

ON-STREET BICYCLE FACILITY IMPROVEMENT PROJECT LAFAYETTE ROAD/MIDDLE STREET



IN THE CITY OF
PORTSMOUTH
ROCKINGHAM COUNTY
STATE OF NEW HAMPSHIRE
FHWA PROJECT NO. X-A003(791)
NHDOT PROJECT NO. 28757
PORTSMOUTH BID NO. 28-18

GPI Greenman-Pedersen, Inc.
Engineering & Construction Services
21 Daniel Street, Second Floor, Portsmouth, NH 03801
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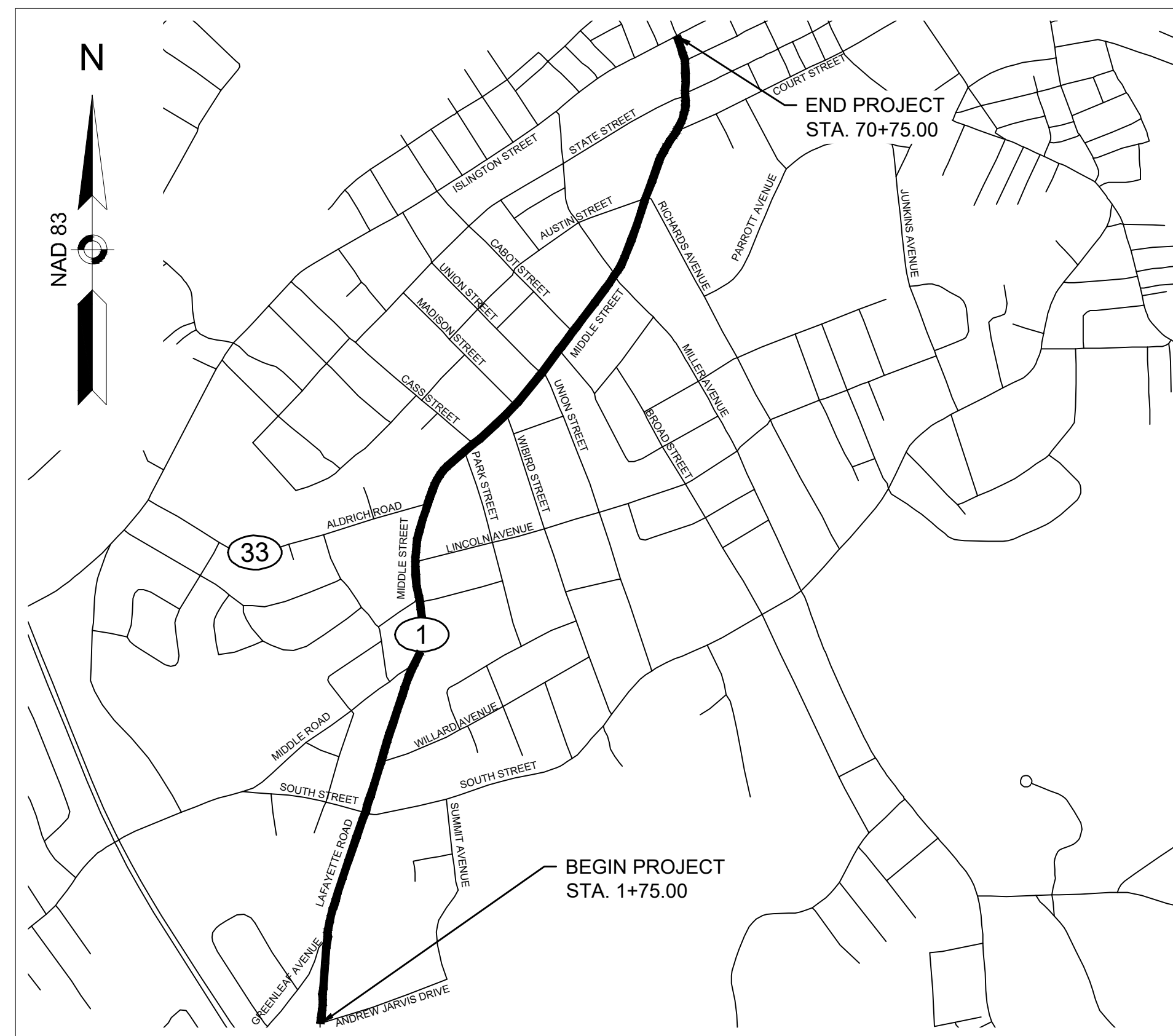


PREPARED FOR
CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, NH

ON-STREET BICYCLE FACILITY
IMPROVEMENT PROJECT
LAFAYETTE ROAD/MIDDLE STREET
PORTSMOUTH, NH

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LOCATION MAP



NOTE: SEPARATE SPECIAL PROVISIONS ARE A PART OF THIS CONTRACT.

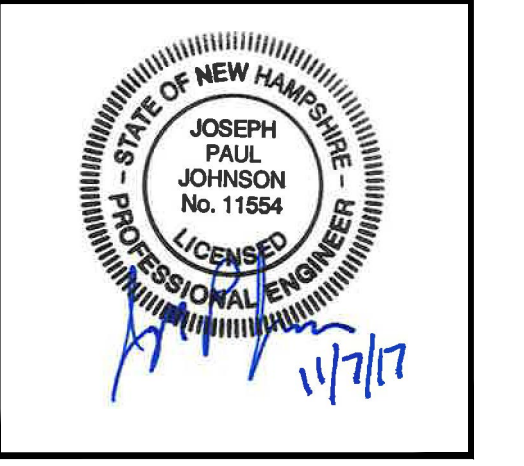
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3	NHDOT COMMENTS	11/7/17
2	FINAL DESIGN	7/28/17
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07/28/2017		
DRAWN/DESIGN BY		CHECKED BY
EMR		JPJ

**TITLE SHEET &
INDEX**

SCALE: N.T.S.

28757

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 1 JUNKINS AVENUE
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**LEGEND &
 ABBREVIATIONS**

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- GENERAL NOTES**
- EXISTING CONDITIONS GIS SHAPEFILE DATA FOR THIS PROJECT WAS PROVIDED BY THE CITY OF PORTSMOUTH, NH AND IS SHOWN IN THESE PLANS AS APPROXIMATE ONLY. ADDITIONAL EXISTING CONDITIONS INFORMATION WAS GATHERED FROM AERIAL PHOTOGRAPHY PROVIDED BY THE CITY OF PORTSMOUTH, NH AND IS USED FOR REFERENCE PURPOSES ONLY. GREENMAN-PEDERSEN, INC. MAKES NO CLAIM TO THE ACCURACY OF THE EXISTING CONDITIONS AS SHOWN ON THE PLANS.
 - THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2016, CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL. THESE PLANS HAVE BEEN CREATED TO BE USED TOGETHER WITH THE CONTRACT AND SPECIFICATIONS TO CREATE ONE COMPLETE BID AND CONSTRUCTION DOCUMENT.
 - CONTRACTOR SHALL TAKE SPECIAL CARE IN NOT DISTURBING EXISTING MONUMENTS, BOUNDS, AND/OR BENCHMARKS WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
 - THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
 - AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
 - THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R & R).
 - ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
 - ALL SYMBOLS, WORDS, TRANSVERSE MARKINGS (STOP BARS, CROSSWALK LINES) SHALL BE THERMOPLASTIC.
 - THE CONTRACTOR SHALL CONTACT THE PORTSMOUTH DEPARTMENT OF PUBLIC WORKS AT (603) 427-1530 ONE WEEK PRIOR TO PAVEMENT MARKING.
 - ALL EXISTING STATE, COUNTY, CITY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE GIS INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED. ALL PROPERTY LINES BETWEEN ABUTTERS ARE APPROXIMATE ONLY.
 - LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE LINES ARE NOT SHOWN.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT DIG SAFE (888-DIG-SAFE) AND THE LOCAL WATER AND SEWER DEPARTMENTS AT LEAST 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
 - GROUND SURVEY IS NOT PROVIDED. THE LAYOUT SHALL BE BASED ON BEST FIT. TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.
 - THE CONTRACTOR SHALL OBLITERATE CONFLICTING PAVEMENT MARKINGS AND STRIPING WITHIN THE LIMITS OF WORK.
 - WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
 - THE LIMIT OF THE WORK AREA SHALL BE THE STREET RIGHT-OF-WAY.
 - THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL MATERIALS TO BE USED ON THIS PROJECT. THE CONTRACTOR SHALL NOT PURCHASE ANY MATERIALS UNTIL THEY HAVE BEEN APPROVED FOR USE BY THE OWNER.
 - UTILITIES DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
 - DRAIN CATCH BASIN GRATES SHALL BE SET FLUSH WITH PAVEMENT SURFACE TO ENSURE SMOOTH PASSAGE FOR BICYCLISTS.
 - BICYCLE LANE & SHARED LANE MARKING LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID DRAIN STRUCTURES/MANHOLES.

GENERAL ABBREVIATIONS

ABAN	ABANDON	ABAN	ABANDON
ACCMP	ASPHALT COATED CORRUGATED METAL PIPE	ADJ	ADJUST
APPROX	APPROXIMATE	APPROX	APPROXIMATE
BC	BOTTOM OF CURB	BD	BOUND
BIT CONC	BITUMINOUS CONCRETE	BO	BY OTHERS
BM	BENCH MARK	BW	BOTTOM OF WALL
CC	CEMENT CONCRETE	CCB	CAPE COD BERM
CI	CURB INLET	CI	CAST IRON PIPE
CIT	CHANGE IN TYPE	CLR	CLEARANCE
CLF	CHAIN LINK FENCE	CLDI	CEMENT LINED DUCTILE IRON
CONSTR	CORRUGATED METAL PIPE CONSTRUCTION	CONST	CONSTRUCTION
CP	CENTER POINT	CPP	CORRUGATED PLASTIC PIPE
COND	CONDUIT	COND	CONDUIT
DIP	DUCTILE IRON PIPE	DR	DRIVEWAY
ELEV OR EL	ELEVATION	EOP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELED WAY	EXIST	EXISTING
F&C	FRAME AND COVER	F&G	FRAME AND GRATE
FND	FOUNDATION	FND	FOUNDATION
FWD	FILLED WITH DEBRIS	GRAN	GRANITE
HMA	HOT MIX ASPHALT	HOR	HORIZONTAL
HP	HIGH POINT	HYD	HYDRANT
INV	INVERT	LB	LEACHING BASIN
LAYOUT	LAYOUT	LAYOUT	LAYOUT
MAX	MAXIMUM	MIN	MINIMUM
MON	MONUMENT	MON	MONUMENT
NOT IN CONTRACT	NOT IN CONTRACT	NGVD	NATIONAL GEODETIC VERTICAL DATUM
N/O	NOW OR FORMERLY	N/O	NOW OR FORMERLY
OHW	OVERHEAD WIRE	PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE	PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION	POC	POINT ON CURVE
PRC	POINT OF REVERSE CURVATURE	PROP	PROPOSED
PT	POINT OF TANGENCY	PVC	POINT OF VERTICAL CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVATURE	PVCP	POLYVINYLCHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION	PVMT	PAVEMENT
PVRC	POINT OF VERTICAL REVERSE CURVATURE	PVTC	POINT OF VERTICAL TANGENCY
PWW	PAVED WATERWAY	R	RADIUS
R&D	REMOVE AND DISPOSE	R&R	REMOVE AND RESET
R&S	REMOVE AND STACK	REM	REMOVE
REMODEL	REMODEL	REINFORCED CONCRETE PIPE	REINFORCED CONCRETE PIPE
RET	RETAIN	ROW	RIGHT OF WAY
RR	RAILROAD	SB	STONE BOUND
SHLD	SHOULDER	SHLO	STATE HIGHWAY SURVEY
SSD	STOPPING SIGHT DISTANCE	STA	STATION
STL	STEEL	TEMPORARY BENCH MARK	TEMPORARY BENCH MARK
TBM	TOP OF CURB	TOS	TOP OF SLOPE
TS	TRAFFIC SIGNAL	TSV & B	TAPPING SLEEVE, VALVE AND BOX
TYP	TYPICAL	TW	TOP OF WALL
UC	UNDER CONSTRUCTION	USCS	U.S. GEOLOGICAL SURVEY
UP	UTILITY POLE	VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL	WCR	WHEELCHAIR RAMP

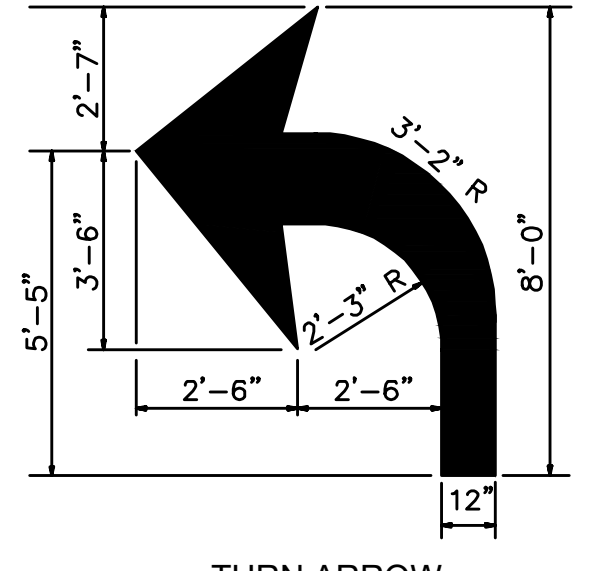
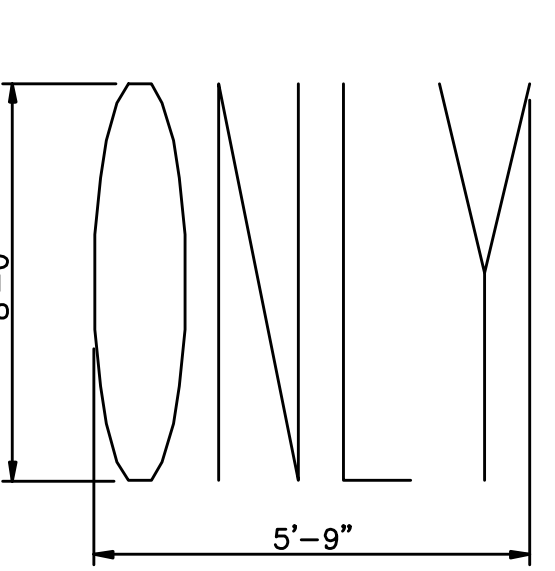
PAVEMENT MARKING LEGEND

STOP LINE - 18" THERMOPLASTIC
 SINGLE SOLID LINE WHITE
 CROSSWALK - 1-12" THERMOPLASTIC
 SINGLE SOLID LINE WHITE (SPACED 2' OC)
 SINGLE SOLID LINE WHITE - 4"
 8" SINGLE SOLID LINE WHITE - THERMOPLASTIC
 * SINGLE BROKEN LINE WHITE - 4"
 * SINGLE DASHED LINE WHITE - 4"
 ** SINGLE DASHED LINE YELLOW - 4"
 SINGLE SOLID LINE YELLOW - 4"
 8" SINGLE SOLID LINE YELLOW
 12" SINGLE SOLID LINE YELLOW
 DOUBLE SOLID LINE YELLOW - 2-4"
 SINGLE SOLID WITH BROKEN LINE YELLOW - 2-4"
 THERMOPLASTIC PAVEMENT ARROW & LEGEND
 THERMOPLASTIC PAVEMENT ARROWS

EXISTING **PROPOSED**

SL	SL
CW	CW
SSLW	SSLW
8" SSLW	8" SSLW
SBLW	SBLW
SBLW	SBLW
SDLY	SDLY
SDLY	SDLY
SSLY	SSLY
8" SSLY	8" SSLY
12" SSLY	12" SSLY
DSLY	DSLY
SSBY	SSBY

* BROKEN LANE LINES TO BE 10' IN LENGTH WITH 30' GAP (TYP.)
 ** DASHED LINES TO BE 2' IN LENGTH WITH 6' GAP (TYP.)



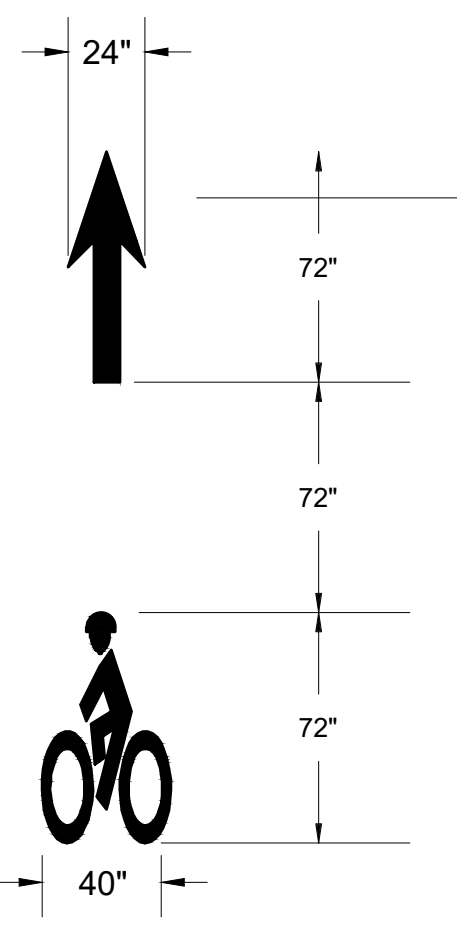
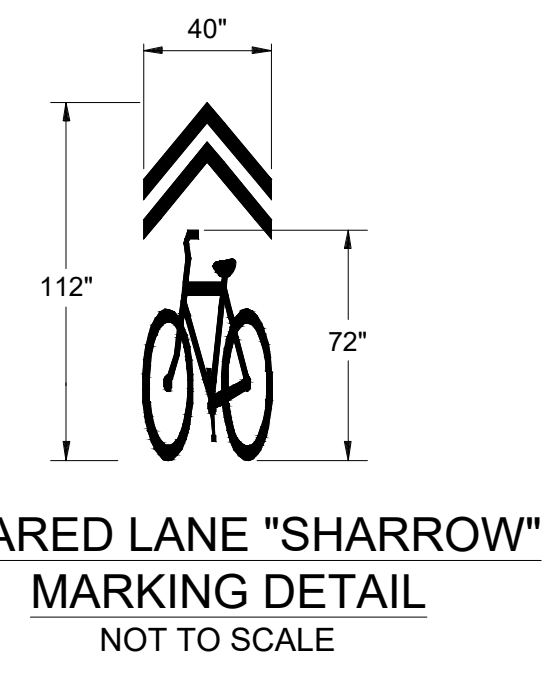
NOTE:
 ALL PAVEMENT MARKINGS SHALL CONFORM TO PAVEMENT MARKING STANDARDS FOUND IN NHDOT STANDARD PLANS (MOST RECENT VERSION).
 NOT TO SCALE

GENERAL LEGEND

CITY, TOWN OR COUNTY LAYOUT LINE
 EASEMENT LINE
 PROPERTY LINE
 CONSTRUCTION/SURVEY BASELINE
 TREE (TYPE & SIZE NOTED)
 EDGE OF WOODS/SHRUBS
 CURB RAMP
 MAIL BOX
 SIGN
 FENCE (SIZE & TYPE AS NOTED)
 HIGHWAY GUARD (TYPE AS NOTED)
 BALANCED WALL (SIZE & TYPE AS NOTED)
 RETAINING WALL (SIZE & TYPE AS NOTED)
 EDGE OF PAVEMENT/ CURB/ OR BERM
 BACK OF SIDEWALK
 DRAIN MANHOLE
 CATCH BASIN, DROP OR GUTTER INLET
 CATCH BASIN (OR GUTTER INLET) WITH CURB INLET
 SEWER LINE
 SEWER MANHOLE
 HYDRANT
 ELECTRICAL MANHOLE
 ELECTRICAL HANDHOLE
 PULL BOX (12" x 12")
 ELECTRICAL JUNCTION OR SWITCH BOX
 ELECTRICAL LOAD CENTER CABINET W/FDN
 LIGHT POLE
 UTILITY POLE
 GUY WIRE & ANCHOR
 TELEPHONE MANHOLE
 DELINEATOR

EXISTING **PROPOSED**

DMH	DMH
CB, GI, DI	CB, GI, DI
CB, GI, DI	CB, GI, DI
SMH	SMH
SMH	SMH
EMH	EMH
EHM	EHM
PB	PB
JS, SB	JS, SB
LCC	LCC
LP	LP
UP	UP
GUY	GUY
TMH	TMH
TMH	TMH

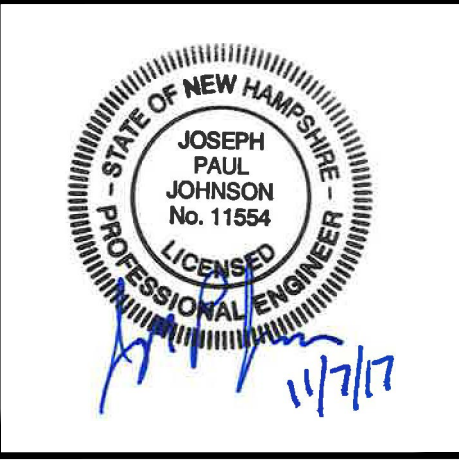


THE FOLLOWING PLANS WILL BE USED ON THIS PROJECT

- NHDOT STANDARD PLANS (MOST RECENT VERSION)
- ALL SIDEWALK CURB RAMPS WITH DETECTABLE WARNINGS DETAILS
- ALL PAVEMENT MARKING STANDARDS AND PERMANENT SIGNING STANDARDS
- ALL WORK ZONE TRAFFIC CONTROL PLANS APPLICABLE TO THIS LOCATION
- SHEETS TC-1 THROUGH TC-8 AMEND PART VI OF THE 2009 EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) BY SUPERCEDING OR SUPPLEMENTING CERTAIN SECTIONS. THEY SHALL BE USED IN CONJUNCTION WITH THE MUTCD AND THE SPECIFICATIONS FOR WORK ZONE TRAFFIC CONTROL.

TRAFFIC MANAGEMENT NOTES

- REFER TO SHEET 37 FOR STANDARD TRAFFIC CONTROL DETAILS.
- ALL TRAFFIC MANAGEMENT AND WORK ZONE TRAFFIC CONTROL MEASURES SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), THE CURRENT NHDOT - "WORK ZONE TRAFFIC CONTROL STANDARD PLANS", THE STANDARD SPECIFICATIONS, AND THE FOLLOWING NOTES.
- THE TEMPORARY TRAFFIC CONTROL PLANS CONTAINED HEREIN ARE GIVEN AS A GUIDE FOR TYPICAL WORK ZONE TRAFFIC CONTROL APPLICATIONS FOR THE TYPES OF WORK ANTICIPATED FOR THIS PROJECT. THEY ARE NOT INTENDED TO COVER ALL POSSIBLE CONSTRUCTION OPERATIONS WHICH THE CONTRACTOR MAY CHOOSE TO EMPLOY. WORK ZONE TRAFFIC CONTROL FOR OTHER CONSTRUCTION OPERATIONS OR OTHER TRAFFIC SITUATIONS IF APPLICABLE SHALL BE IN ACCORDANCE WITH THE REFERENCES LISTED IN NOTE NO. 2 AND AS APPROVED OR DIRECTED BY THE ENGINEER.
- LANE RESTRICTIONS MAY NOT REMAIN OVERNIGHT OR DURING NON-WORKING HOURS. AFTER EACH WORKING DAY, TRAFFIC CONTROL DEVICES THAT ARE NOT REQUIRED SHALL BE MOVED OFF THE ROADWAY AREA AND PLACED SO AS NOT TO IMPEDE PEDESTRIAN AREAS, ABUTTER ACCESS OR CAUSE CONFUSION TO MOTORISTS.



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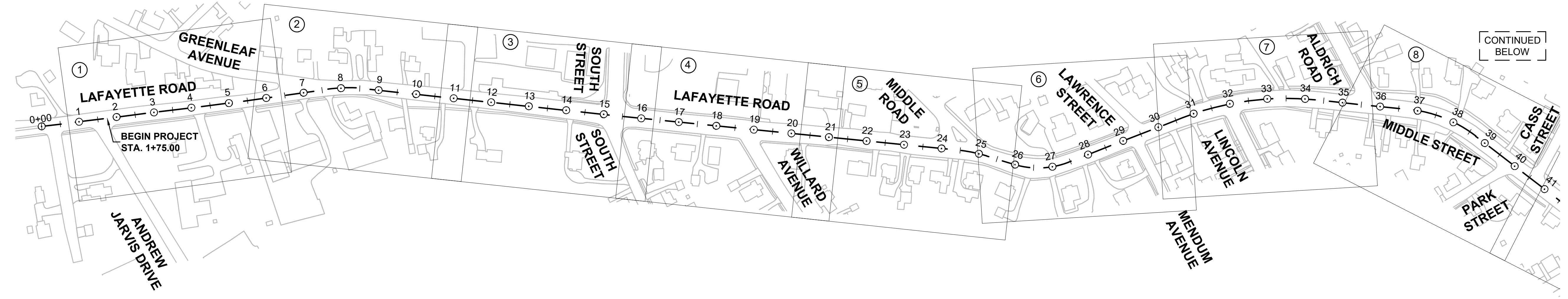
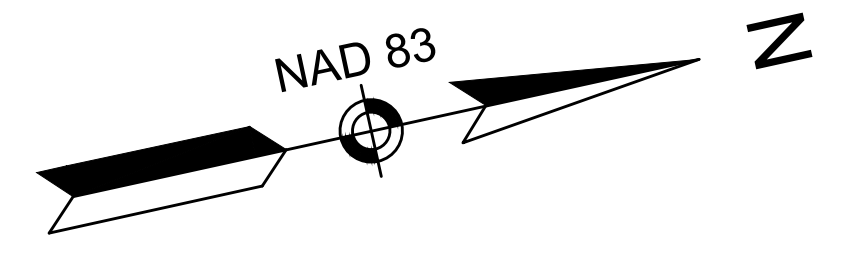
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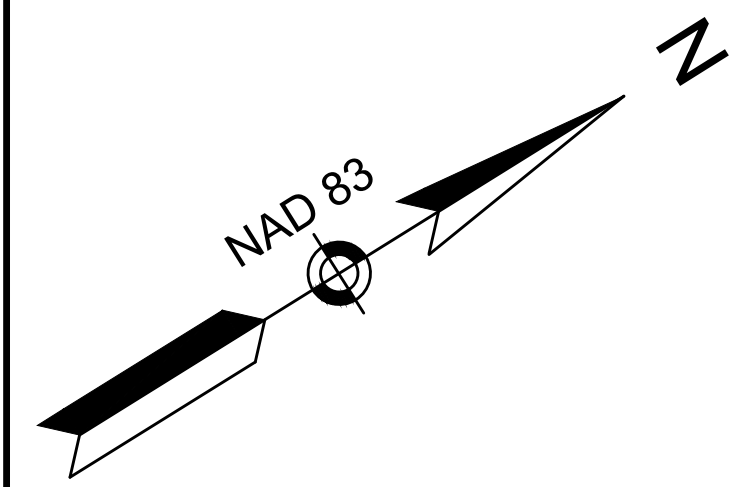
KEY PLAN

SCALE:
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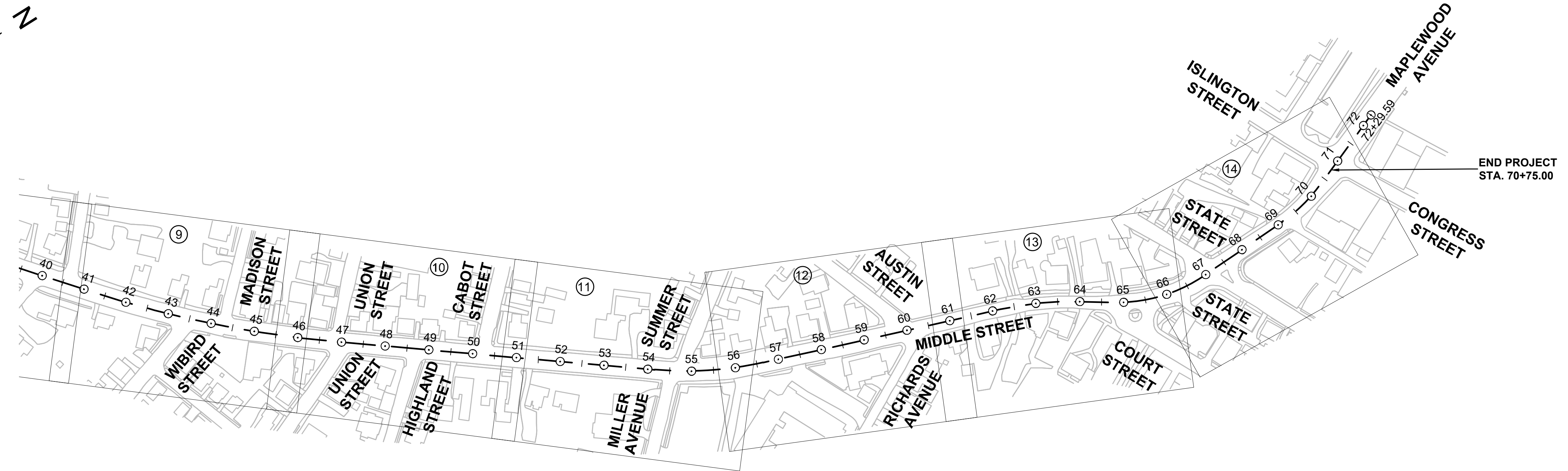
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ALIGNMENT PLANS	7	8	9	10	11	12	13	14	15	16	17	18	19	20
GENERAL PLANS	21	22	23	24	25	26	27	28	29	30	31	32	33	34
TRAFFIC SIGNAL PLAN	-	-	36	-	-	-	-	-	-	-	-	-	-	-



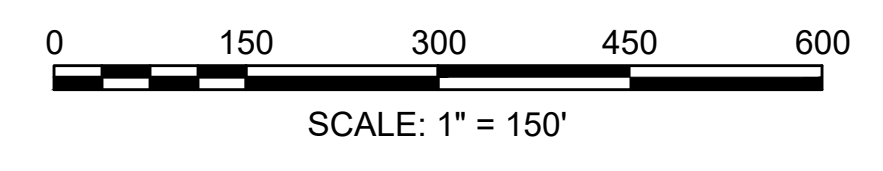
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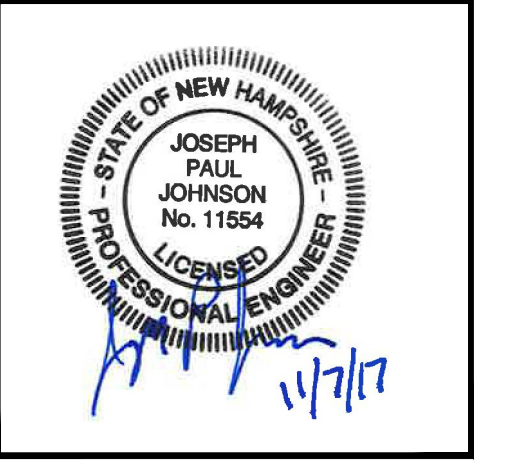


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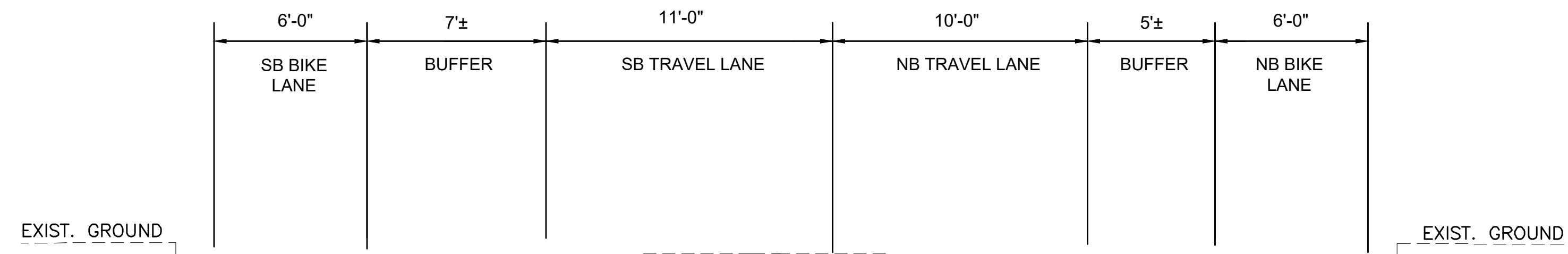
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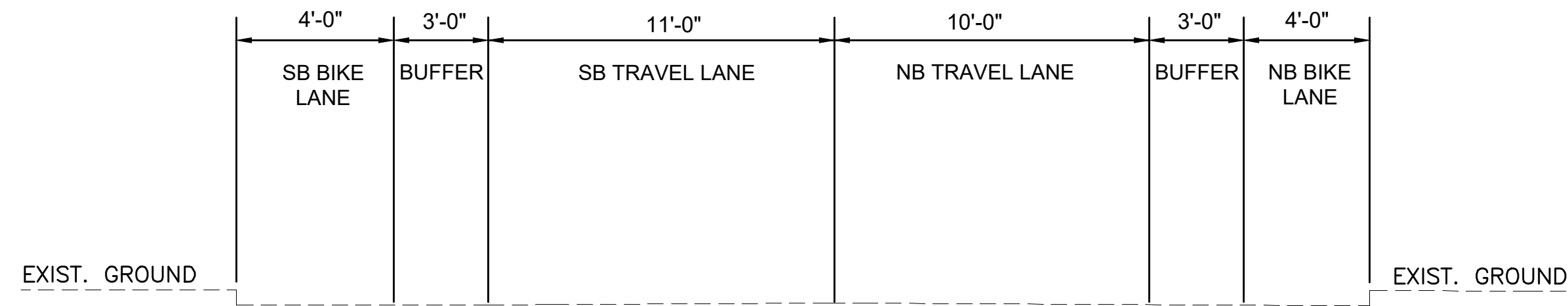


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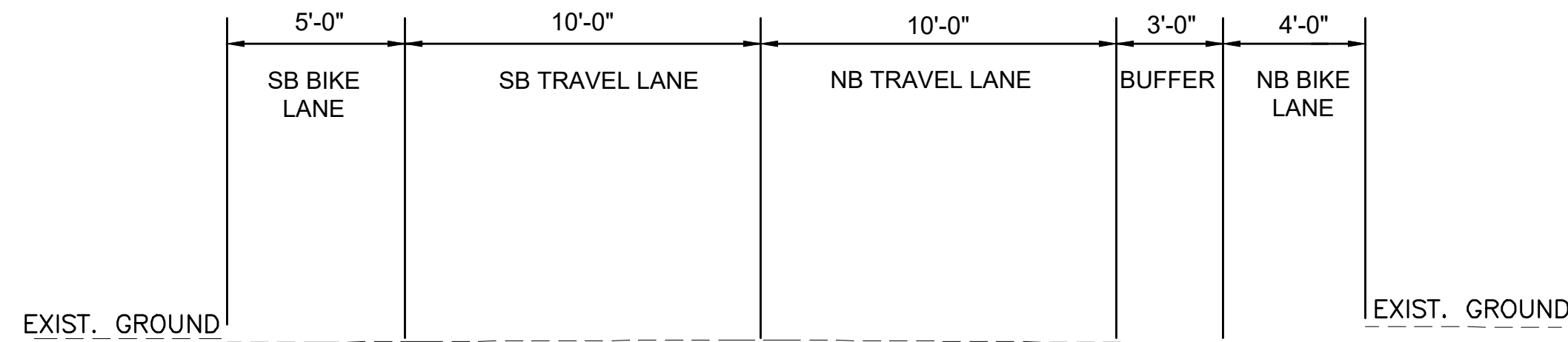
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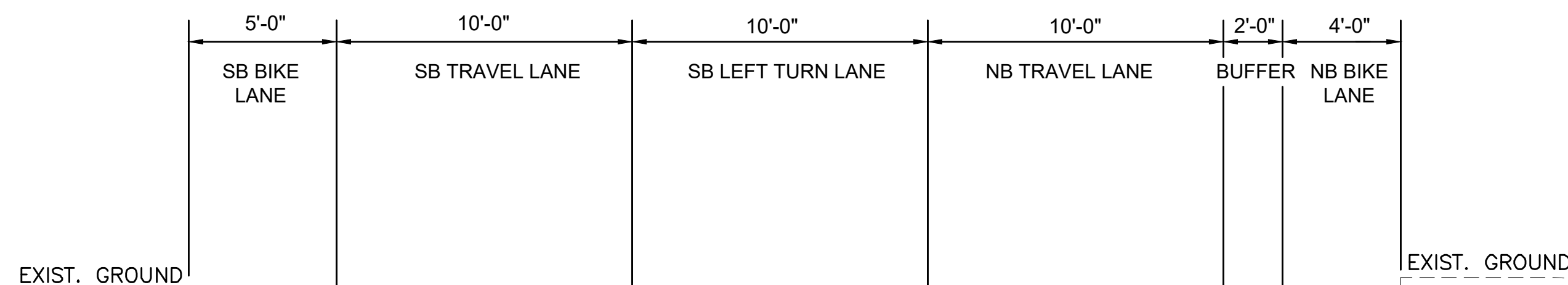
TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 9+00 TO STA. 12+00



TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 7+85 TO STA. 9+00



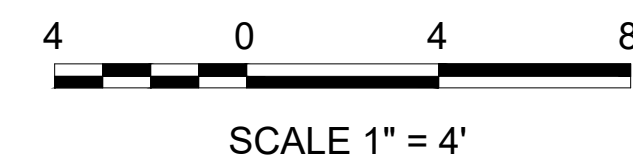
TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 5+00 TO STA. 7+85



TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 1+75 TO STA. 2+50

NOTE:

1. THE SECTIONS OF ROADWAY NOT COVERED IN THE RANGE OF TYPICAL SECTIONS ASSOCIATED WITH THE TYPICAL SECTIONS ARE IN AREAS OF TRANSITION AND THEREFORE NOT COVERED.



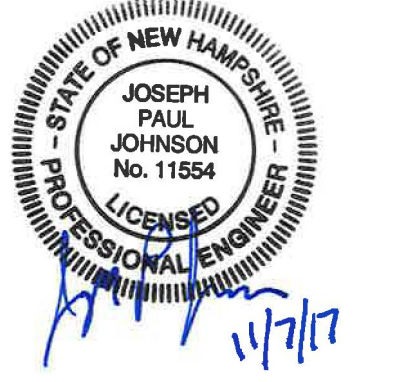
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TYPICAL SECTIONS

SCALE: 1"=4'

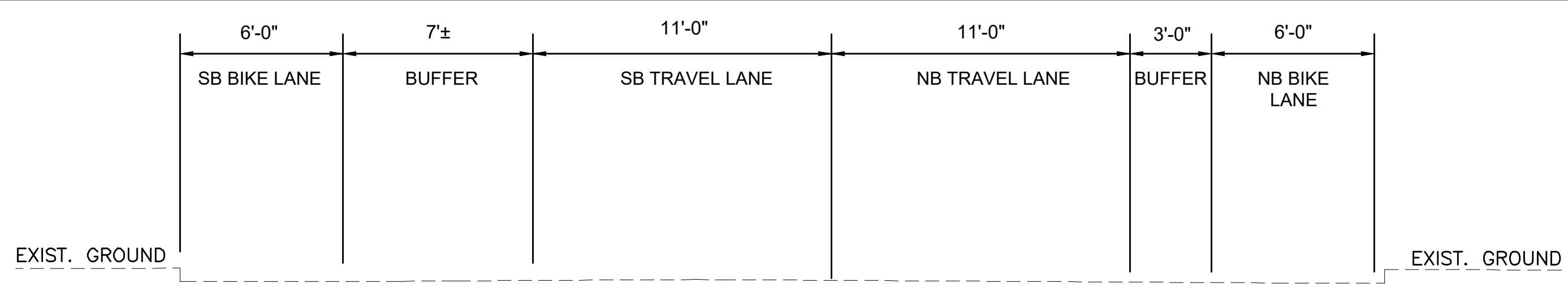
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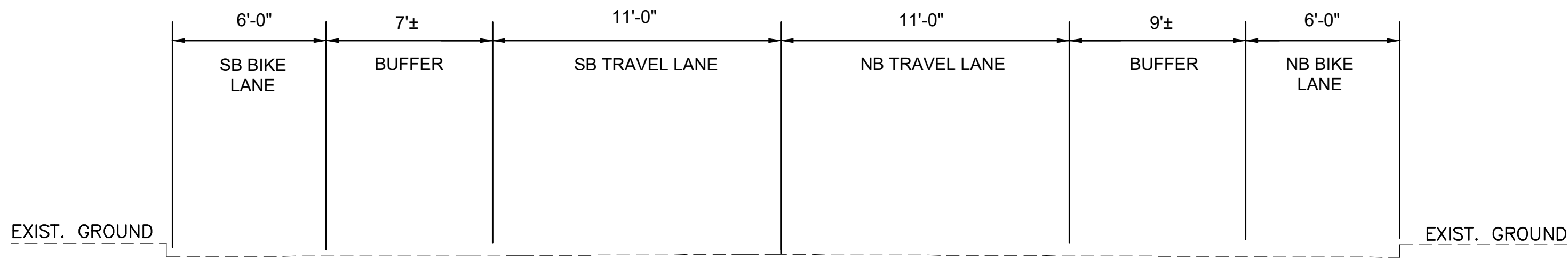


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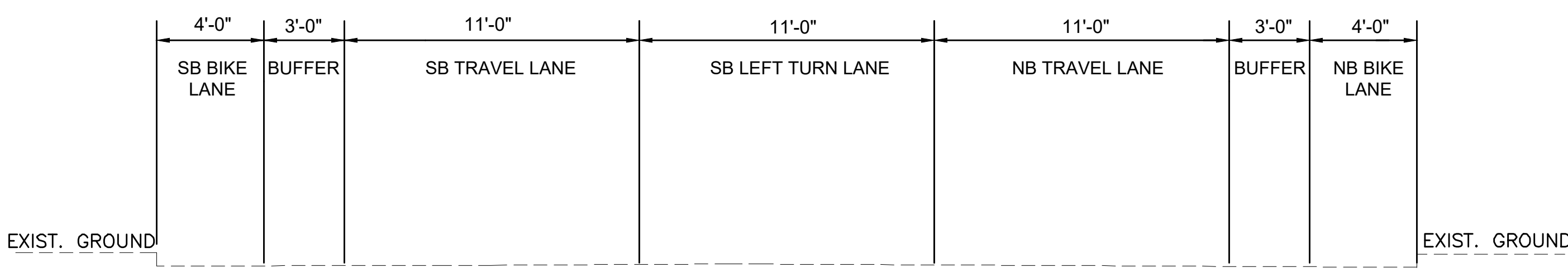
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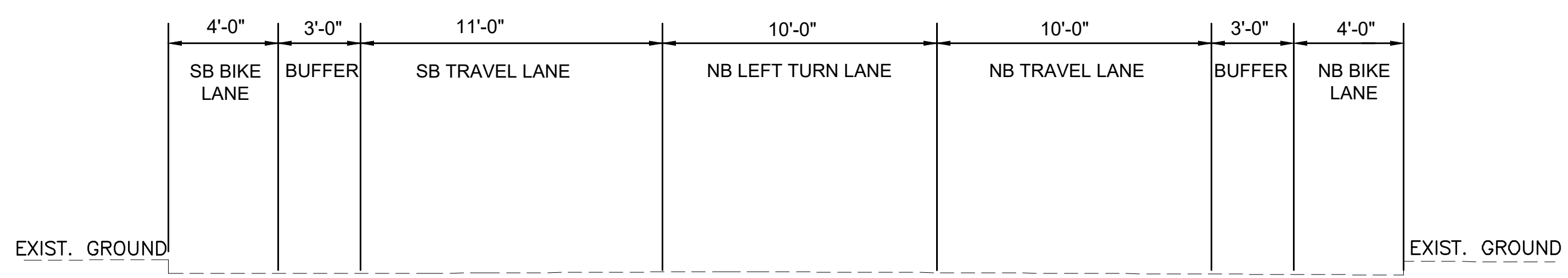
TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 21+00 TO STA. 23+00



TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 18+50 TO STA. 21+00



TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 15+70 TO STA. 16+90

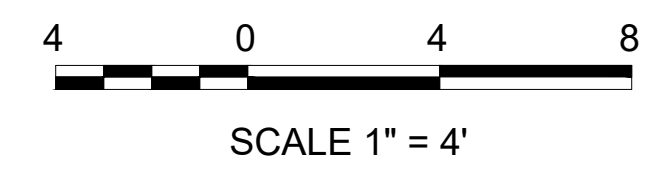


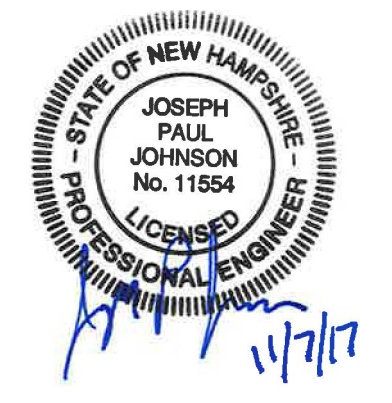
TYPICAL SECTION - LAFAYETTE ROAD
 SCALE: 1" = 4'
 STA 13+70 TO STA. 14+85

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**TYPICAL
 SECTIONS**

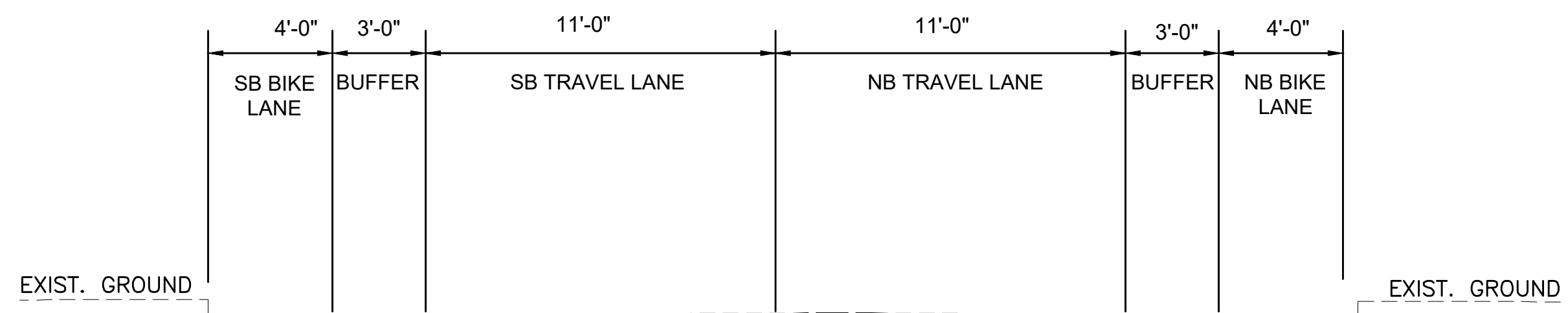
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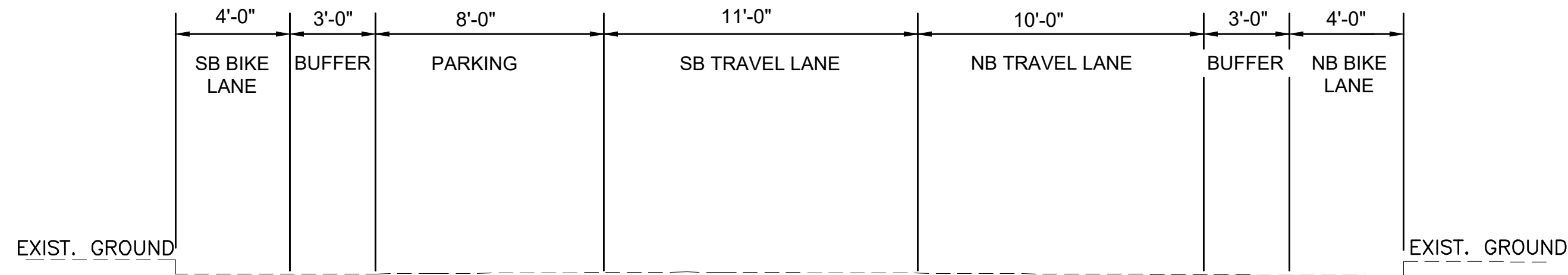
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TYPICAL SECTION - MIDDLE STREET

SCALE: 1" = 4'

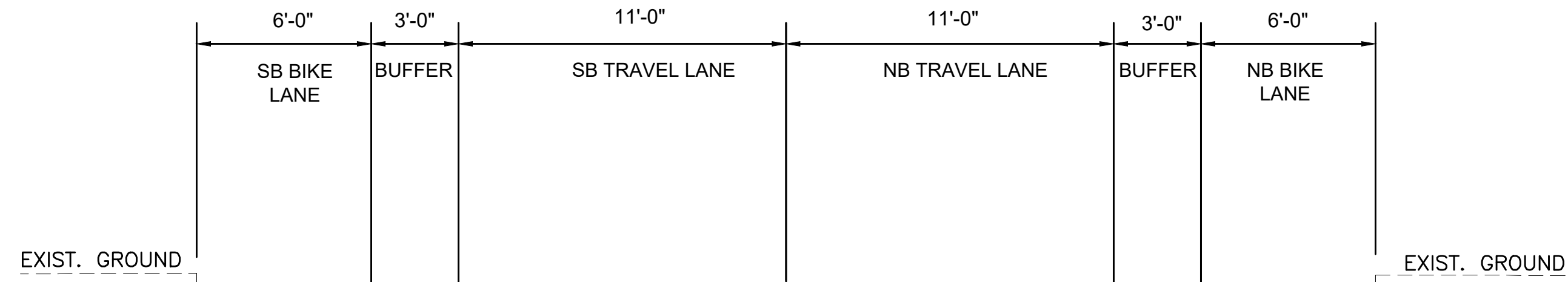
STA 44+50 TO STA. 47+00



TYPICAL SECTION - MIDDLE STREET

SCALE: 1" = 4'

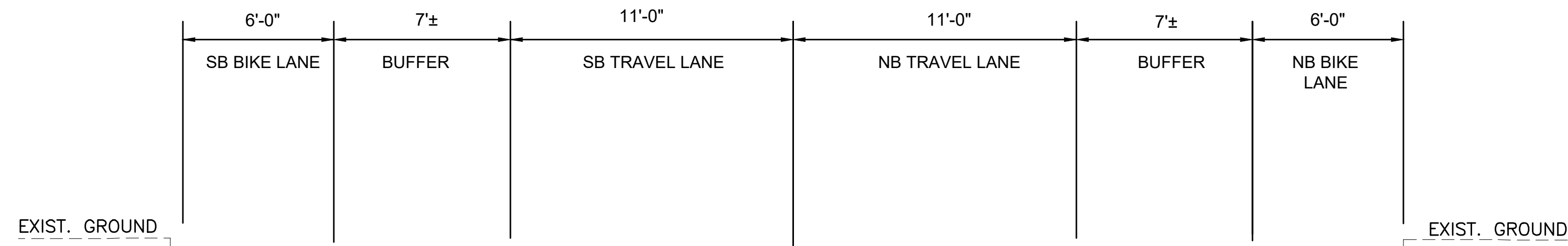
STA 31+50 TO STA. 44+00
 STA. 47+00 TO STA. 48+50



TYPICAL SECTION - MIDDLE STREET

SCALE: 1" = 4'

STA 27+00 TO STA. 31+50



**TYPICAL SECTION - LAFAYETTE ROAD/
 MIDDLE STREET**

SCALE: 1" = 4'

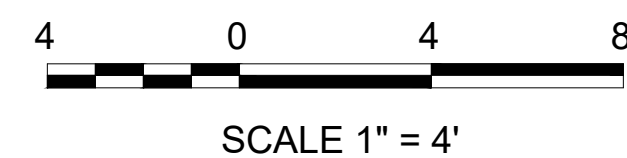
STA 23+00 TO STA. 27+00

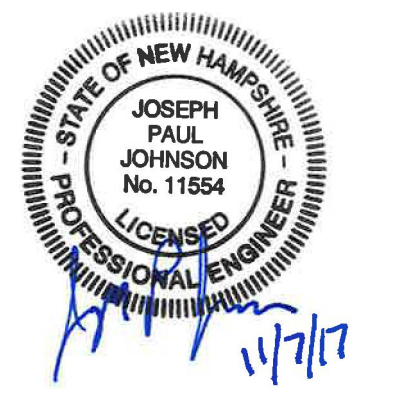
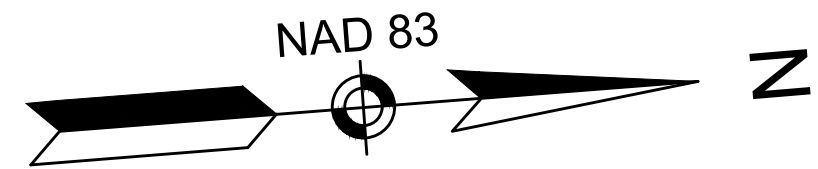
REVISIONS		
NO.	REVISION	DATE
3	NHDOT COMMENTS	11/7/17
2	FINAL DESIGN	7/28/17
1	PRELIMINARY DESIGN	10/14/16
0		
07/28/2017		
DRAWN/DESIGN BY	CHECKED BY	
EMR	JPJ	

**TYPICAL
 SECTIONS**

SCALE: 1" = 4'

28757





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**ON-STREET BICYCLE FACILITY
 IMPROVEMENT PROJECT
 LAFAYETTE ROAD/MIDDLE STREET
 PORTSMOUTH, NH**

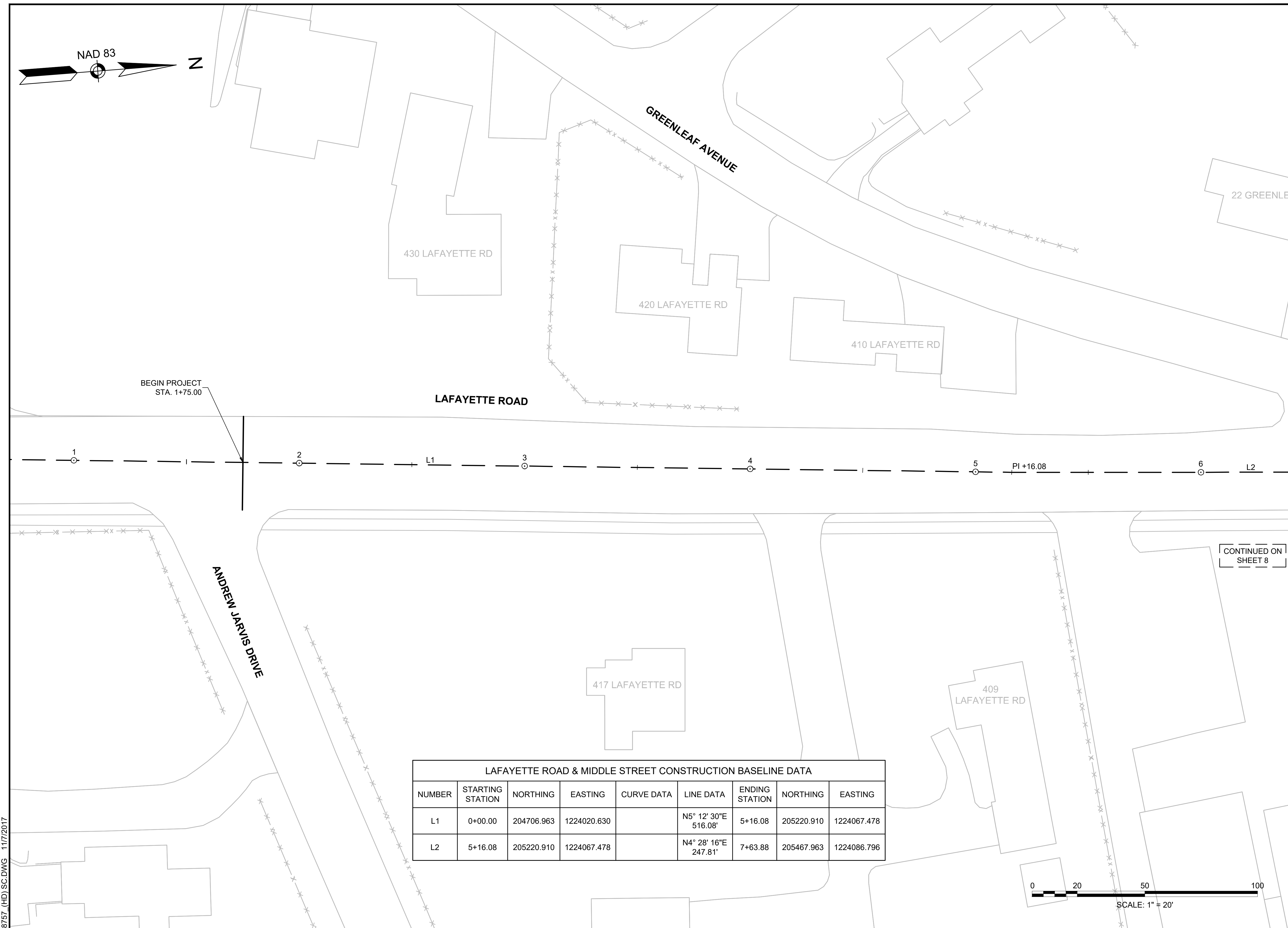
REVISIONS		
NO.	REVISION	DATE
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1	PRELIMINARY DESIGN	10/14/16
07/28/2017		
DRAWN/DESIGN BY	CHECKED BY	
EMR	JPJ	

**ALIGNMENT
 PLANS**

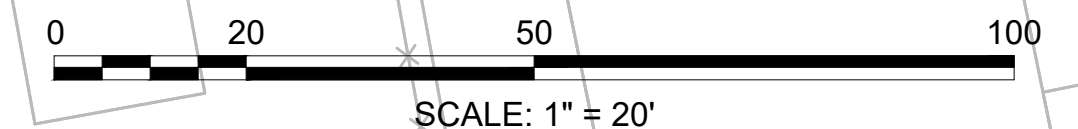
SCALE: 1"=20'

28757

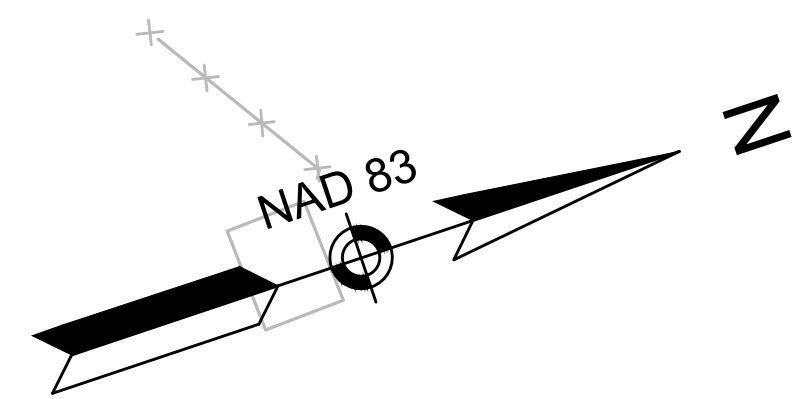
7 OF 38



LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	204706.963	1224020.630		N5° 12' 30"E 516.08'	5+16.08	205220.910	1224067.478
L2	5+16.08	205220.910	1224067.478		N4° 28' 16"E 247.81'	7+63.88	205467.963	1224086.796



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LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	5+16.08	205220.910	1224067.478		N4° 28' 16"E 247.81'	7+63.88	205467.963	1224086.796
C1	7+63.88	205467.963	1224086.796	R=425.00' Δ=13°58'33" L=103.67' T=52.09'		8+67.55	205569.313	1224107.341
L3	8+67.55	205569.313	1224107.341		N18° 26' 49"E 730.12'	15+97.68	206261.920	1224338.373

22 GREENLEAF AVE

3 GREENLEAF AVE

344 LAFAYETTE RD

322 LAFAYETTE RD

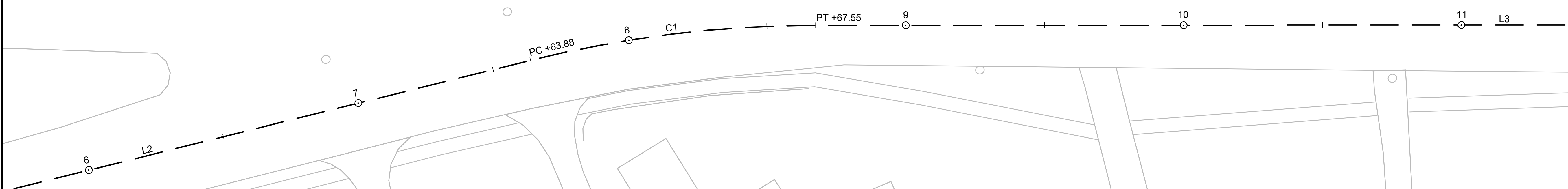
302 LAFAYETTE RD

300 LAFAYETTE RD

LAFAYETTE ROAD

CONTINUED ON SHEET 9

CONTINUED ON SHEET 7

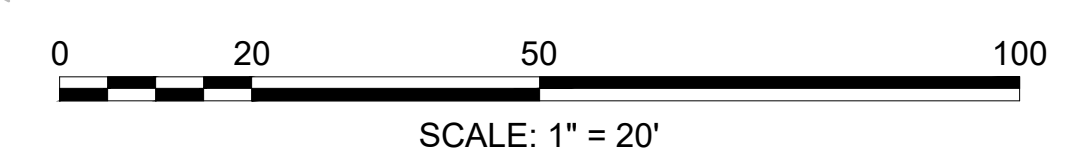


339 LAFAYETTE RD

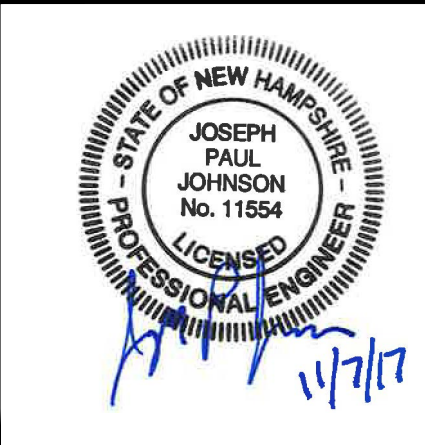
291 LAFAYETTE RD

271 LAFAYETTE RD

397 LAFAYETTE RD



GPI Greenman-Pedersen, Inc.
Engineering & Construction Services
21 Daniel Street, Second Floor, Portsmouth, NH 03801
Tel: (603) 891-2213 Fax: (978) 658-3044
http://www.gpinet.com



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LAFAYETTE ROAD/MIDDLE STREET
PORTSMOUTH, NH**

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3	NHDOT COMMENTS	11/7/17
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07/28/2017
DRAWN/DESIGN BY: EMR
CHECKED BY: JPJ

**ALIGNMENT
PLANS**

SCALE: 1"=20'

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**ON-STREET BICYCLE FACILITY
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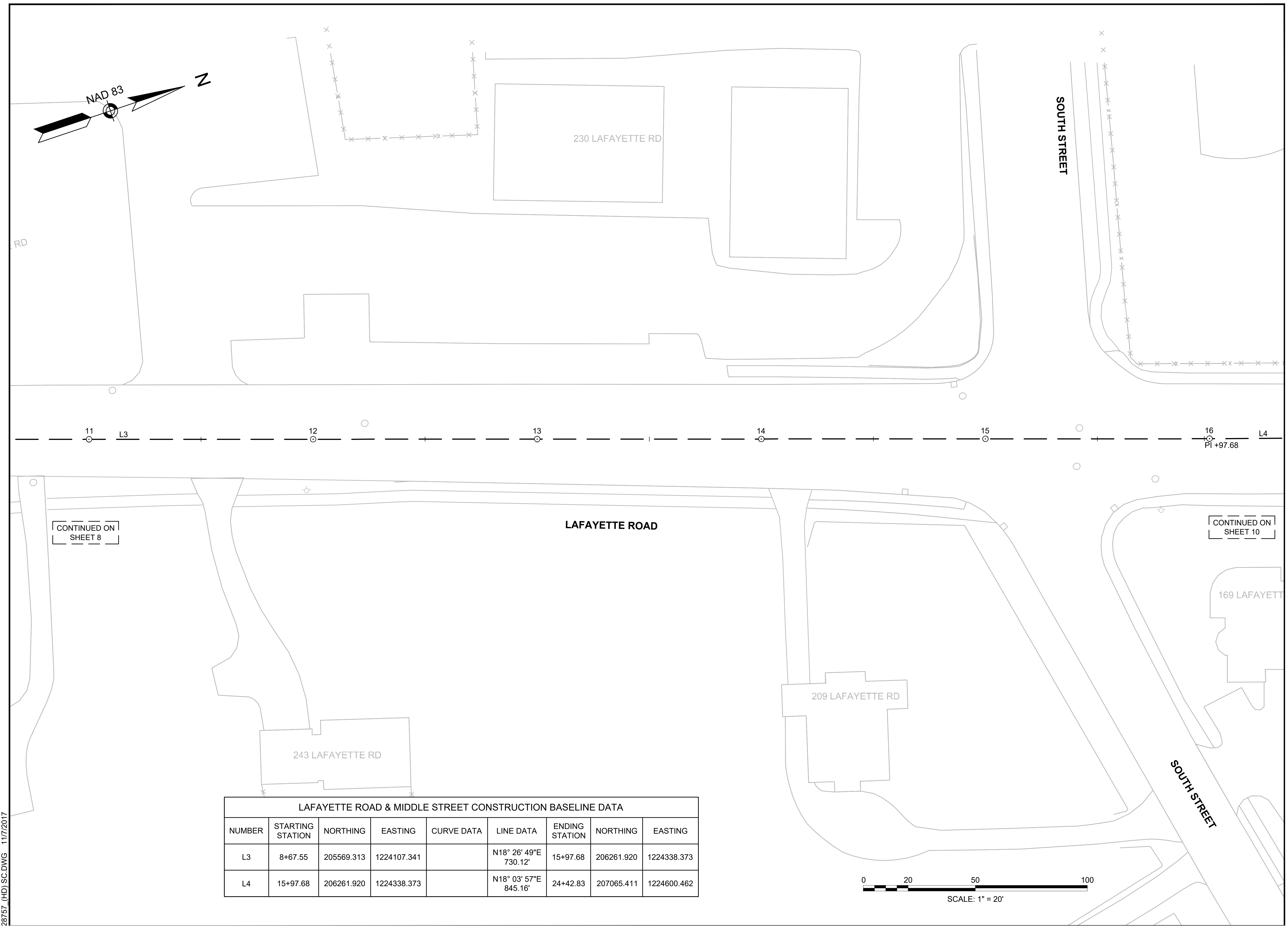
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EMR	JPJ	

**ALIGNMENT
 PLANS**

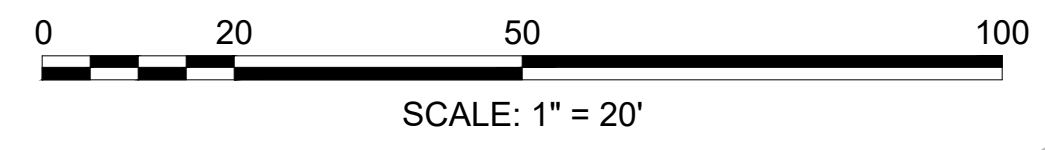
SCALE: 1"=20'

28757

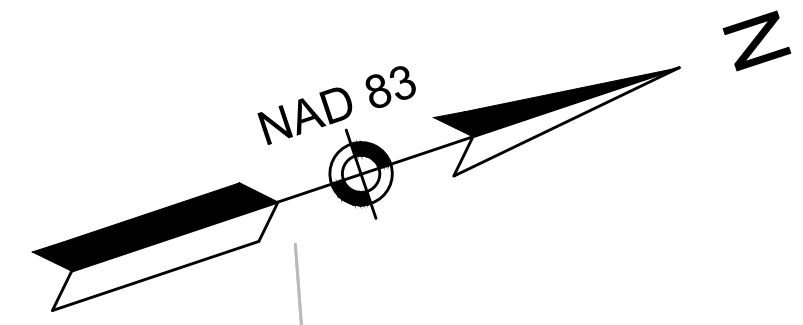
9 OF 38



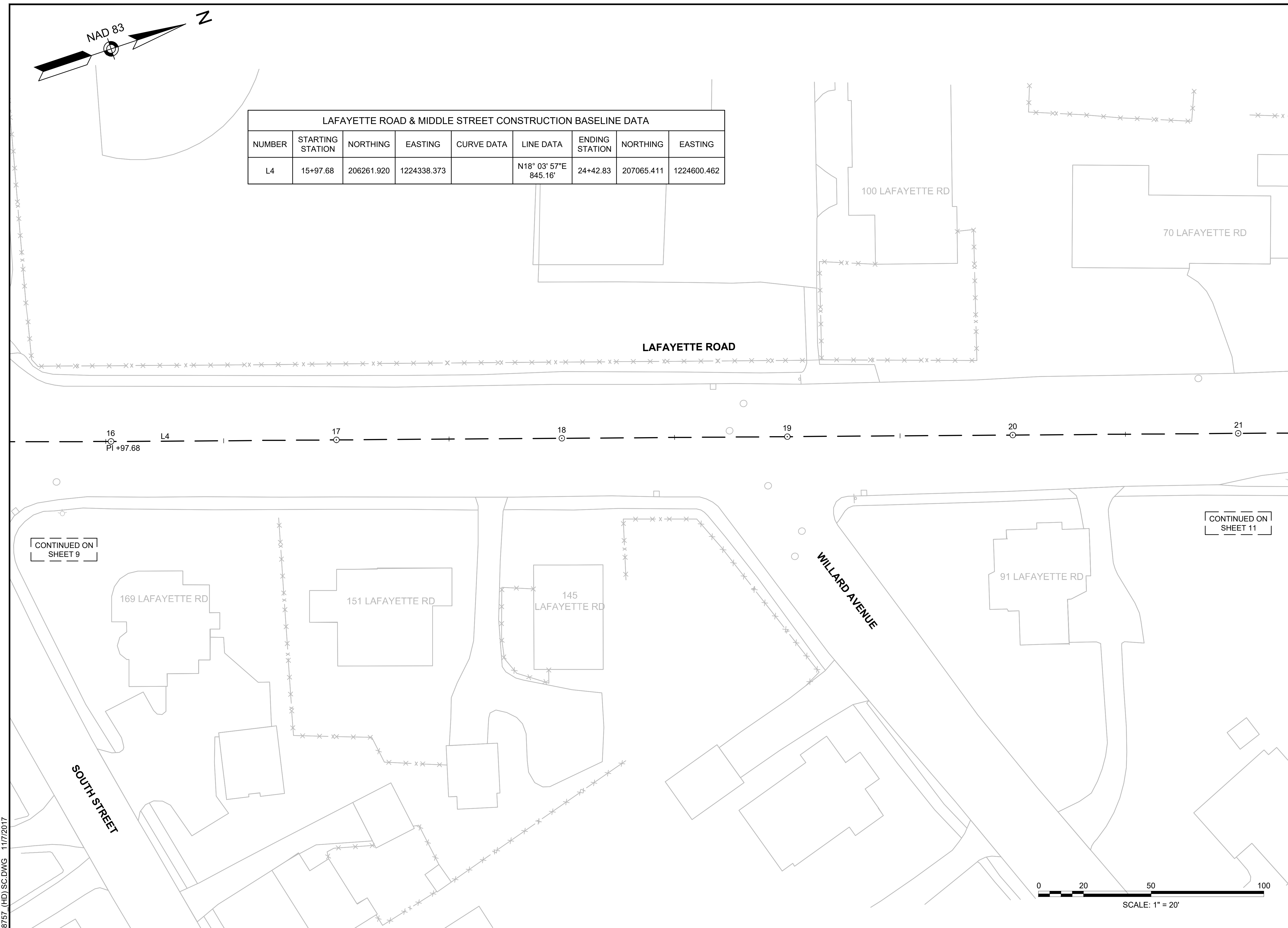
LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L3	8+67.55	205569.313	1224107.341		N18° 26' 49"E 730.12'	15+97.68	206261.920	1224338.373
L4	15+97.68	206261.920	1224338.373		N18° 03' 57"E 845.16'	24+42.83	207065.411	1224600.462



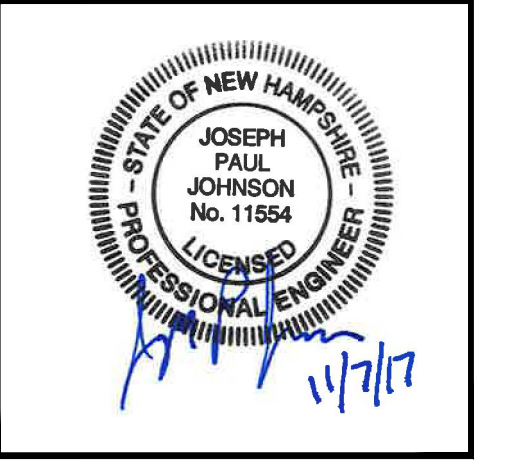
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LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	15+97.68	206261.920	1224338.373		N18° 03' 57"E 845.16'	24+42.83	207065.411	1224600.462



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DRAWN/DESIGN BY	CHECKED BY	
EMR	JPJ	

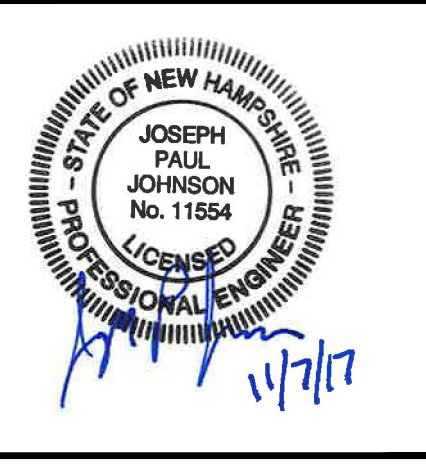
**ALIGNMENT
 PLANS**

SCALE: 1"=20'

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**ON-STREET BICYCLE FACILITY
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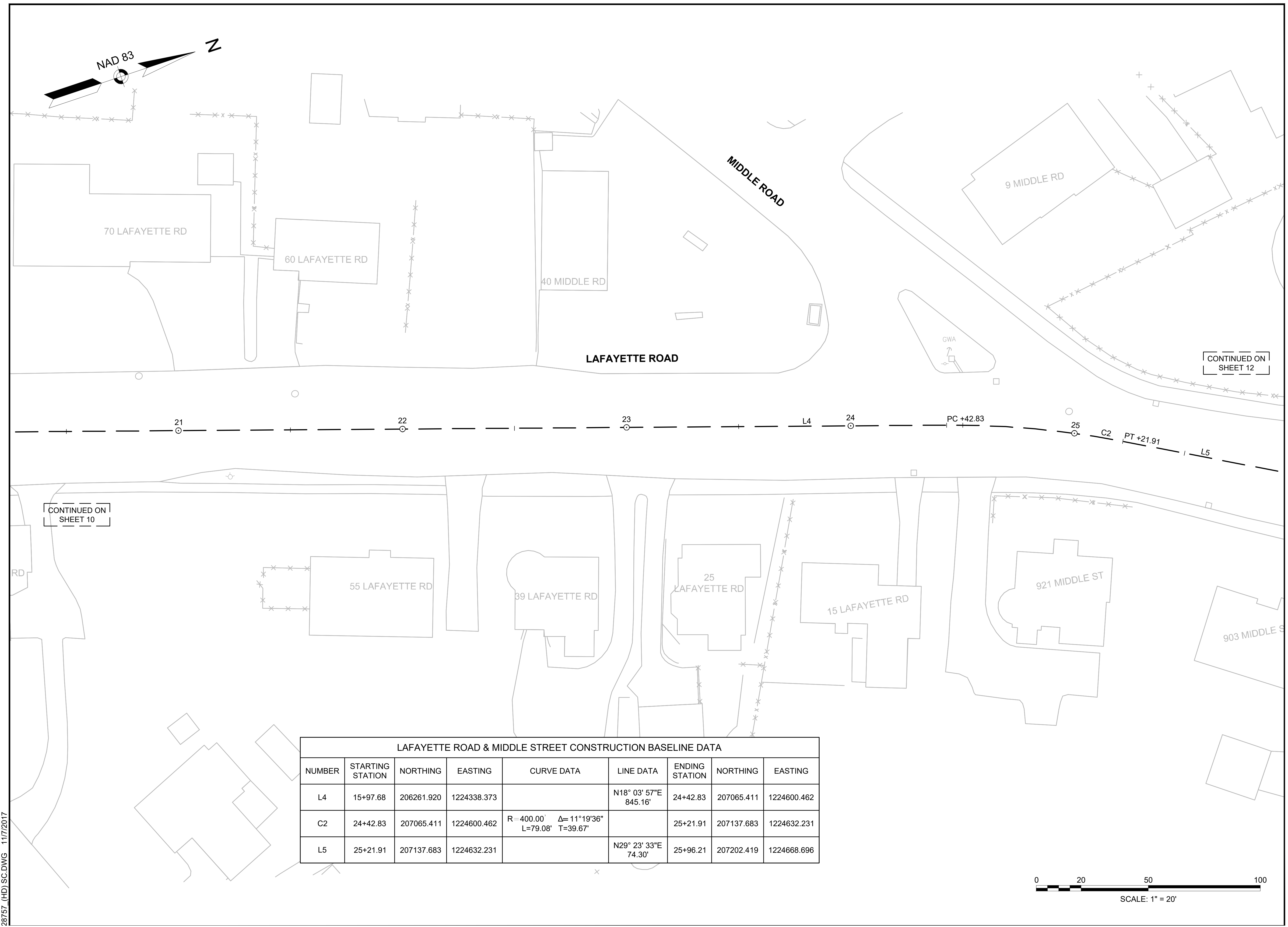
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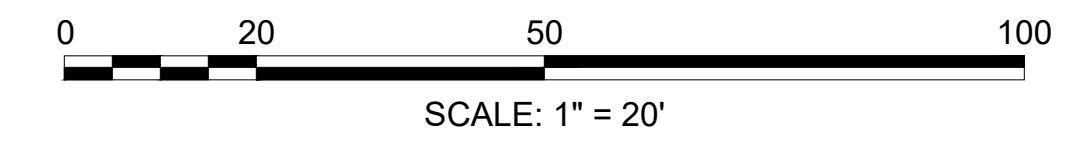
SCALE: 1" = 20'

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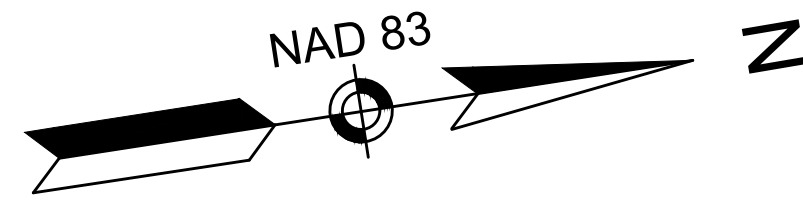
11 OF 38



LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	15+97.68	206261.920	1224338.373		N18° 03' 57"E 845.16'	24+42.83	207065.411	1224600.462
C2	24+42.83	207065.411	1224600.462	R=400.00' Δ=11°19'36" L=79.08' T=39.67'		25+21.91	207137.683	1224632.231
L5	25+21.91	207137.683	1224632.231		N29° 23' 33"E 74.30'	25+96.21	207202.419	1224668.696



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LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C2	24+42.83	207065.411	1224600.462	R = 400.00' Δ= 11°19'36" L=79.08' T=39.67'		25+21.91	207137.683	1224632.231
L5	25+21.91	207137.683	1224632.231		N29° 23' 33"E 74.30'	25+96.21	207202.419	1224668.696
C3	25+96.21	207202.419	1224668.696	R = 221.25' Δ= 38°20'32" L=148.06' T=76.92'		27+44.27	207345.425	1224694.482
L6	27+44.27	207345.425	1224694.482		N8° 56' 59"W 325.45'	30+69.71	207666.909	1224643.853
C4	30+69.71	207666.909	1224643.853	R = 750.00' Δ= 27°15'45" L=356.86' T=181.88'		34+26.58	208019.254	1224672.491

MIDDLE RD

CONTINUED ON SHEET 11

MIDDLE STREET

LAWRENCE STREET

816 MIDDLE ST

796 MIDDLE ST

846 MIDDLE ST

880 MIDDLE ST

CONTINUED ON SHEET 13

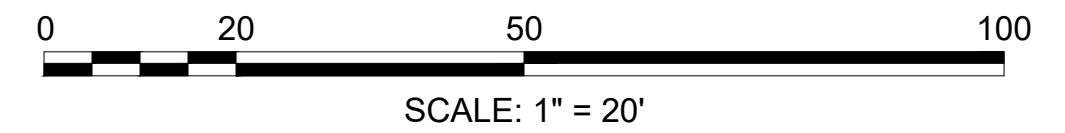
MENDUM AVENUE

815 MIDDLE ST

843 MIDDLE ST

903 MIDDLE ST

873 MIDDLE ST



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PORTSMOUTH, NH**

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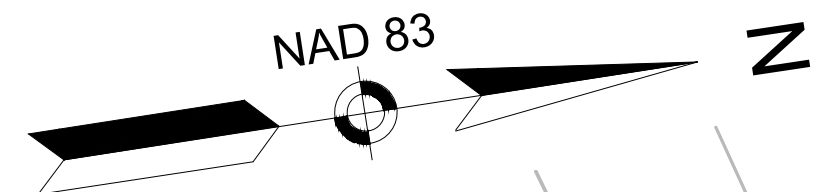
NO.	REVISION	DATE
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07/28/2017
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**ALIGNMENT
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SCALE: 1"=20'

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**ON-STREET BICYCLE FACILITY
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 PORTSMOUTH, NH**

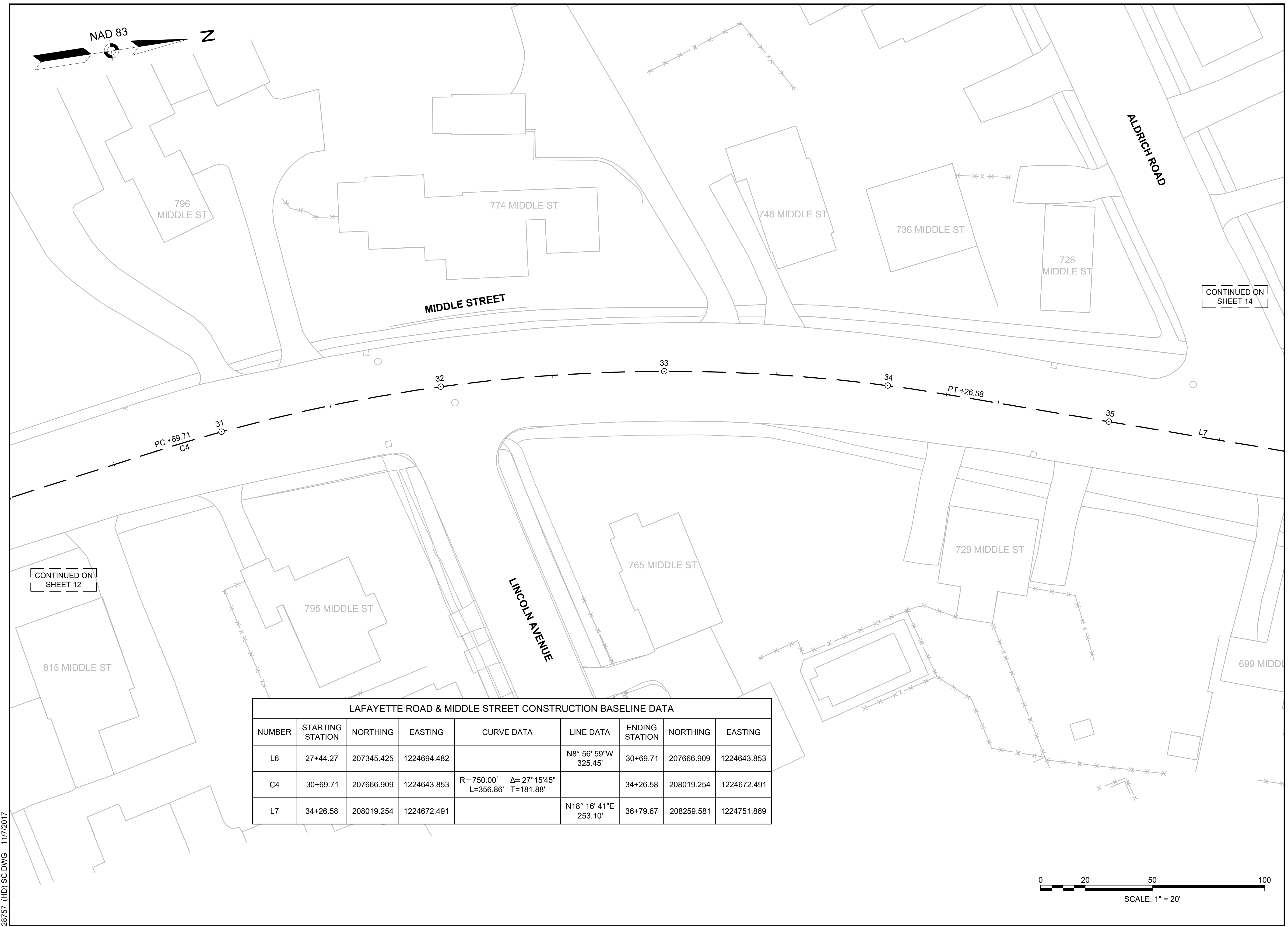
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07/28/2017		
DRAWN/DESIGN BY	CHECKED BY	
EMR	JPJ	

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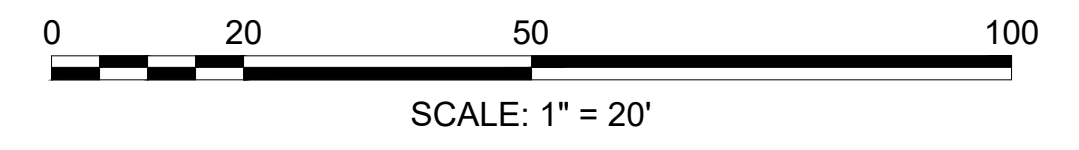
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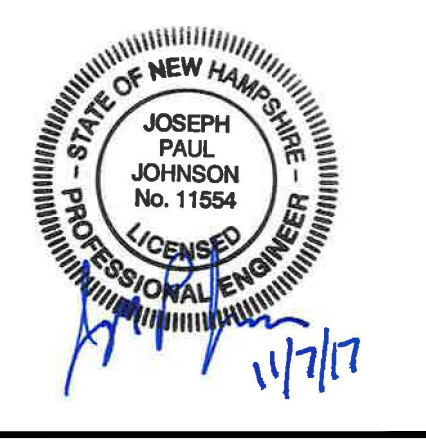
LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L6	27+44.27	207345.425	1224694.482		N8° 56' 59"W 325.45'	30+69.71	207666.909	1224643.853
C4	30+69.71	207666.909	1224643.853	R= 750.00' Δ= 27°15'45" L=356.86' T=181.88'		34+26.58	208019.254	1224672.491
L7	34+26.58	208019.254	1224672.491		N18° 16' 41"E 253.10'	36+79.67	208259.581	1224751.869



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CONTINUED ON SHEET 12

CONTINUED ON SHEET 14



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**ON-STREET BICYCLE FACILITY
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EMR	JPJ	

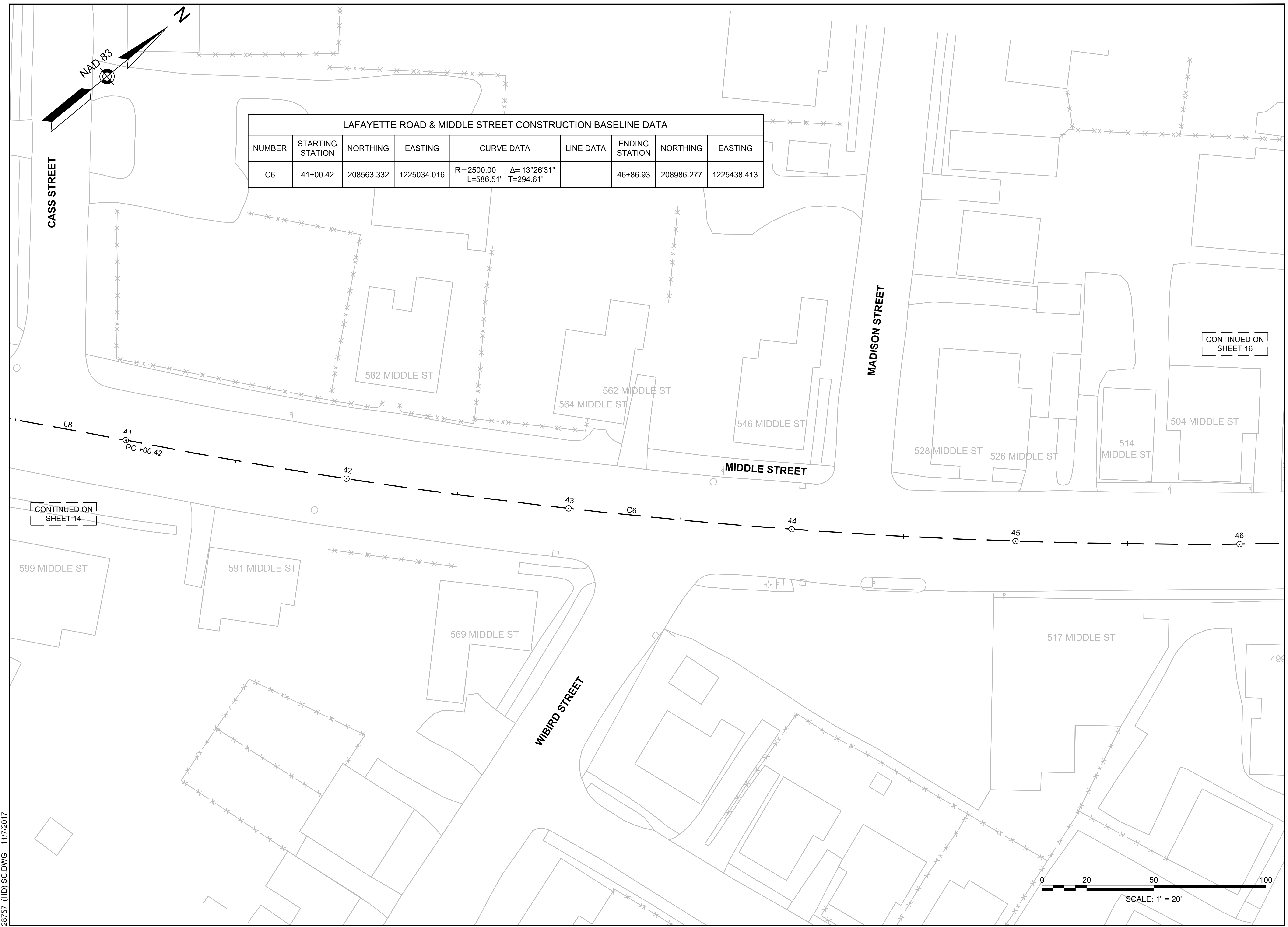
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SCALE: 1"=20'

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LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C6	41+00.42	208563.332	1225034.016	R=2500.00 Δ=13°26'31" L=586.51' T=294.61'		46+86.93	208986.277	1225438.413



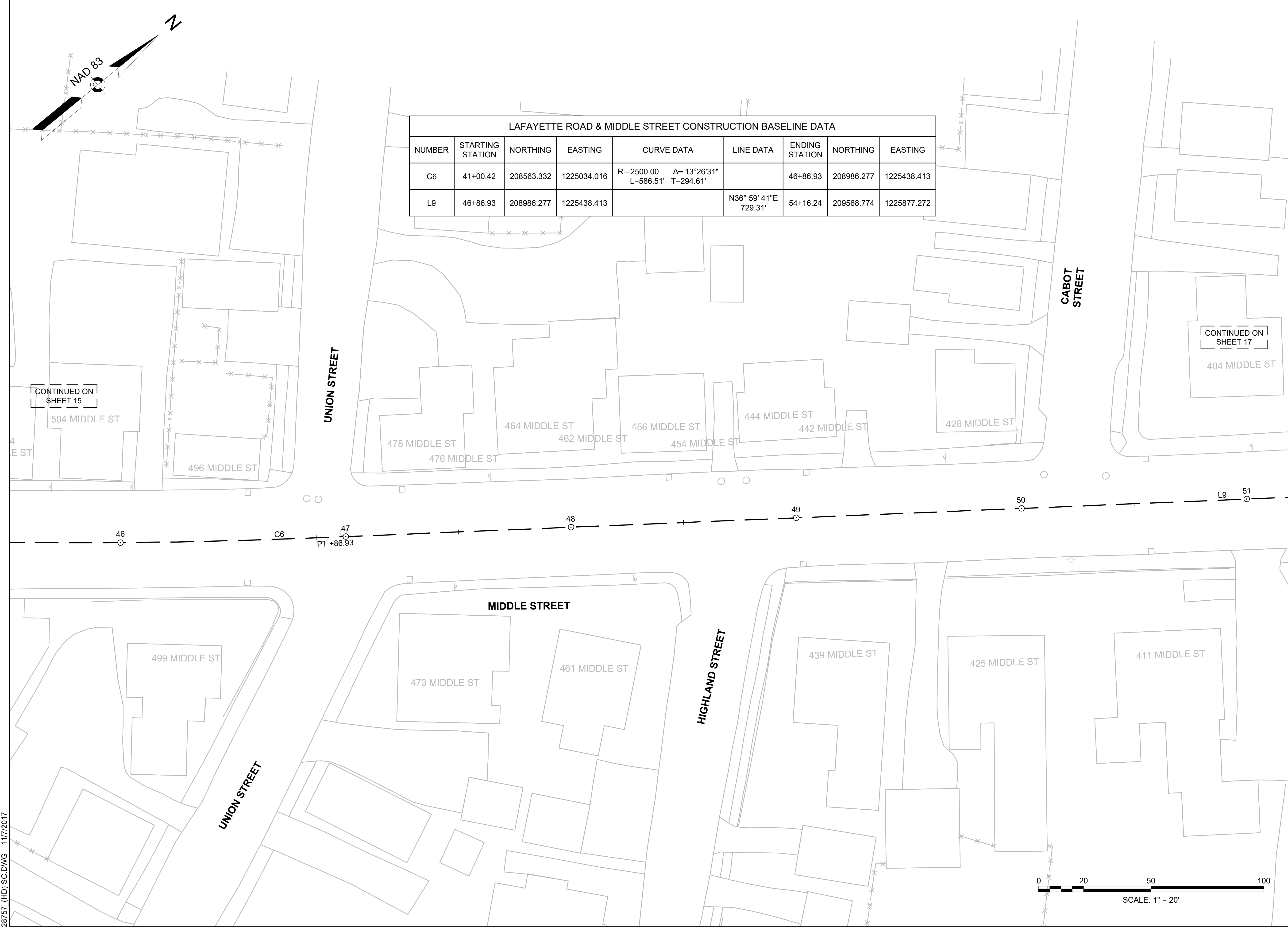
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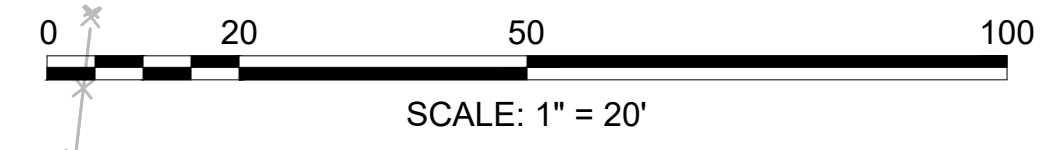
LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C6	41+00.42	208563.332	1225034.016	R = 2500.00' Δ = 13°26'31" L = 586.51' T = 294.61'		46+86.93	208986.277	1225438.413
L9	46+86.93	208986.277	1225438.413		N36° 59' 41"E 729.31'	54+16.24	209568.774	1225877.272



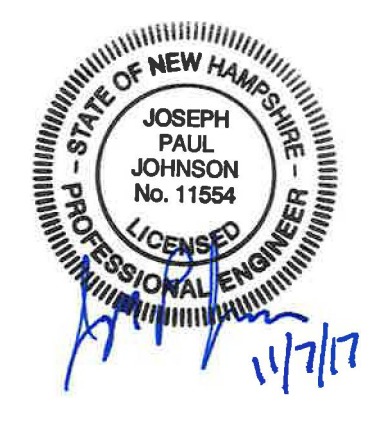
CONTINUED ON SHEET 15

CONTINUED ON SHEET 17

REVISIONS		
NO.	REVISION	DATE
3	NHDOT COMMENTS	11/7/17
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	07/28/2017	
DRAWN/DESIGN BY		CHECKED BY
EMR		JPJ



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**ON-STREET BICYCLE FACILITY
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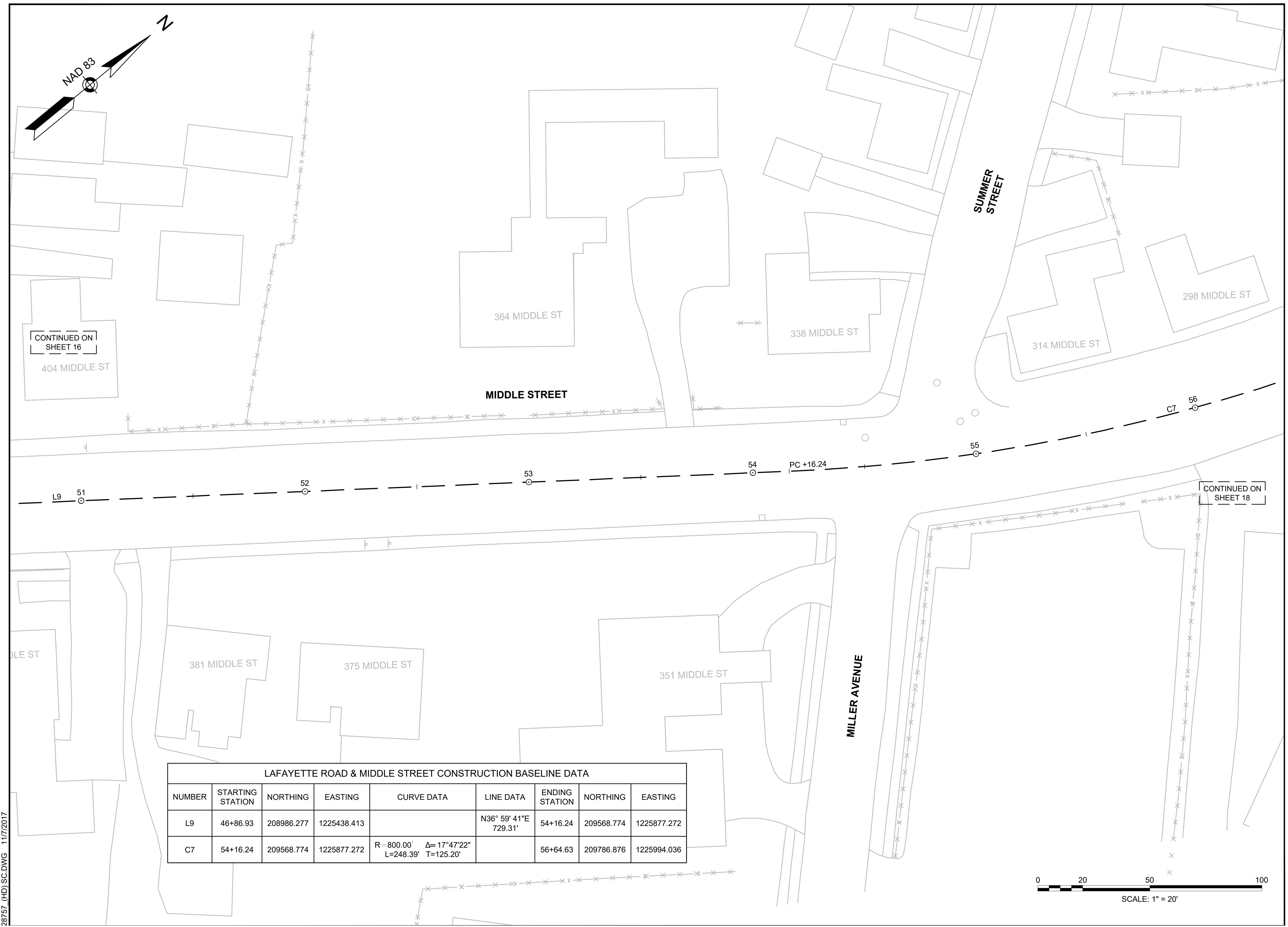
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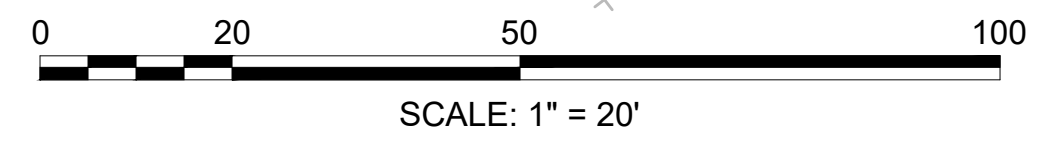
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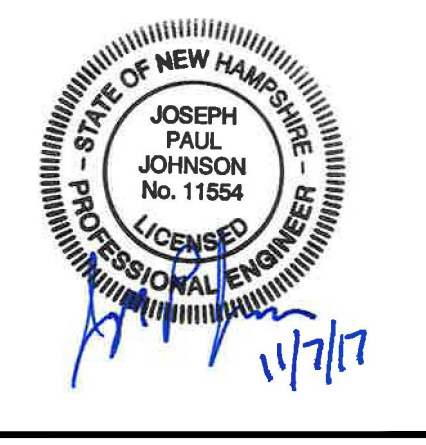
LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L9	46+86.93	208986.277	1225438.413		N36° 59' 41"E 729.31'	54+16.24	209568.774	1225877.272
C7	54+16.24	209568.774	1225877.272	R=800.00' Δ=17°47'22" L=248.39' T=125.20'		56+64.63	209786.876	1225994.036



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CONTINUED ON
 SHEET 16

CONTINUED ON
 SHEET 18



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EMR	JPJ	

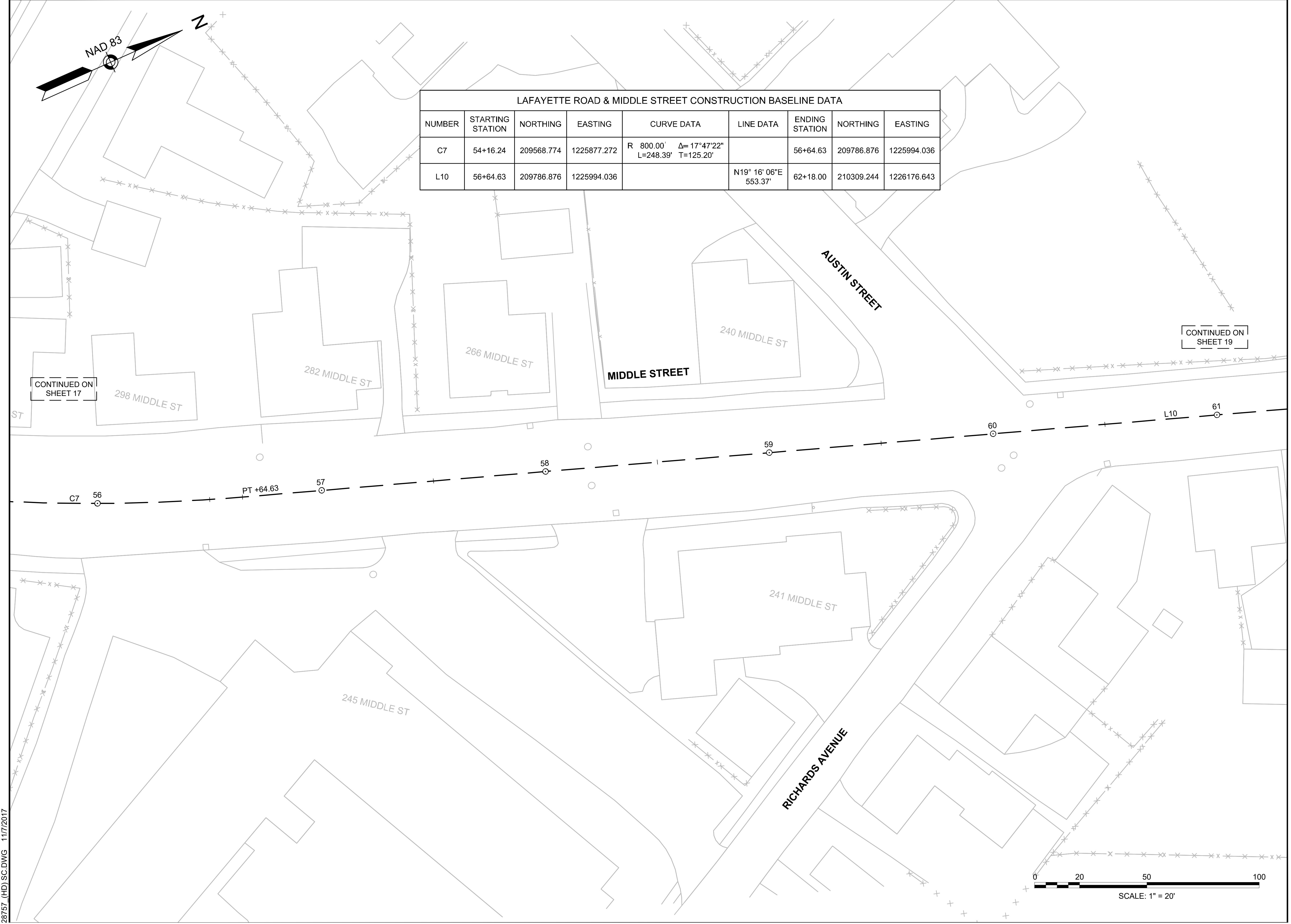
**ALIGNMENT
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SCALE: 1"=20'

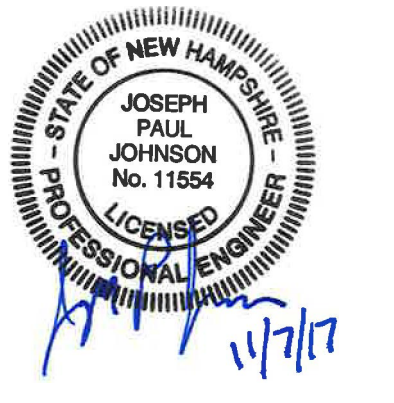
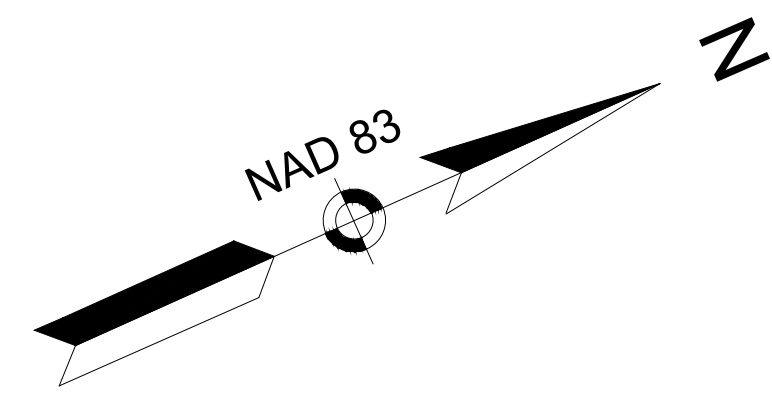
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LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C7	54+16.24	209568.774	1225877.272	R 800.00' Δ= 17°47'22" L=248.39' T=125.20'		56+64.63	209786.876	1225994.036
L10	56+64.63	209786.876	1225994.036		N19° 16' 06"E 553.37'	62+18.00	210309.244	1226176.643



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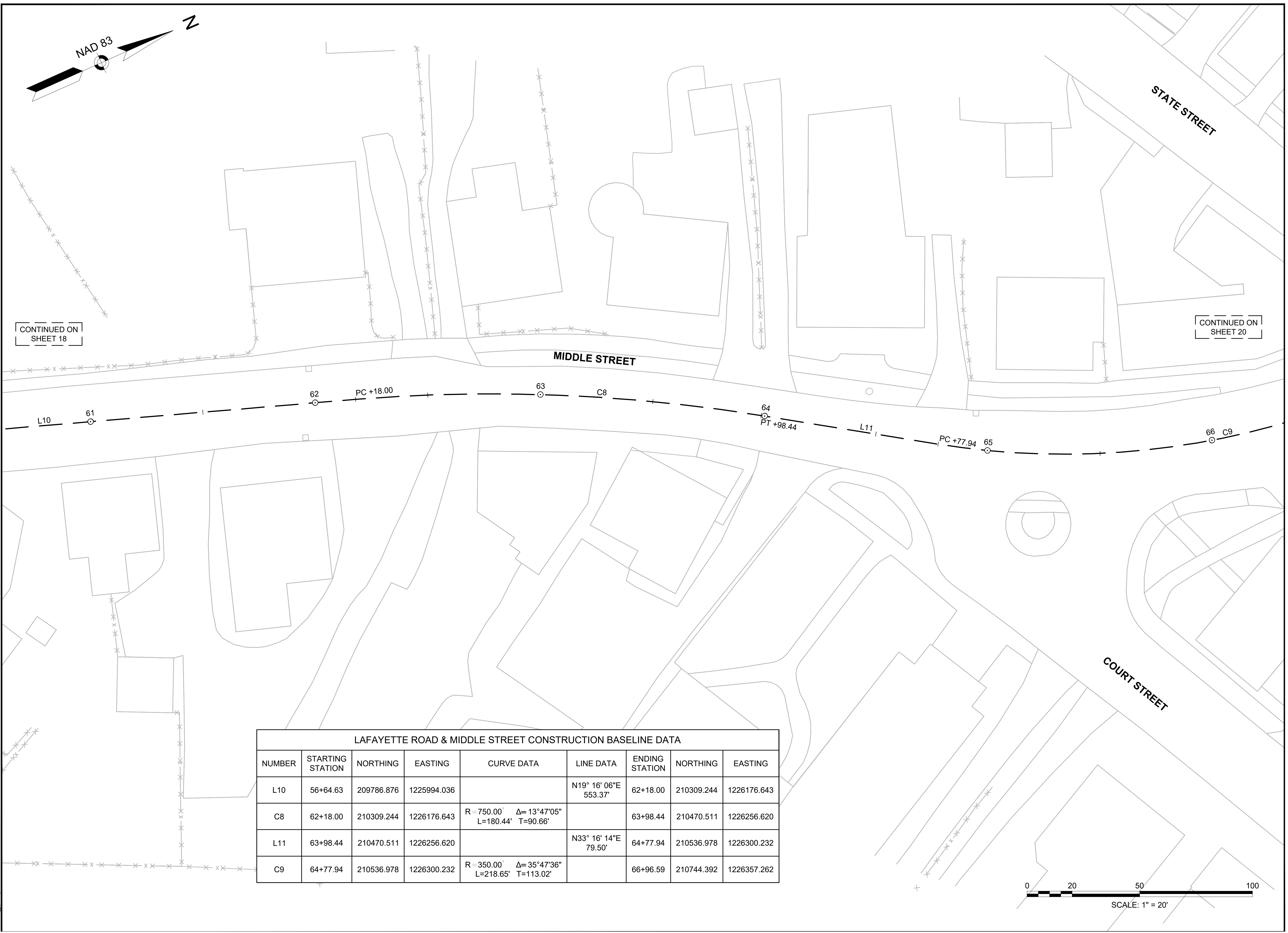


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 LAFAYETTE ROAD/MIDDLE STREET
 PORTSMOUTH, NH**

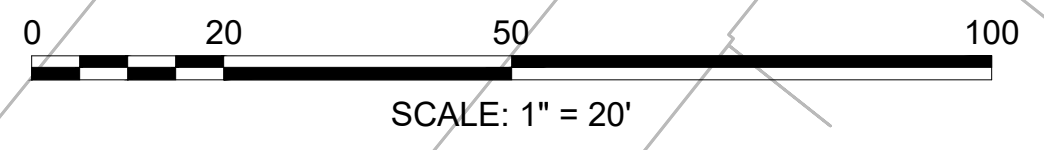
CONTINUED ON
 SHEET 18

CONTINUED ON
 SHEET 20

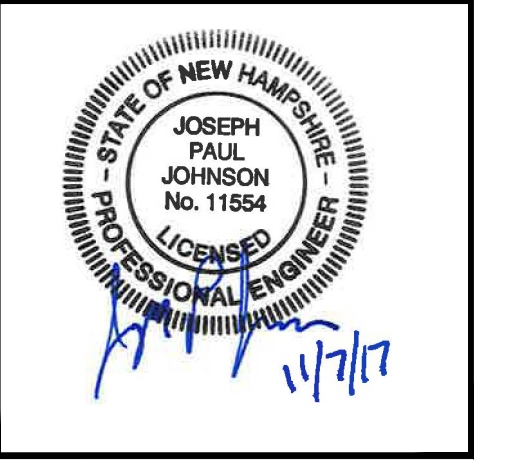


LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	56+64.63	209786.876	1225994.036		N19° 16' 06"E 553.37'	62+18.00	210309.244	1226176.643
C8	62+18.00	210309.244	1226176.643	R=750.00' Δ=13°47'05" L=180.44' T=90.66'		63+98.44	210470.511	1226256.620
L11	63+98.44	210470.511	1226256.620		N33° 16' 14"E 79.50'	64+77.94	210536.978	1226300.232
C9	64+77.94	210536.978	1226300.232	R=350.00' Δ=35°47'36" L=218.65' T=113.02'		66+96.59	210744.392	1226357.262

REVISIONS		
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3	NHDOT COMMENTS	11/7/17
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EMR	JPJ	



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PREPARED FOR
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 1 JUNKINS AVENUE
 PORTSMOUTH, NH

**ON-STREET BICYCLE FACILITY
 IMPROVEMENT PROJECT
 LAFAYETTE ROAD/MIDDLE STREET
 PORTSMOUTH, NH**

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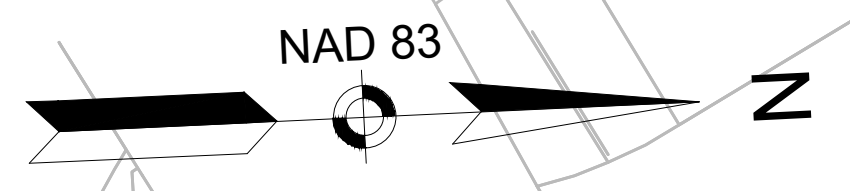
**ALIGNMENT
 PLANS**

SCALE: 1"=20'

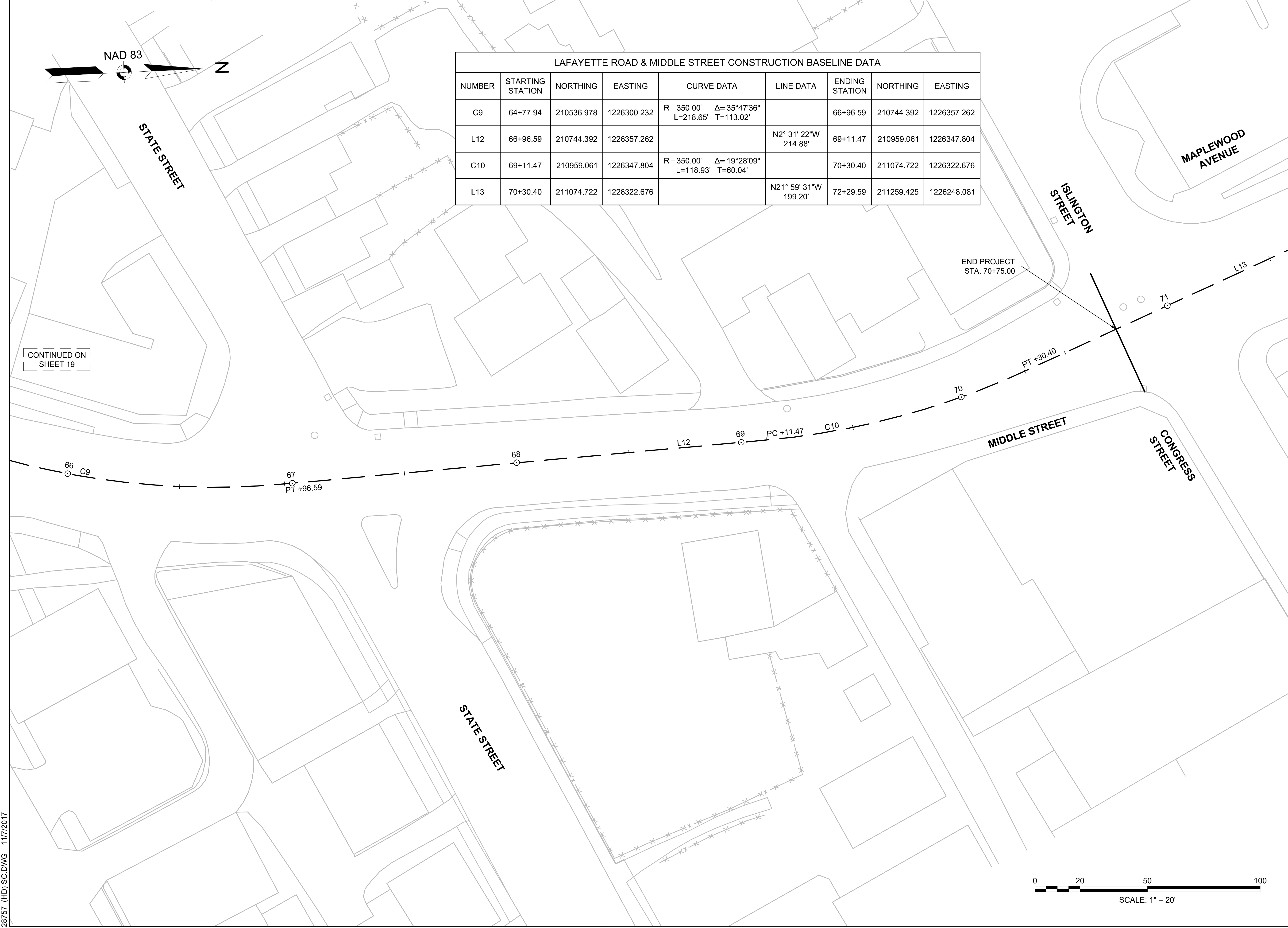
28757

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LAFAYETTE ROAD & MIDDLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C9	64+77.94	210536.978	1226300.232	R=350.00' Δ=35°47'36" L=218.65' T=113.02'		66+96.59	210744.392	1226357.262
L12	66+96.59	210744.392	1226357.262		N2° 31' 22"W 214.88'	69+11.47	210959.061	1226347.804
C10	69+11.47	210959.061	1226347.804	R=350.00' Δ=19°28'09" L=118.93' T=60.04'		70+30.40	211074.722	1226322.676
L13	70+30.40	211074.722	1226322.676		N21° 59' 31"W 199.20'	72+29.59	211259.425	1226248.081



CONTINUED ON
 SHEET 19



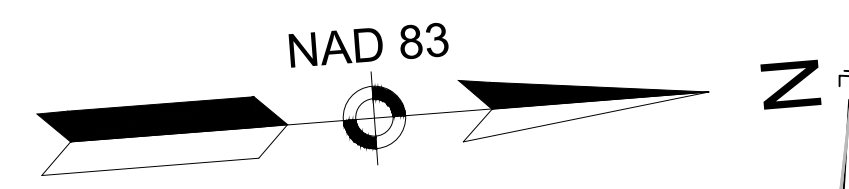
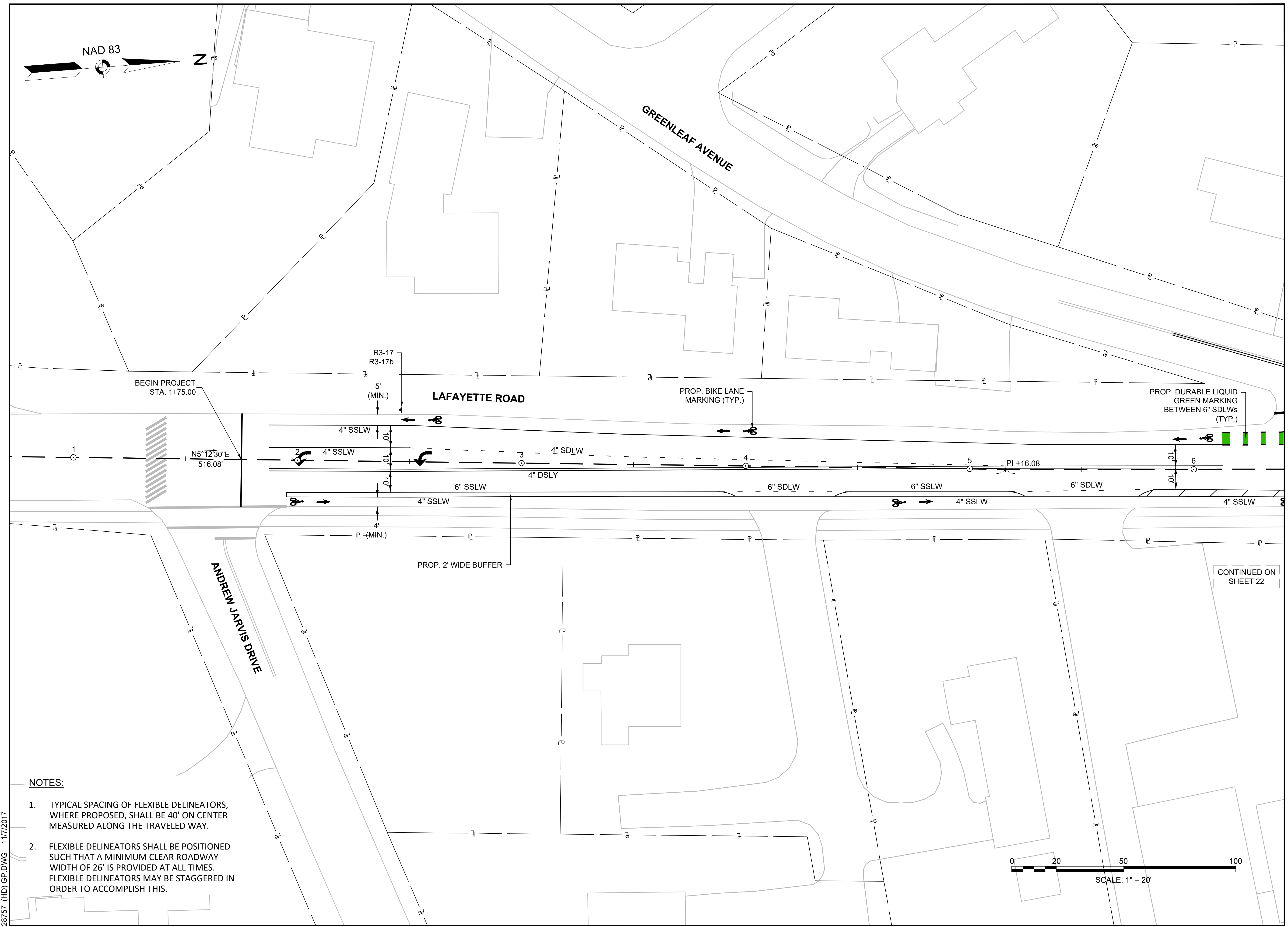


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GENERAL PLANS
 SCALE: 1"=20'
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BEGIN PROJECT
 STA. 1+75.00

N5°12'30"E
 516.08'

R3-17
 R3-17b

5'
 (MIN.)

LAFAYETTE ROAD

PROP. BIKE LANE
 MARKING (TYP.)

PROP. DURABLE LIQUID
 GREEN MARKING
 BETWEEN 6" SDLWs
 (TYP.)

4" SSLW

4" SSLW

4" DSLW

4" DSLY

6" SSLW

6" SSLW

6" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

4" SSLW

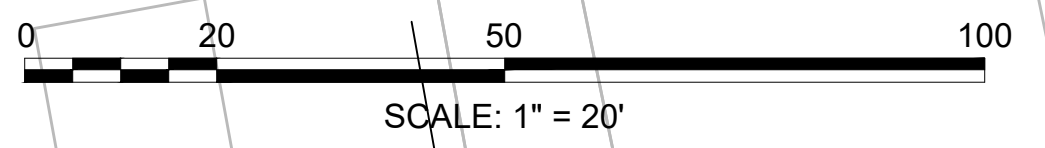
4" SSLW

PI +16.08

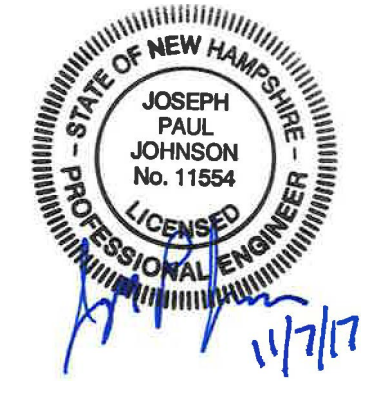
PROP. 2' WIDE BUFFER

CONTINUED ON
 SHEET 22

- NOTES:**
1. TYPICAL SPACING OF FLEXIBLE DELINEATORS, WHERE PROPOSED, SHALL BE 40' ON CENTER MEASURED ALONG THE TRAVELED WAY.
 2. FLEXIBLE DELINEATORS SHALL BE POSITIONED SUCH THAT A MINIMUM CLEAR ROADWAY WIDTH OF 26' IS PROVIDED AT ALL TIMES. FLEXIBLE DELINEATORS MAY BE STAGGERED IN ORDER TO ACCOMPLISH THIS.



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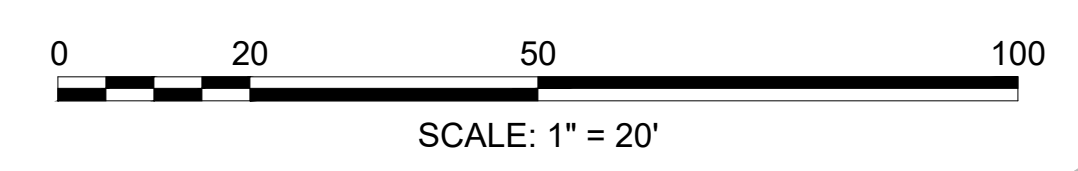
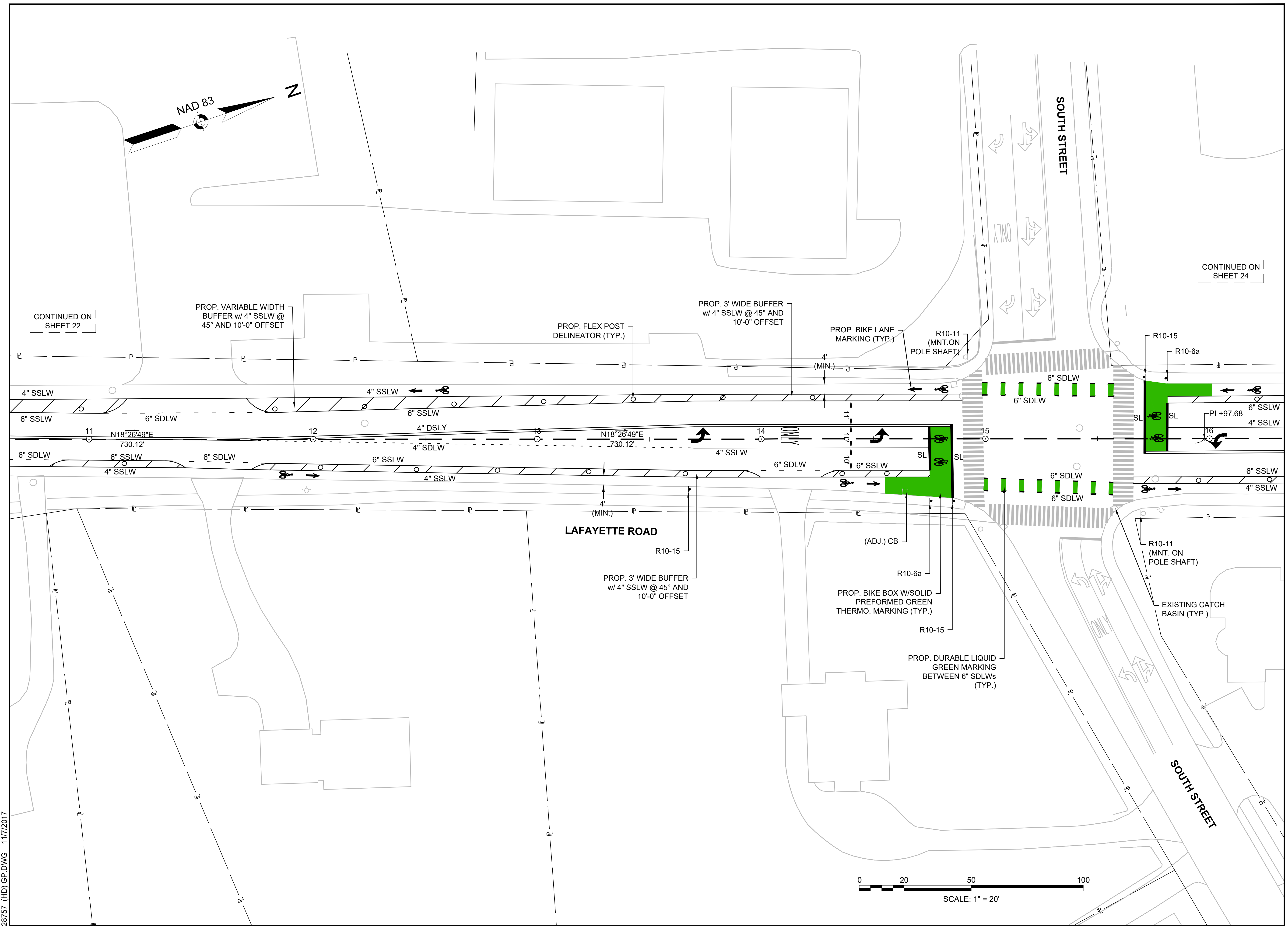
**ON-STREET BICYCLE FACILITY
 IMPROVEMENT PROJECT
 LAFAYETTE ROAD/MIDDLE STREET
 PORTSMOUTH, NH**

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07/28/2017
 DRAWN/DESIGN BY: EMR
 CHECKED BY: JPJ

**GENERAL
 PLANS**

SCALE: 1"=20'
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**ON-STREET BICYCLE FACILITY
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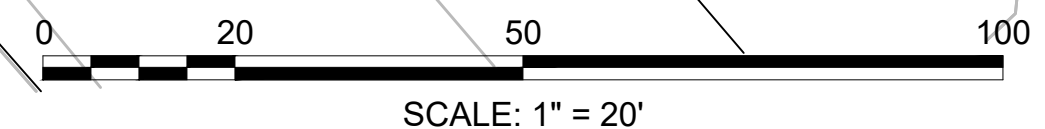
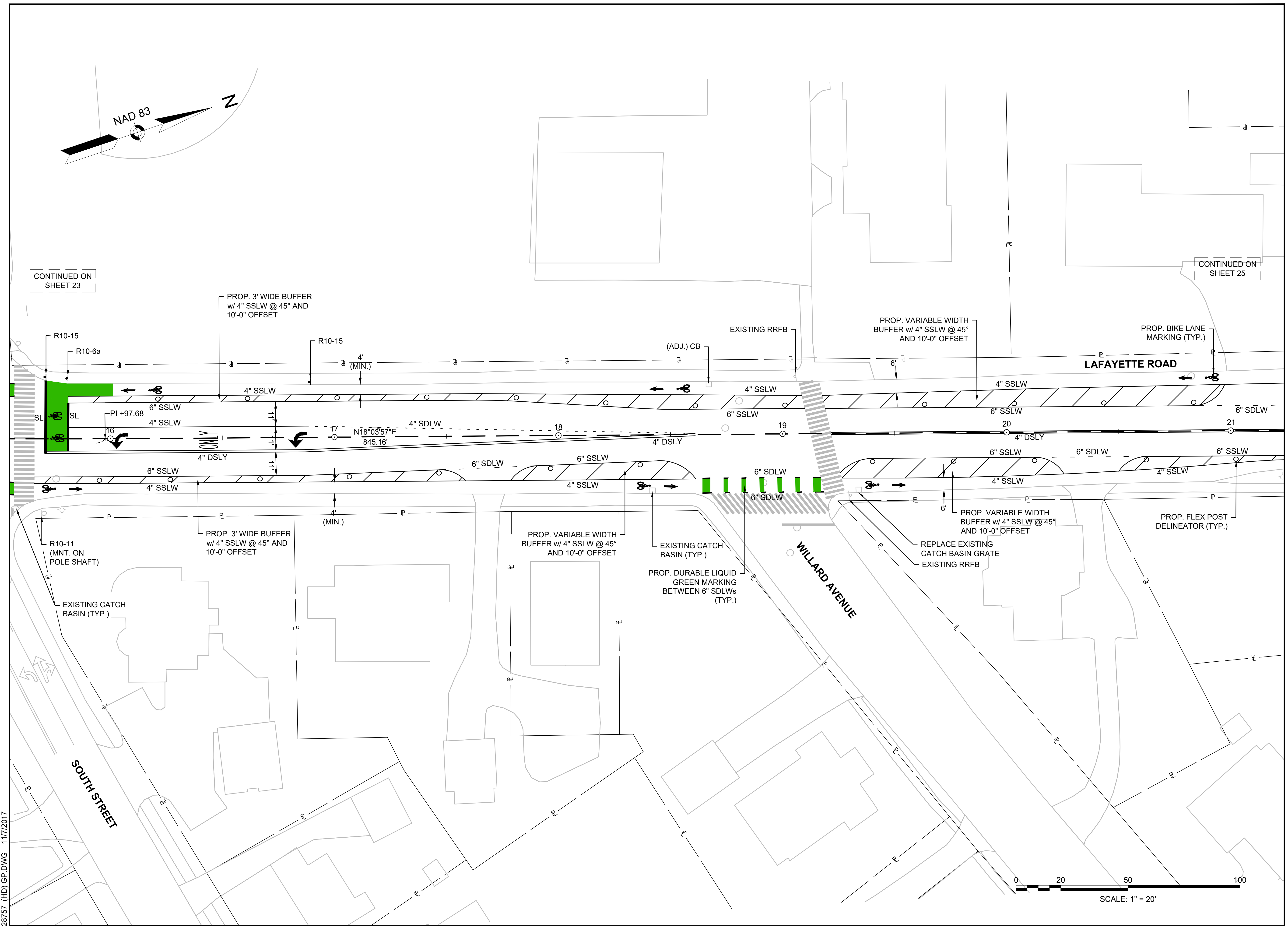
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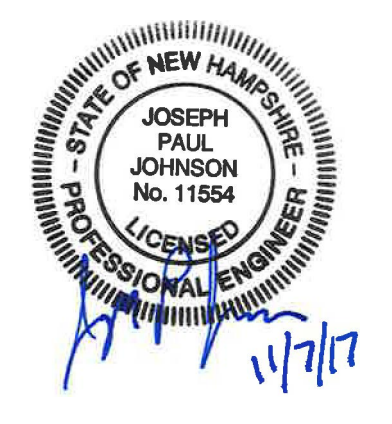
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CONTINUED ON SHEET 23

CONTINUED ON SHEET 25



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**ON-STREET BICYCLE FACILITY
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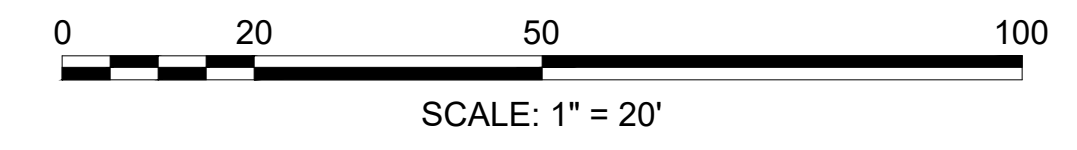
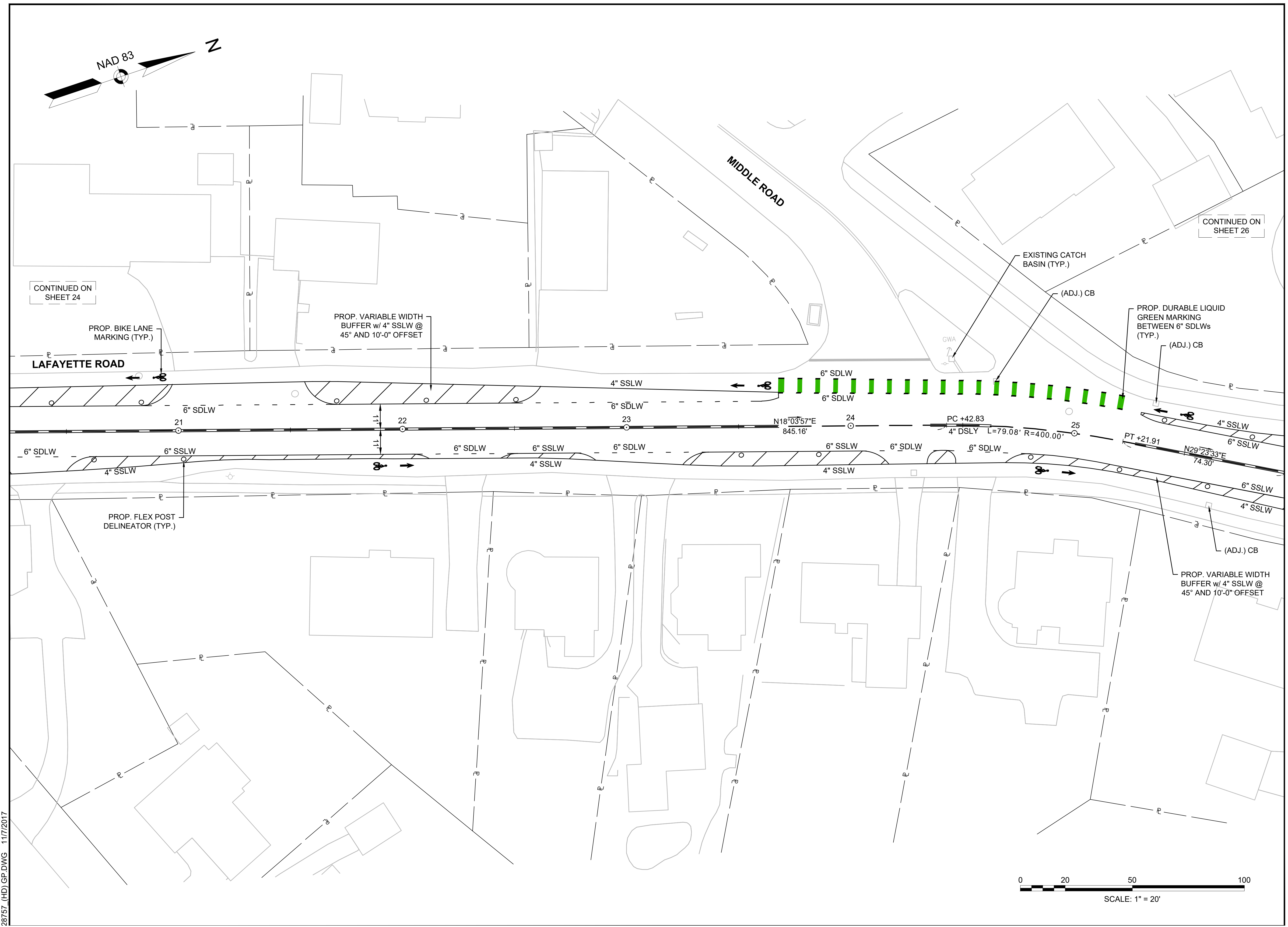
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**GENERAL
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SCALE: 1"=20'

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**ON-STREET BICYCLE FACILITY
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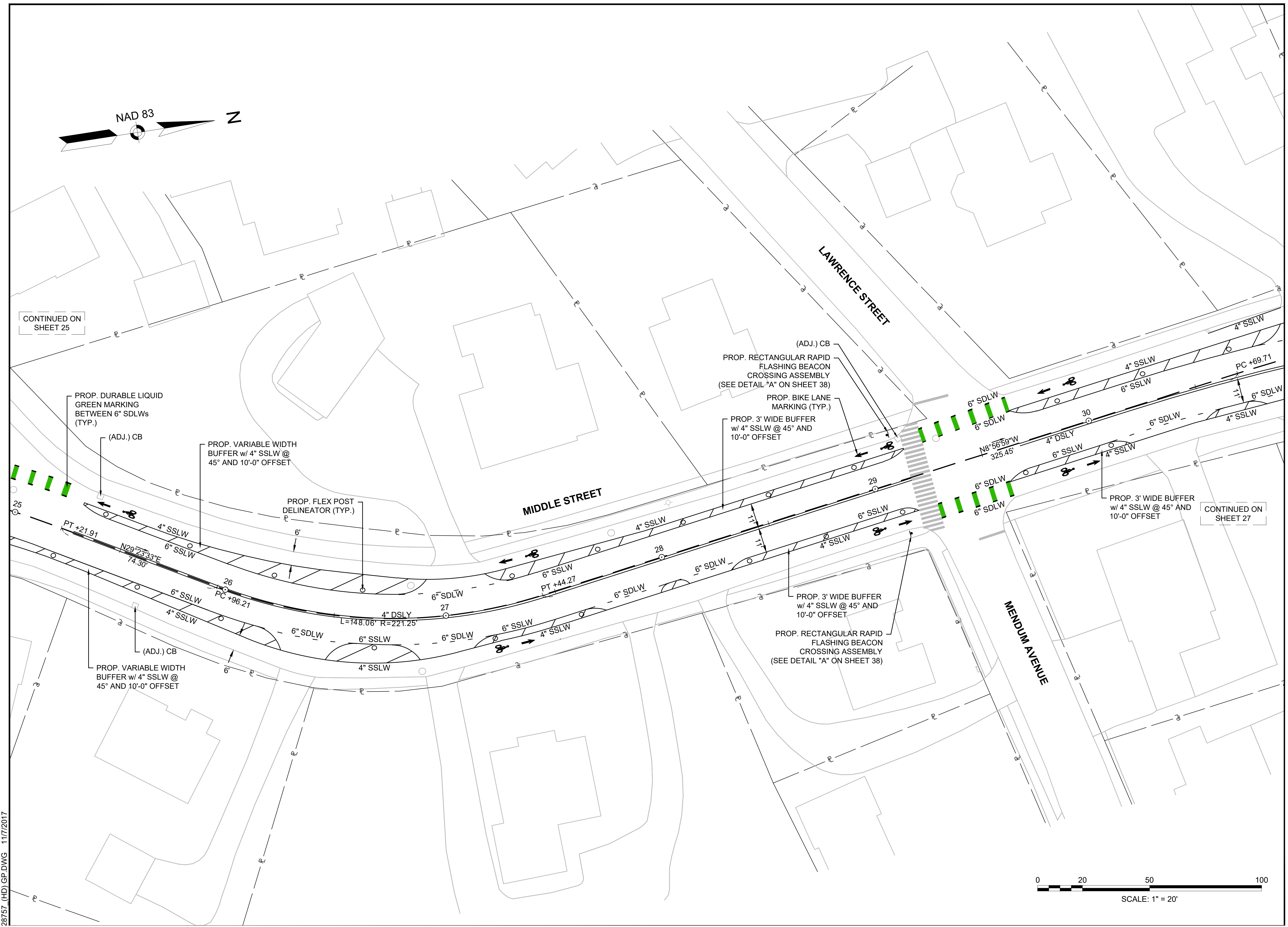
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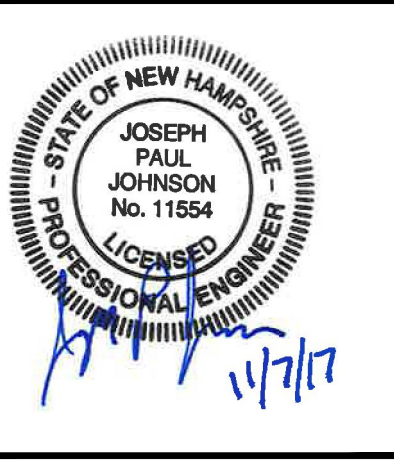
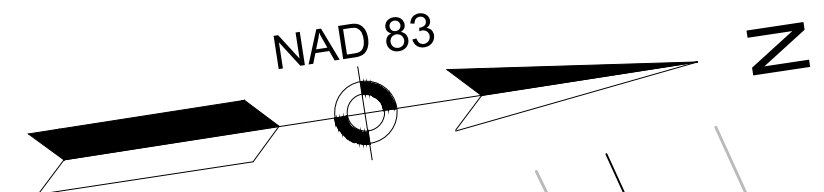
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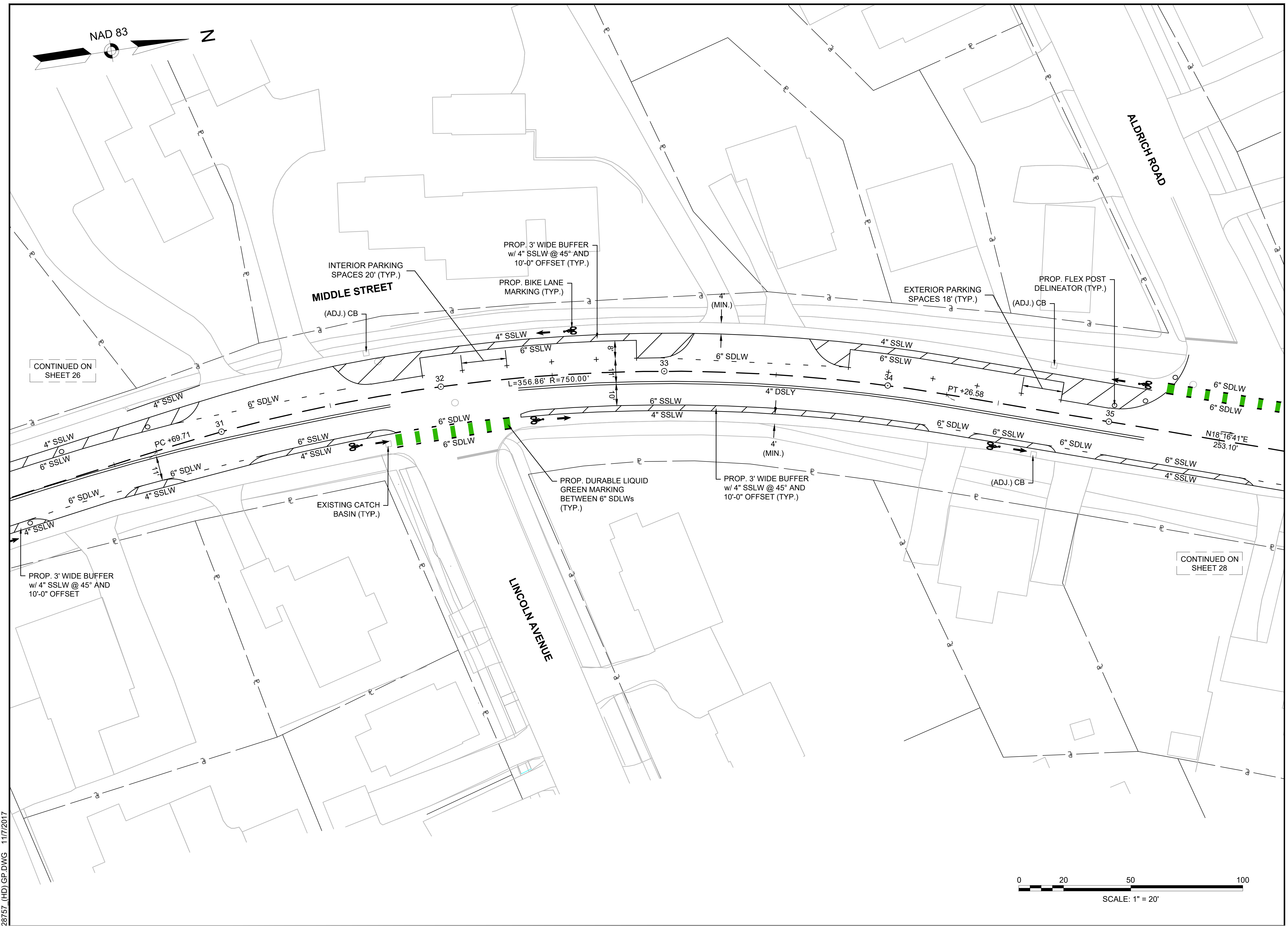
CONTINUED ON
 SHEET 25

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 SHEET 27



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**ON-STREET BICYCLE FACILITY
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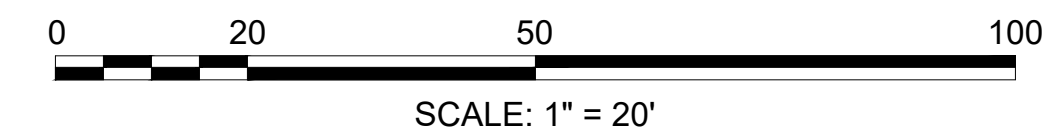


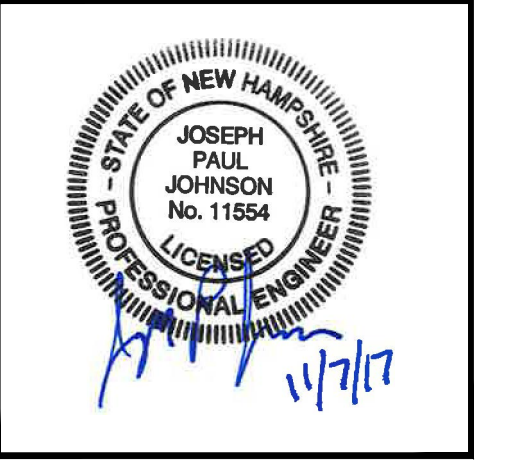
CONTINUED ON
 SHEET 26

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 SHEET 28

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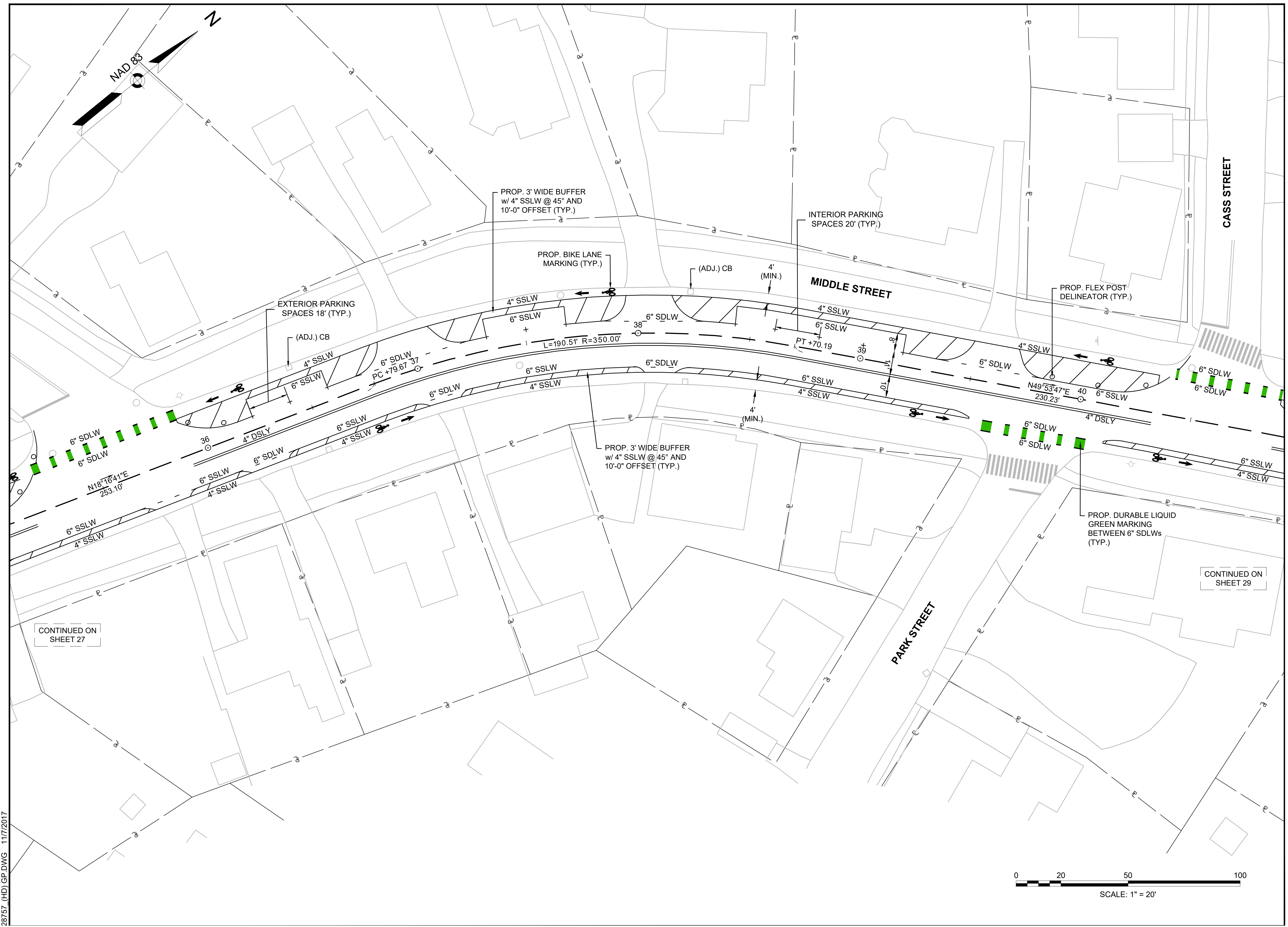
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 PLANS**

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**ON-STREET BICYCLE FACILITY
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 LAFAYETTE ROAD/MIDDLE STREET
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REVISIONS

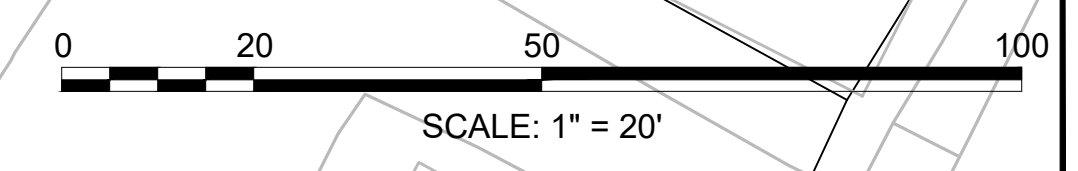
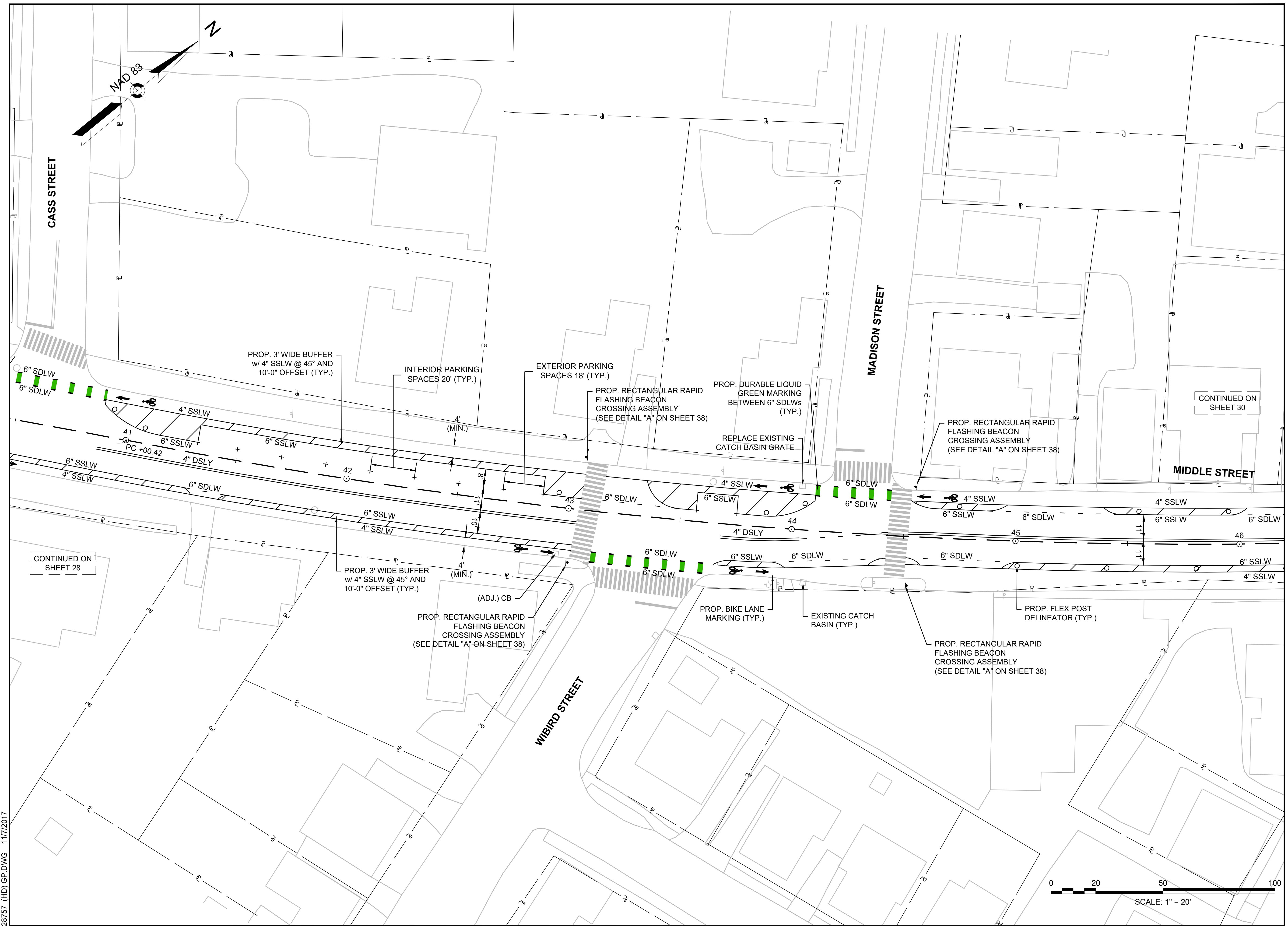
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**GENERAL
 PLANS**

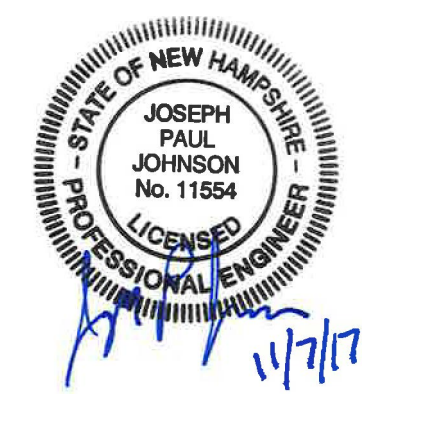
SCALE: 1"=20'

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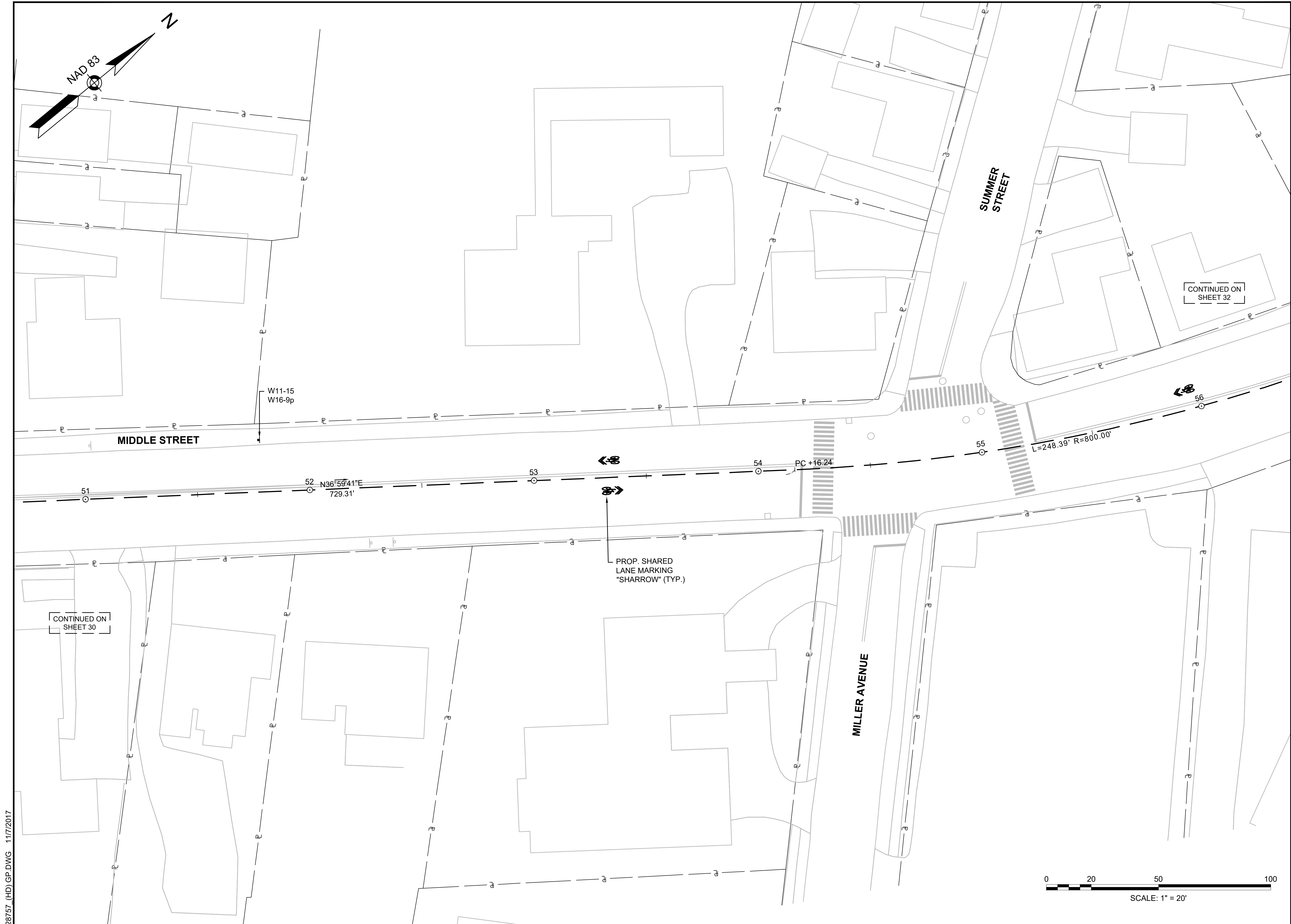
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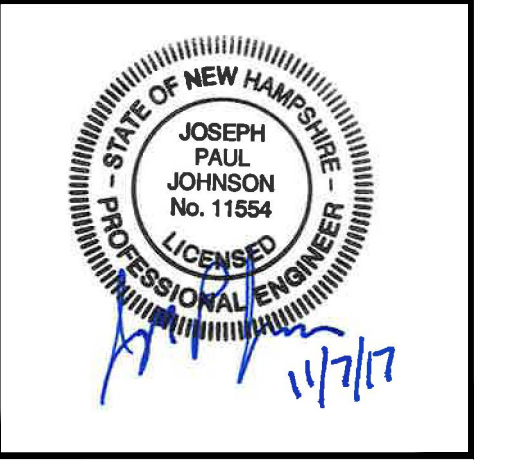
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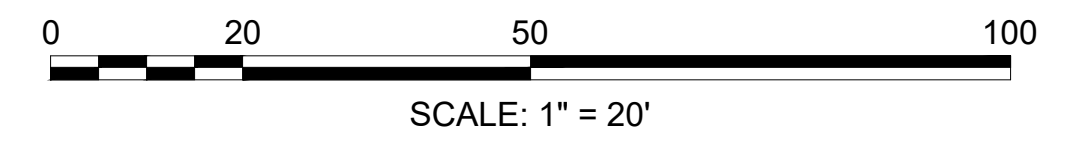
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**ON-STREET BICYCLE FACILITY
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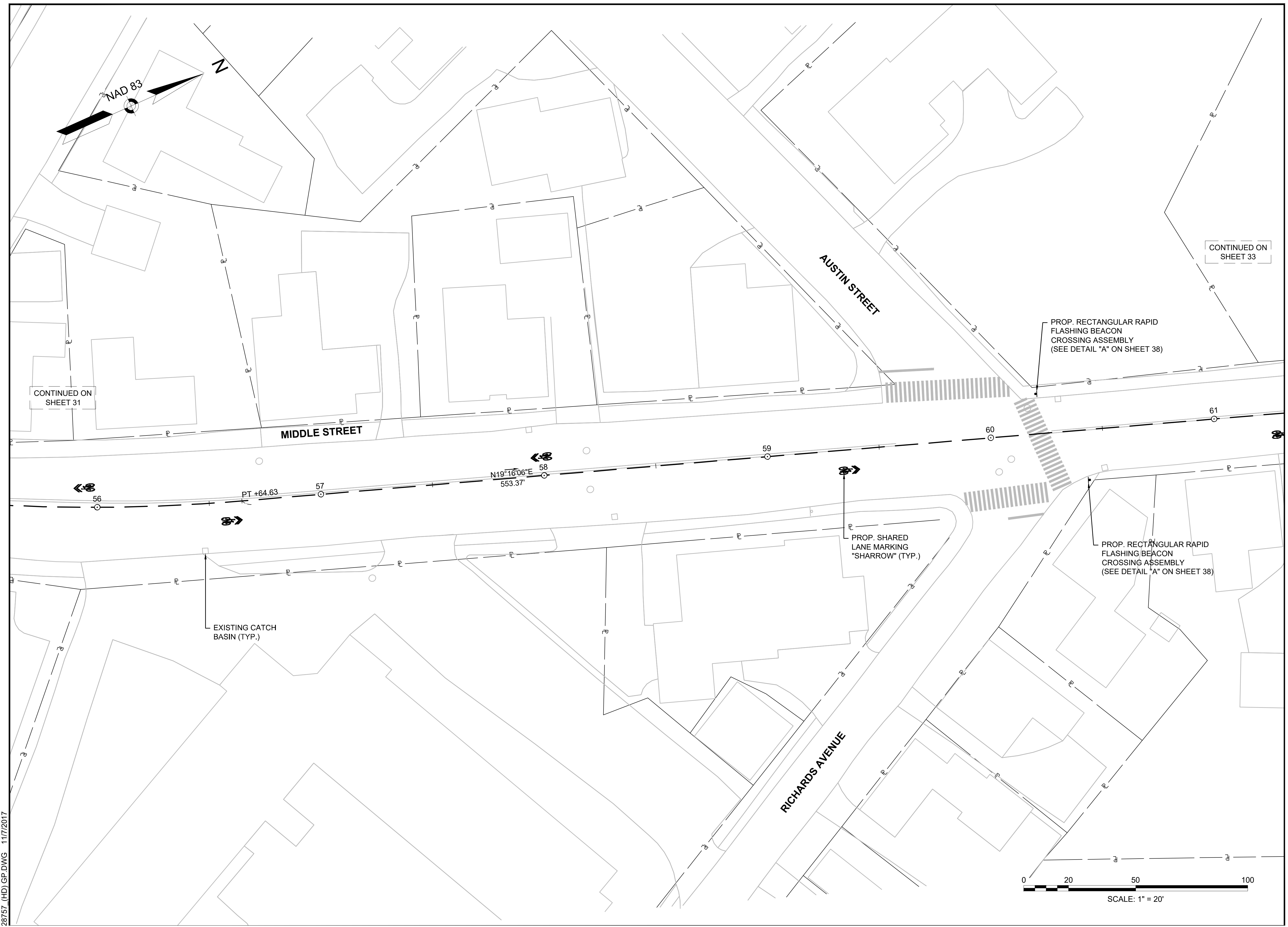
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**GENERAL
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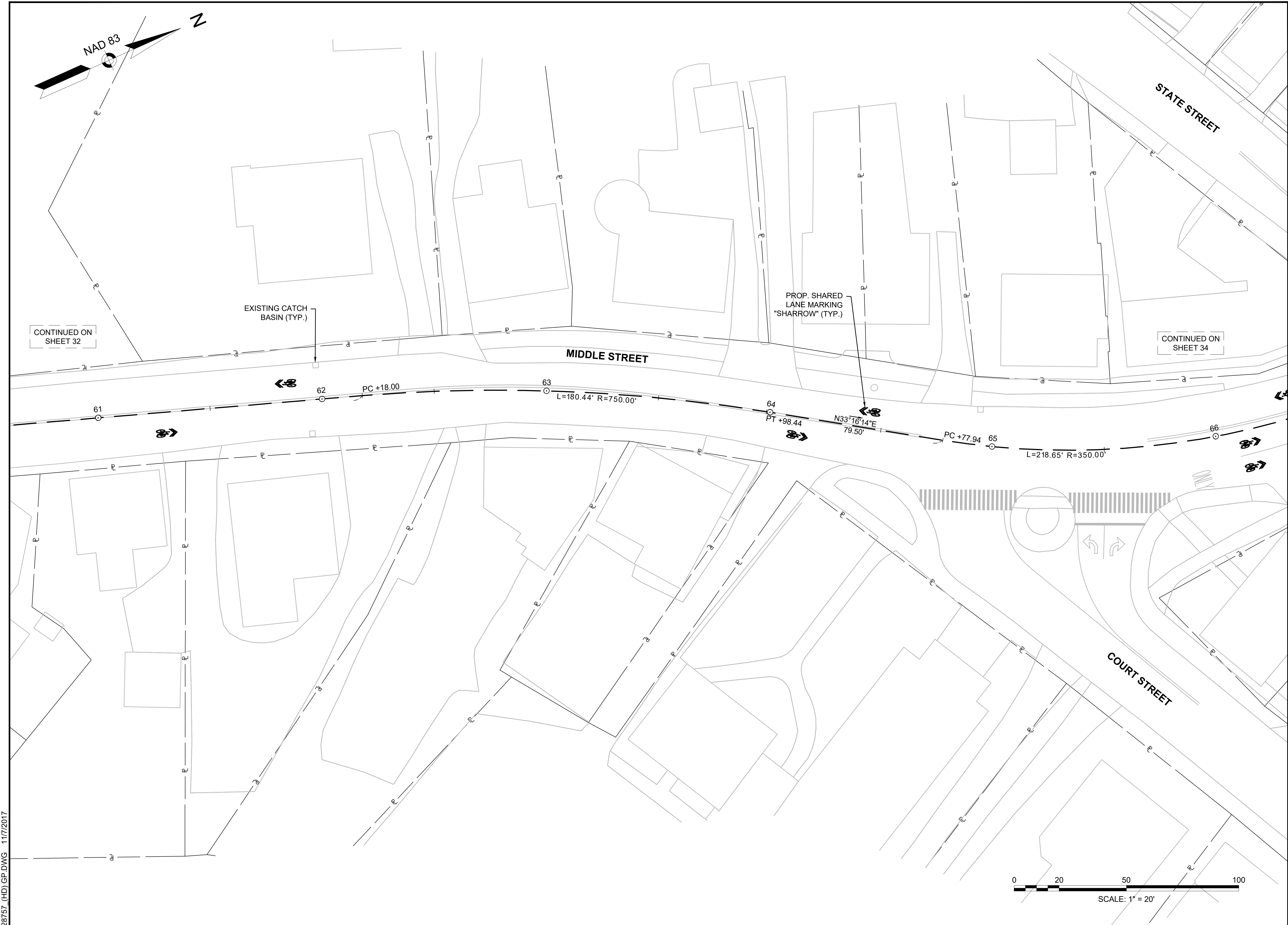
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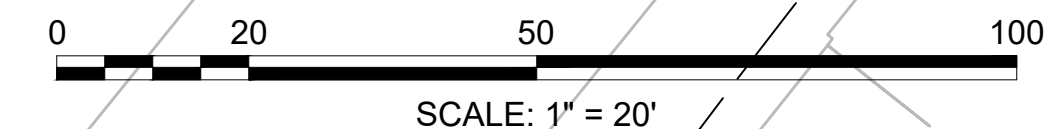


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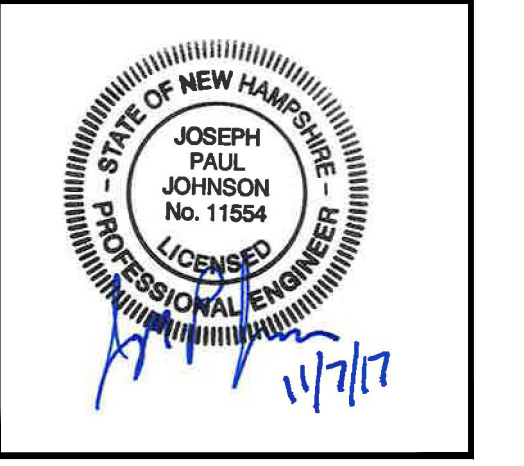
EXISTING CATCH BASIN (TYP.)

PROP. SHARED LANE MARKING "SHARROW" (TYP.)

CONTINUED ON SHEET 34



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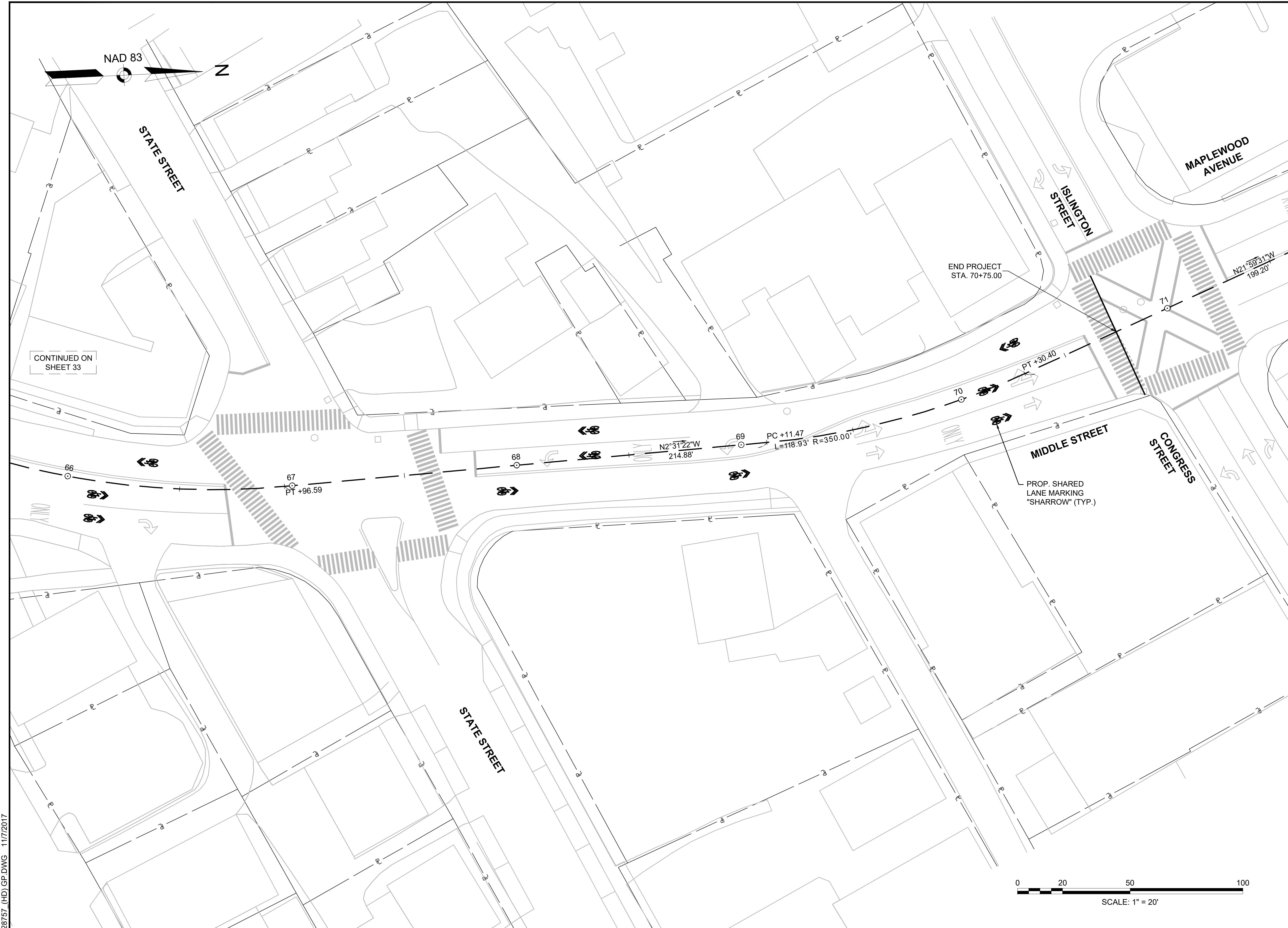
**GENERAL
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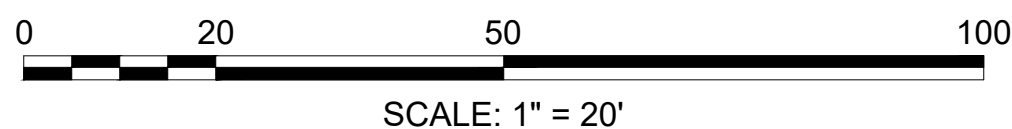
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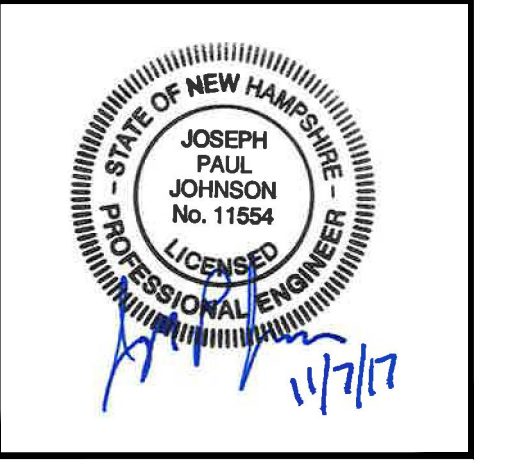
CONTINUED ON SHEET 33

END PROJECT STA. 70+75.00

PROP. SHARED LANE MARKING "SHARROW" (TYP.)



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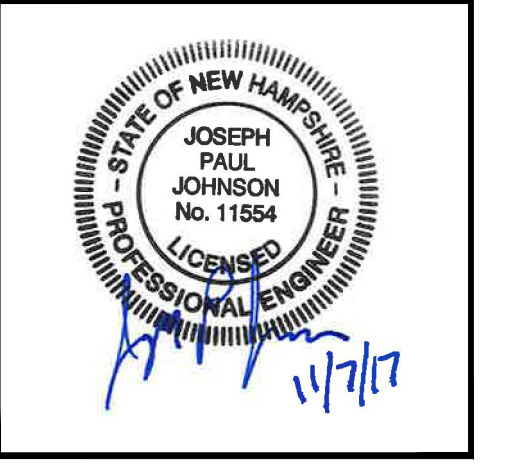
GENERAL PLANS

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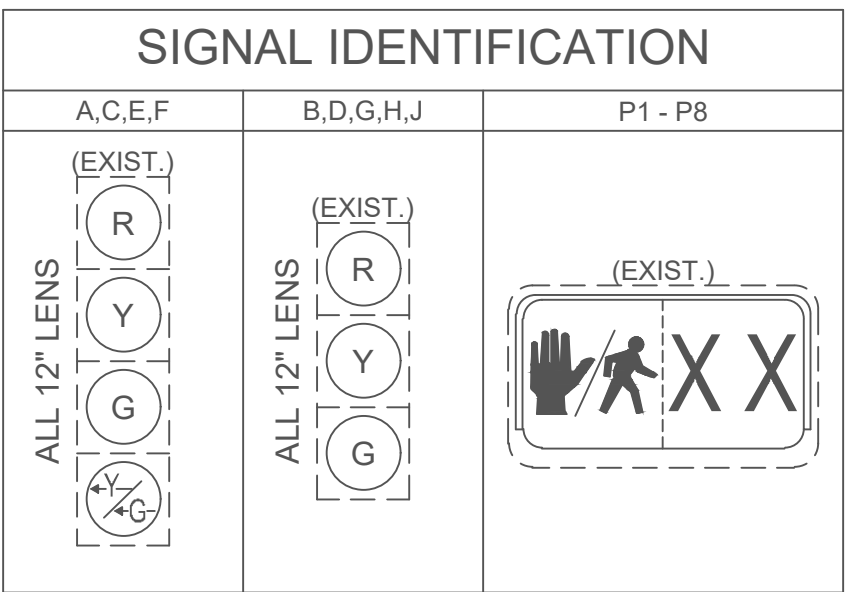
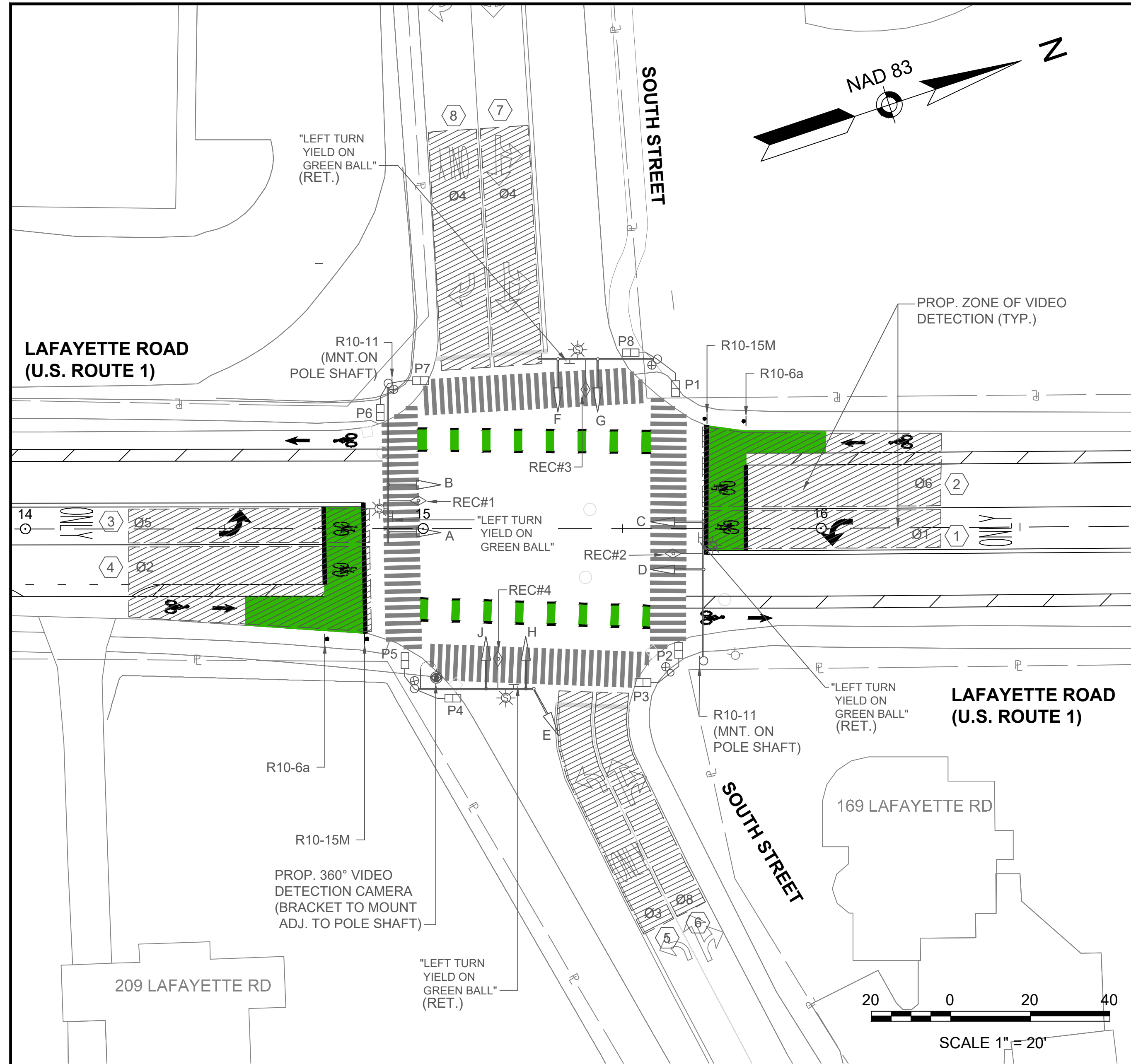
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EMR	JPJ	

IDENT. NO.	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			RTE NO. OR SHIELD (INCHES)	ARROW (INCHES)	NUMERAL (INCHES)	NO. SIGNS REQ'D	SIGN AREA (SQ. FT.)		POSTS PER SIGN					REMARKS										
	WIDTH (INCHES)	HEIGHT (INCHES)		LETTER HEIGHT (INCHES)							NOM. AREA	TOTAL AREA	BREAKAWAY	STEEL I-BEAM	4" ALUMINUM	3" ALUMINUM	U-CHANNEL											
				UC	LC	CAPS																						
D11-1	24	18							5	3.00	15.00							1	WHITE ON GREEN									
M6-1L	12	9							3	0.75	2.25								MOUNT W/ D11-1, WHITE ON GREEN									
M6-1R	12	9							2	0.75	1.50								MOUNT W/ D11-1, WHITE ON GREEN									
R3-17	24	18							2	3.00	6.00								1	WHITE ON BLACK, BLACK ON WHITE								
R3-17b	24	8							2	1.33	2.67									MOUNT W/ R3-17, BLACK ON WHITE								
R4-11	30	30							1	6.25	6.25									1	BLACK ON WHITE							
R10-6L	24	30							2	5.00	10.00										1	BLACK ON WHITE						
R10-11	24	30							2	5.00	10.00												MOUNT ON POLE SHAFT					
R10-15M	30	30				6"			4	6.25	25.00																	
W11-2	30	30									PAY UNDER ITEM 616.21														MOUNT ON PROP. RRFB, BLACK ON YELLOW-GREEN			
W11-15	30	30							2	6.25	12.50														1	BLACK ON YELLOW		
W16-7P	24	12									PAY UNDER ITEM 616.21																MOUNT W/ W11-2, BLACK ON YELLOW-GREEN	
W16-9p	24	12							2	2.00	4.00																MOUNT W/ W11-15, BLACK ON YELLOW-GREEN	
S1-1	36	36									PAY UNDER ITEM 616.21																	MOUNT ON PROP. RRFB, BLACK ON YELLOW-GREEN

TRAFFIC SIGN SUMMARY NOTES

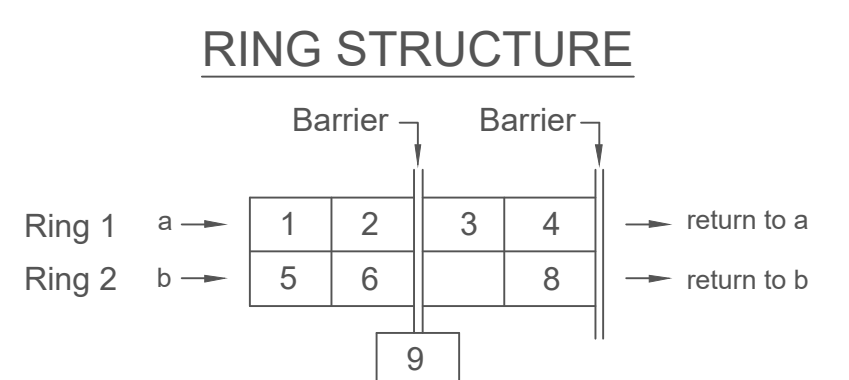
- REFER TO THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION PUBLISHED BY THE NHDOT. (WITH LATEST SUPPLEMENTS)
- REFER TO THE LATEST EDITION OF THE STANDARD PLANS FOR ROAD CONSTRUCTION AS PUBLISHED BY THE NHDOT FOR EXACT DETAILS OF PERMANENT SIGNING STANDARDS.
- NOTE REFLECTIVITY REQUIREMENTS IN THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 718 PUBLISHED BY THE NHDOT.
- REFER TO THE LATEST EDITION OF THE STANDARD HIGHWAY SIGNS MANUAL AS PUBLISHED BY THE USDOT-FHWA FOR EXACT DETAILS OF BORDERS, ETC.
- QUANTITIES OF SIGNS SHOWN ON THIS SHEET MAY DIFFER FROM THE GENERAL PLANS. WHERE DIFFERENCES OCCUR, THE GENERAL PLANS SHALL PREVAIL.



MAJOR ITEMS REQUIRED (ITEM 616.191)

QUANTITY	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER AND BACK PANEL WIRING MODIFICATION TO INCORPORATE NEW VIDEO DETECTION SYSTEM
1	360° VIDEO DETECTION CAMERA SYSTEM WITH TRAFFIC COUNTING AND MONITORING CAPABILITIES
PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL.	

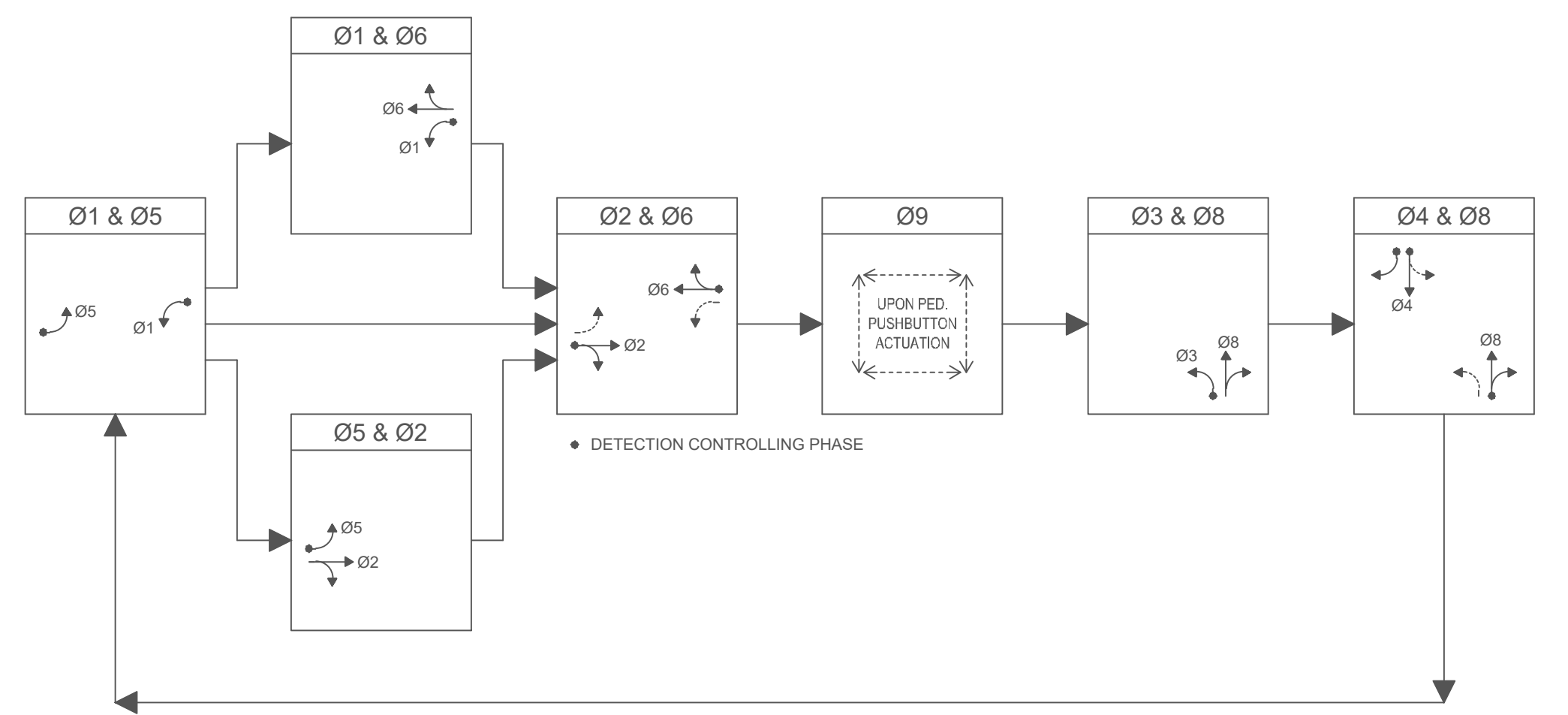
NOTES:
 1. EXISTING CONDITIONS INFORMATION IS BASED ON AERIAL IMAGES, GIS AND A TRAFFIC SIGNAL PLAN BY GORRILL-PALMER ENGINEERS, INC. DATED 1/10/2010. NO ON-THE-GROUND INSTRUMENT SURVEY WAS PERFORMED.
 2. RETAIN ALL EXISTING TRAFFIC SIGNAL EQUIPMENT, CONDUITS AND SIGNS UNLESS OTHERWISE NOTED.
 3. ABANDON ALL EXISTING LOOP DETECTORS AND R&S ALL AMPLIFIERS.



VIDEO DETECTION DATA

DETECTION ZONE NO.	LOCATION	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	LAFAYETTE ROAD (U.S. ROUTE 1) SB LEFT	1	1	B	-	-
2	LAFAYETTE ROAD (U.S. ROUTE 1) SB THRU	6	6	B	-	-
3	LAFAYETTE ROAD (U.S. ROUTE 1) NB LEFT	5	5	B	-	-
4	LAFAYETTE ROAD (U.S. ROUTE 1) NB THRU	2	2	B	-	-
5	SOUTH STREET WB LEFT	3	3	B	-	-
6	SOUTH STREET WB THRU	8	8	B	-	-
7	SOUTH STREET EB LEFT/THRU	4	4	B	-	-
8	SOUTH STREET EB RIGHT	4	4	B	-	-

PREFERENTIAL PHASE SEQUENCE



EMERGENCY VEHICLE PREEMPTION

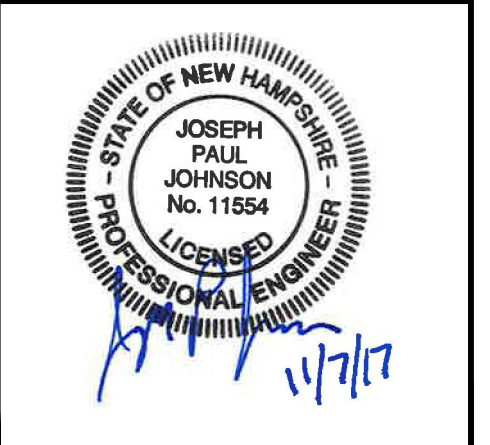
SB PREEMPT#1	NB PREEMPT#2	WB PREEMPT#3	EB PREEMPT#3
REC#1	REC#2	REC#3	REC#4

- ### EMERGENCY VEHICLE PREEMPTION OPERATION
- EMERGENCY VEHICLE PREEMPTION SIGNAL SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS (RECEIVERS) LOCATED AT THE INTERSECTION.
 - PREEMPTION SIGNALS SHALL BE SERVICED ON A FIRST COME FIRST SERVED BASIS. IN CASE WHERE TWO OR MORE CALLS ARE COMING IN AT THE SAME TIME, PREEMPTION SHALL BE PRIORITIZED WITH PREEMPT #1 (U.S. ROUTE 1 SOUTHBOUND) FIRST, THEN FOLLOW BY PREEMPT #2 (U.S. ROUTE 1 NORTHBOUND), THEN PREEMPT #3 (SOUTH STREET WB), THEN PREEMPT#4 (SOUTH STREET EB).
 - IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED BY OPTICAL DETECTOR REC#1 (OR REC#2, REC#3, REC#4), THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PREEMPTION SIGNAL #1 (OR #2, #3, #4) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME THE RELEVANT CLEARANCE INTERVALS AND SERVICE THE SUBSEQUENT EMERGENCY VEHICLE PREEMPTION SIGNAL IF NECESSARY. NORMAL SIGNAL OPERATION SHALL RESUME PROVIDED THAT ALL PREEMPTION SIGNALS HAVE CEASED.
 - NORMAL VEHICLE CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.
 - PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTION PHASE IS ON GREEN.

FULLY-ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input checked="" type="checkbox"/>
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED	<input type="checkbox"/>
PRE-TIMED	<input type="checkbox"/>	WIRE	<input type="checkbox"/>
		TBCU	<input type="checkbox"/>

SEQUENCE AND TIMING

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
LAFAYETTE ROAD (U.S. ROUTE 1)	SB	A	GL	YL	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FYL
LAFAYETTE ROAD (U.S. ROUTE 1)	SB	B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
LAFAYETTE ROAD (U.S. ROUTE 1)	NB	C	R	R	R	G	Y	R	R	R	R	R	R	R	GL	YL	R	R	R	R	R	R	R	R	R	R	FYL
LAFAYETTE ROAD (U.S. ROUTE 1)	NB	D	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
SOUTH STREET	WB	E,F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
SOUTH STREET	WB	G	R	R	R	R	R	R	R	G/GL	Y/YL	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	FR
SOUTH STREET	EB	H,J	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT
			TIMING IN SECONDS																								
MINIMUM INITIAL PASSAGE			4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
MAXIMUM 1			10	34	34	34	10	19	19	10	10	10	10	10	10	10	10	34	29	29	29	29	29	29	29		
MAXIMUM 2			15	40	40	40	15	25	25	15	15	15	15	15	15	15	15	40	40	40	40	40	40	40	40		
CHANGE				4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2		
PEDESTRIAN																									7	15	3
RECALL			OFF	SOFT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	SOFT	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
MEMORY			NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	LOCKING		



PREPARED FOR
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 1 JUNKINS AVENUE
 PORTSMOUTH, NH

ON-STREET BICYCLE FACILITY IMPROVEMENT PROJECT LAFAYETTE ROAD/MIDDLE STREET PORTSMOUTH, NH

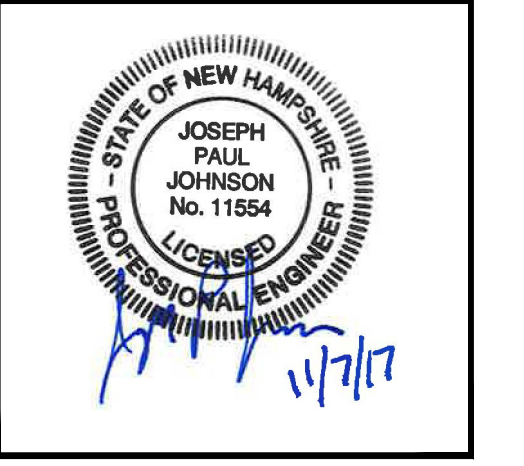
REVISIONS

NO.	REVISION	DATE
3	NHDOT COMMENTS	11/7/17
2	FINAL DESIGN	7/28/17
1	PRELIMINARY DESIGN	10/14/16

07/28/2017
 DRAWN/DESIGN BY: TQN
 CHECKED BY: JPJ

TRAFFIC SIGNAL PLAN

SCALE: 1"=20'
 28757



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 PORTSMOUTH, NH

**ON-STREET BICYCLE FACILITY
 IMPROVEMENT PROJECT
 LAFAYETTE ROAD/MIDDLE STREET
 PORTSMOUTH, NH**

TYPICAL TEMPORARY TRAFFIC SIGN SUMMARY

MUTCD CODE	SIZE OF SIGN		SIGN
	WIDTH	HEIGHT	
W1-4L	30"	30"	
W1-4R	30"	30"	
W20-1	36"	36"	
W20-4	36"	36"	
W20-8	36"	36"	
G20-2	36"	18"	

NOTE:

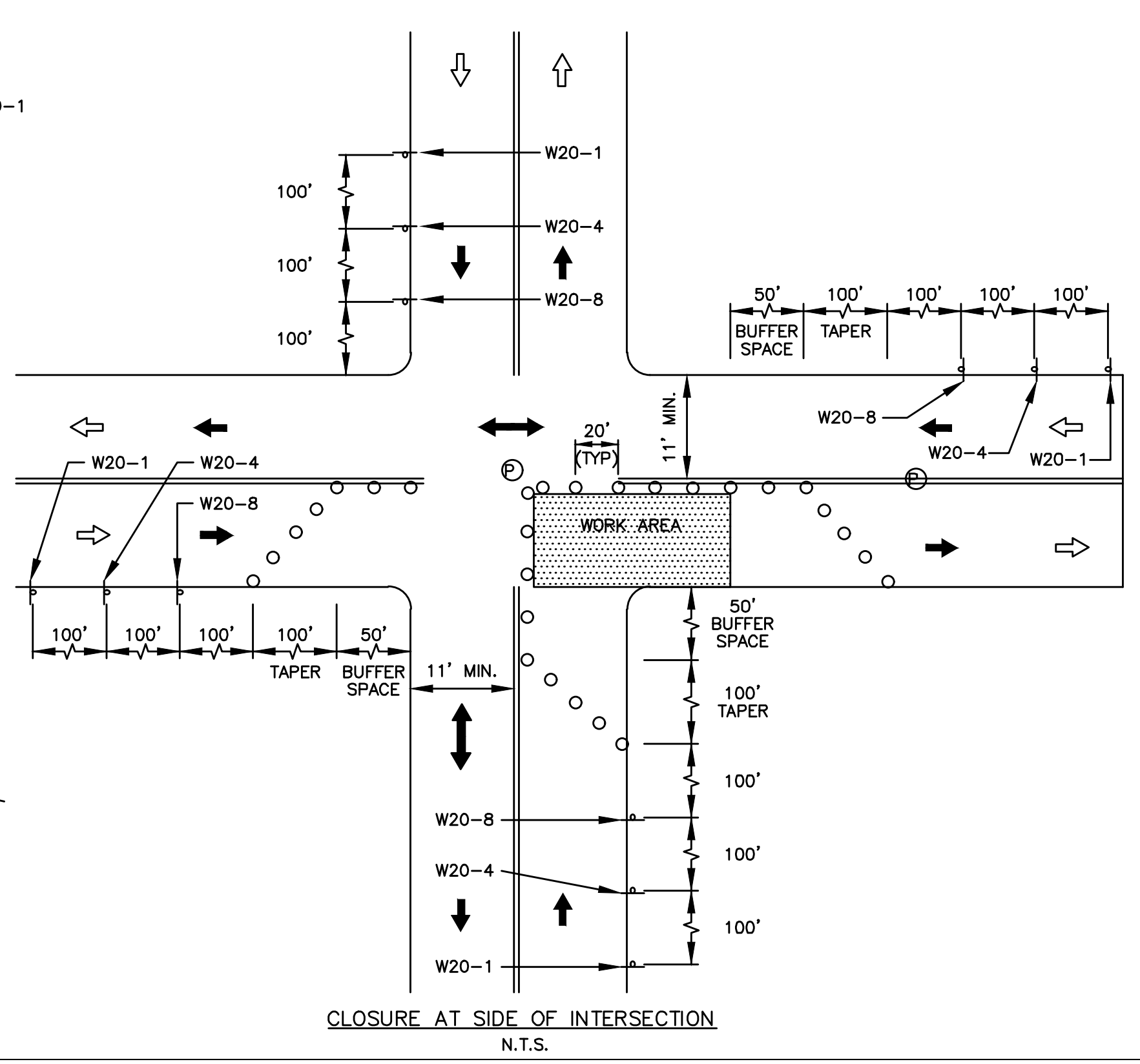
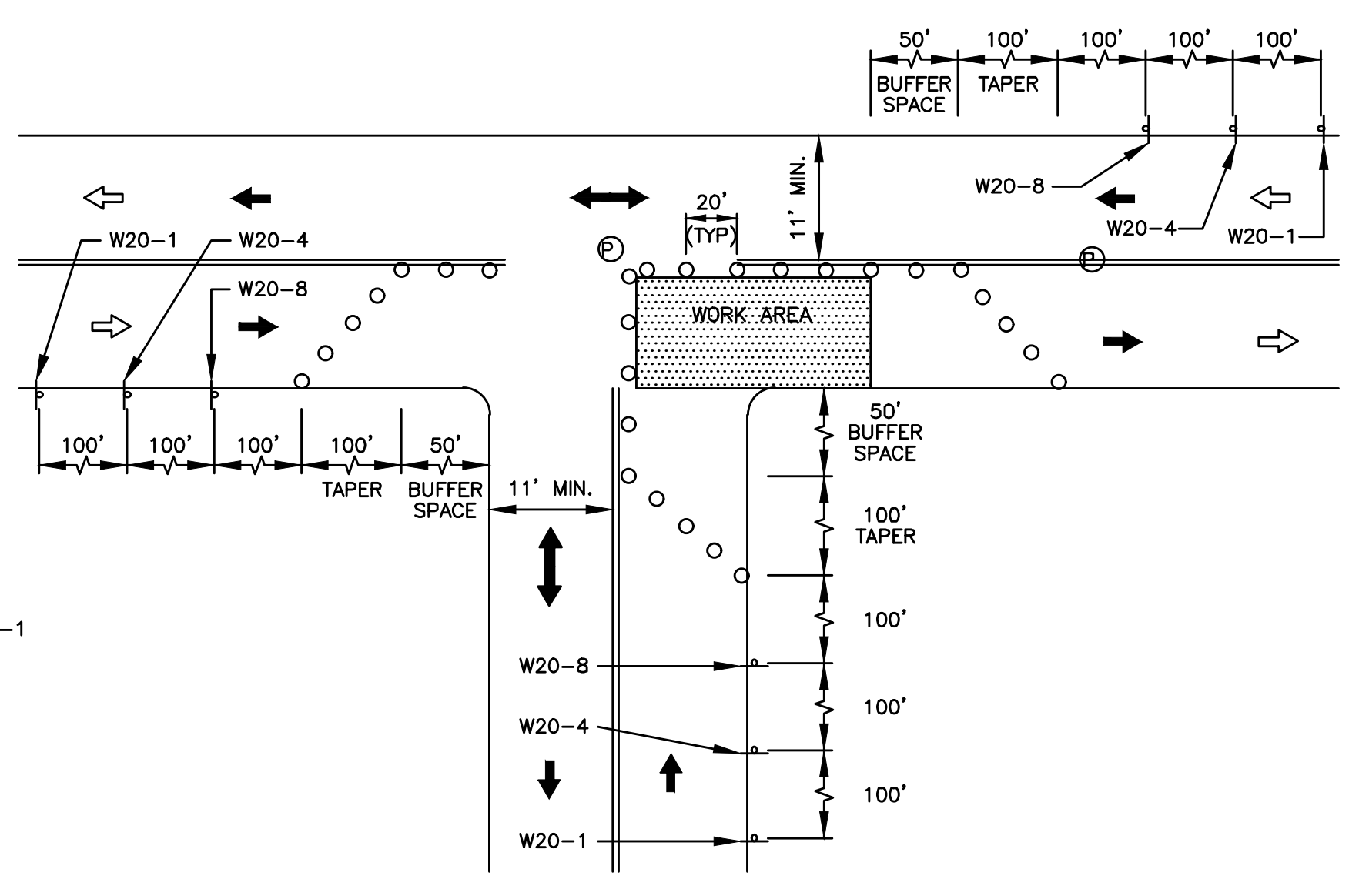
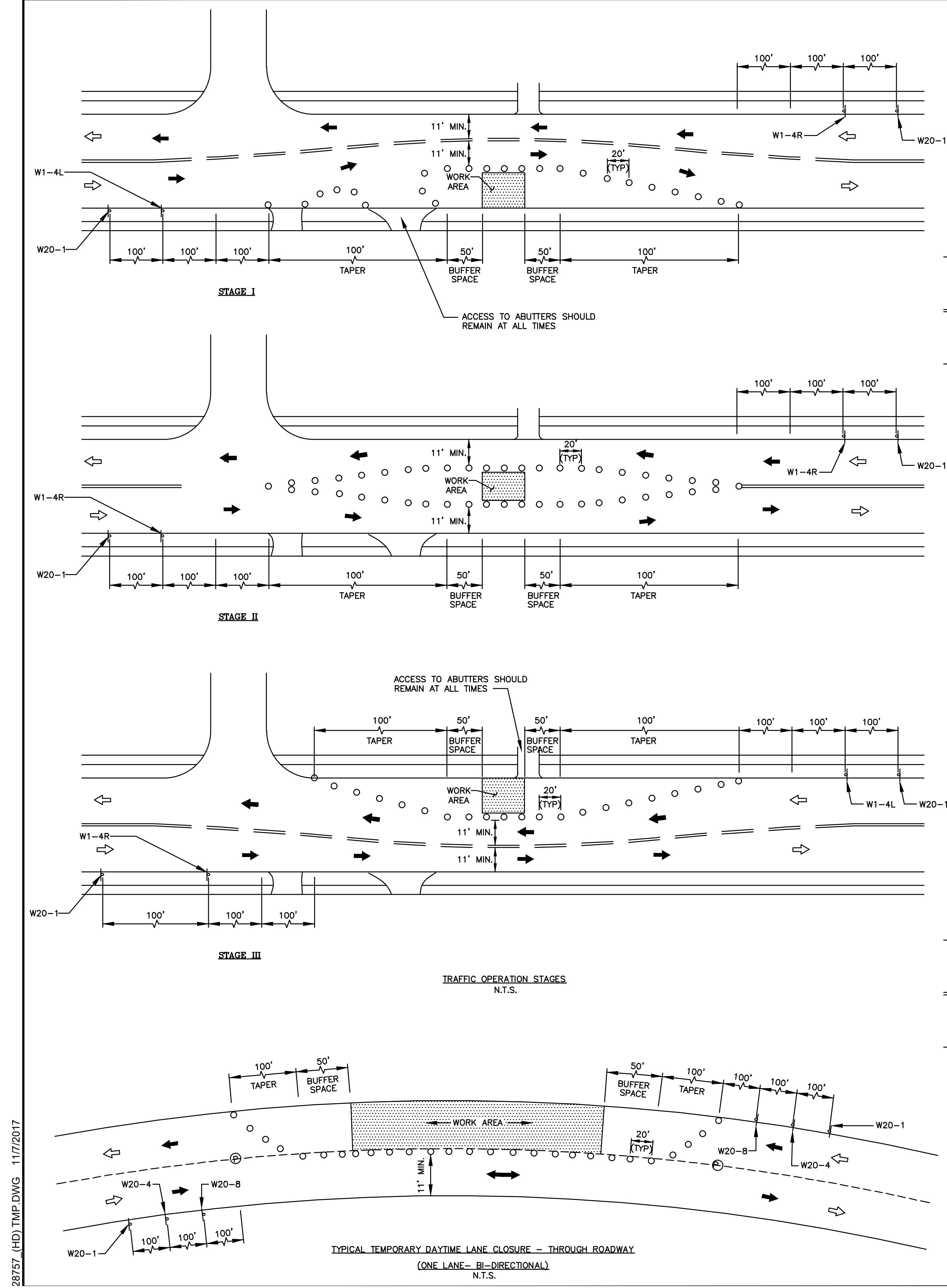
- FOR THE LATEST SPECIFICATION ON TEXT DIMENSIONS AND COLOR, CONTRACTOR SHALL REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

LEGEND:

- REFLECTORIZED DRUM
- ↔ TRAFFIC FLOW DURING CONSTRUCTION
- ⇄ NORMAL TRAFFIC FLOW
- Ⓟ POLICE DETAIL OFFICER
- Ⓢ CONSTRUCTION SIGN
- ▨ WORK AREA

GENERAL NOTES:

- PLACEMENT OF ALL CONSTRUCTION SIGNS, DRUMS, BARRICADES, TRAFFIC DEVICES AND THE SHAPE, SIZE & COLOR OF ALL TEMPORARY TRAFFIC SIGNS SHALL CONFORM WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH TO BE ADJUSTED ACCORDING TO STREET CONDITIONS AND DRIVEWAY OPENINGS.
- ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
- THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- NONESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
- PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
- W20-8 SHALL BE TAKEN DOWN OR COVERED AFTER EACH WORKING DAY OR WHEN OTHERWISE NOT APPLICABLE, OR WHEN POLICE OFFICERS ARE NOT PRESENT TO DIRECT TRAFFIC.
- ADVISORY SPEED PLATES (W13-1 - SEE CURRENT EDITION OF MUTCD) SHALL BE USED IF APPLICABLE AND AS REQUIRED BY THE ENGINEER.
- NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
- SAMPLE TRAFFIC PLANS INCLUDED ON THIS PLAN SHEET ARE BASED ON AN URBAN (LOW SPEED) ROAD TYPE FROM THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- DASHED LINES SHOW LANE DESIGNATIONS TO BE USED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY PLAN TO THE ENGINEER FOR APPROVAL.
- THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF HIS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.



REVISIONS

NO.	REVISION	DATE
3	NHDOT COMMENTS	11/7/17
2	FINAL DESIGN	7/28/17
1	PRELIMINARY DESIGN	10/14/16
07/28/2017		
DRAWN/DESIGN BY	CHECKED BY	
DPE	JPJ	

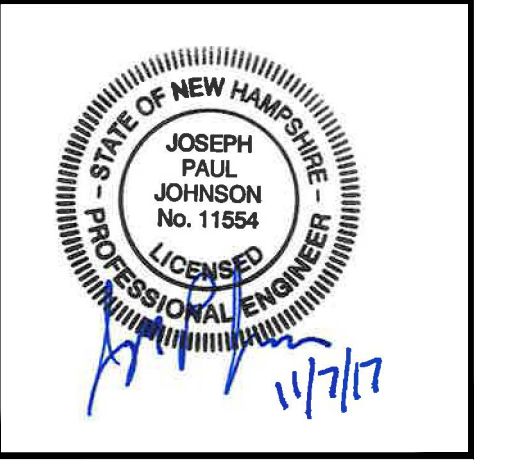
TRAFFIC MANAGEMENT DETAILS

SCALE: N.T.S.

28757

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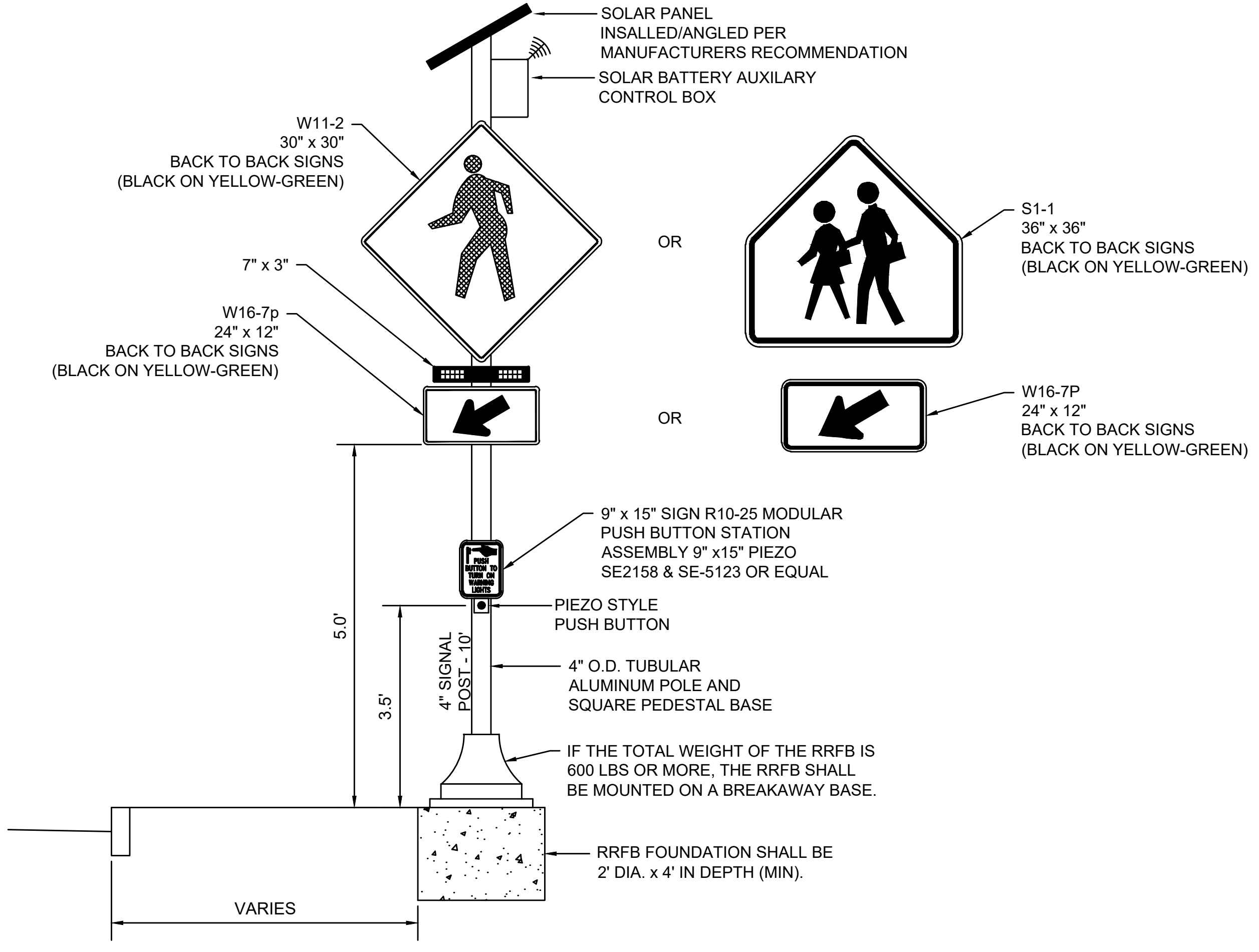
28757 (HD) TMP.DWG 11/7/2017



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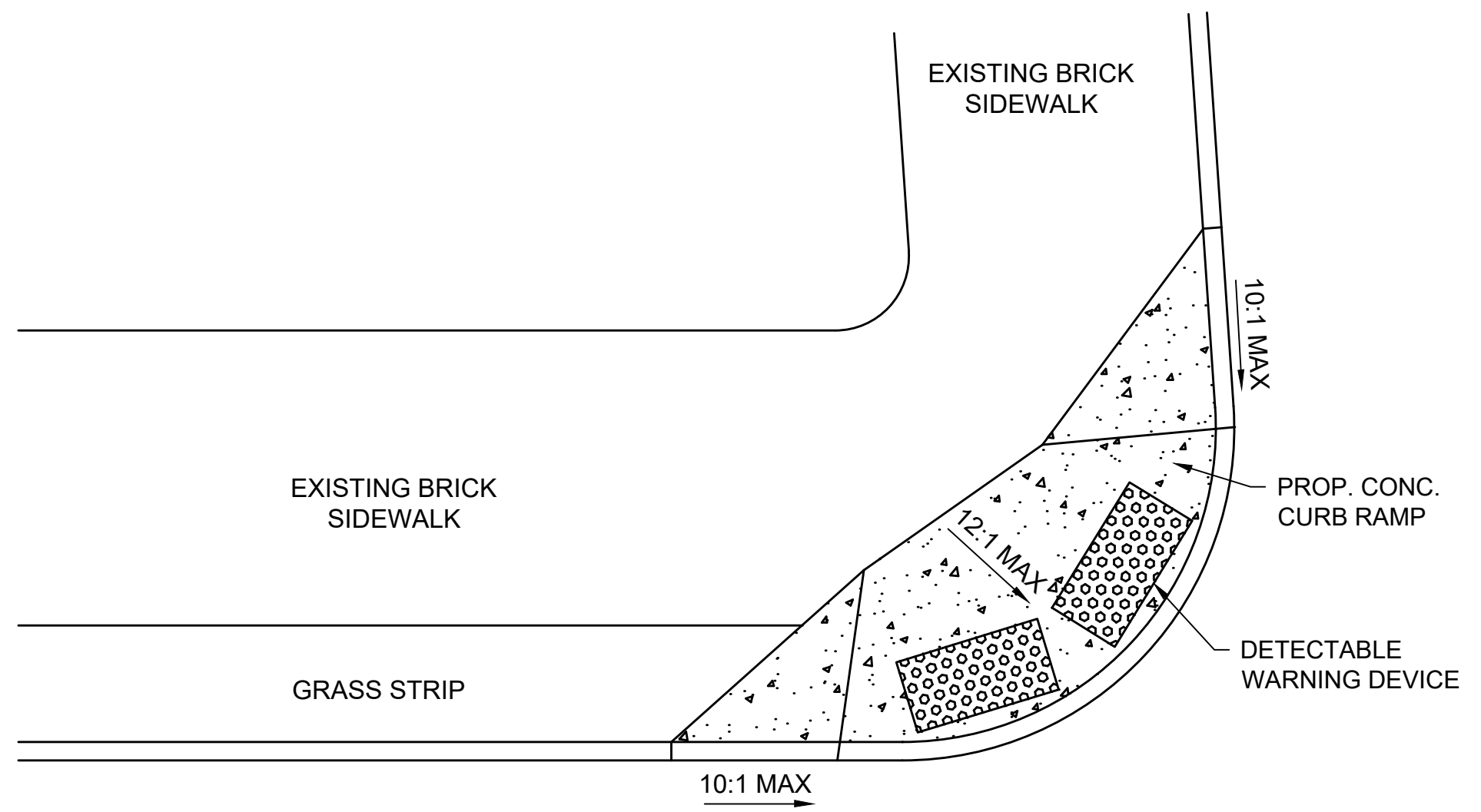
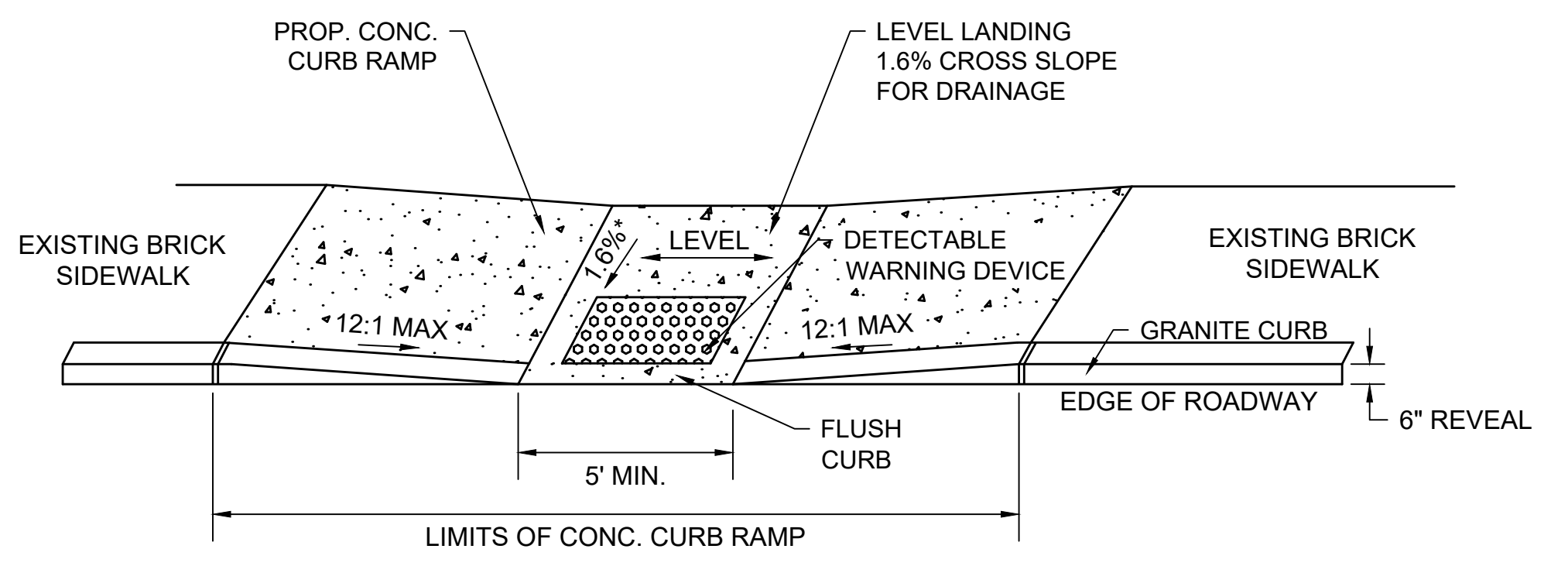
**ON-STREET BICYCLE FACILITY
 IMPROVEMENT PROJECT
 LAFAYETTE ROAD/MIDDLE STREET
 PORTSMOUTH, NH**

**DETAIL "A"
 RECTANGULAR RAPID FLASHING
 BEACON (RRFB) CROSSING ASSEMBLY**



NOTES:

- WHERE AN RRFB INSTALLATION IS ADJACENT TO A UTILITY POLE, THE ASSEMBLY SHALL BE LOCATED ON THE SIDE OF THE UTILITY POLE SO THAT IT IS CLEARLY VISIBLE BY ONCOMING MOTORISTS IN THE ADJACENT TRAVEL LANE. WHERE THIS OCCURS, AND THE VISIBILITY OF THE W11-2/S1-1 AND W16-7P ARE BLOCKED BY THE ADJACENT UTILITY POLE, THE W11-2/S1-1 AND W16-7P SHALL BE MOUNTED ON A SEPARATE U-CHANNEL POST ON THE DEPARTURE SIDE (OF THE ADJACENT TRAVEL LANE) OF THE UTILITY POLE. THE COST OF THE U-CHANNEL POST AND TO PERFORM THIS WORK IS INCIDENTAL TO ITEM 616.21.
- FINAL LOCATIONS OF RRFB WILL BE COORDINATED IN THE FIELD WITH THE ENGINEER.
- TREE TRIMMING NEEDED TO IMPROVE VISIBILITY OF THE RRFB ASSEMBLIES SHALL BE INCIDENTAL TO ITEM 616.21.
- PUSH BUTTON SHALL BE ORIENTED TO FACE MOST ACCESSIBLE LOCATION ON ADJACENT SIDEWALK AS DIRECTED BY THE ENGINEER.
- RRFB FOUNDATION SHALL BE FLUSH WITH ADJACENT SIDEWALK TO ALLOW FOR SIDEWALK PLOW PASSAGE.



REVISIONS

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2	FINAL DESIGN	7/28/17
1	PRELIMINARY DESIGN	10/14/16

07/28/2017
 DRAWN/DESIGN BY: DPE
 CHECKED BY: JPJ

**CONSTRUCTION
 DETAILS**

SCALE: N.T.S.

28757