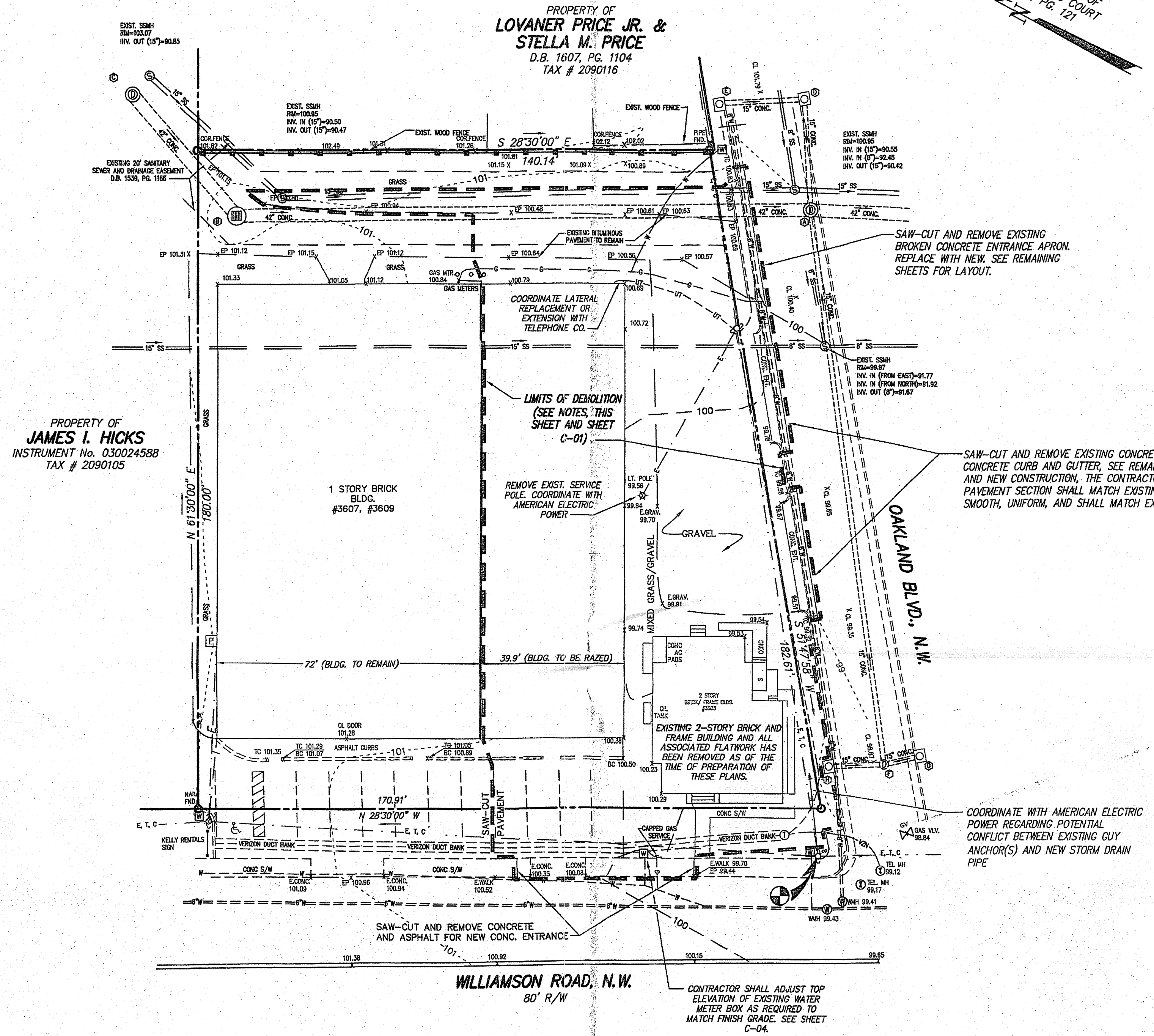


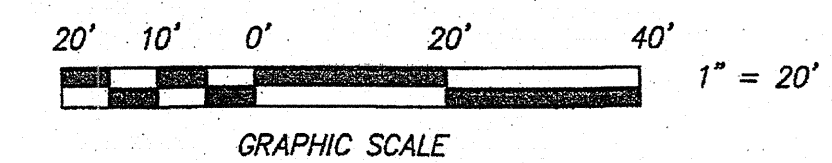
EXISTING STORM DRAIN

A	EXIST. SDMH RM=100.76 INV. IN (15' FROM EAST)=94.06 INV. IN (15' FROM WEST)=92.18 INV. IN (42")=92.06 INV. OUT (42")=91.36	E	EXIST. CURB INLET RM=101.76 INV. OUT (15")=96.51
B	EXIST. GRATE INLET RM=100.60 INV. IN (42")=92.90 INV. OUT (42")=92.80	F	EXIST. SDMH RM=98.72 INV. IN (15' FROM SOUTH)=93.29 INV. IN (15' FROM NORTH)=93.32 INV. OUT (15")=93.22
C	EXIST. SDMH RM=102.86 INV. OUT (42")=93.01	G	EXIST. CURB INLET RM=98.78 INV. OUT (15")=94.54
D	EXIST. CURB INLET RM=101.79 INV. IN (15")=94.09 INV. OUT (15")=94.29	H	EXIST. CURB INLET RM=98.90 INV. OUT (15")=93.80



BENCHMARK:
RAILROAD SPIKE SET IN APCO POLE NUMBER 230-1506, LOCATED AT THE INTERSECTION OF WILLIAMSON ROAD AND OAKLAND BOULEVARD. ELEVATION = 100.00 (ASSUMED DATUM)

DEMOLITION NOTES
UNLESS OTHERWISE NOTED IN THESE PLANS, ALL ABOVE GROUND PHYSICAL IMPROVEMENTS WITHIN THE LIMITS OF DEMOLITION SHALL BE REMOVED IN THEIR ENTIRETY FROM THE SITE, WITH THE EXCEPTION OF UTILITY LINES, POLES, PEDESTALS, ETC., WHICH ARE TO REMAIN FUNCTIONAL AND IN GOOD ORDER THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS WITH RESPECT TO REMOVING OR RELOCATING UTILITY SERVICES.
SEE SHEET C-01 FOR ADDITIONAL DEMOLITION NOTES



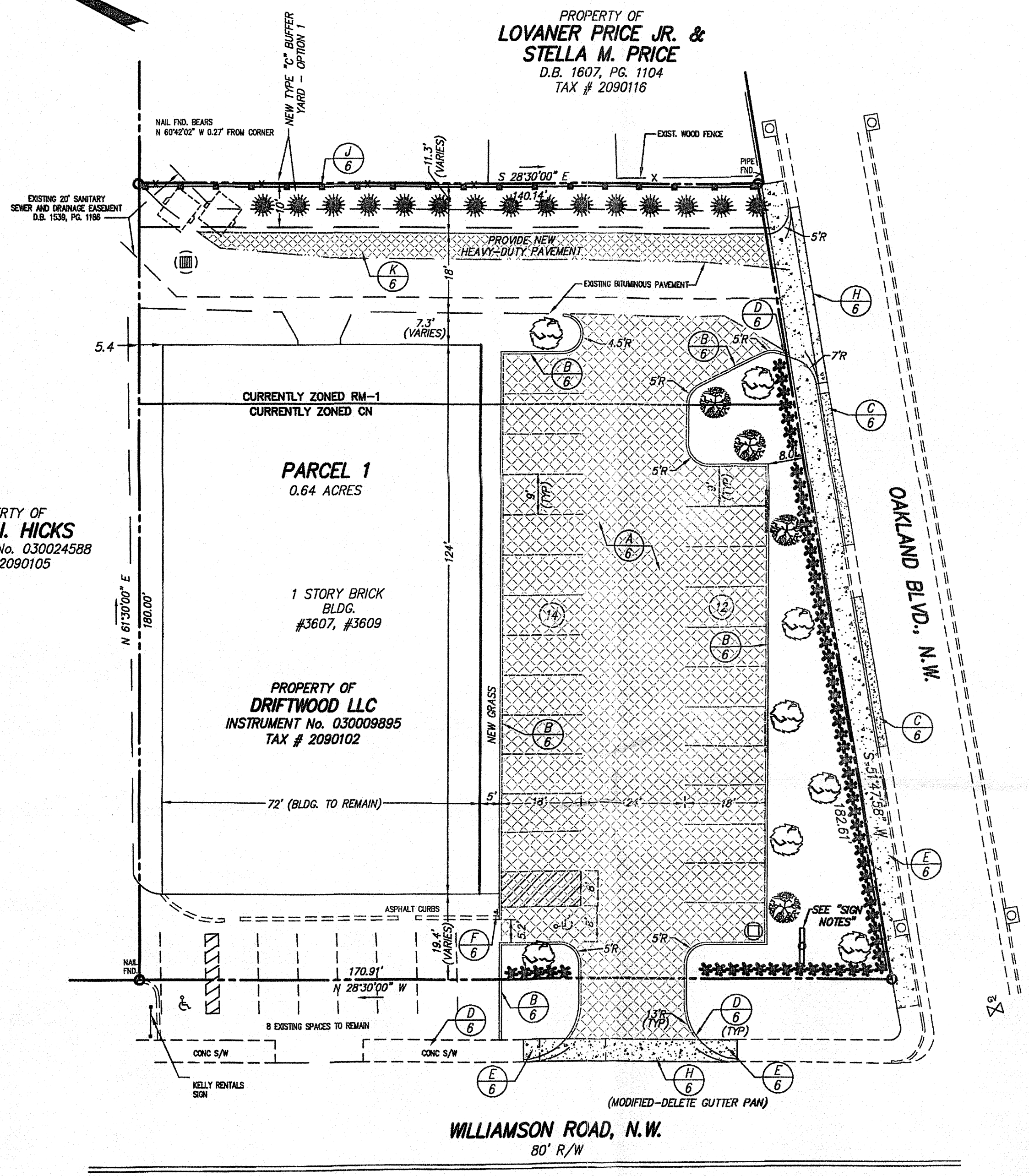
	<p>EXISTING CONDITIONS AND DEMOLITION PLAN FOR</p> <p>AARON'S RENTALS</p> <p>SITE PLAN FOR BUILDING AND PARKING LOT MODIFICATIONS</p> <p>3607 WILLIAMSON ROAD, NW CITY OF ROANOKE, VIRGINIA</p>
	<p>CWA CALDWELL WHITE ASSOCIATES</p> <p>ENGINEERS / SURVEYORS / PLANNERS</p> <p>4809 MELROSE AVENUE P.O. BOX 62650 ROANOKE, VIRGINIA 24017-0260 (540) 368-8400 FAX: (540) 368-8768</p>
<p>Designed: C.L. White Drawn: C.L. White Checked: Date: August 18, 2011 Scale: 1" = 20' Tax Parcel: 2090101, 0102, 0117 Field Book: CH-1 W.O. No.: 11-0030</p>	

MERIDIAN OF MAP OF
WILLIAM FLEMING COURT
P.B. 2, PG. 121

PROPERTY OF
**LOVNER PRICE JR. &
STELLA M. PRICE**
D.B. 1607, PG. 1104
TAX # 2090116

PROPERTY OF
JAMES I. HICKS
INSTRUMENT No. 030024588
TAX # 2090105

PROPERTY OF
DRIFTWOOD LLC
INSTRUMENT No. 030009895
TAX # 2090102



DIMENSIONING CONVENTION

ALL DIMENSIONS ARE TO FACE OF CURB, FACE OF BUILDING, FACE OF WALL, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.

COORDINATION NOTES

THE CONTRACTOR SHALL COORDINATE ALL NEW BUILDING CONSTRUCTION WITH ARCHITECTURAL AND STRUCTURAL SHEETS, AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT WILL AFFECT THE INSTALLATION OF PROPOSED SITE IMPROVEMENTS SHOWN.

STRIPING NOTES

AUTOMOBILE PARKING SPACE STRIPING SHALL BE STANDARD WHITE TRAFFIC PAINT. LINES SHALL BE 4" WIDE AND OF LENGTHS AND SPACINGS AS SHOWN. "NO PARKING" AREAS SHALL HAVE 4" WIDE YELLOW DIAGONAL STRIPES ON 2' CENTERS, AS SHOWN. HANDICAP-ONLY SPACES SHALL BE STRIPED AND MARKED WITH THE UNIVERSAL ACCESSIBILITY SYMBOL USING BLUE PAINT.

DUMPSTER ENCLOSURE NOTES

REFUSE COLLECTION DUMPSTERS ARE SHOWN HEREON IN THEIR EXISTING LOCATIONS, WHICH ARE TO REMAIN UNCHANGED. THIS CONDITION HAS BEEN PRE-APPROVED BY THE CITY OF ROANOKE PLANNING DEPARTMENT.

**PARKING SCHEDULE
PARKING REQUIRED**

PURSUANT TO SECTION 36.2-316 OF THE CITY OF ROANOKE ZONING ORDINANCE, THERE IS NO MINIMUM NUMBER OF PARKING SPACES THAT MUST BE PROVIDED IN THE "CN" ZONING DISTRICT

ON-SITE PARKING PROVIDED

- 7 EXISTING AUTOMOBILE SPACES
- 1 EXISTING HANDICAP-ONLY SPACES
- 25 NEW AUTOMOBILE SPACES
- 1 NEW HANDICAP-ONLY SPACES
- 34 TOTAL PARKING SPACES PROVIDED**

IMPERVIOUS RATIO

AREA OF IMPERVIOUS SURFACE = 20,906 SQ. FT.
AREA OF LOT = 27,994 SQ. FT.
IMPERVIOUS RATIO = 74.6% < 100% MAX. ALLOWABLE

SIGN NOTES

THE LOCATION OF THE NEW SIGN SHOWN IS APPROXIMATE. NEW SIGNAGE MUST BE SETBACK A MINIMUM OF TWO FEET FROM THE RIGHT OF WAY OF WILLIAMSON ROAD AND / OR OAKLAND BOULEVARD.

IN THE CN ZONING DISTRICT, THE FOLLOWING SIGN REGULATIONS APPLY:

- FREESTANDING SIGNAGE**
- ONE FREESTANDING SIGN ALLOWED PER STREET FRONTAGE
- MAXIMUM SIGN AREA = 0.50 SQ. FT. PER LINEAR FOOT OF STREET FRONTAGE (32 SQ. FT. MAXIMUM)
- MAXIMUM SIGN HEIGHT = 6'
- SIGN MAY BE ILLUMINATED AND / OR HAVE CHANGEABLE COPY

BUILDING MOUNTED SIGNAGE

- ONE BUILDING MOUNTED SIGN ALLOWED PER BUILDING FACE OR STOREFRONT
- MAXIMUM SIGN AREA = 32 SQ. FT. PLUS 0.50 SQ. FT. PER LINEAR FOOT OF BUILDING OR STOREFRONT IN EXCESS OF 32 SQ. FT. (32 SQ. FT. MAXIMUM)
- MAXIMUM SIGN HEIGHT = (NOT APPLICABLE)
- SIGN MAY BE ILLUMINATED AND / OR HAVE CHANGEABLE COPY

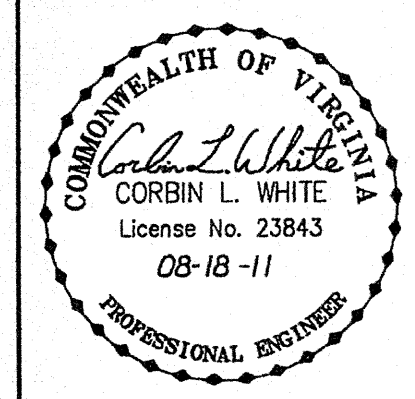
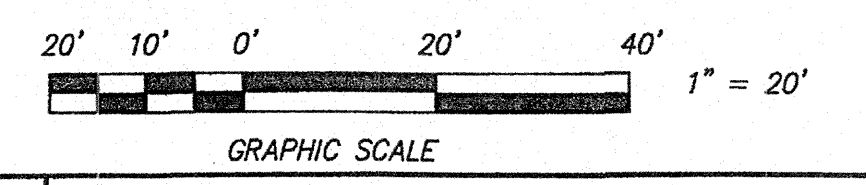
CODE REQUIREMENTS - LANDSCAPING

CITY OF ROANOKE ZONING ORDINANCE REFERENCE	CODE REQUIREMENTS	PROVISIONS INCLUDED HEREIN
SEC. 36.2-642(d)	LANDSCAPING REQUIRED PER SEC. B-3, APPX. B	(SEE BELOW)
SEC. 36.2-644(c)	20-YEAR SITE CANOPY REQUIREMENT IS NOT APPLICABLE IN THE CN ZONING DISTRICT	
SEC. 36.2-645	STREET TREES REQUIRED AT 1 PER 50'	PROVIDE 5 NEW RED MAPLES
SEC. 36.2-647(b)	TYPE "C" BUFFER YARD REQUIRED ALONG EASTERN BOUNDARY	PROVIDE 6' SCREENING FENCE, 10' BUFFER YARD, HOLLIES ON 8' CENTERS SEE PLAN AND PLANTING LIST.
SEC. 36.2-648(b)(5)	PARKING LOT ADJACENT TO PUBLIC R/W	PROVIDE SMALL DECIDUOUS TREES PROVIDE TWO FLOWERING DOGWOODS 20-YEAR PERIMETER CANOPY PROVIDED = 2 (177 SQ. FT.) = 354 SF PROVIDE EVERGREEN OR DECIDUOUS SHRUBS AT 1 PER 3' PROVIDE SIXTY-FIVE WINTERGREEN BARBERRY 20-YEAR PERIMETER CANOPY PROVIDED = 0
SEC. 36.2-648(b)(7)	FOR MORE THAN 21 PARKING SPACES, PROVIDE PERIMETER AND INTERIOR TREE CANOPY EQUAL TO 20% OF THE PARKING AREA.	AREA OF PARKING = 7,640 SF 20-YEAR CANOPY REQ'D. = 1,528 SF TWO NEW FLOWERING DOGWOODS AT STREET PROVIDE 354 SF CANOPY PROVIDE TWO ADDITIONAL FLOWERING DOGWOODS 20-YEAR PERIMETER CANOPY PROVIDED = 2 (177 SQ. FT.) = 354 SF PROVIDE THREE ADDITIONAL RED MAPLES 20-YEAR PERIMETER CANOPY PROVIDED = 3 (314 SQ. FT.) = 942 SF TOTAL 20-YEAR PERIMETER/INTERIOR CANOPY PROVIDED = 1,650 SF

GENERAL LANDSCAPING NOTES

1. SEE PLANTING DETAILS, SHEET C-06.
2. NEW PLANTINGS SHOWN HEREON ARE FOR CODE COMPLIANCE ONLY. THE OWNER IS ENCOURAGED TO PROVIDE ADDITIONAL PLANTINGS FOR SITE BEAUTIFICATION.
3. ALL LANDSCAPE PLANTINGS SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION.
4. ALL LANDSCAPE PLANTINGS SHALL CONFORM TO STANDARDIZED PLANT NAME AND SHALL BE WELL-FORMED, TRUE TO TYPE AND HAVE WELL-DEVELOPED ROOT SYSTEMS. ALL PLANTINGS SHALL BE SOUND, HEALTHY, AND FREE FROM DEFECTS.
5. ALL PLANTING SHALL BE DONE DURING THE PROPER SEASON AND NO PLANTING SHALL BE DONE IN FROZEN SOIL OR DURING UNFAVORABLE WEATHER CONDITIONS.
6. ALL TREES ARE TO BE LOCATED WITH RESPECT TO EXISTING OR PROPOSED UTILITIES.
7. MULCH ALL PLANTINGS WITH A MINIMUM OF THREE INCHES OF SHREDDED OR CHIPPED MULCH.
8. ADJUSTMENTS MAY BE NECESSARY DUE TO PLANT AVAILABILITY.
9. DUE TO ON-SITE CONDITIONS, IN-FIELD ADJUSTMENTS MAY BE NECESSARY.
10. ALL PLANTING OF TREES, SHRUBS, ETC. SHALL BE DONE IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 605.

PLANTING LIST					
SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE AT PLANTING	CONDITION
	Wintergreen Barbary	Barberis Juliflora	65	18" Min. Ht.	Cont.
	Flowering Dogwood	Cornus Florida	4	5' Min. Ht.	B&B
	Red Maple	Acer Rubrum	8	2" Min. Cal.	B&B
	American Holly	Ilex Opaca	15	5' Min. Ht.	B&B

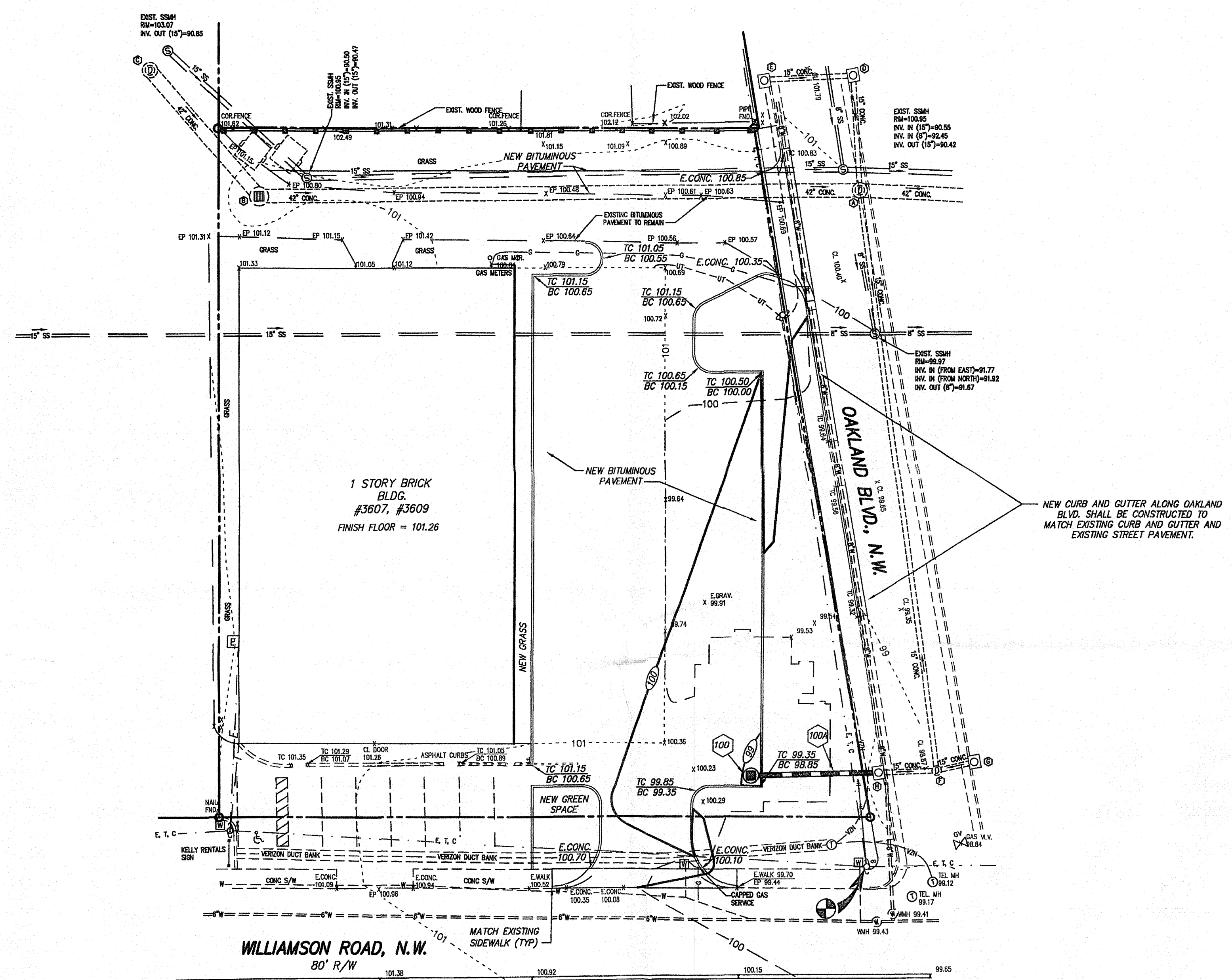


**DIMENSIONAL LAYOUT AND LANDSCAPING PLAN
FOR
AARON'S RENTALS**
SITE PLAN FOR BUILDING AND
PARKING LOT MODIFICATIONS
3607 WILLIAMSON ROAD, NW
CITY OF ROANOKE, VIRGINIA

Designed: C.L. White
Drawn: C.L. White
Checked: C.L. White
Date: August 18, 2011
Scale: 1" = 20'
Tax Parcel: 2090101, 0102, 0117
Field Book: CH-1
W.D. No.: 11-0030

**CWA
CALDWELL WHITE ASSOCIATES**
ENGINEERS / SURVEYORS / PLANNERS
4203 MELROSE AVENUE
P.O. BOX 6160
ROANOKE, VIRGINIA 24017-0260
(540) 366-3400
FAX: (540) 366-8702

MERIDIAN OF MAP OF
WILLIAM FLEMING COURT
P.B. 2, PG. 121



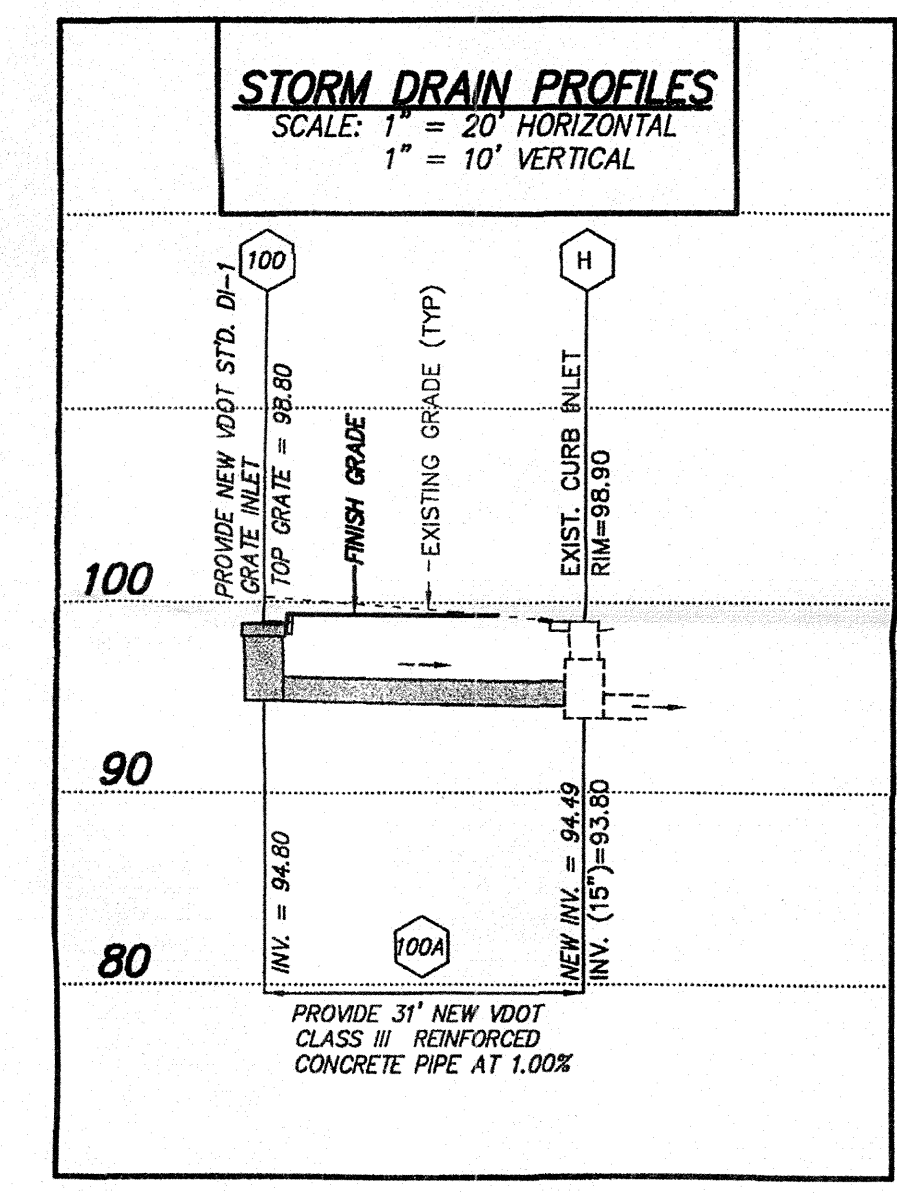
EXISTING STORM DRAINAGE SCHEDULE

A	EXIST. SDMH RIM=100.76 INV. IN (15" FROM EAST)=94.06 INV. IN (15" FROM WEST)=92.18 INV. IN (42")=92.06 INV. OUT (42")=91.36	E	EXIST. CURB INLET RIM=101.76 INV. OUT (15")=96.51
B	EXIST. GRATE INLET RIM=100.60 INV. IN (42")=92.90 INV. OUT (42")=92.80	F	EXIST. SDMH RIM=98.72 INV. IN (15" FROM SOUTH)=93.29 INV. IN (15" FROM NORTH)=93.32
C	EXIST. SDMH RIM=102.25 INV. OUT (42")=93.01	G	EXIST. CURB INLET RIM=98.79 INV. OUT (15")=94.54
D	EXIST. CURB INLET RIM=101.79 INV. IN (15")=94.09 INV. OUT (15")=94.29	H	EXIST. CURB INLET RIM=98.90 INV. OUT (15")=93.80

NEW STORM DRAINAGE SCHEDULE

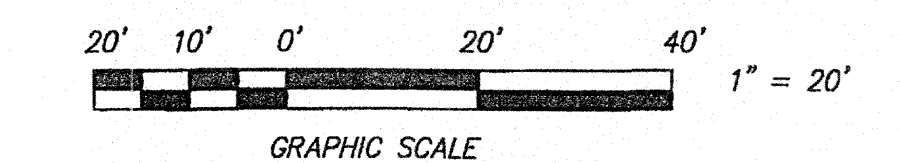
SEE THIS SHEET FOR PROFILE OF NEW STORM DRAIN.
CONCRETE STORM DRAINAGE STRUCTURES SHALL BE PRE-CAST. MATERIALS, FABRICATION, AND INSTALLATION SHALL BE IN STRICT CONFORMANCE TO VDOT STANDARDS AND SPECIFICATIONS.
NEW CONCRETE STORM STRUCTURES 4' INSIDE DIAMETER AND LARGER TO RECEIVE VDOT IS-1 INLET SHAPING
NEW CONCRETE PIPE SHALL BE MINIMUM VDOT CLASS III, AND SHALL BE BEDDED IN ACCORDANCE WITH VDOT STANDARD PB-1.

- 100 PROVIDE NEW VDOT STD. DI-1 GRATE INLET
TOP GRATE = 98.80
INV. = 94.80
- 100A PROVIDE 31" NEW VDOT CLASS III REINFORCED CONCRETE PIPE AT 1.00%
INV. IN = 94.80
INV. OUT = 94.49

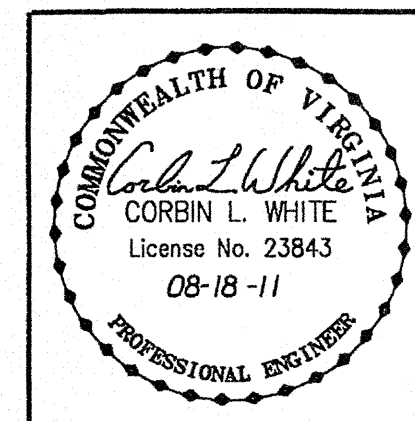


COMPACTION NOTES

EXCEPT AS SPECIFIED BELOW, ALL NEW FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR (ASTM D698).
SUBGRADE UNDER NON-STRUCTURAL AREAS SHALL BE COMPACTED TO A MINIMUM OF 85% OF STANDARD PROCTOR (ASTM D698).



BENCHMARK:
RAILROAD SPIKE SET IN APCO POLE NUMBER 230-1506, LOCATED AT THE INTERSECTION OF WILLIAMSON ROAD AND OAKLAND BOULEVARD.
ELEVATION = 100.00 (ASSUMED DATUM)

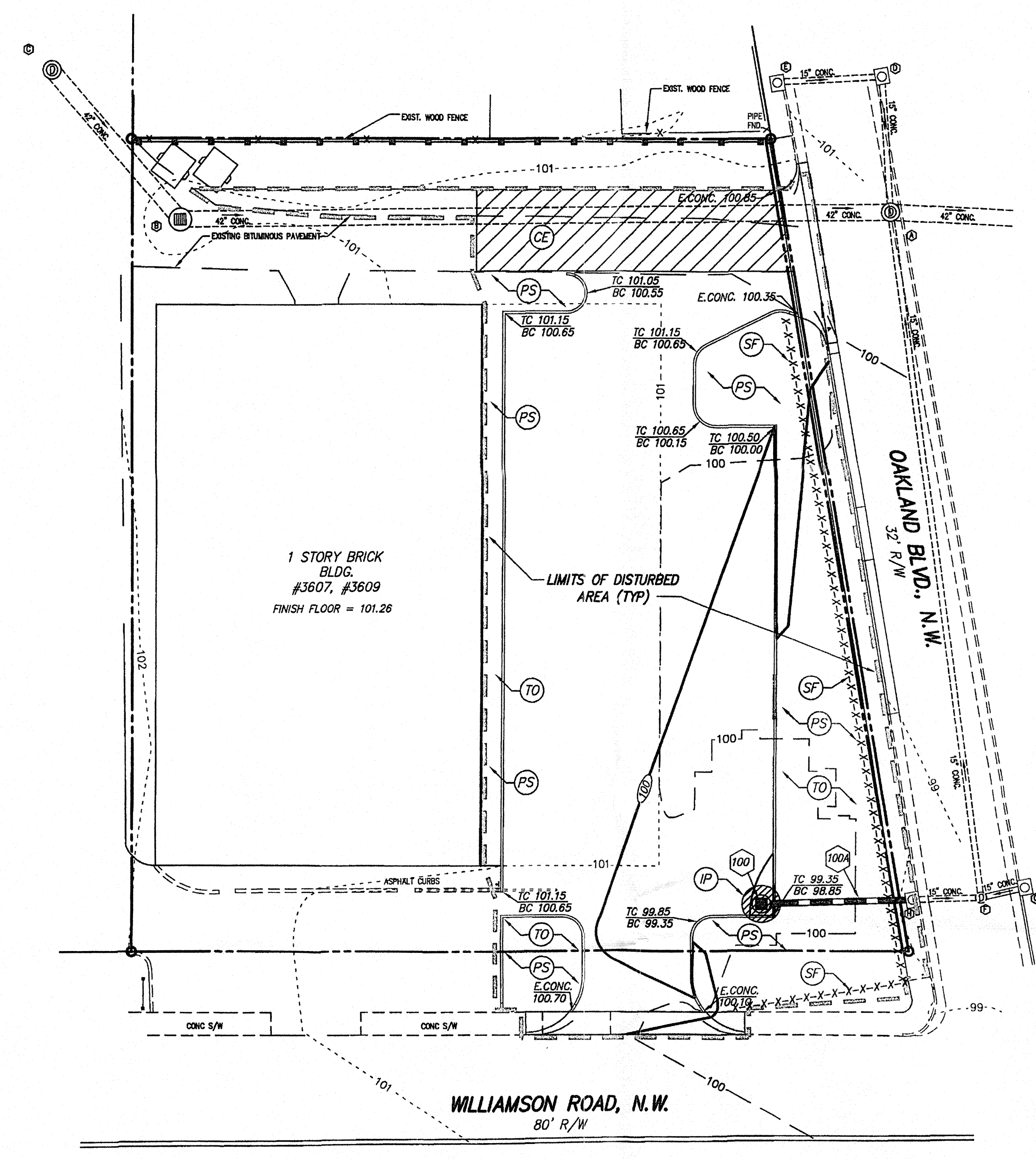


GRADING AND STORM DRAINAGE PLAN
FOR
AARON'S RENTALS
SITE PLAN FOR BUILDING AND
PARKING LOT MODIFICATIONS
3607 WILLIAMSON ROAD, NW
CITY OF ROANOKE, VIRGINIA

Designed: C.L. White
Drawn: C.L. White
Checked: C.L. White
Date: August 18, 2011
Scale: 1" = 20'
Tax Parcel: 2090101, 0102, 0117
Field Book: CH-1
W.D. No.: 11-0030

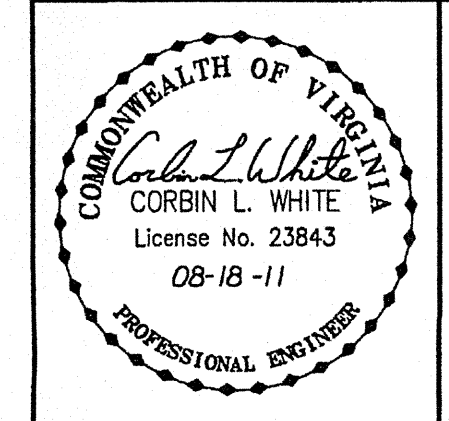
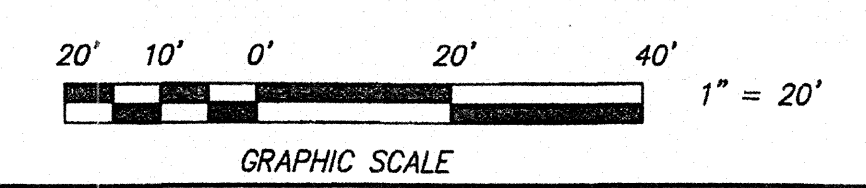
CWA
CALDWELL WHITE ASSOCIATES
ENGINEERS / SURVEYORS / PLANNERS
4808 MELROSE AVENUE
P.O. BOX 62600
ROANOKE, VIRGINIA 24017-0260
(540) 386-3400
FAX: (540) 386-8708

MAP OF
LEWING COURT
P.B. 2, PG. 121



SOIL EROSION CONTROL MEASURES

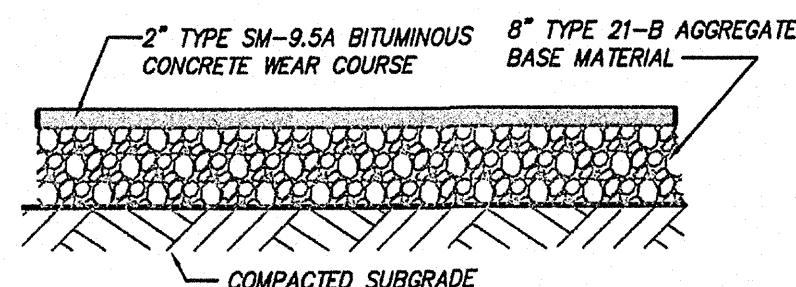
- (CE) CONSTRUCTION ENTRANCE**
A STONE CONSTRUCTION ENTRANCE SHALL BE PROVIDED OFF OF EXISTING PAVEMENT (SEE PLAN). THIS ENTRANCE SHALL BE MAINTAINED SUCH THAT TRACKING OF MUD AND DIRT ONTO THE PAVED SURFACE IS HELD AT AN ABSOLUTE MINIMUM. SHOULD SEDIMENT TRANSPORT OR TRACKING OCCUR IN THE PUBLIC RIGHT OF WAY, IT SHALL BE REMOVED IMMEDIATELY.
- (SF) SILT FENCE BARRIER**
A SILT FENCE BARRIER SHALL BE PLACED BELOW ALL DENUDED AREAS AS SHOWN ON THE EROSION CONTROL PLAN(S). THIS BARRIER SHALL BE INSPECTED AFTER EACH RUNOFF PRODUCING RAINFALL, AND SHALL BE CLEANED, REPAIRED, OR REPLACED AS REQUIRED.
- (IP) INLET PROTECTION**
ALL NEW AND EXISTING INLET STRUCTURES SHALL RECEIVE INLET PROTECTIVE MEASURES TO MINIMIZE INFILTRATION OF SEDIMENT INTO THE STORM DRAIN SYSTEM, AND ULTIMATELY THE RECEIVING CHANNELS. PROTECT ALL POINTS OF ENTRY TO THE STORM DRAINAGE SYSTEM.
- (TS) TEMPORARY SEEDING**
TEMPORARY SEEDING SHALL BE PROVIDED ON DISTURBED AREAS AS REQUIRED BY THE TEMPORARY SEEDING SECTION OF THE EROSION CONTROL DETAILS CONTAINED HEREIN. TEMPORARY SEEDING APPLIES TO ALL AREAS SHOWN ON THE PLAN TO RECEIVE PERMANENT SEEDING.
- (PS) PERMANENT SEEDING**
ALL DENUDED AREAS NOT TO RECEIVE HARD SURFACING SHALL BE PERMANENTLY SEEDED WITHIN SEVEN DAYS OF FINAL GRADING OPERATIONS.
- (TO) TOPSOILING**
ALL DENUDED AREAS NOT TO RECEIVE HARD SURFACING SHALL RECEIVE TOPSOIL PRIOR TO APPLICATION OF SEEDING MEASURES. UPON REACHING SUBGRADE ELEVATIONS, THE CONTRACTOR SCARIFY SUBGRADE SOILS, AND SHALL SPREAD A MINIMUM OF SIX INCHES (6") OF TOPSOIL ON AREAS TO BE SEEDED OR LANDSCAPED.



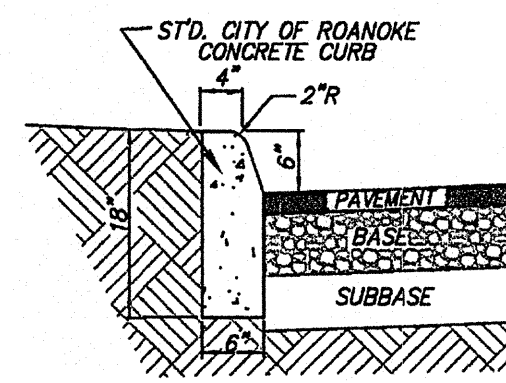
SOIL EROSION AND SEDIMENTATION CONTROL PLAN
FOR
AARON'S RENTALS
SITE PLAN FOR BUILDING AND
PARKING LOT MODIFICATIONS
3607 WILLIAMSON ROAD, NW
CITY OF ROANOKE, VIRGINIA

Designed: C.L. White
Drawn: C.L. White
Checked:
Date: August 18, 2011
Scale: 1" = 20'
Tax Parcel: 2090101_0102_0117
Field Book: CH-1
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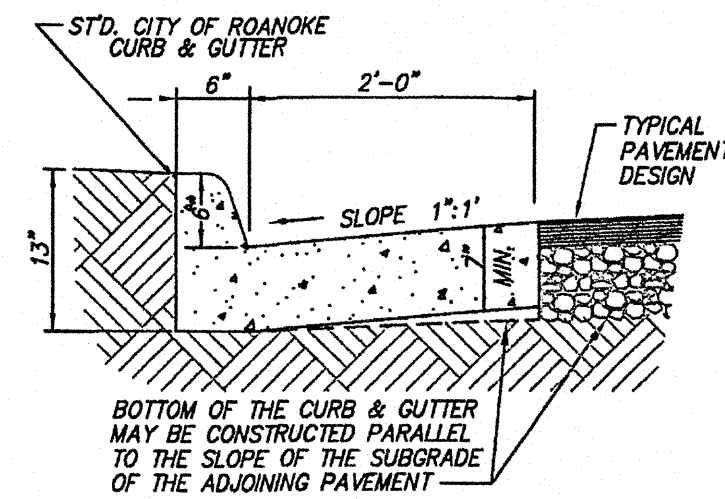
CWA
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4803 MELROSE AVENUE
P.O. BOX 6560
ROANOKE, VIRGINIA 24017-0260
(540) 368-3400
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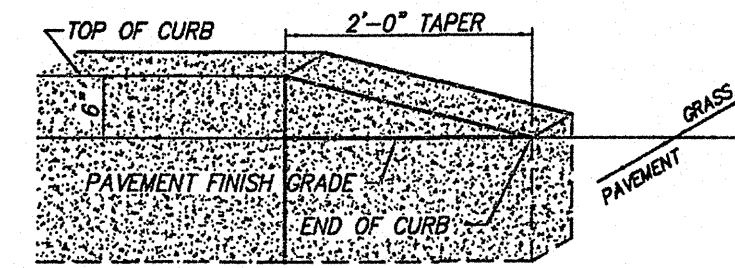
A STANDARD-DUTY BITUMINOUS PAVEMENT
C-06 NO SCALE



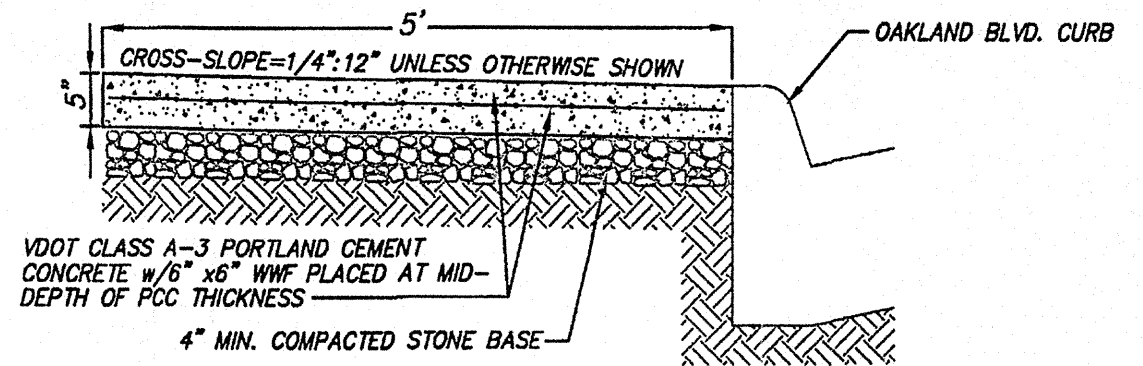
B CONCRETE CURBING
C-06 NO SCALE



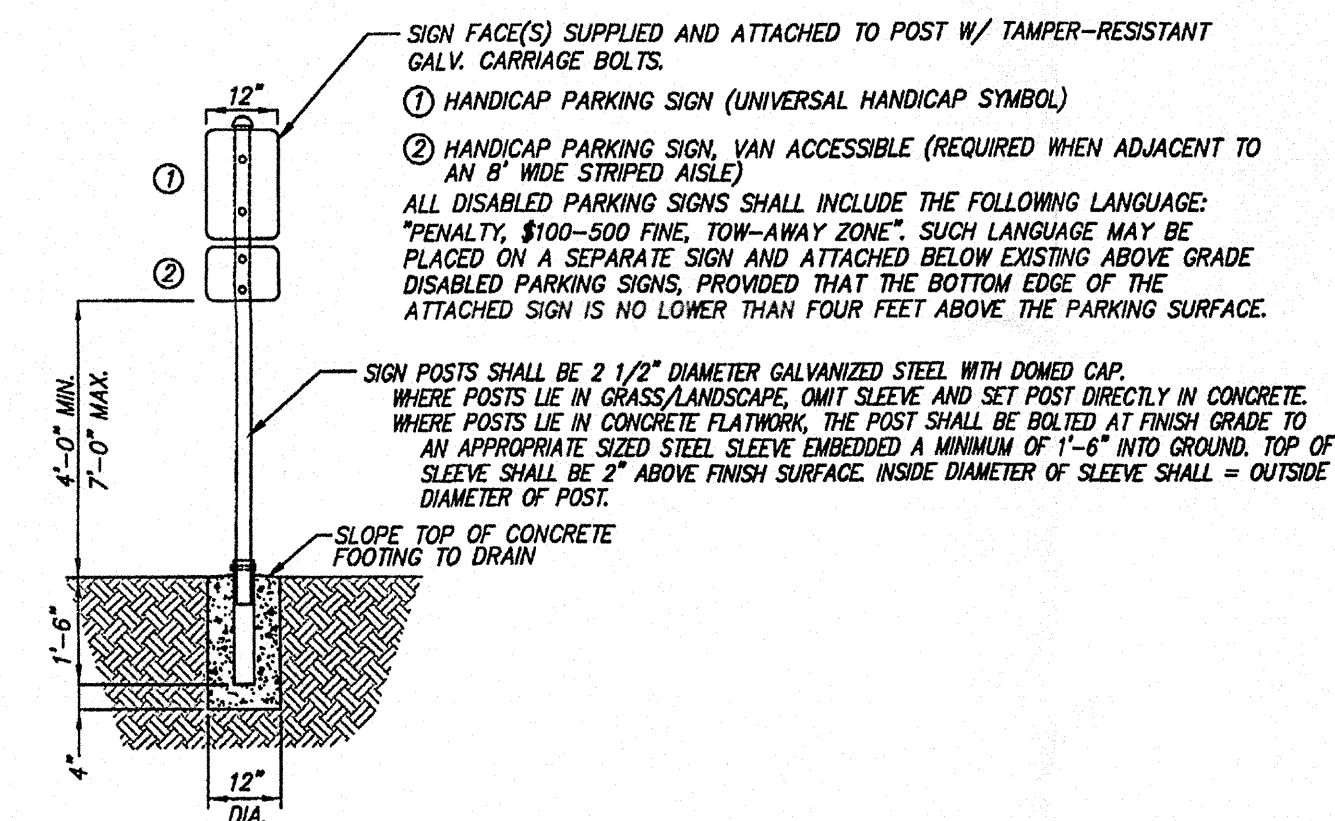
C CONCRETE CURB & GUTTER
C-06 NO SCALE



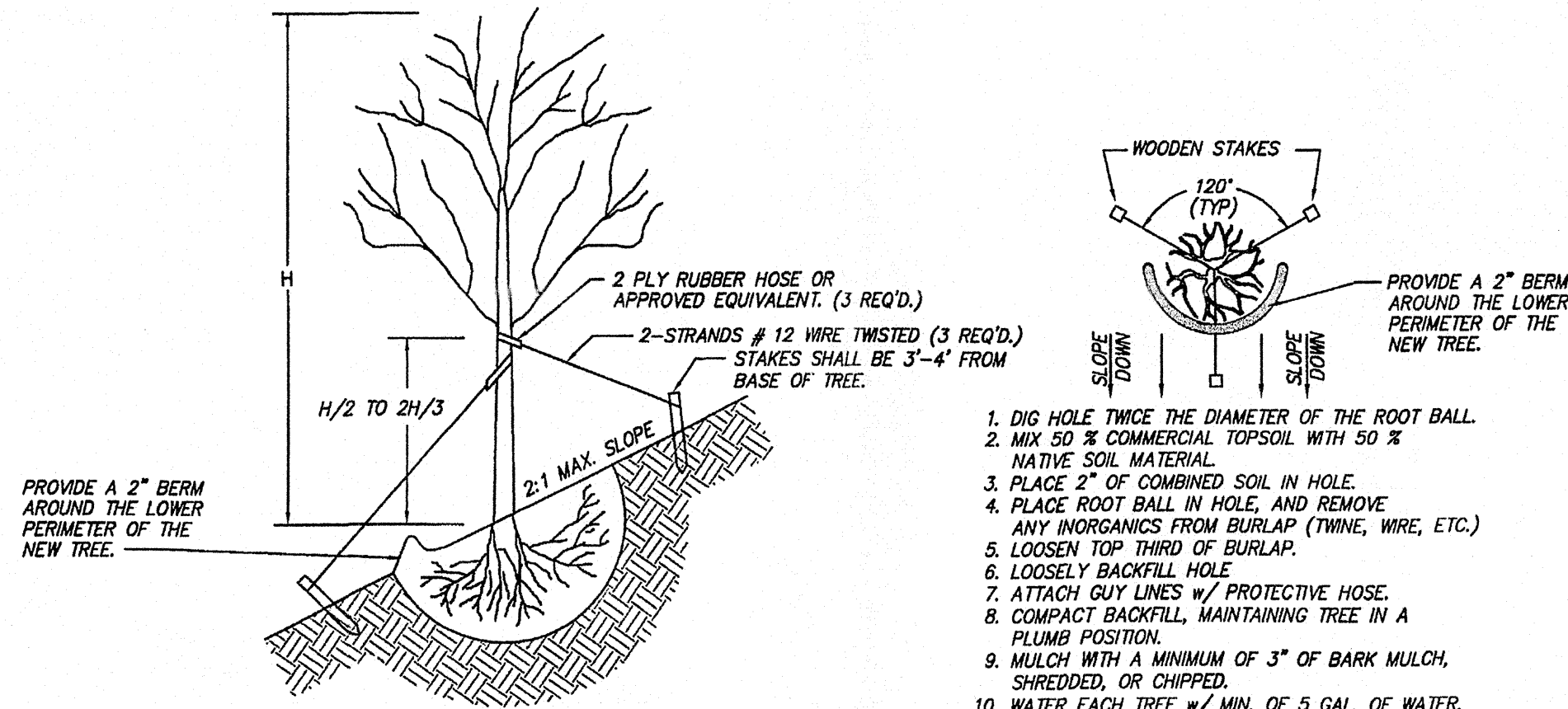
D CURB TAPER
C-06 NO SCALE



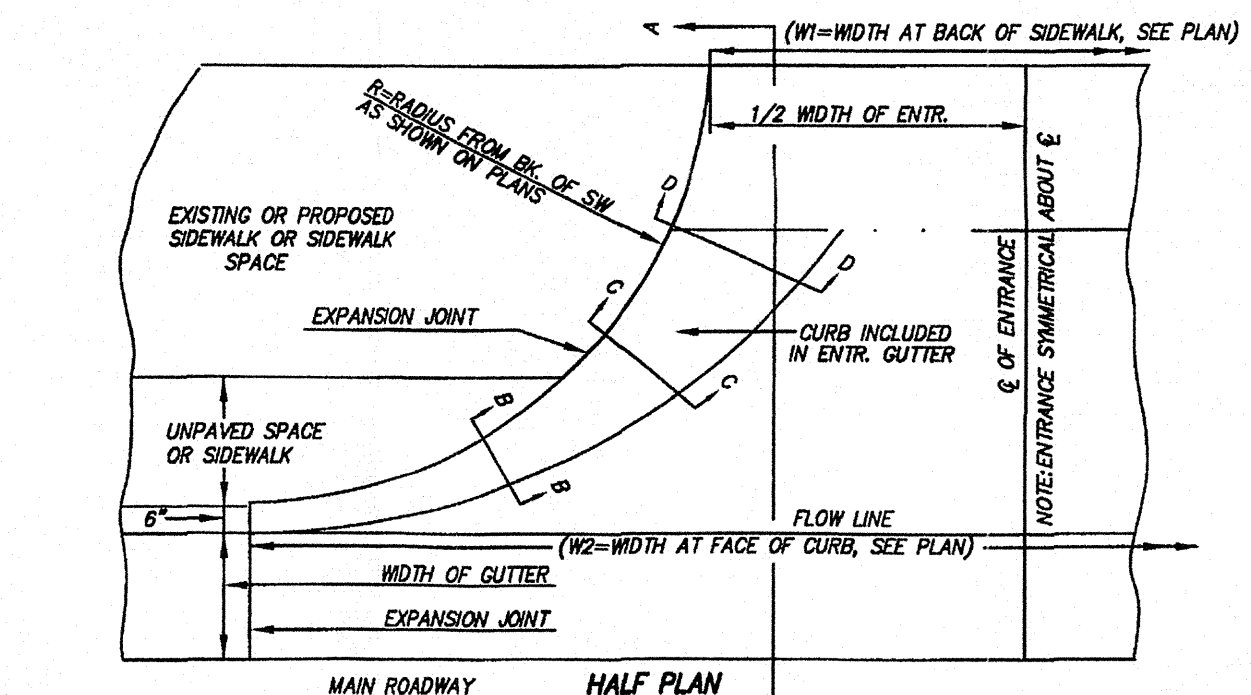
E CONCRETE SIDEWALK
C-06 NO SCALE



F POST-MOUNTED SIGN
C-06 NO SCALE

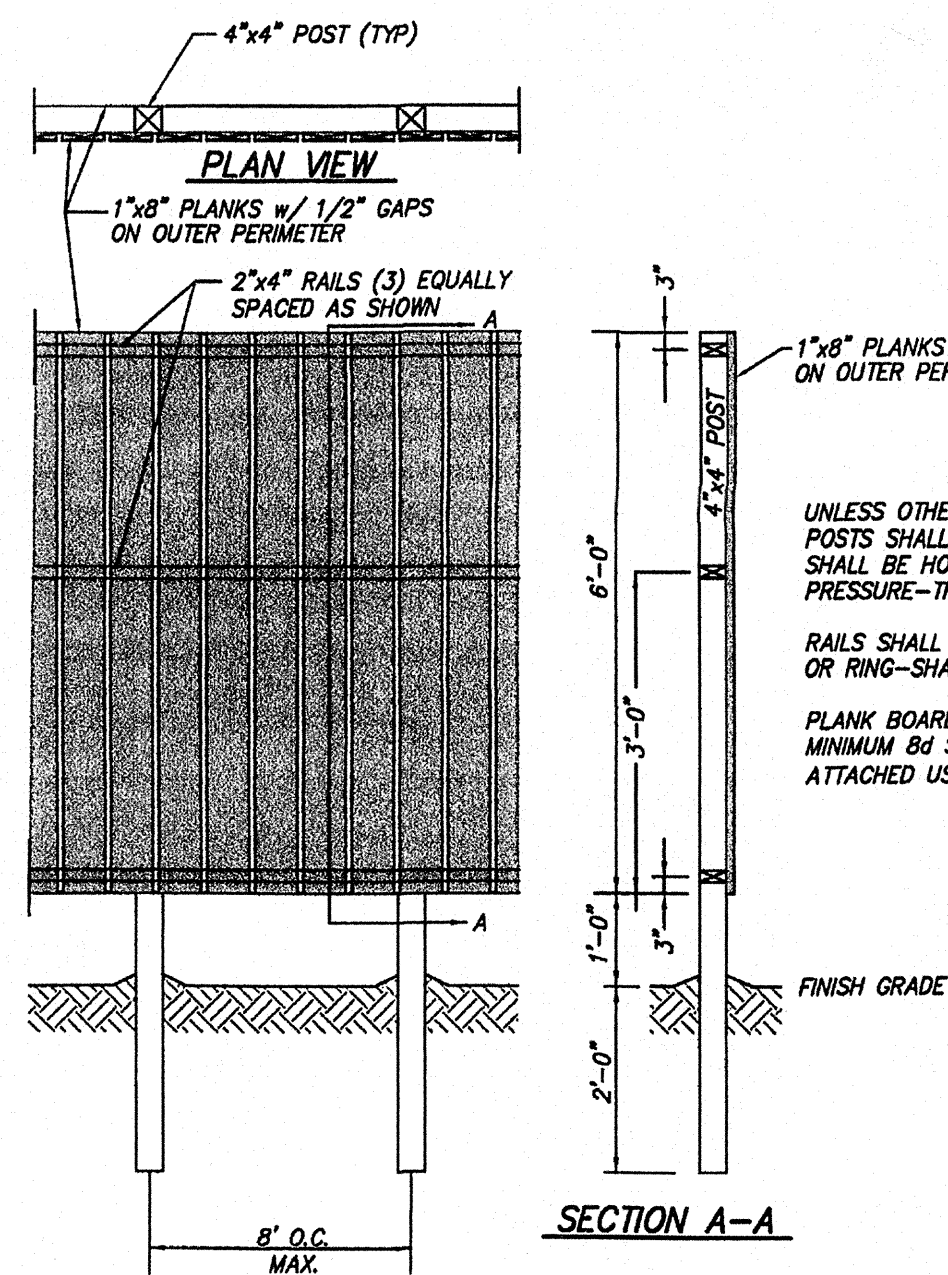


G TREE PLANTING DETAIL
C-06 NO SCALE

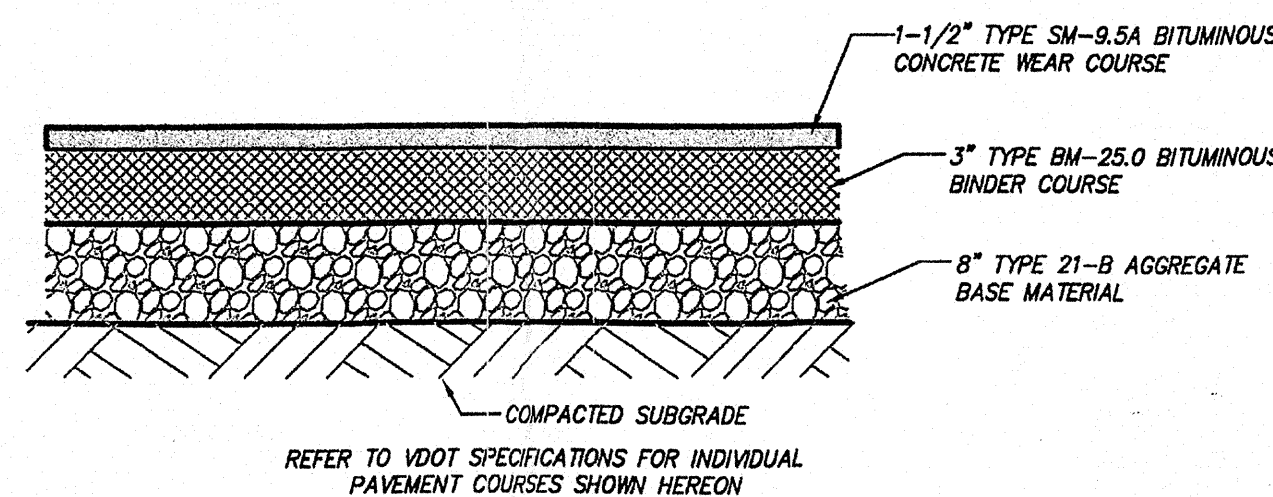


- GENERAL NOTES:**
- Standard residential "Entrance" shall have a minimum curb radius (R) of 2 feet. Standard commercial "Entrance" shall have a minimum curb radius (R) of 7 1/2 feet.
 - Minimum entrance width to be 12 feet.
 - Where curb & gutter already exists both curb & gutter shall be removed if proposed entrance falls within five (5) feet of an existing joint, removal & reconstruction shall be to that joint. Any concrete removed at other than an existing joint shall be cut with a mechanical saw specifically manufactured for that purpose.
 - Where sidewalk exists or is to be constructed across driveways, the thickness thereof must correspond with the thickness of the entrance.
 - Whenever "Entrances" exceeds twenty-four (24) feet in width, a 1/2" preformed expansion joint filler shall be installed through the center, perpendicular to flow line.
 - Finish "Entrances" shall have a "coarse broom finish" running parallel to flow line.
 - Curing shall be accomplished by the use of a liquid membrane seal containing white pigment, applied at the rate of one (1) gallon per 150 square feet.
 - All "Entrances" shall be constructed according to City of Roanoke specifications and to the lines and grades established by the construction plans and actual field elevations.
 - Entrances exceeding 30 feet in width shall be approved by the City Manager.

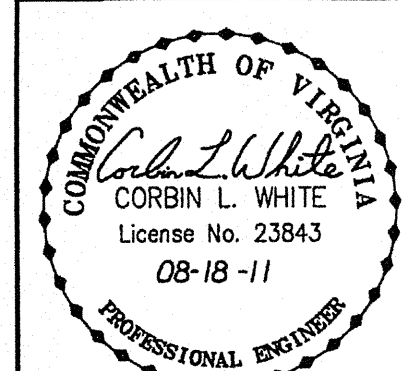
H STANDARD CITY OF ROANOKE ENTRANCE
C-06 NO SCALE



J SCREENING FENCE DETAIL
C-06 NO SCALE



K BITUMINOUS PAVEMENT DETAIL - HEAVY DUTY
C-06 NO SCALE



SITE CONSTRUCTION DETAILS
FOR
AARON'S RENTALS
SITE PLAN FOR BUILDING AND
PARKING LOT MODIFICATIONS
3607 WILLIAMSON ROAD, NW
CITY OF ROANOKE, VIRGINIA

Designed: C.L. White
Drawn: C.L. White
Checked:
Date: August 18, 2011
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4203 MELROSE AVENUE
P.O. BOX 02810
ROANOKE, VIRGINIA 24017-0280
(540) 366-8400
FAX: (540) 366-8702

SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE PURPOSE OF THIS PROJECT IS THE DEMOLITION OF A PORTION OF THE EXISTING BUILDING, AND CONSTRUCTION OF A NEW OPEN-AIR PARKING LOT, TO PROVIDE MORE CONVENIENT CUSTOMER ACCESS TO THE FACILITY FROM BOTH WILLIAMSON ROAD AND OAKLAND BOULEVARD. A NEW SMALL STORM DRAIN COLLECTION SYSTEM WILL BE PLACED IN THE SOUTHERN CORNER OF THE NEW PARKING LOT, AND THIS SYSTEM WILL DISCHARGE DIRECTLY INTO THE PUBLIC STORM DRAIN SYSTEM IN OAKLAND BOULEVARD. AS EVIDENCED BY ENGINEERING COMPUTATIONS SUBMITTED TO THE CITY, STORMWATER MANAGEMENT MEASURES ARE NOT WARRANTED FOR THE SUBJECT REDEVELOPMENT. THIS PROJECT IS BEING PERFORMED FOR THE FACILITY DEVELOPER, AARON'S, INC.. THE SITE IS LOCATED AT THE INTERSECTION OF WILLIAMSON ROAD, N.W. AND OAKLAND BOULEVARD, N.W. IN THE CITY OF ROANOKE, VIRGINIA. IT IS ESTIMATED THAT THE TOTAL DISTURBED AREA WILL BE 0.37 AC. (16,050 SQ. FT.).

EXISTING SITE CONDITIONS:

AS SHOWN ON SHEET C-02 OF THESE PLANS, THE NEW PARKING LOT SITE IS IN AN AREA THAT WAS ORIGINALLY COVERED BY BUILDING FOOTPRINTS AND COMPACTED GRAVEL PARKING AREAS. UNDER PROPOSED CONDITIONS, THE LAND USE WILL BE PAVED PARKING INTERIOR TO THE LOT, AND GRASS / LANDSCAPING ADJACENT TO OAKLAND BOULEVARD. THE SUBJECT SITE LIES WITHIN "ZONE X" AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAPS (FIRM MAP NUMBER 51161C0162G, LAST REVISION DATED 09/28/07), AND THEREFORE LIES ABOVE THE FEMA DESIGNATED ONE-HUNDRED YEAR FLOOD ELEVATIONS.

EXISTING SOIL CONDITIONS:

SOILS: THERE HAVE BEEN NO COMPREHENSIVE SUBSURFACE INVESTIGATIONS FOR THE SUBJECT DEVELOPMENT. THE USDA "SOIL SURVEY OF ROANOKE COUNTY AND THE CITIES OF ROANOKE AND SALEM, VIRGINIA" DEFINES THE SITE SOILS AS BELONGING TO THE "FREDERICK URBAN LAND COMPLEX, 2 TO 15 PERCENT SLOPES" AND "URBAN LAND" CLASSIFICATIONS. ACCORDING TO THIS SURVEY, THE SOILS ARE SILTY LOAMS AND CLAYS. THE SOILS ARE REPORTED AS HAVING MODERATE PERMEABILITY, HIGH EROSION POTENTIAL, AND MORE THAN 72" TO BEDROCK. IT SHOULD BE NOTED THAT THE "URBAN LAND" SOIL MAPPING UNIT IS FAIRLY GENERALIZED, BEING INTERMINGLED THROUGHOUT THE AREA WITH BOTH DEVELOPED AND UNDEVELOPED LAND USES.

ADJACENT PROPERTY:

THE AREA OF PROPOSED DEVELOPMENT IS BOUNDED TO THE SOUTH BY OAKLAND BOULEVARD; TO THE WEST BY WILLIAMSON ROAD; TO THE NORTH BY RETAIL-USE PROPERTIES; AND TO THE EAST BY A SINGLE-FAMILY RESIDENCE

OFF-SITE AREAS:

IT IS THE ENGINEER'S ESTIMATE THAT THE PROPOSED DEVELOPMENT WILL REQUIRE NEITHER IMPORT OR EXPORT OF EARTHWORK MATERIAL TO / FROM THE SITE, GIVEN THE MINOR AMOUNT OF GRADING INVOLVED IN CONSTRUCTION OF THE NEW PARKING LOT. IN THE EVENT THAT MINOR IMPORT OR EXPORT OF MATERIAL IS REQUIRED, THE CONTRACTOR HOLDING THE LAND DISTURBING PERMIT WILL BE REQUIRED TO VERIFY THAT AN APPROVED SOIL EROSION CONTROL PLAN AND PERMIT ARE IN PLACE FOR ANY OFF-SITE BORROW, WASTE, OR STORAGE SITES USED IN CONJUNCTION WITH THIS PROJECT. THE CITY OF ROANOKE OR ITS APPROVED AGENT RESERVES THE RIGHT TO PLACE A STOP WORK ORDER ON THE SUBJECT SITE AND ANY OFF-SITE WASTE OR BORROW SITES, SHOULD APPROVED PLANS AND PERMITS NOT EXIST FOR ALL SITES.

ANY SEDIMENT FROM THE PROPOSED DEVELOPMENT THAT ENDOUCHES OUTSIDE THE LIMITS OF CONSTRUCTION OR ONTO ADJACENT PROPERTIES SHALL BE IMMEDIATELY REMOVED AND THE AFFECTED AREAS RESTORED TO PRE-CONSTRUCTION CONDITIONS OR BETTER, IN ACCORDANCE WITH THESE PLANS AND THE PROJECT MANUAL (AS APPLICABLE).

CRITICAL AREAS:

- SILT FENCE BARRIERS SHALL BE INSPECTED DAILY AND CLEANED OR REPLACED AS REQUIRED.
- INLET PROTECTION MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD, SUCH THAT SILTATION OF THE STORM DRAIN SYSTEM IS KEPT AT A MINIMUM.
- EXISTING AND PROPOSED SLOPES SHALL BE PROTECTED FROM EROSION. UNDER NO CIRCUMSTANCES SHALL CONCENTRATED RUNOFF BE ALLOWED TO FLOW DOWN SLOPES, OR ONTO UNPROTECTED AREAS. SURFACE ROUGHENING OF ALL DISTURBED SLOPES SHALL BE MAINTAINED AT ALL TIMES.
- PUBLIC STREETS AND ADJACENT PAVED AREAS SHALL REMAIN IN A DUST AND MUD-FREE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. SHOULD OFF-SITE SEDIMENTATION OCCUR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO RETURN ALL AFFECTED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION, AT NO ADDED COST TO THE OWNER.
- DISTURBED AREAS THAT ARE NOT PERMANENTLY STABILIZED WITHIN THIRTY (30) DAYS SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH STANDARD AND SPECIFICATION 3.31 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- ALL PROTECTIVE MEASURES WHICH PERTAIN TO, OR INCLUDE CUT AND FILL SLOPES (SILT FENCE, DIVERSION DIKES, ETC.) SHALL BE INSTALLED AND MAINTAINED AS THE SLOPES COME TO GRADE. ADDITIONAL DIVERSION DIKES WILL BE REQUIRED TO PROTECT DISTURBED AREAS, UNTIL SUCH TIME THAT THE STORM DRAIN SYSTEM IS IN PLACE, AND FUNCTIONALLY PROTECTED FROM SEDIMENT INFILTRATION. TEMPORARY SEEDING OF SLOPES IS TO BE PERFORMED ON A WEEKLY BASIS, UNLESS THE SLOPES ARE TO FINAL GRADE. SLOPES AT FINAL GRADE ARE TO BE PERMANENTLY SEEDED WITHIN SEVEN DAYS OF REACHING FINAL GRADE.

THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES AT THEIR OPTIMUM PERFORMANCE, SUCH THAT ADJOINING AREAS AND DRAINAGEWAYS ARE PROVIDED THE BEST AVAILABLE PROTECTION AT EVERY PHASE OF CONSTRUCTION. IT IS IMPERATIVE THAT SEDIMENT TRANSFER FROM THIS SITE IS MINIMIZED.

EROSION AND SEDIMENT CONTROL MEASURES:

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

- PRIOR TO ANY WORK BEING PERFORMED ON THE PROPOSED PROJECT, A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE PROVIDED OFF OF THE EXISTING PAVEMENT. THE ENTRANCE SHALL BE COMPOSED OF GRADED 3" STONE TO A MINIMUM DEPTH OF 6". THE ENTRANCE SHALL ALSO RUN FOR A MINIMUM DISTANCE OF NOT LESS THAN 70' BACK FROM THE EXISTING PAVEMENT EDGES. THE ENTRANCE SHALL BE CONTINUALLY MAINTAINED, INSPECTED, REPAIRED, OR OTHERWISE BE KEPT IN GOOD FUNCTIONAL ORDER THROUGHOUT THE EXTENT OF THE WORK ON THE SITE.
- REGARDLESS OF FUTURE DEVELOPMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS. THIS WORK SHALL BE COORDINATED IN ORDER TO PROTECT AREAS FROM THE WORK WHICH IS TO FOLLOW. CONTROL AT CENTERS OF FLOW AND OTHER POINTS OF CONCENTRATION SHOWN HEREIN SHALL BE CONSTRUCTED FIRST.
- FOLLOWING INSTALLATION OF THE PERIMETER CONTROLS, THE SIEWORK CONTRACTOR SHALL BEGIN EARTHWORK OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH CLEARING, GRUBBING, AND GRADING OPERATIONS. DISTURBED AREAS INDICATED ON THESE PLANS TO RECEIVE PERMANENT SEEDING SHALL BE SEEDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.
- IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR:
 - A. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS.
 - B. ALL SILT FENCE BARRIERS AND INLET PROTECTIONS SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP.
 - C. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED.
- THE SOIL EROSION CONTROL MEASURES INSTALLED FOR THIS CONTRACT SHALL REMAIN IN PLACE UNTIL REMOVAL IS APPROVED BY THE CITY OF ROANOKE INSPECTOR, AT WHICH TIME IT SHALL BE THE SIEWORK CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL TEMPORARY MEASURES FROM THE SITE, UNLESS OTHERWISE REQUIRED HEREIN. REMOVE ACCUMULATED SEDIMENT FROM THE NEW STORMWATER MANAGEMENT AND STORM DRAIN SYSTEMS TO AN APPROVED WASTE AREA, AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS. IF NO DIRECTIVE IS GIVEN TO THE CONTRACTOR FOR REMOVAL OF TEMPORARY MEASURES, THE CONTRACTOR SHALL REMOVE THESE ITEMS WITHIN 30 DAYS OF PERMANENT STABILIZATION OF THE DISTURBED AREAS.

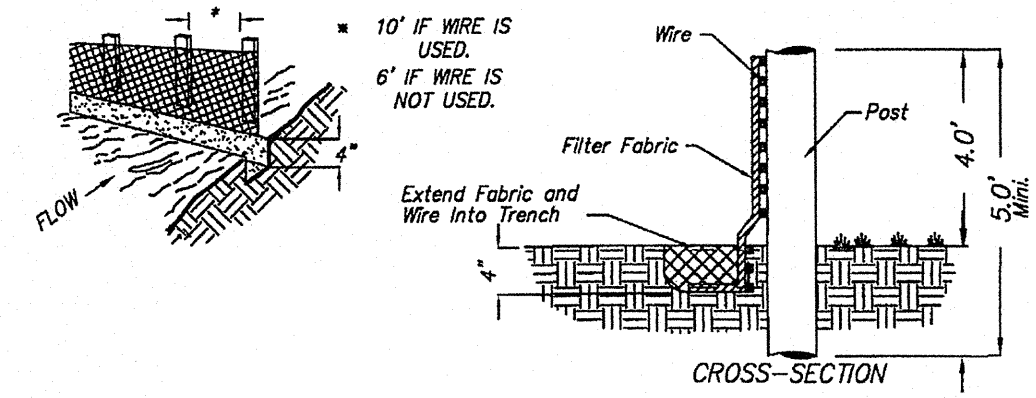
GENERAL COMMENTS:

- THE SIEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- THE CITY OF ROANOKE OR THEIR AUTHORIZED AGENT RESERVES THE RIGHT TO ADD TO, DELETE, OR OTHERWISE CHANGE EROSION CONTROL DEVICES AS MAY BE DEEMED NECESSARY, BY WRITTEN NOTIFICATION TO THE CONTRACTOR.
- NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE CITY OF ROANOKE.
- THE ENGINEER, CALDWELL WHITE ASSOCIATES, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

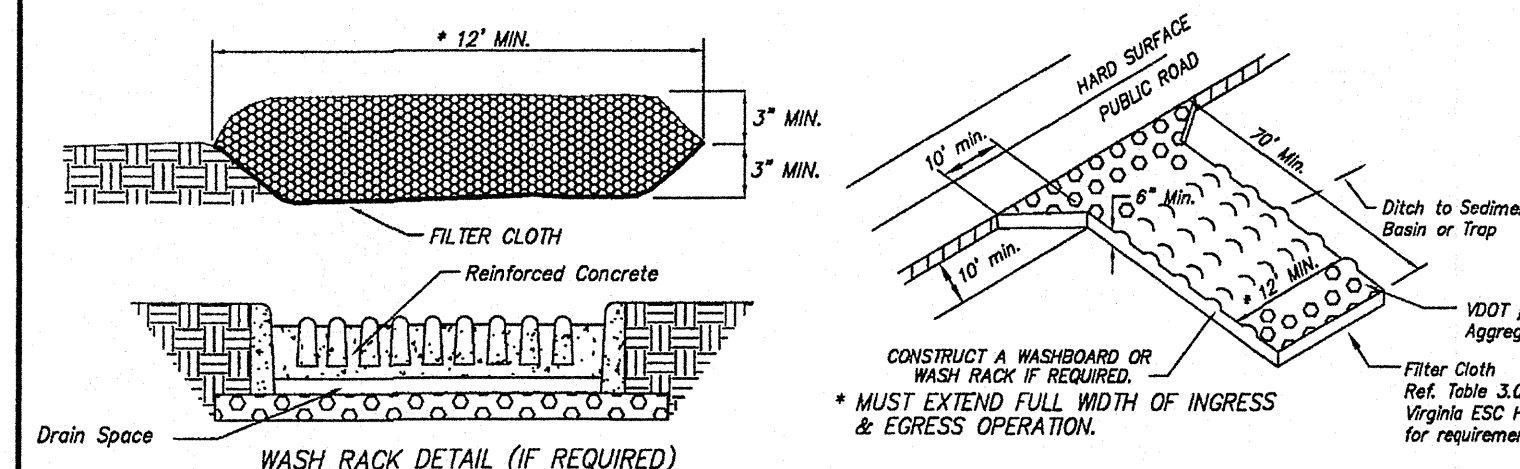
STATE IMPOSED MINIMUM STANDARDS

THE FOLLOWING STANDARDS ARE TO BE PROVIDED OR ADDRESSED ON EVERY DEVELOPMENT PROJECT EXCEEDING 5000 S.F. IN AREA OF DISTURBANCE. THESE STANDARDS ARE CONSIDERED A MINIMUM AND MAY REQUIRE ADDITIONAL MEASURES AS DEEMED NECESSARY BY THE LOCAL APPROVING AUTHORITY OR THE CONSULTING ENGINEER.

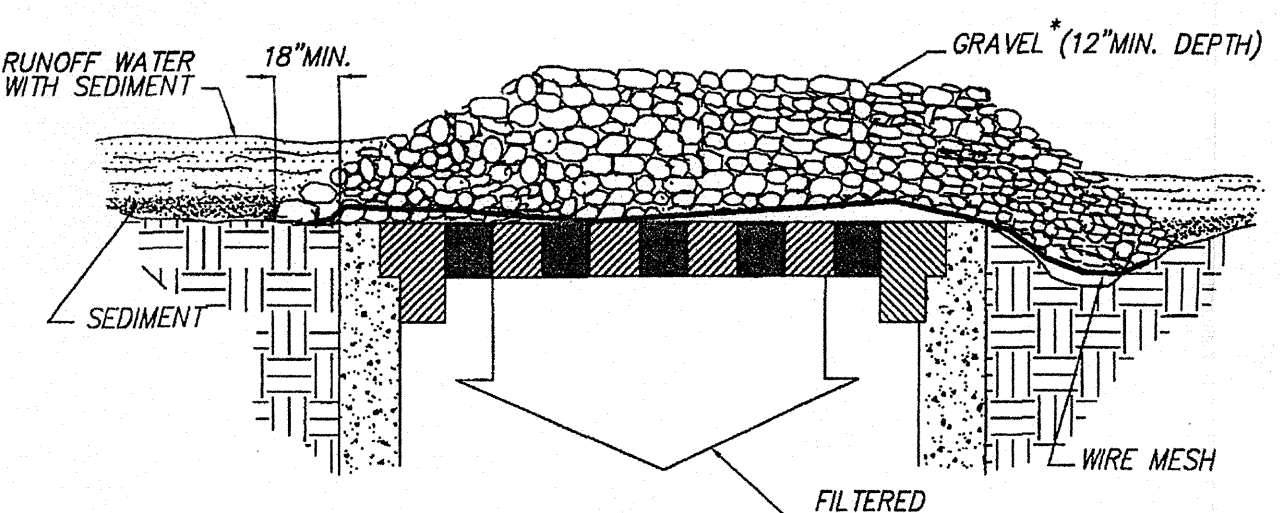
No.	CRITERIA, TECHNIQUE OR METHOD	REMARKS
1	PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENuded AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE HAS BEEN REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENuded AREAS THAT MAY BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.	SEE "PERMANENT SEEDING" AND "TEMPORARY SEEDING" REQUIREMENTS, SHEET C-05 AND THIS SHEET.
2	DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR 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 "TOPSOILING" REQUIREMENTS, SHEET C-05.
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 DESIGNATED AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.	SELF EXPLANATORY - REFER TO THE SEEDING SPECS, THIS SHEET.
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.	INSTALL NEW SILT FENCE REQUIRED BY SHEET C-05 PRIOR TO LAND DISTURBANCE.
5	STABILIZATION METHODS SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
6	SEDIMENT TRAPS AND BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
7	CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZATION MEASURES UNTIL THE PROBLEM IS CORRECTED.	SELF EXPLANATORY
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.	SELF EXPLANATORY
9	WHenever WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.	SEE REQUIREMENTS FOR INLET PROTECTION MEASURES, SHEET C-05
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.	SEE REQUIREMENTS FOR INLET PROTECTION MEASURES, SHEET C-05
11	BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
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 THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
13	WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX (6) MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
14	ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET. THE BEDS AND BANKS OF ANY WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
15	THE BEDS AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
16	UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: 1) NO MORE THAN 500 LINEAR FEET OF ANY TRENCH MAY BE OPENED AT ONE TIME. 2) EXCAVATED MATERIAL SHALL BE PLACED ON THE UPSHILL SIDE OF TRENCHES. 3) EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. 4) RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS. 5) APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.	SELF EXPLANATORY
17	WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SNEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.	SELF EXPLANATORY
18	ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (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 TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.	SELF EXPLANATORY
19	PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE APPLICABLE CRITERIA.	ENGINEERING COMPUTATIONS INDICATE THAT THE SUBJECT REDEVELOPMENT WILL NOT INCREASE RUNOFF RATES FOR THE GIVEN DESIGN STORMS. IN THE EVENT THAT OFF-SITE EROSION OR SEDIMENTATION OCCURS, THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT IMMEDIATELY AND REPAIR AFFECTED AREAS AS NECESSARY.



(SF) CONSTRUCTION OF A SILT FENCE



(GE) TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



SPECIFIC APPLICATION
This method of inlet protection is applicable where heavy concentrated flows are expected, but not where ponding around the structure might cause excessive inconvenience or damage to adjacent structures and unprotected areas.

* Gravel shall be VDOT #3, #357 or #5 coarse aggregate.

(IP) GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

(TS) TEMPORARY SEEDING

DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING MEASURES AS SHOWN HEREON, AND AS FURTHER DETAILED AS "STANDARD AND SPECIFICATION 3.31 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION. IN ADDITION TO AREAS OF GENERAL GRADING THAT WILL NOT BE FINE-GRADED FOR GREATER THAN 30 DAYS, THE FOLLOWING SPECIFIC SEEDING MEASURES SHALL BE STABILIZED WITH TEMPORARY SEEDING IMMEDIATELY UPON COMPLETION OF CONSTRUCTION OF THE TEMPORARY MEASURE:

- SOIL STOCKPILES
- DIKES, DAMS, AND SIDES OF SEDIMENT BASINS
- TEMPORARY ROADWAY EMBANKMENTS

PRIOR TO SEEDING, INSTALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES, WATERWAYS, AND BASINS. PROVIDE PLANTS AS SPECIFIED HEREIN, OR ENGINEER-APPROVED EQUAL.

SEEDING PREPARATION:
LINE SHALL BE APPLIED IF DISTURBED AREAS WILL REMAIN DORMANT BETWEEN 30 DAYS AND 120 DAYS. IF REQUIRED, LINE SHALL BE APPLIED AS SHOWN, BASED ON SOIL ACIDITY:
pH APPLICATION OF AGRICULTURAL LIMESTONE

BELOW 4.2 3 TONS PER ACRE
4.2 TO 5.2 2 TONS PER ACRE
5.2 TO 6.0 1 TON PER ACRE
ABOVE 6.0 LINE NOT REQUIRED

FERTILIZER SHALL BE APPLIED AS 600 LBS/ACRE OF 10-20-10 OR EQUIVALENT NUTRIENTS. LIME (AS APPLICABLE) AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2 TO 4 INCHES OF SOIL, IF POSSIBLE.

SURFACE ROUGHENING SHALL BE REQUIRED WHERE AREAS TO BE SEEDED HAVE BEEN COMPACTED, CRUSTED, OR HARDENED BY CONSTRUCTION TRAFFIC. AS REQUIRED, SEEDINGS SHALL BE ROUGHENED IN ACCORDANCE WITH STANDARD AND SPECIFICATION 3.29 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. (TRACKING WITH BULLDOZER CLEATS SHALL BE USED IN SANDY SOILS)

SEEDING SHALL BE EVENLY APPLIED WITH THE SAME MEANS SPECIFIED HEREIN FOR PERMANENT SEEDING. SMALL GRASS SHALL BE PLANTED NO MORE THAN ONE INCH DEEP. GRASSES AND LEGUMES SHALL BE PLANTED WITH NO LESS THAN 1/4" OF SOIL COVER.

MULCHING:
SEEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED ACCORDING TO STANDARD AND SPECIFICATION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, EXCEPT THAT FIBER MULCH MAY NOT BE USED. STRAW MULCH SHALL BE USED DURING THESE PERIODS.

TEMPORARY SEEDINGS MADE UNDER FAVORABLE SOIL AND SITE CONDITIONS DURING OPTIMUM SPRING AND FALL SEEDING DATES MAY NOT REQUIRE MULCH.

RE-SEEDING:
AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT HILL EROSION SHALL BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS BY RANGE OF PLANTING DATES:
09/01 TO 02/15 ANNUAL RYEGRASS @ 50 LB / ACRE
WINTER RYE @ 50 LB / ACRE
02/16 TO 04/30 ANNUAL RYEGRASS @ 100 LB / ACRE
GERMAN MILLET @ 50 LB / ACRE
05/01 TO 08/31

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION & SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED.
- IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
- FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL EROSION CONTROL CONSTRUCTION SEQUENCING

FOLLOWING ISSUANCE OF A LAND DISTURBING PERMIT FROM THE CITY OF ROANOKE, THE CONTRACTOR SHALL PERFORM HIS SIEWORK IN GENERAL CONFORMANCE WITH THE FOLLOWING:

- INSTALL NEW CONSTRUCTION ENTRANCE.
- PROVIDE AND INSTALL PERIMETER CONTROLS. INCLUDED IS THE INSTALLATION OF SILT FENCE BARRIERS, TEMPORARY DIVERSION DIKES, SEDIMENT TRAPS, TEMPORARY SEDIMENT BASINS, ETC. SEE PLAN FOR APPLICABILITY OF REFERENCED MEASURES. TEMPORARY DIVERSIONS SHALL BE MAINTAINED AS EARTHWORK PROGRESSES TO DIRECT RUNOFF TO THE PERIMETER CONTROLS.
- PROVIDE AND INSTALL COLLECTION POINTS AT EXISTING POINTS OF STORM DRAIN COLLECTION. THE CONTRACTOR SHALL INSURE THAT ALL COLLECTION POINTS ARE PROTECTED FROM SEDIMENTATION THROUGHOUT EVERY PHASE OF CONSTRUCTION. PARTICULAR ATTENTION SHALL BE GIVEN TO PROTECTING COLLECTION POINTS DURING THE CONSTRUCTION PERIOD REQUIRING DEMOLITION/ADJUSTMENT OF EXISTING STRUCTURES, AND THE PERIOD OF INSTALLATION OF NEW STORM DRAINAGE SYSTEMS.
- STOCKPILES SHALL BE STOCKPILED ON-SITE. PERIMETER SILT FENCE, BARRIER OR OTHER APPROVED PERIMETER CONTROLS SHALL PROTECT STOCKPILES FROM EROSION AND OFF-SITE SEDIMENTATION. THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING OF STOCKPILED MATERIALS.
- PERFORM CUT AND FILL OPERATIONS IN CONJUNCTION WITH INSTALLATION OF THE NEW STORM DRAIN STRUCTURES AND PIPE CONDUITS. IT IS STRONGLY SUGGESTED THAT THE NEW STORM DRAIN BE INSTALLED AS SOON AS PRACTICALLY POSSIBLE, AND INLET PROTECTIVE MEASURES BE INSTALLED IMMEDIATELY THEREAFTER, UNTIL SUCH TIME THAT THE PROTECTED STORM DRAINAGE SYSTEM IS IN PLACE AND FUNCTIONAL. THE CONTRACTOR SHALL INSTALL AND MAINTAIN DIVERSIONS TO DIRECT RUNOFF TO PROTECTED AREAS.
- ALL DISTURBED AREAS NOT TO RECEIVE HARD SURFACING SHALL BE SEEDED, FERTILIZED, LIMED, MULCHED, AND WATERED IN ACCORDANCE WITH THESE PLANS AND THE VIRGINIA EROSION AND SEDIMENTATION CONTROL HANDBOOK.
- THE SIEWORK CONTRACTOR SHALL CLEAN, REPAIR, OR OTHERWISE MAINTAIN CONTROL MEASURES THROUGHOUT THE CONSTRUCTION, INCLUDING THE INSTALLATION OF NEW UTILITIES.
- THE BUILDING CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. DIRECT ALL BUILDING PAD RUNOFF TO PROTECTED AREAS OF STORM DRAIN COLLECTION. UNDER NO CIRCUMSTANCES SHALL BUILDING PAD RUNOFF BE ALLOWED TO FLOW DOWN SLOPES OR TO FLOW INTO UNPROTECTED AREAS. UPON COMPLETION OF THE BUILDING ROOF AND DOWNSPOUT SYSTEM, THE BUILDING CONTRACTOR SHALL IMMEDIATELY CONNECT DOWNSPOUTS TO THE UNDERGROUND COLLECTOR SYSTEM AS APPLICABLE.
- AS SOON AS POSSIBLE FOLLOWING COMPLETION OF THE SIEWORK, THE SITE CONTRACTOR SHALL INSTALL THE PAVEMENT BASE STONE AND CURB COURSE.
- WITHIN 30 DAYS FOLLOWING SUBSTANTIAL VEGETATIVE COVER OF DISTURBED AREAS (80% MIN. COVERAGE), THE CONTRACTOR SHALL REMOVE ALL TEMPORARY MEASURES FROM THE SITE.

LAND DISTURBANCE NOTES

ALL OFF-SITE DISPOSAL OF MATERIALS, AND ASSOCIATED FEES, WILL BE THE SIEWORK CONTRACTOR'S RESPONSIBILITY, AND IS TO BE PERFORMED IN A LEGAL FASHION (APPROVED WASTE SITE). ALL HAULING IS TO BE PERFORMED IN STRICT ACCORDANCE WITH LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS PERTAINING THERETO.

TOPSOIL NOTES

UPON STRIPPING OF TOPSOIL FROM THE AREAS OF CONSTRUCTION, THE CONTRACTOR SHALL STOCKPILE TOPSOIL IN AREAS PROTECTED FROM EROSION, OR PROVIDE S/D PROTECTIONS AROUND THE PERIMETER OF THE STOCKPILES. A MINIMUM OF SIX INCHES OF TOPSOIL SHALL BE PLACED ON ALL AREAS FLATTER THAN 2% SLOPES. SLOPES AT 2% IN THEIR GREATEST DIMENSION, AND OTHER SLOPES DELETABLE TO THE GROWTH OF LAWN GRASSES, WITHIN THE UPPER 8" OF SOIL. THIS MAY BE ACCOMPLISHED BY NORMAL METHODS (MECHANICAL ROCK RAKE, HAND RAKE, ETC.) OR OTHER INNOVATIVE METHODS APPROVED BY THE ENGINEER. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED IN ACCORDANCE WITH SEEDING MIXTURES AND RATES SPECIFIED HEREIN. MULCHES USED FOR STABILIZATION SHALL BE HIGH QUALITY OAT OR WHEAT STRAW. HAY MIXTURES, PESQUES, AND OTHER WEED-LADEN MULCHES ARE PROHIBITED FROM USE WITH PERMANENT SEEDING MIXTURES.

RESTORATION NOTES

FOLLOWING THE PROGRESSION OF ROUGH GRADING, INSTALLATION OF NEW UTILITIES, STORM DRAIN, AND PRIOR TO PAVING OPERATIONS, THE SIEWORK CONTRACTOR SHALL FINE GRADE ALL AREAS FROM TEN FEET (10') OUTSIDE THE FLOWING LINES TO A TOLERANCE OF ± 0.20" (SLOPES STEEPER THAN 3% TO A TOLERANCE OF ± 0.33"). INCLUDE FINE GRADING IN THE REMOVAL OF ALL ROOT MASS, ROCKS IN EXCESS OF 2" IN THEIR GREATEST DIMENSION, AND OTHER MATERIALS DELETABLE TO THE GROWTH OF LAWN GRASSES, WITHIN THE UPPER 8" OF SOIL. THIS MAY BE ACCOMPLISHED BY NORMAL METHODS (MECHANICAL ROCK RAKE, HAND RAKE, ETC.) OR OTHER INNOVATIVE METHODS APPROVED BY THE ENGINEER. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED IN ACCORDANCE WITH SEEDING MIXTURES AND RATES SPECIFIED HEREIN. MULCHES USED FOR STABILIZATION SHALL BE HIGH QUALITY OAT OR WHEAT STRAW. HAY MIXTURES, PESQUES, AND OTHER WEED-LADEN MULCHES ARE PROHIBITED FROM USE WITH PERMANENT SEEDING MIXTURES.

(PS) PERMANENT SEEDING MIXTURE

DISTURBED AREAS SHALL BE PERMANENTLY SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE, OR ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN ONE YEAR.

TYPE A	TYPE B (SLOPES 3:1 OR STEEPER)
15 OCTOBER TO 1 FEBRUARY K-31 FESCUE @ 5 LB / 1000 SF BORZY WINTER RYE @ 1/2 LB / 1000 SF RED TOP @ 1/8 LB / 1000 SF	15 MARCH TO 1 MAY CROWN VETCH @ 1/2 LB / 1000 SF PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF RED TOP @ 1/8 LB / 1000 SF
1 FEBRUARY TO 1 JUNE K-31 FESCUE @ 5 LB / 1000 SF ANNUAL RYE @ 1/2 LB / 1000 SF	15 AUGUST TO 1 OCTOBER CROWN VETCH @ 1/2 LB / 1000 SF PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF RED TOP @ 1/8 LB / 1000 SF
1 JUNE TO 1 SEPTEMBER K-31 FESCUE @ 5 LB / 1000 SF GERMAN MILLET @ 1/2 LB / 1000 SF	
1 SEPTEMBER TO 15 OCTOBER C-31 FESCUE @ 5 LB / 1000 SF ANNUAL RYE @ 1/2 LB / 1000 SF	

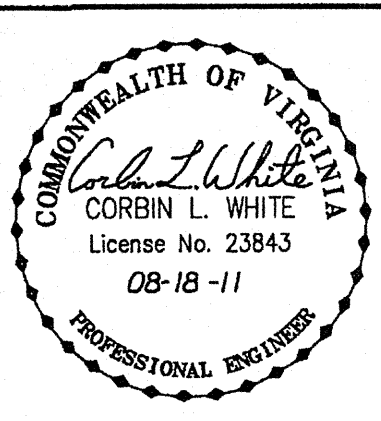
LIME: 140 LB / 1000 SF PULVERIZED AGRICULTURAL LIMESTONE
FERTILIZER: 5-20-10 @ 25 LB / 1000 SF
38-0-0 @ 7 LB / 1000 SF

MULCH: IF REQUIRED, SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 1.75 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL CONDITIONS:
INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDINGS, AND RESEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE INSPECTOR.

SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRABLE, SEEDED. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.

TOTAL DISTURBED AREA = 0.37 AC. = 16,050 SQ. FT.



SOIL EROSION AND SEDIMENT CONTROL DETAILS
FOR
AARON'S RENTALS
SITE PLAN FOR BUILDING AND PARKING LOT MODIFICATIONS
3607 WILLIAMSON ROAD, NW
CITY OF ROANOKE, VIRGINIA

Designed: C.L. White
Drawn: C.L. White
Checked:
Date: August 18, 2011
Scale: 1" = 20'
Tax Parcel: 2090101_0102_0117
File Book: CH-1
W.O. No.: 11-0030

CWA
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