City Of Harrisonburg, Virginia

MAIN STREET STREETSCAPE

(Phase 2)

VDOT PROJECT # EN12-115-233 P101, C501
UPC # 103587

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	TEA-5113(183)	11	EN12-115-233 P101,C501	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
URBAN MINOR ARTERIAL (GS-6) - ROLLING - 30 MPH DESIGN SPEED	
Main Street	Fr: Bruce St. To: Wolfe St.
ADT (2012)	6,000
ADT (2034)	8,500
DHV	790
D (%) (design hour)	100%
T (%) (design hour)	3%
V (MPH)	30

Final Plans
April 25, 2014

MAYOR ..... TED BYRD
CITY MANAGER ..... KURT HODGEN
CITY ENGINEER ..... DANIEL J. RUBLEE
DIRECTOR OF PUBLIC WORKS ..... JAMES D. BAKER
DIRECTOR OF PUBLIC UTILITIES ... A. MICHAEL COLLINS

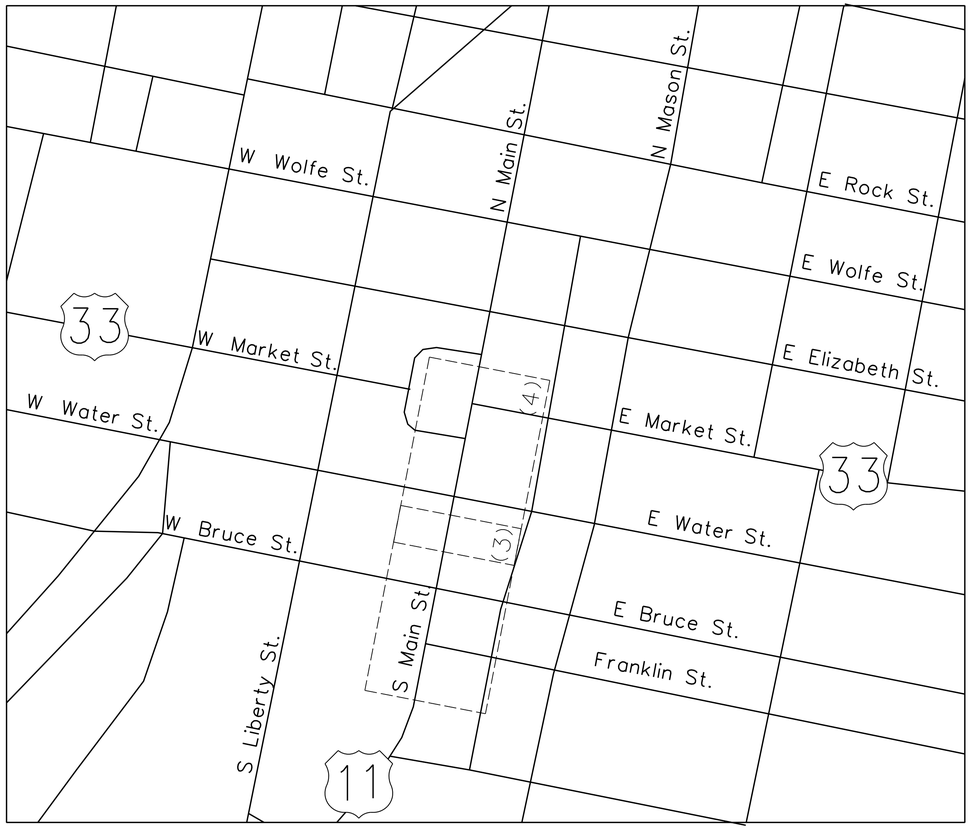
LEGEND

CITY,TOWN OR VILLAGE
RIGHT OF WAY LINE
FENCE LINE
PROPERTY LINE
EXISTING SHOULDER LINE (SH)
WATER LINE (W)
SANITARY SEWER LINE (S)
GAS LINE (G)
ELECTRIC UNDERGROUND CABLE (UG)
ELECTRIC OVER HEAD CABLE (OH)
OVERHEAD UTILITY CABLE (OU)
GUARD RAIL
BASE OR SURVEY LINE (30, 30-50)
CULVERTS
DROP INLET
TELEPHONE OR POWER POLES
HEDGE
TREES
HEAVY WOODS
WATERS OF THE U.S. (WUS)

(TFB) Denotes Temporary Filter Barrier
(TSF) Denotes Temporary Silt Fence
(TDC) Denotes Temporary Diversion Channel
(DD) Denotes Temporary Diversion Dike
(ST) Denotes Temporary Silt Trap
Denotes Rock Check Dam, Type I
Denotes Rock Check Dam, Type II
(CIP) Denotes Culvert Inlet Protection
(DIST) Denotes Drop Inlet Silt Trap
Denotes Existing Contours
Denotes Proposed Contours
Denotes Construction Limits in Cuts
Denotes Construction Limits in Fills
Denotes Proposed Right of Way
Denotes Temporary Construction Easements
Denotes Permanent Drainage Easements
Denotes Permanent Utility Easements
Denotes Proposed Stamped Asphalt
Denotes Proposed Brick Pavers
Denotes Resurfacing

"NIC" denotes not in contract

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH VDOT'S ROAD AND BRIDGE SPECIFICATIONS, VDOT'S ROAD AND BRIDGE STANDARDS, THE CITY OF HARRISONBURG DESIGN AND CONSTRUCTION STANDARDS MANUAL, AND VDOT'S WORK AREA PROTECTION MANUAL, ALL LATEST EDITIONS, AND AS AMENDED BY THE CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC TIF VERSION OF THE PLAN ASSEMBLY.



NOT TO SCALE

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7(1) - 7(5)	TRAFFIC SIGNAL PLANS
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9(A) - 9(C)	SIGN AND PAVEMENT MARKING
10(1) - 10(4)	E&S - GRADE PLAN

RECOMMEND FOR FEDERAL AUTHORIZATION TO ADVERTISE	
DATE	DIRECTOR OF PUBLIC WORKS, CITY OF HARRISONBURG

COMMONWEALTH OF VIRGINIA
RICK JAMES DeLONG
Lic. No. 031642
4/25/14
PROFESSIONAL ENGINEER

McCormick Taylor
Engineers & Planners Since 1946

BM	Northing	Easting	Elevation	Description
A	284758.804	1894292.790	1317.40	Chiseled Square
B	285542.203	1894451.545	1337.09	Chiseled Square
C	285326.641	1893834.108	1315.82	RR Spike

TR	Northing	Easting	Elevation	Description
101	285395.126	1893262.254	1343.50	CP#28
102	285243.726	1894116.249	1319.77	CP#29
103	284434.616	1894187.948	1315.52	CP#11
104	284578.206	1894260.067	1317.58	CP#14
105	284712.767	1894280.834	1317.25	CP#13
106	284712.026	1894285.510	1317.48	CP#3
107	284812.552	1894305.954	1316.96	CP#2
108	284811.679	1894317.082	1317.47	CP#10
109	285027.592	1894314.496	1318.70	CP#9
110	284989.176	1894343.782	1317.66	CP#1
111	285170.312	1894379.279	1321.63	CP#5
112	285336.828	1894413.986	1328.83	CP#6
113	285452.976	1894437.312	1334.25	CP#7
114	285551.352	1894459.937	1337.08	CP#8
115	285597.095	1894426.221	1337.44	CP#12
116	285009.640	1894665.953	1322.60	CP No#
300	285073.896	1894184.156	1317.17	Bridge Spike
301	285181.196	1894099.258	1317.51	Brick Nail
302	285243.732	1894116.239	1319.84	Disk #102
303	285389.529	1894153.527	1325.43	PK Nail
304	285373.365	1894417.432	1330.60	PK Nail
305	285741.864	1894456.647	1334.15	PK Nail
306	285903.071	1894568.647	1329.48	PK Nail
307	285273.865	1893860.539	1315.88	PK Nail
308	285338.037	1893791.961	1315.77	PK Nail
309	284429.779	1894171.661	1315.28	Bridge Spike

LEGEND

SYMBOL	ABBR.	DESCRIPTION
△	Trav.	Traverse Point
	GPS	GPS Control
	BM	Benchmark
N90°00'00"W	SBL	Survey Baseline
		Bridge
	EP	Edge of Pavement
		Edge of Driveway
	C&G	Curb / Curb and Gutter
		Shoulder of Road
Solid White Line		Pavement Striping / Marking
		Public Sidewalks
		Private Walks
		Steps
	Bldg.	Building, Roof line, Porch
		Fence
		Cemetery Boundary with Grave Markers
		Woods Line
		Shrub Line
		Tree, Shrub
		Miscellaneous Landscape Features
		Walls
		Signs
○	BP	Bollard Posts, Posts
✚		Yard Lights
M		Mail Box
		Flag
		Guardrail
		Jersey Barrier
		Hydrology Features
		Conc. V-Ditch, Paved Ditches
	MH, DI	Storm Manhole, Drop Inlet
	RCP,CMP,CPP	Reinforced Concrete Pipe, Corrugated Metal Pipe, Corrugated Plastic Pipe
		Drain Field
		Railroad Tracks
		Railroad Mile Post
		Railroad Signal Pole, Railroad Utility Pole
Existing R/W	R/W	Right of Way Line
		Right of Way Pin, Right of Way Monument
		Property Line
Z		Connected Property Symbol
	IRF, IPF	Iron Rod Found, Iron Pipe Found Property Monument
		State Boundary
		County Boundary
		City Boundary
	L/A	Limited Access Easement
		Permanent Easement
		Temporary Easement
		Drainage Easement
		Utility Easement
100		Index Contour
99		Interval Contour
× 101.5		Spot Shot
WL		Wetland Boundary
AB200		Wetland Flagging
		Test Hole, Bore Hole, Boring

UTILITY LEGEND

SYMBOL	ABBR.	DESCRIPTION
W		Water Line
W Duct		Water Line Duct
	WV	Water Valve
	WM	Water Meter
W		Water Manhole
	FH	Fire Hydrant
CATV		Underground Television Cable
CTV Duct		Underground Television Cable Duct
CTV FO		Fiber Optic Cable Television
		Television Hand Hole
		Television Pedestal
	MH	TV Manhole
Tele		Underground Telephone Cable
Tele Duct		Underground Telephone Cable Duct
Tel FO		Telephone Fiber Optic
FO		Underground Fiber Optic
FO Duct		Underground Fiber Optic Duct
		Fiber Optic Marker
T		Telephone Pedestal
T	MH	Telephone Manhole
●	TP	Telephone Pole
		Telephone Hand Hole
Traf		Underground Traffic Control
Tr Duct		Underground Traffic Control Duct
Tr FO		Traffic Control Fiber Optic
	HH	Traffic Control Hand Hole
TC	MH	Traffic Control Manhole
		Traffic Signal Pole
E	Elec	Underground Power Cable
E Duct		Underground Power Cable Duct
	PP	Power Pole
E		Electric Box
E		Electric Manhole
	LP	Light Pole
		Electric Meter
		Electric Hand Hole
G		Gas Line
G Duct		Gas Line Duct
G	MH	Gas Manhole
	GV	Gas Valve
		Gas Meter
GT		Gas Test
		Gas Well
SFM		Sanitary Force Main
S		Gravity Sewer
S	MH	Sanitary Manhole
	SCO	Sewer Clean Out
	SPRK	Irrigation Sprinkler
	IRRV	Irrigation Control Valve
←		Utility Continues
E		Utility End Point
FUEL		Fuel Line (above or below ground)
Unk	UNK	Unknown Utility Line
(DATUR)		Depicted According To Utility Records
(AATUR)		Abandoned According To Utility Records
(AATFI)		Abandoned According To Field Inspection

Survey of

MAIN STREET STREETSCAPE PROJECT

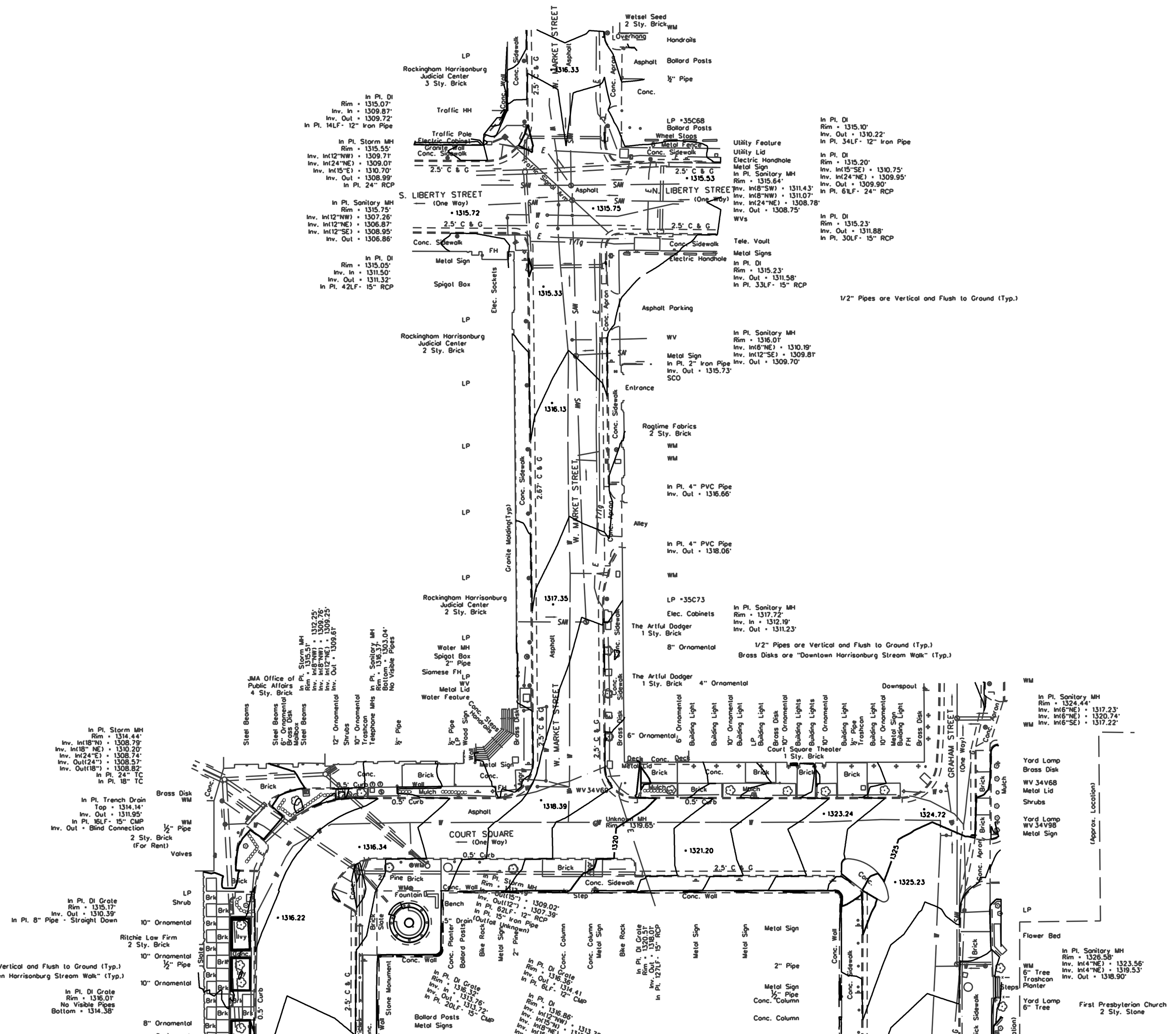
CITY OF HARRISONBURG, VIRGINIA
FOR McCormick Taylor, Inc.

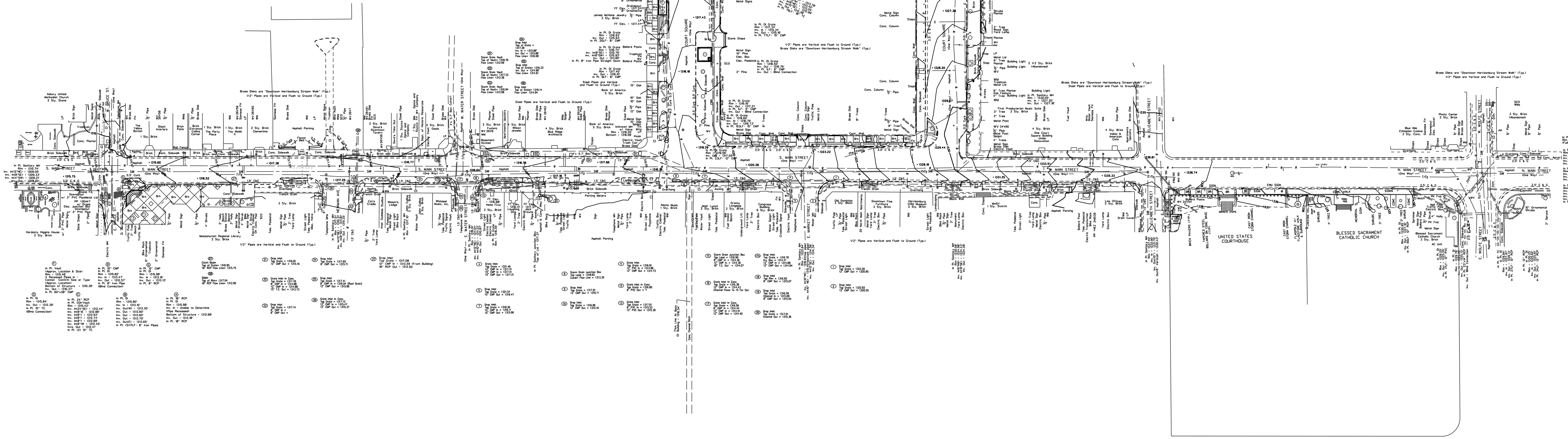
nxl | Engineers, Surveyors
Construction Managers
114 east cary street, suite 200
richmond, virginia 23219
(804) 644-4600

HORIZONTAL DATUM: Base on Existing Survey Control per Mattern & Craig Survey File

VERTICAL DATUM: Base on Existing Survey Control per Mattern & Craig Survey File

FILE NAME		DATE	JOB NO.	PM/CAD
NAME: MainStreet-Srv.dgn		Jan. 6, 2011	1010078T	DJ/CPN
REVISION:			DATE:	





McCormick Taylor Engineers & Planners Since 1946	REV	DATE	DESCRIPTION	BY	SCALE: 1"=60'		MAINSTREET STREETSCAPE (PHASE 2)	SHEET
					DRAWN BY	DATE		1A
					MDL		SURVEY ALIGNMENT	
					CHECKED BY	DATE		
					RJD			
					DESIGN BY	DATE	DEPT. OF PUBLIC WORKS CITY OF HARRISONBURG 320 EAST MOSBY ROAD HARRISONBURG, VIRGINIA	
					MDL			
					TAX MAP			

HARRISONBURG CITY GENERAL NOTES

1. Work in this project shall conform to the latest editions of the Virginia Department of Transportations (VDOT) Road and Bridge Specifications, the VDOT Road and Bridge Standards, the Virginia Erosion and Sediment Control Handbook, the Virginia Erosion and Sediment Control Regulations, the Virginia Stormwater Management Handbook, the Virginia Stormwater Management Regulations and the City of Harrisonburg Design and Construction Standards Manual. In the event of conflict between any of these standards, specifications or plans, the most stringent shall govern. All utilities to be dedicated to the City of Harrisonburg Municipal Water and/or Sanitary Sewer System shall be constructed and tested to conform to Commonwealth of Virginia/State Board of Health Waterworks and/or Sewerage Regulations and the City of Harrisonburg Design and Construction Standards Manual.
2. Erosion and Sediment control measures shall be maintained continuously relocated when and as necessary and shall be checked after every rainfall. Seeded areas shall be checked regularly and shall be watered, fertilized, reseeded and mulched as necessary to obtain a dense stand of grass.
3. All drain inlets shall be protected from silitation. Ineffective protection devices shall be immediately replaced and the inlet cleaned. Flushing is not an acceptable method of cleaning.
4. When the crushed stone construction entrance has been covered with soil or has been pushed into the soil by construction traffic, it shall be replaced with a depth of stone equal to that of original application.
5. The location of existing utilities as shown is approximate only. The contractor is responsible for locating all public or private utilities that lie in or adjacent to the construction site. The contractor shall be responsible for repairing, at his expense, all existing utilities damaged during construction. Forty-eight (48) hours prior to any excavation call Miss Utility 1 (800) 552-7001.
6. All underground facilities located within the City's rights-of-way shall be installed prior to the placement of any part of the pavement structure.
7. Installation of concrete storm pipe shall comply with VDOT Standard Drawing PB-1.
8. All materials used for fill or back-fill shall be free of wood, roots, rocks, boulders or any other non-compactable soil type material. Unsatisfactory materials also include man-made fills and refuse debris derived from any source.
9. Satisfactory material for use as fill for public streets include material classified in ASTM D-2487 as GW, GP, GM, GC, SW, SP, SM, SC, 2-25 ML, and CL groups. The moisture content shall be controlled within plus or minus 2 percentage points of optimum to facilitate compaction. Generally, unsatisfactory materials include materials classified in ASTM D-2487 as PT, CH, MH, OL, OH, and any soil too wet to facilitate compaction. CH and MH soils may be used subject to approval of the City Engineer. Soils shall have a minimum dry density of 92lb/cubic foot per ASTM D-698 and shall have a plasticity index less than 12.
10. Compaction of fill material under building slabs shall be based upon recommendations of soils engineer after completion of standard Proctor test and shall meet bearing requirements of architect for buildings. The contractor shall be responsible for testing.
11. Materials used to construct embankments for any purpose, back-fill around drainage structures or in utility trenches or any other depression requiring fill or back-fill shall be compacted to 95% of maximum density as determined by the standard Proctor test as set out in ASTM standard D-698. The contractor shall, prior to any operations involving filling or backfilling, submit the result of the Proctor test to the city's on-site inspector together with a certification that the soil tested in representative of the materials to be used on the project. Tests shall be conducted by a certified materials testing laboratory and the certifications made by a licensed professional engineer representing the laboratory.
12. Certifications for materials including, but not limited to stone, concrete, pipes, precast units, handrails, stabilization mats, traffic signal items, must be provided to the City's on-site inspector and approved by the inspector prior to installation. See Inspector for Materials Certification Checklist.
13. Embankment fill and trench back-fill shall be placed in lifts at a maximum uncompacted depth of 8-inches and 6-inches, respectively. Density tests shall be conducted at the following minimum frequencies:
    (a) Embankment for roads, streets, dams, etc.: One test per lift per 10,000 square feet of lift.
    (b) Back-fill around structures and in trenches: One test per lift per 500 lineal feet of trench.
14. Compaction tests for street pavement structure shall be made in cut and fill areas at the following minimum frequencies:
    (a) Sub-Grade: One test per lane per 500 lineal feet.
    (b) Stone Base: One test per lane per 6' compacted lift per 500 lineal feet.
    (c) Hot Asphaltic Concrete: One test per lane per lift per 500 lineal feet.
15. All excavations, including trenches, shall be kept dry to protect their integrity.
16. Test results shall be submitted to the City Engineer. Failure to conduct density tests and submit test results shall be cause for nonacceptance of the facility. Tests shall be conducted at the sole cost of the developer or his agent.
17. Standard UD-1 and UD-3 under-drains shall be installed where indicated on plans or further where determined necessary in the field by the City inspectors.
18. City inspectors have full authority to reject fill or backfill materials, require undercutting or sub grade stabilization, require provisions for sub drainage, or require other measures which affect the integrity of road and utility construction. Failure to comply with inspectors' directives shall be cause for non-acceptance of the facility.
19. Traffic control on public streets shall be in conformance with the Manual of Uniform Traffic Control Devices and as further directed by City Inspectors. City Inspectors must be notified 24-hours in advance of any planned work or activity in city right-of-way that requires flagging, lane closure or street closure. All signage and other control devices shall be in place before such activities can commence.
20. Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in drawings or specifications shall be immediately reported to the engineer, in writing, who shall promptly address such inconsistencies or ambiguities. Work done by the contractor after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the contractor's risk.
21. A preconstruction conference shall be held prior to the start of construction. The contractor shall arrange the meeting with the City P.W. Engineer.
22. If Traffic Signal plans have been revised or changed since approval, the contractor must provide to the Director of Public Works as-built drawings reflecting changes. Provision of as-built drawings is a condition of bond release.
23. Existing DI structures are to remain in place and shall not be disturbed.

GENERAL PROJECT NOTES

1. Existing DI structures are to remain in place and shall not be disturbed except as noted.
2. Contractor responsible to adjust all meter lids, valve covers, manhole tops, and junction box tops as needed.
3. Contractor shall not disturb underground storm vault from Eilzabeth St. to S. Court Sq. vault shall be protected from damage at all times during demolition and construction.
4. Contractor shall be responsible to remove old meter pipe and foundations, abandoned service lines, and piping found under the old sidewalk as part of the demolition cost.
5. Existing stream medallions in sidewalk shall be removed and returned to the City Dept. of public works.

WATER AND SEWER SERVICE NOTES

1. Contractor shall verify the material type of all water and sewer service lines and report them to the City Inspector. All Orangeburg services shall be reported to the City Public Utility Department and replaced per City standards in the presence of a City Inspector. Terracotta service laterals shall not be disturbed.

2. Miss Utility locations of water and sewer mains and services are approximate only. Vertical and horizontal field verifications of existing mains and services shall be completed by contractor. Field verification excavations can be performed by the contractor or City Forces upon execution of an AGREEMENT TO PERFORM WORK AT COST and scheduling availability.

3. Contractor is responsible throughout the project to take the necessary precautions to prevent the freezing of water mains and services. Contractor shall be responsible for all damage and claims for damage that results from freezing due to his work.

4. Contractor shall adjust all existing valve boxes, meter boxes, manholes, etc. to finish grade.

5. All valve boxes shall be kept free from all stone, soil or other debris from the bottom of the valve nut to finish grade. The valve nut must be visible and centered in the box at final inspection. Contractor shall be responsible for excavating, cleaning and resetting valve boxes which do not meet this criteria, at no additional cost to the owner. Valve wrench test, set on nut and be able to turn 360 degrees without valve box conflict.

UTILITY OWNERS

WATER & SEWER
City of Harrisonburg
Attn: Marilyn Hartman (Field Contact)
1-540-434-9959
In the event of damage, call:
1-540-434-9959

City of Harrisonburg
Attn: Glen Baldwin (Field Contact)
1-540-434-5928
In the event of damage, call:
1-540-434-5928

ELECTRICITY
Harrisonburg Electric
Attn: Brian O'Dell (Field Contact)
1-540-434-5361
In the event of damage, call:
1-540-434-5363
COLUMBIA GAS
Attn: UTILIQUEST
1-703-754-2116
In the event of damage, call:
1-800-544-5606

TELEPHONE / CABLE
Verizon
Attn: Dean Rasmussen (Field Contact)
1-434-942-8192
In the event of damage, call:
1-877-562-2253

COMCAST
800-266-2278
Field Contact: USIC Locating Service
800-778-9140
Emergency/Damage: 800-441-6917 Ext. 1

EROSION CONTROL NOTES

1. Erosion and sediment control measures shall be installed and maintained in accordance with the Virginia erosion and sediment control handbook. They shall be maintained continuously, relocated when and as necessary, and shall be checked after every rainfall. Seeded areas shall be checked regularly and shall be watered, fertilized, reseeded and mulched as necessary to obtain a dense stand of grass.

2. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denude areas that may not be at final grade but will remain dormant (undisturbed) for longer than 30 days.

3. During construction of the project, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The contractor is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.

4. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered until a ground cover is achieved that, in the opinion of the City Erosion Control Administrator or his designated agent, is uniform, mature enough to survive and will inhibit erosion.

5. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land disturbing activity and shall be made functional before upslope land disturbance takes place.

6. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
    A. No more than 500 linear feet of trench may be opened at one time.
    B. Excavated material shall be placed on the uphill side of trenches.
    C. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.
    D. Restabilization shall be accomplished in accordance with the contract documents.
    E. Applicable safety regulations shall be complied with.

7. Where construction vehicle access routes intersect paved public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a public road surface, the road shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner.

8. All unstabilized areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved.

9. The contractor is responsible for installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the City Erosion Control Administrator.

10. Stabilization measures shall be applied to earthen structures such as dams, dikes, and diversions immediately after installation.

11. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the City Erosion Control Administrator. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

12. During dewatering operations, water shall be pumped into an approved filtering device.

DRAINAGE NOTES

1. The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If, during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the storm sewer outfall pipe is to be placed, the Contractor shall notify, and get approval from, the Engineer before installing the storm sewer outfall pipe.

2. The "H" dimensions shown on the plans for drop inlets and junction boxes and the "L.F. (m)" dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F. (m)" dimensions are to be determined by the contractor from field conditions.

3. All drainage pipe on this project shall be concrete. For strength, sheet thickness, or class designation, available sizes, height of cover limitations and other restrictions for a particular pipe type or height of cover, see the applicable sections of the VDOT Road and Bridge Standards PC-1.

4. Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified.

5. When Standard CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

DEMOLITION / RELOCATION NOTES

1. Unless a separate pay item is listed, cost for removal of an item is included in the contract unit price for the corresponding new item.

2. Temporary and permanent relocation of all signs and mailboxes in project area shall be performed in accordance with section 104.05 of the VDOT standard specifications. Contractor shall consider that all re-installed signs must meet MUTCD height standards regardless of height of existing sign.

3. Remove all curb and gutter, entrance gutter and concrete entrances within project area as necessary to construct new entrances, sidewalk, and curb and gutter per plans.

4. Refer to water and sewer requirements for information on relocating and adjusting water and sewer facilities.

5. Contractor responsible for storing existing signs removed during construction for reinstallation.

McCormick Taylor
Engineers & Planners Since 1946

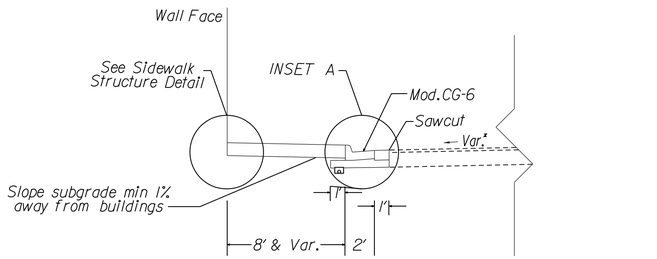
REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY DATE: JRD
CHECKED BY DATE: RJD
DESIGN BY DATE: JRD
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)
CITY GENERAL NOTES & DETAILS
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 2

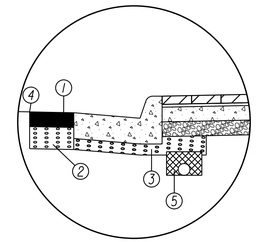
S. Main Street

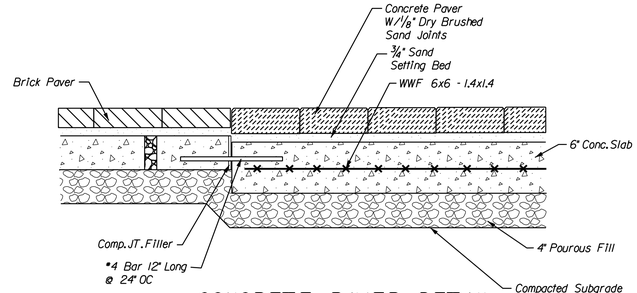


STATION 9+80.82 TO STATION 16+83.72

INSET A

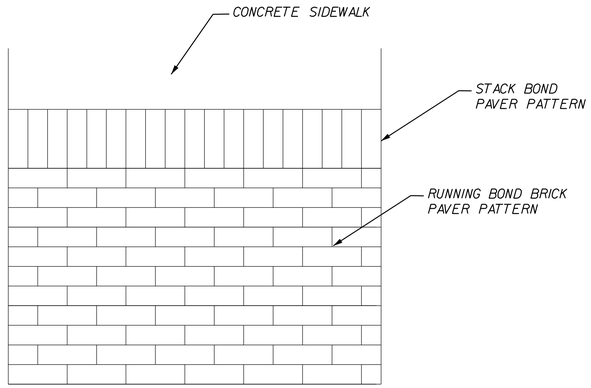
1. 5" Asphalt Concrete Base Course Type BM-25.0
2. 6" Aggregate Base Material Type I No.21-A
3. Variable Depth Aggregate Base Material Type I No.21-A (Beneath Curb & Gutter)
4. Sawcut (Cost shall be included with linear cost of curb)
5. MOD UD-4 Req'd (Unit cost shall include connection to drainage structures)





CONCRETE PAVER DETAIL

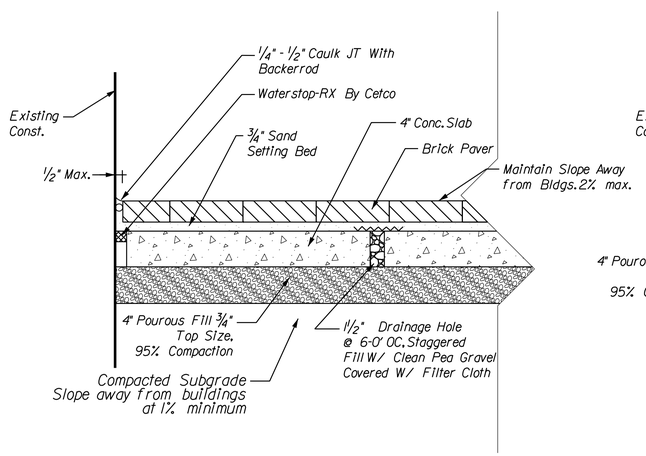
Concrete Pavers - Architectural Prest Standard Concrete Brick Pavers. Quarry RedColor MFR. By Hanover Architectural Products of Hanover, PA. Size 3"x4"x8".



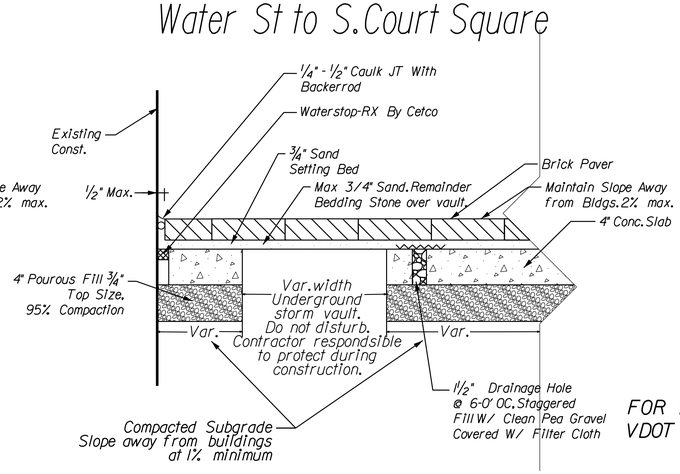
STREETSCAPE NOTES

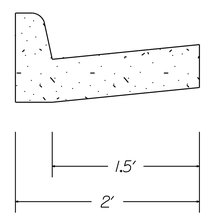
1. Sidewalk Brick Pavers - Pine Hall Standard 2 1/4"x4"x8" square edge paving brick. Mix Pine Hall Pathway Full range Bricks with Pine Hall Rosewood Full range bricks in a ratio of 3 Pathway to 1 Rosewood. Avoid setting more than 2 Rosewood style bricks together.
2. Contractor responsible to restore existing brick pavers to previous condition were they are disturbed or removed for signal, ped, pole, and junction box installation.

Std. Sidewalk Structure Detail



Sidewalk Structure Detail Water St to S. Court Square





MODIFIED CG-6 (MAIN ST. ONLY)

FOR DETAILS NOT SHOWN SEE ST'D CG-6 VDOT ROAD AND BRIDGE STANDARDS.

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY ALD DATE
CHECKED BY RJD DATE
DESIGN BY JRD DATE
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)

TYPICAL SECTIONS

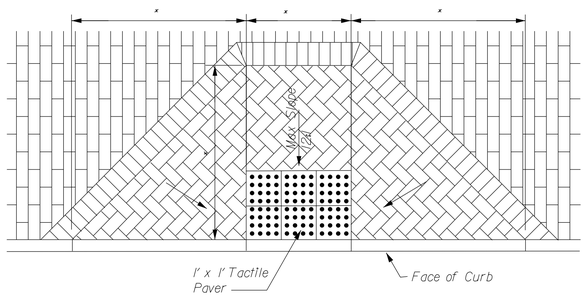
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 2A

STREETSCAPE NOTES

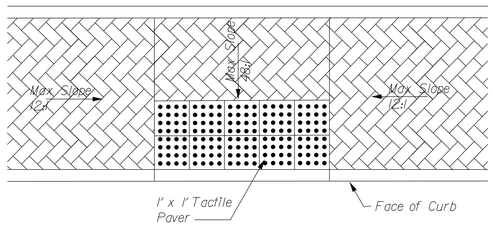
(1) Tactile Pavers - Hanover Detectable Warning Paver 11¾"x11¾".Red 15.

Curb Ramp Detail



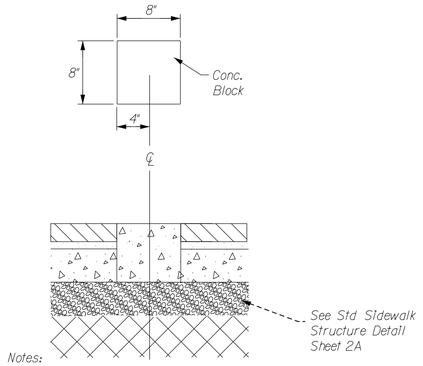
* See Plans for Dimensions

Parallel Curb Ramp Detail



* See Plans for Dimensions

Bike Rack Anchor Detail

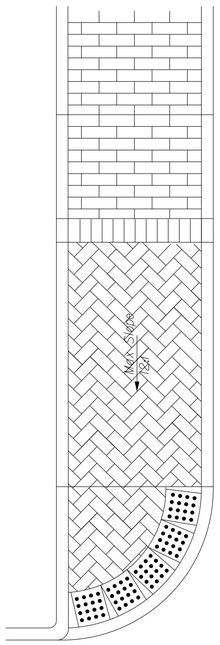


Notes:

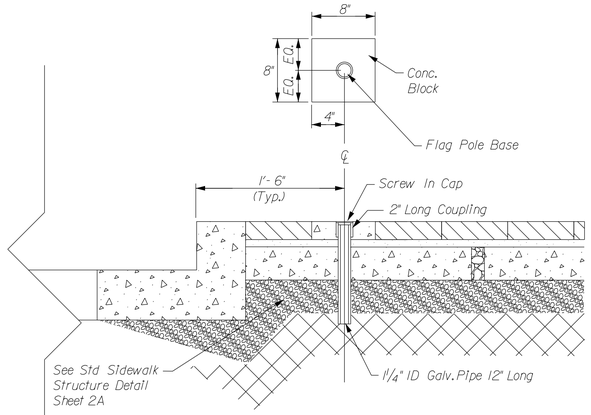
Use 1/2" x 8" all-thread (threaded steel rod),epoxied it into the base material.
Leave exposed threads above the finish grade of the anchor block.
Install the nuts and trim off any excess.

Diagonal Curb Ramp Detail

* See Plans for Dimensions



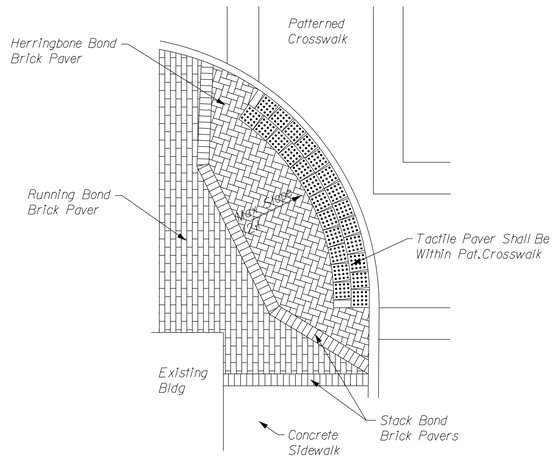
Flag Detail



(1) Flag pole bases to be spaced every 200' between Bruce Street and Water Street, and Elizabeth Street to Wolfe Street.

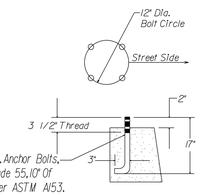
(2) No flag poles between Water Street and S.Court Square.

Corner Curb Ramp Detail



See Plans for Dimensions

Light Pole Base Bolt Pattern Detail



(4) 3/4"-10NC Galv.Stl.Anchor Bolts, AASHTO M314-90 Grade 55,10" Of Threaded End Galv.Per ASTM A153.

(4) 3/4"-10NC Galv.Stl.Hex.Nuts

(4) 3/4" Galv.Stl.Lockwashers

(4) 3/4" Galv.Stl.Flatwashers

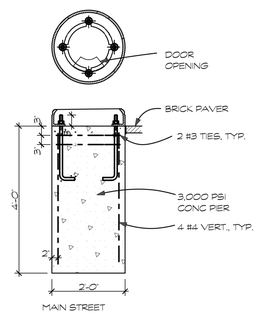
(1) Contractor shall coordinate with HEC to turn off the power to the existing light poles.

(2) Contractor shall install light pole foundations utilizing existing conduit.HEC will install light poles at completion of project.

(3) Reuse conduit where ever able.

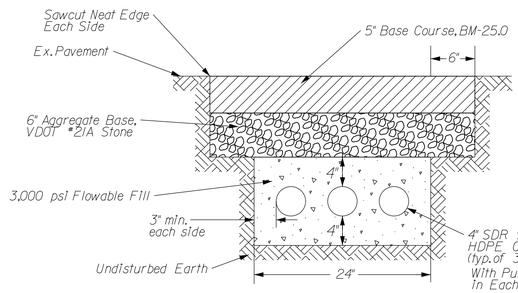
(4) City and Contractor to coordinate with HEC on Electrical Conduit.

Light Pole Base Foundation Detail

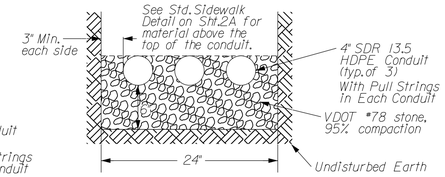


Utility Duct Bank Layout Details

(Not to Scale)



Conduit Under Pavement



Conduit Under Sidewalk

Conduit Notes:
1.Minimum separation between conduits shall be 2".
2.Provide Duct Spacers for Conduit arrangement shown above.Spacers shall be placed every 5 feet.
3.Use long radius bends as necessary.
4.Each conduit shall include pull strings.
5.Conduit unit cost includes all three conduits.
6.Trench excavation cost includes saw cutting and back fill components included in detail.

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY DATE: JRD
CHECKED BY DATE: RJD
DESIGN BY DATE: JRD
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)

NOTES, & DETAILS

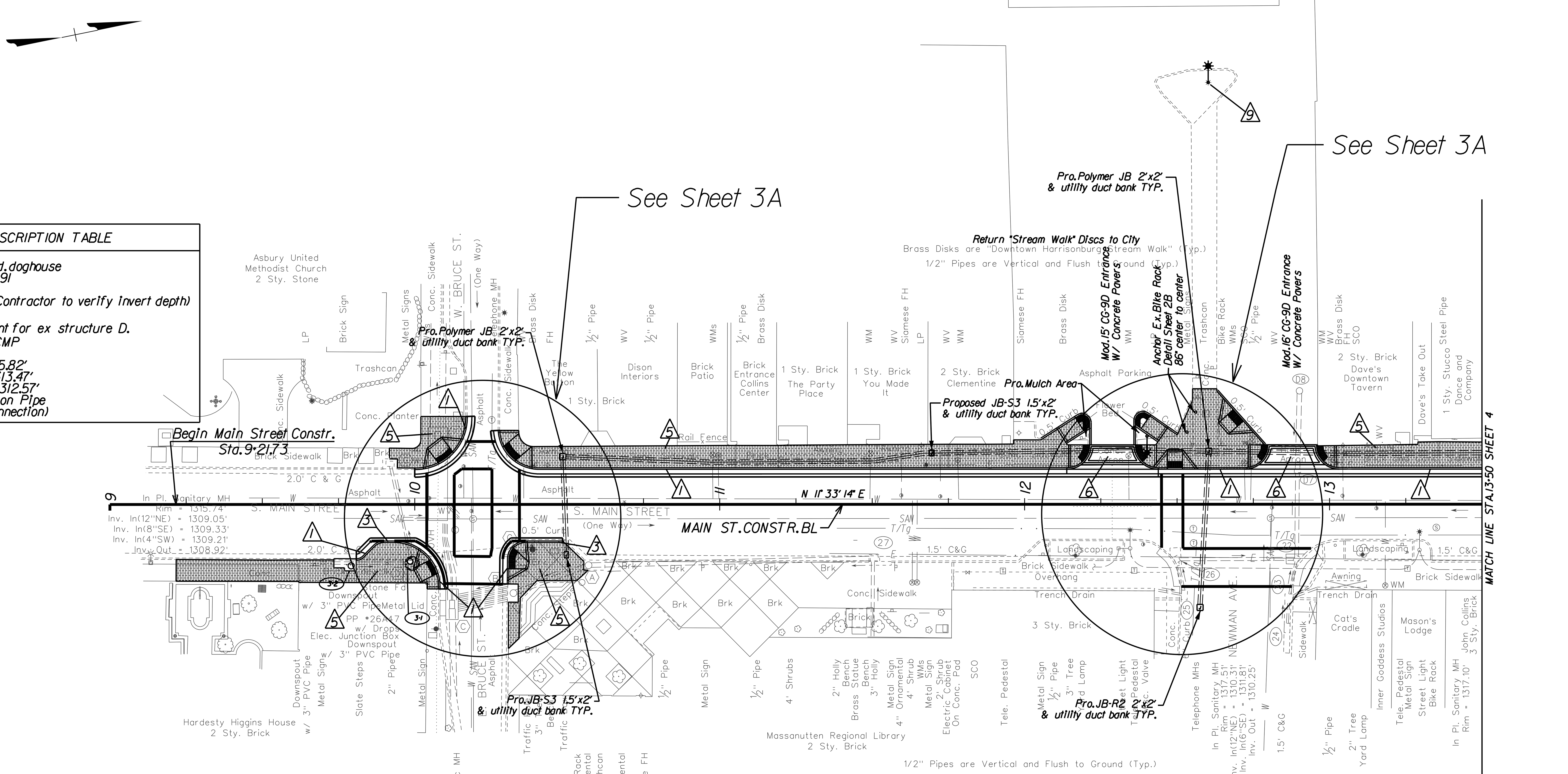
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 2B

DRAINAGE DESCRIPTION TABLE

(3-2) *DI-3B, mod. doghouse*
TOP: 1315.91
L=6'
H=2.25 (Contractor to verify invert depth)

(3-1) *MH-1, mod.*
Repacement for ex structure D.
In Pl. 10" CMP
In Pl. DI
Rim = 1315.82'
Inv. In = 1313.47'
Inv. Out = 1312.57'
In Pl. 8" Iron Pipe
(Blind Connection)



⟨F⟩
In Pl. Vault
(Approx. Location & Size)
Rim = 1315.46'
4 Recessed Pipes In -
Cannot Confirm Size or Type
(Approx. Location)
Bottom of Structure = 1310.39'
Inv. Out = 1310.37'
In Pl. 60"x38" CMP

⟨D⟩
In Pl. 10" CMP
In Pl. DI
Rim = 1315.82'
Inv. In = 1313.47'
Inv. Out = 1312.57'
In Pl. 8" Iron Pipe
(Blind Connection)

⟨G⟩
In Pl. 12" CMP
In Pl. DI
Rim = 1315.98'
Inv. In = 1313.16'
Inv. Out = 1313.13'
In Pl. 8" RCP

(D7)
Catch Basin
Top of Grate= 1316.95
18" RCP Flow Line= 1315.75

(D8)
SDMH
Top of Rim= 1317.04
18" RCP Flow Line= 1312.09

(21) Drop Inlet
Top Grate = 1316.81
12" CMP Out = 1315.16

(24) Drop Inlet
Top Grate = 1317.65
8" CMP Out = 1315.71

(27) Drop Inlet
Top Grate = 1317.08
12" CMP In = 1313.59
18" RCP Out = 1313.5C

(22) Grate Inlet In Conc.
Top Grate = 1317.18
8" CMP In = 1314.88
12" CMP In = 1314.88
15" T.C. Out = 1313.73

(25) Drop Inlet
Top Grate = 1317.41
8" CMP In = 1316.04 (Roof Drain)
12" CMP Out = 1315.96

(26) Grate Inlet In Conc.
Top Grate = 1317.12
12" CMP In = 1315.47
12" CMP Out = 1315.37

(23) Drop Inlet
Top Grate = 1317.14
8" CMP In =
8" CMP Out =

⟨G⟩
In Pl. DI
Rim = 1315.84'
Inv. Out = 1312.39'
In Pl. 10" TC
(Blind Connection)

⟨C⟩
In Pl. 24" RCP
In Pl. CDI/Vault
Rim = 1315.42'
Inv. In(24"SE) = 1312.44'
Inv. In(8")E = 1312.98'
Inv. In(8") = 1312.93'
Inv. In(8") = 1312.74'
Inv. In(8") = 1312.69'
Inv. In(8")W = 1312.45'
Invs. Out = 1312.41'
In Pl. (2) 15" TC

⟨B⟩
In Pl. DI
Rim = 1315.80'
Inv. In = 1313.10'
Inv. Out(W) = 1313.30'
Inv. Out = 1313.60'
Inv. Out = 1313.60'
Inv. Out = 1313.70'
Inv. Out(E) = 1313.65'
In Pl. (5)17LF- 8" Iron Pipes

⟨A⟩
In Pl. 18" RCP
In Pl. DI
Rim = 1315.98'
Inv. In = Unable to Determine
(Pipe Recessed)
Bottom of Structure = 1312.68'
Inv. Out = 1313.18'
In Pl. 18" RCP

LEGEND

1. *2' Curb & Gutter, See Detail Sheet 2A*
2. *VDOT St'd CG-6 Curb & Gutter*
3. *VDOT St'd CG-2 Curb*
4. *Curb Ramp, See Detail Sheet 2A*
5. *Sidewalk*
6. *Concrete Paver*
7. *Brick Paver Border*
8. *Stamped Asphalt*
9. *Light Pole Base*

Denotes Proposed Brick Pavers

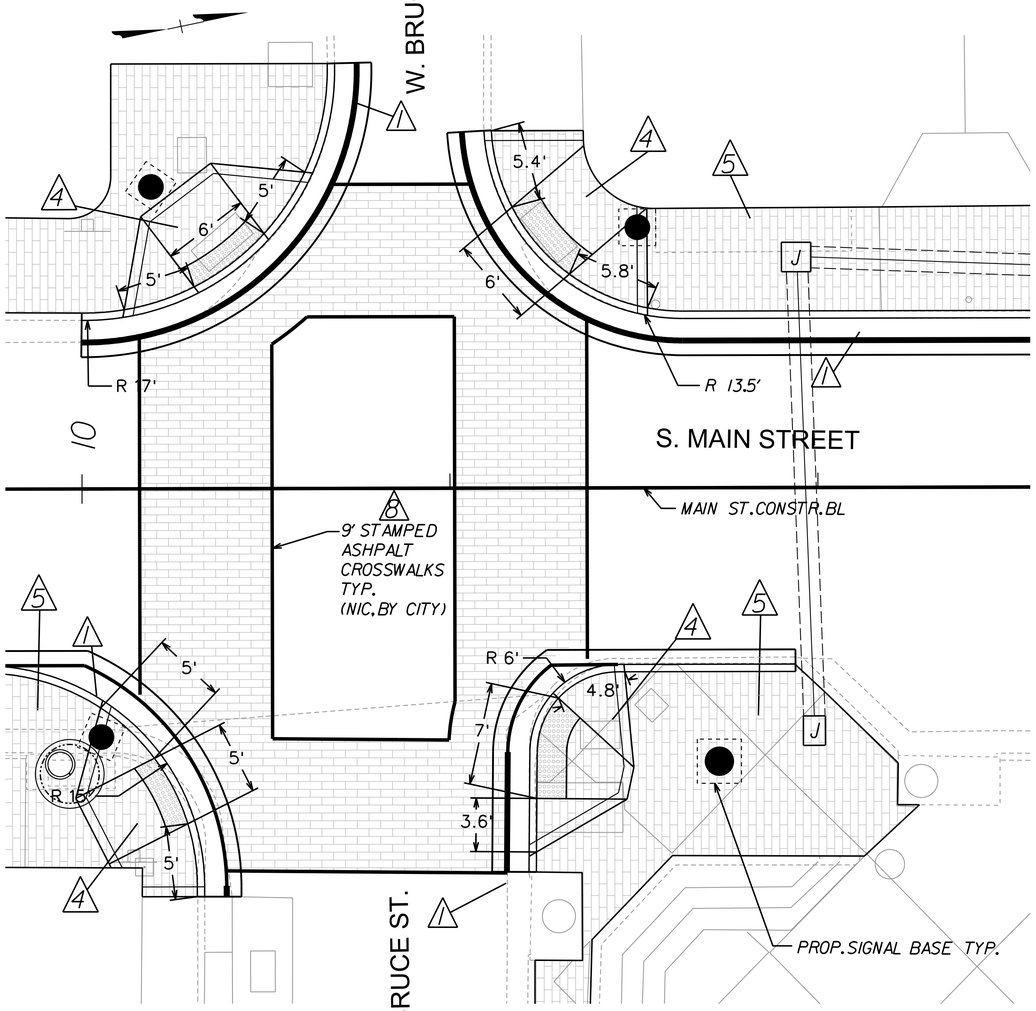
McCormick Taylor
Engineers & Planners Since 1946

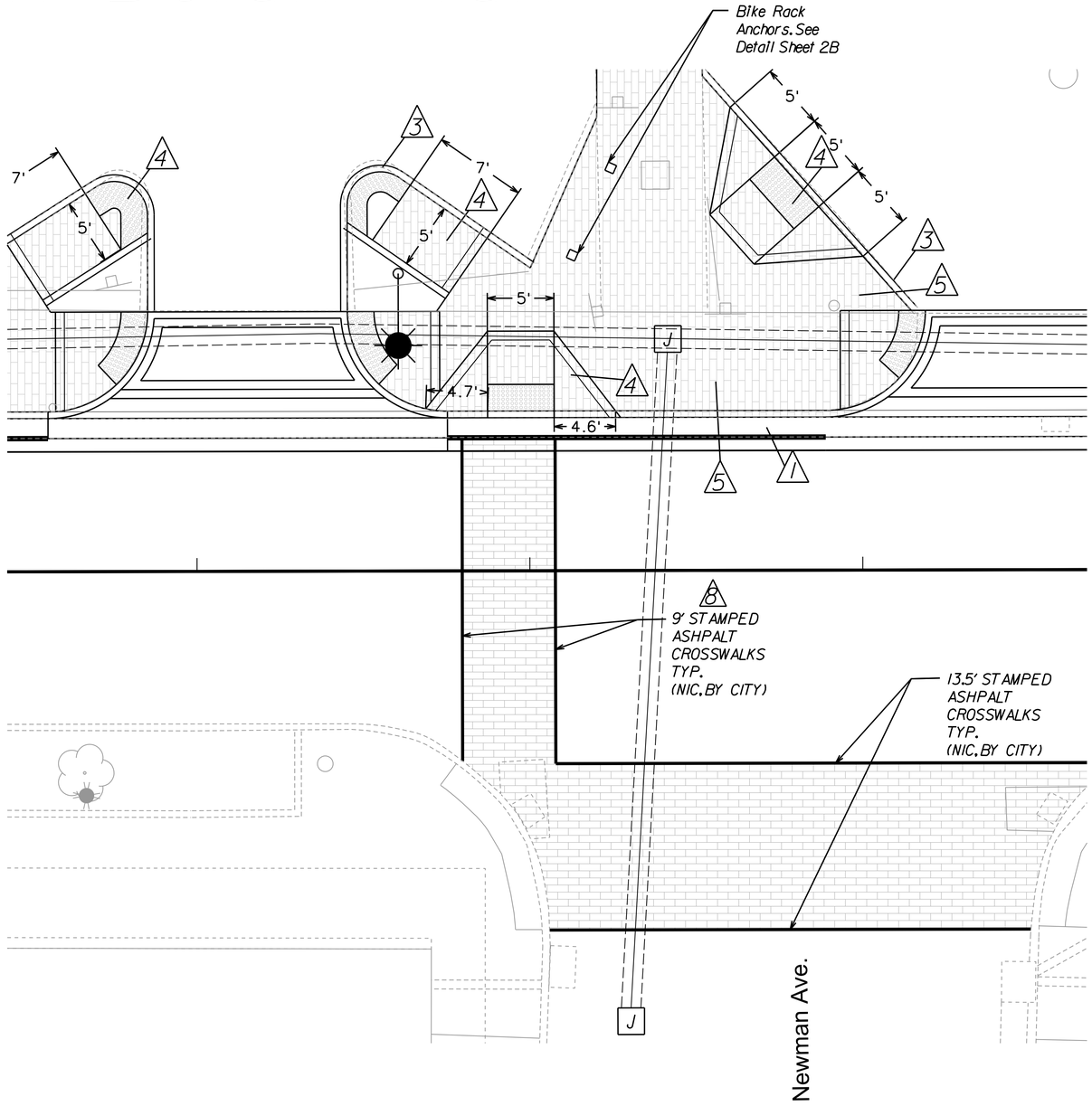
REV	DATE	DESCRIPTION	BY	SCALE: 1" = 20'	
				DRAWN BY	DATE
				MAY	
				CHECKED BY	DATE
				RJD	
				DESIGN BY	DATE
				JRD	
				TAX MAP	

MAIN STREET STREETSCAPE (PHASE 2)
STREETSCAPE PLAN
STA. 10+00-13+50
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 3

Intersection Detail Plan





LEGEND

1. 2' Curb & Gutter, See Detail Sheet 2A
2. VDOT Std CG-6 Curb & Gutter
3. VDOT Std CG-2 Curb
4. Curb Ramp, See Detail Sheet 2A
5. Sidewalk
7. Brick Paver Border
8. Stamped Asphalt
9. Light Pole Base

Denotes Proposed Stamped Asphalt By City

Denotes Proposed Brick Pavers

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Streetscape Plan	3
Traffic Signal Plan	7(2)

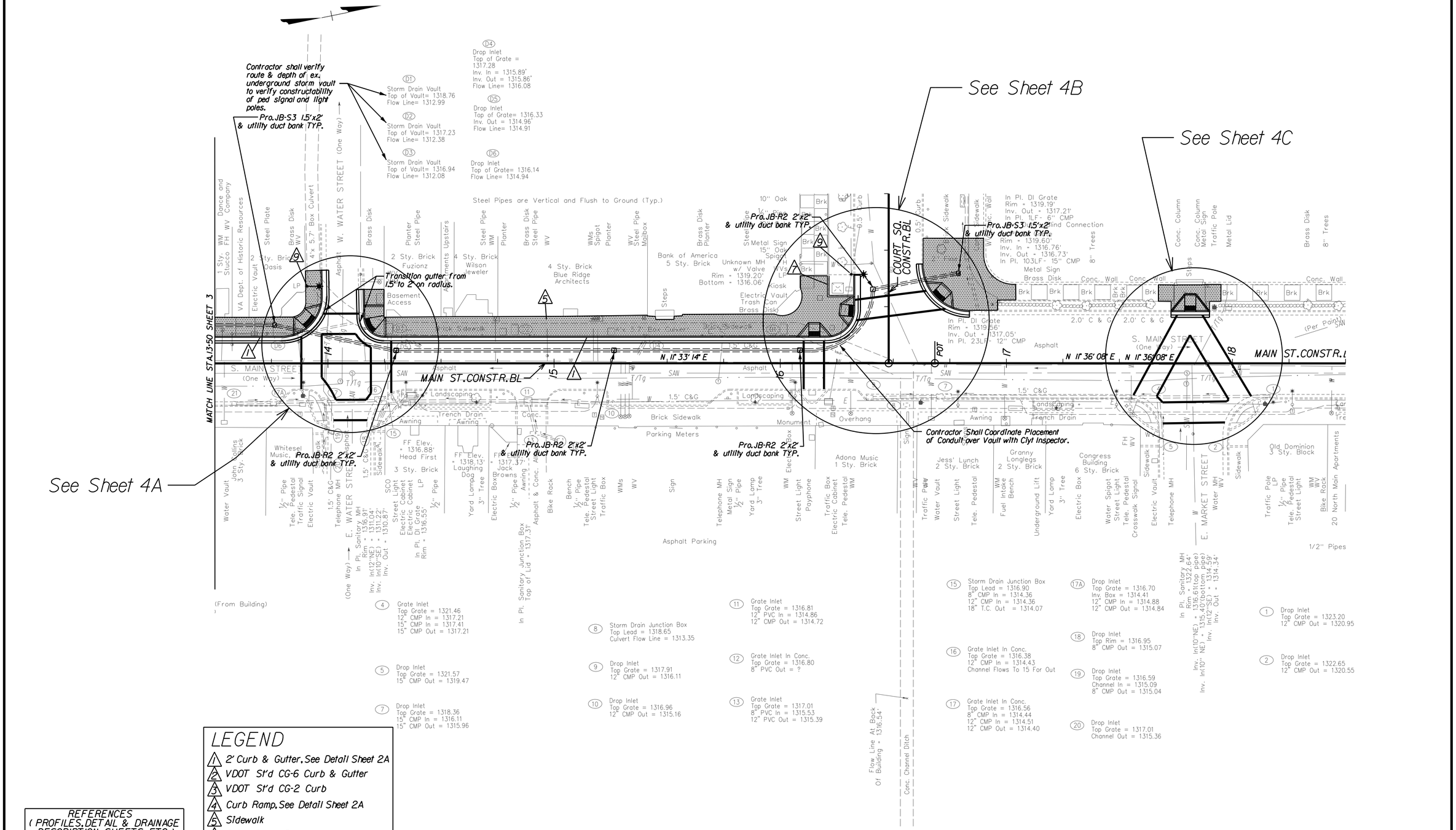
McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 5'
DRAWN BY JRD DATE
CHECKED BY RJD DATE
DESIGN BY JRD DATE
TAX MAP

MAIN STREET STREETSCAPE (PHASE 2)
INTERSECTION DETAIL PLAN S. MAIN ST. & BRUCE ST.
DEPT. OF PUBLIC WORKS CITY OF HARRISONBURG
320 EAST MOSBY ROAD HARRISONBURG, VIRGINIA

SHEET 3A



LEGEND

1. 2' Curb & Gutter, See Detail Sheet 2A
2. VDOT St'd CG-6 Curb & Gutter
3. VDOT St'd CG-2 Curb
4. Curb Ramp, See Detail Sheet 2A
5. Sidewalk
7. Brick Paver Border
8. Stamped Asphalt
9. Light Pole Base

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Typical Sections	2A
Notes & Details	2B
Intersection Detail Plan	4A, 4B
Traffic Signal Plan	7(3), 7(4), 7(5)

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

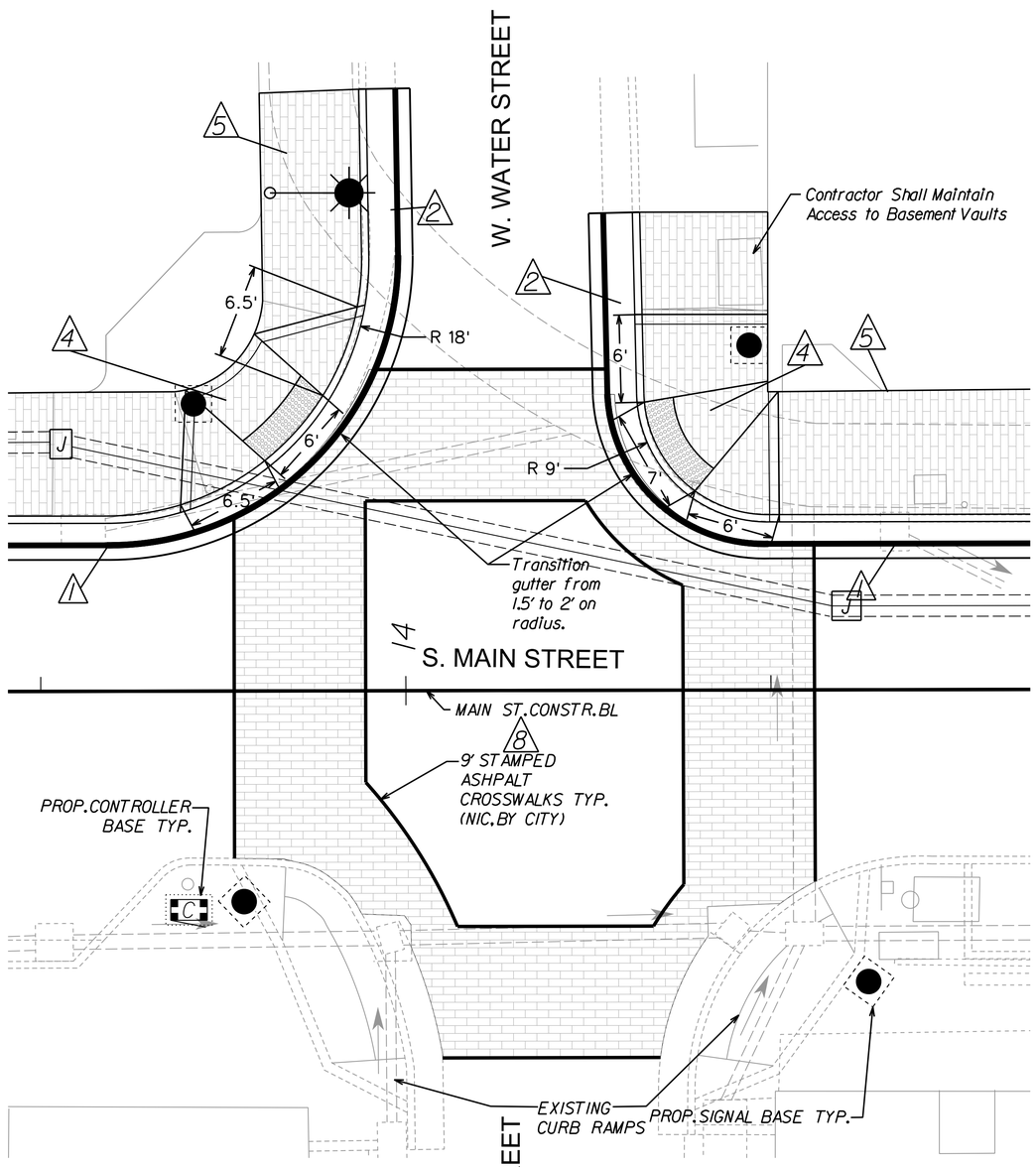
SCALE: 1" = 20'

DRAWN BY	DATE
JRD	
CHECKED BY	DATE
RJD	
DESIGN BY	DATE
JRD	
TAX MAP	

MAIN STREET STREETSCAPE (PHASE 2)
STREETSCAPE PLAN STA. 13+50-17+50
DEPT. OF PUBLIC WORKS CITY OF HARRISONBURG
320 EAST MOSBY ROAD HARRISONBURG, VIRGINIA

SHEET 4

Intersection Detail Plan



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Streetscape Plan	4
Traffic Signal Plan	7(3)

LEGEND

1. 2' Curb & Gutter, See Detail Sheet 2A
2. VDOT St'd CG-6 Curb & Gutter
3. VDOT St'd CG-2 Curb
4. Curb Ramp, See Detail Sheet 2A
5. Sidewalk
7. Brick Paver Border
8. Stamped Asphalt
9. Light Pole Base

Denotes Proposed Stamped Asphalt By City

Denotes Proposed Brick Pavers

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 5'

DRAWN BY	DATE
JRD	
CHECKED BY	DATE
RJD	
DESIGN BY	DATE
JRD	

TAX MAP

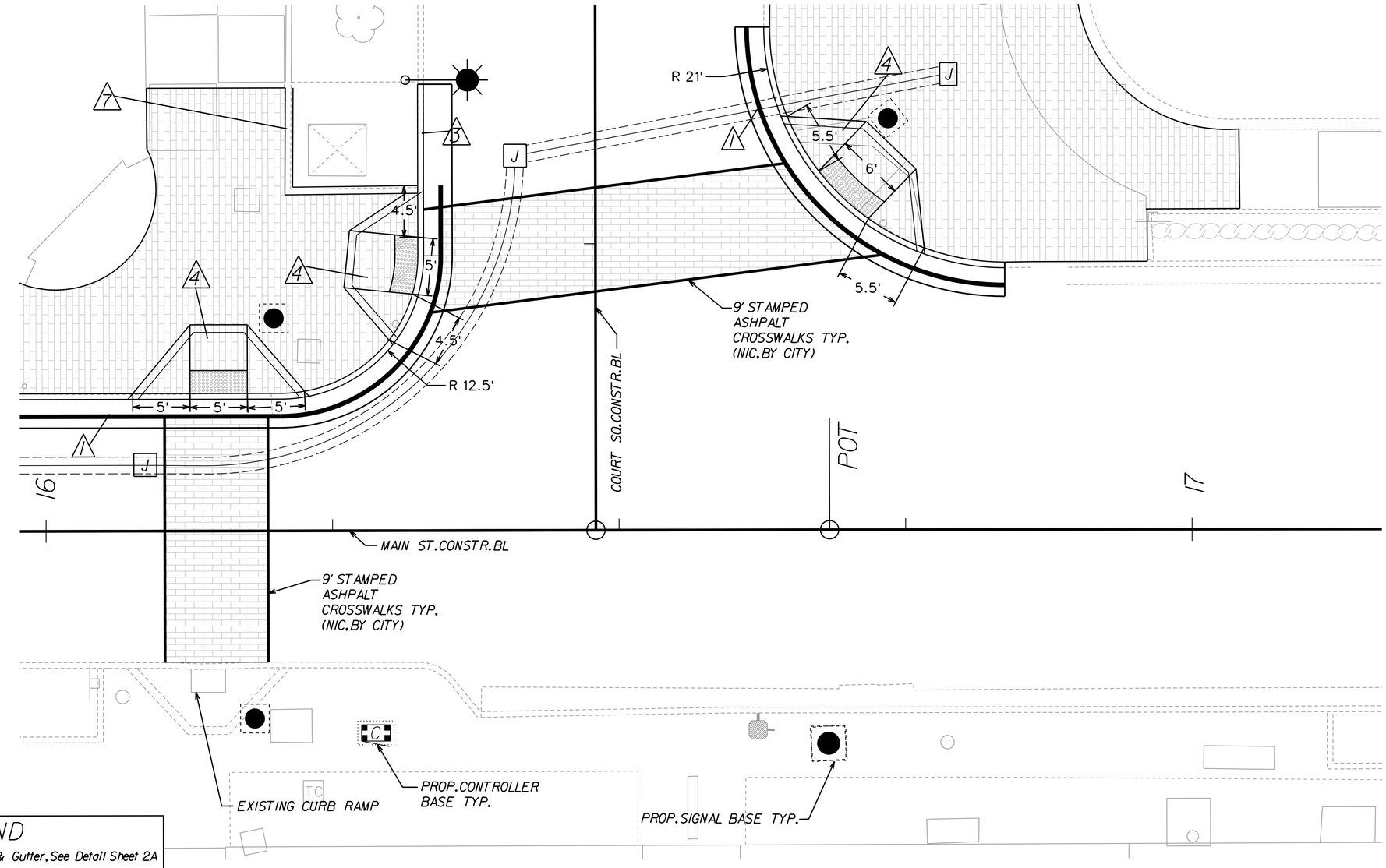
MAIN STREET STREETSCAPE (PHASE 2)

INTERSECTION DETAIL PLAN S. MAIN ST. & WATER ST.

DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 4A

Intersection Detail Plan



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Streetscape Plan	4
Traffic Signal Plan	7(4)

LEGEND

1. 2' Curb & Gutter. See Detail Sheet 2A
2. VDOT St'd CG-6 Curb & Gutter
3. VDOT St'd CG-2 Curb
4. Curb Ramp. See Detail Sheet 2A
5. Sidewalk
7. Brick Paver Border
8. Stamped Asphalt
9. Light Pole Base

Denotes Proposed Stamped Asphalt By City

Denotes Proposed Brick Pavers

McCormick Taylor
Engineers & Planners Since 1946

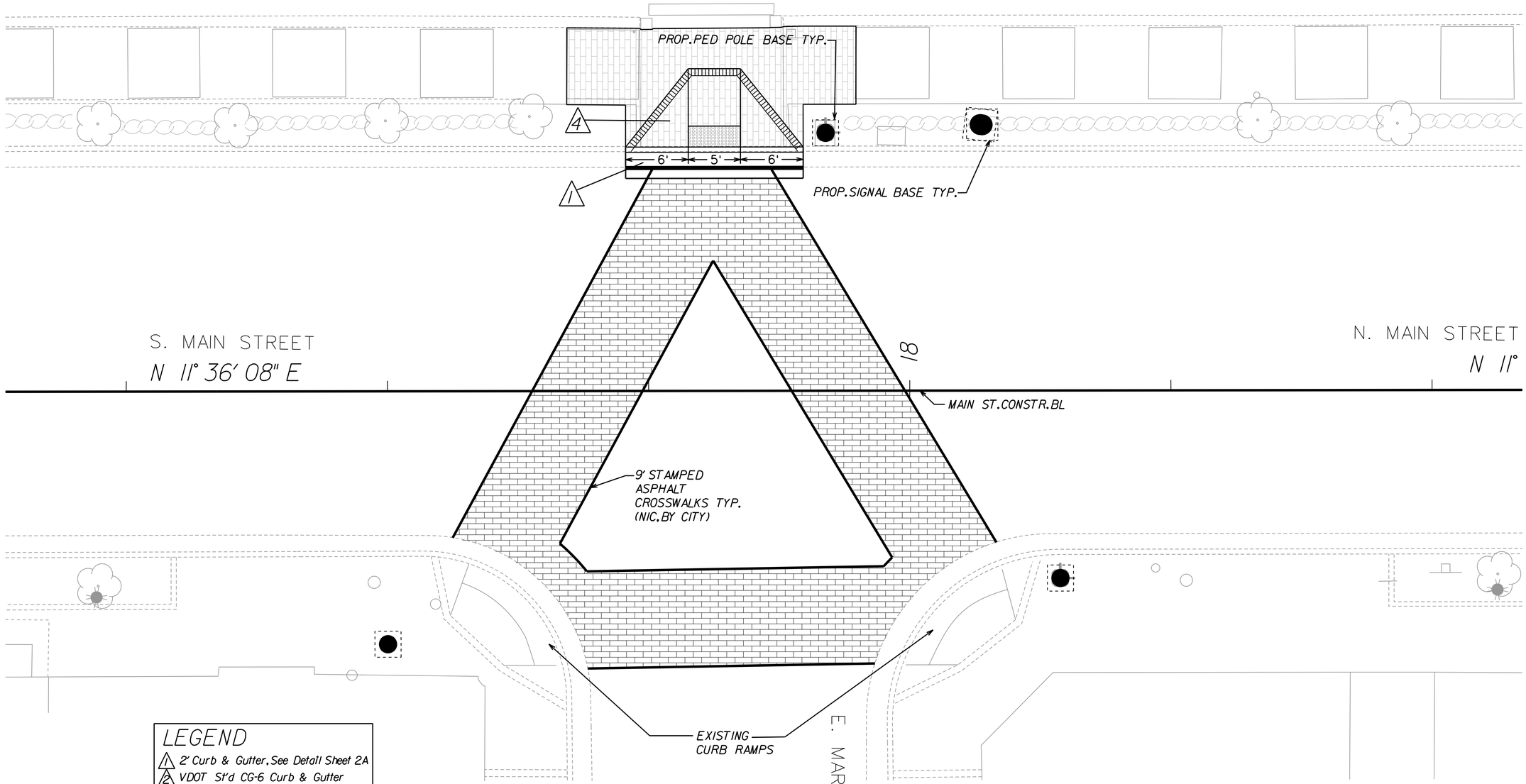
REV	DATE	DESCRIPTION	BY

SCALE: 1" = 5'
DRAWN BY JRD DATE
CHECKED BY RJD DATE
DESIGN BY JRD DATE
TAX MAP

MAIN STREET STREETSCAPE (PHASE 2)
INTERSECTION DETAIL PLAN MAIN ST. & COURT SQUARE
DEPT. OF PUBLIC WORKS CITY OF HARRISONBURG
320 EAST MOSBY ROAD HARRISONBURG, VIRGINIA

SHEET 4B

Intersection Detail Plan



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Streetscape Plan	4
Traffic Signal Plan	7(4), 7(5)

LEGEND

1. 2' Curb & Gutter, See Detail Sheet 2A
2. VDOT St'd CG-6 Curb & Gutter
3. VDOT St'd CG-2 Curb
4. Curb Ramp, See Detail Sheet 2A
5. Sidewalk
7. Brick Paver Border
8. Stamped Asphalt
9. Light Pole Base

Denotes Proposed Stamped Asphalt By City

Denotes Proposed Brick Pavers

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 5'

DRAWN BY	DATE
JRD	
CHECKED BY	DATE
RJD	
DESIGN BY	DATE
JRD	

TAX MAP

MAIN STREET STREETSCAPE (PHASE 2)

INTERSECTION DETAIL PLAN MAIN ST. & COURT SQUARE

DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 4C

NOTES		4	14,15	2,30	2,30	2,30	2,30	2,30	2,30	5	6,11	16			5,29	5,29			6,11									22			27	
SHEET NO.	INTERSECTION	LED Lighted Street Name Signs	Signal Controller & Cabinet	Traffic Signal Head Section 12" (Green Ball LED)	Traffic Signal Head Section 12" (Yellow Ball LED)	Traffic Signal Head Section 12" (Red Ball LED)	Traffic Signal Head Section 12" (Green Arrow LED)	Traffic Signal Head Section 12" (YellowArrow LED)	Traffic Signal Head Section 12" (RedArrow LED)	Dark Bronze Pedestal Pole PF-2, 10'	Concrete Foundation PF-2	Accesible Pedestrian Actuation PA-2	Accesible Pedestrian Panel	Concrete Cabinet Foundation CF-1	Dark Bronze Mast Arm Pole Type I	Dark Bronze Mast Arm Pole Type II (Dual-Arm Pole)	Dark Bronze Signal Pole Mast Arm 30'	Dark Bronze Signal Pole Mast Arm 40'	PF-1 Concrete Foundation for Signal Pole	14/7 Conductor Cable	Emergency Vehicle Preemption Confirmation Beacon Cable (14/2 Shielded)	14/3 Conductor Cable	8/1 Conductor Cable	Emergency Vehicle Preemption Detector Cable	Hanger Assembly SM-3, One-Way	Sign Hanger Assembly (SMD-2)	Sign Panel - Furnish and Install	Remove Existing Signal Equipment	Temporary Trailer Mounted Mast Arm with Signal Heads	Temporary Trailer Mounted Pedestal Pole with Signal Head	CAT 5E Ethernet Cable, Outdoor Grade	
	UNIT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	CY	LF	LF	LF	LF	LF	EA	EA	SF	LS	EA	EA	LF	
7(2)	S.MAIN STREET & BRUCE STREET	2	1	4	4	4				3	3	8	1	1		1	2		10	1286	268	917	117	268	4	6	10	1				
7(3)	S.MAIN STREET & WATER STREET	2	1	4	4	4				3	3	8	1	1	1			1	10	936	147	656	36	147	4	6	20	1	1	1	240	
7(4)-7(5)	MAIN ST & COURT SQUARE/E.MARKET ST	4	1	2	2	6	7	7	3	6	6	7	1	1		2	3	1	20	4547	935	3030	117	935	9	16	38.75	1				
TOTALS		8	3	10	10	14	7	7	3	12	12	23	3	3	1	3	5	2	40	6769	1350	4603	270	1350	17	28	68.75	3	1	1	240	

NOTES		7	7	7	25	25	30							8,12	8,12	8,12				
SHEET NO.	INTERSECTION	Uninterruptible Power Supply System With Separate Bolt-on Enclosure	Uninterruptible Power Supply Battery	Uninterruptible Power Supply Cabinet	Emergency Preemption 2-Way	Emergency Preemption 3-Way	Pedestrian Signal Head SP-8	Electrical Service SE-3 Type B	Electrical Service SE-6 Type B	Junction Box JB-S1	Junction Box JB-S2	Junction Box JB-S3	Electrical Service Grounding Electrode (10')	1" Conduit (Schedule 80 PVC)	2" Conduit (Schedule 80 PVC)	3" Conduit (Schedule 80 PVC)	Trench Excavation EC-2	Test Bore		
	UNIT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	EA		
7(2)	S.MAIN STREET & BRUCE STREET	1	6	1	1		8		1	1	1	2	5	28	174	222	160	1		
7(3)	S.MAIN STREET & WATER STREET	1	6	1	1		8	1		1	2		5	15	146	166	128	1		
7(4)-7(5)	MAIN ST & COURT SQUARE/E.MARKET ST	1	6	1		1	10	1			2	1	5	63	307	380	253	2		
TOTALS		3	18	3	2	1	26	2	1	2	5	3	15	106	627	768	541	4		

GENERAL NOTES

1. Multiple conduits between proposed conduits and existing utilities may exist. The contractor is cautioned that the location of all existing underground utilities should be considered approximate; this plan does not guarantee the existence or nonexistence of underground utilities. The Contractor shall be responsible for the definite location of each utility involved within the area of his excavation for work under this contract. The Contractor shall call MISS UTILITY (1-800-552-7001) 48 hours before beginning work. Where conflicts occur, the Contractor shall contact the Engineer prior to beginning work.
2. All signal heads (McCain or equivalent) shall be mounted in accordance with VDOT SM-3. All traffic signal heads shall be 12" and include visors.
3. All damages to existing structures, facilities, pavement, grassed areas, etc., shall be restored to existing condition by the Contractor at his expense.
4. All street signs shall be LED lighted street signs capable of nighttime illumination to be controlled by individual photocell on/off switches. Signs are to be powered by AWG 14/3 Conductor cables running from the signs to the controller cabinet. Contact the City of Harrisonburg Traffic Division at (540) 434-5928 for specifications.
5. Pole locations shall be installed within 6' of the point as shown on the plan. Contractor shall stake and field verify with "MISS UTILITY OF VIRGINIA" the pole location before ordering poles and arms. THE CITY ENGINEER OR HIS/HER DESIGNEE SHALL APPROVE STAKED POLE LOCATIONS.
6. The contractor shall furnish to the City shop drawings and calculations for all poles and foundations. Quantities shown on this tabulation sheet are approximate; payment will be made based on the actual quantity as determined by the shop drawings and calculations.
7. Provide an Uninterruptible Power Supply (UPS) power backup system as specified in the City signal specifications. Install with batteries. UPS system shall be installed in a separate bolt-on enclosure attached to the signal cabinet.

GENERAL NOTES (CONT.)

8. The contractor shall verify the elevation of all underground utilities to be crossed prior to trenching, jacking or boring conduits. The contractor shall hand dig when crossing water lines, gas lines and sewer force mains.
9. All U-bolts, nuts, and washers shall be stainless steel. All plate material shall be galvanized.
10. Conduits entering junction boxes shall not extend over 3" maximum or under 2" minimum and shall be fitted with bell ends or bushings.
11. The proposed pole foundations shall be permanently marked to indicate the locations of all conduits cast in the foundation, and the foundation's specifications.
12. Conduit shall be PVC. Conductor (EGC) is required for non-metallic conduit. If non-metallic conduit is used then the cost of EGC shall be included in the cost of the conduit.
13. Conduit and Junction Boxes shown in the plan may be shifted in location to accommodate field conditions. All equipment shall be placed within the right-of-way.
14. The controller cabinet shall match the current City specifications. See Special provisions for additional controller and cabinet specifications. The Cabinet shall be size M60.
15. The City of Harrisonburg will provide the signal timings for the controllers. The Contractor shall contact the City Office of Traffic Engineering (540-434-5928) at least two weeks in advance of requiring those timings.
16. Pedestrian push buttons shall be per VDOT specifications and shall be fully ADA compliant in size and location. Push buttons shall be included with an Accessible Pedestrian Signal. Push buttons shall be 2" diameter, vandal resistant, with tone and LED verification (Polara EN2-EZ Communicator Navigator) Push buttons shall be programmed to use audible tones. Test to ensure that volume automatically adjusts to ambient noise conditions.

GENERAL NOTES (CONT.)

21. Top of pole foundations shall be flush with the adjacent sidewalk. Pedestrian push buttons shall be fully accessible from the adjacent sidewalk.
22. Included in this bid item is the removal of all existing signal equipment indicated on the plans. All existing equipment that is in usable condition shall be returned to the City Signal Shop. Removal of existing mast arms and controllers shall include removing the existing foundations to a minimum of two feet below final grade.
23. All pole foundations shall be designed for maximum mast arm length and load.
24. The contractor is responsible for providing as-built plans upon completion of work.
25. Provide Opticom emergency preemption devices for all approaches as shown on the plans. Confirmation lights to be included with this bid item. This item includes the testing and adjusting of the system as necessary to ensure that the emergency preemption detectors adequately detect and preempt the signal timings. The opticoms shall be configured with City opticom channel configurations.
26. Contractor will be responsible for pulling the existing interconnect cable into the new control cabinets at Court Square and Elizabeth Street to maintain communication between the two signals.
27. Contractor will be responsible for pulling new Ethernet cable between Water St. and Court Square and into the control cabinets for communication between the two signals. Ethernet cable shall be Quabbin 5710 DataMax Extreme Cat5e Cable or equivalent. Cable shall not exceed 300 feet in length for the entire run. Contractor shall return existing Ethernet cable to Harrisonburg Public Works.
28. PTZ camera and associated equipment in cabinet at existing Court Square signal shall be removed by contractor and returned to Public Works.
29. All traffic signal and pedestrian poles shall be dark bronze. A dark bronze decorative clamshell base cover shall be custom sized for and installed on each traffic signal and pedestrian pole. Specifications for these items shall be approved by the Harrisonburg Public Works Department prior to ordering.
30. All vehicular signal heads, pedestrian signal heads, and visors shall be dark bronze.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE:
DRAWN BY MDL DATE
CHECKED BY RJO DATE
DESIGN BY MDL DATE
TAX MAP

MAIN STREET STREETSCAPE (WEST SIDE)
TRAFFIC SIGNAL PLAN
QUANTITIES & GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 7(1)

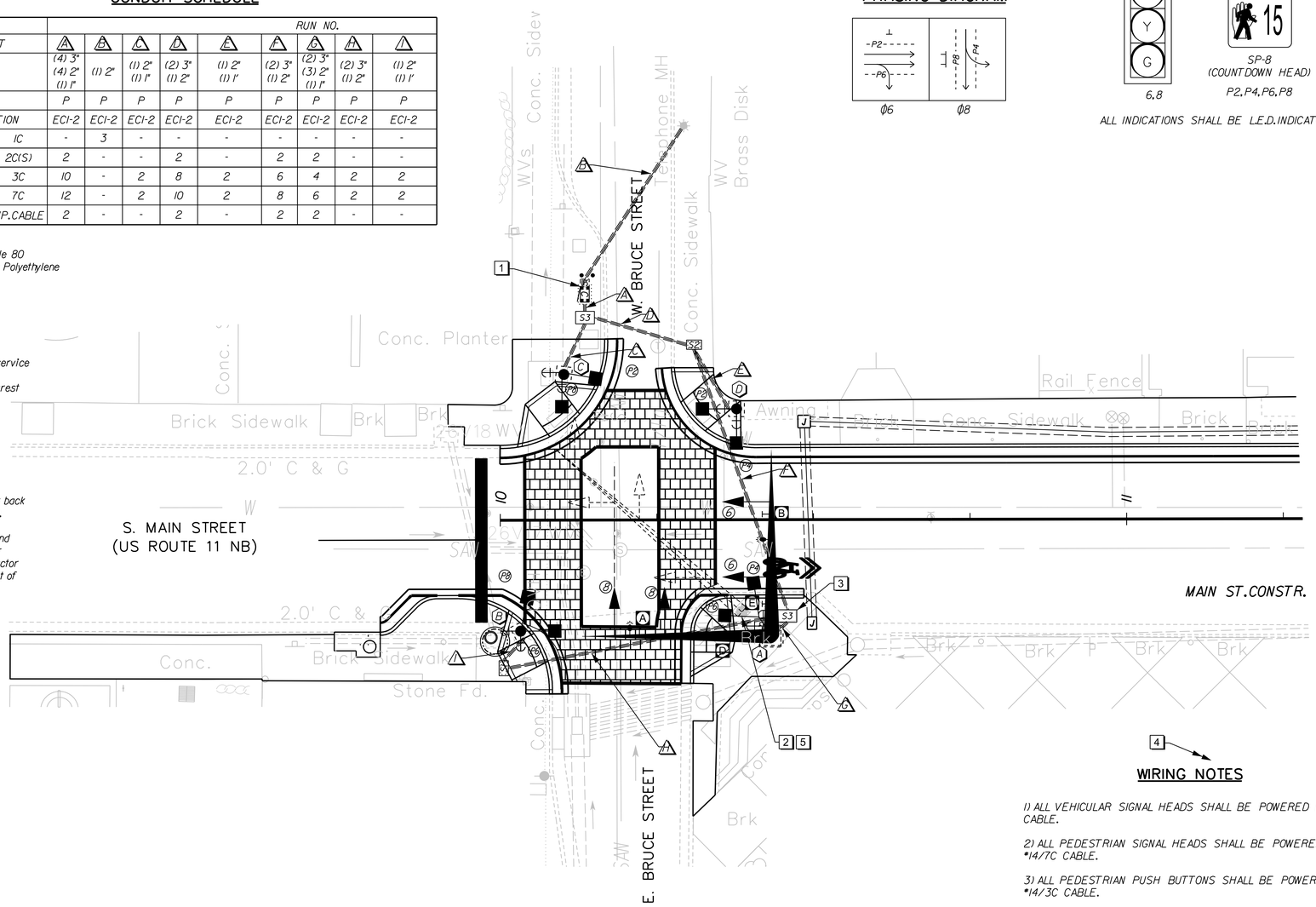
CONDUIT SCHEDULE

		RUN NO.								
CONDUIT		A	B	C	D	E	F	G	H	I
SIZE		(4) 3" (4) 2" (1) 1"	(1) 2"	(1) 2" (1) 1"	(2) 3" (1) 2"	(1) 2" (1) 1"	(2) 3" (1) 2"	(2) 3" (3) 2" (1) 1"	(2) 3" (1) 2"	(1) 2" (1) 1"
TYPE		P	P	P	P	P	P	P	P	P
INSTALLATION		ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2
AWG 8	1C	-	3	-	-	-	-	-	-	-
AWG 14	2C(S)	2	-	-	2	-	2	2	-	-
	3C	10	-	2	8	2	6	4	2	2
	7C	12	-	2	10	2	8	6	2	2
EMERG. PREEMP. CABLE		2	-	-	2	-	2	2	-	-

(E) Existing
(P) PVC Schedule 80
(H) High-Density Polyethylene

CONSTRUCTION NOTES

1. Install SE-6 Type B underground electrical service with meter base and disconnect on cabinet. Electrical service shall be provided from nearest street light.
2. Remove existing pole, signal heads, and signs following installation of new poles and new vehicular signal heads.
3. Replace existing junction box.
4. Remove existing controller cabinet (located at back end of Masanutten Regional Library building).
5. The City will place controller on signal pole and route power form pole on Bruce St. to power signal temporarily during construction. Contractor shall coordinate with City 1 week prior to start of construction at this intersection.



PHASING DIAGRAM

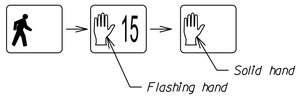
PROPOSED SIGNAL HEADS

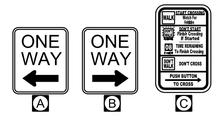
12" LENS
6,8

9" MIN. SYMBOLS AND NUMERALS
SP-8 (COUNTDOWN HEAD)
P2, P4, P6, P8

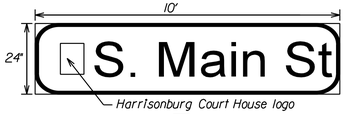
ALL INDICATIONS SHALL BE L.E.D. INDICATIONS

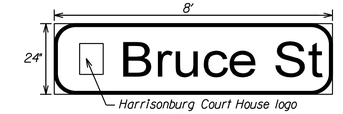
COUNTDOWN PEDESTRIAN SIGNAL HEAD SEQUENCE





A R6-2L 24"x30"
B R6-2R 24"x30"
C R10-3E 9"X15" Incidental to APS pay item





L.E.D. STREET NAME SIGN NOTES

1) Harrisonburg Court House logo image file will be supplied by City to Contractor. Logo is 8" wide x 10.5" tall.

2) All main street name text is to be composed of 8" Clearview 5-W font unless noted otherwise.

3) All street name signs shall be white text and border on blue background. Blue background is to be in accordance with MUTCD standard colors.

WIRING NOTES

1) ALL VEHICULAR SIGNAL HEADS SHALL BE POWERED BY #14/7C CABLE.

2) ALL PEDESTRIAN SIGNAL HEADS SHALL BE POWERED BY #14/7C CABLE.

3) ALL PEDESTRIAN PUSH BUTTONS SHALL BE POWERED BY #14/3C CABLE.

4) ALL EMERGENCY VEHICLE PREEMPTORS SHALL BE WIRED WITH EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE AND #14/2C SHIELDED CABLE (FOR THE CONFIRMATION BEACON)

5) ALL LED-LIGHTED STREET NAME SIGNS SHALL BE POWERED BY #14/3C CABLE.

6) SIGNAL HEADS SHALL NOT BE WIRED IN SEQUENCE. EACH VEHICULAR OR PEDESTRIAN SIGNAL HEAD SHALL HAVE A SEPARATE CABLE.

LEGEND

- PROPOSED SIGNAL POLE AND IDENTIFIER
- PROPOSED PEDESTAL AND IDENTIFIER
- EXISTING SIGNAL POLE
- EXISTING SIGNAL HEAD
- PROPOSED SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSH BUTTON
- MAST ARM MOUNTED SIGN
- PROPOSED SIGN
- PROPOSED JUNCTION BOX/TYPE
- CONTROLLER CABINET
- PROPOSED CONDUIT
- EXISTING CONDUIT
- CONDUIT RUN NUMBER
- PROPOSED EMERGENCY PREEMPTION DETECTOR
- CONSTRUCTION NOTE
- UNINTERRUPTIBLE POWER SUPPLY CABINET
- EXISTING CONTROLLER CABINET
- BOLLARD

SIGNAL POLE LEGEND

NO.	STANDARD				SIGNAL MOUNTING				EVP DIST. FROM POLE	TRAFFIC SIGN MOUNTING				POLE LOCATION				**ANGLE BETWEEN ARMS
	TYPE	POLE HEIGHT*	ARM LENGTH	FOUNDATION	DISTANCE FROM POLE					DISTANCE FROM POLE				ROAD	STA	OFFSET	ANGLE	
A	MP-1	20'	30'	PF-8	17'	25'	-	-	23'	7'	21'	-	-	S. Main St	10+43.3	18.6' Rt	0°	90°
			30'		9'	21'	-	-	15'	5'	19'	-	-				90°	
B	PF-2	10'	n/a	PF-2										S. Main St	10+3.22	17.7' Rt		
C	PF-2	10'	n/a	PF-2										S. Main St	10+10.20	23.2' Lt		
D	PF-2	10'	n/a	PF-2										S. Main St	10+37.76	17.7' Lt		

*CONTRACTOR SHALL VERIFY POLE BASE ELEVATIONS AND REQUIRED POLE HEIGHTS AND PROVIDE THAT INFORMATION IN THE SHOP DRAWINGS.
**MEASURED FROM SIGNAL ARM "A".

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 10'
DRAWN BY MDL DATE
CHECKED BY RJD DATE
DESIGN BY MDL DATE
TAX MAP

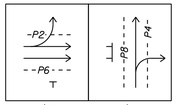
MAIN STREET STREETSCAPE (WEST SIDE)
TRAFFIC SIGNAL PLAN
S. MAIN ST. & BRUCE ST.
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 7 (2)

CONSTRUCTION NOTES

1. Install SE-3 Type B underground electrical service with meter base and disconnect on pole B.
2. Place new mast arm in same location as existing mast arm. Replace existing signal foundation with new PF-8 foundation.
3. Reuse existing junction box.
4. Remove existing controller cabinet and foundation.
5. Place a temporary trailer mounted mast arm with signal heads on Main St. and a temporary trailer mounted pedestal pole with a signal head on Water St., as per the Maintenance of Traffic Plans at this signal only. The temporary signal poles/heads shall only be used when the full signal at this location only is not in operation. No temporary pedestrian signal provisions are required.
6. Contractor shall verify the exact location of the underground vault and coordinate with the City of Harrisonburg Public Works Department before installing conduits H and I, the JB-S1, and pole D.

PHASING DIAGRAM

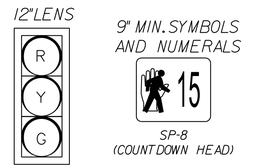


CONDUIT SCHEDULE

		RUN NO.								
CONDUIT		1	2	3	4	5	6	7	8	9
SIZE		(1) 2"	(4) 3" (4) 2" (1) 1"	(2) 3" (3) 2" (1) 1"	(2) 3" (1) 2"	(1) 2" (1) 1"	(2) 3" (1) 2"	(1) 2" (1) 1"	(1) 2"	(1) 2"
TYPE		P	P	P	P	P	P	P	P	P
INSTALLATION		ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2
AWG 8	IC	3	-	-	-	-	-	-	-	-
AWG 14	2C(S)	-	2	2	-	-	-	-	-	-
	3C	-	10	4	2	2	4	2	2	2
	7C	-	12	6	2	2	4	2	2	2
EMERG. PREEMP. CABLE		-	2	2	-	-	-	-	-	-

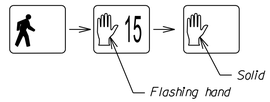
(E) Existing
(P) PVC Schedule 80
(H) High-Density Polyethylene

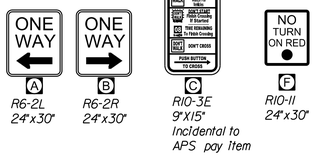
PROPOSED SIGNAL HEADS

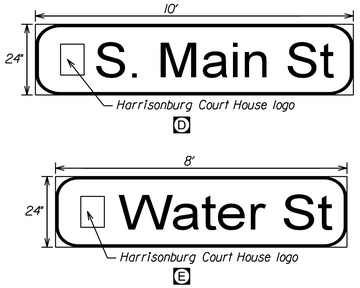


ALL INDICATIONS SHALL BE L.E.D. INDICATIONS

COUNTDOWN PEDESTRIAN SIGNAL HEAD SEQUENCE





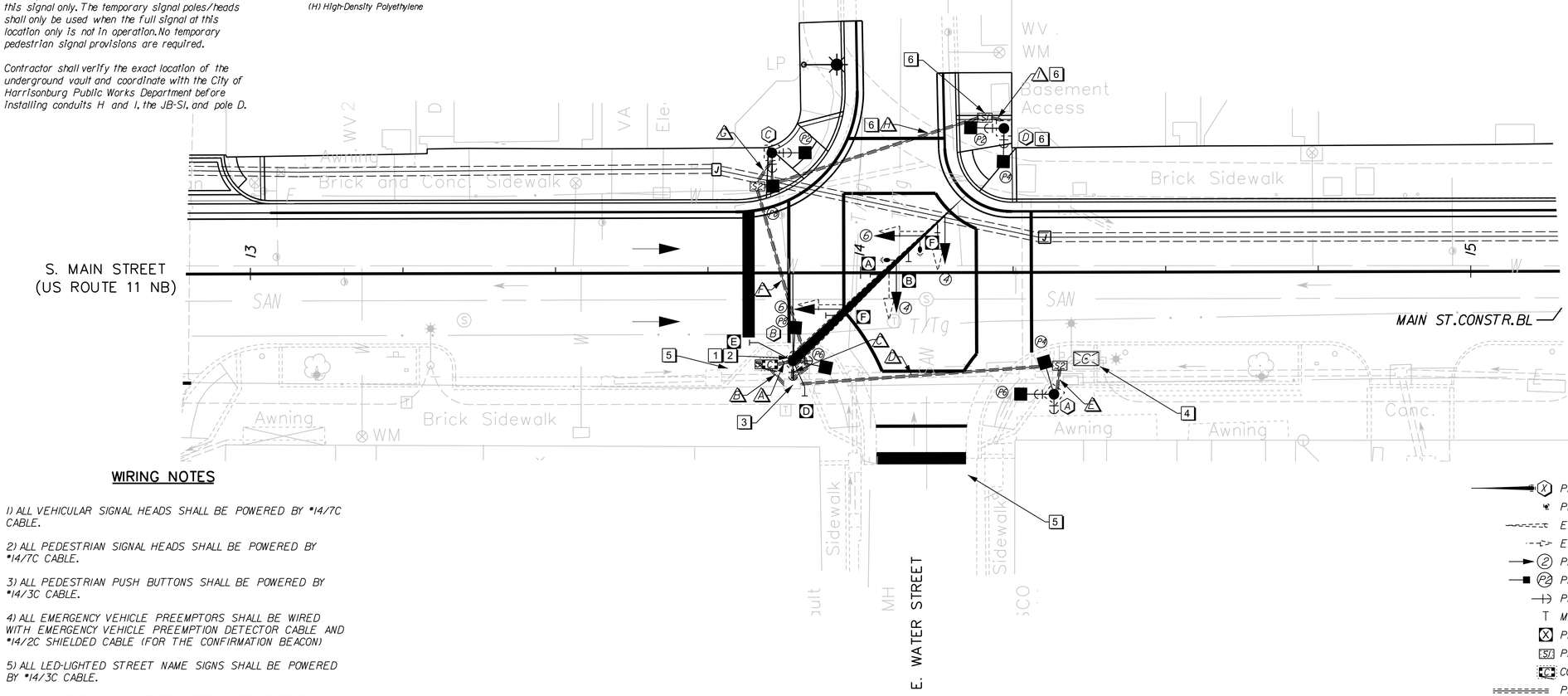


L.E.D. STREET NAME SIGN NOTES

1) Harrisonburg Court House logo image file will be supplied by City to Contractor. Logo is 8" wide x 10.5" tall.

2) All main street name text is to be composed of 8" Clearview 5-W font unless noted otherwise.

3) All street name signs shall be white text and border on blue background. Blue background is to be in accordance with MUTCD standard colors.



WIRING NOTES

1) ALL VEHICULAR SIGNAL HEADS SHALL BE POWERED BY #14/7C CABLE.

2) ALL PEDESTRIAN SIGNAL HEADS SHALL BE POWERED BY #14/7C CABLE.

3) ALL PEDESTRIAN PUSH BUTTONS SHALL BE POWERED BY #14/3C CABLE.

4) ALL EMERGENCY VEHICLE PREEMPTORS SHALL BE WIRED WITH EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE AND #14/2C SHIELDED CABLE (FOR THE CONFIRMATION BEACON)

5) ALL LED-LIGHTED STREET NAME SIGNS SHALL BE POWERED BY #14/3C CABLE.

6) SIGNAL HEADS SHALL NOT BE WIRED IN SEQUENCE. EACH VEHICULAR OR PEDESTRIAN SIGNAL HEAD SHALL HAVE A SEPARATE CABLE.

SIGNAL POLE LEGEND

NO.	STANDARD				SIGNAL MOUNTING				EVP DIST. FROM POLE		TRAFFIC SIGN MOUNTING				POLE LOCATION				ANGLE BETWEEN ARMS
	TYPE	POLE HEIGHT*	ARM LENGTH	FOUNDATION	DISTANCE FROM POLE						DISTANCE FROM POLE				ROAD	STA	OFFSET	ANGLE	
(A)	PF-2	10'	n/a	PF-2											S. Main St	14+31.16	19.9' Rt	42°	
(B)	MP-1	20'	40'	PF-8	12'	23'	29'	34'	24'	29'	10'	20'	26'	33'	S. Main St	13+88.90	14.4' Rt		
(C)	PF-2	10'	n/a	PF-2											S. Main St	13+85.5	19.7' Lt		
(D)	PF-2	10'	n/a	PF-2											S. Main St	14+23.5	23.6' Lt		

*CONTRACTOR SHALL VERIFY POLE BASE ELEVATIONS AND REQUIRED POLE HEIGHTS AND PROVIDE THAT INFORMATION IN THE SHOP DRAWINGS.

LEGEND

- (X) PROPOSED SIGNAL POLE AND IDENTIFIER
- PROPOSED PEDESTAL AND IDENTIFIER
- EXISTING SIGNAL POLE
- EXISTING SIGNAL HEAD
- (2) PROPOSED SIGNAL HEAD
- (P2) PROPOSED PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSH BUTTON
- T MAST ARM MOUNTED SIGN
- [X] PROPOSED SIGN
- [SJ] PROPOSED JUNCTION BOX/TYPE
- CONTROLLER CABINET
- PROPOSED CONDUIT
- EXISTING CONDUIT
- (4) CONDUIT RUN NUMBER
- PROPOSED EMERGENCY PREEMPTION DETECTOR
- [3] CONSTRUCTION NOTE
- [UPS] UNINTERRUPTIBLE POWER SUPPLY CABINET
- [C] EXISTING CONTROLLER CABINET

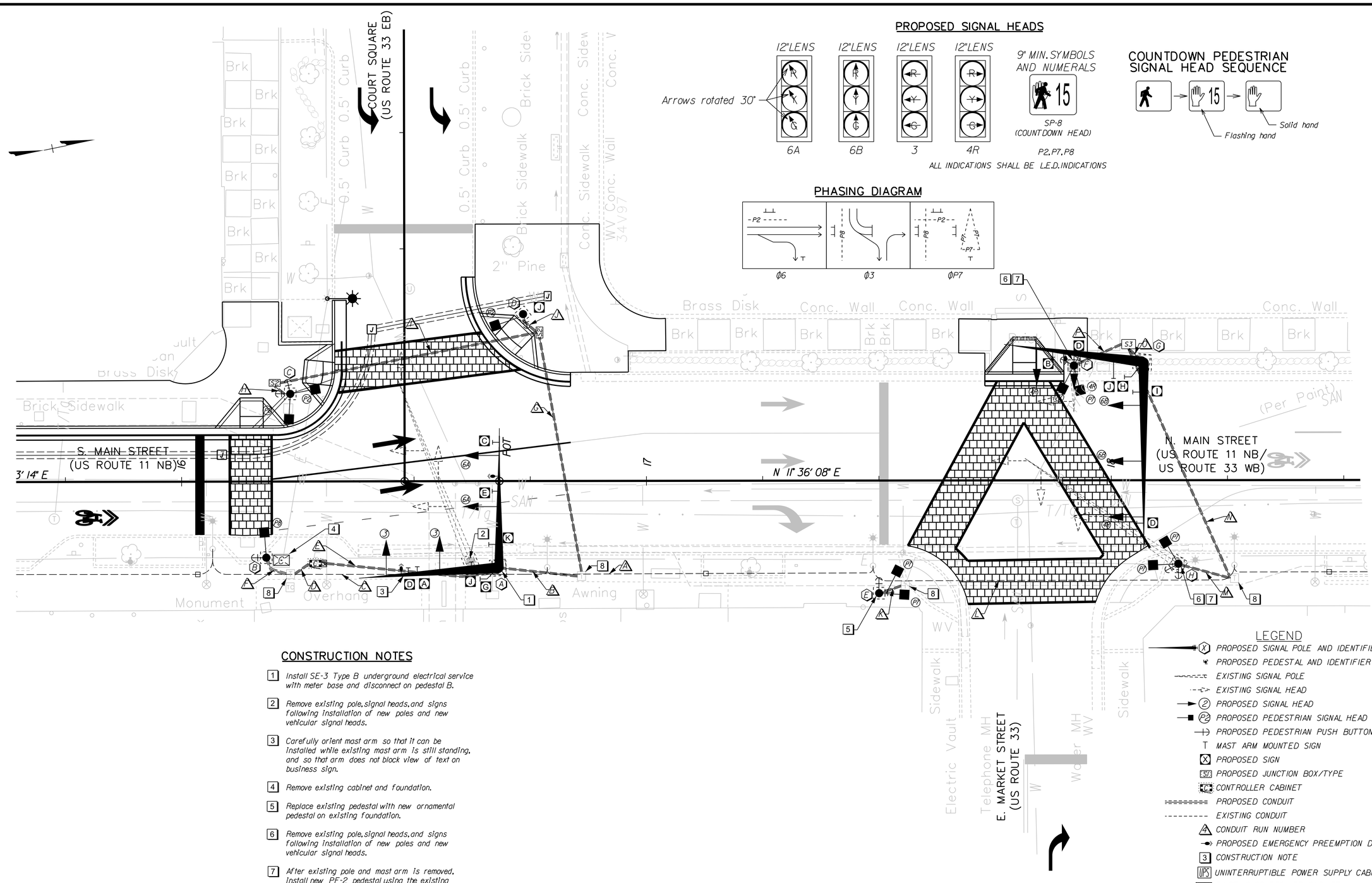
McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 10'
DRAWN BY MDL DATE
CHECKED BY RJD DATE
DESIGN BY MDL DATE
TAX MAP

MAIN STREET STREETSCAPE (WEST SIDE)
TRAFFIC SIGNAL PLAN
S. MAIN ST. & WATER ST.
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 7 (3)



PROPOSED SIGNAL HEADS

COUNTDOWN PEDESTRIAN SIGNAL HEAD SEQUENCE

PHASING DIAGRAM

CONSTRUCTION NOTES

1. Install SE-3 Type B underground electrical service with meter base and disconnect on pedestal B.
2. Remove existing pole, signal heads, and signs following installation of new poles and new vehicular signal heads.
3. Carefully orient mast arm so that it can be installed while existing mast arm is still standing, and so that arm does not block view of text on business sign.
4. Remove existing cabinet and foundation.
5. Replace existing pedestal with new ornamental pedestal on existing foundation.
6. Remove existing pole, signal heads, and signs following installation of new poles and new vehicular signal heads.
7. After existing pole and mast arm is removed, install new PF-2 pedestal using the existing signal pole foundation.
8. Reuse existing junction box.

LEGEND

- PROPOSED SIGNAL POLE AND IDENTIFIER
- PROPOSED PEDESTAL AND IDENTIFIER
- EXISTING SIGNAL POLE
- EXISTING SIGNAL HEAD
- PROPOSED SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSH BUTTON
- MAST ARM MOUNTED SIGN
- PROPOSED SIGN
- PROPOSED JUNCTION BOX/TYPE
- CONTROLLER CABINET
- PROPOSED CONDUIT
- EXISTING CONDUIT
- CONDUIT RUN NUMBER
- PROPOSED EMERGENCY PREEMPTION DETECTOR
- CONSTRUCTION NOTE
- UNINTERRUPTIBLE POWER SUPPLY CABINET
- EXISTING CONTROLLER CABINET

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 10'

DRAWN BY	DATE
MDL	
CHECKED BY	DATE
RJD	
DESIGN BY	DATE
MDL	

TAX MAP

MAIN STREET STREETSCAPE (WEST SIDE)

TRAFFIC SIGNAL PLAN
MAIN ST., COURT SQ. & E. MARKET ST.

DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 7 (4)

WIRING NOTES

1) ALL VEHICULAR SIGNAL HEADS SHALL BE POWERED BY #14/7C CABLE.

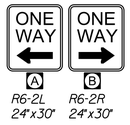
2) ALL PEDESTRIAN SIGNAL HEADS SHALL BE POWERED BY #14/7C CABLE.

3) ALL PEDESTRIAN PUSH BUTTONS SHALL BE POWERED BY #14/3C CABLE.

4) ALL EMERGENCY VEHICLE PREEMPTORS SHALL BE WIRED WITH EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE AND #14/2C SHIELDED CABLE (FOR THE CONFIRMATION BEACON)

5) ALL LED-LIGHTED STREET NAME SIGNS SHALL BE POWERED BY #14/3C CABLE.

6) SIGNAL HEADS SHALL NOT BE WIRED IN SEQUENCE. EACH VEHICULAR OR PEDESTRIAN SIGNAL HEAD SHALL HAVE A SEPARATE CABLE.



A R6-2L 24"x30" B R6-2R 24"x30"

C R3-2 30"x30"

D R10-11 24"x30"

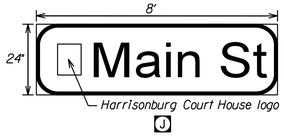
E CUSTOM SIGN 30"x36"

F R10-3E 9"X15" (NO ARROW) Incidental to APS pay item

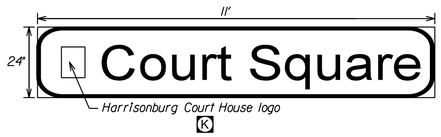
G R7-6 12"X18" (15 MIN LIMIT sign to be relocated)

H Existing signs to be relocated

I



J



K

L.E.D. STREET NAME SIGN NOTES

1) Harrisonburg Court House logo image file will be supplied by City to Contractor. Logo is 8" wide x 10.5" tall.

2) All main street name text is to be composed of 8" Clearview 5-W font unless noted otherwise.

3) All street name signs shall be white text and border on blue background. Blue background is to be in accordance with MUTCD standard colors.

SIGNAL POLE LEGEND

NO.	STANDARD				SIGNAL MOUNTING				EVP DIST. FROM POLE	TRAFFIC SIGN MOUNTING				POLE LOCATION				**ANGLE BETWEEN ARMS
	TYPE	POLE HEIGHT*	ARM LENGTH	FOUN-DATION	DISTANCE FROM POLE					DISTANCE FROM POLE				ROAD	STA	OFFSET	ANGLE	
A	MP-1	20'	30'	PF-8	13'	24'	-	-	20'	5'	16'	27'	-	N.Main St	16+65.3	18.6' Rt	0°	94°
			30'		13'	24'	-	-	21'	6'	18'	20'	-				94°	
B	PF-2	10'	n/a	PF-2										N.Main St	16+18.19	16.4' Rt		
C	PF-2	10'	n/a	PF-2										N.Main St	16+23.41	18.8' Lt		
D	PF-2	10'	n/a	PF-2										N.Main St	16+72.72	35.2' Lt		
E	PF-2	10'	n/a	Existing										N.Main St	17+50.02	24.2' Rt		
F	PF-2	10'	n/a	Existing										N.Main St	17+91.97	24.7' Lt		
G	MP-1	20'	40'	PF-8	9'	21'	33'	-	-	6'	35'	-	-	N.Main St	18+07.0	32.4' Lt	0°	97°
			30'		15'	23'	-	-	17'	6'	14'	19'	-				97°	
H	PF-2	10'	n/a	Existing										N.Main St	18+14.40	17.9' Rt		

*CONTRACTOR SHALL VERIFY POLE BASE ELEVATIONS AND REQUIRED POLE HEIGHTS AND PROVIDE THAT INFORMATION IN THE SHOP DRAWINGS.
**MEASURED FROM SIGNAL ARM "A".

CONDUIT SCHEDULE

		RUN NO.																
CONDUIT		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
SIZE			(2) 3" (3) 2" (1) 1"		(4) 3" (4) 2" (1) 1"	(1) 2"	(1) 2" (1) 1"	(2) 3" (1) 2"	(1) 2" (1) 1"	(2) 3" (1) 2"	(1) 2" (1) 1"	(1) 2" (1) 1"		(1) 2" (1) 1"	(2) 3" (1) 2"	(2) 3" (3) 2" (1) 1"	(1) 2" (1) 1"
TYPE		E	P	E	P	P	P	P	P	P	P	P	E	P	P	P	P
INSTALLATION			ECI-2		ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2	ECI-2		ECI-2	ECI-2	ECI-2	ECI-2
AWG 8	IC	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
AWG 14	2C(S)	2	2	4	4	-	-	-	-	-	-	-	2	-	2	2	-
	3C	8	2	13	14	-	1	3	2	2	1	2	6	2	4	2	2
	7C	11	4	18	19	-	1	3	2	2	1	2	9	2	7	5	2
EMERG. PREEMP. CABLE		2	2	4	4	-	-	-	-	-	-	-	2	-	2	2	-

(E) Existing
(P) PVC Schedule 80
(H) High-Density Polyethylene

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 10'
DRAWN BY DATE
MDL
CHECKED BY DATE
RJD
DESIGN BY DATE
MDL
TAX MAP

MAIN STREET STREETSCAPE (WEST SIDE)
TRAFFIC SIGNAL PLAN
MAIN ST., COURT SQ. & E. MARKET ST.
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 7(5)

MAINTENANCE OF TRAFFIC GENERAL NOTES

GENERAL NOTES

1. All work on this project shall conform to the 2009 Manual on Uniform Traffic Control Devices (MUTCD), the 2011 Virginia Supplement to the MUTCD, and the 2011 VDOT Work Area Protection Manual (WAPM), and all subsequent revisions.

2. The contractor shall plan and prosecute the work in accordance with the sequence of construction (SOC) and maintenance of traffic plan (MOT), unless otherwise approved by the Engineer.

3. The Contractor may opt to switch the order of the main stages of construction. However, construction on one block should not commence until curb & gutter, curb ramp and sidewalk construction on the adjacent block is complete.

4. Construction of intersection corner curb ramps shall be sequenced to prevent both the east and west sides of the road from being constructed at the same time.

5. Temporary lane widths shall be not less than 10 feet, unless noted otherwise on the plans.

6. Measures shall be taken to ensure adequate sight distances during construction operations. Traffic Control devices, signs, construction equipment, material storage or any other obstacle will not be allowed to interfere with sight distances for this project as determined by the engineer or his designee.

7. All entrances both vehicle and pedestrian, and building access points shall be maintained during all phases of construction. Contractor shall coordinate with the engineer at least 72 hours in advance of entrance construction.

8. The Contractor shall maintain pedestrian access throughout construction. Contractor shall maintain a 4' wide minimum hard surfaced pathway, lined with safety barriers to provide protection for pedestrians when construction activities are adjacent to the sidewalk and/or pedestrian route.

9. Equipment and/or materials shall not be placed within the established Clear Zone and /or the deflection zone of physical barriers.

10. All Traffic Control Devices and signs necessary for the Maintenance of Traffic are to be provided, installed, maintained, and removed by the Contractor.

11. All traffic control device locations shall be marked by the Contractor and reviewed by the Engineer prior to installation.

12. All conflicting pavement markings shall be covered using Construction Pavement Marking Type E 6" or eradicated as described in the VDOT General Specifications.

13. All maintenance of traffic shall be designed and installed based on posted speed limit:
    --Main Street = 25 mph speed limit
    --Bruce, Water, Court Square, and Market Streets = 25 mph speed limit

14. All existing conflicting signs shall be removed or covered during construction, otherwise existing signing to be maintained.

15. Contractor shall provide a plan regarding equipment and personnel ingress/egress of the work zone.

16. Contractor shall provide protection for any open trench or excavation that crosses active entraces or sidewalks. During construction of the utility bank in the road, contractor may need to use plates or other methods during non-work hours to maintain vehicle traffic.

17. Contractor shall maintain proper positive drainage during all phases of work. Provide temporary drainage devices as needed. Cost to be included in other items, no separate payment will be made.

PHASE I SIDEWALK CONSTRUCTION ALLOWABLE HOURS FOR LANE CLOSURE AND/OR FLAGGING OPERATIONS

Sunday	No restrictions
Monday	No restrictions
Tuesday	No restrictions
Wednesday	No restrictions
Thursday	No restrictions
Friday	No restrictions
Saturday	No restrictions

Lane Closures will not be permitted during the days listed for the following events/holidays (unless approved by the Engineer):

Easter Sunday - from the preceding Friday to the following Monday (inclusive)

JMU Commencement (Saturday) - from the preceding Friday to the following Monday (inclusive)

Memorial Day - from the preceding Friday to the following Tuesday (inclusive)

July 4 - from July 3-July 5 (inclusive). If July 4 is on a weekend, then from the Friday before to the Monday after (inclusive).

Labor Day - from the preceding Friday to the following Tuesday (inclusive)

Thanksgiving- from the preceding Wednesday to the following Monday (inclusive)

Christmas - from December 24 to January 2 (inclusive).

NOTE: Lane Closures/Flagging Operations will be allowed at all times with prior written approval from the Engineer, at the Engineer's discretion.

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY DATE: MDL
CHECKED BY DATE: RJD
DESIGN BY DATE: MDL
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 8A

SEQUENCE OF CONSTRUCTION

PHASE I: West Side of Main Street

Install signs and temporary traffic control devices throughout the project.

Install temporary erosion & sediment (E&S) control measures throughout the length of the project.

Implement pedestrian detour operations in accordance with Figure TTC-36.0 (Crosswalk Closure & Pedestrian Detour Operations).

Close daily left-hand lane on northbound Main Street between Bruce St and Court Square (south) using Modified Figure TTC-17.0 (Temporary Inside Lane Closure).

Remove existing sidewalk, curb, and gutter. Install new conduit, junction boxes, and conduit bank. Construct new signal foundations and mast arms at the Bruce St, Water St, and Court Square/Market St intersections, while maintaining the existing traffic signals.

Construct new sidewalk, curb, and gutter new light foundation, and streetscaping on the west side of Main Street.

Utilize Figure TTC-28.0 (flagging at unsignalized intersection) or TTC-30.0 (flagging at signalized intersection) in order to construct sidewalk, traffic signal, lighting, and streetscape improvements at existing east side curb ramps, and intersection bumpouts on the west side of Main Street.
Install new conduit, junction boxes, and duct bank.

**Duct bank under roadways shall be constructed using TTC 16.0 (Temporary Outside Lane Closure) and as necessary, flagging.*

McCormick Taylor
Engineers & Planners Since 1946

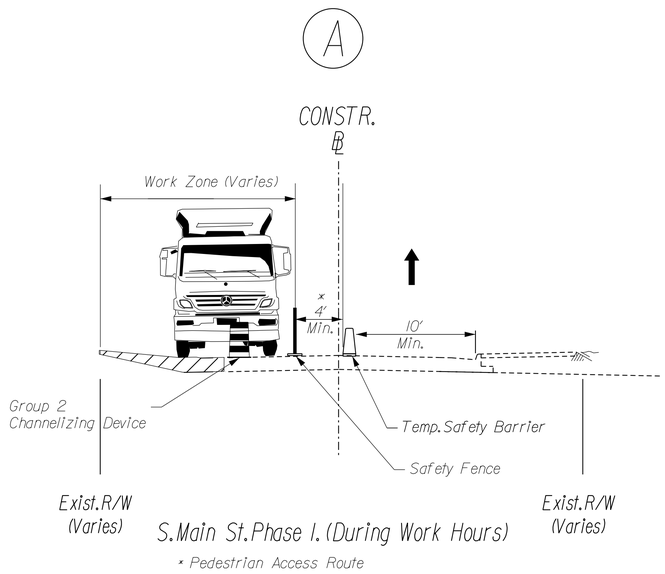
REV	DATE	DESCRIPTION	BY

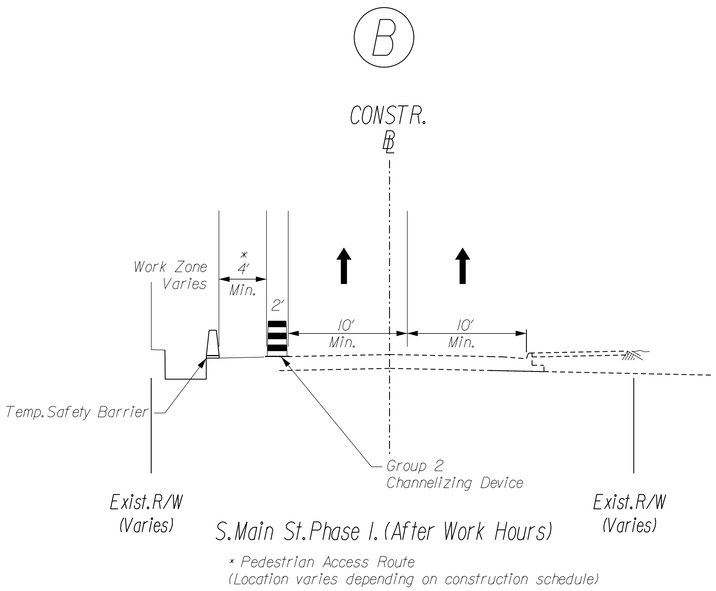
SCALE: NTS
DRAWN BY MDL DATE
CHECKED BY RJD DATE
DESIGN BY MDL DATE
TAX MAP

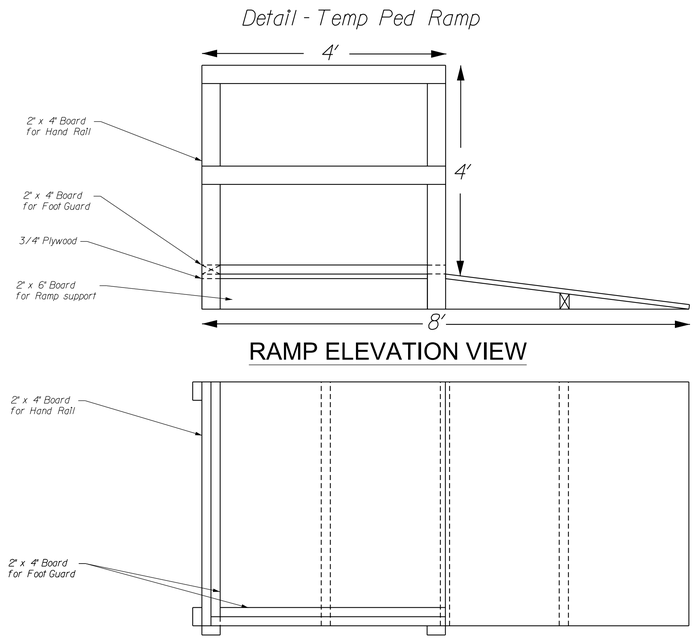
MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTR.
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

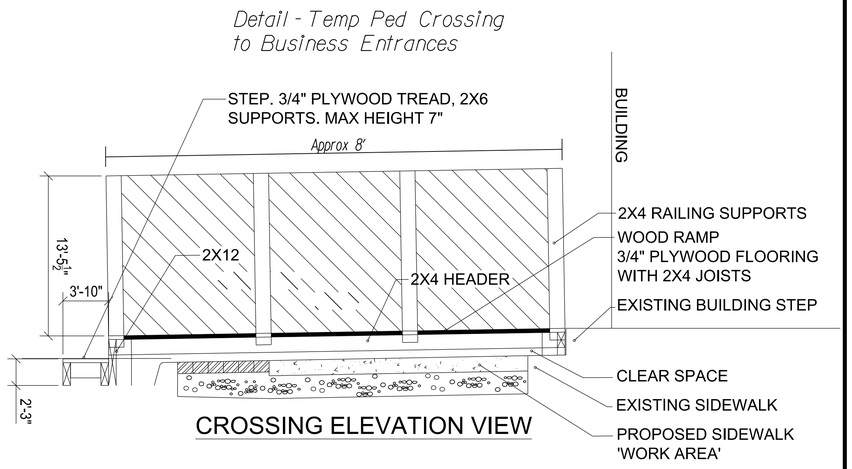
SHEET
8B

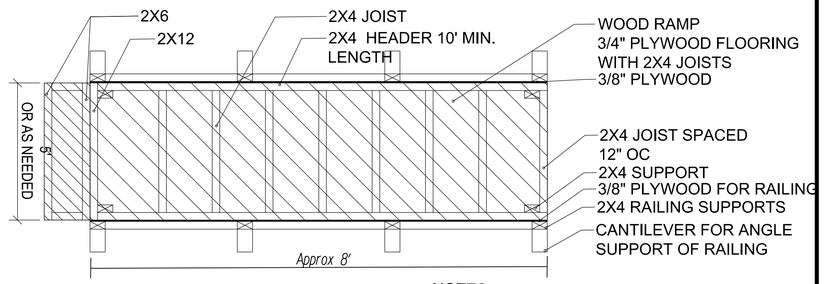
SUGGESTED MAINTENANCE OF TRAFFIC PLAN
TYPICAL SECTIONS



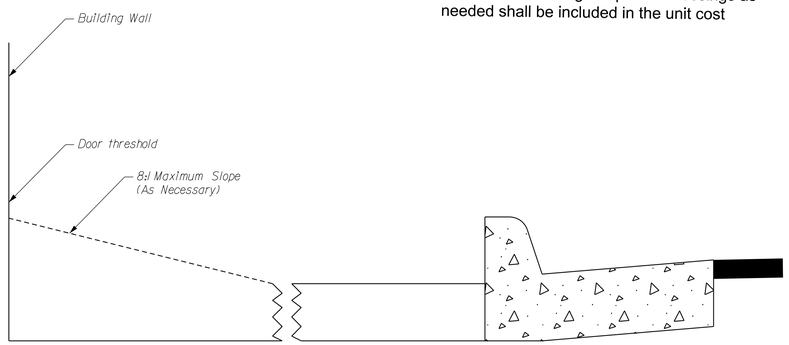








NOTES:
1. Contractor shall submit shop drawing to the engineer for approval
2. Contractor shall be respondsible for the maintainence of the ramps and crossings
3. Cost of relocating ramps and crossings as needed shall be included in the unit cost



McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY MDL DATE
CHECKED BY RJO DATE
DESIGN BY MDL DATE
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 8C

DGN
$DGNLEV

$REF001
$LEV001

$REF002
$LEV002

$REF003
$LEV003

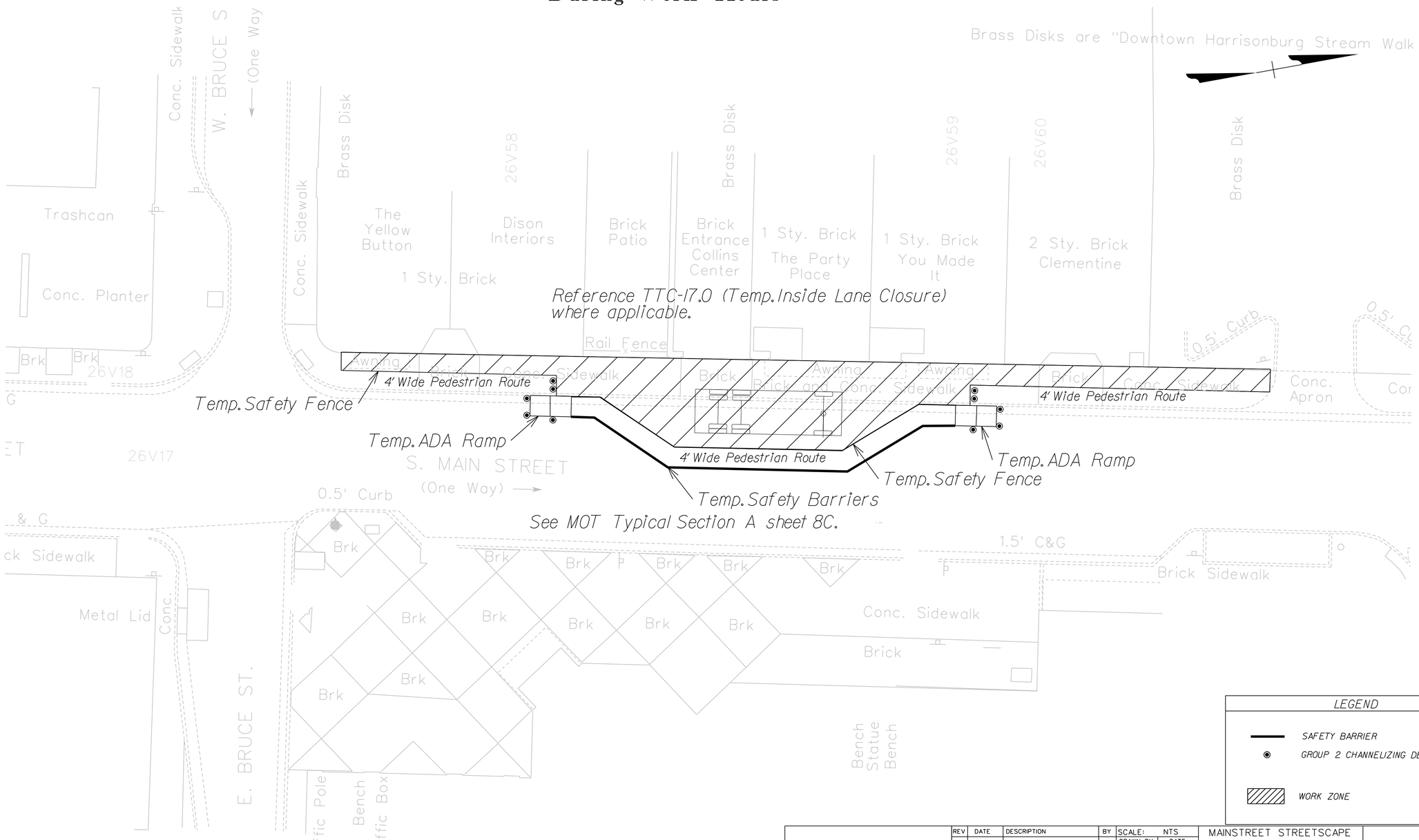
$REF004
$LEV004

$REF005
$LEV005

$REF006
$LEV006

PHASE 1 MAINTENANCE OF PEDESTRIANS

During Work Hours



SCALE
0 10' 20'

LEGEND

- SAFETY BARRIER
- GROUP 2 CHANNELIZING DEVICE
- WORK ZONE

$TIMESTAMP$

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

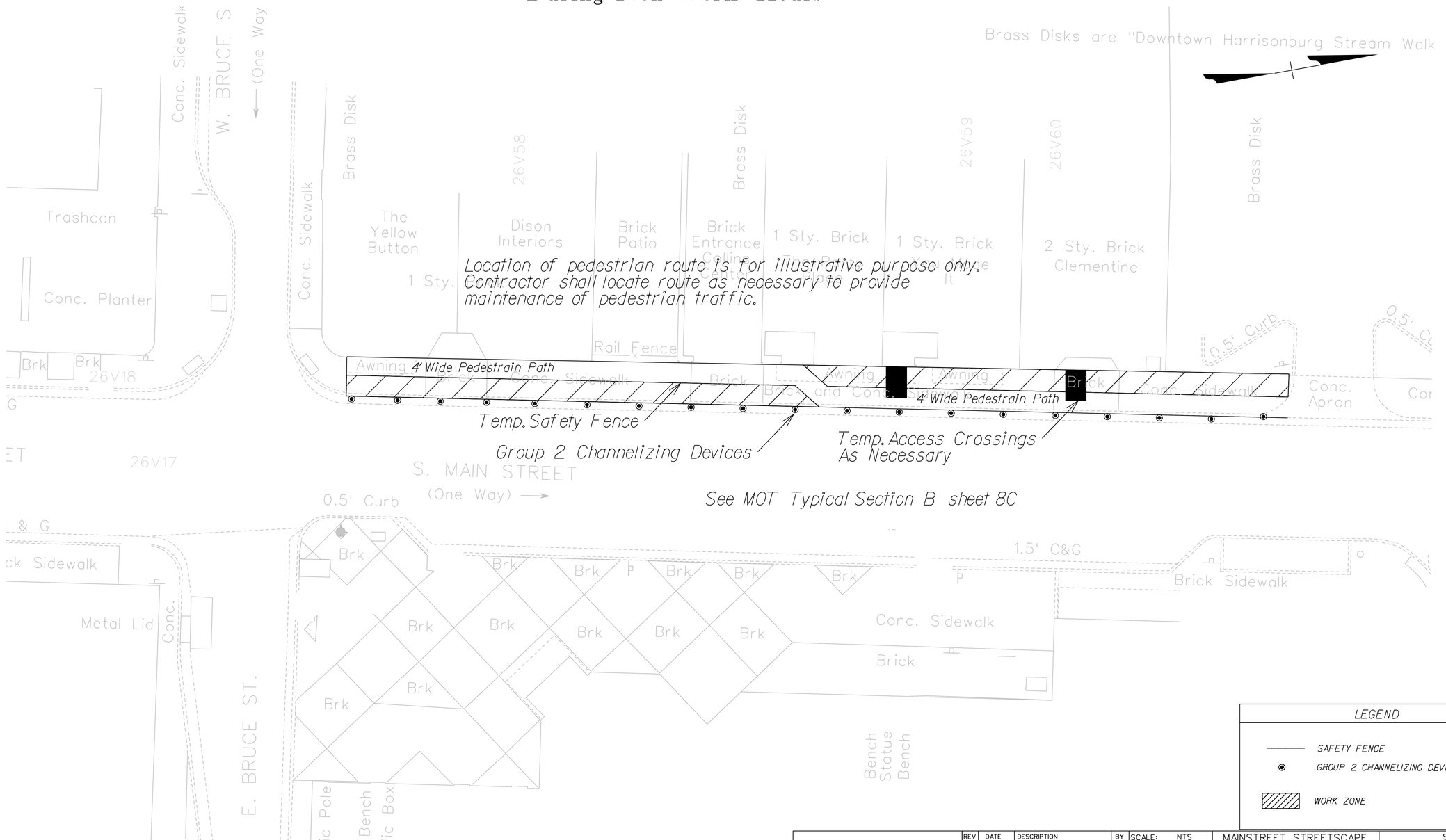
SCALE: NTS
DRAWN BY DATE
MDL
CHECKED BY DATE
RJD
DESIGN BY DATE
MDL
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET
8C1

DGN $REF001 $REF002 $REF003 $REF004 $REF005 $REF006
$DGNLEV $LEV001 $LEV002 $LEV003 $LEV004 $LEV005 $LEV006

PHASE 1 MAINTENANCE OF PEDESTRIANS
During Non-Work Hours



LEGEND

- SAFETY FENCE
- GROUP 2 CHANNELIZING DEVICE
- WORK ZONE

SCALE 0 10' 20'

$TIME$ST.AMP$

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY DATE: MDL
CHECKED BY DATE: RJD
DESIGN BY DATE: MDL
TAX MAP

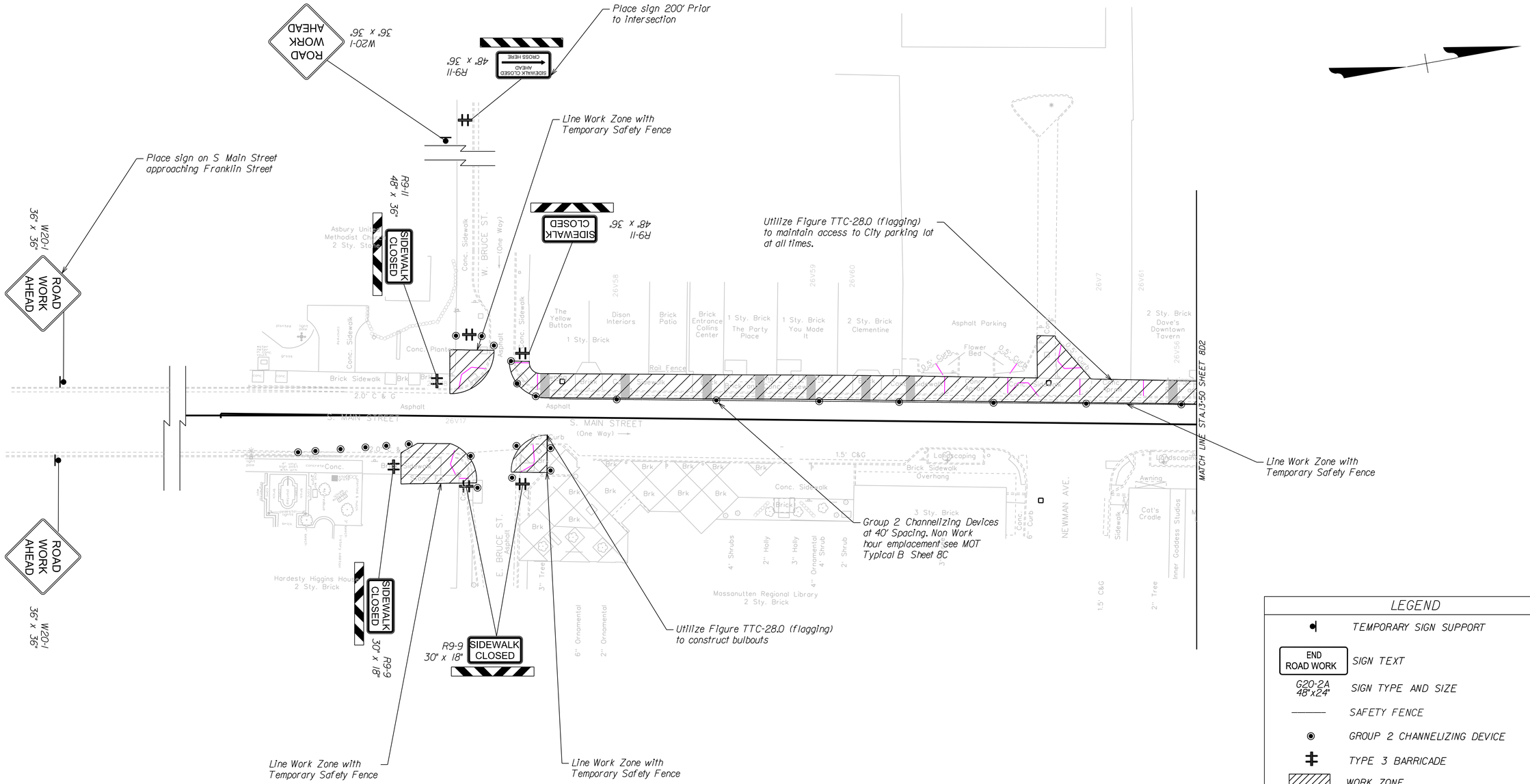
MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 8C2

DGN $REF001 $REF002 $REF003 $REF004 $REF005 $REF006
$DGNLEV $LEV001 $LEV002 $LEV003 $LEV004 $LEV005 $LEV006

SUGGESTED MAINTENANCE OF TRAFFIC

Phase 1: West Side of Main Street



LEGEND

- TEMPORARY SIGN SUPPORT
- END ROAD WORK — SIGN TEXT
- G20-2A 48"x24" — SIGN TYPE AND SIZE
- SAFETY FENCE
- GROUP 2 CHANNELIZING DEVICE
- TYPE 3 BARRICADE
- WORK ZONE
- TEMPORARY PEDESTRIAN CROSSING

SCALE
0 25' 50'

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY MDL DATE
CHECKED BY RJD DATE
DESIGN BY MDL DATE
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

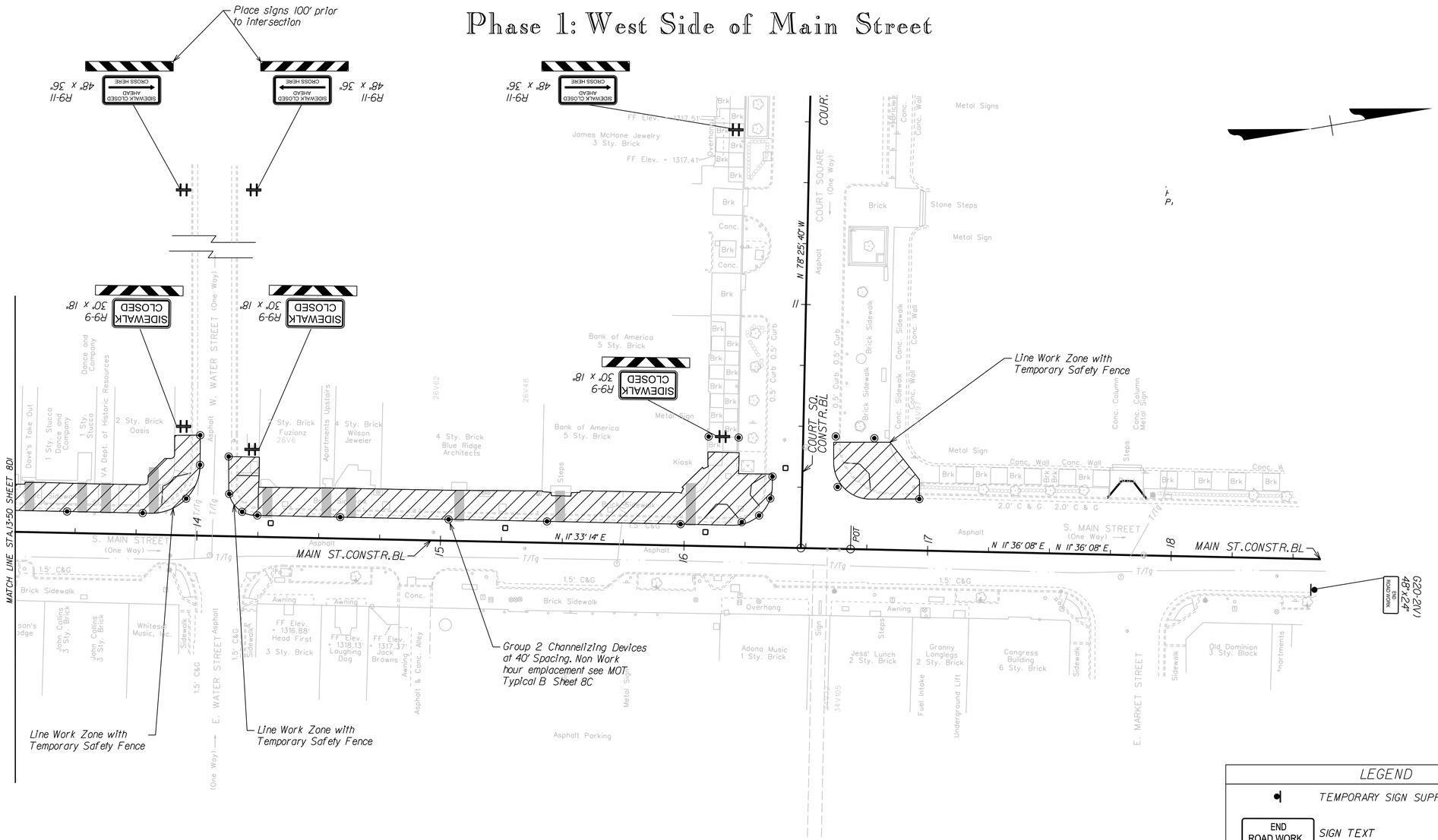
SHEET 8D1

$TIME$STAMP$

DGN $REF001 $REF002 $REF003 $REF004 $REF005 $REF006
$DGNLEV $LEV001 $LEV002 $LEV003 $LEV004 $LEV005 $LEV006

SUGGESTED MAINTENANCE OF TRAFFIC

Phase 1: West Side of Main Street



LEGEND

- TEMPORARY SIGN SUPPORT
- END ROAD WORK — SIGN TEXT
- G20-2A 48"x24" — SIGN TYPE AND SIZE
- SAFETY FENCE
- GROUP 2 CHANNELIZING DEVICE
- TYPE 3 BARRICADE
- WORK ZONE
- TEMPORARY PEDESTRIAN CROSSING

SCALE
0 25' 50'

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS
DRAWN BY DATE
MDL
CHECKED BY DATE
RJD
DESIGN BY DATE
MDL
TAX MAP

MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

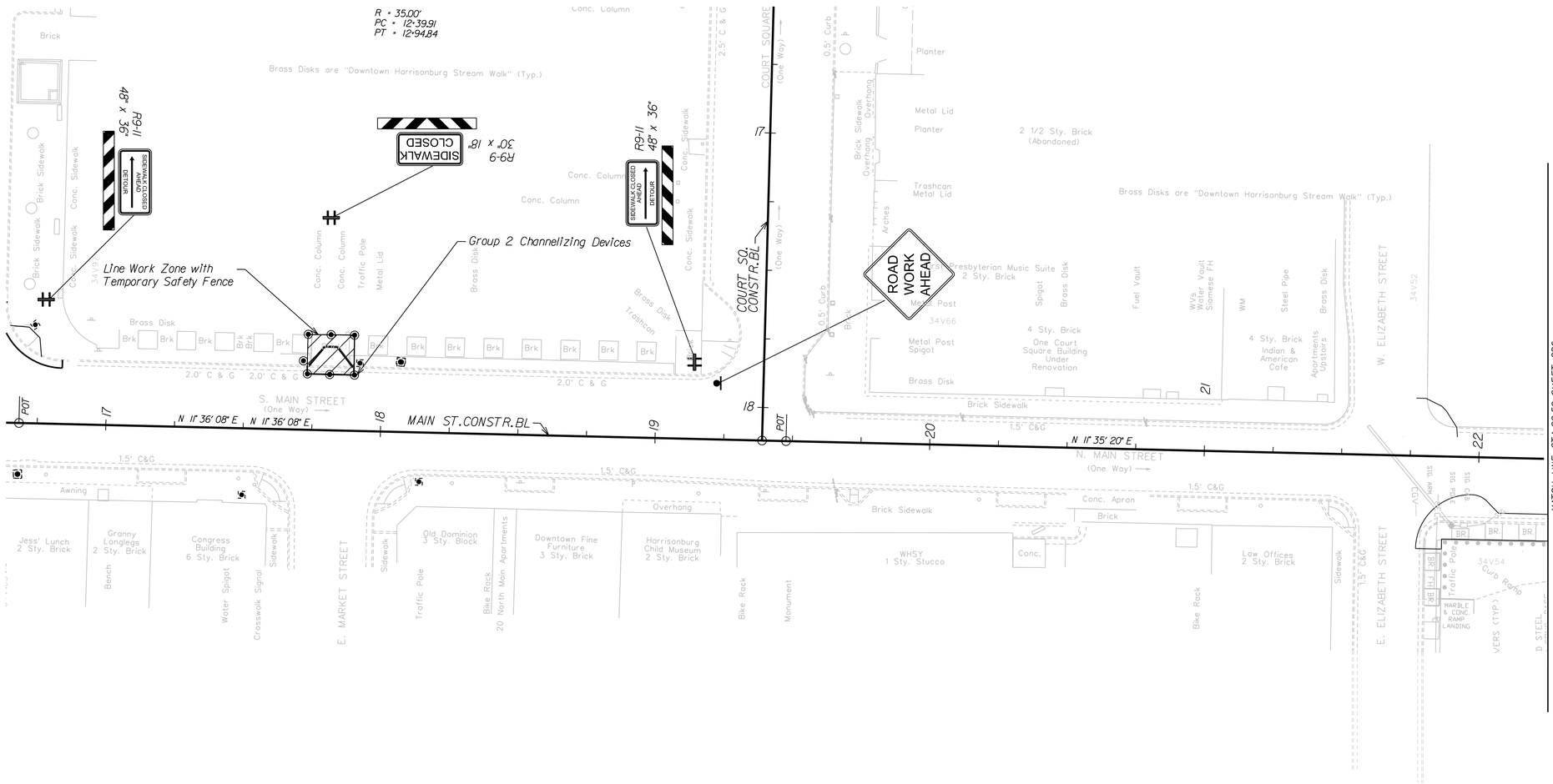
SHEET 8D2

$TIME$STAMP$

DGN $REF001 $REF002 $REF003 $REF004 $REF005 $REF006
$DGNLEV $LEV001 $LEV002 $LEV003 $LEV004 $LEV005 $LEV006

SUGGESTED MAINTENANCE OF TRAFFIC

Phase 2B: East Side of Main Street



SCALE
0 25' 50'

LEGEND

- TEMPORARY SIGN SUPPORT
- END ROAD WORK — SIGN TEXT
- G20-2A 48"x24" — SIGN TYPE AND SIZE
- SAFETY FENCE
- GROUP 2 CHANNELIZING DEVICE
- TYPE 3 BARRICADE
- WORK ZONE

McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: NTS

DRAWN BY	DATE
MDL	
CHECKED BY	DATE
RJD	
DESIGN BY	DATE
MDL	

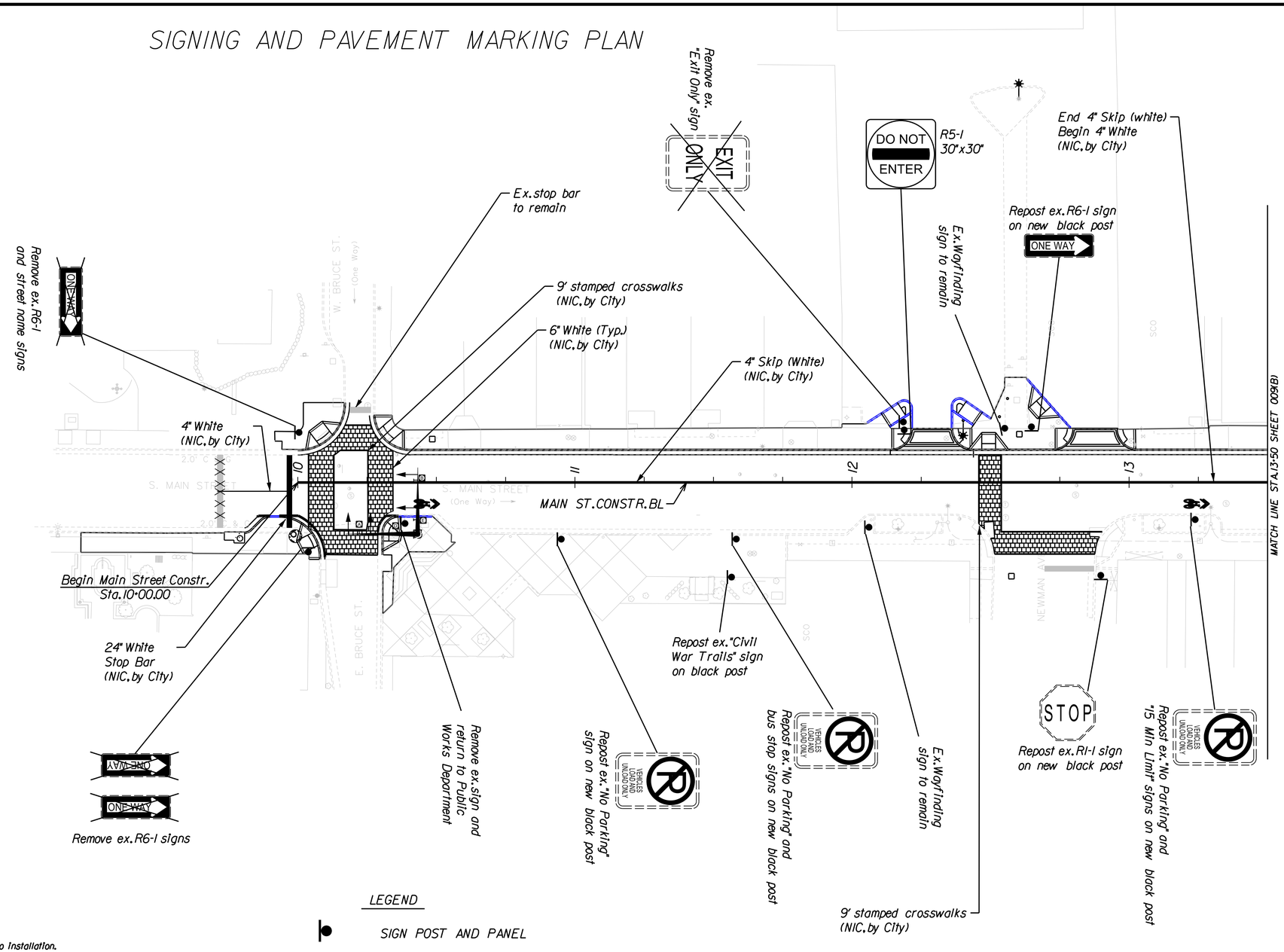
TAX MAP

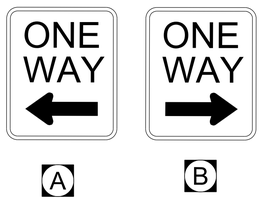
MAINSTREET STREETSCAPE (PHASE 2)
MAINTENANCE OF TRAFFIC GENERAL NOTES
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET 8D3

$TIME$STAMP$

SIGNING AND PAVEMENT MARKING PLAN





S. Main St

D

Bruce St

E

GENERAL NOTES

1. Sign locations are to be staked by the Contractor and approved by the Engineer prior to installation.
2. Unless otherwise approved by the Engineer, existing traffic signs which are to be removed shall remain in place until the new sign post and critical sign message are in place.
3. Unless otherwise indicated on the plans, all breakaway sign posts shall be located within 25 feet of the sign's current field location or as directed by the Engineer.
4. Pavement markings shall be Type B, Class I marking unless otherwise noted.
5. Existing pavement markings that conflict with proposed pavement markings shall be eradicated as directed by the Engineer.
6. All signs shall be erected on black powder-coated 2"x2" square channel steel posts without holes. The posts shall be topped with silver pyramidal caps (2"x2" cast aluminum rain cap, Korman Item no. HCC22 or equivalent).
7. All skip lines shall be 4" white, 10' lines with 30' spacing and all mini-skip lines shall be 4" white, 2' lines with 4' spacing.
8. All pavement striping and stamping to be completed by City forces.
9. All removed signs shall be returned to the City

LEGEND

- SIGN POST AND PANEL
- STOP — PROPOSED SIGN
- STOP — EXISTING SIGN
- D — MAST-ARM-MOUNTED SIGN (SEE SIGNAL PLANS FOR DETAILS)

McCormick Taylor
Engineers & Planners Since 1946

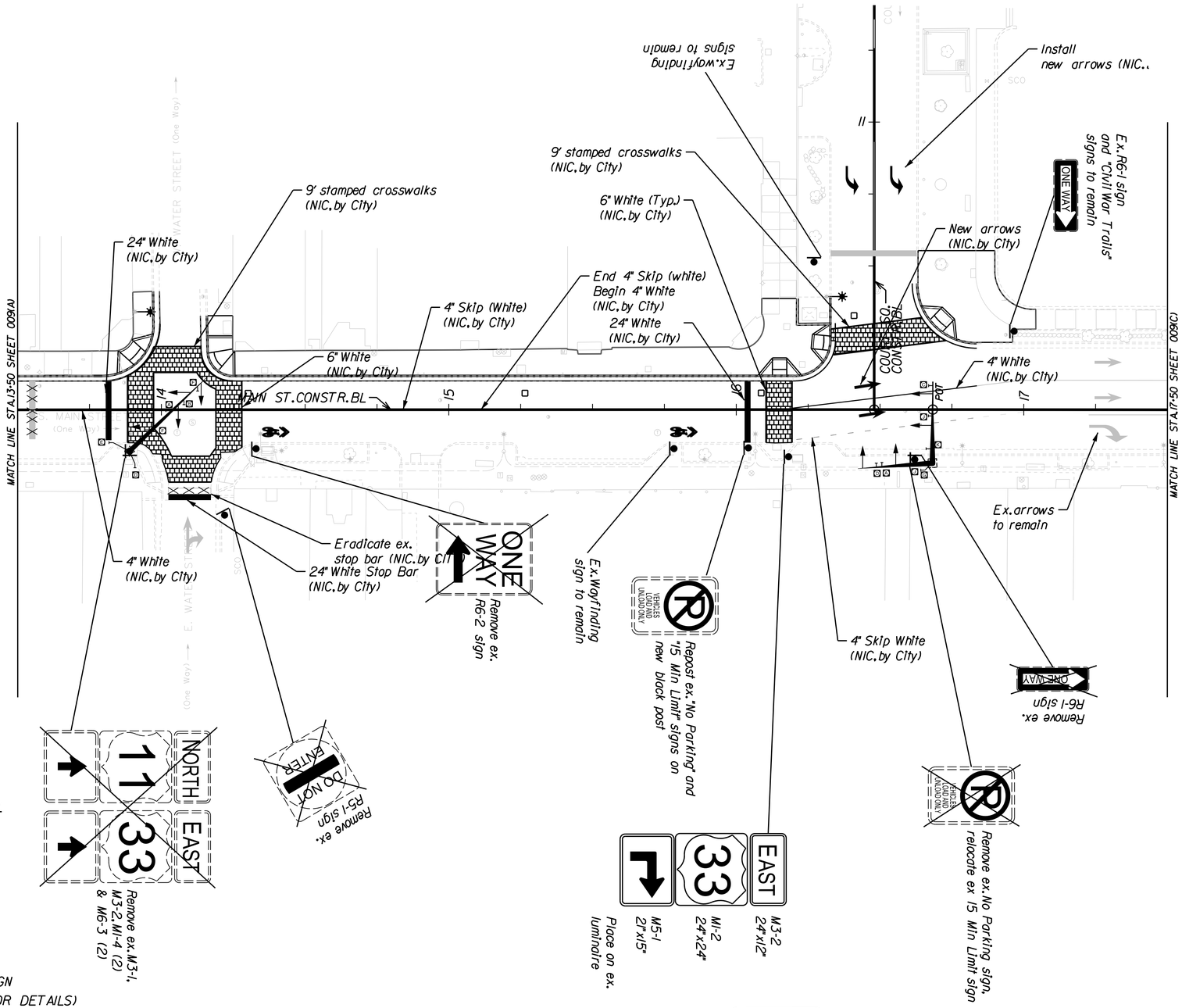
REV	DATE	DESCRIPTION	BY

SCALE: 1" = 20'
DRAWN BY JSS DATE
CHECKED BY MDL DATE
DESIGN BY JRD DATE
TAX MAP

MAIN STREET STREETSCAPE (PHASE 2)
STREETSCAPE PLAN STA. 10+00-13+50
DEPT. OF PUBLIC WORKS CITY OF HARRISONBURG
320 EAST MOSBY ROAD HARRISONBURG, VIRGINIA

SHEET 9(A)

SIGNING AND PAVEMENT MARKING PLAN



LEGEND

- SIGN POST AND PANEL
- PROPOSED SIGN
- EXISTING SIGN
- MAST-ARM-MOUNTED SIGN (SEE SIGNAL PLANS FOR DETAILS)

ONE WAY A | ONE WAY B | NO TURN ON RED F | S. Main St D | Water St E

ONE WAY A | C | NO TURN ON RED D | VEHICLES LOAD AND UNLOAD ONLY 15 MIN LIMIT G | Main St J | Court Square K

McCormick Taylor
Engineers & Planners Since 1946

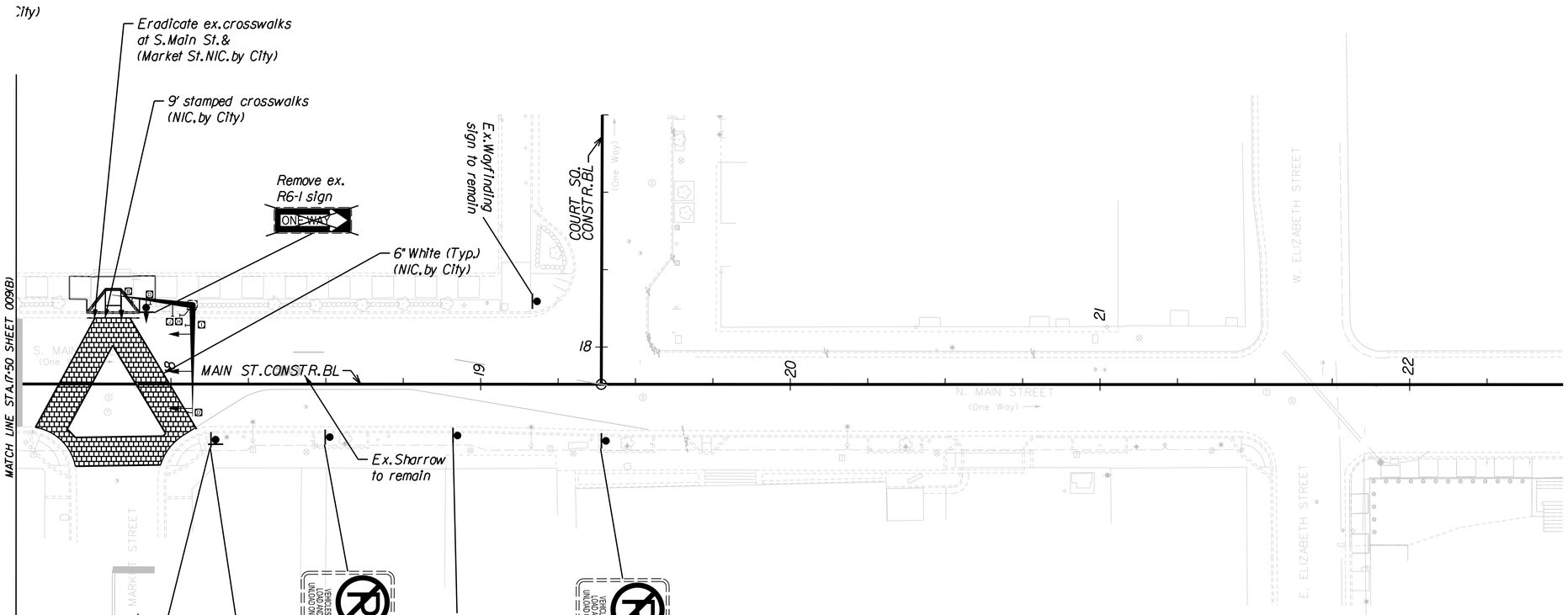
REV	DATE	DESCRIPTION	BY

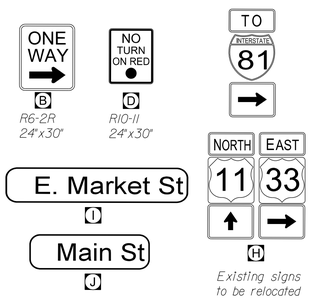
SCALE: 1" = 20'
DRAWN BY DATE: JSS
CHECKED BY DATE: RJD
DESIGN BY DATE: JRD
TAX MAP

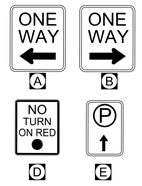
MAIN STREET STREETSCAPE (PHASE 2)
STREETSCAPE PLAN STA. 13+50-17+50
DEPT. OF PUBLIC WORKS CITY OF HARRISONBURG
320 EAST MOSBY ROAD HARRISONBURG, VIRGINIA

SHEET 9(B)

SIGNING AND PAVEMENT MARKING PLAN







McCormick Taylor
Engineers & Planners Since 1946

REV	DATE	DESCRIPTION	BY

SCALE: 1" = 20'
DRAWN BY DATE: JSS
CHECKED BY DATE: RJD
DESIGN BY DATE: JRD
TAX MAP

MAIN STREET STREETSCAPE (PHASE 2)
STREETSCAPE PLAN
STA. 17+50-22+50
DEPT. OF PUBLIC WORKS
CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET
9(C)

Erosion Sediment Control Narrative

PROJECT DESCRIPTION

The purpose of this project is to reconstruct sidewalk, curb and gutter, pedestrian crossings, and traffic signals in downtown Harrisonburg, Virginia. The site is located in the City of Harrisonburg, Virginia along Main Street. From the intersection with Bruce Street to the intersection of Wolfe Street. The work areas will include the east and west sides of Main Street from the curb line to the edge of any adjoining buildings. A total of 0.2± acres will be disturbed during construction.

EXISTING SITE CONDITIONS

The site is urban consisting of asphalt streets and concrete sidewalk. The east side is bordered with small areas of grass cover at the City Courthouse, US District Court, and Catholic Church. The project is not disturbing these areas. The area is generally flat with no significant slopes.

ADJACENT PROPERTY

The majority of the site is bordered by commercial properties.

OFF-SITE AREA

If cut/fill is to be imported or exported, it is to be taken to/from an approved ESC site.

SOILS

(24B2): Endcav silt loam, 2 to 7% slopes, eroded. Land consists of gently sloping, well drained soils on ridgetops, hills, and side slopes. The areas of this soil are rectangular and range from 3 to 40 acres. Many have shallow drainage ways about 100 to 300 feet apart. Typically the surface layer is dark yellowish brown silt loam about 7 inches thick. The subsoil is strong brown and yellowish brown clay 50 inches thick. Limestone bedrock is at a depth of 57 inches. The permeability of these soils is slow, and the available water capacity is moderate. Runoff is medium. The subsoil has a high shrink-swell potential. K value for the Endcav soils, K=0.37 for 0 to 7 inches, K=0.20 for 7 to 57 inches depth.

(73): Urban Land. Soils that have been covered by streets, parking lots, and buildings. Areas mainly near towns and cities, and are not assigned to a capability subclass.

CRITICAL EROSION AREAS

There are no critical erosion areas.

EROSION & SEDIMENT CONTROL MEASURES

Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to the minimum standards and specifications of the Virginia Erosion and Sediment Control Regulations, latest edition. The minimum standards of the handbook shall be adhered to unless otherwise waived or approved by a variance.

STRUCTURAL PRACTICES

1. Strom Drain Inlet Protection-3.07
A sediment filter located at the inlet to storm sewer culverts, used to prevent sediment from entering and accumulating in and being transferred by a culvert and associated drainage system prior to permanent stabilization of a disturbed project area.

2. Other practices shall be provided if determined by the Engineer or City E&SC Administrator.

VEGETATIVE PRACTICES

1. Top soiling (stockpile)
Topsoil will be stripped from areas to be graded and stockpiled for later use and will be stabilized by silt fencing, or seeding with appropriate seed mix for the time of year.

2. Erosion Control Blankets or Mulch and Seeding
Erosion control blankets (VDOT Standard EC-2), if needed, will be installed over fill slopes greater than 2.5:1 which have been brought to final grade and have been seeded to protect the slopes from rill and gully erosion and to allow seed to germinate properly. Mulch (straw or fiber) will be used on relatively flat areas and will be applied as a second step in the seeding operation.

MANAGEMENT STRATEGIES

1. Sediment trapping measures to be installed prior to any excavation on site

2. Construction will be sequenced so that existing cover will not be disturbed anymore than necessary.

3. Construction will be sequenced so that grading operations can begin and end as quickly as possible.

4. Temporary seeding or other stabilization will follow immediately after grading.

5. Areas, which are to be disturbed, will be clearly marked by flags, signs, etc.

6. The job superintendent shall be responsible for the installation and maintenance of all erosion and sediment control practices.

7. After achieving adequate stabilization to the satisfaction of the E&SC Administrator, the temporary E&S controls will be cleaned up.

PERMANENT STABILIZATION

All areas disturbed by construction and not otherwise stabilized, shall be stabilized with permanent seeding within 7 days following finish grading. Seeding shall be done according to standard & specification 3.32, PERMANENT SEEDING, of the handbook Seeding shall be applied depending on time of the year according to E & S C handbook specifications. In all seeding operations, seed, fertilizer, and lime will be applied prior to mulching. Erosion control blankets will be installed over fill slopes which have been brought to final grade and have been seeded to protect the slopes from rill and gully erosion and to allow seed to germinate properly. Mulch (straw or fiber) will be used on relatively flat areas. In all seeding operations, seed, fertilizer, and lime will be applied prior to mulching.

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REV	DATE	DESCRIPTION	BY

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TAX MAP

MAIN STREET STREETSCAPE (PHASE 2)
E&S-GRADE PLAN
STA. 10+00-13+50
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CITY OF HARRISONBURG
320 EAST MOSBY ROAD
HARRISONBURG, VIRGINIA

SHEET
10(1)

Erosion Sediment Control Notes & Details

1. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

2. During construction of the project, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.

3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that, is uniform, mature enough to survive and will inhibit erosion.

4. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land–disturbing activity and shall be made functional before upslope land disturbance takes place.

5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.

6. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.

a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.
b. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a twenty–five year storm of 24–hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.

7. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.

8. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.

9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.

10. All storm sewer inlets that are made operable during construction shall be protected so that sediment–laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.

11. Before newly constructed stormwater conveyance channels or pipes are made
operational, adequate outlet protection and any required temporary or permanent
channel lining shall be installed in both the conveyance channel and receiving channel.

12. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Nonerodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by nonerodible cover materials.

13. When a live watercourse must be crossed by construction vehicles more than twice in any six–month period, a temporary vehicular stream crossing constructed of nonerodible material shall be provided.

14. All applicable federal, state and local regulations pertaining to working in or crossing live watercourses shall be met.

15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.

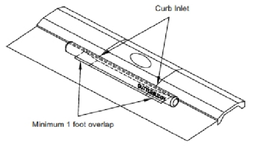
16. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
a. No more than 500 linear feet of trench may be opened at one time.
b. Excavated material shall be placed on the uphill side of trenches.
c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off–site property.
d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
e. Restabilization shall be accomplished in accordance with these regulations.
f. Applicable safety regulations shall be complied with.

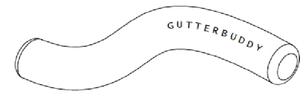
17. Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land–disturbing activities.

18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the local program authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24–hour duration in accordance with the following standards and criteria:

a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man–made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
b. Adequacy of all channels and pipes shall be verified in the following manner:
(1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or
(2) (a) Natural channels shall be analyzed by the use of a two–year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks; and
(b) All previously constructed man–made channels shall be analyzed by the use of a ten–year storm to verify that stormwater will not overtop its banks and by the use of a
two–year storm to demonstrate that stormwater will no cause erosion of channel bed or banks; and
(c) Pipes and storm sewer systems shall be analyzed by the use of a ten–year storm to verify that stormwater will be contained within the pipe or system.
c. If existing natural receiving channels or previously constructed man–made channels or pipes are not adequate, the applicant shall:
(1) Improve the channel to a condition where a ten–year storm will not overtop the banks and a two–year storm will not cause erosion to the channel bed or banks; or
(2) Improve the pipe or pipe system to a condition where the ten–year storm is contained within the appurtenances; or
(3) Develop a site design that will not cause the pre–development peak runoff rate from a two–year storm to increase when runoff outfalls into a natural channel or will not cause the pre–development peak runoff rate from a ten–year storm to increase when runoff outfalls into a man–made channel; or
(4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the plan–approving authority to prevent downstream erosion.
d. The applicant shall provide evidence of permission to make the improvements.
e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development of the subject project.
f. If the applicant chooses an option that includes stormwater detention he shall obtain approval from the locality of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.
g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.
h. All on–site channels must be verified to be adequate.
i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.
j. In applying these stormwater runoff criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.
k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.





DROP INLET PROTECTION (GUTTER BUDDY OR EQUIVALENT) N.T.S.

LEGEND

SSF	Denotes Temporary Super Silt Fence (Silt Fence with Wire Support, VESCH 3.05)
DISTA	Denotes Inlet Protection, Type A; St'd EC-6
DISTB	Denotes Inlet Protection, Type B; St'd EC-6
DISTB *	Denotes Existing Inlet Protection, (Requires Clean out and Rebuild)

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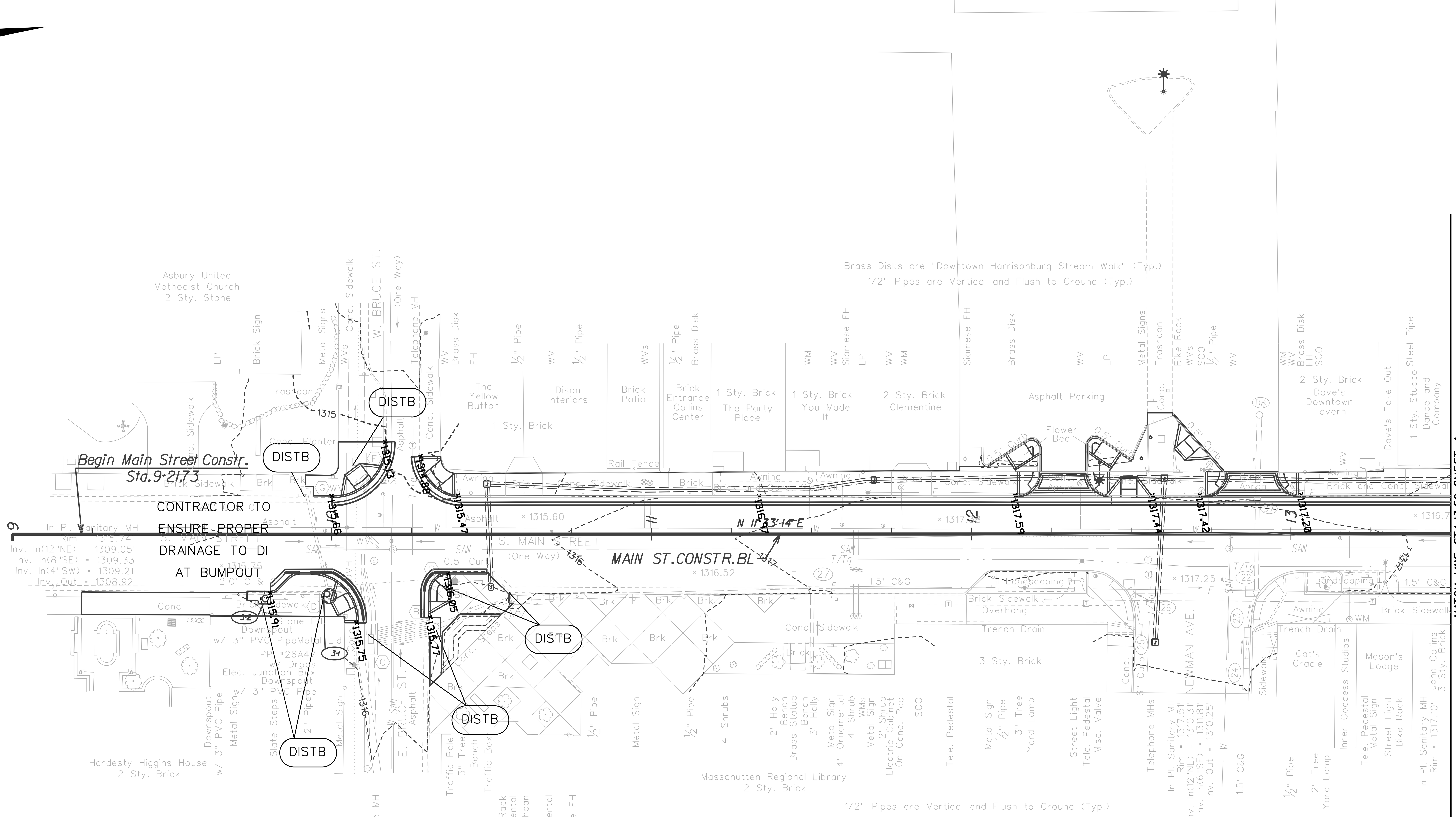

F
In Pl. Vault
(Approx. Location & Size)
Rim = 1315.46'
4 Recessed Pipes In -
Cannot Confirm Size or Type
(Approx. Location)
Bottom of Structure = 1310.39'
Inv. Out = 1310.37'
In Pl. 60"x38" CMP

D
In Pl. 10" CMP
In Pl. DI
Rim = 1315.82'
Inv. In = 1313.47'
Inv. Out = 1312.57'
In Pl. 8" Iron Pipe
(Blind Connection)

G
In Pl. 12" CMP
In Pl. DI
Rim = 1315.98'
Inv. In = 1313.16'
Inv. Out = 1313.13'
In Pl. 8" RCP

D7
Catch Basin
Top of Grate= 1316.95
18" RCP Flow Line= 1315.75

D8
SDMH
Top of Rim= 1317.04
18" RCP Flow Line= 1312.09

21 Drop Inlet
Top Grate = 1316.81
12" CMP Out = 1315.16

24 Drop Inlet
Top Grate = 1317.65
8" CMP Out = 1315.71

27 Drop Inlet
Top Grate = 1317.08
12" CMP In = 1313.59
18" RCP Out = 1313.5C

22 Grate Inlet In Conc.
Top Grate = 1317.18
8" CMP In = 1314.88
12" CMP In = 1314.88
15" T.C. Out = 1313.73

25 Drop Inlet
Top Grate = 1317.41
8" CMP In = 1316.04 (Roof Drain)
12" CMP Out = 1315.96

26 Grate Inlet In Conc.
Top Grate = 1317.12
12" CMP In = 1315.47
12" CMP Out = 1315.37

23 Drop Inlet
Top Grate = 1317.14
8" CMP In =
8" CMP Out =

G
In Pl. DI
Rim = 1315.84'
Inv. Out = 1312.39'
In Pl. 10" TC
(Blind Connection)

C
In Pl. 24" RCP
In Pl. CDI/Vault
Rim = 1315.42'
Inv. In(24"SE) = 1312.44'
Inv. In(8")E = 1312.98'
Inv. In(8") = 1312.93'
Inv. In(8") = 1312.74'
Inv. In(8") = 1312.69'
Inv. In(8")W = 1312.45'
Invs. Out = 1312.41'
In Pl. (2) 15" TC

B
In Pl. DI
Rim = 1315.80'
Inv. In = 1313.10'
Inv. Out(W) = 1313.30'
Inv. Out = 1313.60'
Inv. Out = 1313.60'
Inv. Out = 1313.70'
Inv. Out(E) = 1313.65'
In Pl. (5)17LF- 8" Iron Pipes

A
In Pl. 18" RCP
In Pl. DI
Rim = 1315.98'
Inv. In = Unable to Determine
(Pipe Recessed)
Bottom of Structure = 1312.68'
Inv. Out = 1313.18'
In Pl. 18" RCP

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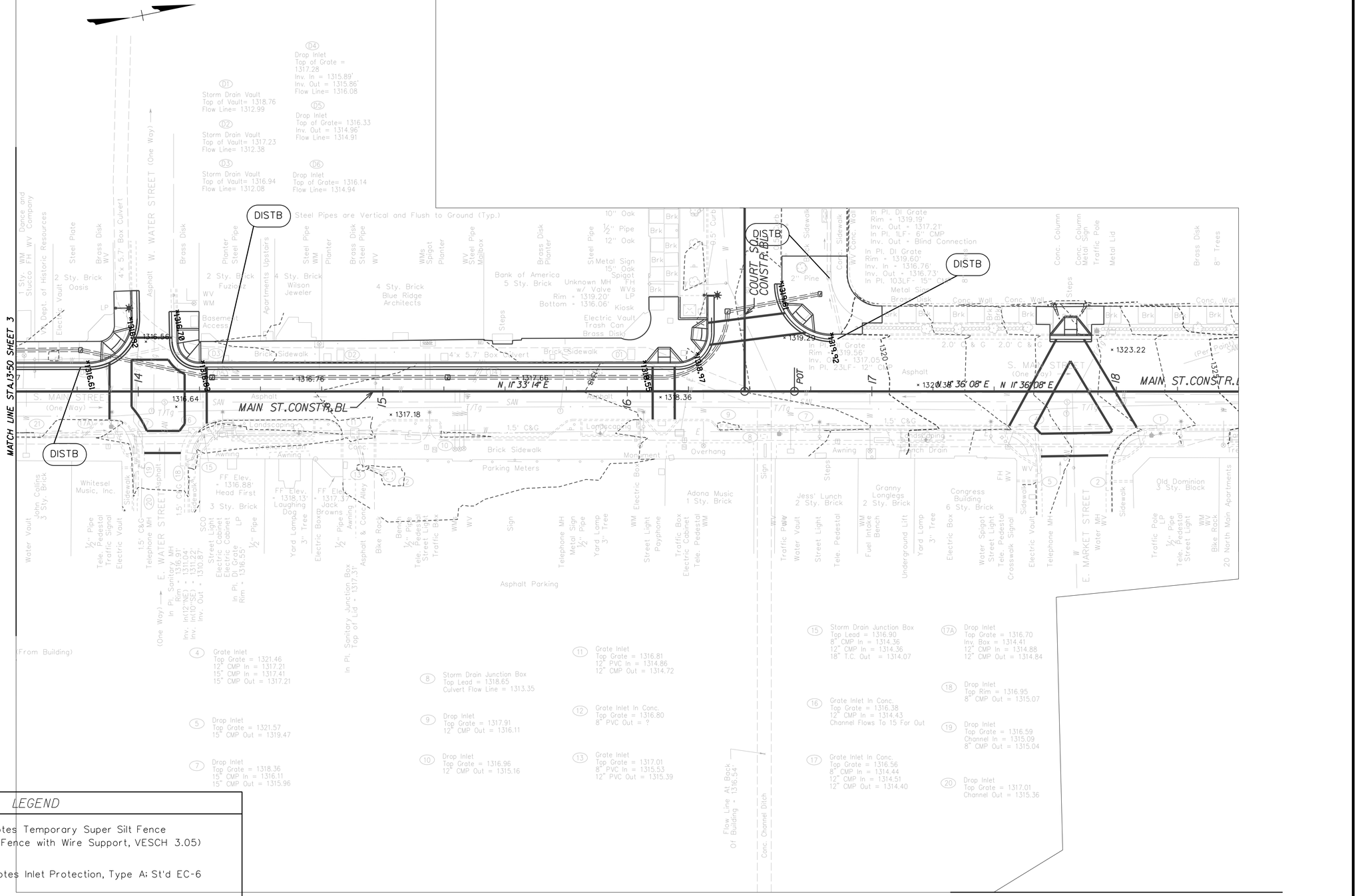

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SHEET 10(4)