

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

SPRINGFIELD MCKNIGHT COMMUNITY TRAIL			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	1	66
PROJECT FILE NO.		608157	

TITLE SHEET & INDEX

PLAN AND PROFILE OF MCKNIGHT COMMUNITY TRAIL

(BRIDGE NO. S-24-027)

Update when Bridge Numbers are obtained for the other new structures. Include BIN numbers.

IN THE CITY OF

SPRINGFIELD

HAMPDEN COUNTY

FEDERAL AID PROJECT NO. XXXXX

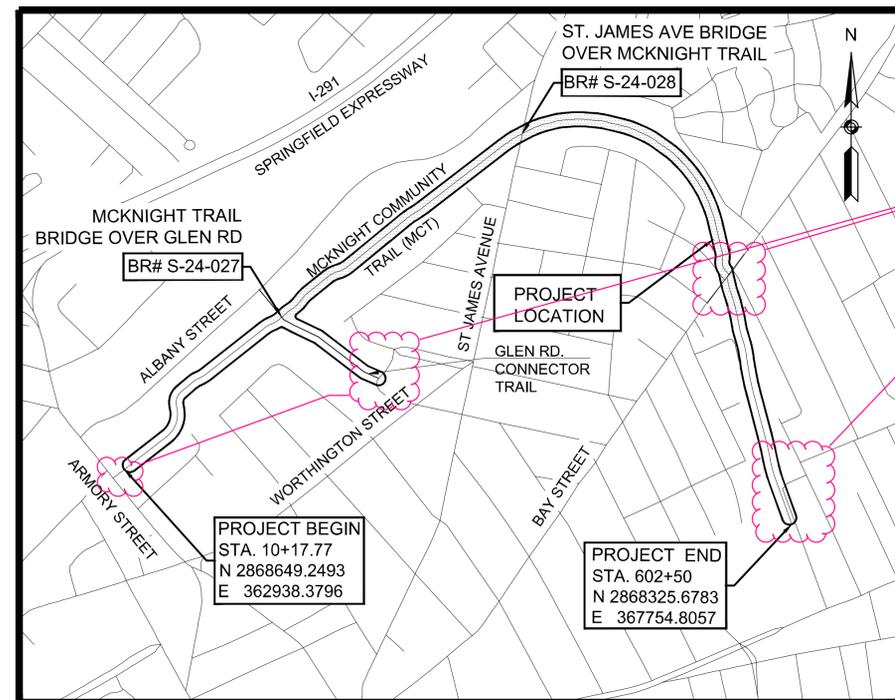
THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, 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, WILL GOVERN.

D2 ADA commented on pg.: 18, 21, 39

Affected Utilities Est. Cost Est. Duration
Sprint \$250,000 45 days
Costs and Durations Est. by D2 Office

25% SUBMITTAL

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3	GENERAL NOTES
4	KEY PLAN & BORING LOCATIONS
5	TYPICAL SECTIONS
6 - 21	CONSTRUCTION PLANS & PROFILES
22 - 31	UTILITY PLANS
32 - 41	SIGN & PAVEMENT MARKING PLANS
42	TRAFFIC SIGNAL PLAN
43 - 45	TEMPORARY TRAFFIC CONTROL PLAN
46 - 66	CRITICAL CROSS SECTIONS

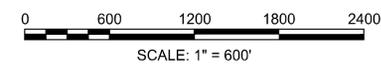


DESIGN DESIGNATION (MCKNIGHT COMMUNITY TRAIL)

DESIGN SPEED	12 - 20 MPH
MINIMUM HORIZONTAL CURVE RADIUS	50'
MAXIMUM GRADE FOR TRAIL (MCT)	5%

DATE	DESCRIPTION	REV #
7/23/2021	25% SUBMISSION	0

Is the Design Engineer information missing from the Title Sheet?



LENGTH OF PROJECT = 8894 FEET = 1.684 MILES

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

APPROVED

HOR. SCALE IN FEET

VER. SCALE IN FEET

HIGHWAY ADMINISTRATOR DATE

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
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE 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

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 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE - 12"
		CROSSWALK - 24" LINES, 4' O.C. (SEE DETAIL) Add sheet number of detail.
		SOLID WHITE LINE - 6"
		SOLID YELLOW LINE - 6"
		BROKEN WHITE LINE - 6"
		BROKEN YELLOW LINE - 6" (SHARED USE PATH: 3' LINE, 9' GAP)
		DOTTED WHITE LINE - 6"
		DOTTED YELLOW LINE - 6"
		DOTTED WHITE LINE EXTENSION - 6" (2' LINE, 6' GAP)
		DOTTED YELLOW LINE EXTENSION - 6" (2' LINE, 6' GAP)
		DOUBLE WHITE LINE - 2-6" LINES
		DOUBLE YELLOW LINE - 2-6" LINES

UTILITY PLAN COLORS

UTILITY	LINE COLOR
ELECTRIC	RED
GAS-OIL-STEAM	BROWN
COMMUNICATION/CATV	ORANGE
POTABLE WATER	BLUE
SEWER	GREEN
DRAINAGE	TRADITIONAL GRAYSCALE

PLANT LEGEND

	PROP SHADE TREE
	PROP FLOWERING TREE
	PROP EVERGREEN TREE

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
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
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
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
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
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
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
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

SPRINGFIELD MCKNIGHT COMMUNITY TRAIL

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MA	-	2	66

LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL	
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
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
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
TS	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALKING PERSON
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

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MA	-	3	66
PROJECT FILE NO.		608157	

GENERAL NOTES

GENERAL NOTES

- THIS BASE MAP IS COMPILED FROM AN ACTUAL-ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY GREEN INTERNATIONAL AFFILIATES, INC., BETWEEN 24 SEPTEMBER 2018 AND 18 FEBRUARY 2020.
- HORIZONTAL CONTROLS ARE BASED ON THE NORTH AMERICAN DATUM (NAD 83) ENGLISH UNITS.
- VERTICAL CONTROLS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
- 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).
- THE ACCURACY AND COMPLETENESS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. ALL TOWN-OWNED UTILITY STRUCTURES, WITHIN AREAS AFFECTED BY THE WORK SHALL BE ADJUSTED TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER. ANY UTILITY POLES AND/OR GUY POLES, WITHIN AREAS AFFECTED BY THE WORK, SHALL BE REMOVED AND RESET BY THE RESPECTIVE UTILITY COMPANY. ALTERATIONS TO UTILITIES NOT OWNED BY THE TOWN SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WORK IN ADVANCE WITH THOSE UTILITY OWNERS.
- CATCH BASIN AND MANHOLE FRAMES AND GRATES/COVERS SHALL EXACTLY ALIGN WITH THE OPENINGS IN THE PRECAST STRUCTURES AND THE GRADE OF THE PROPOSED ROADWAY.
- ALL EXISTING DRAINAGE LINES TO BE REPLACED SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED. IF SAID LINES CONFLICT WITH THE PROPOSED DRAINAGE, THEY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- WHERE DRAINAGE PIPES OR STRUCTURES ARE ABANDONED IN PLACE, THE CONTRACTOR SHALL MAKE SURE THAT ALL CONNECTING PIPES, INLETS AND OUTLETS ARE PLUGGED. ALL LIVE CONNECTIONS SHALL BE CONNECTED TO THE NEW SYSTEM.
- ALL CURB TIE DIMENSIONS ARE TO FACE OF THE CURB.
- TOP OF CURB SHALL BE 6 INCHES ABOVE GUTTER GRADE UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL VERIFY EXISTING GRADES. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND SEEK THE APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.
- IN AREAS OF NEW SIDEWALK, NEW EDGE OF PAVEMENT OR CURB WITHOUT SIDEWALK OR ANY WORK ADJACENT TO EXISTING GRASS AREAS, EVEN WHEN NO SLOPE-MATCHING OR GRADING IS NECESSARY AND THE EXISTING GRADE IS MET, LOAM AND SEED SHALL BE PROVIDED AS NECESSARY TO REPAIR AND COMPLETE ANY DAMAGE TO THE GRADE CAUSED BY THE CONSTRUCTION PROCESS.
- TREES TO BE RETAINED WHICH RESTRICT SIGHT DISTANCE OR RESTRICT HORIZONTAL OR VERTICAL CLEARANCES SHALL BE TRIMMED AS REQUIRED BY THE ENGINEER.
- WHEN WORKING NEXT TO EXISTING TREES, WALLS OR FENCES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO DISTURB THE EXISTING WALL, TREE OR FENCE. IF THE CONTRACTOR DAMAGES EXISTING TREES, WALLS OR FENCES AS A RESULT OF THE CONSTRUCTION PROCESS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ALL DAMAGES AS DIRECTED BY THE ENGINEER. ALL WORK ASSOCIATED WITH THE REPAIR OR REPLACEMENT OF EXISTING TREES, WALLS OR FENCES SHALL BE CONSIDERED AS INCLUDED IN THE BID PRICE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFORE.
- THE CONTRACTOR SHALL CALL DIGSAFE (1-800-322-4844) A MINIMUM OF 72 HOURS PRIOR TO THE START OF ANY WORK.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
- ANY ADJUSTMENTS MADE TO MUNICIPALLY OWNED SANITARY AND WATER MANHOLES, HYDRANTS, GATE BOXES, ETC... SHALL MEET APPLICABLE MUNICIPAL STANDARDS AND CRITERIA.
- TREES AND SHRUBS NOT NOTED TO BE REMOVED, AND TREE SHRUBS NOTED "RET" ON THE DRAWINGS, SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS. TREES OR SHRUBS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN-KIND BY THE CONTRACTOR AT HIS OR HER OWN EXPENSE.
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
- ALL PROPOSED PERMANENT MARKINGS SHALL BE THERMOPLASTIC.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT ADDITIONAL WORK WITHIN THE PROJECT LIMITS MAY BE PERFORMED BY OTHERS.
- THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH OTHER CONTRACTORS PERFORMING WORK WITHIN AND AT THE PROJECT LIMITS.
- THE CONTRACTOR MAY BE REQUIRED TO PERFORM ITEMS OF WORK OUT OF NORMAL SEQUENCE AND SCHEDULE, AS REQUIRED BY THE ENGINEER, IN ORDER TO MEET THE OVERALL PROJECT SCHEDULE.
- THE CONTRACTOR SHALL BE REQUIRED TO PROCURE RELATED ITEMS WITHOUT ADVERSELY IMPACTING THE PROJECT SCHEDULE; THEREFORE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE APPROPRIATE SHOP DRAWINGS WITH SUFFICIENT LEAD TIME FOR PROCESSING IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
- WETLAND RESOURCES MUST BE PROTECTED FROM SILTATION THROUGHOUT THE PROJECT. ALL EROSION CONTROLS MUST BE APPROVED BY THE RESIDENT ENGINEER PRIOR TO ANY CONSTRUCTION OR EARTHWORK.
- THE CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND SILTATION BARRIERS TO PROTECT ALL RESOURCE AREAS AND BUFFER ZONES AS APPLICABLE.
- ALL EROSION CONTROLS MUST BE CHECKED/REPAIRED, AND ANY SILTATION REMOVED AFTER EACH RAIN EVENT.
- ALL PROPOSED PAVEMENT MARKINGS SHALL MATCH EXISTING MARKINGS AT THE LIMITS OF WORK.
- PRIOR WRITTEN NOTICE OF AT LEAST 48 HOURS SHALL BE GIVEN BY THE CONTRACTOR TO AFFECTED MUNICIPAL WATER AND FIRE DEPARTMENTS, WITH A COPY OF SUCH NOTICE SUBMITTED TO THE ENGINEER, BEFORE ANY WATER MAIN IS SHUT OFF AND IN NO CASE SHALL A GATE OR HYDRANT BE OPENED OR SHUT WITHOUT PROPER AUTHORIZATION.
- THE CONTRACTOR SHALL COORDINATE ALL ARRANGEMENTS FOR THE ALTERATION AND/OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITY THROUGH THE MASSDOT HIGHWAY DIVISION UTILITY SECTION.
- WITHIN AREAS OF RESURFACING OR RECONSTRUCTION, ALL EXISTING DRAINAGE MANHOLES, CATCH BASINS, SEWER MANHOLES, AND WATER GATES SHALL BE ADJUSTED TO PROPOSED LINE AND GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
- SHOP DRAWINGS OF ALL CASTINGS, PRECAST CONCRETE STRUCTURES, PIPE, AND OTHER MANUFACTURED ITEMS SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER, IN CONFORMANCE WITH CONTRACT SPECIFICATIONS, AND SAID APPROVAL SHALL BE REQUIRED PRIOR TO INITIATING PROCUREMENT OF MATERIALS.
- ALL DRAINAGE STRUCTURES TO BE ABANDONED SHALL BE FILLED WITH GRAVEL AND ALL CONNECTIONS SHALL BE PLUGGED AT THE PIPE LOCATIONS WITH A CEMENT CONCRETE MASONRY PLUG.
- FINAL LOCATION OF TRAFFIC SIGNS AND SUPPORTS AS SHOWN IN THE PLANS SHALL BE FIELD-CONFIRMED BY THE ENGINEER PRIOR TO INSTALLATION.

WHEELCHAIR RAMP NOTES

- ALL WHEELCHAIR RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (A.A.B) AND THE AMERICANS WITH DISABILITIES ACT (A.D.A.).
- ALL PROPOSED CURB FOR WHEELCHAIR RAMP TRANSITIONS SHALL BE CUT AND TRANSITIONED AS NECESSARY TO PROVIDE THE CORRECT TRANSITION LENGTHS FOR EACH WHEELCHAIR RAMP. AS SHOWN ON WHEELCHAIR RAMP DETAILS OR AS REQUIRED BY THE ENGINEER. ANY EXISTING CURB INLETS IN AREAS OF NEW WHEELCHAIR RAMP TRANSITIONS, SHALL BE REMOVED AND REPLACED WITH APPROPRIATE TRANSITION CURB, AS DIRECTED BY THE ENGINEER.
- IN NO CASE, EXCEPT MAXIMUM LENGTH HIGH SIDE TRANSITIONS, SHALL ANY TRANSITION SLOPE OF ANY WHEELCHAIR RAMP EXCEED 7.5%. PROPOSED WHEELCHAIR RAMP SLOPES, ESPECIALLY HIGH SIDE TRANSITIONS, SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO POURING OF CONCRETE, AND ADJUSTED, IF NECESSARY, AS REQUIRED BY THE ENGINEER.
- IN INSTANCES WHERE AN EXISTING MANHOLE, HANDHOLE OR OTHER "SURFACE" TYPE STRUCTURE THAT CANNOT BE REMOVED OR RESET, IS WITHIN THE ACTUAL WHEELCHAIR RAMP PATH, THE STRUCTURE SHALL BE CAREFULLY ADJUSTED SUCH THAT THE TOPMOST SURFACES OF THE STRUCTURE COVER SHALL BE FLUSH WITH THE RAMP SURFACE AND SHALL MATCH THE SLOPE OF THE NEW WHEELCHAIR RAMP EXACTLY, AS REQUIRED BY THE ENGINEER.
- THE LOCATION OF PROPOSED WHEELCHAIR RAMPS ARE SHOWN ON CONSTRUCTION PLANS AND THE WHEELCHAIR RAMP DETAILS. EXACT LOCATIONS MAY BE ADJUSTED, IF REQUIRED, BY THE ENGINEER IN THE FIELD.
- ALL PROPOSED WHEEL CHAIR RAMPS SHALL HAVE DETECTABLE WARNING PANELS INSTALLED IN ACCORDANCE WITH MASSDOT STANDARD DRAWING E 107.6.5.

BUCKEYE ROW TEST PIT SUMMARY

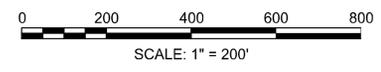
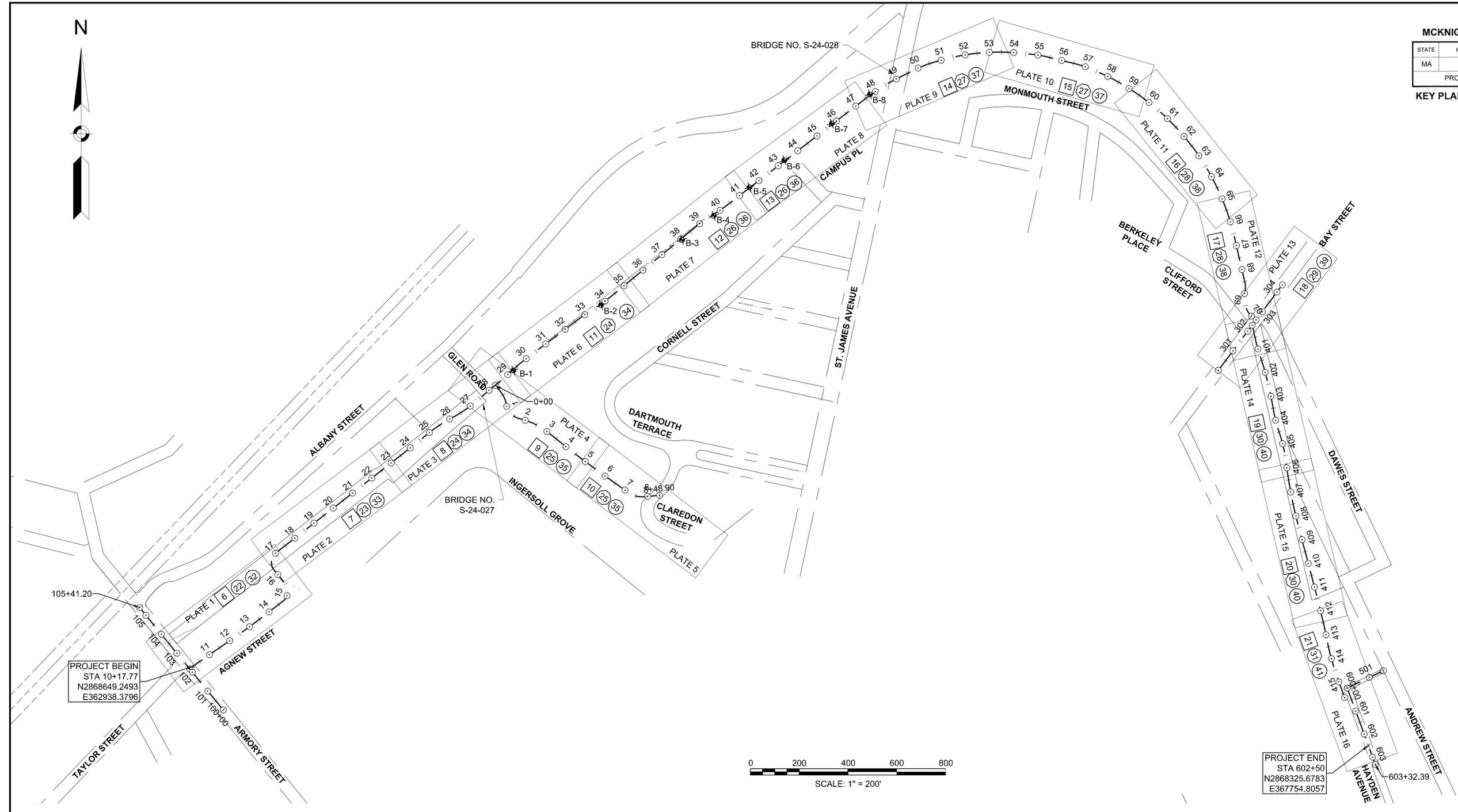
TEST PIT #	DATE	LOCATION	APPROX. STATION	APPROX. EXIST. GROUND SURFACE ELEVATION	APPROX. DEPTH TO TOP OF PIPE BELOW GRADE
TP-1	4/7/2021	AGNEW ST.	STA 705+47 6' RT	151.5	30"
TP-2	4/8/2021	AGNEW ST.	STA 705+70 9' LT	150.8	51"
TP-3A	4/7/2021	MCKNIGHT TRAIL WEST	STA 16+93 9' RT	145.8	NOT LOCATED: >72" *
TP-4A	4/8/2021	MCKNIGHT TRAIL WEST	STA 16+98 10' LT	145.3	NOT LOCATED: >72"
TP-5	4/7/2021	MCKNIGHT TRAIL WEST	STA 17+63 11' RT	147.0	NOT LOCATED: >72" *
TP-6	4/7/2021	MCKNIGHT TRAIL WEST	STA 18+60 0' RT	147.7	48"
TP-7	4/7/2021	MCKNIGHT TRAIL WEST	STA 20+12 5.5' LT	149.7	42"
TP-8	4/7/2021	MCKNIGHT TRAIL WEST	STA 20+75 8' LT	150.6	26"
TP-9	4/7/2021	MCKNIGHT TRAIL WEST	STA 26+75 4' LT	159.3	36" *
TP-10A	4/8/2021	MCKNIGHT TRAIL WEST	STA 26+20 5' LT	159.0	57"
TP 11-13 OMITTED FROM PROJECT					
TP-14A	4/8/2021	MCKNIGHT TRAIL WEST	STA 69+77 36' LT	205.7	35"
TP-14B	4/8/2021	MCKNIGHT TRAIL WEST	STA 69+75 32' LT	205.7	27"
TP-15A	4/8/2021	MCKNIGHT TRAIL EAST	STA 400+19 30' LT	205.5	39"
TP-15B	4/8/2021	MCKNIGHT TRAIL EAST	STA 400+19 27' LT	205.5	36"
TP-15C	4/8/2021	MCKNIGHT TRAIL EAST	STA 400+19 23' LT	205.5	35"
TP-16	4/8/2021	MCKNIGHT TRAIL EAST	STA 414+95 8' LT	205.1	43"
TP-17	4/8/2021	HAYDEN AVENUE	STA 600+71 30' RT	204.7	34"

* ORANGE WARNING MESH MARKER OBSERVED IN TEST PIT. BUCKEYE PIPELINE REPRESENTATIVE INDICATED THE MARKER WAS INSTALLED IN SOME AREAS OF THE PIPELINE

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	4	66
PROJECT FILE NO.		608157	

KEY PLAN & BORING LOCATIONS



PROJECT BEGIN
STA 10+17.77
N2868649.2493
E362938.3796

PROJECT END
STA 602+50
N2868325.6783
E367754.8057

- SHEET NUMBER LEGEND**
- XX CONSTRUCTION PLAN
 - XX CURB TIE PLAN
 - XX GRADING PLAN
 - XX DRAINAGE & UTILITY PLAN
 - XX SIGN & PAVEMENT MARKING PLAN
 - ◆ C - # CORING LOCATION
 - ◆ B - # BORING LOCATION

	PLATE 1	PLATE 2	PLATE 3	PLATE 4	PLATE 5	PLATE 6	PLATE 7	PLATE 8	PLATE 9	PLATE 10	PLATE 11	PLATE 12	PLATE 13	PLATE 14	PLATE 15	PLATE 16
CONSTRUCTION PLANS & PROFILES	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
UTILITY PLANS	22	23	24	25	25	24	26	26	27	27	28	28	29	30	30	31
SIGN & PAVEMENT MARKING PLANS	32	33	34	35	35	34	36	36	37	37	38	38	39	40	40	41
TRAFFIC SIGNAL PLAN	-	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-



**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	5	66
PROJECT FILE NO.		608157	

TYPICAL SECTIONS

PAVEMENT NOTES

SHARED USE PATH (HMA)

- SURFACE COURSE: 1 1/2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
- INTERMEDIATE COURSE: 2 1/2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER
- SUBBASE: 8" GRAVEL BORROW, TYPE B OVER 24" SPECIAL BORROW (AS REQUIRED IN AREAS OF WETLANDS AND OTHER UNSUITABLE MATERIAL)

PROPOSED MICROMILLING & OVERLAY

- SURFACE COURSE: 1 3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER

- PAVEMENT MILLING: 1 3/4" ± 3/4" MIN. PAVEMENT MICROMILLING

PROPOSED FULL DEPTH PAVEMENT (GREATER THAN 4' WIDE)

- SURFACE COURSE: 1 3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
- INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER
- BASE COURSE: 4" SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5)
- SUBBASE: 8" GRAVEL BORROW (TYPE B)

PROPOSED FULL DEPTH PAVEMENT (LESS THAN 4' WIDE)

- SURFACE COURSE: 1 3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
- INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER
- BASE COURSE: 6" HIGH EARLY STRENGTH CEMENT CONCRETE OVER
- SUBBASE: 8" GRAVEL BORROW (TYPE B)

PROPOSED HMA WALK

- SURFACE COURSE: 1" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
- INTERMEDIATE COURSE: 1 1/2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)
- SUBBASE: 8" GRAVEL BORROW, TYPE B

PROPOSED CEMENT CONCRETE WHEELCHAIR RAMPS

- SURFACE COURSE: 4" CEMENT CONCRETE OVER
- SUBBASE: 8" GRAVEL BORROW, TYPE B

PROPOSED HMA DRIVEWAY AND HMA PARKING

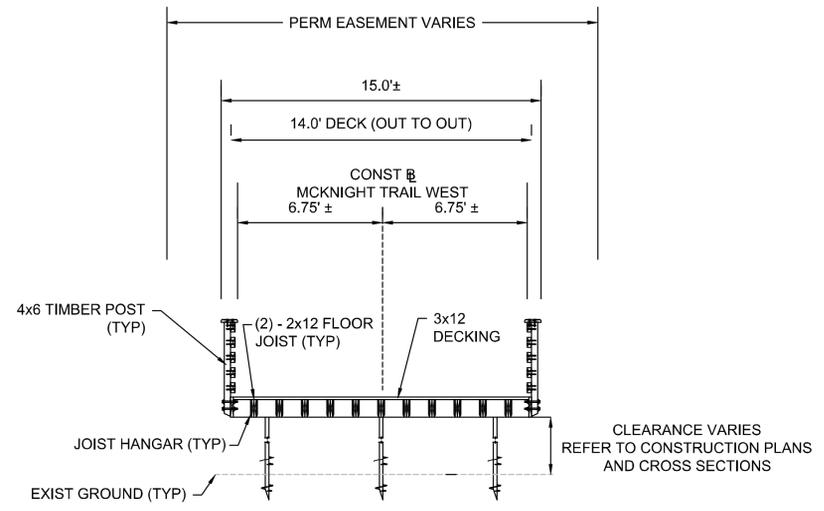
- SURFACE COURSE: 1 1/2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
- INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)
- SUBBASE: 8" GRAVEL BORROW, TYPE B

GRAVEL PARKING

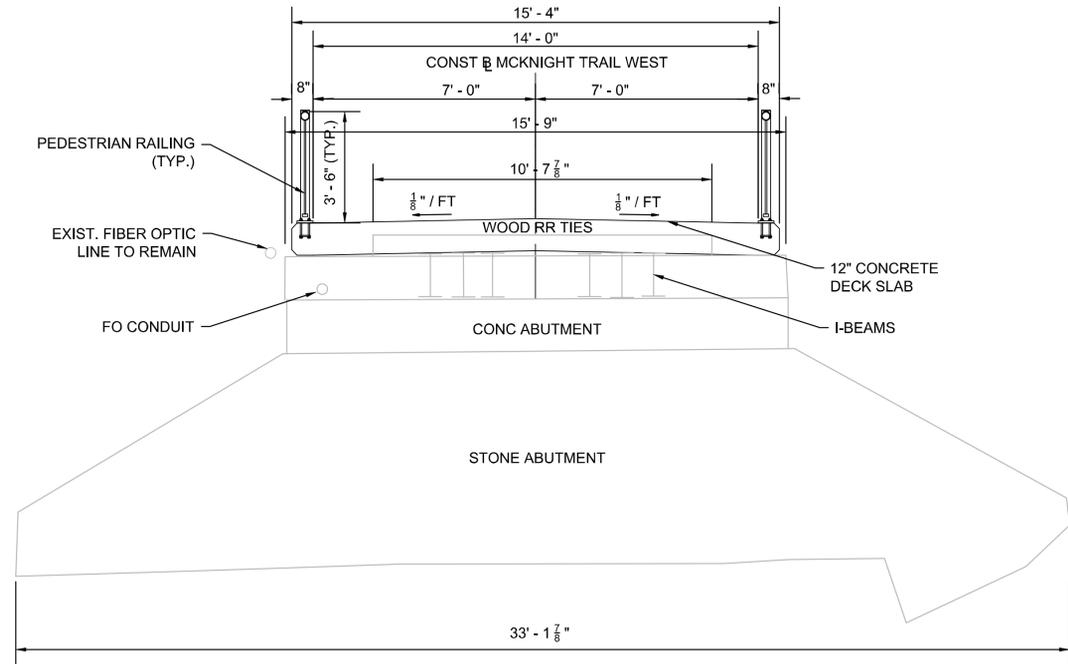
- SURFACE COURSE: 8" GRAVEL BORROW, TYPE B

NOTES:

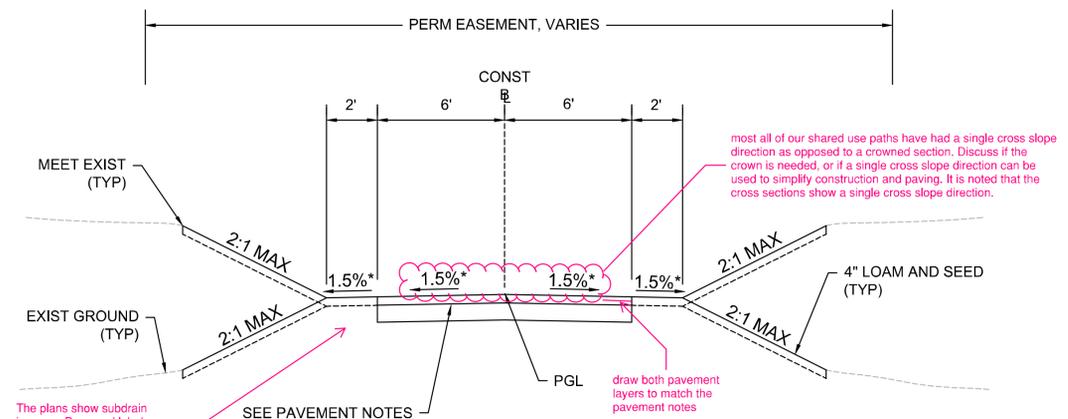
- 1. ASPHALT EMULSION FOR TACK COAT AT 0.07 GAL/SY OVER MICROMILLED SURFACE AND AT 0.05 GAL/SY OVER SMOOTH PAVEMENTS
These tack rates are outdated. See Section 450.43G(2) of the Standard Specifications



PEDESTRIAN FOOTBRIDGE
STA 33+01 TO STA 47+87
MCKNIGHT COMMUNITY TRAIL
NOT TO SCALE



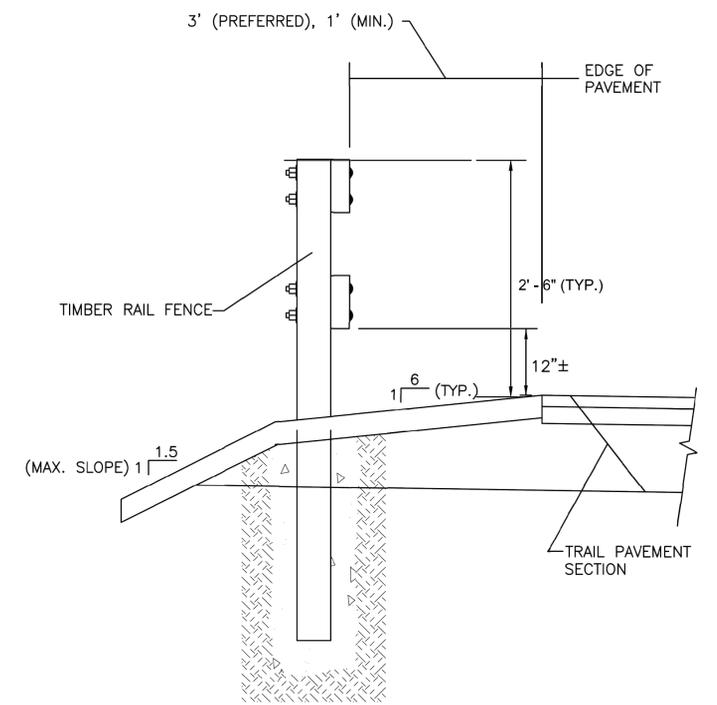
GLEN ROAD BRIDGE
TYPICAL SECTION
STA 27+59 TO STA 27+77
MCKNIGHT COMMUNITY TRAIL
NOT TO SCALE



- NOTES:**
- CROSS-SLOPE VARIES. REFER TO CROSS SECTIONS

SHARED USE PATH (HMA)
STA 400+32 TO STA 415+37
STA 47+87 TO STA 69+97
STA 14+74 TO STA 33+01
MCKNIGHT COMMUNITY TRAIL

STA 0+36 TO STA 7+85
GLEN ROAD CONNECTOR TRAIL
NOT TO SCALE



TIMBER FENCE
TYPICAL SECTION
MCKNIGHT COMMUNITY TRAIL
NOT TO SCALE

* TOLERANCE FOR CONSTRUCTION ±0.5%

SEE CONSTRUCTION PLANS FOR LIMITS

See Section 702.41E of the Standard Specs for HMA Walks and Driveway mixes and thicknesses

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

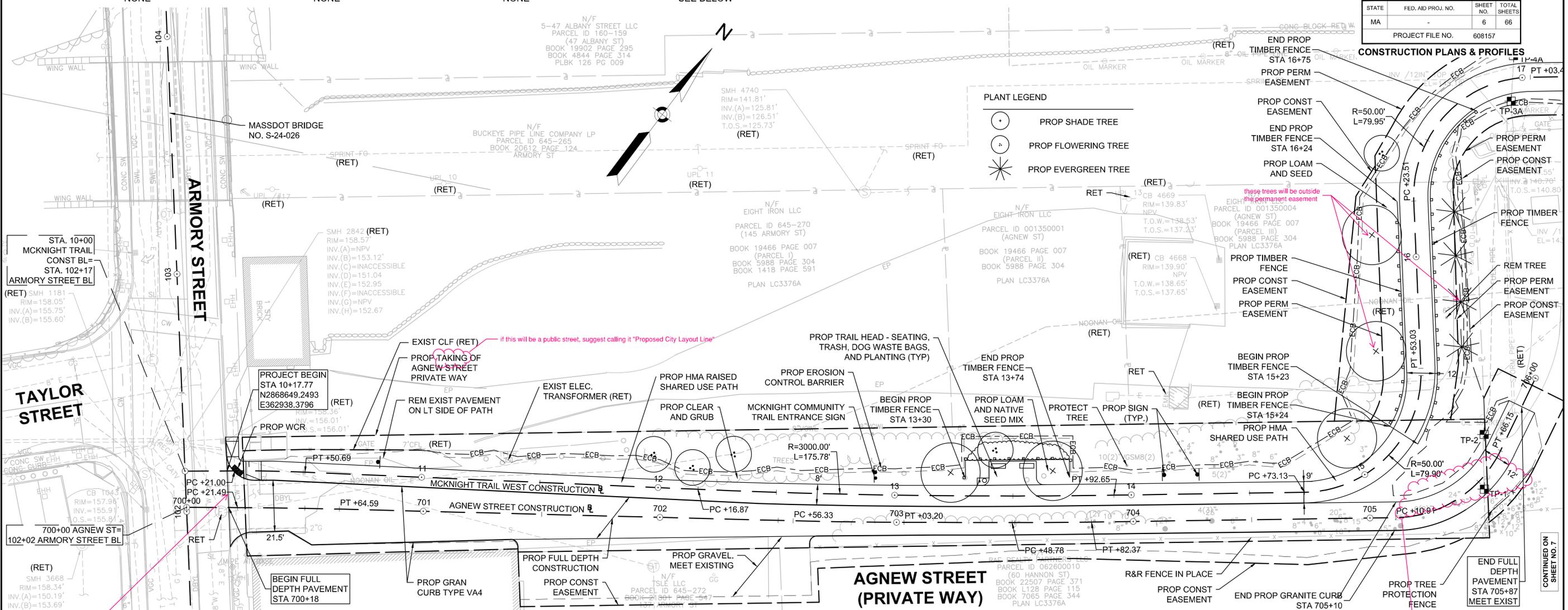
WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	6	66
PROJECT FILE NO. 608157			

CONSTRUCTION PLANS & PROFILES



- PLANT LEGEND**
- PROP SHADE TREE
 - PROP FLOWERING TREE
 - PROP EVERGREEN TREE

STA. 10+00
MCKNIGHT TRAIL
CONST BL=
STA. 102+17
ARMORY STREET BL
(RET) SMH 1181
RIM=158.05'
INV.(A)=155.75'
INV.(B)=155.60'

TAYLOR STREET

700+00 AGNEW ST=
102+02 ARMORY STREET BL
(RET) SMH 3668
RIM=158.34'
INV.(A)=150.19'
INV.(B)=153.69'

PROJECT BEGIN
STA 10+17.77
N2868649.2493
E362938.3796
(RET) SMH 1181
RIM=158.05'
INV.(A)=155.75'
INV.(B)=155.60'

BEGIN FULL
DEPTH PAVEMENT
STA 700+18

**AGNEW STREET
(PRIVATE WAY)**

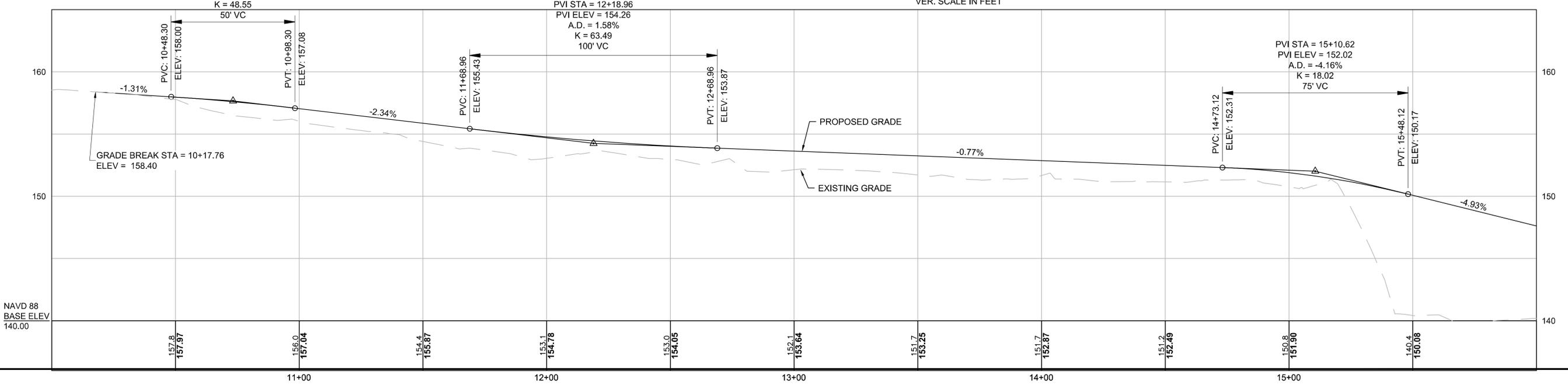
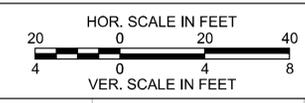
END FULL
DEPTH
PAVEMENT
STA 705+87
MEET EXIST

This project abuts future bridge replacement project 609409 with an ad date of 11-9-2024. It doesn't look like there is direct conflict with the work, but if the two projects happen at the same time coordination between Contractors will be required.

PVI STA = 10+73.30
PVI ELEV = 157.87
A.D. = -1.03%
K = 48.55

PVI STA = 12+18.96
PVI ELEV = 154.26
A.D. = 1.58%
K = 63.49
100' VC

There are existing washouts here in the private gravel driveway from water running down the unpaved access road. Based on this it looks like drainage will need to be intercepted along the proposed Agnew Street to prevent runoff from causing problems at the bottom of the hill.



NAVD 88
BASE ELEV
140.00

CONTINUED ON
SHEET NO. 7

Plotted on 6-Mar-2019 3:10 PM
MASSDOT_R4-3_V2016.DWT

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

SPRINGFIELD MCKNIGHT COMMUNITY TRAIL

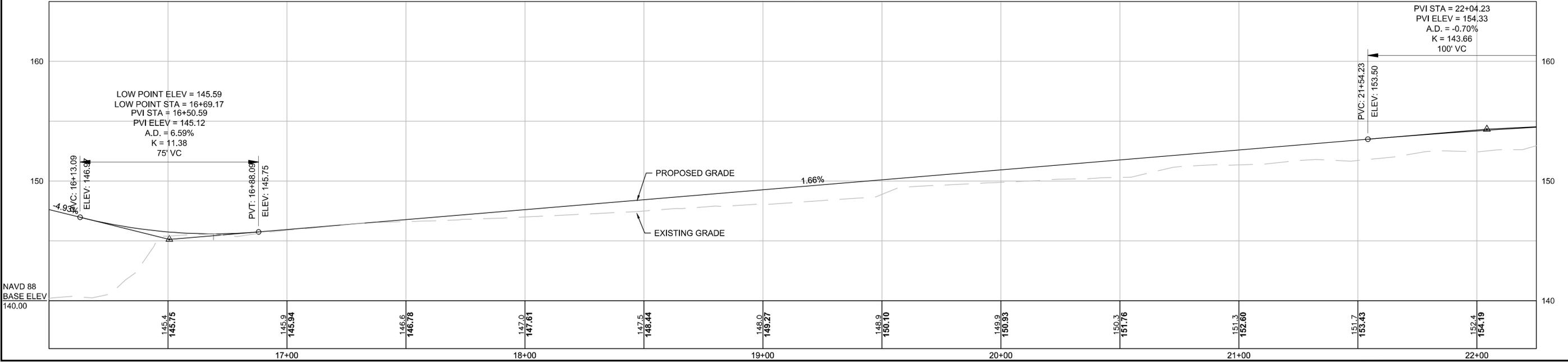
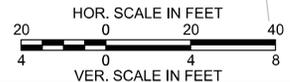
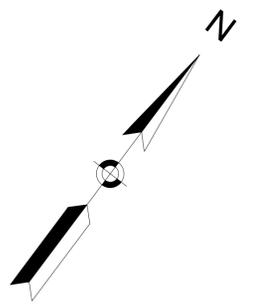
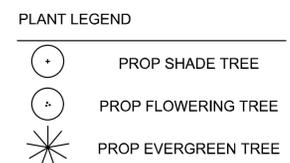
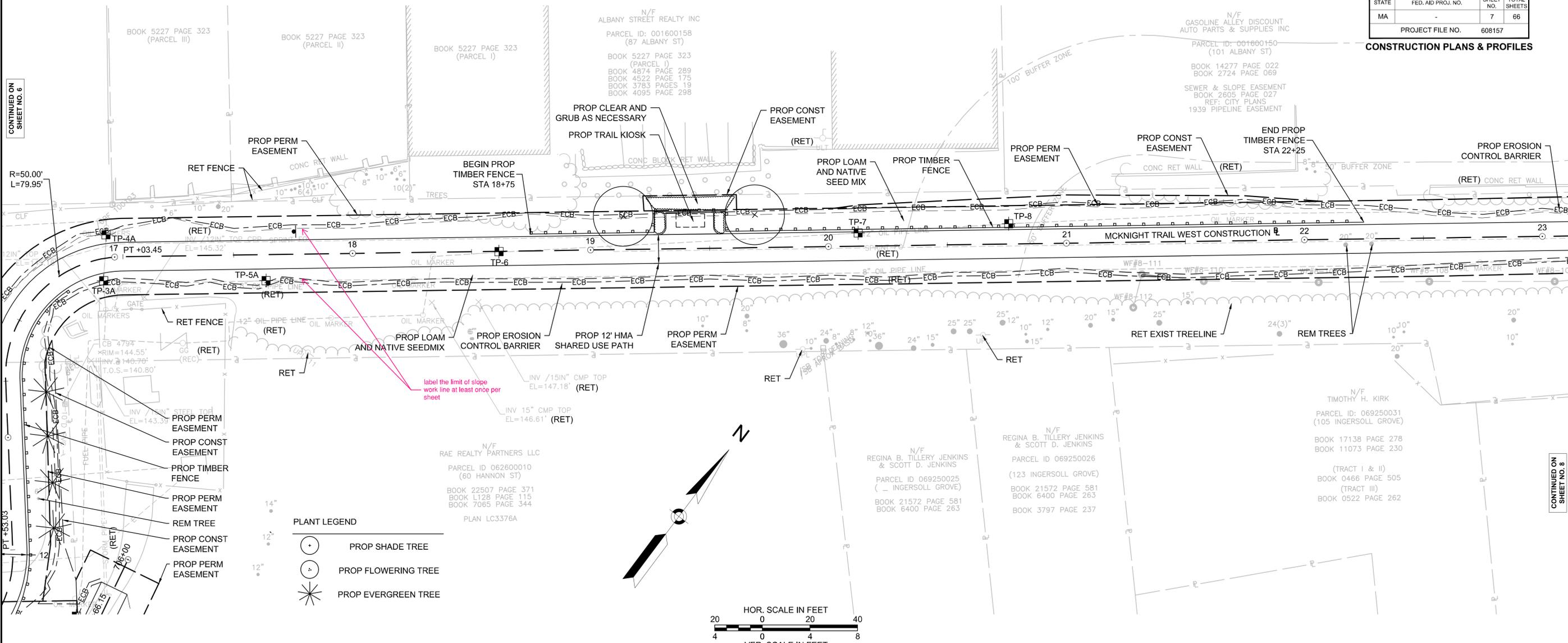
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	7	66

PROJECT FILE NO. 608157

CONSTRUCTION PLANS & PROFILES

CONTINUED ON SHEET NO. 6

CONTINUED ON SHEET NO. 8



HIGHWAY GUARD DETAILS

BRIDGE RAIL
 STA 27+58.81 LT TO 27+78.06 LT
 STA 27+58.80 RT TO 27+78.05 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

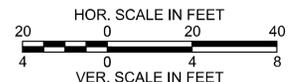
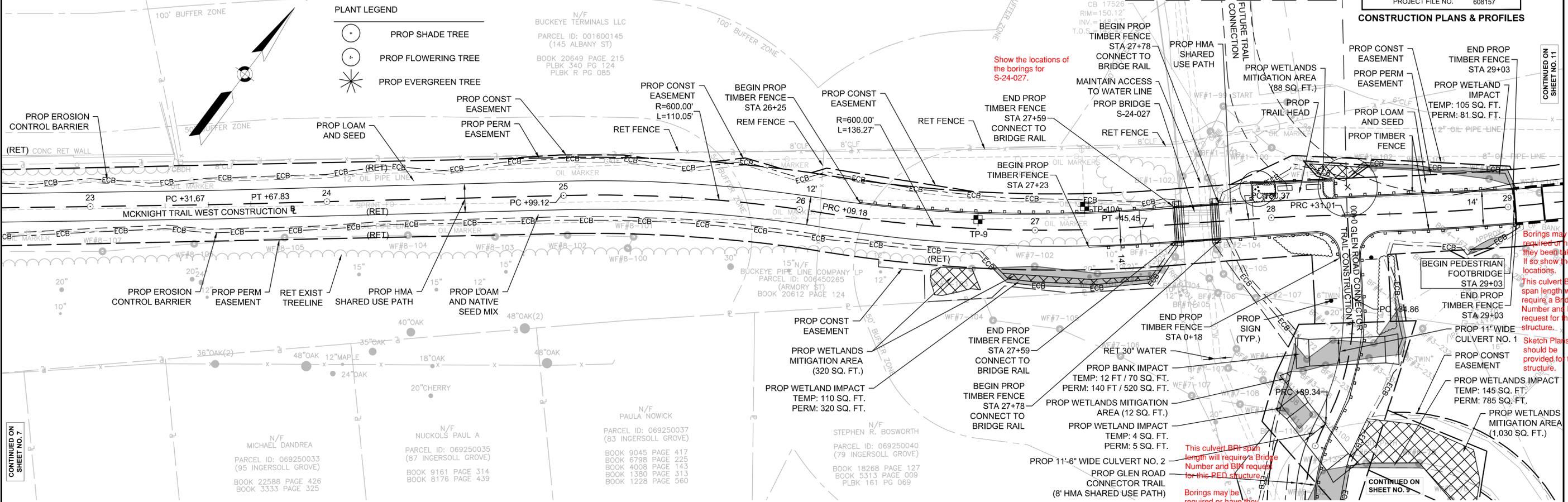
DRAINAGE DETAILS

SEE BELOW

SPRINGFIELD
 MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	8	66
PROJECT FILE NO. 608157			

CONSTRUCTION PLANS & PROFILES



28+32 MCKNIGHT TRAIL WEST CONSTRUCTION BL= 0+00 GLEN RD CONNECTOR CONSTRUCTION BL

Show the locations of the borings for S-24-027.

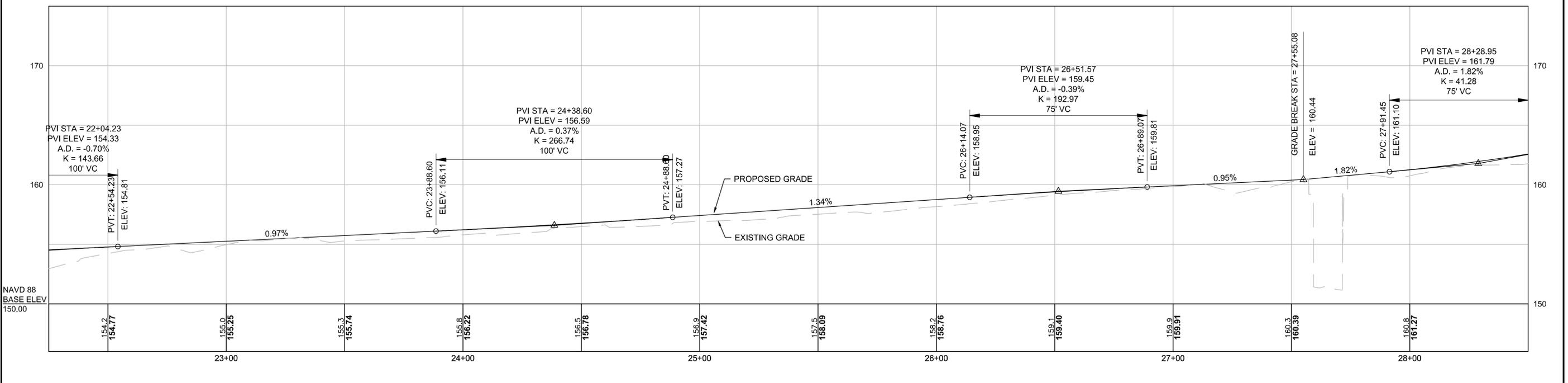
Borings may be required or have they been taken? If so show the locations.

This culvert BRL span length will require a Bridge Number and BIN request for this PED structure.

Borings may be required or have they been taken? If so show the locations.

Sketch Plans should be provided for this structure.

Are hydraulic and geotechnical reports required for these two culverts?



HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

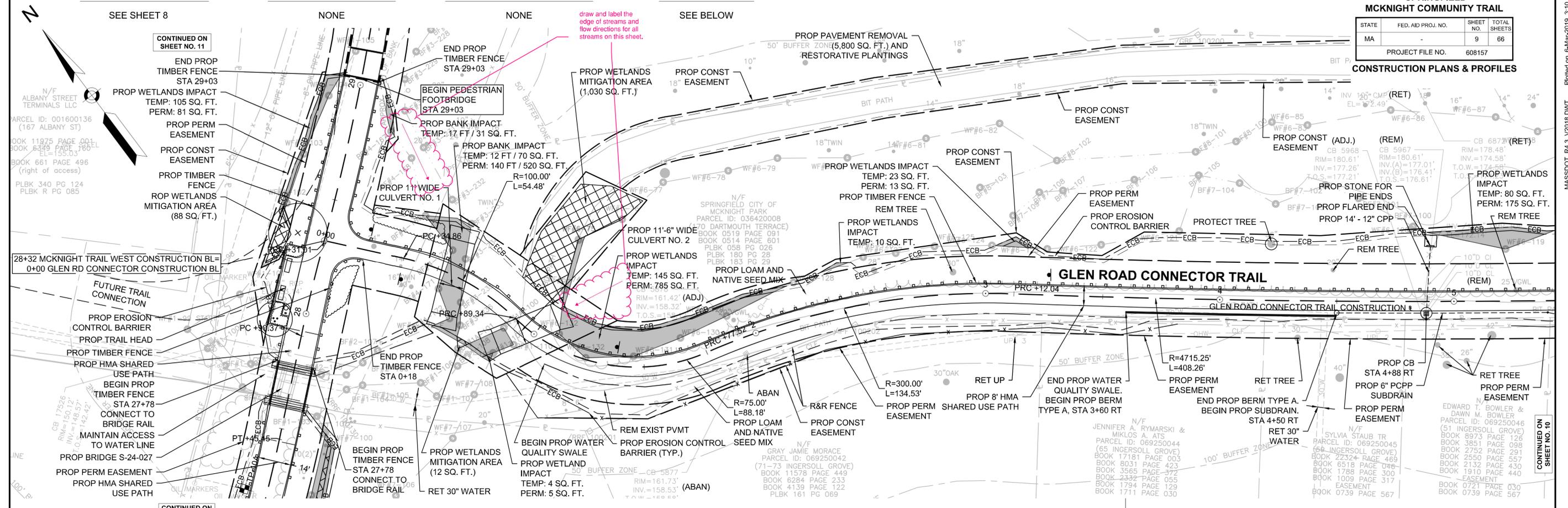
WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

SPRINGFIELD MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	9	66
PROJECT FILE NO. 608157			

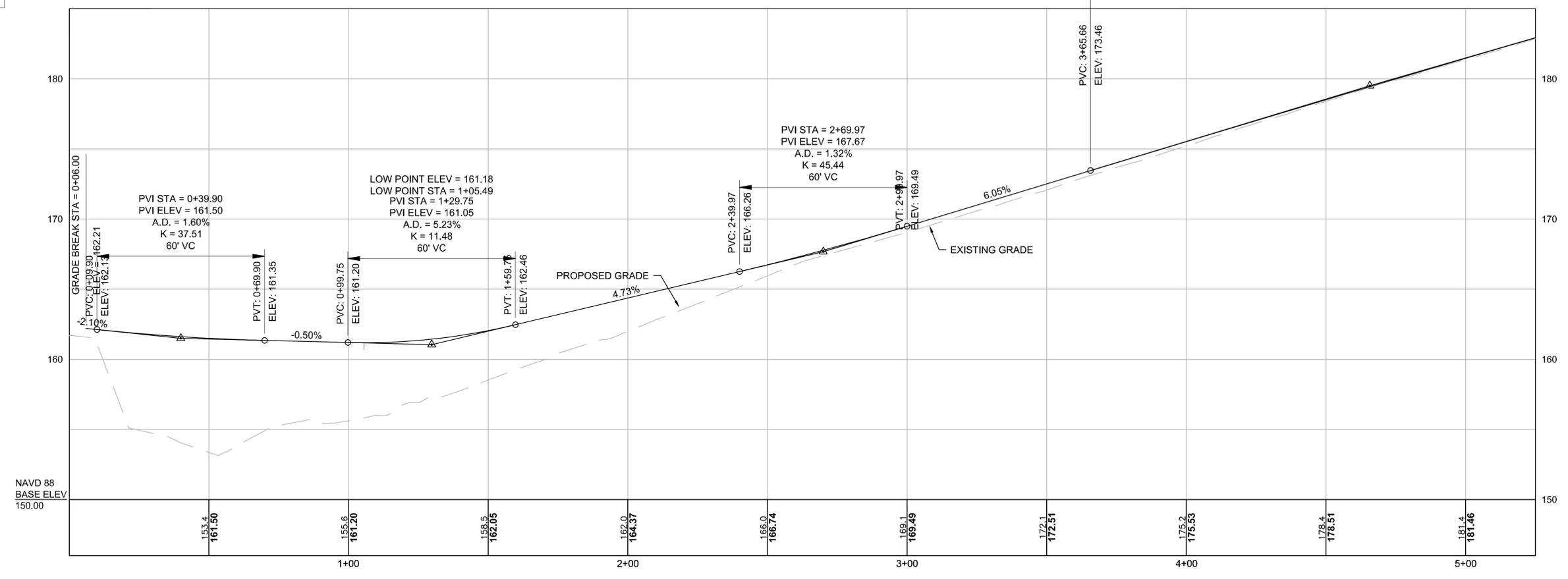
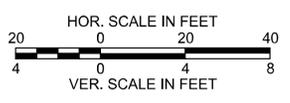
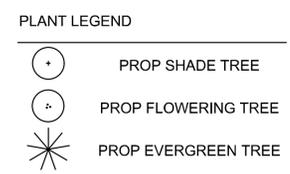
CONSTRUCTION PLANS & PROFILES



CONTINUED ON SHEET NO. 11

CONTINUED ON SHEET NO. 8

CONTINUED ON SHEET NO. 10



NAV D 88
BASE ELEV
150.00

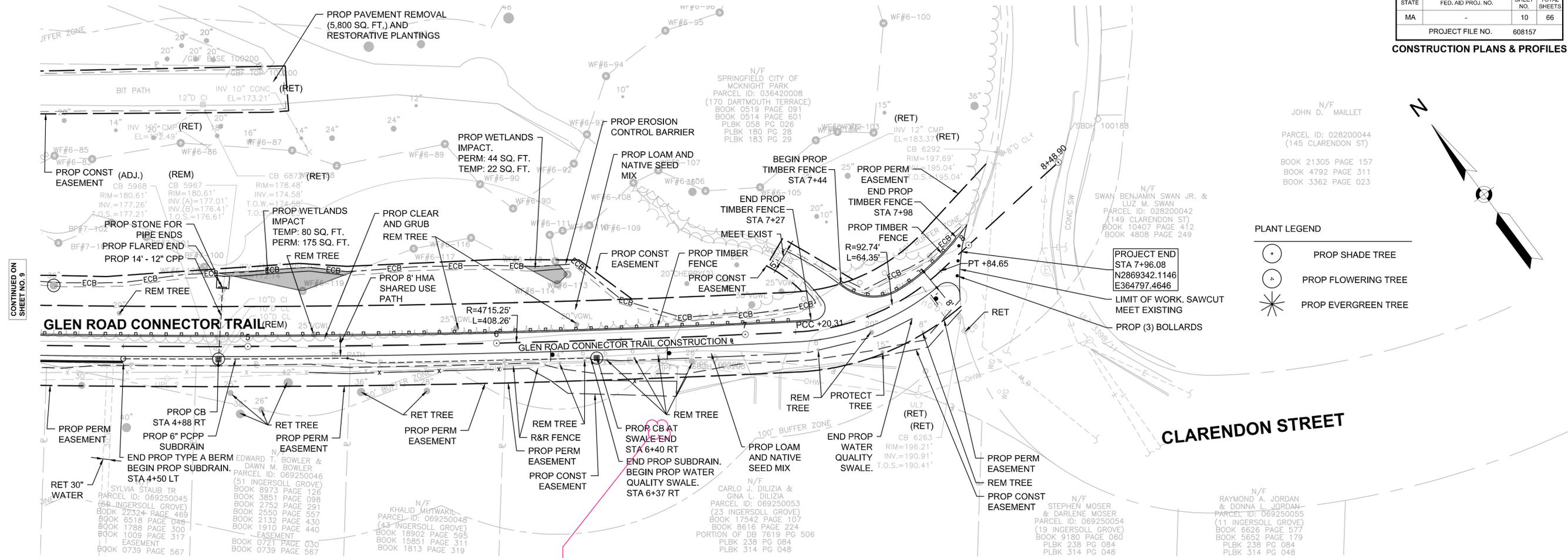
NONE NONE NONE SEE BELOW

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	10	66

PROJECT FILE NO. 608157

CONSTRUCTION PLANS & PROFILES

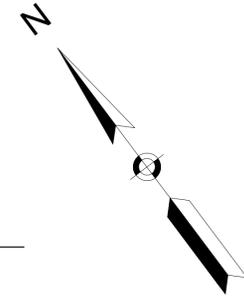
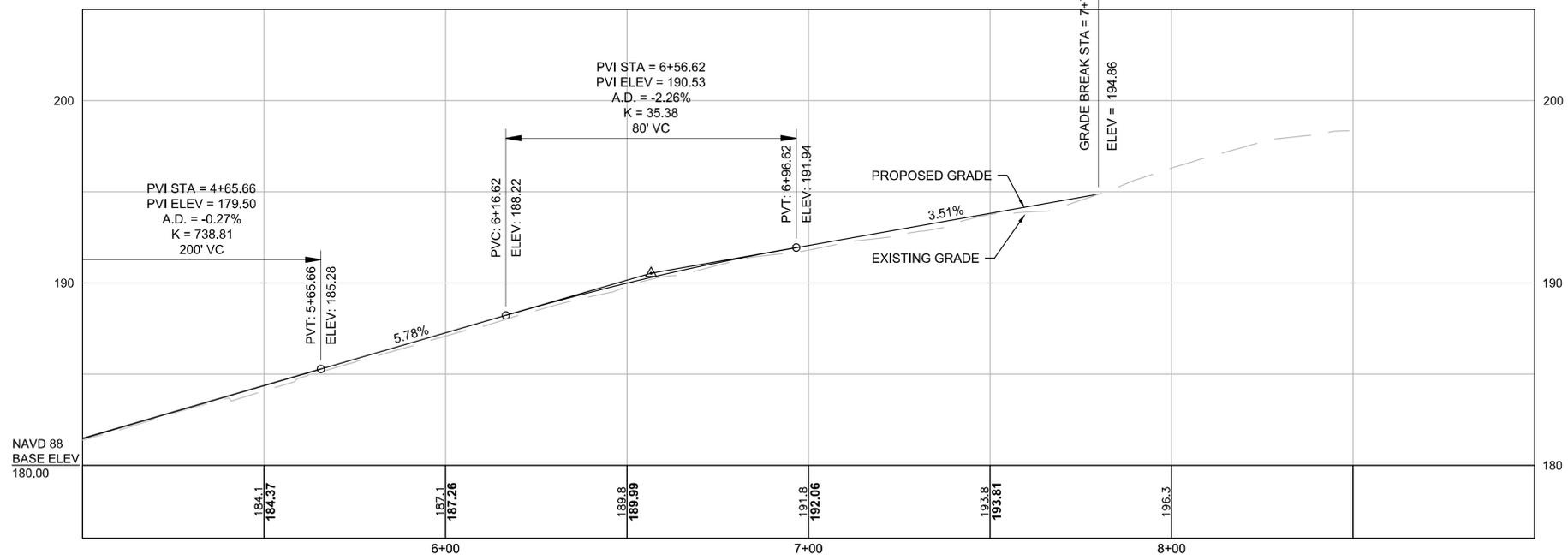


CONTINUED ON SHEET NO. 9



PROJECT END
STA 7+96.08
N2869342.1146
E364797.4646

for drainage inlets in unpaved areas, drop inlets are recommended instead of catch basins because they have a throat to reduce clogging.



N/F JOHN D. MAILLET
PARCEL ID: 028200044
(145 CLARENDON ST)
BOOK 21305 PAGE 157
BOOK 4792 PAGE 311
BOOK 3362 PAGE 023

N/F SWAN BENJAMIN SWAN JR. & LUIZ M. SWAN
PARCEL ID: 028200042
(149 CLARENDON ST)
BOOK 10407 PAGE 412
BOOK 4808 PAGE 249

N/F STEPHEN MOSER & DARLENE MOSER
PARCEL ID: 069250054
(19 INGERSOLL GROVE)
BOOK 9180 PAGE 060
PLBK 238 PG 084
PLBK 314 PG 048

N/F RAYMOND A. JORDAN & DONNA L. JORDAN
PARCEL ID: 069250055
(11 INGERSOLL GROVE)
BOOK 6626 PAGE 577
BOOK 5652 PAGE 179
PLBK 238 PG 084
PLBK 314 PG 048

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

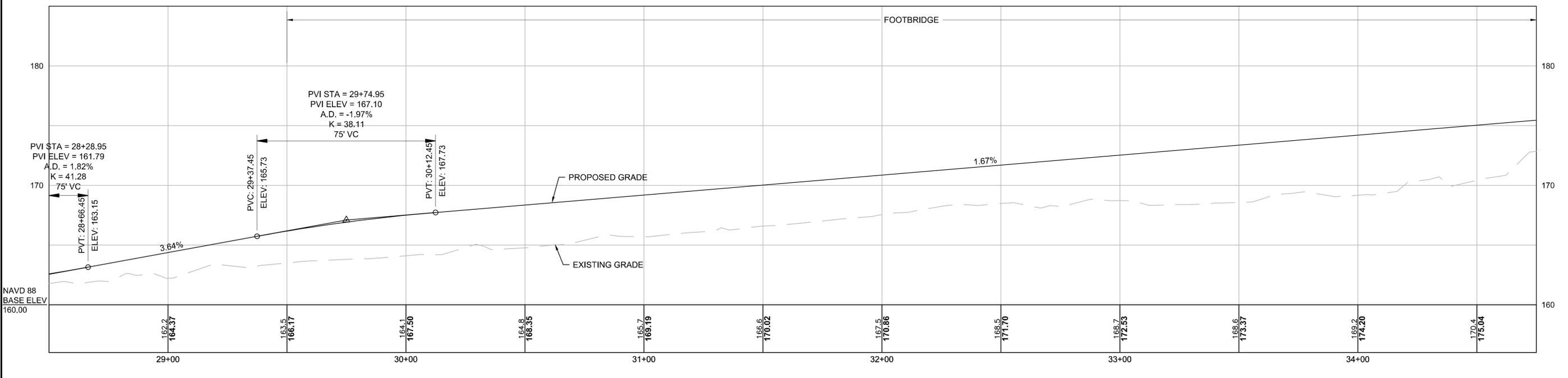
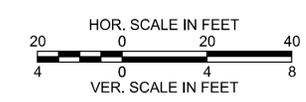
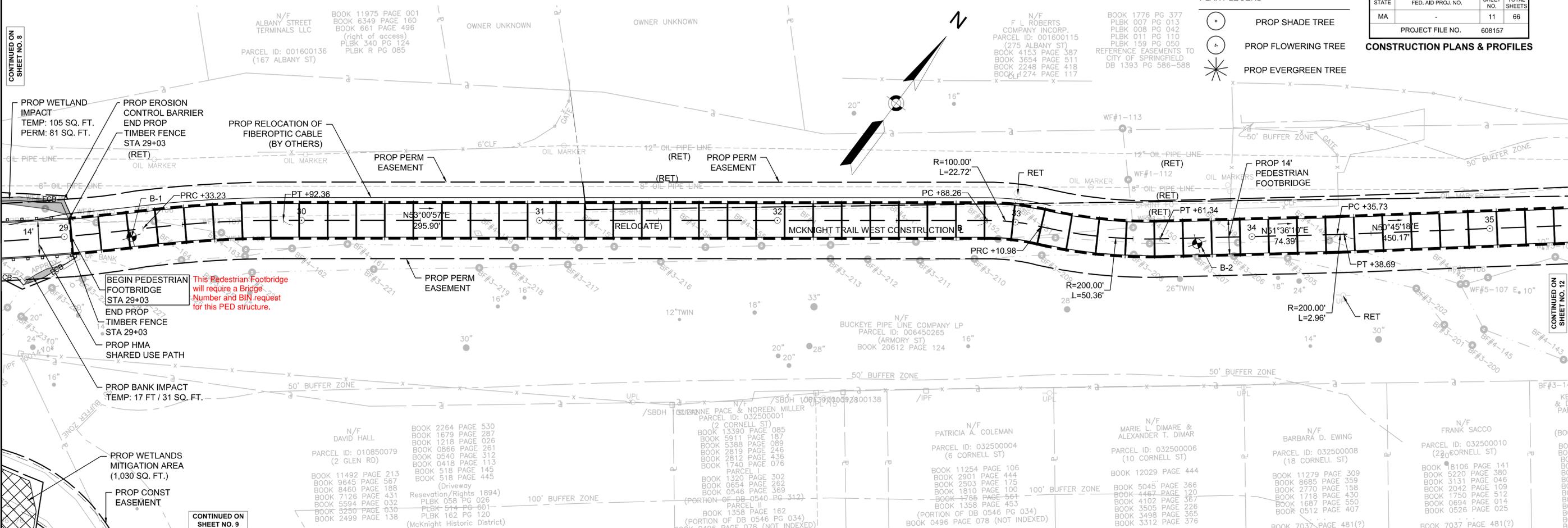
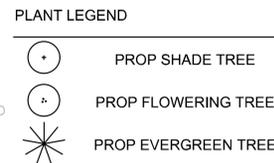
WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

SPRINGFIELD MCKNIGHT COMMUNITY TRAIL

CONSTRUCTION PLANS & PROFILES

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	11	66
PROJECT FILE NO. 608157			



CONTINUED ON SHEET NO. 8

CONTINUED ON SHEET NO. 12

CONTINUED ON SHEET NO. 9

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

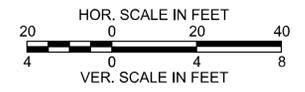
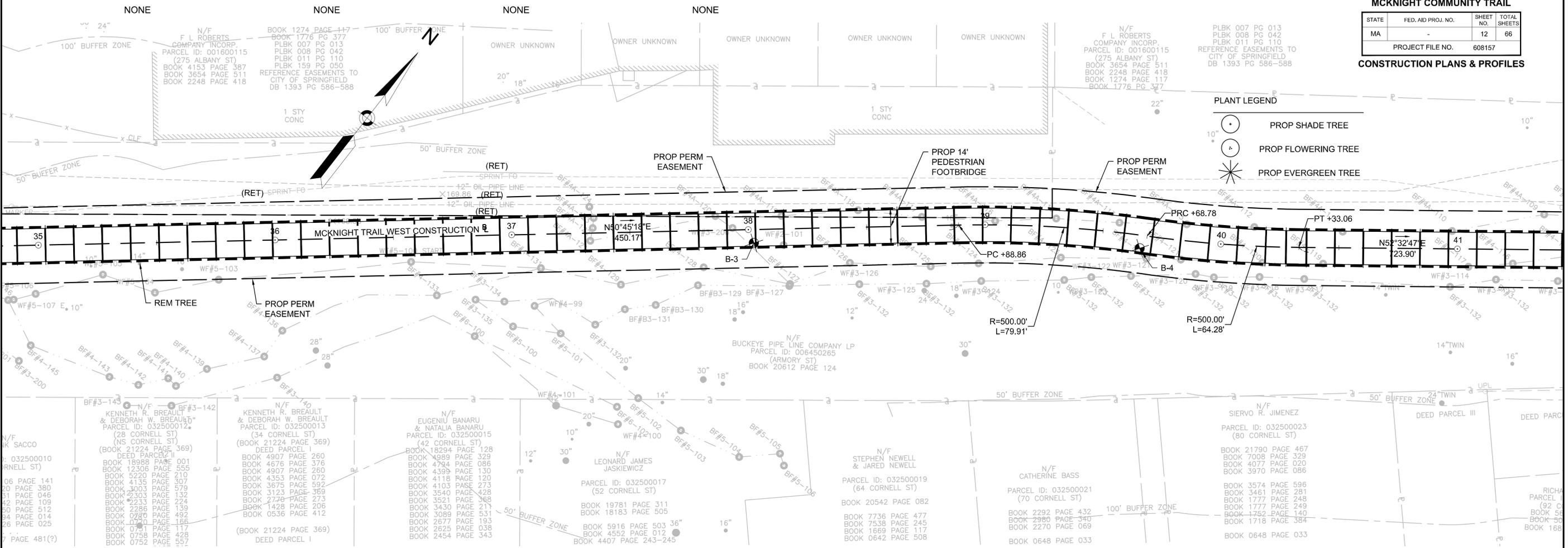
DRAINAGE DETAILS

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	12	66

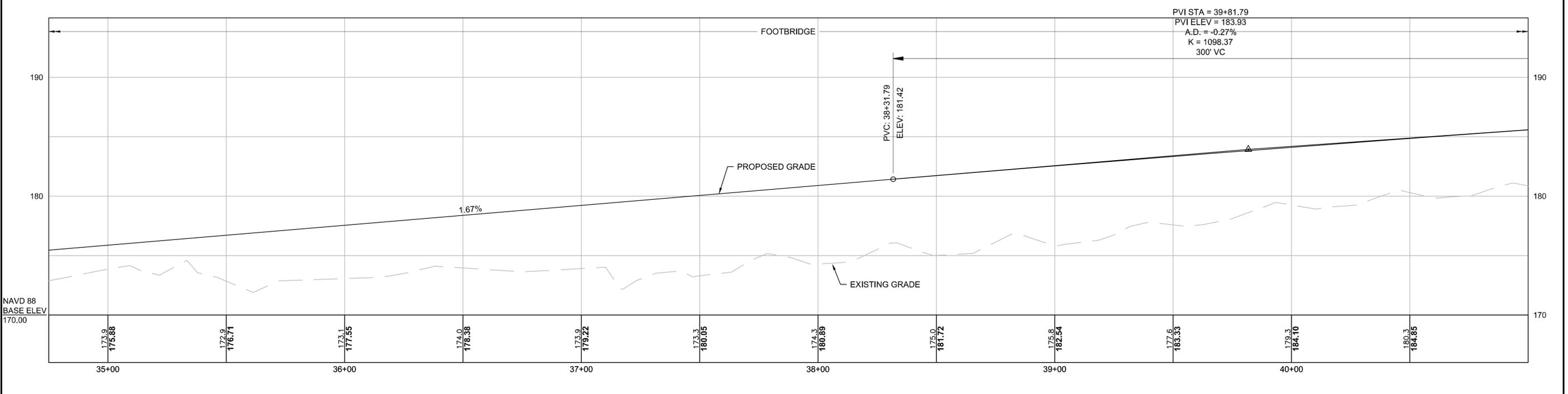
PROJECT FILE NO. 608157

CONSTRUCTION PLANS & PROFILES



CONTINUED ON SHEET NO. 11

CONTINUED ON SHEET NO. 13



HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

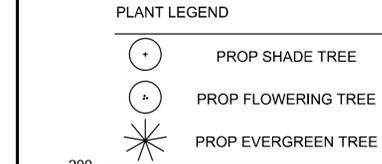
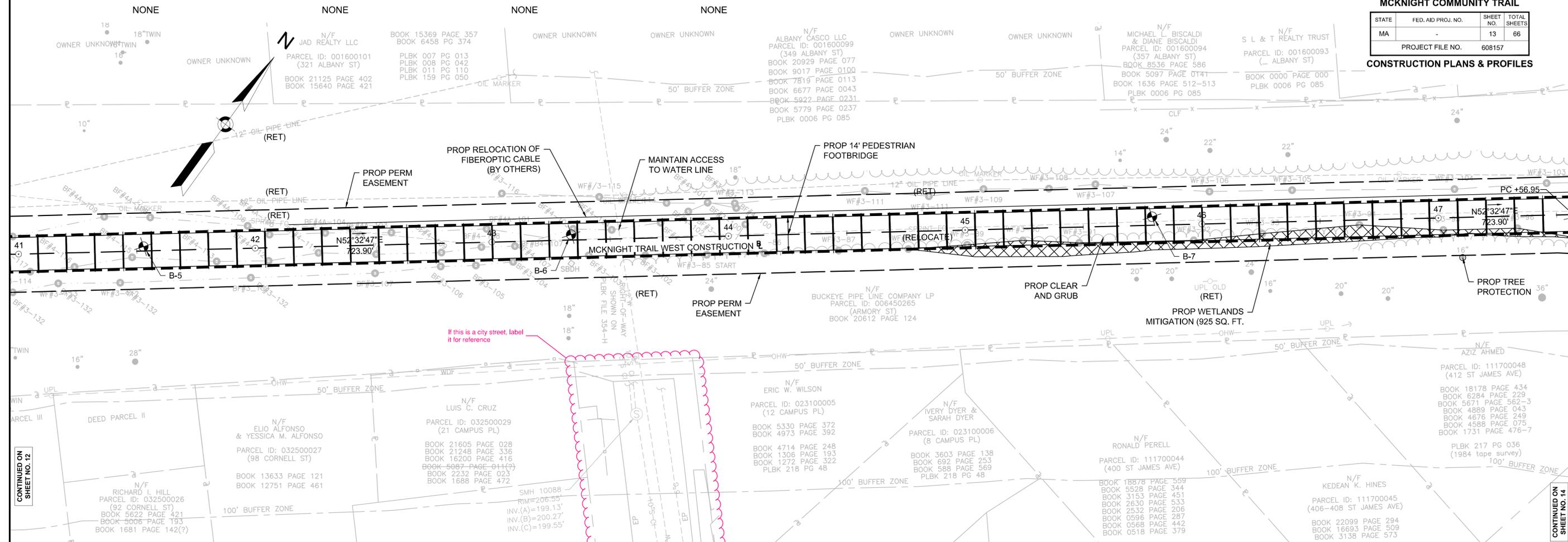
DRAINAGE DETAILS

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

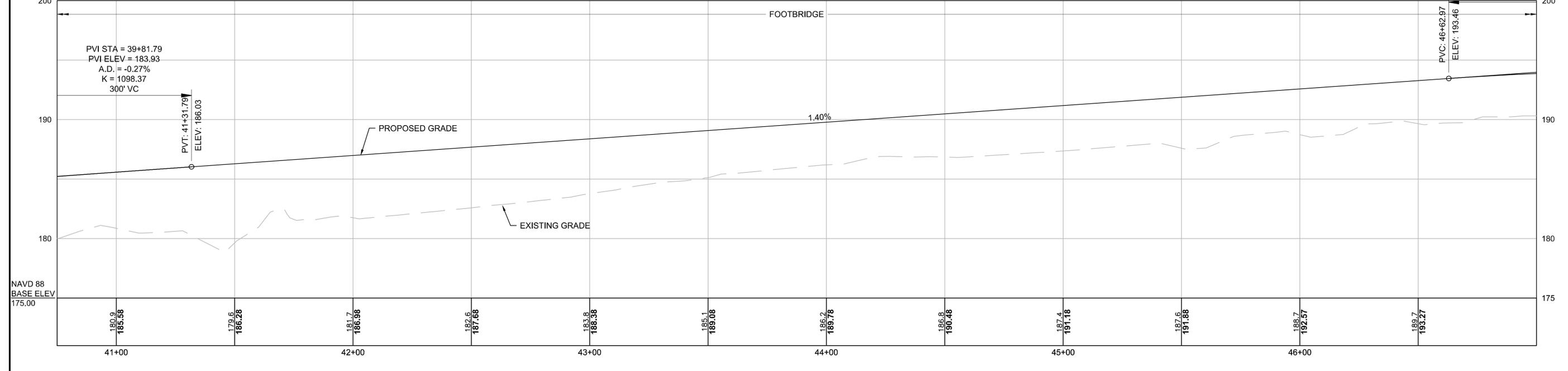
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	13	66

PROJECT FILE NO. 608157

CONSTRUCTION PLANS & PROFILES



HIGH POINT ELEV = 194.07
HIGH POINT STA = 47+50.90
PVI STA = 47+27.97
PVI ELEV = 194.36
A.D. = -2.07%
K = 62.88
130' VC



CONTINUED ON SHEET NO. 12

CONTINUED ON SHEET NO. 14

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

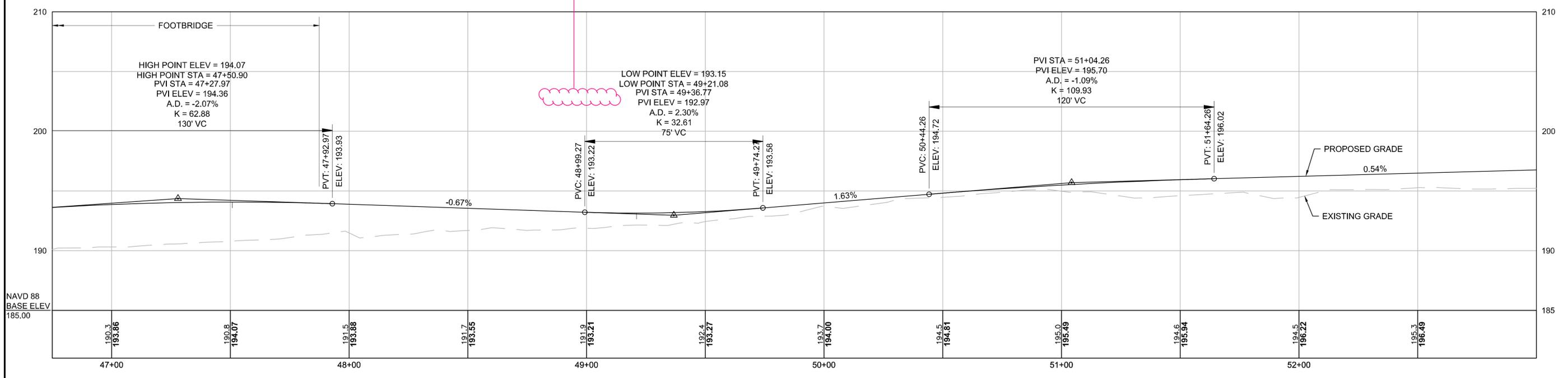
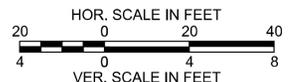
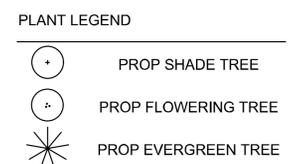
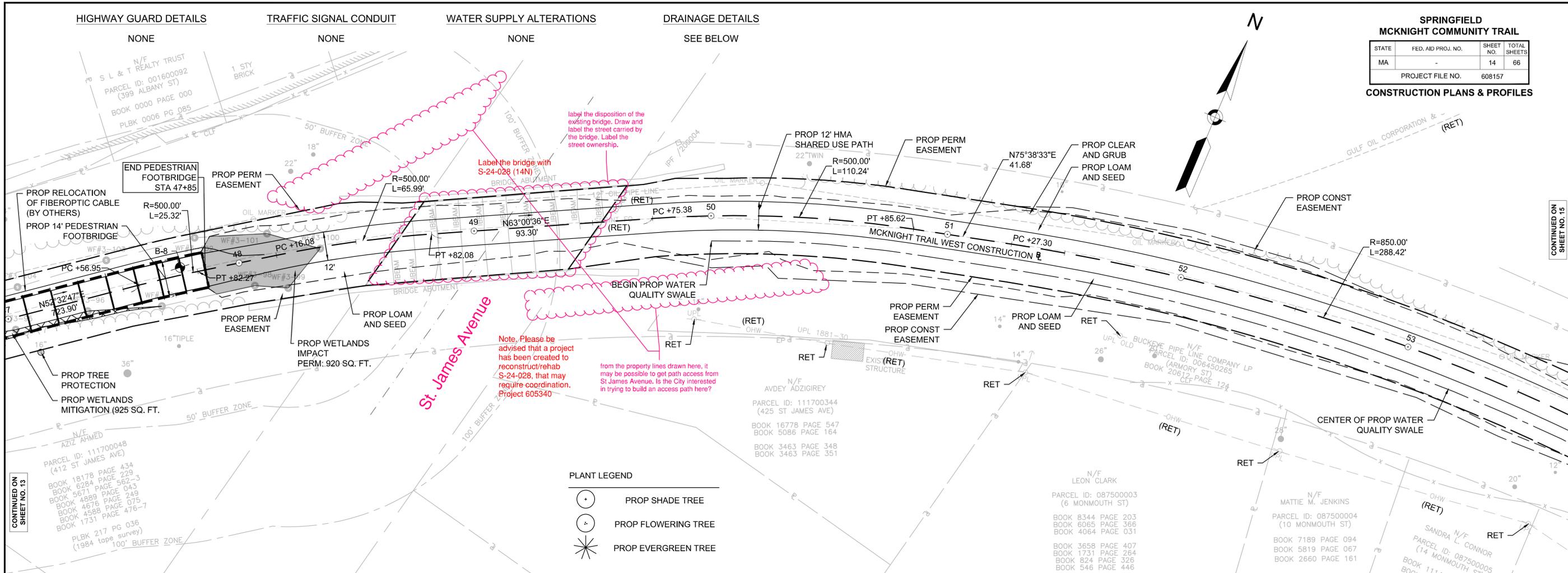
DRAINAGE DETAILS

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	14	66

PROJECT FILE NO. 608157

CONSTRUCTION PLANS & PROFILES



CONTINUED ON SHEET NO. 13

CONTINUED ON SHEET NO. 15

HIGHWAY GUARD DETAILS

NONE

N/F
SPRAGUE OPERATING RESOURCES
LLC
PARCEL ID: 111700320
ST JAMES AV
BOOK 0000 PAGE 000
LC PLAN 29872

TRAFFIC SIGNAL CONDUIT

NONE

PLANT LEGEND

-  PROP SHADE TREE
-  PROP FLOWERING TREE
-  PROP EVERGREEN TREE

WATER SUPPLY ALTERATIONS

NONE

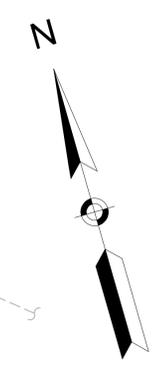
DRAINAGE DETAILS

NONE

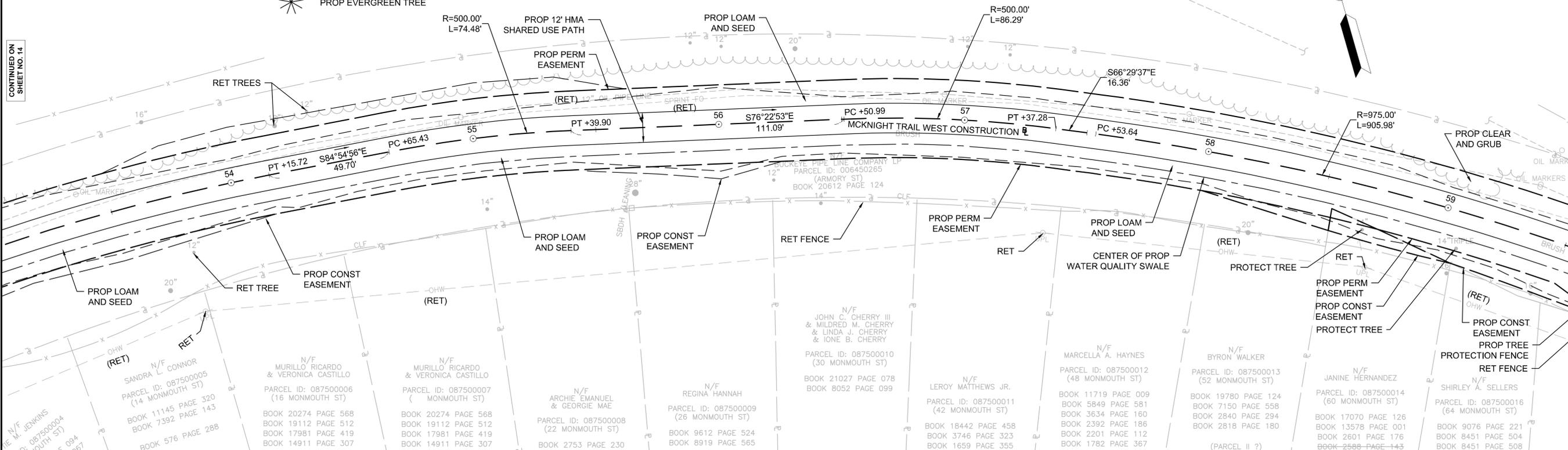
SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	15	66
PROJECT FILE NO. 608157			

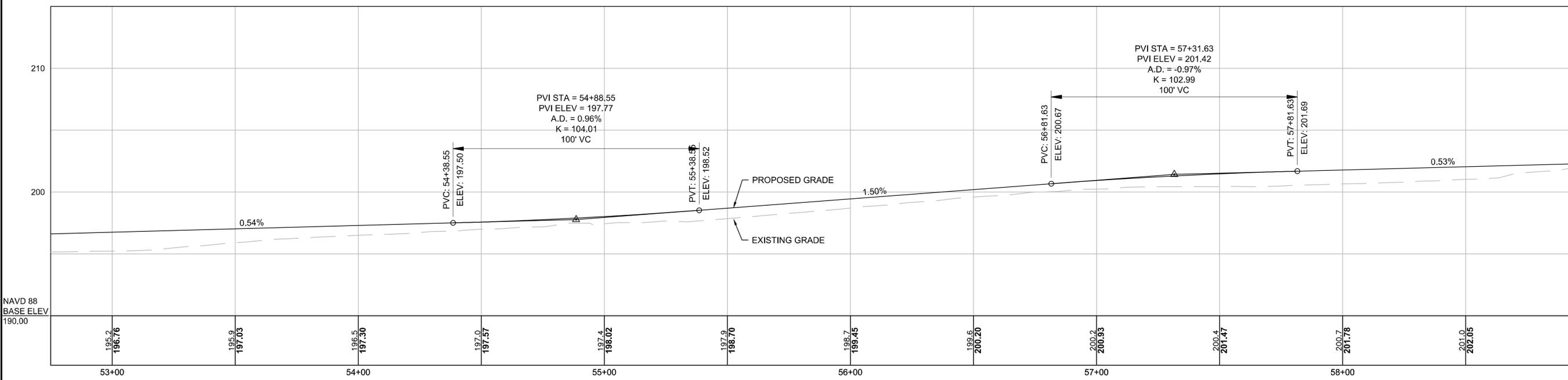
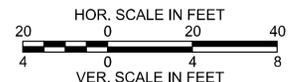
CONSTRUCTION PLANS & PROFILES



CONTINUED ON
SHEET NO. 14



CONTINUED ON
SHEET NO. 16



NAVD 88
BASE ELEV
190.00

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

SEE SHEET 42

WATER SUPPLY ALTERATIONS

NONE

DRAINAGE DETAILS

NONE

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	17	66
PROJECT FILE NO. 608157			

CONSTRUCTION PLANS & PROFILES

NOTES:

1. TEST PITS SHALL BE REQUIRED FOR ALL PROP. MAST ARMS AND SIGNAL EQUIPMENT FOUNDATIONS AS REQUIRED.
2. THE EXISTING PVTA BUS STOP SHALL BE RELOCATED; LOCATION TBD PENDING COORDINATION WITH PVTA.

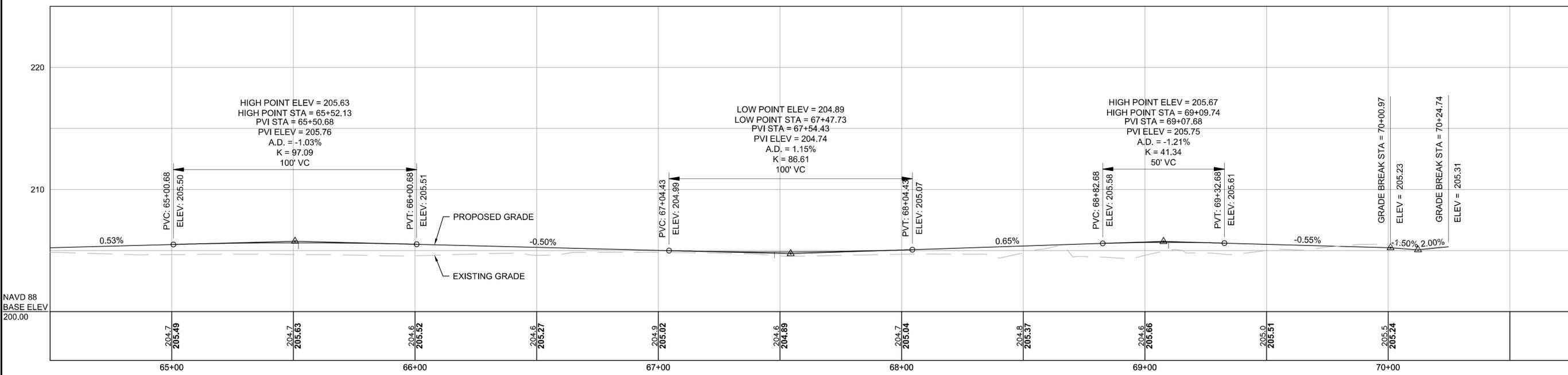
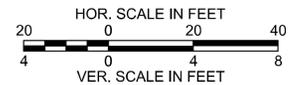
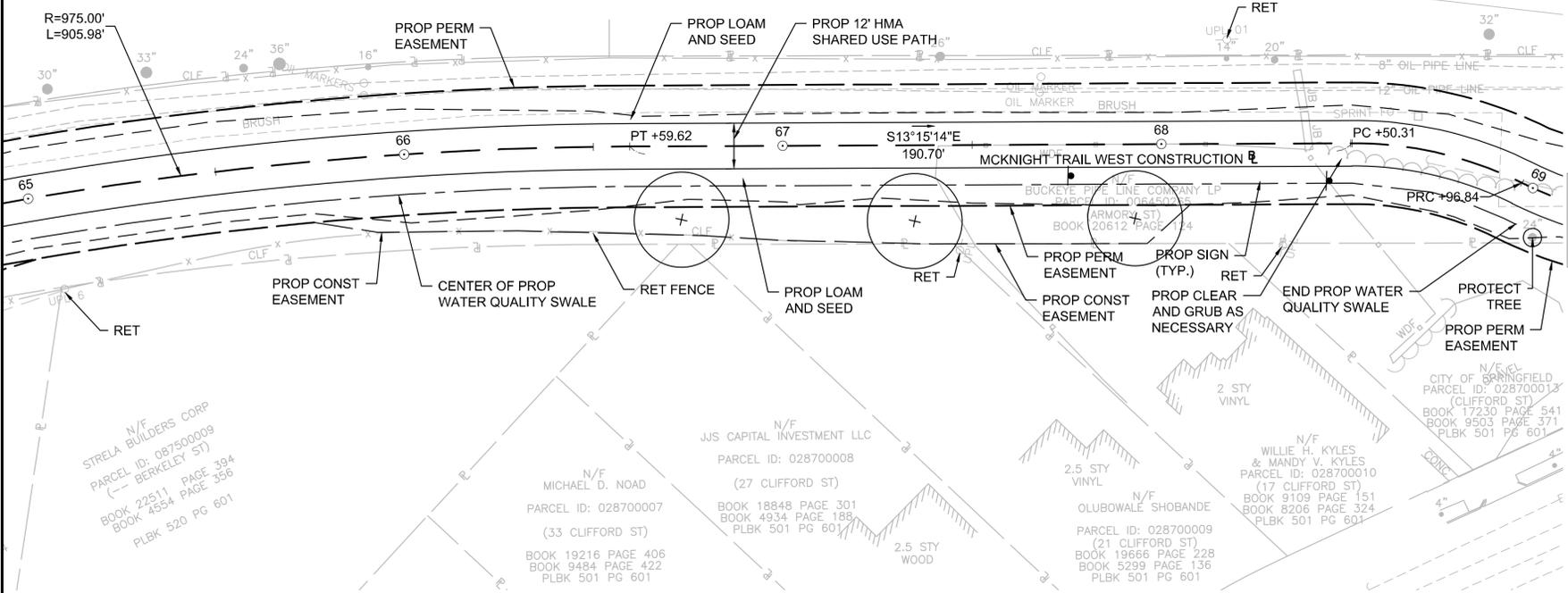
PLANT LEGEND

-  PROP SHADE TREE
-  PROP FLOWERING TREE
-  PROP EVERGREEN TREE

N/F
OAK GROVE CEMETERY OF
SPRINGFIELD
PARCEL ID: 010850079
BAY ST
BOOK 0000 PAGE 000
LC PLAN 29872

CONTINUED ON
SHEET NO. 16

CONTINUED ON
SHEET NO. 18



HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

DRAINAGE DETAILS

SEE BELOW

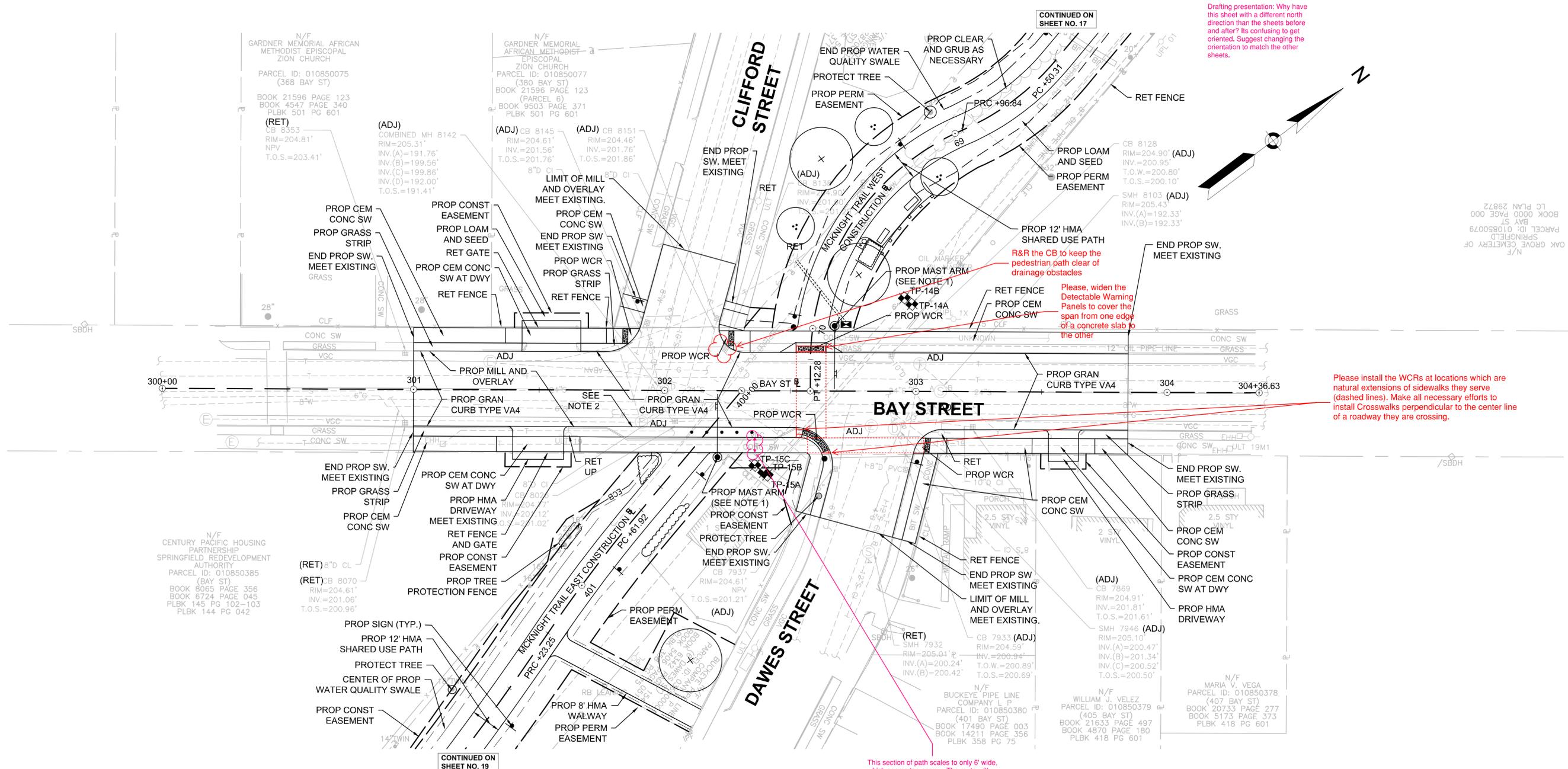
PLANT LEGEND

-  PROP SHADE TREE
-  PROP FLOWERING TREE
-  PROP EVERGREEN TREE

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	18	66
PROJECT FILE NO. 608157			

CONSTRUCTION PLANS & PROFILES



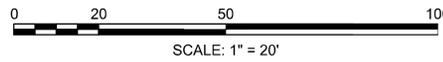
Drafting presentation: Why have this sheet with a different north direction than the sheets before and after? Its confusing to get oriented. Suggest changing the orientation to match the other sheets.

R&R the CB to keep the pedestrian path clear of drainage obstacles

Please, widen the Detectable Warning Panels to cover the span from one edge of a concrete slab to the other

Please install the WCRs at locations which are natural extensions of sidewalks they serve (dashed lines). Make all necessary efforts to install Crosswalks perpendicular to the center line of a roadway they are crossing.

This section of path scales to only 6' wide, which seems too narrow. The route will also require two sharp angle turns for bikes. I think this portion of the design should be reconsidered.



NOTES:

1. TEST PITS SHALL BE REQUIRED FOR ALL PROP. MAST ARMS AND SIGNAL EQUIPMENT FOUNDATIONS AS REQUIRED.
2. THE EXISTING PVTA BUS STOP SHALL BE RELOCATED; LOCATION TBD PENDING COORDINATION WITH PVTA.

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

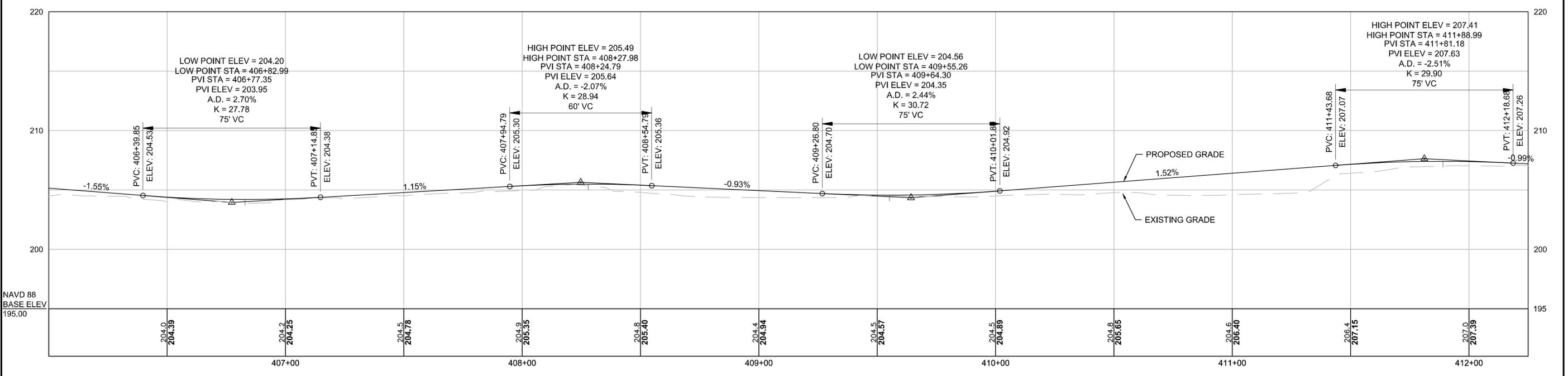
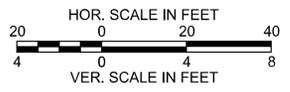
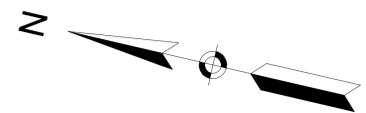
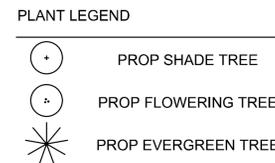
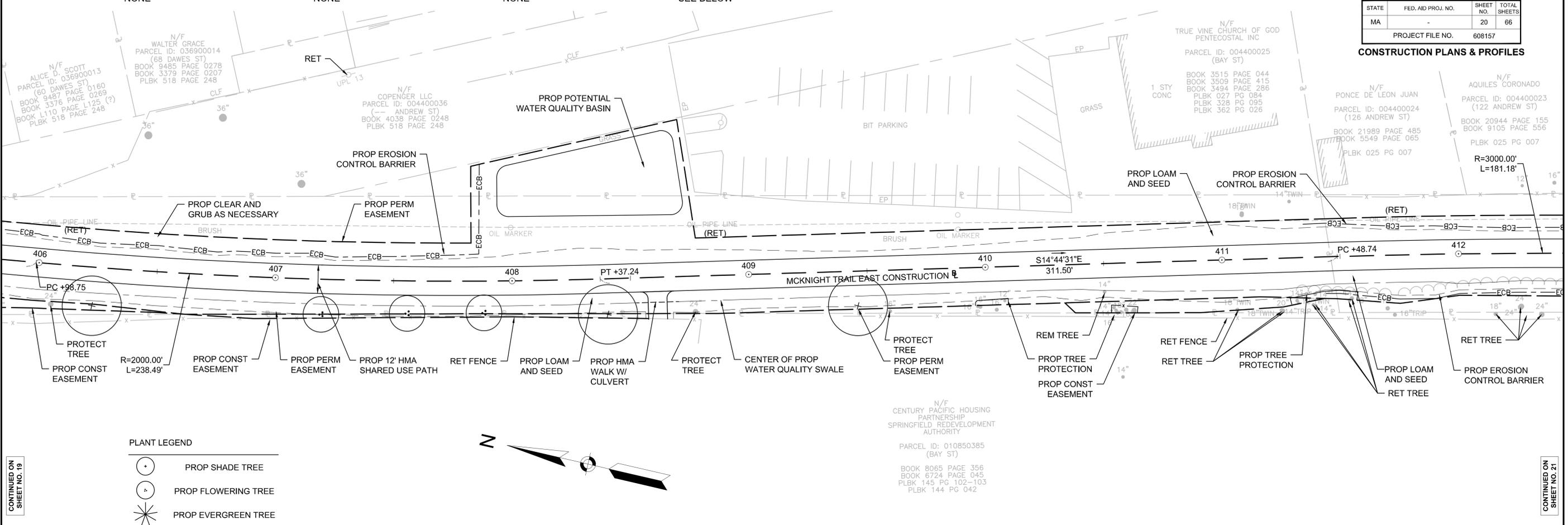
DRAINAGE DETAILS

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	20	66

PROJECT FILE NO. 608157

CONSTRUCTION PLANS & PROFILES

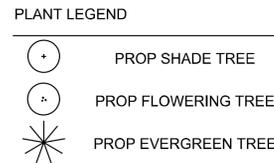
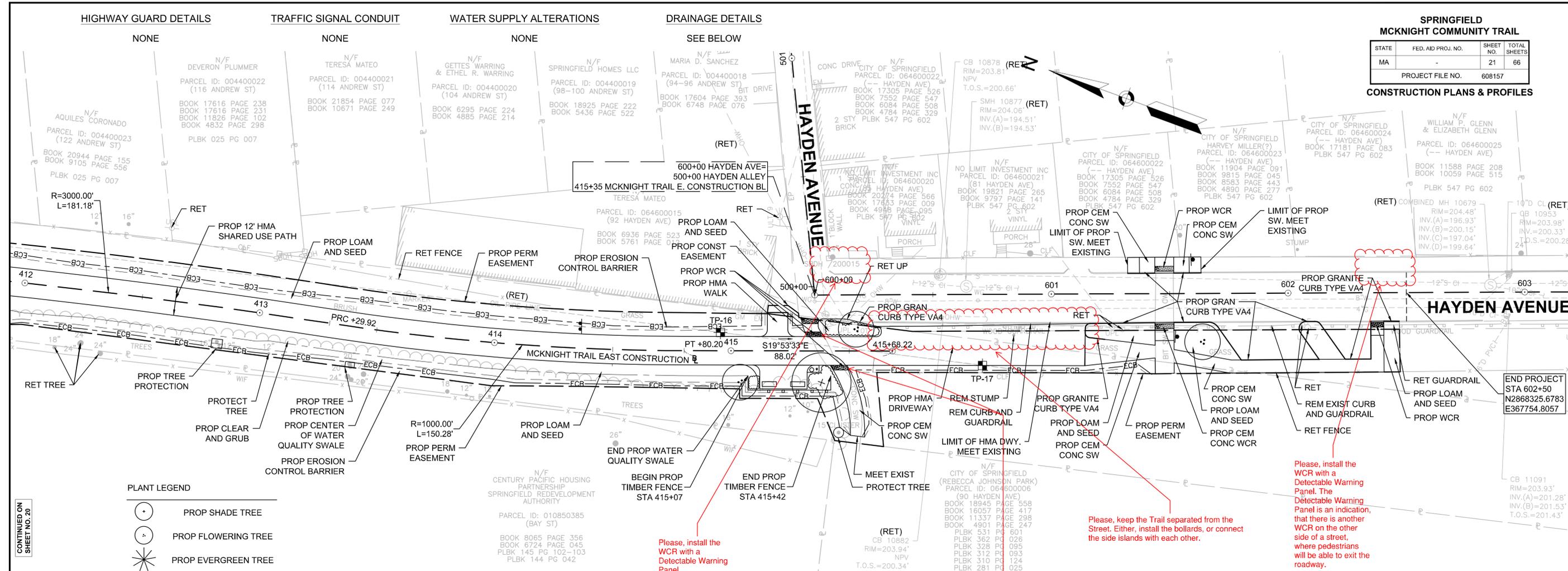


CONTINUED ON SHEET NO. 19

CONTINUED ON SHEET NO. 21

SPRINGFIELD MCKNIGHT COMMUNITY TRAIL			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	21	66
PROJECT FILE NO.		608157	

CONSTRUCTION PLANS & PROFILES

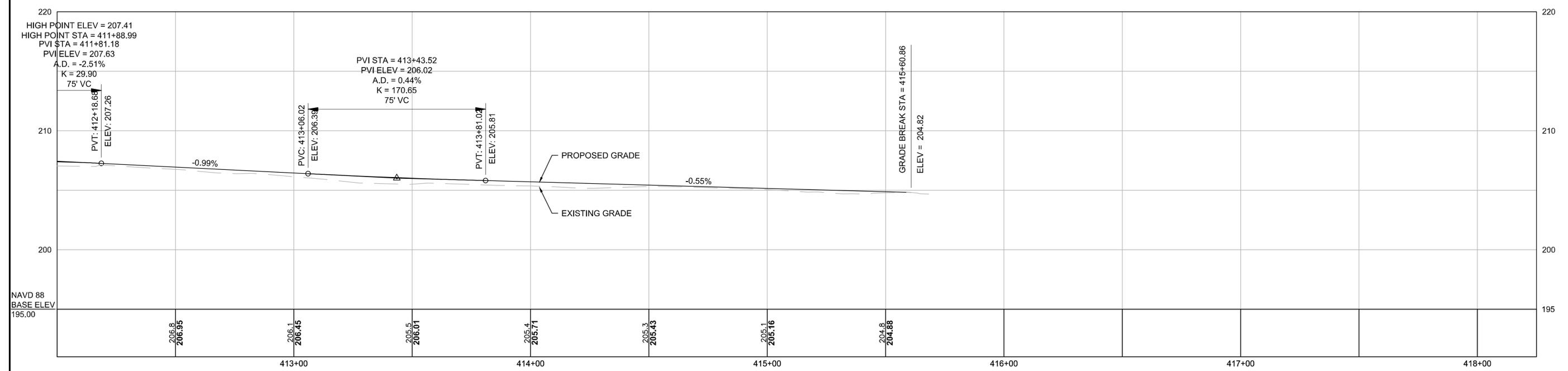
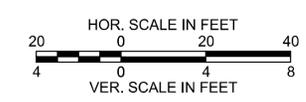


Please, install the WCR with a Detectable Warning Panel.

Please, keep the Trail separated from the Street. Either, install the bollards, or connect the side islands with each other.

Please, install the WCR with a Detectable Warning Panel. The Detectable Warning Panel is an indication, that there is another WCR on the other side of a street, where pedestrians will be able to exit the roadway.

These two Detectable Warning Panels are unnecessary. The sidewalks are connecting to the Shared Path, which is intended for use by pedestrians and bicyclists, only. The motor vehicles are prohibited on the Shared Path.

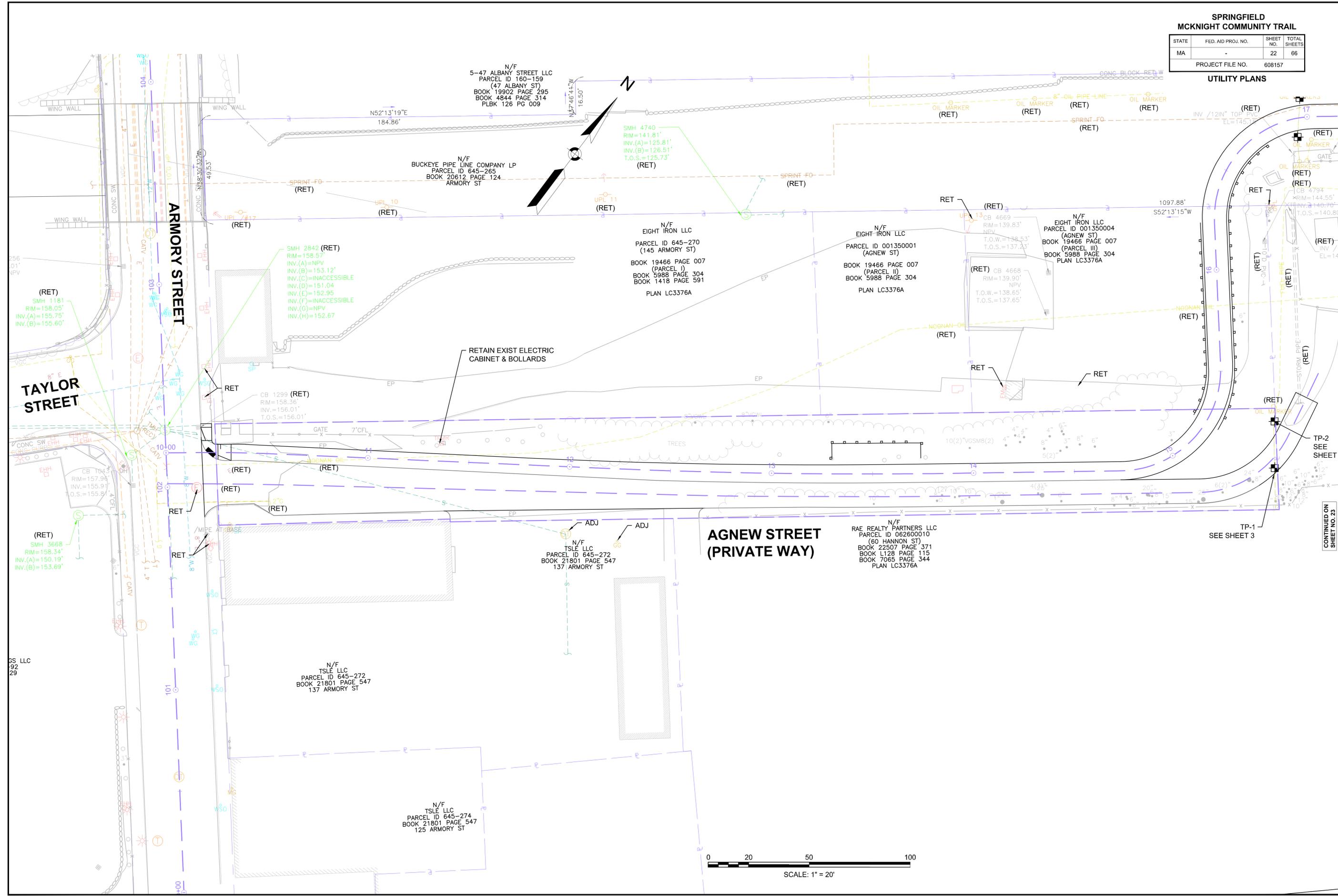


CONTINUED ON SHEET NO. 20

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	22	66
PROJECT FILE NO.		608157	

UTILITY PLANS

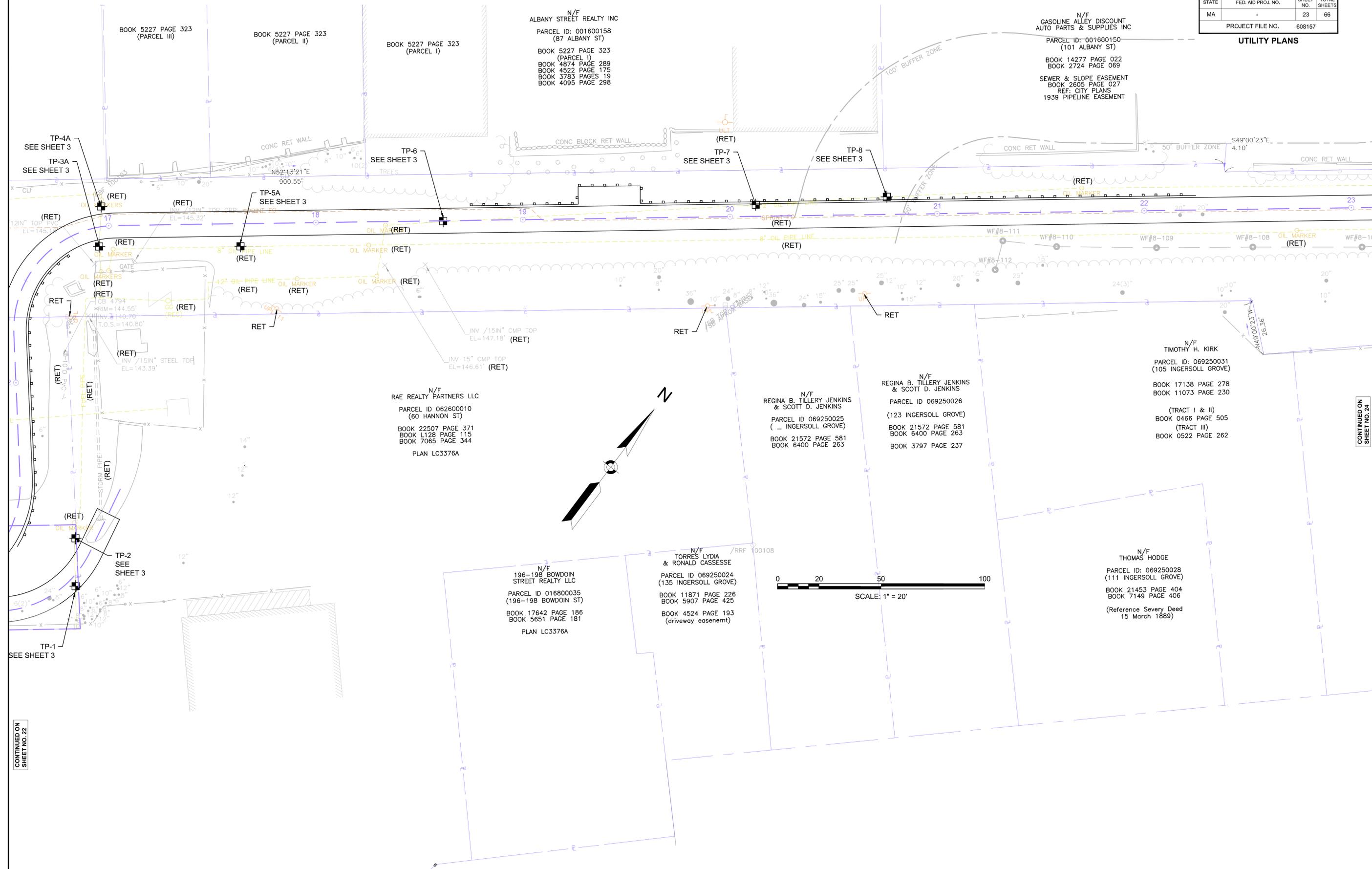


CONTINUED ON
SHEET NO. 23

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	23	66

PROJECT FILE NO. 608157
UTILITY PLANS



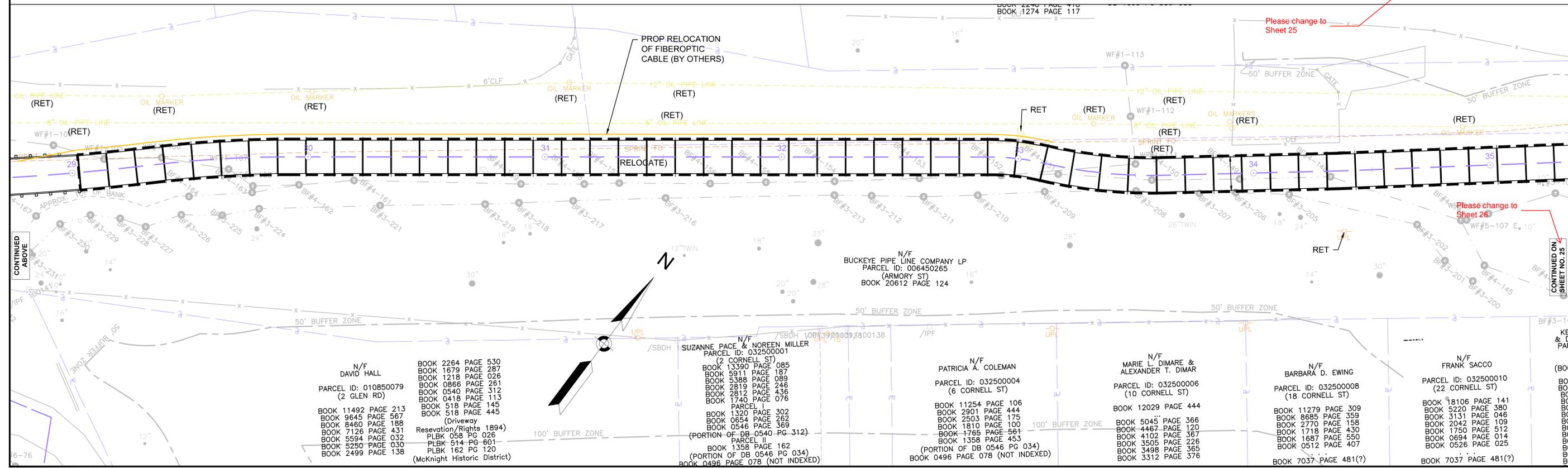
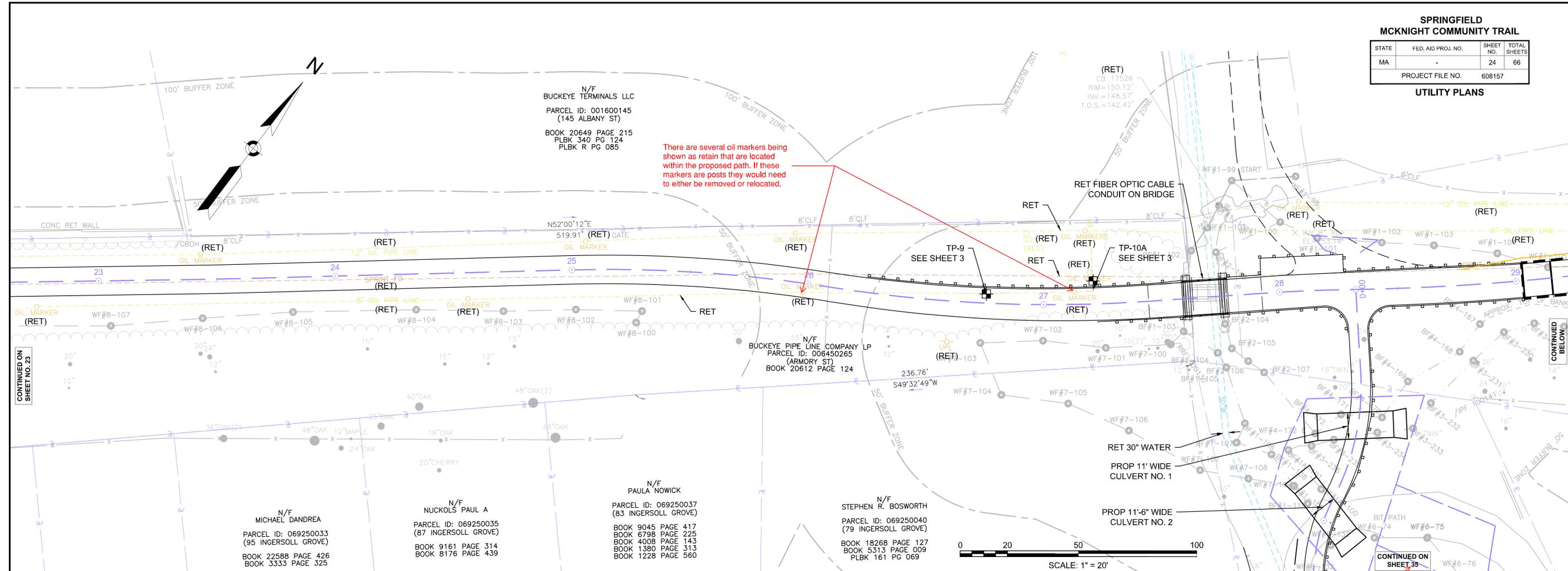
CONTINUED ON
SHEET NO. 22

CONTINUED ON
SHEET NO. 24

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	24	66
PROJECT FILE NO.		608157	

UTILITY PLANS



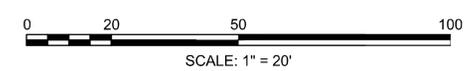
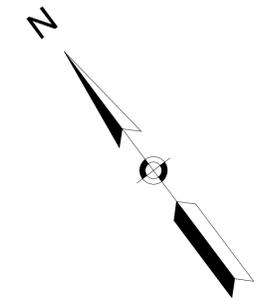
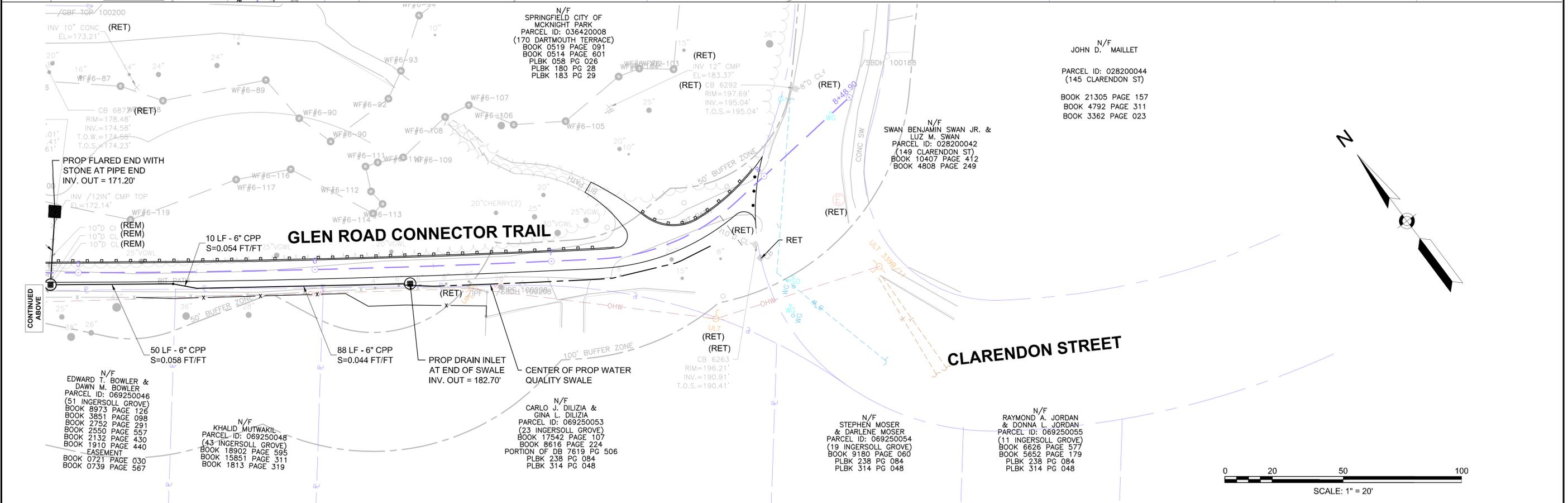
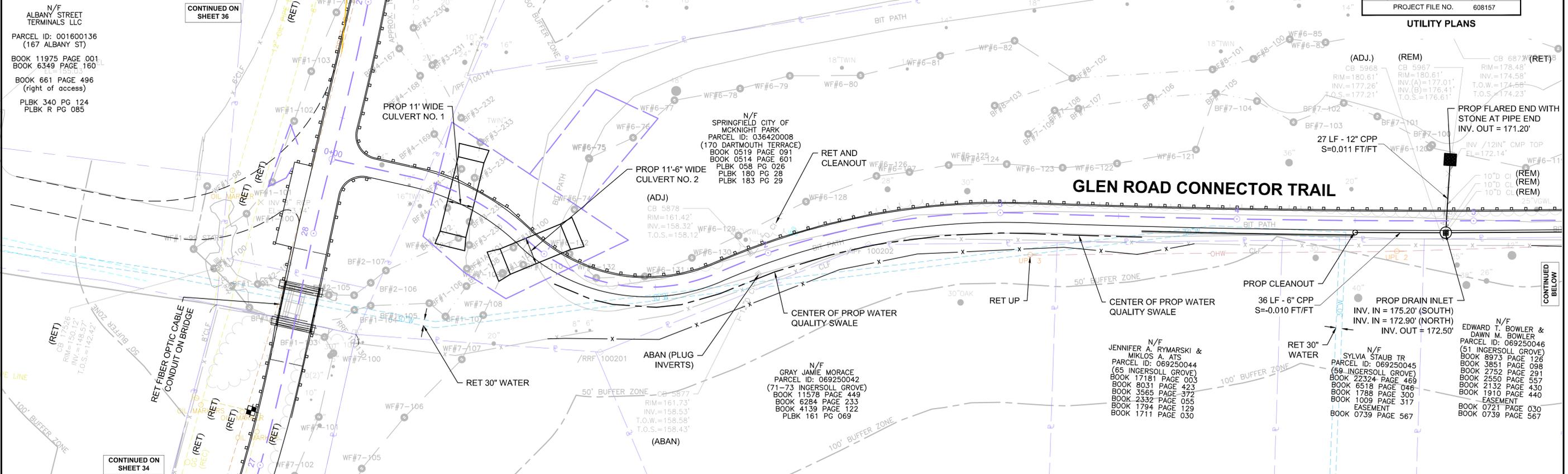
**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	25	66

PROJECT FILE NO. 608157

UTILITY PLANS

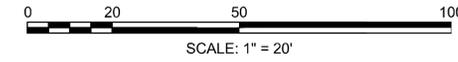
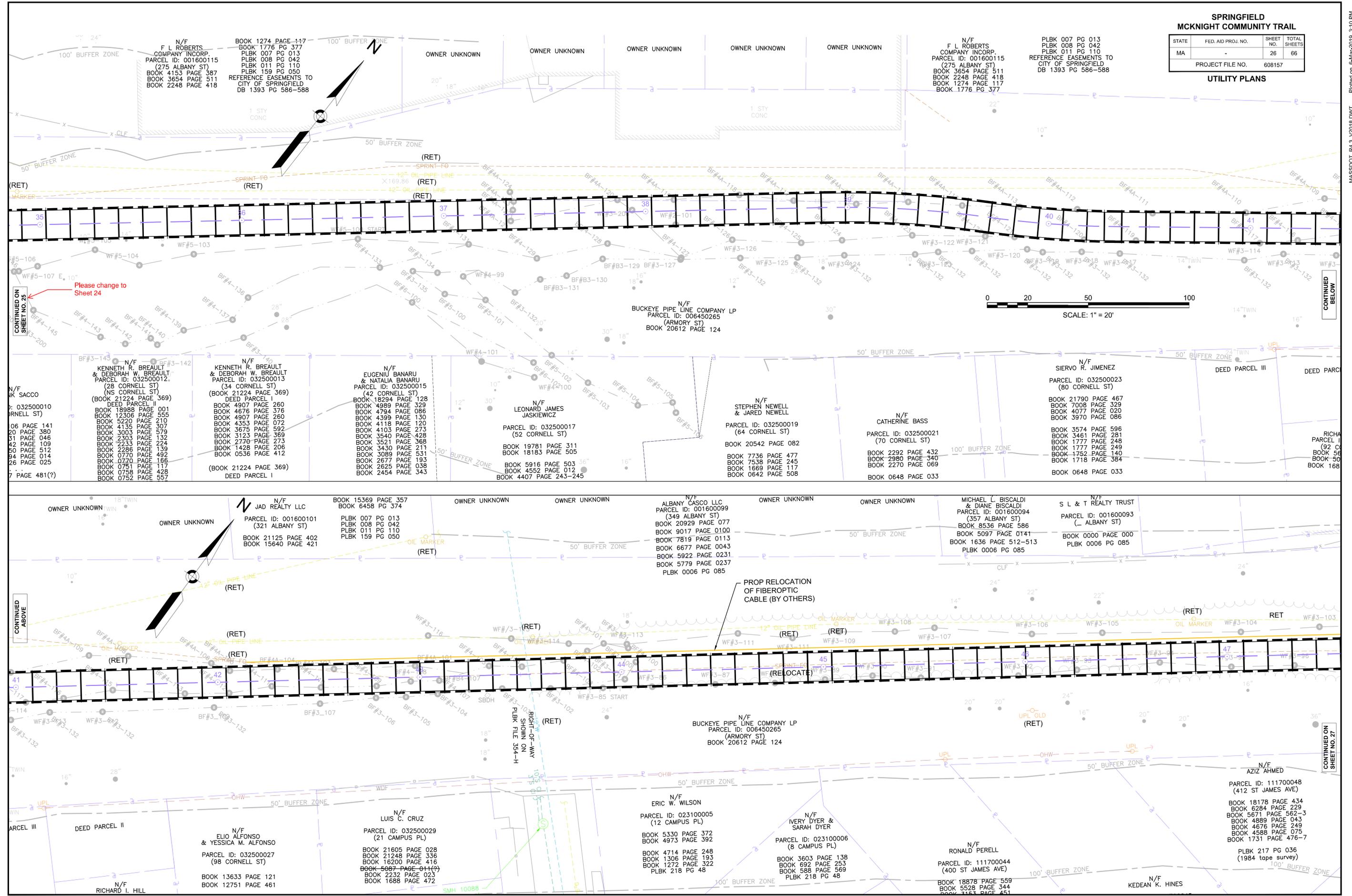
N/F
ALBANY STREET
TERMINALS LLC
PARCEL ID: 001600136
(167 ALBANY ST)
BOOK 11975 PAGE 001
BOOK 6349 PAGE 160
BOOK 661 PAGE 496
(right of access)
PLBK 340 PG 124
PLBK R PG 085



**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	26	66

PROJECT FILE NO. 608157
UTILITY PLANS



CONTINUED ON SHEET NO. 25

CONTINUED BELOW

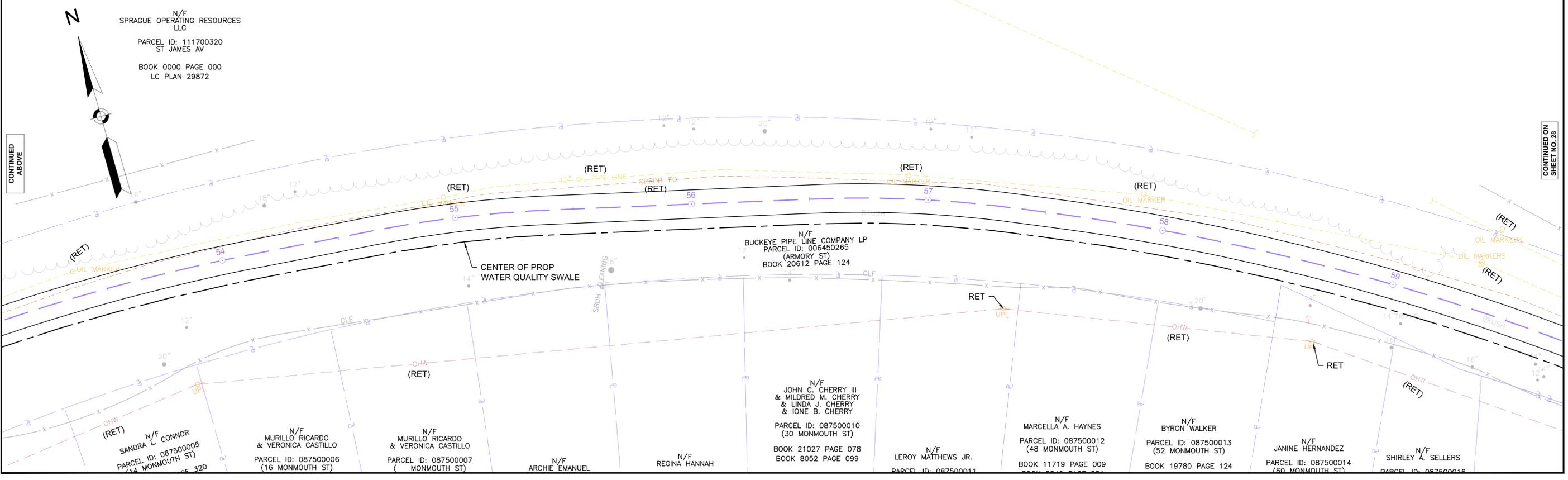
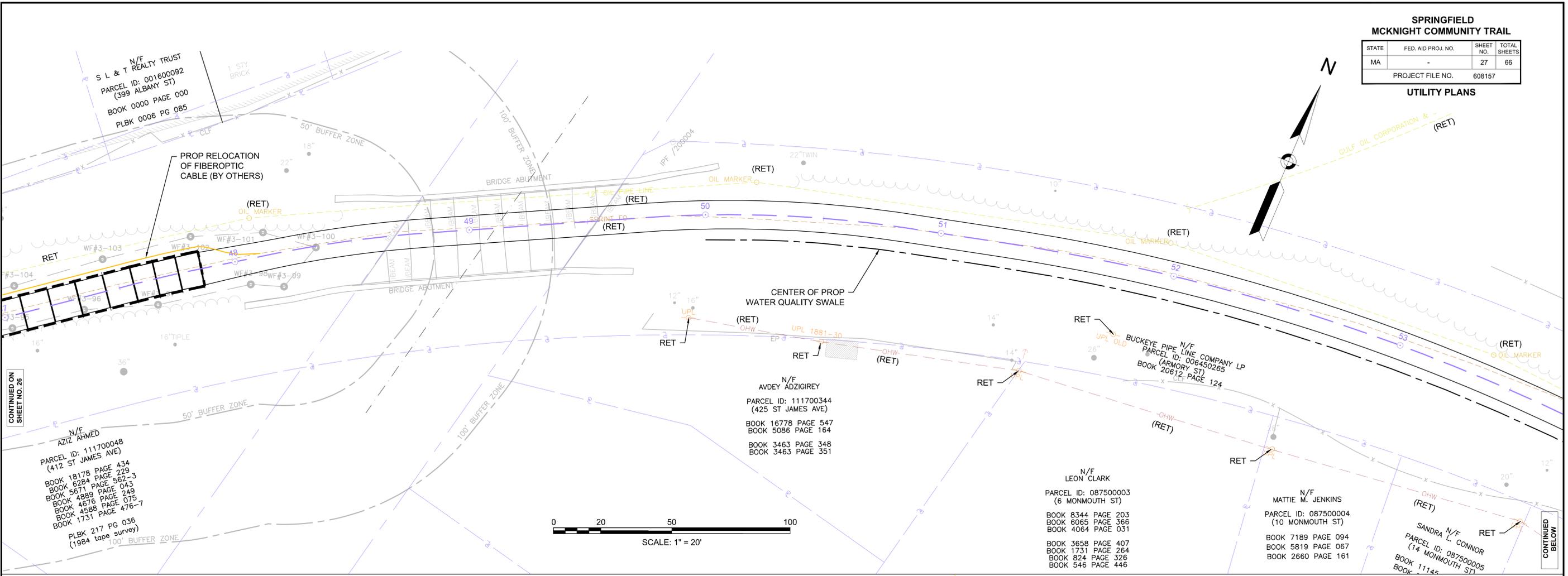
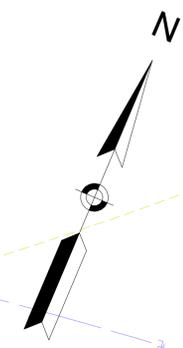
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CONTINUED ON SHEET NO. 27

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	27	66
PROJECT FILE NO.		608157	

UTILITY PLANS



CONTINUED ON
SHEET NO. 26

CONTINUED
BELOW

CONTINUED
ABOVE

CONTINUED
ON
SHEET NO. 28

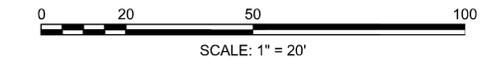
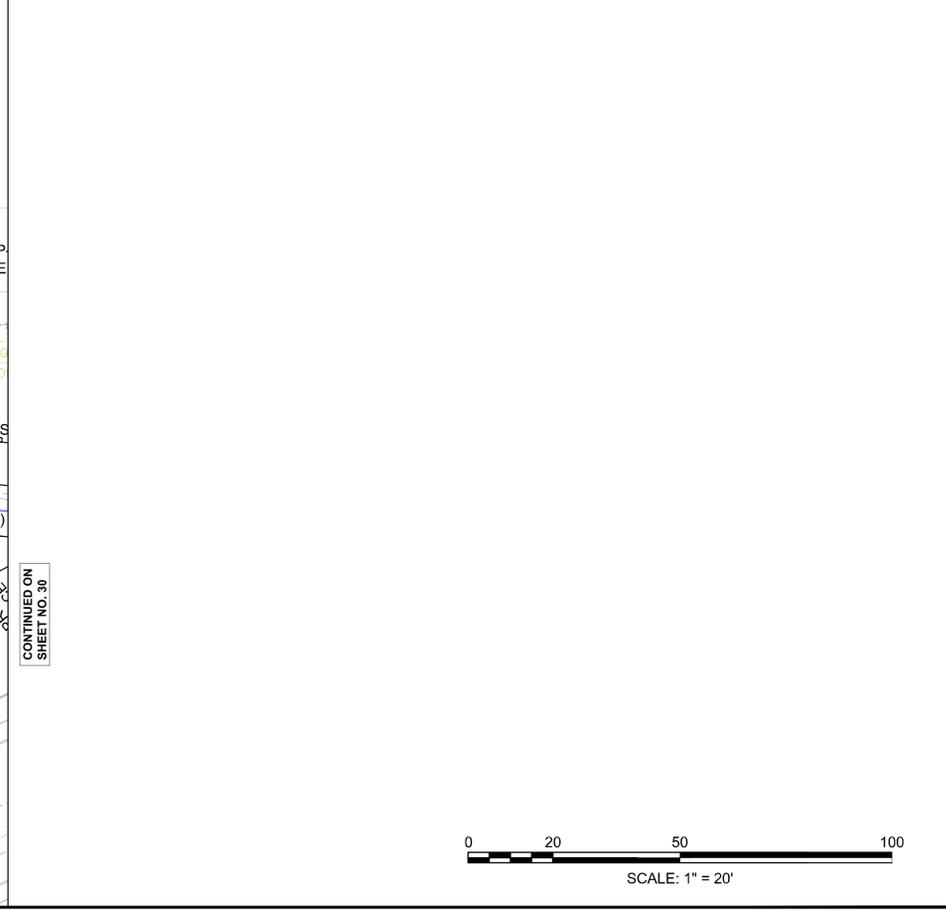
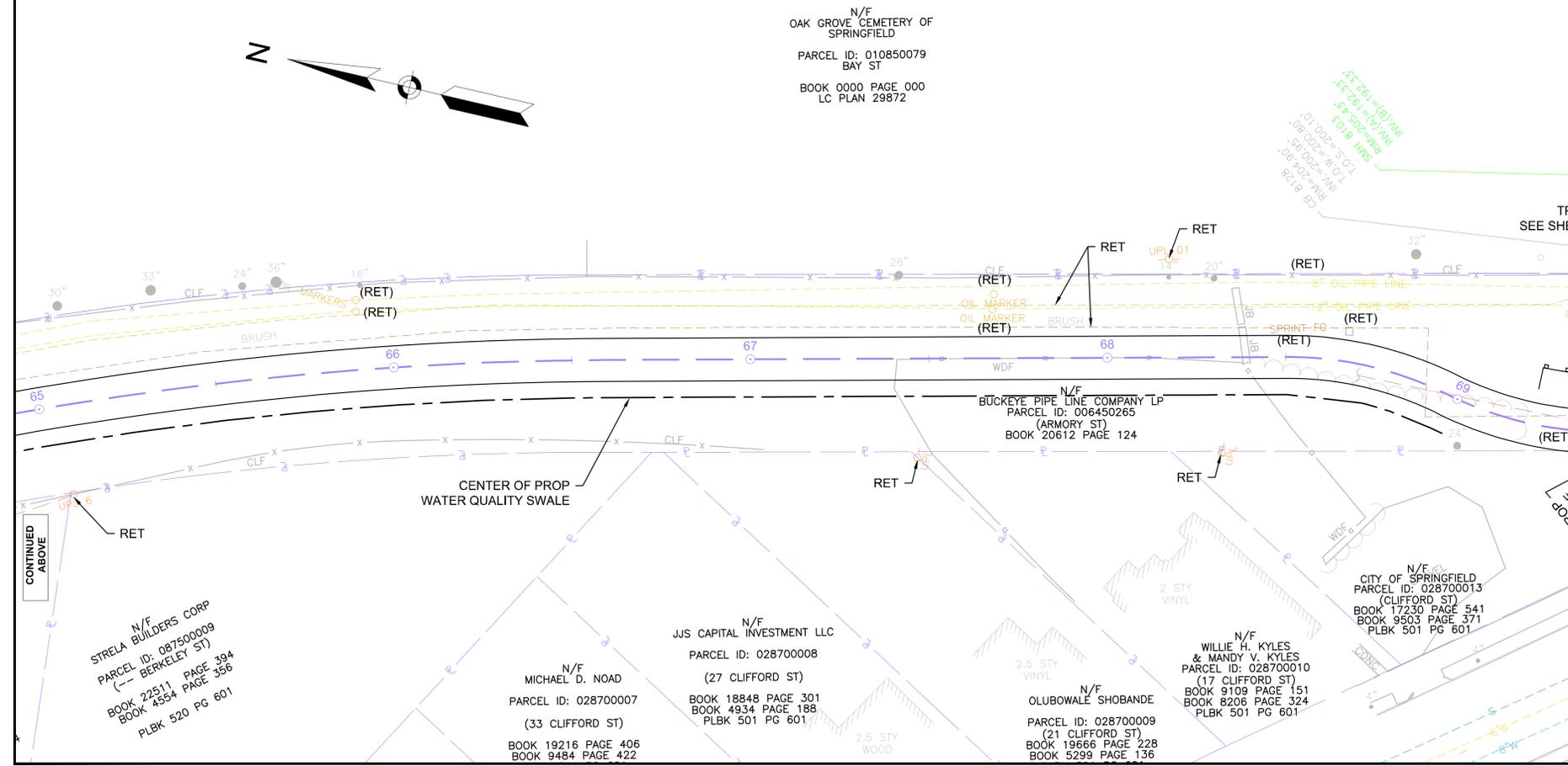
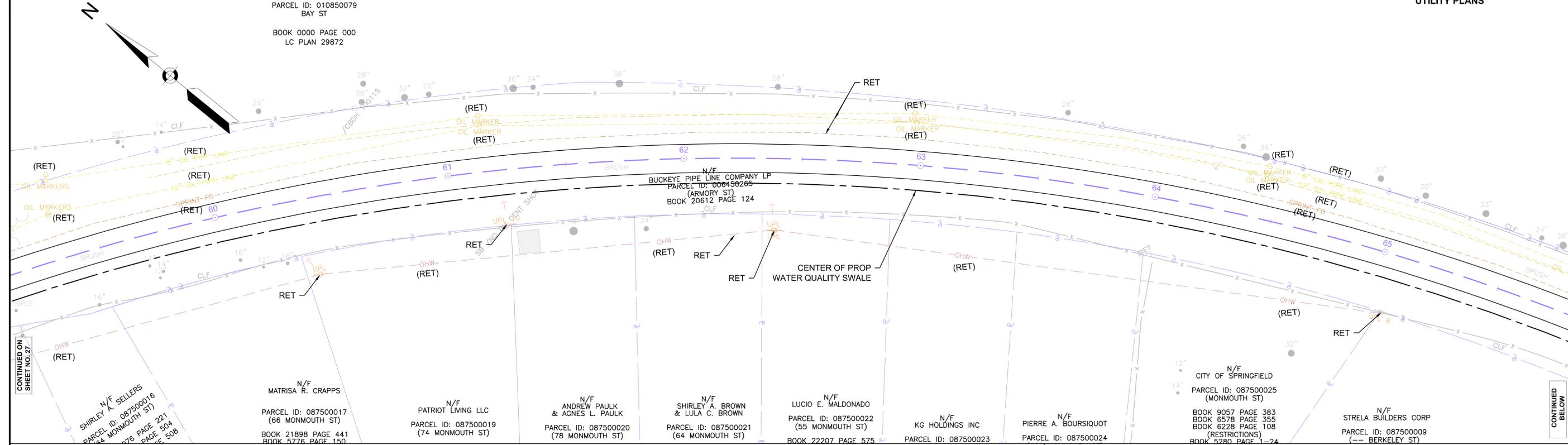
**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	28	66

PROJECT FILE NO. 608157

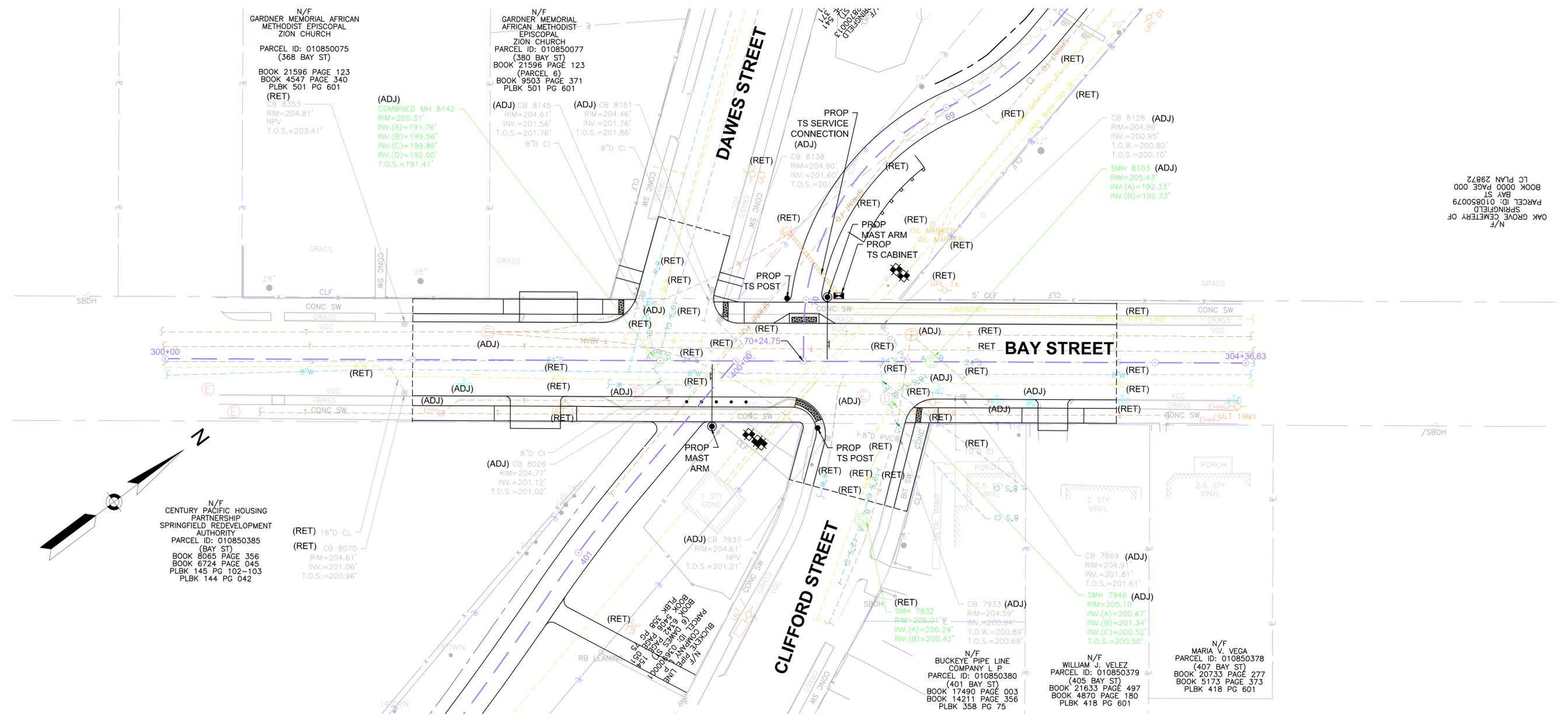
UTILITY PLANS

N/F
OAK GROVE CEMETERY OF
SPRINGFIELD
PARCEL ID: 010850079
BAY ST
BOOK 0000 PAGE 000
LC PLAN 29872



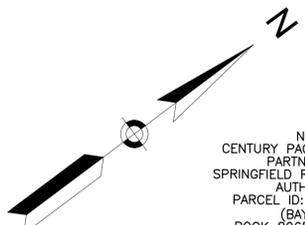
CONTINUED ON
SHEET NO. 40

N/F
OAK GROVE CEMETERY OF
SPRINGFIELD
PARCEL ID: 010850079
BAY ST
BOOK 0000 PAGE 000
LC PLAN 2987Z



N/F
CENTURY PACIFIC HOUSING
PARTNERSHIP
SPRINGFIELD REDEVELOPMENT
AUTHORITY
PARCEL ID: 010850385
(BAY ST)
BOOK 8065 PAGE 356
BOOK 6724 PAGE 045
PLBK 145 PG 102-103
PLBK 144 PG 042

CONTINUED ON
SHEET NO. 38



**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	30	66
PROJECT FILE NO.		608157	

UTILITY PLANS

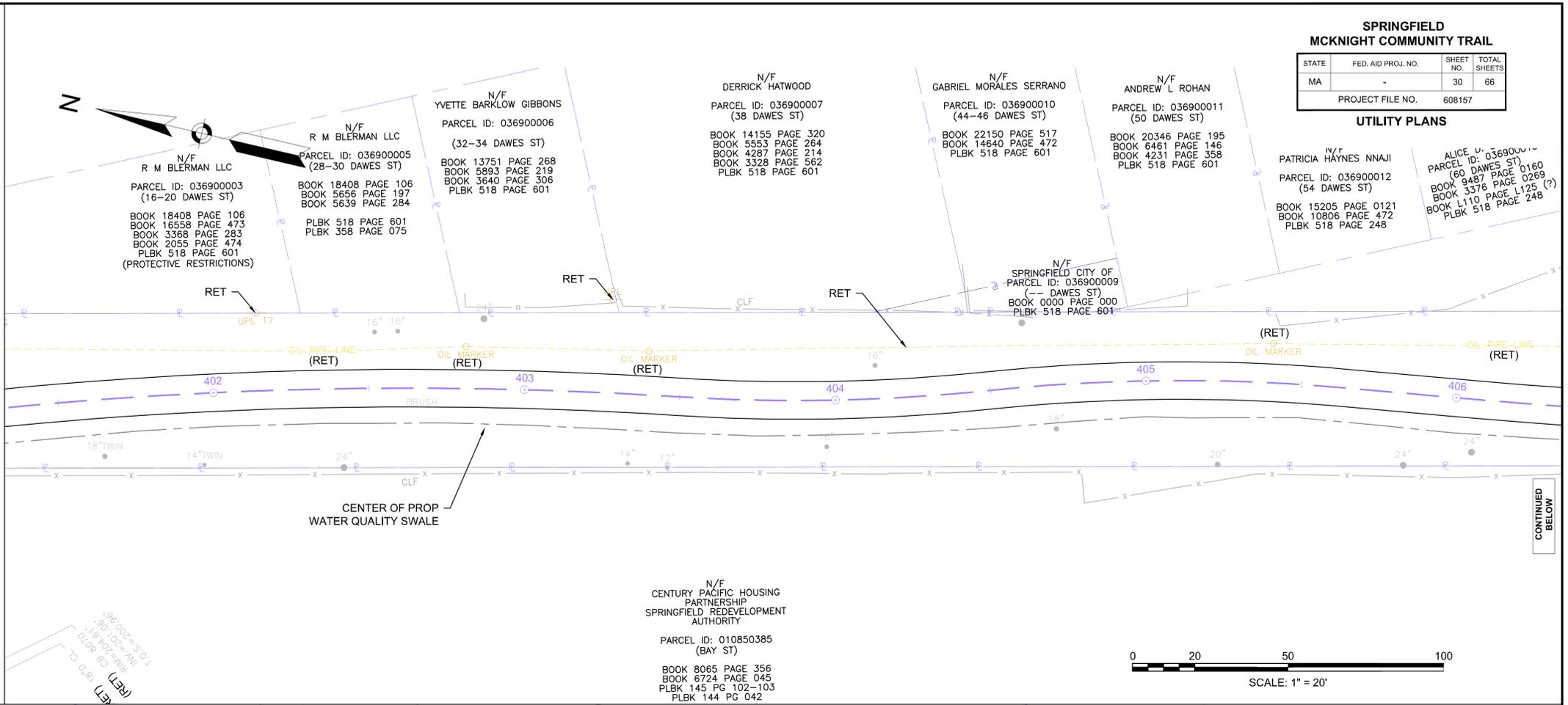
N/F
PATRICIA HAYNES NNAJI
PARCEL ID: 036900012
(54 DAWES ST)
BOOK 15205 PAGE 0121
BOOK 10806 PAGE 472
PLBK 518 PAGE 248

N/F
ALICE D. SCOTT
PARCEL ID: 036900011
(60 DAWES ST)
BOOK 9487 PAGE 0160
BOOK 3376 PAGE 0269
BOOK L110 PAGE L125 (?)
PLBK 518 PAGE 248

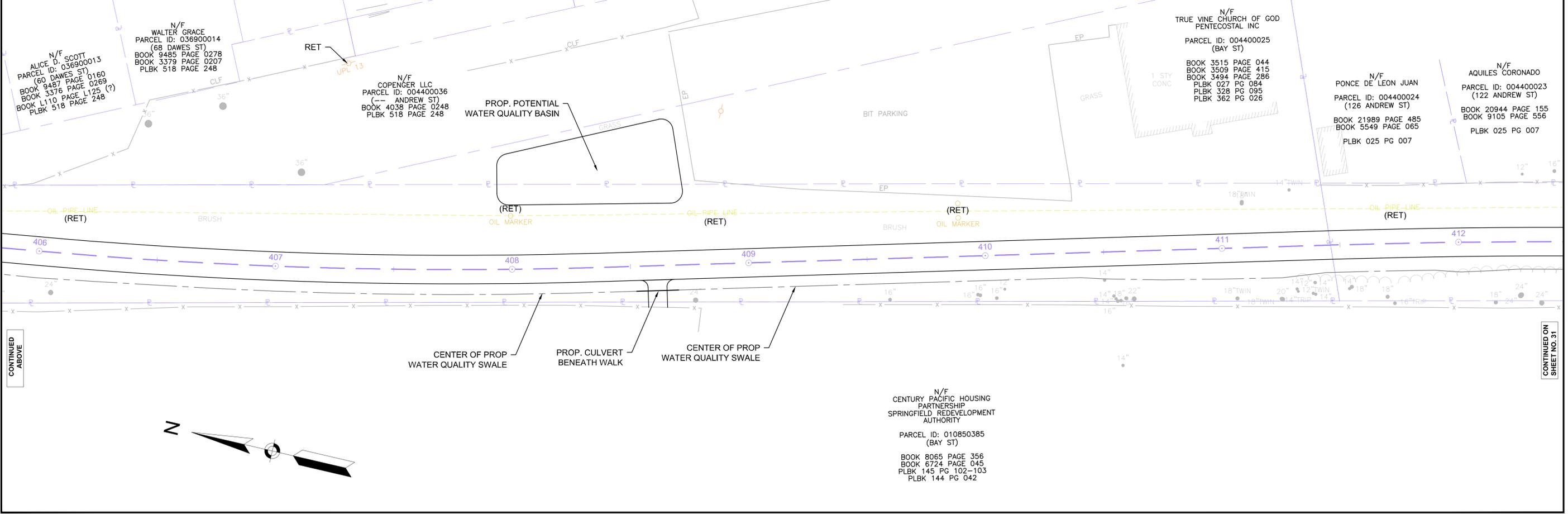


CONTINUED ON
SHEET NO. 39

CONTINUED
BELOW



CONTINUED ON
SHEET NO. 39



CONTINUED
ABOVE

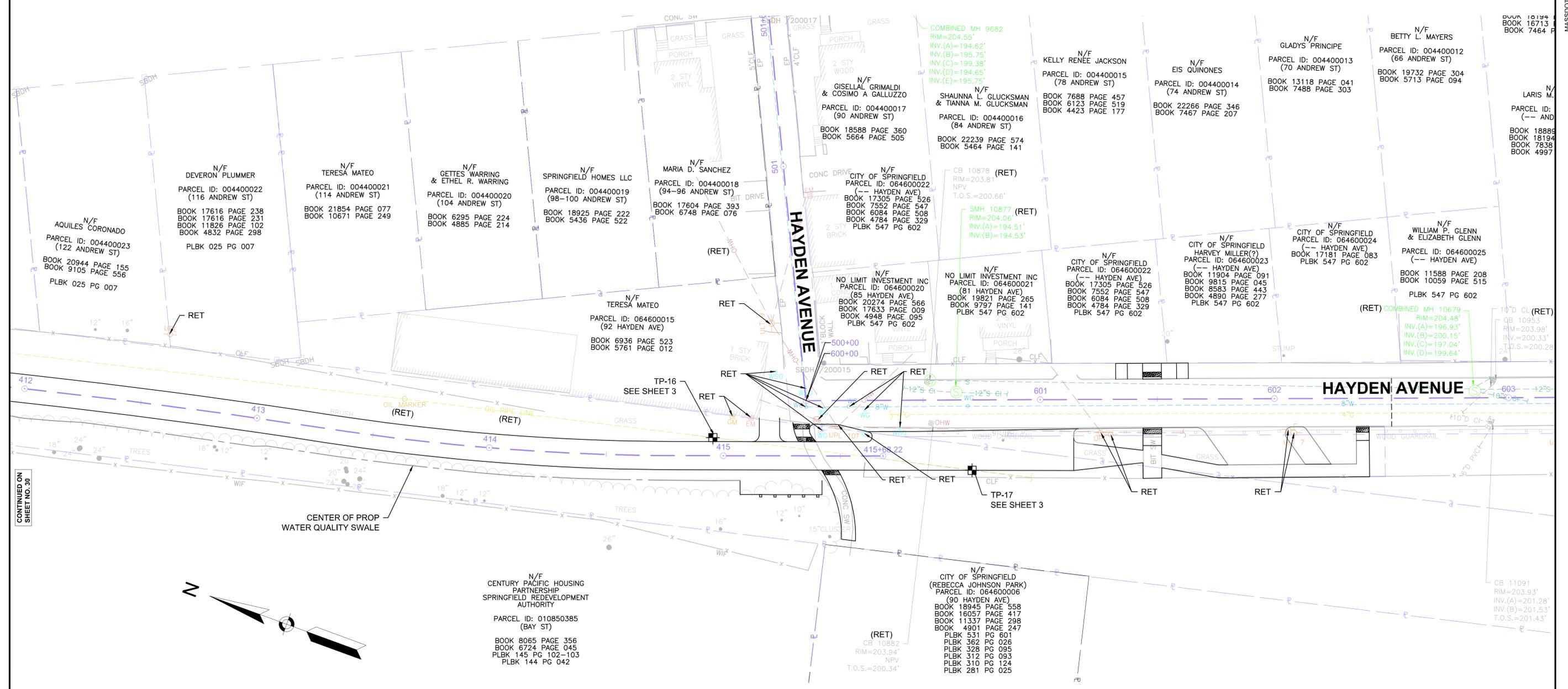
CONTINUED ON
SHEET NO. 31

N/F
CENTURY PACIFIC HOUSING
PARTNERSHIP
SPRINGFIELD REDEVELOPMENT
AUTHORITY
PARCEL ID: 010850385
(BAY ST)
BOOK 8065 PAGE 356
BOOK 6724 PAGE 045
PLBK 145 PG 102-103
PLBK 144 PG 042

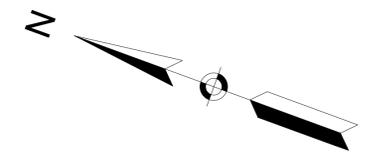
**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	31	66
PROJECT FILE NO.		608157	

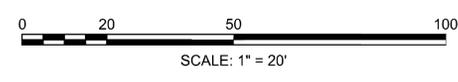
UTILITY PLANS

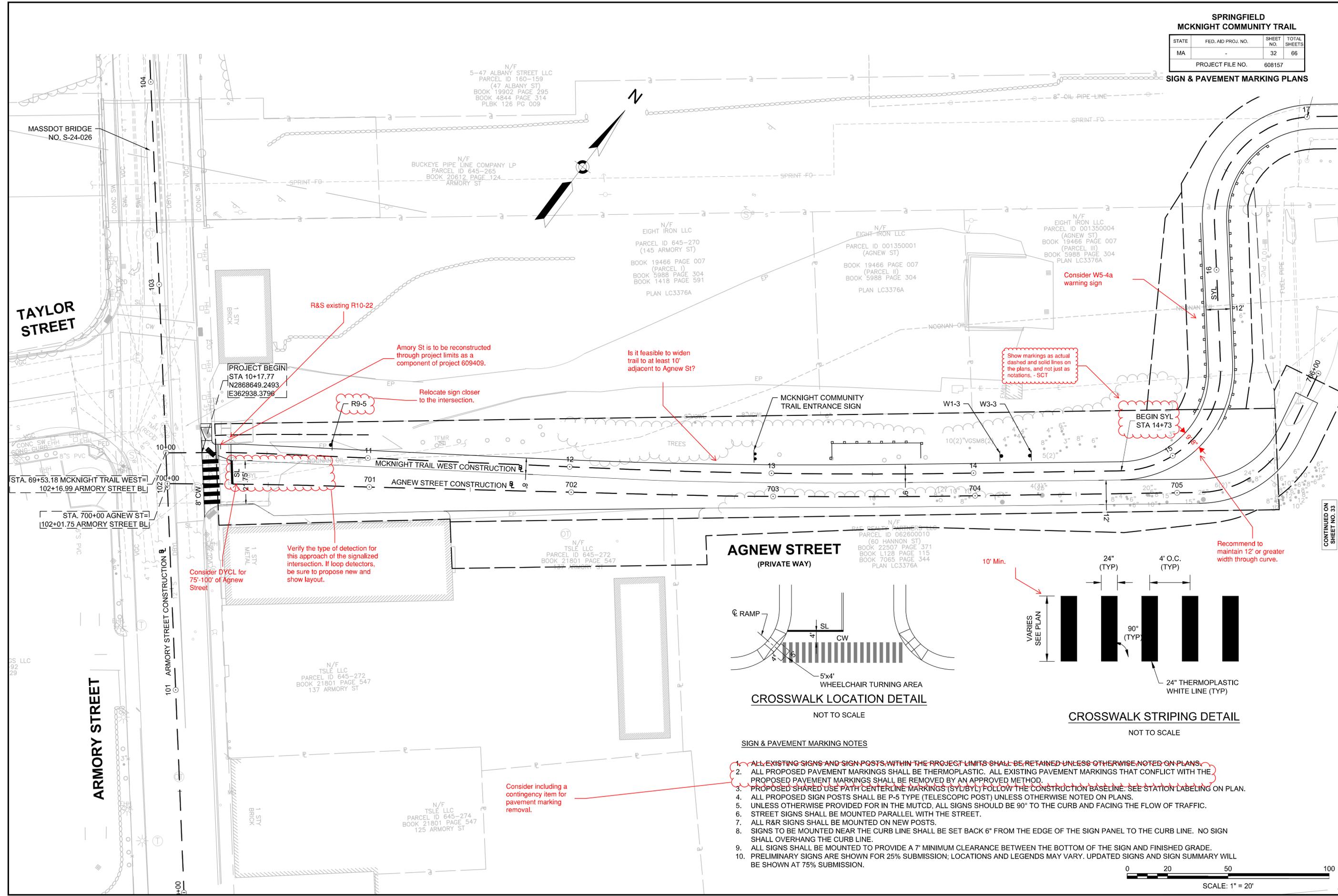


CONTINUED ON
SHEET NO. 30

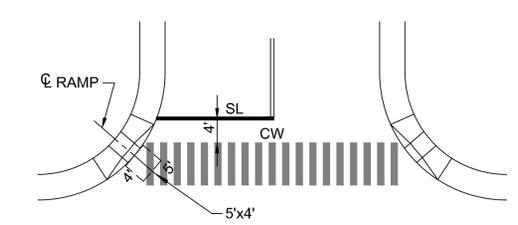


N/F
CENTURY PACIFIC HOUSING
PARTNERSHIP
SPRINGFIELD REDEVELOPMENT
AUTHORITY
PARCEL ID: 010850385
(BAY ST)
BOOK 8065 PAGE 356
BOOK 6724 PAGE 045
PLBK 145 PG 102-103
PLBK 144 PG 042

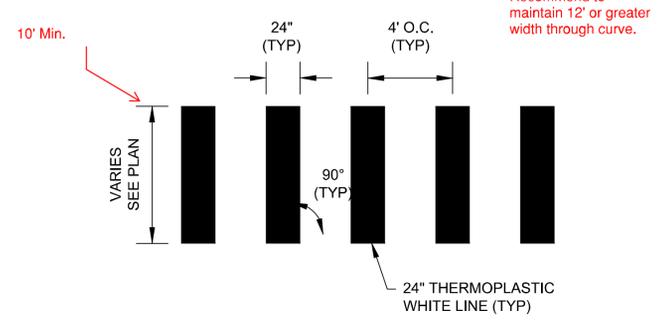




**AGNEW STREET
(PRIVATE WAY)**



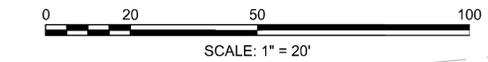
CROSSWALK LOCATION DETAIL
NOT TO SCALE



CROSSWALK STRIPING DETAIL
NOT TO SCALE

SIGN & PAVEMENT MARKING NOTES

1. ALL EXISTING SIGNS AND SIGN POSTS, WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED ON PLANS.
2. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED BY AN APPROVED METHOD.
3. PROPOSED SHARED USE PATH CENTERLINE MARKINGS (SYLBYL), FOLLOW THE CONSTRUCTION BASELINE. SEE STATION LABELING ON PLAN.
4. ALL PROPOSED SIGN POSTS SHALL BE P-5 TYPE (TELESCOPIC POST) UNLESS OTHERWISE NOTED ON PLANS.
5. UNLESS OTHERWISE PROVIDED FOR IN THE MUTCD, ALL SIGNS SHOULD BE 90° TO THE CURB AND FACING THE FLOW OF TRAFFIC.
6. STREET SIGNS SHALL BE MOUNTED PARALLEL WITH THE STREET.
7. ALL R&R SIGNS SHALL BE MOUNTED ON NEW POSTS.
8. SIGNS TO BE MOUNTED NEAR THE CURB LINE SHALL BE SET BACK 6" FROM THE EDGE OF THE SIGN PANEL TO THE CURB LINE. NO SIGN SHALL OVERHANG THE CURB LINE.
9. ALL SIGNS SHALL BE MOUNTED TO PROVIDE A 7' MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND FINISHED GRADE.
10. PRELIMINARY SIGNS ARE SHOWN FOR 25% SUBMISSION; LOCATIONS AND LEGENDS MAY VARY. UPDATED SIGNS AND SIGN SUMMARY WILL BE SHOWN AT 75% SUBMISSION.



CONTINUED ON
SHEET NO. 33

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	33	66
PROJECT FILE NO.		608157	

SIGN & PAVEMENT MARKING PLANS

N/F
GASOLINE ALLEY DISCOUNT
AUTO PARTS & SUPPLIES INC
PARCEL ID: 001600150
(101 ALBANY ST)
BOOK 14277 PAGE 022
BOOK 2724 PAGE 069
SEWER & SLOPE EASEMENT
BOOK 2605 PAGE 027
REF: CITY PLANS
1939 PIPELINE EASEMENT

N/F
ALBANY STREET REALTY INC
PARCEL ID: 001600158
(87 ALBANY ST)
BOOK 5227 PAGE 323
(PARCEL I)
BOOK 4874 PAGE 289
BOOK 4522 PAGE 175
BOOK 3783 PAGES 19
BOOK 4095 PAGE 298

BOOK 5227 PAGE 323
(PARCEL I)

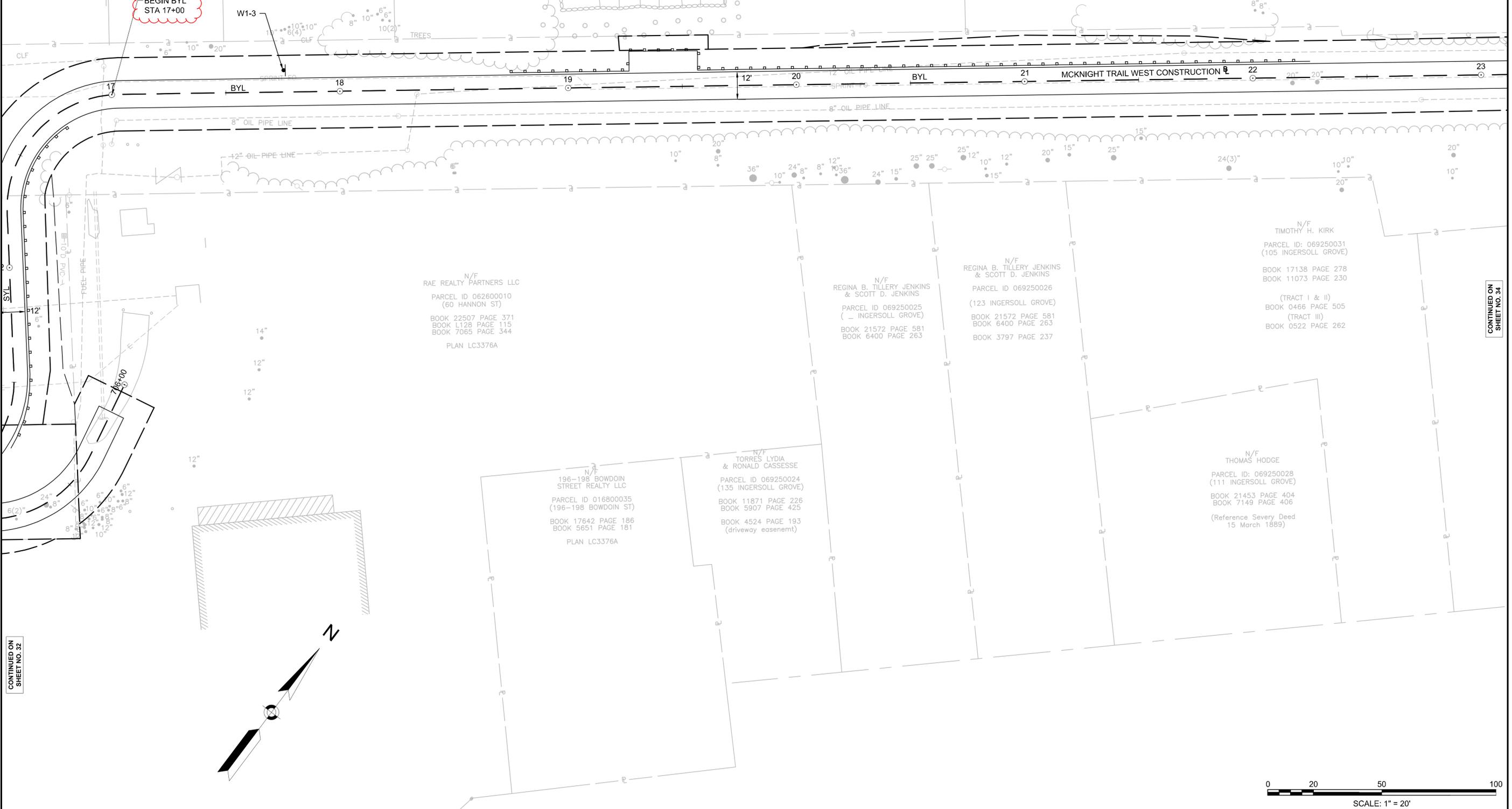
BOOK 5227 PAGE 323
(PARCEL II)

BOOK 5227 PAGE 323
(PARCEL III)

Show markings as actual
dashed and solid lines on
the plans, and not just as
notations. - SCT

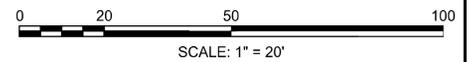
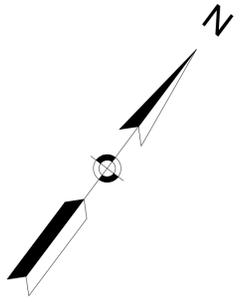
END SYL
BEGIN BYL
STA 17+00

W1-3



CONTINUED ON
SHEET NO. 32

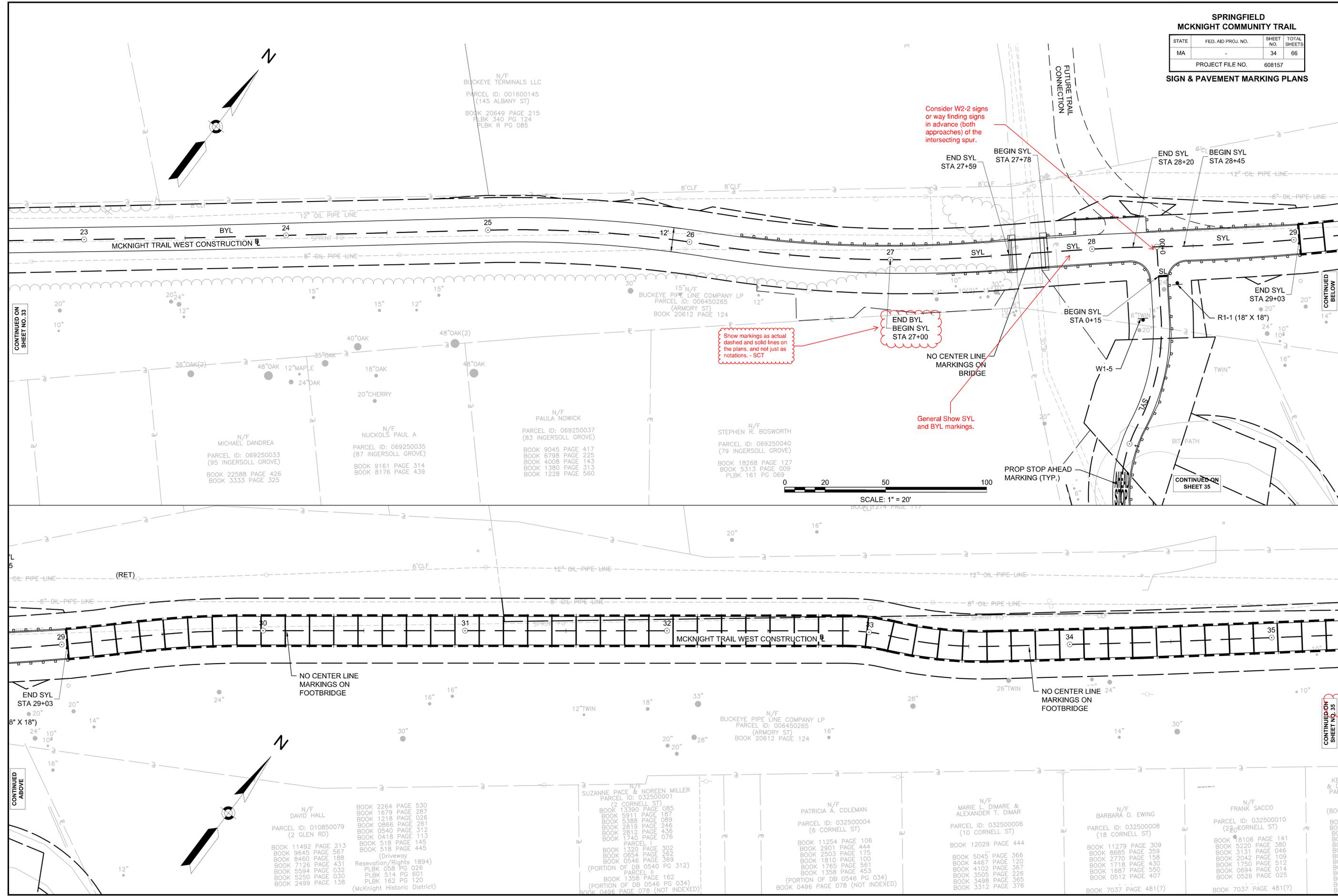
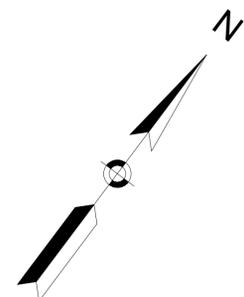
CONTINUED ON
SHEET NO. 34



**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	34	66
PROJECT FILE NO.		608157	

SIGN & PAVEMENT MARKING PLANS



CONTINUED ON
SHEET NO. 33

CONTINUED
BELOW

CONTINUED ON
SHEET 35

CONTINUED
ABOVE

CONTINUED ON
SHEET NO. 35



Consider W2-2 signs
or way finding signs
in advance (both
approaches) of the
intersecting spur.

Show markings as actual
dashed and solid lines on
the plans, and not just as
notations. - SCT

NO CENTER LINE
MARKINGS ON
BRIDGE

General Show SYL
and BYL markings.

NO CENTER LINE
MARKINGS ON
FOOTBRIDGE

NO CENTER LINE
MARKINGS ON
FOOTBRIDGE

N/F
DAVID HALL
PARCEL ID: 010850079
(2 GLEN RD)
BOOK 11492 PAGE 213
BOOK 9645 PAGE 567
BOOK 8460 PAGE 188
BOOK 7126 PAGE 431
BOOK 5594 PAGE 032
BOOK 5250 PAGE 030
BOOK 2499 PAGE 138

BOOK 2264 PAGE 530
BOOK 1679 PAGE 287
BOOK 1218 PAGE 026
BOOK 0866 PAGE 261
BOOK 0540 PAGE 312
BOOK 0418 PAGE 113
BOOK 518 PAGE 145
BOOK 518 PAGE 445
(Driveway
Reservation/Rights 1894)
PLBK 514 PG 026
PLBK 162 PG 120
(McKnight Historic District)

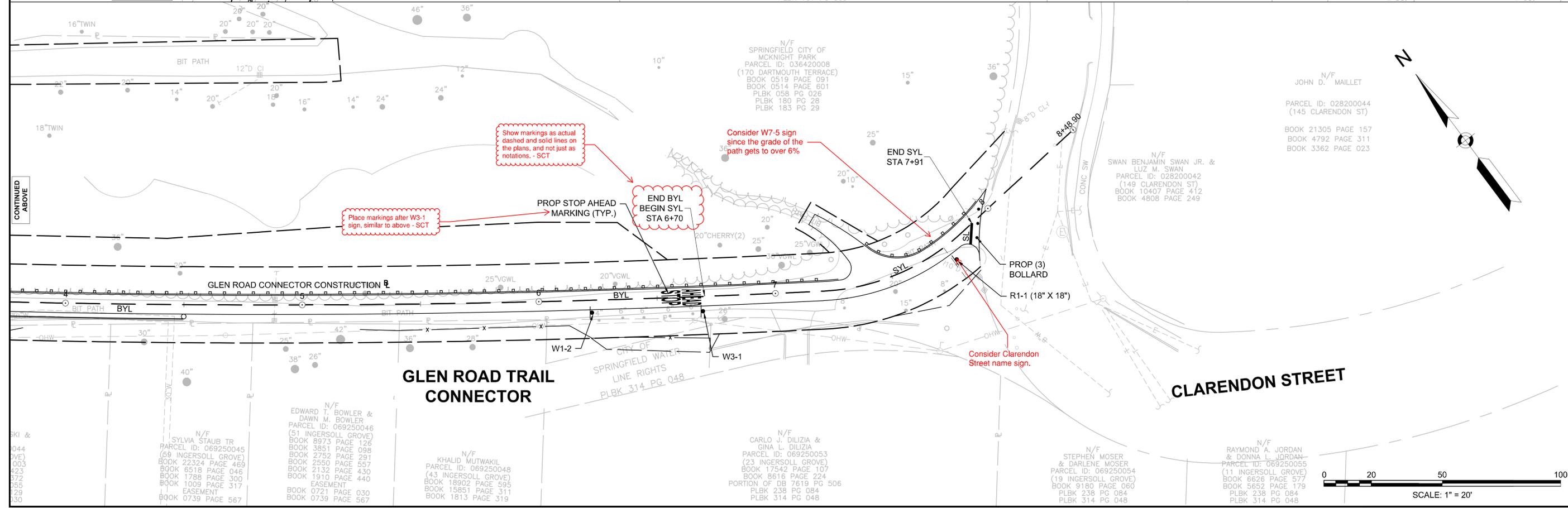
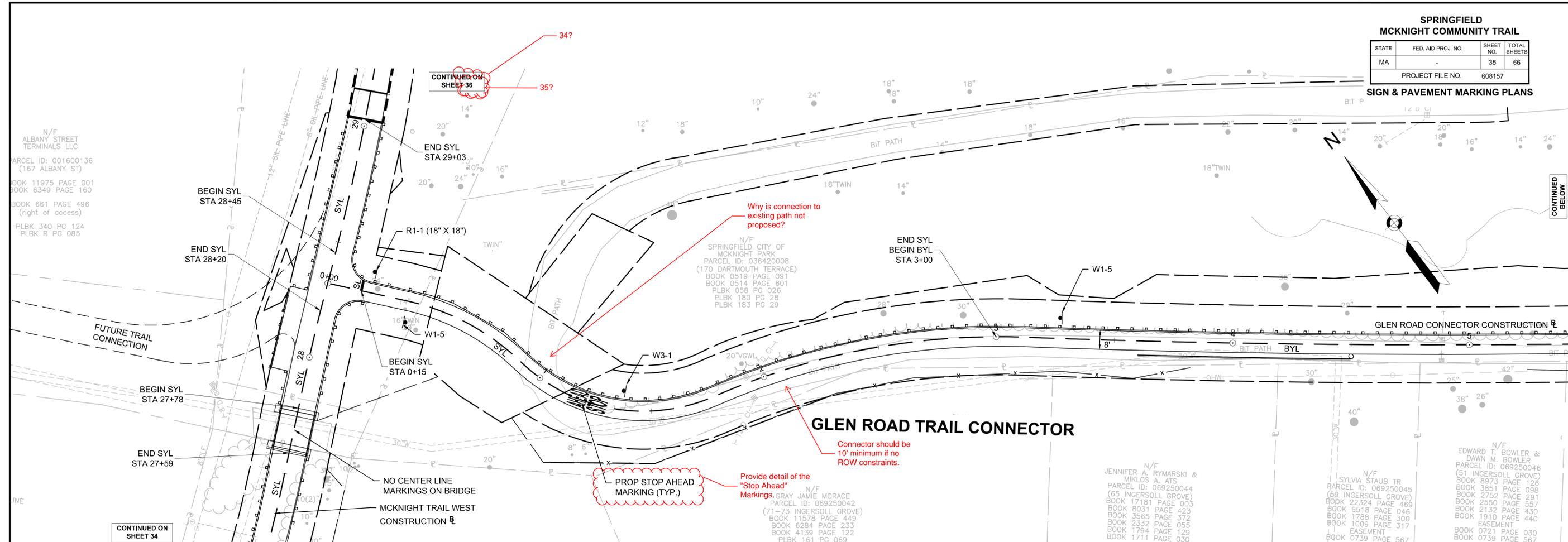
N/F
SUZANNE PAGE & NOREEN MILLER
PARCEL ID: 032500001
(2 CORNELL ST)
BOOK 13390 PAGE 085
BOOK 5911 PAGE 187
BOOK 5388 PAGE 089
BOOK 2819 PAGE 246
BOOK 2812 PAGE 436
BOOK 1740 PAGE 076
PARCEL I
BOOK 1320 PAGE 302
BOOK 0854 PAGE 262
BOOK 0546 PAGE 369
(PORTION OF DB 0540 PG 312)
PARCEL II
BOOK 1358 PAGE 162
(PORTION OF DB 0546 PG 034)
BOOK 0496 PAGE 078 (NOT INDEXED)

N/F
PATRICIA A. COLEMAN
PARCEL ID: 032500004
(6 CORNELL ST)
BOOK 11254 PAGE 106
BOOK 2901 PAGE 444
BOOK 2503 PAGE 175
BOOK 1810 PAGE 100
BOOK 1765 PAGE 561
BOOK 1358 PAGE 453
(PORTION OF DB 0546 PG 034)
BOOK 0496 PAGE 078 (NOT INDEXED)

N/F
MARIE L. DIMARE &
ALEXANDER T. DIMAR
PARCEL ID: 032500006
(10 CORNELL ST)
BOOK 12029 PAGE 444
BOOK 5045 PAGE 366
BOOK 8685 PAGE 359
BOOK 2770 PAGE 158
BOOK 4467 PAGE 120
BOOK 4102 PAGE 367
BOOK 3505 PAGE 226
BOOK 3498 PAGE 365
BOOK 3312 PAGE 376

N/F
BARBARA D. EWING
PARCEL ID: 032500008
(18 CORNELL ST)
BOOK 11279 PAGE 309
BOOK 8685 PAGE 359
BOOK 2770 PAGE 158
BOOK 1718 PAGE 430
BOOK 1687 PAGE 550
BOOK 0512 PAGE 407
BOOK 7037 PAGE 481(?)

N/F
FRANK SACCO
PARCEL ID: 032500010
(22 CORNELL ST)
BOOK 8106 PAGE 141
BOOK 5220 PAGE 380
BOOK 3131 PAGE 046
BOOK 2042 PAGE 109
BOOK 1750 PAGE 512
BOOK 0694 PAGE 014
BOOK 0526 PAGE 025
BOOK 7037 PAGE 481(?)



N/F ALBANY STREET TERMINALS LLC
PARCEL ID: 001600136
(167 ALBANY ST)
BOOK 11975 PAGE 001
BOOK 6349 PAGE 160
BOOK 661 PAGE 496
(right of access)
PLBK 340 PG 124
PLBK R PG 085

CONTINUED ON SHEET 34

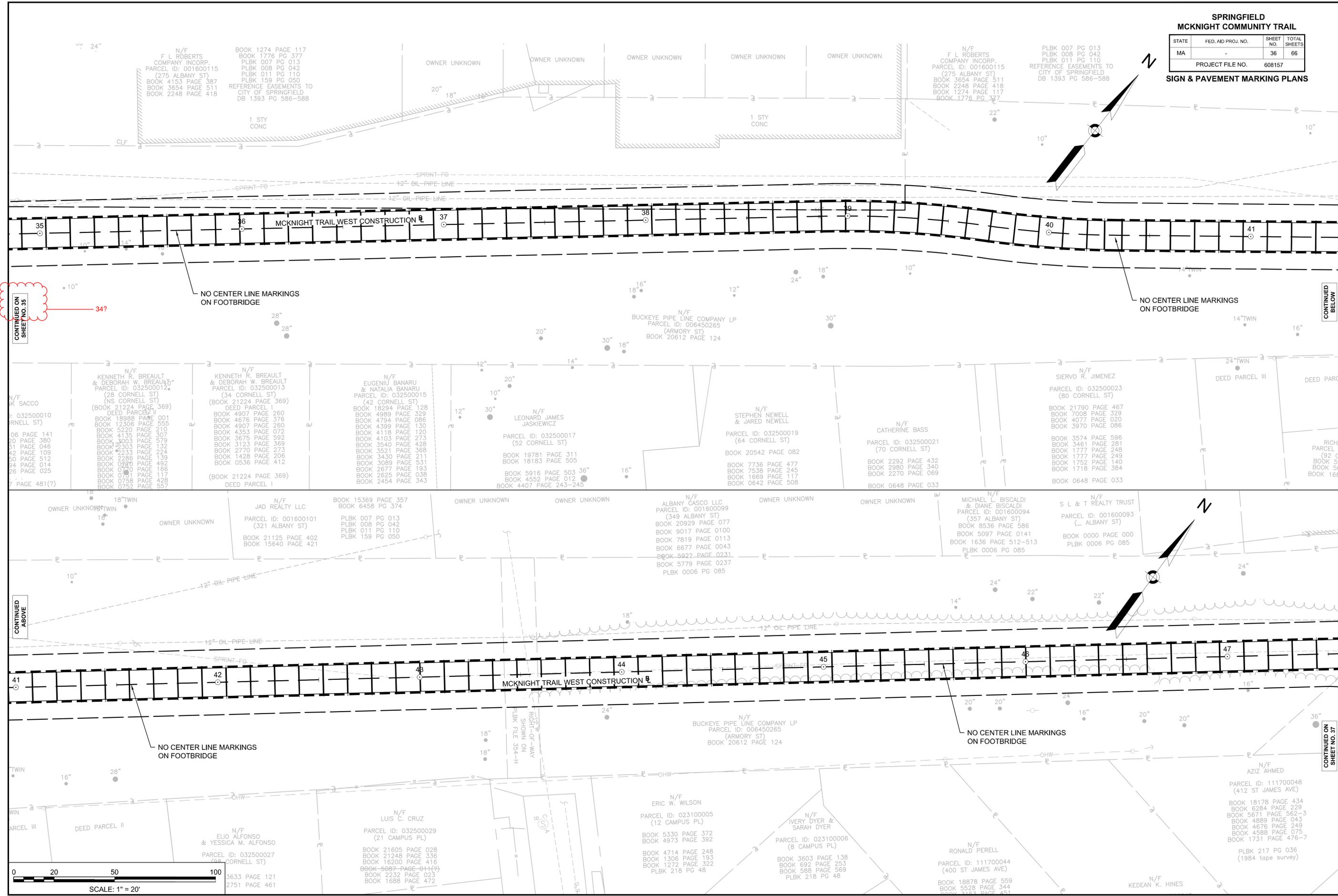
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**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	36	66
PROJECT FILE NO.		608157	

SIGN & PAVEMENT MARKING PLANS



CONTINUED ON SHEET NO. 35

NO CENTER LINE MARKINGS ON FOOTBRIDGE

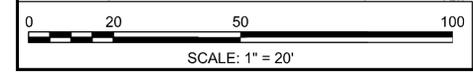
NO CENTER LINE MARKINGS ON FOOTBRIDGE

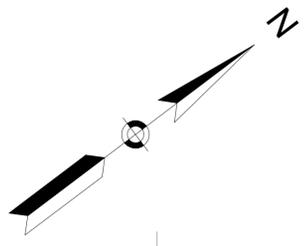
CONTINUED ABOVE

NO CENTER LINE MARKINGS ON FOOTBRIDGE

NO CENTER LINE MARKINGS ON FOOTBRIDGE

CONTINUED ON SHEET NO. 37





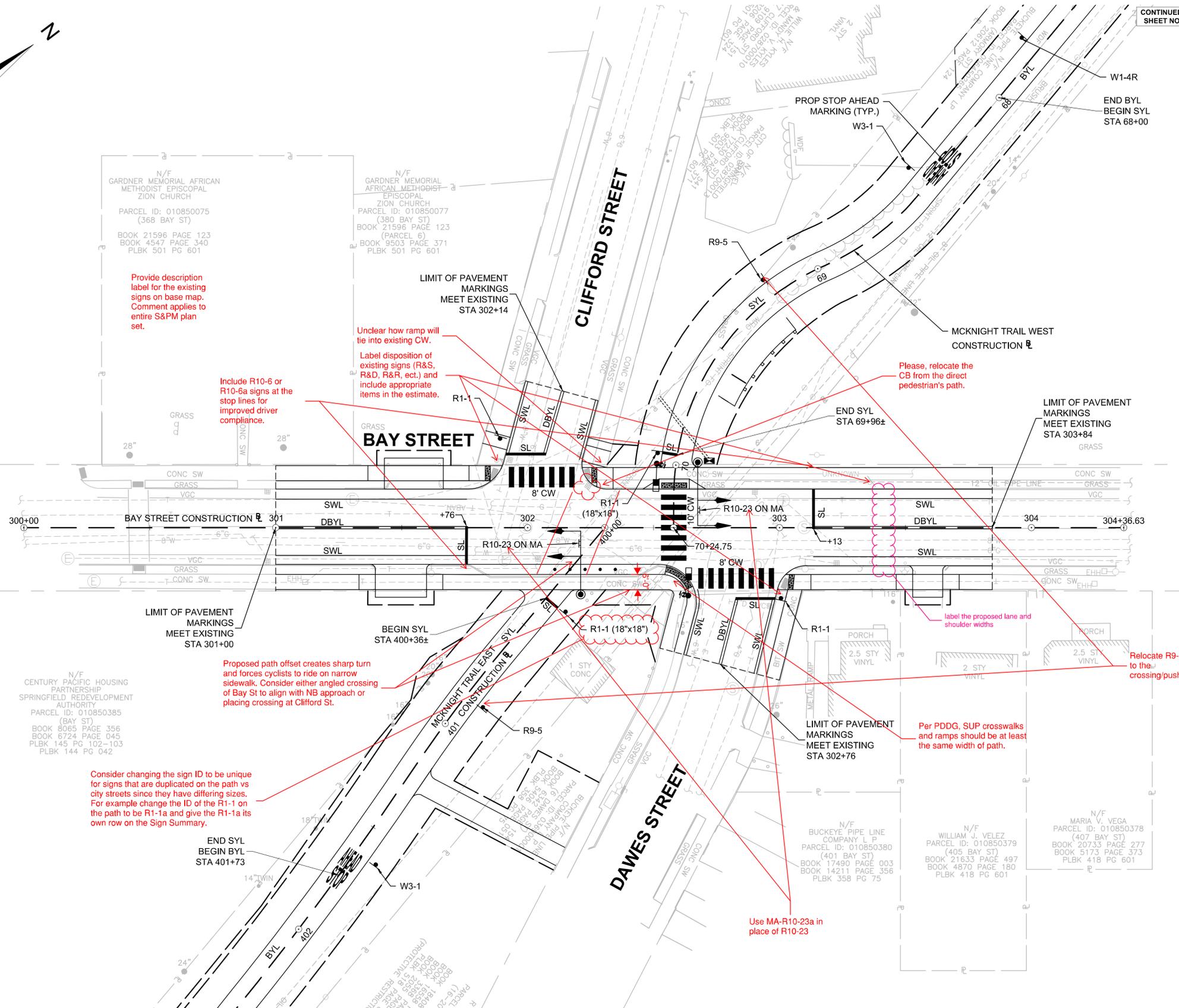
**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	39	66

PROJECT FILE NO. 608157

SIGN & PAVEMENT MARKING PLANS

CONTINUED ON SHEET NO. 40



Provide description label for the existing signs on base map. Comment applies to entire S&PM plan set.

Include R10-6 or R10-6a signs at the stop lines for improved driver compliance.

Unclear how ramp will tie into existing CW.
Label disposition of existing signs (R&S, R&D, R&R, ect.) and include appropriate items in the estimate.

Please, relocate the CB from the direct pedestrian's path.

LIMIT OF PAVEMENT MARKINGS MEET EXISTING STA 301+00

Proposed path offset creates sharp turn and forces cyclists to ride on narrow sidewalk. Consider either angled crossing of Bay St to align with NB approach or placing crossing at Clifford St.

Consider changing the sign ID to be unique for signs that are duplicated on the path vs city streets since they have differing sizes. For example change the ID of the R1-1 on the path to be R1-1a and give the R1-1a its own row on the Sign Summary.

Per PDDG, SUP crosswalks and ramps should be at least the same width of path.

Relocate R9-5 closer to the crossing/pushbutton.

Use MA-R10-23a in place of R10-23

N/F OAK GROVE CEMETERY OF SPRINGFIELD
PARCEL ID: 010850079
BAY ST
BOOK 0000 PAGE 000
LC PLAN 2987Z

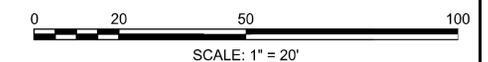
N/F CENTURY PACIFIC HOUSING PARTNERSHIP SPRINGFIELD REDEVELOPMENT AUTHORITY
PARCEL ID: 010850385 (BAY ST)
BOOK 8065 PAGE 356
BOOK 6724 PAGE 045
PLBK 145 PG 102-103
PLBK 144 PG 042

N/F BUCKEYE PIPE LINE COMPANY L P
PARCEL ID: 010850380 (401 BAY ST)
BOOK 17490 PAGE 003
BOOK 14211 PAGE 356
PLBK 358 PG 75

N/F WILLIAM J. VELEZ
PARCEL ID: 010850379 (405 BAY ST)
BOOK 21633 PAGE 497
BOOK 4870 PAGE 180
PLBK 418 PG 601

N/F MARIA V. VEGA
PARCEL ID: 010850378 (407 BAY ST)
BOOK 20733 PAGE 277
BOOK 5173 PAGE 373
PLBK 418 PG 601

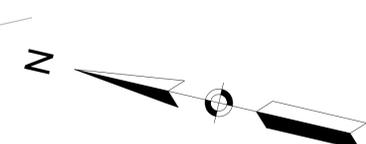
CONTINUED ON SHEET NO. 38



**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

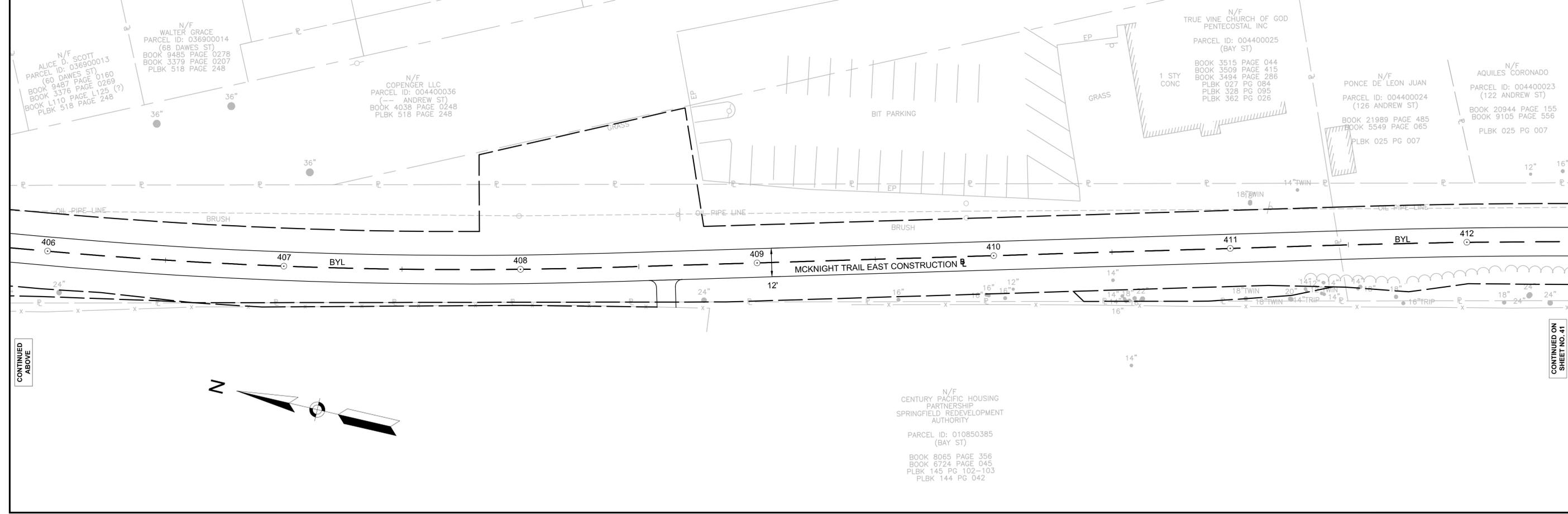
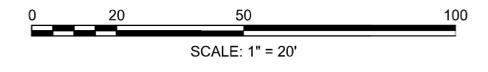
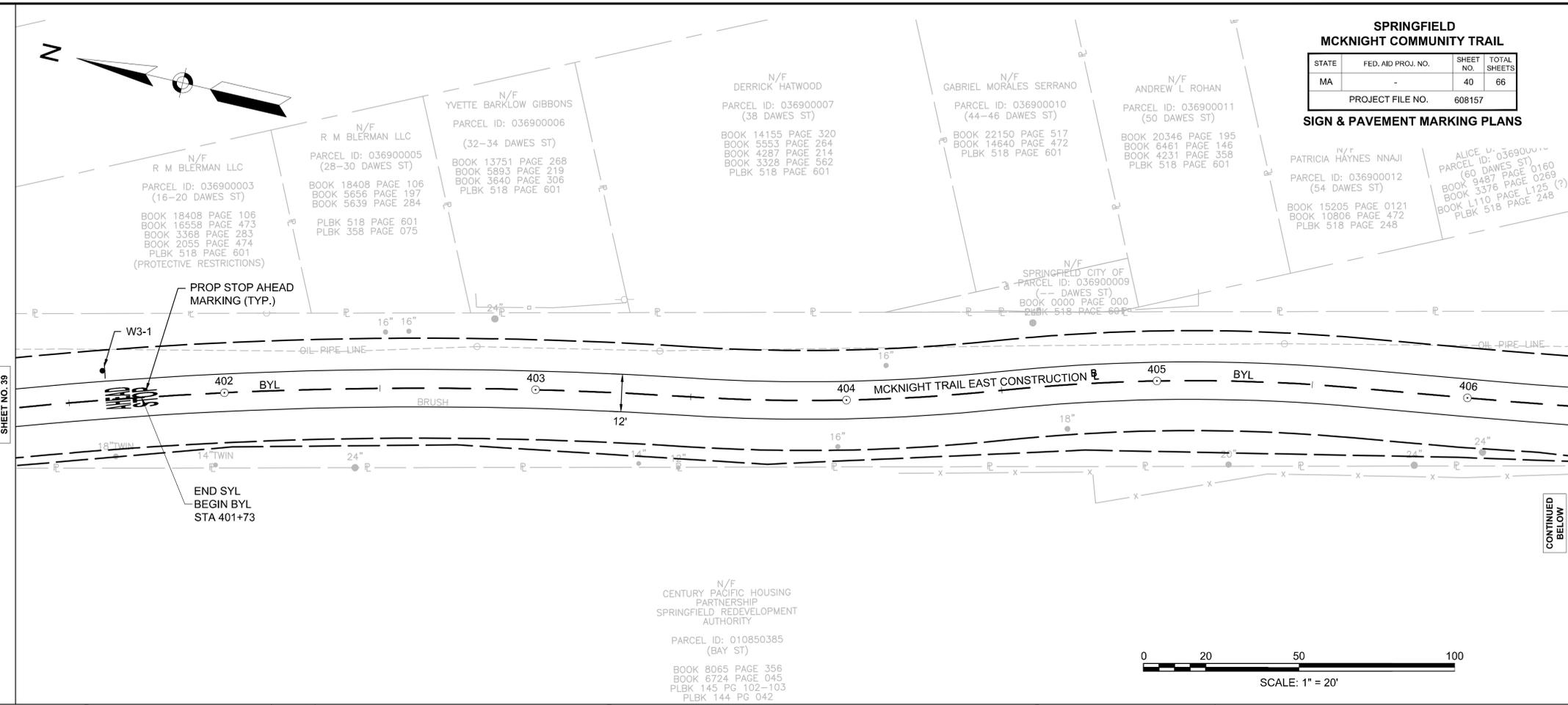
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	40	66
PROJECT FILE NO.		608157	

SIGN & PAVEMENT MARKING PLANS



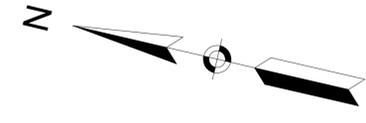
CONTINUED ON
SHEET NO. 39

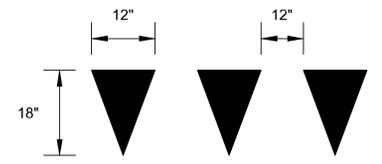
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BELOW



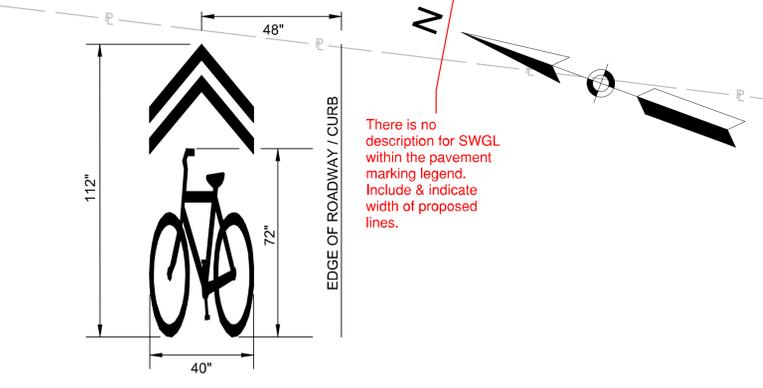
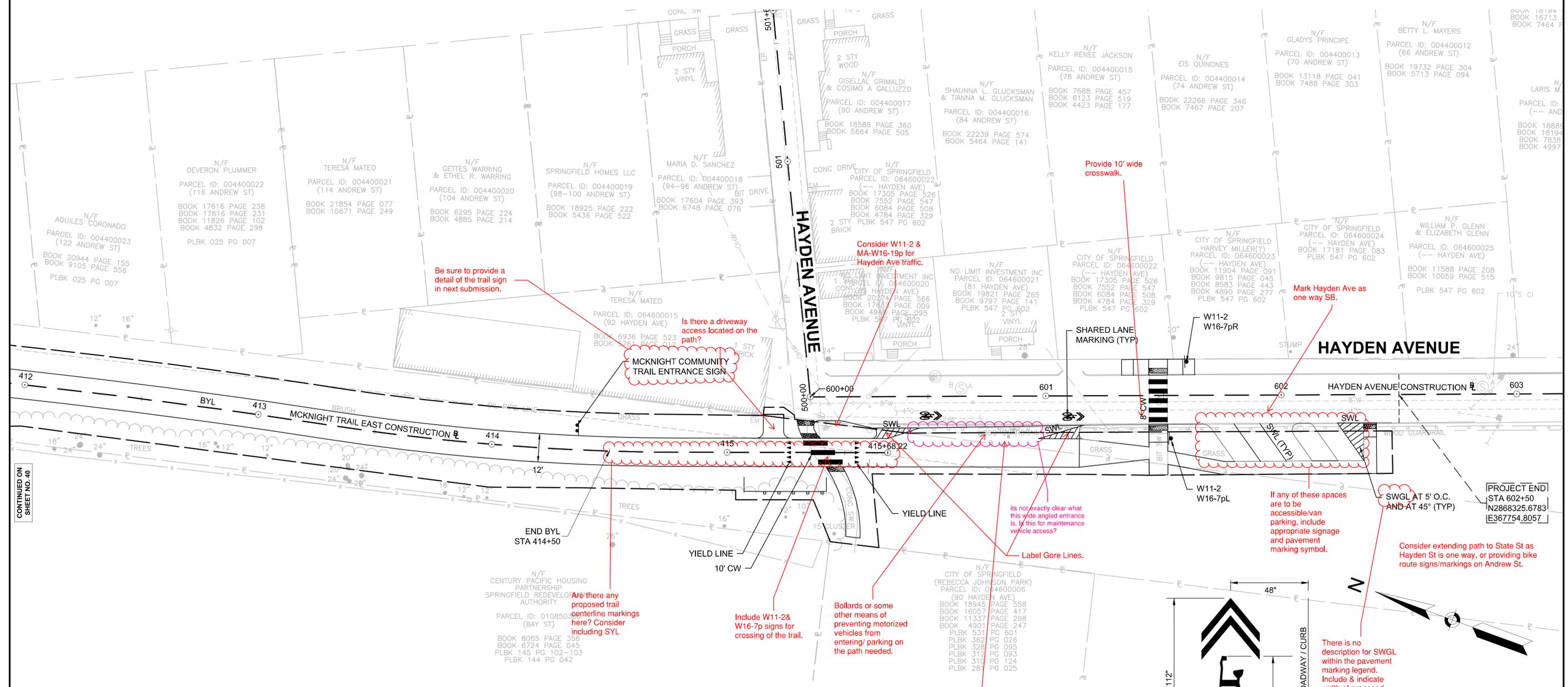
CONTINUED
ABOVE

CONTINUED ON
SHEET NO. 41





YIELD LINE MARKING DETAIL
NOT TO SCALE



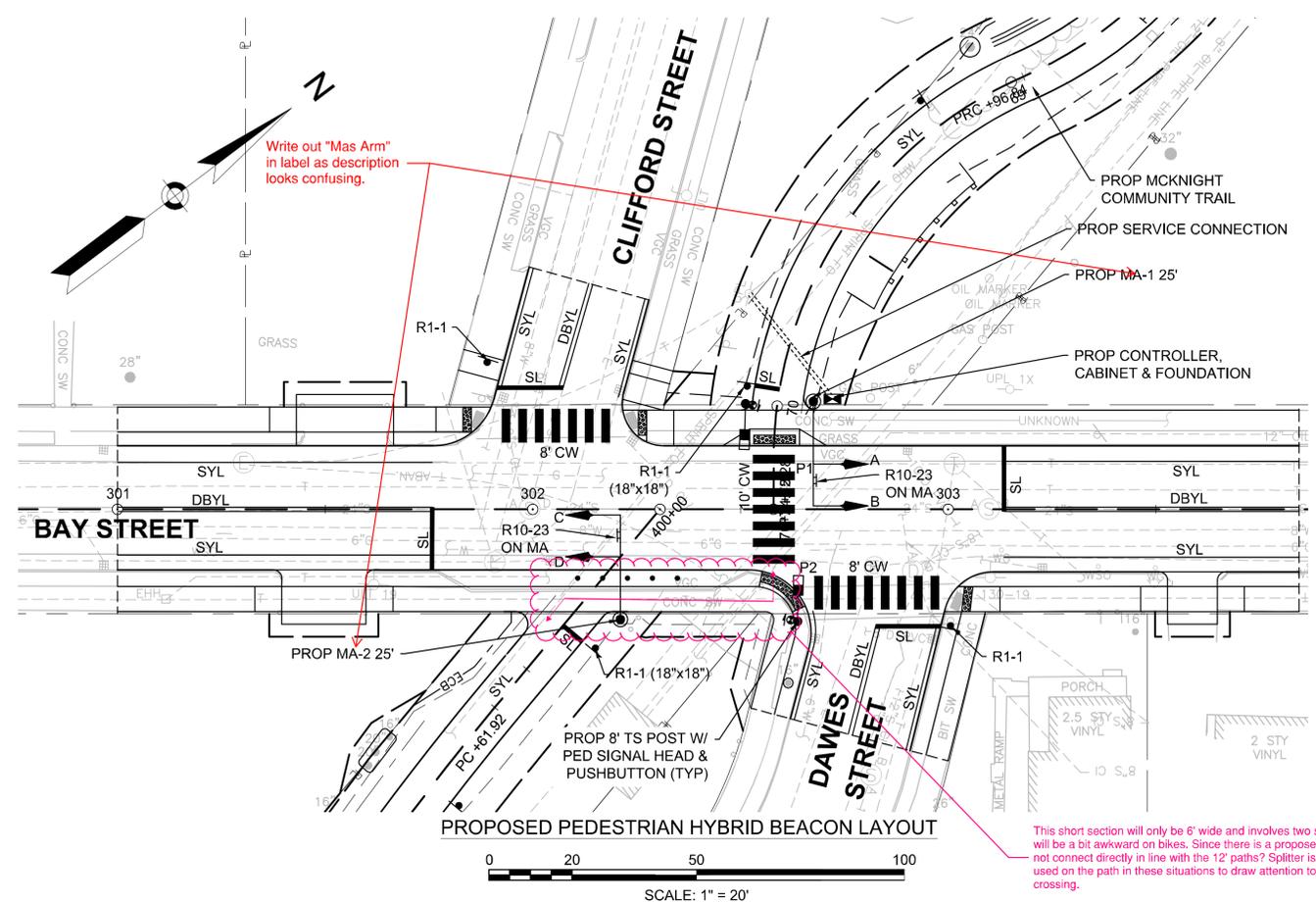
SHARED LANE MARKING DETAIL
NOT TO SCALE

CONTINUED ON SHEET NO. 40

**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

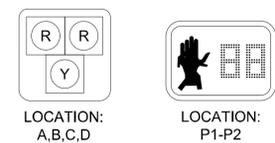
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	42	66
PROJECT FILE NO.		608157	

TRAFFIC SIGNAL PLAN



Write out "Mas Arm" in label as description looks confusing.

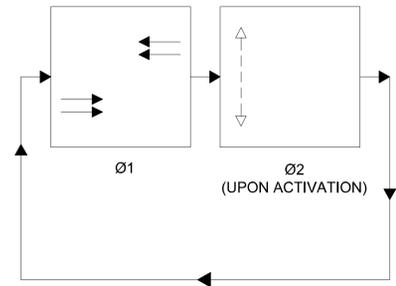
This short section will only be 6' wide and involves two sharp turns which will be a bit awkward on bikes. Since there is a proposed signal here why not connect directly in line with the 12' paths? Splitter islands are often used on the path in these situations to draw attention to the roadway crossing.



**SIGNAL HEAD DESIGNATIONS
NOT TO SCALE**

SIGNAL HEAD NOTES

1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES AND TUNNEL VISORS.
2. ALL SIGNAL BACKPLATES SHALL BE 5" LOUVERED WITH 3" YELLOW RETROREFLECTIVE BORDER.
3. ALL SIGNAL LENSES SHALL BE 12" DIA. LED.
4. ALL PEDESTRIAN SIGNAL HEADS SHALL DISPLAY INTERNATIONAL SYMBOLS - (HAND)/(PERSON WALKING) WITH COUNTDOWN DISPLAYS.
5. ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE 16" LED LENSES AND SUN VISORS.
6. ALL SIGNAL HEADS SHALL BE FIXED MOUNTED.



PREFERENTIAL PHASE SEQUENCE

MUTCD Section 4F.02 paragraph 04 states that "the pedestrian hybrid beacon should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs." Both Dawes and Clifford Street are in very close proximity to the crossing without any indications for either approach. Evaluate the pedestrian safety of the proposed HAWK location.

SEQUENCE AND TIMING CHART FOR PEDESTRIAN HYBRID BEACON (HAWK) SIGNAL

PHASE		Ø1						Ø2		
STREET	DIRECTION	HOUSINGS	1	2	3	4	4	5	6	
BAY STREET	NB	A,B	OUT*	FY	SY	SR	SR	FR	FR	
BAY STREET	SB	C,D	OUT*	FY	SY	SR	SR	FR	FR	
PEDESTRIAN	ALL	P1-P2	DW	DW	DW	DW	W	FDW	DW	
TIMING IN SECONDS										
MINIMUM GREEN			45							
PASSAGE TIME			-							
MAXIMUM 1			-							
MAXIMUM 2			-							
CLEARANCE INTERVAL			3		3		1		4	
WALK/CLEARANCE/BUFFER INTERVAL							7		5	
DETECTOR MEMORY			NON-LOCK			LOCK				
RECALL SWITCH			MAX			OFF				
* DARK UNTIL ACTIVATED										

??? Revise

SEQUENCE FOR PEDESTRIAN HYBRID BEACON (HAWK) SIGNAL

	1. DARK UNTIL ACTIVATED.		1. DON'T WALK.
	2. FLASHING YELLOW UPON ACTIVATION.		2. DON'T WALK.
	3. STEADY YELLOW FOR VEHICLE CLEARANCE		3. DON'T WALK.
	4. STEADY RED DURING BUFFER INTERVAL.		4. DON'T WALK.
	5. STEADY RED DURING PEDESTRIAN WALK INTERVAL.		5. WALK.
	6. ALTERNATING FLASHING RED DURING PEDESTRIAN CLEARANCE INTERVAL.		6. FLASHING DON'T WALK WITH COUNTDOWN.
	7. ALTERNATING FLASHING RED DURING PEDESTRIAN BUFFER INTERVAL.		7. DON'T WALK.
	8. DARK UNTIL ACTIVATED AGAIN.		8. DON'T WALK.

8 Stages VS 7 Stages in the Sequence and Timing Chart. Please resolve.

PEDESTRIAN HYBRID BEACON NOTES:

1. IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
2. IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT TRAFFIC MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.
3. PEDESTRIAN PHASE TO BE ACTIVATED BY PEDESTRIAN PUSH-BUTTON ONLY.
4. PEDESTRIAN PUSHBUTTONS AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FIG. 4E-4) AND POINTED PARALLEL TO THE CROSSWALK.

MAST ARM FOUNDATIONS

MAST ARM	ARM LENGTH	LOCATION		FOUNDATION SIZE			
		STATION	OFFSET	DIAMETER	DEPTH	VERT. BARS	TIE BARS
MA 1	25'	302+67.5	25.8' LT				
MA 2	25'	302+21.1	26.4' RT				

1. MAST ARM FOUNDATION DESIGN TO BE VERIFIED PENDING SOIL EXPLORATION.

MAJOR ITEMS

ITEM NO.	QUANTITY	DESCRIPTION
815.	1	TRAFFIC SIGNAL CONTROLLER (TS2, TYPE 1), LOCATED IN BASE MOUNTED CABINET (SIZE 5) WITH FOUNDATION
	2	25' MAST ARM, TYPE II, STEEL MONOLEVER WITH FOUNDATION
	2	TRAFFIC SIGNAL POST & BASE - 8' STEEL
	4	SIGNAL HEAD, 1-WAY, 3 SECTION, 12" LENSES
	4	5" 3-SECTION BACKPLATES WITH 3" YELLOW RETROREFLECTIVE YELLOW BORDER
	2	PEDESTRIAN SIGNAL HEAD, 1-WAY, 1 SECTION, 16" WITH COUNTDOWN
	2	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSHBUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
	1	SERVICE CONNECTION (UNDERGROUND)
811.31	-	PULL BOX, 12" X 12"

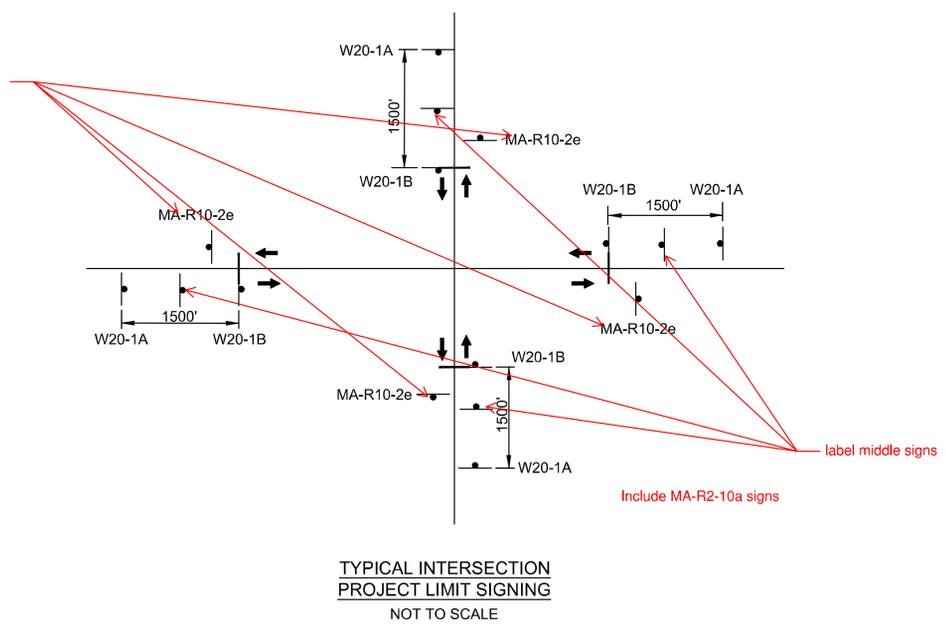
Include item for conduit in plus ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY major items list. Be sure to provide a complete operating traffic control signal. show the location of conduit on plans.

NOTES:

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE 2009 EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
- ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD, EXCEPT THAT BACKGROUND COLOR SHALL BE FLUORESCENT ORANGE, IN ACCORDANCE WITH MASSDOT SPECIFICATIONS.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, AND REFLECTORIZED PLASTIC DRUMS WITH LIGHTING DEVICES MOUNTED ON THEM, MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- CONTRACTORS 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 CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING LIGHTS.
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL NOT COVERED IN THE PLAN SHALL REFER TO MASSDOT "STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS".

Sequential flashing lights really only needed if traffic set-ups are to remain overnight. Either remove note from plans or include item 859.1 REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS in estimate.

ID should read "MA-R2-10e"



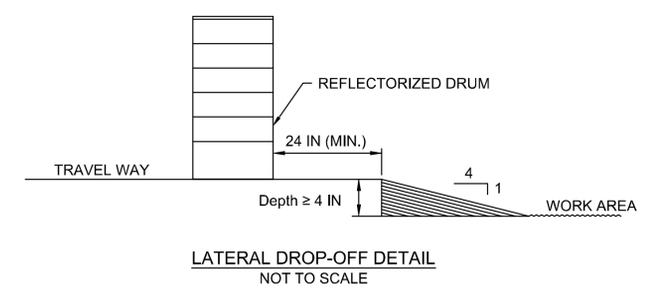
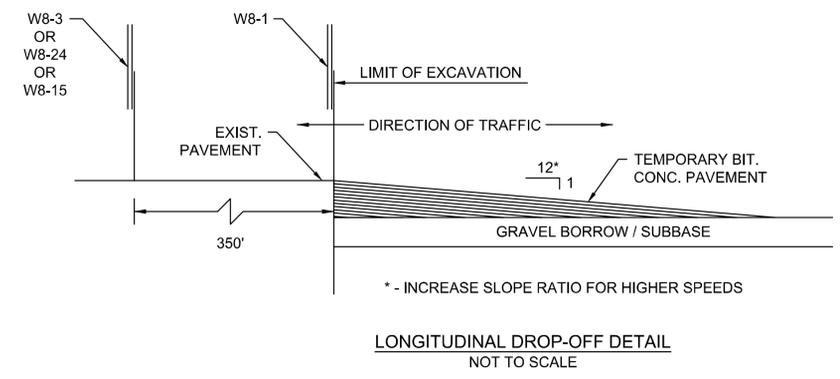
LEGEND:

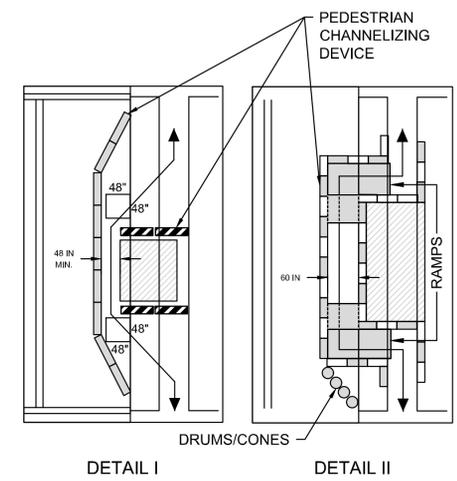
- REFLECTORIZED PLASTIC DRUM
- ▩ TYPE III BARRICADE
- ⬆ FLASHING ARROW PANNEL
- ⬆ FLASHING ARROW PANNEL
- ▨ WORK ZONE
- ➔ DIRECTION OF TRAFFIC
- ⊘ IMPACT ATTENUATOR
- ▭ MEDIAN BARRIER
- ▭ MEDIAN BARRIER WITH WARNING LIGHTS
- 🚚 WORK VEHICLE
- 🚚 TRUCK MOUNTED ATTENUATOR
- ⬆ TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN
- P POLICE DETAIL
- F FLAGGER

TAPER LENGTH

SPEED LIMIT	FORMULA
40 MPH or Less	$L = WS^2/60$
45 MPH or Greater	$L = W \times S$

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED IN MPH



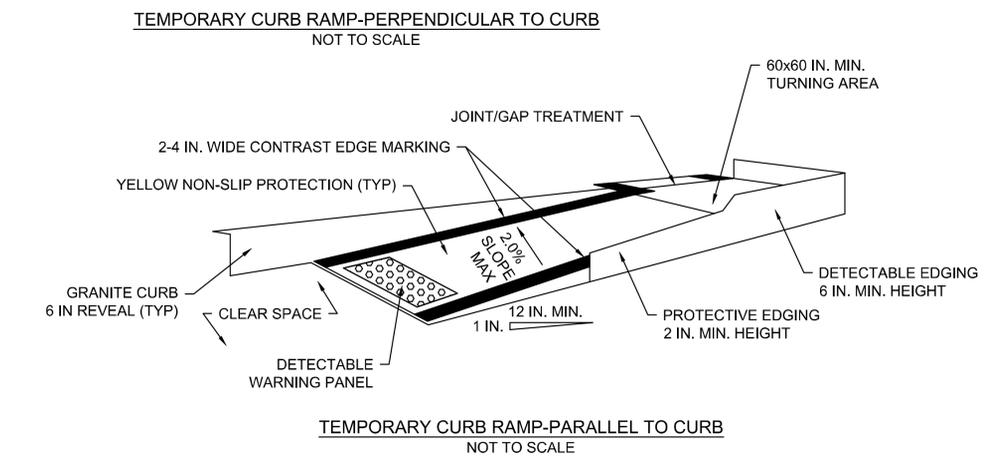
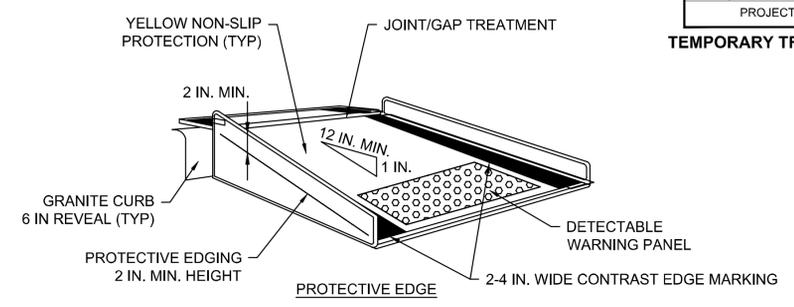


NOTES:

- DETAIL I IS CONSIDERED AN EXAMPLE OF A SHORT TERM CLOSURE AND PEDESTRIAN ASSISTANCE (PERSONEL) TO NAVIGATE AROUND THE CLOSURE/WORK AREA COULD BE CONSIDERED AS AN OPTION IN PLACE OF PROVIDING ADA/AAB DEVICES. DETAIL II IS CONSIDERED AN EXAMPLE OF A LONG TERM CLOSURE THAT WOULD REQUIRE ADDITIONAL ADA/AAB COMPLIANT DEVICES. IF A SIDEWALK CLOSURE OR RESTRICTION LASTS FOR MORE THAN ONE (1) WORK SHIFT THEN ADA/AAB COMPLIANCE SHALL BE FOLLOWED.
- WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TTC ZONE, TEMPORARY FACILITIES SHALL BE PROVIDED AND THEY SHALL BE DETECTABLE AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.
- A PEDESTRIAN CHANNELIZING DEVICE THAT IS DETECTABLE BY A PERSON WITH A VISUAL DISABILITY TRAVELING WITH THE AID OF A LONG CANE SHALL BE PLACED ACROSS THE FULL WIDTH OF THE CLOSED SIDEWALK.
- WHEN USED, TEMPORARY RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (SEE FIGURES).
- THE ALTERNATE PATHWAY SHOULD HAVE A SMOOTH CONTINUOUS HARD SURFACE FOR THE ENTIRE LENGTH OF THE TEMPORARY PEDESTRIAN FACILITY.
- THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THE SIDEWALK EXCEEDS 200 FEET THEN A 5 FOOT BE 5 FOOT PASSING ZONE SHALL BE PROVIDED.
- THE PROTECTIVE REQUIREMENTS OF A TTC WORK ZONE MAY HAVE AN IMPACT IN DETERMINING THE NEED FOR TEMPORARY TRAFFIC BARRIERS AND THEIR USE IN PROVIDING PEDESTRIAN DELINEATION SHOULD BE BASED ON ENGINEERING JUDGMENT .
- CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN; VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE. THESE DETAILS ARE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DETERMINED BY THE ENGINEER.
- AUDIBLE INFORMATION DEVICES SHOULD BE CONSIDERED WHERE MIDBLOCK CLOSINGS AND CHANGED CROSSWALK AREAS CAUSE INADEQUATE COMMUNICATION TO BE PROVIDED TO PEDESTRIANS WHO HAVE VISUAL DISABILITIES.
- EXISTING AUDIBLE DEVICES NO LONGER APPLICABLE DUE TO CONSTRUCTION SHALL BE DISABLED.

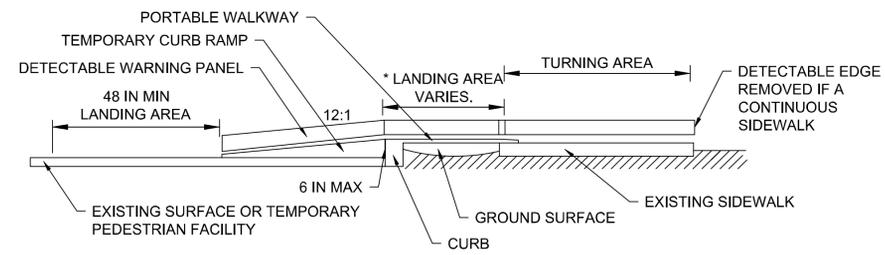
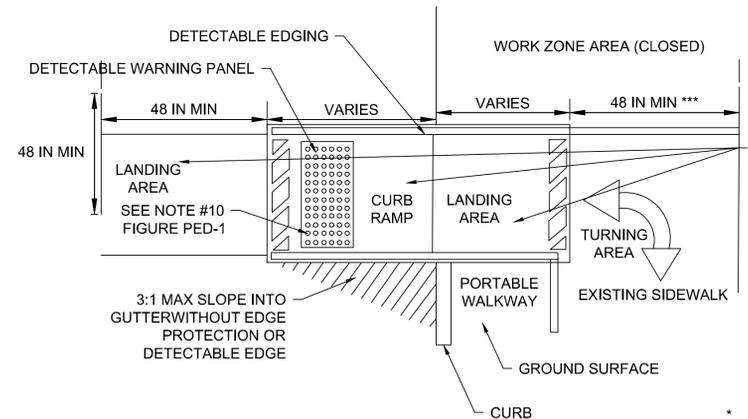
AUDIBLE DEVICES:

- FOR LONG TERM SIDEWALK CLOSURES (AT A MINIMUM OVERNIGHT) A FORM OF SPEECH MESSAGING FOR PEDESTRIANS WITH VISUAL DISABILITIES SHALL BE PROVIDED. AUDIBLE INFORMATION DEVICES SUCH AS DETECTABLE BARRIERS OR BARRICADES AND OTHER PASSIVE PEDESTRIAN ACTIVATION (MOTION ACTIVATED) DEVICES SHOULD BE CONSIDERED FOR THESE CASES. THESE AUDIBLE DEVICES CAN BE MOUNTABLE OR STAND ALONE.

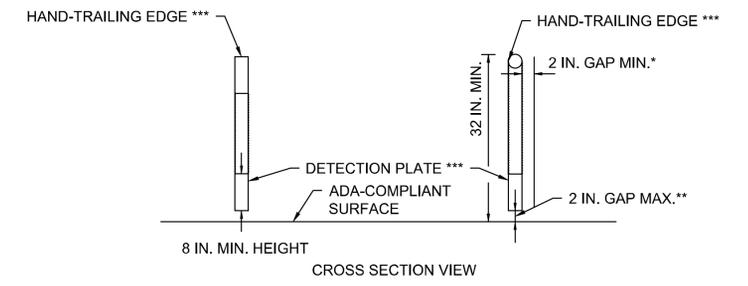


NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

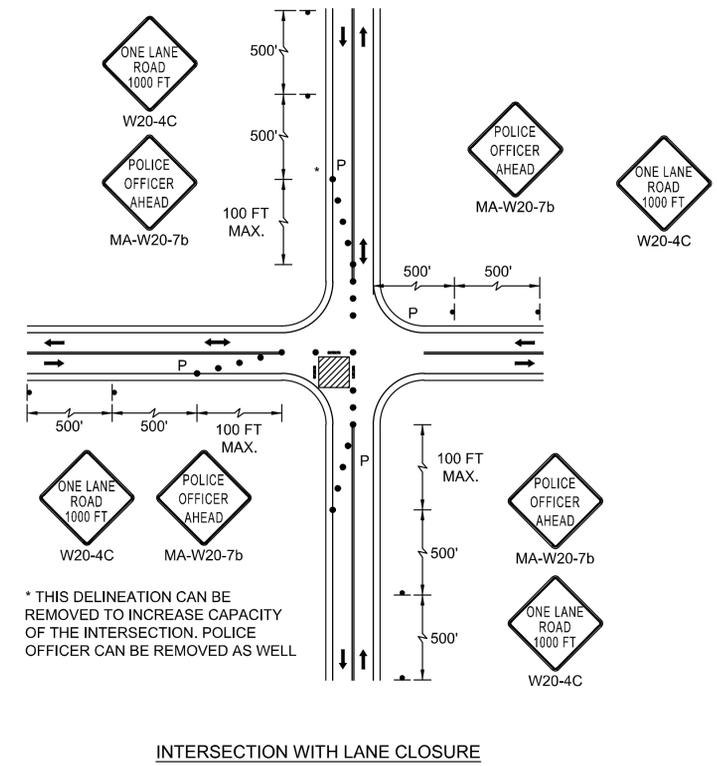
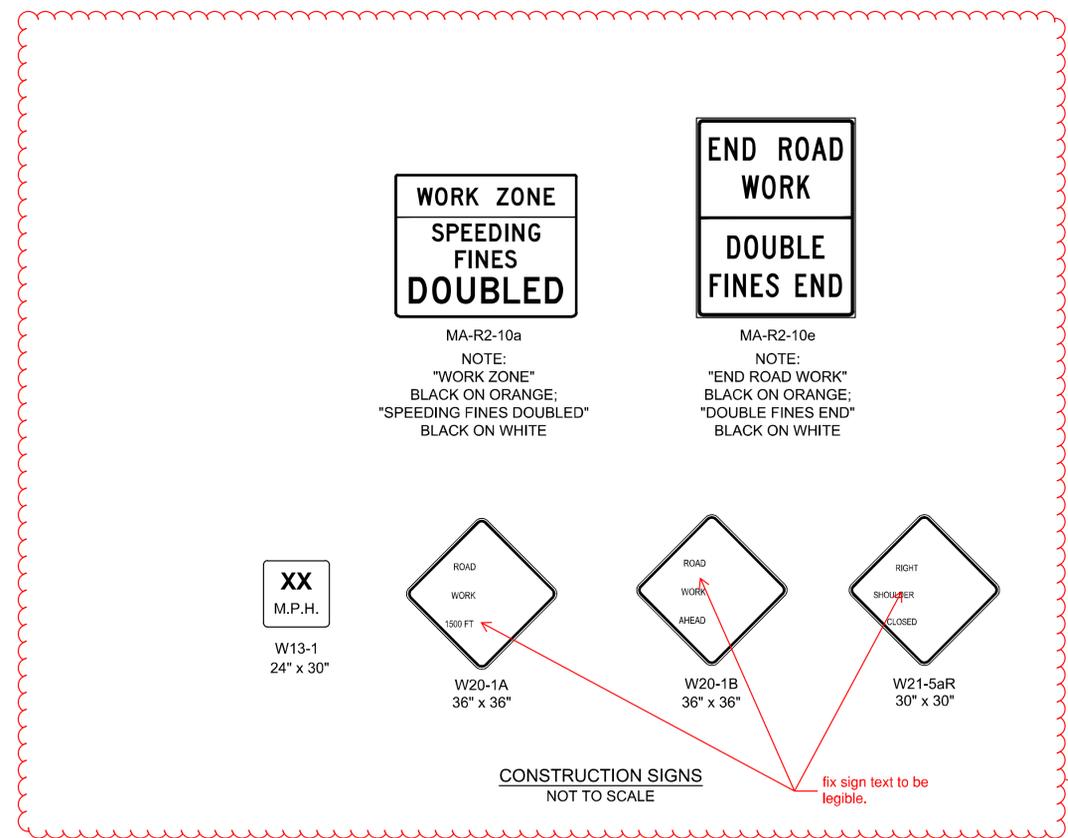
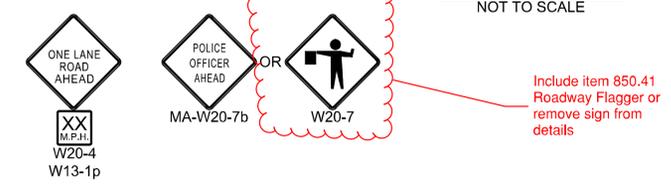
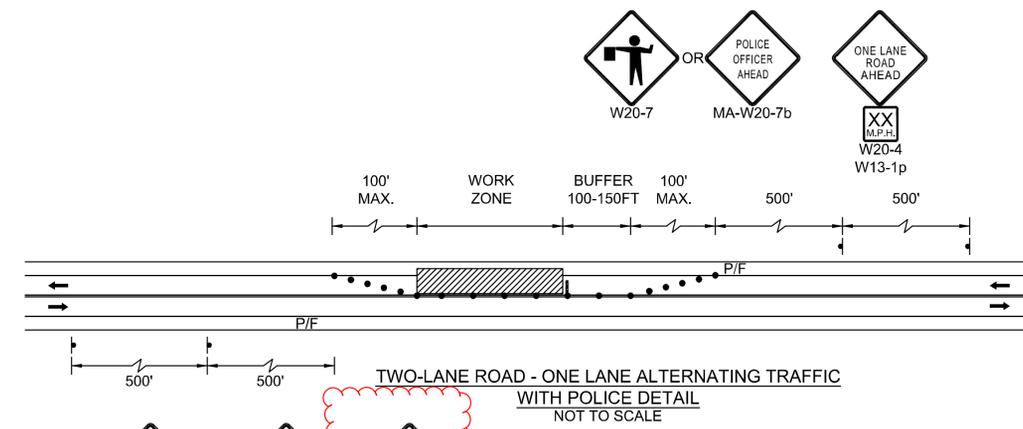
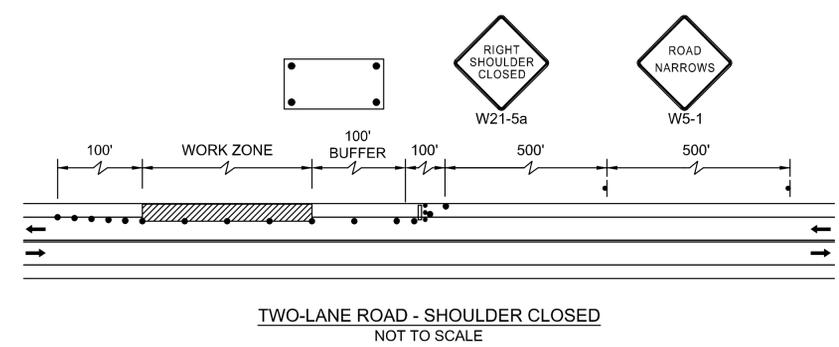


- * LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.
- ** DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.
- *** 60 IN. IF AN OBSTRUCTION IS AT BACK OF SIDEWALK



NOTES:

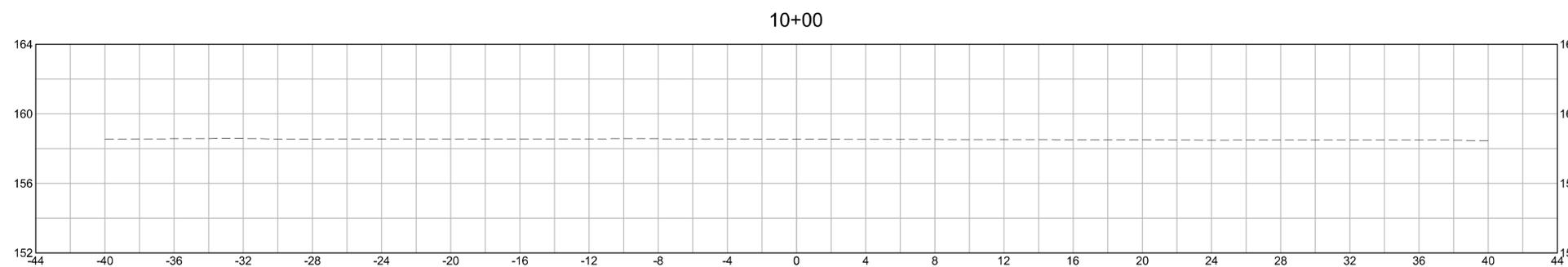
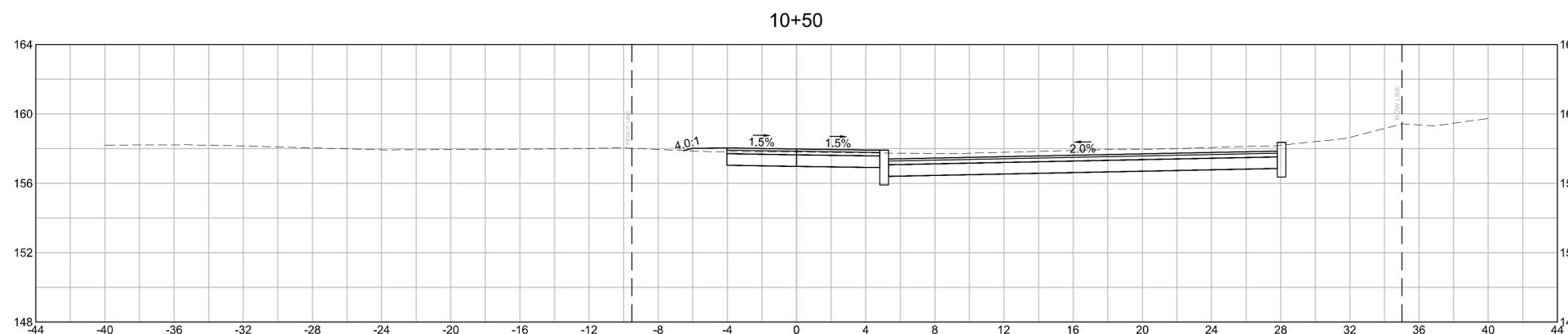
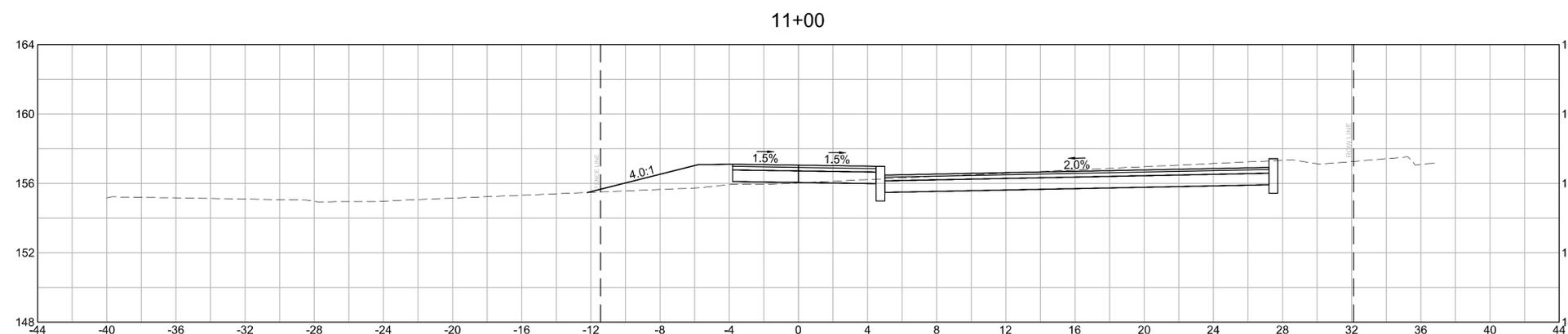
- * THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
- ** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.
- *** THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.



instead include
Temporary Traffic
Sign Summary with
all potential Safety
Signing for Traffic
Management.

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

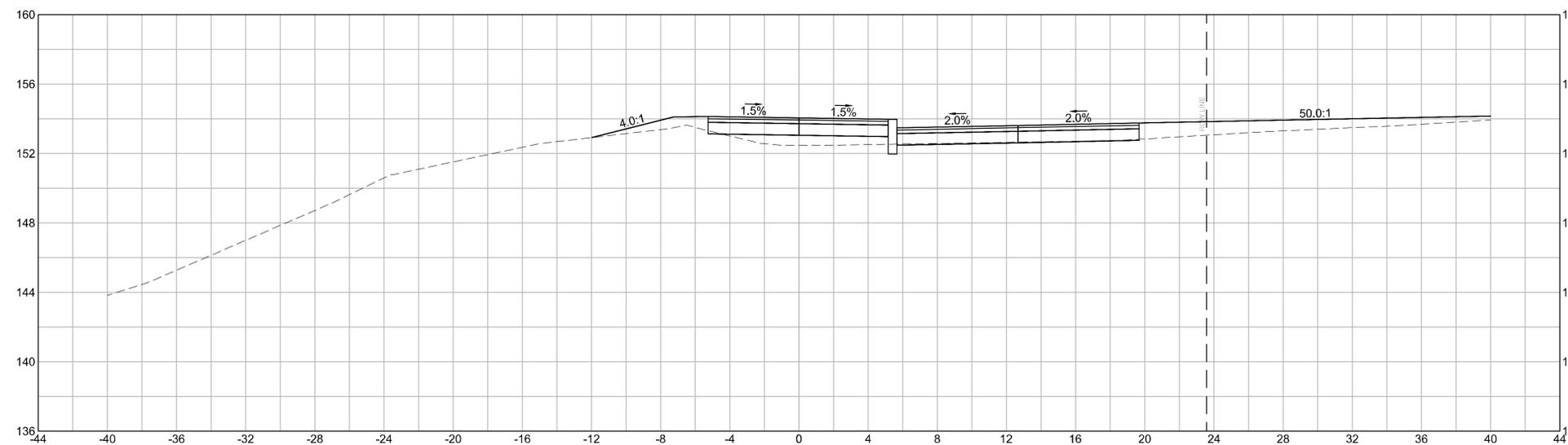
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-		66
PROJECT FILE NO.		608157	



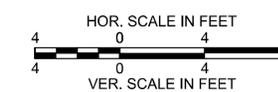
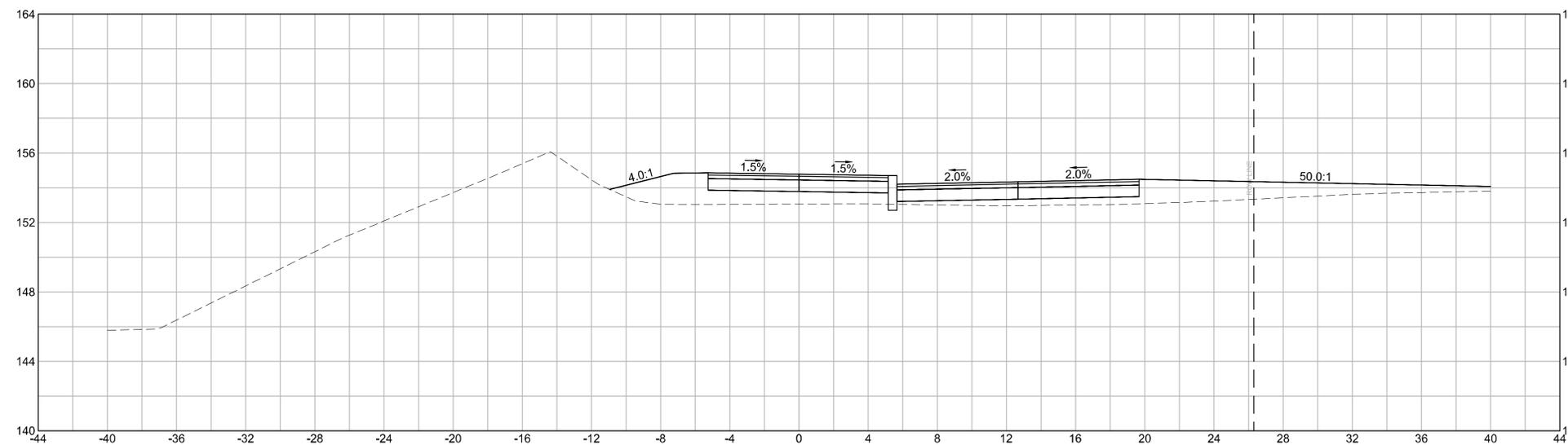
SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-		66
PROJECT FILE NO.		608157	

12+50



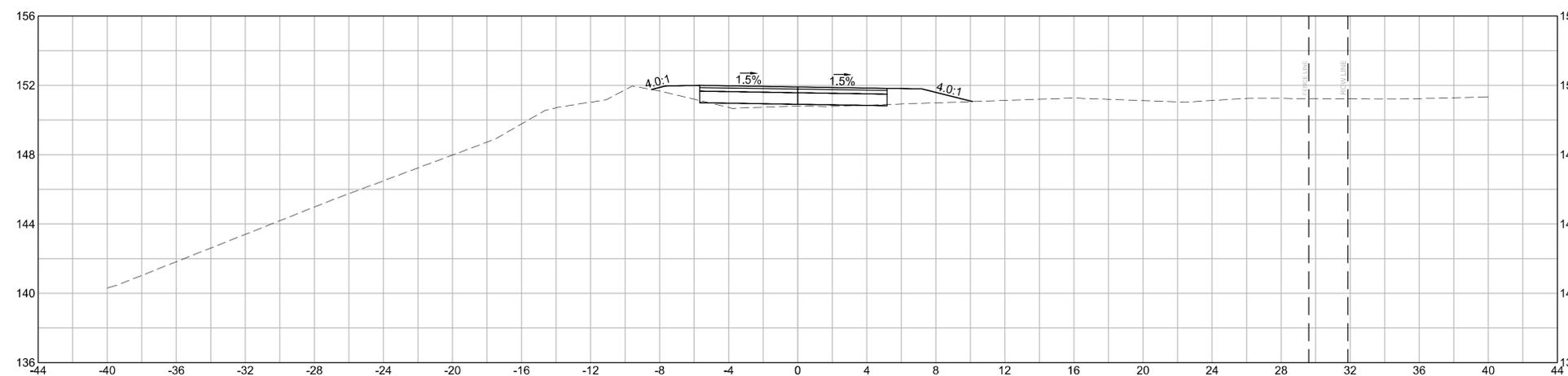
12+00



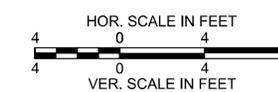
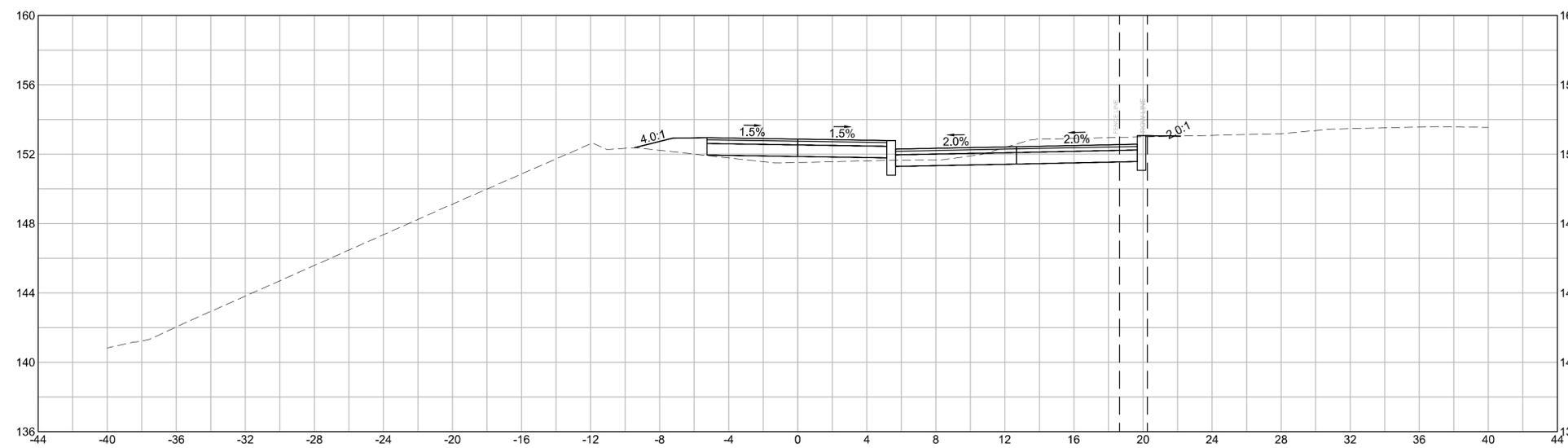
SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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15+00

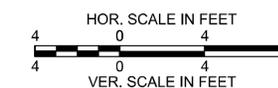
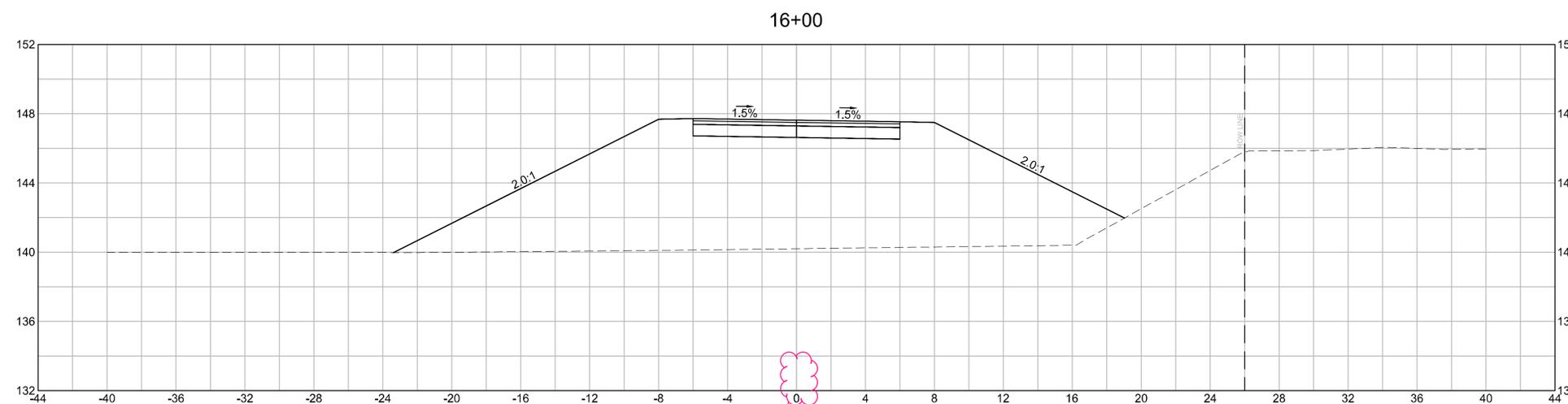
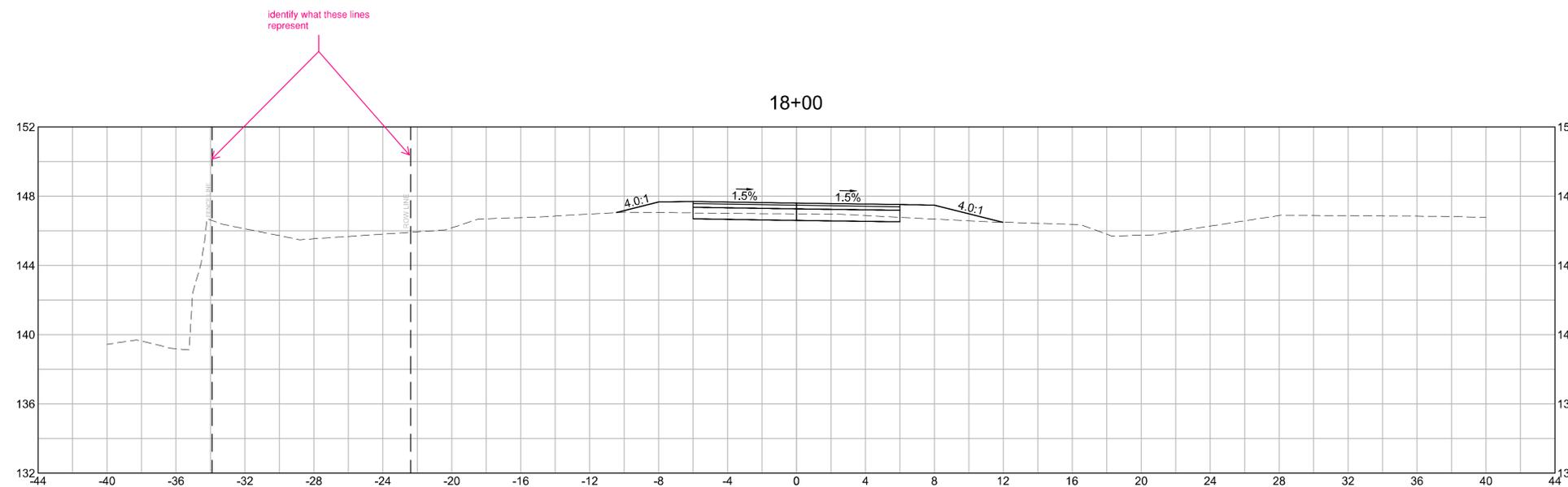


14+00



**SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL**

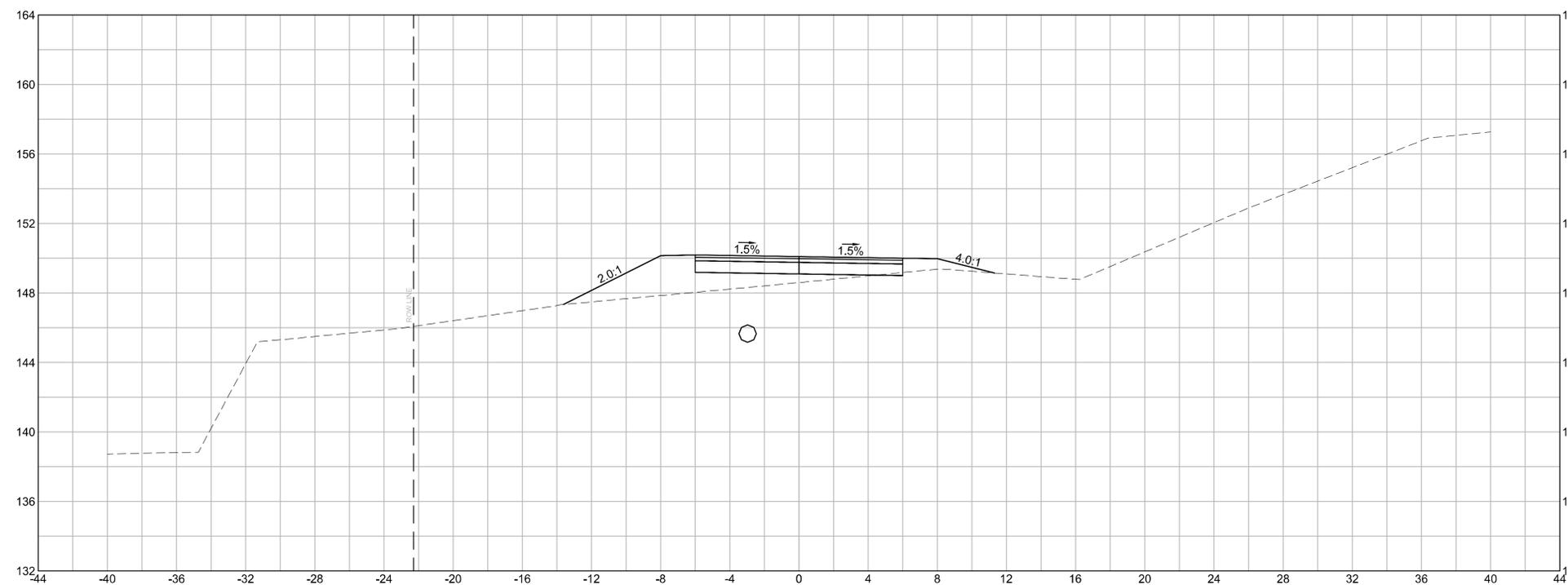
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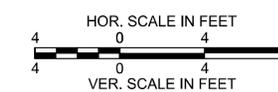
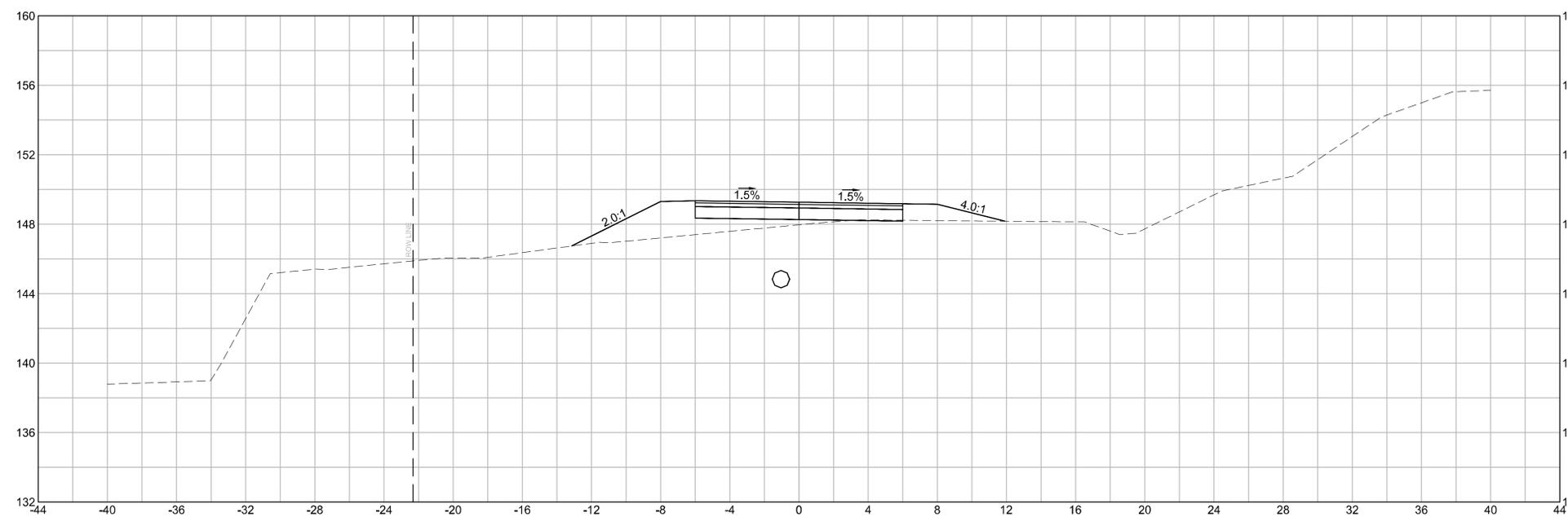
SPRINGFIELD
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19+50

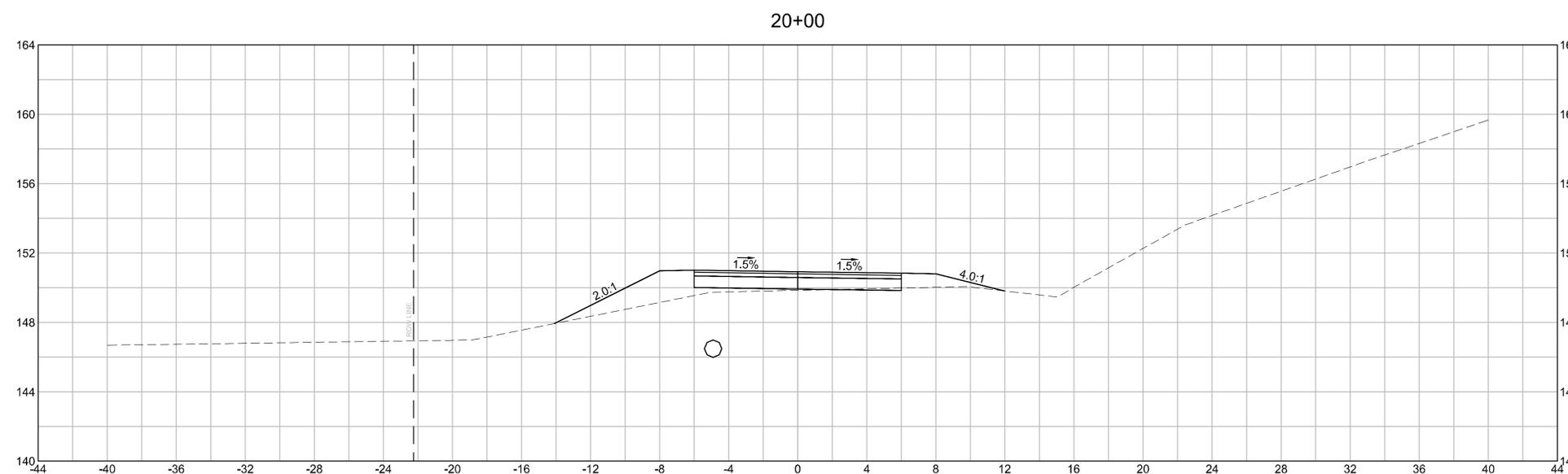
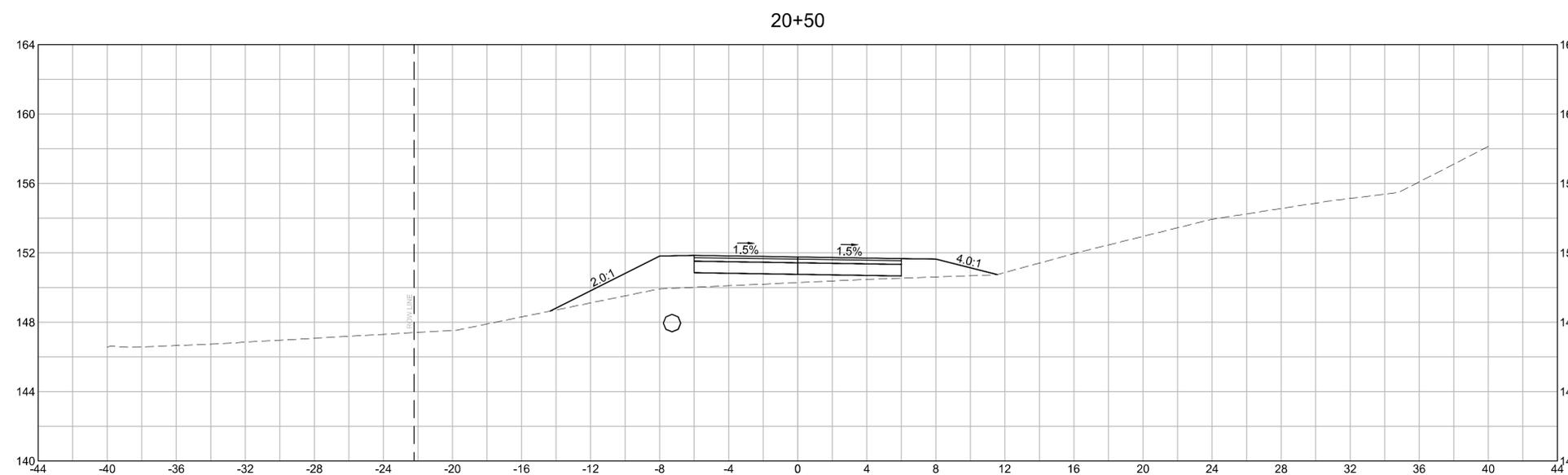


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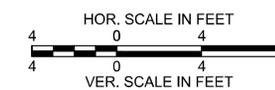
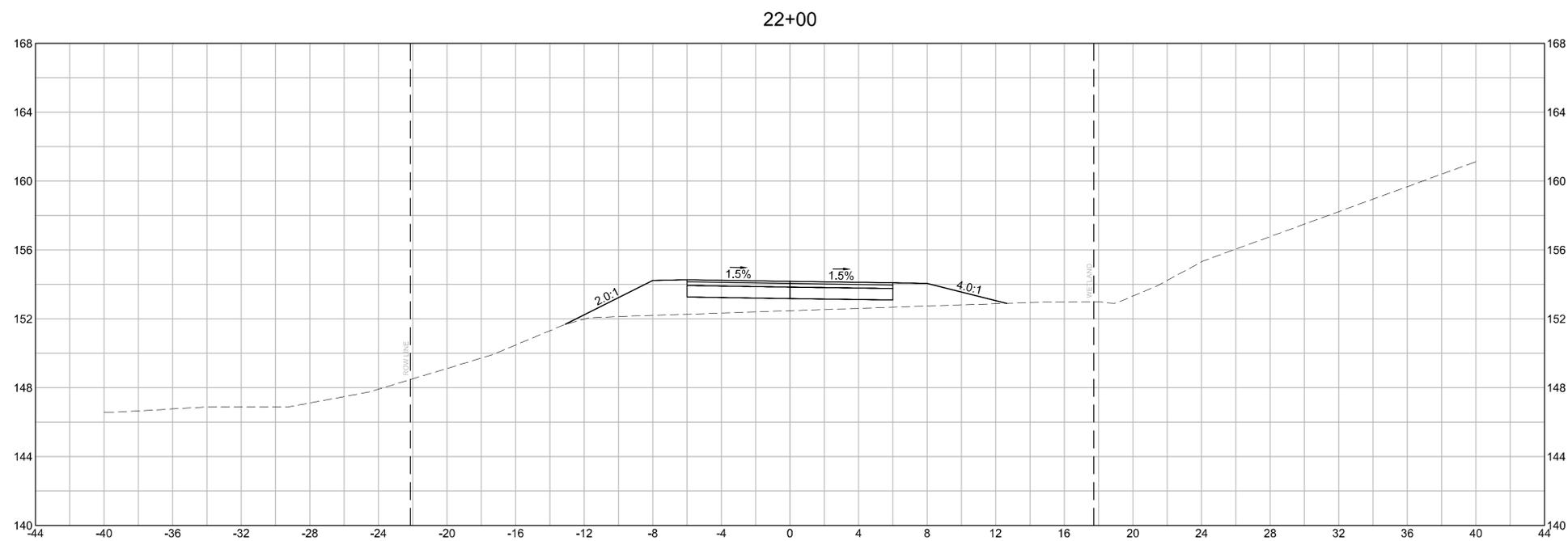
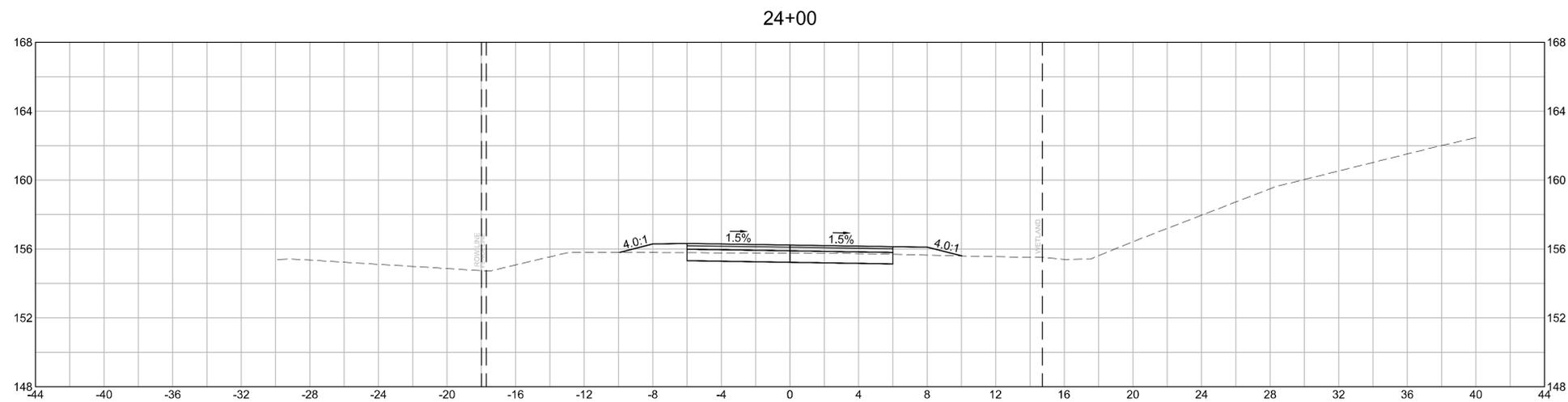
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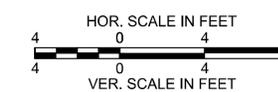
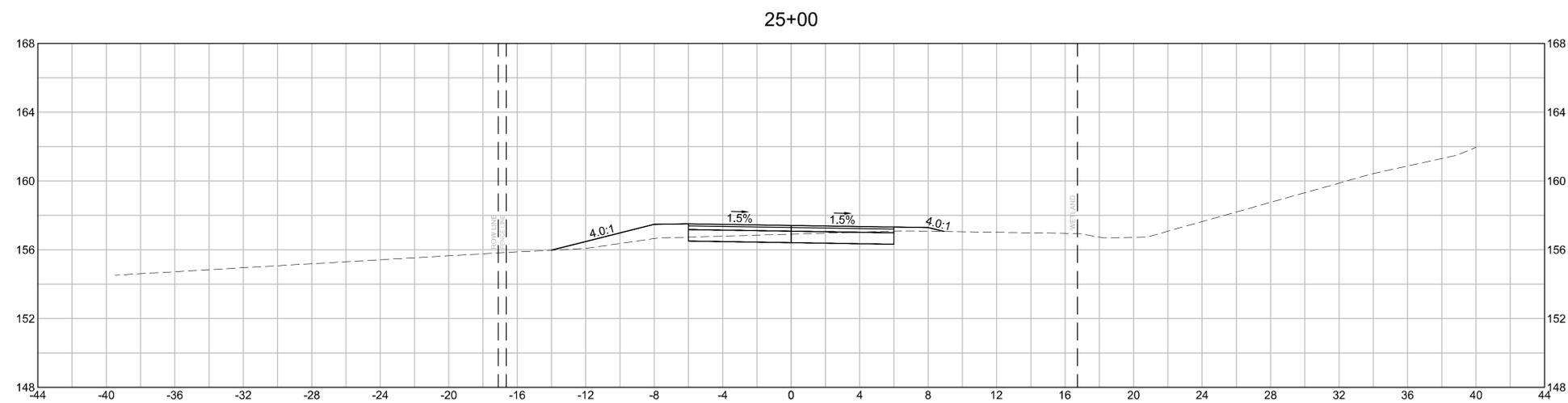
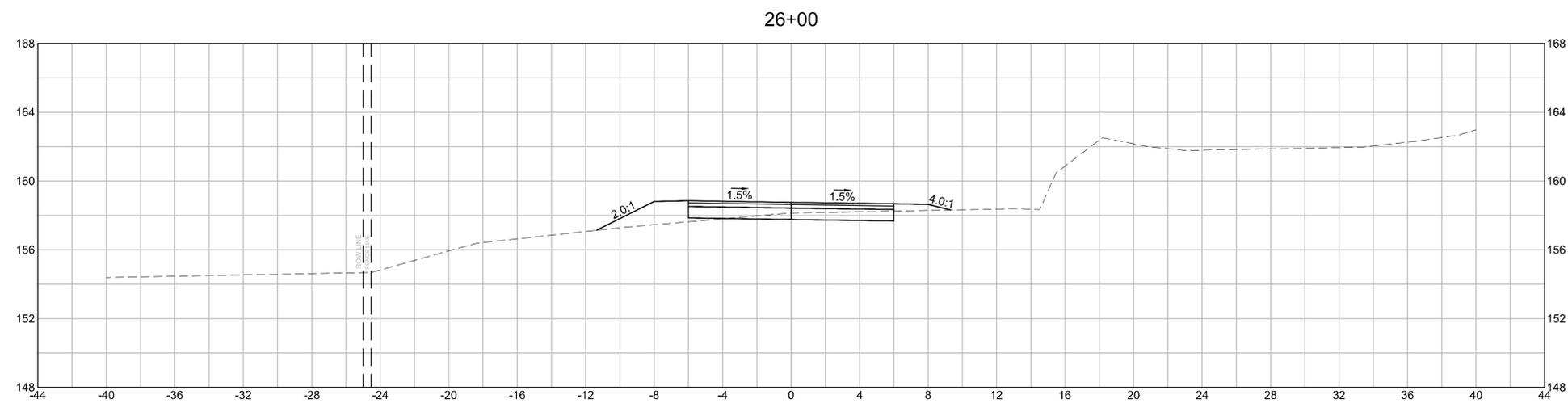
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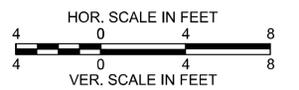
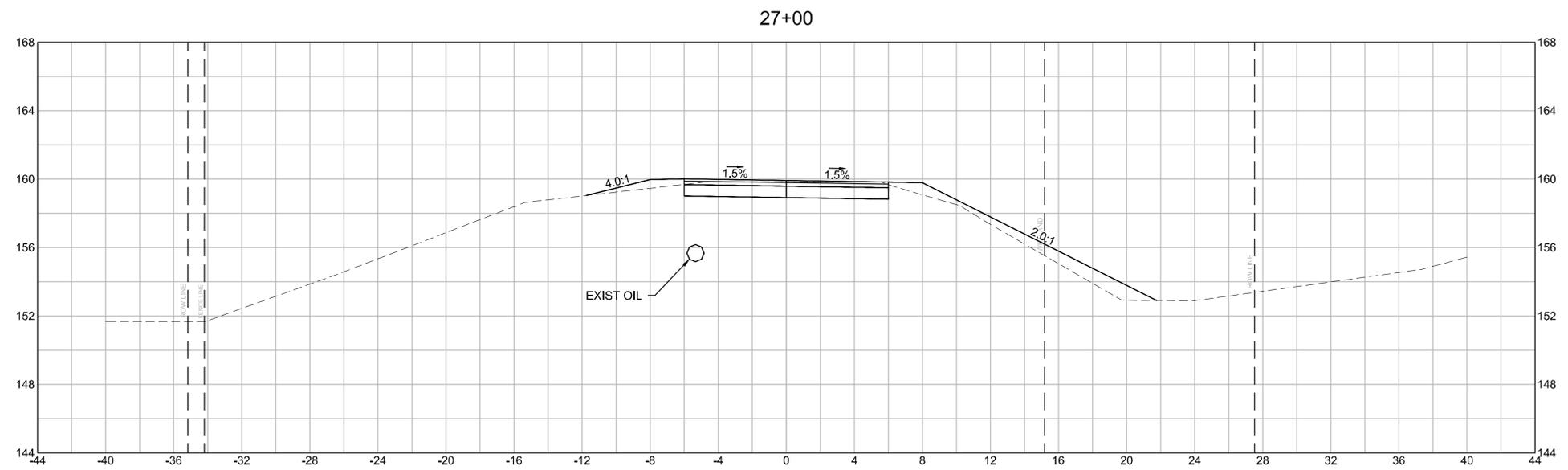
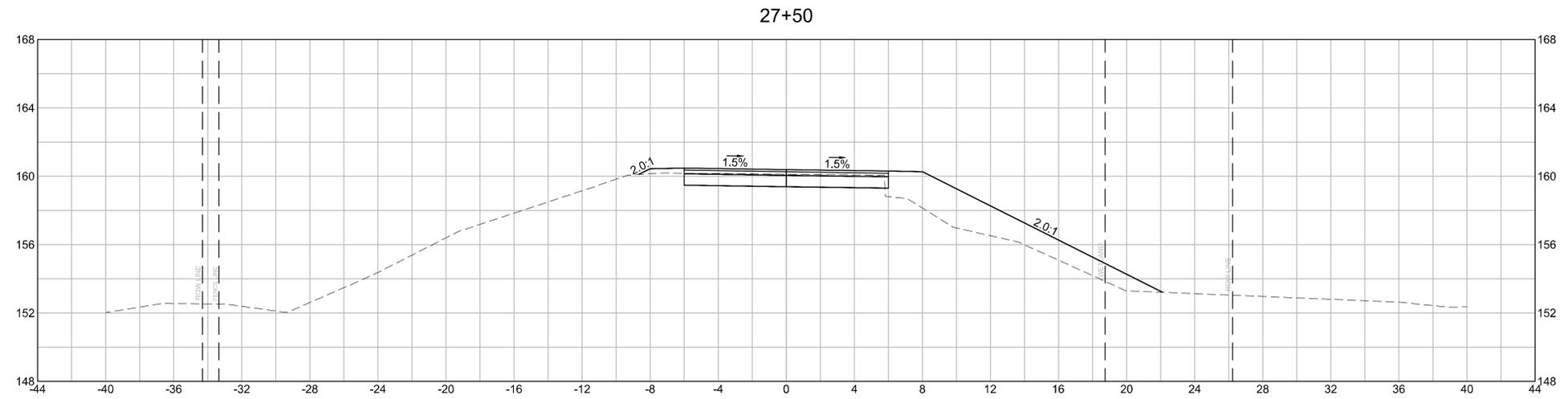
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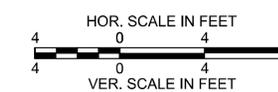
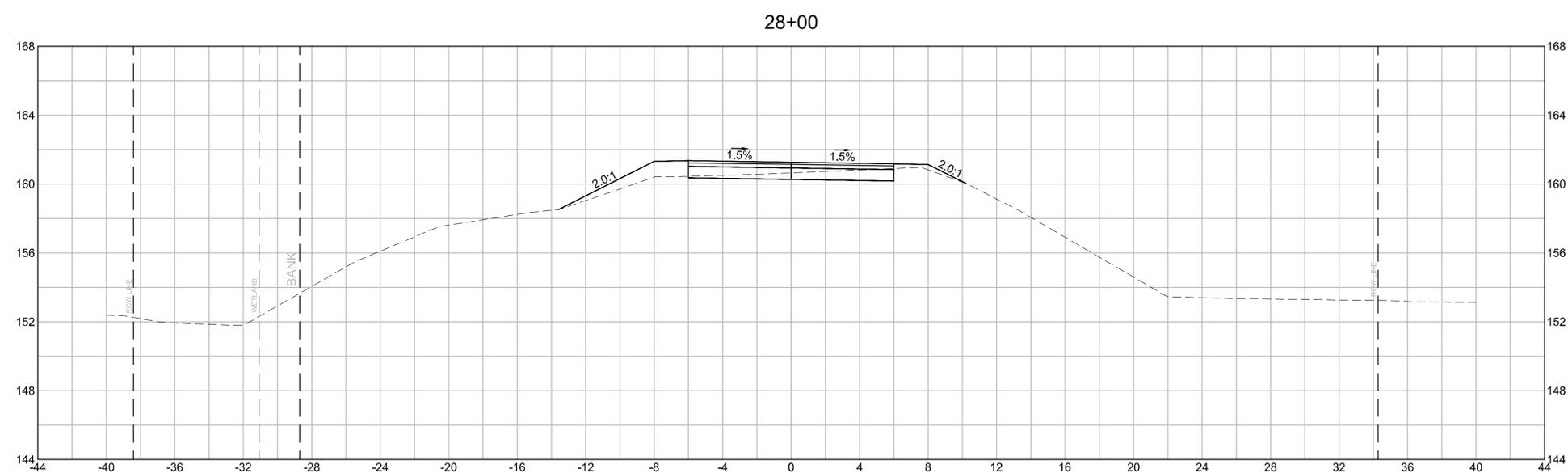
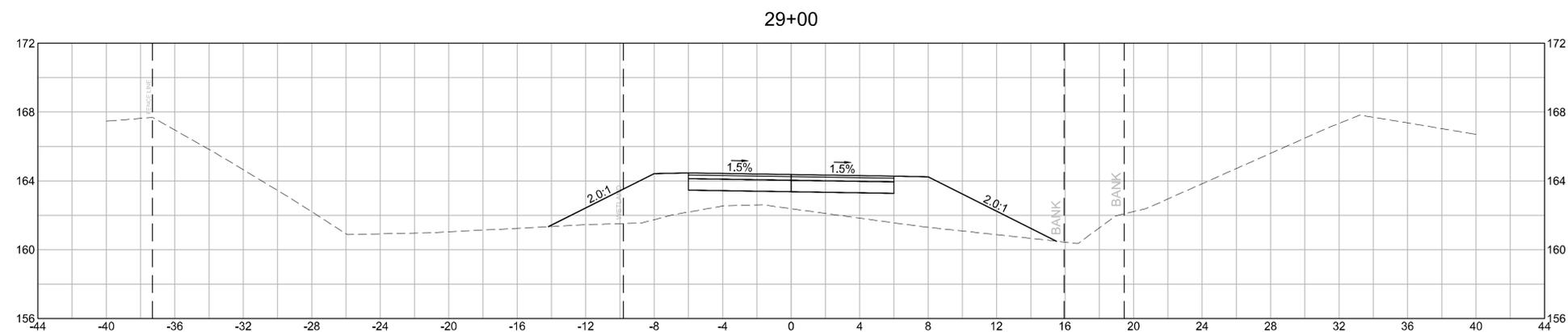
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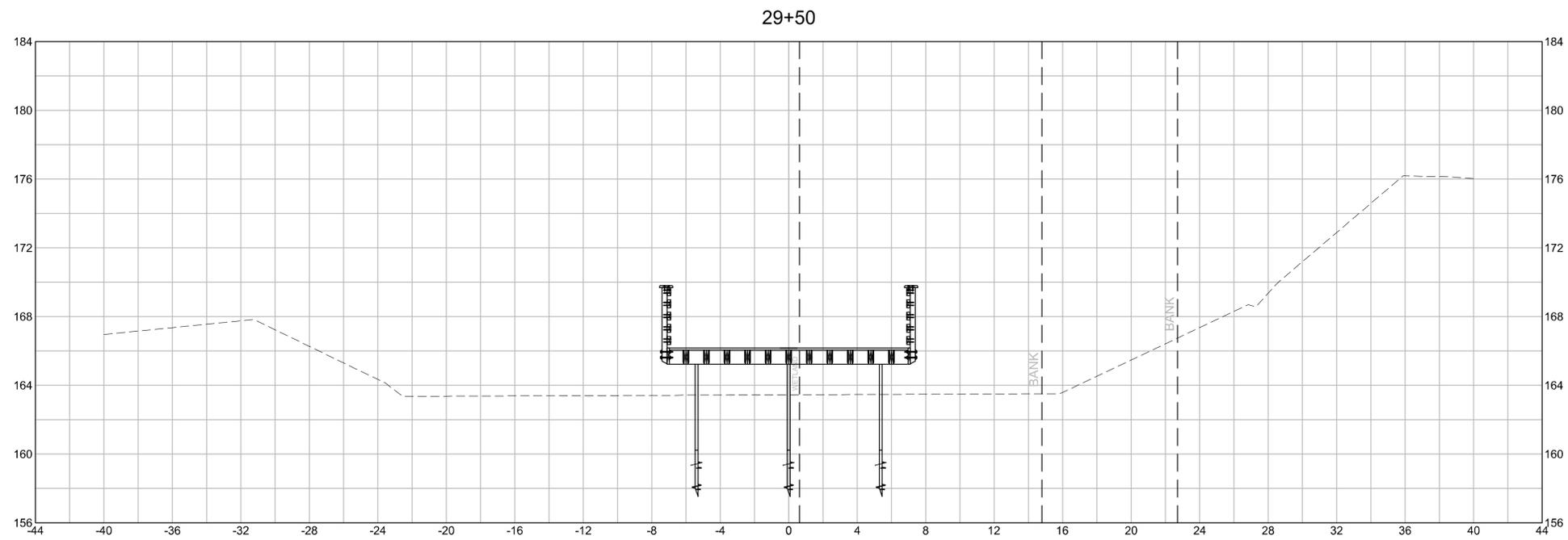
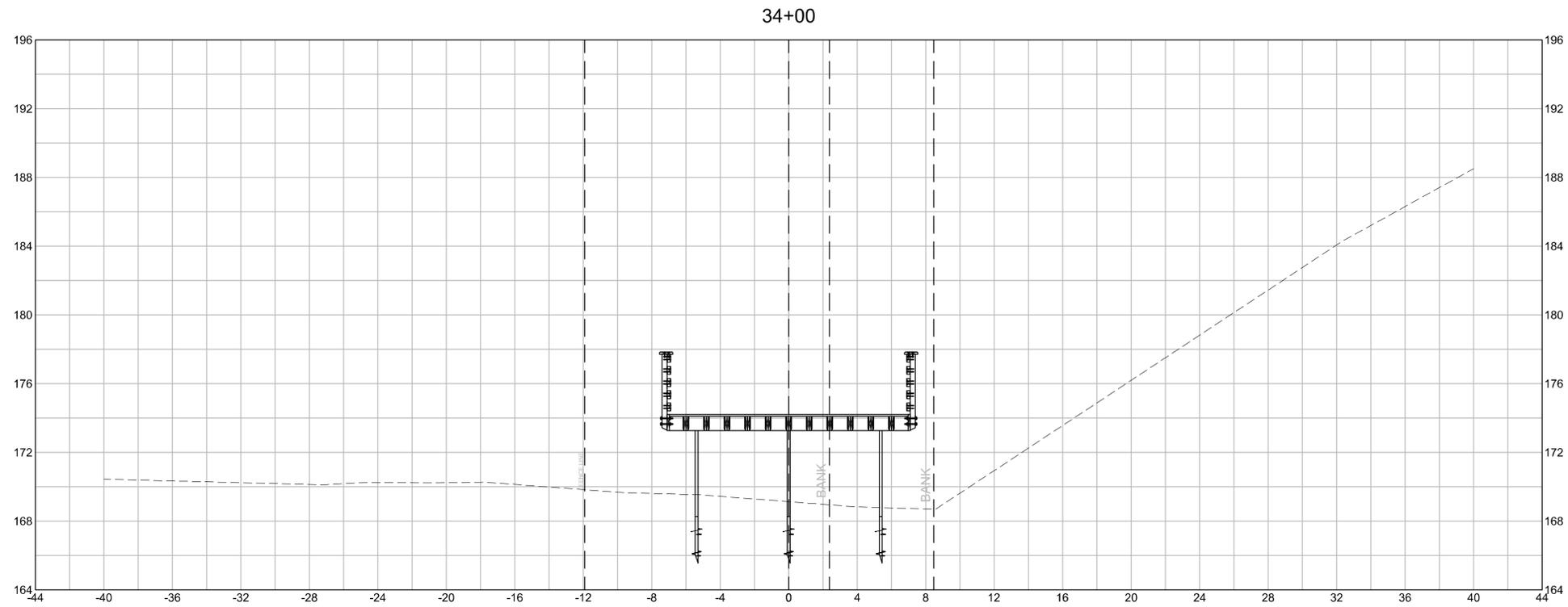
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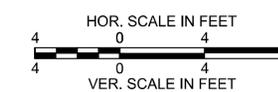
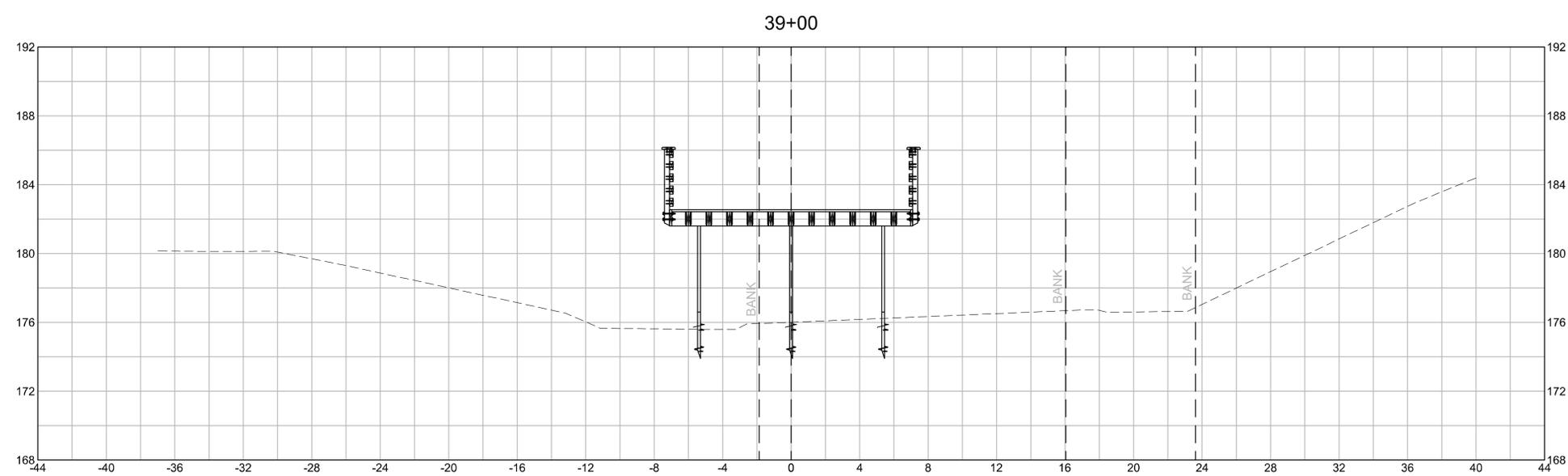
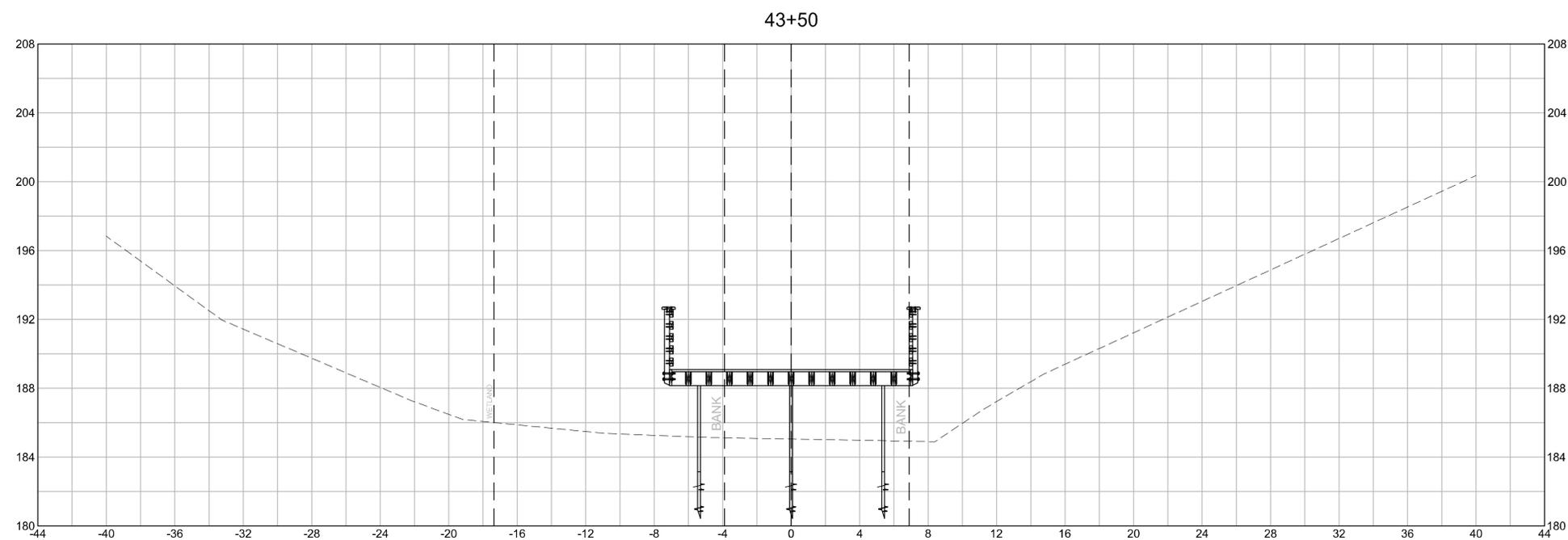
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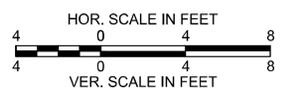
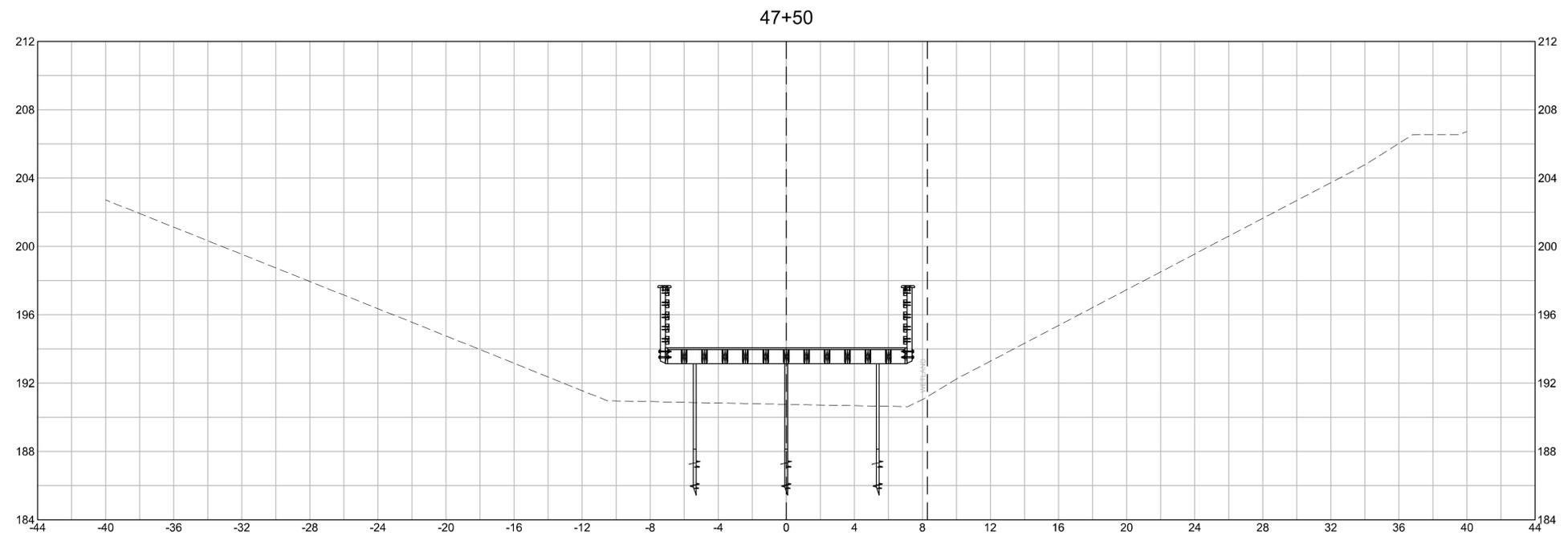
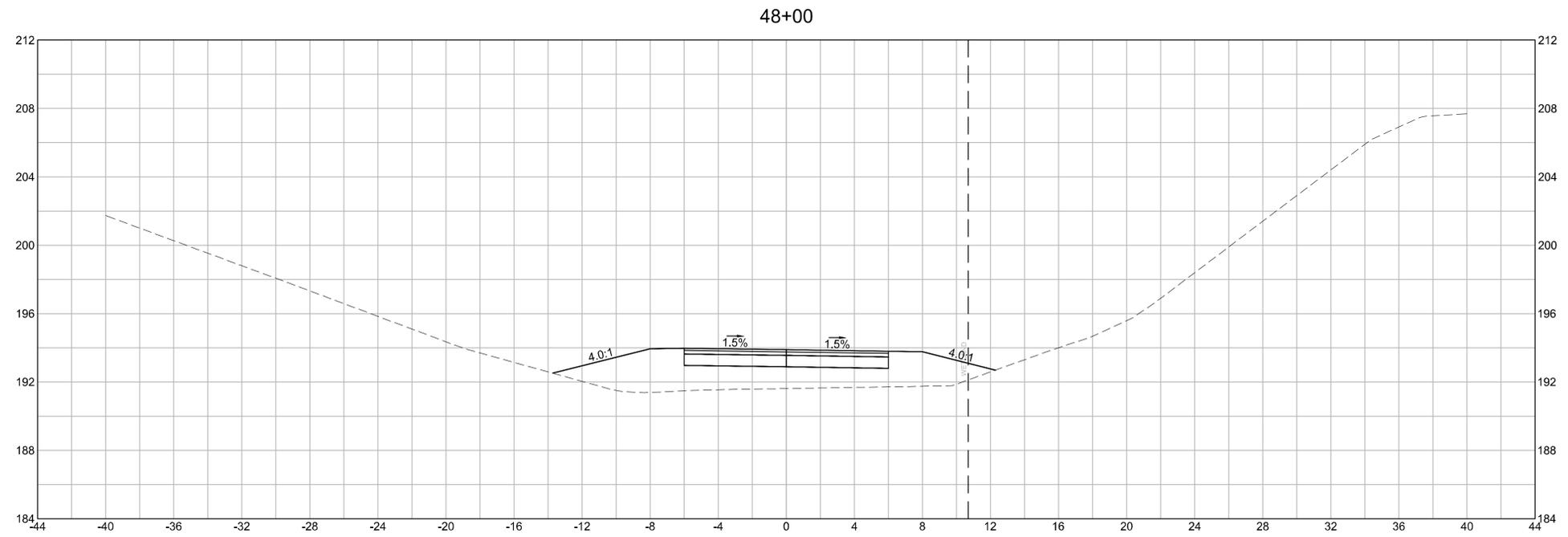
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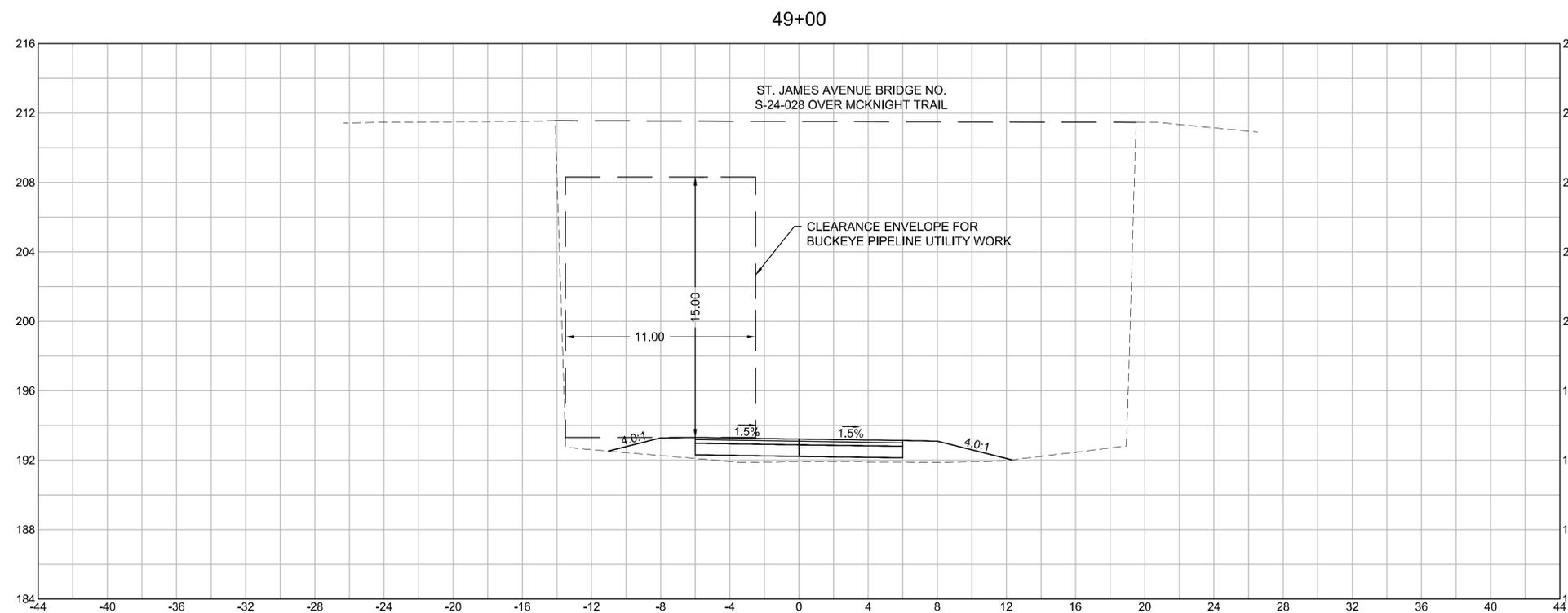
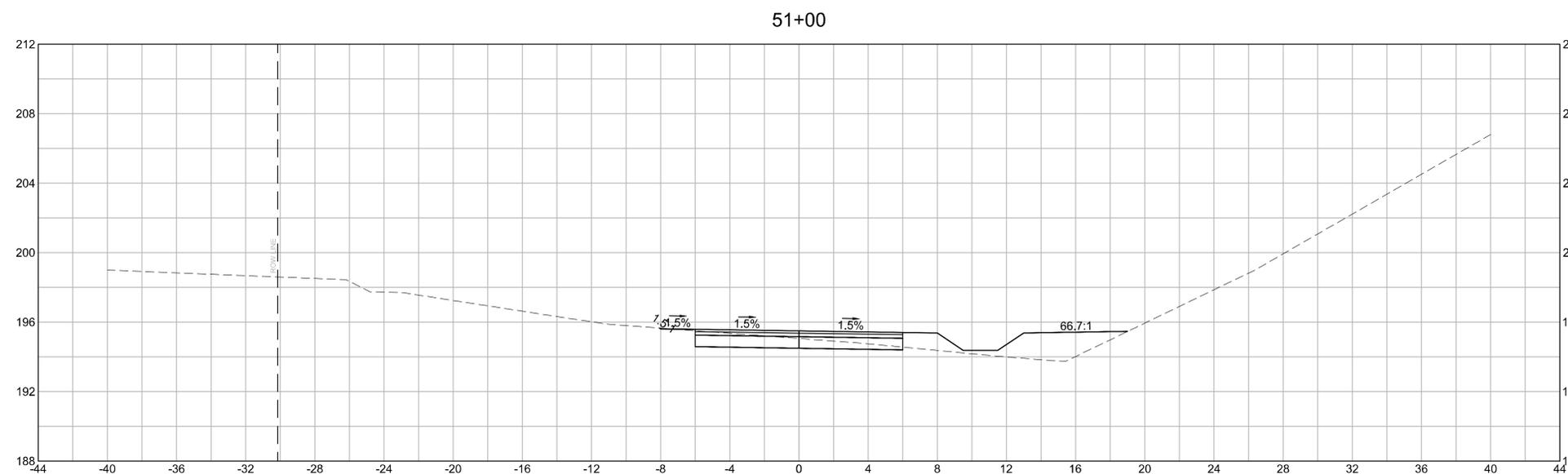
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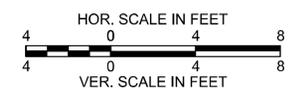
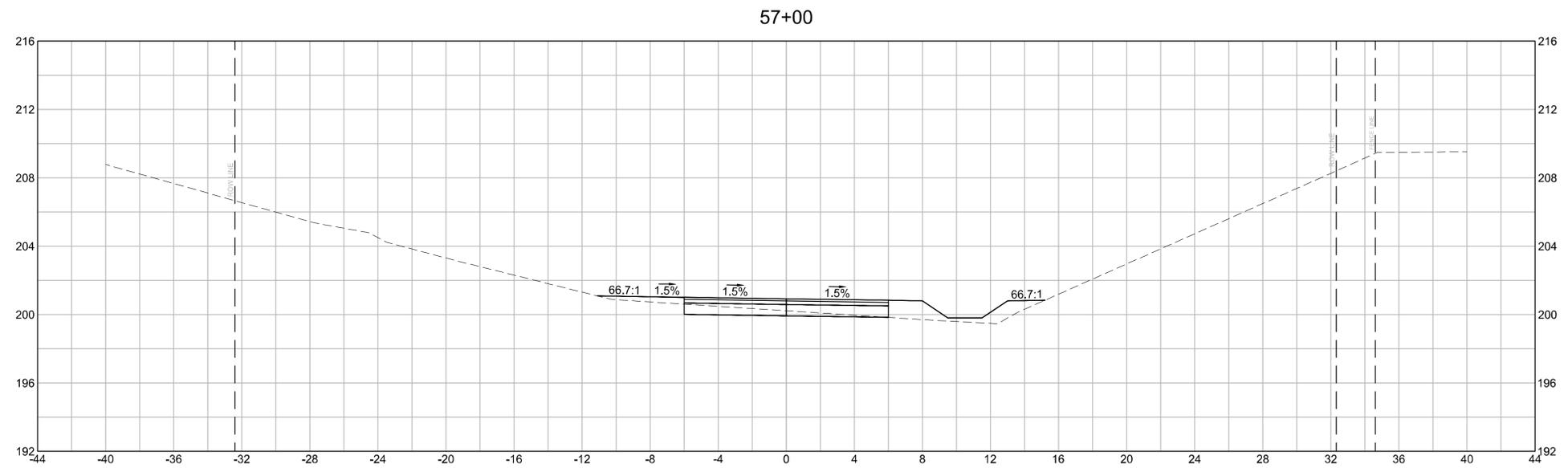
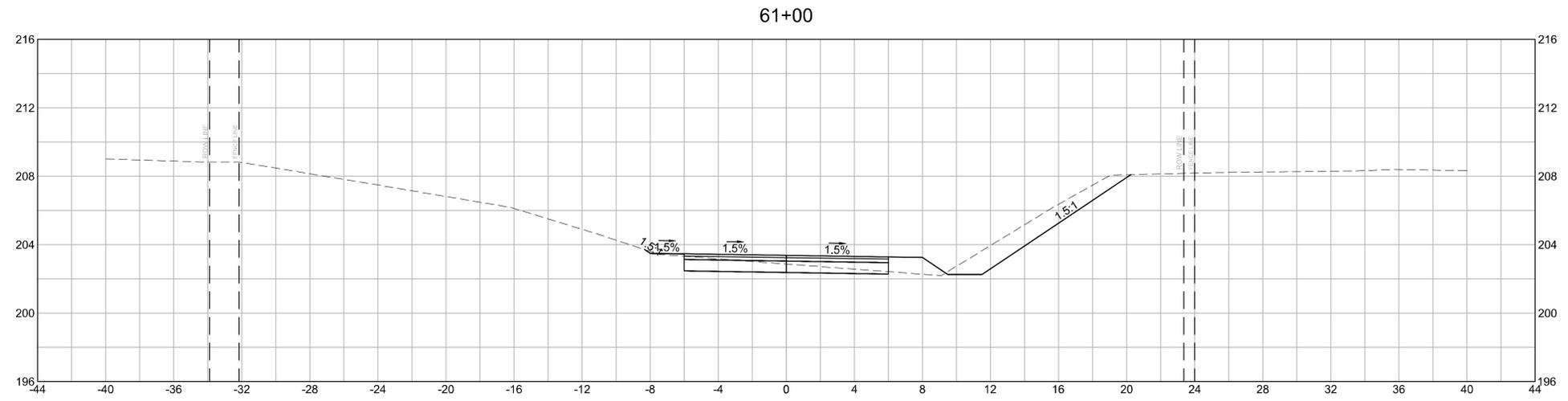
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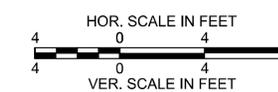
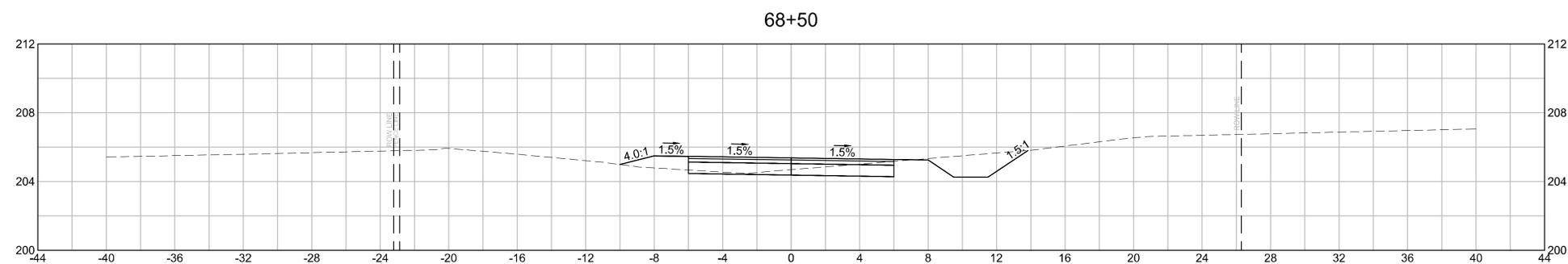
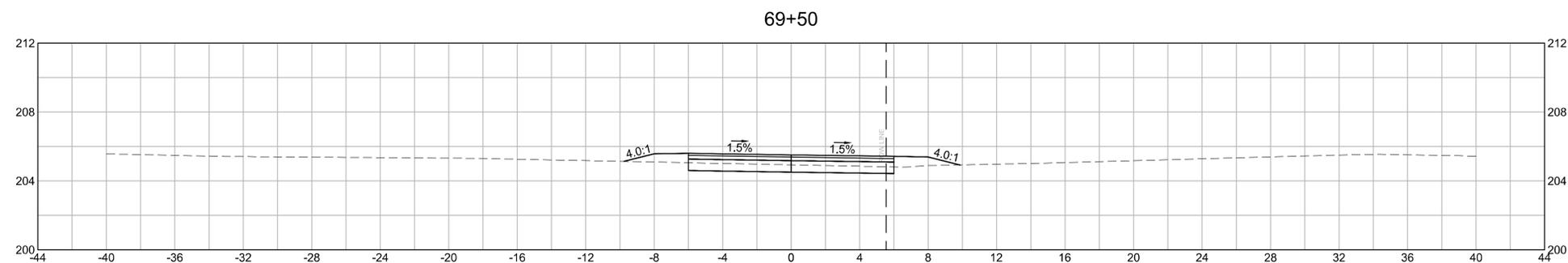
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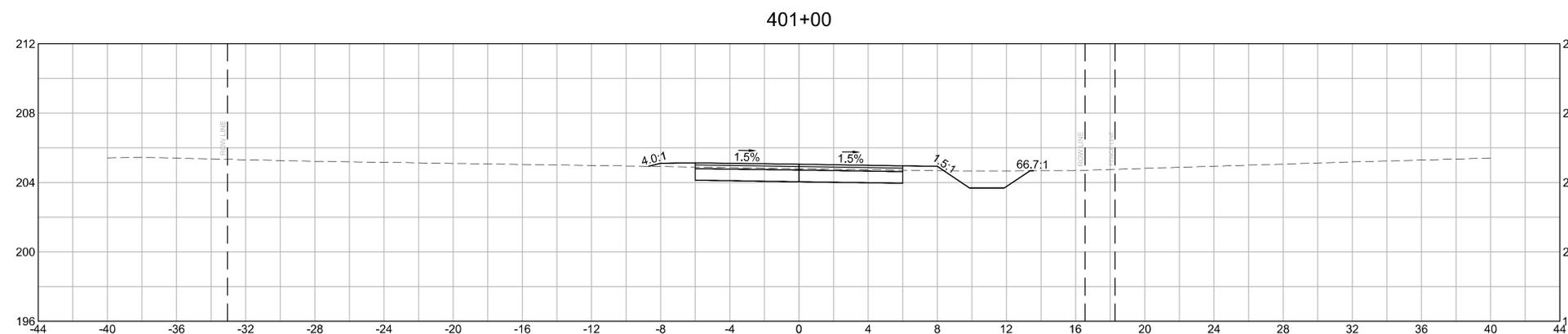
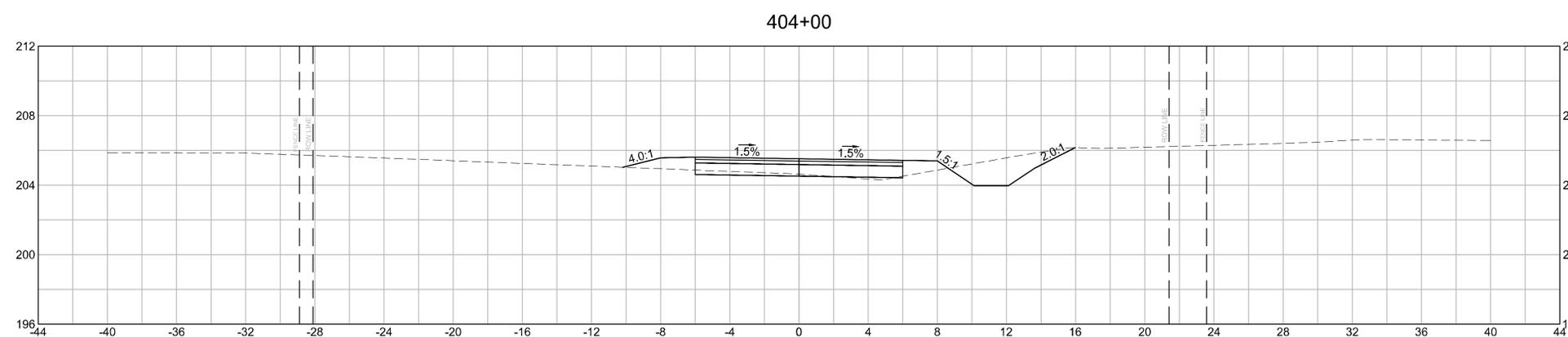
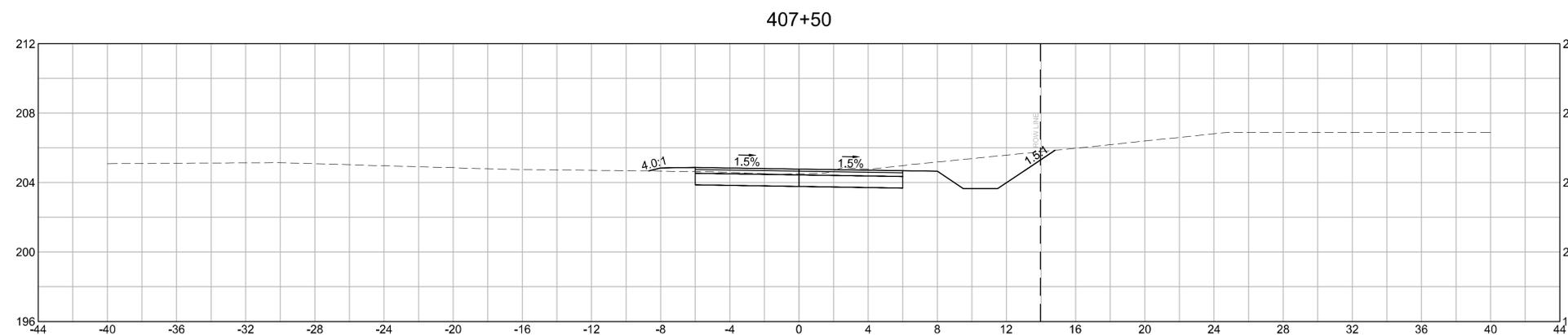
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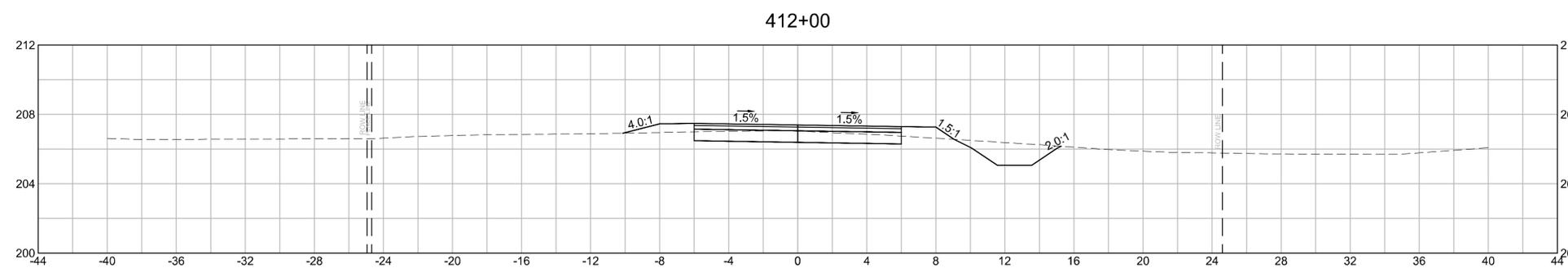
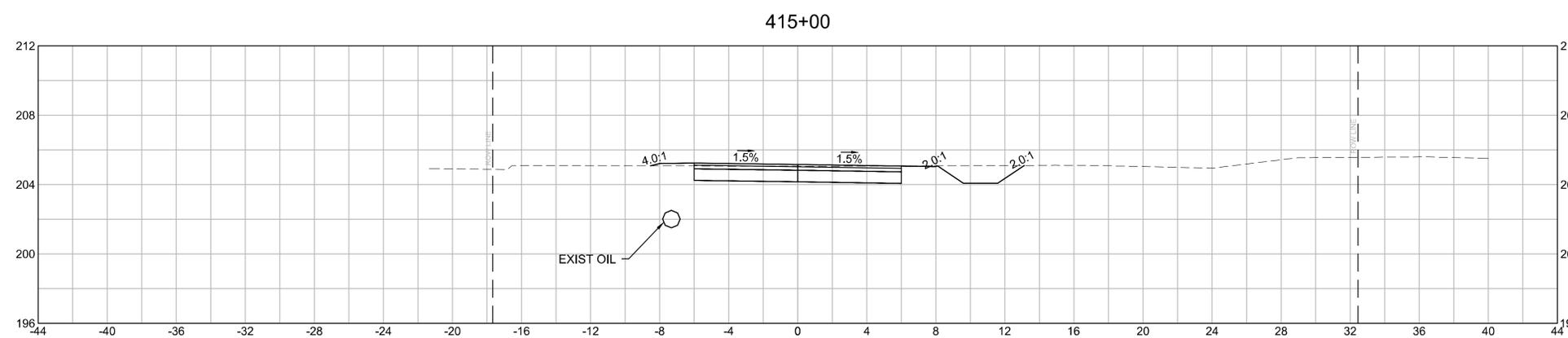
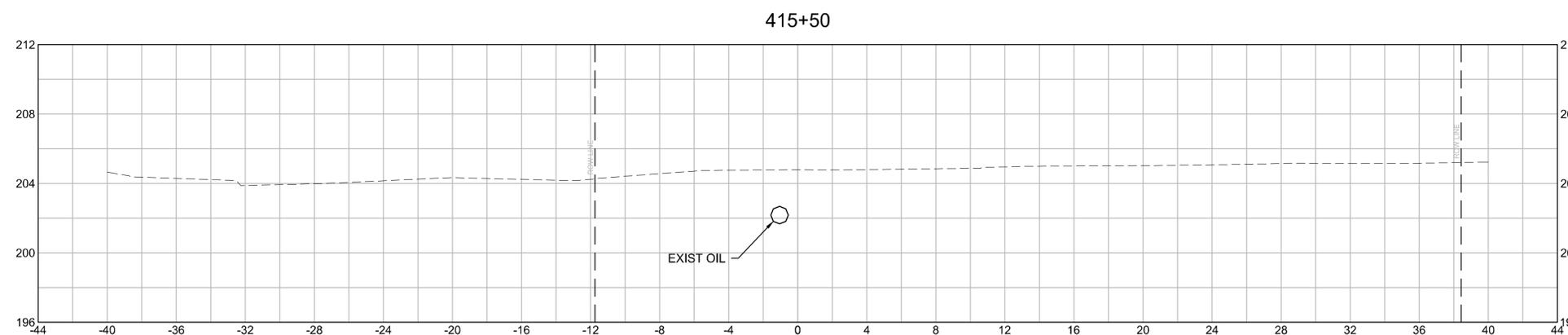
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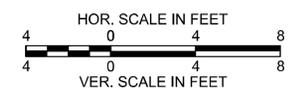
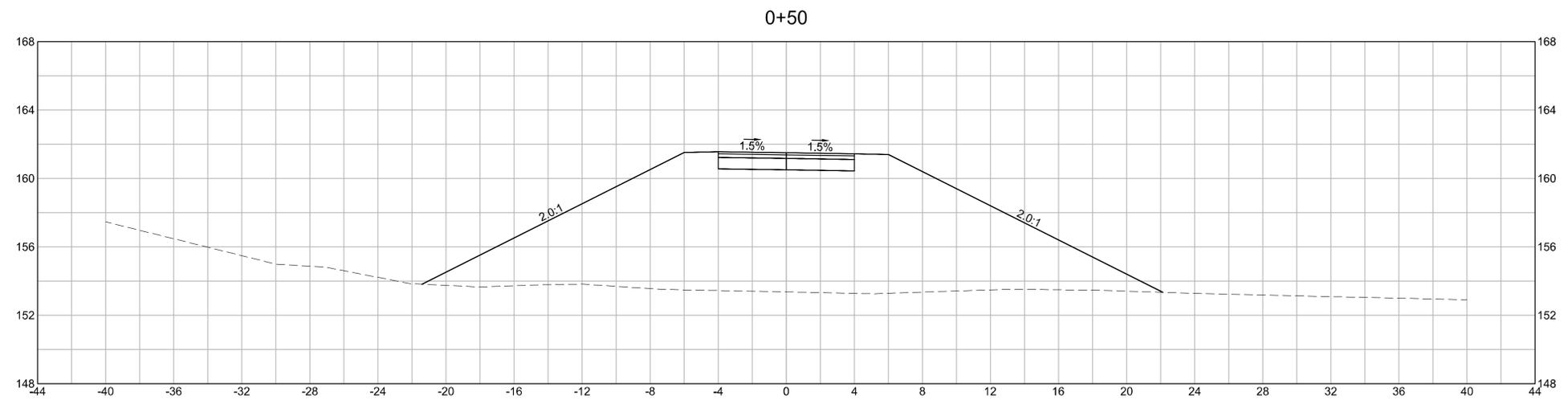
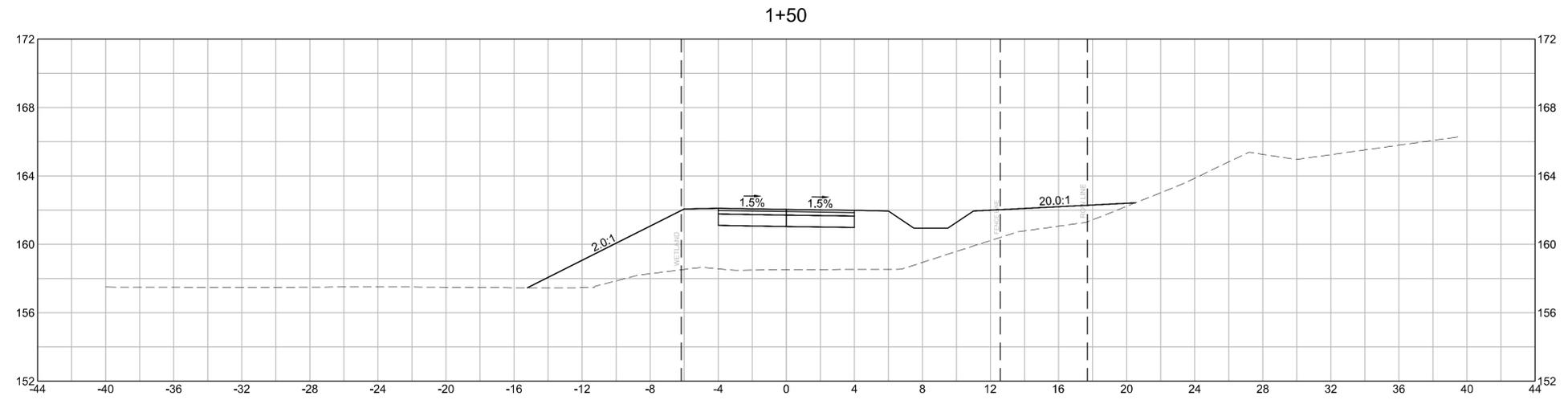
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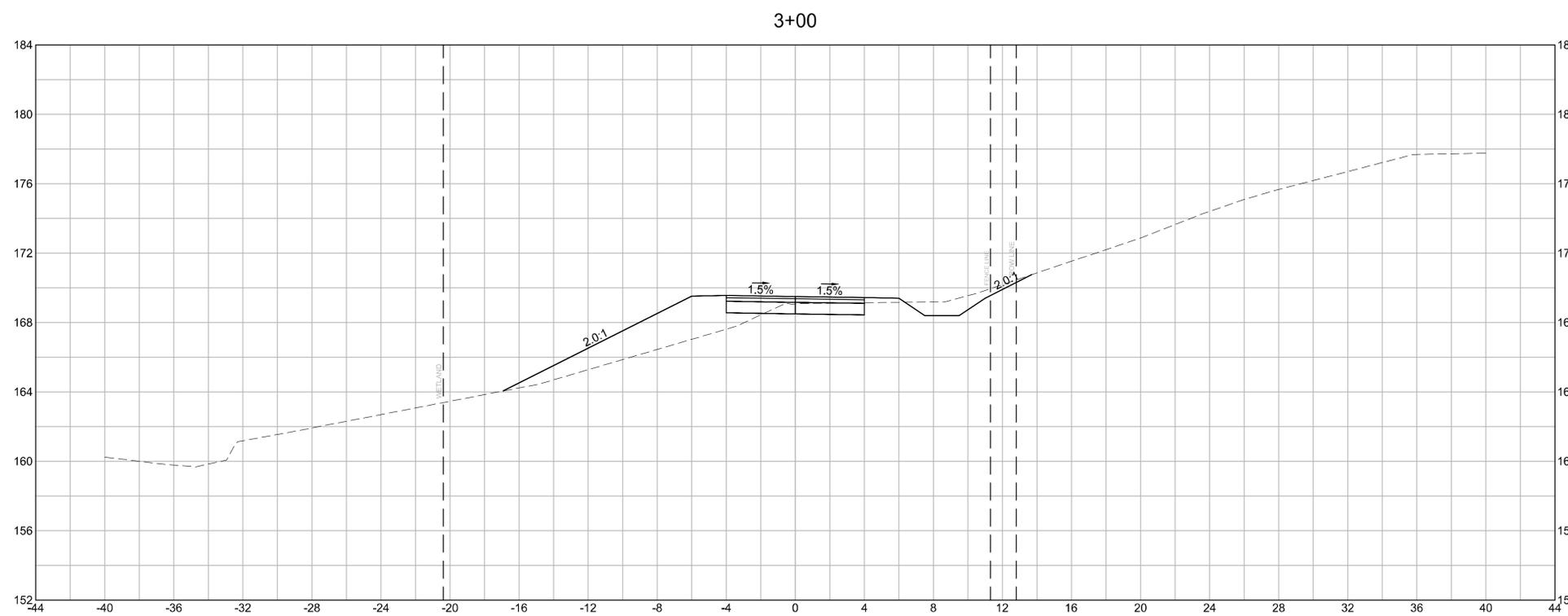
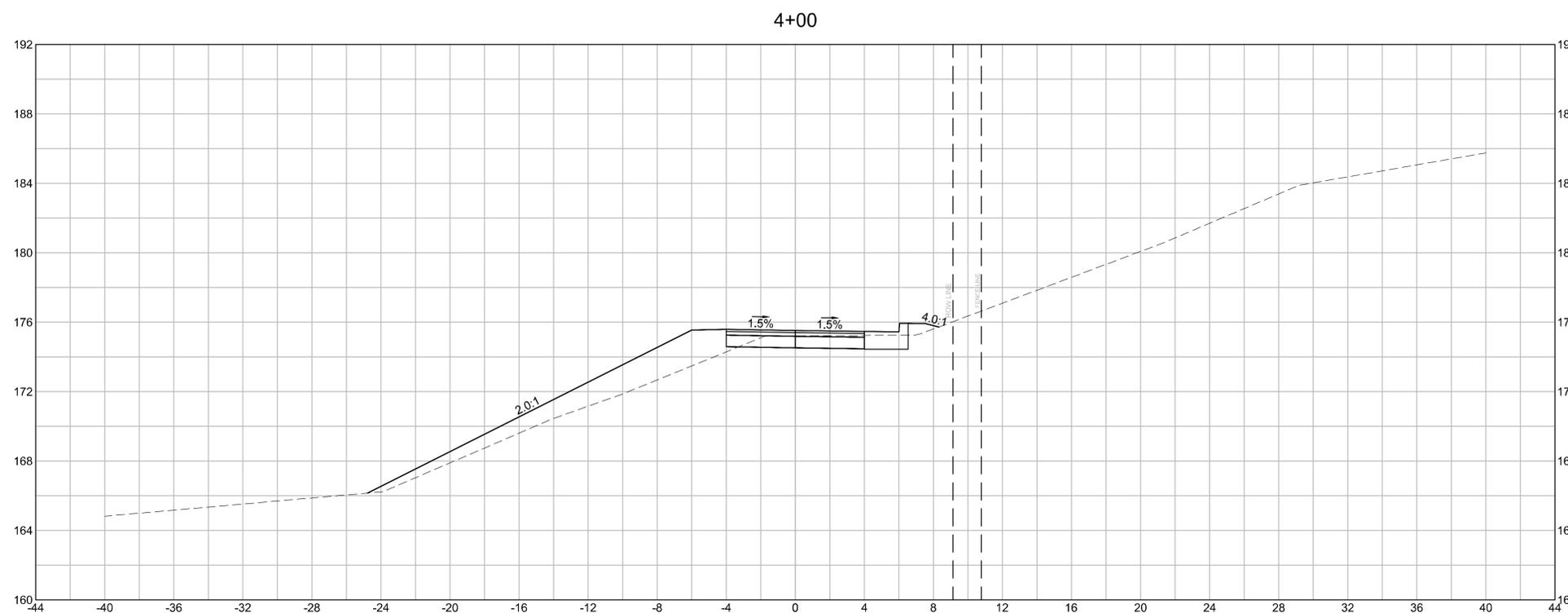
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