LANDSCAPE DRAWINGS

LANDSCAPE SITE PLAN

Landscape Site Plan

November 30, 2009

PUBLIC SQUARE

The Public Square attracts pedestrians from the CUA campus and the Monroe Street retail corridor. A central fountain animates the square and acts in conjunction with the Clock Tower as a gateway into the development. The square is bordered with canopy trees that provide shade and maintain open views to campus. Seating is accommodated by benches, moveable furniture, and low planter walls. The plantings define the square and provide seasonal color and texture.

CENTRAL FOUNTAIN *animates the square and pairs with the Clock Tower as a gateway into the development.*

CAFE SEATING *accommodates outdoor dining.*

NOTE: PHOTOGRAPHS ARE FOR ILLUSTRATIVE PURPOSES ONLY

Landscape - Public Square

ARTS PLAZA / ARTS WALK

The Arts Plaza welcomes pedestrians from the Arts Walk, the CUA campus, and the Metro. The plaza is focused on a stage with in-ground fountain jets and a green wall backdrop that provides a buffer between Michigan Avenue and the public space. The area accommodates markets, performances and community events.

STAGE WITH IN-GROUND FOUNTAIN JETS *provides flexible space for performances or additional market space. Fountain jets can be turned off.*

GREEN WALL *provides a backdrop to the stage and fountain and screens the Michigan Avenue overpass.*

FLEXIBLE MARKET SPACE *accommodates temporary vendors.*

BICYCLE PARKING *provides bike racks for commuters, residents, students and visitors.*

NOTE: PHOTOGRAPHS ARE FOR ILLUSTRATIVE PURPOSES ONLY

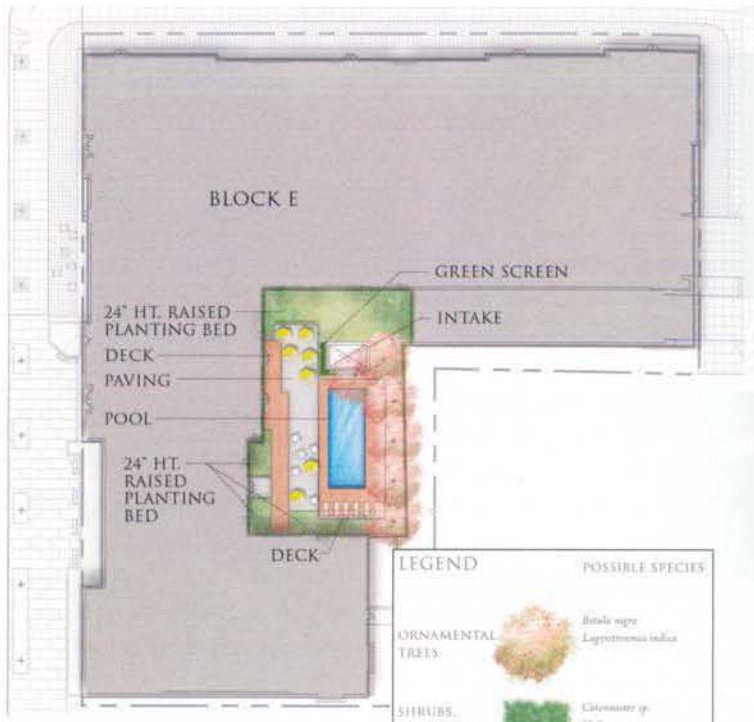
Landscape- Arts Plaza

November 30, 2009

RESIDENTIAL COURTYARDS

Private gardens in buildings A1 and E extend interior perspectives, express seasonal change, and provide a dynamic composition when viewed from above. They also provide recreational amenities and private space for building residents.

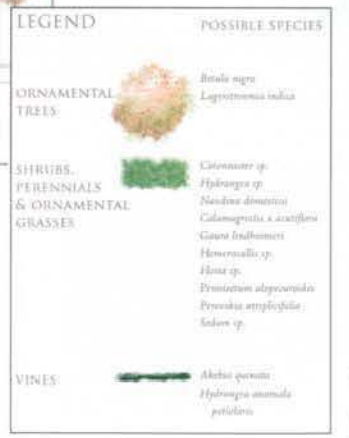
SEVENTH STREET, NE



SHADED RETREATS *extend interior perspectives.*

POOL *is both a harmonious water feature in the garden and a recreational amenity.*

NOTE: PHOTOGRAPHS ARE FOR ILLUSTRATIVE PURPOSES ONLY

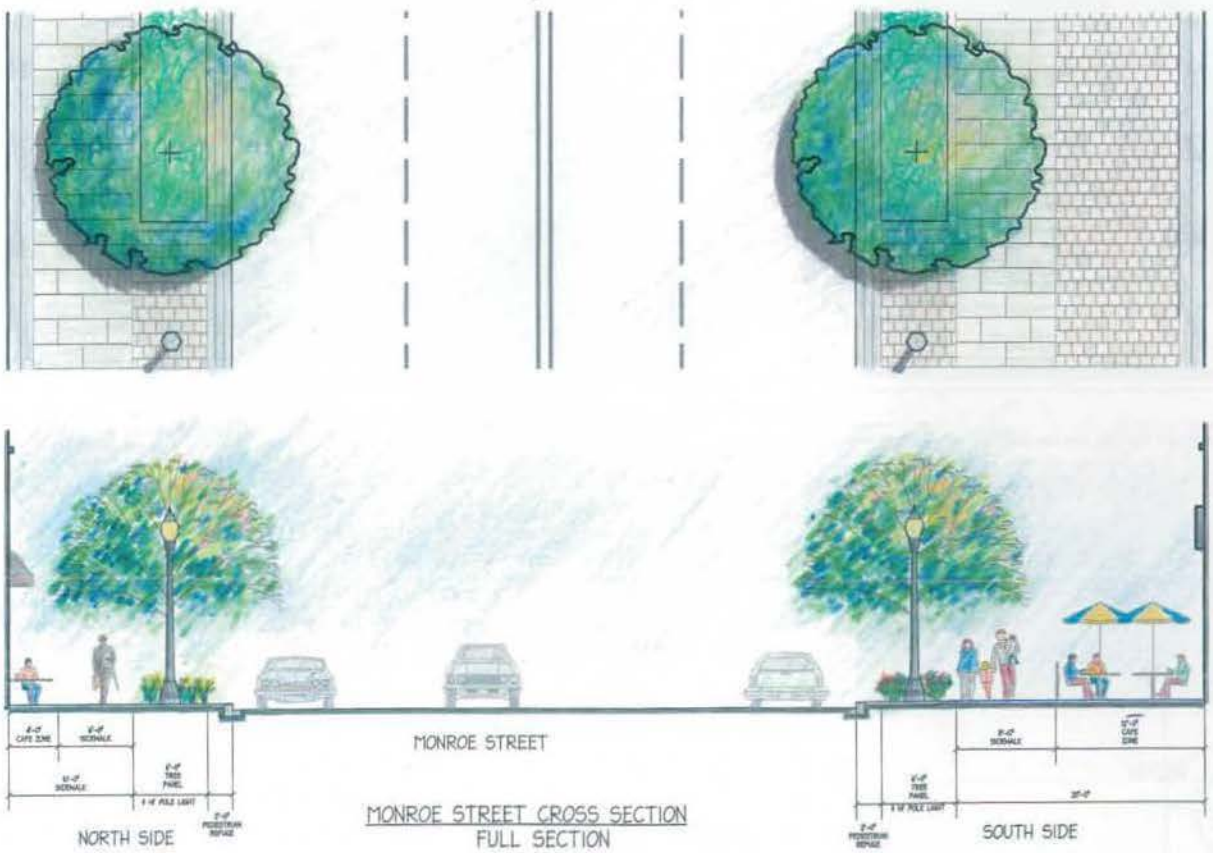


0 25 50

SCALE: 1" = 50'-0"

Landscape - Residential Courtyards

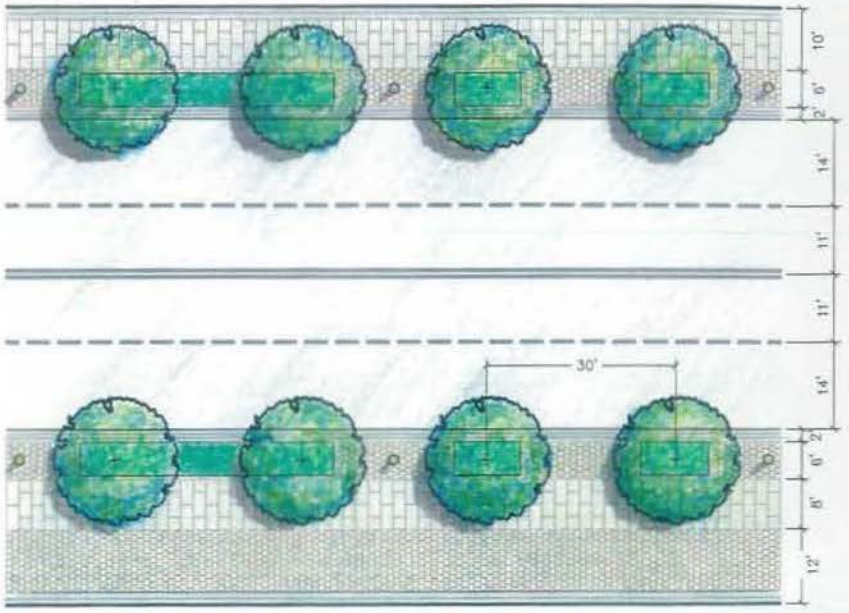
November 30, 2009



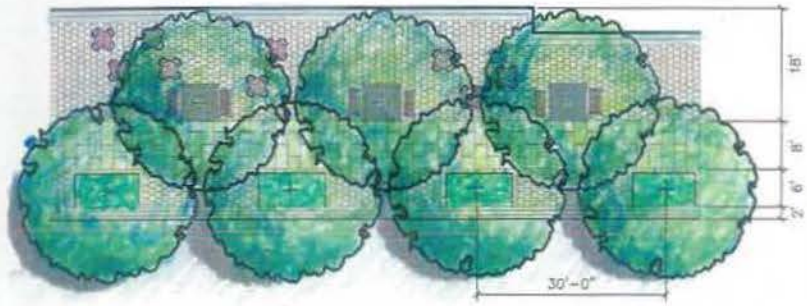
MONROE STREET CROSS SECTION
FULL SECTION

Landscape- Monroe Street Cross Section

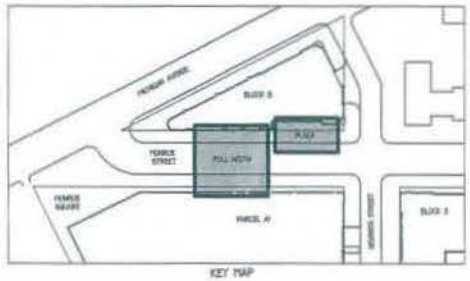
November 30, 2004



FULL WIDTH



NORTH SIDE PLAZA



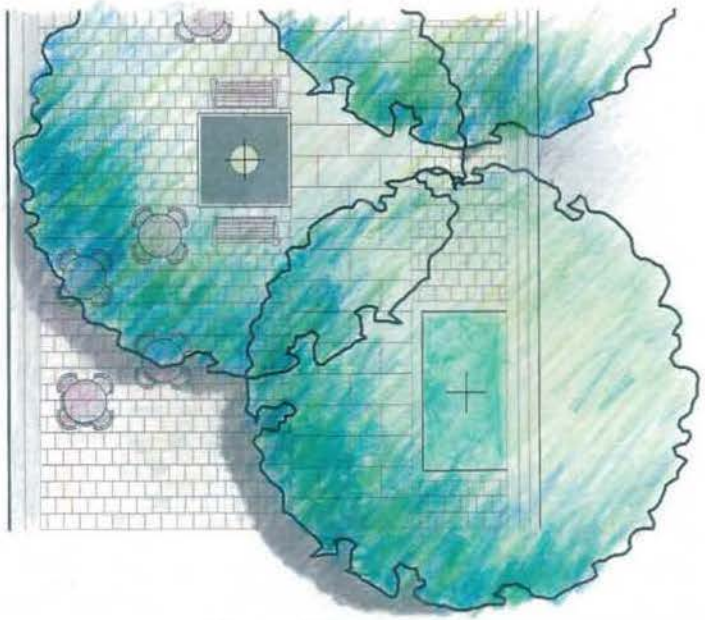
KEY MAP

MONROE STREET PLAN VIEWS

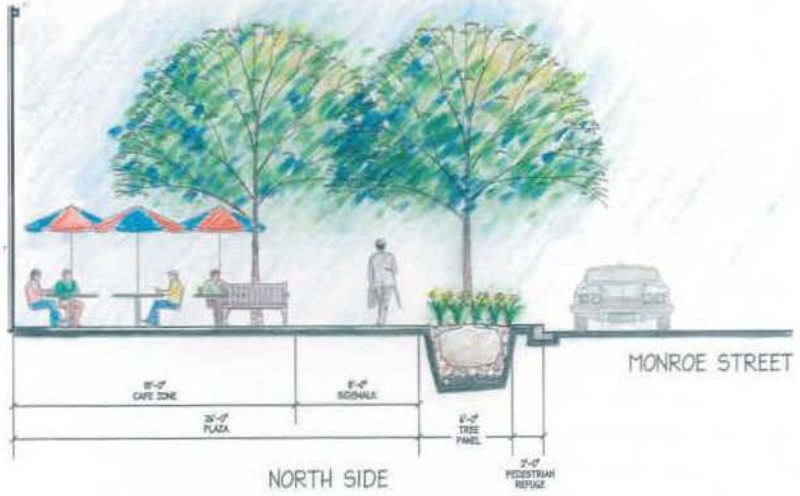
SCALE: 1" = 20'

Landscape - Monroe Street Cross Sections

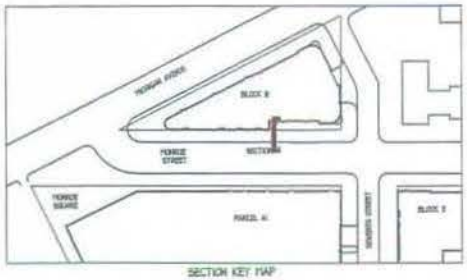
November 30, 2009



MONROE STREET PLAN VIEW
NORTH SIDE PLAZA



MONROE STREET CROSS SECTION
NORTH SIDE PLAZA



Landscape- Monroe Street Cross Section North Side Plaza

November 30, 2009

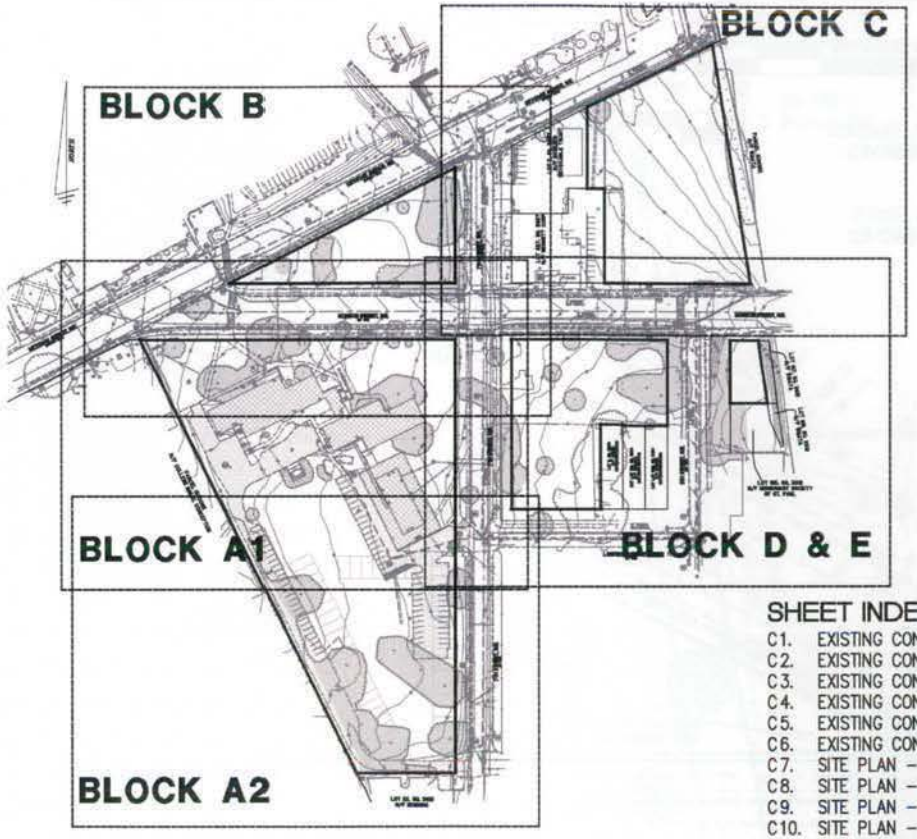
CIVIL DRAWINGS

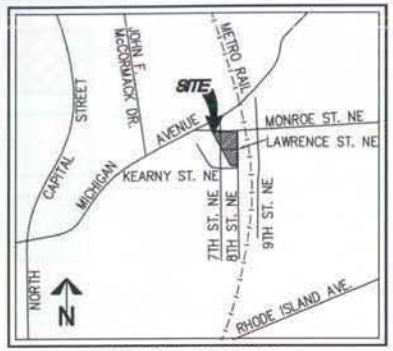
NOTE:

* CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT, EXTENT AND DESIGN OF SHEETING, SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING, AND UNDERPINNING SHALL BE DESIGNED BY A STRUCTURAL ENGINEER, LICENSED IN DC, HIRED BY THE CONTRACTOR AS NECESSARY TO ENSURE SUPPORT OF SURROUNDING STRUCTURES AND UTILITIES.
* PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES VERIFY INVERT ELEVATION OF EXISTING UTILITIES. NOTIFY ENGINEER OF ANY DISCREPANCIES WITH INFORMATION SHOWN PRIOR TO ORDERING ANY STRUCTURES. OTHER MATERIALS RESULTING FROM ALL DEMOLITION OPERATIONS TO A LEGAL DISPOSAL OFF SITE.

DEMOLITION NOTES:

1. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR SHUTOFF, CAPPING AND CONTINUATION OF UTILITY SERVICES AS REQUIRED. IN ADDITION, THESE ACTIVITIES SHALL BE COORDINATED WITH DESIGN TEAM IN ADVANCE.
2. CONTRACTOR SHALL REMOVE AND TRANSPORT ALL DEBRIS, RUBBISH AND THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCY TO THE PROJECT MANAGER. FOR MARKING LOCATIONS OF EXISTING UTILITIES, CONTACT "MISS UTILITY" AT 1-800-257-7777, 48-HOURS PRIOR TO ANY EXCAVATION
3. REMOVAL OF ASPHALT AND CONCRETE PAVEMENT SHALL INCLUDE THE REMOVAL OF ALL SURFACE, BASE AND SUBBASE MATERIALS.
4. ALL UNDERGROUND UTILITY LOCATIONS, INCLUDING WATER, STORM DRAINAGE, SANITARY SEWER, ELECTRICAL, TELEPHONE AND GAS WERE TAKEN FROM AVAILABLE EXISTING RECORDS. THE LOCATION OF ALL UTILITIES SHOWN ARE APPROXIMATE. IT IS RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PRIVATE UTILITY LOCATOR SERVICE AND SHALL DOCUMENT UTILITY LOCATIONS.
5. THE CONTRACTOR MUST HAND-DIG TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES WELL IN ADVANCE OF DEMOLITION WORK AND PRIOR TO ORDERING PIPE MATERIALS AND STRUCTURE. UTILITIES FOUND DURING DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF ANY CONTRACTOR ENGAGED IN EXCAVATION AT THIS SITE. THE PROJECT MANAGER SHALL BE NOTIFIED IMMEDIATELY OF ANY UTILITY FINDINGS WHICH DEVIATE FROM THE CONDITIONS SHOWN.
6. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR DEMOLITION AS PER D.C. EROSION AND SEDIMENT CONTROL HANDBOOK. IF ANY ONSITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
7. SEE SEDIMENTATION AND EROSION CONTROL PLAN FOR ALL EXISTING TREES TO REMAIN AND BE PROTECTED.
8. NOTE PROXIMITY OF ADJACENT STRUCTURES AND UTILITY LINES AND MAINTAIN CONTINUED SERVICE DURING CONSTRUCTION. COORDINATE WITH RESPECTIVE UTILITY COMPANIES AND ENGINEER SHOULD RELOCATION OF SERVICE BE REQUIRED.
9. EXISTING UTILITES (STRUCTURES AND LINES) NOT REQUIRED FOR FUTURE SERVICE TO BE REMOVED TO FACILITATE CONSTRUCTION. UTILITIES TO BE CAPPED AND ABANDONED PER UTILITY COMPANY STANDARDS AND SPECIFICATIONS. CORRDINATE REQUIREMENTS WITH COMPANIES.
10. REMOVAL OF ALL WALLS/RETAINING WALLS AND FENCES SHALL INCLUDE THE REMOVAL OF THEIR FOUNDATION UNLESS INDICATED ON THESE DRAWINGS.





VICINITY MAP

SHEET INDEX

C1. EXISTING CONDITIONS AND DEMOLITION PLAN – OVERALL
C2. EXISTING CONDITIONS AND DEMOLITION PLAN – BLOCK B
C3. EXISTING CONDITIONS AND DEMOLITION PLAN – BLOCK C
C4. EXISTING CONDITIONS AND DEMOLITION PLAN – BLOCK A1
C5. EXISTING CONDITIONS AND DEMOLITION PLAN – BLOCK D & E
C6. EXISTING CONDITIONS AND DEMOLITION PLAN – BLOCK A2
C7. SITE PLAN – OVERALL
C8. SITE PLAN – BLOCK B
C9. SITE PLAN – BLOCK C
C10. SITE PLAN – BLOCK A1
C11. SITE PLAN – BLOCK D & E
C12. SITE PLAN – BLOCK A2
C13. SEDIMENT AND EROSION CONTROL PLAN – OVERALL
C14. SEDIMENT AND EROSION CONTROL PLAN – B
C15. SEDIMENT AND EROSION CONTROL PLAN – C
C16. SEDIMENT AND EROSION CONTROL PLAN – A1
C17. SEDIMENT AND EROSION CONTROL PLAN – D & E
C18. SEDIMENT AND EROSION CONTROL PLAN – A2
C19. SEDIMENT AND EROSION CONTROL DETAILS
C20. SITE UTILITY PLAN – OVERALL
C21. SITE UTILITY PLAN – B
C22. SITE UTILITY PLAN – C
C23. SITE UTILITY PLAN – A1
C24. SITE UTILITY PLAN – D & E
C25. SITE UTILITY PLAN – A2
C26. UTILITY NOTES AND CALCULATIONS
C27. SWM DETAILS
C28. SWM DETAILS
C29. SWM DETAILS
C30. SWM DETAILS
C31. SWM DETAILS

LEGEND

◇	FIRE HYDRANT
△	DOORWAY/ENTRANCE
⌀	UTILITY POLE
☼	LIGHT POLE
—X—	FENCE
—→	GUY WIRE
—⚡—	OVERHEAD WIRES
—G—	UNDERGROUND GAS LINE
—W—	UNDERGROUND WATER LINE
═══	CURB AND GUTTER
●	BOLLARD
⊡	ELECTRIC TRANSFORMER
123.4	SPOT ELEVATION
▭	SIGN
Ⓔ	ELECTRIC MANHOLE
Ⓣ	TELEPHONE MANHOLE
Ⓤ	UTILITY MANHOLE
Ⓦ	WATER MANHOLE
○	TREE
∿∿	LIMITS OF TREE CANOPY/VEGETATION

AC	AIR CONDITIONER
CONC	CONCRETE
EMER	EMERGENCY
EP	EDGE OF PAVEMENT
EVLT	ELECTRIC VAULT
FC	HEADER CURB
FDC	FIRE DEPARTMENT CONNECTION
GM	GAS METER
GV	GAS VALVE
HC	HANDICAPPED RAMP
MB	MAILBOX
N/F	NOW OR FORMERLY
POB	POINT OF BEGINNING
RD	ROOF DRAIN
RET	RETAINING WALL
SD	STORM SEWER STRUCTURE
SS	SANITARY SEWER STRUCTURE
TCB	TRAFFIC CONTROL BOX
TRLP	TRAFFIC LIGHT/SIGNAL POLE
WV	WATER VALVE

200 0 100 200
(IN FEET)
1 INCH = 200'

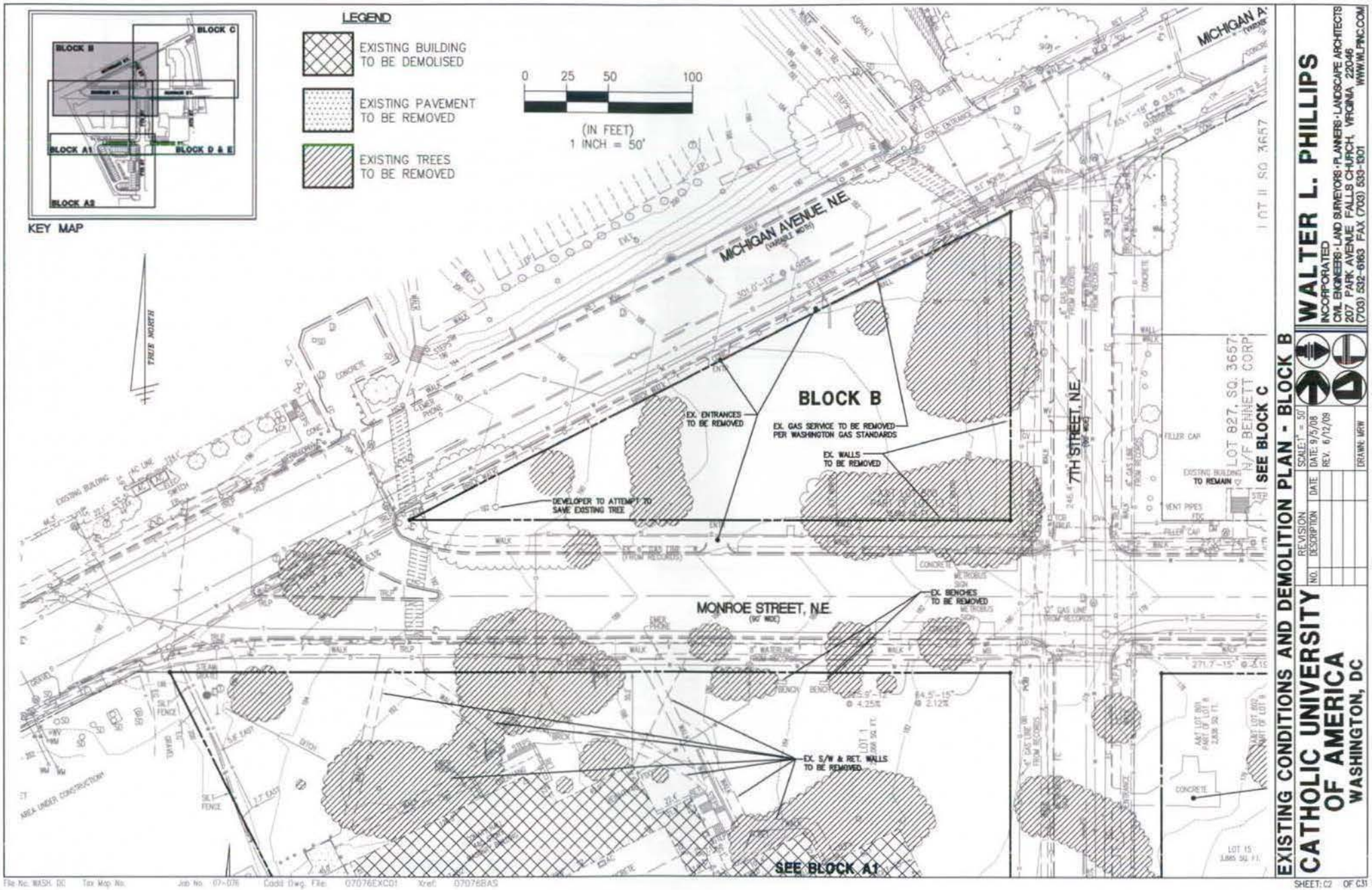
EXISTING CONDITIONS AND DEMOLITION PLAN - OVERALL

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1"=200'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS · LAND SURVEYORS · PLANNERS · LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301 WWW.WLPINC.COM



EXISTING CONDITIONS AND DEMOLITION PLAN - BLOCK B

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MFW

WALTER L. PHILLIPS
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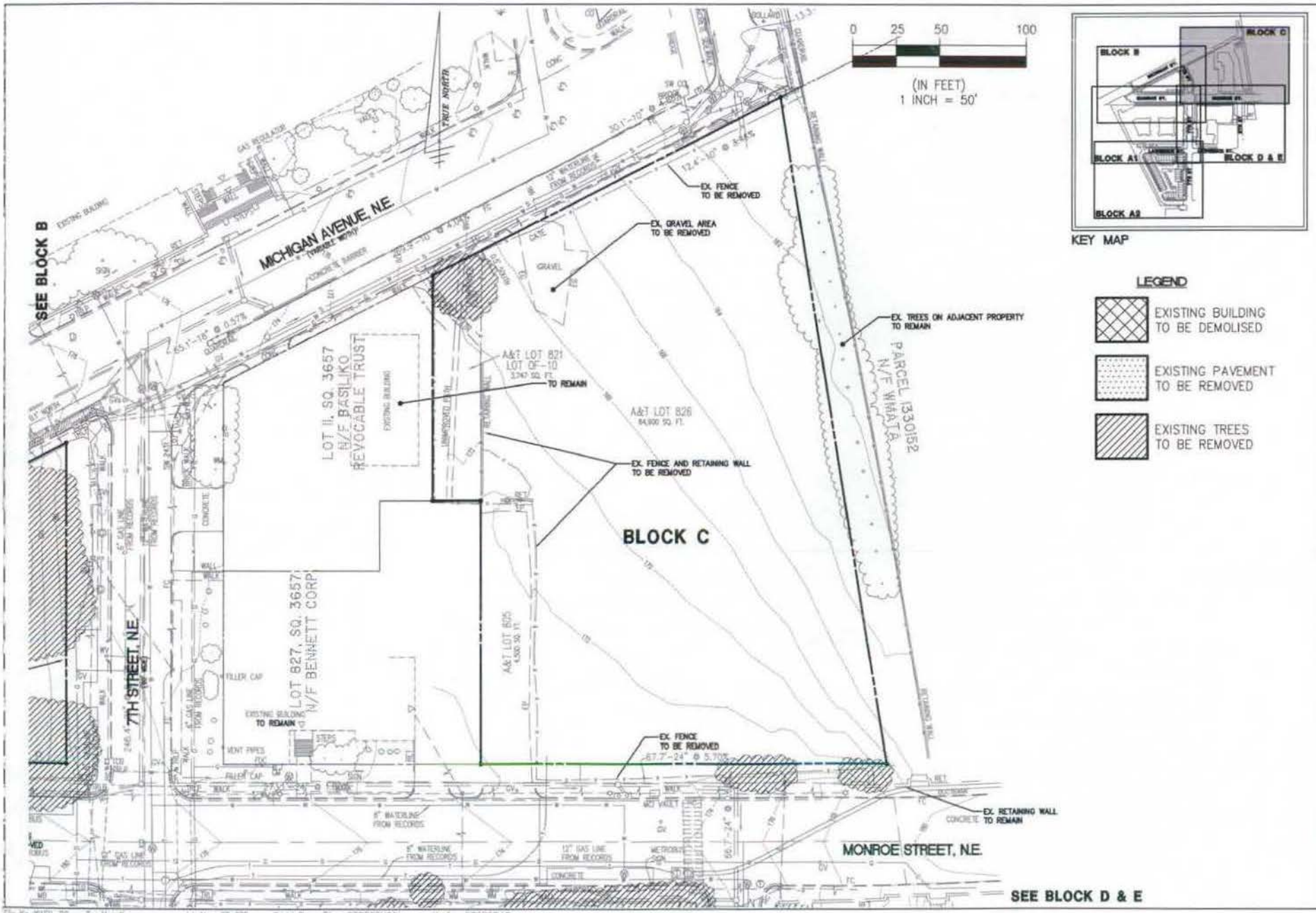
File No. WASH. DC Tax Map No. Job No. 07-076 Cadd Dwg. File: 07076EXC01 Xref: 07076BAS



EXISTING CONDITIONS AND DEMOLITION PLAN - BLOCK C

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

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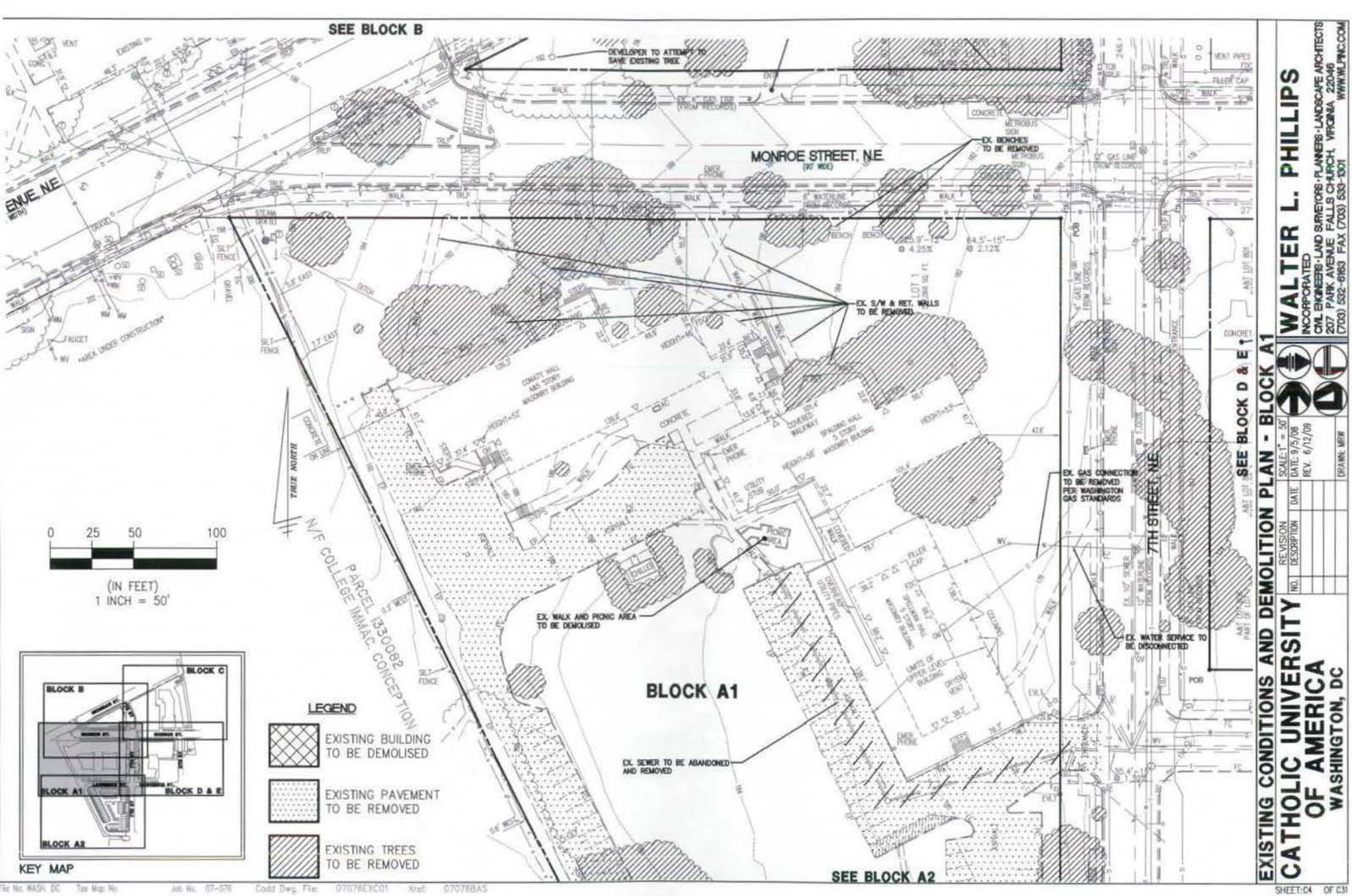
NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 5/12/09
DRAWN: MRW

File No. WASH. DC Tax Map No. Job No. 07-076 Cadd Dwg. File: 07076EXC01 Xref: 07076BAS



EXISTING CONDITIONS AND DEMOLITION PLAN - BLOCK A1

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MFW

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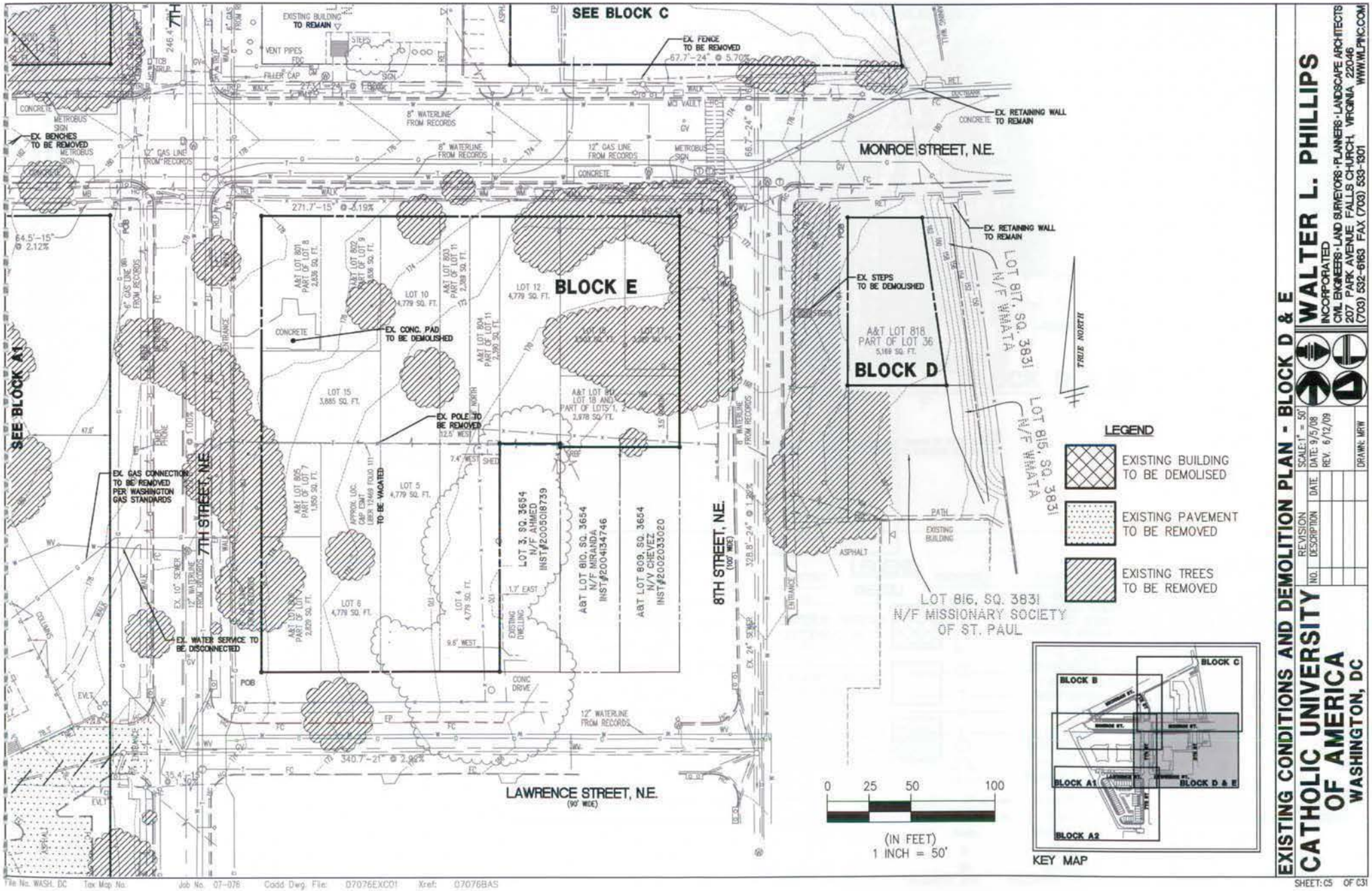
File No. WASH. DC Tax Map No: Job No. 07-076 Cadd Dwg. File: 07076EXC01 Xref: 07076BAS



EXISTING CONDITIONS AND DEMOLITION PLAN - BLOCK D & E

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

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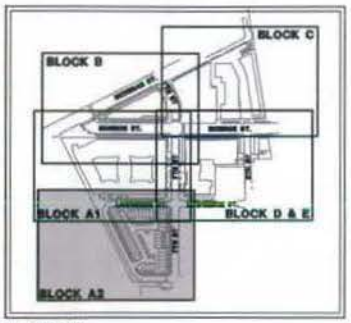
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301 WWW.WLPINC.COM

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

File No. WASH. DC Tax Map No. Job No. 07-076 Cadd Dwg. File: 07076EXC01 Xref: 07076BAS



KEY MAP

SEE BLOCK A1

SEE BLOCK D & E

BLOCK A2

EX. WATER SERVICE TO BE DISCONNECTED

EX. SEWER TO BE ABANDONED AND REMOVED

EX. S/W & RET. WALLS TO BE REMOVED

EX. STEPS AND RETAINING WALL TO BE REMOVED

NOTE:
EXISTING TREES TO REMAIN WITH SELECTIVE REMOVAL PER DIRECTION OF LANDSCAPE ARCHITECT

7TH STREET, N.E.
(90' WIDE)

LOT 22, SQ. 3651
N/F HORNING

TRUE NORTH

SILT FENCE

LIMITS OF UPPER LEVEL BUILDING

DRIVE-IN PIT

EMER. PHONE

POB

EXISTING CONDITIONS NOTE:

THE CATHOLIC UNIVERSITY OF AMERICA (CUA) DEVELOPMENT IS LOCATED IN NORTHEAST WASHINGTON DC. THE PROJECT CONSISTS OF 5 BLOCKS BORDERED BY MICHIGAN AVENUE, MONROE STREET, 7TH STREET AND 8TH STREET. ONLY 1 OF THE 5 BLOCKS IS CURRENTLY DEVELOPED. THE TERRAIN OF THE PROJECT GENERALLY SLOPES TO THE NORTHEAST. THIS IS AN AREA OF COMBINED SEWER. THERE ARE 3 COMBINED SEWER OUTFALL SYSTEMS. ONE SYSTEMS OUTFALLS TO THE NORTHEAST CORNER, ONE SYSTEM OUTFALLS SOUTH DOWN 7TH STREET AND THE THIRD OUTFALLS SOUTH DOWN 8TH STREET. THERE ARE EXISTING WATERLINES IN ALL STREETS RANGING FROM 8"–12".

LEGEND

- EXISTING BUILDING TO BE DEMOLISED
- EXISTING PAVEMENT TO BE REMOVED
- EXISTING TREES TO BE REMOVED

0 25 50 100

(IN FEET)
1 INCH = 50'

EXISTING CONDITIONS AND DEMOLITION PLAN - BLOCK A2

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

WALTER L. PHILLIPS
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(703) 532-6163 FAX (703) 533-1301
WWW.WLPINC.COM

GENERAL NOTES:

1. EXISTING CONDITIONS WERE PRODUCED FROM SURVEY'S PREPARED BY WALTER L. PHILLIPS, INC.
2. VERIFY LOCATION OF EXISTING UTILITIES BEFORE PROCEEDING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE, DC/DPW, 767-7632 OR 767-8522 AND "MISS UTILITY" (1800-257-7777) 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATIONS. HAND DIG TEST PITS AT ALL UTILITY CROSSINGS AND DETERMINE EXACT CLEARANCE OF ALL PROPOSED INSTALLATIONS WELL IN ADVANCE OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS WITH PLAN ELEVATIONS.
3. WORK AND MATERIALS IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE APPLICABLE DC/DPW STANDARDS AND SPECIFICATIONS. ON-SITE WORK AND MATERIALS SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE D.C. PLUMBING CODE.
4. DIMENSIONS ARE TO FACE OF WALL AND CURB, EDGE OF WALK AND PAVEMENT, CENTERLINE OF COLUMN, PIPE AND UTILITY STRUCTURE, UNLESS OTHERWISE NOTED.
5. FRAMES AND COVERS OF EXISTING STRUCTURES TO BE ADJUSTED TO MATCH NEW FINISHED GRADES.
6. OMISSIONS AND/OR ADDITIONS OF UTILITIES FOUND DURING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY INFORMATION CONCERNING FOUND UTILITY, NOT SHOWN ON PLANS.
7. TEST PITS ARE REQUIRED AT ALL LOCATION(S) WHERE PROPOSED UTILITIES CROSS EXISTING UTILITIES. INVESTIGATION(S) TO IDENTIFY HORIZONTAL LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES. THE ENGINEER IS TO BE NOTIFIED OF THIS INFORMATION.
8. IF A 1' MINIMUM VERTICAL CLEARANCE CAN NOT BE MAINTAINED AT UTILITY CROSSING, THE CONTRACTOR IS TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH WORK.
9. TRANSITION CURB, GUTTER, PAVING AND SIDEWALK TO MEET EXISTING IN LINE AND ON GRADE OR AS DIRECTED BY ENGINEER.
10. ALL DEBRIS AND EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED OFF-SITE LOCATION.
11. ALL ON-SITE WATER LINES TO HAVE A MINIMUM COVER OF 4'-0". WATER FITTINGS SHALL BE PROPERLY TIED AND ANCHORED, PER DPW STANDARDS.
12. WHERE PORTIONS OF EXISTING BITUMINOUS OR CONCRETE PAVING ARE TO BE REMOVED, THE EXISTING PAVEMENT SHALL BE SAW-CUT.
13. REMOVE FRAMES AND COVERS OF SEWER MANHOLE/INLETS AND/OR WATER MAIN VALVE CASTINGS TO BE ABANDONED AND FILL TO GRADE.
14. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
15. NOTIFY WASHINGTON GAS AT 202-750-4205, 48 HOURS PRIOR TO ANY EXCAVATION IN THE VICINITY OF TRANSMISSION MAIN. FOR FURTHER INFORMATION OR PROBLEMS, CONTACT MR. CHUCK WHITLEY AT WASHINGTON GAS AT 703-750-4205.
16. PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 1 FOOT VERTICAL CLEARANCE BETWEEN 12" DIAMETER AND SMALLER DISTRIBUTION EXISTING GAS FACILITIES AND THE PROPOSED FACILITIES.
17. PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 2 FEET VERTICAL CLEARANCE BETWEEN 16" DIAMETER OR GREATER TRANSMISSION GAS FACILITIES AND THE PROPOSED FACILITIES.

NOTES:

CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO CONSTRUCTION.

CONTACT DEPARTMENT OF PUBLIC WORKS - PUBLIC SPACE MAINTENANCE ADMINISTRATION 48 HOURS PRIOR TO START OF CONSTRUCTION AT (202)645-6030 OR (202) 645-6031.

ALL PROPOSED WORKS TO BE PERFORMED UNDER INSPECTION OF THE DEPARTMENT OF PUBLIC WORKS - WATER AND SEWER AUTHORITY.

ALL PROPOSED WORK TO BE CONSTRUCTED IN ACCORDANCE WITH LATEST STANDARDS AND SPECIFICATIONS OF THE DEPARTMENT OF PUBLIC WORKS - WATER AND SEWER UTILITY AUTHORITY.

USE MANHOLES ENTRY SEALS WHERE REQUIRED.

NOTE: CONTRACTOR IS TO BE RESPONSIBLE FOR DESIGN OF SHEETING AND SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING AND UNDERPINNING, DESIGNED BY STRUCTURAL ENGINEER LICENSED IN DISTRICT OF COLUMBIA SHALL BE PROVIDED AS NECESSARY TO ENSURE THEIR SUPPORT.

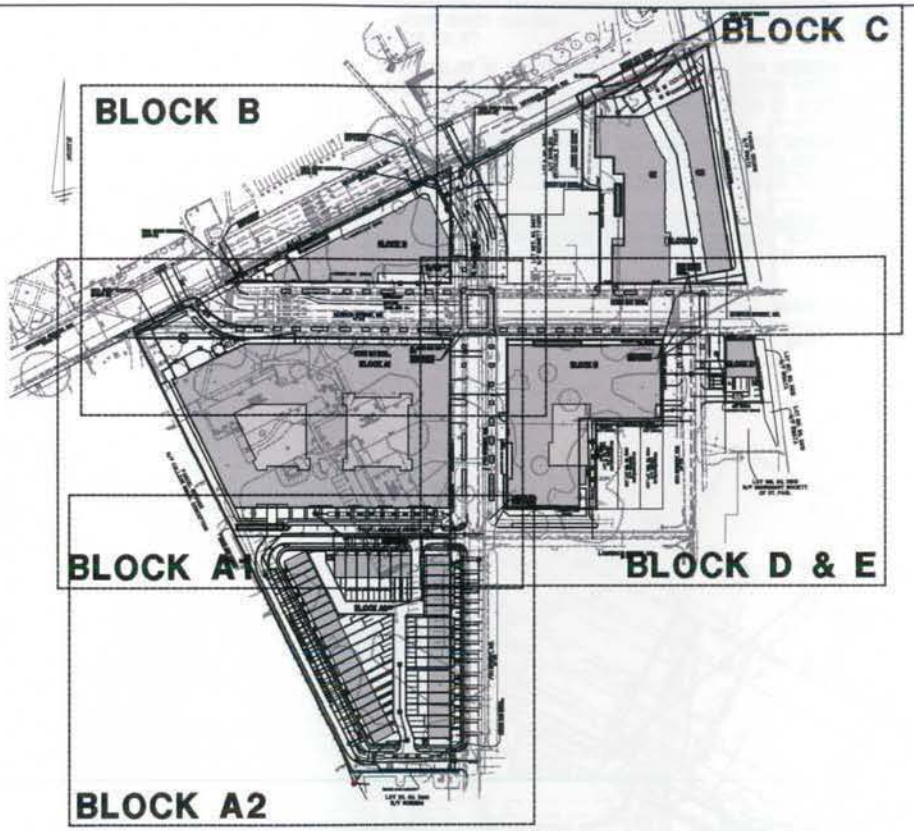
ALL EXISTING UTILITY POLES AND OVERHEAD WIRES TO REMAIN UNLESS OTHERWISE STATED.

UTILITY NOTE:

UNDERGROUND UTILITY LOCATIONS, INCLUDING WATER, STORM DRAINAGE, SANITARY SEWER, ELECTRIC, TELEPHONE AND GAS WERE TAKEN FROM AVAILABLE CITY UTILITY RECORDS, OWNER RECORDS AND FIELD VERIFIED WHERE POSSIBLE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY AND DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO COMMENCING WORK OR ORDERING PIPE MATERIALS AND STRUCTURES. REPORT ANY DISCREPANCY TO THE PROJECT MANAGER. FOR MARKING LOCATIONS OF EXISTING UTILITIES, CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO ANY EXCAVATION NOTIFY DEPARTMENT OF PUBLIC WORKS.

200 0 100 200

(IN FEET)
1 INCH = 200'



LEGEND

PROPOSED	DESCRIPTION	EXISTING
EP	EDGE OF PAVEMENT	EP
MH	MANHOLE	MH
WV	WATER VALVE	WV
WM	WATER METER	WM
GM	GAS METER	GM
TCB	TRAFFIC CONTROL BOX	TCB
LP	LIGHT POLE	LP
LP/S	LIGHT POLE WITH SIGNALS	LP/S
	CURB & GUTTER	
	CG-2	
S	SEWER	S
SL	SANITARY LATERAL	SL
C.O.	CLEAN OUT	C.O.
	STORM SEWER	
W	WATER MAIN	W
	CURB INLET	

PROPOSED	DESCRIPTION	EXISTING
	FIRE HYDRANT	
	PLUG	
	OVERHEAD WIRES	
	UTILITY POLE	
UE	UNDERGROUND ELECTRIC	UE
T	TELEPHONE	T
G	GAS MAIN	G
E	ELECTRICAL TRANSFORMER	E
	HANDICAP RAMP (CG-12)	
	GUARDRAIL	
	FENCE	
	TRAFFIC FLOW	
	LIGHT	
	MANHOLE	

SITE PLAN - OVERALL

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

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REV. 6/12/09
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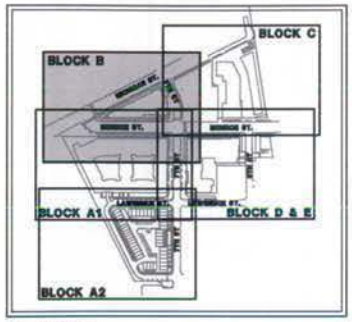

KEY MAP

NOTES:

1. MICHIGAN AVE. AND 7TH STREET INTERSECTION TO BE REALIGNED TO MATCH ENTRANCE ACROSS MICHIGAN AVENUE. EXISTING TRAFFIC POLES TO BE RELOCATED WITH NEW INTERSECTION DESIGN.
2. MONROE STREET AND MICHIGAN AVENUE ENTRANCE TO BE REALIGNED TO CREATE A PERPENDICULAR INTERSECTION. EXISTING TRAFFIC POLES TO BE RELOCATED WITH NEW INTERSECTION DESIGN.
3. MONROE STREET CROSS SECTION BETWEEN 7TH STREET AND MICHIGAN AVENUE TO BE RECONFIGURED TO CONTAIN A PARKING LANE, BIKE LANE AND 1 TRAVEL LANE IN EACH DIRECTION.

TRUE NORTH

PROP. STREET DEDICATION (±175 SF)

PROP. STREET VACATION (±4,202 SF)

EXISTING HANDICAP RAMP TO REMAIN

PROP. STREET DEDICATION (±948 SF)

MICHIGAN AVENUE, N.E. (VARIABLE WIDTH)

PROP. STREET VACATION (±3,578 SF)

EXISTING HANDICAP RAMP TO REMAIN

EX. ENTRANCE TO BE EXTENDED TO PROPOSED 7TH STREET CURB.

SHUTTLE BUS

LIMITS OF UNDERGROUND GARAGE

LOADING ENTRANCE

BLOCK B

UNDERGROUND GARAGE ENTRANCE

LIMITS OF UNDERGROUND GARAGE

EX. METRO BUS STOP SIGN

7TH STREET, N.E.

SEE BLOCK C

LOT 827, SQ. 3657
N/F BENNETT CORP.

LOT 11, SQ. 3657

PROP. TREE PITS (TYP.)

MONROE STREET, N.E. (90' WIDE)

PARKING LANE
BIKE LANE
TRAVEL LANE

EX. BIKE LANE
EX. TRAVEL LANE
EX. TRAVEL LANE
EX. BIKE LANE
EX. PARKING LANE

EX. METRO BUS STOP SIGN

EXISTING HANDICAP RAMPS TO REMAIN

BLOCK A1

LIMITS OF UNDERGROUND GARAGE

LOADING ENTRANCE

SEE BLOCK A1

UNDERGROUND GARAGE ENTRANCE

0 25 50 100

(IN FEET)
1 INCH = 50'

SITE PLAN - BLOCK B

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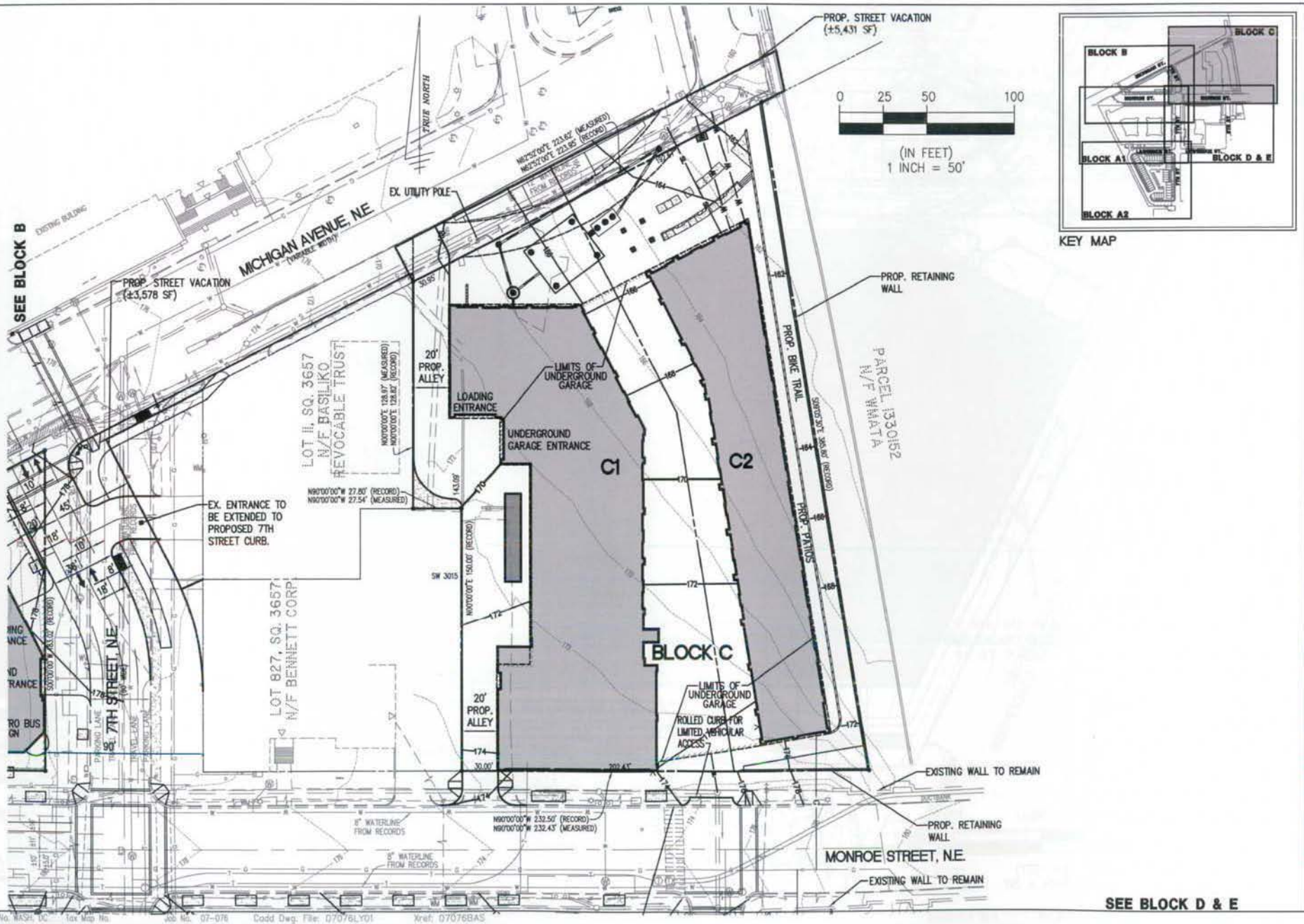

SITE PLAN - BLOCK C

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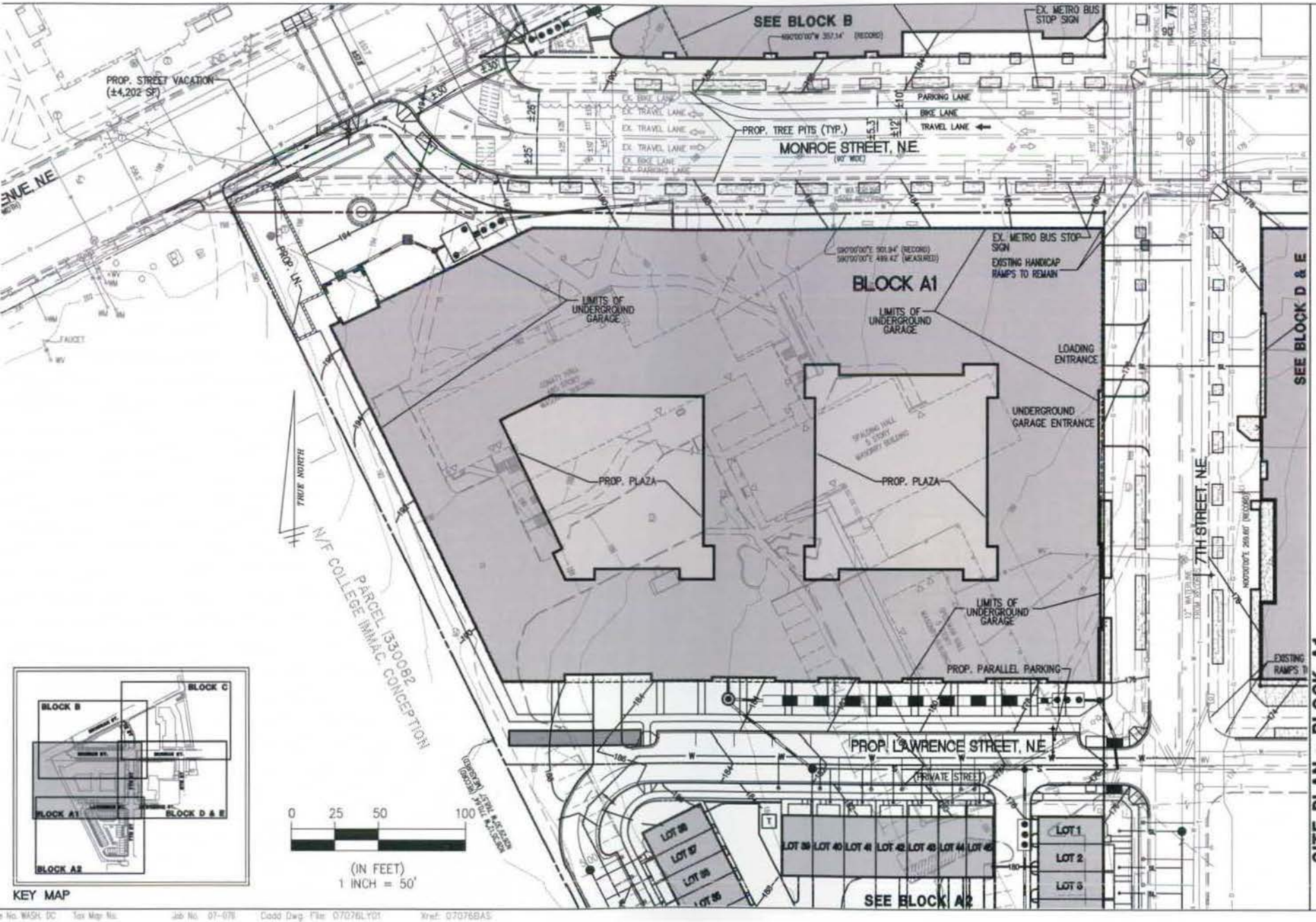

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SITE PLAN - BLOCK A1

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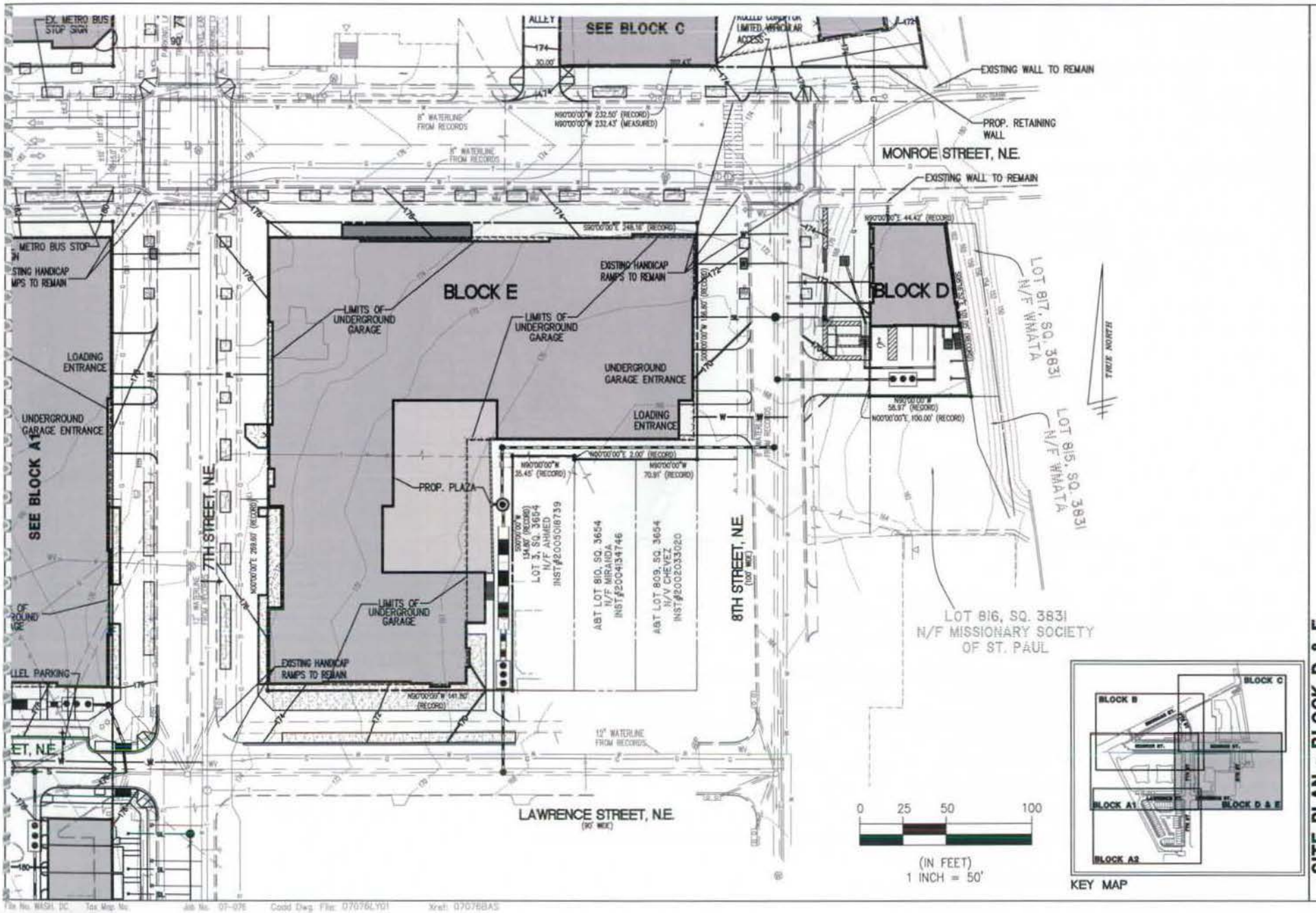

SITE PLAN - BLOCK D & E

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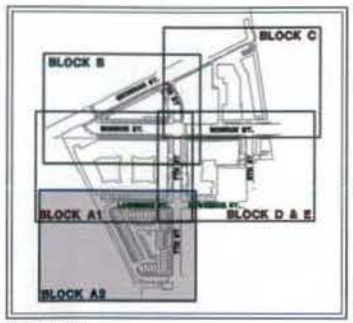

KEY MAP

SEE BLOCK A1

PROP. PARALLEL PARKING

RAMPS TO REMAIN

PROP. LAWRENCE STREET, N.E.

(PRIVATE STREET)

SEE BLOCK D & E

LOT 39 LOT 40 LOT 41 LOT 42 LOT 43 LOT 44 LOT 45

LOT 1 LOT 2 LOT 3 LOT 4 LOT 5 LOT 6

BLOCK A2

LOT 7 LOT 8 LOT 9 LOT 10 LOT 11

LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 17

LOT 18 LOT 19 LOT 20 LOT 21 LOT 22 LOT 23 LOT 24 LOT 25 LOT 26 LOT 27 LOT 28 LOT 29 LOT 30 LOT 31 LOT 32 LOT 33 LOT 34 LOT 35 LOT 36 LOT 37 LOT 38

PROP. KEARNY STREET, N.E. (PRIVATE STREET)

7TH STREET, N.E. (90' WIDE)

TRUE NORTH

LOT 22, SQ. 3651
N/F HORNING

PROP. PARALLEL PARKING

0 25 50 100

(IN FEET)
1 INCH = 50'

SITE PLAN - BLOCK A2

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CONSTRUCTION AND STABILIZATION SEQUENCE:

1. INSTALL SEDIMENT AND EROSION CONTROL MEASURES INCLUDING STABILIZED CONSTRUCTION ENTRANCE, WASH RACK, INLET PROTECTION, SILT FENCE, AS INDICATED ON THE SHEET. SEE SHEET SEDIMENT AND EROSION CONTROL DETAILS.
2. SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR PRIOR TO COMMENCING ANY OTHER LAND DISTURBING ACTIVITIES.
3. REMOVE ITEMS AS INDICATED ON DEMOLITION PLAN.
4. INSTALL SITE IMPROVEMENTS AS INDICATED ON CONSTRUCTION DOCUMENTS FOR THE PROPOSED BUILDING.
5. AT THE COMPLETION OF CONSTRUCTION AND AFTER THE INSPECTOR'S APPROVAL, ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE REMOVED.

NOTE:

CONTRACTOR TO PROVIDE CHAIN LINK FENCE AT PERIMETER OF THE EXCAVATION AREA.

INSTALL SILT FENCE AT PERIMETER TO REMAIN IN PLACE UNTIL BELOW GRADE EXCAVATION HAS BEGUN, UNLESS OTHERWISE APPROVED BY THE INSPECTOR.

DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
   A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE;
   B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER;
   C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8 K PA) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
   A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES;
   B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
   C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND SITE BOUNDARIES.

CONSTRUCTION DATES:

* EXACT BEGINNING AND END OF CONSTRUCTION IS TO BE ESTABLISHED BY THE OWNER.

TOTAL DISTURBED AREA

AREA = **532,599 SF.** = APPROX. **12 AC.**

NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF SHEETING AND SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING, AND UNDERPINNING DESIGNED BY THE CONTRACTOR'S STRUCTURAL ENGINEER LICENSED IN THE DISTRICT OF COLUMBIA SHALL BE PROVIDED AS NECESSARY TO ENSURE THEIR SUPPORT.

SEDIMENT CONTROL APPROVAL:

PLAN NUMBER:

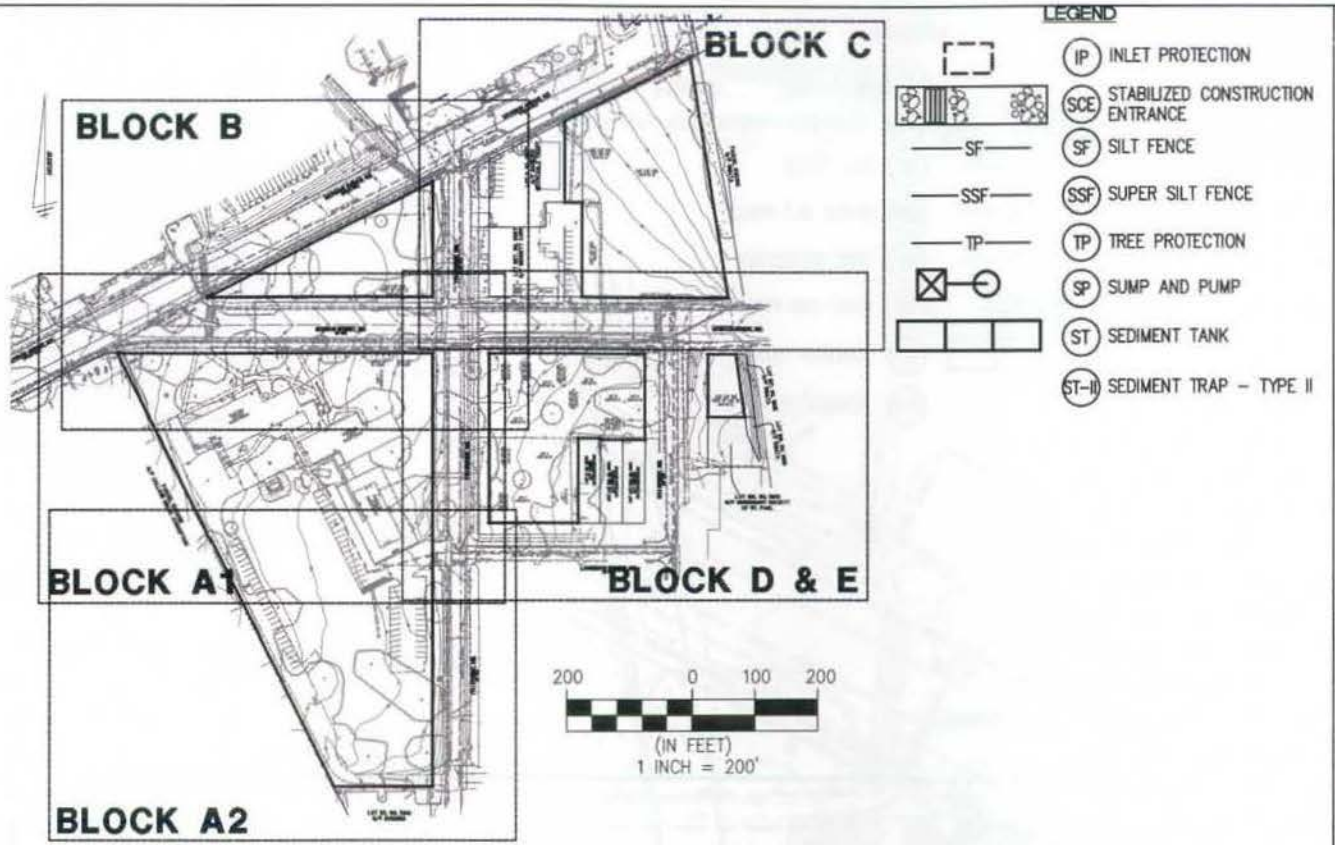
THIS APPROVAL IS FOR GRADING AND SEDIMENT CONTROL ONLY. PERMITEE/ CONTRACTOR IS REQUIRED TO CONSTRUCT DESIGN FEATURE SHOWN HEREON. HE SHALL NOTIFY THIS OFFICE AT NUMBER LISTED BELOW AT LEAST 24 HOURS BEFORE START OF GRADING ACTIVITY, AND WITHIN TWO WEEKS AFTER COMPLETION OF PROJECT FOR FINAL INSPECTION.

DATE

EROSION AND SEDIMENT CONTROL BRANCH

FOR FURTHER INFORMATION, PLEASE CALL:
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH ADMINISTRATION
WATERSHED PROTECTION DIVISION

51 N. STREET, N.E., 5TH FLOOR
WASHINGTON, D.C. 20002
FAX NO. (202) 535-1364
TEL NO. (202) 535-2240



EROSION AND SDIMENT CONTROL MEASURES AND SEQUENCE:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
2. PROVIDE TEMPORARY STONE CONSTRUCTION ENTRANCE AND WASH RACK WHERE SHOWN. PROVIDE WATER SOURCE AND HOSE TOP CLEAN ALL EQUIPMENT LEAVING SITE.
3. NO DISTURBED AREA WILL BE DENUDED FOR MORE THAN 7 CALENDAR DAYS. INSTALL THE NECESSARY TEMPORARY OR PERMANENT VEGETATIVE STABILIZATION MEASURES TO ACHIEVE ADEQUATE EROSION AND SEDIMENT CONTROL.
4. ALL CONSTRUCTION TO BE INSPECTED DAILY BY THE CONTRACTOR, AND ANY DAMAGE SILTATION OR EROSION CONTROL DEVICES OR MEASURES WILL BE REPAIRED AT THE CLOSE OF THE DAY.
5. STABILIZED CONSTRUCTION ENTRANCES TO BE PERIODICALLY SUPPLEMENTED WITH ADDITIONAL STONE AS NEEDED.
6. CONTROLS WILL BE REMOVED AFTER THEIR CONTRIBUTING BASINS HAVE BEEN PERMANENTLY STABILIZED.

SILTATION EROSION CONTROL NOTES:

1. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN OFF-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
2. ALL DEBRIS IS TO BE REMOVED.
3. ALLEY AND/OR STREET SHALL BE SWEPT CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.
4. ALL SEDIMENT AND EROSION CONTROL MEASURES TO BE INSPECTED DAILY BY THE CONTRACTOR. ANY DAMAGED DEVICE OF MEASURE WILL BE REPLACED BY THE CLOSE OF DAY OR AS DIRECTED BY THE ARCHITECT.
5. ALL VEHICLES LEAVING THE SITE SHALL EXIT THROUGH THE CONSTRUCTION ENTRANCE ONLY AND SHALL BE WASHED DOWN TO REMOVE MUD FROM TIRES BEFORE ENTERING THE STREET. CONSTRUCTION ENTRANCE TO BE MAINTAINED IN GOOD WORKING CONDITIONS.
6. ALL CATCH BASINS AND AREA DRAINS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
7. IF ANY CATCH BASIN OR DRAIN BECOMES CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS IMMEDIATE CLEANING.
8. ALL DISTURBED AREAS WITHIN THE LIMITS OF DISTURBANCE BOUNDARY NOT SHOWN TO BE PAVED SHALL BE SEEDED OR SODED AS PER DC SPECIFICATIONS WITHIN SEVEN DAYS OF DISTURBANCE.
9. WHEN SEDIMENT TRAP/SEDIMENT TANK HAS REACHED 67% CAPACITY, CLEAN OUT OF SAME IS REQUIRED ANY STOCKPILING, REGARDLESS OF LOCATION ON SITE SHALL BE STABILIZED WITHIN 14 DAYS AND COVERED WITH PLASTIC OF CANVAS, AFTER ITS ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.
10. AFTER RAZE OR DEMOS THERE IS NEED FOR GROUND COVER TO PREVENT EROSION AND SEDIMENT RUNOFF FROM OCCURRING. SUCH AS SEED, SOD, PAVING, BRICKBRACK OR MULCH, ETC.
11. AT THE COMPLETION OF CONSTRUCTION PROJECT AND AFTER THE DC EROSION AND SEDIMENT CONTROL INSPECTOR APPROVAL, ALL TEMPORARY SILTATION, SEDIMENTATION AND EROSION CONTROL MEASURES AND DEVICES SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE PERMANENTLY STABILIZED.

SEDIMENT AND EROSION CONTROL PLAN - OVERALL

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 200'
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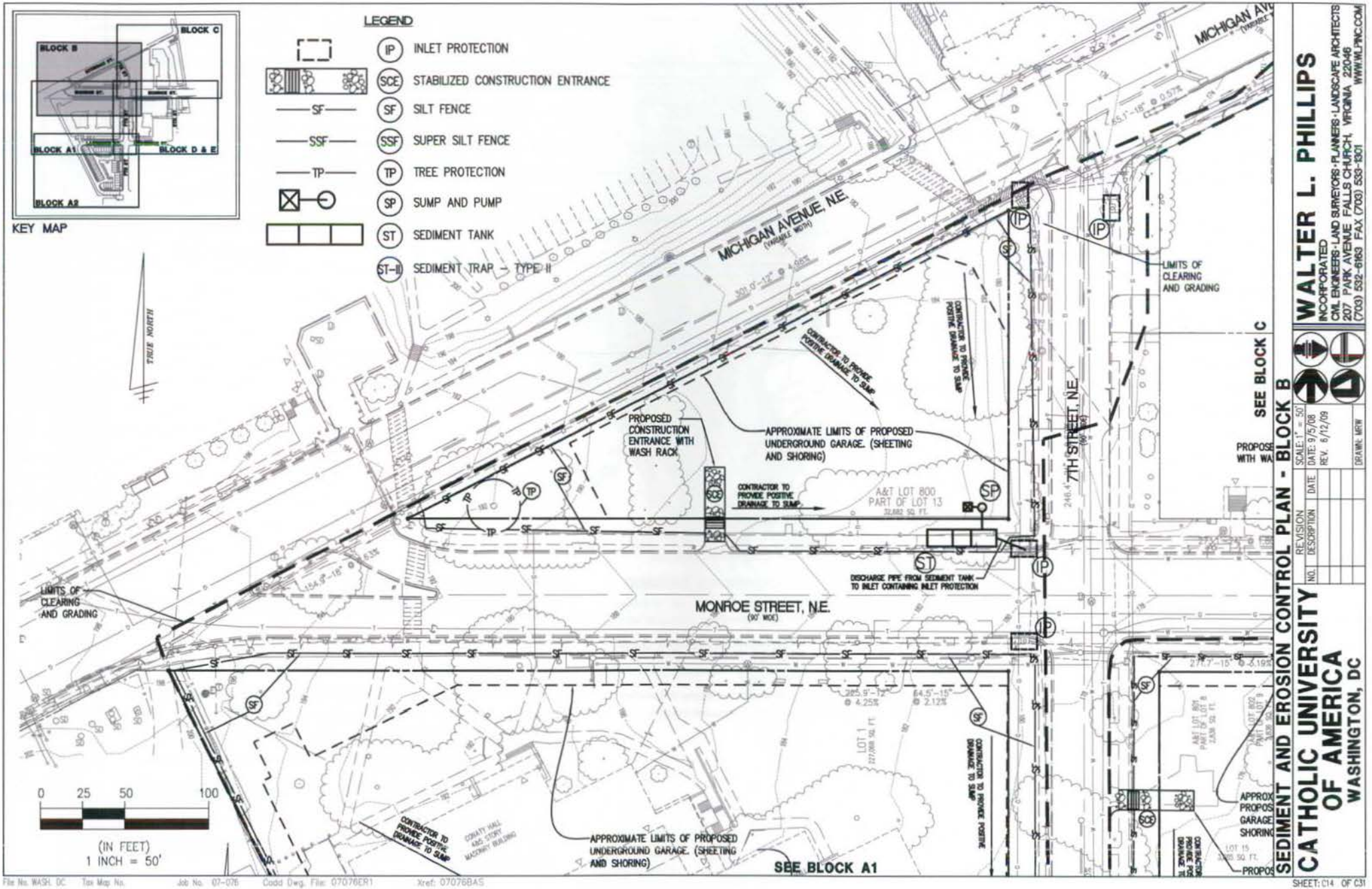

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SEDIMENT AND EROSION CONTROL PLAN - BLOCK B

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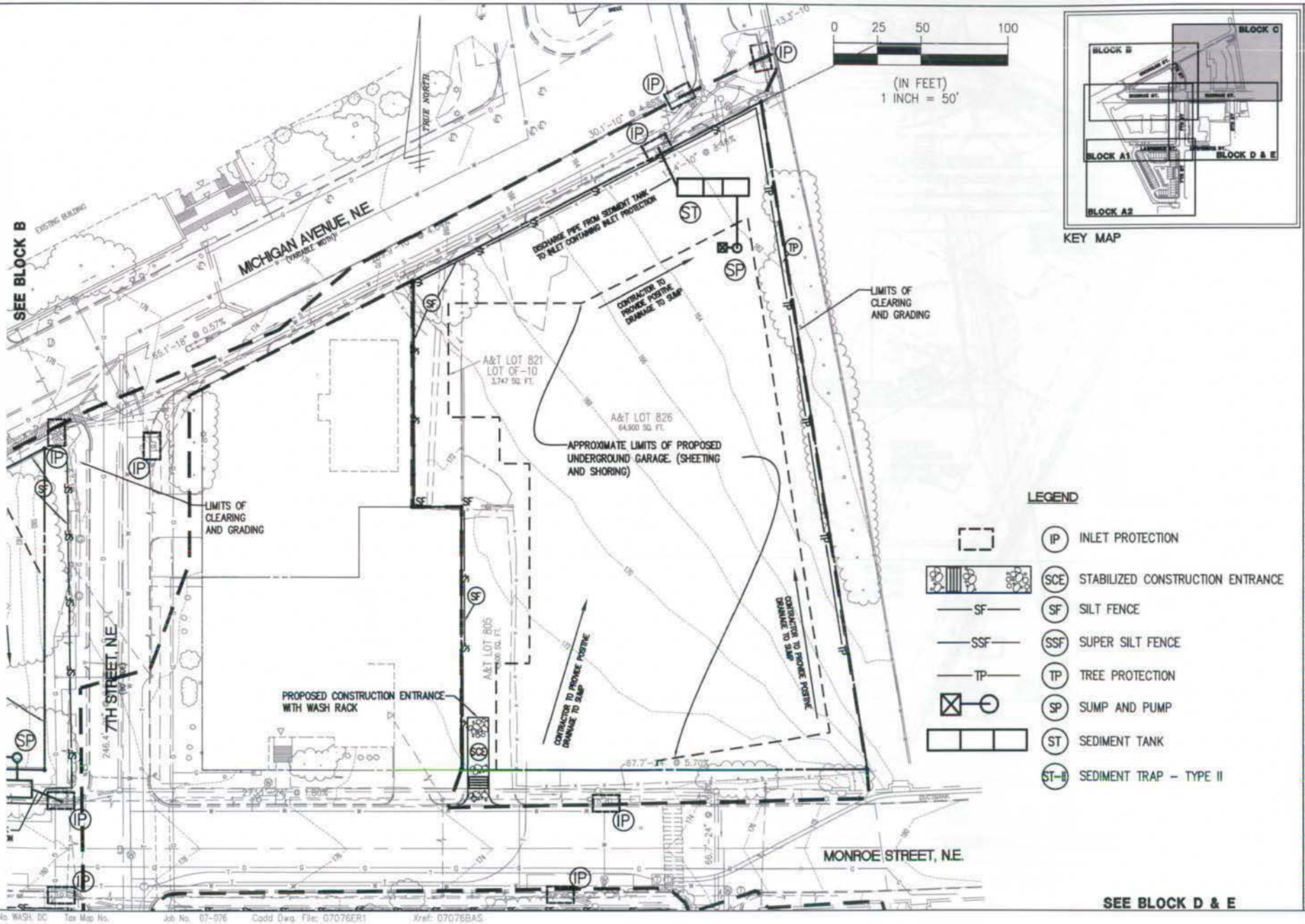
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

File No. WASH. DC Tax Map No. Job No. 07-076 Cadd Dwg. File: 07076ER1 Xref: 07076BAS



SEDIMENT AND EROSION CONTROL PLAN - BLOCK C

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WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

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DATE: 9/5/08
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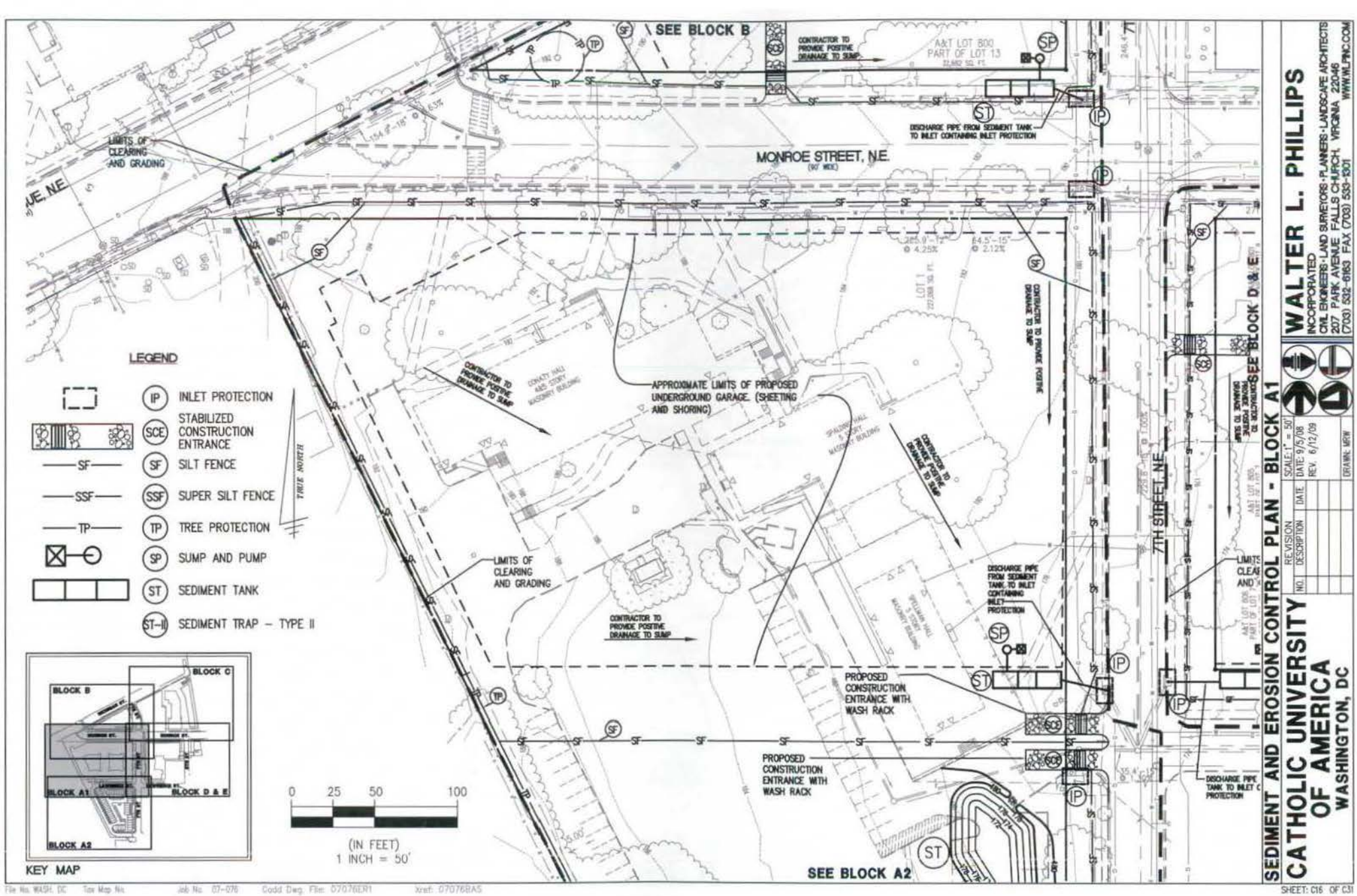

SEDIMENT AND EROSION CONTROL PLAN - BLOCK A1

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DATE: 9/5/08
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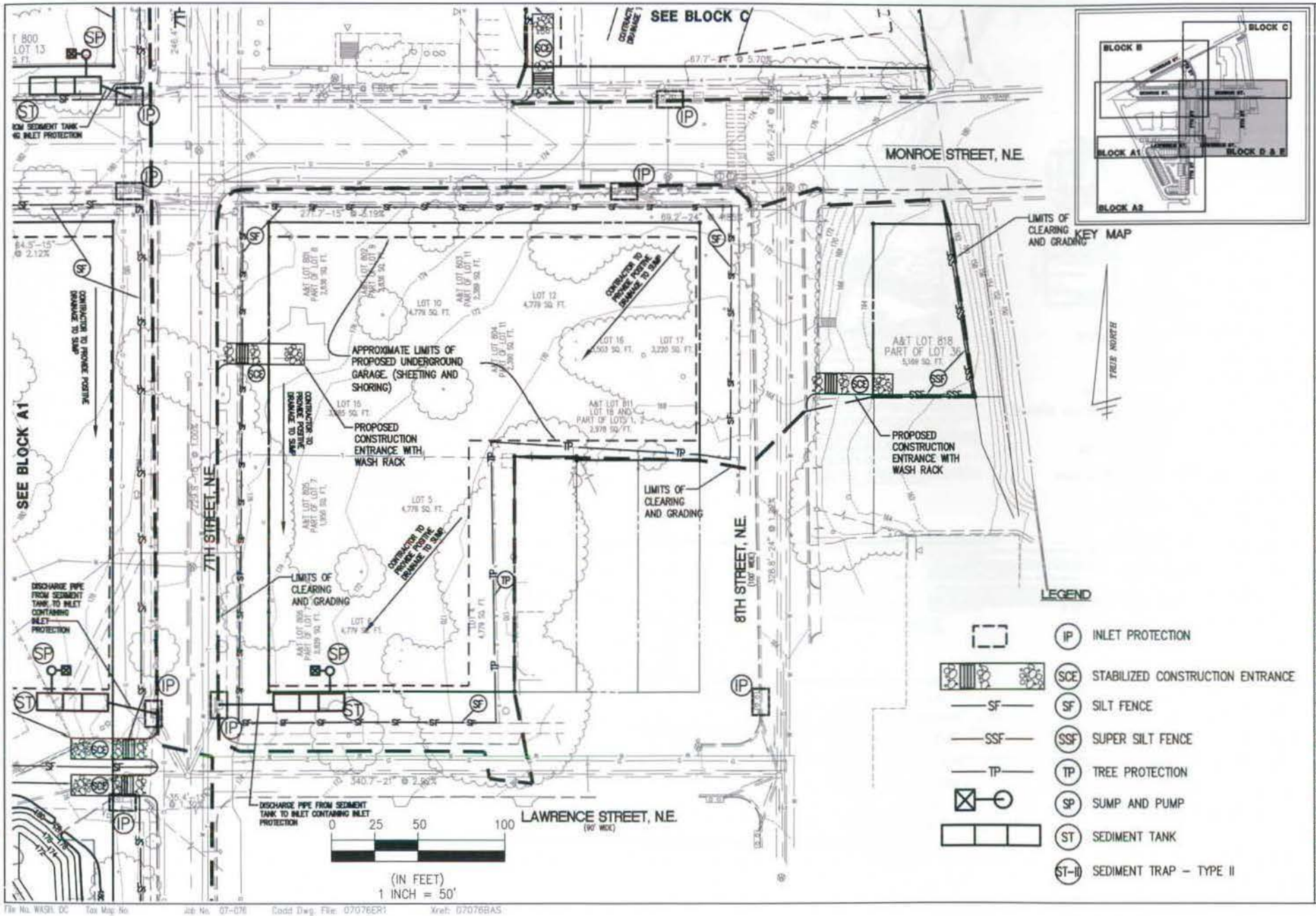

SEDIMENT AND EROSION CONTROL PLAN - BLOCK D & E

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SCALE: 1" = 50'
DATE: 9/5/08
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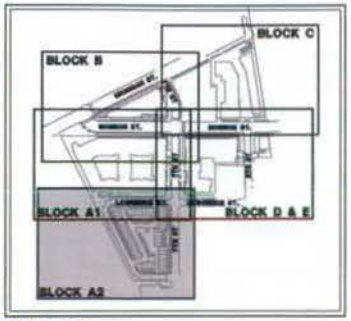

KEY MAP

LEGEND

- IP — INLET PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- TP — TREE PROTECTION
- SP — SUMP AND PUMP
- ST — SEDIMENT TANK
- ST-II — SEDIMENT TRAP – TYPE II

SEE BLOCK A1

PROPOSED CONSTRUCTION ENTRANCE WITH WASH RACK

PROPOSED CONSTRUCTION ENTRANCE WITH WASH RACK

DISCHARGE PIPE FROM TANK TO INLET CONTAINING PROTECTION

SEE BLOCK D & E

LIMITS OF CLEARING AND GRADING

7TH STREET, N.E.

TRUE NORTH

0 25 50 100

(IN FEET)
1 INCH = 50'

SEDIMENT AND EROSION CONTROL PLAN - BLOCK A2

CATHOLIC UNIVERSITY OF AMERICA

WASHINGTON, DC

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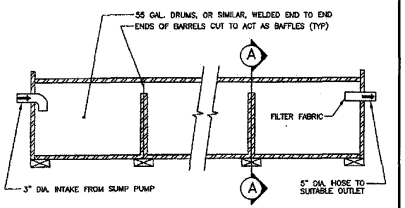
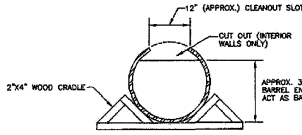
DETAIL 34 - PORTABLE SEDIMENT TANK (HORIZONTAL)

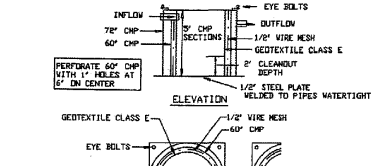


ELEVATION



CROSS-SECTION A-A

DETAIL 35 - PORTABLE SEDIMENT TANK (VERTICAL)



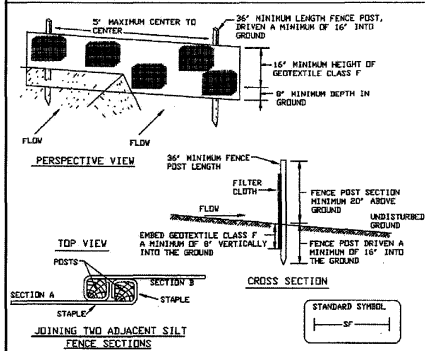
Construction Specifications

1. The following formula should be used in determining the storage volume of the sediment tanks: 1 cubic foot of storage for each gallon per minute of pump discharge capacity.

2. An example of a typical sediment tank is shown above. Other container designs can be used if the storage volume is adequate and approval is obtained from the local approving agency.

3. Tanks may be connected in series.

DETAIL 4 - SILT FENCE



JOINING TWO ADJACENT SILT FENCE SECTIONS

Construction Specifications

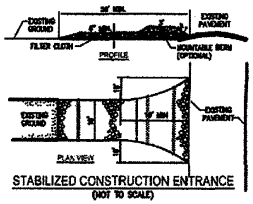
1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: ASTM D-4595
Tensile Modulus	20 lbs/in (min.)	Test: ASTM D-4595
Flow Rate	0.3 gal/ft²/minute (max.)	Test: ASTM D-5141
Filtering Efficiency	75% (min.)	Test: ASTM D-5141

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

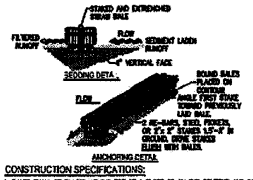
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 30% of the fabric height.



STABILIZED CONSTRUCTION ENTRANCE
(NOT TO SCALE)

CONSTRUCTION RAMP SPECIFICATION:

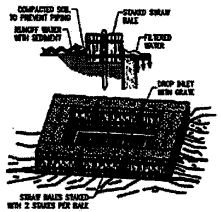
1. STONE SIZE- USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH SHALL APPLY).
3. THICKNESS- NOT LESS THEN SIX (6) INCHES.
4. WIDTH- TEN (10) FOOT MINIMUM, BUT NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS ROAD.
5. FILTER CLOTH- WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIRING AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING- WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



CONSTRUCTION SPECIFICATIONS:

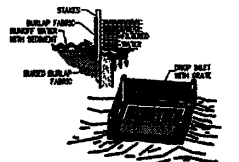
1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THAT BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE DIKE
(NOT TO SCALE)



SPECIFIC APPLICATION:
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT), WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 CFS) ARE TYPICAL, THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

STRAW BALE DROP INLET
SEDIMENT FILTER
(NOT TO SCALE)

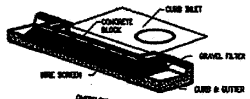


SPECIFIC APPLICATION:
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT), WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 CFS) ARE TYPICAL, THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

BURLAP DROP INLET
SEDIMENT FILTER
(NOT TO SCALE)

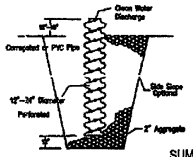
WASH RACK DETAIL
(NOT TO SCALE)

VEHICLE WASH DETAIL
(NOT TO SCALE)



CURB INLET SEDIMENT FILTER
(NOT TO SCALE)

1. TWO CONCRETE BLOCKS SHALL BE PLACED ON THEIR SIDES ABUTTING THE CURB AT EITHER SIDE OF THE INLET OPENING.
2. A 2 INCH BY 4 INCH STUD SHALL BE CUT AND PLACED THROUGH THE OUTER HOLES OF EACH SPACER BLOCK TO HELP KEEP THE FRONT BLOCKS IN PLACE.
3. CONCRETE BLOCKS SHALL BE PLACED ON THEIR SIDES ACROSS THE FRONT OF THE INLET AND ABUTTING THE SPACER BLOCKS AS ILLUSTRATED.
4. WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (OPENING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. GARDEN WIRE OR HARDWARE CLOTH WITH 1/2-INCH OPENINGS SHALL BE USED.
5. TWO TO THREE INCH STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BARRIER AS SHOWN.
6. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.



SUMP PIT
(NOT TO SCALE)

CONSTRUCTION SPECIFICATIONS:

1. PIT DIMENSIONS ARE OPTIONAL.
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12"-24" DIAMETER CORRUGATED OR PVC PIPE.
3. A BANK OF 2" AGGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". WHEN BE SHOVELED WITH 2" AGGREGATE.
4. THE STANDPIPE SHOULD EXTEND 12"-18" ABOVE THE LIP OF THE PIT.
5. IF SEDIMENT WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, THE STANDPIPE SHOULD BE WRAPPED WITH FILTER CLOTH BEFORE INSTALLATION. IF DESIRED, 1/4"-1/2" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, FOLLOWED BY ATTACHING THE FILTERCLOTH. THIS WILL INCREASE THE RATE OF WATER SEEPAGE INTO THE PIPE.

STANDARDS AND SPECIFICATIONS FOR BRICKBAT GROUND COVER

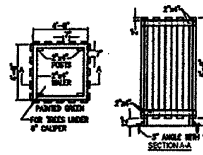
DEFINITION
SEDIMENT GROUND COVER CONSISTING OF BROKEN BRICK (1/2 PIECE OR SMALLER) PLACED OVER DISTURBED EARTH.

PURPOSE
TO PROVIDE A TEMPORARY GROUND COVER OVER DISTURBED URBAN EARTH TO PREVENT THE TRANSPORTATION OF SEDIMENT FROM THE SITE.

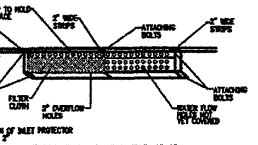
CONDITIONS WHEN PRACTICE APPLIES
BRICKBAT MAY BE USED ON ANY SITE IN NEED OF TEMPORARY GROUND COVER.

DESIGN CRITERIA:
THE BRICKBAT SHALL BE PLACED TO A DEPTH OF 3 INCHES TO 4 INCHES COVERING THE DISTURBED EARTH ON THE SITE, WHEN COMPACTED AND LEVELED.

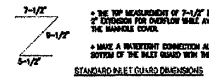
BRICKBAT DETAIL
(NOT TO SCALE)



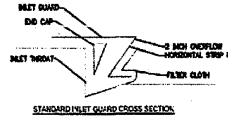
TYPICAL TREE PROTECTION FENCING
(NOT TO SCALE)



STANDARD INLET GUARD ATTACHMENT METHOD

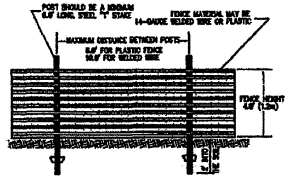


STANDARD INLET GUARD DIMENSIONS



STANDARD INLET GUARD CROSS SECTION

GRADE INLET GUARD
(NOT TO SCALE)



NOTE:
TREE PROTECTION FENCING MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCE
INSTALLATION DETAIL
(NOT TO SCALE)

SEDIMENT AND EROSION DETAILS

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS • LAND SURVEYORS • PLANNERS • LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1501 WWW.WLPINC.COM

GENERAL NOTES:

1. EXISTING CONDITIONS WERE PRODUCED FROM SURVEY'S PREPARED BY WALTER L. PHILLIPS, INC.
2. VERIFY LOCATION OF EXISTING UTILITIES BEFORE PROCEEDING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE, DC/DPW, 767-7632 OR 767-8522 AND "MISS UTILITY" (1800-257-7777) 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATIONS. HAND DIG TEST PITS AT ALL UTILITY CROSSINGS AND DETERMINE EXACT CLEARANCE OF ALL PROPOSED INSTALLATIONS WELL IN ADVANCE OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS WITH PLAN ELEVATIONS.
3. WORK AND MATERIALS IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE APPLICABLE DC/DPW STANDARDS AND SPECIFICATIONS. ON-SITE WORK AND MATERIALS SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE D.C. PLUMBING CODE.
4. DIMENSIONS ARE TO FACE OF WALL AND CURB, EDGE OF WALK AND PAVEMENT, CENTERLINE OF COLUMN, PIPE AND UTILITY STRUCTURE. UNLESS OTHERWISE NOTED.
5. FRAMES AND COVERS OF EXISTING STRUCTURES TO BE ADJUSTED TO MATCH NEW FINISHED GRADES.
6. OMISSIONS AND/OR ADDITIONS OF UTILITIES FOUND DURING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY INFORMATION CONCERNING FOUND UTILITY, NOT SHOWN ON PLANS.
7. TEST PITS ARE REQUIRED AT ALL LOCATION(S) WHERE PROPOSED UTILITIES CROSS EXISTING UTILITIES. INVESTIGATION(S) TO IDENTIFY HORIZONTAL LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES. THE ENGINEER IS TO BE NOTIFIED OF THIS INFORMATION.
8. IF A 1' MINIMUM VERTICAL CLEARANCE CAN NOT BE MAINTAINED AT UTILITY CROSSING, THE CONTRACTOR IS TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH WORK.
9. TRANSITION CURB, GUTTER, PAVING AND SIDEWALK TO MEET EXISTING IN LINE AND ON GRADE OR AS DIRECTED BY ENGINEER.
10. ALL DEBRIS AND EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED OFF-SITE LOCATION.
11. ALL ON-SITE WATER LINES TO HAVE A MINIMUM COVER OF 4'-0". WATER FITTINGS SHALL BE PROPERLY TIED AND ANCHORED, PER DPW STANDARDS.
12. WHERE PORTIONS OF EXISTING BITUMINOUS OR CONCRETE PAVING ARE TO BE REMOVED, THE EXISTING PAVEMENT SHALL BE SAW-CUT.
13. REMOVE FRAMES AND COVERS OF SEWER MANHOLE/INLETS AND/OR WATER MAIN VALVE CASTINGS TO BE ABANDONED AND FILL TO GRADE.
14. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
15. NOTIFY WASHINGTON GAS AT 202-750-4205, 48 HOURS PRIOR TO ANY EXCAVATION IN THE VICINITY OF TRANSMISSION MAIN. FOR FURTHER INFORMATION OR PROBLEMS, CONTACT MR. CHUCK WHITLEY AT WASHINGTON GAS AT 703-750-4205.
16. PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 1 FOOT VERTICAL CLEARANCE BETWEEN 12" DIAMETER AND SMALLER DISTRIBUTION EXISTING GAS FACILITIES AND THE PROPOSED FACILITIES.
17. PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 2 FEET VERTICAL CLEARANCE BETWEEN 16" DIAMETER OR GREATER TRANSMISSION GAS FACILITIES AND THE PROPOSED FACILITIES.

NOTES:

CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO CONSTRUCTION.

CONTACT DEPARTMENT OF PUBLIC WORKS – PUBLIC SPACE MAINTENANCE ADMINISTRATION 48 HOURS PRIOR TO START OF CONSTRUCTION AT (202)645-6030 OR (202) 645-6031.

ALL PROPOSED WORKS TO BE PERFORMED UNDER INSPECTION OF THE DEPARTMENT OF PUBLIC WORKS – WATER AND SEWER AUTHORITY.

ALL PROPOSED WORK TO BE CONSTRUCTED IN ACCORDANCE WITH LATEST STANDARDS AND SPECIFICATIONS OF THE DEPARTMENT OF PUBLIC WORKS – WATER AND SEWER UTILITY AUTHORITY.

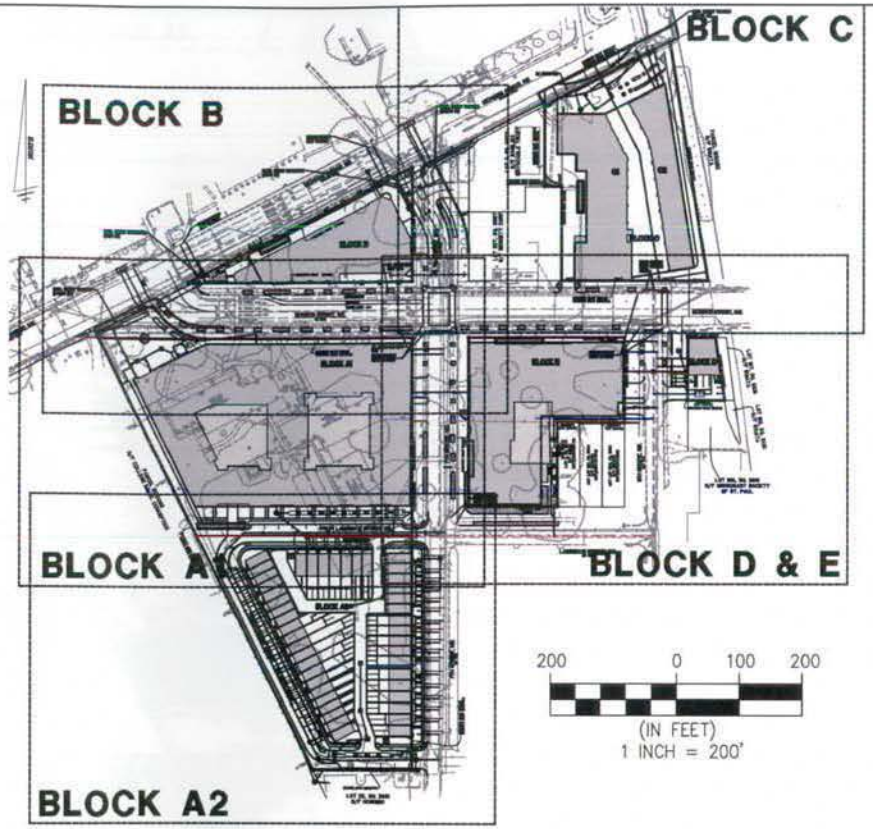
USE MANHOLES ENTRY SEALS WHERE REQUIRED.

NOTE: CONTRACTOR IS TO BE RESPONSIBLE FOR DESIGN OF SHEETING AND SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING AND UNDERPINNING, DESIGNED BY STRUCTURAL ENGINEER LICENSED IN DISTRICT OF COLUMBIA SHALL BE PROVIDED AS NECESSARY TO ENSURE THEIR SUPPORT.

UTILITY NOTE:

UNDERGROUND UTILITY LOCATIONS, INCLUDING WATER, STORM DRAINAGE, SANITARY SEWER, ELECTRIC, TELEPHONE AND GAS WERE TAKEN FROM AVAILABLE CITY UTILITY RECORDS, OWNER RECORDS AND FIELD VERIFIED WHERE POSSIBLE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY AND DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO COMMENCING WORK OR ORDERING PIPE MATERIALS AND STRUCTURES. REPORT ANY DISCREPANCY TO THE PROJECT MANAGER. FOR MARKING LOCATIONS OF EXISTING UTILITIES, CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO ANY EXCAVATION NOTIFY DEPARTMENT OF PUBLIC WORKS.

TEST PITS ARE REQUIRED AT ALL PROPOSED UTILITY CROSSINGS WITH ALL EXISTING UTILITY LINES TO DETERMINE THE EXACT HORIZONTAL LOCATION, ELEVATION AND SIZE OF THE EXISTING UTILITIES. A MINIMUM OF ONE FOOT VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN EXISTING AND PROPOSED UTILITIES. TEST PITS SHOULD BE COMPLETED PRIOR TO ORDERING ANY STRUCTURES OR PIPE MATERIALS. NOTIFY ENGINEER OF ANY CONFLICT WITH PROPOSED PLANS.



LEGEND

PROPOSED	DESCRIPTION	EXISTING
EP	EDGE OF PAVEMENT	EP
MH	MANHOLE	MH
WV	WATER VALVE	WV
WM	WATER METER	WM
GM	GAS METER	GM
TCB	TRAFFIC CONTROL BOX	TCB
LP	LIGHT POLE	LP
LP/S	LIGHT POLE WITH SIGNALS	LP/S
	CURB & GUTTER	
	CG-2	
-S-	SEWER	S
-SL-	SANITARY LATERAL	SL
• C.O.	CLEAN OUT	○ C.O.
	STORM SEWER	
-W-	WATER MAIN	W
	CURB INLET	

PROPOSED	DESCRIPTION	EXISTING
	FIRE HYDRANT	
	PLUG	
	OVERHEAD WIRES	
	UTILITY POLE	
-UE-	UNDERGROUND ELECTRIC	UE
-T-	TELEPHONE	T
-G-	GAS MAIN	G
-E-	ELECTRICAL TRANSFORMER	E
	HANDICAP RAMP (CG-12)	
	GUARDRAIL	
	FENCE	
	TRAFFIC FLOW	
	LIGHT	
	MANHOLE	

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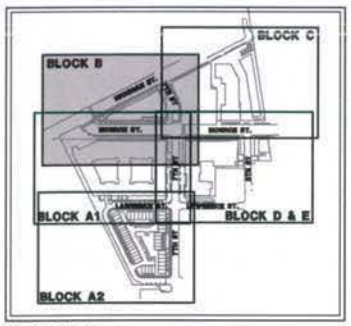
NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 200'
DATE: 9/5/08
REV. 6/12/09
REV. 11/20/09
DRAWN: MKW

SITE UTILITY PLAN - OVERALL
CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC



KEY MAP

NOTES:

1. ALL PROPOSED DOMESTIC AND FIRE TAPS AND WATERLINES TO MEET PER DC/WASA STANDARDS AND SPECIFICATIONS.
2. ALL PROPOSED SEWER TAPS, MANHOLES, INLETS AND PIPES TO MEET DC/WASA STANDARDS AND SPECIFICATIONS.
3. ALL EXISTING UTILITY POLES AND OVERHEAD WIRES TO REMAIN UNLESS OTHERWISE STATED.
4. THIS IS A COMBINED SEWER AREA.
5. WATER AND SEWER AUTHORITY (WASA) EASEMENTS ARE TO BE PROVIDED WHERE EXISTING UTILITIES ARE LOCATED WITHIN PROPOSED STREET VACATION AREAS.

0 25 50 100

(IN FEET)
1 INCH = 50'

TRUE NORTH

PROP. STORMWATER MANAGEMENT STORAGE (SEE DETAIL SHT. C28)
PROP. STORM FILTER (SEE DETAIL SHT. C29)
NEW TRAFFIC LIGHT POLE MAY BE REQUIRED
PROP. STREET DEDICATION (±175 SF)
EX. TRAFFIC LIGHT POLE AND TRAFFIC BOX TO BE RELOCATED. ELECTRIC MANHOLE TOPS TO BE LOWERED TO MATCH ROAD GRADE.
PROP. 8" FIRE SERVICE
PROP. 6" DOMESTIC WATER
PROP. STREET DEDICATION (±948 SF)
PROP. 10" SANITARY LATERAL
PROP. TRAFFIC POLE
EX. UTILITY POLE TO BE REMOVED
EX. STORM INLET TO BE REMOVED
PROP. TRAFFIC POLE
EX. UTILITY POLE TO BE RELOCATED
MICHIGAN AVENUE, N.E. (VARIABLE WIDTH)
PROP. STREET VACATION (±3,578 SF)
EX. UTILITY TO REMAIN
EX. TRAFFIC LIGHT POLE AND TRAFFIC BOX TO BE RELOCATED.
EX. FIRE HYDRANT TO BE RELOCATED TO BACK OF CURB.
EX. STORM INLET TO BE RELOCATED
EX. UTILITY POLE TO REMAIN
EX. UTILITY POLE TO REMAIN
PROP. GAS CONNECTION
BLOCK B
PROP. UNGERGROUND TRANSFORMER VAULT
N90°00'00"W 357.14' (RECORD)
7TH STREET, N.E. (90' WIDE)
SEE BLOCK C
NEW TRAFFIC LIGHT POLE MAY BE REQUIRED
PROP. STREET VACATION (±4,202 SF)
EX. TRAFFIC LIGHT POLE TO BE RELOCATED
EX. TRAFFIC LIGHT POLES TO BE REMOVED
EX. UTILITY POLE TO REMAIN
MONROE STREET, N.E. (90' WIDE)
PROP. 8" SANITARY LATERAL
EX. UTILITY POLES AND OVERHEAD WIRES TO BE RELOCATED OUT OF PROPOSED PLAZA
S90°00'00"E 501.94' (RECORD)
S90°00'00"E 499.42' (MEASURED)
BLOCK A1
PROP. 8" FIRE SERVICE
PROP. 6" DOMESTIC WATER
PROP. 8" SANITARY LATERAL
EX. UTILITY POLE TO BE REMOVED
EX. UTILITY POLE TO REMAIN
EX. TRAFFIC LIGHT POLE TO BE REMOVED
EX. TRAFFIC LIGHT POLE TO BE REMOVED. ELECTRIC MANHOLE TO BE SHIFTED OUT OF CURB LINE
PROP. STORMWATER MANAGEMENT STORAGE (SEE DETAIL SHT. C27)
PROP. STORM FILTER (SEE DETAIL SHT. C29)
SEE BLOCK A1
PROP. 8"

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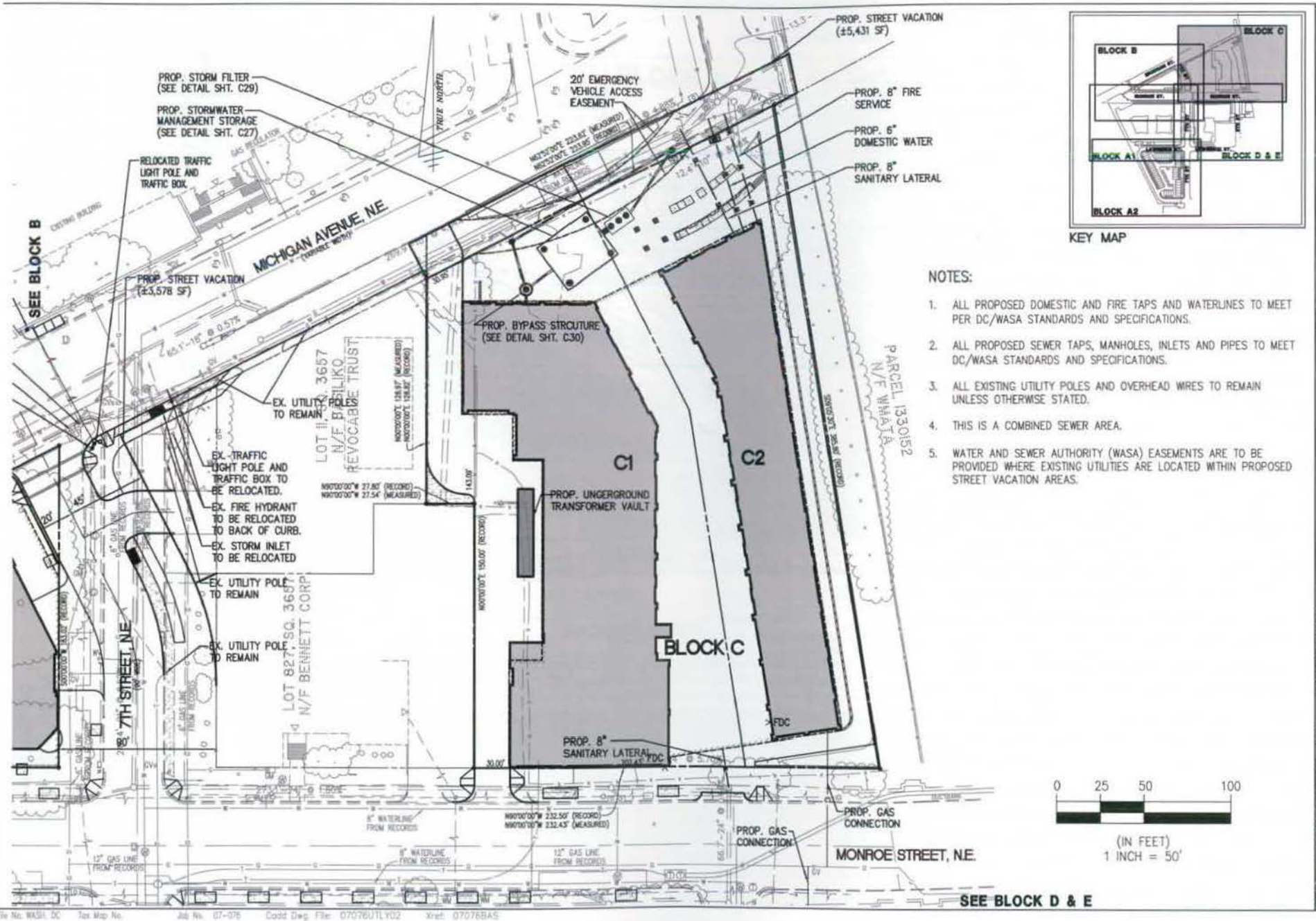
NO.	REVISION DESCRIPTION	DATE

SCALE: 1" = 50'
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

SITE UTILITY PLAN - BLOCK B

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC



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0 25 50 100

(IN FEET)
1 INCH = 50'

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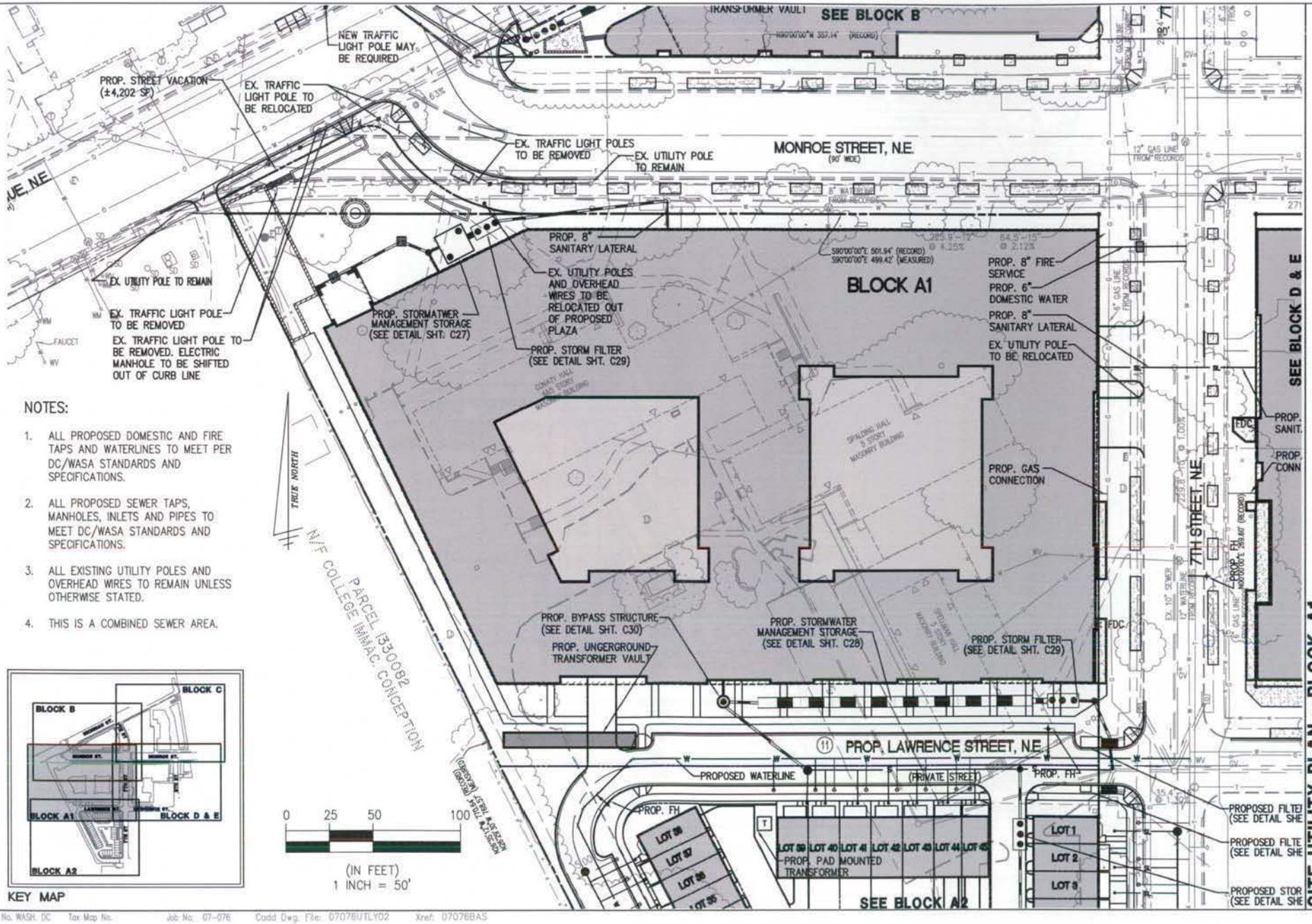
SITE UTILITY PLAN - BLOCK C

CATHOLIC UNIVERSITY OF AMERICA

WASHINGTON, DC

File No. WASH. DC Tax Map No. Job No. 07-076 Cadd Dwg. File: 07076UTLY02 Xref: 07076BAS



NOTES:

1. ALL PROPOSED DOMESTIC AND FIRE TAPS AND WATERLINES TO MEET PER DC/WASA STANDARDS AND SPECIFICATIONS.
2. ALL PROPOSED SEWER TAPS, MANHOLES, INLETS AND PIPES TO MEET DC/WASA STANDARDS AND SPECIFICATIONS.
3. ALL EXISTING UTILITY POLES AND OVERHEAD WIRES TO REMAIN UNLESS OTHERWISE STATED.
4. THIS IS A COMBINED SEWER AREA.

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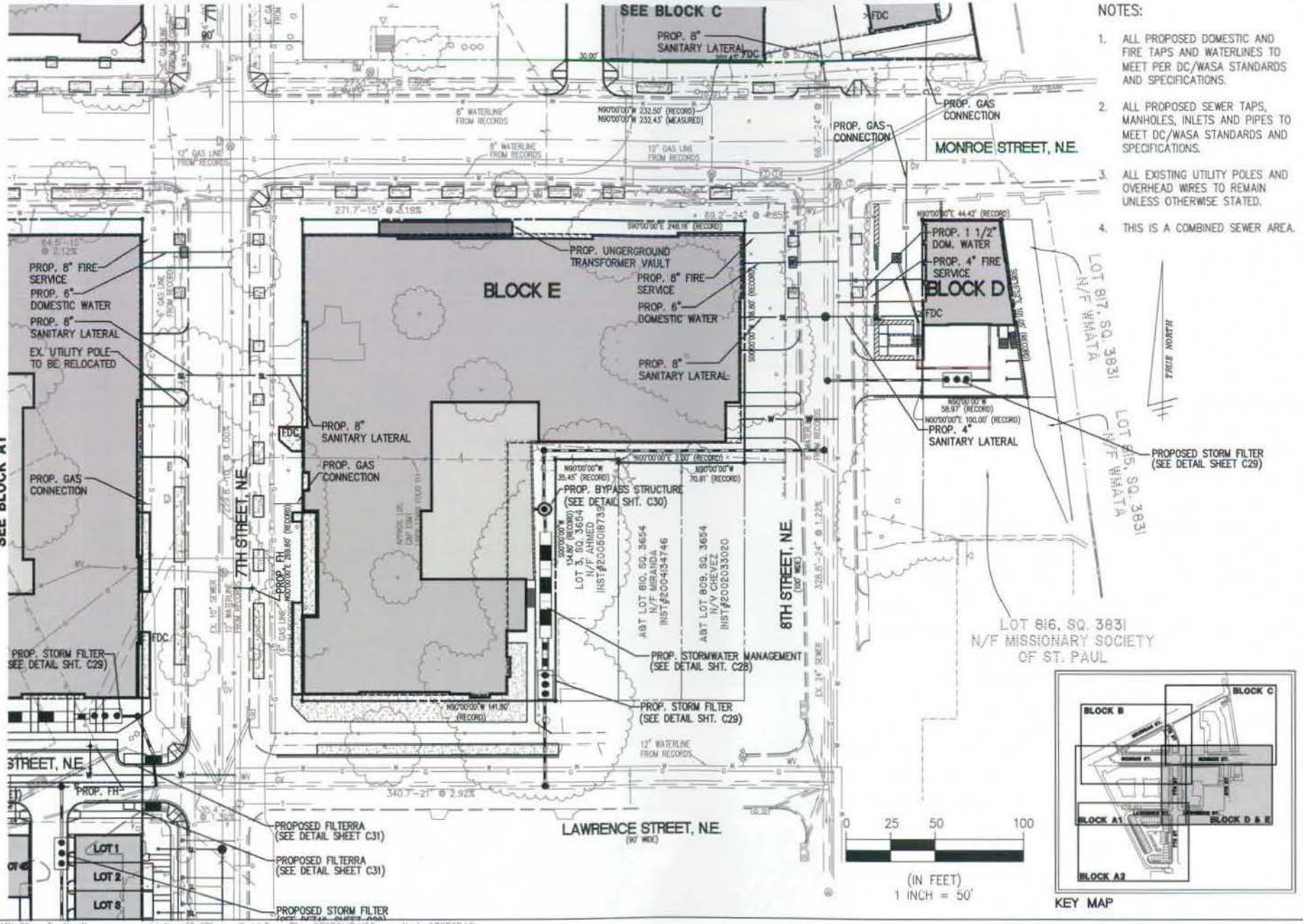
SITE UTILITY PLAN - BLOCK A1

CATHOLIC UNIVERSITY OF AMERICA

WASHINGTON, DC



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SITE UTILITY PLAN - BLOCK D & E

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

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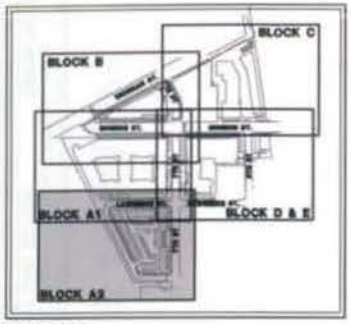
Job No. WASH. DC Tax Map No. Job No. 07-076 Cadd Dwg. File: 07076UTLY02 Xref: 07076BAS



KEY MAP

SEE BLOCK A1

330082
A.C. CONCEPTION

PROP. UNDERGROUND TRANSFORMER VAULT

(SEE DETAIL SHT. C28)

PROP. STORM FILTER (SEE DETAIL SHT. C29)

PROP. LAWRENCE STREET, N.E.

PROPOSED WATERLINE

(PRIVATE STREET)

PROP. FH

PROP. FH

LOT 39 LOT 40 LOT 41 LOT 42 LOT 43 LOT 44 LOT 45

PROP. PAD MOUNTED TRANSFORMER

BLOCK A2

TRUE NORTH

PROPOSED SEWER

PROPOSED WATERLINE

PROP. KEARNY STREET, N.E. (PRIVATE STREET)

LOT 56 LOT 57 LOT 58 LOT 59 LOT 60 LOT 61 LOT 62 LOT 63 LOT 64 LOT 65 LOT 66 LOT 67 LOT 68 LOT 69 LOT 70 LOT 71 LOT 72 LOT 73

LOT 1 LOT 2 LOT 3 LOT 4 LOT 5 LOT 6 LOT 7 LOT 8 LOT 9 LOT 10 LOT 11 LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 17

7TH STREET, N.E. (60' WIDE)

PROPOSED FILTERRA (SEE DETAIL SHEET C31)

PROPOSED FILTERRA (SEE DETAIL SHEET C31)

PROPOSED STORM FILTER (SEE DETAIL SHEET C29)

PROP. DOMESTIC WATER METER (TYP. FOR ALL TOWNHOUSE UNITS)

PROP. 4" SANITARY LATERAL (TYP. FOR ALL TOWNHOUSE UNITS)

SEE BLOCK D & E

PROPOSED FILTERRA (SEE DETAIL SHEET C31)

PROP. FH

PROPOSED BYPASS STRUCTURE (SEE DETAIL SHEET C30)

PROP. PAD MOUNTED TRANSFORMER

PROPOSED FILTERRA (SEE DETAIL SHEET C31)

PROPOSED SEWER

LOT 22, SQ. 3651
N/F HORNING

PROPOSED STORMWATER MANAGEMENT STORAGE (SEE DETAIL SHEET C28)

PROPOSED STORM FILTER (SEE DETAIL SHEET C29)

NOTES:

1. ALL PROPOSED DOMESTIC AND FIRE TAPS AND WATERLINES TO MEET PER DC/WASA STANDARDS AND SPECIFICATIONS.
2. ALL PROPOSED SEWER TAPS, MANHOLES, INLETS AND PIPES TO MEET DC/WASA STANDARDS AND SPECIFICATIONS.
3. ALL EXISTING UTILITY POLES AND OVERHEAD WIRES TO REMAIN UNLESS OTHERWISE STATED.
4. THIS IS A COMBINED SEWER AREA.

0 25 50 100

(IN FEET)
1 INCH = 50'

SITE UTILITY PLAN - BLOCK A2

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DC/WASA GENERAL NOTES:

1. NOTIFY DC/WASA ONE WEEK PRIOR TO START OF CONSTRUCTION, UTILITY INSPECTION SECTION AT 202-787-2377, WATER SERVICES 202-612-3400 OR 3460 AND SEWER SERVICES 202-264-3824 OR 3829.
2. DEVELOPERS, CONTRACTORS AND PLUMBERS MUST SUBMIT FINAL CONSTRUCTION AS-BUILT INFORMATION TO APPROPRIATE DC/WASA INSPECTOR(S) FOR REVIEW AND APPROVAL.
3. ONCE THE WASA INSPECTOR APPROVES THE AS-BUILT, A COPY MUST BE SUBMITTED TO THE DOCUMENTS AND PERMITS OFFICE AT ROOM 203 AND THE WATER AND SEWER DESIGN SECTION AT 5000 OVERLOOK AVENUE, S.W., 5TH FLOOR.
4. UNDER DC/WASA CUSTOMER FEES AND CHARGES, CONTRACTORS, PLUMBERS, OWNERS ARE RESPONSIBLE FOR EXCAVATIONS, BACKFILLING, REPAVING AND RESTORATION OF PUBLIC SPACE FOR STREET AND SIDEWALKS CUTS, FOR NEW UTILITIES, CONNECTIONS, TAPS AND ABANDONMENT OF SERVICES WITHIN PUBLIC SPACE UNDER DC/WASA INSPECTION. DC/WASA IS NOT RESPONSIBLE FOR FINAL RESTORATION OF STREET AND SIDEWALK CUTS PERFORMED.

METER & METER TRANSMITTING DEVICES NOTES:

THE AUTHORITY HAS INSTALLED A FIXED NETWORK AUTOMATIC METER READING SYSTEM. THIS SYSTEM WILL ELIMINATE THE REQUIREMENT TO READ METERS MANUALLY. METERS INSTALLED BY WASA OR PRIVATE OWNERS OF METERS WILL NEED TO MEET THE FOLLOWING SPECIFICATIONS IN ORDER FOR WASA TO READ METERS AUTOMATICALLY:

1. METERS, INSTALLATIONS AND INSPECTIONS MUST COMPLY WITH ALL DCMR CODES AND SPECIFICATIONS.
2. ALL NEW METERS INSTALLED, INCLUDING PRIVATELY OWNED METERS MUST BE "TRUE ABSOLUTE ENCODER" TYPE METERS OR "DIRECT-READ" METERS THAT CONVERT METER READINGS TO DIGITAL PULSES FROM THE METER REGISTERS.
3. ALL METER REGISTERS SHOULD BE ABLE TO CONVERT ALL THE DIALS IN THE METER REGISTER TO DIGITAL PULSES.
4. THE METERS MUST MEASURE WATER IN 100 CUBIC FEET INCREMENTS. ALL NEW METERS MUST HAVE A METER READING TRANSMITTING UNIT ATTACHED TO THE METER REGISTERS, SEALED SO AS TO MAKE IT WATER TIGHT. THE TRANSMITTING UNIT SHOULD BE PROGRAMMABLE TO DCWASA'S FCC APPROVED RADIO FREQUENCY, AND COMPATIBLE WITH HEXAGRAM, INC. HARDWARE AND SOFTWARE.
5. ALL NEW METERS 3" OR GREATER MUST HAVE TEST PLUG IN THE METER.
6. ALL NEW METERING CONFIGURATIONS SHOULD HAVE STRAINER WHERE APPROPRIATE TO MANUFACTURER'S SPECIFICATIONS.

PRELIMINARY GAS DEMAND

BUILDING A-1:	**3 ROOFTOP VENTILATION UNITS, 780 CFH EACH**	**2,340 CFH**
	308 GAS RANGES, 40 CFH EACH	**12,320 CFH**
	RETAIL ALLOWANCE	**2,000 CFH**
BUILDING A-2:	**45 GAS FURNACES, 75 CFH EACH**	**3,375 CFH**
	45 DOMESTIC WATER HEATERS, 40 CFH EACH	**1,800 CFH**
	45 GAS RANGES, 40 CFH EACH	**1,800 CFH**
BUILDING B:	**2 ROOFTOP VENTILATION UNITS, 530 CFH EACH**	**1,060 CFH**
	140 GAS RANGES, 40 CFH EACH	**6,400 CFH**
	RETAIL ALLOWANCE	**2,000 CFH**
BUILDING C:	**2 ROOF TOP VENTILATION UNITS, 580 CFH EACH**	**1,160 CFH**
	152 GAS RANGES, 40 CFH EACH	**6,080 CFH**
	RETAIL ALLOWANCE	**2,000 CFH**
BUILDING D:	**BUILDING HEAT, 100 MBH**	**100 CFH**
	DOMESTIC WATER HEATER, 40 MBH	**40 CFH**
BUILDING E:	**2 ROOFTOP VENTILATION UNITS, 610 CFH EACH**	**1,220 CFH**
	214 GAS RANGES, 40 CFH EACH	**8,560 CFH**
	RETAIL ALLOWANCE	**2,000 CFH**
	TOTAL	**44,795 CFH**

OUTSIDE LOCATIONS:

A. THE NEW METER LID MUST BE OF A COMPOSITION AND TENSILE STRENGTH SO AS TO PERMIT A RADIO SIGNAL TO PROPAGATE THROUGH THE METER LID AND SECURE THE METER PIT, AGAINST LIGHT VEHICLE TRAFFIC AND PEDESTRIAN FOOT TRAFFIC. LARGE METER INSTALLATIONS MUST HAVE METER LIDS THAT MAY WITHSTAND HEAVY VEHICLE TRAFFIC.

B. THE RADIO-TRANSMITTING DEVICE MUST BE SECURELY ANCHORED TO THE UNDERSIDE OF THE NEW TRANSMITTER FRIENDLY METER LID, SO AS TO PERMIT A RADIO SIGNAL TO COMMUNICATE WITH A DATA COLLECTION UNIT.

C. THE RADIO-TRANSMITTING DEVICE MAY ALSO BE INSTALLED THROUGH THE EXISTING CAST IRON METER LID OR A NEW CAST IRON METER LIDS SO AS PERMIT A SIGNAL TO COMMUNICATE WITH A DATA COLLECTION DEVICE AND POSE NO TRIPPING HAZARD.

APPROVED METERS, METER LIDS AND MTU CURRENTL USED BY DCWASA:

1. HEXAGRAM INC. METER TRANSMITTING UNIT;
2. ABB WATER METERS INC. WITH MTU PERMANENTLY POTTED AT THE FACTORY - MODEL C3000 2"-8" COMPOUND METERS;
3. ARMORCAST INC.
   - METER LID 21 1/2". METER LID MAY NEED TO BE HEAVY DUTY CAST IRON WITH THE RADIO TRANSMITTING DEVICE INSTALLED THROUGH THE EXISTING CAST IRON METER LID TO ALLOW REMOVAL OF THE LARGER SIZE METERS.

CATHOLIC UNIVERSITY SOUTH CAMPUS REDEVELOPMENT
AUGUST 21, 2008

BUILDING	UNITS OR FLOOR AREA	WSFU PER UNIT[A]	TOTAL DOMESTIC WSFU	TOTAL DOMESTIC GPM[B]	TOTAL DOMESTIC GPD[C]	COOLING TOWER TONS	COOLING TOWER GPM	COOLING TOWER GPD[D]	TOTAL SUPPLY GPD	SANITARY DRAINAGE GPD[E]
A-1	308	10.7	3,300	464	1,531,200	-	-	-	1,531,200	1,531,200
A-1 Retail	63,450 SF	0.0066	418	131	94,320	250	10	7,200	101,520	97,920
A-2 (Townhouses)	45	14.3	644	151	217,440	-	-	-	217,440	217,440
B	140	10.7	1,530	273	393,120	-	-	-	393,120	393,120
B Retail	28,650 SF	0.0066	189	88	63,360	110	4	2,880	66,240	67,680
C	152	10.7	1,630	284	408,960	-	-	-	408,960	408,960
C Retail	27,000 SF	0.0066	179	86	61,920	110	4	2,880	64,800	63,360
D	3,000 SF	27.25	27.25	42	30,240	-	-	-	30,240	30,240
E	214	10.7	2,290	358	515,520	-	-	-	515,520	515,520
E Retail	25,500 SF	0.0066	169	83	59,760	100	4	2,880	62,640	61,200
TOTALS					3,375,840			15,840	3,391,680	3,383,760

FOOTNOTE A: BASED ON TABLE E101B, 2000 IPC APPENDIX E

APARTMENT UNIT:	
1 BATH GROUP	**3.6**
½ BATH GROUP	**2.9**
DISHWASHER	**1.4**
KITCHEN SINK	**1.4**
CLOTHES WASHER	**1.4**
TOTAL	**10.7 WSFU**
TOWNHOUSE UNIT:	
2 BATH GROUP	**7.2**
½ BATH GROUP	**2.9**
DISHWASHER	**1.4**
KITCHEN SINK	**1.4**
CLOTHES WASHER	**1.4**
TOTAL	**14.3 WSFU**
BUILDING D (3,000 SF RETAIL):	
2 WATER CLOSETS (FLUSH VALVE)	**20.0**
2 LAVATORIES	**4.0**
1 DRINKING FOUNTAIN	**0.25**
1 SERVICE SINK	**3.0**
TOTAL	**27.25 WSFU**
GENERAL RETAIL SPACE (ASSUMING 25% RESTAURANT A-2 AND 5,000 SF AVERAGE RETAIL TENANT).	
1 WATER CLOSET PER 1,914 SF:	**0.0052 WSFU/SF**
1 LAVATORY PER 2,500 SF:	**0.0008 WSFU/SF**
1 SERVICE SINK PER 5,000 SF:	**0.0006 WSFU/SF**
TOTAL	**0.0066 WSFU/SF**

FOOTNOTE B: BASED ON TABLE E102, 2000 IPC, APPENDIX E

FOOTNOTE C: BASED ON 24 HOUR PEAK DEMAND

FOOTNOTE D: BASED ON 12 HOURS PER DAY COOLING TOWER OPERATION

FOOTNOTE E: TOTAL DOMESTIC GPD + 0.5 X COOLING TOWER GPD

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UTILITY NOTES AND CALCULATIONS

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WASHINGTON, DC

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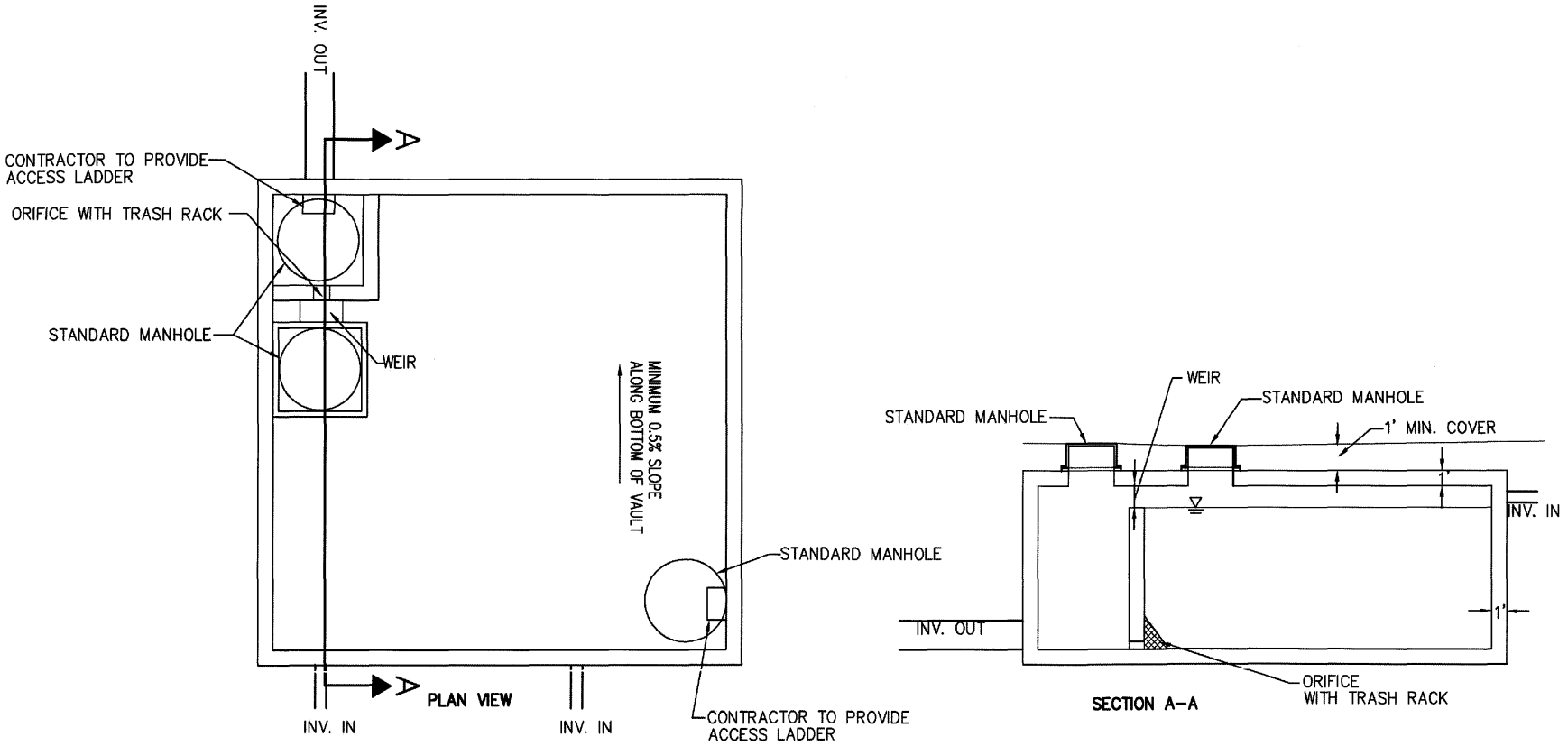

TYPICAL SWM VAULT DETAIL

NTS

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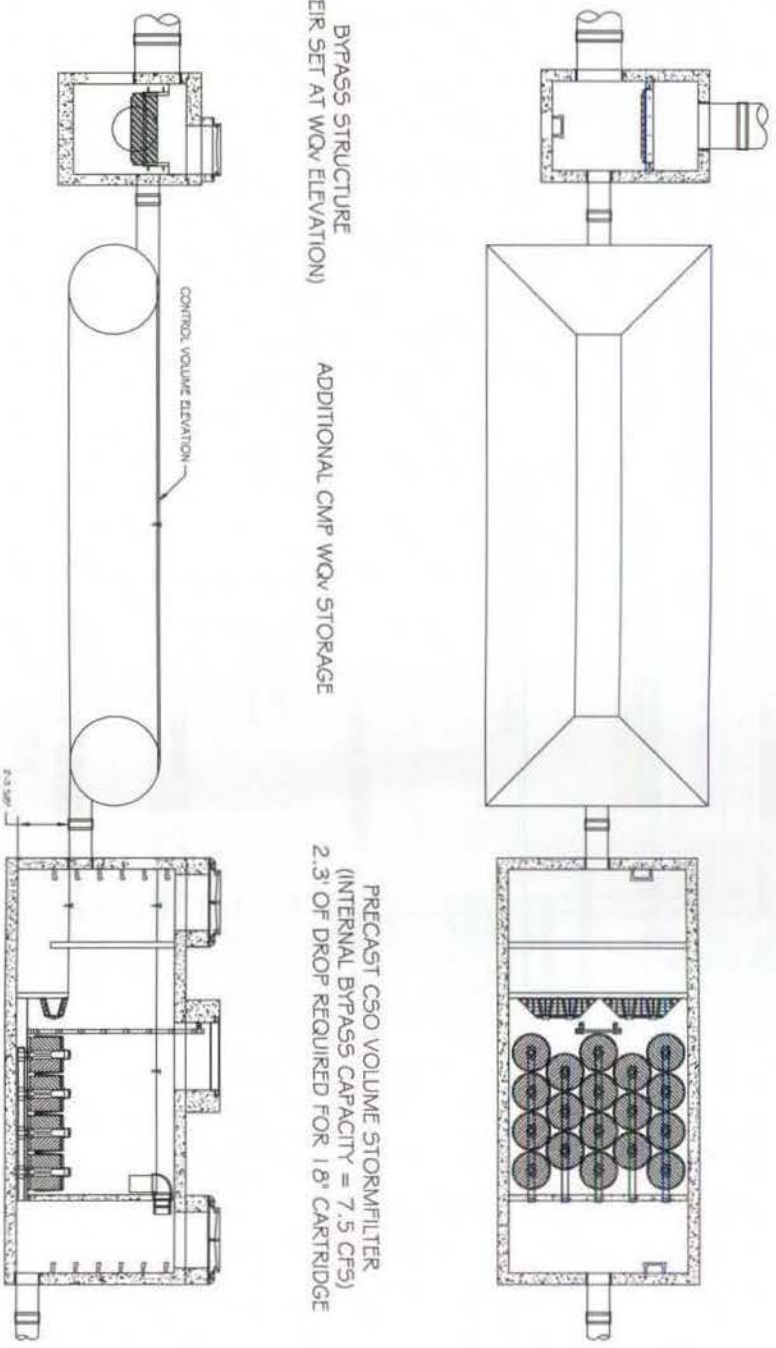
SWM DETAILS

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

STORM FILTER DETAILS



BYPASS STRUCTURE
(WEIR SET AT WQv ELEVATION)

ADDITIONAL CMP WQv STORAGE

PRECAST CSO VOLUME STORMFILTER
(INTERNAL BYPASS CAPACITY = 7.5 CFS)
2.3' OF DROP REQUIRED FOR 18" CARTRIDGE

CONTECH® STORMWATER SOLUTIONS™
contechstormwater.com

WASHINGTON, D.C. - CSO VOLUME STORMFILTER
EXAMPLE LAYOUT DRAWING
CSO BASIN APPLICATION

DRAWING 1 1/1

DATE: 11/09/05 | SCALE: NONE | FILE NAME: VSF818-PC-CSO-DTL | DRAWN: MJW | CHECKED: ARG

SWM DETAILS

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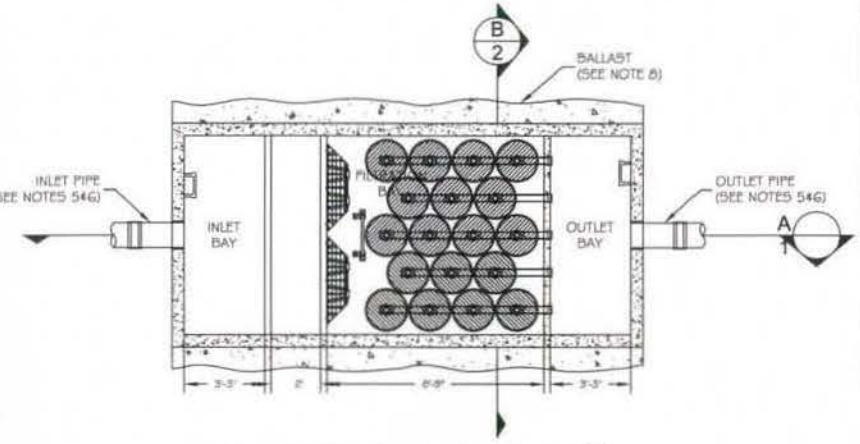
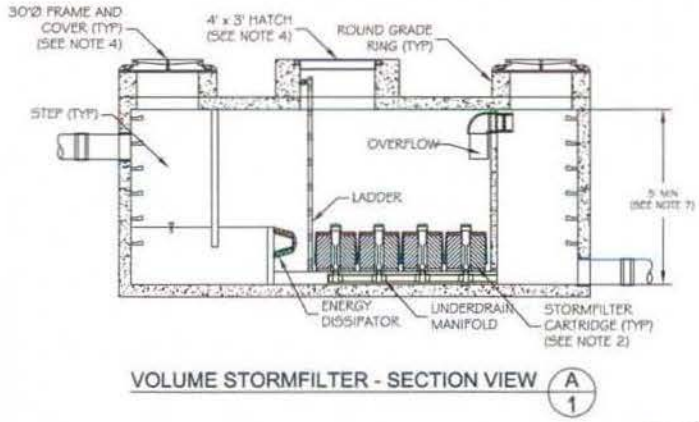
STORM FILTER DETAILS (CONT.)



VOLUME STORMFILTER - PLAN VIEW (1/1)



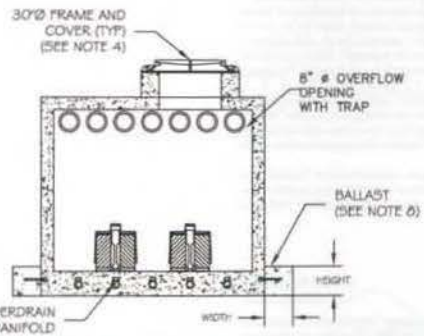
VOLUME STORMFILTER - SECTION VIEW (A/1)

CONTECH STORMWATER SOLUTIONS
contechstormwater.com

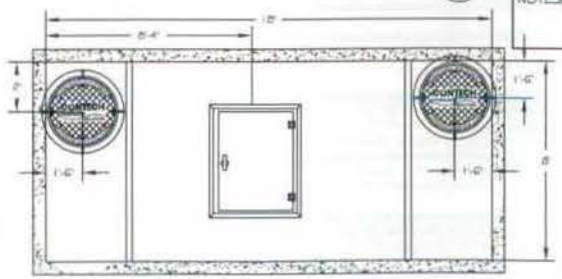
8' x 18' PRECAST VOLUME STORMFILTER PLAN AND SECTION VIEWS CSO BASIN APPLICATION	DRAWING 1 of 2
DATE: 11/09/05 | SCALE: NONE | FILE NAME: VSF818-PC-CSO-DTL | DRAWN: MJW | CHECKED: ARG	

GENERAL NOTES

1) VOLUME STORMFILTER BY CONTECH STORMWATER SOLUTIONS; WEST: PORTLAND, OREGON (800) 548-4667; EAST: SCARBOROUGH, ME (877) 907-8676; MID-ATLANTIC: ELKRIDGE, MD (866) 740-3318.
2) FILTER CARTRIDGE(S) TO BE SIPHON-ACTUATED AND SELF-CLEANING. STANDARD DETAIL SHOWS MAXIMUM NUMBER OF CARTRIDGES. ACTUAL NUMBER REQUIRED TO BE SPECIFIED ON SITE PLANS OR IN DATA TABLE BELOW.
3) PRECAST VAULT TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478. DETAIL REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
4) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
5) STORMFILTER REQUIRES 2.3 FEET OF DROP FROM INLET TO OUTLET. IF LESS DROP IS AVAILABLE, CONTACT CONTECH STORMWATER SOLUTIONS.
6) INLET AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST STORMFILTER VAULT EQUIPPED WITH CAST-IN BOOT CONNECTIONS AT INLET AND OUTLET LOCATIONS FOR WATER-TIGHT CONNECTIONS.
7) PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS. IF A SHALLOWER SYSTEM IS REQUIRED, CONTACT CONTECH STORMWATER SOLUTIONS FOR OTHER OPTIONS.
8) ANTI-FLOTATION BALLAST TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR, IF REQUIRED. BALLAST TO BE SET ALONG ENTIRE LENGTH OF BOTH SIDES OF THE STRUCTURE.
9) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.



VOLUME STORMFILTER - SECTION VIEW (B/2)



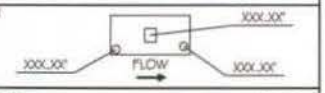
VOLUME STORMFILTER - TOP VIEW (1/2)

8' x 18' PRECAST VOLUME STORMFILTER DATA

STRUCTURE ID	SF
WATER QUALITY FLOW RATE (cfs)	N/A
WATER QUALITY VOLUME (cu-ft)	VARIES
PEAK FLOW RATE (cfs)	7.5 MAX
RETURN PERIOD OF PEAK FLOW (yrs)	15
# OF CARTRIDGES REQUIRED	18 MAX
CARTRIDGE FLOW RATE (15 OR 7.5 gpm)	7.5
MEDIA TYPE (CSF, PERLITE, ZPG)	PERLITE

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	XXX.XX'	XXX	XX"
INLET PIPE #2	XXX.XX'	XXX	XX"
OUTLET PIPE	XXX.XX'	XXX	XX"

RIM



LADDER		YES/NO
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	XX"	XX"

NOTES/SPECIAL REQUIREMENTS:

CONTECH STORMWATER SOLUTIONS
contechstormwater.com

8' x 18' PRECAST VOLUME STORMFILTER TOP AND SECTION VIEWS, NOTES AND DATA CSO BASIN APPLICATION	DRAWING 2 of 2
DATE: 11/09/05 | SCALE: NONE | FILE NAME: VSF818-PC-CSO-DTL | DRAWN: MJW | CHECKED: ARG	

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SWM DETAILS

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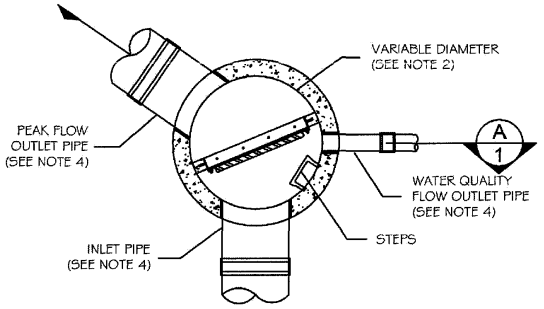
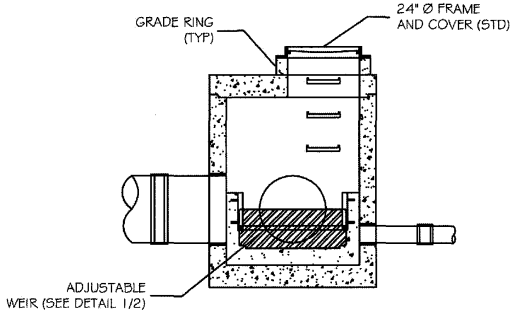
BYPASS STRUCTURE DETAILS



BYPASS MANHOLE - PLAN VIEW 1/1



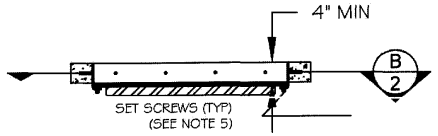
BYPASS MANHOLE - SECTION VIEW A/1

BYPASS STRUCTURE

PLAN AND SECTION VIEWS
STANDARD DETAIL

GENERAL NOTES

1) PRECAST MANHOLE TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478. DETAIL DRAWING REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
2) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
3) INLET AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
4) CONTRACTOR TO ADJUST WEIR TO DESIGN ELEVATION SPECIFIED IN DATA TABLE BELOW. DO NOT EXCEED 5.0 FT-LBS TORQUE WHEN TIGHTENING SCREWS ON WEIR FRAME. SEAL WEIR TO FRAME WITH RTV SILICONE SEALANT AFTER FINAL ADJUSTMENT.



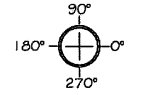
WEIR DETAIL - PLAN VIEW 1/2

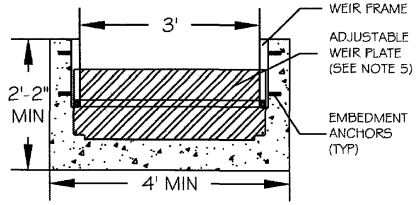
STORMGATE MANHOLE DATA

STRUCTURE ID				XXX
WATER QUALITY FLOW RATE (cfs)				X.XX
PEAK FLOW RATE, Qpeak (cfs)				X.XX
MANHOLE DIAMETER (48", 60", 72")				XX"
RIM ELEVATION				XXX.XX'
PIPE DATA:	I.E.	ORIENTATION	MATERIAL	DIAMETER
INLET PIPE	XXX.XX'	XX°	XXX	XX"
WATER QUALITY FLOW OUTLET PIPE	XXX.XX'	XX°	XXX	XX"
PEAK FLOW OUTLET PIPE	XXX.XX'	XX°	XXX	XX"
ORIFICE TYPE (PIPE, CAP, PLATE)				XXXXX
ORIFICE DIAMETER (in)				XX"
WEIR CREST ELEVATION				XXX.XX'
WEIR WALL ELEVATION				XXX.XX'
HEAD OVER WEIR, H (ft)				X.XX'
WSE at Qpeak				XXX.XX'
WEIR ORIENTATION				XX°
FLOOR ELEVATION				XXX.XX'

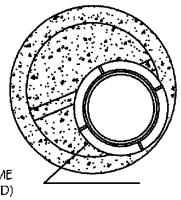
NOTES/SPECIAL REQUIREMENTS:

PIPE ORIENTATION KEY:





WEIR DETAIL - SECTION VIEW B/2



BYPASS MANHOLE- TOP VIEW 2/2

BYPASS STRUCTURE

TOP VIEW, WEIR DETAIL, DATA AND NOTES
STANDARD DETAIL

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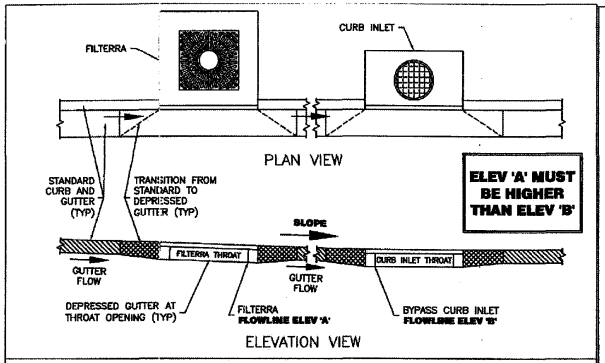
SCALE: AS NOTED
DATE: 9/5/08
REV. 6/12/09
DRAWN: MRW

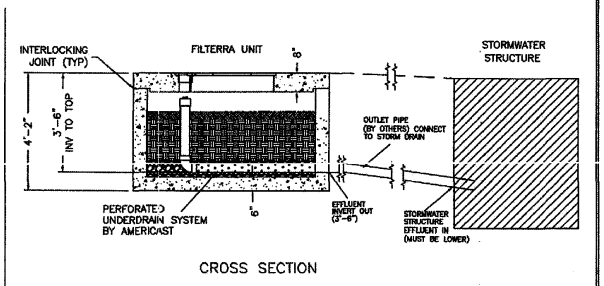
NO.	REVISION DESCRIPTION	DATE

SWM DETAILS

CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, DC

FILTERRA DETAILS





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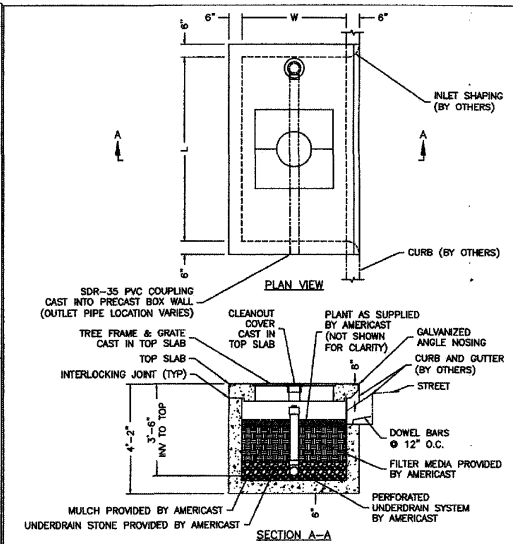
DATE: 07-07-06 | DWG: FLP-2

FILTERRA® TYPICAL FLOWLINE AND OULET PIPE RELATIONSHIP

filterra®
US PAT 6,277,274 AND 6,569,321



DESIGNATION	L	W	TREE GRATE QTY & SIZE	OUTLET PIPE
6 x 4	6'-0"	4'-0"	(1) 3x3	4" SDR-35 PVC
8 x 4	8'-0"	4'-0"	(1) 3x3	4" SDR-35 PVC
8 x 6	8'-0"	6'-0"	(1) 4x4	4" SDR-35 PVC
10 x 6	10'-0"	6'-0"	(1) 4x4	6" SDR-35 PVC
12 x 4	12'-0"	4'-0"	(2) 3x3	4" SDR-35 PVC
12 x 6	12'-0"	6'-0"	(2) 4x4	6" SDR-35 PVC
13 x 7	13'-0"	7'-0"	(2) 4x4	6" SDR-35 PVC

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PRECAST FILTERRA® UNIT NARROW WIDTH CONFIGURATION

filterra®
US PAT 6,277,274 AND 6,569,321

FILTERRA NOTES

Construction & Installation

A. Each unit shall be constructed at the locations and elevations according to the sizes shown on the approved drawings. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.

B. If the Filterra® is stored before installation, the top slab must be placed on the box using the 2x4 wood provided, to prevent any contamination from the site. All internal fittings supplied (if any), must be left in place as per the delivery.

C. The unit shall be placed on a compacted sub-grade with a minimum 6-inch gravel base matching the final grade of the curb line in the area of the unit. The unit is to be placed such that the unit and top slab match the grade of the curb in the area of the unit. Compact undisturbed sub-grade materials to 95% of maximum density at +1-2% of optimum moisture. Unsuitable material below sub-grade shall be replaced to the site engineer's approval.

D. Outlet connections shall be aligned and sealed to meet the approved drawings with modifications necessary to meet site conditions and local regulations.

E. Once the unit is set, the internal wooden forms and protective mesh cover must be left intact. Remove only the temporary wooden shipping blocks between the box and top slab. The top lid should be sealed onto the box section before backfilling, using a non-shrink grout, butyl rubber or similar waterproof seal. The boards on top of the lid and boards sealed in the unit's throat must **NOT** be removed. The Supplier (Americast or its authorized dealer) will remove these sections at the time of activation. Backfilling should be performed in a careful manner, bringing the appropriate fill material up in 6" lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of Filterra® unit shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility Structures", unless directed otherwise in contract documents.

F. Curb and gutter construction (where present) shall ensure that the flow-line of the Filterra® units is at a greater elevation than the flow-line of the bypass structure or relief (drop inlet, curb cut or similar). Failure to comply with this guideline may cause failure and/or damage to the Filterra® environmental device.

G. Each Filterra® unit must receive adequate irrigation to ensure survival of the living system during periods of drier weather. This may be achieved through a piped system, gutter flow or through the tree grate.

filterra®

Activation

A. Activation of the Filterra® unit is performed ONLY by the Supplier. Purchaser is responsible for Filterra® inlet protection and subsequent clean out cost. This process cannot commence until the project site is fully stabilized and cleaned (full landscaping, grass cover, final paving and street sweeping completed), negating the chance of construction materials contaminating the Filterra® system. Care shall be taken during construction not to damage the protective throat and top plates.

B. Activation includes installation of plant(s) and mulch layers as necessary.

Included Maintenance

A. Each correctly installed Filterra® unit is to be maintained by the Supplier, or a Supplier approved contractor for a minimum period of 1 year. The cost of this service is to be included in the price of each Filterra® unit. Extended maintenance contracts are available at extra cost upon request.

B. Annual included maintenance consists of a maximum of (2) scheduled visits. The visits are scheduled seasonally; the spring visit aims to clean up after winter loads that may include salts and sands. The fall visit helps the system by removing excessive leaf litter.

C. Each Included Maintenance visit consists of the following tasks.

1. Filterra® unit inspection
2. Foreign debris, silt, mulch & trash removal
3. Filter media evaluation and recharge as necessary
4. Plant health evaluation and pruning or replacement as necessary
5. Replacement of mulch
6. Disposal of all maintenance refuse items
7. Maintenance records updated and stored (reports available upon request)

D. The beginning and ending date of Supplier's obligation to maintain the installed system shall be determined by the Supplier at the time the system is activated. Owners must promptly notify the Supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology.

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