MAJOR SITE PLAN
LIBERTY PLACE
GPIN: 7789-04-0822
607 WILLIAM STREET
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2 - PRECINCT 201

PROJECT NARRATIVE

THIS PROJECT IS LOCATED ON GPIN 7789-04-0822, NORTHWEST OF THE INTERSECTION OF WILLIAM STREET AND WINCHESTER STREET. THE SITE IS ZONED C-D, WITH SUP RESOLUTION NO. 14-62 AND ORDINANCE NO. 14-31 AND TOTALS 1.42 ACRES. THE EXISTING SITE CONSISTS OF A PARKING LOT AND AN OFFICE BUILDING. THE EXISTING BUILDING AND PARKING LOT SHALL BE REMOVED. THE PROPOSED USES FOR THIS SITE ARE DWELLING, UPPER STORY; EATING ESTABLISHMENT; OFFICE; RETAIL SALES AND SERVICES; AND PARKING GARAGE. THESE USES WILL BE SERVED BY PUBLIC WATER AND SEWER. THE PROPOSED BUILDING WILL BE 4 STORIES AND WILL INCLUDE 2 LEVELS OF UNDERGROUND PARKING.

PASS GENERAL NOTE

DUE TO RECENT FINDINGS OF POSSIBLE ACID SULPHATE SOILS (PASS) WITHIN THE PROXIMITY OF THE CITY OF FREDERICKSBURG, IT IS RECOMMENDED THAT THE DEVELOPER, BUILDERS AND ENGINEERS BE AWARE THAT IF ACID SULPHATE SOILS AS WELL AS OTHER SOILS THAT PRODUCE A PH OF <4 ARE PRESENT ON THE PROJECT SITE EXTENSIVE TREATMENT TO BRING THE SOILS ACID/PH LEVEL TO AN ACCEPTABLE LEVEL TO SUSTAIN ANY FORM OF PLANT GROWTH MAY BE REQUIRED.

HUC

SIXTH ORDER HYDRAULIC UNIT CODE – RA46

CHESAPEAKE BAY PRESERVATION STATEMENT

CBPA IS AN OVERLAY DISTRICT FOR THE CITY OF FREDERICKSBURG. THE PARCEL DESCRIBED WITHIN THIS PLAN DOES NOT LIE WITHIN THE RMA FEATURES AND DOES NOT CONTAIN RPA FEATURES WITHIN THE CHESAPEAKE BAY PRESERVATION AREA OVERLAY DISTRICT.

CITY WATER AND SEWER TAP PROCEDURES

THE CONTRACTOR/OWNER SHALL NOTIFY THE BUILDING AND DEVELOPMENT SERVICES DEPARTMENT PRIOR TO ANY TAP WORK WITHIN THE CITY TO OBTAIN APPROVAL, PAY FEES AND OBTAIN PERMITS. A SPECIAL EXCAVATION PERMIT SHALL BE REQUIRED WHEN WORKING IN THE RIGHT OF WAY. A COPY OF THE APPROVED UTILITY PLAN WILL BE REQUIRED FOR ALL SUBMISSION REQUESTS FOR TAPS. THIS APPROVED UTILITY PLAN SHEET MUST SHOW ALL REQUIRED TAP INFORMATION TO INCLUDE THE SIZE OF THE WATER AND SEWER LINE TAPS AND WATER METER SIZE AND TYPE.

IF THE SITE CONTRACTOR IS MAKING THE TAPS, THEY WILL NEED TO SEND A LETTER REQUESTING PERMISSION TO THE DIRECTOR OF PUBLIC WORKS, DOUG FAWCETT, TO PERFORM SUCH TAPS. THIS LETTER WILL NEED TO INCLUDE THREE REFERENCES FROM JOBS WHERE THEY HAVE ALREADY PERFORMED THIS TYPE OF WORK. ONCE APPROVED, A COPY OF THE APPROVAL NEEDS TO BE PROVIDED BY THE CONTRACTOR TO BUILDING AND DEVELOPMENT SERVICES.

IF THE CONTRACTOR WOULD LIKE THE CITY TO MAKE THE TAPS, FEES FOR THESE TAPS WILL BE PAID AT TIME OF PERMIT PICK UP.

A WORK ORDER (GREEN SHEET) FOR WATER & SEWER SERVICE INSTALLATION IN THE CITY WILL NOT BE RELEASED TO THE CITY SHOP UNTIL ALL FEES HAVE BEEN PAID.

GPS TIE IN NOTE

THE SITE PLAN SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD SURVEY WHICH TIES THIS DEVELOPMENT BOUNDARY TO K 463.

THE GRID FACTOR (ELEVATION FACTOR X SCALE FACTOR) THAT HAS BEEN APPLIED TO THE FILED DISTANCE TO DERIVE THE REFERENCED COORDINATES IS 0.9999652571. UNLESS OTHERWISE STATED, THE PLAT DISTANCES SHOWN ARE INTENDED TO BE HORIZONTAL DISTANCES MEASURED AT THE MEAN ELEVATION OF THE DEVELOPMENT.

THE BEARINGS SHOWN ARE REFERENCED TO VIRGINIA STATE PLAN 1983 GRID NORTH.

NOTE

ALL DETAILS AND SPECIFICATIONS HEREIN ARE PROVIDED FROM THE MANUFACTURER OR GOVERNING LOCALITY. BCC ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR VERIFICATION OF THE ACCURACY OF SAID DETAILS OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR MANUFACTURER TO VERIFY THE ACCURACY OF DETAILS OR SPECIFICATIONS AND TO PROVIDE MATERIALS TESTING ON ANY MATERIALS TO BE USED IN THE CONSTRUCTION OF THIS PROJECT PRIOR TO THEIR INSTALLATION

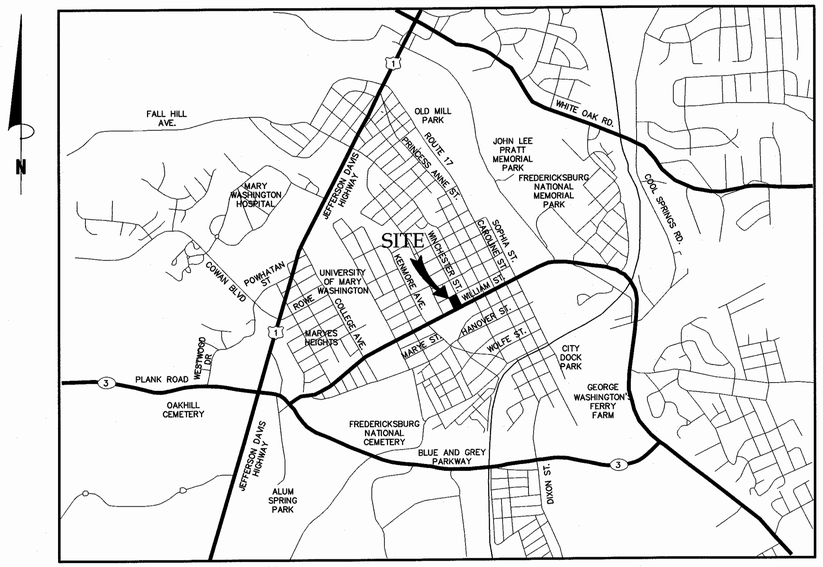
ACCESSIBILITY NOTES (FHA)

1. THE DESIGN PROFESSIONAL SIGNING THIS DOCUMENT REPRESENTS THAT TO THE BEST OF HIS/HER PROFESSIONAL JUDGMENT, KNOWLEDGE, AND BELIEF THE DESIGN SPECIFICATIONS HEREIN COMPLY WITH THE FAIR HOUSING ACT (FHA) AND, WHERE APPLICABLE, THE AMERICANS WITH DISABILITIES ACT (ADA).

2. ALL GRADES/SLOPES SHOWN ON THIS PLAN WERE DESIGNED AT OR BELOW MAXIMUMS ALLOWED BY THE FAIR HOUSING ACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE FAIR HOUSING ACCESSIBILITY GUIDELINES, AND THE FAIR HOUSING ACT DESIGN MANUAL. IN THE EVENT THAT A DESIGN QUESTION SHOULD ARISE, OR A FIELD CONDITION PRESENT ITSELF THAT IS DIFFERENT FROM THOSE SHOWN ON THESE PLANS, WORK SHOULD CEASE AND THE ENGINEER SHOULD BE NOTIFIED SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.

3. THE CONTRACTOR IS ADVISED TO CAREFULLY CHECK ALL THE PHASES OR WORK RELATING TO FAIR HOUSING ACCESSIBILITY FOR THIS PROJECT. SINCE THE CODE DOES NOT ALLOW FOR CONSTRUCTION TOLERANCE, ANY CONSTRUCTION THAT EXCEEDS MAXIMUM OR MINIMUM DIMENSIONS AND SLOPES AS REQUIRED BY THE FAIR HOUSING ACT ARE SUBJECT TO REJECTION AND MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

4. SINCE THE CIVIL ENGINEER OR SURVEYOR CANNOT CONTROL THE EXACT METHODS OR MEANS USED BY THE GENERAL CONTRACTOR OR THEIR SUBCONTRACTORS DURING GRADING AND CONSTRUCTION OF THE PROJECT, THE CIVIL ENGINEER OR SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE FINAL ACCEPTANCE OF FAIR HOUSING ACT ACCESSIBILITY RELATED ITEMS BY THE COUNTY, ANY OTHER AUTHORITY, OR OTHER AFFECTED PARTIES.



VICINITY MAP
SCALE: 1"=2000'

APPLICANT
LIBERTY PLACE PARTNERS LLC
400 CHARLES STREET
FREDERICKSBURG, VA 22401
P: (540) 372-4565
CONTACT: MR. THOMAS J. WACK

OWNER
LIBERTY PLACE PARTNERS LLC
400 CHARLES STREET
FREDERICKSBURG, VA 22401
P: (540) 372-4565
CONTACT: MR. THOMAS J. WACK

PLANNER/ENGINEER
BOWMAN CONSULTING GROUP
650A NELMS CIRCLE
FREDERICKSBURG, VA 22406
P: (540) 371-0268
F: (540) 371-3479
CONTACT: MR. JUSTIN R. TROIDL

TRANSPORTATION ENGINEER
BOWMAN CONSULTING GROUP
3951 WESTERRE PARKWAY SUITE 150
RICHMOND, VA 23233
P: (804) 616-3240
F: (804) 270-2008
CONTACT: MR. STEPHEN SCHMIDT

ENVIRONMENTAL ENGINEER
BOWMAN CONSULTING GROUP
14020 THUNDERBOLT PL. SUITE 300
CHANTILLY, VA 20151
P: (703) 464-1000
F: (703) 481-9720
CONTACT: MS. JESSICA FLEMING

LAND USE ATTORNEY
HIRSCHLER FLEISCHER
725 JACKSON ST., SUITE 200
FREDERICKSBURG, VA 22401
P: (540) 604-2108
F: (540) 604-2101
CONTACT: MR. CHARLES W. PAYNE, JR.

VIRGINIA MISS UTILITY
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1-800-257-777
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY.

APPROVAL BLOCK

DEVELOPMENT ADMINISTRATOR — DATE

ZONING ADMINISTRATOR — DATE

STORMWATER ADMINISTRATOR — DATE

APPROVED FOR WORK RELATED TO PUBLIC WATER, SEWER, STORM DRAINAGE, STREET TREES AND RIGHTS-OF-WAYS.

DEPARTMENT OF PUBLIC WORKS — DATE

APPROVED FOR FIRE LANES AND SIGNAGE, HYDRANT LOCATIONS AND COLOR CODING, FDC AND PIV LOCATIONS, TURNING RADII AND ROADWAY WIDTH FOR EMERGENCY VEHICLES.

FIRE MARSHAL — DATE

SHEET INDEX

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1.	COVER SHEET
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3.	GENERAL NOTES & SITE TABULATIONS
3A.	SUP CONDITIONS AND IMPLEMENTATION
4.	BOUNDARY PLAT & ROW EXHIBIT
5.	EXISTING CONDITIONS PLAN
6.	DEMOLITION PLAN
7.	DIMENSIONAL, UTILITY AND STRIPING PLAN
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APPENDIX (ARCHITECTURAL PLAN SHEETS – FOR INFORMATION ONLY, NOT TO SCALE)

A200.	1/16" FLOOR PLAN – P2 LEVEL
A201.	1/16" FLOOR PLAN – P1 LEVEL
A202.	1/16" FLOOR PLAN – GROUND LEVEL
A203.	1/16" FLOOR PLAN – 1ST LEVEL
A204.	1/16" FLOOR PLAN – 2ND LEVEL
A205.	1/16" FLOOR PLAN – 3RD LEVEL
A206.	1/16" FLOOR PLAN – 4TH LEVEL
A207.	1/16" ROOF PLAN
A300.	OVERALL ELEVATIONS

RESPONSIBLE LAND DISTURBER NOTE*

UNTIL FURTHER NOTICE, THE RESPONSIBLE LAND DISTURBER FOR THIS PROJECT IS:

NAME	CERTIFICATION #	EXPIRATION DATE
JUSTIN TROIDL BOWMAN CONSULTING	41018	12/13/2016

***NOTE: RLD INFORMATION PROVIDED IS FOR APPROVAL PURPOSES ONLY. CONTRACTOR RLD INFORMATION SHALL BE PROVIDED PRIOR TO ISSUANCE OF LAND DISTURBANCE PERMIT.**

ENGINEER'S CERTIFICATE:

I HEREBY CERTIFY THAT GPIN 7789-04-0822 AS RECORDED IN INSTRUMENT #2015-385 AMONG THE LAND RECORDS FOR THE CITY OF FREDERICKSBURG, VIRGINIA IS NOW IN THE NAME OF LIBERTY PLACE PARTNERS LLC AND THAT ALL THE REQUIREMENTS AND ORDINANCES OF THE CITY OF FREDERICKSBURG, VIRGINIA, HAVE BEEN MET.

SIGNATURE

GRAPHIC SCALE
2000 0 1000 2000 4000 8000
(IN FEET)
1 inch = 2000ft.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
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Fax: (540) 371-3479
www.bowmanconsulting.com

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Wack GENERAL CONTRACTOR

COVER SHEET
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=2000' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 1 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\001-5425-D-CP-001-COV.dwg

LEGEND

EXISTING	DESCRIPTION	PROPOSED
40	INDEX CONTOUR	40
38	INTERMEDIATE CONTOUR	38
EX. E/P	EDGE OF PAVEMENT	PROP. E/P
EX. C & G	CURB AND GUTTER	CG-6
–	TRANSITION FROM CG-6 TO CG-6R	CG-6R
–	PROPOSED HEADER CURB	
–	PROPERTY LINE	
–	DEPARTING PROPERTY LINE	
	LOT LINE	
	RIGHT-OF-WAY	
	CENTERLINE	
	FLOOD PLAIN	
–	CLEARING AND GRADING	
	TREE LINE	
–	FLOW LINE OF SWALE	
–	STREAM	
–	OVERLAND RELIEF PATHWAY	
X	FENCE LINE	X
	EASEMENT	
EX 8" W/L	WATER LINE	8" DIP W/L
EX. W/V	WATER VALVE	PROP. W/V
EX. R.	REDUCER	PROP. R.
EX 8" SAN	SANITARY SEWER	8" PVC SAN
EX 18"	STORM SEWER	18"RCP
–	CABLE TV	CATV
E	ELECTRIC SERVICE	E
T	TELEPHONE SERVICE	T
G	GAS LINE	G
+ 25.32	SPOT ELEVATION	25.32
Ø	UTILITY POLE	Ø
	SIGN	
	SANITARY SEWER IDENTIFIER	
	STORM DRAIN IDENTIFIER	
W	EASEMENT IDENTIFIER	W
	WATER METER	
	FIRE HYDRANT	
–	PARKING INDICATOR INDICATES THE NUMBER OF TYPICAL PARKING SPACES	25
	STREET LIGHT	
–	VEHICLES PER DAY (TRAFFIC COUNT)	255 VPD
–	TEST PIT LOCATION RECOMMENDED/REQUIRED	TP
–	CRITICAL SLOPE SLOPES TO BE STABILIZED PURSUANT TO VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK	
	HANDICAP RAMP (CG-12) DENOTES LOCATION OF STD VDOT CG-12 AND/OR JURISDICTIONAL STANDARD RAMP CONSTRUCTION	
–	DENOTES CLEAR SIGHT TRIANGLE	
15" OAK	TREE	
–	BENCHMARK	BM #1 TRV #1 ELEV=101.62
	ASPHALT TRAIL	
	CONCRETE SIDEWALK	
	END WALLS	
	END SECTIONS	
	STOP SIGN	
	STREET SIGN	
OHE	OVERHEAD ELECTRIC	OHE
OHT	OVERHEAD TELEPHONE	OHT
VAN	HANDICAP PARKING SPACE (VAN)	VAN
	RIP RAP	
	CROSSWALK	

ABBREVIATIONS

A
- A — AREA OF ARC
- AD — ALGEBRAIC DIFFERENCE
- AASHTO — AMERICAN ASSOCIATION OF STATE HWY. & TRANSP. OFFICIALS
- ASTM — AMERICAN SOCIETY FOR TESTING AND MATERIALS
- AC. — ACRE
- AGGR. — AGGREGATE
- ANSI — AMERICAN NATIONAL STANDARDS INSTITUTE
- ASPH — ASPHALT
- AWWA — AMERICAN WATER WORKS ASSOCIATION

B
- B — BREADTH
- BC — BOTTOM OF CURB
- BF — BASEMENT FLOOR
- BLDG — BUILDING
- BM — BENCHMARK
- BMP — BEST MANAGEMENT PRACTICES (WATER QUALITY)
- BOV — BLOW OFF VALVE
- BRL — BUILDING RESTRICTION LINE
- BVCS — BEGINNING VERTICAL CURVE STATION
- BVCE — BEGINNING VERTICAL CURVE ELEVATION
- BW — BOTTOM OF WALL

C
- c,e — CENTER CORRECTION ON VERTICAL CURVE
- C — COEFFICIENT OF RUNOFF
- CATV — CABLE TELEVISION
- CB — CATCH BASIN OR CHORD BEARING
- CC — CENTER TO CENTER
- CFS (Q) — CUBIC FEET PER SECOND
- CH — CHORD
- CG — CURB AND GUTTER
- CIP — CAST IRON PIPE
- C — CENTERLINE
- CL — CLASS
- CMP — CORRUGATED METAL PIPE
- CONC. — CONCRETE
- CO — CLEAN OUT
- CONT. — CONTINUATION
- CS — CURB STOP
- CT — COURT
- C/L — CENTERLINE

D
- D,d — DEPTH
- DA — DRAINAGE AREA
- DB — DEED BOOK
- DEQ — VA. DEPARTMENT OF ENVIRONMENTAL QUALITY
- DET. — DETAIL
- DI — DROP INLET
- DIA. — DIAMETER
- DIP — DUCTILE IRON PIPE
- DM — DROP MANHOLE
- DR. — DRIVE
- DRNG — DRAINAGE
- DRWG. — DRAWING
- D/W — DRIVE WAY
- Δ — DELTA
- DU — DWELLING UNITS
- DOM — DOMESTIC

E
- e — RATE OF SUPER ELEVATION IN FEET PER FOOT
- EC — EROSION CONTROL
- EGL — ENERGY GRADIENT LINE
- EQC — ENVIRONMENTAL QUALITY CORRIDOR
- ESM'T — EASEMENT
- EG — EDGE OF GUTTER
- ELEV. — ELEVATION
- ENT. — ENTRANCE
- EP — EDGE OF PAVEMENT
- ES — END SECTION
- EVCS — ENDING VERTICAL CURVE STATION
- EVCE — ENDING VERTICAL CURVE ELEVATION
- EW — END WALL
- EX. — EXISTING
- ELEC. — ELECTRICAL
- EBL — EAST BOUND LANE

F
- F — FIRE LINE
- FAR — FLOOR AREA RATIO
- FC — FACE OF CURB
- FF — FIRST FLOOR
- FG — FINISHED GRADE
- FH — FIRE HYDRANT
- FL — FLOW LINE
- FP — FLOOD PLAIN
- FS — FACTOR OF SAFETY
- FT. — FOOT
- FOY. — FOYER
- FPS — FEET PER SECOND

G
- g — GRAVITY
- G — GAS
- GFA — GROSS FLOOR AREA
- Gr. — GRADE
- GR — GUARD RAIL
- GAR — GARAGE

H
- H,h — HEIGHT
- H — HEAD
- HC — HANDICAPPED PARKING SPACE
- HGL — HYDRAULIC GRADIENT LINE
- HP — HIGH POINT
- HR — HAND RAIL
- HT. — HEIGHT
- HW — HEADWATER

I
- I — RAINFALL INTENSITY
- ID — INSIDE DIAMETER
- IN — INCH
- INV. — INVERT
- IP — IRON PIPE
- IPF — IRON PIPE FOUND
- IPS — IRON PIPE SET

J
- JB — JUNCTION BOX

K
- K — SIGHT DISTANCE COEFFICIENT
- Ke — CULVERT ENTRANCE LOSS COEFFICIENT

L
- L — LENGTH
- LAT. — LATERAL
- LF — LINEAR FOOT
- LL — LOWER LEVEL
- LOS — LINE OF SIGHT
- LP — LOW POINT
- LS — LOADING SPACE
- LCG — LIMITS OF CLEARING & GRADING
- LT — LEFT

M
- M — MONUMENT FOUND
- MECH. — MECHANICAL
- MH — MANHOLE
- MI. — MILE
- MPH — MILES PER HOUR
- MS — MEDIAN STRIP
- MSL — MEAN SEA LEVEL
- MIN — MINIMUM
- MAX — MAXIMUM

N
- N/F — NOW OR FORMERLY
- NFA — NET FLOOR AREA
- NO.,# — NUMBER
- NBL — NORTH BOUND LANE
- N/A — NOT APPLICABLE

O
- OC — ON CENTER
- OD — OUTSIDE DIAMETER
- OH — OVERHANG
- O/H — OVERHEAD

P
- P — PERIMETER
- PC — POINT OF CURVATURE
- PCC — POINT OF COMPOUND CURVE
- PCEP — POINT OF CURVE EDGE OF PAVEMENT
- PCTC — POINT OF CURVATURE TOP OF CURB
- PFM — PUBLIC FACILITIES MANUAL
- PG. — PAGE
- PGL — POINT OF GRADE LINE
- PI — POINT OF INTERSECTION
- PL — PROPERTY LINE
- PRC — POINT OF REVERSE CURVES
- PRELIM. — PRELIMINARY
- PROP. — PROPOSED
- PT — POINT OF TANGENCY
- PVC — POINT OF VERTICAL CURVATURE
- PVC — POLY VINYL CHLORIDE
- PVI — POINT OF VERTICAL INTERSECTION
- PVM'T — PAVEMENT
- PVRC — POINT OF VERTICAL REVERSE CURVE
- PVT — POINT OF VERTICAL TANGENT
- P&P — PLAN AND PROFILE

Q
- Q(C.F.S.) — AMOUNT OF RUNOFF

R
- R,r — RADIUS
- REQD — REQUIRED
- RCP — REINFORCED CONCRETE PIPE
- RD. — ROAD
- RET. — RETAINING
- REV. — REVISION
- RR — RAILROAD
- RTE. — ROUTE
- R/W — RIGHT OF WAY
- RGP — ROUGH GRADING PLAN
- ROM — REMOTE OUTSIDE MONITOR
- RMA — RESOURCE MANAGEMENT AREA
- RPA — RESOURCE PROTECTION AREA
- RT — RIGHT

S
- S — SPEED OR SLOPE
- SAN. — SANITARY
- SBL — SOUTH BOUND LANE
- SD — SIGHT DISTANCE
- SECT. — SECTION
- SEW. — SEWER
- SH. — SHOULDER
- SF — SQUARE FEET
- SP. — SPACE
- SP — SITE PLAN
- SPEC. — SPECIFICATION
- STA. — STATION
- STD. — STANDARD
- STK. — STACK
- STM. — STORM
- SVC. — SERVICE
- SWM — STORM WATER MANAGEMENT
- S/W — SIDE WALK
- Sx — CROSS SLOPE

T
- T — TANGENT
- TB — TEST BORE
- TC — TOP OF CURB
- Tc — TIME OF CONCENTRATION
- TEL — TELEPHONE
- TP — TEST PIT
- TP — TREE PROTECTION
- TB — TOP OF BANK
- TW — TOP OF WALL
- TW — TAILWATER

U
- UD — UNDERDRAIN
- UG — UNDERGROUND
- UL — UPPER LEVEL
- UP — UTILITY POLE
- VAN — HANDICAPPED VAN PARKING SPACE

V
- V — VELOCITY
- V — VOLUME
- VA — VIRGINIA
- VC — VERTICAL CURVE
- VDOT — VA. DEPT. OF TRANSPORTATION
- VF — VERTICAL FOOT

W
- W — WEIGHT OR WIDTH
- W/M — WATER MAIN
- WBL — WEST BOUND LANE
- WQIA — WATER QUALITY IMPACT ASSESSMENT

X
- XF — TRANSFORMER

Y
- YI — YARD INLET
- YR — YEAR

Z
- Z — SIDE SLOPES

UTILITY NOTES

1. CITY BUILDING AND DEVELOPMENT SERVICES DEPARTMENT TO BE NOTIFIED PRIOR TO PERFORMING ANY WORK WITHIN CITY RIGHT OF WAY.
2. ALL WORK WITHIN THE CITY RIGHT OF WAY MUST BE INSPECTED AND APPROVED BY THE DEPARTMENT OF BUILDING AND DEVELOPMENT SERVICES.
3. GENERAL STATEMENT. STANDARD CONSTRUCTION DETAILS, SPECIFICATIONS, AND MATERIALS STANDARDS APPROVED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE FOLLOWED FOR ALL WATER AND SEWER SYSTEMS, UNLESS SPECIFIC DEVIATION THEREFROM IS AUTHORIZED, IN WRITING BY THE DIRECTOR OF PUBLIC WORKS. IN NO CASE SHALL DEVIATIONS BE ALLOWED FROM THE VIRGINIA WATERWORKS REGULATIONS WITHOUT PRIOR WRITTEN APPROVAL OF THE VIRGINIA DEPARTMENT OF HEALTH. ALL CONSTRUCTION METHODS FOR WATER AND SEWER SYSTEMS SHALL BE IN ACCORDANCE WITH THE LATEST CITY OF FREDERICKSBURG CONSTRUCTION SPECIFICATIONS AND STANDARDS FOR WATER AND SEWERAGE FACILITIES.
4. WORK WITHIN HIGHWAY OR STREET RIGHTS OF WAY. WORK PERFORMED WITHIN OR REQUIRING UTILIZATION OF ANY VIRGINIA DEPARTMENT OF TRANSPORTATION'S (VDOT) RIGHTS OF WAY SHALL COMPLY IN EVERY RESPECT WITH THE LATEST EDITION OF VDOT'S ROAD AND BRIDGE SPECIFICATIONS, THE APPLICABLE SUBSECTIONS OF SECTION 2. GENERAL PROVISIONS OF THE VDOT'S LAND USE PERMIT MANUAL DATED JANUARY 1, 1984, AND WITH ANY SPECIAL PROVISIONS ATTACHED TO ANY VDOT APPROVED PERMIT. ALL WORK PERFORMED WITHIN OR REQUIRING UTILIZATION OF ANY CITY OF FREDERICKSBURG'S RIGHT OF WAY MUST BE APPROVED IN WRITING BY THE DIRECTOR OF PUBLIC WORKS IN ADVANCE OF THE WORK. WITHIN ANY STREET OR HIGHWAY RIGHT-OF-WAY, NO TREES OR TREE ROOTS LARGER THAN 3 INCHES IN DIAMETER SHALL BE CUT WITHOUT WRITTEN AUTHORIZATION OF THE DIRECTOR OF PUBLIC WORKS. ANY MEASURES NECESSARY OR AS MAY BE REQUIRED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE TAKEN TO SAFELY ACCOMMODATE PEDESTRIAN AND VEHICULAR TRAFFIC. THE UNNECESSARY OBSTRUCTION OF STREETS AND/OR SIDEWALKS SHALL NOT BE ALLOWED. AT LEAST ONE TRAFFIC LANE SHALL BE KEPT OPEN AT ALL TIMES AND STREETS AND SIDEWALKS SHALL BE KEPT CLEAR AND CLEAN DURING ALL PHASES OF CONSTRUCTION UNLESS AUTHORIZED BY THE DIRECTOR OF PUBLIC WORKS. A SPECIAL EXCAVATION PERMIT IS REQUIRED WHEN WORKING IN THE RIGHT OF WAY.
5. PROTECTION OF EXISTING UNDERGROUND FACILITIES. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE "UNDERGROUND UTILITY DAMAGE PREVENTION ACT," TITLE 56, CHAPTER 10.3, SECTIONS 56-265.14 THROUGH 56-265.29 OF THE CODE OF VIRGINIA, AS AMENDED.
6. DISRUPTION OF WATER SERVICE DURING CONSTRUCTION. PRIOR TO ANY PLANNED DISRUPTION OF EXISTING WATER SERVICE, THE DIRECTOR OF PUBLIC WORKS SHALL BE NOTIFIED AT LEAST TWO FULL WORKING DAYS PRIOR TO THE DISRUPTION. THE DIRECTOR OF PUBLIC WORKS MAY REQUIRE RESCHEDULING OF THE DISRUPTION. SHOULD AN UNPLANNED BUT INTENTIONAL DISRUPTION BE UNAVOIDABLE, THE DIRECTOR OF PUBLIC WORKS SHALL BE NOTIFIED AS SOON AS POSSIBLE. THE DIRECTOR OF PUBLIC WORKS MAY RESCHEDULE THE DISRUPTION. SHOULD AN ACCIDENTAL OR UNINTENTIONAL DISRUPTION OCCUR, THE DIRECTOR OF PUBLIC WORKS SHALL BE IMMEDIATELY NOTIFIED. THE DIRECTOR OF PUBLIC WORKS MAY ISSUE SPECIFIC INSTRUCTIONS WHICH THE CONTRACTOR SHALL IMPLEMENT AS REQUIRED.
7. OCCUPATIONAL SAFETY AND HEALTH. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH STANDARDS" AND THE "CONSTRUCTION SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR'S OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION.
8. MANHOLES, CLEANOUT TOPS AND WATER LINE VALVE BOXES SHALL BE FLUSH WITH OR A MAXIMUM OF ONE-HALF INCH BELOW FINISH PAVEMENT (OR SURFACE TREATMENT) ELEVATION. THIS WILL PREVENT DAMAGE FROM SNOW REMOVAL EQUIPMENT.
9. THE MINIMUM COVER OVER TOP OF WATER PIPE SHALL BE 36".
10. THE LOCATION OF EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE WORK IS NOT NECESSARILY INDICATED ON THE PLANS, AND WHERE INDICATED IS ONLY APPROXIMATE. LOCATE ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY TO COMPLETE THE WORK. DAMAGE TO UNDERGROUND STRUCTURES SHALL BE REPAIRED/ REPLACED AT NO ADDITIONAL COST TO THE OWNER.
11. MANHOLE AND CLEANOUT TOPS ARE BASED ON FINAL GRADES.
12. VERIFY PROPER TOP ELEVATIONS BEFORE CONSTRUCTION OF MANHOLES.
13. PROVIDE WRITTEN CERTIFICATION THAT THE GRADES ARE WITHIN 6" OF SUBGRADE BEFORE BEGINNING WATERLINE CONSTRUCTION.
14. FIRE HYDRANT PUMPER CONNECTIONS SHALL FACE IN DIRECTION OF ARROW OR STREET.
15. VERIFY THE LOCATION OF BUILDING ENTRY OF ALL UTILITY SERVICE LINES PRIOR TO CONSTRUCTION. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISAGREEMENT WITH THE SITE PLAN.
16. CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION SHALL BE IN ACCORDANCE WITH VUSBC CODE.
17. SERVICE CONNECTIONS OR LATERALS. LATERALS SHALL BE INSTALLED AS INDICATED ON THE APPROVED PLANS. SERVICE CONNECTIONS SHALL BE MADE TO THE MAIN SEWER BY MEANS OF TEES OR WYES OF THE SAME MATERIAL AS THE MAIN, OR BY USING APPROVED STRAPPED SEWER SERVICE SADDLES. WHEN SEWER SADDLES ARE USED, THE HOLE IN THE MAIN SEWER SHALL BE CUT USING HOLE SAWS AND THE HOLE SHALL NOT BE MADE BY CHIPPING THE WALL SECTION OUT WITH A HAMMER. THE MINIMUM GRADE ON A LATERAL SHALL BE 1/4-INCH PER FOOT FOR 4-INCH PIPES AND 1/8-INCH PER FOOT FOR 6-INCH PIPES. EACH SERVICE CONNECTION SHALL BE CAPPED OR PLUGGED AS DIRECTED BY THE DIRECTOR OF PUBLIC WORKS.
18. ALL UTILITY WORK SHALL BE IN COMPLIANCE WITH THE CITY OF FREDERICKSBURG SPECIFICATIONS AND DESIGN STANDARDS.
19. ALL SANITARY HOUSE CLEAN OUTS ARE TO BE CAST IRON COLLARS WITH BRASS PLUGS.
20. WATER LINE (FIRE) MUST BE DIP CLASS – 52
21. WATER LINE (FIRE) MUST BE RESTRAINT WITH MEGA LUG AND THRUST BLOCK PROVIDED AT MAIN.
22. ALL WORK WITHIN THE CITY RIGHT OF WAY MUST BE INSPECTED, TESTED AND APPROVED.
23. ALL CUTS AND TRENCHES IN THE CITY RIGHT OF WAY MUST BE DONE AS PER CITY STANDARDS AND SPECIFICATIONS.
24. ALL TRAFFIC CONTROL MUST BE PROVIDED AS PER APPROVED TRAFFIC CONTROL PLAN. A PRE CONSTRUCTION MEETING WITH THE CITY STAFF IS REQUIRED PRIOR TO BEGINNING CONSTRUCTION.
25. TRAFFIC CONTROL PLAN MUST BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. FIRE DEPARTMENT CONNECTION AND LOCATION MUST BE APPROVED BY THE FIRE DEPARTMENT. BACKFLOW PREVENTER MUST BE PROVIDED AND LOCATION MUST BE APPROVED BY THE FIRE DEPARTMENT.

GENERAL NOTES AND SPECIFICATIONS

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CITY OF FREDERICKSBURG AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECTURAL PLANS AND COORDINATE SAME WITH THE SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
3. IF WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF ARCHAEOLOGICAL VALUE OR AN UNUSUAL NATURE IS ENCOUNTERED, THE CONTRACTOR SHALL CEASE WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE PROPER AUTHORITY, THE CITY OF FREDERICKSBURG, AND/OR THE ARCHITECT/ENGINEER.
4. THE EXISTING UNDERGROUND UTILITIES SHOW HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
5. ALL STEPS/RISERS SHALL HAVE HAND RAILS.
6. CONTROLLED FILLS MUST BE COMPACTED TO 95% AS DETERMINED PER STANDARD PROCTOR AASHTO T-99 OR ASTM D 698, AS SHOWN IN THE GEOTECHNICAL REQUIREMENTS. THE DENSITY MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER AND THE RESULTS SUBMITTED TO THE CITY OF FREDERICKSBURG PRIOR TO FOOTING CONSTRUCTION.
7. COMPACTION OF BACKFILL IN UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH THE CITY OF FREDERICKSBURG AND/OR VDOT STANDARDS & SPECIFICATIONS.
8. ALL FILL SOILS UNDER EXPANDED PAVED AREAS SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM SPECIFICATION D-698 STANDARD PROCTOR METHOD, WITH + OR – 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL PARKING LOTS; PRIVATE STREETS; PARKING BAYS; CURB AND GUTTER; AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEAD WALKS), WITH UPPER 1.0 FT. COMPACTED TO 100% OF THE MAXIMUM DRY DENSITY PER ASTM D-698.
9. OPEN CUTTING OF PAVED OR SURFACE TREATED ROADS IS PERMITTED, PROVIDED A SPECIAL EXCAVATION PERMIT IS OBTAINED AND ALL WORK IS IN ACCORDANCE WITH CITY OR VDOT STANDARDS.
10. ADDITIONAL DITCH LININGS OR SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE CONTRACTOR'S EXPENSE, AS DETERMINED NECESSARY BY THE CITY OF FREDERICKSBURG AND/OR VDOT DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE CONTRACTOR.
11. A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF EXISTING ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
12. PROPOSED SIDEWALKS MUST BE CONSTRUCTED WITH UD3 UNDERDRAINS WHEN LONGITUDINAL GRADES ARE 3% OR GREATER UNLESS SOIL TEST CONFIRM THAT THEY ARE NOT NEEDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (APPLIES TO SIDEWALK IN RIGHT-OF-WAY ONLY).
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING ROADS AND UTILITIES WHICH OCCURS AS A RESULT OF THE PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
14. ALL UTILITIES INCLUDING UTILITY POLES DESIGNATED TO BE RELOCATED SHALL BE RELOCATED PRIOR TO CONSTRUCTION. FURTHERMORE, ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.
15. THE DESIGN OF PAVEMENT PLACED WITHIN THE RIGHT-OF-WAY SHOULD EQUAL OR EXCEED THE THICKNESS OF THE EXISTING PAVEMENT.
16. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1 1/2 INCH DEPTH; ANY COST ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.
17. THE PAVEMENT DESIGN AND DEPTH OF STREETS SHOWN HEREON IS BASED ON AN ASSUMED CBR VALUE. PRIOR TO CONSTRUCTION SOIL TESTS OF SUBGRADE MUST BE PERFORMED BY A GEOTECHNICAL ENGINEER OF RECORD AND MUST BE SUBMITTED TO THE ENGINEER FOR ACTUAL DETERMINATION AND CALCULATION OF THE REQUIRED PAVEMENT DESIGN AND SUBBASE THICKNESS. NO PAVEMENT CONSTRUCTION MAY COMMENCE WITHOUT THE FINAL PAVEMENT DESIGN APPROVAL BY THE CITY OF FREDERICKSBURG AND/OR VDOT.
18. ALL STREET CUT AND PATCH WORK IN PUBLIC RIGHT-OF-WAY REQUIRED FOR UTILITIES INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CITY OF FREDERICKSBURG STANDARDS AND SPECIFICATIONS. A SPECIAL EXCAVATION PERMIT IS REQUIRED WHEN WORKING IN THE RIGHT-OF-WAY.
19. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
20. ALL RIGHT-OF-WAY DEDICATED FOR PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.
21. EROSION AND SEDIMENT CONTROL WILL BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE REGULATIONS OF THE CITY OF FREDERICKSBURG.
22. CONTRACTOR SHALL OBTAIN AN AIR QUALITY PERMIT IF REQUIRED BY THE CITY OF FREDERICKSBURG.
23. ANY LIGHTING SHOWN IN THE CIVIL DRAWINGS IS INCLUDED FOR INFORMATION PURPOSES ONLY, REFER TO ELECTRICAL SITE PLAN FOR LIGHTING DESIGN.
24. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GRAVE SITES OR BURIAL PLOTS ON THIS PROPERTY UNLESS NOTED.
25. ALL ELEVATIONS SHALL BE BASED ON USGS OR USC&GS MEAN SEA LEVEL DATUM.
26. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF FREDERICKSBURG SPECIFICATIONS AND DESIGN STANDARDS.

LAND CONSERVATION NOTES AND COMPLIANCE

1. 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 (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. **~ SEE EROSION CONTROL NARRATIVE (ESN), SHEET 14, UNDER THE HEADING MANAGEMENT STRATEGIES.**
2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES 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 SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. **~ SEE ESN, SHEET 14, UNDER THE HEADING STOCKPILING.**
3. A PERMANENT VEGETATIVE 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, IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR HIS DESIGNATED AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. **~ SEE ESN, SHEET 14, UNDER THE HEADING MANAGEMENT STRATEGIES.**
4. 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. **~ SEE ESN, SHEET 14, PHASE 1 E&S UNDER THE HEADING CONSTRUCTION SEQUENCE.**
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. **~ NO DAMS, DIKES, OR DIVERSIONS ARE A PART OF THE E & S PLAN.**
6. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN. **~ A SEDIMENT BASIN IS NOT REQUIRED.**
7. 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. **~ SEE ESN, SHEET 14, UNDER THE HEADING MAINTENANCE.**
8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE. **~ CONCENTRATED SURFACE RUNOFF WILL NOT OCCUR ON THIS SITE.**
9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. 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. **~ INLET PROTECTION IS PROVIDED IN THE PHASE 1 AND THE PHASE 2 EROSION CONTROL PLAN. SEE SHEET 13.**
11. BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHELL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL. **~ OUTLET PROTECTION IS NOT REQUIRED ON THIS SITE.**
12. 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 THE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS. **~ THERE IS NO LIVE WATERCOURSE ON THIS SITE.**
13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED. **~ THERE IS NO LIVE WATERCOURSE ON THIS SITE.**
14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE ADHERED TO. **~ THERE IS NO LIVE WATERCOURSE ON THIS SITE.**
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN A WATERCOURSE IS COMPLETED. **~ THERE IS NO LIVE WATERCOURSE ON THIS SITE.**
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
   - 16.A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
   - 16.B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
   - 16.C. 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.
   - 16.D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
   - 16.E. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

   ~ SEE SHEETS 2, 3, 13, AND 14 OF THE PLAN.
17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED 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 PUBLIC ROAD SURFACE, THE ROAD 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 SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES. **~ A CONSTRUCTION ENTRANCE BEEN SPECIFIED. SEE SHEET 13.**
18. 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 ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. **~ SEE ESN, SHEET 14, PHASE II E&S, NUMBER 10 UNDER THE HEADING CONSTRUCTION SEQUENCE.**
19. REFER TO SHEET 14 FOR EROSION & SEDIMENT CONTROL NARRATIVE.

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Wack GENERAL CONTRACTOR

LEGEND, ABBREVIATIONS AND NOTES
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
Lic. No.040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

GENERAL NOTES:

1. THE PROPERTY SHOWN HEREIN IS IDENTIFIED AS GPIN 7789-04-0822.
2. THE PROPERTY IS CURRENTLY ZONED CD.
3. BOUNDARY INFORMATION IS BASED ON A PLAT OF SURVEY, PREPARED BY BOWMAN CONSULTING GROUP, DATED SEPTEMBER 25, 2013 TITLED "PLAT SHOWING BOUNDARY SURVEY ON THE PROPERTY OF THE FREE LANCE-STAR PUBLISHING CO. OF FREDERICKSBURG, VA."
4. EXISTING TOPOGRAPHY AND UTILITY INFORMATION IS FROM A FIELD RUN SURVEY BY BOWMAN CONSULTING GROUP, DATED SEPTEMBER 2014. SUPPLEMENTAL TOPO AND UTILITY INFORMATION PROVIDED BY BOWMAN CONSULTING IN MAY 2015 AND JUNE 2015.
5. SEE BMP NARRATIVE AND SWM NARRATIVE ON SHEET 11 REGARDING CHESAPEAKE BAY ORDINANCE REQUIREMENTS.
6. ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP FOR THE CITY OF FREDERICKSBURG, VIRGINIA, COMMUNITY PANEL NUMBER 5100650037C, DATED 09-19-2007. THIS PROPERTY IS LOCATED IN ZONE X. THE 100 YEAR FLOOD DOES NOT ENCROACH ONTO THIS SITE.
7. THE CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-257-7777, UTILITY COMPANY REPRESENTATIVES, PERFORM TEST PITS, REVIEW CURRENT TEST PIT DATA, AND WHATEVER OTHER OPERATIONS AVAILABLE TO INSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY BOWMAN CONSULTING GROUP, LTD. OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
8. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF THE WORK REQUIRED TO MAKE THE PROPOSED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, CONDITIONS, AND CONFORMATION AND CONDITION OF EXISTING GROUND SURFACE AND THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED PRIOR TO AND DURING PROSECUTION OF THE WORK. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE CHARACTER, QUANTITY AND QUALITY OF SURFACE AND SUBSURFACE MATERIALS OR OBSTACLES TO BE ENCOUNTERED. ANY INACCURACIES OR DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS MUST BE BOUGHT TO THE OWNER'S ATTENTION IN ORDER TO CLARIFY THE EXACT NATURE OF THE WORK TO BE PERFORMED PRIOR TO THE COMMENCEMENT OF ANY WORK.
9. UTILITY COMPANIES SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY EXCAVATION.
10. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL, CURB AND GUTTER OR SIDEWALK.
11. NO BLASTING SHALL BE PERMITTED.
12. ADDITIONAL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY THE INSPECTOR DURING FIELD REVIEW; COSTS ASSOCIATED WITH ADDITIONAL MEASURES SHALL BE ASSUMED BY THE CONTRACTOR.
13. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS.
14. THE RIGHT IS SPECIFICALLY RESERVED TO UTILIZE NON-STRUCTURAL AREAS FOR BORROW PITS CONSISTENT WITH THE GEOTECHNICAL REQUIREMENTS.
15. ALL SURFACED STREETS SHALL BE MAINTAINED IN A CLEAR CONDITION; FREE OF DUST, MUD OR SNOW AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS.
16. THE APPROVAL OF THIS PLAN SHALL IN NO WAY GRANT PERMISSION BY THE CITY FOR THE CONTRACTOR TO TRESPASS ON OFF-SITE PROPERTIES.
17. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS AND/OR RECONSTRUCTION OF ALL UTILITY COVER (MANHOLE FRAMES AND COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
19. THE CONTRACTOR MUST HAVE THE APPROVED CONSTRUCTION DRAWINGS IN POSSESSION PRIOR TO THE START OF CONSTRUCTION. AT LEAST ONE (1) COPY OF THE APPROVED PLANS, WITH REVISIONS, MUST BE KEPT ON-SITE AT ALL TIMES.
20. EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN A MANNER AS TO PREVENT SURFACE OR SUBSURFACE WATER FROM FLOWING INTO EXCAVATIONS, FLOODING PROJECT SITE OR ADJACENT PROPERTY AND WATER ACCUMULATIONS DETRIMENTAL TO STABILITY OF SUBGRADES.
21. STORM SEWER AND CULVERT PIPE SHALL BE REINFORCED CONCRETE PIPE TO CONFORM TO THE CURRENT A.A.S.H.T.O. DESIGNATION M170, UNLESS OTHERWISE DESIGNATED ON THESE PLANS. CLASS III PIPE AS A MINIMUM, WILL BE REQUIRED WITHIN THE LIMITS OF RIGHT-OF-WAY.
22. THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING ALL NECESSARY INSPECTIONS.
24. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE CONSTRUCTION SITE AND COMPLYING WITH ALL OSHA REGULATIONS.
25. EMERGENCY VEHICLE ACCESS SHALL BE PROVIDED DURING ALL PHASES OF CONSTRUCTION.
26. WHERE IMPROVEMENTS ARE PROPOSED WITHIN EXISTING EASEMENTS OF RECORD, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE AUTHORITIES THAT ARE DOMINANT TENEMENTS OF THESE EASEMENTS FOR PERMIT FOR ANY DISTURBANCES WITHIN THESE AREAS PRIOR TO CONSTRUCTION.
27. ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER.
28. TYPICAL SECTIONS ARE INTENDED TO SHOW GENERAL FEATURES OF THE PROPOSED CONSTRUCTION. FOR EXACT DETAILS AT ANY GIVEN LOCATION, SEE THE SITE PLAN SHEETS.
29. ALL HANDICAP RAMPS SHALL BE BUILT IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SHALL BE IN COMPLIANCE WITH ADA REQUIREMENTS TO INCLUDE DETECTABLE WARNING SURFACES.
30. ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. ALSO, A REPRESENTATIVE OF THE CONTRACTOR MUST BE AVAILABLE AT ALL TIMES.
31. THE ENGINEER SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE WORK. THE ENGINEER IS NOT RESPONSIBLE FOR ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.
32. ALL GAS LINES REQUIRE A MINIMUM OF 1 FOOT VERTICAL AND 5 FEET HORIZONTAL SEPARATION. CONSTRUCTION WITHIN 10 FEET OF THE GAS LINE REQUIRES A GAS LINE REPRESENTATIVE TO BE PRESENT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE GAS COMPANY PRIOR TO CONSTRUCTION.
33. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.

TRANSPORTATION NOTES:

1. METHOD AND MATERIALS USED SHALL CONFORM TO CURRENT THE CITY OF FREDERICKSBURG AND VDOT STANDARDS AND/OR SPECIFICATIONS.
2. CONTACT THE CITY OF FREDERICKSBURG TWO DAYS BEFORE EXCAVATION IN ANY STATE OR CITY RIGHT-OF-WAY. A SPECIAL EXCAVATION PERMIT SHALL BE REQUIRED WHEN WORKING IN THE RIGHT OF WAY.
3. 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 FREDERICKSBURG.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL.
5. ALL UTILITIES INCLUDING UTILITY POLES DESIGNATED TO BE RELOCATED SHALL BE RELOCATED PRIOR TO BUILDING CONSTRUCTION.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING ROADS AND UTILITIES WHICH OCCURS AS A RESULT OF THE PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
7. A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF EXISTING ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
8. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1 1/2 INCHES DEPTH; ANY COST ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.
9. ALL RIGHT-OF-WAY DEDICATED FOR PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.

PAVEMENT

1. AN ACTUAL COPY OF THE CBR REPORT IS TO BE SUBMITTED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE MATERIAL. THE PRELIMINARY DESIGN IS BASED ON A CBR VALUE OF 10. IF THE CBR VALUES ARE LESS THAN 10, THE AGGREGATE THICKNESS SHALL BE INCREASED BASED ON THE GEOTECHNICAL ENGINEER'S RECOMMENDATION.
2. SUBGRADE MUST BE APPROVED BY CITY OF FREDERICKSBURG FOR GRADE, TEMPLATE, AND COMPACTION BEFORE AGGREGATE IS PLACED.
3. ENTRANCES SHALL BE MILLED FOR CLEAN JOINT WITH EXISTING PAVEMENT.
4. THE PRICE BID FOR SAW CUTTING OF THE EXISTING PAVEMENT IS TO INCLUDE REMOVING, AND DISPOSING OF THE EXISTING PAVEMENT AND MATERIALS. WIDTH OF THE REMOVED SECTION IS 6" MIN.
5. THE USE OF AN AGGREGATE SPREADER IS REQUIRED WHEN PLACING AGGREGATE BASE.
6. PRIME COAT MUST BE APPLIED TO BASE MATERIAL PRIOR TO PLACEMENT OF ASPHALT (PRIME COAT RC-250 @ 0.3 GAL/SY).

TRASH COLLECTION

AFTER CONSTRUCTION IS COMPLETE, ON-SITE TRASH SHALL BE PLACED IN INTERNAL CONTAINERS LOCATED ONSITE. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE POST OCCUPANCY TRASH SERVICE FOR THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION DEBRIS PRIOR TO OCCUPANCY.

ENVIRONMENTAL PERMIT NOTES

1. THE CONTRACTOR SHALL ENSURE THAT EROSION AND SEDIMENT (E&S) CONTROL DEVICES ARE IN PLACE PRIOR TO CLEARING AND GRADING AND THAT THEY ARE MAINTAINED IN GOOD WORKING ORDER TO MINIMIZE IMPACTS TO STATE WATERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENTATION HANDBOOK. ALL EARTHWORK OPERATION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO PREVENT THE EROSION OF THESE MATERIALS AND PRECLUDE THEIR ENTRY INTO STATE WATERS. THESE CONTROLS SHALL REMAIN IN PLACE UNTIL THE AREA STABILIZES. SOIL STABILIZATION PRACTICES SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED WITHIN ANY IMPACT AREA.
2. ALL UTILITY WORK IN STATE WATERS SHALL BE PERFORMED IN A MANNER AS TO MINIMIZE DISTURBANCE AND THE AREA MUST BE RETURNED TO ITS ORIGINAL CONTOURS AND STABILIZED.
3. THE POURING OF CONCRETE DIRECTLY INTO STATE WATERS SHALL BE STRICTLY PROHIBITED.
4. CONTINUOUS FLOW OF PERENNIAL SPRINGS SHALL BE MAINTAINED. PIPES AND CULVERTS SHALL BE COUNTERSUNK A MINIMUM OF 6 INCHES TO PROVIDE FOR THE RE-ESTABLISHMENT OF NATURAL STREAM BOTTOM AND A LOW STREAM CHANNEL.

CONSTRUCTION NOTES

1. ALL WORK SHOWN HEREON SHALL BE IN STRICT ACCORDANCE WITH THE FREDERICKSBURG CITY CODE AND CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. WHERE CONFLICTS EXIST BETWEEN THE CONSTRUCTION PLANS AND THE CITY OF FREDERICKSBURG CODE, SPECIFICATIONS, OR STANDARDS AND THE VIRGINIA EROSION AND SEDIMENT CONTROL MANUAL, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR A RESOLUTION OF THE CONFLICT.
3. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING WITH THE ENGINEER AND CITY OF FREDERICKSBURG OFFICIAL A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD BEFORE STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DIFFERENCES.
5. CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT ALL EROSION AND SEDIMENT CONTROL STANDARDS ARE MET AND THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH CITY STANDARDS.
6. ALL WATER AND SEWER LINE TRENCHES SHALL BE COMPACTED TO 95% DENSITY IN 6" LAYERS. COMPACTION TESTS MAY BE REQUIRED BY THE CITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR SECURING APPROPRIATE CONSTRUCTION PERMITS REQUIRED BY THE CITY OF FREDERICKSBURG.
8. CLEARING AND GRUBBING IS TO BE CONFINED TO THOSE AREAS NEEDED FOR CONSTRUCTION. NO TREES OR SHRUBS IN UNGRADED AREAS ARE TO BE CUT WITHOUT THE PERMISSION OF THE OWNER.
9. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE SITE, IT SHALL BE REMOVED FROM THE ENTIRE SITE AND REPLACED WHERE NECESSARY WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
10. ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SITE PRIOR TO THE CONSTRUCTION OF THE SUBGRADE.
11. ALL GROWTH OF TREES AND VEGETATION SHALL BE CLEARED AND GRUBBED FOR THE ENTIRE RIGHT OF WAY. OTHER TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED.
12. THE GRADE LINES DENOTE TOP OF FINISHED PAVEMENT UNLESS SHOWN OTHERWISE ON TYPICAL SECTIONS OR PLANS.
13. CONTRACTOR SHALL DO GRADING AS NECESSARY TO PRECLUDE THE PONDING OF WATER ADJACENT TO THE ROADWAY.

EXISTING ZONING: C-D (COMMERICAL DOWNTOWN DISTRICT)

SITE AREA: 61,859.67 SF OR 1.42 AC BEFORE PROPOSED VACATION & DEDICATION
61,848.03 SF OR 1.42 AC AFTER VACATION & DEDICATION

PROPOSED USES: **DWELLING, UPPER STORY (OVER NON-RESIDENTIAL)**
EATING ESTABLISHMENTS
OFFICES
PARKING GARAGE
RETAIL SALES AND SERVICES (PERMITTED IN C-D DISTRICT)

DIMENSIONAL STANDARDS: (MIXED USE DEVELOPMENT STANDARDS)

RESIDENTIAL DENSITY: 36 DU/AC (WITH SPECIAL USE PERMIT)
51.12 DU MAX
44 DU PROPOSED

NON-RESIDENTIAL FAR: 3.0 MAXIMUM
185,579 SF MAXIMUM
68,063 SF PROPOSED (RETAIL + RESTAURANT + OFFICE + CORE)
(SEE AREA INFORMATION BELOW)

LOT AREA: NONE (MINIMUM SF)
61,848.03 SF PROPOSED

LOT WIDTH: NONE (MINIMUM FT)
181.72 FT (AT WILLIAM STREET ROW)

SETBACKS: **REQUIRED:**
FRONT: CONFORM TO FRONT YARD SETBACK OF ADJACENT STRUCTURES
SIDE: 15 FT WHEN ADJACENT TO A RESIDENTIAL DISTRICT; OTHERWISE, NONE
REAR: 25 FT WHEN ADJACENT TO A RESIDENTIAL DISTRICT; OTHERWISE, NONE

OPEN SPACE SET-ASIDE: NONE MINIMUM % REQUIRED

BUILDING HEIGHT: **50 FT (MAXIMUM)**
50 FT (PROPOSED)

PROPOSED BUILDING AREA SUMMARY:

WINCHESTER STREET	RESIDENTIAL	RETAIL	RESTAURANT	OFFICE	CORE	TOTAL
GROUND FLOOR:	1,853 SF	6,160 SF	4,824 SF	- SF	2,735 SF	15,572 SF
1ST FLOOR:	11,179 SF	- SF	- SF	- SF	1,348 SF	12,527 SF
2ND FLOOR:	23,259 SF	- SF	- SF	- SF	2,706 SF	25,965 SF
3RD FLOOR:	23,259 SF	- SF	- SF	- SF	2,706 SF	25,965 SF
4TH FLOOR:	23,259 SF	- SF	- SF	- SF	2,706 SF	25,965 SF
TOTAL :	**82,809 SF**	**6,160 SF**	**4,824 SF**	**- SF**	**12,201 SF**	**105,994 SF**
DOUGLAS STREET	**RESIDENTIAL**	**RETAIL**	**RESTAURANT**	**OFFICE**	**CORE**	**TOTAL**
GROUND FLOOR:	- SF	4,648 SF	5,325 SF	893 SF	429 SF	11,295 SF
2ND FLOOR:	- SF	- SF	- SF	9,605 SF	1,303 SF	10,908 SF
3RD FLOOR:	- SF	- SF	- SF	10,421 SF	1,303 SF	11,724 SF
4TH FLOOR:	- SF	- SF	- SF	9,648 SF	1,303 SF	10,951 SF
TOTAL :	**- SF**	**4,648 SF**	**5,325 SF**	**30,567 SF**	**4,338 SF**	**44,878 SF**
PARKING GARAGE	**RESIDENTIAL**	**RETAIL**	**RESTAURANT**	**OFFICE**	**CORE**	**TOTAL**
GROUND LEVEL:	- SF	- SF	- SF	- SF	- SF	19,055 SF
LEVEL P1:	- SF	- SF	- SF	- SF	- SF	53,734 SF
LEVEL P2:	- SF	- SF	- SF	- SF	- SF	52,072 SF
TOTAL :	**- SF**	**- SF**	**- SF**	**- SF**	**- SF**	**124,861 SF**
TOTAL SQUARE FOOTAGE	**RESIDENTIAL**	**RETAIL**	**RESTAURANT**	**OFFICE**	**CORE**	**TOTAL**
ALL FLOORS:	82,809 SF	10,808 SF	10,149 SF	30,567 SF	16,539 SF	150,872 SF
PARKING:	- SF	- SF	- SF	- SF	- SF	124,861 SF
TOTAL :	**82,809 SF**	**10,808 SF**	**10,149 SF**	**30,567 SF**	**16,539 SF**	**275,733 SF**

PRINCIPAL USE STANDARDS:

DWELLINGS, UPPER STORY: 1. UPPER-STORY RESIDENTIAL DWELLING UNITS SHALL OCCUPY THE SECOND FLOOR OR HIGHER FLOOR OF A BUILDING WITH A NON RESIDENTIAL USE ON THE GROUND FLOOR.
UNDERSTOOD

RESTAURANTS WITH INDOOR: OR OUTDOOR SEATING
1A. THE OUTDOOR PORTIONS OF THE RESTAURANT SHALL NOT OPERATE AFTER 12:00 AM.
THE OUTDOOR HOURS SHALL CONFORM WITH THIS STANDARD
1B. THE OUTDOOR SEATING AREA SHALL NOT OBSTRUCT THE MOVEMENT OF PEDESTRIANS ALONG SIDEWALKS OR THROUGH AREAS INTENDED FOR PUBLIC USE.
THE OUTDOOR SEATING AREAS ARE LOCATED ADJACENT TO THE PROPOSED BUILDING AND WILL NOT OBSTRUCT THE MOVEMENT OF PEDESTRIANS ALONG SIDEWALKS OR THROUGH PUBLIC USE AREAS.
1C. THE OUTDOOR SEATING AREA SHALL PROVIDE HANDICAPPED ACCESS.
THE PROPOSED OUTDOOR SEATING AREA SHALL PROVIDE HANDICAPPED ACCESS AS REQUIRED.

PARKING STANDARDS:
MINIMUM PARKING SPACES:

USE CATEGORY	USE TYPE	MINIMUM NUMBER OF PARKING SPACES	NUMBER OF UNITS/ GROSS SF OF USE	NUMBER OF SPACES
HOUSEHOLD LIVING	DWELLING, UPPER STORY	0.5 PER DU	44	22
EATING ESTABLISHMENTS	REST. WITH IN/OUT SEATING	1 PER EVERY 180 SF	10,149	56
OUTDOOR SEEATING	REST. WITH IN/OUT SEATING	1 PER EVERY 180 SF (30% REDUCTION)	1,486	6
OFFICES	BUSINESS AND PROF SERV.	1 PER EVERY 300 SF	34,905	116
RETAIL SALES & SERVICES	RETAIL SALES ESTABLISHMENT	1 PER EVERY 300 SF	10,808	36

TOTAL OFF-STREET PARKING REQUIRED = 237
MAXIMUM ALLOWED OFF-STREET PARKING= 283
(WITHOUT ALTERNATIVE PARKING PLAN)
MINIMUM HANDICAPPED ACCESSIBLE SPACES PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN= 12
(CALCULATED SEPARATELY BY USE - PUBLIC = 5 HC, OFFICE = 3 HC, RESIDENTIAL = 4 HC)
MINIMUM HANDICAPPED ACCESSIBLE SPACES PER UDO 72-53.1.D.3(A)= 11
MINIMUM VAN ACCESIBLE HC SPACES = 3

PROPOSED OFF-STREET PARKING SPACES = 29 GROUND FLOOR
120 **PARKING LEVEL 1**
123 **PARKING LEVEL 2**
272 **TOTAL OFF-STREET**

PROPOSED ON-STREET PARKING SPACES = 25 PARALLEL SPACES

PER SECTION 72-82.7(E) OF THE UDO ORDINANCE ON-STREET PARKING MAY BE USED TO SATISFY THE OFF-STREET PARKING REQUIREMENTS IN THE C-D DISTRICT.

TOTAL NUMBER OF PARKING SPACES = 297 SPACES
TOTAL NUMBER OF HANDICAPPED ACCESSIBLE PARKING SPACES = 12 SPACES
TOTAL NUMBER OF VAN ACCESSIBLE HC PARKING SPACES = 3 SPACES

THE 2010 ADA STANDARDS REQUIRE 7 SPACES FOR PARKING LOTS CONTAINING 201-300 TOTAL SPACES.

LOADING SPACE STANDARDS:

USE OR ACTIVITY	GROSS FLOOR AREA	MIN. NUMBER OF LOADING BERTHS
EATING ESTABLISHMENT	11,635	1
RETAIL, OFFICE	45,713	2
	TOTAL REQUIRED =	3
	TOTAL PROVIDED =	**3**

(OFFSTREET = 15 FT WIDE X 25 FT LONG) SITE PLAN EXCEPTION SUBMITTED FOR ONSTREET LOADING SPACES

BICYCLE PARKING STANDARDS:

	NUMBER OF UNITS/ GROSS SF OF USE		REQUIRED # OF SPACES
RESIDENTIAL =	44	UNITS	1
NON-RESIDENTIAL =	57,348	SF	11
		TOTAL =	**12 SPACES**
		TOTAL PROPOSED =	**26 SPACES**

Mixed Use Definition Test

25% Mininimum Commercial or Residential

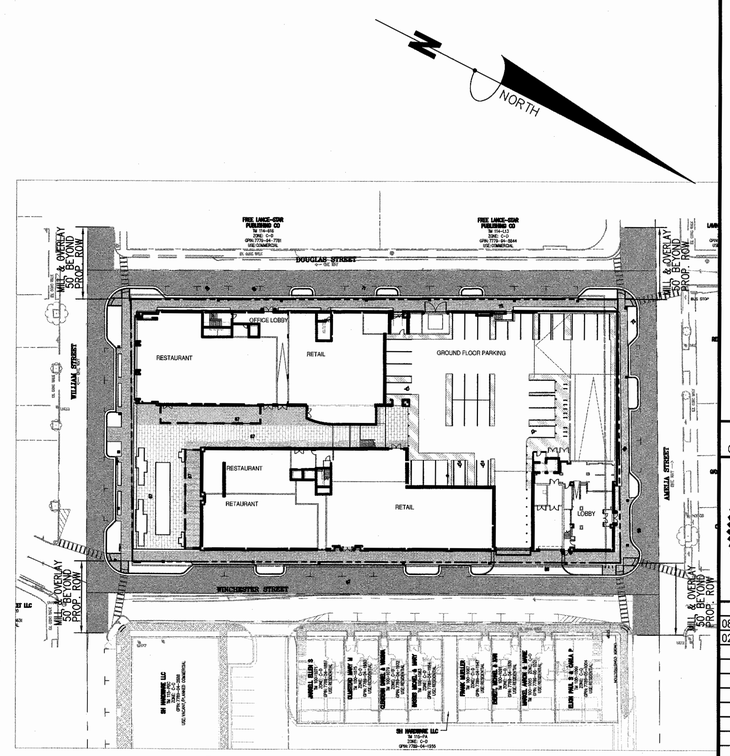
Total Restaurant Space	10,149 SF
Total Outdoor Dining	1,486 SF
Total Retail	10,808 SF
Total General Office	30,567 SF
Associated Core Spaces	4,338 SF
Total Commercial Space	57,348 SF
Total Project Square Footage	152,358 SF
Percent Commercial	37.6%
Percent Residential	62.4%

30% of first Floor Space Facing William Street as Service Business

Total Square Footage facing William Street	10,149 SF
Restaurant Space facing William Street	10,149 SF
Percent Sevice Business facing William Street	100%

FAR and Density Calculations

Total Site Area	61,860 SF
Total Project Square Footage	152,358 SF
Gross FAR	2.46
Ground Floor SF of Restaurant, Retail, or Personal Service Establishments	22,443 SF
Total SF Residential and General Office	129,915 SF
FAR Residential and General Office	2.10
Building Footprint Square Footage	55,542 SF
Building Site Coverage Ratio	89.8%
Site Area (Acres)	1.42
Density Allowed (w/Special Use Permit)	51.12
	44 Units



PAVEMENT MILL & OVERLAY EXHIBIT

SCALE: 1"=50'

DENOTES LIMITS OF MILL & OVERLAY

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Bowman CONSULTING

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Wack CONSTRUCTION

GENERAL NOTES & SITE TABULATIONS
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No.040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: AS NOTED V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 3 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\003-5425-D-CP-001-NTS.dwg

CITY OF FREDERICKSBURG, VIRGINIA
NOTIFICATION OF CITY ACTION

TO: The Thos. J. Wack Company
400 Charles Street
Fredericksburg, VA 22401

FROM: Charles Johnston, Director, Community Planning and Building Department

DATE: August 18, 2014

RE: **VACATING A PORTION OF THE AMELIA STREET RIGHT-OF-WAY FOR THE LIBERTY PLACE MIXED USE DEVELOPMENT**

Your request for:
___Rezoning ___Special Exception
___Change of Non-Conforming Use ___Special Use Permit
XX Right-of-Way Vacation

has been:
___Approved XX Approved with conditions ___Denied
___Other_____

At the August 12, 2014 meeting of the:
___Planning Commission XX City Council

Your next step should be:
___File additional/revised plans as required
XX Obtain other required permits
___No further information is required

SPECIFICS/CONDITIONS (Continued on reverse, if necessary)

The City Council has approved your request for the vacation of a portion of the Amelia Street public right-of-way consisting of approximately 1770 square feet, as shown on the "ROW Vacation/Dedication Exhibit" prepared by Justin R. Troidl, P.E., dated July 29, 2014. This vacation is conditioned as stated on Ordinance No. 14-31 (attached).

cc: Building & Development Services, Department of Public Works, IT Department, Commissioner of the Revenue, School Board, Abutting Property Owners, Fire Department, Economic Dev

MOTION: ELLIS — **August 12, 2014, Regular Meeting, Ordinance No. 14-31**
SECOND: DEVINE

RE: VACATING A PORTION OF THE AMELIA STREET RIGHT OF WAY FOR THE LIBERTY PLACE MIXED USE DEVELOPMENT

ACTION: APPROVED: Ayes: 6; Nays: 1

FIRST READ: August 12, 2014 **SECOND READ: August 12, 2014**

IT IS HEREBY ORDAINED by the Fredericksburg City Council:

SEC. I. Background and Introduction.

The City has received an application from The Thos. J. Wack Company to vacate a portion of the Amelia Street right of way, consisting of approximately 1770 square feet between Winchester Street and Douglas Street. The purpose of the vacation application is to accommodate the development of a mixed use development to be known as "Liberty Place." The site of this development is outside of the Historic Fredericksburg zoning overlay district, but within the area annexed into the City limits in 1851-1852. The applicant proposes to dedicate approximately 184.6 square feet of right of way along Douglas Street, and approximately 904 square feet of right of way along Winchester Street.

The Planning Commission determined that the vacation of this right of way was in substantially in accord with the Comprehensive Plan (2007). After notice as required by law, the City Council held a public hearing on the application on August 12, 2014.

SEC. II. Vacation of Right of Way

The City Council hereby vacates a portion of the Amelia Street public right of way consisting of approximately 1770 square feet, as shown on the ""ROW Vacation/Dedication Exhibit" prepared by Justin R. Troidl, P.E., dated July 29, 2014. This vacation is conditioned as follows:

1. The landowner shall conduct a Phase I archaeological survey of the Liberty Place site and, if indicated, a Phase II survey, prior to approval of the final subdivision plat for the site. The archaeological survey or surveys shall conform to the "Guidelines for Conducting Historic Resources Surveys in Virginia" of the Virginia Department of Historic Resources, dated October 2011.

2. The landowner shall dedicate public right of way on Douglas Street and Winchester Street as shown on the exhibit, on the final subdivision plat.

3. The final subdivision plat showing the vacation and dedication of rights of way shall be recorded within 36 months of the date of this resolution.

4. The development of the Liberty Place project, as shown on the Generalized Development Plan entitled "Liberty Place," by Bowman Consulting, Job No. 5425-01-001, dated March 2014, last revised May 2, 2014, shall commence within 36 months of the adoption of this ordinance.

Approved as to form:

Kathleen Dooley, City Attorney

****

Clerk's Certificate

I, the undersigned, certify that I am Clerk of Council of the City of Fredericksburg, Virginia, and that the foregoing is a true copy of Ordinance No. 14-31 duly adopted at a meeting of the City Council meeting held August 12, 2014 at which a quorum was present and voted.

Tonya B. Lacey, CMC
Clerk of Council

ORDINANCE 14–31 IMPLEMENTATION

CONDITION 1: A PHASE I ARCHAEOLOGICAL SURVEY OF THE SITE SHALL BE CONDUCTED PRIOR TO THE APPROVAL OF THE FINAL PLAT.

CONDITION 2: PUBLIC RIGHT OF WAY ON DOUGLAS STREET AND WINCHESTER STREET HAS BEEN SHOWN TO BE DEDICATED ON THIS PLAN. THIS RIGHT OF WAY SHALL B DEDICATED ON THE FINAL PLAT.

CONDITION 3: UNDERSTOOD. THE FINAL PLAT SHALL BE RECORDED WITHIN 36 MONTHS OF THE DATE OF THIS RESOLUTION.

CONDITION 4: UNDERSTOOD. THE DEVELOPMENT OF THIS PROJECT SHALL COMMENCE WITHIN 36 MONTHS OF THE ADOPTION OF THIS ORDINANCE.

RECEIVED AUG 1 4 2014

CITY OF FREDERICKSBURG, VIRGINIA
NOTIFICATION OF CITY ACTION

TO: The Thomas J. Wack Company
400 Charles Street
Fredericksburg, VA 22401

FROM: Charles Johnston, Director, Community Planning & Building

DATE: August 13, 2014

RE: **SUP 2014-03 – Liberty Place – 605 William Street – Mixed Use Development**

Your request for:
___Rezoning ___Special Exception
___Change of Non-Conforming Use XX Special Use Permit

has been:
___Approved XX Approved with conditions ___Denied
___Other_____

At the August 13, 2014 meeting of the:
___Planning Commission XX City Council

Your next step should be:
___File additional/revised plans as required
XX Obtain other required permits – Building Services Division – 372-1080
___No further information is required

SPECIFICS/CONDITIONS (Continued on reverse, if necessary)

Your Special Use Permit request has been approved with the conditions outlined on Resolution No. 14-62, attached.

cc: Building & Development Services, Department of Public Works, IT Department, Commissioner of the Revenue, School Board, Abutting Property Owners, Fire Department, Economic Dev

MOTION: ELLIS — **August 12, 2014, Regular Meeting, Resolution No. 14-62**
SECOND: WITHERS

RE: GRANTING A SPECIAL USE PERMIT TO FREE LANCE-STAR PUBLISHING CO. OF FREDERICKSBURG, VIRGINIA, FOR RESIDENTIAL DENSITY OF 36 UNITS PER ACRE FOR THE "LIBERTY PLACE" PROJECT ON PROPERTY LOCATED AT 605 WILLIAM STREET

ACTION: APPROVED: Ayes: 6; Nays: 1

WHEREAS The Thos. J. Wack Co., agent for the Free Lance-Star Publishing Co of Fredericksburg, Virginia, has applied to this Council for a special use permit for residential density of 36 units per acre on property located on the block between William Street, Winchester Street, Amelia Street and Douglas Street, GPIN#7789-04-0822, Fredericksburg, Virginia.

WHEREAS, the Council after notice and public hearing thereon, has considered the application in light of its conformity with the City's Comprehensive Plan, its harmony with the purposes and standards of the zoning district regulations, its compatibility with existing or planned uses of neighboring properties, and whether the proposed special use and related improvements will be designed, sited, landscaped and otherwise configured such that the use will not hinder or discourage the appropriate development or use of adjacent, neighboring or community land and structures, or impair the economic, social or environmental value thereof.

NOW, THEREFORE, BE IT RESOLVED:

Based on the above considerations, Council finds: (a) the request as submitted or modified does conform to the City's Comprehensive Plan, or to specific elements of such plan and to official policies adopted pursuant thereto (b) the request is in harmony with the purpose and intent of the zoning district regulations, (c) this request will not have an undue adverse impact on the surrounding neighborhood, in terms of public health, safety or general welfare; and (d) this request is appropriately designed, sited, landscaped and otherwise configured.

This Council grants to Free Lance-Star Publishing Co. of Fredericksburg, Virginia a special use permit for residential density of 36 units per acre on property located at on the block between William Street, Winchester Street, Amelia Street and Douglas Street, GPIN#7789-04-0822, in substantial accordance with its application for a special use permit dated March 27, 2014, subject to the following conditions:

1. The property shall be developed in substantial accordance with the General Development Plan entitled "Liberty Place" by Bowman Consulting, Job No. 5425-01-001, dated March 2014, last revised May 2, 2014, pages 1 – 7; floor plans entitled "Liberty Place," dated

"07.08.2014" by Beyond Ordinary Boundaries Architecture, consisting of 7 unnumbered pages; and architectural elevations entitled "Liberty Place Mixed Use Development Fredericksburg, Virginia," consisting of 11 unnumbered pages.

2. The permitted use of the property shall commence within 60 months of the date of this resolution.

Votes:
Ayes: Greenlaw, Withers, Devine, Duffy, Ellis, Frye
Nays: Kelly
Absent from Vote: None
Absent from Meeting: None

****

Clerk's Certificate

I, the undersigned, certify that I am Clerk of Council of the City of Fredericksburg, Virginia, and that the foregoing is a true copy of Resolution No. 14-62 duly adopted at a meeting of the City Council meeting held August 12, 2014 at which a quorum was present and voted.

Tonya B. Lacey, CMC
Clerk of Council

RESOLUTION 14–62 IMPLEMENTATION

CONDITION 1: THIS PLAN IS IN SUBSTANTIAL ACCORDANCE WITH THE GDP.

CONDITION 2: UNDERSTOOD. THE PERMITTED USE SHALL COMMENCE WITHIN 60 MONTHS OF THE DATE OF THIS RESOLUTION.

Bowman CONSULTING

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SUP CONDITIONS AND IMPLEMENTATION
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

Wack CONSTRUCTION

SPMAJ 2015–09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

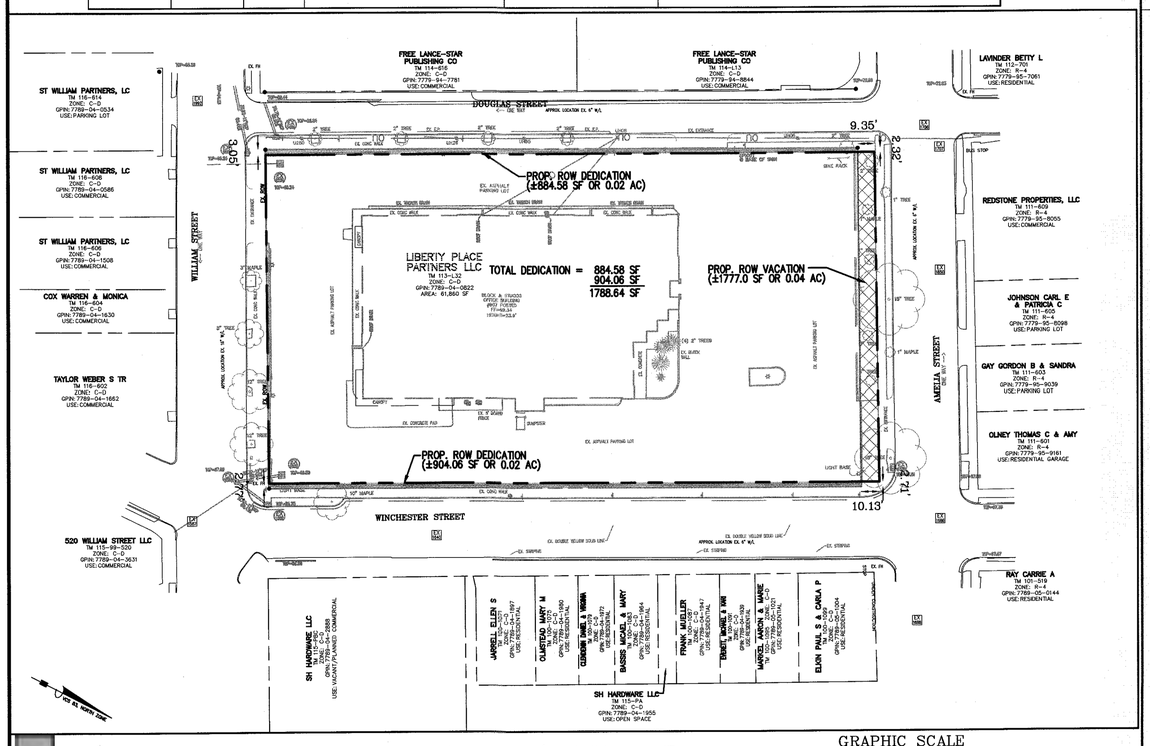
JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A
JOB No. 5425–01–002
DATE : OCTBOER 2014
FILE No. 5425–D–CP–001
SHEET 3A OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\003-5425-D-CP-001-NTS.dwg

ADJACENT OWNER KEY

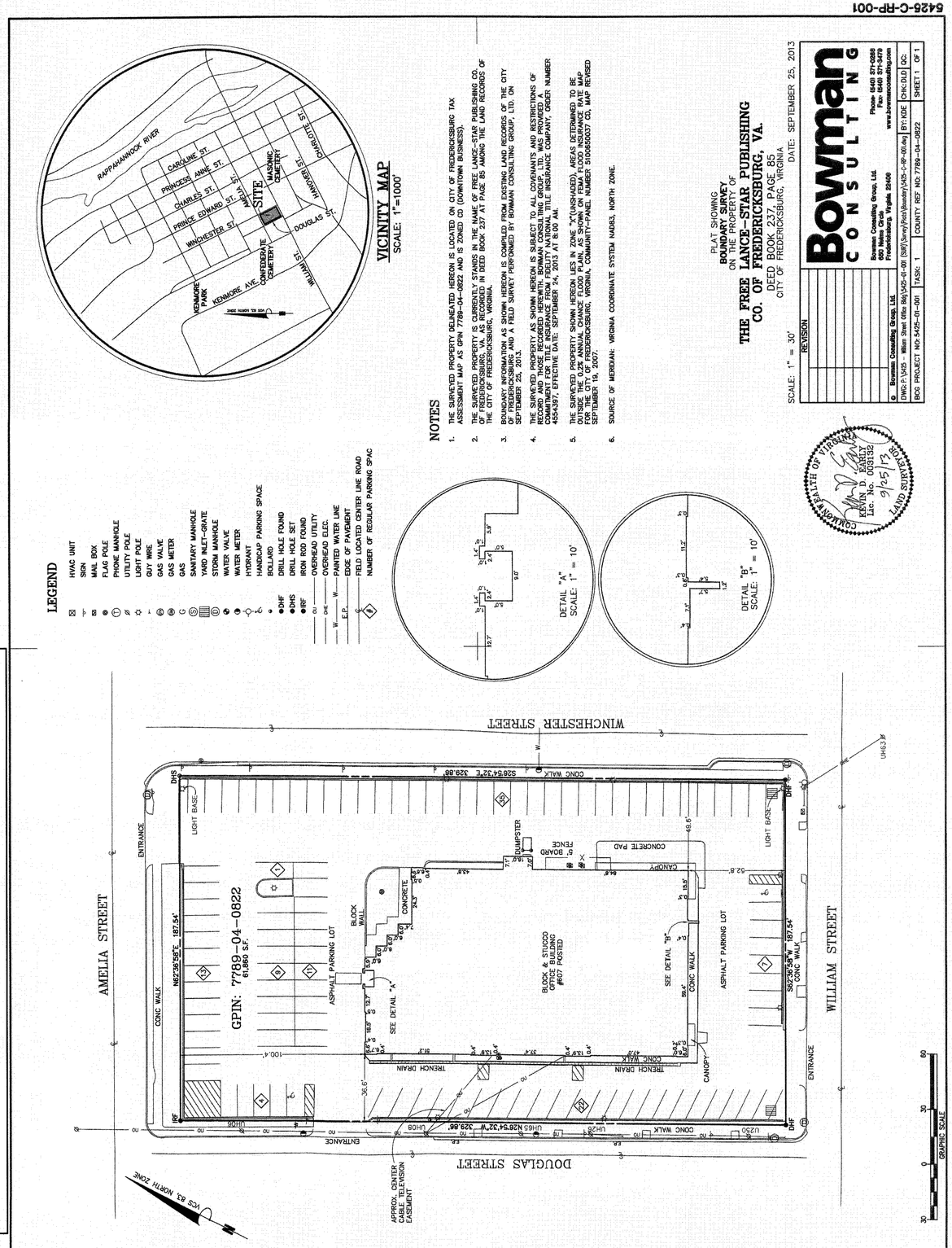
GPIN	TAX MAP	ZONING	Owner Name	Use	Physical Address
7779-94-7781	114-616	CD	FREE LANCE-STAR PUBLISHING CO	COMMERCIAL	616 AMELIA STREET, FREDERICKSBURG VA 22401
7779-94-8844	114-L13	CD	FREE LANCE-STAR PUBLISHING CO	RESIDENTIAL	616 AMELIA STREET, FREDERICKSBURG VA 22401
7779-95-7061	112-701	R4	BETTY L LAVINDER	RESIDENTIAL	14728 BLUNTS RIDGE DRIVE, DOSWELL VA 23047
7779-95-8055	111-609	R4	REDSTONE PROPERTIES, LLC	COMMERCIAL	PO BOX 7112, FREDERICKSBURG VA 22404
7779-95-8098	111-605	R4	CARL E & PATRICIA C JOHNSON	PARKING LOT	PO BOX 380, APG MD 21005
7779-95-9039	111-603	R4	GORDON B & SANDRA GAY	PARKING LOT	432 INGLESIDE DRIVE, FALMOUTH VA 22405
7779-95-9161	111-601	R4	THOMAS C & AMY OLNEY	RESIDENTIAL GARAGE	601 AMELIA STREET, FREDERICKSBURG VA 22401
7789-05-0144	101-519	R4	CARRIE A RAY	RESIDENTIAL	9824 DUNFORD STREET, FREDERICKSBURG VA 22407
7789-05-1004	100-1099	CD	PAUL S & CARLA P ELKIN	RESIDENTIAL	1099 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-05-1021	100-1095	CD	AARON & MARIE MARKEL	RESIDENTIAL	1095 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-04-1939	100-1091	CD	MICHAEL L & KARI I EVERETT	RESIDENTIAL	13 PENNSBURY COURT, FREDERICKSBURG VA 22406
7789-04-1947	100-1087	CD	FRANK R MUELLER	RESIDENTIAL	1087 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-04-1955	100-PA	CD	SH HARDWARE, LLC	OPEN SPACE	1201 CENTRAL PARK BLVD, FREDERICKSBURG VA 22401
7789-04-1964	100-1083	CD	MICHAEL S & MARY WILSON BASSIS	RESIDENTIAL	1083 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-04-1972	100-1079	CD	DANIEL W & VIRGINIA T CLENDENIN	RESIDENTIAL	1079 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-04-1980	100-1075	CD	MARY M OLMSTEAD	RESIDENTIAL	1075 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-04-1897	100-1071	CD	ELLEN S JARRELL	RESIDENTIAL	1071 WINCHESTER STREET, FREDERICKSBURG VA 22401
7789-04-2888	100-PBC	CD	SH HARDWARE, LLC	VACANT / FUT. COMMERCIAL	1201 CENTRAL PARK BLVD, FREDERICKSBURG VA 22401
7789-04-3631	115-99-520	CD	520 WILLIAM STREET, LLC	COMMERCIAL	520 WILLIAM STREET, FREDERICKSBURG VA 22401
7789-04-1662	116-602	CD	WEBER S TAYLOR TR	COMMERCIAL	1204 PRINCE EDWARD STREET, FREDERICKSBURG VA 22401
7789-04-1630	116-604	CD	WARREN & MONICA COX	COMMERCIAL	604 WILLIAM STREET, FREDERICKSBURG VA 22401
7789-04-1508	116-606	CD	ST WILLIAM STREET PARTNERS, LC	COMMERCIAL	606 WILLIAM STREET, FREDERICKSBURG VA 22401
7789-04-0586	116-608	CD	ST WILLIAM STREET PARTNERS, LC	COMMERCIAL	606 WILLIAM STREET, FREDERICKSBURG VA 22401
7789-04-0534	116-614	CD	ST WILLIAM STREET PARTNERS, LC	PARKING LOT	606 WILLIAM STREET, FREDERICKSBURG VA 22401



PROPSED ROW DEDICATON

PROPOSED ROW VACATION

ROW VACATION/DEDICATION EXHIBIT
SCALE: 1"=40'



NOTES

1. THE SURVEYED PROPERTY DELINEATED HEREON IS LOCATED ON CITY OF FREDERICKSBURG TAX ASSESSMENT MAP AS GPIN 7789-04-0822 AND IS ZONED CD (DOWNTOWN BUSINESS).
2. THE SURVEYED PROPERTY IS CURRENTLY STANDS IN THE NAME OF FREE LANCE-STAR PUBLISHING CO. OF FREDERICKSBURG, VA. AS RECORDED IN DEED BOOK 237 AT PAGE 85 AMONG THE LAND RECORDS OF THE CITY OF FREDERICKSBURG, VIRGINIA.
3. BOUNDARY INFORMATION AS SHOWN HEREON IS COMPILED FROM EXISTING LAND RECORDS OF THE CITY OF FREDERICKSBURG AND A FIELD SURVEY PERFORMED BY BOWMAN CONSULTING GROUP, LTD. ON SEPTEMBER 25, 2013.
4. THE SURVEYED PROPERTY AS SHOWN HEREON IS SUBJECT TO ALL COVENANTS AND RESTRICTIONS OF RECORD AND THOSE RECORDED SUBSEQUENT TO THE RECORDATION OF THE FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE FROM FIDELITY NATIONAL TITLE INSURANCE COMPANY, ORDER NUMBER 455-4397, EFFECTIVE DATE: SEPTEMBER 24, 2013 AT 8:00 AM.
5. THE SURVEYED PROPERTY SHOWN HEREON LIES IN ZONE "X"(UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN, AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF FREDERICKSBURG, VIRGINIA, COMMUNITY-PANEL NUMBER 5106550007 C0, MAP REVISED SEPTEMBER 19, 2007.
6. SOURCE OF MERIDIAN: VIRGINIA COORDINATE SYSTEM NAD83, NORTH ZONE.

PLAT SHOWING
BOUNDARY SURVEY
ON THE PROPERTY OF
THE FREE LANCE-STAR PUBLISHING CO. OF FREDERICKSBURG, VA.
DEED BOOK 237 PAGE 85
CITY OF FREDERICKSBURG, VIRGINIA
DATE: SEPTEMBER 25, 2013

SCALE: 1" = 30'

REVISION

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DWG: P:\5425 - William Street Office Bldg\5425-01-001 (ENG)\Survey\Proj\Boundary\5425-C-BP-001.dwg | BY: KDE | CHK: DLD | QC:
BCG PROJECT NO: 5425-01-001 | TASK: 1 | COUNTY REF NO: 7789-04-0822 | SHEET 1 OF 1

COMMONWEALTH OF VIRGINIA
KEVIN D. EDWARDS
LEG No. 0403132
9/25/13
LAND SURVEYOR

6425-C-RP-001

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BOUNDARY PLAT & ROW EXHIBIT
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

Wack DESIGN-BUILD CONSTRUCTION

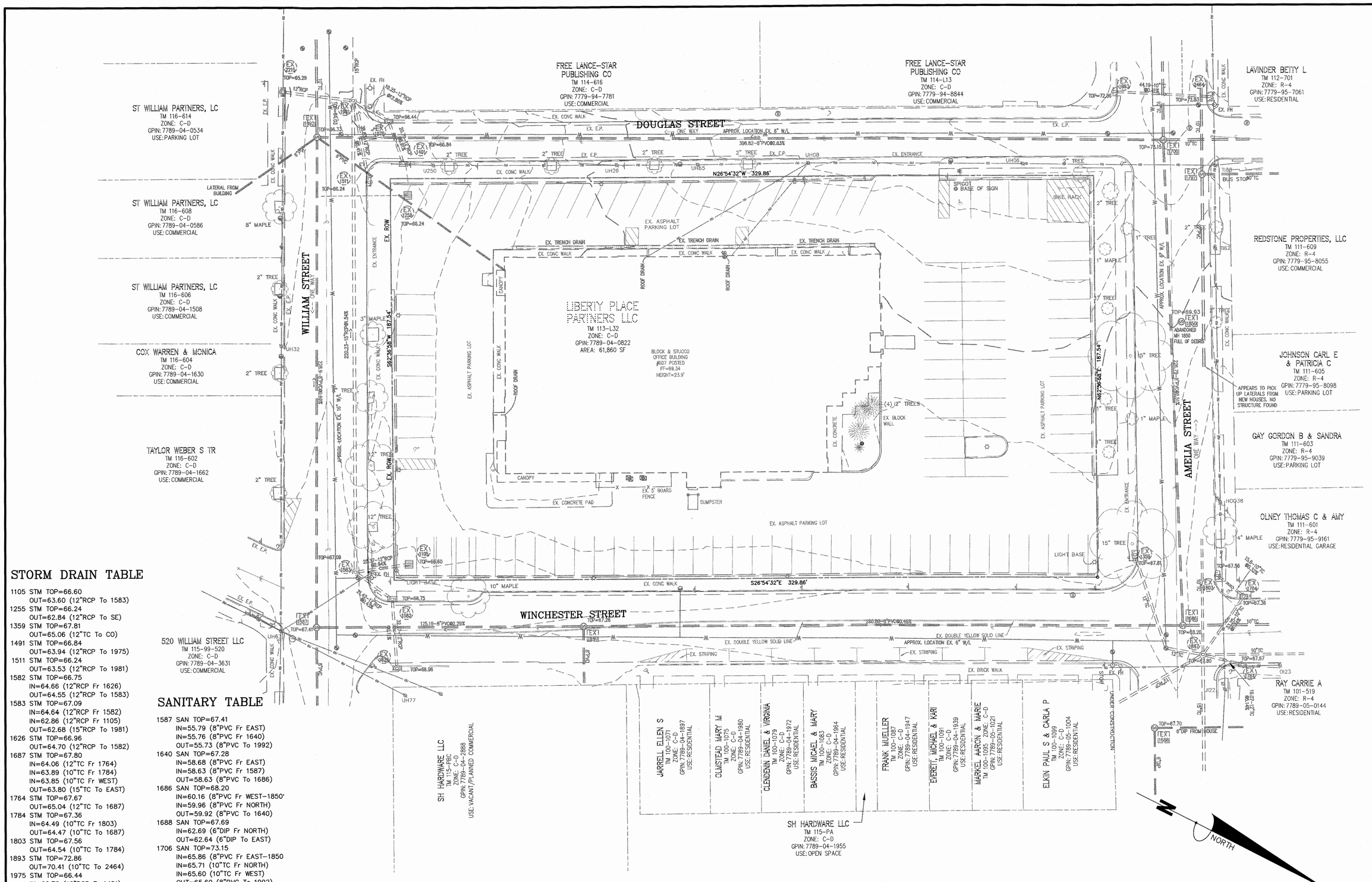
SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION
JT/WD DESIGN	WED DRAWN / JRT CHKD
SCALE	H: AS NOTED V:
JOB No. 5425-01-002	
DATE : OCTBOER 2014	
FILE No. 5425-D-CP-001	
SHEET 4 OF 21	

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\004-5425-D-CP-001-BDY.dwg



STORM DRAIN TABLE

1105 STM TOP=66.60
OUT=63.60 (12"RCP To 1583)
1255 STM TOP=66.24
OUT=62.84 (12"RCP To SE)
1359 STM TOP=67.81
OUT=65.06 (12"TC To CO)
1491 STM TOP=66.84
OUT=63.94 (12"RCP To 1975)
1511 STM TOP=66.24
OUT=63.53 (12"RCP To 1981)
1582 STM TOP=66.75
IN=64.66 (12"RCP Fr 1626)
OUT=64.55 (12"RCP To 1583)
1583 STM TOP=67.09
IN=64.64 (12"RCP Fr 1582)
IN=62.86 (12"RCP Fr 1105)
OUT=62.68 (15"RCP To 1981)
1626 STM TOP=66.96
OUT=64.70 (12"RCP To 1582)
1687 STM TOP=67.80
IN=64.06 (12"TC Fr 1764)
IN=63.89 (10"TC Fr 1784)
IN=63.85 (10"TC Fr WEST)
OUT=63.80 (15"TC To EAST)
1764 STM TOP=67.67
OUT=65.04 (12"TC To 1687)
1784 STM TOP=67.36
IN=64.49 (10"TC Fr 1803)
OUT=64.47 (10"TC To 1687)
1803 STM TOP=67.56
OUT=64.54 (10"TC To 1784)
1893 STM TOP=72.86
OUT=70.41 (10"TC To 2464)
1975 STM TOP=66.44
IN=62.72 (12"RCP Fr 1491)
OUT=62.47 (12"RCP To 1981)
1981 STM TOP=64.03
IN=61.43 (12"RCP Fr 1511)
IN=59.99 (12"RCP Fr 1975)
IN=59.28 (15"RCP Fr 1583)
IN=61.37 (12"RCP Fr 2215)
OUT=58.91 (15"RCP To SW)
2215 STM TOP=65.29
OUT=63.21 (12"RCP To 1981)
2464 STM TOP=72.83
OUT=70.23 (10"TC To 1893)

SANITARY TABLE

1587 SAN TOP=67.41
IN=55.79 (8"PVC Fr EAST)
IN=55.76 (8"PVC Fr 1640)
OUT=55.73 (8"PVC To 1992)
1640 SAN TOP=67.28
IN=58.68 (8"PVC Fr EAST)
IN=58.63 (8"PVC Fr 1587)
OUT=58.63 (8"PVC To 1686)
1686 SAN TOP=68.20
IN=60.16 (8"PVC Fr WEST-1850'
IN=59.96 (8"PVC Fr NORTH)
OUT=59.92 (8"PVC To 1640)
1688 SAN TOP=67.69
IN=62.69 (6"DIP Fr NORTH)
OUT=62.64 (6"DIP To EAST)
1706 SAN TOP=73.15
IN=65.86 (8"PVC Fr EAST-1850
IN=65.71 (10"TC Fr NORTH)
IN=65.60 (10"TC Fr WEST)
OUT=65.60 (8"PVC To 1992)
1707 SAN TOP=71.82
IN=67.13 (8"DIP Fr NORTH)
IN=65.97 (12"PVC Fr EAST)
OUT=65.91 (10"TC To WEST)
1850 SAN TOP=69.93
ABANDONED-FULL OF DEBRIS
1992 SAN TOP=66.33
IN=60.53 (6"PVC Fr NE)
IN=54.38 (8"PVC Fr 1706)
IN=54.15 (8"PVC Fr 1587)
OUT=54.15 (10"TC To WEST)

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Wack GENERAL CONTRACTOR

EXISTING CONDITIONS PLAN
MAJOR SITE PLAN
LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

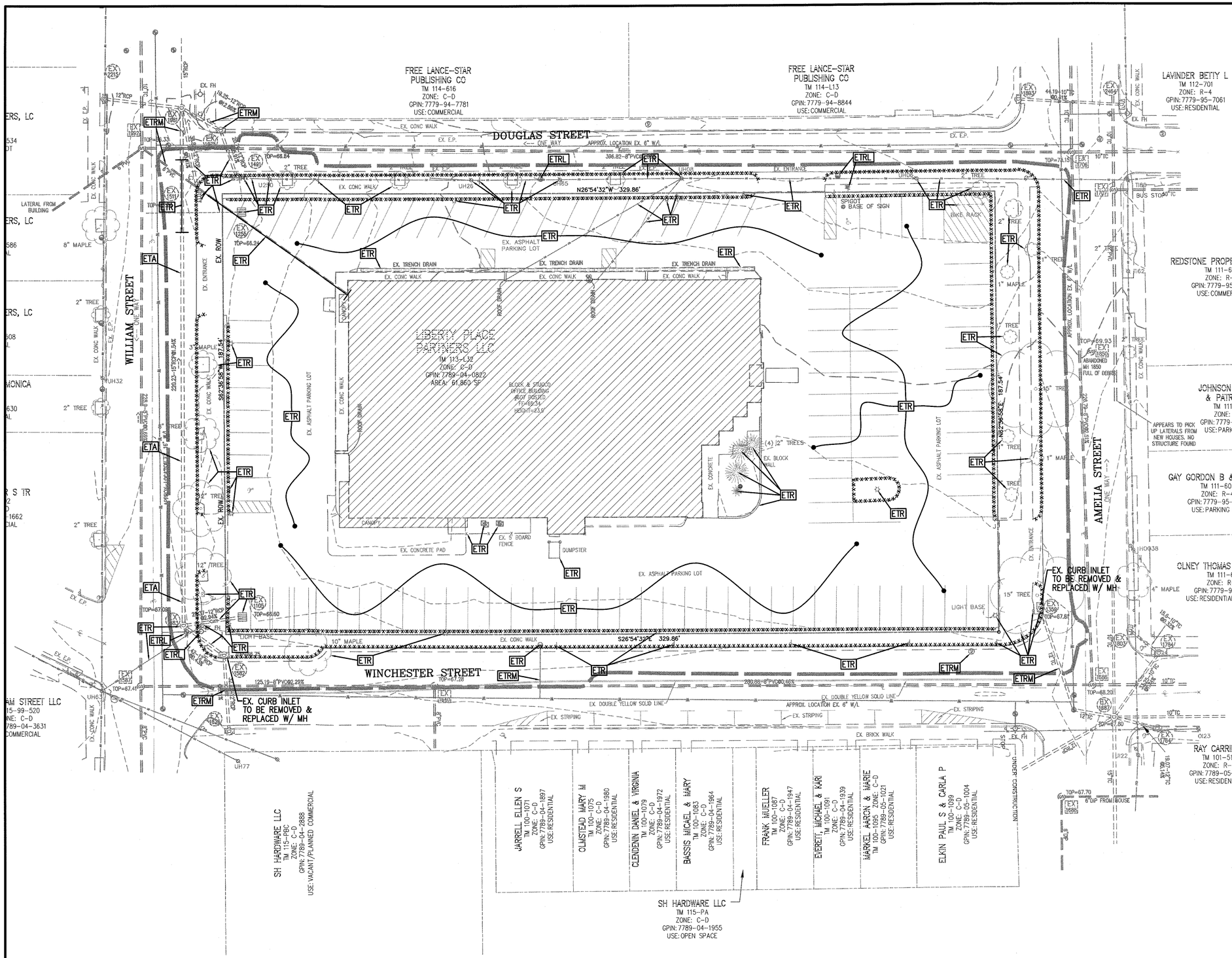
SCALE H: 1"=20' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 5 OF 21



DEMOLITION NOTES

1. ALL DEMOLITION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE CURRENT REGULATIONS OF THE CITY OF FREDERICKSBURG AND THE STATE OF VIRGINIA.
2. ALL APPLICABLE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED PRIOR TO COMMENCING DEMOLITION
3. ALL ITEMS WHICH REQUIRE VERIFICATION BETWEEN THE CONTRACTOR AND THE OWNER SHALL BE DONE IN WRITING BY THE CONTRACTOR PRIOR TO BIDDING AS A METHOD OF BID CLARIFICATION.
4. THE CONTRACTOR SHALL READ ALL GEOTECHNICAL INFORMATION AVAILABLE AND CLEARLY REPORT PROPOSED CONSTRUCTION METHODOLOGIES TO THE CONTRACTOR PRIOR TO BIDDING.
5. THE CONTRACTOR SHALL ADHERE TO ALL SAFETY REGULATIONS GIVEN BY OSHA.
6. THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-777 AT LEAST THREE (3) DAYS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
7. THE CONTRACTOR SHALL SECURE A CONSTRUCTION / DEMOLITION PERMIT PRIOR TO ANY WORK ON-SITE OR PUBLIC OPEN SPACE.
8. THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE WAS NO ABOVE GROUND EVIDENCE OR FOR WHICH THERE WAS NO ABOVE GROUND EVIDENCE OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOWMAN CONSULTING GROUP, LTD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOWMAN CONSULTING SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN ACCORDANCE WITH LOCAL REGULATIONS AND CODES.
10. TEST PIT LOCATIONS SHOWN ARE PRELIMINARY AND SUBJECT TO REVISIONS. ADDITIONAL TEST PITS MAY BE REQUIRED FOLLOWING "UTILITY MARK-OUT" PROCEDURES (ie, TEST PITS FOR GAS, ELECTRIC, CABLE, TELEPHONE, ETC.) AS ORDERED BY THE CONTRACTOR VIA MISS UTILITY. ADDITIONAL TEST PITS MAY ALSO BE REQUIRED SHOULD THE PROPOSED UTILITY LOCATIONS BE REVISED PRIOR TO FINAL JURISDICTIONAL APPROVAL.
11. ALL EXISTING ASPHALT, UTILITIES, BUILDINGS, RETAINING WALLS, CURB AND GUTTER, AND SIDEWALKS WITHIN THE LIMITS OF CLEARING AND GRADING ARE TO BE REMOVED UNLESS SPECIFICALLY NOTED TO REMAIN (ETRM) OR TO BE ABANDONED (ETA) WITH THIS PLAN.
12. THE CONTRACTOR SHALL CAP ALL EXISTING WATER AND SEWER SERVICE LINES THAT CURRENTLY SERVE THE SITE. SERVICE LINES ARE TO REMAIN UNDER STREET.
13. EXISTING OVERHEAD UTILITIES SHALL BE RELOCATED UNDERGROUND. THE CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION OF ALL OVERHEAD UTILITY LINES AND REMOVAL OF ALL UTILITY POLES, PEDESTALS AND TRANSFORMERS WITH UTILITY COMPANIES AND WITH THE DEVELOPER PRIOR TO DEMOLITION.
14. PARKING STRIPING ALONG WILLIAM STREET, DOUGLAS STREET, AMEILA STREET AND WINCHESTER STREET SHALL BE REMOVED AND RESTRIPED AS NOTED ON SHEET 7.
15. SEE SHEETS 15 AND 16 FOR PEDESTRIAN ACCESS ROUTES AND MAINTENANCE OF TRAFFIC PLANS.
16. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH GOVERNING AUTHORITIES FOR ANY EXISTING OVERHEAD UTILITIES THAT ARE TO REMAIN THROUGHOUT CONSTRUCTION TO ENSURE CORRECT PRECAUTIONARY MEASURES ARE TAKEN.
17. ON SITE DEMOLITION IS SCHEDULED TO COMMENCE UPON PLAN APPROVAL AND PROCEED AS NECESSARY TO COMPLETION. THE CONTRACTOR MUST COORDINATE WITH THE DEVELOPER RELATIVE TO THE SCOPE OF THE DEMOLITION ACTIVITIES AND THE EXISTING CONDITIONS WHICH ARE PRESENT FOLLOWING THOSE ACTIVITIES. THIS DEMOLITION PLAN INDICATES CONDITIONS PRIOR TO ANY AND ALL DISTURBANCE AND MAY NOT ACCURATELY REFLECT CONDITIONS AT THE TIME OF CONTRACTOR MOBILIZATION.
18. CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS TO DETERMINE METHOD OF ABANDONMENT FOR ALL UTILITIES NOTED TO BE ABANDONED (ETA) WITH THIS PLAN.
19. ALL STORM AND SANITARY SEWER MANHOLES WITHIN THE PUBLIC STREETS NOTED TO BE REMOVED (ETR) WITH THIS PLAN SHALL BE REMOVED ENTIRELY.

LEGEND

ETRM	EXISTING TO REMAIN
ETR	EXISTING TO BE REMOVED
ETRL	EXISTING TO BE RELOCATED
ETA	EXISTING TO BE ABANDONED
	EXISTING BUILDING TO BE DEMOLISHED
	EXISTING CURB TO BE DEMOLISHED
	LIMIT OF CLEARING & GRADING

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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DEMOLITION PLAN
MAJOR SITE PLAN

LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN A. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=20' V: N/A

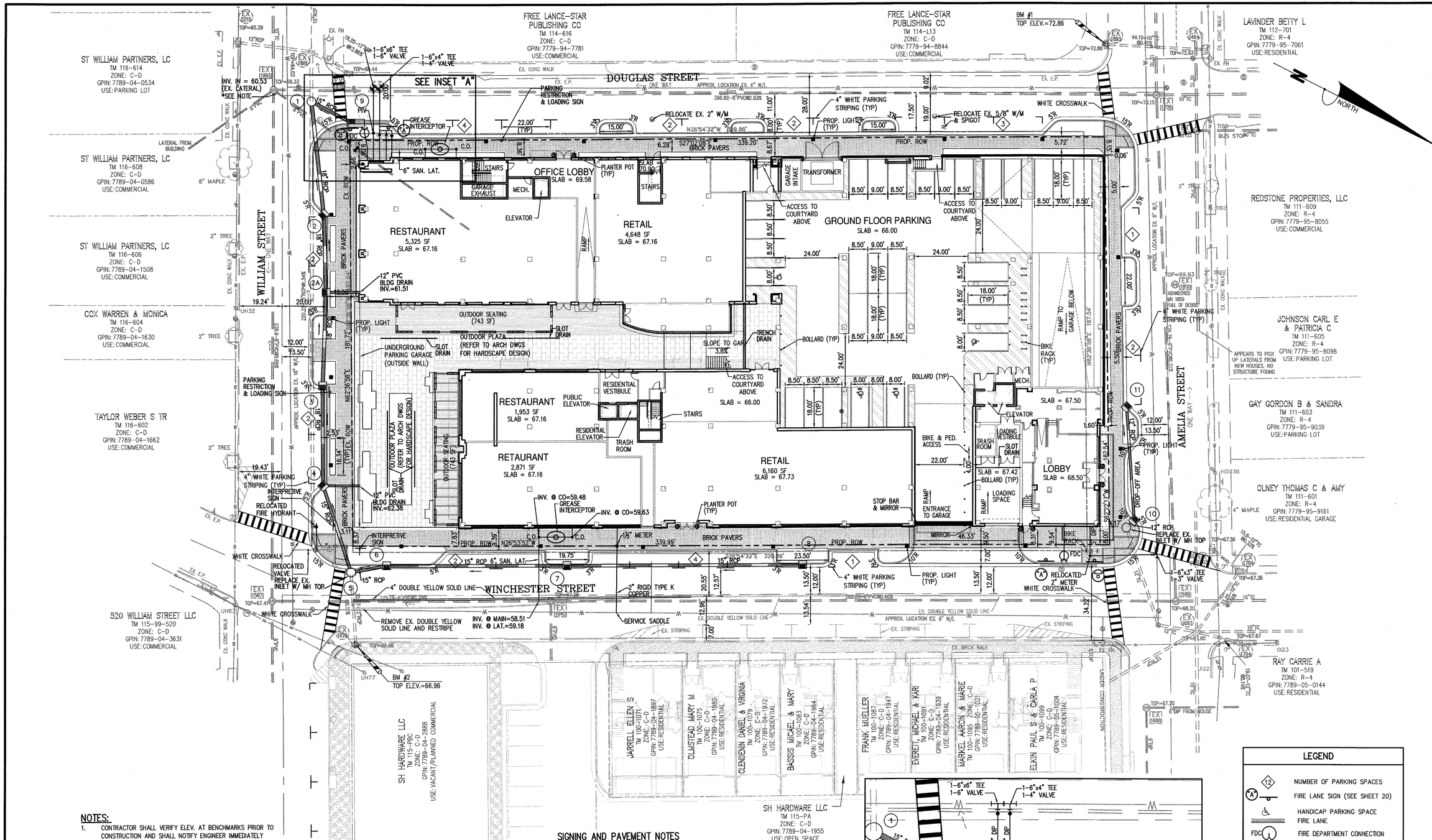
JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 6 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\006-5425-D-CP-001-DEMO.dwg



NOTES:

1. CONTRACTOR SHALL VERIFY ELEV. AT BENCHMARKS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IMMEDIATELY WITH ANY DISCREPANCIES.
2. **ALL EX. MAJOR UNDERGROUND UTILITIES ARE APPROXIMATE IN LOCATION AND SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. ENGINEER SHALL BE NOTIFIED IMMEDIATELY WITH ANY DISCREPANCIES.**
3. ALL STORM SEWER PIPES ARE RCP UNLESS OTHERWISE NOTED.
4. ALL STORM STRUCTURES SHALL HAVE IS-1 INVERT SHAPING, AND SL-1'S (SAFETY LANDINGS) WILL BE REQUIRED IN ALL STRUCTURES WITH A DEPTH OVER 12'. ST-1'S (STEPS) ARE REQUIRED IN ANY STRUCTURE WITH A DEPTH OF 4' OR GREATER.

*NOTE:

CONTRACTOR TO VERIFY DEPTH OF EXISTING 6" LATERAL AT LOCATION OF PROPOSED CLEANOUT. IF THE DEPTH OF THE EXISTING LATERAL IS NOT ADEQUATE TO SERVE THE PROPOSED BUILDING, THEN THE EXISTING LATERAL MUST BE RE-CONSTRUCTED TO THE EXISTING MANHOLE (EX1992) THAT IT TIES INTO.

SIGNING AND PAVEMENT NOTES

1. ALL PROPOSED SIGNING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF EACH OF THE FOLLOWING AND ANY REVISION THERETO:
   A. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   B. THE VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   C. THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS.
   D. THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS.
2. ALL PAVEMENT MARKINGS SHALL BE CLASS 1, TYPE B THERMOPLASTIC UNLESS OTHERWISE NOTED.
3. PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO AVOID CONFLICT WITH UNDERGROUND UTILIZES OR OTHER OBSTRUCTIONS, AND TO COMPLY WITH STANDARDS REFERENCED IN NOTE 1.
4. ANY EXISTING PAVEMENT MARKINGS, WHICH WILL CONFLICT WITH PROPOSED PAVEMENT MARKINGS, SHALL BE COMPLETELY ERADICATED.
5. LIMITS SHOWN OF PROPOSED MARKINGS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO INSURE THAT PROPOSED PAVEMENT MARKINGS CONTINUE UNTIL EXISTING PAVEMENT MARKINGS CAN BE MATCHED.
6. REFER TO APPROVED TRAFFIC SIGNAL PLAN FOR PROPER LOCATIONS OF STOP LINES AND CROSSWALKS WHEN APPLICABLE.
7. IF PLOWABLE MARKERS ARE PRESENT, CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OR REPLACEMENT OF THE MARKERS.

NOTES:

1. SEE FIRE LANE MARKING DETAIL ON SHEET 20.
2. ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
3. ALL WATERLINES SHALL BE RESTRAINED WITH MEGA LUG RESTRAINING GLANDS.

LEGEND

- NUMBER OF PARKING SPACES
- FIRE LANE SIGN (SEE SHEET 20)
- HANDICAP PARKING SPACE
- FIRE LANE
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- WATER METER
- WATER MAIN
- SANITARY SEWER LATERAL/CLEANOUT
- HANDICAP ACCESSIBLE ENTRANCE
- STORM DRAIN PIPE
- STORM DRAIN STRUCTURE INDICATOR
- TEST PIT REQUIRED

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

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Wack GENERAL CONTRACTORS

DIMENSIONAL, UTILITY & STRIPING PLAN
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
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DATE	DESCRIPTION	
JT/WD	WED	JRT
DESIGN	DRAWN	CHKD
SCALE	H: 1"=20' V: N/A	
JOB No. 5425-01-002		
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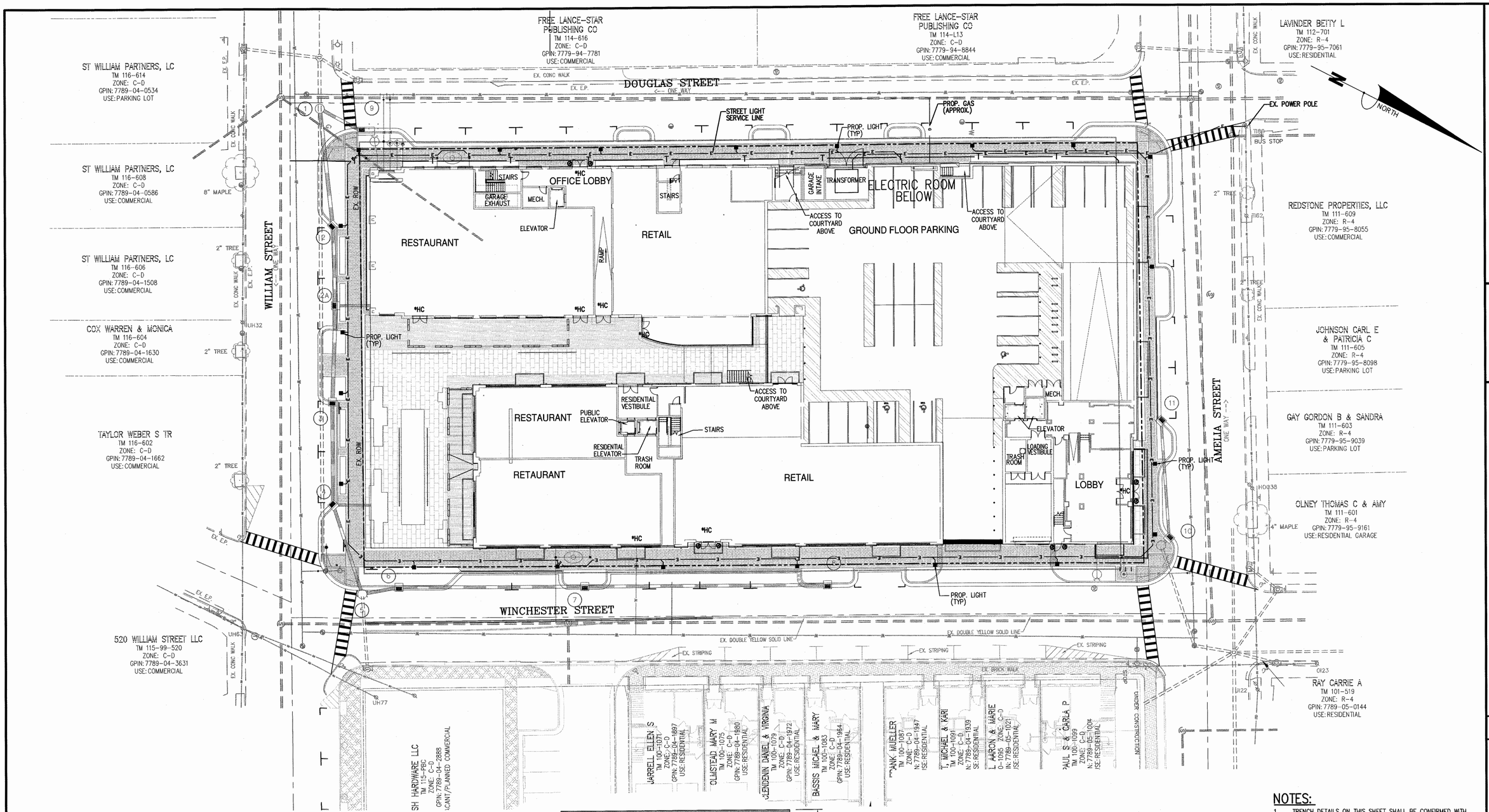
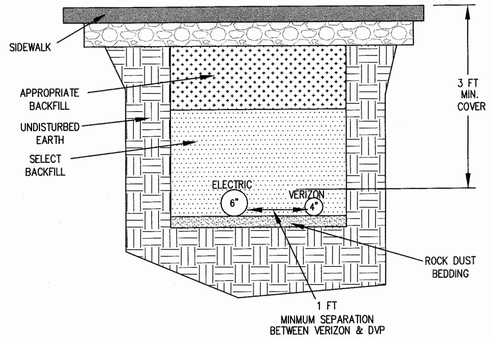
FILE No. 5425-D-CP-001		
SHEET 7 OF 21		

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\007-5425-D-CP-001-SIT.dwg





TYPICAL TRENCH LAYOUT

NTS

FOR INFORMATION ONLY!!!

NOTES:

1. TRENCH DETAILS ON THIS SHEET SHALL BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO INSTALLATION.
2. WHERE DRY UTILITIES CROSS UNDER EXISTING UTILITIES, THE DRY UTILITIES SHALL CROSS AT LEAST 1 FOOT BENEATH THE EXISTING UTILITIES.
3. THE LOCATIONS OF THE DRY UTILITY LINES SHOWN ON THIS SHEET ARE APPROXIMATE. COMPLETE DESIGN AND APPROVAL BY THE APPROPRIATE UTILITY COMPANY SHALL BE OBTAINED PRIOR TO INSTALLATION.

LEGEND	
—E—	APPROXIMATE DOMINION VIRGINIA POWER LINE
—T—	APPROXIMATE VERIZON LINE
—G—	APPROXIMATE COLUMBIA GAS LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Bowman CONSULTING

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Fredericksburg, Virginia 22406
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Wack GENERAL CONTRACTOR

DRY UTILITY EXHIBIT
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

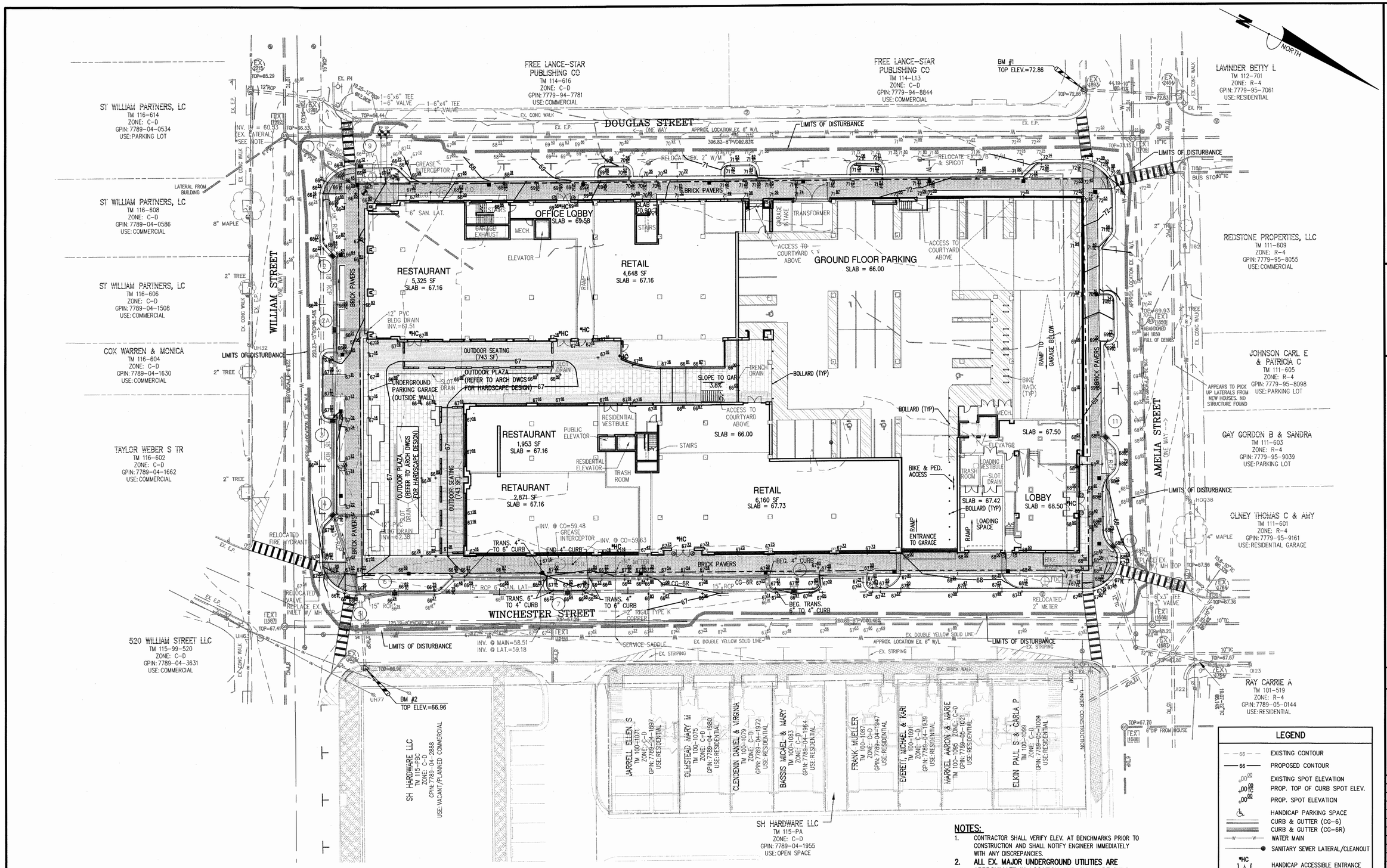
SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION	
JT/WD	WED	JRT
DESIGN	DRAWN	CHKD
SCALE	H: 1"=20' V: N/A	
JOB No. 5425-01-002		
DATE : OCTBOER 2014		
FILE No. 5425-D-CP-001		
SHEET 7A OF 21		

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\007A-5425-D-CP-001-DRYUTP.dwg



NOTES:

1. CONTRACTOR SHALL VERIFY ELEV. AT BENCHMARKS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IMMEDIATELY WITH ANY DISCREPANCIES.
2. **ALL EX. MAJOR UNDERGROUND UTILITIES ARE APPROXIMATE IN LOCATION AND SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. ENGINEER SHALL BE NOTIFIED IMMEDIATELY WITH ANY DISCREPANCIES.**
3. ALL STORM SEWER PIPES ARE RCP UNLESS OTHERWISE NOTED.
4. ALL STORM STRUCTURES SHALL HAVE IS-1 INVERT SHAPING, AND SL-1'S (SAFETY LANDINGS) WILL BE REQUIRED IN ALL STRUCTURES WITH A DEPTH OVER 12'. ST-1'S (STEPS) ARE REQUIRED IN ANY STRUCTURE WITH A DEPTH OF 4' OR GREATER.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROP. TOP OF CURB SPOT ELEV.
- PROP. SPOT ELEVATION
- HANDICAP PARKING SPACE
- CURB & GUTTER (CG-6)
- CURB & GUTTER (CG-6R)
- WATER MAIN
- SANITARY SEWER LATERAL/CLEANOUT
- HANDICAP ACCESSIBLE ENTRANCE
- STORM DRAIN PIPE
- STORM DRAIN STRUCTURE INDICATOR
- TEST PIT REQUIRED

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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Wack GENERAL CONTRACTOR

GRADING PLAN
MAJOR SITE PLAN
LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. WROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=20' V: N/A

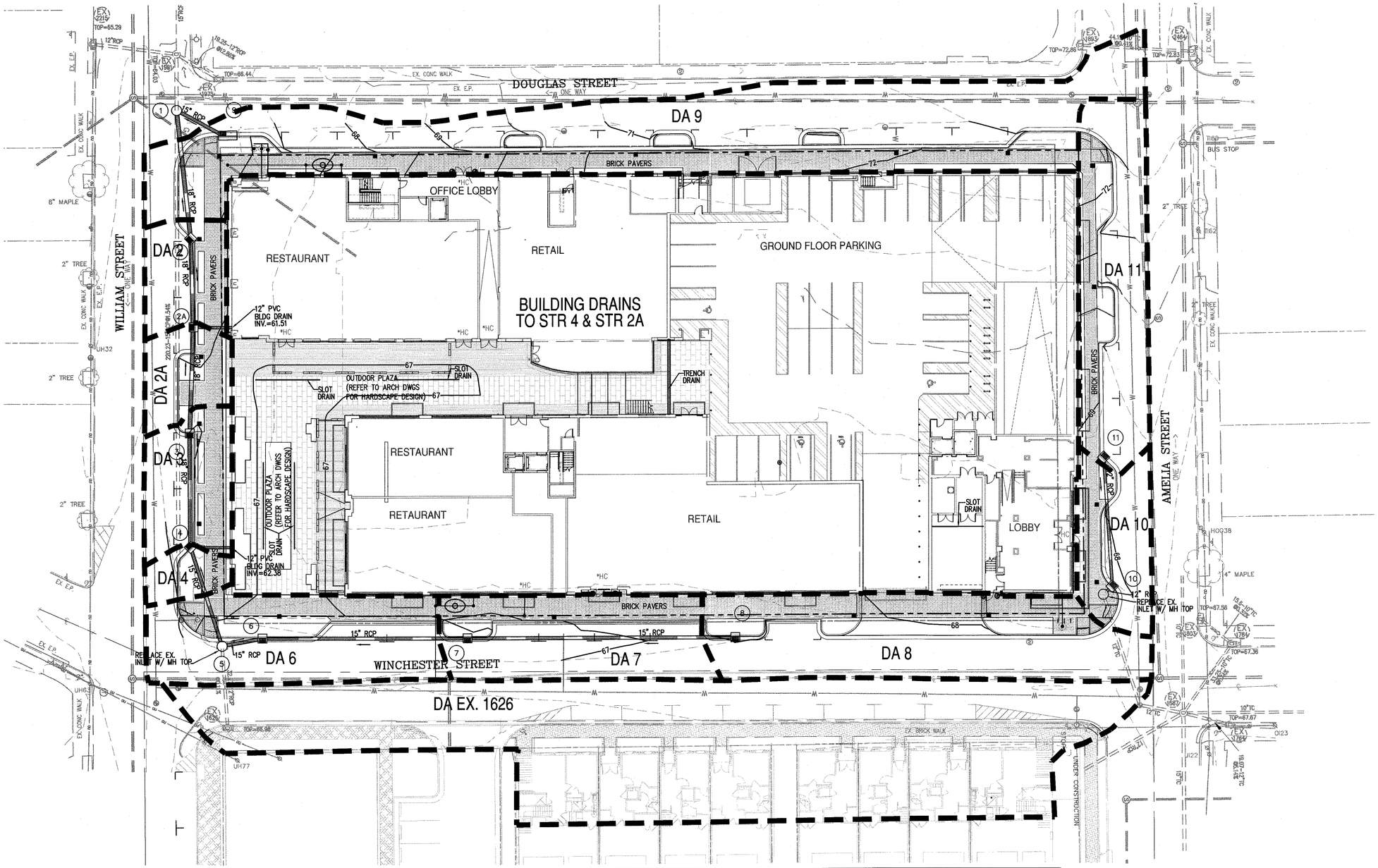
JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 8 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\008-5425-D-CP-001-GRP.dwg



DA TO STR	ROOF DRAIN FLOW			SURFACE FLOW					TOTAL DRAINAGE AREA		
	BUILDING AREA (AC)	CN (B SOILS)	C-FACTOR	IMPERVIOUS AREA (AC)	OPEN SPACE (AC)	TOTAL SURFACE FLOW	CN (B SOILS)	C-FACTOR	DRAINAGE AREA (AC)	CN (CSOILS)	C-FACTOR
EX 1626	-	-	-	0.34	0.03	0.37	95	0.86	0.37	95	0.86
11	-	-	-	0.07	0.02	0.09	90	0.78	0.09	90	0.78
10	-	-	-	0.04	-	0.04	98	0.90	0.04	98	0.90
9	-	-	-	0.24	0.03	0.27	94	0.84	0.27	94	0.84
8	-	-	-	0.12	0.01	0.13	95	0.86	0.13	95	0.86
7	-	-	-	0.08	-	0.08	98	0.90	0.08	98	0.90
6	-	-	-	0.08	0.01	0.09	94	0.84	0.09	94	0.84
5	-	-	-	-	-	-	-	-	-	-	-
4	0.64	98	0.90	0.01	-	0.01	98	0.90	0.65	98	0.90
3	-	-	-	0.04	-	0.04	98	0.90	0.04	98	0.90
2A	0.64	98	0.90	0.02	0.01	0.03	86	0.72	0.67	97	0.89
2	-	-	-	0.03	-	0.03	98	0.90	0.03	98	0.90
1	-	-	-	-	-	-	-	-	-	-	-

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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Wack GENERAL CONTRACTOR

DRAINAGE DIVIDES MAP
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015–09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=20' V: N/A

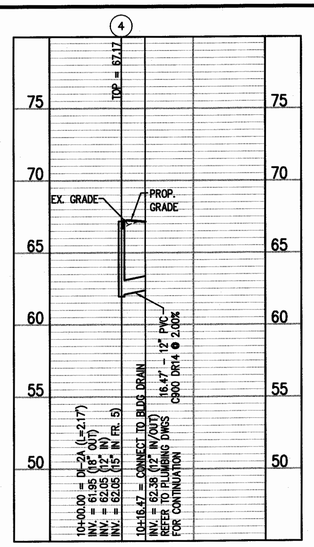
JOB No. 5425–01–002

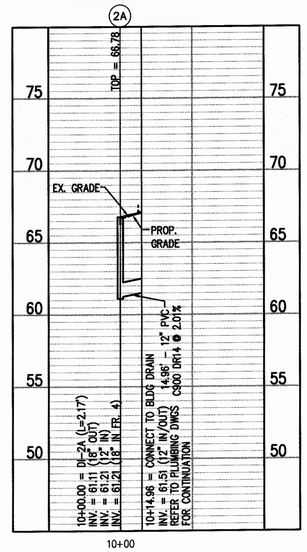
DATE : OCTBOER 2014

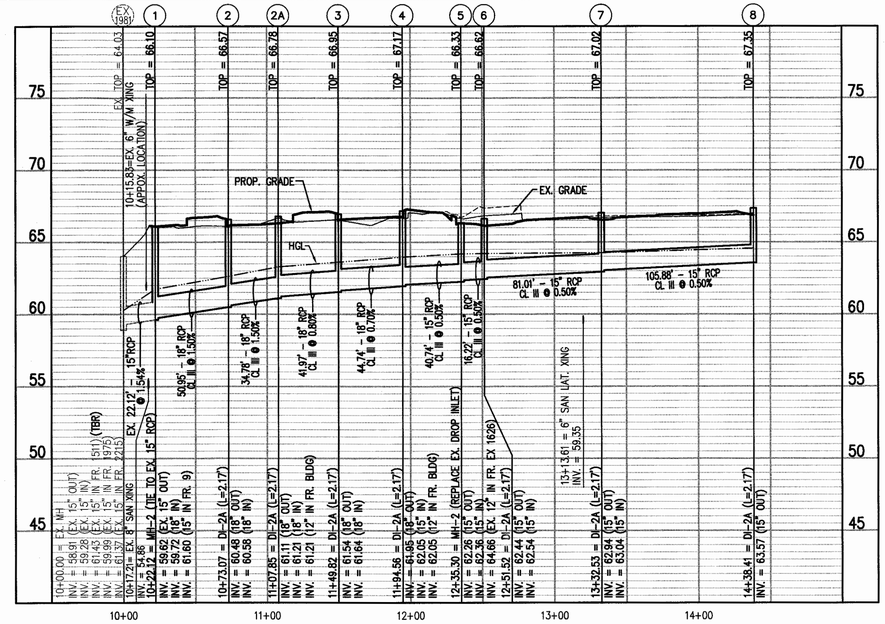
FILE No. 5425–D–CP–001

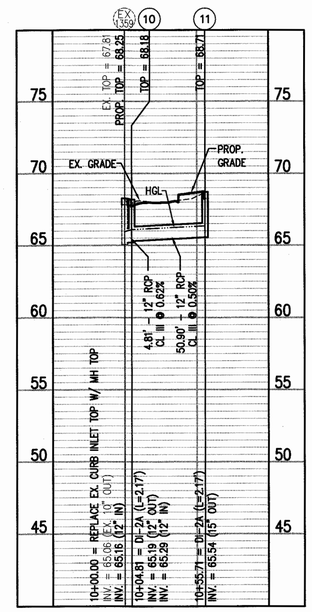
SHEET 9 OF 21

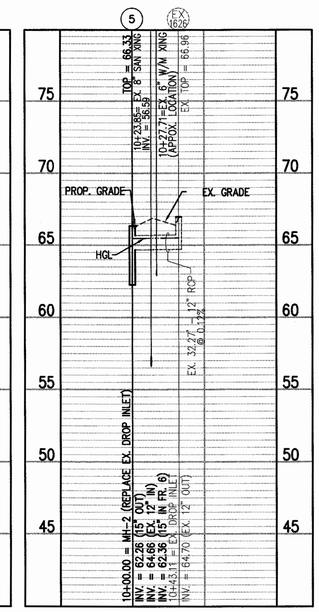
Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\009-5425-D-CP-001-DDM.dwg

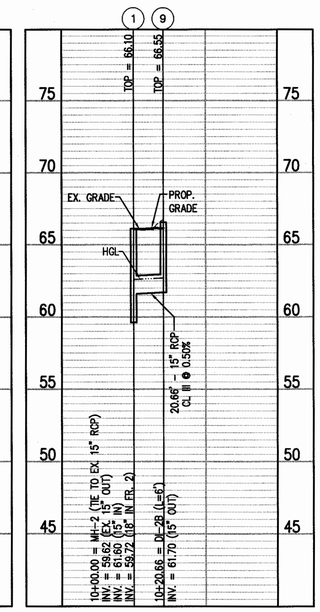












STORM SEWER PROFILES

STORM SEWER COMPUTATIONS FOR A 10-YR STORM EVENT

Structure From	Structure To	Drainage Area (acre) Incr.	Drainage Area (acre) Accum.	Runoff Coef.	CA Incr.	CA Accum.	Tc (min.)	I (in/hr)	Q (cfs)	Slope (%) (min)	Slope (%) (actual)	From Invert Out	To Invert In	From Top	To Top	Structure Depth (ft) From	n	Diameter (in)	Velocity (fps)	Length (ft)	Flow Time (min.)	Capacity (cfs)	q/Q (%)	Remarks
11	10	0.09	0.09	0.78	0.07	0.07	5.00	6.91	**0.48**	0.02	0.50	65.54	65.29	68.71	68.18	3.17	0.013	12	2.35	50.90	0.36	**2.52**	**19.20%**	
10	EX 1359	0.04	0.13	0.90	0.04	0.11	5.36	6.83	**0.72**	0.04	0.62	65.19	65.16	68.18	68.25	2.99	0.013	12	2.90	4.81	0.03	**2.81**	**25.81%**	
9	1	0.27	0.27	0.84	0.23	0.23	5.00	6.91	**1.57**	0.06	0.50	61.70	61.60	66.55	66.10	4.85	0.013	15	3.26	20.66	0.11	**4.57**	**34.26%**	
EX 1626	5	0.37	0.37	0.86	0.32	0.32	5.00	6.91	**2.19**	0.38	0.12	64.70	64.66	66.96	66.33	2.26	0.013	12	2.79	32.27	0.19	**1.25**	**174.35%**	
8	7	0.13	0.13	0.86	0.11	0.11	5.00	6.91	**0.77**	0.01	0.50	63.57	63.04	67.35	67.02	3.78	0.013	15	2.66	105.88	0.66	**4.57**	**16.87%**	
7	6	0.06	0.21	0.90	0.07	0.18	5.66	6.75	**1.24**	0.04	0.50	62.94	62.54	67.02	66.62	4.08	0.013	15	3.04	81.01	0.44	**4.57**	**27.13%**	
6	5	0.09	0.30	0.84	0.08	0.26	6.11	6.62	**1.72**	0.07	0.50	62.44	62.36	66.62	66.33	4.18	0.013	15	3.43	16.22	0.08	**4.57**	**37.55%**	
5	4	0.00	0.67	-	0.00	0.58	6.19	6.62	**3.81**	0.35	0.50	62.26	62.05	66.33	67.17	4.07	0.013	15	4.14	40.74	0.16	**4.57**	**83.43%**	
4	3	0.65	1.32	0.90	0.59	1.16	6.35	6.57	**7.62**	0.53	0.70	61.95	61.64	67.17	66.95	5.22	0.013	18	5.56	44.74	0.13	**8.79**	**86.76%**	INCLUDES DA FROM BLDG DRAIN
3	2A	0.04	1.36	0.90	0.04	1.20	6.49	6.54	**7.83**	0.56	0.80	61.54	61.21	66.95	66.78	5.41	0.013	18	5.90	41.97	0.12	**9.40**	**83.33%**	
2A	2	0.67	2.03	0.89	0.60	1.79	6.60	6.49	**11.64**	1.23	1.50	61.11	60.58	66.78	66.57	5.67	0.013	18	8.23	34.78	0.07	**12.87**	**90.51%**	INCLUDES DA FROM BLDG DRAIN
2	1	0.03	2.06	0.90	0.03	1.82	6.67	6.49	**11.82**	1.27	1.50	60.48	59.72	66.57	66.10	6.09	0.013	18	8.23	50.95	0.10	**12.87**	**91.87%**	
1	EX 1981	0.00	2.33	-	0.00	2.05	6.78	6.46	**13.24**	4.20	1.54	59.62	59.28	66.10	64.03	6.48	0.013	15	10.74	22.12	0.03	**8.01**	**165.27%**	

V.D.O.T. METHOD
HYDRAULIC GRADELINE COMPUTATIONS

Struct. Info. Structure Number	Surface Flow	Inlet Shaping	Outlet W.S.E.	'n' Factor	Do	Qo	Lo	Ao	Po	Ro	Sf	Hf	H.G.L. @ Struct. Outlet	Vo	Ho	Qi	Di	Ai	Pi	Ri	Vi	Hi	Angle a	Angle 'K' Value	Ha	H total	Percent Surface v. Total Q	Ht (Adjust. Surface Flow)	Total Hf	H.G.L. @ Struct. Inlet	Top of Structure	HGL Elev. Below Top Struct.
1	0.00	Y	60.28	0.013	15	13.24	22.12	1.23	3.93	0.31	0.0420	0.93	61.21	10.79	0.45	11.82	18	1.77	4.71	0.38	6.69	0.24	62	0.57	0.40	1.09	0%	0.00	**1.47**	**61.75**	**66.10**	**4.35**
2	0.19	Y	61.75	0.013	18	11.82	50.95	1.77	4.71	0.38	0.0127	0.65	62.40	6.69	0.17	11.64	18	1.77	4.71	0.38	6.59	0.24	6	0.07	0.05	0.46	2%	0.00	**0.88**	**62.63**	**66.57**	**3.94**
2A	0.15	Y	62.63	0.013	18	11.64	34.78	1.77	4.71	0.38	0.0123	0.43	63.06	6.59	0.17	7.83	18	1.77	4.71	0.38	4.43	0.11	90	0.70	0.21	0.49	1%	0.00	**0.67**	**63.30**	**66.78**	**3.48**
3	0.25	Y	63.30	0.013	18	7.83	41.97	1.77	4.71	0.38	0.0056	0.23	63.53	4.43	0.08	7.62	18	1.77	4.71	0.38	4.31	0.10	4	0.05	0.01	0.19	3%	0.00	**0.33**	**63.63**	**66.95**	**3.32**
4	0.06	Y	63.63	0.013	18	7.62	44.74	1.77	4.71	0.38	0.0053	0.24	63.87	4.31	0.07	3.81	15	1.23	3.93	0.31	3.11	0.05	90	0.70	0.10	0.23	1%	0.00	**0.35**	**63.98**	**67.17**	**3.19**
5	0.00	Y	63.98	0.013	15	3.81	40.74	1.23	3.93	0.31	0.0035	0.14	64.12	3.11	0.04	2.19	12	0.79	3.14	0.25	2.78	0.04	82	0.67	0.08	0.16	0%	0.00	**0.22**	**64.20**	**66.33**	**2.13**
6	0.52	Y	64.20	0.013	15	1.72	16.22	1.23	3.93	0.31	0.0007	0.01	64.21	1.40	0.01	1.24	15	1.23	3.93	0.31	1.01	0.01	10	0.13	0.00	0.02	30%	0.02	**0.02**	**64.22**	**66.62**	**2.40**
7	0.50	Y	64.22	0.013	15	1.24	81.01	1.23	3.93	0.31	0.0004	0.03	64.25	1.01	0.00	0.77	15	1.23	3.93	0.31	0.63	0.00	0	0.00	0.00	0.01	40%	0.01	**0.03**	**64.26**	**67.02**	**2.76**
8	0.77	Y	64.26	0.013	15	0.77	105.88	1.23	3.93	0.31	0.0001	0.02	64.27	0.63	0.00	0.77	15	1.23	3.93	0.31	0.63	0.00	0	0.00	0.00	0.00	100%	0.01	**0.02**	**64.28**	**67.35**	**3.07**
EX 1626	2.19	Y	65.46	0.013	12	2.19	32.27	0.79	3.14	0.25	0.0038	0.12	65.58	2.79	0.04	2.19	12	0.79	3.14	0.25	0.00	0.00	0	0.00	0.00	0.04	100%	0.05	**0.15**	**65.61**	**66.96**	**1.35**
9	1.57	Y	62.60	0.013	15	1.57	20.66	1.23	3.93	0.31	0.0006	0.01	62.61	3.26	0.04	1.57	15	1.23	3.93	0.31	0.00	0.00	0	0.00	0.00	0.04	100%	0.05	**0.04**	**62.64**	**66.55**	**3.91**
10	0.25	Y	65.96	0.013	12	0.72	4.81	0.79	3.14	0.25	0.0004	0.00	65.96	2.90	0.03	0.48	12	0.79	3.14	0.25	2.35	0.03	0	0.00	0.00	0.06	34%	0.08	**0.04**	**66.00**	**68.18**	**2.18**
11	0.48	Y	66.09	0.013	12	0.48	50.90	0.79	3.14	0.25	0.0002	0.01	66.10	2.35	0.03	0.48	12	0.79	3.14	0.25	0.00	0.00	0	0.00	0.00	0.03	100%	0.03	**0.03**	**66.12**	**68.71**	**2.59**

HYDRAULIC GRADE LINE COMPUTATION TERMS

Do = Outflow Pipe Diameter, inches
Qo = Discharge for Outflow Pipe, cfs
Lo = Length of Outflow Pipe, ft.
Sf = Friction slope of Outflow Pipe, ft/ft (Manning's Eqn.)
Hf = Lo * Sf, Friction Head Loss, ft.
Ao = Area of Outflow Pipe, sq.ft.
Vo = Qo/Ao Velocity of outflow, fps
Ho = **0.25** (Vo^2/2g) Contraction Loss, ft. VDOT= 0.25
VDOT= 0.30
(First Structure Only)
where g = 32.2 ft/sec^2

Di = Inflow Pipe Diameter, inches
Qi = Discharge of pipe into junction, cfs
Ai = Area of Inflow Pipe, sq.ft.
Vi = Qi/Ai, Velocity of inflow, fps VDOT= 0.35
Hi = **0.35** (VP2/2g) Expansion Loss, ft.
Angle "K" Value = Choose value based on angle of pipes at junction
** Note: Round off angles to values given.
Ha = K(VP2/2g) Bend Loss, ft.
Ht = Ho + Hi + Ha Total Head Loss, ft.

JUNCTION BEND LOSSES

Angle (deg.)		"K" Values
90	=	0.70
80	=	0.66
70	=	0.61
60	=	0.56
50	=	0.50
40	=	0.43
30	=	0.35
25	=	0.30
20	=	0.25
15	=	0.19
10	=	0.13
5	=	0.06

STORM WATER INLET COMPUTATIONS - 10/100-YR STORM EVENT

NUMBER	TYPE	LENGTH (ft.)	DRAINAGE AREA (Ac.)	C	CA	10-YR INTENSITY (In./Hr.)	100-YR INTENSITY (In./Hr.)	Q INCRE. (C.F.S.)	Q Carryover (C.F.S.)	**10-yr Qt Gutterflow (C.F.S.)**	100-yr Qt Gutterflow (C.F.S.)	S Gutterslope (ft./ft)	Sx Cross Slope (ft./ft)	T Spread	W (ft.)	W/T	Sw (ft./ft)	Sw/Sx	Eo (Chart 10)	a	Sw' (a/(12W))	Se (Sx+SwEo) (ft./ft)	Lt Length (ft.)	L/Lt	E (Chart 16)	Q Intercepted (C.F.S.)	Qb Carry Over (C.F.S.)	SUMP ONLY P Effec. Lt. (ft.)	d 10-YR (ft.)	d 100-YR (ft.)	h (ft.)	d/h	T Spread @ Sag (ft.)	REMARKS
CONTINUOUS GRADE INLETS																																		
2A	DI-2 A	2.17	0.03	0.72	0.02	6.91	9.03	0.15	0.00	**0.15**	0.19	0.009	0.02	1.45	1.5	1.03	0.0833	4.2	0.79	3.1	0.174	0.158	2.47	0.88	1.00	0.15	0.00	-	-	-	-	-	-	
4	DI-2 A	2.17	0.01	0.90	0.01	6.91	9.03	0.06	0.00	**0.06**	0.08	0.010	0.025	1.01	1.5	1.49	0.0833	3.3	0.79	3.0	0.169	0.159	1.74	1.25	1.00	0.06	0.00	-	-	-	-	-	-	
SUMP LOCATION INLETS																																		
2	DI-2 A	2.17	0.03	0.90	0.03	6.91	9.03	0.19	0.00	**0.19**	0.24	0.005	0.025	2.36	1.5	-	-	-	-	-	-	-	-	-	-	0.19	0.00	4.87	0.01	0.02	0.458	0.02	1.35	
3	DI-2 A	2.17	0.04	0.90	0.04	6.91	9.03	0.25	0.00	**0.25**	0.33	0.005	0.025	2.92	1.5	-	-	-	-	-	-	-	-	-	-	0.25	0.00	4.87	0.02	0.04	0.458	0.04	1.48	
6	DI-2 A	2.17	0.09	0.84	0.08	6.91	9.03	0.52	0.00	**0.52**	0.68	0.007	0.012	4.65	1.5	-	-	-	-	-	-	-	-	-	-	0.52	0.00	4.87	0.05	0.07	0.458	0.11	4.65	
7	DI-2 A	2.17	0.08	0.90	0.07	6.91	9.03	0.50	0.00	**0.50**	0.65	0.005	0.035	3.74	1.5	-	-	-	-	-	-	-	-	-	-	0.50	0.00	4.87	0.08	0.09	0.458	0.17	2.15	
8	DI-2 A	2.17	0.13	0.86	0.11	6.91	9.03	0.77	0.00	**0.77**	1.01	0.005	0.034	4.68	1.5	-	-	-	-	-	-	-	-	-	-	0.77	0.00	4.87	0.11	0.13	0.458	0.24	3.05	
9	DI-2 B	6	0.27	0.84	0.23	6.91	9.03	1.57	0.00	**1.57**	2.05	0.034	0.016	6.41	1.5	-	-	-	-	-	-	-	-	-	-	1.57	0.00	8.7	0.13	0.15	0.458	0.28	7.79	
10	DI-2 A	2.17	0.04	0.90	0.04	6.91	9.03	0.25	0.00	**0.25**	0.33	0.005	0.045	2.32	1.5	-	-	-	-	-	-	-	-	-	-	0.25	0.00	4.87	0.04	0.06	0.458	0.09	1.34	
11	DI-2 A	2.17	0.09	0.78	0.07	6.91	9.03	0.48	0.00	**0.48**	0.63	0.005	0.029	4.04	1.5	-	-	-	-	-	-	-	-	-	-	0.48	0.00	4.87	0.07	0.09	0.458	0.15	2.33	

NOTE: GRATE FOR ALL DI-2 INLETS WAS ASSUMED TO BE 50% CLOGGED WHEN CALCULATING SPREAD AND DEPTH OF FLOW

ADEQUATE OUTFALL NARRATIVE

NO FLOODING OR SURCHARGING OF EXISTING MANHOLES HAS BEEN REPORTED TO BOWMAN CONSULTING AT THIS TIME. HOWEVER, THE EXISTING PIPE FROM STRUCTURE EX1583–EX1981 AND THE EXISTING PIPE LEAVING STRUCTURE EX1359 ARE NOT ADEQUATE TO CONVEY THE PRE–DEVELOPED OR POST–DEVELOPED RUNOFF. THE POST–DEVELOPED RUNOFF GENERATED FROM THIS SITE DOES NOT RESULT IN AN INCREASE FROM THE PRE–DEVELOPED RUNOFF RATE. THEREFORE, PER 9 VAC 25–870–66 C, NO FURTHER ANALYSIS IS REQUIRED. SEE SHEETS 11–12 FOR SWM ANALYSIS AND CALCULATIONS.

GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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STORM SEWER PROFILES AND CALCULATIONS
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2, PRECINCT 201

Wack CONSTRUCTION

SPMAJ 2015–09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=50' V: 1"=5'

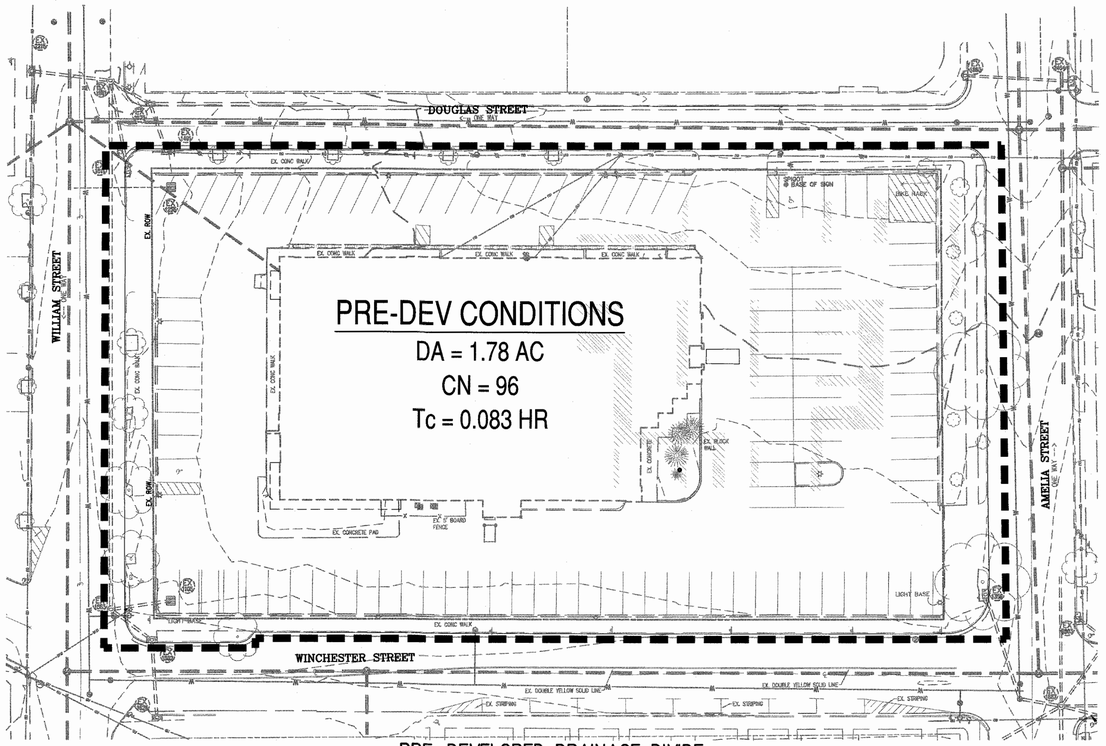
JOB No. 5425–01–002

DATE : OCTBOER 2014

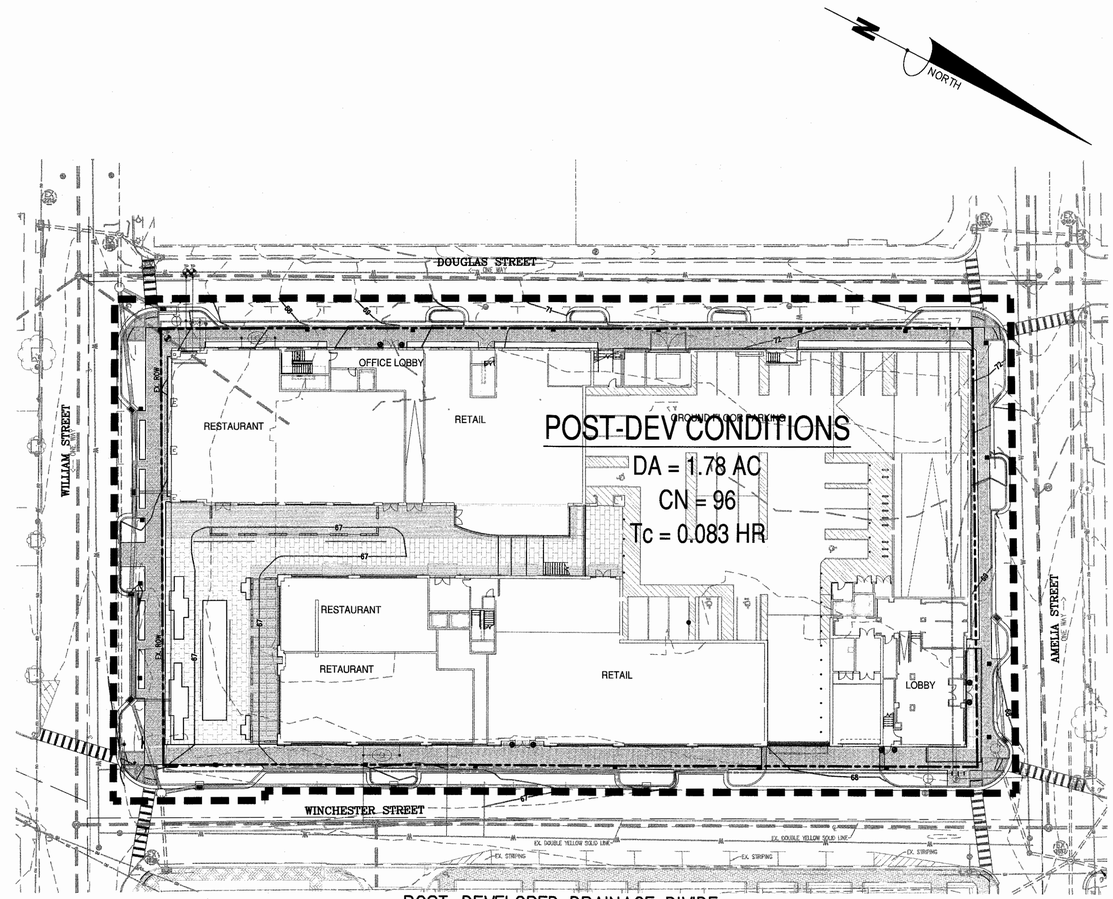
FILE No. 5425–D–CP–001

SHEET 10 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\010-5425-D-CP-001-SDC.dwg



PRE-DEVELOPED DRAINAGE DIVIDE



POST-DEVELOPED DRAINAGE DIVIDE

DRAINAGE AREAS	ROOF DRAIN FLOW			SURFACE FLOW					TOTAL DRAINAGE AREA		
	BUILDING AREA (AC)	CN (B SOILS)	C-FACTOR	IMPERVIOUS AREA (AC)	OPEN SPACE (AC)	TOTAL SURFACE FLOW	CN (B SOILS)	C-FACTOR	DRAINAGE AREA (AC)	CN (CSOILS)	C-FACTOR
PRE-DEVELOPED	-	-	-	1.70	0.08	1.78	96	0.88	1.78	96	0.88
POST-DEVELOPED	1.28	98	0.90	0.42	0.08	0.50	92	0.81	1.78	96	0.88

SWM/BMP NARRATIVE:

THIS PROJECT CONSISTS OF DEMOLISHING THE EXISTING BUILDING AND PARKING LOT LOCATED ON THE SITE AND CONSTRUCTING A 3-STORY MIXED-USE BUILDING ALONG WITH AN UNDERGROUND PARKING GARAGE. THE MAJORITY OF THE EXISTING SITE DRAINS TO THE CURB INLETS LOCATED AT THE INTERSECTION OF WILLIAM STREET AND DOUGLAS STREET AND AT THE INTERSECTION OF WILLIAM STREET AND WINCHESTER STREET. A SMALL PORTION OF THE SITE DISCHARGES TO THE CURB INLET AT THE INTERSECTION OF WINCHESTER STREET AND AMELIA STREET. THE PROPOSED DEVELOPMENT MIMICS THE PRE-DEVELOPED CONDITION AND ALSO DRAINS TO THESE CURB INLETS. THE TOTAL SITE ANALYSIS AREA IS 1.78 ACRES. UNDER THE PRE-DEVELOPED CONDITIONS, 1.70 ACRES OF THE TOTAL ANALYSIS AREA IS IMPERVIOUS. THE TOTAL IMPERVIOUS AREA PROPOSED WITH THIS DEVELOPMENT IS 1.70 ACRES AND REMAINS THE SAME AS THE EXISTING IMPERVIOUS AREA.

THIS SITE IS LOCATED WITHIN THE KENMORE FLUME WATERSHED. PER SECTION 72-54.3(B)(11) OF THE CITY OF FREDERICKSBURG'S UNIFIED DEVELOPMENT ORDINANCE, THE FIRST ONE-HALF INCH OF RUNOFF FROM ALL NEW IMPERVIOUS SURFACES SHALL BE REMOVED FROM THE RUNOFF FLOW, AND AT LEAST 50% OF THE PARKING LOT SURFACE SHALL DRAIN TO A FILTRATION PRACTICE. THERE IS NO PROPOSED INCREASE IN THE IMPERVIOUS ACREAGE OF THE SITE. THEREFORE, SECTION 72-54.3(B)(11) OF THE UDO HAS BEEN SATISFIED.

CHANNEL PROTECTION

THIS SITE OUTFALLS TO A MANMADE, CONCRETE STORMWATER CONVEYANCE SYSTEM. THE 2-YEAR STORM DOES NOT CAUSE EROSION, AND THE VSMP CHANNEL PROTECTION CRITERIA (9VAC25-870-66 B) HAS BEEN SATISFIED.

FLOOD PROTECTION

THE PRE-DEVELOPED SITE HAS A CURVE NUMBER (CN) OF 96, AND THE POST-DEVELOPED SITE HAS A CN OF 96. SINCE THE PROPOSED SITE DOES NOT RESULT IN AN INCREASE IN THE RUNOFF CN VALUE, THERE IS NO INCREASE IN THE 10-YR PEAK FLOWRATE. THE PRE-DEVELOPED 10-YR PEAK FLOWRATE IS 10.96 CFS, AND THE POST-DEVELOPED 10-YR PEAK FLOWRATE IS 10.96 CFS. THEREFORE, THE VSMP FLOOD PROTECTION CRITERIA (9VAC25-870-66 C) HAS BEEN SATISFIED.

SEE SHEET 10 FOR ADEQUATE OUTFALL ANALYSIS.

WATER QUALITY

THE PROPOSED SITE IS CONSIDERED RE-DEVELOPMENT. BECAUSE THIS SITE IS GREATER THAN ONE ACRE, THE TOTAL PHOSPHOROUS LOAD SHALL BE REDUCED AT LEAST 20% BELOW THE PREDEVELOPMENT TOTAL PHOSPHOROUS LOAD. THERE IS NO PROPOSED INCREASE TO THE IMPERVIOUS AREA. BASED ON THE VIRGINIA RUNOFF REDUCTION METHOD COMPLIANCE SPREADSHEET FOR REDEVELOPMENT, THE TOTAL LOAD REDUCTION REQUIRED FOR THIS SITE IS 0.74 LB/YR. PURSUANT TO 9VAC25-870-69 A 3, THE DEVELOPER HAS ELECTED TO PURCHASE NUTRIENT CREDITS WITHIN THE RAPPAHANNOCK WATERSHED TO SATISFY WATER QUALITY REQUIREMENTS.

LEGEND

SITE ANALYSIS LIMITS

PEAK FLOWRATE ANALYSIS

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft³/s)
PRE-DEV	1-YR	1	0.335	11.900	5.79
PRE-DEV	2-YR	2	0.407	11.900	6.97
PRE-DEV	10-YR	10	0.657	11.900	10.96
POST-DEV	1-YR	1	0.335	11.900	5.79
POST-DEV	2-YR	2	0.407	11.900	6.97
POST-DEV	10-YR	10	0.657	11.900	10.96

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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SWM ANALYSIS AND CALCULATIONS
MAJOR SITE PLAN

LIBERTY PLACE

Wack CONTINENTAL CONSTRUCTION

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=50' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 11 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\011-012-5425-D-CP-001-SWM.dwg

SITE DATA

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014
To be used w/ DRAFT 2013 BMP Standards and Specifications
Site Data

Project Name: Liberty Place	
Date: 05/06/2015	

	data input cells
	calculation cells
	constant values

Post-ReDevelopment Project & Land Cover Information

Total Disturbed Acreage 1.78

Constants

Annual Rainfall (inches)	43		
Target Rainfall Event (inches)	1.00		
Phosphorus EMC (mg/L)	0.26	Nitrogen EMC (mg/L)	1.86
Target Phosphorus Target Load (lb/acre/yr)	0.41		
Pj	0.90		

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed	0.00	0.08	0.00	0.00	0.08
Impervious Cover (acres)	0.00	1.70	0.00	0.00	1.70
				Total	1.78

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed	0.00	0.08	0.00	0.00	0.08
Impervious Cover (acres)	0.00	1.70	0.00	0.00	1.70
				Total	1.78
Area Check	Okay	Okay	Okay	Okay	

Rv Coefficients

	A soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

Land Cover Summary Pre-ReDevelopment	Listed	Adjusted[1]	Land Cover Summary Post-ReDevelopment		Land Cover Summary Post-ReDevelopment New Impervious	
Forest/Open Space Cover (acres)	0.00	0.00	Forest/Open Space Cover	0.00		
Composite Rv(forest)	0.00	0.00	Composite Rv(forest)	0.00		
% Forest	0%	0%	% Forest	0%		
Managed Turf Cover (acres)	0.08	0.08	Managed Turf Cover (acres)	0.08		
Composite Rv(turf)	0.20	0.20	Composite Rv(turf)	0.20		
% Managed Turf	4%	4%	% Managed Turf	4%		
Impervious Cover (acres)	1.70	1.70	ReDev. Impervious Cover (acres)	1.70	New Impervious Cover (acres)	0.00
Rv(impervious)	0.95	0.95	Rv(impervious)	0.95	Rv(impervious)	0.95
% Impervious	96%	96%	% Impervious	96%	% Impervious	Check Area
Total Site Area (acres)	1.78	1.78	**Total ReDev. Site Area (acres)**	1.78	**Total New Dev. Site Area (acres)**	0.00
Site Rv	0.92	0.92	**ReDev. Site Rv**	0.92	**New Dev. Site Rv**	0.95
Pre-Development Treatment Volume (acre-ft)	0.1359	0.1359	Post-ReDevelopment Treatment Volume (acre-ft)	0.1359	Post-Development Treatment Volume (acre-ft)	0.0000
Pre-Development Treatment Volume (cubic feet)	5,921	5,921	Post-ReDevelopment Treatment Volume (cubic feet)	5,921	Post-Development Treatment Volume (cubic feet)	0
Pre-Development Load (TP) (lb/yr)	3.72	3.72	Post-ReDevelopment Load (TP) (lb/yr)	3.72	Post-Development Load (TP) (lb/yr)	0.00

[1] *Adjusted* **Land Cover Summary** reflects the pre redevelopment land cover minus the pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover. The adjusted total acreage is consistent with the Post Redevelopment acreage (minus the acreage of new impervious cover). The load reduction requriement for the new impervious cover to meet the new development load limit is computed in **Column I**.

Maximum % Reduction Required Below Pre-ReDevelopment Load	20%
TP Load Reduction Required for Redeveloped Area (lb/yr)	0.74
TP Load Reduction Required for New Impervious Area (lb/yr)	0.00
Total Load Reduction Required (lb/yr)	**0.74**
Pre-Development Load (TN) (lb/yr)	26.61
Post-Development Load (TN) (lb/yr)	26.61

SITE DATA SUMMARY

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014

Update Summary Sheet

Print

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.08	0.00	0.00	0.08	*4.49*
Impervious (acres)	0.00	1.70	0.00	0.00	1.70	*95.51*
					1.78	*100.00*

Site Rv	0.92
Post Development Treatment Volume (ft³)	5921
Post Development TP Load (lb/yr)	3.72
Post Development TN Load (lb/yr)	26.61
Total TP Load Reduction Required (lb/yr)	0.74
Total Runoff Volume Reduction (ft³)	0
Total TP Load Reduction Achieved (lb/yr)	0
Total TN Load Reduction Achieved (lb/yr)	0.00
Adjusted Post Development TP Load (lb/yr)	3.72
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.74

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.08	0.00	0.00	0.00	0.00	*0.08*
Impervious (acres)	1.70	0.00	0.00	0.00	0.00	*1.70*
						1.78

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	*0.00*
TN Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	*0.00*

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.08	0.00	0.00	0.08	*4.49*
Impervious (acres)	0.00	1.70	0.00	0.00	1.70	*95.51*
					1.78	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
Total Impervious Cover Treated (acres)	0.00	
Total Turf Area Treated (acres)	0.00	
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00	
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00	

Channel and Flood Protection

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		2.70	3.20	4.90
D.A. A CN	96	96	96	96

WATER QUALITY COMPLIANCE

Site Results

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	1.70	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED	0.00	0.00	0.00	0.00	0.00	OK.
TURF AREA	0.08	0.00	0.00	0.00	0.00	OK.
TURF AREA TREATED	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Phosphorous

TOTAL PHOSPHOROUS LOAD REDUCTION REQUIRED (LB/YEAR)	0.74
RUNOFF REDUCTION (cf)	0
PHOSPHOROUS LOAD REDUCTION ACHIEVED (LB/YR)	0.00
ADJUSTED POST-DEVELOPMENT PHOSPHOROUS LOAD (TP) (lb/yr)	3.72
REMAINING PHOSPHOROUS LOAD REDUCTION (LB/YR) NEEDED	0.74

CHANNEL AND FLOOD PROTECTION

	1-year storm	2-year storm	10-year storm
Target Rainfall Event (in)	2.70	3.20	4.90

Drainage Area A

Drainage Area (acres)	1.78
Runoff Reduction Volume (cf)	0

Based on the use of Runoff Reduction practices in the selected drainage areas, the spreadsheet calculates an adjusted $RV_{Developed}$ and adjusted Curve Number.

Drainage Area A		A soils	B Soils	C Soils	D Soils
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00
	CN	30	55	70	77
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.08	0.00	0.00
	CN	39	61	74	80
Impervious Cover	Area (acres)	0.00	1.70	0.00	0.00
	CN	98	98	98	98

	Weighted CN	S
	96	0.42

	1-year storm	2-year storm	10-year storm
$RV_{Developed}$ (in) with no Runoff Reduction	2.26	2.75	4.43
$RV_{Developed}$ (in) with Runoff Reduction	2.26	2.75	4.43
Adjusted CN	96	96	96

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SWM ANALYSIS AND CALCULATIONS
MAJOR SITE PLAN
LIBERTY PLACE
Wack GENERAL CONTRACTOR
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=50' V: N/A

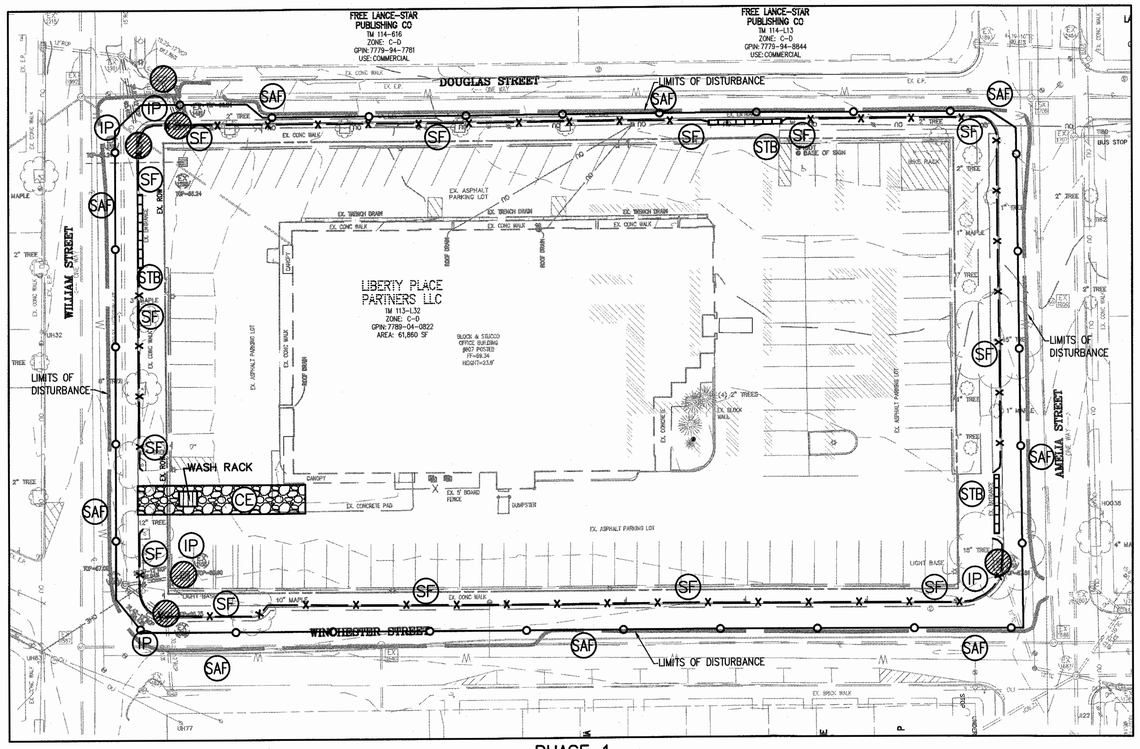
JOB No. 5425-01-002

DATE : OCTBOER 2014

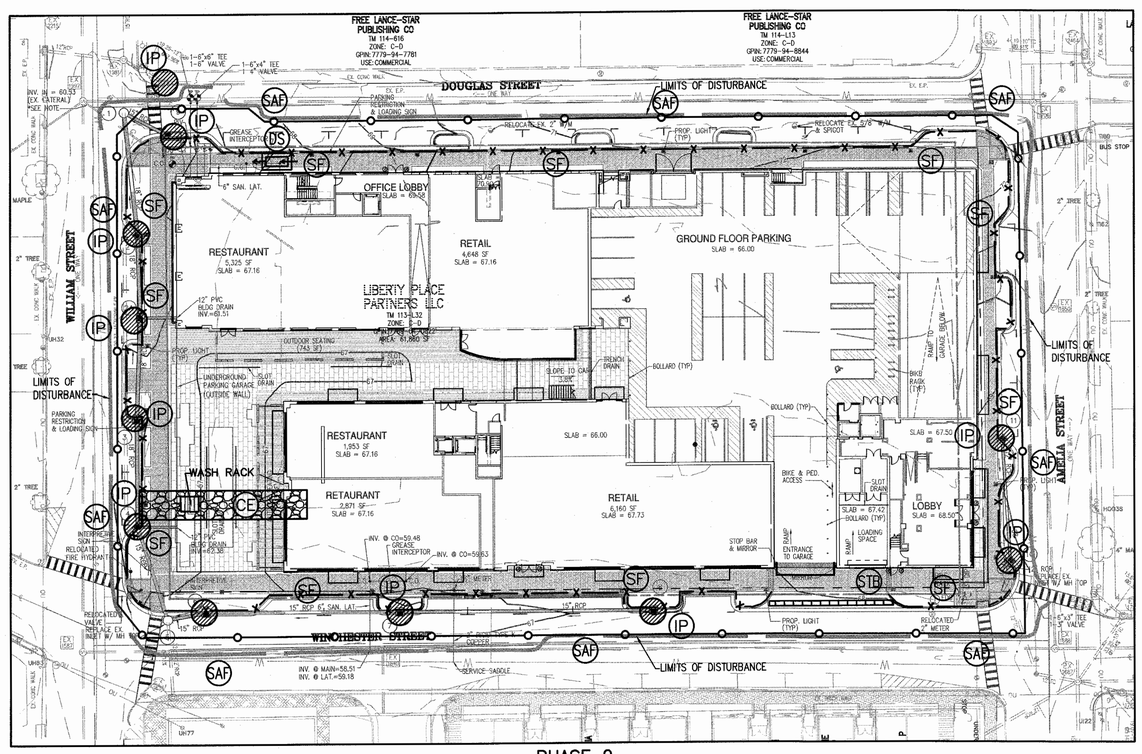
FILE No. 5425-D-CP-001

SHEET 12 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\011-012-5425-D-CP-001-SWM.dwg



PHASE 1



PHASE 2

EROSION AND SEDIMENT CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
3.01	METAL SAFETY FENCE	SAF	
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.04	STRAW BALE BARRIER	STB	
3.05	SILT FENCE	SF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.26	DEWATERING STRUCTURE	DS	

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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EROSION & SEDIMENT CONTROL PLAN - PHASE 1 & PHASE 2
MAJOR SITE PLAN

LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

Wack GENERAL CONTRACTORS

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=30' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 13 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\013-5425-D-CP-001-ES1&2.dwg

EROSION AND SEDIMENT CONTROL NARRATIVE:

PROJECT DESCRIPTION:
THIS PROJECT CONSISTS OF DEMOLISHING THE EXISTING BUILDING AND PARKING LOT LOCATED ON THE SITE AND CONSTRUCTING A 4–STORY MIXED USE BUILDING ALONG WITH AN UNDERGROUND PARKING GARAGE. SIDEWALKS AND UTILITIES NECESSARY TO SERVE THE PROPOSED BUILDING WILL ALSO BE CONSTRUCTED. A TOTAL OF 1.95 ACRES WILL BE DISTURBED.

EXISTING CONDITIONS:
THE PROPOSED SITE IS RELATIVELY FLAT AND DRAINS TOWARDS ITS SOUTHERN AND EASTERN BOUNDARIES. AN EXISTING BUILDING AND PARKING LOT, WHICH ARE TO BE DEMOLISHED, EXIST ON THE SITE. SEVERAL TREES AND SHRUBS ALSO EXIST ON THE SITE. THE SLOPES ONSITE RANGE FROM 0.5% TO 5%. THERE ARE NO RPAs, WETLANDS, OR FLOODPLAINS LOCATED WITHIN THE PROJECT LIMITS

ADJACENT PROPERTY:
WILLIAM STREET BORDERS THE SITE TO THE SOUTH. DOUGLAS STREET BORDERS THE SITE TO THE WEST. AMELIA STREET BORDERS THE SITE TO THE NORTH, AND WINCHESTER STREET BORDERS THE SITE TO THE EASE.

OFF–SITE AREAS:
OFFSITE ROADWAY STRIPING AND MILL AND OVERLAY OPERATIONS WILL OCCUR IN WILLIAM STREET, DOUGLAS STREET, AMELIA STREET, AND WINCHESTER STREET. CONSTRUCTION IN THESE AREAS WILL BE SEQUENCED SO THAT CONSTRUCTION OPERATIONS BEGIN AND END AS QUICKLY AS POSSIBLE. CONSTRUCTION DEBRIS AND SURPLUS SOIL SHALL BE TRANSPORTED TO A PERMITTED SITE ALONG HOUSER DRIVE IN NEIGHBORING SPOTSYLVANIA COUNTY (SEE COVERAGE LETTER ON SHEET 15). SOIL NECESSARY TO ACHIEVE STABILIZED SLOPES AFTER EXCAVATION AND DEMOLITION WILL BE STOCKPILED ONSITE WITHIN THE APPROVED CLEARING LIMITS AND THE CONTRACTOR SHALL ADHERE TO ALL THE REQUIREMENTS OF THE VESCH. THE STOCKPILES SHALL BE STABILIZED WITH TEMPORARY VEGETATION TO PREVENT SOIL LOSS AND SEDIMENT TRANSPORT FROM THE STOCKPILE ITSELF UNTIL NEEDED.

SOILS:

MAP SYMBOL	SOIL NAME	HYDROLOGIC GROUP
46	URBAN LAND–UDULTS COMPLEX, SMOOTHED	B

THE UDULT SERIES CONSISTS OF MODERATELY WELL DRAINED, GENTLY TO MODERATELY SLOPING SOILS. TYPICALLY, THE SURFACE LAYER CONSISTS OF 11 INCHES OF SANDY LOAM. THE SUBSOIL IS ABOUT 51 INCHES THICK, CONSISTING OF SANDY CLAY LOAM AND SANDY LOAM.

CRITICAL EROSION AREAS:
THERE ARE NO PARTICULARLY CRITICAL AREAS ON THE SITE. HOWEVER, THE CONTRACTOR SHALL TAKE EXTREME CARE TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING ADJACENT LOTS OR THE ROADWAY.

EROSION AND SEDIMENT CONTROL MEASURES:
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VESCH AND THE CITY OF FREDERICKSBURG. THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

STRUCTURAL PRACTICES:
1. METAL SAFETY FENCE – 3.01
   A METAL SAFETY FENCE SHALL BE INSTALLED ALONG THE PERIMETER OF CONSTRUCTION AS SHOWN ON THE PHASE 1 AND THE PHASE 2 PLANS. A GATE WITH LOCK SHALL BE INSTALLED AT THE CONSTRUCTION ENTRANCE.
2. TEMPORARY CONSTRUCTION ENTRANCE – 3.02
   A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SHOWN ON THE PLAN. CONSTRUCTION VEHICLES ARE REQUIRED TO CLEAN THEIR WHEELS BEFORE EXITING ONTO THE ROADWAY.
3. SILT FENCE – 3.05
   SILT FENCE SHALL BE INSTALLED DOWN SLOPE AND ON CONTOURS AS SHOWN ON THE PHASE I E&S PLAN.
4. INLET PROTECTION – 3.07
   INLET PROTECTION SHALL BE INSTALLED AS SHOWN ON THE PHASE 1 AND THE PHASE 2 PLANS TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STORM SEWER.
5. DEWATERING STRUCTURE – 3.26
   A DEWATERING STRUCTURE SHALL BE INSTALLED TO FILTER SEDIMENT LADEN WATER THAT IS PUMPED FROM THE EXCAVATED AREA.
6. TEMPORARY SEEDING – 3.31
   ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
7. STRAW BALE BARRIER – 3.04
   STRAW BALE BARRIERS SHALL BE INSTALLED ACROSS PAVED AREAS TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE SITE AS SHOWN ON THE PHASE 1 AND THE PHASE 2 PLANS.

MANAGEMENT STRATEGIES:
PHASE I & DEMOLITION:
1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE. ADDITIONAL PHASE 1 CONTROLS SHALL BE PLACED PER THIS PLAN AND/OR AT THE REQUEST OF THE CITY INSPECTOR.
2. PHASE 1 WILL BE IMPLEMENTED PRIOR TO MAJOR CLEARING OPERATIONS AND DENUDING OF THE SITE. TEMPORARY MEASURES AS SHOWN ON THE PHASE 1 PLAN WILL BE INSTALLED, INCLUDING THE CONSTRUCTION ENTRANCE, SILT FENCE, AND INLET PROTECTION. CONTRACTOR SHALL PROVIDE AVAILABILITY OF A WATER TANK TRUCK AND HOSE AS NECESSARY TO CLEAN ALL VEHICLES AND EQUIPMENT PRIOR TO THEIR EXIT FROM SITE.
3. SILT FENCE IS NOT REQUIRED AROUND THE FULL PERIMETER OF THE SITE PRIOR TO DEMOLITION. HOWEVER, SILT FENCE SHALL BE INSTALLED ALONG BACK OF CURB AND EDGES OF ASPHALT IMMEDIATELY FOLLOWING DEMOLITION OF INDIVIDUAL SECTIONS OF ASPHALT AND SIDEWALK UNTIL SILT FENCE ENCASES THE FULL SITE PERIMETER. SILT FENCE MAY BE USED AROUND SMALL POCKETS OF EXPOSED SOIL AS NEEDED.
4. TEMPORARY SEEDING AND OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
5. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED WITH FLAGGING.
6. THE TEMPORARY STOCKPILING OF EARTH AND CONSTRUCTION MATERIALS SHALL ONLY BE PERMITTED IN AREAS SCHEDULED FOR DEVELOPMENT. EARTH STOCKPILES SHALL BE STABILIZED WITH TEMPORARY VEGETATION IN ACCORDANCE WITH CITY AND STATE EROSION CONTROL PRACTICES.
7. DUST CONTROL – THROUGHOUT THE ACTIVE CONSTRUCTION PHASE OF THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST. DUST CONTROL SHALL BE IN CONFORMANCE WITH THE STD. 3.39 OF THE VA EROSION/SEDIMENT CONTROL HANDBOOK AND/OR VDOT SEC. 511 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS.
8. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

PHASE II:
1. AFTER CONTROLS OF PHASE 1 ARE IN PLACE, CLEARING AND CONSTRUCTION ON THE REMAINDER OF THE SITE MAY PROCEED.
2. DISTURBED AREAS SHALL BE STABILIZED AS QUICKLY AS POSSIBLE. INLET PROTECTION SHALL BE PROVIDED FOR DRAINAGE SYSTEM INSTALLED DURING CONSTRUCTION.
3. AFTER CONSTRUCTION IS COMPLETE, WITH ALL AREAS OF THE SITE 100% STABILIZED, AND ONLY AFTER APPROVAL OF THE CITY OF FREDERICKSBURG INSPECTOR, THE TEMPORARY CONTROLS MAY BE REMOVED.

PERMANENT STABILIZATION:
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STANDARD SPEC 3.32, PERMANENT SEEDING, OF THE HANDBOOK. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

STORMWATER MANAGEMENT:
SEE SHEETS 11–12 FOR THE STORMWATER MANAGEMENT PLAN.

MAINTENANCE:
IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. ALL MEASURES ARE TO BE INSPECTED DAILY BY THE SITE SUPERINTENDENT. ANY DAMAGED MECHANICAL DEVICES SHALL BE REPAIRED AND/OR REPLACED BY THE CLOSE OF THE DAY. NO CONTROLS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE SITE INSPECTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES OR PENALTIES CAUSED BY HIS FAILURE TO COMPLY WITH THE EROSION AND SEDIMENT CONTROL PROGRAM OR THE DIRECTION OF THE SITE INSPECTOR. THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY CHANGES TO THIS PROGRAM.
THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCE.
2. THE DEWATERING STRUCTURE MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE SEDIMENT BUILD UP REACHES ONE THIRD OF THE ORIGINAL CAPACITY. THE ACCUMULATED SEDIMENT THAT IS REMOVED MUST BE SPREAD ON SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE.
3. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
4. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RE–SEEDED AS NEEDED.

CONSTRUCTION SEQUENCE:
PHASE I E&S
1. PRE–CONSTRUCTION MEETING.
2. INSTALL CONSTRUCTION ENTRANCE AND METAL SAFETY FENCE.
3. INSTALL INLET PROTECTION FOR EXISTING INLETS.
4. INSTALL STRAW BALE BARRIER ACROSS EXISTING ENTRANCES.
5. BEGIN DEMOLITION AND INSTALL SILT FENCE IMMEDIATELY FOLLOWING DEMOLITION OF INDIVIDUAL SECTIONS OF ASPHALT AND SIDEWALK.
6. INSTALL SILT FENCE AROUND SMALL POCKETS OF DISTURBED AREAS AS NEEDED UNTIL SILT FENCE HAS BEEN INSTALLED AROUND ENTIRE SITE PERIMETER.
7. COMPLETE BUILDING AND PARKING LOT DEMOLITION.
8. APPLY TEMPORARY SEEDING AS NEEDED.
9. DAILY INSPECTION AND MAINTENANCE OF E&S CONTROLS AS REQUIRED.

PHASE II E&S
1. INSTALL ADDITIONAL PERIMETER CONTROLS AS NEEDED.
2. BEGIN ROUGH GRADING AND EARTHWORK OPERATIONS.
3. APPLY TEMPORARY SEEDING AS REQUIRED.
4. BEGIN FOUNDATION EXCAVATION AND BUILDING CONSTRUCTION.
5. USE PROPER DEWATERING METHODS TO DEWATER EXCAVATED AREA.
6. INSTALL UTILITIES, STORM DRAINAGE SYSTEM AND STORM DRAIN INLET PROTECTION (TRENCHING OPERATIONS SHALL BE IN ACCORDANCE WITH MS–16).
7. PERFORM FINAL GRADING, BUILDING CONSTRUCTION AND PARKING LOT CONSTRUCTION.
8. PERMANENT SEEDING OPERATION.
9. DAILY INSPECTION AND MAINTENANCE OF E&S CONTROLS AS REQUIRED.
10. REMOVE E&S CONTROLS WITH APPROVAL FROM THE SITE INSPECTOR.

TOPSOIL NARRATIVE:

FIELD EXPLORATION SHALL BE MADE TO DETERMINE IF THERE IS SUFFICIENT SURFACE SOIL OF GOOD QUALITY TO JUSTIFY STRIPPING. TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM). IT SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS, AND NOXIOUS WEEDS, AND SHALL GIVE EVIDENCE OF BEING ABLE TO SUPPORT HEALTHY VEGETATION. IT SHALL CONTAIN NO SUBSTANCE THAT IS POTENTIALLY TOXIC TO PLANT GROWTH.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY FOR THE FOLLOWING CRITERIA:

ORGANIC MATTER: CONTENT SHALL BE NOT LESS THAN 1.5% BY WEIGHT.

pH RANGE: SHALL BE FROM 6.0–7.5. IF pH IS LESS THAN 6.0, LIME SHALL BE ADDED IN ACCORDANCE WITH SOIL TEST RESULTS OR IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.

SOLUBLE SALTS: SHALL NOT EXCEED 500 PPM.

IF ADDITIONAL OFF–SITE TOPSOIL IS NEEDED, IT MUST MEET THE STANDARDS STATED ABOVE.

STRIPPING:
TOPSOIL OPERATIONS SHALL NOT BE PERFORMED WHEN THE SOIL IS WET OR FROZEN. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4–TO–6 INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. ALL PERIMETER DIKES, BASINS, AND OTHER SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO STRIPPING.

STOCKPILING:
TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF–SITE SEDIMENT DAMAGE SHALL RESULT. STABILIZE OR PROTECT STOCKPILES IN ACCORDANCE WITH MS#2. THE SIDE SLOPES OF THE STOCKPILE SHALL NOT EXCEED 2:1. PERIMETER CONTROLS SHALL BE PLACED AROUND THE STOCKPILE IMMEDIATELY; SEEDING OF STOCKPILES SHALL BE COMPLETED WITHIN 7 DAYS OF THE FORMATION OF THE STOCKPILE, IN ACCORDANCE WITH STD & SPEC 3.31 TEMPORARY SEEDING IF IT IS TO REMAIN DORMANT FOR LONGER THAN 30 DAYS.

SITE PREPARATION PRIOR TO AND MAINTENANCE DURING TOP SOILING:
BEFORE TOPSOILING, ESTABLISH NEEDED EROSION AND SEDIMENT CONTROL PRACTICES. THESE PRACTICES MUST BE MAINTAINED DURING TOPSOILING. PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN. WHERE THE pH OF THE SUBSOIL ID 6.0 OR LESS, OR THE SOIL IS COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST OR THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.

APPLYING TOPSOIL:
TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN TOPSOIL OR SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 2 INCHES ON 3:1 OR STEEPED SLOPES AND 4 INCHES ON FLATTER SLOPES. ANY IRREGULARITIES IN THE SURFACE, RESULTING FROM TOPSOILING OR OTHER OPERATIONS, SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A LEVEL SEEDBED FOR THE ESTABLISHMENT OF HIGH MAINTENANCE TURF. HOWEVER, UNDUE COMPACTION IS TO BE AVOIDED AS IT INCREASES RUNOFF VELOCITY AND VOLUME, AND DETERS SEED GERMINATION. SPECIAL CONSIDERATION SHOULD BE GIVEN TO THE TYPES OF EQUIPMENT USED TO PLACE TOPSOIL IN AREAS TO RECEIVE FINE TURF. AVOID UNNECESSARY COMPACTION BY HEAVY MACHINERY WHENEVER POSSIBLE. IN AREAS WHICH ARE NOT GOING TO BE MOWED, THE SURFACE SHALL BE LEFT ROUGH IN ACCORDANCE WITH SURFACE ROUGHENING STD & SPEC 3.29.

NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS UNTIL SUFFICIENT TIME HAS ELAPSED TO PERMIT DISSIPATION OF TOXIC MATERIALS.

NOTES:

1. IF THE ENTIRE SITE WILL NOT PERMANENTLY STABILIZED BEFORE DECEMBER 1, THE RESPONSIBLE LAND DISTURBER SHALL CONTACT THE CITY EROSION AND SEDIMENT CONTROL STAFF TO SCHEDULE A PRE–WINTER MEETING TO OCCUR BEFORE OCTOBER 1.
2. SEEDING MADE IN FALL FOR WINTER COVER AND DURING SUMMER MONTHS SHALL BE MULCHED.
3. SEE THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK FOR ADDITIONAL CONSTRUCTION SPECIFICATIONS AND MAINTENANCE REQUIREMENTS FOR THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES SPECIFIED ON THIS PLAN. SEE SHEET 2 FOR VIRGINIA MINIMUM STANDARDS.
4. SOILS SHALL BE TESTED TO DETERMINE THE SITE SPECIFIC REQUIREMENTS IN REGARDS TO LIMING AND FERTILIZING.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. UNLESS OTHERWISE NOTED, ALL VEGETATIVE AND EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
2. FOR ADDITIONAL DETAILS AND SPECIFICATIONS NOT SHOWN HEREON, REFER TO THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ONSITE AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN HEREON THAT ARE DEEMED NECESSARY BY THE APPROVING AUTHORITY AND/OR THE SITE INSPECTOR.
5. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES DAILY. ANY DAMAGED CONTROLS SHALL BE REPAIRED OR REPLACED BY THE CLOSE OF EACH WORKING DAY.

DUST CONTROL

CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE ENTIRE CONSTRUCTION PHASE BY THE APPLICATION OF WATER AND/OR APPROVED ADHESIVES PER STD. 3.39 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

PERMANENT SEEDING TABLE

TABLE 3.32-D

SITE SPECIFIC SEEDING MIXTURES FOR COASTAL PLAIN AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	
- Kentucky 31 or Turf-Type Tall Fescue	175-200 lbs.
or	
- Common Bermudagrass **	75 lbs.
High-Maintenance Lawn	
- Kentucky 31 or Turf-Type Tall Fescue	200-250 lbs.
or	
- Hybrid Bermudagrass (seed) **	40 lbs. (unhulled)
or	30 lbs. (hulled)
- Hybrid Bermudagrass (by other vegetative establishment method, see Std. & Spec. 3.34)	
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
	150 lbs.
Low Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Tall Fescue	93-108 lbs.
- Common Bermudagrass **	0-15 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Sericea Lespedeza **	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February, March through April ..... Annual Rye
May 1st through August ..... Foxtail Millet
September, October through November 15th ..... Annual Rye
November 16th through January ..... Winter Rye

** May through October, use hulled seed. All other seeding periods, use unhulled seed. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

TABLE 3.32-E

QUALITY OF SEED*

	Minimum Seed Purity (%)	Minimum Germination (%)
Legumes		
Crownvetch	98	65**
Lespedeza, Korean	97	85**
Lespedeza, Sericea	98	85**
Grasses		
Bluegrass, Kentucky	97	85
Fescue, Tall (Improved, Turf-Type Cultivars)	98	85
Fescue, Tall (Ky-31)	97	85
Fescue, Red	98	85
Redtop	94	80
Reed Canarygrass	98	80
Perennial Ryegrass	98	90
Weeping Lovegrass	98	87
Annuals		
Annual Ryegrass	97	90
German Millet	98	85
Oats	98	80
Cereal Rye	98	85

* Seed containing prohibited or restricted noxious weeds should not be accepted. Seed should not contain in excess of 0.5% weed seed. To calculate percent pure, live seed, multiply germination times purity and divide by 100.

Example: Ky-31 Tall Fescue with a germination of 85 percent and a purity of 97 percent.

97 x 85 = 8245. 8245 ÷ 100 = 82.45 percent pure live seed.

** Includes "hard seed"

TABLE 3.32-F

LBS. OF GROUND AGRICULTURAL LIMESTONE* PER THOUSAND SQUARE FEET NEEDED TO CORRECT pH LEVEL OF ACID SOILS TO 6.5

Existing pH	Soil Texture		
	Sandy Loam	Loam	Clay Loam
6.2	20	35	40
6.0	40	55	70
5.8	55	65	85
5.6	70	80	105
5.4	90	100	125
5.2	105	120	140
5.0	120	140	160
4.8	125	180	205
4.6	155	210	230
4.0	200	250	300

* Lime should always be applied in accordance with the results of a soil test, such as may be obtained through the soil testing laboratory at VPI&SU or through a reputable commercial laboratory.

TABLE 3.35-A

ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES:	RATES: Per Acre	RATES: Per 1000 sq. ft.	NOTES:
Straw or Hay	1½ - 2 tons (Minimum 2 tons for winter cover)	70 - 90 lbs.	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Fiber Mulch	Minimum 1500 lbs.	35 lbs.	Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry.
Corn Stalks	4 - 6 tons	185 - 275 lbs.	Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4 - 6 tons	185 - 275 lbs.	Free of coarse matter. Air-dried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.
Bark Chips or Shredded Bark	50 - 70 cu. yds.	1-2 cu. yds.	Free of coarse matter. Air-dried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.

* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.

Lime and Fertilizer

Lime and fertilizer needs shall be determined by soil tests. Soil tests may be performed by the Cooperative Extension Service Soil Testing Laboratory at VPI&SU, or by a reputable commercial laboratory. Information concerning the State Soil Testing Laboratory is available from county extension agents. Reference Appendix 3.32-i for liming applications (in lbs.) needed to correct undesirable pH for various soil types.

TEMPORARY SEEDING TABLE

TABLE 3.31-C

TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

SPECIES	SEEDING RATE: Acre	SEEDING RATE: 1000 ft²	NORTH[a]: 3/1 to 4/30	NORTH[a]: 5/1 to 8/15	NORTH[a]: 8/15 to 11/1	SOUTH[b]: 2/15 to 4/30	SOUTH[b]: 5/1 to 9/1	SOUTH[b]: 9/1 to 11/15	PLANT CHARACTERISTICS
OATS (Avena sativa)	3 bu. (up to 100 lbs., not less than 50 lbs.)	2 lbs.	X	-	-	X	-	-	Use spring varieties (e.g., Noble).
RYE[d] (Secale cereale)	2 bu. (up to 110 lbs., not less than 50 lbs.)	2.5 lbs.	X	-	X	X	-	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture.
GERMAN MILLET (Setaria italica)	50 lbs.	approx. 1 lb.	-	X	-	-	X	-	Warm-season annual. Dies at first frost. May be added to summer mixes.
ANNUAL RYEGRASS[c] (Lolium multi-florum)	60 lbs.	1½ lbs.	X	-	X	X	-	X	May be added in mixes. Will mow out of most stands.
WEEPING LOVEGRASS (Eragrostis curvula)	15 lbs.	5½ ozs.	-	X	-	-	X	-	Warm-season perennial. May bunch. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.
KOREAN LESPEDEZA[c] (Lespedeza stipulacea)	25 lbs.	approx. 1½ lbs.	X	X	-	X	X	-	Warm season annual legume. Tolerates acid soils. May be added to mixes.

[a] Northern Piedmont and Mountain region. See Plates 3.22-1 and 3.22-2.
[b] Southern Piedmont and Coastal Plain.
[c] May be used as a cover crop with spring seeding.
[d] May be used as a cover crop with fall seeding.
X May be planted between these dates.
\- May not be planted between these dates.

—SITE LOCATED IN COASTAL PLAIN REGION—

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EROSION & SEDIMENT CONTROL NARRATIVE, NOTES & DETAILS
MAJOR SITE PLAN

LIBERTY PLACE

Wack GENERAL CONTRACTOR

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015–09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A

JOB No. 5425–01–002

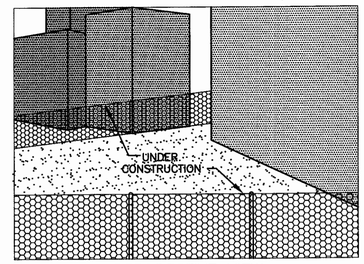
DATE : OCTBOER 2014

FILE No. 5425–D–CP–001

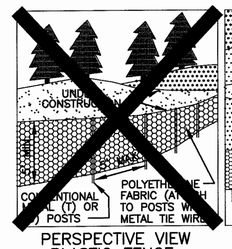
SHEET 14 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\014-015-5425-D-CP-001-ESD.dwg

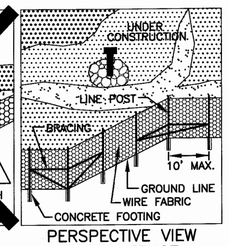
SAFETY FENCE 3.01-1 (SAF)



PERSPECTIVE VIEW

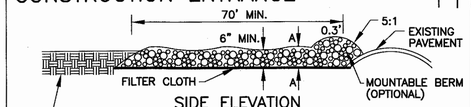


PERSPECTIVE VIEW
PLASTIC FENCE

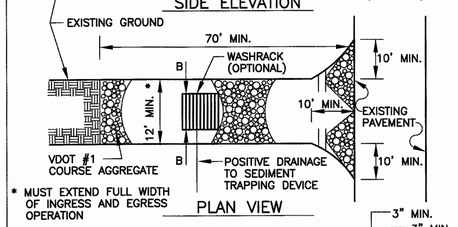


PERSPECTIVE VIEW
METAL FENCE

TEMPORARY STONE CONSTRUCTION ENTRANCE 3.02-1 (CE)

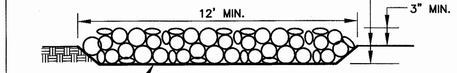


SIDE ELEVATION

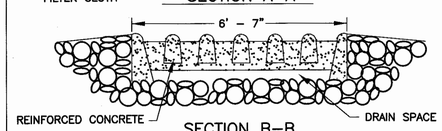


* MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION

PLAN VIEW

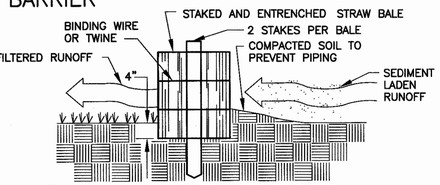


SECTION A–A



SECTION B–B

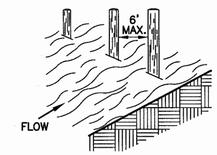
STRAW BALE BARRIER 3.04-1 (STB)



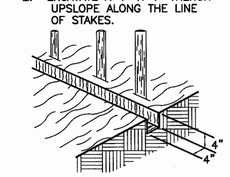
PROPERLY INSTALLED STRAW BALE
(CROSS SECTION)

SILT FENCE (WITHOUT WIRE SUPPORT) 3.05-2 (SF)

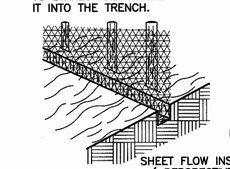
1. SET THE STAKES.



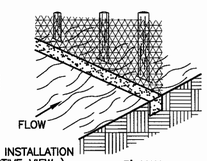
2. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



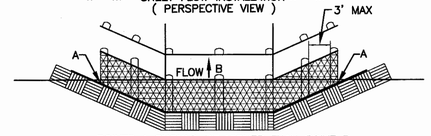
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



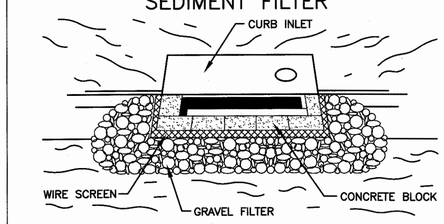
SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)

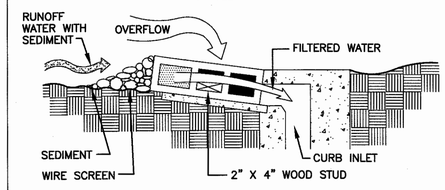


POINTS A SHOULD BE HIGHER THAN POINT B.
DRAINAGEWAY INSTALLATION
(FRONT ELEVATION)

STORM DRAIN INLET PROTECTION 3.07-8 (IP)

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER





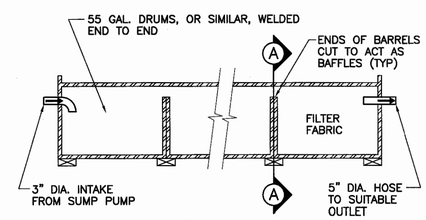
SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

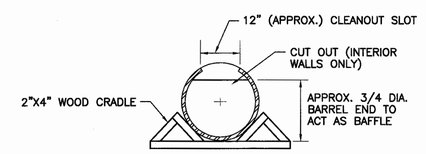
* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

DEWATERING STRUCTURE 3.26-1 (DS)

PORTABLE SEDIMENT TANK



ELEVATION



CROSS–SECTION A–A

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Molly Joseph Ward
Secretary of Natural Resources

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
Fax: 804-698-4019 - TDD (804) 698-4021
www.deq.virginia.gov

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

August 22, 2014

Longwood Holdings LLC
PO Box 3485
Fredericksburg, VA 22402

RE: Coverage under the 2014 VPDES Construction General Permit (VAR10)
General Permit No. VAR10E123
Longwood Buildings 4 and 5
Private - Commercial - Warehouse

Dear Permittee:

DEQ has reviewed your Registration Statement received on June 2, 2014 and determined that the proposed land-disturbing activity is covered under the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10). The effective date of your coverage under this general permit is the date of this letter.

A copy of the general permit can be obtained from DEQ's webpage at the following location: http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/CGP2014.pdf. The general permit contains the applicable Stormwater Pollution Prevention Plan (SWPPP) requirements and other conditions of coverage. Please print the general permit and read it carefully as you will be responsible for compliance with all permit conditions.

The general permit requires that you update your SWPPP to incorporate the changes that the Department made for this permit reissuance. Please update the SWPPP as soon as possible but no later than sixty (60) days from the date of this letter.

DEQ staff has determined that the proposed land-disturbing activity will discharge to a surface water identified as impaired or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for (i) sediment or a sediment-related parameter or (ii) nutrients. Therefore, the following general permit (Part I.B.4) and SWPPP requirements (Part II.A.5) must be implemented for the land-disturbing activity:

- 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;
- Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

The general permit will expire on June 30, 2019. The conditions of the general permit require that you submit a new registration statement at least 90 days prior to that date if you wish to continue coverage under the general permit, unless permission for a later date has been granted by the Board. Permission cannot be granted to submit the registration statement after the expiration date of the general permit.

If you have any questions about this permit, please contact the DEQ Office of Stormwater Management at ConstructionGP@deq.virginia.gov.

Sincerely,

Frederick K. Cunningham, Director
Office of Water Permits

Bowman CONSULTING

Bowman Consulting Group, Ltd.
650-A Neims Circle
Fredericksburg, Virginia 22406

Phone: (540) 371-0268
Fax: (540) 371-3479
www.bowmanconsulting.com

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EROSION & SEDIMENT CONTROL NARRATIVE, NOTES & DETAILS
MAJOR SITE PLAN

LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

Wack GENERAL CONTRACTOR

SPMAJ 2015–09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

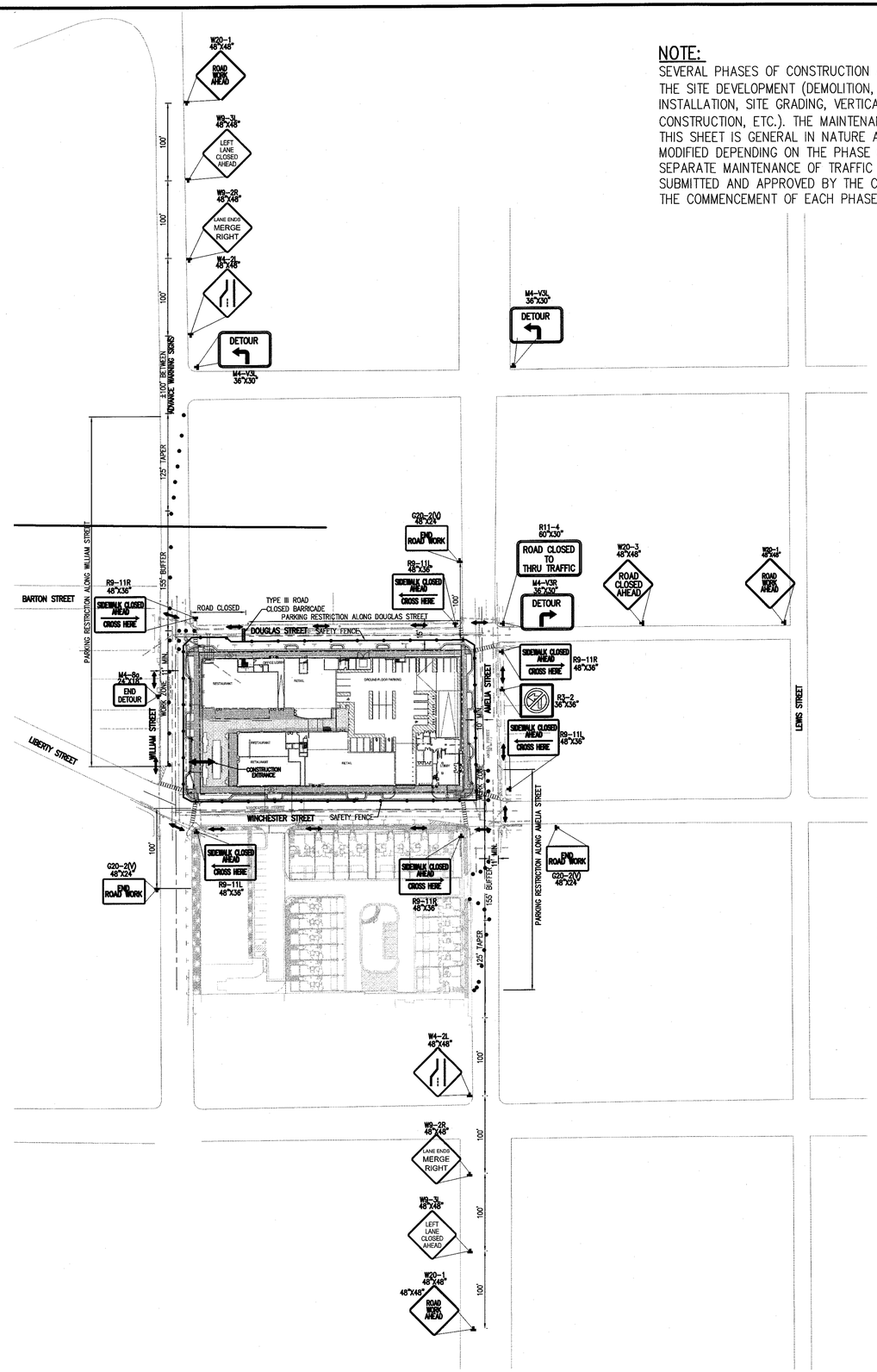
SCALE H: N/A V: N/A

JOB No. 5425–01–002

DATE : OCTBOER 2014

FILE No. 5425–D–CP–001

SHEET 15 OF 21



NOTE:

SEVERAL PHASES OF CONSTRUCTION ARE ANTICIPATED DURING THE SITE DEVELOPMENT (DEMOLITION, EXCAVATION, UTILITY INSTALLATION, SITE GRADING, VERTICAL BUILDING CONSTRUCTION, ETC.). THE MAINTENANCE OF TRAFFIC PLAN ON THIS SHEET IS GENERAL IN NATURE AND MAY NEED TO BE MODIFIED DEPENDING ON THE PHASE OF CONSTRUCTION. SEPARATE MAINTENANCE OF TRAFFIC PLANS SHALL BE SUBMITTED AND APPROVED BY THE CITY AS NEEDED PRIOR TO THE COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.

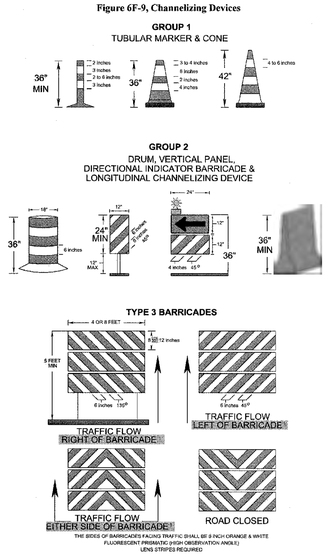
*ACCESS TO ALL ENTRANCES WITHIN THE TRAFFIC MANAGEMENT AREA SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

NORTH

TRAFFIC CONTROL NOTES:

1. SIGNS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED AFTER COMPLETION OF ACTIVITIES.
2. CONTRACTOR MUST FOLLOW ALL CURRENT VDOT MOT STANDARDS, MUTCD 2009 EDITION, VIRGINIA WORK AREA PROTECTION MANUAL, AND TEMPORARY TRAFFIC CONTROL STANDARDS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY TRAFFIC CONTROL AND PLACE FLAGGERS AS NECESSARY TO WARN ON-COMING TRAFFIC OF THE PROPOSED ROAD CONSTRUCTION.
4. CONSTRUCTION TRAFFIC TO ENTER AND EXIT SITE AS SHOWN.
5. SIDEWALK ALONG WILLIAM STREET, WINCHESTER STREET, AMELIA STREET, AND DOUGLAS STREET WITHIN LIMITS OF CONSTRUCTION SHALL BE CLOSED UNTIL CONSTRUCTION IS COMPLETE. SIDEWALK CLOSURE WILL REQUIRE TRANSPORTATION RIGHT-OF-WAY PERMIT. PEDESTRIAN TRAVEL DURING SIDEWALK CLOSURE SHALL BE ROUTED IN ACCORDANCE WITH THIS PLAN.
6. PARKING ALONG THE SOUTHBOUND LANE OF DOUGLAS STREET SHALL BE RESTRICTED UNTIL CONSTRUCTION IS COMPLETE.
7. DOUGLAS STREET SHALL BE CLOSED FROM THE INTERSECTION OF WILLIAM STREET TO THE FREE LANCE STAR ENTRANCE. TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH THIS PLAN.
8. THE LEFT LANE OF AMELIA STREET SHALL BE CLOSED TO INSTALL THE WATER SERVICE LINE UNDER AMELIA STREET. ONE LANE SHALL REMAIN OPEN AT ALL TIMES.
9. OWNER SHALL COORDINATE WITH ADJACENT PROPERTY OWNERS FOR FENCE AND BARRIER PLACEMENT.

Figure 6F-9, Channelizing Devices



LEGEND

- DENOTES TEMPORARY CONE PER MUTCD (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES TEMPORARY CONSTRUCTION SIGN (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES SAFETY FENCE
- DENOTES PEDESTRIAN ACCESS ROUTE
- DENOTES TYPE III BARRICADE (SHOWN AT EXAGGERATED SCALE FOR CLARITY)

THIS TRAFFIC CONTROL PLAN IS FOR THE INSTALLATION OF UTILITIES ALONG WILLIAM STREET, DOUGLAS STREET, AND AMELIA STREET. THIS PLAN WILL BE IN PLACE FOR THE DURATION OF CONSTRUCTION ONLY.

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 ft.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
650-A Neims Circle
Fredericksburg, Virginia 22406

Phone: (540) 371-0268
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www.bowmanconsulting.com

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MAINTENANCE OF TRAFFIC PLAN - PHASE 1
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

Wack GENERAL CONTRACTOR

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=80' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 16 OF 21

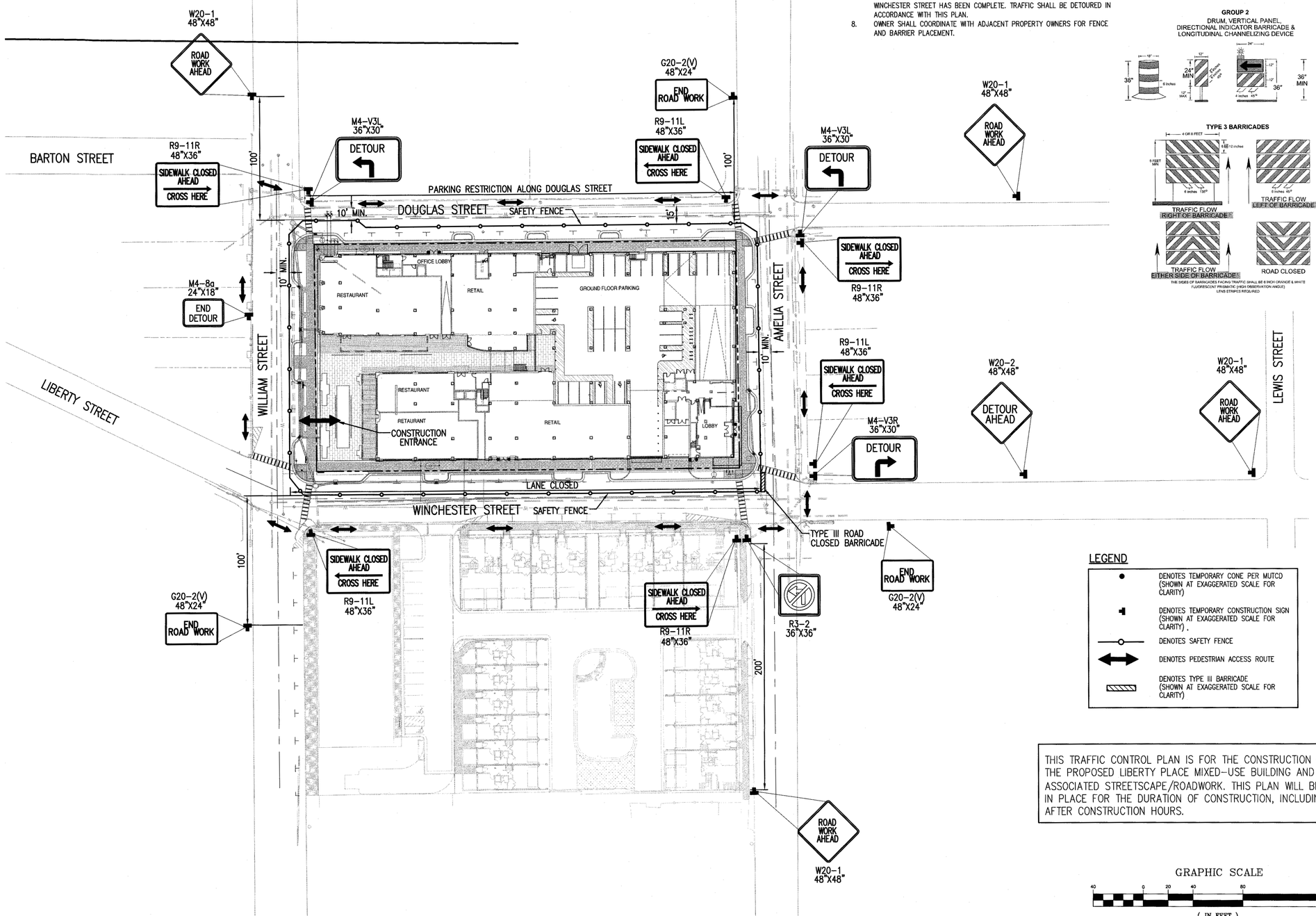
Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\016-5425-D-CP-001-MOT1.dwg

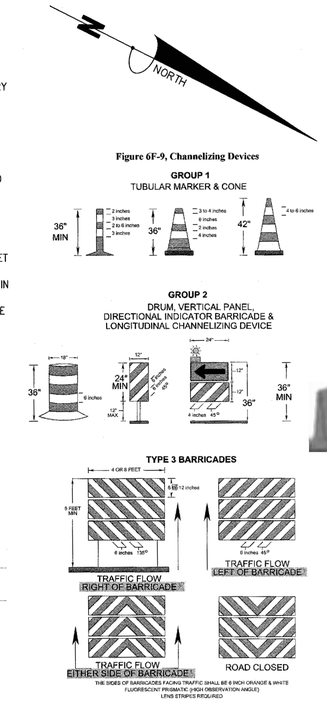
NOTE:

SEVERAL PHASES OF CONSTRUCTION ARE ANTICIPATED DURING THE SITE DEVELOPMENT (DEMOLITION, EXCAVATION, UTILITY INSTALLATION, SITE GRADING, VERTICAL BUILDING CONSTRUCTION, ETC.). THE MAINTENANCE OF TRAFFIC PLAN ON THIS SHEET IS GENERAL IN NATURE AND MAY NEED TO BE MODIFIED DEPENDING ON THE PHASE OF CONSTRUCTION. SEPARATE MAINTENANCE OF TRAFFIC PLANS SHALL BE SUBMITTED AND APPROVED BY THE CITY AS NEEDED PRIOR TO THE COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.

TRAFFIC CONTROL NOTES:

1. SIGNS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED AFTER COMPLETION OF ACTIVITIES.
2. CONTRACTOR MUST FOLLOW ALL CURRENT VDOT MOT STANDARDS, MUTCD 2009 EDITION, VIRGINIA WORK AREA PROTECTION MANUAL, AND TEMPORARY TRAFFIC CONTROL STANDARDS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY TRAFFIC CONTROL AND PLACE FLAGGERS AS NECESSARY TO WARN ON-COMING TRAFFIC OF THE PROPOSED ROAD CONSTRUCTION.
4. CONSTRUCTION TRAFFIC TO ENTER AND EXIT SITE AS SHOWN.
5. SIDEWALK ALONG WILLIAM STREET, WINCHESTER STREET, AMELIA STREET, AND DOUGLAS STREET WITHIN LIMITS OF CONSTRUCTION SHALL BE CLOSED UNTIL CONSTRUCTION IS COMPLETE. SIDEWALK CLOSURE WILL REQUIRE TRANSPORTATION RIGHT-OF-WAY PERMIT. PEDESTRIAN TRAVEL DURING SIDEWALK CLOSURE SHALL BE ROUTED IN ACCORDANCE WITH THIS PLAN.
6. PARKING ALONG DOUGLAS STREET SHALL BE RESTRICTED UNTIL CONSTRUCTION IS COMPLETE.
7. THE SOUTH BOUND LANE OF WINCHESTER STREET BETWEEN WILLIAM STREET AND AMELIA STREET SHALL BE CLOSED UNTIL CONSTRUCTION WITHIN WINCHESTER STREET HAS BEEN COMPLETE. TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH THIS PLAN.
8. OWNER SHALL COORDINATE WITH ADJACENT PROPERTY OWNERS FOR FENCE AND BARRIER PLACEMENT.





LEGEND

- DENOTES TEMPORARY CONE PER MUTCD (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES TEMPORARY CONSTRUCTION SIGN (SHOWN AT EXAGGERATED SCALE FOR CLARITY).
- DENOTES SAFETY FENCE
- DENOTES PEDESTRIAN ACCESS ROUTE
- DENOTES TYPE III BARRICADE (SHOWN AT EXAGGERATED SCALE FOR CLARITY)

THIS TRAFFIC CONTROL PLAN IS FOR THE CONSTRUCTION OF THE PROPOSED LIBERTY PLACE MIXED-USE BUILDING AND ASSOCIATED STREETSCAPE/ROADWORK. THIS PLAN WILL BE IN PLACE FOR THE DURATION OF CONSTRUCTION, INCLUDING AFTER CONSTRUCTION HOURS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

Bowman CONSULTING

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www.bowmanconsulting.com

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Wack GENERAL CONTRACTOR

MAINTENANCE OF TRAFFIC PLAN - PHASE 2
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=40' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

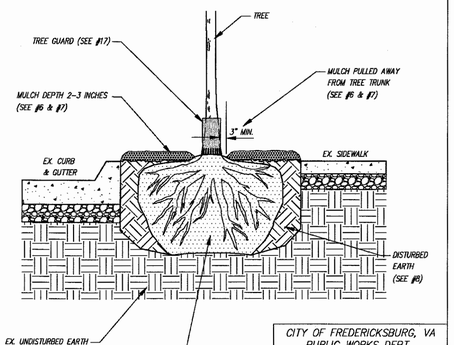
FILE No. 5425-D-CP-001

SHEET 17 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\017-5425-D-CP-001-MOT2.dwg

NOTE:

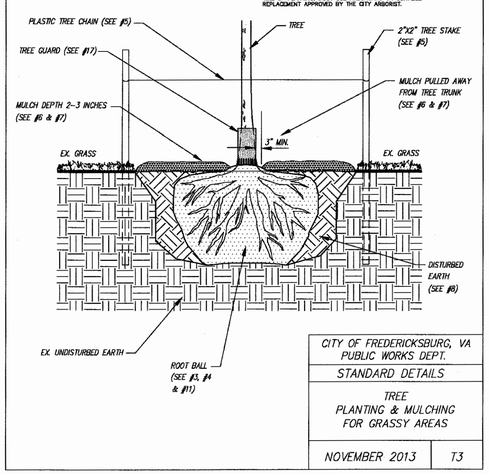
1. AT PLANTING, PRUNE ONLY CROSSING LIMBS, CODOMINENT LEADERS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS.
2. CENTER TRUNK OF TREE IN PIT. TRUNK MUST BE VERTICAL.
3. REMOVE ENTIRE WIRE BASKET AND BURLAP BEFORE PLANTING.
4. REMOVE GIRDLING ROOTS BEFORE PLANTING.
5. TREE STAKES NEED TO BE PARALLEL TO SIDEWALK AND STREET. GUYING TO BE DONE WITH PLASTIC CHAIN.
6. THE DEPTH OF MULCH MUST BE 2–3 INCHES.
7. BOTTOM OF MULCH SHOULD BE EVEN WITH TOP OF SIDEWALK AND TOP OF CURB AND IN ACCORDANCE WITH CITY OF FREDERICKSBURG MULCHING STANDARDS.
8. BACKFILL WITH NATIVE SOIL UNLESS SPECIFIED OTHERWISE BY CITY ARBORIST.
9. ALL TREES ON PUBLIC STREETS AND PUBLIC PROPERTY SHALL BE ON THE CURRENT VERSION OF THE APPROVED CITY OF FREDERICKSBURG TREE LIST.
10. ALL TREES PROPOSED BY A LANDSCAPE PLAN FOR PUBLIC STREETS AND PUBLIC PROPERTY SHALL BE REVIEWED FOR APPROPRIATENESS BY A CERTIFIED ARBORIST PRIOR TO INSTALLATION.
11. WIDTH OF PLANTING HOLE SHALL BE 1.5 TIMES THE DIAMETER OF THE ROOT BALL.
12. SOIL ON TOP OF ROOT BALLS MUST BE REMOVED TO EXPOSE THE ROOT FLARE (I.E. TOP STRUCTURAL ROOT). SOIL ABOVE THE ROOT FLARE SHALL NOT BE INCLUDED IN ROOT BALL DEPTH MEASUREMENT.
13. BOTTOM OF ROOT BALL SHALL SET ON COMPACTED OR UNDISTURBED SOIL.
14. ANGLE TOP OF HOLES FOR ADDITIONAL WIDTH IF SPACE ALLOWS.
15. ALL TREES SHALL HAVE A SLOW RELEASE WATERING BAG SYSTEM INSTALLED AND DEVELOPER SHALL BE RESPONSIBLE FOR WATERING TREES FOR FIRST GROWING SEASON UNLESS APPROVED OTHERWISE BY THE CITY.
16. REFERENCE FOR TREE PLANTING STANDARD PRACTICES: ANSI A300 (PART 6), CURRENT VERSION.
17. TREE GUARDS TO BE INSTALLED AT BASE OF ALL NEW TREES AT TIME OF PLANTING. MUST USE ARBORGARD OR SUITABLE REPLACEMENT APPROVED BY THE CITY ARBORIST.



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
STREET TREE PLANTING & MULCHING FOR UTILITY STRIPS	
NOVEMBER 2013	T2

NOTE:

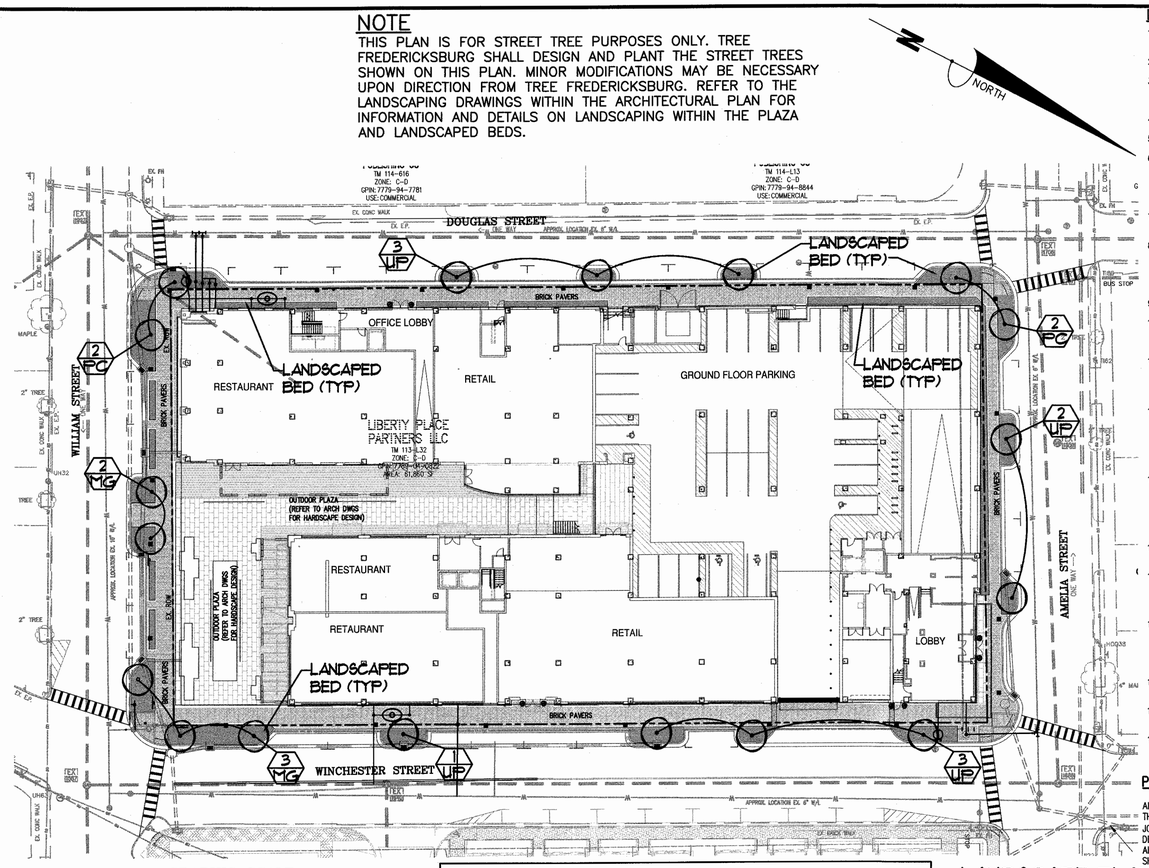
1. AT PLANTING, PRUNE ONLY CROSSING LIMBS, CODOMINENT LEADERS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS.
2. CENTER TRUNK OF TREE IN PIT. TRUNK MUST BE VERTICAL.
3. REMOVE ENTIRE WIRE BASKET AND BURLAP BEFORE PLANTING.
4. REMOVE GIRDLING ROOTS BEFORE PLANTING.
5. INSTALL WOODEN 2"X2" TREE STAKES AND PLASTIC TREE CHAIN TO STABILIZE TREE. STAKES TO BE UPRIGHT, WITH TOP OF STAKES BETWEEN 3–4 FEET ABOVE GROUND. PLASTIC TREE CHAIN TO BE APPROXIMATELY 8" FROM TOP OF STAKES AND PLACED PARALLEL TO GROUND.
6. THE DEPTH OF MULCH MUST BE 2–3 INCHES.
7. INSTALL SHREDDED VIRGINIA FINE PINE MULCH, UNLESS DESIGNATED OTHERWISE BY CITY ARBORIST. MULCHING SHALL BE IN ACCORDANCE WITH CITY OF FREDERICKSBURG MULCHING STANDARDS.
8. BACKFILL WITH NATIVE SOIL UNLESS SPECIFIED OTHERWISE BY CITY ARBORIST.
9. ALL TREES ON PUBLIC STREETS AND PUBLIC PROPERTY SHALL BE ON THE CURRENT VERSION OF THE APPROVED CITY OF FREDERICKSBURG TREE LIST.
10. ALL TREES PROPOSED BY A LANDSCAPE PLAN FOR PUBLIC STREETS AND PUBLIC PROPERTY SHALL BE REVIEWED FOR APPROPRIATENESS BY A CERTIFIED ARBORIST PRIOR TO INSTALLATION.
11. WIDTH OF PLANTING HOLE SHALL BE 1.5 TIMES THE DIAMETER OF THE ROOT BALL.
12. SOIL ON TOP OF ROOT BALLS MUST BE REMOVED TO EXPOSE THE ROOT FLARE (I.E. TOP STRUCTURAL ROOT). SOIL ABOVE THE ROOT FLARE SHALL NOT BE INCLUDED IN ROOT BALL DEPTH MEASUREMENT.
13. BOTTOM OF ROOT BALL SHALL SET ON COMPACTED OR UNDISTURBED SOIL.
14. ANGLE TOP OF HOLES FOR ADDITIONAL WIDTH.
15. ALL TREES SHALL HAVE A SLOW RELEASE WATERING BAG SYSTEM INSTALLED AND DEVELOPER SHALL BE RESPONSIBLE FOR WATERING TREES FOR FIRST GROWING SEASON UNLESS APPROVED OTHERWISE BY THE CITY.
16. REFERENCE FOR TREE PLANTING STANDARD PRACTICES: ANSI A300 (PART 6), CURRENT VERSION.
17. TREE GUARDS TO BE INSTALLED AT BASE OF ALL NEW TREES AT TIME OF PLANTING. MUST USE ARBORGARD OR SUITABLE REPLACEMENT APPROVED BY THE CITY ARBORIST.



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
TREE PLANTING & MULCHING FOR GRASSY AREAS	
NOVEMBER 2013	T3

NOTE

THIS PLAN IS FOR STREET TREE PURPOSES ONLY. TREE FREDERICKSBURG SHALL DESIGN AND PLANT THE STREET TREES SHOWN ON THIS PLAN. MINOR MODIFICATIONS MAY BE NECESSARY UPON DIRECTION FROM TREE FREDERICKSBURG. REFER TO THE LANDSCAPING DRAWINGS WITHIN THE ARCHITECTURAL PLAN FOR INFORMATION AND DETAILS ON LANDSCAPING WITHIN THE PLAZA AND LANDSCAPED BEDS.

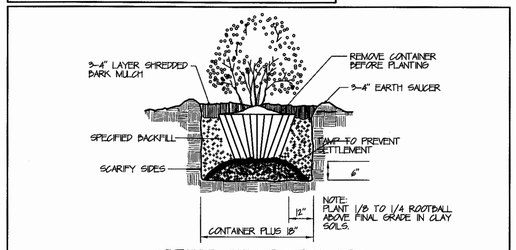


NOTE

ALL LANDSCAPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE LANDSCAPE STANDARDS OF THE CITY OF FREDERICKSBURG.

LANDSCAPE PLAN LEGEND

- DENOTES CANOPY TREE
- DENOTES UNDERSTORY TREE
- DENOTES PLANTER POT
- DENOTES LANDSCAPED BED
- DENOTES RUBBER MULCH TREE PIT
- 4 — DENOTES QUANTITY
- MV — DENOTES TREE TYPE



CONTAINER SHRUB PLANTING DETAIL
NOT TO SCALE

LANDSCAPING REQUIREMENTS

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANTS AS SHOWN ON THE PLANTING PLAN, IN ACCORDANCE WITH THE QUANTITIES, SIZES, AND SPECIFICATIONS LISTED IN THE PLAN MATERIAL SCHEDULE.
2. ALL PLANTS SHALL BE NURSERY GROWN.
3. PLANT DIMENSIONS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK, LATEST ADDITION, BALLED, BURLAPPED, AND SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH AND SHALL BE PRUNED, STORED, AND DUG IN ACCORDANCE WITH THE CURRENT ASNS. PLANTS SHALL BE IN PROPER NURSERY CONDITION.
4. NO B & B PLANTS SHALL BE PLANTED IF BALL IS EITHER CRACKED OR BROKEN DURING THE PLANTING PROCESS.
5. ALL PLANTS SHALL BE HARDY UNDER CLIMATE CONDITIONS IN THE LOCALITY OF THE PROJECT.
6. ALL PLANTS SHALL HAVE NORMAL HABIT GROWTH AND SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE FROM DISEASE AND INSECT INFESTATION. ANY TREE WITH WEAK, THIN TRUNKS NOT CAPABLE OF SUPPORTING ITSELF WHEN IN THE OPEN WILL NOT BE ACCEPTABLE. THE MINIMUM ACCEPTABLE SIZE OF ALL PLANTS MEASURED BEFORE PRUNING WITH THE BRANCHES IN NORMAL POSITION SHALL CONFORM TO THE DIMENSIONS AS SHOWN IN THE PLANTING SCHEDULE. LARGER PLANTS OF EQUAL QUALITY MAY BE ACCEPTED AT NO ADDITIONAL COST TO THE OWNER.
7. SUBSTITUTION OF PLANT MATERIAL SHALL NOT BE PERMITTED UNLESS AUTHORIZED BY THE OWNER, OWNER'S REPRESENTATIVE, AND APPROVED TOWN AGENT.
8. THE CONTRACTOR SHALL LAYOUT, WITH IDENTIFIABLE STAKES THE LOCATIONS OF ALL TREES, UNDERGROUND UTILITIES, AND OUTLINE OF PLANTING BEDS AS INDICATED ON THE DRAWING. IN THE EVENT THAT ROCK OR UNDERGROUND CONSTRUCTION WORK, OBSTRUCTION OR UTILITY LINES ARE ENCOUNTERED DURING THESE OPERATIONS OR IN THE EXCAVATION OF ANY PLANT PITS UNDER THIS CONTRACT ALTERNATIVE LOCATIONS MAY BE SELECTED BY THE L.A. WITH NO ADDITIONAL COST TO THE OWNER.
9. PLANTING SOIL SHALL BE NATIVE.
10. MULCH SHALL BE APPLIED IMMEDIATELY AFTER PLANTING OPERATIONS. MULCH SHALL BE DOUBLE SHREDDED HARDWOOD OR PINE BARK, FREE OF DEBRIS, WEEDS, SPORES OR OTHER FOREIGN MATERIAL AND MUST BE WELL ROTTED AND OF SUCH CHARACTER AS NOT TO BE EASILY REMOVED BY WIND.
11. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE OWNER AND OR LANDSCAPE ARCHITECT OF ALL SOIL OR DRAINAGE CONDITIONS IN WHICH ARE DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE OWNER.
12. PREPARATION OF PLANTS– ALL PLANT PITS SHALL BE CIRCULAR IN OUTLINE: ALL EXCAVATIONS SHALL HAVE VERTICAL SIDES. THE DEPTHS AND WIDTHS FOR EXCAVATION OF PLANT PITS SHALL BE THE DEPTHS AND WIDTHS AS SPECIFIED ON PLANTING DETAILS OR AS APPROVED BY THE LANDSCAPE ARCHITECT. LOOSEN SUBGRADE 6" BELOW THE BOTTOM OF THE PIT. SOIL SEPARATION– SUBGRADE SOILS SHALL BE SEPARATED FROM THE UPPER TOPSOIL PORTIONS AND REMOVED IMMEDIATELY WHEREVER ENCOUNTERED DURING THE PLANTING OPERATIONS. EXCESS SOILS SHALL BE REMOVED AND LEGALLY DISPOSED OF.
13. SETTING PLANTS– IN GENERAL, SET PLANTS AT THE SAME RELATION TO FINISHED GRADE AS THE BORE TO THE GROUND FROM WHICH THEY WERE DUG. PREPARE PLANTING PITS AS SPECIFIED AND AS SHOWN ON THE DRAWINGS, PRIOR TO INSERTING PLANTS. USE TOPSOIL MIXTURE TO BACKFILL PLANT PITS. WHEN PLANT PITS HAVE BEEN BACKFILLED APPROXIMATELY 2/3 FULL, WATER THOROUGHLY BEFORE INSTALLING REMAINDER OF THE SOIL TO THE TOP OF THE PIT. SET TREES PLUMB AND BRACE RIGIDLY IN POSITION UNTIL THE PLANTING SOIL HAS BEEN TAMPED SOUDLY AROUND THE BALL AND THE ROOTS.
14. GUYING AND STAKING– SHALL BE REQUIRED FOR ALL TREES OR TREE–LIKE SHRUBS IN ACCORDANCE WITH DETAILED DRAWINGS. GUYING AND STAKING SHALL BE DONE WITHIN 24 HOURS AFTER PLANTING.
15. MAINTENANCE OF NEW PLANTINGS SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, TIGHTENING, AND RESETTING PLANTS TO PROPER GRADES OR UPRIGHT POSITION, RESTORATION OF THE PLANTING SAUCER, AND FURNISHING AND APPLYING SUCH SPRAYS AS NECESSARY TO KEEP THE PLANTING FREE FROM INSECTS AND DISEASE. MAINTENANCE SHALL BE PROVIDED UNTIL TIME OF PROVISIONAL ACCEPTANCE.
16. PLANTING AREAS AND PLANTING SHALL BE PROTECTED AT ALL TIMES AGAINST TRESPASSING AND DAMAGE OF ANY KIND FOR THE DURATION OF THE MAINTENANCE PERIOD. IF ANY PLANTS BECOME DAMAGED OR INJURED, THEY SHALL BE TREATED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. NO WORK SHALL BE DONE WITHIN, ADJACENT TO, OR OVER ANY PLANT OR PLANTING AREA WITHOUT PROPER SAFEGUARDS AND PROTECTION TO MATERIALS.
17. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF 24 MONTHS FROM THE DATE OF PROVISIONAL ACCEPTANCE, TO BE IN GOOD, HEALTHY, AND FLOURISHING CONDITION.
18. THE CONTRACTOR SHALL PROVIDE THE OWNER SPECIFIC MAINTENANCE RECOMMENDATIONS IN WRITING FOR WATERING, FERTILIZING, AND MAINTAINING THE PLANT MATERIAL.
19. NO PLANTINGS SHALL IMPEDE THE SIGHT DISTANCE FOR INGRESS AND EGRESS TO THE SITE. NO SIGNAGE, TREES OR PLANT MATERIAL WITH EXPECTED MATURE GROWTH HEIGHTS OF 2.5' FEET SHALL BE PLANTED WITHIN THE BOUNDARY LINES.

PLANTING PROCEDURES

ALL TREES TO BE PLANTED SHALL MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATIONS JOINTLY ADOPTED BY THE VIRGINIA NURSERYMEN'S ASSOCIATION, THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS AND THE VIRGINIA CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS. AT A MINIMUM, ALL TREES PLANTED SHALL HAVE ROOTBALLS ADEQUATE TO ENCLOSE THE ENTIRE ROOT SYSTEM, ALL TREES SHALL BE MULCHED AND STAKED, AND ALL PLANTS SHALL BE WATERED AT TIME OF INSTALLATION.

ANSI A300 (Part 6)-2005

63.6 Planting

63.6.1 Digging the hole

63.6.1.1 The final depth of the planting hole is determined by the depth and firmness of the root ball and other characteristics of the site and shall not exceed the depth of the root ball.

63.6.1.2 The depth of the root ball shall be measured from the bottom of the trunk flare to the bottom of the ball.

63.6.1.3 The soil directly beneath the root ball should be undisturbed or prepared to prevent settling.

63.6.1.4 The planting hole width should be a minimum of 1.5 times the diameter of the root ball.

63.6.1.5 The sides of the planting hole should be scarified.

63.6.2 Installing the tree or shub

63.6.2.1 Trees or shrubs should be placed in the same compass orientation from which they originated.

63.6.2.2 Bare root plants should be installed so that their root system is evenly distributed in the planting hole.

63.6.2.3 The bottom of the trunk flare shall be at or above the finished grade.

63.6.2.4 All root ball supporting materials should be cut-off from the top third of the root ball and removed from the planting hole prior to final back filling.

63.6.2.5 Backfill should be similar to the soil at the planting site or amended to meet a specific objective.

63.6.2.6 The back-fill soil shall be installed and settled in layered sections to limit future settling and prevent air pockets.

63.6.2.7 Backfill shall not be compacted to a density that inhibits root growth.

63.6.2.8 Water should be added to the root ball and backfill to bring the root ball to field capacity.

63.6.2.9 Mulch should be applied near, but not touching, the trunk out to the perimeter of the planting. Initial depth of organic mulch should be between 2 and 4 inches (5 and 10 cm).

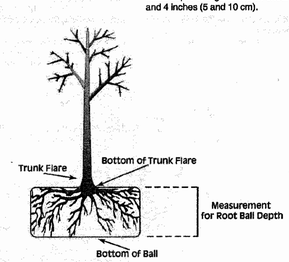


Fig. 63.6.1.2 A discernable trunk flare and related measurements

ANSI A300 (Part 6)-2005

63.6.2.10 Mulch type shall be specified to meet an objective.

63.7 Support systems

63.7.1 Support systems shall not be specified or installed except when needed.

63.7.2 Support systems shall be installed according to ANSI A300 Part 3 *Support Systems*.

63.8 Specialty transplanting practices

63.8.1 Palms

63.8.1.1 The minimum root ball radius should be 6 inches (15 cm) from the base of the trunk at ground level. Root balls larger than the minimum radius shall be preferred.

63.8.1.2 The root ball should have adequate mass and depth to structurally support the tree.

63.8.1.3 The root ball depth should be at least 1.5 times the root ball diameter or width.

63.9 Post-planting care practices

63.9.1 Post-planting care shall be specified for an appropriate period of time in consideration of region, site conditions, and species.

63.9.2 Post-planting care for a minimum of one year should be considered.

63.9.3 Specifications for post-planting care should consist of, but are not limited to, one or more of the following:

a. soil moisture management;
b. mulching;
c. integrated pest management;
d. pruning (see ANSI A300 Part 1 – *Pruning* standard);
e. monitoring;
f. nutrient management (see ANSI A300 Part 2 – *Fertilization* standard); and,
g. maintenance/removal of tree support systems (see ANSI A300 Part 3 – *Support Systems* standard).

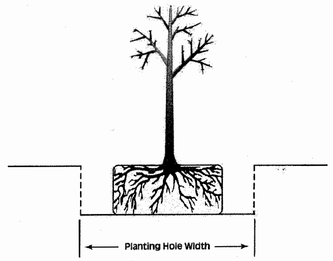


Fig. 63.6.1 Example of a properly prepared planting hole.

PLANT LIST

KEY	QTY. (Ea)	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	ROOT COND.
PLANTING SCHEDULE						
CANOPY						
PC	4	PISTACIA CHINENSIS	CHINESE PISTACHE	12'	2" CAL.	B&B
UP	9	ULMUS PARVIFOLIA 'EVERCLEAR'	EVERCLEAR ELM	12'	2" CAL.	B&B
MG	5	ULMUS 'MORTON GLOSSY'	TRIUMPH ELM	12'	2" CAL.	B&B
TOTAL	18					

Bowman CONSULTING

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Fredericksburg, Virginia 22406
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www.bowmanconsulting.com
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LANDSCAPING PLAN, NOTES AND DETAILS
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

Wack GENERAL CONTRACTOR

SPMAJ 2015–09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=30' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 18 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\018-5425-D-CP-001-LSP.dwg

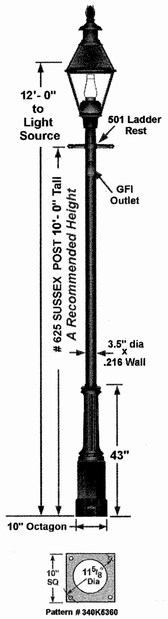
Cut Off Style Lighting

Design # H-F210- P625 Fredericksburg

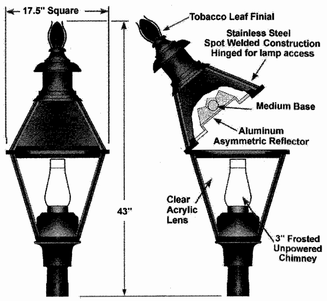
IES CUT OFF

Philadelphia 1000 Model

Cut Off



Pattern # 340K6360



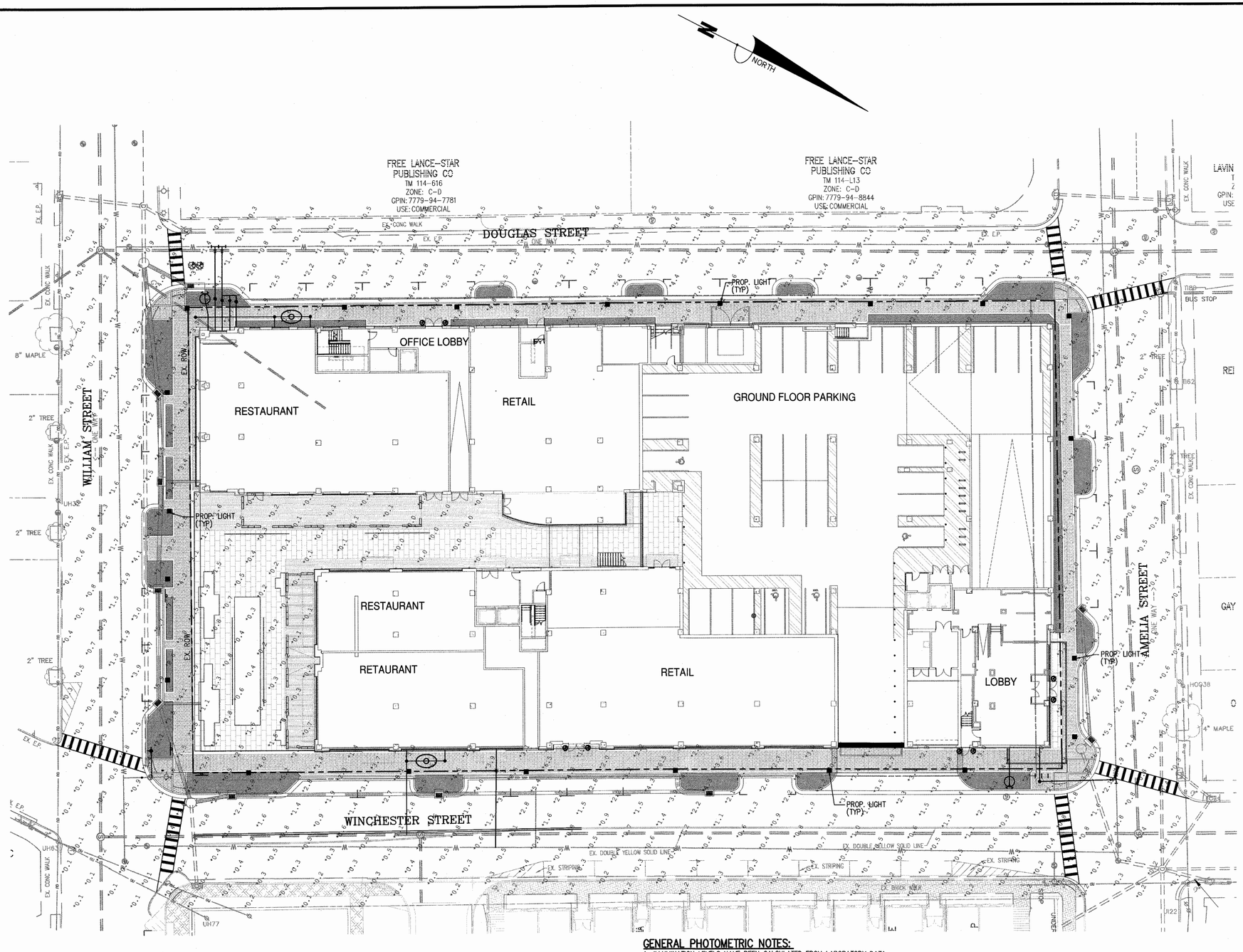
FINISH	Textured Aliphatic Urethane Enamel			
	Color	Number		
	Black	1003 P		
Source	Fixture STK #	Watts	Voltage	Quantity
HPS	F210-L290-FB975	150	120	xxxx
Post STK #		Length		
P625-W1114-110		10 Ft		xxxx

PENN GLOBE — The Original Name in Outdoor Lighting

THE PENNSYLVANIA GLOBE GASLIGHT CO.
300 Shaw Road, North Branford, CT 06471
TEL: 203-484-7749 FAX: 203-484-7799

Project: City of Fredericksburg
Location: Fredericksburg, VA

Date: 2007



Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	
	21	ge177503 tcm201-56813	SINGLE	16000	1.000	T10R15S	AMS3

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts	Illuminance	Fc	1.87	9.4	0.0	N.A.	N.A.

GENERAL PHOTOMETRIC NOTES:

1. ILLUMINATION LEVELS HAVE BEEN CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATING IN ACCORDANCE WITH THE ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS.
2. ACTUAL ILLUMINATION LEVELS MAY VARY FROM THE PREDICTED RESULTS SHOWN IN THIS PLAN DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER FIELD CONDITIONS.
3. THE POINT-BY-POINT ILLUMINATION CALCULATION GRID USES A 10 FOOT BY 10 FOOT MATRIX.
4. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. LIGHTING PLAN PREPARED BY BOWMAN CONSULTING GROUP.

MAINTENANCE NOTES:

1. INSPECTION OF ALL LAMPS TO BE PERFORMED AT LEAST MONTHLY DURING HOURS OF DARKNESS TO LOOK FOR DIRTY OR BROKEN LENSES, FAILED LAMPS OR THOSE NOT PERFORMING TO SPECIFIED STANDARDS, TREE LIMBS BLOCKING LIGHT PATHS, AND EVIDENCE OF VANDALISM.
2. FAILED LAMPS, ELECTRICAL COMPONENTS, PHOTOCELLS, AND VANDALIZED OR DAMAGED LUMINAIRES TO BE REPLACED WITHIN 30 DAYS.
3. LUMINAIRES TO BE CLEANED ANNUALLY, OR AS NEEDED.
4. ALL TREES AND SHRUBBERY WILL BE PRUNED AS NEEDED, SO AS NOT TO BLOCK LIGHT PATHS.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Bowman CONSULTING

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www.bowmanconsulting.com

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Wack GENERAL CONTRACTOR

PHOTOMETRIC PLAN
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
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DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: 1"=20' V: N/A

JOB No. 5425-01-002

DATE : OCTBOER 2014

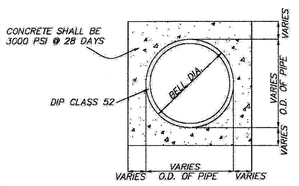
FILE No. 5425-D-CP-001

SHEET 18A OF 21

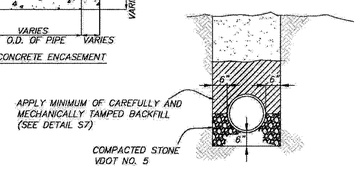
Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\018A-5425-D-CP-001-LIT.dwg

* SUITABLE EXCAVATED TRENCH MATERIAL MAY BE USED AS BACKFILL SUBJECT TO APPROVAL BY THE CITY OF FREDERICKSBURG. UNSUITABLE EXCAVATED TRENCH MATERIAL SHALL BE REPLACED WITH VDOT AGGREGATE TYPE NO 21A. ALL BACKFILL MATERIAL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% DENSITY

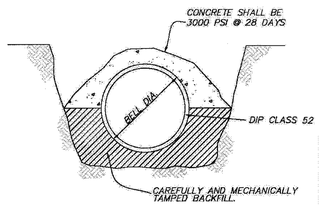
NOTE:
SHOP DRAWING MUST BE SUBMITTED TO PUBLIC WORKS FOR APPROVAL



CONCRETE ENCASEMENT



STANDARD GRAVEL BEDDING

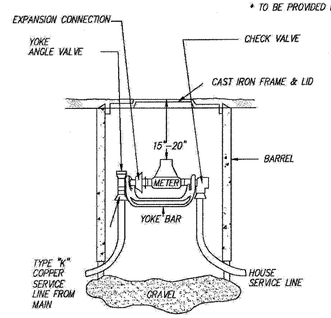


CONCRETE CAP

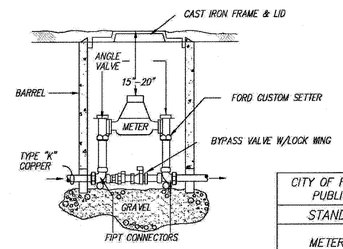
CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
SEWER PIPE BEDDING CONCRETE ENCASEMENT CONCRETE CAP	
AUGUST 2007	S1

TYPE	STANDARD	YOKE		CUSTOM	SETTER W/BYPASS
METER SIZE (IN.)	5/8 X 3/4	3/4	1	1 1/2	2
*METER (OR APPROVED EQUAL)	BADGER	BADGER	BADGER	BADGER	BADGER
BARREL DIAMETER (IN.)	18	18	24	30	36
METER YOKEBAR/SETTER	FORD Y502	FORD Y503	FORD Y504	VIF 66-12	VIF 77-12

* TO BE PROVIDED BY CITY AFTER PAYMENT OF ALL FEES



SETTING UP TO 1"



SETTING UP TO 1 1/2" & 2"

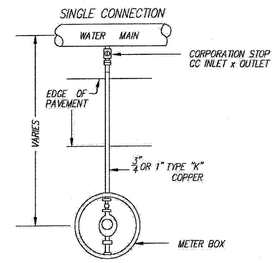
CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
METER SETTINGS FOR UP TO 2" METERS	
AUGUST 2007	W1

IN EXISTING SUBDIVISION

NOTE
IN AREAS WITH CURB & GUTTERS AND SIDEWALKS, METERS SHALL BE SET IN THE UTILITY STRIP BETWEEN THE CURB AND THE SIDEWALK. OTHERWISE THE METER SHALL BE SET AT RIGHT-OF-WAY

IN NEW SUBDIVISION

NOTE
WATERMETER SHALL BE SET BEHIND SIDEWALKS.

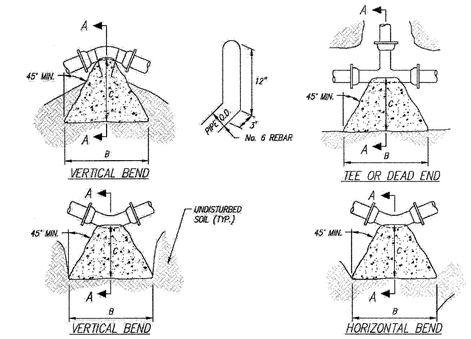


CORPORATION STOPS

SIZE	INLET	OUTLET
3/4"	CC	PACK JOINT CONNECTION
1"	CC	PACK JOINT CONNECTION

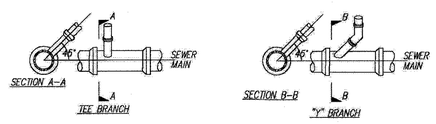
CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
WATER SERVICE CONNECTIONS FOR SIZES UP TO 1"	
AUGUST 2007	W2

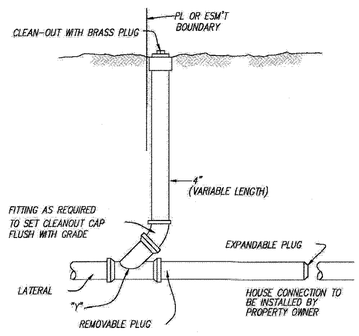
SIZE	TEE OR DEAD END			90° BEND			45° BEND			22 1/2 & 11 1/4 BEND		
	A	B	C	A	B	C	A	B	C	A	B	C
6"	2'-0"	3'-0"	1'-6"	2'-6"	3'-0"	2'-0"	1'-6"	2'-6"	1'-6"	1'-6"	2'-6"	1'-6"
8"	3'-0"	4'-0"	3'-0"	4'-0"	4'-0"	3'-0"	3'-0"	3'-0"	3'-0"	2'-0"	3'-0"	3'-0"
10"	3'-0"	4'-5"	3'-0"	4'-0"	5'-0"	3'-0"	3'-0"	4'-0"	3'-0"	2'-6"	3'-0"	3'-0"
12"	4'-0"	6'-0"	3'-0"	6'-0"	6'-0"	3'-0"	4'-0"	5'-0"	3'-0"	3'-0"	3'-0"	3'-0"
16"	6'-0"	7'-0"	4'-0"	8'-0"	8'-0"	4'-0"	6'-0"	6'-0"	3'-0"	4'-0"	4'-0"	3'-0"
20"	8'-0"	9'-0"	5'-0"	9'-0"	10'-0"	5'-0"	6'-0"	8'-0"	4'-0"	4'-0"	6'-0"	3'-0"



NOTES:
1. WRAP FITTINGS WITH BUILDING PAPER.
2. CONCRETE SHALL NOT INTERFER WITH FITTING JOINTS
3. THRUST BLOCKS SHALL BE 2,500 P.S.I. CONCRETE

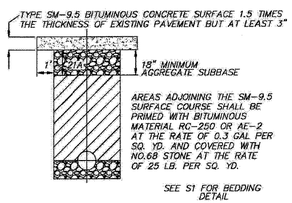
CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
CONCRETE THRUST BLOCK	
AUGUST 2007	W5





NOTES: NEW HOUSE CONNECTIONS SHALL BE MADE WITH 4" PIPE APPROVED STRAPPED SADDLE Y'S AND TEES MAY BE USED WHERE APPROVED BY THE DEPT OF P.W.

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
SEWER SERVICE CONNECTIONS AND CLEAN-OUT	
AUGUST 2007	S2



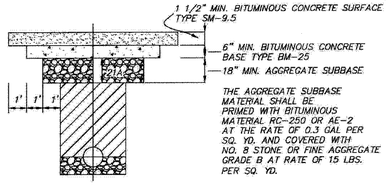
BITUMINOUS SURFACE TREATED PAVEMENT RESTORATION

1. ALL PAVEMENT CUTTING AND RESTORATION SHALL BE PERFORMED TO THE SATISFACTION OF THE CITY OF FREDERICKSBURG.

2. PAVEMENT SHALL BE CUT ONLY WHERE INDICATED ON THE PLANS OR WITH APPROVAL OF THE CITY OF FREDERICKSBURG.

3. WHEREVER ANY PORTION OF PAVED ROADWAY IS EXCAVATED, THE PAVEMENT SHALL FIRST BE CUT WITH A MECAHNICAL PAVEMENT CUTTER TO YEILD A UNIFORM STRAIGHT LINE CIT WITH VERTICAL FACES.

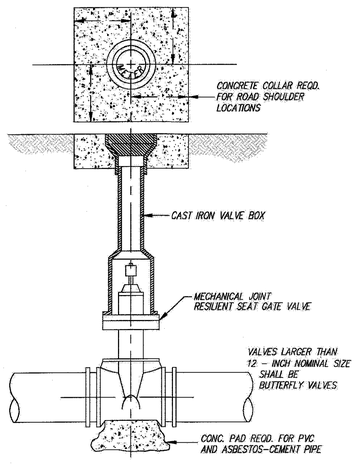
4. SUITABLE EXCAVATING TRENCH MATERIAL MAY BE USED AS BACK FILL SUBJECT TO APPROVAL BY THE CITY OF FREDERICKSBURG. UNSUITABLE EXCAVATED TRENCH MATERIAL SHALL BE REPLACED WITH VDOT AGGREGATE TYPE NO. 21A. ALL BACKFILL MATERIAL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% DENSITY.



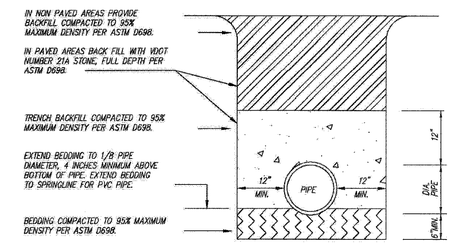
THE AGGREGATE SUBBASE MATERIAL SHALL BE PRIMED WITH BITUMINOUS MATERIAL RC-250 OR AE-2 AT THE RATE OF 0.3 GAL PER SQ. YD. AND COVERED WITH NO. 8 STONE OR FINE AGGREGATE GRADE B AT RATE OF 15 LBS. PER SQ. YD.

BITUMINOUS CONCRETE PAVEMENT RESTORATION

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
PAVEMENT RESTORATION	
AUGUST 2007	S7



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
VALVE BOX INSTALLATION AND VALVE SETTING	
AUGUST 2007	W4



MATERIALS FOR PIPE BEDDING AND TRENCH BACKFILL SHALL BE CLASS II IN ACCORDANCE WITH ASTM D2321 AS FOLLOWS:

CLASS II COARSE SANDS AND GRAVELS WITH MAXIMUM PARTICLE SIZE OF 44MM (1.5"), INCLUDING VARIOUSLY GRADED SANDS AND GRAVELS CONTAINING SMALL PERCENTAGES OF FINES, GENERALLY GRANULAR AND NONCOHESIVE, EITHER WET OR DRY. SOIL TYPES GW, GP, SW AND SP ARE INCLUDED IN THIS CLASS AS SPECIFIED IN ASTM D2487.

BEDDING AND BACKFILL SHALL BE IMPORTED MATERIAL FROM AN APPROVED SOURCE.

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
TYPICAL PIPE BEDDING (PAVED AREAS AND OTHER AREAS WHEN IN-SITU MATERIAL UNSUITABLE	
AUGUST 2007	W6A

Bowman CONSULTING

Bowman Consulting Group, Ltd.
650-A Neims Circle
Fredericksburg, Virginia 22406

Phone: (540) 371-0268
Fax: (540) 371-3479
www.bowmanconsulting.com

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Wack GENERAL CONTRACTOR

MISCELLANEOUS DETAILS
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN R. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A

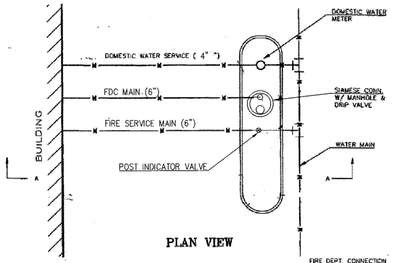
JOB No. 5425-01-002

DATE : OCTBOER 2014

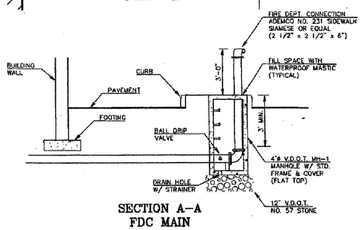
FILE No. 5425-D-CP-001

SHEET 19 OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\019-021A-5425-D-CP-001-DET.dwg



PLAN VIEW



SECTION A–A
FDC MAIN

City of Fredericksburg
Fredericksburg Fire Department
601 Princess Anne Street, Fredericksburg, VA 22401
(540) 372-1059 (540) 372-1050 (Fax)

Fire Lanes

CODE 503.3 - Requirements for Fire Lanes

503.2. Authority: The fire official shall require and designate public or private fire lanes as deemed necessary for the efficient and effective operation of fire apparatus. Fire lanes shall have a minimum width of 20 feet.

Obstructions: Designated fire lanes shall be maintained free of obstructions and vehicles and shall be identified in an approved manner.

Maintenance: All designated fire lane signs or markings shall be maintained in a clean and legible condition at all times and replaced when necessary to ensure adequate visibility.

503.3 A. SIGNAGE SPECIFICATIONS:

1. Metal construction: 12" x 18".
2. Red letters on reflective white background with 3/8" red trim strip around entire outer edge of sign.
3. Lettering on sign to be "NO PARKING OR STANDING—FIRE LANE". Refer to plate 1-1.
4. Lettering size to be as follows:
   a. NO PARKING or STANDING – 2"
   b. OR – 1"
   c. FIRE LANE – 2 ½ "
   d. Arrows 1" x 6" solid shaft with solid head 1 ½ "wide and 2" deep.
5. Signs are to be mounted 6' from the ground surface to the bottom of the sign unless otherwise directed by the fire official.
6. Posts for the signs, when required, shall be metal and securely mounted unless written permission for alternatives is obtained from the fire official prior to installation.
7. Signs shall be posted at the beginning and the end of all designated fire lanes and spaced a minimum of 25' apart and a maximum of 100' apart when needed.
8. Short islands require curb marking and one sign.
9. Yellow stripes and/or complete hash marks may be required for the 20' fire lane.

PLATE 1 –1

SIGN—A

SIGN—B

SIGN—C

PLATE 1 –2

TYPICAL CURB MARKINGS IN BLACK WITH VDOT HIGHWAY YELLOW PAINTED CURBS

NO PARKING FIRE LANE TOW ZONE

SPECIFICATIONS FOR BRICK SIDEWALK

General - The work covered by this division of specifications, in general, includes furnishing and installing all masonry materials; items specified in other divisions to be set in masonry shall be provided and installed under this division. Brick sidewalks shall be installed as per design patterns shown on the plans. Removal of existing concrete sidewalk included in price.

Description of Work- Brick paving shall be constructed in those areas as shown on the plans and/or as directed, and shall consist of brick placed on a sand-cement bed as shown on plans and/or as directed, and the joints filled with approved clean white silica sand. The exact pattern, brick size, and construction details shall be as shown on the plans.

In brick sidewalk repair, available suitable old brick and new brick as required shall be used. Any transportation of brick from one site to another shall be included in the work.

All excavation needed to remove old or defective brick work shall be included as part of this work.

Materials- Materials used shall meet the following requirement:

1. Masonry Cement- AASHO M-150Type II
2. Preformed Bituminous Fiber Expansion Material – AASHO M-153 Type II or approved equal
3. Brick – Watsontown red brick pavers 2 ¼"x4"x8"or approved equal
4. Sand – Fine aggregate for mortar shall meet the requirement of the AASHO Standard Specification for "Aggregate for Masonry Mortar" M-45 and shall be clean and free of salt
5. Water – Water for mixing shall be potable, clean, and free from oil, acids, salts, and other deleterious matter
6. Roofing Felt – 15# roofing felt as approved by City Engineer

Construction Methods- Construction of brick paving, including repair, shall meet the following requirements:

1. Sand Cement Bed – Sand-cement bedding course shall consist of sand and Portland Cement in the proportion of 1 part cement and 4 parts sand by weight, mixed dry until the mass is of uniform color. Mixing must be carried out at an approved batch mix plant. The contractor must furnish a batch ticket with each load, stating the correct batched weights of each material. Hand mixing will not be permitted unless approved by the City Engineer.
2. The bedding course shall be placed and shaped upon the prepared soils base so that its furnished depth shall not be less than 4 inches.
3. The bedding shall be shaped to a true surface, parallel with surface of finished brick walkway, by means of template, and the bed shall be struck off until proper alignment is secured. The contractor shall coordinate his work so that the area of bedding course placed and rolled in any workday shall be scheduled so that no bedding course remains at the end of the day without the brick course placed.
4. The city may require the contractor to compact the bedding course in addition to shaping it with a template.
5. After final shaping, the bedding shall not be disturbed prior to laying the brick.
6. Preformed bituminous fiber expansion joint material shall be furnished in areas as shown on the plans and cost to be included in price for placement of brick in order to place joint sealer. Joint sealers are to be placed as per plans and specifications.
7. The brick shall be laid in successive coursed with the better face or wire-cut side upward.
8. Each and every course of brick shall be laid true and even and brought to grade by use of wooden mallets or similar tools. No course shall deviate from a straight line more than 2 inches in 30 feet. Brick laying shall take place in a continuous sequence and shall follow the completion of the bedding within 50 feet.
9. Immediately after placement of brick, brick surfaces shall be swept and inspected. Any imperfect brick as determined by the City Engineer shall be lifted out and reset.

Cutting Brick - Required cutting of bricks shall be accomplished with a mason's saw using a diamond blade or broken by brick hammer on an approved straight and even edge.

Sand Filler- Joints shall be thoroughly chocked with a clean white fine grained silica sand.

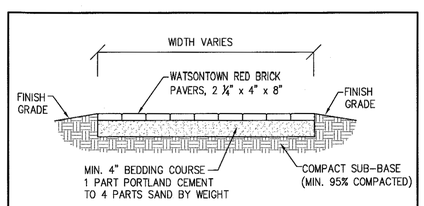
The sand filler shall be brought up flush with surface or bricks. After filling, bricks shall be swept clean and carefully watered to saturate the joint filler, care being exercised not to displace filler form the joints. Any joints to which do not remain flush with brick surfaces shall be rechocked and watered, particular attention shall be paid to small section of cut brick necessary to fit manholes, light poles, water meters, tree planters, and any other obstructions within the sidewalk area.

Clean Up- The contractor shall remove from the roadway and sidewalk all excavated material, debris, and dirt as rapidly as the completion of the repair work proceeds and in no case will it be permissible for this material to remain as an obstruction or safety hazard overnight.

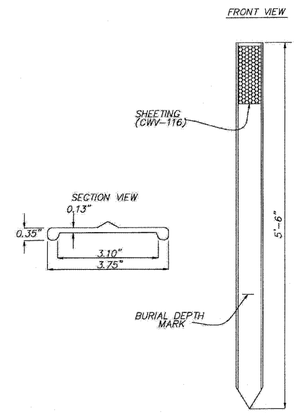
Roofing Felt- 15# roofing felt shall be placed as per plans between building and expansion material with top edge being flush with top of ½ inch expansion material and under sand-cement filler, 3 feet from building (top of expansion material).

Method of payment- The cost of placing brick walkways shall be paid for on a square foot basis under the item "Brick Walkways" and shall include excavation and removal of existing concrete sidewalk. The brick walkways shall be placed according to specification and as shown on plans.

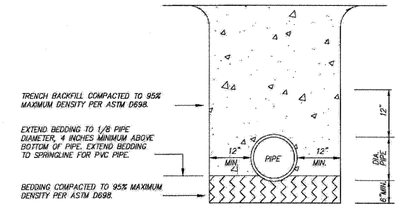
Meter Barrels- Any existing water meter barrels that may have to be adjusted to match elevation of new brick sidewalks shall be completed by the contractor and the cost shall be included in the bid price for the removal of existing concrete sidewalk and replacement with the brick sidewalks.



TYPICAL BRICK PAVERS
NO SCALE



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
PVC UTILITY MARKER (CARSONITE CUM-375 PRODUCT NO. CRM 3066/BLUE)	
AUGUST 2007	W12



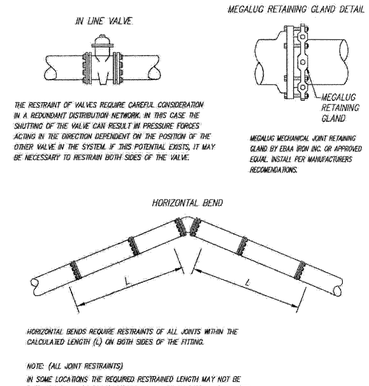
MATERIALS FOR PIPE BEDDING AND TRENCH BACKFILL SHALL BE CLASS II IN ACCORDANCE WITH ASTM D2321 AS FOLLOWS:

CLASS II COARSE SANDS AND GRAVELS WITH MAXIMUM PARTICLE SIZE OF 44MM (1.5"), INCLUDING VARIOUSLY GRADED SANDS AND GRAVELS CONTAINING SMALL PERCENTAGES OF FINES, GENERALLY GRANULAR AND NONCOHESIVE, EITHER WET OR DRY. SOIL TYPES GW, GP, SW AND SP ARE INCLUDED IN THIS CLASS AS SPECIFIED IN ASTM D2487.

BEDDING SHALL BE IMPORTED MATERIAL FROM AN APPROVED SOURCE.

TRENCH BACKFILL SHALL BE IN-SITU EXCAVATED MATERIAL. THE CONTRACTOR SHALL TAKE CAUTION TO PREVENT CONTAMINATION OF BACKILL MATERIAL.

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
TYPICAL PIPE BEDDING (PAVED AREAS AND OTHER AREAS WHEN IN-SITU MATERIAL UNSUITABLE	
AUGUST 2007	W6B



THE RESTRAINT OF VALVES REQUIRE CAREFUL CONSIDERATION IN A REDUNDANT DISTRIBUTION NETWORK. IN THIS CASE THE SHUTTING OF THE VALVE CAN RESULT IN PRESSURE FORCES ACTING IN THE DIRECTION DEPENDENT ON THE POSITION OF THE OTHER VALVE IN THE SYSTEM. IF THIS POTENTIAL EXISTS, IT MAY BE NECESSARY TO RESTRAIN BOTH SIDES OF THE VALVE.

MEGALUG MECHANICAL JOINT RETAINING GLAND BY EBAA IRON INC. OR APPROVED EQUAL. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

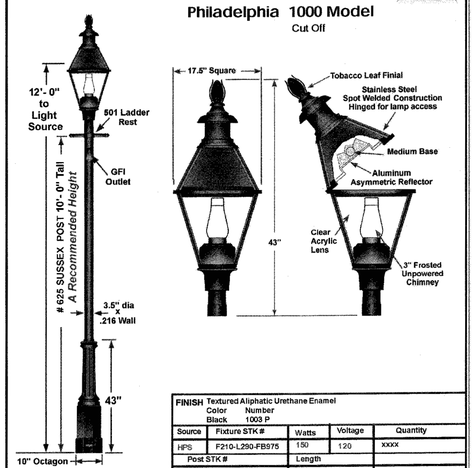
HORIZONTAL BENDS REQUIRE RESTRAINTS OF ALL JOINTS WITHIN THE CALCULATED LENGTH (L) ON BOTH SIDES OF THE FITTING.

NOTE: (ALL JOINT RESTRAINTS)

IN SOME LOCATIONS THE REQUIRED RESTRAINED LENGTH MAY NOT BE MET. AT THESE LOCATIONS THE USE OF A THRUST BLOCK WILL BE USED ALONG WITH THE RESTRAINED LENGTH OBTAINABLE.

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
JOINT RESTRAINT (IN LINE VALVE AND HORIZONTAL BEND)	
AUGUST 2007	W11

Cut Off Style Lighting — Design # H-F210- P625 Fredericksburg

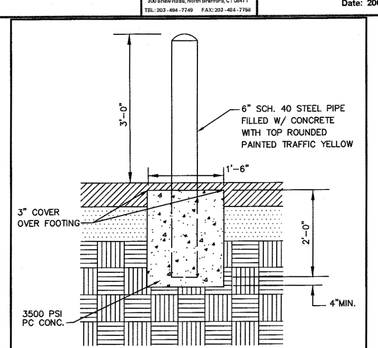


FINISH	Textured Aliphatic Urethane Enamel		
Color Black	Number 1003 P		
Source	Fixture STK #	Watts	Voltage	Quantity
HPS	F210-L250-FB975	150	120	xxxx
Post STK #		Length		
P625-W1114-110		10 Ft		xxxx

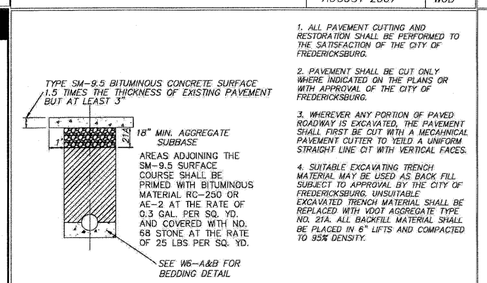
PENN GLOBE — THE PENNSYLVANIA GLOBE GASLIGHT CO. 300 Shaw Road, North Branford, CT 06471 TEL: 203-484-7749 FAX: 203-484-7798

Project: City of Fredericksburg
Location: Fredericksburg, VA

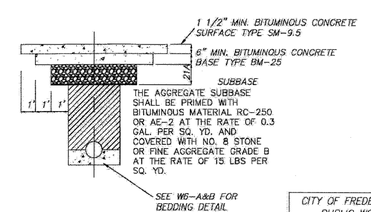
Date: 2007



PIPE BOLLARD
N.T.S.



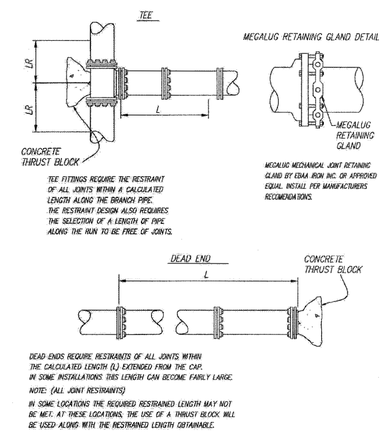
BITUMINOUS SURFACE TREATED PAVEMENT RESTORATION



BITUMINOUS CONCRETE PAVEMENT RESTORATION

1. ALL PAVEMENT CUTTING AND RESTORATION SHALL BE PERFORMED TO THE SATISFACTION OF THE CITY OF FREDERICKSBURG.
2. PAVEMENT SHALL BE CUT ONLY WHERE INDICATED ON THE PLANS OR WITH APPROVAL OF THE CITY OF FREDERICKSBURG.
3. WHEREVER ANY PORTION OF PAVED ROADWAY IS EXCAVATED, THE PAVEMENT SHALL FIRST BE CUT WITH A MECAHNICAL PAVEMENT CUTTER TO YEILD A UNIFORM STRAIGHT LINE CUT WITH VERTICAL FACES.
4. SUITABLE EXCAVATING TRENCH MATERIAL MAY BE USED AS BACK FILL SUBJECT TO APPROVAL BY THE CITY OF FREDERICKSBURG. UNSUITABLE EXCAVATED TRENCH MATERIAL SHALL BE REPLACED WITH VDOT AGGREGATE TYPE NO. 21A. ALL BACKFILL MATERIAL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% DENSITY.

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
PAVEMENT RESTORATION	
AUGUST 2007	W9



TEE FITTINGS REQUIRE THE RESTRAINT OF ALL JOINTS WITHIN A CALCULATED LENGTH ALONG THE BRANCH PIPE. THE RESTRAINT DESIGN ALSO REQUIRES THE SELECTION OF A LENGTH OF PIPE ALONG THE RUN TO BE FREE OF JOINTS.

MEGALUG MECHANICAL JOINT RETAINING GLAND BY EBAA IRON INC. OR APPROVED EQUAL. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

DEAD ENDS REQUIRE RESTRAINTS OF ALL JOINTS WITHIN THE CALCULATED LENGTH (L) EXTENDED FROM THE CAP. IN SOME INSTALLATIONS THIS LENGTH CAN BECOME FAIRLY LARGE.

NOTE: (ALL JOINT RESTRAINTS)

IN SOME LOCATIONS THE REQUIRED RESTRAINED LENGTH MAY NOT BE MET. AT THESE LOCATIONS THE USE OF A THRUST BLOCK WILL BE USED ALONG WITH THE RESTRAINED LENGTH OBTAINABLE.

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
JOINT RESTRAINT (IN LINE VALVE AND HORIZONTAL BEND)	
AUGUST 2007	W11A

Bowman CONSULTING
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Wack GENERAL CONTRACTOR

MISCELLANEOUS DETAILS
MAJOR SITE PLAN
LIBERTY PLACE
CITY OF FREDERICKSBURG, VIRGINIA
WARD 2: PRECINCT 201

SPMAJ 2015–09
COUNTY PROJECT NUMBER

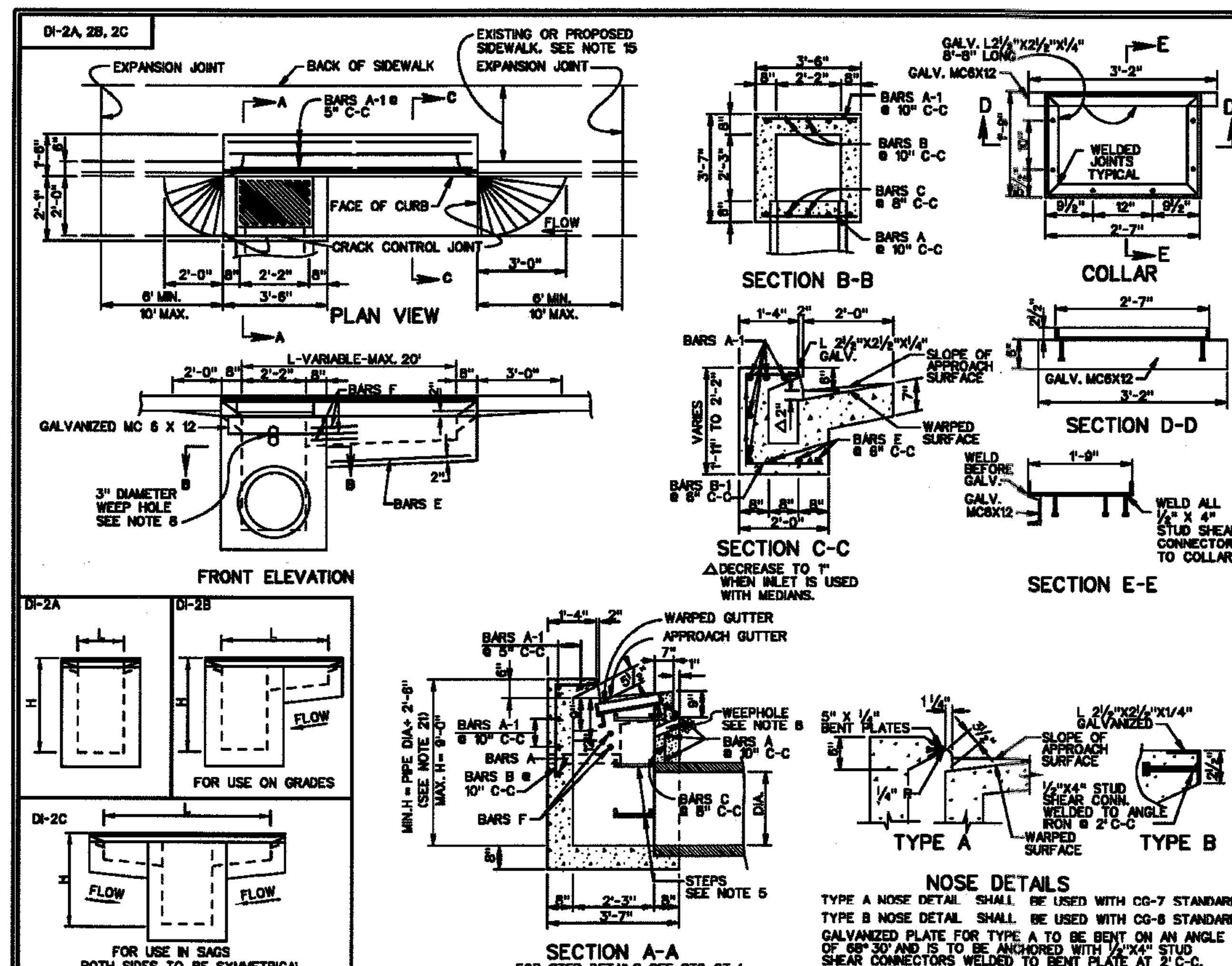
COMMONWEALTH OF VIRGINIA — JUSTIN R. TROIDL — No. 040214 — 02/05/16 — PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION	
JT/WD DESIGN	WED DRAWN	JRT CHKD
SCALE	H: N/A V: N/A	
JOB No. 5425–01–002		
DATE : OCTBOER 2014		
FILE No. 5425–D–CP–001		
SHEET 20 OF 21		

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\019-021A-5425-D-CP-001-DET.dwg

DI-2A, 2B, 2C



VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 2 — REVISION DATE — 104.03

STANDARD CURB DROP INLET

12" - 24" PIPE: MAXIMUM DEPTH (H) = 9'

VIRGINIA DEPARTMENT OF TRANSPORTATION

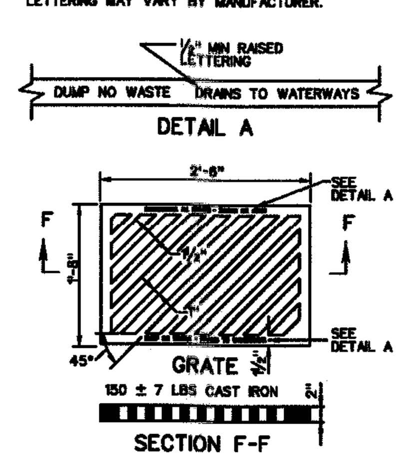
SPECIFICATION REFERENCE: 233, 302

TABLE OF QUANTITIES — DI-2A, 2B, 2C

TYPE	L	CONCRETE	BARS A		BARS A-1		BARS B		BARS B-1		BARS C		BARS E		BARS F		WEIGHT
	Ft.	Cu. Yds.	No.	Lin. Ft.*	No.	Lin. Ft.*	No.	Lin. Ft.*	No.	Lin. Ft.*	No.	Lin. Ft.*	No.	Lin. Ft.*	No.	Lin. Ft.*	Lbs.
DI-2A	2'-2"	1.71	4	3'-2"	5	3'-2"	4	3'-8"	-	-	5	2'-0"	-	-	-	1'-6"	55
DI-2B	4'	1.95	4	3'-2"	5	5'-0"	4	3'-8"	3	4'-3" to 4'-6"	5	2'-0"	3	2'-0"	3	1'-6"	84
	6'	2.23	4	3'-2"	5	7'-0"	4	3'-8"	7	4'-3" to 4'-6"	5	2'-0"	3	4'-0"	3	1'-6"	119
	8'	2.51	4	3'-2"	5	9'-0"	4	3'-8"	11	4'-3" to 4'-6"	5	2'-0"	3	6'-0"	3	1'-6"	154
	10'	2.79	4	3'-2"	5	11'-0"	4	3'-6"	15	4'-3" to 4'-6"	5	2'-0"	3	8'-0"	3	1'-6"	189
	12'	3.05	4	3'-2"	5	13'-0"	4	3'-6"	19	4'-3" to 4'-6"	5	2'-0"	3	10'-0"	3	1'-6"	224
	14'	3.34	4	3'-2"	5	15'-0"	4	3'-8"	23	4'-3" to 4'-6"	5	2'-0"	3	12'-0"	3	1'-6"	259
	16'	3.61	4	3'-2"	5	17'-0"	4	3'-8"	27	4'-3" to 4'-6"	5	2'-0"	3	14'-0"	3	1'-6"	294
	18'	3.89	4	3'-2"	5	19'-0"	4	3'-6"	31	4'-3" to 4'-6"	5	2'-0"	3	16'-0"	3	1'-6"	329
	20'	4.17	4	3'-2"	5	21'-0"	4	3'-6"	35	4'-3" to 4'-6"	5	2'-0"	3	18'-0"	3	1'-6"	364
DI-2C	6'	2.24	4	3'-2"	5	7'-0"	4	3'-6"	6	4'-3" to 4'-6"	5	2'-0"	6	2'-1"	6	1'-6"	115
	8'	2.55	4	3'-2"	5	9'-0"	4	3'-6"	10	4'-3" to 4'-6"	5	2'-0"	6	3'-1"	6	1'-6"	150
	10'	2.82	4	3'-2"	5	11'-0"	4	3'-6"	14	4'-3" to 4'-6"	5	2'-0"	6	4'-1"	6	1'-6"	185
	12'	3.09	4	3'-2"	5	13'-0"	4	3'-6"	18	4'-3" to 4'-6"	5	2'-0"	6	5'-1"	6	1'-6"	220
	14'	3.37	4	3'-2"	5	15'-0"	4	3'-6"	22	4'-3" to 4'-6"	5	2'-0"	6	6'-1"	6	1'-6"	255
	16'	3.65	4	3'-2"	5	17'-0"	4	3'-6"	26	4'-3" to 4'-6"	5	2'-0"	6	7'-1"	6	1'-6"	290
	18'	3.93	4	3'-2"	5	19'-0"	4	3'-6"	30	4'-3" to 4'-6"	5	2'-0"	6	8'-1"	6	1'-6"	325
	20'	4.20	4	3'-2"	5	21'-0"	4	3'-6"	34	4'-3" to 4'-6"	5	2'-0"	6	9'-1"	6	1'-6"	360

NOTES

1. DEPTH OF INLET (H) TO BE SHOWN ON PLANS.
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
5. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
6. THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
7. #4 X 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT.
8. 3" DIAMETER WEEP HOLE TO BE LOCATED TO DRAIN SUBBASE MATERIAL. WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH ¼" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2".
10. ALL REINFORCING STEEL TO BE CUT CLEAR OF ALL OPENINGS BY 2".
11. CAST-IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
12. LENGTH OF SLOT (L) WILL, IN EVERY CASE, BE SHOWN ON PLANS.
13. THIS STANDARD IS INTENDED FOR USE IN CURB AND GUTTER SITUATIONS ONLY.
14. STANDARD INLETS MAY BE CONSTRUCTED WITH CONCRETE BLOCKS IN ACCORDANCE WITH THE DETAILS SHOWN ON STANDARD DRAWING DI-MB.
15. THIS AREA MAY BE EARTHEN, IN WHICH CASE THE EXPANSION JOINTS WILL APPLY ONLY TO CURB AND GUTTER.
16. CONCRETE QUANTITIES SHOWN ARE FOR DEPTH (H) OF 5'-2" WITHOUT PIPES. THE AMOUNT DISPLACED BY PIPES MUST BE DEDUCTED TO OBTAIN TRU QUANTITIES. FOR INLETS OF DIFFERENT DEPTHS ADD OR SUBTRACT 0.28 CUBIC YARDS OF CONCRETE FOR EACH FOOT.
17. LENGTH OF ANGLE IRON AS SHOWN ON SHEET 1 OF 2 IS TO BE L 16" AT 4.10 LBS./FT.
18. * DENOTES LENGTH OF ONE (1) BAR.
19. ALL REINFORCING BARS TO BE #5.
20. GRATE TO BE INSTALLED SO SLOTS WILL DIRECT WATER TOWARD THE INLET THROAT.
21. MINIMUM HEIGHT = PIPE DIA + 2'-6" WHEN PIPES ARE LOCATED UNDER EXTENDED SLOT OF INLET.
22. DUMP NO WASTE DRAINS TO WATERWAYS LETTERING IS REQUIRED ON ALL DI-2 GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.



SPECIFICATION REFERENCE: 233, 302

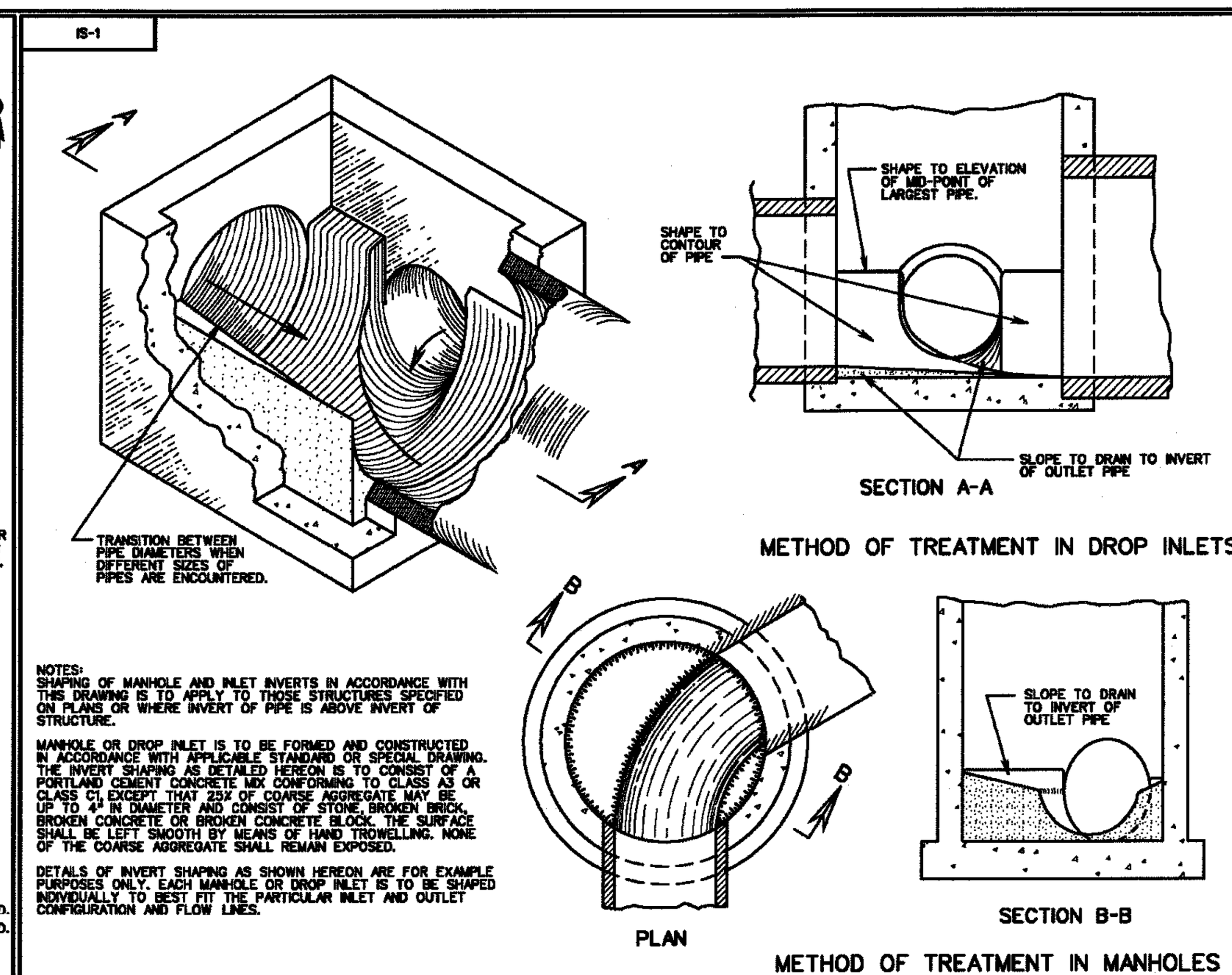
STANDARD CURB DROP INLET

12" - 24" PIPE: MAXIMUM DEPTH (H)=9'

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS — REVISION DATE — SHEET 2 OF 2 — 104.04

IS-1



NOTES:
SHAPING OF MANHOLE AND INLET INVERTS IN ACCORDANCE WITH THIS DRAWING IS TO APPLY TO THOSE STRUCTURES SPECIFIED ON PLANS OR WHERE INVERT OF PIPE IS ABOVE INVERT OF STRUCTURE.

MANHOLE OR DROP INLET IS TO BE FORMED AND CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STANDARD OR SPECIAL DRAWING. THE INVERT SHAPING AS DETAILED HEREON IS TO CONSIST OF A PORTLAND CEMENT CONCRETE MIX CONFORMING TO CLASS A3 OR CLASS C1, EXCEPT THAT 25% OF COARSE AGGREGATE MAY BE UP TO 4" IN DIAMETER AND CONSIST OF STONE, BROKEN BRICK, BROKEN CONCRETE OR BROKEN CONCRETE BLOCK. THE SURFACE SHALL BE LEFT SMOOTH BY MEANS OF HAND TROWELLING. NONE OF THE COARSE AGGREGATE SHALL REMAIN EXPOSED.

DETAILS OF INVERT SHAPING AS SHOWN HEREON ARE FOR EXAMPLE PURPOSES ONLY. EACH MANHOLE OR DROP INLET IS TO BE SHAPED INDIVIDUALLY TO BEST FIT THE PARTICULAR INLET AND OUTLET CONFIGURATION AND FLOW LINES.

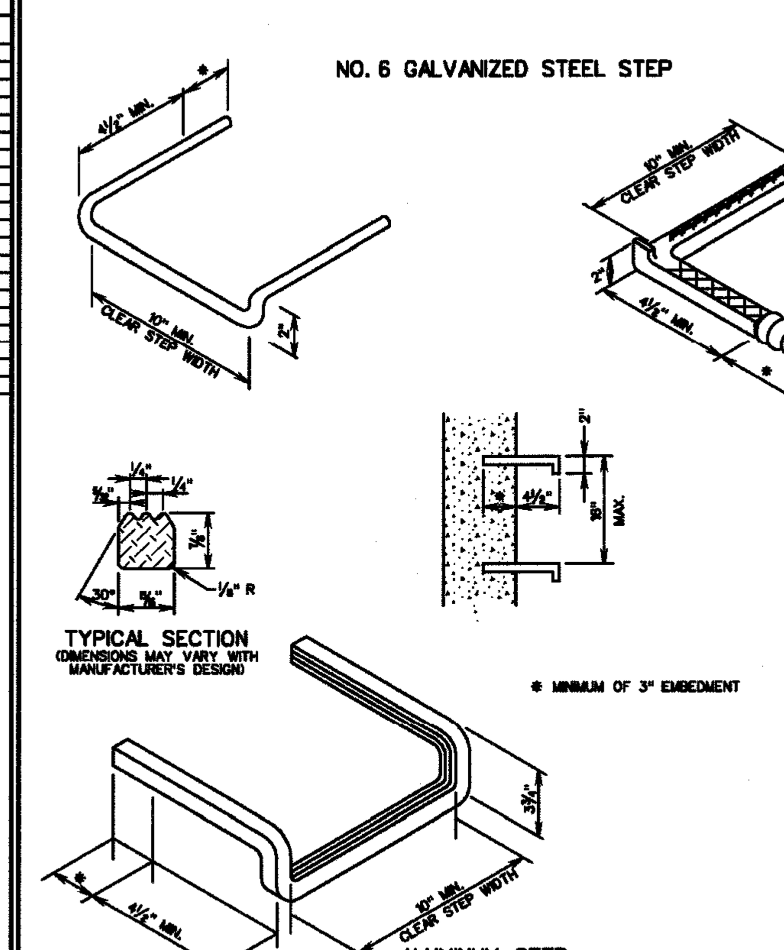
VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 1 — REVISION DATE — 106.08

STANDARD METHOD OF SHAPING MANHOLE & INLET INVERTS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 302

ST-1



NOTES:
STEPS WILL BE REQUIRED IN ALL STRUCTURES WITH A DEPTH OF 4'-0" OR GREATER UNLESS OTHERWISE NOTED ON THE PLANS.

ALL STEPS SHALL PROTRUDE 4½" FROM INSIDE FACE OF STRUCTURE WALL.

MAXIMUM STEP SPACING TO BE 16" C-C.

STEPS SHALL WITHSTAND A MINIMUM FORCE OF 300 POUNDS WHEN EXTENDED 4½" FROM THE FACE OF THE SUPPORT.

STEPS ARE TO BE VERTICALLY ALIGNED AND UNIFORMALY SPACED FOR THE ENTIRE DEPTH OF ANY STRUCTURE.

IN PRECAST UNITS STEPS MAY BE CAST IN PLACE, MORTARED INTO HOLES PROVIDED BY THE FABRICATOR, OR DRIVEN.

STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THEY MEET THE MINIMUM REQUIREMENTS SHOWN HEREON AND THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS AND CERTIFIED TEST REPORTS OF THE PROPOSED SUBSTITUTE AND HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.

ALL STEPS INSTALLED SHALL BE PROVIDED WITH SLIP-RESISTANT SURFACES SUCH AS BUT NOT LIMITED TO, CORRUGATED KNURLED, OR DIMPLED SURFACES.

ALUMINUM STEPS SHALL BE FABRICATED IN ACCORDANCE WITH ASTM B221, ALLOY 6005-T5.
THAT PORTION OF THE STEP ENCASED IN MASONRY SHALL BE UNIFORMLY COATED WITH A BITUMINOUS, SOLVENT TYPE, ASBESTOS FILLED ALUMINUM PIGMENTED COATING CONFORMING TO FEDERAL SPECIFICATION TC-C-00498A.

STANDARD STEP

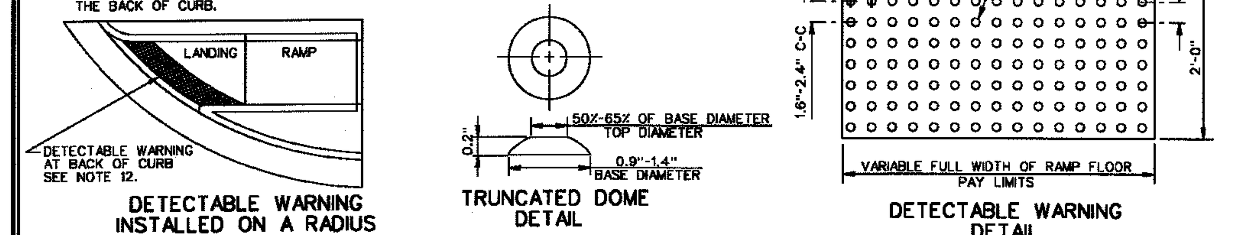
VIRGINIA DEPARTMENT OF TRANSPORTATION

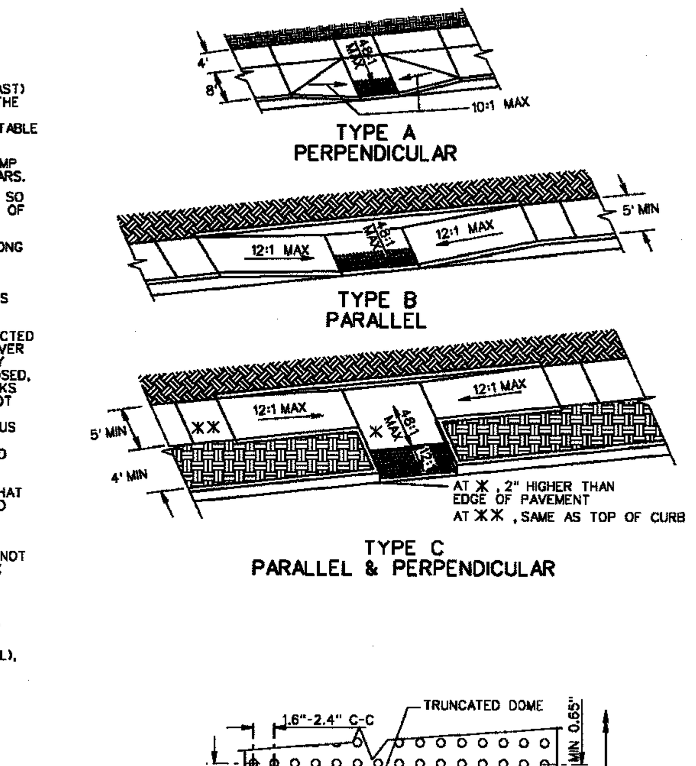
VDOT ROAD AND BRIDGE STANDARDS — REVISION DATE — SHEET 1 OF 1 — 106.09

CG-12

GENERAL NOTES:

1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2 FOOT IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1½".
6. CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.
7. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.
8. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, REFER TO STANDARD CG-13, COMMERCIAL ENTRANCE (HEAVY TRUCK TRAFFIC) FOR CONCRETE DEPTH.
10. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH
11. WHEN ONLY ONE CURB RAMP IS PROVIDED FOR TWO CROSSINGS (DIAGONAL), A 4' x 4' LANDING AREA SHALL BE PROVIDED TO MANEUVER A WHEELCHAIR INTO THE CROSSWALK WITHOUT GOING INTO THE TRAVELWAY. THIS 4' x 4' LANDING AREA MAY INCLUDE THE GUTTER PAN.
12. ALL CASES WHERE CURB RAMPS INTERSECT A RADIAL SECTION OF CURB AT ENTRANCES OR STREET CONNECTIONS THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD -MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.





VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 5 — REVISION DATE 7/11 — 203.05

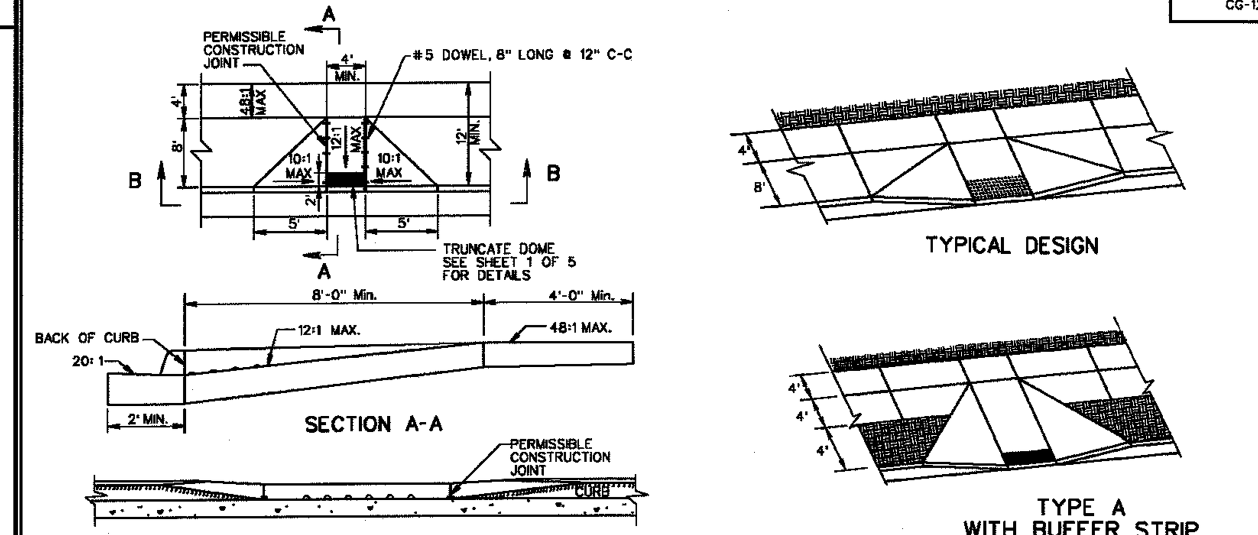
CG-12 DETECTABLE WARNING SURFACE

(GENERAL NOTES)

VIRGINIA DEPARTMENT OF TRANSPORTATION

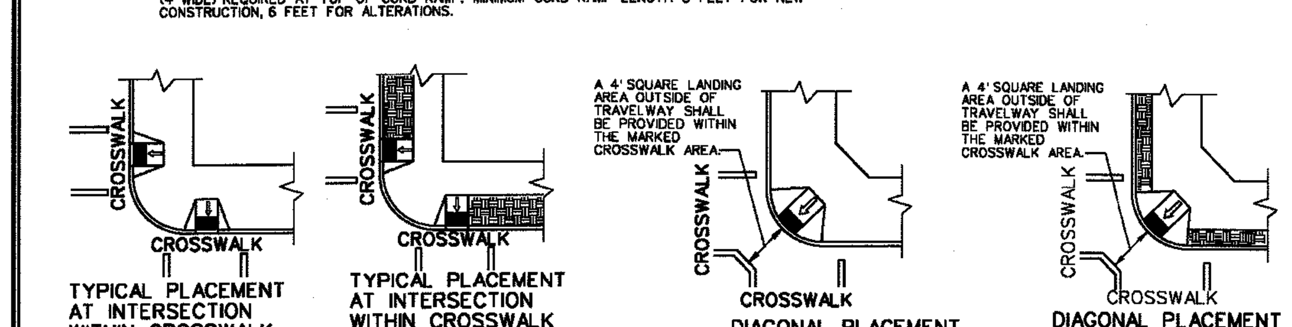
SPECIFICATION REFERENCE: 105, 502

CG-12



NOTES:
FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK. LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION, 6 FEET FOR ALTERATIONS.



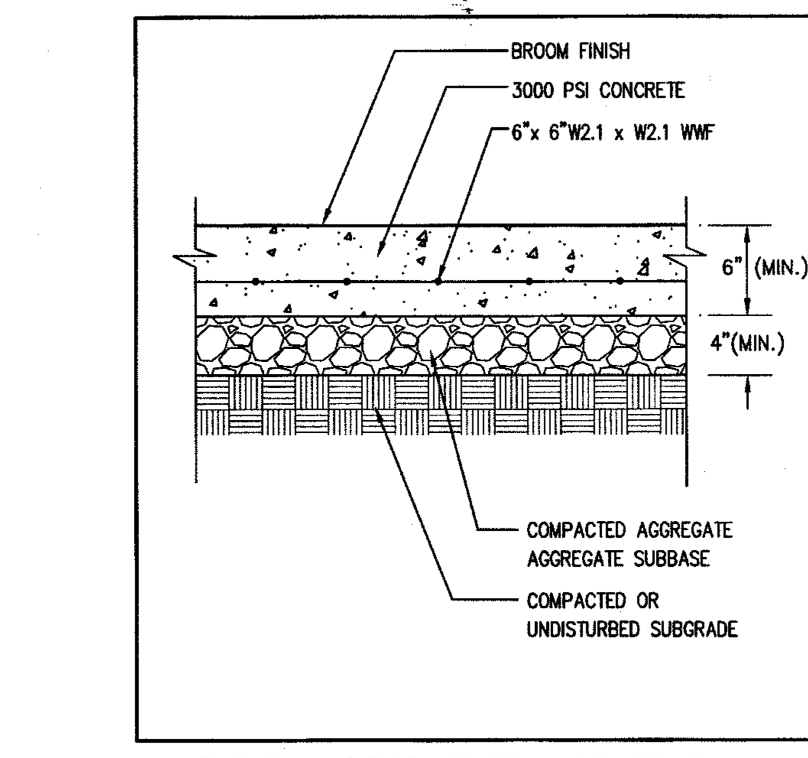
SPECIFICATION REFERENCE: 105, 502

CG-12 DETECTABLE WARNING SURFACE

TYPE A (PERPENDICULAR) APPLICATION

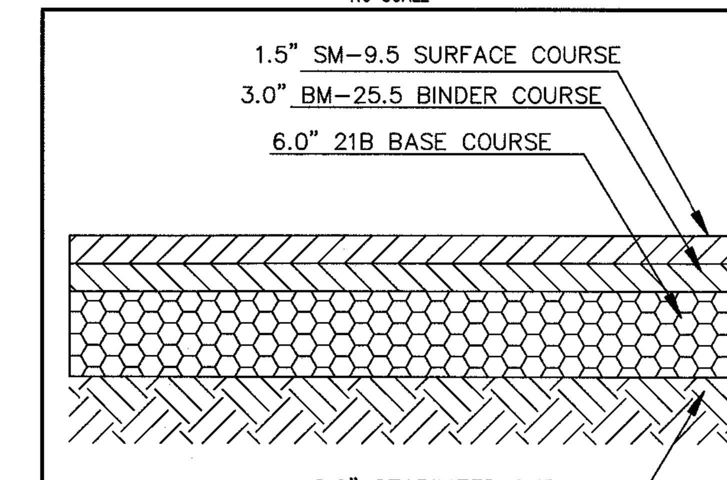
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS — REVISION DATE 7/11 — SHEET 2 OF 5 — 203.06



TYPICAL CONC. ENTRANCE SECTION

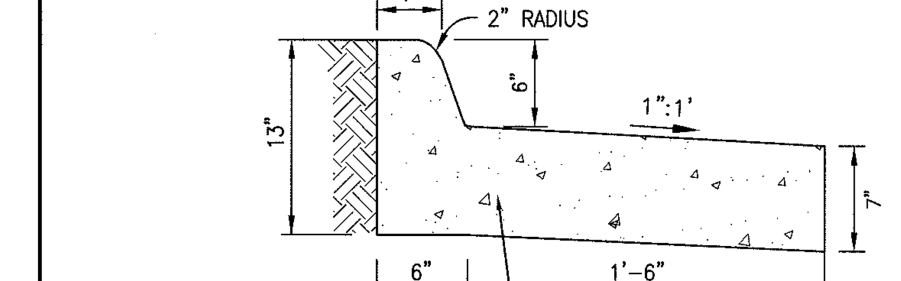
NO SCALE



COMPACTED SUBGRADE TO 95% DRY WEIGHT DENSITY ASTM D-698

TYPICAL ASPHALT STANDARD DUTY PAVEMENT

NOT TO SCALE



AGGREGATE THICKNESS UNDER THE CURB AND GUTTER SHALL BE IN EXCESS OF THE DEPTH OF GUTTER FACE OR MINIMUM OF FOUR INCHES (4"), WHICHEVER IS GREATER.

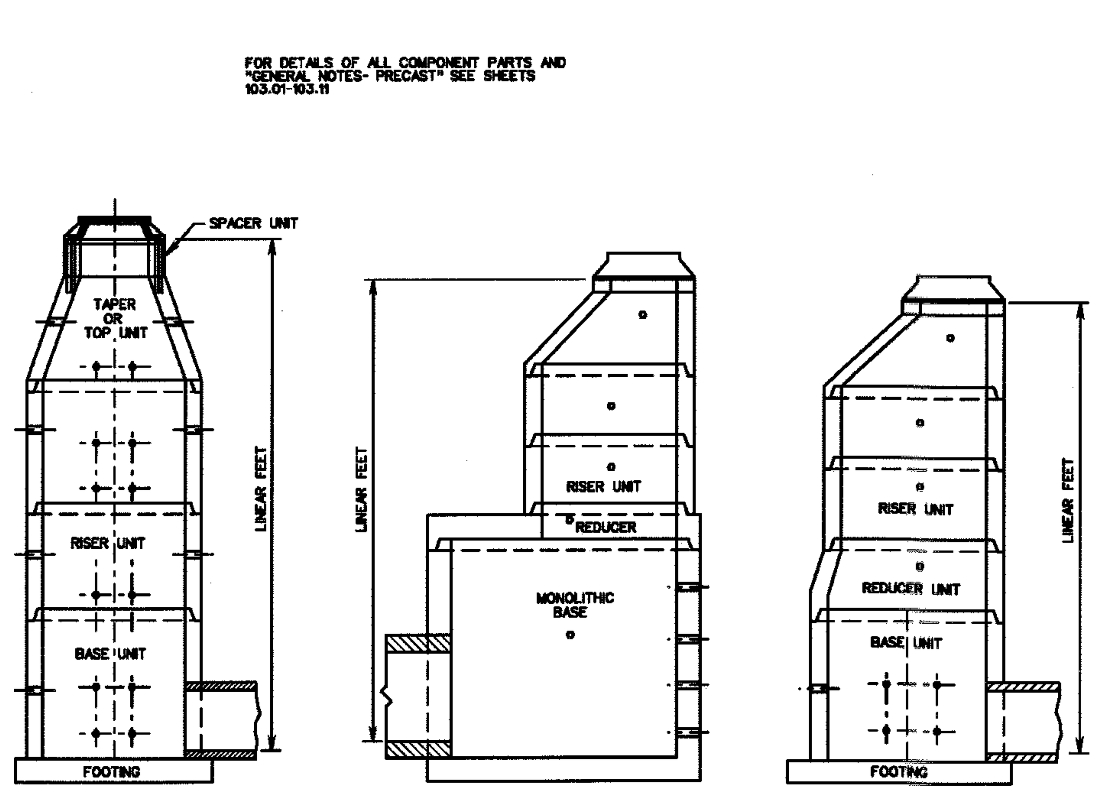
COMBINATION 6" REVERSE CURB AND GUTTER (CG-6)

NOT TO SCALE

SHOWN AS SHADED ON SITE PLAN

MH-2

FOR DETAILS OF ALL COMPONENT PARTS AND "GENERAL NOTES- PRECAST" SEE SHEETS 103.01-103.11



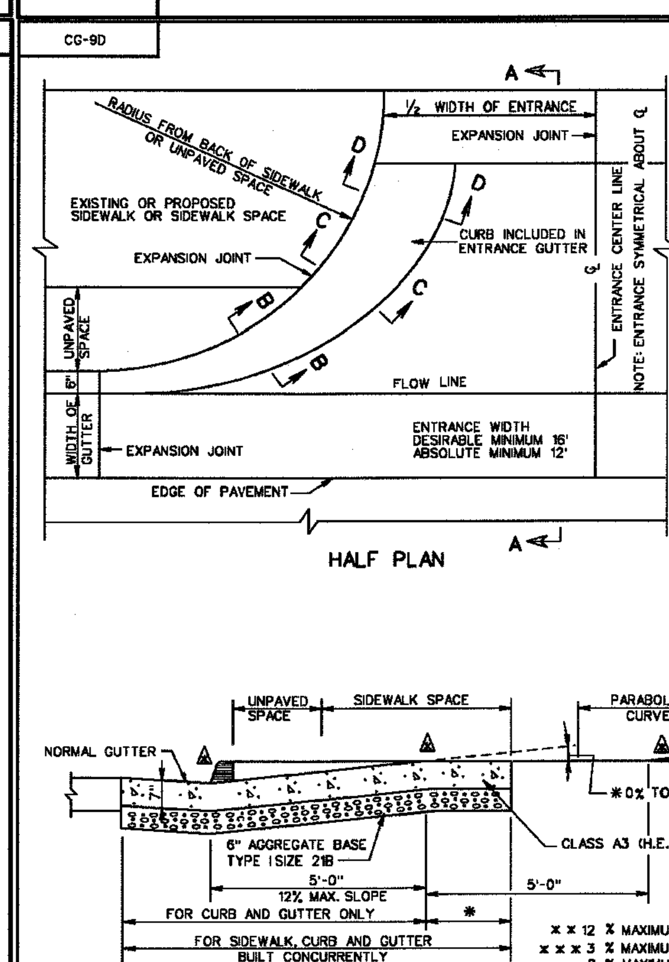
SPECIFICATION REFERENCE: 105, 302

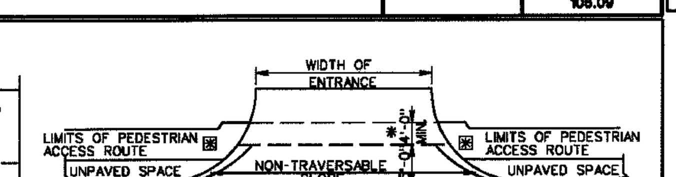
PRECAST MANHOLE

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS — REVISION DATE — SHEET 1 OF 1 — 106.07

CG-9D





PEDESTRIAN ACCESS ROUTE DETAIL

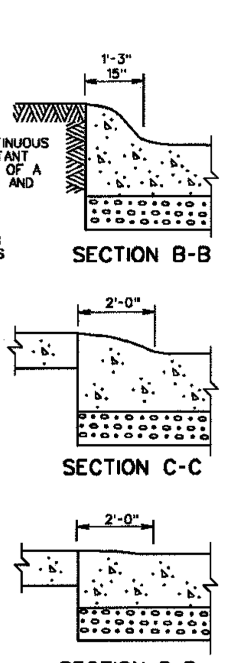
ADDITIONAL RIGHT-OF-WAY IS REQUIRED IF THE LIMITS OF PEDESTRIAN ACCESS ROUTE ▩ EXTEND BEYOND EXISTING OR PROPOSED VDOT RIGHT-OF WAY.

▩ PEDESTRIAN ACCESS ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.

* IF PEDESTRIAN ACCESS ROUTES ▩ ARE BEING PROVIDED, A MINIMUM 4' TRAVERSABLE WIDTH IS REQUIRED WITH A MAX. 2% CROSS SLOPE.

WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.

** 12 % MAXIMUM INCREASE IN SLOPE AT MINIMUM 10' INTERVALS
*** 3 % MAXIMUM DECREASE IN SLOPE FOR FIRST 10' INTERVAL AND 8 % MAXIMUM DECREASE FOR SUCCEEDING MINIMUM 10' INTERVALS

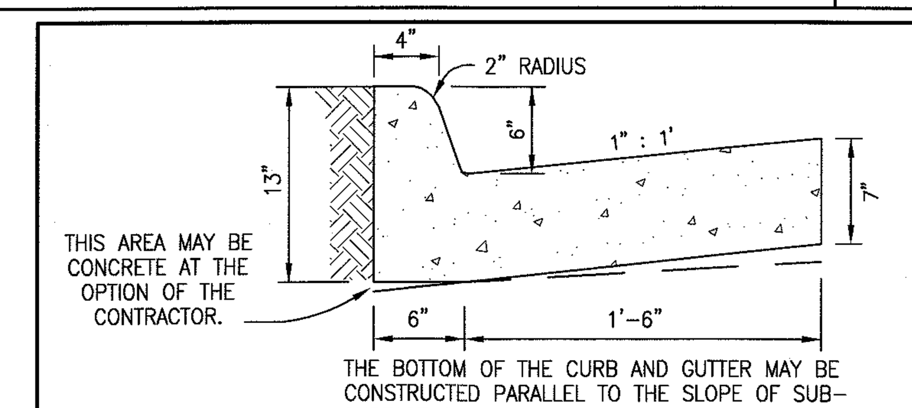


VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 1 — REVISION DATE 01/13 — 203.03

STANDARD ENTRANCE GUTTER

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 502



THIS AREA MAY BE CONCRETE AT THE OPTION OF THE CONTRACTOR.

THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUB-SURFACE COURSES PROVIDED A MIN. DEPTH OF 7" IS MAINTAINED.

THIS CURB IS TO BE USED WHEN DESIGN SPEED IS 40 MPH OR LESS ON RURAL HIGHWAYS AND 45 MPH OR LESS IN DEVELOPED URBAN & SUBURBAN AREAS.

CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.

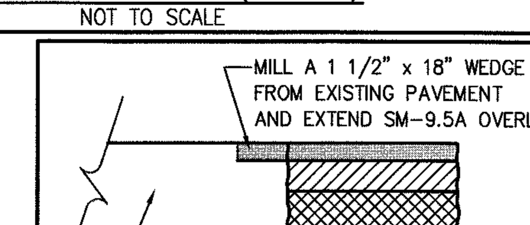
DETAIL PER VDOT ROAD AND BRIDGE STANDARDS STD. No. 201.03

NOTES :
COMB. CURB & GUTTER HAVING A RADIUS OF 300' OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.

THIS ITEM MAY BE PRECAST OR CAST IN PLACE.

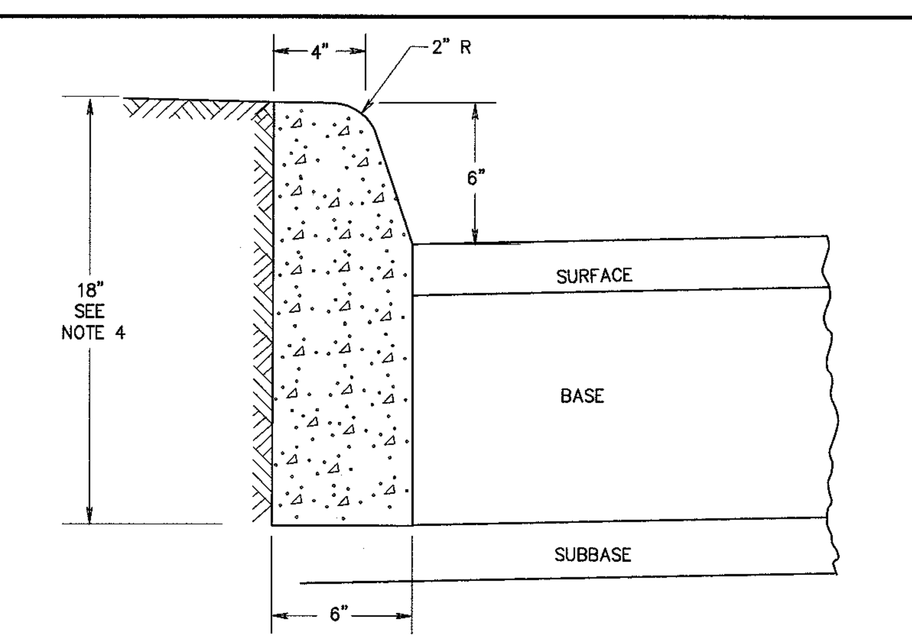
COMBINATION 6" CURB AND GUTTER (CG-6)

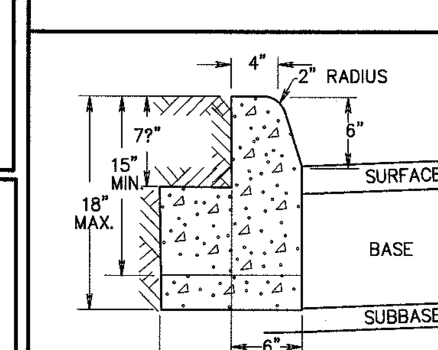
NOT TO SCALE



PAVEMENT WEDGING DETAIL

NOT TO SALE





ACCEPTABLE ALTERNATIVE IF CURB IS EXTRUDED

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET. OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB.
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (15" DEPTH) OR INCREASED AS MUCH AS 3" (21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE THE DEPTH IS TO BE 18" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
5. THIS CURB IS TO BE USED WHEN DESIGN SPEED IS 40 MPH OR LESS ON RURAL HIGHWAYS AND 45 MPH OR LESS IN DEVELOPED URBAN AND SUBURBAN AREAS. IF THESE DESIGN SPEEDS ARE EXCEEDED STANDARD CG-3 IS REQUIRED.

STANDARD 6" CURB

NOT TO SCALE

Bowman CONSULTING

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Wack GENERAL CONTRACTOR

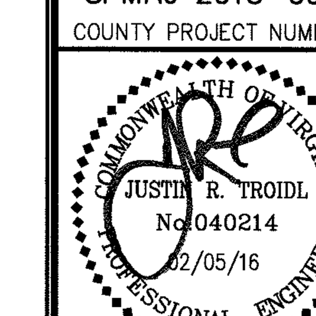
MISCELLANEOUS DETAILS
MAJOR SITE PLAN

LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2015-09
COUNTY PROJECT NUMBER

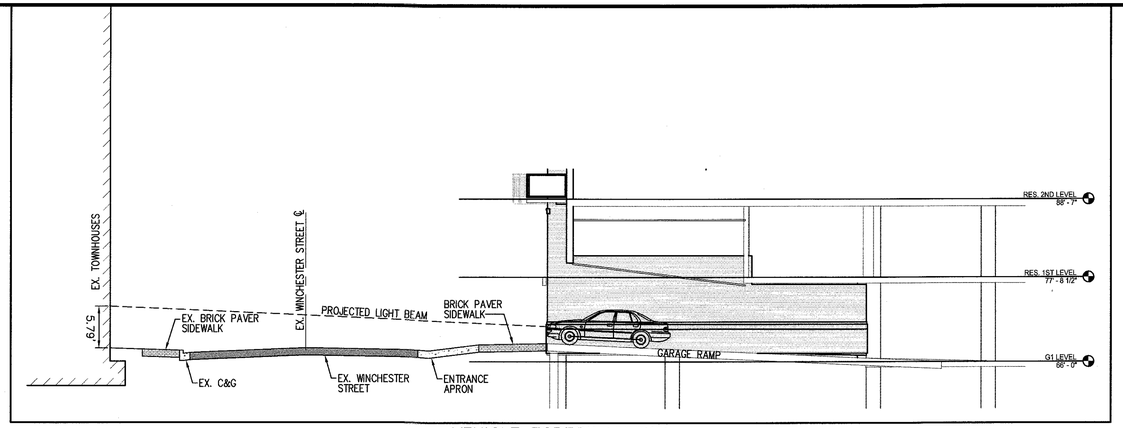


PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION	
JT/WD	WED	JRT
DESIGN	DRAWN	CHKD
SCALE	H: N/A V: N/A	

JOB No. 5425-01-002
DATE : OCTBOER 2014
FILE No. 5425-D-CP-001

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\019-021A-5425-D-CP-001-DET.dwg

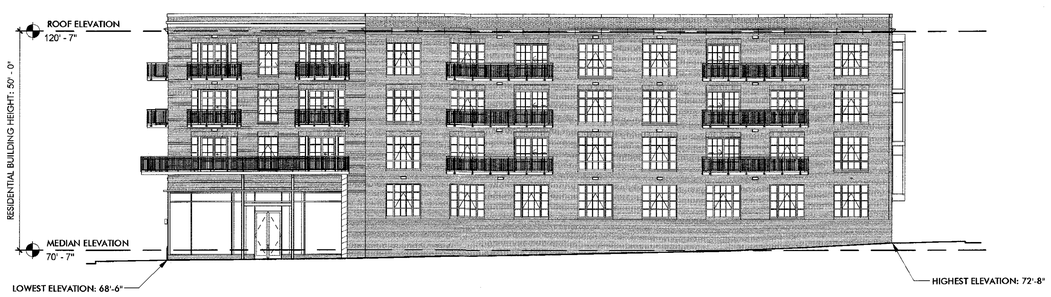


VEHICLE EGRESS EXHIBIT

SCALE: 1"=10'

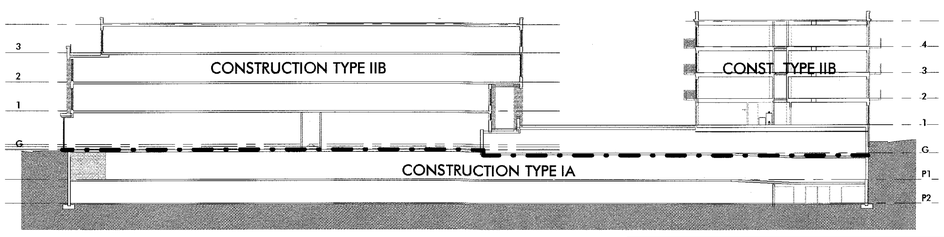
OFFICE BUILDING HEIGHT EXHIBIT

NOT TO SCALE



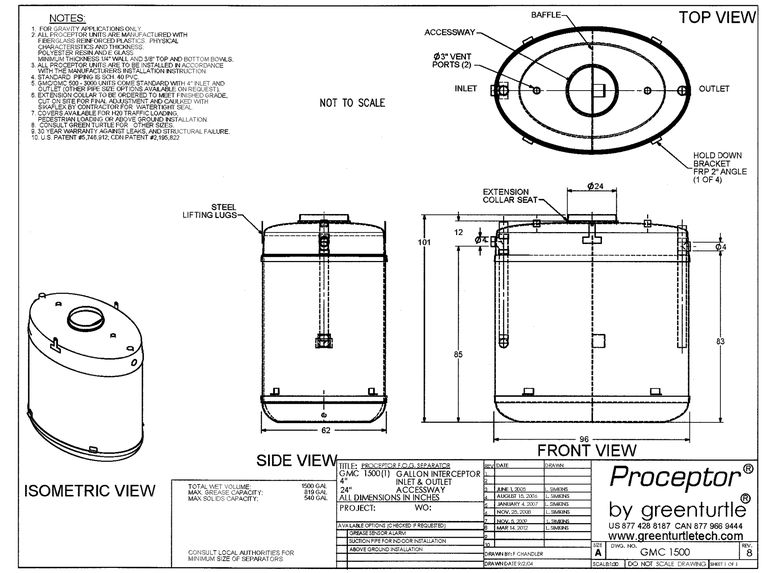
RESIDENTIAL BUILDING HEIGHT EXHIBIT

NOT TO SCALE



PODIUM EXHIBIT

NOT TO SCALE



NOTES:

1. FOR GRAVITY APPLICATIONS ONLY.
2. ALL PROCEPTOR UNITS ARE MANUFACTURED WITH FIBERGLASS REINFORCED PLASTICS. PHYSICAL PROPERTIES OF FIBERGLASS: POLYESTER RESIN AND E GLASS. MINIMUM THICKNESS 1/4" WALL AND 3/8" TOP AND BOTTOM BOWLS.
3. ALL PROCEPTOR UNITS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTION.
4. STANDARD PIPING IS SCH. 40 PVC.
5. GMC/GMC 500 - 3000 UNITS COME STANDARD WITH 4" INLET AND OUTLET (01459 AND 01460). SIZE OPTIONS AVAILABLE ON REQUEST.
6. EXTENSION COLLAR MAY BE ADJUSTED TO MEET FINISHED GRADE. ADJUSTMENT TO BE FINAL ADJUSTMENT AND SEALED WITH SIKAFLEX BY CONTRACTOR FOR WATERTIGHT SEAL.
7. COVERS AVAILABLE FOR H20 TRAFFIC LOADING, PEDESTRIAN LOADING OR ABOVE GROUND INSTALLATION.
8. CONSULT GREEN TURTLE FOR OTHER SIZES.
9. 30 YEAR WARRANTY AGAINST LEAKS AND STRUCTURAL FAILURE.
10. U.S. PATENT #5,746,912; CDN PATENT #2,195,822

TOTAL WET VOLUME:	1500 GAL
MAX. GREASE CAPACITY:	819 GAL
MAX. SOLIDS CAPACITY:	540 GAL

CONSULT LOCAL AUTHORITIES FOR MINIMUM SIZE OF SEPARATORS

TITLE: PROCEPTOR F.O.G. SEPARATOR
GMC 1500(1) GALLON INTERCEPTOR
4" INLET & OUTLET
24" ACCESSWAY
ALL DIMENSIONS IN INCHES

PROJECT: WO:

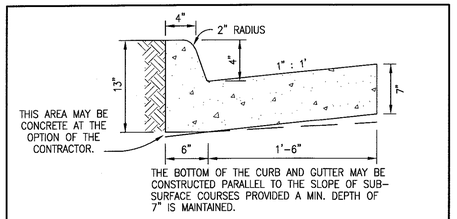
AVAILABLE OPTIONS (CHECKED IF REQUIRED)
- GREASE SENSOR ALARM
- SUCTION PIPE FOR INDOOR INSTALLATION
- ABOVE GROUND INSTALLATION

REV	DATE	DRAWN
0		
1		
2		
3	JUNE 1, 2000	L. SIMMONS
4	AUGUST 10, 2000	L. SIMMONS
5	JANUARY 4, 2007	T. SIMMONS
6	NOV. 26, 2008	L. SIMMONS
7	NOV. 8, 2009	L. SIMMONS
8	MAR 14, 2012	L. SIMMONS
9		
10		

DRAWN BY: F. CHANDLER
DRAWN DATE: 9/2/04

Proceptor® by greenturtle®
US 877 428 8187 CAN 877 966 9444
www.greenturtletech.com

SIZE A | DWG. NO. GMC 1500 | REV. 8
SCALE: 0.125 | DO NOT SCALE DRAWING | SHEET 1 OF 1



THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUB-SURFACE COURSES PROVIDED A MIN. DEPTH OF 7" IS MAINTAINED.

THIS CURB IS TO BE USED WHEN DESIGN SPEED IS 40 MPH OR LESS ON RURAL HIGHWAYS AND 45 MPH OR LESS IN DEVELOPED URBAN & SUBURBAN AREAS.

CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.

DETAIL PER VDOT ROAD AND BRIDGE STANDARDS STD. No. 201.03

NOTES :
COMB. CURB & GUTTER HAVING A RADIUS OF 300' OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.

THIS ITEM MAY BE PRECAST OR CAST IN PLACE.

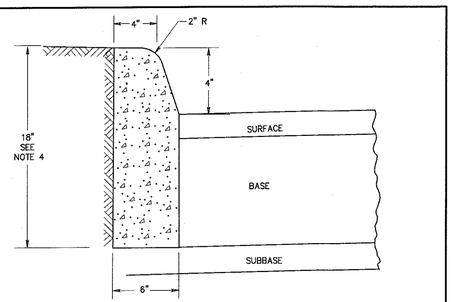
COMBINATION 4" CURB AND GUTTER

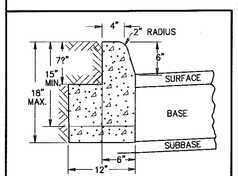
NOT TO SCALE

SIGN LEGEND

	STOP SIGN	PARKING RESTRICTION SIGN	LOADING ZONE SIGN
SIGN	STOP	NO PARKING X:XX AM TO X:XX PM	LOADING ZONE
STD. NUMBER	R1-1	R7-2a	R8-3gP
SIZE	30" X 30"	12" X 18"	12" X 9"

** NOT TO SCALE **





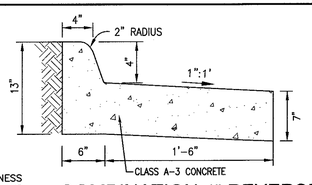
ACCEPTABLE ALTERNATIVE IF CURB IS EXTRUDED

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET, OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB.
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (15" DEPTH) OR INCREASED AS MUCH AS 3" (21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE THE DEPTH IS TO BE 18" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
5. THIS CURB IS TO BE USED WHEN DESIGN SPEED IS 40 MPH OR LESS ON RURAL HIGHWAYS AND 45 MPH OR LESS IN DEVELOPED URBAN AND SUBURBAN AREAS. IF THESE DESIGN SPEEDS ARE EXCEEDED STANDARD CG-3 IS REQUIRED.

STANDARD 4" CURB

NOT TO SCALE

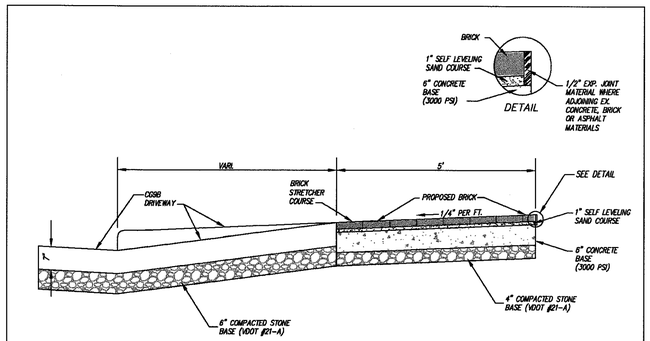


AGGREGATE THICKNESS UNDER THE CURB AND GUTTER SHALL BE IN EXCESS OF THE DEPTH OF GUTTER FACE OR MINIMUM OF FOUR INCHES (4"), WHICHEVER IS GREATER.

COMBINATION 4" REVERSE CURB AND GUTTER

NOT TO SCALE

SHOWN AS SHADED ON SITE PLAN



NOT TO SCALE

CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
BRICK DRIVEWAY WITH CONCRETE BASE	
MARCH 2008	B4A

Bowman CONSULTING

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Fredericksburg, Virginia 22406

Phone: (540) 371-0268
Fax: (540) 371-3479
www.bowmanconsulting.com

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MISCELLANEOUS DETAILS
MAJOR SITE PLAN

LIBERTY PLACE

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

Wack GENERAL CONTRACTORS

SPMAJ 2015-09
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
JUSTIN C. TROIDL
No. 040214
02/05/16
PROFESSIONAL ENGINEER

PLAN STATUS	
08/25/15	1st SUBMISSION
02/05/16	2nd SUBMISSION

DATE	DESCRIPTION

JT/WD	WED	JRT
DESIGN	DRAWN	CHKD

SCALE H: SEE SHEET V: N/A

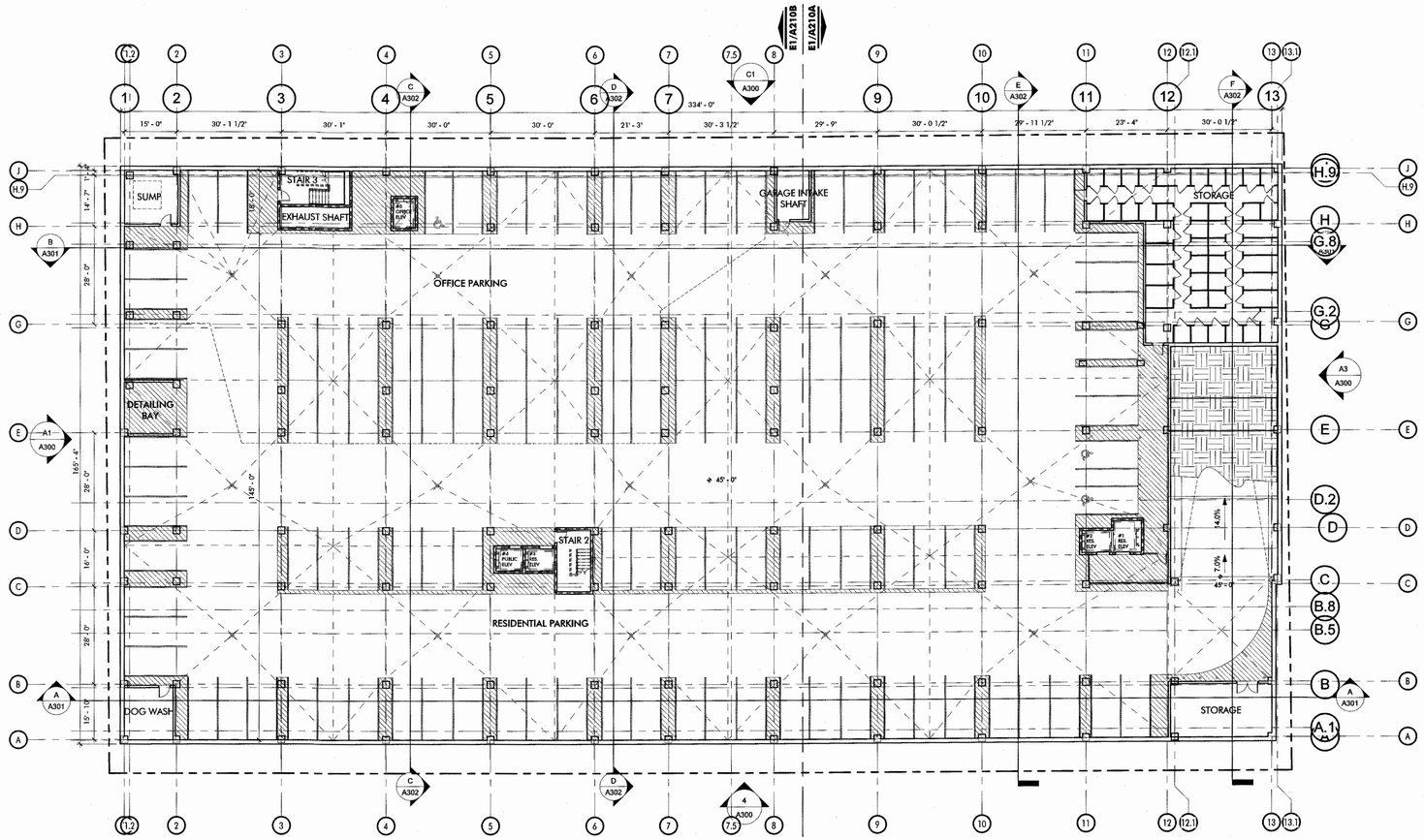
JOB No. 5425-01-002

DATE : OCTBOER 2014

FILE No. 5425-D-CP-001

SHEET 21A OF 21

Cad file name : P:\5425 - William Street Office Bldg\5425-01-002 (ENG)\Engineering\Engineering Plans\5425-D-CP-001\019-021A-5425-D-CP-001-DET.dwg



C1 P2 LEVEL FLOOR PLAN

A200 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

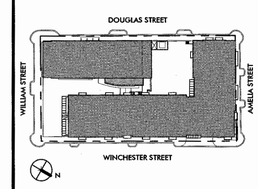
1/16" FLOOR PLAN - P2 LEVEL

PROJECT NUMBER
14067.01

DRAWN BY	CHECKED BY
AA	EK

REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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SHEET NUMBER
A200

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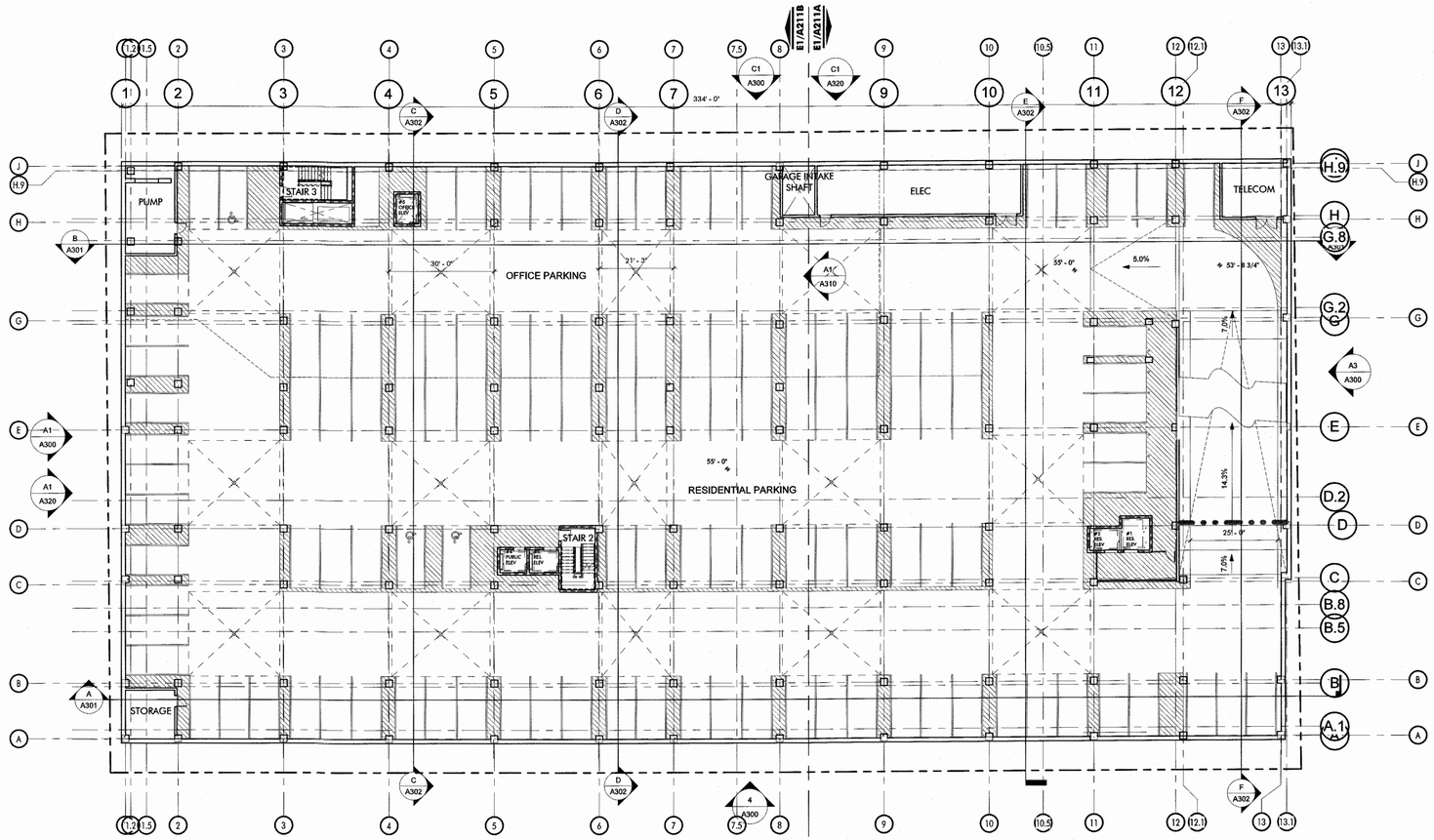

C1 P1 LEVEL FLOOR PLAN

A201 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

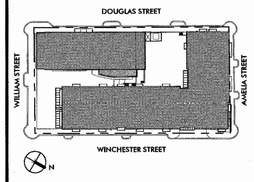
1/16" FLOOR PLAN - P1 LEVEL

PROJECT NUMBER
14067.01

DRAWN BY	CHECKED BY
CA	EK

REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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SHEET NUMBER
A201

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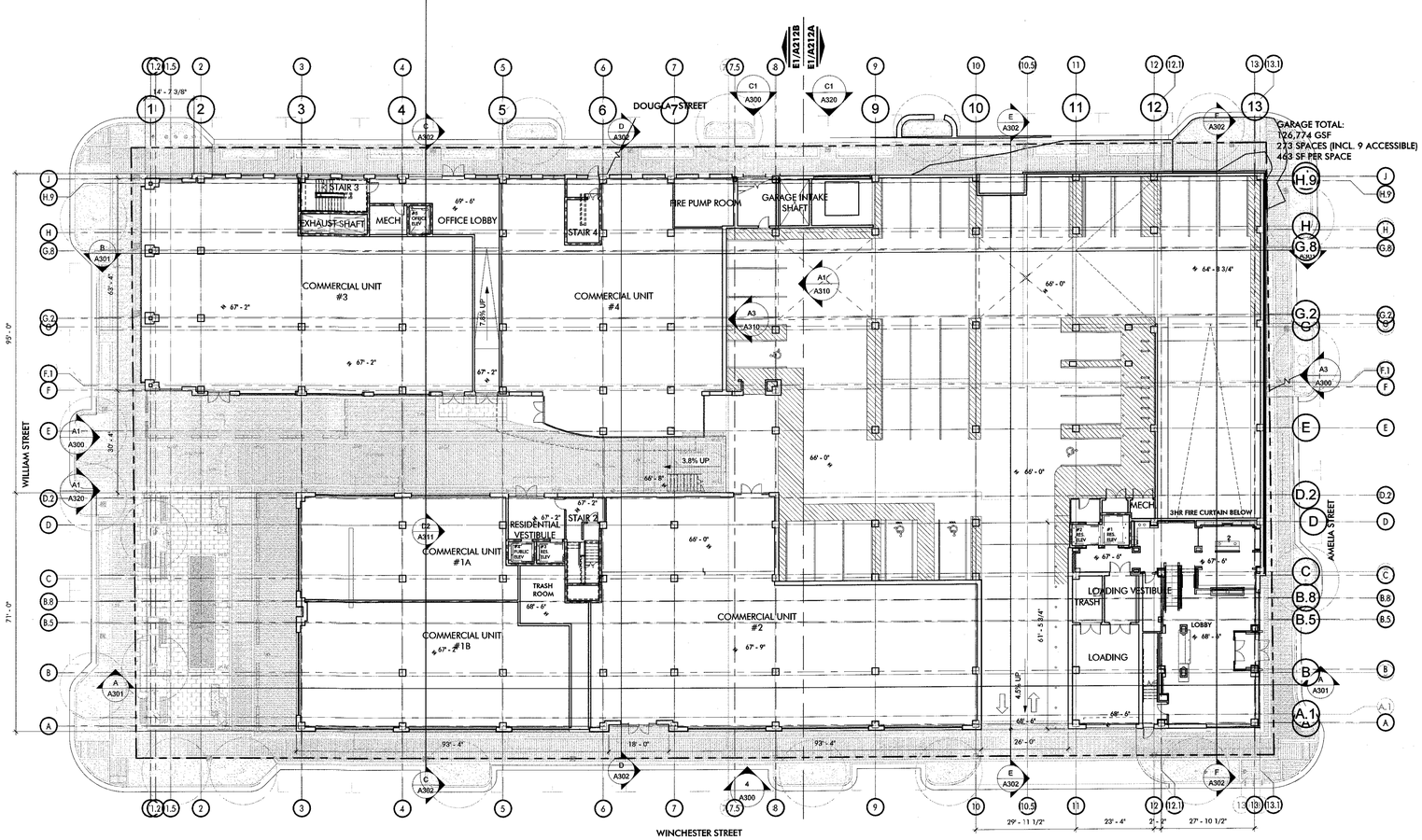

C1 G1 LEVEL FLOOR PLAN

A202 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

1/16" FLOOR PLAN - GROUND LEVEL

PROJECT NUMBER
14067.01

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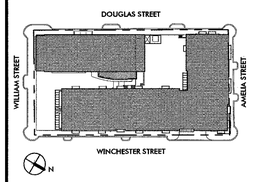
CA	RZ

REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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SHEET NUMBER
A202

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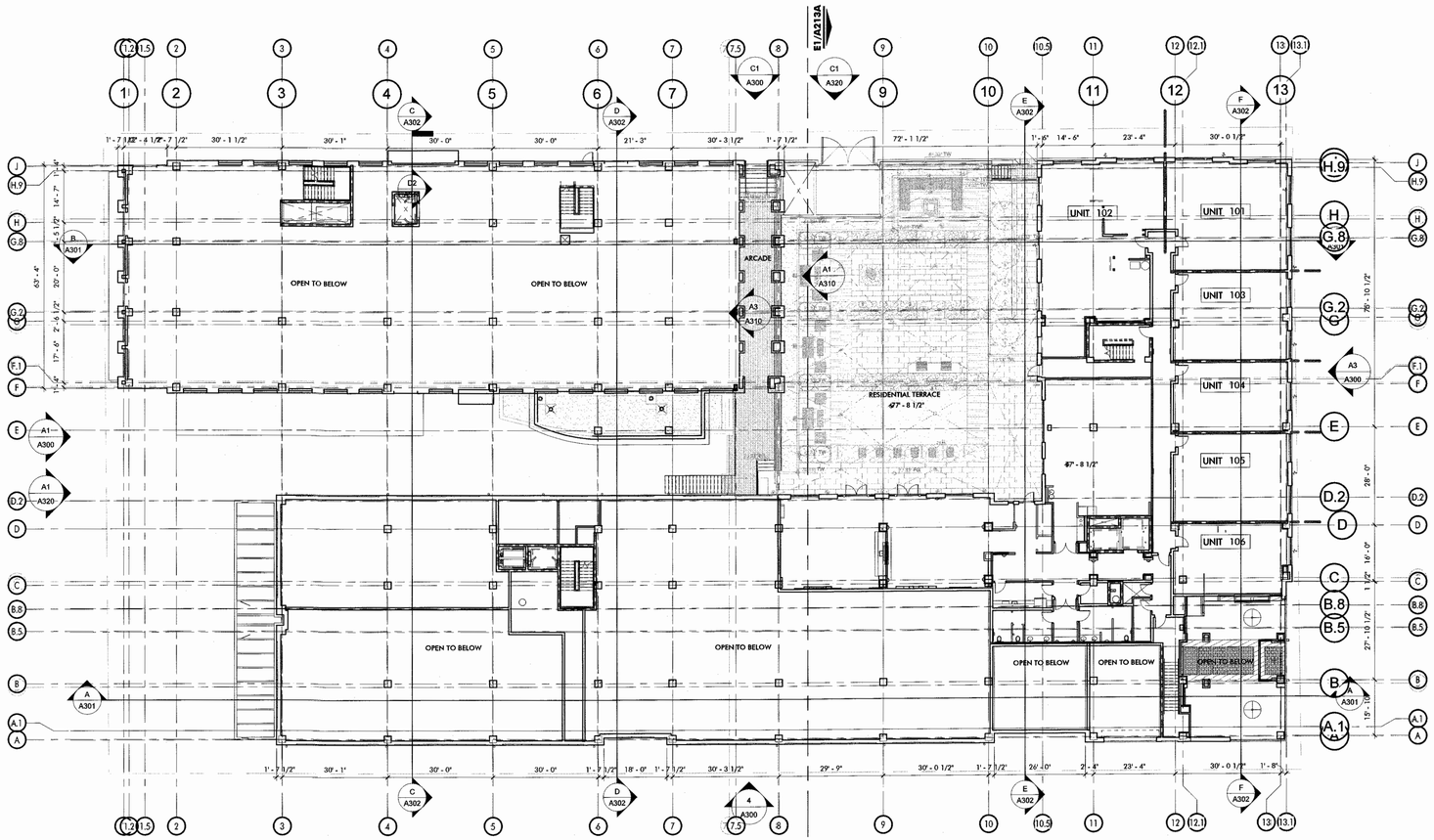

C1 1ST LEVEL FLOOR PLAN

A203 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

1/16" FLOOR PLAN - 1ST LEVEL

PROJECT NUMBER
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DRAWN BY	CHECKED BY
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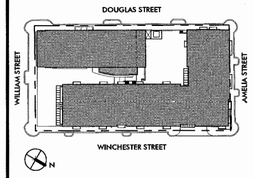
REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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SHEET NUMBER
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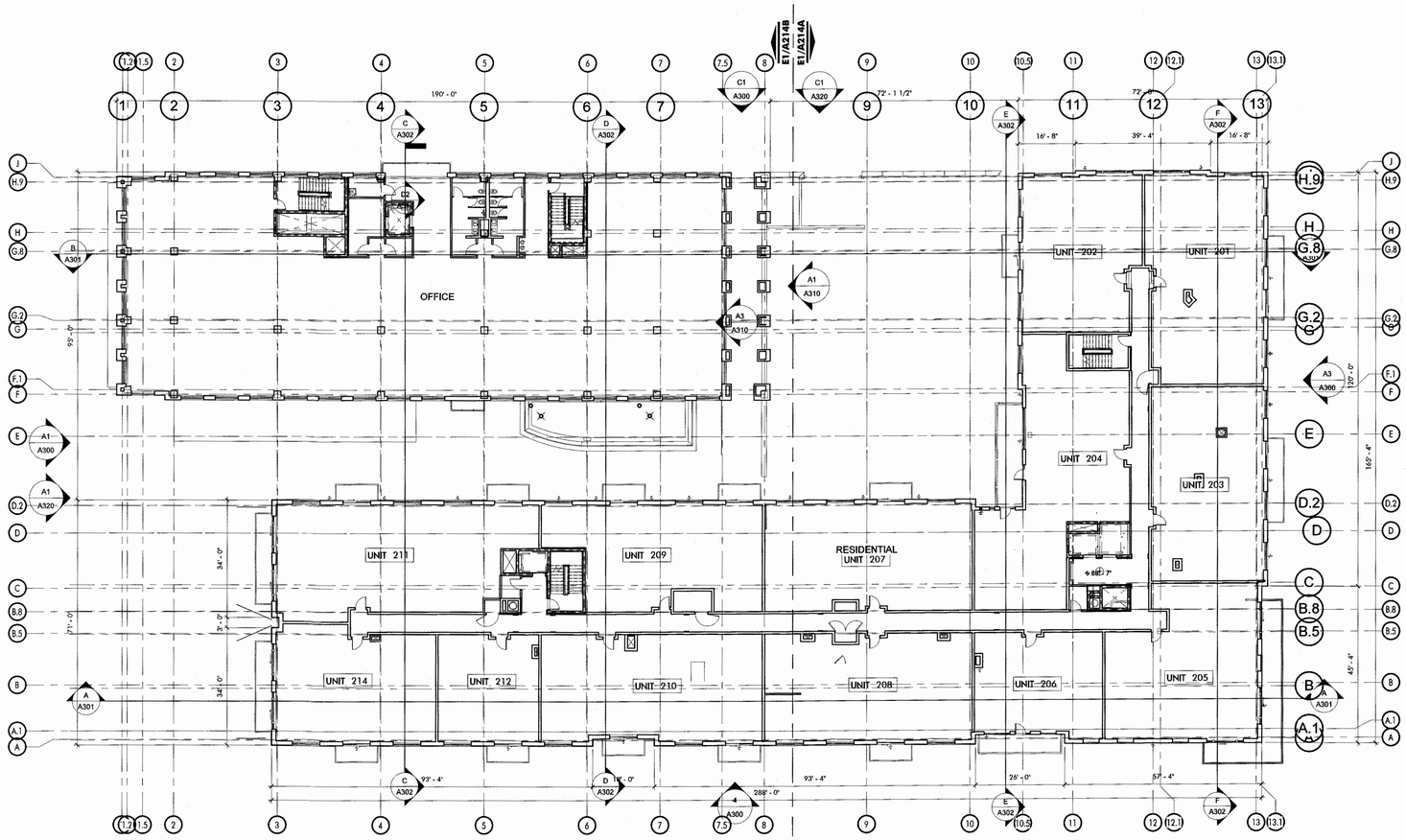

C1 2ND LEVEL FLOOR PLAN
A204 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

FIRE RATED WALL LEGEND

2HR SEPARATION

3HR FIRE CURTAIN

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

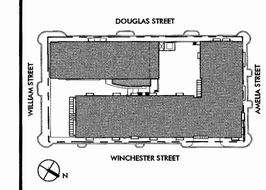
1/16" FLOOR PLAN - 2ND LEVEL

PROJECT NUMBER
14067.01

DRAWN BY	CHECKED BY
CA	EK

REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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SHEET NUMBER
A204

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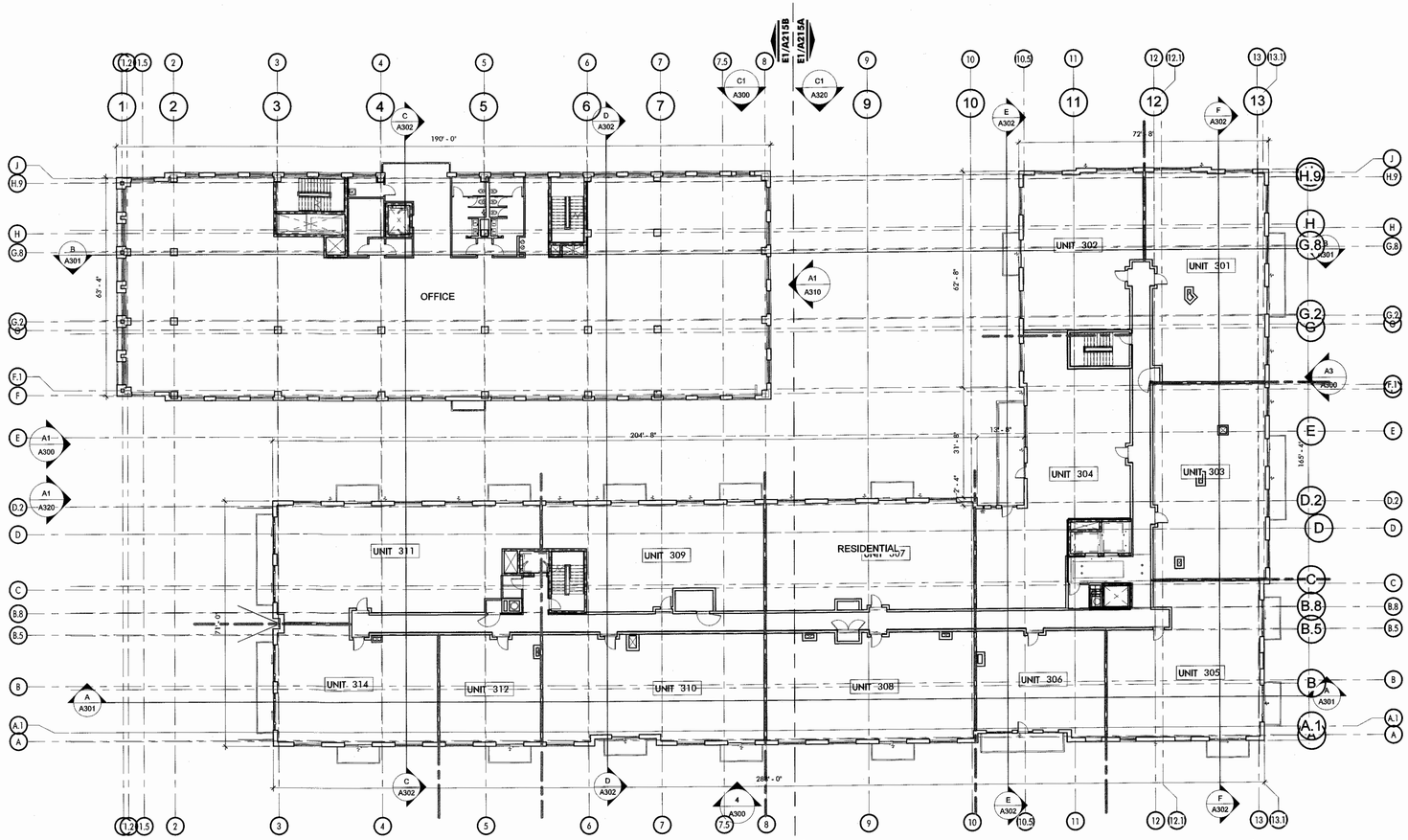

C1 3RD LEVEL FLOOR PLAN

A205 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

FIRE RATED WALL LEGEND

2HR SEPARATION

3HR FIRE CURTAIN

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

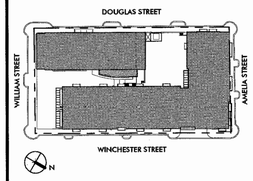
1/16" FLOOR PLAN - 3RD LEVEL

PROJECT NUMBER
14067.01

DRAWN BY	CHECKED BY
AA	EK

REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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SHEET NUMBER
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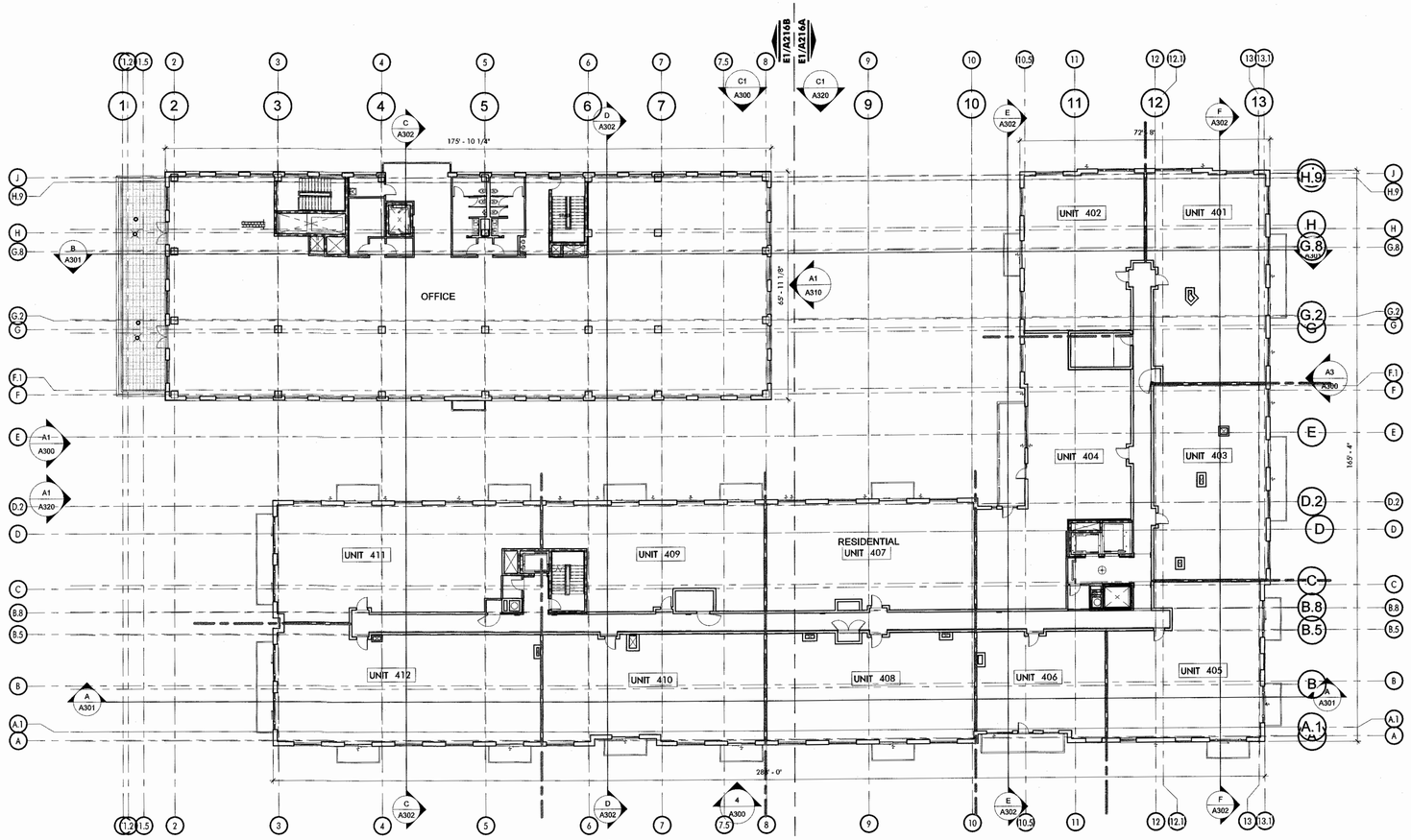

C1 4TH LEVEL FLOOR PLAN

A206 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

FIRE RATED WALL LEGEND

2HR SEPARATION

3HR FIRE CURTAIN

mv+a

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

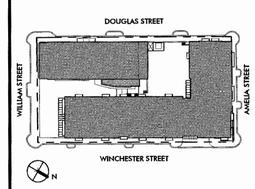
1/16" FLOOR PLAN - 4TH LEVEL

PROJECT NUMBER
14067.01

DRAWN BY	CHECKED BY
AA	EK

REV.	ISSUE:	DATE
	DESIGN DEVELOPMENT SET	10-28-2015

KEY PLAN



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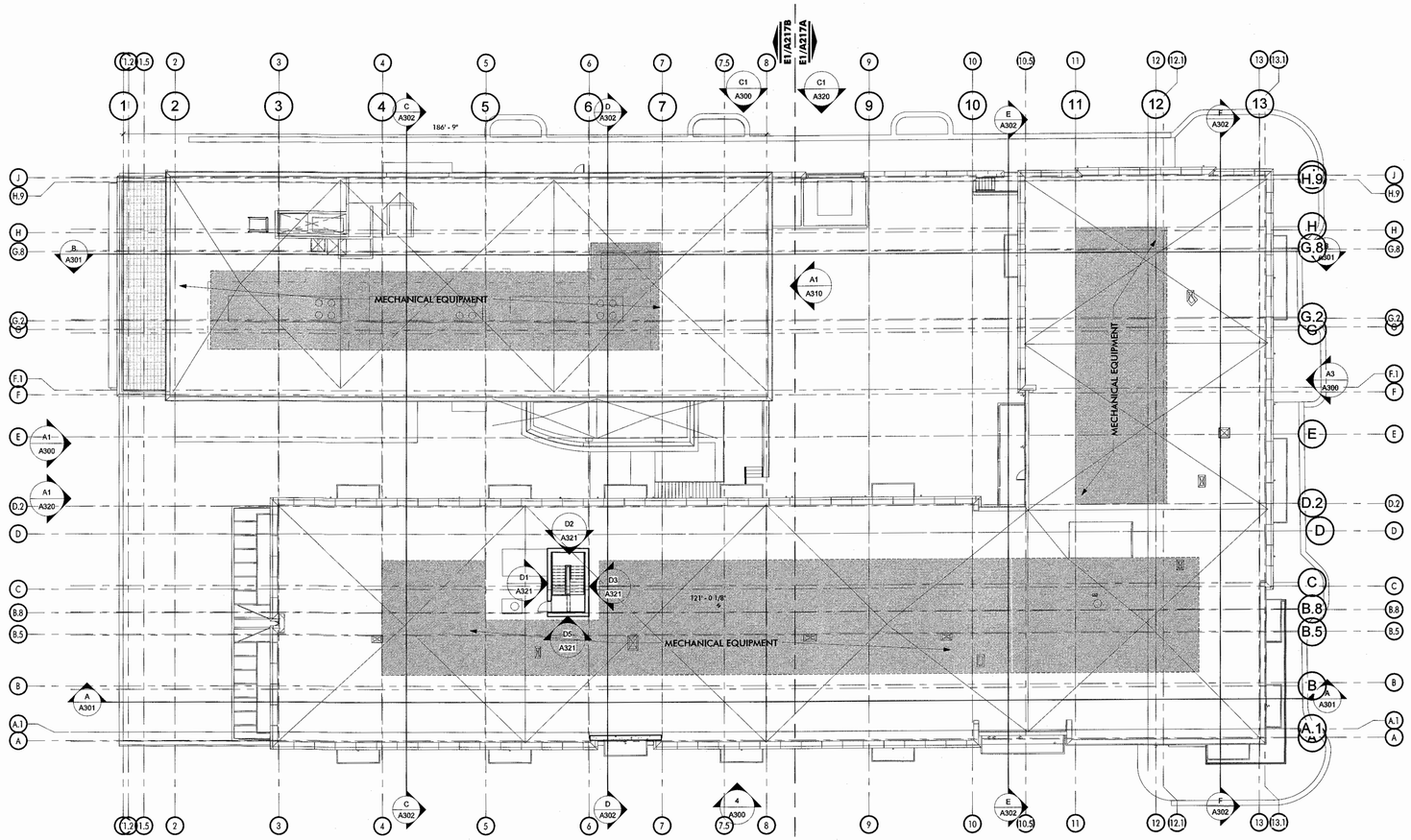

C1 ROOF LEVEL PLAN

A207 SCALE 1/16" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, GRID LINE OR CENTER OF COLUMN UNLESS OTHERWISE NOTED

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

1/16" ROOF PLAN

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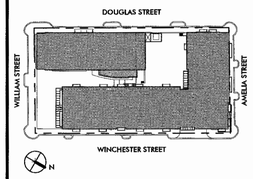

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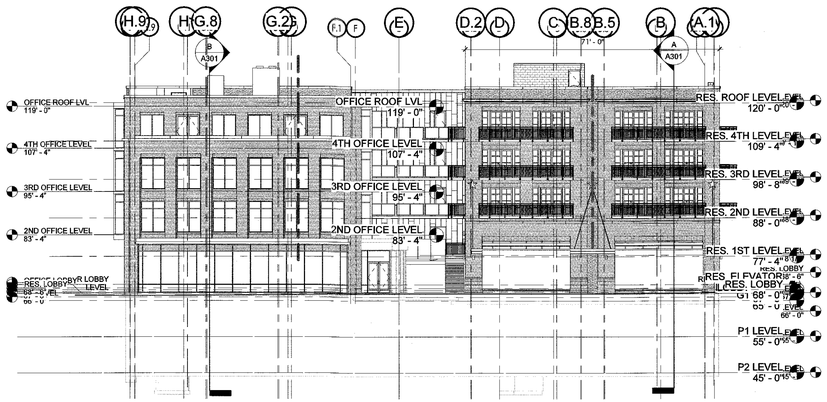
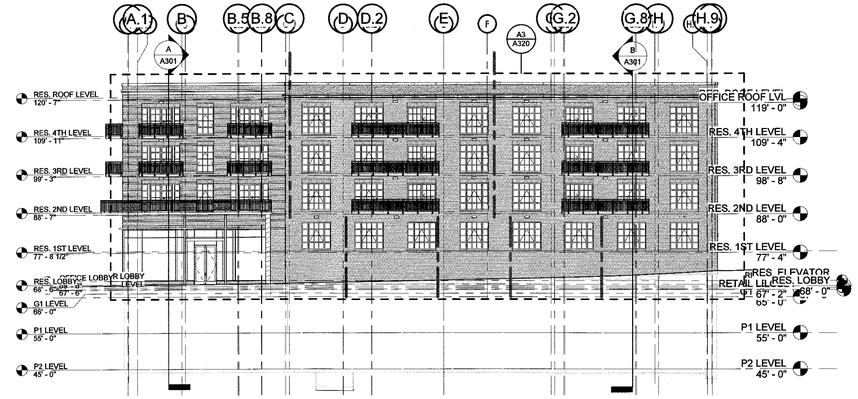


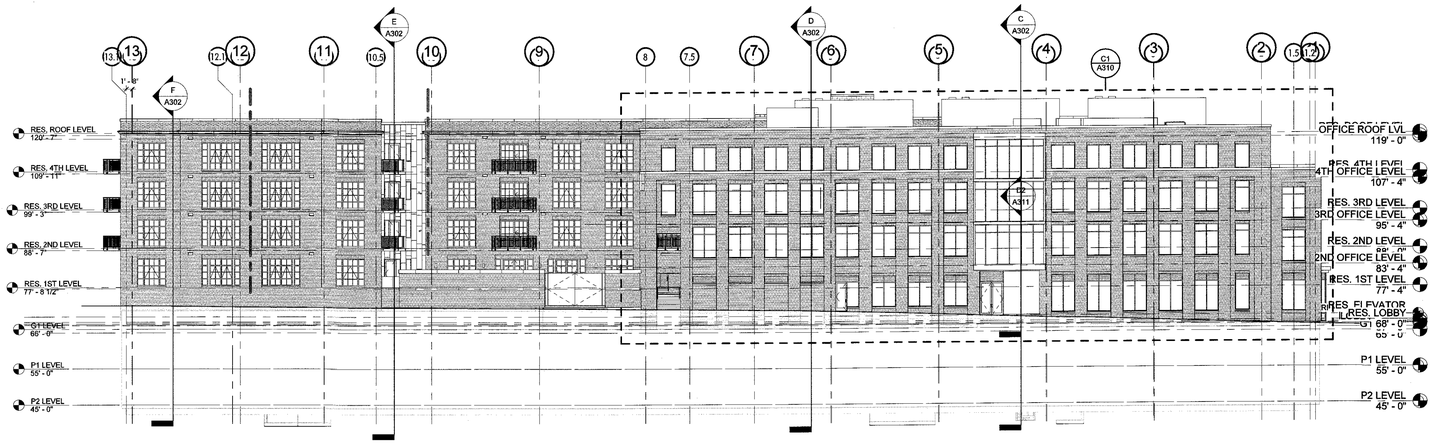
A1 OVERALL - WILLIAM STREET ELEVATION

A300 SCALE 1/16" = 1'-0"



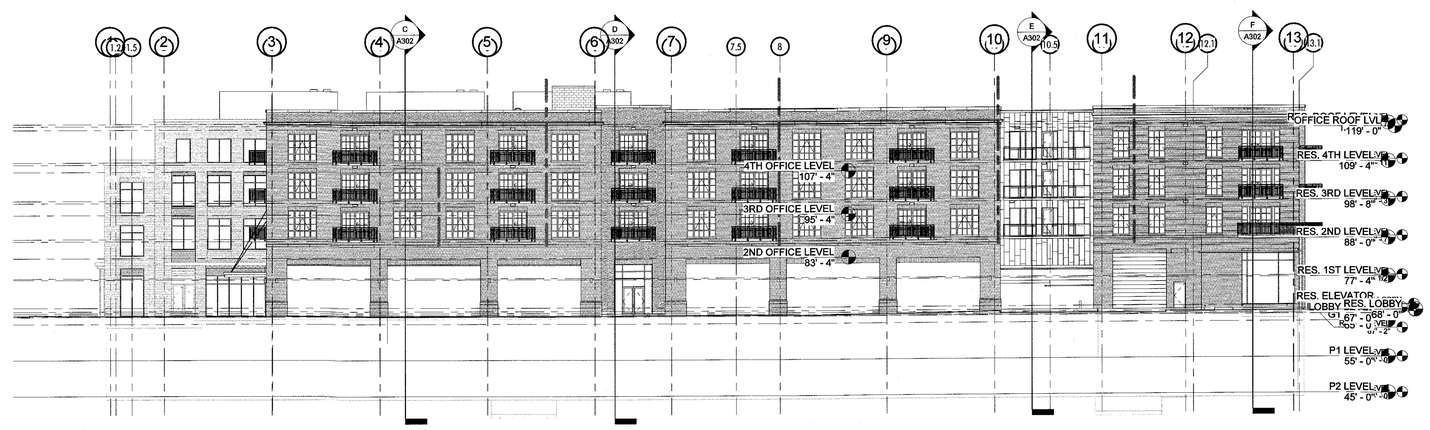
A3 OVERALL - AMELIA STREET ELEVATION

A300 SCALE 1/16" = 1'-0"



C1 OVERALL - DOUGLAS STREET ELEVATION

A300 SCALE 1/16" = 1'-0"



4 OVERALL - WINCHESTER STREET ELEVATION

A300 SCALE 1/16" = 1'-0"

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LIBERTY PLACE

FREDERICKSBURG
VIRGINIA

OVERALL ELEVATIONS

PROJECT NUMBER
14067.01

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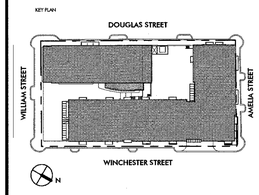
Author	Checker

REV.	ISSUE:	DATE

KEY PLAN



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