

Construction Plans for MILLER ROAD TOWNHOMES

Valrico, Florida HILLSBOROUGH COUNTY

LEGAL DESCRIPTION: (AS FURNISHED)

PARCEL 1
FROM THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 19, TOWNSHIP 29, RANGE 21 EAST, HILLSBOROUGH COUNTY, FLORIDA, RUN NORTH 50.6 FEET ALONG THE EAST BOUNDARY OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD NUMBER 60 FOR A POINT OF BEGINNING; THENCE WEST 331.05 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE OF STATE ROAD NUMBER 60 TO A POINT 330 FEET EAST OF THE WEST BOUNDARY OF THE EAST 1/2 OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4; THENCE NORTH 660 FEET PARALLEL TO THE WEST BOUNDARY OF THE EAST 1/2 OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4; THENCE EAST 331.45 FEET PARALLEL TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD NUMBER 60 TO THE EAST BOUNDARY OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4; THENCE SOUTH 660 FEET TO THE POINT OF BEGINNING.

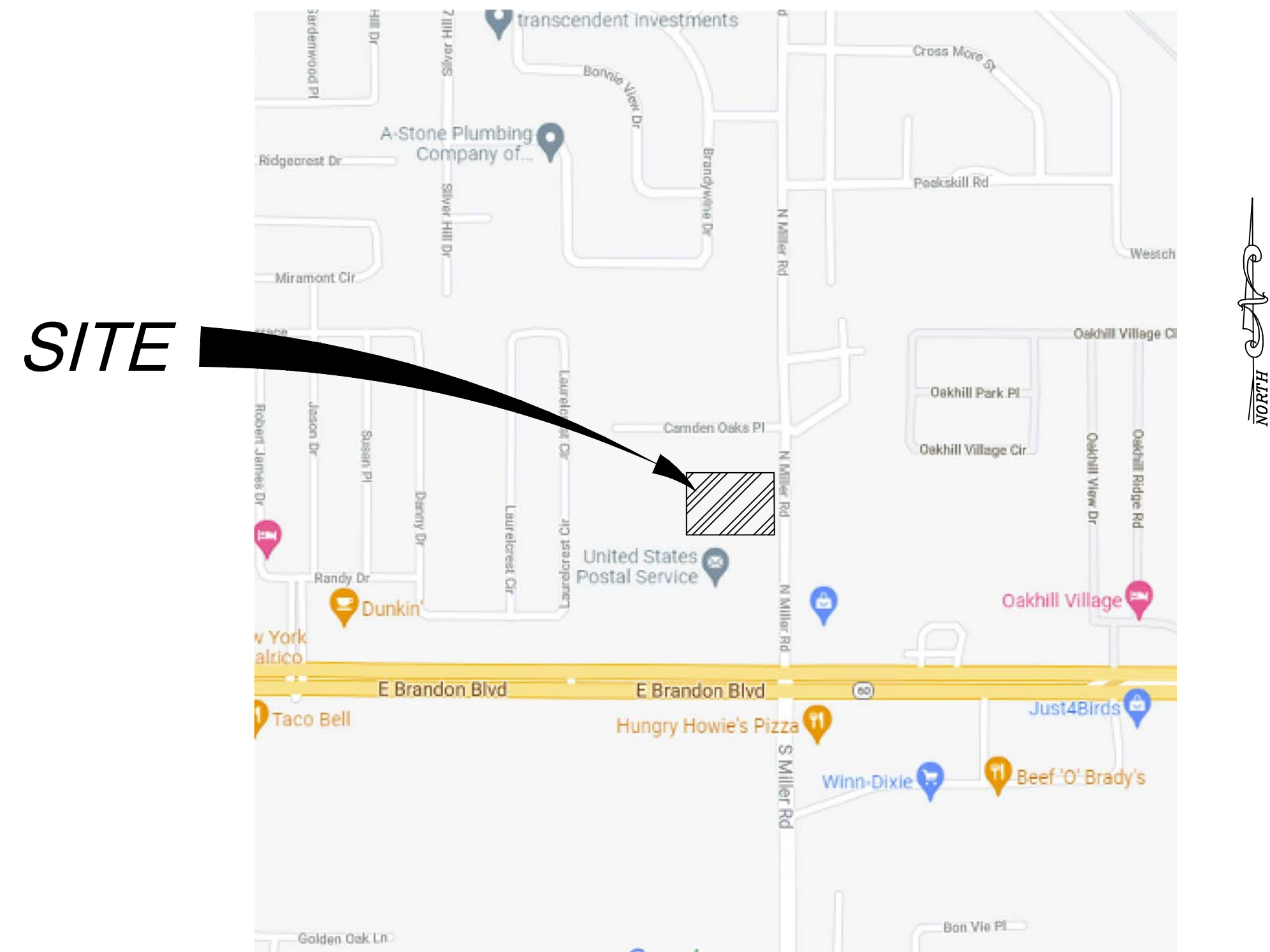
LESS AND EXCEPT THE FOLLOWING DESCRIBED PARCEL:

PART OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 19, TOWNSHIP 29 SOUTH, RANGE 21 EAST, HILLSBOROUGH COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF REFERENCE COMMENCE AT THE SOUTHEAST CORNER OF THE SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 19 AND RUN THENCE NORTH ALONG THE EASTERLY BOUNDARY THEREOF A DISTANCE OF 50.50 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 60 FOR THE POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED; THENCE WEST ALONG THE SAID NORTHERLY RIGHT OF WAY LINE A DISTANCE OF 331.26 FEET; THENCE NORTH ALONG A LINE 330 FEET EAST OF AND PARALLEL WITH THE WEST BOUNDARY OF THE SAID EAST 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 19 A DISTANCE OF 308.00 FEET; THENCE EASTERLY A DISTANCE OF 332.24 FEET TO A POINT ON THE FOREMENTIONED EASTERLY BOUNDARY OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 19, DISTANT 492.00 FEET NORTH OF THE POINT OF BEGINNING; THENCE SOUTH ALONG SAID EASTERLY BOUNDARY A DISTANCE OF 492.00 FEET TO THE POINT OF BEGINNING.

LESS ROAD RIGHT OF WAY FOR MILLER ROAD.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

PARCEL 2
COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF SECTION 19, TOWNSHIP 29 SOUTH, RANGE 21 EAST, HILLSBOROUGH COUNTY, FLORIDA; THENCE N.00°14'22"E, A DISTANCE OF 746.85 FEET; THENCE N.89°41'50"W, A DISTANCE OF 25.0 FEET TO THE EASTERLY MOST SOUTHEAST CORNER OF CAMDEN OAKS REPLAT, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 86, PAGE 57 OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA AND THE POINT OF BEGINNING; THENCE S.00°12'57"W, A DISTANCE OF 36.27 FEET; THENCE N.89°44'25"W, A DISTANCE OF 308.99 FEET TO THE SOUTHEAST CORNER OF LOT 15 OF SAID CAMDEN OAKS REPLAT; THENCE N.00°07'21"E, ALONG THE EAST LINE OF SAID LOT 15, A DISTANCE OF 36.50 FEET TO THE SOUTHWEST CORNER OF LOT 16 OF SAID CAMDEN OAKS REPLAT; THENCE S.89°41'50"E (S.89°40'14"E, PER SAID CAMDEN OAKS REPLAT) ALONG THE EASTERLY MOST SOUTH LINE OF CAMDEN OAKS REPLAT, A DISTANCE OF 306.75 FEET (306.67 FEET PER SAID CAMDEN OAKS REPLAT) TO THE POINT OF BEGINNING AND CONTAINING 0.296 ACRES (11,100 SQUARE FEET) OF LAND, MORE OR LESS.



VICINITY MAP

N.T.S.

SITE DATA

FOLIO NUMBER: 085543.0000
S/T/R: 19-29-21
SITE AREA: 59,952 SF (1.38-ACRES)
ZONING: PLANNED DEVELOPMENT (PD 22-0433)
FUTURE LAND USE: R-9
FLOOD ZONE: "X" PANEL NO. 12057C0405H
COMMUNITY PLANNING AREA: VALRICO
EXISTING USE: SINGLE FAMILY RESIDENTIAL
PROPOSED USE: SINGLE FAMILY ATTACHED
PROPOSED UNITS: 12 BASED ON RMC-9 DEVELOPMENT STANDARDS
PROPOSED DENSITY: 9 UNITS/ACRE
MINIMUM LOT AREA: 14,520 SF
AREA/UNIT: 4,840 SF
MINIMUM LOT WIDTH: 70-FEET
FRONT YARD SETBACK: 25-FEET
SIDE YARD SETBACK: 10-FEET
REAR YARD SETBACK: 20-FEET
MAXIMUM HEIGHT: 27-FEET (2-STORY)
BUILDING COVERAGE: 35%
IMPERVIOUS: 70%
BUFFERS & SCREENING:
NORTH: 5' BUFFER WITH TYPE "B" SCREENING
EAST: 8' LANDSCAPE BUFFER
SOUTH: 6' LANDSCAPE BUFFER
WEST: 5' BUFFER WITH TYPE "B" SCREENING
IMPERVIOUS AREA: 32,820 SF (54.7%)
PARKING REQUIRED: 2 SPACES/UNIT = 24
PARKING PROVIDED: 15 SPACES (INC. 2 H/C) + 12 DRIVEWAYS = 27
REFUSE COLLECTION: CURBSIDE PICKUP

OWNER/DEVELOPER :

KAZBOUR PROPERTIES, INC.
1326 E. LUMSDEN ROAD
BRANDON, FLORIDA 33511

SURVEYOR :

BROOKS LAND SURVEYING, INC.
110 W. BALL STREET
PLANT CITY, FL 33563

ENGINEER :

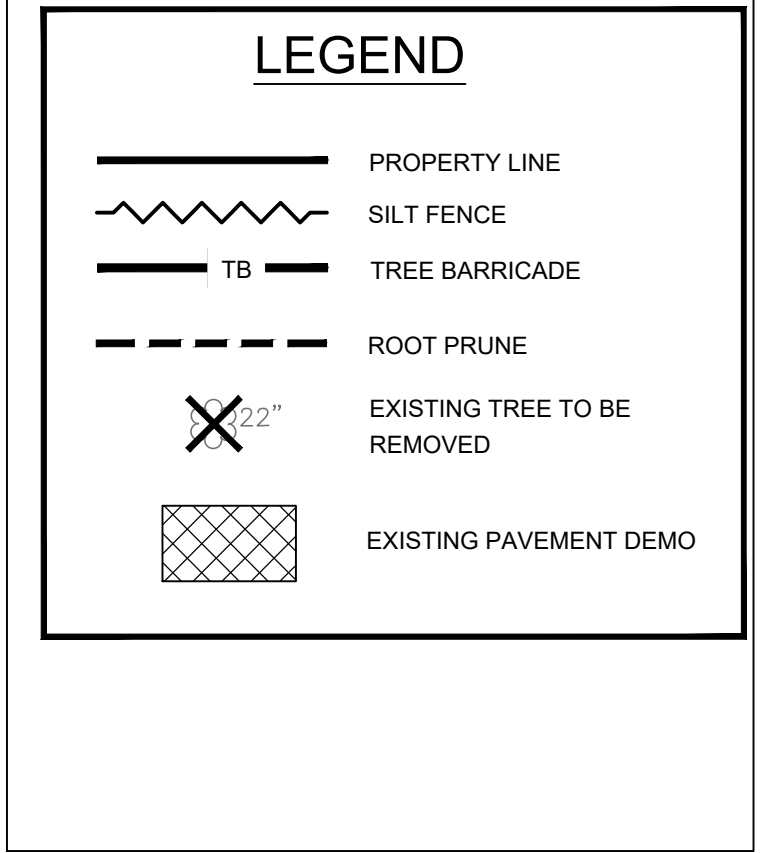
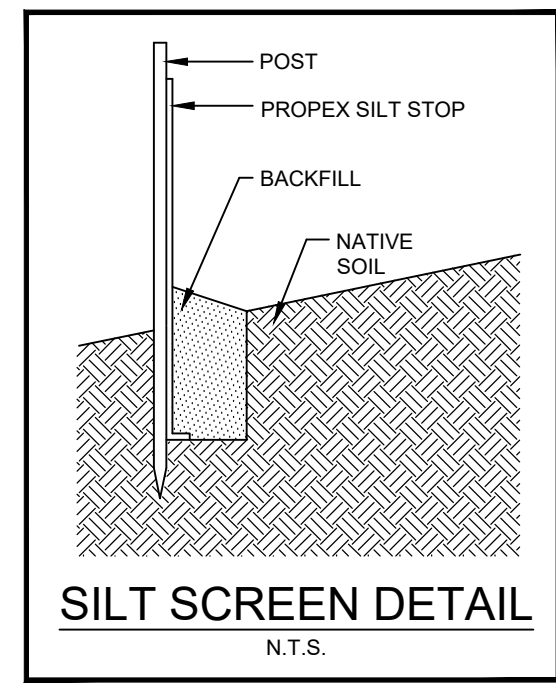
BD & E **BRAD DESIGN & ENGINEERING, INC.**
708 LITHIA PINECREST ROAD, SUITE 101
BRANDON, FLORIDA 33511
(813) 689-7002

DRAWING INDEX:

- | | |
|---|-------------------------------------|
| 1 | COVER |
| 2 | EROSION CONTROL & TREE REMOVAL PLAN |
| 3 | SITE & LANDSCAPE PLAN |
| 4 | PAVING & GRADING PLAN |
| 5 | DRAINAGE PLAN |
| 6 | UTILITY PLAN |
| 7 | UTILITY DETAILS |
| 8 | LIFT STATION |

EROSION AND SEDIMENTATION CONTROL NOTES:

1. ALL PRACTICABLE AND NECESSARY EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO INLETS, SURFACE DRAINS AND DETENTION AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
2. PROVIDE ALL DISTURBED AREAS WITHIN THE LIMITS OF THE WORK WITH TEMPORARY SOIL EROSION CONTROL AND SEDIMENT CONTROL UTILIZING EARTH DAMS AND PONDS, GRADE TO DRAIN SWALES, SETTLING BASINS, SILT FENCES, STONE FILTERS, HAY BALE FILTERS, ETC., TREATING ALL SOIL SURFACE WITH SEEDED TOPSOIL AND/OR MULCH AFTER GRADING.
3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS SHALL BE COMPLIED WITH AT ALL TIMES.
5. MINIMIZE THE AMOUNT OF BARE SOIL EXPOSED AT ONE TIME AND INSTALL SOIL EROSION CONTROL FENCES AS SHOWN AND IN SUCH A MANNER AS TO CAPTURE AND FILTER SURFACE WATER DURING CONSTRUCTION.
6. PERMANENT VEGETATION SHALL BE AS INDICATED IN CONSTRUCTION PLANS.
7. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL WHICH WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY AS TO PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.
8. ALL NEW EROSION AND SILT CONTROL METHODS AND LOCATIONS INDICATED ON THIS DRAWING ARE FOR START-UP AND GENERAL REFERENCE AND SHALL BE ADJUSTED, AS REQUIRED, TO SUIT THE PROCESS OF THE CONSTRUCTION.
9. ALL DISTURBED AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE VEGETATIVE TREATMENT AFTER FINAL GRADING IN ACCORDANCE WITH THESE PLANS.
10. SIDE SLOPES CONSTRUCTED AT 4:1 (H TO V) OR STEEPER SHALL BE SOODED WITH ARGENTINE BAHIA.
11. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
12. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHOULD BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHED, AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
13. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATER FROM THE CONSTRUCTION AREA, THE WATER SHALL BE TREATED TO REDUCE TURBIDITY TO STATE WATER QUALITY STANDARDS PRIOR TO DISCHARGE TO OTHER WATER BODIES. TREATMENT METHODS INCLUDE, FOR EXAMPLE, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS, SEDIMENTS BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.
14. THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND BARED SOIL STABILIZED. SILTATION ACCUMULATION GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLANDS AREAS.
15. WATER REMAINING IN THE EXCAVATION AFTER CONSTRUCTION MUST BE KEPT CONFINED WITHIN THE EXCAVATION PRIOR TO DISCHARGE (IF APPLICABLE), UNTIL THE TURBIDITY LEVEL OF THE POND WATER MEETS STATE WATER QUALITY STANDARDS.
16. NO CLAY MATERIAL SHALL BE LEFT EXPOSED IN THE EXCAVATION. IF CLAY OR SANDY CLAYS ARE LEFT EXPOSED AT THE PERMITTED DEPTH, THE CONTRACTOR SHALL OVER EXCAVATE THE SWALES AND/OR PONDS BOTTOM AND SIDE SLOPES BY A MINIMUM OF 12 INCHES AND BACKFILL WITH CLEAN SANDS.
17. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PLACE SILT FABRIC FENCE AT THE UPSTREAM END OF ALL STORM SEWER PIPES UNTIL INLETS ARE COMPLETED.
18. WHEN THE CONSTRUCTION OF INLETS IS COMPLETED, THE CONTRACTOR SHALL PLACE STRAW BALES OR SILT SCREEN PROTECTION AROUND INLETS.
19. UPON COMPLETION OF CONSTRUCTION OF ALL DIVERSION AND COLLECTION SWALES, AND PRIOR TO ESTABLISHMENT OF PERMANENT STABILIZATION, THE CONTRACTOR SHALL INSTALL DITCH CHECKS (HAY BALES, SILT FENCE OR OTHER APPROVED METHOD) TO PREVENT WASH-OUT OF THE SWALE BANKS.
20. THE CONTRACTOR SHALL MAKE PROVISIONS TO MINIMIZE TRACKING OF SOIL, MUD AND OTHER DEBRIS ONTO THE PUBLIC ROW. ANY MATERIAL TRACKED ONTO THE PUBLIC ROW WILL BE IMMEDIATELY REMOVED.
21. THE CONTRACTOR SHALL SOD SWALES AND PONDS PER SECTIONS, IMMEDIATELY AFTER CONSTRUCTION IS COMPLETED.
22. THE CONTRACTOR SHALL PROVIDE SILTATION REDUCTION DEVICES FOR THE DISCHARGE FROM THE DEWATERING PROCESS SO THAT DIRECT DISCHARGE DOES NOT OCCUR.
23. THE CONTRACTOR SHALL CHECK ALL EROSION AND SILTATION CONTROL DEVICES AFTER EACH RAINFALL AND REPAIR OR REPLACE THEM AS REQUIRED AT CONTRACTOR'S EXPENSE.
24. THE CONTRACTOR SHALL MAKE PROVISIONS TO MINIMIZE AIRBORNE DEBRIS AND DUST FROM LEAVING THE CONSTRUCTION SITE.
25. REQUIRED TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION.
26. THE REQUIREMENTS LISTED ABOVE SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND THE CONTRACTOR SHALL USE WHATEVER METHODS HE DEEMS NECESSARY TO PREVENT EROSION AND SILTATION AS MAY BE REQUIRED FOR THE PROJECT.



EROSION CONTROL SEQUENCE NOTES:

1. PRIOR TO GENERAL SITE FILL OPERATION, INSTALL SILT FENCE AS INDICATED ON PLAN.
2. CONTRACTOR SHALL INSPECT AFTER EVERY RAINFALL EVENT GREATER THAN 0.25" OR AT LEAST WEEKLY AND, AS NECESSARY, REPAIR ANY DAMAGE TO EROSION AND SEDIMENTATION CONTROL DEVICES.
3. UPON COMPLETION OF CONSTRUCTION AND FINAL ACCEPTANCE, CONTRACTOR SHALL REMOVE ALL EROSION AND SEDIMENTATION CONTROL DEVICES.

SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES

1. CONTRACTOR IS RESPONSIBLE TO OBTAIN NPDES CONSTRUCTION STORMWATER PERMIT THROUGH THE FDEP AND SHALL SUBMIT THE NOTICE OF INTENT (NOI) AT LEAST SEVEN DAYS PRIOR TO THE COMMENCEMENT OF ANY LAND DISTURBING ACTIVITIES.
2. INSTALLATION OF SILT FENCE, EXISTING INLET PROTECTION (IF REQUIRED) & ALL OTHER MEASURES INCLUDING TEMPORARY SEDIMENT BASINS, DITCH PROTECTION, DIVERSION BERMS, ETC. REQUIRED BY THESE CONSTRUCTION PLANS AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
2. EXCAVATION AND FILL FOR DRIVES & BUILDING PADS.
3. INSTALLATION OF STORM SEWER SYSTEM & NEW INLET PROTECTION.
4. INSTALLATION OF UTILITIES.
5. INSTALLATION OF PERMANENT EROSION PROTECTION (RIP-RAP) AT POND OUTFALLS.
6. GRADING OF DRIVES.
7. PLUMBING, ELECTRICAL AND PAD CONSTRUCTION.
8. BASE OF DRIVES AND PARKING.
9. BUILDING CONSTRUCTION.
10. PAVING OF DRIVES AND PARKING.
11. LANDSCAPE AND FINAL SOD INSTALLATION.
12. REMOVAL OF TEMPORARY EROSION CONTROL MEASURES.

*CONTRACTOR SHALL INSPECT AFTER EVERY RAINFALL EVENT GREATER THAN 0.50", OR AT LEAST WEEKLY AND, AS NECESSARY, REPAIR ANY DAMAGE TO EROSION AND SEDIMENTATION CONTROL DEVICES AND CLEAN AND REPAIR INLET PROTECTION.
 *DEWATERING DISCHARGE REQUIRES ALL APPROPRIATE LOCAL AND STATE PERMITS AND IS ALLOWED ONLY ON SITE UNLESS OTHERWISE APPROVED.

NPDES CONSTRUCTION PERMIT :

1. THE PROJECT AREA IS GREATER THAN 1-ACRE; THEREFORE THE CONTRACTOR IS REQUIRED TO OBTAIN AN NPDES CONSTRUCTION PERMIT THROUGH THE FDEP.
2. CONTRACTOR SHALL PRODUCE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE NPDES PERMIT REQUIREMENTS.
3. CONTRACTOR SHALL UPDATE THE SWPPP PLAN AS NECESSARY IF WARRANTED BY A CHANGE IN THE SITE.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SITE IN COMPLIANCE WITH ANY FINES LEVIED WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
5. THE GENERAL CONTRACTOR SHALL INSURE THAT ALL REQUIRED INSPECTIONS, DOCUMENTATION AND ANY NECESSARY REPAIRS ARE PERFORMED AS REQUIRED BY THE NPDES PERMIT, SWPPP OR AS STATED HEREIN THE CONSTRUCTION PLANS.
6. THE GENERAL CONTRACTOR SHALL POST AND MAINTAIN ALL DOCUMENTATION REQUIRED BY THE NPDES PERMIT AND THE SWPPP, AND MAKE AVAILABLE SUCH DOCUMENTATION TO PERMITTING AGENCY OR OWNER RESPONSIBILITY UPON REQUEST.

PROTECTIVE BARRIER REQUIREMENTS & SPECIFICATIONS FOR EXISTING TREES TO REMAIN

PROTECTIVE BARRIERS ARE USED DURING LAND ALTERATIONS AND CONSTRUCTION ACTIVITIES TO PROTECT TREES AND NATURAL AREAS TO BE RETAINED ON A SITE.

PROTECTIVE BARRIERS MUST BE ERRECTED AROUND TREES TO BE RETAINED WITHIN AN AREA WHERE LAND ALTERATION AND CONSTRUCTION ACTIVITIES WILL OCCUR AS WELL AS ALONG NATURAL AREAS WHERE SUCH AREAS ARE ADJACENT TO PERMITTED LAND ALTERATION OR CONSTRUCTION ACTIVITIES. A PROTECTIVE BARRIER MUST REMAIN IN PLACE UNTIL THE LAND ALTERATION AND CONSTRUCTION ACTIVITIES ARE COMPLETED OR UNTIL COMMENCEMENT OF GRADE FINISHING AND SODDING. NO GROUND DISTURBANCE MUST OCCUR WITHIN THE BARRICADED AREA. THE FOLLOWING REPRESENTS THE COUNTY'S MINIMUM PROTECTIVE BARRIER SPECIFICATIONS.

1. TREES - TO RESTRICT ACCESS INTO THE AREA WITHIN THE CANOPY DRIPLINE OF A TREE. A PHYSICAL STRUCTURE NOT LESS THAN 3 FEET IN HEIGHT, COMPRISED OF WOOD OR OTHER SUITABLE MATERIAL, IS PLACED AROUND THE TREE AT THE CANOPY DRIPLINE, EXCEPT WHERE LAND ALTERATIONS OR CONSTRUCTION ACTIVITIES ARE APPROVED WITHIN THE CANOPY DRIPLINE.

THE CANOPY DRIPLINE OF A TREE IS THE IMAGINARY, VERTICAL LINE THAT EXTENDS DOWNWARD FROM THE OUTERMOST TIPS OF THE TREE'S BRANCHES TO THE GROUND. FIG. A BARRIER SPECIFICATIONS FOR TREES.

FOUR CORNER UPRIGHT STAKES OF NO LESS THAN 2"x2" LUMBER CONNECTED BY HORIZONTAL MEMBER OF NO LESS THAN 1"x4" LUMBER; OR UPRIGHT STAKES SPACED AT 5' INTERVALS OF NO LESS THAN 2"x2" LUMBER CONNECTED BY SILT SCREEN FABRIC OR MATERIAL OF COMPARABLE DURABILITY. FIG. B

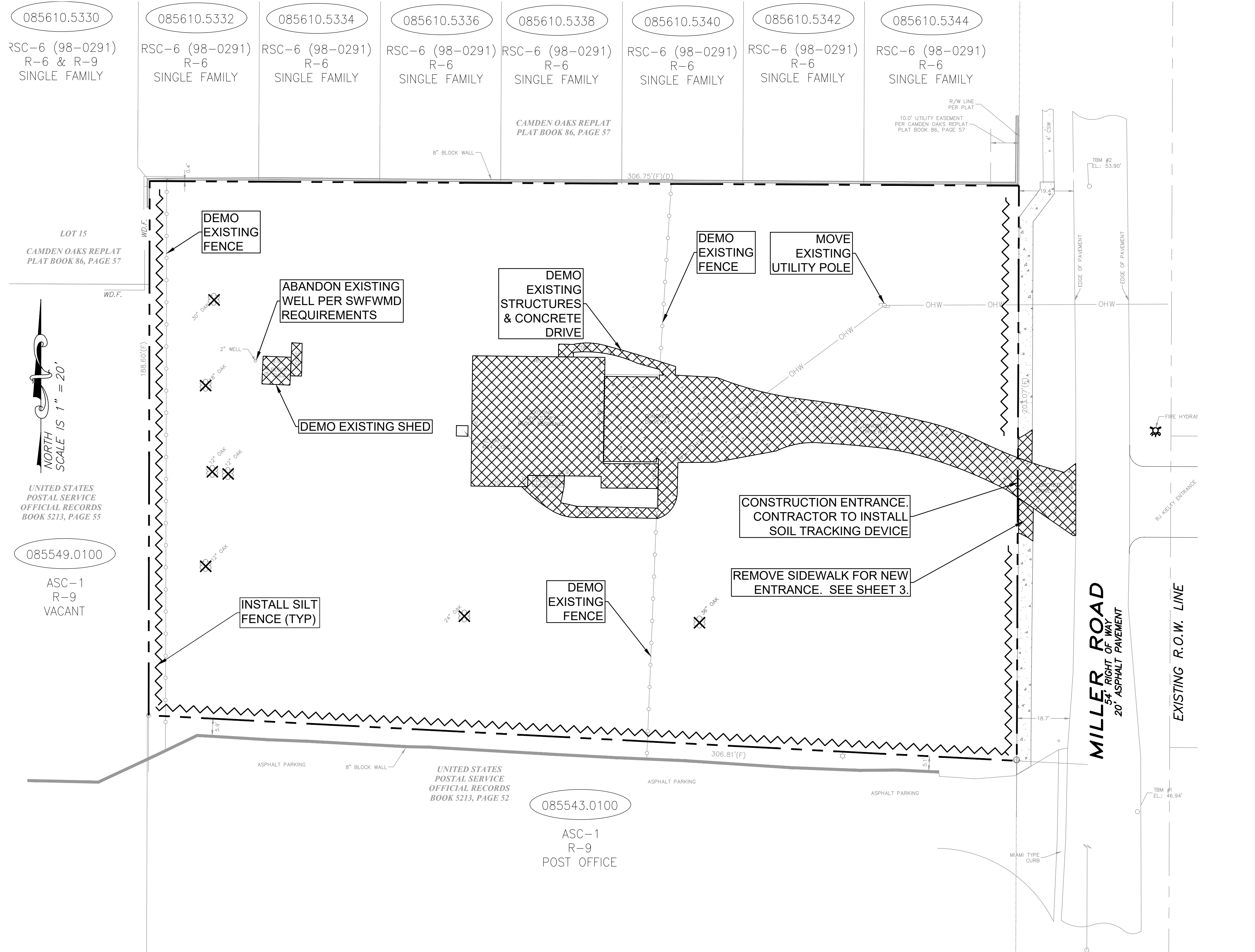
2. NATURAL AREAS - TO RESTRICT ACCESS INTO AREAS WHERE LAND ALTERATION AND CONSTRUCTION ACTIVITIES ARE NOT AUTHORIZED A PHYSICAL STRUCTURE NOT LESS THAN 3 FEET IN HEIGHT IS PLACED ALONG THE PERIMETER OF SUCH AREAS.

BARRIER SPECIFICATIONS FOR NATURAL AREAS:

UPRIGHT STAKES OF NO LESS THAN 2"x2" LUMBER SPACED NO MORE THAN 25' APART AND CONNECTED BY TWINE FLAGGED WITH PLASTIC SURVEYING TAPE AT REGULAR INTERVALS OF 5'-10'; FIG. C OTHER METHODS OF DEMARCATION WILL BE CONSIDERED DEPENDING UPON THE CHARACTERISTICS OF THE SITE.

WHY A BARRIER:

1. TO PROTECT ALL ABOVE GROUND PORTIONS OF TREES AND OTHER SIGNIFICANT VEGETATION FROM MECHANICAL DAMAGE.
2. TO PROTECT ROOT SYSTEMS FROM COMPACTION.
3. TO PROVIDE AWARENESS OF PROTECTED AREAS TO EQUIPMENT OPERATORS.



- 085610.5330 RSC-6 (98-0291) R-6 & R-9 SINGLE FAMILY
- 085610.5332 RSC-6 (98-0291) R-6 SINGLE FAMILY
- 085610.5334 RSC-6 (98-0291) R-6 SINGLE FAMILY
- 085610.5336 RSC-6 (98-0291) R-6 SINGLE FAMILY
- 085610.5338 RSC-6 (98-0291) R-6 SINGLE FAMILY
- 085610.5340 RSC-6 (98-0291) R-6 SINGLE FAMILY
- 085610.5342 RSC-6 (98-0291) R-6 SINGLE FAMILY
- 085610.5344 RSC-6 (98-0291) R-6 SINGLE FAMILY

NORTH
SCALE IS 1" = 20'

UNITED STATES POSTAL SERVICE OFFICIAL RECORDS BOOK 5213, PAGE 55

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UNITED STATES POSTAL SERVICE OFFICIAL RECORDS BOOK 5213, PAGE 52

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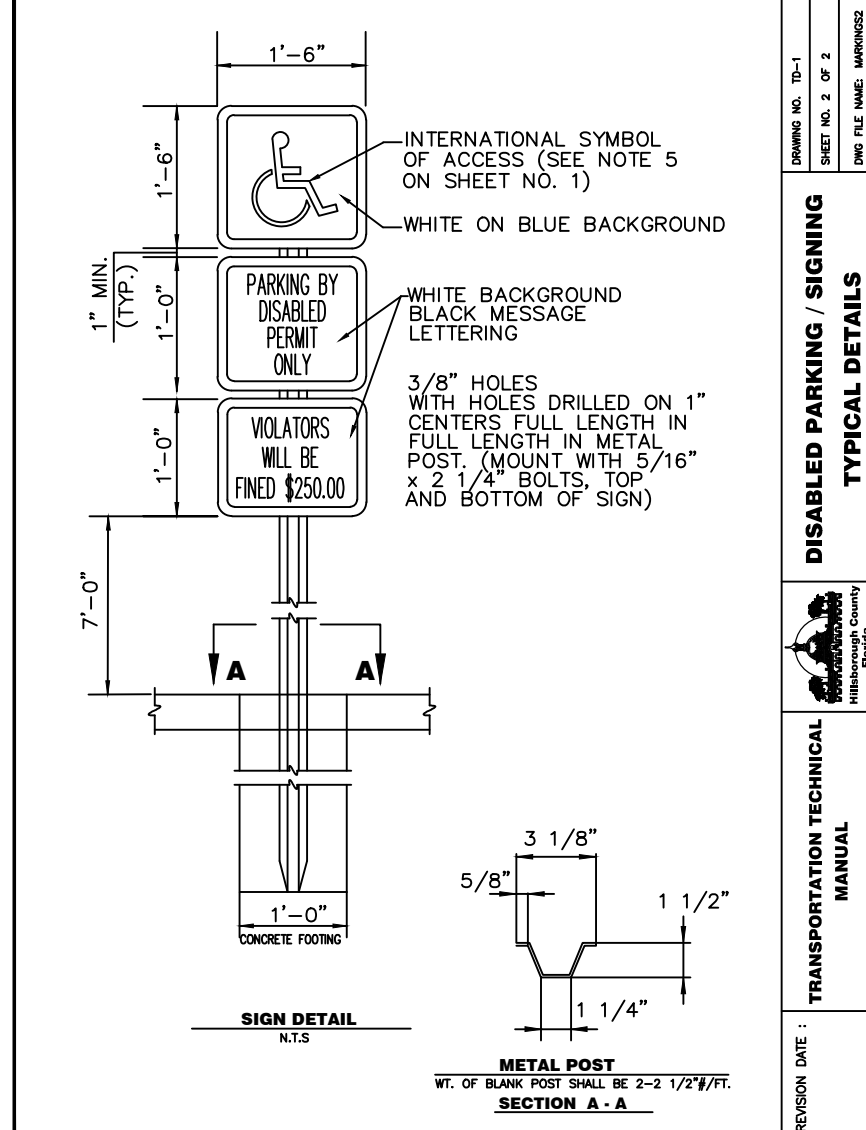
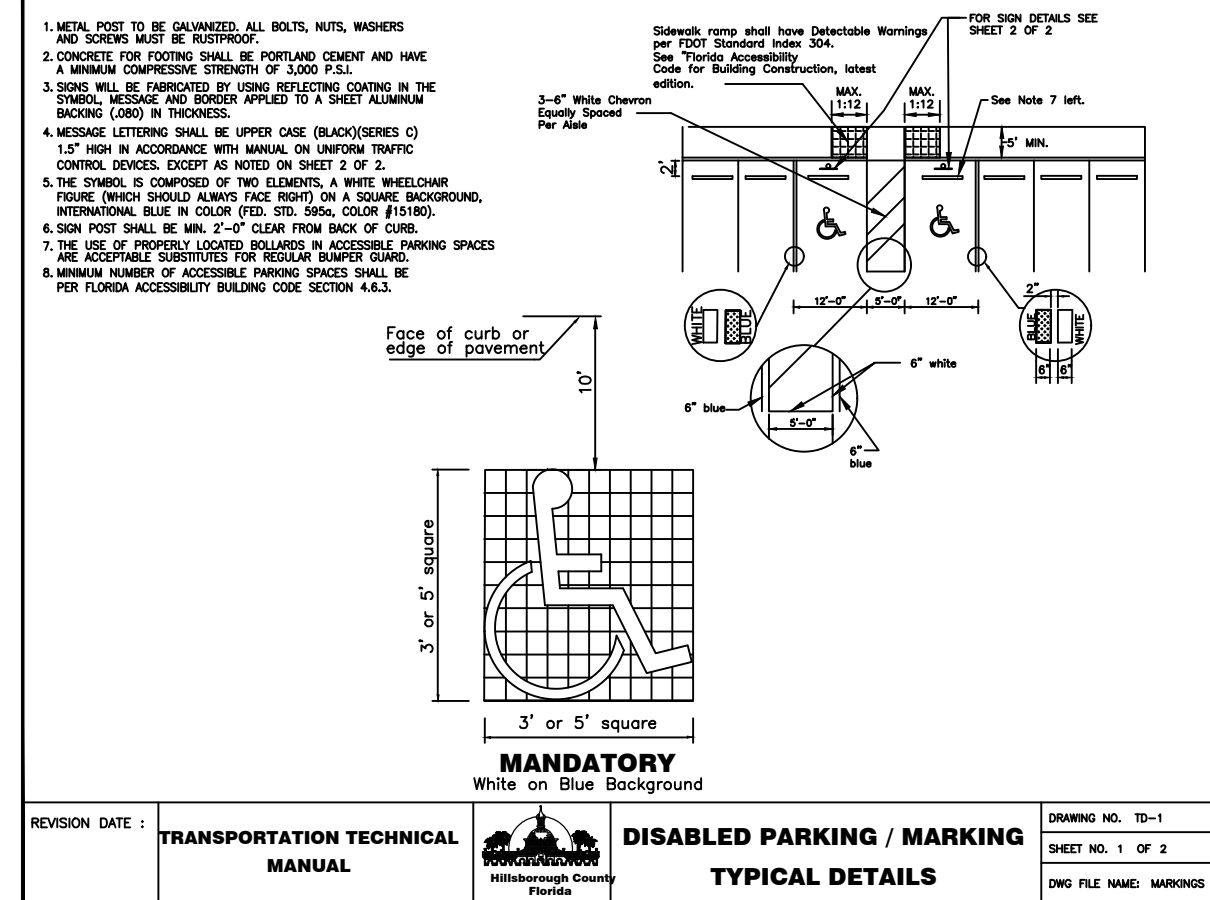
Client: Kazbour Properties, Inc.
1326 E. Lumsden Road
Brandon, Florida 33511

Project Name: MILLER ROAD TOWNHOMES
124 N MILLER RD, VALRICO VALRICO, FL 33594

BD & E

EROSION CONTROL & TREE REMOVAL PLAN

SHEET
2
OF
8



GENERAL NOTES:

- ALL WORK SHALL BE PURSUANT TO HILLSBOROUGH COUNTY STANDARDS.
- UNDISTURBED AREA AND AREAS SUBJECT TO EROSION ON THE SITE WILL BE SEEDED.
- CONTRACTOR TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES AS NECESSARY.
- ALL TREES TO REMAIN SHALL BE PROTECTED BY BARRIERS. PROTECTIVE BARRIERS SHALL REMAIN IN PLACE UNTIL THE LAND ALTERATION AND CONSTRUCTION ACTIVITIES ARE COMPLETED DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES. IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.
- DISTURBED ROW SHALL BE SEEDED AND MULCHED PER FDOT 570.
- BUFFERING AND SCREENING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 6.06.05 OF THE HILLSBOROUGH COUNTY ZONING CODE.
- DEVELOPMENT MUST BE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS IN THE HILLSBOROUGH COUNTY ZONING CODE, AND IN ACCORDANCE WITH ALL OTHER APPLICABLE REGULATIONS AND ORDINANCES.
- BUILDINGS SHALL BE ARCHITECTURALLY FINISHED ON ALL SIDES.
- ALL MECHANICAL EQUIPMENT SHALL BE SCREENED PER 6.06.05.

LANDSCAPE NOTES:

- ALL LAND ALTERATION AND LANDSCAPING ACTIVITIES SHALL MEET OR EXCEED HILLSBOROUGH COUNTY STANDARDS.
- IN ORDER TO COMPLY WITH SECTION 4.01.05.A OF THE HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE TO MINIMIZE SOIL EROSION PROPOSED LAND ALTERATION ACTIVITIES SHALL NOT UNNECESSARILY REMOVE EXISTING VEGETATION AND ALTER EXISTING TOPOGRAPHY. ADEQUATE PROTECTION MEASURES (E.G. HAY BALES, BARFLES, SODDING AND SANDBAGGING) SHALL BE PROVIDED, AS NECESSARY, TO MINIMIZE EROSION AND DOWNSTREAM SEDIMENTATION CAUSED BY SURFACE WATER RUN-OFF ON EXPOSED LAND SURFACES.
- NO MORE THAN 50% OF THE LANDSCAPED AREA MAY BE PLANTED WITH SHALLOW-ROOTED (I.E. ST AUGUSTINE) TURF GRASS VARIETIES. THESE TURF GRASS VARIETIES SHALL BE CONSOLIDATED IN AND LIMITED TO AREAS THAT ARE PROVIDED WITH CENTRAL AUTOMATIC IRRIGATION SYSTEMS.
- DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, WITHIN THE DRIPLINE OF A TREE REMAINING ON SITE, UNLESS OTHERWISE APPROVED BY THE ADMINISTRATOR, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION, EXCEPT BY HAND, BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE.
- THE CONSTRUCTION OF ALL ABOVE GROUND UTILITY APPURTENANCES VISIBLE FROM THE PUBLIC RIGHT-OF-WAY SUCH AS PEDESTALS, UTILITY METERS, TRANSFORMERS, BACK-FLOW PREVENTION DEVICES, ETC. FOR NEW DEVELOPMENT OR REDEVELOPMENT ACTIVITIES SHALL CONFORM TO SCREENING REQUIREMENTS AS OUTLINED IN SECTION 6.06.06.C.10 OF THE LAND DEVELOPMENT CODE. PLANT LOCATION OR OTHER SCREENING MUST BE CONSIDERATE OF REQUIRED SPATIAL SEPARATIONS FROM A FIRE PROTECTION APPLIANCE IN ACCORDANCE TO THE UNIFORM FIRE CODE, AND PER WATER, WASTEWATER AND RECLAIMED WATER TECHNICAL SPECIFICATIONS SPEC 3310.01, PART 2.4.2.2. MUST BE LOCATED A MINIMUM OF 5' FROM UTILITY SLABS AND 3' FROM UNDERGROUND VALVES. TREES MUST BE LOCATED A MINIMUM OF 8' FROM UTILITY SLABS.
- ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE, SODDING, PLUGGING, SPRIGGING OR SEEDING IS ACCEPTABLE FOR STABILIZATION. HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.
- ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.

TREE PROTECTION NOTES:

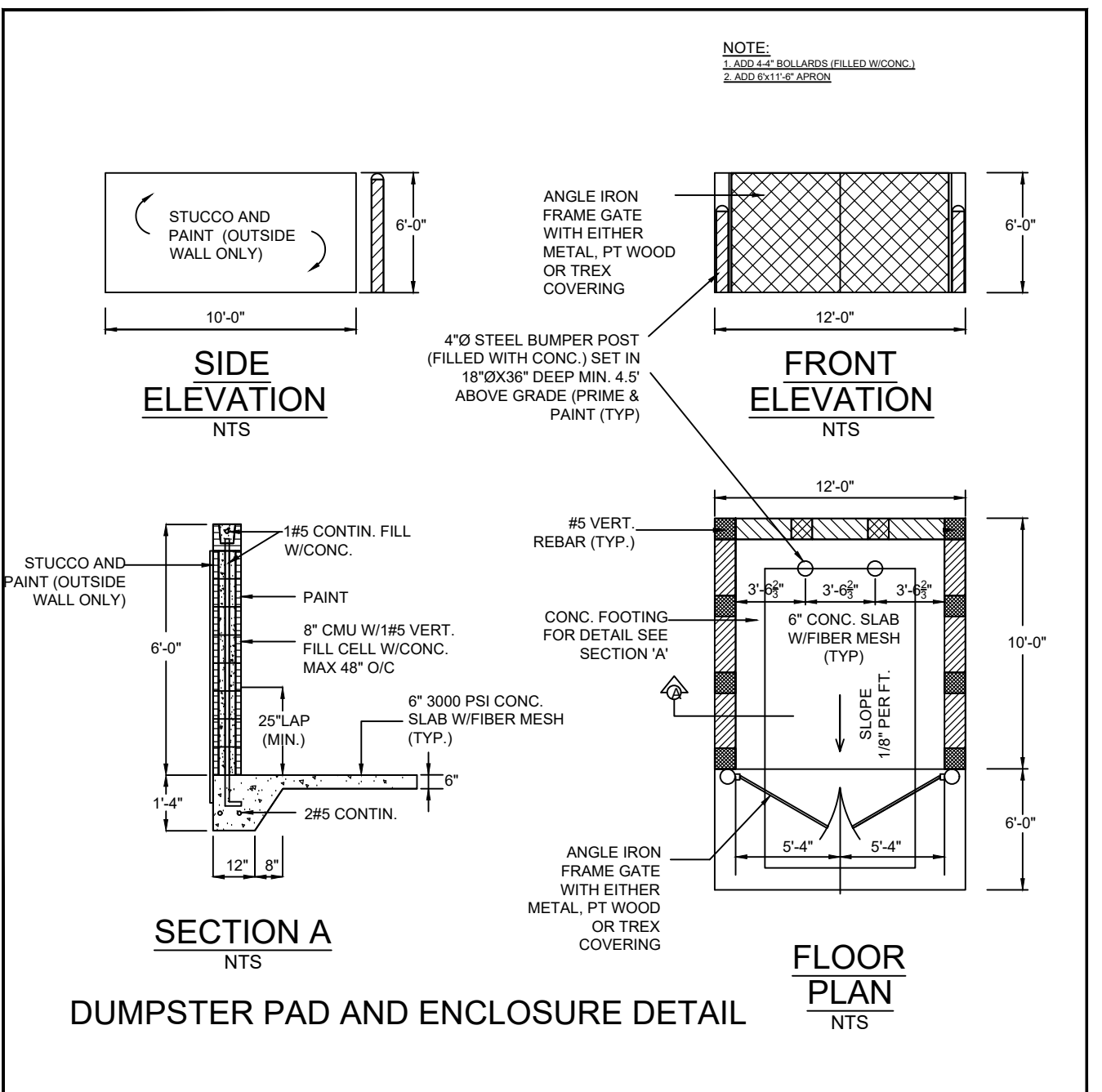
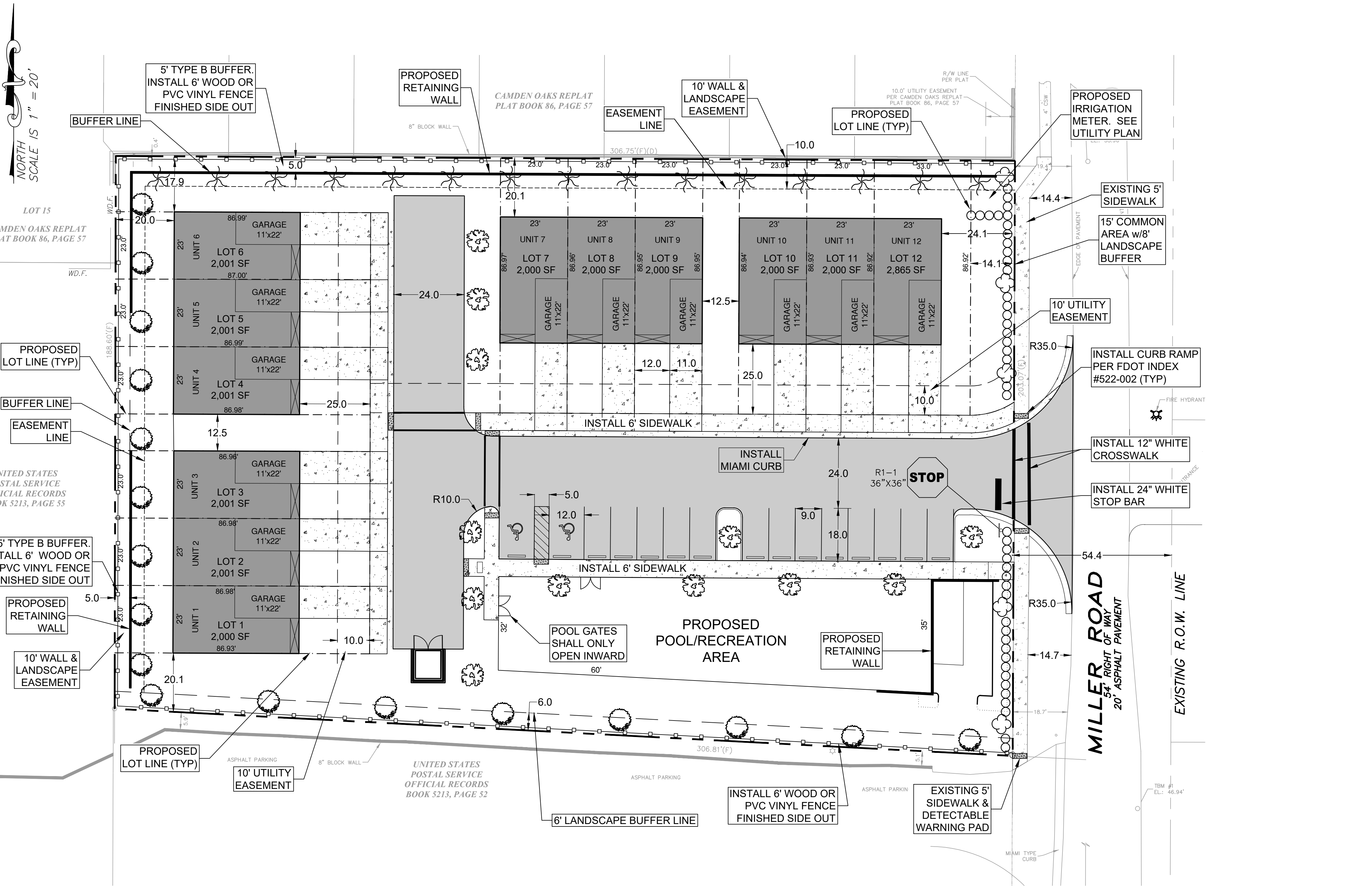
- INSTALL TREE BARRICADES TO THE FULLEST EXTENT OF THE DRIPLINE OF ALL TREES AS POSSIBLE AND/OR TO THE MAXIMUM LIMIT OF IMPROVEMENTS AS POSSIBLE (OF COURSE REALIZING THAT THE TREE BARRICADES MAY HAVE TO BE "BACKED OFF" THE IMPROVEMENTS BY 6" TO 2' MAXIMUM TO INSTALL THE IMPROVEMENTS). DO NOT INSTALL TREE BARRICADES SPECIFICALLY SILT FENCING MATERIAL) BY TRENCHING WITHIN THE DRIPLINE OF EXISTING TREES.
- MINOR PRUNING IS THE PRUNING OF A TREE BY THE REMOVING BRANCHES MEASURED NO GREATER THAN THREE INCHES IN DIAMETER AT THE POINT OF CONNECTION TO A SUPPORTING BRANCH AND SHALL BE IN ACCORDANCE TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
- ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
- DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, WITHIN THE DRIPLINE OF A TREE REMAINING ON SITE, UNLESS OTHERWISE APPROVED BY THE ADMINISTRATOR, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION, EXCEPT BY HAND, BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE.
- ROOT PRUNING EQUIPMENT SHALL BE DECKO ROOT CUTTER (OR APPROVED EQUAL). CONTRACTOR SHALL CONTACT NATURAL RESOURCES AT (813) 276-5399 TO SCHEDULE A ROOT PRUNING INSPECTION THE SAME DAY AS PRUNING, PRIOR TO BACKFILLING ROOTS.
- MIN. 3" MULCH RING (NO SOD) SHALL BE LEFT AROUND EXIST. TREES TO REMAIN.
- PRUNING OF A GRAND OAK WITH THE EXCEPTION OF MINOR PRUNING IS PROHIBITED UNLESS CONDUCTED IN ACCORDANCE WITH THE ANSI-A-300 PRUNING STANDARDS, AND PERFORMED BY AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) OR A REGISTERED CONSULTING ARBORIST WITH THE AMERICAN SOCIETY OF CONSULTING ARBORISTS (ASCA). A NOTARIZED AFFIDAVIT (ATTACHED) AFFIRMING AN ISA CERTIFIED ARBORIST OR AN ASCA REGISTERED CONSULTING ARBORIST WILL CONDUCT OR PROVIDE ONSITE SUPERVISION OF THE PRUNING SHALL BE SUBMITTED TO THE COUNTY PRIOR TO THE PRUNING OF A GRAND OAK. AN ISA CERTIFIED ARBORIST OR AN ASCA REGISTERED CONSULTING ARBORIST CONTRACTED BY A PROPERTY OWNER TO PRUNE A GRAND OAK SHALL ASSUME FULL RESPONSIBILITY FOR ALL PRUNING ACTIVITIES DETERMINED IN NONCOMPLIANCE WITH STANDARDS SPECIFIED WITHIN THE LAND DEVELOPMENT CODE.

LEGEND

- PROPERTY LINE
- NUMBER OF PARKING SPACES
- 15 - PROPOSED SLASH PINE (PINUS ELLIOTTI), FL. GRADE #1 MIN. 10' HIGH & 2" DBH AT PLANTING
- 5 - PROPOSED SHUMARD OAK (QUERCUS SHUMARDII), FL. GRADE #1 MIN. 10' HIGH & 3" DBH AT PLANTING
- 17 - PROPOSED LIVE OAK (QUERCUS VIRGINIANA), FL. GRADE #1 MIN. 10' HIGH & 3" DBH AT PLANTING
- 11 - PROPOSED SOUTHERN MAGNOLIA (MAGNOLIA GRANDIFLORA), FL. GRADE #1, MIN. 8' HIGH & 2" DBH AT PLANTING
- PROPOSED HEDGE (VIBURNUM OBOVATUM) MIN. 24" HIGH, PLANTED @ 3' O/C FLA. GRADE #1 OR BETTER
- PROPOSED PAVEMENT
- PROPOSED BUILDING
- PROPOSED SIDEWALK

TREE REPLACEMENT TABLE

| 63" REQUIRED REPLACEMENT | 15" |
|---|-----|
| (15) REQUIRED 2" SLASH PINE UPSIZED TO 3" | 15" |
| (5) REQUIRED 1" SHUMARD OAK UPSIZED TO 3" | 10" |
| (17) REQUIRED 1" SLASH PINE UPSIZED TO 3" | 17" |
| (10) REQUIRED 1" MAGNOLIA UPSIZED TO 3" | 20" |
| (1) ADDITIONAL 3" MAGNOLIA | 3" |
| TOTAL REPLACEMENT PROVIDED = 60" | |



Client's: **Kazbour Properties, Inc.**
1326 E. Lumsden Road
Brandon, Florida 33511

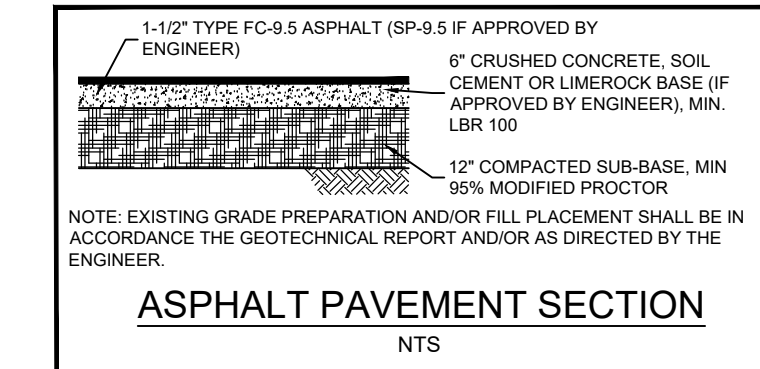
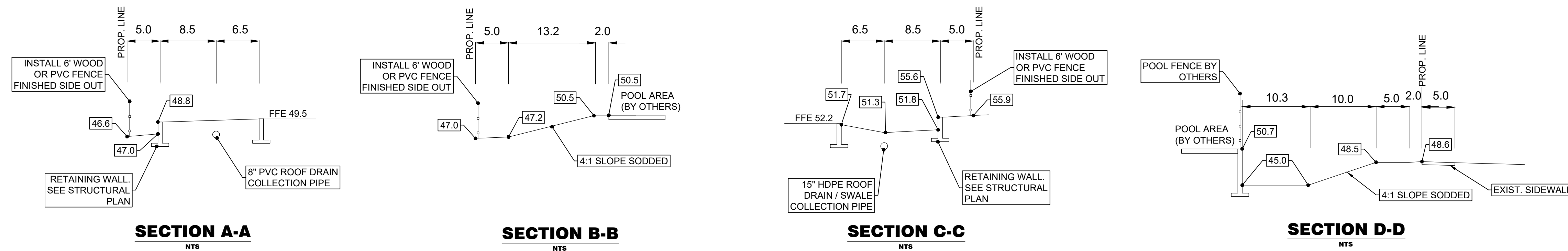
Project Name: **MILLER ROAD TOWNHOMES**
124 N MILLER RD, VALRICO
VALRICO, FL 33594

BD & E

708 Lithia Pinecrest Road, Suite 101, Brandon, FL 33511 Ph (813)689-7002 Fax (813) 684-1691

SITE PLAN

SHEET **3** OF **8**



LEGEND

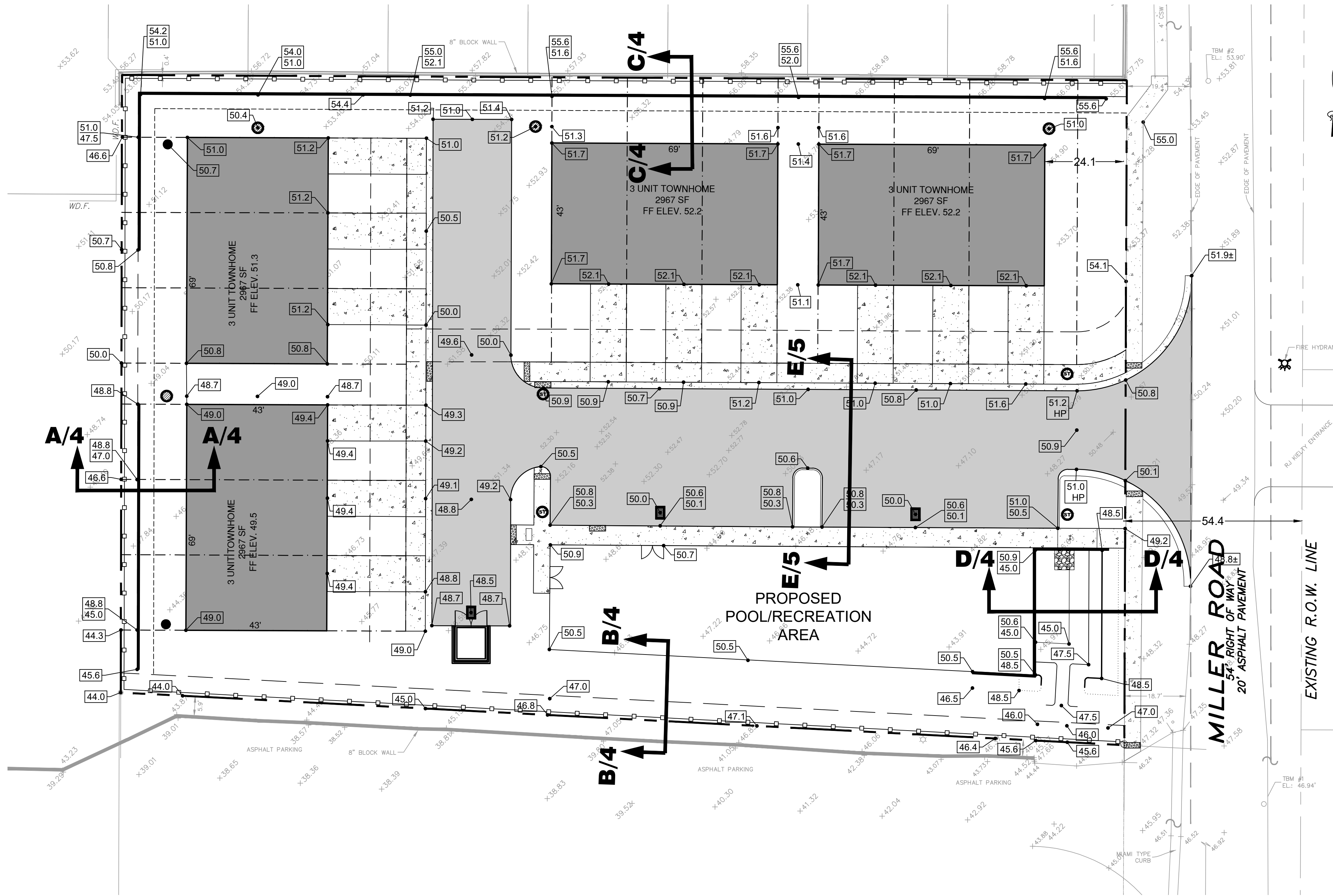
- PROPERTY LINE
- BUFFER
- DRAINAGE PIPE
- MITERED END SECTION
- FDOT TYPE C OR E INLET
- OUTFALL STRUCTURE
- PVC YARD INLET
- STORM MANHOLE
- FINISH FLOOR ELEVATION
- SURFACE WATER FLOW DIRECTION
- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED PAVEMENT

FLOODZONE INFORMATION
 FLOODZONE 'X' PER FEMA FLOOD INSURANCE RATE MAP (FIRM) PANEL NUMBER 12057C0405H

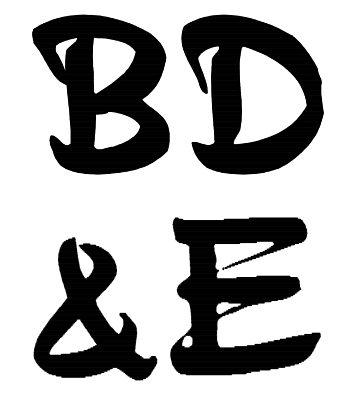
- GENERAL PAVING, GRADING & DRAINAGE NOTES:**
- ALL PAVING, GRADING AND DRAINAGE CONSTRUCTION OPERATIONS SHALL BE IN ACCORDANCE WITH THE HILLSBOROUGH LAND DEVELOPMENT CODE, TRANSPORTATION AND STORMWATER MANUALS, LATEST EDITION, AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
 - CONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE PERMITS, AND SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE APPLICABLE AGENCIES, AND IF REQUIRED, THE ENGINEER OR RECORD.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES AS REQUIRED BY HILLSBOROUGH COUNTY AND FLORIDA REQUIREMENTS.
 - PROPER OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM PER FDEP AND/OR SWFWMD REQUIREMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR, HIS SUCCESSORS AND/OR ASSIGNEES UNITS, SUCH A TIME THAT THE OWNER ACCEPTS THE PROJECT AND ASSUMES RESPONSIBILITY.
 - THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE FOR ALL PHASES OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, TEMPORARY SWALES OR PIPES.
 - ALL GRADES ARE AT EDGE OF PAVEMENT UNLESS OTHERWISE INDICATED.
 - ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, FLUGGING, SPRINGING OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE IF APPROVED BY THE ENGINEER OF RECORD AND HILLSBOROUGH COUNTY UNLESS OTHERWISE SPECIFIED.
 - DURING CONSTRUCTION ANY ENCOUNTERED DELETERIOUS SUBSURFACE MATERIAL (I.E. MULCH, PEAT, BURIED DEBRIS) SHALL BE EXCAVATED AS DIRECTED BY THE OWNER, THE ENGINEER, AND/OR REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER, UNLESS OTHERWISE APPROVED BY THE OWNER OR ENGINEER. THIS MATERIAL IS TO BE REMOVED FROM THE SITE. EXCAVATED AREAS ARE TO BE BACK FILLED WITH APPROVED MATERIALS AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERS REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS NECESSARY FOR REMOVING THE MATERIAL FROM THE SITE.
 - DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER FDOT STD.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DE-WATERING SHALL BE USED AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY DE-WATERING AND ASSOCIATED PERMITS.
 - ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED AND APPROVED BY THE ENGINEER AND/OR THE GEOTECHNICAL ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THE ENGINEER'S REQUIREMENTS AND/OR THE REFERENCED SOIL REPORT.
 - CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
 - ALL HDPE STORMWATER PIPE SHOWN ON THESE PLANS SHALL BE DUAL WALL STRUCTURAL HDPE, ADS N-12 WATER TIGHT, OR APPROVED EQUAL.
 - ALL PVC DRAIN STRUCTURES SHALL BE NYLONLAST BY ADS WITH H-20 STANDARD LOCKING CAST IRON GRATES, OR APPROVED EQUAL.
 - FOR ALL INDICATED STANDARD DRAINAGE STRUCTURE, MITERED END SECTIONS, MANHOLES, CURBING OR OTHER APPURTENANCES SHALL BE PER THE APPLICABLE REFERENCED HILLSBOROUGH COUNTY OR FDOT STANDARD AND SHALL BE CONSTRUCTED, TESTED AND INSTALLED PER THE APPLICABLE REQUIREMENTS.

LAKE/POND EXCAVATION NOTE:
 NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE; AND NO LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND/OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA. EPC MUST BE CONTACTED PRIOR TO ANY EXCAVATION OF CLAYS.

BENCHMARKS:
 ELEVATIONS SHOWN HEREON ARE BASED ON HILLSBOROUGH COUNTY BENCHMARK NUMBER BV-189A LOCATED IN THE SOUTHEAST CORNER OF THE INTERSECTION OF STATE ROAD 60 AND MILLER ROAD.
 ELEVATION: 38.45' (NATIONAL GEODETIC VERTICAL DATUM 1929)
TBM #1:
 STATION IS A PK NAIL SET IN THE EAST SIDE OF THE PAVEMENT OF MILLER ROAD APPROXIMATELY 46 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF THE PROPERTY DESCRIBED HEREON.
 ELEVATION: 46.94'
TBM #2:
 STATION IS A PK NAIL AND DISK FOUND IN THE CENTERLINE OF MILLER ROAD APPROXIMATELY 25 FEET EAST OF THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED HEREON.
 ELEVATION: 53.90'



Project Name
MILLER ROAD TOWNHOMES
 124 N MILLER RD, VALRICO
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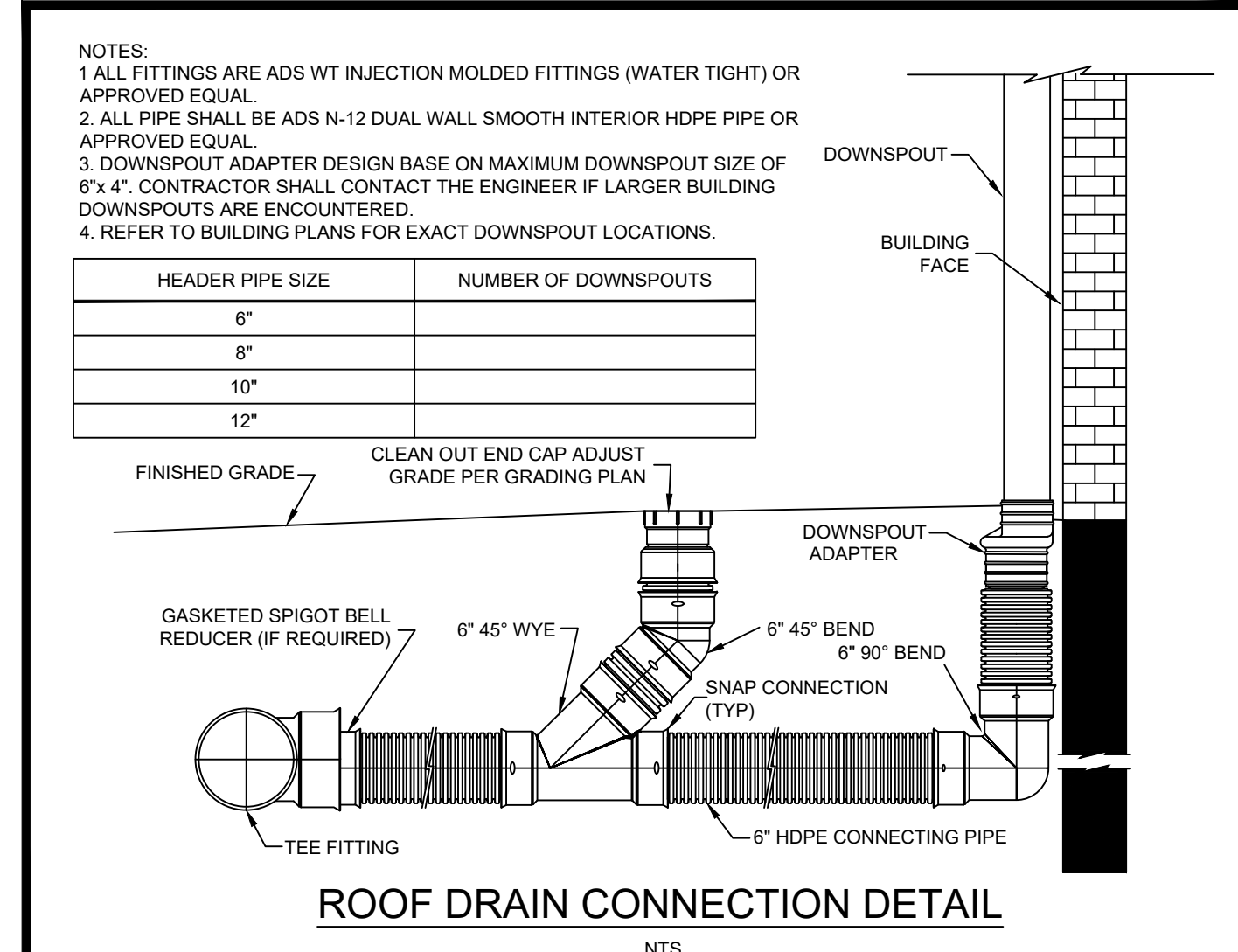
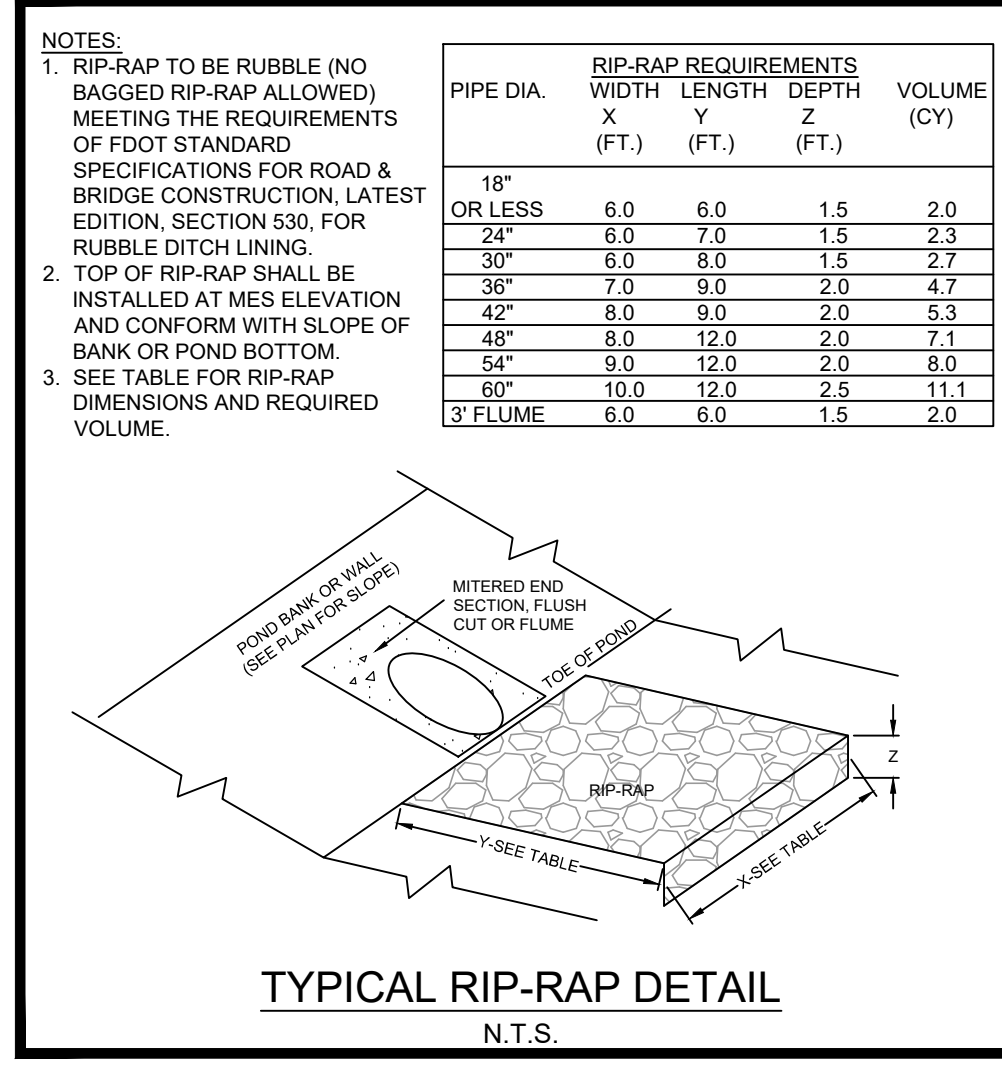
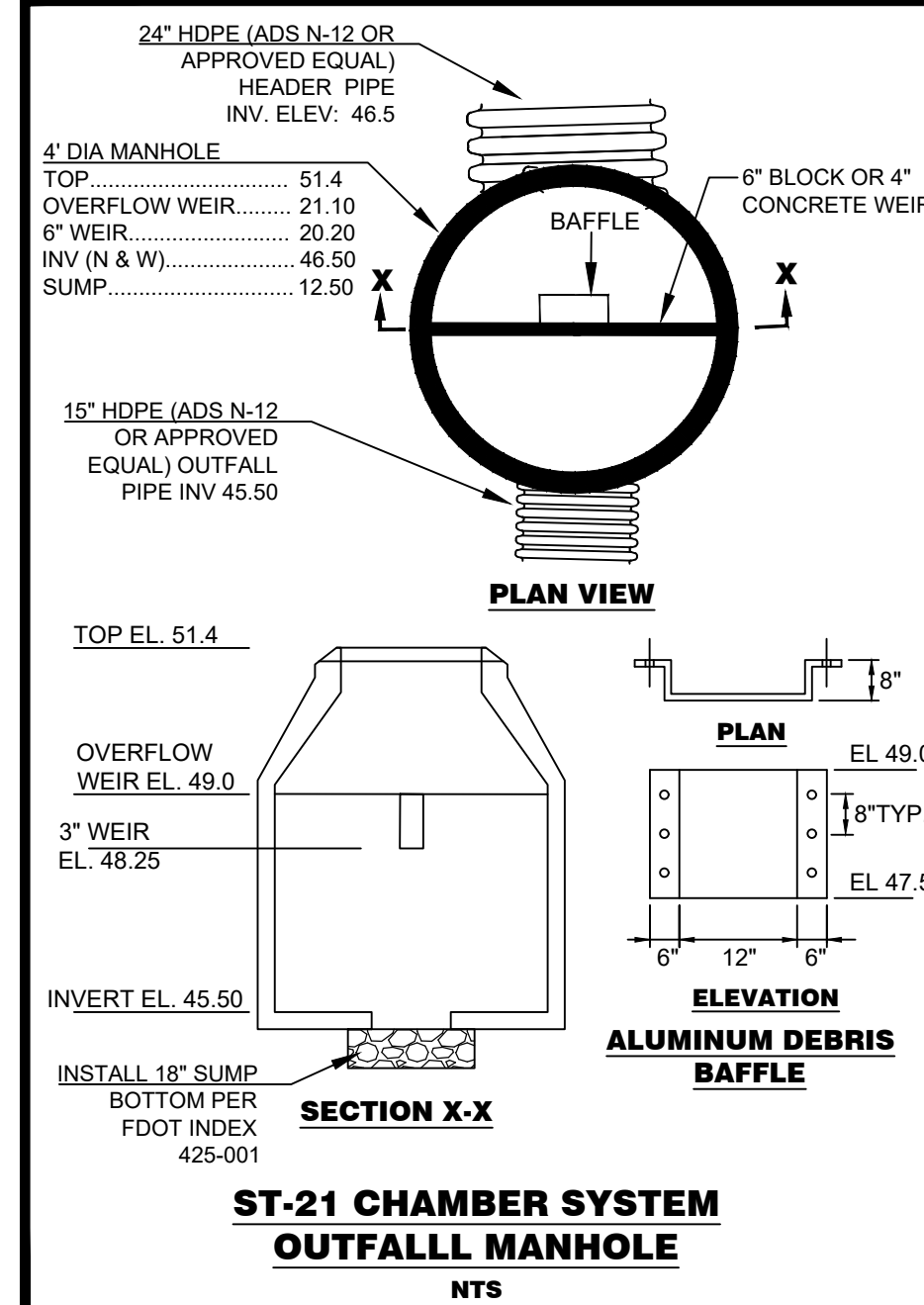
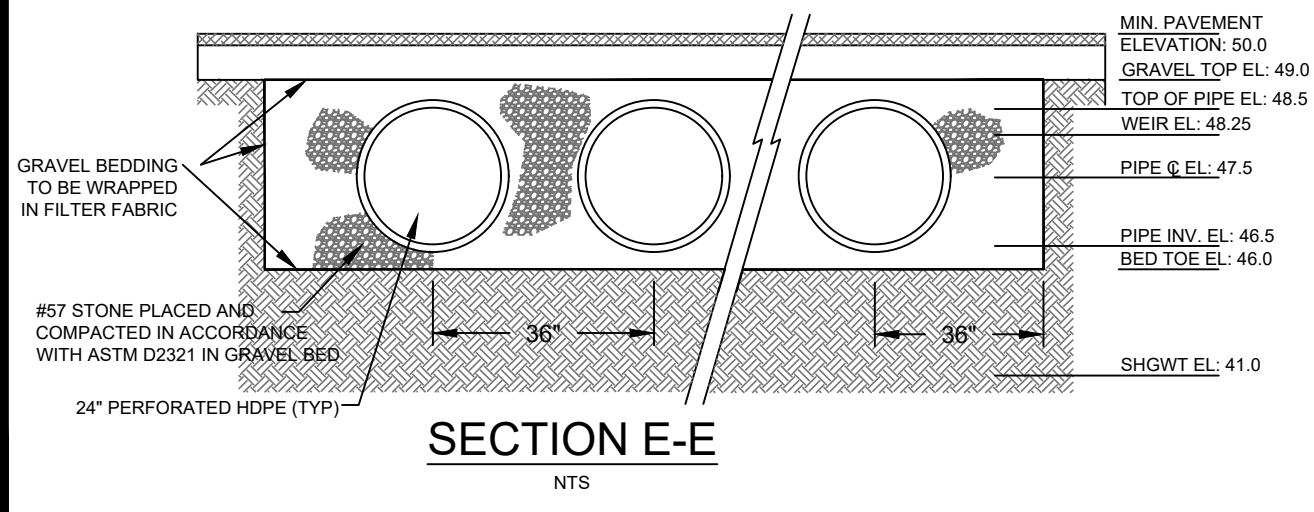


PAVING & GRADING PLAN

SHEET
4
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8

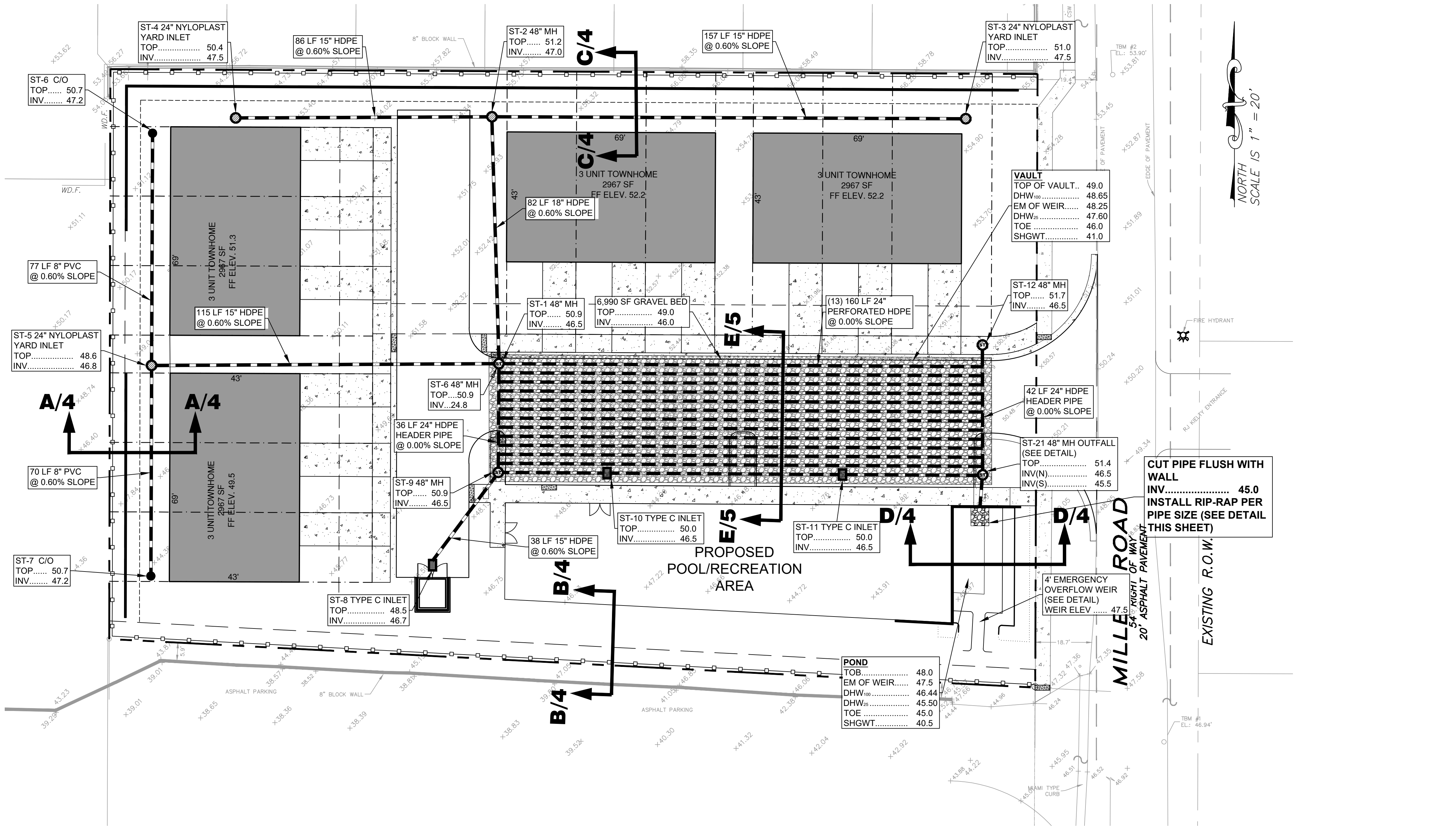
Clients:
 Kazbour Properties, Inc.
 1326 E. Lumsden Road
 Brandon, Florida 33511
Brad Design & Engineering, Inc.
 708 Lithia Pinecrest Road, Suite 101, Brandon, FL 33511 Ph (813)689-7002 Fax (813) 684-1691

- NOTES:**
1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
 3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
 4. **FILTER FABRIC:** A NON-WOVEN GEOTEXTILE FABRIC SHALL FULLY ENCLOSE GRAVEL BED, WITH MINIMUM OVERLAP OF 12". CONTRACTOR SHALL SUBMIT MATERIAL SPECIFICATION FOR APPROVAL BY THE ENGINEER.
 5. **FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 6. **INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE FDOT #57 STONE IN THE GRAVEL BED. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 7. **MINIMUM COVER:** MINIMUM COVER IS 12" MEASURED FROM TOP OF GRAVEL TO TOP OF PAVEMENT.



LEGEND

- PROPERTY LINE
- BUFFER
- DRAINAGE PIPE
- MITERED END SECTION
- FDOT TYPE C OR E INLET
- OUTFALL STRUCTURE
- PVC YARD INLET
- STORM MANHOLE
- F.F.EL. FINISH FLOOR ELEVATION
- SURFACE WATER FLOW DIRECTION
- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED PAVEMENT



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 9. DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER FDOT STD.
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BENCHMARKS:

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ELEVATION: 38.45' (NATIONAL GEODETIC VERTICAL DATUM 1929)

TBM #1:
STATION IS A PK NAIL SET IN THE EAST SIDE OF THE PAVEMENT OF MILLER ROAD APPROXIMATELY 46 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF THE PROPERTY DESCRIBED HEREON.
ELEVATION: 46.94'

TBM #2:
STATION IS A PK NAIL AND DISK FOUND IN THE CENTERLINE OF MILLER ROAD APPROXIMATELY 25 FEET EAST OF THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED HEREON.
ELEVATION: 53.90'

Project Name: MILLER ROAD TOWNHOMES
124 N MILLER RD, VALRICO, FL 33594

Client: Kazbor Properties, Inc.
1326 E. Lumsden Road
Brandon, Florida 33511

80 & E

DRAINAGE PLAN

SHEET 5 OF 8

Client: Kazbour Properties, Inc.
1326 E. Lumsden Road
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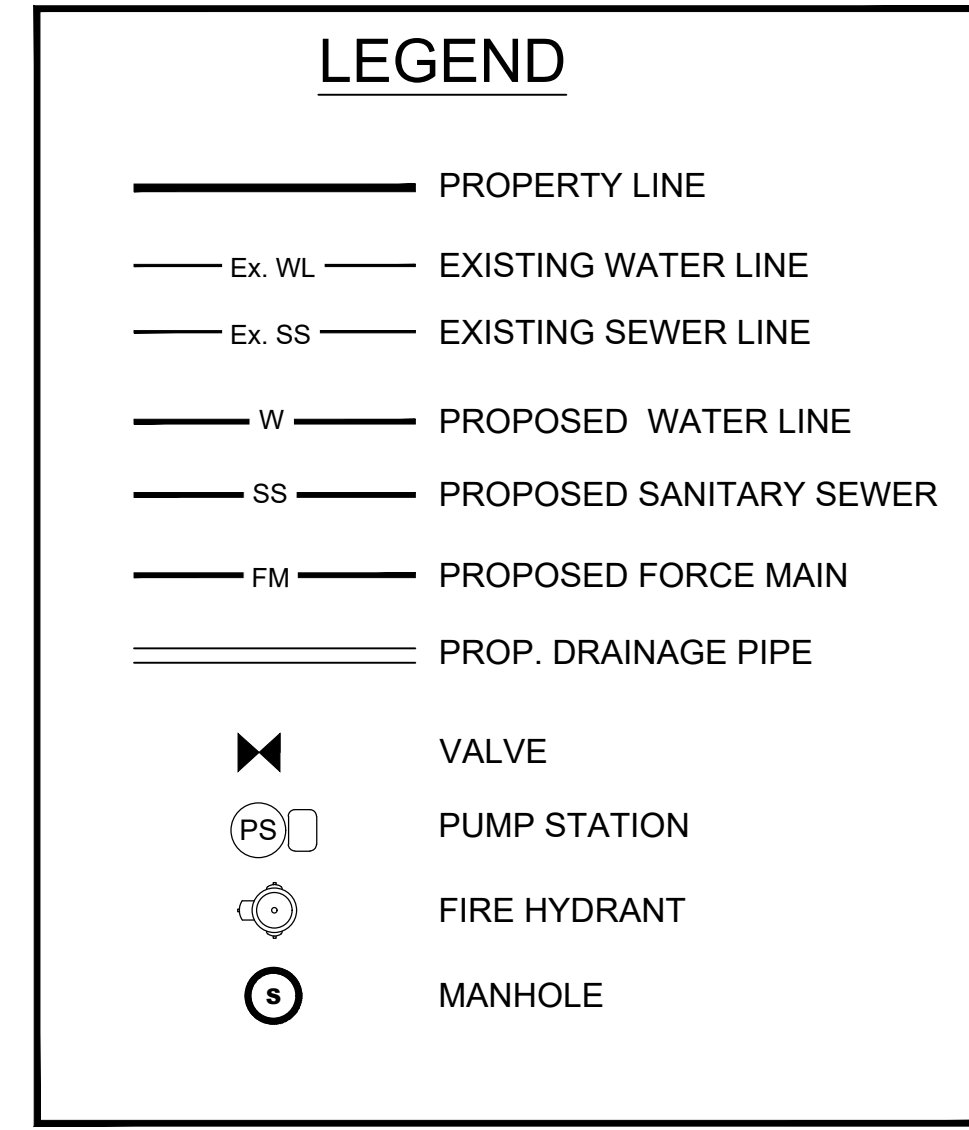
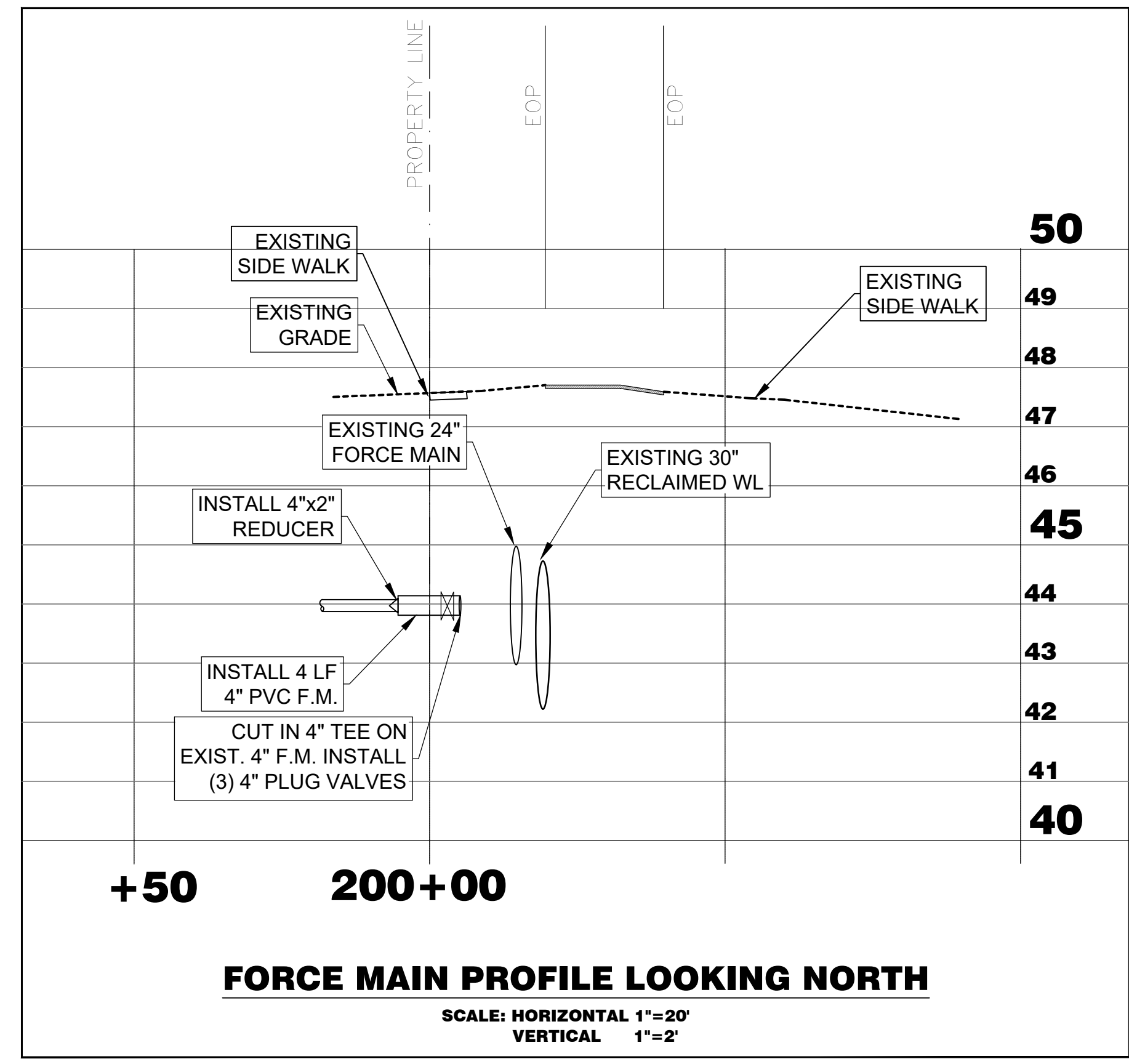
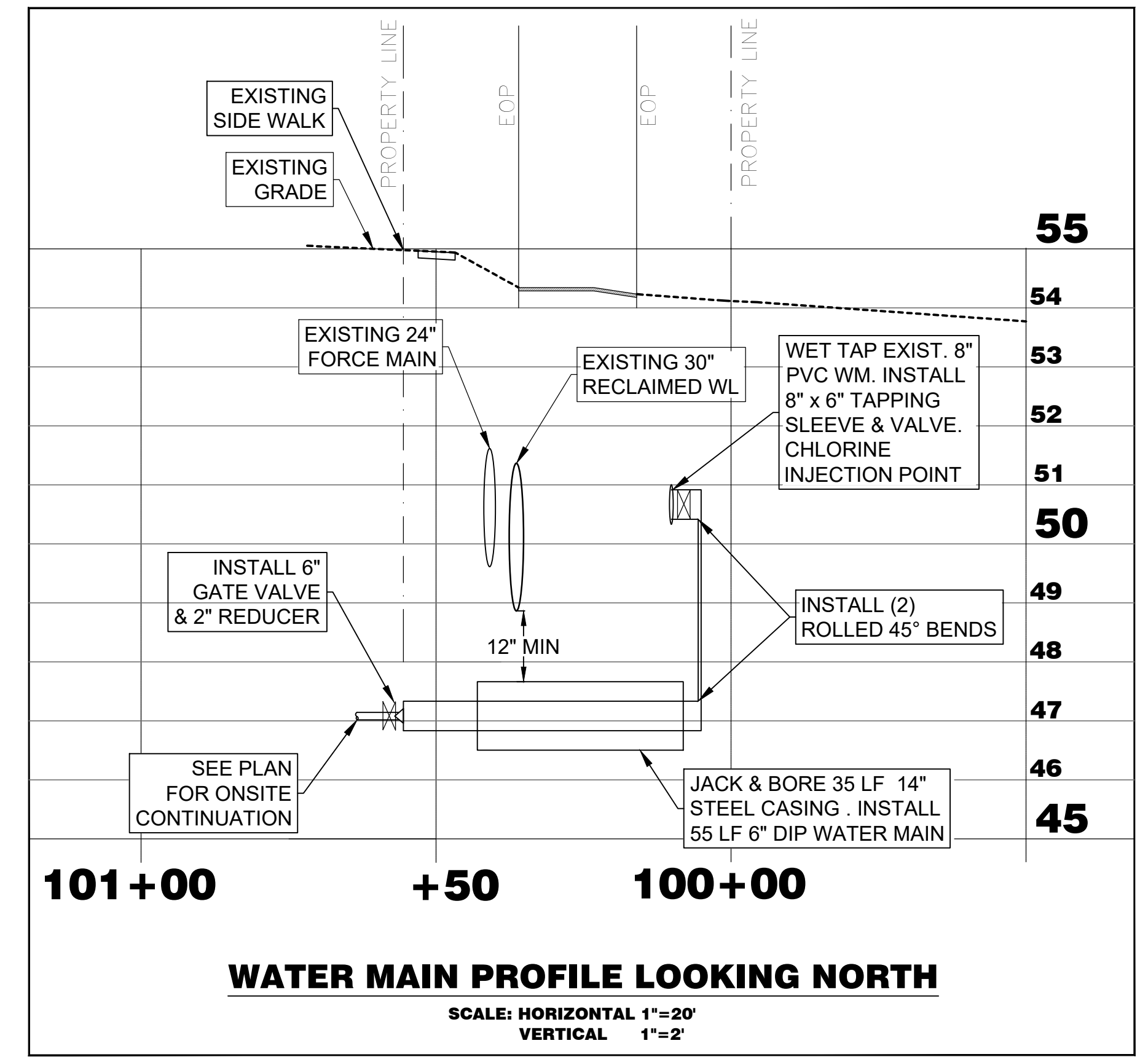
Project Name: MILLER ROAD TOWNHOMES
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BD & E

UTILITY PLAN

SHEET **6** OF **8**

Brad Design & Engineering, Inc.
708 Lithia Pinecrest Road, Suite 101, Brandon, FL 33511 Ph (813)689-7002 Fax (813) 684-1691



WATER UTILITY NOTES

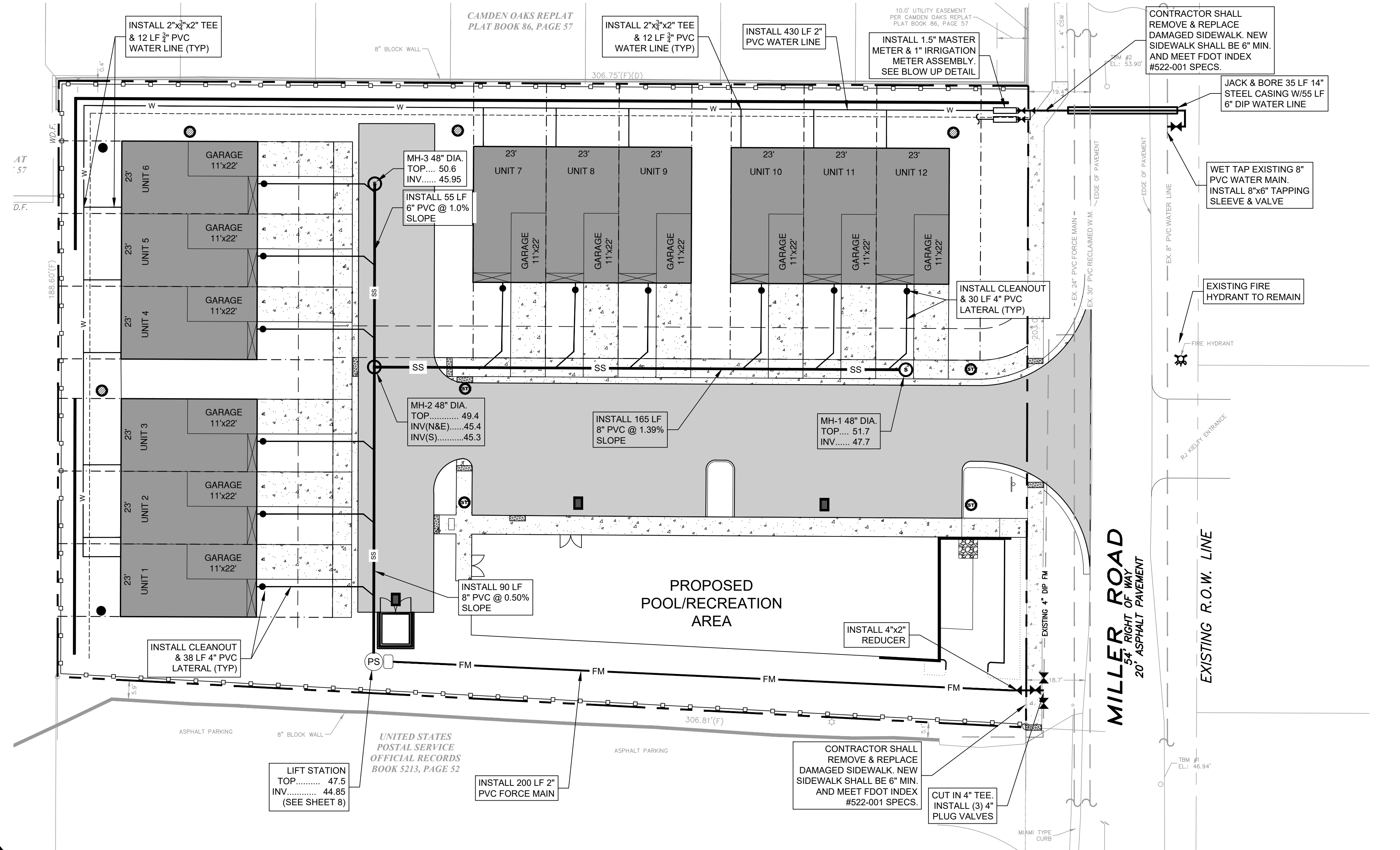
1. ALL WATER DISTRIBUTION SYSTEMS, SANITARY WASTEWATER COLLECTION SYSTEMS, WASTEWATER PUMPING STATIONS AND ALL APPURTENANT ITEMS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF HILLSBOROUGH COUNTY WATER, WASTEWATER, AND RECLAIMED WATER TECHNICAL MANUAL, LATEST EDITION, HILLSBOROUGH COUNTY HEALTH DEPT. AND HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION, THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION AND THE STANDARD ESTABLISHED HEREIN. CONTRACTOR SHALL CONTACT HILLSBOROUGH COUNTY UTILITIES DEPT. PRIOR TO INITIATION OF ANY WORK WITHIN R.W.
2. CONTRACTOR TO COORDINATE WITH HILLSBOROUGH COUNTY WATER DEPT., MIKE BURGESS AT 554-5010, PRIOR TO SELECTION/ORDERING OF WATER METER AND BACKFLOW PREVENTION DEVICE ASSEMBLIES.
3. FIRE PROTECTION SHALL BE BY FIRE HYDRANTS. SEPARATE FIRE PROTECTION SYSTEM, THAT MAY BE REQUIRED FOR SITE STRUCTURES, IS NOT INCLUDED.
4. CONTRACTOR TO FURNISH AND INSTALL THE TAPPING SLEEVE AND VALVE. HILLSBOROUGH COUNTY WATER DEPARTMENT WILL PERFORM THE TAPPING OPERATION.
5. MINIMUM WATERLINE COVER SHALL BE 36" UNLESS OTHERWISE NOTED.
6. A MINIMUM 18" CLEARANCE SHALL BE MAINTAINED BETWEEN WATER LINES AND DRAINAGE STRUCTURES UNLESS OTHERWISE NOTED ON THE PLANS.
7. A MINIMUM OF 10' HORIZONTAL DISTANCE SHALL BE MAINTAINED BETWEEN WATER MAINS AND GRAVITY SEWERS. IF THE 10' HORIZONTAL DISTANCE CANNOT BE MAINTAINED, THE GRAVITY SEWER MUST BE INSTALLED A MINIMUM OF 18" BELOW THE INVERT ELEVATION OF THE WATER MAIN. IF THE HORIZONTAL AND VERTICAL SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND GRAVITY SEWER SHALL BE CONSTRUCTED OF CEMENT LINED, CLASS 50 DUCTILE IRON PIPE, WITH STAGGERED JOINTS.
8. WATER MAINS SHALL CROSS ABOVE GRAVITY SEWERS WITH A MINIMUM OF 18" HORIZONTAL SEPARATION. CROSSINGS SHALL BE INSTALLED SUCH THAT THE MIDDLE OF EACH PIPE LENGTH SHALL BE CENTERED AT THE CROSSING.
9. THE LOCATION OF ALL NEWLY INSTALLED FIRE HYDRANTS SHALL BE IDENTIFIED WITH A BLUE REFLECTIVE PAVEMENT MARKER INSTALLED ON THE ROADWAY, PERPENDICULAR TO THE FIRE HYDRANT. THE REFLECTIVE MARKER WILL BE LOCATED IN THE CENTER OF THE LANE CLOSEST TO THE HYDRANT.
10. ALL WATER MAINS SHALL BE PRESSURE TESTED TO 150 PSI IN ACCORDANCE WITH THE HILLSBOROUGH COUNTY WATER, WASTEWATER, AND RECLAIMED WATER TECHNICAL MANUAL, LATEST EDITION.

GRAVITY SEWER UTILITY NOTES

1. ALL WATER DISTRIBUTION SYSTEMS, SANITARY WASTEWATER COLLECTION SYSTEMS, WASTEWATER PUMPING STATIONS AND ALL APPURTENANT ITEMS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF HILLSBOROUGH COUNTY WATER, WASTEWATER, AND RECLAIMED WATER TECHNICAL MANUAL, LATEST EDITION, HILLSBOROUGH COUNTY HEALTH DEPT. AND HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION, THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION AND THE STANDARD ESTABLISHED HEREIN. CONTRACTOR SHALL CONTACT HILLSBOROUGH COUNTY UTILITIES DEPT. PRIOR TO INITIATION OF ANY WORK WITHIN R.W.
2. GRAVITY SEWER MAINS SHALL BE SDR26 PVC PIPE.
3. A MINIMUM 18" CLEARANCE SHALL BE MAINTAINED BETWEEN GRAVITY SEWERS AND DRAINAGE STRUCTURES UNLESS OTHERWISE NOTED ON THE PLANS.
4. A MINIMUM OF 10' HORIZONTAL DISTANCE SHALL BE MAINTAINED BETWEEN GRAVITY SEWERS AND WATER MAINS. IF THE 10' HORIZONTAL DISTANCE CANNOT BE MAINTAINED, THE WATER MAIN MUST BE INSTALLED A MINIMUM OF 18" ABOVE THE TOP OF THE GRAVITY SEWER. IF THE HORIZONTAL AND VERTICAL SEPARATION CANNOT BE ACHIEVED, BOTH THE GRAVITY SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF CEMENT LINED, CLASS 50 DUCTILE IRON PIPE, WITH STAGGERED JOINTS.
5. GRAVITY SEWERS SHALL CROSS BELOW WATER MAINS WITH A MINIMUM OF 18" HORIZONTAL SEPARATION. CROSSINGS SHALL BE INSTALLED SUCH THAT THE MIDDLE OF EACH PIPE LENGTH SHALL BE CENTERED AT THE CROSSING.
6. SANITARY SEWER SHALL BE TESTED FOR INFILTRATION AND ROUNDNES PURSUANT TO HILLSBOROUGH COUNTY STANDARDS. CONTRACTOR SHALL COLOR T.V. ALL GRAVITY LINES 6" AND LARGER.

GENERAL UTILITY NOTES

1. ALL WATER DISTRIBUTION SYSTEMS, SANITARY WASTEWATER COLLECTION SYSTEMS, WASTEWATER PUMPING STATIONS AND ALL APPURTENANT ITEMS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF HILLSBOROUGH COUNTY WATER, WASTEWATER, AND RECLAIMED WATER TECHNICAL MANUAL, LATEST EDITION, HILLSBOROUGH COUNTY HEALTH DEPT. AND HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION, THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION AND THE STANDARD ESTABLISHED HEREIN. CONTRACTOR SHALL CONTACT HILLSBOROUGH COUNTY UTILITIES DEPT. PRIOR TO INITIATION OF ANY WORK WITHIN R.W.
2. CONTRACTOR TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER OF RECORD.
3. THE CONTRACTOR/ENGINEER OF RECORD SHALL CONTACT THE HILLSBOROUGH COUNTY WATER DEPARTMENT UTILITY INSPECTION SECTION AND LINE MAINTENANCE TO SET UP THE PRE CONSTRUCTION MEETING. CONTACT WILLIE LAVANDERIA @ (813)307-9373 FOR INSPECTIONS AND EITHER THE SOUTH/CENTRAL LINE MAINTENANCE UNIT AT (813)671-7604 OR THE NORTHWEST LINE MAINTENANCE UNIT AT (813)554-5010
4. ALL NON-METALLIC PIPE SHALL BE INSTALLED WITH 2-PAIR, 10-GAUGE, COPPER TRACER WIRE.
5. DISTURBED RIGHT-OF-WAY SHALL BE SEEDED AND MULCHED PER F.D.O.T. 570.



Kazbour Properties, Inc.
1326 E. Lumsden Road
Brandon, Florida 33511

Clients:

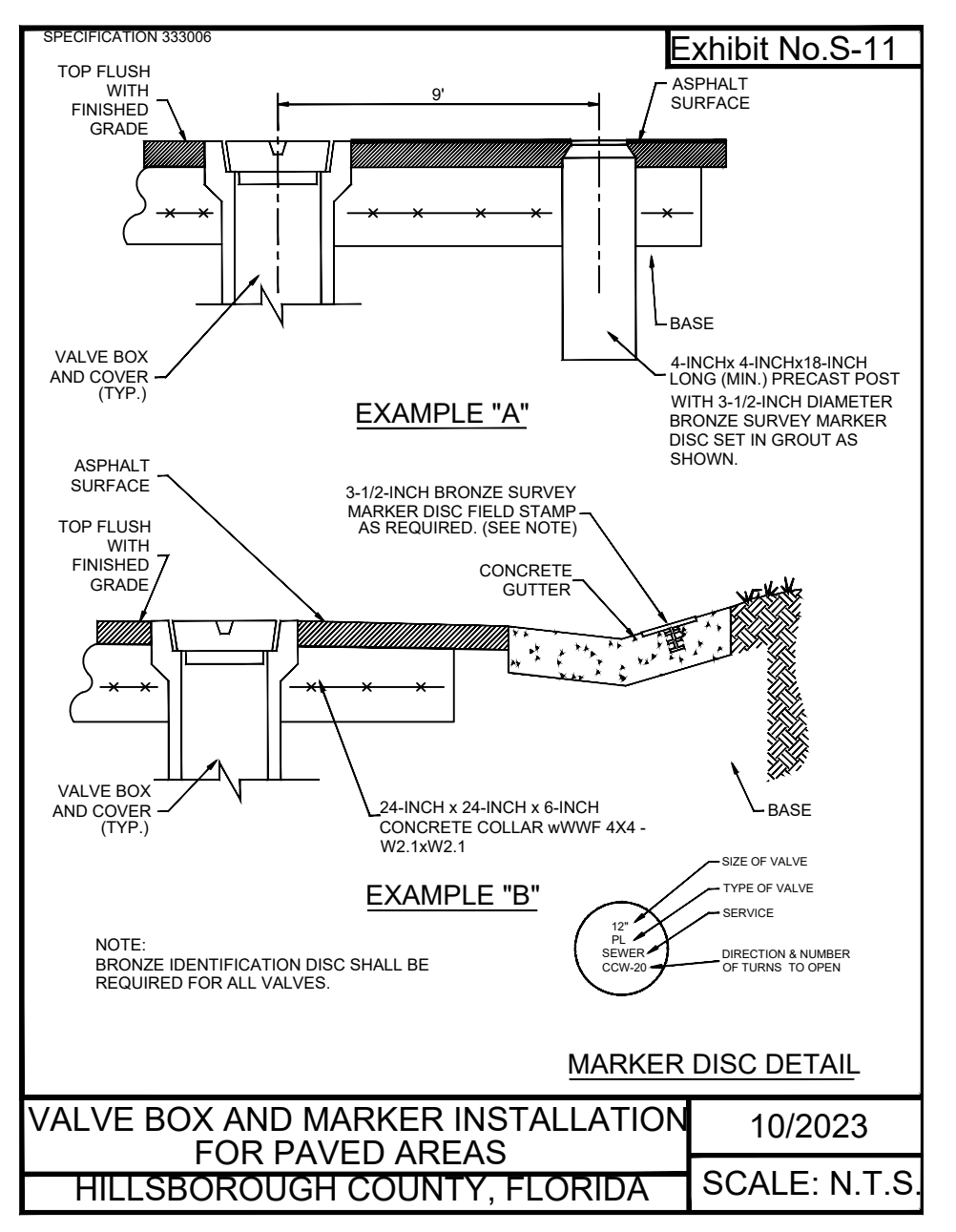
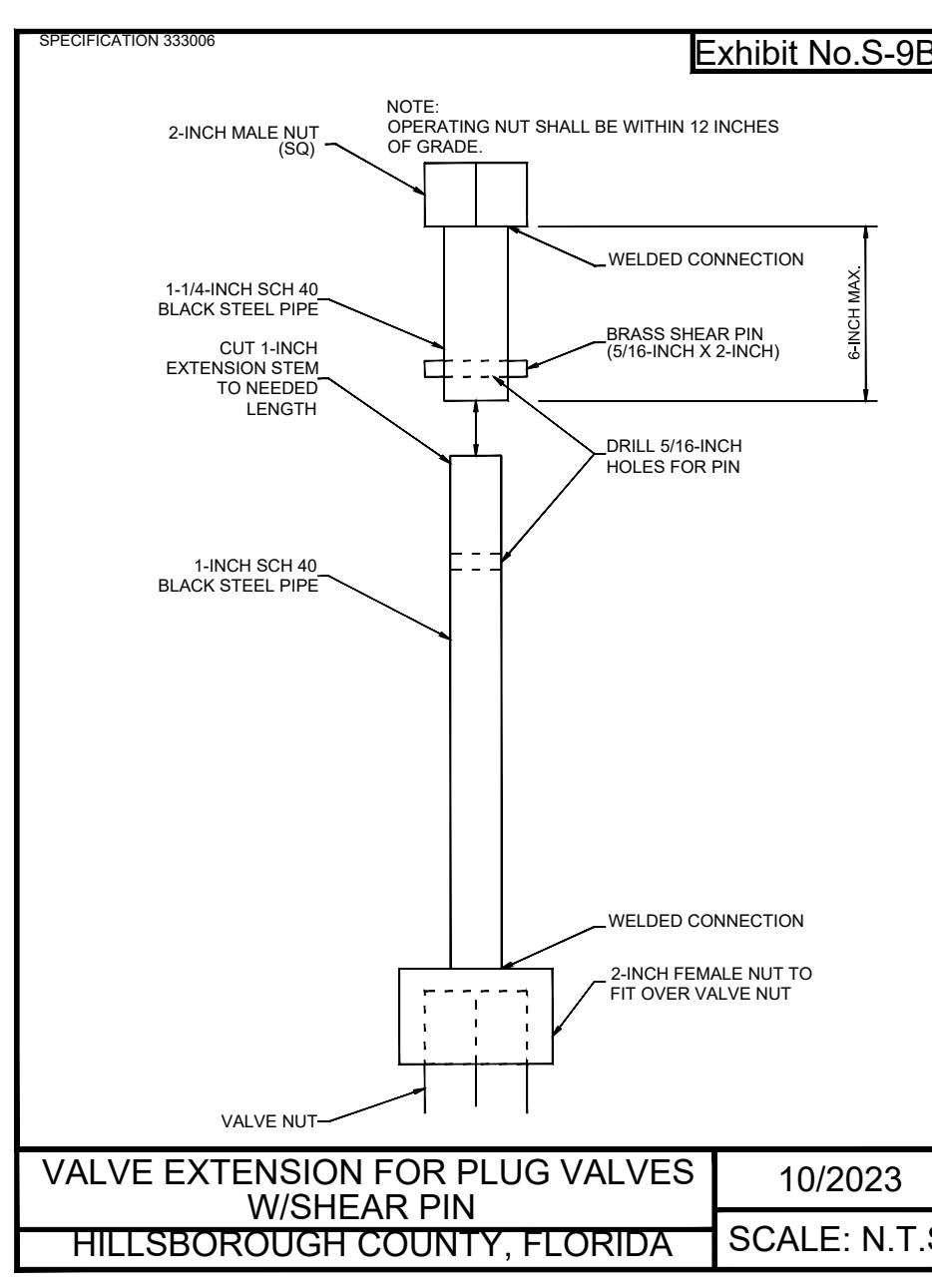
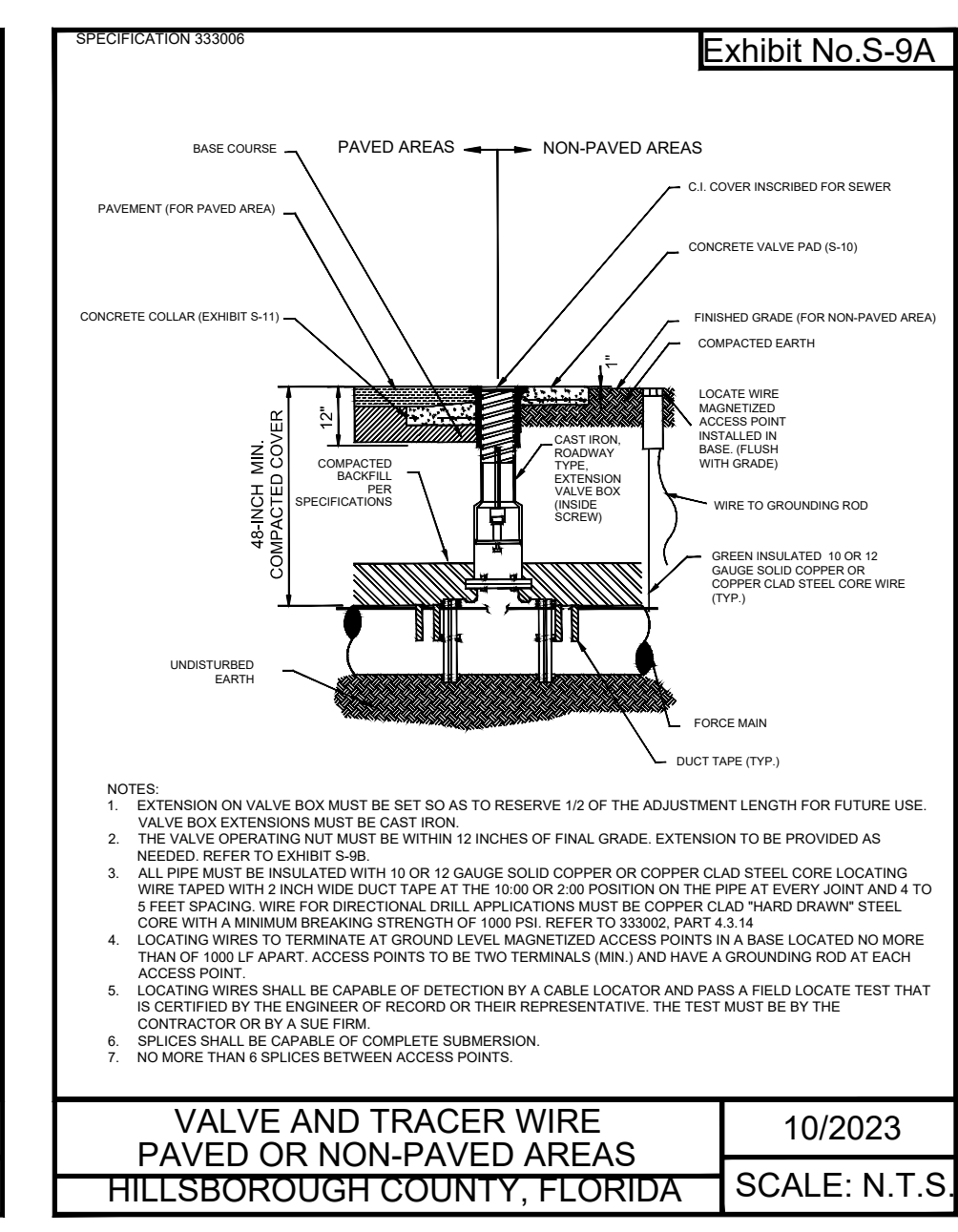
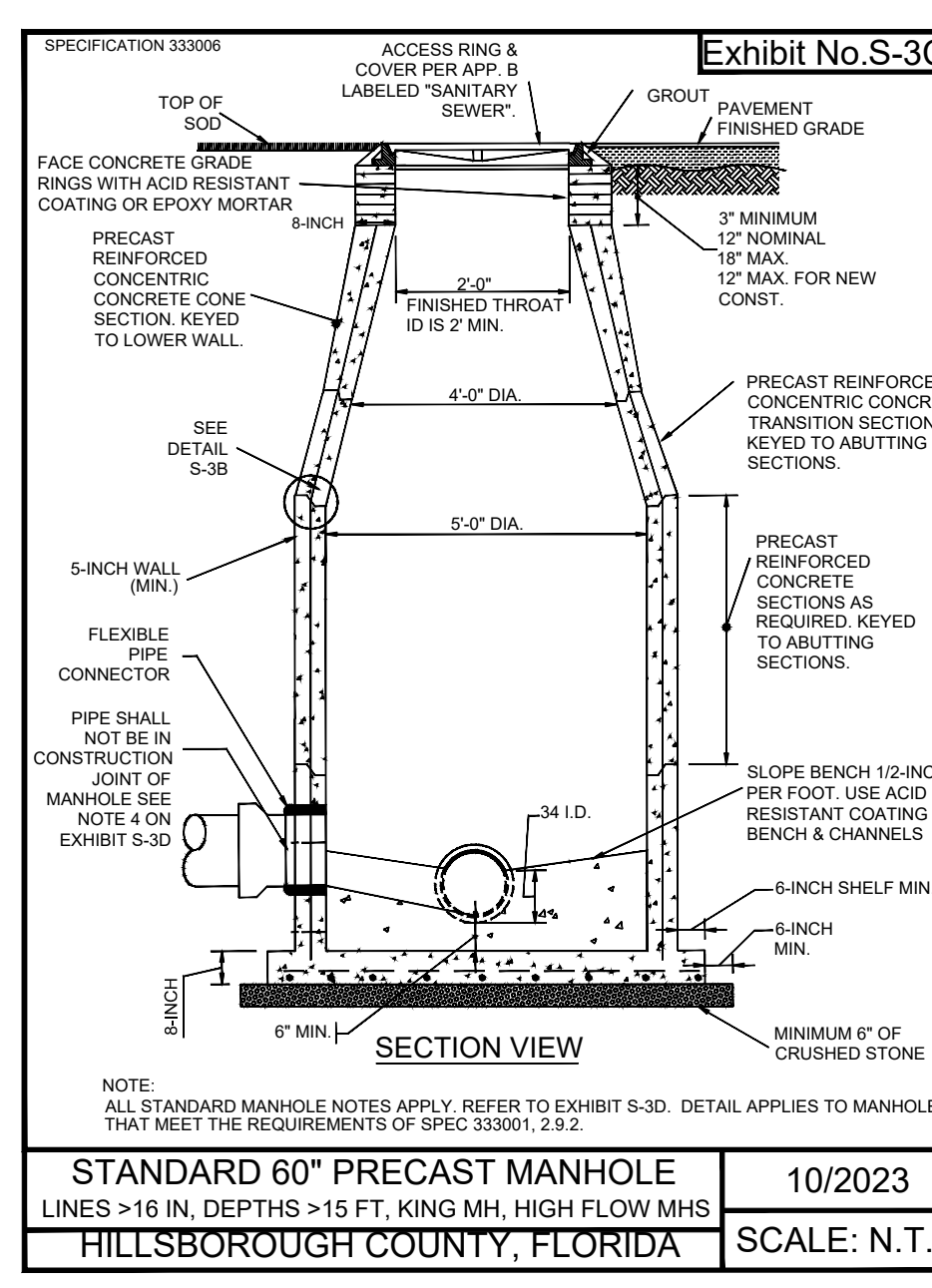
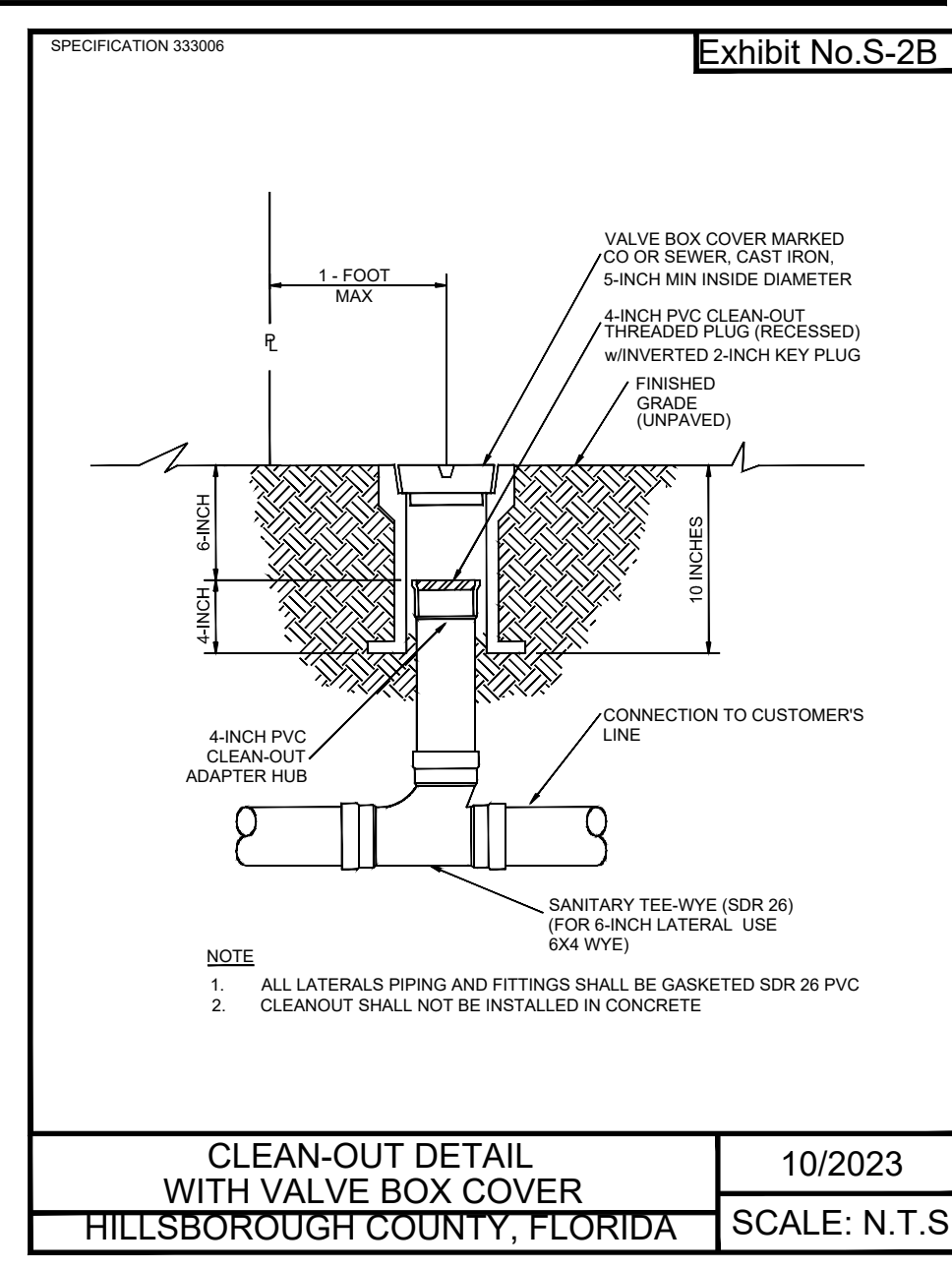
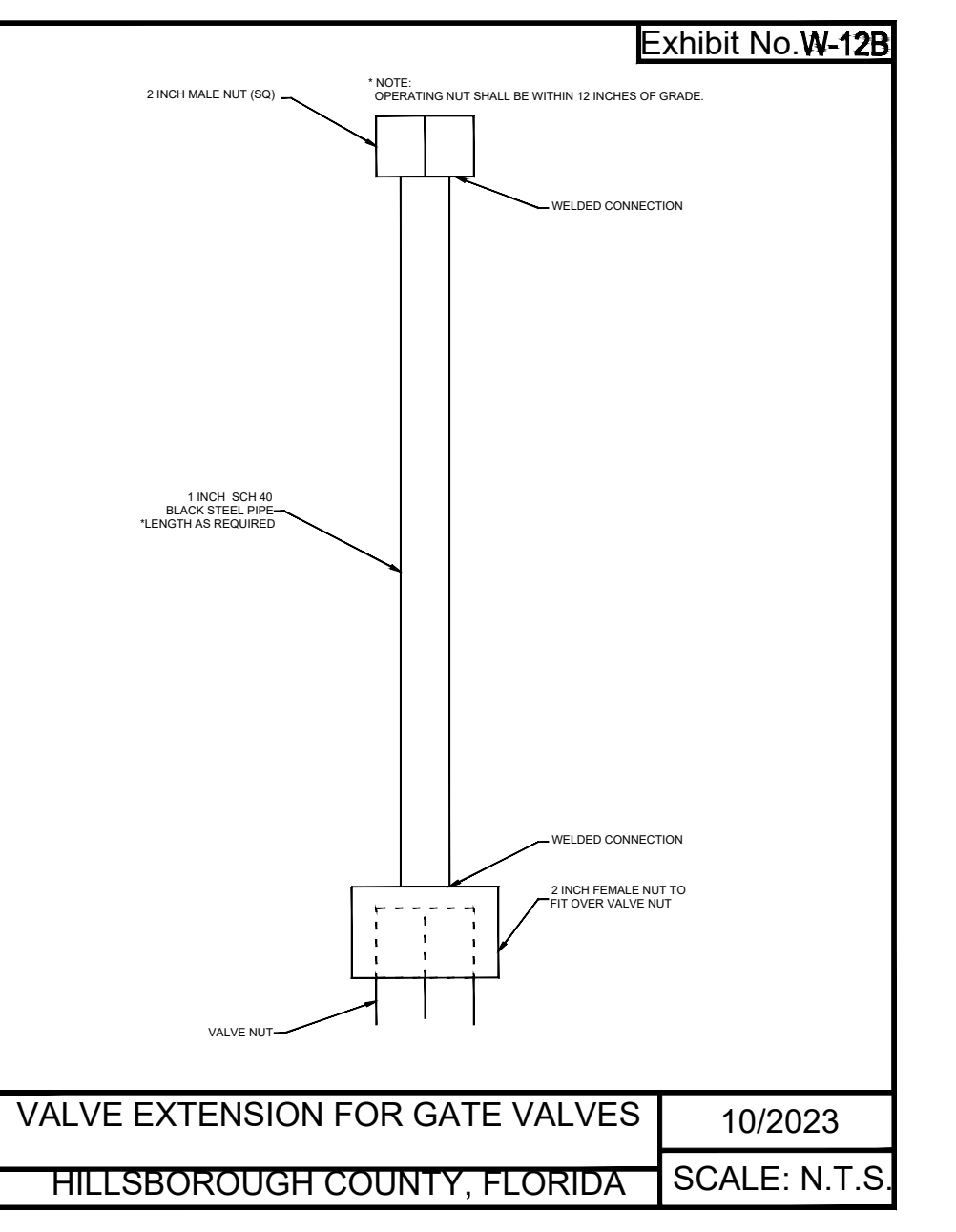
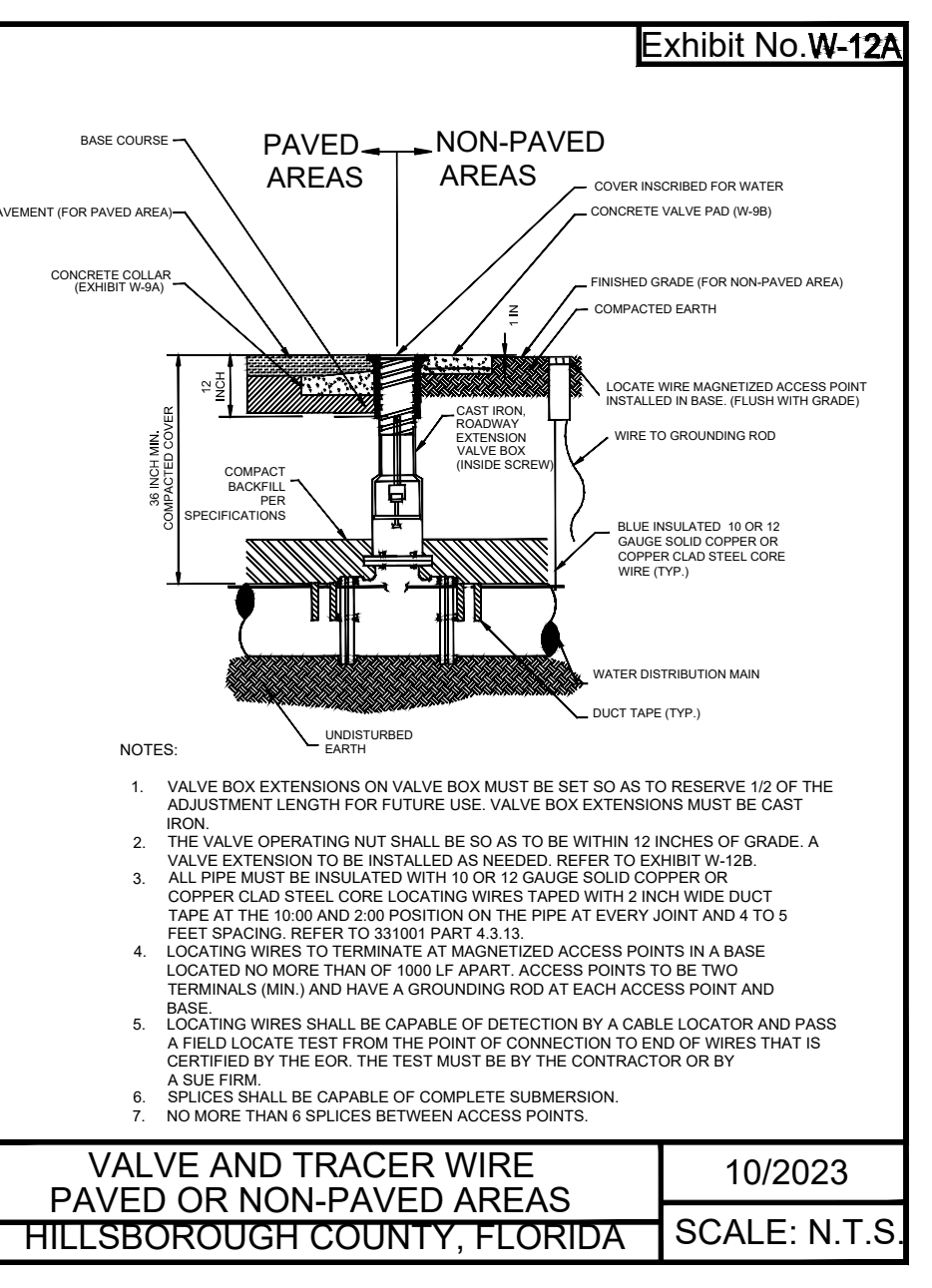
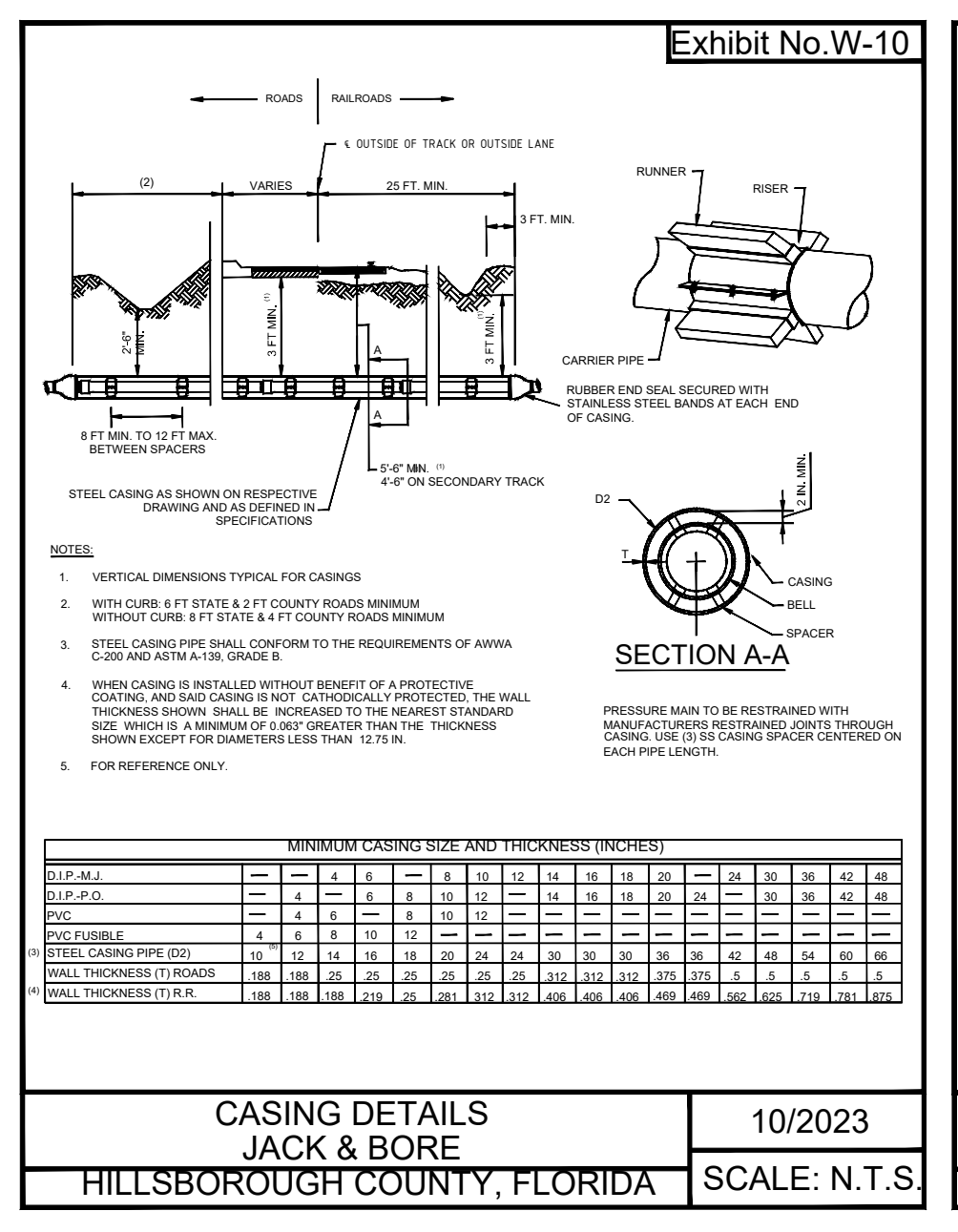
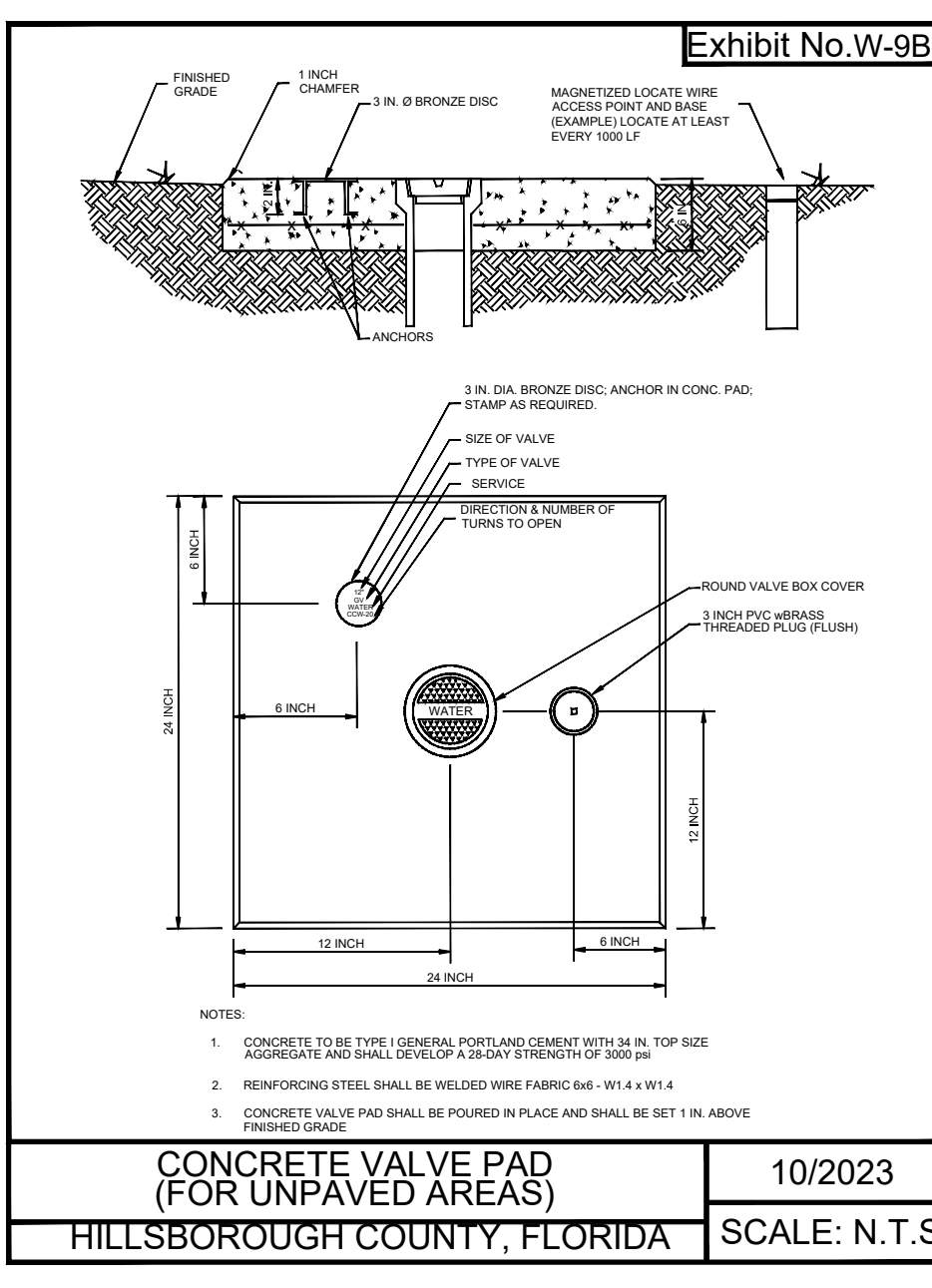
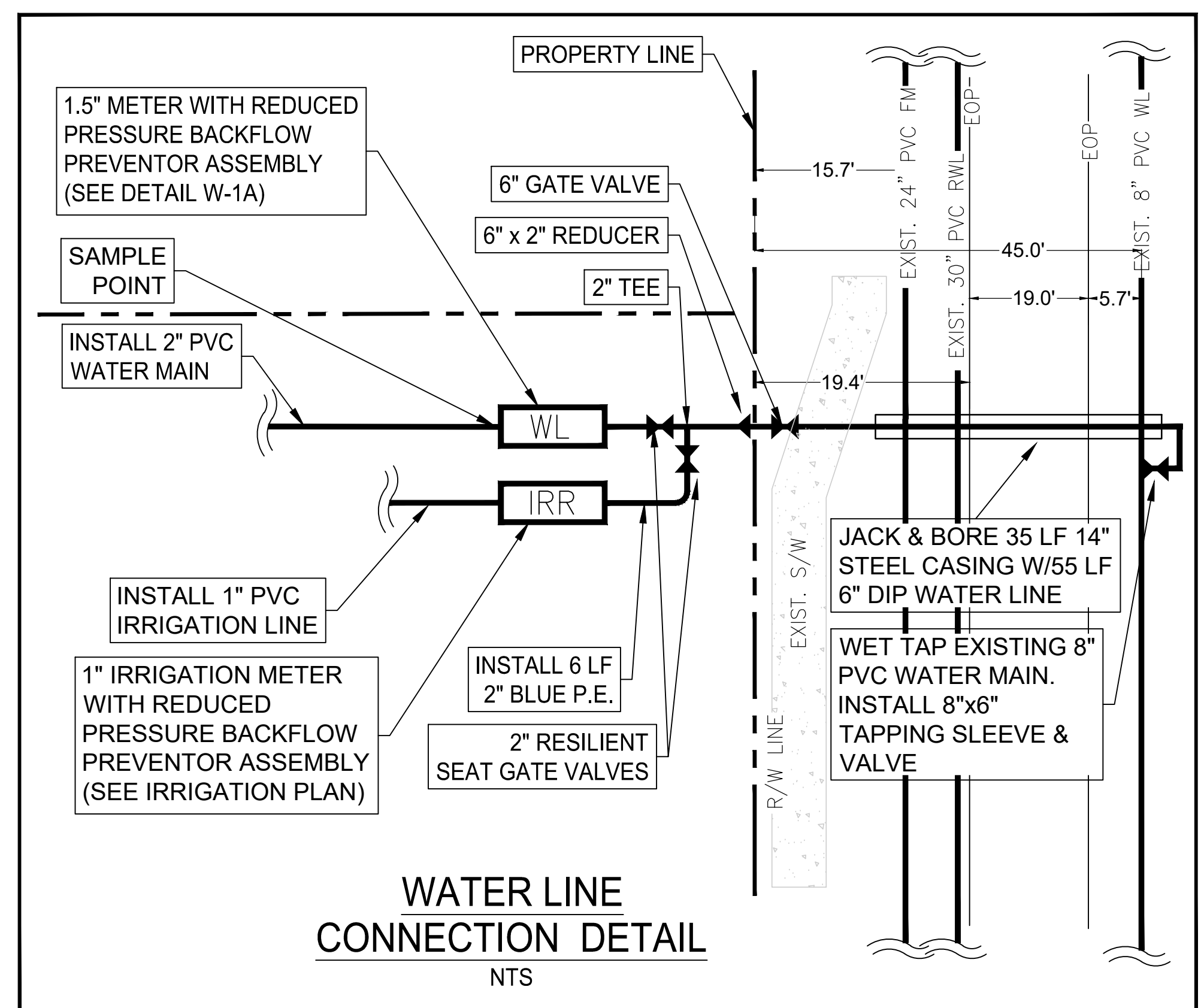
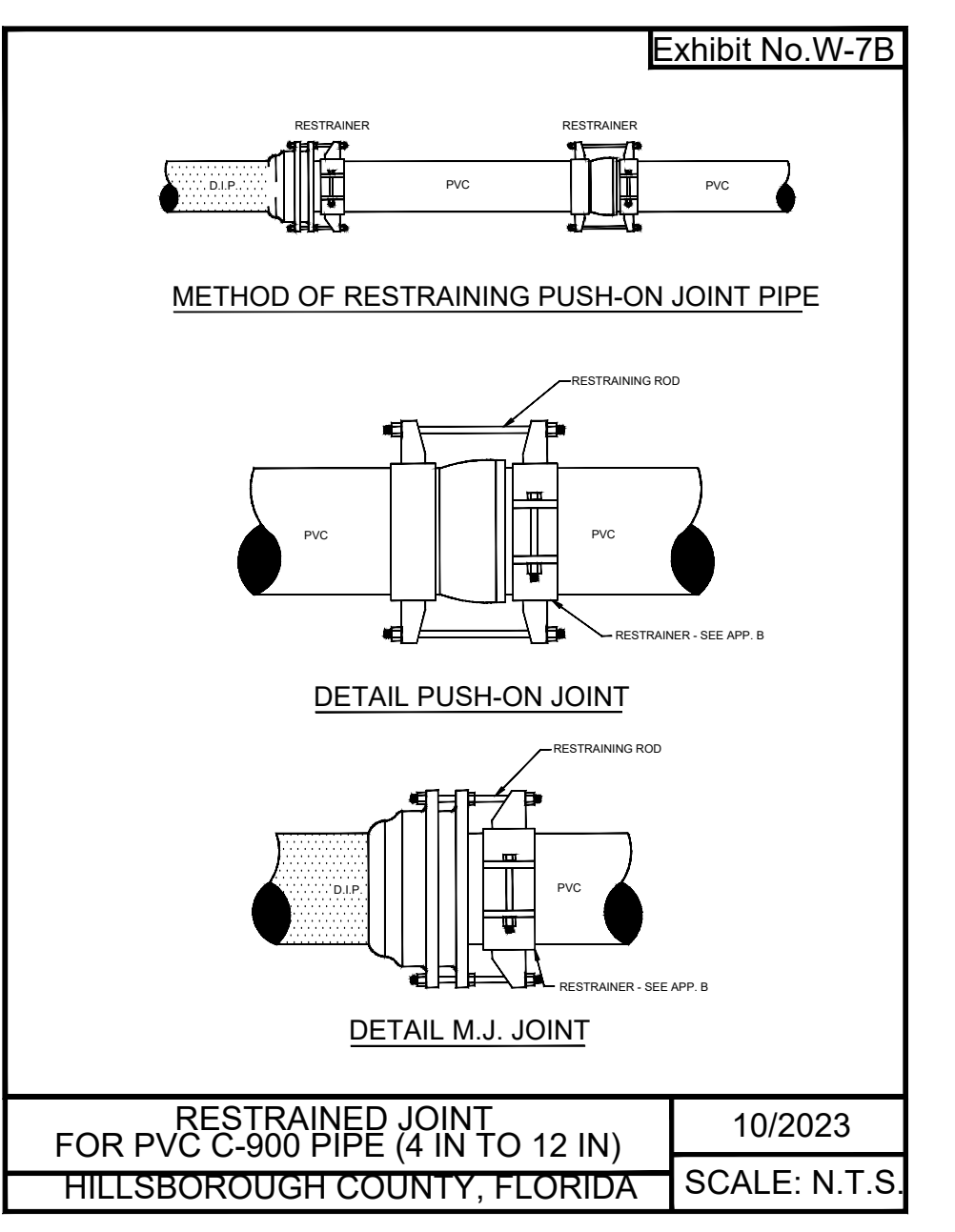
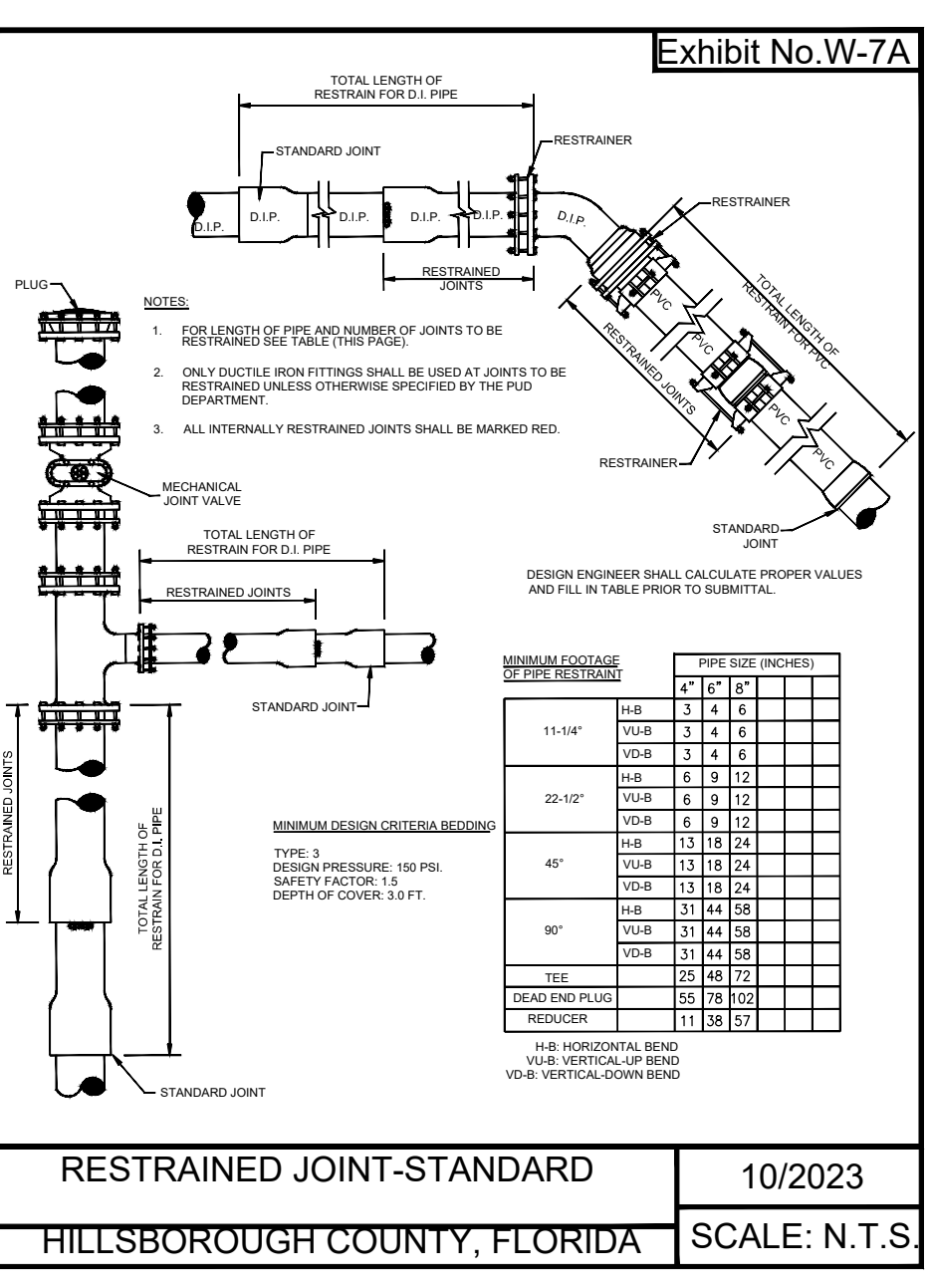
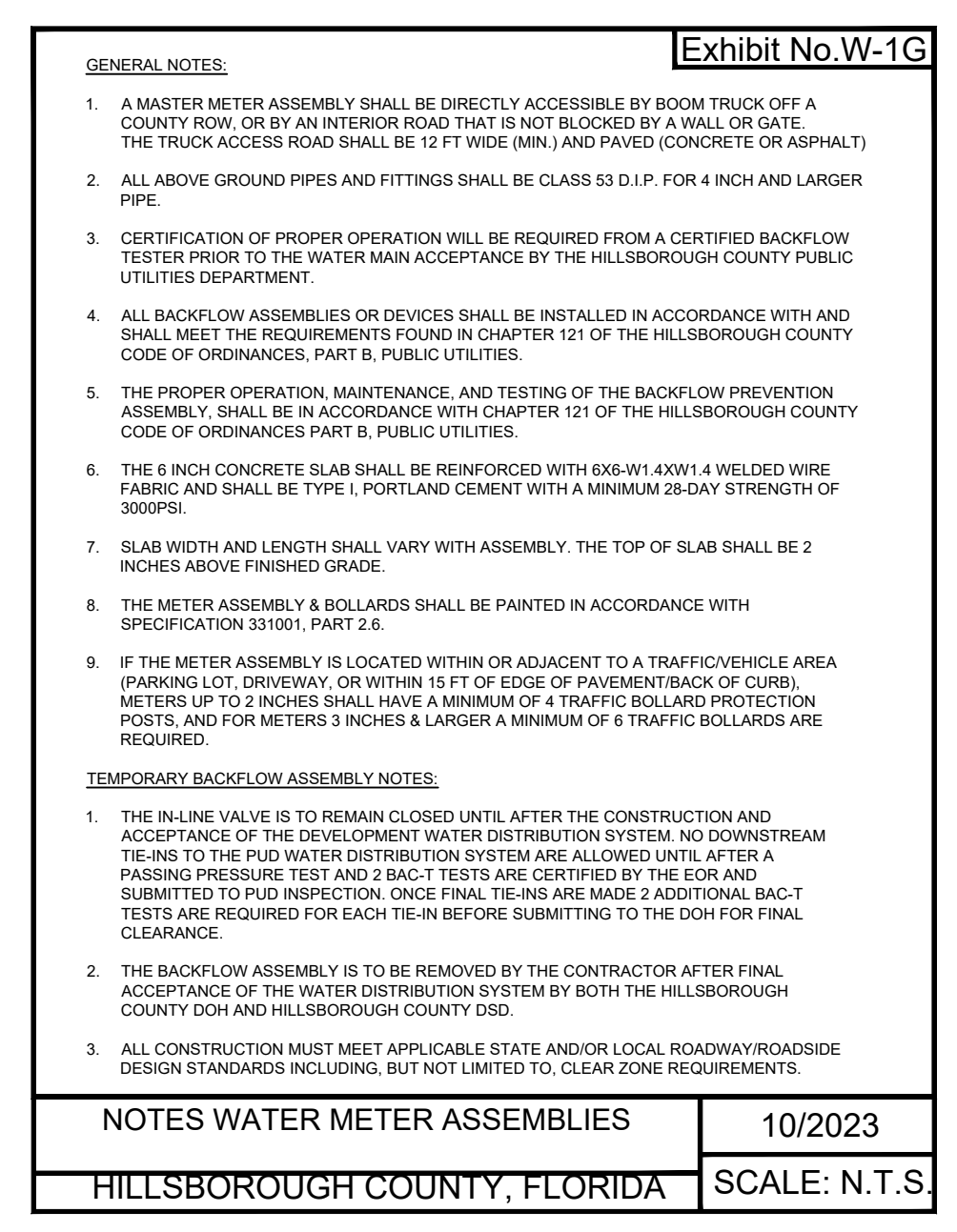
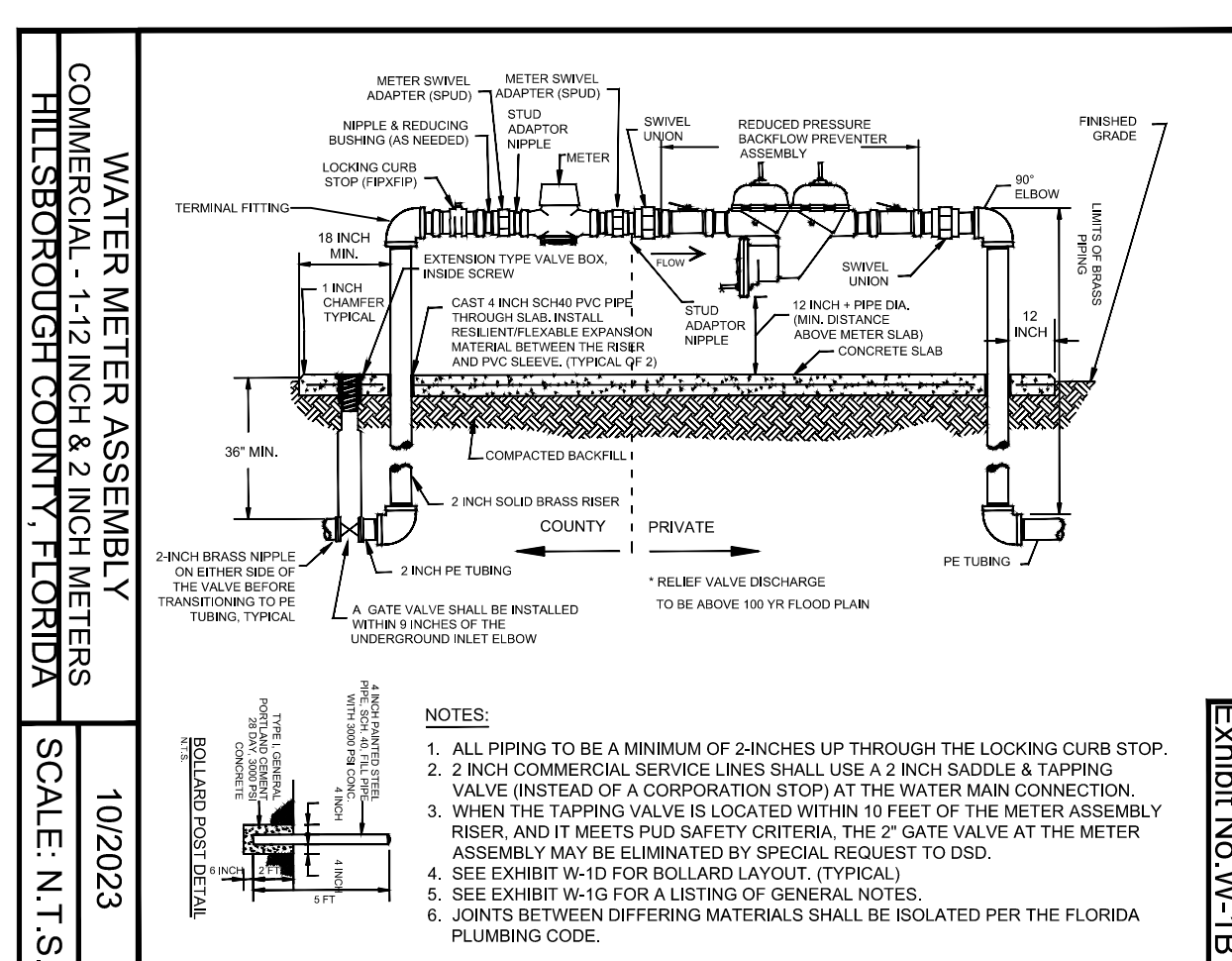
Project Name
MILLER ROAD TOWNHOMES
124 N MILLER RD, VALRICO
VALRICO, FL 33594

Brad Design & Engineering, Inc.
708 Lithia Pinecrest Road, Suite 101, Brandon, FL 33511 Ph (813)689-7002 Fax (813) 684-1691

Project Name

BD & E

UTILITY DETAILS



UTILITY DETAILS

Kazbour Properties, Inc.
1326 E. Lumsden Road
Brandon, Florida 33511

Clients:

MILLER ROAD TOWNHOMES
124 N MILLER RD, VALRICO
VALRICO, FL 33594

Project Name

BD & F

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LIFT STATION PLAN

SHEET
8
OF
8

Brad Design & Engineering, Inc.
708 Lithia Pincrest Road, Suite 101, Brandon, FL 33511 Ph (813)689-7002 Fax (813) 684-1691

GENERAL NOTES

FURNISH AND INSTALL EBARA SUBMERSIBLE GRINDER PUMPS:

DESIGN CONDITION:

| | | | |
|-----------|---------|----------------|----------|
| MODEL | 50DGF | 5 | HP |
| GPM | 93 | 81 | FT/TDH |
| VOLTAGE | 208/230 | SINGLE / THREE | PHASE |
| DISCHARGE | 2" | FULL | IMPELLER |

- SEWAGE GRINDER PUMP: RATED FOR TWENTY (20) STARTS PER HOUR.
- AIR FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS F INSULATION.
 - DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE / SILICON CARBIDE) LOCATED OUT OF THE PUMPAGE, IN A SEPARATE OIL FILLED CHAMBER.
 - HIGH TEMPERATURE BALL BEARINGS B-10 RATING OF 60,000 HOURS, UPPER BEARING - SINGLE ROW AND LOWER BEARINGS - DOUBLE ROW TYPE.
 - PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.
 - SINGLE PHASE MOTORS SHALL BE DUAL WOUND, CAPACITOR START-RUN AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260). THREE PHASE MOTORS SHALL BE DUAL WOUND AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260) OR OPERATE ON 460 VOLT BY CHANGING THE MOTOR LEADS INSIDE THE PUMP.

FIBERGLASS WET WELL: SHALL BE A ONE PIECE UNIT WITH INTEGRAL BOTTOM, WALL AND UPPER FLANGE. THE ENTIRE FIBERGLASS WET WELL SHALL HAVE A DYNAMIC LOAD RATING OF 16,000 FT/LBS. EACH UNIT MUST BE SERIAL NUMBERED TO IDENTIFY THE TEST PROCEDURE. ASTM D 3753 & H-20 SPECIFICATIONS SHALL BE REQUIRED AS MINIMUM.

ALUMINUM HATCH: TSC MODEL-54R (54") ROUND WITH 24" X 36" LOCKABLE HATCH, REINFORCED FOR LOAD RATING OF 300 LBS/FT WITH HOLD OPEN SAFETY ARM, LOCKING DEVICE FOR HASP TYPE PADLOCK AND STAINLESS STEEL HARDWARE.

VALVE BOX: FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED) WITH INTEGRAL BOTTOM. (FOR 1 1/4" AND 2" DISCHARGE PIPING SXS HEADER SYSTEM) SHALL BE 26" X 38" X 18" WITH 17" X 30" LIMITED ACCESS LID

ACCESSORIES: #304 S/S - GUIDE RAILS, UPPER GUIDE RAIL BRACKETS, CABLE HOLDER, ANCHOR BOLTS AND PUMP LIFTING CHAINS.

VALVES: SHALL BE SEWAGE SERVICE DESIGN BRASS SWING CHECK VALVES WITH TOP ENTRY CLEAN-OUT PORT AND BRASS WEDGE GATE VALVES OPEN 100%.

PIPING: 2" SCHEDULE 80 PVC.

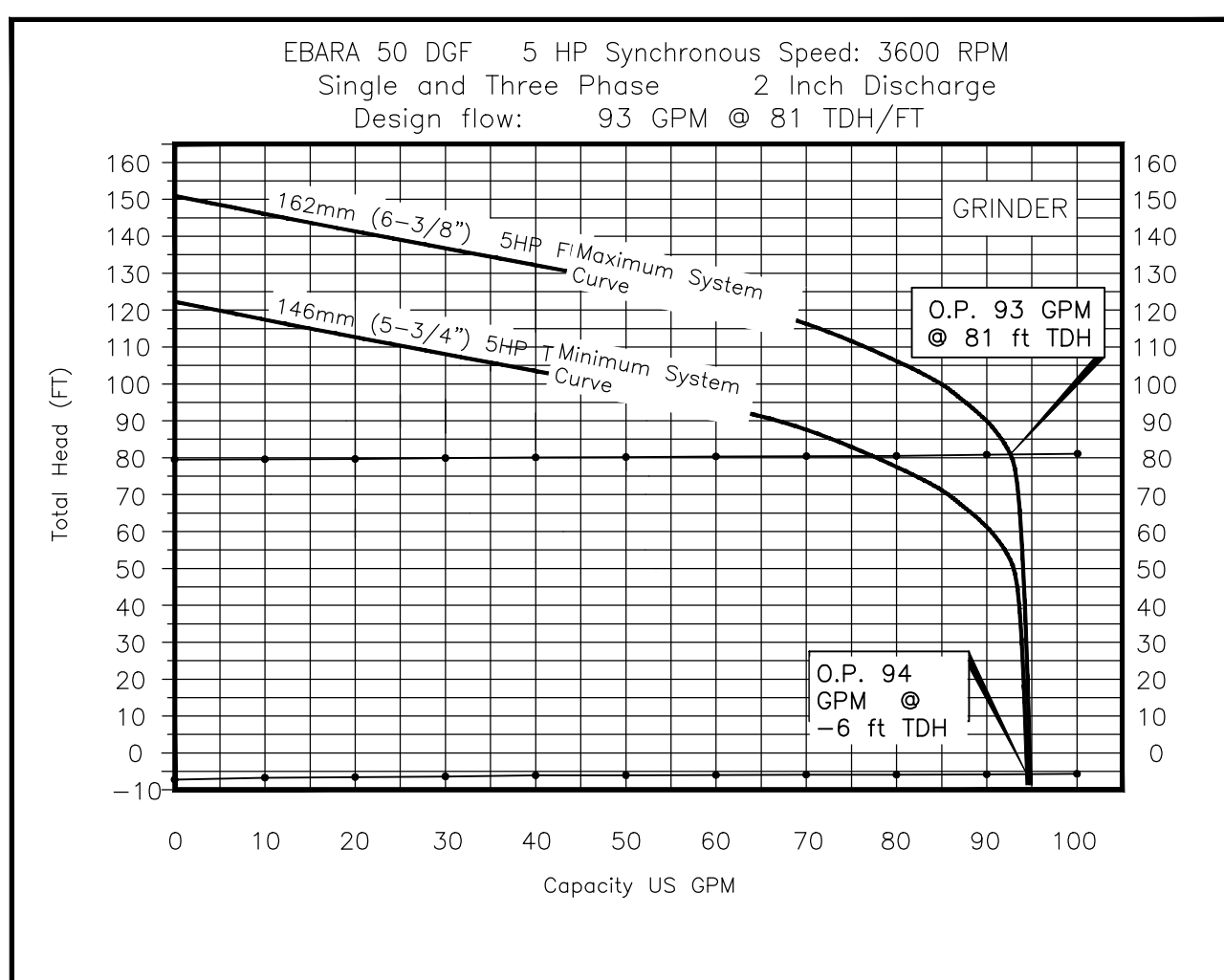
FLOAT SWITCHES: UL LISTED SJ ELECTRO MODEL (SJ 30 SWENO).

PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, JUNCTION BOX, FLOAT SWITCHES, ALUMINUM HATCH AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.

THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, SLIDE RAIL ASSEMBLIES AND DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION. THE MANUFACTURER OF PRE-FAB PUMP SOLUTIONS®

TECHNICAL SALES CORPORATION, 4621 N. HALE AVE TAMPA, FL 33614 (813)876-9256

Ebara Submersible Pumps



PUMP PERFORMANCE CURVE

CONTROL PANEL - SHALL CONFORM TO FL DEP 64-604.42(A)
CONTROL PANEL SHALL BE TSC MODEL # 38-D IN NEMA 4X

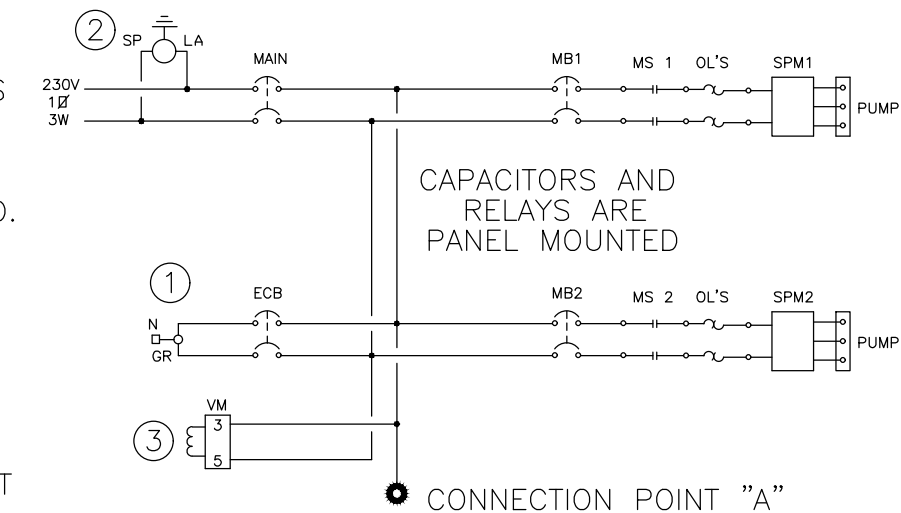
PROTECTION COMMISSION (EPC) AND LOCAL CODE REQUIREMENTS GOVERNING PRIVATE LIFT STATIONS.

FLOAT SWITCHES AND CONTROL SYSTEM SHALL BE UL LISTED AND INTRINSICALLY SAFE. ALL COMPONENTS SHALL BE UL LISTED. A JUNCTION BOX IS REQUIRED, WITH SHOP Poured SEALS BETWEEN BOX AND CONTROL PANEL TO PREVENT SEWER GAS ENTRY INTO CONTROL PANEL.

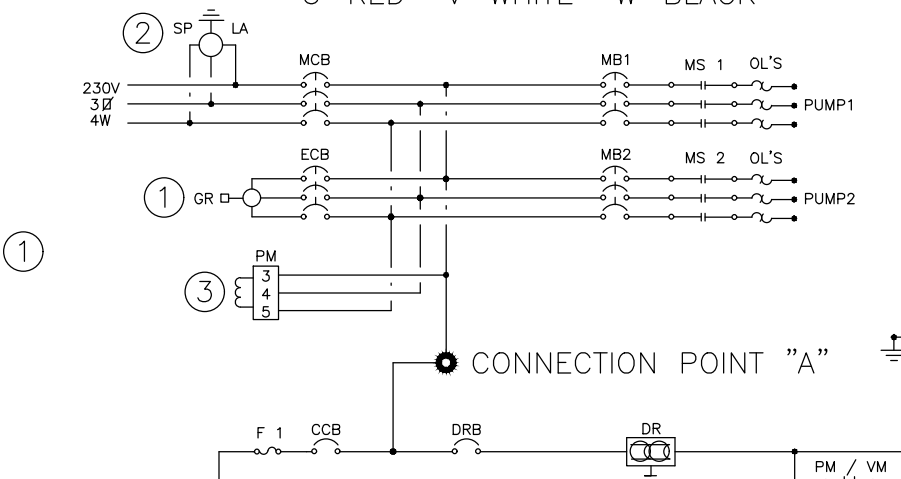
ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.

THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.

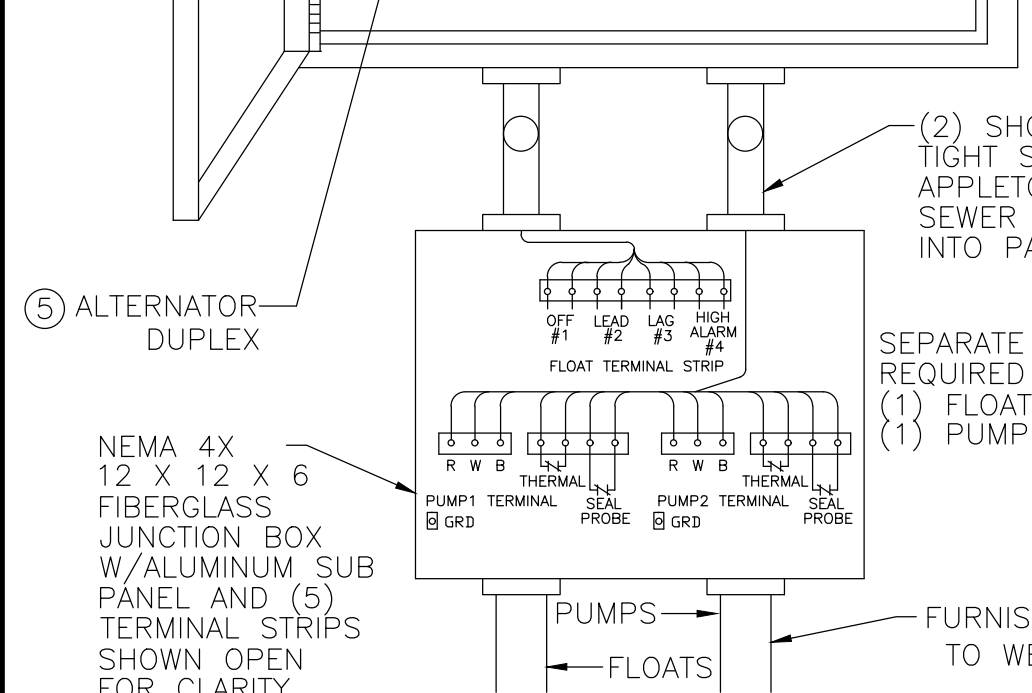
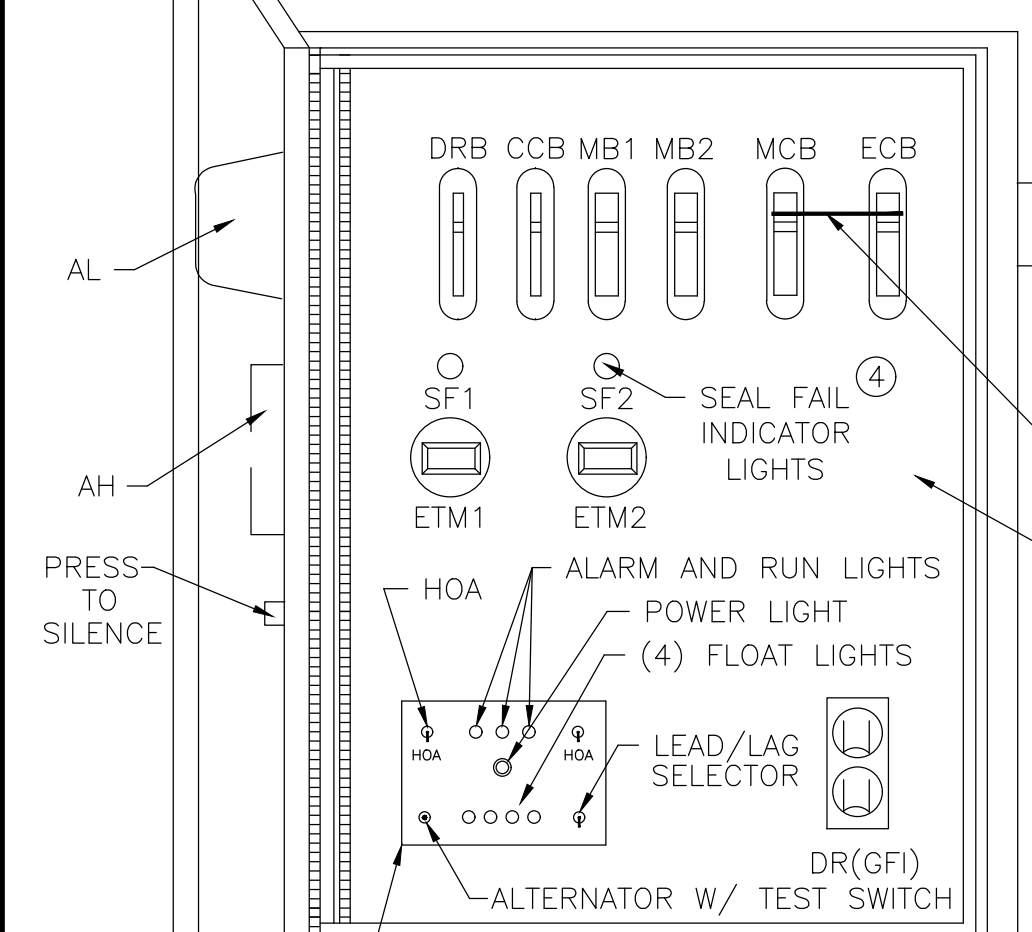
SINGLE PHASE WIRING DIAGRAM
U-RED V-WHITE Y-BLACK



THREE PHASE WIRING DIAGRAM
U-RED V-WHITE W-BLACK



CONTROL PANEL LAYOUT



LEGEND

- AH ALARM HORN
- AL ALARM LIGHT
- ASB ALARM SILENCE BUTTON
- ATS ALTERNATOR W/ TEST SWITCH
- CCB CONTROL CIRCUIT BREAKER
- DR DUPLEX RECEPTACLE
- DRB DUPLEX RECEPTACLE BREAKER
- ECB EMERGENCY CIRCUIT BREAKER
- ETM ELAPSED TIME METER
- F FUSE
- FL FLASHER
- FS FLOAT SWITCH (REGULATOR)
- GR GENERATOR RECEPTACLE
- GRD GROUND
- HOA HAND-OFF-AUTOMATIC SELECTOR
- LA LIGHTNING ARRESTOR
- MB MOTOR BREAKER
- MCB MAIN CIRCUIT BREAKER
- MS MOTOR STARTER
- N NEUTRAL
- OL'S OVERLOAD HEATERS
- PM PHASE MONITOR
- PTS PUMP TERMINAL STRIP
- R RELAY
- RC RUN CAPACITOR
- RD DISCHARGE RESISTOR
- RL PUMP RUN INDICATORS
- RTS REGULATOR TERMINAL STRIP
- SC START CAPACITOR
- SF SEAL FAIL (SHAFT)
- SR START RELAY
- SP SURGE PROTECTOR
- TTS THERMAL TERMINAL STRIP

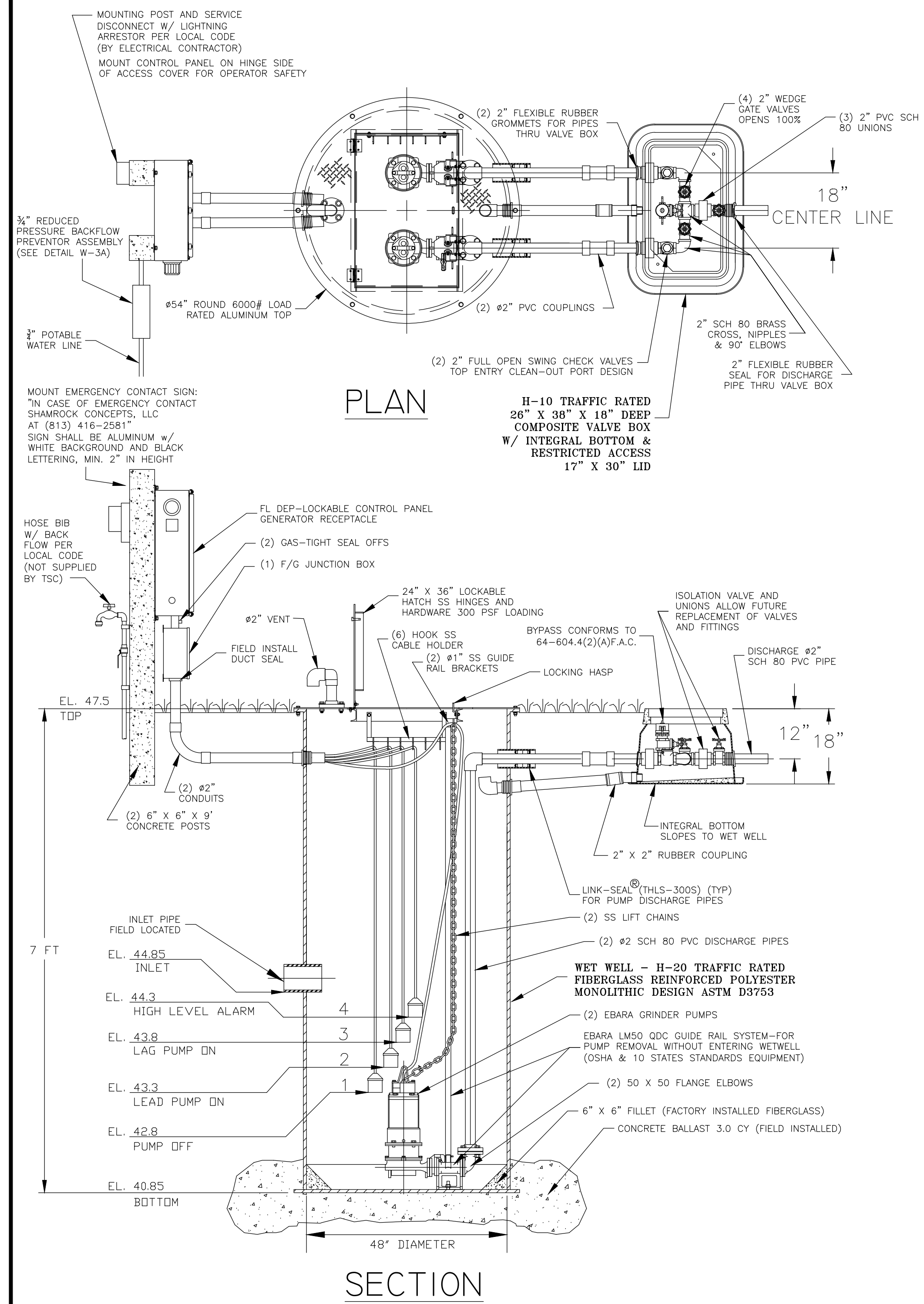
PANEL WIRING DIAGRAM

PANELS SHALL CONFORM TO FLORIDA DEP 64-604.400

- 1 GENERATOR RECEPTACLE FOR EMERGENCY POWER CONNECTION WITH INTERLOCK
 - 2 SURGE PROTECTION AND LIGHTNING PROTECTION ON ALL INCOMING LEGS
 - 3 PHASE PROTECTION SHALL BE PROVIDED
 - 4 SHAFT SEAL FAIL DETECTION
 - 5 ALTERNATOR W/ TEST SWITCH
- PANEL MANUFACTURER SHALL BE A "UL" LISTED SHOP.

TSC DUPLEX GRINDER PUMP STATION
FIBERGLASS WET WELL

LIFT STATION



**48" DUPLEX GRINDER STATION - 2" PIPING
WITH SLIDE RAIL SYSTEM, V.B. AND F.D.E.P. PANEL
TSC PRE-FAB PUMP SOLUTIONS**

MODEL
TSC2-48.0 R4.dwg ©
REV 2005

2. GROUT FILLET (1 TO 1 SLOPE TO "HOPPER" BOTTOM)
1. HOSE BIBB WITH REDUCED PRESSURE BACK FLOW PREVENTOR
FIELD INSTALL BY CONTRACTOR