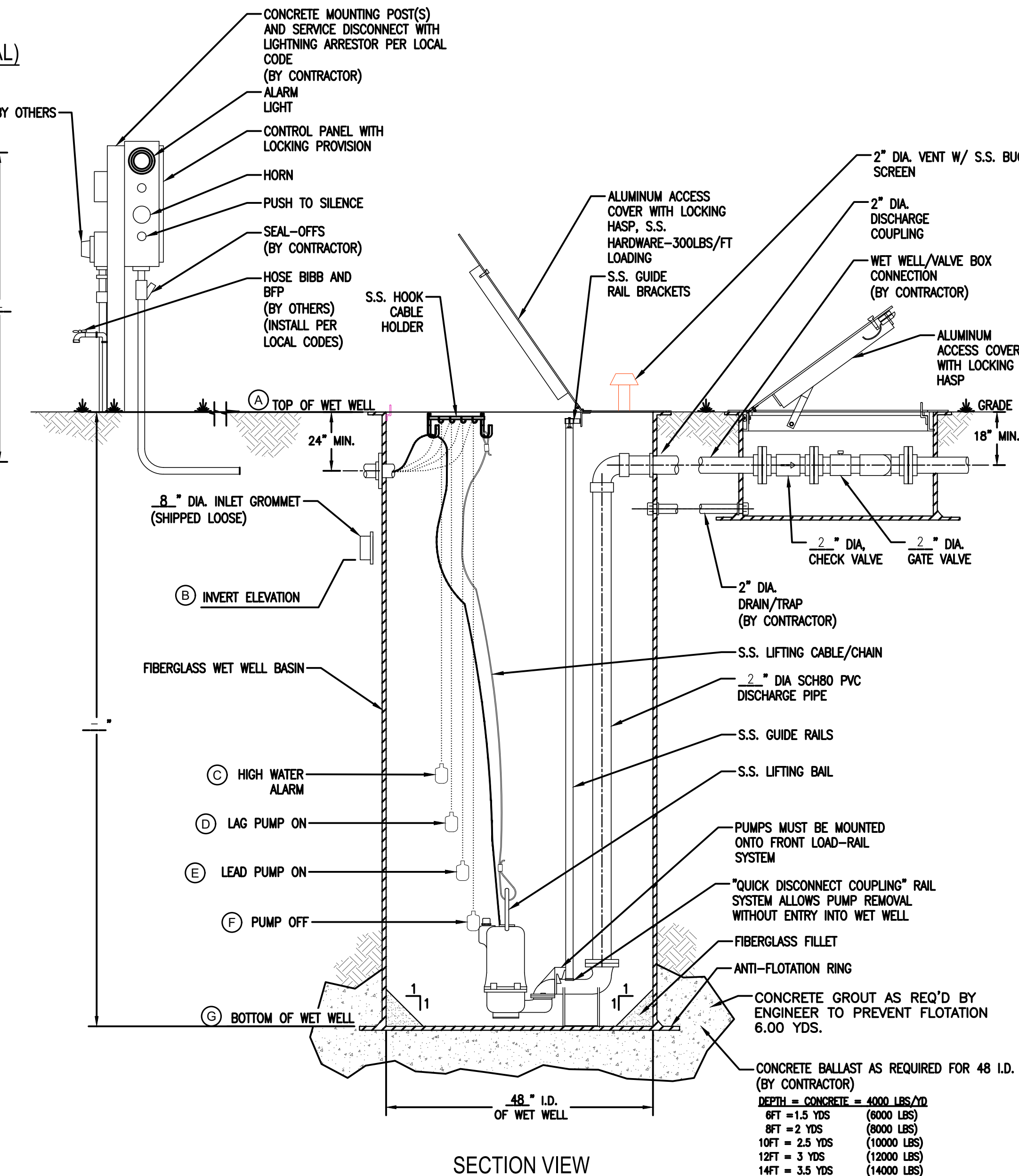
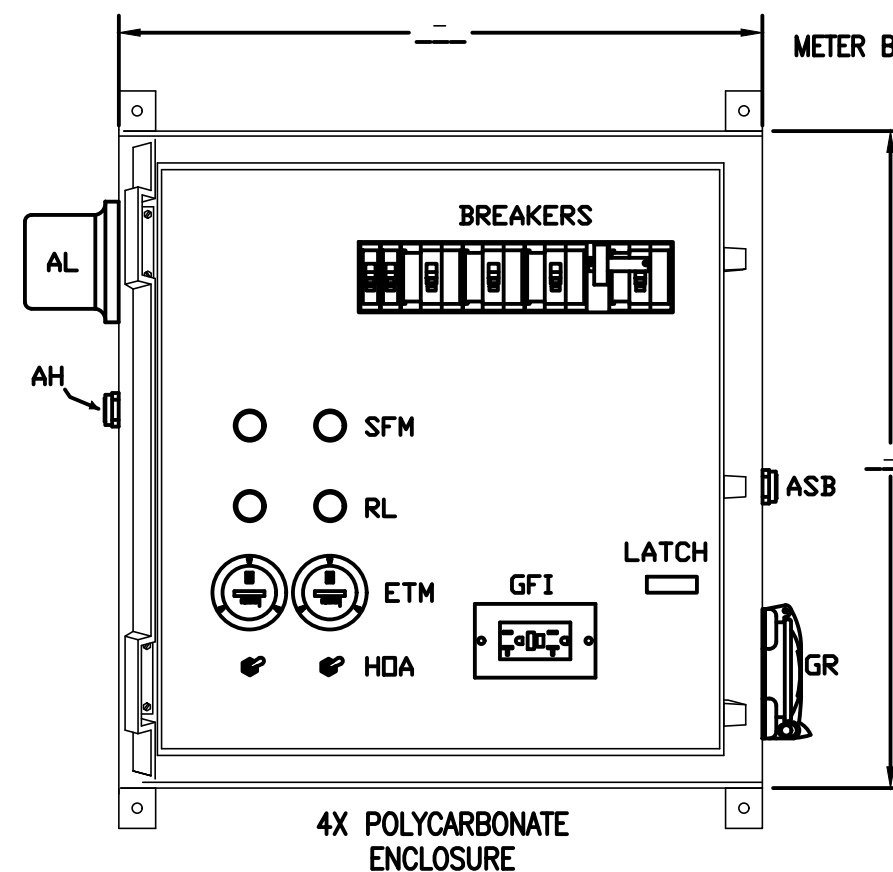
### SIGNAGE

A SIGN SHALL BE POSTED AT THE LIFT STATION INDICATING AN EMERGENCY CONTACT NAME AND PHONE NUMBER.

### WET WELL/VALVE BOX LAYOUT



### ENCLOSURE AND DEADFRONT LAYOUT (TYPICAL)



| DEPTH          | CONCRETE    | WEIGHT      |
|----------------|-------------|-------------|
| 6FT = 1.5 YDS  | 4000 LBS/YD | (6000 LBS)  |
| 8FT = 2 YDS    |             | (8000 LBS)  |
| 10FT = 2.5 YDS |             | (10000 LBS) |
| 12FT = 3 YDS   |             | (12000 LBS) |
| 14FT = 3.5 YDS |             | (14000 LBS) |

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

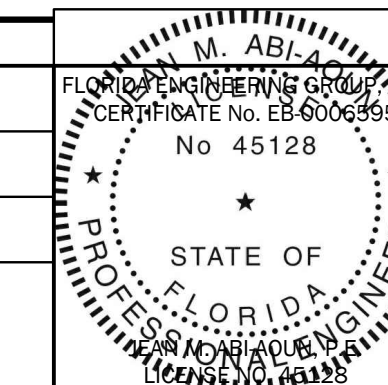


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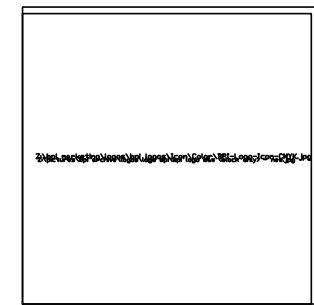
### LIFTSTATION - LS-1 DETAILS

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | N.T.S.        |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-35          |
| SHEET       | 35 OF 50      |



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY (ENGINEER), P.E. ON (DATE) USING A SHA-1 AUTHENTICATION CODE.  
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



# BARNEY'S PUMPS, INC.

PO BOX 3529, LAKELAND, FL 33802

PHONE: (863) 665-8500 FAX: (863) 666-3858

## DUPLIX FIBERGLASS GRINDER LIFT STATION

### GENERAL NOTES

PUMPS SHALL BE OF THE SUBMERSIBLE TYPE (MANUFACTURED BY HYDRAMATIC OR HOMA). EACH PUMP SHALL BE MOUNTED ON A 80" RAIL SYSTEM. THE RAIL SYSTEM SHALL BE SELF ENGAGING RESULTING IN A LEAKPROOF COUPLING. THE RAIL SYSTEM SHALL INCLUDE THE BASE ELBOW, DISCHARGE FLANGE ASSEMBLY, 316SS GUIDE RAILS, 316SS UPPER GUIDE BRACKET, 316SS LIFTING RAIL AND CABLE, AND A SIX-HOOK 316SS CABLE HOLDER. THE RAIL SYSTEM SHALL BE MOUNTED AND PRE-PIPED BY THE PUMP SUPPLIER.

**PUMP CONSTRUCTION**  
THE PUMP VOLUTE, MOTOR AND SEAL HOUSING SHALL BE CONSTRUCTED OF CAST IRON. ALL EXTERNAL FASTENERS SHALL BE SERIES 300 STAINLESS STEEL. THE PUMP SHAFT SHALL BE CONSTRUCTED OF SERIES 416 STAINLESS STEEL.

**IMPELLER**  
THE IMPELLER SHALL BE OF MULTI-VANE, SEMI-OPEN CONSTRUCTION. THE IMPELLER SHALL BE STATICALLY AND HYDRAULICALLY BALANCED.

**CUTTERS**  
A CUTTER ASSEMBLY SHALL BE MOUNTED ON THE SUCTION SIDE OF THE PUMP WITH DIRECT DISCHARGE INTO THE PUMP IMPELLER. THE GRINDER SHALL BE CAPABLE OF GRINDING MATERIALS FOUND IN NORMAL, DOMESTIC SEWAGE. BOTH THE STATIONARY AND ROTATING CUTTERS SHALL BE CONSTRUCTED OF HARDENED STEEL.

**MOTOR**  
THE MOTOR SHALL BE MOUNTED IN A SEALED, SUBMERSIBLE TYPE HOUSING. THE STATOR SHALL BE SECURELY HELD IN PLACE WITH A REMOVABLE END RING AND THREADED FASTENERS FOR EASE OF REMOVAL WITHOUT THE USE OF HEAT OR A PRESS. THE MOTOR WILL HAVE TWO HEAVY-DUTY BALL BEARINGS; ONE UPPER (RADIAL) AND ONE LOWER (THRUST), TO SUPPORT THE SHAFT. THE MOTOR SHALL BE EQUIPPED WITH A WINDING THERMOSTAT THAT IS WIRED TO SHUT THE MOTOR OFF IN CASE OF MOTOR OVERHEATING.

**SEAL CHAMBER**  
THE PUMP SHALL HAVE TWO MECHANICAL SEALS, MOUNTED IN TANDEM WITH AN OIL CHAMBER BETWEEN THE SEALS. THE PUMP SHALL BE EQUIPPED WITH A SEAL LEAK DETECTION PROBE AND WARNING SYSTEM BY USING A SEAL FAILURE SENSOR INSTALLED IN THE SEAL CHAMBER.

**WET WELL**  
THE PUMP SUPPLIER SHALL PROVIDE THE WET WELL. THIS GLASS FIBER-REINFORCED POLYESTER BASIN SHALL BE CONSTRUCTED OF A COMMERCIAL GRADE OF GLASS FIBER AND SHALL BE PROVIDED WITH FILLET AND AN ANTI-FLOTATION RING WITH A MINIMUM DIAMETER OF THREE INCHES LARGER THAN THE BASIN DIAMETER. THE RAIL SYSTEM, INTERNAL PIPING AND DISCHARGE CONNECTIONS SHALL BE PRE-INSTALLED BY THE PUMP SUPPLIER. WET WELL SHALL MEET ASTM STANDARD NO. D3753.

**HATCH COVER**  
THE HATCH COVER SHALL BE 2/3 HINGED TO ALLOW FOR MAXIMUM ACCESS TO THE WET WELL. THE HATCH COVER SHALL BE ALUMINUM WITH STAINLESS STEEL HARDWARE, RATED FOR 300 PSF OR GREATER. THE HATCH COVER SHALL INCLUDE A SINGLE OR DUAL DOOR OF DIMENSIONS SPECIFIED BY THE PUMP MANUFACTURER FOR PROPER PUMP CLEARANCE. THE COVER SHALL BE MANUFACTURED BY USF FABRICATION, OR EQUAL.

**VALVE BOX**  
THE VALVE BOX IS FIBERGLASS WITH ALUMINUM LOCKABLE COVER. STANDARD SIZE VALVE BOX IS 32"x30"x25".

**VALVES**  
VALVES SHALL BE SEWAGE SWING CHECK WITH CLEAN-OUT PORTS AND BRASS GATE VALVES.

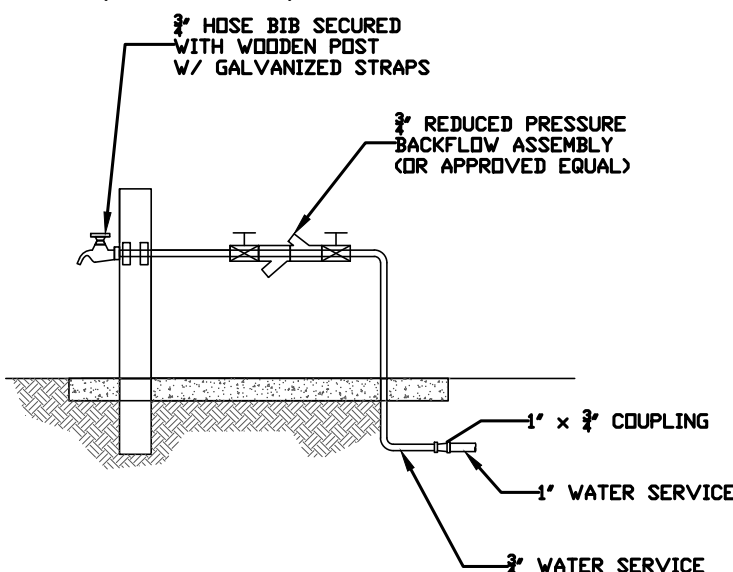
**FLOATS**  
FLOATS SHALL BE ANCHOR SCIENTIFIC ROTO-FLOATS OR EQUAL.

**CONTROLS**  
THE CONTROL PANEL SHALL BE UL508 LISTED. ENCLOSURE SHALL BE PROVIDED IN 4X POLYCARBONATE. THE PANEL SHALL INCLUDE AN ALTERNATING CONTROL SCHEME (DUPLIX AND ABOVE), MAIN CIRCUIT BREAKER, GENERATOR RECEPTACLE, HIGH LEVEL ALARM LIGHT AND HORN, ELAPSED TIME METERS, VOLTAGE OR PHASE MONITOR, SEAL FAILURE AND OVERLOAD SENSORS. THE LIGHTNING ARRESTOR SHALL BE PROVIDED BY BARNEY'S PUMPS AND INSTALLED BY CONTRACTOR.

**ELECTRICAL**  
ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.

**SUPPLIER**  
PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, FIBERGLASS BASIN AND VALVE BOX, CONTROL PANEL, FLOAT SWITCHES, ALUMINUM HATCHES AND ACCESSORIES TO INSURE PROPER OPERATIONS AND WARRANTY. THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, RAIL ASSEMBLIES, AND DISCHARGE PIPING ASSEMBLED BY BARNEY'S PUMPS INC. READY FOR FIELD INSTALLATION.

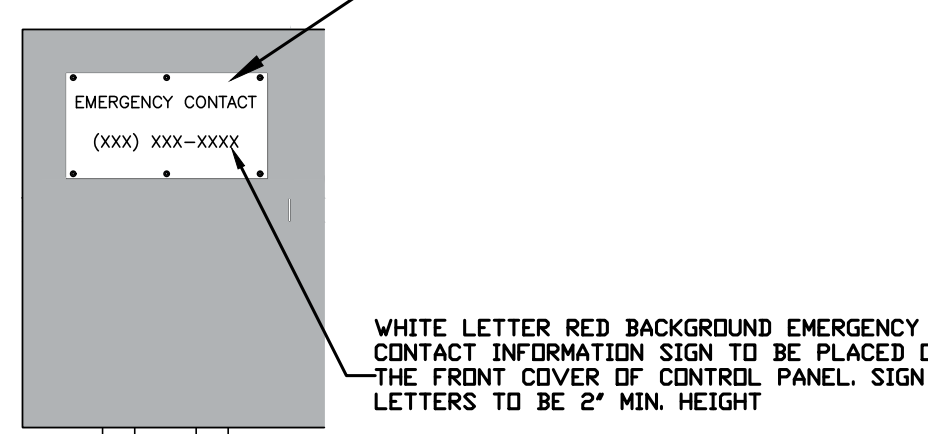
PUMP PACKAGE SHALL BE SUPPLIED BY BARNEY'S PUMPS INC. IN LAKELAND (863-665-8500), CORAL SPRINGS (954-348-0669), OR JACKSONVILLE (904-280-0669), FL.



HOSE BIB DETAIL (LOCAL CODES PREVAIL)  
N.T.S. (SUPPLIED BY CONTRACTOR)

**FDEP REQUIREMENTS**  
PROVIDE 3/4" WATER LINE WITH A 3/4" RPZ. ALL ELECTRICAL PANELS SHALL BE ABOVE THE 100 YEAR FLOOD ELEVATION.

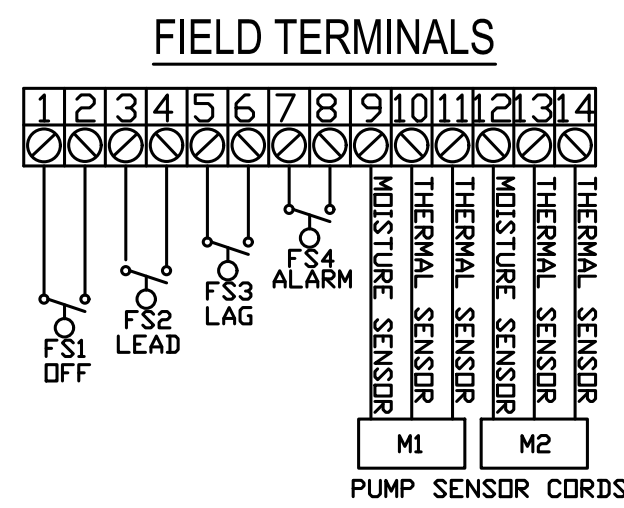
SIGN SUPPLIED BY CONTRACTOR. SIGN TO BE MADE OF ALUMINUM AND BE ATTACHED TO COVER BY RIVETS. THREE ON TOP AND THREE ON BOTTOM.



EMERGENCY NOTICE SIGN  
CONTRACTOR IS TO PROVIDE AND POST AN UNOBSTRUCTED SIGN (12"x12" WITH 2" LETTERING) MADE OF DURABLE WEATHER RESISTANT MATERIAL AT A LOCATION VISIBLE TO THE PUBLIC WITH A TELEPHONE NUMBER FOR A POINT OF CONTACT IN CASE OF EMERGENCY AS SHOWN ABOVE.

| PUMP DATA TABLE                               |                             |
|-----------------------------------------------|-----------------------------|
| PUMP MODEL                                    | HYDRAMATIC-HPGF/ HPGF-X 500 |
| IMPELLER DIAMETER                             | 8.75"                       |
| PUMP DESIGN CAPACITY                          | 98 GPM                      |
| PUMP DESIGN TDH                               | 46.80 FT                    |
| HORSEPOWER                                    | 5 HP                        |
| VOLTAGE                                       | 230 V                       |
| PHASE                                         | 3 PH                        |
| DISCHARGE SIZE                                | 2"                          |
| NOTES: CONTRACTOR TO VERIFY VOLTAGE AND PHASE |                             |

| ELEVATIONS             |        |
|------------------------|--------|
| (A) TOP OF WET WELL    | 102.30 |
| (B) INLET INVERT       | 96.50  |
| (C) HIGH WATER ALARM   | 96.50  |
| (D) LAG PUMP ON        | 95.50  |
| (E) LEAD PUMP ON       | 95.00  |
| (F) PUMP OFF           | 94.00  |
| (G) BOTTOM OF WET WELL | 92.00  |



### LEGEND

| ABBR.  | DESCRIPTION                       |
|--------|-----------------------------------|
| ENC    | ENCLOSURE, POLYCARBONATE, NEMA 4X |
| MCB    | MAIN CIRCUIT BREAKER              |
| ECB    | EMERGENCY CIRCUIT BREAKER         |
| PCB1,2 | PUMP CIRCUIT BREAKER              |
| CCB    | CONTROL CIRCUIT BREAKER           |
| GFICB  | GFI CIRCUIT BREAKER               |
| GR     | GENERATOR RECEPTACLE              |
| GFI    | GFI RECEPTACLE                    |
| AL     | ALARM LIGHT                       |
| AH     | ALARM HORN                        |
| ASB    | ALARM SILENCE BUTTON              |
| SFM    | SEAL FAIL MODULE                  |
| HOA    | HAND OFF AUTO SWITCH              |
| RL     | RUN LIGHT, GREEN                  |
| ETM    | ELAPSED TIME METER                |

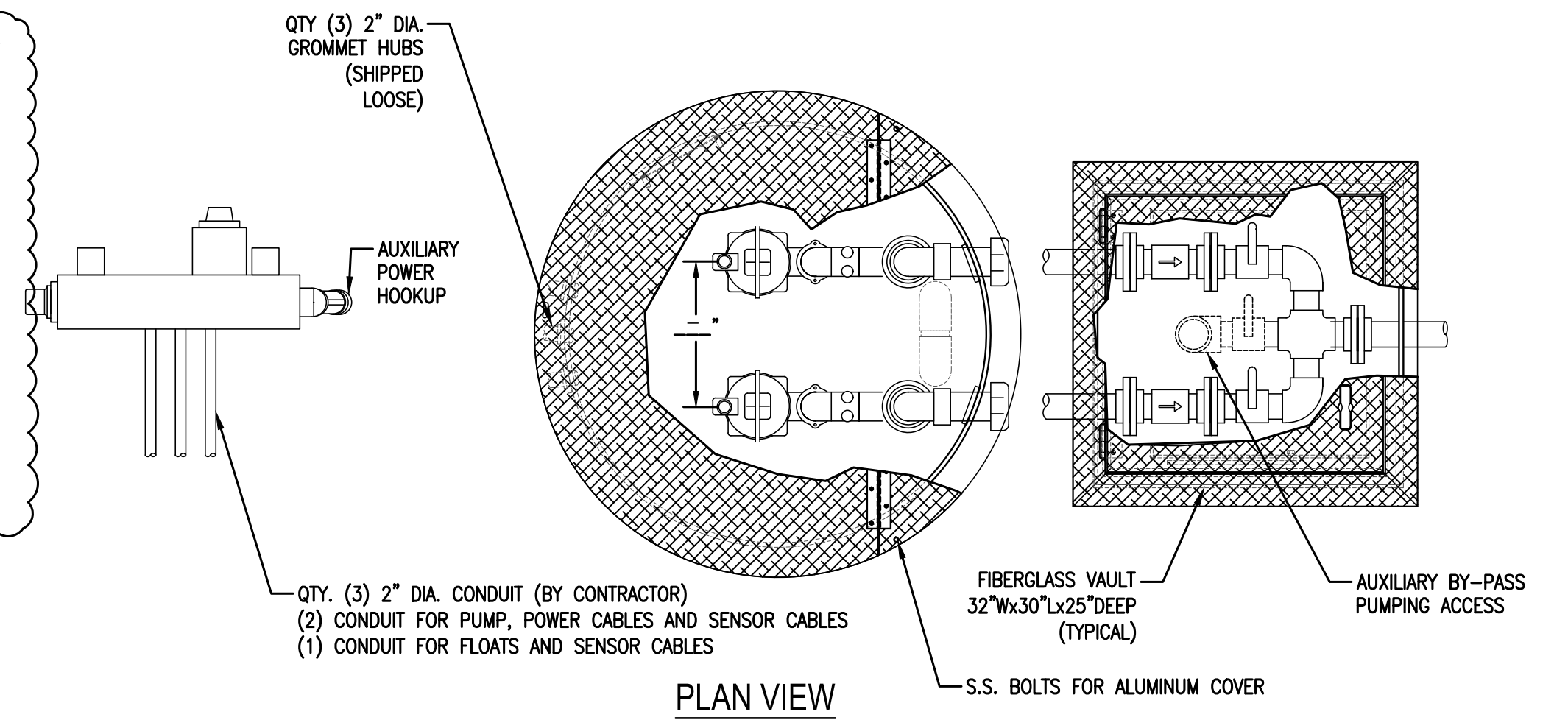
### PANEL NOTES

- ALL PANELS SHALL BE UL LISTED AND CONFORM TO FLORIDA DEP 62-604
- GENERATOR RECEPTACLE WITH INTERLOCK FOR EMERGENCY POWER CONNECTION.
- SURGE AND LIGHTNING PROTECTION SHALL BE PROVIDED BY CONTRACTOR AND MOUNTED EXTERNAL TO THE CONTROL PANEL.
- PHASE OR VOLTAGE MONITOR SHALL BE PROVIDED IN CONTROL PANEL.
- ALL PANELS, WET WELL, VALVE BOX, AND ACCESS DOORS SHALL HAVE LOCKABLE MECHANISMS. CONTRACTOR TO PROVIDE KEYS.
- POST UNOBSTRUCTED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL WITH THE FOLLOWING:  
PUBLIC NOTICE:  
IN CASE OF EMERGENCY CONTACT:  
6) THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.  
7) FLOAT SWITCHES SHALL BE UL LISTED.  
8) SHAFT SEAL FAIL DETECTION

### SIGNAGE

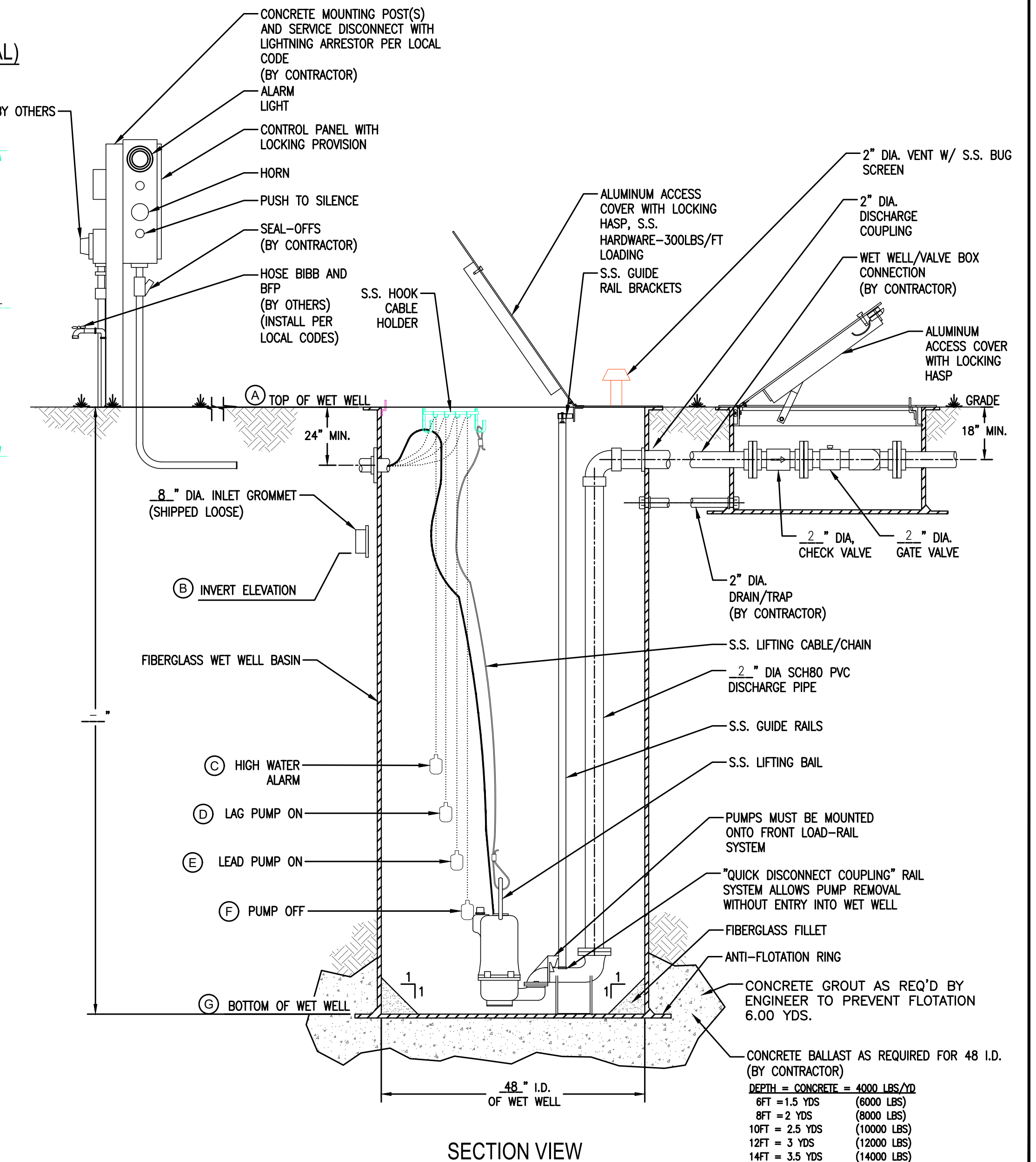
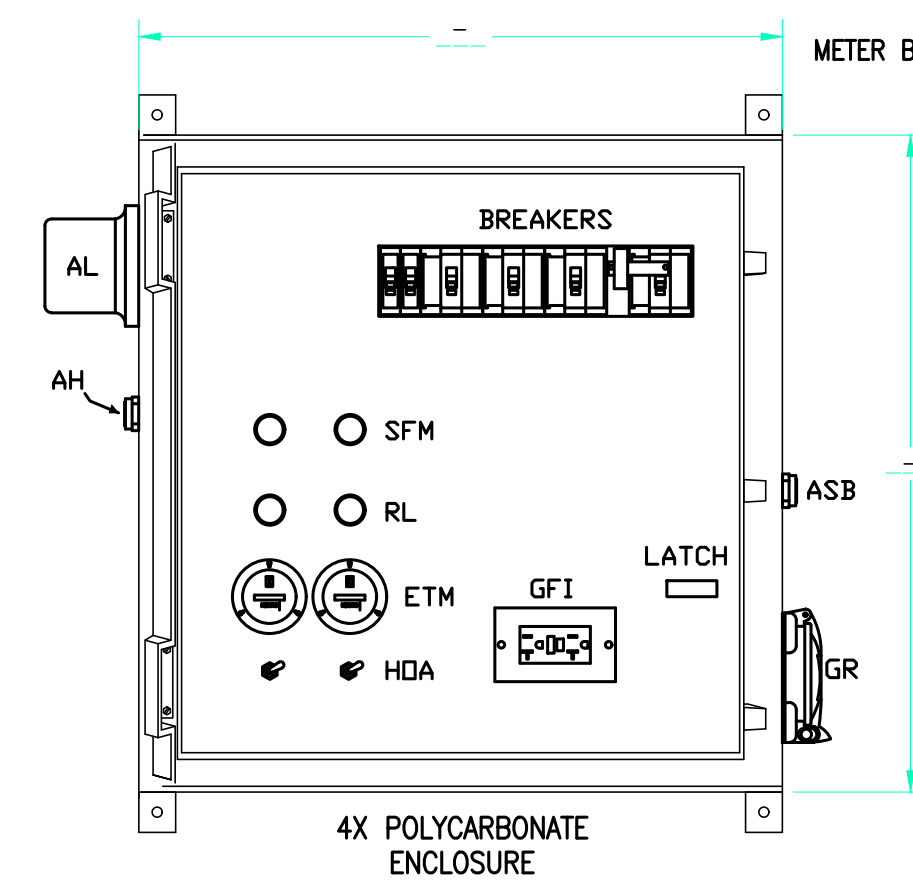
A SIGN SHALL BE POSTED AT THE LIFT STATION INDICATING AN EMERGENCY CONTACT NAME AND PHONE NUMBER.

### WET WELL/VALVE BOX LAYOUT



PLAN VIEW

### ENCLOSURE AND DEADFRONT LAYOUT (TYPICAL)



SECTION VIEW

| DEPTH          | CONCRETE BALLAST AS REQUIRED FOR 48" I.D. (BY CONTRACTOR) |
|----------------|-----------------------------------------------------------|
| 6FT = 1.5 YDS  | (6000 LBS)                                                |
| 8FT = 2 YDS    | (8000 LBS)                                                |
| 10FT = 2.5 YDS | (10000 LBS)                                               |
| 12FT = 3 YDS   | (12000 LBS)                                               |
| 14FT = 3.5 YDS | (14000 LBS)                                               |

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

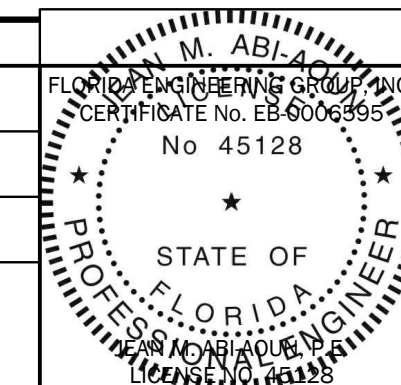


5127 S. Orange Avenue, Suite 200  
Orlando, FL 32809  
Phone: 407-895-0324  
Fax: 407-895-0325  
www.feg-inc.us

### LIFTSTATION - LS-2 DETAILS

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| JAA         | VP       | JAA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | N.T.S.        |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | C-36          |
| SHEET       | 36 OF 50      |



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY (ENGINEER), P.E. ON (DATE) USING A SHA-1 AUTHENTICATION CODE.  
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

# PROJECT SUMMARY

## CALCULATION DETAILS

• LOADING = HS20/HS25

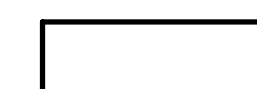
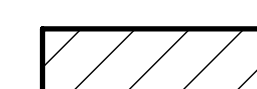
## STORAGE SUMMARY

- PIPE STORAGE VOLUME = 15,619 CF
- BACKFILL STORAGE VOLUME = 5,131 CF
- TOTAL STORAGE PROVIDED = 20,750 CF
- STONE VOID = 40%

## PIPE DETAILS

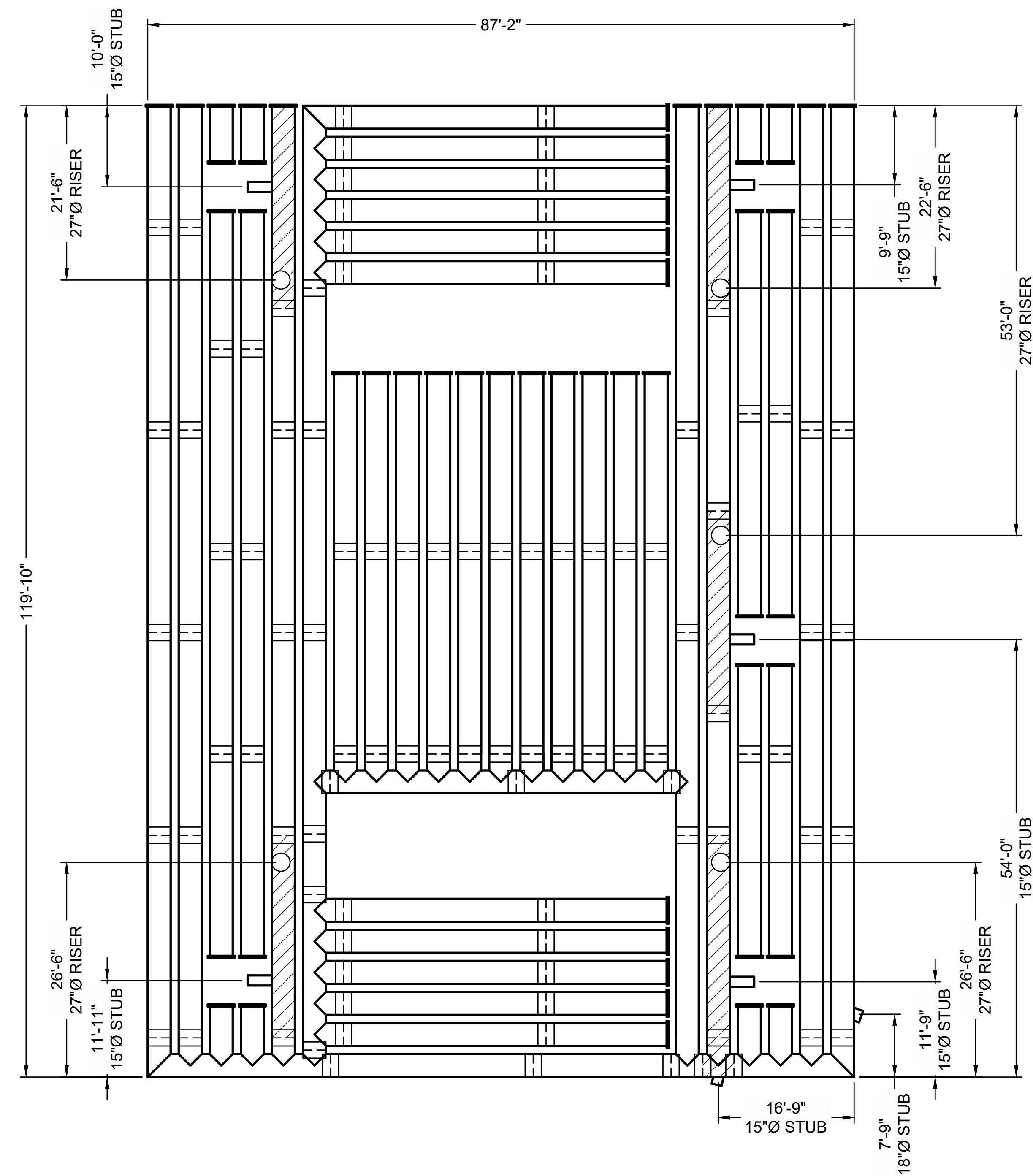
- DIAMETER = 34"
- CORRUGATION = 2 2/3x1/2
- INVERT = 97.00
- COATING = ALT2
- WALL TYPE = XFILTRATION
- BARREL SPACING = 12"

## KEY

-  XFILTRATION
-  CONTAINMENT BASIN

## NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2 2/3" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



**ASSEMBLY**  
SCALE: 1" = 20'

**C-37**  
37 50

P:\2022\2022-010\_Cornerstone Charter School\DRAWING\CONSTRUCTION\CURRENT\PLAN\22-010\_EXFILTRATION 1 CMP.DWG A.DWG 10/12/2023 5:04 PM

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| DATE | REVISION DESCRIPTION | BY |
|------|----------------------|----|
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|      |                      |    |

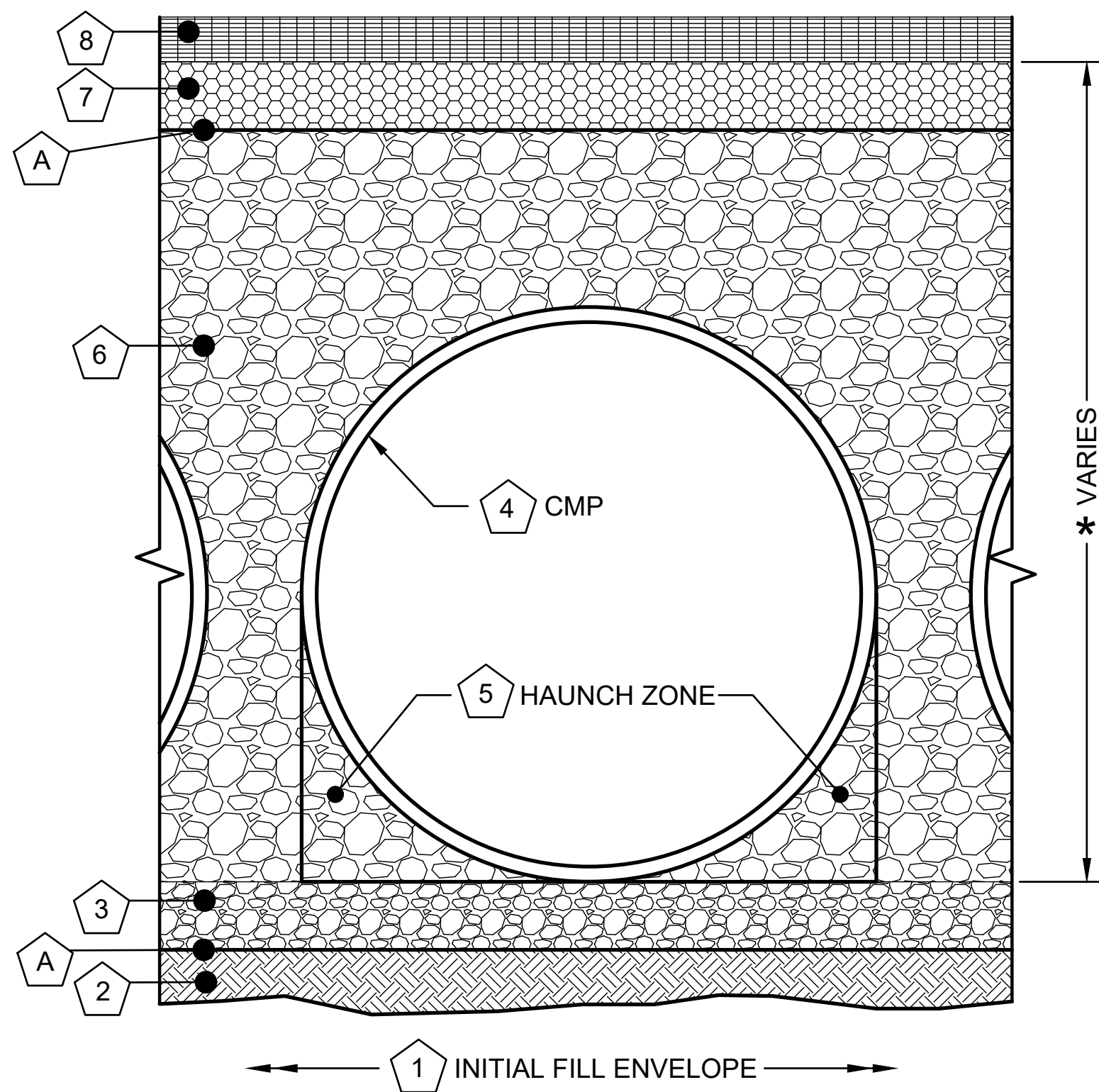
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9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
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**CONTECH**  
CMP DETENTION SYSTEMS  
CONTECH  
DYODS  
DRAWING

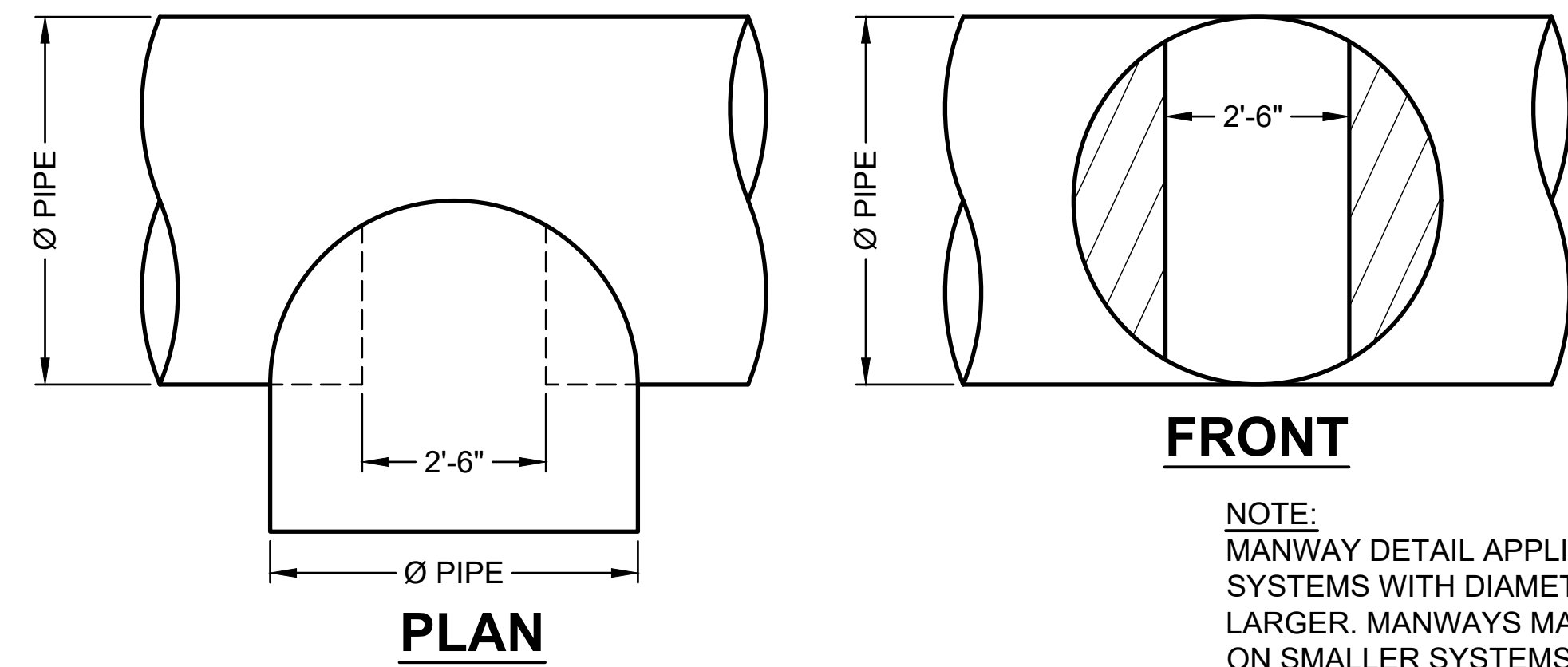
754118-010 Cornerstone Charter Academy  
Exfiltration 1 34" CMP  
Belle Isle, FL

|                        |                  |                    |
|------------------------|------------------|--------------------|
| PROJECT No.:<br>754118 | SEQ. No.:<br>010 | DATE:<br>6/20/2023 |
| DESIGNED:<br>DYO       | DRAWN:<br>DYO    |                    |
| CHECKED:<br>DYO        | APPROVED:<br>DYO |                    |
| SHEET NO.:<br>1        |                  |                    |

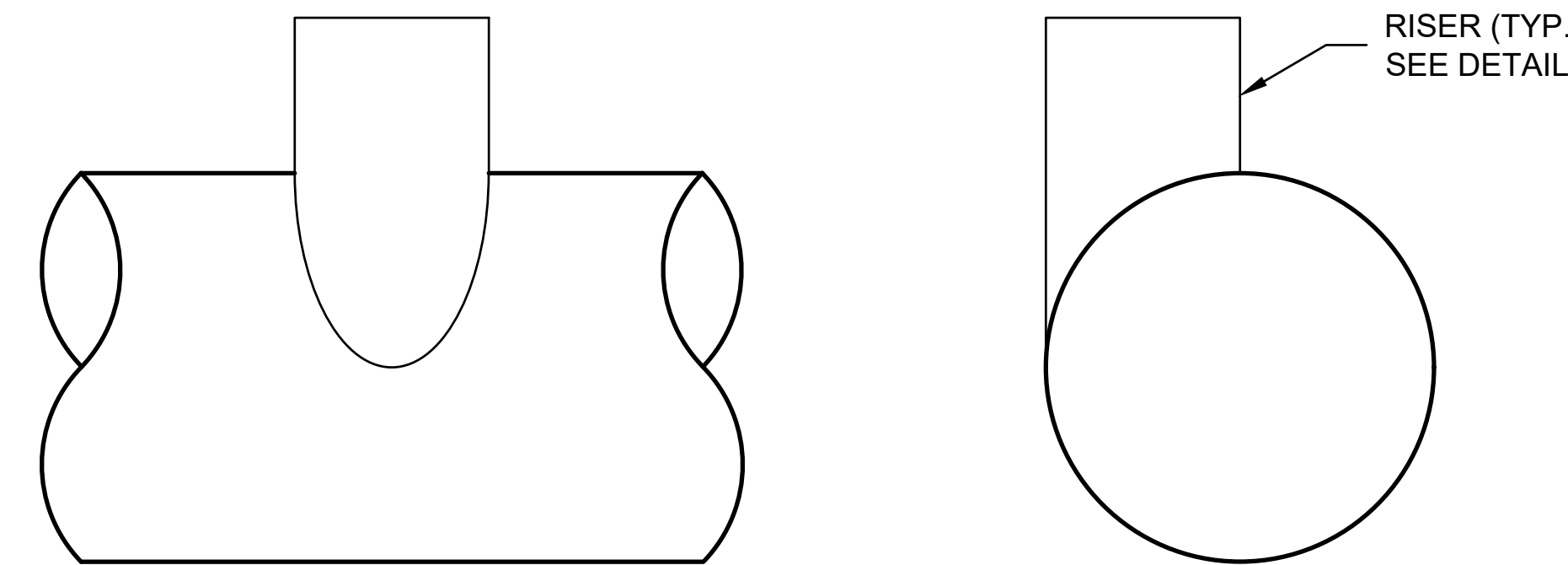
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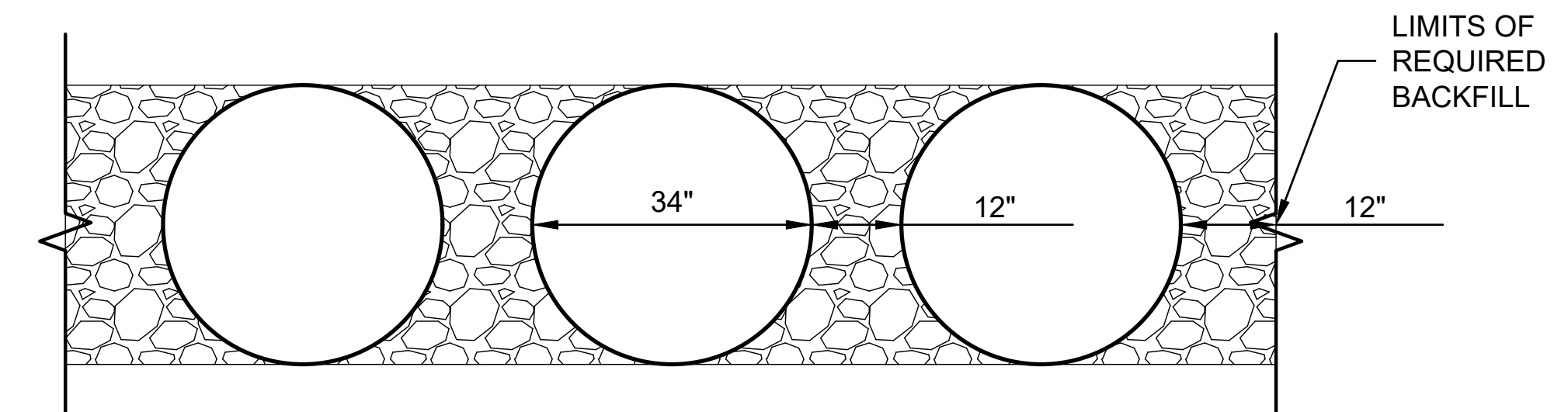
| Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe                                   |                                            |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Location                                                                                        | Description                                | Material Designation                   | Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 8                                                                                                        | Rigid or Flexible Pavement (if applicable) |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7                                                                                                        | Road Base (if applicable)                  |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| A                                                                                                        | Geotextile Layer                           | CONTECH C-40 or C-45                   | Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.                                                                                                                                                                                                                                                                                                                                                                                             |
| 6                                                                                                        | Backfill                                   | AASHTO M 145-A-1 or AASHTO M 43 - 3, 4 | Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction.                                                                                      |
| 3                                                                                                        | Bedding Stone                              | AASHTO M43 - 3, 357, 4, 467, 5, 56, 57 | For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation. |
| A                                                                                                        | Geotextile Layer                           | None                                   | Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.                                                                                                                                                                                                                                                                                                                                                       |
| * Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean. |                                            |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



**TYPICAL MANWAY DETAIL**  
SCALE: N.T.S.



**TYPICAL RISER DETAIL**  
SCALE: N.T.S.



**TYPICAL SECTION VIEW**  
SCALE: N.T.S.

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

**FOUNDATION/BEDDING PREPARATION**

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

**BACKFILL**

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

**C-38**  
38 50

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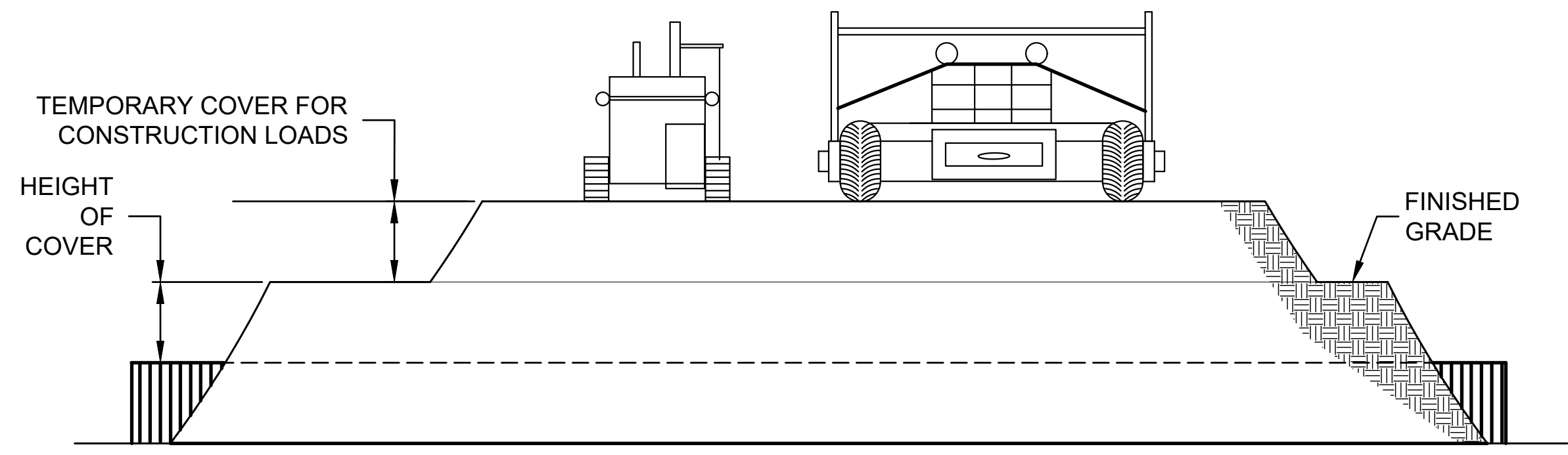
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DYODS  
DRAWING

754118-010 Cornerstone Charter Academy  
Exfiltration 1 34" CMP  
Belle Isle, FL

|                        |                  |                    |
|------------------------|------------------|--------------------|
| PROJECT No.:<br>754118 | SEQ. No.:<br>010 | DATE:<br>6/20/2023 |
| DESIGNED:<br>DYO       | DRAWN:<br>DYO    |                    |
| CHECKED:<br>DYO        | APPROVED:<br>DYO |                    |
| SHEET NO.:<br><b>2</b> |                  |                    |



**CONSTRUCTION LOADS**

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

| PIPE SPAN, INCHES | AXLE LOADS (kips)  |       |        |         |
|-------------------|--------------------|-------|--------|---------|
|                   | 18-50              | 50-75 | 75-110 | 110-150 |
|                   | MINIMUM COVER (FT) |       |        |         |
| 12-42             | 2.0                | 2.5   | 3.0    | 3.0     |
| 48-72             | 3.0                | 3.0   | 3.5    | 4.0     |
| 78-120            | 3.0                | 3.5   | 4.0    | 4.0     |
| 126-144           | 3.5                | 4.0   | 4.5    | 4.5     |

\*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

**CONSTRUCTION LOADING DIAGRAM**  
SCALE: N.T.S.

**SPECIFICATION FOR DESIGNED DETENTION SYSTEM:**

**SCOPE**  
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

**MATERIAL**  
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-197 OR ASTM B-744.

**CONSTRUCTION LOADS**  
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

**NOTE:**  
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

**PIPE**  
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

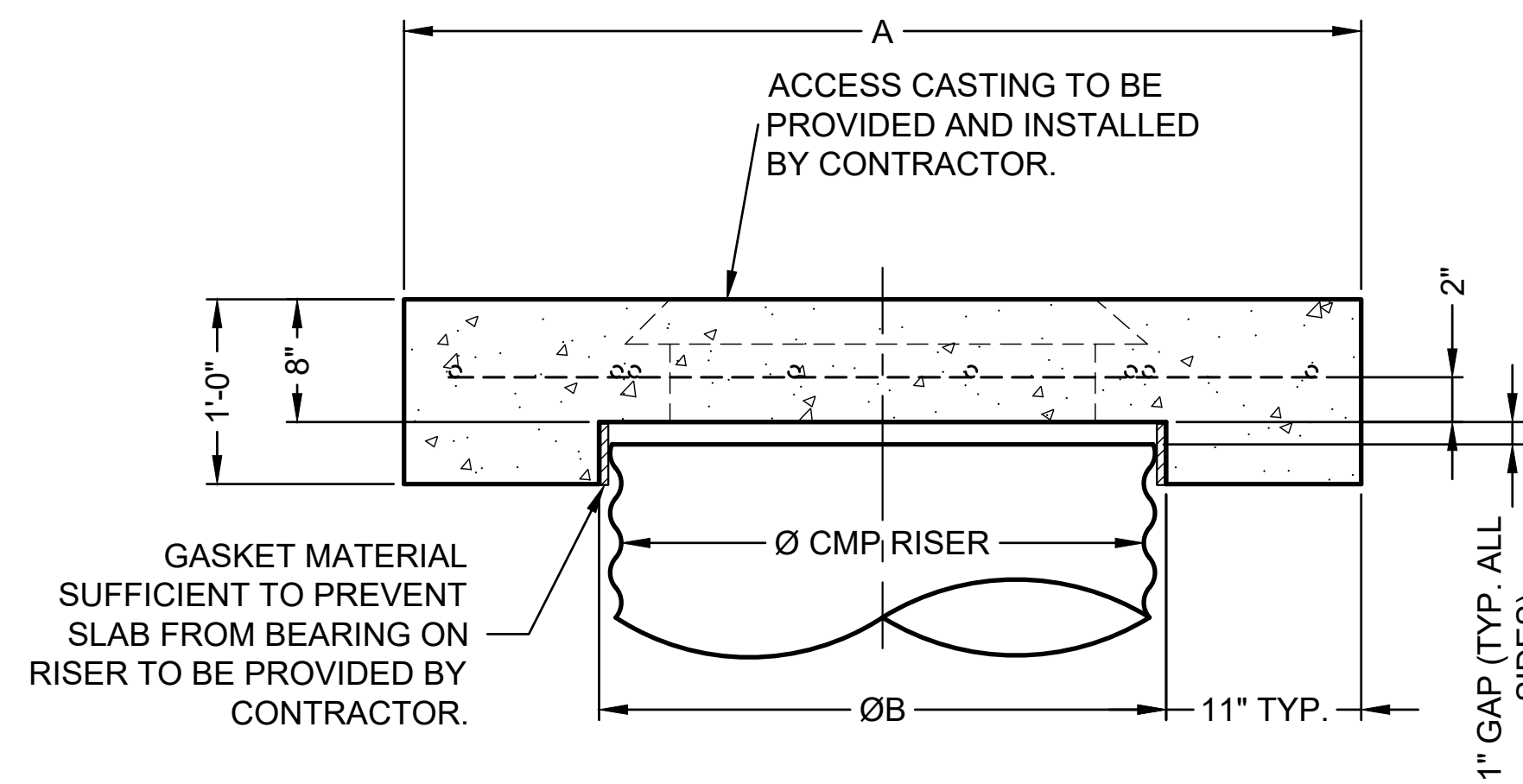
POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

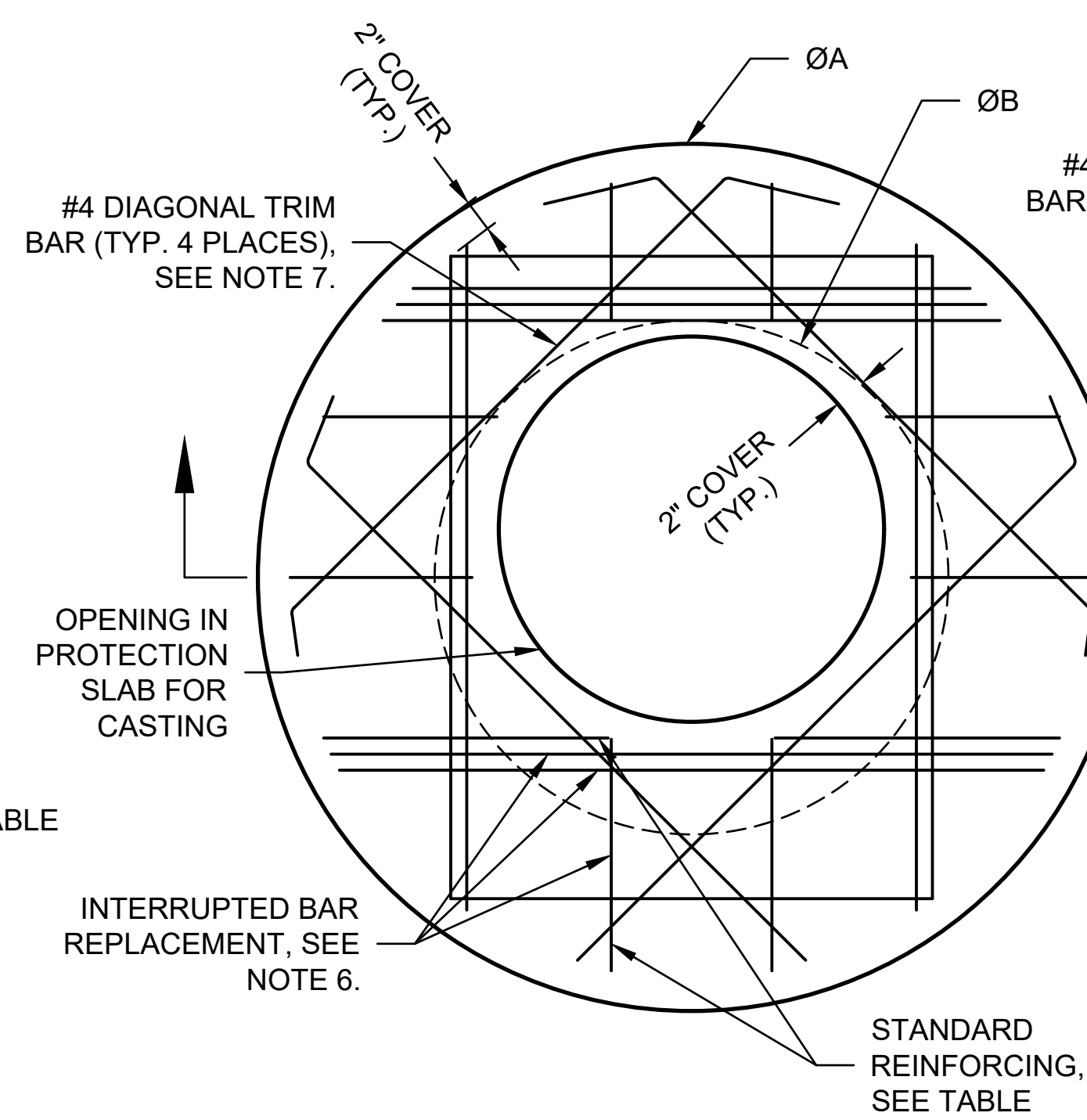
**HANDLING AND ASSEMBLY**  
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.

**INSTALLATION**  
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

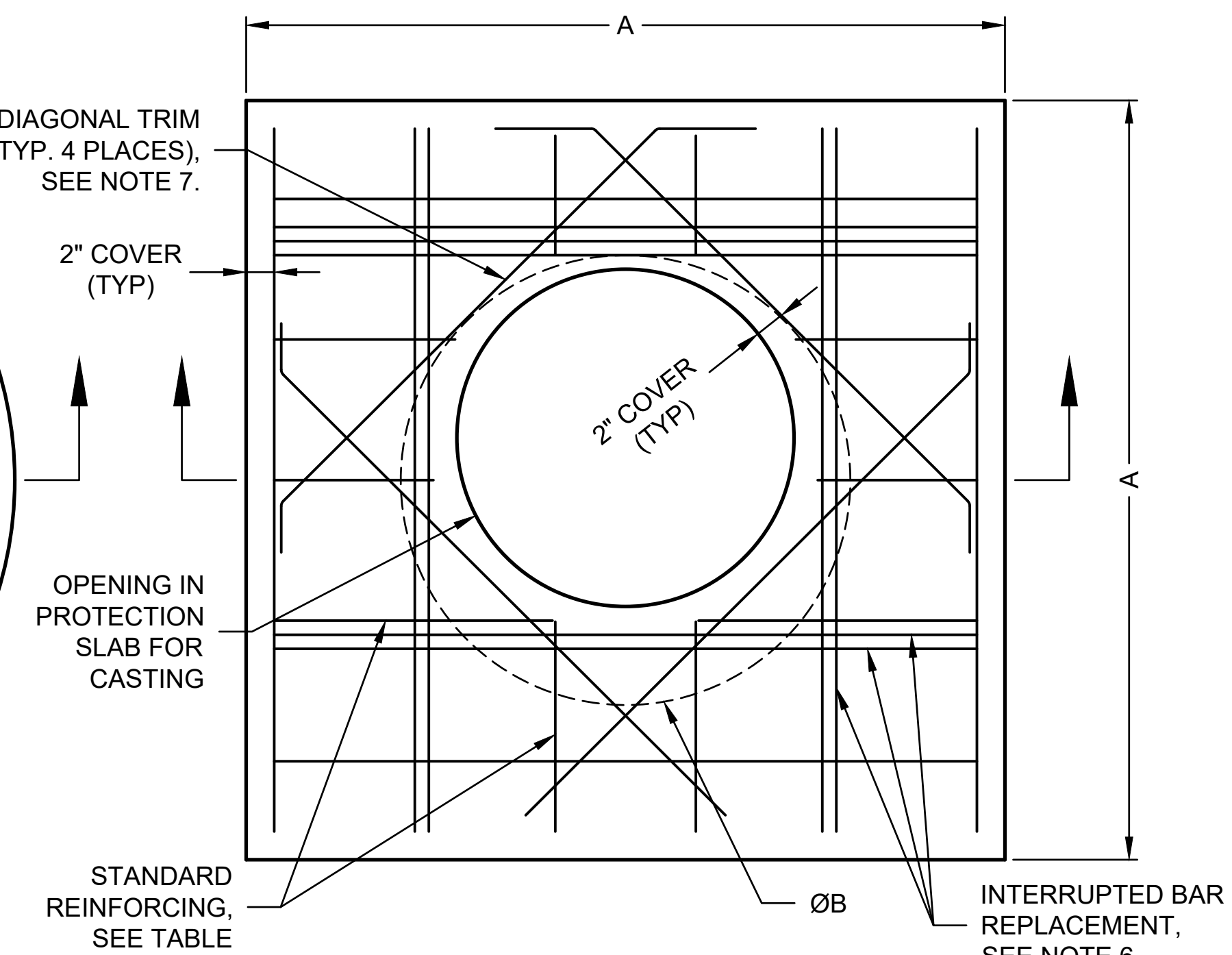
IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.



**SECTION VIEW**



**ROUND OPTION PLAN VIEW**



**SQUARE OPTION PLAN VIEW**

**NOTES:**

- DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
- DESIGN LOAD HS25.
- EARTH COVER = 1' MAX.
- CONCRETE STRENGTH = 3,500 psi
- REINFORCING STEEL = ASTM A615, GRADE 60.
- PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
- TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
- PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

**MANHOLE CAP DETAIL**  
SCALE: N.T.S.

**C-39**  
39 50

| REINFORCING TABLE |                          |     |                                |                          |
|-------------------|--------------------------|-----|--------------------------------|--------------------------|
| Ø CMP RISER       | A                        | Ø B | REINFORCING                    | **BEARING PRESSURE (PSF) |
| 24"               | Ø 4' 4'X4'               | 26" | #5 @ 12" OCEW<br>#5 @ 12" OCEW | 2,410<br>1,780           |
| 30"               | Ø 4'-6"<br>4'-6" X 4'-6" | 32" | #5 @ 12" OCEW<br>#5 @ 12" OCEW | 2,120<br>1,530           |
| 36"               | Ø 5'<br>5' X 5'          | 38" | #5 @ 10" OCEW<br>#5 @ 10" OCEW | 1,890<br>1,350           |
| 42"               | Ø 5'-6"<br>5'-6" X 5'-6" | 44" | #5 @ 10" OCEW<br>#5 @ 9" OCEW  | 1,720<br>1,210           |
| 48"               | Ø 6'<br>6' X 6'          | 50" | #5 @ 9" OCEW<br>#5 @ 8" OCEW   | 1,600<br>1,100           |

\*\* ASSUMED SOIL BEARING CAPACITY

P:\2022\2022-010\_CORNSTONECHARTERACADEMY\DRAWING\CONSTRUCTION\CURRENT\PLAN\22-010\_EXFILTRATION 1 CMP.DWG 10/12/2023 5:04 PM

| DATE | REVISION DESCRIPTION | BY |
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DRAWING

754118-010 Cornerstone Charter Academy  
Exfiltration 1 34" CMP  
Belle Isle, FL

|                     |               |                 |
|---------------------|---------------|-----------------|
| PROJECT No.: 754118 | SEQ. No.: 010 | DATE: 6/20/2023 |
| DESIGNED: DYO       | DRAWN: DYO    |                 |
| CHECKED: DYO        | APPROVED: DYO |                 |
| SHEET NO.: 3        |               |                 |

# PROJECT SUMMARY

## CALCULATION DETAILS

LOADING = HS20/HS25

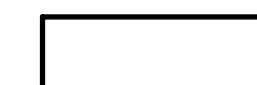

## STORAGE SUMMARY

- PIPE STORAGE VOLUME = 18,246 CF
- BACKFILL STORAGE VOLUME = 7,301 CF
- TOTAL STORAGE PROVIDED = 25,547 CF
- STONE VOID = 40%

## PIPE DETAILS

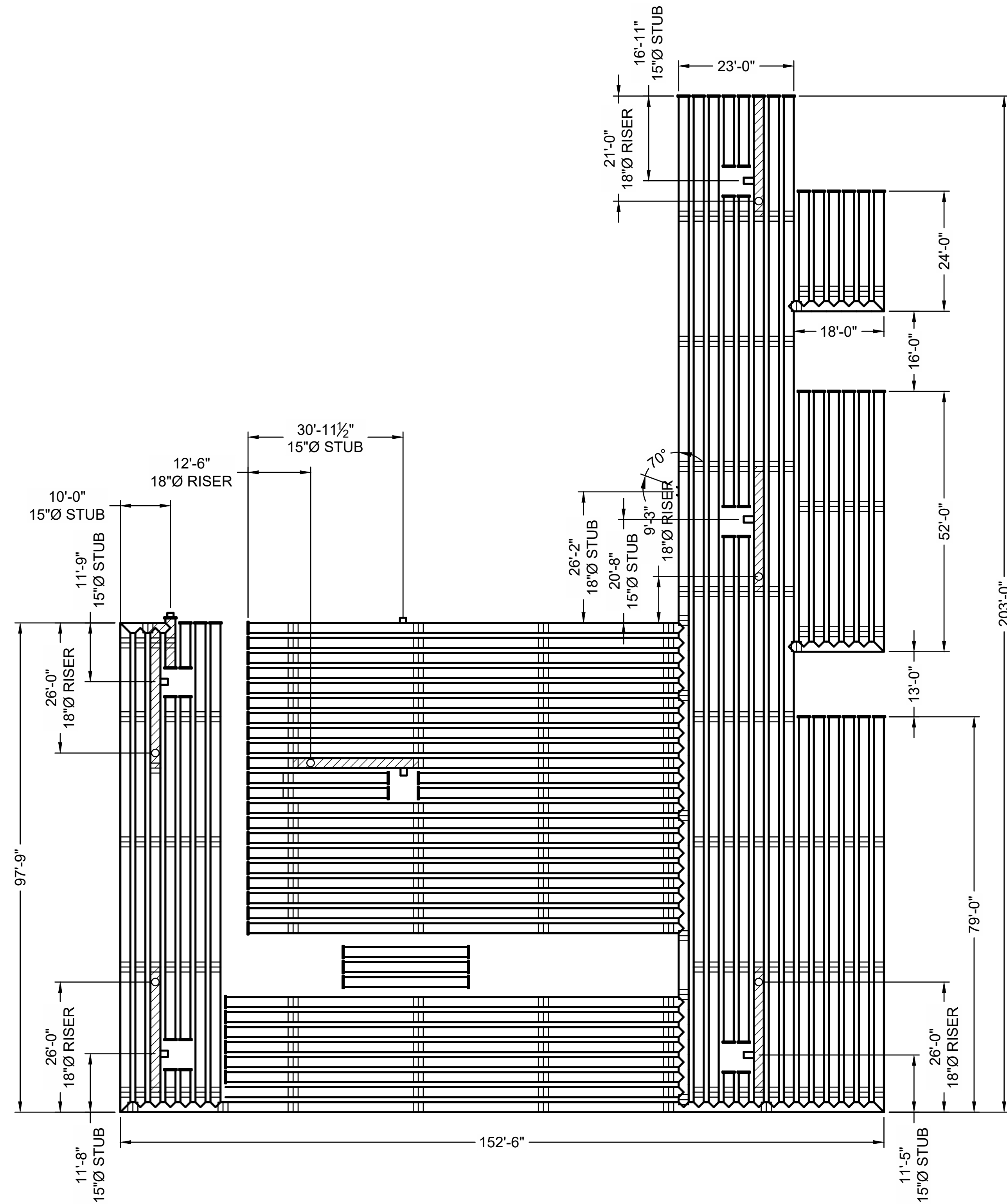
- DIAMETER = 24"
- CORRUGATION = 2 2/3x1/2
- INVERT = 98.00
- COATING = ALT2
- WALL TYPE = XFILTRATION
- BARREL SPACING = 12"

## KEY

-  XFILTRATION
-  CONTAINMENT BASIN

## NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2 2/3" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



**ASSEMBLY**  
SCALE: 1" = 30'

**C-40**  
40 50

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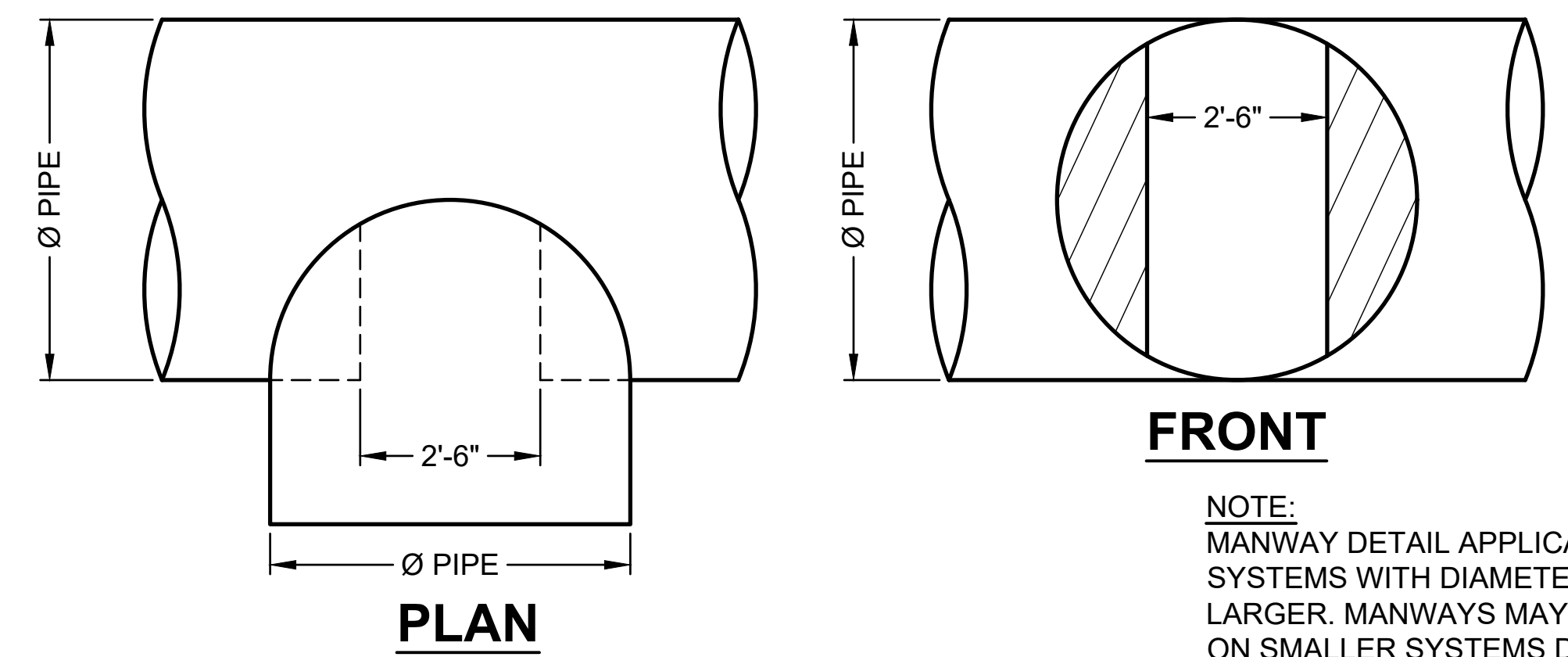
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CMP DETENTION SYSTEMS  
CONTECH  
DYODS  
DRAWING

754118-015 Cornerstone Charter Academy  
Exfiltration 2 24" CMP  
Belle Isle, FL

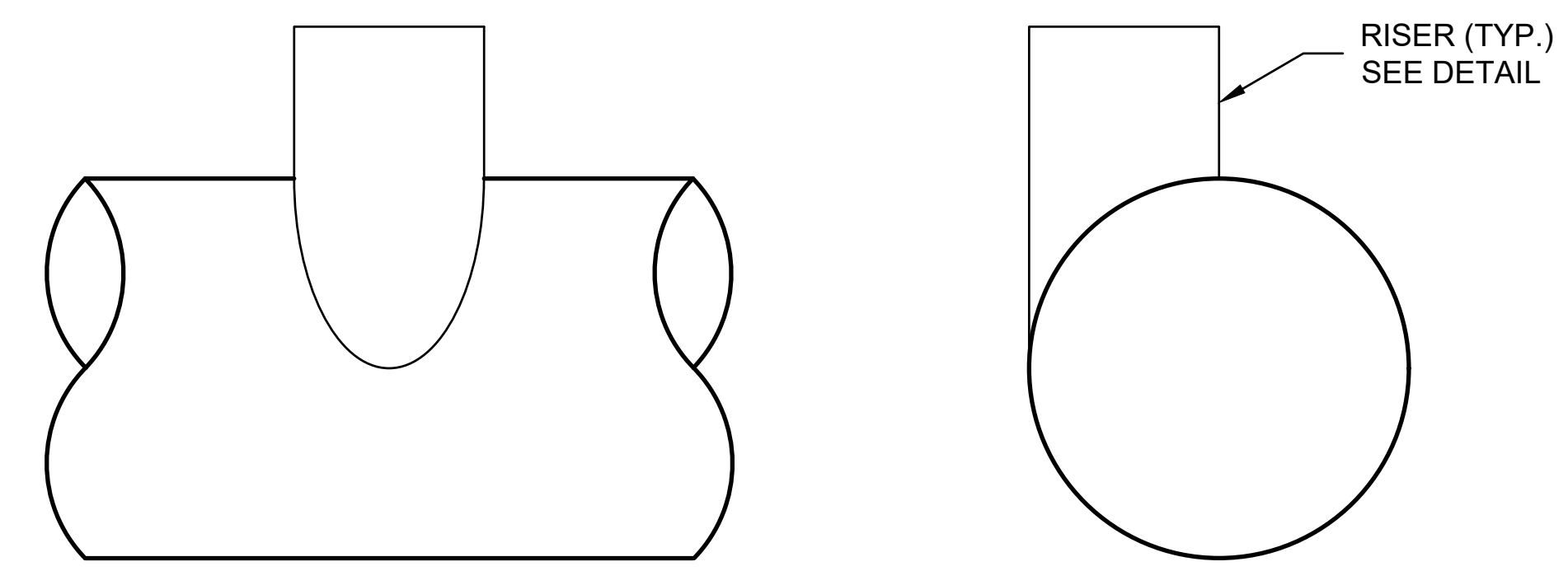
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| PROJECT No.:<br>754118 | SEQ. No.:<br>020 | DATE:<br>6/20/2023 |
| DESIGNED:<br>DYO       | DRAWN:<br>DYO    |                    |
| CHECKED:<br>DYO        | APPROVED:<br>DYO |                    |
| SHEET NO.:<br>1        |                  |                    |





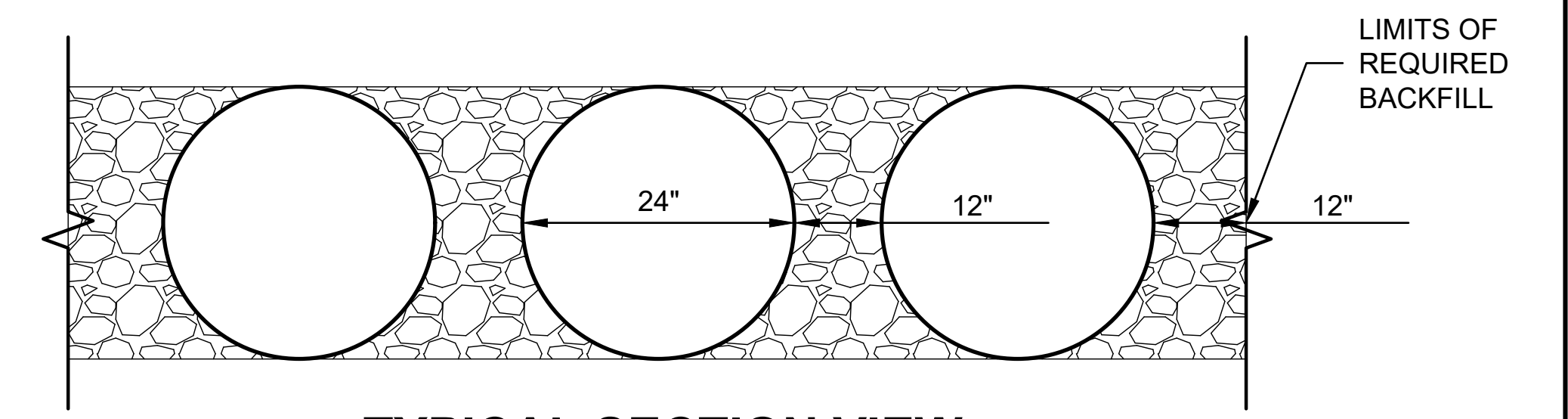
**TYPICAL MANWAY DETAIL**  
SCALE: N.T.S.

NOTE: MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.

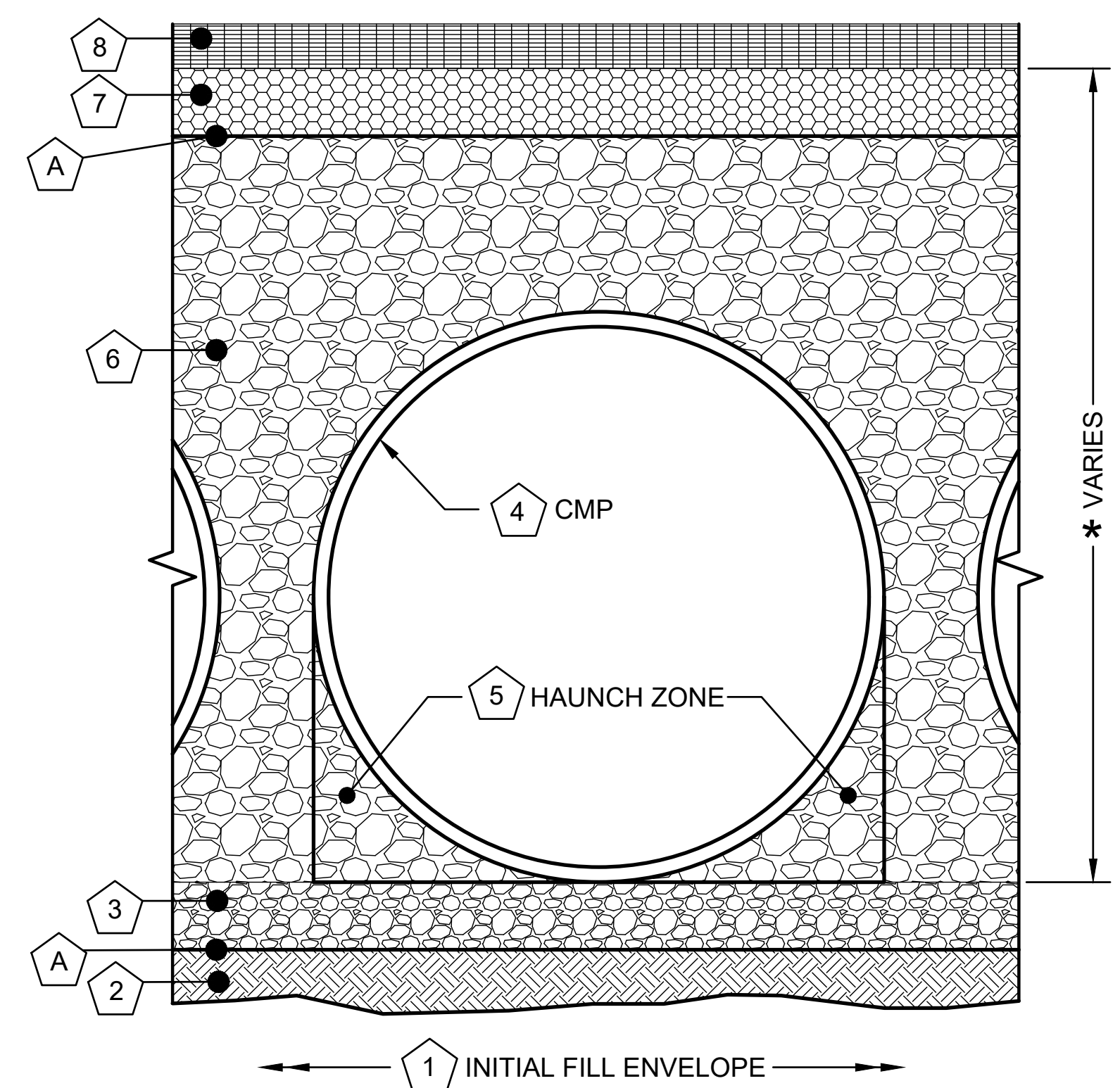


**TYPICAL RISER DETAIL**  
SCALE: N.T.S.

NOTE: LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.



**TYPICAL SECTION VIEW**  
SCALE: N.T.S.



| Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe                                   |                                            |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Location                                                                                        | Description                                | Material Designation                                                                                                                                                                                                    | Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 8                                                                                                        | Rigid or Flexible Pavement (if applicable) |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7                                                                                                        | Road Base (if applicable)                  |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| A                                                                                                        | Geotextile Layer                           | Non-Woven Geotextile<br>CONTECH C-40 or C-45                                                                                                                                                                            | Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.                                                                                                                                                                                                                                                                                                                                                                                             |
| 6                                                                                                        | Backfill                                   | Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of 1/2" - 2 1/2" diameter is recommended.<br>AASHTO M 145-A-1 or AASHTO M 43 - 3, 4 | Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction.                                                                                      |
| 3                                                                                                        | Bedding Stone                              | Well graded granular bedding material w/maximum particle size of 3"<br>AASHTO M43 - 3,357,4,467, 5, 56, 57                                                                                                              | For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation. |
| A                                                                                                        | Geotextile Layer                           | None                                                                                                                                                                                                                    | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| * Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean. |                                            |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

**FOUNDATION/BEDDING PREPARATION**

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

**BACKFILL**

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

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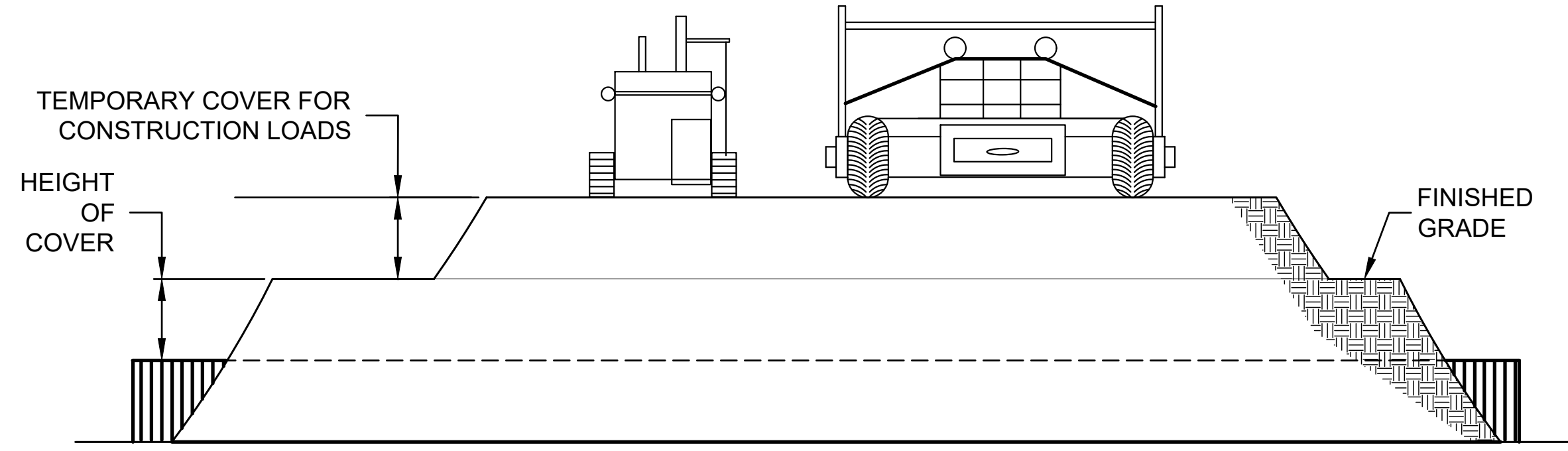
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DRAWING

754118-015 Cornerstone Charter Academy  
Exfiltration 2 24" CMP  
Belle Isle, FL

**C-41**  
41 50

|                        |                  |                    |
|------------------------|------------------|--------------------|
| PROJECT No.:<br>754118 | SEQ. No.:<br>020 | DATE:<br>6/20/2023 |
| DESIGNED:<br>DYO       | DRAWN:<br>DYO    |                    |
| CHECKED:<br>DYO        | APPROVED:<br>DYO |                    |
| SHEET NO.:<br>2        |                  |                    |



**CONSTRUCTION LOADS**

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

| PIPE SPAN, INCHES | AXLE LOADS (kips)  |       |        |         |
|-------------------|--------------------|-------|--------|---------|
|                   | 18-50              | 50-75 | 75-110 | 110-150 |
|                   | MINIMUM COVER (FT) |       |        |         |
| 12-42             | 2.0                | 2.5   | 3.0    | 3.0     |
| 48-72             | 3.0                | 3.0   | 3.5    | 4.0     |
| 78-120            | 3.0                | 3.5   | 4.0    | 4.0     |
| 126-144           | 3.5                | 4.0   | 4.5    | 4.5     |

\*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

**CONSTRUCTION LOADING DIAGRAM**  
SCALE: N.T.S.

**SPECIFICATION FOR DESIGNED DETENTION SYSTEM:**

**SCOPE**  
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

**MATERIAL**  
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-197 OR ASTM B-744.

**CONSTRUCTION LOADS**  
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

**NOTE:**  
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

**PIPE**  
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

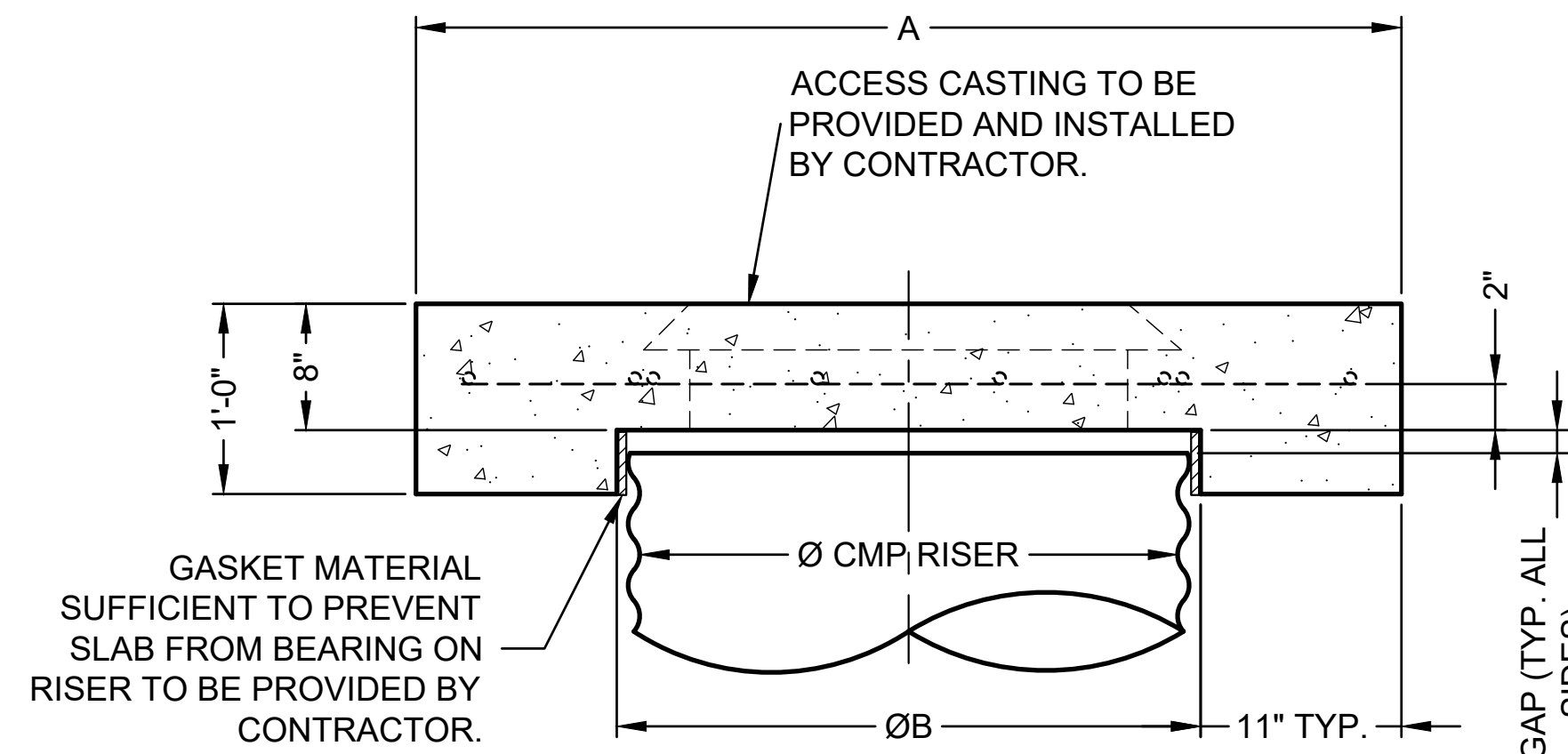
POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

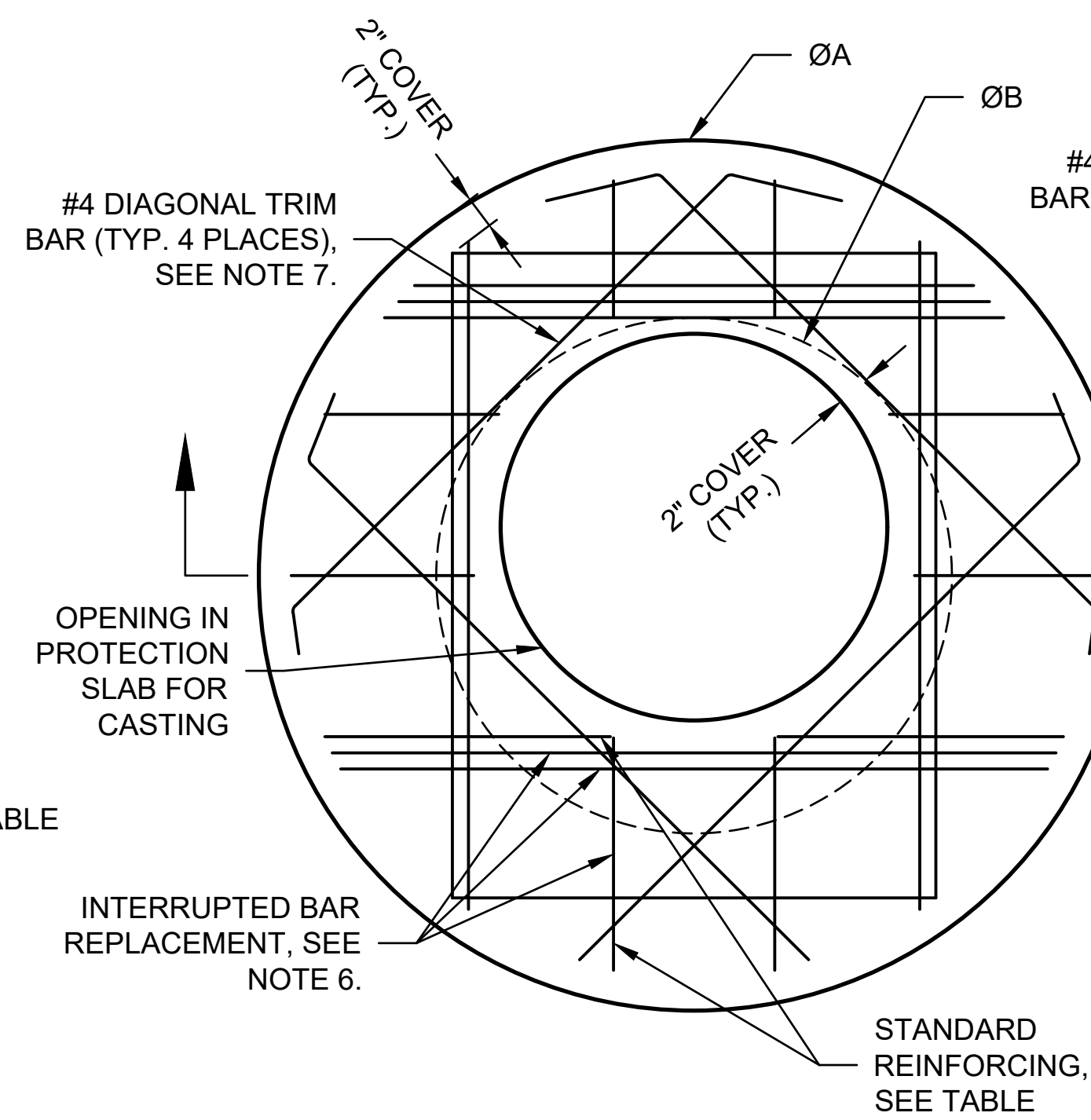
**HANDLING AND ASSEMBLY**  
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.

**INSTALLATION**  
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.



**SECTION VIEW**



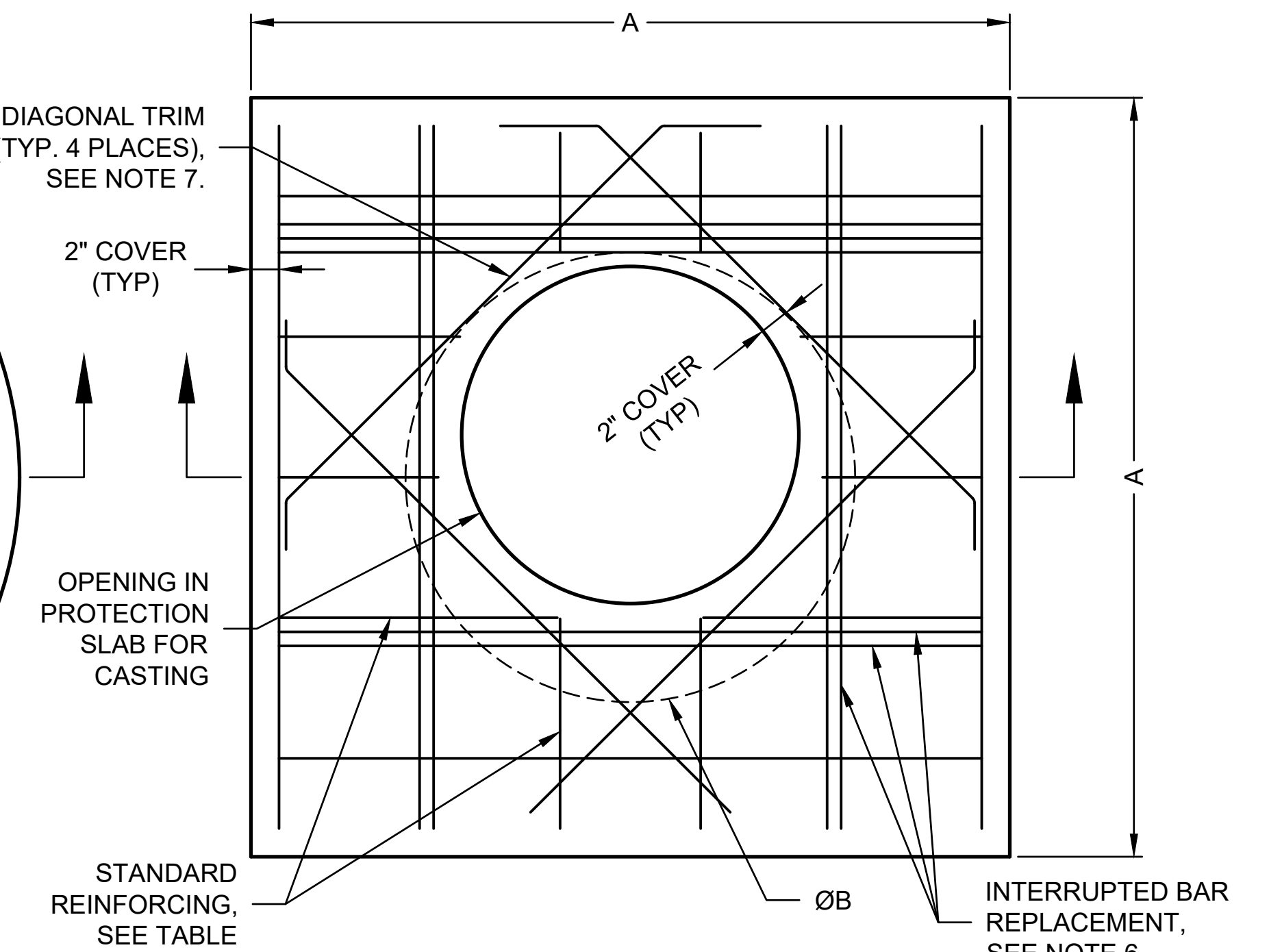
**ROUND OPTION PLAN VIEW**

**NOTES:**

- DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
- DESIGN LOAD HS25.
- EARTH COVER = 1' MAX.
- CONCRETE STRENGTH = 3,500 psi
- REINFORCING STEEL = ASTM A615, GRADE 60.
- PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.

| REINFORCING TABLE |                       |     |                                |                          |
|-------------------|-----------------------|-----|--------------------------------|--------------------------|
| Ø CMP RISER       | A                     | Ø B | REINFORCING                    | **BEARING PRESSURE (PSF) |
| 24"               | Ø 4' 4' X 4'          | 26" | #5 @ 12" OCEW<br>#5 @ 12" OCEW | 2,410<br>1,780           |
| 30"               | Ø 4'-6" 4'-6" X 4'-6" | 32" | #5 @ 12" OCEW<br>#5 @ 12" OCEW | 2,120<br>1,530           |
| 36"               | Ø 5' 5' X 5'          | 38" | #5 @ 10" OCEW<br>#5 @ 10" OCEW | 1,890<br>1,350           |
| 42"               | Ø 5'-6" 5'-6" X 5'-6" | 44" | #5 @ 10" OCEW<br>#5 @ 9" OCEW  | 1,720<br>1,210           |
| 48"               | Ø 6' 6' X 6'          | 50" | #5 @ 9" OCEW<br>#5 @ 8" OCEW   | 1,600<br>1,100           |

\*\* ASSUMED SOIL BEARING CAPACITY



**SQUARE OPTION PLAN VIEW**

- TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
- PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

**MANHOLE CAP DETAIL**  
SCALE: N.T.S.

**C-42**  
42 50

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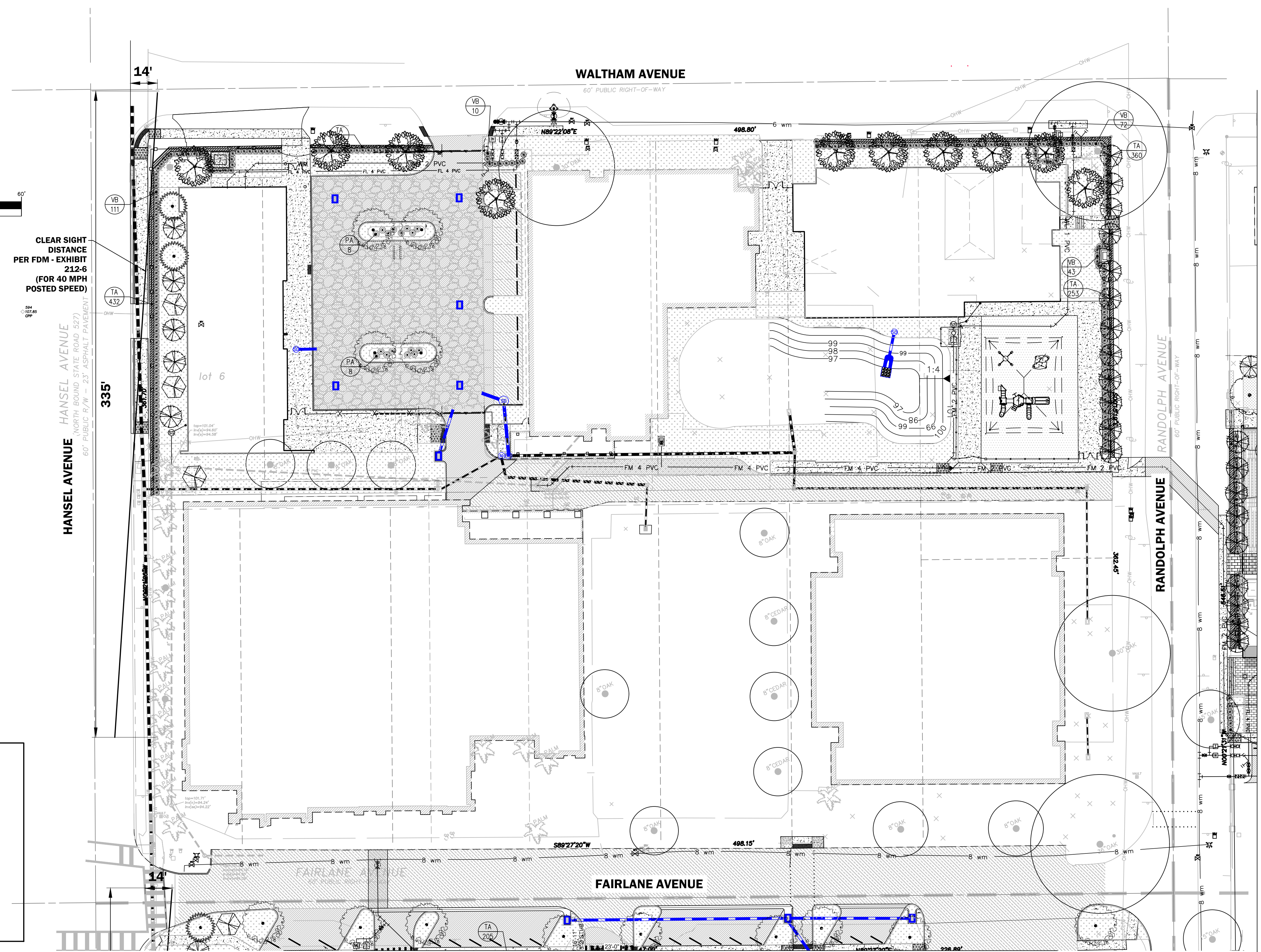
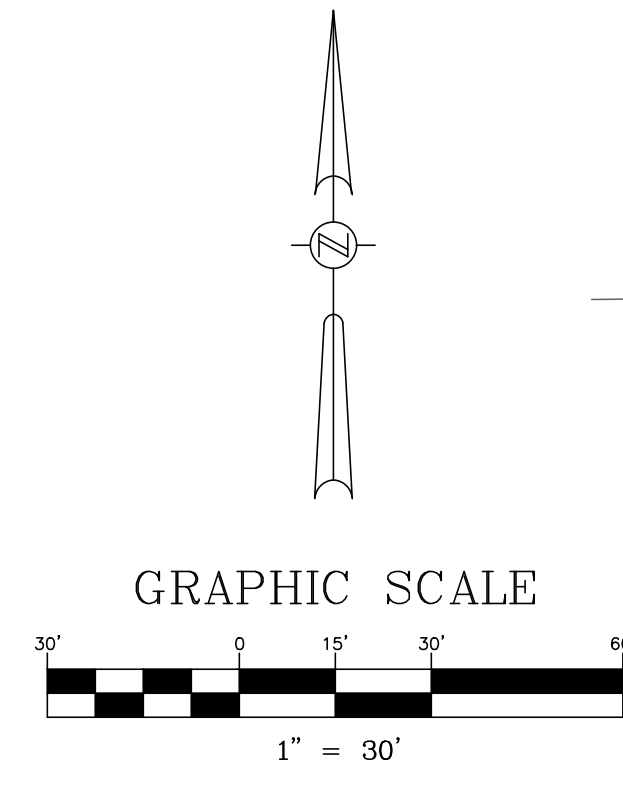
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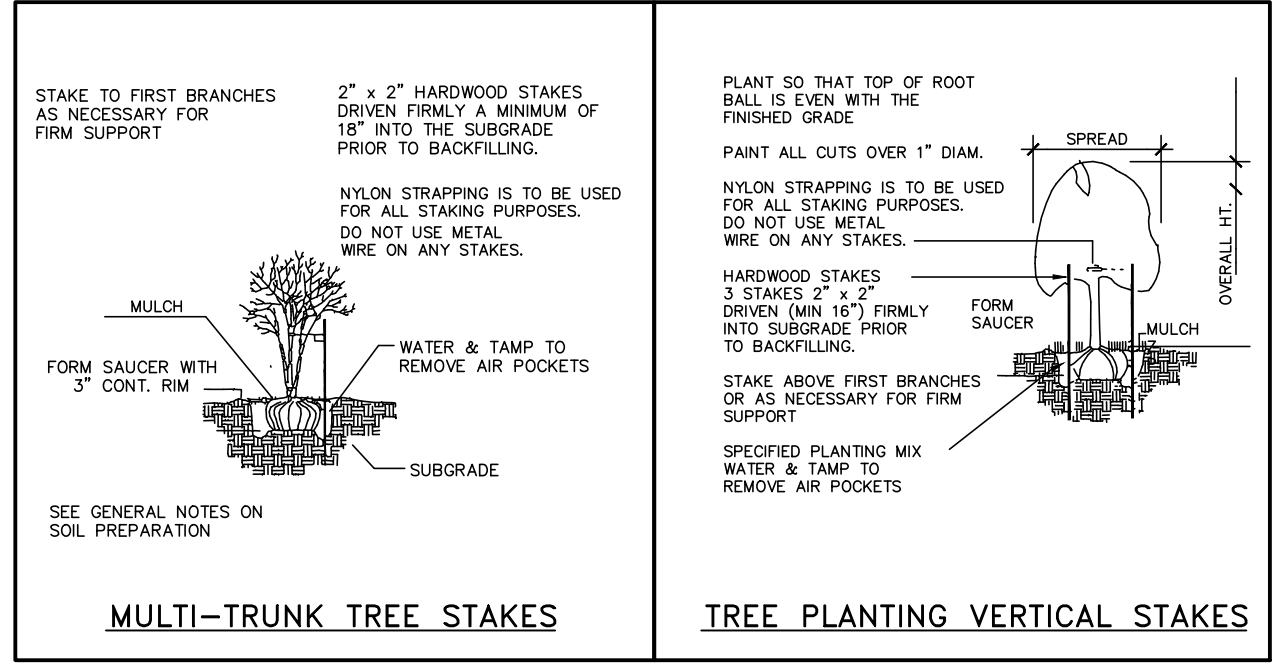
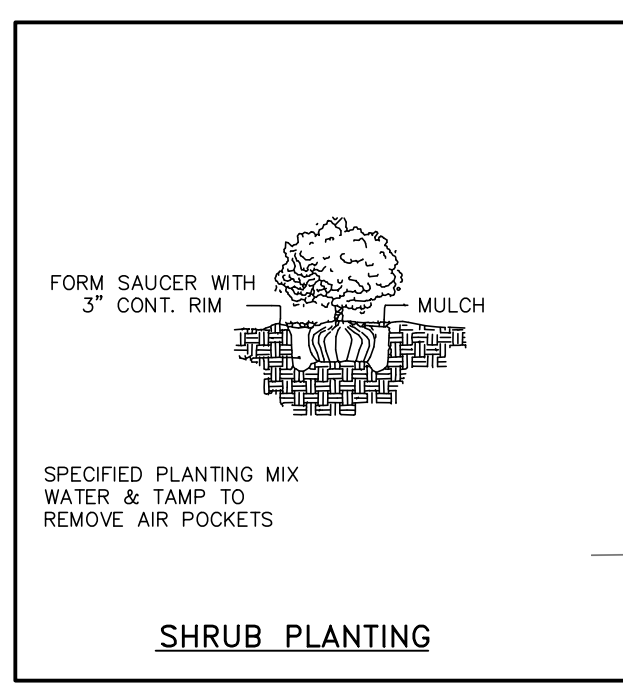
754118-015 Cornerstone Charter Academy  
Exfiltration 2 24" CMP  
Belle Isle, FL

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| PROJECT No.: 754118 | SEQ. No.: 020 | DATE: 6/20/2023 |
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| CHECKED: DYO        | APPROVED: DYO |                 |
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| FLORIDA NATIVE LANDSCAPE SCHEDULE |      |                                |                           |                          |          |                         |
|-----------------------------------|------|--------------------------------|---------------------------|--------------------------|----------|-------------------------|
| CANOPY TREES                      |      |                                |                           |                          |          |                         |
| SYMBOL                            | ABR. | BOTANICAL NAME                 | COMMON NAME               | MINIMUM SIZE             | QUANTITY | REMARKS                 |
|                                   | QV   | QUERCUS VIRGINICA 'HIGH RISE'  | HIGH RISE LIVE OAK        | 12' HT. 4" CAL.          | 42       | SPECIMEN Y              |
|                                   | AR   | ACER RUBRUM                    | RED MAPLE                 | 10'-12' HT. 3" CAL.      | 1        | SPECIMEN Y              |
|                                   | UA   | ULMUS ALATA                    | WINGED ELM                | 10'-12' HT. 3" CAL.      | 10       | SINGLE STRAIGHT TRUNK Y |
|                                   | LL   | LIGUSTRUM LUCIDUM              | TREE LIGUSTRUM            | 10'- HT.                 | 10       | Y                       |
|                                   | IA   | ILEX ATTENUATA 'EAGLESTON'     | EAGLESTON HOLLY           | 6'-8" HT. 3" CAL.        | 34       | Y                       |
|                                   | LI   | LAGERSTROEMIA INDICA 'NATCHEZ' | NATCHEZ GRAPE MYRTLE      | 10' HT                   | 7        | Y                       |
| SHRUBS                            |      |                                |                           |                          |          |                         |
|                                   | VB   | VIBURNUM ODORATISSIMUM         | VIBURNUM                  | 30" HT. 36" O.C.         | 560      | Y                       |
|                                   | PA   | PLUMBAGO AURICULATA            | PLUMBAGO                  | 3 GAL., 24" HT. 36" O.C. | 16       | Y                       |
|                                   | TA   | DWARF ASIATIC JASMINE          | TRACHELOSPERMUM ASIATICUM | 1 GAL. 12" O.C.          | 2,919    | Y                       |
| SOD/MISC.                         |      |                                |                           |                          |          |                         |
|                                   | SOD  | BAHIA HYBRID                   | QTY. BY CONTRACTOR        |                          |          |                         |



| DATE       | REVISIONS                                                  | BY    | CHECKED |
|------------|------------------------------------------------------------|-------|---------|
| 08/14/2023 | 3 REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | 4 REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | 5 REVISED PER OCCU COMMENTS DATED 07/27/2023               | VP/MS | JAA     |
| 08/17/2023 | 6 REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | 7 REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | 8 REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

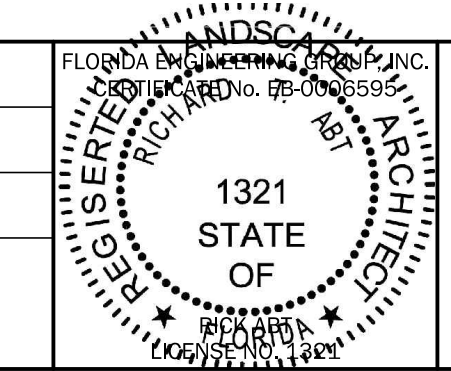
**CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA**



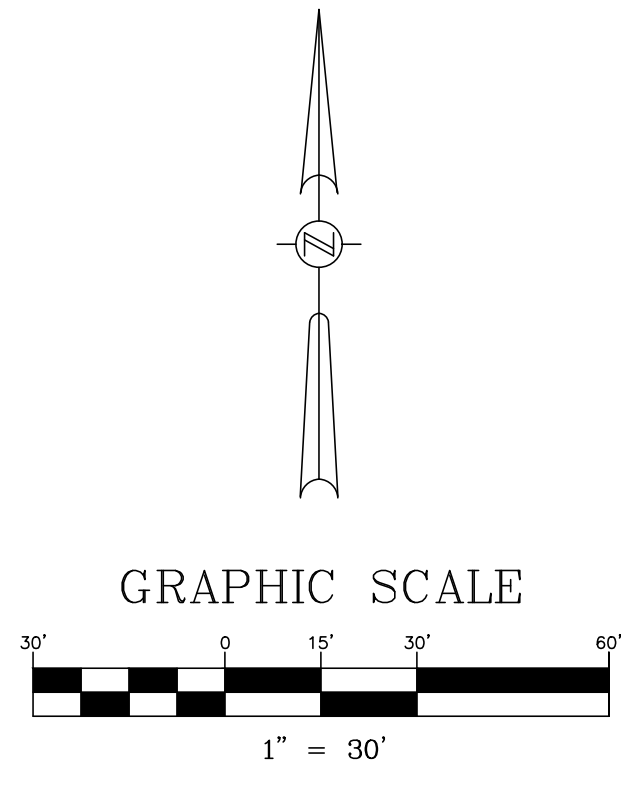
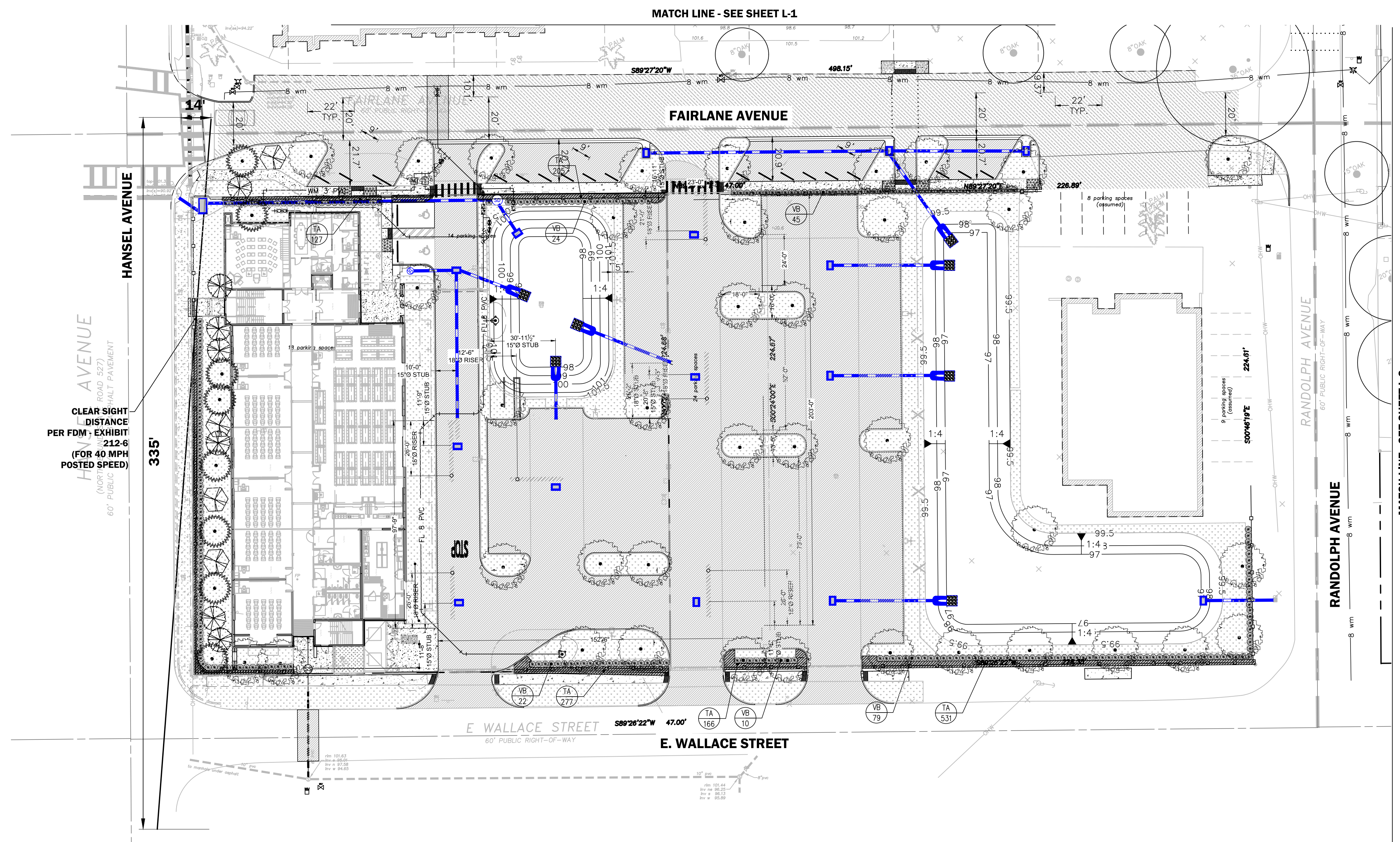
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Orlando, FL 32809  
Phone: 407-895-0324  
Fax: 407-895-0325  
www.feg-inc.us

| SITE LANDSCAPE PLAN (1 OF 3) |          |            |             |
|------------------------------|----------|------------|-------------|
| DESIGNED BY                  | DRAWN BY | CHECKED BY | APPROVED BY |
| RTA                          | SMH      | RTA        | JAA         |

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| PROJECT NO. | 22-010        |
| SCALE       | 1" = 30'      |
| DATE        | JUNE 23, 2023 |
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| SHEET       | 43 OF 50      |



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HANSEL AVENUE  
 CLEAR SIGHT DISTANCE  
 PER FDM - EXHIBIT  
 212-6  
 (FOR 40 MPH  
 POSTED SPEED)  
 335'

MATCH LINE - SEE SHEET L-3

| DATE       | REVISIONS | BY  | CHECKED |
|------------|-----------|-----|---------|
| 08/14/2023 | 3         | JAA |         |
| 08/15/2023 | 4         | JAA |         |
| 08/16/2023 | 5         | JAA |         |
| 08/17/2023 | 6         | JAA |         |
| 08/17/2023 | 7         | JAA |         |
| 10/09/2023 | 8         | JAA |         |

CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA

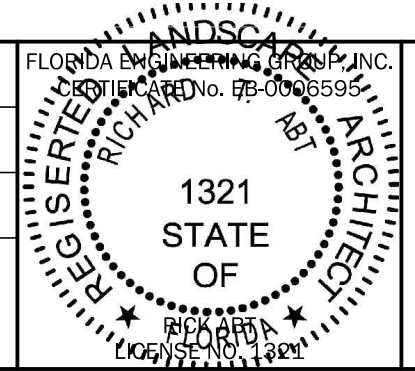


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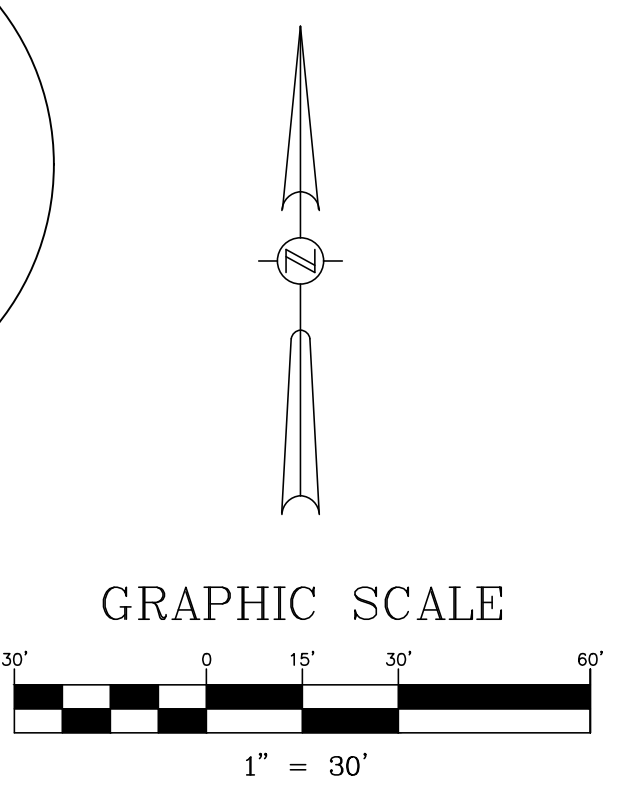
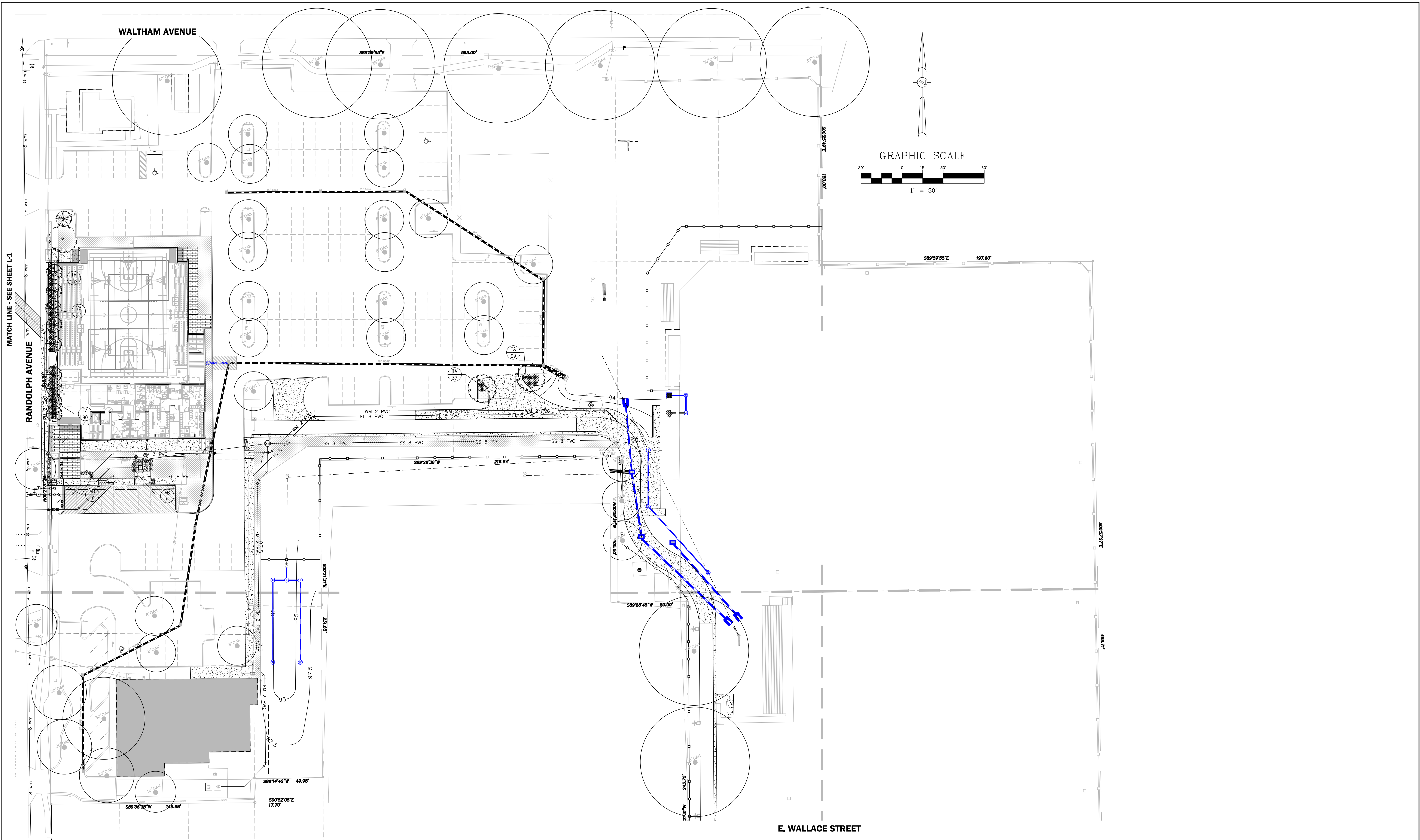
SITE LANDSCAPE PLAN (2 OF 3)

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| RTA         | SMH      | RTA        | JAA         |

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|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 30'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | L-2           |
| SHEET       | 44 OF 50      |



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MATCH LINE - SEE SHEET L-1

| DATE       | REVISIONS                                                 | BY    | CHECKED |
|------------|-----------------------------------------------------------|-------|---------|
| 08/14/2023 | 3 REVISD PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | 4 REVISD PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | 5 REVISD PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | 6 REVISD PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | 7 REVISD PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | 8 REVISD PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

**CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA**

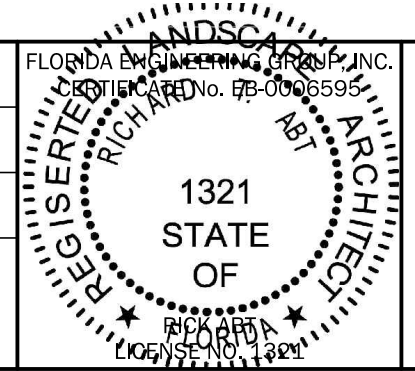


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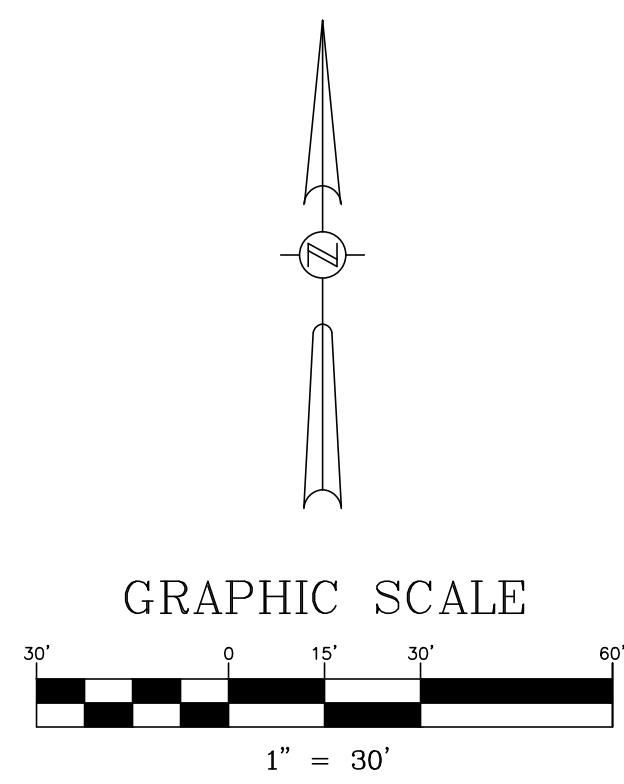
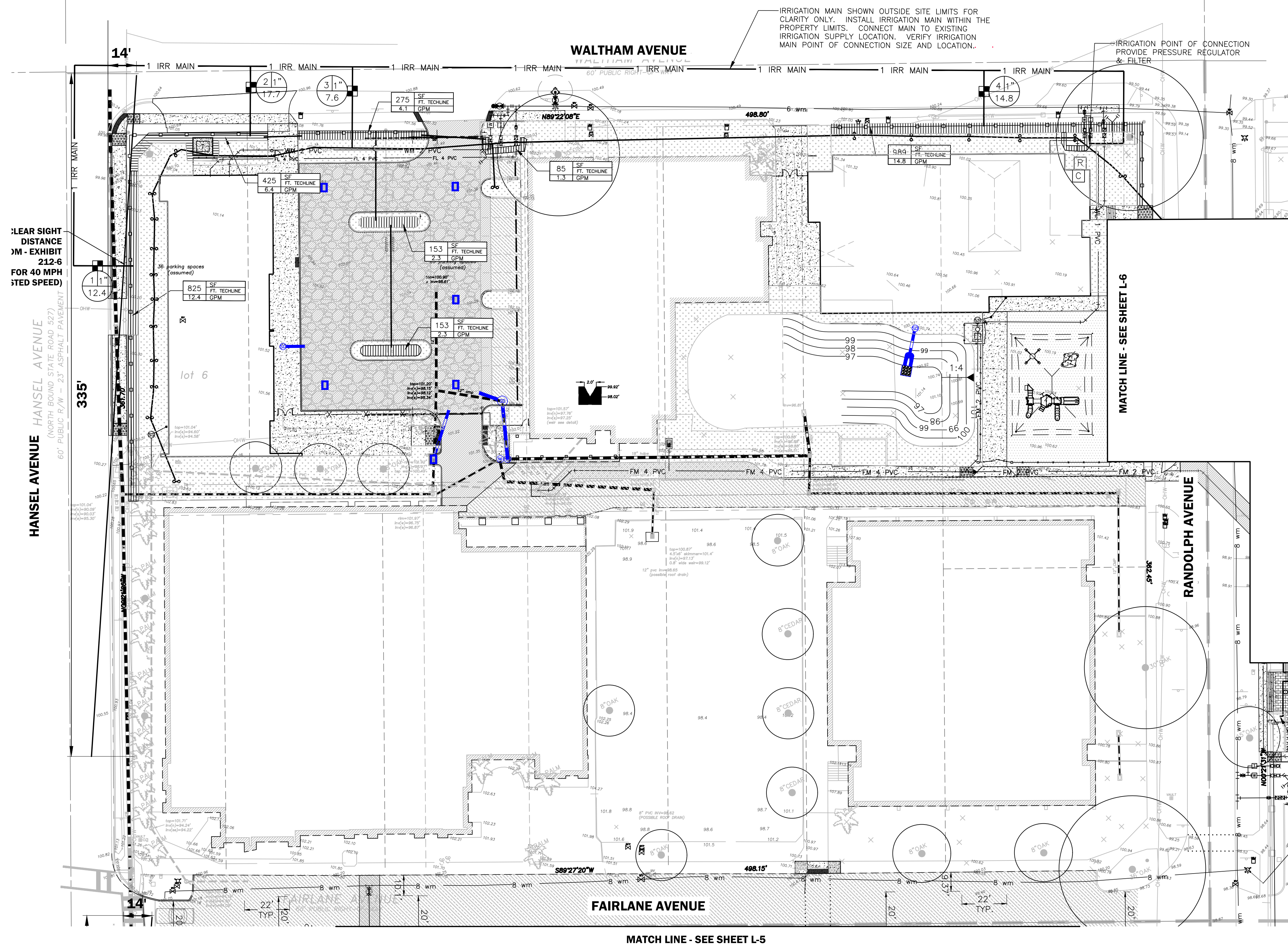
**SITE LANDSCAPE PLAN (3 OF 3)**

|                    |                 |                   |                    |
|--------------------|-----------------|-------------------|--------------------|
| DESIGNED BY<br>RTA | DRAWN BY<br>SMH | CHECKED BY<br>RTA | APPROVED BY<br>JAA |
|--------------------|-----------------|-------------------|--------------------|

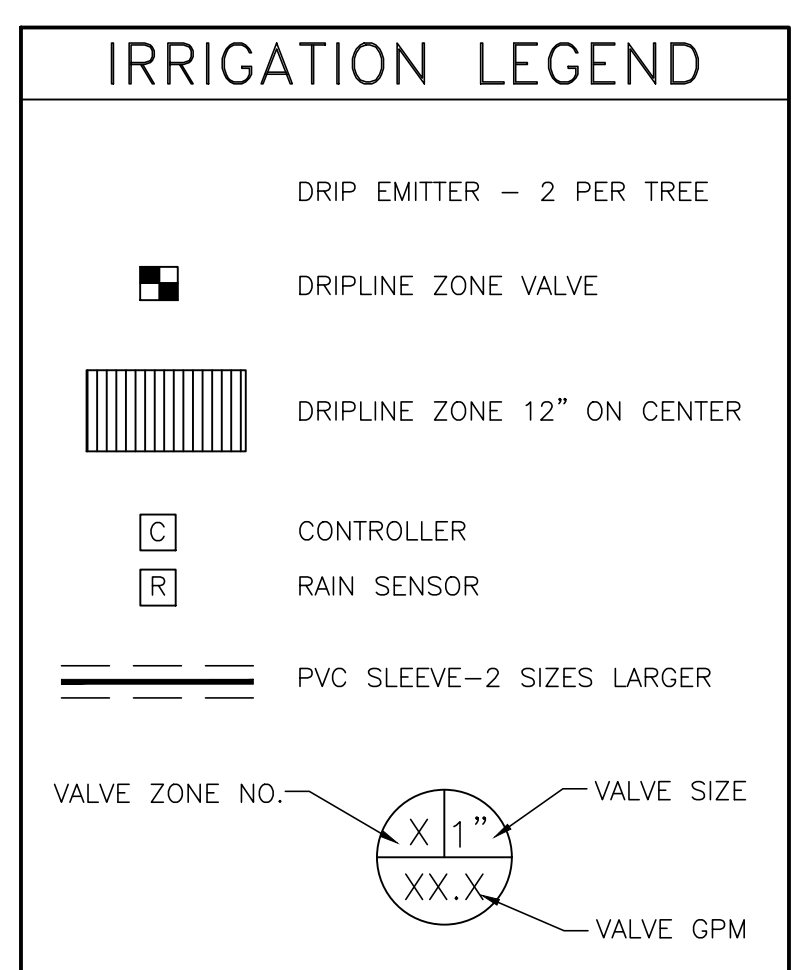
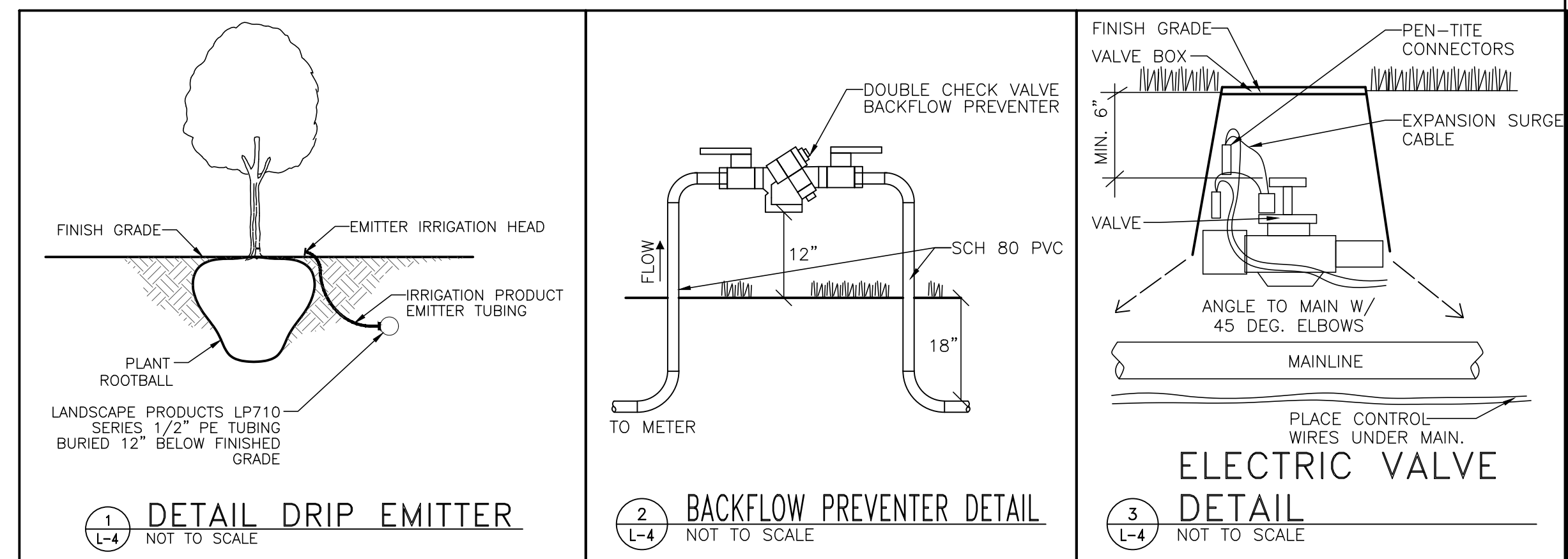
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|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 30'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | L-3           |
| SHEET       | 45 OF 50      |



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- ### IRRIGATION NOTES:
- CONTRACTOR SHALL INSTALL A COMPLETE IRRIGATION SYSTEM WHICH PROVIDES 100% COVERAGE OF ALL PLANTED AREAS PROVIDE ALL PIPING, VALVES, VALVE BOXES, & WIRING AS REQUIRED FOR A COMPLETE & OPERATIONAL IRRIGATION SYSTEM.
  - ALL IRRIGATION PIPING WHICH IS LOCATED UNDER PAVEMENT SHALL BE ENCASED IN A SLEEVE TWO SIZES LARGER THAN THE IRRIGATION LINE.
  - CONTRACTOR TO PROVIDE A DOUBLE DETECTOR CHECK VALVE AT THE POINT OF WATER SERVICE IN ADDITION TO AN IRRIGATION METER. COORDINATE LOCATION WITH OTHER UTILITIES & GENERAL CONTRACTOR.
  - CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY & ALL PERMITS REQUIRED FOR THE INSTALLATION OR CONSTRUCTION OF THE WORK INCLUDED IN THIS CONTRACT.
  - COORDINATE LOCATION OF IRRIGATION CONTROLLER WITH OWNER & GENERAL CONTRACTOR.
  - PROVIDE A RAIN SWITCH EQUIVALENT TO TORO RAIN SWITCH #850-74. MOUNT ON BUILDING IN AN INCONSPICUOUS LOCATION EXPOSED TO NORMAL RAINFALL & PER MFRS. SUGGESTIONS.
  - OBTAIN INSPECTION & APPROVAL OF ALL BURIED PIPING PRIOR TO BACKFILLING.
  - ADJUST DESIGN OF SYSTEM WHERE NECESSARY TO AVOID CONFLICTS IN THE FIELD WITH LANDSCAPING OR UTILITY LINES.
  - IRRIGATION CONTROLLER IS HUNTER IRRIGATION CONTROLLER SIZED APPROPRIATELY TO SUPPORT THE SYSTEM DESIGN. GET APPROVAL FROM OWNER PRIOR TO INSTALLATION. COORDINATE WITH CONTRACTOR FOR POWER REQUIREMENTS AND CONFIRM LOCATION WITH OWNER.
  - PROGRAM IRRIGATION CONTROLLER TO PROVIDE 0.5 INCH OF WATER PER WEEK. SCHEDULE HEADS TO OPERATE DURING MORNING HOURS.
  - ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
  - THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.
  - ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS & SEALANT.
  - THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING SHOWING ALL IRRIGATION INSTALLATIONS. THE DRAWING SHALL LOCATE ALL VALVES & MAINLINES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES OR STRUCTURES.
  - ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE AN IRRIGATION AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY & INSIDE THE IRRIGATION AREAS.
  - ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT & WORKMANSHIP.
  - ELECTRICAL SERVICE TO ALL EQUIPMENT SHALL BE PROVIDED TO A JUNCTION BOX AT THE EQUIPMENT LOCATION BY OTHERS.
  - ALL IRRIGATION SLEEVES ARE TO HAVE BEEN INSTALLED BY GENERAL CONTRACTOR AT TIME OF UTILITY CONSTRUCTION.



TOTAL IRRIGATED AREA = 8,287 SF  
 REQUIRED IRRIGATION = 0.5"/WEEK  
 TOTAL IRRIGATION DEMAND = 2,595 GAL/WEEK = 371 GPD  
 IRRIGATION TO BE PROVIDED THRU 1" IRRIGATION METER

| DATE       | REVISIONS                                                  | BY    | CHECKED |
|------------|------------------------------------------------------------|-------|---------|
| 08/14/2023 | 3 REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
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CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA

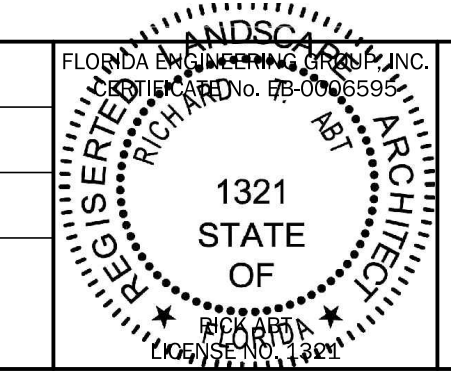


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### SITE IRRIGATION PLAN (4 OF 6)

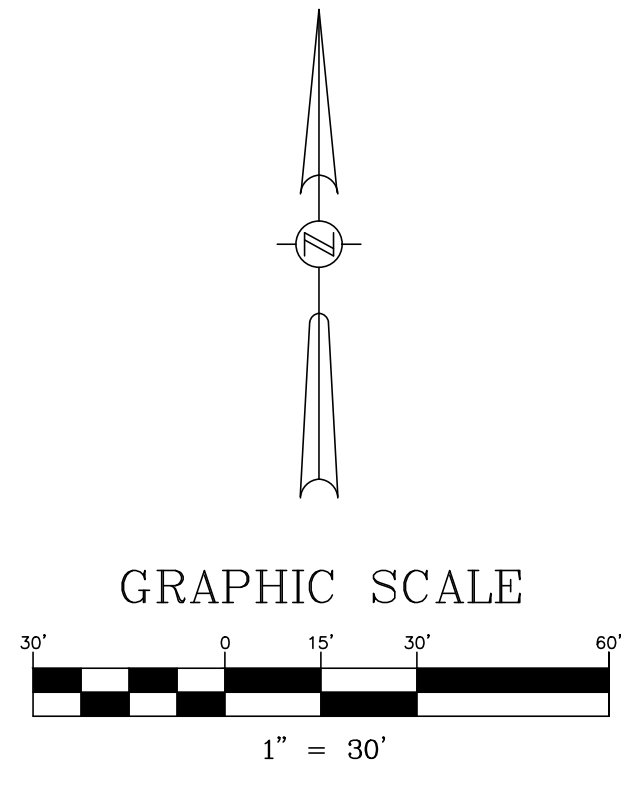
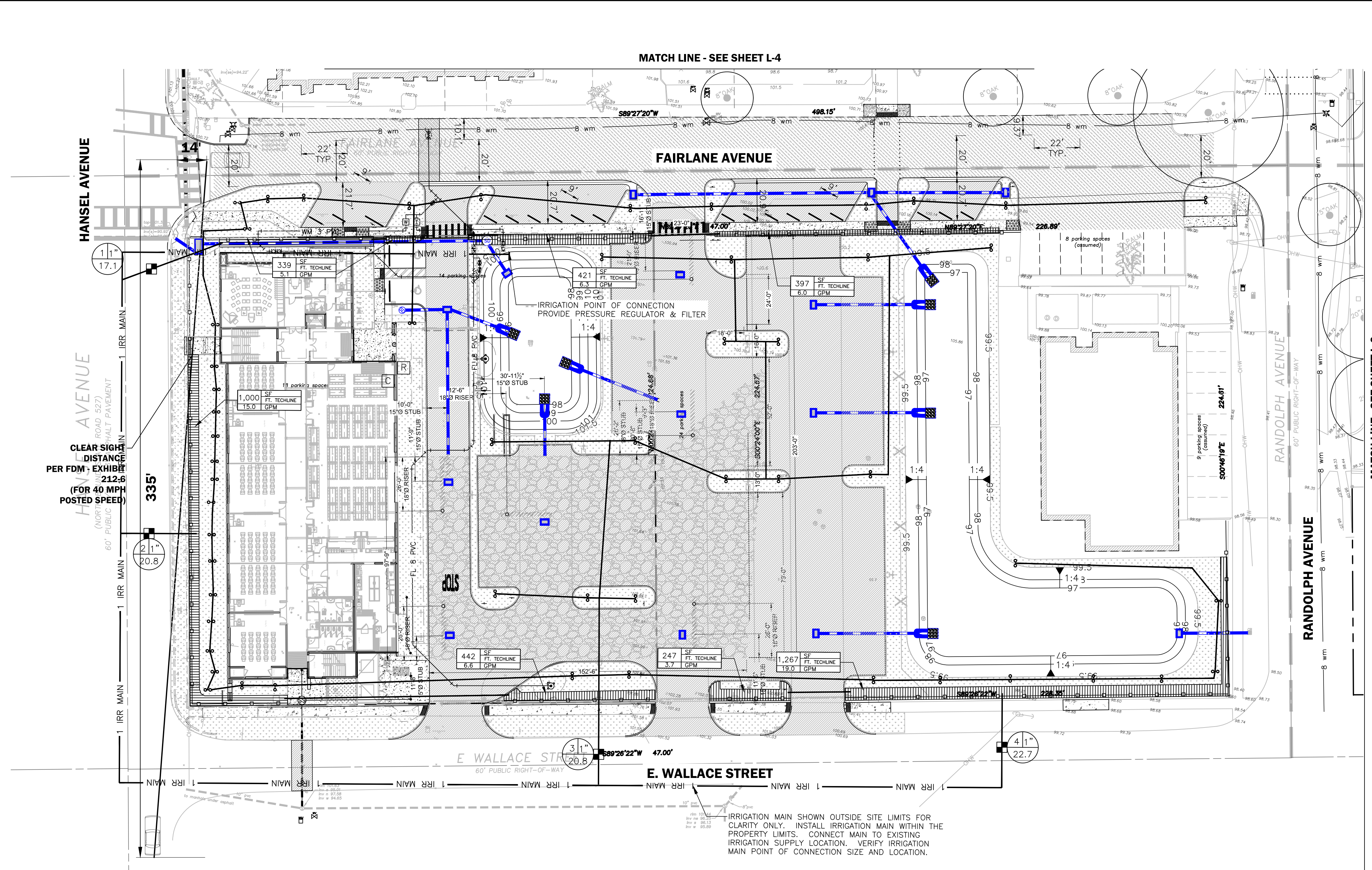
|             |          |            |             |
|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| RTA         | SMH      | RTA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 30'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | L-4           |
| SHEET       | 46 OF 50      |



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MATCH LINE - SEE SHEET L-4



HANSEL AVENUE  
 CLEAR SIGHT DISTANCE PER FDM - EXHIBIT 212.6 (FOR 40 MPH POSTED SPEED)  
 60' PUBLIC RIGHT-OF-WAY

MATCH LINE - SEE SHEET L-6

IRRIGATION MAIN SHOWN OUTSIDE SITE LIMITS FOR CLARITY ONLY. INSTALL IRRIGATION MAIN WITHIN THE PROPERTY LIMITS. CONNECT MAIN TO EXISTING IRRIGATION SUPPLY LOCATION. VERIFY IRRIGATION MAIN POINT OF CONNECTION SIZE AND LOCATION.

| DATE       | REVISIONS                                                  | BY    | CHECKED |
|------------|------------------------------------------------------------|-------|---------|
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CORNERSTONE CHARTER ACADEMY  
 CONSTRUCTION PLANS  
 CITY OF BELLE ISLE, FLORIDA

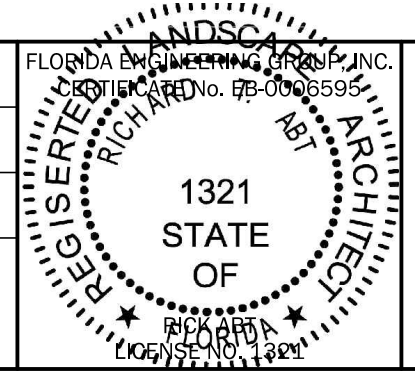


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SITE IRRIGATION PLAN (5 OF 6)

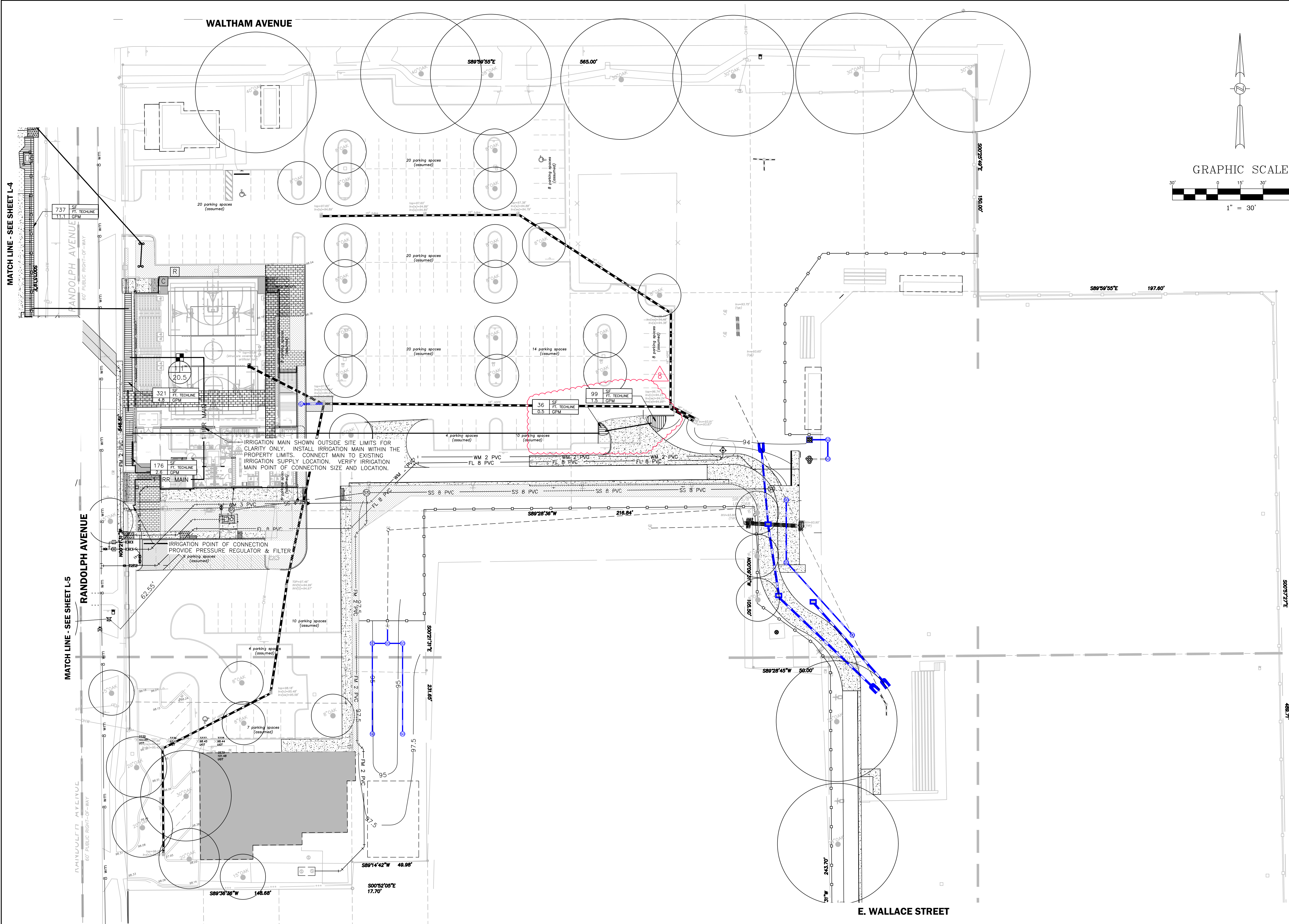
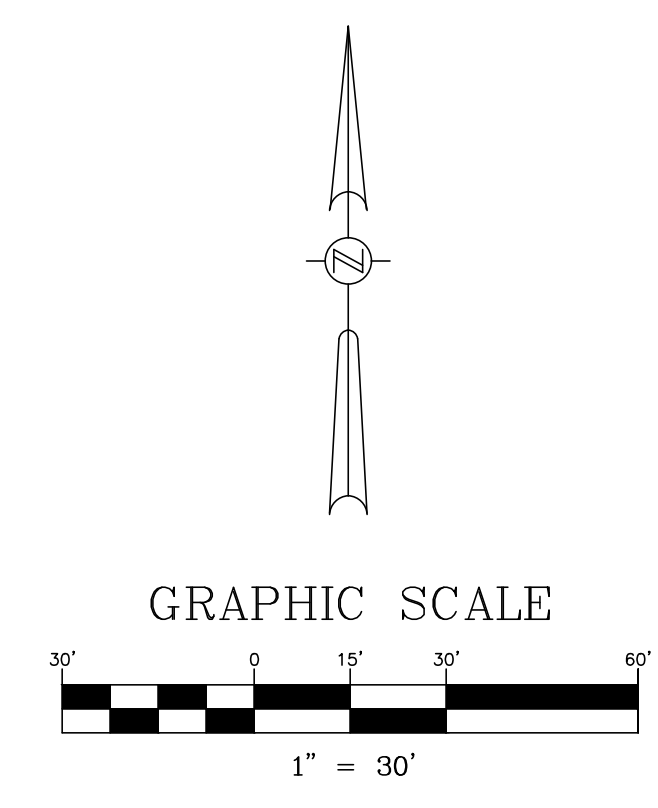
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| RTA         | SMH      | RTA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 30'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | L-5           |
| SHEET       | 47 OF 50      |



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WALTHAM AVENUE



MATCH LINE - SEE SHEET L-4

MATCH LINE - SEE SHEET L-5

| DATE       | REVISIONS                                                  | BY    | CHECKED |
|------------|------------------------------------------------------------|-------|---------|
| 08/14/2023 | 3 REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | 4 REVISED PER SJRWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | 5 REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
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| 08/17/2023 | 7 REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |
| 10/09/2023 | 8 REVISED PER CITY COMMENTS DATED 10/04/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

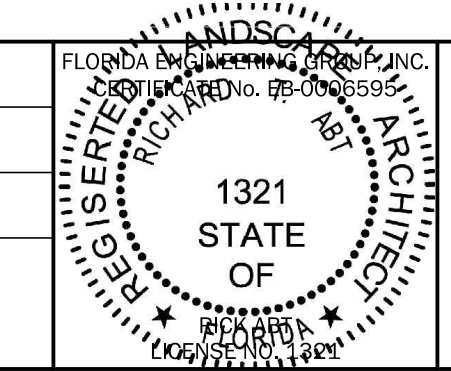


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SITE IRRIGATION PLAN (6 OF 6)

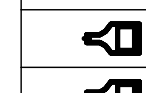

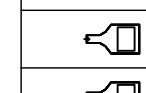
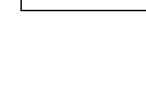


| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|-------------|----------|------------|-------------|
| RTA         | SMH      | RTA        | JAA         |

|             |               |
|-------------|---------------|
| PROJECT NO. | 22-010        |
| SCALE       | 1" = 30'      |
| DATE        | JUNE 23, 2023 |
| SHEET NO.   | L-6           |
| SHEET       | 48 OF 50      |



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| LUMINAIRE SCHEDULE                                                                |     |       |             |                   |                              |                          |           |       |                  |                 |                   |
|-----------------------------------------------------------------------------------|-----|-------|-------------|-------------------|------------------------------|--------------------------|-----------|-------|------------------|-----------------|-------------------|
| SYMBOL                                                                            | QTY | LABEL | ARRANGEMENT | MANUFACTURER      | CATALOG NUMBER               | MOUNTING                 | EMERGENCY | LLF   | LUMINAIRE LUMENS | LUMINAIRE WATTS | ARRANGEMENT WATTS |
|  | 10  | SA    | Single      | Lithonia Lighting | DSX0 LED P7 40K 70CRI TAM HS | POLE MOUNTED: 20' A.F.G. | N/A       | 0.900 | 17739            | 170.81          | 170.81            |
|  | 1   | SB    | Single      | Lithonia Lighting | DSX0 LED P7 40K 70CRI BLC3   | POLE MOUNTED: 20' A.F.G. | N/A       | 0.900 | 14777            | 170.81          | 170.81            |
|  | 3   | SC    | Back-Back   | Lithonia Lighting | DSX0 LED P7 40K 70CRI TSM    | POLE MOUNTED: 20' A.F.G. | N/A       | 0.900 | 21214            | 170.81          | 341.62            |
|  | 1   | SD    | Single      | Lithonia Lighting | DSX0 LED P7 40K 70CRI RCCO   | POLE MOUNTED: 20' A.F.G. | N/A       | 0.900 | 14914            | 170.81          | 170.81            |
|  | 10  | SF1   | Single      | Lithonia Lighting | DSX0 LED P4 40K 70CRI BLC3   | POLE MOUNTED: 20' A.F.G. | N/A       | 0.900 | 8094             | 93.04           | 93.04             |
|  | 2   | SF2   | Single      | Lithonia Lighting | DSX0 LED P4 40K 70CRI RCCO   | POLE MOUNTED: 20' A.F.G. | N/A       | 0.900 | 8170             | 93.04           | 93.04             |

| CALCULATION SUMMARY |             |       |                  |                  |             |      |     |     |         |         |  |
|---------------------|-------------|-------|------------------|------------------|-------------|------|-----|-----|---------|---------|--|
| LABEL               | CALC TYPE   | UNITS | SPACING L-R (FT) | SPACING T-B (FT) | HEIGHT (FT) | AVG  | MAX | MIN | AVG/MIN | MAX/MIN |  |
| QUEUING LANE        | Illuminance | Fc    | 5                | 5                | 0           | 2.42 | 5.3 | 1.1 | 2.20    | 4.82    |  |
| SITE - NW           | Illuminance | Fc    | 8                | 8                | 0           | 4.39 | 6.6 | 1.1 | 3.99    | 6.00    |  |
| SITE - SW           | Illuminance | Fc    | 8                | 8                | 0           | 4.18 | 6.6 | 1.1 | 3.80    | 7.82    |  |
| SPILL               | Illuminance | Fc    | 8                | N.A.             | N.A.        | 0.03 | 0.5 | 0.0 | N.A.    | N.A.    |  |



6300 HANSEL AVE.  
BELLE ISLE, FL 32809

PARCEL ID:  
24-23-29-8820-00-050  
24-23-29-3400-00-073  
24-23-29-3400-00-092  
24-23-29-3400-00-093  
24-23-29-3400-00-094  
24-23-29-3400-00-095  
24-23-29-3400-00-114

APPLICANT:  
CORNERSTONE  
CHARTER ACADEMY  
906 WALTHAM AVE.  
BELLE ISLE, FL 32809

ISSUED FOR:  
**SUBMITTAL SET**

CIVICA PROJECT No :  
220208

CONSULTANTS:  
**FEG** FLORIDA  
ENGINEERING  
GROUP  
Engineering the Future

| No. | DATE | ISSUED FOR | BY |
|-----|------|------------|----|
|     |      |            |    |
|     |      |            |    |
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|     |      |            |    |
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DRAWN BY: TM APPROVED BY: JGI/RL  
DATE: 06/26/2023 SCALE: AS SHOWN  
KEY PLAN

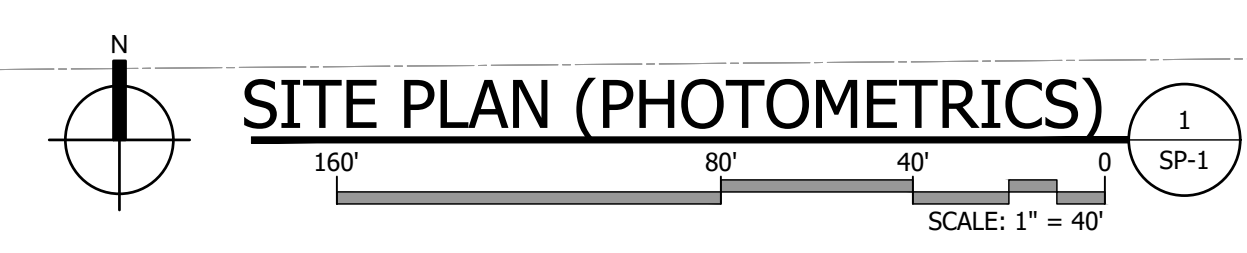
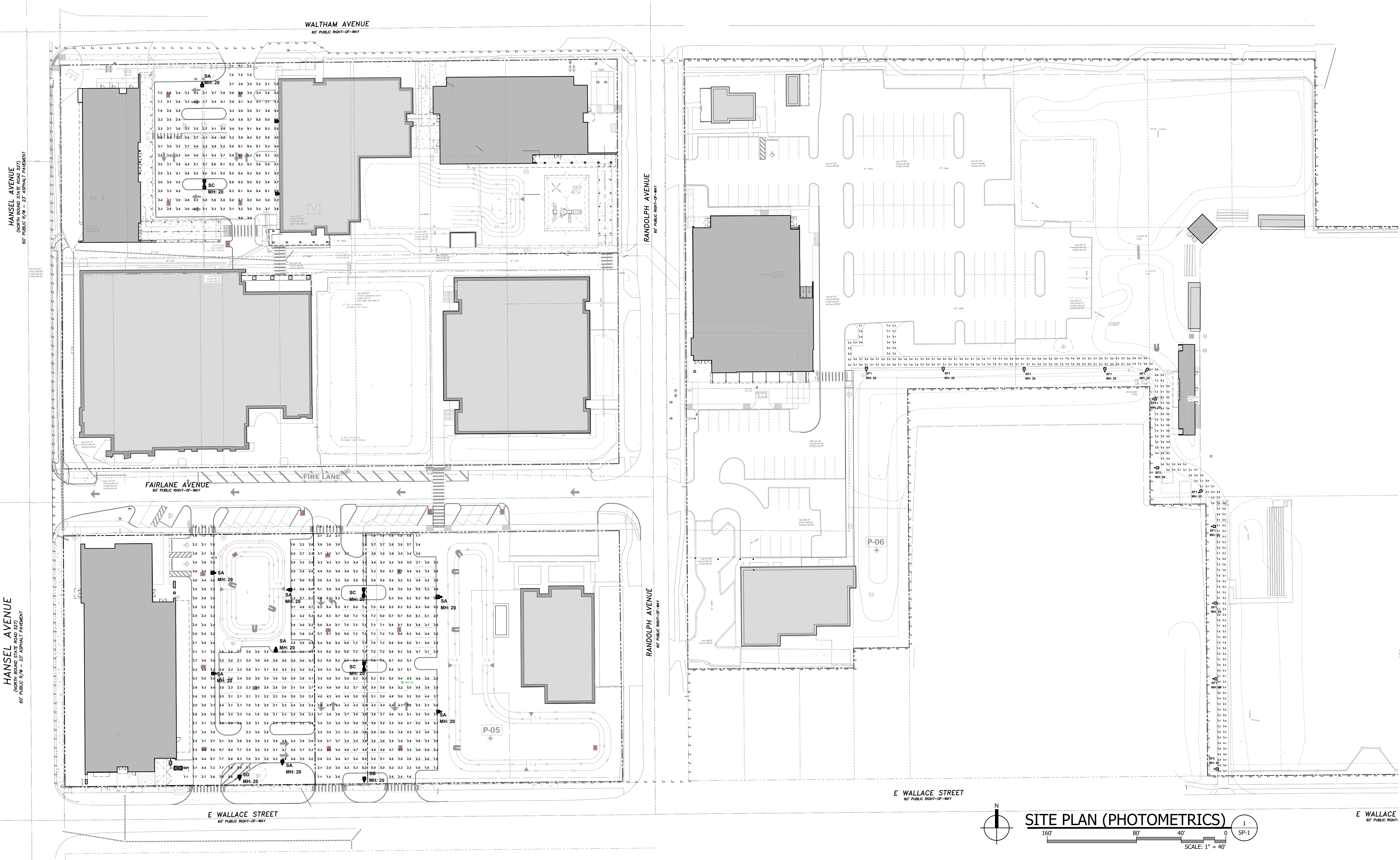
1st FL FFE: (SEE PLANS) NAVD (1988)



ROLANDO LLANES  
AR - 0013160  
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SHEET TITLE  
**SITE PLAN  
PHOTOMETRIC CALCS  
-NEW PARKING-  
& AREAS**

SHEET NUMBER  
**SP-1**





## D-Series Size 0 LED Area Luminaire

**d'series**

Introducing the modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficiency, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

### Specifications

EPA: 0.44 ft<sup>2</sup> (0.041 m<sup>2</sup>)  
Length: 26.18" (665 mm)  
Width: 14.96" (379 mm)  
Height H1: 7.64" (195 mm)  
Height H2: 9.74" (247 mm)  
Weight: 23.5 lb (10.7 kg)

### Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CM T3M MVO1T SPA N1A2R2 P1R1N DBX0D

| Series | LEDs | Color temperature | Lumen/foot | Beam Spread | Beam Angle | Mounting      | Roasting           |
|--------|------|-------------------|------------|-------------|------------|---------------|--------------------|
| DSX10D | P1   | 300K              | 300K       | 3000°       | T55        | Spot Fixation | MVO1T (124V 480V)† |
|        | P2   | 40K               | 400K       | 3000°       | T55        | Spot Fixation | MVO1T (124V 480V)† |
|        | P3   | 50K               | 500K       | 3000°       | T55        | Spot Fixation | MVO1T (124V 480V)† |
|        | P4   | 50K               | 500K       | 3000°       | T55        | Spot Fixation | RECE (124V 480V)†  |
|        | P5   | 50K               | 500K       | 3000°       | T55        | Spot Fixation | RECE (124V 480V)†  |

**Shield Accessories**

External Glare Shield (EGSR) | House Side Shield (HS)

### Drilling

**Tenon Mounting Slipfitter**

| Mounting System | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|-----------------|--------|----------|--------|--------|--------|------|--------|-------|
| Standard        | MS-100 | Aluminum | 1.125" | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
| Standard        | MS-100 | Aluminum | 1.125" | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

**DSX0 Area Luminaire - EPA**

| Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0 with HX  | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

### Ordering Information

Accessories: DSX0 Series LED Area Luminaire

### Shield Accessories

External Glare Shield (EGSR) | House Side Shield (HS)

### Drilling

**Handhole Orientation**

**Tenon Mounting Slipfitter**

| Mounting System | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|-----------------|--------|----------|--------|--------|--------|------|--------|-------|
| Standard        | MS-100 | Aluminum | 1.125" | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

**DSX0 Area Luminaire - EPA**

| Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0 with HX  | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

### Photometric Diagrams

Photometric diagrams showing light distribution patterns for various configurations. Includes a legend for beam spread (1.125", 1.375", 1.5", 1.625", 1.75").

### Performance Data

#### Lumen Ambient Temperature (LAT) Multipliers

| LAT  | Multiplier |
|------|------------|
| 0°C  | 1.00       |
| 5°C  | 0.98       |
| 10°C | 0.96       |
| 15°C | 0.94       |
| 20°C | 0.92       |
| 25°C | 0.90       |
| 30°C | 0.88       |
| 35°C | 0.86       |
| 40°C | 0.84       |
| 45°C | 0.82       |
| 50°C | 0.80       |

#### Electrical Load

| Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0 with HX  | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

#### Projected LED Lumen Maintenance

| Hours   | Lumen Maintenance (%) |
|---------|-----------------------|
| 0       | 100                   |
| 10,000  | 90                    |
| 20,000  | 80                    |
| 30,000  | 70                    |
| 40,000  | 60                    |
| 50,000  | 50                    |
| 60,000  | 40                    |
| 70,000  | 30                    |
| 80,000  | 20                    |
| 90,000  | 10                    |
| 100,000 | 0                     |

#### LED Color Temperature / Color Rendering Multipliers

| Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0 with HX  | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

#### FAO Dimming Settings

| Dimming Level | Dimming (%) |
|---------------|-------------|
| 100%          | 100%        |
| 75%           | 75%         |
| 50%           | 50%         |
| 25%           | 25%         |
| 0%            | 0%          |

#### Motion Sensor Default Settings

| Series | Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|--------|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0   | Standard      | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

#### Controls Options

Control options for various mounting systems and configurations.

### Performance Data

#### Lumen Output

Lumen output table for various configurations.

#### Roasting Options

| Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0 with HX  | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

### Performance Data

#### Lumen Output

Lumen output table for various configurations.

#### Roasting Options

| Roasting Type | Part # | Material | Length | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |
|---------------|--------|----------|--------|--------|--------|------|--------|-------|
| DSX0 with HX  | 844    | 848      | 848    | 1.125" | 1.375" | 1.5" | 1.625" | 1.75" |

### Dimensions

Technical drawings of the luminaire showing dimensions for various configurations.

### nLight Control - Sensor Coverage and Settings

nLight Control - Sensor Coverage Pattern (N1A2R2 P1R1N)

#### FEATURES & SPECIFICATIONS

Intended use, construction, finish, and warranty information.

#### HIGH AIR CONTROLS

High Air Controls feature details.

LITHONIA LIGHTING COMMERCIAL OUTDOOR

One Lithonia Way • Corning, Georgia 30012 • Phone: 1-800-705-SERV (5278) • www.lithonia.com

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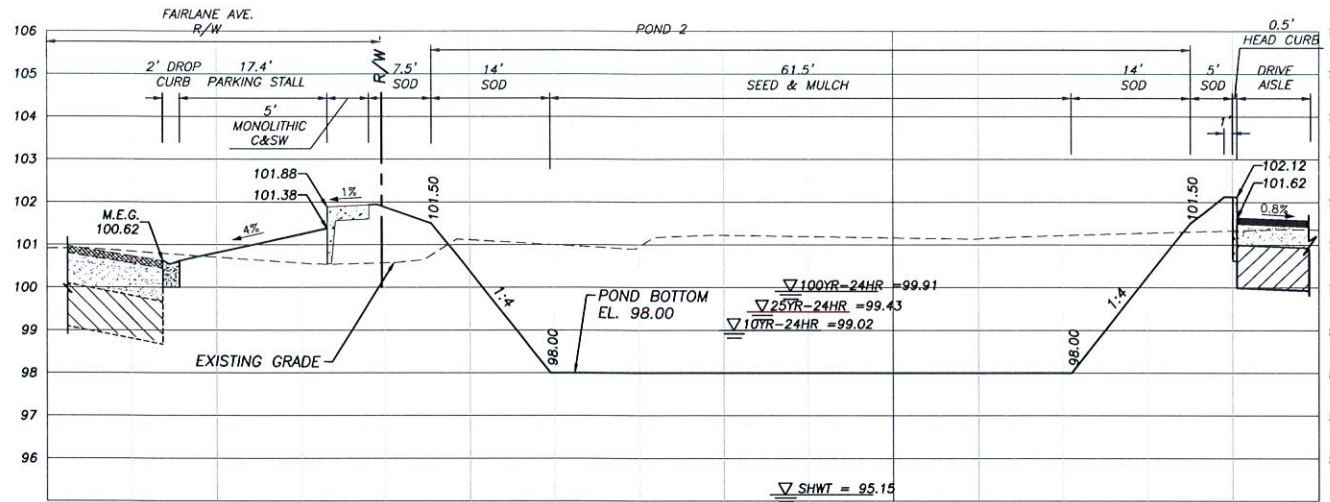
| No. | DATE | ISSUED FOR | BY |
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|     |      |            |    |
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|     |      |            |    |

**SITE LIGHTING FIXTURES - CUT SHEETS**

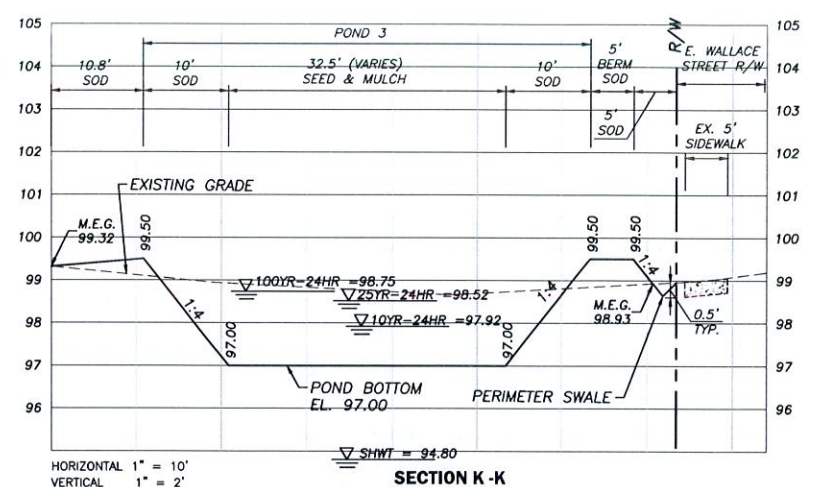
JOHN LOVE (LIGHTING CONSULTANT)  
POWER & LIGHTING SYSTEMS, INC.  
3832 SHIPPING AVE.  
MIAMI, FLORIDA 33146  
E-MAIL: JOHNL@P-LS.COM

Power & Lighting Systems, Inc.

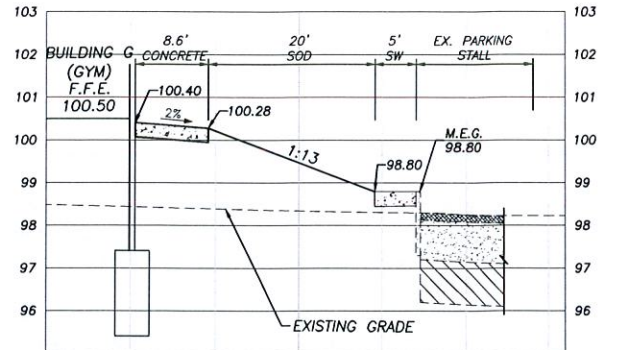
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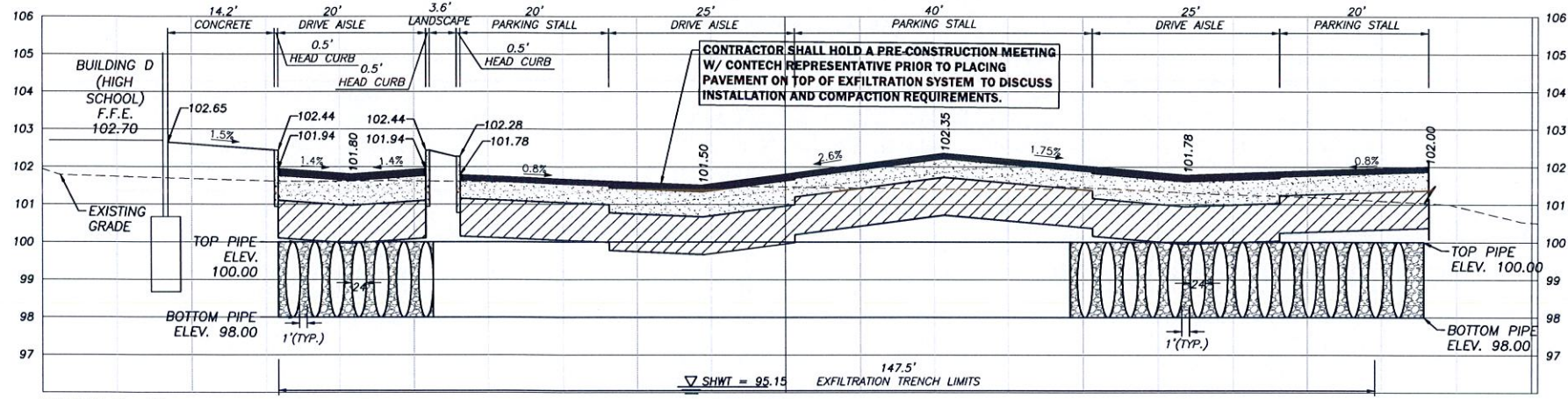
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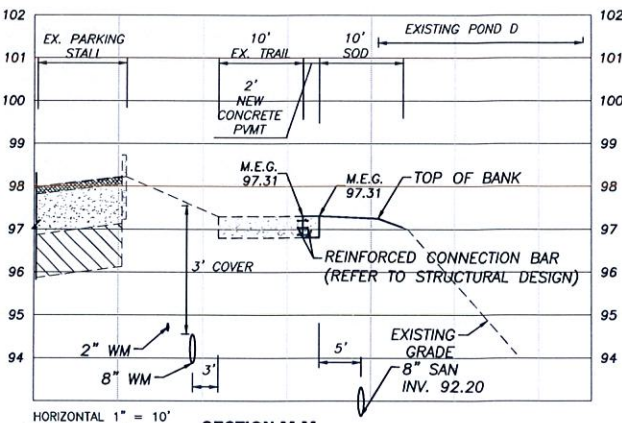
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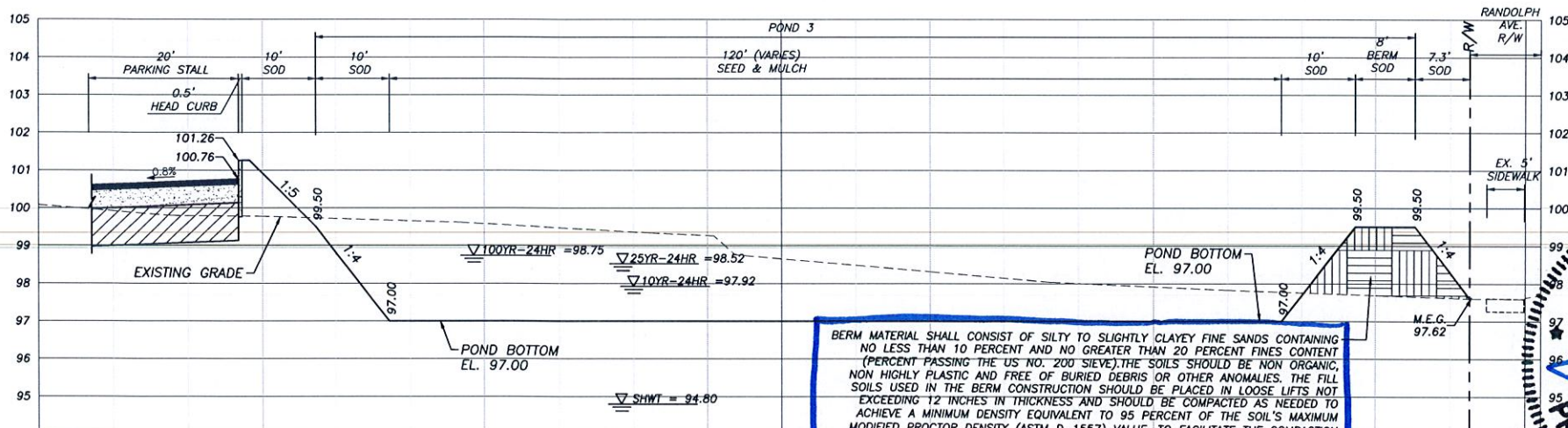
SECTION L - L



SECTION H - H

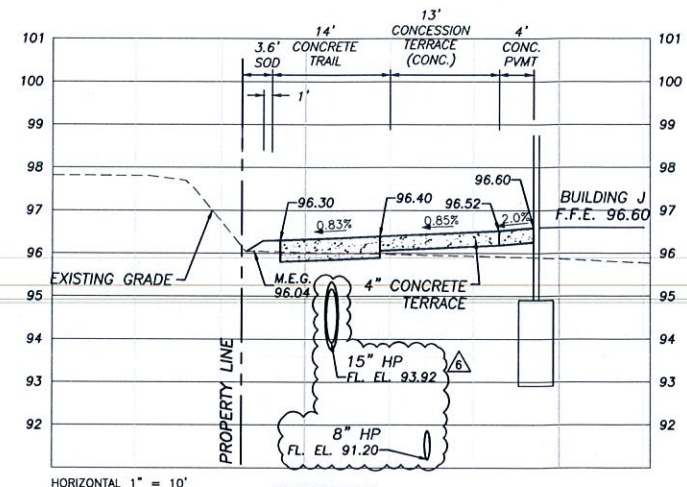
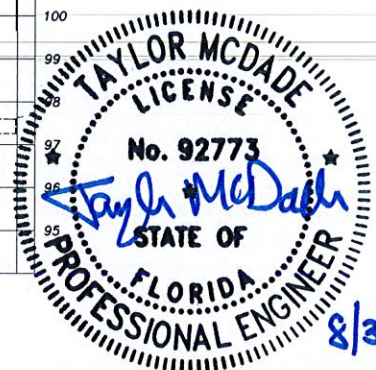


SECTION M - M



SECTION J - J

BERM MATERIAL SHALL CONSIST OF SILTY TO SLIGHTLY CLAYEY FINE SANDS CONTAINING NO LESS THAN 10 PERCENT AND NO GREATER THAN 20 PERCENT FINES CONTENT (PERCENT PASSING THE US NO. 200 SIEVE). THE SOILS SHOULD BE NON ORGANIC, NON HIGHLY PLASTIC AND FREE OF BURIED DEBRIS OR OTHER ANOMALIES. THE FILL SOILS USED IN THE BERM CONSTRUCTION SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES IN THICKNESS AND SHOULD BE COMPACTED AS NEEDED TO ACHIEVE A MINIMUM DENSITY EQUIVALENT TO 95 PERCENT OF THE SOIL'S MAXIMUM MODIFIED PROCTOR DENSITY (ASTM D-1557) VALUE. TO FACILITATE THE COMPACTATION EFFORTS, THE FILL SOILS SHOULD HAVE A MOISTURE CONTENT THAT IS WITHIN 2 PERCENT OF THE SOIL'S OPTIMUM MOISTURE CONTENT.



SECTION N - N

| DATE       | REVISIONS                                                | BY    | CHECKED |
|------------|----------------------------------------------------------|-------|---------|
| 07/24/2023 | REVISED PER ARCHITECT DATED 07/05/2023                   | VP/MS | JAA     |
| 08/11/2023 | REVISED PER OUC DATED 08/09/2023                         | VP/MS | JAA     |
| 08/14/2023 | REVISED PER ORANGE COUNTY FIRE DEPT. DATED 08/07/2023    | VP/MS | JAA     |
| 08/15/2023 | REVISED PER SARWMD COMMENTS DATED 07/24/2023             | VP/MS | JAA     |
| 08/16/2023 | REVISED PER OCU COMMENTS DATED 07/27/2023                | VP/MS | JAA     |
| 08/17/2023 | REVISED PER CITY OF BELLE ISLE COMMENTS DATED 08/04/2023 | VP/MS | JAA     |
| 08/17/2023 | REVISED PER FDOT COMMENTS DATED 07/11/2023               | VP/MS | JAA     |

CORNERSTONE CHARTER ACADEMY  
CONSTRUCTION PLANS  
CITY OF BELLE ISLE, FLORIDA

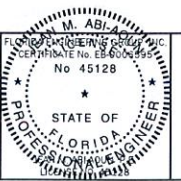


5127 S. Orange Avenue, Suite 200  
Orlando, FL 32809  
Phone: 407-895-0324  
Fax: 407-895-0325  
www.feg-inc.us

SITE CROSS SECTIONS (2)

|             |          |            |             |
|-------------|----------|------------|-------------|
| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
| JAA         | VP       | JAA        | JAA         |

|             |                     |
|-------------|---------------------|
| PROJECT NO. | 22-010              |
| SCALE       | H: 1"=10'; V: 1"=2' |
| DATE        | JUNE 23, 2023       |
| SHEET NO.   | C-28                |
| SHEET       | 28 OF 50            |



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY (ENGINEER), P.E. ON (DATE) USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.