

SHOPPES AT CROSSOVER

SITE DEVELOPMENT PLAN - TM# 292-2-3 (LOT 3B)

THE LEARNING EXPERIENCE

CITY PLAN # _____

3RD WARD - CITY OF WINCHESTER, VIRGINIA

ORIG SUBMISSION DATE: JULY 18, 2023

REVISED SUBMISSION DATE: TBD

PREPARED FOR:
OWNER

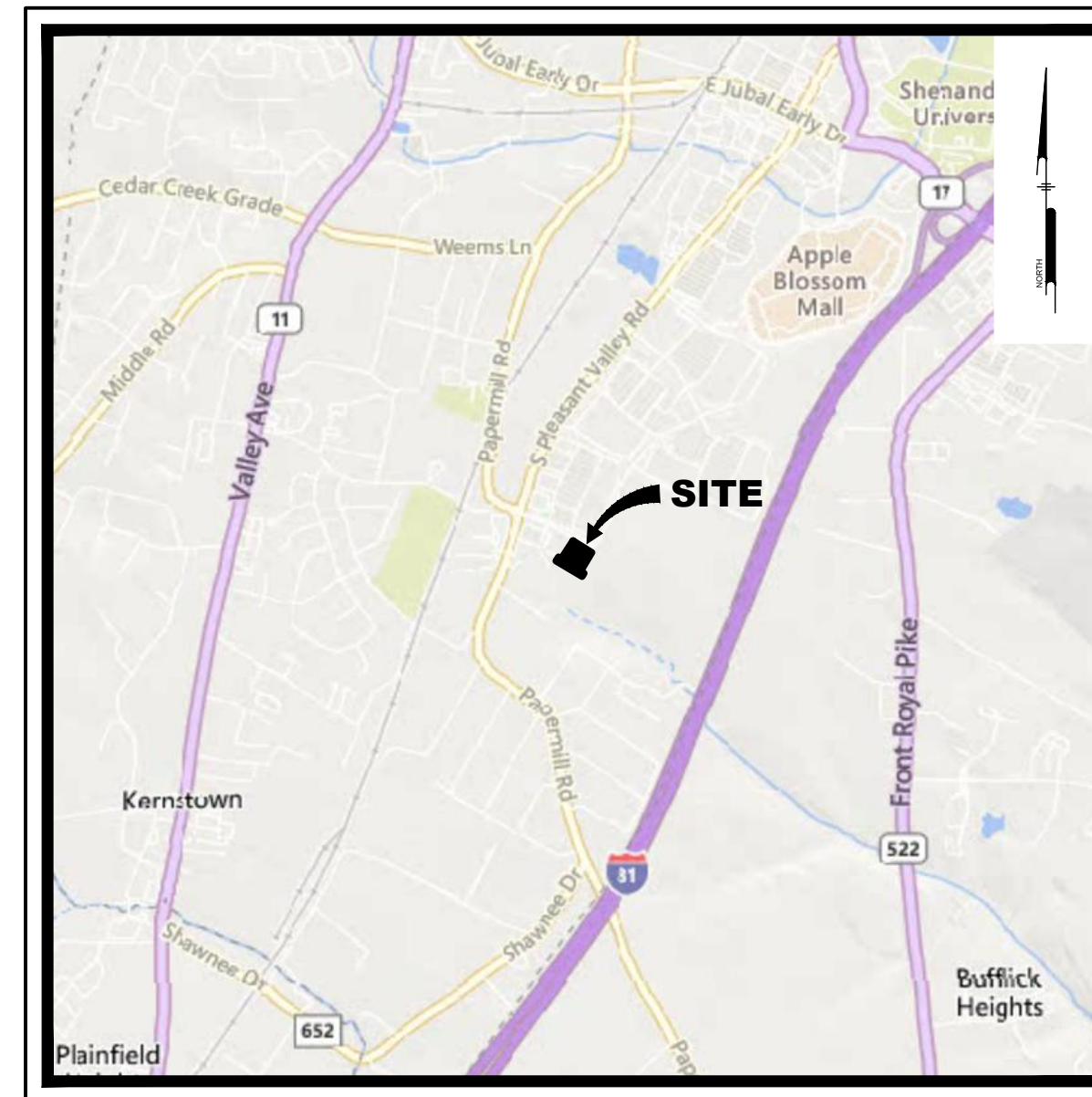
GLAIZE DEVELOPMENTS, INC.

P.O. BOX 888
WINCHESTER, VIRGINIA 22601
(540) 662-5794

DEVELOPER

GANGES PROPERTIES GROUP

21671 BRONTE PLACE
ASHBURN, VIRGINIA 20147
(703) 856-5240



LOCATION MAP
Scale: 1" = 2000'

SUBMISSION REVIEW TRACKING

LOCAL UTILITIES

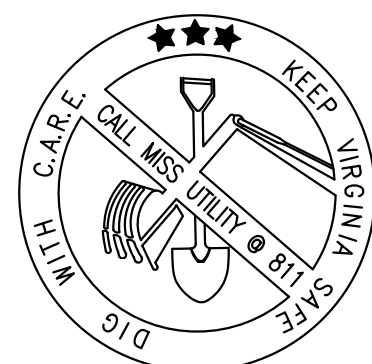
SHENANDOAH VALLEY ELECTRIC COOPERATIVE (SVEC)
3463 VALLEY PIKE
WINCHESTER, VIRGINIA 22601
(540) 450-0111

VERIZON
404 HILLDALE LANE
WINCHESTER, VIRGINIA 22602
(540) 665-3156

COMCAST COMMUNICATIONS
195 RAINVILLE ROAD
WINCHESTER, VIRGINIA 22602
(540) 504-0942

WASHINGTON GAS
350 HILLDALE LN.
WINCHESTER, VIRGINIA 22602
(540) 868-7913

CITY OF WINCHESTER PUBLIC UTILITIES
15 N. CAMERON STREET
WINCHESTER, VIRGINIA 22601
(540) 667-1815



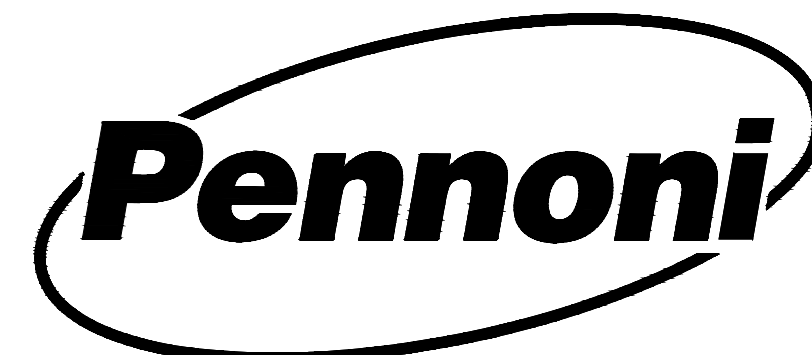
CALL BEFORE YOU DIG

ALWAYS CALL 811 BEFORE YOU DIG IN VIRGINIA

CALL 1-800-552-7001

SECTION 56-265.17 REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR BLAST VIRGINIA UTILITY PROTECTION SERVICE, INC. TICKET NUMBER(S):

PREPARED BY:
PENNONI ASSOCIATES INC.



117 East Piccadilly Street
Winchester, VA 22601
T 540.667.2139
F 540.665.0493

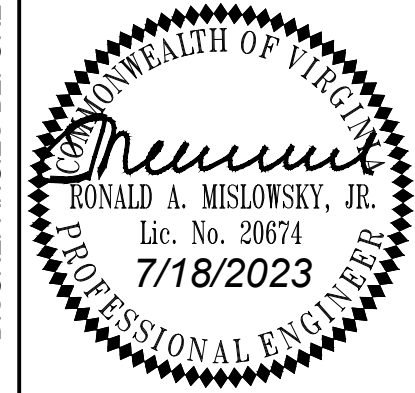
SHEET INDEX

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CS2100	EROSION AND SEDIMENT CONTROL PLAN PHASE I
CS2200	EROSION AND SEDIMENT CONTROL PLAN PHASE II
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CS9000	BUILDING ELEVATIONS



PENNONI ASSOCIATES INC.
117 East Piccadilly Street
Winchester, VA 22601
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ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK



SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TM# 292-2-3 (LOT 3B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22601
3RD WARD

COVER SHEET

GANGES PROPERTIES GROUP
21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

RESPONSIBLE LAND DISTURBER
THE RESPONSIBLE LAND DISTURBER IS THAT PARTY RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY AS SET FORTH IN THE PLANS.

NAME: _____
CERTIFICATION #: _____
DATE: _____

APPROVED BY WINCHESTER DIRECTOR OF PLANNING
APPROVAL VALID FOR ____ YEARS.

APPROVED BY _____ DATE _____

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	GANPR23001
DATE	01-25-2023
DRAWING SCALE	1"=50'
DRAWN BY	CJM
APPROVED BY	RAM

CS0000

TOTAL SHEETS 21

NOT FOR CONSTRUCTION

U:\Admin\GANPR\GANPR23001 - The Learning Experience\CS0000_SHEETINDEX_PlanCS0000.dwg PLOTTED: 7/18/2023 2:58 PM BY: Kelly Miller PLOTTED: Pennoni\CS0000.dwg PROJECT STATUS: CONCEPTUAL LAYOUT

GENERAL CONSTRUCTION NOTES:

- 1. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT AND PERFORM ALL WORK INCLUDING RESTORATION FOR THE COMPLETED INSTALLATION OF THE UTILITY SYSTEMS AND ALL OTHER IMPROVEMENTS SHOWN OR IMPLIED AS NECESSARY FOR THE COMPLETED FACILITY READY FOR USE...
2. THE ENGINEER HAS ATTEMPTED TO LOCATE EXISTING SUBSURFACE UTILITIES...
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKEOUT...
4. ANY UNUSUAL SUBSURFACE CONDITIONS ENCOUNTERED DURING THE COURSE OF THE WORK SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND/OR THE OWNER...
5. ALL GRADING FOR IMPROVEMENTS TO BE CONFINED TO THE PROJECT AREA...
6. CONTRACTOR TO OBTAIN, AT HIS EXPENSE, ALL PERMITS REQUIRED OF THIS WORK...
7. ALL UNPAVED AREAS OF THE SITE WHICH ARE DISTURBED BY THIS CONSTRUCTION SHALL BE PROVIDED WITH 4" TOPSOIL, FERTILIZED, SEEDED, COMPACTED AND MULCHED...
8. WATER AND SEWER LINES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND SHALL ADDITIONALLY MEET ALL REQUIREMENTS OF THE CITY OF WINCHESTER...
9. TEMPORARY TERMINATION OF SEWER LINES SHALL BE PLUGGED WATERTIGHT...
10. DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION, CONTROL AND SAFETY OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE CITY OF WINCHESTER...
11. AFTER REMOVAL OF ALL TOPSOIL, THE SUBGRADE SHOULD BE PROOF ROLLED WITH APPROVED CONSTRUCTION EQUIPMENT PRIOR TO FILL REPLACEMENT...
12. ACCESS FOR EMERGENCY VEHICLES MUST BE MAINTAINED AT ALL TIMES...
13. MANHOLE RIMS, VALVE BOXES, ETC. TO BE ADJUSTED TO MATCH PROPOSED ELEVATIONS SHOWN IN THESE PLANS...
14. IF BLASTING IS REQUIRED THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY FIRE DEPARTMENT PERMITS...
15. THIS PROJECT ENTAILS CONSTRUCTION OVER AND IN CLOSE PROXIMITY TO EXISTING GAS MAIN...

ABBREVIATIONS

Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Includes entries like AD AREA DRAIN, APPX APPROXIMATELY, MECH MECHANICAL, etc.

LEGEND

Legend table with columns: EXISTING, NEW, DESCRIPTION. Shows symbols for PROPERTY LINE, INGRESS/EGRESS ESMT, LIMITS OF CLEARING AND GRADING, etc.

CITY OF WINCHESTER PUBLIC UTILITIES:

- 1. THE CONTRACTOR SHALL ADHERE TO THE STANDARDS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION...
2. THE CONTRACTOR SHALL COORDINATE WITH AND ARRANGE FOR INSPECTION BY PUBLIC UTILITIES...
3. THE CONTRACTOR SHALL TIE-IN A NEW SEWER LINE TO AN EXISTING MANHOLE BY CORE DRILLING THE MANHOLE...
4. WHEN AN EXISTING WATER (OR FORCED SEWER) MAIN IS TAPPED FOR THE INSTALLATION OF A NEW LINE...
5. EXACT LOCATIONS OF WATER AND SEWER SERVICES ON NEW LINES ARE TO BE COORDINATED WITH THE INSPECTOR...
6. PUBLIC UTILITIES SHALL FURNISH AND INSTALL ALL WATER METERS THROUGH 2" IN SIZE...
7. FOR WATER AND SEWER SERVICES THAT CONNECT TO EXISTING LINES...
8. ANY WATER SERVICE LINE MUST HAVE A BACKFLOW PREVENTION ASSEMBLY (DETECTOR DOUBLE CHECK VALVE OR RPZ, AS REQUIRED)...
9. ALL FIRE LINES SHALL HAVE A BACKFLOW PREVENTION ASSEMBLY (DETECTOR DOUBLE CHECK VALVE OR RPZ, AS REQUIRED)...
10. PUBLIC UTILITIES TO REVIEW THE MECHANICAL PLAN(S) FOR DESIGN AND MATERIAL APPROVAL OF: 1) THE DOMESTIC WATER METER AND ITS BACKFLOW PREVENTION DEVICE, AND/OR 2) THE FIRE SERVICE LINE'S BACKFLOW PREVENTION DEVICE

SITE DEVELOPMENT NOTES

- 1. THE EXISTING CONDITIONS, FEATURES, PROPERTY INFORMATION AND TOPOGRAPHY ARE AS DEPICTED ON SURVEY PREPARED BY MARSH & LEGGE LAND SURVEYORS, P.L.C. DATED; DECEMBER 28, 2022...
2. THIS SURVEY AND PLAN ARE REFERENCED TO NAD83 VA NORTH ZONE COORDINATE SYSTEM AND NAVD88 DATUM, UNITS = US SURVEY FT...
3. SUBSEQUENT TO REVIEW OF FEMA FLOOD INSURANCE RATE MAP NO. 51069C0218E, EFFECTIVE 1/29/2021, THE LIMITS OF CONSTRUCTION ARE LOCATED IN ZONE X, AN AREA OF MINIMAL FLOOD HAZARD...
4. BASED ON A REVIEW OF THE NATIONAL WETLANDS INVENTORY, THE PROJECT SITE DOES NOT APPEAR TO BE ENCUMBERED BY WETLANDS OR STREAMS...
5. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH WINCHESTER PUBLIC WORKS DEPT. SPECIFICATIONS...
6. COMMERCIAL IMPROVEMENTS SHALL BE SERVED BY PUBLIC WATER AND SANITARY SEWER...

BUILDING OFFICIAL- PERMITS REQUIRED (VUSBC 108.2)

- A. ACCESSORY STRUCTURE FOR ANYTHING OTHER THAN A SHED <256 SQ. FT.
B. MONUMENT SIGNS (ENGINEERING)
C. STREET LIGHT POLE BASES (ENGINEERING OR MANUFACTURE'S SPEC FOR 1,500 PSF. SOIL AND 90MPH WIND)
D. RETAINING WALLS WITH ≥3 UNBALANCED FILL
E. SWIMMING POOLS & SWIMMING POOL BARRIERS (FENCE)
F. FLAG POLES >30' HEIGHT
G. ANY STRUCTURAL SLABS
H. TANKS (CHEMICAL / SIZE / QUANTITY)

- CURRENT WIND SPEED IS 115 MPH FOR COMPLIANCE WITH THE BUILDING CODE: 2018 VCC CHAPTER 16 CS0002 NOTE C

DEVELOPER

GANGES PROPERTIES GROUP
21671 BRONTE PLACE
ASHBURN, VIRGINIA 20147
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PROPERTY SUMMARY

Table with 2 columns: Field (ADDRESS, PARCEL OWNER, TAX MAP), Value (2600 SOUTH PLEASANT VALLEY ROAD WINCHESTER, VA, 22604; GLAIZE DEVELOPMENTS, LLC; 292-2-3 (ORIGINAL LOT) 292-2-3A (NEW ADJACENT LOT - NFCU) 292-2-3B (NEW LOT))

Table with 2 columns: Field (EXISTING ZONING, CURRENT USE, PROPOSED USE), Value (CM-1; VACANT; DAYCARE FACILITY)

Table with 2 columns: Field (PROPOSED CONSTRUCTION, TOTAL PROJECT AREA), Value (1-STORY MASONRY / STEEL; 0.9009 AC)

LOT TABULATIONS

Table with 2 columns: Field (PARENT TRACT, NEW LOT LOT 3A, NEW LOT LOT 3B, NEW TM# 292-02-3), Value (11.1005 AC, 1.1894 AC, 0.8814 AC, 9.0297 AC)

DISTURBED AREAS

Table with 2 columns: Field (ON-SITE, OFF-SITE, TOTAL DISTURBED AREA), Value (0.6627 AC, 0.0195 AC, 0.6822 AC)

IMPERVIOUS AREAS

Table with 2 columns: Field (ON-SITE, OFF-SITE, TOTAL IMPERVIOUS AREA), Value (0.6581 AC, 0.1270 AC, 0.7851 AC)

Table with 3 columns: Field (BUILDING HEIGHT, BUILDING AREA, LOT AREA, LOT WIDTH, MIN FRONTAGE), REQUIRED, PROVIDED

Table with 3 columns: Field (SETBACKS FRONT, CORNER SIDE, SIDE, REAR, PARKING FRONT, PARKING CORNER SIDE, PARKING SIDE, PARKING REAR), REQUIRED, PROVIDED

*NO PARKING SETBACK APPLIED TO PORTIONS OF SHARED PARKING LOTS

Table with 3 columns: Field (PARKING CALCULATIONS OFF-STREET, (1 SPACE / 8 CHILDREN) SCHOOL CAPACITY=167 CHILDREN, *13 SPACES TO BE SHARED WITH FUTURE ADJACENT BUSINESS), REQUIRED, PROVIDED

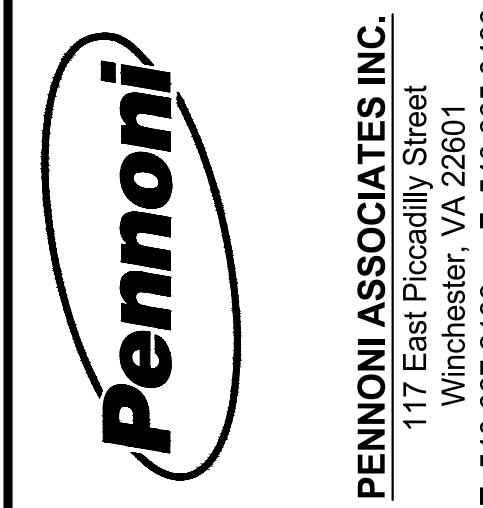
Table with 3 columns: Field (H.C. SPACES), Value (2 (1 VAN), 4 (2 VAN))

Table with 3 columns: Field (LOADING SPACES), Value (0, 0)

OPEN / GREEN SPACE CALCULATIONS

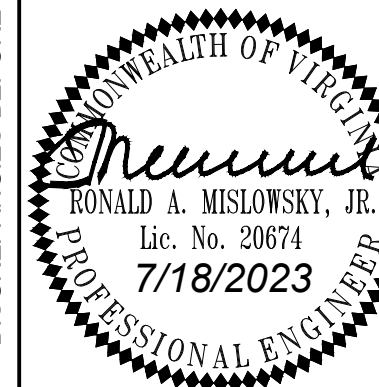
Table with 2 columns: Field (EX. SITE / PARCEL, ROW DEDICATION, IMPERVIOUS AREA, OPEN / GREEN SPACE), Value (0.8814 AC, 0.0000 AC, 0.6654 AC, 0.2160 AC (24.51%) (REQUIRED 15%))

NOT FOR CONSTRUCTION



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SITE DEVELOPMENT PLAN - TM# 292-02-3 (LOT 3B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22601
3RD FLOOR

GENERAL CONDITIONS & DEVELOPMENT SUMMARY

GANGES PROPERTIES GROUP
21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

Table with 4 columns: NO., REVISIONS, DATE, BY

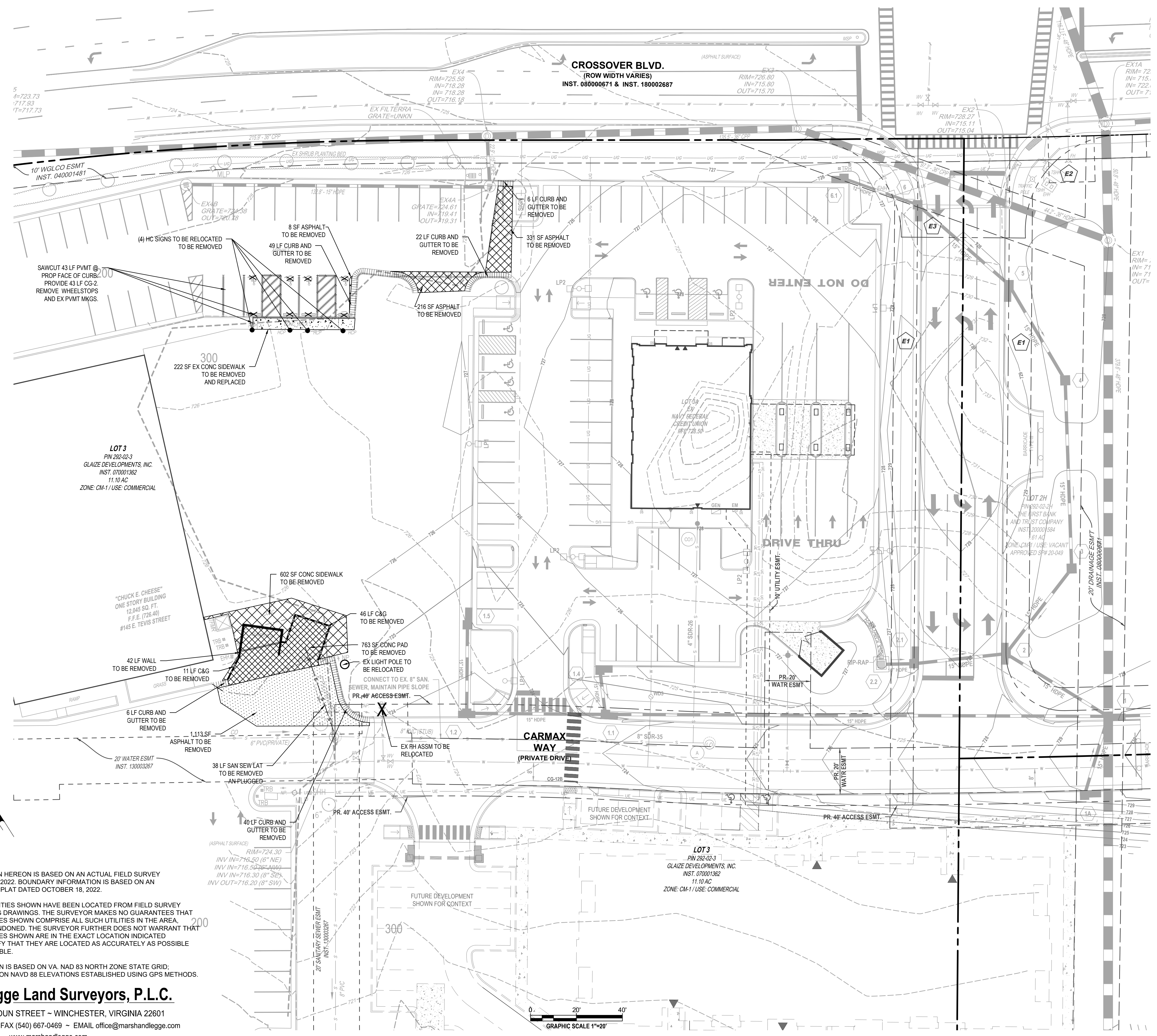
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Table with 2 columns: Field (PROJECT, DATE, DRAWING SCALE, DRAWN BY, APPROVED BY), Value (GANPR23001, 02-13-2023, AS NOTED, KLML, RAM)

CS0001

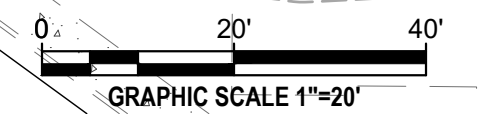
TOTAL SHEETS 21

U:\Projects\GANPR23001 - The Learning Center\CS1000_SHEET\Site Plan\CS1000.dwg PLOTTED: 7/18/2023 2:57 PM BY: Kelly Miller PLOTTED: Penmon\KCS.dwg PROJECT STATUS: CONCEPTUAL LAYOUT



- NOTES:**
1. THE INFORMATION SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED DECEMBER 19, 2022. BOUNDARY INFORMATION IS BASED ON AN UNRECORDED SUBDIVISION PLAT DATED OCTOBER 18, 2022.
 2. ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.
 3. HORIZONTAL ORIENTATION IS BASED ON VA, NAD 83 NORTH ZONE STATE GRID; VERTICAL DATUM IS BASED ON NAVD 88 ELEVATIONS ESTABLISHED USING GPS METHODS.

Marsh & Legge Land Surveyors, P.L.C.
 560 NORTH LOUDOUN STREET ~ WINCHESTER, VIRGINIA 22601
 PHONE (540) 667-0468 ~ FAX (540) 667-0469 ~ EMAIL office@marshandlegge.com
 www.marshandlegge.com



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COMMONWEALTH OF VIRGINIA
Professional Engineer
 RONALD A. MISLOFSKY, JR.
 Lic. No. 20674
 7/18/2023

SHOPPES AT CROSSOVER
 SITE DEVELOPMENT PLAN - TWP 202-2.3 (LOT 8B)
THE LEARNING EXPERIENCE
 2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
 3RD WARD

EXISTING CONDITIONS AND DEMOLITION PLAN

GANGES PROPERTIES GROUP
 21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

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PROJECT	GANPR23001
DATE	02-13-2023
DRAWING SCALE	AS NOTED
DRAWN BY	CJM
APPROVED BY	RAM

CS1000
 TOTAL SHEETS 21

NOT FOR CONSTRUCTION

9VAC25-840-40. MINIMUM STANDARDS.

A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
 - PERMANENT VEGETATION COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
 - THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
 - SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPOSED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRONG FLOW INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
- CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE UNSTABLE WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
- WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICLE CROSSING OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
- ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
- THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - EXCAVATED MATERIAL SHALL BE PLACED ON THE DOWN-SIDE OF TRENCHES.
 - EFFLUENT FROM Dewatering OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
 - APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.
- WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL, DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR WHEN MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGES DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS.
 - CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
 - ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
 - THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS 100 TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION.
 - (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
 - ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS.
 - PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
 - IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
 - IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS.
 - IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES.
 - DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL, OR
 - PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.
 - THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
 - ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.
 - IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
 - OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
 - ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
 - INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
 - IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
 - ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
 - ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUANTITY VOLUME AND TO RELEASE IT OVER 48 HOURS, (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM, AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15-52 OF THE ACT.
 - FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15-52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15-24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITY (I) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-870-47 OR GRANDFATHERING IN 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSWMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15-52 A OF THE ACT SHALL APPLY, OR (II) ARE EXEMPT PURSUANT TO § 62.1-44.15-34 C 7 OF THE ACT.
 - COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSWMP) REGULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBDIVISION 19.

LONG TERM MAINTENANCE AND REPAIR PLAN

MOWING: ALL GRASSES SHOULD BE MOWED AT LEAST TWICE EACH YEAR. GRASSES SUCH AS TALL FESCUE SHOULD BE MOWED IN EARLY SUMMER AFTER EMERGENCE OF THE HEADS ON COOL SEASON GRASSES. THEY SHOULD BE MOWED AGAIN IN THE EARLY FALL TO PREVENT SEEDS OF ANNUAL WEEDS FROM MATURING. MOWING OF LEGUMES SUCH AS SERICEA LESPEDEZA AND CROWN VETCH CAN BE PERMITTED TO GROW ON THE DAM OR IN ANY PART OF THE EMERGENCY SPILLWAY.

LIMING AND FERTILIZING: THE SOIL SHOULD BE SAMPLED ACCORDING TO RECOMMENDED PROCEDURES AT LEAST ONCE EVERY 4 YEARS. THE SAMPLE SHOULD BE TESTED AT A QUALIFIED SOIL TESTING LABORATORY (SUCH AS THE ONE AT VPI&SU). LIME AND FERTILIZER SHOULD BE APPLIED IN ACCORDANCE WITH RECOMMENDATIONS BASED ON THE TESTS.

REPLANTING AND OVER SEEDING: IF VEGETATION COVERS LESS THAN 40% OF THE SOIL SURFACE, LIME, FERTILIZE AND SEED IN ACCORDANCE WITH CURRENT RECOMMENDATIONS FOR NEW SEEDING. IF VEGETATION COVERS MORE THAN 40% BUT LESS THAN 70% OF THE SOIL SURFACE, LIME, FERTILIZE AND OVER SEED IN ACCORDANCE WITH CURRENT RECOMMENDATIONS.

REMOVING TRASH AND DEBRIS: TRASH, LITTER AND VEGETATION (OTHER THAN GRASS) WILL BE REMOVED AS NEEDED (BUT NO LESS THAN TWO TIMES PER YEAR) TO PREVENT OBSTRUCTION TO THE FLOW OF WATER, TO PREVENT MOVEMENT OF TRASH AND LITTER TO DOWNSTREAM PROPERTIES, TO MAINTAIN THE INTEGRITY OF THE STRUCTURE, TO PROVIDE AN ATTRACTIVE APPEARANCE AND TO MINIMIZE WATER POLLUTION.

REMOVING SEDIMENT: SOIL MATERIALS (INCLUDING CLAY, SILT, SAND AND GRAVEL) WILL BE REMOVED BEFORE THE DETENTION POOL LOSES 10% OF THE DESIGNED STORAGE CAPACITY.

SEDIMENT DISPOSAL: SEDIMENT DISPOSAL SHOULD BE IN ACCORDANCE WITH CURRENT PROCEDURES FOR DISPOSAL OF SEDIMENT, WHERE REQUIRED BY THE APPROPRIATE AUTHORITIES. THE SEDIMENT WILL BE TESTED FOR APPROPRIATE POLLUTANTS AT THE OWNER'S EXPENSE BEFORE IT IS REMOVED FROM THE POND.

REPAIRS: REPAIR SLIDES, SLUMPS AND ERODED AREAS PROMPTLY AND IN A WORKMANLIKE MANNER TRASH RACKS, PIPES, HEADWALLS, ETC. WILL BE MAINTAINED, REPAIRED AND/OR REPLACED AS NEEDED TO MAINTAIN THE INTEGRITY OF THE STRUCTURE. EXPOSED METAL SURFACES WILL BE PAINTED TO MINIMIZE DAMAGE DUE TO RUST.

MAINTENANCE INSPECTIONS: THE OWNER WILL BE RESPONSIBLE FOR INSPECTING EACH STORMWATER MANAGEMENT STRUCTURE AFTER EACH SIGNIFICANT RAINFALL. ONCE EACH YEAR A REPRESENTATIVE OF DEQ WILL JOINTLY INSPECT EACH STORMWATER MANAGEMENT STRUCTURE. APPROPRIATE ACTION WILL BE TAKEN TO ENSURE APPROPRIATE MAINTENANCE. ALL MAINTENANCE COSTS WILL BE BORNE BY THE OWNER, WHERE STRUCTURES ARE TO BE MAINTAINED BY MORE THAN ONE PARTY, ALLOCATION OF COSTS WILL BE IN ACCORDANCE WITH TERMS SET FORTH IN THE MAINTENANCE AGREEMENT. KEYS TO LOCKED ACCESS POINTS SHALL BE AVAILABLE TO DEQ PERSONNEL UPON REQUEST.

MAINTENANCE RECORDS: THE LANDOWNER, OR SOMEONE DESIGNATED BY THE LANDOWNER, SHALL INSPECT THE DETENTION POND WITHIN 24 HOURS AFTER EACH RAINFALL EVENT OF ONE INCH OR MORE OF RAIN. THE OWNER OR THE DESIGNEE SHALL KEEP WRITTEN RECORDS OF THESE INSPECTIONS. THE RECORDS SHALL ALSO INCLUDE MAINTENANCE AND REPAIRS PERFORMED. COPIES OF THESE RECORDS SHALL BE PROVIDED TO THE COUNTY UPON REQUEST.

THE WATER QUALITY FEATURES SHALL NOT BE MODIFIED IN ANY WAY WITHOUT PRIOR APPROVAL BY DEQ AND FREDERICK COUNTY.

- TOPSOIL SHALL BE SPREAD AT A MINIMUM DEPTH OF 4".
- PULVERIZED AGRICULTURAL LIMESTONE SHALL BE INCORPORATED INTO SOIL AT A RATE OF 92 LBS. PER 1000 S.F. (2 TONS PER ACRE).
- FERTILIZE WITH 10-20-10 AT A RATE OF 12 LBS. PER 1000 S.F. (500 LBS. PER ACRE). SEED MIX SHALL CONSIST OF 90% KENTUCKY 31 TALL FESCUE AND 10% KENTUCKY BLUEGRASS APPLIED AT THE RATE OF 200 LBS. PER ACRE.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT IS LOCATED IN THE CITY OF WINCHESTER, VIRGINIA AT THE SOUTHWEST CORNER OF THE CROSSOVER BOULEVARD AND LEGGE BOULEVARD INTERSECTION. THE SITE IS 0.88 ACRES IN SIZE, A 10,000 SF DAYCARE FACILITY WITH APPROXIMATELY 4,900 SF OF OUTDOOR PLAY SPACE PROPOSED. ADDITIONAL SITE IMPROVEMENTS PROPOSED WITH THIS SITE PLAN INCLUDE A STORM DRAIN SYSTEM, WATER AND SANITARY SEWER SERVICE TO THE BUILDING, SIDEWALKS, LANDSCAPING AND LIGHTING. ACCESS TO THE SITE AND ADEQUATE PARKING ALREADY EXIST. THE DISTURBED AREA WILL BE APPROXIMATELY 0.6822 AC.

EXISTING SITE CONDITIONS

THE EXISTING SITE IS VACANT, MAINLY OPEN LAND WHICH DRAINS GENERALLY FROM THE CENTER OF THE SITE TO THE NORTH, EAST, AND SOUTH. MUCH OF THE RUNOFF FROM THE SITE IS CAPTURED IN AN EXISTING STORM SYSTEM WHICH DRAINS TO AN EXISTING REGIONAL STORMWATER MANAGEMENT POND SOUTH OF THE SITE.

ADJACENT PROPERTY

THE PROJECT IS BORDERED BY CROSSOVER BOULEVARD TO THE NORTH, A BANK TO THE EAST, CHUCKY CHEESE TO THE WEST AND VACANT UNDEVELOPED COMMERCIAL PROPERTY TO THE SOUTH.

OFF-SITE AREAS

OFF-SITE AREAS FOR THIS PROJECT INCLUDE PORTIONS OF BORDERING PROPERTIES TO THE SOUTH AND WEST. CONSTRUCTION OF THE SANITARY LATERAL, DRY UTILITIES, FIRE HYDRANT RELOCATION, AND NEW STORM DRAIN SYSTEM REQUIRES DISTURBANCE BEYOND THE LIMITS OF THIS PROJECT.

SOILS AND GEOLOGY

SEE SHEET CS2200

CRITICAL AREAS

CRITICAL AREAS, IF ANY, CONSIST OF 2.5 OR 3:1 SLOPES. THESE SLOPES HAVE THE POTENTIAL FOR GREATER EROSION AND SHALL BE IMMEDIATELY STABILIZED AFTER REACHING FINAL GRADE.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

STRUCTURAL MEASURES

THE SEDIMENT TRAP, SEDIMENT BARRIERS AND OTHER MEASURES SHOWN ON THE PLANS INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

THIS SITE DRAINS TO AN EXISTING REGIONAL STORM WATER MANAGEMENT POND SOUTH OF THE PROPERTY. EVERY EFFORT SHALL BE MADE TO PREVENT SILT FROM RUNNING OFF THE SITE DURING CONSTRUCTION AND BEING DEPOSITED INTO THE POND.

PHASE I:

CONSTRUCTION ENTRANCE WITH WASH RACK (3.02) SHALL BE INSTALLED AT THE LOCATION SHOWN ON THE PHASE I PLAN TO PREVENT MUD AND DEBRIS FROM BEING TRACKED ONTO ROADWAYS.

SILT FENCE & FILTER SOCK (3.05) SHALL BE INSTALLED AS SHOWN ON PLANS TO FILTER RUNOFF FROM DISTURBED AREAS BEFORE IT LEAVES THE SITE.

INLET PROTECTION WITH STONE COMBINATION (3.07) SHALL BE INSTALLED AS SHOWN ON PLANS TO FILTER RUNOFF BEFORE IT LEAVES THE SITE.

TEMPORARY SEEDING (3.31) SHALL BE PLACED ON ALL CRITICAL SLOPES (3:1 OR GREATER) AND AS NEEDED TO STABILIZE DISTURBED AREAS.

PHASE II:

ALL CONTROLS INSTALLED IN PHASE I SHOULD REMAIN UNTIL THE SITE IS STABILIZED. THE INLET PROTECTION WITH STONE COMBINATION (3.07) SHALL BE RELOCATED WHEN OUTLET STRUCTURE INSTALLED.

SOIL STABILIZATION MATTING (3.36) SHALL BE INSTALLED ON DISTURBED SLOPES STEEPER THAN 3:1.

PERMANENT SEEDING (3.32) SHALL BE PLACED ON ALL CRITICAL SLOPES (3:1 OR GREATER) AND AS NEEDED TO STABILIZE DISTURBED AREAS.

VEGETATIVE MEASURES

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO ALL AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN SIX (6) MONTHS.

SOIL THAT HAS BEEN STOCKPILED SHALL BE SURROUNDED WITH SILT FENCE AND PROTECTED BY MULCH AND/OR TEMPORARY VEGETATION IMMEDIATELY AFTER GRADING.

ALL EARTH BERMS, DAMS, DIKES, DIVERSIONS AND SEDIMENT TRAP EMBANKMENTS ARE TO BE MACHINE-COMPACTED, IMMEDIATELY SEEDED AND MULCHED (HAY MULCH OR STRAW) FOR TEMPORARY AND/OR PERMANENT VEGETATIVE COVER WITHIN FIVE (5) DAYS AFTER GRADING.

MANAGEMENT STRATEGIES

CONSTRUCTION SHALL BE SEQUENCED SUCH THAT GRADING OPERATIONS WILL BEGIN AND END AS QUICKLY AS POSSIBLE.

THE SITE SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES. MAINTENANCE OF THESE MEASURES THROUGHOUT THE PROJECT ARE CRITICAL TO THE EFFECTIVENESS OF THE PROGRAM.

AFTER AREAS ABOVE CONTROLS HAVE BEEN STABILIZED, THE CONTROLS SHALL BE CLEANED UP AND REMOVED AT THE DIRECTION OF THE FREDERICK COUNTY INSPECTOR.

ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND MULCHED WITHIN FIVE (5) DAYS OF COMPLETION OF GRADING. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

DRAINAGE SWALES SHALL BE STABILIZED WITH CHECK DAMS UNTIL VEGETATION HAS BEEN WELL ESTABLISHED, AT WHICH TIME THE CHECK DAMS SHALL BE REMOVED.

CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.

WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

DEVICES LISTED ABOVE ARE CONSIDERED MINIMUM EROSION AND SEDIMENT CONTROLS. ADDITIONAL CONTROL MEASURES MAY BE NECESSARY DUE TO CONTRACTOR PHASING OR OTHER UNFORESSEEN CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL MEASURES TO THOSE SHOWN, AS NEEDED, IN ORDER TO CONTROL EROSION AND CONTAIN SEDIMENT ON SITE. ALL MEASURES SHALL BE INSTALLED ACCORDING TO THE STANDARDS AND SPECIFICATIONS IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) ANY CHANGES MADE TO THIS PLAN MUST BE RESUBMITTED FOR APPROVAL, WITHOUT EXCEPTION.

MAINTENANCE

ALL CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE SITE SUPERINTENDENT OR HIS REPRESENTATIVE AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. ANY DAMAGED STRUCTURAL MEASURES ARE TO BE REPAIRED BY THE END OF THE DAY. SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. ALL AREAS SHALL BE FERTILIZED AND RESEDED AS NEEDED UNTIL GRASS IS ESTABLISHED.

TRAPPED SEDIMENT IS TO BE REMOVED AS REQUIRED TO MAINTAIN 50% TRAP EFFICIENCY AND DISPOSED OF BY SPREADING ON SITE.

GRAVEL OUTLETS SHALL BE CHECKED REGULARLY FOR SEDIMENT BUILD-UP. IF THE GRAVEL OUTLET IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED IMMEDIATELY.

THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING PUBLIC ROADS IN A CLEAN, DUST AND MUD FREE, CONDITION AT ALL TIMES.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINAL GRADING. SEEDING SHALL BE DONE ACCORDING TO STANDARD AND SPECIFICATION NO. 3.32 OF THE VESCH. PERMANENT STABILIZATION IS DEFINED AS 90% UNIFORM COVERAGE ON THE ENTIRE SITE, ABILITY TO INHIBIT EROSION AND MATURE ENOUGH TO SURVIVE, INCLUDING 2-3 INCH CUTTINGS.

PHASES OF LAND DISTURBANCE ACTIVITIES

- MANDATORY PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED AS REQUIRED BY REGULATIONS.
- CLEARING AND GRUBBING FOR SEDIMENT CONTROL DEVICES ONLY.
- INSTALLATION OF ALL PHASE I EROSION & SEDIMENT CONTROL DEVICES.
- OBTAIN COUNTY INSPECTOR APPROVAL.
- ROUGH GRADE SITE.
- RESTORATION AND STABILIZATION OF DISTURBED AREAS.
- REMOVE ALL EROSION & SEDIMENT CONTROL MEASURES WITH THE APPROVAL OF THE INSPECTOR.

TABLE 3.31-B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

APPLICATION DATES	SEED	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Jolium multi-borum) & Cereal (Winter) Rye (Secale cereale)	50 -100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (Jolium multi-borum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)

FERTILIZER & LIME

- Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)
- Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

NOTE:

- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by diskng or by other means.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.dcr.state.va.us/sw/e&s.htm#tubs>

TABLE 3.32-C
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR APPALACHIAN/MOUNTAIN AREA

LAND USE	SEED	APPLICATION RATES
Minimum Care Lawn (Commercial or Residential)	Tall Fescue ¹	90-100%
	Perennial Ryegrass ²	0-10%
	Kentucky Bluegrass ³	0-10%
		TOTAL: 200-250 lbs.
High-Maintenance Lawn	Minimum of three (3) up to five (5) varieties of Kentucky Bluegrass from approved list for use in Virginia ⁴	TOTAL: 125 lbs.
General Slope (3:1 or less)	Tall Fescue ¹	128 lbs.
	Red Top Grass or Creeping Red Fescue	2 lbs.
	Seasonal Nurse Crop ⁵	20 lbs.
		TOTAL: 150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue ¹	108 lbs.
	Red Top Grass or Creeping Red Fescue	2 lbs.
	Seasonal Nurse Crop ⁵	20 lbs.
		TOTAL: 150 lbs.

- When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at <http://tidan.ces.vt.edu/html/TurfgrassPublications/publications2.html>
- Perennial Ryegrass will germinate faster and at lower soil temperatures than Tall Fescues, thereby providing cover and erosion resistance for seeded.
- Use seasonal nurse crop in accordance with seeding dates as stated below:

March, April - May 15 ⁶	Annual Rye
May 16 ⁶ - August 15 ⁶	Foxtail Millet
August 16 ⁶ - September, October	Annual Rye
November - February	Winter Rye
- All legume seed must be properly inoculated. If Flitapas is used, increase to 30 lbs/acre. If Keeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30-40 lbs/acre.

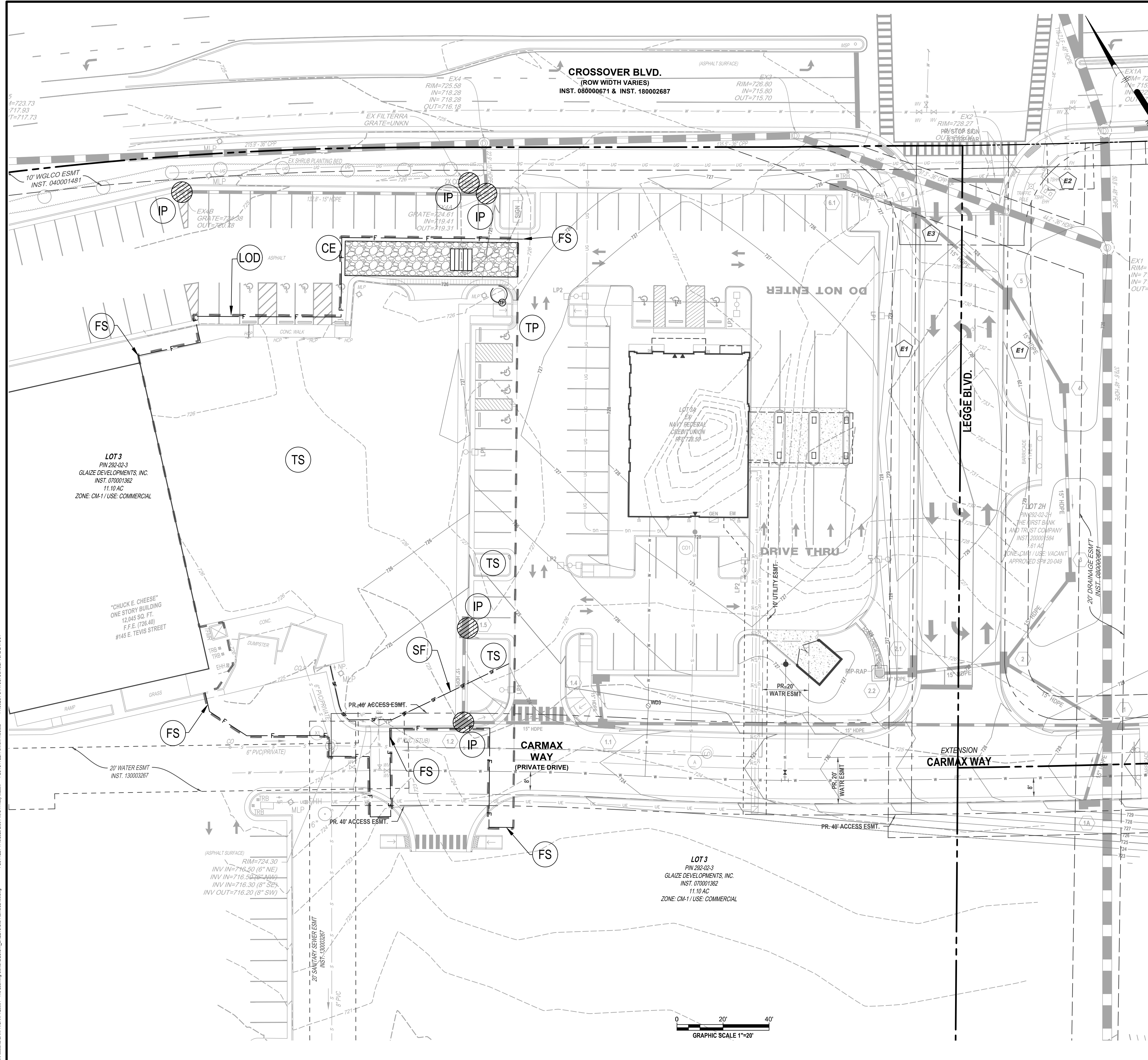
FERTILIZER & LIME

- Apply 10-20-10 fertilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000 sq. ft.)
- Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

NOTE:

- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by diskng or by other means.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.dcr.state.va.us/sw/e&s.htm#tubs>

PROJECT STATUS



EROSION AND SEDIMENT CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05	SILT FENCE	SF	
	FILTER SOCK	FS	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.31	TEMPORARY SEEDING	TS	
3.38	TREE PRESERVATION AND PROTECTION	TP	
	LIMITS OF DISTURBANCE	LOD	

CONTOUR LEGEND

	EXISTING CONTOURS
	NFCU PROPOSED CONTOURS

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 Winchester, VA 22601
 T 540.667.2139 F 540.665.0493

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

Professional Engineer
 RONALD A. MISLOWSKY, JR.
 Lic. No. 20674
 7/18/2023

SHOPPES AT CROSSOVER
 SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 3B)
THE LEARNING EXPERIENCE
 2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
 3RD WARD

EROSION AND SEDIMENT CONTROL PLAN PHASE I

GANGES PROPERTIES GROUP
 21671 BROWNE PLACE | ASHBURN, VIRGINIA 20147

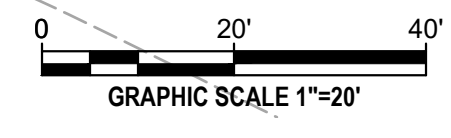
NO.	DATE	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

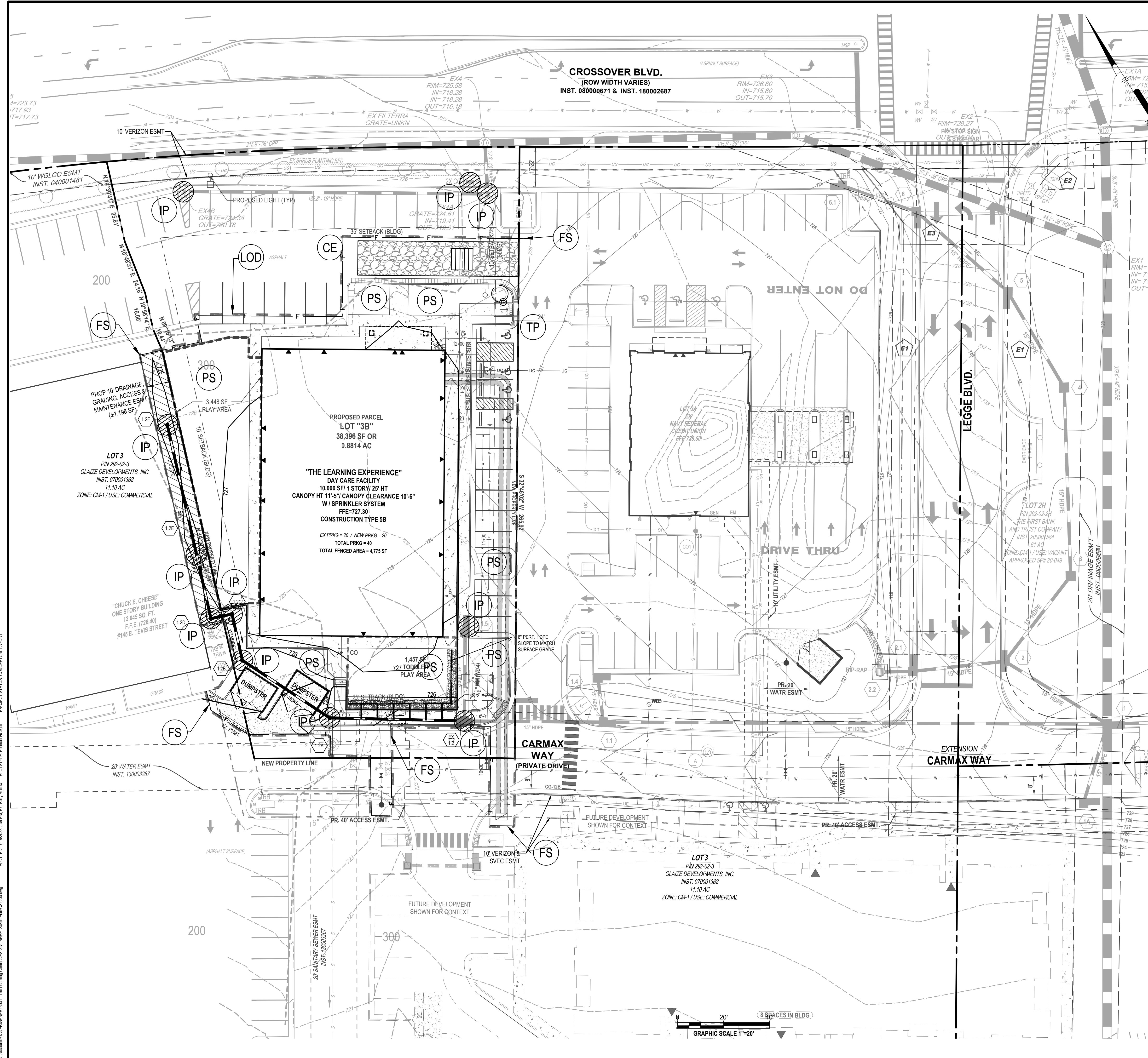
PROJECT: GANPR23001
 DATE: 02-13-2023
 DRAWING SCALE: AS NOTED
 DRAWN BY: KLML
 APPROVED BY: RAM

CS2100
 TOTAL SHEETS 21

NOT FOR CONSTRUCTION



U:\dms\GANPR\GANPR23001 - The Learning Center\DESIGN_SHEET\CS2100.dwg
 PLOTTED: 7/18/2023 2:58 PM BY: kml/klml
 PROJECT STATUS: CONCEPTUAL LAYOUT



EROSION AND SEDIMENT CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
	FILTER SOCK	FS	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.32	PERMANENT SEEDING	PS	
3.39	DUST CONTROL	DC	
	LIMITS OF DISTURBANCE	LOD	

MAP UNIT SYMBOL	MAP UNIT NAME	HSG
200	URBAN LAND (0 TO 15% SLOPES)	N/A
300	UDORTHERMS (0 TO 15% SLOPES)	N/A

NOTE:
THIS SITE DRAINS TO AN EXISTING REGIONAL STORMWATER MANAGEMENT POND SOUTH OF THE PROPERTY. EVERY EFFORT SHALL BE MADE TO PREVENT SILT FROM RUNNING OFF THE SITE DURING CONSTRUCTION AND BEING DEPOSITED INTO THE POND.

CONTOUR LEGEND

	EXISTING CONTOURS
	NFCU PROPOSED CONTOURS
	TLE PROPOSED CONTOURS

Pennoni
PENNONI ASSOCIATES INC.
117 East Piceaddy Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

Professional Engineer
RONALD A. MISLOWSKY, JR.
Lic. No. 20674
7/18/2023

SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - T.M. 2022.3 (LOT 3B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD FLOOR

EROSION AND SEDIMENT CONTROL PLAN PHASE II

NO.	DATE	REVISIONS	BY

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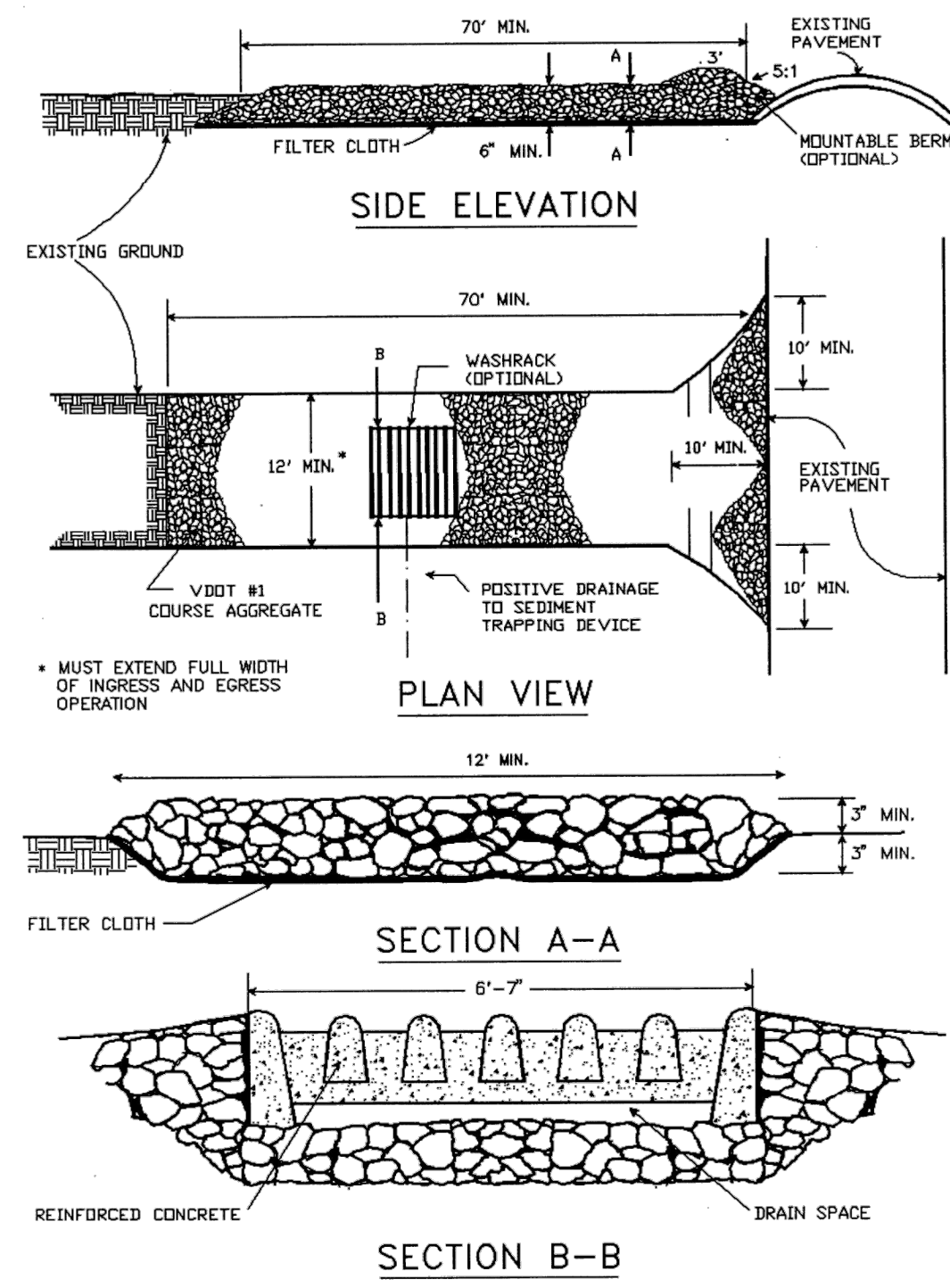
PROJECT: GANPR23001
DATE: 02-13-2023
DRAWING SCALE: AS NOTED
DRAWN BY: KLML
APPROVED BY: RAM

CS2200
TOTAL SHEETS 21

NOT FOR CONSTRUCTION

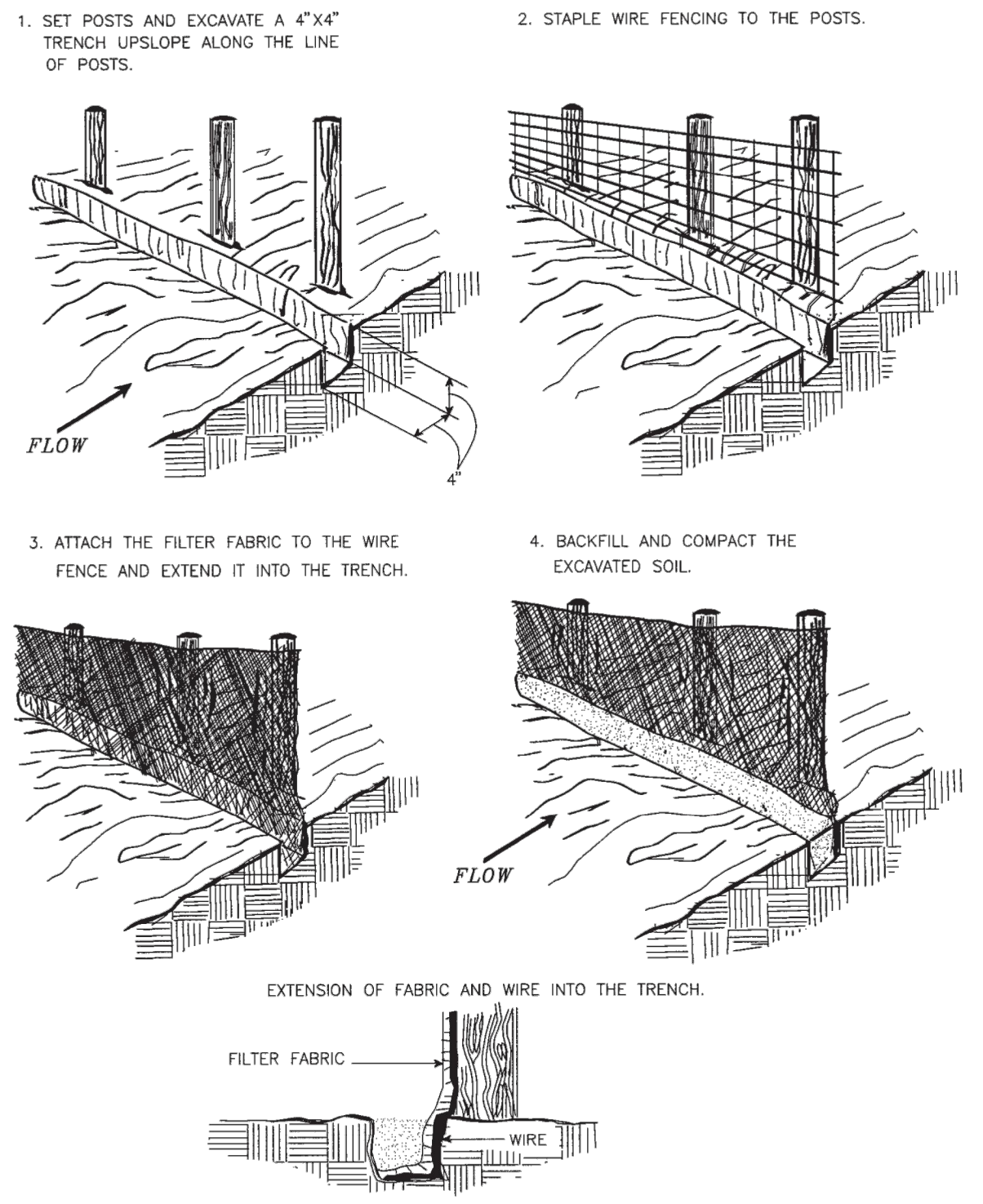
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STONE CONSTRUCTION ENTRANCE



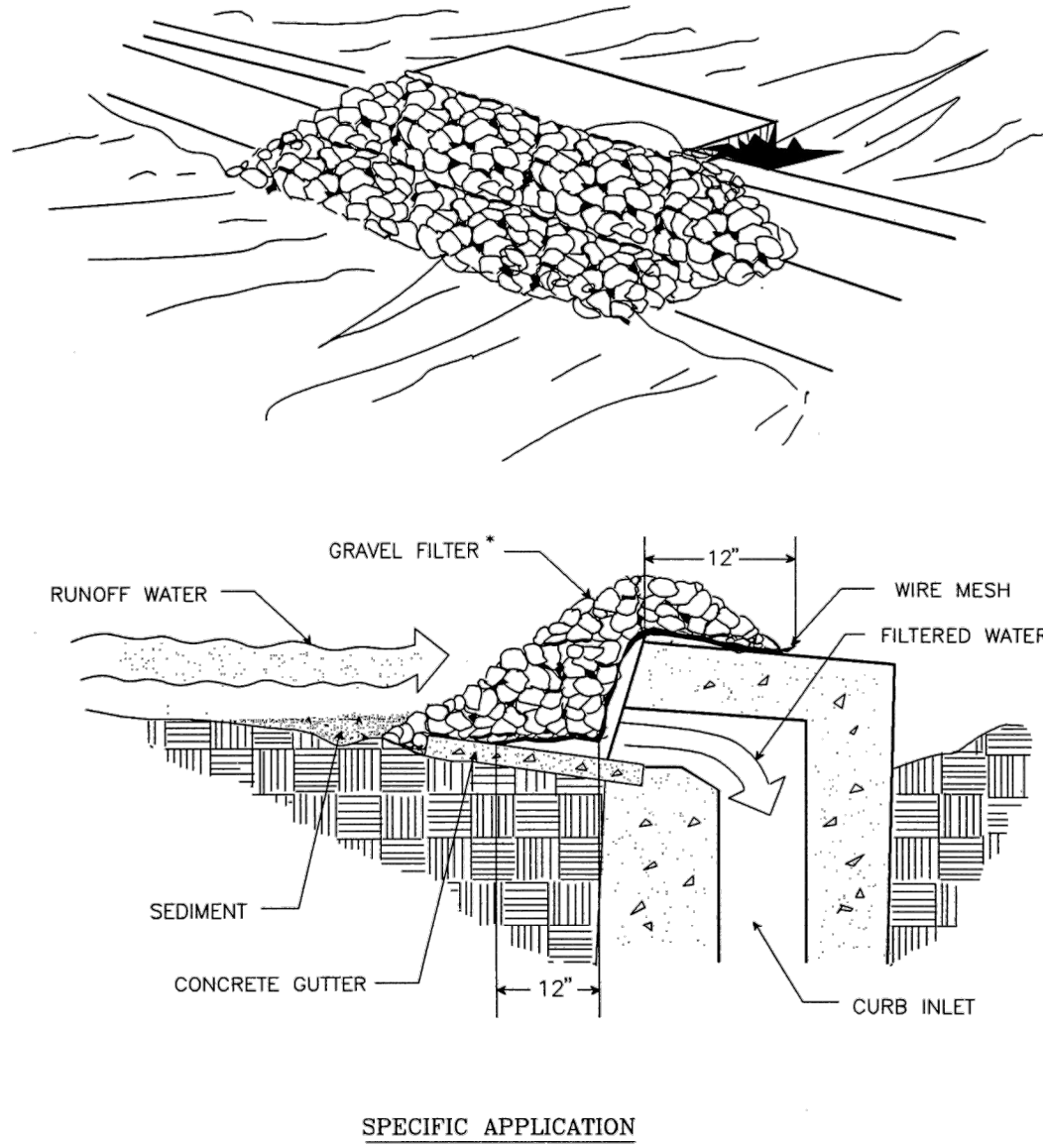
Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC Plate 3.02-1

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



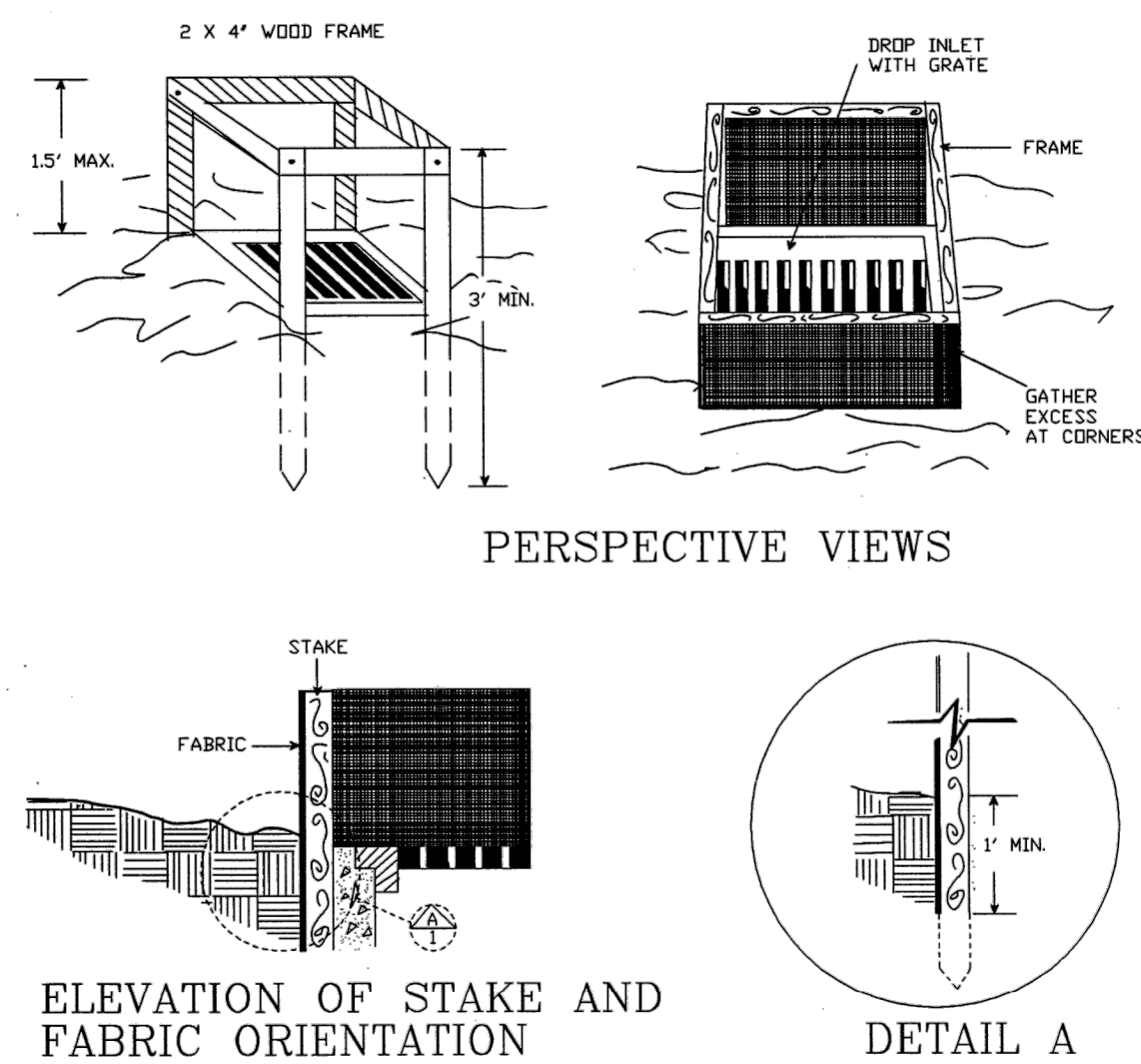
Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant Plate 3.05-1

GRAVEL CURB INLET SEDIMENT FILTER



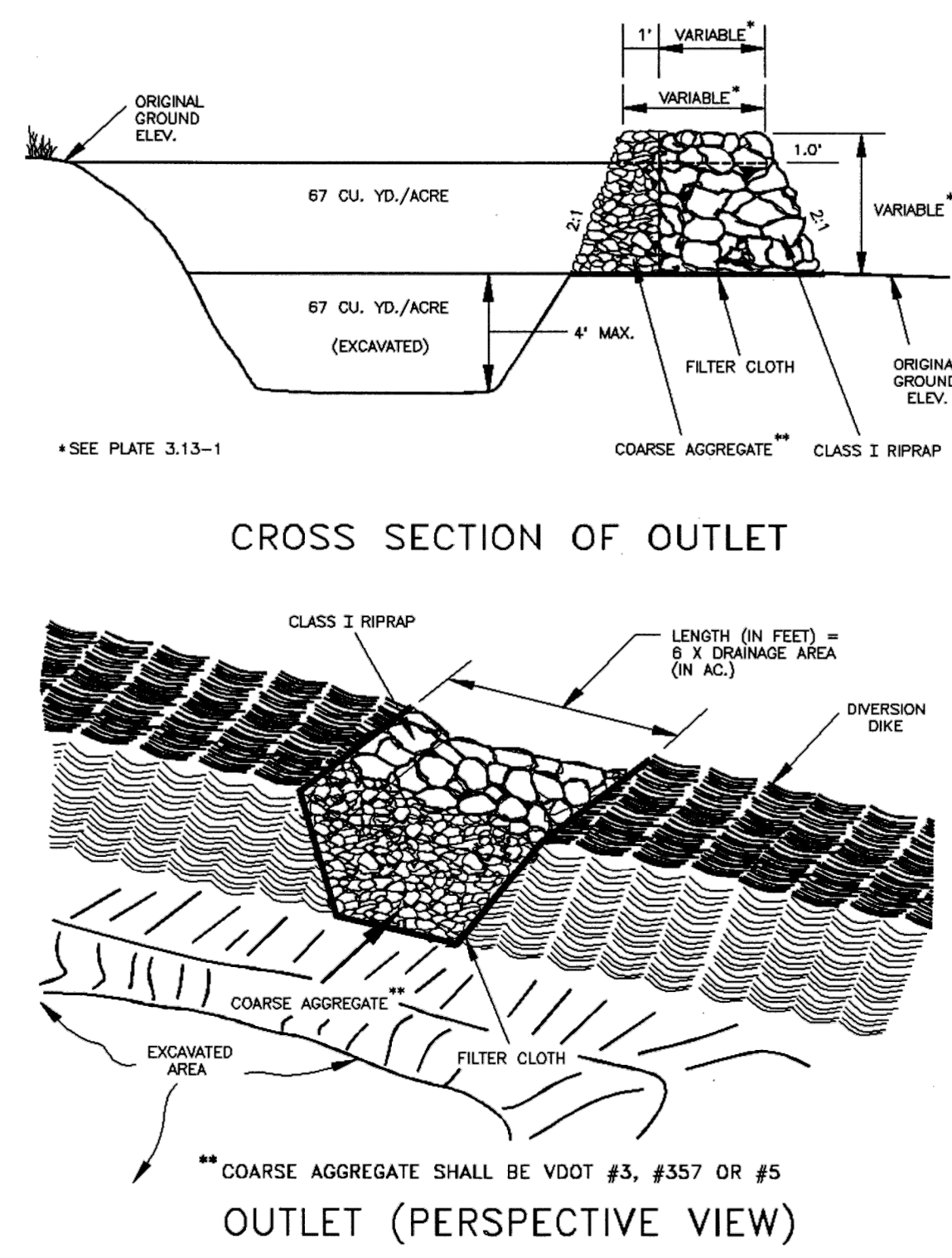
SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.
* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.
Source: Va. DSWC Plate 3.07-6

SILT FENCE DROP INLET PROTECTION

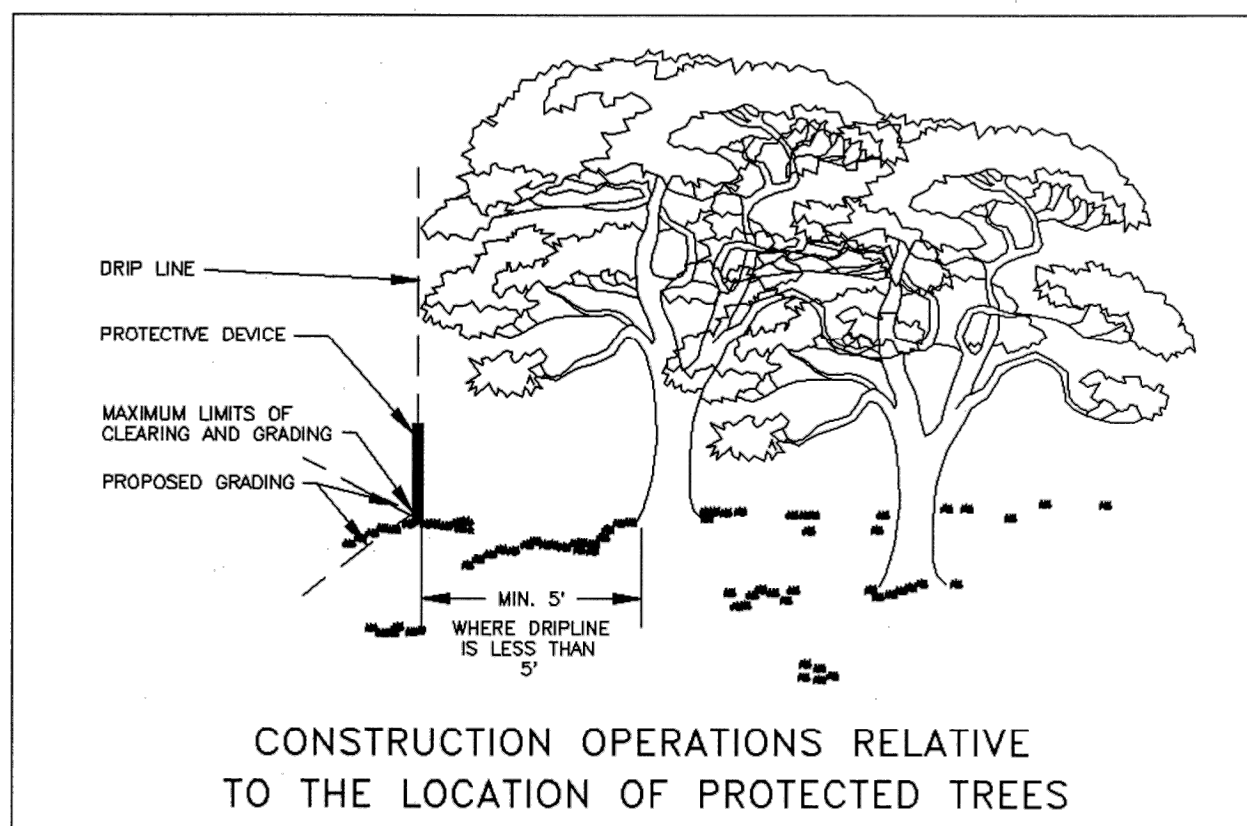


SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.
Source: N.C. Erosion and Sediment Control Planning and Design Manual, 1988 Plate 3.07-1

TEMPORARY SEDIMENT TRAP



Source: Va. DSWC Plate 3.13-2



Source: Public Facilities Manual, Vol. III, Fairfax Co., Va., 1976 Plate 3.38-1

- Pre-Construction Conference:** During any preconstruction conference, tree preservation and protection measures should be reviewed with the contractor as they apply to that specific project.
- Equipment Operation and Storage:** Heavy equipment, vehicular traffic, or stockpiles of any construction materials (including topsoil) shall not be permitted within the drip line of any tree to be retained. Trees being removed shall not be felled, pushed or pulled into trees being retained. Equipment operators shall not clean any part of their equipment by slamming it against the trunks of trees to be retained.
- Fires:** Fires shall not be permitted within 100 feet from the drip line of any trees to be retained. Fires shall be limited in size to prevent adverse effects on trees, and kept under surveillance.
- Storage and Disposal of Toxic Materials:** No toxic materials shall be stored closer than 100 feet to the drip line of any trees to be retained. Paint, acid, nails, gypsum board, wire, chemicals, fuels, and lubricants shall not be disposed of in such a way as to injure vegetation.

Ultra-Filter Socks

Stop Harmful Substances From Entering The Stormwater System

- Use in front of storm drains, around downspouts, in gutters, and ditches, or anywhere there is potential for harmful stormwater runoff.
- Woven polymer casing allows water to pass through quickly while filtration media inside removes pollutants.
- Available in 9-foot lengths. Units can be overlapped for longer coverage.
- Looped ends allow units to be staked in place and also assist in transport.
- Available with different types of media depending on which pollutant is present.*
- Option for heavy-metal removal available.

Part#	Description	Dimensions (in. length)	Weight (lbs. (kg))
9453	Activated Carbon	158.2 x 4 (2,743 x 178 x 102)	40.0 (18.0)
9455	Soil #4	158.2 x 4 (2,743 x 178 x 102)	15.0 (7.0)
9457	Sediment Removal	158.2 x 4 (2,743 x 178 x 102)	40.0 (18.0)
9458	Phos Filter	158.2 x 4 (2,743 x 178 x 102)	60.0 (27.0)
9454	Heavy Metal Removal	158.2 x 4 (2,743 x 178 x 102)	35.0 (16.0)



- Media Descriptions**
- Activated Carbon:** Excellent "polishing media". Helps remove certain chemicals, hydrocarbons and odors.
 - Soil #4:** Used to remove oil and other hydrocarbons.
 - Sediment Removal:** Recycled rubber media provides weight, keeps unit in place, allows maximum water flow.
 - Phos Filter:** Excellent for removal of phosphorus.
 - Heavy Metal Removal:** Custom filter media helps remove zinc, lead, copper and other harmful, heavy metals.

Pennoni
PENNONI ASSOCIATES INC.
117 East Pinedally Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

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COMMONWEALTH OF VIRGINIA
RONALD A. MISLOWSKY, JR.
Lic. No. 20674
7/18/2023
PROFESSIONAL ENGINEER

SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 8B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD FLOOR

EROSION AND SEDIMENT CONTROL DETAILS

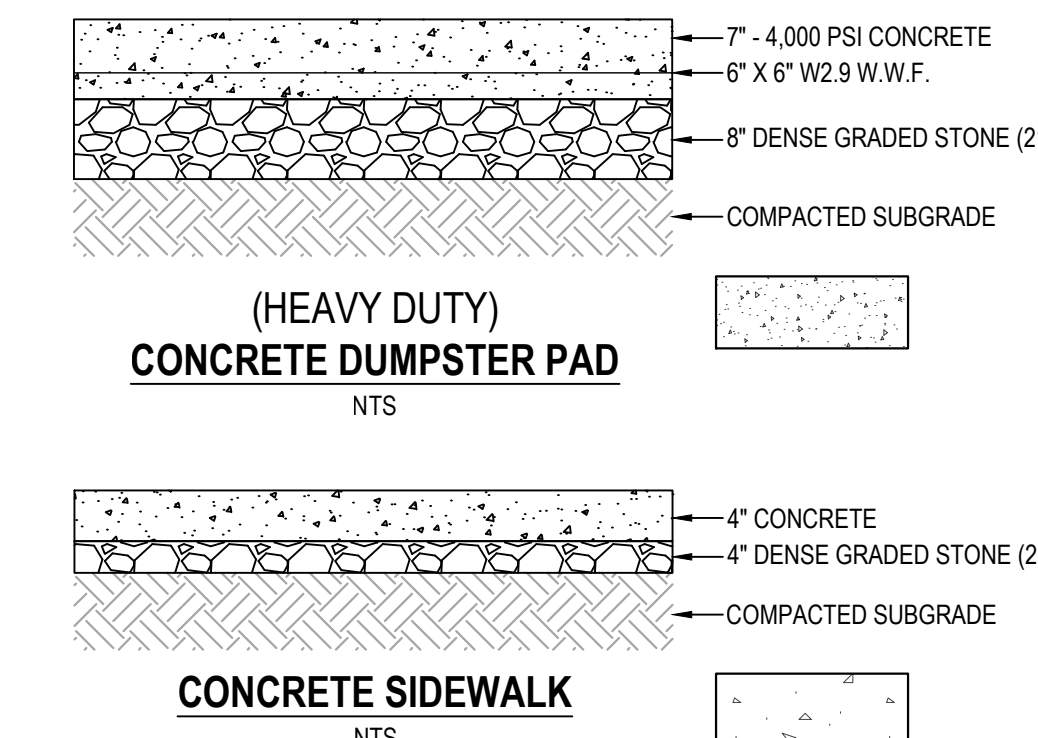
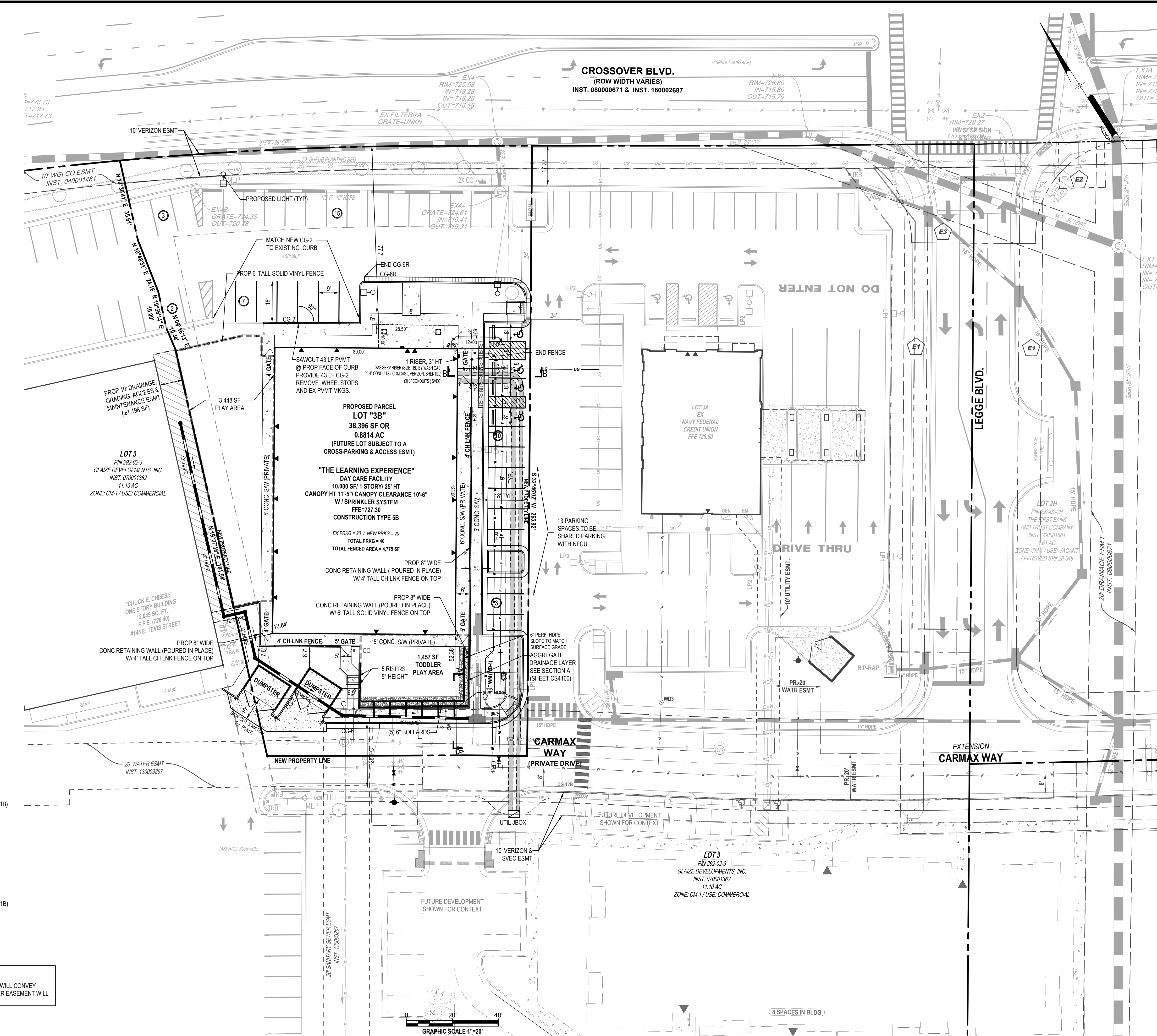
GANGES PROPERTIES GROUP
21671 BRONITE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

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PROJECT	GANPR23001
DATE	02-13-2023
DRAWING SCALE	AS NOTED
DRAWN BY	KLML
APPROVED BY	RAM

U:\Projects\GANPR\CS4000\CS4000.dwg PLOTTED: 7/18/2023 2:52 PM BY: kelly.miller PLOTTSTYLE: Pennoni\NCS.dwg PROJECT STATUS: CONCEPTUAL LAYOUT



NOTE:
THE LOT DELINEATED ON THE PLAN WILL BE SUBDIVIDED IN THE FUTURE. THAT DEED WILL CONVEY CROSS PARKING, ACCESS, DRAINAGE AND UTILITY EASEMENTS. THE REQUIRED WATER EASEMENT WILL BE CONVEYED AS WELL.

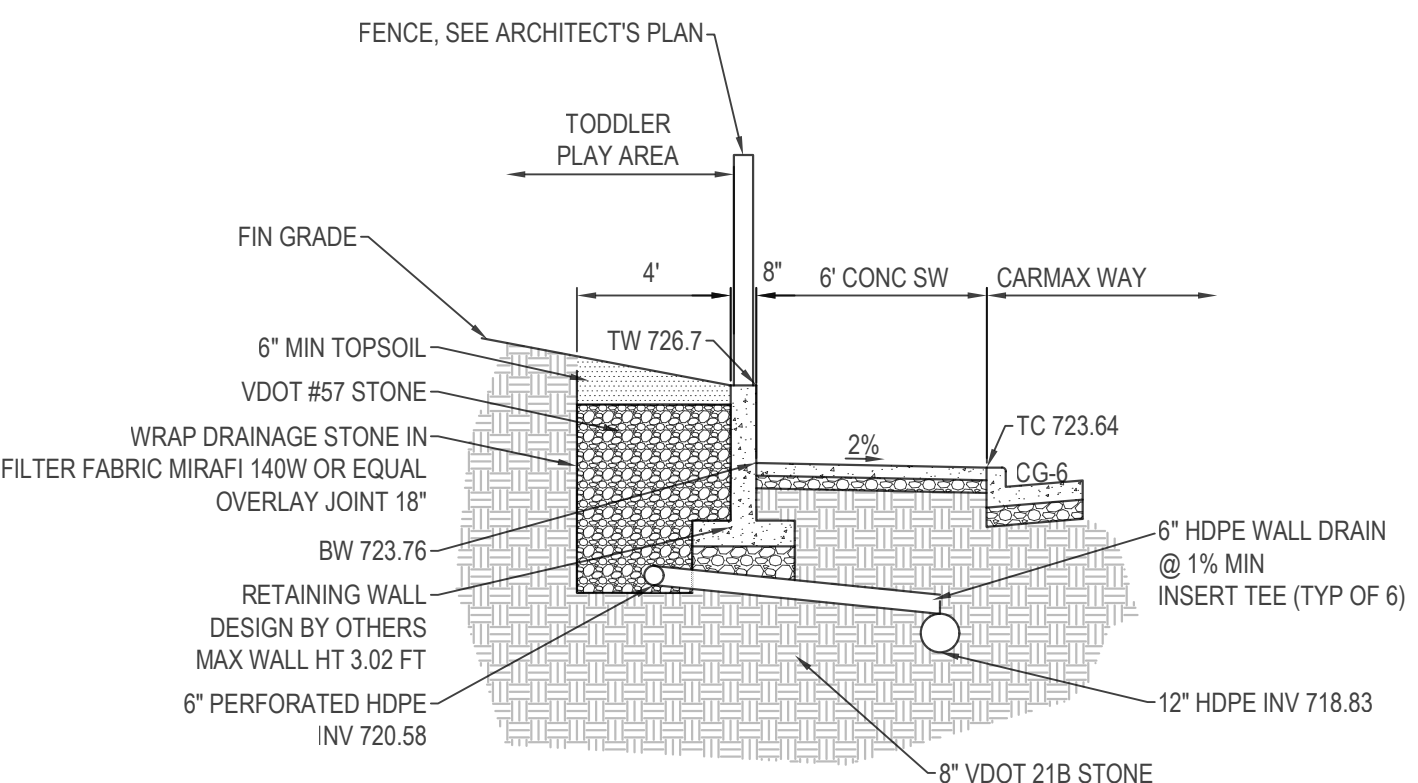
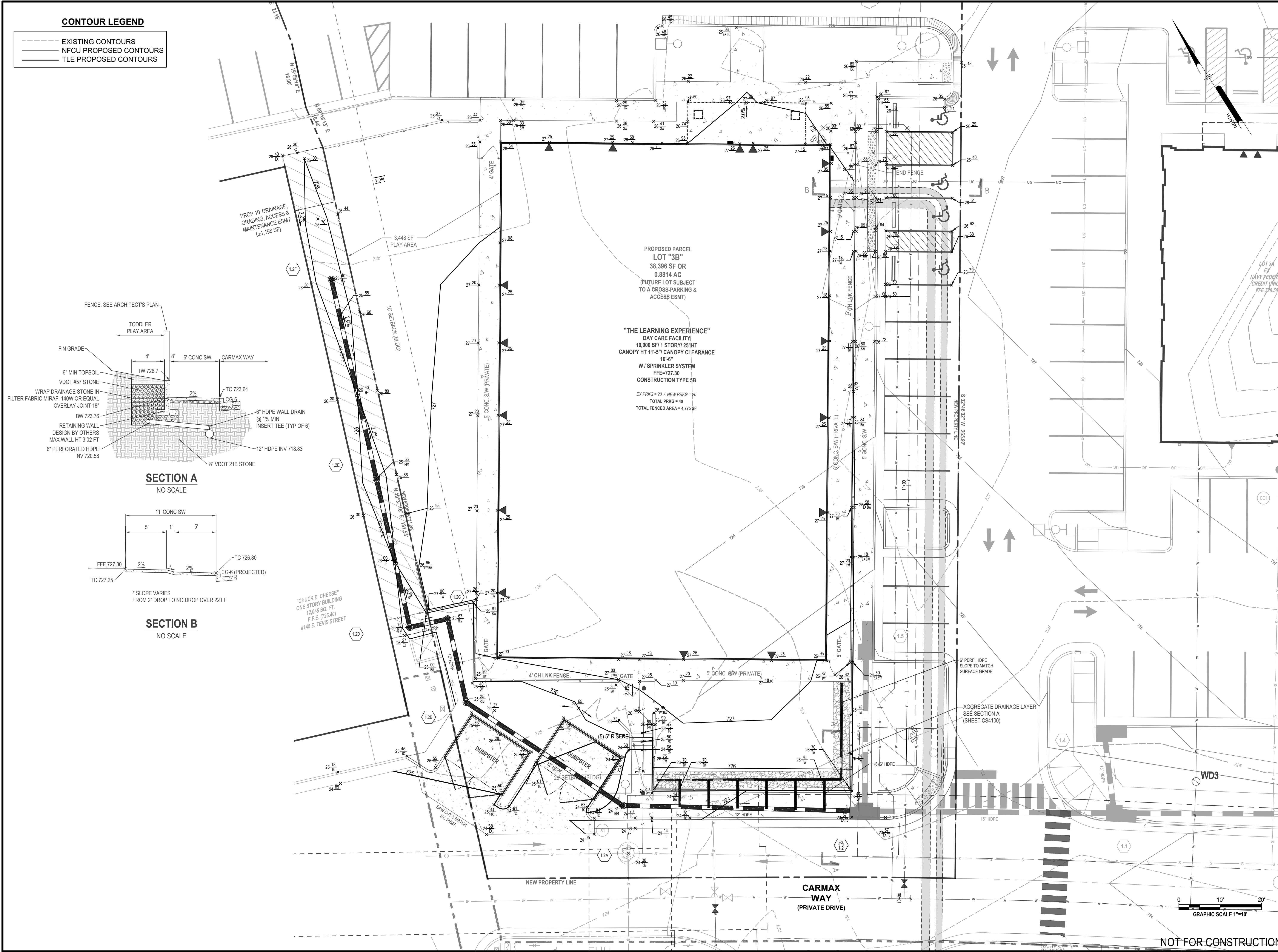


NO.	DATE	REVISIONS	BY

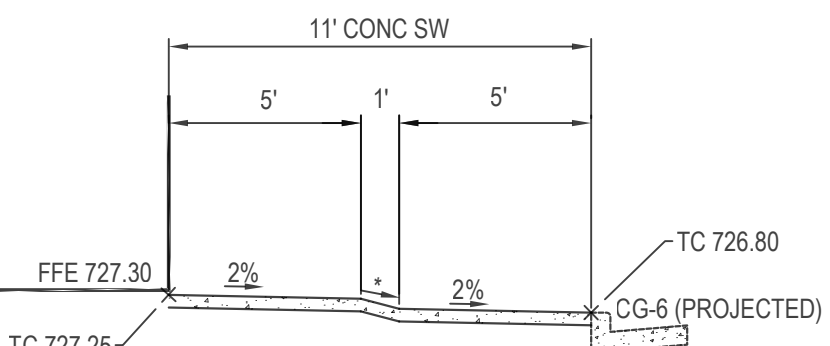
NOT FOR CONSTRUCTION

CONTOUR LEGEND

- EXISTING CONTOURS
- NFCU PROPOSED CONTOURS
- TLE PROPOSED CONTOURS



SECTION A
NO SCALE



SECTION B
NO SCALE

* SLOPE VARIES FROM 2% DROP TO NO DROP OVER 22 LF

PROPOSED PARCEL LOT "3B"
38,396 SF OR 0.8814 AC
(FUTURE LOT SUBJECT TO A CROSS-PARKING & ACCESS ESMT)

"THE LEARNING EXPERIENCE" DAY CARE FACILITY
10,000 SF / 1 STORY / 23' HT
CANOPY HT 11'-5" / CANOPY CLEARANCE 10'-6"
W / SPRINKLER SYSTEM FFE=727.30
CONSTRUCTION TYPE 5B
EX PRKG = 20 / NEW PRKG = 20
TOTAL PRKG = 40
TOTAL FENCED AREA = 4,775 SF

SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 202.2,3 (LOT 8B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD WARD

GRADING AND DRAINAGE PLAN

NO.	DATE	REVISIONS	BY

PROJECT	GANPR23001
DATE	02-13-2023
DRAWING SCALE	AS NOTED
DRAWN BY	CJM
APPROVED BY	RAM
CS4100	TOTAL SHEETS 21

Pennoni

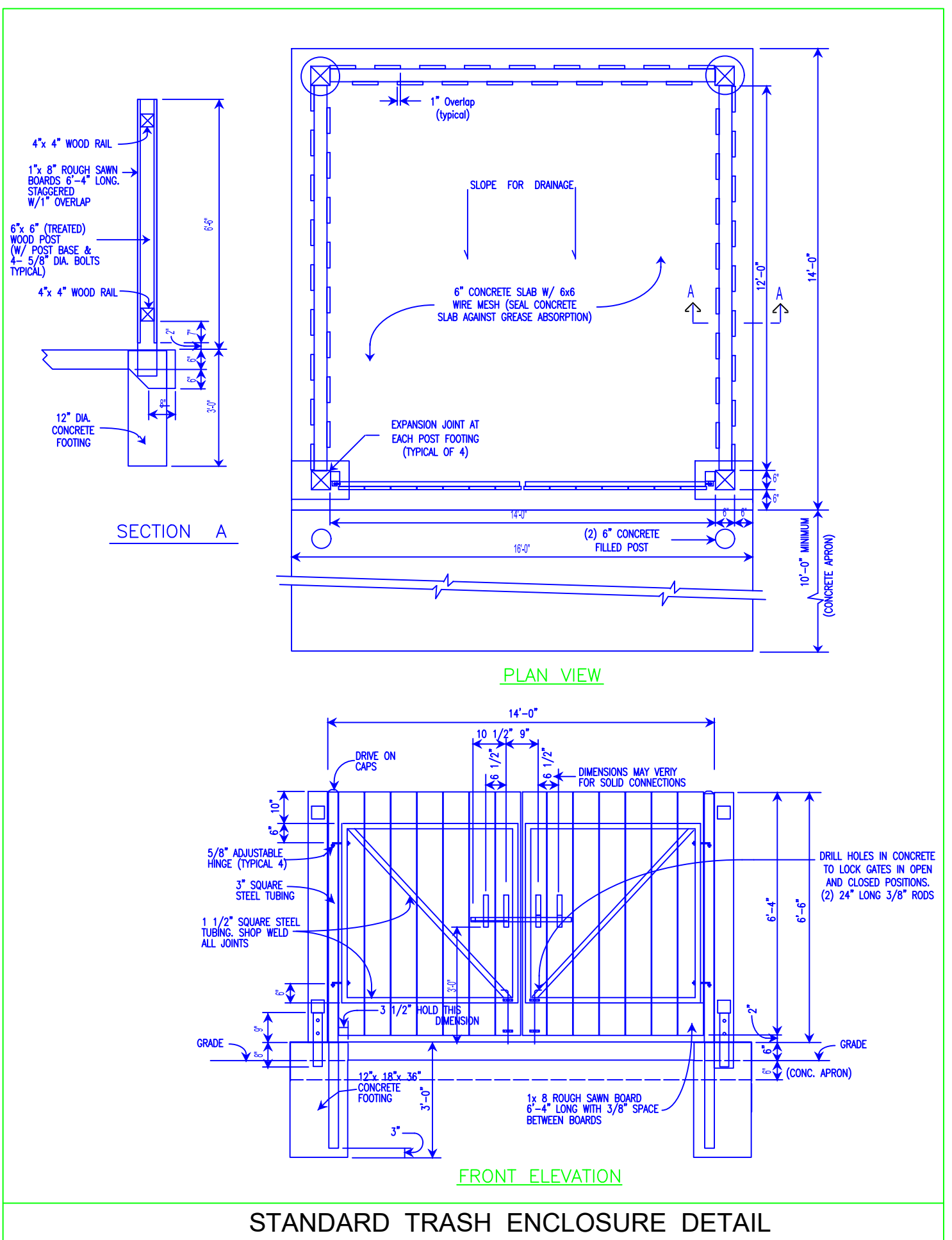
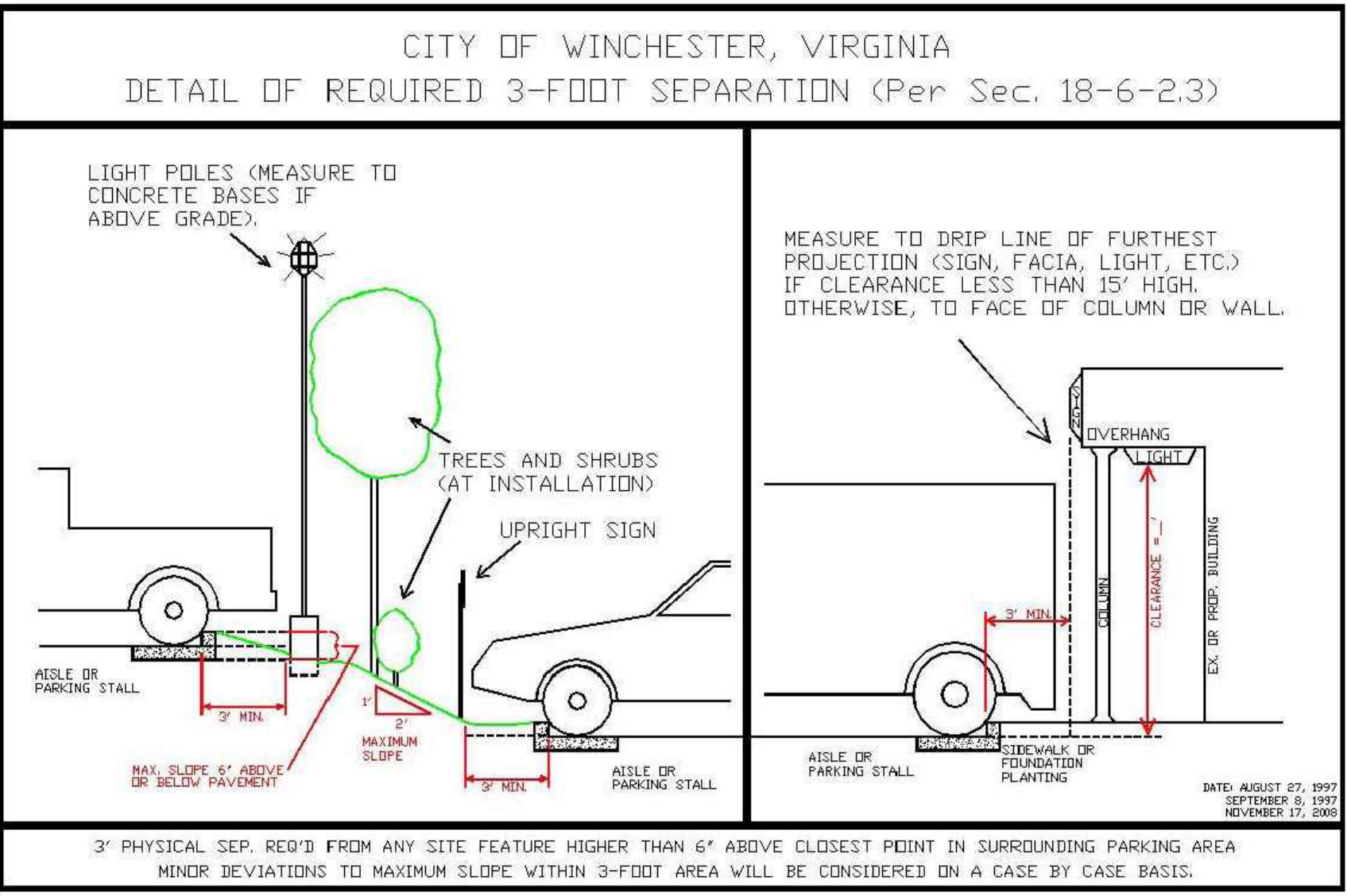
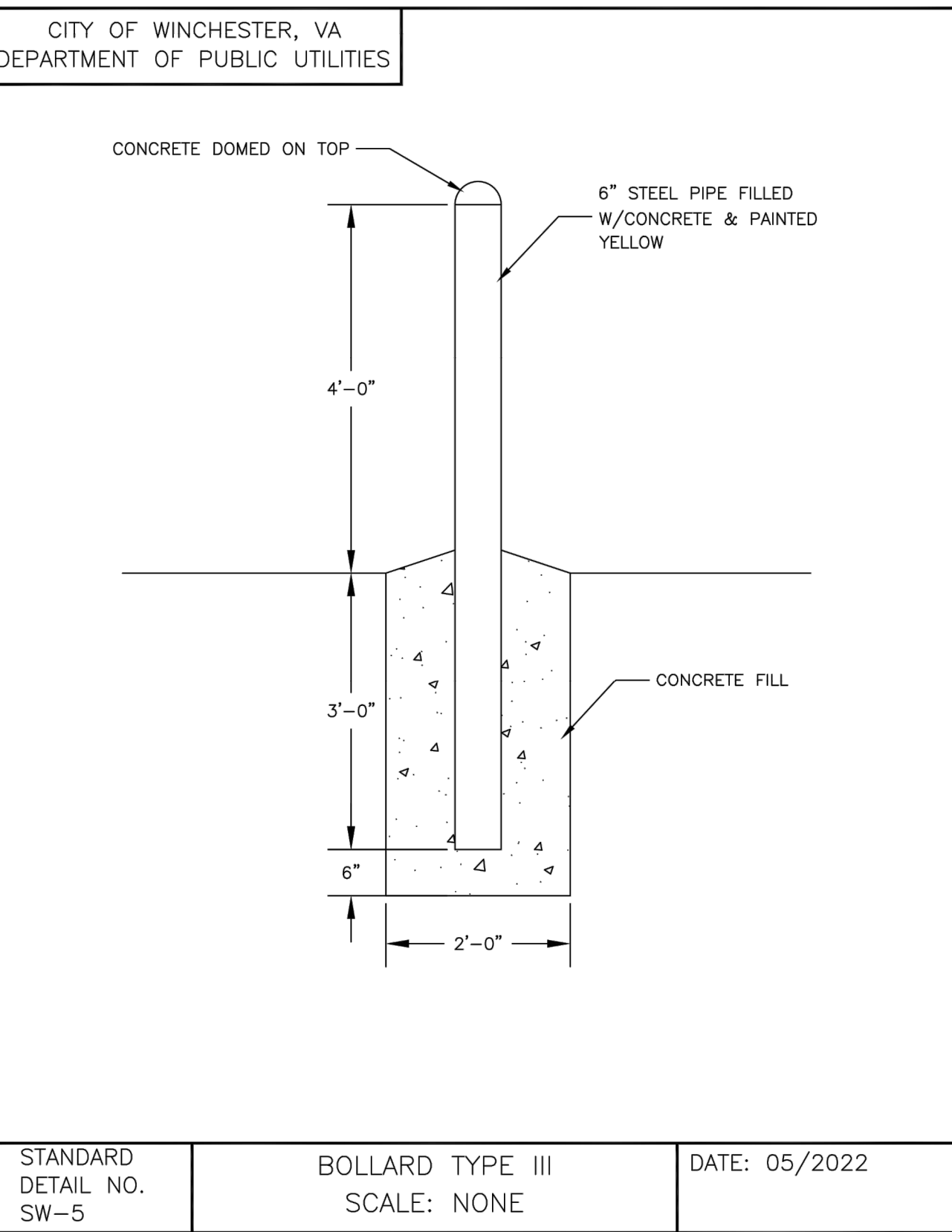
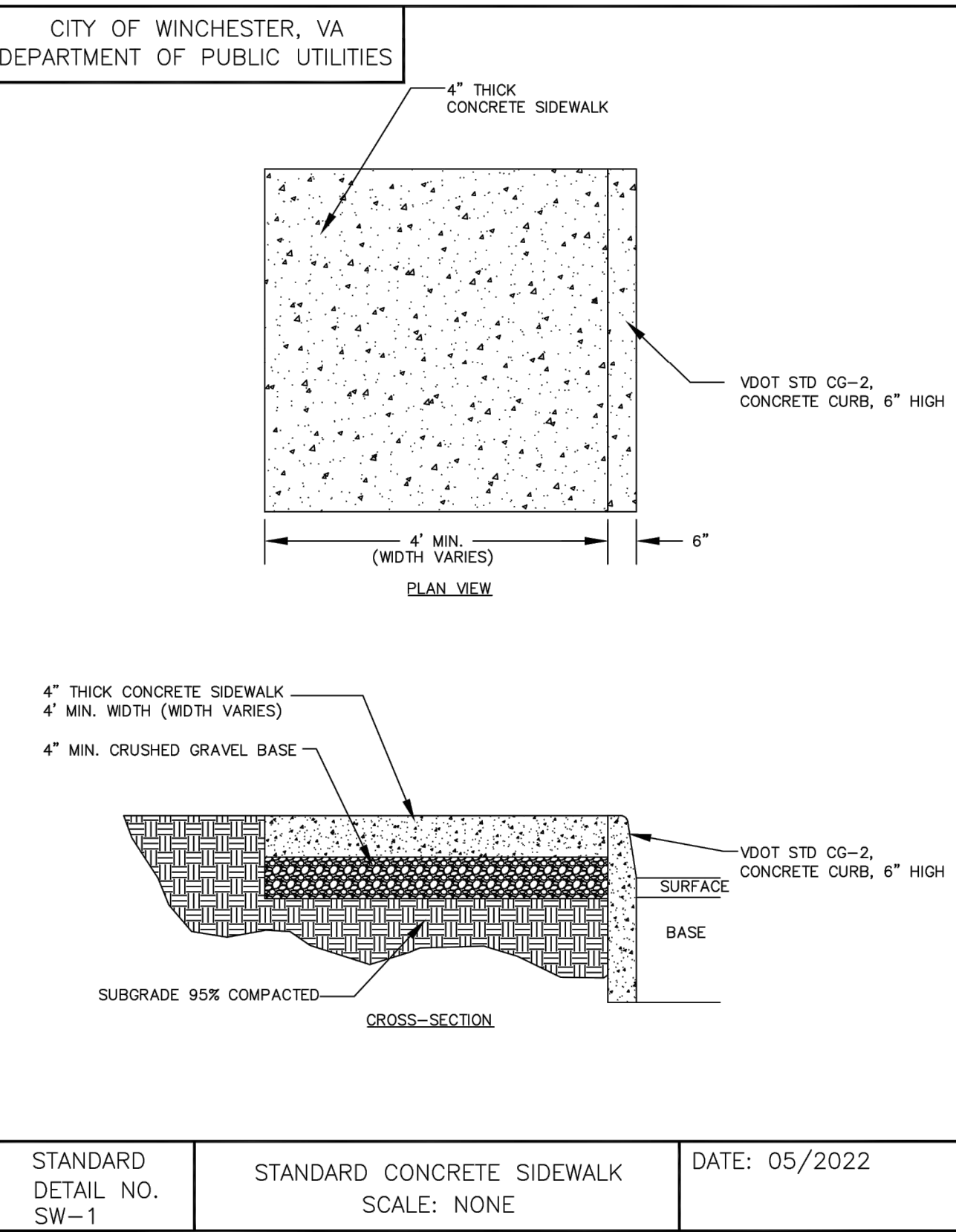
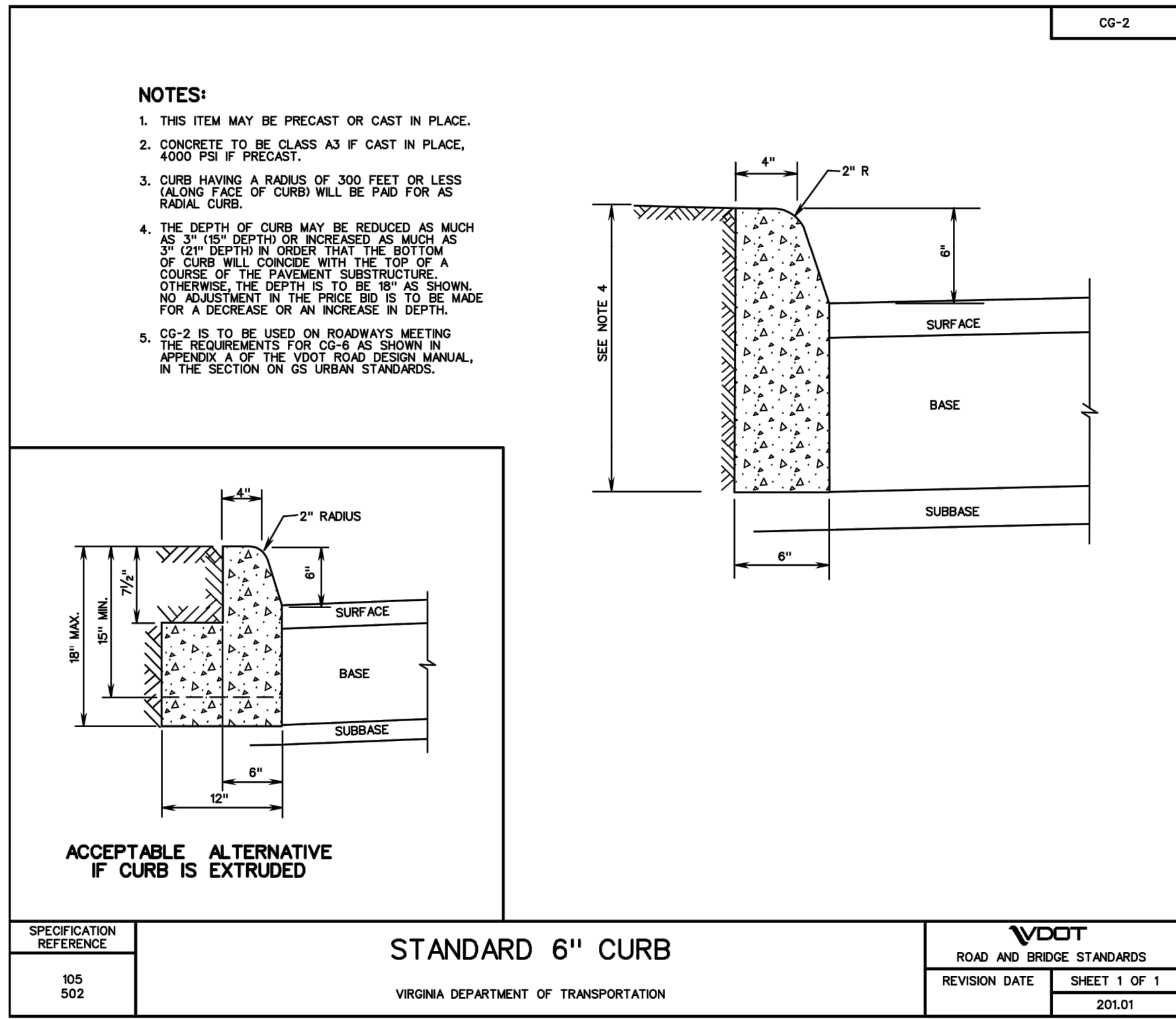
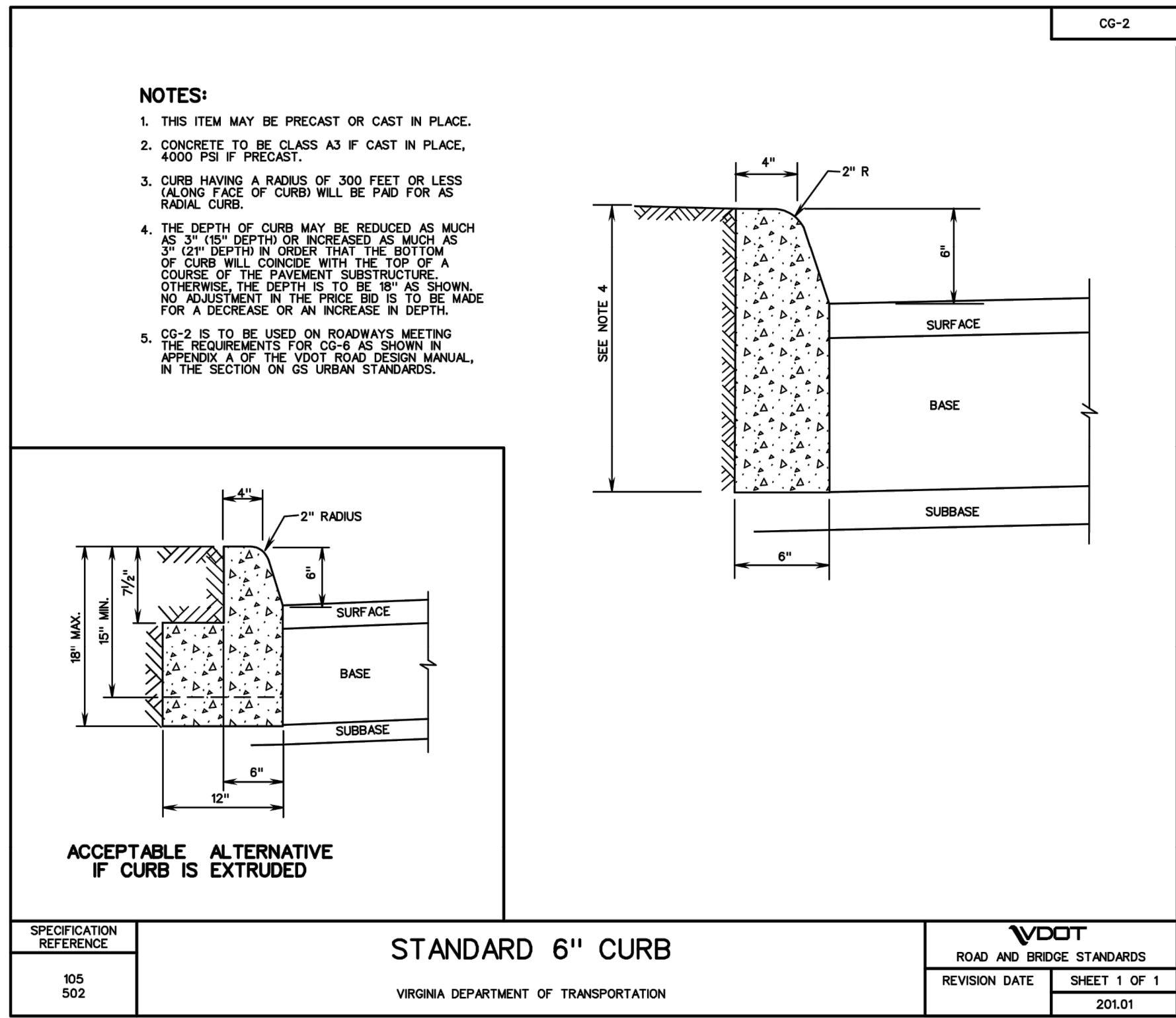
PENNONI ASSOCIATES INC.
117 East Piceadilly Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

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Professional Engineer
RONALD A. MISLOWSKY, JR.
Lic. No. 20674
7/18/2023

U:\Admin\GANPR\GANPR23001 - The Learning Experience\CONSTRUCTION_SHEETS\Site Plan\CS4100.dwg
 PLOTTED: 7/18/2023 1:27 PM BY: Kelly Miller PLOTTED: Penmon\KCS.dwg
 PROJECT STATUS: CONCEPTUAL LAYOUT

NOT FOR CONSTRUCTION



City of Winchester
Sign Installation Specifications

Sign installation requirements for the City of Winchester:

- Sign post and anchor:
- The City of Winchester signs will be placed on a 10', 12', or 14' by 2" square galvanized or black square quick punch 14 gauge posts.
 - A black 2"x2" square galvanized post must be used in the Downtown Historic District and must be used on any of the City of Winchester Gateways.
 - The sign post is required to have a matching pyramid rain cap on the top.
 - The bottom edge of the sign is required to be a minimum of 7' off the ground.
 - The post will be anchored into the ground with a Telespar Anchor.
 - The Telespar Anchor will be 2 1/4" x 2 1/4" square 12 gauge 36" long open hole anchors.
 - The post will be bolted to the anchor with a 5/16" corner bolt.
 - The anchor must be driven into the ground with a minimum of 5" sticking out of the ground.

Street name signs:

- The City of Winchester requires street name signs on two opposite corners of an intersection.
- The City of Winchester requires the street name signs to be doubled on each post.



- The street name signs will have the letters removed as shown in the picture above for public roads.
 - For private roads the signs will be opposite, the letters will remain and the border removed.
- The street name signs will be made with white 3m Diamond Grade DG3 Reflective Sheeting.
- The street names will be cut out of 3m Electrocut film.
 - Green film must be used on all street name signs not located in the Downtown Historic District.

City of Winchester
Sign Installation Specifications

Black film must be used on all street name signs located in the Downtown Historic District.

- The street name signs will be installed on .80 gauge aluminum with 1/2" corner radius.
 - The aluminum used for the signs will be 6"x12", 6"x18", 6"x24", 6"x30", or 6"x36".
- The street name will be 4" letters with the first letter capitalized.
- The prefix and suffix will be 2" letters with a 2" vertical offset the letters will be capitalized.
- The first letter of the street name will be capitalized.
- The street name signs will be Highway C font.
- The signs will be attached to the post with a 3/8" drive rivet.
- The signs will have a 1/2" border around the film.
 - Street name signs used on roadways with a speed greater than 35mph.
 - The aluminum used for these signs will be 9"x12", 9"x18", 9"x24", 9"x30", or 9"x36". 80 gauge with 1/2" corner radius.
 - The street name will be 6" letters.
 - The prefix and suffix will be 3" letters with a 3" vertical offset the letters will be capitalized.

Stop signs:

- The City of Winchester requires the Stop signs to be red 3m Electrocut film with 3m Diamond Grade DG3 Reflective Sheeting as the backing.
- The Stop name sign will be Highway C font.
 - The letters will be all capital letters.
 - The letters on a 30"x30" will be 10".
 - The letters on a 36"x36" will be 12".
- The City of Winchester requires the use of a 30"x30" Stop sign on roadways with speeds below 35mph.
- The City of Winchester requires the use of a 36"x36" Stop sign on roadways with a speed greater than 35mph.
- The border around the Stop sign will be 1/2".
- The Stop signs will have black 3m Electrocut film on the backs for any sign on black post.

Other signs:

- The City of Winchester requires all signs to be faced with 3m Diamond Grade DG3 reflective sheeting.
- The City of Winchester requires all signs be at least 7' from the ground or nearest side walk to the bottom edge of the sign.
- All signs on a black post will have black 3m Electrocut film on the backs.



PENNONI ASSOCIATES INC.
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Winchester, VA 22601
T 540.667.2139 F 540.665.0493

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SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 8B)
THE LEARNING EXPERIENCE
2800 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD FLOOR

SITE DETAILS
GANGES PROPERTIES GROUP
21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

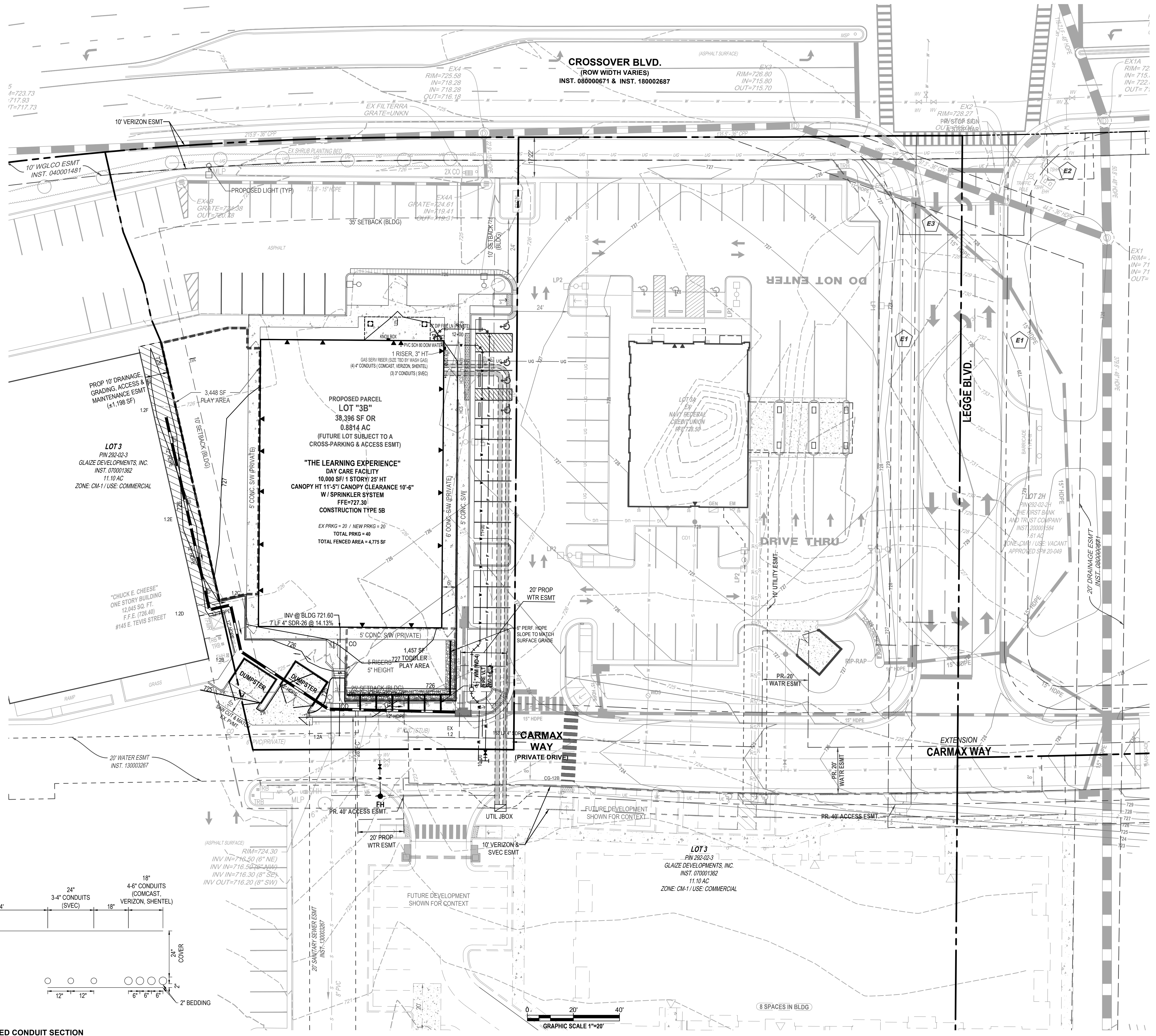
NO.	DATE	REVISIONS	BY

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PROJECT: GANPR23001
DATE: 02-13-2023
DRAWING SCALE: AS NOTED
DRAWN BY: KLML
APPROVED BY: RAM

CS4500
TOTAL SHEETS 21

NOT FOR CONSTRUCTION



CROSSOVER BLVD.
(ROW WIDTH VARIES)
INST. 08000671 & INST. 180002887

10' VERIZON ESMT

10' WGL CO ESMT
INST. 040001481

LOT 3
PIN 292-02-3
GLAIZE DEVELOPMENTS, INC.
INST. 070001362
11.10 AC
ZONE: CM-1 / USE: COMMERCIAL

**PROPOSED PARCEL
LOT "3B"**
38,396 SF OR
0.8814 AC
(FUTURE LOT SUBJECT TO A
CROSS-PARKING & ACCESS ESMT)

"THE LEARNING EXPERIENCE"
DAY CARE FACILITY
10,000 SF | 1 STORY | 28' HT
CANOPY HT 11'-5" | CANOPY CLEARANCE 10'-6"
W/ SPRINKLER SYSTEM
FFE=727.30
CONSTRUCTION TYPE 5B

EX PRKG = 20 / NEW PRKG = 20
TOTAL PRKG = 40
TOTAL FENCED AREA = 4,775 SF

"CHUCK E. CHEESE"
ONE STORY BUILDING
12,045 SQ. FT.
F.F.E. (728.40)
#145 E. TEVIS STREET

CARMAX WAY
(PRIVATE DRIVE)

**EXTENSION
CARMAX WAY**

LOT 3
PIN 292-02-3
GLAIZE DEVELOPMENTS, INC.
INST. 070001362
11.10 AC
ZONE: CM-1 / USE: COMMERCIAL

PROPOSED CONDUIT SECTION
NTS



GRAPHIC SCALE 1"=20'

NOT FOR CONSTRUCTION

Pennoni
PENNONI ASSOCIATES INC.
117 East Pleadilly Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

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Pennoni
COMMONWEALTH OF VIRGINIA
RONALD A. MISLOWSKY, JR.
Lic. No. 20674
7/18/2023
PROFESSIONAL ENGINEER

SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 292-2.3 (LOT 3B)
THE LEARNING EXPERIENCE
2800 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD WARD

UTILITY PLAN

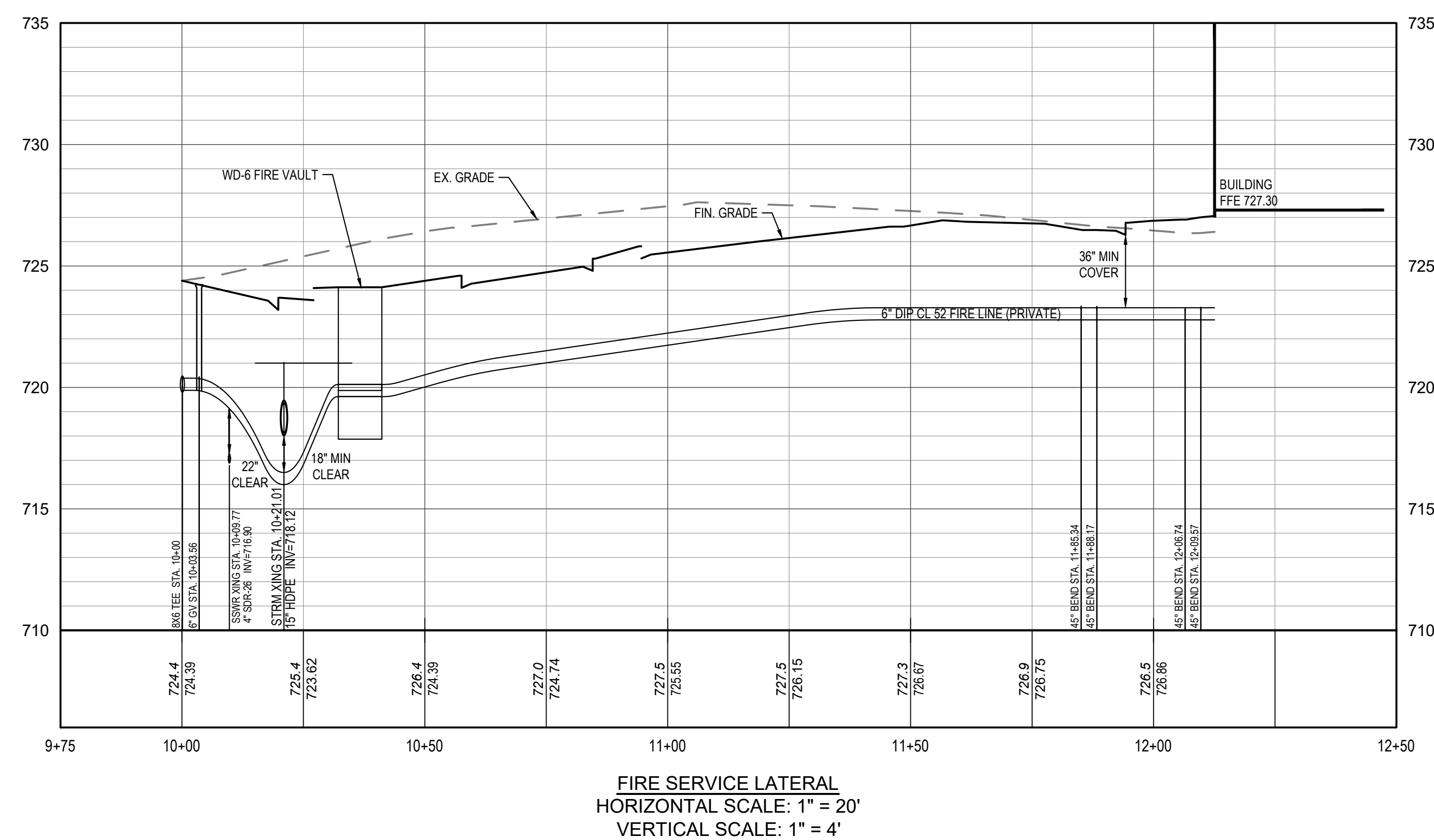
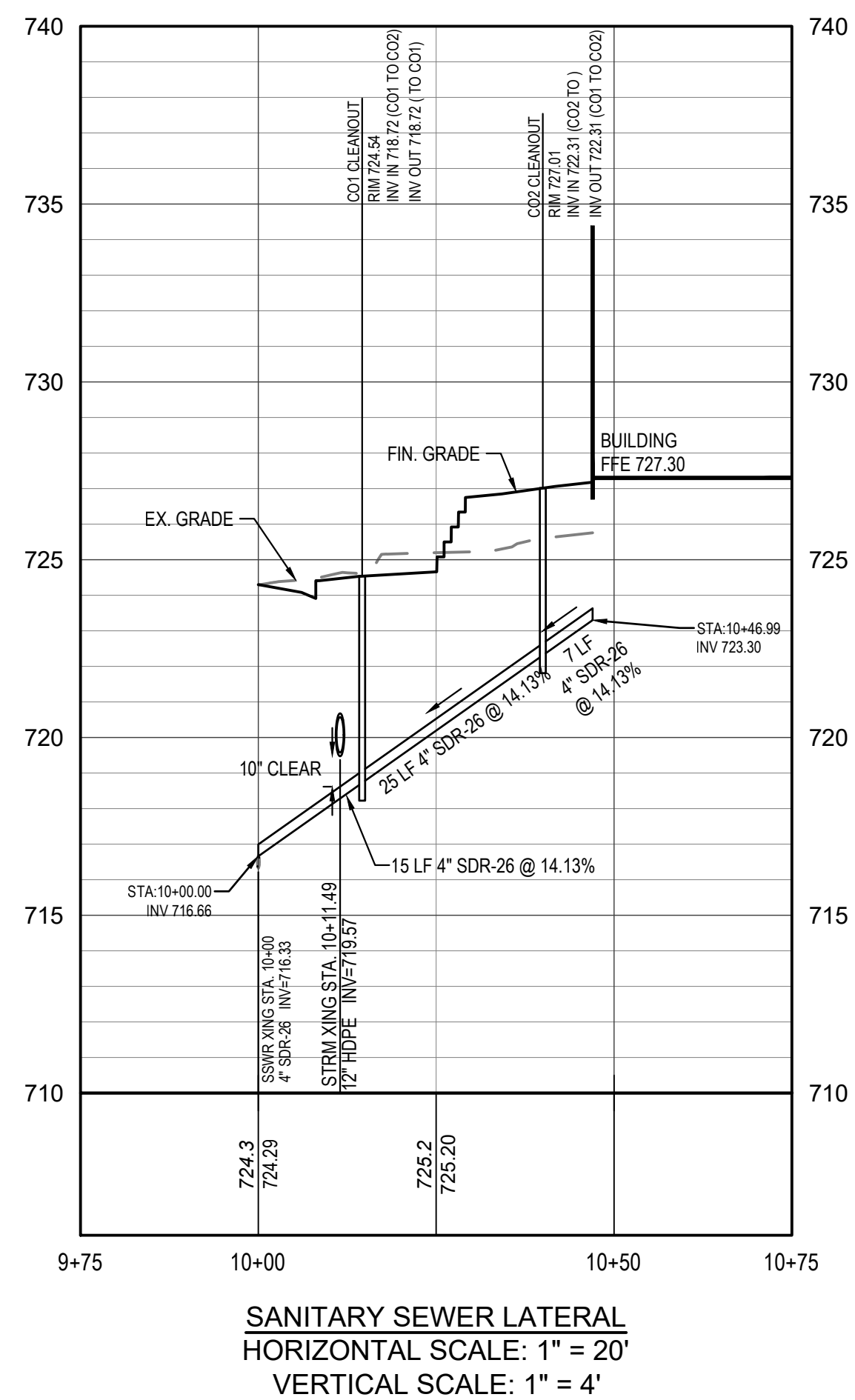
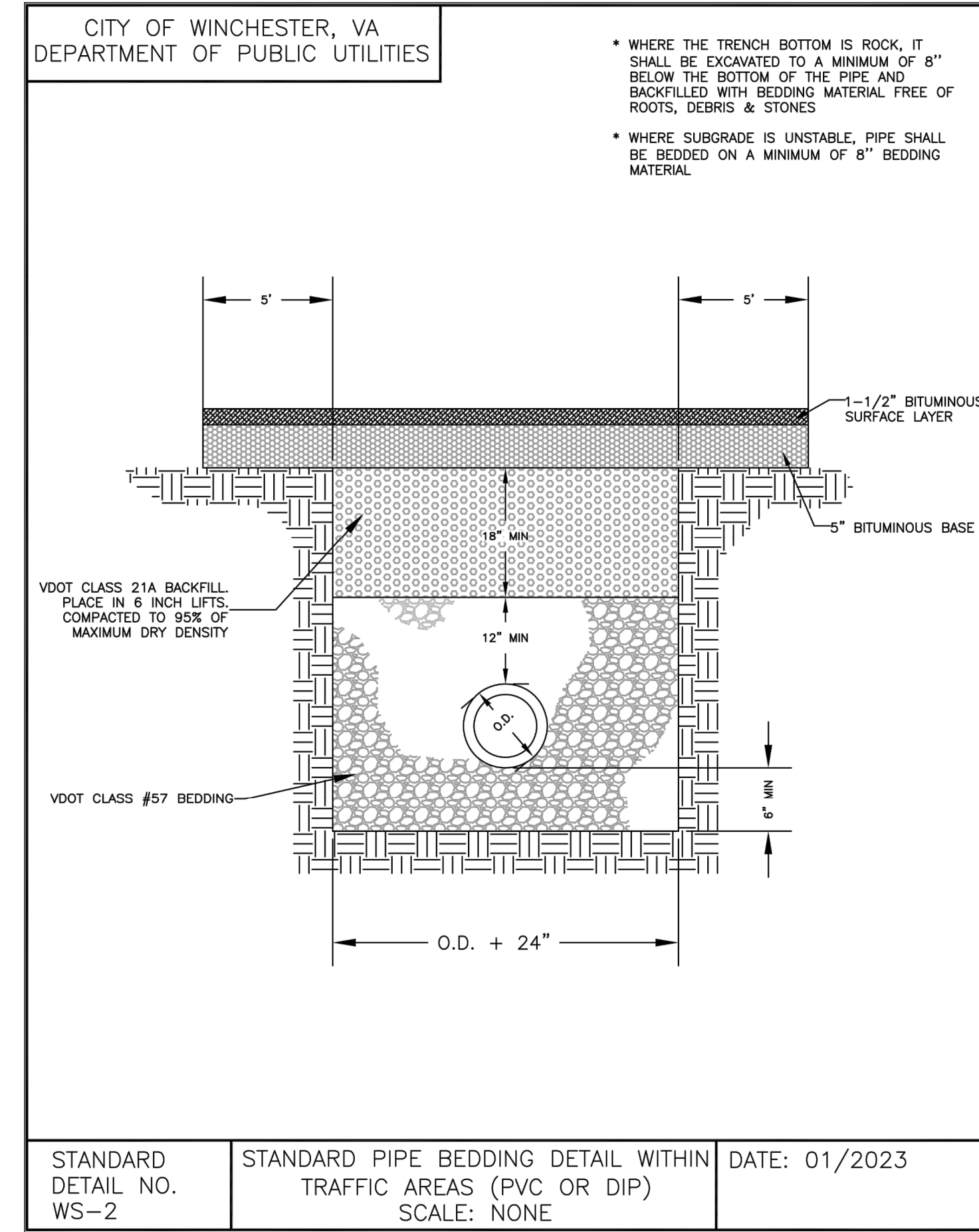
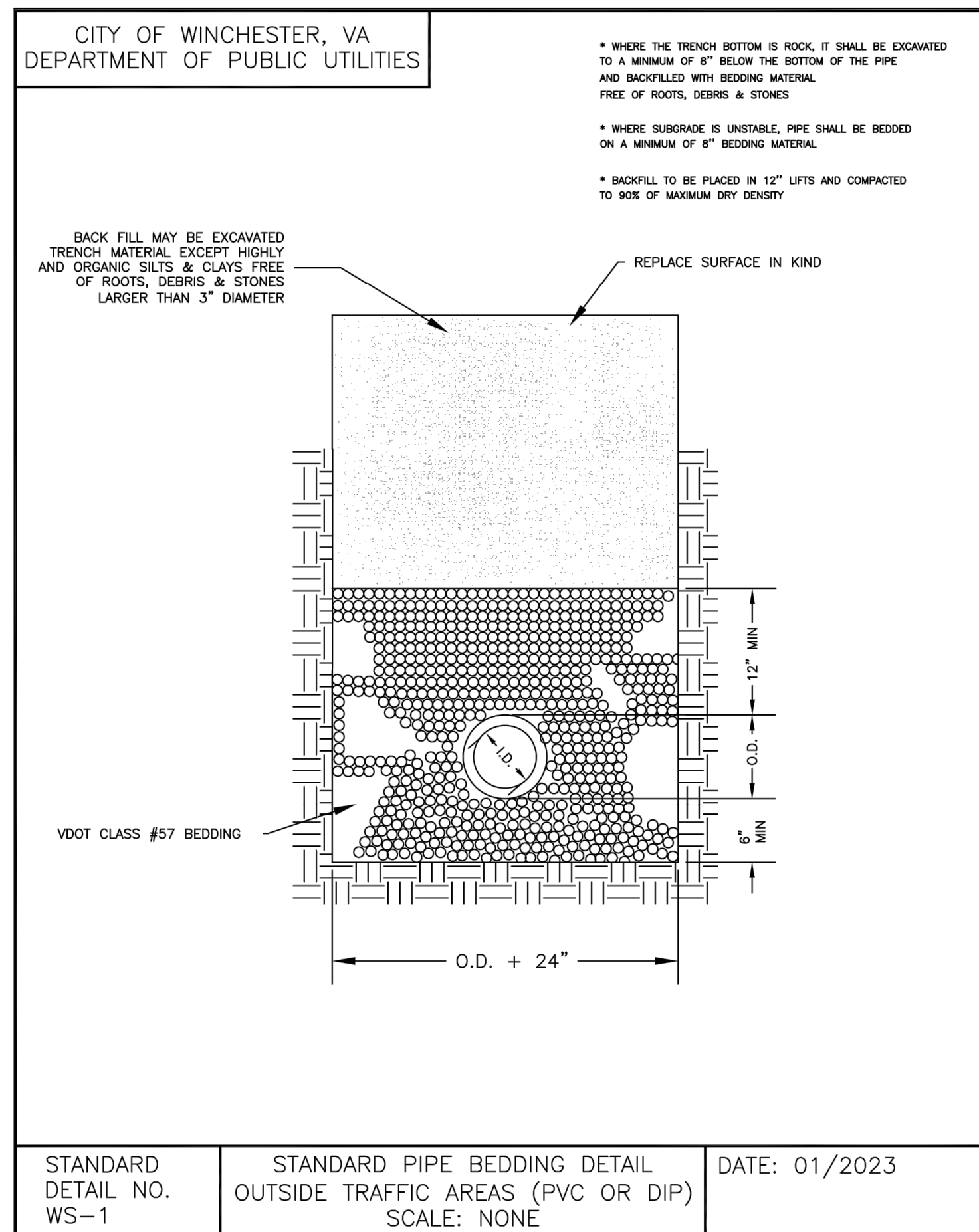
GANGES PROPERTIES GROUP
21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

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PROJECT **GANPR23001**
DATE 02-13-2023
DRAWING SCALE AS NOTED
DRAWN BY KLML
APPROVED BY RAM

CS5000
TOTAL SHEETS 21



Pennoni

PENNONI ASSOCIATES INC.
117 East Piceaddy Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

COMMONWEALTH OF VIRGINIA
Ronald A. Mislowsky, Jr.
Lic. No. 20674
7/18/2023
PROFESSIONAL ENGINEER

SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 3B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD FLOOR

WATER AND SANITARY SEWER LATERAL PROFILES AND DETAILS

GANGES PROPERTIES GROUP
21671 BRONITE PLACE | ASHBURN, VIRGINIA 20147

NO.	REVISIONS	DATE	BY

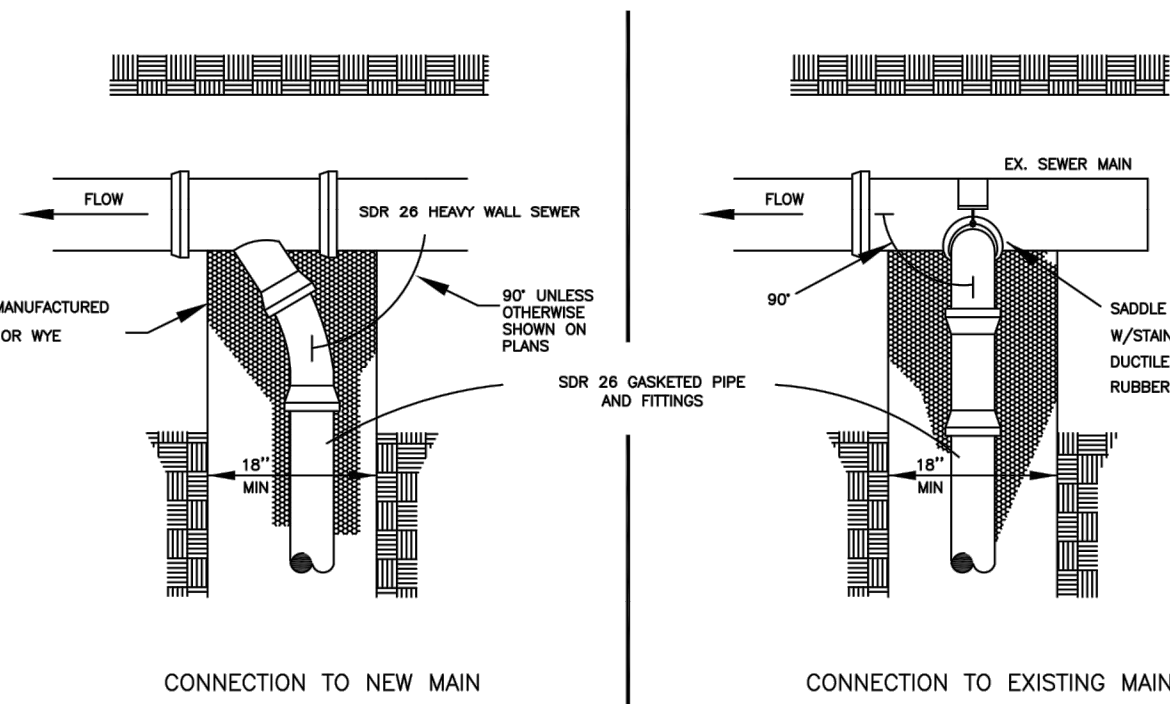
PROJECT: GANPR23001
DATE: 02-13-2023
DRAWING SCALE: AS NOTED
DRAWN BY: KLML
APPROVED BY: RAM

CS5200
TOTAL SHEETS 21

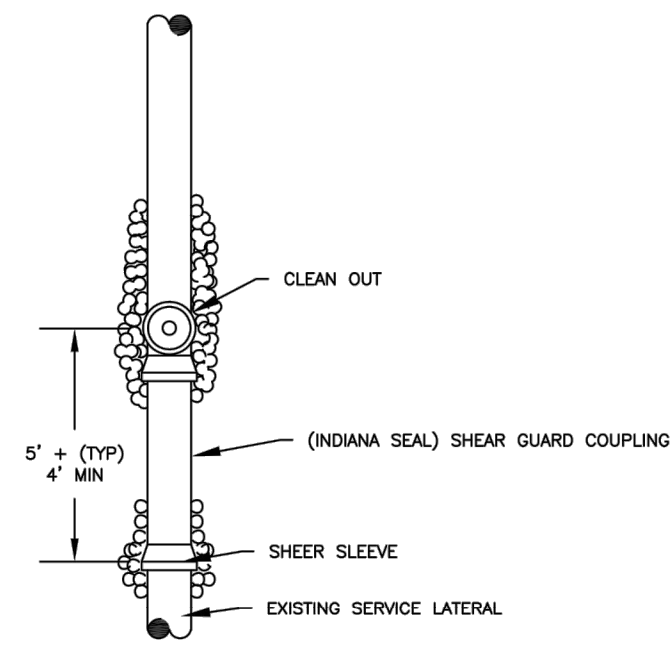
NOT FOR CONSTRUCTION

U:\Admin\GANPR\GANPR23001 - The Learning Center\CS2000_SHEET\Sheet Plans\CS5200.dwg PLOT FILE: PenmonI\CS5200.dwg PLOT STYLE: PenmonI.ctb PROJECT STATUS: CONCEPTUAL LAYOUT

CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES

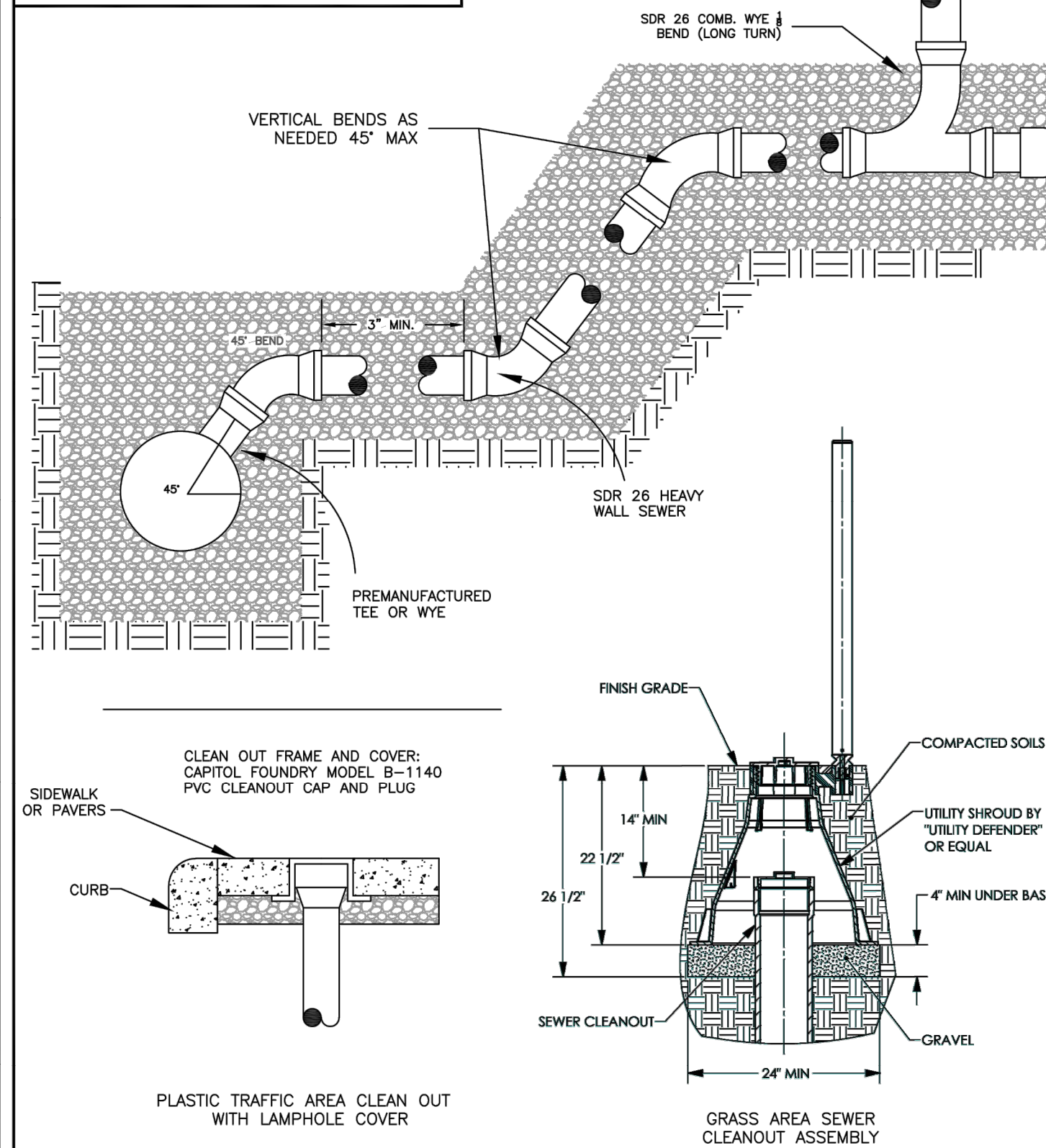


- SEWER SERVICE CONNECTION PER SPECIFICATIONS
- STANDARD GRANULAR BEDDING THROUGHOUT



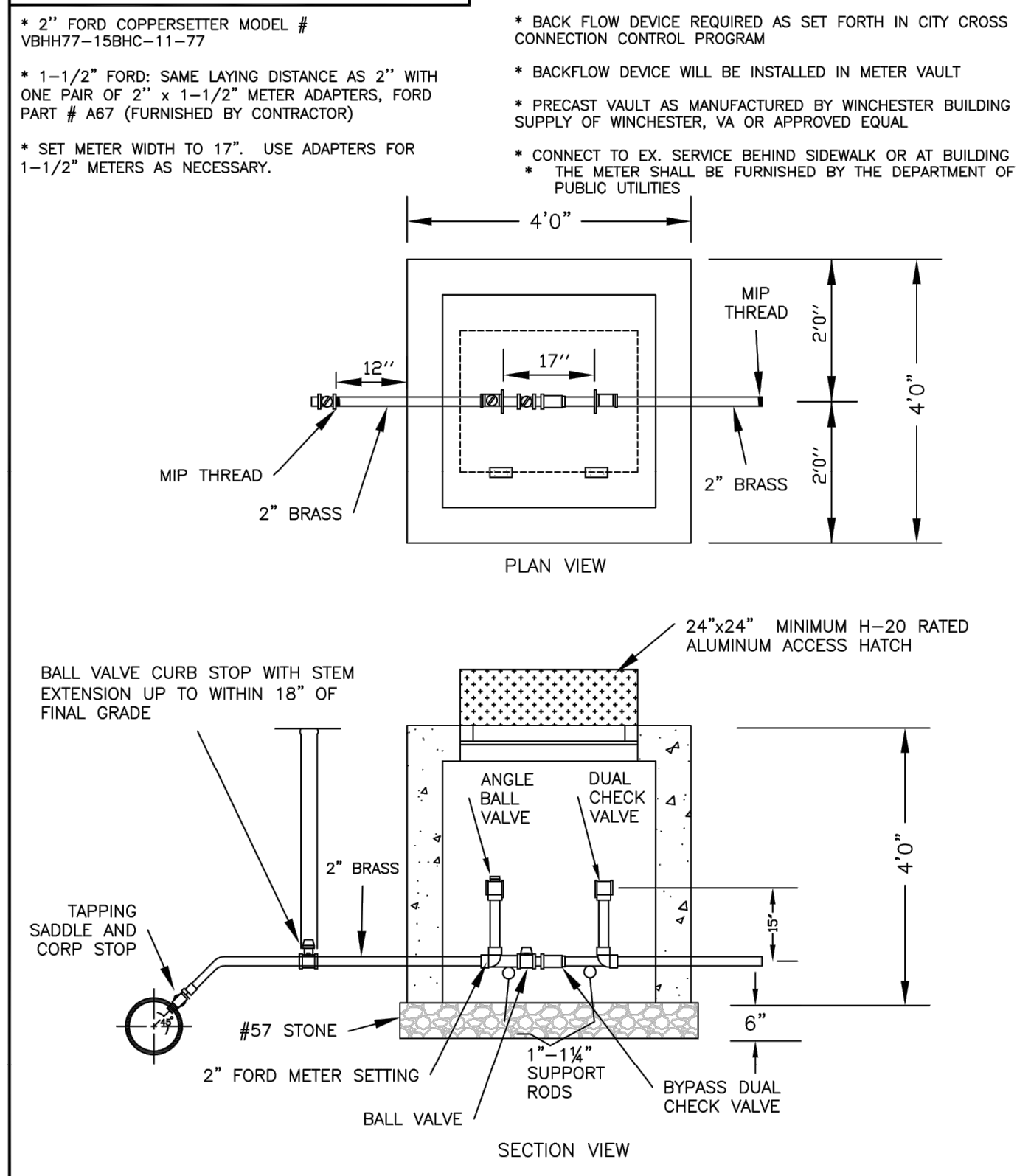
STANDARD DETAIL NO. SS-4	STANDARD SANITARY LATERAL CONNECTION SCALE: NONE	DATE: 01/2023
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CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES



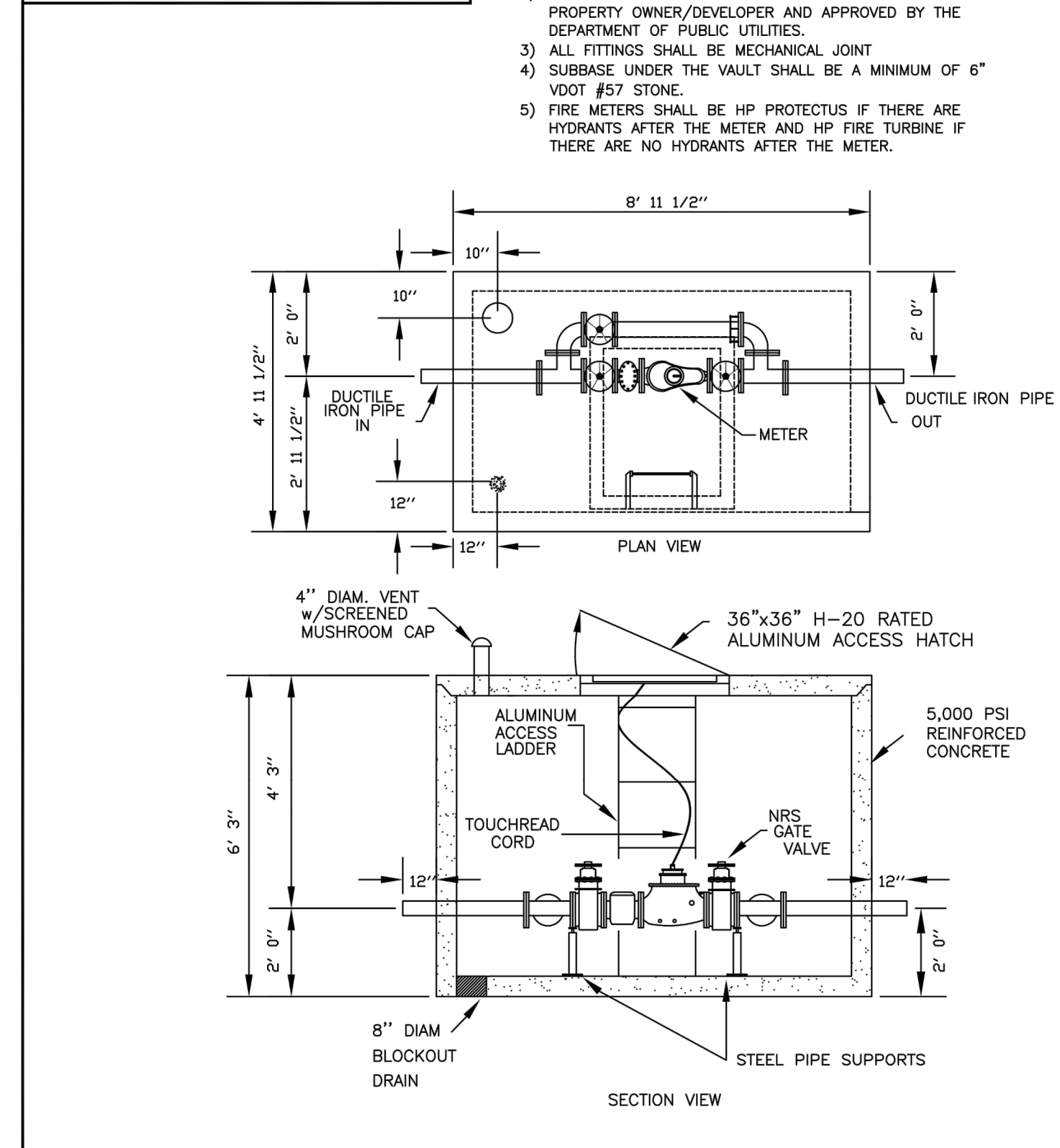
STANDARD DETAIL NO. SS-5	STANDARD SANITARY LATERAL CONNECTION SCALE: NONE	DATE: 01/2023
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CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES



STANDARD DETAIL NO. WD-4	1 1/2" & 2" METER INSTALLATION SCALE: NONE	DATE: 01/2023
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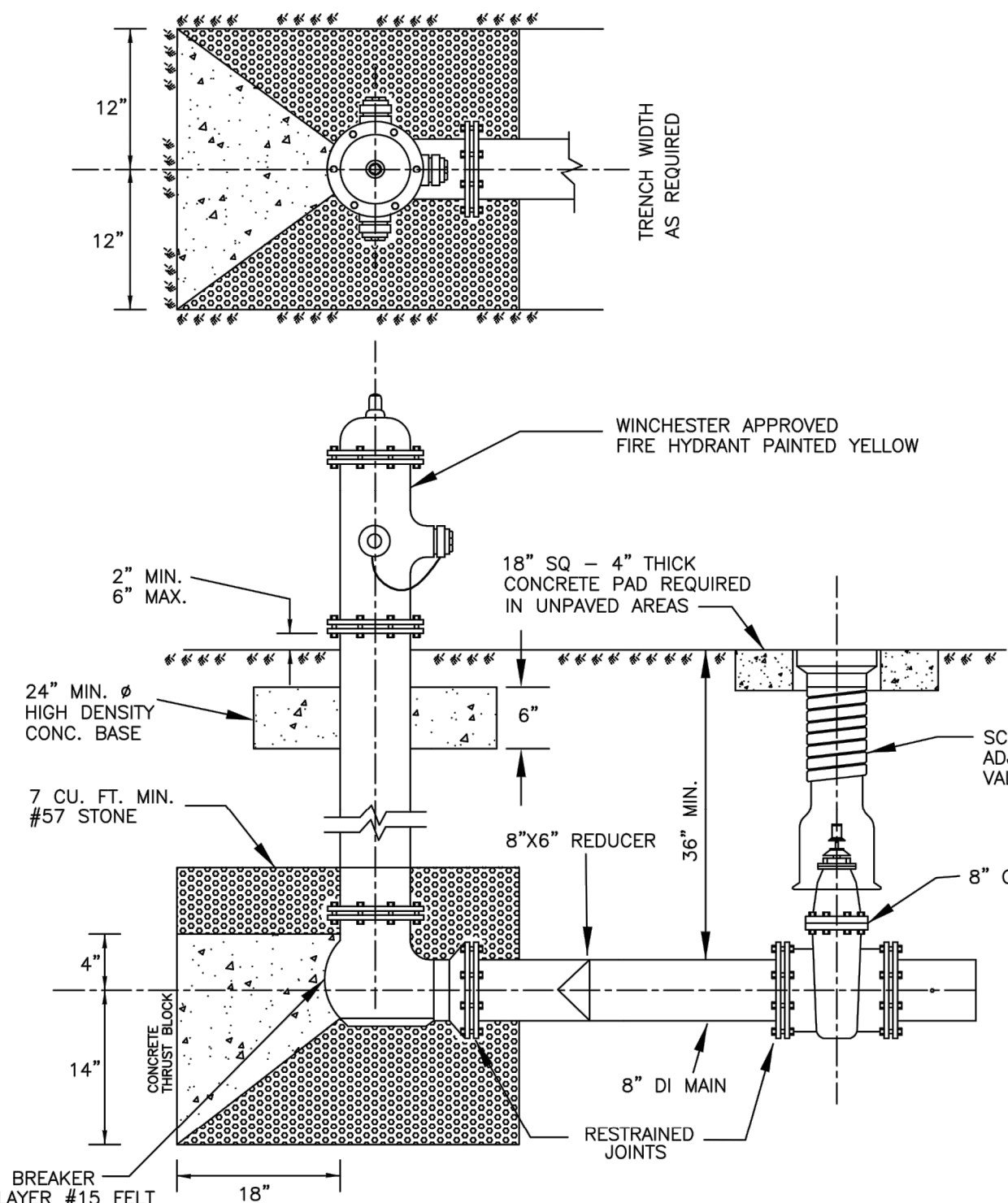
CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES



STANDARD DETAIL NO. WD-6	FIRE LINE SERVICE INSTALLATION SCALE: NONE	DATE: 01/2023
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CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES

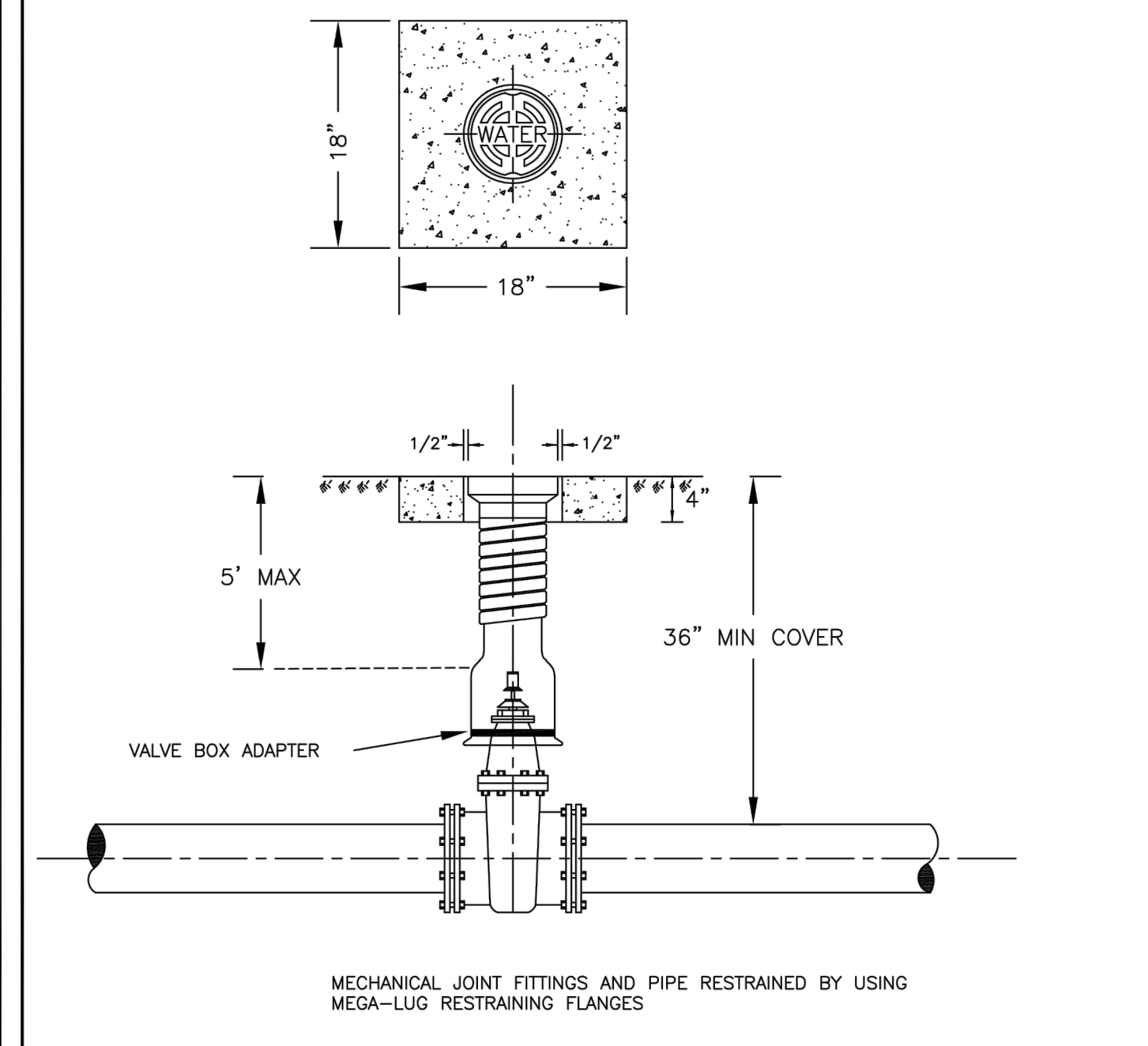
FIRE HYDRANT SHALL BE TRAFFIC MODEL RESTRAINTS SHALL BE BY MEGA-LUG FLANGES 4-1/2" STREAMER NOZZLE SHALL FACE ROADWAY



STANDARD DETAIL NO. WD-7	FIRE HYDRANT INSTALLATION SCALE: NONE	DATE: 01/2023
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CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES

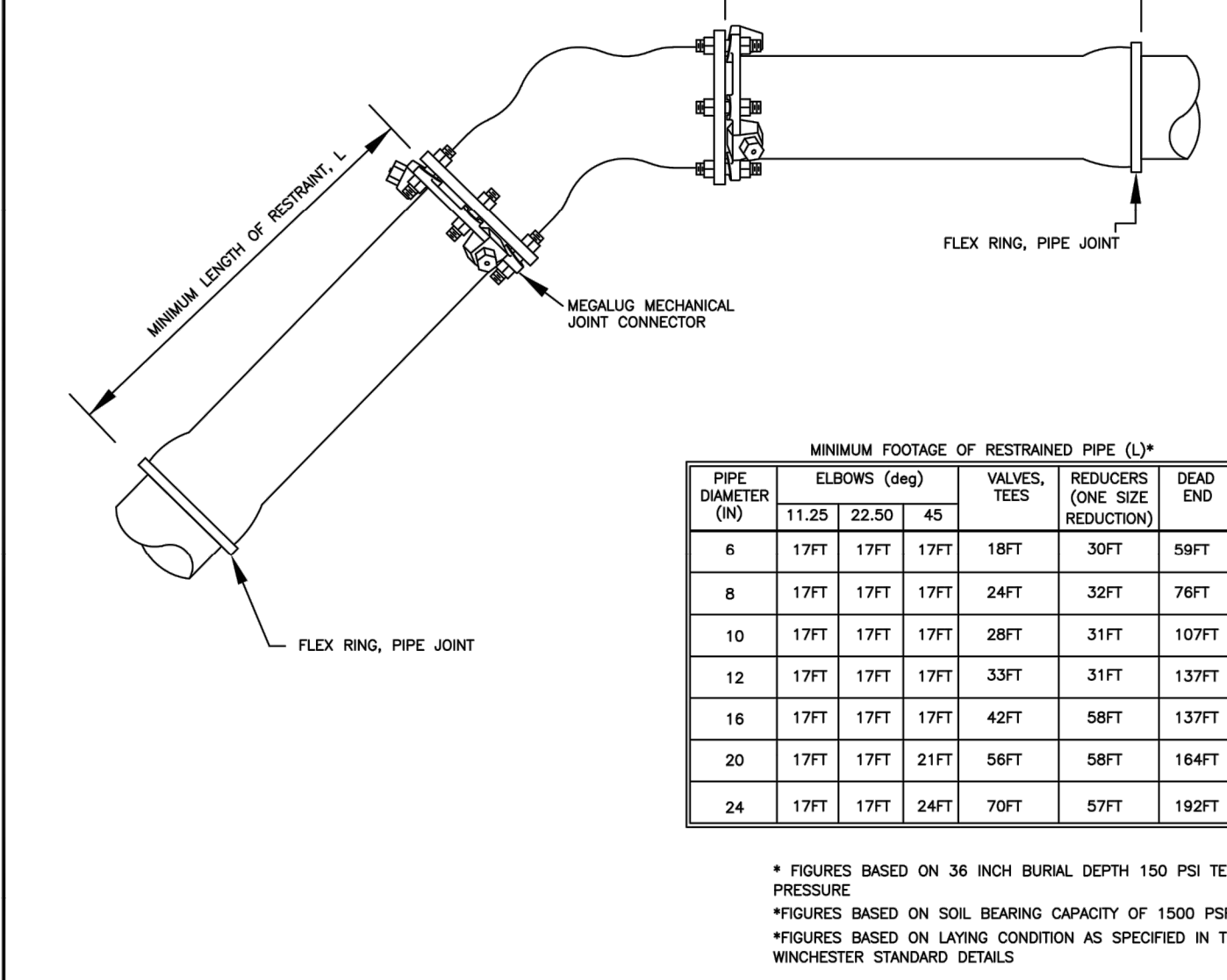
TYPICAL RESILIENT SEAT VALVE INSTALLATION:
VALVE BOX AND BOOT SHALL BE CAST IRON VALVE BOX COVER SHALL BE MARKED "WATER" VALVE TOP SHALL BE FLUSH WITH FINISHED GRADE 18"x18" CONCRETE PAD SHALL BE PLACED AROUND VALVE BOXES LOCATED OUTSIDE OF PAVEMENT AREAS VALVE BOX SHALL BE SCREW TYPE OF ADJUSTMENT



STANDARD DETAIL NO. WD-8	TYPICAL VALVE & BOX INSTALLATION SCALE: NONE	DATE: 01/2023
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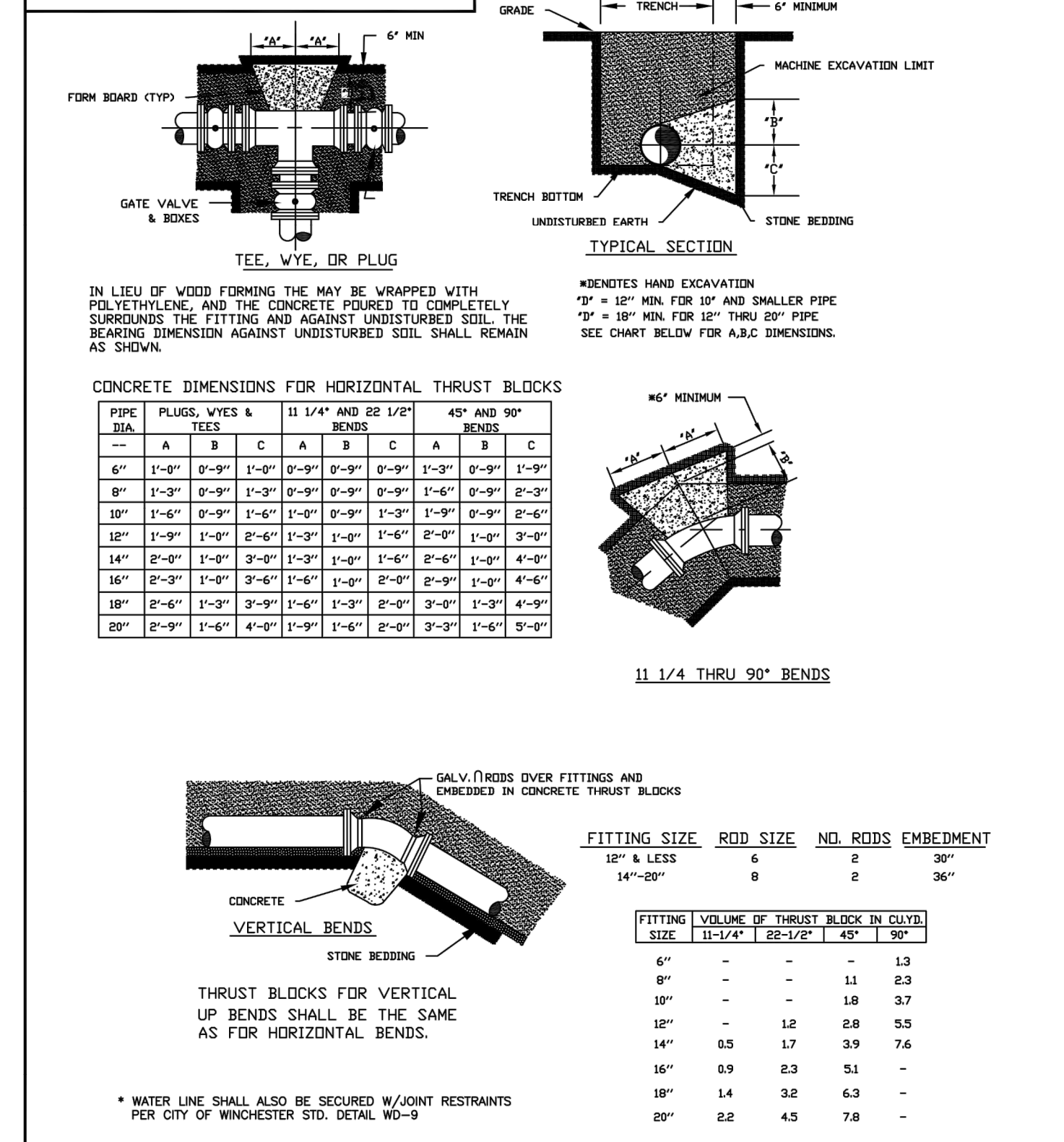
CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES

THE FOLLOWING JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS:
1. BEND - INLET & OUTLET
2. VALVES - INLET & OUTLET
3. TEE - ALL BRANCHES
4. REDUCERS - LARGER PIPE ONLY
5. DEAD ENDS
6. HYDRANT RUNOUTS SHALL BE RESTRAINED AS DEAD ENDS

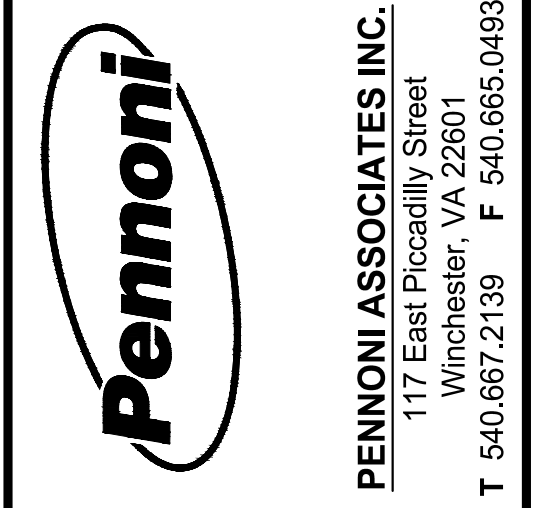


STANDARD DETAIL NO. WD-9	DUCTILE IRON PIPE RESTRAINT SCALE: NONE	DATE: 01/2023
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CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES



STANDARD DETAIL NO. WD-10	CONCRETE THRUST BLOCKING SCALE: NONE	DATE: 01/2023
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7/18/2023

SHOPDES AT CROSSOVER
SITE DEVELOPMENT PLAN - TMM 202.2.3 (LOT 8B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22001
3RD FLOOR

WATER AND SANITARY SEWER DETAILS

GANP23001

NO.	DATE	REVISIONS	BY

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PROJECT: GANP23001
DATE: 02-13-2023
DRAWING SCALE: AS NOTED
DRAWN BY: KLML
APPROVED BY: RAM

NOT FOR CONSTRUCTION

GENERAL

- METHOD "A" PIPE BEDDING SHALL BE USED FOR ALL TYPES OF PIPE CULVERTS WITHIN THE APPLICABLE HEIGHT OF COVER RANGE NOTED IN THE STANDARD PC-1 TABLES UNLESS OTHERWISE NOTED ON THE PLANS.
- H = HEIGHT OF COVER MEASURED FROM TOP OF CULVERT TO FINISHED GRADE.
- b = EXCAVATION DEPTH AS SHOWN ON PLANS OR TO FIRM BEARING SOIL.

CIRCULAR PIPE

- D = OUTSIDE DIAMETER OF PIPE.
- d = INSIDE DIAMETER OF PIPE.
- X = WIDTH OF CLASS I BACKFILL MATERIAL BEYOND THE EXTREMITY OF THE PIPE.
X = 12" WHERE θ IS LESS THAN 36°
X = 18" WHERE θ IS 36° AND GREATER.
- WHERE DIRECTED BY THE ENGINEER, BEDDING MATERIAL MAY BE ELIMINATED FOR NORMAL EARTH FOUNDATIONS UNDER ROUTINE ENTRANCE PIPE (EXCEPT PLASTIC PIPE) 30" AND LESS IN DIAMETER WITH HEIGHT OF COVER 15' OR LESS.
- REGULAR BACKFILL MATERIAL MAY BE USED IN LIEU OF CLASS I BACKFILL MATERIAL FOR ALL FOUNDATION TYPES FOR ROUTINE ENTRANCE PIPE (EXCEPT PLASTIC PIPE) 30" AND LESS IN DIAMETER WITH HEIGHT OF COVER 15' OR LESS.
- BEDDING MATERIAL AND CLASS I BACKFILL MATERIAL MAY BE ELIMINATED FOR SHOULDER SLOT INLET (D1-13) OUTLET PIPES INSTALLATIONS.

ELLIPTICAL PIPE

- S₁ = OUTSIDE SPAN DIMENSION OF PIPE.
- S₂ = INSIDE SPAN DIMENSION OF PIPE.
- R = OUTSIDE RISE DIMENSION OF PIPE.
- X = WIDTH OF CLASS I BACKFILL MATERIAL BEYOND THE EXTREMITY OF THE PIPE.
X = 12" WHERE S₂ IS LESS THAN 36°
X = 18" WHERE S₂ IS 36° AND GREATER.
- WHERE DIRECTED BY THE ENGINEER, BEDDING MATERIAL MAY BE ELIMINATED FOR NORMAL EARTH FOUNDATIONS UNDER ROUTINE ENTRANCE PIPE WHERE S₂ IS 36° OR LESS AND HEIGHT OF COVER 15' OR LESS.
- REGULAR BACKFILL MATERIAL MAY BE USED IN LIEU OF CLASS I BACKFILL MATERIAL FOR ALL FOUNDATION TYPES FOR ROUTINE ENTRANCE PIPE WHERE S₂ IS 36° OR LESS AND HEIGHT OF COVER 15' OR LESS.

PIPE ARCH

- S = SPAN DIMENSION OF PIPE.
- R = RISE DIMENSION OF PIPE.
- b = SEE PC-1 TABLE FOR APPLICABLE PIPE MATERIAL.
- X = WIDTH OF CLASS I BACKFILL MATERIAL BEYOND THE EXTREMITY OF THE PIPE.
X = 12" WHERE S₂ IS LESS THAN 36°
X = 18" WHERE S₂ IS 36° AND GREATER.
- WHERE DIRECTED BY THE ENGINEER, BEDDING MATERIAL MAY BE ELIMINATED FOR NORMAL EARTH FOUNDATIONS UNDER ROUTINE ENTRANCE PIPE WHERE S₂ IS 36° OR LESS AND HEIGHT OF COVER 15' OR LESS.
- REGULAR BACKFILL MATERIAL MAY BE USED IN LIEU OF CLASS I BACKFILL MATERIAL FOR ALL FOUNDATION TYPES FOR ROUTINE ENTRANCE PIPE WHERE S₂ IS 36° OR LESS AND HEIGHT OF COVER 15' OR LESS.

INSTALLATION OF PIPE CULVERTS & STORM SEWERS GENERAL NOTES
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS
REVISION DATE SHEET 1 OF 1
107.00

NO PROJECTION OF PIPE ABOVE GROUND LINE

PIPE PROJECTION ABOVE GROUND LINE

NOTES:

- FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS GENERAL NOTES ON SHEET 107.00.
- CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26 MAY BE USED IN PLACE OF CLASS I BACKFILL.

INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"
VIRGINIA DEPARTMENT OF TRANSPORTATION

CITY OF WINCHESTER, VA
DEPARTMENT OF PUBLIC UTILITIES

BACK FILL MAY BE EXCAVATED TRENCH MATERIAL EXCEPT HIGHLY AND ORGANIC SILTS & CLAYS FREE OF ROOTS, DEBRIS & STONES LARGER THAN 3" DIAMETER

VDOT CLASS 21A BACKFILL PLACE IN 6" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY

12" OR D/2 MIN. TOTAL COVER

6" MIN.

6" MIN.

O.D. + 24"

DATE: 05/2022

STANDARD DETAIL NO. SD-2b

HDPE STORM DRAIN BEDDING OUTSIDE TRAFFIC AREAS SCALE: NONE

NYLOPLAST 12" DRAIN BASIN: 2812AG __ X

(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.

18" MIN WIDTH GUIDELINE

MINIMUM PIPE BURIAL DEPTH PER PIPE MANUFACTURER RECOMMENDATION (MIN. MANUFACTURING REQ. SAME AS MIN. SUMP)

(3) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLANS/TAKE OFF)

(3) VARIABLE SUMP DEPTH ACCORDING TO PLANS (6" MIN. BASED ON MANUFACTURING REQ.)

WATERTIGHT JOINT (CORRUGATED HDPE SHOWN)

4" MIN.

(4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 12" FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL, ADSHANCOR SINGLE WALL), N-12 HP, P.V.C. SEWER (EX. SDR 35), P.V.C. DWY (EX. SCH 40), P.V.C. C900/C905, CORRUGATED & RIBBED P.V.C.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2001. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PIED STRAIN	MEETS H-10	12980GP	7001-110-202
STANCHION	MEETS H-10	12980GS	7001-110-203
SOLID COVER	MEETS H-20	12980GC	7001-110-204
PIED STRAIN BRONZE	N/A	12980GPB	7001-110-205
PIED STRAIN BRONZE	N/A	12980GDB	7001-110-206
DROP IN GRATE	LIGHT DUTY	1261G	7001-110-021

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-30-05, WITH THE EXCEPTION OF THE BRONZE GRATE.

2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-30-05.

3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. (SEE DRAWING NO. 7001-110-08)

4 - DRAINAGE CONNECTION STUD JOINT TIGHTNESS SHALL CONFORM TO ASTM D2321 FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL), N-12 HP, & P.V.C. SEWER.

5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°, TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-072.

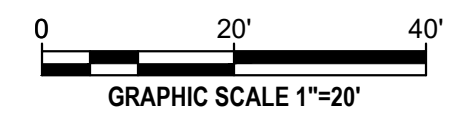
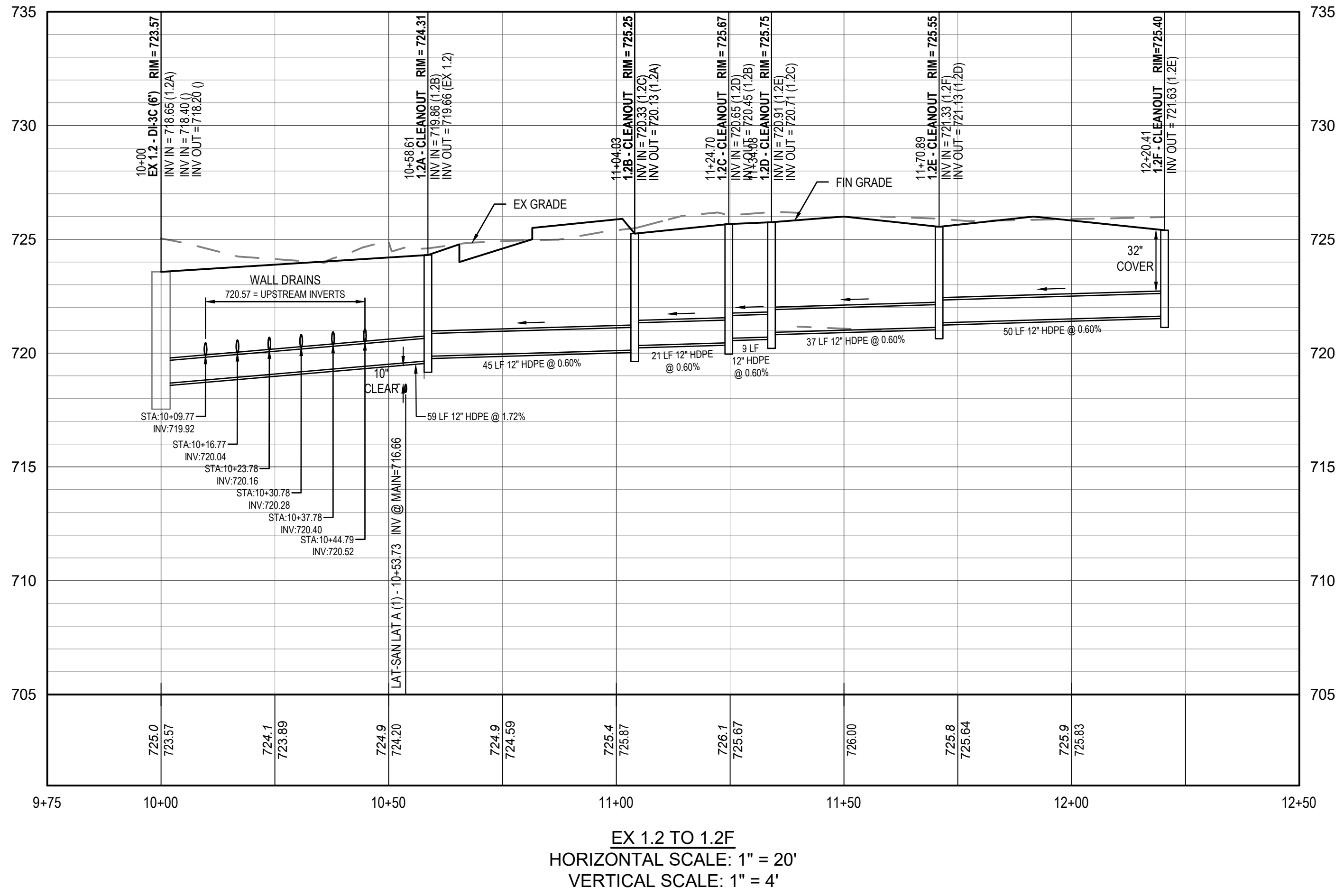
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FAX: (770) 933-2460
www.nyloplast-us.com

ADS
Nyloplast

12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL.

DWG NO. 7001-116-188 REV E



Pennoni

PENNONI ASSOCIATES INC.
117 East Pilecaddy Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

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PROFESSIONAL ENGINEER
RONALD A. MISLOWSKY, JR.
Lic. No. 20674
7/18/2023

SHOPDES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 202-2.3 (LOT 8B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22601
3RD FLOOR

STORM DRAIN PROFILE AND DETAILS

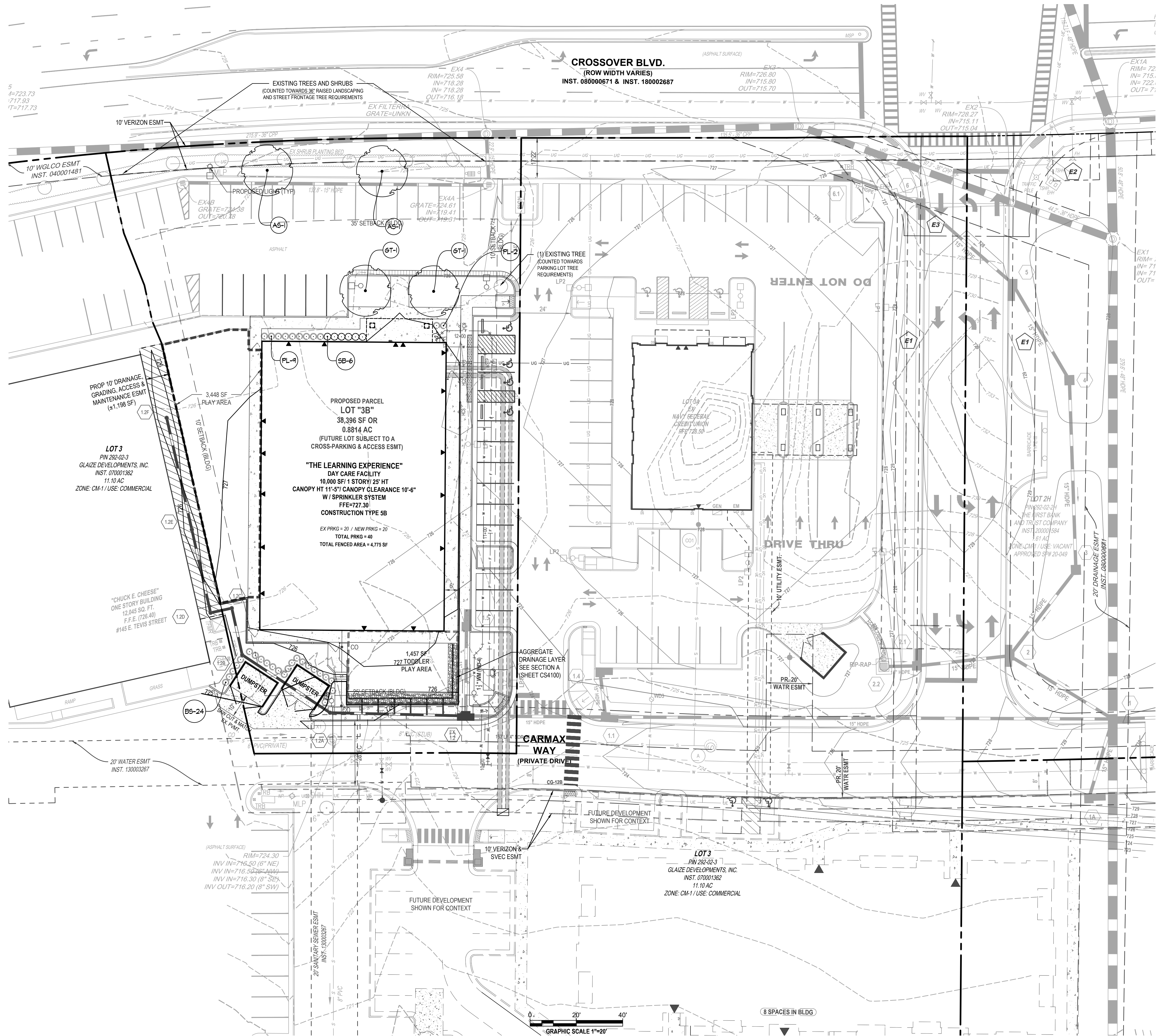
GANGES PROPERTIES GROUP
21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

PROJECT GANPR23001
DATE 02-13-2023
DRAWING SCALE AS NOTED
DRAWN BY KLML
APPROVED BY RAM

CS6100
TOTAL SHEETS 21

NOT FOR CONSTRUCTION



CROSSOVER BLVD.
(ROW WIDTH VARIES)
INST. 08000671 & INST. 180002887

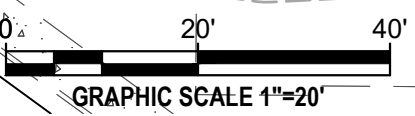
PROPOSED PARCEL LOT "3B"
38,396 SF OR 0.8814 AC
(FUTURE LOT SUBJECT TO A CROSS-PARKING & ACCESS ESMT)

"THE LEARNING EXPERIENCE"
DAY CARE FACILITY
10,000 SF / 1 STORY / 28' HT
CANOPY HT 11'-5" CANOPY CLEARANCE 10'-6"
W/ SPRINKLER SYSTEM
FFE=727.30
CONSTRUCTION TYPE 5B
EX PRKG = 20 / NEW PRKG = 20
TOTAL PRKG = 40
TOTAL FENCED AREA = 4,775 SF

LOT 3
PIN 292-02-3
GLAIZE DEVELOPMENTS, INC.
INST. 070001362
11.10 AC
ZONE: CM-1 / USE: COMMERCIAL

"CHUCK E. CHEESE"
ONE STORY BUILDING
12,045 SQ. FT.
F.F.E. (728.40)
#145 E. TEVIS STREET

LOT 3
PIN 292-02-3
GLAIZE DEVELOPMENTS, INC.
INST. 070001362
11.10 AC
ZONE: CM-1 / USE: COMMERCIAL



NOT FOR CONSTRUCTION

Pennoni
PENNONI ASSOCIATES INC.
117 East Pilecaddy Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

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Professional Engineer
RONALD A. MISLOWSKY, JR.
Lic. No. 20674
7/18/2023

SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 292.2-3 (LOT 3B)
THE LEARNING EXPERIENCE
2800 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD WARD

LANDSCAPE PLAN

GANGES PROPERTIES GROUP
21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

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PROJECT: **GANPR23001**
DATE: 02-13-2023
DRAWING SCALE: AS NOTED
DRAWN BY: KLML
APPROVED BY: RAM

CS7000

TOTAL SHEETS 21

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 PLOTTED: 7/18/2023 1:52 PM BY: Kelly Miller
 PROJECT STATUS: CONCEPTUAL LAYOUT
 PLOTTED BY: Pennoni Associates

SCOPE OF WORK

THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS.

NOTE: IF THE CONTRACTOR BIDS ACCORDING TO THE PLANT LIST, HE/SHE SHOULD THOROUGHLY CHECK THE PLANT LIST QUANTITIES WITH THE SYMBOLS DRAWN ON THE PLAN. TOP BE SURE THERE ARE NO DISCREPANCIES. IF THERE IS A DISCREPANCY BETWEEN THE DRAWING AND THE LIST ON THE PLANS, THE DRAWING TAKES PRECEDENCE.

STANDARDS

- A. ALL PLANT MATERIAL WILL CONFORM TO THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA).
- B. PLANT MATERIAL MUST BE SELECTED FROM NURSERIES THAT HAVE BEEN INSPECTED AND CERTIFIED BY STATE PLANT INSPECTORS.
- C. COLLECTED MATERIAL MAY BE USED ONLY WHEN APPROVED BY OWNER'S REPRESENTATIVE.
- D. NOMENCLATURE WILL BE IN ACCORDANCE WITH HORTUS II BY L.H. BAILEY.

SUBSTITUTIONS: PRE-BID

IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO MAKE EVERY REASONABLE EFFORT TO FIND THE MATERIAL SPECIFIED BY THE ARCHITECT. THE LANDSCAPE CONTRACTOR MAY OFFER SUBSTITUTIONS TO THE LANDSCAPE ARCHITECT FOR HIS/HER CONSIDERATION. THE LANDSCAPE CONTRACTOR WILL NOTIFY THE LANDSCAPE ARCHITECT IF THERE ARE KNOWN DISEASES OR INSECT RESISTANT SPECIES THAT CAN BE SUBSTITUTED FOR A SELECTED PEST-PRONE PLANT. THE CONTRACTOR SHALL SUBMIT A BASE BID AS PER PLAN PLUS PRICE CLARIFICATIONS FOR ALL RECOMMENDED SUBSTITUTIONS.

SUBSTITUTIONS: POST-BID

IT IS THE INTENT TO ELIMINATE POST-BID SUBSTITUTIONS. HOWEVER, IN THE EVENT THAT THE CONTRACT MATERIAL HAS BECOME UNAVAILABLE, AN APPROPRIATE SUBSTITUTION MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.

UTILITIES AND UNDERGROUND FEATURES

- A. THE LANDSCAPE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AND/OR THE GENERAL CONTRACTOR IN ADVANCE OF CONSTRUCTION TO LOCATE UTILITIES.
- B. IF THERE IS A CONFLICT WITH THE UTILITIES AND THE PLANTING, THE LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR RELOCATING PLANTS PRIOR TO THE PLANTING PROCESS. ANY COST DUE TO RELOCATING AFTER PLANTING SHALL BE BORNE BY THE OWNER.

DRAINAGE

IF PLANTS ARE TO BE INSTALLED IN AREAS THAT SHOW OBVIOUS POOR DRAINAGE, AND THE PLANTS ARE INAPPROPRIATE FOR THAT CONDITION, THE PLANTS SHALL BE RELOCATED. THE CONTRACT SHALL BE ADJUSTED TO ALLOW FOR DRAINAGE CORRECTION AT A NEGOTIATED COST. OR THE PLANT SELECTION SHALL BE MODIFIED BY THE LANDSCAPE ARCHITECT TO ACCOMMODATE THE POOR DRAINAGE SITUATION.

WARRANTY

- A. THE STANDARD WARRANTY IS FOR A ONE (1) YEAR PERIOD, EXCLUDING BULBS, SOD AND ANNUALS, COMMENCING ON THE DATE OF INITIAL ACCEPTANCE. ALL PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD.
- B. **BALLED AND BURLAPPED (B&B)**
 - B.1. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM ROOT BALLS FREE OF NOXIOUS WEEDS. THERE SHOULD BE NO EXCESS SOIL ON TOP OF THE ROOT BALL OR AROUND THE TRUNK.
 - B.2. BALL SIZE SHALL BE IN ACCORDANCE WITH ANLA STANDARDS
 - B.3. CALIPER AND HEIGHT MEASUREMENTS: IN SIZE GRADING B&B SINGLE-TRUNK TREES, CALIPER SHALL TAKE PRECEDENCE OVER HEIGHT. CALIPER OF THE TRUNK SHALL BE TAKEN 6" ABOVE THE GROUND LEVEL (UP TO INCLUDING 4" CALIPER SIZE) AND 12" ABOVE THE GROUND LEVEL OF LARGER TREES. FOR MULTIPLE-TRUNK TREES, HEIGHT MEASUREMENT SHALL TAKE PRECEDENCE OVER CALIPER.
- C. **CONTAINER-GROWN STOCK**
 - C.1. THE SIZE OF CONTAINER-GROWN SHRUBS IS MEASURED BY HEIGHT AND WIDTH OF PLANT. CONTAINER-GROWN TREES ARE MEASURED BY THE SAME STANDARDS LISTED IN 8.3 ABOVE. THE ROOT SYSTEM OF CONTAINER-GROWN PLANTS SHALL BE WELL-DEVELOPED AND WELL-DISTRIBUTED THROUGHOUT THE CONTAINER.
 - C.2. ALL CONTAINER-GROWN TREES AND SHRUBS THAT HAVE CIRCLING AND MATTED ROOTS SHALL BE TREATED IN THE FOLLOWING MANNER PRIOR TO PLANTING: USING A KNIFE OR SHARP BLADE, MAKE 4-6 CUTS, 1" DEEP, THE LENGTH OF THE ROOT BALL, TO CUT ALL CIRCLING ROOTS. SEE PLANTING PROCEDURES FOR ALL CONTAINER-GROWN TREES & SHRUBS IN THIS SECTION.
 - C.3. ALL CONTAINER-GROWN PLANTS SHOULD BE GROUPED AND WATERED DAILY UNTIL THEY ARE PLANTED IN THE LANDSCAPE, THE SOIL SHALL BE KEPT MOIST WITH THE EQUIVALENT OF ONE INCH OF RAINFALL PER WEEK.
- D. PRUNING SHALL BE DONE BEFORE PLANTING OR DURING THE PLANTING OPERATION. PRUNING DETAIL FOR TREES IN THIS SECTION.
- E. ALL PLANT MATERIAL IN TRANSIT SHALL BE COVERED TO KEEP MATERIAL FROM DRYING OUT. THE COVERING SHALL COMPLY WITH STATE AND LOCAL LAWS PERTAINING TO THE TRANSPORT OF MATERIALS.
- F. TREES SHALL BE PLACED IN AN UPRIGHT POSITION WITH THE ROOTBALL COVERED BY MULCH AND KEPT MOIST. TREES AND SHRUBS SHOULD NOT BE LEFT ON SITE UNPLANTED FOR MORE THAN 24 HOURS WITHOUT ADEQUATE WATER TO INSURE ROOTS SURVIVAL.

INSPECTION

- A. PLANTS MAY BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE AT THE PLACE OF GROWTH OR HOLDING YARD FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AS TO QUALITY, SIZE AND VARIETY.
- B. PLANTS DAMAGED IN HANDLING OR TRANSPORTATION CAN BE REJECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- C. STATE NURSERY INSPECTION CERTIFICATES SHALL BE FURNISHED TO THE LANDSCAPE ARCHITECT UPON REQUEST.

PLANTING PROCEDURES FOR ALL CONTAINER-GROWN TREES & SHRUBS

- A. REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER.
- B. FOR UNTREATED PLASTIC CONTAINER GROWN PLANTS WITH CIRCLING ROOTS, USE A SHARP KNIFE TO MAKE 1" CUTS THE LENGTH OF THE ROOTBALL.
- C. PLANT SHRUB TO TREE A MINIMUM OF 1/8 OF THE HEIGHT OF THE ROOTBALL ABOVE EXISTING GRADE.
- D. APPLY A 2 TO 3" THICK LAYER OF APPROVED MULCH. KEEP MULCH 6" AWAY FROM THE TRUNK OF ALL TREES AND SHRUBS.
- E. PLANTS GROWN IN ROOT CONTAINMENT BAGS MUST HAVE THE BAGS REMOVED DURING THE PLANTING OPERATION. NO ADDITIONAL SLASHING OF THE ROOTBALL IS NECESSARY.

MAINTENANCE OF LANDSCAPING NOTES:

- 1. ALL LANDSCAPED AREA SHALL BE MAINTAINED IN GOOD CONDITION BY OWNER.
- 2. REASONABLE PROVISIONS SHALL BE MADE FOR PROTECTION FROM VEHICLES, PEDESTRIANS, OR SHOPPING CARTS.
- 3. DEAD OR DYING VEGETATION SHALL BE REPLACED AT DIRECTION OF ADMINISTRATOR.
- 4. SHRUBS SHALL BE REPLACED AT A SIZE CONSISTENT WITH THAT OF EXPECTED FOR SPECIES AND TIME SINCE INSTALLATION.
- 5. TREES SHALL BE REPLACED AT A SIZE OF 0.5" CALIPER ABOVE 2" FOR EVERY YEAR SINCE INSTALLATION UP TO 5" CALIPER.

GENERAL LANDSCAPING NOTES:

- 6. NO TREES OR SHRUBS SHALL BE PLACED ON CITY OF WINCHESTER WATER OR SANITARY SEWER EASEMENTS.
- 7. ALL LANDSCAPING SHALL COMPLY WITH CITY OF WINCHESTER, ZONING ORDINANCE SECTIONS 19-5-6 LANDSCAPING.
- 8. OWNER WILL ACCEPT FOR REVIEW, SUBSTITUTIONS FOR ALL LANDSCAPING PROVIDED THEY SATISFY APPLICABLE REGULATIONS.

LANDSCAPE CALCULATIONS:

OPEN SPACE / GREEN SPACE CALCULATIONS	
TOTAL SITE AREA	38,395.55 SF
OPEN SPACE/GREEN SPACE REQUIRED (15.00%)	5,759.33 SF
OPEN SPACE/GREEN SPACE PROVIDED (24.51%)	9,407.79 SF

RIGHT OF WAY LANDSCAPE STRIP CALCULATIONS	
WIDTH OF LANDSCAPE STRIP REQUIRED	10'
WIDTH OF LANDSCAPE STRIP PROVIDED	WIDTH VARIES (10' MIN) *EXISTING
TOTAL LENGTH OF R/W FRONTAGE	174 LF
ENTRANCES/ PAVEMENT ALONG FRONTAGE	-0 LF
LENGTH OF R/W TO BE PLANTED	174 LF
TREES REQUIRED @ 1 PER 35 LF	5
TREES PROVIDED	6 *EXISTING
36" RAISED LANDSCAPING REQUIRED	YES (CROSSOVER BLVD ONLY)
36" RAISED LANDSCAPING OPTION PROVIDED	SHRUBS *EXISTING

* EXISTING TREES & SHRUBS BEING UTILIZED TO MEET LANDSCAPING REQUIREMENTS

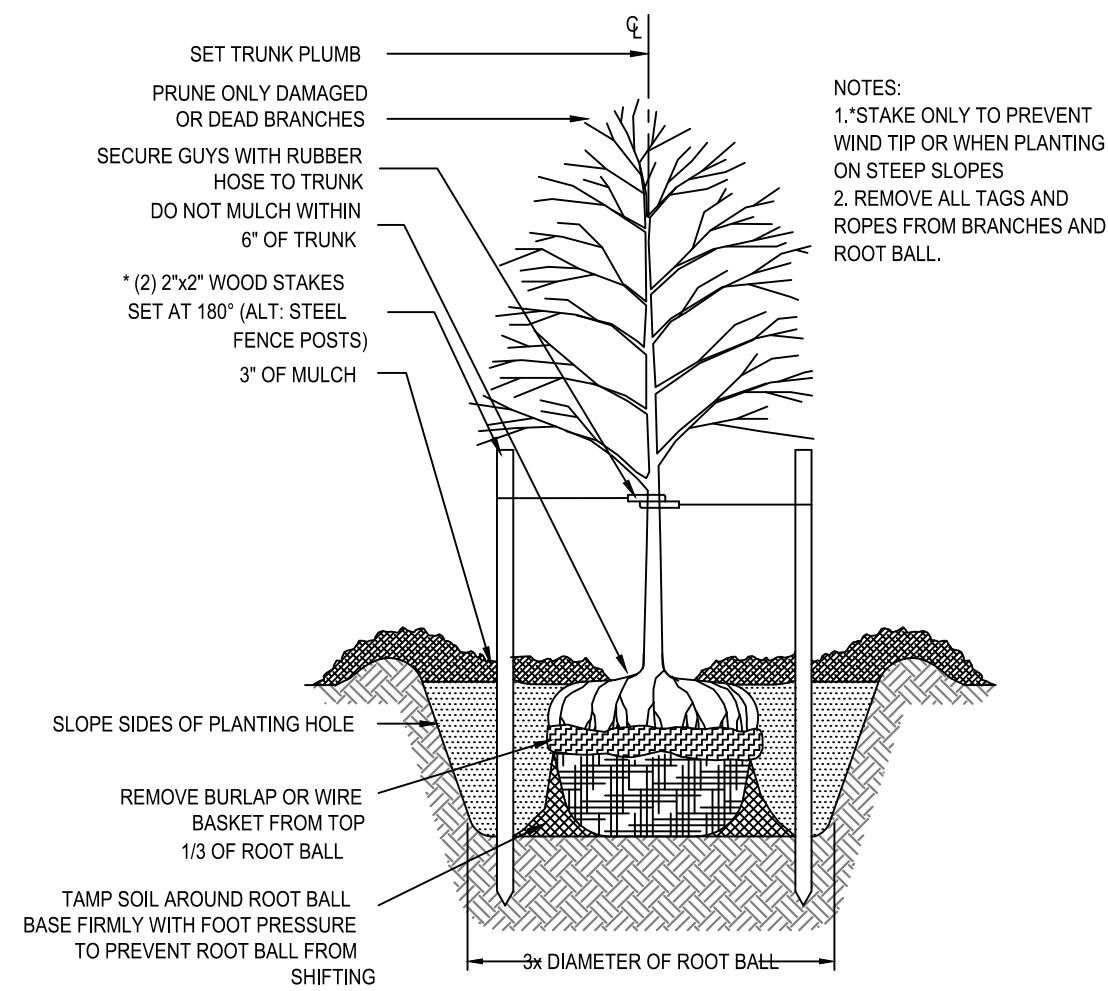
PARKING LOT LANDSCAPING CALCULATIONS	
OFF-STREET PARKING AREA	10,953 SF
TREES REQUIRED @ 1 PER 2,000 SF	5
TREE PROVIDED	*5 (1 EX, 4 NEW)

* (1) EXISTING TREE BEING UTILIZED TO MEET LANDSCAPING REQUIREMENTS

FOUNDATION PLANTINGS CALCULATIONS	
3' PLANTING STRIP REQUIRED	YES
3' PLANTING STRIP PROVIDED	YES

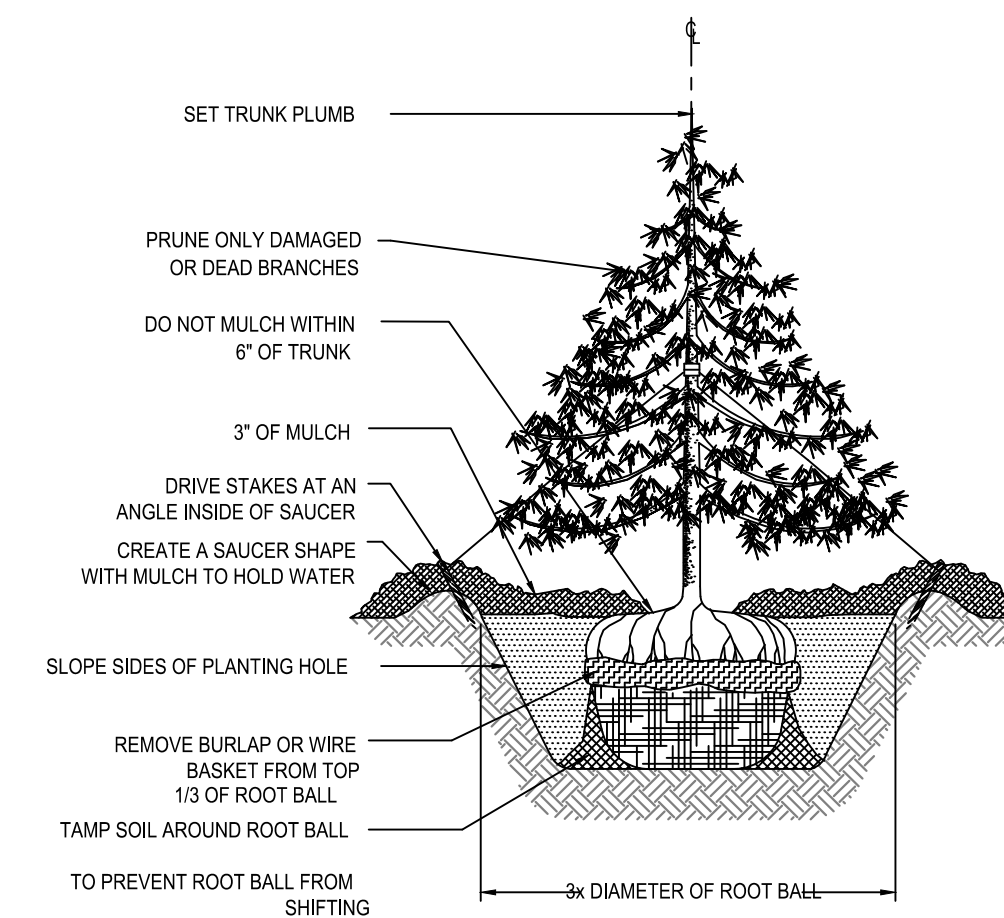
TRASH ENCLOSURE SCREENING	
LANDSCAPING REQUIRED AROUND TRASH ENCLOSURE PERIMETER	YES
LANDSCAPING PROVIDED AROUND TRASH ENCLOSURE PERIMETER	YES

GENERAL PLANT LIST					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY
TREES					
AS	ACER SACCHARUM	SUGAR MAPLE	2" CAL @ 6" ABOVE GRADE MIN.	AS SHOWN	2
GT	GLEDITSIA TRIACANTHOS VAR. INERMIS 'IMPERIAL'	THORNLESS HONEYLOCUST	2" CAL @ 6" ABOVE GRADE MIN.	AS SHOWN	2
EVERGREEN TREES					
BS	BUXUS SEMPERVIRENS 'DEE RUNK'	DEE RUNK BOXWOOD	48" MIN. HT.	36" OC.	24
SHRUBS					
PL	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRY LAUREL	24" MIN. HT.	36" OC.	11
SB	SPIRAEA X BUMALDA 'GOLD FLAME'	GOLD FLAME SPIRAEA	24" MIN. HT.	36" OC.	6



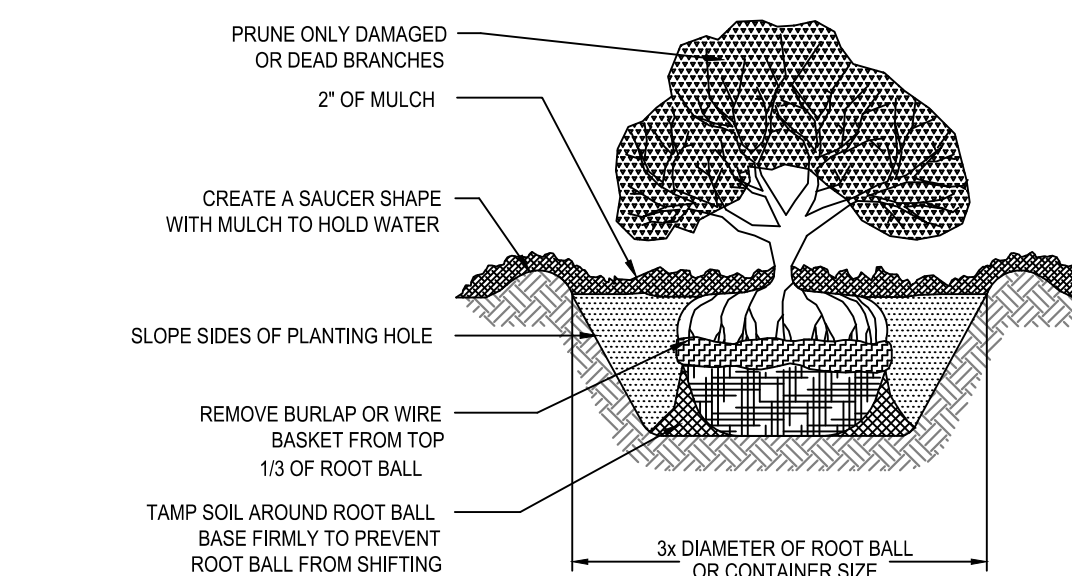
TREE PLANTING

NOT TO SCALE



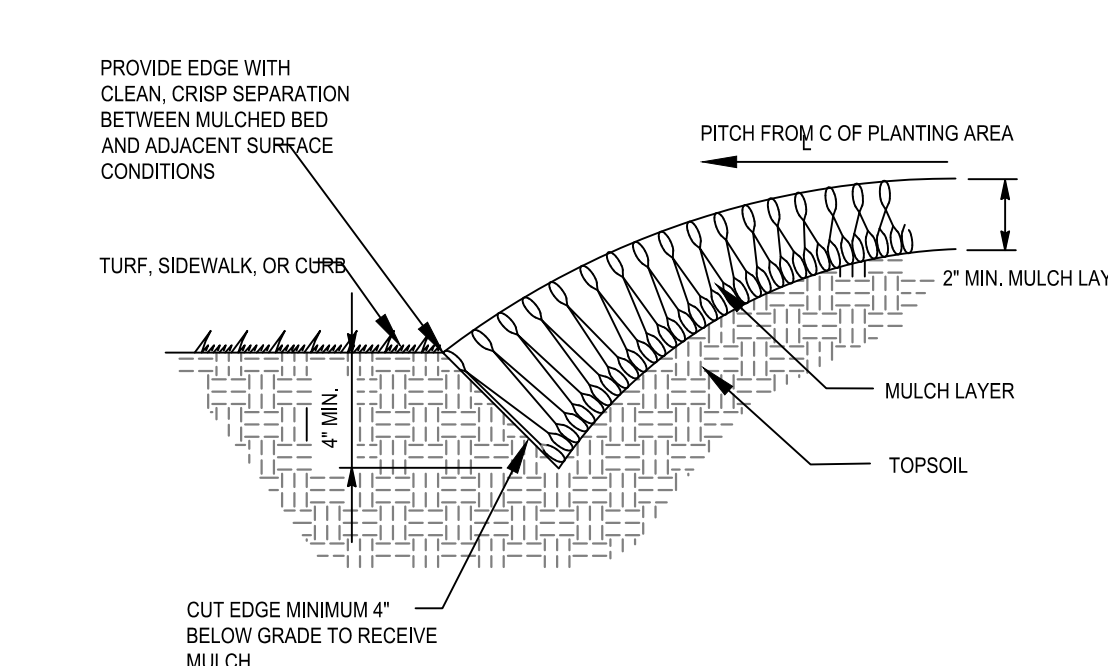
EVERGREEN TREE PLANTING

NOT TO SCALE



SHRUB PLANTING

NOT TO SCALE



TYPICAL MULCH EDGING DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION



PENNONI ASSOCIATES INC.
117 East Pickedilly Street
Winchester, VA 22601
T 540.667.2139 F 540.665.0493

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK



SHOPPES AT CROSSOVER
SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 8B)
THE LEARNING EXPERIENCE
2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
3RD FLOOR

LANDSCAPE NOTES AND DETAILS

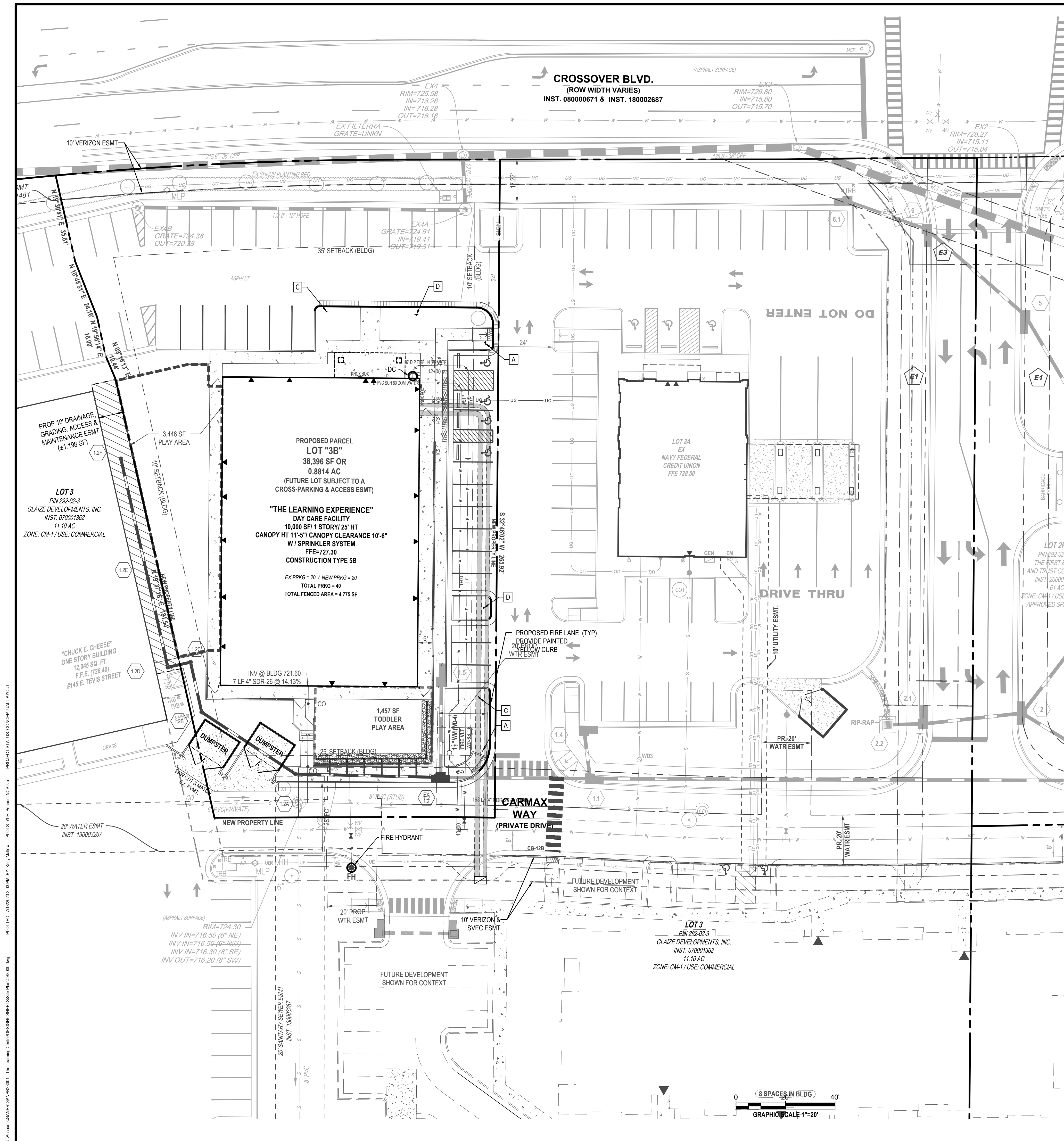
GANGES PROPERTIES GROUP
21671 BROWNE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

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PROJECT	GANPR23001
DATE	02-13-2023
DRAWING SCALE	AS NOTED
DRAWN BY	KLML
APPROVED BY	RAM

CS7500
TOTAL SHEETS 21



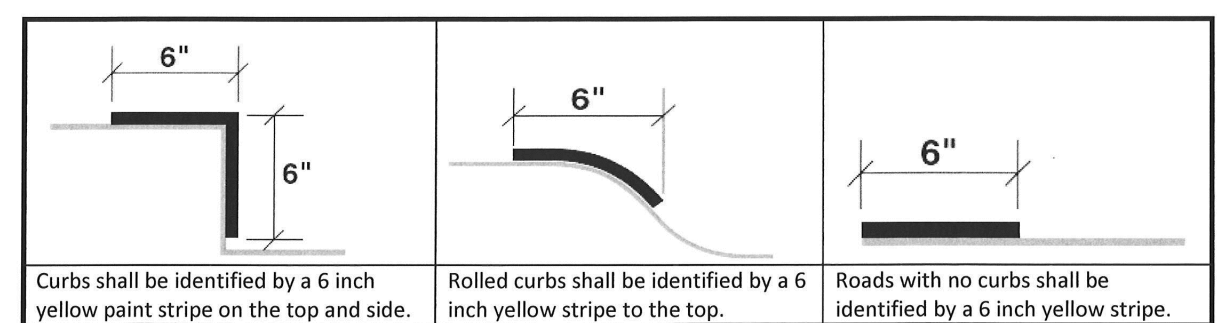
Fire Lane Marking Guidelines

D103.6 Signs. Where required by the fire code official, fire apparatus access roads shall be marked with permanent signs complying with the following specifications:

1. Metal construction 12 inches by 18 inches.
2. Red letters on engineer grade prismatic reflective white background with 3/8 inch red trim stripe around entire outer edge of sign.
3. Sign construction to be the letter "P" in black inside a red circle with a red slash through the "P", below that to read "FIRE LANE" on separate lines. Signs delineating the beginning or ending of a fire lane shall have a solid filled arrow to point in the direction of the fire lane.
4. Signs are to be mounted with the bottom no less than 7" from the ground and no more than 7'6" to the ground, unless otherwise directed by the fire code official.
5. Posts for signs, when required, shall be metal and securely mounted, unless written permission for alternatives is obtained prior to installation from the Office of the Fire Marshal. Signs should be spaced as shown on approved plans. In long stretches, the maximum distance between signs is 50 feet.
6. Other special signs may be approved by the Office of the Fire Marshal.

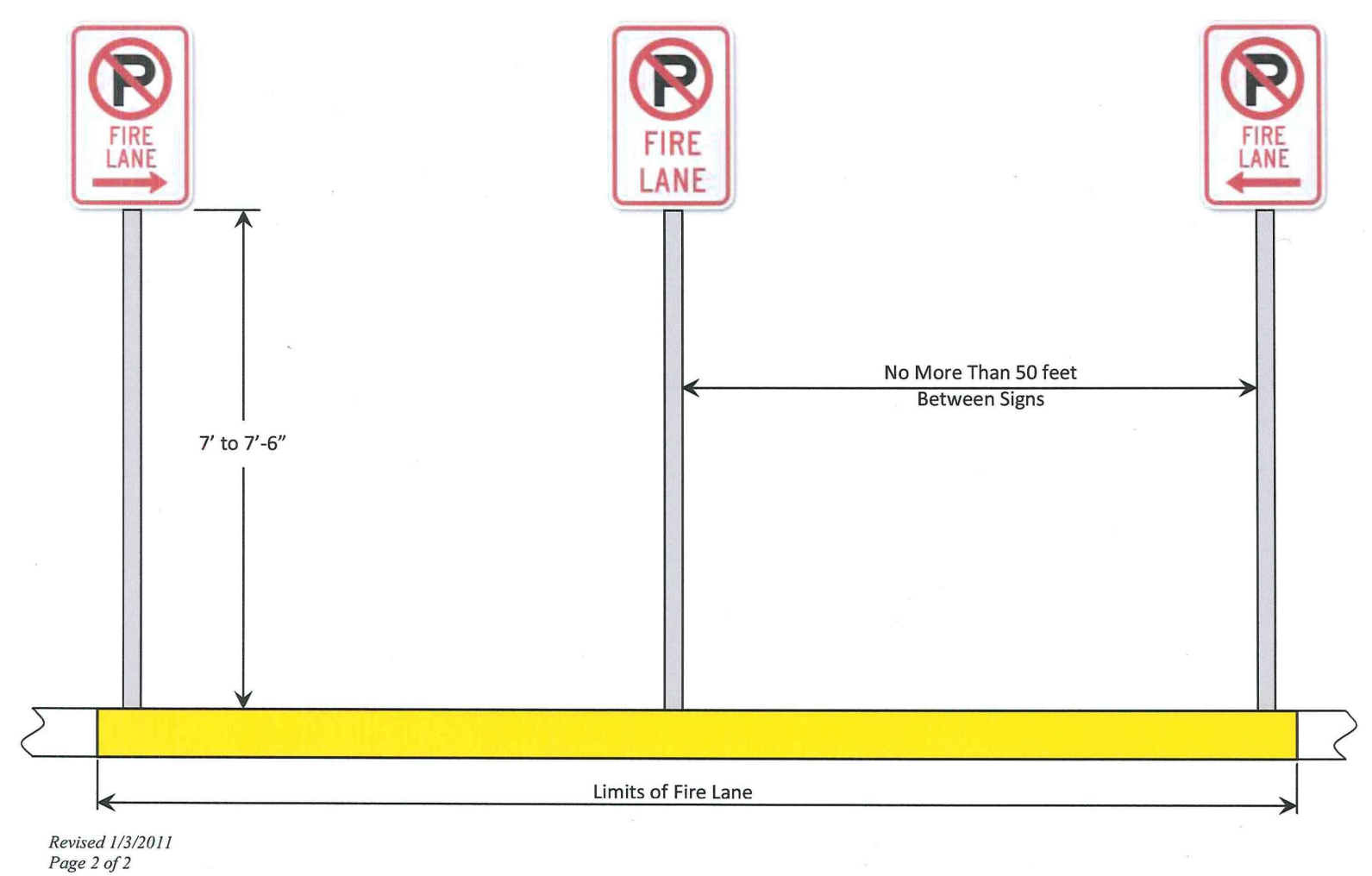
SIGN TYPE "A"	SIGN TYPE "C"	SIGN TYPE "D"
Standard wording with an arrow on the bottom pointing to the right. One sign mounted parallel to the line of curbing or pavement edge at the end of the painted area.	Standard wording with an arrow on the bottom pointing to the left. One sign mounted parallel to the line of curbing or pavement edge at the end of the painted area.	Standard wording with no arrow. One sign mounted parallel to the line of curbing or pavement edge.

D103.7 Curb Designation. Where curbing is provided adjacent to the fire lane, it must be painted yellow within the limits of the fire lane. In areas without curbing a 6 inch yellow line shall be applied to the edge of the pavement. Paint shall be highway traffic grade.



Revised 1/3/2011
Page 1 of 2

Example of Fire Lane Markings



Revised 1/3/2011
Page 2 of 2

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Commonwealth of Virginia
Ronald A. Mislowsky, Jr.
 Lic. No. 20674
 7/18/2023
PROFESSIONAL ENGINEER

SHOPPES AT CROSSOVER
 SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 8B)
THE LEARNING EXPERIENCE
 2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
 3RD FLOOR

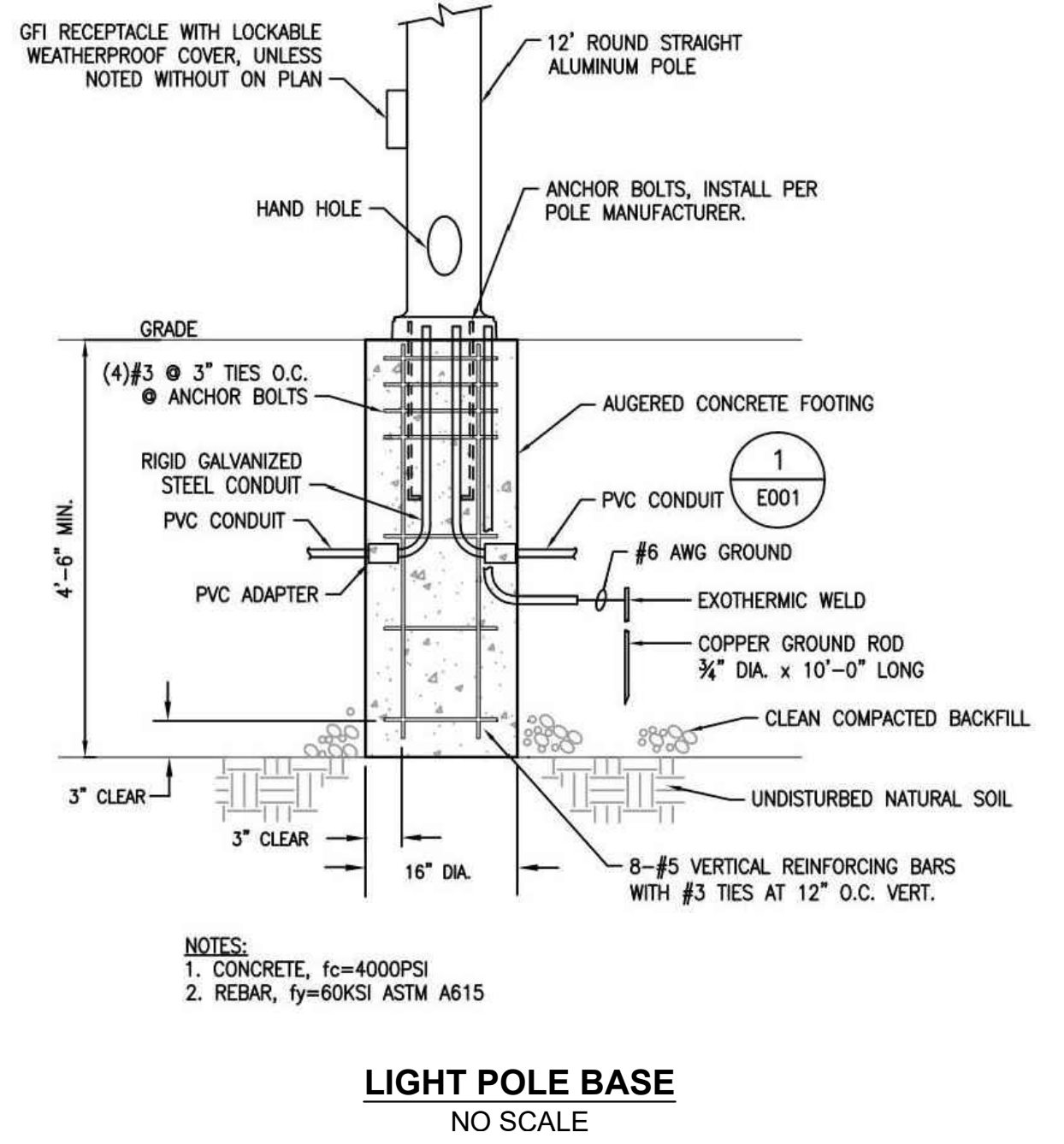
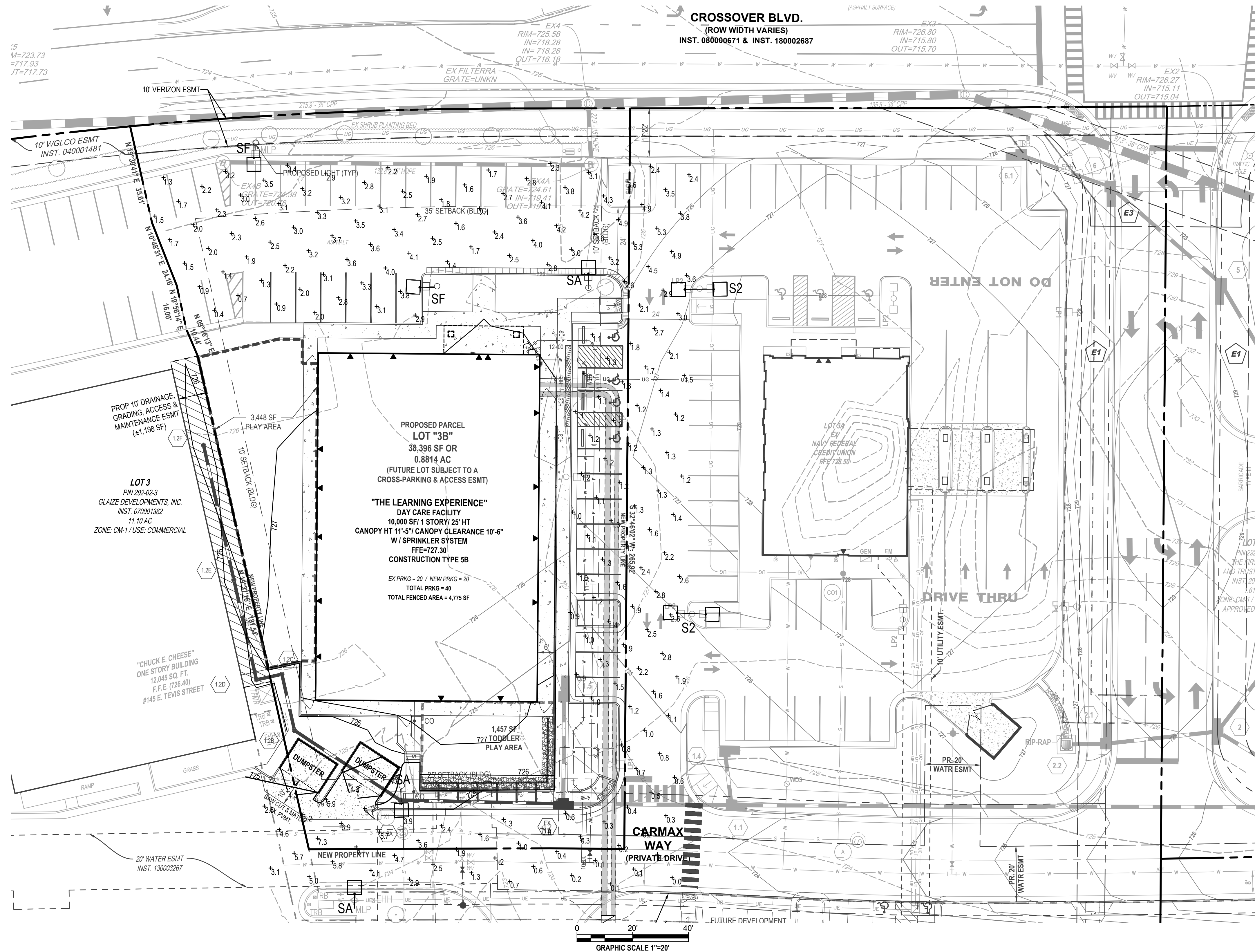
LIFE SAFETY PLAN
 GANGES PROPERTIES GROUP
 21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

PROJECT	GANPR23001
DATE	02-13-2023
DRAWING SCALE	AS NOTED
DRAWN BY	KLML
APPROVED BY	RAM

CS8000
 TOTAL SHEETS 21

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Luminaire Schedule					LLF	Luminaire Lumens	Luminaire Watts	Total Watts
Symbol	Qty	Label	Arrangement	Description				
[Symbol]	2	S2	Back-Back	LSI 2MRM-LED-12L-SIL-5W-40-70CRI, 5SQ-B3-S11G-22.5-D180-5BC, 25' AFG	0.900	12269	94	376
[Symbol]	3	SA	Single	LSI 1MRM-LED-18L-SIL-3-40-70CRI-HL, 5SQ-B3-S11G-22.5-S-5BC, 25' AFG	0.900	14155	150	450
[Symbol]	2	SF	Single	LSI 1MRM-LED-18L-SIL-FIT-40-70CRI-HL, 5SQ-B3-S11G-22.5-S-5BC, 25' AFG	0.900	12149	150	300

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
GRADE	illuminance	Fc	2.33	7.3	0.0	N.A.	N.A.
PARKING AT BLDG FRONT	illuminance	Fc	1.19	1.6	0.9	1.32	1.78
PARKING AT CROSSOVER BLVD	illuminance	Fc	2.88	4.3	0.9	3.20	4.78

Pennoni
PENNONI ASSOCIATES INC.
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ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

Professional Engineer
 RONALD A. MISLOWSKY, JR.
 Lic. No. 20674
 7/18/2023

SHOPPES AT CROSSOVER
 SITE DEVELOPMENT PLAN - TWP 202.2.3 (LOT 3B)
THE LEARNING EXPERIENCE
 2600 PLEASANT VALLEY ROAD | WINCHESTER, VIRGINIA 22801
 3RD WARD

LIGHTING PLAN
 GANGES PROPERTIES GROUP
 21671 BRONTE PLACE | ASHBURN, VIRGINIA 20147

NO.	DATE	REVISIONS	BY

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PROJECT: **GANPR23001**
 DATE: 02-13-2023
 DRAWING SCALE: AS NOTED
 DRAWN BY: KLML
 APPROVED BY: RAM

CS8100
 TOTAL SHEETS 21

NOT FOR CONSTRUCTION

Catalog #: _____ Project: _____ Type: _____
 Prepared By: _____ Date: _____

Steel Poles

Square Straight

QUICK LINKS

[Ordering Guide](#) [Configurations](#) [Dimensions](#) [EPA](#)

FEATURES & SPECIFICATIONS

- Pole Shaft**
 - Straight poles are 4", 5", or 6" square.
 - Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi.
 - On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length.
- Ground Lug**
 - Ground lug is standard.
 - Weatherproof duplex receptacle is optional.
- Ground Fault Circuit Interrupter**
 - Self-testing Ground Fault circuit interrupter is optional.
- Finishes**
 - Every pole is provided with the DuraGrip Protection System and a 5-year limited warranty.
 - When the top-of-the-line DuraGrip Plus Protection System is selected, in addition to the DuraGrip Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.
- Hand-Hole**
 - Standard hand-hole location is 12" above pole base.
 - Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.
- Base**
 - Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
 - Two-piece square base cover is optional.
- Anchor Bolts**
 - Anchor bolts can be made available featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
 - Anchor Bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 psi.
- Determining The Luminaire/Pole Combination For Your Application:**
 - Select luminaire from luminaire ordering information.
 - Anchor bracket configuration if required Grade 55 with a minimum yield strength of 55,000 psi.
 - Determine EPA value from luminaire/bracket EPA chart
- Pole Finish**
 - Confirm MPH to match wind speed in the application area (See wind speed maps).
 - Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA.
 - Consult factory for special wind load requirements and banner brackets.
- Pole Vibration Damper**
 - A pole vibration damper is recommended in open terrain areas of the country where low steady state winds are common.
 - Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.
- Listings**
 - UL Listed
 - BAA/TAA Compliant

Steel Poles Square Straight Type: _____
 Have questions? Call us at (800) 436-7800

ORDERING GUIDE [Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: 450 BS 5116 24 S PIP DGP

Pole Series	Mounting Method	Material	Height	Mounting Configuration	Pole Finish	Options
450 4" x 4" Square Straight Pole (New Build)	1000 1000 1000	5116 5116 5116	24 24 24	S S S	PIP PIP PIP	DGP DGP DGP
550 5" x 5" Square Straight Pole (New Build)	1000 1000 1000	5516 5516 5516	24 24 24	S S S	PIP PIP PIP	DGP DGP DGP
650 6" x 6" Square Straight Pole (New Build)	1000 1000 1000	6516 6516 6516	24 24 24	S S S	PIP PIP PIP	DGP DGP DGP
4500 4" x 4" Square Straight Pole (Detritol)	1000 1000 1000	5116 5116 5116	24 24 24	S S S	PIP PIP PIP	DGP DGP DGP
5500 5" x 5" Square Straight Pole (Detritol)	1000 1000 1000	5516 5516 5516	24 24 24	S S S	PIP PIP PIP	DGP DGP DGP
6500 6" x 6" Square Straight Pole (Detritol)	1000 1000 1000	6516 6516 6516	24 24 24	S S S	PIP PIP PIP	DGP DGP DGP

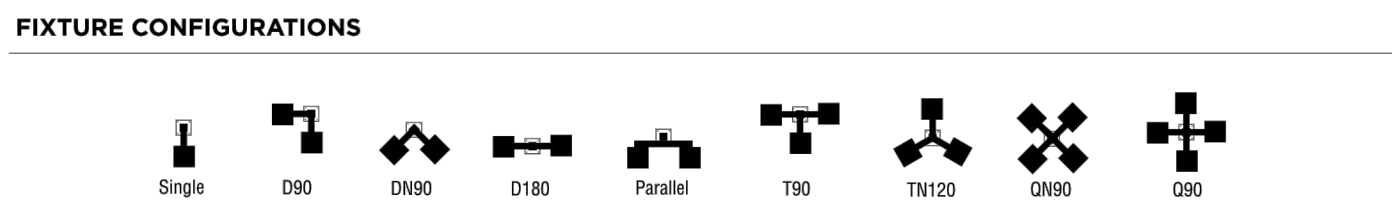
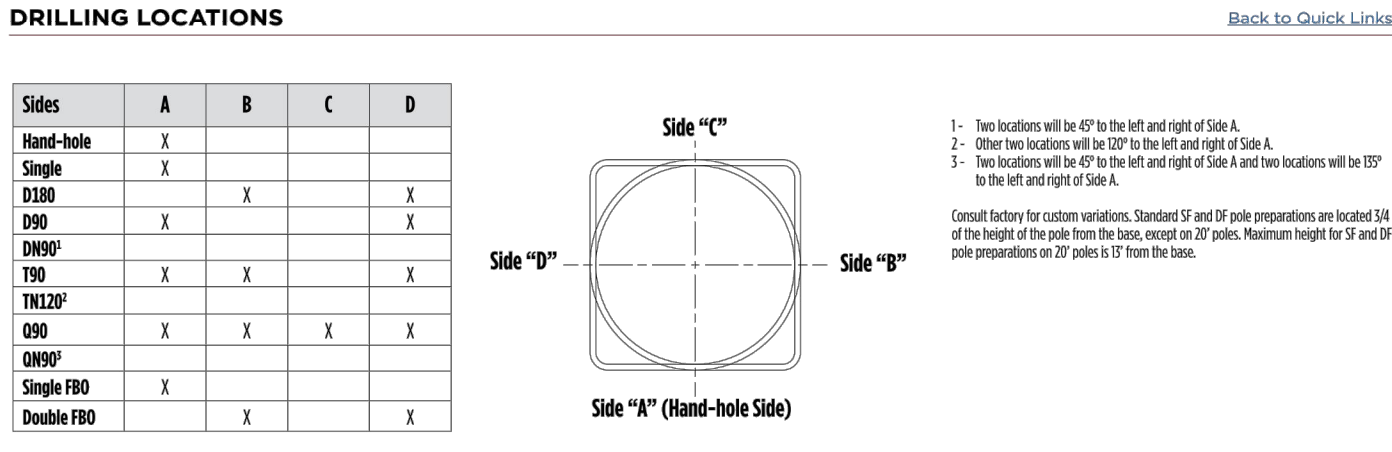
Need more information? [Click here for our glossary.](#) **Have additional questions?** Call us at (800) 436-7800

ACCESSORY ORDERING INFORMATION

Part Number	Description
1225501R	48" - 4" Square Base Cover
1225501R	58" - 5" Square Base Cover
1225501R	68" - 6" Square Base Cover
1324801R	58" - 5" Square Universal Base Cover
1312501R	68" - 6" Square Universal Base Cover
1225601R	E92 - Weatherproof Duplex Receptacle
1225601R	G1 - Ground Fault Circuit Interrupter
123235	M65 - mounting Hole Plug for use with 5" traditional drill pattern (3 set of 3 plugs)
481126	M83 - mounting Hole Plug for use with 2" reduced drill pattern (3 set of 3 plugs)
729441	M82 - mounting Hole Plug for use with 2" reduced drill pattern (3 set of 3 plugs)
123259	Vibration Damper - 4" Square Pole (bolt-on mount only)
123259	Vibration Damper - 5" Square Pole (bolt-on mount only)
123561	Vibration Damper - 6" Square Pole (bolt-on mount only)

1 - See Area Light Buckets - 5" Reduced Drill Pattern and Area Light Buckets - 2" Traditional Drill Pattern Spec Sheets.
 2 - Pole height will have +/- 1/2" tolerance.
 3 - See Foot Lighting Buckets section for choice of F80 brackets.
 4 - Order bracket most includes weight and size of pole mounting location. Mounting bracket required if not of order.

Steel Poles Square Straight Type: _____
 Have questions? Call us at (800) 436-7800



Steel Poles Square Straight Type: _____
 Have questions? Call us at (800) 436-7800

PRODUCT DIMENSIONS [Back to Quick Links](#)

SHIPPING WEIGHTS

POLE	Weight
4" (102mm) sq. 11 Ga. 7.50 lbs./ft.	
4" (102mm) sq. 07 Ga. 9.00 lbs./ft.	
5" (127mm) sq. 11 Ga. 9.00 lbs./ft.	
5" (127mm) sq. 07 Ga. 10.50 lbs./ft.	
6" (152mm) sq. 11 Ga. 15.40 lbs./ft.	
Anchor Bolts (3/4" x 24") (30mm x 609mm) 15 lbs. (7kg)/set	
Anchor Bolts (1" x 30") (25mm x 914mm) 30 lbs. (14kg)/set	

Steel Poles Square Straight Type: _____
 Have questions? Call us at (800) 436-7800

WIND SPEED [Back to Quick Links](#)

EPA Reference
 All LSI Industries poles are government tested to the EPA requirements based on 30 mph wind speed. EPA Reference is provided for informational purposes only. EPA Reference is not intended to be used as a design standard for any specific application. EPA Reference is based on a 30 mph wind speed. EPA Reference is not intended to be used as a design standard for any specific application. EPA Reference is based on a 30 mph wind speed. EPA Reference is not intended to be used as a design standard for any specific application.

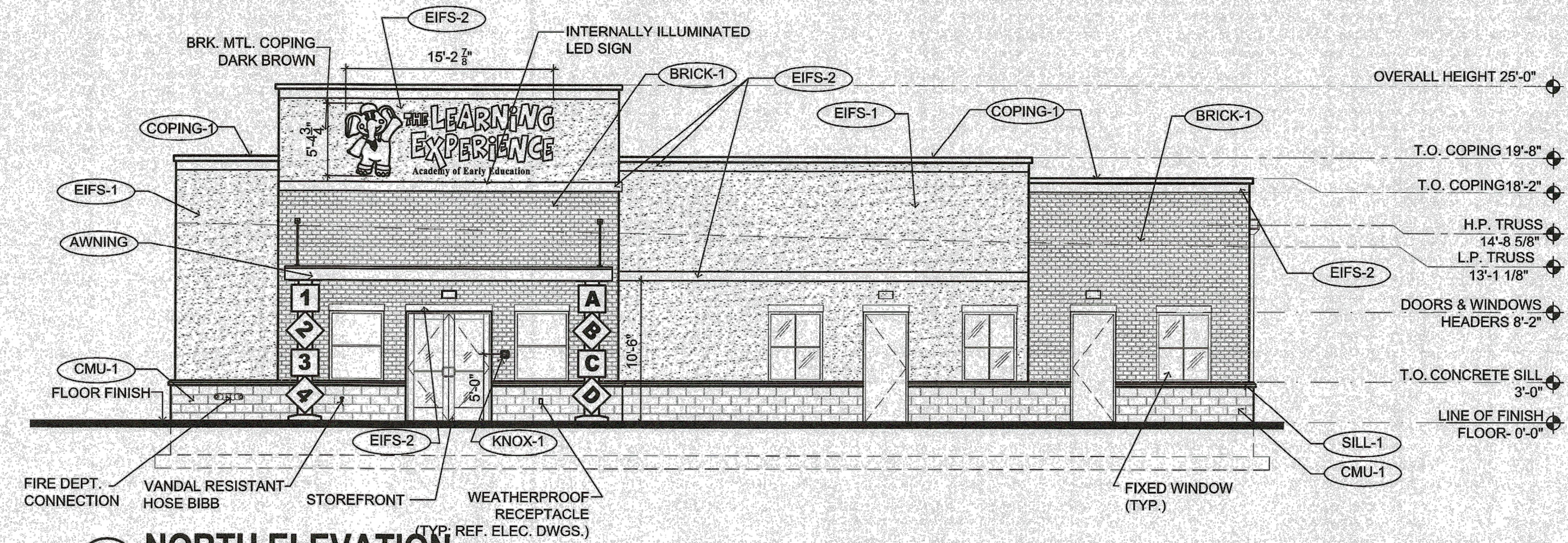
POLE	Wgt. Height Length (ft)	Wind Thick (sq)	Designator	Dir. (in)	Anchor Bolt Dia (in)	EPA
4" x 11-ga x 12'	12	11	B	8" - 11"	0.75	15.9 12.5 11.3 9.2 7.6 6.3 5.2 4.3 3.6
4" x 11-ga x 14'	14	11	B	8" - 11"	0.75	10.7 9.5 8.5 6.8 5.4 4.4 3.5 2.7 2.1
4" x 11-ga x 16'	16	11	B	8" - 11"	0.75	8.2 7.2 6.4 4.9 3.8 2.9 2.1 1.5 1.0
4" x 11-ga x 18'	18	11	B	8" - 11"	0.75	6.5 5.4 4.7 3.4 2.4 1.6 1.0 0.4 n/a
4" x 11-ga x 20'	20	11	B	8" - 11"	0.75	4.6 3.9 3.2 2.1 1.2 0.6 n/a n/a n/a
4" x 11-ga x 22'	22	11	B	8" - 11"	0.75	7.6 6.6 5.7 4.2 3.0 2.0 1.4 0.5 n/a
4" x 11-ga x 24'	24	11	B	8" - 11"	0.75	6.0 5.1 4.3 2.9 1.8 0.9 n/a n/a n/a
4" x 11-ga x 26'	26	11	B	8" - 11"	0.75	4.6 3.7 3.0 1.7 0.7 n/a n/a n/a n/a
4" x 7-ga x 12'	12	7	B	8" - 11"	0.75	16.3 14.9 13.2 10.2 8.5 7.1 5.9 5.0
4" x 7-ga x 14'	14	7	B	8" - 11"	0.75	14.7 13.2 11.8 9.6 7.8 6.3 5.2 4.2 3.4
4" x 7-ga x 16'	16	7	B	8" - 11"	0.75	11.9 10.5 9.3 7.4 5.9 4.6 3.6 2.8 2.1
4" x 7-ga x 18'	18	7	B	8" - 11"	0.75	9.6 8.4 7.4 5.7 4.3 3.2 2.3 1.6 0.9
4" x 7-ga x 20'	20	7	B	8" - 11"	0.75	7.7 6.6 5.7 4.2 3.0 2.0 1.2 0.5 n/a
4" x 7-ga x 22'	22	7	B	8" - 11"	0.75	6.0 5.1 4.3 2.9 1.8 0.9 n/a n/a n/a
4" x 7-ga x 24'	24	7	B	8" - 11"	0.75	4.6 3.7 3.0 1.7 0.7 n/a n/a n/a n/a
4" x 7-ga x 26'	26	7	B	8" - 11"	0.75	3.3 2.5 1.8 0.7 n/a n/a n/a n/a n/a
4" x 7-ga x 28'	28	7	B	8" - 11"	0.75	2.2 1.4 0.8 n/a n/a n/a n/a n/a n/a
4" x 7-ga x 30'	30	7	B	8" - 11"	0.75	1.4 0.8 n/a n/a n/a n/a n/a n/a n/a
5" x 11-ga x 12'	12	11	C	9" - 11"	0.75	10.4 8.7 7.1 5.3 4.1 3.1 2.1 1.2 0.5
5" x 11-ga x 14'	14	11	C	9" - 11"	0.75	8.8 7.5 6.4 4.5 3.0 1.8 0.8 n/a n/a
5" x 11-ga x 16'	16	11	C	9" - 11"	0.75	6.8 5.7 4.6 3.0 1.6 0.6 n/a n/a n/a
5" x 11-ga x 18'	18	11	C	9" - 11"	0.75	5.2 4.1 3.2 1.6 0.4 n/a n/a n/a n/a
5" x 11-ga x 20'	20	11	C	9" - 11"	0.75	3.3 2.5 1.8 0.4 n/a n/a n/a n/a n/a
5" x 11-ga x 22'	22	11	C	9" - 11"	0.75	2.2 1.4 0.8 n/a n/a n/a n/a n/a n/a
5" x 11-ga x 24'	24	11	C	9" - 11"	0.75	1.4 0.8 n/a n/a n/a n/a n/a n/a n/a
5" x 11-ga x 26'	26	11	C	9" - 11"	0.75	0.8 0.5 0.3 0.1 0.0 n/a n/a n/a n/a n/a
5" x 11-ga x 28'	28	11	C	9" - 11"	0.75	0.5 0.2 0.1 0.0 n/a n/a n/a n/a n/a n/a
5" x 11-ga x 30'	30	11	C	9" - 11"	0.75	0.2 0.1 0.0 n/a n/a n/a n/a n/a n/a n/a
5" x 7-ga x 12'	12	7	D	9" - 11"	1.00	20.6 18.5 16.3 14.0 11.3 9.2 7.4 5.8 4.8
5" x 7-ga x 14'	14	7	D	9" - 11"	1.00	17.7 15.6 13.8 10.8 8.5 6.6 5.0 3.7 2.6
5" x 7-ga x 16'	16	7	D	9" - 11"	1.00	14.9 13.1 11.4 8.8 6.6 4.9 3.5 2.3 1.3
5" x 7-ga x 18'	18	7	D	9" - 11"	1.00	12.5 10.9 9.4 6.9 4.9 3.4 2.1 1.0 n/a
5" x 7-ga x 20'	20	7	D	9" - 11"	1.00	10.3 8.9 7.5 5.2 3.4 2.0 0.8 n/a n/a
5" x 7-ga x 22'	22	7	D	9" - 11"	1.00	6.0 4.8 3.6 1.8 n/a n/a n/a n/a n/a n/a
5" x 7-ga x 24'	24	7	J	12"	1.00	18.6 16.4 14.3 12.2 8.6 6.5 4.8 3.4 2.2
5" x 7-ga x 26'	26	7	J	12"	1.00	15.6 13.4 11.7 8.8 6.5 4.6 3.0 1.8 0.7
5" x 7-ga x 28'	28	7	J	12"	1.00	12.9 10.9 9.3 6.7 4.6 2.8 1.5 n/a n/a
5" x 7-ga x 30'	30	7	J	12"	1.00	10.4 8.8 7.3 4.8 2.9 1.3 n/a n/a n/a
5" x 7-ga x 32'	32	7	J	12"	1.00	8.1 6.8 5.5 3.1 1.3 n/a n/a n/a n/a
5" x 7-ga x 34'	34	7	J	12"	1.00	6.5 5.0 3.7 1.6 n/a n/a n/a n/a n/a
5" x 7-ga x 35'	35	7	J	12"	1.00	5.5 4.2 2.9 0.9 n/a n/a n/a n/a n/a
5" x 7-ga x 37'	37	7	J	12"	1.00	2.3 1.0 n/a n/a n/a n/a n/a n/a n/a

Steel Poles Square Straight Type: _____
 Have questions? Call us at (800) 436-7800

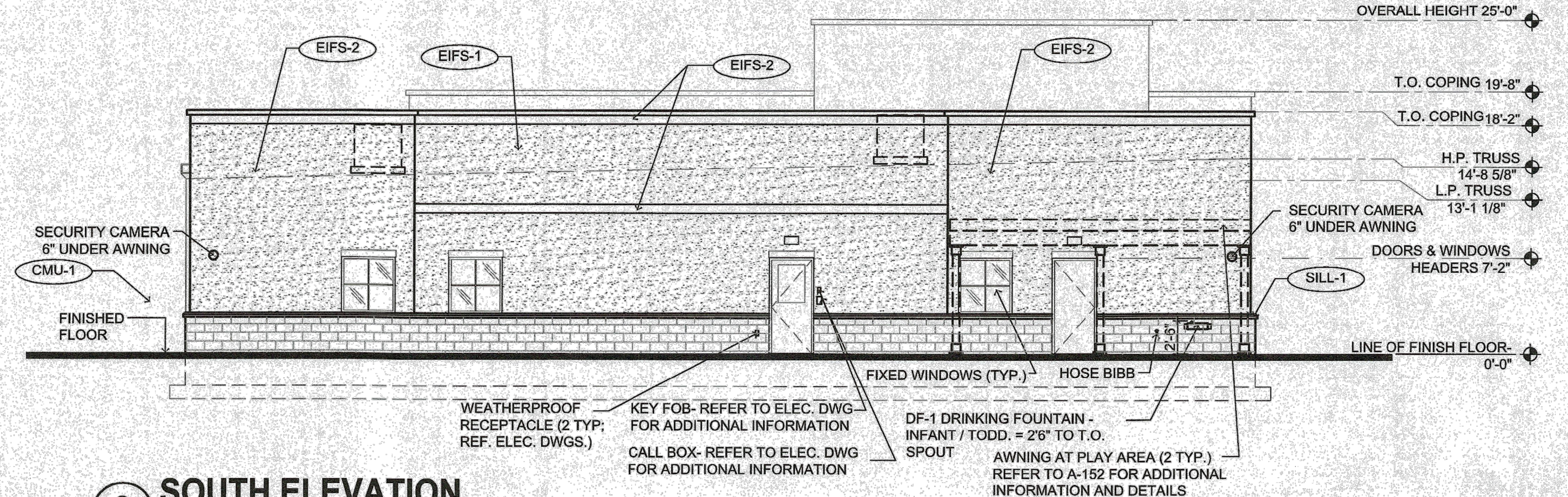
BOLT CIRCLE [Back to Quick Links](#)

STANDARD BASEPLATE

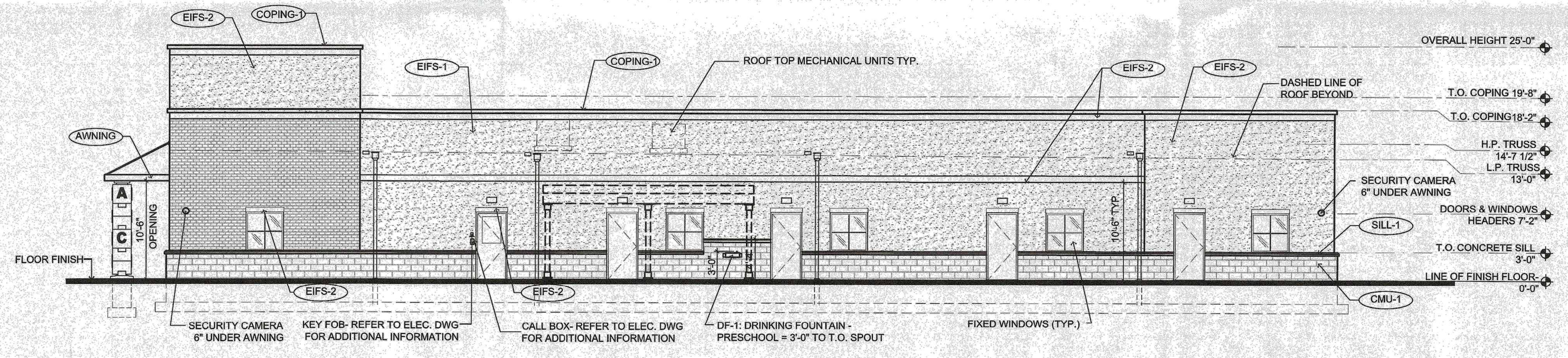
POLE	Wgt. Height Length (ft)	Wind Thick (sq)	Designator	Dir. (in)	Anchor Bolt Dia (in)	EPA
4" (102mm) square 10-1/8" (257mm) sq.	12	11	F	11"	0.75	17.6 15.8 14.2 11.5 9.4 7.7 6.3 5.2 4.3
4" (102mm) square 10-1/8" (257mm) sq.	14	11	F	11"	0.75	17.6 15.8 14.2 11.5 9.4 7.7 6.3 5.2 4.3
4" (102mm) square 10-1/8" (257mm) sq.	16	11	F	11"	0.75	15.9 12.2 11.0 8.8 7.0 5.5 4.3 3.4 2.5
4" (102mm) square 10-1/8" (257mm) sq.	18	11	F	11"	0.75	15.9 12.2 11.0 8.8 7.0 5.5 4.3 3.4 2.5
4" (102mm) square 10-1/8" (257mm) sq.	20	11	F	11"	0.75	11.0 9.6 8.4 6.5 5.0 3.7 2.7 1.8 1.1
4" (102mm) square 10-1/8" (257mm) sq.	22	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	24	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	26	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	28	11	F	11"	0.75	10.7 9.1 7.6 5.4 4.0 2.8 2.0 1.1 -
4" (102mm) square 10-1/8" (257mm) sq.	30	11	F	11"	0.75	10.7 9.1 7.6 5.4 4.0 2.8 2.0 1.1 -
4" (102mm) square 10-1/8" (257mm) sq.	32	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	34	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	36	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	38	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	40	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	42	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	44	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	46	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	48	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	50	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	52	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	54	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	56	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	58	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	60	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	62	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	64	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	66	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	68	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	70	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	72	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (257mm) sq.	74	11	F	11"	0.75	8.6 7.4 6.4 4.6 3.3 2.2 1.3 0.5 -
4" (102mm) square 10-1/8" (2						



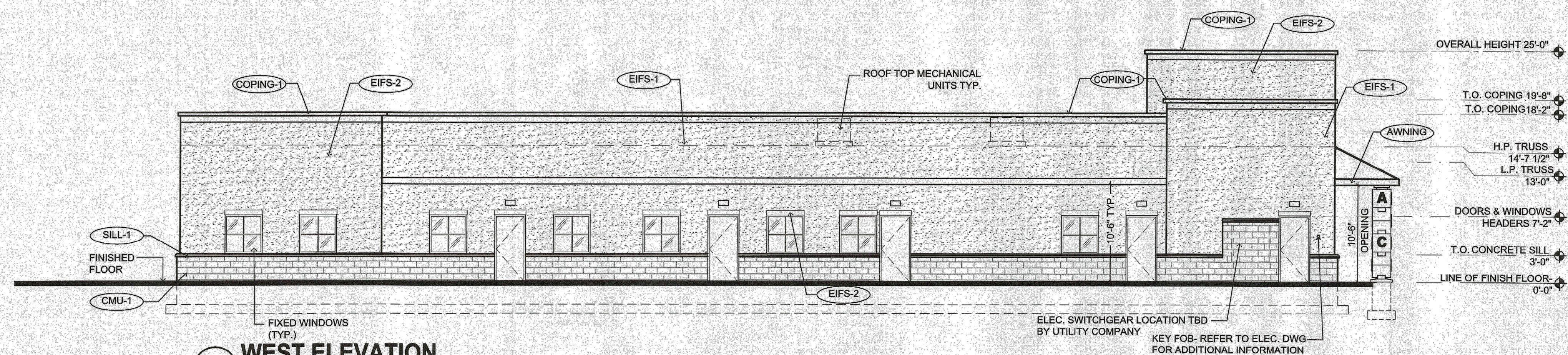
4 NORTH ELEVATION
SCALE: 1/8"=1'-0"



3 SOUTH ELEVATION
SCALE: 1/8"=1'-0"



2 EAST ELEVATION
SCALE: 1/8"=1'-0"



1 WEST ELEVATION
SCALE: 1/8"=1'-0"

GENERAL NOTES:
1. HOSE BIBB IN PLAYGROUND TO BE LOCATED AT PERPENDICULAR INTERIOR WALL.
2. DRINKING FOUNTAINS IN PLAYGROUND TO BE LOCATED AT PERPENDICULAR WALL.
3. SEE P-200 FOR HOSE BIBB SPEC A1321.

EXTERIOR MATERIAL SCHEDULE			
LABEL	MANUFACTURER	SIZE / TYPE	FINISH / COLOR
STOREFRONT	KAWNEER	TRIFAB 451T / 350 PER DOOR SCHEDULE	BONE WHITE
DOOR	-	PER DOOR SCHEDULE	FACTORY PRIMED
FIXED WINDOW	PLY GEM	SILVER LINE V1 SERIES PER WINDOW SCHEDULE	WHITE
CMU-1	YORK BUILDING PRODUCTS	GROUND FACE CMU	KHAKI
BRICK-1	GLEN GERY	FACE BRICK	CREAM
SILL-1	MODERN PRECAST	3 3/4"Hx8"W W/ 2" FLAT W/ 1/4" DRIP EDGE	REGULAR (LIGHT GREY)
SILL-2	MODERN PRECAST	CUSTOM SILL 3 3/4"Hx4"W W/ 2" FLAT REF. DTL. 6/A-032	REGULAR (LIGHT GREY)
EIFS-1	DRYVIT	-	SAND PEBBLE FINISH COLOR: OYSTER SHELL
EIFS-2	DRYVIT	-	SAND PEBBLE FINISH COLOR: SANDLEWOOD BEIGE
VINYL-1	ROYAL BUILDING PRODUCTS	COLORSCAPES TRIPLE 4 PERFORATED SOFFIT NOM. THICKNESS 0.042"	WHITE (REF. NOTE 2 BELOW)
AWNING	-	CUSTOM ALUMINUM	AWARD BLUE (PAC-CLAD)
COPING-1	FABRAL (OR EQUAL)	BREAK METAL	DARK BRONZE
KNOX-1	KNOX BOX	3200 SERIES W/ RECESSED MOUNT FLANGE, HINGE DOOR, & TAMPER SWITCH	DARK BRONZE (REF. NOTE 2 BELOW)

FINISH SCHEDULE NOTES:
1. G.C. SHALL VERIFY KNOX BOX MODEL(S) AND LOCATION(S) WITH AUTHORITY HAVING JURISDICTION PRIOR TO ORDERING AND INSTALLATION.
2. G.C. SHALL ENSURE ALL EXTERIOR FINISHES ARE INSTALLED AND FINISHED IN COMPLIANCE WITH MANUFACTURERS' WARRANTY REQUIREMENTS.

NO.	DATE	REVISIONS	BY

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PROJECT	GANPR23001
DATE	02-13-2023
DRAWING SCALE	AS NOTED
DRAWN BY	KLML
APPROVED BY	RAM

CS9000
TOTAL SHEETS 21