

# MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	1	266
PROJECT FILE NO.		610919	

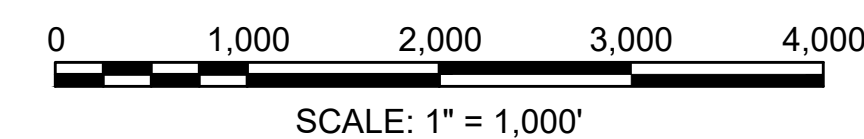
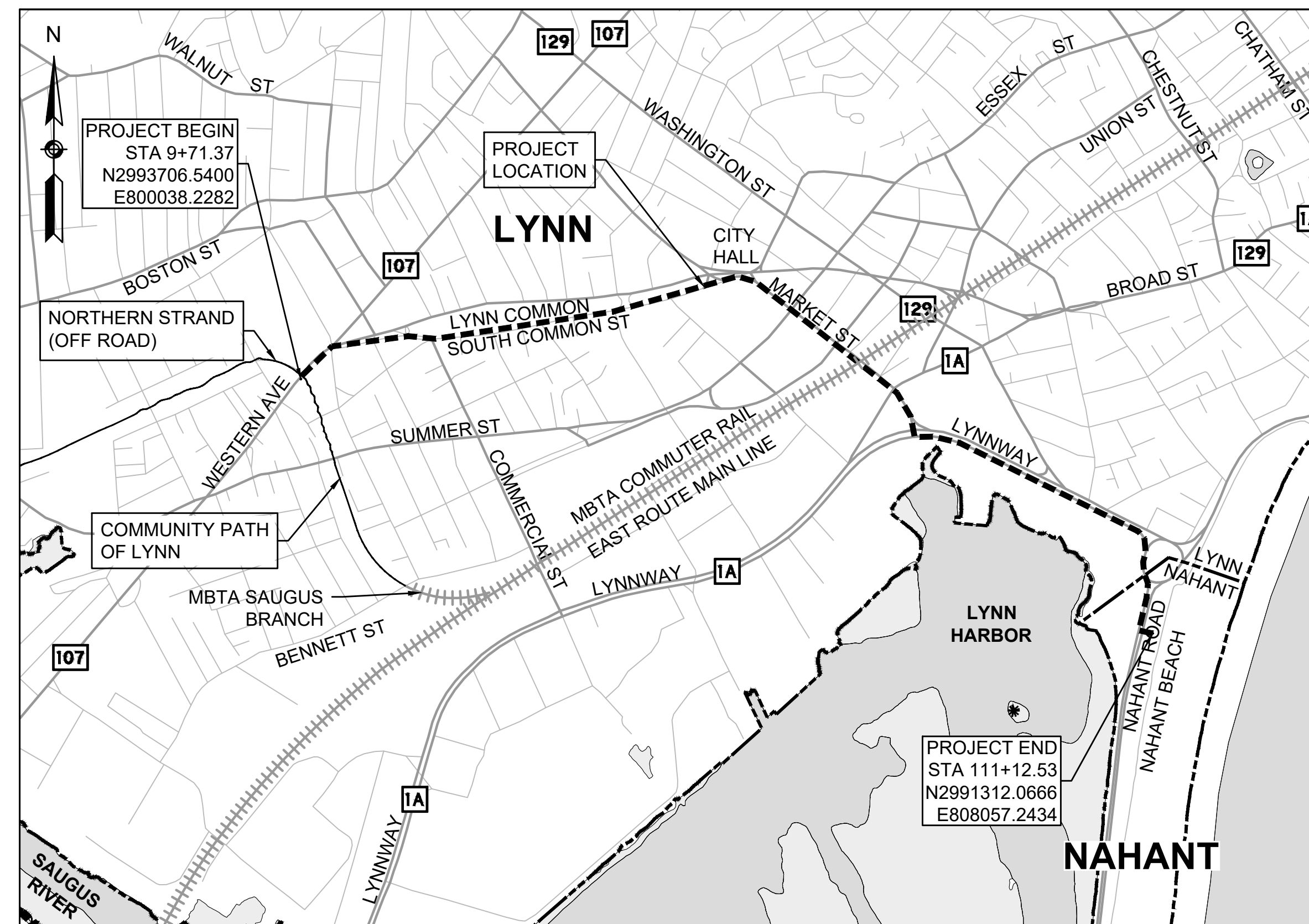
TITLE SHEET AND INDEX

PLAN AND PROFILE OF  
THE NORTHERN STRAND  
ON-ROAD EXTENSION TO NAHANT BEACH  
IN THE MUNICIPALITIES OF  
LYNN & NAHANT  
ESSEX COUNTY

## 100% SUBMITTAL

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LENGTH OF PROJECT = 10,141.16 FEET = 1.921 MILES

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

### DESIGN DESIGNATION (NORTHERN STRAND SBL)

DESIGN SPEED	20 MPH
ADT (YYYY)	N/A
ADT (YYYY)	N/A
K	N/A
D	N/A
T (PEAK HOUR)	N/A
T (AVERAGE DAY)	N/A
DHV	N/A
DDHV	N/A
FUNCTIONAL CLASSIFICATION	2 WAY SEPARATED BIKE LANE

DATE	DESCRIPTION	REV #
2022-12-22	100% DESIGN SUBMISSION	0
2022-04-20	75% DESIGN SUBMISSION	0
2020-07-02	25% DESIGN SUBMISSION	0



APPROVED



CHIEF ENGINEER

DATE

45 BLUE SKY DRIVE | 3rd FLOOR | BURLINGTON, MA 01803

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**LEGEND AND ABBREVIATIONS**

**ABBREVIATIONS (cont.)**

GENERAL	
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SBL	SEPARATED BIKE LANE
SDWK	SIDEWALK
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
SUP	SHARED USE PATH
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TC	TOP OF CURB
TCB	TRAFFIC SIGNAL CONTROL CABINET
TEMP	TEMPORARY
TMH	TELEPHONE MANHOLE
TPPZ	TREE AND PLANT PROTECTION FENCE - CHAIN LINK
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

**TRAFFIC SIGNAL ABBREVIATIONS**

CAB	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY UPRAISED HAND
FDW	FLASHING UPRAISED HAND
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
FYL	FLASHING YELLOW LEFT ARROW
FYR	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALKING PERSON
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW

**ABBREVIATIONS**

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CATVMH	CABLE MANHOLE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
CW	CROSSWALK
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DMH	DRAINAGE MANHOLE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
EHH	ELECTRIC HANDHOLE
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GMH	GAS MANHOLE
GP	GRANITE POST
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HHDPW	HANDHOLE DEPARTMENT OF PUBLIC WORKS
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
ICB	IRRIGATION CONTROL BOX
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LOW	LIMIT OF WORK
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE

**TRAFFIC SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 13"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

**PAVEMENT MARKINGS SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE - 12" WIDTH - WHITE
		CROSSWALK - 12" WIDTH - WHITE
		SOLID WHITE LINE - 6" WIDTH
		SOLID YELLOW LINE - 6" WIDTH
		BROKEN WHITE LINE - 10' LINE, 30' GAP - 6" WIDTH
		BROKEN YELLOW LINE - 3' LINE, 9' GAP - 6" WIDTH (ON BIKE PATH)
		DOTTED WHITE LINE - 3' LINE, 9' GAP - 6" WIDTH
		DOTTED YELLOW LINE - 3' LINE, 9' GAP - 6" WIDTH
		DOTTED WHITE LINE EXTENSION - 2' LINE, 6' GAP - 6" WIDTH
		DOTTED YELLOW LINE EXTENSION - 2' LINE, 6' GAP - 6" WIDTH
		DOUBLE WHITE LINE - 2 - 6" WIDTH LINES, 10" O.C.
		DOUBLE YELLOW LINE - 2 - 6" WIDTH LINES, 10" O.C.
		WIDE SOLID WHITE LINE - 12" WIDTH
		WIDE DOTTED WHITE LINE - 3' LINE, 9' GAP - 12" WIDTH
		WHITE TRANSVERSE LINE - 10' SPACE O.C., 45 MPH OR MORE 30° SLOPE/40 MPH OR LESS 45° SLOPE - 12" WIDTH
		YELLOW TRANSVERSE LINE - 10' SPACE O.C., 45 MPH OR MORE 30° SLOPE/40 MPH OR LESS 45° SLOPE - 12" WIDTH
		SOLID WHITE CHANNELIZATION LINE - 12" WIDTH
		SOLID YELLOW CHANNELIZATION LINE - 12" WIDTH
		WCL WHITE CHEVRON LINE - 24" WIDTH WITH 20" SPACING

**GENERAL SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		SEDIMENT CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		EDGE OF PAVEMENT
		LIMIT OF MICROMILLING AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		BOARDING ZONE

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GENERAL NOTES

GENERAL NOTES:

1. SURVEY COMPILED FROM SURVEYING AND MAPPING CONSULTANTS (A DAWOOD COMPANY) MOBILE LIDAR POINT CLOUD DATA AND IMAGERY SUPPLEMENTED WITH GROUND SURVEY IN MAY 2019, APRIL 2020, AND JUNE 2020.
2. THE LOCATIONS OF EXISTING SUBSURFACE STRUCTURES, SUCH AS SEWERS, WATER MAINS, DRAINS AND OTHER UTILITIES ARE APPROXIMATE ONLY AND THE ENGINEER DOES NOT GUARANTEE THEIR NUMBER OR LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES BEFORE EXCAVATING.
3. ALL GAS GATES, ELECTRIC MANHOLES, AND TELEPHONE MANHOLES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED BY THE OWNING AGENCY. ALL GAS, ELECTRIC, TELEPHONE AND CATV WORK SHALL BE DONE BY THE OWNING AGENCY. THE CONTRACTOR SHALL NOTIFY THE OWNING AGENCIES TO ADJUST AND/OR RELOCATE THESE STRUCTURES TO AVOID IMPACTING THE CONTRACTOR'S SCHEDULE OF OPERATIONS.
4. ANY CLEANING OF CATCH BASINS OR DRAIN PIPES NECESSARY FOR THE PROPOSED WORK SHALL BE COMPLETED BY THE RESPECTIVE MUNICIPALITY/OWNER INVOLVED. THE CONTRACTOR SHALL NOTIFY THE CITY OF LYNN, THE DEPARTEMENT OF CONSERVATION AND RECREATION, AND THE TOWN OF NAHANT TO CLEAN CATCH BASINS AND DRAIN PIPES TO AVOID IMPACTING THE CONTRACTOR'S SCHEDULE OF OPERATIONS.
5. ANY DRAINAGE / SEWER / WATER CASTINGS BROKEN THROUGH NO FAULT OF THE CONTRACTOR SHALL BE SUPPLIED BY THE RESPECTIVE MUNICIPALITY FOR ADJUSTMENT UNDER THE CONTRACT ITEMS.
6. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY COMPANIES DOING WORK IN THE SAME AREA. THE CONTRACTOR SHALL ALLOW THE UTILITY COMPANIES AND THEIR REPRESENTATIVES TO ADJUST AND/OR INSTALL THEIR SYSTEMS WITHIN TOWN / CITY /STATE OWNED STREETS AND EASEMENTS.
7. CURB SHALL BE FURNISHED AND SET AT LOCATIONS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
8. CONSTRUCT DRIVEWAYS AND WALKS AS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
9. EXISTING GRANITE CURB AND EDGING SUITABLE FOR REUSE WITHIN THE PROJECT SITE SHALL BE REMOVED AND RESET IN ACCORDANCE WITH THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
10. SAW CUT EXISTING BITUMINOUS CONCRETE ROADWAYS, CEMENT CONCRETE SIDEWALKS AND BITUMINOUS CONCRETE DRIVEWAYS AS SHOWN ON THE PLANS AND AT THE PROPOSED MATCH LINE. SAW CUTTING IS INCIDENTAL TO SOME CONTRACT ITEMS.
11. WHERE AN EXISTING 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.
12. 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.
13. ALL ACCESSIBLE ROUTES, WALKWAYS, CURB CUTS, RAMPS, SIDEWALKS, DRIVEWAY OPENINGS, CLEARANCES AND SLOPE TOLERANCES SHALL CONFORM WITH THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB), 521 CMR AND MASSDOT CONSTRUCTION STANDARD DETAILS.
14. ITEMS LABELED "REM" SHALL BE REMOVED AND DISCARDED BY CONTRACTOR.
15. THE CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS AND SHALL RESET ANY MONUMENTATION DISTURBED BY HIS OPERATIONS.
16. THE CONTRACTOR SHALL INSTALL OTHER NECESSARY TEMPORARY REGULATORY AND WARNING SIGNS DURING CONSTRUCTION AS REQUIRED BY THE ENGINEER FOR OTHER INCIDENTAL CONSTRUCTION ACTIVITIES. ALL SIGNAGE AND TRAFFIC CONTROL DEVICES USED MUST CONFORM TO THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
17. THE CONTRACTOR SHALL PERFORM HIS WORK IN A MANNER ACCEPTABLE TO THE ENGINEER SO THAT INTERFERENCE WITH AND INCONVENIENCE TO BUSINESS CONCERNS AND ABUTTERS, ON ACCOUNT OF THE CONSTRUCTION WORK, IS KEPT TO A MINIMUM.
18. THE CONTRACTOR SHALL NOT BE ALLOWED TO PARK EQUIPMENT OR STOCKPILE EQUIPMENT OR MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE.
19. THE CONTRACTOR SHALL MAINTAIN SAFE AND RESPONSIBLE ACCESS TO AND FROM ABUTTING PROPERTY, PRIVATE WAYS, DRIVEWAYS AND ALL ALLEYS AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
20. ALL DETECTABLE WARNING PANELS SHALL BE MOUNTED IN CEMENT CONCRETE AND INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARD DETAIL E107.6.5.

SURVEY NOTES:

1. COORDINATES, IN U.S. SURVEY FEET, ARE IN THE MASSACHUSETTS COORDINATE SYSTEM, MAINLAND ZONE, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 NAD83/2011 (EPOCH 2010.00) USING THE KeyNetGPS VRS NETWORK.
2. ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) USING THE KeyNetGPS VRS NETWORK.
3. THIS SURVEY HAD BEEN COMPILED FROM MOBILE LIDAR POINT CLOUD DATA AND IMAGERY CAPTURED WITH SURVEYING AND MAPPING CONSULTANTS' (A DAWOOD COMPANY) TRIMBLE MX2 MOBILE LIDAR AND SPATIAL IMAGING SYSTEM, SUPPLEMENTED WITH FIELD SURVEY TO LOCATE UTILITIES AND FEATURES IN AREAS NOT CAPTURED IN LIDAR POINT CLOUD.
4. SUBSURFACE UTILITY LINES AND FEATURES, AS SHOWN HEREON, WERE COMPILED FROM FIELD EVIDENCE AND/OR AVAILABLE RECORD INFORMATION AND THEIR LOCATIONS ARE ONLY APPROXIMATE. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
5. SURVEYING AND MAPPING CONSULTANTS (A DAWOOD COMPANY) ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
6. BEFORE DESIGNING FUTURE CONNECTIONS, THE APPROPRIATE UTILITIES MUST BE CONSULTED.
7. BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED (SEE MASSACHUSETTS GENERAL LAWS, CHAPTER 82 SECTION 40).
8. CALL "DIG SAFE" 1-888-DIG-SAFE. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES REQUIRED AND VERIFY THE LOCATION OF ALL EXISTING SUBSURFACE UTILITIES PRIOR TO PERFORMING ANY WORK. THE LOCATION OF EXISTING PIPES OR OTHER UNDERGROUND STRUCTURES OR PROPERTY LINES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES OR STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL CALL "DIG SAFE" (1-888-344-7233) 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS) PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS.

GAS UTILITY NOTES:

1. CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN NATIONAL GRID'S "GUIDELINES FOR WORKING AROUND GAS UTILITIES", DOCUMENT ATTACHED.
2. DEPTH OF GAS FACILITIES ARE UNKNOWN AND COULD BE SHALLOW, USE CAUTION WHEN WORKING IN THE VICINITY OF ANY GAS FACILITY, HAND DIGGING ONLY. ALSO FOR CONDUIT INSTALLATION, NATIONAL GRID DOES NOT ALLOW THE USE OF GRINDING WHEEL TYPE TRENCHERS OVER ANY GAS FACILITY, HAND DIGGING ONLY IN THESE AREAS
3. NATIONAL GRID REQUIRES A MINIMUM OF ONE FOOT OF SEPARATION BETWEEN CROSSING UTILITIES AND EXISTING GAS FACILITIES.
4. NATIONAL GRID REQUIRES A MINIMUM OF THREE FEET OF SEPARATION BETWEEN THE GAS MAIN AND THE PARALLEL FACILITY FOR STEEL AND PLASTIC GAS MAINS. **FOR CAST IRON GAS MAIN SEE LINE ITEM FOR ENCROACHMENT GUIDELINES.**
5. FOR UTILITY WORK SITE LOCATED WITHIN 15 FEET OF A GAS **TRANSMISSION** GAS MAIN, CONTRACTOR SHALL NOTIFY NATIONAL GRID GAS DAMAGE PREVENTION INSPECTOR PRIOR TO START OF WORK. A NATIONAL GRID GAS DAMAGE PREVENTION INSPECTOR MUST BE ON SITE WHEN EXCAVATING WITHIN 15 FEET OF A TRANSMISSION GAS MAIN. CALL JUAN CISNEROS AT 978-778-5661.
6. AT A PROPOSED UTILITY AND **CRITICAL** GAS MAIN CROSSING, A NATIONAL GRID GAS DAMAGE PREVENTION INSPECTOR MUST BE ON SITE WHEN CROSSING. CALL JUAN CISNEROS at 978-778-5661.
7. IF A **GAS MAIN IS EXPOSED OR GOING TO BE EXPOSED** CALL NATIONAL DISPATCH OFFICE AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE TO INSPECT THE LINE BEFORE BACKFILL.
8. IF A **GAS MAIN OR GAS MAIN COATING IS DAMAGED** CALL NATIONAL DISPATCH OFFICE AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE FOR REPAIR BEFORE BACKFILL.
9. FOR ANY EXPOSED GAS FACILITY, PROVIDE BACKFILL MATERIALS AND COMPACT THE BACKFILL MATERIALS IN ACCORDANCE WITH NATIONAL GRID'S "GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES", DOCUMENT ATTACHED.
10. WHEN CROSSING OR EXPOSING A STEEL OR PLASTIC GAS FACILITY SUPPORT MAY BE REQUIRED. FOLLOW THE GUIDELINES LISTED AND ILLUSTRATED IN NATIONAL GRID'S "SUPPORT REQUIREMENTS FOR EXPOSED & UNDERMINED STEEL OR PLASTIC GAS FACILITIES", DOCUMENT (DWG NO. CNST-6045) ATTACHED.
11. ALL GAS VALVE BOXES SHALL BE ADJUSTED TO THE NEW ROAD/SIDEWALK SURFACE. VALVE BOXES, IF REQUIRED FOR REPLACEMENT, CAN BE OBTAINED AT NATIONAL GRID. GAS VALVE BOXES NEED TO BE ACCESSIBLE AT ALL TIMES TO BE OPERATED BY NATIONAL GRID IN THE EVENT OF AN EMERGENCY.
12. ALL CATHODIC PROTECTION BOXES (BOXES THAT CONTAIN WIRES THAT GO DOWN TO THE GAS MAIN) SHALL BE ADJUSTED TO THE NEW ROAD/SIDEWALK SURFACE. CARE SHALL BE EXERCISED WHEN ADJUSTING SO AS NOT TO DAMAGE THE WIRES. IF THE WIRES ARE DAMAGED OR IF ASSISTANCE IS NEEDED, CONTACT NATIONAL GRID CORROSION ENGINEER TO VISIT THE SITE. CONTACT RICK LEPAGE 508-948-8432 OR MIKE HARMON 781-953-2545. NEW BOXES, IF REQUIRED, CAN BE OBTAINED AT NATIONAL GRID'S PROVIDENCE FACILITY, 477 DEXTER ST, PROVIDENCE, RI OR NATIOANL GRID'S LINCOLN FACILITY, 642 GEORGE WASHINGTON HIGHWAY, LINCOLN, RI (QUANTITIES 5 OR LESS). CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN NATIONAL GRID'S "GUIDELINES FOR WORKING AROUND CORROSION CONTROL SYSTEM COMPONENTS", DOCUMENT ATTACHED.
13. IF EXCAVATING PARALLEL TO OR CROSSING A CAST IRON GAS FACILITY THEN ENCROACHMENT OF THE CAST IRON LINE IS A POSSIBILITY AND A CONCERN WHERE REPLACEMENT MAY BE REQUIRED. WHENEVER AN EXCAVATION IS IN THE VICINITY OF A CAST IRON GAS MAIN CONTACT NATIONAL GRID ENCROACHMENT ENGINEER TO BE ON SITE, CALL NICOLE TIMOTEO AT 781-514-0768. GUIDELINES IN AVOIDING AN ENCROACHMENT ARE LISTED IN NATIONAL GRID'S "CAST IRON GAS MAIN ENCROACHMENT PREVENTION", DOCUMENT ATTACHED.
14. IF EXCAVATING PARALLEL TO OR CROSSING A CAST IRON FACILITY THAT IS GREATER THAN 8", THIS LINE IS NOT COVERED UNDER THE ENCROACHMENT GUIDELINES AND LAW. NATIONAL GRID DOES NOT ALLOW MORE THAN 10' OF GAS MAIN TO BE EXPOSED AND ONLY ALLOWS (1) BELL & SPIGOT JOINT TO BE EXPOSED. IF A BELL & SPIGOT JOINT IS EXPOSED SAID JOINT MUST BE LEAK CLAMPED BEFORE BACKFILL UNLESS A CLAMP IS ALREADY IN PLACE. PROVIDE BACKFILL MATERIALS AND COMPACT THE BACKFILL MATERIALS IN ACCORDANCE WITH NATIONAL GRID'S "GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES", DOCUMENT ATTACHED. MINIMUM 95% COMPACTION OF THE SOIL BELOW A CAST IRON IS ALWAYS REQUIRED. ALWAYS CALL NATIONAL GRID DAMAGE PREVENTION DEPARTMENT FOR AN INSPECTOR TO BE DISPATCHED TO SITE. CALL ED SOUZA AT 401-283-9159.
15. DUE TO SYSTEM RELIABILITY AND PUBLIC SAFETY CONCERNS, IT IS NATIONAL GRID'S PRACTICE TO RESTRICT ALL CONSTRUCTION WORK ON OR NEAR GAS FACILITIES BETWEEN NOVEMBER 15<sup>TH</sup> AND APRIL 15<sup>TH</sup>. ALL SCHEDULED WORK SHOULD BE COMPLETED BETWEEN APRIL 15<sup>TH</sup> AND NOVEMBER 15<sup>TH</sup>. AS GAS USAGE PEAK DURING THE MONTHS OF DECEMBER TO MARCH DRIVEN BY HEATING NEEDS, NATIONAL GRID'S PRIORITY IS TO PROVIDE OUR CUSTOMERS WITH SAFE AND RELIABLE GAS SERVICE. ANY WORK ON OR NEAR THE GAS FACILITY WILL EXPOSE OUR CUSTOMERS TO UNNECESSARY RISK. EXCEPTIONS WILL BE CONSIDERED ON A CASE BY CASE BASIS. APPROVALS FROM GAS CONTROL, OPERATIONAL ENGINEERING, AND PROJECT ENGINEERING WILL BE REQUIRED FOR THESE CASES.
16. FOR A GAS LEAK CALL 800-640-1595.
17. FOR A DAMAGED GAS FACILITY CALL 800-870-1664.



**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

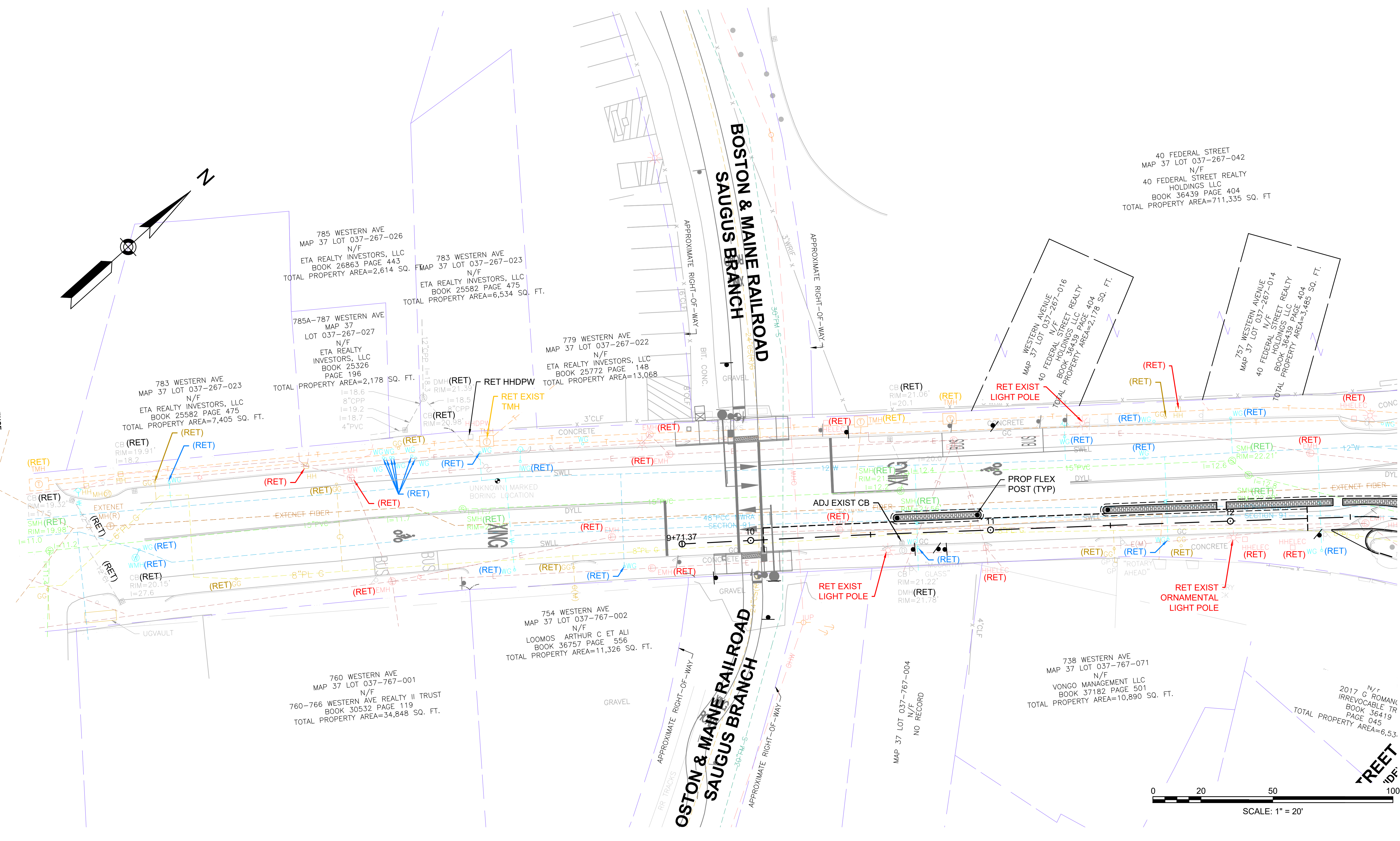
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	81	266
PROJECT FILE NO.		610919	

**DRAINAGE AND UTILITY PLANS  
PART 1 OF 20**

**NOTES:**

- EXISTING STREET LIGHTING POLES SHALL BE RETAINED WHENEVER POSSIBLE. EXISTING STREET LIGHT POLE BASES THAT WOULD BE BELOW FINISHED GRADE BEYOND THE MANUFACTURERS RECOMMENDATIONS SHALL BE REMOVED AND RESET ON A NEW FOUNDATION INSTALLED AT A PROPER GRADE.
- STREET LIGHT POLES THAT HAVE BEEN REMOVED AND RESET SHALL HAVE NEW PVC CONDUIT FROM THE NEAREST HANDHOLE TO THE POLE BASE AND SHALL BE RE-WIRED FROM THE NEAREST HANDHOLE WITH #10 AWG XHHW WIRE TO THE LUMINAIRE.
- EXISTING ELECTRIC HANDHOLE FRAME AND COVERS THAT DO NOT MEET THE PROPOSED GRADE SHALL BE ADJUSTED TO MEET THE PROPOSED GRADE PER MASSDOT STANDARDS USING BRICKS AND/OR MORTAR OR REMOVED AND RESET AS NEEDED. COMPOSITE HANDHOLES THAT DO NOT MEET THE PROPOSED GRADE SHALL BE REMOVED AND RESET TO MEET THE PROPOSED FINISHED GRADE. THE CONTRACTOR SHALL CAREFULLY REMOVE THE HANDHOLE AND IF DAMAGED DURING THE REMOVAL PROCESS THEN IT SHALL BE REPLACED IN KIND WITH A NEW HANDHOLE.
- EXISTING HANDHOLES THAT ARE REMOVED AND RESET WHERE THE EXISTING BRANCH CIRCUIT WIRING DOES NOT REACH THE RELOCATED HANDHOLE SHALL HAVE CONDUIT AND WIRING REPLACED FROM THE NEXT ADJACENT HANDHOLE WITH THE SAME NUMBER OF CONDUCTORS AND WIRE SIZE USING XHHW WIRE. ALL SPLICING SHALL BE INSIDE A HANDHOLE.
- ALL PROP F&G ARE TO BE 8" UNLESS OTHERWISE NOTED.

REFERENCE  
LYNN CSO  
SEE SMC DRAWINGS 201810000.DWG



CONTINUED ON  
SHEET NO. 82



**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

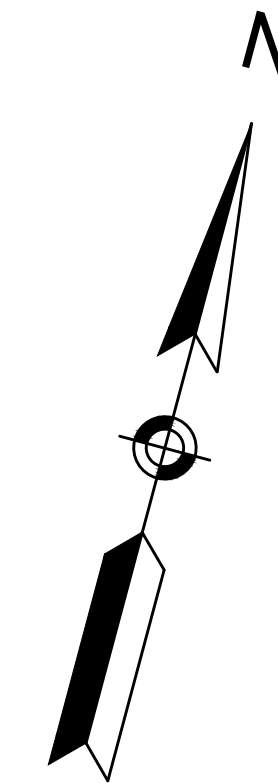
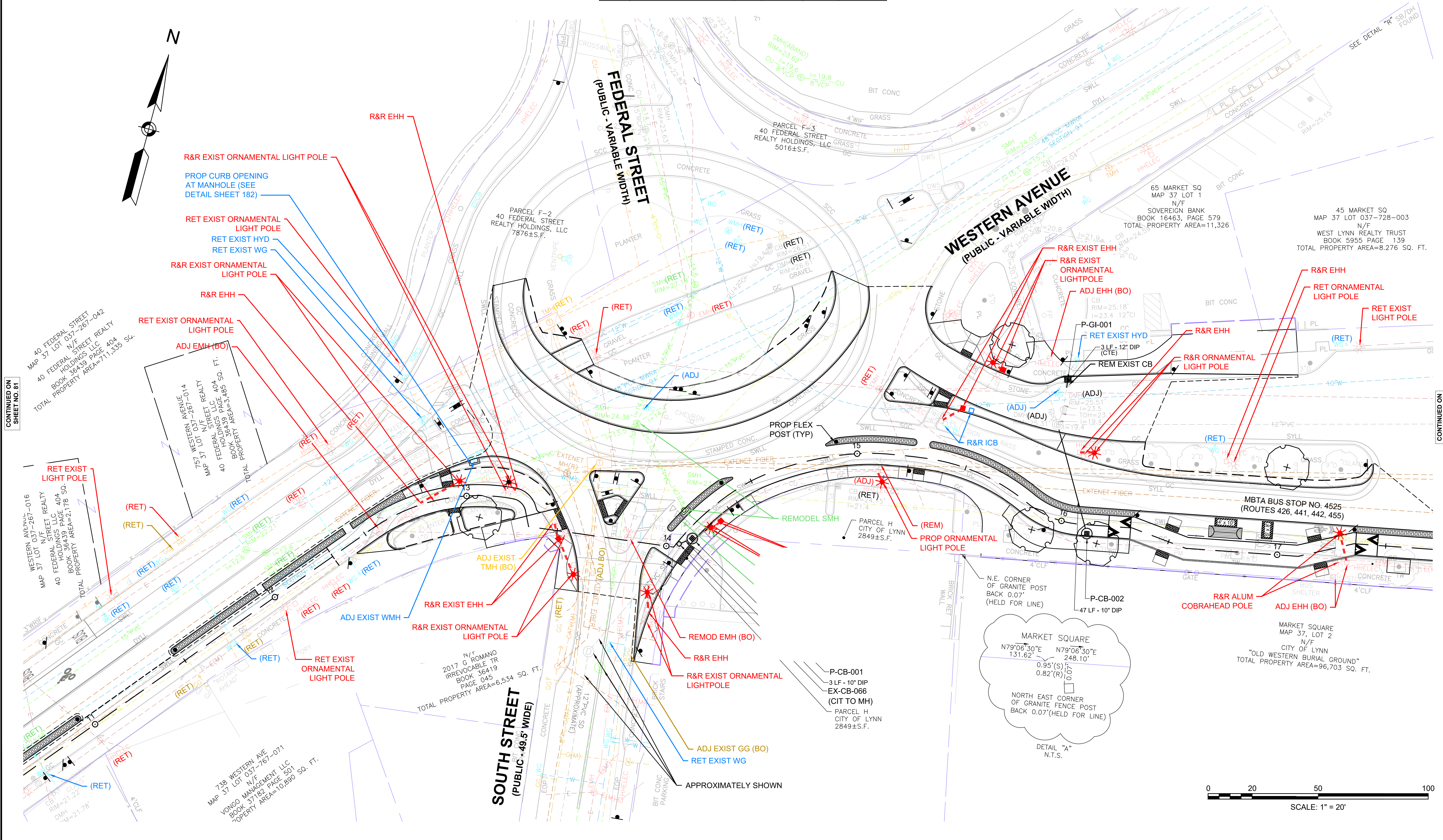
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	82	266

PROJECT FILE NO. 610919

**DRAINAGE AND UTILITY PLANS  
PART 2 OF 20**

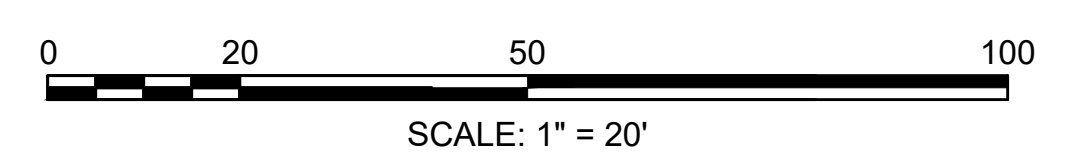
DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
EX-CB-066	14+06.05	1.1 RT	23.27	I=19.40' (P-CB-001)	I=18.67' (EX-DMH-066)	CIT TO DMH
P-CB-001	14+11.99	4.0 RT	23.31		I=19.50' (EX-CB-066)	CB, HOOD, MUNICIPAL STANDARD F&G
P-CB-002	16+11.95	4.0 RT	25.58		I=19.71' (EX-DMH-004)	CBCI, HOOD, MUNICIPAL STANDARD F&G
P-GI-001	15+68.77	56.7 LT	25.24		I=23.55' ( )	GI, 4" F&G, MUNICIPAL STANDARD

PIPE TABLE					
PIPE	PIPE LOCATION	SIZE	LENGTH	SLOPE	REMARKS
P-001	P-CB-001 TO EX-CB-066 STA 14+12 TO 14+06	10"	3 FT	0.015	DI PIPE
P-002	P-CB-002 TO EX-DMH-004 STA 16+12 TO 15+74	10"	47 FT	0.004	DI PIPE
P-012	P-GI-001 TO STA 15+69 TO 15+70	12"	3 FT	-0.315	DI PIPE



CONTINUED ON  
SHEET NO. 81

CONTINUED ON  
SHEET NO. 83





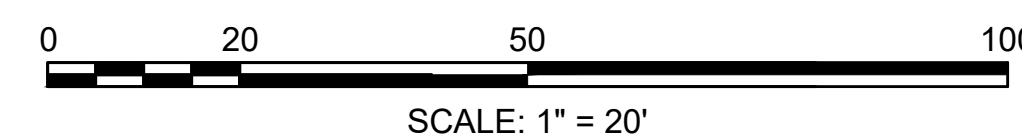
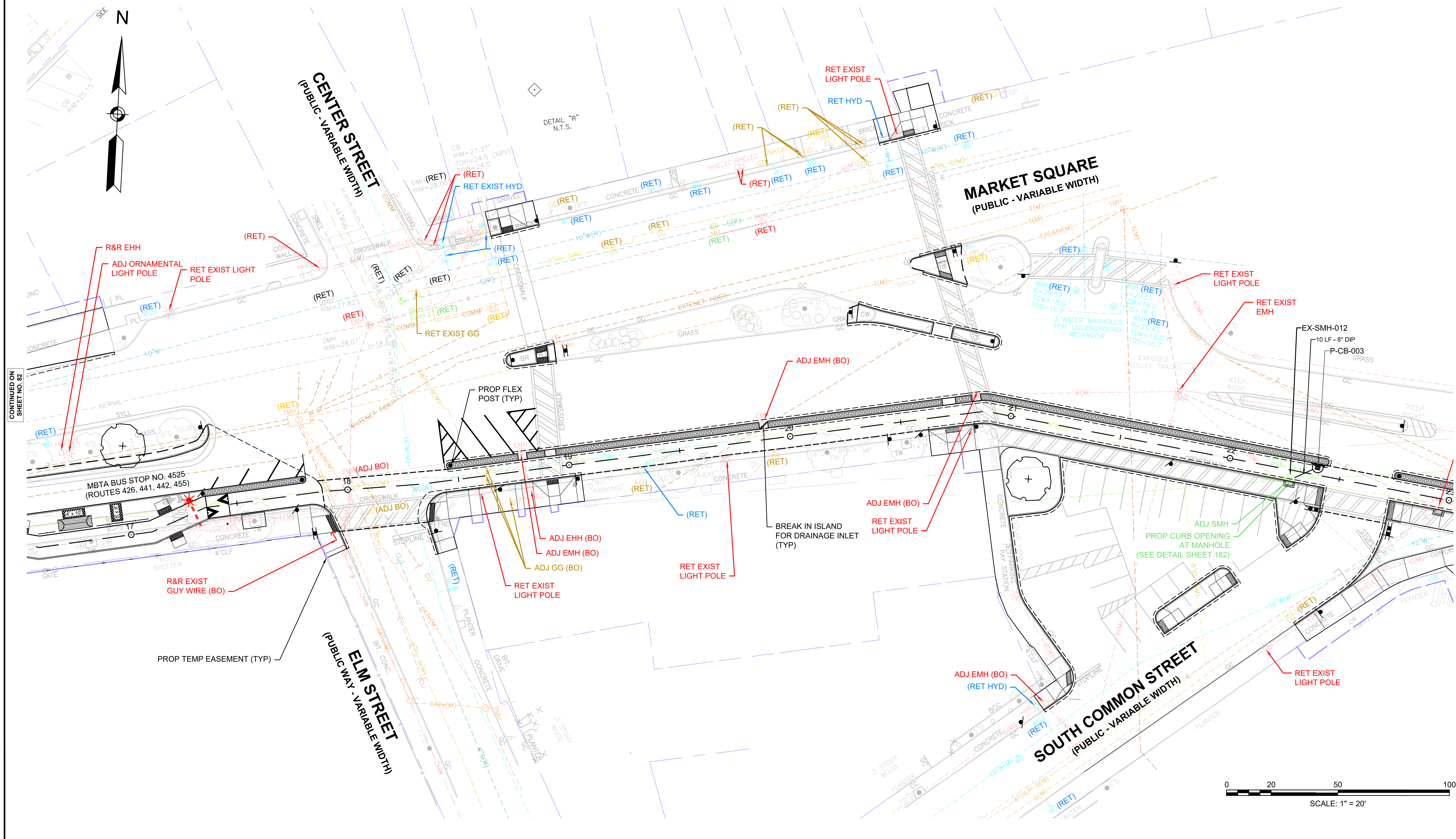
LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	83	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 3 OF 20

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
P-CB-003	22+39.47	3.4 LT	29.36		I=26.00' (EX-SMH-012)	CBCI, HOOD, MUNICIPAL STANDARD F&G

PIPE TABLE					
PIPE	PIPE LOCATION	SIZE	LENGTH	SLOPE	REMARKS
P-003	P-CB-003 TO EX-SMH-012 STA 22+39 TO 22+28	8"	10 FT	0.073	DI PIPE



CONTINUED ON  
SHEET NO. 82

CONTINUED ON  
SHEET NO. 84



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
P-CB-003	22+39.47	3.4 LT	29.36		I=26.00' (EX-SMH-012)	CBCI, HOOD, MUNICIPAL STANDARD F&G
P-CB-004	25+94.11	4.0 RT	29.16		I=24.00' (P-DMH-003)	CBCI, HOOD, MUNICIPAL STANDARD, F&G
P-CB-005	27+36.57	4.0 RT	29.42		I=23.70' (P-DMH-003)	CB, HOOD, MUNICIPAL STANDARD F&G
P-DMH-003	26+01.55	2.0 RT	29.22	I=23.90' (P-CB-004) I=22.30' (P-CB-005)	I=22.10' (EX-SMH-015)	DMH

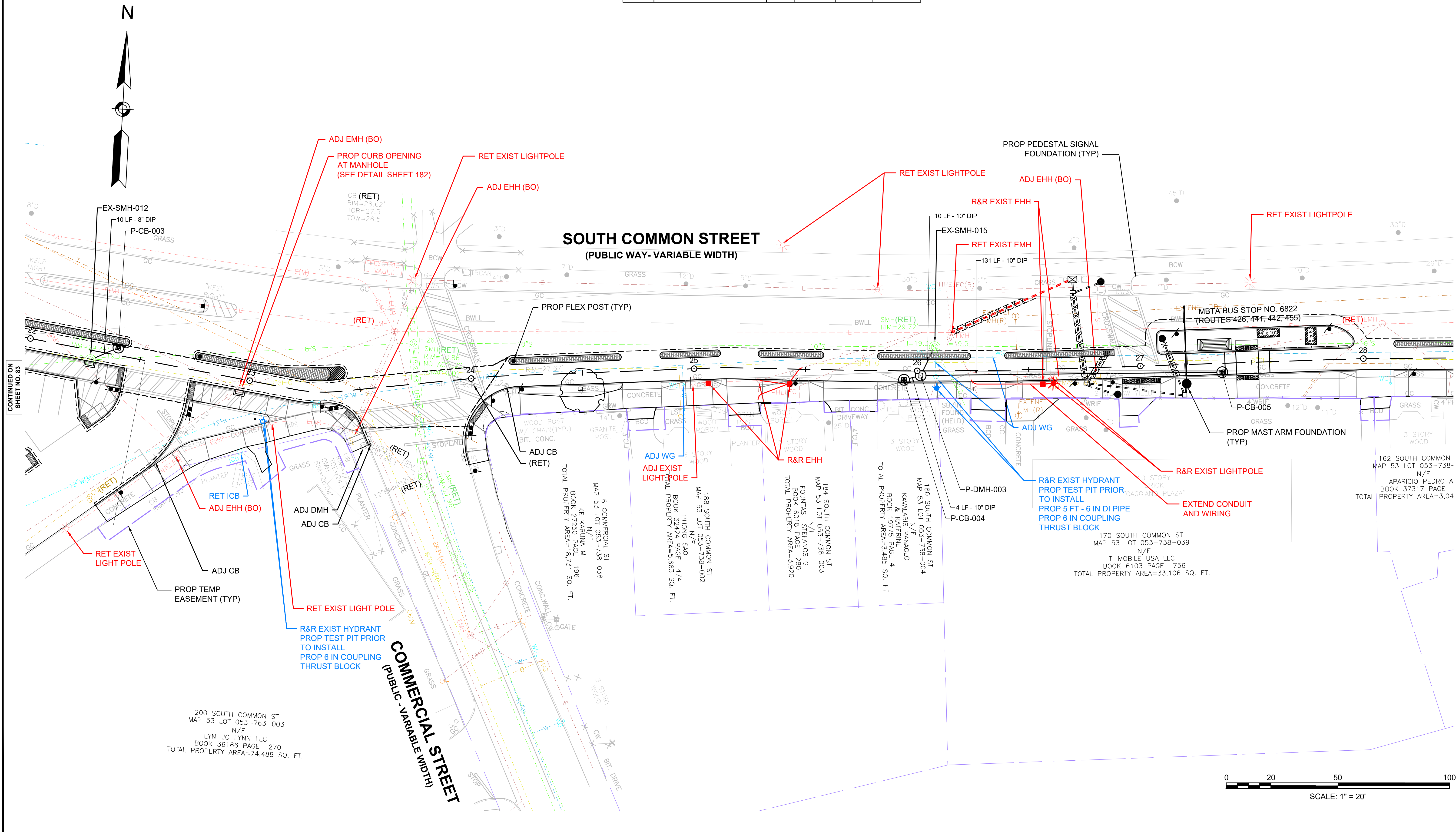
PIPE TABLE					
PIPE	PIPE LOCATION	SIZE	LENGTH	SLOPE	REMARKS
P-003	P-CB-003 TO EX-SMH-012 STA 22+39 TO 22+28	8"	10 FT	0.073	DI PIPE
P-004	P-CB-004 TO P-DMH-003 STA 25+94 TO 26+02	10"	4 FT	0.013	DI PIPE
P-005	P-DMH-003 TO EX-SMH-015 STA 26+02 TO 26+08	10"	10 FT	0.007	DI PIPE
P-006	P-CB-005 TO P-DMH-003 STA 27+37 TO 26+02	10"	131 FT	0.010	DI PIPE

**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	84	266

PROJECT FILE NO. 610919

**DRAINAGE AND UTILITY PLANS  
PART 4 OF 20**





**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

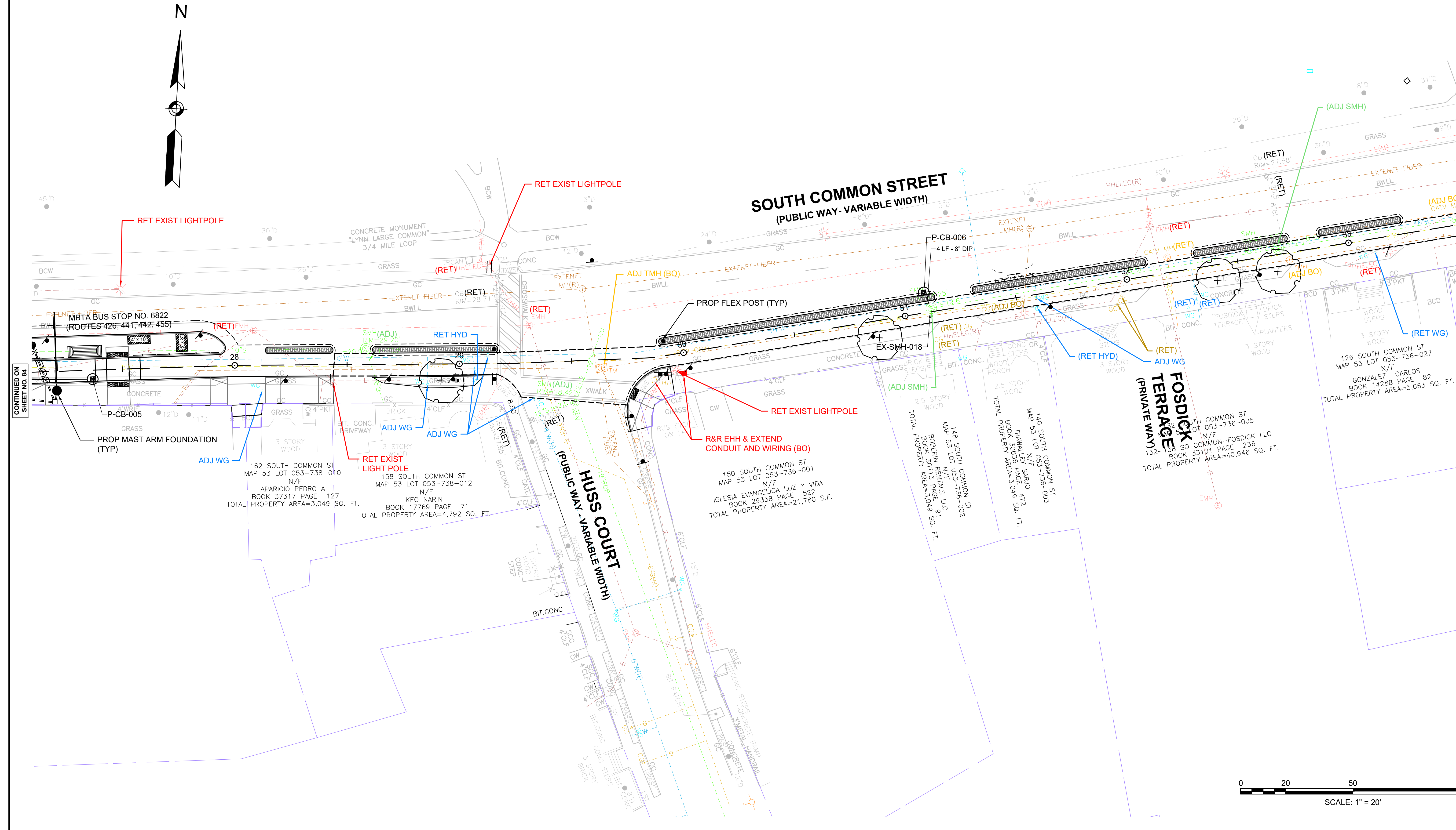
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	85	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 5 OF 20

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
P-CB-005	27+36.57	4.0 RT	29.42		I=23.70' (P-DMH-003)	CB, HOOD, MUNICIPAL STANDARD F&G
P-CB-006	31+09.86	9.0 LT	28.44		I=22.00' (EX-SMH-018)	CBCI, HOOD, MUNICIPAL STANDARD, F&G

PIPE TABLE					
PIPE	PIPE LOCATION	SIZE	LENGTH	SLOPE	REMARKS
P-006	P-CB-005 TO P-DMH-003 STA 27+37 TO 26+02	10"	131 FT	0.010	DI PIPE
P-007	P-CB-006 TO EX-SMH-018 STA 31+10 TO 31+12	8"	4 FT	0.013	DI PIPE

N/F  
CITY OF LYNN  
BOOK 0 PAGE 0



CONTINUED ON  
SHEET NO. 84

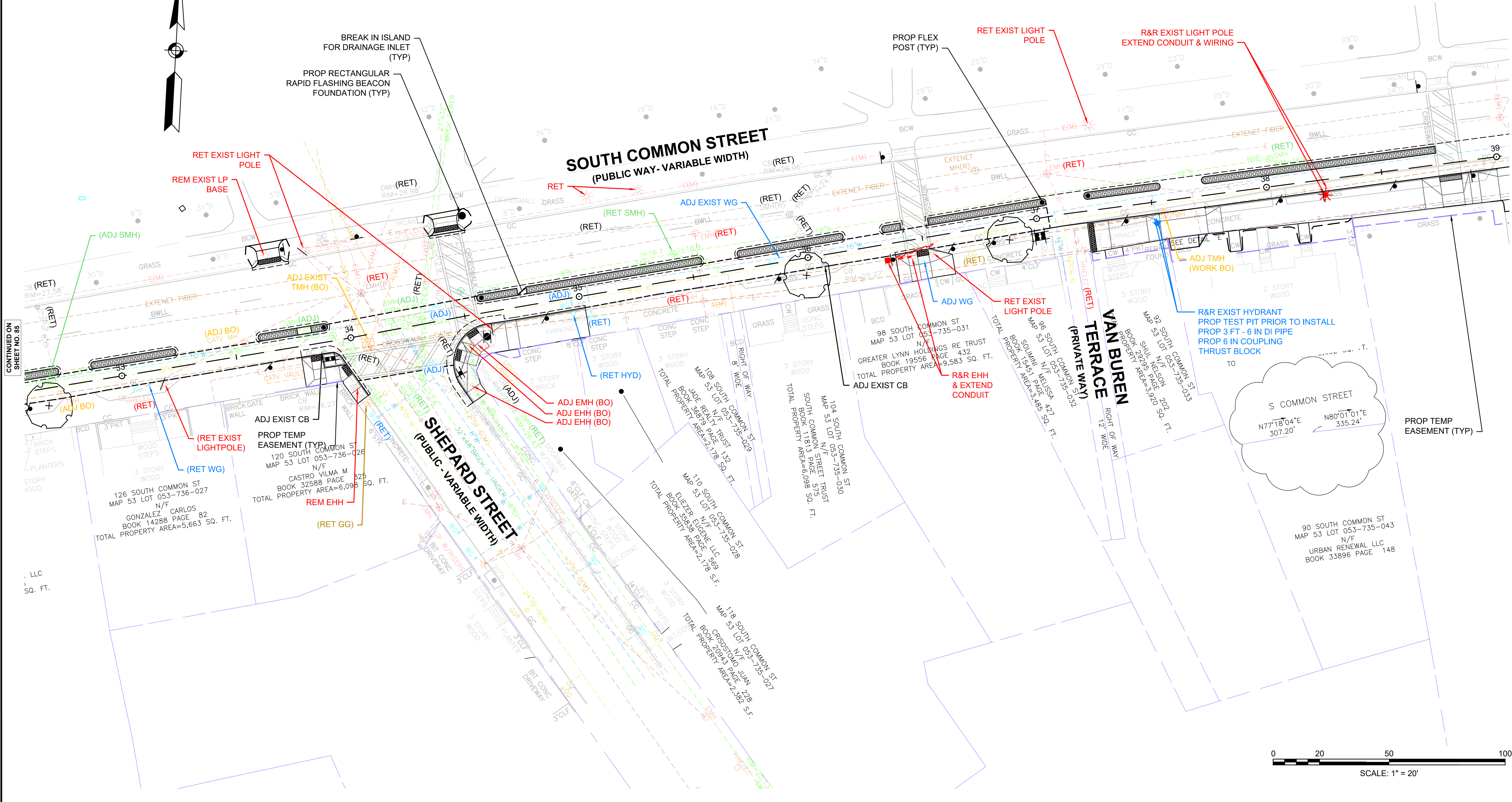
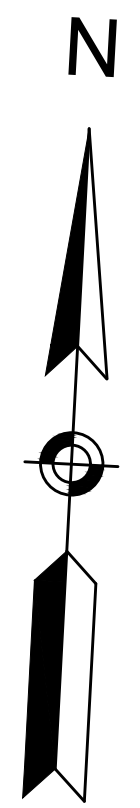
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SHEET NO. 86



LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH

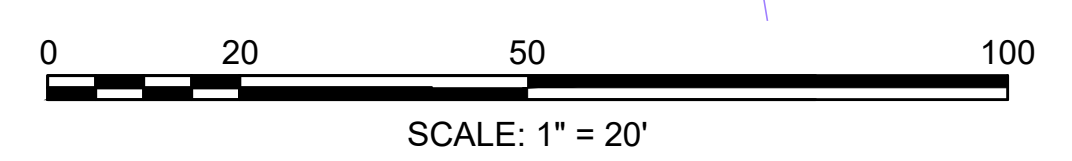
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	86	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 6 OF 20



CONTINUED ON  
SHEET NO. 86

CONTINUED ON  
SHEET NO. 87



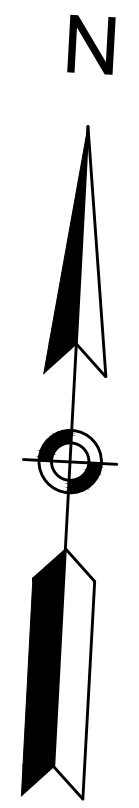
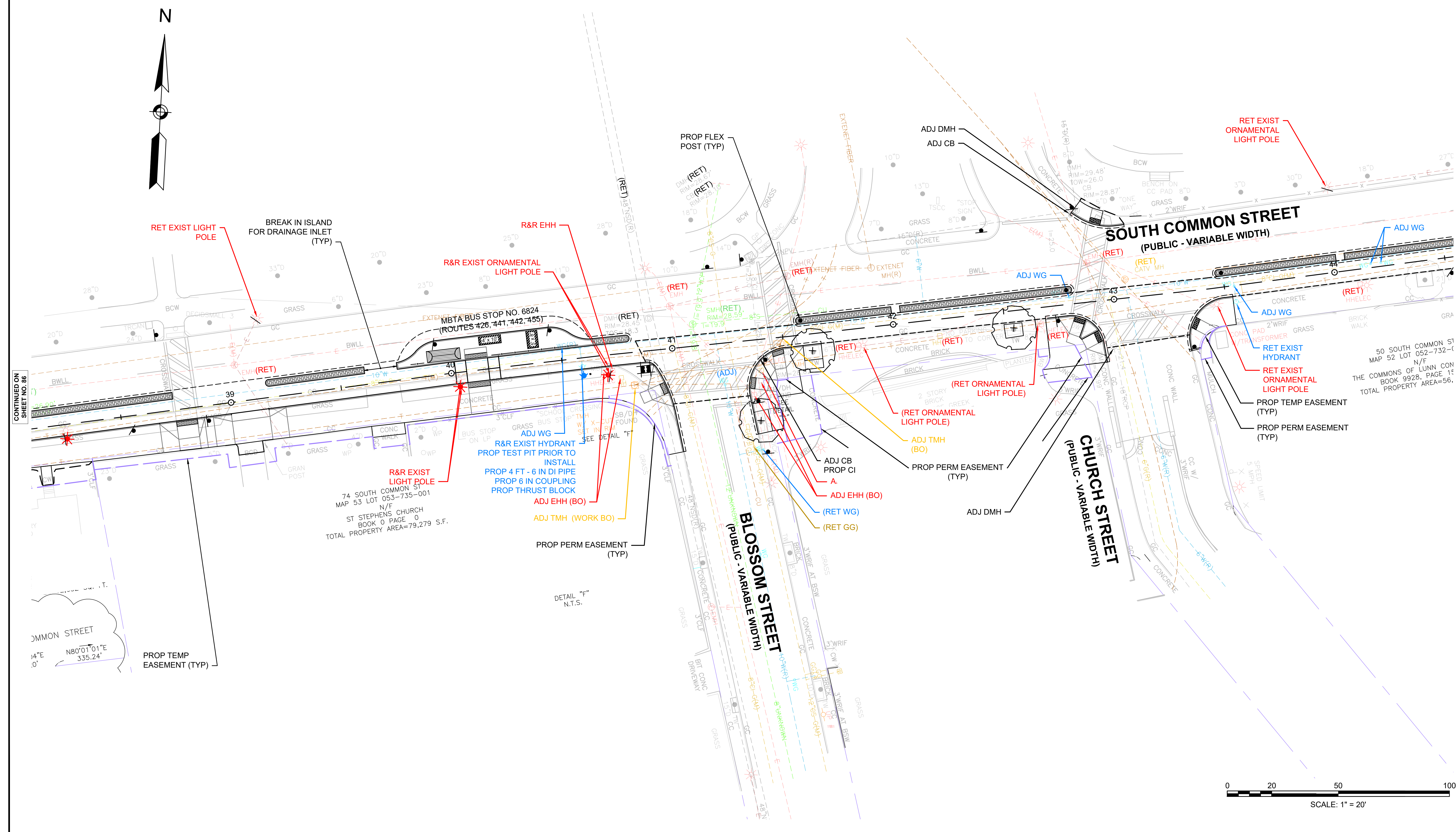


LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	87	266

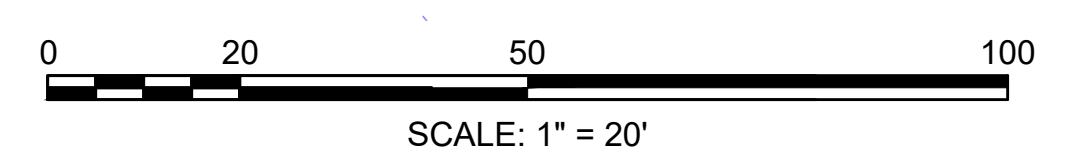
PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 7 OF 20

610919\_UT(DRAIN\_UTILITY).DWG Plotted on 22-Dec-2022 10:47 AM



CONTINUED ON SHEET NO. 86

CONTINUED ON SHEET NO. 88



COMMON STREET  
14°E  
.0'  
N80°01'01"E  
335.24'  
PROP TEMP EASEMENT (TYP)

74 SOUTH COMMON ST  
MAP 53 LOT 053-735-001  
N/F  
ST STEPHENS CHURCH  
BOOK 0 PAGE 0  
TOTAL PROPERTY AREA=79,279 S.F.

DETAIL "F"  
N.T.S.

50 SOUTH COMMON ST  
MAP 52 LOT 052-732-0  
N/F  
THE COMMONS OF LYNN CON  
BOOK 9928, PAGE 15  
TOTAL PROPERTY AREA=56.



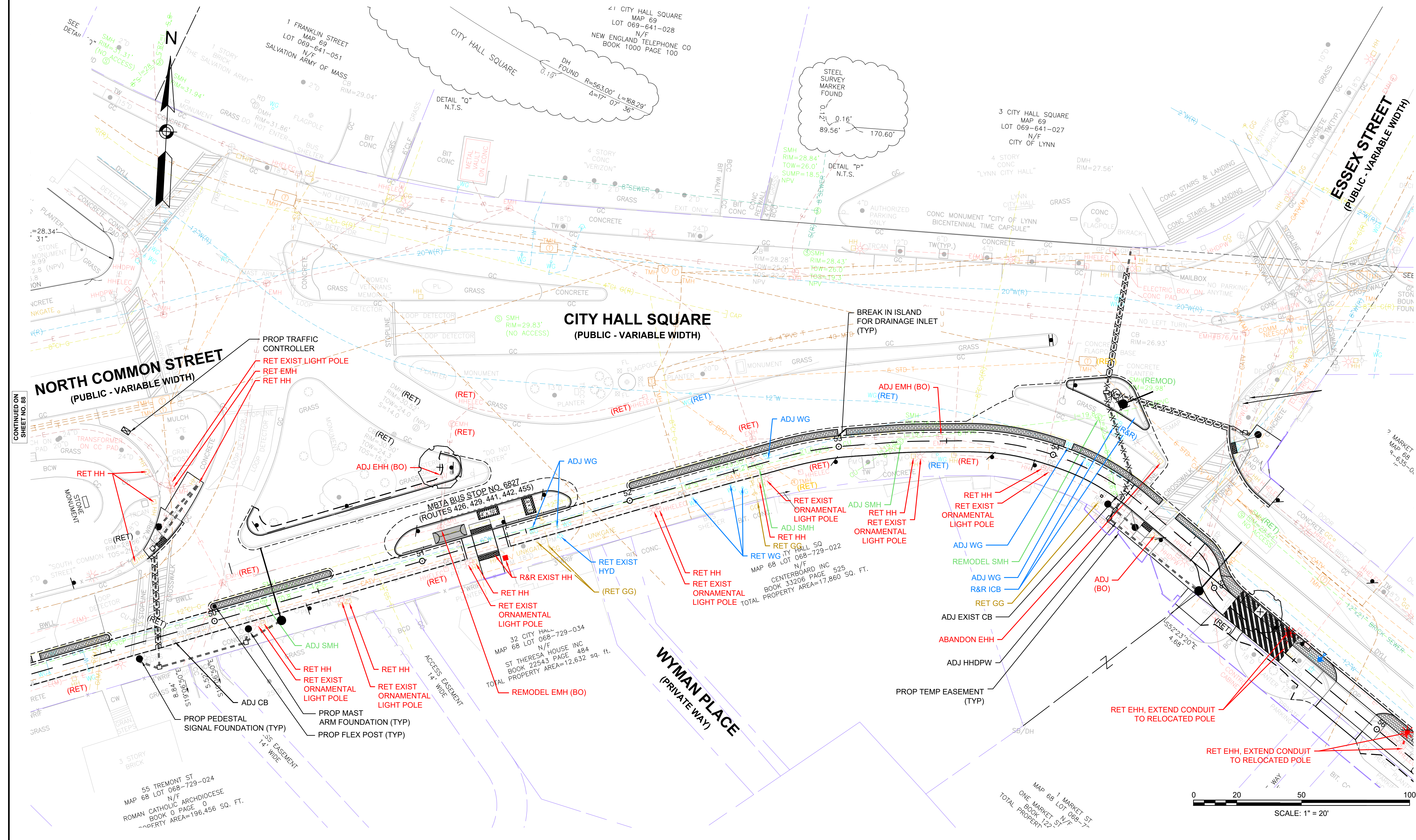




**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	89	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 9 OF 20



CONTINUED ON  
SHEET NO. 88

CONTINUED ON  
SHEET NO. 90

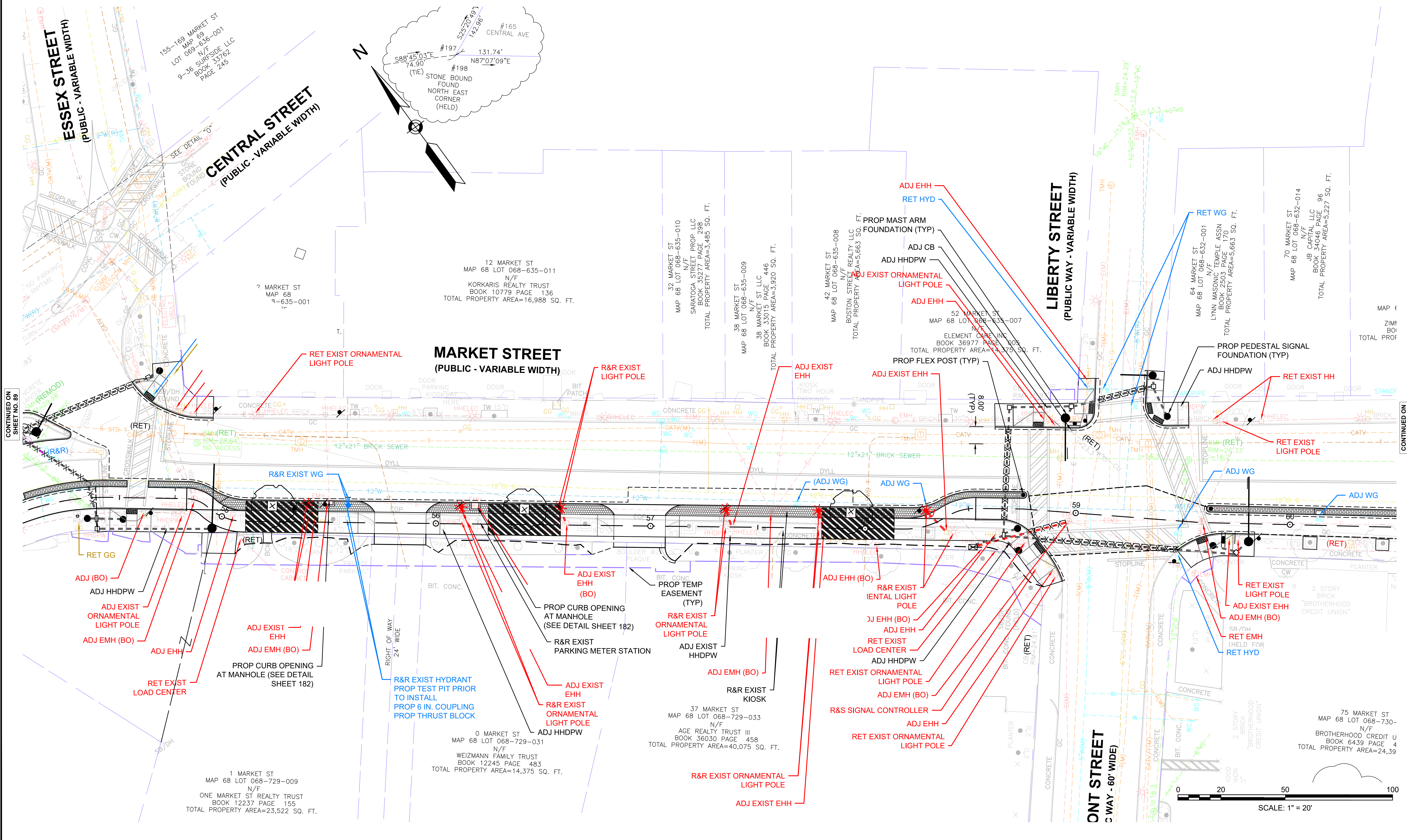
610919\_UT(DRAIN\_UTILITY).DWG  
Plotted on 22-Dec-2022 10:49 AM



LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	90	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 10 OF 20



CONTINUED ON  
SHEET NO. 89

CONTINUED ON  
SHEET NO. 91



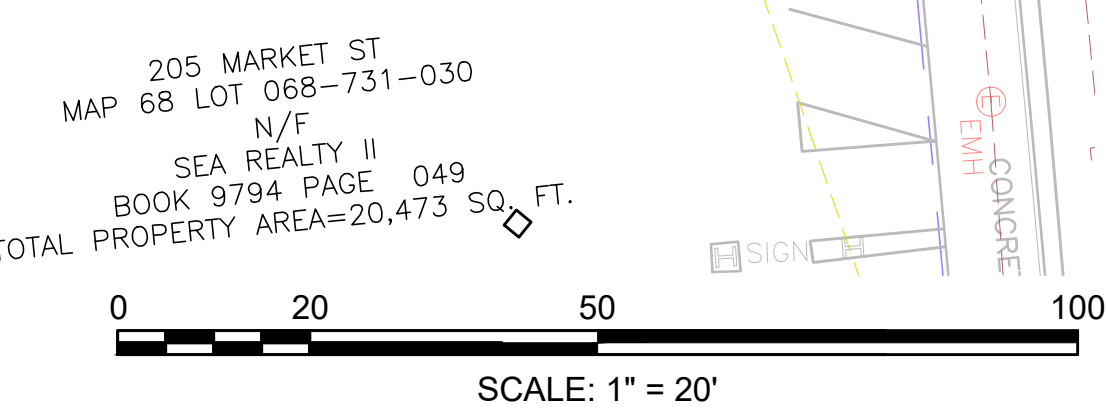
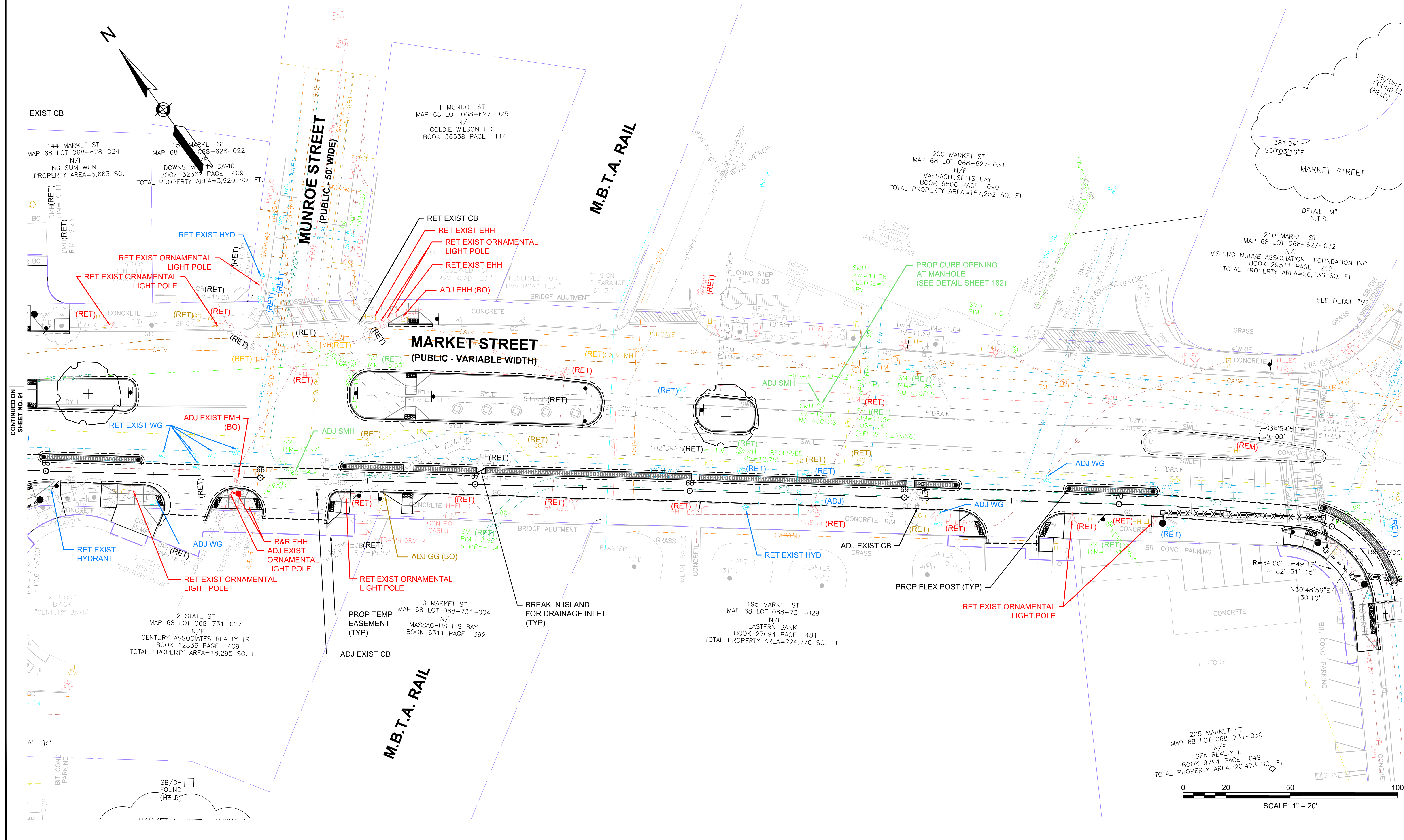




**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	92	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 12 OF 20



CONTINUED ON SHEET NO. 91

CONTINUED ON SHEET NO. 93





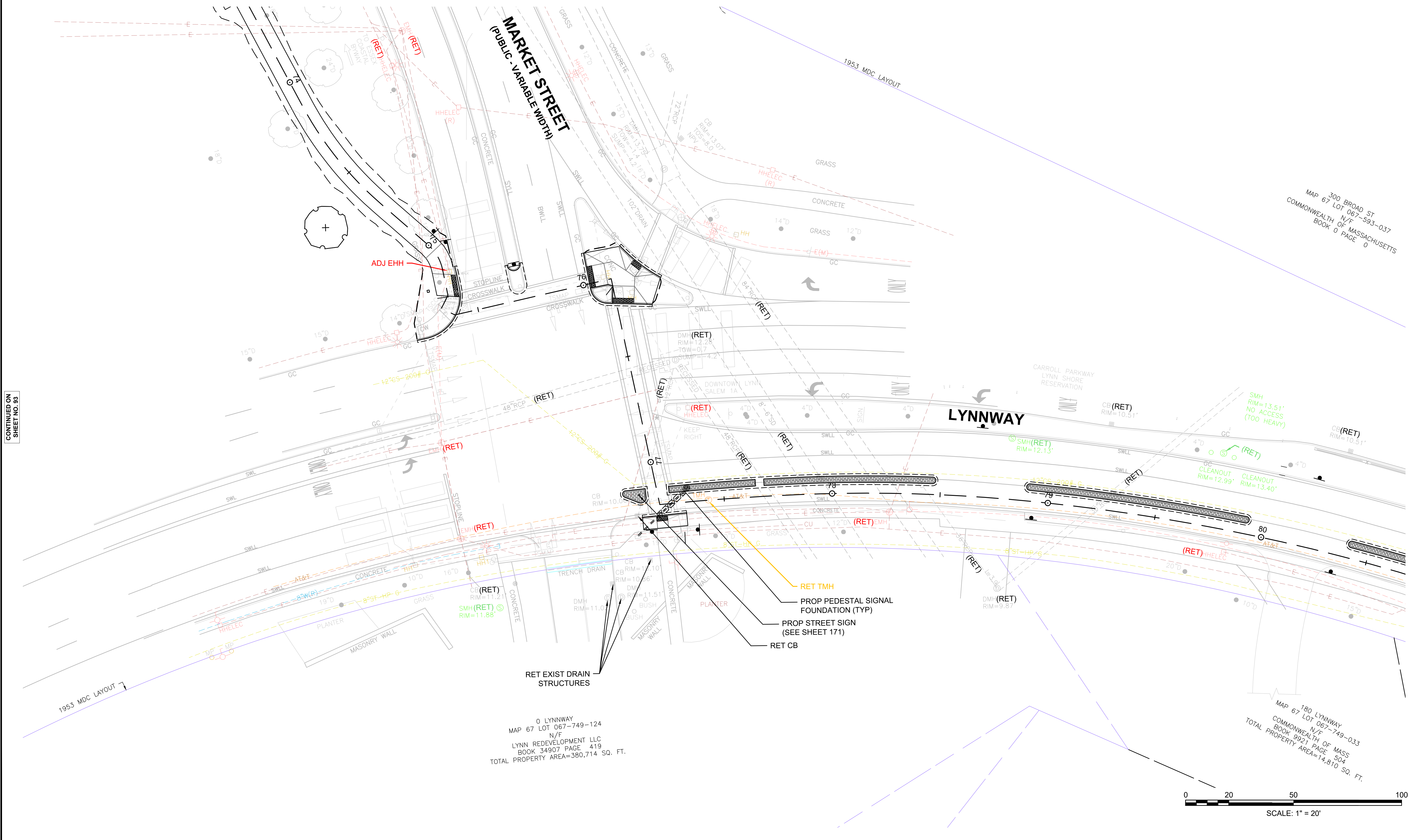


**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	94	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 14 OF 20

610919\_UT(DRAIN\_UTILITY).DWG Plotted on 22-Dec-2022 10:53 AM

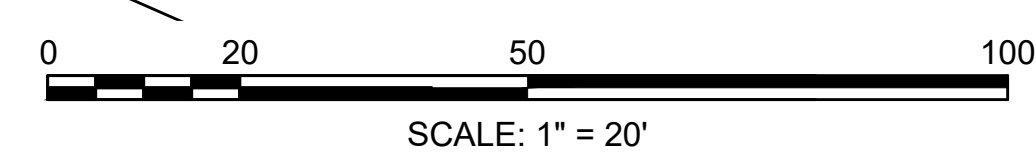


CONTINUED ON SHEET NO. 93

CONTINUED ON SHEET NO. 95

0 LYNNWAY  
MAP 67 LOT 067-749-124  
N/F  
LYNN REDEVELOPMENT LLC 419  
BOOK 34907 PAGE 419  
TOTAL PROPERTY AREA=380,714 SQ. FT.

MAP 180 LYNNWAY  
LOT 067-749-D33  
N/F  
COMMONWEALTH OF MASS  
BOOK 9921 PAGE 504  
TOTAL PROPERTY AREA=14,810 SQ. FT.





**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	95	266
PROJECT FILE NO.		610919	

DRAINAGE AND UTILITY PLANS  
PART 15 OF 20

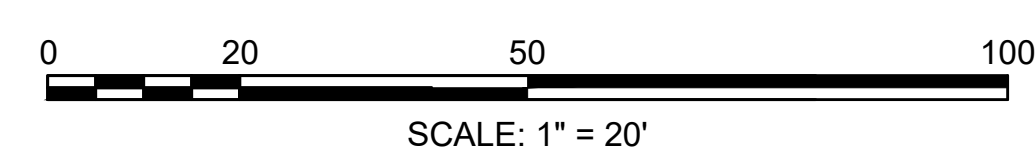
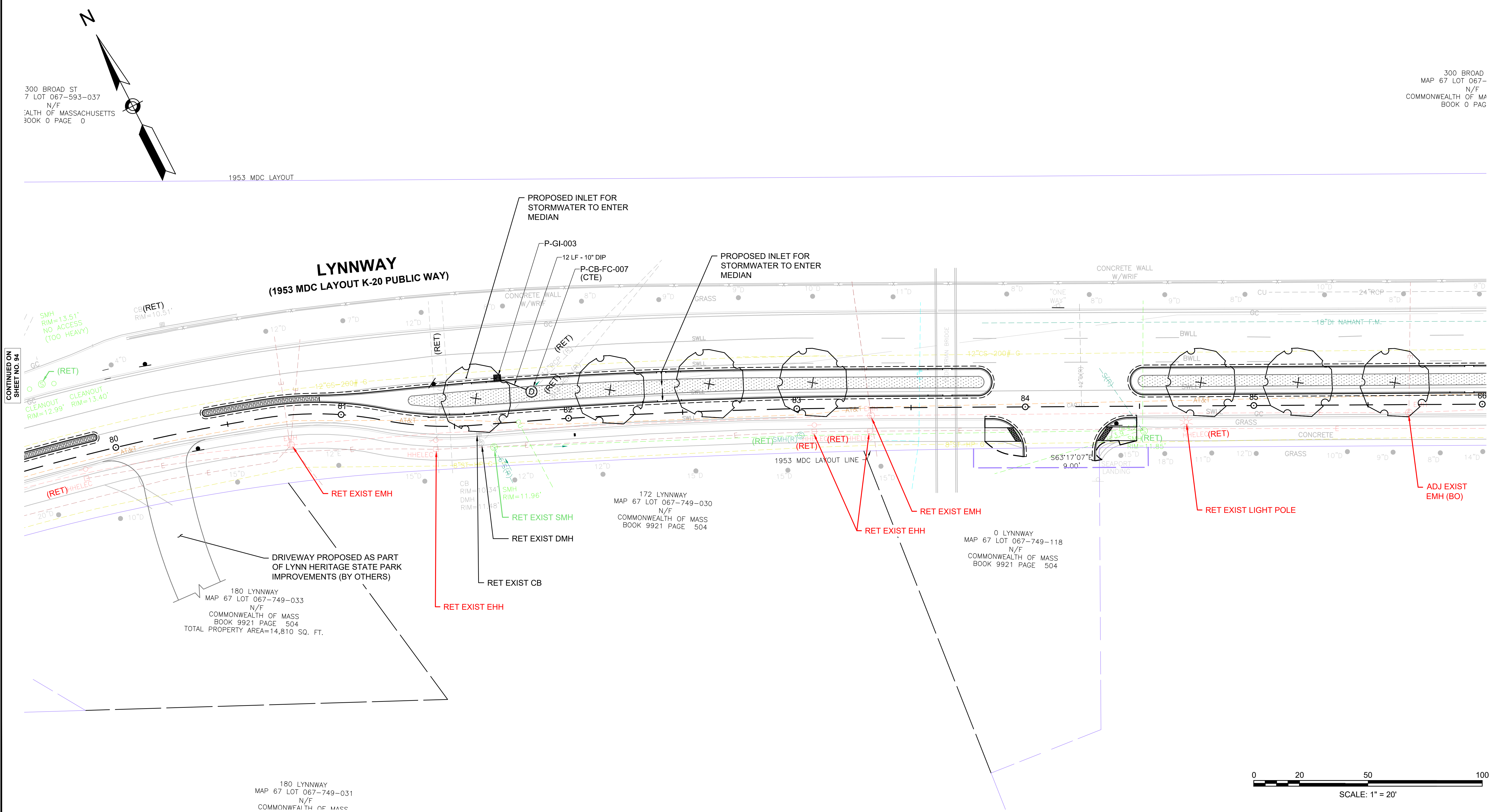
DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
P-CB-FC-007	81+84.66	12.8 LT	11.08	I=8.65' (P-GI-003)		CTE, DEEP SUMP CB W/ F&C, TEST PIT TO LOCATE EXIST PIPE
P-GI-003	81+70.27	19.7 LT	11.29		I=8.80' (P-CB-FC-007)	GI, CASCADE F&G

PIPE TABLE					
PIPE	PIPE LOCATION	SIZE	LENGTH	SLOPE	REMARKS
P-008	P-GI-003 TO P-CB-FC-007 STA 81+70 TO 81+85	10"	12 FT	0.009	DI PIPE

300 BROAD ST  
7 LOT 067-593-037  
N/F  
COMMONWEALTH OF MASSACHUSETTS  
BOOK 0 PAGE 0

300 BROAD  
MAP 67 LOT 067-  
N/F  
COMMONWEALTH OF MA  
BOOK 0 PAGE

610919\_UT(DRAIN\_UTILITY).DWG Plotted on 22-Dec-2022 10:56 AM













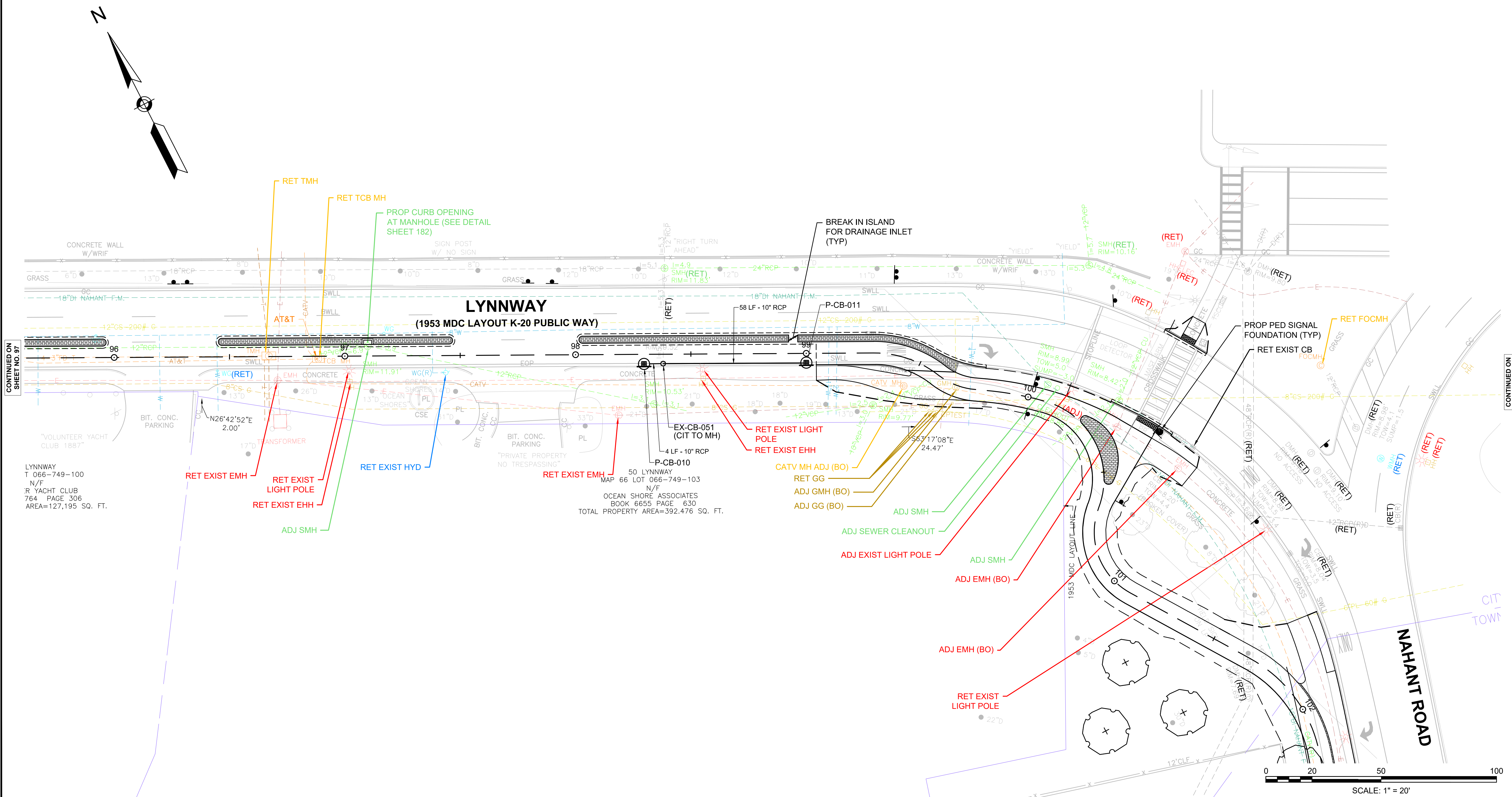
DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
EX-CB-051	98+37.93	4.1 RT	9.52	I=5.80' (P-CB-011) I=5.80' (P-CB-010)		CIT TO MH
P-CB-010	98+29.65	4.2 RT	9.63		I=5.90' (EX-CB-051)	CBCI, HOOD, CASCADE F&G
P-CB-011	99+00	4.0 RT	9.10		I=6.13' (EX-CB-051)	SHALLOW CB, HOOD, CASCADE F&G

PIPE TABLE					
PIPE	PIPE LOCATION	SIZE	LENGTH	SLOPE	REMARKS
P-013	P-CB-010 TO EX-CB-051 STA 98+30 TO 98+38	10"	4 FT	0.012	DI PIPE
P-014	P-CB-011 TO EX-CB-051 STA 98+99 TO 98+38	10"	58 FT	0.005	DI PIPE

**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	98	266

PROJECT FILE NO. 610919  
DRAINAGE AND UTILITY PLANS  
PART 18 OF 20

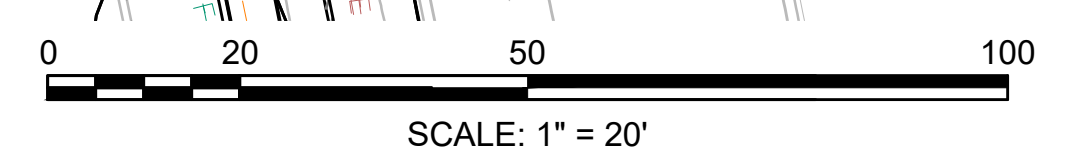


CONTINUED ON  
SHEET NO. 97

CONTINUED ON  
SHEET NO. 99

LYNNWAY  
T 066-749-100  
N/F  
R YACHT CLUB  
764 PAGE 306  
AREA=127,195 SQ. FT.

50 LYNNWAY  
MAP 66 LOT 066-749-103  
N/F  
OCEAN SHORE ASSOCIATES  
BOOK 6655 PAGE 630  
TOTAL PROPERTY AREA=392,476 SQ. FT.

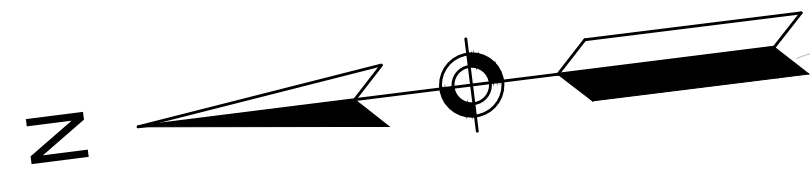
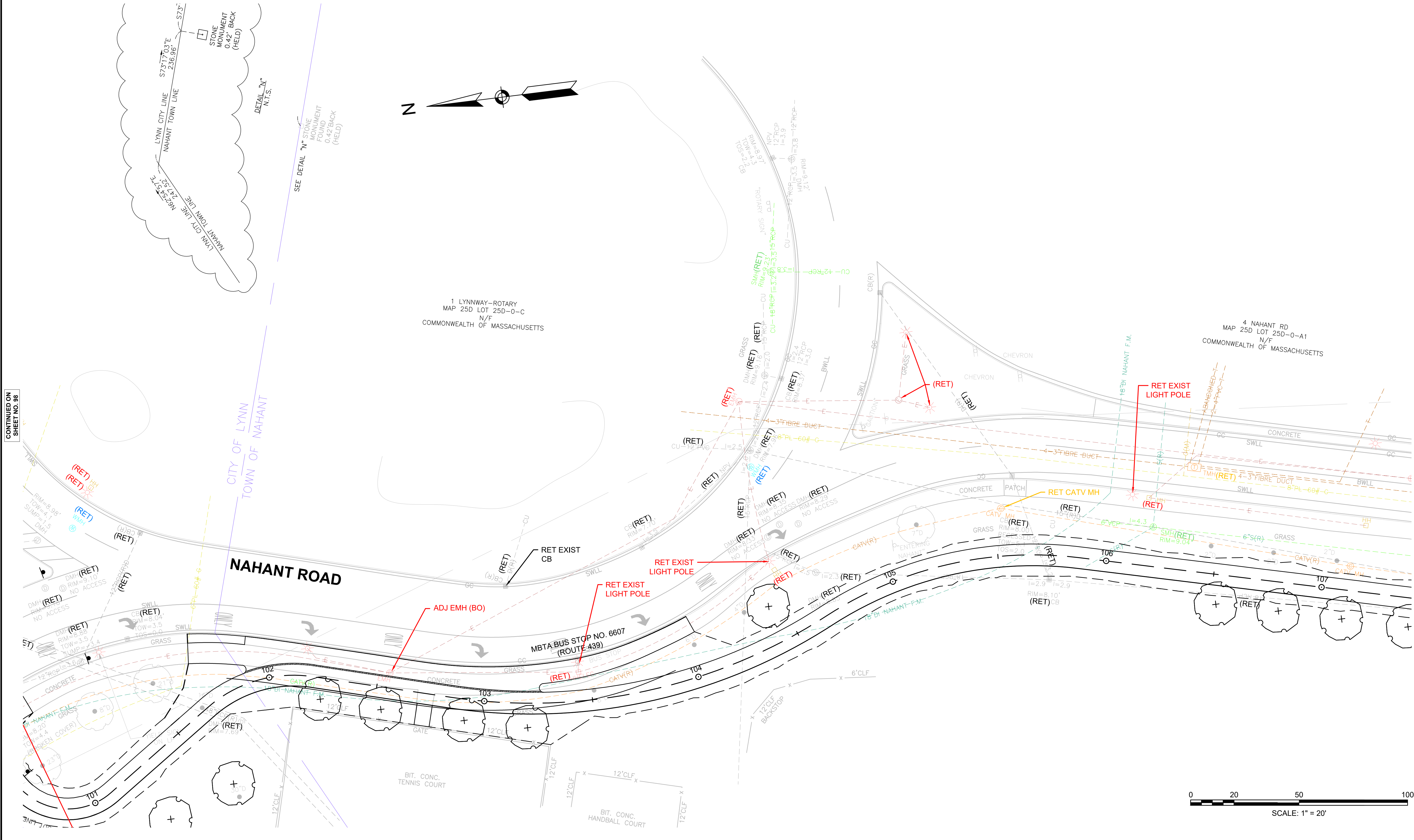




**LYNN & NAHANT  
THE NORTHERN STRAND - ON-ROAD  
EXTENSION TO NAHANT BEACH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	99	266
PROJECT FILE NO.		610919	

**DRAINAGE AND UTILITY PLANS  
PART 19 OF 20**



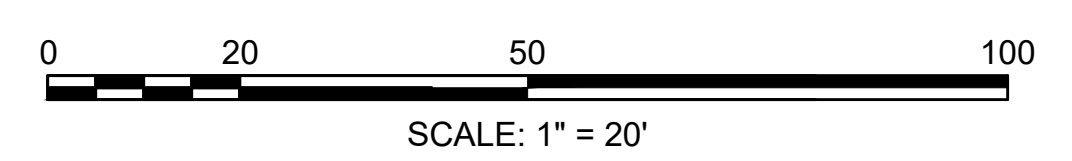
1 LYNNWAY-ROTARY  
MAP 25D LOT 25D-0-C  
N/F  
COMMONWEALTH OF MASSACHUSETTS

4 NAHANT RD  
MAP 25D LOT 25D-0-A1  
N/F  
COMMONWEALTH OF MASSACHUSETTS

CITY OF LYNN  
TOWN OF NAHANT

**NAHANT ROAD**

MBTA BUS STOP NO. 6607  
(ROUTE 439)



CONTINUED ON  
SHEET NO. 98

CONTINUED ON  
SHEET NO. 100



