



28 September 2020

City of Richmond
Urban Design Committee

Re: VCU Health Pedestrian Bridge Encroachment
HKS Project Number 21168.000

Thank you for your comments regarding the review of the VCU Health Pedestrian Bridge Encroachment. We would like to offer the following responses to your comments received during the February 2020 UDC meeting.

Pedestrian bridge aesthetic design, including comments regarding the expanse of blank, undifferentiated wall, unifying design of support columns and streetscape.

HKS RESPONSE: Graphic renderings have been revised to show a simplification of exterior metal panel colors and arrangement. A single metal panel color was selected for the bridge that is consistent with the metal panel colors to be used on the new Children's Hospital and will integrate seamlessly into the greater exterior fabric of existing buildings. The renderings also reflect a linear expanse of ribbon windows allowing for continuous views from interior and helping to break up the exterior façade. The windows help balance transparency and patient privacy along the path of travel.

Bridge soffit lighting has also been added to the assist with lighting the pedestrian path at night. The areas of soffit lighting are concentrated over the sidewalks to allow for light where it is most needed and allow for ease of future maintenance. Additional white box renderings have been added to show each corner of Marshall and 11th Street. The attached QR code can also be used to obtain a VR, white box, view of this intersection.

The columns have been revised to reduce the amount of column cover, allowing the structure to be exposed at the top and a circular concrete form (similar to the existing CHoR Pavilion) to be used on the lower portion to provide the needed stability for a vehicle impact barrier.

Revised landscape and civil drawings have been submitted to reflect City of Richmond comments and UDC comments regarding the streetscape.

Pending approval from the City of Richmond.

HKS RESPONSE: We have received formal review comments from the City of Richmond. We have made the necessary adjustments and/or provided comment addressing their concerns regarding impact to the right-of-way, impact safety and mobility. Additional white box renderings taken at each corner of Marshall and 11th Street, along with attached QR code showing a VR image of this intersection was also included. Attached is a copy of the response letter.

Thank you for your review, please let me know if you need any additional clarifications.

Sincerely,

Candace Goodman

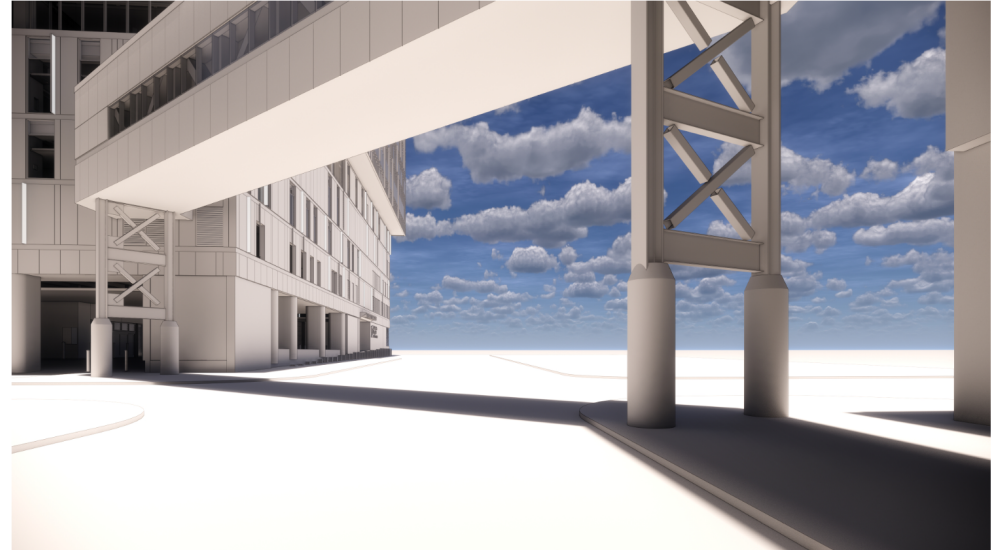
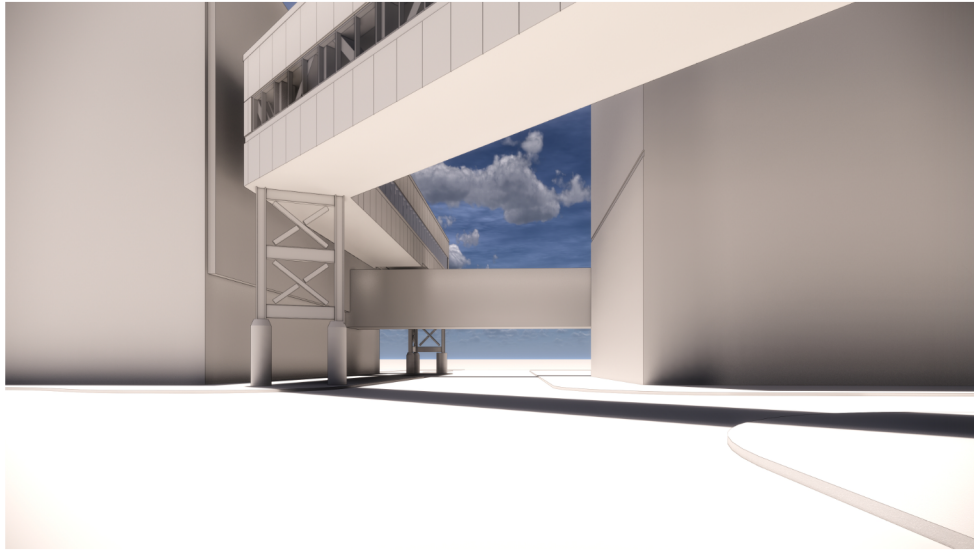
cc: Ashby Ayers
Zach Isbell
Jason Haigler
Matt Franklin
Anita Linney-Isaacson



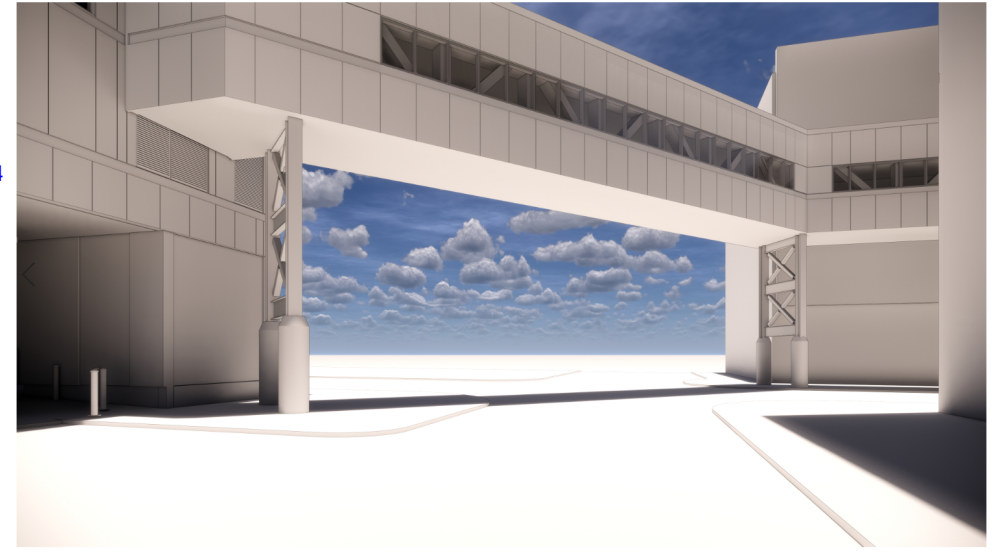
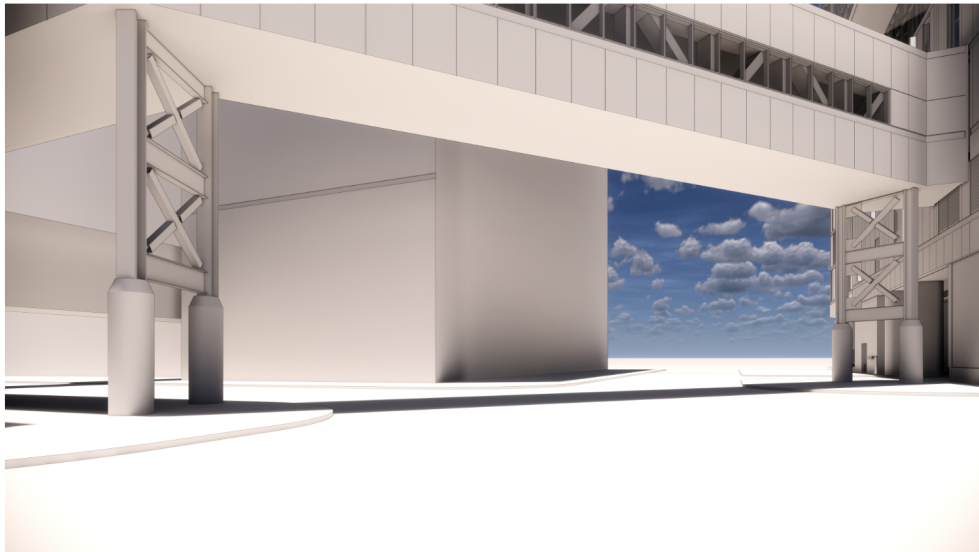








OR code:
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VCU HEALTH CHILDREN'S HOSPITAL

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CONSTRUCTION MANAGER
DPR CONSTRUCTION
5800 COX ROAD, SUITE M
GLEN ALLEN, VA 23060

KEY PLAN

REVISION

1.	CITY DPW COMMENT	9/28/20
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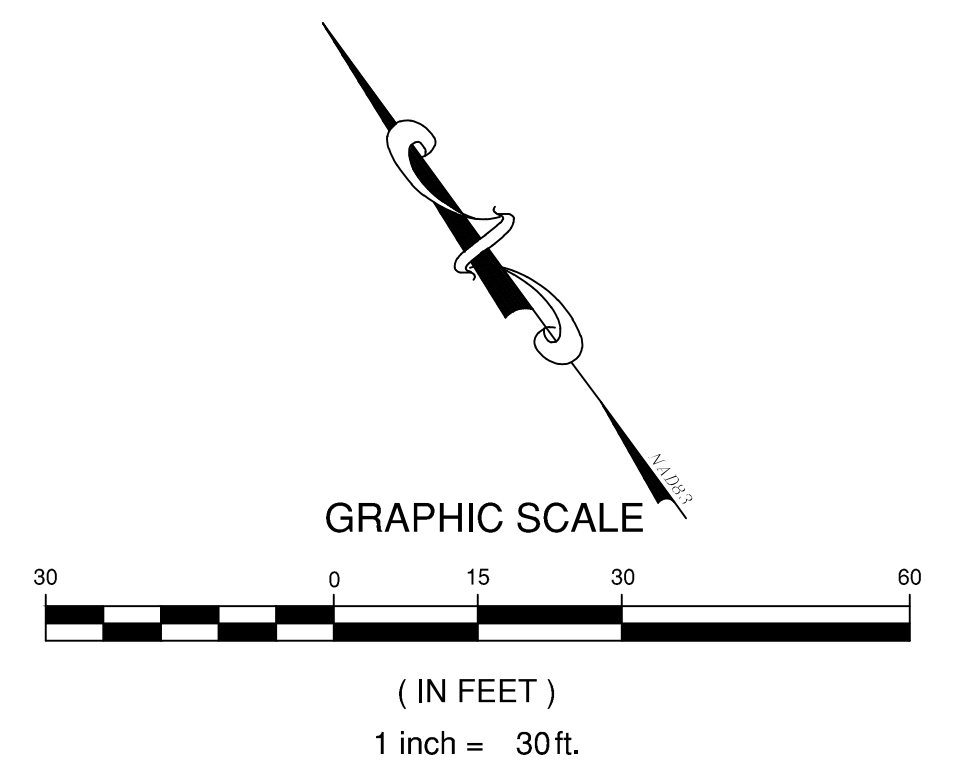
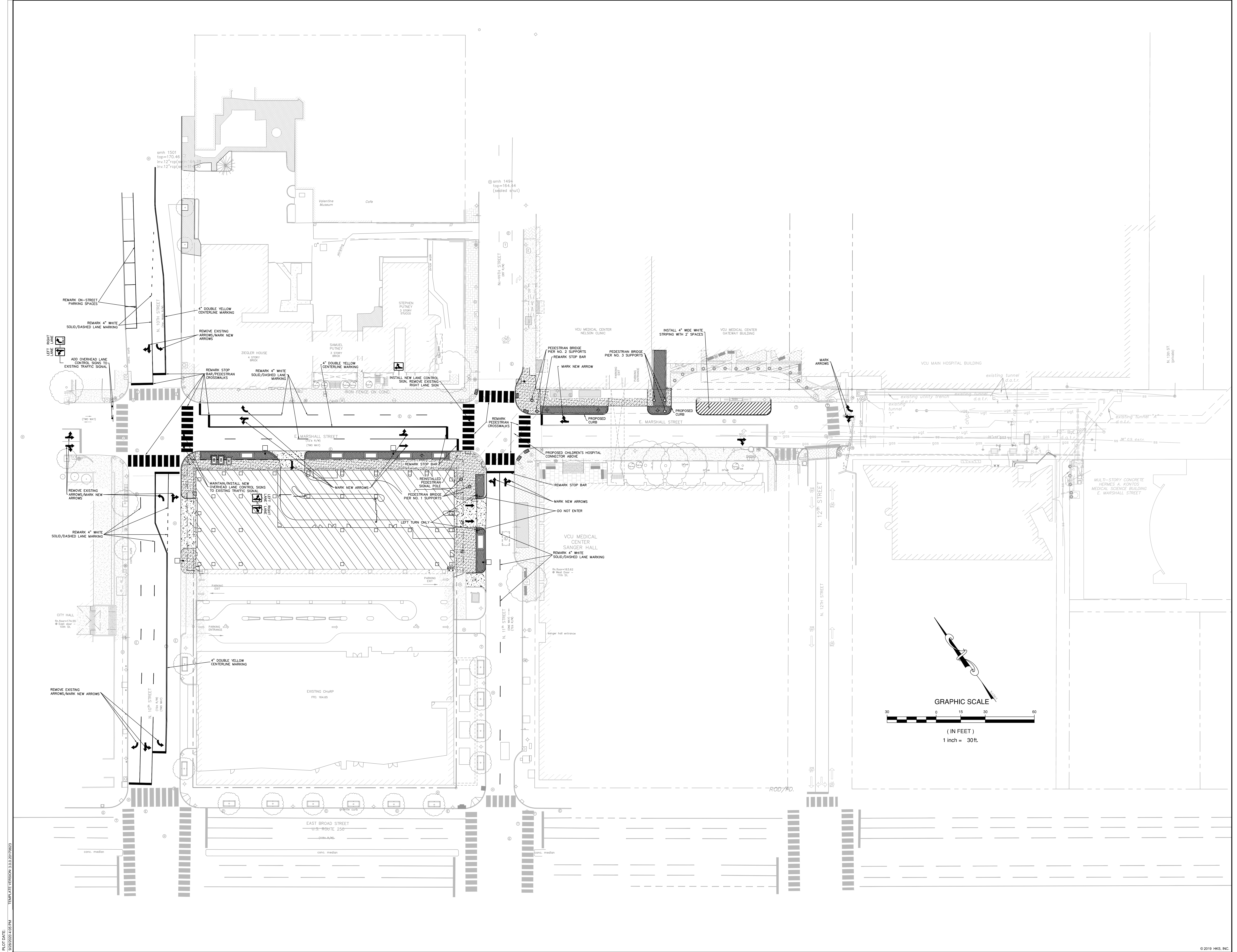
HKS PROJECT NUMBER
21168.004

DATE
24 APRIL 2020

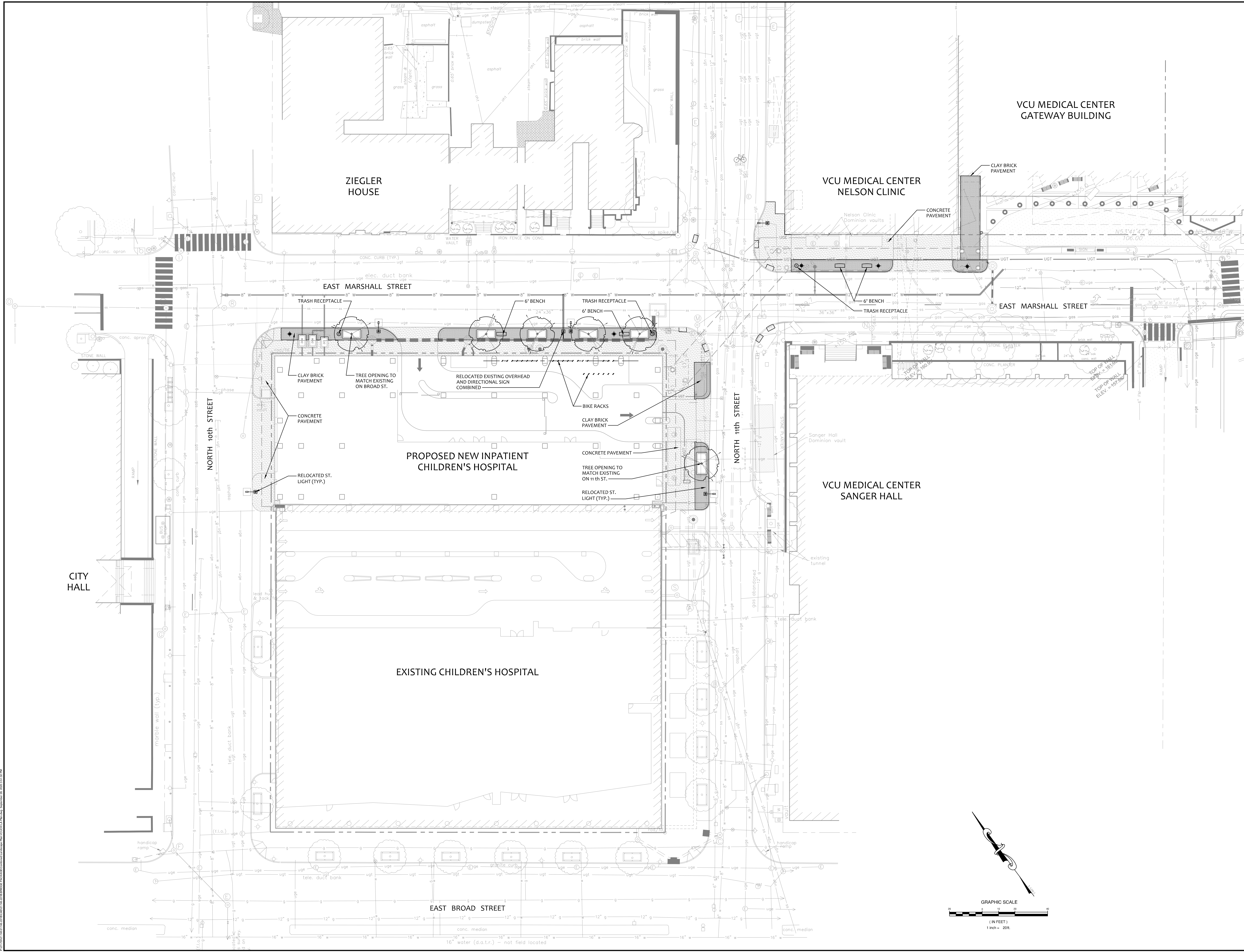
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**BRIDGE CD ISSUE-
CR0044**

SHEET TITLE
**SIGNAGE & STRIPING
PLAN**

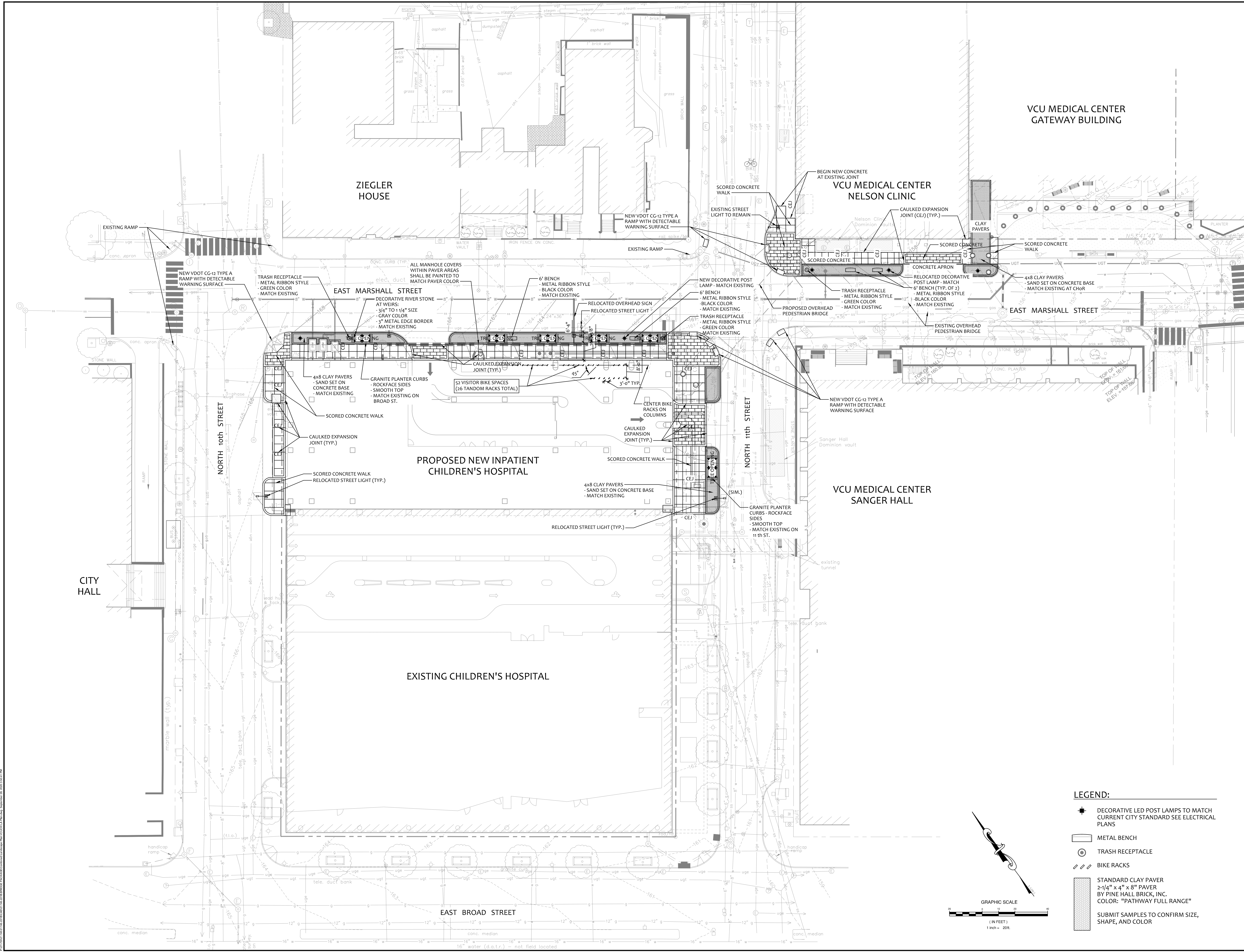
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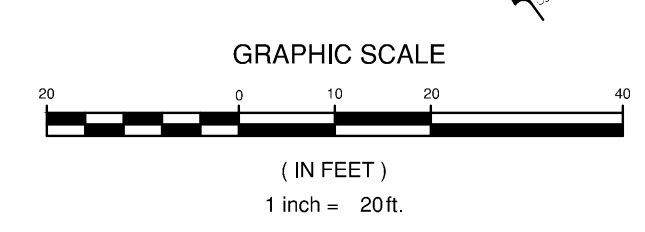
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SHEET: C305.0
DATE: 04/24/2020
DRAWN: J. B. BROWN
CHECKED: J. B. BROWN
DATE: 04/24/2020



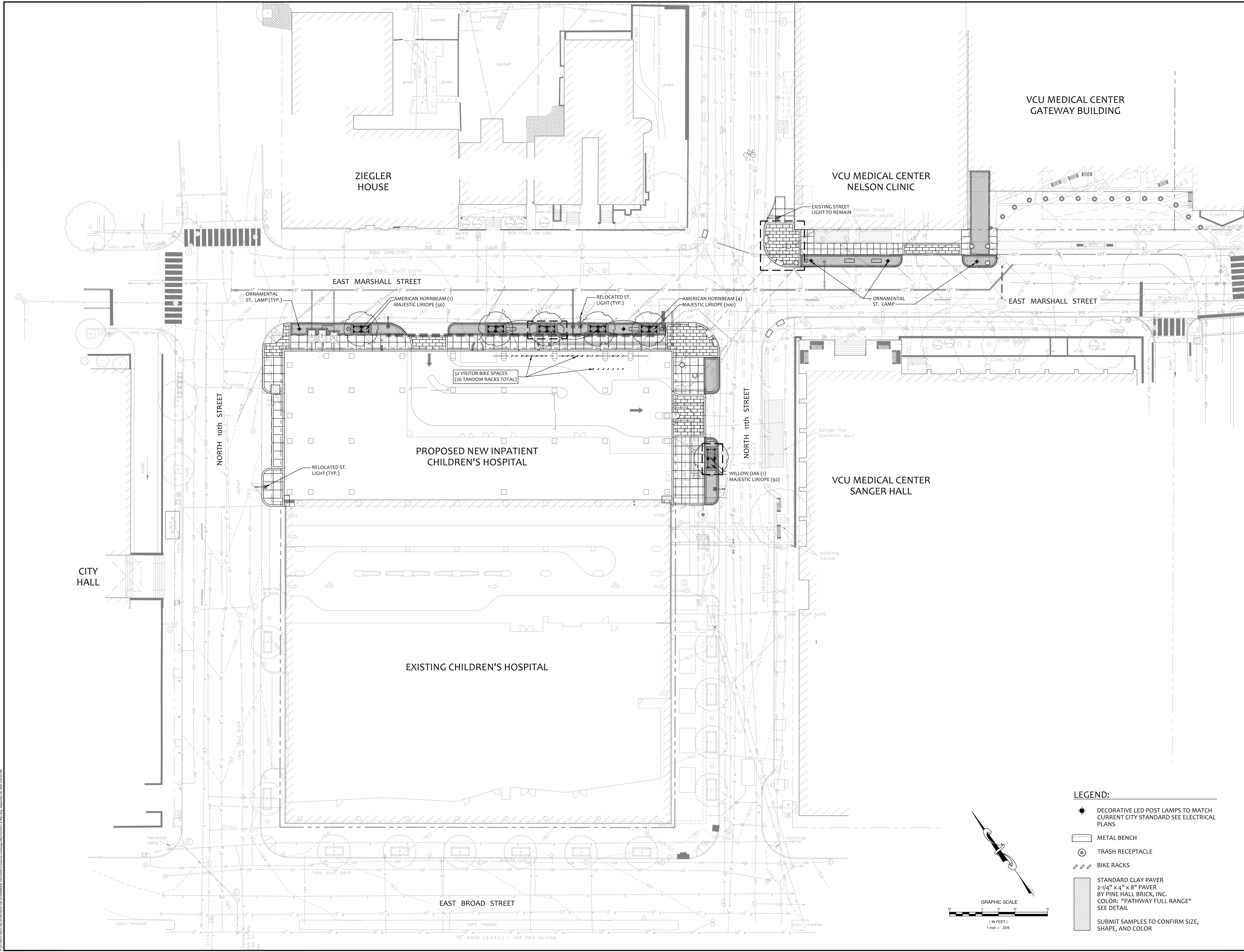
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DRAWN BY:	SLF
CHECKED BY:	MRE
SCALE:	1"=20'
DATE:	9/28/2020
PROJECT NUMBER:	21746-221B
1	



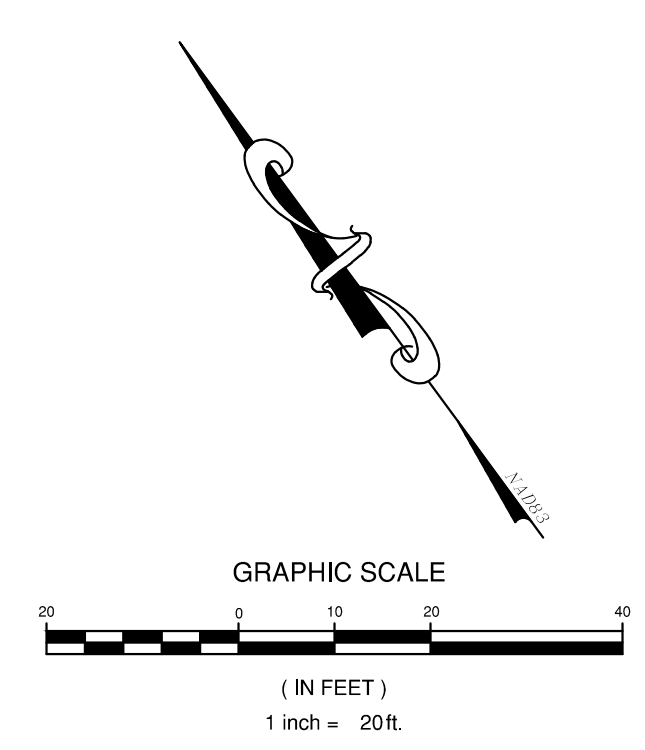
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- ★ DECORATIVE LED POST LAMPS TO MATCH CURRENT CITY STANDARD SEE ELECTRICAL PLANS
 - ▭ METAL BENCH
 - ⊙ TRASH RECEPTACLE
 - ▨ BIKE RACKS
 - ▩ STANDARD CLAY PAVER
2-1/4" x 4" x 8" PAVES
BY PINE HALL BRICK, INC.
COLOR: "PATHWAY FULL RANGE"
 - ▨ SUBMIT SAMPLES TO CONFIRM SIZE, SHAPE, AND COLOR



REVISIONS	
DESIGNED BY:	CR
DRAWN BY:	SLF
CHECKED BY:	MRE
SCALE:	1"=20'
DATE:	9/28/2020
PROJECT NUMBER:	21746-221B
2	



- LEGEND:**
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 - METAL BENCH
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2-1/4" x 4" x 8" PAVER
BY PINE HALL BRICK, INC.
COLOR: "PATHWAY FULL RANGE"
SEE DETAIL
 - SUBMIT SAMPLES TO CONFIRM SIZE, SHAPE, AND COLOR



REVISIONS
DESIGNED BY: CR
DRAWN BY: SLF
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SCALE: 1"=20'
DATE: 9/28/2020
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KEY PLAN

REVISION

HKS PROJECT NUMBER
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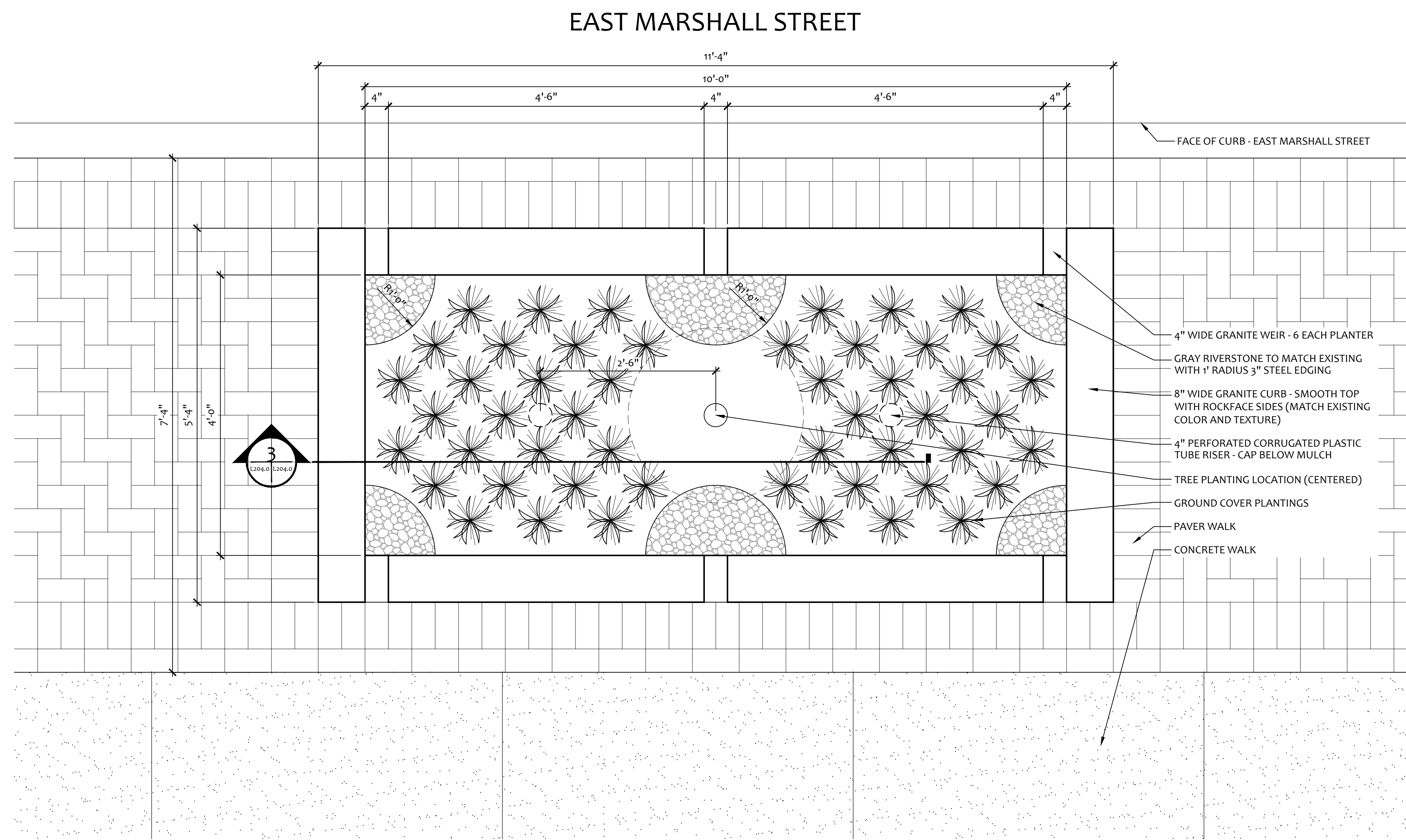
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ISSUE
SHELL / CORE CD ISSUE CRO026

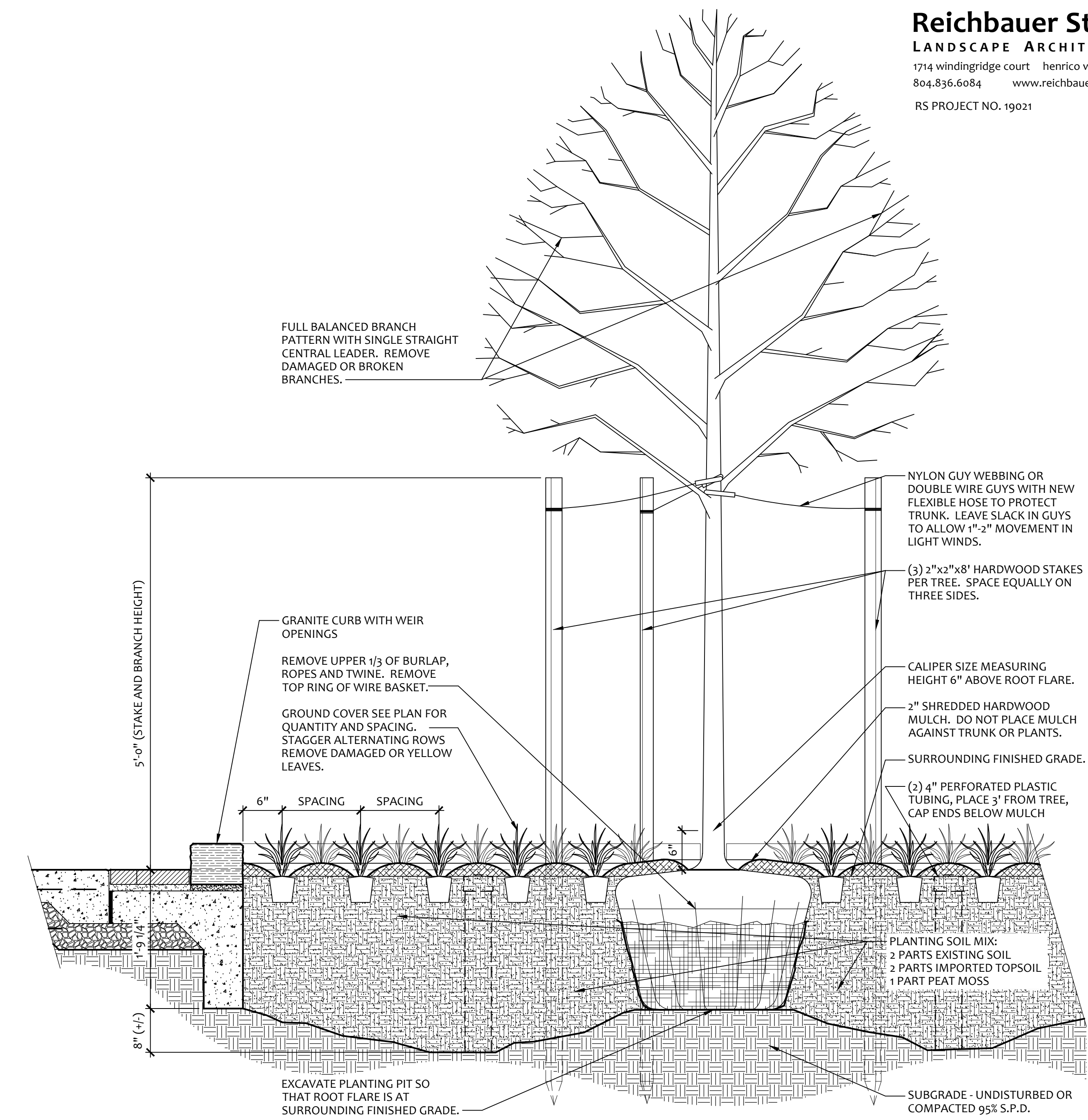
SHEET TITLE
LANDSCAPE DETAILS, SCHEDULE, AND NOTES

SHEET NO.

L204.0



1 4' x 10' TREE OPENINGS WITH GRANITE CURB - EAST MARSHALL STREET
 SCALE: 1"=1'-0" PLAN



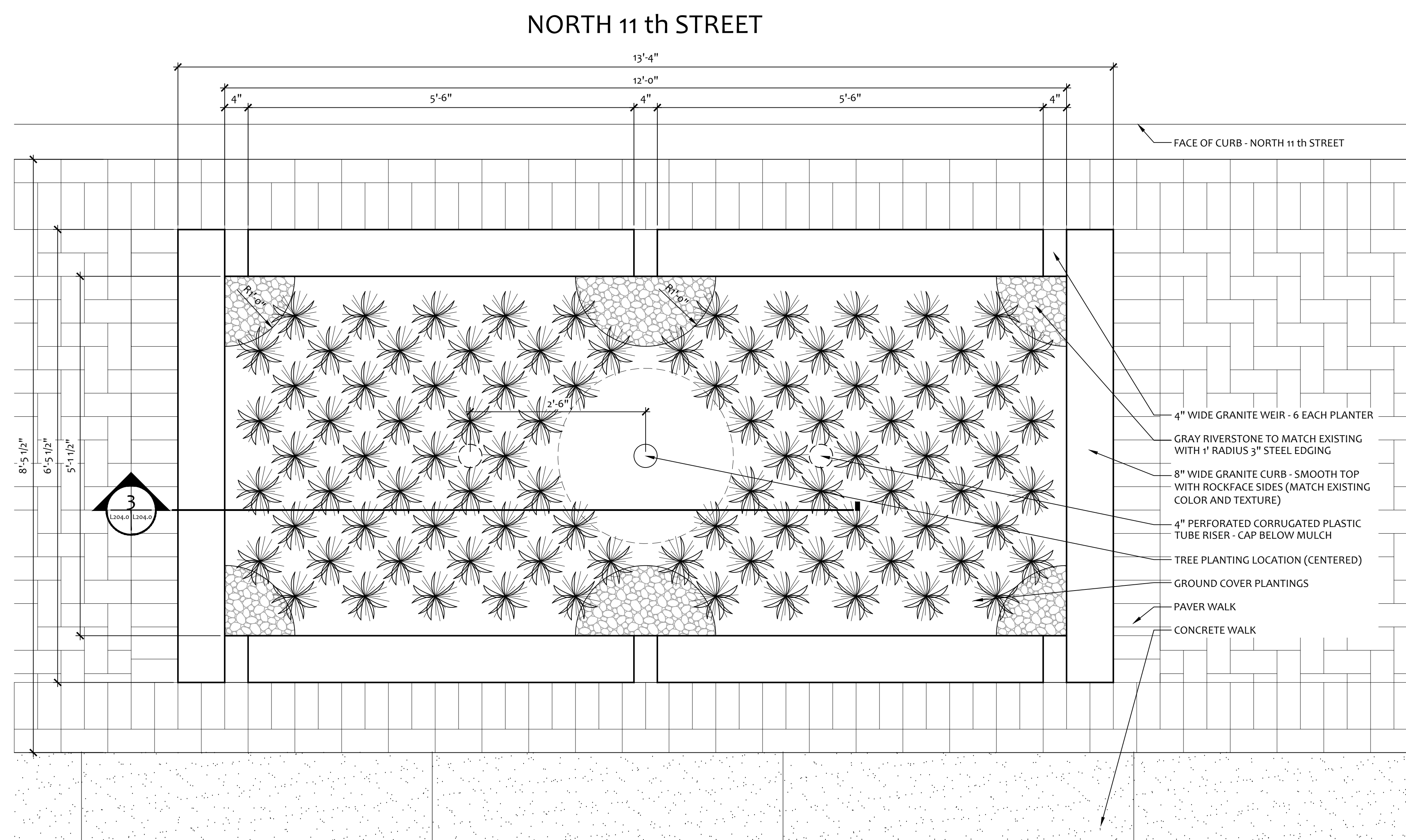
3 DECIDUOUS TREE AND GROUND COVER PLANTING IN TREE OPENING
 SCALE: 1"=1'-0" SECTION

PLANTING NOTES:

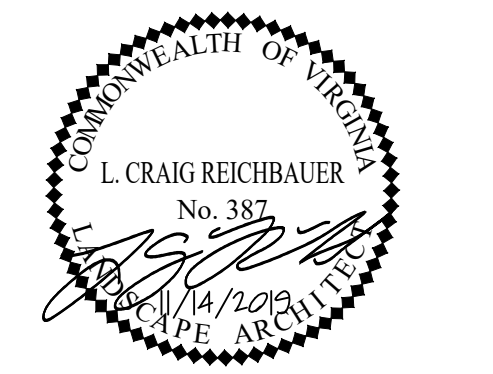
- ALL PLANT MATERIAL GROWING STANDARDS AND INSTALLATION METHODS SHALL CONFORM TO THE CURRENT EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK", ANSI Z60.1.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANT MATERIAL MAINTENANCE DURING CONSTRUCTION, INCLUDING WEEDING, WATERING, MOWING, HERBICIDE APPLICATION AND PESTICIDE APPLICATION.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO BEGINNING INSTALLATION AND THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL MARK BED LINES AND TREE LOCATIONS FOR REVIEW BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- IN NEW TURF OR MULCH AREAS, ALL WEEDS AND EXISTING TURF GRASS SHALL BE ERADICATED, UNLESS OTHERWISE NOTED ON DRAWINGS.
- ALL SHRUB BED AREAS AND TREE BASES SHALL BE MULCHED WITH AGED SHREDDED HARDWOOD MULCH 2-3" DEEP.
- ALL UNPAVED DISTURBED GRADE SURFACES SHALL BE STABILIZED WITH PERMANENT SEED, SOD, OR AGED SHREDDED HARDWOOD MULCH 2-3" DEEP.
- CONTRACTOR SHALL MAINTAIN PLANT MATERIAL TO INCLUDE WATERING, MOWING, WEED AND PEST CONTROL, THROUGHOUT CONSTRUCTION UNTIL FINAL ACCEPTANCE BY OWNER.
- UPON COMPLETION OF LANDSCAPE AND HARDSCAPE INSTALLATION, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO SCHEDULE A SITE INSPECTION. THIS INSPECTION SHALL VERIFY CONFORMANCE TO PLANS AND SPECIFICATIONS AND ESTABLISH THE START DATE FOR THE ONE YEAR WARRANTY PERIOD, AND DATE OF OWNER'S ACCEPTANCE OF MAINTENANCE RESPONSIBILITIES.
- PLANTED AREAS WILL BE ACCEPTED PROVIDED ALL REQUIREMENTS, INCLUDING MAINTENANCE, HAVE BEEN COMPLIED WITH AND PLANT MATERIALS ARE ALIVE AND IN A HEALTHY, VIGOROUS GROWING CONDITION.
- UNACCEPTABLE PLANT MATERIAL, INCLUDING UNHEALTHY OR UNSIGHTLY PLANT MATERIAL AS DETERMINED BY THE LANDSCAPE ARCHITECT, SHALL BE REMOVED FROM SITE AND REPLACED WITH PLANT MATERIALS CONFORMING TO PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL WARRANT THE LANDSCAPE AND HARDSCAPE MATERIALS AND INSTALLATION FOR ONE YEAR AFTER THE WARRANTY START DATE, AS RECOMMENDED BY THE LANDSCAPE ARCHITECT AND APPROVED BY THE OWNER. PLANT MATERIALS THAT BECOME UNHEALTHY OR DIE DURING THE WARRANTY PERIOD SHALL BE REPLACED IMMEDIATELY AND WARRANTED THROUGH THE ORIGINAL WARRANTY PERIOD.
- AT THE END OF THE WARRANTY PERIOD, THE CONTRACTOR SHALL REPLACE ALL DEAD OR UNHEALTHY PLANT MATERIAL AT NO COST TO THE OWNER, AND REMOVE ALL REMAINING TREE STAKING OR GUYING.

PLANT LIST:

QUAN.	BOTANICAL NAME	COMMON NAME	SPACING	CALIPER	SIZE	ROOT TYPE	DETAIL	REMARKS
TREES								
1	(LT) QUERCUS PHELLOS	WILLOW OAK	AS SHOWN	3 1/2" - 4"	12' - 14'	B&B	2, 3	SINGLE STRAIGHT LEADER
5	(MT) CARPINUS CAROLINIANA	AMERICAN HORNBEAM	AS SHOWN	3" - 3 1/2"	12' - 14'	B&B	1, 3	SINGLE STRAIGHT LEADER
GROUND COVER								
342	(GC) LIRIOPE MUSCARI 'MAJESTIC'	"MAJESTIC" LIRIOPE	12" OC	-	6"	4" POT	3	2" MULCH BED
PLANT TYPE LEGEND:								
(LT) = LARGE CANOPY DECIDUOUS TREE	(MT) = MEDIUM CANOPY DECIDUOUS TREE	(ST) = SMALL DECIDUOUS TREE	(ET) = EVERGREEN TREE					
(LS) = LARGE SHRUB	(MS) = MEDIUM SHRUB	(SS) = SMALL SHRUB	(GC) = GROUND COVER					
(AN) = ANNUAL PLANTING	(PE) = PERENNIAL PLANTING	(BU) = BULB PLANTING						
NOTE: TOTALS ARE FOR CONVENIENCE ONLY. CONTRACTOR SHALL VERIFY THAT PLANS AND SCHEDULE COINCIDE, AND REPORT ANY DISCREPANCY TO LANDSCAPE ARCH. PRIOR TO BIDDING.								



2 5' x 12' TREE OPENINGS WITH GRANITE CURB - NORTH 11th STREET
 SCALE: 1"=1'-0" PLAN



KEY PLAN

REVISION

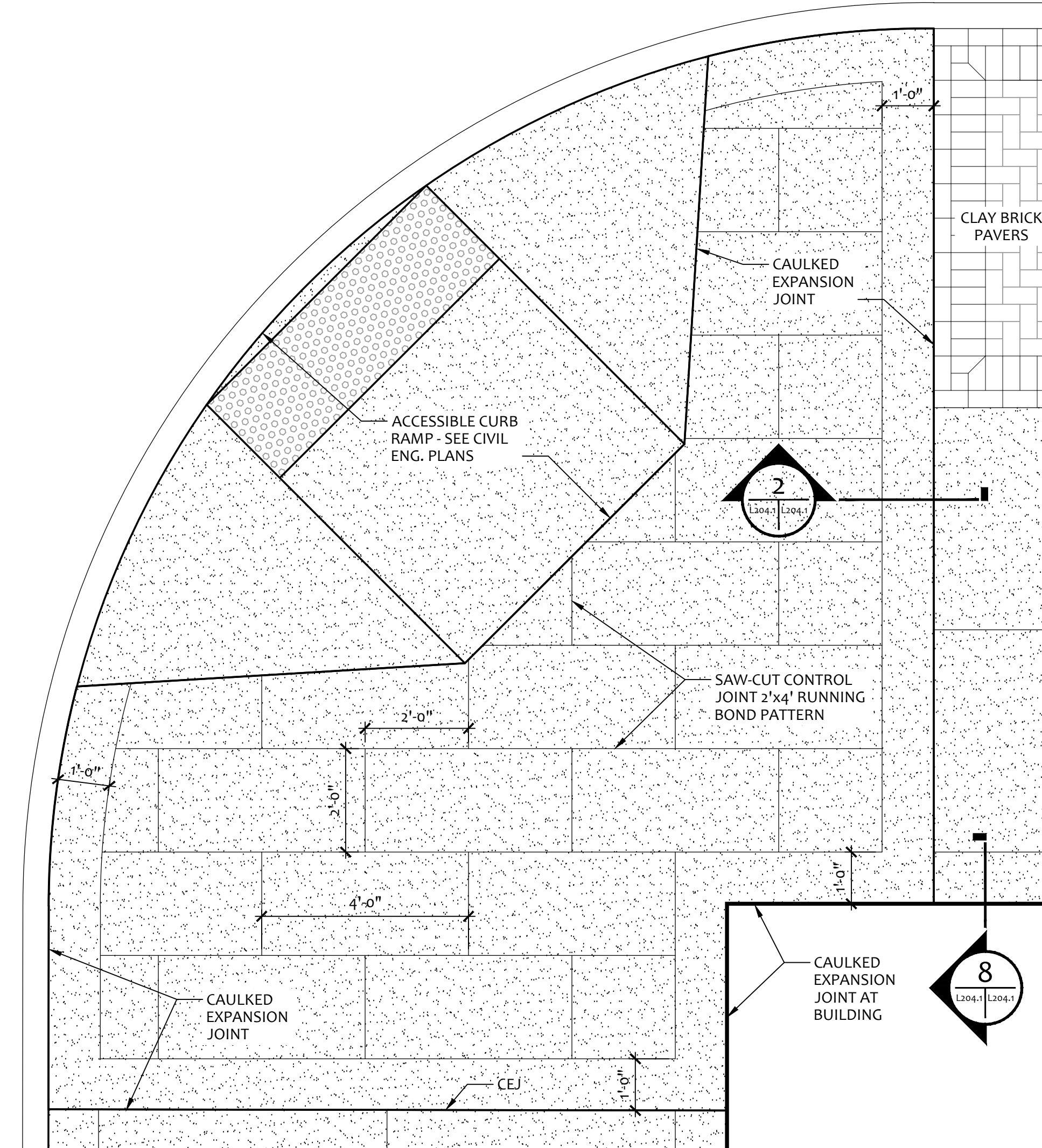
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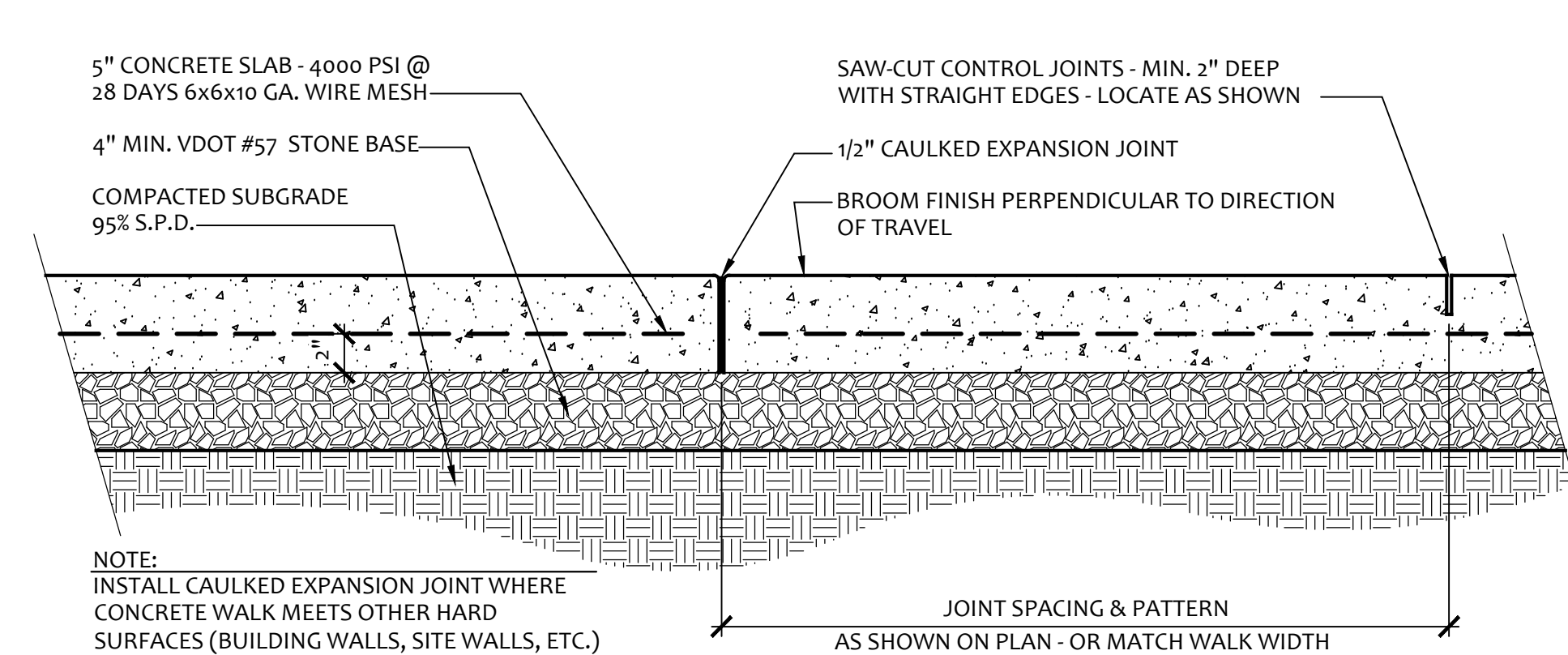
ISSUE
SHELL / CORE CD ISSUE CRO026

SHEET TITLE
HARDSCAPE DETAILS

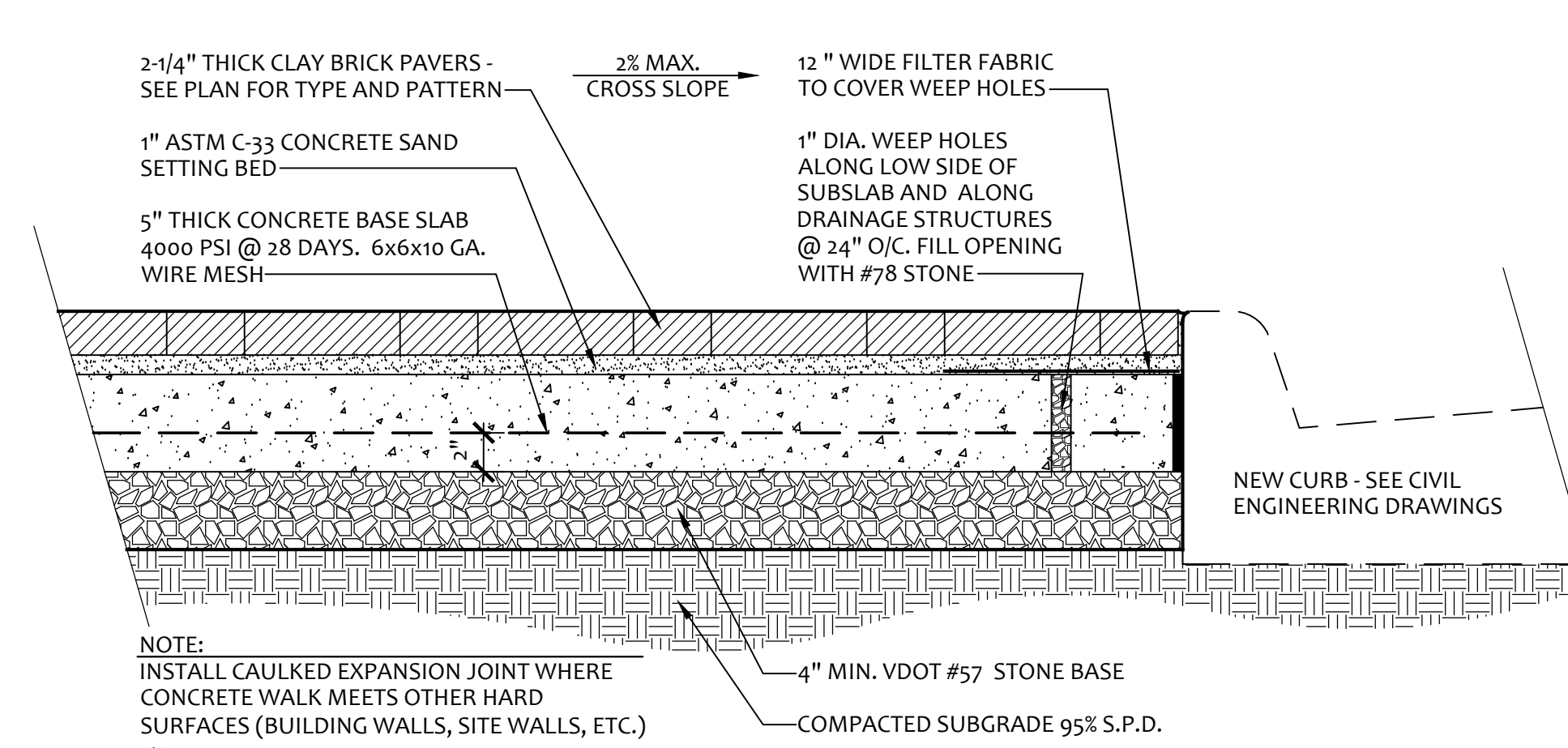
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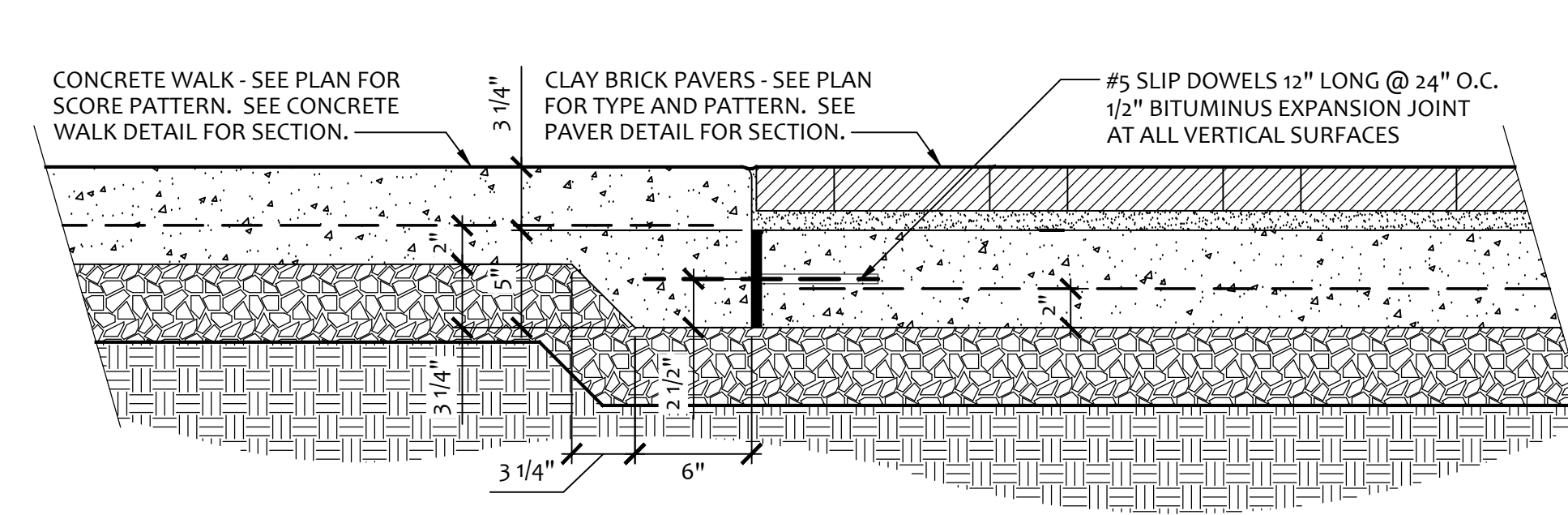
1 CONCRETE WALK PATTERN
 SCALE: 1/2"=1'-0" PLAN



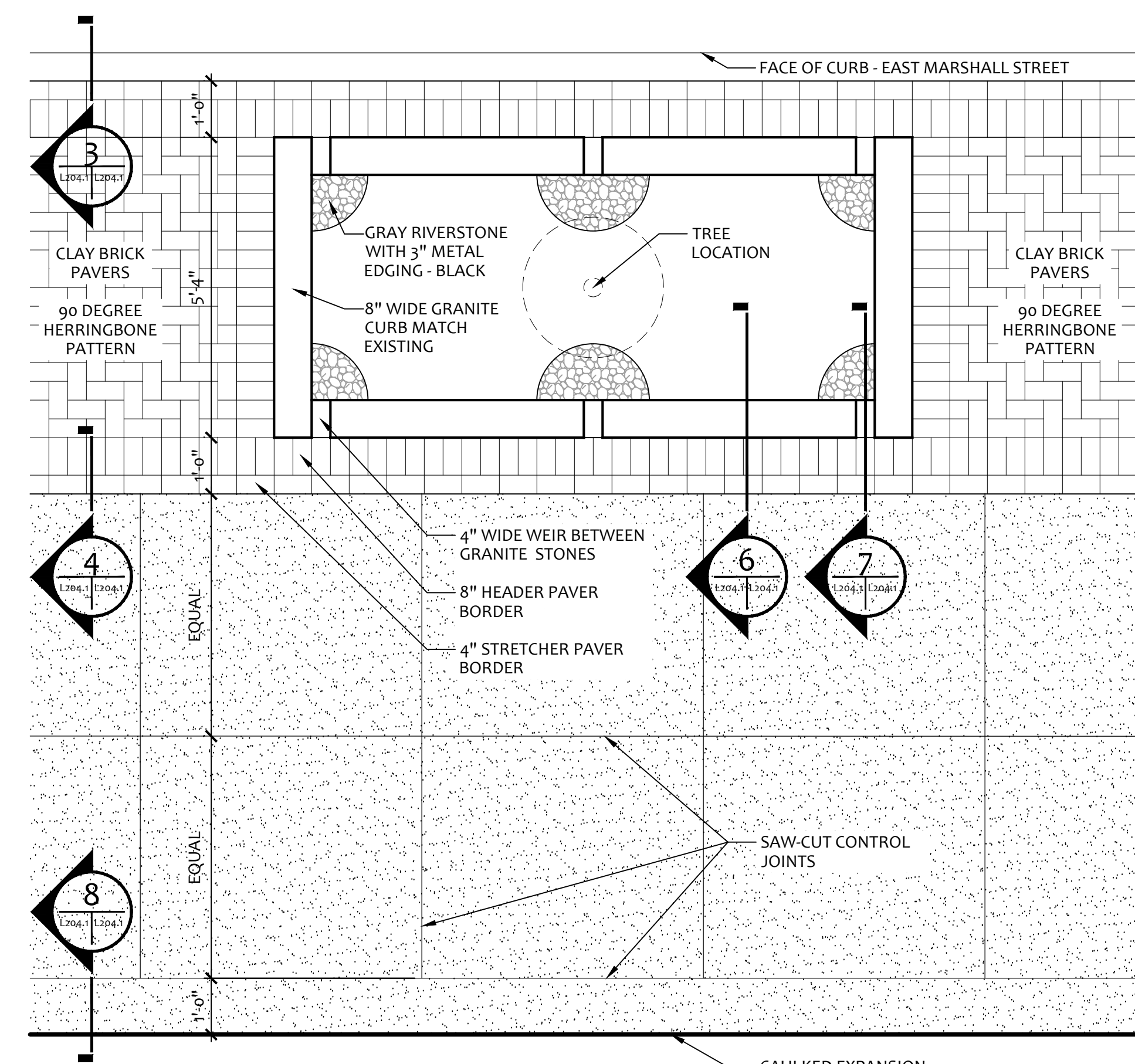
2 CONCRETE WALK
 SCALE: 1-1/2"=1'-0" SECTION



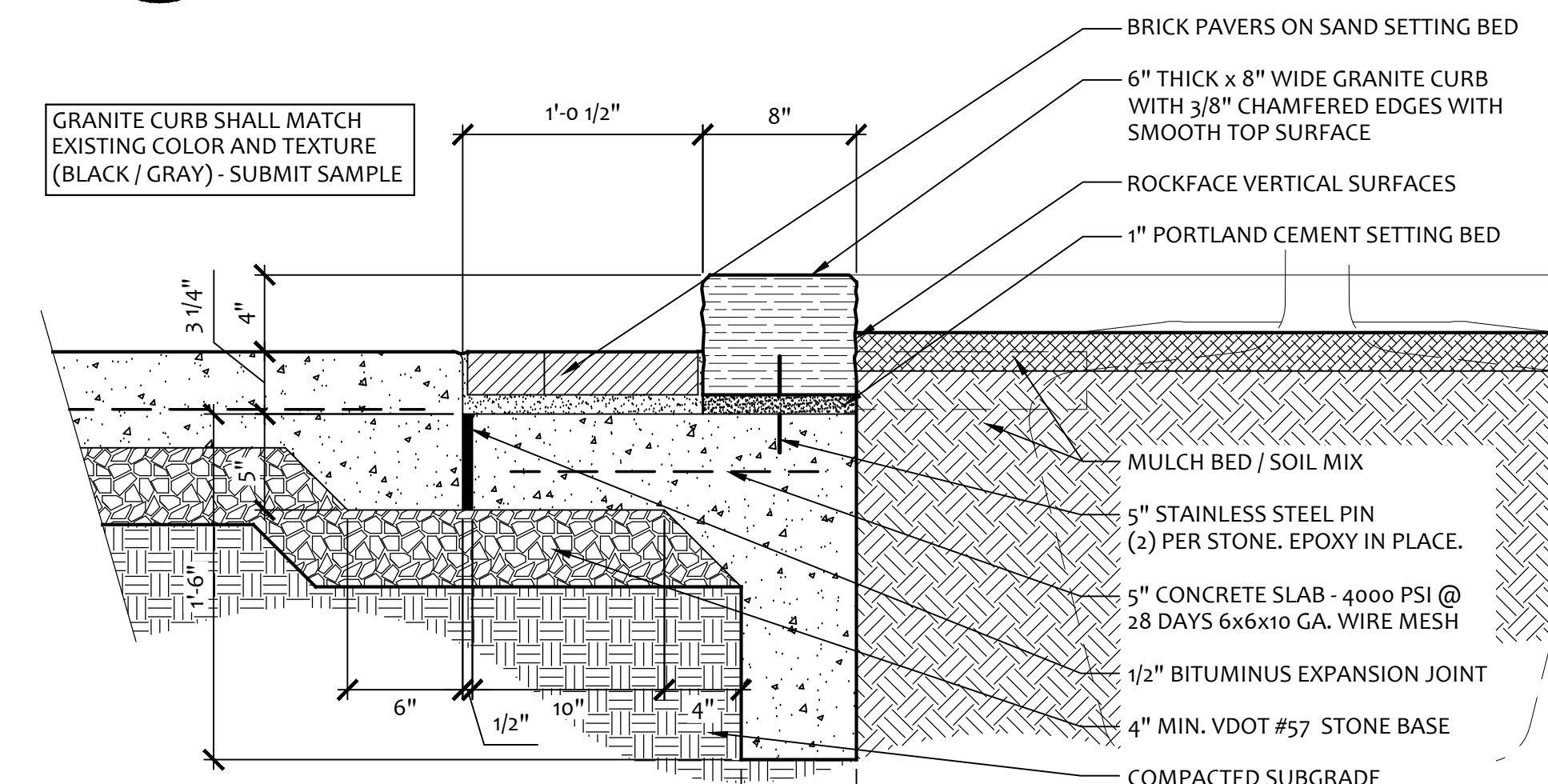
3 CLAY BRICK PAVER WALK
 SCALE: 1-1/2"=1'-0" SECTION



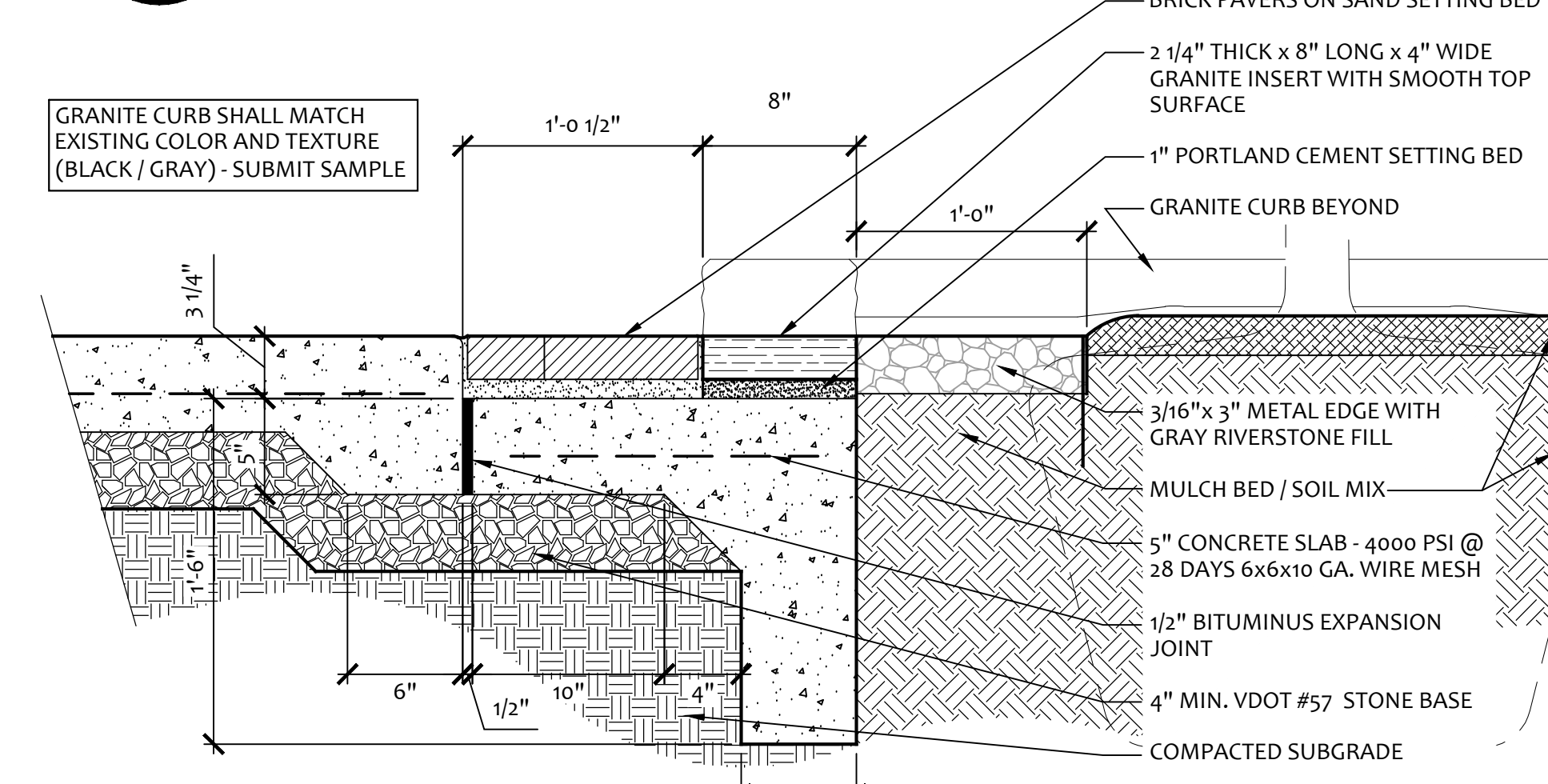
4 CONCRETE WALK / CLAY BRICK PAVER WALK TRANSITION
 SCALE: 1-1/2"=1'-0" SECTION



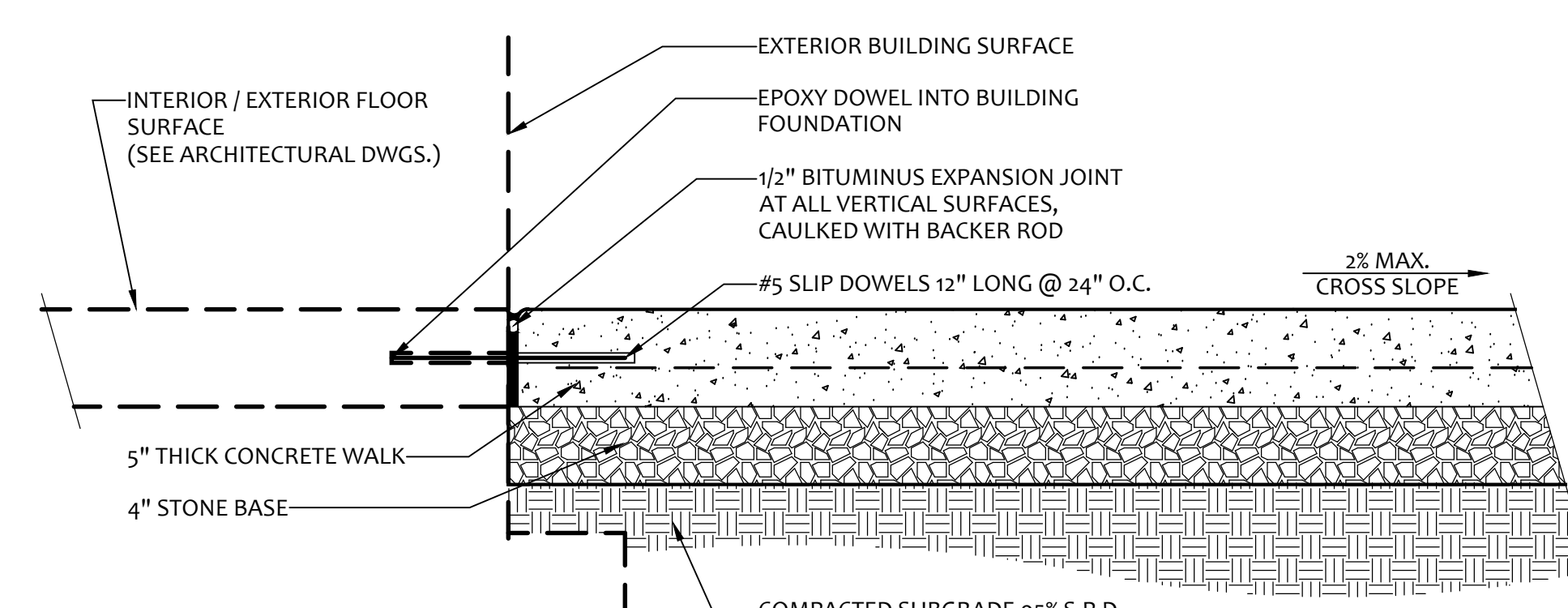
5 CONCRETE & PAVER WALK PATTERN AT PLANTER
 SCALE: 1/2"=1'-0" PLAN



6 GRANITE CURB AT PLANTER
 SCALE: 1-1/2"=1'-0" SECTION



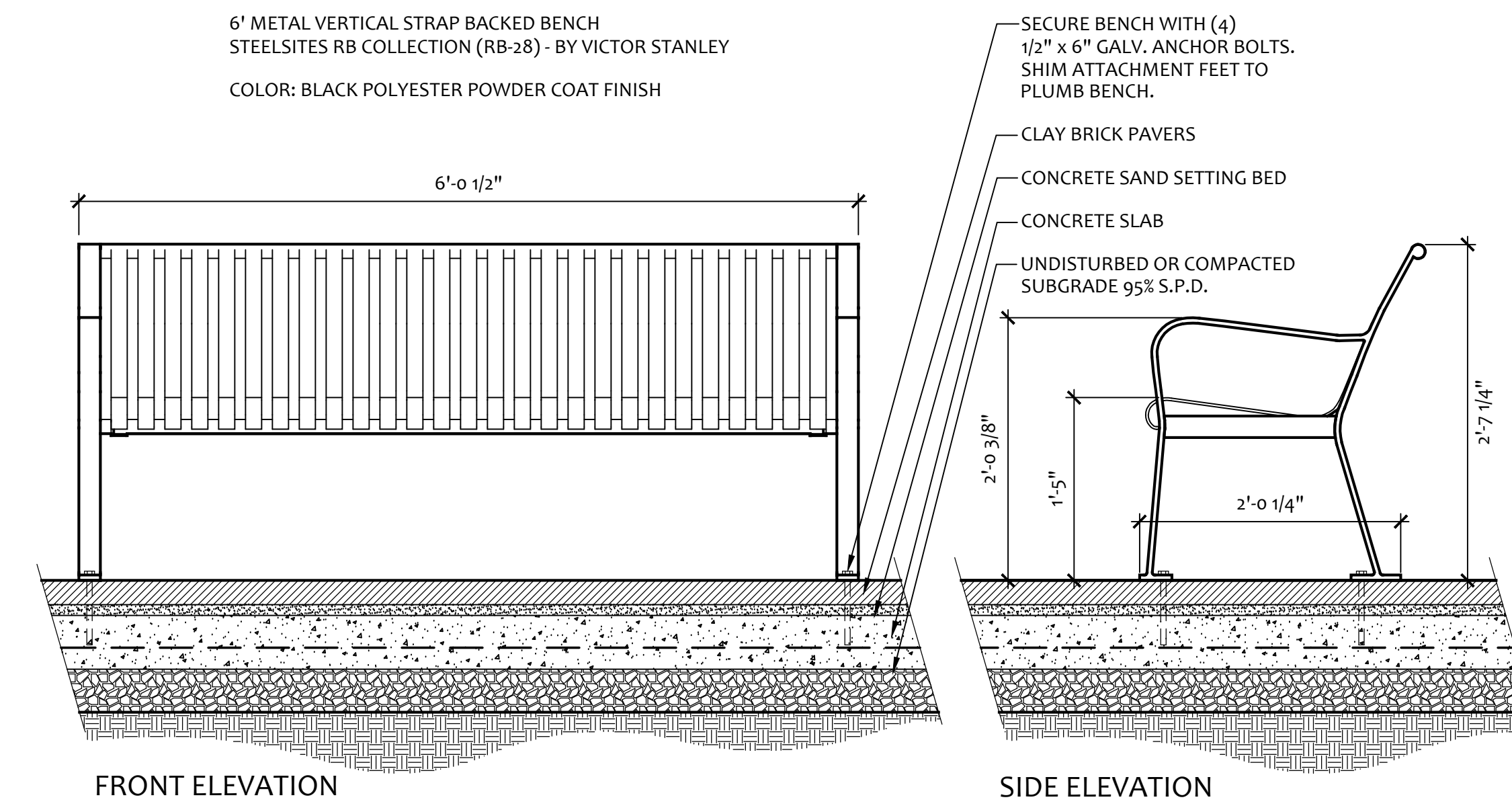
7 GRANITE WEIR AT PLANTER
 SCALE: 1-1/2"=1'-0" SECTION



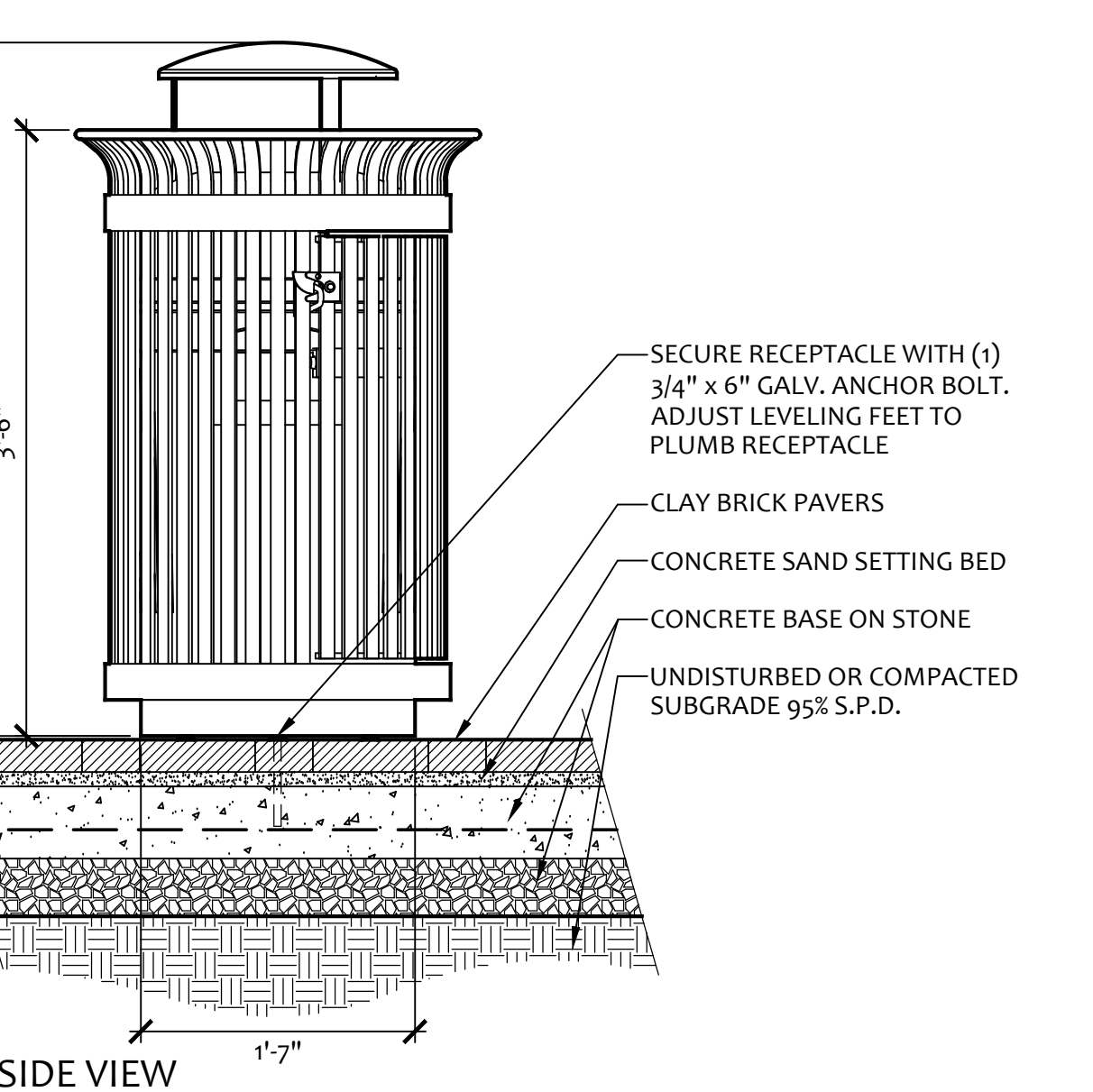
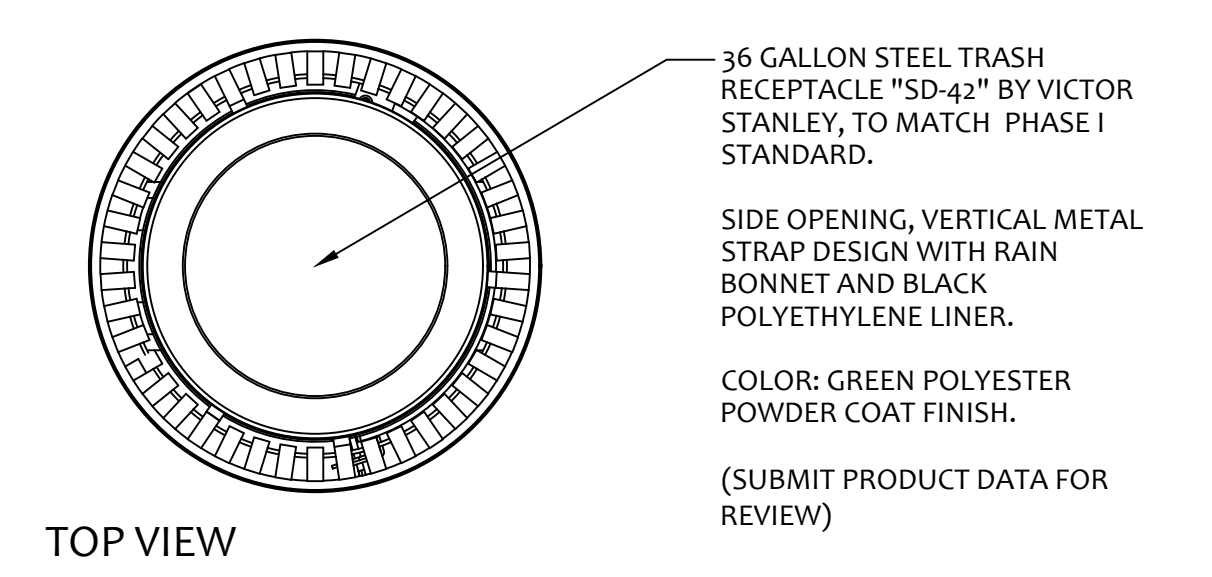
8 CONCRETE WALK AT BUILDING
 SCALE: 1-1/2"=1'-0" SECTION

PROJECT DATE: 11/20/2019 10:30 AM TEMPLATE REVISION: 0.02/2019/06/23

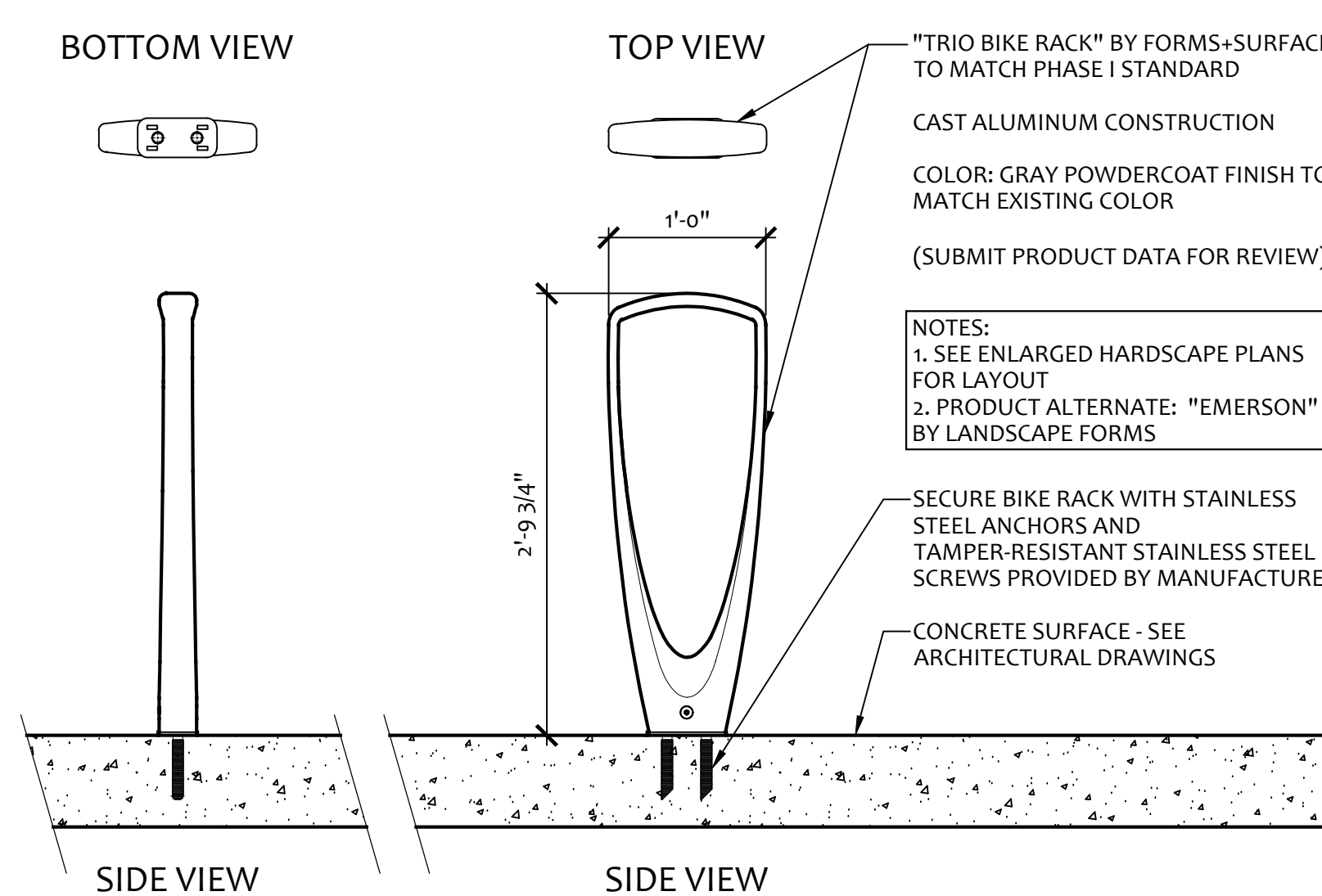
- ARCHITECT**
 HKS, INC.
 2100 EAST CARY STREET, SUITE 100
 RICHMOND, VA 23225
- STRUCTURAL ENGINEERS**
 DUNBAR MILBY WILLIAMS PITTMAN & VAUGHAN
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- WALTER P. MOORE
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- MEP ENGINEERS**
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 BOSTON, MA 02135
- DUNLAP & PARTNERS
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- CIVIL ENGINEER**
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 RICHMOND, VA 23227
- TELECOM**
 EDI, LTD.
 1600 RIVEREDGE PARKWAY, SUITE 900
 ATLANTA, GA 30328



1 6' STEEL BENCH
 L204.2 L204.2 SCALE: 1"=1'-0" SECTION / ELEVATION



2 STEEL TRASH RECEPTACLE
 L204.2 L204.2 SCALE: 1"=1'-0" PLAN / ELEVATION



3 BIKE RACK
 L204.2 L204.2 SCALE: 1"=1'-0" PLAN / SECTION / ELEVATION

CHoR New Hospital

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- CONSTRUCTION MANAGER**
 DPR CONSTRUCTION
 5500 COX ROAD, SUITE M
 GLEN ALLEN, VA 23060



KEY PLAN

REVISION

HKS PROJECT NUMBER
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 DATE
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 ISSUE
SHELL / CORE CD ISSUE
CRO026
 SHEET TITLE
HARDSCAPE DETAILS



VCU HEALTH CHILDREN'S HOSPITAL



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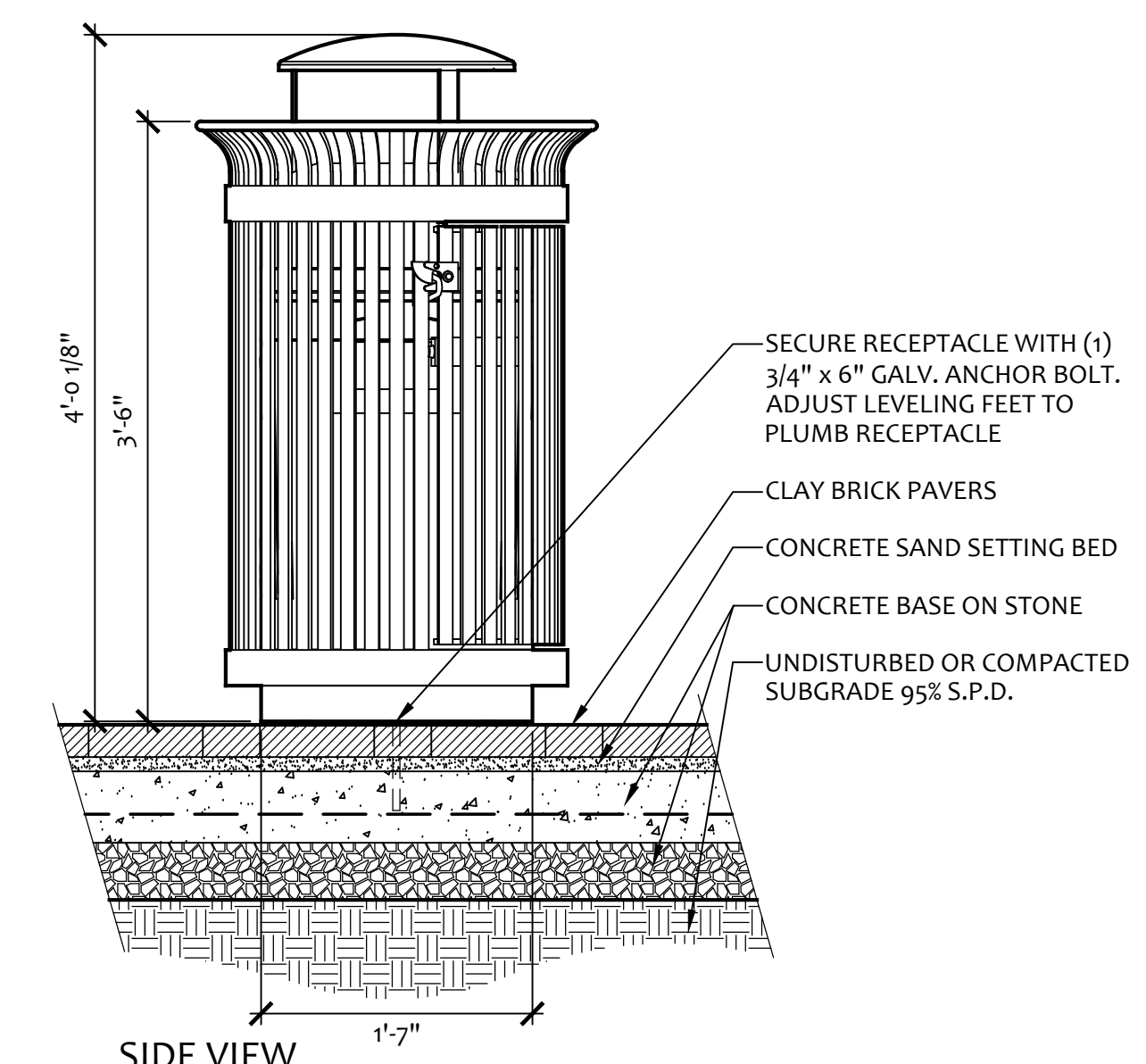
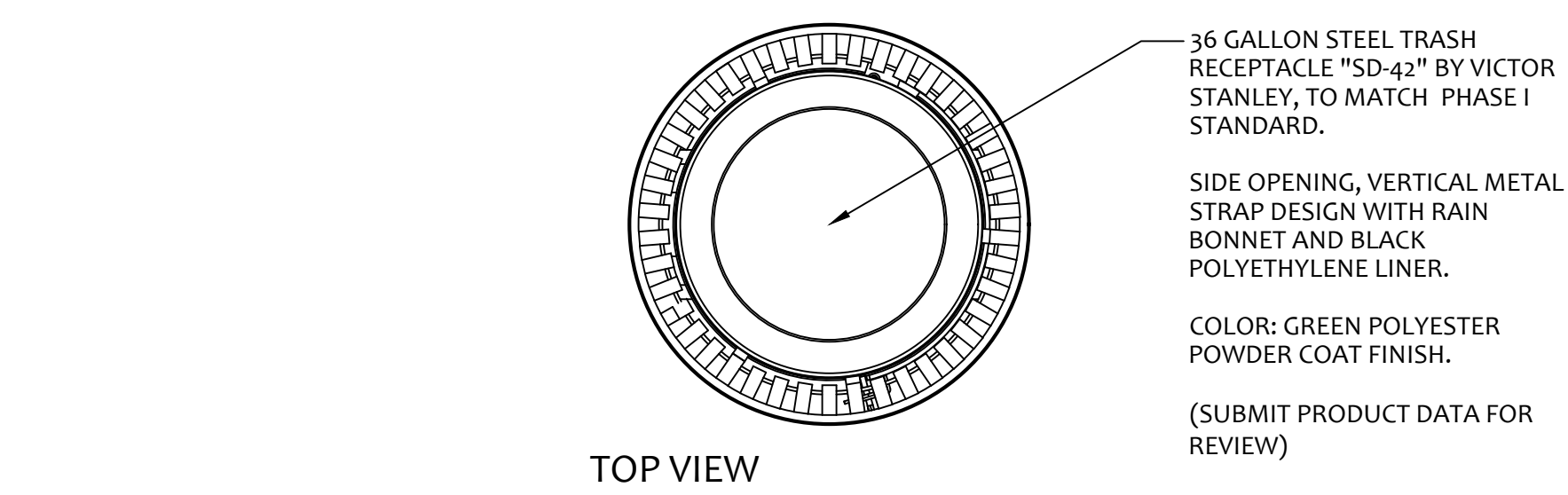
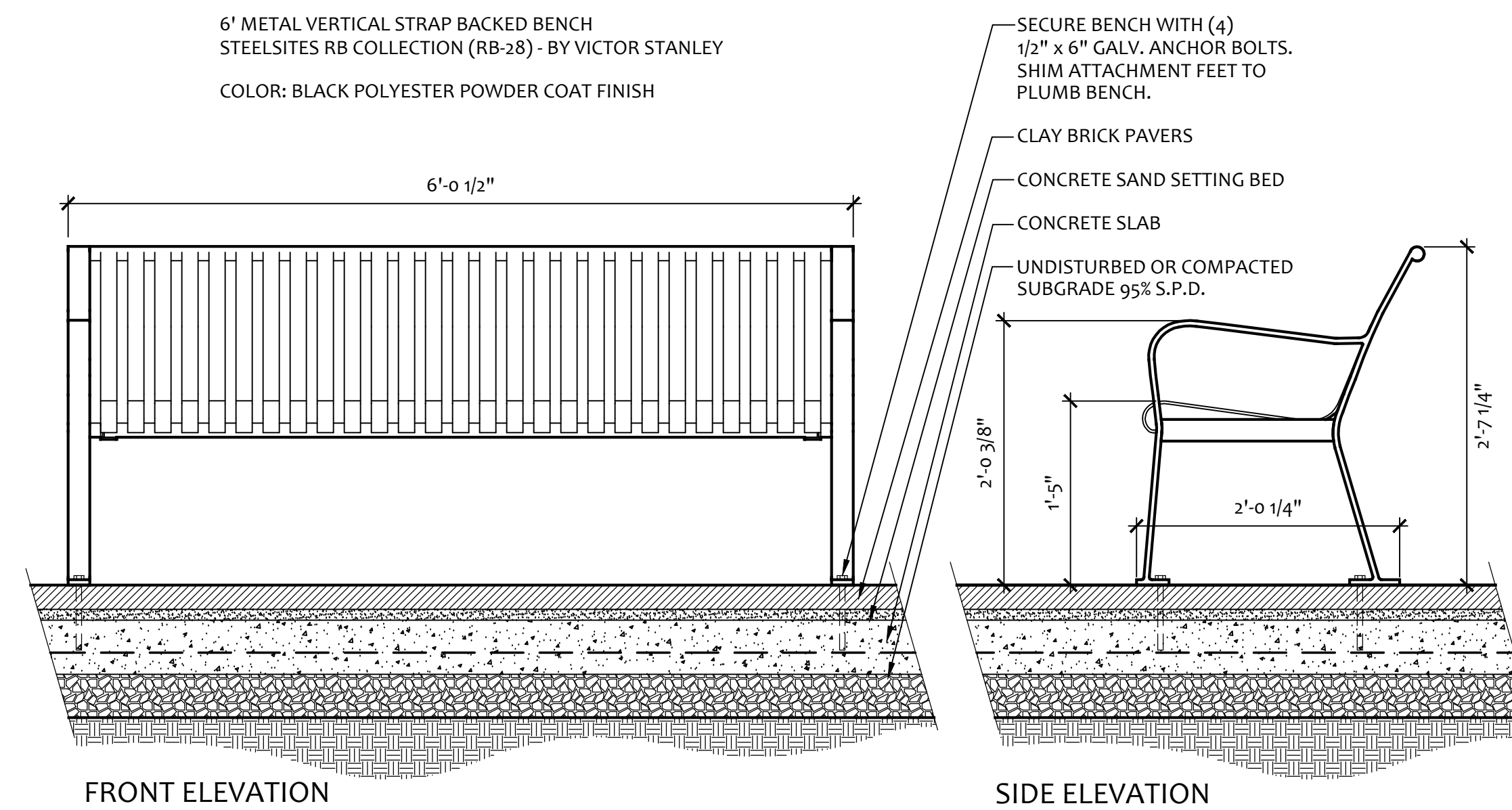
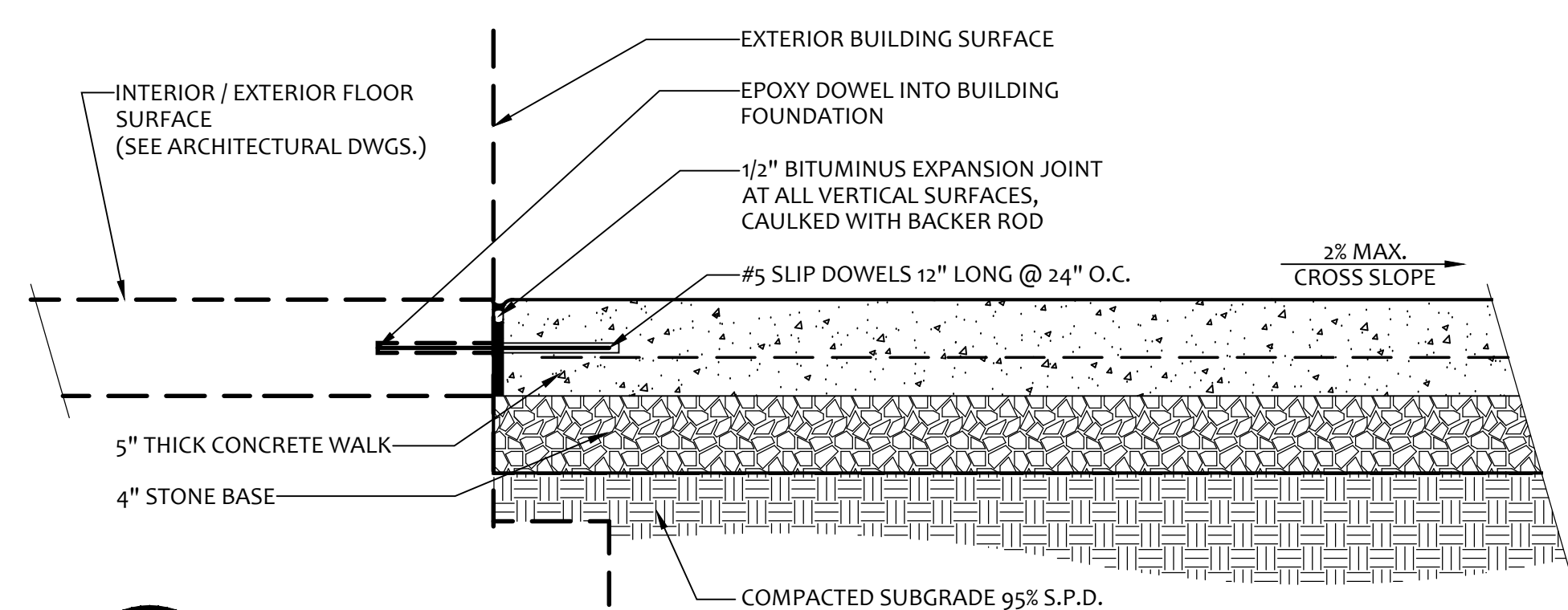
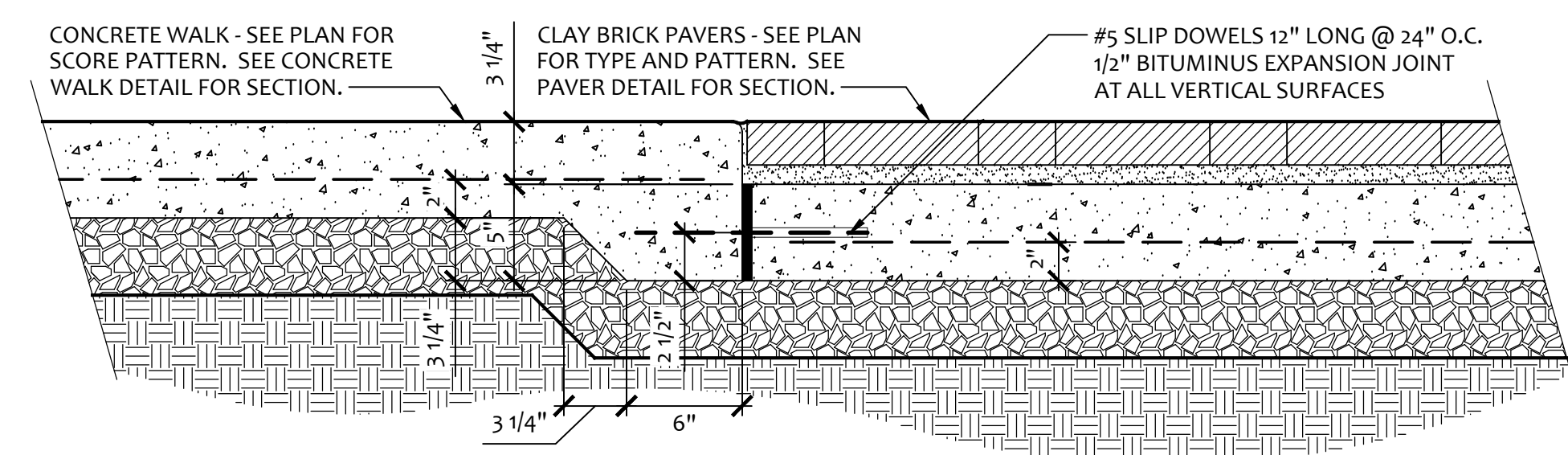
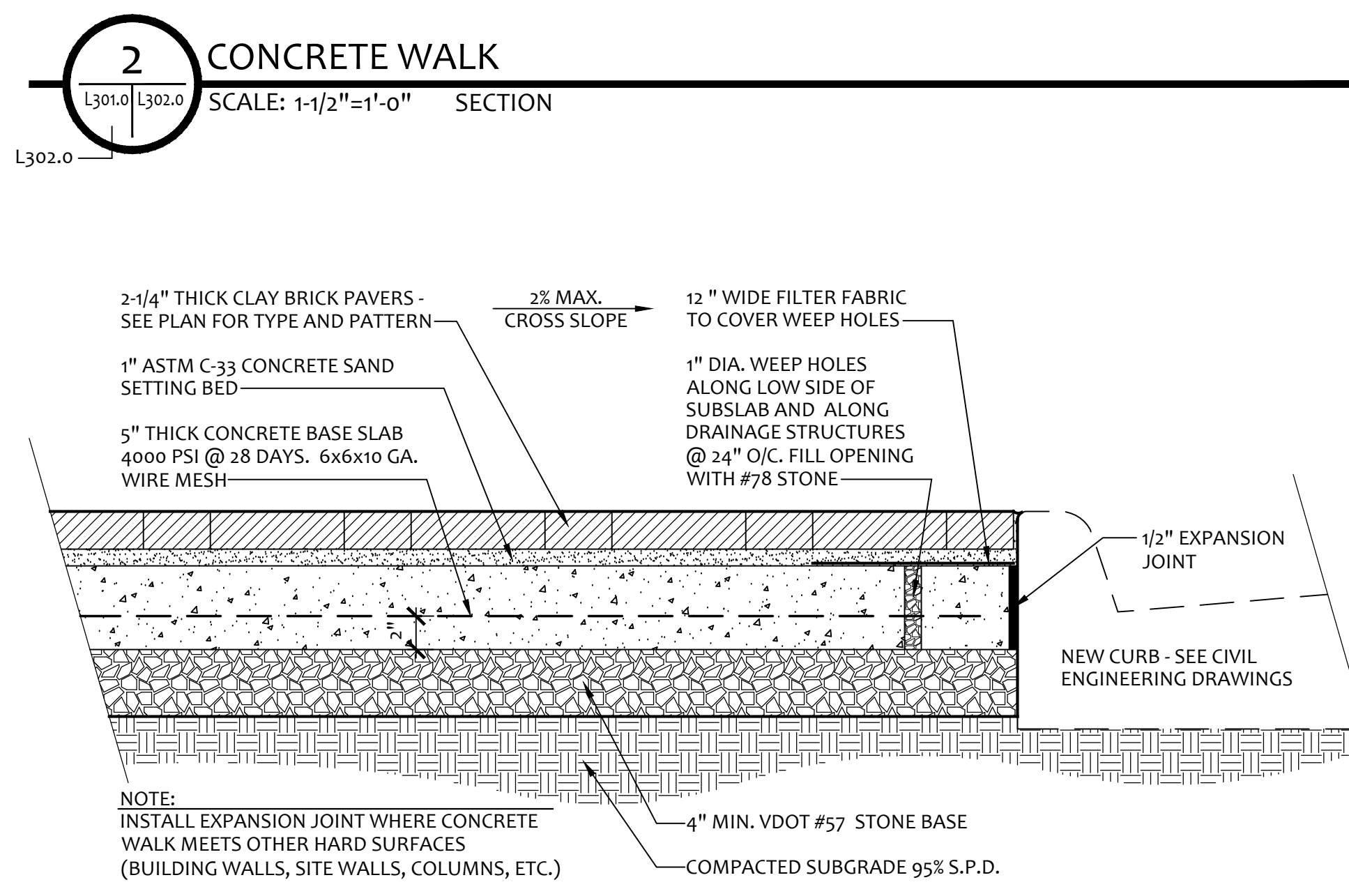
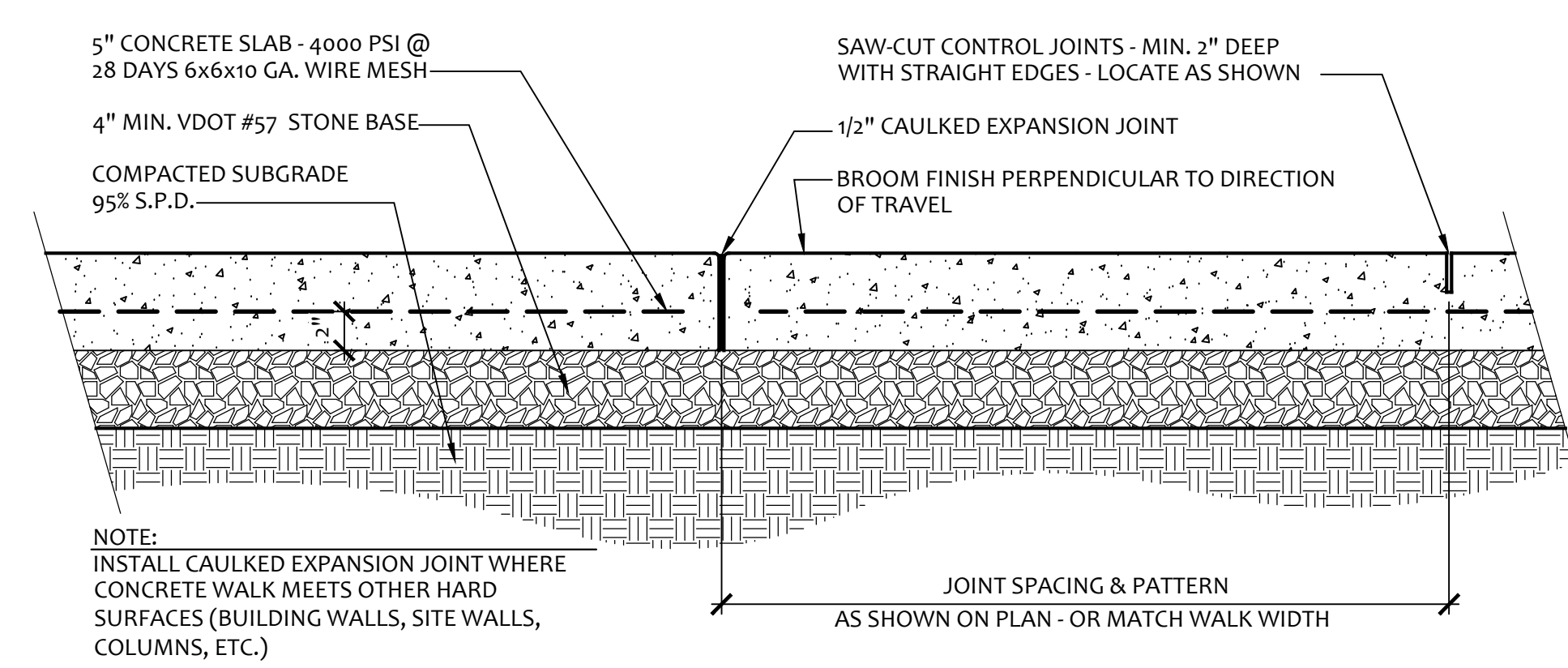
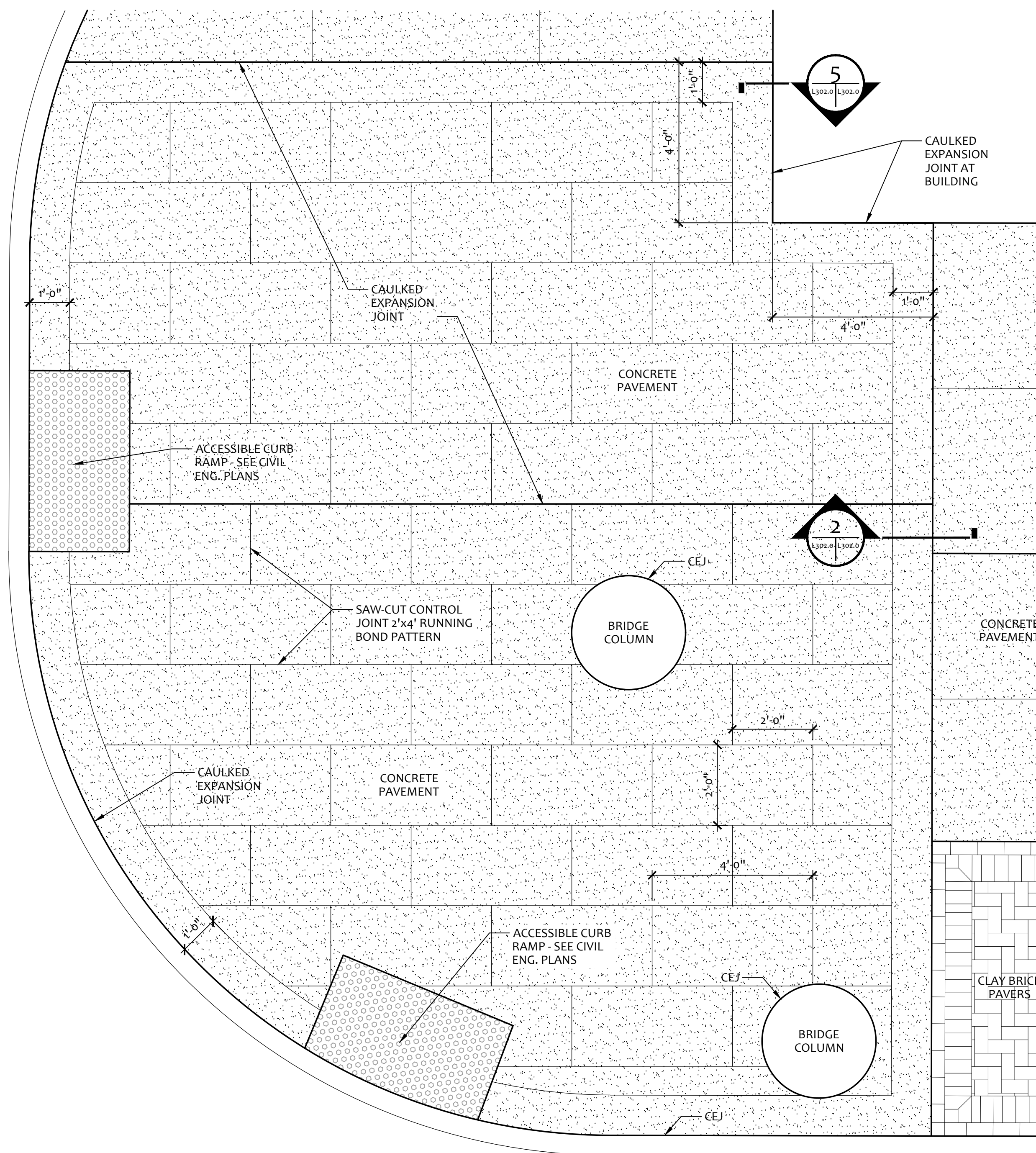
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ISSUE
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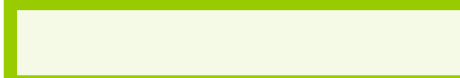

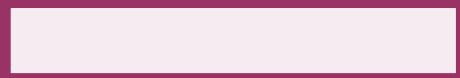

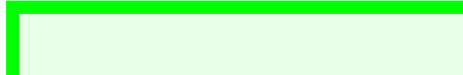
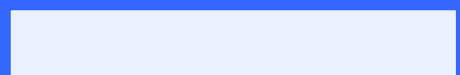

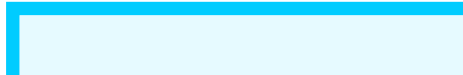




SHEET TITLE
HARDSCAPE DETAILS

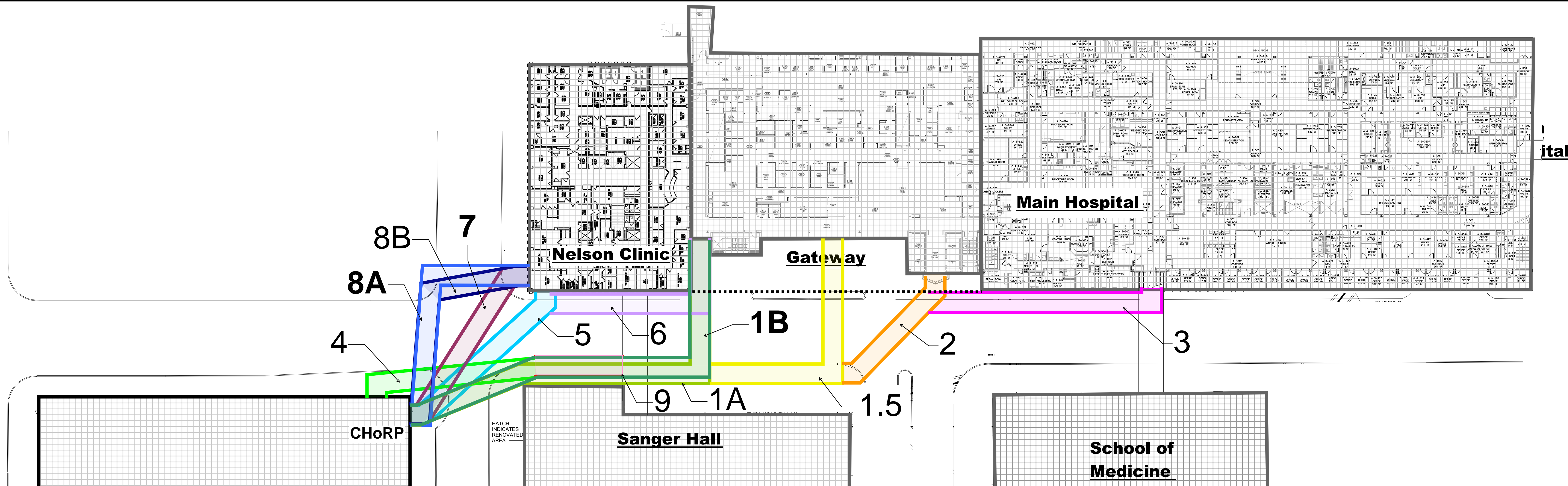
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L302.0

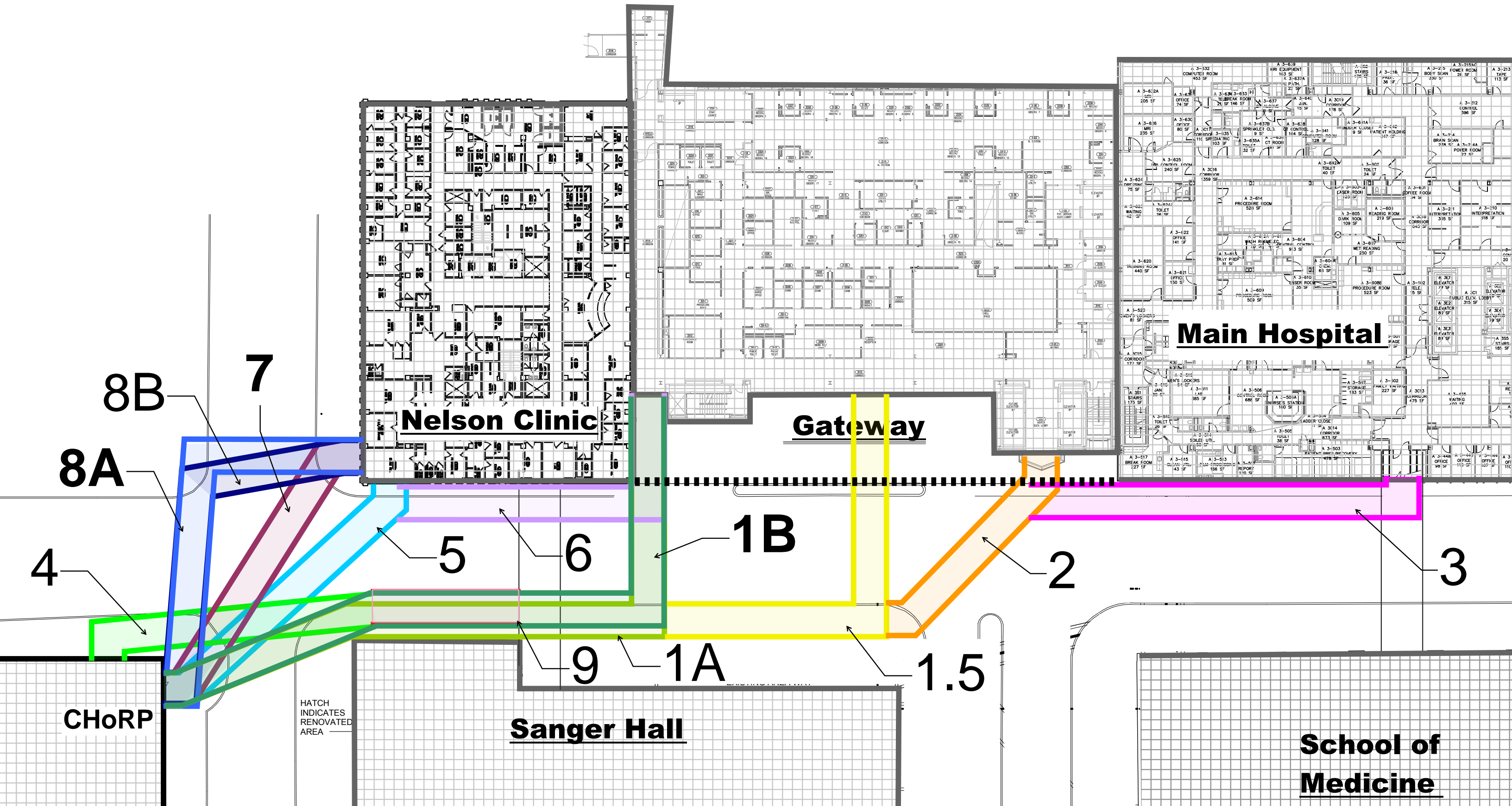


LEGEND

	OPTION 1A (ORIGINAL)		OPTION 3 (MAIN HOSPITAL)		OPTION 7(DIAGONAL TO NELSON EAST SIDE)
	OPTION 1B (MOVED FOR ELEC. VAULT)		OPTION 4 (EXIT NORTH OF CHILDREN'S)		OPTION 8A (L-SHAPED TO NELSON EAST SIDE)
	OPTION 1.5 (GATEWAY CENTER)		OPTION 5 (NELSON SOUTH SIDE)		OPTION 8B (KINKED L-SHAPED TO NELSON EAST)
	OPTION 2 (GATEWAY EAST)		OPTION 6 (ALONG NELSON TO GATEWAY)		OPTION 9 (CONNECT TO NELSON/SANGER BRIDGE)



OPTION	LOCATION	UNDER CONSIDERATION?	WHY/WHY NOT
1A	ALONG SANGER TO GATEWAY WEST SIDE	NO	CITY OF RICHMOND ELECTRICAL VAULT IS IMPACTED AND SANGER BASEMENT WALL WOULD REQUIRE STRENGTHENING
1B	ALONG SANGER TO GATEWAY WEST SIDE (MOVE FOR ELECTRICAL VAULT)	YES	SHORTEST TRAVEL DISTANCE TO GATEWAY, GATEWAY IS I2, DISTANCE DOES NOT REQUIRE HORIZONTAL EXIT FROM BRIDGE
1.5	ALONG SANGER TO GATEWAY CENTER	NO	REMOVED FROM CONSIDERATION AFTER A3 SIGN-OFF, CONCERN WITH CONSTRUCTING OVER CANOPY, LONG TRAVEL DISTANCE
2	ALONG SANGER TO GATEWAY EAST SIDE AT ELEVATOR LOBBY	NO	REMOVED FROM CONSIDERATION AFTER A3 SIGN-OFF, CONCERN WITH CONNECTION TO PUBLIC ELEVATOR LOBBY, LONG TRAVEL DISTANCE, SIGNIFICANT IMPACT TO PEDESTRIAN TRAFFIC AT GRADE
3	ALONG SANGER ACROSS TO MAIN HOSPITAL	NO	REMOVED FROM CONSIDERATION AFTER A3 SIGN-OFF, TRAVEL DISTANCE WITHIN BRIDGE TOO LONG
4	EXIT CHILDREN'S AT NORTH SIDE ALONG SANGER TO GATEWAY	NO	PLACING FOUNDATION AT CHILDREN'S NORTH SIDE HAS MAJOR SCHEDULE IMPACT
5	DIAGONAL TO NELSON SOUTH SIDE	NO	REQUIRES REDUCTION OF MARSHALL AND IMPACTS NEW DOMINION VAULT
6	ALONG NELSON SOUTH SIDE TO GATEWAY	NO	REQUIRES RENOVATIONS TO IMAGING SUITE IN GATEWAY BASEMENT TO ADD COLUMNS
7	DIAGONAL TO NELSON WEST SIDE	YES	SHORTEST BRIDGE STRUCTURE BUT MAY NOT WORK WITH EXISTING FOUNDATION ON EAST SIDE OF CHILDREN'S
8A	L-SHAPED TO NELSON WEST SIDE	YES	LEAST IMPACT TO STREET SCAPE AND SECOND SHORTEST BRIDGE STRUCTURE
8B	KINKED L-SHAPED TO NELSON WEST SIDE	NO	MORE IMPACTFUL TO STREET SCAPE AND UTILITIES THAN OPTION 8A. OBSTRUCTION OF 11TH ST CROSSING
9	CONNECT TO NELSON/SANGER BRIDGE	NO	REMOVED FROM CONSIDERATION AFTER A3 LEVELS SIGN-OFF, LOSS OF PARKING AT P1, THE BRIDGE SLOPE MAY NOT MEET CODE REQUIREMENTS



BRIDGE OPTIONS ENLARGED

OPTION	LOCATION	UNDER CONSIDERATION?	RISKS	ADVANTAGES
1A	ALONG SANGER TO GATEWAY WEST SIDE	NO	<ul style="list-style-type: none"> - CITY OF RICHMOND ELECTRICAL VAULT IS IMPACTED - MAY NOT BE ALLOWED BY COR - SANGER BASEMENT WALL WOULD REQUIRE STRENGTHENING - LONG CANTILEVER BETWEEN GATEWAY AND NELSON REQUIRES MORE COMPLEX STRUCTURE - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES RECONFIGURATION OF GATEWAY VALET EXIT - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL - REQUIRES 5 STREET LIGHTS AND ELECTRICAL FEEDS TO BE REMOVED - REQUIRES ABANDONED GAS LINE TO BE REMOVED -REQUIRES SOME RENOVATION IN GATEWAY 	<ul style="list-style-type: none"> + SHORTEST TRAVEL DISTANCE TO GATEWAY AT 284' + GATEWAY IS I2 - NO UPDATE NEEDED + DISTANCE DOES NOT REQUIRE HORIZONTAL EXIT FROM BRIDGE + ALL CHANGES IN ELEVATION WITHIN NEW CONSTRUCTION
1B	ALONG SANGER TO GATEWAY WEST SIDE (MOVE FOR ELECTRICAL VAULT)	YES	<ul style="list-style-type: none"> - LONG CANTILEVER BETWEEN GATEWAY AND NELSON REQUIRES MORE COMPLEX STRUCTURE - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES RECONFIGURATION OF GATEWAY VALET EXIT - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - CITY TRAFFIC APPROVAL IS REQUIRED - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL - REQUIRES 5 STREET LIGHTS AND ELECTRICAL FEEDS TO BE REMOVED - REQUIRES ABANDONED GAS LINE TO BE REMOVED -REQUIRES SOME RENOVATION IN GATEWAY - BRINGS PATIENTS THROUGH PUBLIC WAITING AREA 	<ul style="list-style-type: none"> + SHORTEST TRAVEL DISTANCE TO GATEWAY AT 284' + GATEWAY IS I2 - NO UPDATE NEEDED + DISTANCE DOES NOT REQUIRE HORIZONTAL EXIT FROM BRIDGE + ALL CHANGES IN ELEVATION WITHIN NEW CONSTRUCTION + BULB OUTS SHORTEN CROSSING DISTANCE ACROSS MARSHALL - INCREASED PEDESTRIAN SAFETY
1.5	ALONG SANGER TO GATEWAY CENTER	NO	<ul style="list-style-type: none"> - REMOVED FROM CONSIDERATION AFTER A3 SIGN-OFF CHOOSING OPTION 1 - CONCERN WITH CONSTRUCTING OVER GLASS CANOPY - LONG TRAVEL DISTANCE WITHIN THE BRIDGE - LONG CANTILEVER AT GATEWAY REQUIRES MORE COMPLEX STRUCTURE - DISTANCE REQUIRES HORIZONTAL EXIT FROM BRIDGE - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - CITY TRAFFIC APPROVAL IS REQUIRED - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL - REQUIRES 5 STREET LIGHTS AND ELECTRICAL FEEDS TO BE REMOVED - REQUIRES ABANDONED GAS LINE TO BE REMOVED -REQUIRES SOME RENOVATION IN GATEWAY 	<ul style="list-style-type: none"> + OPPORTUNITY TO SEPARATE TRANSPORT ROUTE FROM WAITING PUBLIC WAITING + MINIMAL GATEWAY L3 RENOVATION + EASIER ACCESS TO PATIENT TRANSPORT ELEVATORS IN GATEWAY + GATEWAY IS I2 - NO UPDATE NEEDED + ALL CHANGES IN ELEVATION WITHIN NEW CONSTRUCTION + BULB OUTS SHORTEN CROSSING DISTANCE ACROSS MARSHALL - INCREASED PEDESTRIAN SAFETY

2	ALONG SANGER TO GATEWAY EAST SIDE AT ELEVATOR LOBBY		<ul style="list-style-type: none"> - REMOVED FROM CONSIDERATION AFTER A3 SIGN-OFF CHOOSING OPTION 1 - CONCERN WITH CONNECTION TO VERY PUBLIC ELEVATOR LOBBY - LIMITED SIDEWALK SPACE FOR COLUMNS - SIGNIFICANT IMPACT TO PEDESTRIAN TRAFFIC AND VALET DROP OFF - INCREASED BRIDGE LENGTH - LONG TRAVEL DISTANCE - REQUIRES HORIZONTAL EXIT FROM BRIDGE - REQUIRES STAND PIPE ON BOTH SIDES OF SEPARATION - LONG CANTILEVER BETWEEN GATEWAY AND NELSON REQUIRES MORE COMPLEX STRUCTURE - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - CITY TRAFFIC APPROVAL IS REQUIRED - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL - REQUIRES 5 STREET LIGHTS AND ELECTRICAL FEEDS TO BE REMOVED 	<ul style="list-style-type: none"> + LONGER DISTANCE PROVIDES GENTLER SLOPES + LIMITED RENOVATION WITHIN GATEWAY + GATEWAY IS I2 - NO UPDATE NEEDED + ALL CHANGES IN ELEVATION WITHIN NEW CONSTRUCTION + BULB OUTS SHORTEN CROSSING DISTANCE ACROSS MARSHALL - INCREASED PEDESTRIAN SAFETY
3	ALONG SANGER ACROSS TO MAIN HOSPITAL	NO	<ul style="list-style-type: none"> - REMOVED FROM CONSIDERATION AFTER A3 SIGN-OFF CHOOSING OPTION 1 - LONGEST BRIDGE LENGTH - LONGEST TRAVEL DISTANCE - REQUIRES HORIZONTAL EXIT FROM BRIDGE - REQUIRES CONNECTION TO GATEWAY AT PUBLIC ELEVATOR LOBBY TO MEET EXITING CODE REQUIREMENTS - LIMITED SIDEWALK SPACE FOR COLUMNS - SIGNIFICANT IMPACT TO PEDESTRIAN TRAFFIC AND VALET DROP OFF - REQUIRES STAND PIPE ON BOTH SIDES OF SEPARATION - ADDITIONAL RENOVATION TO REACH TRANSPORT ELEVATORS - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - CITY TRAFFIC APPROVAL IS REQUIRED - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL - REQUIRES 5 STREET LIGHTS AND ELECTRICAL FEEDS TO BE REMOVED 	<ul style="list-style-type: none"> + LONGER DISTANCE PROVIDES GENTLER SLOPES + GATEWAY AND MAIN ARE I2 - NO UPDATE NEEDED + ALL CHANGES IN ELEVATION WITHIN NEW CONSTRUCTION
4	EXIT CHILDREN'S AT NORTH SIDE ALONG SANGER TO GATEWAY	NO	<ul style="list-style-type: none"> - PLACING FOUNDATION AT CHILDREN'S NORTH SIDE HAS MAJOR SCHEDULE IMPACT - ALL CURRENT CONSTRUCTION WOULD NEED TO BE HALTED UNTIL A NEW DESIGN WAS FINALIZED IN ORDER TO DRILL DEEP FOUNDATIONS AT THE NORTH FACE OF CHILDREN'S HOSPITAL - IMPACTS LAB DESIGN - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - CITY TRAFFIC APPROVAL IS REQUIRED - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL - REQUIRES 5 STREET LIGHTS AND ELECTRICAL FEEDS TO BE REMOVED 	

5	DIAGONAL TO NELSON SOUTH SIDE	NO	<ul style="list-style-type: none"> - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 10TH TO 12TH STREET TO AVOID IMPACTING NELSON BASEMENT WALL - NEW DOMINION VAULT MAY BE IMPACTED BY FOUNDATIONS - GAS LINE TO BE REMOVED - STREET LIGHT AND ELECTRICAL FEED TO BE MOVED - CITY TRAFFIC APPROVAL IS REQUIRED - REQUIRES REPLACEMENT OF TRAFFIC SIGNAL AT MARSHALL AND 11TH 	<ul style="list-style-type: none"> + SHORTEST BRIDGE STRUCTURE + LEAST NUMBER OF COLUMNS AND PIERS
6	ALONG NELSON SOUTH SIDE TO GATEWAY	NO	<ul style="list-style-type: none"> - IT IS NOT STRUCTURALLY POSSIBLE TO SUPPORT THE SEGMENT OF THE BRIDGE GOING BETWEEN NELSON AND SANGER WITHOUT ADDING COLUMNS THROUGH THE GATEWAY BASEMENT - REQUIRES MAJOR RENOVATIONS TO IMAGING SUITE IN GATEWAY BASEMENT TO ADD COLUMNS - MAY REQUIRE STRENGTHENING OF NELSON BASEMENT WALL - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 10TH TO 12TH STREET TO AVOID IMPACTING NELSON BASEMENT WALL - NEW DOMINION VAULT MAY BE IMPACTED BY FOUNDATIONS - REQUIRES REPLACEMENT OF TRAFFIC LIGHT AT MARSHALL AND 11TH 	
7	DIAGONAL TO NELSON WEST SIDE	YES	<ul style="list-style-type: none"> - 12 UPGRADES REQUIRED FOR NELSON ALONG TRAVEL PATH - U TURN AND RAMP REQUIRED TO ACCESS GATEWAY L3 - RELOCATION OF IMAGING EQUIPMENT REQUIRED - POTENTIAL RELOCATION OF CLINICAL SPACES REQUIRED - LONGER TRAVEL DISTANCE THAN GATEWAY OPTION - REQUIRES GAS LINE TO BE MOVED - REQUIRES DUCT BANK TO BE MOVED - REQUIRES STREET LIGHT AND ELECTRICAL FEED TO BE MOVED - REQUIRES REPLACEMENT OF TRAFFIC LIGHT AT MARSHALL AND 11TH - CITY TRAFFIC APPROVAL REQUIRED - CURB MODIFICATION AND REDUCTION OF 11TH STREET 	<ul style="list-style-type: none"> + SHORTEST BRIDGE STRUCTURE + LEAST NUMBER OF COLUMNS AND PIERS + SIMPLIFIES STRUCTURAL SUPPORT SYSTEM + RELATIVELY LITTLE UTILITY LOCATION/REMOVAL + BULB OUT ON 11TH STREET DOES NOT AFFECT CURRENT TRAFFIC PATTERNS + BULB OUT SHORTENS CROSSING DISTANCE INCREASING PEDESTRIAN SAFETY
8A	L-SHAPED TO NELSON WEST SIDE	YES	<ul style="list-style-type: none"> - 12 UPGRADES REQUIRED FOR NELSON ALONG TRAVEL PATH - U TURN AND RAMP REQUIRED TO ACCESS GATEWAY L3 - RELOCATION OF IMAGING EQUIPMENT REQUIRED - POTENTIAL RELOCATION OF CLINICAL SPACES REQUIRED - LONGER TRAVEL DISTANCE THAN GATEWAY OPTION - REQUIRES GAS LINE TO BE MOVED - REQUIRES 2 DUCT BANKS TO BE MOVED - REQUIRES 2 STREET LIGHTS AND ELECTRICAL FEEDS TO BE MOVED - REQUIRES REPLACEMENT OF TRAFFIC LIGHT AT MARSHALL AND 11TH - CITY TRAFFIC APPROVAL REQUIRED - CURB MODIFICATION AND REDUCTION OF 11TH STREET 	<ul style="list-style-type: none"> + SECOND SHORTEST BRIDGE STRUCTURE + SECOND LEAST NUMBER OF COLUMNS AND PIERS + SIMPLIFIES STRUCTURAL SUPPORT SYSTEM + LEAST UTILITY LOCATION/REMOVAL + BULB OUT ON 11TH STREET DOES NOT AFFECT CURRENT TRAFFIC PATTERNS + BULB OUT SHORTENS CROSSING DISTANCE INCREASING PEDESTRIAN SAFETY + OPPORTUNITY FOR A GATEWAY ENTRANCE TO THE CAMPUS AND LOCATION FOR DIRECTIONAL SIGNAGE

8B	KINKED L-SHAPED TO NELSON WEST SIDE	NO	<ul style="list-style-type: none"> - 12 UPGRADES REQUIRED FOR NELSON ALONG TRAVEL PATH - U TURN AND RAMP REQUIRED TO ACCESS GATEWAY L3 - RELOCATION OF IMAGING EQUIPMENT REQUIRED - POTENTIAL RELOCATION OF CLINICAL SPACES REQUIRED - COLUMN LOCATION AT CORNER OF MARSHALL AND 11TH CONFLICTS WITH PEDESTRIAN CROSSING - LONGER TRAVEL DISTANCE THAN GATEWAY OPTION - BRIDGE PLACEMENT NEAR HISTORIC PUTNEY HOUSE, POSSIBLE IMPACT TO FENCE AND VISUALS - REQUIRES GAS LINE TO BE MOVED - REQUIRES 2 DUCT BANKS TO BE MOVED - REQUIRES 2 STREET LIGHTS AND ELECTRICAL FEEDS TO BE MOVED - REQUIRES REPLACEMENT OF TRAFFIC LIGHT AT MARSHALL AND 11TH 	<ul style="list-style-type: none"> + SECOND SHORTEST BRIDGE STRUCTURE + SECOND LEAST NUMBER OF COLUMNS AND PIERS + SIMPLIFIES STRUCTURAL SUPPORT SYSTEM + BULB OUT ON 11TH STREET DOES NOT AFFECT CURRENT TRAFFIC PATTERNS + BULB OUT SHORTENS CROSSING DISTANCE INCREASING PEDESTRIAN SAFETY + OPPORTUNITY FOR A GATEWAY ENTRANCE TO THE CAMPUS AND LOCATION FOR DIRECTIONAL SIGNAGE
9	CONNECT TO NELSON/SANGER BRIDGE	NO	<ul style="list-style-type: none"> - REMOVED FROM CONSIDERATION AFTER A3 LEVELS SIGN-OFF - ELEVATION OF EXISTING BRIDGE DOES NOT LINE UP WITH STACKING OF CHILDREN'S HOSPITAL - WOULD REQUIRE PARKING TO BE REMOVED FROM LEVEL P1. NO REWORK OF EXISTING PARKING RAMP - REQUIRES LIFE SAFETY UPGRADES TO SANGER NELSON BRIDGE - CONNECTING INTO A RAMP MAY NOT MEET CODE REQUIRED ADA SLOPES WITHOUT STRUCTURAL MODIFICATION OF THE EXISTING BRIDGE - 12 UPGRADES REQUIRED FOR NELSON - PASSES DIRECTLY IN FRONT OF SANGER HALL - REQUIRES REDUCTION OF MARSHALL STREET WIDTH FROM 11TH TO 12TH STREET - REQUIRES REPLACEMENT OF THE TRAFFIC SIGNAL AT MARSHALL AND 11TH - IMPACT TO PRIMARY ELECTRICAL LINE RUNNING ALONG MARSHALL 	