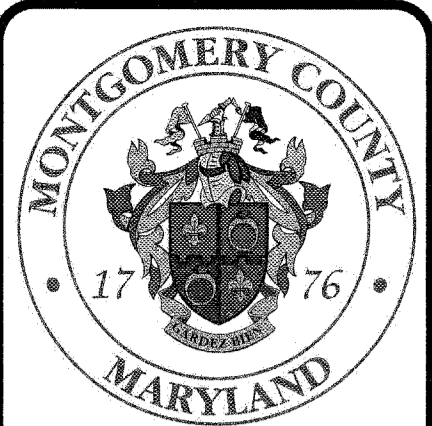


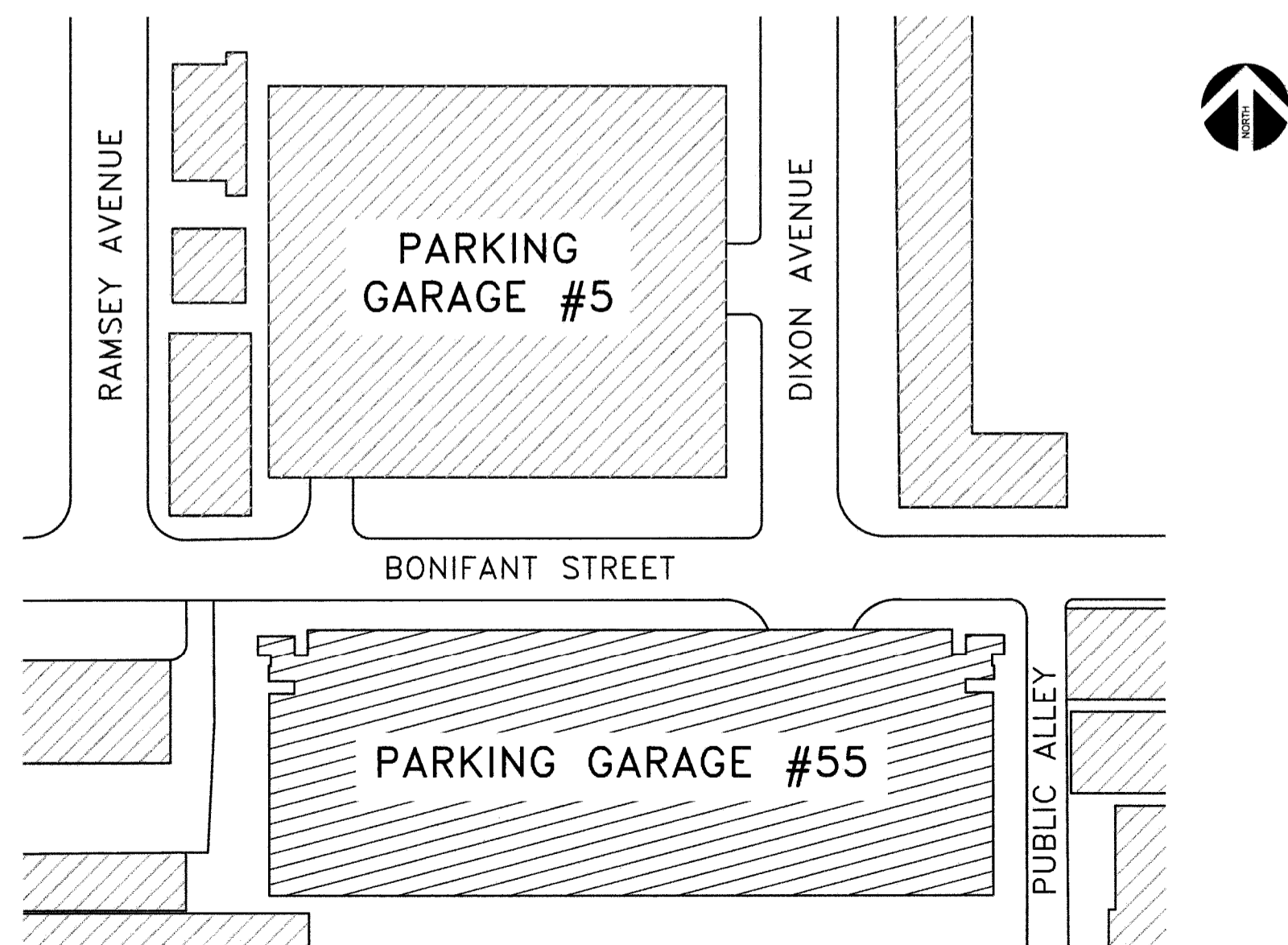
GARAGE REPAIRS MONTGOMERY COUNTY GARAGE #55 SILVER SPRING, MARYLAND IFB NO. 1050970



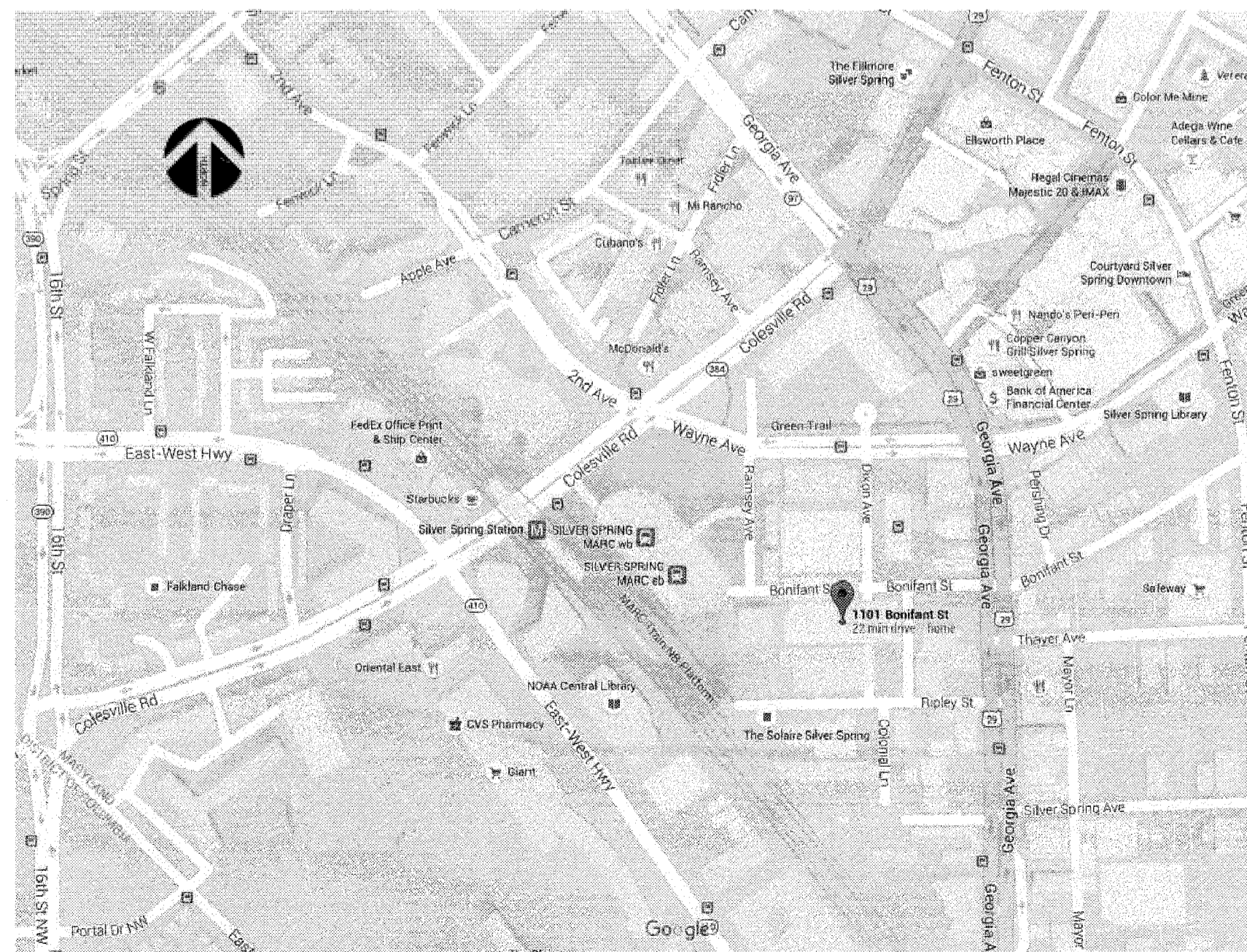
H ASSOCIATES
 HOLBERT APPLE ASSOCIATES, INC.
 STRUCTURAL ENGINEERS
 3423 Olney-Laytonville Road, Suite 6
 Olney, Maryland 20832
 Ph (301) 570-1460
 Fax (301) 570-1462

**FACADE REPAIRS AT
 MONTGOMERY COUNTY GARAGE #55**
 IFB NO. 1050970
 1101 Bonifant Street
 Silver Spring, MD

SITE MAP



VICINITY MAP



DRAWING LIST

- CS COVER SHEET
- MOT-1 MAINTENANCE OF TRAFFIC GENERAL NOTES
- MOT-2 MAINTENANCE OF TRAFFIC PLANS
- S100 TEMPORARY OVERHEAD PROTECTION
- S-0 STRUCTURAL GENERAL NOTES
- S-1 FIRST LEVEL PLAN
- S-2 SECOND LEVEL PLAN
- S-3 THIRD LEVEL PLAN
- S-4 FOURTH LEVEL PLAN
- S-5 FIFTH LEVEL PLAN
- S-6 SIXTH LEVEL AND ROOF PLANS
- S-7 ELEVATIONS
- S-8 ELEVATIONS
- S-9 DETAILS
- S-10 DETAILS

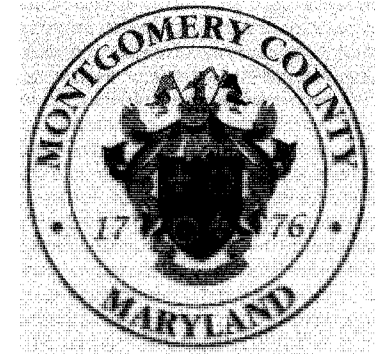
NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

SHEET TITLE
COVER SHEET



PROJECT NO: 15-184	SHEET NO. CS
DATE: 04/08/16	
SCALE: AS NOTED	

CLIENT:



MONTGOMERY COUNTY MARYLAND

IFB NO. 1050970

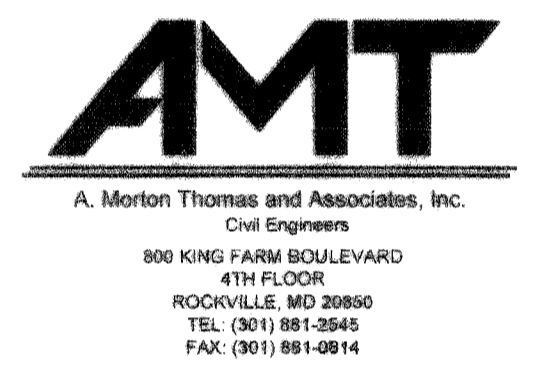
PROJECT: GARAGE 55 PARAPET WALL REPAIR

MONTGOMERY COUNTY GOVERNMENT DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE GAITHERSBURG, MD 20878

STRUCTURAL ENGINEERS:

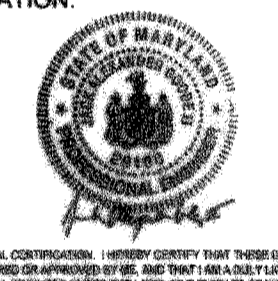


SUB-CONSULTANT:



REGISTRATION:

MONTGOMERY COUNTY, MARYLAND Department of Traffic Engineering and Construction APPROVED FOR MONTGOMERY COUNTY BY: [Signature] 7/31/15



PROFESSIONAL CONTRACTORS certify that these documents were prepared in accordance with the laws and regulations of the State of Maryland. LICENSE NUMBER AND EXPIRATION DATE: [Blank]

Table with columns: NO., DATE, ISSUE DESCRIPTION. Row 1: 1-28-15, 80% NOT FOR CONSTRUCTION. Row 2: 7-14-15, FINAL.

SK&A PROJECT NO: 13-410 DRAWN BY: JT CHECKED BY: JAG

KEY PLAN:

SHEET TITLE:

MAINTENANCE OF TRAFFIC GENERAL NOTES

SHEET NUMBER:

MOT-1

GENERAL REQUIREMENTS

- 1. THE CONTRACTOR SHALL REFER TO THE TEMPORARY TRAFFIC CONTROL PLAN (TTCP) DRAWINGS TO SELECT THE APPROPRIATE WORK ZONE TEMPORARY TRAFFIC CONTROLS FOR EACH PHASE OF CONSTRUCTION... 2. THE CONTRACTOR MUST HAVE A CERTIFIED TRAFFIC CONTROL MANAGER ON SITE DURING ALL PHASES OF CONSTRUCTION AT ALL TIMES... 3. EACH PHASE OF CONSTRUCTION, INCLUDING THE FOLLOW UP RESTORATION OPERATIONS SHALL BE PROVIDED WITH APPROPRIATE WORK ZONE TRAFFIC CONTROLS... 4. ROAD CLOSURES OF ANY DURATION SHALL REQUIRE THE SUBMITTAL OF A WRITTEN REQUEST TO THE TRAFFIC ENGINEERING AND OPERATIONS SECTION WITH JUSTIFICATION AS TO WHY WORK ACTIVITY CANNOT OCCUR WHILE TRAFFIC IS BEING MAINTAINED... 5. ALL SIDEWALK CLOSURES SHALL REQUIRE THE APPROVAL OF THE TRAFFIC ENGINEERING DESIGN AND OPERATIONS SECTION... 6. ANY WORK WITHIN THE TRAVELED PORTION OF ROADWAYS SHALL BE RESTRICTED TO THE HOURS OF 9:00 AM TO 3:30 PM... 7. CONSTRUCTION ACTIVITY, LOADING OR UNLOADING OF EQUIPMENT SHALL NOT BLOCK ANY TRAFFIC LANE OTHER THAN THOSE DELINEATED WITHIN THE WORK ZONE... 8. EXCLUSIVE OF EMERGENCY WORK, THE CONTRACTOR SHALL CONTACT OCCUPANTS OF ALL ADJOINING PROPERTIES AND INFORM THEM OF THE SCOPE AND TIMING OF CONSTRUCTION... 9. ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS UNLESS PERMISSION FOR CLOSURE IS GRANTED BY THE PROPERTY OWNER/MANAGER... 10. PAVEMENT EXCAVATION SHALL BE LIMITED TO A MAXIMUM OF ONE TRAVEL LANE AT ANY TIME... 11. ANY TEMPORARY TRAFFIC CONTROL SIGNS ARE TO BE PLACED ALONG A MSHA ROADWAY OR WITHIN THE LIMITS OF AN INCORPORATED AREA... 12. NO HAZARDOUS MATERIALS SHALL BE STORED WITHIN PUBLIC RIGHT-OF-WAY... 13. ALL EXISTING TRAFFIC CONTROL DEVICES (I.E. SIGNS, MARKING, ETC.) THAT MUST BE REMOVED SHALL BE REPLACED IN THEIR PROPER LOCATION... 14. FOR MERGING, SHIFTING, SHOULDER TAPER, THE MAXIMUM SPACING BETWEEN DEVICES EQUALS THE POSTED SPEED IN FEET... 15. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MDMUTCED... 16. PROVISION SHALL BE MADE FOR SAFE MAINTENANCE OF PEDESTRIAN AND BICYCLE TRAFFIC... 17. SIGNAGE, TRAFFIC DRUMS, TRAFFIC CONES, AND ARROW PANELS SHALL BE PLACED IN ACCORDANCE WITH THE APPROPRIATE TYPICAL AND SPACING CHART... 18. APPROPRIATE DISTANCES FOR SIGN LEGENDS ARE: 'AHEAD' - 500 FT., 1000 FT., 1500 FT., OR 1/2 MILE... 19. ALL WARNING SIGNS, UNLESS OTHERWISE SPECIFIED, SHALL BE A MINIMUM OF 48" X 48" BLACK SYMBOL OR LEGEND ON ORANGE BACKGROUND... 20. DURING NIGHTTIME OPERATIONS TRAFFIC DRUMS SHALL BE USED... 21. WHEN TEMPORARY CONCRETE BARRIER (TCB) IS USED, REFLECTORIZED MARKERS ARE REQUIRED... 22. WHEN PAVEMENT MARKINGS HAVE BEEN OBLITERATED BY THE WORK ACTIVITY... 23. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL ACCIDENTS AND/OR DAMAGE TO PERSONS AND/OR PROPERTY DAMAGE RESULTING FROM HIS OPERATIONS... 24. HAZARDOUS MATERIALS SHALL NOT BE STORED WITHIN PUBLIC RIGHT-OF-WAY... 25. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL... 26. AT THE COMPLETION OF WORK ACTIVITIES, CONDITIONS WITHIN THE PUBLIC SPACE SHALL BE FULLY RESTORED TO THOSE THAT EXISTED PRIOR TO THE WORK ACTIVITY... 27. THE COUNTY'S DEPARTMENT OF PERMITTING SERVICES (DPS) INSPECTOR HAS THE AUTHORITY TO MODIFY THE TTCP AS DEEMED NECESSARY... 28. THE IMPLEMENTATION DATE AND CONTINUANCE OF WORK ACTIVITIES MAY BE ALTERED AT THE DISCRETION OF THE COUNTY'S DPS INSPECTOR...

CONTACT INFORMATION

- 1. THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION SYSTEMS ENGINEERING TEAM AT 240-777-2100 AT LEAST TWO WEEKS IN ADVANCE TO COORDINATE ANY MAJOR TRAFFIC SIGNAL WORK... 2. CONTACT THE MCDOT TRANSPORTATION MANAGEMENT CENTER AT 240-777-2100 BETWEEN 9:00 AM AND 11:00 PM TO INFORM THEM OF TEMPORARY LANE CLOSURES... 3. THE PERMITTEE SHALL CONTACT THE TRAFFIC ENGINEERING DESIGN & OPERATIONS SECTION (TEDO) AT 240-777-6000 AT LEAST TEN (10) WORKING DAYS IN ADVANCE OF THE FINAL PAVING OPERATION... 4. MONTGOMERY COUNTY RIDE-ON TRANSIT BUS SYSTEM - STACY COLETTA (240)777-5836... 5. SILVER SPRING VOLUNTEER FIRE DEPARTMENT (240)773-4701... 6. MONTGOMERY COUNTY PUBLIC SCHOOLS - TODD WATKINS, DIRECTOR (301)840-8130.

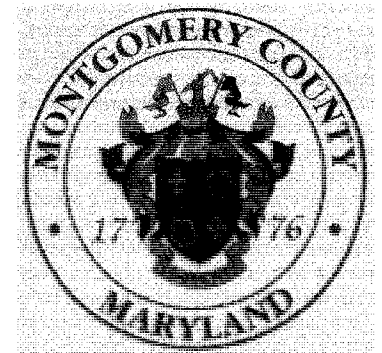
TRAFFIC CONTROL NOTES

- 1. ALL TEMPORARY TRAFFIC SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES USED FOR MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD 2011 EDITION)... 2. MISS UTILITY SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF WORK... 3. SIGN INSTALLATION SHALL NOT LAST ANY LONGER THAN 15 MINUTES PER LOCATION... 4. ALL TRAFFIC CONTROL DEVICES ARE TO BE REMOVED FROM VIEW WHEN NOT IN USE... 5. WHEN CONSTRUCTION STAGING IS REQUIRED INSIDE THE LIMITS OF THE INTERSECTION, THE SIGNAL SHALL BE PUT INTO A FLASHING RED OPERATION BY LAW ENFORCEMENT... 6. FLAGGING OPERATIONS: a. WHEN POSSIBLE, TWO-WAY TRAFFIC SHALL BE MAINTAINED... b. FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR ATSSA APPROVED FLAGGERS... c. RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS... 7. PAVEMENT DROP-OFF: a. ANY EXCAVATION(S) IN THE ROADWAY SHALL BE PAVED TO LEVEL GRADE... b. TRAFFIC SHALL NOT BE PERMITTED WITHIN TEN (10) FEET OF ANY EXCAVATION... c. TRAFFIC SHALL NOT BE PERMITTED WITHIN TWO (2) FEET OF ANY EXCAVATION... 8. PARKING RESTRICTIONS: a. THE CONTRACTOR SHALL CONTACT THE MCDOT, DIVISION OF PARKING MANAGEMENT... b. BAGGING AGREEMENT SHALL BE KEPT AVAILABLE... c. CONTRACTOR/PERMITTEE SHALL COORDINATE WITH DIVISION OF PARKING MANAGEMENT... d. ALL EXISTING MONTGOMERY COUNTY PARKING SIGNS SHALL BE COVERED OR BAGGED... e. WHEN IT IS NECESSARY TO RESTRICT PARKING... f. THE CONTRACTOR/PERMITTEE SHALL RESTORE ALL AFFECTED MONTGOMERY COUNTY PARKING SIGNAGE...

Table with columns: CONSTRUCTION ACTIVITY, DURATION. Row 1: REPAIR PARKING GARAGE FACADE, 1 MONTH.

H G F E D C B A

CLIENT:



MONTGOMERY COUNTY MARYLAND

IFB NO. 1050970

PROJECT: GARAGE 55 PARAPET WALL REPAIR

MONTGOMERY COUNTY GOVERNMENT DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE GAITHERSBURG, MD 20878

STRUCTURAL ENGINEERS:

SK&A Smetlova, Kohnen & Associates, P.A. Consulting Structural Engineers 12965 PARK POTOMAC AVE SUITE 200 POTOMAC, MARYLAND 20854 TEL: (301) 881-3441 FAX: (301) 881-8884

SUB-CONSULTANT:

AMT A. Morion Thomas and Associates, Inc. Civil Engineers 690 KING FARM BOULEVARD #1100 ROCKVILLE, MD 20850 TEL: (301) 881-3445 FAX: (301) 881-0814

REGISTRATION:

MONTGOMERY COUNTY, MARYLAND Division of Traffic Engineering and Operations

APPROVED FOR MOT-2

BY: [Signature] Date: 7/31/15



PROFESSIONAL CERTIFICATION: VERIFY CAREFULLY THAT THESE DOCUMENTS HAVE BEEN REVIEWED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NUMBER: 2000, EXP. 03/31/2015

NO.	DATE	ISSUE DESCRIPTION
1	1-28-15	BOX NOT FOR CONSTRUCTION
2	7-14-15	FINAL

SK&A PROJECT NO: 13-410

DRAWN BY: JT

CHECKED BY: JAG

KEY PLAN:

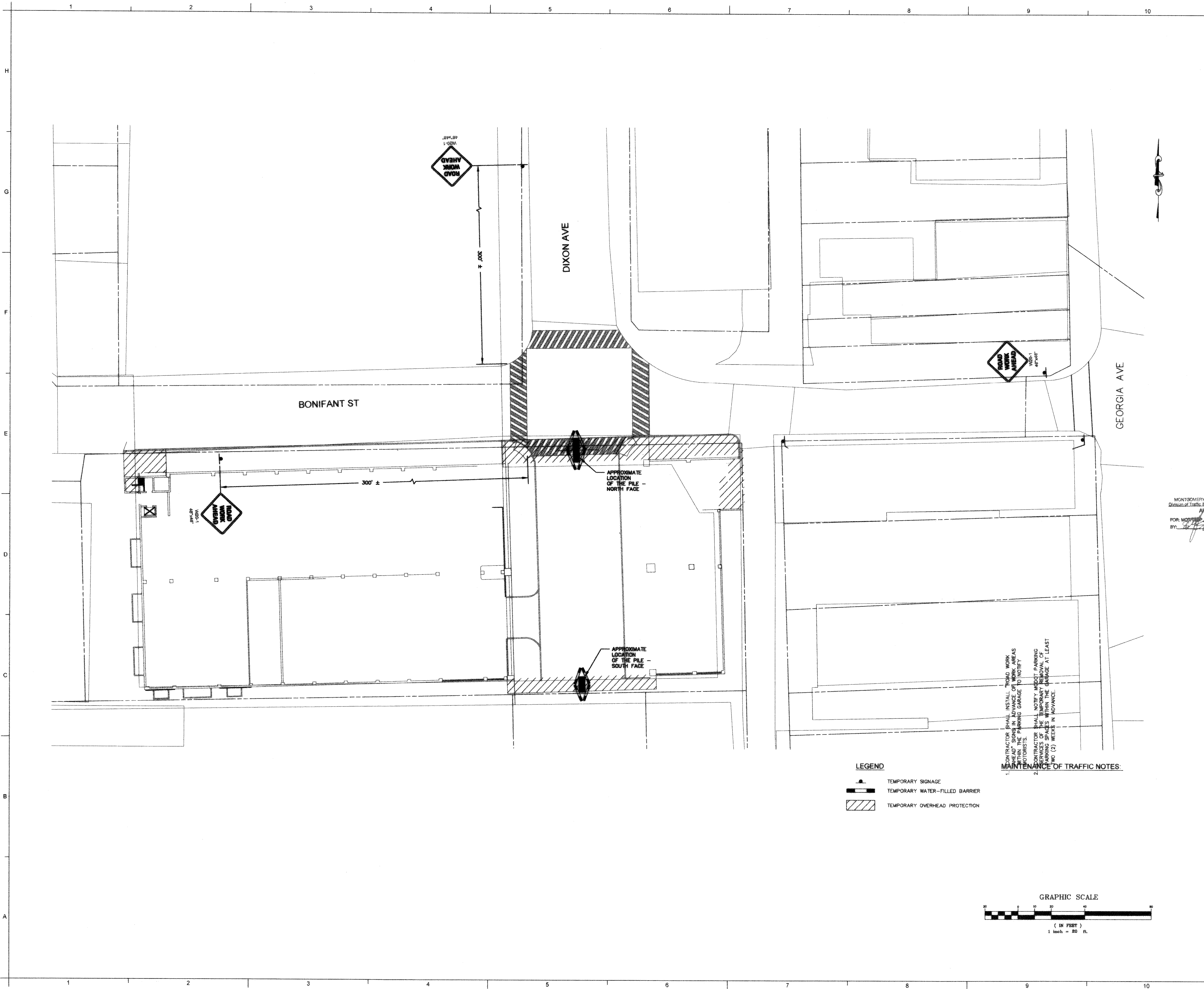
SHEET TITLE:

MAINTENANCE OF TRAFFIC PLAN

SHEET NUMBER:

MOT-2

Original drawing is 30" x 42". Scale reflects accordingly if reduced.



LEGEND

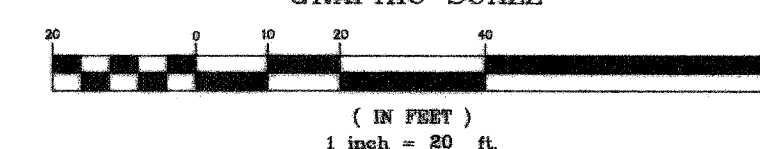
- TEMPORARY SIGNAGE
- TEMPORARY WATER-FILLED BARRIER
- TEMPORARY OVERHEAD PROTECTION

1. CONTRACTOR SHALL INSTALL TRAFFIC WORK SIGNAGE IN ADVANCE OF WORK AREAS WITHIN THE PARKING GARAGE TO NOTIFY MOTORISTS.

2. CONTRACTOR SHALL NOTIFY AND SET PARKING SPACES WITHIN THE GARAGE AT LEAST TWO (2) WEEKS IN ADVANCE.

MAINTENANCE OF TRAFFIC NOTES:

GRAPHIC SCALE

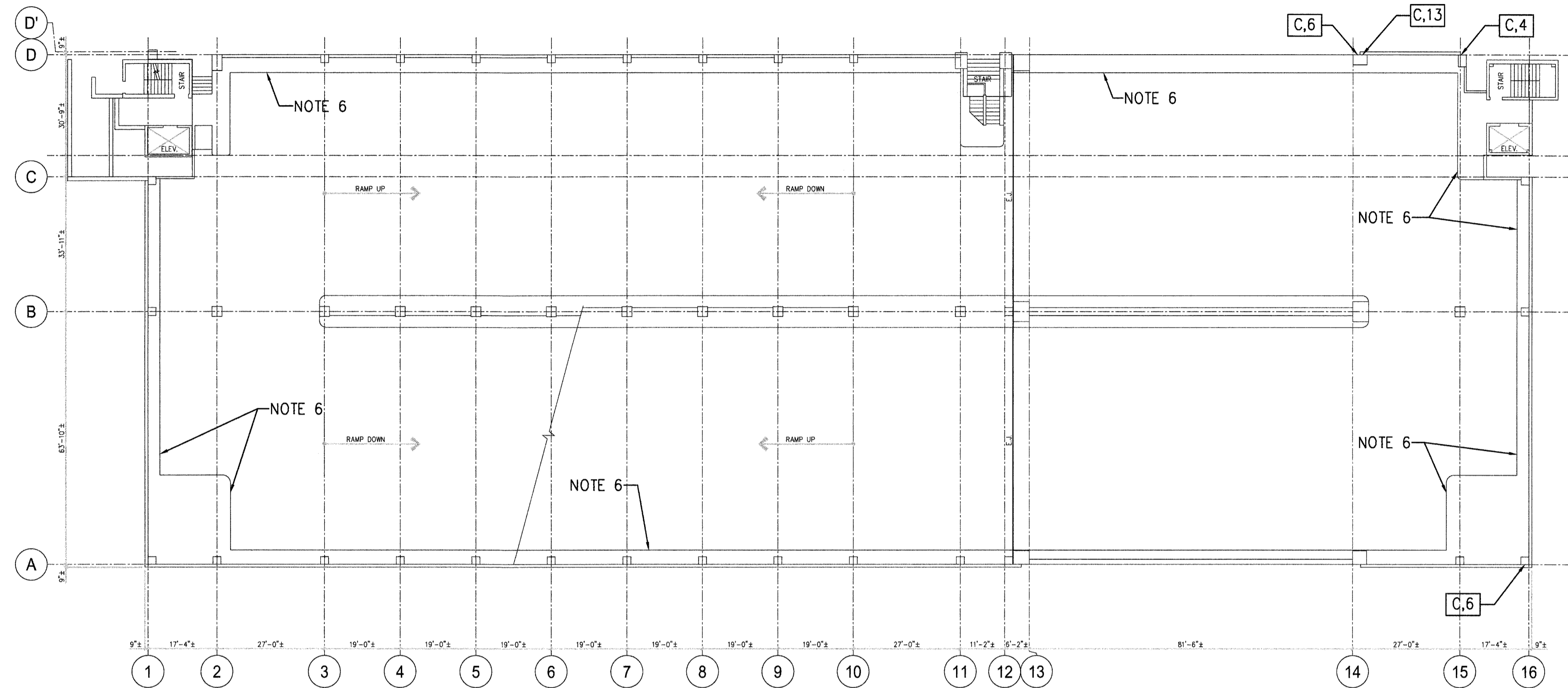




HOLBERT APPLE ASSOCIATES, INC.
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3423 Olney-Laytonsville Road, Suite 6
Olney, Maryland 20832
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FACADE REPAIRS AT MONTGOMERY COUNTY GARAGE #55

IFB NO. 1050970
1101 Bonifant Street
Silver Spring, MD



FIRST LEVEL PLAN

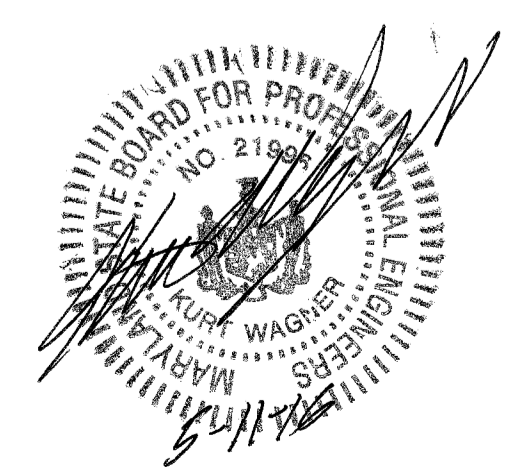
1/16"=1'-0"



NOTES

- EXISTING SLAB IS A 5"-7" POST-TENSIONED CONCRETE SLAB SUPPORTED BY POST-TENSIONED CONCRETE BEAMS.
- EXISTING PERIMETER WALLS ARE CAST-IN-PLACE OR PRECAST CONCRETE WALLS.
- PRIOR TO BEGINNING REPAIRS, POWER WASH ENTIRE FACADE OF GARAGE (EXTERIOR SURFACES ONLY) UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNLESS OTHERWISE NOTED, FOR EXPOSED REPAIRS ON EXTERIOR FACES OF GARAGE, FORMULATE REPAIR CONCRETE TO MATCH EXISTING CONCRETE AS CLOSE AS POSSIBLE.
- DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

SYMBOL X	SYMBOL Y	REPAIR DETAIL
C: COLUMN FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	7/S-9
W: PARTIAL DEPTH WALL DAMAGE	AREA OF DAMAGE (SQ. FT.)	2/S-9
BF: BEAM FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	5/S-9
- CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
- AFTER REPAIRS ARE COMPLETED, APPLY AN ELASTOMERIC DECK COATING OVER ALL PERIMETER CURBS. SEE 1/S-9 AND DETAILS ON S-10.
- SEE GENERAL NOTES ON S-0.



NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

FIRST LEVEL PLAN

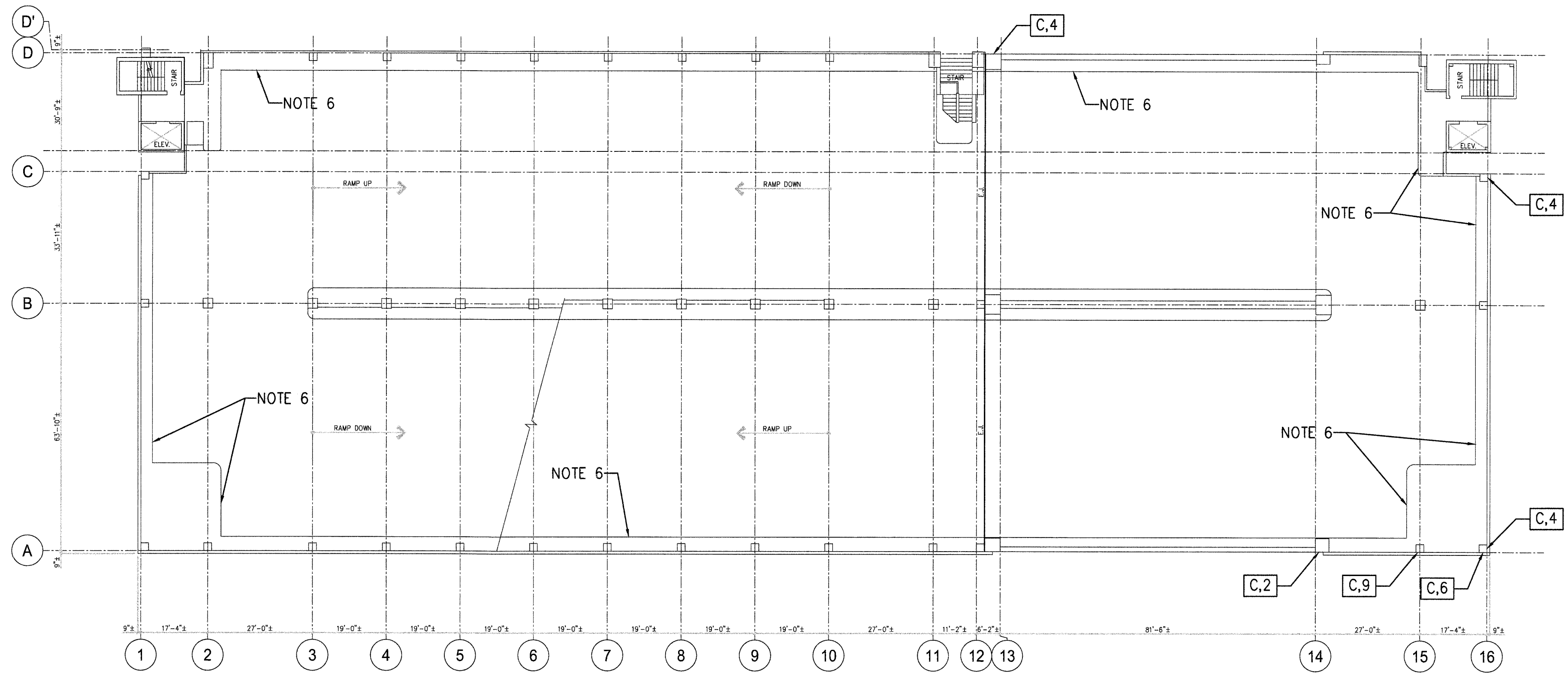
PROJECT NO: 15-184	SHEET NO: S-1
DATE: 04/08/16	SCALE: AS NOTED



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**FACADE REPAIRS AT
MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
1101 Bonifant Street
Silver Spring, MD



SECOND LEVEL PLAN
1/16"=1'-0"

- NOTES**
- EXISTING SLAB IS A 5"-7" POST-TENSIONED CONCRETE SLAB SUPPORTED BY POST-TENSIONED CONCRETE BEAMS.
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NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

SECOND LEVEL PLAN

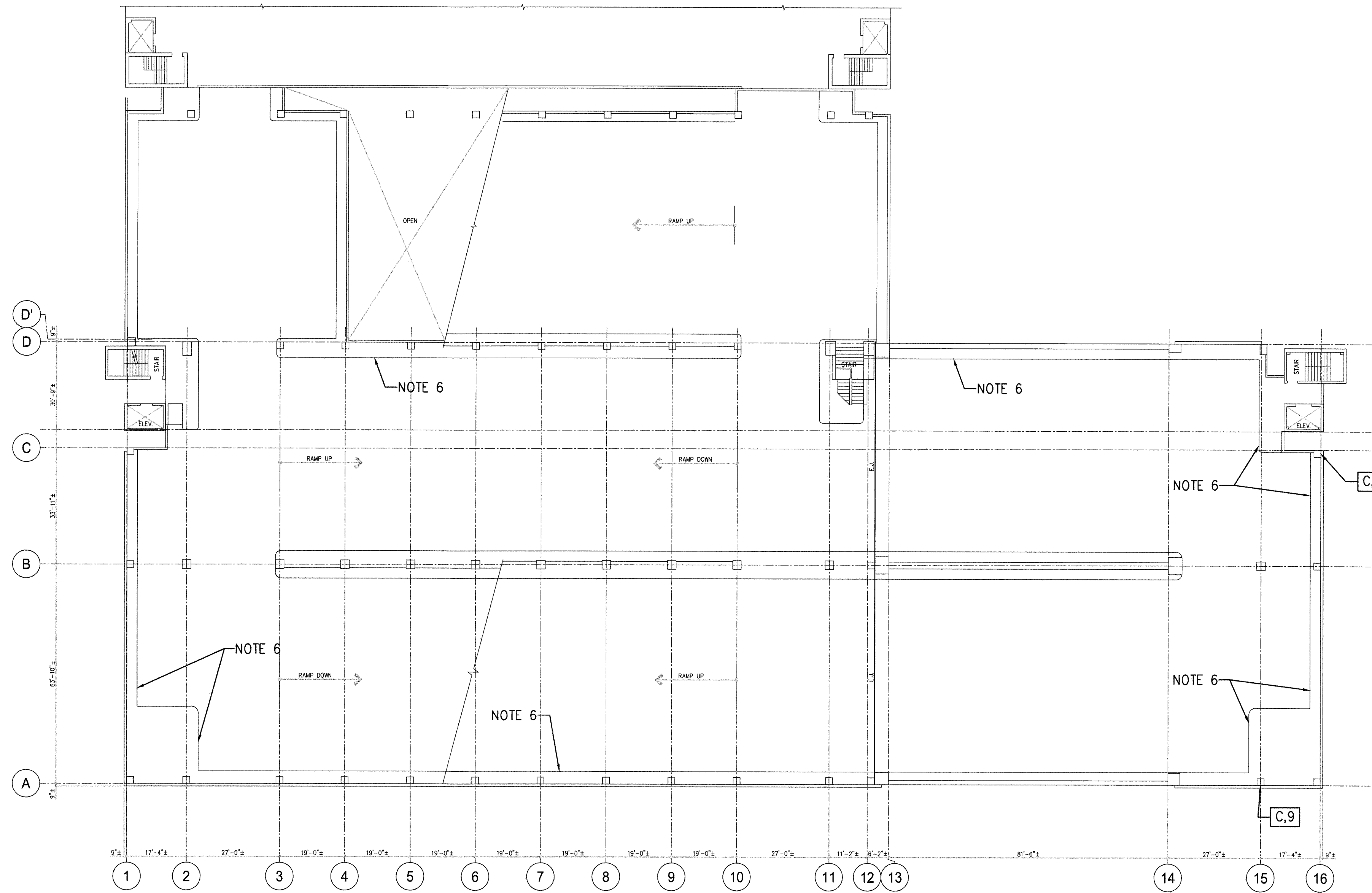
PROJECT NO: 15-184	SHEET NO: S-2
DATE: 04/08/16	SCALE: AS NOTED



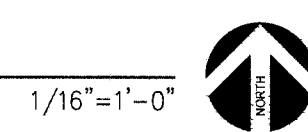
HOLBERT APPLE ASSOCIATES, INC.
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3423 Olney-Laytonsville Road, Suite 6
Olney, Maryland 20832
Ph (301) 570-1460
Fax (301) 570-1462

**FACADE REPAIRS AT
MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
1101 Bonifant Street
Silver Spring, MD



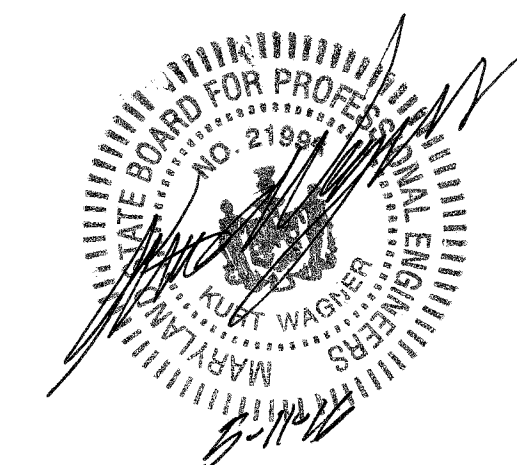
THIRD LEVEL PLAN



NOTES

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- 4) DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

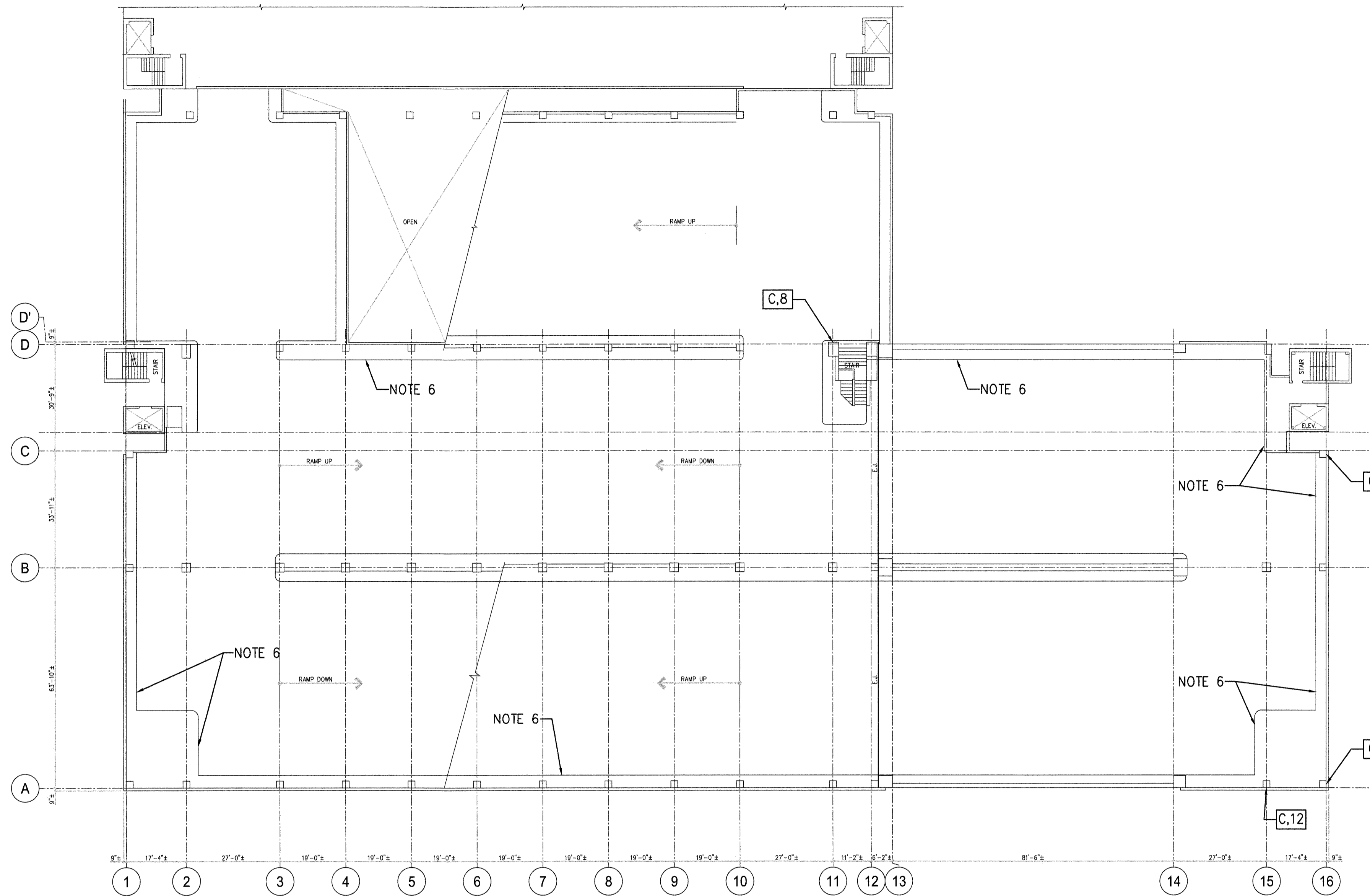
SYMBOL X	SYMBOL Y	REPAIR DETAIL
C: COLUMN FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	7/S-9
W: PARTIAL DEPTH WALL DAMAGE	AREA OF DAMAGE (SQ. FT.)	2/S-9
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- 5) CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
- 6) AFTER REPAIRS ARE COMPLETED, APPLY AN ELASTOMERIC DECK COATING OVER ALL PERIMETER CURBS. SEE 1/S-9 AND DETAILS ON S-10.
- 7) SEE GENERAL NOTES ON S-0.



NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

SHEET TITLE
THIRD LEVEL PLAN

PROJECT NO: 15-184	SHEET NO: S-3
DATE: 04/08/16	
SCALE: AS NOTED	



FOURTH LEVEL PLAN

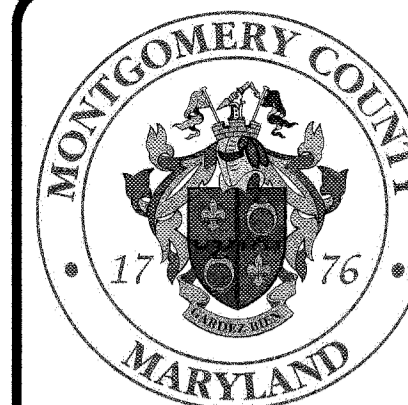
1/16"=1'-0"



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- 4) **[XY]** DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

SYMBOL X	SYMBOL Y	REPAIR DETAIL
C: COLUMN FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	7/S-9
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- 5) CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
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- 7) SEE GENERAL NOTES ON S-0.



HOLBERT APPLE ASSOCIATES, INC.
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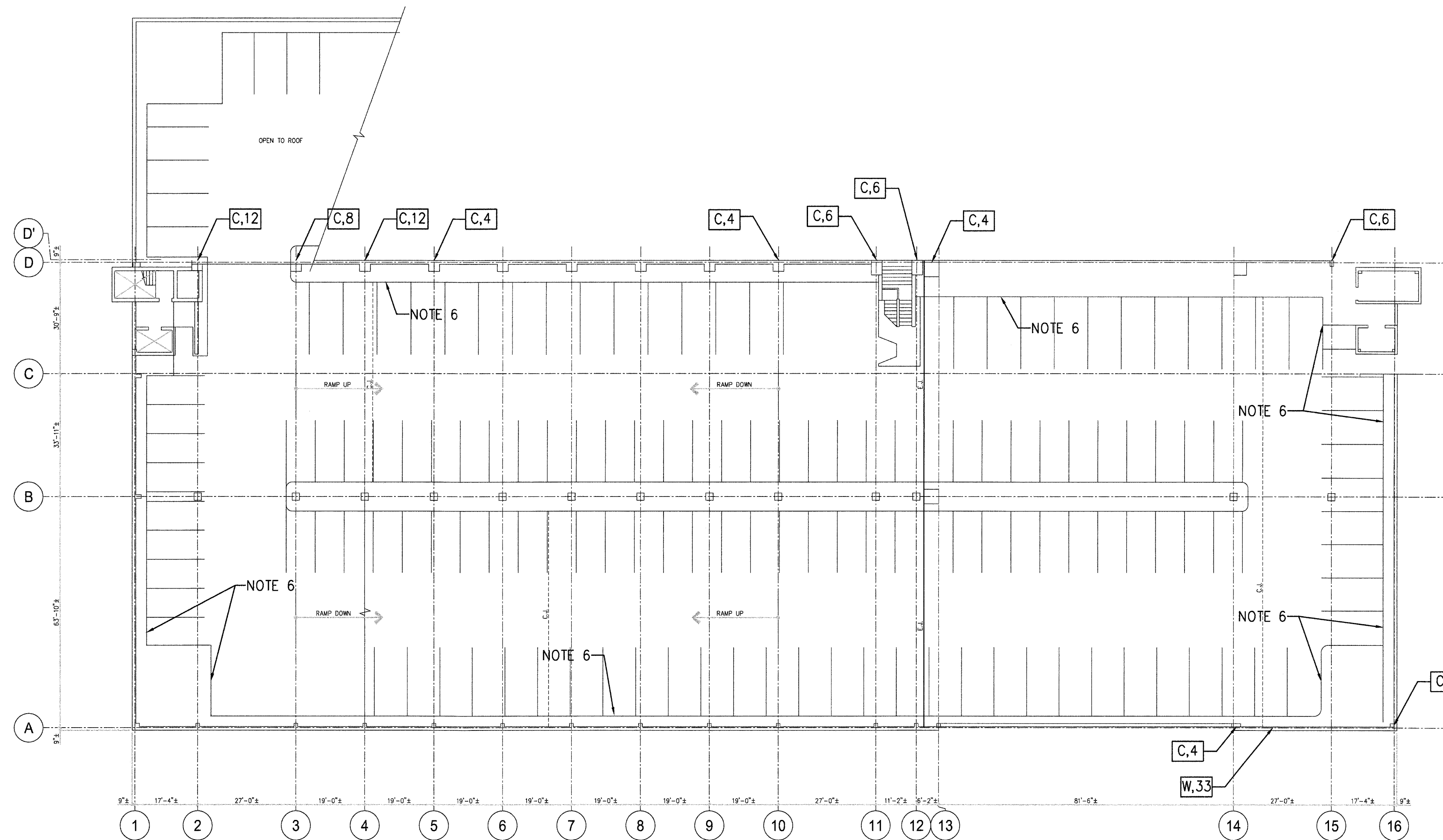
FACADE REPAIRS AT
MONTGOMERY COUNTY GARAGE #55

IFB NO. 1050970
1101 Bonifant Street
Silver Spring, MD

NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

SHEET TITLE
FOURTH LEVEL PLAN

PROJECT NO: 15-184	SHEET NO: S-4
DATE: 04/08/16	SCALE: AS NOTED



FIFTH LEVEL PLAN

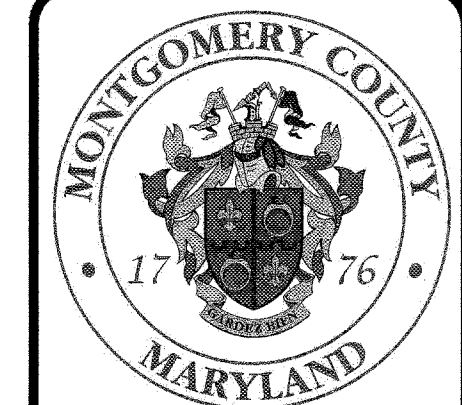
1/16"=1'-0"



NOTES

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- 4) **X,Y** DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

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BF: BEAM FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	5/S-9
- 5) CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
- 6) AFTER REPAIRS ARE COMPLETED, APPLY AN ELASTOMERIC DECK COATING OVER ALL PERIMETER CURBS. SEE 1/S-9 AND DETAILS ON S-10.
- 7) SEE GENERAL NOTES ON S-0.



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**FACADE REPAIRS AT
 MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
 1101 Bonifant Street
 Silver Spring, MD

NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

SHEET TITLE
FIFTH LEVEL PLAN

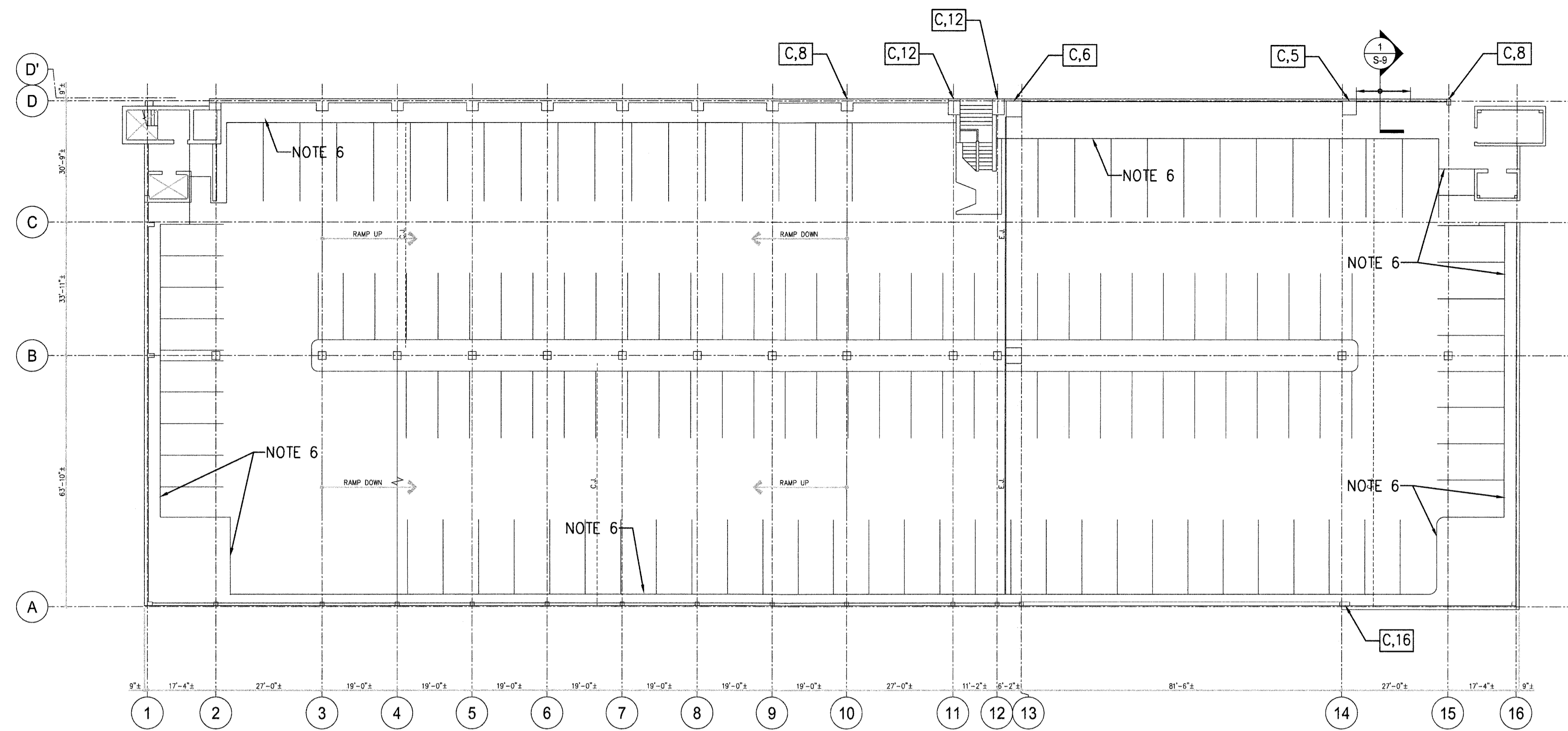
PROJECT NO: 15-184	SHEET NO.:
DATE: 04/08/16	S-5
SCALE: AS NOTED	



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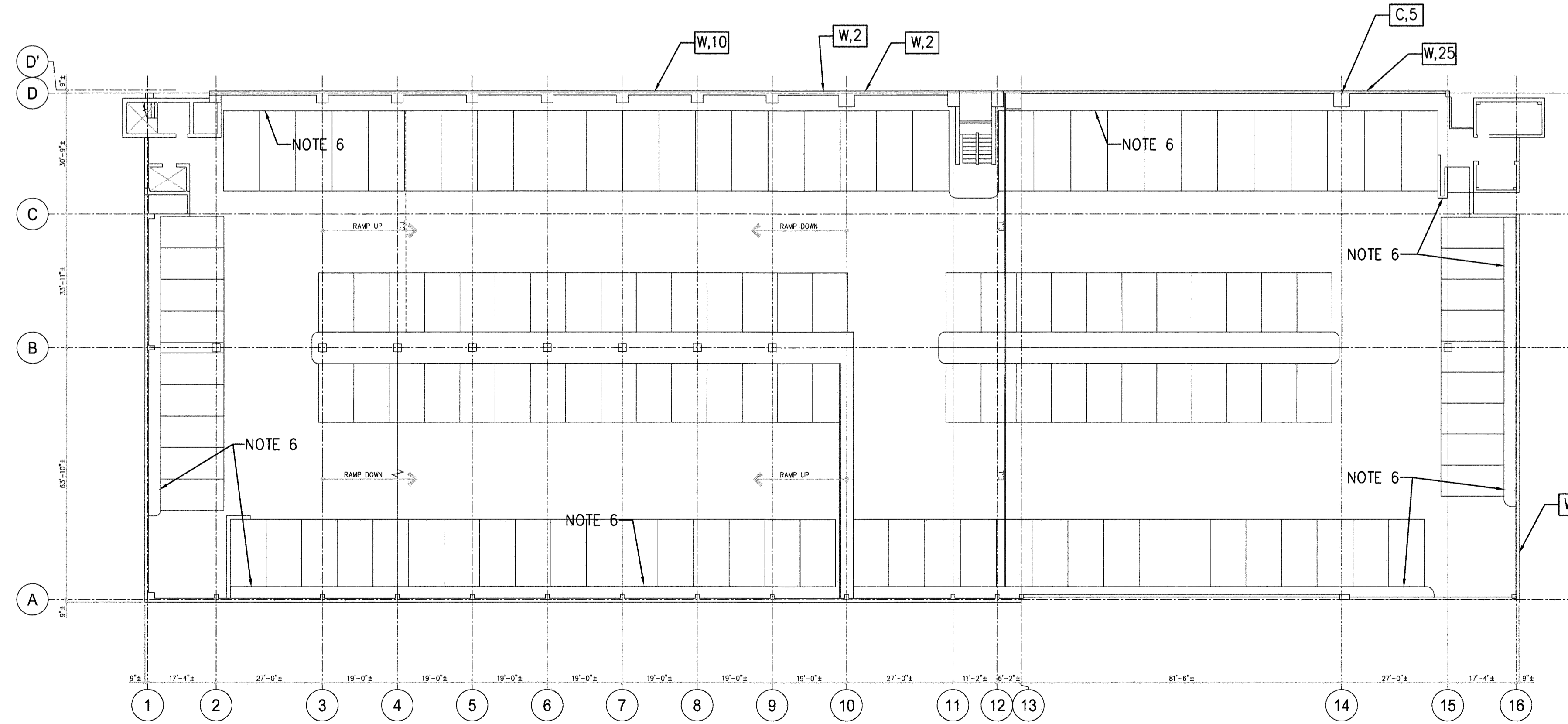
**FACADE REPAIRS AT
MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
1101 Bonifant Street
Silver Spring, MD



SIXTH LEVEL PLAN

1/16"=1'-0"



ROOF PLAN

1/16"=1'-0"



NOTES

- 1) EXISTING SLAB IS A 5"-7" POST-TENSIONED CONCRETE SLAB SUPPORTED BY POST-TENSIONED CONCRETE BEAMS.
- 2) EXISTING PERIMETER WALLS ARE CAST-IN-PLACE OR PRECAST CONCRETE WALLS.
- 3) PRIOR TO BEGINNING REPAIRS, POWER WASH ENTIRE FACADE OF GARAGE (EXTERIOR SURFACES ONLY) UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNLESS OTHERWISE NOTED, FOR EXPOSED REPAIRS ON EXTERIOR FACES OF GARAGE, FORMULATE REPAIR CONCRETE TO MATCH EXISTING CONCRETE AS CLOSE AS POSSIBLE.
- 4) **[X,Y]** DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

SYMBOL X	SYMBOL Y	REPAIR DETAIL
C: COLUMN FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	7/S-9
W: PARTIAL DEPTH WALL DAMAGE	AREA OF DAMAGE (SQ. FT.)	2/S-9
BF: BEAM FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	5/S-9
- 5) CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
- 6) AFTER REPAIRS ARE COMPLETED, APPLY AN ELASTOMERIC DECK COATING OVER ALL PERIMETER CURBS. SEE 1/S-9 AND DETAILS ON S-10.
- 7) SEE GENERAL NOTES ON S-0.



NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

**SIXTH LEVEL AND
ROOF PLANS**

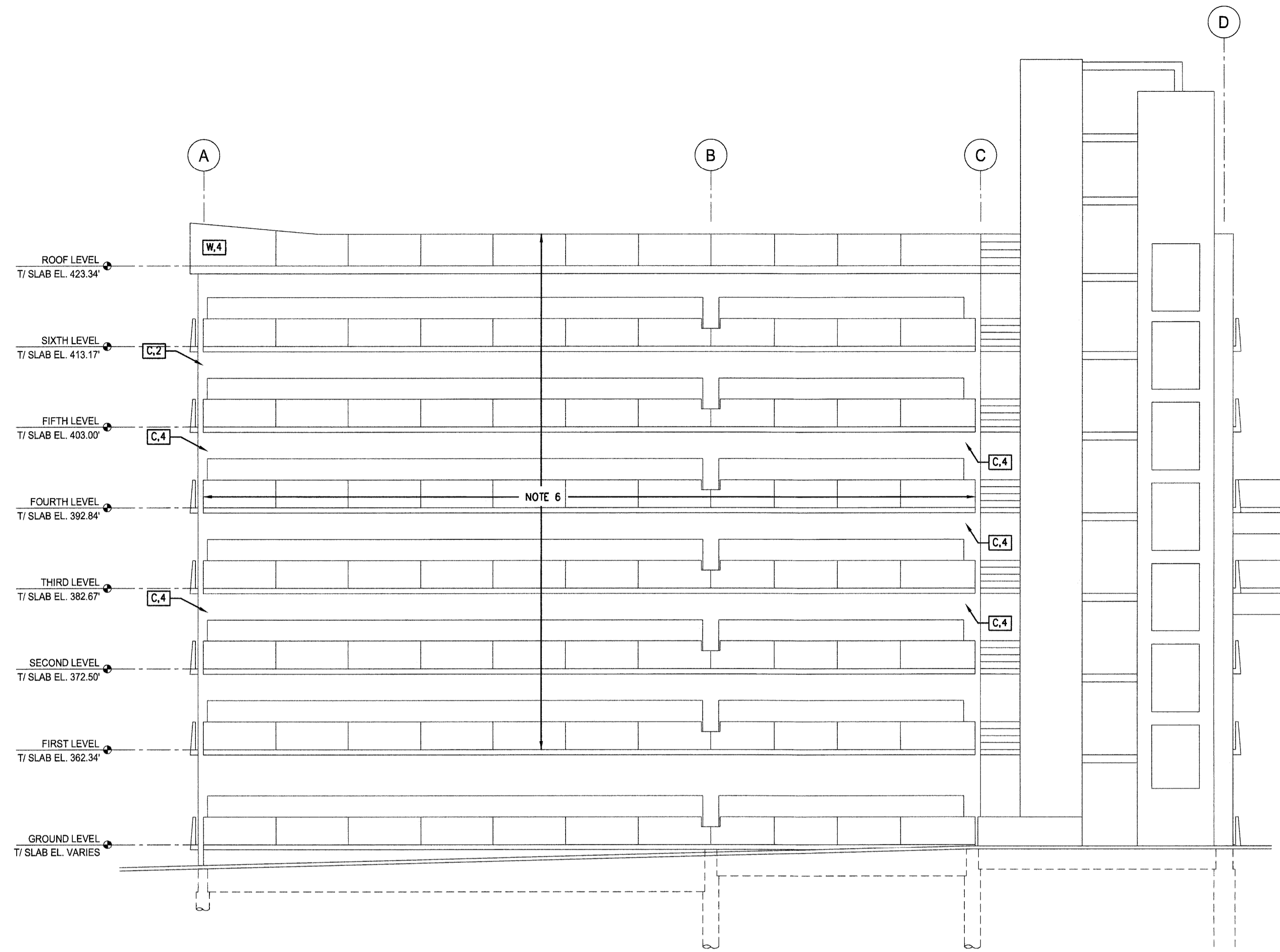
PROJECT NO: 15-184	SHEET NO: S-6
DATE: 04/08/16	SCALE: AS NOTED



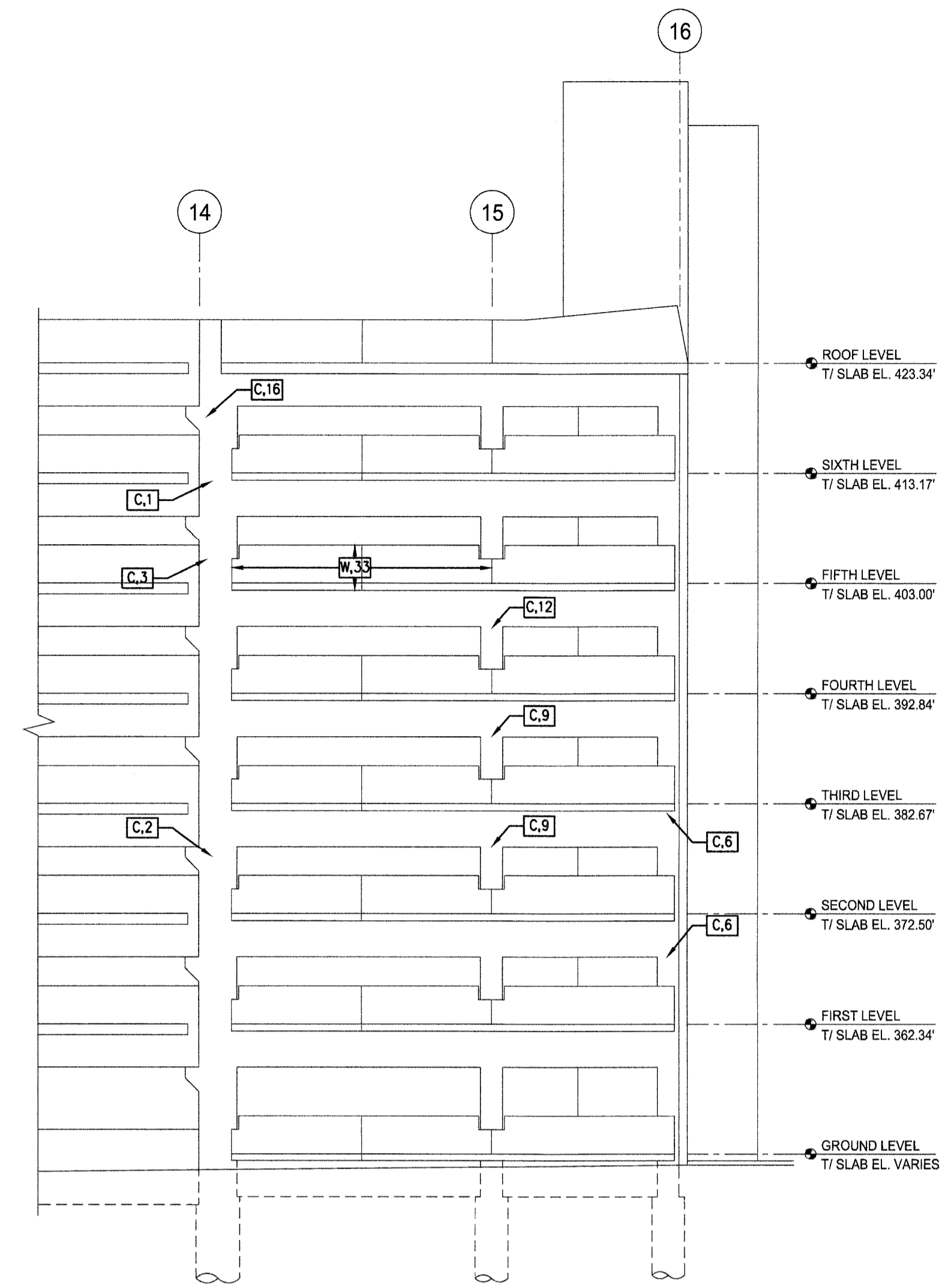
HOLBERT APPLE ASSOCIATES, INC.
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**FACADE REPAIRS AT
MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
1101 Bonifant Street
Silver Spring, MD



1 PARTIAL EAST ELEVATION
1/8"=1'-0"



2 PARTIAL SOUTH ELEVATION
1/8"=1'-0"

NOTES

- 1) EXISTING PERIMETER WALLS ARE CAST-IN-PLACE OR PRECAST CONCRETE WALLS.
- 2) PRIOR TO BEGINNING REPAIRS, POWER WASH ENTIRE FACADE OF GARAGE (EXTERIOR SURFACES ONLY) UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNLESS OTHERWISE NOTED, FOR EXPOSED REPAIRS ON EXTERIOR FACES OF GARAGE, FORMULATE REPAIR CONCRETE TO MATCH EXISTING CONCRETE AS CLOSE AS POSSIBLE.
- 3) [X,Y] DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

SYMBOL_X	SYMBOL_Y	REPAIR DETAIL
C: COLUMN FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	7/S-9
W: PARTIAL DEPTH WALL DAMAGE	AREA OF DAMAGE (SQ. FT.)	2/S-9
BF: BEAM FACE DAMAGE	AREA OF DAMAGE (SQ. FT.)	5/S-9
- 4) CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
- 5) SEE GENERAL NOTES ON S-0.
- 6) REPAIR EXPOSED REINFORCING STEEL ON FACE OF PARAPET WALLS AT EAST ELEVATION USING DETAIL 9/S-9.



NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

PARTIAL SOUTH AND EAST ELEVATIONS

PROJECT NO: 15-184	SHEET NO: S-7
DATE: 04/08/16	SCALE: AS NOTED



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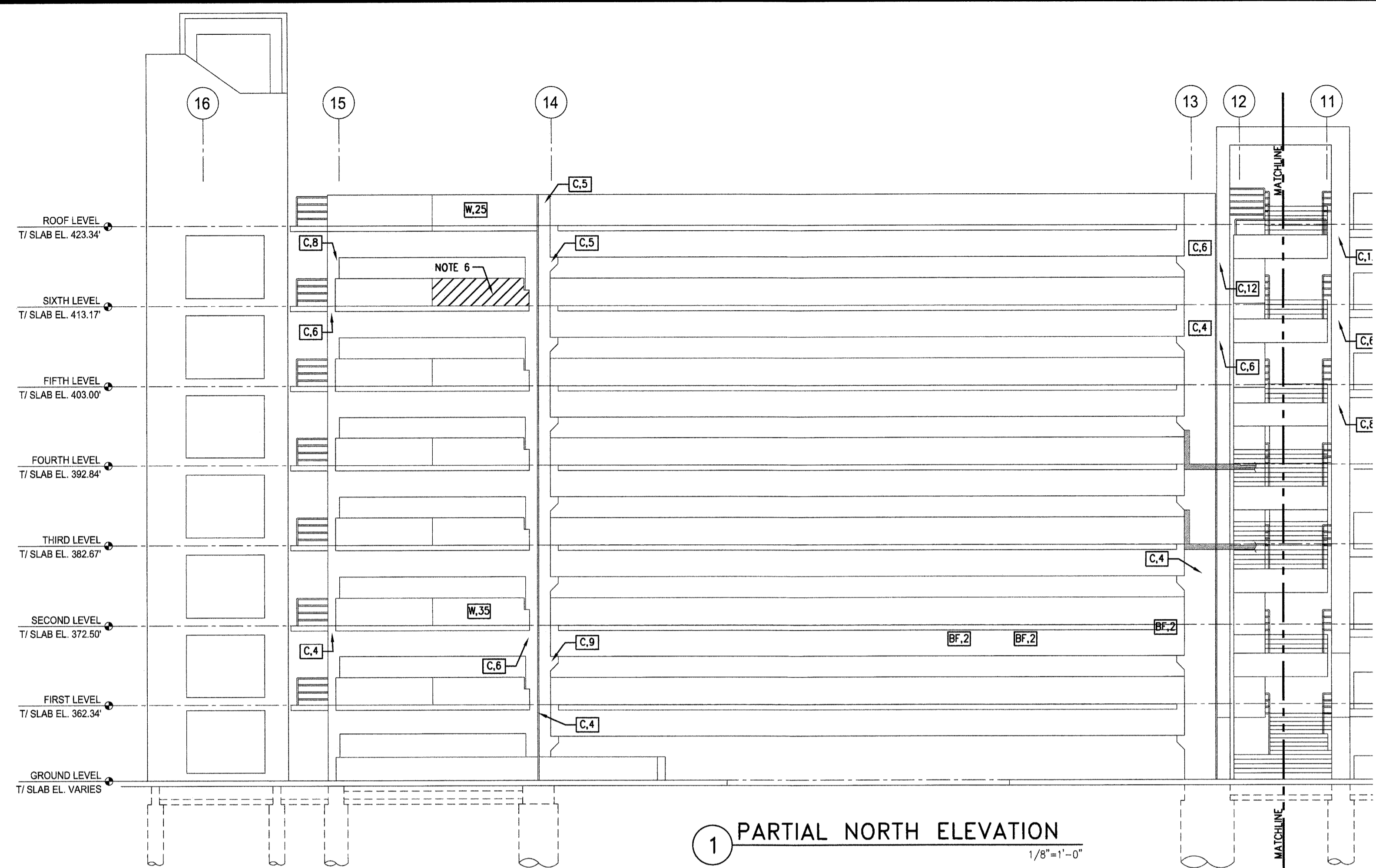
**FACADE REPAIRS AT
MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
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Silver Spring, MD

NO.	REVISION	DATE
	FOR CONSTRUCTION	5/11/16

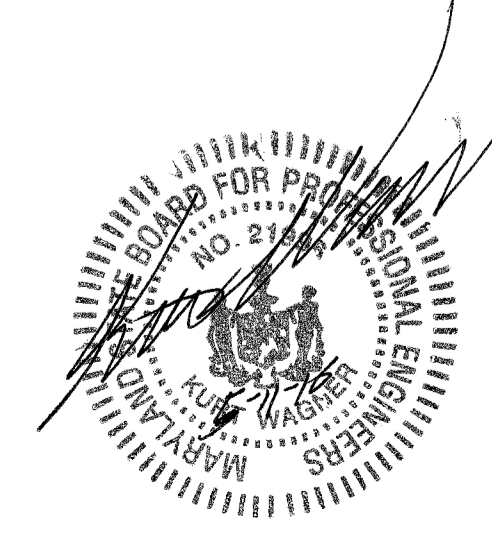
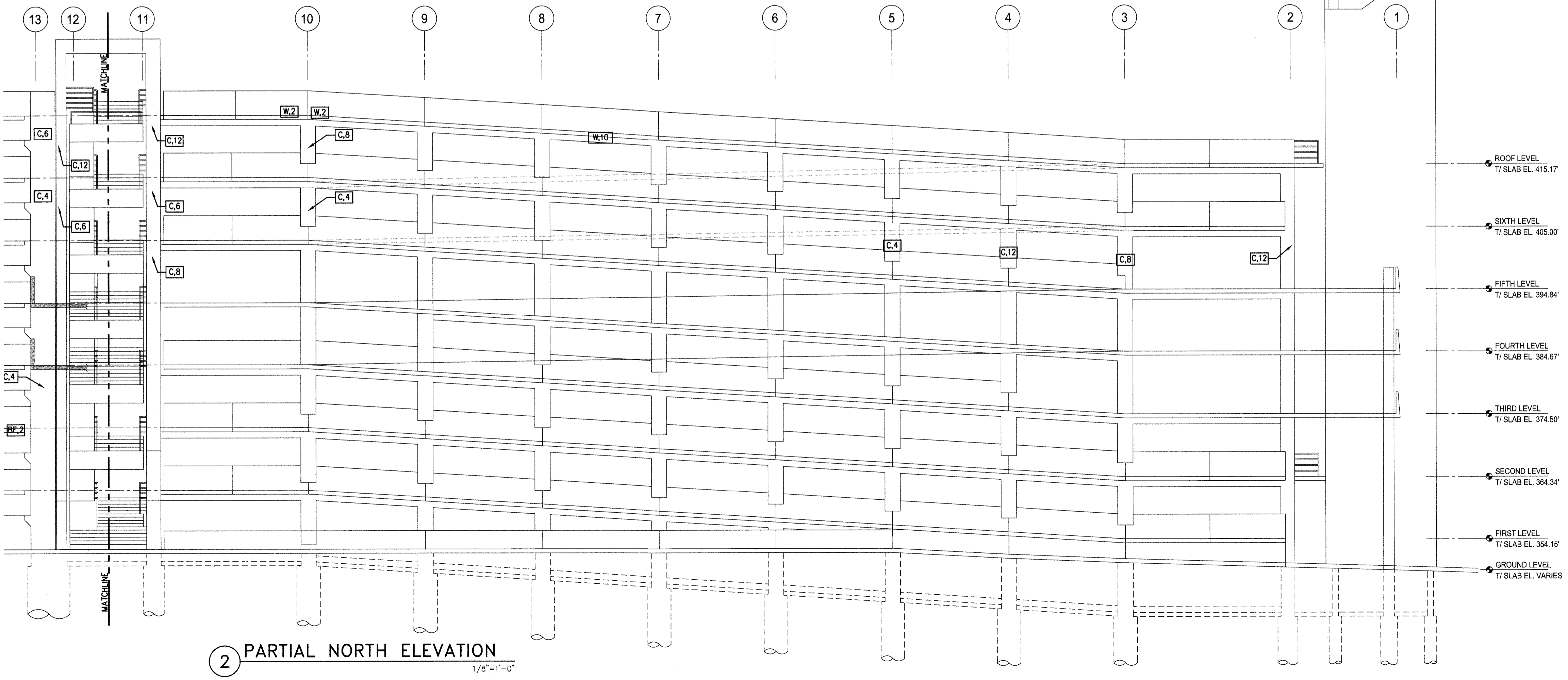
SHEET TITLE
NORTH ELEVATIONS

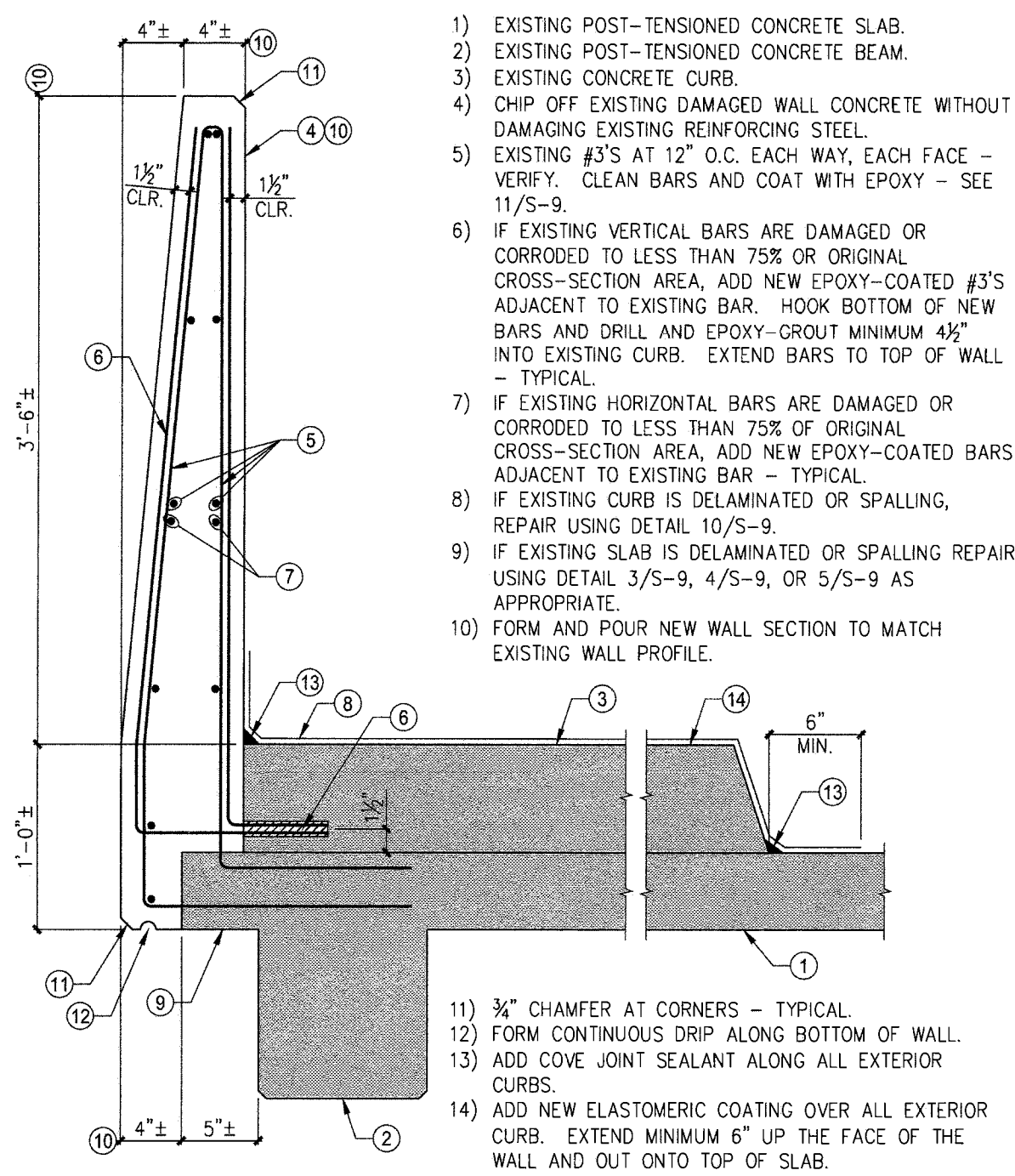
PROJECT NO: 15-184	SHEET NO: S-8
DATE: 04/08/16	SCALE: AS NOTED



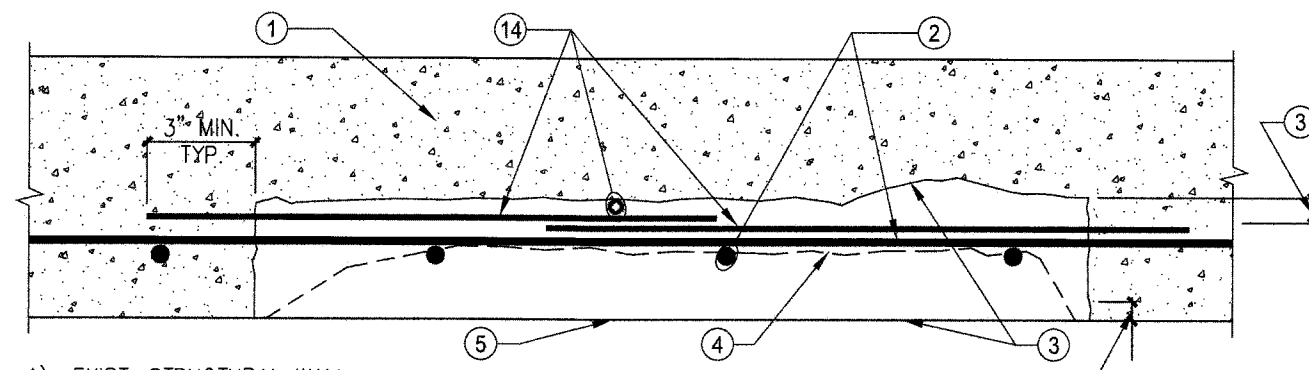
- NOTES**
- EXISTING PERIMETER WALLS ARE CAST-IN-PLACE OR PRECAST CONCRETE WALLS.
 - PRIOR TO BEGINNING REPAIRS, POWER WASH ENTIRE FACADE OF GARAGE (EXTERIOR SURFACES ONLY) UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNLESS OTHERWISE NOTED, FOR EXPOSED REPAIRS ON EXTERIOR FACES OF GARAGE, FORMULATE REPAIR CONCRETE TO MATCH EXISTING CONCRETE AS CLOSE AS POSSIBLE.
 - [X,Y] DENOTES CONCRETE DELAMINATION/SPALLING DAMAGE REQUIRING REPAIRS AS FOLLOWS:

SYMBOL	REPAIR DETAIL
C	7/5-9
W	2/5-9
BF	5/5-9
 - CONCRETE DAMAGE NOTED IS APPROXIMATE BASED ON VISUAL OBSERVATIONS ONLY. PRIOR TO BEGINNING REPAIRS, THE CONTRACTOR SHALL CONDUCT A COMPLETE DAMAGE SURVEY OF THE FACADE USING LIFTS, SWING STAGES, SCAFFOLDING, ETC. TO LOCATE ALL FACADE DAMAGE REQUIRING REPAIRS. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE DAMAGE AREAS FOUND FOR THE STRUCTURAL ENGINEER TO VERIFY THE DAMAGE.
 - SEE GENERAL NOTES ON S-0.
 - REPAIR THIS WALL FULL DEPTH PER DETAIL 1/5-9.

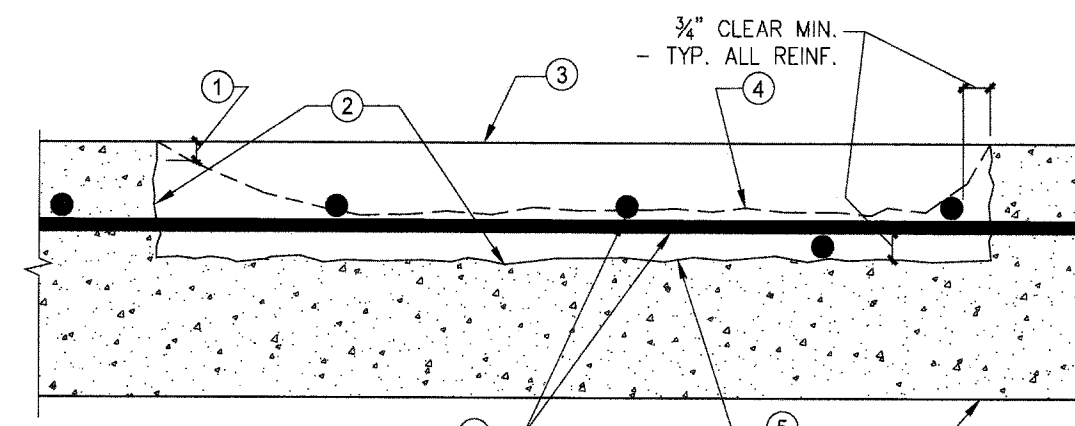




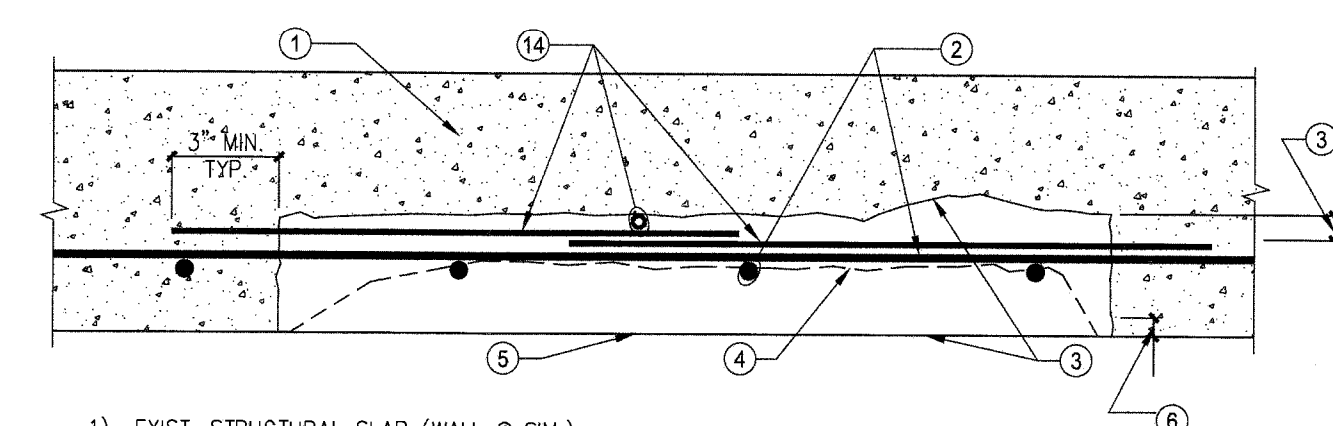
1 FULL-DEPTH PARAPET WALL REPAIR DETAIL N.T.S.



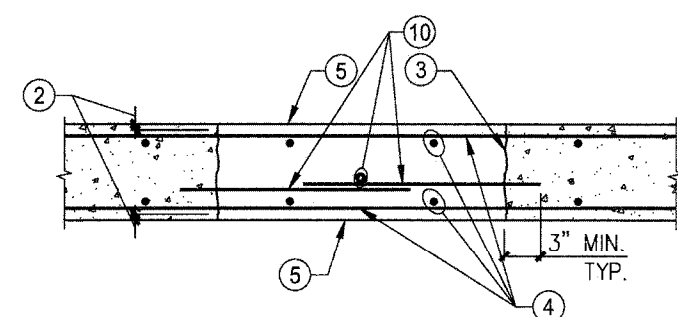
2 PARTIAL DEPTH WALL REPAIR DETAIL N.T.S.



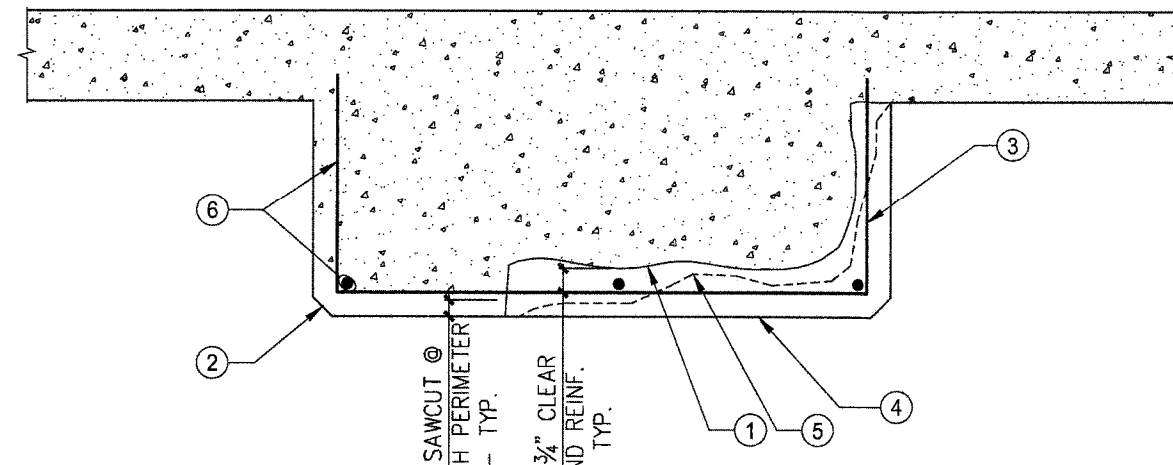
3 SLAB SURFACE REPAIR DETAIL N.T.S.



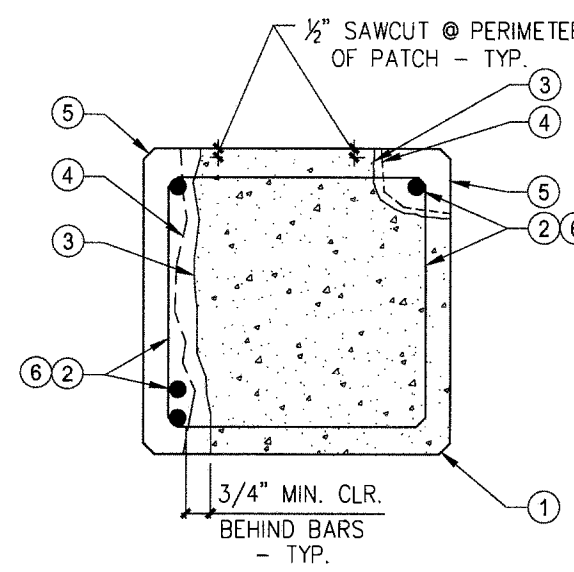
4 SLAB SOFFIT REPAIR DETAIL (WALL @ SIM.) N.T.S.



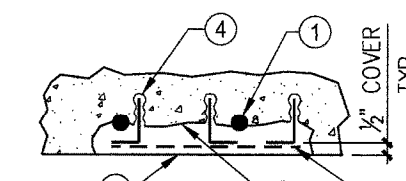
5 FULL DEPTH SLAB REPAIR DETAIL N.T.S.



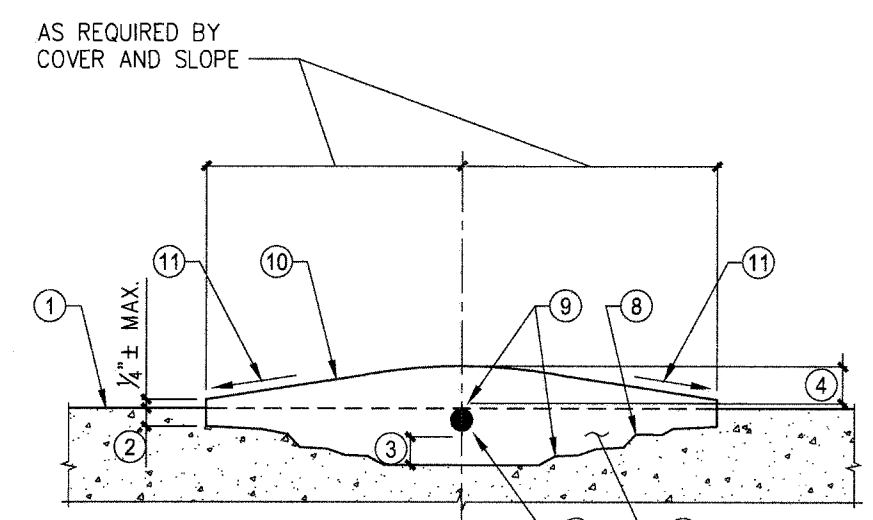
6 SPALLED/DELAMINATED BEAM REPAIR DETAIL N.T.S.



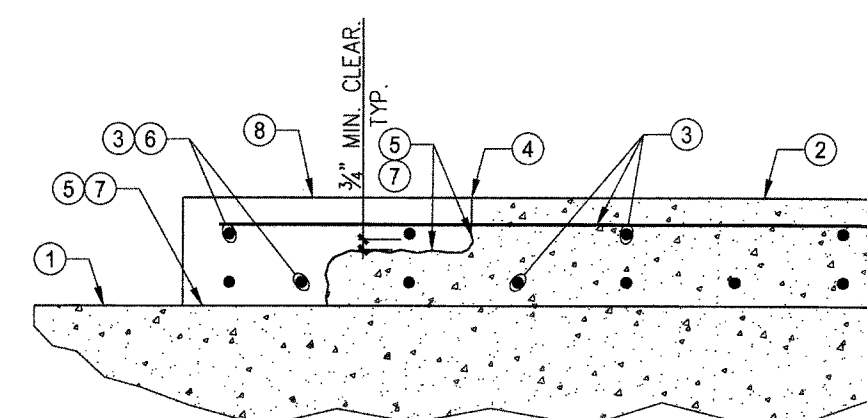
7 SPALLED/DELAMINATED COLUMN REPAIR DETAIL N.T.S.



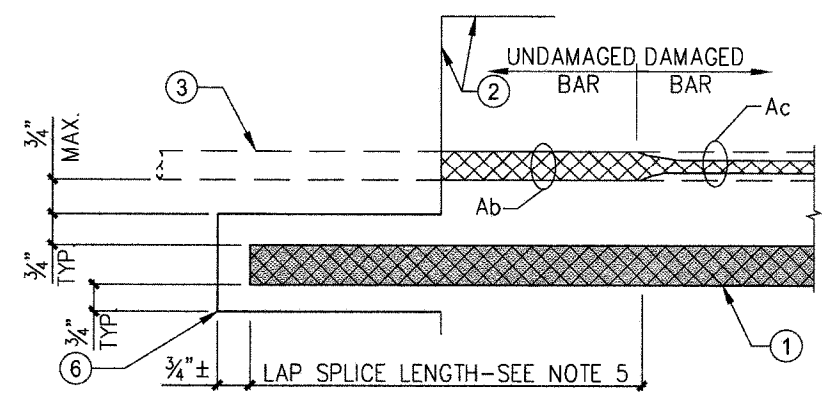
8 SHALLOW/SURFACE REPAIR DETAIL N.T.S.



9 EXPOSED REINFORCING STEEL REPAIR DETAIL N.T.S.



10 CURB REPAIR DETAIL N.T.S.

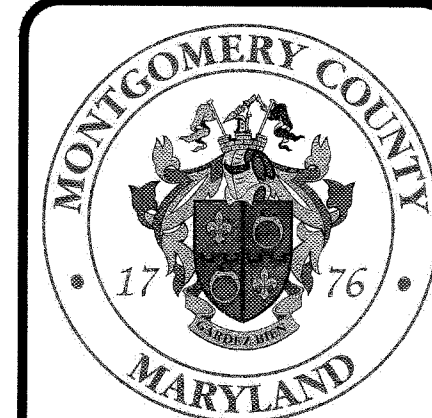
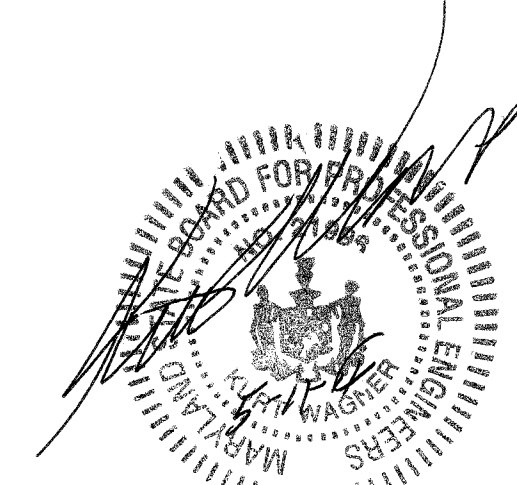


11 EXISTING REINFORCING STEEL PREPARATION DETAIL N.T.S.

		28 DAY CONCRETE DESIGN STRENGTH (PSI)							
		3000		4000		5000		6000	
REINFORCING BAR SIZE		CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	TOP BARS	3'-1"	4'-7"	2'-8"	3'-11"	2'-4"	3'-6"	2'-2"	3'-3"
	OTHER BARS	2'-8"	4'-0"	2'-4"	3'-6"	2'-1"	3'-2"	1'-11"	2'-10"
#4	TOP BARS	4'-1"	6'-1"	3'-6"	5'-3"	3'-2"	4'-9"	2'-11"	4'-4"
	OTHER BARS	3'-7"	5'-4"	3'-1"	4'-8"	2'-9"	4'-2"	2'-7"	3'-10"
#5	TOP BARS	5'-1"	7'-7"	4'-5"	6'-7"	3'-11"	5'-11"	3'-7"	5'-4"
	OTHER BARS	4'-6"	6'-8"	3'-11"	5'-10"	3'-6"	5'-2"	3'-2"	4'-9"
#6	TOP BARS	6'-1"	9'-1"	5'-3"	7'-11"	4'-9"	7'-1"	4'-4"	6'-5"
	OTHER BARS	5'-4"	8'-0"	4'-8"	7'-0"	4'-2"	6'-3"	3'-10"	5'-8"
#7	TOP BARS	8'-10"	13'-3"	7'-8"	11'-6"	6'-10"	10'-3"	6'-3"	9'-5"
	OTHER BARS	7'-10"	11'-8"	6'-9"	10'-2"	6'-1"	9'-1"	5'-6"	8'-3"
#8	TOP BARS	10'-1"	15'-2"	8'-9"	13'-2"	7'-10"	11'-9"	7'-2"	10'-9"
	OTHER BARS	8'-11"	13'-5"	7'-9"	11'-7"	6'-11"	10'-4"	6'-4"	9'-6"
#9	TOP BARS	11'-5"	17'-1"	9'-11"	14'-10"	8'-10"	13'-3"	8'-1"	12'-1"
	OTHER BARS	10'-1"	15'-1"	8'-9"	13'-1"	7'-10"	11'-8"	7'-1"	10'-8"
#10	TOP BARS	12'-10"	19'-3"	11'-1"	16'-8"	9'-11"	14'-11"	9'-1"	13'-7"
	OTHER BARS	11'-4"	17'-0"	9'-10"	14'-9"	8'-9"	13'-2"	8'-0"	12'-0"
#11	TOP BARS	14'-3"	21'-4"	12'-4"	18'-6"	11'-1"	16'-7"	10'-1"	15'-1"
	OTHER BARS	12'-7"	18'-10"	10'-11"	16'-4"	9'-9"	14'-7"	8'-11"	13'-4"

12 TENSION LAP SPlice LENGTH FOR BEAM, SLAB, WALL AND CONC. JOIST EPOXY-COATED REINF. BARS N.T.S.

- THIS DETAIL DOES NOT APPLY TO COLUMN VERTICAL BARS.
- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
- CASE I:
 - BEAMS - CONCRETE COVER $\geq d_b$, CENTER-TO-CENTER BAR SPACING $\geq 2 d_b$ AND WITH STIRRUPS THROUGHOUT IS NOT LESS THAN THE CODE MINIMUM.
 - OTHER ELEMENTS - CONCRETE COVER $\geq d_b$ AND CENTER-TO-CENTER BAR SPACING $\geq 3 d_b$.
- CASE II: ALL OTHER CASES.
 - FOR LIGHTWEIGHT AGGREGATE, MULTIPLY ABOVE VALUES BY 1.3.



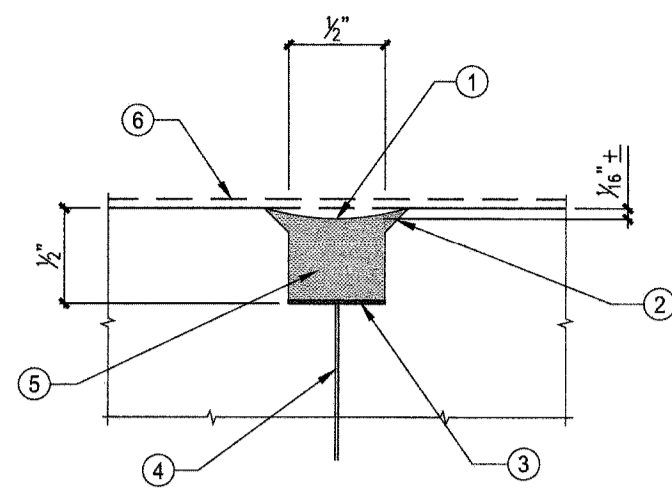
HA ASSOCIATES
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**FACADE REPAIRS AT
 MONTGOMERY COUNTY GARAGE #55**

IFB NO. 1050970
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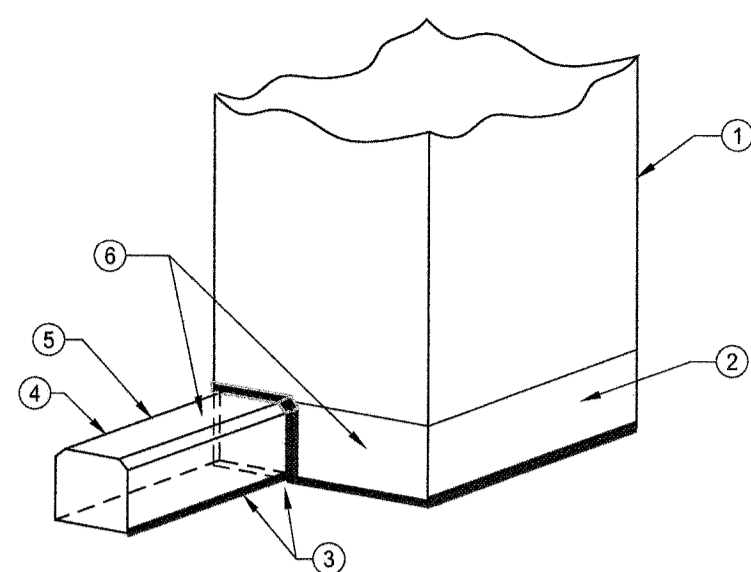
NO.	REVISION	DATE
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SHEET TITLE	
PROJECT NO.	15-184
DATE	04/08/16
SCALE	AS NOTED
S-9	



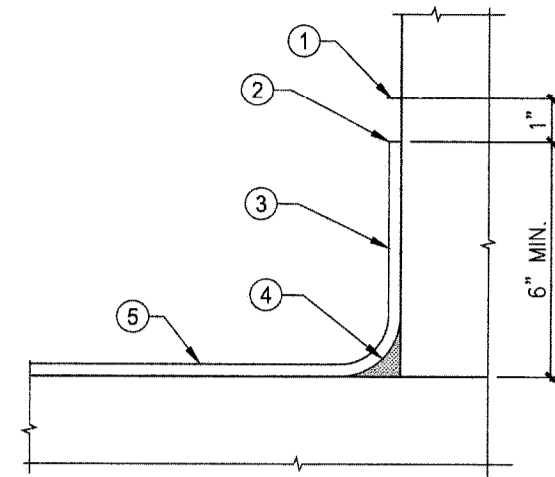
- 1) SEALANT - RECESS $\frac{1}{8}$ " BELOW SURFACE, EXCEPT WHERE DECK COATING IS USED, FILL FLUSH WITH SURFACE. DO NOT OVERFILL JOINT.
- 2) GRIND $\frac{1}{8}$ " CHAMFER.
- 3) BOND BREAKER.
- 4) CONTROL/CONSTRUCTION JOINT OR CRACK $\geq \frac{1}{2}$ ".
- 5) ROUTED OR GROUND JT.
- 6) DECK COATING IF NOTED - SEE 6/S-10.

1 ROUT & SEAL DETAIL AT SLAB N.T.S.



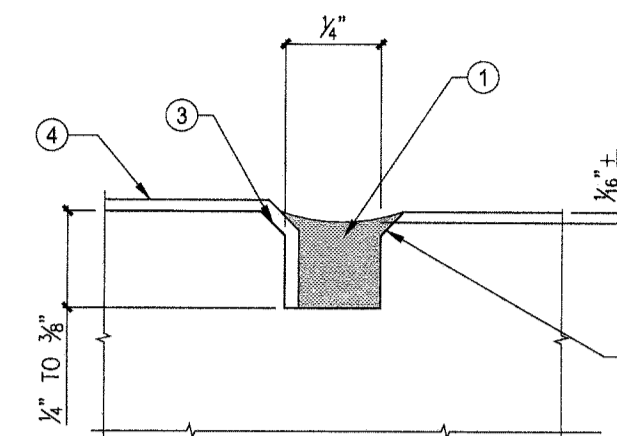
- 1) EXISTING COLUMN.
- 2) COATING TERMINATION - SEE DETAIL 3/S-10 SIM.
- 3) COVE SEALANT - SEE DETAIL 9/S-10.
- 4) EXISTING CURB.
- 5) TERMINATE COATING AT TOP OF CURB CHAMFER.
- 6) DECK COATING.

2 SEALANT/COATING DETAIL N.T.S.



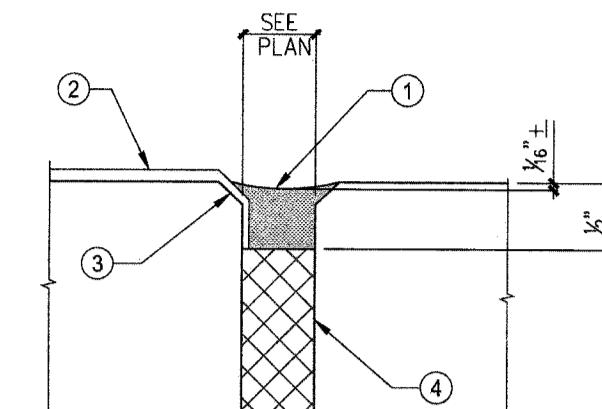
- 1) LIMITS OF SURFACE PREP.
- 2) CONTR. TO PROVIDE STRAIGHT FINISH LINE.
- 3) EXTEND DECK COATING UP VERT. FACE.
- 4) COVE/SEALANT SEE 9/S-10.
- 5) DECK COATING.

3 COATING TERMINATION DETAIL AT VERTICAL SURFACES N.T.S.



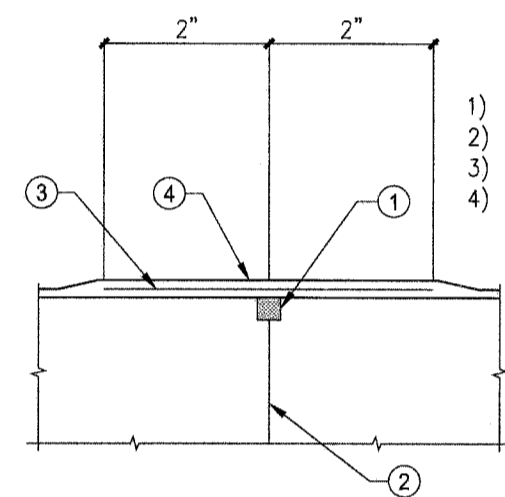
- 1) SEALANT.
- 2) GRIND $\frac{1}{8}$ " CHAMFER.
- 3) SAWCUT OR GRIND @ DECK COATING TERMINATION.
- 4) DECK COATING.

4 COATING TERMINATION DETAIL N.T.S.



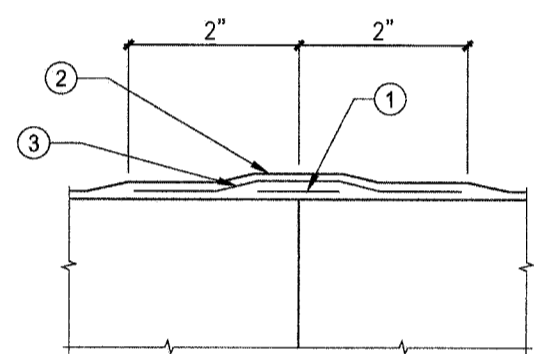
- 1) SEALANT - RECESS $\frac{1}{8}$ " BELOW SURFACE.
- 2) DECK COATING.
- 3) GRIND $\frac{1}{8}$ " CHAMFER.
- 4) COMPRESSIBLE JOINT FILLER.

5 JOINT COATING TERMINATION AT EXPANSION JOINT N.T.S.



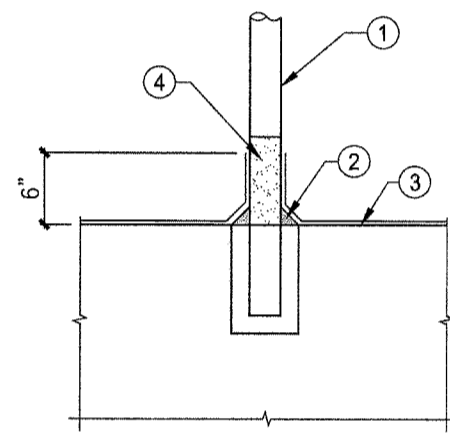
- 1) SEALANT.
- 2) JOINT OR CRACK.
- 3) DETAIL COAT.
- 4) DECK COATING.

6 COATING DETAIL AT SEALED JOINTS AND CRACKS N.T.S.



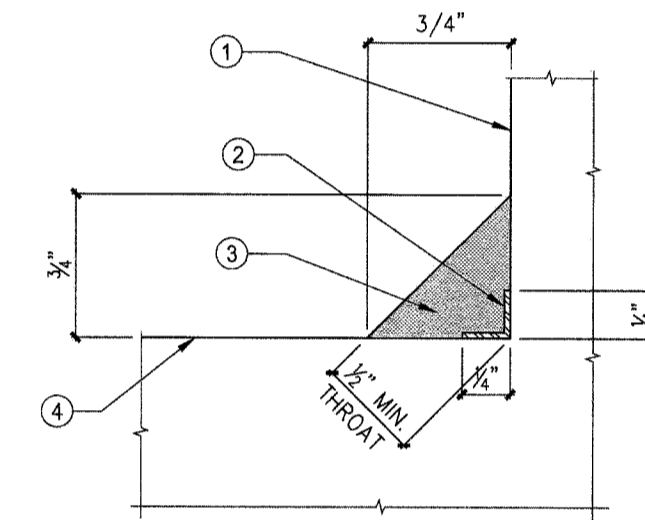
- 1) $\frac{1}{2}$ " WIDE BOND BREAKER CENTERED ON CRACK, C.J., OR PATCH PERIMETER.
- 2) DECK COATING.
- 3) DETAIL COAT.

7 COATING DETAIL AT NON-SEALED CONTROL JOINTS AND CRACKS N.T.S.



- 1) EXIST. HANDRAIL POST OR BOLLARD.
- 2) SEALANT AND DECK COATING - SEE DETAIL 3/S-10.
- 3) EXISTING CONCRETE SURFACE.
- 4) ABRASIVE-BLAST RAIL SURFACE MIN. 6" ABOVE DECK AND PAINT WITH METAL PRIMER.

8 COATING DETAIL AT HANDRAIL POSTS AND BOLLARDS N.T.S.

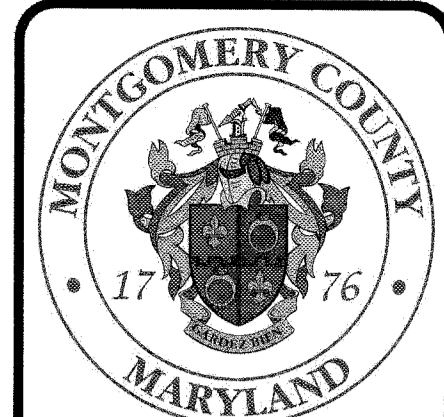


- 1) VERTICAL SURFACE.
- 2) BOND BREAKER.
- 3) SEALANT.
- 4) DECK SURFACE.

9 COVE SEALANT DETAIL N.T.S.

FACADE REPAIRS AT
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SHEET TITLE
DETAILS

PROJECT NO. 15-184
DATE 04/08/16
SCALE AS NOTED
SHEET NO. **S-10**

