PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	2(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

DRAINAGE

D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.

D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the Engineer of Record before installing the culvert or storm sewer outfall pipe.

D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.

D-6 Pipes shall conform to any of the allowable types shown on this sheet, within the applicable height of cover limitations.
For strength, sheet thickness, or class designation; available sizes; height of cover limitations;and other restrictions for a particular pipe type or height of cover, see the VDOT Road and Bridge Standard PC-1. Structural plate pipe may be substituted for corrugated pipe of the same size, provided the substitution complies with the applicable sections of the VDOT Road and Bridge Standards PC-1.

D-10 The proposed riprap may be omitted by the Engineer if the slope designated for placement of riprap is found to be comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to, or exceeding, the specifications for the proposed riprap.

D-12 All existing drainage facilities labeled "To Be Abandoned" shall be left in place, backfilled and plugged in accordance with the VDOT Road and Bridge Standard PP-1. Basis of Payment will be C.Y. of Flowable Backfill.

D-13 Existing drainage facilities being utilized as a part of the drainage system, and designated on the plans "To Be Cleaned Out" shall be cleaned as directed by the Engineer. The cost incidental to this shall be included in the contract price for other items.

D-14 Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified.

D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

STORMWATER MANAGEMENT

Contractor will provide Construction record drawings for all permanent SWM Facilities, including approved shop drawings for MTDs, and shall be appropriately signed and sealed by a person registered in the Commonwealth of Virginia as a professional architect, engineer, land surveyor or landscape architect and qualified in the responsible administration of the BMP construction.

S-6 Construction record documentation shall be provided for all permanent SWM Facilities. The registered professional shall certify that all SWM Facilities have been constructed and made functional in accordance with the SWM Plan. The form LD-445D shall be used to document this certification process. The official record drawings for the project include both the plan drawings and record drawing survey.

Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project, that affects the proposed construction details or the BMP design information shown in the construction plans or documentation, shall be coordinated by Project Manager along with the Engineer of Record and VDOT. If as-built documentation for permanent SWM Facilities deviates from the approved plans, the Project Manager should request a review by the Engineer to determine if modifications to the facility are needed prior to acceptance. As-built documentation should be submitted as early as possible but no less than 30 days prior to expected acceptance. Significant deviation from the approved drawings may delay project acceptance. The record set of construction plans and the BMP information tables in the construction plans or documentation are to be formally revised to reflect any authorized/approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the VDOT Road Design Manual and the VDOT Construction Division's IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the record set of construction plans.

Inspection forms specific to the BMP type(s) should be used to document the construction/installation process. A final inspection for SWM Facilities/BMPs shall be conducted by the Project Manager, and VDOT. The inspection shall be conducted prior to final project acceptance to identify any required corrective actions, allowing the contractor to perform these corrective actions. The final inspections should be conducted as early as practicable to allow time for corrective actions. Reinspection may be required after receipt of the as-built documentation.

INCIDENTALS

I-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer.

I-9 When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.

I-12 St'd. RM-2 right of way monuments shall be set by the Contractor.

I-16 The "underground utilities" survey data on this project has been provided by consultant and copies are available from the Department.

I-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet 2(2).

I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/ traffic control plans, pavement marking plan sheets and as directed by the Engineer.

I-19 The following sources, under contract with VDOT, have provided information on this project:

Hydraulic Design	-	Timmons Group
Roadway Design	-	" "
Utility Design	-	" "
Utility Designation	-	" "
Utility Location	-	" "
Survey	-	" "
Bridge Design	-	N/A
Signal Design	-	Timmons Group

If questions or problems arise during construction, please contact the Project Designer. DO NOT CONTACT THE OUTSIDE SOURCES.

I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

The MicroStation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

TABLE AI-ALLOWABLE TYPE OF STORM SEWER PIPE
ALLOWABLE PIPE TYPES (UNLESS OTHERWISE SHOWN ON PLANS)

LOCATION	CONCRETE	CORRUGATED STEEL** ALUMINUM COATED TYPE 2 FULLY CONCRETE LINED	ALUMINUM COATED TYPE 2 ** STEEL SPIRAL RIB	POLYMER COATED (10/10)** CORRUGATED STEEL SPIRAL RIB	POLYMER COATED (10/10)** CORRUGATED STEEL DOUBLE WALL (SMOOTH INTERIOR)	ALUMINUM SPIRAL RIB **	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE S	POLYPROPYLENE (PP) TYPE D OR S
STATEWIDE U.S.RTE.258	X				X		X	X	X

GRADING

G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.

G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.

G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: Conc. Pipe Entrance Culverts, Curb, Median, End Sections, End Walls, and Surplus Earthen Material (once all grading operations are complete).

G-5 The excavation of unsuitable material as specified on these plans is based on previously conducted subsurface soil investigation. If, during construction, it is deemed necessary to change the depth more than one foot, or the limits of such excavation, such change is to be made at the direction of the Engineer and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.

G-6 The embankment material for this project shall be a minimum CBR _10_ or as approved by the Materials Engineer.

PAVEMENT

P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density. (See IIM-LD-158)

EROSION AND SEDIMENT CONTROL (ESC)

E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.

E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.

E-3 The following symbols are used to depict Erosion Control items in the plan assembly:

- EC-2,T1 / EC-2,T2 / EC-2,T3 / EC-2,T4 — *Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4*
- EC-3,T1 / EC-3,T2 / EC-3,T3 — *Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3*
- TSF-A / TSF-B — *Temporary Silt Fence, St'd EC-5 Type A or B*
- RCD-1 — *Rock Check Dam, Type I; St'd EC-4*
- RCD-2 — *Rock Check Dam, Type II; St'd EC-4*
- DD — *Temporary Diversion Dike, St'd EC-9*
- IP-A / IP-B / IP-C — *Inlet Protection, Type A, B, or C; St'd EC-6*
- TCD — *Temporary Check Dam, St'd EC-16*
- SAF — *Temporary Safety Fence (Plastic Polyethylene)* * NOT INTENDED FOR EROSION CONTROL
- OP — *Outlet Protection, St'd EC-1*
- SC — *Temp. Stream Crossing; St'd EC-14*
- LOD — *Limits of Disturbance/ Limits of Clearing*
- ST — *Temp. Sediement Trap; St'd EC-7*

E-4 Permanent vegetation shall be established on all denuded areas not otherwise stabilized with non-erodible materials. See the Roadside Development Sheet for details on permanent vegetation establishment.

RW PLANS

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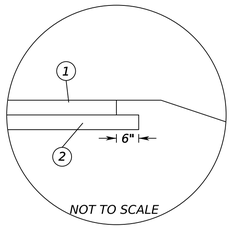
TYPICAL SECTIONS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

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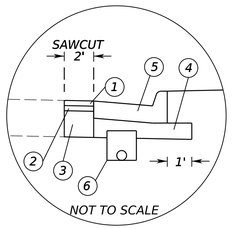
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

INSET A*



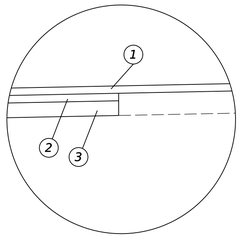
1. 4" HYDRAULIC CEMENT CONC. SIDEWALK
2. 4" AGGREGATE BASE MATERIAL TYPE 1 NO. 21B

INSET B*



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 D) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT IM-19.0 D)
3. 4" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)
4. VAR. DEPTH AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B) UNDER CURB
5. STD. CG-6 CURB AND GUTTER
6. STD. UD-4 UNDERDRAIN

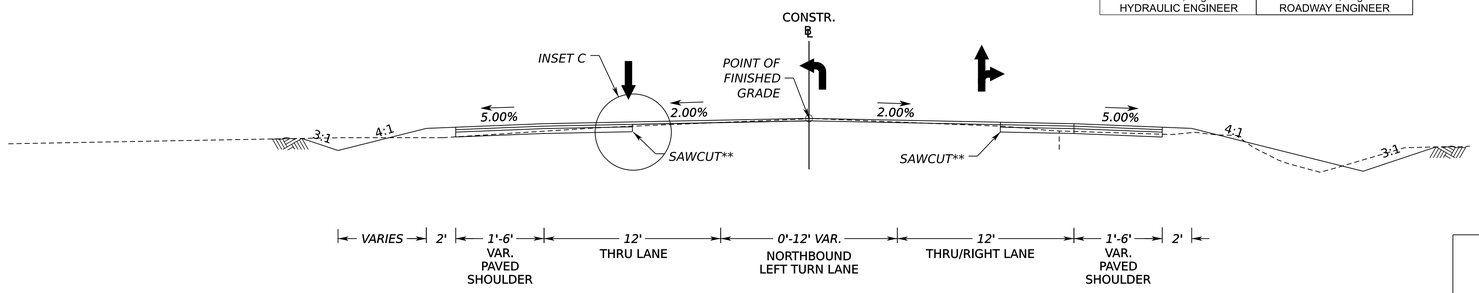
INSET C*



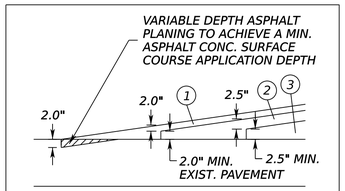
1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 D) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT BM-19.0 D)
3. 4" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)

NOTE:
** SAWCUT 1' MIN. FROM EX. EDGE OF PAVEMENT OR 2' MIN. FROM EDGE OF PROPOSED CURB AND GUTTER

S PRINCE BOULEVARD (RTE. 258)
STA. 11+00.00 - STA. 15+68.37
CLEAR ZONE - 20' LATERAL OFFSET FROM CURB = 1.5'



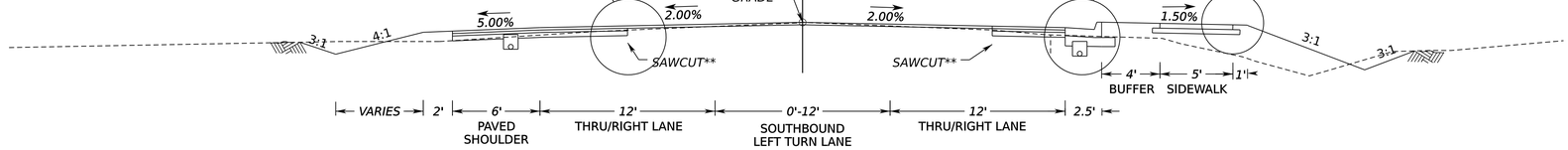
NOTE: SEE CROSS-SECTIONS FOR ACTUAL DIMENSIONS AND SLOPES



PAVEMENT BUILD-UP WITH OVERLAY

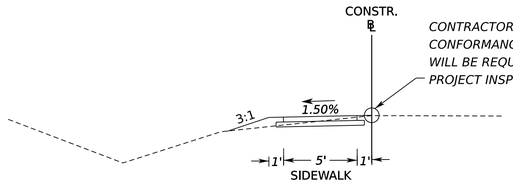
1. ASPHALT CONC. OVERLAY TY. SM-12.5D (2" MIN. DEPTH REQ'D.)
2. VAR. DEPTH IM-19.0A ASPHALT LEVELING COURSE (DEPTHS UP TO 2.5")
3. VAR. DEPTH BM-25.0A ASPHALT LEVELING COURSE (REMAINDER IF NECESSARY)

N PRINCE BOULEVARD (RTE. 258)
STA. 17+15.09 - STA. 23+36.10
CLEAR ZONE - 20' LATERAL OFFSET FROM CURB = 1.5'



NOTE: SEE CROSS-SECTIONS FOR ACTUAL DIMENSIONS AND SLOPES

W WINDSOR BLVD (RTE. 460) SIDEWALK
STA. 70+49.84 - STA. 74+17.15



PRIVATE AND COMMERCIAL ENTRANCES

NOT TO SCALE

TYPE I
Crusher Run Aggr.



6" Crusher Run Aggr. 25

TYPE II
Concrete



Concrete Entrance Pavement
7" HES
4" Aggr. Base Mat'l. Ty. I No. 21B

TYPE III
Asphalt



Asphalt Conc. Type SM-9.5A @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I No. 21B

TYPE IV
Asphalt Commercial



Asphalt Conc. Type SM-9.5A @ 165 Lbs. per S.Y.
4" Asphalt Conc. Base Course BM-25.0
6" Aggr. Base Mat'l. Ty. I No. 21B

The type of entrance (I , II , III , IV) to be constructed will be determined by the existing condition at the time of construction.

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EROSION AND SEDIMENT CONTROL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	2B(1)

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RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO WIDEN ROUTE 258 (PRINCE BOULEVARD) TO PROVIDE LEFT TURN LANES IN BOTH DIRECTIONS AT U.S. RTE 460. THE WIDENING OF U.S. RTE 258 INCORPORATES A SIDEWALK ON THE EASTERN SIDE OF 258 NORTH CONNECTING TO THE MOBILE HOME DEVELOPMENT NORTH OF BELMONT STREET TO ROUTE 460. THE PROJECT ALSO INCLUDES THE CONSTRUCTION OF ONE (1) ONSITE STORMWATER BMP'S AND TRAFFIC SIGNAL IMPROVEMENTS AT RTE 258 AND RTE 460.

APPROXIMATELY 1.55 ACRES OF LAND WILL BE DISTURBED AND GRADED FOR THE COMPLETION OF THIS PROJECT. TRAFFIC WILL BE MAINTAINED AT ALL TIMES DURING THE LIFE OF THIS PROJECT.

EXISTING SITE CONDITIONS

THE SURROUNDING TOPOGRAPHY FOR THE ROUTE 258 WIDENING PROJECT CONSISTS OF MINIMAL SLOPING ROAD GRADES FROM 0.5% TO 4.00% GRADE. THE DRAINAGE ON THE PROJECT IS CONVEYED VIA CLOSED STORM SEWER SYSTEMS AND DITCHES TO FOUR OUTFALLS, ONE (1) OF WHICH INCLUDES AN ONSITE BMP TO CONTROL/TREAT RUNOFF BEFORE LEAVING THE PROJECT AREA. EXISTING LAND USES ALONG ROUTE 258 INCLUDE MOSTLY SUBURBAN RESIDENTIAL WITH A FEW SMALL-SCALE COMMERCIAL DESTINATIONS AT THE INTERSECTION WITH ROUTE 460.

ADJACENT PROPERTY

THE PROJECT AREA IS SURROUNDED BY MOSTLY BUSINESSES AND SOME RESIDENTIAL PROPERTIES.

OFFSITE AREAS

NO OFF-SITE STOCKPILE AREAS ARE NEEDED FOR THIS PROJECT. STOCKPILES WILL BE DETERMINED AND LOCATED BY THE CONTRACTOR AS REQUIRED.

SOIL CONDITIONS

THE PREDOMINANT SOILS FOR THIS PROJECT ARE: 7 KINSTON LOAM, 9 MYATT FINE SANDY LOAM, 10 NAWNEY LOAM, 17B3 SLAGLE SANDY LOAM 2 TO 6 PERCENT SLOPES, SEVERELY ERODED, 18A SLAGLE FINE SANDY LOAM 0 TO 2 PERCENT SLOPES, 18B SLAGLE FINE SANDY LOAM 2 TO 6 PERCENT SLOPES, 21 UDORTHENTS LOAMY, 23 YEMASSEE FINE SANDY LOAM. A COMPLETE GEOTECHNICAL ENGINEERING REPORT HAS BEEN PREPARED FOR THE PROJECT FOR ADDITIONAL SOILS INFORMATION.

CRITICAL EROSION AREAS

CRITICAL AREAS INCLUDE: ANY STEEP SLOPE ALONG THE LENGTH OF THE PROJECT THAT REQUIRES EROSION AND SEDIMENT CONTROL MEASURES OR STABILIZATION. SLOPES THAT REQUIRE STABILIZATION SHOULD HAVE THE PROCEDURE PERFORMED AS SOON AS POSSIBLE AFTER COMPLETION OF THE GRADING IN THAT AREA. THE CONTRACTOR SHALL KEEP THE EXISTING ROADWAY FREE FROM BUILD-UP OF SOIL.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. THE MINIMUM STANDARDS OF THE HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE FROM ISLE OF WIGHT COUNTY.

EROSION AND SEDIMENT CONTROL NARRATIVE

ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE VDOT ROAD AND BRIDGE STANDARDS AND VIRIGNIA EROSION AND SEDIMENT CONTROL HANDBOOK.

THE CONTRACTOR SHALL OBTAIN A LAND DISTURBANCE PERMIT FROM THE ISLE OF WIGHT COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY LAND DISTURBING ACTIVITIES AND PROVIDE AT LEAST 48 HOUR ADVANCE NOTIFICATION TO SCHEDULE AN ON-SITE PRE-CONTRUCTION MEETING, WHICH THE CERTIFIED LAND DISTURBER IS REQUIRED TO ATTEND. THE ISLE OF WIGHT COUNTY E&S INSPECTOR HAS THE AUTHORITY TO ADD OR REMOVE ANY E&S MEASURES AS DEEMED NECESSARY DURING CONSTRUCTION AS FIELD CONDITIONS MAY DICTATE. ONCE CONSTRUCTION HAS COMMENCED, THE CONTRACTOR SHALL INSPECT AND REPAIR ALL E&S MEASURES AFTER EACH RAINFALL EVENT AND AT LEAST ONCE EVERY 7 DAYS. IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, VDOT ROAD AND BRIDGE STANDARDS, VDOT SPECIFICATIONS AND E&S NOTES AND DETAILS SHOWN IN THIS PLAN, PERFORM CONSTRUCTION OPERATIONS IN THE SEQUENCE OF STEPS TO FOLLOW.

STEP 1
INSTALL ALL REQUIRED CONSTRUCTION SIGNAGE, STRIPING, AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES AS DESCRIBED IN THE MAINTENANCE OF TRAFFIC (MOT) PLANS BASED ON THE SPECIFIC PHASE OF CONSTRUCTION TO BE IMPLEMENTED IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL. THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AS DESCRIBED BELOW MAY BE COMPLETED FOR THE ENTIRE PROJECT OR WITH PHASED INSTALLATION TO MATCH MOT PLANS AS APPROVED BY COUNTY INSPECTOR.

STEP 2:
INSTALL PERIMETER SILT FENCE, PERIMETER SAFETY FENCE, CHECK DAMS AND CULVERT INLET PROTECTION OVER EXISTING CULVERT INLETS AS SEEN IN PHASE 1 PLAN SHEETS.

STEP 3:
REMOVE AND STOCKPILE TOPSOIL WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN ENSURING ALL DENUDED AREAS ARE CONTAINED BY SEDIMENT TRAPPING DEVICES. PERFORM INITIAL GRADING ACTIVITIES WITH INSTALLATION OF STORM SEWER PIPES/INLETS AND CULVERTS. INSTALL INLET PROTECTION OVER ALL PROPOSED STRUCTURES AS SHOWN IN THE PHASE 2 E&S PLANS.

STEP 4:
CONTINUE GRADING OPERATIONS ONCE STORM SEWER IS IN PLACE WITH E&S MEASURES ENSURING POSITIVE DRAINAGE TO SEDIMENT TRAPPING DEVICES AT ALL TIMES. FOR GRADING OF OPEN DRAINAGE DITCH SECTIONS, INSTALL CHECK DAMS IN THE LOCATIONS SHOWN. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF EXCAVATIONS. FOR AREAS TO BE LEFT UNSTABILIZED FOR UP TO 30 DAYS, TEMPORARY SEEDING SHALL BE REQUIRED.

STEP 5:
ONCE ROADWAY CURB & GUTTER AND OTHER PERIMETER CONCRETE ITEMS HAVE BEEN INSTALLED WITH PHASE 2 E&S MEASURES REMAINING IN PLACE, PREPARE SUBGRADE AND INSTALL SUBBASE AGGREGATE BASE MATERIALS AND ASPHALT COURSES UP TO INTERMEDIATE COURSE.

STEP 6:
PERFORM MILL AND OVERLAY OPERATION AND INSTALLATION OF SURFACE COURSE OF ASPHALT IN ACCORANCE WITH SEQUENCE OF CONSTRUCTION PLAN AND CROSS-SECTIONS. INSTALL PERMANENT PAVEMENT STRIPING AND SIGNAGE, AS WELL AS PERMANENT SEEDING OF ALL GRADED AREAS.

STEP 7:
ONCE ALL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABALIZED AND APPROVAL IS GRANTED BY THE ISLE OF WIGHT COUNTY E&S INSPECTOR, THE CONTRACTOR MAY REMOVE ALL E&S MEASURES AND TRAFFIC CONTROL DEVICES.

Outlet Protection Calculations

Structure	2 Year Velocity (fps)	EC-1 Class	Thickness (inch)	Culvert Type	Span (ft)	Rise (ft)	Flow Area (ft^2)	Type of Installation	OP Width (ft)	OP Length (ft)	OP Weight (ton)
4-3	9.55	I	26	Circular	3	3	7.07	B	9.00	15.00	22.00
4-4	6.11	AI	20	Circular	1.25	1.25	1.23	A	3.75	3.75	2.00
4-5	1.51	AI	20	Circular	1.25	1.25	1.23	A	3.75	3.75	2.00
4-6	8.46	I	26	Circular	1.5	1.5	1.77	A	4.50	4.50	4.00
4-8	9.05	I	26	Circular	1.25	1.25	1.23	A	3.75	3.75	3.00

LEGEND

- TSF-A / TSF-B — Temporary Silt Fence, St'd EC-5 Type A or B
- SAF — Temporary Safety Fence (Plastic Polyethylene)
- IP-A / IP-B / IP-C — Inlet Protection, Type A, B, or C; St'd EC-6
- OP — Outlet Protection, St'd EC-1
- RCD-2 — Rock Check Dam, Type II; St'd EC-4

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ROADSIDE DEVELOPMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	2C

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CORE MIX

MIX	LBS./ ACRES	DESCRIPTION
1	▲	⚹ 100% CERTIFIED FINE FESCUE
2	▲	100% CERTIFIED TALL FESCUE
3	▲	50% CERTIFIED TALL FESCUE ⚹ 50% CERTIFIED FINE FESCUE
4	▲	50% ORCHARDGRASS 50% CERTIFIED KENTUCKY BLUEGRASS
5	▲	100% BERMUDAGRASS
C 1, 2 & 3	▲	CUSTOM MIX
T1	▲	50% CERTIFIED TALL FESCUE 50% BARLEY, WINTER RYE OR WINTER WHEAT
T2	▲	50% FOXTAIL MILLET 50% CERTIFIED TALL FESCUE

ADDITIVES

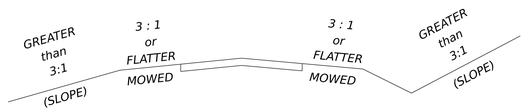
TYPE	LBS./ ACRES	DESCRIPTION
A	▲	100% LOVEGRASS
B	▲	100% BARLEY, WINTER RYE OR WINTER WHEAT
C	▲	100% FOXTAIL MILLET
D	▲	100% ANNUAL RYEGRASS
E	▲	100% BLUE GRAMA
F	▲	100% ALFALFA
G	▲	100% WHITE CLOVER
H	▲	** 100% CROWN VETCH (LEGUME)
I	▲	** 100% SEPICEA LESPEDEZA (LEGUME)
J	▲	** 100% BIRDSFOOT TREFOIL (LEGUME)
K	▲	POLLINATOR SEED MIX

⚹ FINE FESCUES INCLUDE CHEWINGS, CREEPING RED, HARD, SHEEP. SEE SEEDING SCHEDULE FOR TYPE(S) SPECIFIED FOR THIS PROJECT.

▲ ALL RATES TO BE SPECIFIED BY THE DISTRICT ROADSIDE MANAGER

** THESE ADDITIVES ARE NOT TO BE USED IN AREAS THAT WILL BE MOWED. (SLOPES 3:1 OR FLATTER)

SECTION OF SEED LOCATIONS



SEEDING SCHEDULE

CODES LISTED IN TABLE REFER TO THE LISTS OF CORE MIXES & ADDITIVES, WHICH SHOW SEED NAMES & APPLICATION RATES FOR THIS PROJECT.	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE
	SPRING MONTH & DATE		SUMMER MONTH & DATE		FALL MONTH & DATE		WINTER/DORMANT MONTH & DATE	
	3/1 - 5/15		5/16 - 9/15		9/16 - 11/15		11/16 - 2/29	
PROJECT NUMBERS AND/OR LOCATION								
TEMPORARY SEED								
⚹ SPECIFIED TYPE(S) OF FINE FESCUE								

ROADSIDE DEVELOPMENT SUMMARY

PROJECT NUMBERS AND/OR LOCATION DESC.	REGULAR SEED	OVER SEEDING	LEGUME SEED	LEGUME OVER SEEDING	TEMPORARY SEED	TOPSOIL 2" CLASS A	LIME	FERTILIZER N NITROGEN	FERTILIZER P PHOSPHORUS	FERTILIZER K POTASSIUM	HECP (TYPE 1)	HECP (TYPE 2)	HECP (TYPE 3)	HECP (TYPE 4)
	LBS.	LBS.	LBS.	LBS.	LBS.	ACRES	TONS	LBS.	LBS.	LBS.	S. Y.	S. Y.	S. Y.	S. Y.
0460-046-724	106	85	12	10	71	0.71	3.16	68	93	47	1352	2668	3621	
TOTAL	106	85	12	10	71	0.71	3.16	68	93	47	1352	2668	3621	

⊗ DENOTES ITEM(S) TO BE PAID FOR ON THE BASIS OF PLAN QUANTITIES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE CURRENT ROAD AND BRIDGE SPECIFICATIONS.

NOTES:

APPROXIMATELY 1.55 ACRES WILL BE DISTURBED ON THIS PROJECT AND WILL REQUIRE THE ESTABLISHMENT OF GRASSES AND/OR LEGUMES.

☆ NOTES FOR FIELD USE ONLY

OVERSEEDING RATES SHALL BE 100 PERCENT OF THE SEED MIXTURE SUPPLIED WITHOUT FERTILIZER.

THE ENGINEER WILL REQUIRE THE CONTRACTOR TO PERFORM SUPPLEMENTAL SEEDING WHEN LESS THAN 75 PERCENT UNIFORM STAND OF THE PERMANENT GRASS SPECIFIED IN THE MIXTURES IS OBTAINED. (ANNUAL SPECIES SUCH AS, RYE AND MILLET ARE TEMPORARY VARIETIES AND REQUIRE SUPPLEMENTAL SEEDING.)

NOTES APPLY TO SCHEDULE

RECOMMENDATIONS FOR THE APPLICATION OF SEED MIXTURES (CORE MIX AND ADDITIVES), FERTILIZER, LIME, ETC. SHALL BE OBTAINED FROM THE DISTRICT ROADSIDE MANAGER.

ALL SEED, FERTILIZER, LIME, MULCH, ETC. MUST BE IN CONFORMANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS AND ANY APPLICABLE INFORMATIONAL & INSTRUCTIONAL MEMORANDA.

REGULAR SEED SHALL BE APPLIED AT THE RATES SHOWN IN THE CORE MIX, ADDITIVES, AND WHERE APPLICABLE, CUSTOM SEED MIX TABLES. SEEDING QUANTITIES SHOWN IN THE ROADSIDE DEVELOPMENT SUMMARY TABLE ARE BASED ON THE HIGHEST "NORMAL" SEEDING RATE FOR EACH CORE MIX (BY SEASON FOR BOTH MOWED AREAS AND NON-MOWED SLOPES), WITH A 25% INCREMENTAL ADJUSTMENT TO ACCOUNT FOR SEEDING PROGRESSION, SEEDING AFTER SIGN OR GUARDRAIL INSTALLATION, AND OTHER MINOR UNPLANNED DISTURBANCES.

REGULAR SEED SHALL BE FERTILIZED AT THE RATES SHOWN IN THE FERTILIZER SUMMARY TABLE. THE TOTAL FERTILIZER QUANTITIES SHOWN IN THE TABLES INCLUDES THE 25% INCREMENTAL ADJUSTMENT DESCRIBED ABOVE.

OVERSEEDING RATES SHALL BE 100% OF THE REGULAR SEED RATE WITHOUT THE INCREMENTAL ADJUSTMENT.

OVERSEEDING SHALL ONLY INCLUDE FERTILIZER ONCE, AT THE RATE SHOWN IN THE FERTILIZER SUMMARY TABLE. ADDITIONAL OVERSEEDING MAY BE DONE WITH NO FERTILIZER APPLIED, OR A SOIL TEST MAY BE PERFORMED TO DETERMINE THE SPECIFIC NUTRIENTS NECESSARY TO ESTABLISH THE GRASSES AND/OR LEGUMES.

THE ENGINEER WILL REQUIRE THE CONTRACTOR TO PERFORM SUPPLEMENTAL SEEDING WHEN LESS THAN 75% UNIFORM STAND OF THE PERMANENT GRASS (AND LEGUMES) SPECIFIED IN THE MIXTURES IS OBTAINED. (ANNUAL SPECIES SUCH AS RYE AND MILLET ARE TEMPORARY VARIETIES AND REQUIRE SUPPLEMENTAL SEEDING.)

LEGUME SEED SHALL BE INOCULATED WITH THE APPROPRIATE STRAIN AND RATE OF BACTERIA. FOR HYDROSEEDING, USE FIVE TIMES (5X) THE AMOUNT OF INOCULANT RECOMMENDED BY THE MANUFACTURER.

THE DATE SEED IS APPLIED SHALL BE USED TO DETERMINE WHETHER TO USE HULLED OR UNHULLED SEED FOR BERMUDAGRASS.

SPRING & SUMMER (3/16 TO 9/15): USE HULLED SEED, FALL & WINTER (9/16 TO 3/15): USE UNHULLED SEED.

EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO BE USED ON AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 14 DAYS DURING THE DORMANT PERIOD (11/1 TO 3/15)

WHEN EROSION CONTROL MULCH IS USED, IT SHALL PROVIDE 100% COVERAGE OF ALL DENUDED AREAS.

HECP SHALL BE APPLIED ACCORDING TO THE MANUFACTERUER'S SPECIFICATIONS (OR RECOMMENDATIONS).

PER SECTION 603.03(e) OF THE VDOT SPECIFICATIONS, WHERE HECP TYPE 3 OR HECP TYPE 4 IS SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL UTILIZE THE RESPECTIVE EC-2 FOR EROSION CONTROL (EXCEPT FOR TEMPORARY SEEDING). FOR HECP TYPE 3, THE CONTRACTOR SHALL EITHER A) INSTALL HECP, TYPE 3 AT A RATE OF 1,000 LBS/ACRE ALONG WITH THE INSTALLATION OF EC-2, TYPE 3 OR B) INSTALL HECP TYPE 3 AT A RATE OF 3,000 LBS/ACRE. FOR HECP TYPE 4, THE CONTRACTOR SHALL EITHER A) INSTALL HECP, TYPE 4 AT A RATE OF 1,000 LBS/ACRE ALONG WITH THE INSTALLATION OF EC-2, TYPE 4 OR B) INSTALL HECP, TYPE 4 AT A RATE OF 3,500 LBS/ACRE. NO OTHER SUBSTITUTIONS WILL BE CONSIDERED ON THIS PROJECT FOR HECP TYPE 3 OR 4. ANY ADDITIONAL COSTS NECESSARY TO MEET THIS REQUIREMENT SHALL BE INCLUDED IN THE BID PRICE FOR THE RESPECTIVE HECP.

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

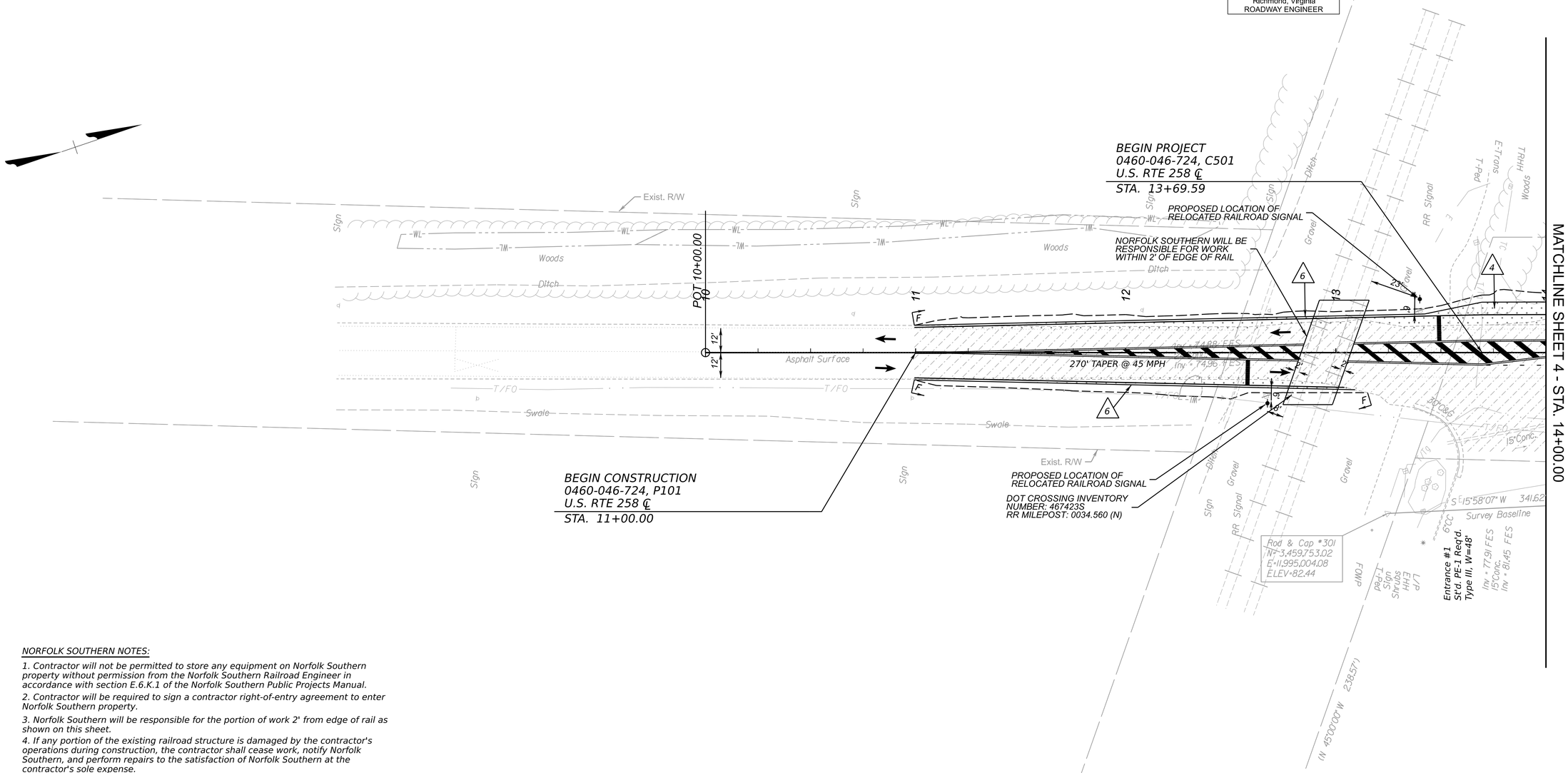
RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	3

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



NORFOLK SOUTHERN NOTES:

1. Contractor will not be permitted to store any equipment on Norfolk Southern property without permission from the Norfolk Southern Railroad Engineer in accordance with section E.6.K.1 of the Norfolk Southern Public Projects Manual.
2. Contractor will be required to sign a contractor right-of-entry agreement to enter Norfolk Southern property.
3. Norfolk Southern will be responsible for the portion of work 2' from edge of rail as shown on this sheet.
4. If any portion of the existing railroad structure is damaged by the contractor's operations during construction, the contractor shall cease work, notify Norfolk Southern, and perform repairs to the satisfaction of Norfolk Southern at the contractor's sole expense.

LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

- Denotes New Concrete
- Denotes Pavement Resurfacing
- Denotes New Pavement
- Denotes Demolition
- C ---- Denotes Construction Limits in Cuts
- F ---- Denotes Construction Limits in Fills
- EC-2 TYPE 1 LINING

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

Mainline Profile	3A
ESC Plan	3B
Entrance Profiles	7

SCALE 0 25' 50'

PROJECT	SHEET NO.
0460-046-724	3

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

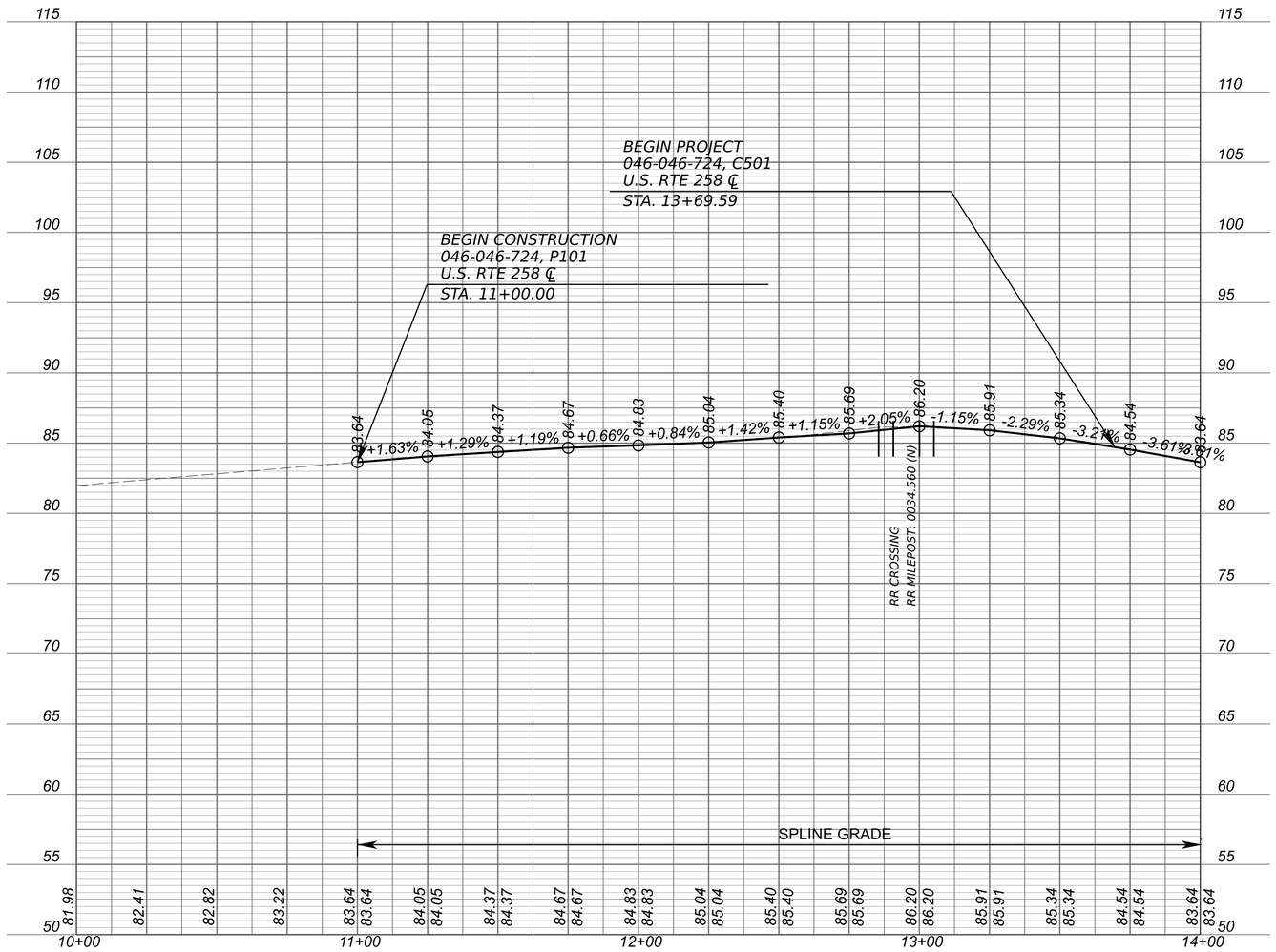
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	3A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

S PRINCE BLVD (US RTE 258)



HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

PROJECT	SHEET NO.
0460-046-724	3A

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	3B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

NOW OR FORMERLY
WILLIAM H.GOODMAN ESTATE
C/O LOWELL GOODMAN
D.B.131 PG.246
P.B.5 PG.50
PARCEL ID: 53-01-056
37.74 ACRES PER TAX RECORDS

NOW OR FORMERLY
CLYDE A.BRACEY, SR. ESTATE
C/O NANCY PRUDEN
D.B.145 PG.163
D.B.153 PG.163 (COMM.OF VA)
PARCEL ID: 54B-01-262
18.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NORFOLK SOUTHERN RAILWAY COMPANY
VARIABLE WIDTH RIGHT OF WAY

POT 10+00.00

MATCHLINE SHEET 4B - STA. 14+00.00

LEGEND

TSF-A / TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B	
SAF	Temporary Safety Fence (Plastic Polyethylene)	
IP-A / IP-B / IP-C		Inlet Protection, Type A, B, or C; St'd EC-6
OP		Outlet Protection, St'd EC-1
RCD-2		Rock Check Dam, Type II; St'd EC-4

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	3B

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	3RW

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
LAND SURVEYOR

NO PROPOSED RIGHT OF WAY THIS SHEET

NOW OR FORMERLY
WILLIAM H.GOODMAN ESTATE
C/O LOWELL GOODMAN
D.B.131 PG.246
P.B.5 PG.50
PARCEL ID: 53-01-056
37.74 ACRES PER TAX RECORDS

Exist. R/W

POT 10+00.00

10 11 12 13

MATCHLINE SHEET 4RW - STA. 14+00.00

Exist. R/W

NOW OR FORMERLY
CLYDE A.BRACEY,SR.ESTATE
C/O NANCY PRUDEN
D.B.145 PG.163
D.B.153 PG.163 (COMM.OF VA)
PARCEL ID: 54B-01-262
18.10 ACRES PER TAX RECORDS

NORFOLK SOUTHERN RAILWAY COMPANY
VARIABLE WIDTH RIGHT OF WAY

(N 45°00'00" W 2,36.57')

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 Prop. Right of Way
- (00.00' / +00.00) Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	3RW

11/13/2024
12:17:14 PM

dll5528_03x.dgn
Plotted By: Katie.Settle

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	4

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 3 - STA. 14+00.00

MATCHLINE SHEET 5 - STA. 21+00.00

MATCHLINE SHEET 6 - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

POT STA. 16+27.95 RTE 258 ℄
POT STA. 34+27.89 RTE 460 ℄

BEGIN PROJECT
0460-046-724 R201
U.S. RTE 460 ℄
STA. 35+01.50

END PROJECT
0460-046-724, C501
U.S. RTE 258 ℄
STA. 20+15.64

PROP. BMP (SEE SHEET 12 FOR DETAILS)

TBM "A"
Cut Square
Elev=78.96

Rod & Cap #300
N= 3,460,081.46
E=11,995,098.07
ELEV=79.19

CONSTRUCT SIDEWALK FROM EXISTING GRADE USING TYPICAL SECTION ON SHEET 2A
PROP. PERM. VAR. WIDTH VERIZON EASEMENT
PROP. PERM. VAR. WIDTH SIDEWALK EASEMENT

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

EXISTING 30' COMM\ COOPERATIVE EASE P.B.4 PG.233

N18°44'55"E 1400.00'

S51°48'08"E 900.00'

S25°41'52"E 105.13'

N 63°45' E

S 63°45' E 288'

S 43°05'00" E 288.23'

N 63°45' E

S 26°06'20" W 371.55'

N 18°44'55" E 100'

N 26°06'20" E 140.04'

S 26°06'18" W 121.81'

N 16°56'24" E 496.45'

S 25°38'05" E 179.44'

S 15°58'07" W 341.60'

N 42°28'26" E 204.04'

N 47°03'08" W 32.90'

S 27°31'00" W 182.27'

S 43°05'00" E 288.23'

S 63°45' E 288'

N 63°45' E

S 63°45' E 288

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

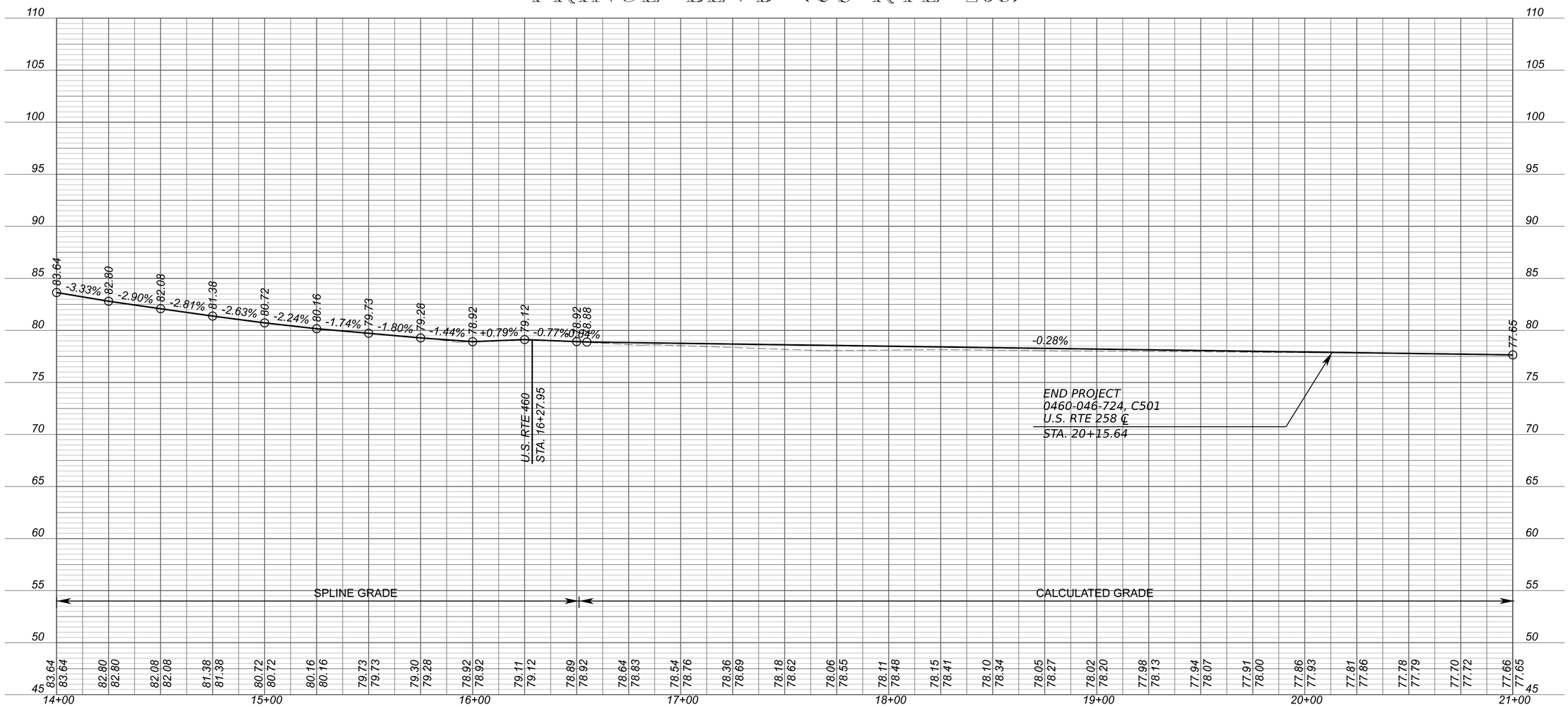
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	4A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

PRINCE BLVD (US RTE 258)



HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

	PROJECT	SHEET NO.
	0460-046-724	4A

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	4B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 3B - STA. 14+00.00

MATCHLINE SHEET 5B - STA. 21+00.00

MATCHLINE SHEET 6A - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C. 2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C. 2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME
PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

PROP. BMP (SEE SHEET 12 FOR DETAILS)

N18°44'55"E 1400.00'

S51°48'08"E 900.00'

70 POT 70+00.00

LEGEND

TSF-A / TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
SAF	Temporary Safety Fence (Plastic Polyethylene)
IP-A / IP-B / IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
OP	Outlet Protection, St'd EC-1
RCD-2	Rock Check Dam, Type II; St'd EC-4

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	4B

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

NO PROPOSED RIGHT OF WAY THIS SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	4RW

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
LAND SURVEYOR

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C. 2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

001
NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C. 2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

MATCHLINE SHEET 3RW - STA. 14+00.00

MATCHLINE SHEET 5RW - STA. 21+00.00

MATCHLINE SHEET 6RW - STA. 36+00.00

N18°44'55"E 1400.00'

POT 70+00.00

S51°48'08"E 900.00'

S51°48'08"E 105.13'

S25°56'44"E 16.86'

EXISTING 15'X 15' ISLE OF WIGHT COUNTY UTILITY EASEMENT INST.#960003190

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

(S 27°31'00" W 182.27')
(S 43°05'00" E 288.23')
(S 43°45' E 288')
(N 4°10' E 111')
(N 26°16' E 100')
(N 8°34'45" E 306')
(S 26°06'20" W 371.55')
(N 25°38'05" E 179.44')
(N 79°32'11" E 57.29')
(N 42°28'26" E 204.04')
(N 26°06'20" E 140.04')
(S 26°06'18" W 121.81')
(N 4°03'08" W 92.90')

VDOT MON(F)
PIPE(F)
ROD(F)
Exist. R/W

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 Prop. Right of Way
- (00.00' / +00.00) Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

PROP. PERM. VAR. WIDTH SIDEWALK EASEMENT

59.69ft +01.50
59.18ft +20.40
52.30ft +35.19

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	FEE TAKING R/W	PRESCR. EASEMENTS	EASEMENTS				
				PERMANENT	UTILITY			TEMPORARY
				SIDEWALK	DOMINION ENERGY	VERIZON	PUBLIC UTILITY	CONSTR.
		ACRES		SQ FT.	SQ FT.	SQ FT.	SQ FT.	SQ FT.
001	54B-01-003	0.000	-	3844		-	-	

SCALE 0 25' 50'

PROJECT	SHEET NO.
0460-046-724	4RW

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

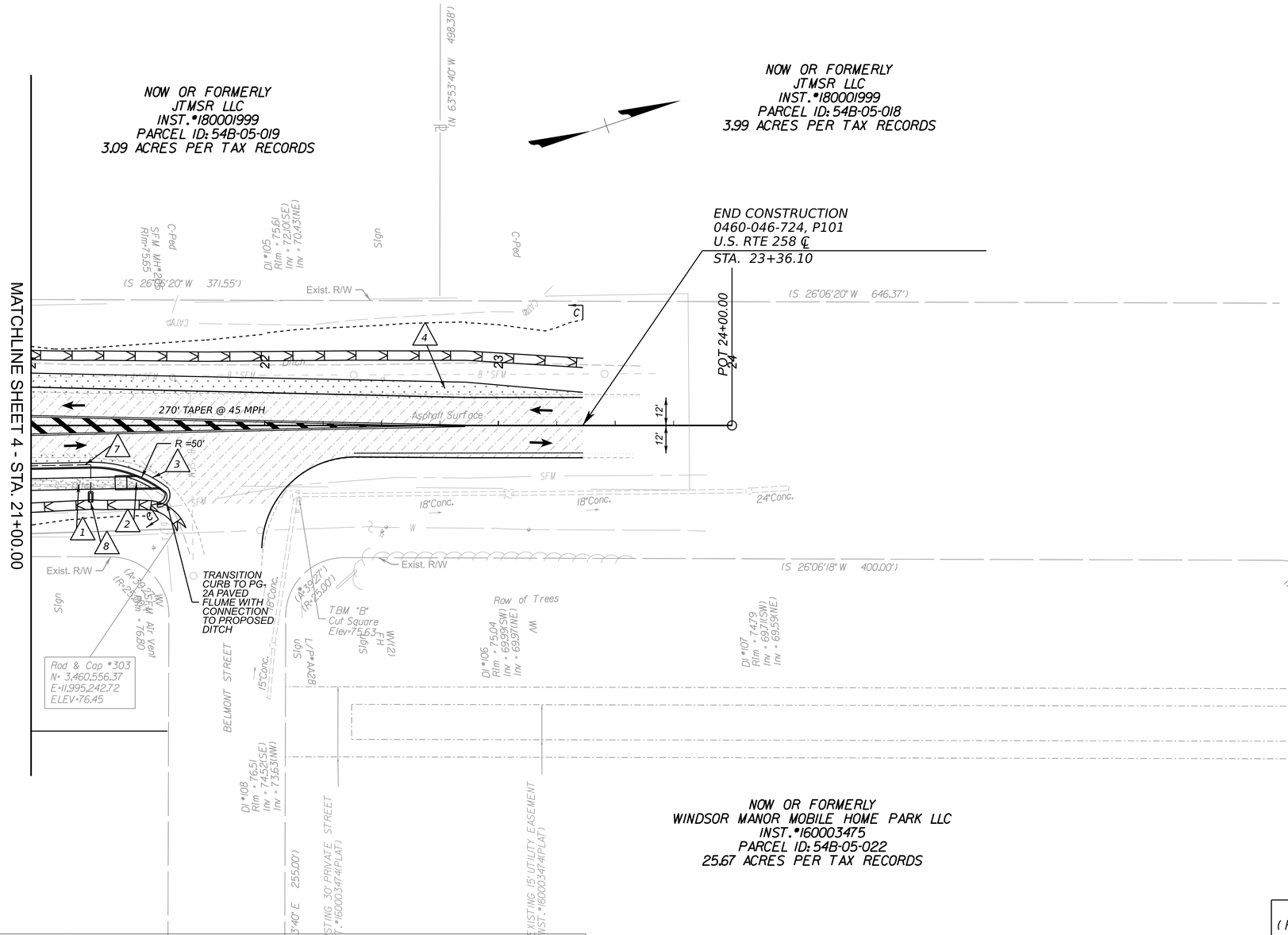
RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	5

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

Denotes New Concrete
Denotes Pavement Resurfacing
Denotes New Pavement
Denotes Demolition

C ---- Denotes Construction Limits in Cuts
F -- -- Denotes Construction Limits in Fills
EC-2 TYPE 1 LINING

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

Mainline Profile	5A
ESC Plan	5B
Entrance Profiles	7

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	5

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

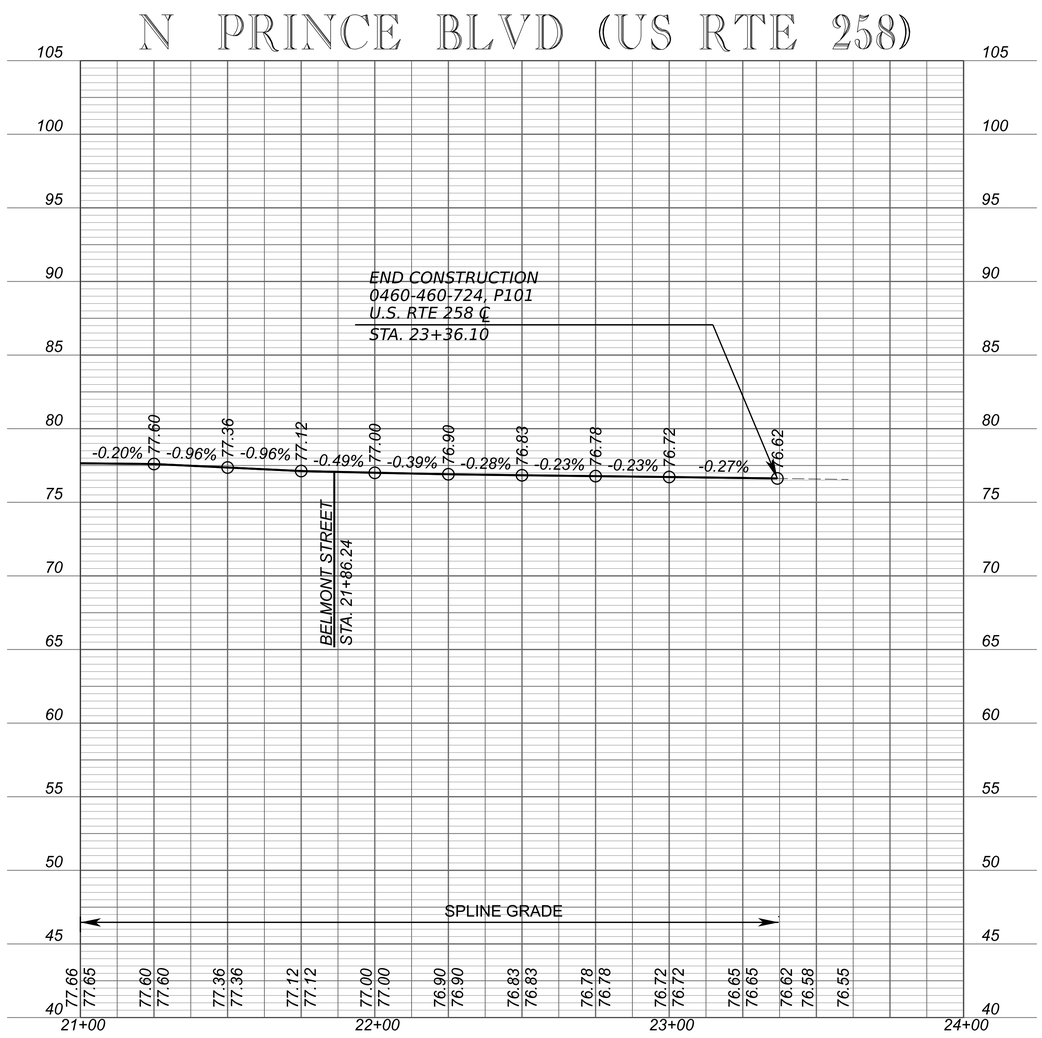
RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	5A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

	PROJECT	SHEET NO.
	0460-046-724	5A

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	5B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 4B - STA. 21+00.00

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-018
3.99 ACRES PER TAX RECORDS

(N 63°53'40" W 498.38')
DI #105 Rim = 75.61 Inv = 72.01(SE) Inv = 70.43(NE)
Sign
(S 26°06'20" W 371.55')
SAF
LOD
RCD-2
RCD-2
75ft
22
Ditch
23
POT 24+00.00
24
(S 26°06'20" W 646.37')
Asphalt Surface
12'
12'
Ditch
SAF
Sign
(A=39.27')
(R=25.00')
18"Conc.
18"Conc.
18"Conc.
24"Conc.
(S 26°06'18" W 400.00')
Row of Trees
Sign
Sign
15"Conc.
DI #106 Rim = 75.04 Inv = 69.99(SW) Inv = 69.91(NE)
DI #107 Rim = 69.71(SW) Inv = 69.59(NE)
DI #108 Rim = 76.51 Inv = 74.52(SE) Inv = 73.63(NW)
(S 63°53'40" E 255.00')
EXISTING 30' PRIVATE STREET INST.#160003475(PLAT)
EXISTING 15' UTILITY EASEMENT INST.#160003475(PLAT)
80ft
80ft
(A=39.27')
(R=25.00')
(N 63°53'40" W 255.00')
75ft
70ft
65ft

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
PARCEL ID: 54B-05-022
25.67 ACRES PER TAX RECORDS

LEGEND

- TSF-A / TSF-B — Temporary Silt Fence, St'd EC-5 Type A or B
- SAF — Temporary Safety Fence (Plastic Polyethylene)
- IP-A / IP-B / IP-C — Inlet Protection, Type A, B, or C; St'd EC-6
- OP — Outlet Protection, St'd EC-1
- RCD-2 — Rock Check Dam, Type II; St'd EC-4

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	5B

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

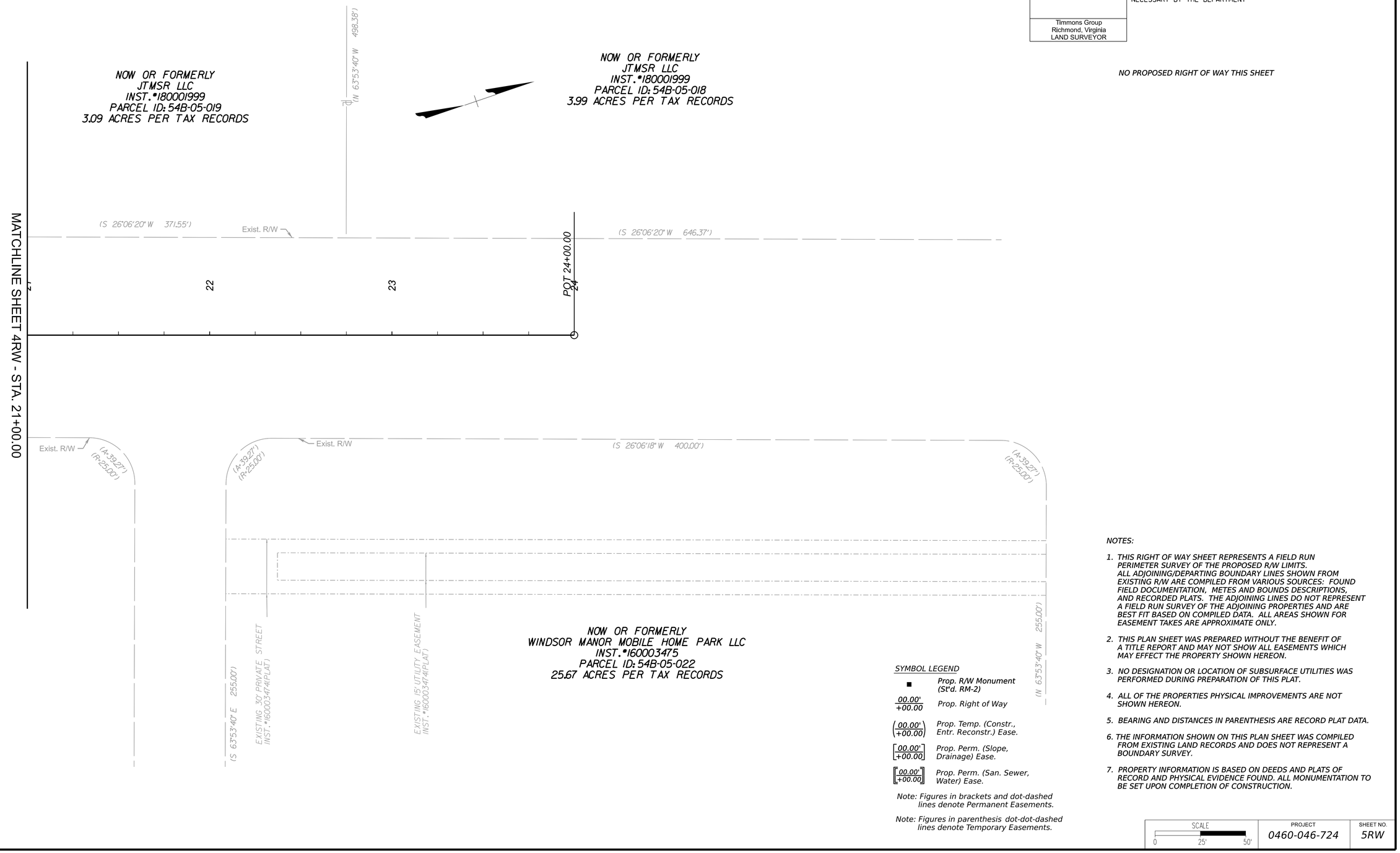
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	5RW

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
LAND SURVEYOR

NO PROPOSED RIGHT OF WAY THIS SHEET



SYMBOL LEGEND

- ■ — Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 — Prop. Right of Way
- (00.00' / +00.00) — Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] — Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] — Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

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NOTES:

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SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	5RW

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

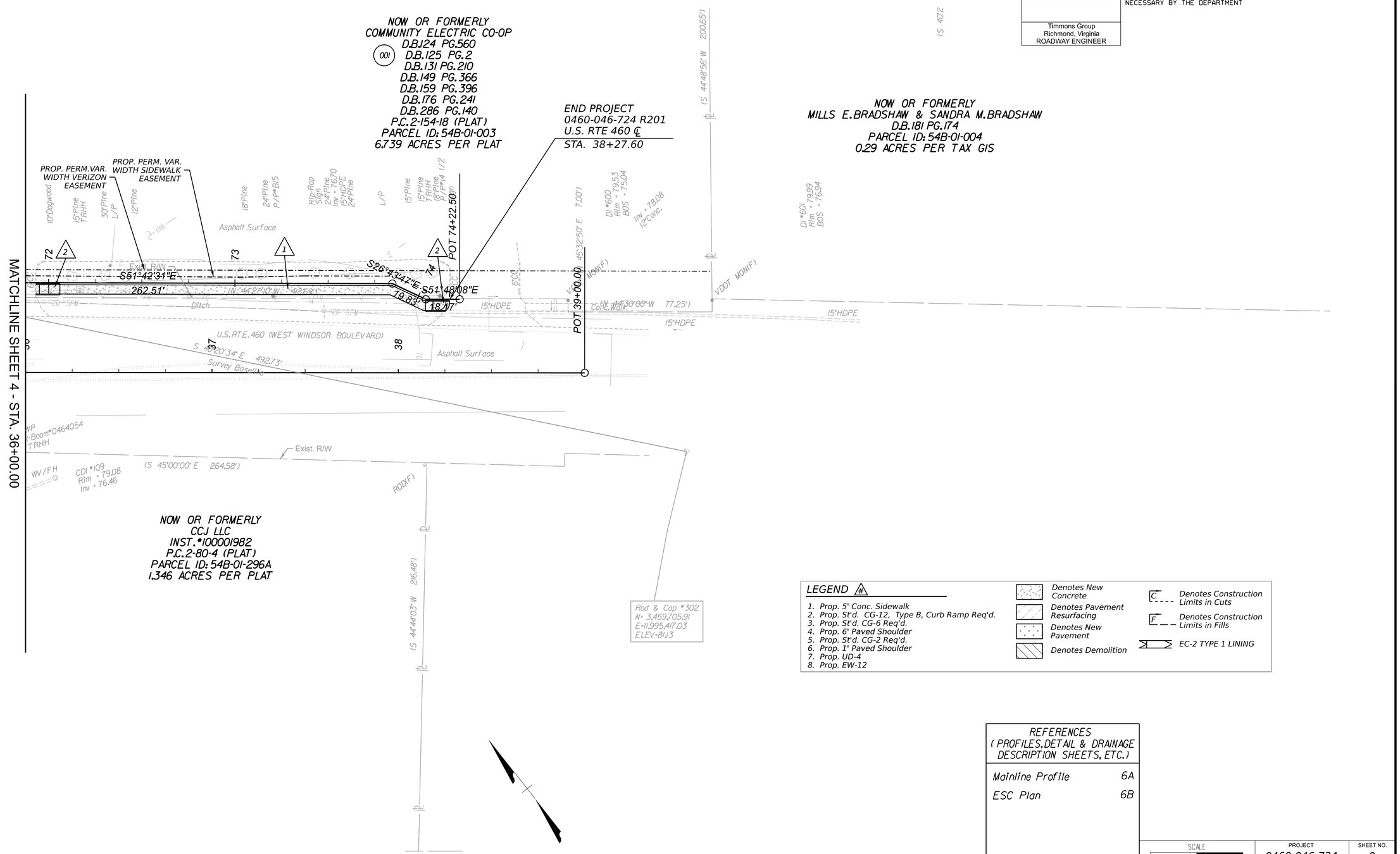
RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	6

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

Denotes New Concrete
Denotes Pavement Resurfacing
Denotes New Pavement
Denotes Demolition

C Denotes Construction Limits in Cuts
F Denotes Construction Limits in Fills
EC-2 TYPE 1 LINING

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

Mainline Profile	6A
ESC Plan	6B

SCALE: 0 25' 50'

PROJECT	SHEET NO.
0460-046-724	6

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	6A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 4B - STA. 36+00.00

'OW OR FORMERLY
UNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

END PROJECT
0460-046-724 R201
U.S. RTE 460 ℄
STA. 38+27.60

NOW OR FORMERLY
MILLS E.BRADSHAW & SANDRA M.BRADSHAW
D.B.181 PG.174
PARCEL ID: 54B-01-004
0.29 ACRES PER TAX GIS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

LOD
TSF-A
RCD-2
RCD-2
Asphalt Surface
Asphalt Surface
15"HDPE
15"HDPE
Conc.Walk
Ditch
VDOT MON(F)
VDOT MON(F)
ROD(F)
POT 74+22.50
POT 39+00.00
S51°42'31"E 262.51'
(N 44°27'10" W 418.69')
S26°43'47"E
S51°48'08"E 19.83'
18.17'
(N 44°30'00" W 77.25')
(S 44°48'56" W 200.65')
(S 45°00'00" E 264.58')
(S 44°44'03" W 216.48')
CDI #109 Rim = 79.08 Inv = 76.46
DI #600 Rim = 79.53 BOS = 75.04
Inv = 78.08 12"Conc.
DI #601 Rim = 79.99 BOS = 76.94
Sign 24"Pine Inv = 76.70 15"Pine 24"Pine
10"Dogwood
15"Pine
30"Pine
12"Pine
18"Pine
24"Pine
15"Pine
15"Pine
18"Pine
72
73
74
37
38
80ft

LEGEND

- TSF-A / TSF-B — Temporary Silt Fence, St'd EC-5 Type A or B
- SAF — Temporary Safety Fence (Plastic Polyethylene)
- IP-A / IP-B / IP-C — Inlet Protection, Type A, B, or C; St'd EC-6
- OP — Outlet Protection, St'd EC-1
- RCD-2 — Rock Check Dam, Type II; St'd EC-4

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	6A

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

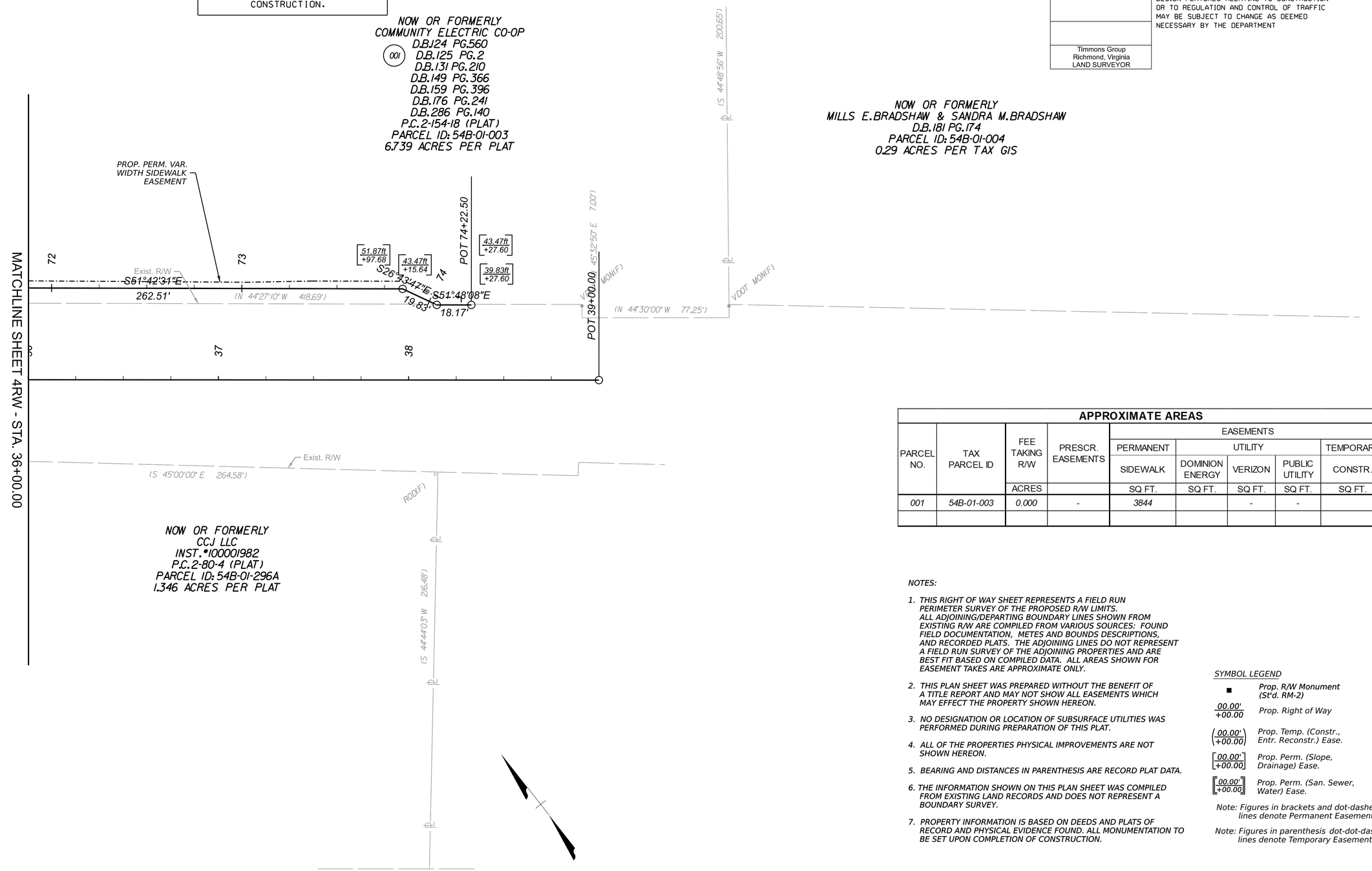
RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	6RW

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
LAND SURVEYOR



APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	FEE TAKING R/W	PRESCR. EASEMENTS	EASEMENTS				
				PERMANENT	UTILITY			TEMPORARY
				SIDEWALK	DOMINION ENERGY	VERIZON	PUBLIC UTILITY	CONSTR.
		ACRES		SQ FT.	SQ FT.	SQ FT.	SQ FT.	SQ FT.
001	54B-01-003	0.000	-	3844		-	-	

NOTES:

1. *THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.*
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SYMBOL LEGEND

- ■ *Prop. R/W Monument (St'd. RM-2)*
- *00.00' / +00.00* *Prop. Right of Way*
- *(00.00' / +00.00)* *Prop. Temp. (Constr., Entr. Reconstr.) Ease.*
- *[00.00' / +00.00]* *Prop. Perm. (Slope, Drainage) Ease.*
- *[[00.00' / +00.00]]* *Prop. Perm. (San. Sewer, Water) Ease.*

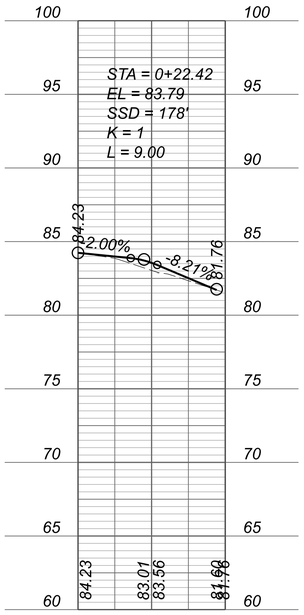
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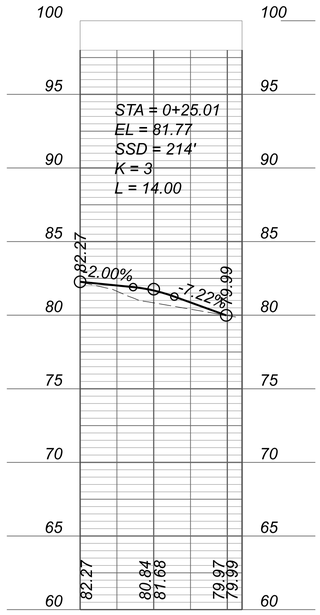
SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	6RW

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

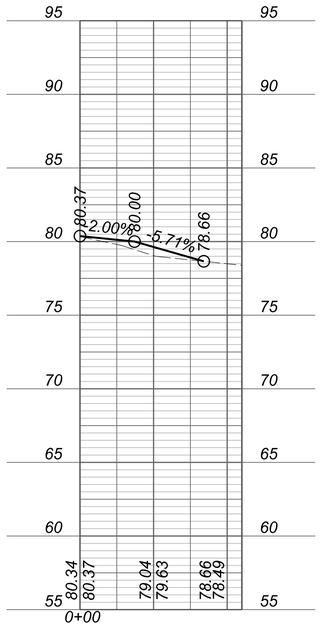
ENTRANCE #1



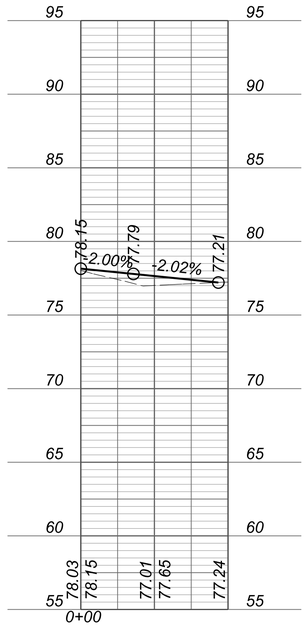
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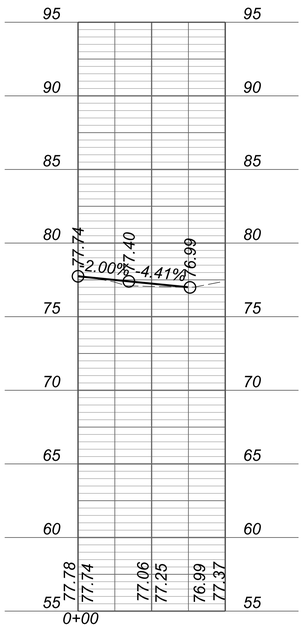
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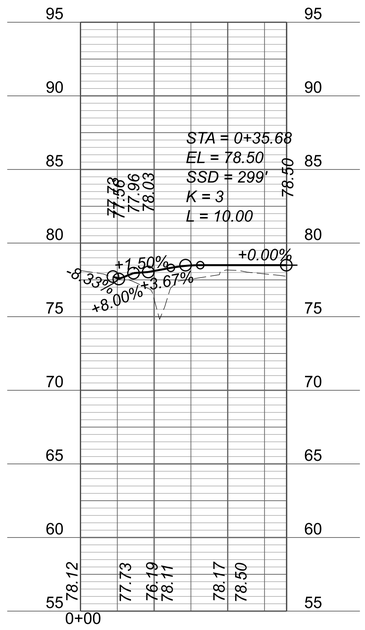
ENTRANCE #4



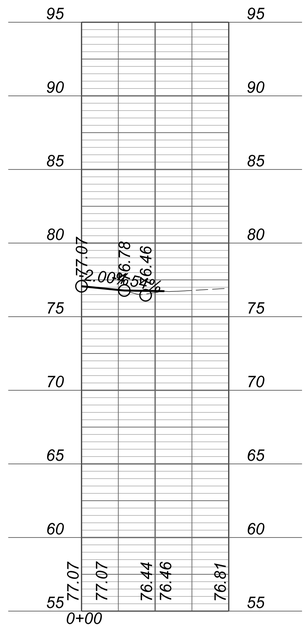
ENTRANCE #5



ENTRANCE #6 - BMP ACCESS



BELMONT STREET



Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	7

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

RW PLANS

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PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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DRAINAGE AREA MAP

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	8(3)

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Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

NOW OR FORMERLY
WILLIAM H.GOODMAN ESTATE
C/O LOWELL GOODMAN
D.B.131 PG.246
P.B.5 PG.50
PARCEL ID: 53-01-056
37.74 ACRES PER TAX RECORDS

OF #1
35.38 Ac.

POT 10+00.00

100 | 0.43
0.19 Ac.

MATCHLINE SHEET 8(4) - STA. 14+00.00

NOW OR FORMERLY
CLYDE A.BRACEY,SR.ESTATE
C/O NANCY PRUDEN
D.B.145 PG.163
D.B.153 PG.163 (COMM.OF VA)
PARCEL ID: 54B-01-262
18JO ACRES PER TAX RECORDS

NORFOLK SOUTHERN RAILWAY COMPANY
VARIABLE WIDTH RIGHT OF WAY

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

(N 45°00'00" W 238.57')

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	8(3)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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DRAINAGE AREA MAP

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	8(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 8(3) - STA. 14+00.00

MATCHLINE SHEET 8(5) - STA. 21+00.00

MATCHLINE SHEET 8(6) - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

POT STA. 16+27.95 RTE 258 ℄
POT STA. 34+27.89 RTE 460 ℄

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C. 2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C. 2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME
PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	8(4)

Cell Revised 12/11/12

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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DRAINAGE AREA MAP

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	8(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 8(4) - STA. 21+00.00

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-018
3.99 ACRES PER TAX RECORDS

305 | 0.51 | 0.20 Ac.

400 | 0.48 | 0.46 Ac.

(N 63°53'40" W 498.38')

(S 26°06'20" W 371.55')

(S 26°06'20" W 646.37')

75ft

12'

12'

PROP 24+00.00

PROP #4

0.16 Ac.

(S 26°06'18" W 400.00')

(A=39.27')
(R=25.00')

(A=39.27')
(R=25.00')

(S 63°53'40" E 255.00')

(N 63°53'40" W 255.00')

EXISTING 30' PRIVATE STREET
INST.#160003474(PLAT)

EXISTING 15' UTILITY EASEMENT
INST.#160003474(PLAT)

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
PARCEL ID: 54B-05-022
25.67 ACRES PER TAX RECORDS

65ft

70ft

80ft

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	8(5)

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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DRAINAGE AREA MAP

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	8(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

NOW OR FORMERLY
WUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
MILLS E.BRADSHAW & SANDRA M.BRADSHAW
D.B.181 PG.174
PARCEL ID: 54B-01-004
0.29 ACRES PER TAX GIS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

303 | 0.64
4.01 Ac.

MATCHLINE SHEET 8(4) - STA. 36+00.00

POT 74+22.50
POT 39+00.00
S51°42'31"E 262.51'
S26°43'47"E 19.83'
S51°48'08"E 18.11'
(N 44°27'10" W 418.69')
(N 44°30'00" W 77.25')
(S 45°00'00" E 264.58')
(S 44°44'03" W 216.48')
(N 44°48'56" W 200.65')
VDOT MON(F)
ROD(F)
80ft
72
73
74
37
38

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	8(6)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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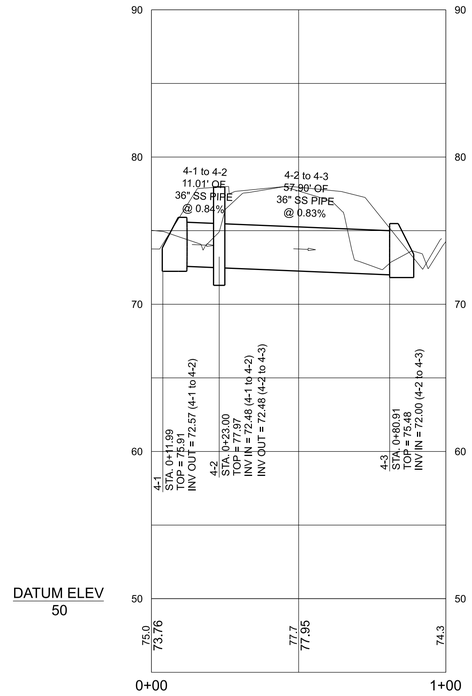
STORM SEWER PROFILES & DRAINAGE DESCRIPTIONS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

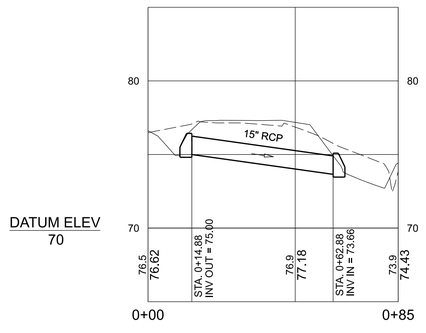
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	9

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

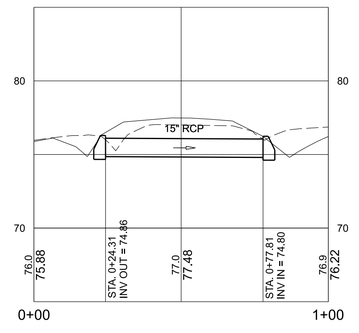
4-1 TO 4-3



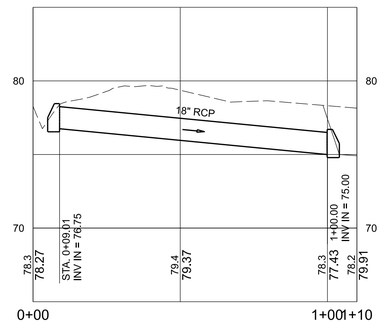
4-4



4-5



4-6



4-1 — 4-2
11' - 36" Storm Sewer Pipe Req'd (Cover = 2')
Inv. (in) = 72.57' Inv. (out) = 72.48'

4-1
1 St'd. 36" ES-1 Req'd
Inv. = 72.57'

4-2
1 St'd. DI-3B Req'd
L = 4', H = 6.2', Inv. = 71.79'
St'd. IS-1 Req'd., St'd. ST-1 Req'd.,
1 UD-4 Connection Req'd.

4-2 — 4-3
58' - 36" Storm Sewer Pipe Req'd (Cover = 2')
Inv. (in) = 72.48''' Inv. (out) = 72.00'

4-3
1 St'd. 36" ES-1 Req'd
Inv. = 72.00'
22 tons of EC-1 Class I Req'd.
Type B Installation

4-4
48' - 15" Pipe Req'd. (Cover = 1')
Inv. (in) = 125.45' Inv. (out) =
2 St'd. 15" ES-1 Req'd.
2 tons of EC-1 Class AI Req'd.
Type A Installation

4-5
54' - 15" Pipe Req'd. (Cover = 1')
Inv. (in) = 74.86' Inv. (out) = 74.80'
2 St'd. 15" ES-1 Req'd.
2 tons of EC-1 Class AI Req'd.
Type A Installation

4-6
91' - 18" Pipe Req'd. (Cover = 2')
Inv. (in) = 76.75' Inv. (out) = 75.00'
2 St'd. 18" ES-1 Req'd.
4 tons of EC-1 Class I Req'd.
Type A Installation

4-7
1 St'd. 60" Dia. SWM-1 Req'd.
Riser Top = 77.00'
9" Orifice = 74.00'
See Sheet 12 for Details

4-2 — 4-3
62' - 15" Storm Sewer Pipe Req'd (Cover = 2')
Inv. (in) = 74.00''' Inv. (out) = 73.40'

4-8
1 St'd. 15" ES-1 Req'd
Inv. = 74.30'
3 tons of EC-1 Class I Req'd.
Type A Installation

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
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SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(1)

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Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

DRAINAGE CALCULATIONS

DRAINAGE AREA ANALYSIS

460/258 Intersection

Structure No.	Area Number	Total Area (Acres)	Land Cover C = 0.90	Land Cover C = 0.25	Land Cover C = 0.30	C-Factor	Time of Concentration, T_c (minutes): Overland Flow (200' max)* Length	Overland Flow Height	Overland Flow Slope	Overland Flow T_c	Channel Flow** Length	Channel Flow Height	Channel Flow Slope	Channel Flow T_c	Total T_c	Intensity, I (in/hr): 2-Year	10-Year	25-Year	50-Year	100-Year	Peak Flow, Q (cfs): 2-Year	10-Year	25-Year	50-Year	100-Year
Outfall	**100**	0.19	0.05	0.12	0.02	0.43	30.19	6.01	19.91%	3.0	114	3.5	3.06%	1.2	**5.0**	6.2	8.2	9.0	9.9	10.7	0.50	0.66	0.81	0.96	1.08
Outfall	**200**	3.34	2.54		0.80	0.76	200	3.79	1.90%	5.9	470.7	4.1	0.88%	5.8	**11.6**	4.6	6.2	6.9	7.6	8.2	11.74	15.74	19.24	22.96	25.92
4-1	**300**	6.34	4.26		2.08	0.70	200	1.31	0.66%	7.7	910.04	5.16	0.57%	11.2	**18.9**	3.7	5.0	5.6	6.2	6.7	16.44	22.38	27.47	32.91	37.29
4-2	**301**	0.20	0.17		0.03	0.81	47.83	1.09	2.28%	2.9	245.92	0.36	0.15%	7.0	**9.9**	5.0	6.6	7.4	8.0	8.7	0.80	1.07	1.31	1.56	1.76
BMP	**302**	0.29	0.02		0.27	0.34	80.16	0.6	0.75%	10.5	219.6	4.25	1.94%	2.4	**13.0**	4.4	6.0	6.6	7.3	7.9	0.44	0.59	0.72	0.86	0.97
4-6	**303**	4.01	2.30		1.71	0.64	82.56	1.06	1.28%	5.1	1311.36	5.58	0.43%	16.4	**21.5**	3.4	4.7	5.3	5.8	6.3	8.88	12.14	14.93	17.92	20.33
Ditch	**304**	5.89	2.07		3.82	0.51	188.89	0.73	0.39%	11.4	824.79	5.75	0.70%	9.6	**21.1**	3.5	4.8	5.3	5.8	6.4	10.47	14.31	17.59	21.10	23.94
4-5	**305**	0.20	0.07		0.13	0.51	118.06	2.22	1.88%	7.0	44.05	1.31	2.97%	0.6	**7.6**	5.5	7.3	8.1	8.8	9.5	0.56	0.74	0.90	1.08	1.21
4-4	**306**	0.40	0.27		0.13	0.71	108.85	2.23	2.05%	4.8	119.79	1.75	1.46%	1.7	**5.0**	6.2	8.2	9.0	9.9	10.7	1.74	2.30	2.80	3.34	3.76
Outfall	**307**	0.22	0.11		0.11	0.60	Not Used in Intensity Calculation								**5.0**	6.2	8.2	9.0	9.9	10.7	0.82	1.08	1.31	1.56	1.76
Outfall	**400**	0.46	0.14		0.32	0.48	126.03	1.65	1.31%	8.1	291.33	3.63	1.25%	3.5	**11.6**	4.6	6.2	6.9	7.6	8.2	1.03	1.38	1.69	2.02	2.28

*Seelye Method, VDOT Drainage Manual App. 6-D1

**Kirpich Method, VDOT Drainage Manual App. 6-D5

ROADSIDE DITCH CALCULATIONS

Project Name: 460/258 Intersection
Road Names: US Rte 258
Side:

Designed By: TG

Area Number	Sta From	Sta To	T_c (min)	C Value	Area (ac.)	CA (accum)	I_2 (in/hr)	Q_2 (cfs)	Slope* (ft/ft)	Jute(Sod) (n=0.028) Max V=4.0 fps: *Vel.*	R_H	Shear	Paved (n=0.013): *Vel.*	Depth	I_{10} (in/hr)	Q_{10} (cfs)	**Depth$_{10}$ (ft)**	**Minimum Design** (Depth)	(Type)
	L Ditch - 17+25 to Str. 4-4																		
306	17+25	Str. 4-4	5.0	0.71	0.40	0.28	6.2	1.74	0.008	***1.2 fps***	***0.3 ft***	*0.14 psf*	-	-	8.2	2.30	**0.72 ft**	**10"**	EC-2 Type 1 Lined V-Ditch
	L Ditch - 21+00 to Outfall 3																		
305	21+00	Str. 4-5	7.6	0.51	0.20	0.10	5.5	0.56	0.041	***1.7 fps***	***0.2 ft***	*0.38 psf*	-	-	7.3	0.74	**0.34 ft**	6"	EC-2 Type 1 Lined V-Ditch
307	Str. 4-5	Outfall	5.0	0.60	0.22	0.23	6.2	1.45	0.008	***1.2 fps***	***0.3 ft***	*0.15 psf*	-	-	8.2	1.91	**0.67 ft**	8"	EC-2 Type 1 Lined V-Ditch
	R Ditch - 21+50 - 19+25																		
304	21+50	19+25	21.1	0.51	5.89	3.01	3.5	10.47	0.009	***2.0 fps***	***0.6 ft***	*0.33 psf*	-	-	4.8	14.31	**1.38 ft**	18"	EC-2 Type 1 Lined V-Ditch
	L Ditch - 21+00 to Outfall 4																		
400	21+00	Outfall	11.6	0.48	0.46	0.22	4.6	1.03	0.008	***1.0 fps***	***0.3 ft***	*0.12 psf*	-	-	6.2	1.38	**0.59 ft**	8"	EC-2 Type 1 Lined V-Ditch
	R Ditch - 18+85 to 19+25																		
BMP OUT	18+85	19+25	Flow values from Pondpack					11.13	0.010	***2.1 fps***	***0.6 ft***	*0.37 psf*	-	-		22.24	**1.60 ft**	20"	EC-2 Type 1 Lined V-Ditch

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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(2)

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INLET SPREAD CALCULATIONS

ROUTE Rte 258 **PROJECT** Rte 460/258 Turn Lanes **DESIGNER:** TG **DATE** 8/1/2024
CHECKED: **UNITSENGLISH**

INLET																											Sag Inlets Only					
NUMBER	TYPE	LENGTH (FT;M)	STATION	DRAINAGE AREA (AC;HA)	C	CA	SCA	I (IN/HR; mm/HR)	Q INCR (CFS; CMS)	Qc CARRYOVER (CFS; CMS)	QT GUTTER FLOW (CFS; CMS)	S GUTTER SLOPE (FT/FT; M/M)	Sx CROSS SLOPE (FT/FT; M/M)	T (SPREAD) (FT; M)	W (GUTTER WIDTH) (FT;M)	W/T	Sw (GUTTER SLOPE) (FT/FT; M/M)	Sw/Sx	Eo (App. 9C-8)	a	Sw	Se	COMPUTED LENGTH L (FT; M)	L SPECIFIED LENGTH (FT;M)	L/LT	E (App. 9C-18)	Q INTERCEPTED (CFS; CMS) or dlh	Qb CARRYOVER (CFS; CMS)	Depth at Curb (IN; MM)	Allowable Ponding Depth d (FT; M)	Height of Curb Opening h (FT; M)	dlh	Depth at Inlet (IN; MM)	T SPREAD @ SAG (FT; M)	REMARKS
4-2	DI-3B	4.000	19+25	0.200	0.81	0.162																												
			14.000'RIGHT				0.162	4	0.648	0	0.648	0.0051	0.0200	4.433	2.000	0.45116	0.0833	4.165	0.926	3.52	0.1466	0.1558	4.241	4.000	0.943	0.994	0.644	0.004	2.583						

STORM SEWER CALCULATIONS

4-1 to 4-3
STORM SEWER DESIGN COMPUTATIONS

PROJECT: Rte 258 Turn Lanes
LOCATION:
COUNTY: Isle of Wigth

Designed by:

Checked by:

STORM FREQUENCY 10

UNITS ENGLISH

PIPE NO	FROM POINT REFERENCE	FROM POINT STA.	TO POINT REFERENCE	TO POINT STA.	DRAIN. AREA "A" Acre	RUNOFF COEFF. "C"	CA INCRE-MENT	CA ADDTL CA	CA ACCUM-ULATED	TOTAL INLET TIME Minutes	RAIN FALL In/Hr	RUNOFF Q CFS	INVERT ELEVATIONS UPPER END	INVERT ELEVATIONS LOWER END	LENGTH of Pipe Ft.	SLOPE Ft./Ft.	SIZE (Dia. Or Span/Rise) In.	SHAPE	Capacity CFS	Friction Slope Ft./Ft.	VEL Vn Ft/Sec	FLOW TIME Min.	REMARKS
	(1)		(2)		(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		(15)		(16)	(17)	(18)
4-1 to 4-2	4-1		4-2		16.530	0.610	10.083	0.000	10.083	21.500	4.707	47.462	72.573	72.480	11.012	0.008	36.000	Circular	61.131	0.005	9.576	0.019	
4-2 to 4-3	4-2		4-3		0.200	0.810	0.162	0.000	10.245	21.519	4.705	48.203	72.480	72.000	57.903	0.008	36.000	Circular	60.728	0.005	9.552	0.101	

HYDRAULIC GRADE LINE ANALYSIS

4-1 to 4-3
HYDRAULIC GRADE LINE ANALYSIS

PROJECT: Rte 258 Turn Lanes

DESIGNED BY:

Checked:

INCIDENCE PROBABILITY **10** **Year**

INLET OR JUNCTION	INLET STATION	OUTLET WATER SURFACE ELEV.	DIA. PIPE Do (In)	DESIGN DISCH. Qo (CFS)	LENGTH PIPE Lo (Ft)	FRICTION SLOPE, Sfo (FT/FT)	FRICTION LOSS Hf (Ft)	JUNCTION LOSS Vo	Ho (Ft)	Qi	Vi	QiVi	Vi*2/2g	Hi	Angle	HΔ	Ht	1.3 Ht	0.5 Ht	FINAL H (Ft)	Inlet Water Surface Elevation	Rim Elev	Comments
4-2		74.40	36	48.20	57.90	0.0052	0.30	9.55	0.35	47.46	9.58	454.49	1.42	0.50	0.71	0.00	0.85	0	FALSE	1.15	75.55	77.97	OK -2.416
4-1		74.97	36	47.46	11.01	0.0051	0.06	9.58	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.46274	FALSE	0.52	75.49	75.91	OK -0.418

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

POND OUTPUTS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
MP#1 DA Onsite	Post-Development 1 Year	1	0.055	11.950	1.00
MP#1 DA Onsite	Post-Development 2 Year	2	0.076	11.900	1.37
MP#1 DA Onsite	Post-Development 10 Year	10	0.142	11.900	2.60
MP#1 DA Onsite	Post-Development 100 Year	100	0.279	11.900	4.99
Bypass DA	Post-Development 1 Year	1	1.893	12.100	24.30
Bypass DA	Post-Development 2 Year	2	2.472	12.100	31.48
Bypass DA	Post-Development 10 Year	10	4.275	12.100	53.12
Bypass DA	Post-Development 100 Year	100	7.799	12.100	93.68
MP #1 DA Offsite	Post-Development 1 Year	1	0.578	12.000	8.98
MP #1 DA Offsite	Post-Development 2 Year	2	0.750	12.000	11.54
MP #1 DA Offsite	Post-Development 10 Year	10	1.282	12.000	19.23
MP #1 DA Offsite	Post-Development 100 Year	100	2.318	12.000	33.59

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
Outfall 3	Post-Development 1 Year	1	2.517	12.100	27.09
Outfall 3	Post-Development 2 Year	2	3.288	12.100	42.61
Outfall 3	Post-Development 10 Year	10	5.687	12.050	72.66
Outfall 3	Post-Development 100 Year	100	10.377	12.050	128.90

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
MP#1 (IN)	Post-Development 1 Year	1	0.633	12.000	9.87	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 1 Year	1	0.625	12.250	2.95	76.94	0.207
MP#1 (IN)	Post-Development 2 Year	2	0.826	12.000	12.76	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 2 Year	2	0.816	12.100	11.13	77.16	0.229
MP#1 (IN)	Post-Development 10 Year	10	1.425	12.000	21.42	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 10 Year	10	1.412	12.000	22.24	77.29	0.243
MP#1 (IN)	Post-Development 100 Year	100	2.596	12.000	37.66	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 100 Year	100	2.578	12.000	37.46	77.46	0.261

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

CULVERT CALCULATIONS

PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-4 VA
NOAA Station Suffolk Lake Kilby

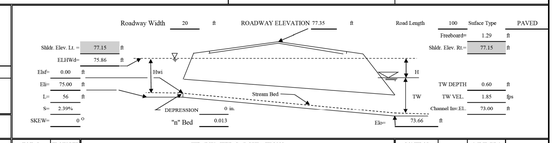
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:

HYDROLOGICAL DATA
Method: RATIONAL
Drainage Area: 0.4 Acres
Time of Concentration 5 Minutes

DESIGN FLOWS

R.I. (years)	FLOW (cfs)	
10	Design	2.31
2	Check	1.76
100	Max.	3.79



CULVERT DESCRIPTION:
TYPE: **Single/Multiple Conforming**

Inlet Edge Description:
Square edge w/headwall
Single / Multiple Conforming / Broken Back Culverts

MATERIAL	SHAPE	Size (in)	N	Mannings n	TOTAL FLOW Q cfs	FLOW PER BARREL Q/N cfs	HEADWATER CALCULATIONS: INLET CONTROL HWi/D ft	HWi ft	FALL ft	ELHWi ft	OUTLET CONTROL TW ft	dc ft	(dc+D)/2 ft	ho ft	ke	H ft	ELHWo ft	CONTROL HEADWATER ELEV ft	OUTLET VEL fps	MINIMUM SHOULDER ELEV. ft	COMMENTS
Concrete	Circular	15	1	0.01	2.31	2.3	0.69	0.86	0.00	75.86	0.60	0.61	0.93	0.93	0.50	0.15	74.74	75.86	6.62		
					1.76	1.8	0.58	0.73	0.00	75.73	0.54	0.53	0.89	0.89	0.50	0.09	74.64	75.73	6.11		
					3.79	3.8	0.96	1.20	0.00	76.20	0.72	0.79	1.02	1.02	0.50	0.41	75.09	76.20	7.58		

Broken Back Culvert

LENGTH	Elev.	SKEW°

TAILWATER DATA:

Channel Shape	Trianguilar	
Bottom Width, ft	0.00	"n" = 0.035
Side Slope Lt. (H:1V)	4.00	
Side Slope Rt. (H:1V)	3.00	
Channel Slope, ft/ft	0.0100	

	Distance	Elevation	"n" =

TAILWATER RESULTS:

	Discharge cfs	Elevation ft	Flow depth ft	Velocity fps	Shear force PSF
Design	73.60	0.60	1.85	0.37	
Check	73.54	0.54	1.73	0.34	
Max.	73.72	0.72	2.09	0.45	

ROADWAY DATA:

Roadway Width, ft	20
Surface Type	PAVED
Top of Road Elevation, ft	77.35
Length of Road, ft	100

ROADWAY OVERTOPPING:

	Discharge cfs	Overtopping Discharge	Overtopping Elevation ft
Design	0		0.00
Check	0		0.00
Max.	0		0.00

TECHNICAL FOOTNOTES:
(1) USE Q/NB FOR BOX CULVERTS
(2) HWi/D = HW/D OR HWo/D FROM DESIGN CHARTS
(3) FALL = HW1 - (ELHWd - ELsf); FALL IS ZERO FOR CULVERTS ON GRADE
(4) ELhi = HWi + ELi (INVERT OF INLET CONTROL SECTION)
(5) TW BASED ON DOWNSTREAM CONTROL OR FLOW DEPTH IN CHANNEL
(6) ho = TW or (dc + D/2) (WHICHEVER IS GREATER)
(7) $H = [1 + ke + (29n^2L)/R^{1.33}]v^2/2g$

SUBSCRIPT DEFINITIONS:

HWd	DESIGN HEADWATER	i	INLET
HWi	HW IN INLET CONTROL	o	OUTLET
HWo	HW IN OUTLET CONTROL	sf	Streambed @ culvert face

COMMENTS / DISCUSSION:

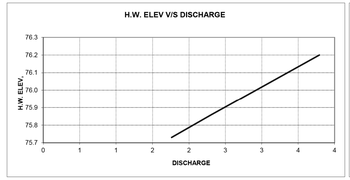
CULVERT BARREL SELECTED
SIZE: n:
SHAPE: MATERIAL:
ENTRANCE:

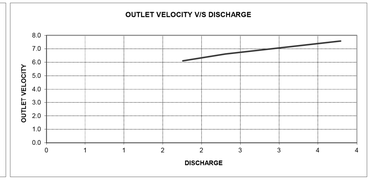
CULVERTSOFT by ENSOFTEC, INC.

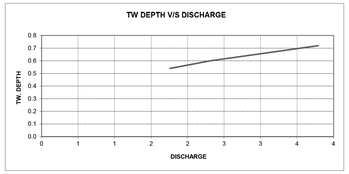
PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-4 VA
NOAA Station Suffolk Lake Kilby

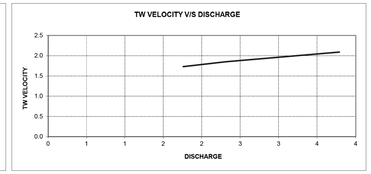
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:









CULVERTSOFT by ENSOFTEC, INC.

PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-5 VA
NOAA Station Suffolk Lake Kilby

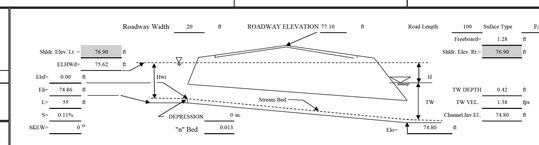
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:

HYDROLOGICAL DATA
Method: RATIONAL
Drainage Area: 0.2 Acres
Time of Concentration 5 Minutes

DESIGN FLOWS

R.I. (years)	FLOW (cfs)	
10	Design	0.83
2	Check	0.63
100	Max.	1.36



CULVERT DESCRIPTION:
TYPE: **Single/Multiple Conforming**

Inlet Edge Description:
Square edge w/headwall
Single / Multiple Conforming / Broken Back Culverts

MATERIAL	SHAPE	Size (in)	N	Mannings n	TOTAL FLOW Q cfs	FLOW PER BARREL Q/N cfs	HEADWATER CALCULATIONS: INLET CONTROL HWi/D ft	HWi ft	FALL ft	ELHWi ft	OUTLET CONTROL TW ft	dc ft	(dc+D)/2 ft	ho ft	ke	H ft	ELHWo ft	CONTROL HEADWATER ELEV ft	OUTLET VEL fps	MINIMUM SHOULDER ELEV. ft	COMMENTS
Concrete	Circular	15	1	0.01	0.83	0.8	0.61	0.49	0.00	75.35	0.42	0.36	0.81	0.80	0.50	0.02	75.62	75.62	1.63		
					0.63	0.6	0.58	0.42	0.00	75.28	0.38	0.31	0.78	0.78	0.50	0.01	75.59	75.59	1.51		
					1.36	1.4	0.68	0.64	0.00	75.50	0.50	0.46	0.86	0.86	0.50	0.05	75.71	75.71	1.84		

Broken Back Culvert

LENGTH	Elev.	SKEW°

TAILWATER DATA:

Channel Shape	Trianguilar	
Bottom Width, ft	0.00	"n" = 0.035
Side Slope Lt. (H:1V)	3.00	
Side Slope Rt. (H:1V)	4.00	
Channel Slope, ft/ft	0.0090	

	Distance	Elevation	"n" =

TAILWATER RESULTS:

	Discharge cfs	Elevation ft	Flow depth ft	Velocity fps	Shear force PSF
Design	75.22	0.42	1.38	0.23	
Check	75.18	0.38	1.28	0.21	
Max.	75.30	0.50	1.56	0.28	

ROADWAY DATA:

Roadway Width, ft	20
Surface Type	PAVED
Top of Road Elevation, ft	77.1
Length of Road, ft	100

ROADWAY OVERTOPPING:

	Discharge cfs	Overtopping Discharge	Overtopping Elevation ft
Design	0		0.00
Check	0		0.00
Max.	0		0.00

TECHNICAL FOOTNOTES:
(1) USE Q/NB FOR BOX CULVERTS
(2) HWi/D = HW/D OR HWo/D FROM DESIGN CHARTS
(3) FALL = HW1 - (ELHWd - ELsf); FALL IS ZERO FOR CULVERTS ON GRADE
(4) ELhi = HWi + ELi (INVERT OF INLET CONTROL SECTION)
(5) TW BASED ON DOWNSTREAM CONTROL OR FLOW DEPTH IN CHANNEL
(6) ho = TW or (dc + D/2) (WHICHEVER IS GREATER)
(7) $H = [1 + ke + (29n^2L)/R^{1.33}]v^2/2g$

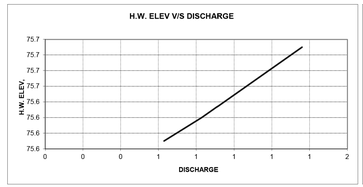
SUBSCRIPT DEFINITIONS:

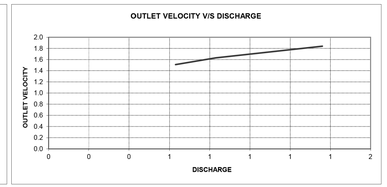
HWd	DESIGN HEADWATER	i	INLET
HWi	HW IN INLET CONTROL	o	OUTLET
HWo	HW IN OUTLET CONTROL	sf	Streambed @ culvert face

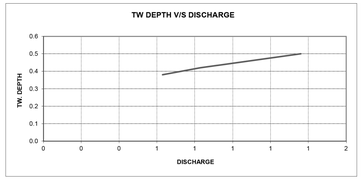
COMMENTS / DISCUSSION:

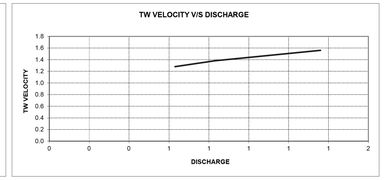
CULVERT BARREL SELECTED
SIZE: n:
SHAPE: MATERIAL:
ENTRANCE:

CULVERTSOFT by ENSOFTEC, INC.









CULVERTSOFT by ENSOFTEC, INC.

	PROJECT	SHEET NO.
	0460-046-724	10(4)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

CULVERT CALCULATIONS

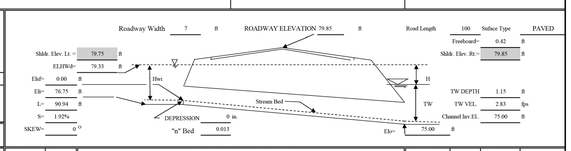
PROJECT	**Rte 460/258 Turn Lanes**			**CULVERT DESIGN FORM LD-269**	
ROAD	**Rte 258**	**COUNTY**	Isle of Wight	SHEET OF	DESIGNER: TG DATE: 8/1/2024
CULVERT	4-6		VA	UNITS **ENGLISH**	REVIEWER: DATE:
NOAA Station	16+50 Suffolk Lake Kilby				

HYDROLOGICAL DATA
Method: RATIONAL
Drainage Area: 4.01 Acres
Time of Concentration 25 Minutes

DESIGN FLOWS

R.I. (years)	FLOW (cfs)	
10	Design	11.16
2	Check	8.11
100	Max.	18.80

CULVERT DESCRIPTION:
TYPE: Single/Multiple Conforming



Inlet Edge Description:
Square edge w/headwall

Single / Multiple Conforming / Broken Back Culverts

MATERIAL	SHAPE	Size (in)	N	Manning's n	TOTAL FLOW Q cfs	FLOW PER BARREL Q/N cfs	HEADWATER CALCULATIONS: INLET CONTROL HWi/D	HWi ft	FALL ft	ELHWi ft	OUTLET CONTROL: TW ft	dc ft	(dc+D)/2 ft	to ft	ke	H ft	ELHWo ft	CONTROL HEADWATER ELEV ft	OUTLET VEL fps	MINIMUM SHOULDER ELEV. ft	COMMENTS
Concrete	Circular	18	1	0.01	11.16	11.2	1.72	2.58	0.00	79.33	1.15	1.28	1.39	1.39	0.50	1.95	78.34	79.33	9.08		
					8.11	8.1	1.21	1.82	0.00	78.57	1.02	1.10	1.30	1.30	0.50	1.03	77.33	78.57	8.46		
					18.80	18.8	2.11	3.17	0.00	79.92	1.39	1.46	1.48	1.48	0.50	3.10	79.58	79.92	7.40		

Broken Back Culvert

LENGTH	Elev.	SKEW °

TAILWATER DATA:

Channel Slope	Triangular		
Bottom Width, ft	0.00	"n" =	0.035
Side Slope Lt. (H:1V)	3.00		
Side Slope Rt. (H:1V)	3.00		
Channel Slope, ft/ft	0.0100		

Distance										
Elevation										
"n" =										

TAILWATER RESULTS:

	Discharge cfs	Elevation ft	Flow depth. ft	Velocity fps	Shear force PSF
Design	76.15	1.15	2.83	0.72	
Check	76.02	1.02	2.61	0.64	
Max.	76.40	1.39	3.22	0.87	

ROADWAY DATA:

Roadway Width, ft	7
Surface Type	PAVED
Top of Road Elevation, ft	79.85
Length of Road, ft	100

ROADWAY OVERTOPPING:

	Discharge cfs	Overtopping Discharge cfs	Overtopping Elevation ft
Design	0		0.00
Check	0		0.00
Max.	6		79.92

TECHNICAL FOOTNOTES:
(1) USE Q/NB FOR BOX CULVERTS
(2) HW/D = HW/D OR HWi/D FROM DESIGN CHARTS
(3) FALL = HW1 - (ELHWd - ELsf); FALL IS ZERO FOR CULVERTS ON GRADE
(4) ELhi = HWi + ELs (INVERT OF INLET CONTROL SECTION)
(5) TW BASED ON DOWNSTREAM CONTROL OR FLOW DEPTH IN CHANNEL
(6) ho = TW or (dc + D/2) (WHICHEVER IS GREATER)
(7) H = [1 + ke + (29n²L)/R^(4/3)]v²/2g

SUBSCRIPT DEFINITIONS:

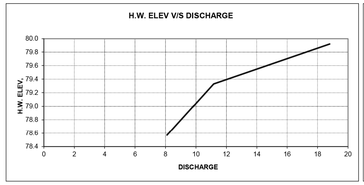
HWd	DESIGN HEADWATER	i	INLET
HWi	HW IN INLET CONTROL	o	OUTLET
HWo	HW IN OUTLET CONTROL	sf	Streambed @ culvert face

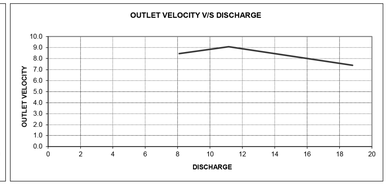
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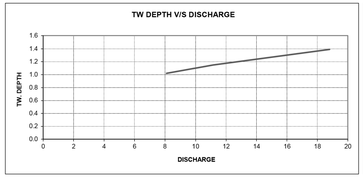
CULVERT BARREL SELECTED
SIZE: in
SHAPE: MATERIAL:
ENTRANCE:

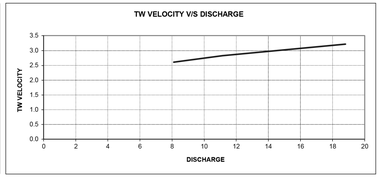
CULVERTSOFT by ENSOFTEC, INC.

PROJECT	**Rte 460/258 Turn Lanes**			**CULVERT DESIGN FORM LD-269**	
ROAD	**Rte 258**	**COUNTY**	Isle of Wight	SHEET OF	DESIGNER: TG DATE: 8/1/2024
CULVERT	4-6		VA	UNITS **ENGLISH**	REVIEWER: DATE:
NOAA Station	16+50 Suffolk Lake Kilby				









CULVERTSOFT by ENSOFTEC, INC.

VRRM

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

○ 2011 BMP Standards and Specifications ◉ 2013 Draft BMP Standards and Specifications

Project Name: 460/258 Intersection
Date: 8/1/2024
Linear Development Project? Yes

CLEAR ALL

data input cells
constant values
calculation cells
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 1.55

Check: BMP Design Specifications List: 2013 Draft Stds & Specs
Linear project? Yes
Land cover areas entered correctly? ✓
Total disturbed area entered? ✓

Maximum reduction required:	20%
The site's net increase in impervious cover (acres) is:	0.32
Post-Development TP Load Reduction for Site (lb/yr):	0.73

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) --UNdisturbed-- forest cover space				0.01	0.01
Managed Turf (acres) -- disturbed, graded for pasture, other turf to be mowed/ managed			0.13	1.29	1.42
Impervious Cover (acres)			0.01	0.11	0.12
					1.55

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) --UNdisturbed-- forest cover space or reforested land					0.00
Managed Turf (acres) - disturbed, graded for pasture, other turf to be mowed/ managed			0.09	1.02	1.11
Impervious Cover (acres)			0.06	0.39	0.44
Area Check	OK.	OK.	OK.	OK.	1.55

Constants

Annual Rainfall (inches)	43
Annual Rainfall Conf. (inches)	1.96
Total Phosphorus TP (lb/C-ing/y)	0.26
Total Nitrogen TN (lb/C-ing/y)	1.84
Target TP Load (lb/ acre/ yr)	0.41
P_pet (bias correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/ Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	Listed	Adjusted*
Forest/ Open Space Cover (acres)	0.01	0.00
Weighted Rv(forest)	0.05	0.00
%forest	1%	0%
Managed Turf Cover (acres)	1.42	1.11
Weighted Rv(turf)	0.25	0.25
%Managed Turf	92%	90%
Impervious Cover (acres)	0.12	0.12
Rv(impervious)	0.95	0.95
%impervious	8%	10%
Total Site Area (acres)	1.55	1.23
Site Rv	0.30	0.32

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)	
Post-ReDev. & New Impervious	
Forest/ Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
%forest	0%
Managed Turf Cover (acres)	1.11
Weighted Rv (turf)	0.25
%Managed Turf	72%
Impervious Cover (acres)	0.44
Rv(impervious)	0.95
%impervious	28%
Final Site Area (acres)	1.55
Final Post-Dev Site Rv	0.45

Land Cover Summary-Post	
Post-ReDevelopment	
Forest/ Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
%forest	0%
Managed Turf Cover (acres)	1.11
Weighted Rv (turf)	0.25
%Managed Turf	90%
ReDev. Impervious Cover (acres)	0.12
Rv(impervious)	0.95
%impervious	10%
Total ReDev. Imp Area (acres)	1.23
ReDev Site Rv	0.32

Land Cover Summary-Post	
Post-Development New Impervious	
New Impervious Cover (acres)	0.32
Rv(impervious)	0.95

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0388	0.0324
Pre-ReDevelopment Treatment Volume (cubic feet)	1,690	1,411
Pre-ReDevelopment TP Load (lb/yr)	**1.06**	**0.89**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.69	0.72
Baseline TP Load (lb/ yr) (0.41 lbs/acre/yr -applied to pre-redevelopment land cover excluding impervious land proposed for new impervious cover)		0.50

Final Post-Development Treatment Volume (acre-ft)	0.0077
Final Post-Development Treatment Volume (cubic feet)	2,515
Final Post-Development TP Load (lb/yr)	**1.58**
Final Post-Development TP Load per acre (lb/acre/yr)	1.02

Treatment Volume and Nutrient Load

Post-ReDevelopment Treatment Volume (acre-ft)	0.0324
Post-ReDevelopment Treatment Volume (cubic feet)	1,411
Post-ReDevelopment Load (TP) (lb/yr)*	**0.89**
Post-ReDevelopment TP Load per acre (lb/acre/yr)	0.72
Max. Reduction Required (Below Pre-ReDevelopment Load)	30%
TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.18**

Post-Development Treatment Volume (acre-ft)	0.0253
Post-Development Treatment Volume (cubic feet)	1,104
Post-Development TP Load (lb/yr)	**0.69**
TP Load Reduction Required for New Impervious Area (lb/yr)	**0.56**

*Adjusted Land Cover Summary:
Pre-ReDevelopment land cover minus previous land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/acre).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	0.74
Linear Project TP Load Reduction Required (lb/yr):	0.73

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr):	7.60	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr):	11.30

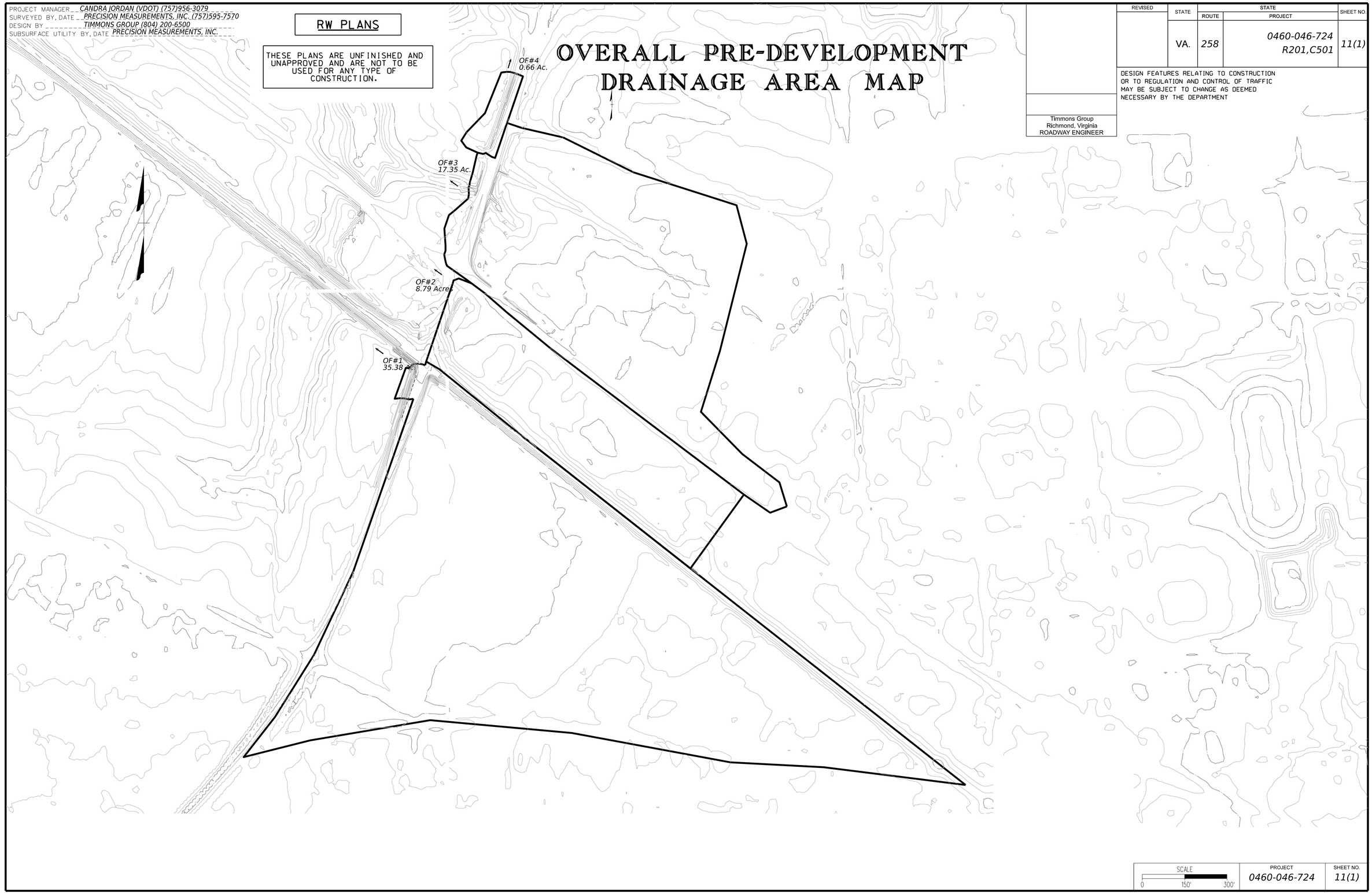
PROJECT	SHEET NO.
0460-046-724	10(5)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

OVERALL PRE-DEVELOPMENT DRAINAGE AREA MAP



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	11(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

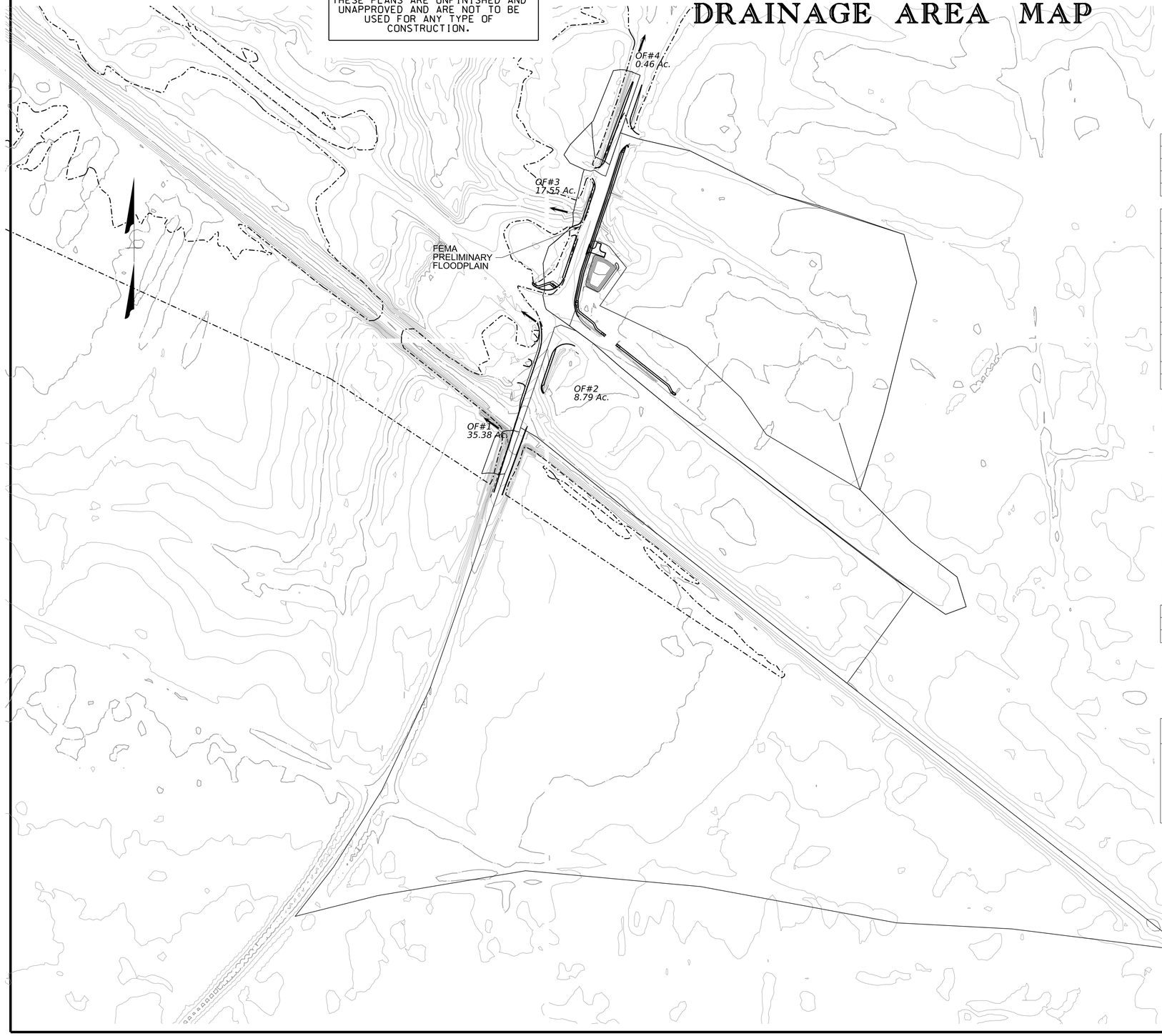
SCALE	PROJECT	SHEET NO.
0 150' 300'	0460-046-724	11(1)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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OVERALL POST-DEVELOPMENT DRAINAGE AREA MAP



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	11(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

1% ANALYSIS SUMMARY (CHANNEL + FLOOD PROTECTION)

	OF #1	OF #2
Outfall Type	Man-Made	Man-Made
Overall Drainage Area (Ac.)	35.38	8.76
Disturbed Area Within Drainage Area (Ac.)	0.09	0.08
Ratio	0.2544%	0.9132%

CHANNEL PROTECTION SUMMARY (1-YEAR STORM)

	OF #3	OF #4
Outfall Type	Natural	Man-Made
Rv .. (ac-ft)	0.1153	0.0243
Rv .. (ac-ft)	2.6312	0.0732
Rv .. (ac-ft)	0.1396	0.0295
Rv .. (ac-ft)	2.6458	0.0457
Q .. (cfs)	1.85	0.39
Q .. (cfs)	2.26	0.48
Energy Balance (cfs)	27.16	1.91
Q .. + Q .. (cfs)	28.49	1.12
Attenuation Req'd?	Yes	No
Q1 (routed)	26.77	N/A

NOTE: Peak flows developed using PondPack
NOTE: Improvement factor of 0.8 used for all outfalls

Rows A thru D are the applicable volume of runoff from the 1 year storm
Row E is the peak flow from the 1 year storm generated by the site in the pre-developed condition
Row F is the peak flow from the 1 year storm generated by the site in the post-developed condition
Row G is the result of the energy balance equation using the above rows as input
Row H is the peak flow from the 1 year storm for the entire contributing drainage area in the post-developed condition

Row I checks if energy balance is met. "No" means no attenuation is required to meet energy balance.

Row J is is the 1 year storm at the outfall after accounting for the attenuation from BMP's. Row J must be less than Row G to meet energy balance.

FLOOD PROTECTION SUMMARY (10-YEAR STORM)

	OF #3	OF #4
Pre-Development 10-yr	61.90	2.66
Post-Development 10-yr	72.66*	2.08

*Structure 4-3 outfalls into a FEMA mapped floodplain. The proposed storm sewer system and ditches provide enough capacity to contain the 10-year storm to the outfall which is within the mapped floodplain, satisfying the flood protection requirement for Outfall #3.

Water Quality

Water quality compliance calculations for this linear development project have been developed per **subsection 2** for development on prior developed lands, **subdividion d**, of the water quality design criteria requirements. The phosphorous load reduction needed for this project is **0.73 lbs/yr (See VRRM Spreadsheet Sheet 10(5))**. Per subsection B of the offsite compliance options section, because the post-construction phosphorus control requirement is anticipated to be less than 10 pounds per year for this project, offsite options are permitted.

SCALE	PROJECT	SHEET NO.
0 150' 300'	0460-046-724	11(2)

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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SOILS MAP

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	11(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Hydrologic Soil Group—Isle of Wight County, Virginia — Rte 460/258

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7	Kinston loam	B/D	27.2	9.2%
9	Myatt fine sandy loam	B/D	161.1	54.5%
10	Nawney loam	B/D	20.4	6.9%
17B3	Slagle sandy loam, 2 to 6 percent slopes, severely eroded	C	12.2	4.1%
18A	Slagle fine sandy loam, 0 to 2 percent slopes	C	17.5	5.9%
18B	Slagle fine sandy loam, 2 to 6 percent slopes	C	13.8	4.7%
21	Udorthents, loamy		2.7	0.9%
23	Yemassee fine sandy loam	B/D	40.4	13.7%
Totals for Area of Interest			**295.3**	**100.0%**

USDA **Natural Resources Conservation Service** — Web Soil Survey, National Cooperative Soil Survey — 3/18/2024 Page 3 of 4

SCALE 0 150' 300'

PROJECT 0460-046-724

SHEET NO. 11(3)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY _____ TIMMONS GROUP (804) 200-6500
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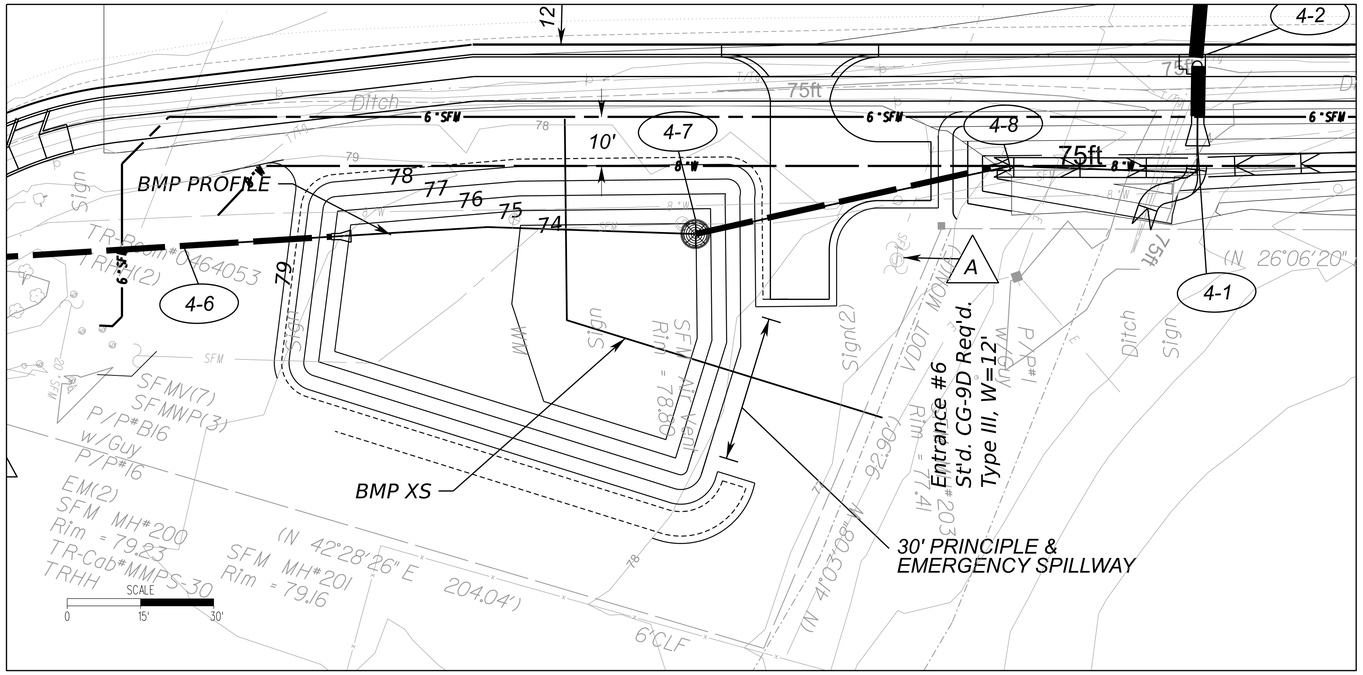
RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	12

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BMP DETAILS



PROPOSED BASIN ROUTING AND SUMMARY

APPROX. FOOTPRINT = 5800 SF
TOTAL STORAGE =18590 CF

1 - YEAR STORM
PEAK FLOW IN = 9.87 CFS
PEAK FLOW OUT = 2.95 CFS

2 - YEAR STORM
PEAK FLOW IN = 12.76 CFS
PEAK FLOW OUT = 11.13 CFS

10 - YEAR STORM
PEAK FLOW IN = 21.42 CFS
PEAK FLOW OUT = 22.24 CFS

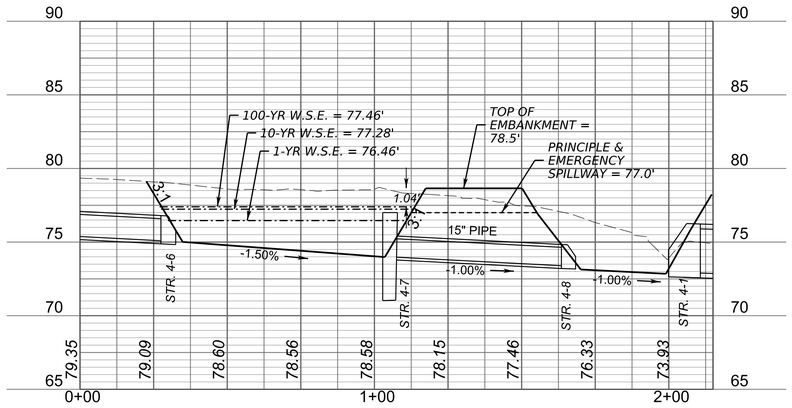
100 - YEAR STORM
PEAK FLOW IN = 37.66 CFS
PEAK FLOW OUT = 37.46 CFS

RISER AND OUTLET PIPE CHARACTERISTICS

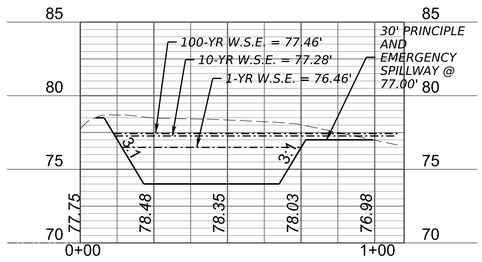
RISER STR. TYPE = VDOT ST'D. SWM-1
RISER STR. TOP ELEV. = 77.00'
RISER STR. DIAMETER = 60"
9" ORIFICE @ 74.00'

OUTLET PIPE DIAMETER = 15 IN.
UPSTREAM INV. = 74.00'
DOWNSTREAM INV. = 73.40'
LENGTH = 61.2'

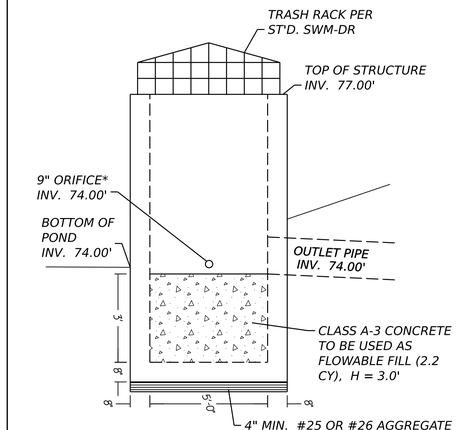
BMP PROFILE



BMP XS



STRUCTURE 4-7 SWM-1 RISER DETAIL



SEE VDOT STANDARD SWM-1 AND SWM-DR FOR ADDITIONAL DETAILS. DIMENSIONS AND MATERIALS NOT SHOWN ON THIS SHEET SHALL BE PER THE STANDARDS.

* SEE VDOT STANDARD SWM-DR FOR ORIFICE METAL PLATE AND DEBRIS RACK DETAIL.

PROJECT	SHEET NO.
0460-046-724	12

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

1. Unless otherwise approved by the Engineer, existing traffic signs which are to be relocated shall remain in place until the new sign structure is in place.
2. The removal or modification of existing sign panels, structures, or foundations shall conform to section 510 of the specifications.
3. New materials and items required to complete the removal or modification of existing items shall be submitted to the Engineer for review and approval in accordance with section 105 of the specifications.
4. All existing and proposed sign locations are approximate and shall be field verified by the contractor. All proposed sign locations shall be according to VDOT standards and shall be approved by the Engineer.
5. All striping, where matching to existing, shall be done in a manner approved by the Engineer.
6. Definition of Symbols:

   A / B — "A" indicates the type of structure or sign panel. (see "Definition of Types")

   EXAMPLE:

   SP-1 / Q — Sign Panel 0-100 S.F.; Relocate existing sign panel, Type ( )

   USP-1 / G — U - Type Steel Post EA.; Remove and dispose of sign structure, Type ( )

7. Raised pavement markers shall be installed according to the standard details.
8. Existing pavement markings and/or markers that conflict with the proposed markings and/or markers shawn herein shall be eradicated.
9. For lane and shoulder widths, see Roadway Plans and Typical Sections.
10. Proposed signs and pavement marking shall be according to VDOT standards.
11. Cost of Class A3 concrete foundation required for wood posts shall be included with the cost of the wood post.
12. Existing signs to be removed within project limits unless otherwise noted on plans.

SIGNING LEGEND

EXISTING	PROPOSED	
☼	●	GROUND MOUNTED SIGN STRUCTURES (SINGLE POST)
		SIGN PANEL

SIGN LABELS

Proposed Sign Assemblies

2808 / 3 — *denotes Sign Assembly No.*; *denotes Text No.*

Relocated Sign Assemblies

2808 / 3 — *denotes Sign Assembly No.*; *denotes Text No.*

Sign Relocation or Payable Sign Disposal/Salvage

GM / A — *denotes Existing Sign Structure and/or Sign Panel Type*

STRUCTURE & SIGN PANEL
GM - Ground Mounted
OM - Overhead Mounted
CM - Cantilever Mounted

SIGN PANEL
SP-GM - Ground Mounted Sign Panel
SP-OH - Overhead Mounted Sign Panel

STRUCTURE ONLY
ST-GM - Ground Mounted

denotes Action and Measurement & Payment Item
A - Remove & Dispose
B - Remove & Salvage
C - Relocate
D - Overlay Sign Panel

Signs noted on plans to be removed that do not have an accompanying sign label shall not be measured separately for payment. Removal and disposal for such signs shall be incidental to other contract items.

*ACTION DESCRIPTIONS

G. REMOVE AND DISPOSE OF SIGN STRUCTURE, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removal and disposal of sign panels, posts and foundations to at least two feet below existing ground line, backfilling and restoration (topsoiling and seeding), and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

H. REMOVE AND SALVAGE OF SIGN STRUCTURE, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removal and salvage of sign panels, posts and foundations to at least two feet below existing ground line, backfilling and restoration (topsoiling and seeding), and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

Q. RELOCATE EXISTING SIGN PANEL, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removing existing panel, refurbishing framing members, furnishing and installing necessary back panels, erecting existing sign panel to new breakway posts, and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

S. REMOVE AND DISPOSE OF EXISTING SIGN PANEL, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removing and disposing of sign panels, and for all materials, labor, tools, equipment, and incidentals necessary to complete the work.

*The cost of all action descriptions listed above shall be included in lump sum contract price.

DEFINITION OF TYPES

TYPE	DESCRIPTION	SIZE
DP-1	O/H Double Pole	50 - 75 L.F.
DP-2	O/H Double Pole	76 - 101 L.F.
DP-3	O/H Double Pole	102 - 127 L.F.
DP-4	O/H Double Pole	128 - 153 L.F.
DP-5	O/H Double Pole	154 - 179 L.F.
DP-6	O/H Double Pole	180 - 205 L.F.
DC-1	O/H Double Pole & Cantilever	75 - 100 L.F.
DC-2	O/H Double Pole & Cantilever	101 - 126 L.F.
DC-3	O/H Double Pole & Cantilever	127 - 152 L. F.
DC-4	O/H Double Pole & Cantilever	153 - 178 L. F.
DC-5	O/H Double Pole & Cantilever	179 - 204 L.F.
DC-6	O/H Double Pole & Cantilever	205 - 230 L.F.
CS-1	O/H Single Arm Cantilever	25 - 40 L.F.
CS-2	O/H Single Arm Cantilever	41 - 60 L.F.
CD-1	O/H Double Arm Cantilever	50 - 74 L.F.
CD-2	O/H Double Arm Cantilever	75 - 125 L.F.
CD-3	O/H Double Arm Cantilever	126 - 175 L.F.
CD-4	O/H Double Arm Cantilever	176 - 225 L.F.
BM	O/H Bridge Mount	*EA.*
I	Non-breakaway Single Metal Pole	*EA.*
II	Non-breakaway Two Metal Poles	*EA.*
III	Non-breakaway Three Metal Poles	*EA.*
V	Breakaway Single Round Metal Pole	*EA.*
VA	Breakaway Single Metal Pole	*EA.*
VIA	Breakaway Two Metal Pole	*EA.*
VIA3	Breakaway Three Metal Pole	*EA.*
VI1A	3 1/2" Rolled Rail Steel Pole	*EA.*
WP-1	Single Wood Post	*EA.*
WP-2	Two Wood Posts	*EA.*
SP-1	Sign Panel	0 - 100 S.F.
SP-2	Sign Panel	101 - 200 S.F.
SP-3	Sign Panel	201 - 300 S.F.
SP-4	Sign Panel	301 - 400 S.F.
SP-5	Sign Panel	401 - 500 S.F.
SP-6	Sign Panel	501 - 600 S.F.
STP-1	Square Tube Sign Post	*EA.*

SCALE	PROJECT	SHEET NO.
0 5' 10'	0460-046-724	13(1)

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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

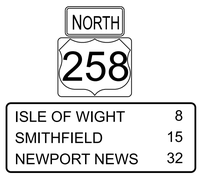
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

SIGN SCHEDULE

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE W	PANEL SIZE H	QTY.	SIGN PANEL AREA (s.f.): per ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEM-BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
1	301, 302, 4101, 411		OM3-R	12"	36"	4	3.00	12.00	2 1/2" 12 GAUGE STP-1	TYPE A FOUNDATION REQ'D.
2	401		W10-1	30"	30"	1	6.25	6.25	2 1/2" 12 GAUGE STP-1	TYPE A FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
3	402, 403, 404, 406, 407, 408		R8-3	12"	12"	6	1.00	6.00	2" 14 GAUGE STP-1	TYPE A FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
4	405		M3-4 M3-2 M1-4 M6-1L M6-1R	24" 24" 24" 21" 21"	12" 12" 24" 15" 15"	1 1 2 1 1	2.00 2.00 4.00 2.19 2.19	4.00 4.00 8.00 2.19 2.19	2 1/2" 10 GAUGE STP-1	TYPE B FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
5	409		M3-1 M1-4 D2-3	24" 24" 108"	12" 24" 42"	1 1 1	2.00 4.00 31.50	2.00 4.00 31.50	2 1/2" 10 GAUGE STP-1	TYPE B FOUNDATION REQ'D. MOUNTING HEIGHT = 7' SEE SHEET 13(2A) FOR D2-3 SIGN DETAILS

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE W	PANEL SIZE H	QTY.	SIGN PANEL AREA (s.f.): per ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEM-BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
6	412		R1-1	30"	30"	1	6.25	6.25	2 1/2" 12 GAUGE STP-1	TYPE A FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
7	501		R2-1	24"	30"	1	5.00	5.00	2 1/2" 12 GAUGE STP-1	TYPE A FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
8	502		D1-3 EM-1	84" 24"	42" 24"	1 1	24.50 4.00	24.50 4.00	2 1/2" 10 GAUGE STP-1	TYPE B FOUNDATION REQ'D. MOUNTING HEIGHT = 7' SEE SHEET 13(2A) FOR D1-3 SIGN DETAILS

NOTES:

1) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
6) ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.
7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD TYPE VA AND VIA SIGN STRUCTURE DETAILS.

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

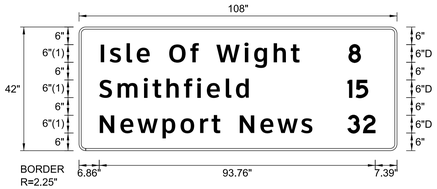
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(2A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

SIGN DETAIL
1:25



Panel Style: guide_con_distance_2012.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy-5-W

Letter locations are panel edge to lower left corner

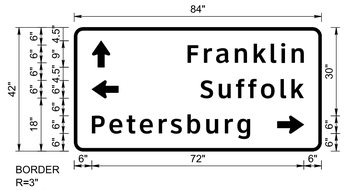
SIGN NUMBER	D2-3_2012
WIDTH x HGHT.	9'-0" x 3'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_distance_2012.ssi
M.U.T.C.D.: 2009 Edition

LETTER POSITIONS (X)																																						LENGTH	SERIES/SIZE
I	s	l	e		O	f		W	i	g	h	t	8																												ClearviewHwy-5-W ,D 2000
7.38	10.41	16.15	19.59	24	30.63	37.8	40.67	46.65	56.19	59.48	66.11	71.93	91.59																											88.29	6/4.88
S	m	i	t	h	f	i	e	l	d	1	5																														ClearviewHwy-5-W ,D 2000
6.86	13.1	22.02	24.96	29.69	35.63	40.11	43.41	49.85	53.3	91.26	94.08																													91.3	6/4.88
N	e	w	P	o	r	t		N	e	w	s	3	2																												ClearviewHwy-5-W ,D 2000
7.04	14.05	19.83	28.36	34.48	41.13	45.02	47.96	54.59	61.6	67.38	75.43	91.25	96.53																											93.58	6/4.88

SIGN DETAIL
1:25



Panel Style: guide_con_destination.ssi
Dimensions are in inches.tenths

Panel Style: guide_con_destination.ssi
M.U.T.C.D.: 2009 Edition

Letter locations are panel edge to lower left corner

SIGN NUMBER	D1-3
WIDTH x HGHT.	7'-0" x 3'-6"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	6.14	28.5	6	9
AR_Type D	90	6	18	6	9
AR_Type D	270	69	6	6	9

LETTER POSITIONS (X)																																						LENGTH	SERIES/SIZE
F	r	a	n	k	l	i	n																																		ClearviewHwy-5-W
38.49	44.07	48.19	54.54	60.96	66.74	70.31	73.85																																	39.5	6/4.88
S	u	f	f	o	l	k																																			ClearviewHwy-5-W
42.84	49.08	54.94	59.07	63.43	70.08	73.77																																			35.16	6/4.88
P	e	t	e	r	s	b	u	r	g																																ClearviewHwy-5-W
6	11.95	17.79	22.28	28.72	32.73	38.46	44.82	51.17	55.41																																53.77	6/4.88

PROJECT	SHEET NO.
0460-046-724	13(2A)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

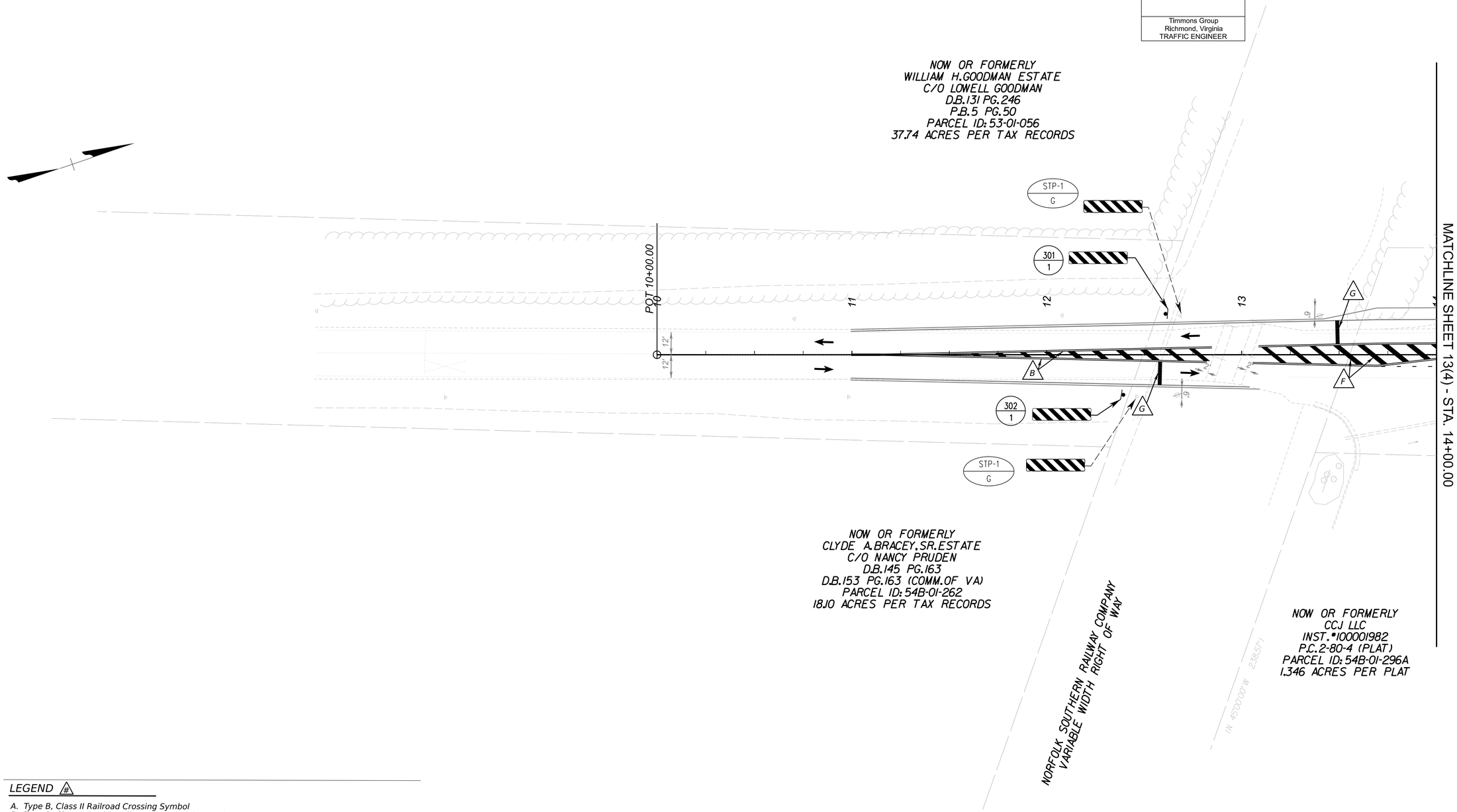
RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER



LEGEND

A. Type B, Class II Railroad Crossing Symbol
B. Type B, Class II Double Yellow Pavement Line Marking, 4" Width
C. Type B, Class II White Pavement Line Marking, 4" Width
D. Type B, Class II White Pavement Line Marking, 4" Width (2' Dash 6' Skip)
E. Type B, Class II White Pavement Line Marking, 8" Width (Bar Pairs)
F. Type B, Class II Yellow Pavement Line Marking, 24" Width
G. Type B, Class II White Pavement Line Marking, 24" Width
H. Type B, Class II Pavement Marking Arrow

SCALE: 0 25' 50'	PROJECT	SHEET NO.
	0460-046-724	13(3)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(4)

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Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

NOW OR FORMERLY
J C PATTERSON PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

MATCHLINE SHEET 13(3) - STA. 14+00.00

MATCHLINE SHEET 13(5) - STA. 21+00.00

MATCHLINE SHEET 13(6) - STA. 36+00.00

N18°44'55"E 1400.00'

POT 70+00.00

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C. 2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C. 2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

EXISTING 15' X 15' SIZE OF WIGHT COUNTY UTILITY EASEMENT INST.#960003790

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

ISLE OF WIGHT 8
SMITHFIELD 15
NEWPORT NEWS 32

LEGEND

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H. Type B, Class II Pavement Marking Arrow

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	13(4)

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

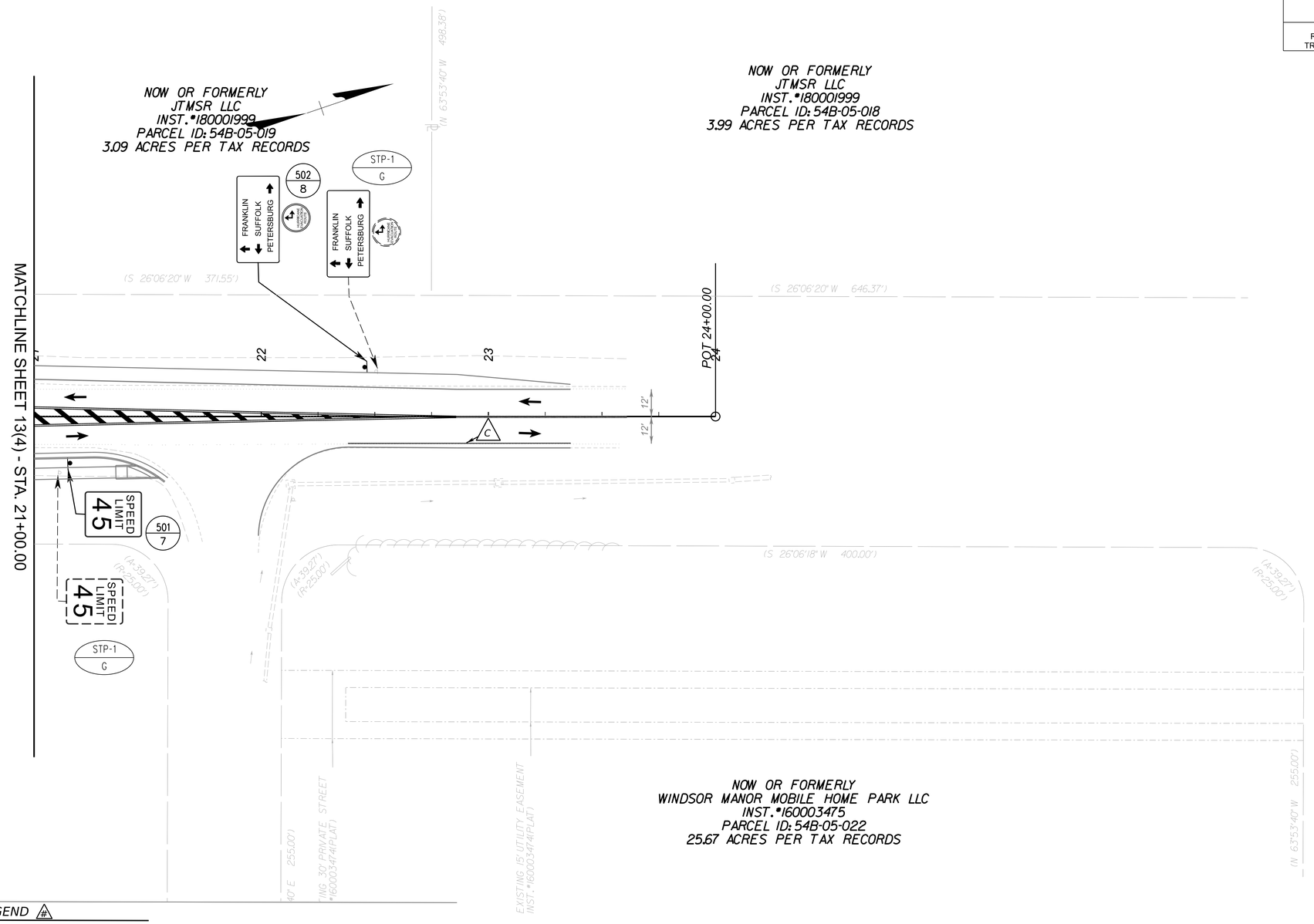
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER



LEGEND

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B. Type B, Class II Double Yellow Pavement Line Marking, 4" Width
C. Type B, Class II White Pavement Line Marking, 4" Width
D. Type B, Class II White Pavement Line Marking, 4" Width (2' Dash 6' Skip)
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SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	13(5)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
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RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
MILLS E.BRADSHAW & SANDRA M.BRADSHAW
D.B.181 PG.174
PARCEL ID: 54B-01-004
0.29 ACRES PER TAX GIS

MATCHLINE SHEET 13(4) - STA. 36+00.00

Exist. R/W
S51°42'31"E
262.51'
(N 44°27'10" W 418.69')
S26°43'47"E
19.83'
S51°48'08"E
18.17'
POT 74+22.50
POT 39+00.00
Asphalt Surface
Ditch
U.S.RTE.460 (WEST WINDSOR BOULEVARD)
Asphalt Surface
72
73
74
37
38
10"Dogwood
15"Pine
30"Pine
12"Pine
18"Pine
24"Pine
RIP-Rap
Sign
24"Pine
Inv.=76.70
15"HDPE
24"Pine
15"Pine
15"Pine
18"Pine
DI #600
Rim = 79.53
BOS = 75.04
Inv.=78.08
12"Conc.
DI #601
Rim = 79.99
BOS = 76.34
15"HDPE
15"HDPE
15"HDPE
Conc. Walk
VDOT MON(F)
VDOT MON(F)
(S 45°12'50" E 7.00')
(S 44°48'56" W 200.65')
(S 44°30'08" W 77.25')
(S 40°2

Exist. R/W
CDI #109
Rim = 79.08
Inv = 76.46
(S 45°00'00" E 264.58')
ROD(F)
(S 44°44'03" W 216.48')

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

FORMERLY
CCJ LLC
#100001982
(PLAT)
2-80-4
54B-01-296A
PLAT
ID:
PER
ACRES

LEGEND

A. Type B, Class II Railroad Crossing Symbol
B. Type B, Class II Double Yellow Pavement Line Marking, 4" Width
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SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	13(6)

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

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UTILITY NOTES & DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

GENERAL NOTES

1. THE DEVELOPER SHALL SUBMIT TWO (2) SETS OF AS-BUILT PLANS AND ONE (1) CD/DVD WITH AS-BUILT AUTOCAD DRAWINGS AND PDF FILES OF EACH PLAN SHEET TO THE STORMWATER DIVISION FOR ALL STORM SEWER, PUBLIC SANITARY SEWER, PUBLIC WATER AND BMPS. AS A PART OF FINAL INSPECTION, DEVELOPER SHALL HIRE AN INDEPENDENT TELEVISION INSPECTION SERVICE TO PERFORM A CLOSED-CIRCUIT TELEVISION INSPECTION OF ALL NEWLY CONSTRUCTED STORM SEWERS AND SANITARY SEWERS UNLESS OTHERWISE DIRECTED BY THE STORMWATER DIVISION. A VIDEO/DVD OF THE INSPECTION SHALL BE PRODUCED AND DELIVERED TO THE COUNTY IN COLOR FORMAT, TOGETHER WITH A TYPED LOG OF THE INSPECTION.

2. All WATER AND SEWER UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WTH THE LATEST VERSION OF ISLE OF WIGHT COUNTY CONSTRUCTION SPECIFICATIONS AND STANDARDS.

3. ALL CONSTRUCTION METHODS, MATERIALS, TESTING AND STERILIZATION SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE DEPARTMENT OF PUBLIC UTILITIES COUNTY OF ISLE OF WIGHT VIRGINIA, AS WELL AS CURRENT STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF HEALTH AND THE HAMPTON ROADS SANITATION DISTRICT. TESTING SHALL INCLUDE BUT NOT BE LIMITED TO SOAKING WATERMAIN FOR A PERIOD OF 24 HOURS, HYDROSTATIC PRESSURIZATION TO 150 PSI MAINTAINED FOR 2 HOURS WITH LEAKAGE NOT TO EXCEED WHAT IS STATED IN AWWA C600-93. FLUSHING THE MAIN SHALL INCLUDE BUT NOT BE LIMITED TO FULL FLUSHING THE MAIN WITH NO RESTRICTIONS WITH FINISHED WATER AT A VELOCITY OF NOT LESS THAN 2.5 FPS THEN DISINFECTING IN ACCORDANCE WITH AWWA C651-99 OR LATEST EDITION. EVERY 1200 FEET OF WATER MAIN SHALL UNDERGO (2) CONSECUTIVE DAYS OF NEGATIVE BACTERIOLOGICAL SAMPLING, COLLECTED NO LESS THAN 24 HOURS APART. THE ENTIRE DISINFECTION PROCESS SHALL BE IN ACCORDANCE WITH DIRECTIVES FROM THE VIRGINIA DEPARTMENT OF HEALTH. THE WATERMAIN CAN ONLY BE PUT INTO SERVICE ONCE ALL INSPECTIONS AND TESTING IS COMPLETED AND A LETTER OF CERTIFICATION WITH BACTIERLOGICAL SAMPLES ARE SENT TO VIRGINIA DEPARTMENT OF HEALTH BY THE CONTRACTOR.

4. DUCTILE IRON PIPE SHALL BE CENTRIFUGALLY CAST PIPE MANUFACTURED IN ACCORDANCE WITH ANSI SPECIFICATIONS A21.51. DUCTILE IRON PIPE SHALL BE CEMENT-MORTAR LINED INSIDE IN ACCORDANCE WITH ANSI SPECIFICATIONS A21.4-90. CEMENT FOR THE MORTAR SHALL BE TYPE II PORTLAND CEMENT. THE STANDARD SEAL COAT OF BITUMINOUS MATERIAL SHALL BE APPLIED TO THE EXTERIOR OF THE PIPE. DUCTILE IRON PIPE SHALL BE CLASS 50 (MIN.).

5. JOINTS FOR DUCTILE IRON PIPE SHALL BE ONE OF THE FOLLOWING,

A. RUBBER GASKET (PUSH-ON) TYPE JOINT. RUBBER GASKET TYPE JOINTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI SPECIFICATIONS A21.00 AND DESIGNED TO LOCK AGAINST DISPLACEMENT WITHOUT CAULKING. THE GASKET SHALL BE A RESILIENT RUBBER OF HEAVY SECTION, HIGH DUROMETER, AND SINGLE MOLDED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PIPE Manufacturer's RECOMMNEDATIONS. THE GASKET LUBRICANT SHALL BE A NON-TOXIC, TASTELESS, ODORLESS GREASE THAT WILL NOT SUPPORT BACTERIA. EACH GASKET LUBRICANT CONTAINER SHALL BE LABELED WITH THE TRADE NAME AND THE PIPE MANUFACTURER'S NAME.

B. MECHANICAL JOINT. STANDARD MECHANICAL JOINTS SHALL BE MANUFACTURED IN ACCORDANCE 111TH ANSI SPECIFICATIONS A21.00 (AWWA SPECIFICATIONS C111-9D). THE MECHANICAL JOINT BOLTS SHALL BE A U.S. STANDARD SIZE, HIGH STRENGTH, CORROSION RESISTANT STEEL ALLOY WITH HEXAGON NUTS. MECHANICAL JOINTS SHALL BE USED FOR THE CONNECTION OF ALL FITTINGS, VALVES, AND HYDRANTS FITTINGS SHALL BE MANUFACTURED OF DUCTILE IRON AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI SPECIFICATIONS A21.10-90 (AWWA SPECIFICATIONS C110-93). FITTINGS SHALL BE COMPATIBLE WITH THE PIPE AND SHALL PROVIDE AT LEAST EQUAL RESISTANCE TO INTERNAL AND EXTERNAL LOADS ON THE PIPE, FITTINGS SHALL BE BITUMINOUS COATED ON THE OUTSIDE AND CEMENT MORTAR LINED ON THE INSIDE ACCORDING TO ANSI SPECIFICATIONS A21.4-9D (AWWA SPECIFICATIONS C104-9D). ALL BOLTS ARE TO BE TORQUED TO A MINIMUM OF 90LBS.

6. WATER MAINS AND SEWER FORCE MAINS SHALL HAVE A MINIMUM COVER OF 36" UNLESS OTHERWISE NOTED ON THE PLANS. (MEASURED FROM ESTABLISHED FINISHED GRADE TO TOP OF PIPE.)

7. ALL TEES, BENDS, PLUGS, CAPS AND FIRE HYDRANTS SHALL BE SUBSTANTIALLY ANCHORED TO PREVENT ANY MOVEMENT BY PROVIDING ADEQUATE THRUST RESTRAINT. THE CONTRACTOR SHALL INSTALL A BED OF 57 STONE UNDER ALL FITINGS, VALVES AND HYDRANTS AND INCASE AFTER INSTALLED ALL FITTINGS, VALVES AND HYDRANTS WITH 57 STONE CHOCKED IN PLACE.

8. VALVE BOXES SHALL BE INSTALLED FOR ALL VALVES WHICH ARE BURIED BENEATH FINISHED GRADE ELEVATION. VALVE BOXES SHALL BE CAPITAL FOUNDRY NPN-15

9. ALL WATERMAIN SEWER FORCEMAIN AIR RELEASE VALVE ASSEMBLIES SHALL BE MANUAL AND
INSTALLED AT HIGH POINTS IN THE LINE OR WHERE REQUIRED OTHERWISE. EACH ASSEMBLY SHALL CONSIST OF AN APPROVED TWO-INCH CORPORATION STOP, A RISER PIPE OF SUITABLE LENGTH, AND A TWO-INCH STAINLESS STEEL BALL VALVE. THE AIR RELEASE VALVE ASSEMBLY ENCLOSURE OR CHAMBER SHALL HAVE A CAST IRON FRAME AND COVER EQUAL TO DEWEY BROTHERS OF VIRGINIA, INC., MODEL B-1200.

10. BLOW-OFF ASSEMBLIES SHALL BE INSTALUED AT ALL PIPE DEAD ENDS AND LOW POINTS IN THE LINE OR WHERE OTHERWISE REQUIRED. THE BLOW-OFF ASSEMBLY PIPEWORK AND VALVING SHALL BE APPROPRIATELY SIZED AND SHALL CONFORM IN ALL RESPECTS TO THE APPLICABLE PORTIONS OF ISLE OF WIGHT COUNTY'S CONSTRUCTION SPECIFICATIONS THE BLOW-OFF ASSEMBLY ENCLOSURE OR CHAMBER SHALL HAVE A CAST IRON FRAME AND COVER EQUAL TO DEWEY BROTHERS OF VIRGINIA, INC., MODEL 8-1200. THE TWO TYPES OF ASSEMBLY ENCLOSURES SHALL BE AS GRAPHICALLY INDICATED IN THE CONSTRUCTION STANDARDS. IN NO INSTANCE SHALL THE DRAIN OR THE OUTLET BE CONNECTED TO A SANITARY SEWER. NEITHER THE AIR RELEASE VALVE ASSEMBLY NOR THE BLOW-OFF ASSEMBLY SHALL BE INSTALLED UNDER PAVEMENT SUBJECT TO VEHICULAR TRAFFIC.

11. UNLESS OTHERWISE SPECIFIED, A MINIMUM VERTICAL SEPARATION OF 18" SHALL BE MAINTAINED BETWEEN ALL SANITARY SEWERS AND WATER LINES. THE LENGTH OF THE WATER LINE SHALL BE CENTERED ON THE CROSSING WHERE THE WATER LINE CROSSES OVER THE SANITARY SEWER. WHERE CLEARANCE IS LESS THAN 18" BUT GREATER THAN 12", THE SANITARY SEWER SHALL BE DUCTILE IRON PIPE. WHEN THE WATER LINE CROSSES UNDER THE SANITARY SEWER, 18" MINIMUM CLEARANCE MUST BE MAINTAINED, AND SANITARY SEWER SHALL BE DUCTILE IRON PIPE. HORIZONTAL SEPARATION OF SANITARY MAINS AND WATER MAINS SHALL BE 10', UNLESS OTHERWISE SPECIFIED.

12. A MINIMUM VERTICAL SEPARATION OF 12" SHALL BE MAINTAINED BETWEEN STORM SEWERS AND WATER LINES, UNLESS OTHERWISE SPECIFIED.

13. THE CONTRACTOR SHALL USE ONLY APPROVED BY ISLE OF WIGHT COUNTY MATERIAL IN THE BACKFILL OF UTILITY TRENCHES.

14. ALL CONSTRUCTION METHODS & MATERIALS SHALL CONFORM WITH THE CURRENT SPECIFICATIONS AND STANDARDS OF THE DEPARTMENT OF PUBLIC UTILITIES, COUNTY OF ISLE OF WIGHT, VIRGINIA (DPU), AS WELL AS CURRENT STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF HEALTH AND THE HAMPTON ROADS SANITATION DISTRICT. DPU'S CONSTRUCTION STANDARDS ARE SET FORTH IN THEIR CONSTRUCTION SPECIFICATIONS AND STANDARD FOR WATERWORKS AND SANITARY SEWERAGE FACILITIES, A COPY OF WHICH MUST BE PURCHASED FROM DPU AND KEPT AT THE JOB SITE AT ALL TIMES. REFERENCE TO VDOT SHALL MEAN THE CURRENT STANDARDS AND/OR SPECIFICATIONS OF VDOT.

15. SUB-SURFACE UTILITY WARNING TAPE AS MANUFACTURED BY THE GRIFFOLYN COMPANY, OR EQUAL, 4 INCHES WIDE OR WIDER SHALL BE PLACED AT AN ELEVATION NOT LESS THAN 6-INCHES NOR MORE THAN 12-INCHES BELOW THE PROPOSED FINISHED GRADE
ABOVE NON-CONDUCTIVE SEWER, WATER AND SEWER FORCE MAINS IN PUBLIC RIGHTS-OF-WAY OR EASEMENTS. THE TAPE SHALL BE OF A DURABLE, METALIZED, PLASTIC FILM SIMILAR TO "TERRA-TAPE D" FOR IDENTIFICATION BY ELECTRONIC PIPE LOCATING DE'.1CE AS WELL AS '1SUAL I DEN TI FICA TION. THE TAPE FOR SEWER FORCE MAIN LINE SHALL BE BRIGHT GREEN WITH THE FOLLOWING IMPRINTED LEGEND "CAUTION-SEWER LINE BELOW". THE TAPE FOR WATER LINES SHALL BE BRIGHT BLUE WITH THE FOLLOWING IMPRINTED LEGEND "CAUTIONWATER LINE BELOW."

16. ALL PVC AND DUCTILE IRON WATERLINES SHALL BE AFFIXED WITH CONDUCTIVE 10 GAUGE SOLID TRACER WIRE AND TAPED TO TOP OF PIPE IN 5 FOOT INCREMENTS DURING INSTALLATION.TRACER WIRE SHALL BE BROUGHT UP IN ALL VALVEBOXES, AIR RELASE BOXES AND HYDRANTS. WIRE HALL BE BLUE ON WATERMAINS AND SERVICE LINES AND GREEN FOR SEWER AS REQUIRED BY THE DEPARTMENT OF PUBLIC UTILITIES. WIRE SHALL BE INSTALLED ALONG THE PIPE AS DIRECT BURIAL INSULATED COVER WIRE FOR PURPOSES OR POSITIVE IDENTIFICATION AND LOCATION, AS REQUIRED BY THE DEPARTMENT OF PUBLIC UTILITIES.

17. PLUGS TO BE INSTALLED ON AUL OPEN DEAD-END SEWER LINES AT ELEVATION SHOWN ON THE PLANS.

18. CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC UTILITIES AT (757) 365-6319 AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK.

19. THE PROPOSED UTILITIES WITHIN THE RIGHT-OF-WAY WILL BE OWNED AND MAINTAINED BY ISLE OF WIGHT COUNTY. THIS INCLUDES ALL WATER LINES UP TO THE METER LOCATED AT THE RIGHT-OF-WAY LINE, ALL GRAVITY SEWER FACILITY UP TO THE CLEAN OUT AT THE RIGHT-OF-WAY LINE, AND ALL SANITARY FORCEMAIN.

20. ALL SANITARY SEWER FORCE MAIN AIR RELEASE VALVE ASSEMBLIES SHALL BE INSTALLED AS MANUAL AIR RELEASE VALVES.

21. FIRE HYDRANTS AND GATE VALVES SHALL BE MANUFACTURED BY KENNEDY VALVE COMPANY AND ALL TO OPEN LEFT. KENNEDY FIRE HYDRANTS ARE TO BE PAINTED FROM THE FACORY KENNEDY YELLOW.

22. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYWRAP AND SECURED WITH DUCT TAPE.

23. ALL MECHANICAL JOINT AND BELL RESTRAINT NUTS AND BOLTS SHALL BE FLUOROPYMER STAR-BLUE.

24. NO MORE THAN 4000 LF OF WATERMAIN OR SEWER FORCEMAIN MAY BE TESTED AT ANY GIVEN TIME.

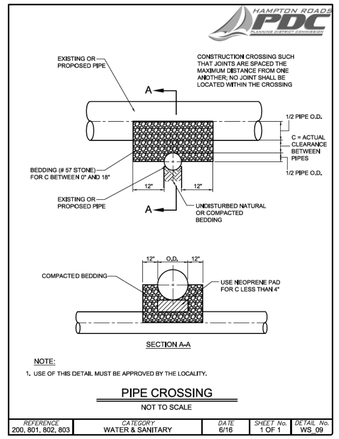
25. ALL EXCAVATIONS ARE TO BE BACKFILLED AT THE END OF EACH DAY. A MECHANCIAL PLUG OR CAP IS TO BE USED TO SECURE THE END OF THE PIPE. NO MORE THAN 200 LF OF DITCH CAN BE OPEN AT ANY GIVEN TIME.

26. CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH ISLE OF WIGHT COUNTY STAFF ONLY AFTER ALL MATERIAL SUBMITTALS ARE RECEIVED AND APPROVED.

27. FIRE HYDRANTS SHALL HAVE REFLECTIVE SPRING-LOADED BARREL MOUNTED MARKER FLAG. ALL VALVES AND AIR RELEASE VALVES SHALL HAVE BLUE FIBERGLASS MARKER POST WITH REFLECTIVE TAPE IDENTIFYING WATER VALVE.

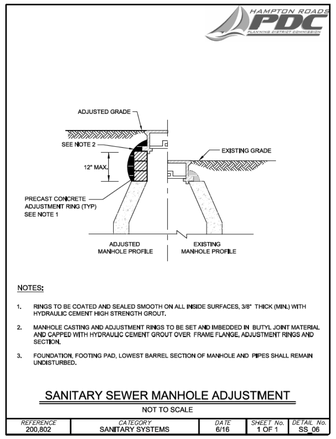
28. UTILIITY STAKEOUT IS TO BE PERFORMED BY A LICENSED SURVEYOR.

SANITARY FORCEMAIN DETAILS



PIPE CROSSING
NOT TO SCALE

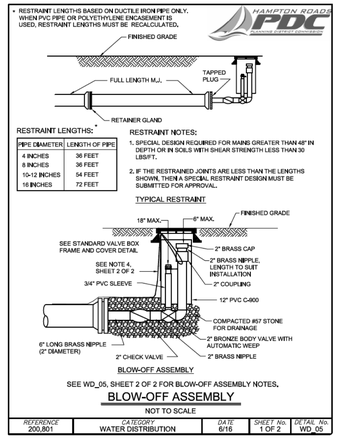
REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200, 801, 802, 803	WATER & SANITARY	6/16	1 OF 1	WS_09



SANITARY SEWER MANHOLE ADJUSTMENT
NOT TO SCALE

REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200,802	SANITARY SYSTEMS	6/16	1 OF 1	SS_06

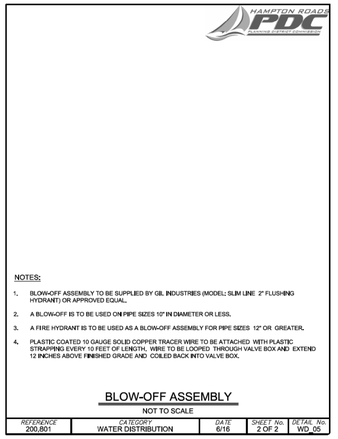
WATERLINE DETAILS



SEE WD_05, SHEET 2 OF 2 FOR BLOW-OFF ASSEMBLY NOTES.

BLOW-OFF ASSEMBLY
NOT TO SCALE

REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200,801	WATER DISTRIBUTION	6/16	1 OF 2	WD_05



BLOW-OFF ASSEMBLY
NOT TO SCALE

REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200,801	WATER DISTRIBUTION	6/16	2 OF 2	WD_05

PROJECT	SHEET NO.
0460-046-724	14(1)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

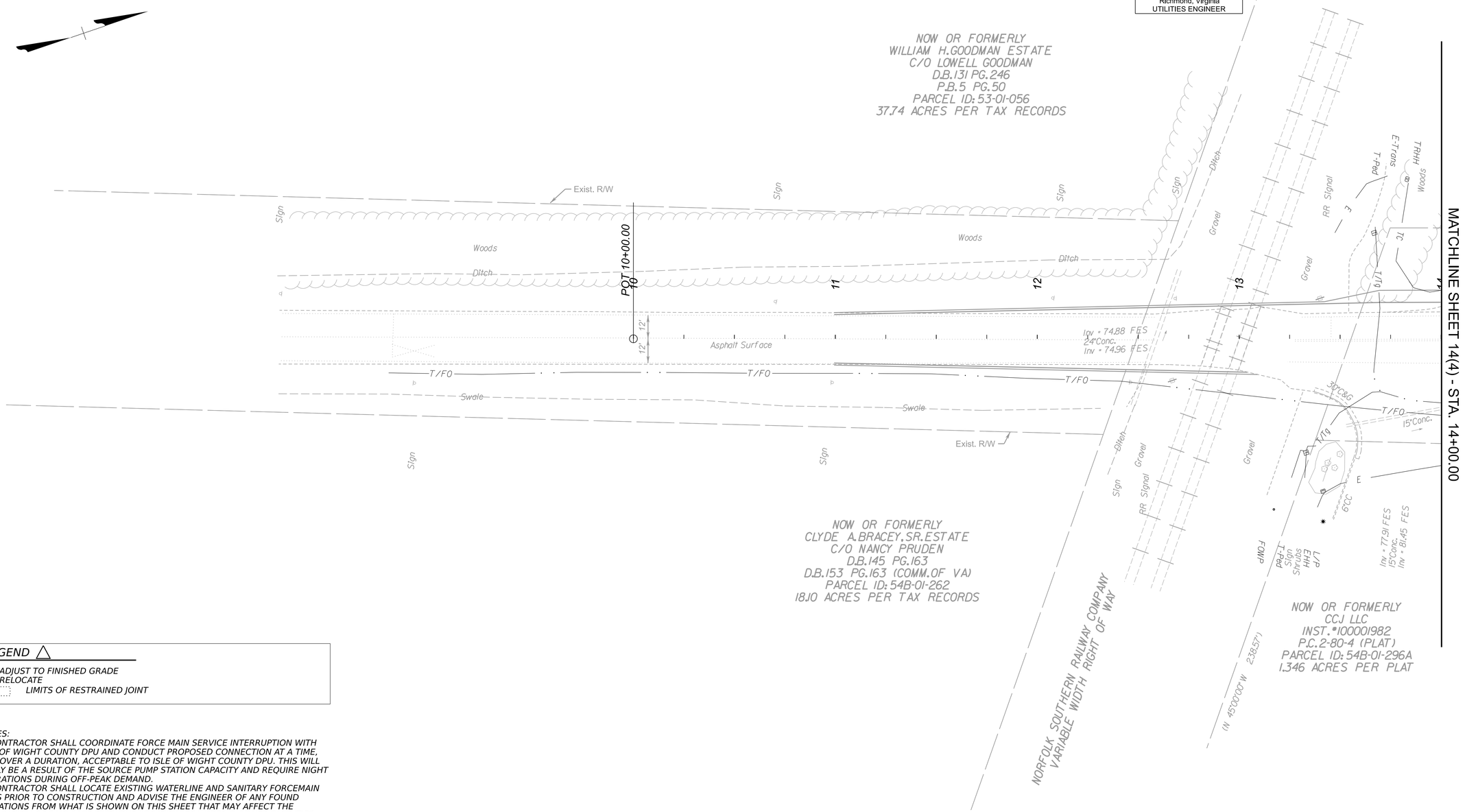
UTILITY PLAN

NO PROPOSED UTILITIES THIS SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
UTILITIES ENGINEER



LEGEND

A - ADJUST TO FINISHED GRADE
R - RELOCATE
LIMITS OF RESTRAINED JOINT

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SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	14(3)

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UTILITY PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(4)

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Richmond, Virginia
UTILITIES ENGINEER

MATCHLINE SHEET 14(3) - STA. 14+00.00

MATCHLINE SHEET 14(5) - STA. 21+00.00

MATCHLINE SHEET 14(6) - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME
PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

2 EA. - 6" 45° HORIZONTAL BENDS

PROP. 6" PVC SANITARY FORCEMAIN

PROP. 8" PVC WATERLINE

1 EA. - 8" 45° BEND

TIE TO EXISTING -
1 EA. - 8" 45° HORIZONTAL BEND
1 EA. - RESTRAINT JOINT SLEEVE

TIE TO EXISTING
1 EA. - 6" RESTRAINT JOINT SLEEVE
2 EA. - 6" 45° HORIZONTAL BENDS

TIE TO EXISTING -
1 EA. - 8" 45° HORIZONTAL BEND
1 EA. - RESTRAINT JOINT SLEEVE
EXISTING 6" SANITARY FORCEMAIN AND ASSOCIATED APPURTENANCES SHALL BE REMOVED AS REQUIRED AND/OR CAPPED/FILLED WITH FLOWABLE FILL TO ABANDON IN PLACE

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

EXISTING 15' X 15' ISLE OF WIGHT COUNTY UTILITY EASEMENT INST. 980003196

PROP. PERM. VAR. WIDTH SIDEWALK EASEMENT

EX. 6" PVC FM

LEGEND △

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SCALE 0 25' 50'

PROJECT	SHEET NO.
0460-046-724	14(4)

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

RW PLANS

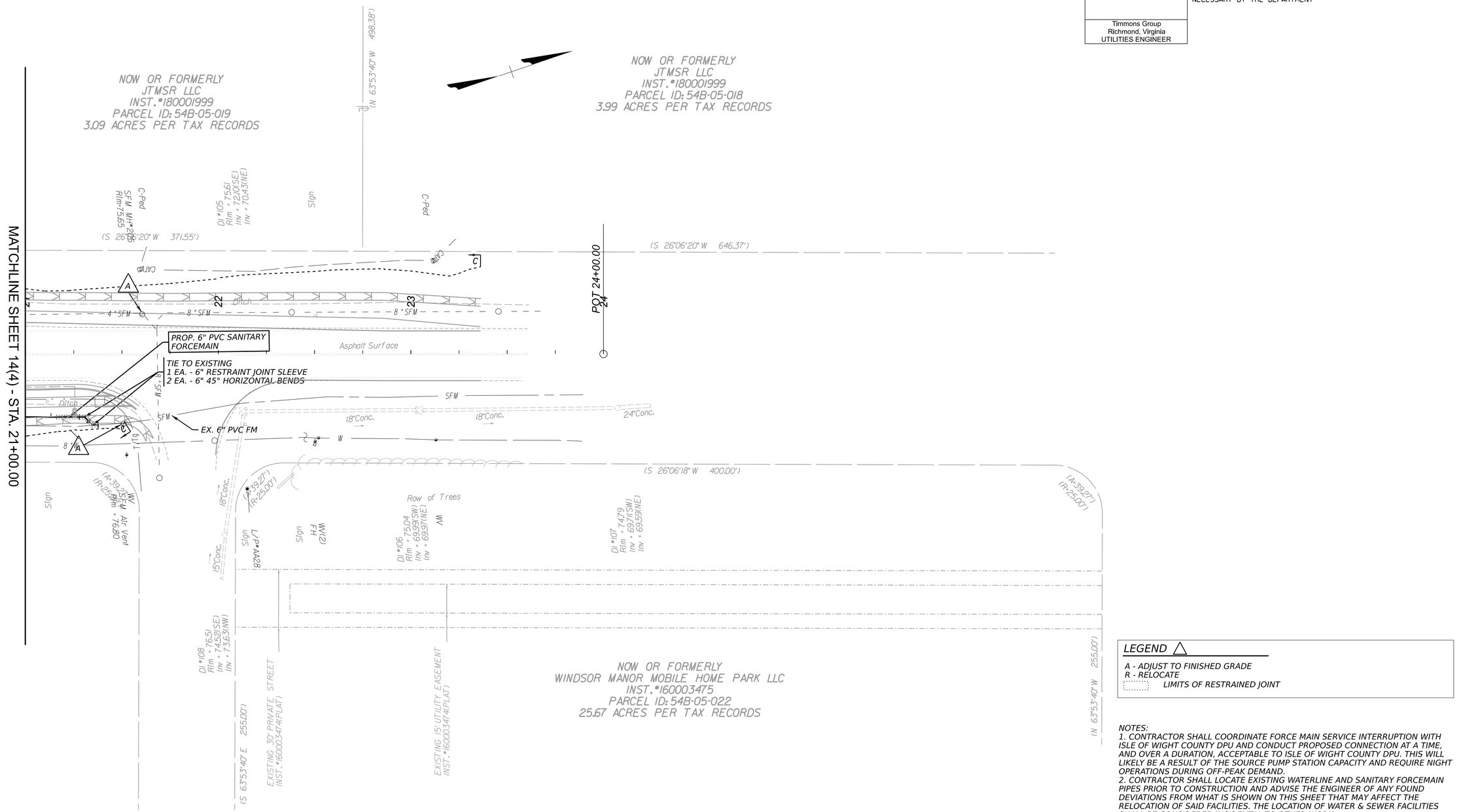
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UTILITY PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(5)

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Timmons Group
Richmond, Virginia
UTILITIES ENGINEER



LEGEND △

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R - RELOCATE
⋯ LIMITS OF RESTRAINED JOINT

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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

RW PLANS

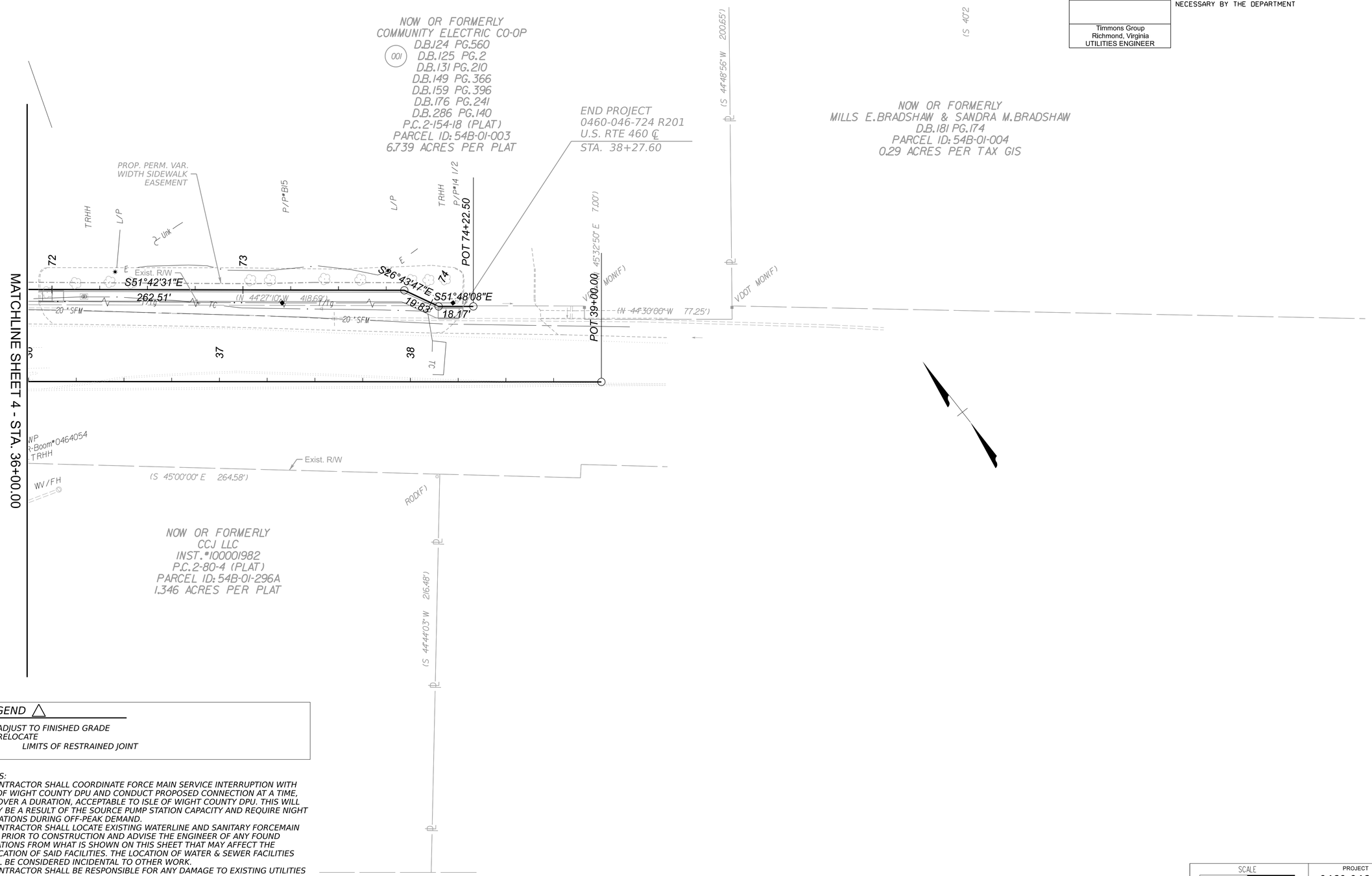
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UTILITY PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
UTILITIES ENGINEER



LEGEND △

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R - RELOCATE
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0 25' 50'	0460-046-724	14(6)

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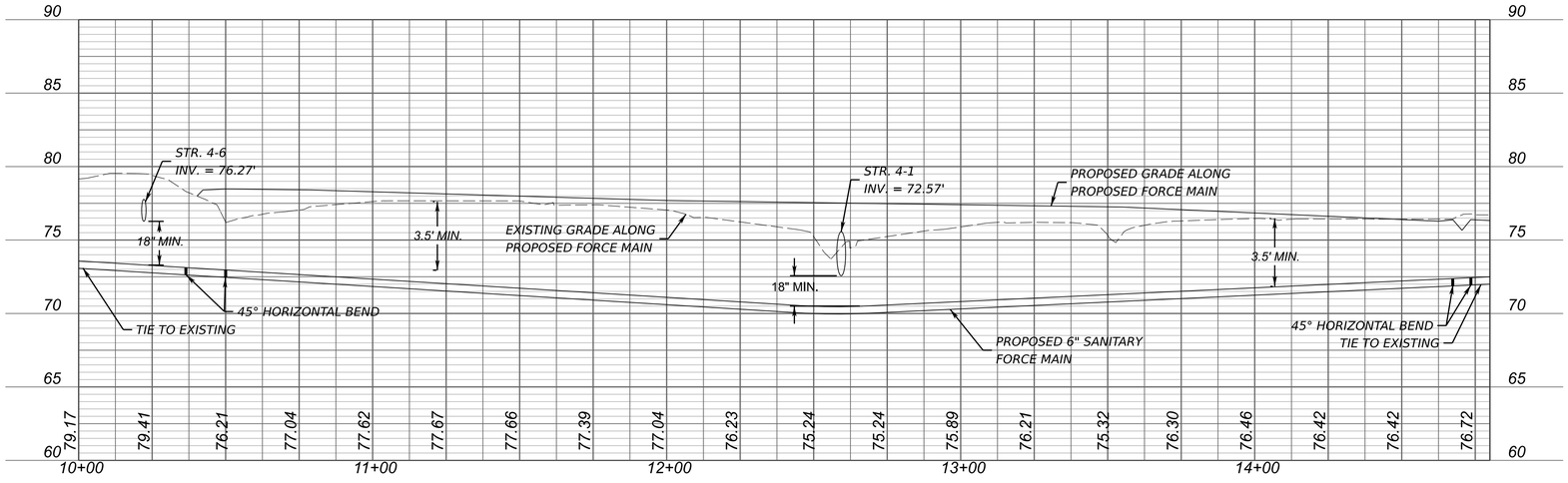
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(7)

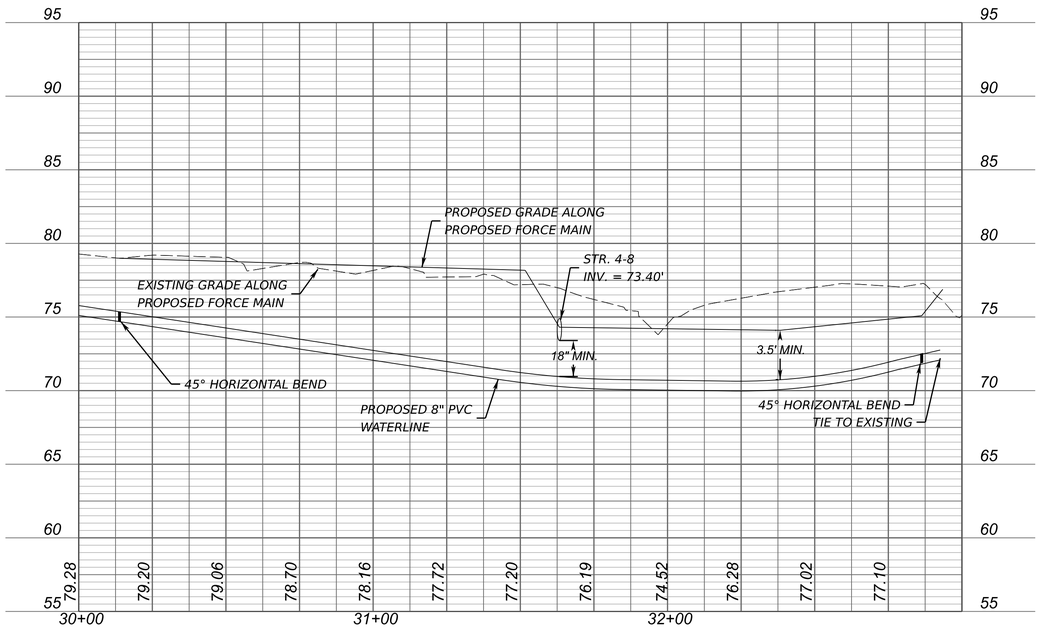
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Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

SANITARY FORCE MAIN PROFILE



WATERLINE PROFILE



	PROJECT	SHEET NO.
	0460-046-724	14(7)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	15(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

Signal Pole & Controller Legend

(ALL DIMENSIONS ARE TO FLANGE PLATE)

Ⓘ EXISTING ATC CONTROLLER CABINET & FOUNDATION (CF-4) (TO REMAIN)

Ⓐ EXISTING MAST ARM POLE (TO REMAIN)
Existing 49' Arm Perpendicular to S.Prince Blvd
Signal Placement: 25'(R), 33'(*), 39'(x), 41'(*)
Sign Placement: 37.5'(*)
Video Detector: 29'(*)
Emergency Preemption Detector: 20.5', 22'
CCTV Camera: 3'
Existing Electrical Service, SE-3, Type A on Signal Pole.

Ⓑ EXISTING MAST ARM POLE (TO REMAIN)
Existing 65' Arm Perpendicular to W.Windsor Blvd
Signal Placement: 30', 41', 53'
Sign Placement: 50'
Emergency Preemption Detector: 21.5'

Ⓒ EXISTING MAST ARM POLE (TO REMAIN)
Existing 60' Arm Perpendicular to N.Prince Blvd
Signal Placement: 33.5'(R), 41.5'(*), 48'(x), 49.5'(*)
Sign Placement: 46'(*)
Video Detector: 38'(*)

Ⓓ EXISTING MAST ARM POLE (TO REMAIN)
Existing 65' Arm Perpendicular to W.Windsor Blvd
Signal Placement: 27', 38', 49'
Sign Placement: 46'
Emergency Preemption Detector: 16'
Wireless Broadband Antenna: 13'

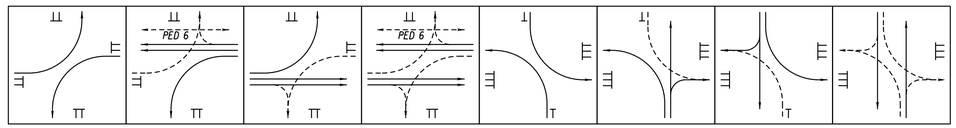
Ⓔ LIGHTING POLE (LP-1), 30' MOUNTING HEIGHT
12' Luminaire Arm Perpendicular to N.Prince Blvd
Luminaire Type: 76W LED, Type III
Install Pedestrian Signal Head, SP-8, on Lighting Pole (SMB-3)
Install Accessible Pedestrian Actuation, PA-2, on Lighting Pole

Ⓕ PEDESTAL POLE (PF-2), 10'
Install Pedestrian Signal Head, SP-8, on Pedestal Pole (SMB-3)
Install Accessible Pedestrian Actuation, PA-2, on Pedestal Pole

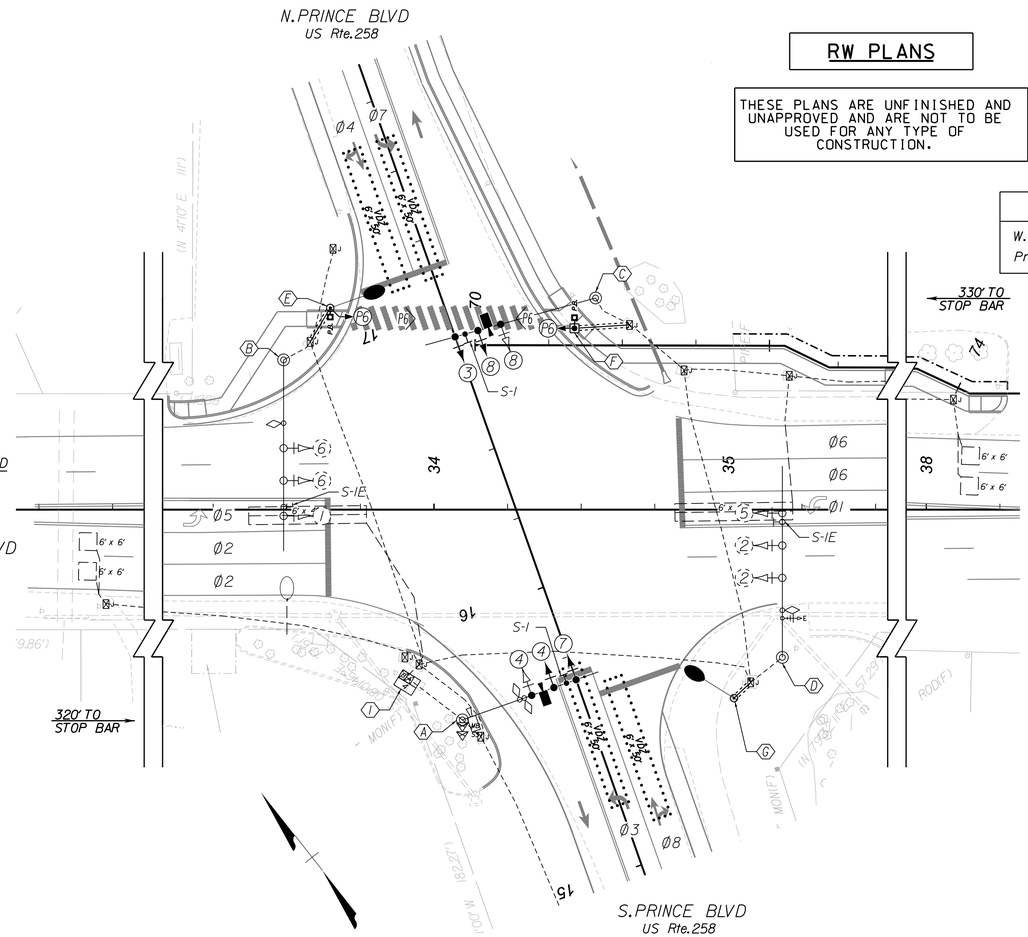
Ⓔ LIGHTING POLE (LP-1), 30' MOUNTING HEIGHT
12' Luminaire Arm 135° to S.Prince Blvd
Luminaire Type: 76W LED, Type IV

All Equipment on Existing Poles is Existing to Remain Except as Noted:
(x) denotes Removed Equipment
(R) denotes Relocated Equipment
(*) denotes New Equipment

Phasing Diagram



Ø1-5 | Ø1-6 P6 EVP-6 | Ø2-5 EVP-2 | Ø2-6 P6 | Ø3-7 | Ø3-8 EVP-3 | Ø4-7 EVP-4 | Ø4-8



RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

SPEED LIMITS

W.Windsor Blvd.	35 MPH
Prince Blvd.	45 MPH

Color Sequence Chart

	SIGNAL	PHASES								FLASH
		1-5	1-6	2-5	2-6	3-7	3-8	4-7	4-8	
SIGNALS	1	→G	→G	→FY	→FY					→Y
	2			G	G					Y
	3					→G	→G	→FY	→FY	→R
	4							G	G	R
	5	→G	→FY	→G	→FY					→Y
	6		G		G					Y
	7					→G	→FY	→G	→FY	→R
	8						G		G	R
	P6	DW	W	DW	W	DW	DW	DW	DW	BLANK

- Empty box denotes RED indication (Red Ball or Red Arrow as appropriate)
- Heads 1 & 5: During flash mode, the display of a flashing left-turn yellow arrow indication shall be only from the signal section that displays a steady left-turn arrow indication during steady mode (stop-and-go) operation.

Existing Signs

S-1E



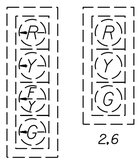
Proposed Signs

S-1



R10-V1
(36" x 36")
QUANTITY - 2 EA.

Existing Signals



1.5 | 2.6

Removed Signals



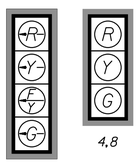
3A, 4A

Relocated Signals



4.8

Proposed Signals



3.7 | 4.8



P6

SCALE
0 25' 50'

TRAFFIC CONTROL DEVICE PLANS

TRAFFIC SIGNAL MODIFICATION PLAN

US ROUTE 460 (W WINDSOR BLVD) &
US ROUTE 258 (PRINCE BLVD)
ISLE OF WIGHT COUNTY

PROJECT	SHEET NO.
0460-046-724	15(3)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

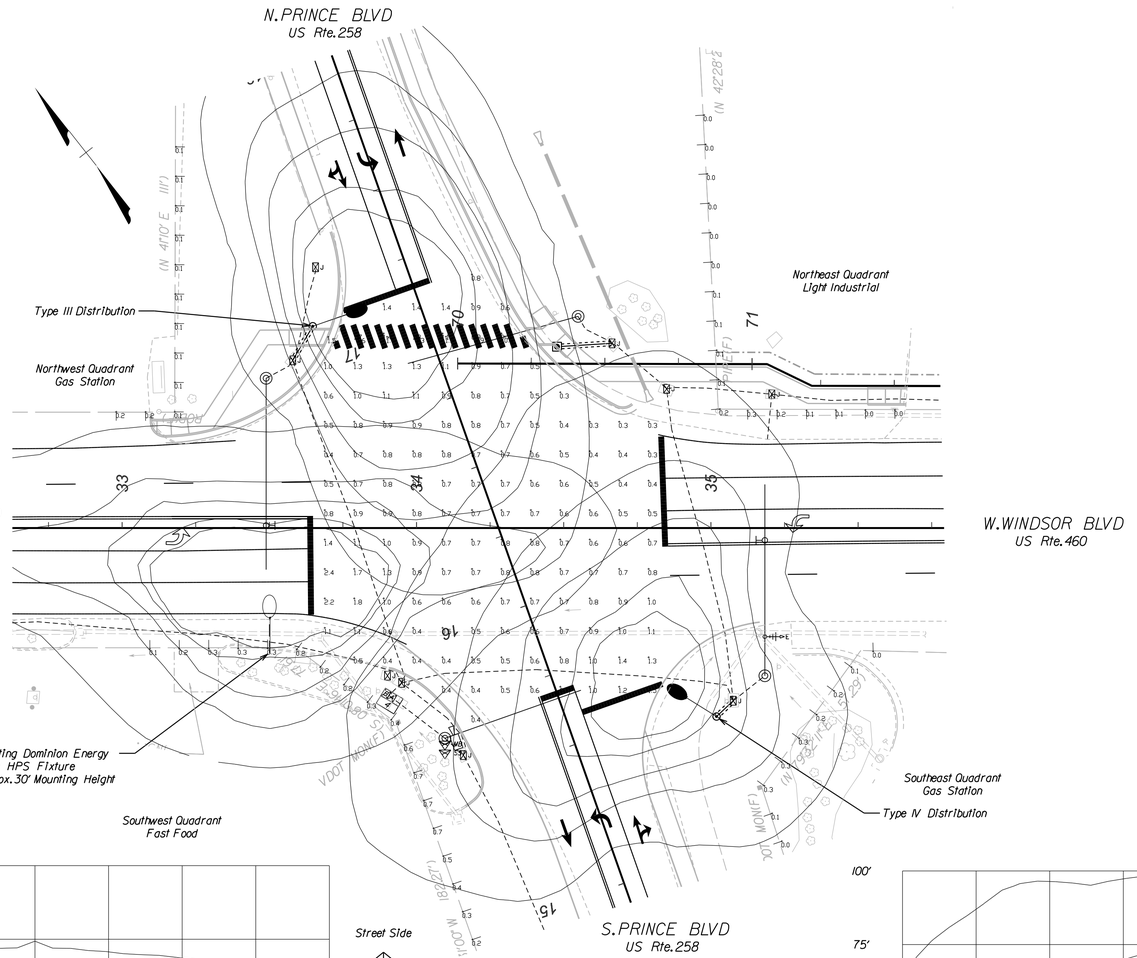
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	15(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

LIGHTING INFORMATION

12' Luminaire Arm - QTY.2
Mounting Height - 30'
Max.Wattage - 73W
Min.Lumens - 12,209
Color Temperature CCT - 4000K
BUG Rating - B2-U0-G2
IES Type III,Type IV Medium



Lighting Summary

Lighting Criteria	Units	AVG	MAX	MIN	AVG/MIN	MAX/MIN
Intersection	fc	0.8	2.1	0.3	2.53	7.00
P6 Crossing	fc	1.2	1.6	0.6	2.00	2.67

CRITERIA IS BASED ON IES RP-8-22, CHAPTER 12.3.2.2 (PARTIAL INTERSECTION LIGHTING)
CROSSWALKS MEASURED IN MIDDLE OF CROSSWALK

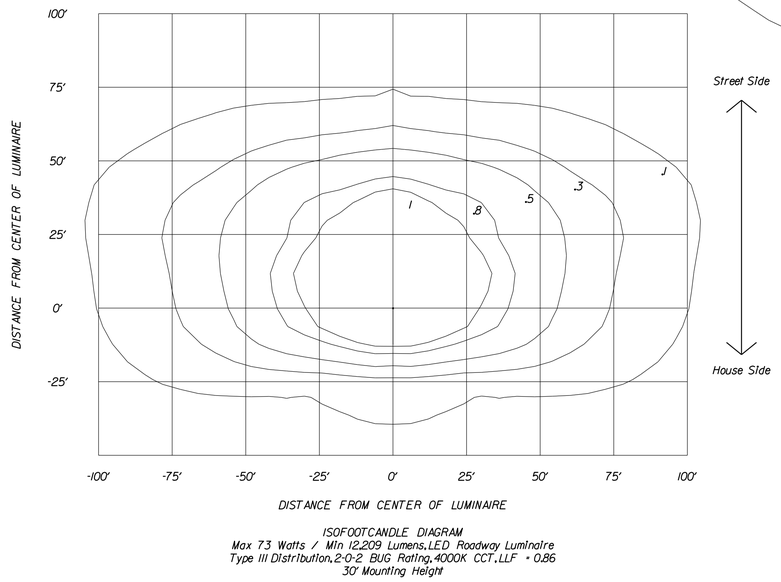
- INTERSECTION CRITERIA: PARTIAL
- ROAD CLASSIFICATION: MAJOR
- PAVEMENT CLASSIFICATION: R2 & R3
- UNIFORMITY RATIO (AVG/MIN): 3.0
- AVERAGE ILLUINANCE: 0.8 fc

Light Trespass Summary

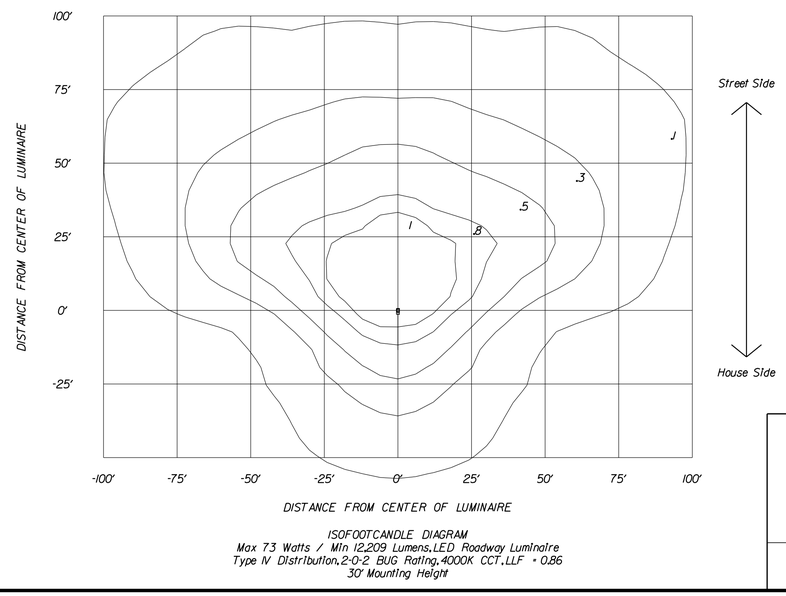
Quadrant	Light Zone	MAX SPILL (fc)	DESIGN SPILL (fc)
Northwest	3	0.2	0.7
Northeast	2	0.3	0.3
Southwest	3	0.7	0.7
Southeast	3	0.3	0.7

LIGHT TRESSPASS CRITERIA IS BASED ON VDOT's IIM-TE-390 MEMORANDUM

- Light Zone 2 Is for light industrial uses
- Light Zone 3 Is for gas stations and fast-food/fast-casual restaurants



ISOFOOTCANDLE DIAGRAM
Max 73 Watts / Min 12,209 Lumens,LED Roadway Luminaire
Type III Distribution,2-0-2 BUG Rating,4000K CCT,LLF = 0.86
30' Mounting Height



ISOFOOTCANDLE DIAGRAM
Max 73 Watts / Min 12,209 Lumens,LED Roadway Luminaire
Type IV Distribution,2-0-2 BUG Rating,4000K CCT,LLF = 0.86
30' Mounting Height

SCALE
0 25' 50'

TRAFFIC CONTROL DEVICE PLANS

LIGHTING PHOTOMETRIC PLAN

US ROUTE 460 (W WINDSOR BLVD) &
US ROUTE 258 (PRINCE BLVD)
ISLE OF WIGHT COUNTY

PROJECT	SHEET NO.
0460-046-724	15(4)