

LOCATION MAP

P.O.B. = LATITUDE: 40° 06' 54" N LONGITUDE: 82° 59' 34" W

Scale in Miles



Portion\ s to be Improved:

DESIGN DESIGNATION DATA

Current ADT (yyyy).....
Design Year ADT (yyyy).....
Design Hourly Volume (yyyy).....
Directional Distribution.....
Trucks (24 hour b&c).....
Design Speed.....
Legal Speed.....
Design Functional Classification.....

DESIGN EXCEPTION

ASSOCIATED PLANS

NAME
AND
ADDRESS
OF
FIRM
PREPARING
PLAN

ENGINEER'S
SEAL

TRAFFIC
SIGNAL
ENGINEER'S
SEAL
(IF APPLICABLE)

Registered Engineer

Date

Registered Engineer

Date

COLUMBUS STANDARD CONSTRUCTION DRAWINGS							
AA-S103	X/X/XX	AA-S127	X/X/XX	1441	X/X/XX	2203	X/X/XX
AA-S106	X/X/XX			2010	X/X/XX		L-8502 X/X/XX
AA-S107	X/X/XX			2160	X/X/XX		L-7102 X/X/XX
AA-S119	X/X/XX			2166	X/X/XX		
AA-S125	X/X/XX			2201	X/X/XX		
AA-S126	X/X/XX			2202	X/X/XX		

COLUMBUS SUPPLEMENTAL SPECIFICATIONS				ODOT STANDARD CONSTRUCTION DRAWINGS			
SS-1551		X/X/XX		MT-97.10	X/X/XX	TC-41.20	X/X/XX
SS-1630		X/X/XX		MT-97.11	X/X/XX	TC-42.20	X/X/XX
				BP-3.1	X/X/XX		

CITY OF COLUMBUS, OHIO

DEPARTMENT OF PUBLIC SERVICE

DIVISION OF DESIGN AND CONSTRUCTION

PROJECT DESIGNATION (WHERE APPLICABLE)

IMPROVEMENTS OF NAME OF STREET

FROM XX' EAST OF XXXX ST.
TO XX' WEST OF XXXX ST.

INDEX OF SHEETS

Title Sheet	---	#
Schematic Plan	---	#
Typical Sections	---	#
General Notes	---	#
Legend	---	#
Maintenance of Traffic (Notes and Plan Details)	---	#
Pavement Calculations	---	#
General Summary	---	#
* Post-Construction Storm Water Pollution Control Facilities	---	#
Storm Water Pollution Prevention Plan	---	#
Plan and Profile (including Sub-Summaries)	---	#
Cross Sections	---	#
Intersection and Curb Ramp Details	---	#
Drive Details	---	#
Pavement Details	---	#
Storm Sewer Profiles & Coordinate Data	---	#
Waterline Profiles & Coordinate Data	---	#
Traffic Control	---	#
Traffic Signal	---	#
Traffic Signal Interconnect	---	#
Lighting	---	#
Landscaping	---	#
Structures	---	#
Right-of-Way	---	#

DESIGNER NOTE:
THE PROJECT LIMITS
ARE SHOWN FOR
GENERAL
REFERENCE. THE
STATIONING ON THE
LOCATION MAP IS
NOT REQUIRED. THE
STATIONING FOR THE
PROJECT LIMITS
SHALL BE SHOWN ON
THE SCHEMATIC PLAN
AND THE PLAN AND
PROFILE SHEETS.

DESIGNER NOTE:
ALL CIP "E" PLANS MUST SHOW THIS LINE
IN INDEX TABLE AND INDICATE SHEET
NUMBER WHERE THIS IS LOCATED IN THE
PLANS

DESIGNER NOTE:
THE CITY OF COLUMBUS SAMPLE PLAN SHEETS ARE FOR INFORMATIONAL
PURPOSES ONLY AND ARE INTENDED TO BE USED AS A GUIDE FOR PLAN
SHEET LAYOUT AND FORMAT IN CONSTRUCTION PLANS FOR THE CITY OF
COLUMBUS. THE SET OF SAMPLE PLAN SHEETS IS A COLLECTION OF
INDIVIDUAL SHEETS TYPES AND SHOULD NOT BE CONSIDERED, OR USED, AS
SINGLE, COORDINATED PLAN. THE SAMPLE PLAN DOES NOT PROVIDE
EXAMPLE PAGES OF EVERY POSSIBLE TYPE OF PLAN SHEET (EXAMPLE:
DEMOLITION PLAN, PAVEMENT RESTORATION PLAN). THE EXAMPLES SHOWN
DO NOT NECESSARILY REPRESENT A PREFERRED DESIGN.

**IN CASES WHERE THE INFORMATION SHOWN ON SAMPLE PLAN IS IN
CONFLICT WITH, OR CONTRADICTORY TO, POLICIES OR PRACTICES
CONTAINED IN THE GENERAL DESIGN REQUIREMENTS (CIP), CIP CHECKLIST,
CMSC, TRAFFIC SIGNAL DESIGN MANUAL OR STANDARD CONSTRUCTION
DRAWINGS, THE POLICIES OR PRACTICES WILL SUPERSEDE ANY
CONFLICTING SAMPLE PLAN SHEET INFORMATION**

X/X/XX = APPROVAL DATE

PROJECT DESCRIPTION

DESIGNER NOTE:
THE PROJECT DESCRIPTION SHALL ADEQUATELY DESCRIBE THE TYPE OF WORK BEING COMPLETED (I.E. FULL DEPTH ROADWAY RECONSTRUCTION), THE STREETS IMPACTED BY THIS WORK OR A THOROUGH DESCRIPTION OF THE AREA, THE APPROXIMATE LIMITS OF THE WORK BEING PERFORMED, AND A SUMMARY OF ITEMS IMPROVED (I.E. STORMWATER DRAINAGE SYSTEM, STREET LIGHTING, ADD LANDSCAPE FEATURES, WATERLINE IMPROVEMENTS, SIGNAL/INTERCONNECT IMPROVEMENTS, ADDITION OF SHARED USE PATH, BIKE LANES, PUBLIC ACCESS ROUTE IMPROVEMENTS, ETC.).

EARTH DISTURBED AREA

Font Style: RomanS
Text Height: 0.24

Font Style: RomanS
Text Height: 0.10

Total EDA =
Pre-Impervious =
Post-Impervious =

2018 SPECIFICATIONS

The City of Columbus Construction and Materials Specifications (CMSC), 2018 Edition including all revisions and supplements in effect at the time of signature by the Director of Public Service, shall govern all construction items that are a part of this plan unless noted otherwise

Font Style: RomanS
Text Height: 0.10

"City of Columbus" signatures on this plan signify only concurrence with the purpose and general location of the project. All technical details remain the responsibility of the Engineer preparing the plans.

CITY OF COLUMBUS APPROVALS

Design Section Engineer, Division of Design and Construction

Date

Administrator, Division of Power

Date

Administrator, Division of Sewerage and Drainage

Date

Administrator, Division of Water

Date

Director, Department of Public Utilities

Date

Fire Prevention Bureau, Division of Fire

Date

Engineering Supervisor, Department of Technology

Date

Director, Department of Recreation and Parks

Date

City Engineer-Administrator, Division of Design and Construction

Date

Director, Department of Public Service

Date

REV NO	Revision Description	Sheet(s)	Initial	Date

DESIGNER NOTE:
INCLUDE THIS STAMP ON EVERY STAGE
SUBMITTAL DURING PLAN REVIEW PHASE

STAGE __ REVIEW, DATE __

Plan Number to be
placed on every plan sheet.
Assigned by City of Columbus
Division of Design and Construction
Text height = 0.18"
Style = Arial (Bold)

EITHER FOR PAGE
NUMBERING STYLE

CITY 6-6 NUMBER
(ADD ODOT PHD
WHEN APPLICABLE)

TITLE SHEET

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

1
74

1
74

XXXXE

1
74

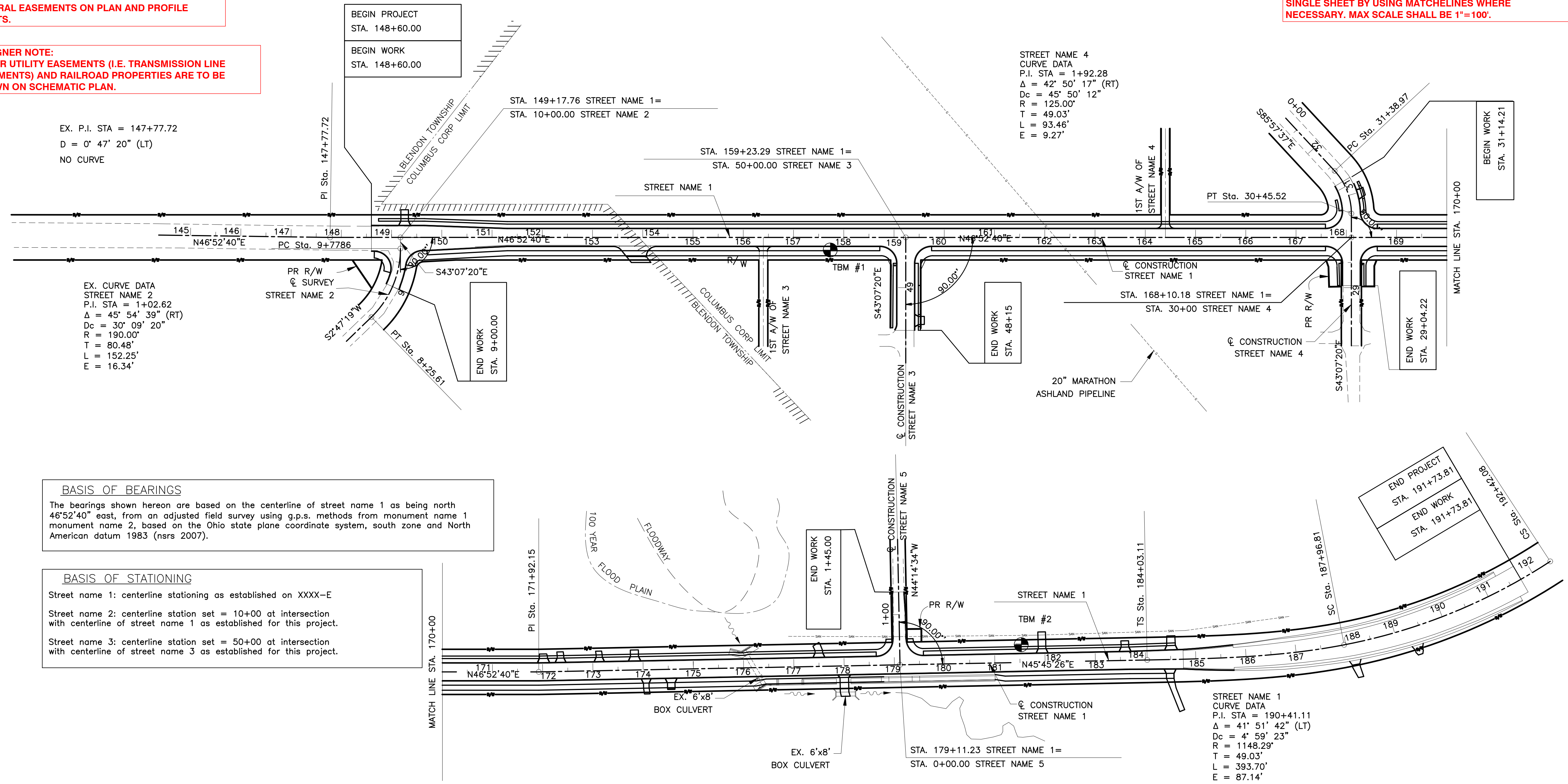
DESIGNER NOTE:
PROPERTY LINES ARE NOT TO BE SHOWN ON SCHEMATIC PLAN. FULLY IDENTIFY PROPERTY BOUNDARIES AND OWNERS ON PLAN AND PROFILE SHEETS.

DESIGNER NOTE:
GENERAL EASEMENTS ARE NOT REQUIRED TO BE SHOWN ON SCHEMATIC PLAN. FULLY IDENTIFY GENERAL EASEMENTS ON PLAN AND PROFILE SHEETS.

DESIGNER NOTE:
MAJOR UTILITY EASEMENTS (I.E. TRANSMISSION LINE EASEMENTS) AND RAILROAD PROPERTIES ARE TO BE SHOWN ON SCHEMATIC PLAN.

DESIGNER NOTE:
THE INTENT OF THE SCHEMATIC PLAN IS TO IDENTIFY THE OVERALL LIMITS OF THE PROJECT, DESCRIBE THE CENTERLINE LAYOUTS, SHOW CORP LIMITS, TABULATE SURVEY INFORMATION, LOCATE BENCHMARKS, AND SHOW A BASIC PROJECT LAYOUT.

DESIGNER NOTE:
IT IS PREFERRED TO SHOW THE SCHEMATIC PLAN ON A SINGLE SHEET BY USING MATCHLINES WHERE NECESSARY. MAX SCALE SHALL BE 1"=100'.



BASIS OF BEARINGS
The bearings shown hereon are based on the centerline of street name 1 as being north 46°52'40" east, from an adjusted field survey using g.p.s. methods from monument name 1 monument name 2, based on the Ohio state plane coordinate system, south zone and North American datum 1983 (nsrs 2007).

BASIS OF STATIONING
Street name 1: centerline stationing as established on XXXX-E
Street name 2: centerline station set = 10+00 at intersection with centerline of street name 1 as established for this project.
Street name 3: centerline station set = 50+00 at intersection with centerline of street name 3 as established for this project.

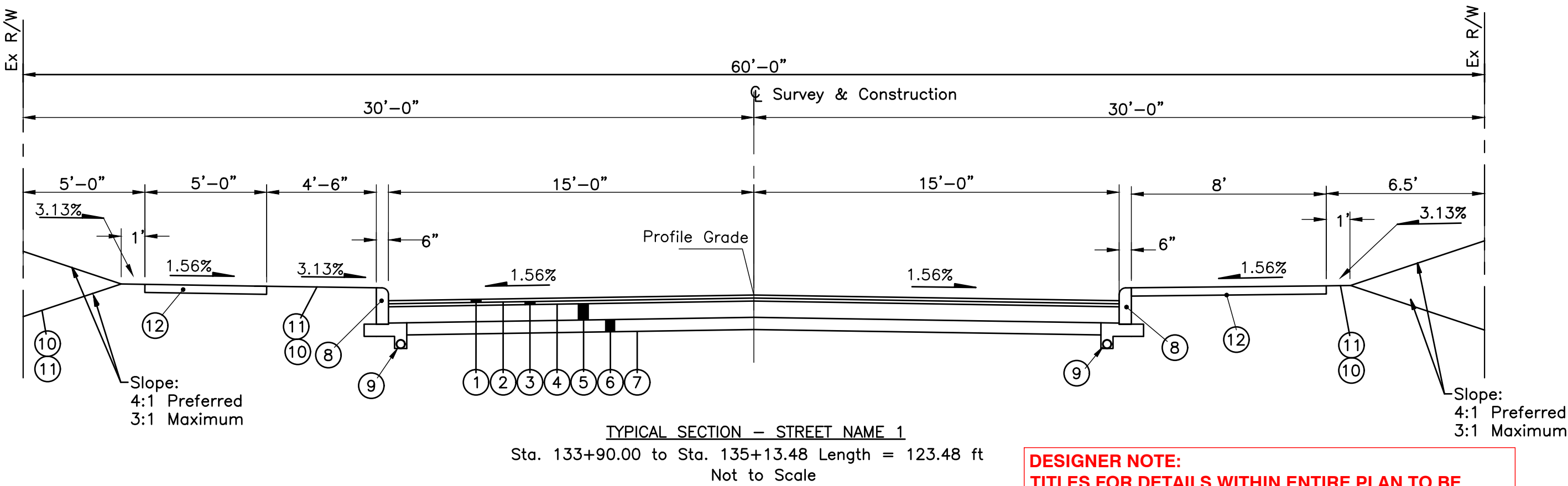
VERTICAL CONTROL BENCH MARKS		
Vertical control is set using the Franklin County source monuments (below), based on the North American vertical datum of 1988 (NAVD 88).		
(DESCRIBE METHOD AND CORRECTION FACTOR AND LIST GEOID MODEL USED)		
SOURCE BM	Description	Elev. XXX.XX
TBM #	Description N:XXXXXX.XX E:XXXXXX.XX Sta XX+XX.XX, Offset XX.XX' _t. Based on the C of Road.	Elev. XXX.XX
TBM #	Description N:XXXXXX.XX E:XXXXXX.XX Sta XX+XX.XX, Offset XX.XX' _t. Based on the C of Road.	Elev. XXX.XX
TBM #	Description N:XXXXXX.XX E:XXXXXX.XX Sta XX+XX.XX, Offset XX.XX' _t. Based on the C of Road.	Elev. XXX.XX

Horizontal Control				
Horizontal controls are tied to Franklin County survey source monuments (below), based on Ohio state plane coordinate system, south zone, NAD 83 (NSRS 2007).				
(DESCRIBE METHOD AND CORRECTION FACTOR AND LIST GEOID MODEL USED)				
POINTS	RAW DESCRIPTION	NORTHING (GROUND)	EASTING (GROUND)	STATION, OFFSET
#	IRS w/ Cap	XXXXXX.XX	XXXXXX.XX	XX+XX.XX, XX.XX' _t Based on C of Road.
#	IPF w/ Cap	XXXXXX.XX	XXXXXX.XX	XX+XX.XX, XX.XX' _t Based on C of Road.
#	IRS w/ Cap	XXXXXX.XX	XXXXXX.XX	XX+XX.XX, XX.XX' _t Based on C of Road.

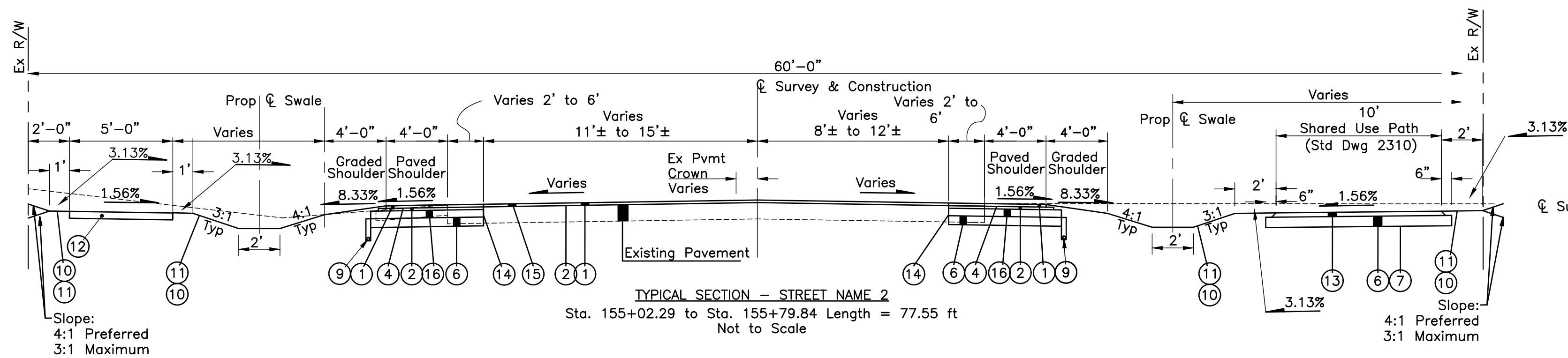
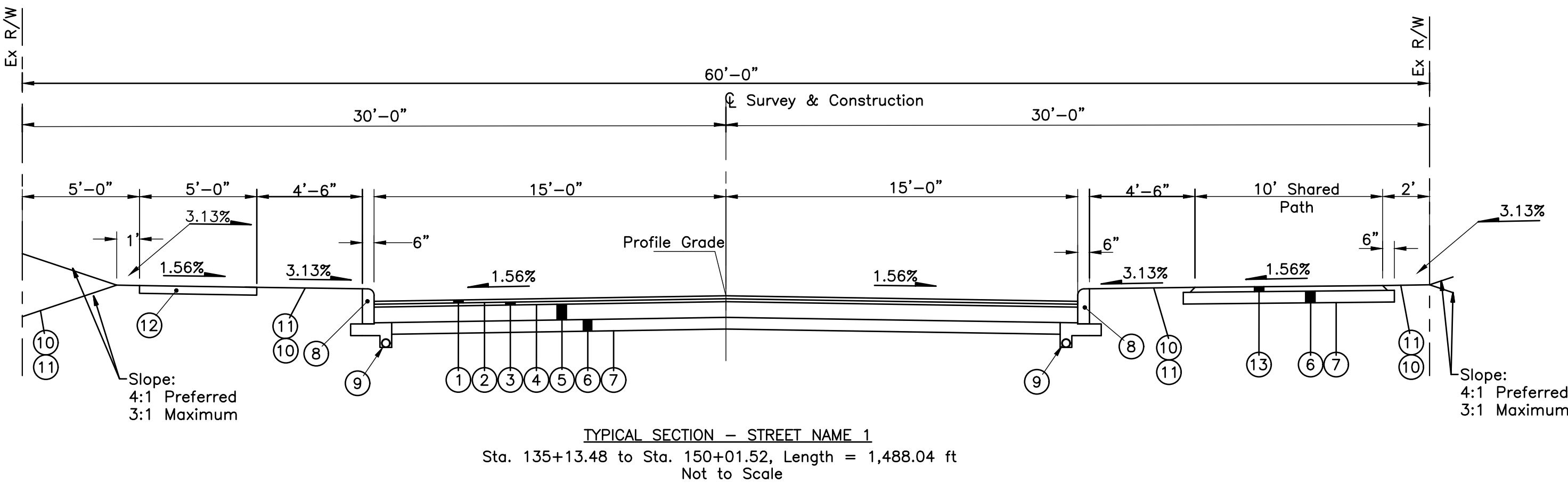
DESIGNER NOTE:
IDENTIFY IF COORDINATES ARE GRID OR GROUND AND IDENTIFY GRID TO GROUND SCALE FACTOR.

DESIGNER NOTE:
LABEL BRIDGE STRUCTURE NUMBER WHERE APPLICABLE.

DESIGNER NOTE:
TEXT FONT SHALL BE ROMANS AND TEXT HEIGHT SHALL BE 0.10" UNLESS OTHERWISE NOTED.

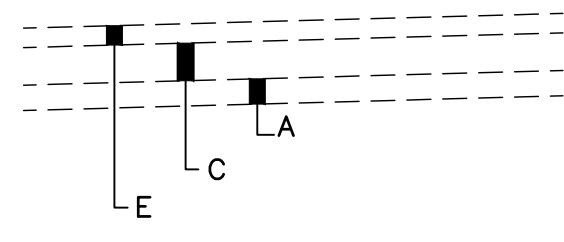


DESIGNER NOTE:
TITLES FOR DETAILS WITHIN ENTIRE PLAN TO BE
CAPITALIZED

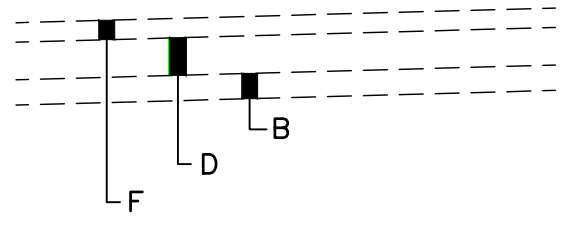


DESIGNER NOTE:
CONSULTANT TO REVIEW SCOPE DOCUMENT FOR ROADWAY
CROSS-SLOPE DESIGN. WHEN MILLING AND OVERLAYING IS PROPOSED
ON AN EXISTING ROADWAY, THE FINAL ROADWAY CROSS-SLOPE SHALL
MATCH THE EXISTING CROSS-SLOPE UNLESS SPECIFICALLY NOTED IN
SCOPING DOCUMENT OR TO FACILITATE AN ADA PEDESTRIAN ROUTE.
COORDINATE WITH EXISTING UTILITIES IF A MODIFICATION IN THE
CROSS-SLOPE IS PROPOSED.

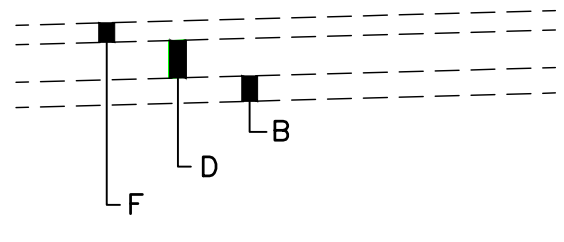
DESIGNER NOTE:
REFER TO CITY OF COLUMBUS STREET PAVEMENT DESIGN POLICIES
AND STANDARD DRAWINGS. PAVEMENT DESIGN THICKNESS FOR
WIDENING SHALL BE EQUAL TO OR GREATER THAN THE EXISTING
PAVEMENT SECTION. PAVEMENT SECTION SHOULD HAVE UNIFORM
PROFILE AND PROVIDE POSITIVE DRAINAGE TO DRAINAGE FACILITY.



EXISTING PAVEMENT COMPOSITION
STREET NAME 2
Sta. 155+02.29 to Sta. 155+79.84
Not to Scale

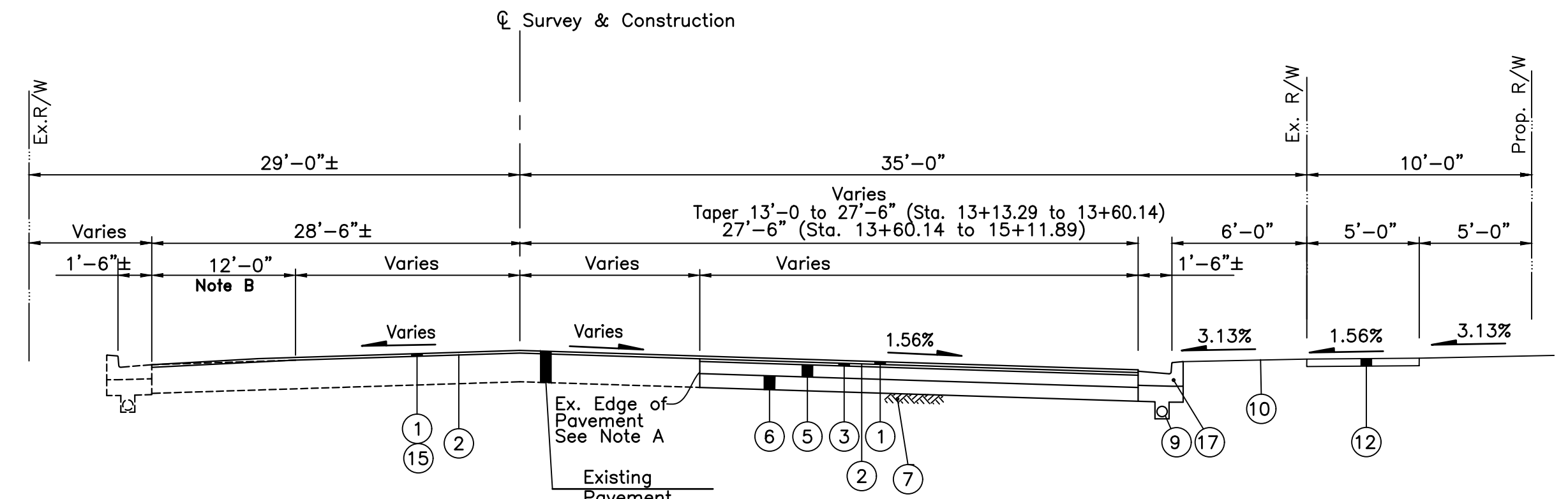


EXISTING PAVEMENT COMPOSITION
STREET NAME 3
Sta. 13+13.29 to Sta. 15+11.89
Not to Scale

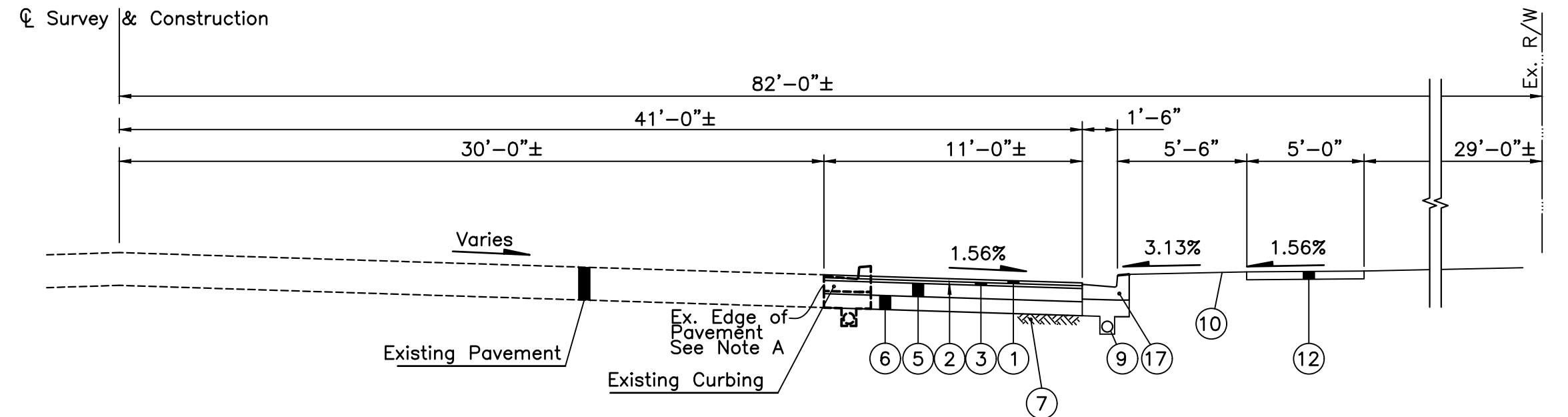


EXISTING PAVEMENT COMPOSITION
STREET NAME 4
Sta. 16+01.42 to Sta. 16+83.67
Not to Scale

- LEGEND
- ① Item 441 - 1.5" Asphalt Concrete Surface Course (Medium Traffic), PG64-22
 - ② Item 407 - Non-Tracking Tack Coat
 - ③ Item 441 - 1.75" Asphalt Concrete Intermediate Course (Medium Traffic), PG64-22
 - ④ Item 407 - Tack Coat, 702.13 Asphalt Emulsion
 - ⑤ Item 305 - 8" Portland Cement Concrete Base
 - ⑥ Item 304 - 6" Aggregate Base
 - ⑦ Item 204 - Subgrade Compaction
 - ⑧ Item 609 - Curb, Straight 18"
 - ⑨ Item 605 - 4" Pipe Underdrain
 - ⑩ Item 659 - Seeding and Mulching
 - ⑪ Item 653 - Topsoil Furnished & Placed
 - ⑫ Item 608 - 4"/8" Concrete Walk
 - ⑬ Item 441 - 2.5" Surface Course (Medium Traffic), PG64-22
 - ⑭ Item 202 - Saw cut pavement full depth to sound pavement
 - ⑮ Item 254 - Pavement Planing, (Varies-1-1/2" Typ.)
 - ⑯ Item 301 - 6" Asphalt Concrete Base (2 Lifts)
 - ⑰ Item 609 - Combination Curb & Gutter.
 - (A) 6"-8" Aggregate Base
 - (B) 6"± Aggregate Base
 - (C) 4"± Brick
 - (D) 4"± Concrete Base
 - (E) 2.5"-6.5"± Asphalt Concrete
 - (F) 3"± Asphalt Concrete



TYPICAL SECTION - STREET NAME 3
Sta. 13+13.29 to Sta. 15+11.89, Length = 198.60 ft
Not to Scale



TYPICAL SECTION - STREET NAME 4
Sta. 16+01.42 to Sta. 16+83.67, Length = 82.25 ft
Not to Scale

Note A:
Existing Pavement Edge to be Sawcut as Required
to Provide a Smooth Clean Edge as Directed by
the Engineer. (Maintain 2'-0" Min. Widening
Section)

Note B:
Mill existing asphalt pavement along the existing
curb & gutter to provide a minimum of 1 1/2"
depth for the final overlay section.

DESIGNER NOTE:
TEXT FONT SHALL BE ROMANS AND
TEXT HEIGHT SHALL BE 0.10" UNLESS
OTHERWISE NOTED

TYPICAL SECTIONS & DETAILS

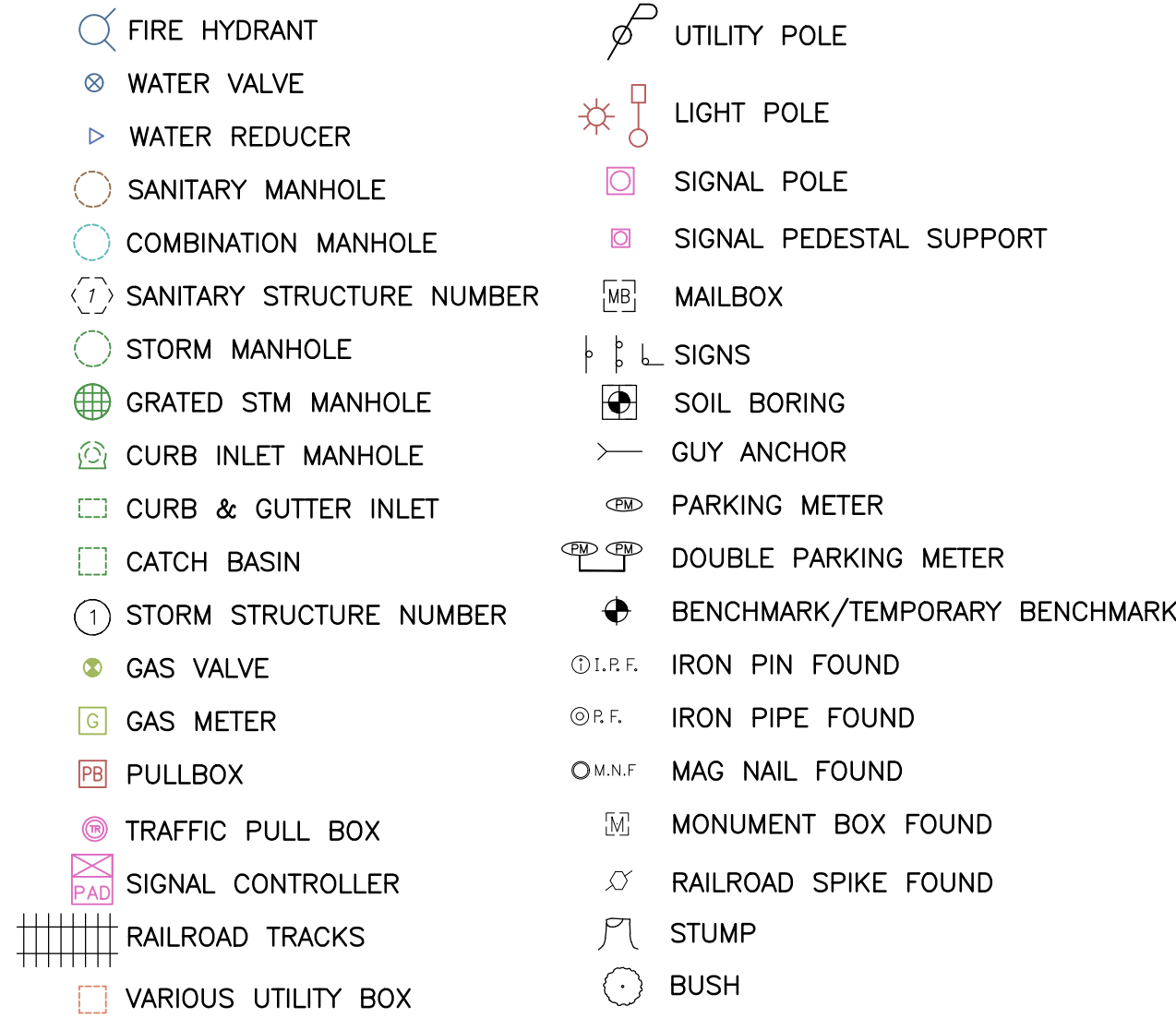
IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

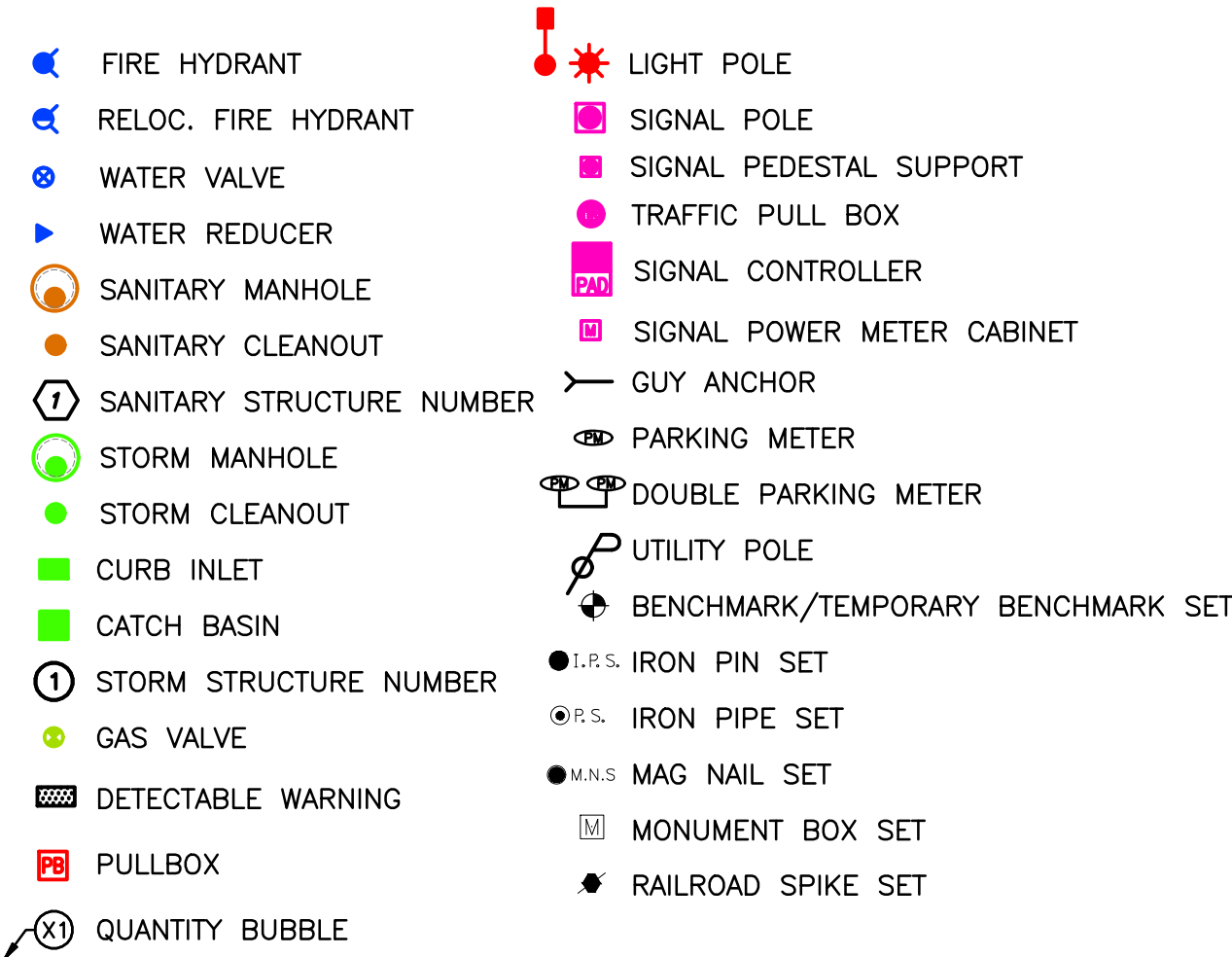
XX
XXX

J:\Design and Construction\Design\Plan Review\Tahari, Moe, 9/21/2022 8:13 AM Last Printed By: Tahari, Moe, 9/22/2022 8:27 AM
X:\Design and Construction\Design\Plan Review\Tahari, Moe, 9/21/2022 8:13 AM Last Printed By: Tahari, Moe, 9/22/2022 8:27 AM

EXISTING SYMBOLS



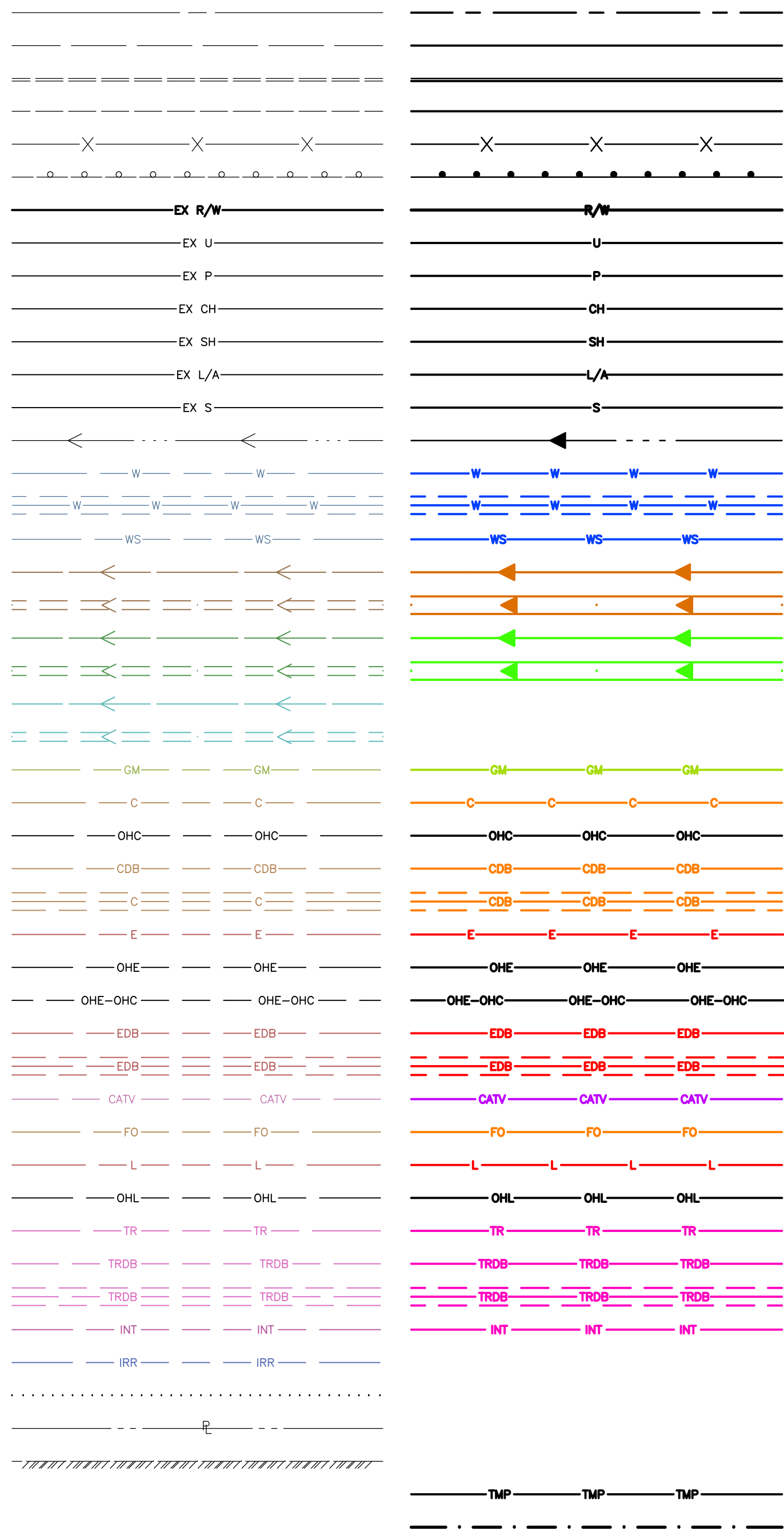
PROPOSED SYMBOLS



CENTERLINE SURVEY/CONSTRUCTION	=====
EDGE OF PAVEMENT	=====
CURB	=====
SIDEWALK/DRIVEWAY/SUP	-----
FENCE	-X-X-X-
GUARDRAIL	-o-o-o-o-o-
RIGHT OF WAY	-----EX R/W-----
UTILITY EASEMENT	-----EX U-----
PERMANENT EASEMENT	-----EX P-----
CHANNEL EASEMENT	-----EX CH-----
HIGHWAY EASEMENT	-----EX SH-----
L/A HIGHWAY EASEMENT	-----EX L/A-----
SEWER EASEMENT	-----EX S-----
DITCH FLOW LINE	<-----<-----<-----<
WATER	-----W-----
WATER ≥ 24"	=====W=====
WATER SERVICE	-----WS-----WS-----
SANITARY	-----<-----<-----<
SANITARY ≥ 24"	=====<=====
STORM	-----<-----<-----<
STORM ≥ 24"	=====<=====
COMBINATION STORM & SEWER	-----<-----<-----<
COMBINATION STORM & SEWER ≥ 24"	=====<=====
GAS	-----GM-----GM-----
COMMUNICATION	-----C-----C-----
OVERHEAD COMMUNICATION	-----OHC-----OHC-----
COMMUNICATION DUCT BANK	-----CDB-----CDB-----
COMMUNICATION DUCT BANK ≥ 24"	=====CDB=====
ELECTRIC	-----E-----E-----
OVERHEAD ELECTRIC	-----OHE-----OHE-----
OVERHEAD ELECTRIC & COMMUNICATION	-----OHE-OHC-----OHE-OHC-----
ELECTRIC DUCT BANK	-----EDB-----EDB-----
ELECTRIC DUCT BANK ≥ 24"	=====EDB=====
CABLE TV	-----CATV-----CATV-----
FIBER OPTIC	-----FO-----FO-----
LIGHTING	-----L-----L-----
OVERHEAD LIGHTING	-----OHL-----OHL-----
TRAFFIC	-----TR-----TR-----
TRAFFIC DUCT BANK	-----TRDB-----TRDB-----
TRAFFIC DUCT BANK ≥ 24"	=====TRDB=====
TRAFFIC INTERCONNECT	-----INT-----INT-----
IRRIGATION	-----IRR-----IRR-----
LANDSCAPE BED
PROPERTY LINE/LOT LINE	-----P-----
CORP LINE	-----
TEMP CONSTRUCTION EASEMENT	-----TMP-----TMP-----
CONSTRUCTION LIMITS	-----

EXISTING CONDITIONS LINETYPES

PROPOSED LAYOUT LINETYPES



ABBREVIATIONS

ADA ___AMERICANS WITH DISABILITY ACT	GM ___GAS MAIN	RP ___RECORD PLAN
AEP ___AMERICAN ELECTRIC POWER	GRND ___GROUND	RR ___RAILROAD
ASPH ___ASPHALT	X" GS ___1" GAS SERVICE	RT ___RIGHT
AVE ___AVENUE	GV ___GAS VALVE	SAN ___SANITARY SEWER
BH ___BULK HEAD	HORZ ___HORIZONTAL	SCP ___SITE COMPLIANCE PLAN
BLVD ___BOULEVARD	HP ___HIGH POINT	SF ___SQUARE FEET
BM ___BENCH MARK	HR ___HOUR	SGNL ___SIGNAL
BT ___BOTH	HW ___HEADWALL	SHLD ___SHOULDER
CATV ___CABLE TELEVISION	IN ___INSTRUMENT NUMBER	SPEC ___SPECIAL
CB ___CATCH BASIN	INV ___INVERT	X" SS ___6" SANITARY SERVICE
CCXXXX ___CC PLAN	IRRG ___IRRIGATION	ST ___STREET
CL ___CENTERLINE	LAT ___LATERAL	STA ___STATION
CI ___CURB INLET	LBS ___POUNDS	STM ___STORM SEWER
CIMH ___CURB INLET MANHOLE	LF ___LINEAR FEET	SY ___SQUARE YARDS
CKFT ___CIRCUIT FEET	LN ___LANE	TBM ___TEMPORARY BENCH MARK
CNTRL ___CONTROLLER	LP ___LOW POINT	TC ___TOP OF CASTING
CO ___CLEANOUT	LS ___LUMP SUM	TDC ___TOP OF DROP CURB
COC ___CITY OF COLUMBUS	LT ___LEFT	TELE ___TELEPHONE
COL GAS ___COLUMBIA GAS	MB ___MAILBOX	TEMP ___TEMPORARY
COMB ___COMBINED	MGAL ___1000 GALLONS	TOC ___TOP OF CURB
COMM ___COMMUNICATION	MH ___MANHOLE	TRAF ___TRAFFIC
CONC ___CONCRETE	MOD ___MODIFIED	TYP ___TYPICAL
CONST ___CONSTRUCTION	NF ___NOT FOUND	UD ___UNDERDRAIN
CT ___COURT	NTS ___NOT TO SCALE	UG ___UNDERGROUND
CY ___CUBIC YARDS	OFF ___OFFSET	UGE ___UNDERGROUND ELECTRIC
DB ___DUCT BANK	OH ___OVERHEAD	UTIL ___UTILITY
DEFL ___DEFLECTION	OHC ___OVERHEAD COMM	VC ___VERTICAL CURVE
DI ___DUCTILE IRON	OHD ___OVERHEAD DOOR	VERT ___VERTICAL
DOP ___DIVISION OF POWER	OHE ___OVERHEAD ELECTRIC	WM ___WATER MAIN
DOT ___DEPARTMENT OF TECHNOLOGY	OUPS ___OHIO UTILITY PROTECTION SERVICES	WS ___WATER SERVICE
DW ___DEWATERING	P ___PROPERTY LINE	X" WS ___1" WATER SERVICE
XXXX-E ___E PLAN	PB ___PULL BOX	WSB ___WATER SERVICE BOX
EA ___EACH	PC ___POINT OF CURVATURE	WSP ___WATER SERVICE PLAN
ELEC ___ELECTRIC	PED ___PEDESTRIAN	WV ___WATER VALVE
ELIPT ___ELLIPTICAL	PKWY ___PARKWAY	(ATG) ___ADJUST TO GRADE
EOP ___EDGE OF PAVEMENT	PROP ___PROPOSED	(APP) ___AS PER PLAN
ESMT ___EASEMENT	PT ___POINT OF TANGENCY	(DND) ___DO NOT DISTURB
EW ___ENDWALL	PVI ___POINT OF VERTICAL INTERSECT	(FIP) ___FILL IN PLACE
EX ___EXISTING	PVMT ___PAVEMENT	(PA) ___PREVIOUSLY ABANDONED
FDC ___FIRE DEPARTMENT CONNECTION	R ___RADIUS	(R&B) ___REMOVE AND REBUILD
FDN ___FOUNDATION	R/W ___RIGHT-OF-WAY	(R&R) ___REMOVE AND RESET
FFE ___FINISHED FLOOR ELEVATION	RCC ___ROLLER COMPACTED CONCRETE	(RELOC) ___RELOCATE
FH ___FIRE HYDRANT	RCP ___ROCK CHANNEL PROTECTION	(RTG) ___RECONSTRUCT TO GRADE
FO ___FIBER OPTIC	RCP ___REINFORCED CONCRETE PIPE	(TBA) ___TO BE ABANDONED
GAL ___GALLON	RD ___ROAD	(TBR) ___TO BE REMOVED
GB ___GRADE BREAK	X" RD ___6" ROOF DRAIN	(TBR1) ___TO BE RELOCATED
		(TBR5) ___TO BE REMOVED AND SALVAGED

DESIGNER NOTE:
1. TRAFFIC SYMBOLS TO BE SHOWN TO SCALE.
2. LIGHTING SYMBOLS TO BE SHOWN TO SCALE.
3. MANHOLES, CATCH BASINS, VAULTS, CASTINGS, AND DETECTABLE WARNINGS TO BE SHOWN TO SCALE.
4. SYMBOLS TO MATCH UTILITY COLOR.

DESIGNER NOTE:
THIS PLAN DOCUMENT SHALL IDENTIFY THE RESPONSIBLE PARTY AND/OR PLAN FOR ALL PROPOSED CONSTRUCTION ACTIVITIES SHOWN WITHIN THE PROJECT LIMITS THAT ARE NOT TO BE PERFORMED BY THIS PLAN. THIS PLAN DOCUMENT SHALL ALSO IDENTIFY THE RESPONSIBLE PARTY AND/OR PLAN FOR ALL PROPOSED CONSTRUCTION ACTIVITIES OUTSIDE OF THE PROJECT LIMITS WHEN THOSE ACTIVITIES ARE RELATED TO THIS PROJECT AND ADDITIONAL COORDINATION IS REQUIRED.

DESIGNER NOTE:
TEXT FONT SHALL BE ROMANS AND TEXT HEIGHT SHALL BE 0.10" UNLESS OTHERWISE NOTED.

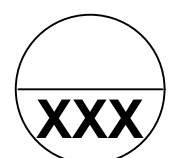
CALCULATED

CHECKED

LEGEND

SAMPLE PLAN PROJECT

XXXX-E



ITEM 614. MAINTAINING TRAFFIC, AS PER PLAN

TEMPORARY TRAFFIC CONTROL

All temporary traffic control (TTC) devices shall be furnished, erected, maintained and removed by the contractor in accordance with the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways (current edition). Copies are available from the Ohio Department of Transportation, Office of Contracts, 1980 West Broad Street, Columbus, Ohio 43223. Note: all devices shall comply, for condition and location, with the current edition of the NCHRP 350 and Mash Crash Testing Guidelines.

Construction operations shall not begin until all traffic control is in place and approved by the Department of Public Service Inspector. If the contractor does not comply with the standards, including the installation of temporary pavement markings and the removal of conflicting traffic controls, their permit shall be revoked and all work shall be terminated. Temporary pavement markings to include, but not limited to, channelizing lines, edge lines, and centerlines shall be installed and maintained on all construction operations lasting a minimum of 14 calendar days or as directed by the temporary traffic control coordinator or the project engineer.

THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE Temporary Traffic Control Coordinator at 614-645-0355 or 614-645-5845, written notification to paving the way at pavingtheway@morpc.org or verbal to (614)233-4200 , Project Engineer, and the Senior Service Planner of COTA at 614-308-4373 or fax 614-275-5933, informing them of all upcoming maintenance of traffic changes on a weekly basis. Notification shall include, but not be limited to, what, where, when, and how pedestrian and vehicular traffic will be affected, and the temporary traffic control procedures the contractor is planning to use. The type of traffic change shall determine the length of advance notification required:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
Detours/Road closures	30-day notification prior to closure.
Lane closures lasting 2 weeks or more	2-weeks
Lane closures of less than 2 weeks	3-days
Lane closures of 2 days or less	1-day

The COTA Senior Service Planner shall be contacted 30 days prior to any planned closure on assigned COTA routes. Any other unforeseen impacts to traffic shall be immediately reported as they occur.

The contractor shall be responsible for the protection and safe movement of pedestrians through, around, or detoured away from the construction site. Traffic control for pedestrian movement shall be as per City of Columbus Construction and Material Specifications, City of Columbus Standard Construction Drawings, and Figures 6H-28 (TA-28) and 6H-29 (TA-29) of Part VI of the Ohio Manual of Uniform Traffic Control Devices. When not shown on a signed plan, all sidewalk diversions and temporary mid-block crossings shall be pre-approved by the project engineer or the temporary traffic control coordinator. access for pedestrian and vehicular traffic to all adjoining properties shall be maintained at all times.

MAINTAINING TRAFFIC DURING HOLIDAYS AND SPECIAL EVENTS

No work shall be performed and all existing lanes shall be open to traffic during designated holidays or special events including the Ohio State football home games. The period of time that the lanes are to be open depends on the day of the week on which the holiday or event falls. contact the City of Columbus Temporary Traffic Control Coordinator, 614-645-5845 or cell, 614-332-7472 for event dates, locations, and schedule. Holidays will consist of Christmas, New Years, Fourth of July-Red, White and Boom fireworks night (6:00am-12midnight), Memorial Day, Labor Day, and Thanksgiving. Red, White and Boom, fireworks celebration and a minimum of one day prior to fireworks night shall require all temporary traffic control devices to be removed from the project area and place either in a pre-determined location approved by the temporary traffic control coordinator or completely removed from the site.

The contractor shall contact the City of Columbus Temporary Traffic Control Coordinator for any additional mot requirements for special events, including OSU footbal home games.

The contractor shall maintain all permanent traffic controls not in conflict with the temporary traffic controls throughout this project. Permanent traffic controls may be temporarily relocated or covered, as approved by the engineer. The contractor shall assume all liability for missing, damaged, or improperly placed signs.

Any work done by the department of public service, including installation, relocation, removal and/or replacement of temporary traffic control devices as a result of work done by the contractor or as a result of negligence of the contractor, shall be at the contractors' expense.

The roadway shall not be opened to non-construction traffic until the critical permanent traffic controls are in place, or until temporary traffic controls approved by the engineer, are installed. The critical permanent traffic controls are stop, yield, one - way, do not enter, restricted turn signs and all street name signs. other critical signs may be noted on the plans as well. the contractor assumes all liability for the premature removal of temporary traffic controls.

In addition to the requirements herein, and the latest edition of the Ohio Manual of Uniform Traffic Control Devices, a uniformed Law Enforcement Officer (LEO) shall be provided for controlling traffic under the following conditions:

- Work within a signalized intersection, defined as the area bounded by the rear x-walk lines
- When flagging within the intersection of two arterial roadways
- When specified in the maintenance of traffic plan or as when directed by the project engineer
- When shifting traffic left of center, through a signalized intersection, without shifting signal heads

A flagger shall be utilized to assist in controlling traffic while equipment is entering or exiting an intersection or work zone. The contractor may utilize his own flagger or LEO under pay Item 614 Maintaining Traffic, Lump Sum.

Flaggers and LEO's shall be equipped according to the standards for flagging traffic contained in the OMUTCD. Flagging operations performed by LEO's or designated flaggers shall only be permitted as long as all traffic control is in place according to figure 6H-10 (TA-10) in the Ohio Manual. Patrol cars shall not be used in flagging operations.

If the contractor wishes to utilize LEO's with or without patrol cars for traffic control other than for that required in the plans, they may do so at their own expense. The contractor shall make arrangement through the Columbus Police Division at (614) 645-4795.

LEO's shall be considered to be employed by the contractor and the contractor shall be responsible for their actions. Although employed by the contractor, the City Representative shall have control over their placement. LEO's shall not have the authority to change, edit or modify any maintenance of traffic scheme without the permission of the Temporary Traffic Control Coordinator or Project Engineer unless an emergency develops.

If a safety hazard develops, a LEO may be assigned by the Columbus Public Safety and/or the Public Service Director at the contractor's expense.

Portable Changeable Message Signs (PCMS) shall be installed a minimum of 7 days prior to closure of a roadway. The message shall advise the motorist of the dates, times,

and duration of the closure. The PCMS shall remain in place for 7 days after the start of the closure. When not included in a signed plan, a TTC Plan (TTCP) including pedestrian control shall be submitted to the TTC Coordinator at 614-645-0355 or 614-645-5845 at the pre-construction meeting or a minimum of ten (10) working days prior to beginning work for approval. Copies of the approved TTCP shall be given to the project engineer and kept on site along with the street closure/occupancy permit. Type C steady-burn or Type D 360-degree steady-burn warning lights shall be required on all barricades, drums, and similar traffic control devices in use at night. Only 42" reflectorized channelizing devices (cones) shall be permitted for nighttime work with the approval of the TTC Coordinator at 614-645-0355 or 614-645-5845 per O.D.O.T. standards. A flashing arrow panel (48" x 96"-Type C) shall be used in lane closures as per the Ohio Manual. All trenches within the road right of way shall be backfilled or securely plated per (City of Columbus general policy on steel plate usage dated 11/15/2006 and STD. DWG. 1441, latest edition) during non-working hours. All existing traffic lanes shall be fully open to traffic at all times on: _____. _____lane(s) may be closed to traffic during working hours. All traffic lanes shall be fully open to traffic from 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m., or 6:00 to 9:00 a.m. and 3:00 to 6:00 p.m. in the Columbus Business District (CBD) parking area, Monday through Friday on: _____. _____lane(s) may be maintained at all times on: _____. _____lane(s) of traffic shall be maintained at all times on: _____. _____lane(s) may be closed between _____ and _____ for a maximum of _____ hour(s)/day(s) between the hours of _____ and _____ per the City of Columbus Maintenance of Traffic, Standard Construction Drawing 1540 and figure 6H-20 (TA-20) of the Ohio Manual and/or approved by the Department of Public Service. The contractor shall be responsible for all costs in providing detour including the removal and reinstallation of any conflicting traffic control and/or any necessary traffic signal work. A temporary diversion shall be provided and maintained in good condition on _____ during the period of work. All such diversions shall be in accordance with the ohio manual of uniform traffic control devices. The Department of Public Service will remove or cover all parking meter heads put out of service by this project. There is a \$60.00 dollar charge for the removal and reinstallation of each meter. In addition, a daily meter fee will be charged for all enforcement hours for each meter taken out of service, see the parking meter out of service fees note. These charges will be collected from the contractor in advance with the issuance of the street occupancy/excavation permit from the Department of Public Service's Permit Office. (614-645-7497) The Manager of Parking Services Support (614-645-7890) shall be notified a minimum of forty-eight (48) hours (excluding Sat, Sun, & holidays) prior to beginning work. Call 614-645-8376 if unable to make contact through the prior phone number. Temporary "Emergency No Parking" signs shall be installed at 50' c/c minimum by use of any of the following items: existing sign posts, existing utility poles, drums and/or 42" cones and removed by the contractor in areas with no parking meters. The signs shall have the installation date, working dates, and hours of restriction shown on each sign. These signs may be obtained from the Department of Public Service's Permit Office. The Police Division requires the "Emergency No Parking" signs be posted a minimum of seventy-two (72) hours prior to any vehicles being towed. Within twenty-four (24) hours of posting, the contractor shall supply the Department of Public Service with a written record of posted locations (fax: 614-645-3298). The contractor shall contact Uho Utility Protection Service (OUPS) to locate and mark all underground traffic control cables prior to the beginning of any work within 450 feet of any signalized intersection(s) or within any posted area where the department has underground cable. The signal operation engineer (614-645-6418) shall be notified six (6) weeks in advance for signal revisions or pole relocations. No excavation shall be made within five (5) feet of any foundation that supports signal poles, traffic signal displays or signs by mast arm or signal span. Excavation within eight (8) feet, but more than five (5) feet shall require additional support (down guy, head guy, base guy, etc.). The contractor shall contact signal operation personnel at 614-645-0423 (cell 614-419-4501) at least forty-eight (48) hours (excluding Sat. & Sun.) Prior to the beginning of such excavation so that the city can approve the stabilization setup by the contractor. If unable to make contact through above numbers, call 614-645-7393. stabilization will be done by the contractor at the owners'/contracting agency's expense. Signal conduit clearance 3' horizontal and 1' vertical from adjacent utilities shall be maintained at all times. When any traffic control device, conduit, or cable is damaged, the contractor shall notify signal operation personnel at 614-645-0423 (cell 614-419-4501) between 7:00 am and 4:00 pm, Monday through Friday. If unable to make contact through the other numbers, call 614-645-7393. The roadway or any section of roadway shall not be opened to non-construction traffic until all temporary, non-reflective, blackout tape has been completely removed from non-conflicting permanent pavement markings for that area of the roadway, or unless otherwise directed in writing by the engineer. This is supplemental to City of Columbus, CMS-614.11-G, and shall be paid for through the 614-Lump Sum. Whenever yellow centerlines or turn-lane lines are paved over, removed, or otherwise unserviceable, the contractor shall install class ii temporary striping (minimum 4' long segments). Temporary paint shall be used on all milled surfaces. temporary tape shall be used on all final courses of asphalt. Paint or tape may be used on intermediate courses of asphalt. If approved by the engineer, drums with steady burning Type C or Type D 360 degree warning lights and "keep right" signs may be substituted for centerline markings.
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Class II temporary striping (minimum 4' long segments) shall be as per Item 614 - Work Zone Pavement Marking and shall be placed within one (1) foot longitudinal tolerance of the permanent stripe(s). All temporary striping not to within one (1) foot tolerance shall be removed and replaced in the proper location by the contractor. Class II temporary striping shall be of the appropriate color and spaced a maximum of forty (40) feet center to center. Payment All costs that consist of maintaining and protecting vehicular and pedestrian traffic according to the latest edition of the City of Columbus Construction and Material Specifications, the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways (OMUTCD), and per the requirements designated in the plan including all Law Enforcement Officer (LEO) and Flagger hours shall be included in the Lump Sum Item 614. ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITH PATROL CAR, AS PER PLAN In addition to LEO and flagger hours included in Item 614 Maintaining Traffic, Lump Sum; the following quantities have been carried to the General Summary to be used as directed by the engineer or an acceptable representative for the City of Columbus. The official patrol car with top mounted emergency flashing lights shall be a public safety vehicle as required by the Ohio Revised Code. The contractor shall be paid for this bid item only if directed by the engineer. Item 614, Law Enforcement Officer with Patrol Car, As Per Plan- _____ Hours ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITHOUT PATROL CAR, AS PER PLAN In addition to LEO and flagger hours included in Item 614 Maintaining Traffic, Lump Sum; the following quantities have been carried to the General Summary to be used as directed by the engineer or an acceptable representative for the City of Columbus. The contractor shall be paid for this bid item only if directed by the engineer. Item 614, Law Enforcement Officer without Patrol Car, As Per Plan - _____ Hours EXISTING PERMANENT TRAFFIC CONTROL Any work done by the Department of Public Service, including installation, relocation, removal and/or replacement of permanent traffic control devices as a result of work done by the contractor or as a result of negligence of the contractor, shall be at the contractors' expense. The contractor shall be responsible for reinstallation and/or replacement of all permanent traffic control devices damaged or removed during construction. Permanent traffic control no longer in conflict with temporary traffic control shall be replaced immediately. The contractor shall replace all pavement markings, including raised pavement markers (rpm) shown in conflict, removed due to construction or maintenance of traffic set up, destroyed, or rendered unserviceable by the Project Engineer or the Public Service Pavement Marking Manager. All pavement marking materials shall be replaced in-like kind if not shown in the plan or permit including raised pavement markers. all pavement markings shall be replaced in full. No partial length or sections of pavement markings shall be replaced without removing the entire marking by use of the water blast method. Removal by abrasive wheel grinding shall only be approved by the Public Service Pavement Marking Manager. All overhead cable, and down guys or back guys shall not block any portion of a traffic signal, traffic control sign, or other traffic control device such that visibility or operation of the traffic control device is impaired. All permanent pavement markings and traffic control signs as shown on this plan shall be installed by the contractor at the projects expense. The project engineer shall be notified to direct appropriate personnel a minimum of forty-eight (48) hours (excluding Sat. & Sun.) prior to the installation of permanent markings to inspect and approve the pavement marking layout prior to placing the permanent markings. Permanent striping or Class I temporary striping shall be installed no later than fourteen (14) calendar days after the final paving course is completed. the paving contractor shall be responsible to notify the striping contractor to insure the permanent striping is installed within the fourteen (14) calendar day limit. If the Department of Public Service is to install permanent striping, the project engineer shall be notified to direct appropriate personnel a minimum of ten (10) working days prior to the application of the final course of pavement. At any location where the contractor damages detectors and/or their lead-in cables the contractor shall replace them. At any location where detection is changed from mag probe units to loops, the contractor shall replace the probe lead-in with loop lead-in cable. All repairs to detection shall be completed within 21 days from damage to detection on a per intersection basis. If the 21day repair requirement cannot be satisfied at any location where the contractor damages detectors and/or their lead-in cables, the contractor, at the discretion of signal operations personnel, may be required to install a Versicam Flex Camera System, a Wavetronix Radar System, or temporary loop detection. Any contractor failing to comply with these guidelines shall be subject to penalty to the sum of \$100.00 per day for each day beyond the 21 day repair period on a per intersection basis, until conditions are met to the satisfaction of the signal operations personnel. This penalty deduction shall be specific for each signalized intersection effected by this project and separate from any liquidated damages for the project as a whole. The work to install the detection shall conform to the City of Columbus Standard Drawing 4300 and the City of Columbus Construction and Material Specifications, latest edition, with the following provisions: The contractor shall provide the Department of Public Service's Inspector, prior to the commencement of work, the IMSA (International Municipal Signal Association) certification papers for all signal technicians working on this project. Locations of the replacement detection shall be field marked or dimensioned drawings shall be submitted to the construction section by department of public service personnel. Location of final pavement markings or the markings themselves shall be clearly indicated on the asphalt prior to detector locations being marked. The contractor shall layout the loops on the pavement if drawings are submitted. If drawings have not been provided, contact signal operations personnel at 614-645-0423 (cell 614-419-4501) at least two working days prior to needing the location marked. If unable to make contact through the above numbers, call 614-645-7393. The saw slot depth for loop wire installation shall be four (4) inches with six (6) inches at the conduit entrance. If adverse pavement conditions warrant, depth may be increased to six (6) inches throughout and shall be determined by the department of public service inspector. Each loop shall have its own conduit from edge of pavement to pull box unless specified otherwise by the department of public service inspector. The pull box assembly shall be rated as medium to heavy duty, to be installed in concrete walkways, and shall have all stainless steel hardware. The pull box cover shall have the word "Traffic" on it. The cover shall be bolted to the box and shall be polymer concrete. The cover plus housing as a unit shall be rated to withstand a

Minimum 20,000 lb. static load over a 10"x10" area as per ASTM C-857. The box depth shall be 15 inches minimum to 30 inches maximum. If the project does not specify 725.06 polymer concrete pull boxes, the supplied assemblies shall be as follows: CDR Systems Model SA32-1015-18, or Synertech Model S1118B18FA. Six (6) inches of #57 aggregate shall be placed at the bottom of the pull box. No conduit shall protrude more than three (3) inches inside the pull box. Conduit ells or extensions may be used to align the conduit with the housing. The cost for extensions or ells if needed shall be incidental to the per unit price.

When a pull box is not used, the soldered splice shall be made in an anchor base strain pole or a conduit riser specified by the department of public service's representative, except where a controller cabinet is mounted on that pole in which case the loop wire shall be routed directly into the cabinet.

The contractor shall not make any wiring connections or adjustments inside the control cabinet. When such connections are required, the contractor shall notify the Traffic Operations Shop 614-645-7393, Mon.- Fri., 8 am to 4 pm, to schedule city forces for making the actual connections. The contractor shall be available at the agreed time. The contractor will be billed for any time that city forces are required to wait for the contractors' work to be completed.

Conduit placed in "right of way" areas bearing no traffic for detector lead in shall be Item 725.051, City of Columbus Construction and Material Specifications, latest edition. conduit placed under a roadway or in areas that may bear traffic shall be concrete encased (sizes and type to be determined by the department of public service's representative). All conduits shall be placed at a minimum depth of 24".

Loop wire shall be identified with a plastic tag (WBLT, EBRT, etc.) at the splice point or at entrance to the cabinet if lead-in cable is not used.

The items and estimated quantities for the replacement of the Department of Public Service's detection items shall be included in these plans when directed by the plan reviewer. These estimates are for the purpose of bidding the project. The following is a list of the items and quantities projected for use in detector replacement for this project:

Item	Quantity	Unit	Item Description
202	XX	SF	Walk Removed
608	XX	SF	4" Concrete Walk
632	XX	LF	Conduit Riser, 1 or 2 Inch Diameter
625	XX	LF	Conduit 1, 1 1/2, or 2 Inch, (As Per Plan)
625	XX	LF	Trench
625	XX	Each	Pull Box, 12"x18", (As Per Plan)
632	XX	Each	Detector Loop
632	XX	LF	Loop Detector Lead-In Cable
632	XX	LF	Lash / Unlash Cable

The contractor shall notify Signal Operation Personnel at 614-645-0423 (cell 614-419-4501) after all loops have been installed at each intersection. If unable to make contact through the above number, call 614-645-7393. The Department of Public Service shall inspect all sensors and test as necessary. The contractor shall replace all loops not meeting specifications.

DESIGNER NOTE:
MAINTENANCE OF TRAFFIC NOTES ILLUSTRATED ON THIS SHEET WERE CURRENT AT THE TIME OF PLAN DEVELOPMENT. THE DESIGN CONSULTANT IS REQUIRED TO OBTAIN THE MOST RECENT VERSION OF THESE NOTES FROM THE CITY OF COLUMBUS FOR USE ON INDIVIDUAL PROJECTS. NOTES MAY BE OBTAINED BY DOWNLOADING FROM [HTTPS://WWW.COLUMBUS.GOV/PUBLICSERVICE/DESIGN-AND-CONSTRUCTION/DOCUMENT-LIBRARY/](https://www.columbus.gov/publicservice/design-and-construction/document-library/). ALL NOTES SHALL BE REVIEWED ON A PROJECT BY PROJECT BASIS AND ONLY NOTES APPLICABLE TO THE GIVEN PROJECT SHALL BE INCLUDED.

<div><div></div><div>⊗ XX</div></div>		IMPROVEMENTS OF... STREET A FROM STREET B TO STREET C	MAINTENANCE OF TRAFFIC GENERAL NOTES	CALCULATED	
XXXX-E				ABC	CHECKED
				ABC	

ITEM 614 SPECIAL – WORK ZONE TRAFFIC SIGNAL

Under this item of work, the Contractor shall furnish, install, relocate, modify and subsequently remove: temporary signal supports, down guys, ground rods, signal cable, power cable, service cable, conduit risers, messenger wire, signal heads, covering of vehicular signal heads and a temporary controller as needed to render a fully functional temporary signalized intersection.

As detailed within, temporary traffic signals or traffic signal modifications to accommodate individual maintenance of traffic phases shall be installed at the intersections listed below.

- list intersection #1
- list intersection #2

All temporary traffic signal equipment shall comply with the specifications outlined for the permanent signal installation including grounding and bonding and "Traffic Signal Plan And Specification Compliance". All methods of traffic control shall be approved by the Engineer and shall be in place and operating prior to the deactivation and removal and/or relocation of any existing signal equipment. Reference is made to the requirements of item 614. All modifications to signalization shall be done under the protection of a Law Enforcement Officer. Reference is made to item 614 Maintaining Traffic, As Per Plan.

Any vehicular traffic signal head that will be out of operation shall be covered in accordance with 632.25. Any existing vehicular or pedestrian head that is not functional shall be removed immediately or covered. Any pedestrian buttons not in use shall also be covered.

Each temporary signal pole location shall be staked and the location approved by the City of Columbus. The Contractor may reuse existing span and pigtails or install new as required. The Contractor shall transfer existing signal items and extend existing cable as needed. Weatherproof cable splicing is permitted. Down guys shall be specified for all temporary wood poles. One down guy per pole shall be used for a layout that contains a maximum of 2 vehicular signal heads per span. Two down guys per pole shall be specified for 3 or more vehicular signal heads per span. Down guys shall be positioned to counteract the moment created by the span configuration. Any change to the span configuration shall be approved by the Engineer and shall be included in the plan and diagram to be submitted to the City of Columbus.

Install the span and head in each direction shall be as close to the center of the roadway as possible, meeting the requirements of the City of Columbus.

USE THE CURRENT VERSION OF THE TEMPORARY TRAFFIC SIGNAL NOTES AVAILABLE ON THE CITY OF COLUMBUS WEBSITE.

Attach the span and head in each direction to the signal head. The Contractor shall provide for each direction of construction. The minimum of 2 signal heads shall be provided for each direction of construction. The minimum of 2 signal heads shall be provided for each direction of construction.

Vehicular detection shall be provided for all phases of construction.

Locate the non-fused power supply voltage (120 volt) in a separate conduit. In addition, locate the loop detector, push button, and video detection cables in a separate conduit from all other cables.

This item of work shall include all labor, equipment and material necessary to provide power to the traffic signal controller from the proposed or existing power sources as determined by construction sequencing.

Payment

This item of work shall include all labor, equipment and materials necessary to furnish, install, modify, remove, store, erect, relocate, adjust and repair temporary traffic signal items as described above.

All costs for the above work, except temporary video detection, shall be included in the price bid for item 614 work zone traffic signal, as per plan and shall be per each intersection.

10/23/15

SEQUENCE OF CONSTRUCTION

Pre-Phase 1

Pre-Phase 1 shall construct the storm sewer by utilizing a detour of Street A. The Pre-Phase 1 detour shall be restricted to the times listed below.

Phase 1

Phase 1 shall construct the full depth pavement and utilities on the west side of Street A. This work shall be completed with one lane maintained in each direction on the east side of Street A. Phase 1 shall not be constructed concurrent with Phase 2. The Traffic Signal at Street A and Street B shall be temporarily modified during this phase.

Phase 2

Phase 2 shall construct the full depth pavement and utilities on the east side of Street A. This work shall be completed with one lane maintained in each direction on the west side of Street A. During this work, Street C shall be closed to all traffic north of Street E. The Traffic Signal at Street A and Street B shall be temporarily modified during this phase.

Lane Closure Restriction		
Phase	Roadway	Allowable Working Hours
Pre-Phase 1	Street A	8:00 pm Fri. – 6:00 am Mon.
PHASE 1	Street A	Not Restricted
PHASE 2	Street A	Not Restricted

DESIGNER NOTE:
THE NEED FOR TEMPORARY SIGNALIZATION DETAILS SHALL BE AS IDENTIFIED IN THE CITY OF COLUMBUS TRAFFIC SIGNAL DESIGN MANUAL, [HTTPS://WWW.COLUMBUS.GOV/PUBLICSERVICE/DESIGN-AND-CONSTRUCTION/DOCUMENT-LIBRARY/TRAFFIC-SIGNAL-DESIGN-MANUAL/](https://www.columbus.gov/publicservice/design-and-construction/document-library/traffic-signal-design-manual/). IF TEMPORARY SIGNALIZATION IS INCLUDED, APPLICABLE NOTES SHALL BE INCLUDED IN THE PLANS. OBTAIN CURRENT TEMPORARY SIGNAL NOTES FROM THE SIGNAL PLAN REVIEWERS.

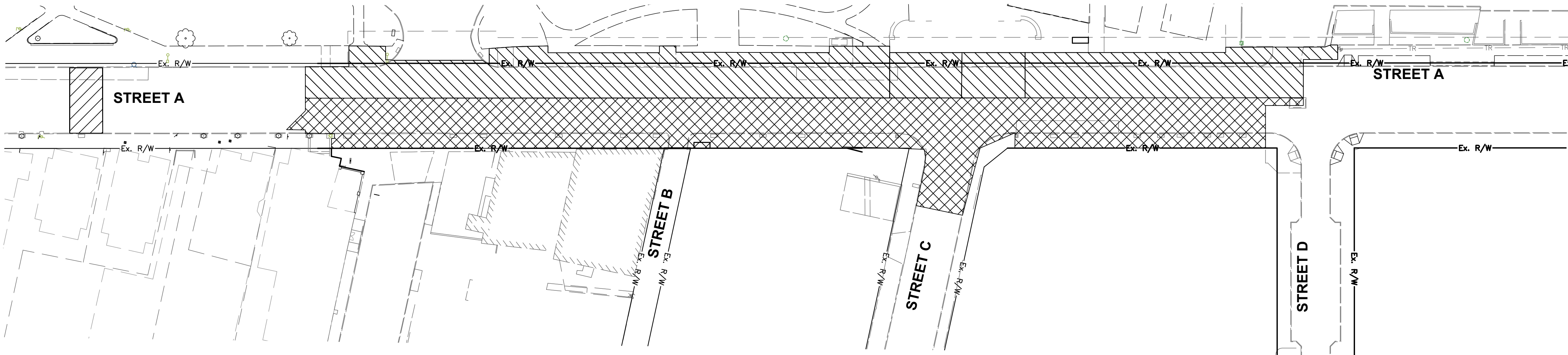
DESIGNER NOTE:
MAINTENANCE OF TRAFFIC NOTES
MAINTENANCE OF TRAFFIC NOTES FURNISHED IN THESE SAMPLE PLANS ONLY ILLUSTRATE CITY OF COLUMBUS MAINTENANCE OF TRAFFIC NOTES. ADDITIONAL NOTES MAY BE REQUIRED TO ACCOMMODATE SPECIAL REQUIREMENTS OR MAINTENANCE OF TRAFFIC SPECIFICATIONS FROM OTHER JURISDICTIONS. WHEN A PROJECT IS LOCATED BOTH IN THE CITY OF COLUMBUS AND AN ADJACENT JURISDICTION, THE DESIGN CONSULTANT SHALL INCLUDE THE ADJACENT JURISDICTION SPECIFICATIONS AND CLEARLY IDENTIFY WHERE THESE SPECIFICATIONS APPLY AND ENSURE THERE ARE NO CONFLICTS IN DIRECTION.

DROP-OFF POLICY
THE DESIGNER SHALL FOLLOW THE ODOT PAVEMENT DROP-OFF POLICY AND SHALL INCLUDE ODOT SCD MT-97.10 ON THE TITLE SHEET. ANYTIME THE ODOT POLICY IS NOT APPLICABLE (I.E. FOR ROADS LESS THAN 45 MPH), ENGINEERING JUDGEMENT SHOULD GOVERN AND THE CONSULTANT SHOULD COORDINATE WITH THE CITY OF COLUMBUS PROJECT MANAGER.
[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/ENGINEERING/ROADWAY/DESIGNSTANDARDS/TRAFFIC/SCD/DOCUMENTS/MT_10190_2017-07-21.PDF](http://www.dot.state.oh.us/divisions/engineering/roadway/designstandards/traffic/scd/documents/MT_10190_2017-07-21.pdf)

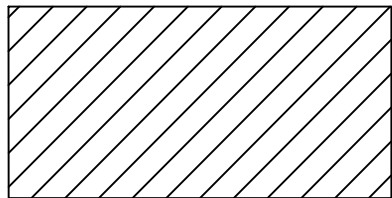
MAINTENANCE OF PEDESTRIANS
PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED WITH ALL MAINTENANCE OF TRAFFIC PLANS CONSISTENT WITH THE REQUIREMENTS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CHAPTER 6D AND FIGURES TA-28 AND TA-29.
[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/ENGINEERING/ROADWAY/DESIGNSTANDARDS/TRAFFIC/OHIOMUTCD/PAGES/OMUTCD2012_CURRENT_DEFAULT.ASPX.](http://www.dot.state.oh.us/divisions/engineering/roadway/designstandards/traffic/ohiomutcd/pages/omutcd2012_current_default.aspx)

EXISTING PEDESTRIAN FACILITIES INCLUDING CROSSWALKS SHALL BE MAINTAINED WHEN PRACTICAL. IF A TEMPORARY CROSSWALK NEEDS TO BE PROVIDED TO ACCOMMODATE PEDESTRIANS IN A MAINTENANCE OF TRAFFIC SET UP, ADVANCED AUTHORIZATION IS REQUIRED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR.

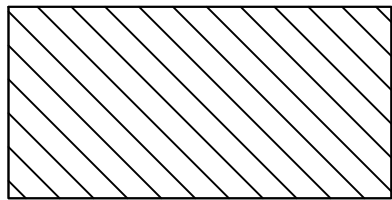
DESIGNER NOTE:
AN HOUR RESTRICTION TABLE SHALL BE INCLUDED FOR EACH PROJECT. THIS TABLE IS INTENDED TO IDENTIFY THE ALLOWABLE WORKING HOURS FOR EACH PHASE AND SUB-PHASE OF A PROJECT.



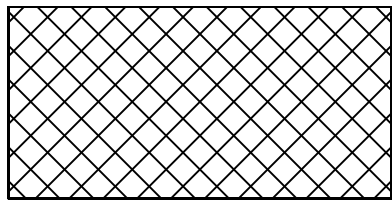
LEGEND



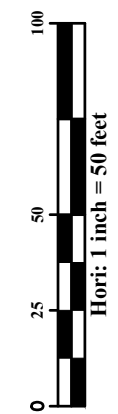
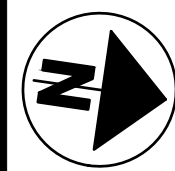
Pre-Phase 1
See Sheets X - X



Phase 1
See Sheets X - X



Phase 2
See Sheets X - X

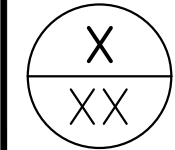


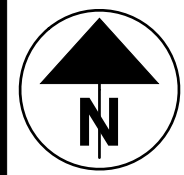
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CHECKED	ABC

MAINTENANCE OF TRAFFIC PLAN
PHASING OVERVIEW

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E



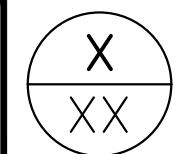


CALCULATED	ABC
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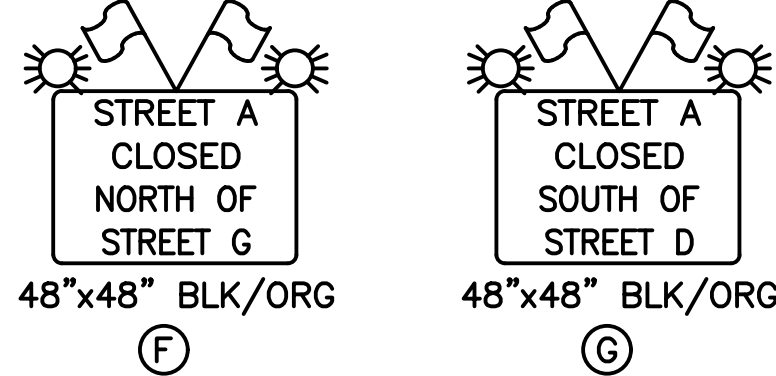
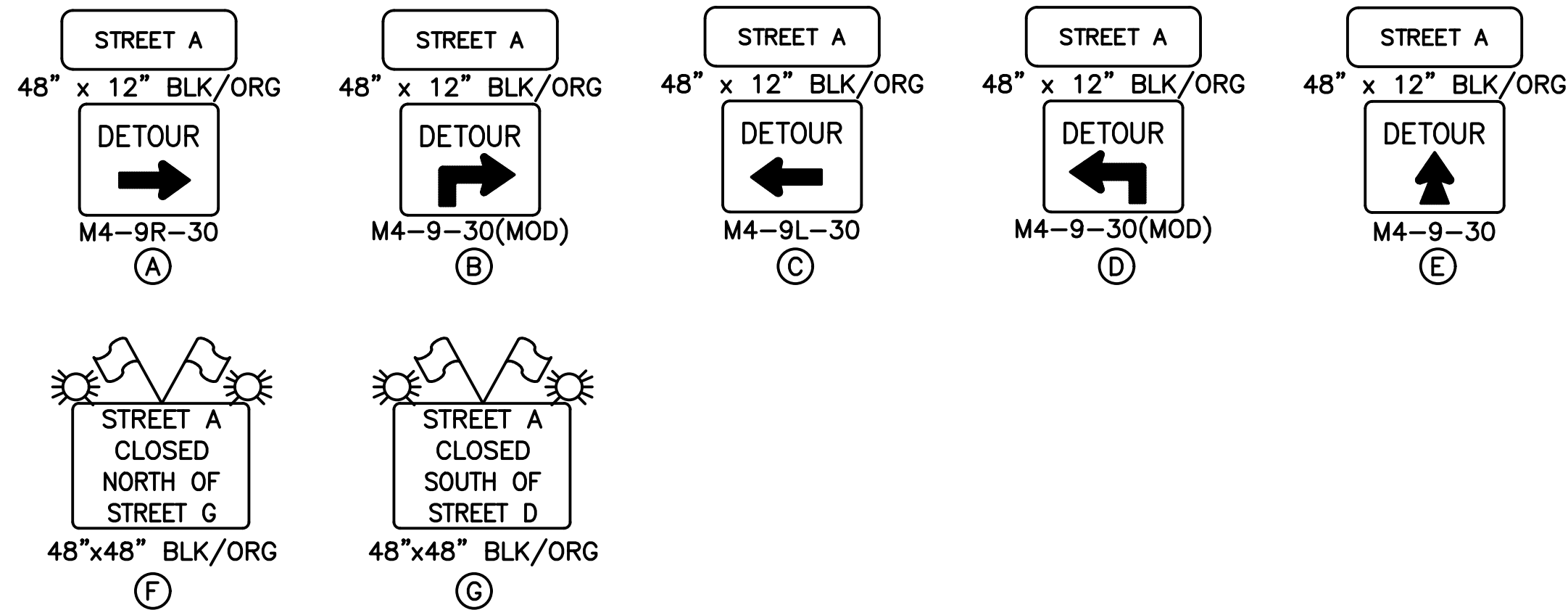
MAINTENANCE OF TRAFFIC DETOUR PLAN
PRE-PHASE I

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

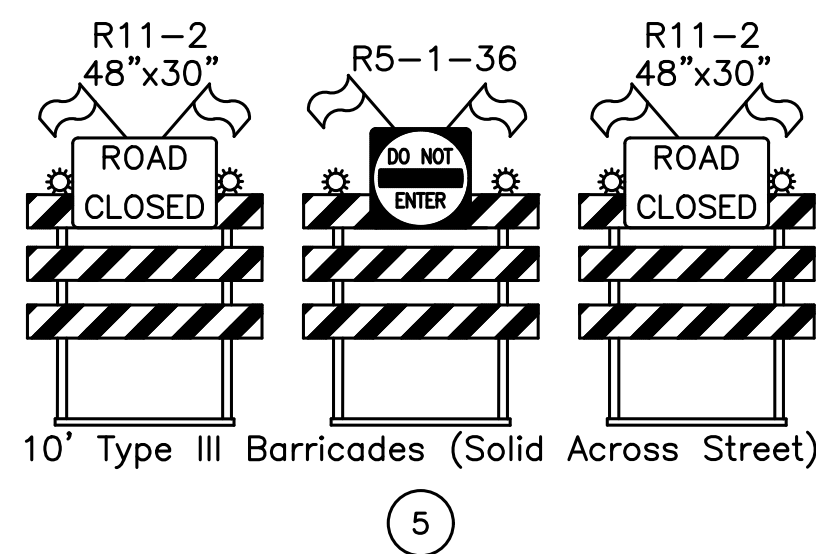
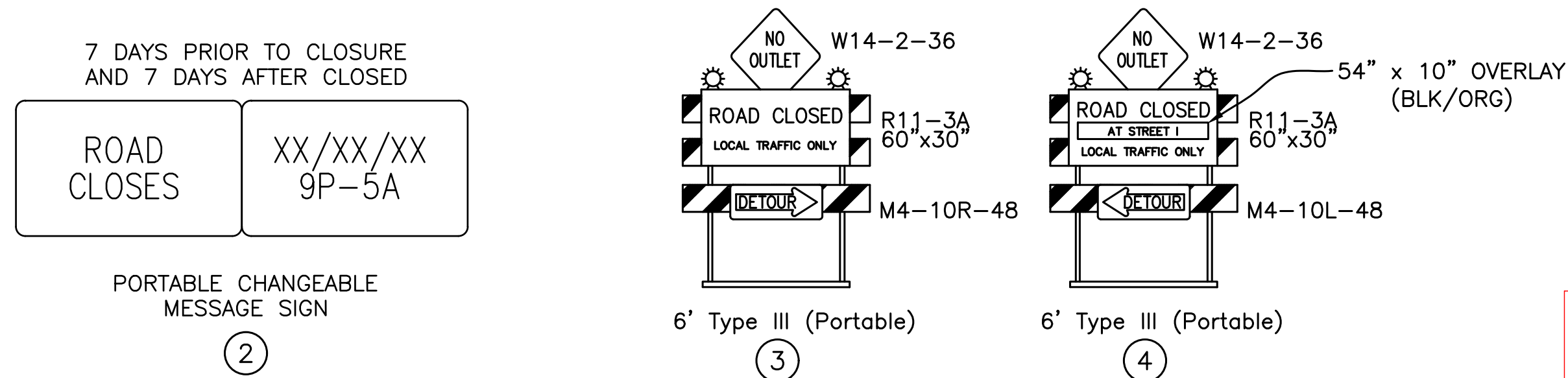
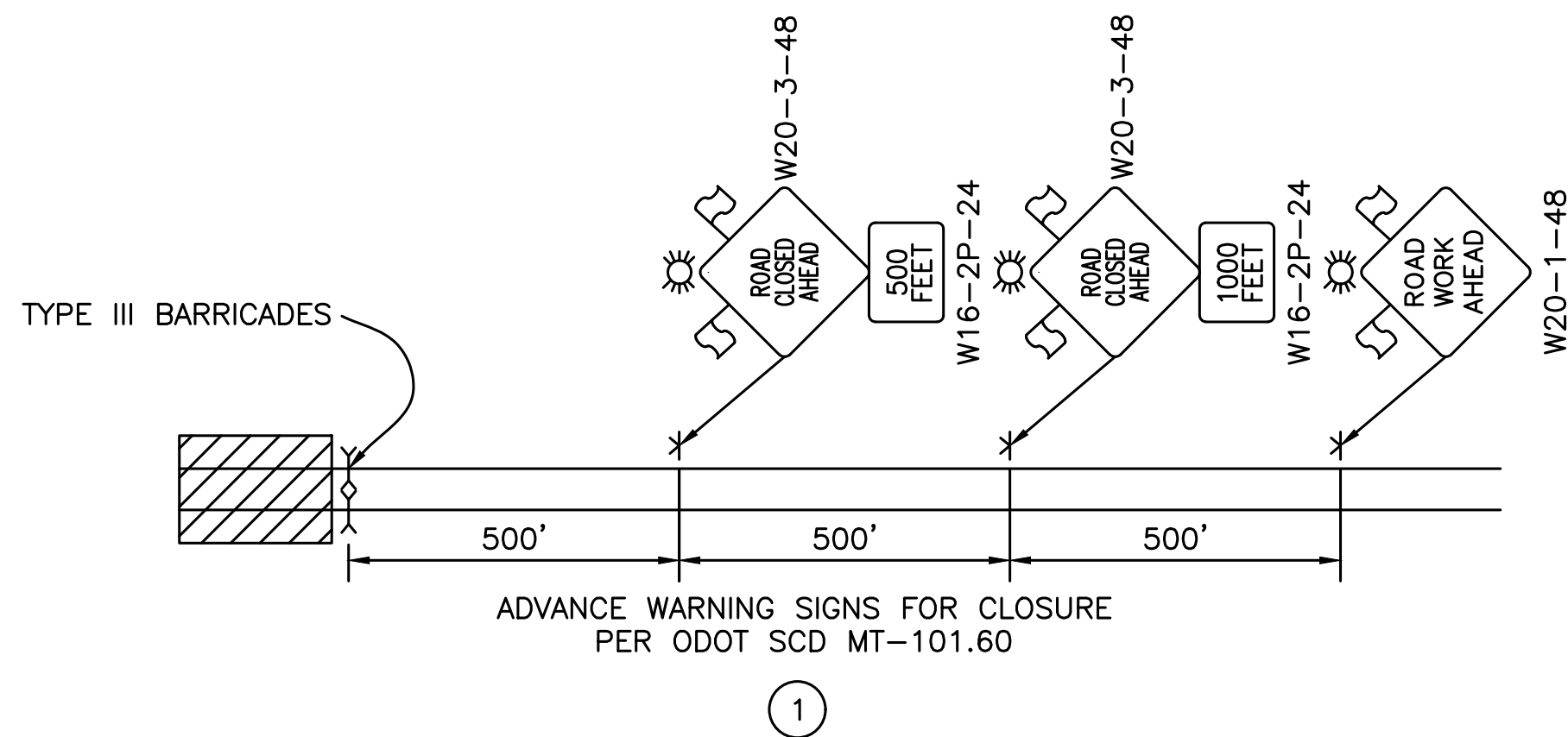
XXXX-E



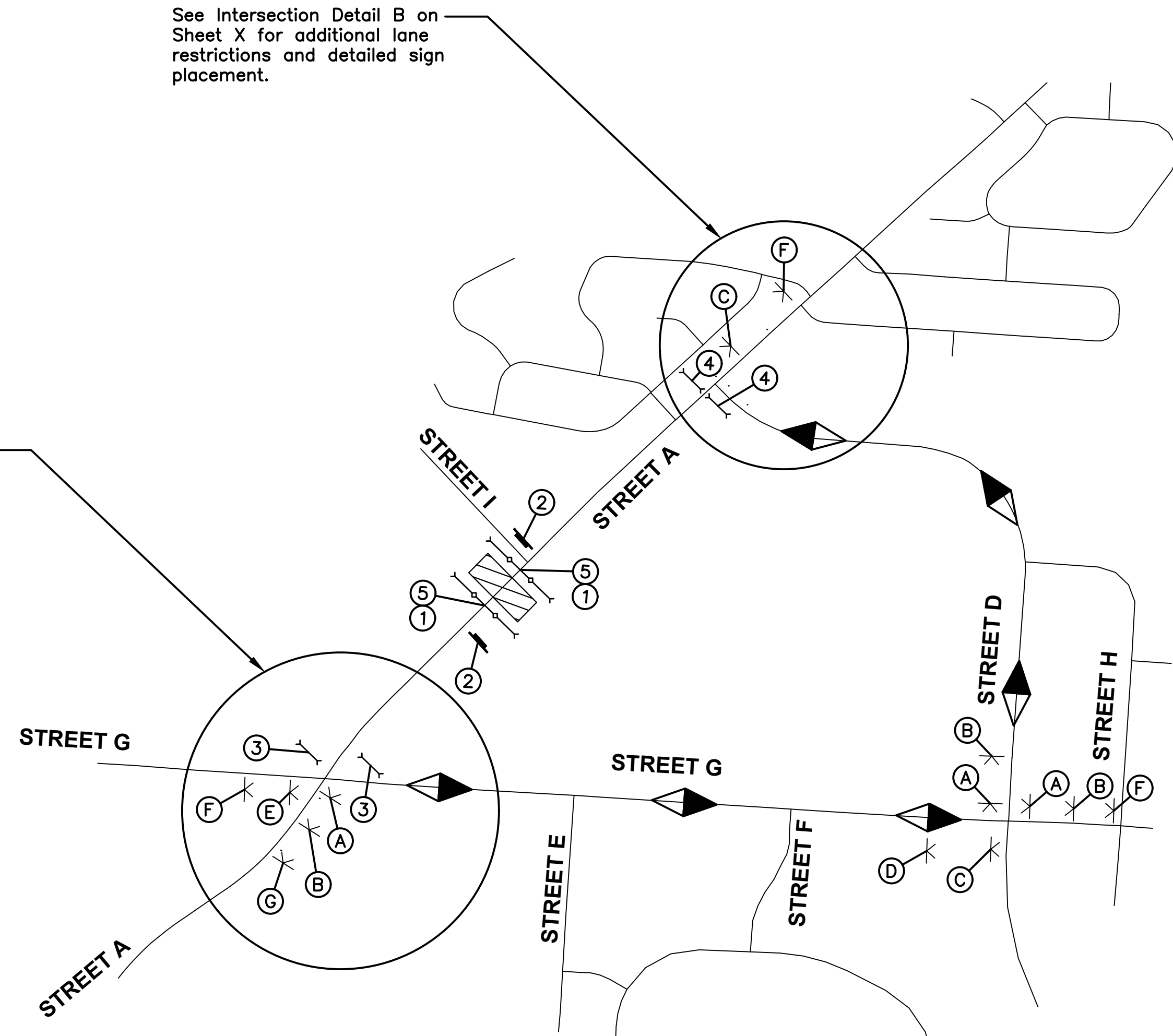
Note:
During Pre-Phase 1 only, Northbound Street A may be closed between the hours of 9PM and 5AM. This phase is only for the construction of the proposed storm sewer at Station 105+50. During Daytime and Non-Working hours, Street A shall be re-opened to traffic. This detour shall not be used for widening or resurfacing.



DESIGNER NOTE:
SPECIAL DETOUR SIGNS (F & G) SHALL BE 48" X 48" BLACK ON ORANGE FOR 4 LINES OF TEXT. FOR FIVE LINES OF TEXT, THE SIGN SIZE SHALL BE 48" X 60".



See Intersection Detail A on Sheet X for additional lane restrictions and detailed sign placement.

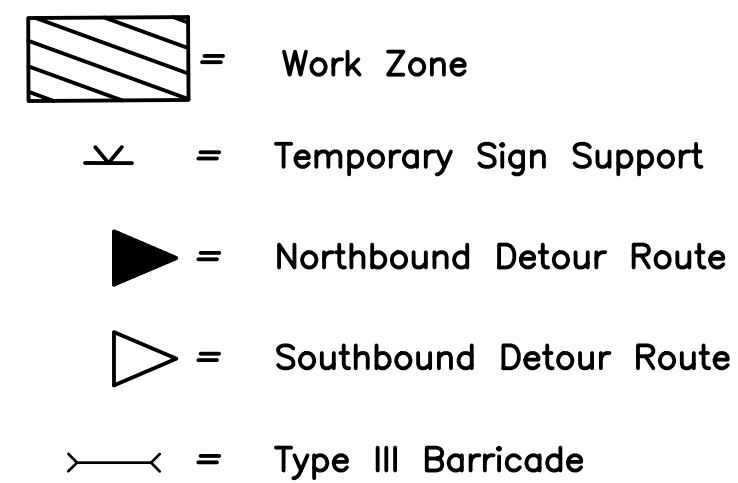


DETOUR MAP
(No Scale)

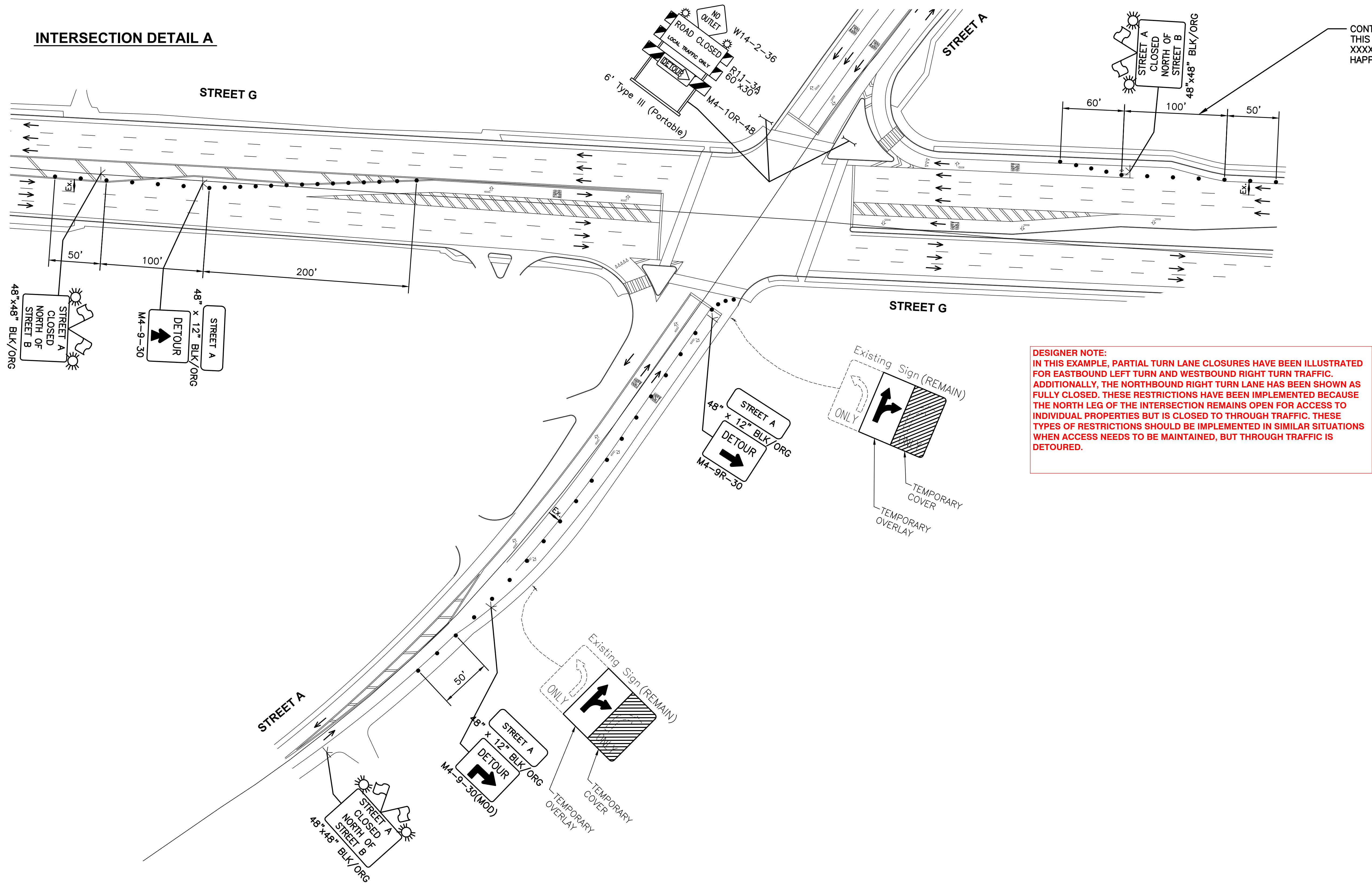
DESIGNER NOTE:
INTERSECTION DETAILS ARE NOT TYPICALLY NEEDED FOR DETOUR PLANS. HOWEVER, THEY SHOULD BE PROVIDED IF LANE MODIFICATIONS ARE NEEDED. EXAMPLES OF POSSIBLE TRIGGERS ARE LISTED BELOW:

- PARTIAL TURN LANE CLOSURES
- FULL TURN LANES CLOSURES
- THROUGH LANE CLOSURES
- LANE SHIFTS
- BIKE LANE TERMINATION
- ETC.

LEGEND



INTERSECTION DETAIL A



CONTRACTOR TO COORDINATE THIS LANE RESTRICTION WITH XXXX-E IF THIS WORK IS HAPPENING AT THE SAME TIME.

DESIGNER NOTE:
IN THIS EXAMPLE, PARTIAL TURN LANE CLOSURES HAVE BEEN ILLUSTRATED FOR EASTBOUND LEFT TURN AND WESTBOUND RIGHT TURN TRAFFIC. ADDITIONALLY, THE NORTHBOUND RIGHT TURN LANE HAS BEEN SHOWN AS FULLY CLOSED. THESE RESTRICTIONS HAVE BEEN IMPLEMENTED BECAUSE THE NORTH LEG OF THE INTERSECTION REMAINS OPEN FOR ACCESS TO INDIVIDUAL PROPERTIES BUT IS CLOSED TO THROUGH TRAFFIC. THESE TYPES OF RESTRICTIONS SHOULD BE IMPLEMENTED IN SIMILAR SITUATIONS WHEN ACCESS NEEDS TO BE MAINTAINED, BUT THROUGH TRAFFIC IS DETOURED.

LEGEND

- ← = Direction Of Travel
- ✕ = Temporary Sign Support
- = Drum
- = Barricade

Drum Spacing Chart	
Tangent	25' c/c
Taper	15' c/c
Radii	8' c/c


Notes:
1. For clarity, underground utilities have not been shown. See plan and profile sheets for underground utility locations. Contractor shall contact the Ohio Utility Protection Service to have all utilities marked prior to any excavation.

Drum Spacing Chart	
Tangent	25' c/c
Taper	15' c/c
Radii	8' c/c

LEGEND

← = Direction Of Travel

✂ = Temporary Sign Support

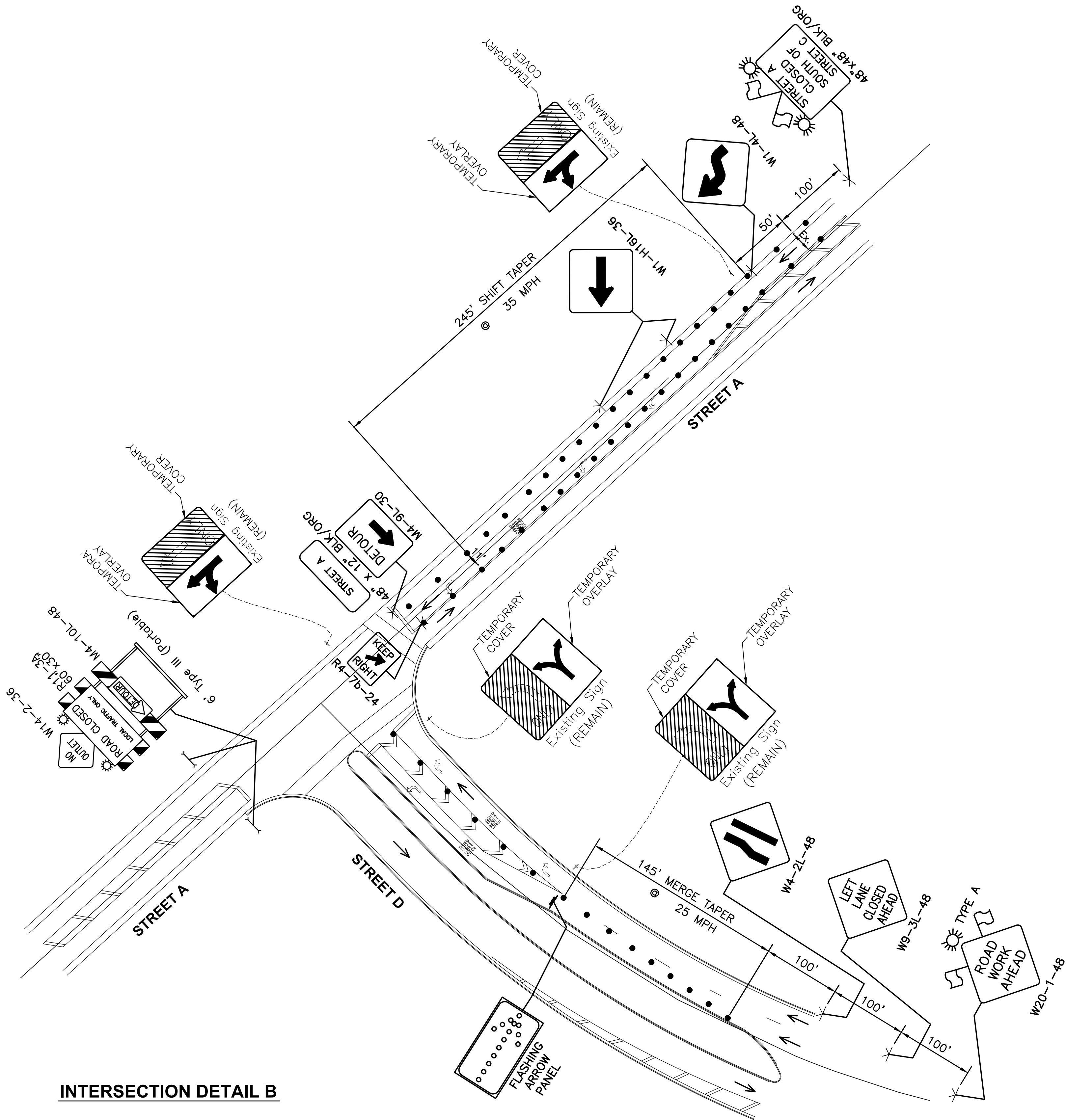
• =  Drum

— = Barricade

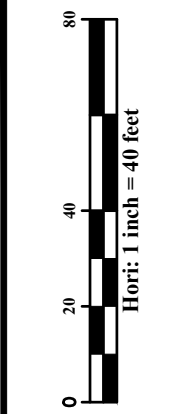
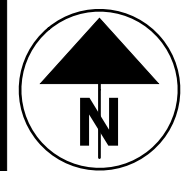
— = Flashing Arrow Panel

Notes:

- For clarity, underground utilities have not been shown. See plan and profile sheets for underground utility locations. Contractor shall contact the Ohio Utility Protection Service to have all utilities marked prior to any excavation.



INTERSECTION DETAIL B

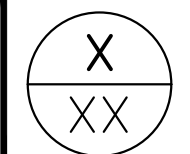


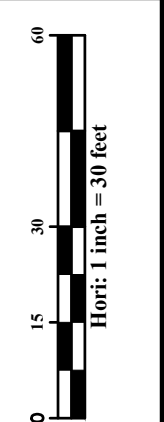
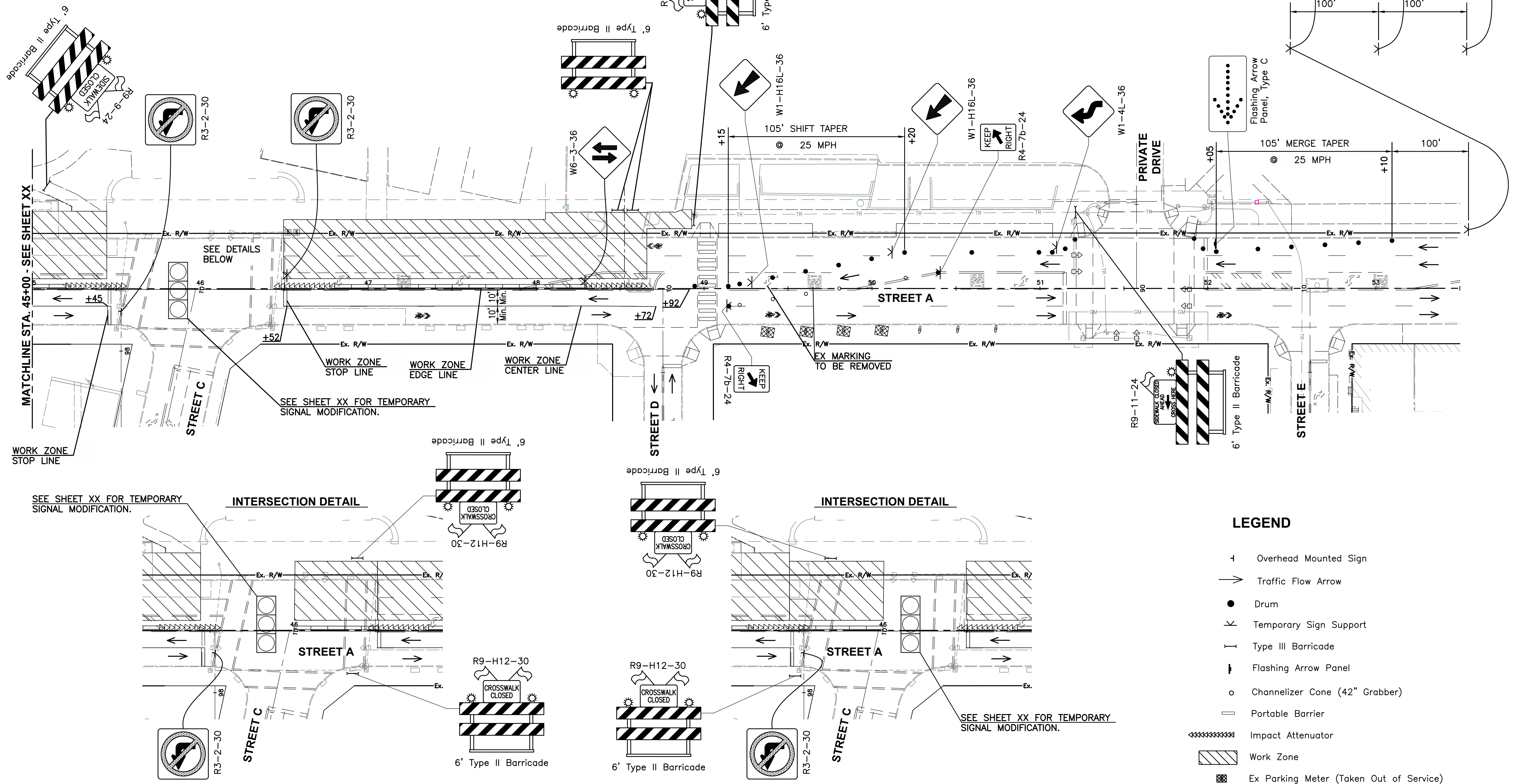
CALCULATED	ABC
CHECKED	ABC

MAINTENANCE OF TRAFFIC DETOUR PLAN
PRE-PHASE 1

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E



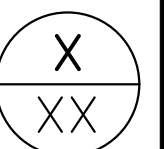


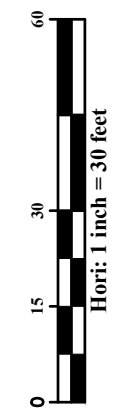
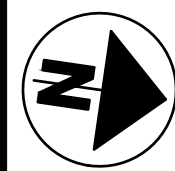
ABC	CHECKED
ABC	ABC

MAINTENANCE OF TRAFFIC PLAN PHASE 1

IMPROVEMENT IS OF...
STREET A FROM STREET B TO STREET C

XXX-E



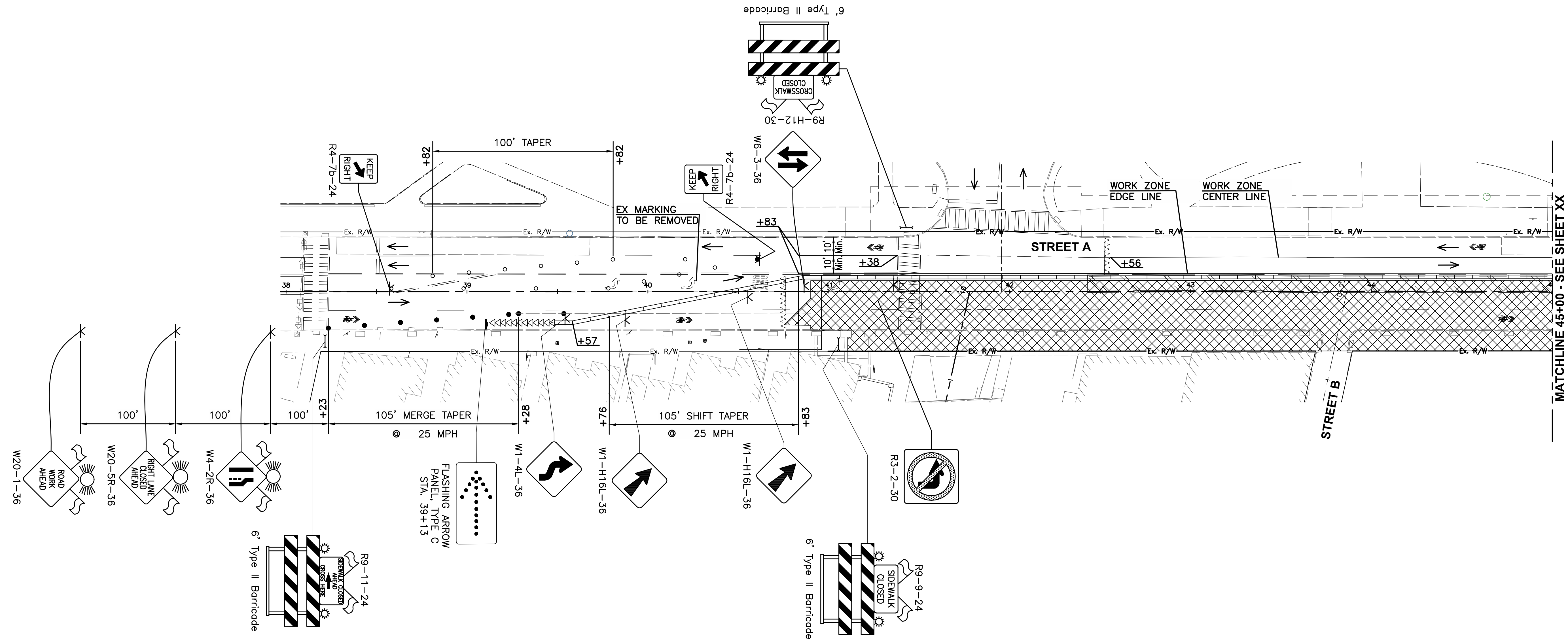
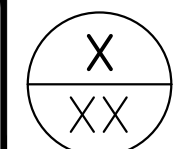


CALCULATED	ABC
CHECKED	ABC

MAINTENANCE OF TRAFFIC PLAN
PHASE 2

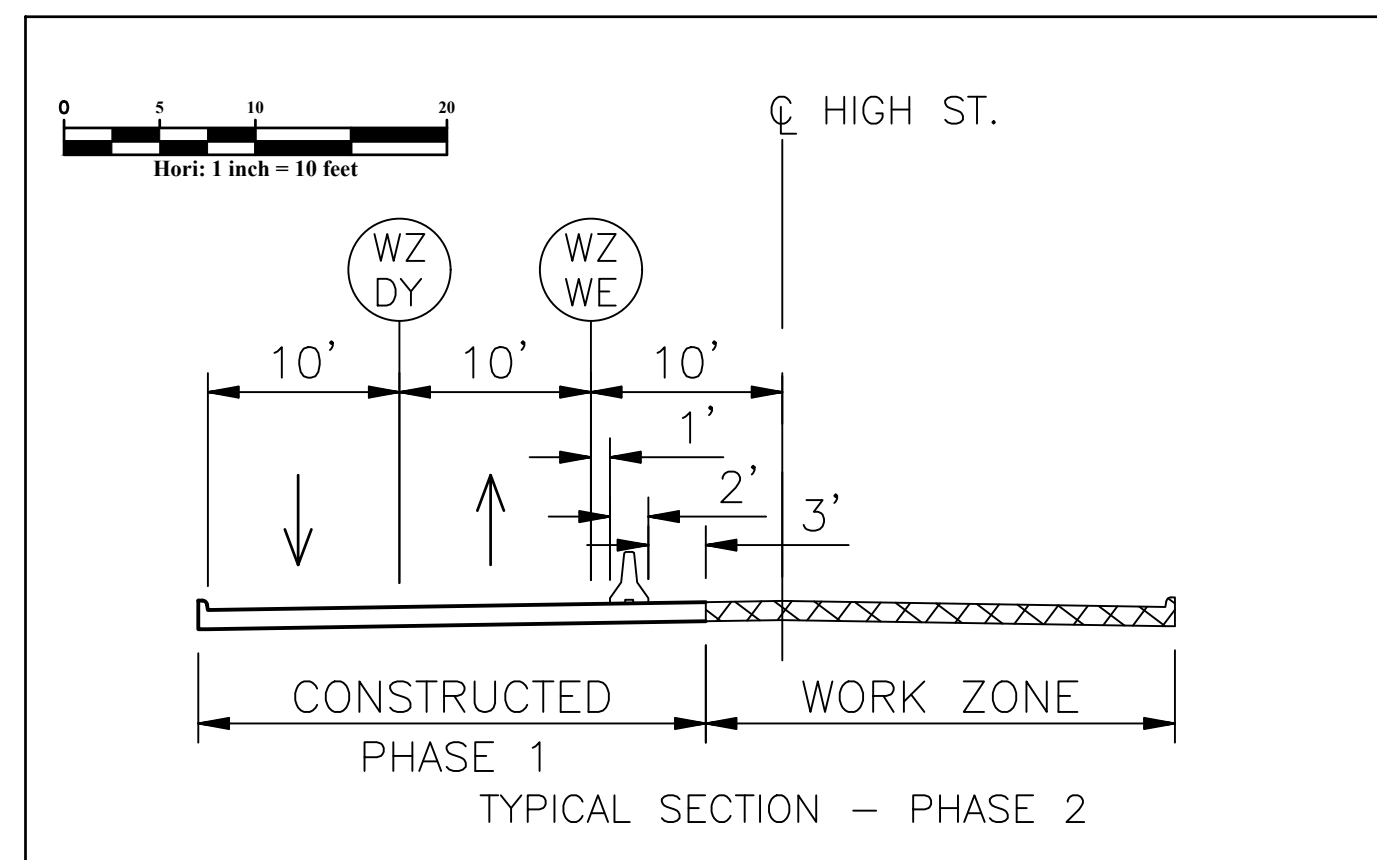
IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

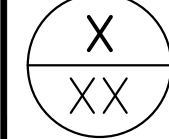
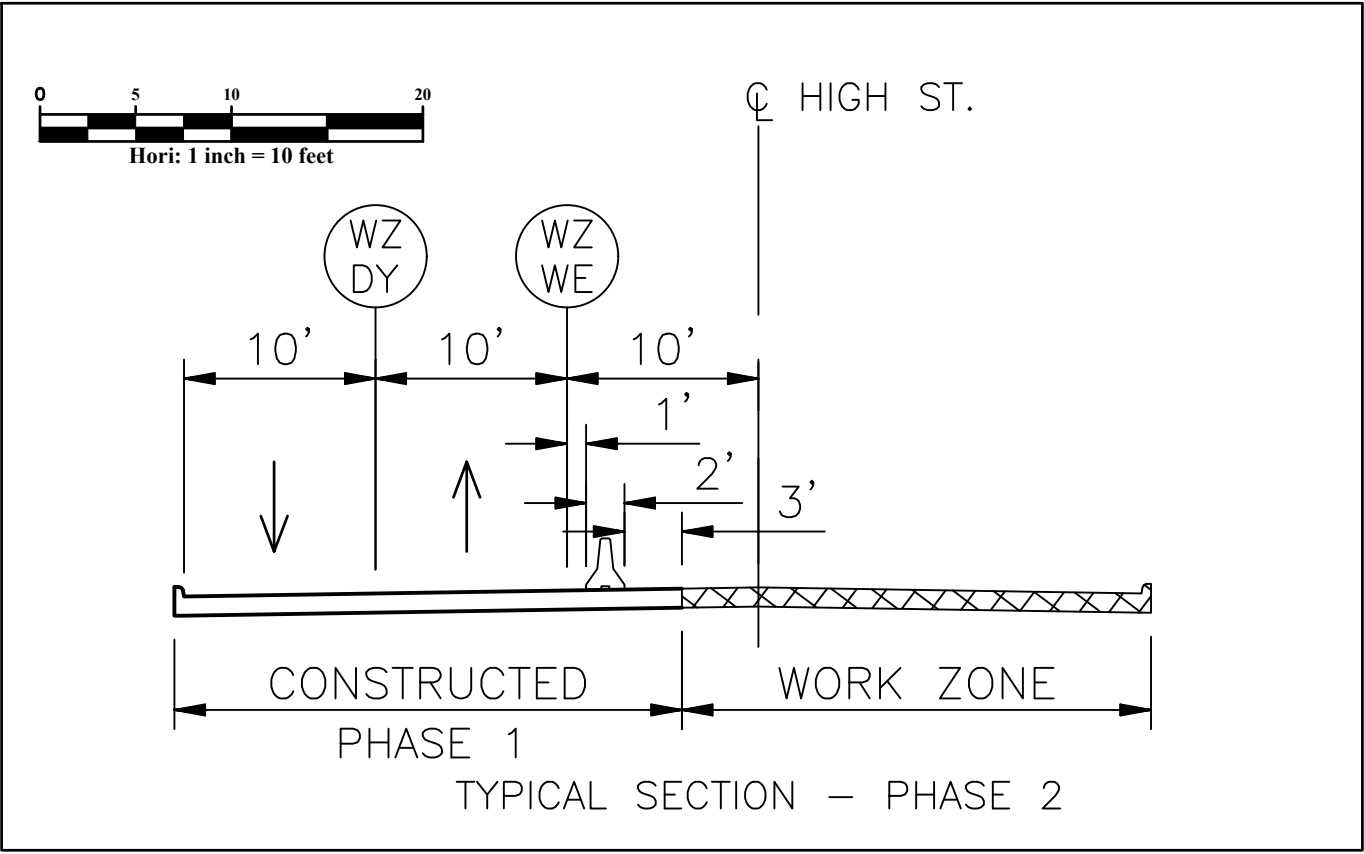
XXXX-E



LEGEND

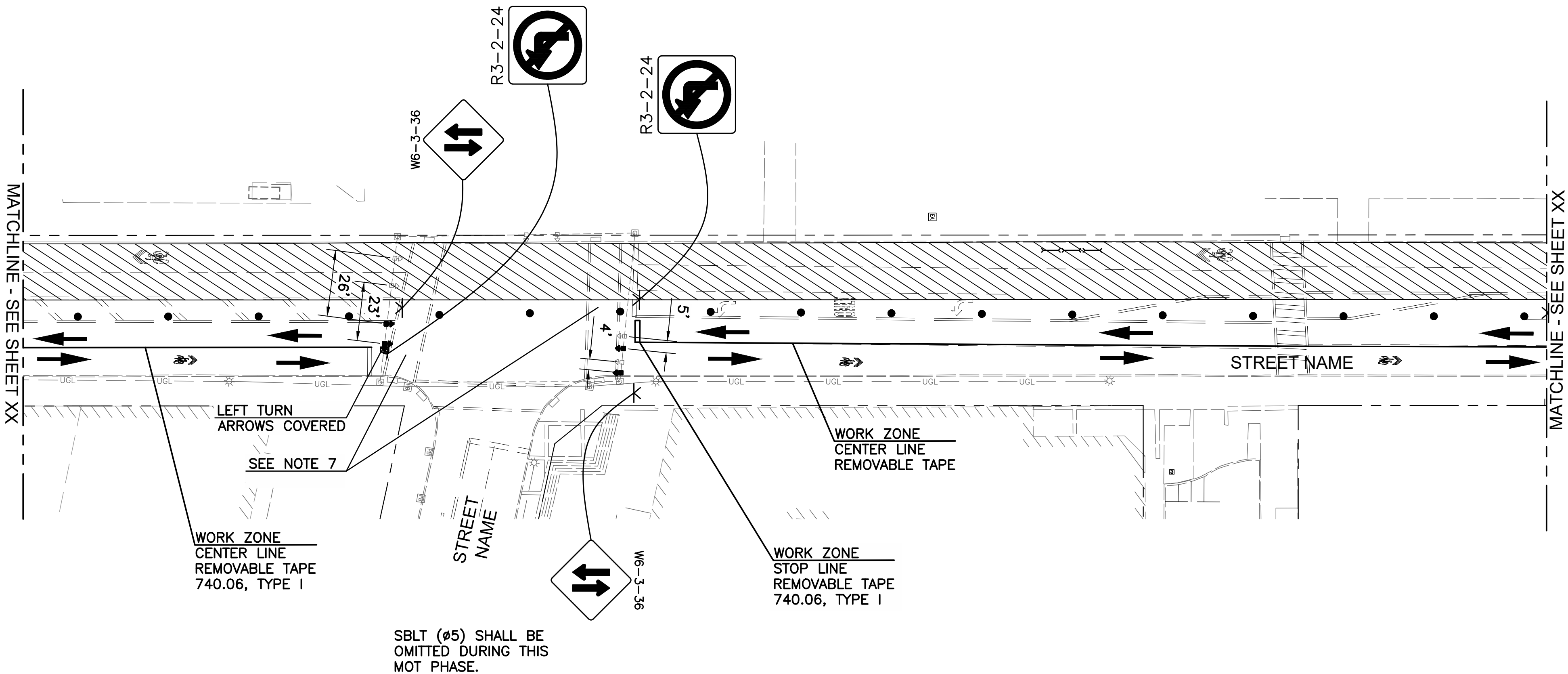
- Traffic Flow Arrow
- Drum
- Temporary Sign Support
- Type III Barricade
- Flashing Arrow Panel
- Channelizer Cone (42" Grabber)
- Portable Barrier
- Impact Attenuator
- Work Zone





BASIC TEMPORARY SIGNAL MODIFICATION EXAMPLE

- NOTES:
1. AN EXISTING TRAFFIC SIGNAL, OR ANY PART THEREOF, SHALL NOT BE TAKEN OUT OF SERVICE UNLESS ALTERNATE MEANS OF TRAFFIC CONTROL ARE IN PLACE AND OPERATIONAL. UNLESS DIRECTED BY THE CITY OF COLUMBUS, CITY ENGINEER OR APPOINTED DESIGNEE EXISTING TRAFFIC SIGNALS SHALL NOT BE TAKEN OUT OF SERVICE BETWEEN THE HOURS OF:
- 7:00 AM TO 9:00 AM MONDAY THROUGH FRIDAY AND
 - 4:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY (3:30 PM – 6:00 PM FOR THE DOWNTOWN BUSINESS DISTRICT)
 - OR ONE HOUR BEFORE SUNSET THROUGH ONE-HALF HOUR AFTER SUN RISE, WHICHEVER IS THE LONGEST DURATION.
2. ANY UNUSED SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD, PEDESTRIAN PUSHBUTTON, OR POLE OR SPAN/ARM MOUNTED SIGN SHALL BE COVERED AND DISCONNECTED. VEHICULAR SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS SHALL BE COVERED PER THE REQUIREMENTS OF CMSC 632.25.
3. VEHICULAR SIGNAL HEADS SHALL BE ALIGNED PER THE PLAN. NO TWO VEHICULAR SIGNAL HEADS SHALL BE LOCATED WITHIN EIGHT FEET OF ONE ANOTHER, MEASURED PERPENDICULAR TO THE TRAVEL LANE.
4. SIGN
5. WORK ZONE
6. AL
7. EXISTING PEDESTRIAN PUSHBUTTONS, PUSHBUTTON SIGNS, AND SIGNAL HEADS SHALL BE MAINTAINED FOR ALL CROSSWALKS THAT REMAIN OPEN DURING CONSTRUCTION. TEMPORARY PUSHBUTTONS AND SIGNS OR RELOCATED PUSHBUTTONS AND SIGNS SHALL BE POSITIONED ACCORDING TO THE CITY OF COLUMBUS ADA RULES AND REGULATIONS. RELOCATED PEDESTRIAN SIGNAL HEADS SHALL BE POSITIONED SUCH THAT THE HEAD IS AIMED AT THE CENTER OF THE CROSSWALK AREA (NOT THE CURB RAMP) THAT IS OPPOSITE THE UNIT. A MINIMUM OF ONE CROSSWALK TO CROSS EACH STREET AT A SIGNALIZED INTERSECTION SHALL BE MAINTAINED AT ALL TIMES. FOR SIGNALIZED INTERSECTIONS WITH THREE LEGS, THE CROSSWALK TO CROSS THE DEAD END STREET MAY BE CLOSED AS LONG A PEDESTRIAN PATH IS PROVIDED ALONG THE "TOP SIDE" OF THE INTERSECTION.
8. UNLESS NOTED IN THE PLANS, THE TRAFFIC SIGNAL SHALL UTILIZE THE EXISTING TIMING AND PHASING.
9. IF ANY CHANGES ARE MADE TO THE SIGNAL OPERATION INCLUDING PHASING CHANGES, PHASE OMISSIONS, TIMING CHANGES, ETC., SIGNAL OPERATION CHANGED SIGNS (W23-H2B) SHALL BE INSTALLED ON THE SPAN OR ARM FOR ALL DIRECTIONS. CENTER THE SIGN OVER THE APPROACH. SIGN SHALL BE LEFT IN PLACE NO LONGER THAN THE DURATION SPECIFIED UNDER ITEM 630 SIGNING, MISC.: TRAFFIC SIGNAL SIGNS.

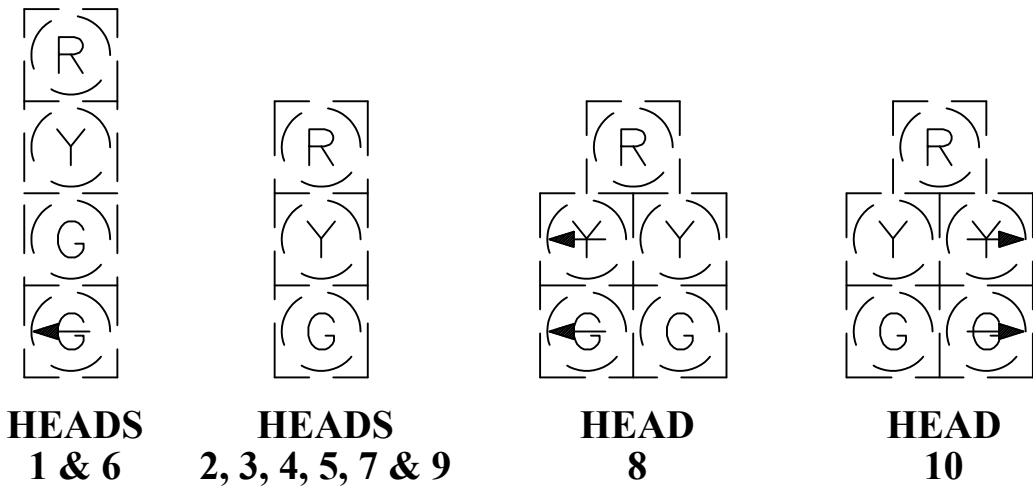


- DESIGNER NOTE:
- BASIC TEMPORARY SIGNAL WORK MAY BE SHOWN ON THE TYPICAL MOT PLAN SHEETS. DEDICATED SHEETS FOR TEMPORARY SIGNAL WORK ARE NOT REQUIRED.
 - SIGNAL HEAD SYMBOLS SHALL DISTINGUISH BETWEEN 3-SECTION, 5-SECTION AND 3-SECTION PROTECTED ONLY HEADS.
 - SEE TRAFFIC SIGNAL DESIGN MANUAL ON THE CITY OF COLUMBUS WEBSITE FOR ALL REQUIREMENTS OF TEMPORARY SIGNALS.

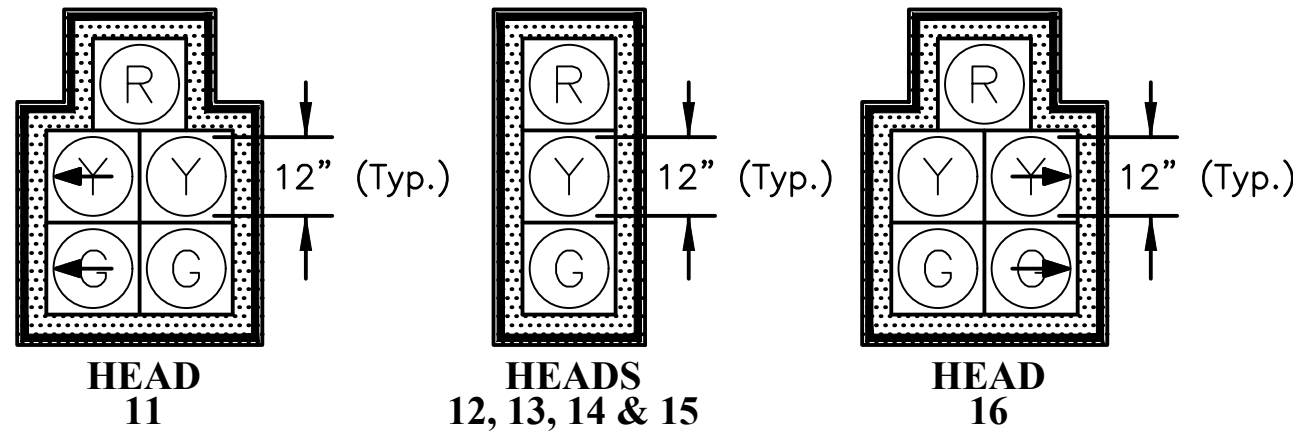
LEGEND

- [Symbol] = DIRECTION OF TRAVEL
- [Symbol] = TEMPORARY SIGN SUPPORT
- [Symbol] = TYPE II OR III BARRICADE
- [Symbol] = FLASHING ARROW PANEL
- [Symbol] = WORK AREA
- [Symbol] = EXISTING SIGNAL POLE
- [Symbol] = EXISTING VEHICULAR SIGNAL HEAD
- [Symbol] = EXISTING VEHICULAR SIGNAL HEAD RELOCATED

EXISTING VEHICULAR TRAFFIC
SIGNAL HEAD CONFIGURATION
(REMOVE)

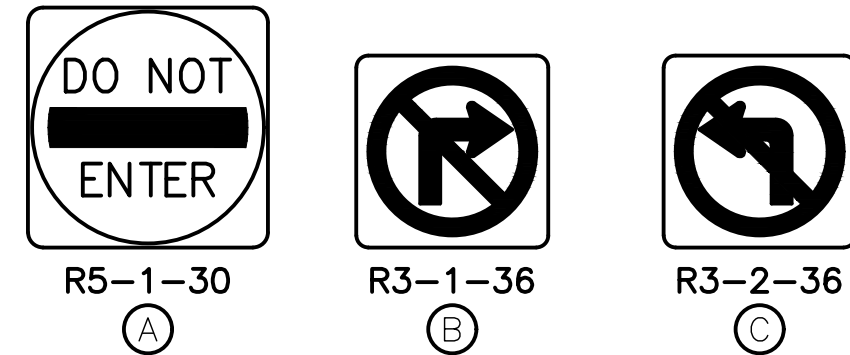


TEMPORARY VEHICULAR TRAFFIC
SIGNAL HEAD CONFIGURATION



DETAILED TEMPORARY SIGNAL MODIFICATION EXAMPLE

PROPOSED SIGNS



NOTES:

1. AN EXISTING TRAFFIC SIGNAL, OR ANY PART THEREOF, SHALL NOT BE TAKEN OUT OF SERVICE UNLESS ALTERNATE MEANS OF TRAFFIC CONTROL ARE IN PLACE AND OPERATIONAL. UNLESS DIRECTED BY THE CITY OF COLUMBUS, CITY ENGINEER OR APPOINTED DESIGNEE EXISTING TRAFFIC SIGNALS SHALL NOT BE TAKEN OUT OF SERVICE BETWEEN THE HOURS OF:
 - 7:00 AM TO 9:00 AM MONDAY THROUGH FRIDAY AND
 - 4:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY (3:30 PM - 6:00 PM FOR THE DOWNTOWN BUSINESS DISTRICT)
 - OR ONE HOUR BEFORE SUNSET THROUGH ONE-HALF HOUR AFTER SUN RISE, WHICHEVER IS THE LONGEST DURATION.
2. ANY UNUSED SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD, PEDESTRIAN PUSHBUTTON, OR POLE OR SPAN/ARM MOUNTED SIGN SHALL BE COVERED AND DISCONNECTED. VEHICULAR SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS SHALL BE COVERED PER THE REQUIREMENTS OF CMSC 632.25.
3. VEHICULAR SIGNAL HEADS SHALL BE ALIGNED PER THE PLAN. NO TWO VEHICULAR SIGNAL HEADS SHALL BE LOCATED WITHIN EIGHT FEET OF ONE ANOTHER, MEASURED PERPENDICULAR TO THE TRAVEL LANE.
4. SIGNS SHALL BE ALIGNED PER THE PLANS. EXISTING SIGNS IN CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC CONTROL SETUP SHALL BE COVERED OR TEMPORARILY REMOVED.
5. WEATHERPROOF SPLICES MAY BE INTRODUCED INTO SIGNAL CABLE IN ORDER TO RELOCATE EXISTING VEHICULAR SIGNAL HEADS. NO SPLICES ARE RETAINED.
6. ALL EXISTING SIGNAL HEADS SHALL BE COVERED AT ALL TIMES. LOCATIONS OF EXISTING SIGNAL HEADS SHALL BE MARKED WITH CONSTRUCTION MARKERS. EXISTING SIGNAL HEADS SHALL BE USED TO THE MAXIMUM EXTENT POSSIBLE. IF THE NEW SIGNAL HEADS ARE USED, THE EXISTING SIGNAL HEADS SHALL BE COVERED.
7. EXISTING SIGNAL HEADS SHALL REMAIN OPEN DURING CONSTRUCTION. TEMPORARY PUSHBUTTONS AND SIGNS OR RELOCATED PUSHBUTTONS AND SIGNS SHALL BE POSITIONED ACCORDING TO THE CITY OF COLUMBUS ADA RULES AND REGULATIONS. RELOCATED PEDESTRIAN SIGNAL HEADS SHALL BE POSITIONED SUCH THAT THE HEAD IS AIMED AT THE CENTER OF THE CROSSWALK AREA (NOT THE CURB RAMP) THAT IS OPPOSITE THE UNIT. A MINIMUM OF ONE CROSSWALK TO CROSS EACH STREET AT A SIGNALIZED INTERSECTION SHALL BE MAINTAINED AT ALL TIMES. FOR SIGNALIZED INTERSECTIONS WITH THREE LEGS, THE CROSSWALK TO CROSS THE DEAD END STREET MAY BE CLOSED AS LONG AS A PEDESTRIAN PATH IS PROVIDED ALONG THE "TOP SIDE" OF THE INTERSECTION.
8. UNLESS NOTED IN THE PLANS, THE TRAFFIC SIGNAL SHALL UTILIZE THE EXISTING TIMING AND PHASING.
9. IF ANY CHANGES ARE MADE TO THE SIGNAL OPERATION INCLUDING PHASING CHANGES, PHASE OMISSIONS, TIMING CHANGES, ETC., SIGNAL OPERATION CHANGED SIGNS (W23-H2B) SHALL BE INSTALLED ON THE SPAN OR ARM FOR ALL DIRECTIONS. CENTER THE SIGN OVER THE APPROACH. SIGN SHALL BE LEFT IN PLACE NO LONGER THAN THE DURATION SPECIFIED UNDER ITEM 630 SIGNING, MISC.: TRAFFIC SIGNAL SIGNS.
10. TEMPORARY WOOD SIGNAL POLES SHALL BE SIZED AND THE TEMPORARY SIGNAL SPAN SHALL BE ADJUSTED SUCH THAT THE MINIMUM ROADWAY CLEARANCE TO THE BOTTOM OF THE LOWEST SIGNAL HEAD IS 16.5' MINIMUM AND THE HIGHEST SIGNAL HEAD IS 19' MAXIMUM.
11. WHEN TEMPORARY TRAFFIC SIGNAL CABINETS ARE USED, BASE MOUNTED CABINETS SHALL BE MOUNTED ON A STURDY FOUNDATION SECURE FROM ANIMALS AND WEATHER. POLE MOUNTED CABINETS SHALL BE POSITIONED TO PREVENT AN OVERHANG GREATER THAN 4 IN. INTO A PEDESTRIAN PATHWAY.
12. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, COORDINATION AND PAYING FOR POWER SERVICE AS NEEDED FOR MAINTENANCE OF TRAFFIC PHASES.
13. SIGNAL SHALL REMAIN CONNECTED TO THE CTSS THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL INSTALL A TEMPORARY DROP CABLE OR RELOCATE THE EXISTING DROP CABLE TO THE TEMPORARY CABINET.
14. SEE PERMANENT SIGNAL PLANS FOR REMOVAL OF EXISTING SIGNAL ITEMS.

USE THE CURRENT VERSION OF THE
TEMPORARY TRAFFIC SIGNAL NOTES
AVAILABLE ON THE CITY OF
COLUMBUS WEBSITE.

RADAR DETECTION ASSIGNMENTS

DETECTION ZONE	PHASE	DELAY DATA	
		DELAY IN SECONDS	INHIBIT DELAY DURING GRN #
Z1	1	3	1
WB DILEMMA	2	-	-
Z4A	4	15	4
Z4B	4	3	4
EB DILEMMA	6	-	-
DILEMMA ZONE SPEED THRESHOLD > 35MPH			

(1)-TEMPORARY WOOD SIGNAL POLE
W/(1)-TEMPORARY DILEMMA ZONE RADAR DETECTION (EB)
W/(1)-TEMPORARY STOP LINE RADAR DETECTION (EB)

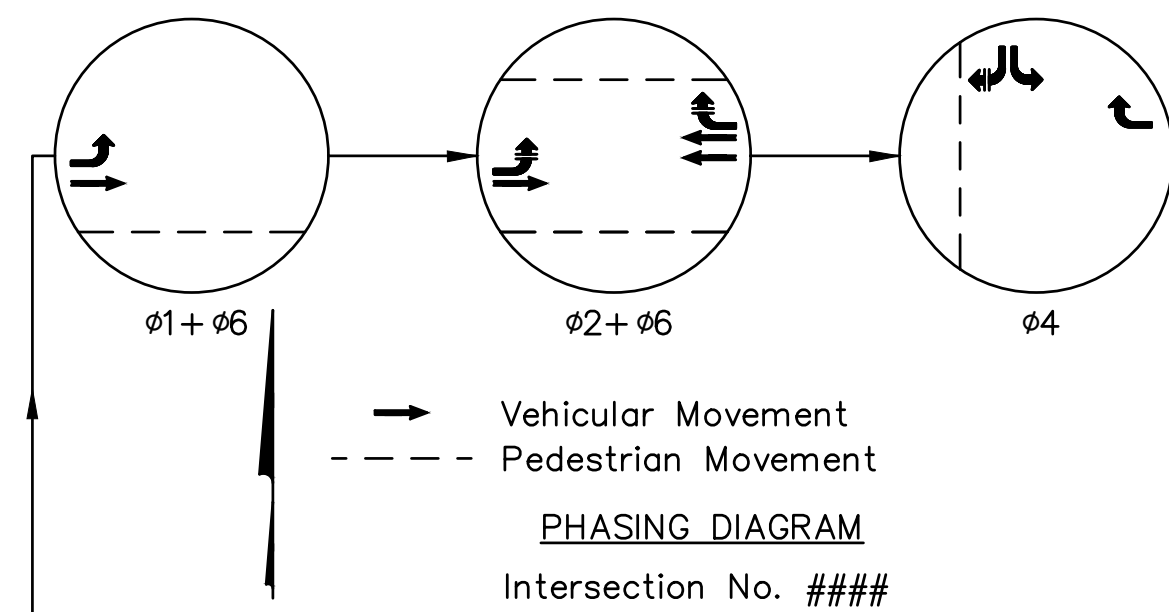
TIMING CHART

PHASE	1	2	3	4	5	6	7	8
MOVEMENT	EBLT	WB	-	SB	WBLT	EB	-	NB
MIN INITIAL	7	EX	-	EX	D	EX	-	D
WALK	-	EX	-	EX	-	EX	-	-
PED CHANGE	-	EX	-	EX	-	EX	-	-
PASS / EXT	3.7	EX	-	EX	D	EX	-	D
YELLOW	3.4	EX	-	EX	D	EX	-	D
RED CLR	1.1	EX	-	EX	D	EX	-	D
MAX GRN 1	15	EX	-	EX	D	EX	-	D
MAX GRN 2	-	EX	-	EX	D	EX	-	D
PED RECALL	OFF	EX	-	EX	OFF	EX	-	OFF
VEH RECALL	OFF	EX	-	EX	OFF	EX	-	OFF
MEMORY	OFF	EX	-	EX	D	EX	-	D

EX = EXISTING TIMING SHALL BE TRANSFERRED TO TEMPORARY CONTROLLER.
D = DE-ACTIVATE

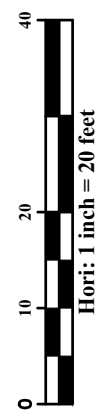
DESIGNER NOTE:

- DETAILED TEMPORARY SIGNAL WORK SHALL BE SHOWN ON ITS OWN, DEDICATED PLAN SHEET AND NOT INCORPORATED INTO THE STANDARD MOT SHEETS.
- TIMING CHART IS NOT REQUIRED IF ALL EXISTING TIMING IS TO REMAIN.
- SEE TRAFFIC SIGNAL DESIGN MANUAL ON THE CITY OF COLUMBUS WEBSITE FOR ALL REQUIREMENTS OF TEMPORARY SIGNALS.



LEGEND

- = DIRECTION OF TRAVEL
- ▨ = WORK AREA
- ⊙ = EXISTING SIGNAL POLE
- ⊕ = SPAN MOUNTED SIGN
- ⊞ = EXISTING VEHICULAR SIGNAL HEAD
- ⊞ = TEMPORARY VEHICULAR SIGNAL HEAD
- = TEMPORARY WOOD SIGNAL POLE

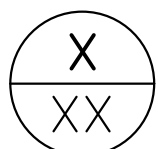


CALCULATED
ABC
CHECKED
ABC

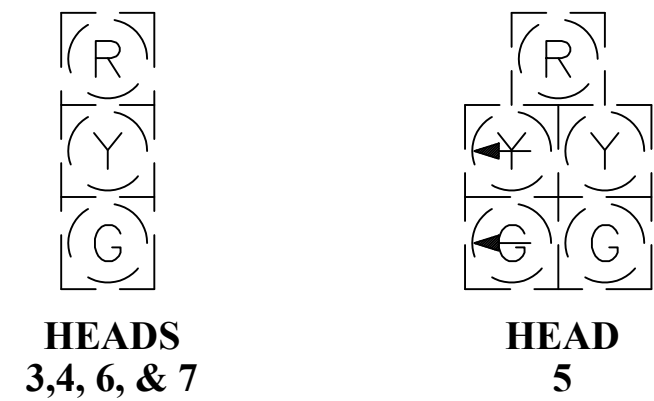
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - PHASE 1
STREET A AT STREET B

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

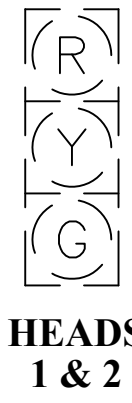
XXXX-E



EXISTING VEHICULAR TRAFFIC
SIGNAL HEAD CONFIGURATION
(REMAIN)



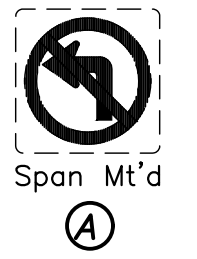
EXISTING VEHICULAR TRAFFIC
SIGNAL HEAD CONFIGURATION
(RELOCATED)



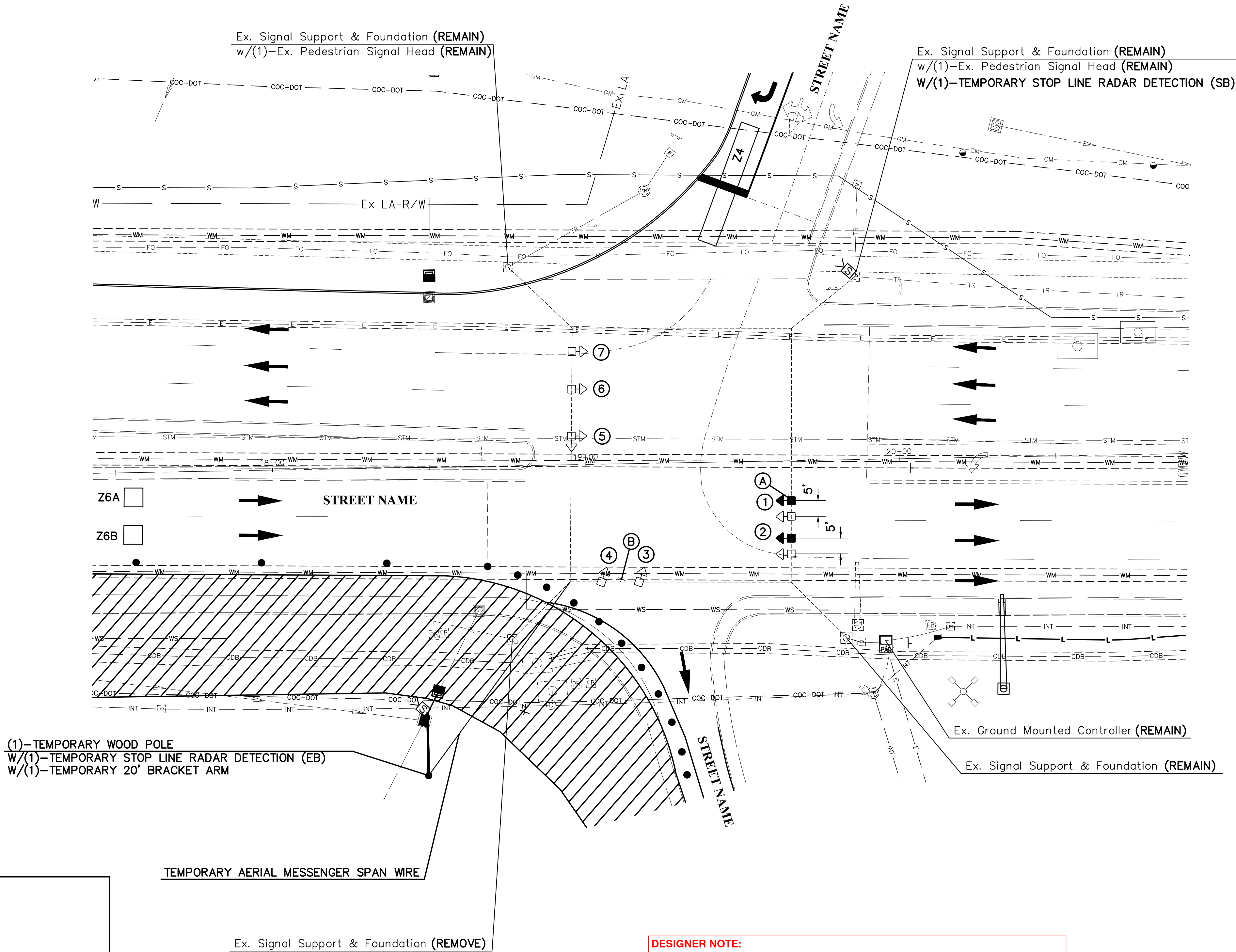
EXISTING SIGNS
(REMAIN)



EXISTING SIGNS
(RELOCATED)



INTERMEDIATE TEMPORARY SIGNAL MODIFICATION EXAMPLE



(1)-TEMPORARY WOOD POLE
W/(1)-TEMPORARY STOP LINE RADAR DETECTION (EB)
W/(1)-TEMPORARY 20' BRACKET ARM

LEGEND

- = DIRECTION OF TRAVEL
- = WORK AREA
- = EXISTING SIGNAL POLE
- = EXISTING SPAN MOUNTED SIGN
- = EXISTING VEHICULAR SIGNAL HEAD
- = EXISTING VEHICULAR SIGNAL HEAD RELOCATED
- = TEMPORARY WOOD SIGNAL POLE

RADAR DETECTION ASSIGNMENTS

DETECTION ZONE	PHASE	DELAY DATA	
		DELAY IN SECONDS	INHIBIT DELAY DURING GRN Ø
Z4	4	12	4
Z6A	6	-	-
Z6B	6	-	-

DESIGNER NOTE:
- INTERMEDIATE TEMPORARY SIGNAL WORK SHALL BE SHOWN ON ITS OWN, DEDICATED PLAN SHEET AND NOT INCORPORATED INTO THE STANDARD MOT SHEETS.
- SEE TRAFFIC SIGNAL DESIGN MANUAL ON THE CITY OF COLUMBUS WEBSITE FOR ALL REQUIREMENTS OF TEMPORARY SIGNALS.

- NOTES:
1. AN EXISTING TRAFFIC SIGNAL, OR ANY PART THEREOF, SHALL NOT BE TAKEN OUT OF SERVICE UNLESS ALTERNATE MEANS OF TRAFFIC CONTROL ARE IN PLACE AND OPERATIONAL. UNLESS DIRECTED BY THE CITY OF COLUMBUS, CITY ENGINEER OR APPOINTED DESIGNEE EXISTING TRAFFIC SIGNALS SHALL NOT BE TAKEN OUT OF SERVICE BETWEEN THE HOURS OF:
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 - 4:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY (3:30 PM - 6:00 PM FOR THE DOWNTOWN BUSINESS DISTRICT)
 - OR ONE HOUR BEFORE SUNSET THROUGH ONE-HALF HOUR AFTER SUN RISE, WHICHEVER IS THE LONGEST DURATION.
 2. ANY UNUSED SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD, PEDESTRIAN PUSHBUTTON, OR POLE OR SPAN/ARM MOUNTED SIGN SHALL BE COVERED AND DISCONNECTED. VEHICULAR SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS SHALL BE COVERED PER THE REQUIREMENTS OF CMSC 632.25.
 3. VEHICULAR SIGNAL HEADS SHALL BE ALIGNED PER THE PLAN. NO TWO VEHICULAR SIGNAL HEADS SHALL BE LOCATED WITHIN EIGHT FEET OF ONE ANOTHER, MEASURED PERPENDICULAR TO THE TRAVEL LANE.
 4. SIGNS SHALL BE ALIGNED PER THE PLANS. EXISTING SIGNS IN CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC CONTROL SHALL BE REMOVED.
 5. WEATHER-RESISTANT SIGNAL HEADS SHALL BE USED. USE THE CURRENT VERSION OF THE TEMPORARY TRAFFIC SIGNAL NOTES AVAILABLE ON THE CITY OF COLUMBUS WEBSITE.
 6. ALL EXISTING TEMPORARY LANE SIGNALS DURING DETECTION AND EXISTING DETECTION SHALL BE PROVIDED FOR APPROACHES WITH SPEEDS GREATER THAN 40 MPH.
 7. EXISTING PEDESTRIAN PUSHBUTTONS, PUSHBUTTON SIGNS, AND SIGNAL HEADS SHALL BE MAINTAINED FOR ALL CROSSWALKS THAT REMAIN OPEN DURING CONSTRUCTION. TEMPORARY PUSHBUTTONS AND SIGNS OR RELOCATED PUSHBUTTONS AND SIGNS SHALL BE POSITIONED ACCORDING TO THE CITY OF COLUMBUS ADA RULES AND REGULATIONS. RELOCATED PEDESTRIAN SIGNAL HEADS SHALL BE POSITIONED SUCH THAT THE HEAD IS AIMED AT THE CENTER OF THE CROSSWALK AREA (NOT THE CURB RAMP) THAT IS OPPOSITE THE UNIT. A MINIMUM OF ONE CROSSWALK TO CROSS EACH STREET AT A SIGNALIZED INTERSECTION SHALL BE MAINTAINED AT ALL TIMES. FOR SIGNALIZED INTERSECTIONS WITH THREE LEGS, THE CROSSWALK TO CROSS THE DEAD END STREET MAY BE CLOSED AS LONG A PEDESTRIAN PATH IS PROVIDED ALONG THE "TOP SIDE" OF THE INTERSECTION.
 8. UNLESS NOTED IN THE PLANS, THE TRAFFIC SIGNAL SHALL UTILIZE THE EXISTING TIMING AND PHASING.
 9. IF ANY CHANGES ARE MADE TO THE SIGNAL OPERATION INCLUDING PHASING CHANGES, PHASE OMISSIONS, TIMING CHANGES, ETC., SIGNAL OPERATION CHANGED SIGNS (W23-H2B) SHALL BE INSTALLED ON THE SPAN OR ARM FOR ALL DIRECTIONS. CENTER THE SIGN OVER THE APPROACH. SIGN SHALL BE LEFT IN PLACE NO LONGER THAN THE DURATION SPECIFIED UNDER ITEM 630 SIGNING, MISC.: TRAFFIC SIGNAL SIGNS.
 10. TEMPORARY WOOD SIGNAL POLES SHALL BE SIZED AND THE TEMPORARY SIGNAL SPAN SHALL BE ADJUSTED SUCH THAT THE MINIMUM ROADWAY CLEARANCE TO THE BOTTOM OF THE LOWEST SIGNAL HEAD IS 16.5' MINIMUM AND THE HIGHEST SIGNAL HEAD IS 19' MAXIMUM.

CALCULATED
ABC

CHECKED
ABC

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - PHASE 2
STREET A FROM STREET B TO STREET C

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

204 - Subgrade Compaction						
Street	Station		Length (Lin. Ft.)	Average Width (Ft.)	Area (Sq. Ft.)	Quantity (Sq. Yds.)
	From	To				
Phale D. Hale	16+31.86	16+38.20	6.34	50.16	318.01	35.34
Phale D. Hale	16+63.20	16+86.92	23.72	34.99	829.91	92.22
Phale D. Hale	16+86.92	17+05.00	18.08	24.99	451.89	50.21
Granville	10+41.34	10+56.83	15.49	25.03	387.66	43.08
Granville	10+56.83	12+43.37	186.54	31.78	5928.57	658.73
Granville	12+43.37	13+27.96	84.59	25.00	2114.90	234.99
Granville	13+27.96	15+95.43	267.47	31.85	8518.72	946.53
Granville	15+95.43	16+23.31	27.88	25.01	697.16	77.47
Granville	16+23.31	16+47.77	24.46	34.70	848.69	94.30
Granville	16+73.97	17+05.62	31.65	35.00	1107.66	123.08
Granville	17+05.62	17+28.00	22.38	27.23	609.48	67.72
Winner	308+71.59	308+98.72	27.13	33.64	912.77	101.42
Winner	308+98.72	309+07.12	8.40	25.00	210.04	23.34
Winner	309+07.12	313+21.76	414.64	31.90	13228.20	1469.80
Winner	313+21.76	314+26.69	104.93	25.00	2623.60	291.52
Winner	314+26.69	315+89.88	163.19	31.74	5178.92	575.44
Winner	315+89.88	316+03.87	13.99	24.99	349.67	38.86
Winner	316+03.87	316+98.69	94.82	25.00	2370.61	263.41
Winner	316+98.69	317+72.70	74.01	25.39	1878.94	208.78
Winner	317+72.70	317+86.70	14.00	26.38	369.29	41.04
Winner	317+86.70	318+89.90	103.20	27.00	2786.58	309.62
Winner	318+89.90	318+94.90	5.00	27.02	135.10	15.02
Winner	321+13.97	321+33.47	19.50	27.29	532.08	59.12
Phillips	20+62.25	21+74.95	112.70	21.00	2366.45	262.94
Phillips	21+74.95	22+15.61	40.66	22.29	906.22	100.70
Market	14+42.15	14+64.30	22.15	20.97	464.48	51.61
Market	14+64.30	14+81.14	16.84	17.24	290.39	32.27
Market	16+40.00	16+59.01	19.01	15.88	301.90	33.55
Market	16+59.01	16+70.66	11.65	20.12	234.34	26.04
Market	16+95.84	17+14.06	18.22	22.20	404.47	44.95
Hughes	408+10.09	408+24.17	14.08	23.37	329.06	36.57
Alley	1+12.91	1+31.50	18.59	18.05	335.46	37.28

Total Carried to General Summary: 6447 Sq. Yds.

304 - Aggregate Base (T=6")						
Street	Station		Length (Lin. Ft.)	Average Width (Ft.)	Area (Sq. Ft.)	Quantity (Cu. Yds.)
	From	To				
Phale D. Hale	16+31.86	16+39.70	7.84	46.87	367.50	6.81
Phale D. Hale	16+61.70	16+86.92	25.22	32.63	823.02	15.25
Phale D. Hale	16+86.92	17+05.00	18.08	21.99	397.65	7.37
Granville	10+41.34	10+56.83	15.49	22.01	340.97	6.32
Granville	10+56.83	12+43.37	186.54	28.74	5360.46	99.27
Granville	12+43.37	13+27.96	84.59	22.00	1860.94	34.47
Granville	13+27.96	15+95.43	267.47	28.82	7707.79	142.74
Granville	15+95.43	16+23.31	27.88	22.00	613.50	11.37
Granville	16+23.31	16+50.20	26.89	31.22	839.61	15.55
Granville	16+64.46	17+05.62	41.16	26.33	1083.61	20.07
Granville	17+05.62	17+28.00	22.38	24.23	542.33	10.05
Winner	308+71.59	308+98.72	27.13	30.50	827.51	15.33
Winner	308+98.72	309+07.12	8.40	21.98	184.67	3.42
Winner	309+07.12	313+21.76	414.64	28.88	11975.76	221.78
Winner	313+21.76	314+26.69	104.93	22.00	2308.28	42.75
Winner	314+26.69	315+89.88	163.19	28.68	4681.08	86.69
Winner	315+89.88	316+03.87	13.99	21.99	307.71	5.70
Winner	316+03.87	316+98.69	94.82	22.00	2086.13	38.64
Winner	316+98.69	317+72.70	74.01	22.38	1656.70	30.68
Winner	317+72.70	317+86.70	14.00	23.38	327.25	6.07
Winner	317+86.70	318+89.90	103.20	24.00	2476.95	45.87
Winner	318+89.90	318+93.90	4.00	24.02	96.06	1.78
Winner	321+14.97	321+33.47	18.50	27.46	508.06	9.41

Total Carried to General Summary: 878 Cu. Yds.

407 - Non-Tracking Tack Coat (0.10 Gal/Sq Yds.)						
Street	Station		Length (Lin. Ft.)	Average Width (Ft.)	Area (Sq. Ft.)	Quantity (Gal.)
	From	To				
Phale D. Hale	16+31.86	16+39.70	7.84	46.87	367.50	4.09
Phale D. Hale	16+61.70	16+86.92	25.22	32.63	823.02	9.15
Phale D. Hale	16+86.92	17+05.00	18.08	21.99	397.65	4.42
Granville	10+41.34	10+56.83	15.49	22.01	340.97	3.79
Granville	10+56.83	12+43.37	186.54	28.74	5360.46	59.57
Granville	12+43.37	13+27.96	84.59	22.00	1860.94	20.68
Granville	13+27.96	15+95.43	267.47	28.82	7707.79	85.65
Granville	15+95.43	16+23.31	27.88	22.00	613.50	6.82
Granville	16+23.31	16+50.20	26.89	31.22	839.61	9.33
Granville	16+64.46	17+05.62	41.16	26.33	1083.61	12.05
Granville	17+05.62	17+28.00	22.38	24.23	542.33	6.03
Winner	308+71.59	308+98.72	27.13	30.50	827.51	9.20
Winner	308+98.72	309+07.12	8.40	21.98	184.67	2.06
Winner	309+07.12	313+21.76	414.64	28.88	11975.76	133.07
Winner	313+21.76	314+26.69	104.93	22.00	2308.28	25.65
Winner	314+26.69	315+89.88	163.19	28.68	4681.08	52.02
Winner	315+89.88	316+03.87	13.99	21.99	307.71	3.42
Winner	316+03.87	316+98.69	94.82	22.00	2086.13	23.18
Winner	316+98.69	317+72.70	74.01	22.38	1656.70	18.41
Winner	317+72.70	317+86.70	14.00	23.38	327.25	3.64
Winner	317+86.70	318+89.90	103.20	24.00	2476.95	27.53
Winner	318+89.90	318+93.90	4.00	24.02	96.06	1.07
Winner	321+14.97	321+33.47	18.50	27.46	508.06	5.65

Total Carried to General Summary: 527 Gal.

407 - Non-Tracking Tack Coat, For Intermediate Course (0.08 Gal/Sq Yds.)						
Street	Station		Length (Lin. Ft.)	Average Width (Ft.)	Area (Sq. Ft.)	Quantity (Gal.)
	From	To				
Phale D. Hale	16+31.86	16+39.70	7.84	46.87	367.50	3.27
Phale D. Hale	16+61.70	16+86.92	25.22	32.63	823.02	7.32
Phale D. Hale	16+86.92	17+05.00	18.08	21.99	397.65	3.54
Granville	10+41.34	10+56.83	15.49	22.01	340.97	3.04
Granville	10+56.83	12+43.37	186.54	28.74	5360.46	47.65
Granville	12+43.37	13+27.96	84.59	22.00	1860.94	16.55
Granville	13+27.96	15+95.43	267.47	28.82	7707.79	68.52
Granville	15+95.43	16+23.31	27.88	22.00	613.50	5.46
Granville	16+23.31	16+50.20	26.89	31.22	839.61	7.47
Granville	16+64.46	17+05.62	41.16	26.33	1083.61	9.64
Granville	17+05.62	17+28.00	22.38	24.23	542.33	4.83
Winner	308+71.59	308+98.72	27.13	30.50	827.51	7.36
Winner	308+98.72	309+07.12	8.40	21.98	184.67	1.65
Winner	309+07.12	313+21.76	414.64	28.88	11975.76	106.46
Winner	313+21.76	314+26.69	104.93	22.00	2308.28	20.52
Winner	314+26.69	315+89.88	163.19	28.68	4681.08	41.61
Winner	315+89.88	316+03.87	13.99	21.99	307.71	2.74
Winner	316+03.87	316+98.69	94.82	22.00	2086.13	18.55
Winner	316+98.69	317+72.70	74.01	22.38	1656.70	14.73
Winner	317+72.70	317+86.70	14.00	23.38	327.25	2.91
Winner	317+86.70	318+89.90	103.20	24.00	2476.95	22.02
Winner	318+89.90	318+93.90	4.00	24.02	96.06	0.86
Winner	321+14.97	321+33.47	18.50	27.46	508.06	4.52

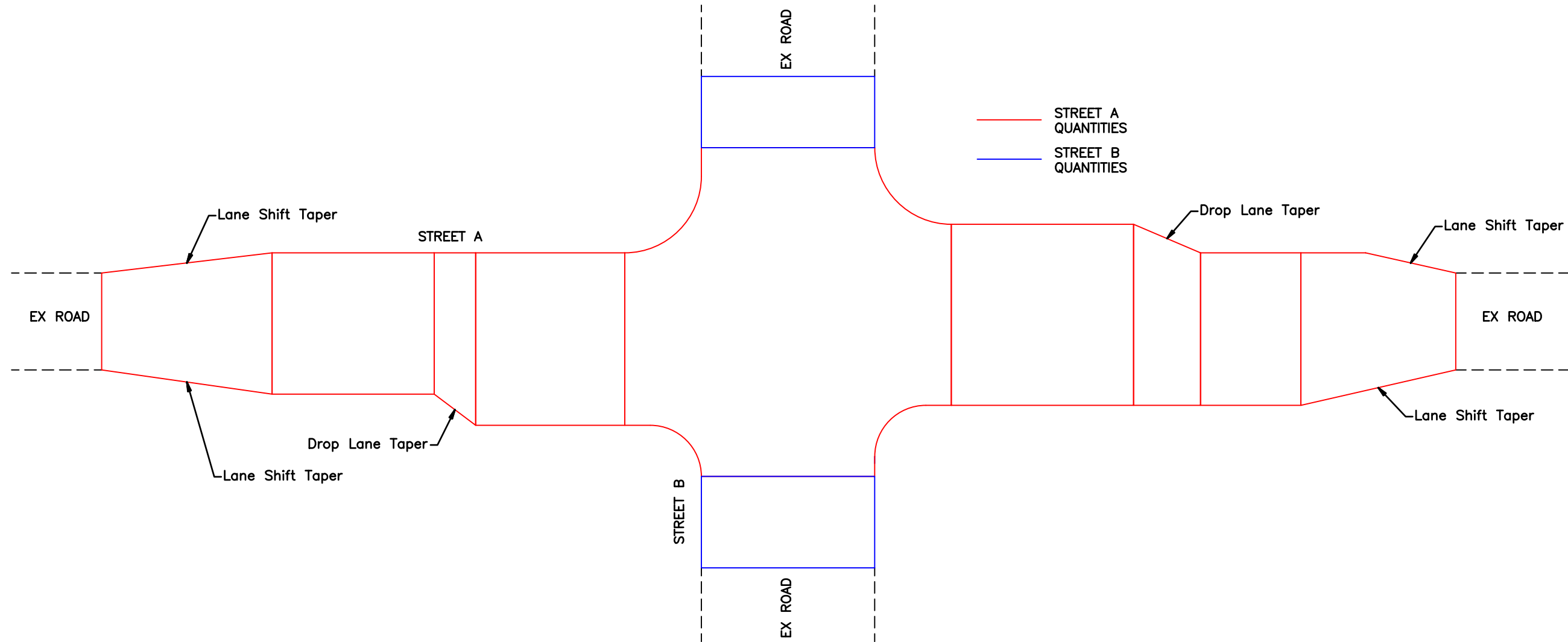
Total Carried to General Summary: 422 Gal.

441 - Asphalt Concrete, Surface Course (Medium Traffic), PG 64-22 (T=1.25")						
Street	Station		Length (Lin. Ft.)	Average Width (Ft.)	Area (Sq. Ft.)	Quantity (Cu. Yds.)
	From	To				
Phale D. Hale	16+31.86	16+39.70	7.84	46.87	367.50	1.42
Phale D. Hale	16+61.70	16+86.92	25.22	32.63	823.02	3.18
Phale D. Hale	16+86.92	17+05.00	18.08	21.99	397.65	1.54
Granville	10+41.34	10+56.83	15.49	22.01	340.97	1.32
Granville	10+56.83	12+43.37	186.54	28.74	5360.46	20.69
Granville	12+43.37	13+27.96	84.59	22.00	1860.94	7.18
Granville	13+27.96	15+95.43	267.47	28.82	7707.79	29.74
Granville	15+95.43	16+23.31	27.88	22.00	613.50	2.37
Granville	16+23.31	16+50.20	26.89	31.22	839.61	3.24
Granville	16+64.46	17+05.62	41.16	26.33	1083.61	4.19
Granville	17+05.62	17+28.00	22.38	24.23	542.33	2.10
Winner	308+71.59	308+98.72	27.13	30.50	827.51	3.20
Winner	308+98.72	309+07.12	8.40	21.98	184.67	0.72
Winner	309+07.12	313+21.76	414.64	28.88	11975.76	46.21
Winner	313+21.76	314+26.69	104.93	22.00	2308.28	8.91
Winner	314+26.69	315+89.88	163.19	28.68	4681.08	18.06
Winner	315+89.88	316+03.87	13.99	21.99	307.71	1.19
Winner	316+03.87	316+98.69	94.82	22.00	2086.13	8.05
Winner	316+98.69	317+72.70	74.01	22.38	1656.70	6.40
Winner	317+72.70	317+86.70	14.00	23.38	327.25	1.27
Winner	317+86.70	318+89.90	103.20	24.00	2476.95	9.56
Winner	318+89.90	318+93.90	4.00	24.02	96.06	0.38
Winner	321+14.97	321+33.47	18.50	27.46	508.06	1.97

Total Carried to General Summary: 183 Cu. Yds.

DESIGNER NOTE:
ITEM NUMBERS AND DESCRIPTIONS MUST
MATCH THE CURRENT CONSTRUCTION
AND MATERIALS SPECIFICATIONS

DESIGNER NOTE:
PAVEMENT CALCULATIONS SHALL INCLUDE CALCULATIONS FOR
THE FOLLOWING ITEMS:
• ROADWAY SUBGRADE COMPACTION AND/OR STABILIZATION
• AGGREGATE BASE
• CONCRETE/ASPHALT/PCC BASE
• ASPHALT INTERMEDIATE AND SURFACE COURSES
• PAVEMENT PLANING
THE ITEMS NOTED ABOVE SHOULD BE SEGREGATED INTO AN
INDIVIDUAL TABLE AS ILLUSTRATED ON THE SAMPLE PLAN SHEET.



SCALE

CALCULATED
XX
CHECKED
XX

None

PAVEMENT CALCULATIONS

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX

[illegible]

SITE NARRATIVE

PLAN DESIGNER:

Company Name
Contact Name
Address
Address
Phone Number
E-mail Address

OWNER/DEVELOPER:

Company Name
Contact Name
Address
Address
Phone Number
E-mail Address

PROJECT DESCRIPTION:

Provide project description

EXISTING SITE CONDITIONS:

Describe the existing site conditions and stormwater runoff flow patterns and/or existing stormwater runoff conveyance and management features.

RECEIVING STREAM:

Determine the stormwater runoff outfall location(s) and identify the nearest receiving stream name.

AREAS OF DISTURBANCE:

Indicate the estimated limits of disturbance that will result in the proposed site improvement activities, including contractor staging areas and soil stockpile/borrow areas. The estimated disturbed area should match the area identified on the Ohio EPA Notice of Intent (if applicable).

ADJACENT AREAS:

Describe the adjacent land uses

EROSION AND SEDIMENT MEASURES:

Describe the controls that will be implemented to manage the construction site stormwater runoff and that will be used to temporarily and permanently stabilize the disturbed areas.

OEPANOI#

N/A if less than 1 Ac. disturbance
OR To Be Determined (Include permit number upon NOI approval)

CONSTRUCTION SEQUENCE:

Identify the sediment controls that are to be installed prior to or during each phase of the construction of the project improvements. Indicate when disturbed areas are to be temporarily and/or permanently stabilized. If a sediment basin shall be constructed, indicate that the City of Columbus Erosion and Sediment Control Inspector must approve removal or conversion to the permanent water quality Storm Water Control Practice (SCP).

INSPECTIONS:

The NPDES permit holder along with the Contractor shall provide qualified personnel to conduct site inspections ensuring proper functionality of the erosion and sedimentation controls. All erosion and sedimentation controls are to be inspected once per every seven calendar days and within 24 hours of a 0.5" storm event or greater that occurs over a 24 hour period. Records of the site inspections and maintenance activities shall be kept and made available to the City of Columbus and Ohio EPA if requested.

MAINTENANCE:

It is the Contractor's responsibility to maintain the sedimentation and erosion control features on this project. Any sediment or debris which has reduced the efficiency of a control shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace at no additional cost to the City. Additional sediment controls, that were not identified on the City approved plan, that are necessary to be installed to properly manage runoff are to be approved by the City.

SCHEDULE:

The Contractor shall provide a schedule of operations to the City. Sedimentation and erosion control features shall be placed in accordance with this schedule.

The onsite contacts responsible for sediment and erosion control on this site are:			
BMP Installation Primary Contact	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX
BMP Installation Secondary Contact	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX
BMP Maintenance	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX
Site Stabilization and BMP Removal	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX

NOTE: All erosion and sedimentation control practices are subject to field modifications at the discretion of the City of Columbus and the Ohio EPA. The SWPPP is required to be kept up-to-date to reflect approved modifications.

The SWPPP plan view and notes are detail sheets are a component of the overall SWPPP. The SWPPP and Ohio EPA NOI approval letter must maintained onsite at all times and made readily available upon the City of Columbus and Ohio EPA request.

Street cleaning is required during operations with the high potential to produce mud track-out, such as soil import and export activities. This includes sweeping, power cleaning and (if necessary) manual removal of dirt or mud in the street gutters. Cleaning shall be performed at a frequency sufficient to prevent the migration of track-out beyond the limits of controls identified in the SWPPP, and this may require multiple cleanings each day. Street cleaning shall occur on an as-needed basis during the remainder of construction activities.

Direct discharge of sediment laden water to the City's sewer system or a receiving stream is a violation of Ohio EPA and City of Columbus regulations. The Contractor will be held liable for the violation and subsequent fines.

TABLE 1 - DISTURBED AREA STABILIZATION TIMEFRAME REQUIREMENTS	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any areas at final grade	Within seven days of reaching final grade
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 14 days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state	Within seven days of the most recent disturbance within the area
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

SEDIMENT AND EROSION CONTROL NOTES

CONTRACTORS RESPONSIBILITIES:
Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the Ohio EPA Manual "Rainwater and Land Development". The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Discharges Associated with Construction Activity.

Prior to land disturbing activities commencing within the limits of disturbance identified on the plan, sedimentation and erosion control features shall be installed to manage runoff from the existing site conditions. Additional controls per plan are to be installed as site improvements are constructed. Field adjustments with respect to locations and dimensions may be made by the City of Columbus and the Ohio EPA.

The Contractor shall place inlet protection for the sedimentation control immediately after construction of the catch basins or inlets. Existing storm sewer inlets located within the project limits shall be protected with the appropriate inlet protection.

It may become necessary to remove portions of sedimentation controls during construction to facilitate the grading operations in certain areas. However, the controls shall be replaced upon completion of grading or prior to a rain event.

The contractor is responsible for ensuring that offsite soil borrow and export areas have Ohio EPA NPDES permit coverage and that appropriate erosion and sediment controls are properly installed and maintained.

The Contractor shall be responsible to ensure that no solid or liquid waste is discharged into storm water runoff. Untreated sediment-laden runoff shall not flow off of site without being directed through a control practice.

The Contractor shall be responsible for maintaining on-site drainage at all times during construction. No Separate payment shall be made for maintaining drainage.

The cost for temporary channels, sediment dams, sediment basins, and other appurtenant earth moving operations shall be included in the price bid for erosion and sedimentation control quantities.

Regardless of whether discharges are received by a sediment basin, water pumped from excavations or other areas where water is in contact with exposed soils must be discharged into a dewatering filter bag.

Stormwater managment basin disturbed slopes above the normal pool elevation shall be seeded upon construction and temporarily stabilized with erosion control matting or straw mulch with a jute matting cover.

The contractor shall be responsible for contacting the City of Columbus Industrial Wastewater Pretreatment Group at 614-645-5876 if planning to discharge groundwater into a combined sanitary sewer. A Special Waste Evaluation Request Form (SWERF) may need to be submitted and approvals granted for the discharge to proceed.

PAVEMENT CUTTING, SAWING AND EXCAVATION OPERATIONS

All public agencies and private contractors performing pavement cutting operations on City of Columbus streets and roadways shall protect the environment from discharges created by the pavement cutting operations. Note that Columbus City Code 1145 prohibits non-stormwater discharge into the City of Columbus sewer system, curb inlets and any part of its MS4 (Municipal Separate Storm Sewer system). Directing liquid, solid or slurry detritus from saw-cutting operations to a storm sewer inlet equipped with inlet protection designed to filter sediment from stormwater runoff is not an acceptable method of containment and is a violation of Columbus City Code 1145.

The requirement includes but is not limited to wet or dry saw-cutting, jack hammering, excavation, equipment use, etc. The public agency and/or private contractor work crews shall recover and dispose of detritus, polluted waters, or other such discharges resulting from their pavement cutting operations and protect all storm sewer inlets from receiving any discharges from the construction operations. The agency or contractor responsible for each pavement cutting activity shall be solely liable for notice of violations (NOV's) and fines issued by the City of Columbus and/or State of Ohio authorities.

Equipment, materials, and methods shall be provided by the responsible public agency and/or private contractor to work crews performing the pavement cutting activity and made available to work crews for use in cleaning up discharges resulting from such cutting activities and preventing runoff. All work crews shall be trained to exercise and employ equipment, materials, and environmental protective measures to prevent polluted discharges from entering the City of Columbus storm sewer system and water of the State of Ohio.

The public agency and/or private contractor is solely responsible for ensuring that the the inlet protection is adequate.

VEGETATION ESTABLISHMENT

The limits of seeding and mulching are as shown within the plan as indicated by the limits of disturbance. All areas not designated to be seeded shall remain under natural ground cover. Those areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense. Seeding Provided Per Item 659.

"Temporary Vegetation" - Disturbed areas not at final grade shall be stabilized with temporary vegetation per the timeframes identified within Table 1. Seeding to establish temporary vegetated cover shall be applied at the following rates:

March 1 to August 15		August 15 to November 1	
Seed: Oats	X lbs./X Sq.Ft.	Seed: Annual Rye	X lbs./X Sq.Ft.
Fertilizer: (12:12:12)	X lbs./X Sq.Ft.	Fertilizer: (12:12:12)	X lbs./X Sq.Ft.
Mulch:(Straw or Hay)	X tons/acre	Mulch:(Straw or Hay)	X tons/acre

November 1 to March 1
Mulch (ONLY):(Straw or Hay) X tons/acre

"Permanent Vegetation"- Disturbed areas at final grade shall be stabilized with permanent vegetation per the timeframes identified within Table 1. The establishment of permanent vegetation shall be done between March 15 and September 15. If seeding is done between September 15 and March 15, it shall be classified as "Temporary Seeding." Permanent seed shall be 40% Kentucky Bluegrass, 40% Creeping Red Fescue, 20% Annual Ryegrass. Establishment of permanent vegetation shall consist of fertilizing, watering, and seeding rates indicated under Item 659.

Rates of application of Item 659:
Seed: X lbs./X Sq.Ft.
Fertilizer: (12:12:12) X lbs./X Sq.Ft.
Mulch: Straw (Hay) X tons/acre (X tons/acre)

Excavated Area

Sediment Barrier

Flow

Flow

Stormwater Outfall

Filter Bag

Pump

Discharge Hose (One Hose per Filter Bag)

PLAN VIEW

Sediment Barrier

Filter Bag

Flow

Stormwater Outfall

Discharge Hose Provide Secure Connection to Filter Bag

Excavated Area

Pump

Stone Base and Berm No. 2 or No. 57

CROSS SECTION VIEW

Installation:

The Contractor shall pump muddy water encountered within excavated areas into a filter fabric bag. The bag shall be placed within a level undisturbed area as far away from the stormwater outfall as possible. The bag shall be placed on top of a aggregate pad. Additionally, a perimeter aggregate berm shall be constructed around the bag. Perimeter controls such as compost filter socks or sediment fence shall be utilized along the downstream side of the bag. The perimeter controls shall be installed to ensure that the water flowing out of the bag does not flow around the ends of the controls. Upon completion, the bag shall be removed to an area away from the stormwater outfall and opened. The accumulated sediment shall be spread out to allow to dry and stabilized with vegetation. Filter bags shall be sized based upon the pumping inflow rate.

Maintenance:

The filter bag shall be replaced when the bag is half filled with sediment.

The Contractor shall contact the project inspector/engineer for consultative services if dewatering activities overwhelm the filter bag and perimeter controls. A Special Waste Evaluation Requests Form (SWERF permit) is required for dewatering into the sanitary sewer system.

DEWATERING FILTER BAG

SCALE: NONE

Notes:

- Stone Size - Use 2" stone or reclaimed or recycled concrete equivalent.
- Length - A minimum of 100', but may be longer as determined by the City of Columbus.
- Thickness - Not less than six (6) inches.
- Width - Twenty (20) feet minimum but not less than the full width at points where ingress or egress occurs. May be wider as determined by the City of Columbus.
- Flares or radii shall be installed at the entrance if the public roadway speeds and/or traffic conditions warrant it, of if directed by C.O.C. personnel.
- Filter Fabric - Will be placed over the entire area prior to placing the stone.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes shall be permitted.
- Culvert Pipe - 12" minimum pipe is required if a storm ditch or swale exists at the proposed entrance. The culvert pipe inverts shall match the existing ditch at both sides of the entrance.
- Maintenance - The entrance shall be maintained in a condition which will protect the public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public right-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance into public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.
- Maintenance of traffic signage shall be a 48"x48" construction entrance ahead, 200' (adequate sight distance shall be considered) before the entrance on both sides of the road or as approved the the C.O.C. Temporary Traffic Control Coordinator. Contact the C.O.C. Temporary Traffic Control Coordinator before starting the entrance work.

STABILIZED CONSTRUCTION ENTRANCE (Std. Dwg. 2230)
SCALE: NONE

Material Properties:

- The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of a 6 inch overlap, and securely sealed. At a minimum, filter fabric shall meet the guidelines set forth by the Ohio EPA Rainwater and Land Development Manual.
- Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 16-inches). Wood posts will be a minimum of 32" long.
- A trench shall be excavated approximately 6-inches wide and 6 inches deep along the line of posts and upslope from the barrier.
- The standard strength filter fabric shall be stapled or wired to the fence, and 8-inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36-inches above the original ground surface.
- Filter fabric shall not be stapled to existing trees.
- The trench shall be backfilled and soil compacted over the filter fabric.
- Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.
- Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
- To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.

Maintenance:

- Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.
- Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

Notes:

- The use of straw wattles has proven to be a versatile and effective ESC BMP, especially in residential settings. Straw wattles may be substituted for silt fence in linear installation. Straw wattles or compost filter socks have to be a minimum of 12 inches in diameter now (OPEA).
- For minimum criteria for the Silt Fence Fabric, reference the Ohio EPA Rainwater and Land Development Manual.

SEDIMENT BARRIER - SILT FENCE
SCALE: NONE

Notes:

- Concrete trucks shall utilize areas to washout trucks. Wash water shall not overtop the perimeter barriers. Accumulated wash water and concrete shall be removed and properly disposed of when the level of the retained material reaches half-way up the side of the silt fence. The cost associated with excavating, installation of silt fence, maintaining and removing the concrete washout area shall be included in the bid item for the project.
- Silt fence shall be entrenched, backfilled, and compacted per the silt fence detail. Fence shall be supported by stakes every four feet.
- The washout area shall be installed on level ground and the area marked with a highly visible sign. If it is not feasible to install on level ground, the area shall be protected with a secondary sediment barrier.

The exact location of the concrete washout(s) may be field located by the project engineer/site contact.

The use of portable concrete washout units is approved for all construction areas in the City of Columbus.

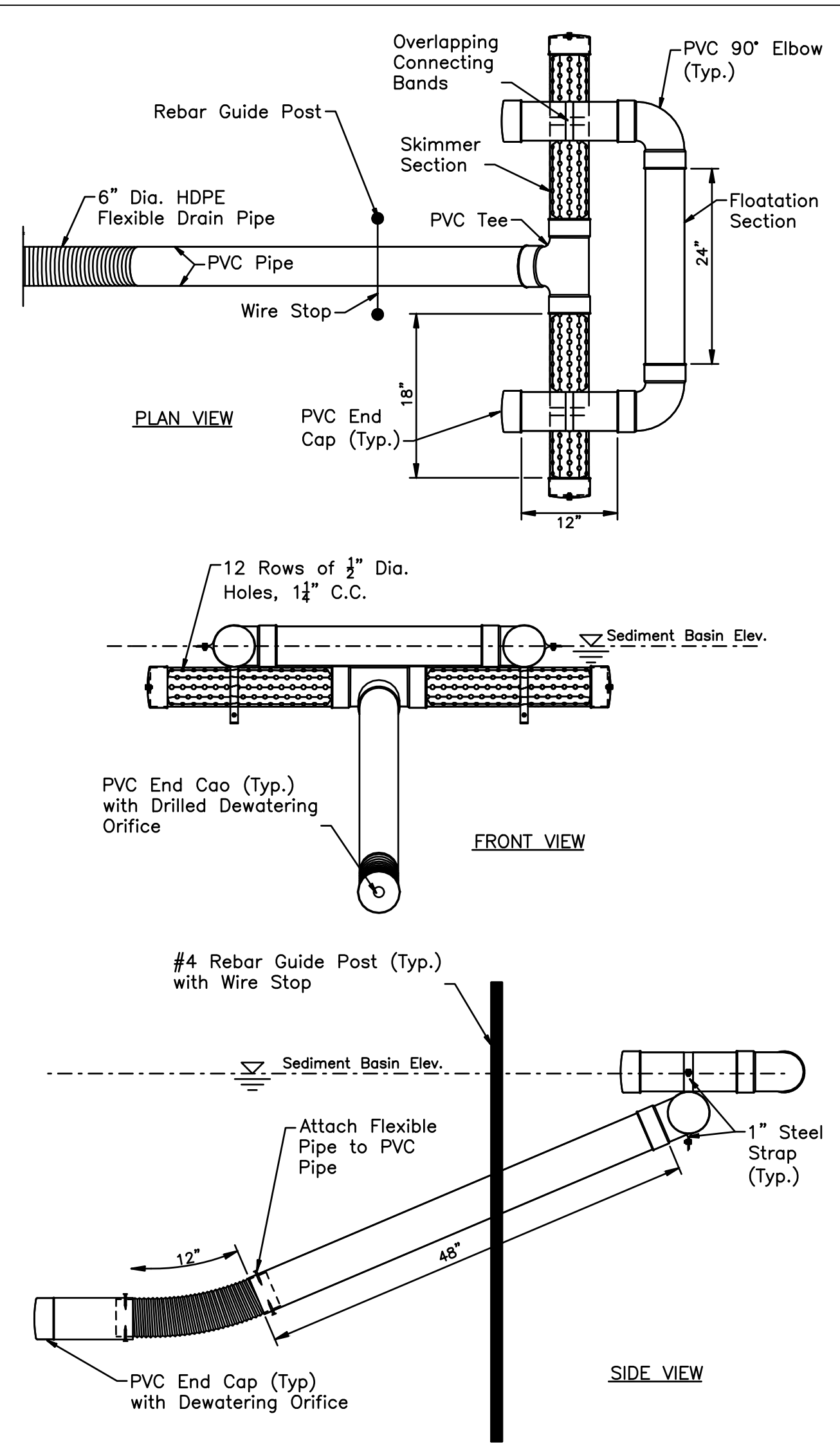
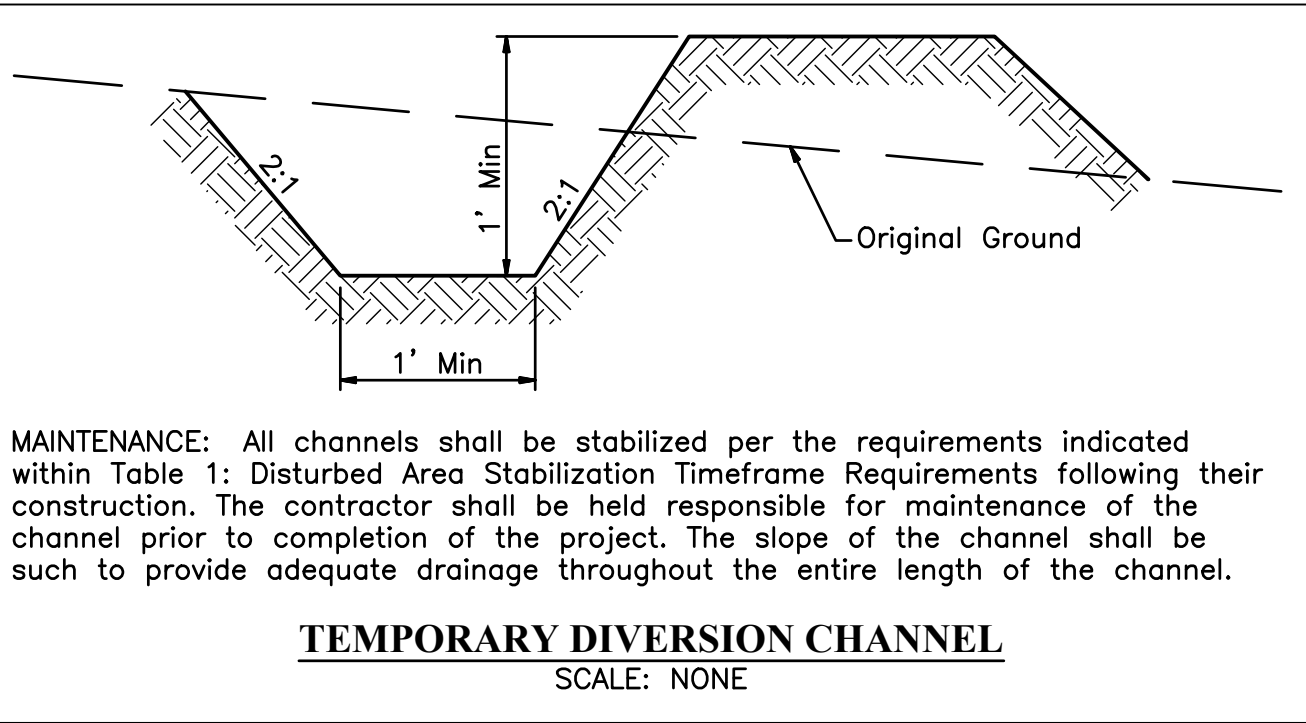
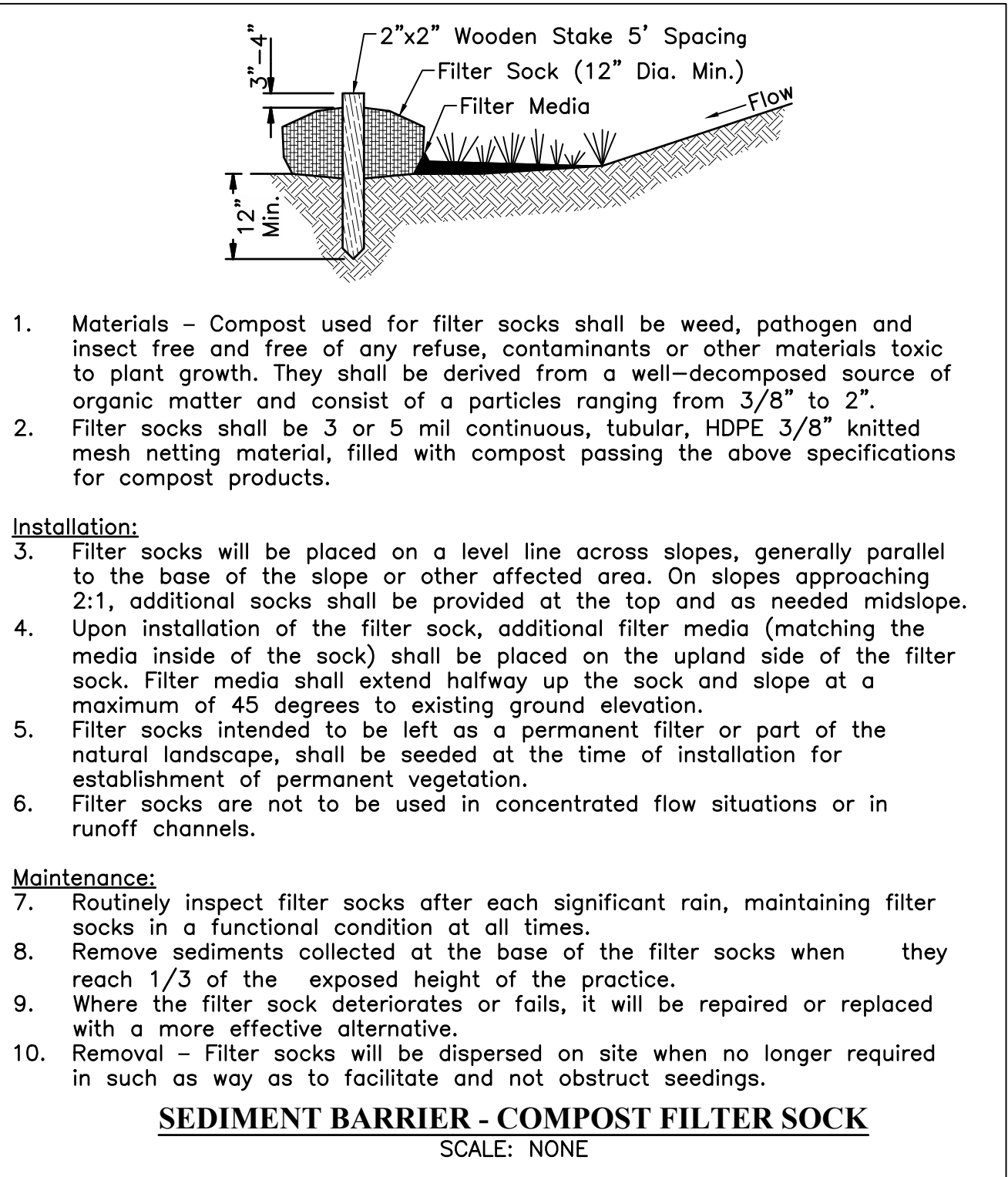
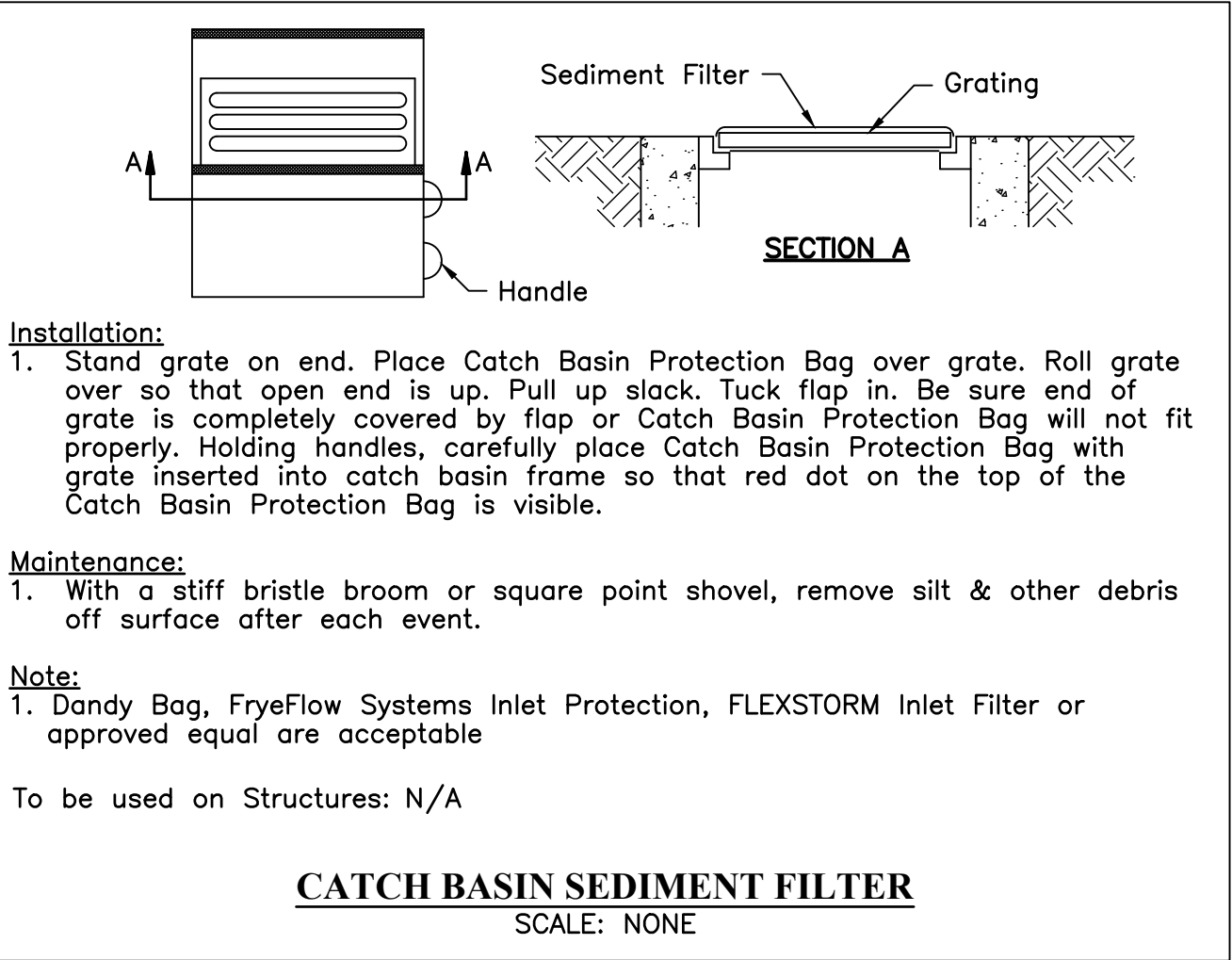
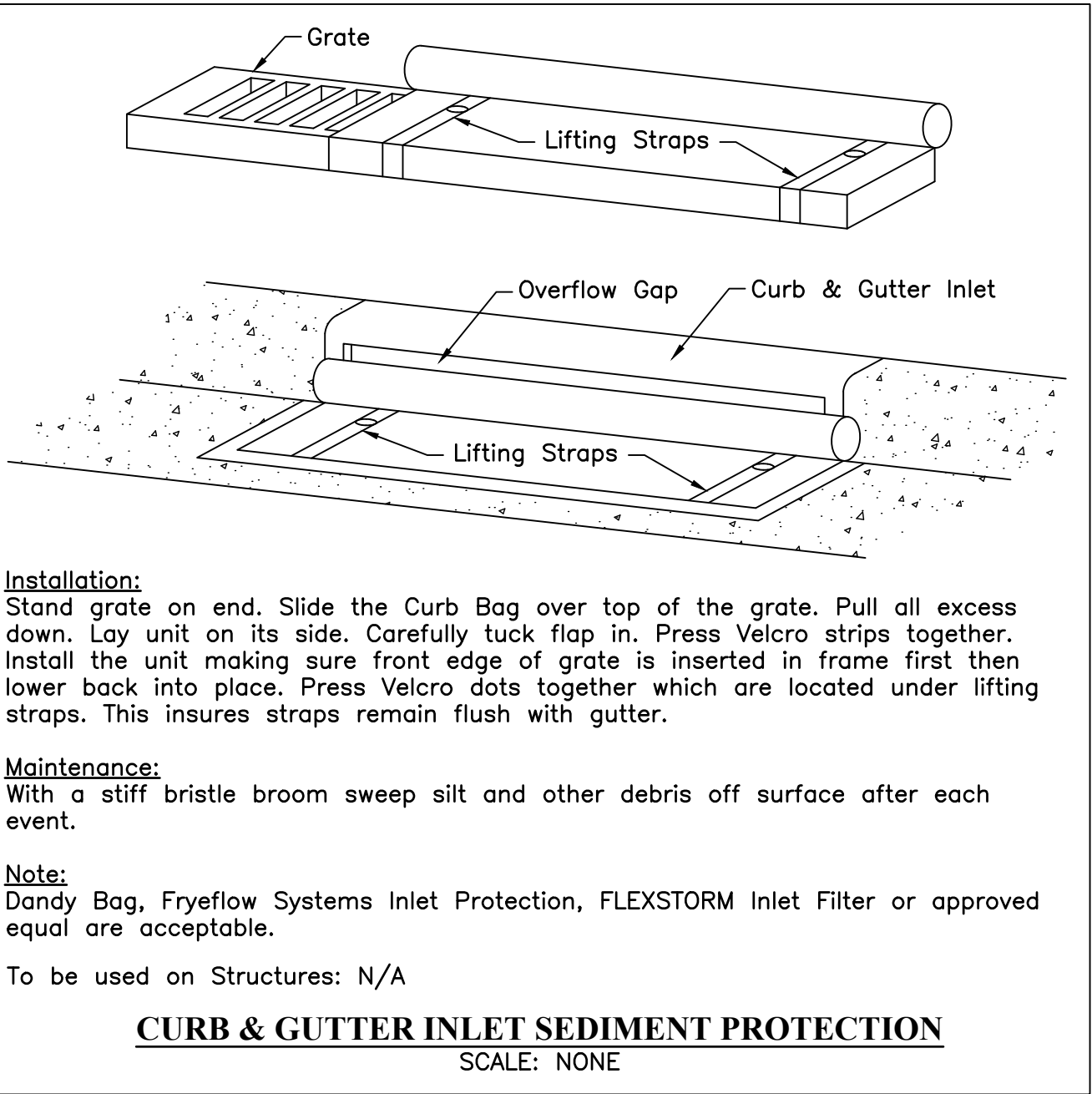
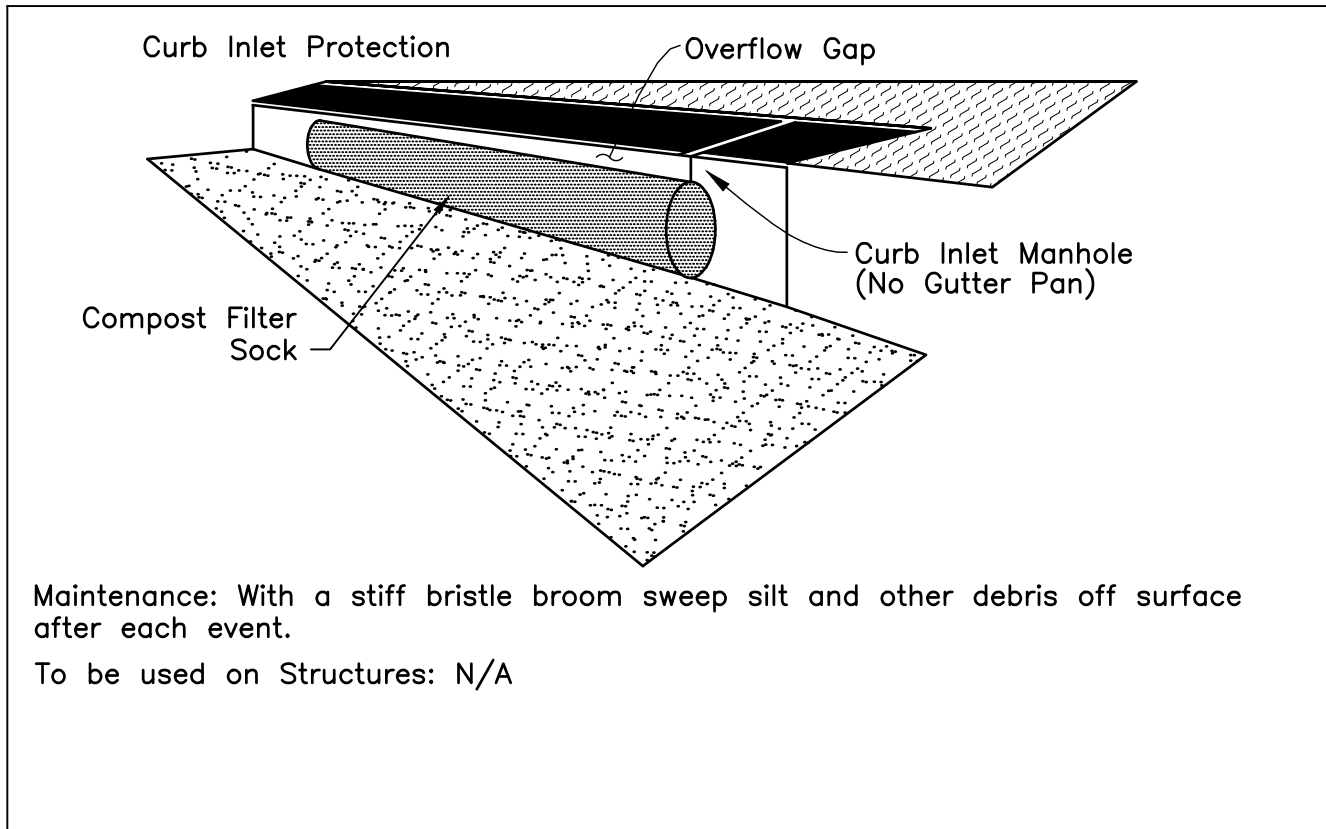
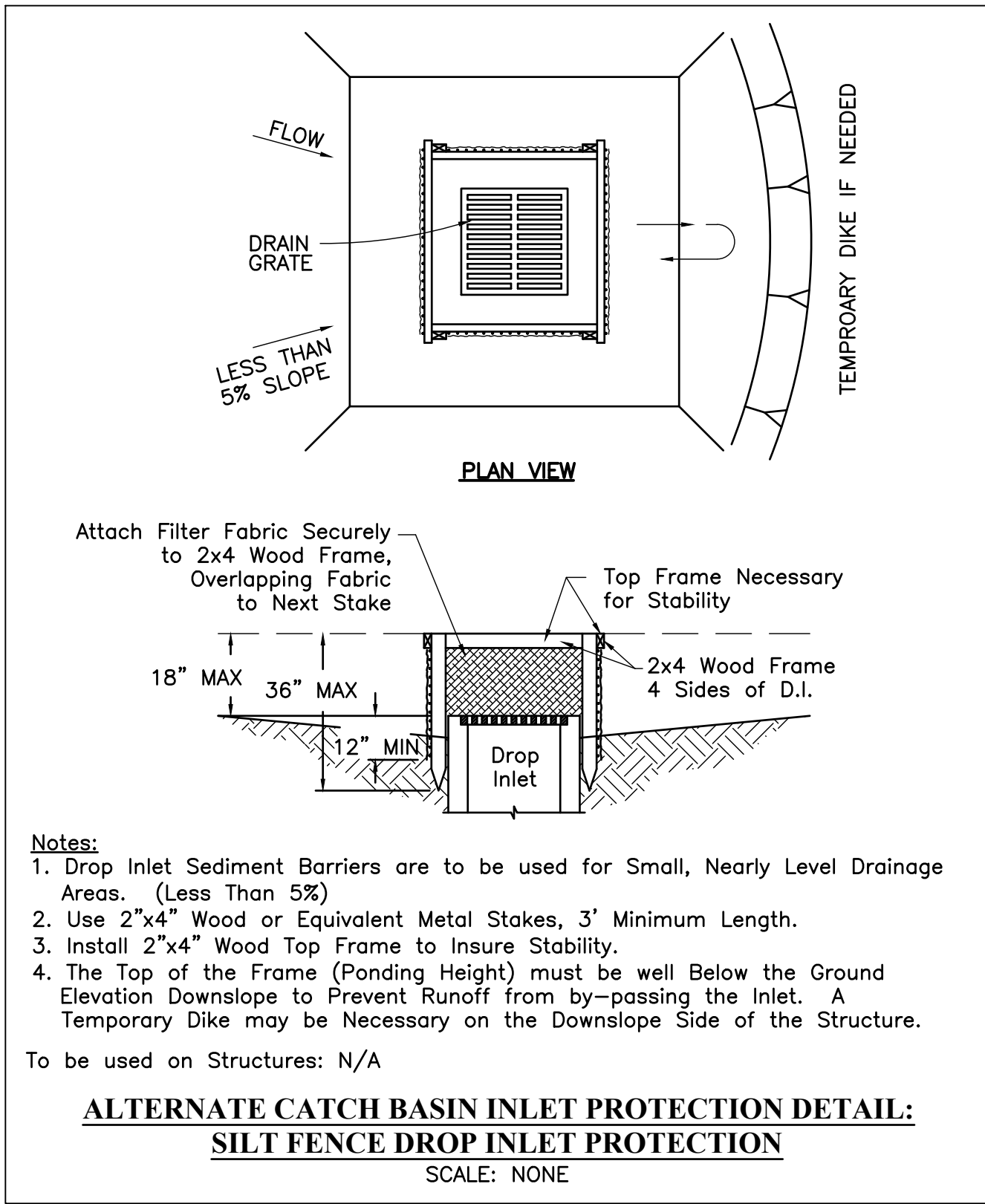
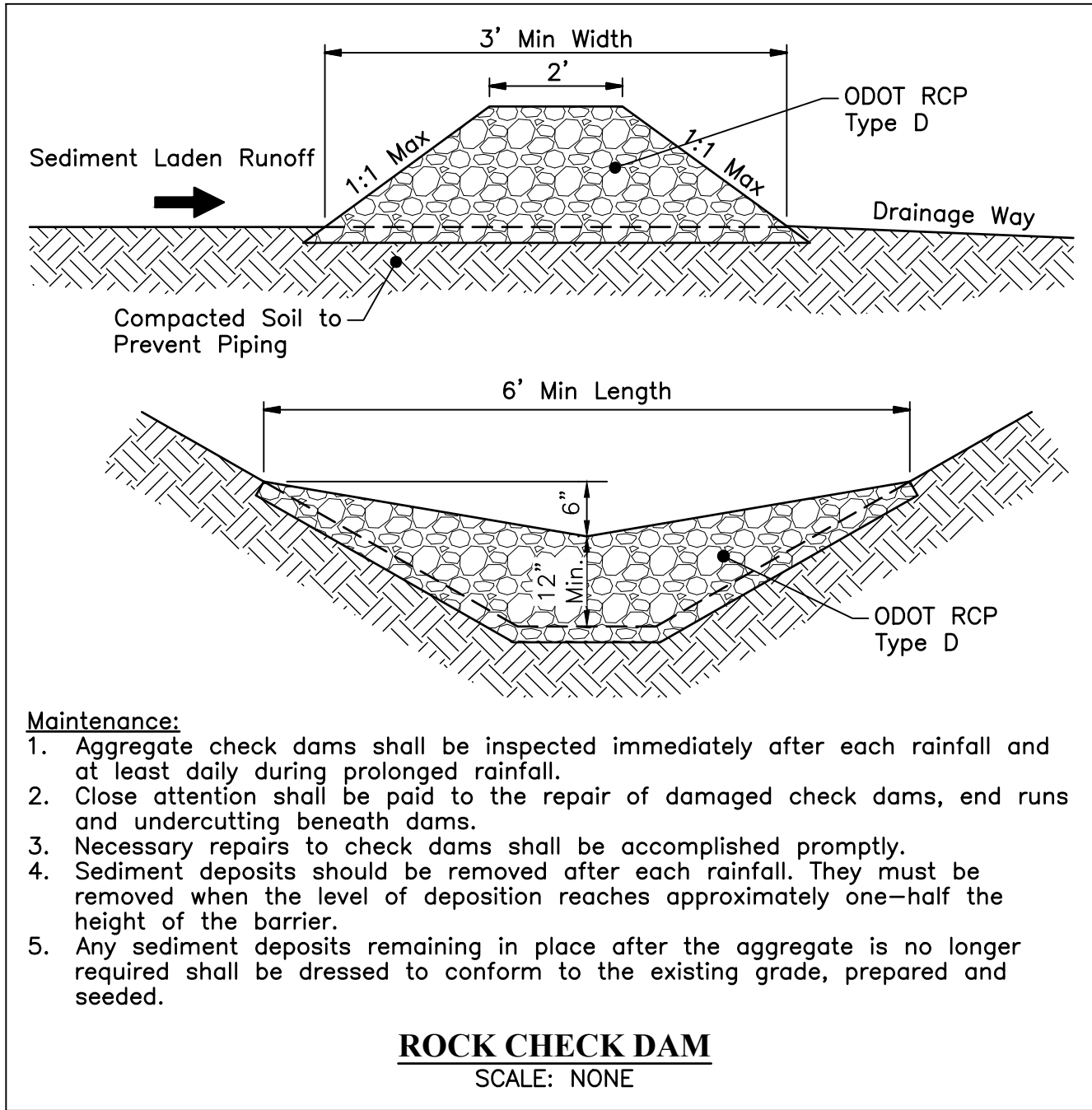
CONCRETE WASHOUT AREA
SCALE: NONE

STORMWATER POLLUTION PREVENTION PLAN NOTES

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

X
XX



SKIMMER SPECIFICATIONS				
BASIN	SKIMMER DIAMETER	SKIMMER ORIFICE DIAMETER	SKIMMER ORIFICE ELEVATION	WIRE STOP ELEVATION
X	X"	X"	XXX.XX	XXX.XX

Manufactured Skimmers may be substituted but must meet flow rate between XXX CFD and XXX CFD at maximum X.XX' depth. Shop Drawing to be reviewed by Engineer for approval.

City of Columbus Erosion and Sediment Control Inspector must approve removal of the temporary skimmer prior to converting the basin feature to the post-construction Stormwater Control Practice.

SEDIMENT BASIN SKIMMER
SCALE: NONE

POST CONSTRUCTION SCP INSPECTION AND MAINTENANCE SCHEDULE		
INSPECTION ITEM	MAINTENANCE PROCEDURES	FREQUENCY OF INSPECTION
SCP Component Description	Include maintenance procedures. Procedures are to conform with the the City SCP Inspection and Maintenance Manual.	Indicate Frequency

SUMMARY OF POST-CONSTRUCTION STORMWATER CONTROL PRACTICES (SCPs REQUIRED)					
CONTROL/ OUTLET STRUCTURE NO.	PLAN VIEW PAGE NUMBER FOR BMP	CONTROL FUNCTION	DRAINAGE AREA TO CONTROL FACILITY (ACRES)	FACILITY TYPE	GREEN INFRASTRUCTURE (SQUARE FEET)*

The following note shall be added in lieu of the table above in instances where stormwater control practices are included in another phase of development or are not required.

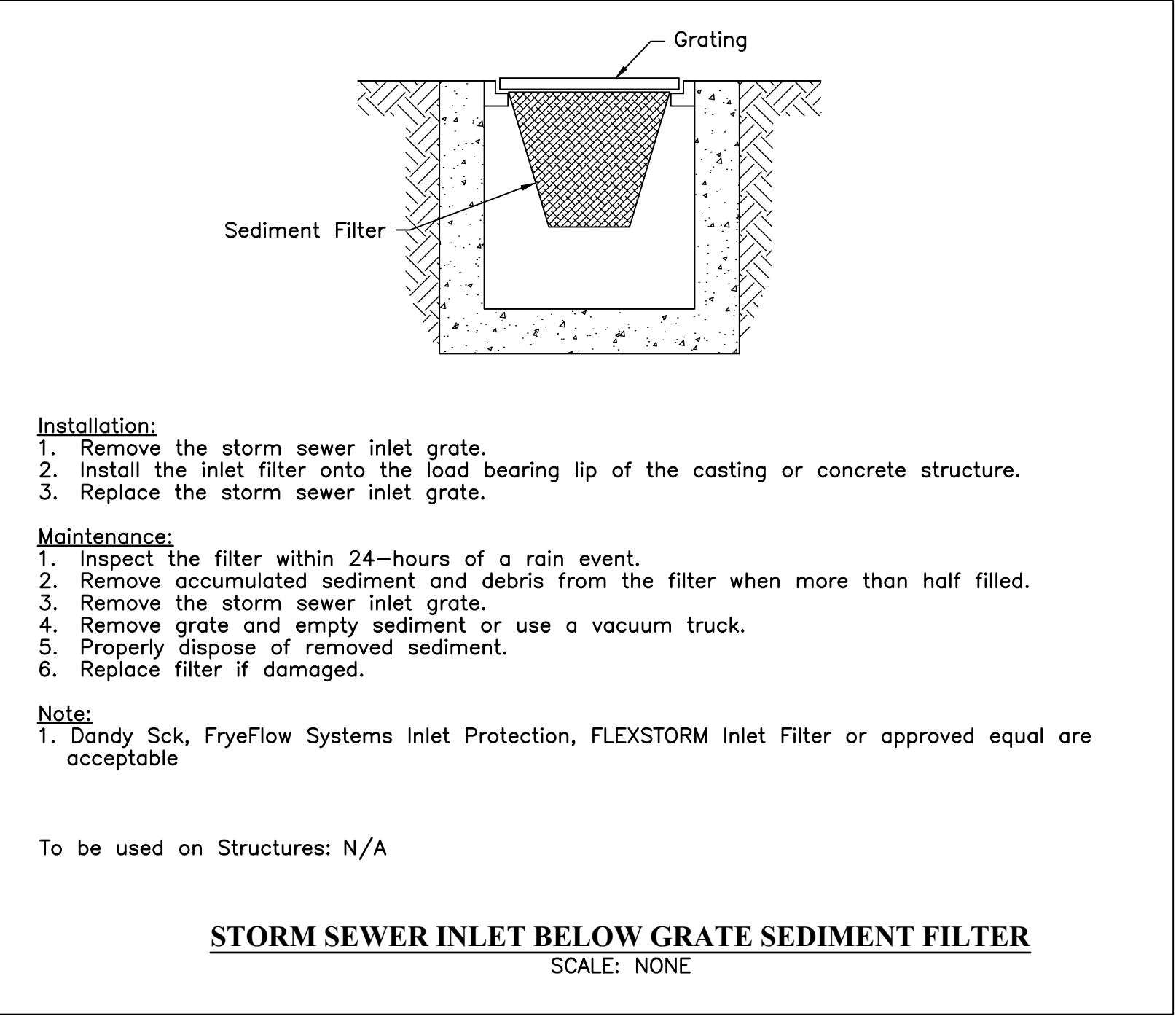
"Refer to drawing # <XX-XXXX> for stormwater control practice information"

"Reason the project does not meet the requirements of the SCP's"

100 YEAR DETENTION TABLE				
LOCATION	VOLUME REQUIRED AC/FT	VOLUME PROVIDED AC/FT	ELEVATION	REMARKS
BMP DESCRIPTION	X.XX	X.XX	XXX.XX***	* & **

*See Storm Water Management Plan/Report for Details
**Stormwater Management Facility shall be owned and maintained by the private property owner, CC-XXXX.
***Top of XXXX

TEMPORARY SEDIMENT BASIN TABLE						
BASIN	TRIBUTARY ACREAGE	DISTURBED ACREAGE	REQUIRED BASIN DEWATERING VOLUME (67 CY/AC)	PROVIDED BASIN DEWATERING VOLUME	REQUIRED SEDIMENT STORAGE VOLUME (37 C.Y. DISTURBED A.C.)	PROVIDED SEDIMENT STORAGE VOLUME
X	X Ac	X Ac	X CY	X CY	X CY	X CY





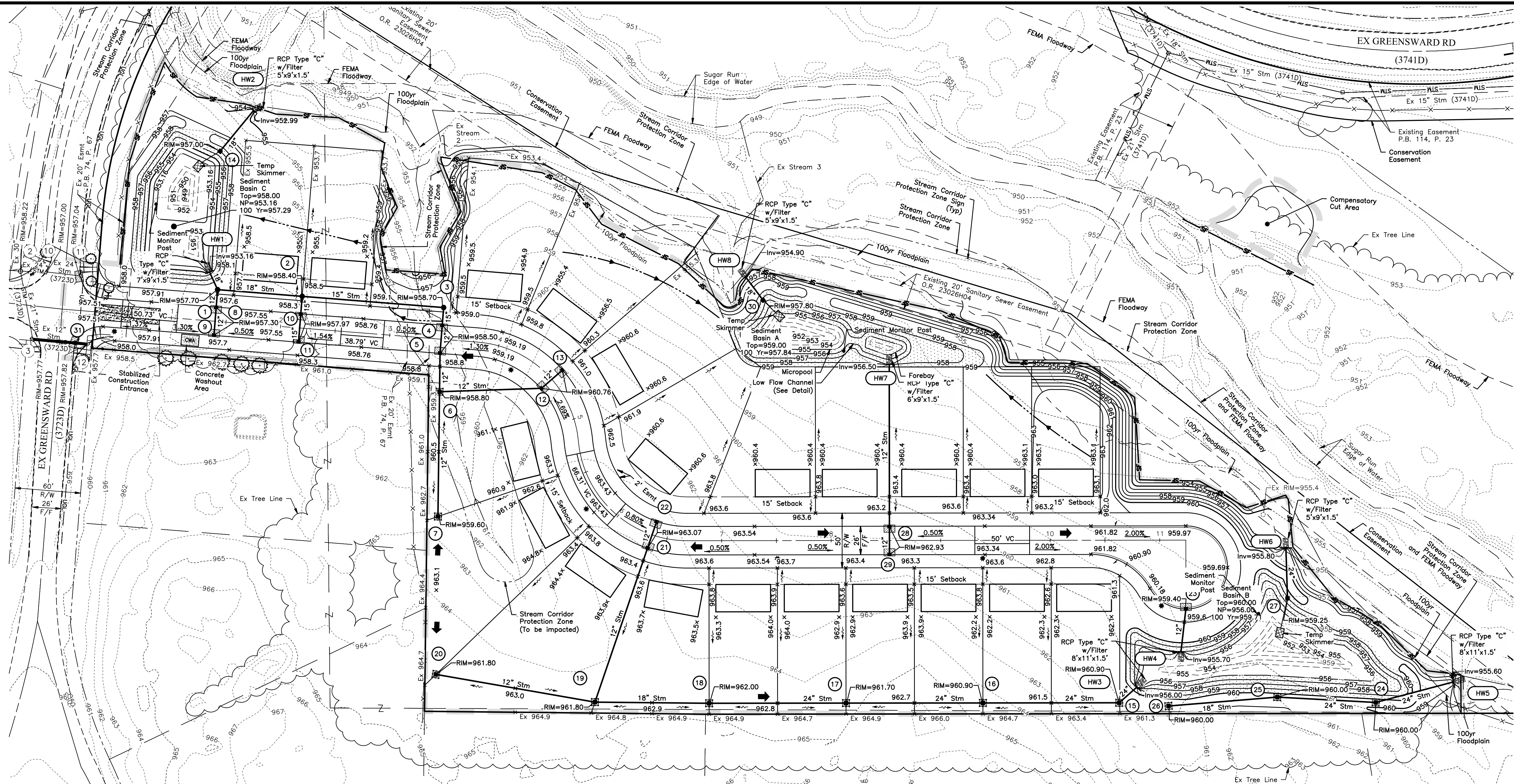
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STORMWATER POLLUTION PREVENTION PLAN

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX



LEGEND	
-----905-----	Existing Major Contour
-----901-----	Existing Minor Contour
-----960-----	Proposed Major Contour
-----959-----	Proposed Minor Contour
ExStm ExCB	Existing Storm Sewer
Stm CB	Proposed Storm
←	Flood Routing Arrow
→	Flow Arrow
⊠	Temporary Skimmer
sf	Sediment Fence or Compost Filter Sock installation should be at edge of disturbance. Do not remove trees to facilitate installation. Actual placement should be determined by Construction Manager in the field.

▬	Limits of Disturbance (See Sheet 19 for Path Info)
⊠	Stabilized Construction Entrance (See Detail, Sheet 9)
⊠	Concrete Washout Area (See Detail, Sheet 9)
▨	Proposed Curb & Gutter Inlet Protection (See Detail, Sheet 10)
▨	Proposed Silt Fence Inlet Protection (See Detail, Sheet 10)
▨	Erosion Control Matting Item 670, Type B
▬	Temporary Diversion Channel The contractor is to route runoff to the sediment basins during grading and filling activities. Locations and elevations of the diversion channels are to be adjusted during filling activities.

Designer Note:

Plan Sheet Size	# of Unique Pay Item	# of Quantity Bubbles	Table Location	Table Orientation
Small	<20	or <20	On Plan and Profile sheet when space permits	From Left to Right or rotated 90° Counter Clockwise
Medium	>20, <30	or >20, <50	On a single sheet following the plan view sheet	From Left to Right
Large	>30	or >50	On multiple separate sheets following the plan view sheet*	From Left to Right

* Individual table sizes shall not exceed the characteristics described in the "Medium Plans."

Note: Refer to Location and Design Manual Volume 3 when intermediate subsummaries are needed.

LEGEND

- Encroachment
- Full Depth Pavement, Refer to Typical Sections (Sheet XX)
- Item 254 - Pavement Planing, Asphalt Concrete (T=1.5")

TBM #4

Railroad spike in the west side of a wooden light pole located on the east side of Street 1, in front of residence #152

Elev 816.91

N:71768349, E:183790285
Sta 307+02.79, Offset 15.96' Rt
Based on Street 1 Centerline Alignment

DESIGNER NOTE:
UNDERGROUND UTILITIES ARE TO PLOT IN COLOR. ALL ABOVE GROUND UTILITIES ARE TO PLOT IN BLACK.

DESIGNER NOTE:
SCREEN BACK PROPOSED BY OTHERS ITEMS

DESIGNER NOTE:
PRIVATE UTILITY OWNERS SHALL BE LABELED ON THE PLANS. UTILITY POLE OWNERS SHALL BE LABELED.

DESIGNER NOTE:
REFER TO GENERAL DESIGN REQUIREMENTS FOR PLAN AND PROFILE SCALE REQUIREMENTS.

DESIGNER NOTE:
LABEL THE ACTIONS OF ALL ITEMS WITHIN THE RIGHT OF WAY AND THE ACTIONS OF ALL ITEMS WITHIN THE CONSTRUCTION LIMITS. LABEL THE ACTIONS OF ALL ITEMS WHEN ANY PART OF THAT ITEM ENTERS THE RIGHT OF WAY OR CONSTRUCTION LIMITS

DESIGNER NOTE:
SHEET NUMBERS REFERENCED IN THE PLAN SHEET REFERENCE TABLE ABOVE SHALL REPRESENT THE SPECIFIC SHEETS ASSOCIATED WITH ITEMS SHOWN ON THE PLAN AND PROFILE VIEW FOR EACH PLAN AND PROFILE SHEET.

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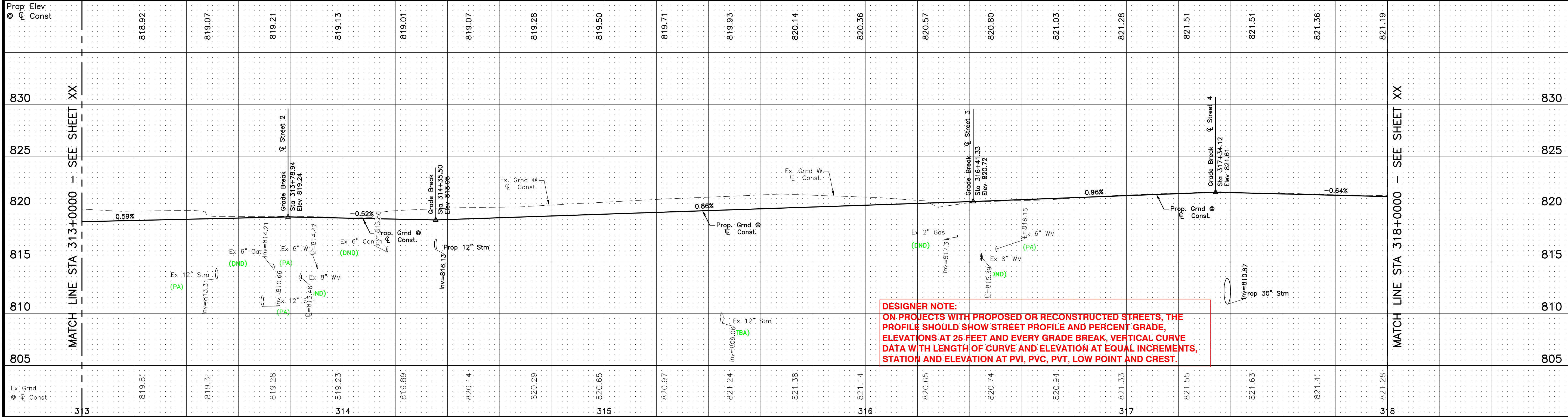
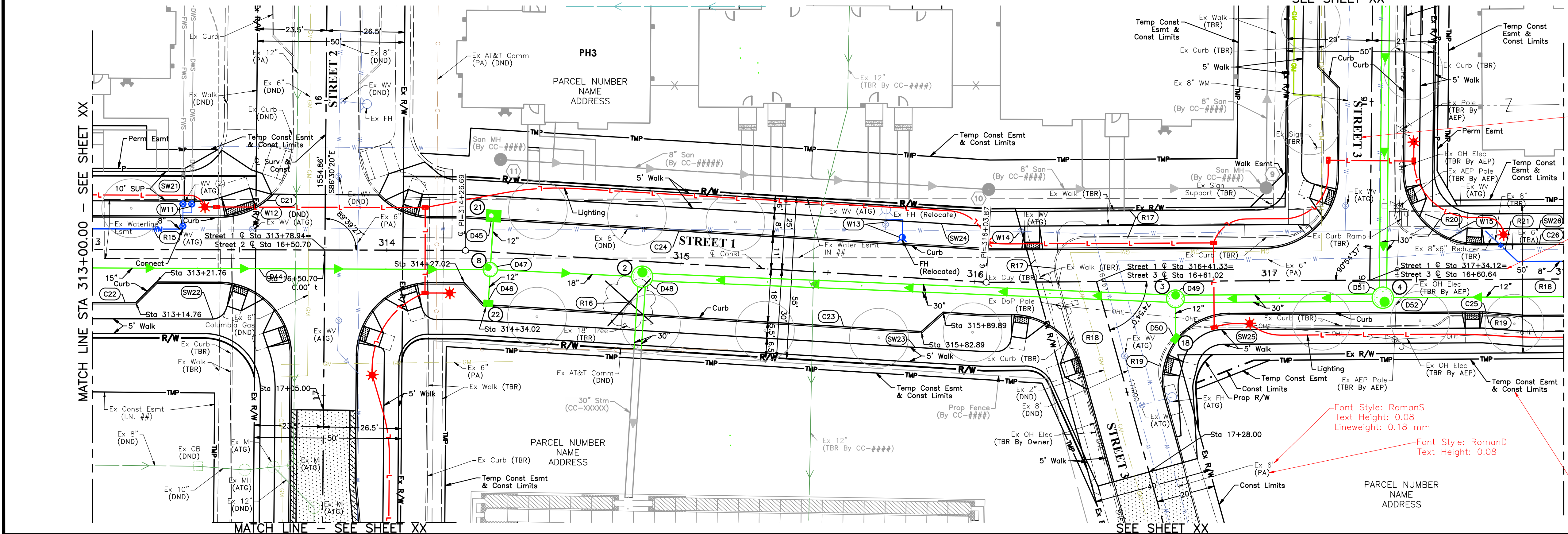
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DESIGNER NOTE:
THE DESIGNER CAN REQUEST TO USE A DEMOLITION PLAN. IN THE EVENT THAT THE CITY PROJECT MANAGER APPROVES A DESIGNER'S REQUEST TO CREATE A SEPARATE DEMOLITION PLAN, EXISTING SURFACE FEATURES THAT ARE TO BE REMOVED SHALL BE ELIMINATED FROM THE PLAN AND PROFILE SHEETS. UTILITIES THAT ARE TO BE REMOVED SHALL BE SHOWN ON THE PLAN AND PROFILE SHEETS WITH THE APPROPRIATE ACTIONS TO ENSURE COORDINATION OCCURS WITH THE UTILITY COMPANIES, ETC.

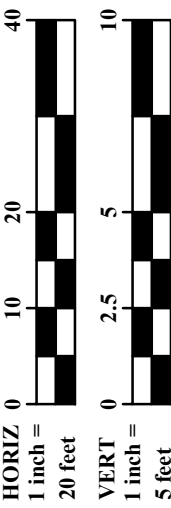
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Lineweight: 0.18 mm

Font Style: RomanD
Text Height: 0.08



DESIGNER NOTE:
ON PROJECTS WITH PROPOSED OR RECONSTRUCTED STREETS, THE PROFILE SHOULD SHOW STREET PROFILE AND PERCENT GRADE, ELEVATIONS AT 25 FEET AND EVERY GRADE BREAK, VERTICAL CURVE DATA WITH LENGTH OF CURVE AND ELEVATION AT EQUAL INCREMENTS, STATION AND ELEVATION AT PVI, PVC, PVT, LOW POINT AND CREST.



CALCULATED XX
CHECKED XX

STREET 1 PLAN & PROFILE
STA 313+00.00 TO STA 318+00.00

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX

				201	201	202	202	202	202	202	204	304	441	604	604	604	605	608	608	608	608	609	801	807	809	809	901	901	901	901	901	SPEC	SPEC
				TREE REMOVED, 48" SIZE	TREE REMOVED, 18" SIZE	WATER MAIN REMOVED, 8" AND UNDER	6" WATER MAIN ABANDONED	PAVEMENT REMOVED	WALK REMOVED	CURB REMOVED	SUBGRADE COMPACTION	AGGREGATE BASE (T=6")	ASPHALT CONCRETE, SURFACE COURSE (LIGHT TRAFFIC), PG 64-22 (T=2.5")	MANHOLE, TYPE C (AA-S102)	CURB INLET (AA-S123)	CURB AND GUTTER INLET (AA-S125A)	4" PIPE UNDERDRAIN	CONCRETE WALK (T=4")	CONCRETE WALK (T=8")	CURB RAMP	DETECTABLE WARNING, TYPE E	CURB, STRAIGHT 18"	6" WATER PIPE AND FITTINGS	VALVE BOXES ADJUSTED TO GRADE	24" FIRE HYDRANT EXTENSION	FIRE HYDRANT, RELOCATED	12" PIPE, WITH TYPE I BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	12" PIPE, CONCRETE ENCASED, WITH TYPE II BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	15" PIPE, WITH TYPE I BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	18" PIPE, WITH TYPE I BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	30" PIPE, WITH TYPE I BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	BRICK PAVEMENT REMOVED AND SALVAGED	STONE CURB REMOVED AND SALVAGED
REF. #	FROM	TO	SIDE	EA	EA	LF	LF	SY	SF	LF	SY	CY	CY	EA	EA	EA	LF	SF	SF	EA	SF	LF	LF	EA	EA	EA	LF	LF	LF	LF	LF	SY	LF
R15	313+20.35	313+29.97	LT			XX																											
R16		314+83.29	RT		XX																												
R17	316+18.14	317+18.16	LT/RT						XX	XX																							XX
R18	316+27.46	318+00.00	LT/RT					XX																							XX		XX
R19	316+62.29	317+85.25	RT						XX	XX																							XX
R20	317+42.46	318+00.00	LT						XX	XX																							XX
R21	317+73.58	318+00.00	LT			XX	XX																										
SW21	313+00.00	313+60.85	LT								XX	XX	XX					XX	XX	XX	XX												
SW22	313+00.00	313+66.82	RT															XX	XX	XX	XX												
SW23	313+90.63	316+37.65	RT															XX	XX	XX	XX												
SW24	313+97.44	317+22.69	LT															XX	XX	XX	XX												
SW25	316+64.13	318+00.00	RT															XX	XX	XX	XX												
SW26	317+46.79	318+00.00	LT															XX	XX	XX	XX												
C21	313+00.00	313+61.21	LT														XX						XX										
C22	313+00.00	313+67.72	RT														XX						XX										
C23	313+89.72	316+36.34	RT														XX						XX										
C24	313+97.07	317+23.69	LT														XX						XX										
C25	316+64.30	318+00.00	RT														XX						XX										
C26	317+45.71	318+00.00	LT														XX						XX										
W11	313+30.71	313+33.75	LT																					XX									
W12		313+54.29	LT																				XX										
W13	315+68.60	315+74.49	LT																				XX		XX								
W14		316+15.73	LT																				XX		XX								
W15		317+64.48	LT																				XX										
D44	313+00.00	314+35.51	RT																											XX			
D45		314+35.50	LT/RT												XX												XX						
D46		314+35.52	RT													XX											XX						
D47	314+35.51	314+87.13	RT											XX																	XX		
D48		314+87.13	RT											XX																		XX	
D49	314+87.13	316+68.09	RT											XX																		XX	
D50		316+68.09	RT													XX											XX						
D51	316+68.09	317+38.53	RT											XX																	XX		
D52	317+38.53	318+00.00	RT																								XX						
			TOTAL	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX

DESIGNER NOTE:
QUANTITY BUBBLE NUMBERS DO NOT START OVER SHEET TO SHEET BUT ARE SUCCESSIVE AND ASCENDING THROUGHOUT THE PLAN AND PROFILE SHEETS.

DESIGNER NOTE:
BELOW IS A LIST OF BUBBLE NUMBERS THAT SHALL BE USED WHEN APPLICABLE WITHIN THE PLANS TO QUANTIFY PROPOSED ITEMS.
D - DRAINAGE/STORMWATER. STORM QUANTITIES ARE TO HAVE A SEPARATE BUBBLE NUMBER FOR EACH STORM STRUCTURE AND WILL INCLUDE THE DOWNSTREAM PIPE TO THE NEXT STRUCTURE OR OUTFALL.
W - WATER. "W" SHALL BE USED TO QUANTIFY WATER ITEMS WHEN A WATER MAIN PLAN WITHIN THIS PLAN DOES NOT INCLUDE THIS WORK (E.G. WHEN A WATER VALVE NEEDS TO BE ADJUSTED TO GRADE FOR ROADWAY WORK).
C - CURB. THIS QUANTITY BUBBLE CAN ALSO INCLUDE UNDERDRAIN QUANTITIES WHEN UNDERDRAIN IS PLACED WITHIN THE CURB. CURB QUANTITIES ARE TO BE QUANTIFIED FROM INTERSECTION TO INTERSECTION OR WHERE TRANSITIONS OCCUR.
U - UNDERDRAIN. TO BE USED TO QUANTIFY UNDERDRAIN ON UNCURBED ROADWAYS AND WHERE UNDERDRAIN IS INSTALLED AND NOT QUANTIFIED WITH "C" AS DESCRIBED ABOVE.
P - PAVEMENT REPAIR AREAS, UTILITY TRENCHING PAVEMENT REPLACEMENT
R - REMOVALS.
DR - DRIVEWAY. (DRIVEWAY REMOVAL ITEMS SHALL BE QUANTIFIED WITHIN THE "DR" BUBBLE NUMBER. THE DESIGNER SHALL INDICATE THE APPROPRIATE DRIVE AND APRON MATERIAL FOR BOTH REMOVAL AND PROPOSED. THE REMOVAL AND PROPOSED QUANTITIES SHALL REFLECT THE APPROPRIATE MATERIAL TYPE.)
F - FENCE.
G - GUARDRAIL.
SW - SIDEWALK, SHARED USE PATH, AND PEDESTRIAN FACILITIES
S - SANITARY.
M - FOR MISCELLANEOUS PROPOSED ITEMS/WORK NOT SPECIFIED IN THE ABOVE LETTER DESIGNATIONS. THIS MAY INCLUDE PAVEMENT QUANTITIES NOT IN THE PAVEMENT CALCULATIONS, RETAINING WALLS, ADJUSTED TO GRADES FOR UTILITY MANHOLES.

Designer Note:				
Plan Sheet Size	# of Unique Pay Item	# of Quantity Bubbles	Table Location	Table Orientation
Small	<20	or <20	On Plan and Profile sheet when space permits	From Left to Right or rotated 90° Counter Clockwise
Medium	>20, <30	or >20, <50	On a single sheet following the plan view sheet	From Left to Right
Large	>30	or >50	On multiple separate sheets following the plan view sheet*	From Left to Right

* Individual table sizes shall not exceed the characteristics described in the "Medium Plans."
Note: Refer to Location and Design Manual Volume 3 when intermediate summaries are needed.

SCALE

CALCULATED	CHECKED
XX	XX

None

STREET 1 PLAN & PROFILE SUBSUMMARY
STA 313+00.00 TO STA 318+00.00

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E




Designer Note:

Plan Sheet Size	# of Unique Pay Item	# of Quantity Bubbles	Table Location	Table Orientation
Small	<20	or <20	On Plan and Profile sheet when space permits	From Left to Right or rotated 90° Counter Clockwise
Medium	>20, <30	or >20, <50	On a single sheet following the plan view sheet	From Left to Right
Large	>30	or >50	On multiple separate sheets following the plan view sheet*	From Left to Right

* Individual table sizes shall not exceed the characteristics described in the "Medium Plans."

Note: Refer to Location and Design Manual Volume 3 when intermediate summaries are needed.

 TBM #9	Railroad spike in the east side of a wooden utility pole located on the west side of N. Ohio Avenue, 80 feet south of the southeast corner of the Beatty Park Recreation Center building (247 N. Ohio Avenue). N:718036.58, E:1836880.03 Sta. 17+15.09, Offset 19.66' Lt. Based on Ohio Avenue Centerline Alignment Elev. 815.16
--	--

DESIGNER NOTE:
UNDERGROUND UTILITIES ARE TO PLOT IN COLOR. ALL ABOVE GROUND UTILITIES ARE TO PLOT IN BLACK.

DESIGNER NOTE:
SCREEN BACK PROPOSED BY OTHERS ITEMS

DESIGNER NOTE:
PRIVATE UTILITY OWNERS SHALL BE LABELED ON THE PLANS. UTILITY POLE OWNERS SHALL BE LABELED.


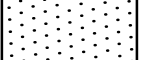
DESIGNER NOTE:
REFER TO GENERAL DESIGN REQUIREMENTS FOR PLAN AND PROFILE SCALE REQUIREMENTS.

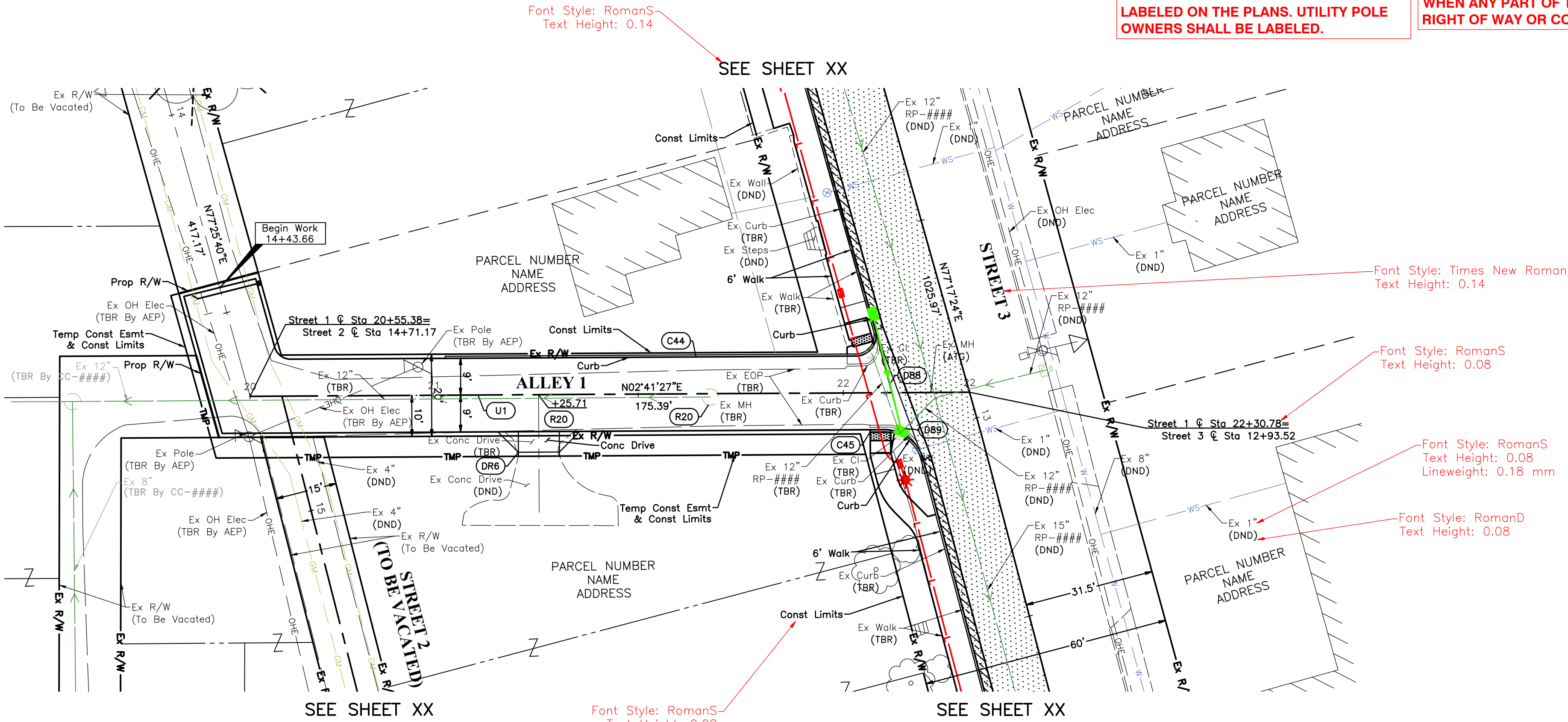
DESIGNER NOTE:
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DESIGNER NOTE:
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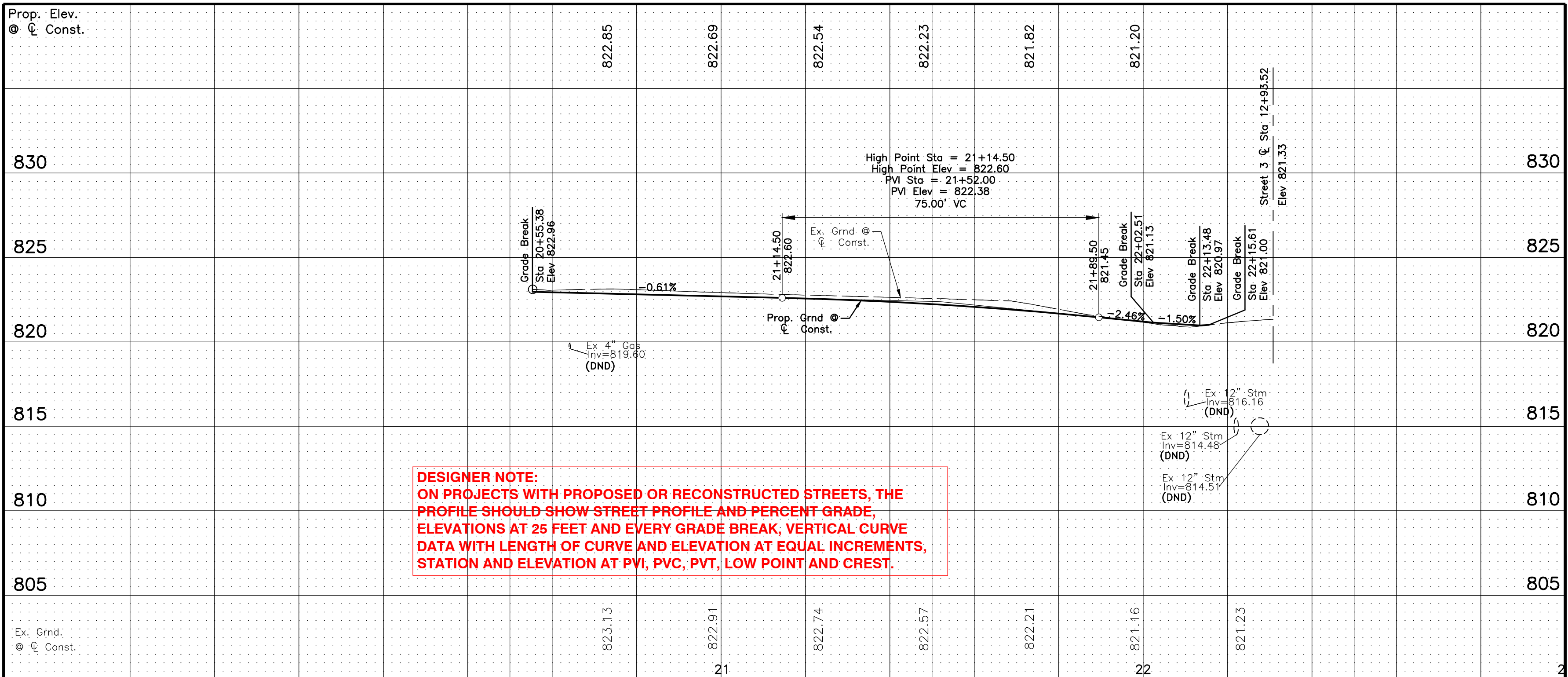
PLAN SHEET REFERENCES	
SHEET #	DESCRIPTION
64	Plan & Profile Subsummary
65	Cross Sections
83	Pavement Details
86	Storm Profiles
96,99	Traffic Control Plan
105	Lighting Plan

LEGEND

	Full Depth Pavement, Refer to Typical Sections (Sheet XX)
	Item 254 - Pavement Planing, Asphalt Concrete (T=1.5")



DESIGNER NOTE:
THE DESIGNER CAN REQUEST TO USE A DEMOLITION PLAN. IN THE EVENT THAT THE CITY PROJECT MANAGER APPROVES A DESIGNER'S REQUEST TO CREATE A SEPARATE DEMOLITION PLAN, EXISTING SURFACE FEATURES THAT ARE TO BE REMOVED SHALL BE ELIMINATED FROM THE PLAN AND PROFILE SHEETS. UTILITIES THAT ARE TO BE REMOVED SHALL BE SHOWN ON THE PLAN AND PROFILE SHEETS WITH THE APPROPRIATE ACTIONS TO ENSURE COORDINATION OCCURS WITH THE APPROPRIATE CITY REPRESENTATIVES, UTILITY COMPANIES, ETC.



				202	202	202	202	202	204	452	604	605	608	901
				STORM PIPE REMOVED, 24" AND UNDER	PAVEMENT REMOVED	STORM MANHOLE REMOVED	CURB INLET REMOVED	CONCRETE DRIVE REMOVED	SUBGRADE COMPACTION	NON-REINFORCED CONCRETE PAVEMENT	CURB AND GUTTER INLET (AA-S125A)	4" PIPE UNDERDRAIN	CURB, STRAIGHT 18"	12" PIPE WITH TYPE I BEDDING, WITH ITEM 902, COMPACTED GRANULAR BACKFILL
REF. #	FROM	TO	SIDE	LF	SY	EA	EA	SY	SY	SY	EA	LF	LF	LF
R20	20+38.15	22+21.25	BT	XX	XX	XX	XX							
U1	20+48.14	22+13.46	BT									XX		
DR6	21+15.71	21+35.71	RT					XX	XX	XX				
C44	21+03.00	22+07.88	LT										XX	
C45	22+06.52	22+19.46	RT										XX	
D88	22+07.34	22+14.19	BT								XX			XX
D89		22+14.19	RT								XX			
			TOTAL	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX

DESIGNER NOTE:
QUANTITY TABLE CAN BE ROTATED 90° COUNTERCLOCKWISE WHEN SPACE DOES NOT PERMIT. ENSURE TEXT IS NEVER UPSIDE DOWN REGARDLESS OF ORIENTATION.

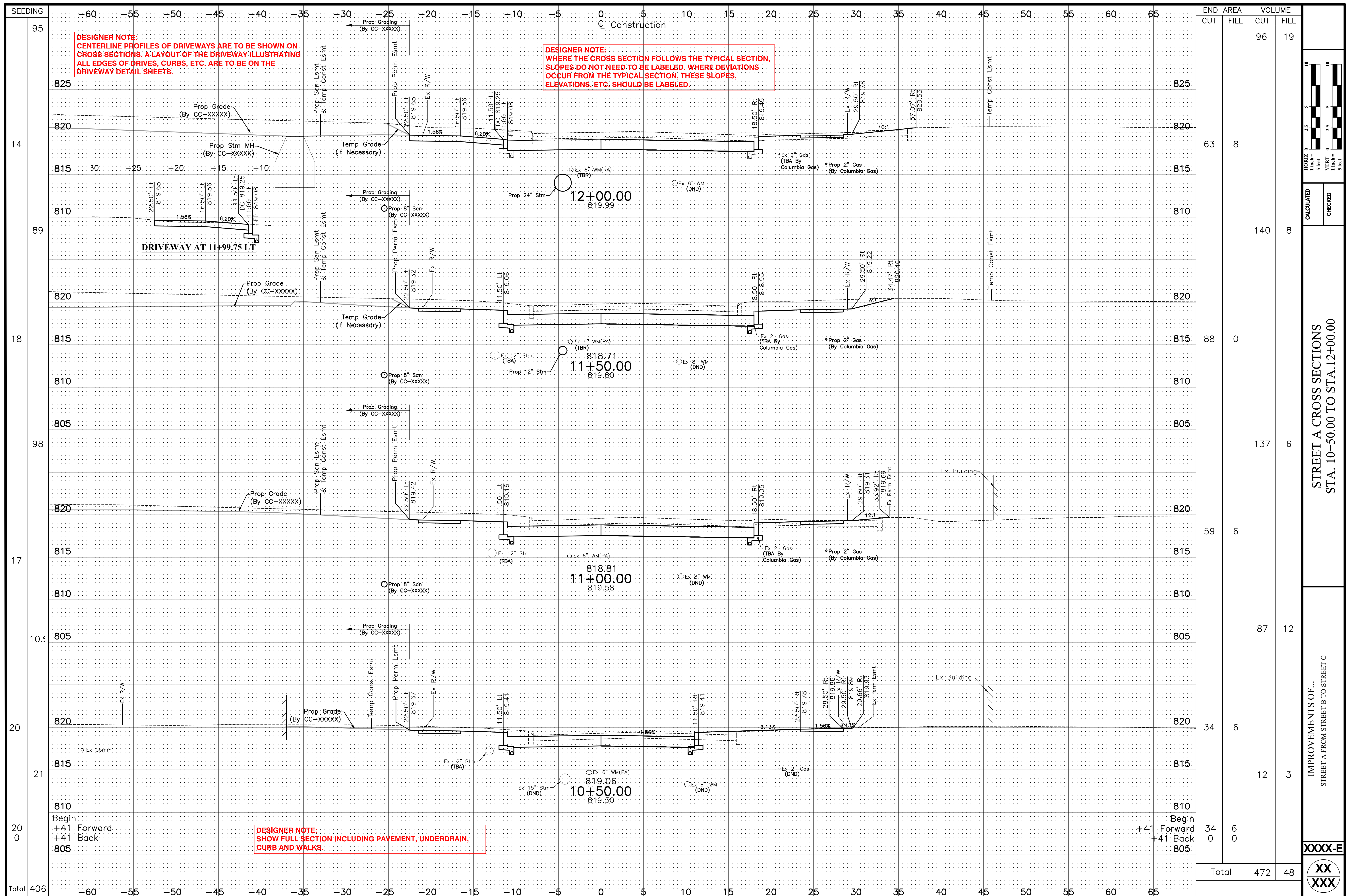
DESIGNER NOTE:
DRIVEWAY REMOVAL ITEMS SHALL BE QUANTIFIED WITHIN THE "DR" BUBBLE NUMBER. THE DESIGNER SHALL INDICATE THE APPROPRIATE DRIVE AND APRON MATERIAL FOR BOTH REMOVAL AND PROPOSED. THE REMOVAL AND PROPOSED QUANTITIES SHALL REFLECT THE APPROPRIATE MATERIAL TYPE.

STREET 1 PLAN & PROFILE
STA 20+55.38 TO STA 22+30.78

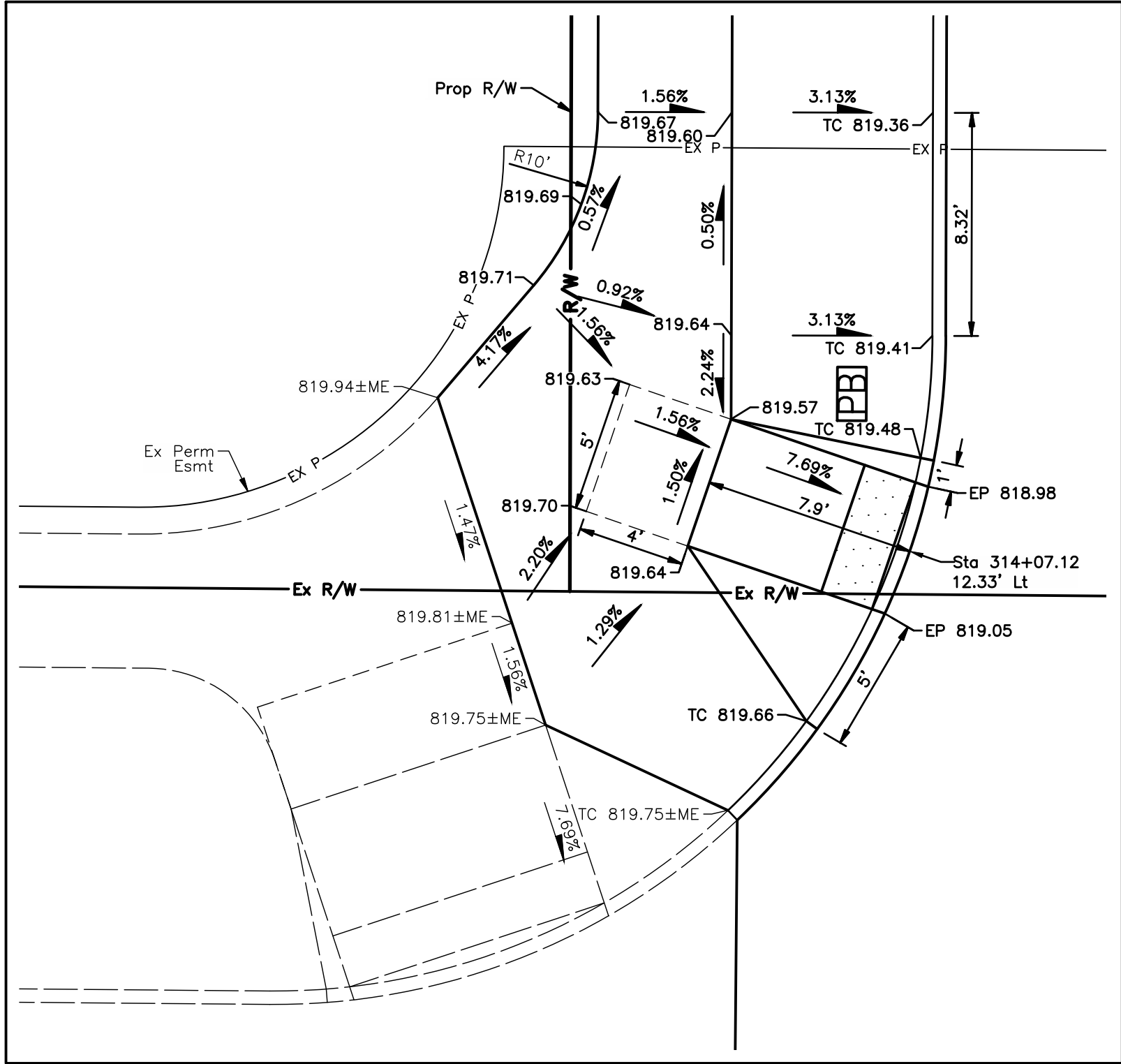
IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

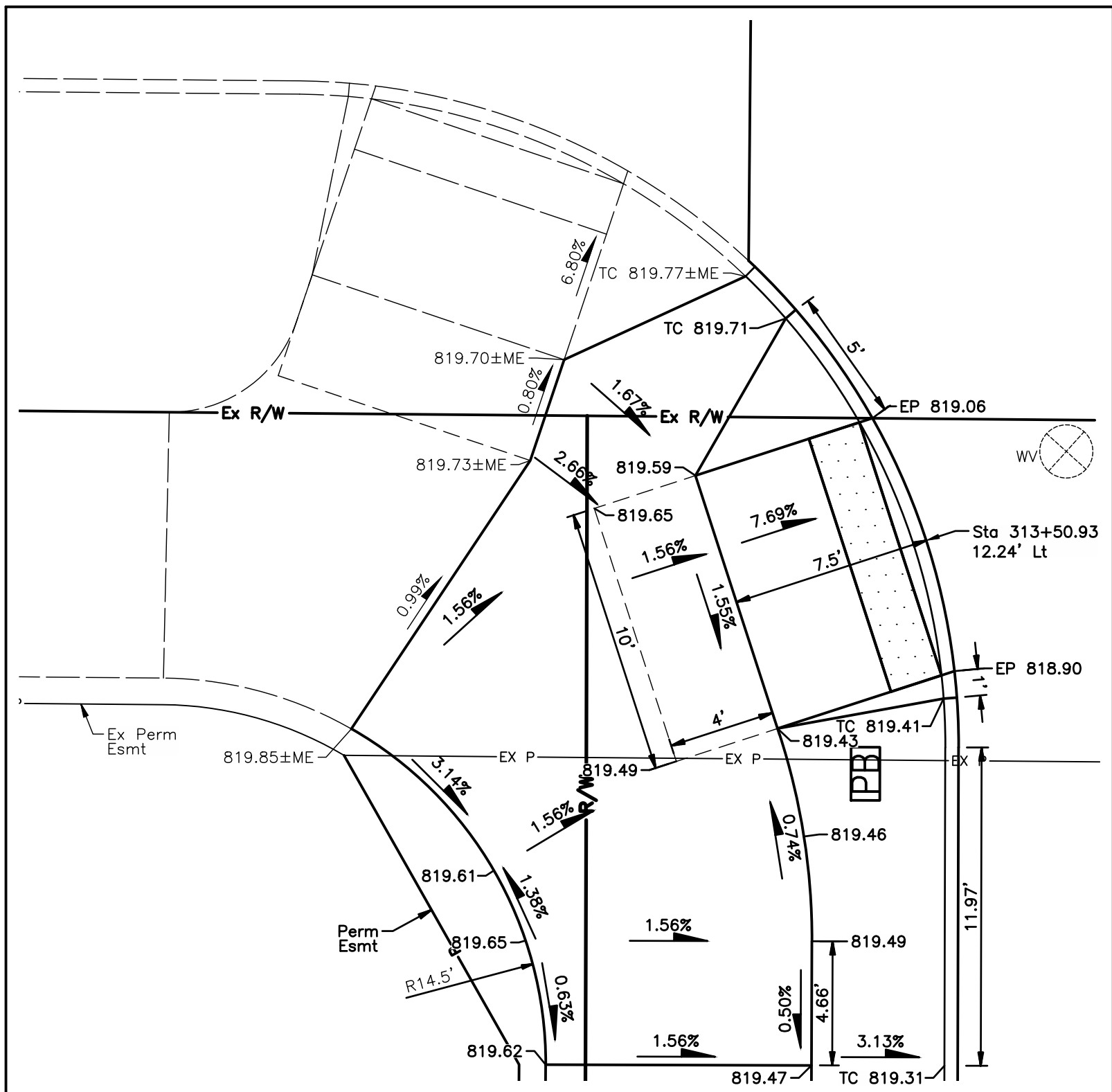
XX
XXX



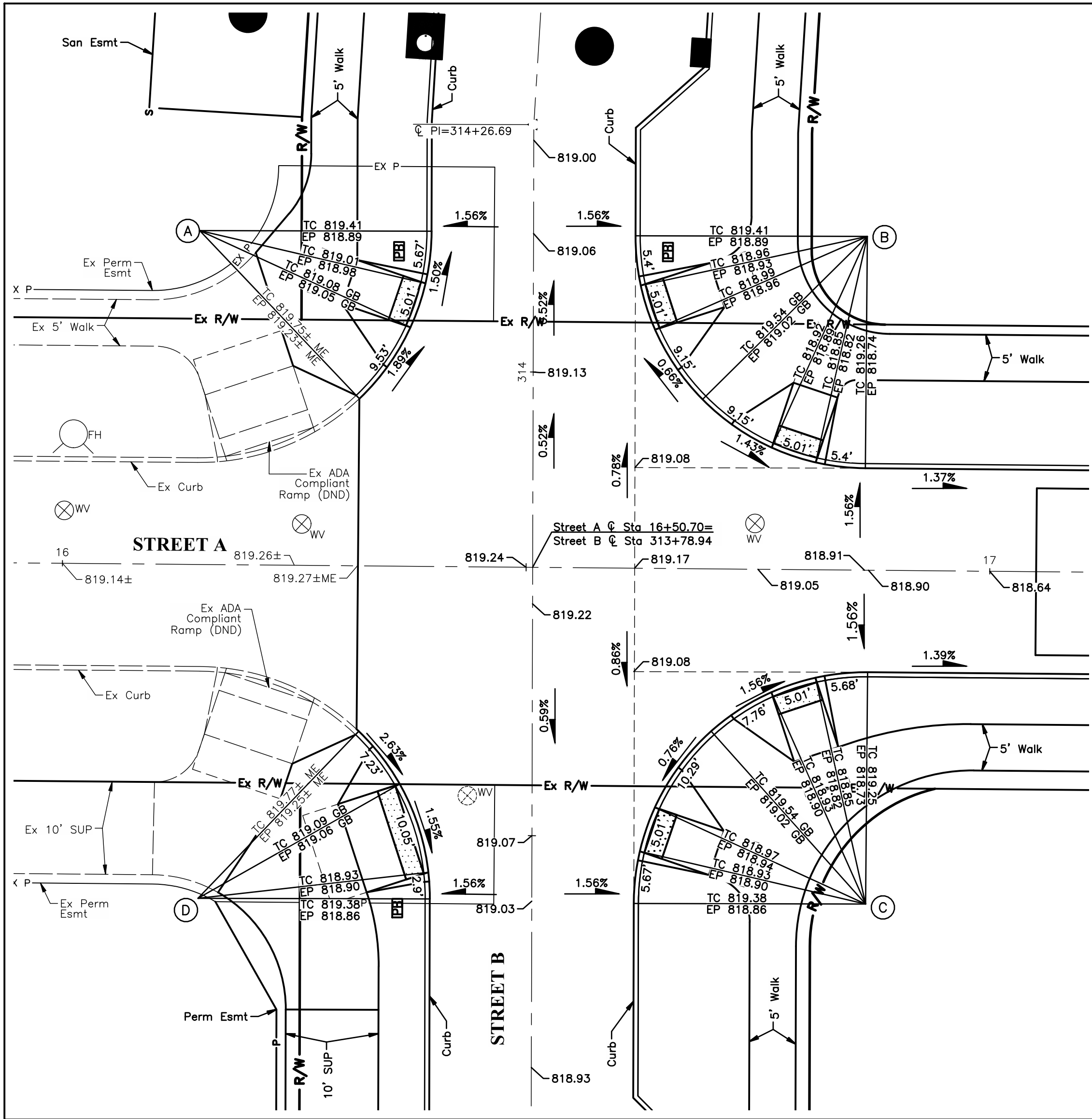
DESIGNER NOTE:
INTERSECTION DETAILS SHOULD ONLY SHOW PROPOSED AND EXISTING SURFACE FEATURES THAT ARE TO BE PRESENT AT THE COMPLETION OF THE PROJECT. DO NOT SHOW ITEMS THAT ARE TO BE REMOVED BY THE PROJECT. UNDERGROUND FACILITIES ARE ALSO NOT TO BE SHOWN.



② CURB RAMP DETAIL
SCALE: 1" = 5'



⑦ CURB RAMP DETAIL
SCALE: 1" = 5'



INTERSECTION DETAIL AT STREET A & STREET B
SCALE: 1" = 10'

DESIGNER NOTE:
INTERSECTION DETAIL TO BE AT A 1"=10' SCALE UNLESS THE CITY PROJECT MANAGER GRANTS A WRITTEN VARIANCE. CURB RAMP DETAILS TO BE AT A 1"=5' SCALE.

DESIGNER NOTE:
THE DESIGNER SHALL ENSURE THAT THE PAVEMENT OR GUTTER AT THE FACE OF CURB AT CURB RAMPS POSITIVELY FLOWS PAST CURB RAMP WHERE INTENDED. REFERENCE CURB AND GUTTER STANDARD DRAWING FOR GUTTER SLOPE TRANSITIONS AT CURB RAMPS. SLOPES AT THE FACE OF CURB SHALL NOT BE LESS THAN 0.50%.

DESIGNER NOTE:
ELEVATIONS ALONG CENTERLINE ARE TO BE SHOWN EVERY 25' UNLESS NOTED OTHERWISE.

INTERSECTION DETAIL NOTES

The Top of Curb is 0.52' above the Edge of Pavement.

Elevations to the Top of Curb in curbed areas and to the edge of pavement in pavement areas.

The curve data is calculated at the face of curb.

Reference cross sections for sidewalk grading details.

LEGEND

XXX.XX Proposed Elevations

XXX.XX Existing Elevations

TC = Top of Curb/Top of Casting

FC = Top of Dropped Curb

EP = Face of Curb

ME = Edge of Pavement

GB = Grade Break

LP = Low Point

FW = Face of Wall

① Curb Ramp Number

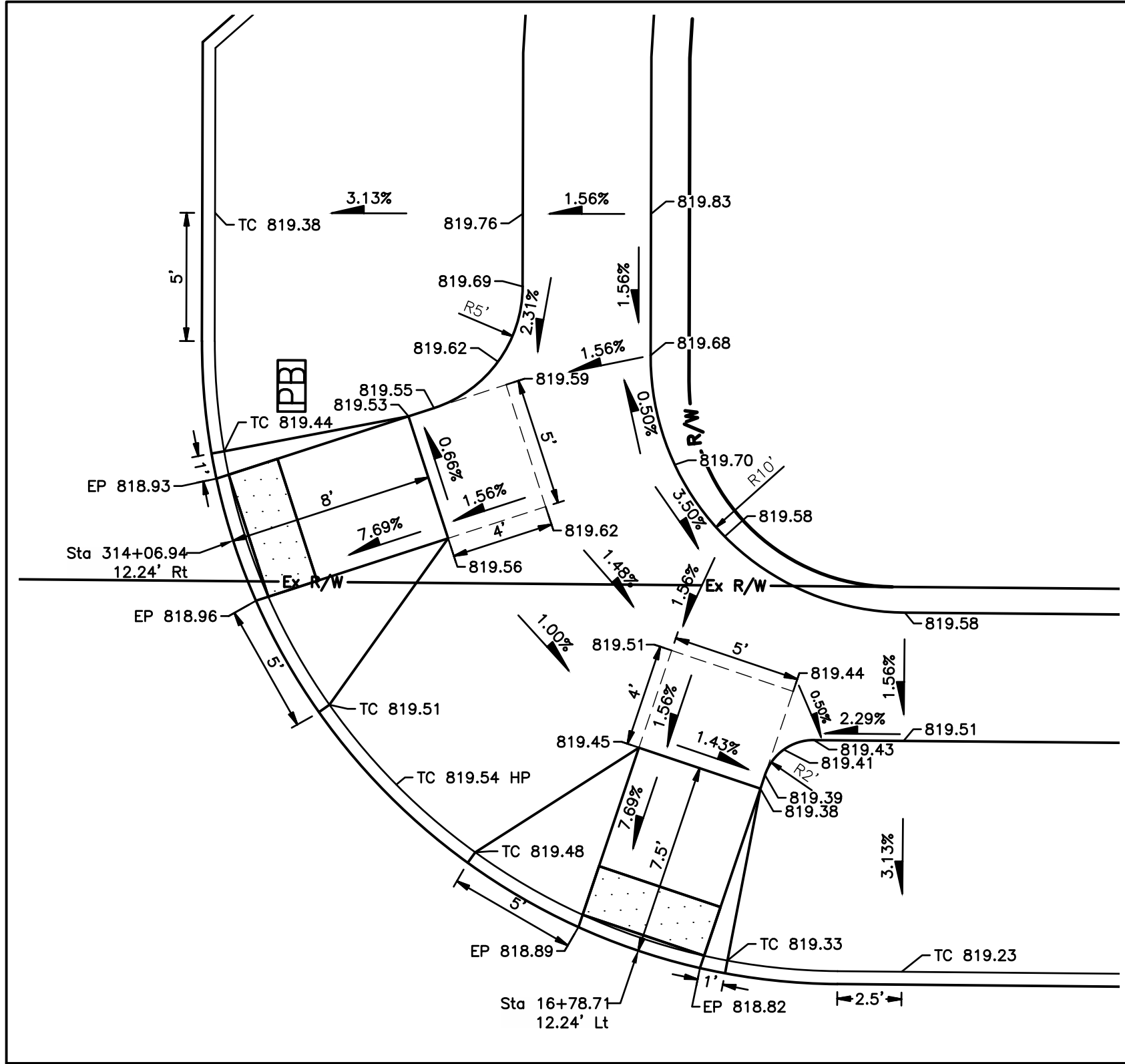
Ⓐ Curve Data, See Table This Sheet

Detectable Warning

Note A: Reference Pavement Detail sheet, XX & XX for pavement material and sidewalk thickness details.

	DELTA	RADIUS	TANGENT	LENGTH	EXTERNAL	MIDDLE	FILLET AREA	CHORD DISTANCE	RADIUS POINT
A	46°19'05"	25.00'	10.69'	20.21'	2.19'	2.01'	15	19.66'	16+14.49, 36.00' Lt.
B	89°39'23"	25.00'	24.85'	39.12'	10.25'	7.27'	132	35.25'	16+86.49, 36.00' Lt.
C	90°20'38"	25.00'	25.15'	39.42'	10.46'	7.38'	136	35.46'	16+86.92, 36.00' Rt.
D	46°14'57"	25.00'	10.68'	20.18'	2.18'	2.01'	15	19.64'	16+14.92, 36.00' Rt.

DESIGNER NOTE:
NORTH ARROW SHALL ALWAYS BE UP UNLESS THE CITY PROJECT MANAGER GRANTS A WRITTEN VARIANCE.

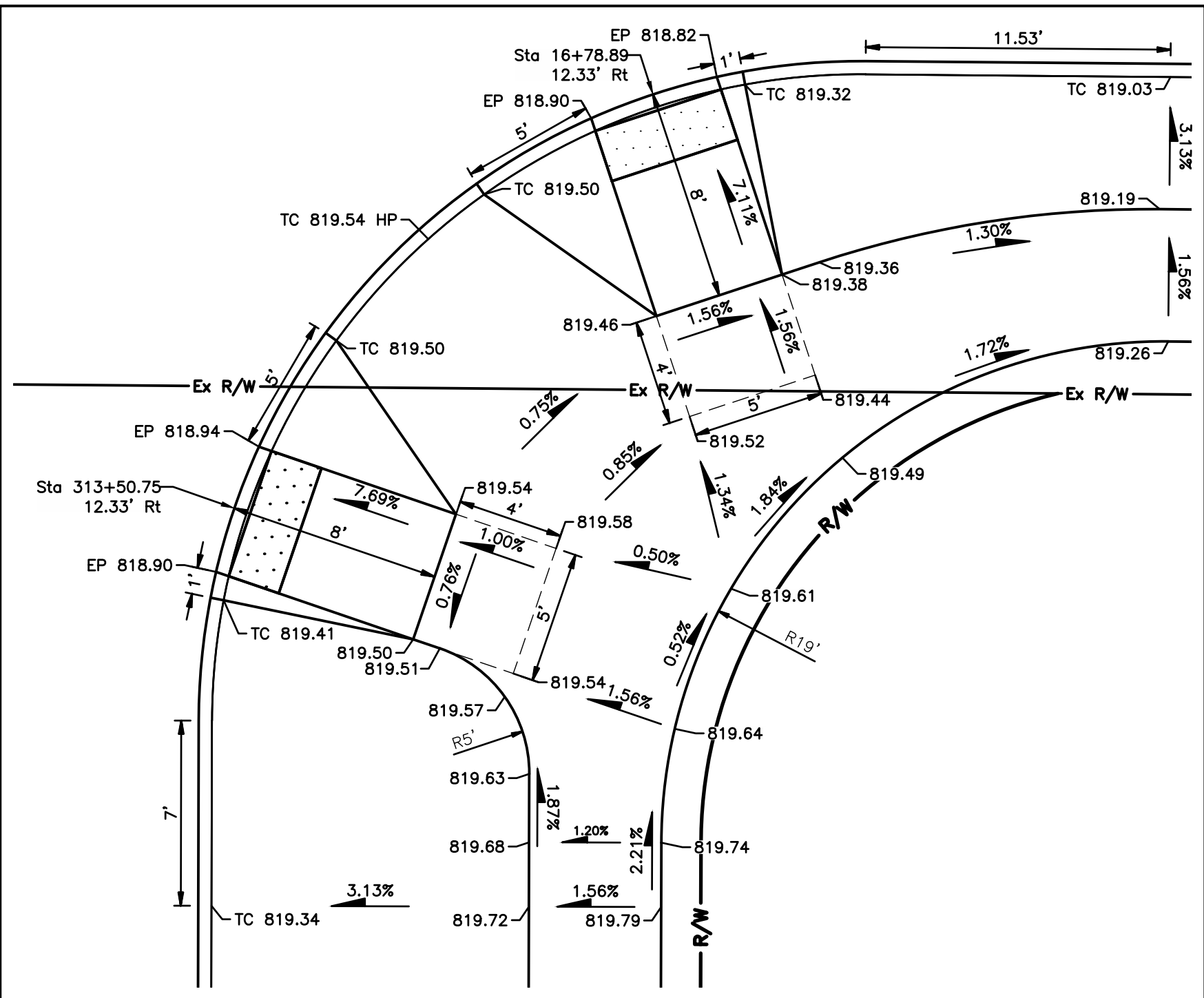


③ CURB RAMP DETAIL
SCALE: 1" = 5'

DESIGNER NOTE:
PAR ROUTE SHALL BE ADEQUATELY DETAILED ON THESE SHEETS. THE DESIGNER MAY EMPLOY THE USE OF DASHED LINES TO ASSIST IN DELINEATING THE PAR WHEN IT DIFFERENTIATES FROM THE TYPICAL SECTION.

DESIGNER NOTE:
ALL GRADE BREAKS SHALL BE NOTED. FOR THE PAR ROUTE, THE DESIGNER SHOULD INDICATE ALL PAR LOCATIONS UNTIL THE PAR COMPLIES WITH THE TYPICAL SECTION.

DESIGNER NOTE:
THE CENTERLINE OF RAMP SHALL BE SET WITH STATIONS AND OFFSETS. THE STATION AND OFFSET LABEL SHALL BE PLACED AT THE LOCATION WHERE THE RAMP CENTERLINE AND THE FACE OF CURB LINE INTERSECT. THE STATION AND OFFSET LABEL SHALL BE CALCULATED FROM THE ADJACENT ROAD CENTERLINE.



⑥ CURB RAMP DETAIL
SCALE: 1" = 5'



As Noted

SCALE

CALCULATED

XX

CHECKED

XX

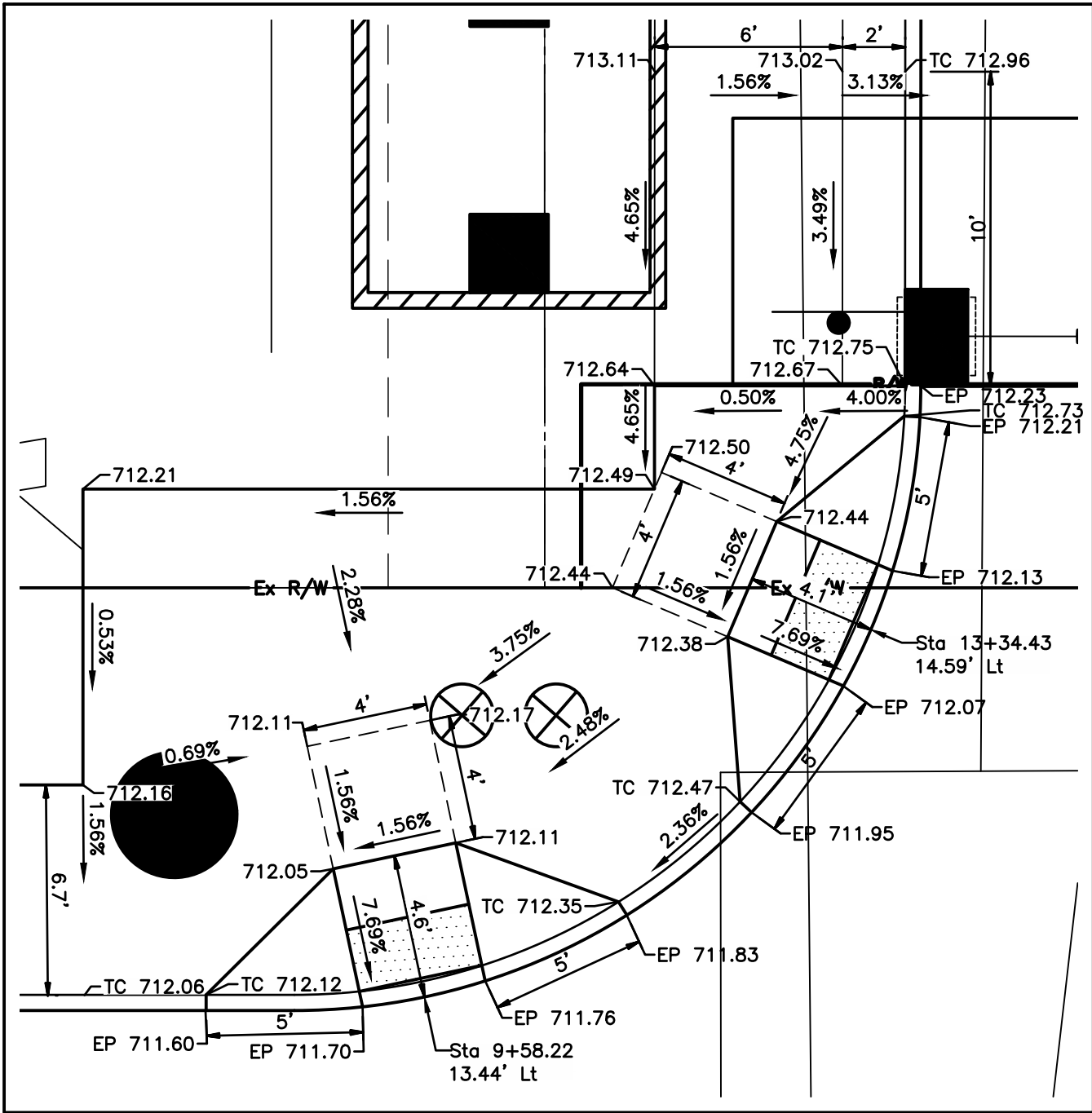
INTERSECTION DETAILS
STREET A AT STREET B

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

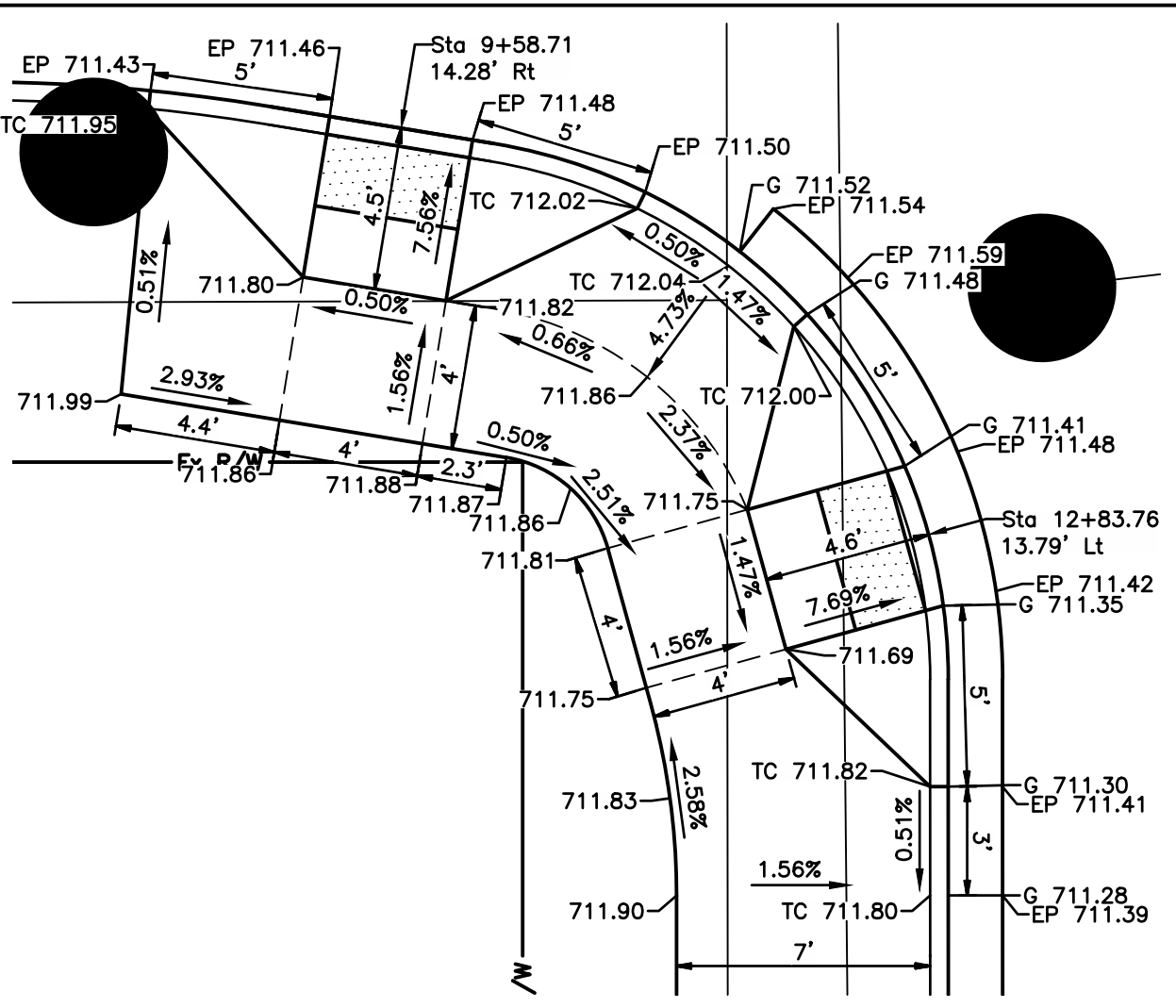
XXXX-E

XX
XXX

DESIGNER NOTE:
INTERSECTION DETAILS SHOULD ONLY SHOW PROPOSED AND EXISTING SURFACE FEATURES THAT ARE TO BE PRESENT AT THE COMPLETION OF THE PROJECT. DO NOT SHOW ITEMS THAT ARE TO BE REMOVED BY THE PROJECT. UNDERGROUND FACILITIES ARE ALSO NOT TO BE SHOWN.



1/2 CURB RAMP DETAIL
Scale: 1" = 5'



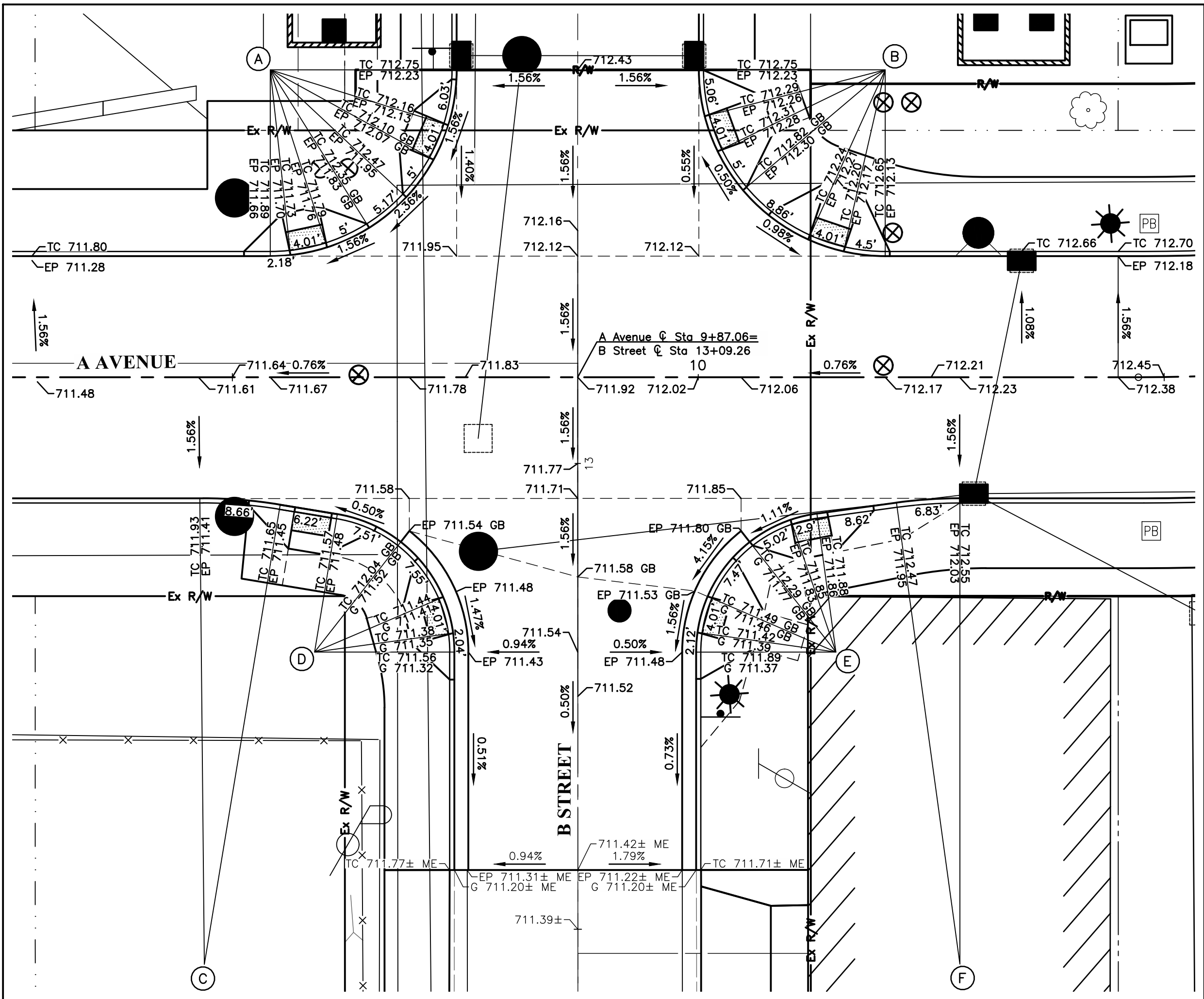
7/8 CURB RAMP DETAIL
Scale: 1" = 5'

DESIGNER NOTE:
INTERSECTION DETAIL TO BE AT A 1"=10' SCALE UNLESS THE CITY PROJECT MANAGER GRANTS A WRITTEN VARIANCE. CURB RAMP DETAILS TO BE AT A 1"=5' SCALE.

DESIGNER NOTE:
THE DESIGNER SHALL ENSURE THAT THE PAVEMENT OR GUTTER AT THE FACE OF CURB AT CURB RAMPS POSITIVELY FLOWS PAST CURB RAMP WHERE INTENDED. REFERENCE CURB AND GUTTER STANDARD DRAWING FOR GUTTER SLOPE TRANSITIONS AT CURB RAMPS. SLOPES AT THE FACE OF CURB SHALL NOT BE LESS THAN 0.50%.

DESIGNER NOTE:
ELEVATIONS ALONG CENTERLINE ARE TO BE SHOWN EVERY 25' UNLESS NOTED OTHERWISE.

CURVE DATA							
	DELTA	RADIUS	TANGENT	LENGTH	EXTERNAL	MIDDLE	RADIUS POINT
A	89°57'38"	20.00'	19.99'	31.40'	8.27'	5.85'	86 9+54.06, 33.00' Lt.
B	90°02'22"	20.00'	20.01'	31.43'	8.29'	5.86'	86 10+20.06, 33.00' Lt.
C	9°55'41"	50.00'	4.34'	8.66'	0.19'	0.19'	1 9+46.38, 63.00' Rt.
D	80°36'56"	15.00'	12.72'	21.11'	4.67'	3.56'	33 9+58.82, 29.50' Rt.
E	82°11'09"	15.00'	13.08'	21.52'	4.91'	3.70'	35 10+14.77, 29.50' Rt.
F	7°49'35"	50.00'	3.42'	6.83'	0.12'	0.12'	1 10+28.08, 63.00' Rt.



INTERSECTION DETAIL AT A AVENUE & B STREET
Scale: 1" = 10'

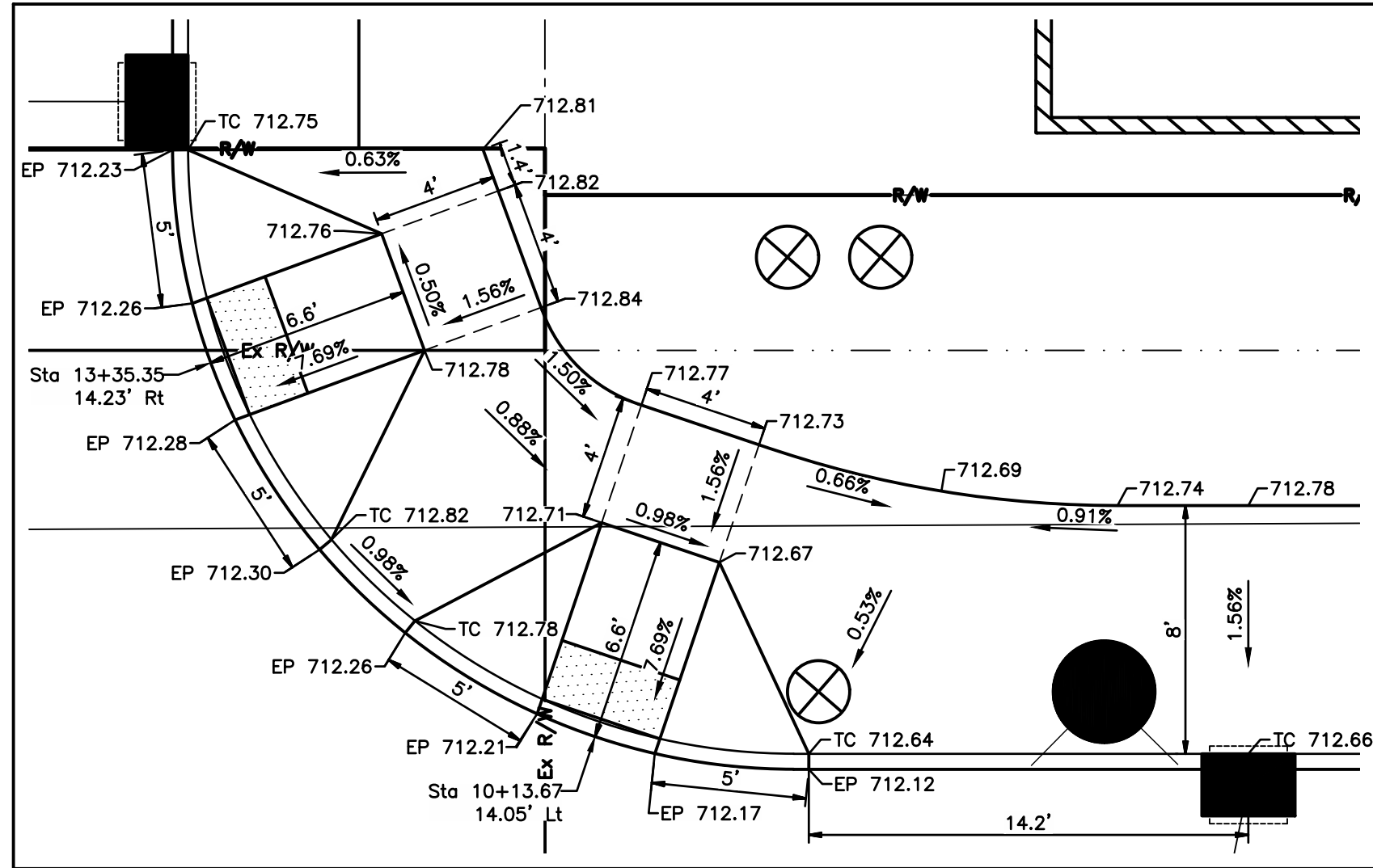
INTERSECTION DETAIL NOTES

- The Top of Curb is 0.52' above the Edge of Pavement.
- Elevations to the Top of Curb in curbed areas and to the edge of pavement in pavement areas.
- The curve data is calculated at the face of curb.
- Reference cross sections for sidewalk grading details.

LEGEND

- XXX.XX Proposed Elevations
- XXX.XX± Existing Elevations
- TC = Top of Curb/Top of Casing
- TDC = Top of Dropped Curb
- FC = Face of Curb
- EP = Edge of Pavement
- ME = Match Existing
- GB = Grade Break
- LP = Low Point
- FW = Face of Wall
- 1 Curb Ramp Number
- A Curve Data, See Table This Sheet
- Detectable Warning

DESIGNER NOTE:
NORTH ARROW SHALL ALWAYS BE UP UNLESS THE CITY PROJECT MANAGER GRANTS A WRITTEN VARIANCE.

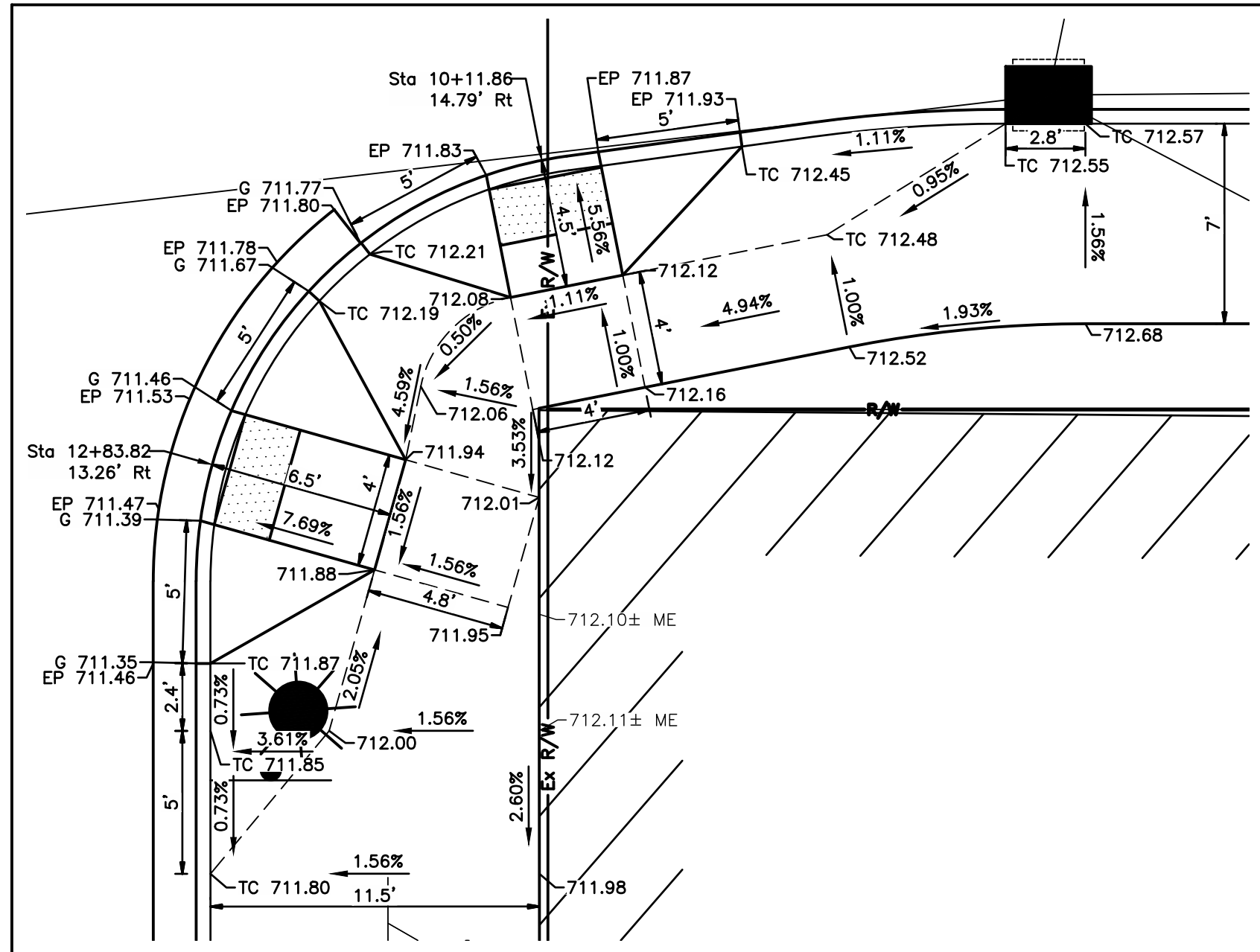


3/4 CURB RAMP DETAIL
Scale: 1" = 5'

DESIGNER NOTE:
PAR ROUTE SHALL BE ADEQUATELY DETAILED ON THESE SHEETS. THE DESIGNER MAY EMPLOY THE USE OF DASHED LINES TO ASSIST IN DELINEATING THE PAR WHEN IT DIFFERENTIATES FROM THE TYPICAL SECTION.

DESIGNER NOTE:
ALL GRADE BREAKS SHALL BE NOTED. FOR THE PAR ROUTE, THE DESIGNER SHOULD INDICATE ALL PAR LOCATIONS UNTIL THE PAR COMPLIES WITH THE TYPICAL SECTION.

DESIGNER NOTE:
THE CENTERLINE OF RAMP SHALL BE SET WITH STATIONS AND OFFSETS. THE STATION AND OFFSET LABEL SHALL BE PLACED AT THE LOCATION WHERE THE RAMP CENTERLINE AND THE FACE OF CURB LINE INTERSECT. THE STATION AND OFFSET LABEL SHALL BE CALCULATED FROM THE ADJACENT ROAD CENTERLINE.



5/6 CURB RAMP DETAIL
Scale: 1" = 5'



AS NOTED

CALCULATED XX

CHECKED XX

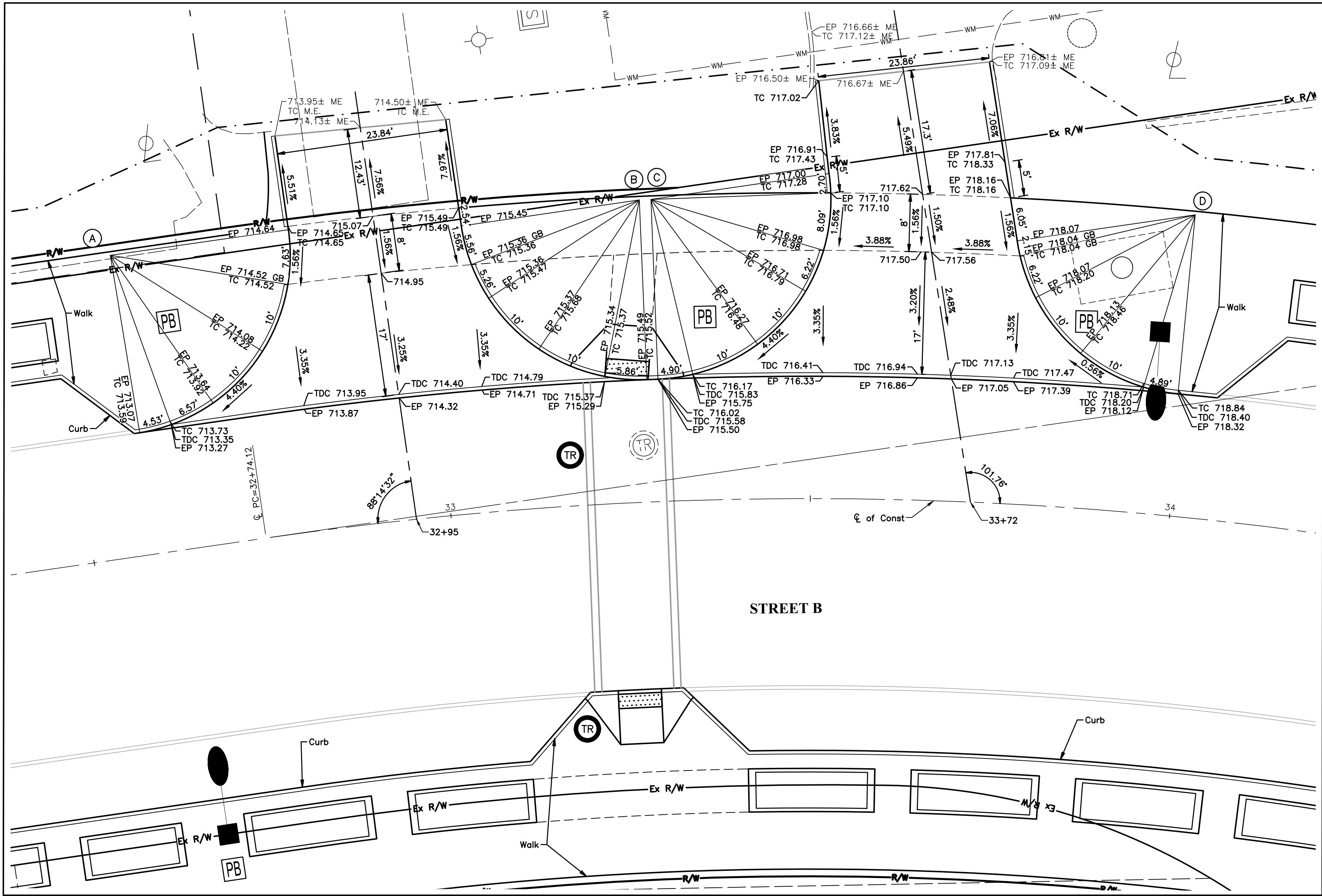
INTERSECTION DETAILS
AVENUE A AT STREET B

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

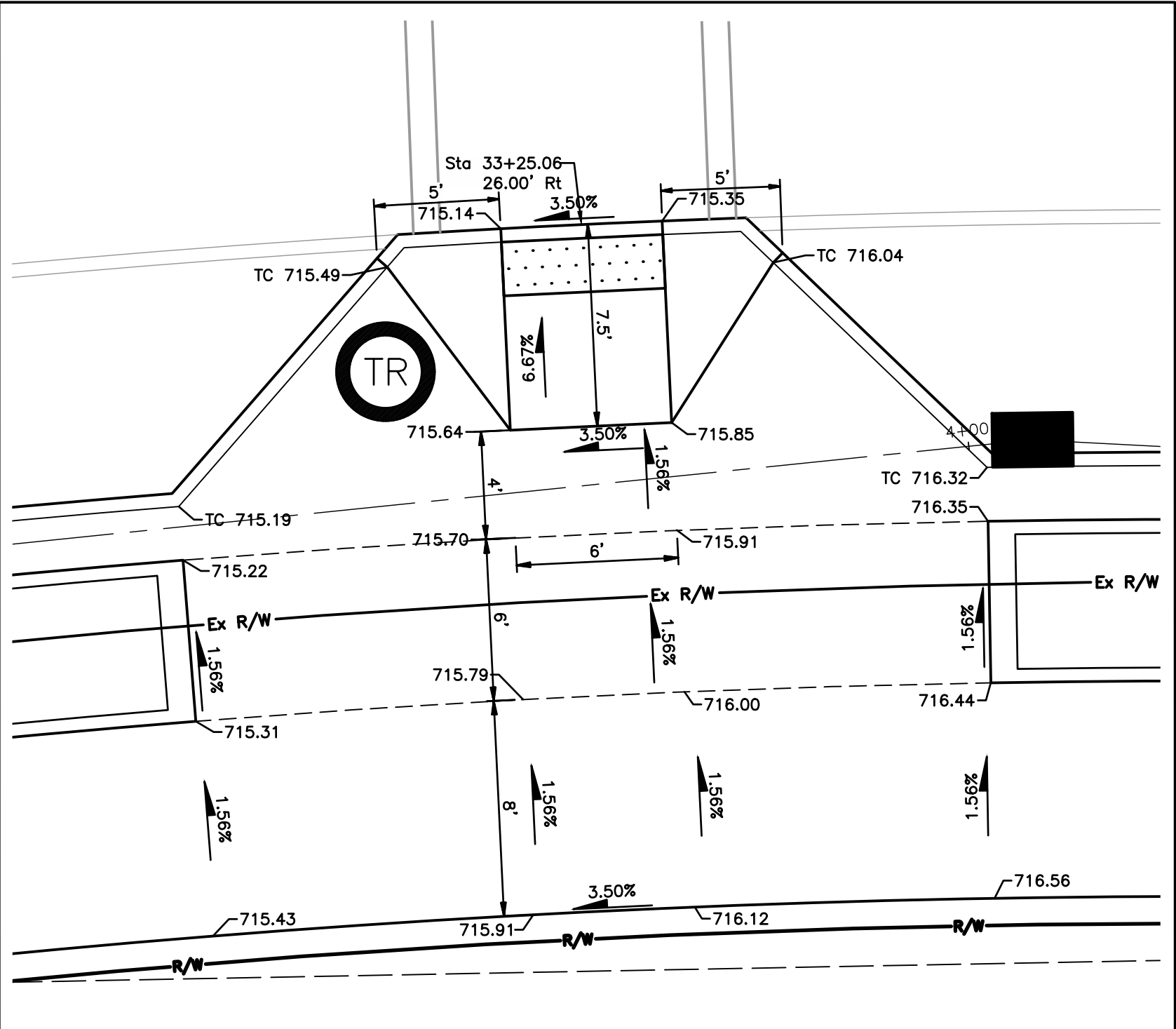
XX
XXX

DESIGNER NOTE:
INTERSECTION DETAILS SHOULD ONLY SHOW PROPOSED AND
EXISTING SURFACE FEATURES THAT ARE TO BE PRESENT AT THE
COMPLETION OF THE PROJECT. DO NOT SHOW ITEMS THAT ARE
TO BE REMOVED BY THE PROJECT. UNDERGROUND FACILITIES
ARE ALSO NOT TO BE SHOWN.



RAMP AND DRIVE DETAILS AT STREET B

SCALE: 1" = 10'



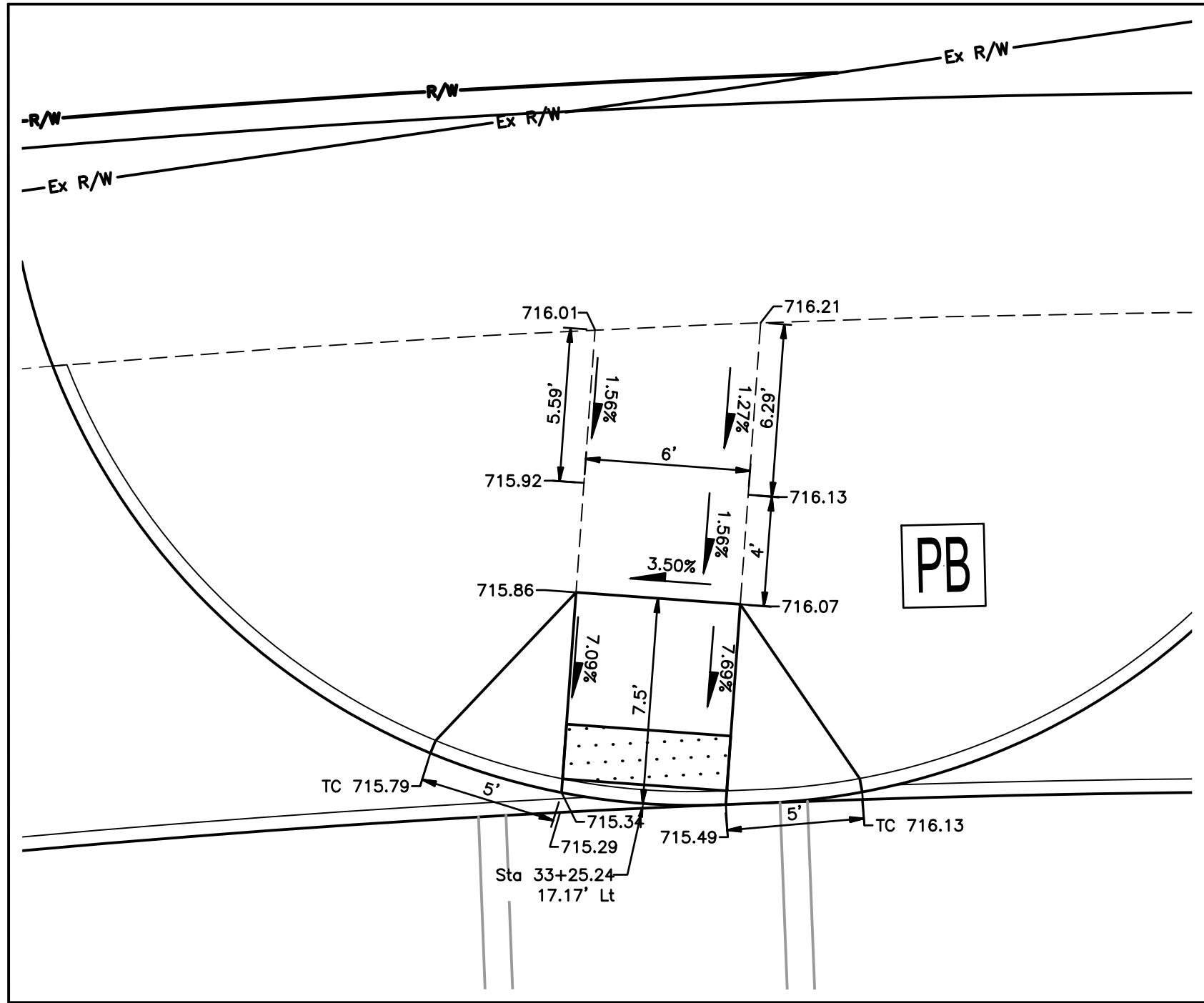
CURVE DATA								
	DELTA	RADIUS	TANGENT	LENGTH	EXTERNAL	MIDDLE	FILLET AREA	CHORD DISTANCE
A	88°45'46"	25.00'	24.47'	38.73'	9.98'	7.13'	128	34.97'
B	84°03'52"	25.00'	22.54'	36.68'	8.66'	6.43'	105	33.48'
C	96°03'02"	25.00'	27.79'	41.91'	12.38'	8.28'	171	37.17'
D	76°13'35"	25.00'	19.61'	33.26'	6.77'	5.33'	75	30.86'

INTERSECTION DETAIL NOTES

The Top of Curb is 0.52' above the Edge of Pavement.
Elevations to the Top of Curb in curbed areas and to the edge of pavement in pavement areas.
The curve data is calculated at the face of curb.
Reference cross sections for sidewalk grading details.

LEGEND

- XXX.XX Proposed Elevations
XXX.XX Existing Elevations
TC = Top of Curb/Top of Casting
TDC = Top of Dropped Curb
FC = Face of Curb
EP = Edge of Pavement
ME = Match Existing
GB = Grade Break
LP = Low Point
FW = Face of Wall
1 Curb Ramp Number
A Curve Data, See Table This Sheet
Detectable Warning



As Noted

SCALE

CALCULATED XX
CHECKED XX

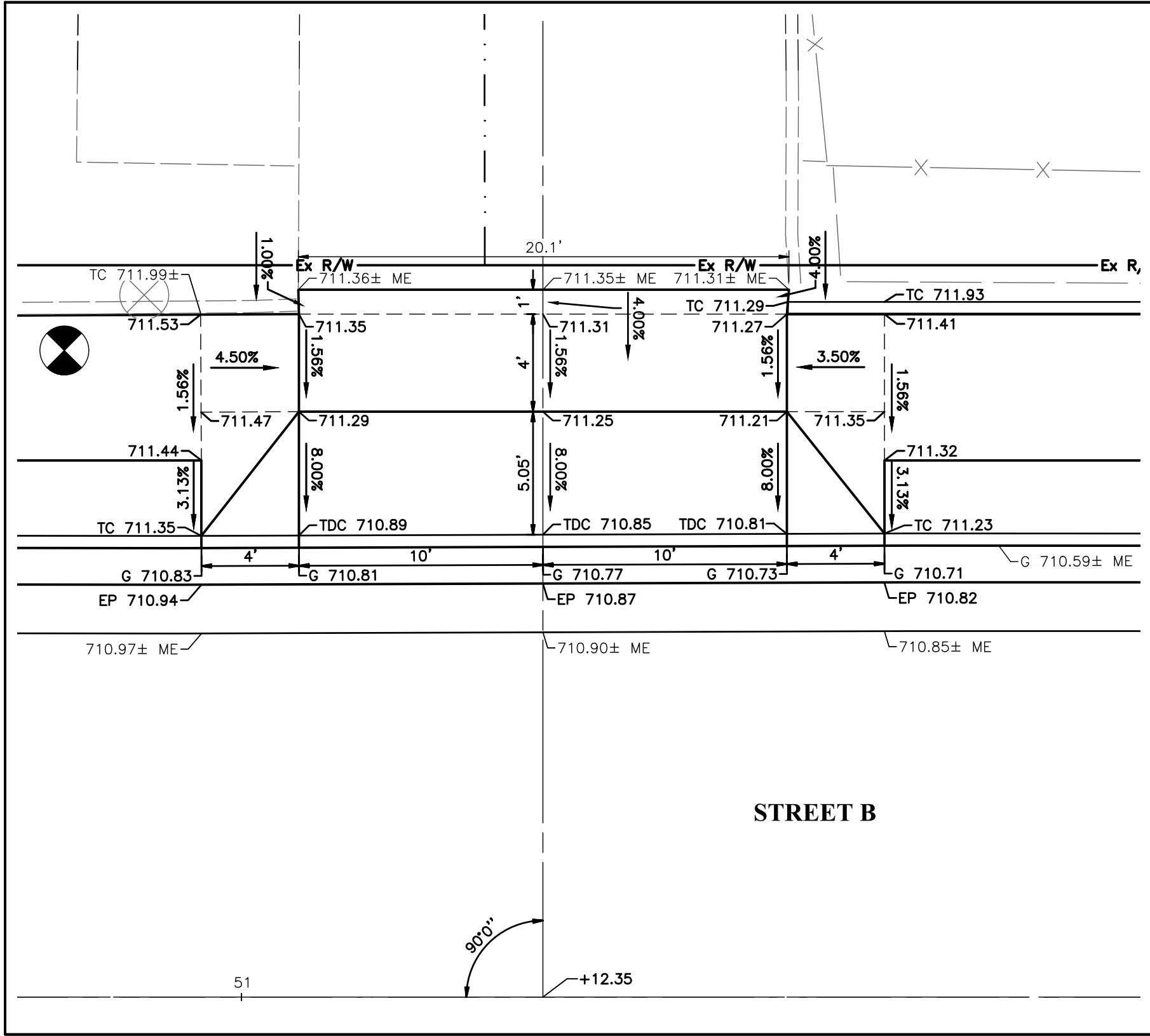
DRIVE DETAILS AND CURB RAMP DETAILS
STREET B

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX

DESIGNER NOTE:
INTERSECTION DETAILS SHOULD ONLY SHOW PROPOSED AND
EXISTING SURFACE FEATURES THAT ARE TO BE PRESENT AT THE
COMPLETION OF THE PROJECT. DO NOT SHOW ITEMS THAT ARE
TO BE REMOVED BY THE PROJECT. UNDERGROUND FACILITIES
ARE ALSO NOT TO BE SHOWN.



DRIVE DETAIL @ STREET B 51+12.35 LT
Scale: 1" = 5'

INTERSECTION DETAIL NOTES

The Top of Curb is 0.52' above the Edge of Pavement.

Elevations to the Top of Curb in curbed areas and to the edge of pavement in pavement areas.

The curve data is calculated at the face of curb.

Reference cross sections for sidewalk grading details.

LEGEND

xxx.xx Proposed Elevations

xxx.xx± Existing Elevations

TC = Top of Curb/Top of Casting

TDC = Top of Dropped Curb

FC = Face of Curb

EP = Edge of Pavement

ME = Match Existing

GB = Grade Break

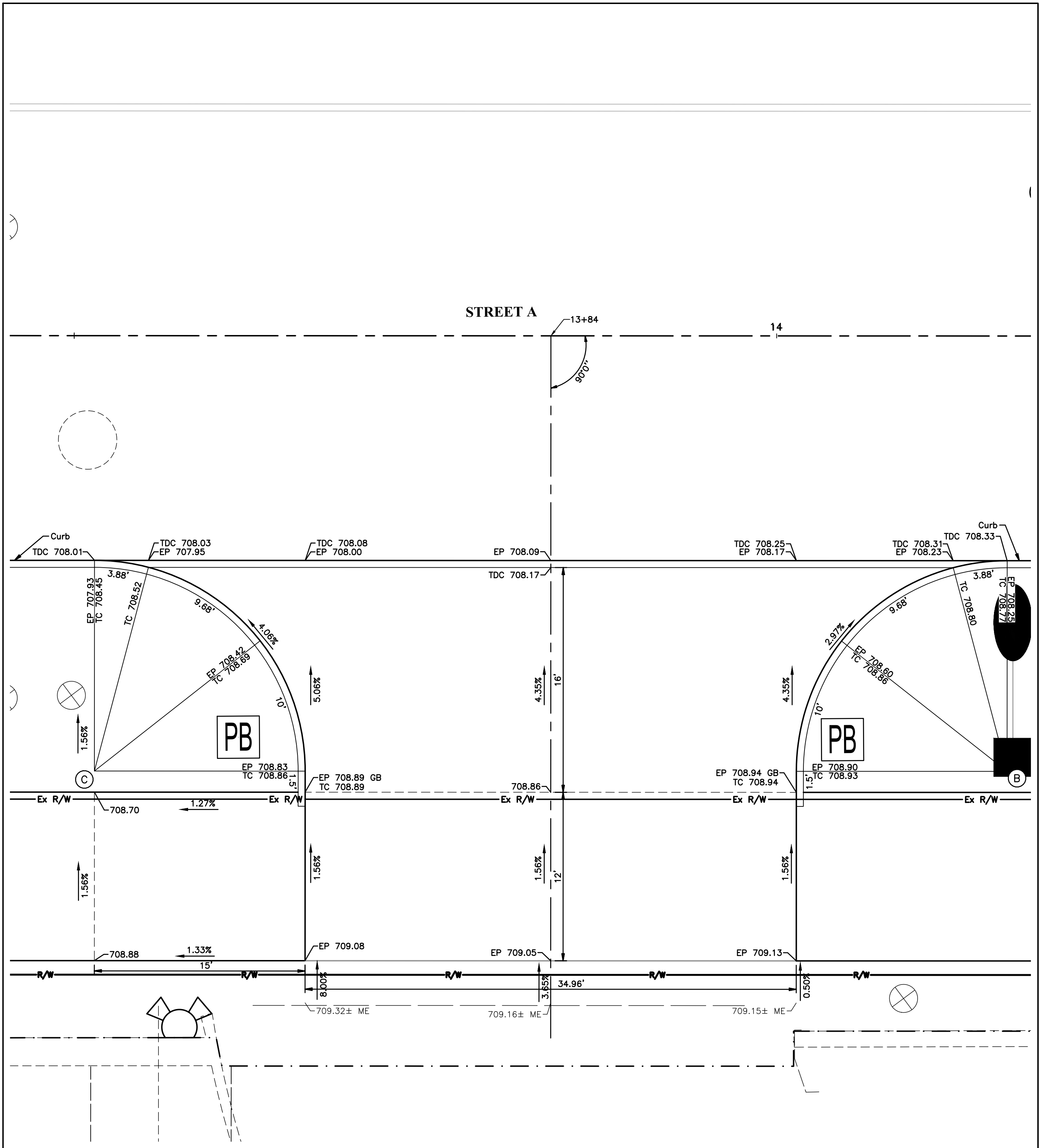
LP = Low Point

FW = Face of Wall

① Curb Ramp Number

Ⓐ Curve Data, See Table This Sheet

..... Detectable Warning



DRIVE DETAIL AT STREET A 13+80.23 RT
SCALE: 1" = 5'

CURVE DATA									
	DELTA	RADIUS	TANGENT	LENGTH	EXTERNAL	MIDDLE	FILLET AREA	CHORD DISTANCE	RADIUS POINT
B	89°59'33"	15.00'	15.00'	23.56'	6.21'	4.39'	48	21.21'	14+16.41, 31.00' Rt.
C	89°59'33"	15.00'	15.00'	23.56'	6.21'	4.39'	48	21.21'	13+51.45, 31.00' Rt.



As Noted

SCALE

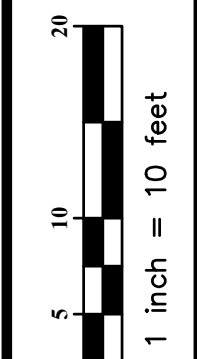
CALCULATED XX
CHECKED XX

DRIVE DETAILS - STREET A & STREET B

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX



CALCULATED	XX
CHECKED	XX

PAVEMENT DETAILS - STREET A

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

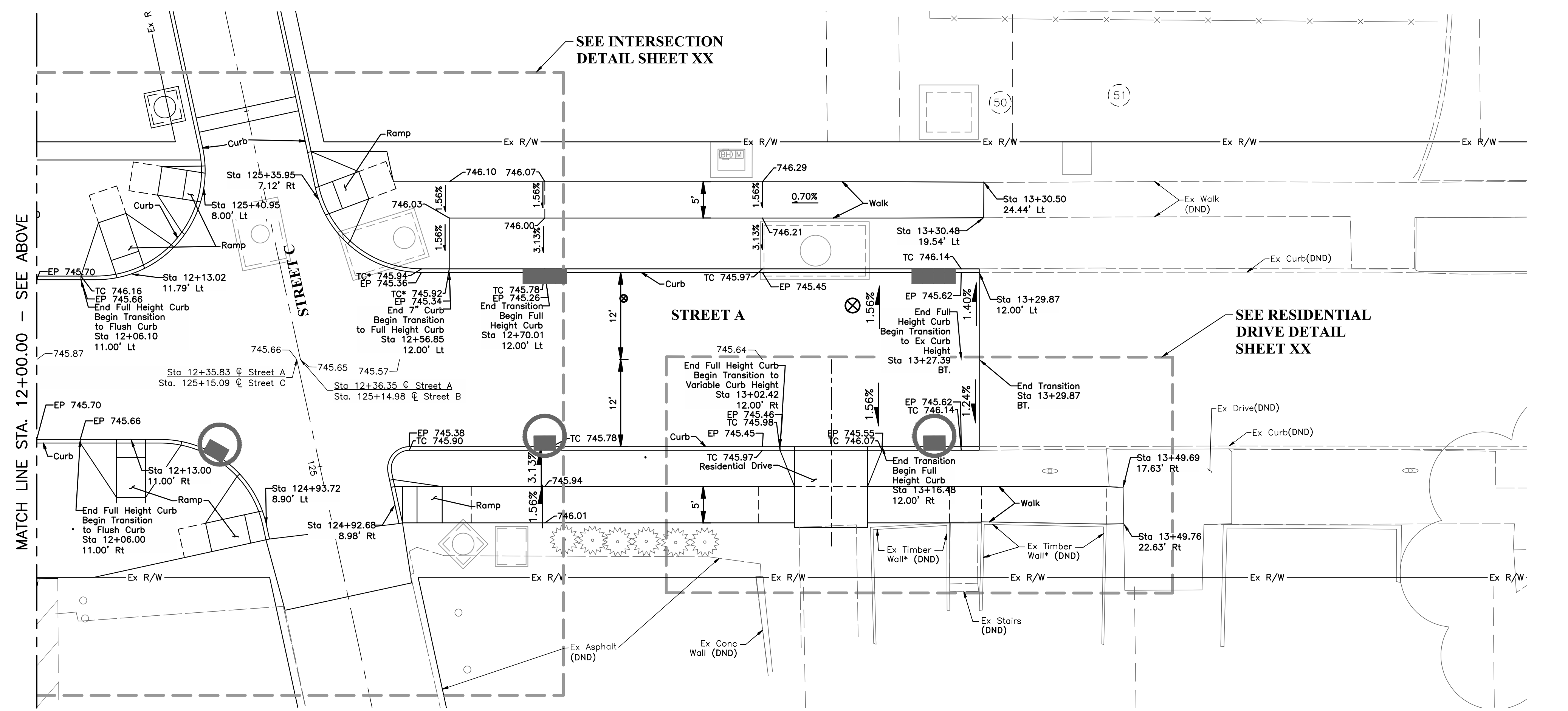
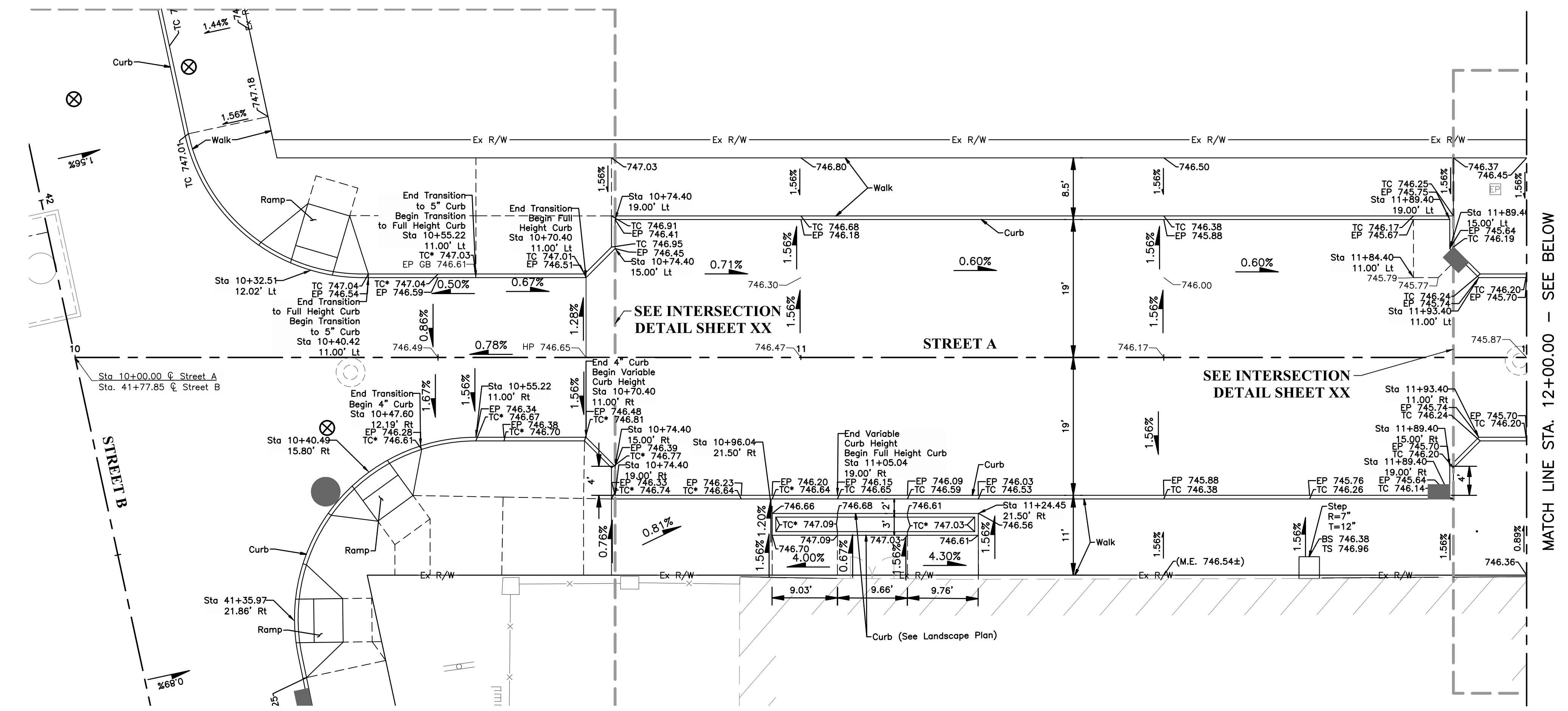
XXXX-E

XX
XXX

DESIGNER NOTE:
ELEVATIONS TO BE PROVIDED ALONG THE STREET STATIONS AT 50 FOOT INCREMENTS AT THE CENTERLINE, EDGE OF PAVEMENT AND LOW POINTS AT A MINIMUM UNLESS OTHERWISE DIRECTED BY THE CITY.

DESIGNER NOTE:
EXISTING FEATURES (MANHOLES, LIGHTPOLES, SIGNAL POLES, PULL BOXES, HYDRANTS, VALVES, ETC.) THAT ARE TO REMAIN SHOULD BE EVALUATED BY THE DESIGN ENGINEER TO CONFIRM IF THESE FEATURES MUST BE ADJUSTED AND/OR RECONSTRUCTED TO FINAL GRADE. PLAN AND PROFILE SUBSUMMARIES SHOULD REFLECT THE FINAL QUANTITIES REQUIRED.

DESIGNER NOTE:
WHERE SIDEWALKS ARE ADJACENT TO EXISTING BUILDINGS THAT ARE TO BE REBUILT, DESIGNER SHOULD PROVIDE SIDEWALK ELEVATIONS AND DETAIL THE PAR, DOORWAYS AND OTHER INGRESS/EGRESS ELEVATIONS. ALSO, WHERE SIDEWALKS DO NOT FOLLOW TYPICAL SECTION CROSS SLOPES, THE PAR WILL NEED TO BE SHOWN AND DETAILED. SEPARATE DETAIL SHEETS MAY BE REQUIRED.



PAVEMENT DETAIL NOTES

The curb reveal heights vary and are noted in the Pavement Details and Intersection Detail sheets with a TC* notation (See Landscape Plan for additional information).

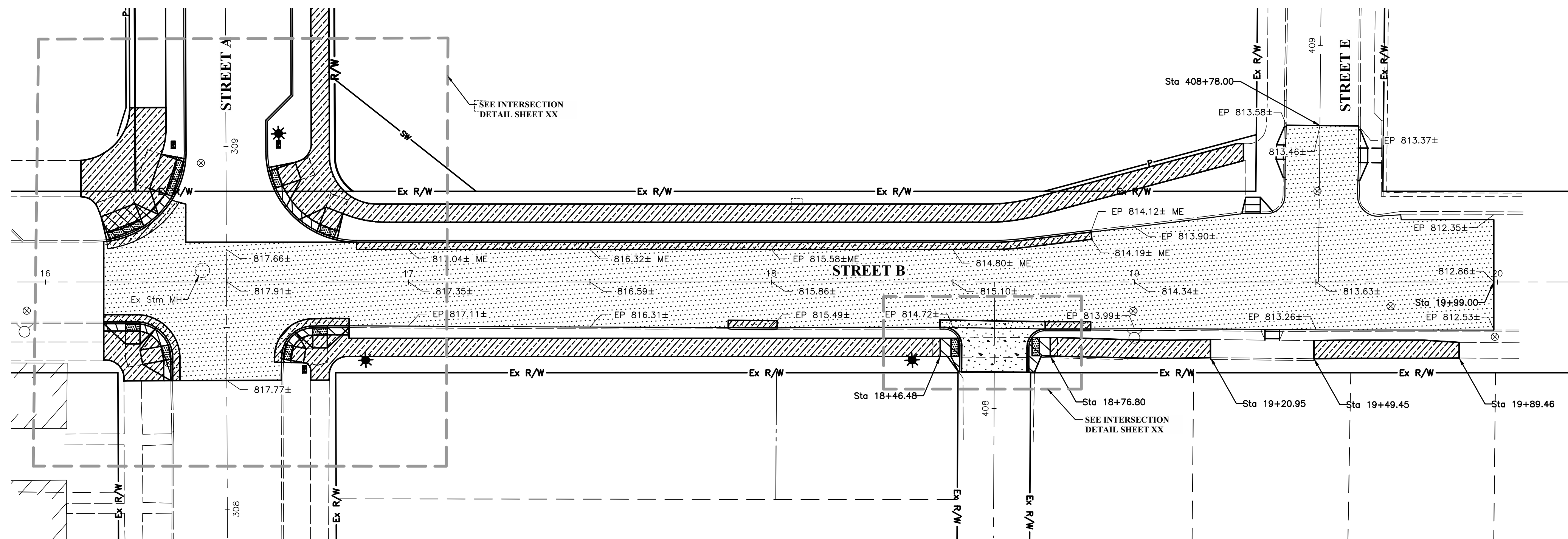
The Top of Curb is 0.50' above the Edge of Pavement where standard granite curb is specified, 0.52' above the Edge of Pavement where standard concrete curb is specified, and 0.33' above the Edge of pavement where 4" granite curb is specified (See Landscape Plan for additional information). All Elevations are shown to Finished Pavement unless otherwise noted.

The curve data is calculated at the face of curb.

- LEGEND**
- ① Curb Ramp Number
 - Parking Meter (See Landscape Plan)
 - Grade Break
 - See Detailed Grading Sheet
 - XXX.XX Proposed Elevations (Top of Finished Grade)
 - (XXX.XX) Existing Elevations
 - TC = Top of Curb
 - TC* = Top of Curb (Not Full Height)
 - EP = Edge of Pavement
 - ME = Match Existing
 - GB = Grade Break
 - HP = High Point
 - LP = Low Point
 - FW = Face of Wall at Finished Surface
 - BW = Back of Wall at Finished Surface
 - TS = Top of Step
 - BS = Bottom of Step

Note 1: Contractor shall confirm all door elevations with adjacent projects prior to setting proposed curb. Contractor shall provided ADA compliant landings at all adjacent door locations. Walks shall meet COC ADA Public Access Route (PAR) specifications.

Note 2: Proposed curb reveals vary throughout the project. Contractor shall reference the typical sections for typical reveal heights. These typical heights shall be used unless otherwise noted on the plans.



PAVEMENT DETAIL NOTES

The Top of Curb is 0.52' above the Edge of Pavement.
Elevations to the Top of Curb in curbed areas and to the edge of pavement in pavement areas.
The curve data is calculated at the face of curb.
Reference cross sections for sidewalk grading details.

LEGEND

XXX.XX Proposed Elevations
XXX.XX± Existing Elevations

TC = Top of Curb/Top of Casting
TDC = Top of Drapped Curb
FC = Face of Curb
EP = Edge of Pavement
ME = Match Existing
GB = Grade Break
LP = Low Point
FW = Face of Wall

① Curb Ramp Number

Ⓐ Curve Data

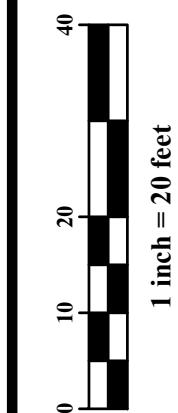
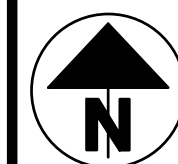
▨ Detectable Warning

- Item 259 - Permanent Pavement, Type I
- Item 254 - Pavement Planing, Asphalt Concrete (T=1.5")
Item 441 - Asphalt Concrete Surface Course
(Medium Traffic), PG 64-22 (T=1.5")
- Item 608 - 4" Concrete Walk
- Item 608 - 8" Concrete Walk
- Item 452 - Non-Reinforced Concrete Pavement (T=7")

DESIGNER NOTE:
ELEVATIONS TO BE PROVIDED ALONG THE STREET STATIONS AT 50 FOOT INCREMENTS AT THE CENTERLINE, EDGE OF PAVEMENT AND LOW POINTS AT A MINIMUM UNLESS OTHERWISE DIRECTED BY THE CITY.

DESIGNER NOTE:
EXISTING FEATURES (MANHOLES, LIGHTPOLES, SIGNAL POLES, PULL BOXES, HYDRANTS, VALVES, ETC.) THAT ARE TO REMAIN SHOULD BE EVALUATED BY THE DESIGN ENGINEER TO CONFIRM IF THESE FEATURES MUST BE ADJUSTED AND/OR RECONSTRUCTED TO FINAL GRADE. PLAN AND PROFILE SUBSUMMARIES SHOULD REFLECT THE FINAL QUANTITIES REQUIRED.

DESIGNER NOTE:
WHERE SIDEWALKS ARE ADJACENT TO EXISTING BUILDINGS THAT ARE TO BE REBUILT, DESIGNER SHOULD PROVIDE SIDEWALK ELEVATIONS AND DETAIL THE PAR, DOORWAYS AND OTHER INGRESS/EGRESS ELEVATIONS. ALSO, WHERE SIDEWALKS DO NOT FOLLOW TYPICAL SECTION CROSS SLOPES, THE PAR WILL NEED TO BE SHOWN AND DETAILED. SEPARATE DETAIL SHEETS MAY BE REQUIRED.



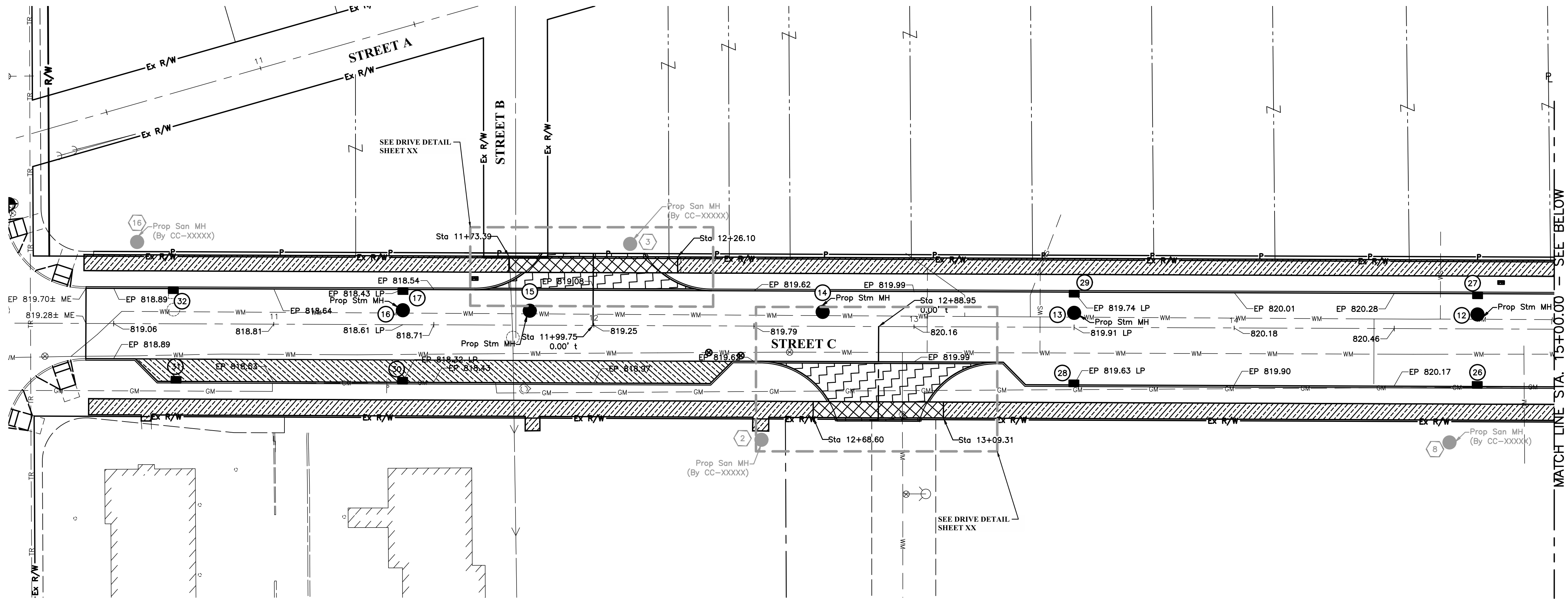
SCALE
CALCULATED XX
CHECKED XX

PAVEMENT DETAILS - STREET B

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX



PAVEMENT DETAIL NOTES

The Top of Curb is 0.52' above the Edge of Pavement.

Elevations to the Top of Curb in curbed areas and to the edge of pavement in pavement areas.

The curve data is calculated at the face of curb.

Reference cross sections for sidewalk grading details.

LEGEND

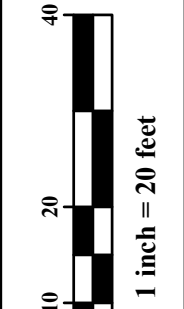
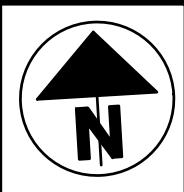
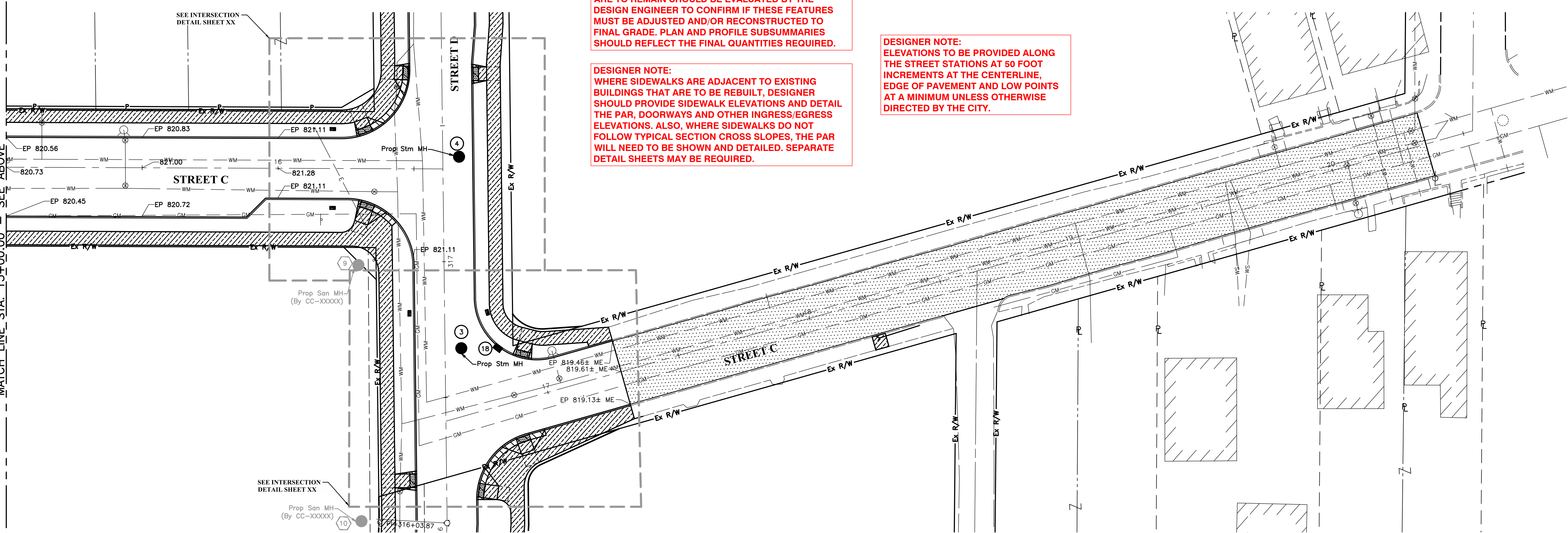
- XXX.XX Proposed Elevations
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- EP = Edge of Pavement
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- GB = Grade Break
- LP = Low Point
- FW = Face of Wall
- ① Curb Ramp Number
- Ⓐ Curve Data
- Detectable Warning

- Item 254 - Pavement Planing, Asphalt Concrete (T=1.5")
- Item 441 - Asphalt Concrete Surface Course (Medium Traffic), PG 64-22 (T=1.5")
- Item 608 - 4" Concrete Walk
- Item 608 - 6" Concrete Walk
- Item 608 - 8" Concrete Walk
- Item 259 - Driveway Concrete Replacement
- SS-1525 - Permeable Pavers

DESIGNER NOTE:
EXISTING FEATURES (MANHOLES, LIGHTPOLES, SIGNAL
POLES, PULL BOXES, HYDRANTS, VALVES, ETC.) THAT
ARE TO REMAIN SHOULD BE EVALUATED BY THE
DESIGN ENGINEER TO CONFIRM IF THESE FEATURES
MUST BE ADJUSTED AND/OR RECONSTRUCTED TO
FINAL GRADE. PLAN AND PROFILE SUBSUMMARIES
SHOULD REFLECT THE FINAL QUANTITIES REQUIRED.

DESIGNER NOTE:
WHERE SIDEWALKS ARE ADJACENT TO EXISTING
BUILDINGS THAT ARE TO BE REBUILT, DESIGNER
SHOULD PROVIDE SIDEWALK ELEVATIONS AND DETAIL
THE PAR, DOORWAYS AND OTHER INGRESS/EGRESS
ELEVATIONS. ALSO, WHERE SIDEWALKS DO NOT
FOLLOW TYPICAL SECTION CROSS SLOPES, THE PAR
WILL NEED TO BE SHOWN AND DETAILED. SEPARATE
DETAIL SHEETS MAY BE REQUIRED.

DESIGNER NOTE:
ELEVATIONS TO BE PROVIDED ALONG
THE STREET STATIONS AT 50 FOOT
INCREMENTS AT THE CENTERLINE,
EDGE OF PAVEMENT AND LOW POINTS
AT A MINIMUM UNLESS OTHERWISE
DIRECTED BY THE CITY.



CALCULATED XX
CHECKED XX

PAVEMENT DETAILS - STREET C

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX

Backfill Shall Be Compacted To The Density Of The Adjacent Suitable Soil Unless Otherwise Noted.

- * Compacted Backfill Per 911 & General Notes
- ** Compacted Granular Backfill, Per 912 & Gen. Notes
- % Concrete Encased w/ Compacted Granular Backfill to subgrade.
- # Item 613 - CDF, Type II Backfill

All coring of existing structures for storm sewer installation shall be included in price of 901. No separate payment will be made.

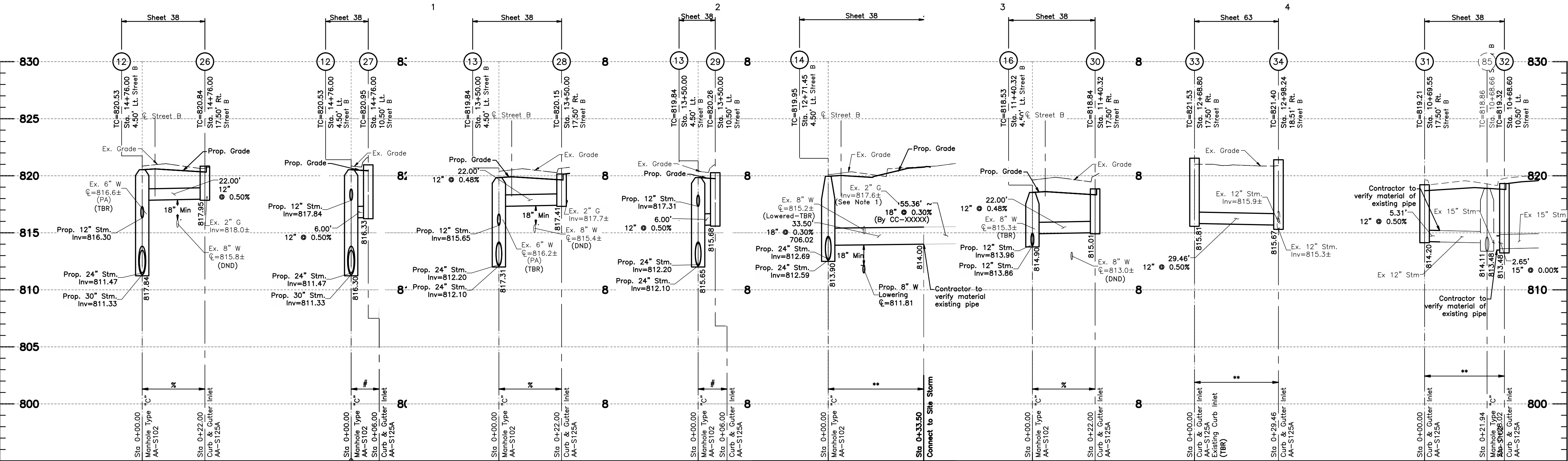
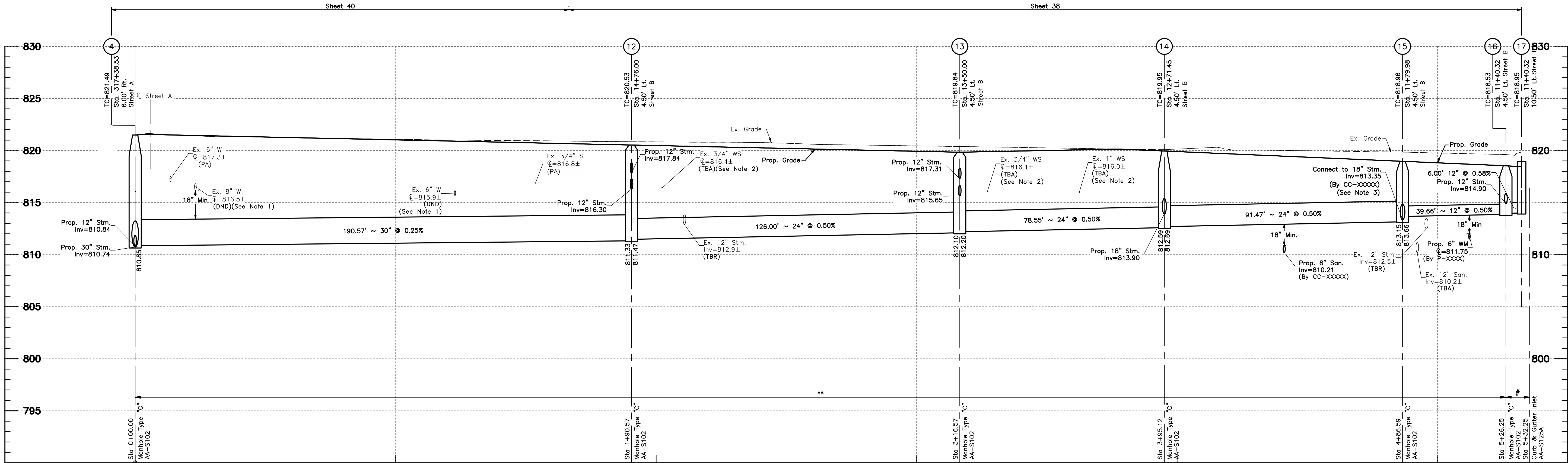
All structures within sidewalk areas shall be equipped with an ADA compliant frame and casting. Payment shall be included within the price of the structure. No separate payment will be made.

Note 1:
Contractor shall support and protect utility during excavation and conduit installation. No separate payment shall be made.

Note 2:
Utility is to be abandoned. If abandonment has not occurred at time of conduit installation, the utility shall be supported and protected by the contractor. If abandonment has already occurred, the utility may be removed during trench excavation. No separate payment shall be made for the protection or the removal of utilities.

Note 3:
Contractor has sole responsibility to coordinate this connection with the CC-XXXX plan Contractor.

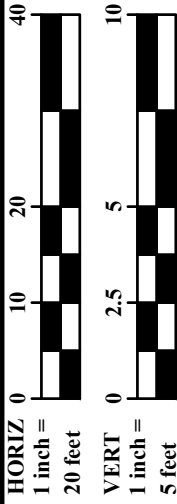
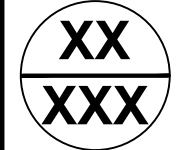
Note 4:
Watermain shall be abandoned. Reference watermain plan for construction sequencing requirements for watermain abandonment. Remove watermain where in conflict with proposed storm sewer. Cost of removal shall be included in the unit bid cost of the storm sewer. No separate payment shall be made.



STORM PROFILES - STREET A

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E



CALCULATED
CHECKED

Storm Structure Table									
Sheet	Structure No.	Proposed				As-Built			
		Northing	Easting	Elevation		Northing	Easting	Elevation	
				Invert	TC			Invert	TC
84/85	2	718466.62	1837938.82	809.81	819.31				
84	3	718647.07	1837955.84	810.36	820.80				
84/86	4	718717.43	1837959.14	810.64	821.49				
84	5	718868.74	1837966.22	811.50	820.35				
84	6	718973.14	1837986.13	814.35	819.79				
84	7	718970.44	1837953.41	814.61	820.01				
85	8	718415.25	1837933.68	809.99	818.86				
85	9	718130.57	1837917.49	811.13	817.81				
85	10	717980.80	1837909.24	812.31	816.93				
85	11	717981.70	1837892.77	813.51	817.37				
86	12	718729.36	1837768.94	811.23	820.53				
86	13	718737.26	1837643.19	812.00	819.84				
86	14	718742.17	1837564.79	812.49	819.95				
86	15	718747.90	1837473.50	813.05	818.96				
86	16	718750.39	1837433.92	813.76	818.53				
86	17	718756.37	1837434.30	813.90	818.95				
84	18	718646.45	1837969.24	815.90	820.97				
84	19	718869.55	1837948.90	816.99	820.77				
84	20	718868.47	1837971.86	813.57	820.64				
85	21	718417.12	1837917.28	815.85	819.30				
85	22	718413.96	1837945.10	814.35	819.19				
85	23	718131.48	1837901.02	814.59	818.25				
85	24	718129.94	1837928.92	813.30	818.14				
85	25	717980.16	1837920.70	812.47	817.26				
86	26	718707.41	1837767.57	817.85	820.84				
86	27	718735.35	1837769.32	816.23	820.95				
86	28	718715.30	1837641.81	817.15	820.15				
86	29	718743.24	1837643.57	815.58	820.26				
86	30	718728.43	1837432.54	814.81	818.84				
86	31	718732.87	1837361.92	814.13	819.21				
86	32	718760.86	1837362.72	813.23	819.32				
86	33	719061.94	1837744.23	815.56	821.54				
86	34	719067.44	1837773.17	815.30	821.40				
84	35	718980.80	1837384.46	817.81	821.45				
84	36	718868.04	1837981.21	813.57	820.84				

Sewer Coordinate Table					
Sheet	Structure No.		Bearing	Distance	Diameter
	From	To			
84	-	2	N83°30'49"W	24.73	30"
84	2	3	N05°23'20"E	181.25'	30"
84	3	4	N02°40'48"E	70.44'	30"
84	4	5	N02°40'48"E	151.47'	12"
84	6	7	N87°19'11"W	17.55'	12"
84	3	18	S87°19'11"E	13.41'	12"
84	5	19	N87°19'11"W	17.34'	12"
84	5	20	N87°19'11"E	5.64'	12"
84	20	36	N87°19'11"E	9.36	12"
84	36	6	N02°40'48"E	105.22'	12"
84	35	Ex 71	S74°13'26"W	108.12'	12"
85	2	8	S05°43'06"W	51.63'	18"
85	8	9	S03°15'15"W	285.14'	15"
85	9	10	S03°09'07"W	150.00'	12"
85	10	11	N86°50'53"W	16.50'	12"
85	4	12	N86°24'35"W	190.57'	30"
85	8	21	N83°29'58"W	18.25'	12"
85	8	22	S83°32'32"E	11.50'	12"
85	9	23	N86°50'53"W	16.50'	12"
85	9	24	N86°50'53"E	11.44'	12"
85	10	25	N86°50'53"E	11.48'	12"
86	4	12	N86°24'35"W	190.57'	30"
86	12	13	N86°24'35"W	126.00'	24"
86	13	14	N86°24'35"W	78.55'	24"
86	14	15	N86°24'35"W	91.47'	24"
86	15	16	N86°24'35"W	39.66'	12"
86	16	17	S03°35'25"W	6.00'	12"
86	12	26	S03°35'25"W	22.00'	12"
86	12	27	S03°35'25"W	6.00'	12"
86	13	28	S03°35'25"W	22.00'	12"
86	13	29	S03°35'25"W	6.00'	12"
86	14	-	S03°21'55"W	33.50'	18"
86	16	30	S03°35'25"W	22.00'	12"
86	33	34	S79°15'07"W	29.46'	12"
86	31	-	S03°35'25"W	5.31'	12"
86	32	-	S03°19'53"E	2.65'	15"

GENERAL NOTES

THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2012 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN, UNLESS OTHERWISE NOTED.

ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER. ALL CITY OF COLUMBUS, DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS OTHERWISE NOTED.

FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.

ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD. THE DIVISION OF WATER’S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER LINE SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

NO PERSON SHALL BEGIN CONSTRUCTION OR INSTALLATION OF A PUBLIC WATER MAIN UNTIL PLANS HAVE BEEN APPROVED BY THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA).

THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.

ALL WATER MAINS SHALL BE CLEANED AND FLUSHED, AND ANY WATER MAIN 12-INCH AND LARGER MUST BE PROPERLY PIGGED, IN ACCORDANCE WITH SECTION 801.13 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 801.14 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS. 150 PSI OF PRESSURE SHALL BE MAINTAINED FOR AT LEAST TWO HOURS IN ANY TESTED SECTION. THE CITY MAY NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS REGARDLESS OF THE AMOUNT OF LEAKAGE.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 801.15 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A. C-651. WHEN THE WATER MAINS ARE READY FOR DISINFECTION, THE INSPECTOR SHALL SUBMIT A WRITTEN REQUEST FOR CHLORINATION OF THE MAINS THAT NEED DISINFECTED, THREE (3) SETS OF “AS-BUILT” PLANS (FULL SIZE SHEETS ONLY), THE AS-BUILT SURVEY COORDINATES, WATER SERVICE REPORTS AND A PRESSURE TEST TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.

ONLY ONE CONNECTION TO AN EXISTING WATERLINE IS PERMITTED BEFORE DISINFECTION OF A NEW WATERLINE HAS BEEN COMPLETED. ALL OTHER CONNECTIONS MUST BE MADE AFTER THE LINE HAS BEEN DISINFECTED.

ALL WATER METERS ASSOCIATED WITH THIS PROJECT SHALL BE INSTALLED INSIDE THE PROPOSED STRUCTURE UNLESS A METER PIP IS APPROVED BY THE ADMINISTRATOR OF THE DIVISION OF WATER. ALL METER PITS MUST BE APPROVED PRIOR TO THE ISSUING OF ANY SERVICE PERMITS AND MUST CONFORM TO STANDARD DRAWING L-7103 FOR %” THROUGH 1” METERS, OR L-6317 A, B, C, D, & E FOR 1-1/2” OR LARGER METERS

NO SERVICE CONNECTION PERMITS SHALL BE ISSUED OR CONNECTIONS MADE TO ANY SERVICE TAPS UNTIL WATER MAINS HAVE BEEN DISINFECTED BY THE CITY OF COLUMBUS, DIVISION OF WATER. WHEN A 3-INCH OR LARGER TAP IS TO OCCUR ON A 20-INCH OR LARGER WATERMAIN, THE CONTRACTOR SHALL NOTIFY THE DIVISION OF WATER OPERATIONS CONTROL CENTER AT (614)-645-7168 TWENTY-FOUR (24) HOURS IN ADVANCE OF PERFORMING THE TAP.

WATER SERVICE BOXES SHALL BE PLACED 1’ FROM THE EDGE OF THE PROPOSED OR EXISTING SIDEWALK BETWEEN THE SIDEWALK AND THE CURB, OR 2 FEET INSIDE THE RIGHT-OF-WAY OR EASEMENT LINE WHEN NO SIDEWALK IS PRESENT OR PROPOSED. REFER TO STANDARD DRAWING L-9901 FOR ADDITIONAL INFORMATION.

ALL FIRE HYDRANTS TO BE INSTALLED IN THE CITY OF COLUMBUS SHALL BE PAINTED WITH THE COLOR “SAFETY ORANGE”. THE FIRE HYDRANTS SHALL BE PROVIDED WITH TWO COATS IN A GLOSS ENAMEL OF THE “SAFETY ORANGE” COLOR FOR THE ENTIRE HYDRANT. THE TOPS OF THE FIRE HYDRANTS ARE NO LONGER REQUIRED TO BE PAINTED BLACK. AFTER INSTALLATION OF FIRE HYDRANTS, THE CONTRACTOR IS RESPONSIBLE TO APPLY TOUCH UP PAINT TO ANY DAMAGE TO THE FACTORY APPLIED HYDRANT PAINT. HYDRANTS WILL NOT BE ACCEPTED UNTIL ANY PAINT DAMAGE FROM SHIPPING OR INSTALLATION HAS BEEN REPAIRED. USE HYDRANT TOUCH UP PAINT IN ACCORDANCE WITH THE APPROVED MATERIALS LIST. THIS GENERAL NOTE SHALL SUPERSEDE THE CURRENT PAINT DESCRIPTION SPECIFIED IN ITEM 809.02 IN THE 2012 CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND STRUCTURES AND ALL PROPOSED WATER MAINS.

WHEN CONTROLLED DENSITY FILL (ITEM 613) IS TO BE USED AS BACKFILL, THE CONTRACTOR SHALL PROVIDE SIZE NO. 57 CRUSHED CARBONATE STONE (CCS) 1 FOOT BELOW TO 1 FOOT ABOVE THE EXISTING WATER LINE.

“SURVEY COORDINATES” SHALL INCLUDE ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO OBTAIN HORIZONTAL AND VERTICAL (NORTHING, EASTING, AND ELEVATION) SURVEY COORDINATES FOR THE WATER MAIN IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE COMPLETED WATER MAIN CONSTRUCTION AND SHALL INCLUDE ALL VALVES, TEES, CROSSES, BENDS, DEFLECTIONS, PLUGS, REDUCERS, TAPPING SLEEVES, BLOW OFFS, CHLORINATION TAPS, FIRE HYDRANTS, AIR RELEASES, CURB STOPS, CASING PIPE TERMINI, AND OTHER FITTINGS. ADDITIONAL SURVEY COORDINATES ARE REQUIRED ON THE WATER MAIN EVERY 500’ WHERE NO FITTING OR OTHER WATER MAIN STRUCTURE IS BEING INSTALLED WITHIN THAT LENGTH OF THE IMPROVEMENT.

ALL SURVEY COORDINATES SHALL BE REFERENCED TO THE APPLICABLE COUNTY ENGINEER’S MONUMENTS, AND SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83) WITH THE (NSRS2007) ADJUSTMENT, WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH COORDINATE SYSTEM, SOUTH ZONE, WITH ELEVATIONS BASED ON NAVD 88 DATUM. ALL COORDINATES (NORTHING, EASTING, ELEVATION) SHALL

BE REFERENCED TO THE NEAREST HUNDREDTH (N XXXXXX.XX, E XXXXXX.XX, ELEV. XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT HORIZONTAL AND A TENTH OF A FOOT (0.10) OR LESS VERTICAL.

THE COORDINATES SHALL BE DOCUMENTED TO THE ENGINEER IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE ENGINEER ON A BI-WEEKLY BASIS. COORDINATES SHALL ALSO BE REQUIRED TO BE SUBMITTED TO THE DIVISION OF WATER AS PART OF THE REQUEST FOR CHLORINATION.

LUMP SUM PAYMENT IS FULL COMPENSATION FOR ALL WORK INVOLVED IN OBTAINING AND DOCUMENTING THE SURVEY COORDINATES AS DESCRIBED IN THIS SPECIFICATION.

SPECIAL NOTES

ALL WATER VALVE BOXES, SERVICE BOXES, TEST STATIONS, PITOMETER TAP STRUCTURE, METER PIT COVERS, AND OTHER SURFACE UTILITY STRUCTURES WITHIN THE DISTURBED AREA SHALL BE ADJUSTED TO GRADE ANY OF THESE STRUCTURES LOCATED WITHIN PAVEMENT, DRIVEWAYS OR OTHER TRAVELED AREAS, WHERE EXISTING OR PROPOSED, SHALL BE EQUIPPED WITH A TRAFFIC RATED, HEAVY DUTY VALVE BOX AND OR COVER IN ACCORDANCE WITH THE STANDARD DRAWINGS, EXISTING WATER SERVICE BOXES TO REMAIN THAT ARE ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE CLEANED OUT, CENTERED COVER THE CURB STOP, AND ADJUSTED TO THE PROPOSED GRADE.

WHERE NEW CONDUIT IS PROPOSED TO CROSS AN EXISTING OR PROPOSED WATER MAIN OR WATER SERVICE, A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONDUIT AND THE WATER MAIN OR SERVICE. A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) IS REQUIRED AT LOCATIONS WHERE THE CONDUIT IS PARALLEL TO THE WATER MAIN AND AT LOCATIONS OF WATER LINE THRUST BLOCKS.

A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) SHALL BE MAINTAINED BETWEEN ALL EXISTING WATER MAINS AND FOUNDATIONS FOR POLES, PULL BOXES, PUSH BUTTON PEDESTALS, AND ANY OTHER MISCELLANEOUS ELECTRICAL STRUCTURE.

A MINIMUM OF 4-FEET OF COVER IS REQUIRED PRIOR TO PRESSURE TESTING ANY WATER MAIN. A SUFFICIENT AMOUNT OF BACKFILL SHALL BE INSTALLED TO PROVIDE THE ADEQUATE RESTRAINT IN AREAS WHERE REQUIRED.

THE PROPOSED WATER MAIN SHALL BE LOCATED A MINIMUM DISTANCE OF TWENTY (20) FEET AWAY FROM ANY EXISTING OR PROPOSED STRUCTURE, OVERHANG OR FOOTER.

THE CONTRACTOR SHALL NOTIFY THE DIVISION OF FIRE ALARM OFFICE, 221-3132, WHENEVER FIRE HYDRANTS ARE TAKEN OUT OF SERVICE AND PLACED BACK IN SERVICE.

NO SHUTS ARE PERMITTED TO OCCUR ONE (1) BUSINESS DAY BEFORE A FEDERAL HOLIDAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

STATIONING

ALL STATIONING REFERS TO WATER LINE STATIONING UNLESS OTHERWISE NOTED ON THE PLANS.

SERVICE TRANSFER AND WATER LINE ABANDONMENT:

WHERE INDICATED ON THE PLANS, THE EXISTING WATER MAIN SHALL BE ABANDONED; AND EXISTING WATER SERVICES OFF THESE MAIN SHALL BE TRANSFERRED TO THE NEW WATER MAIN. PRIOR TO ABANDONMENT OF THE EXISTING WATER MAIN, THE PROPOSED WATER MAIN SHALL BE PIGGED (IF REQUIRED), TESTED, CHLORINATED AND PUT IN SERVICE AND THEN THE EXISTING WATER SERVICES SHALL BE TRANSFERRED. THE CONTRACTOR SHALL MAINTAIN WATER SERVICE TO ALL PROPERTIES DURING CONSTRUCTION OF THE NEW MAIN AND SHALL NOTIFY ALL CUSTOMERS AFFECTED BY MAIN TRANSFER OF SERVICES. TO ENSURE THAT ALL EXISTING MAIN ARE TRANSFERRED TO THE NEW MAIN, NO WATER MAIN SHALL BE ABANDONED UNTIL THE NEW WATER MAIN HAS BEEN PUT IN SERVICE; ALL AFFECTED WATER SERVICES HAVE BEEN TRANSFERRED; AND THE EXISTING WATER MAIN TO BE ABANDONED HAS BEEN SHUT DOWN FOR 24 HOURS. ALL VISIBLE VALVE BOXES, FIRE HYDRANTS, AND SERVICE BOXES ON THE WATER MAIN TO BE ABANDONED, WHICH WILL NO LONGER BE IN SERVICE, SHALL BE REMOVED. ALL WATER MAINS TO BE ABANDONED SHALL BE MAIN WATER TIGHT. THE REQUIRED SURFACE RESTORATION SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM(S).

FIRE HYDRANTS RELOCATIONS SHALL CONFORM TO APPLICABLE SECTIONS OF ITEM 809 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WORK SHALL CONSIST OF REMOVING THE EXISTING HYDRANT, INSTALLING NEW 6-INCH PIPE AND FITTING AS REQUIRED TO LOCATE THE FIRE HYDRANT TWO (2) FEET FROM BACK OF PROPOSED CURB OR EIGHT (8) FEET OFF EDGE OF PAVEMENT, RESETING HYDRANT AND BLOCKING AS REQUIRED. ALL 6-INCH PIPE SHALL BE INSTALLED AT 4’-0” MINIMUM COVER. HYDRANT EXTENSIONS SHALL BE PROVIDED PER ITEM 810, AS REQUIRED. RELOCATED FIRE HYDRANTS SHALL BE ADJUSTED TO PROPER GRADE AND FACE IN THE PROPER DIRECTION. WHEN A HYDRANT IS RELOCATED FIFTEEN (15) FEET OR MORE FROM THE “TYPICAL HYDRANT SETTING” VALVE LOCATION (SEE L-6409 & I-6637), AN ADDITIONAL VALVE SHALL BE INSTALLED, AND RESTRAINED, WITHIN TWO (2) FEET OF THE RELOCATED HYDRANT. PAYMENT IS TO BE INCLUDED UNDER ITEM 809, FIRE HYDRANT RELOCATED.

RELOCATED FIRE HYDRANTS SHALL BE PUT BACK IN SERVICE AS SOON AS POSSIBLE.

NO TWO (2) ADJACENT FIRE HYDRANTS SHALL BE TAKEN OUT OF SERVICE CONCURRENTLY.

THE CONTRACTOR SHALL NOTIFY THE DIVISION OF FIRE ALARM OFFICE, 221-3132, WHENEVER FIRE HYDRANTS ARE TAKEN OUT OF SERVICE AND PLACE BACK IN SERVICE.

THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT NO WATER CUSTOMER WILL HAVE THEIR SERVICE DISRUPTED MORE THAN TWO (2) TIMES THROUGHOUT THE DURATION OF THIS PROJECT.

PIPE ABANDONED OR FILLED IN PLACE:

PIPES IDENTIFIED AS “TO BE ABANDONED” (TBA), “PREVIOUSLY ABANDONED” (PA), OR “FILLED IN PLACE” (FIP) SHALL BE ADDRESSED IN ONE OF THE FOLLOWING MANNERS AS APPLICABLE:

PIPES 12” AND SMALLER: THESE PIPES SHALL BE CUT AND PLUGGED AT THE POINT THE ABANDONMENT AND LEFT IN PLACE. NO PAYMENT SHALL BE MADE FOR THIS EFFORT AS IT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

PIPES GREATER THAN 12”: THESE PIPES SHALL BE CUT AT THE POINT THE ABANDONMENT BEGINS AND FILLED IN PLACE, UNLESS OTHERWISE NOTED ON PLANS. PERFORMANCE OF THIS WORK SHALL BE IN ACCORDANCE WITH CMSC ITEMS 202.04 AND 202.041. PAYMENT FOR THIS ITEM SHALL BE PER ITEM 202, PIPE FILLED IN PLACE. PIPES MEETING THE REQUIREMENT FOR FILL WHICH WILL BE ENCOUNTERED DURING EXCAVATION ACTIVITIES SHALL BE REMOVED DURING THE EXCAVATION. THE PROJECT WILL NOT PAY TO FILL PIPES WHICH WILL LATER BE REMOVED.

PIPES WHICH ARE IDENTIFIED “TO BE ABANDONED”, “PREVIOUSLY ABANDONED”, “FILLED IN PLACE” WHICH ARE ENCOUNTERED DURING EXCAVATION FOR ANOTHER ITEM SHALL BE REMOVED WITHIN THE LIMITS OF THE EXCAVATION AND PLUGGED ON EITHER SIDE. THE

COST FOR REMOVAL OF THIS PIPE SHALL BE CONSIDERED INCIDENTAL TO THE EXCAVATION EFFORT AND NO ADDITIONAL PAYMENT WILL BE MADE. THE REMOVAL OF ALL UNDERDRAINS SHALL BE CONSIDERED INCIDENTAL TO THE EXCAVATION EFFORT.

IF THE CONTRACTOR HAS ANY INDICATION THAT A PIPE TO BE ABANDONED HAS A DIRECT CONNECTION (LATERAL) NOT SHOWN ON THE PLAN, ALL ABANDONMENT ACTIVITIES SHALL BE CEASED AND THE DESIGN ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

CONSTRUCTION SEQUENCING

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION AS TO MINIMIZE THE NUMBER OF TIMES THAT CUSTOMERS ARE WITHOUT WATER SERVICE. THE MAXIMUM NUMBER OF SERVICE INTERRUPTIONS TO ANY ONE CUSTOMER DURING THE CONSTRUCTION OF THE PROJECT SHALL BE TWO (2). THE SERVICE INTERRUPTION SHALL LAST NO LONGER THAN 4 HOURS UNLESS APPROVED IN WRITING BY THE CITY. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ALL AFFECTED PROPERTY OWNERS AT LEAST 24 HOURS, BUT NOT MORE THAN 72 HOURS, PRIOR TO ANY DISRUPTION OF WATER SERVICE.

THE CONTRACTOR IS REQUIRED TO SUBMIT A SEQUENCE OF CONSTRUCTION TO THE CITY AT THE PRECONSTRUCTION CONFERENCE. THIS SEQUENCE OF CONSTRUCTION SHOULD ALSO DETAIL THE CONTRACTOR’S PLANS FOR TESTING AND CHLORINATION OF NEW MAINS INCLUDING THE SOURCE OF WATER AND LOCATION OF TEMPORARY CHLORINATION AND BLOW-OFF TAPS. THE CITY SHALL HAVE THE RIGHT TO APPROVE, REJECT OR MODIFY THE CONSTRUCTION SEQUENCE TO ENSURE THAT THE INTERRUPTIONS ARE HELD TO A MINIMUM. NOTE: THE CITY MAY TAKE UP TO 10 WORKING DAYS TO RESPOND TO THIS SUBMITTAL.

HEAVY DUTY VALVE BOX

EXISTING OR PROPOSED VALVES LOCATED WITHIN EXISTING OR PROPOSED PAVEMENT, DRIVEWAYS OR OTHER TRAVELED AREAS, SHALL BE PROVIDED WITH A HEAVY DUTY VALVE BOX IN ACCORDANCE WITH THE STANDARD DRAWINGS.

THE COST OF ALL HEAVY DUTY VALVE BOXES FOR PROPOSED VALVES SHALL BE INCLUDED WITHIN THE COST OF THE PROPOSED VALVE. NO SEPARATE PAYMENT SHALL BE MADE.

VALVE BOXES, WATER SERVICE BOXES AND OTHER SURFACE STRUCTURES

EXISTING WATER SERVICE BOXES TO REMAIN THAT ARE ENCOUNTERED WHEN CONSTRUCTING NEW DRIVEWAYS AND/OR SIDEWALKS SHALL BE CLEANED OUT, CENTERED OVER THE CURB STOP, AND ADJUSTED TO THE PROPOSED GRADE. ALL COSTS SHALL BE INCLUDED IN THE BID PAYMENT FOR ITEM 807, SERVICE BOX ADJUSTED TO GRADE. NO SEPARATE PAYMENT SHALL BE MADE.

ALL VALVE BOXES, METER PIT COVERS, AND OTHER SURFACE UTILITY STRUCTURES THAT ARE TO REMAIN SHALL BE ADJUSTED TO GRADE WHERE NEW WALK, PAVERS, OR PAVEMENT IS CONSTRUCTED. PAYMENT SHALL BE INCLUDED WITHIN THE PERTINENT ADJUSTMENT TO GRADE BID ITEM.

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DESIGNER NOTE:
WATERLINE GENERAL NOTES SHOWN
ARE FOR ILLUSTRATION PURPOSES
ONLY. THE MOST CURRENT
WATERLINE NOTES MUST BE USED
FOR PLANS AND CAN BE OBTAINED
FROM THE DEPARTMENT OF PUBLIC
UTILITIES.

WATER MAIN SURVEY COORDINATE DATA							
N. HIGH STREET							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
1	Cut and Connect to Ex 12" WM w/ 45° H Bend	48+00.0					
2	45° 12" H Bend & V Deflection	48+17.5					
3	12" WV	48+38.5					
4	12"x6" Anchoring Tee	48+42.5					
5	6" WV	48+42.5					
6	90° 6" H Bend	48+42.5					
7	6" WV	48+42.5					
8	Fire Hydrant, Type A Mod.	48+42.5					
9	11.25' 12" V Bend	48+47.5					
10	12"x8" Anchoring Tee	48+71.5					
11	12" V Deflection	48+79.5					
12	12" V Deflection	49+70.0					
13	12" V Deflection	50+05.0					
14	12" V Deflection	51+60.0					
15	8"x6" Anchoring Tee	52+04.0					
16	6" WV	52+04.0					
17	90° 6" H Bend	52+04.0					
18	6" WV	52+04.0					
19	Fire Hydrant, Type A Mod.	52+04.0					
20	12"x8" Anchoring Tee	52+21.8					
21	8" WV	52+21.8					
22	12"x8" Anchoring Tee	52+66.8					
23	12" V Deflection	52+79.3					
24	12" WV	53+00.0					
25	45° 12" H Bend & 11.25' V Deflection	53+20.9					
26	Cut and Connect to Ex 12" WM w/ 45° 12" H Bend	53+38.3					

WATER MAIN SURVEY COORDINATE DATA							
E. SEVENTEENTH AVENUE							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
27	12"x8" Anchoring Tee	10+06.0					
28	8" V Deflection	10+24.0					
29	8" WV	10+36.0					
30	1" Water Service Tap (10 17th Ave, Unit 1)	10+60.5					
31	8" V Deflection	10+70.0					
32	1.5" Water Service Tap (10 17th Ave, Unit 2)	10+76.5					
33	8"x6" Anchoring Tee	11+99.0					
34	6" WV	11+99.0					
35	Fire Hydrant, Type A	11+99.0					
36	8" WV	12+23.4					
37	8"x8" Anchoring Tee	12+24.4					

WATER MAIN SURVEY COORDINATE DATA							
E. SIXTEENTH AVENUE							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
38	12"x8" Anchoring Tee	19+87.3					
39	8" V Deflection	20+09.4					
40	8" WV	20+15.5					
41	2" Water Service Tap (11 E 16th Ave)	20+21.9					
42	8"x6" Anchoring Tee	21+78.0					
43	6" WV	21+78.0					
44	Fire Hydrant, Type A	21+78.0					
45	11.25" 8" H Bend	21+89.9					
46	8" V Deflection	22+43.4					
47	8" V Deflection	22+71.3					
48	11.25" 8" H Bend	22+78.3					
49	8" V Deflection	23+36.2					
50	11.25" 8" H Bend	23+71.9					
51	22.5" 8" V Bend	23+79.8					
52	22.5" 8" V Bend	23+87.4					
53	45" 8" V Bend	23+94.95					
54	45" 8" V Bend	23+98.1					
55	8" WV	24+03.1					
56	8"x8" Anchoring Tee	24+08.1					
57	8" H Deflection	24+61.6					
58	2" Water Service Tap (1900 Waldeck Ave)	25+67.3					
59	11.25" 8" H Bend & V Deflection	25+85.4					
60	4" Water Service (66 E 15th Ave)	26+28.9					
61	8"x4" Anchoring Tee	26+28.9					
62	4" WV	26+28.9					
63	22.5" 8" V Bend	26+51.5					
64	22.5" 8" V Bend	26+56.5					
65	8"x6" Anchoring Tee	26+61.5					
66	6" WV	26+61.5					
67	Fire Hydrant, Type A	26+61.5					
68	8" H Deflection	26+85.2					
69	Prop 8" WV	26+89.0					
70	45" 8" H Bend & V Deflection	27+00.2					
71	8"x6" Reducer	27+02.9					
72	Cut and Connect to Ex 6" WM w/ 45" 6" H Bend	27+05.6					

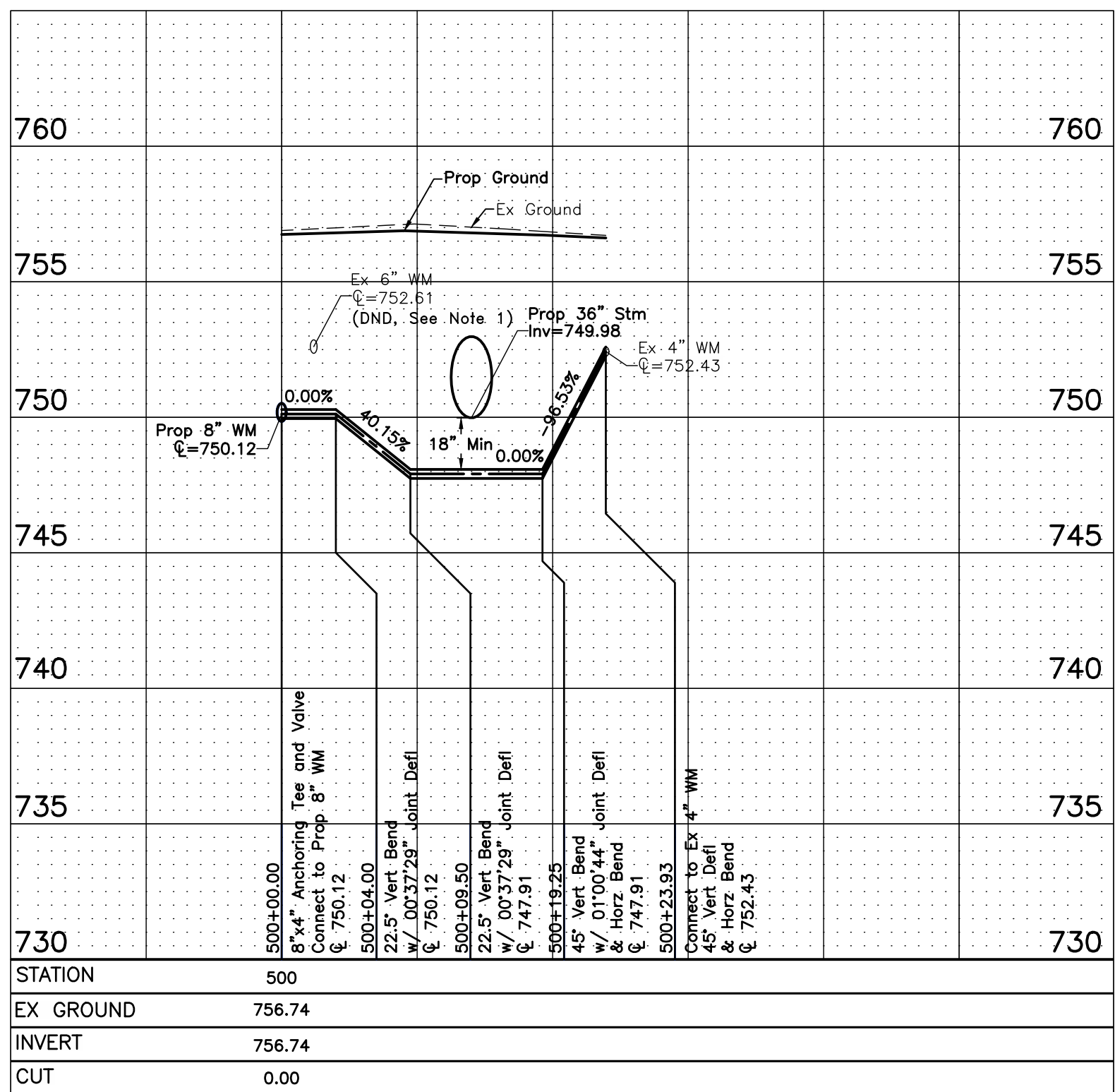
WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 39+49							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
110	Connect to Ex 6" WM & 22.5' 6" V Bend	100+16.1					
111	22.5' 6" V Bend	100+24.7					
112	22.5' 6" V Bend	100+34.7					
113	Connect to Ex 6" WM & 22.5' 6" V Bend	100+41.8					

WATER MAIN SURVEY COORDINATE DATA							
N. PEARL STREET							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
73	Cut and Connect to Ex 6" WM	134+62.0					
74	22.5" 6" V Bend	134+67.0					
75	45" 6" H Bend & 22.5" V Deflection	134+72.9					
76	8"x6" Reducer	134+80.9					
77	45" 8" H Bend & 22.5" V Bend	134+88.8					
78	22.5" 8" V Bend	134+95.0					
79	11.25" 8" V Bend	136+29.1					
80	11.25" 8" V Bend	136+35.2					
81	8"x8" Anchoring Tee	136+53.8					
82	8" H Deflection	136+64.9					
83	8" H Deflection	136+79.2					
84	8" Valve	136+92.0					
85	8" H Deflection and V Deflection	137+06.9					
86	8"x6" Reducer	137+09.6					
87	Cut and Connect to Ex 6" H Deflection and V Deflection	137+13.2					

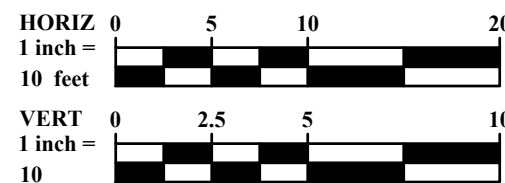
WATER MAIN SURVEY COORDINATE DATA							
WALDECK AVENUE							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	© ELEV
88	8"x8" Anchoring Tee	29+91.6					
89	8" WV	29+92.6					
90	8" V Deflection	29+97.6					
91	45° 8" H Bend	30+03.0					
92	0.75" Water Service Tap (1899 Waldeck Ave)	30+09.0					
93	8" V Deflection	30+33.5					
94	8" V Deflection	30+43.5					
95	8" V Deflection	30+62.2					
96	22.5° 8" V Bend	30+89.3					
97	22.5° 8" V Bend	30+97.7					
98	22.5° 8" H Bend	31+07.4					
99	8"x6" Anchoring Tee	31+18.7					
100	6" WV	31+18.7					
101	90° 6" H Bend	31+18.7					
102	6" WV	31+18.7					
103	Fire Hydrant, Type A Mod.	31+18.7					
104	8" V Deflection	31+18.7					
105	8" V Deflection	31+36.7					
106	8" WV	31+55.7					
107	45° 8" H Bend	31+65.7					
108	8"x6" Reducer	31+70.2					
109	Cut and Connect to Ex 12" WM w/ 45° 6" H Bend	31+74.8					

WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 42+40							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
114	Connect to Ex 8" WM & 45" 8" V Bend	200+18.1					
115	45" 8" V Bend	200+23.8					
116	45" 8" V Bend	200+43.5					
117	Connect to Ex 8" WM & 45" 8" V Bend	200+48.5					

WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 43+79							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
118	Connect to Ex 6" WM & 45' 6" V Bend	300+17.5					
119	45' 6" V Bend	300+22.5					
120	45' 6" V Bend	300+42.0					
121	Connect to Ex 6" WM & 45' 6" V Bend	300+47.0					

[illegible]

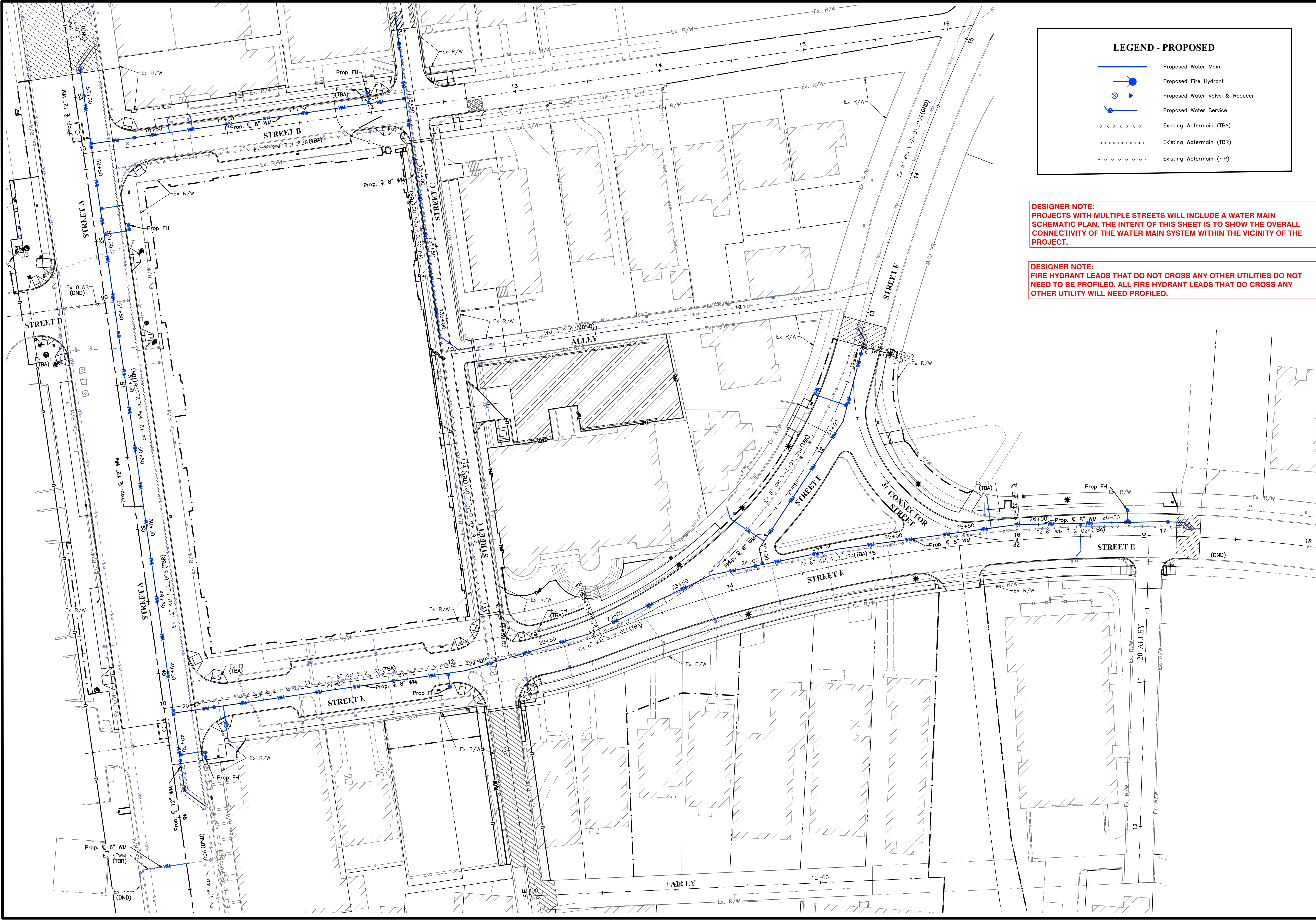
Waterline Profile (See Sheet XXX for Plan View)



WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 47+68							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
122	Connect to Ex 6" WM & 45' 6" V Bend	400+16.0					
123	45' 6" V Bend	400+23.0					
124	45' 6" V Bend	400+40.0					
125	Connect to Ex 6" WM & 45' 6" V Bend	400+46.5					

WATER MAIN SURVEY COORDINATE DATA							
16TH AVENUE LOWERING NEAR STA. 16+43							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
126	8"x4" Anchoring Tee	500+00.0					
127	22.5' 8" V Bend	500+04.0					
128	22.5' 8" V Bend	500+09.5					
129	45' 8" V Bend	500+19.3					
130	Connect to Ex 4" WM & 45' 4" V Bend	500+23.93					





LEGEND - PROPOSED

Proposed Water Main

Proposed Fire Hydrant

Proposed Water Valve & Reducer

Proposed Water Service

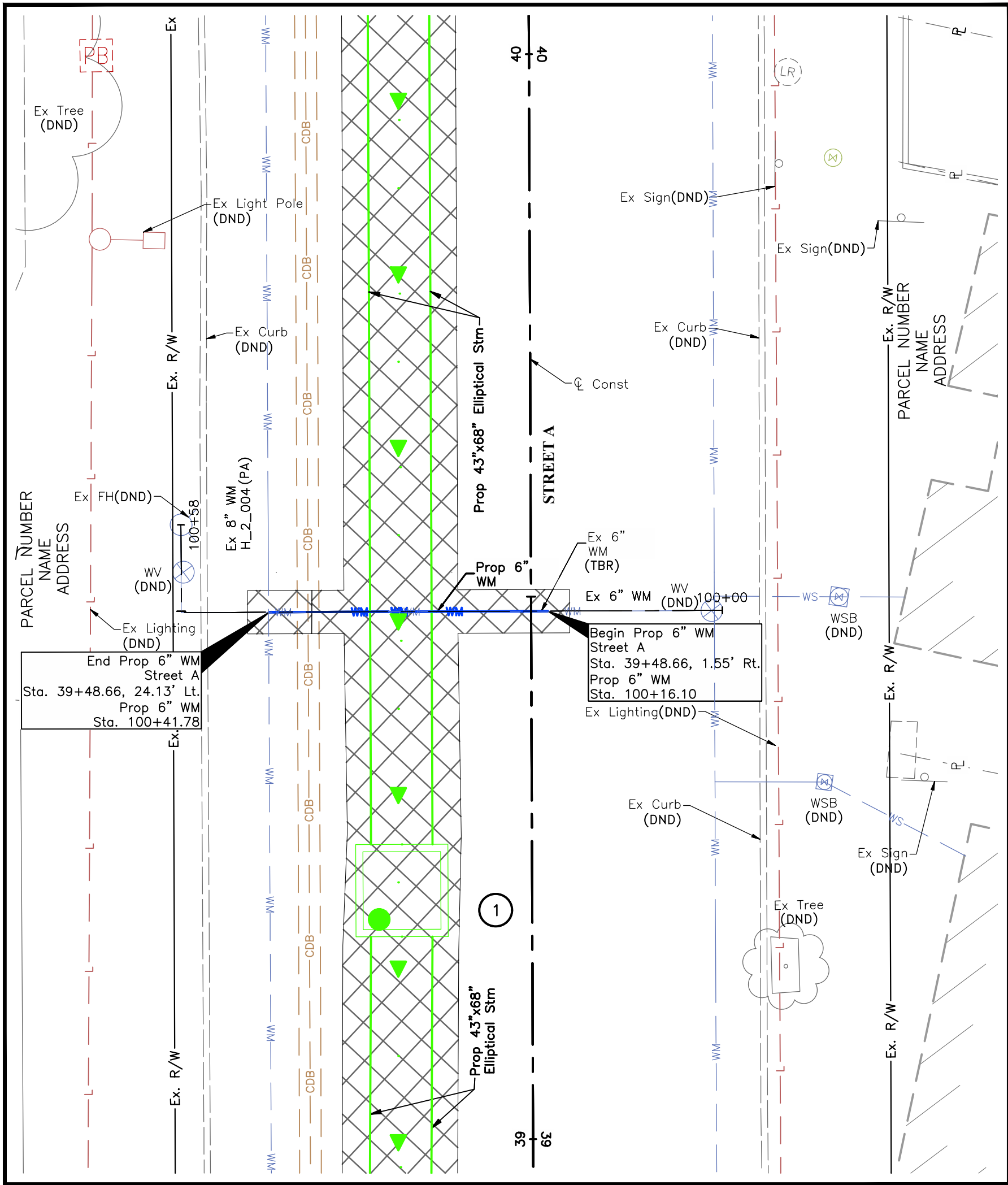
Existing Watermain (TBA)

Existing Watermain (TBR)

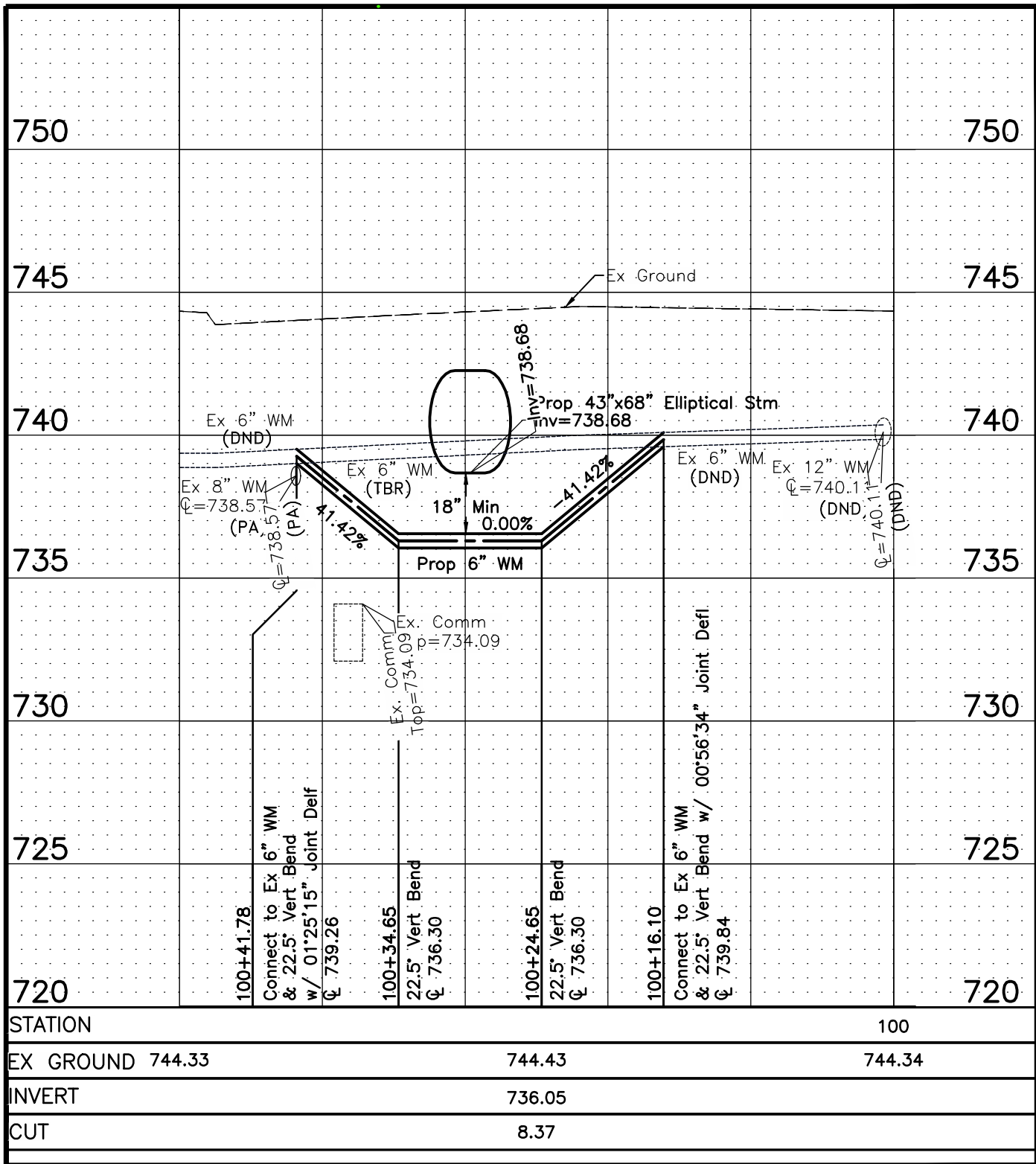
Existing Watermain (FIP)

DESIGNER NOTE:
PROJECTS WITH MULTIPLE STREETS WILL INCLUDE A WATER MAIN SCHEMATIC PLAN. THE INTENT OF THIS SHEET IS TO SHOW THE OVERALL CONNECTIVITY OF THE WATER MAIN SYSTEM WITHIN THE VICINITY OF THE PROJECT.

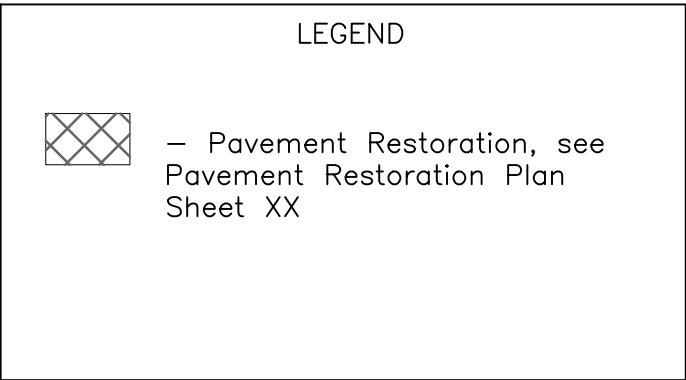
DESIGNER NOTE:
FIRE HYDRANT LEADS THAT DO NOT CROSS ANY OTHER UTILITIES DO NOT NEED TO BE PROFILED. ALL FIRE HYDRANT LEADS THAT DO CROSS ANY OTHER UTILITY WILL NEED PROFILED.



PLAN A

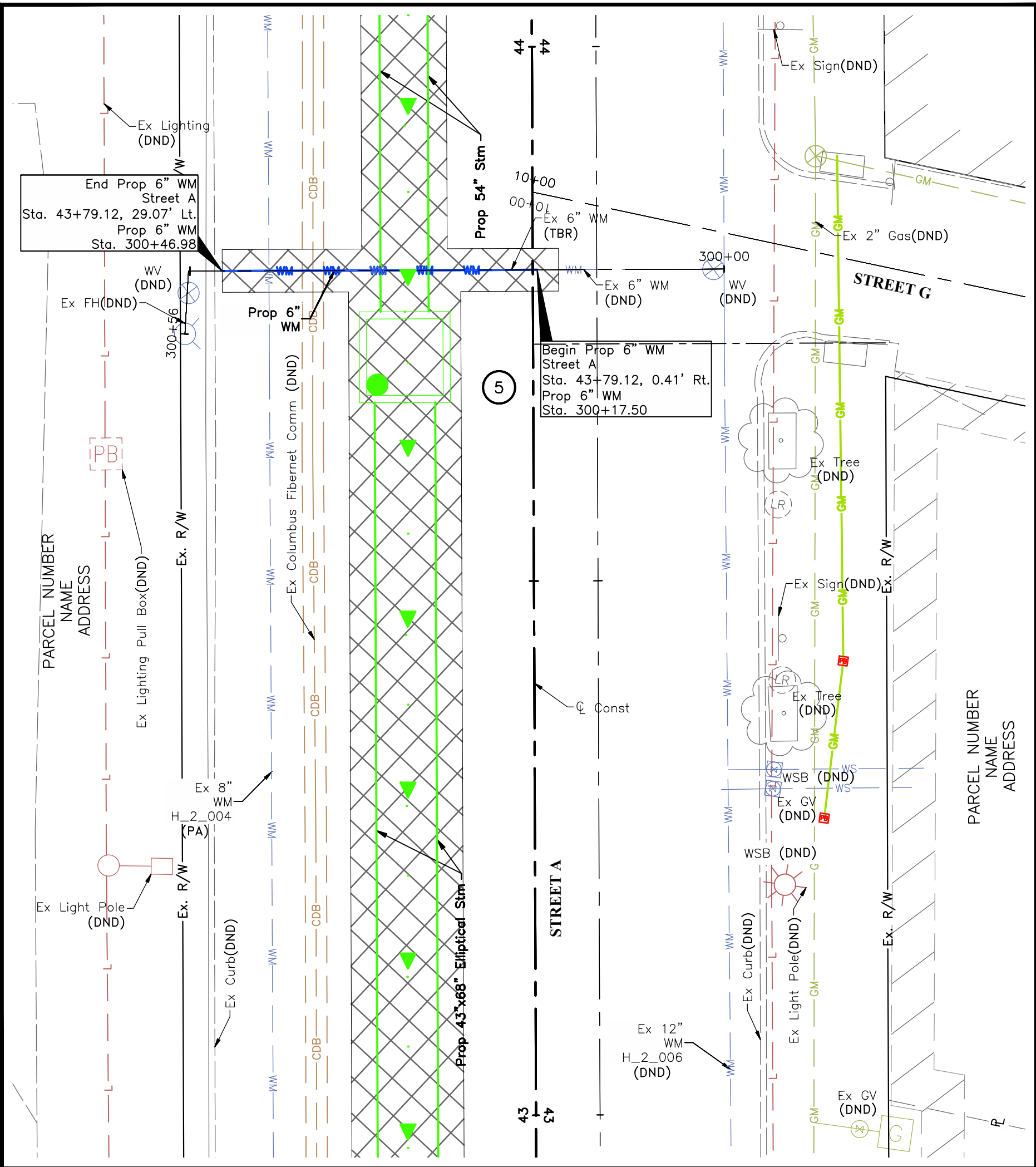


PROFILE A

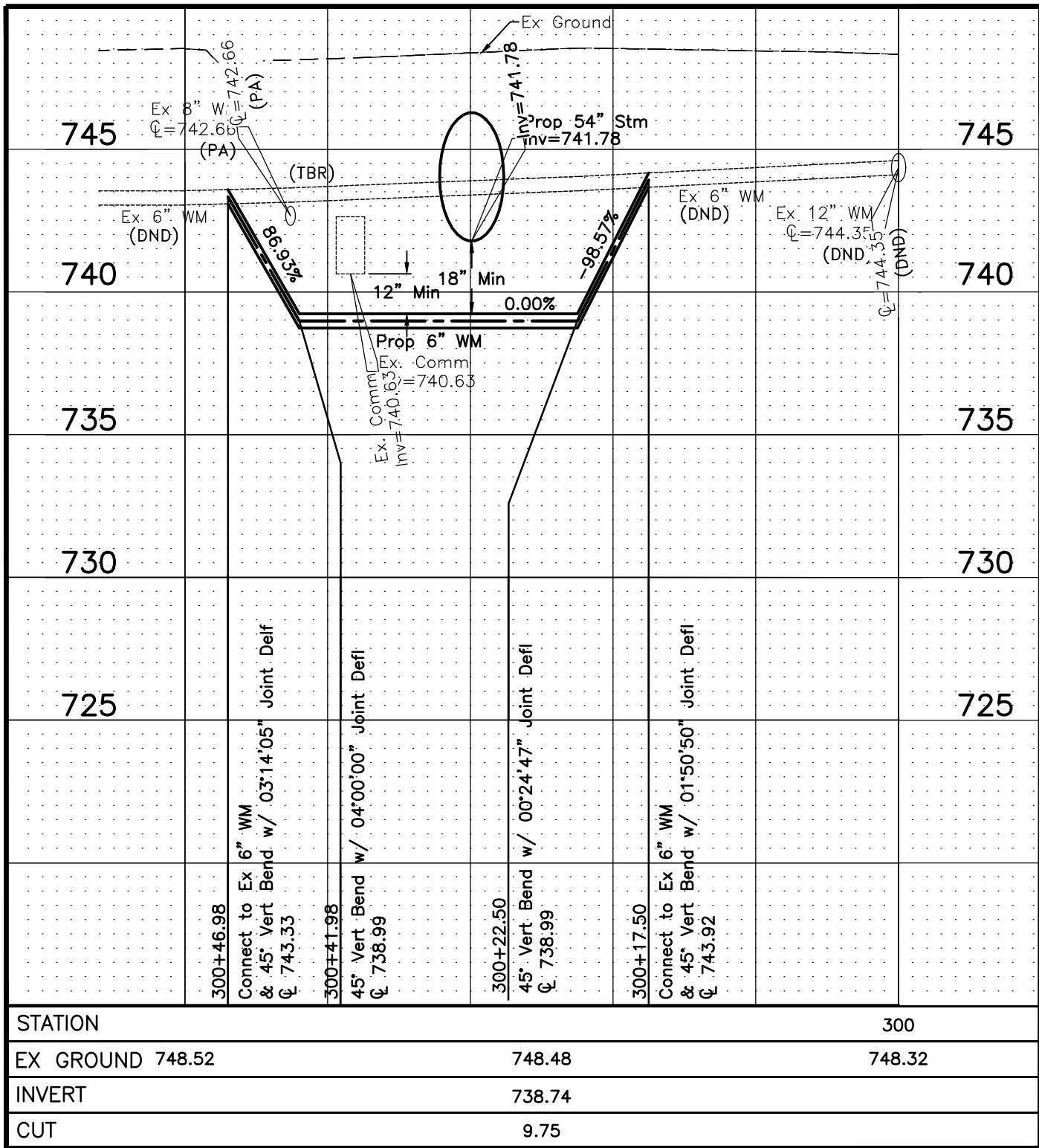


DESIGNER NOTE:
THIS PAGE IS AN EXAMPLE FOR
SPOT WATERLINE WORK.

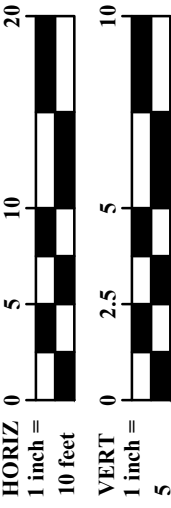
DESIGNER NOTE:
IF A PAVEMENT RESTORATION PLAN IS NECESSARY
PER COORDINATION WITH THE CITY PM, THE PLAN
SHALL CROSS REFERENCE THE RESTORATION
PLAN. IF A RESTORATION PLAN IS NOT NECESSARY,
PAVEMENT RESTORATION ITEMS SHALL BE
HATCHED AND INCLUDED IN THE LEGEND. REFER TO
COLUMBUS STANDARD DRAWING 1441 FOR
TRENCHING DETAILS.



PLAN B



PROFILE B

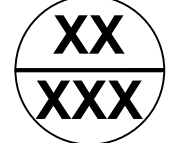


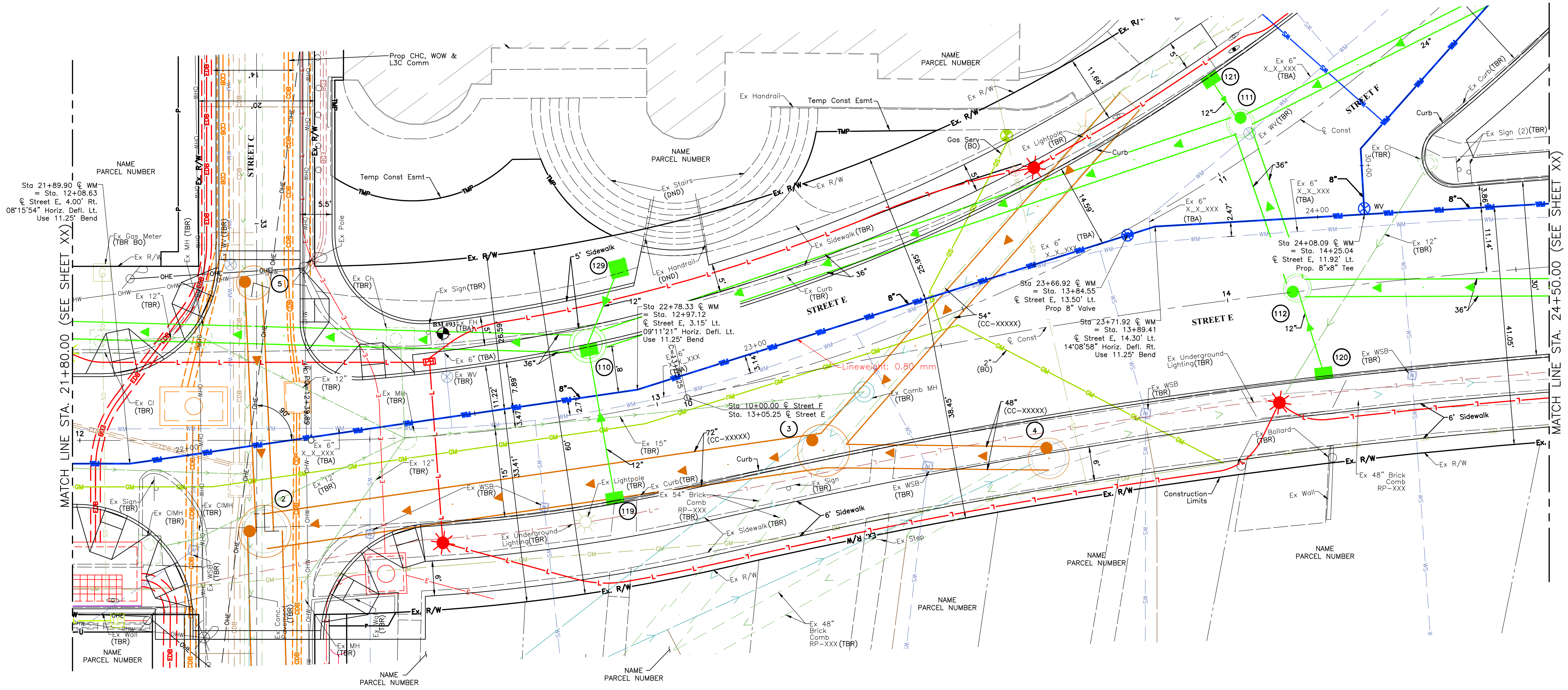
CALCULATED	XX
CHECKED	XX

WATER MAIN FIRE HYDRANT DETAILS

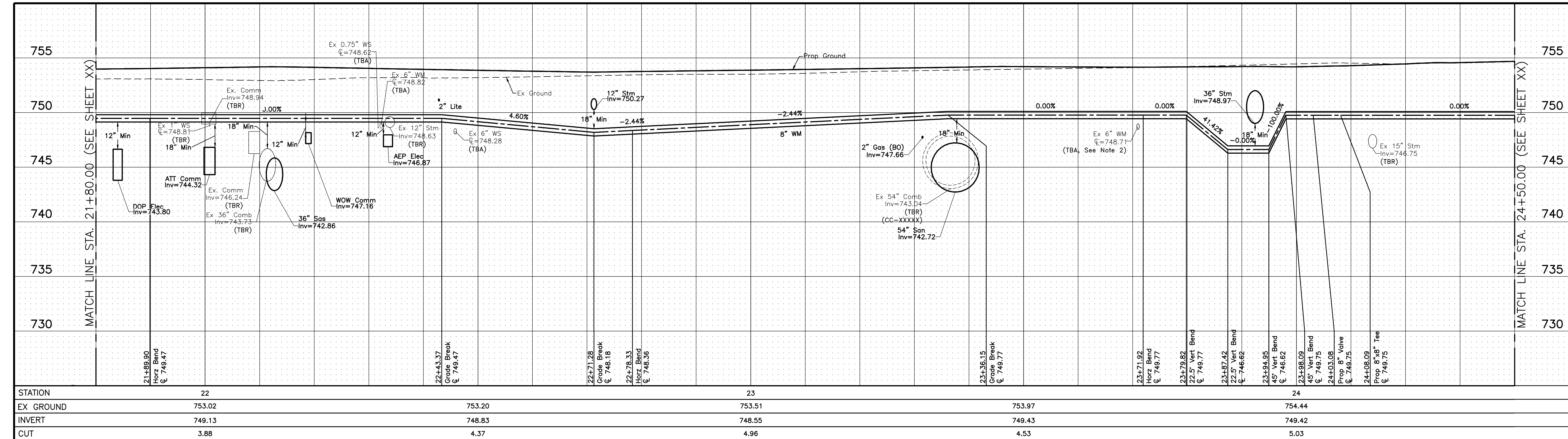
IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

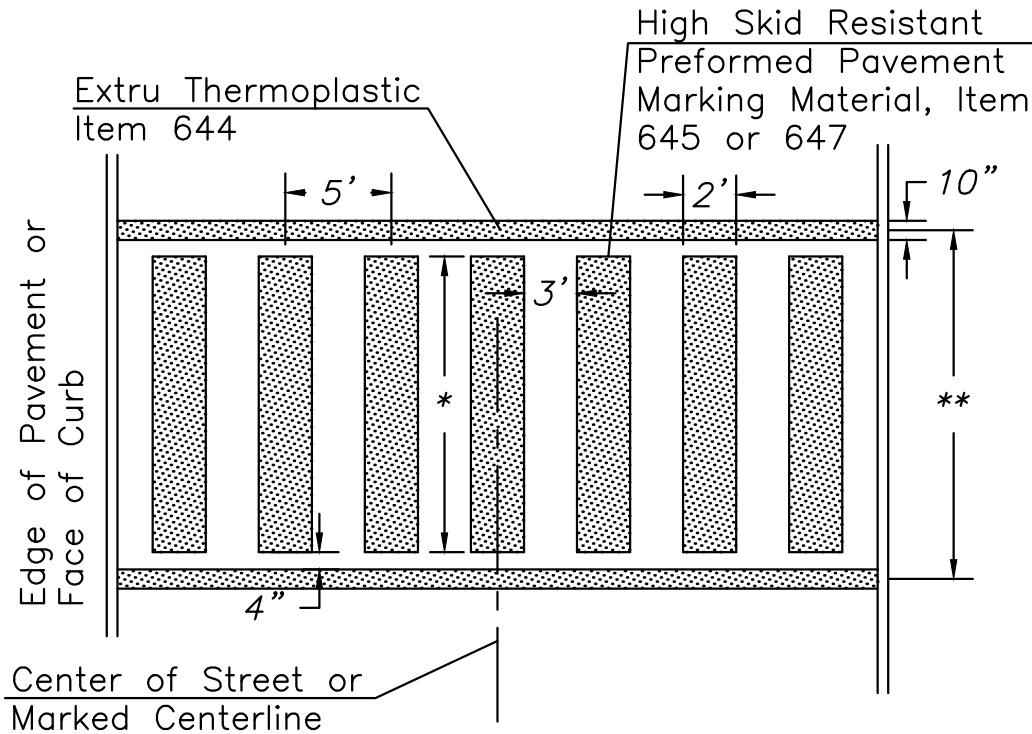




DESIGNER NOTE:
THIS SHEET INDICATES TO
THE DESIGNER HOW TO
SHOW AND LABEL THE
PROPOSED WATER MAIN
DESIGN. PLEASE REFER TO
PLAN AND PROFILE
SHEETS FOR ALL OTHER
LABELS.



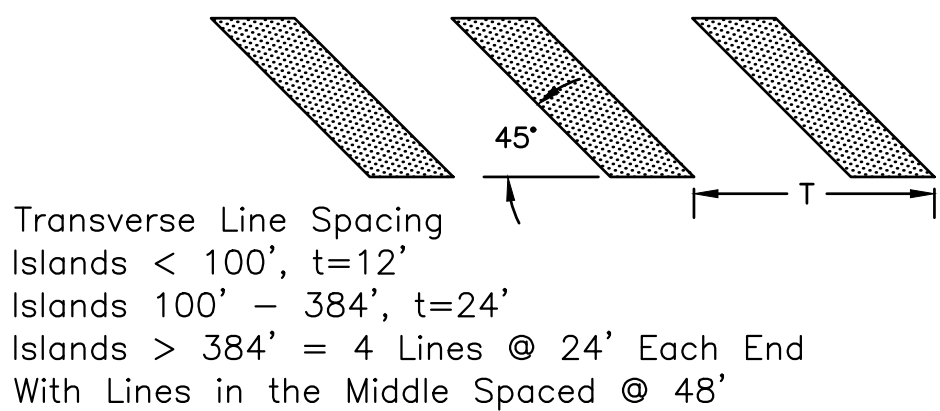
GENERAL
These specifications, together with the accompanying plans are intended to describe the type, size and location of the products and materials to be provided and installed under the various bid items related to traffic control. The Contractor shall furnish and install traffic control devices and related materials in compliance with these plans and specifications, as well as the 2018 City of Columbus Construction and Material Specifications, the Ohio Manual of Uniform Traffic Control Devices and the Standard Construction Drawings issued by the City of Columbus and the Ohio Department of Transportation. These specifications set forth the minimum performance and operating requirements of the traffic control items referred to herein.



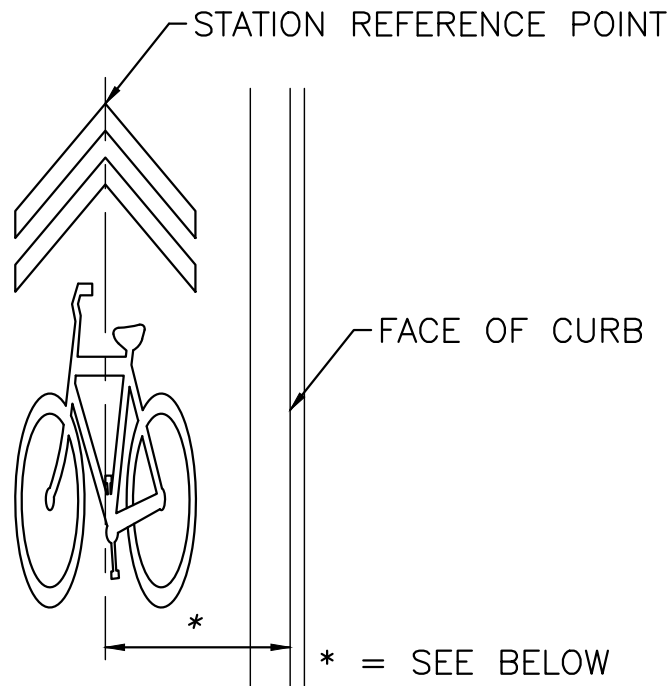
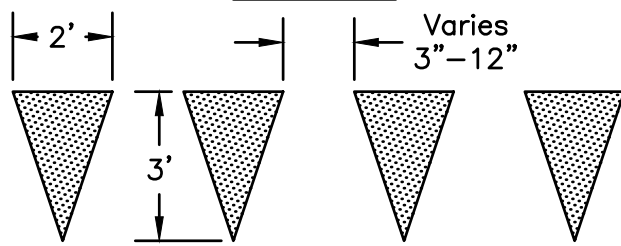
*TYPE 2 MARKING WIDTH (FT.)	**CROSSWALK WIDTH (FT.)
9	10.5
12	13.5
15	16.5
18	19.5

CROSSWALK, TYPE 2 DETAIL

TRANSVERSE LINE DETAIL



YIELD LINE, AS PER PLAN DETAIL



SHARED LANE MARKING PLACEMENT DETAIL
Not To Scale

Prior to applying proposed shared lane markings to the streets along this project, the Contractor shall field mark the location for approval by the Engineer. The Contractor will be required to field verify and if necessary adjust the location of the lateral and longitudinal placement dimensions shown on these plans based on the following criteria:

- For lanes less than or equal to 12 feet wide, place shared lane marking in the center of the lane.
- For lanes greater than 12 feet wide, place sharrows 5 feet from the face or curb/edge pf pavement.
- If permanent on street parking exists, the rules above apply but add 8 feet to the dimension.

Note 1: All City of Columbus signs removed shall be returned to the Transportation Division Traffic Maintenance Shop at 1820 E. 17th Ave. at the Contractor's expense.

Note 2: For clarity, underground utilities have not been shown. See plan and profile sheets for underground utility locations. Contractor shall contact the Ohio Utility Protection Service to have all utilities marked prior to placing sign posts.

Note 3: Existing stop sign, Do Not Enter, One Way and Street Name signs shall not be removed until alternate means of traffic control are in place and fully operational.

DESIGNER NOTES:
1. Contact City for current RPM standards.

RAISED PAVEMENT MARKER SPACING

NORMAL:
CENTERLINES 80' TWO-WAY YELLOW
LANE LINES 80' TWO-WAY WHITE/RED
EDGE LINES 80' ONE-WAY WHITE
CHANNELIZING LINES 20' TWO-WAY WHITE/RED
TWO WAY LEFT TURN LANE 40' BOTH SIDES TWO-WAY YELLOW

APPROACH TO STOP OR SIGNAL:
(Measured from stop line or radius tangent point)

Edge Lines 12@20' / 9@40' / 5@80'
Lane Lines 12@20' / 9@40' / 80' Normal Spacing
Centerlines 12@20' / 9@40' / 80' Normal Spacing

THROUGH STREET APPROACH:

Edge Line 11@80' One-Way White
Lane Line 21@40' / 80' Normal Spacing Two-Way White/Red
Centerline 21@40' / 80' Normal Spacing Two-Way Yellow

DEPARTURE FROM THROUGH STREET, SIGNAL OR STOP CONDITION:

Lane Line 5@80' Two-Way White/Red
Edge Line 5@80' One-Way White

TWO-WAY LEFT TURN:
(Stop condition or approach to a signal)

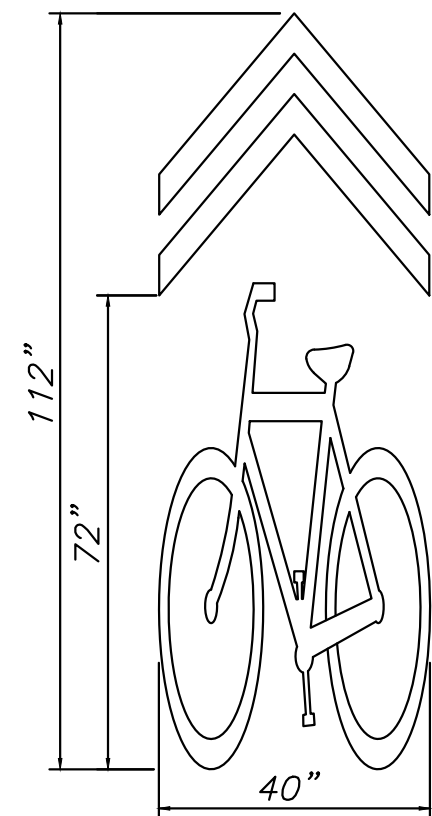
Approach 2WLT Markings 12@20' / Normal Spacing Both Sides Two-Way Yellow

NOTES:

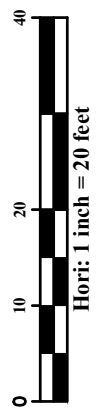
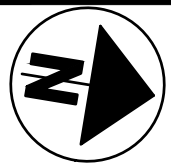
- See General Policy and Procedure on Street Selection for Raised Pavement Markers current edition.
- Edge line RPMs fall within the limits of a driveway, they are to be relocated longitudinally a maximum of ten percent (10%) of the normal spacing. If relocation is still within driveway limits, the affected RPM shall not be installed.
- RPM's shall not be installed over pavement marking without the Engineer's approval.
- White edge line RPMs shall not be installed adjacent to curbs even if edge line exists.
- RPMs shall not be installed within intersections.
- RPMs shall not be installed on bridge decks.
- RPMs shall not be installed on dotted lines. Dotted line lengths (2'line with 6' space) or (3'line with 9'space)
- Diverging tapers (returns) shall have a minimum of three (3) evenly spaced two-way yellow RPM's if normal spacing does not provide for at least three.
- RPM's shall not be placed within crosswalks, school symbols or rail road markings. RPM's shall not be placed within Round-Abouts.

TRAFFIC CONTROL ESTIMATE OF QUANTITIES

Item	Quantity	Unit	Description
			Estimate of Traffic Control Quantities
621	70	Each	Raised Pavement Marker Installed
621	30	Each	Raised Pavement Marker Removed
627	10	Each	Reboundable Traffic Post - (White) Installed
630	2	Each	Signing, Misc.: Solar Powered Retangular Rapid Flashing Beacon (RRFB) Pedestrian Warning Assembly
630	44	Sq Ft	Sign, Flat Sheet
630	15	Sq Ft	Street Name Sign
630	98	Ft	Ground Mounted Support, No. 3 Post
630	1	Each	4.0 inch Street Name Sign Support
630	3	Each	Sign Support Assembly, Pole Mounted
630	1	Each	Removal of Ground Mounted Post Support and Disposal
630	1	Each	Removal of Pole Mounted Sign and Storage
644	0.3	Mile	Lane Line, 5"
644	0.54	Mile	Center Line, 5"
644	50	Ft	Channelizing Line, 10"
644	11	Ft	Stop Line, 20"
644	180	Ft	Crosswalk Line, 10"
644	84	Ft	Transverse/Diagonal Line, 20"
644	2	Each	Lane Arrow
644	200	LF	Removal of Pavement Markings
647	100	Ft	Crosswalk Line Type II, Type B90
647	2	Each	Shared Lane Marking



SHARED LANE MARKING
Not To Scale

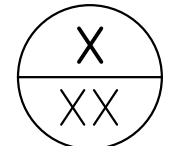


CALCULATED
ABC
CHECKED
ABC

TRAFFIC CONTROL GENERAL NOTES

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E



ITEM 630 SIGNING, MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) PEDESTRIAN WARNING SIGN ASSEMBLY

This work shall consist of furnishing and installing a solar powered Rectangular Rapid Flashing Beacon (RRFB) sign assembly. The flashing unit shall be 2-sided LED, solar powered and pedestrian activated. Multiple units shall be wirelessly controlled and synchronized. The unit shall be compliant with the most current Ohio Manual of Uniform Traffic Control Devices (OMUTCD). The assembly shall also consist of a foundation meeting the requirements of COC STD 4163.

GENERAL REQUIREMENTS

Each RRFB shall consist of two rapidly and alternately flashing rectangular yellow indications having LED array based pulsing light sources.

Each RRFB location shall be a complete assembly consisting of, but not limited to, signage, sign support, sign mounting hardware, RRFB indications, solar panel, and electrical components (wiring, solid-state circuit boards, etc.).

FUNCTIONAL REQUIREMENTS

Each RRFB shall utilize solar power.

Each RRFB shall be activated by ACA compliant pushbuttons.

The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation after a predetermined time limit (based on OMUTCD procedures for calculation of pedestrian clearance intervals).

Each remote RRFB shall be wirelessly activated.

When activated, the RRFB unit indications shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on).

All RRFB light indications shall be wirelessly synchronized (all lights will turn on within 120 msec and remain synchronized throughout the duration of the flashing cycle).

Each of the RRFB's indications shall flash at 70 to 80 flashes per minute.

The unit shall be low current/high output including automatic dimming capabilities for day and night visibility.

The unit shall be capable of running up to 30 days without sunlight. If voltages over 50V AC or DC are present, grounding and bonding requirements specified in the CMS shall be followed.

MATERIALS

Furnish a complete assembly, consisting of but not limited to, signage, sign support, sign mounting hardware, RRFB indications, solar panel, and electrical components (wiring, solid-state circuit boards, etc.). The RRFB assembly includes the following items:

1. RRFB indications

- A. Each RRFB indication lens shall be a minimum size of approximately 5" wide x 2" high.
- B. The RRFB indications shall be aligned horizontally, with the longer dimension of the indication horizontal. There shall be two indications on the front and two indications on the back.
- C. Each RRFB shall be supplied with all required hardware to install assembly. All exposed hardware shall be anti-vandal.
- D. Each RRFB shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque.
- E. The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) Standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January, 2005.
- F. A small confirmation light directed at and visible to pedestrians in the crosswalk shall be installed integral to the RRFB or pushbutton to give confirmation that the RRFB is in operation.

2. Signs

- A. All sign assemblies shall use anti-vandal fasteners to mount components to sign and sign to fixture.
- B. Pedestrian pushbutton signs shall be provided and include the legend "PUSH BUTTON TO TURN ON WARNING LIGHTS". Signs should be mounted adjacent to or integral with each pedestrian pushbutton. The bottom of the sign shall be mounted just above the top of the pushbutton. Mount the center of the pushbutton 42" above the pedestrian pathway surface.
- C. Two sets of signs shall be required per unit for view from each approach.

3. Control Circuit

- A. When activated, the two yellow indications in each RRFB shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on).
- B. The control circuit shall have the capability of independently flashing up to two independent outputs. The LED light outputs and flash pattern shall be completely programmable.
- C. As a specific exception to the 2003 MUTCD section 4K.01 requirements for the flash rate of beacons, RRFBs shall use a much faster flash rate. Each of the two yellow indications of an RRFB shall have 70 to 80 periods of flashing per minute and shall have alternating, but approximately equal, periods of flashing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, the yellow indications on the left side of the RRFB shall emit two slow pulses of light after which and the yellow indications on the right side of the RRFB shall emit four rapid pulses of light followed by a long pulse.
- D. The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second, to avoid frequencies that might cause seizures.
- E. The control circuit shall be sealed watertight to eliminate dirt contamination and allow for safe handling in all weather conditions.
- F. the LEDs shall be sealed against dust and moisture intrusion as per the requirements of NEMA Standard 250-1991 for Type 4 Enclosure and to protect all internal LED and electrical components.

4. Battery and Solar Panels

- A. Battery unit shall be a 12VDC, 40 AHR minimum, sealed gel or AGM lead acid battery. Batteries shall have a written two year full replacement warranty.
- B. The solar panel shall provide a minimum of 55 Watts peak total output.
- C. The solar panel shall be mounted to an aluminum plate and bracket at an angle of 45 degrees - 60 degrees to provide maximum output.
- D. All fasteners used shall be anti-vandal.

5. Wireless Radio

- A. Radio control shall operate on a 900 MHZ frequency hopping spread spectrum network, Wi-Fi or approved equal.
- B. Radio shall integrate communication of RRFB control circuit to activate sign from pushbutton input.
- C. The radio shall be synchronized so all of the remote RRFB light indications will turn on within 120 msec of each other and remain synchronized through-out the duration of the flashing cycle.
- D. Radio systems shall operate from: 3VDC to 15VDC.

6. Pushbutton

- A. The pushbutton shall be capable of continuous operation over a temperature range of -30 degrees F to +165 degrees F.
- B. Pushbutton shall be ADA compliant.

7. Pedestal Shaft and Base

- A. Pedestal supports shall be coated in accordance with the requirements listed below:

Pedestal Finish requirements:

The coating color on both steel and aluminum products shall match each other. It is the responsibility of the contractor to ensure that both product manufacturers match coating colors so that an excellent looking end product is achieved.

Each coating layer shall be properly cured before the application of the next coat. The application procedure shall be such to warrant a finish without delamination, blistering, or corrosion as per the minimum five (5) year repair warranty.

The coating process shall involve such steps as the following:

- 1. Mechanical preparation: pedestal shafts shall be rotary-sanded to a satin-ground finish. Brackets shall be etched to a matte finish. This treatment will place a rough surface on these items so the base coating layer will have excellent adhesion.
- 2. Cleaning: the bracket and traffic pedestal pole assembly shall be immersed in an alcoholic-phosphoric acid solution that will chemically clean these items. The cleaning solutions shall be kept at a nominal 70 degrees Fahrenheit. The bracket and pedestal assembly shall be immersed in the solvent solution for 5 minutes and then cold-water rinsed until all chemicals are washed off.
- 3. Conversion coating: the bracket and traffic pedestal pole assembly shall then be immersed in an amorphous chromate conversion coating solution for 5 minutes. The solution shall be maintained at 70 degrees Fahrenheit. This treatment will result in the formation of a surface film in which the film chemically bonds itself to the base metal by diffusion and becomes a part of the base metal. The bracket and pedestal assembly shall be cold-water rinsed. This surface will provide optimal adhesion and good stability for the color film so that it does not chip peel, or flake.

- 4. Primer coating: an aluminum primer shall be applied as required to the bracket and traffic pedestal pole assembly to further improve coating adhesion.
- 5. Final coating: each coat shall be properly dried before additional coats are applied. The finish coat of paint shall meet federal standard #595B and conform to color #27038 (semi-gloss black). The finish coat shall have a minimum 5-year repair warranty of coating delamination, blistering, or corrosion.
- 6. Drying: the bracket and pedestal pole assembly shall be thoroughly dried then protected for shipment. All coated items shall be shipped in a manner selected by the manufacturer, which will protect material from damage during delivery. Materials damaged in transit shall be repaired or replaced. All costs associated with correcting damaged material shall be borne by the contractor.

- B. Pedestal supports and foundations shall be as per City of Columbus Standard Construction Drawings 4102, 4105 and 4163.

CONSTRUCTION

The RRFB shall be assembled and constructed by the Contractor as shown and specified on the plans.

WARRANTY

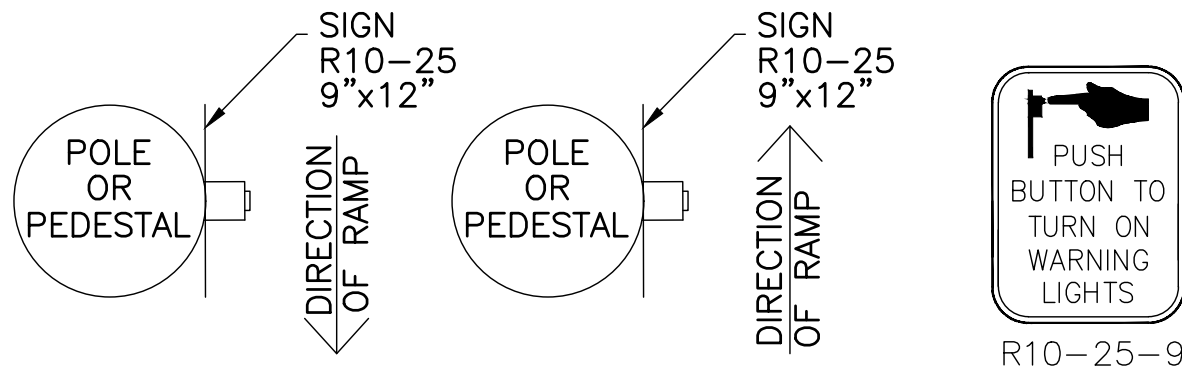
Warranty shall be two years from the date of final acceptance.

MEASUREMENT

The Department will measure the item complete in place, including all materials, testing, labor and software for a fully functional unit.

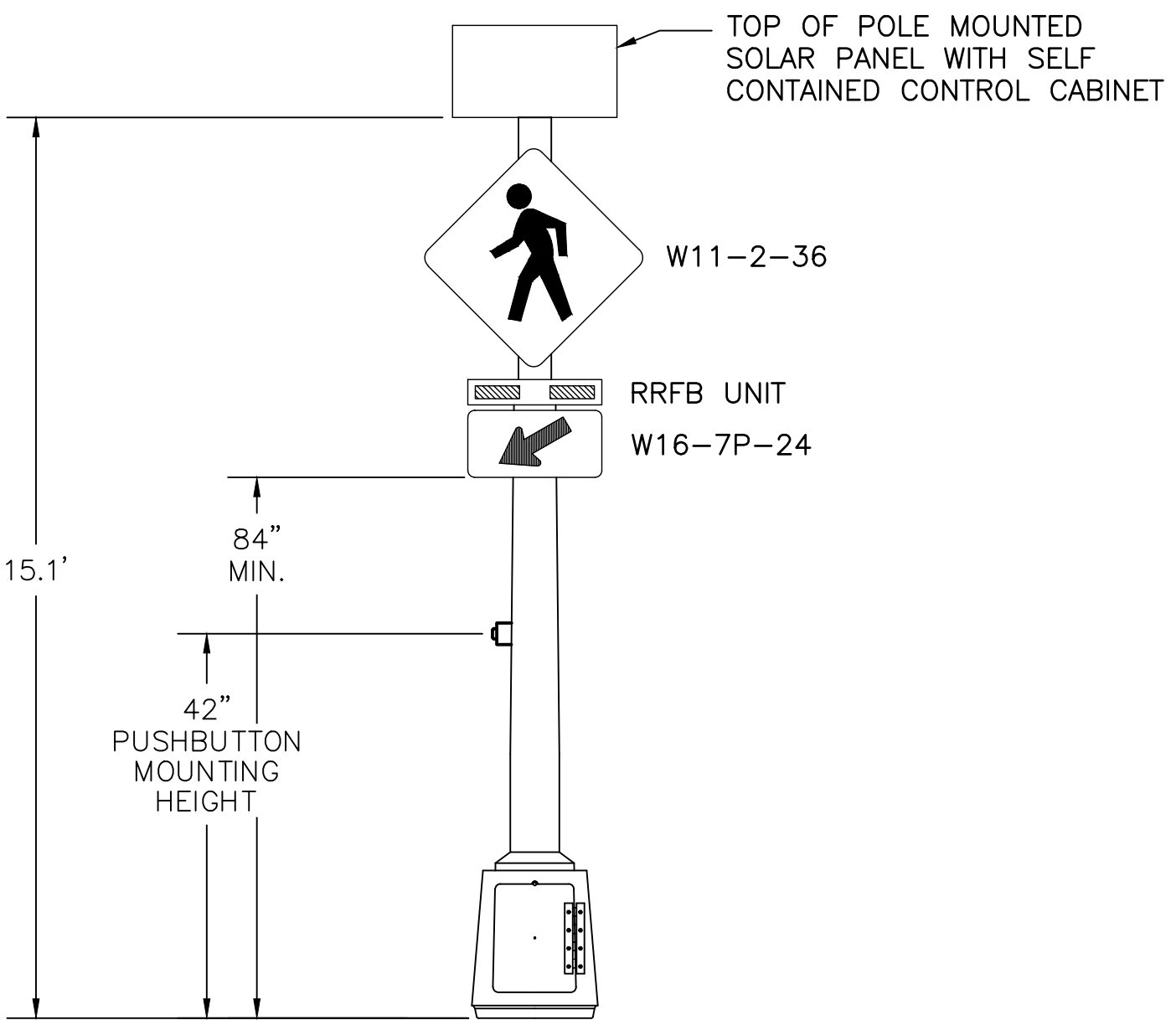
PAYMENT

Payment will be at the contract unit price per each for item 630 "Signing, Misc.: Solar Powered Rectangular Rapid Flashing Beacon (RRFB) Pedestrian Warning Sign Assembly".



NOTE:

THE BOTTOM OF THE SIGN SHALL BE MOUNTED JUST ABOVE THE TOP OF THE PUSHBUTTON.

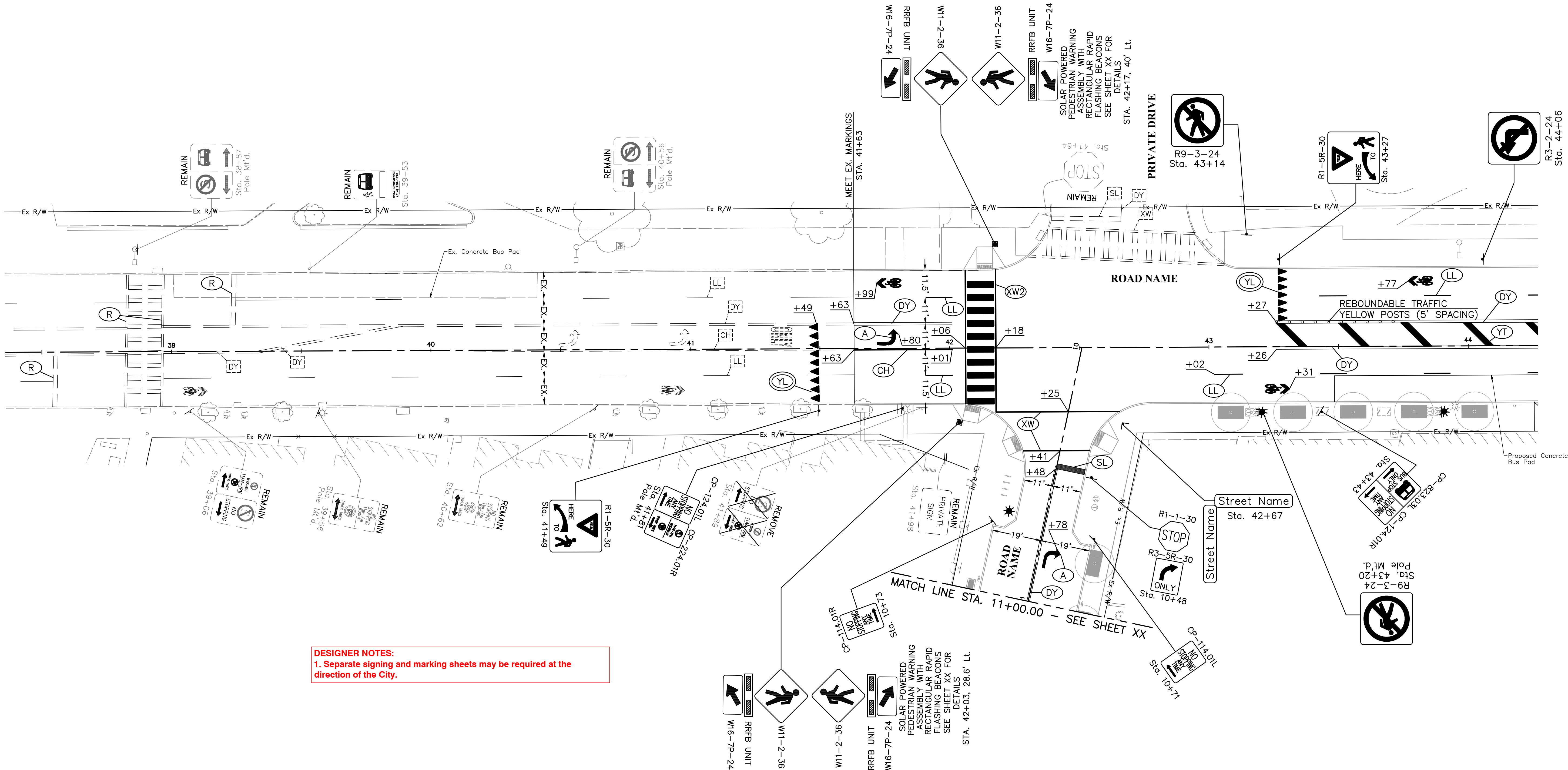


ITEM 630 SIGNING MISC.:
SOLAR POWERED
RECTANGULAR RAPID FLASHING BEACON (RRFB)
PEDESTRIAN WARNING SIGN ASSEMBLY
NOT TO SCALE

DESIGNER NOTES:
1. This sheet is intended as an example of special traffic control devices (RRFB's, School Flashers, Iniaid Markings, rumble strips, etc.). Contact City for current notes and details.

LINE SPECIFICATIONS	
LL	Lane Line, 5" Dashed White
DY	Center Line, 5" Solid Double Yellow
CH	Channelizing Line, 10" White
SL	Stop Line, 20" White
XW	Crosswalk Line, 10" White
XW2	Crosswalk Line, See Detail Below
YT	Transverse Line, 20" Yellow
A	Lane Arrow, White

- [DY] EXISTING PAVEMENT MARKING
- (DY) PROPOSED PAVEMENT MARKING (ITEM 644)
- (YL) PROPOSED PAVEMENT MARKING (ITEM 647, TYPE B-90)



Street A at Street B	Street A at Street C	INTERCONNECT	ITEM NO.	ESTIMATED QUANTITY	UNIT	DESCRIPTION *
						TRAFFIC SIGNAL
20	223		625	243	LF	Conduit, Concrete Encased, 2", 725.051
159	133		625	292	LF	Conduit, Concrete Encased, 3", 725.051
419	248		625	667	LF	Conduit, 2", 725.051
364	364		625	728	LF	Trench, As Per Plan
1	2		625	3	Each	Pull Box, 27", As Per Plan
	2	3	625	5	Each	Pull Box, 32", As Per Plan
		3	625	3	Each	Pull Box, 48", Type 1, As Per Plan
		3	625	3	Each	Pull Box, 725.06, 12" x 18" (Traffic)
		6	625	6	Each	Pull Box Removed, As Per Plan
11	10		625	21	Each	Ground Rod
273	341		625	614	LF	No. 4 AWG, 600 Volt Distribution Cable, As Per Plan
	1		625	1	Each	Bracket Arm, 25', As Per Plan
	1		625	1	Each	Bracket Arm, 30', As Per Plan
		658	625	658	LF	Conduit, Misc.: Encased Interconnect Conduit Bank, 4-3" & 1-1.5", TC-2, SCH 40, As Per Plan
		54	625	54	LF	Conduit, Misc.: Encased Interconnect Conduit Bank, 2-3", 2-2" & 1-1.5", TC-2, SCH 40, As Per Plan
		150	625	150	LF	Conduit, Misc.: Encased Interconnect Conduit Bank, 4-3", 2-2" & 1-1.5", TC-2, SCH 40, As Per Plan
1	1		630	2	Lump	Signing, Misc.: Traffic Signal Signs
4	4		630	8	Each	Sign Support Assembly, Pole Mounted, As Per Plan
1			632	1	Each	Conduit Riser, 2", SCH 80 (Gray), 725.053
6	6		632	12	Each	Vehicular Signal Head, L.E.D., 3-Section, 12" Lens, 1-Way, Polycarbonate, As Per Plan
4	2		632	6	Each	Vehicular Signal Head, L.E.D., 5-Section, 12" Lens, 1-Way, Polycarbonate, As Per Plan
8	8		632	16	Each	Pedestrian Signal Head
4	4		632	8	Each	Pedestrian Pushbutton
10	8		632	18	Each	Covering of Vehicular Signal Head
8	8		632	16	Each	Covering of Pedestrian Signal Head
4	4		632	8	Each	Covering of Pedestrian Pushbutton
	3		632	3	Each	Signal Support Foundation
	1		632	1	Each	Signal Support Foundation (24'), As Per Plan
6	4		632	10	Each	Pedestal Foundation
	1		632	1	Each	Signalization Misc.: Foundation Pre-excavation
1			632	1	Each	Pedestal Support, 5', Transformer Base, As Per Plan
5	4		632	9	Each	Pedestal Support, 10.7', Transformer Base, As Per Plan
1			632	1	Each	Signalization Misc.: Pedestrian Pedestal, Relocated
	1		632	1	Each	Combination Signal Support, Type 4120, Design 4, As Per Plan
	3		632	3	Each	Signal Support, Type 4120, Design 4, As Per Plan
3			632	3	Each	Strain Pole, Type 4170, Design 8, As Per Plan
3			632	3	Each	Strain Pole Foundation
1	1		632	2	Each	Removal Of Traffic Signal Installation, As Per Plan
948	1268		632	2216	LF	Signal Cable, 7-Conductor, No. 14, Awg
804	207		632	1011	LF	Signal Cable, 9-Conductor, No. 14, Awg
310			632	310	LF	Messenger Wire, 7 Strand, 3/8" Diameter with Acessories
310			632	310	LF	Tether Wire, With Accessories
2982	537		632	3519	LF	Loop Detector Lead-In Cable, IMSA 50-2
5			632	5	Each	Detector Loop
68	34		632	102	LF	Power Cable, 2-Conductor, No. 6 AWG
	123		632	123	LF	Service Cable, 2-Conductor, No. 6 AWG
150			632	150	LF	Power Cable, 3-Conductor, No. 6 AWG
1	1		632	2	Each	Power Service, As Per Plan
	1		632	1	Each	Power Meter Cabinet, Base Mount, With Foundation, As Per Plan
	1		632	1	Each	Signalization, Misc.: Stop Line Radar Detection System
		3	632	3	Each	Interconnect, Misc.: Fiber Optic Splice Enclosure, Clamshell, 288 Splice
		3	632	3	Each	Interconnect, Misc.: Termination Panel, 24 Fiber
		456	632	456	Each	Interconnect Cable, Misc.: Fiber Optic Fusion Splice
		385	632	385	LF	Interconnect, Misc.: Fiber Optic Cable, 24 Strand
		970	632	970	Ft	Interconnect, Misc.: Fiber Optic Cable, 144 Strand
		1	632	1	Each	Signalization Misc.: CCTV IP-Camera System
		3	633	3	Each	Controller Item, Misc.: Layer 2 Ethernet Switch
		6	633	6	Each	Controller Item, Misc.: Fiber Optic Ethemet Transceiver, Short Range
1	1		633	2	Each	Cabinet Foundation
1	1		633	2	Each	Controller Unit TS2/A2, With Cabinet 16 CH, Size 6, Ground Mounted, As Per Plan
1			633	1	Each	Controller Work Pad

* — SEE TSDM CHAPTER 2 FOR CURRENT ITEM DESCRIPTIONS.

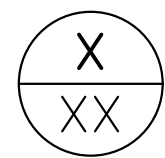
CALCULATED
ABC

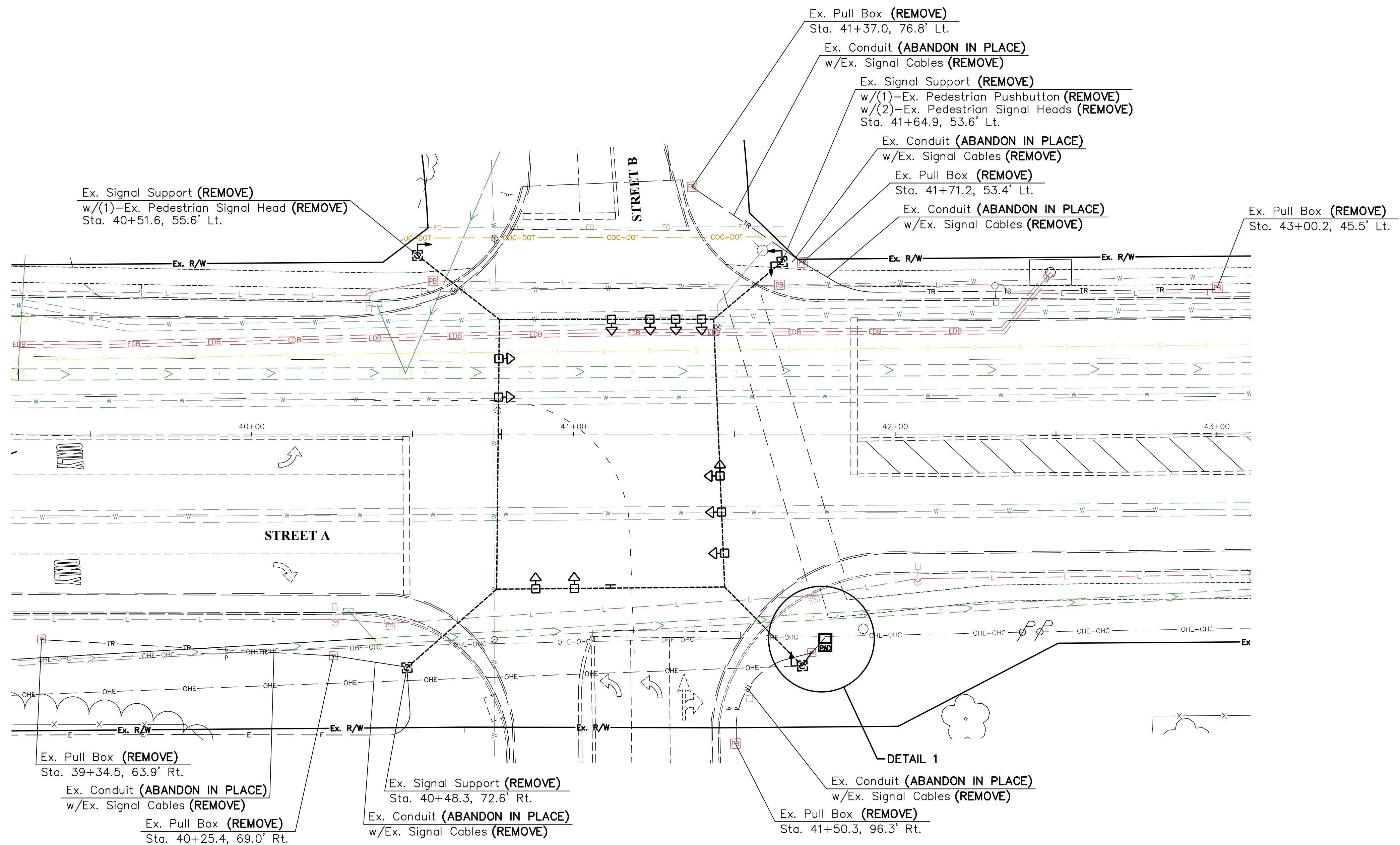
CHECKED
ABC

TRAFFIC SIGNAL INSTALLATION
SUB-SUMMARY

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E





ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN				
QUANTITY	REMOVED ITEM DESCRIPTION	DELIVERED TO 1820 E 17th AV	DISPOSED OF BY PROJECT	REUSED BY PROJECT
1	GROUND MOUNTED CABINET & CONTROLLER	X		
LUMP	SIGNAL CABLE		X	
7	VEHICULAR SIGNAL HEAD	X		
4	PEDESTRIAN SIGNAL HEAD	X		
2	PEDESTRIAN PUSHBUTTON	X		
4	STRAIN POLES	X		
LUMP	MESSENGER WIRE AND ACCESSORIES		X	
7	PULL BOX LIDS & FRAMES	X		
7	PULL BOX CASTING		X	
9	POLE MOUNTED SIGN		X	
2	SPAN WIRE MOUNTED SIGN		X	
5	CABINET/POLE FOUNDATION		X	
LUMP	RADIO INTERCONNECT EQUIPMENT	X		

DESIGNER NOTES:
The traffic signal removal plan sheet should be included when an entire existing traffic signal installation is being completely removed or fully replaced. The traffic signal item removals may be shown on the traffic signal plan sheet when the signal is being modified rather than being fully replaced.

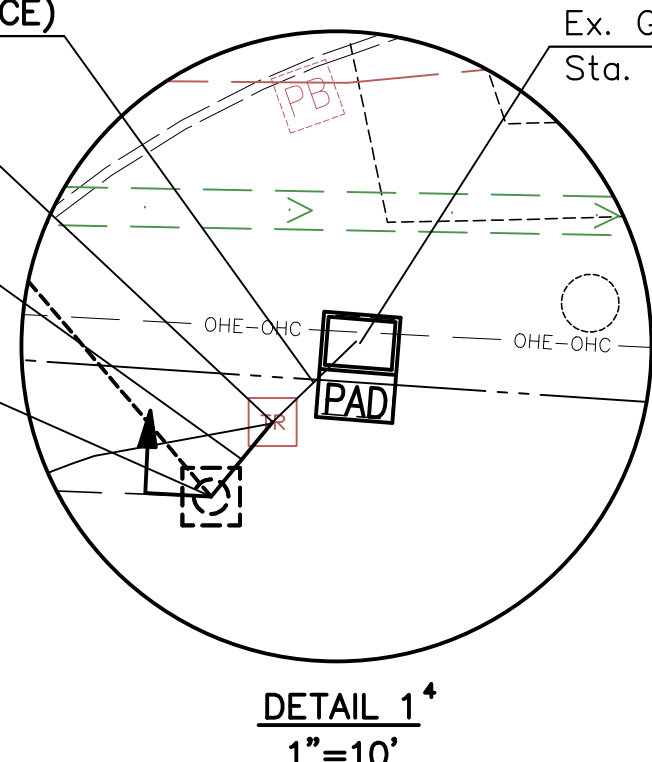
1. Sheet Label
The traffic signal plan view sheet shall be labeled as:
-TRAFFIC SIGNAL REMOVAL PLAN
-TRAFFIC SIGNAL INSTALLATION PLAN (Full rebuilds or new signals) or
-TRAFFIC SIGNAL MODIFICATION PLAN
The intersection shall be labeled in alphabetical order (i.e. Aaa Parkway at Bbb Road)

2. Legend
For a full list of symbols, see TSDM Figure 2.1.

3. North Arrow
The traffic signal plan shall be oriented with north facing up or to the right.

4. Detail Blowup
Corner blowups should be included whenever a smaller scale is required in order to reasonably follow callout leaders or distinguish signal items and other infrastructure. Detail blow ups should be 10 scale and should be on the plan view page. If necessary, the plan sheet notes should be moved to the detail sheet to make room for the detail blow up.

TRAFFIC SIGNAL REMOVAL
EXAMPLE
PLAN VIEW SHEET



LEGEND²

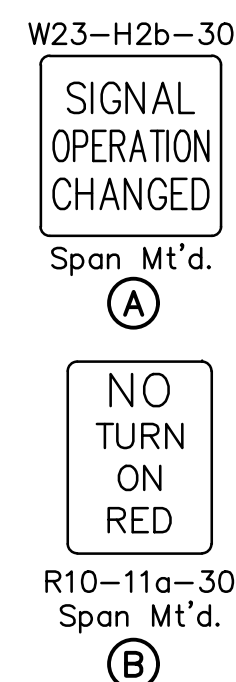
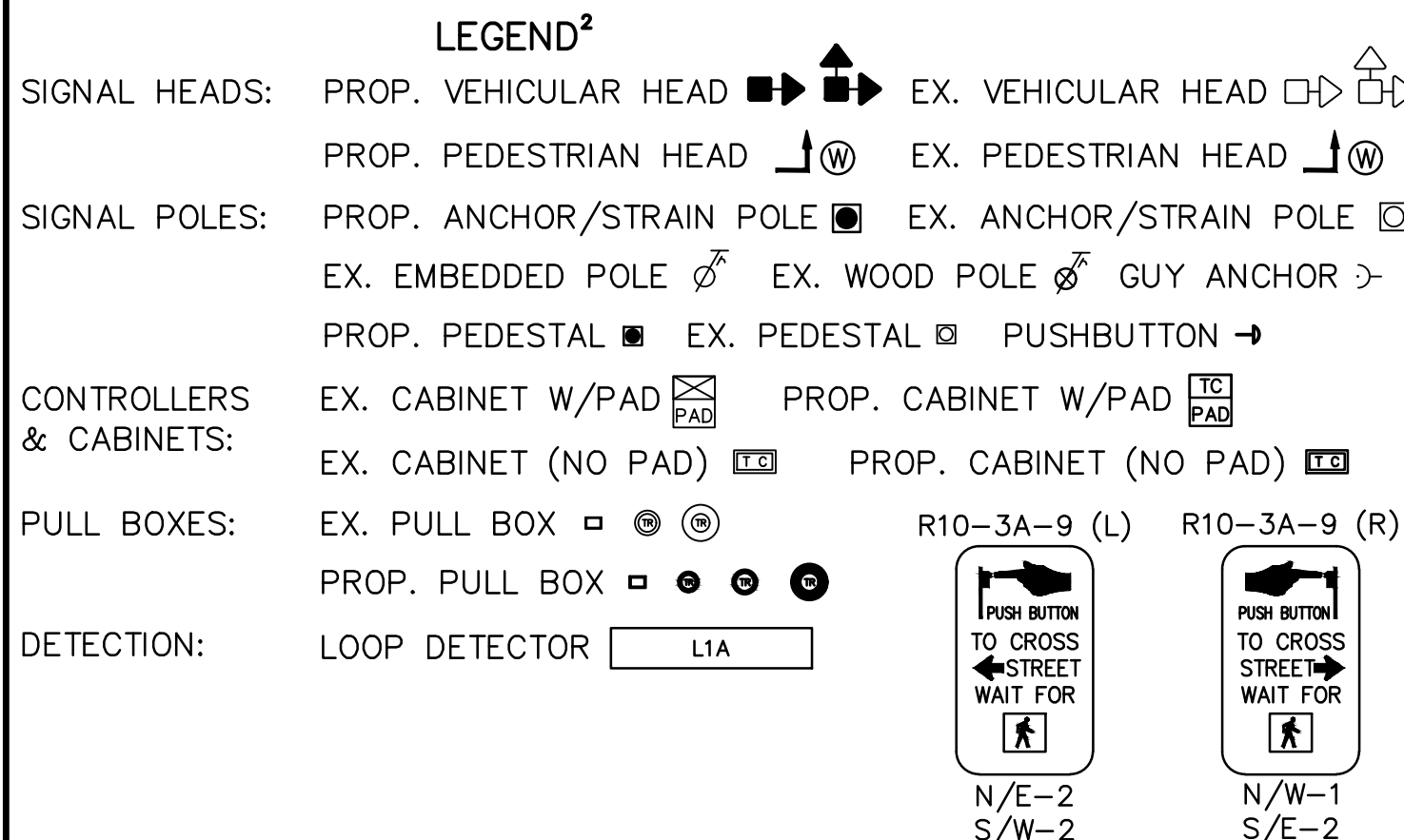
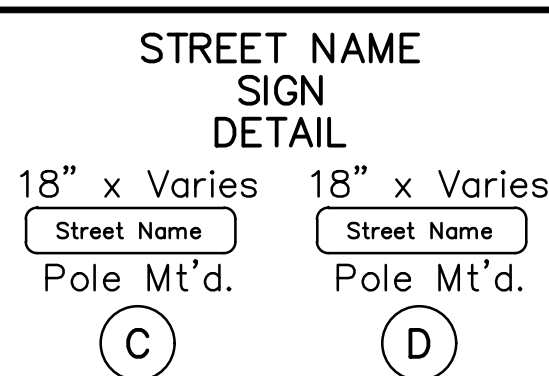
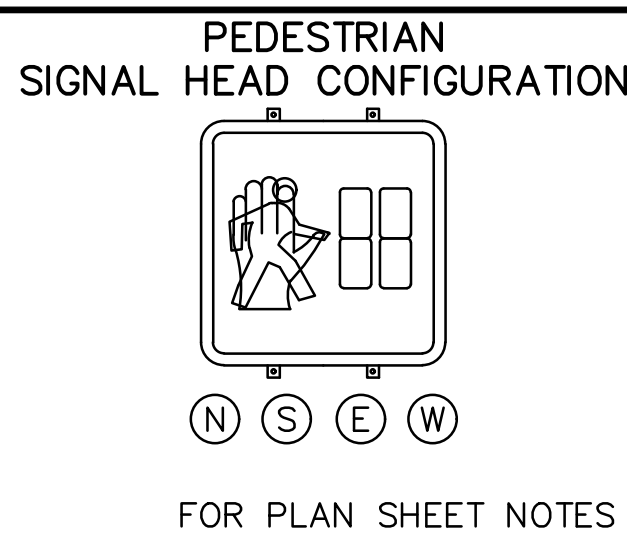
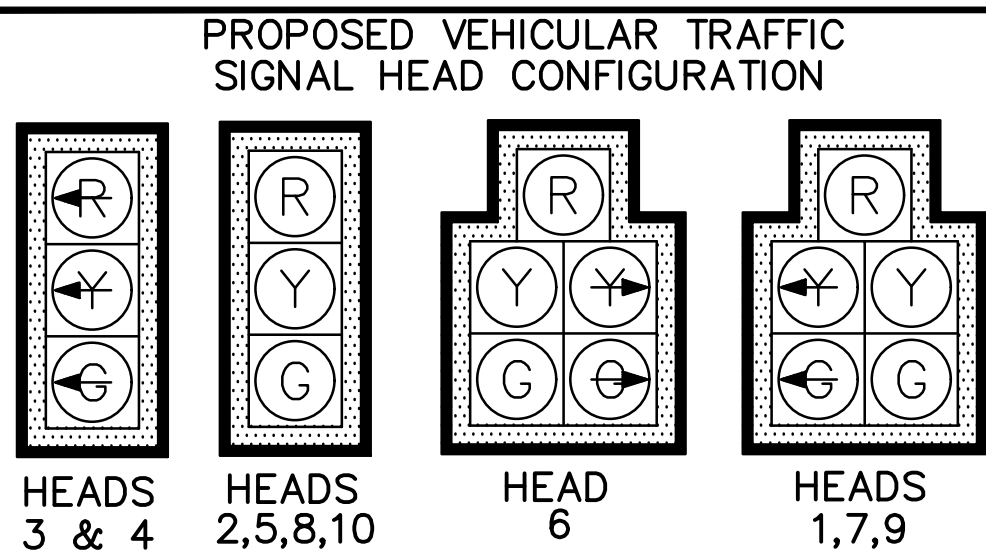
SIGNAL HEADS:
PROP. VEHICULAR [Symbol] EX. VEHICULAR [Symbol]
PROP. PEDESTRIAN [Symbol] EX. PEDESTRIAN [Symbol]

SIGNAL POLES:
PROP. ANCHOR/STRAIN POLE [Symbol] EX. ANCHOR/STRAIN POLE [Symbol]
EX. EMBEDDED POLE [Symbol] EX. WOOD POLE [Symbol] GUY ANCHOR [Symbol]
PROP. PEDESTAL [Symbol] EX. PEDESTAL [Symbol] PUSHBUTTON [Symbol]

CONTROLLERS & CABINETS:
EX. CABINET W/PAD [Symbol] PROP. CABINET W/PAD [Symbol]
EX. CABINET (NO PAD) [Symbol] PROP. CABINET (NO PAD) [Symbol]

PULL BOXES:
EX. PULL BOX [Symbol] PROP. PULL BOX [Symbol]

DETECTION:
RADAR [Symbol] RADAR ZONE [Symbol]



WOOD POLE W/NEW (1)-2" CONDUIT RISER, SCH 80 (GRAY), 725.053 STA. 119+12.6, 65.1' RT.

(1)-2" CONDUIT W/(1)-2/C POWER CABLE ENCASED IN TRENCH = 6'

(1)-AERIAL 2/C SERVICE CABLE = 21'

GROUND MOUNTED CONTROLLER STA. 119+18.3, 67.1' RT.

EX. UTILITY POLE (TO REMAIN) STA. 119+16.7, 44.9' RT.

EX. PULL BOX (REMOVE) STA. 119+19.9, 38.9' RT.

EX. CONDUIT (REMOVE)

(1)-2" CONDUIT W/(4)-2/C IN TRENCH = 41'

POLE S/W-3 PEDESTRIAN PEDESTAL, 10.7'

W/(1) - PEDESTRIAN SIGNAL HEAD STA. 119+34.2, 45.1' RT.

(1)-2" CONDUIT - EMPTY

(1)-2" CONDUIT W/(2)-9/C & (2)-GND

IN TRENCH = 17'

PULL BOX, 32" STA. 119+33.2, 63.2' RT.

(1)-2" CONDUIT W/(3)-2/C

(1)-2" CONDUIT W/(2)-9/C & (1)-GND

(1)-2" CONDUIT W/(1)-2/C

(1)-2" CONDUIT W/(2)-9/C, (3)-7/C & (1)-GND

(1)-2" CONDUIT W/(9)-2/C

IN TRENCH = 25'

EX. SIGNAL STRAIN POLE (REMOVE) STA. 119+57.5, 60.6' RT.

EX. PULL BOX (REMOVE) STA. 119+61.1, 58.6' RT.

EX. CONDUIT W/EX. SIGNAL CABLES (REMOVE)

EX. CONDUIT W/EX. SIGNAL CABLES (REMOVE)

POLE S/W-2 PEDESTRIAN PEDESTAL, 10.7'

W/(1)-PEDESTRIAN PUSHBUTTON

W/(1)-PEDESTRIAN SIGNAL HEAD

STA. 119+62.9, 66.4' RT.

Ex. Pedestrian Pedestal (REMOVE) Sta. 119+63.4, 67.6' RT.

(1)-2" CONDUIT W/(2)-9/C & (1)-GND

(1)-2" CONDUIT W/(1)-2/C

IN TRENCH = 4'

(1)-2" CONDUIT W/(5)-2/C

IN TRENCH = 30'

POLE S/W-1 SIGNAL STRAIN POLE

STA. 119+55.1, 72.1' RT.

(1)-3" CONDUIT - EMPTY

(1)-3" CONDUIT W/(2)-9/C, (3)-7/C & (3)-GND

(1)-2" CONDUIT W/(9)-2/C

(1)-2" CONDUIT W/(8)-2/C

ENCASED IN TRENCH = 15'

DETAIL 'A' SCALE 1" = 10'

(1)-AERIAL 2/C SERVICE CABLE = 96'

EXISTING UTILITY POLE STA. 119+00.3, 28.7' LT.

PROPOSED POWER SOURCE (EX. DOP TRANSFORMER) STA. 118+04.0, 28.7' LT.

(1)-AERIAL 2/C SERVICE CABLE = 76'

PULL BOX (13"x24") STA. 119+09.5, 38.5' RT.

INTERCONNECT CONDUIT BANK SEE SHEET ##

PULL BOX, 32" STA. 118+80.3, 30.4' RT.

(1)-3" CONDUIT - EMPTY

(1)-3" CONDUIT W/INTERCONNECT CABLES

ENCASED IN TRENCH = 57'

EX. CONDUIT W/EX. SIGNAL CABLES (REMOVE)

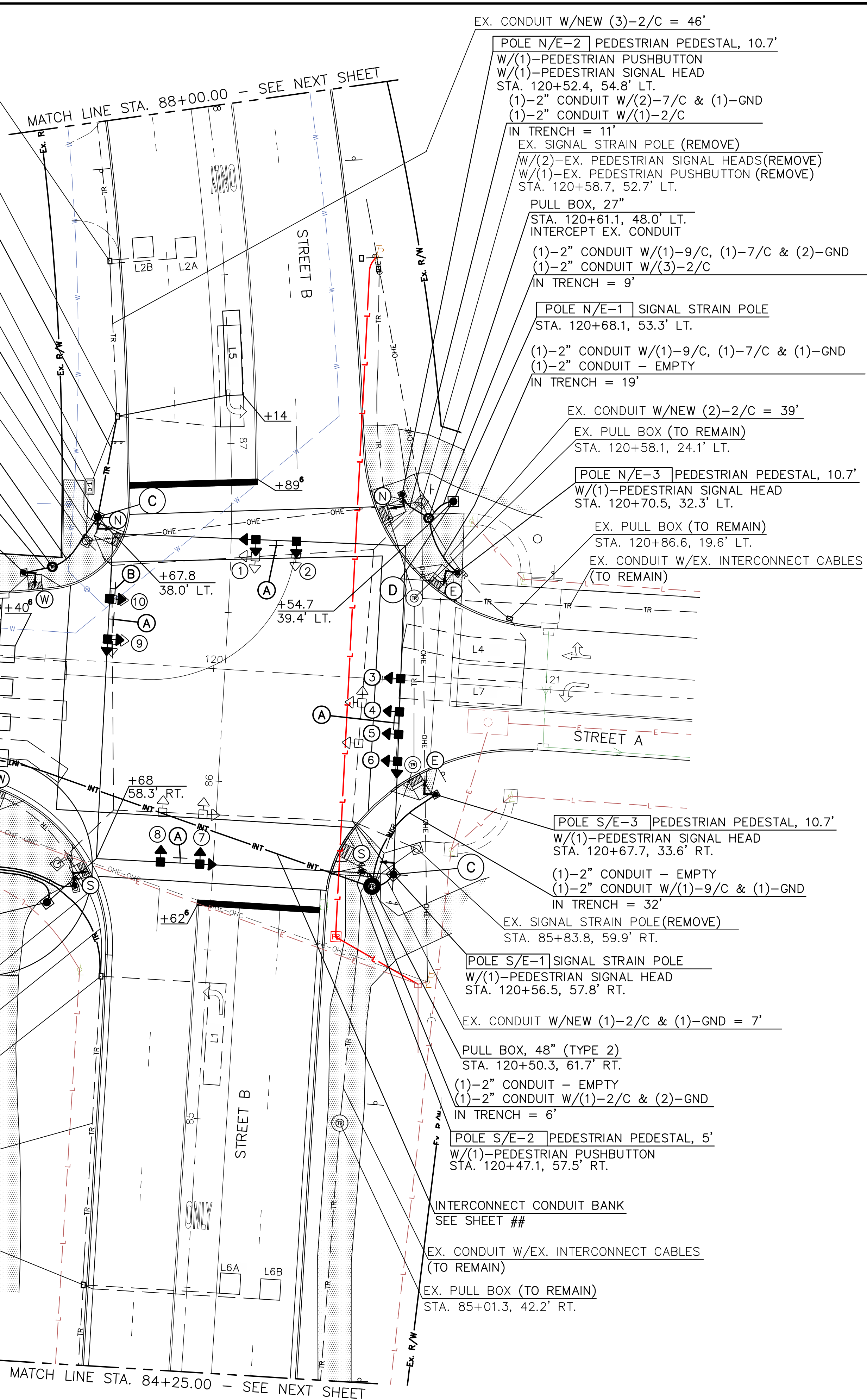
EX. CONDUIT W/ EX. SIGNAL CABLES (REMOVE)

EX. PULL BOX (TO REMAIN) STA. 119+72.4, 92.9' RT.

EX. CONDUIT W/NEW (4)-2/C = 92'

EX. PULL BOX (TO REMAIN) STA. 84+48.8, 30.6' LT.

STRAIN POLE / SPAN WIRE
EXAMPLE
PLAN VIEW SHEET



DESIGNER NOTES:

1. Sheet Label

The traffic signal plan view sheet shall be labeled as:

-TRAFFIC SIGNAL REMOVAL PLAN

-TRAFFIC SIGNAL INSTALLATION PLAN (Full rebuilds or new signals) or

-TRAFFIC SIGNAL MODIFICATION PLAN

The intersection shall be labeled in alphabetical order (i.e. Aaa Parkway at Bbb Road)

2. Legend

For a full list of symbols, see TSDM Figure 2.1.

3. North Arrow

The traffic signal plan shall be oriented with north facing up or to the right.

4. Detail Blowup

Corner blowups should be included whenever a smaller scale is required in order to reasonably follow callout leaders or distinguish signal items and other infrastructure. Detail blow ups should be 10 scale and should be on the plan view page. If necessary, the plan sheet notes should be moved to the detail sheet to make room for the detail blow up.

5. Plan Sheet Notes

Plan sheet notes should be placed on the plan sheet as space allows. If necessary, the plan sheet notes may be placed on the following detail sheet.

6. Stop Line and Detection Zone/Loop Stationing

The back edge of the stop line and the forward edge of the detection zone or loop shall be labeled with the stationing as shown (i.e. +XX').

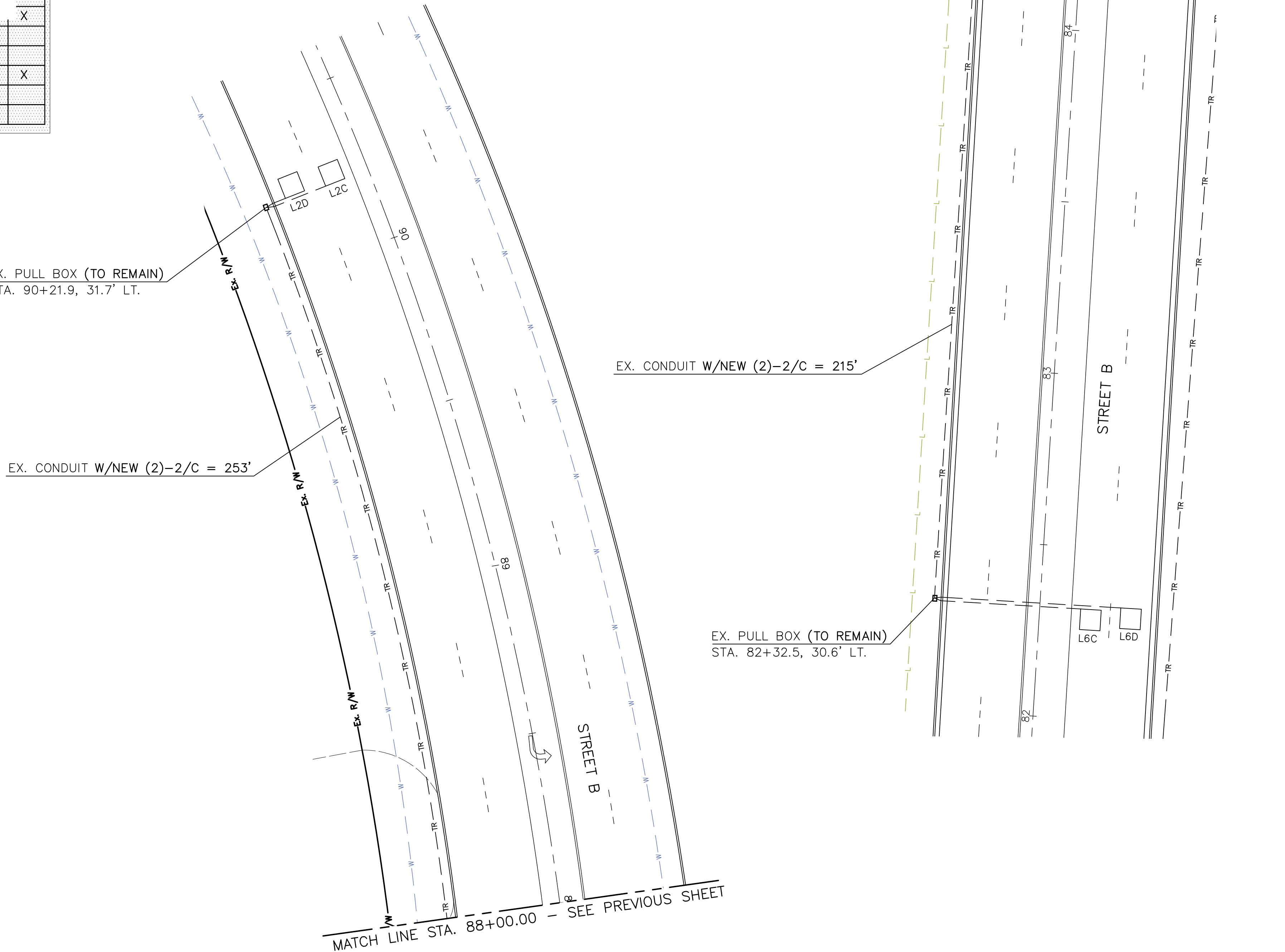
ITEM 632 REMOVAL OF EXISTING TRAFFIC SIGNAL INSTALLATION, AS PER PLAN			
QUANTITY	REMOVED ITEM DESCRIPTION	DELIVERED TO 1820 E 17th AV	DISPOSED OF BY PROJECT
2	TRAFFIC PULL BOX	X	
4	PEDESTRIAN PUSHBUTTON	X	
1	USE THE CURRENT VERSION OF THE REMOVAL OF EXISTING TRAFFIC SIGNAL INSTALLATION CHART FOUND IN THE TRAFFIC SIGNAL DESIGN MANUAL.		X
4			X
1			X
1			X
8	PEDESTRIAN SIGNAL HEAD	X	
8	SIGNAL HEADS	X	
1	POWER SERVICE		X
3	SIGNAL POLES	X	
1	PEDESTAL	X	

PLAN SHEET NOTES:⁵

- The Contractor shall ensure that all sidewalks/pathways meet ADA guidelines per City specifications.
- Power, service and interconnect cable shall be continuous with no splices except as noted.
- For signing and pavement markings, see sheet(s) XX-XX.
- Center all loops in the center of their lane unless specified otherwise. Install loops after the asphalt surface course is laid.
- The top of the pole base foundation shall be edged using a 1/2" sidewalk edger instead of being chamfered.
- The Transportation Division Personnel shall approve bolt alignment, pole foundation location and elevation prior to the Contractor installing the foundation.
- Tagging of cable in the certain cable as directed
- The pedestrian signal he (ramp) that is opposite o it.
- Do not encase the grou foundation. Full access of concrete, if visible, wi
- Any signal support base of the sidewalk.
- The Contractor shall not
- Underground conduit and prior to the placement o
- The Contractor shall pro the designated power so shall not be bundled with
- See interconnect schema
- For continuation of conduit, see sheet(s) XX.
- Use a separate conduit for each grouping of cables unless otherwise indicated: one conduit for 120VAC signal cable (5C, 7C, 9C); one conduit for power; one conduit for 2 conductor cable (loop & pushbutton); and one conduit for interconnect cable (twisted pair, fiber optics or coax). Any other low voltage cable not specified above can be placed in the 2 conductor cable conduit. Power cable must be in its own conduit.
- Unless otherwise specified the following shall apply. A preformed PVC conduit elbow shall be used to change the PVC conduit direction beyond what its natural bending flex would yield. Rigid metal conduit can be bent to form an elbow or any other bending angle required only if a proper conduit bending machine is used. The elbow radius for any non-interconnect conduit shall be 24" or larger when used in a horizontal or vertical manner. Any type of elbow used for interconnect conduit shall have a radius of 36" or larger when used in a horizontal direction or in a vertical direction when the trench is 36" or deeper. If the trench is less than 36" then the vertical elbow radius shall be 24".
- All clamps and banding material shall be painted to match the signal supports.

CONTACT SIGNAL PLAN REVIEWERS FOR CURRENT PLAN SHEET NOTES.

ired except for tagging of
crosswalk area (not the curb
a slight downward angle to
in concrete outside of their
s. Permanently mark the top
be known by others.
sa shall be flush with the top
area is at finished grade.
oadway areas shall be installed
course.
ween the control cabinet and
shall be run separately and



STRAIN POLE / SPAN WIRE
EXAMPLE
PLAN VIEW SHEET 2

FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
1 (NBLT)	R	ø6 R	Y
	Y	ø6 Y	
	G	ø6 G	
	←Y	ø1 Y	
2 (NB)	←G	ø1 G	Y
	R	ø6 R	
	Y	ø6 Y	
	G	ø6 G	
3 (EBLT)	←R	ø3 R	R
	←Y	ø3 Y	
	←G	ø3 G	
	R	ø3 R	
4 (EBLT)	←Y	ø3 Y	R
	←G	ø3 G	
	R	ø8 R	
	Y	ø8 Y	
5 (EB)	G	ø8 G	R
	Y	ø8 Y	
	R	ø8 R	
	←Y	ø8 G	
6 (EBRT)	←G	OLA Y	R
	←G	OLA G	
	R	ø2 R	
	Y	ø2 Y	
7 (SBLT)	G	ø2 G	Y
	←Y	ø5 Y	
	←G	ø5 G	
	R	ø2 R	
8 (SB)	Y	ø2 Y	Y
	G	ø2 G	
	R	ø4 R	
	Y	ø4 Y	
9 (WBLT)	G	ø4 G	R
	←Y	ø7 Y	
	←G	ø7 G	
	R	ø4 R	
10 (WB)	Y	ø4 Y	R
	G	ø4 G	
	WALK	G ø4-W	
	DON'T WALK	R ø4-DW	
N	WALK	G ø8-W	OFF
	DON'T WALK	R ø8-DW	
	WALK	G ø6-W	
	DON'T WALK	R ø6-DW	
S	WALK	G ø2-W	OFF
	DON'T WALK	R ø2-DW	
	WALK	G ø2-W	
	DON'T WALK	R ø2-DW	
E	WALK	G ø2-W	OFF
	DON'T WALK	R ø2-DW	
	WALK	G ø2-W	
	DON'T WALK	R ø2-DW	
W	WALK	G ø2-W	OFF
	DON'T WALK	R ø2-DW	
	WALK	G ø2-W	
	DON'T WALK	R ø2-DW	
OLA=ø1		OLA=LS13	

TIMING CHART

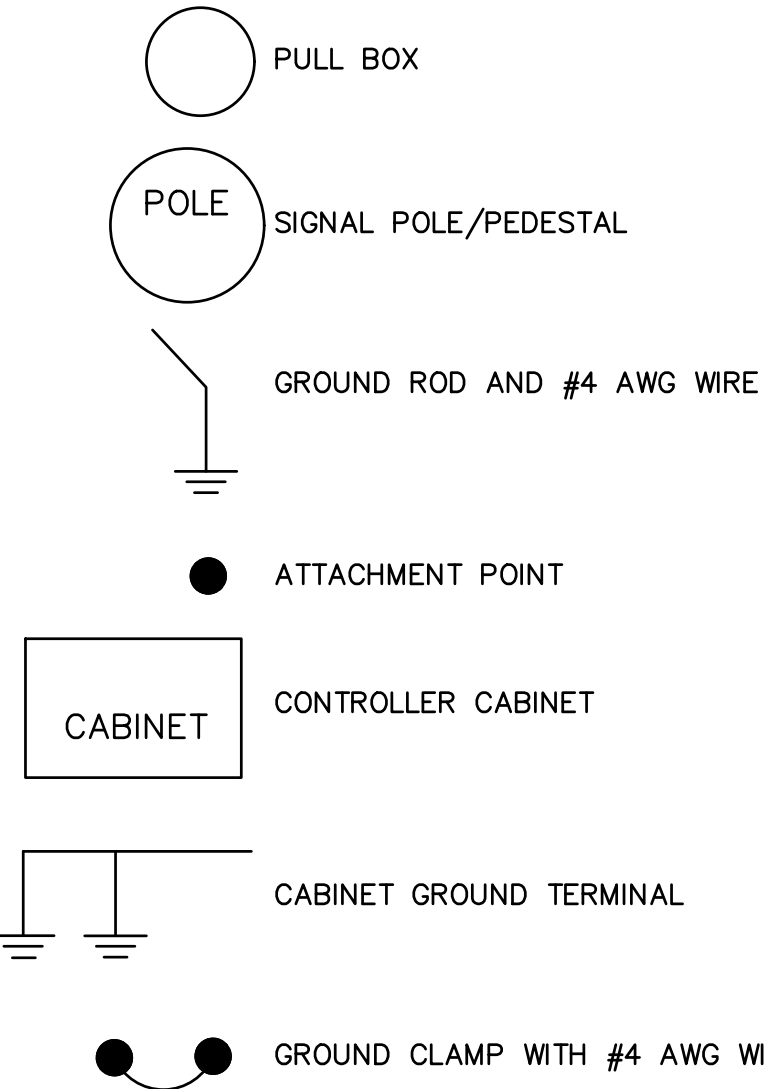
PHASE	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
MOVEMENT	NBLT	SB	EBLT	WB	SBLT	NB	WBLT	EB
MIN INITIAL	8	24	8	10	8	24	8	10
WALK	—	7	—	7	—	7	—	7
PED CHANGE	—	17	—	22	—	17	—	22
PASS / EXT	3.0	2.2/2.1	3.0	3.7	3.0	2.2/2.1	3.0	3.7
YELLOW	3.0	3.9	3.0	3.6	3.0	3.9	3.0	3.6
RED CLR	3.0	1.8	3.0	2.4	3.0	1.8	3.0	2.4
MAX GRN 1	30	50	25	50	30	50	25	50
MAX GRN 2	30	50	25	50	30	50	25	50
PED RECALL	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
VEH RECALL	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
MEMORY	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF

DETECTOR ASSIGNMENTS

DET (#)	DETECTOR ASSIGNMENT		PHASE	LOOP SIZE (W'xL')	LOOP DELAY DATA		DET UNIT RACK & CABLE LABEL
	UNIT (#)	CHANNEL (#)			DELAY IN SECONDS	INHIBIT DELAY DURING GRN ø	
L1	1	1	ø1	Existing	3	ø1	NBLT
L2A	1	2	ø2	Existing	—	—	SB (N)(L)
L2B	2	1	ø2	Existing	—	—	SB (N)(R)
L2C	2	2	ø2	Existing	—	—	SB (F)(L)
L2D	3	1	ø2	Existing	—	—	SB (F)(R)
L3A	3	2	ø3	5'x33'	3	ø3	EBLT (L)
L3B	4	1	ø3	5'x32'	—	ø3	EBLT (R)
L4	4	2	ø4	Existing	—	ø4	WB
L5	5	1	ø5	6'x25'	3	ø5	SBLT
L6A	5	2	ø6	Existing	—	—	NB (N)(L)
L6B	6	1	ø6	Existing	—	—	NB (N)(R)
L6C	6	2	ø6	Existing	—	—	NB (F)(L)
L6D	7	1	ø6	Existing	—	—	NB (F)(R)
L7	7	2	ø7	Existing	3	ø7	WBLT
L8A	8	1	ø8	5.5'x31'	—	ø8	EB
L8B	8	2	ø8	5'x30'	12	ø8	EBRT

LOOPS ARE TO BE HOOKED TO THE UNIT AND CHANNEL AS INDICATED TO ENHANCE LOOP PERFORMANCE AND DECREASE LOOP CROSSTALK.

GROUNDING & BONDING DIAGRAM LEGEND



DESIGNER NOTES:

7. Phasing Diagram

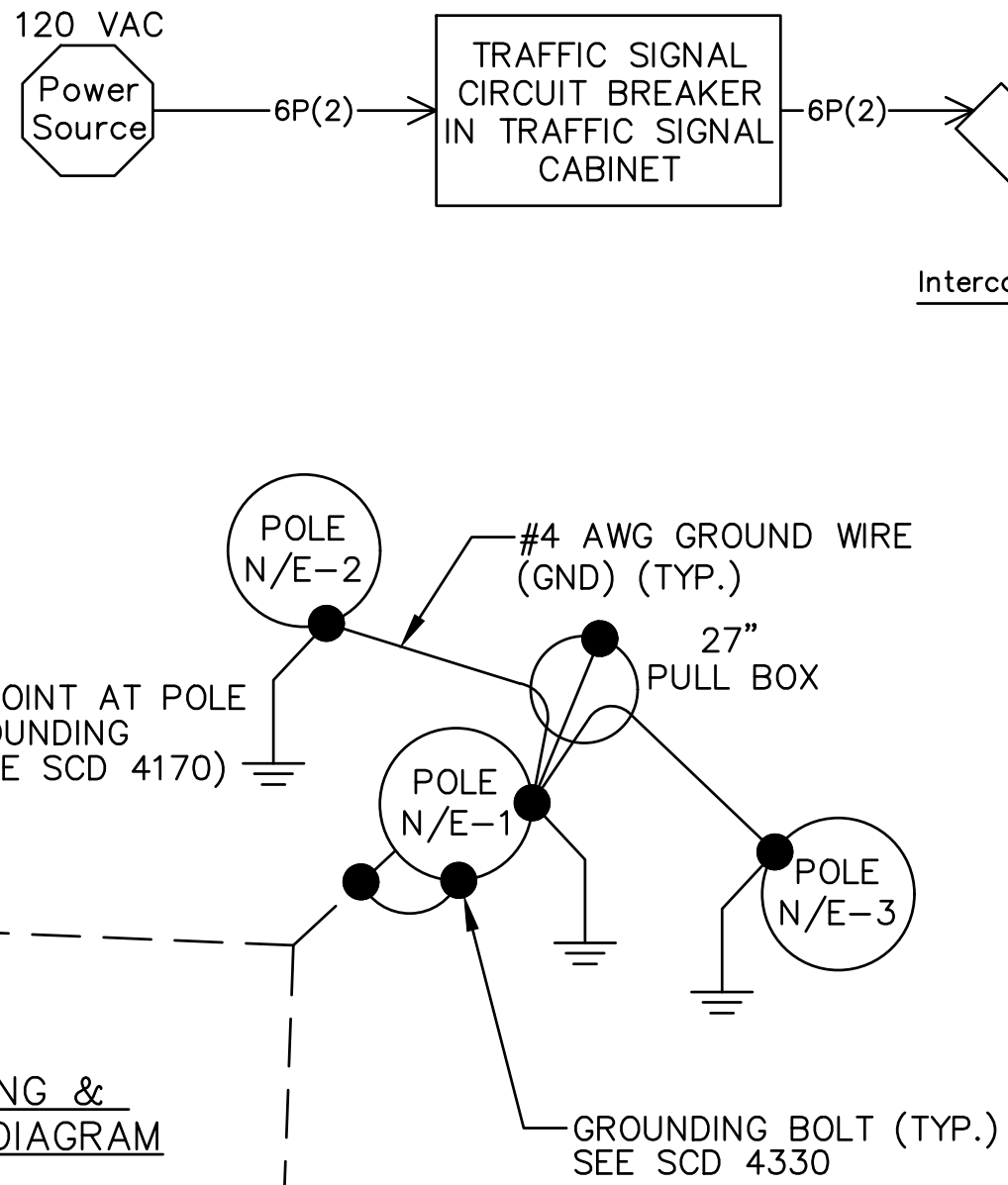
For new controller cabinets, the phasing diagram shall be according to TSDM Figures 15.6-15.14. When modifying existing controller cabinets, contact the signal plan reviewers to request the existing phasing and timing info.

8. Intersection Number

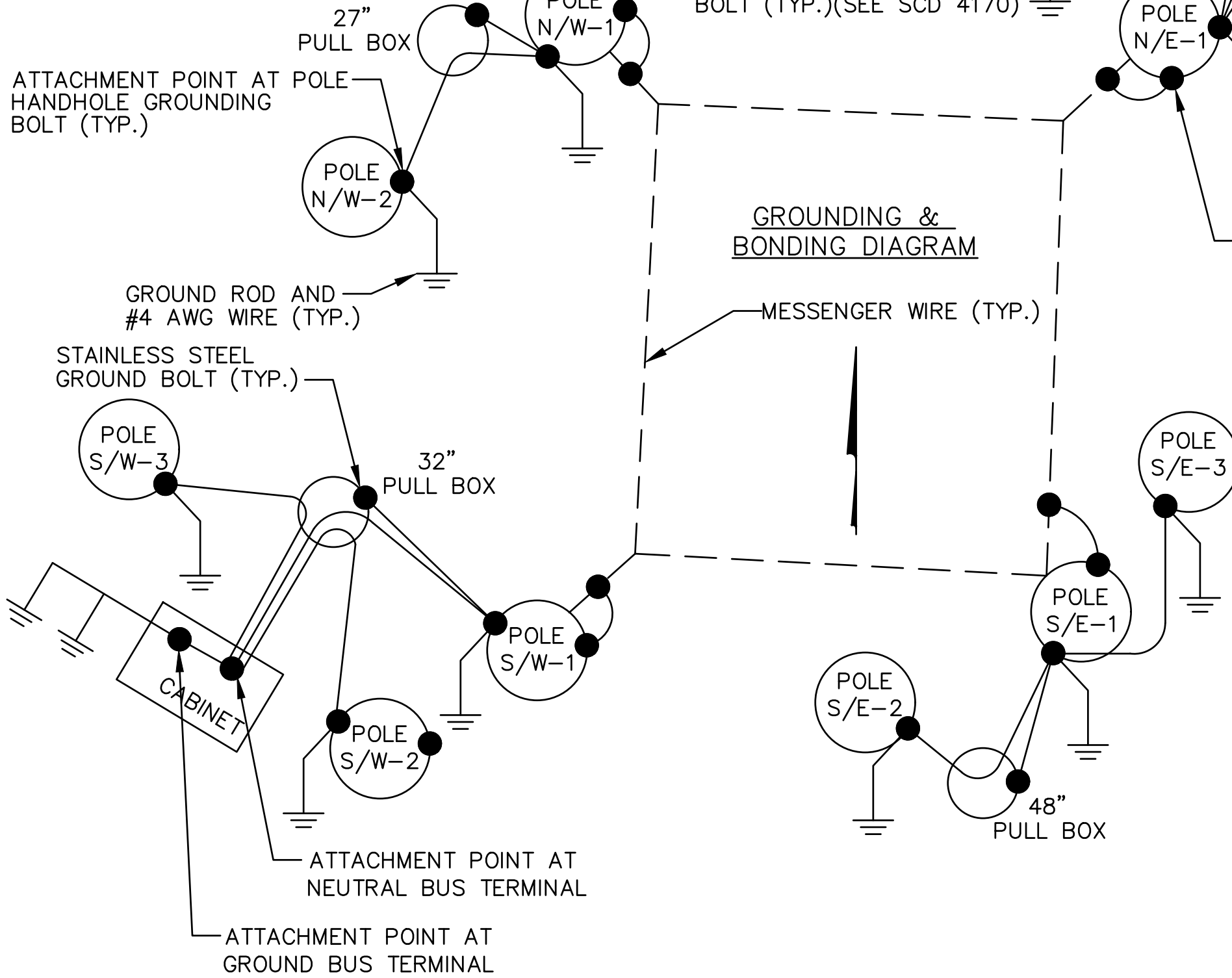
Contact signal plan reviewers to obtain intersection number.

9. Wiring Diagram

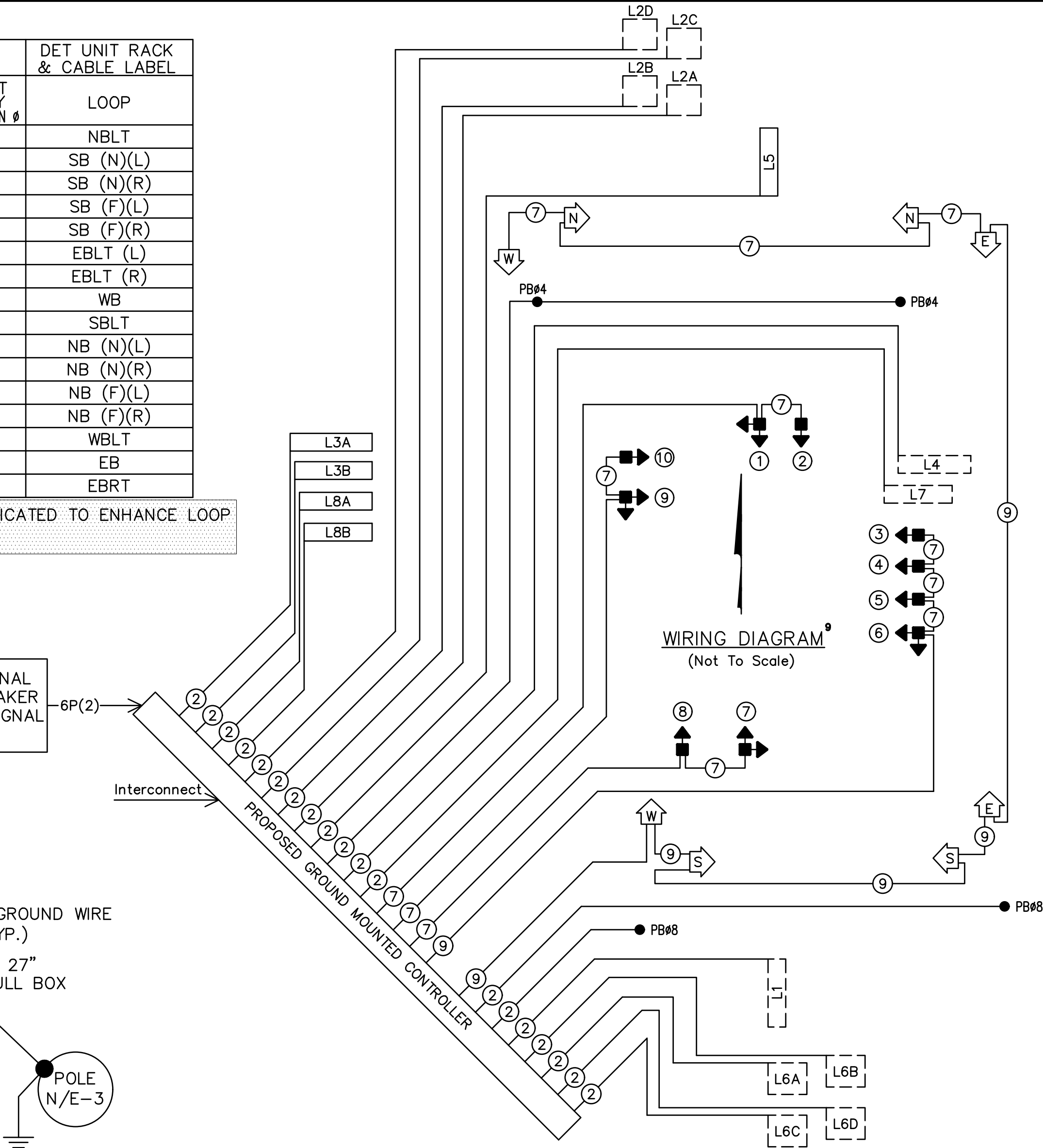
The wiring diagram orientation shall match the orientation of the plan view sheet. I.E. if the intersection plan view is orientated with north facing up, the details on this sheet including wiring diagram must be oriented with north facing up.



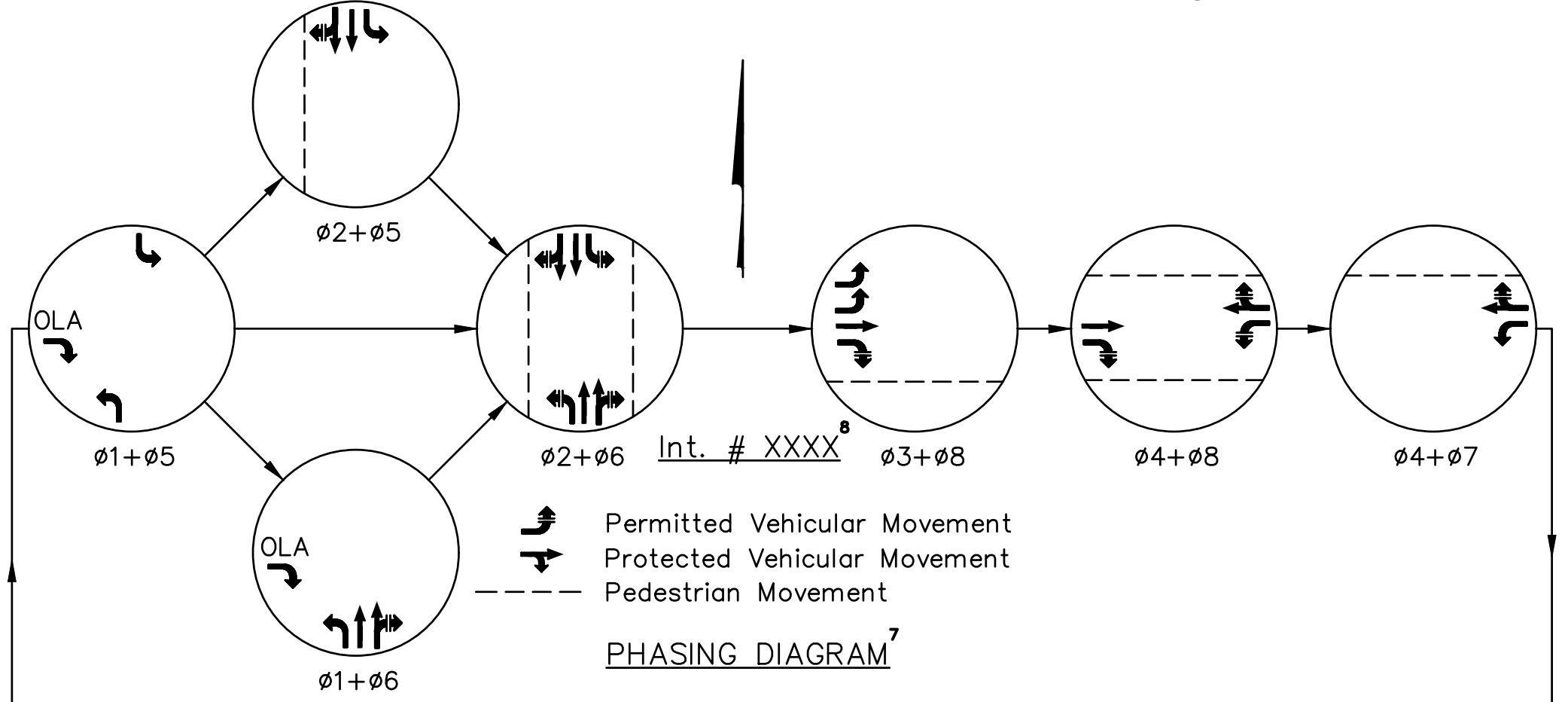
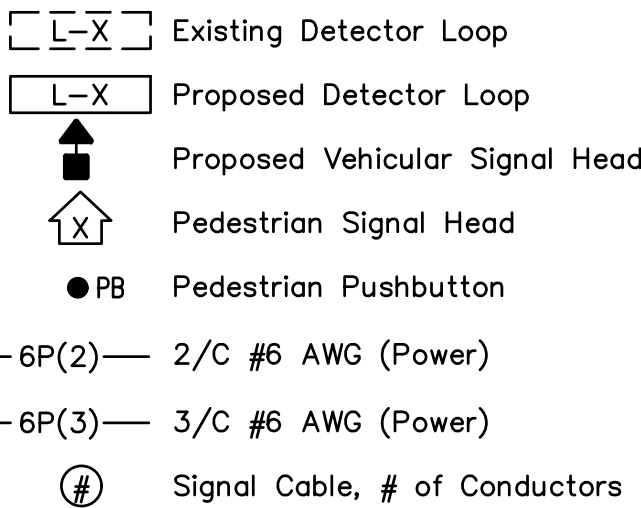
GROUNDING & BONDING DIAGRAM



STRAIN POLE / SPAN WIRE EXAMPLE DETAIL SHEET



WIRING DIAGRAM LEGEND



NOTES:

- SET CONFLICT MONITOR FOR 10 SEC FLASH.
- LOOP DETECTOR LEAD-IN CABLE SHALL BE USED FOR THE PEDESTRIAN PUSHBUTTONS. GROUND THE SHIELD ONLY AT THE CABINET.
- SET ALL PRESENCE LOOP CHANNELS TO COUNT MODE. SET ALL 6'x6' LOOP CHANNELS TO PULSE MODE.
- ALL LOOP SPADE TERMINALS SHALL HAVE THE LOOP HOMERUN WIRE SOLDERED TO THE SPADE TERMINAL. THE LOOP HOMERUN WIRES SHALL BE TWISTED TOGETHER AS CLOSE TO THE SPADE TERMINAL SCREWS AS POSSIBLE. THE CABLE DRAIN WIRE SHALL BE CONNECTED TO THE CLOSEST JUNCTION.
- BACK PANEL WIRING:
 - A) HARD WIRE DETECTOR GROUND.
 - B) INSTALL A [ø1 'OMIT' THE THRC
 - C) INSTALL A [ø1 'OMIT' INP THROUGH
 - D) USE DIODES
 - E) INSTALL DIOI ø7 AND ø
- CONTROLLER SOFTWARE:
 - A) INITIALIZE IN
 - B) ENABLE DUAL ENTRY. ACTIVATE ø4 & ø8.
 - C) ENABLE SIMULTANEOUS GAP OUT. ACTIVATE ø2, ø4, ø6 & ø8.
- INTERCONNECT FEEDER CABLE SHALL BE CONTINUOUSLY RUN BETWEEN THE CONTROLLER CABINET AND THE COAX DEVICE. NO SPLICES ARE PERMITTED EXCEPT WHERE NOTED.
- JUMPER THE NBLT (ø1) VEHICLE CALL INPUT TO THE WB (ø4) VEHICLE CALL INPUT. ROUTE THE JUMPER THROUGH THE NORMALLY CLOSED CONTACTS OF A CUTOUT RELAY WHICH IS POWERED BY THE SBR (ø2 RED) CONTROLLER DC OUTPUT.

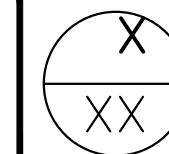
CONTACT SIGNAL PLAN REVIEWERS FOR CURRENT DETAIL SHEET NOTES. THESE NOTES SHALL BE LOCATED ON THE SAME SHEET AS THE WIRING DIAGRAM AND DETECTION CHART.

D. HOOK THE AS INDICATED. PUT AND TED DURING PUT AND ø5 I DURING THE ALS. VEEN ø4 &

TRAFFIC SIGNAL DETAILS STREET A AT STREET B

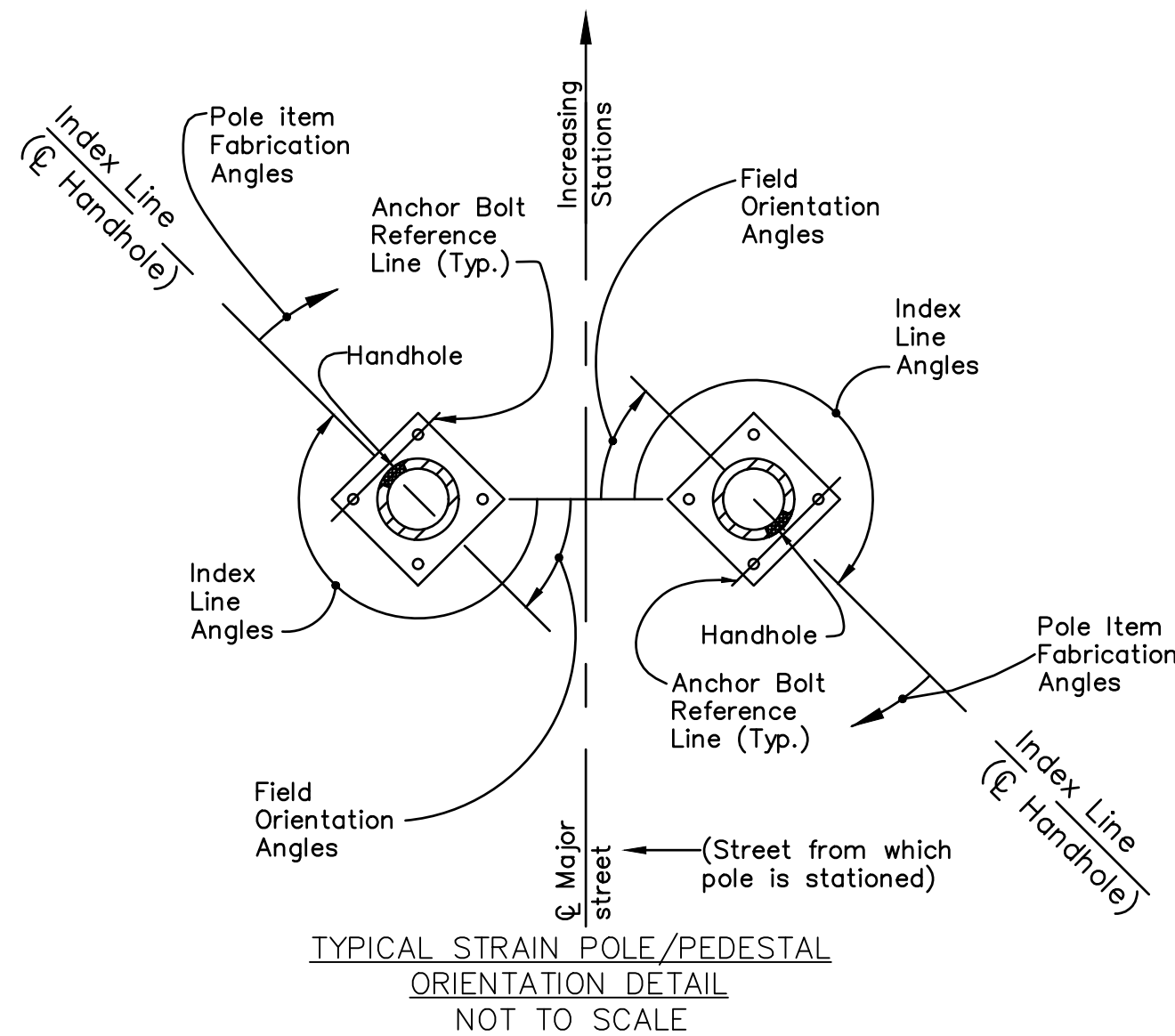
IMPROVEMENTS OF... STREET A FROM STREET B TO STREET C

XXXX-E

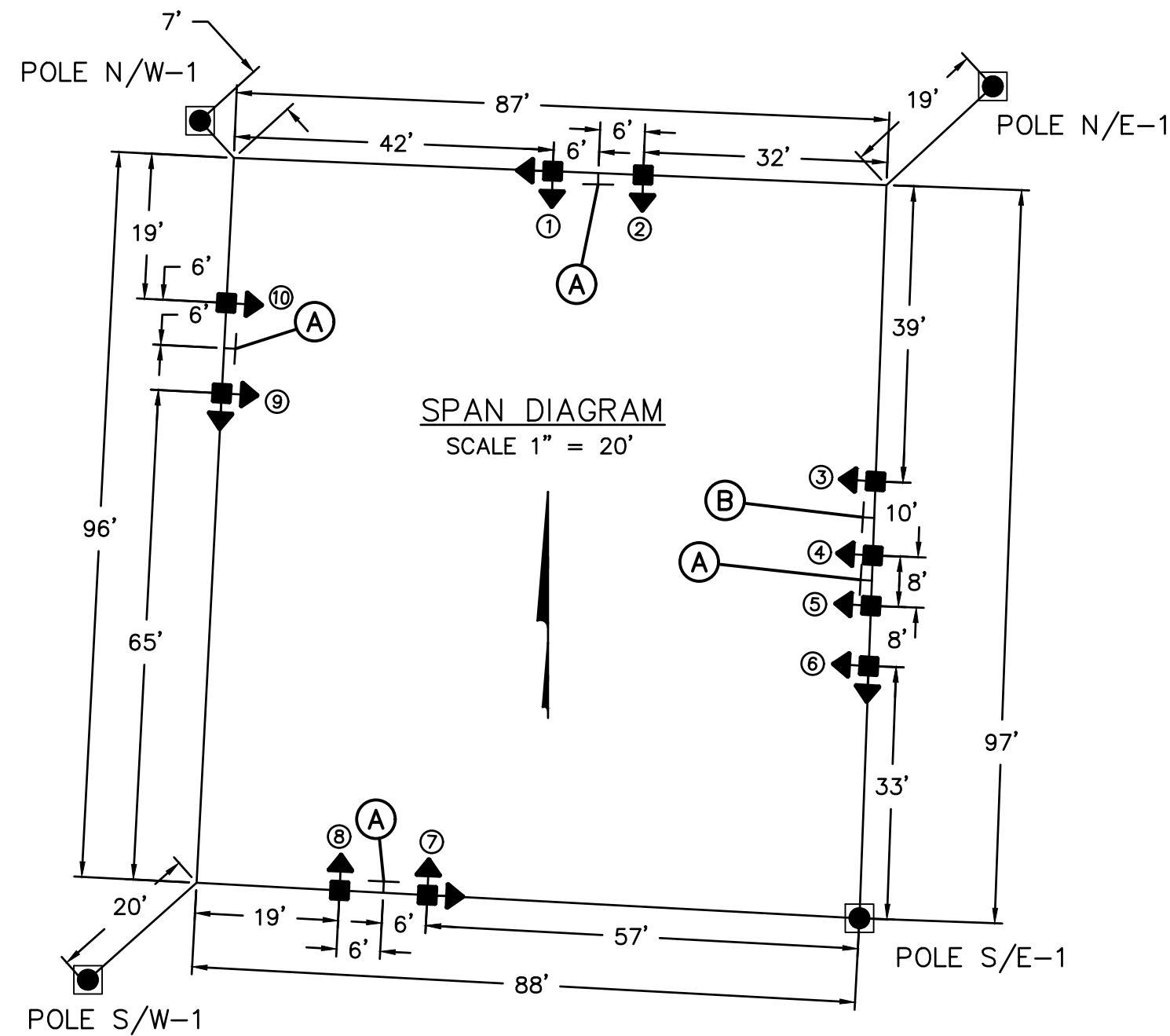
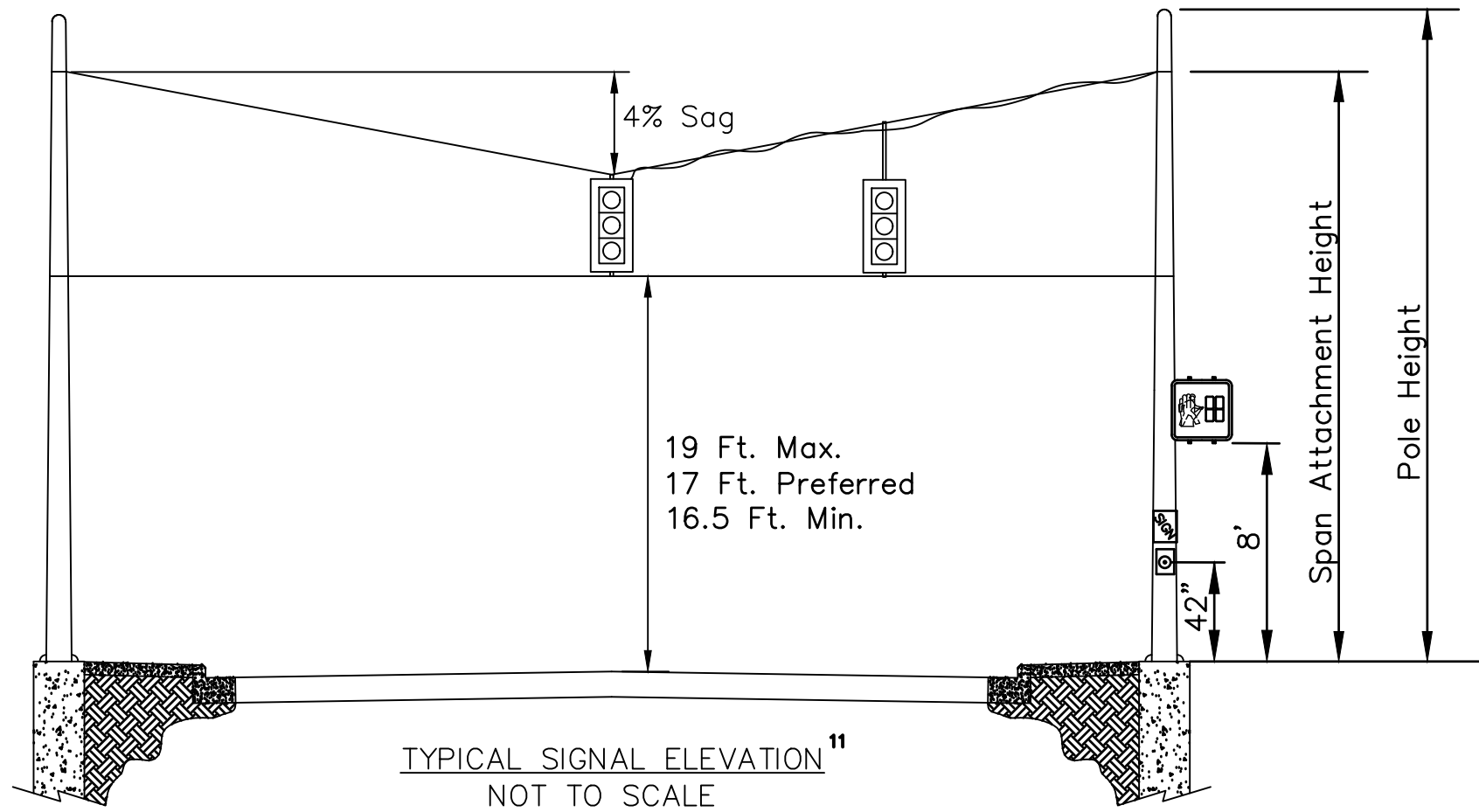


INTERSECTION	SHEET NO.	POLE DESIGNATION	POLE COLOR/ FEDERAL STANDARD 595B	POLE SIZES & SPAN ATTACHMENT HEIGHT			POLE FABRICATION DATA CLOCKWISE FROM HANDHOLE AT 0 DEGREES						FIELD ORIENTATION		
				POLE DESIGN NO.	POLE HT. (FT.)	SPAN ATTACHMENT HT. (FT.)	ANCHOR BOLT REF. LINE	2" BHC ANGLE-HT. DEG.-FT.	3" BHC ANGLE-HT. DEG.-FT.	PED. SIGNALS	PED. PUSH BUTTON	STREET NAME SIGN	INDEX LINE ANGLE (HANDHOLE)	ANCHOR BOLT REF. LINE	FOUNDATION ELEVATION*
		S/W-1		8	32'	28.5'	90°	-	29' - 180°	-	-	225°	225°	135°	SEE SHEET XX
		S/W-2		PEDESTAL	10.7'	-	90°	-	-	203°	180°	-	148°	58°	SEE SHEET XX
		S/W-3		PEDESTAL	10.7'	-	90°	-	-	262°	-	-	198°	108°	SEE SHEET XX
STREET A AT STREET B	XXX	N/W-1		8	30'	27'	90°	28' - 180°	-	223°	251°	225°	134°	44°	SEE SHEET XX
		N/W-2		PEDESTAL	10.7'	-	90°	-	-	99°	-	-	171°	81°	SEE SHEET XX
		N/E-1	SEMI-GLOSS BLACK #27038	8	32'	28.5'	90°	29' - 180°	-	-	-	225°	224°	134°	729.12
		N/E-2		PEDESTAL	10.7'	-	90°	-	-	105°	90°	-	242°	152°	SEE SHEET XX
		N/E-3		PEDESTAL	10.7'	-	90°	-	-	240°	-	-	217°	127°	SEE SHEET XX
		S/E-1		8	31'	26' E/26.5' S	90°	27.5 - 180°	-	130°/226°	-	225°	135°	45°	728.99
		S/E-2		PEDESTAL	5'	-	90°	-	-	-	180°	-	203°	113°	SEE SHEET XX
		S/E-3		PEDESTAL	10.7'	-	90°	-	-	215°	-	-	55°	145°	SEE SHEET XX

* The designer may list a "See Sheet #" in this column containing the sheet # of the detailed elevations of the Intersection Detail and/or Curb Ramp Detail Sheets.



NOTES:
All angles measured clockwise.
Index line goes through the center of the handhole.



- NOTES:
- The lowest signal head height in each direction shall be set at 16.5 feet (17' PrefeCONTACT SIGNAL PLAN REVIEWERS
 - The FOR CURRENT PLAN SHEET NOTES.gram are estimates. Final head positions shall be on the lane line, channel line or on the lane centerline. The distance between the heads are as indicated.

DESIGNER NOTES:
10. Pole Fabrication Chart
Example pole fabrication charts from the TSDM can be downloaded from the website as .dwg files.

When a plan set contains more than one signal, the pole fabrication charts shall be combined into a single chart. This chart shall be located after the last detail sheet of the last intersection.

For projects with both mast arms and strain pole/span wire installations, a separate chart shall be used for each type of support.

11. Typical Signal Elevation
Example typical signal elevation details from the TSDM can be downloaded from the website as .dwg files.

12. Sheet Label
For plans with one signal included in the pole fabrication chart, the sheet label shall also include the intersection name.

SPAN WIRE
POLE FABRICATION AND ORIENTATION
DETAIL SHEET

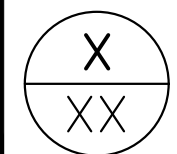
CALCULATED
ABC

CHECKED
ABC

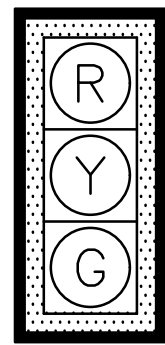
POLE FABRICATION AND ORIENTATION
DETAILS¹²

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

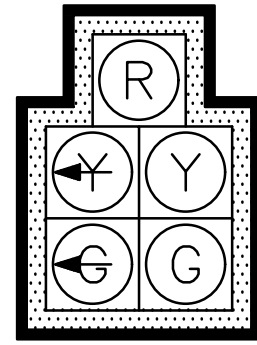
XXXX-E



PROPOSED VEHICULAR TRAFFIC SIGNAL HEAD CONFIGURATION

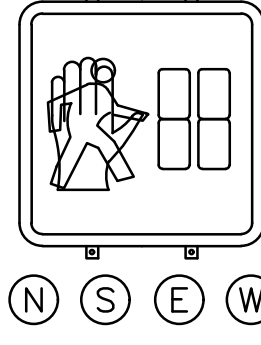


12" HEADS
2, 3, 4, 6,
7 & 8



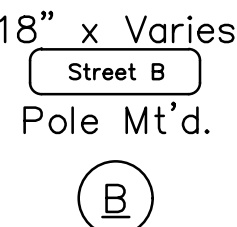
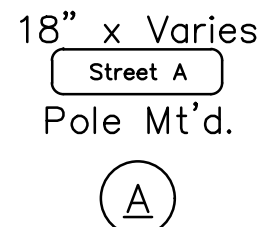
12" HEADS
1 & 5

PEDESTRIAN SIGNAL HEAD CONFIGURATION



(N) (S) (E) (W)

STREET NAME SIGN DETAIL



POLE N/W-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
STA. 105+33.1, 45.4' LT.

(1)-2" CONDUIT W/(2)-7/C & (1)-GND
(1)-2" CONDUIT - EMPTY
IN TRENCH = 13'

PULL BOX, 27"
STA. 105+30.0, 32.5' LT.

(1)-2" CONDUIT W/(1)-2/C, (1)-CAMERA & (1)-RADAR
(1)-2" CONDUIT W/(2)-7/C, & (3)-GND
IN TRENCH = 20'

(1)-2" CONDUIT W/(1)-2/C, (1)-CAMERA & (1)-RADAR
(1)-2" CONDUIT W/(2)-7/C & (1)-GND
DIRECTIONALLY DRILLED UNDER PAVEMENT = 60'

POLE N/E-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
STA. 105+85.8, 44.9' LT.

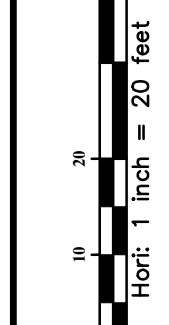
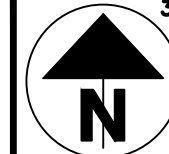
(1)-2" CONDUIT W/(2)-7/C & (2)-GND
(1)-2" CONDUIT - EMPTY
IN TRENCH = 12'

PULL BOX, 27"
STA. 105+90.2, 32.9' LT.

(1)-2" CONDUIT W/(2)-2/C, (1)-CAMERA & (2)-RADAR
(1)-2" CONDUIT W/(1)-9/C, (2)-7/C & (1)-GND
ENCASED IN TRENCH = 67'

(1)-2" CONDUIT W/(1)-2/C & (1)-RADAR
(1)-2" CONDUIT W/(1)-9/C, (2)-7/C, & (3)-GND
IN TRENCH = 20'

POLE N/E-1 SIGNAL SUPPORT
W/(1)-PEDESTRIAN PUSHBUTTON
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-STOP LINE RADAR UNIT (SB)
STA. 106+06.9, 24.9' LT.

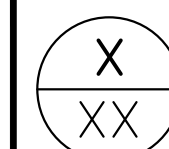


CALCULATED
ABC
CHECKED
ABC

TRAFFIC SIGNAL INSTALLATION PLAN
STREET A AT STREET C'

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

XXXX-E



- NOTES:
- The Contractor shall ensure that all sidewalks/pathways meet ADA guidelines per City specifications.
 - Power, service and interconnect cable shall be continuous with no splices except as noted.
 - For signing and pavement markings, see sheet(s) XX & XX.
 - The top of the pole base foundation shall be edged using a 1/2" sidewalk edger instead of being chamfered.
 - The Transportation Division Personnel shall approve bolt alignment, pole foundation location and elevation prior to the Contractor installing the foundation.
 - Tagging of cable in the pullbox next to the control cabinet is not required except for tagging of certain cable as directed by the Project Engineer or as per plan.
 - The pedestrian signal head shall be aimed at the centerline of the crosswalk area (not the curb ramp) that is opposite of the pedestrian signal head. The pedestrian signal heads shall also have a slight downward angle to it.
 - Do not encase the ground rod, the grounding wire or the EMT conduit in concrete outside of their foundation. Full access to these items must be maintained at all times. Permanently mark the top of foundation concrete, if visible, with a marker or symbol so the rod location can be known by others.
 - Any signal support base foundation within or adjacent to a sidewalk area shall be flush with the top of the sidewalk.
 - The Contractor shall not install pole foundations until the pole location area is at finished grade.
 - Underground conduit and trench that are under proposed sidewalk or road shall be installed prior to placement of sidewalk.
 - The Control cabinet shall be located and installed separately and shall not be connected to any other items.
 - See interconnect items.
 - For continuation of conduit, see sheet(s) XXX and XXX.
 - The control cabinet door shall be located on the south side of the cabinet.
 - The top surface of a cabinet foundation located in sidewalk areas shall be 4" above the surrounding walk. Expansion material shall be used between all foundations and adjacent sidewalk.
 - Use a separate conduit for each grouping of cables unless otherwise indicated: one conduit for 120VAC signal cable (5C, 7C, 9C, GND); one conduit for power; one conduit for 2 conductor cable (loop & pushbutton); and one conduit for interconnect cable (twisted pair, fiber optics or coax). Any other low voltage cable not specified above can be placed in the 2 conductor cable conduit. Power cable must be in its own conduit.
 - Unless otherwise specified the following shall apply. A preformed PVC conduit elbow shall be used to change the PVC conduit direction beyond what its natural bending flex would yield. Rigid metal conduit can be bent to form an elbow or any other bending angle required only if a proper conduit bending machine is used. The elbow radius for any non-interconnect conduit shall be 24" or larger when used in a horizontal or vertical manner. Any type of elbow used for interconnect conduit shall have a radius of 36" or larger when used in a horizontal direction or in a vertical direction when the trench is 36" or deeper. If the trench is less than 36" then the vertical elbow radius shall be 24".
 - All clamps and banding material shall be painted to match the signal supports.

CONTACT SIGNAL PLAN REVIEWERS
FOR CURRENT PLAN SHEET NOTES.

DESIGNER NOTES:

- Sheet Label
The traffic signal plan view sheet shall be labeled as:
-TRAFFIC SIGNAL INSTALLATION PLAN (Full rebuilds or new signals) or
-TRAFFIC SIGNAL MODIFICATION PLAN
The intersection shall be labeled in alphabetical order (i.e. Aaa Parkway at Bbb Road)

- Legend
Include only the symbols applicable to sheet. For a full list of symbols, see TSDM Figure 2.1.

- North Arrow
The traffic signal plan shall be oriented with north facing up or to the right.

- Detail Blowup
Corner blowups should be included whenever a smaller scale is required in order to reasonably follow callout leaders or distinguish signal items and other infrastructure. Detail blow ups should be 10 scale and should be on the plan view page. If necessary, the plan sheet notes should be moved to the detail sheet to make room for the detail blow up.

- Plan Sheet Notes
Plan sheet notes should be placed on the plan sheet as space allows. If necessary, the plan sheet notes may be placed on the following detail sheet.

- Stop Line and Detection Zone/Loop Stationing
The back edge of the stop line and the forward edge of the detection zone or loop shall be labeled with the stationing as shown (i.e. +XX')

PROPOSED INTERCONNECT
CONDUIT BANK
SEE INTERCONNECT PLAN SHEET XXX.

POLE S/W-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-PEDESTRIAN PUSHBUTTON
STA. 105+12.7, 27.2' RT.

(1)-2" CONDUIT W/(1)-2/C
(1)-2" CONDUIT W/(1)-7/C, & (1)-GND
IN TRENCH = 14'

PULL BOX, 32"
STA. 105+22.5, 35.9' RT.

(1)-2" CONDUIT W/(3)-7/C & (3)-GND
(1)-2" CONDUIT W/(1)-RADAR
IN TRENCH = 15'

POLE S/W-1 SIGNAL SUPPORT
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-STOP LINE RADAR UNIT (NB)
STA. 105+30.1, 48.6' RT.

(1)-2" CONDUIT W/(2)-7/C, & (1)-GND
(1)-2" CONDUIT W/(1)-2/C & (1)-RADAR
(1)-1.5" CONDUIT W/TRACING WIRE
(4)-3" CONDUITS (SEE INTERCONNECT PLAN)
ENCASED CONDUIT BANK = 68'

LEGEND²

- SIGNAL HEADS: PROP. VEHICULAR HEAD EX. VEHICULAR HEAD
- SIGNAL POLES: PROP. ANCHOR/STRAIN POLE EX. ANCHOR/STRAIN POLE
- EX. EMBEDDED POLE EX. WOOD POLE GUY ANCHOR
- PROP. PEDESTAL EX. PEDESTAL PUSHBUTTON
- CONTROLLERS & CABINETS: EX. CABINET W/PAD PROP. CABINET W/PAD
- EX. CABINET (NO PAD) PROP. CABINET (NO PAD)
- PULL BOXES: EX. PULL BOX PROP. PULL BOX
- DETECTION: STOP LINE RADAR UNIT DILEMMA ZONE RADAR
- VIDEO CAMERA DETECTION ZONE
- LOOP DETECTOR

MAST ARM EXAMPLE
PLAN VIEW SHEET

FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
1 (EBLT)	R	Ø6 R	Y
	Y	Ø6 Y	
	G	Ø6 G	
	←Y	Ø1 Y	
2 (EB)	R	Ø6 R	Y
	Y	Ø6 Y	
	G	Ø6 G	
	←G	Ø1 G	
3 & 4 (SB)	R	Ø4 R	R
	Y	Ø4 Y	
	G	Ø4 G	
	←G	Ø1 G	
5 (WBLT)	R	Ø2 R	Y
	Y	Ø2 Y	
	G	Ø2 G	
	←Y	Ø5 Y	
6 (WB)	R	Ø2 R	Y
	Y	Ø2 Y	
	G	Ø2 G	
	←G	Ø1 G	
7 & 8 (NB)	R	Ø8 R	R
	Y	Ø8 Y	
	G	Ø8 G	
	←G	Ø1 G	
N	WALK	G Ø2-W	OFF
	DON'T WALK	R Ø2-DW	
S	WALK	G Ø6-W	OFF
	DON'T WALK	R Ø6-DW	
E	WALK	G Ø8-W	OFF
	DON'T WALK	R Ø8-DW	
W	WALK	G Ø4-W	OFF
	DON'T WALK	R Ø4-DW	

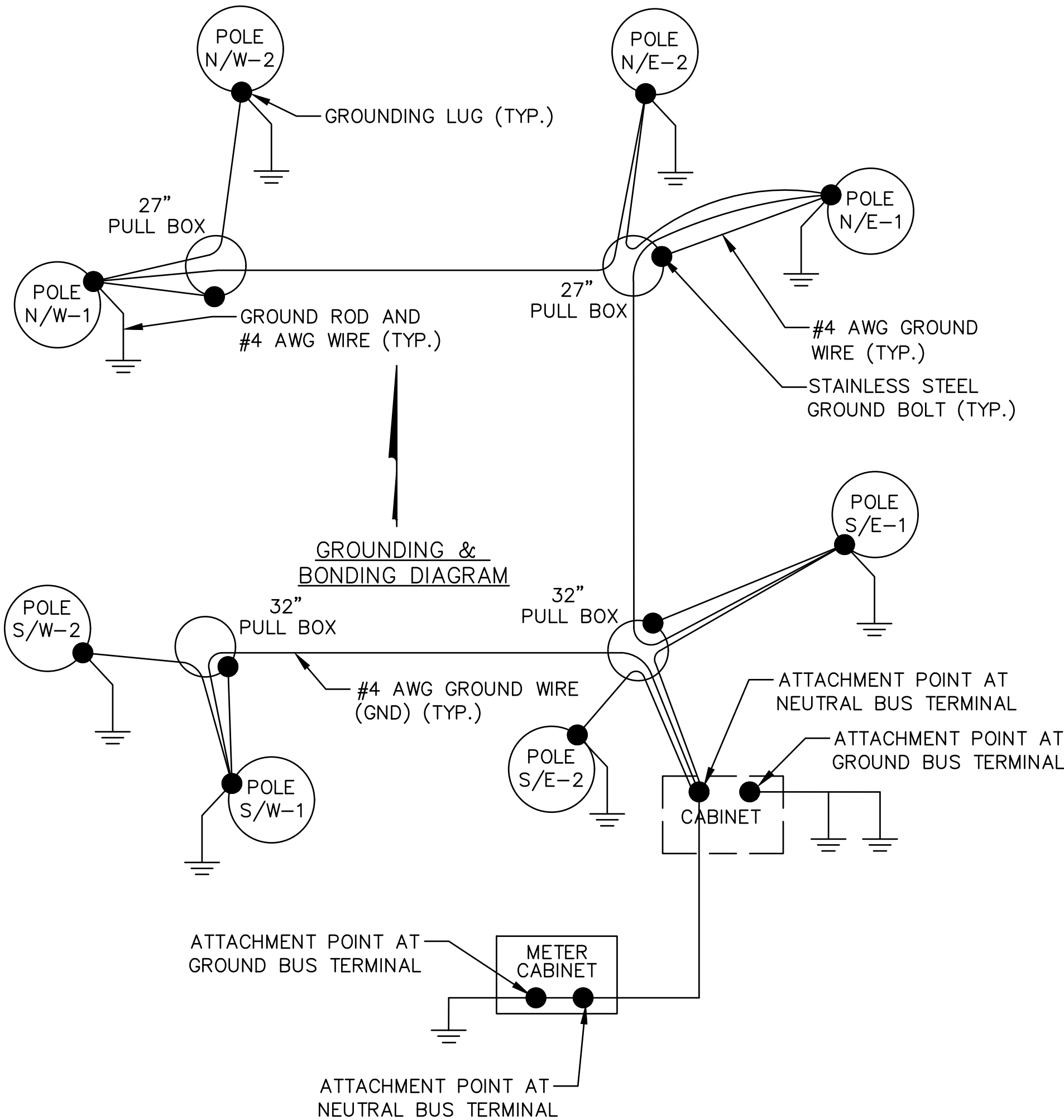
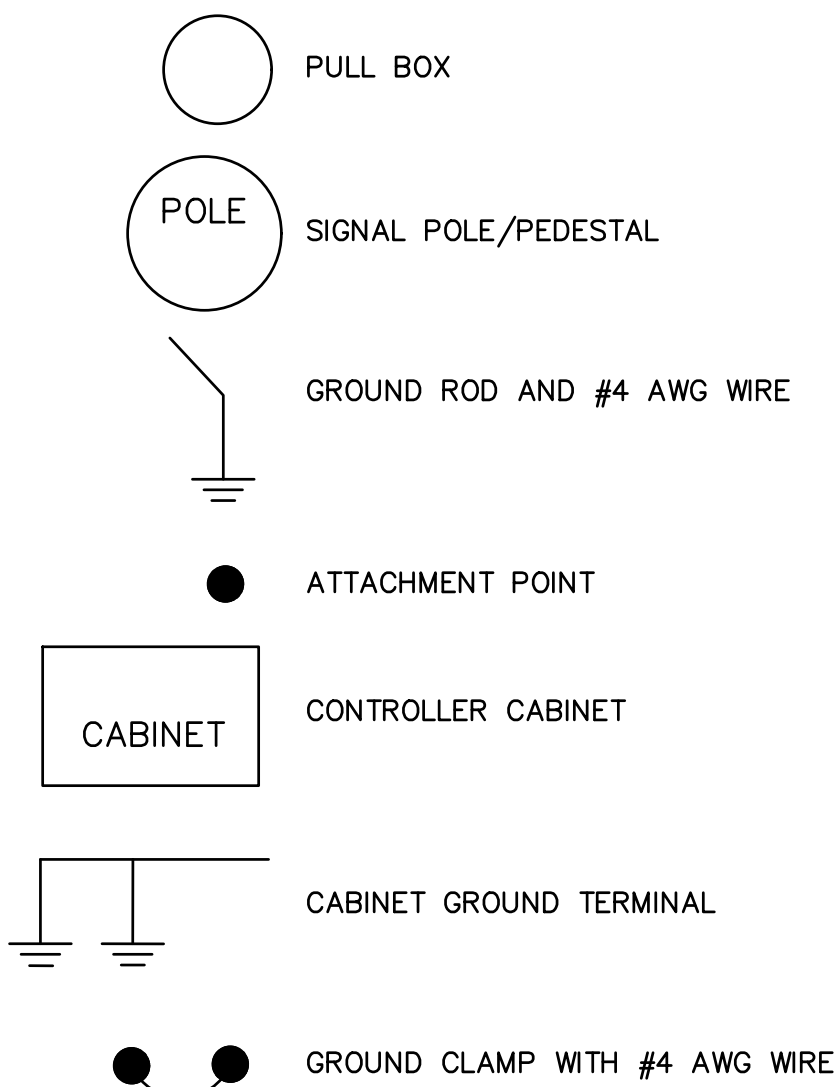
TIMING CHART

PHASE	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
MOVEMENT	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB
MIN INITIAL	7	20	—	10	7	20	—	10
WALK	—	7	—	7	—	7	—	7
PED CHANGE	—	10	—	11	—	11	—	11
PASS / EXT	3.7	3.7	—	3.7	3.7	3.7	—	3.7
YELLOW	3.0	3.6	—	3.0	3.0	3.6	—	3.0
RED CLR	3.0	1.7	—	2.8	3.0	1.7	—	2.9
MAX GRN 1	15	40	—	20	15	40	—	20
MAX GRN 2	15	40	—	20	15	40	—	20
PED RECALL	OFF	ON	—	OFF	OFF	ON	—	OFF
VEH RECALL	OFF	MIN	—	OFF	OFF	MIN	—	OFF
MEMORY	OFF	ON	—	OFF	OFF	ON	—	OFF

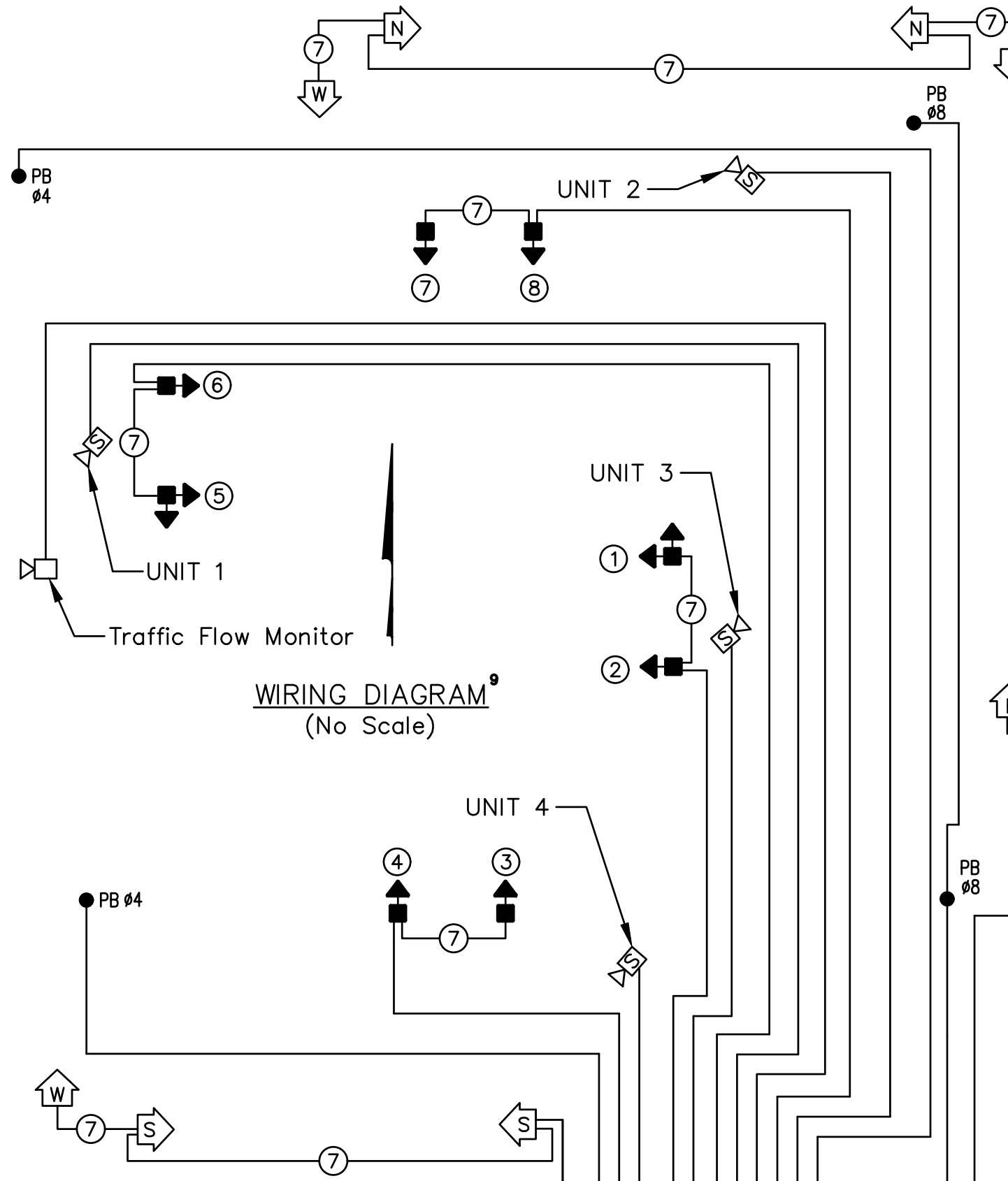
DETECTION ASSIGNMENTS

DETECTOR	RADAR DETECTOR	PHASE	SIZE	PRESENCE	PURPOSE	DELAY DATA	
						DELAY (SEC.)	INHIBIT DELAY DURING GREEN Ø
Z1	1	Ø1	5'x25'	X	CALL/EXTEND	3	Ø1
Z2	3	Ø2	5.5'x5.5'	X	CALL/EXTEND	—	—
Z4A	2	Ø4	5'x40'	X	CALL/EXTEND	3	Ø4
Z4B	2	Ø4	5.5'x40'	X	CALL/EXTEND	8	Ø4
Z5	3	Ø5	5'x25'	X	CALL/EXTEND	3	Ø5
Z6	1	Ø6	5.5'x5.5'	X	CALL/EXTEND	—	—
Z8A	4	Ø8	5'x40'	X	CALL/EXTEND	3	Ø8
Z8B	4	Ø8	5.5'x40'	X	CALL/EXTEND	8	Ø8

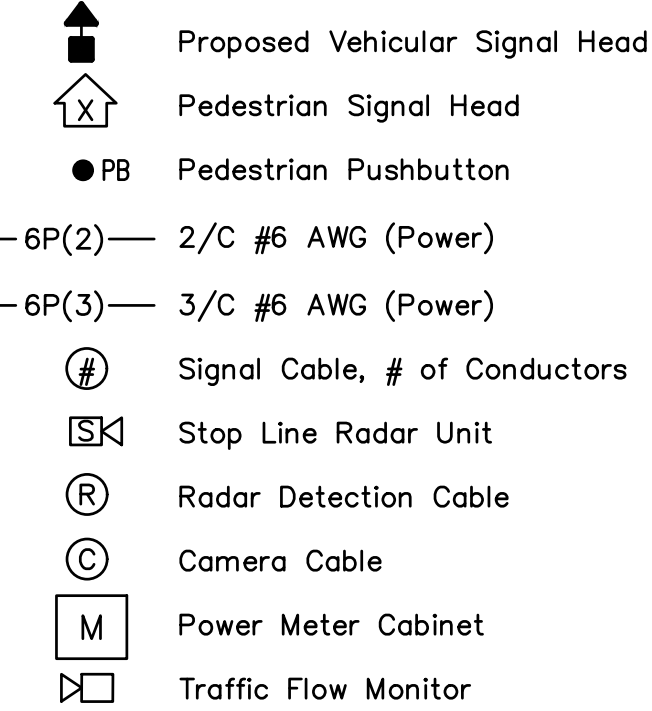
GROUNDING & BONDING DIAGRAM LEGEND



WIRING DIAGRAM⁹
(No Scale)



WIRING DIAGRAM LEGEND



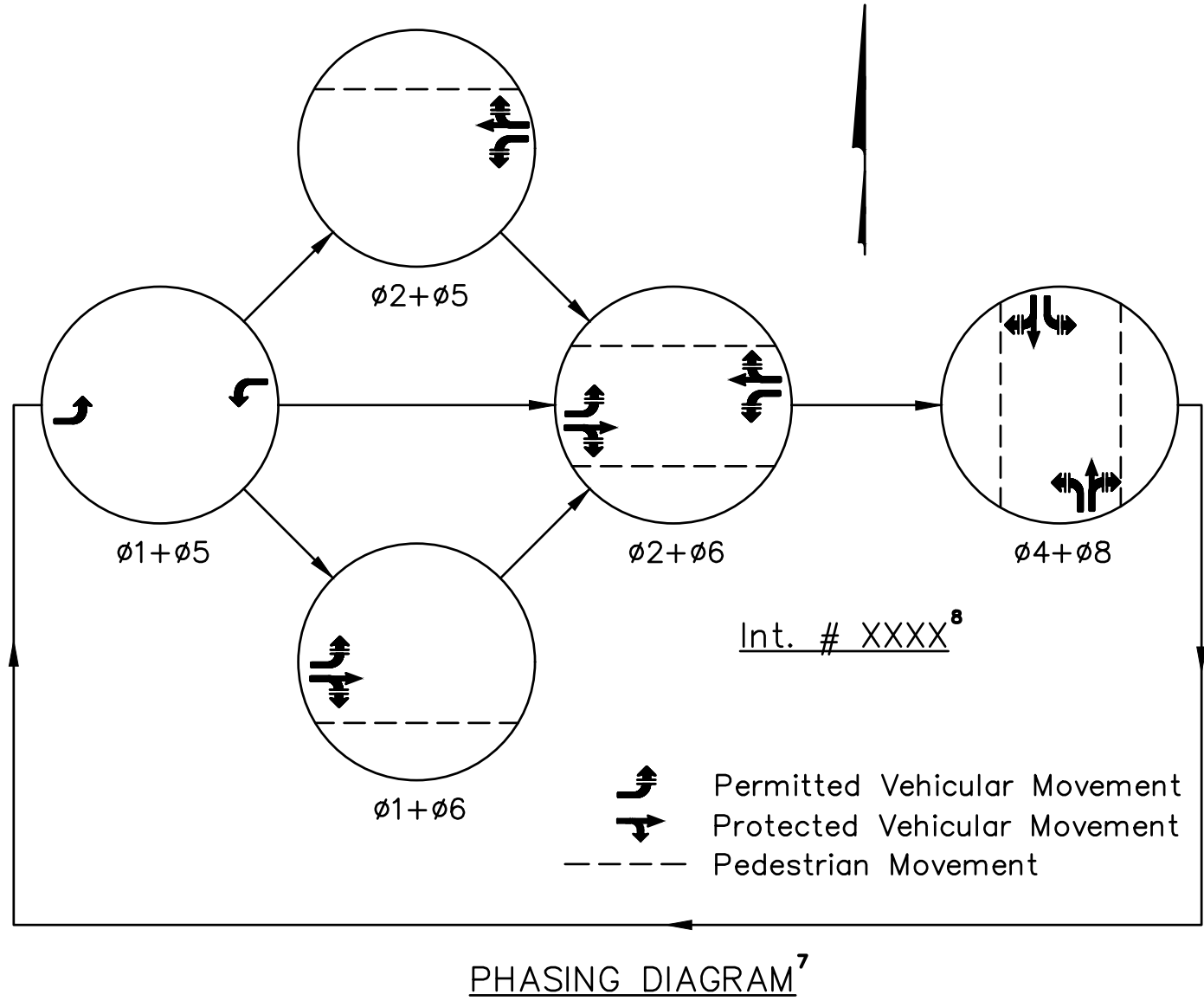
- NOTES:
- SET CONFLICT MONITOR FOR 10 SEC FLASH.
 - LOOP DETECTOR LEAD-IN CABLE SHALL BE USED FOR THE PEDESTRIAN PUSHBUTTONS. GROUND THE SHIELD ONLY AT THE CABINET.
 - BACK PANEL WIRING (FRONT SIDE JUMPERS ONLY)
 - HARD WIRE DETECT GROUND
 - INSTALL A Ø1 "OMIT" THE THF
 - INSTALL A "OMIT" IN THROUGH
 - USE DIODE
 - CONTACT SIGNAL PLAN REVIEWERS FOR CURRENT DETAIL SHEET NOTES. THESE NOTES SHALL BE LOCATED ON THE SAME SHEET AS THE WIRING DIAGRAM AND DETECTION CHART.
 - HOOK THE WIRE AS INDICATED. CUT AND SOLDER DURING THE

DESIGNER NOTES:
7. Phasing Diagram
For new controller cabinets, the phasing diagram shall be according to TSDM Figures 15.6-15.14.
When modifying existing controller cabinets, contact the signal plan reviewers to request the existing phasing and timing info.

8. Intersection Number
Contact signal plan reviewers to obtain intersection number.

9. Wiring Diagram
The wiring diagram orientation shall match the orientation of the plan view sheet. I.E. if the intersection plan view is orientated with north facing up, the details on this sheet including wiring diagram must be oriented with north facing up.

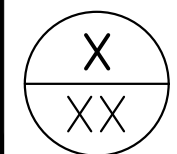
MAST ARM
EXAMPLE
DETAIL SHEET



TRAFFIC SIGNAL DETAILS
STREET A AT STREET C

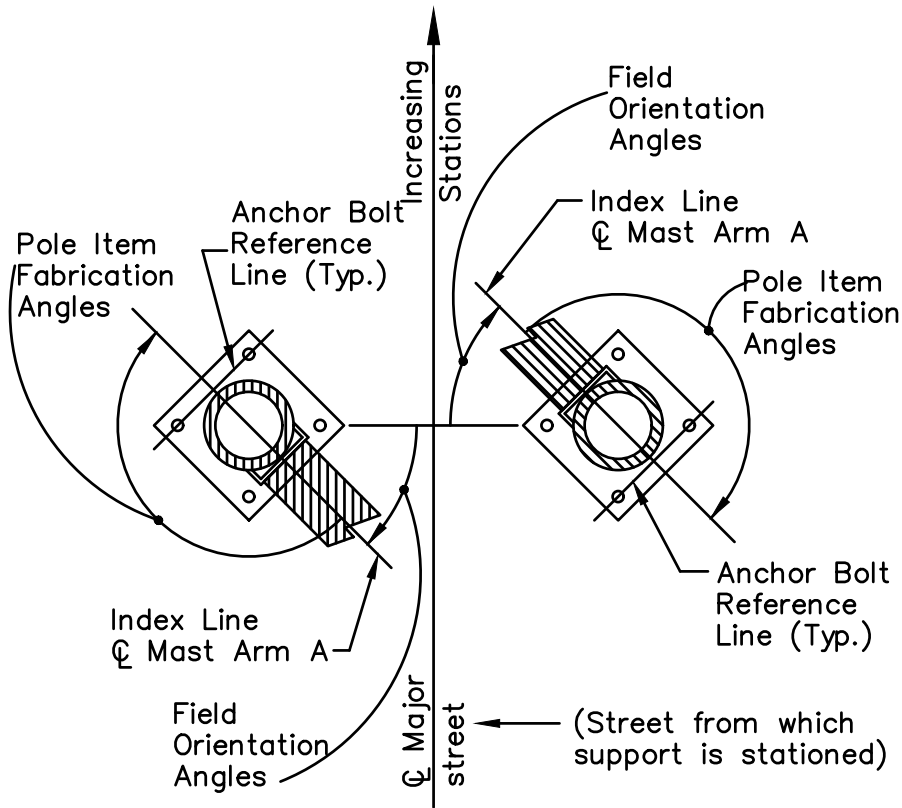
IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E



INTERSECTION	SHEET NO.	SUPPORT DESIGNATION	POLE COLOR/ FEDERAL STANDARD 595B	POLE DESIGN NO.	POLE HT. (FT.)	MAST ARM LENGTH (FT.)	OBJECT ATTACHMENT HEIGHT			DISTANCE FROM BUTT PLATE (FT.)			POLE FABRICATION DATA—CLOCKWISE FROM MAST ARM A AT 0 DEGREES						FIELD ORIENTATION		
							MAST ARM (FT.)	RADAR DETECTOR (FT.)	BRACKET ARM	L1	L2	S1	ANCHOR BOLT REFERENCE LINE	PED. SIGNALS	PED. PUSH BUTTON	BRACKET ARM	STREET NAME SIGNS	HANDHOLE	INDEX LINE ANGLE MAST ARM A	ANCHOR BOLT REF. LINE	FOUNDATION ELEVATION*
STREET A AT STREET C	##	S/E-1		4	21'	32'	19.5'	18'	—	12.5'	23.5'	—	90°	264°	255°	—	0°	180°	0°	90°	SEE SHEET XX
		S/E-2		Pedestal	10.7'	—	—	—	—	—	—	—	90°	162°	—	—	—	0°	198°	108°	SEE SHEET XX
		S/W-1		4	21'	32.5'	19.5'	18'	—	14'	24'	—	90°	264°	—	—	0°	180°	90°	0°	SEE SHEET XX
		S/W-2		Pedestal	10.7'	—	—	—	—	—	—	—	90°	165°	165°	—	—	0°	285°	195°	SEE SHEET XX
			SEMI-GLOSS BLACK #27038																		
		N/W-1		4	27'	32.5'	19.5'	18'	25'	13'	24'	—	90°	264°	257°	0°	0°	180°	0°	90°	SEE SHEET XX
		N/W-2		Pedestal	10.7'	—	—	—	—	—	—	—	90°	164°	—	—	—	0°	196°	106°	SEE SHEET XX
		N/E-1		14	21'	50.5'	19.5'	18'	—	32'	42'	—	90°	8°	5°	—	0°	180°	90°	0°	SEE SHEET XX
		N/E-2		Pedestal	10.7'	—	—	—	—	—	—	—	90°	195°	—	—	—	0°	165°	75°	SEE SHEET XX

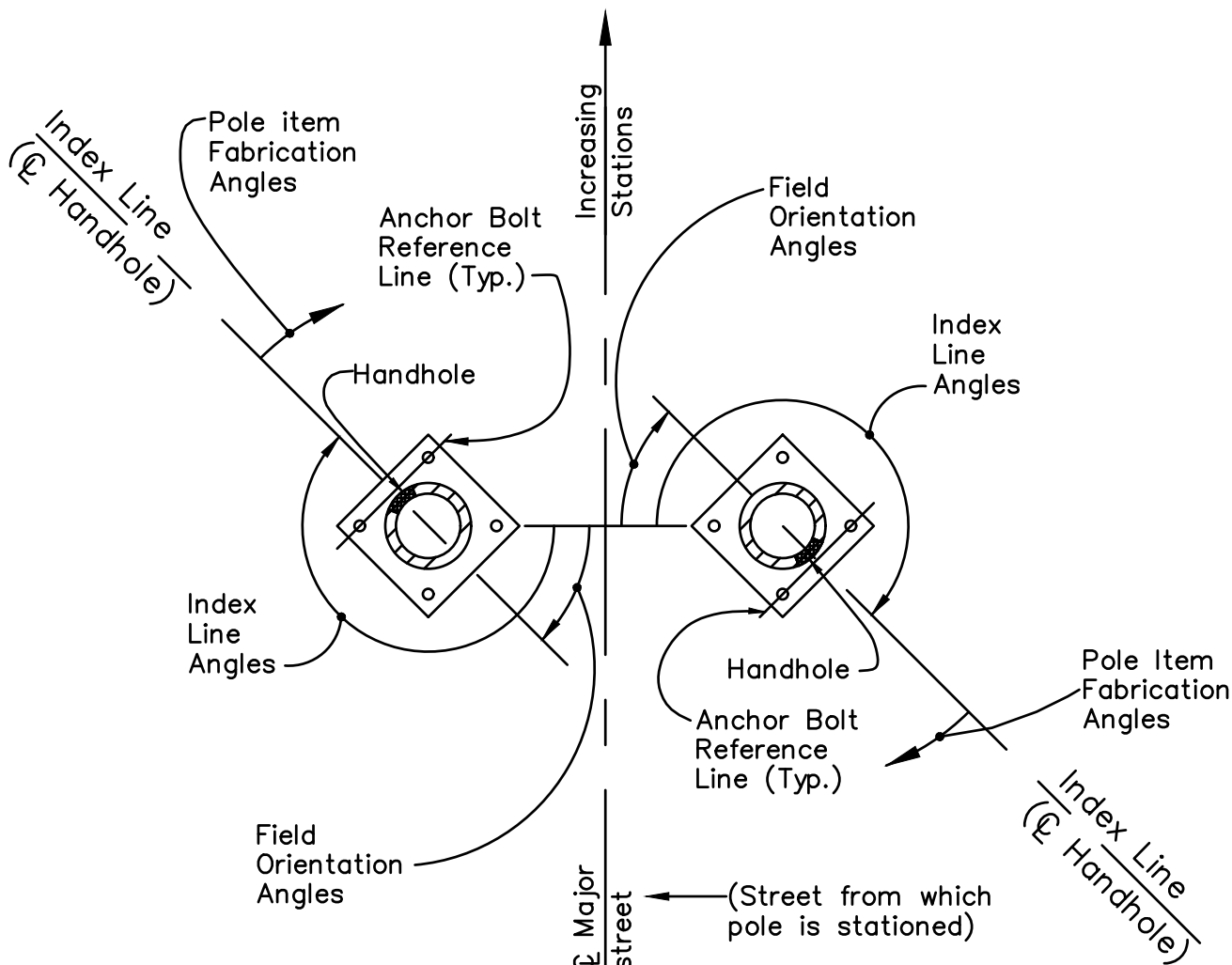
* The designer may list a "See Sheet #" in this column containing the sheet # of the detailed elevations of the Intersection Detail and/or Curb Ramp Detail Sheets.



All angles measured clockwise.

Base plate is oriented square to Mast Arm A. Mast Arm A is the largest arm if the support has two mast arms.

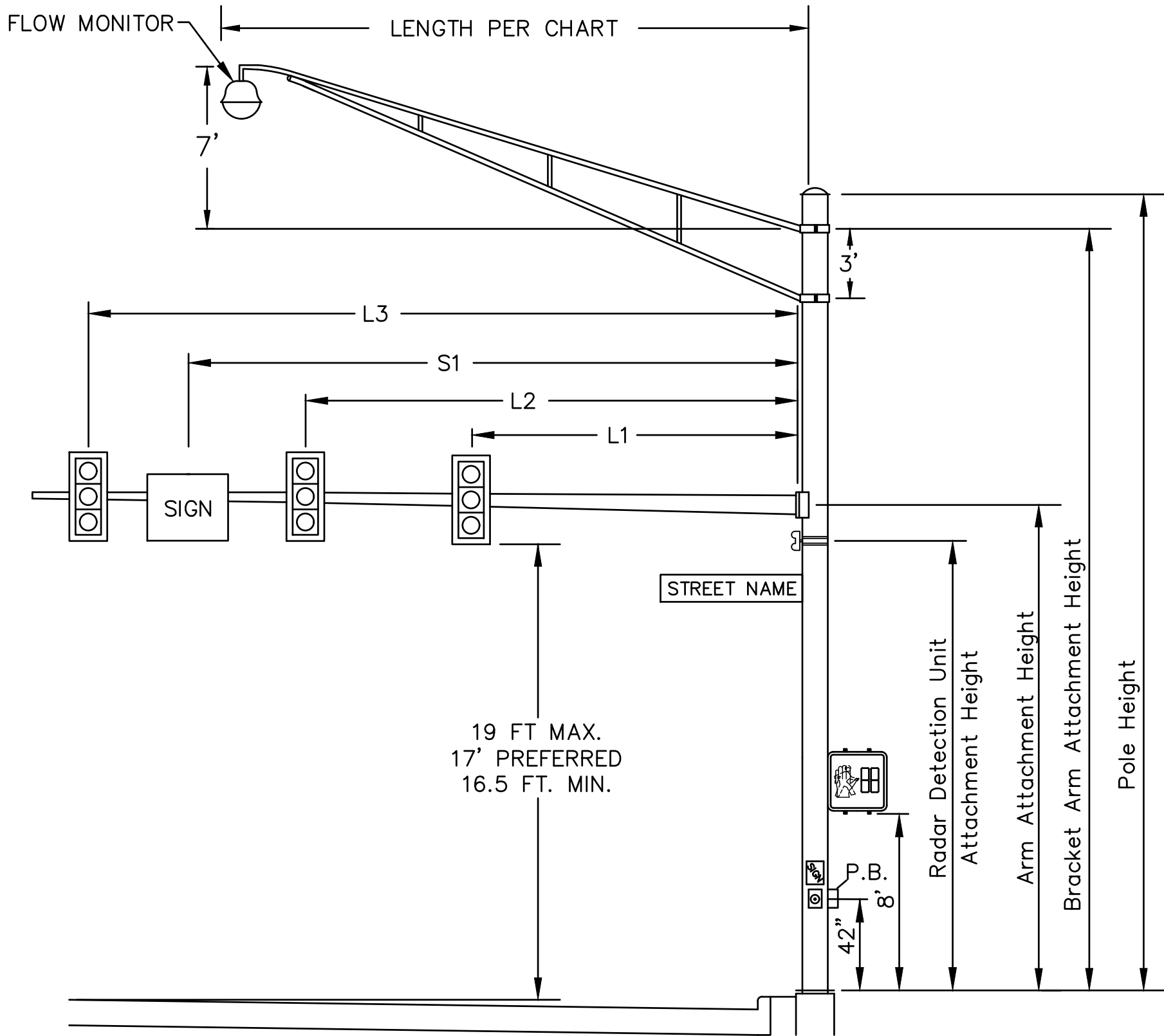
TYPICAL SIGNAL SUPPORT ORIENTATION DETAIL



NOTES:
All angles measured clockwise.

Index line goes through the center of the handhole.

TYPICAL PEDESTAL ORIENTATION DETAIL
NOT TO SCALE



TYPICAL SIGNAL ELEVATION DETAIL¹¹

DESIGNER NOTES:
10. Pole Fabrication Chart
Example pole fabrication charts from the TSDM can be downloaded from the website as .dwg files.

When a plan set contains more than one signal, the pole fabrication charts shall be combined into a single chart. This chart shall be located after the last detail sheet of the last intersection.

For projects with both mast arms and strain pole/span wire installations, a separate chart shall be used for each type of support.

11. Typical Signal Elevation
Example typical signal elevation details from the TSDM can be downloaded from the website as .dwg files.

12. Sheet Label
For plans with one signal included in the pole fabrication chart, the sheet label shall also include the intersection name.

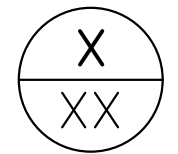
MAST ARM
POLE FABRICATION AND ORIENTATION
DETAIL SHEET

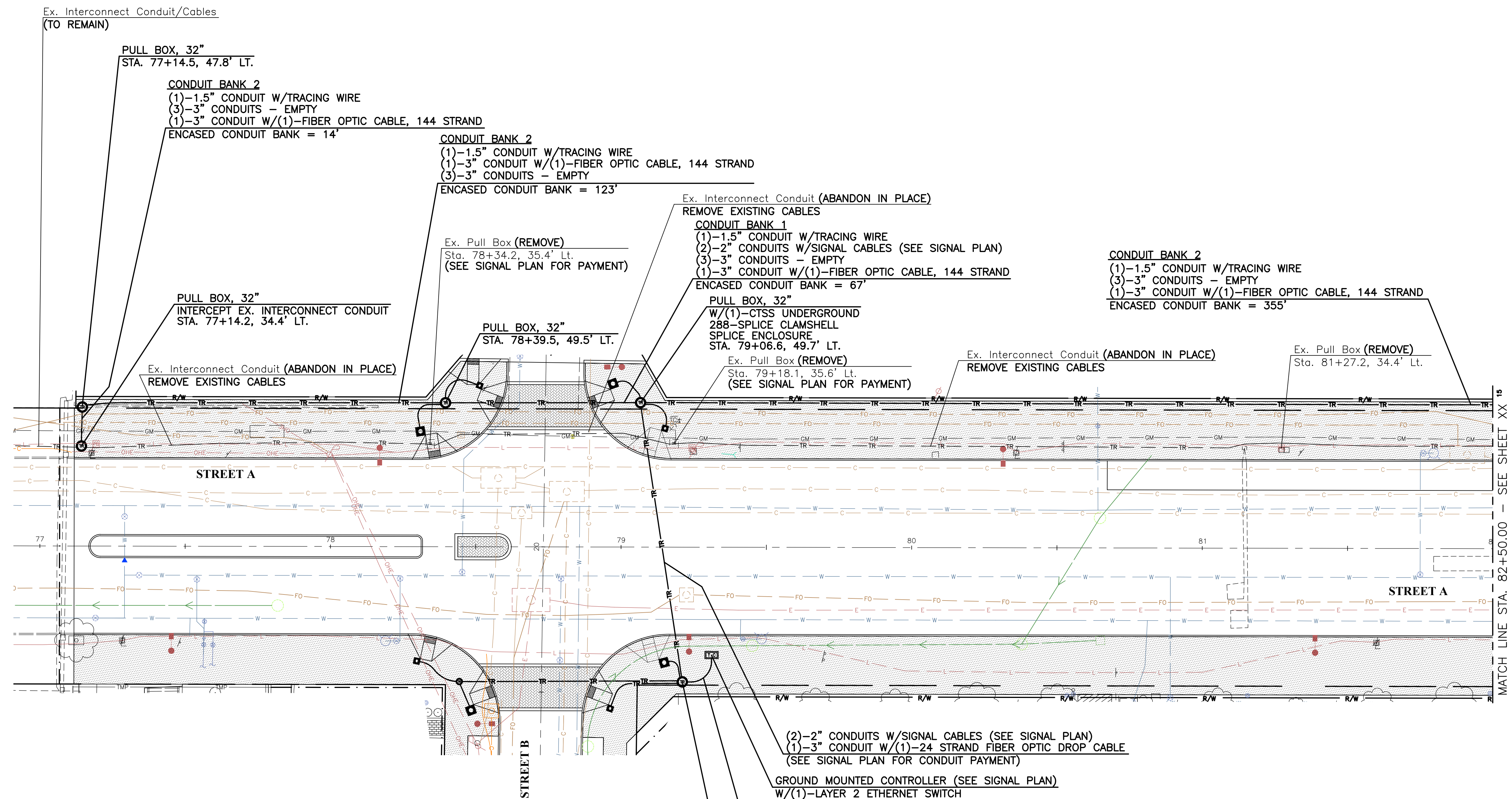
CALCULATED
ABC
CHECKED
ABC

POLE FABRICATION AND ORIENTATION
DETAILS

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

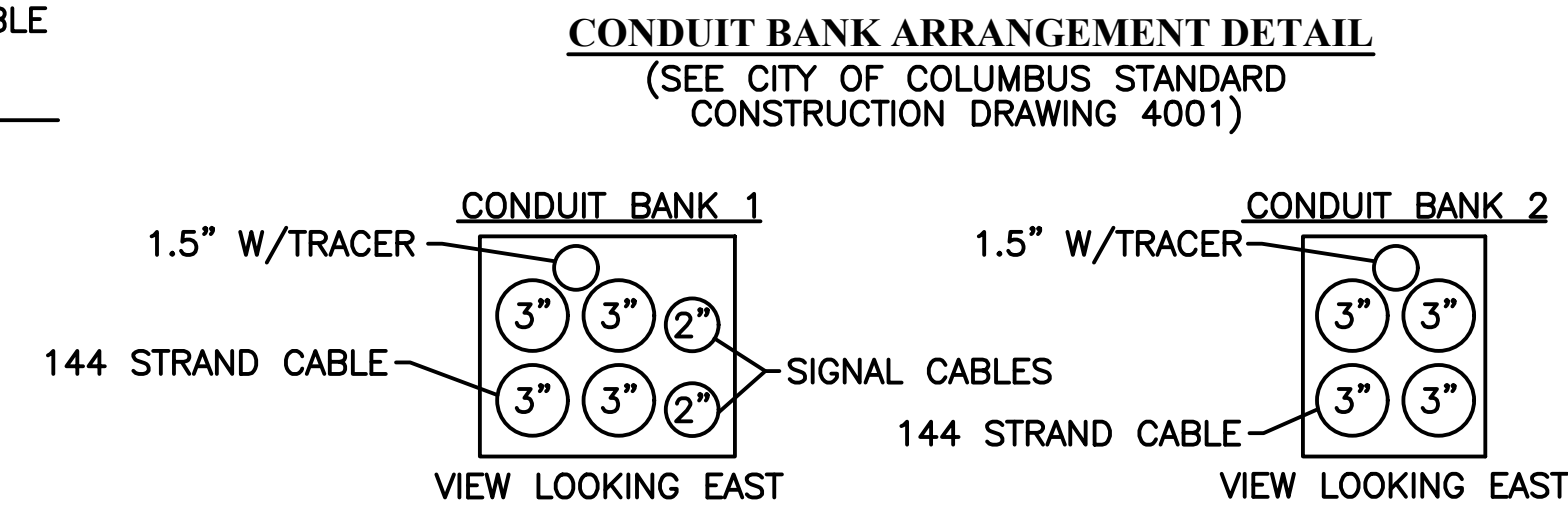




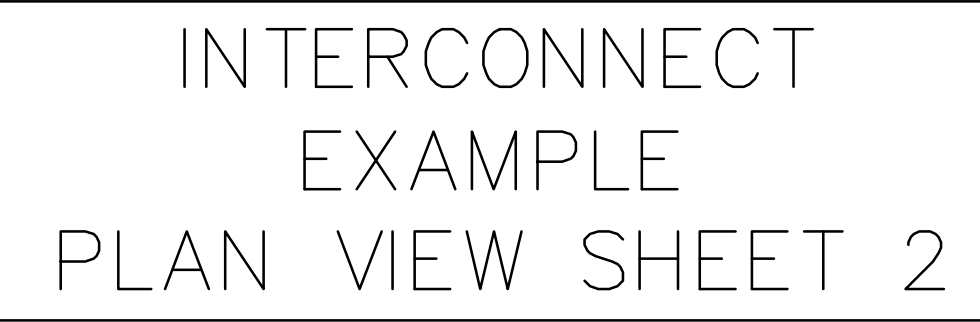
DESIGNER NOTES:
13. Sheet Scale
Interconnect plan sheets for underground installation shall be drawn as 20 scale.
Use of larger scale requires prior approval from Design and Construction.
Interconnect plan sheets for exclusively aerial installation may be drawn as 40 scale.
14. Sheet Orientation
The traffic signal interconnect plan shall be orientated with north facing up or to the right.
15. Match Lines
Match lines shall not be used within intersections.
Break lines shall not be used; all proposed conduit shall be shown in its entirety.

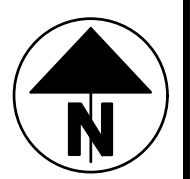
- LEGEND**
- SIGNAL POLES: PROP. ANCHOR/STRAIN POLE [Symbol] EX. ANCHOR/STRAIN POLE [Symbol]
EX. EMBEDDED POLE [Symbol] EX. WOOD POLE [Symbol]
PROP. PEDESTAL [Symbol] EX. PEDESTAL [Symbol]
- CONTROLLERS & CABINETS: EX. CABINET W/PAD [Symbol] PROP. CABINET W/PAD [Symbol]
EX. CABINET (NO PAD) [Symbol] PROP. CABINET (NO PAD) [Symbol]
- PULL BOXES: EX. PULL BOX [Symbol] PROP. PULL BOX [Symbol]

INTERCONNECT
EXAMPLE
PLAN VIEW SHEET 1



NOTE:
1. 2" AND 3" CONDUITS
ARE EMPTY EXCEPT AS
NOTED ABOVE.



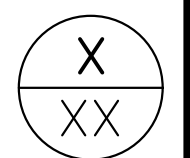


CALCULATED	ABC
CHECKED	ABC

INT. #XXXX: STREET A AT STREET B
COMMUNICATIONS DIAGRAM

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

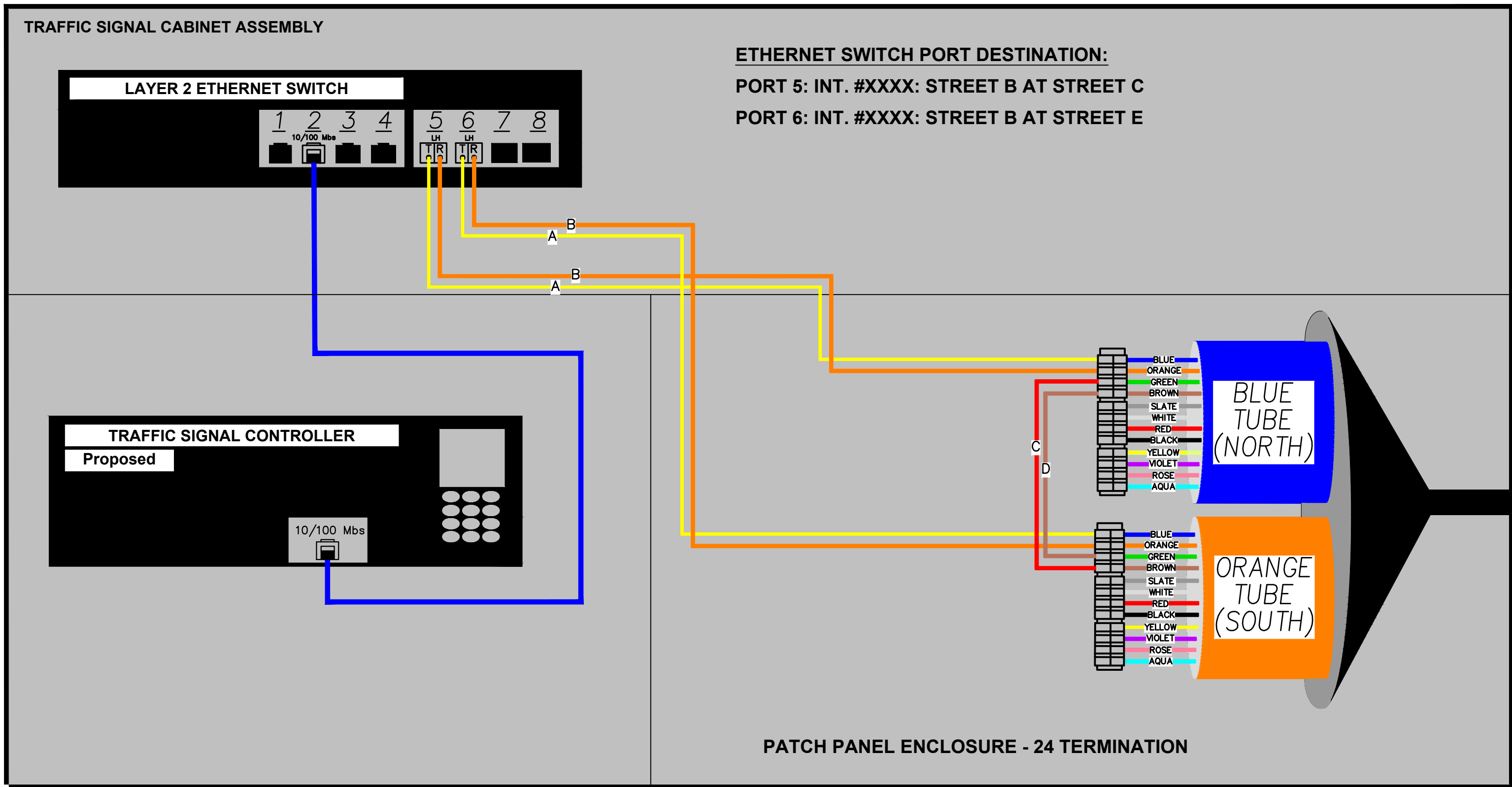
XXXX-E



SAMPLE PLAN LEGEND

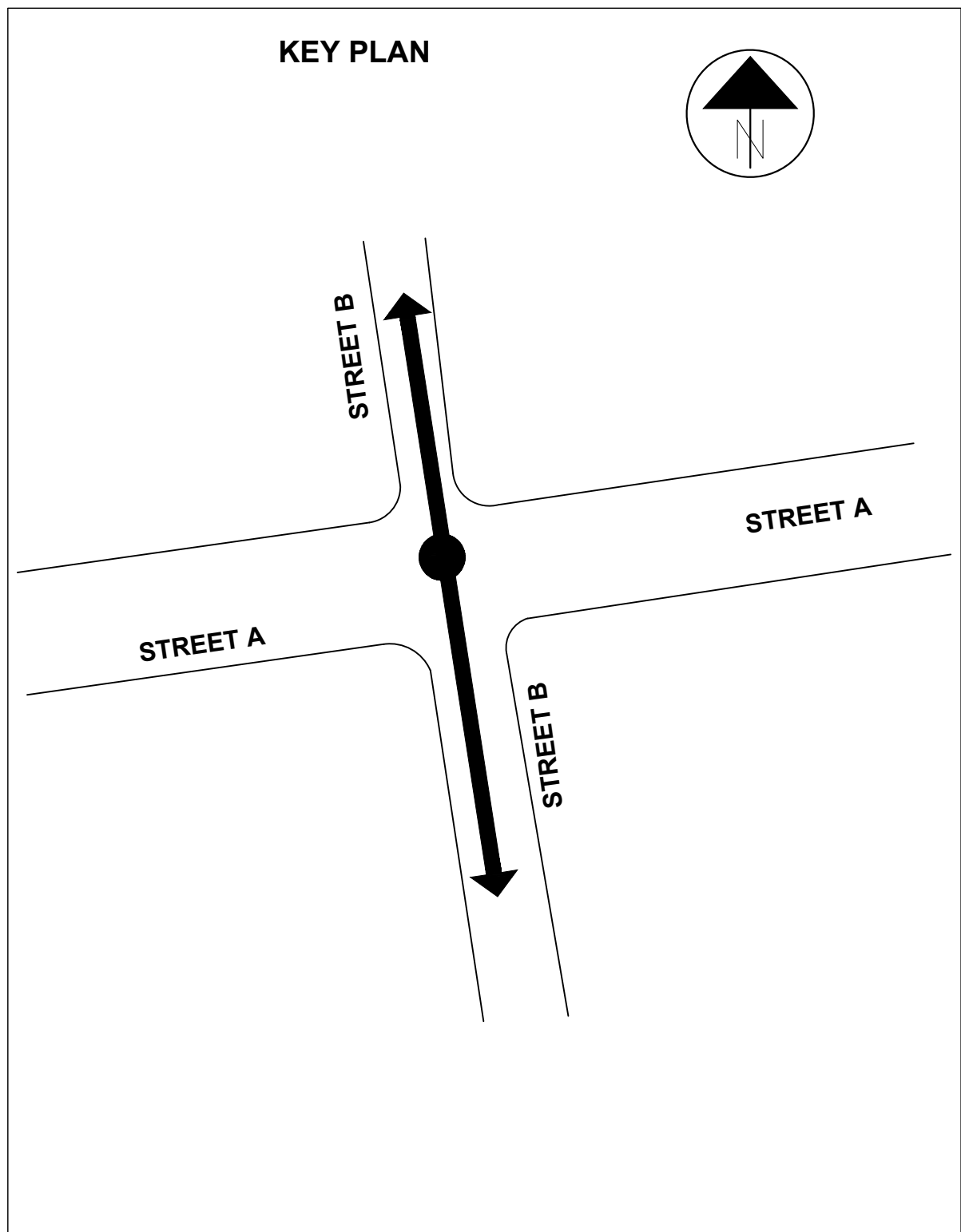
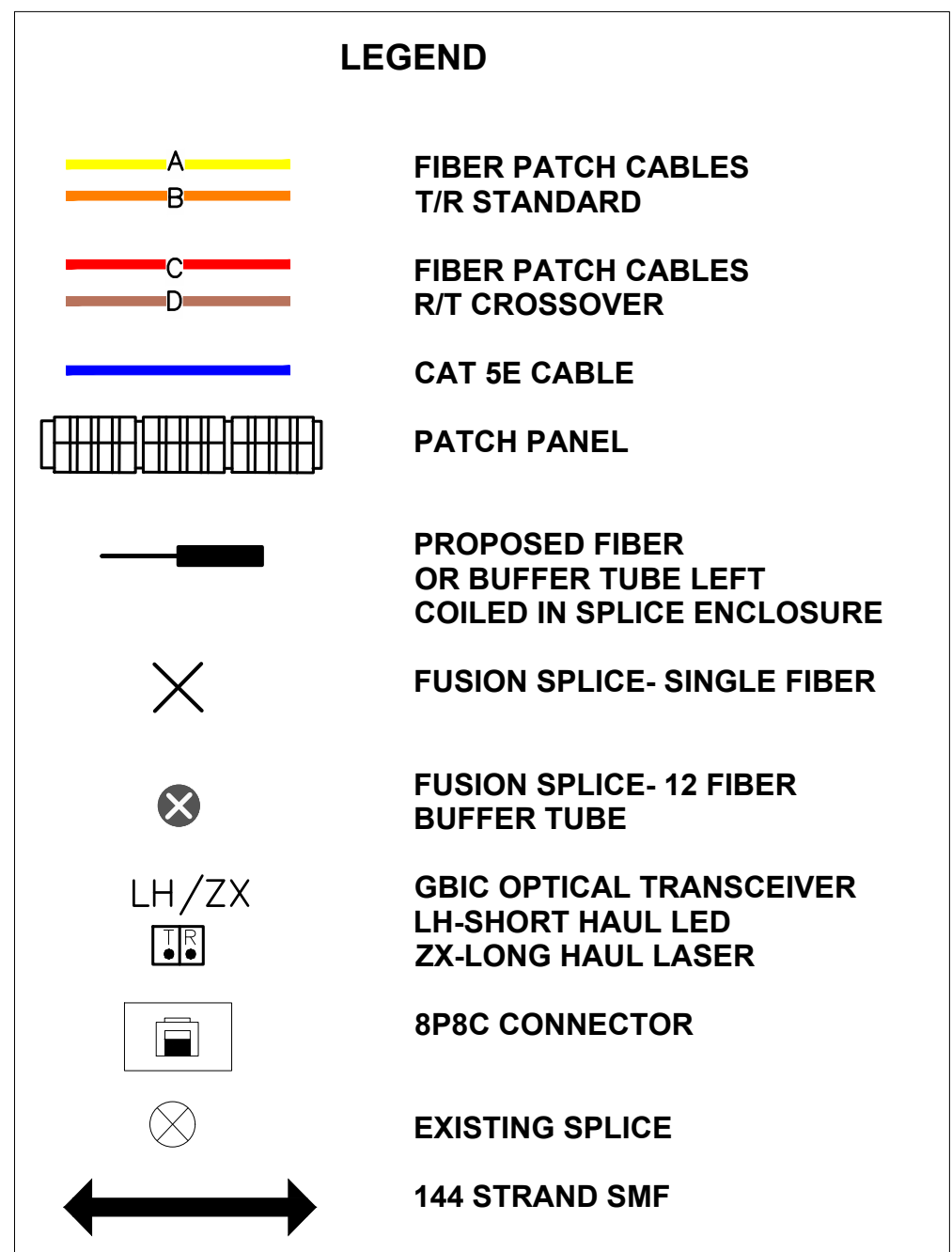
XXXXX = FILL IN INTERSECTION NUMBER

___ = FILL IN COMMUNICATION HUB ADDRESS

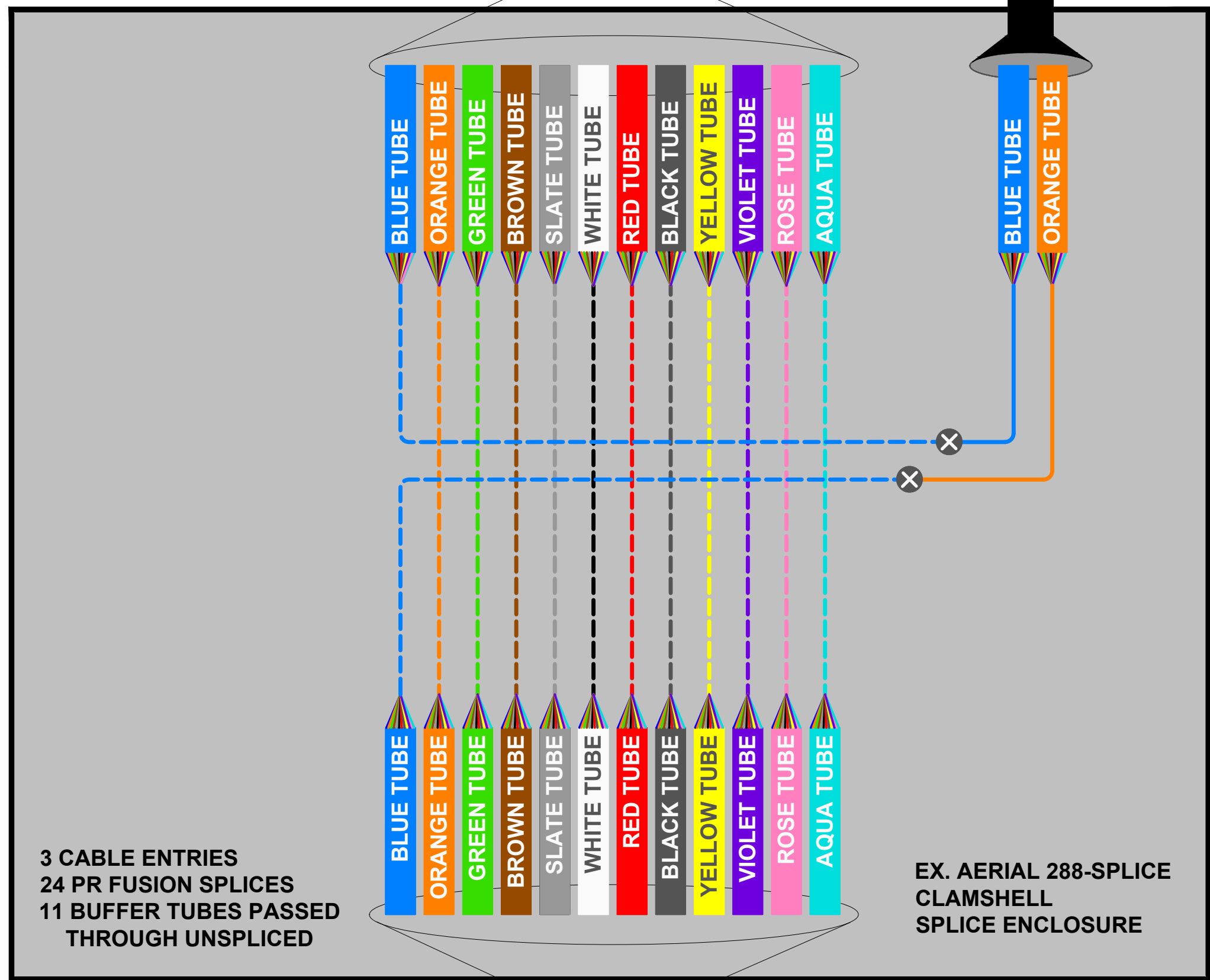


DESIGNER NOTES:

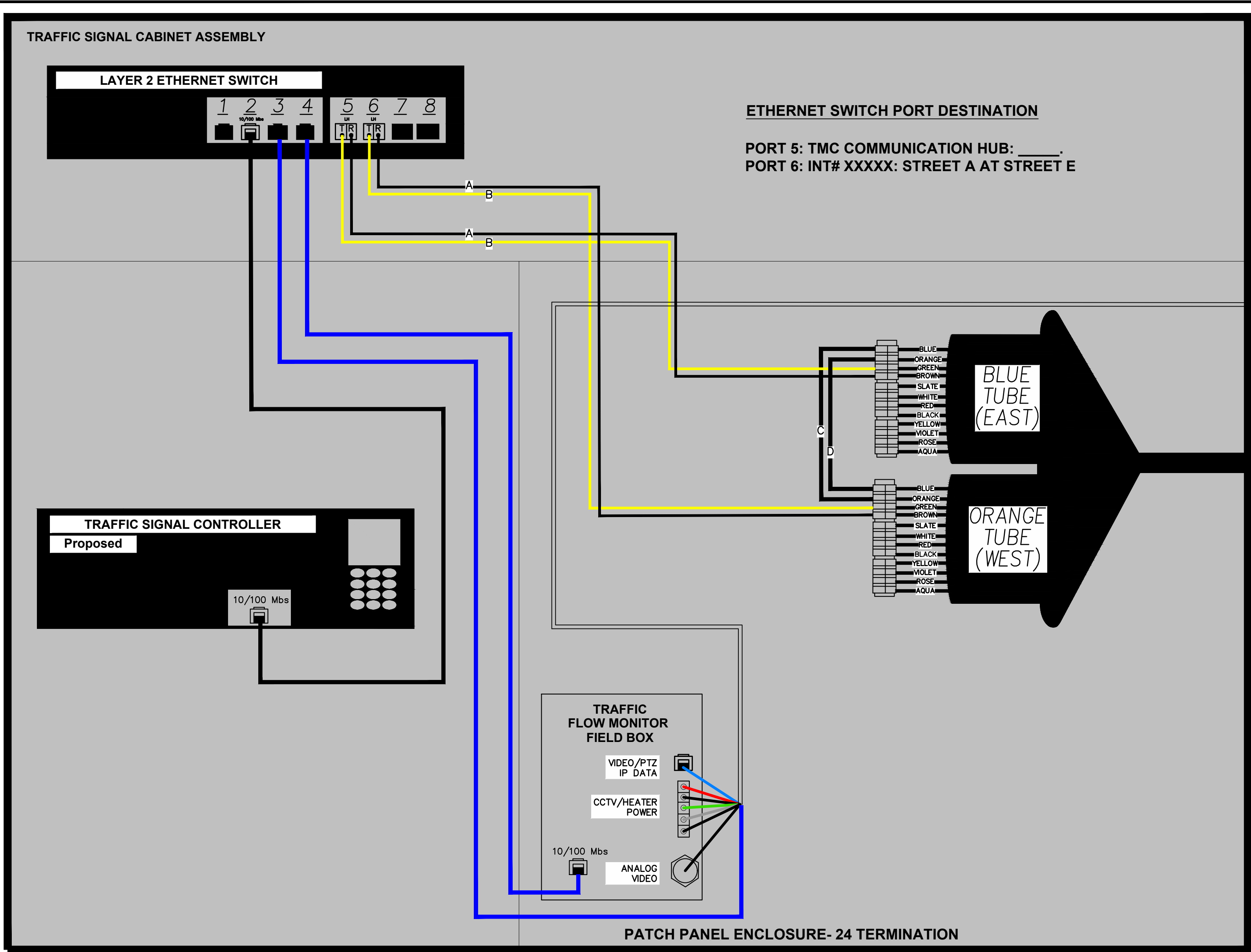
- Existing buffer tubes and patching cables shall use dashed lines.
- Proposed buffer tubes and patching cables shall use solid lines.



INTERCONNECT EXAMPLE
COMMUNICATIONS
DIAGRAM SHEET 1



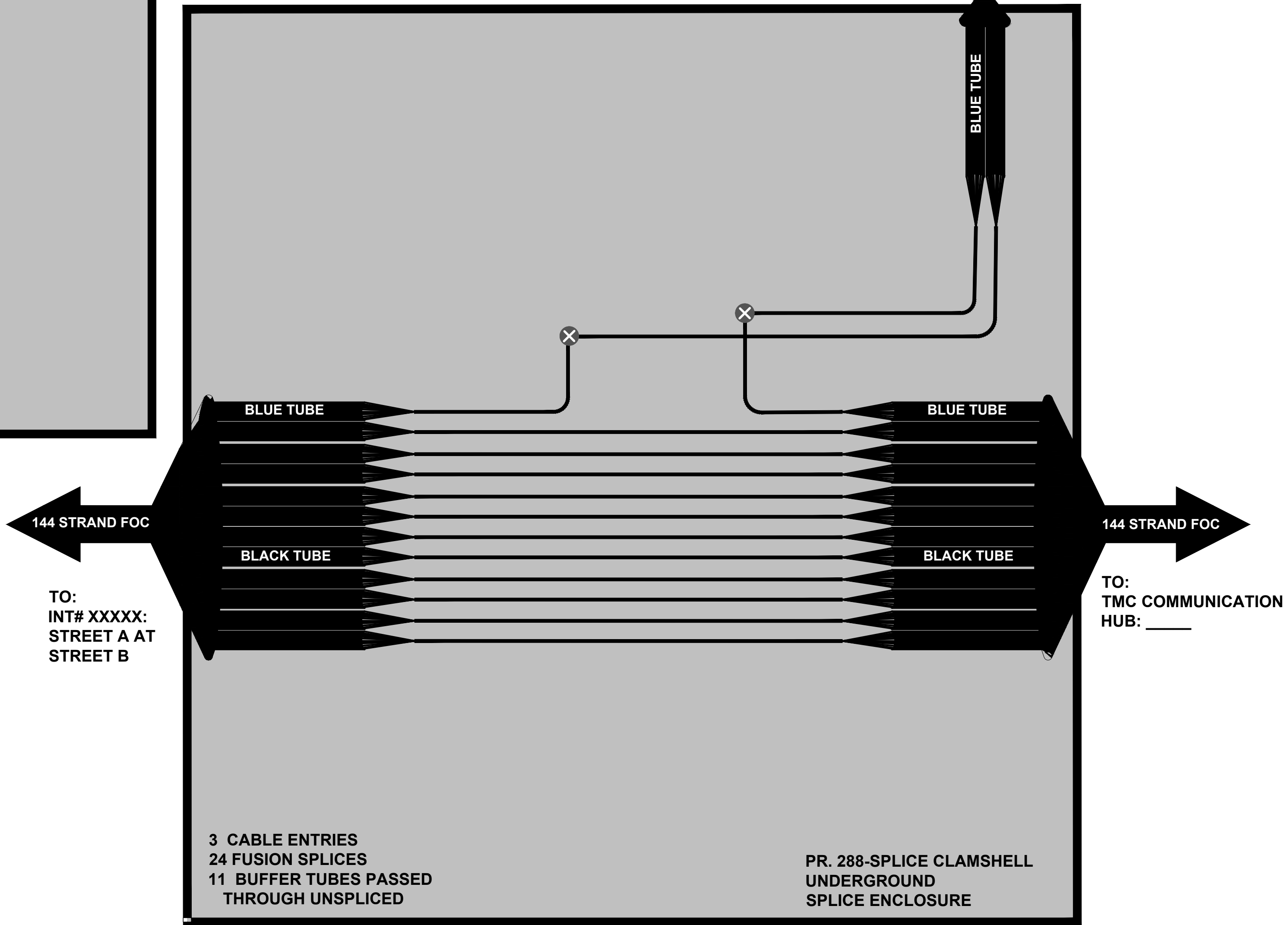
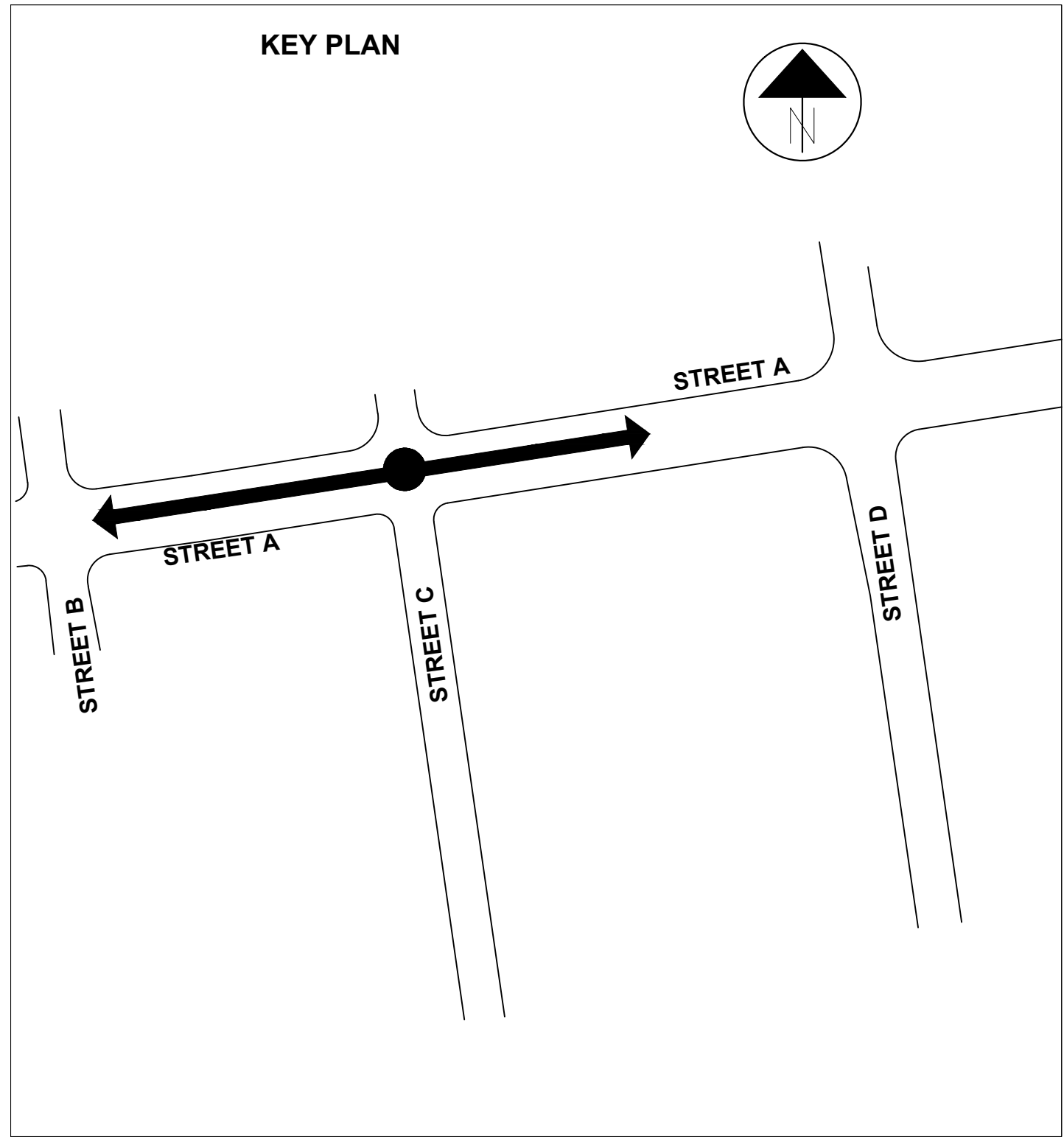
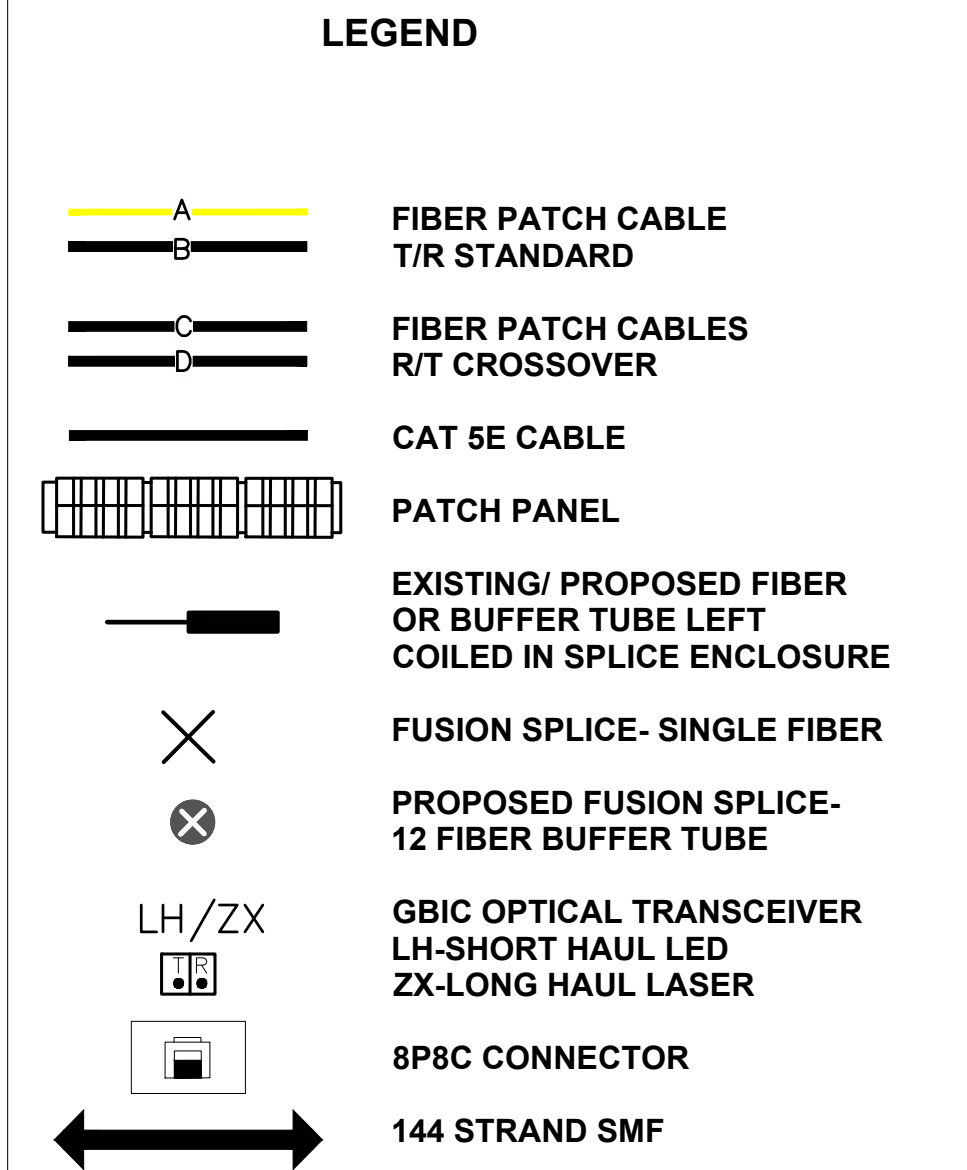
\\20161449.Dwg\04Sheets\03 UPDATED CITY SAMPLE PLANS\Interconnect Communications.dwg, Last Saved By: Iselings, 4/16/2020 6:09 PM, Last Printed By: Salings, Brett, 4/17/2020 4:06 PM (No Xrefs)



SAMPLE PLAN LEGEND

XXXXX = FILL IN INTERSECTION NUMBER

____ = FILL IN COMMUNICATION HUB ADDRESS



INTERCONNECT EXAMPLE COMMUNICATIONS DIAGRAM SHEET 2

INTERSECTION # XXXX

SEE SHEET XX FOR CONSTRUCTION PLAN DETAILS

CALCULATED ABC

CHECKED ABC

INT. #XXXX: STREET A AT STREET C

COMMUNICATIONS DIAGRAM

IMPROVEMENTS OF...

STREET A FROM STREET B TO STREET C

XXXX-E

X XX

STREET LIGHTING NOTES

The street lighting shall be constructed in accordance with the current City of Columbus, Ohio "Construction and Material Specifications" (2018 Edition, Section 1001, titled "Street Lighting"), including all supplements thereto, in force on the date of the contract, shall govern all materials and workmanship involved in the improvements shown on these plans, except as such specifications are modified by the following specifications or by the construction details set forth herein.

Circuit voltage for all luminaires shall be 480 volt, unless otherwise noted.

Centerline of light pole foundation and conduit trench to be placed in accordance with the plan details.

All proposed luminaires shall be 3000K LED.

No splices shall be made to circuit cables except in poles or pull boxes at noted locations.

Trench location shall be deflected around obstacles as noted in this plan.

Where the trench is offset from the centerline of the foundations, the conduit shall be directed toward the ell of the foundation at approximately 45 degree angle. The foundation ells may be aimed out of foundation at approximately 45 degree angles to facilitate connection to conduit with the least amount of bends.

The plan details shall be considered supplemental to MIS Specifications.

Light pole foundations shall be located approximately where shown on plans with exact locations to be determined in the field after consideration is given to the location of underground and overhead utilities, pavements and grades.

It shall be the Contractor's responsibility to provide the anchor bolts and ensure that the bolt size, anchor bolt circle and pattern match the light pole.

All items of work called for on the plans, for which no specific method of payment is provided, shall be performed by the Contractor and the cost of these shall be included in the unit price bid for the various related items. This includes, but is not limited to, such incidental items as relocation of mail boxes, saw cutting and removal and/or relocation of signs, railroad ties, sprinklers, relocating roof or sump drains around light pole foundations, hand digging around underground utilities or other miscellaneous items.

Prior to any painting, the Contractor shall submit paint samples and shop drawings to the City of Columbus. Paint samples shall be representative of the color, type and manufacture that will be used for light pole.

AS BUILT RECORD

The Contractor shall maintain a set of project record documents. These documents shall include reviewed shop drawings, change orders, equipment operating instructions, field test records, and as built drawings. The as built drawing shall be marked legibly in red, the actual location of equipment and conduits as constructed. All equipment and underground conduits installed shall have locations marked in distances off a landmark at least every 25 feet and as necessary at bends for location at a later date. Additionally, the Contractor shall fill-in the as-built coordinate table as shown below.

As-Built Coordinate Table			
Reference No.	Proposed Item	As-Built	
		Northing	Easting
---	Controller		
A-1	Street Light Pole		
A-2	Street Light Pole		
A-3	Street Light Pole		
B-1	Street Light Pole		
B-2	Street Light Pole		
B-3	Street Light Pole		
PB-1	Pull Box		
PB-2	Pull Box		
PB-3	Pull Box		
PB-4	Pull Box		
PB-5	Pull Box		
PB-6	Pull Box		

DESIGNER NOTE:
THE DESIGNER SHALL LIST THE APPROPRIATE MIS SPECIFICATIONS THAT PERTAINS TO THE PROJECT.

SUB-SUMMARY OF LIGHTING ITEMS			
ITEM NO.	QTY	UNIT	ITEM DESCRIPTION
1001		EA	13 Inch x 24 Inch Pull Box (MIS-54)
1001		EA	Streetlight Circuit Riser (MIS-56)
1001		EA	6' Street Light Foundation (MIS-201)
1001		EA	Pole, Aluminum, 6' Bracket, T-Base, 31' Mounting Height, Green (Teardrop) (MIS-305)
1001		CKT FT	3-Wire Underground Circuit (MIS-404)
1001		EA	3-Wire Pole to be Wired (MIS-501)
1001		EA	3-Wire, 480V Pad Mounted Controller (MIS-603)
1001		LF	2-Inch Conduit, Concrete Encased (MIS-700)
1001		LF	2-Inch Conduit, Jacking, Drilling or Pushing (MIS-701)
1001		LF	3-Inch Rigid Steel with 2-Inch Conduit Insert (MIS-702)
1001		EA	Teardrop LED Luminaire, Green (MIS-801)
1001		EA	Foundation Removal (MIS-900)
1001		LUMP	Existing Underground System Removal (MIS-902)
Total Carried to General Summary			

NON-PAYMENT MIS SPECIFICATIONS	
MIS	Item Description
1	Street Light Lockout/Tagout (LOTO)
2	Guidelines for Inspection & Acceptance of Street Lighting Systems
3	Guidelines for Street Lighting "Materials for Approval" Submittal Packages
4	Inspection Checklist
58	Minimum Tree Clearance for Downtown, Urban, & Rural Areas

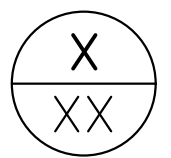
CITY OF COLUMBUS MIS

MIS-1	MIS-404
MIS-2	MIS-501
MIS-3	MIS-603
MIS-4	MIS-700
MIS-54	MIS-701
MIS-56	MIS-702
MIS-58	MIS-801
MIS-201	MIS-900
MIS-305	MIS-902

LIGHTING GENERAL NOTES

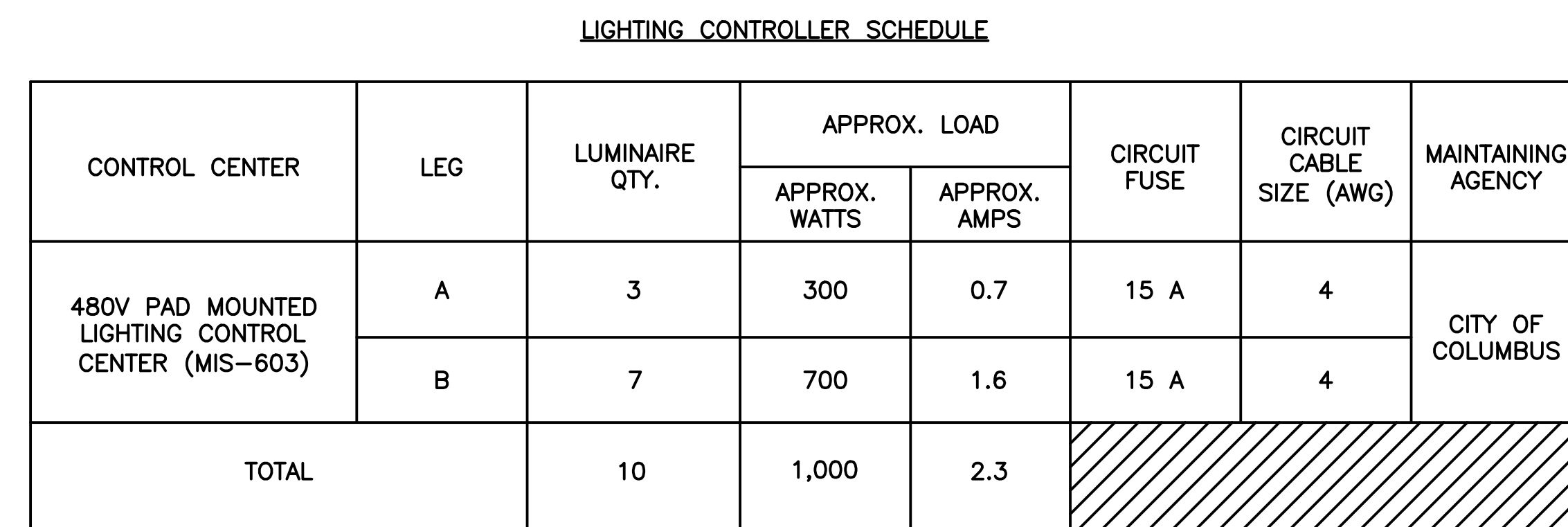

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

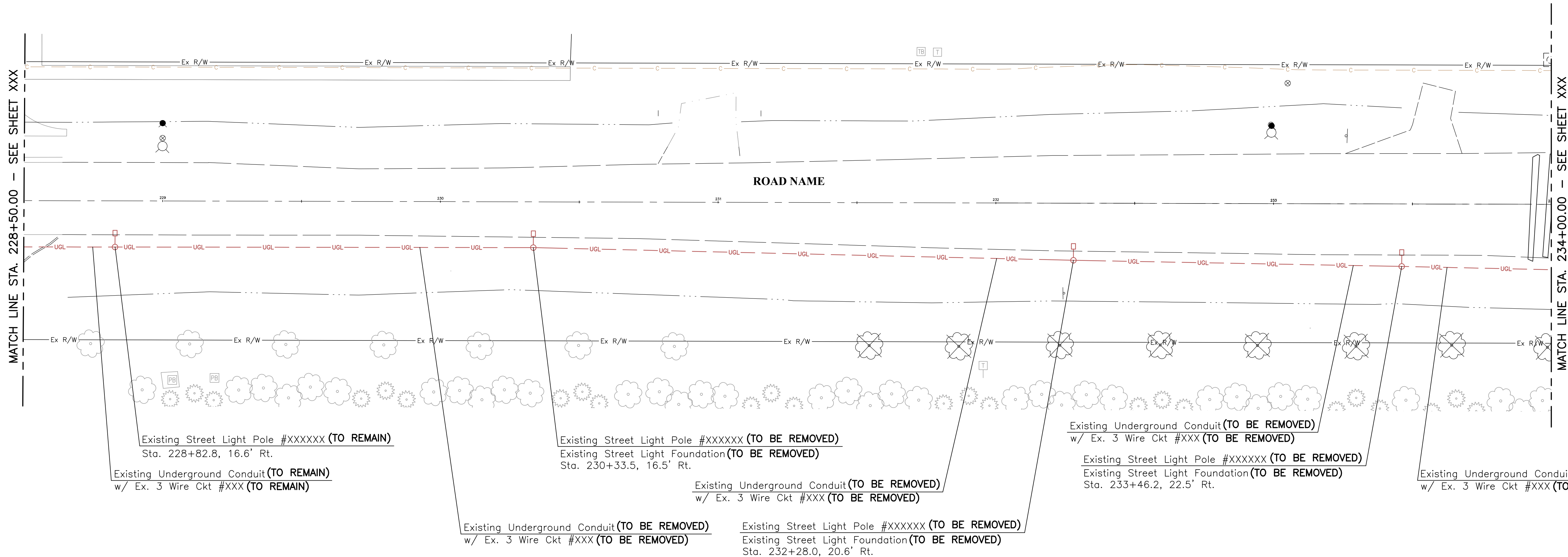





IMPROVEMENTS OF...




***NOTE TO DESIGNER: THE INFORMATION LISTED IN THE TABLE ABOVE IS GIVEN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE DESIGNER TO CALCULATE NEW VALUES FOR THE SPECIFIC LIGHTING DESIGN THAT IS PROPOSED BY A NEW PLAN.



STREET LIGHTING LEGEND



EXISTING LIGHTING CONDUIT (AS NOTED)
W/ EX. 3 WIRE CIRCUIT CABLE (AS NOTED)



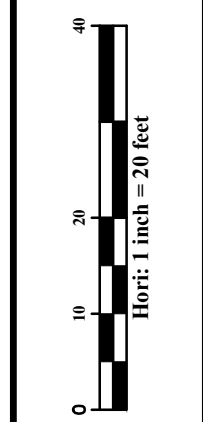
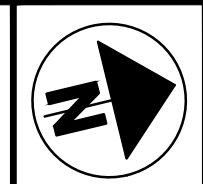
EXISTING STREET LIGHT POLE (AS NOTED)

○

○

○

○

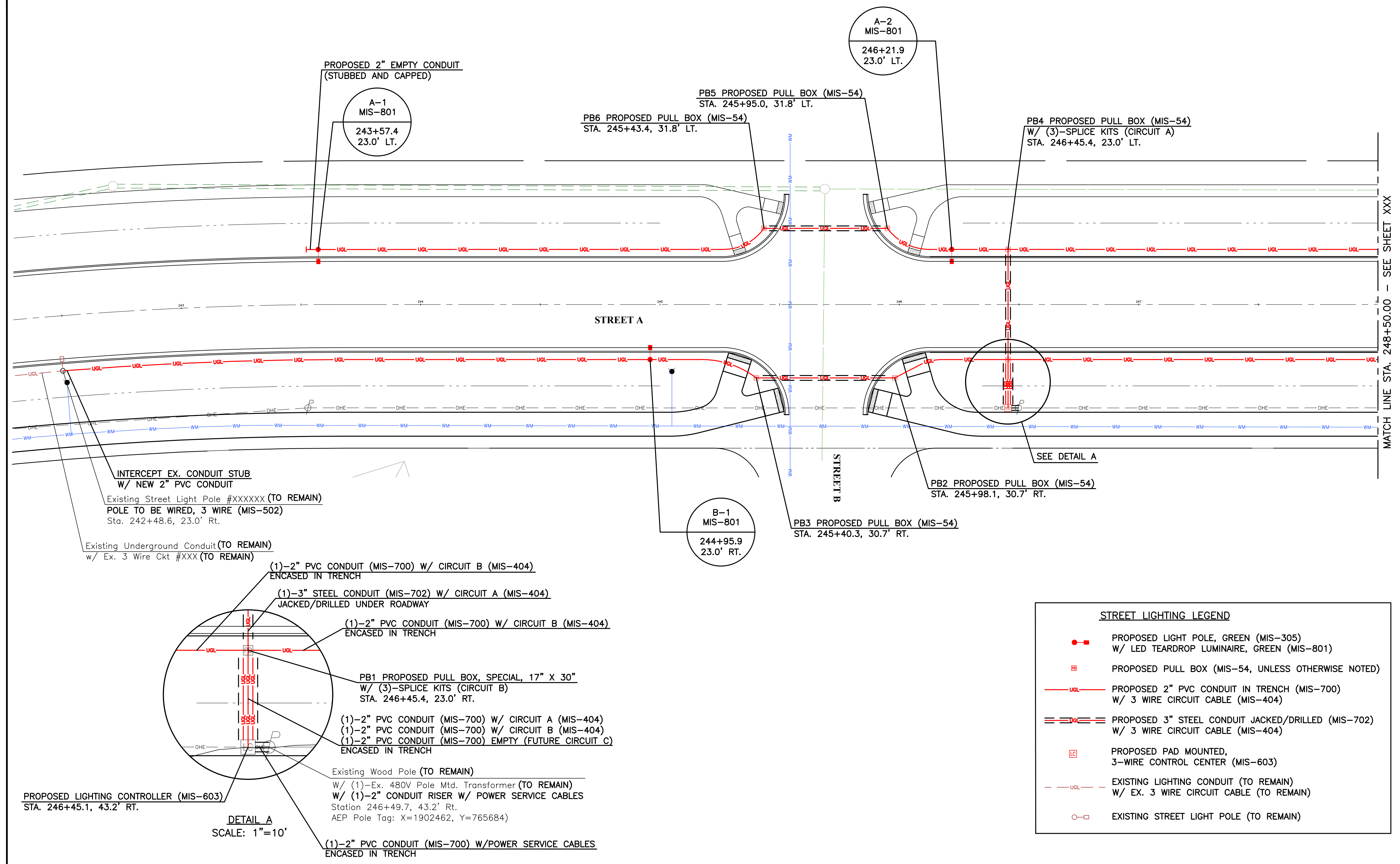
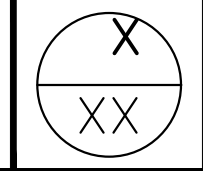


CALCULATED
ABC
CHECKED
ABC

LIGHTING PLAN

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E



STREET LIGHTING LEGEND	
	PROPOSED LIGHT POLE, GREEN (MIS-305) W/ LED TEARDROP LUMINAIRE, GREEN (MIS-801)
	PROPOSED PULL BOX (MIS-54, UNLESS OTHERWISE NOTED)
	PROPOSED 2" PVC CONDUIT IN TRENCH (MIS-700) W/ 3 WIRE CIRCUIT CABLE (MIS-404)
	PROPOSED 3" STEEL CONDUIT JACKED/DRILLED (MIS-702) W/ 3 WIRE CIRCUIT CABLE (MIS-404)
	PROPOSED PAD MOUNTED, 3-WIRE CONTROL CENTER (MIS-603)
	EXISTING LIGHTING CONDUIT (TO REMAIN) W/ EX. 3 WIRE CIRCUIT CABLE (TO REMAIN)
	EXISTING STREET LIGHT POLE (TO REMAIN)

LUMINAIRE SCHEDULE						
Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
Varies (Select from MIS)	Varies	Varies	Varies	Varies	Varies (From Manufacturer)	Varies

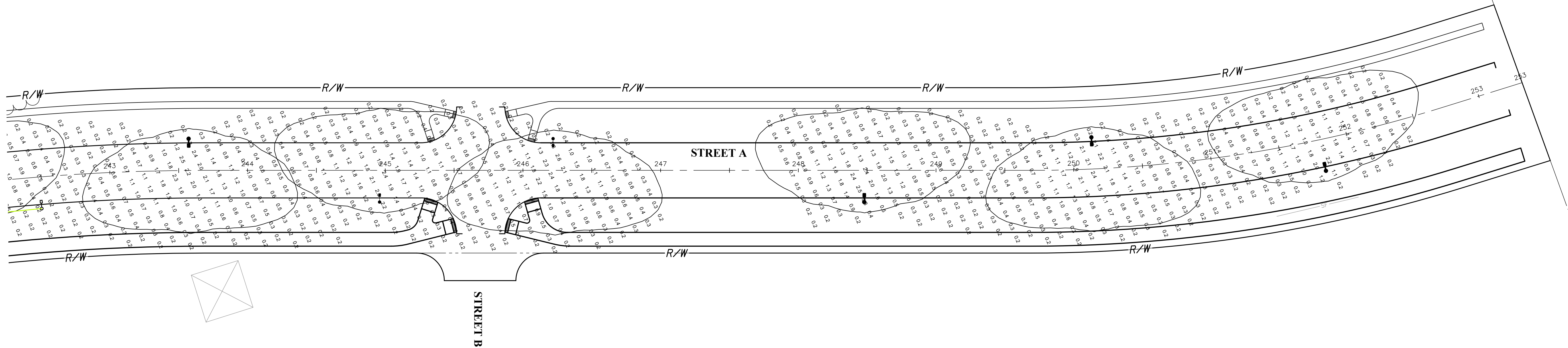
PHOTOMETRIC REQUIREMENTS
Street light pole placement for this project was based on a photometric analysis using (insert design luminaire here). The results of this photometric analysis are detailed within on the included photometric plan sheets. If the specified design luminaires are used for the project, no additional documentation from the Contractor is needed. If one of the other manufacturers as permitted by the City of Columbus Standard MIS Specification is selected for use by the Contractor, the following shall be submitted by the Contractor to the City for review and approval by the City.

–Photometric analysis documenting that the selected luminaire meets the average foot–candle requirements listed in the Photometric Results Table (+/– 0.1 fc) and the average/minimum uniformity ratio meets or exceeds the requirements listed in the Photometric Results Table, using the pole locations as detailed in the plan set.

–Cutsheet of the proposed luminaire indicating that the standard operating wattage is equal to or less than that of the design luminaire.

The Contractor shall contact the City to receive the photometric file used by the project, if needed.

STATISTICS						
Description	Roadway Classification	Avg	Max	Min	Max/Min	Avg/Min
Target	Arterial, Local	0.9 fc	-	-	-	3.0:1
Street A	Arterial, Local	0.9 fc	3.4 fc	0.3 fc	11.3:1	3.0:1

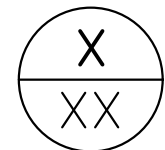


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ABC
CHECKED
ABC

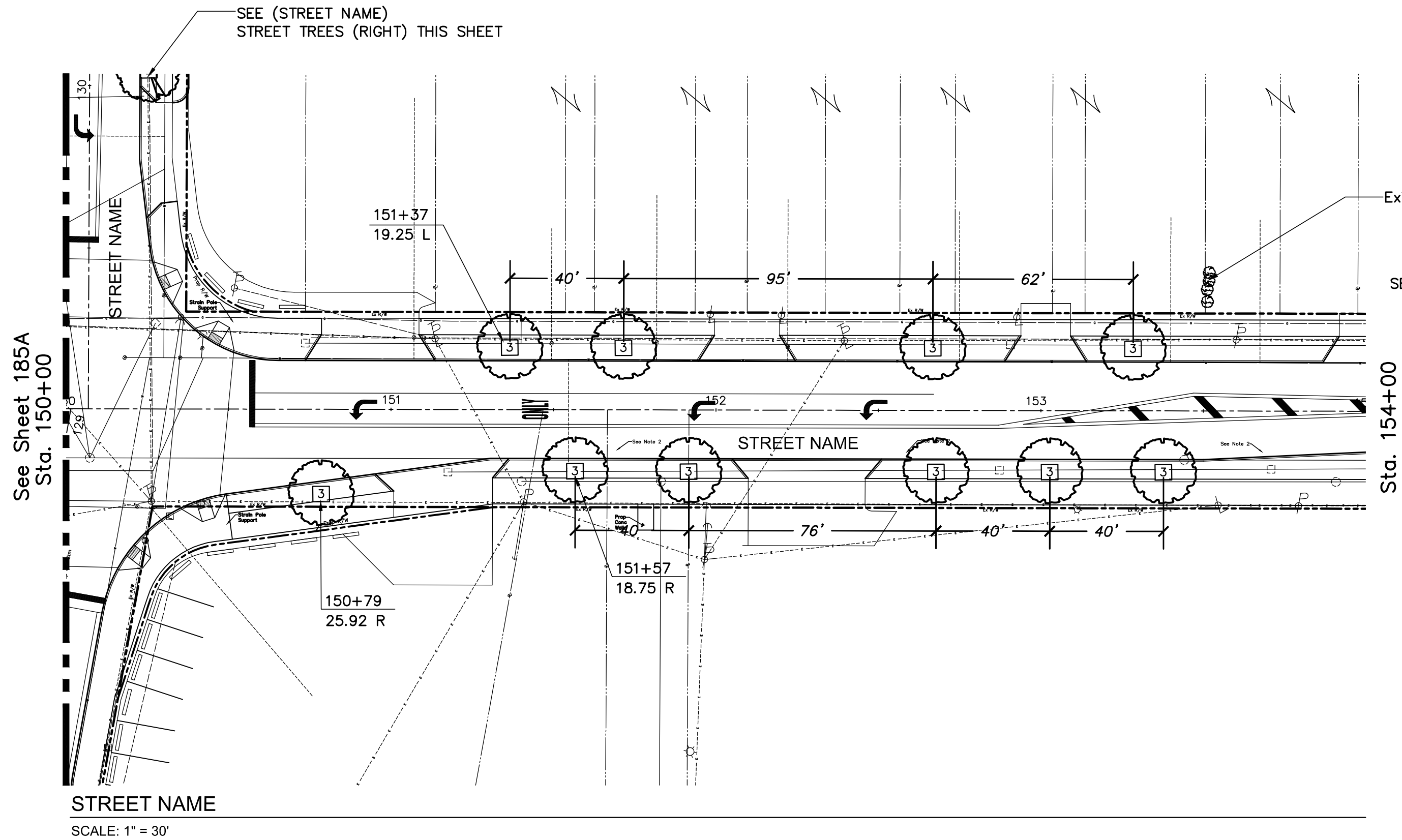
LIGHTING PLAN PHOTOMETRICS

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

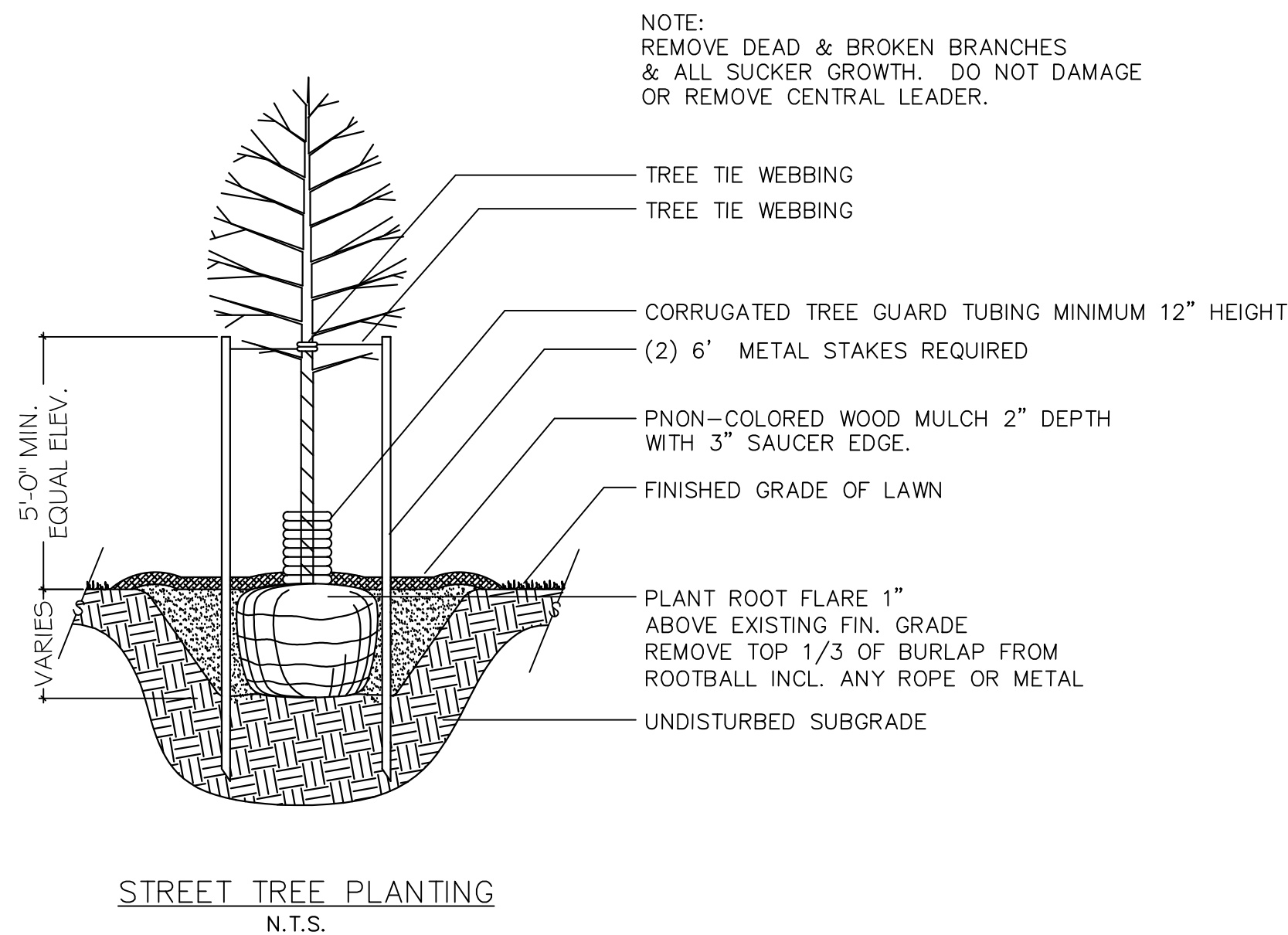
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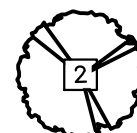
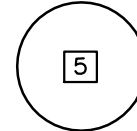
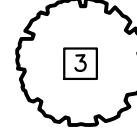



REVISION 6/27/14
J:\Design and Construction\Design\Plan Review\Sample Sheets (E-Plan)\CAD Drawings\17_01 LANDSCAPING.dwg (Landscaping-2)

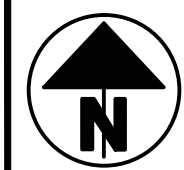
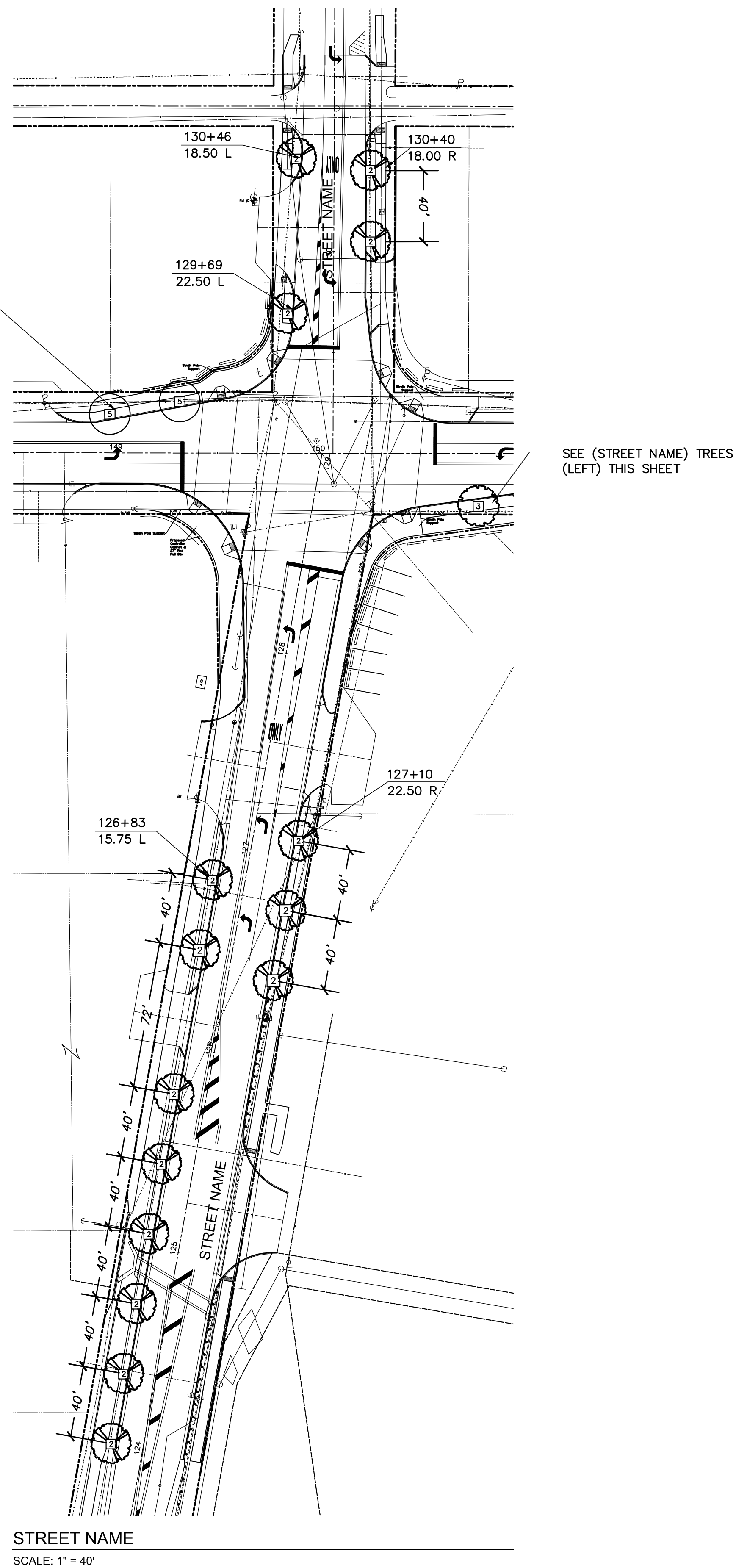


ITEM NO.	ESTIMATE QUANTITIES	KEY	UNIT	DESCRIPTION		
				PLANTING	SIZE	COMMENTS
661	44	ACE	EACH	ACER ginnala 'MOZART' MOZART AMUR MAPLE	2" CAL.	B&B
661	32	MAA	EACH	MAACKIA amurensis 'STARBURST' STARBURST AMUR MAACKIA	2" CAL.	B&B
661	10	SYR	EACH	SYRINGA retic ulata 'IVORY SILK' IVORY SILK TREE LILAC	2" CAL.	B&B, TREE FORM
				MISC.		
662	2150		GAL.	LANDSCAPE WATERING (25 GAL./TREE)		



LEGEND:

-  ACE — MOZART AMUR MAPLE
-  MAA — STARBURST AMUR MAACKIA
-  SYR — IVORY SILK TREE LILAC
-  EXISTING DECIDUOUS TREE TO REMAIN
-  EXISTING EVERGREEN TREE TO REMAIN
-  EXISTING SHRUBS TO REMAIN



HORIZ.
SCALE

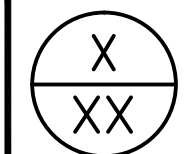


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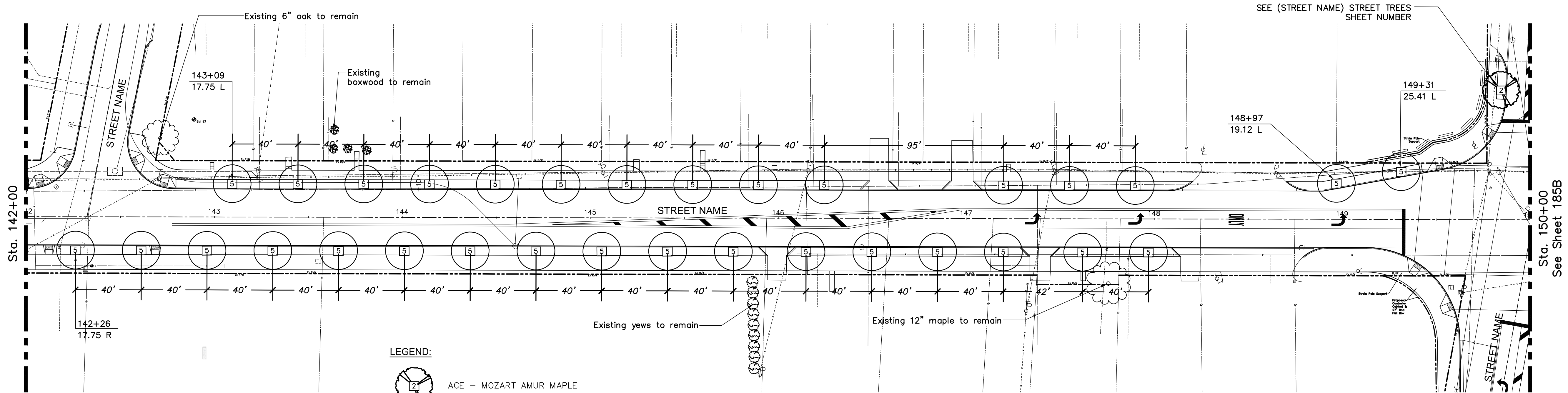
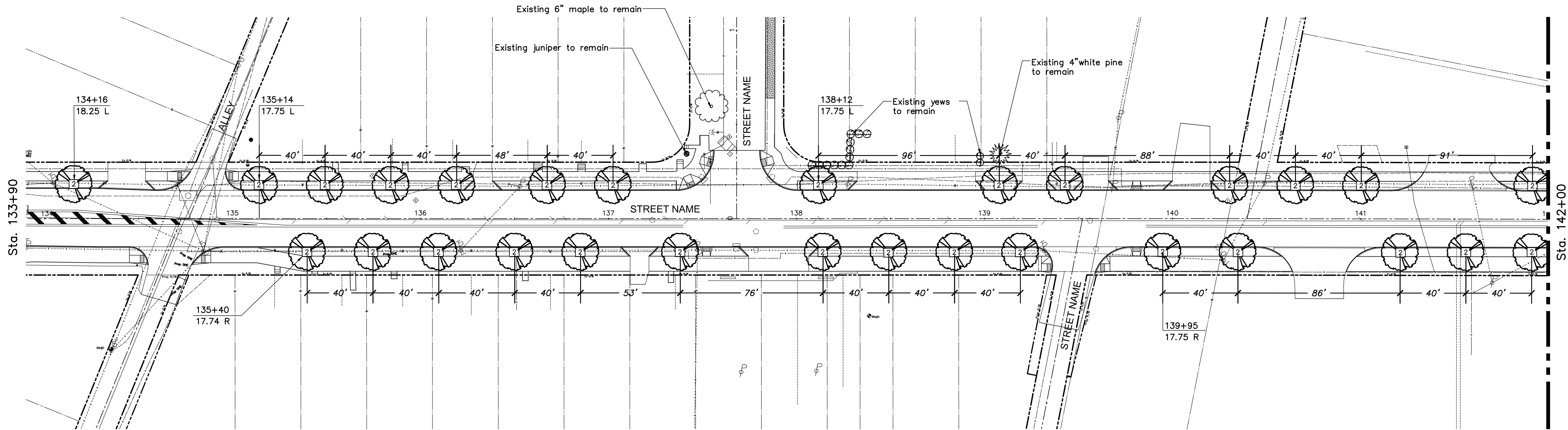
CHECKED

LANDSCAPE PLAN STA. 150+00 TO STA. 154+00
LANDSCAPE PLAN STA. 124+00 TO STA. 130+50

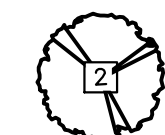
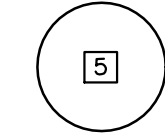
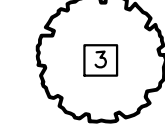



PROJECT NAME



XXXX-E

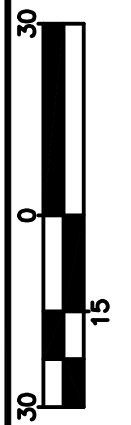


LEGEND:

-  ACE - MOZART AMUR MAPLE
-  MAA - STARBURST AMUR MAACKIA
-  SYR - IVORY SILK TREE LILAC
-  EXISTING DECIDUOUS TREE TO REMAIN
-  EXISTING EVERGREEN TREE TO REMAIN
-  EXISTING SHRUBS TO REMAIN



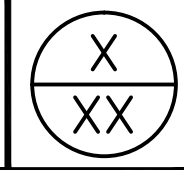
HORIZ.
SCALE



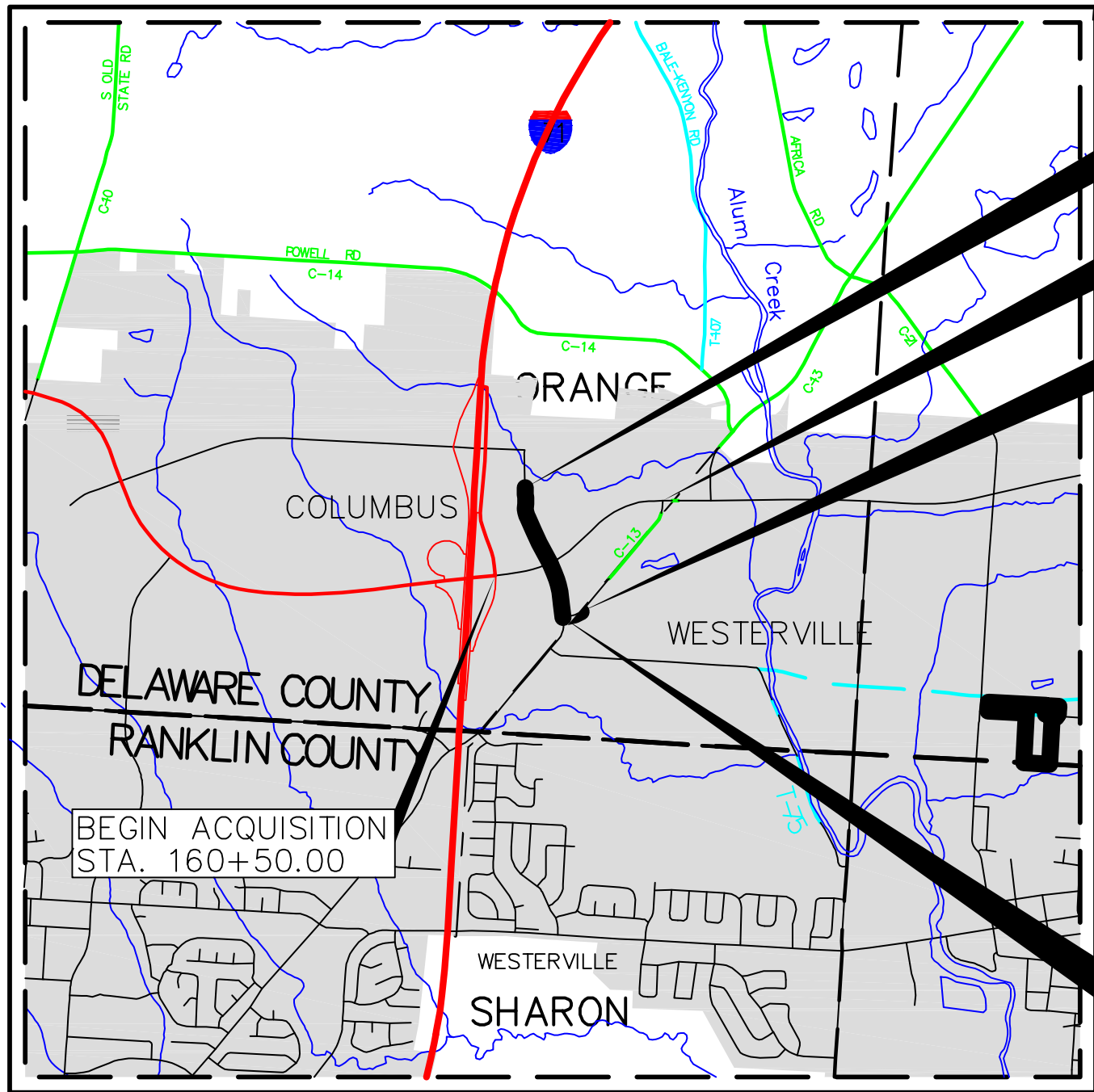
CALCULATED
CHECKED

LANDSCAPE PLAN
STA. 133+90 TO STA. 150+00

PROJECT NAME



XXXX-E



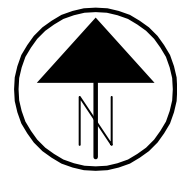
LOCATION MAP

LATITUDE: 40°08'40" N LONGITUDE: 82°57'50" W

SCALE IN MILES

0 0.5 1 1.5 2

PORTION TO BE IMPROVED



UTILITY OWNERS

SEE SHEET 2 FOR UTILITY OWNER LIST

CONVENTIONAL SYMBOLS
SEE SHEET 2 FOR CONVENTIONAL SYMBOLS

I, _____ P.S. have established the proposed property lines, calculated the Gross Take, Present Roadway Occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire these parcels as shown herein. As part of this work I have set right of way monuments at the property corners, property line intersection, points along the right of way and/or angle points on the right of way, Section Corners and other points as shown herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

DATE _____

RIGHT OF WAY
LEGEND SHEET
ARTERIAL STREET
REHABILITATION —
POLARIS PARKWAY
DELAWARE COUNTY
ORANGE TOWNSHIP
CITY OF COLUMBUS
CITY OF WESTERVILLE
UNITED STATES MILITARY DISTRICT
QUARTER TWP. 4, T. 3 N., R. 18 W.
FARM LOT 17, 18, 19 & 20

INDEX OF SHEETS:

LEGEND SHEET	1
UTILITY OWNER LIST	2
CENTERLINE PLAT	3-5
PROPERTY MAP	6-7
SUMMARY OF ADDITIONAL R/W	8-11
SUMMARY OF R/W ENCROACHMENTS	12
R/W TOPOGRAPHIC AND BOUNDARY SHEETS	13-54

STRUCTURE KEY

	RESIDENTIAL
	COMMERCIAL
	OUT-BUILDING

PROJECT DESCRIPTION

PROJECT CONSISTS OF THE WIDENING OF 0.57 MILE OF POLARIS PARKWAY FROM I.R. 71 TO OLDE WORTHINGTON ROAD TO PROVIDE A THIRD THROUGH LANE IN BOTH DIRECTIONS. THE PROJECT ALSO INCLUDES THE FULL DEPTH REPLACEMENT OF 0.39 MILE OF WORTHINGTON ROAD/ORION PLACE, INCLUDING THE CONSTRUCTION OF A TWO-LANE ROUNDABOUT AT THE INTERSECTION OF OLDE WORTHINGTON ROAD. NUMEROUS OTHER IMPROVEMENTS INCLUDING TRAFFIC SIGNAL REPLACEMENT, SIDEWALK AND SHARED-USED PATHS, RETAINING WALL CONSTRUCTION, LANDSCAPING AND STREET LIGHTING ARE PART OF THIS PROJECT.

PROJECT CONTROL

OHIO STATE PLANE GRID, NORTH ZONE
PROJECT ADJUSTMENT FACTOR 0.99996845

State whether the coordinates are grid or ground. If the coordinates are ground coordinates then include project scale factor and the geoid file used.

PLANS PREPARED BY:

FIRM NAME : _____

R/W DESIGNER: _____

R/W REVIEWER: _____

FIELD REVIEWER: _____

PRELIMINARY FIELD REVIEW DATE: _____

TRACINGS FIELD REVIEW DATE: _____

OWNERSHIP VERIFIED BY: _____

DATE COMPLETED: _____

PLAN COMPLETION DATE: _____

I, _____ HAVE CONDUCTED A SURVEY OF THE EXISTING CONDITIONS FOR THE CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE IN JUNE, 2015. THE RESULTS OF THAT SURVEY ARE CONTAINED HEREIN.

AS A PART OF THIS PROJECT I HAVE REESTABLISHED THE LOCATIONS OF THE EXISTING PROPERTY LINES AND THE EXISTING CENTERLINE OF RIGHT OF WAY FOR PROPERTY TAKES CONTAINED HEREIN. ALL OF MY WORK CONTAINED HEREIN WAS CONDUCTED IN ACCORDANCE WITH OHIO ADMINISTRATIVE CODE 4733-37 COMMONLY KNOWN AS "MINIMUM STANDARDS FOR BOUNDARY SURVEYS IN THE STATE OF OHIO" UNLESS NOTED. THE WORDS I AND MY AS USED HEREIN ARE TO MEAN EITHER MYSELF OR SOMEONE WORKING UNDER MY DIRECT SUPERVISION.

I FURTHER CERTIFY THAT THE PRIMARY CONTROL FOR THE PROJECT AS SHOWN HEREIN WERE CONSTRUCTED AND ESTABLISHED IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION'S SURVEY AND MAPPING SPECIFICATIONS, DATED JULY 15, 2011 FOR A MINOR PROJECT AND MEET THE ACCURACY REQUIREMENTS AS SET FORTH THEREIN. ALL OBSERVATION DATA AND RMSE CALCULATIONS ARE ON FILE AND AVAILABLE AT THE REQUEST OF THE OHIO DEPARTMENT OF TRANSPORTATION

DATE _____

UTILITY OWNERS							
TYPE	NAME & ADDRESS	TYPE	NAME & ADDRESS	TYPE	NAME & ADDRESS	TYPE	NAME & ADDRESS
SANITARY	CITY OF COLUMBUS – DIVISION OF SEWERAGE AND DRAINAGE 1250 FAIRWOOD AVE. COLUMBUS, OHIO 43206 CONTACT: MR. MARK TIMBROOK PHONE: 614-645-0298 EMAIL: MDTIMBROOK@COLUMBUS.GOV	GAS	COLUMBIA GAS OF OHIO 3550 JOHNNY APPLESEED COURT COLUMBUS, OHIO 43231 CONTACT: MS. JENNIFER GORE PHONE: 614-818-2126 FAX: 614-818-2151 EMAIL: JGORE@NISOURCE.COM	FIBER OPTIC	COLUMBUS FIBERNET, LLC 1366 DUBLIN ROAD COLUMBUS, OHIO 43215 CONTACT: MR. MATT BLACKSTONE PHONE: 614-921-8524/614-395-9701 EMAIL: XXXXXXXXXXXXX CONTACT: MR. SAMUEL THOMAS EMAIL: STHOMAS@TEAMFISHEL.COM	ELECTRIC	AMERICAN ELECTRIC POWER – AERIAL DISTRIBUTION 850 TECH CENTER DRIVE GAHANNA, OHIO 43230 CONTACT: MR. ROD SLONEKER PHONE: 614-883-6817/614-818-2151 FAX: 614-883-6868 EMAIL: RISLONEKER@AEP.COM
CABLE	TIME WARNER CABLE 3760 INTERCHANGE DRIVE COLUMBUS, OHIO 43204 CONTACT: MR. RAY MAURER PHONE: 614-481-5262 EMAIL: RAY.MAURER@TWCABLE.COM	CITY	CITY OF WESTERVILLE 64 E. WALNUT STREET WESTERVILLE, OHIO 43081 CONTACT: MR. JEFF KESSLER PHONE: 614-901-6669 EMAIL: JEFF.KESSLER@WESTERVILLE.ORG	ELECTRIC/ WATER	CITY OF COLUMBUS – DIVISION OF POWER AND WATER 910 DUBLIN ROAD, THIRD FLOOR COLUMBUS, OHIO 43215 CONTACT: MR. BILL STOVER PHONE: 614-645-3028	TELEPHONE	AT&T – OHIO 111 N FOURTH STREET COLUMBUS, OHIO 43215 CONTACT: MR. GARY VAN ALMSICK PHONE: 614-223-7276 EMAIL: GV2758@ATT.COM
ELECTRIC	CITY OF COLUMBUS – DIVISION OF POWER 3568 INDIANOLA AVENUE COLUMBUS, OHIO 43214 CONTACT: CHRIS VOGEL PHONE: 614-645-6963 EMAIL: CVOGEL@COLUMBUS.GOV	WATER	CITY OF COLUMBUS – DIVISION OF WATER 910 DUBLIN ROAD COLUMBUS, OHIO 43215 CONTACT: MR. TIM HUFFMAN, P.E. PHONE: 614-645-0856 EMAIL: TEHUFFMAN@COLUMBUS.GOV	ELECTRIC	AMERICAN POWER AND LIGHT, LLC P.O. BOX 182937 COLUMBUS, OHIO 43218 CONTACT: N/A (CUSTOMER SERVICE) PHONE: 888-850-0098 EMAIL: CUSTOMERSERVICE@ELECTRICAPL.COM	CABLE/ TELEPHONE	LIGHTOWER (FIBERTECH NETWORKS) 470 SCHROCK ROAD, SUITE B COLUMBUS, OH 43229 CONTACT: MR. JON TARNOWSKI PHONE: 585-445-5813 EMAIL: JTARNOWSKI@LIGHTOWER.COM
CITY	CITY OF COLUMBUS – DIVISION OF CONSTRUCTION MANAGEMENT 1820 E. 17TH AVENUE COLUMBUS, OHIO 43219 CONTACT: MR. DENNY MCELROY PHONE: 614-645-7799	CABLE/ TELEPHONE	XO COMMUNICATIONS 6900 SOUTHPOINTE PARKWAY BRECKSVILLE, OHIO 44141 CONTACT: MR. DALE FERGUSON PHONE: 216-619-3492 EMAIL: DALE.FERGUSON@XO.COM	CABLE/ TELEPHONE	LEVEL 3 COMMUNICATIONS 250 W. OLD WILSON BRIDGE ROAD, SUITE 130 WORTHINGTON, OHIO 43085 CONTACT: MR. STEVE KAUFFMAN PHONE: 614-255-2112 EMAIL: STEVE.KAUFFMAN@LEVEL3.COM	GAS	SUBURBAN NATURAL GAS 2626 LEWIS CENTER DRIVE LEWIS CENTER, OHIO 43035 CONTACT: MR. AARON ROLL PHONE: 740-548-2450 EMAIL: AROLL@SNGCO.COM
WATER	DELCO WATER – ASSISTANT ENGINEER 6658 OLENTANGY RIVER ROAD DELAWARE, OHIO 43015 CONTACT: MR. WILLIAM HAMILTON PHONE: 740-548-7746 EMAIL: DWOLF@DELCOWATER.COM	TELEPHONE	VERIZON BUSINESS (A.K.A. MCI) – OUTSIDE PLANT ENGINEER 120 RAVINE STREET AKRON, OHIO 44303 CONTACT: MR. AL GUEST PHONE: 330-253-8267 EMAIL: ALLAN.GUEST@VERIZON.COM	CITY	CITY OF COLUMBUS – TRAFFIC SIGNALS 1820 E. 17TH AVENUE COLUMBUS, OHIO 43219 CONTACT: MR. TIM SWAUGER PHONE: 614-724-2022 FAX: 614-645-5967 EMAIL: TISWAUGER@COLUMBUS.GOV	ELECTRIC	CONSOLIDATED ELECTRIC COOPERATIVE, INC. – DIRECTOR OF ENGINEERING 5255 STATE ROUTE 95, PO BOX 111 MT GILEAD, OHIO 43338 CONTACT: MR. DAN AMATO PHONE: 1-888-891-7224 EMAIL: DAMATO@CONSOLIDATED.COOP
TELEPHONE	PRIME TECH (LEVEL 3 COMMUNICATIONS) 4505 MUHLHAUSER ROAD HAMILTON, OHIO 45011 CONTACT: MR. ERIC BIEHLE PHONE: 513-942-6000, EXT. 111 ERIC@PRIMETECHUSA.COM	INTERNET/ CABLE	WOW INTERNET, CABLE, & PHONE 3675 CORPORATE DRIVE COLUMBUS, OHIO 43231 CONTACT: MR. MARK FREY ENGINEER: ROB MILLER UTILITY ONE PHONE: 614-800-4934 EMAIL: RMILLER.UTILITYONE@OUTLOOK.COM	CITY	CITY OF COLUMBUS DEPARTMENT OF TECHNOLOGY CITY HALL, 90 WEST BROAD STREET, ROOM 316 COLUMBUS, OHIO 43215 CONTRACTOR LINE: 614-645-7756 CABLE LOCATE FAX: 614-645-6627	CITY	CITY OF COLUMBUS SUPPORT SERVICES DIVISION – COMMUNICATIONS 4211 GROVES ROAD COLUMBUS, OHIO 43232 TELEPHONE: 614-724-7047 FAX: 614-645-6588 RADIO ROOM: 614-724-4006

LISTED ABOVE ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS

ABBREVIATIONS

G.L.....GAS LINE
W.L.....WATERLINE
E.....UNDERGROUND ELECTRIC
T.....UNDERGROUND TELEPHONE
OH-E.....OVERHEAD ELECTRIC
OH-COMB.....OVERHEAD ELECTRIC & TELEPHONE
SAN.....SANITARY SEWER
ICV.....IRRIGATION CONTROL VALVE
(DND).....DO NOT DISTURB
(TBR).....TO BE REMOVED
(TBRO).....TO BE REMOVED BY OTHERS

	EXISTING CONDITIONS LINETYPES	PROPOSED LAYOUT LINETYPES
CENTERLINE SURVEY/CONSTRUCTION	_____	- - - - -
EDGE OF PAVEMENT	_____	_____
CURB	=====	=====
SIDEWALK/DRIVEWAY/SUP	_____	_____
FENCE	—X—X—X—	—X—X—X—
GUARDRAIL	•••••	•••••
RIGHT OF WAY	—Ex. R/W—	—R/W—
UTILITY EASEMENT	—EX U—	—U—
PERMANENT EASEMENT	—EX P—	—P—
CHANNEL EASEMENT	—EX CH—	—CH—
HIGHWAY EASEMENT	—EX SH—	—SH—
L/A HIGHWAY EASEMENT	—EX L/A—	—L/A—
SEWER EASEMENT	—EX S—	—S—
DITCH FLOW LINE	←.....←	◀-----
LANDSCAPE BED	
PROPERTY LINE/LOT LINE	_____P_____	
CORP LINE	////////////////////	
TEMP CONSTRUCTION EASEMENT		—TMP—
CONSTRUCTION LIMITS		- . . - . . - . . - . . -

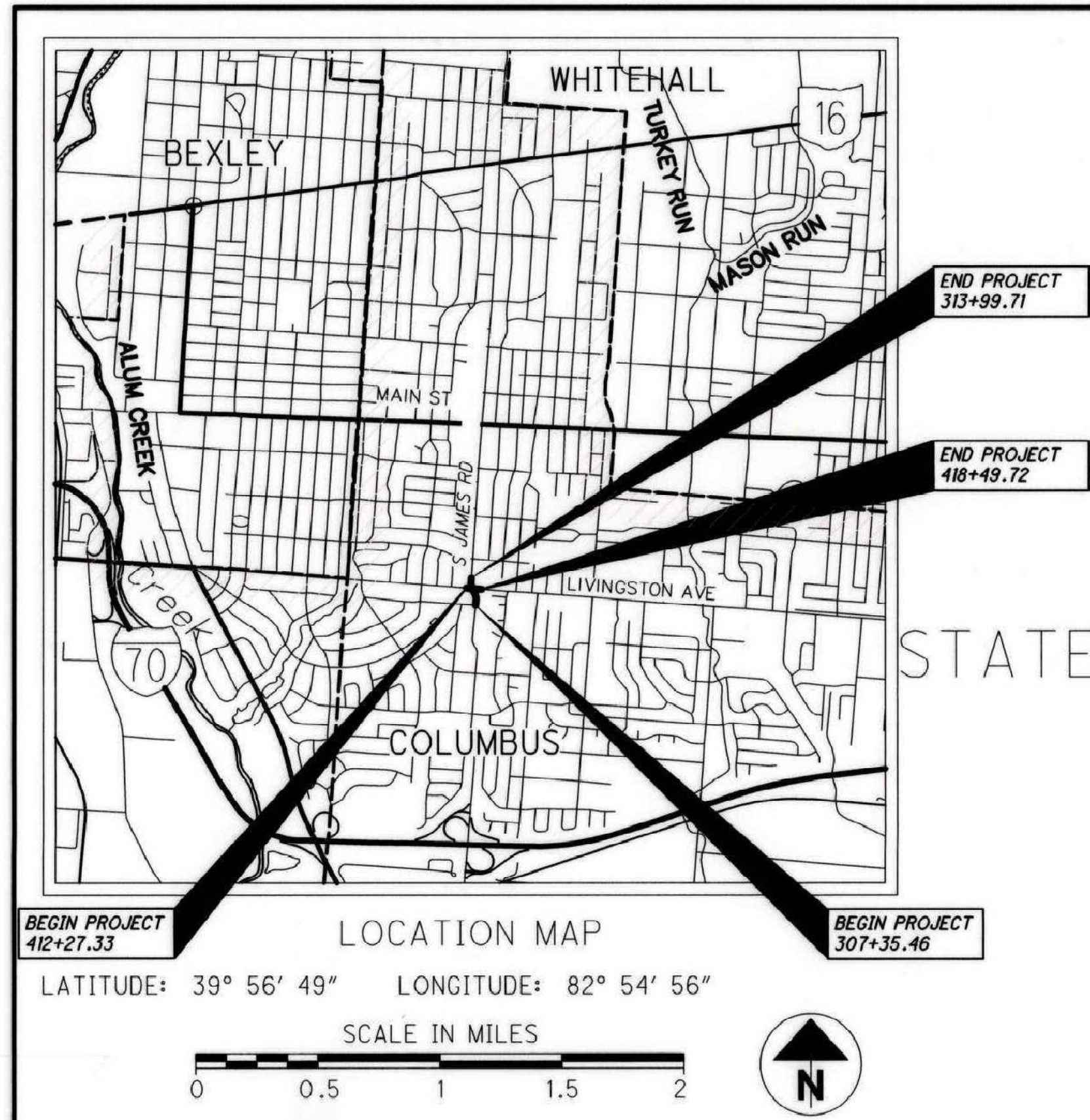
REV. BY	DATE	DESCRIPTION
DATE COMPLETED: 11/04/2016		

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE INTERSECTION OF JAMES RD AND LIVINGSTON AVE BY REMOVING THE EXISTING SPAN WIRE SIGNALS AND REPLACING THEM WITH A MAST ARM INSTALLATION WITH AN EASTBOUND AND WESTBOUND RIGHT TURN LANE. DRAINAGE, WATERMAIN, AND LIGHTING IMPROVEMENTS ARE ALSO INCLUDED IN THIS PROJECT.

JAMES RD AT LIVINGSTON AVE RIGHT OF WAY

STATE OF OHIO, COUNTY OF FRANKLIN, CITY OF COLUMBUS
SECTIONS 18 & 19, T 12, R 21
REFUGEE LANDS



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
STATE ROUTES	-----
OTHER ROADS	-----

PROJECT EARTH DISTURBED AREA:	1.00 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.125 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	1.13 ACRES

TYPES OF TITLE LEGEND:
WD = WARRANTY DEED
TMP= TEMPORARY EASEMENT

STRUCTURE KEY	
	RESIDENTIAL
	COMMERCIAL
	OUT-BUILDING

CONVENTIONAL SYMBOLS	
County Line	-----
Township Line	-----
Section Line	-----
Fence Line (Ex)	---x---x--- (Pr) ---x---x---
Center Line	-----
Right of Way (Ex)	---Ex R/W---
Right of Way (Pr)	---R/W---
Standard Highway Ease.(Ex)	---Ex SH---
Temporary Right of Way	---TMP---TMP---
Railroad	+++++ or +-----+
Guardrail (Ex)	o o o o o (Pr) o o o o o
Construction Limits	-----
Edge of Pavement (Ex)	-----
Edge of Pavement (Pr)	-----
Edge of Shoulder (Ex)	-----
Edge of Shoulder (Pr)	-----

NOTES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

* NOT A MEMBER OF OUPS, CONTACT INDEPENDENTLY

BASIS FOR BEARINGS
BEARINGS SHOWN HEREON ARE BASED ON GRID NORTH (REFERENCE SOUTH 85 DEGREES 47 MINUTES 50 SECONDS EAST FOR LIVINGSTON AVENUE EAST OF JAMES ROAD) AS REFERENCED TO THE OHIO STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) AND THE NORTH AMERICAN DATUM OF 1983 (CORS '96), AS ESTABLISHED UTILIZING A GPS SURVEY REFERENCING ODOT CORS STATIONS "COLB", "OHLI" AND "OHMD".

PROJECT CONTROL
STATE PLANE OHIO SOUTH, NAD 83 (CORS 96)
PROJECT ADJUSTMENT FACTOR 0.999947511

FINAL TRACINGS RIGHT-OF-WAY
DATE OF SUBMITTAL: JANUARY 3, 2019

INDEX OF SHEETS:

LEGEND SHEET	1
CENTERLINE PLAT	2
PROPERTY MAP	3
SUMMARY OF ADDITIONAL R/W	4-5
R/W TOPO SHEETS	6-12 (EVEN SHEETS)
R/W BOUNDARY SHEETS	7-13 (ODD SHEETS)

PLANS PREPARED BY:

FIRM NAME:

R/W DESIGNER:

R/W REVIEWER:

FIELD REVIEWER:

PRELIMINARY FIELD REVIEW DATE: 7/25/18

TRACINGS FIELD REVIEW DATE: 1/2/19

OWNERSHIP UPDATED BY:

DATE COMPLETED: DECEMBER 13, 2018

PLAN COMPLETION DATE: JANUARY 3, 2019

UTILITIES

UTILITIES KNOWN TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT ARE LISTED BELOW WITH CONTACT INFORMATION.

AEP OHIO
700 MORRISON RD
GAHANNA, OH 43230
PH: 614-883-6802
ATTN: BRENT GATES
ATTN: ROD SLONEKER

AEP TRANSMISSION
700 MORRISON RD
GAHANNA, OH 43230
PH: 614-552-1893
ATTN: MIKE CARR

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED CT
COLUMBUS, OH 43231
CELL: 614-370-1906
ATTN: ROB CALDWELL

CHARTER
3760 INTERCHANGE RD
COLUMBUS, OH 43204
PH: 614-255-0855
CELL: 614-679-1521
ATTN: JEFFREY WHATLEY

AT&T OHIO
111 N 4TH ST
COLUMBUS, OH 43215
PH: 614-223-7276
CELL: 740-532-9943
ATTN: CHARLES JOHNSON

COTA
33 N HIGH ST
8TH FLOOR, WILLIAM LHOTA BL
COLUMBUS, OH 43215

I, , P.S. have established the proposed property lines, calculated the Gross Take, Present Roadway Occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire these parcels as shown herein. As part of this work I have set right of way monuments at the property corners, property line intersection, points along the right of way and/or angle points on the right of way, Section Corners and other points as shown herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.



SETTING OF ALL MONUMENTS SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE MONUMENT ASSEMBLIES AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. THE IRON PIN AND CAP (WHEN REQUIRED) ARE TO BE INSTALLED BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THIS TABLE, REQUIRE PRIOR APPROVAL FROM THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. IN THE EVENT THAT CHANGES OR ALTERATIONS ARE APPROVED, A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR MONUMENT ASSEMBLIES, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1.

THE TABLE ON SHEET 5 INDICATES PROPERTY CORNER AND RIGHT OF WAY MONUMENTATION THAT ARE EXPECTED TO BE DISRUPTED OR DESTROYED BY CONSTRUCTION OPERATIONS. THESE MONUMENTS INCLUDE EXISTING AND NEWLY PLACED MONUMENTS SET FOR THIS PROJECT. UPON CONSTRUCTION COMPLETION, THE CONTRACTOR SHALL PROVIDE A LIST OF THE DISTURBED MONUMENTS TO THE CITY OF COLUMBUS AND THE DESIGN CONSULTANT IN ORDER THAT MONUMENTATION CAN BE REPLACED.

WILL RE-SET MONUMENTATION AS REQUIRED, AND SHALL BE CONTACTED AT ONCE CONSTRUCTION IS COMPLETED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE AND PROTECT EXISTING OR NEWLY PLACED MONUMENTATION THAT FALL OUTSIDE THE CONSTRUCTION LIMITS. IF ANY OF THESE MONUMENTS ARE DISTURBED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR ANY REPLACEMENT AND RE-SETTING OF ANY MONUMENTS BY A REGISTERED SURVEYOR AT THE CONTRACTOR'S EXPENSE.

DELAWARE COUNTY
ORANGE TOWNSHIP
CITY OF COLUMBUS, CITY OF WESTERVILLE
UNITED STATES MILITARY DISTRICT
QUARTER TWP. 4, T. 3. N., R. 18 W.
FARM LOT 17, 18, 19 & 20

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 6 PLAN "FRA-71-28.64/ DEL-71-0.00", DEDICATION PLAT OF POLARIS PARKWAY, WORTHINGTON ROAD, OLD STATE ROAD, OLDE WORTHINGTON ROAD, AND EASEMENTS PB. 24, PG 137, DEDICATION PLAT OF ORION PLACE AND EASEMENTS CABINET 1, SLIDE 368-368A, & SLIDE 649-649A, WORTHINGTON ROAD EXTENSION BY EMH&T.

MONUMENTS TO BE SET DURING CONSTRUCTION					
OHIO STATE PLANE NORTH ZONE, COMBINED SCALE FACTOR 0.99996845					
E OF RIGHT OF WAY		PROJECT COORDINATES ('GROUND') *		ADJUSTABLE MONUMENTS	REFERENCE MONUMENT TYPE "A"
ROADWAY	STATION	NORTH (Y)	EAST (X)	ITEM 623E 38500	ITEM 623E 40500
POLARIS	161+00.00	173696.4764	1837846.7561	1	
"	164+00.00	173803.3066	1838126.7081	1	
"	PT 169+55.73	174119.0969	1838581.1969	1	
"	PC 174+58.64	174467.3289	1838944.0370	1	
"	PT 185+37.40	174866.1777	1839919.0591	1	
ORION NORTH	16+00.00	174343.6749	1837865.9168	1	
ORION SOUTH	PC 2+12.81	173611.6484	1838219.2024	1	
"	PT 4+98.14	173339.4662	1838300.7555	1	
"	7+40.00	173099.7189	1838332.7149	1	
"	9+53.62	172887.9800	1838360.9406	1	
"	PC 9+97.89	172844.0996	1838366.7900		1
"	PT 13+68.34	172498.4053	1838266.5708		1
"	15+70.00	172343.6380	1838137.2836	1	
"	20+00.00	172013.6389	1837861.6142	1	
OLDE WORTH.	PT 3+86.53	173027.0611	1838709.0190	1	
TOTAL TO GENERAL SUMMARY				13	2

* TO OBTAIN GRID COORDINATES, DIVIDE PROJECT GROUND COORDINATES BY THE COMBINED SCALE FACTOR 0.99996845

BASIS FOR BEARINGS:

ALL BEARINGS SHOWN ARE FOR PROJECT USE ONLY. BEARINGS ARE BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD 83 (1996 ADJUSTMENT). BEARINGS SHOWN HEREON ARE BASED ON TRUE NORTH OBSERVED BY USING A LEICA GNSS VIVA CS15/GS15 RECEIVER.

MONUMENT LEGEND

- PROPOSED R/W MONUMENT BOX
- PROPOSED R/W TYPE "A" MONUMENT
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP
- IRON PIPE FOUND
- P.K. NAIL FOUND
- MAG NAIL FOUND

NOTE

- C# DENOTES CURVE NUMBER, SEE CENTERLINE PLAT SHEET 3 OF 3 FOR CURVE DATA

I, HAVE CONDUCTED A SURVEY OF THE EXISTING CONDITIONS FOR THE CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE IN JUNE, 2015. THE RESULTS OF THAT SURVEY ARE CONTAINED HEREIN.

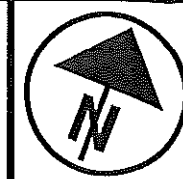
AS A PART OF THIS PROJECT I HAVE REESTABLISHED THE LOCATIONS OF THE EXISTING PROPERTY LINES AND THE EXISTING CENTERLINE OF RIGHT OF WAY FOR PROPERTY TAKES CONTAINED HEREIN. ALL OF MY WORK CONTAINED HEREIN WAS CONDUCTED IN ACCORDANCE WITH OHIO ADMINISTRATIVE CODE 4733-37 COMMONLY KNOWN AS "MINIMUM STANDARDS FOR BOUNDARY SURVEYS IN THE STATE OF OHIO" UNLESS NOTED. THE WORDS I AND MY AS USED HEREIN ARE TO MEAN EITHER MYSELF OR SOMEONE WORKING UNDER MY DIRECT SUPERVISION.

I FURTHER CERTIFY THAT THE PRIMARY CONTROL FOR THE PROJECT AS SHOWN HEREIN WERE CONSTRUCTED AND ESTABLISHED IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION'S SURVEY AND MAPPING SPECIFICATIONS, DATED JULY 15, 2011 FOR A MINOR PROJECT AND MEET THE ACCURACY REQUIREMENTS AS SET FORTH THEREIN. ALL OBSERVATION DATA AND RMSE CALCULATIONS ARE ON FILE AND AVAILABLE AT THE REQUEST OF THE OHIO DEPARTMENT OF TRANSPORTATION

RECEIVED: SEPTEMBER 9, 2016
RECORDED: SEPTEMBER 9, 2016
BOOK: 1450 PAGE: 927
MELISSA JORDAN
COUNTY RECORDER

STA. 15+70.00 EX. C R/W WORTHINGTON RD. =
STA. 10+00.00 EX. C R/W COUNTY LINE RD.

DATE



200
100
0
HORIZONTAL SCALE IN FEET

PID NO.
95549

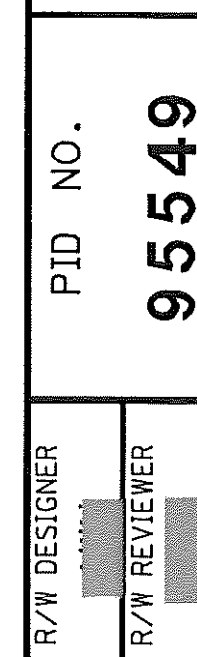
R/W DESIGNER
R/W REVIEWER

CENTERLINE PLAT (1 OF 3)
EXISTING RIGHT-OF-WAY

ARTERIAL STREET
REHABILITATION -
POLARIS PARKWAY

3 / 54

376
427



**ARTERIAL STREET
REHABILITATION -
POLARIS PARKWAY**

377
427

C1 EX. CURVE DATA
R/W POLARIS PARKWAY
P.I. STA. 164+02.19
Δ = 37°21'45" (LT)
Dc = 3°15'00"
R = 1,762.95'
T = 596.08'
L = 1,149.62'
E = 98.05'
C = 1,129.36'
C.B. = N 64°51'29" E

C2 EX. CURVE DATA
R/W POLARIS PARKWAY
P.I. STA. 180+25.05
Δ = 43°09'02" (RT)
Dc = 4°00'00"
R = 1,432.39'
T = 566.41'
L = 1,078.76'
E = 107.92'
C = 1,053.45'
C.B. = N 67°45'08" E

C3 EX. CURVE DATA
R/W ORION PLACE (SOUTH)
P.I. STA. 3+56.68
Δ = 18°09'53" (RT)
Dc = 6°21'58"
R = 900.00'
T = 143.87'
L = 285.33'
E = 11.43'
C = 284.14'
C.B. = S 16°40'47" E

C4 EX. CURVE DATA
R/W WORTHINGTON RD.
P.I. STA. 11+94.52
Δ = 47°31'14" (RT)
Dc = 12°49'39"
R = 446.66'
T = 196.63'
L = 370.46'
E = 41.37'
C = 359.93'
C.B. = S 16° 10' 02" W

C5 EX. CURVE DATA
R/W PULSAR PLACE
P.I. Sta. 3+44.86
Δ = 73°49'53" (RT)
Dc = 22°55'06"
R = 250.00'
T = 187.81'
L = 322.15'
E = 62.69'
C = 300.32'
C.B. = N 60°40'54" W

C6 EX. CURVE DATA
R/W PULSAR PLACE
P.I. Sta. 5+38.41
Δ = 32°58'54" (RT)
Dc = 28°38'52"
R = 200.00'
T = 59.21'
L = 115.13'
E = 8.58'
C = 113.55'
C.B. = N 7°16'30" W

C7 EX. CURVE DATA
R/W PULSAR PLACE
P.I. Sta. 7+03.98
Δ = 25°13'44" (LT)
Dc = 11°41'35"
R = 490.00'
T = 109.66'
L = 215.76'
E = 12.12'
C = 214.02'
C.B. = N 3°23'55" W

C8 EX. CURVE DATA
R/W COUNTY LINE RD.
P.I. STA. 11+83.83
Δ = 36°43'44" (LT)
Dc = 22°41'29"
R = 252.50'
T = 83.82'
L = 161.86'
E = 13.55'
C = 159.11'
C.B. = S 68°29'25" E

C9 EX. CURVE DATA
R/W OLDE WORTHINGTON RD.
P.I. STA. 2+63.08
Δ = 42°28'46" (LT)
Dc = 16°22'13"
R = 350.00'
T = 136.04'
L = 259.49'
E = 25.51'
C = 253.59'
C.B. = N 61°10'02" E

C10 EX. CURVE DATA
OLDE WORTHINGTON RD.
P.I. STA. 24+75.58
Δ = 39°31'30" (LT)
Dc = 11°27'33"
R = 500.00'
T = 179.64'
L = 344.92'
E = 31.29'
C = 338.12'
C.B. = N 20°09'40" E

C20 PROP. CURVE DATA
CONSTRUCTION ORION PLACE (SOUTH)
P.I. STA. 7+80.72
Δ = 18°33'47" (LT)
Dc = 17°30'00"
R = 327.40'
T = 53.51'
L = 106.07'
E = 4.34'
C = 105.61'
C.B. = S 16°52'28" E

C21 PROP. CURVE DATA
CONSTRUCTION ORION PLACE (SOUTH)
P.I. Sta. 8+79.75
Δ = 16°09'21" (RT)
Dc = 17°30'00"
R = 327.40'
T = 46.47'
L = 92.32'
E = 3.28'
C = 92.01'
C.B. = S 18°04'41" E

C22 PROP. CURVE DATA
CONSTRUCTION WORTHINGTON RD.
P.I. STA. 11+90.42
Δ = 39°52'27" (RT)
Dc = 17°30'00"
R = 327.40'
T = 118.76'
L = 227.85'
E = 20.87'
C = 223.28'
C.B. = S 19°56'14" W

C23 PROP. CURVE DATA
CONSTRUCTION OLDE WORTHINGTON RD.
P.I. STA. 1+74.74
Δ = 39°36'42" (LT)
Dc = 17°30'00"
R = 327.40'
T = 117.91'
L = 226.35'
E = 20.58'
C = 221.87'
C.B. = N 59°43'45" E

EXISTING MONUMENTS EXPECTED TO BE DISTURBED DURING CONSTRUCTION					
OHIO STATE PLANE NORTH ZONE, COMBINED SCALE FACTOR 0.99996845					
C OF RIGHT OF WAY			PROJECT COORDINATES (GROUND')		R/W MON. EXPECTED TO BE DISTURBED
ROADWAY	STATION	OFFSET	NORTH (Y)	EAST (X)	R/W MON.
POLARIS	163+28.00	70.00 LT	173837.578	1838033.418	1
"	163+48.69	110.00 RT	173681.267	1838125.090	1*
"	164+74.91	75.00 LT	173903.429	1838158.099	1
"	164+75.00	80.00 RT	173766.826	1838231.343	1
"	165+15.00	70.00 RT	173795.706	1838263.044	1
"	167+21.44	70.00 RT	173912.082	1838443.249	1
"	170+82.57	75.00 LT	174361.038	1838620.779	1*
"	171+24.92	70.00 RT	174185.751	1838751.739	1
"	174+58.64	70.00 RT	174416.825	1838992.507	1
"	174+82.17	65.00 LT	174531.117	1838916.921	1
"	175+28.50	70.00 RT	174461.563	1839041.556	1
"	176+85.00	65.00 LT	174663.936	1839081.967	1
"	177+09.00	70.00 RT	174565.898	1839177.812	1
"	177+09.00	77.00 RT	174560.082	1839181.707	1
"	177+50.34	77.00 RT	174581.376	1839214.521	1
"	177+69.95	77.00 RT	174591.143	1839230.295	1
"	177+69.96	70.00 RT	174597.120	1839226.653	1
"	178+00.00	65.00 LT	174728.456	1839183.367	1
"	179+22.63	65.00 LT	174788.061	1839296.821	1
"	180+43.22	70.00 RT	174710.502	1839460.099	1
"	181+48.07	65.00 LT	174871.488	1839516.973	1
"	182+22.64	65.00 LT	174891.337	1839592.341	1
"	182+72.94	70.00 RT	174770.095	1839670.065	1
"	185+00.00	70.00 RT	174795.301	1839884.323	1
"	398+85.62	72.00 RT	174794.183	1839919.904	1
"	399+65.97	72.00 RT	174795.126	1840000.249	1
"	399+75.65	82.55 RT	174784.693	1840010.048	1*
ORION NORTH	11+15.00	50.00 LT	173885.145	1838031.695	1
"	11+15.00	50.00 RT	173928.608	1838121.756	1
"	12+61.58	50.00 LT	174017.152	1837967.988	1
ORION SOUTH	1+25.00	65.00 LT	173718.982	1838239.577	1
"	2+12.81	65.00 LT	173639.900	1838277.742	1
"	2+82.03	65.00 LT	173571.885	1838307.398	1
"	3+61.93	54.50 RT	173457.338	1838220.301	1*
"	4+98.14	65.00 LT	173348.055	1838365.186	1
"	5+49.29	65.00 LT	173297.356	1838371.944	1
"	6+00.00	55.00 LT	173245.768	1838368.732	1
"	7+10.01	46.09 RT	173123.362	1838283.061	1*
"	7+27.21	55.00 LT	173119.672	1838385.542	1
"	7+70.01	43.71 RT	173064.203	1838293.349	1*
"	8+11.13	68.40 LT	173038.263	1838409.915	1
"	9+13.62	102.00 LT	172941.107	1838456.761	1
"	9+25.00	40.00 RT	172911.064	1838317.510	1
"	9+85.00	78.00 RT	172846.569	1838287.771	1
"	11+50.00	50.00 RT	172703.157	1838312.155	1
"	12+01.14	65.50 LT	172622.751	1838409.800	1
"	12+25.00	40.00 RT	172635.776	1838302.306	1
"	12+63.19	46.80 RT	172607.048	1838282.091	1
"	13+03.61	50.65 RT	172577.438	1838261.255	1
"	15+00.00	48.00 LT	172366.593	1838219.004	1
"	15+30.01	84.50 LT	172320.163	1838227.778	1
TOTAL (FOR INFORMATION ONLY)					51

* DENOTES PROPERTY MONUMENTATION EXISTING BEFORE THE START OF THIS PROJECT. ALL OTHERS ARE NEWLY PLACED MONUMENTS SET AFTER THE ACQUISITION OF THE ADDITONAL RIGHT OF WAY PARCELS NEEDED TO CONSTRUCT THIS PROJECT.

RECEIVED _____ 20
RECORDED _____ 20
PLAT BOOK _____ PAGE
FRANKLIN COUNTY RECORDER

TRANSFER
NOT NECESSARY

DEC 18 2018

CLARENCE E. MINGO, JR.
AUDITOR
FRANKLIN COUNTY, OH

Michael Datsen
Deputy Auditor

EXISTING ALIGNMENT POINTS

Point #	Northing	Easting	Station	Offset	Description
300	709086.646	1852070.422	307+67.91	0.00'	PC
301	709264.333	1852029.505	301+53.18	0.00'	PT
302	709371.183	1851966.164	414+25.93	0.00'	CL R/W INT (LIVINGSTON AVE)
			310+77.39	0.00'	(JAMES RD)
303	709372.656	1851946.121	414+05.83	0.00'	PT, CL R/W INT (LIVINGSTON AVE)
			310+77.39	0.00'	(JAMES RD)
400	709332.742	1852489.305	419+50.48	0.00'	POT

PROPOSED ALIGNMENT POINTS

Point #	Northing	Easting	Station	Offset	Description
150	709054.229	1852068.762	307+35.45	1.02' RT	PC
151	709262.429	1852030.485	309+51.04	0.12' LT	PT
152	709316.183	1852004.954	310+10.30	5.32' RT	PC
153	709364.001	1851985.339	310+61.43	12.83' RT	CL CONST INT (JAMES RD)
			414+45.58	5.76' RT	(LIVINGSTON AVE)
154	709559.365	1851960.321	312+64.64	0.35' LT	PT
155	709694.001	1851971.166	313+99.71	0.00'	PI, CL R/W INT
200	709391.993	1851688.547	411+47.53	0.00'	PI
201	709377.229	1851809.962	412+69.71	5.63 RT	PI
202	709346.039	1852223.489	416+84.40	6.22' RT	PI
203	709342.354	1852358.486	418+19.31	0.00'	PI

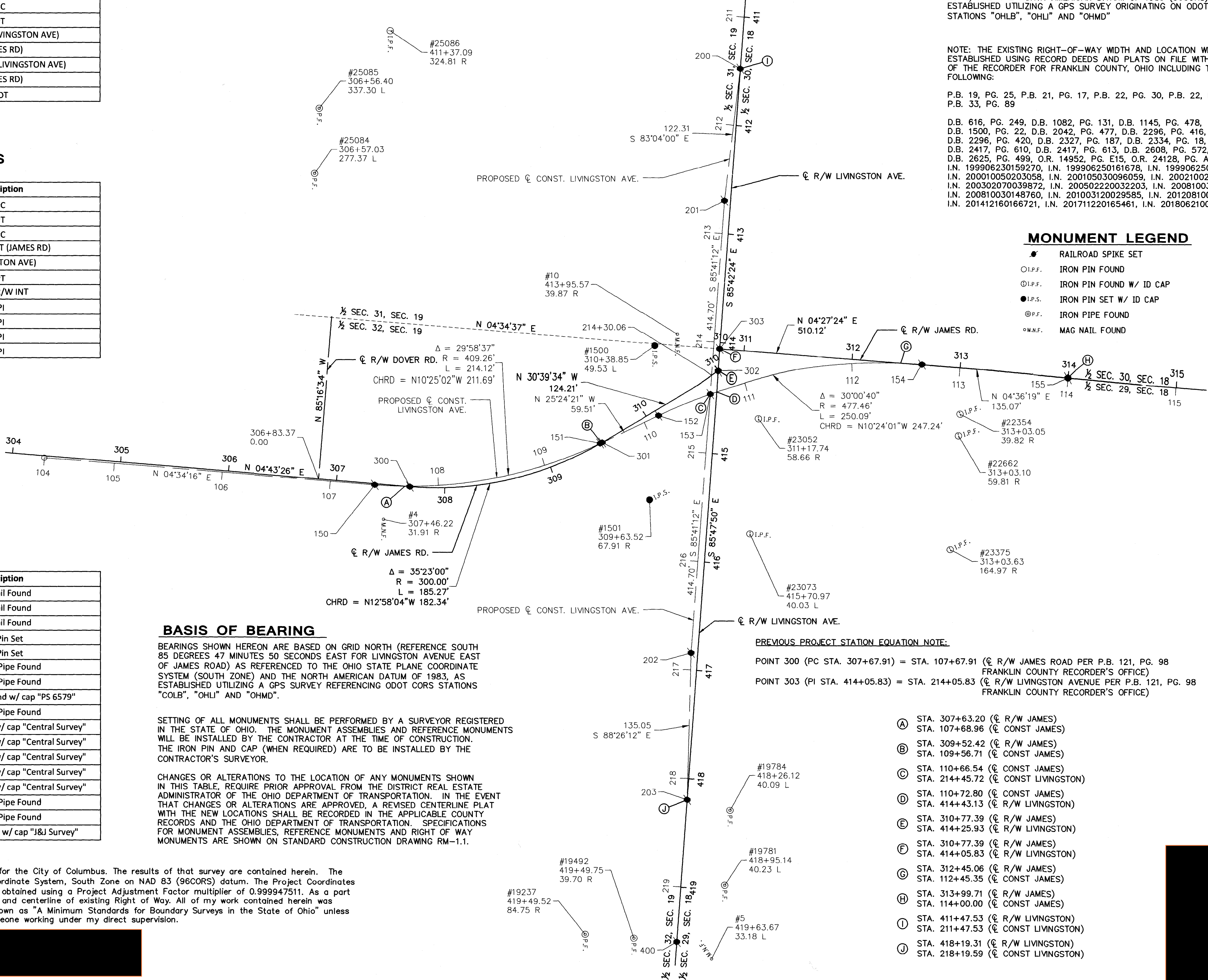
SURVEY CONTROL POINTS

Point #	Northing	Easting	Station	Offset	Description
4	709062.400	1852100.434	307+46.22	31.91' RT	Mag Nail Found
5	709364.866	1852504.891	419+63.67	33.18' LT	Mag Nail Found
10	709333.670	1851932.903	413+95.57	39.87' RT	Mag Nail Found
1500	709312.775	1851943.209	310+38.85	49.53' LT	Iron Pin Set
1501	709307.865	1852082.648	309+63.52	67.91' RT	Iron Pin Set
19237	709248.289	1852482.135	419+49.52	84.75' RT	1/2" Iron Pipe Found
19492	709293.197	1852485.666	419+49.75	39.70' RT	1/2" Iron Pipe Found
19781	709376.924	1852437.059	418+95.14	40.23' LT	1/2" Iron Pipe Found w/ cap "PS 6579"
19784	709381.842	1852368.217	418+26.12	40.09' LT	1/2" Iron Pipe Found
22354	709594.539	1852003.358	313+03.05	39.82' RT	5/8" Iron Pin Found w/ cap "Central Survey"
22662	709593.032	1852023.289	313+03.10	59.81' RT	5/8" Iron Pin Found w/ cap "Central Survey"
23052	709408.330	1852007.734	311+17.74	58.66' RT	5/8" Iron Pin Found w/ cap "Central Survey"
23073	709400.479	1852113.745	415+70.97	40.03' LT	5/8" Iron Pin Found w/ cap "Central Survey"
23375	709585.396	1852128.175	313+03.63	164.97' RT	5/8" Iron Pin Found w/ cap "Central Survey"
25084	708998.982	1851784.865	306+57.03	277.37' LT	3/4" Iron Pipe Found
25085	709003.295	1851725.081	306+56.40	337.30' LT	3/4" Iron Pipe Found
25086	709068.881	1851653.818	411+37.09	324.81' RT	5/8" Iron Pin Found w/ cap "J&J Survey"

I, [Redacted], P. S. have conducted a survey of the existing conditions for the City of Columbus. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, South Zone on NAD 83 (96CORS) datum. The Project Coordinates (US Survey feet) are State Plane Ground Coordinates. Grid Coordinates can be obtained using a Project Adjustment Factor multiplier of 0.999947511. As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

JAMES ROAD AT LIVINGSTON AVE

STATE OF OHIO
COUNTY OF FRANKLIN, CITY OF COLUMBUS
SECTIONS 18 & 19, T 12, R 21
REFUGEE LANDS



NOTE: STATION AND OFFSET VALUES ARE REFERENCED TO THE EXISTING CENTERLINES OF RIGHT-OF-WAY FOR JAMES ROAD (300 STATION RANGE) AND LIVINGSTON AVENUE (400 STATION RANGE).

NOTE: THE JAMES ROAD PROPOSED ALIGNMENT ENDS AT STATION 114+00.00 TO MATCH THE STATIONING FROM THE 2979-E PROJECT.

NOTE: COORDINATES LISTED HEREIN ARE GROUND COORDINATES REFERENCED TO THE OHIO STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) AND THE NORTH AMERICAN DATUM OF 1983 (96CORS), AS ESTABLISHED UTILIZING A GPS SURVEY ORIGINATING ON ODOT CORS STATIONS "OHLB", "OHLJ" AND "OHMD"

NOTE: THE EXISTING RIGHT-OF-WAY WIDTH AND LOCATION WERE ESTABLISHED USING RECORD DEEDS AND PLATS ON FILE WITH THE OFFICE OF THE RECORDER FOR FRANKLIN COUNTY, OHIO INCLUDING THE FOLLOWING:

P.B. 19, PG. 25, P.B. 21, PG. 17, P.B. 22, PG. 30, P.B. 22, PG. 84
P.B. 33, PG. 89

D.B. 616, PG. 249, D.B. 1082, PG. 131, D.B. 1145, PG. 478, D.B. 1500, PG. 22, D.B. 2042, PG. 477, D.B. 2296, PG. 416, D.B. 2296, PG. 420, D.B. 2327, PG. 187, D.B. 2334, PG. 18, D.B. 2417, PG. 610, D.B. 2417, PG. 613, D.B. 2608, PG. 572, D.B. 2625, PG. 499, O.R. 14952, PG. E15, O.R. 24128, PG. A09, I.N. 199906230159270, I.N. 199906250161678, I.N. 199906250161680, I.N. 200010050203058, I.N. 200105030096059, I.N. 200210020246736, I.N. 200302070039872, I.N. 200502220032203, I.N. 200810030148760, I.N. 200810030148760, I.N. 201003120029585, I.N. 201208100116378, I.N. 201412160166721, I.N. 201711220165461, I.N. 201806210082504.

MONUMENT LEGEND

- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP
- IRON PIN SET W/ ID CAP
- IRON PIPE FOUND
- MAG NAIL FOUND

PREVIOUS PROJECT STATION EQUATION NOTE:

POINT 300 (PC STA. 307+67.91) = STA. 107+67.91 (R/W JAMES ROAD PER P.B. 121, PG. 98 FRANKLIN COUNTY RECORDER'S OFFICE)
POINT 303 (PI STA. 414+05.83) = STA. 214+05.83 (R/W LIVINGSTON AVENUE PER P.B. 121, PG. 98 FRANKLIN COUNTY RECORDER'S OFFICE)

- STA. 307+63.20 (R/W JAMES)
- STA. 107+68.96 (CONST JAMES)
- STA. 309+52.42 (R/W JAMES)
- STA. 109+56.71 (CONST JAMES)
- STA. 110+66.54 (CONST JAMES)
- STA. 214+45.72 (CONST LIVINGSTON)
- STA. 110+72.80 (CONST JAMES)
- STA. 414+43.13 (R/W LIVINGSTON)
- STA. 310+77.39 (R/W JAMES)
- STA. 414+25.93 (R/W LIVINGSTON)
- STA. 310+77.39 (R/W JAMES)
- STA. 414+05.83 (R/W LIVINGSTON)
- STA. 312+45.06 (R/W JAMES)
- STA. 112+45.35 (CONST JAMES)
- STA. 313+99.71 (R/W JAMES)
- STA. 114+00.00 (CONST JAMES)
- STA. 411+47.53 (R/W LIVINGSTON)
- STA. 211+47.53 (CONST LIVINGSTON)
- STA. 418+19.31 (R/W LIVINGSTON)
- STA. 218+19.59 (CONST LIVINGSTON)

UTILITIES

UTILITIES KNOWN TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT ARE LISTED BELOW WITH CONTACT INFORMATION.

- AEP OHIO
700 MORRISON RD
GAHANNA, OH 43230
PH: 614-883-6802
ATTN: BRENT GATES
ATTN: ROD SLONEKER

AEP TRANSMISSION
700 MORRISON RD
GAHANNA, OH 43230
PH: 614-552-1893
ATTN: MIKE CARR

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED CT
COLUMBUS, OH 43231
CELL: 614-370-1906
ATTN: ROB CALDWELL
- SPECTRUM
3760 INTERCHANGE RD
COLUMBUS, OH 43204
PH: 614-481-5047
CELL: 614-348-2966
ATTN: SAM LUTZ

AT&T OHIO
111 N 4TH ST
COLUMBUS, OH 43215
PH: 614-223-7276
CELL: 740-532-9943
ATTN: CHARLES JOHNSON

COTA
33 N HIGH ST
8TH FLOOR, WILLIAM LHOTA BL
COLUMBUS, OH 43215

1-9 NOT USED

- 10

PID: 010-105300
JAMES-LIVINGSTON RETAIL, LLC
- 11

PID: 010-092271
KT COLUMBUS, LLC (22.68% INTEREST),
OG COLUMBUS, LLC (26.91% INTEREST),
RF COLUMBUS, LLC (18.00% INTEREST),
PB COLUMBUS, LLC (9.26% INTEREST),
JT COLUMBUS, LLC (6.945% INTEREST),
LT COLUMBUS, LLC (6.945% INTEREST),
DC COLUMBUS, LLC (9.26% INTEREST)
- 12

PID: 010-094837, 010-094836
ROBERT G. SCHMIDT, A.K.A. ROBERT G. SCHMIDT II
- 13

PID: 010-218917
DOLORES A. CORROVA, TRUSTEE OF THE DOLORES A.
CORROVA TRUST (½ INTEREST) AND JAMES M. CORROVA,
TRUSTEE OF THE JAMES M. CORROVA TRUST (½ INTEREST)
- 13A

ROBERT COPPEL AND PAUL COPPEL
AKA ROBERT F. COPELL AND PAUL L. COPPEL
- 13B

ROBERT COPPEL AND PAUL COPPEL
AKA ROBERT F. COPELL AND PAUL L. COPPEL
- 14

PID: 010-024750
COLUMBUS & SOUTHERN OHIO ELECTRIC CO.
- 15

PID: 010-093804
YOGESWARAN THAMYRAJAH AND
YOGESWARY YOGESWARAN
- 16

PID: 010-093806
YOGESWARAN THAMBYRAJAH
- 17

PID: 010-095783
COLUMBUS SOUTHERN POWER CO.
- 18

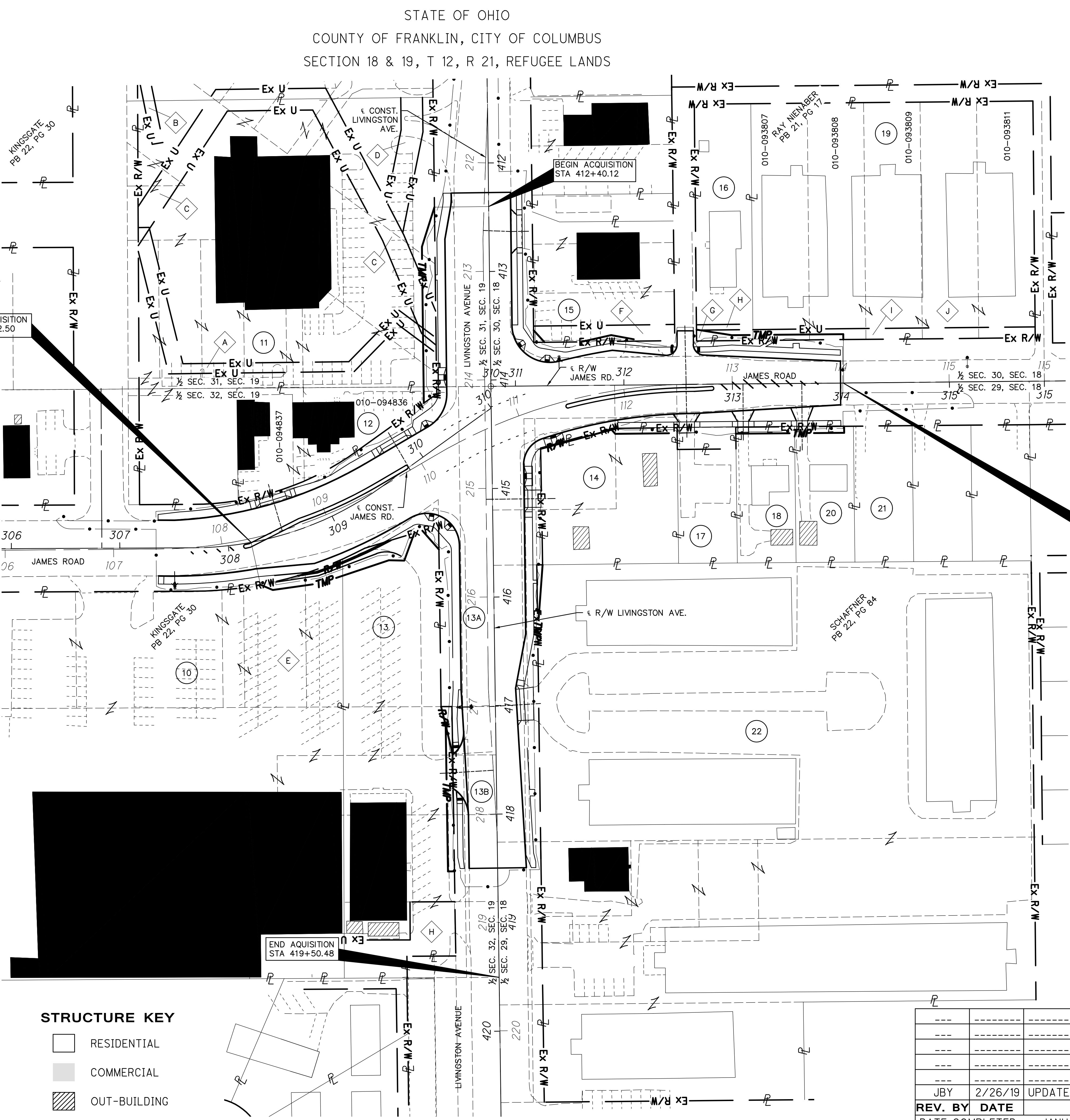
PID: 010-095782
EILEEN Y. CRENSHAW
- 19

PID: 010-093807, 010-093808, 010-093809, 010-093811
ROYAL JAMES PLAZA, LLC
- 20

PID: 010-095781
CHARLES K. SLAUGHTER SR. AND JUSTINE SLAUGHTER
- 21

PID: 010-095780
PATRICE MYERS
- 22

PID: 010-088332, 010-088296, 010-088309, 010-123457,
010-123458, 010-123459, 010-077442
BEXLEY COMMONS L.P.



STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

- A

15' UTILITY EASEMENT
AMERITECH OHIO
- B

10' ELECTRIC EASEMENT
COLUMBUS SOUTHERN
POWER COMPANY
- C

20' SEWER EASEMENT
CITY OF COLUMBUS, OHIO
- D

20' SEWER EASEMENT
SYSTEM CAPITAL REAL
PROPERTY CORP
- E

BLANKET PARKING EASEMENT
- F

15' ELECTRIC EASEMENT
AEP OHIO TRANSMISSION
COMPANY, INC.
- G

10' ELECTRIC EASEMENT
COLUMBUS SOUTHERN
POWER COMPANY
- H

15' ELECTRIC EASEMENT
AEP OHIO TRANSMISSION
COMPANY, INC.
- I

10' ELECTRIC EASEMENT
AEP OHIO TRANSMISSION
COMPANY, INC.
- J

BLANKET EASEMENT
TIME WARNER CABLE LLC
- H

INGRESS-EGRESS EASEMENT

END ACQUISITION
STA 314+02.54

0

50

100

HORIZONTAL
SCALE IN FEET

PID NO.

101787

CALCULATED

CHECKED

PROPERTY MAP

JAMES RD AT LIVINGSTON AVE

3 / 13

122

132

JBY	2/26/19	UPDATE UTILITIES NOTE
REV. BY	DATE	DESCRIPTION
	DATE COMPLETED	JANUARY 3, 2019

TOTAL NUMBER OF :

32 OWNERSHIPS

69 PARCELS

1 TOTAL TAKES

11 OWNERSHIPS W/ STRUCTURES INVOLVED

$$\text{NET RESIDUE} = \text{RECORD AREA} - \text{TOTAL PRO} - \text{NET TAKE}$$

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC- TURE	NET RESIDUE		TYPE FUND	REMARKS	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
1	COLUMBUS RESTAURANT CONCEPTS INC. AN OHIO CORPORATION	13,14, 17,18	O.R. 580	444	318-443-02-008-003	1.961								CITY	NO TAKE		
2-S	NP STEAK 'N SHAKE LLC AN OHIO LIMITED LIABILITY COMPANY	17,18	O.R. 526	1341	318-443-02-008-000	1.107	0.000	0.013	0.000	0.013	S (1)		1.094		1 MON. SIGN, 1 YARD LIGHT, 6 SHRUBS, 336 SF LANDSCAPING (157 SF*) 43' L/S WALL (12' *), EASEMENT OVERLAP = 0.013 AC.		
3-WD	PULSAR OWNERS ASSOCIATION INC. AN OHIO NON-PROFIT CORPORATION	47,48	D.V. 593	611	318-443-02-008-001	3.751	0.000	0.007	0.000	0.007	NO		3.744		EASEMENT OVERLAP = 0.007 AC.		
3-T1	"	43,44	"	"	"			0.041	0.000	0.041	NO				COMPLETE GRADING AND DRIVEWAY WORK 5 SHRUB, 22' L/S WALL, 1 YARD LIGHT EASEMENT OVERLAP = 0.041 AC.		
3-T2	"	47,48	"	"	"			0.025	0.000	0.025	NO				COMPLETE GRADING AND DRIVEWAY WORK 1 SPK. HEAD, EASEMENT OVERLAP = 0.025 AC.		
					TOTAL:			0.066	0.000	0.066							
4-T	I-71 & POLARIS PARKWAY DUCHESS, LLC AN OHIO LIMITED LIABILITY COMPANY	21,22, 43,44	O.R. 1398	156	318-443-02-007-000	1.422	0.000	0.104	0.000	0.104	NO				COMPLETE GRADING AND DRIVEWAY WORK 8 SHRUBS, 2 TREES, 18' L/S WALL, 2 ROCKS 102 SF LANDSCAPING, ENCROACHMENT SIGN EASEMENT OVERLAP = 0.104 AC.		
5-WD	N.P. LIMITED PARTNERSHIP AN OHIO LIMITED PARTNERSHIP	21,22	D.V. 604	59	318-443-02-008-004	1.477	0.000	0.191	0.000	0.191	NO		1.286		76' L/S WALL (1*), 1 ICV, 2 SPK. HEAD, 1 BOULDER, 5 TREES, 27 SHRUBS, 1 ROCK, EASEMENT OVERLAP = 0.191 AC.		
5-S1	"	21,22	"	"	"			0.014	0.000	0.014	NO						
5-S2	"	21,22	"	"	"			0.017	0.000	0.017	NO				EASEMENT OVERLAP = 0.017 AC.		
					TOTAL:			0.031	0.000	0.031							
5-T	"	21,22	"	"	"			0.186	0.000	0.186	NO				COMPLETE GRADING AND DRIVEWAY WORK 1 SPK. HEAD, 10 TREES, 45 SHRUBS, 26' L/S WALL, 1 BOULDER, EASEMENT OVERLAP = 0.139 AC.		
6-U	POLARIS 2004, LLC AN OHIO LIMITED LIABILITY COMPANY	25,26	O.R. 551	1672	318-443-02-003-000	8.920	0.000	0.038	0.000	0.038	NO				UTILITY EASEMENT FOR PROPOSED WATER LINE EASEMENT OVERLAP = 0.038 AC.		
6-T	"	21,22 25,26	" "	" "	" "			0.140	0.000	0.140	S (1)				COMPLETE GRADING AND DRIVEWAY WORK 1 MON. SIGN: 8' (1' *), 2 TREES EASEMENT OVERLAP = 0.140 AC.		
7-WD	POLARIS NEIGHBORHOOD CENTER II, LLC AN OHIO LIMITED LIABILITY COMPANY	25,26, 29,30	O.R. 530	2361	318-442-02-055-001	2.640	0.000	0.184	0.000	0.184	S (1)		2.456		EASEMENT OVERLAP = 0.179 AC., 1 MON. SIGN, 5 TREES		
7-T		25,26, 29,30	"	"	"			0.147	0.000	0.147	NO				COMPLETE GRADING WORK EASEMENT OVERLAP = 0.147 AC.		
8-WD	NP HUNTINGTON, LLC AN OHIO LIMITED LIABILITY COMPANY	29,30	O.R. 526	1348	318-442-02-027-004	1.236	0.000	0.104	0.000	0.104	NO		1.132		5 TREES, EASEMENT OVERLAP = 0.104 AC.		
8-T		29,30	"	"	"			0.090	0.000	0.090	NO				COMPLETE GRADING AND DRIVEWAY WORK, 1 ICV EASEMENT OVERLAP = 0.090 AC.		
9-WD	POLARIS RC, LLC AN OHIO LIMITED LIABILITY COMPANY	29,30, 33,34	O.R. 833	302	318-442-02-055-000	1.085	0.000	0.131	0.000	0.131	NO		0.954		3 TREES, 1 SPK. HEAD EASEMENT OVERLAP = 0.131 AC.		
9-S	"	29,30, 33,34	"	"	"			0.030	0.000	0.030	NO				EASEMENT OVERLAP = 0.028 AC.		
9-T	"	29,30, 33,34	"	"	"			0.084	0.000	0.084	S (1)			CITY	COMPLETE GRADING AND DRIVEWAY WORK 1 MON. SIGN, 4 SHRUBS, 2 YARD LIGHTS EASEMENT OVERLAP = 0.084 AC.		

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
THE CITY OF COLUMBUS, OHIO

UNLESS OTHERWISE SHOWN.

ALL "V" PARCELS ACQUIRED IN THE NAME OF CITY
OF WESTERVILLE, AN OHIO MUNICIPAL CORPORATION

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY
EASEMENTS TO BE USED FOR STORAGE OF
MATERIAL OR EQUIPMENT BY THE CONTRACTOR
UNLESS NOTED OTHERWISE.

* SEE SHEET 12 FOR SUMMARY OF ROW ENCROACHMENTS

NOTE: ALL TEMPORARY PARCELS TO
BE OF 24 MONTH DURATION.


PARCEL IDENTIFIER LEGEND

WD = WARRANTY DEED
WDV = WARRANTY DEED IN THE NAME OF CITY OR LOCAL PUBLIC AGENCY
T = TEMPORARY EASEMENT
S = SEWER EASEMENT
CH = CHANNEL EASEMENT
U = UTILITY EASEMENT

	01/27/17	REMOVED OVERLAP EASEMENT FOR 5-S1
	01/27/17	UPDATED SHEET REFERENCES
	01/31/17	UPDATED OVERLAP AREAS
	09/13/17	REVISED TOTAL NUMBER OF COUNTS
	06/14/18	CHANGED 2-WD TO 2-S
REV. BY	DATE	DESCRIPTION
		DATE: 11/04/2016
OWNERSHIP VERIFIED BY:		DATE: 11/04/2016


3221-E

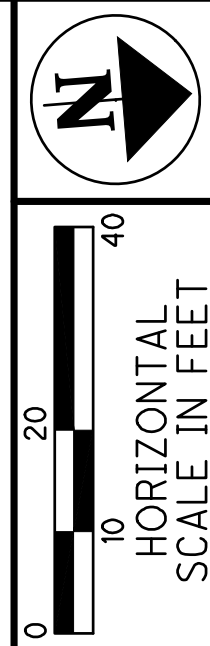
8 / 54

	SUMMARY (PARCELS 1-9) OF ADDITIONAL RIGHT OF WAY ARTERIAL SIREET REHABILITATION - POLARIS PARKWAY	R/W REVIEWER 95549 E130 (728)	STATE JOB NO. PID NO. FEDERAL PROJECT NO.
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STATE OF OHIO
COUNTY OF FRANKLIN, CITY OF COLUMBUS
SECTION 18 & 19, T 12, R 21
REFUGEE LANDS

LEGEND

	RAILROAD SPIKE SET
I.P.S.	$\frac{5}{8}$ "X30" IRON PIN SET W/ CAP "ASI 8438"



PID NO.
101787

CHECKED

CALCULATED

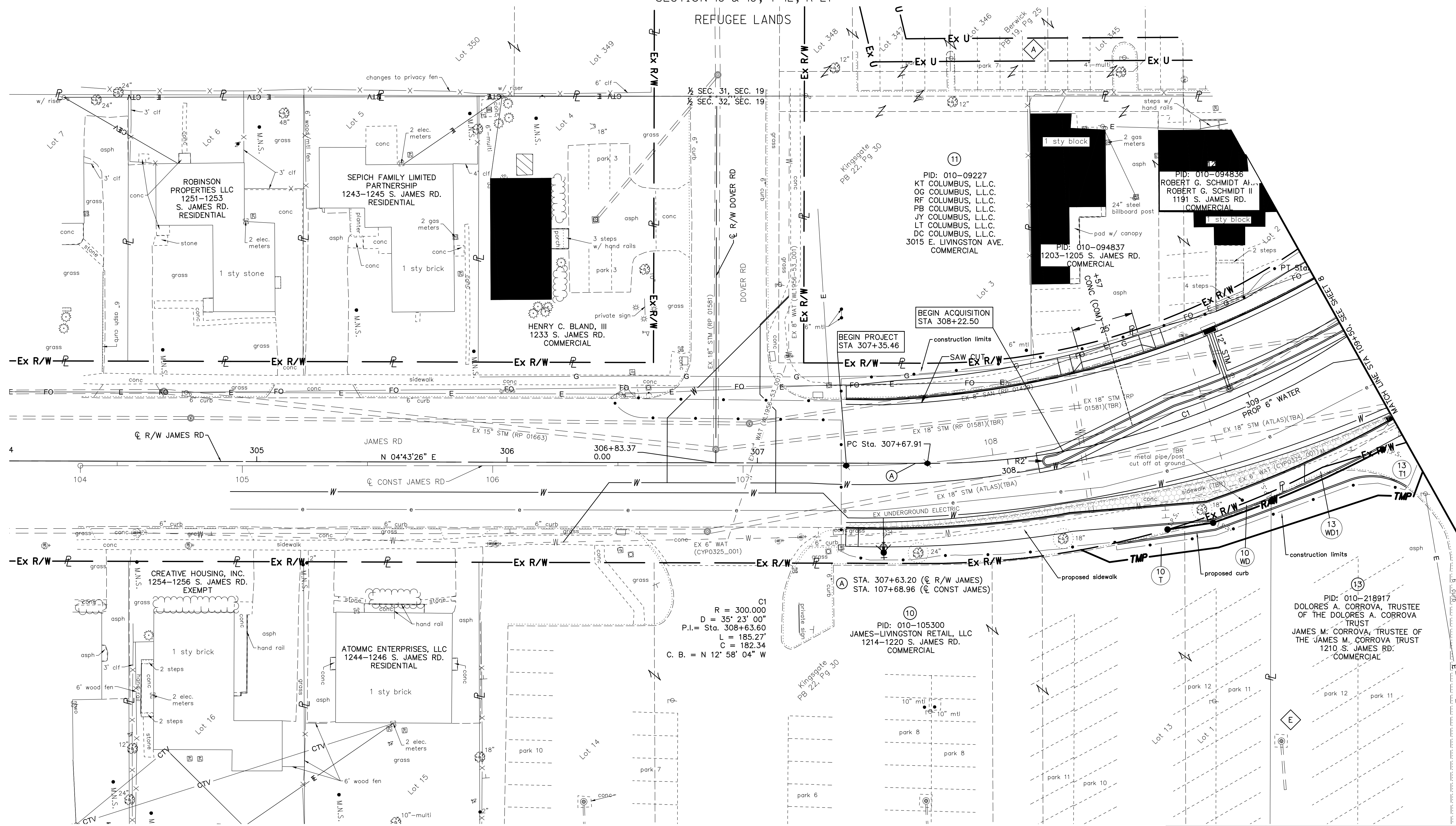
RIGHT OF WAY TOPO SHEET
STA. 105+00 TO STA. 109+50

JAMES RD AT LIVINGSTON AVE

 $\frac{6}{13}$

125
132

3500 - E



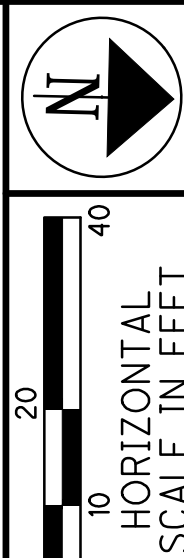
15' UTILITY EASEMENT
AMERITECH OHIO
I.N. 200104270090572
I.N. 200210020246733

BLANKET PARKING EASEMENT
O.R. 16274, PG. F17

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REV. BY	DATE	DESCRIPTION
DATE COMPLETED	JANUARY 3, 2019	

STATE OF OHIO
COUNTY OF FRANKLIN, CITY OF COLUMBUS
SECTION 18 & 19, T 12, R 21
REFUGEE LANDS

LEGEND
RAILROAD SPIKE SET
5/8"x30" IRON PIN SET
W/ CAP "ASI 8438"



PID NO.
101787

CALCULATED
CHECKED

RIGHT OF WAY TOPO SHEET
STA. 109+50 TO STA. 114+00

JAMES RD AT LIVINGSTON AVE

8/13

127
132

15' UTILITY EASEMENT
AMERITECH OHIO
I.N. 200104270090572
I.N. 200210020246733

20' SEWER EASEMENT
CITY OF COLUMBUS, OHIO
I.N. 200006120115725

15' ELECTRIC EASEMENT
AEP OHIO TRANSMISSION
COMPANY, INC.
I.N. 2012024230055778

10' ELECTRIC EASEMENT
COLUMBUS SOUTHERN
POWER COMPANY
I.N. 201108040097057

15' ELECTRIC EASEMENT
AEP OHIO TRANSMISSION
COMPANY, INC.
I.N. 2012024230055775

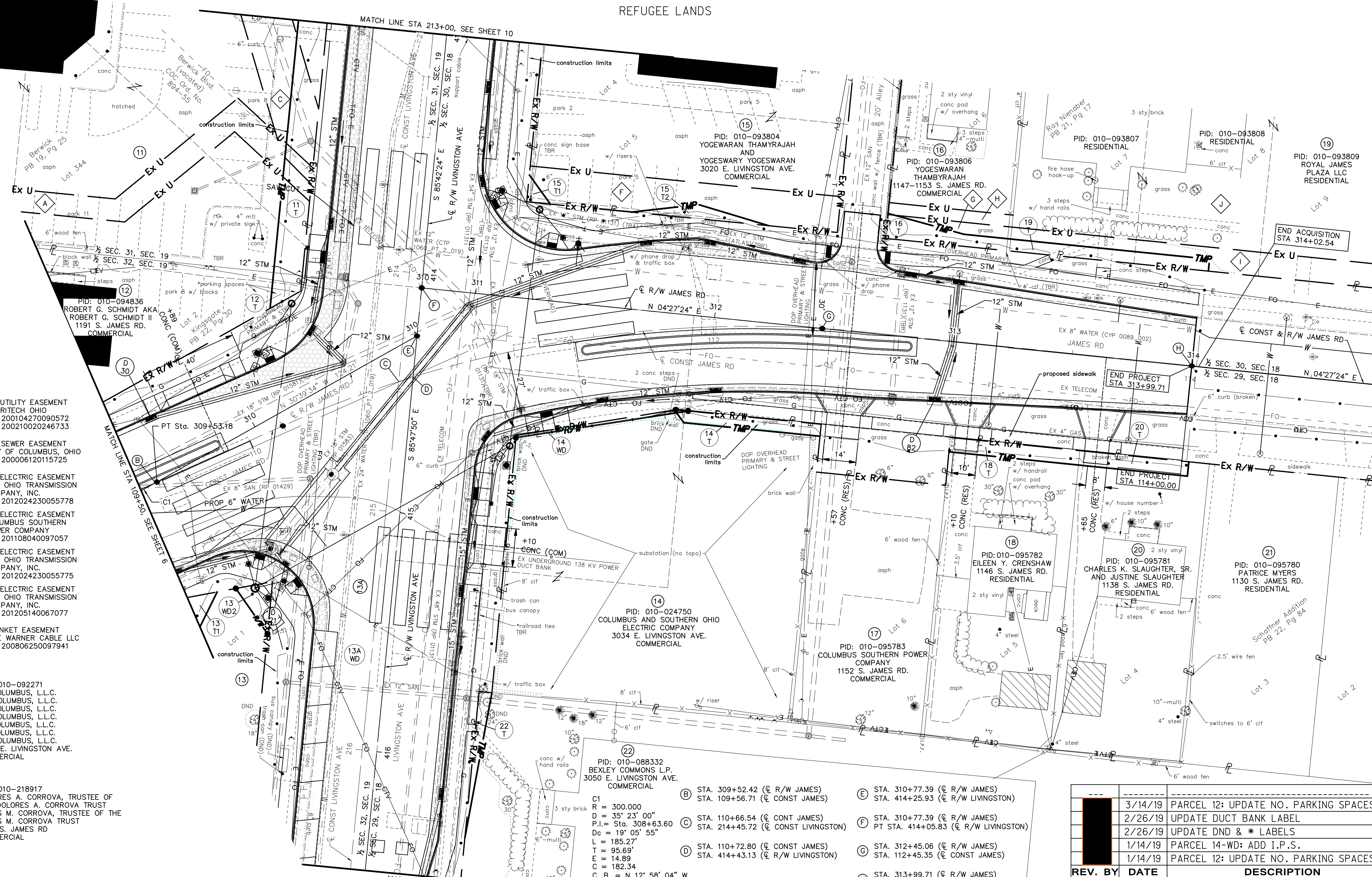
10' ELECTRIC EASEMENT
AEP OHIO TRANSMISSION
COMPANY, INC.
I.N. 201205140067077

BLANKET EASEMENT
TIME WARNER CABLE LLC
I.N. 200806250097941

PID: 010-092271
KT COLUMBUS, L.L.C.
OG COLUMBUS, L.L.C.
RF COLUMBUS, L.L.C.
PB COLUMBUS, L.L.C.
JY COLUMBUS, L.L.C.
LT COLUMBUS, L.L.C.
DC COLUMBUS, L.L.C.
3015 E. LIVINGSTON AVE.
COMMERCIAL

PID: 010-218917
DOLORES A. CORROVA, TRUSTEE OF
THE DOLORES A. CORROVA TRUST
JAMES M. CORROVA, TRUSTEE OF THE
JAMES M. CORROVA TRUST
1210 S. JAMES RD
COMMERCIAL

13A ROBERT COPPEL AND PAUL COPPEL
AKA ROBERT F. COPELL AND PAUL L. COPPEL



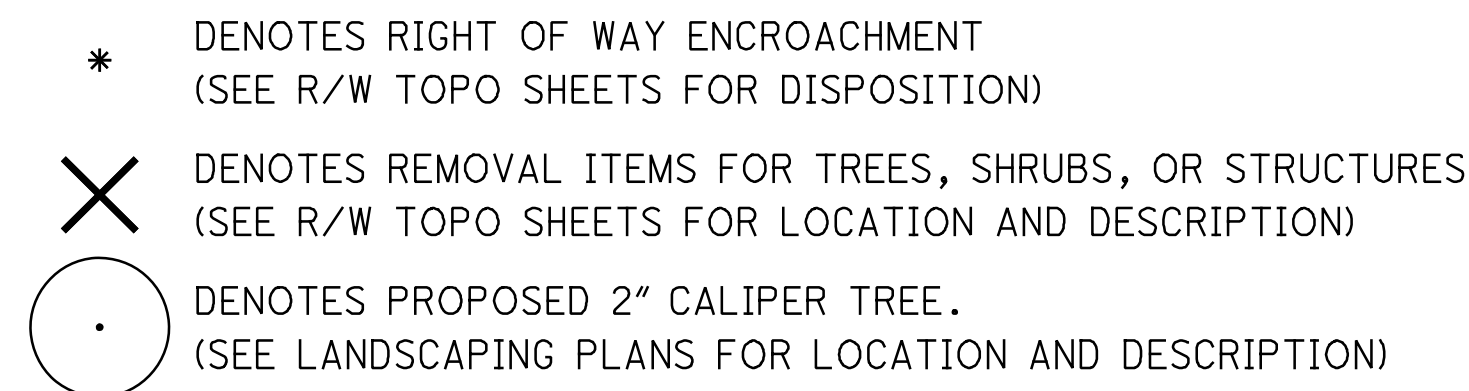
C1	STA. 309+52.42 (C R/W JAMES)	E	STA. 310+77.39 (C R/W JAMES)
	STA. 109+56.71 (C CONST JAMES)	F	STA. 414+25.93 (C R/W LIVINGSTON)
C2	STA. 110+66.54 (C CONST JAMES)	G	STA. 310+77.39 (C R/W JAMES)
	STA. 214+45.72 (C CONST LIVINGSTON)	H	PT STA. 414+05.83 (C R/W LIVINGSTON)
C3	STA. 110+72.80 (C CONST JAMES)	I	STA. 312+45.06 (C R/W JAMES)
	STA. 414+43.13 (C R/W LIVINGSTON)	J	STA. 112+45.35 (C CONST JAMES)
C4	STA. 313+99.71 (C R/W JAMES)		
	STA. 114+00.00 (C CONST JAMES)		

C1 R = 300.000
D = 35' 23" 00"
P.I. = Sta. 308+63.60
Dc = 19' 05" 55"
L = 185.27'
T = 95.69'
E = 14.89'
C = 182.34'
C.B. = N 12° 58' 04" W

REV. BY	DATE	DESCRIPTION
	3/14/19	PARCEL 12: UPDATE NO. PARKING SPACES
	2/26/19	UPDATE DUCT BANK LABEL
	2/26/19	UPDATE DND & * LABELS
	1/14/19	PARCEL 14-WD: ADD I.P.S.
	1/14/19	PARCEL 12: UPDATE NO. PARKING SPACES
DATE COMPLETED	JANUARY 3, 2019	

3500 - E

J:\19444_Cols GE 2018\5.0 Design (Work) Phase\Task 1 - Medina Avenue\53102\Design\Sheet 2019-06-19 3:31:08 PM william.croxtan



CENTERLINE EX. R/W INTERSECTIONS:

(A) STA 380+80.87 @ EX. R/W MEDINA AVE.=
STA 343+18.00 @ EX. R/W E. HUDSON ST. (CR-93)

(B) STA 382+51.47 @ EX. R/W MEDINA AVE.=
@ EX. R/W UNNAMED 15' ALLEY

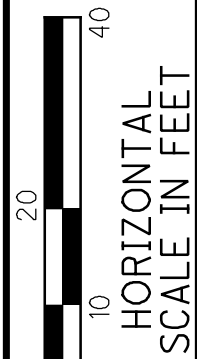
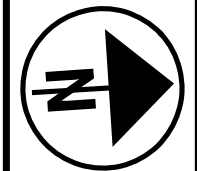
(C) STA 384+19.27 @ EX. R/W MEDINA AVE.=
STA 321+53.00 @ EX. R/W LORETTA AVE.

(D) STA 385+86.61 @ EX. R/W MEDINA AVE.=
@ EX. R/W UNNAMED 15' ALLEY

REV. BY	DATE	DESCRIPTION
DATE COMPLETED - FINAL R/W 5/1/2019		

FRANKLIN COUNTY, OHIO
FOURTH QUARTER, TOWN 1 E, RANGE 18 W
UNITED STATES MILITARY DISTRICT
CITY OF COLUMBUS

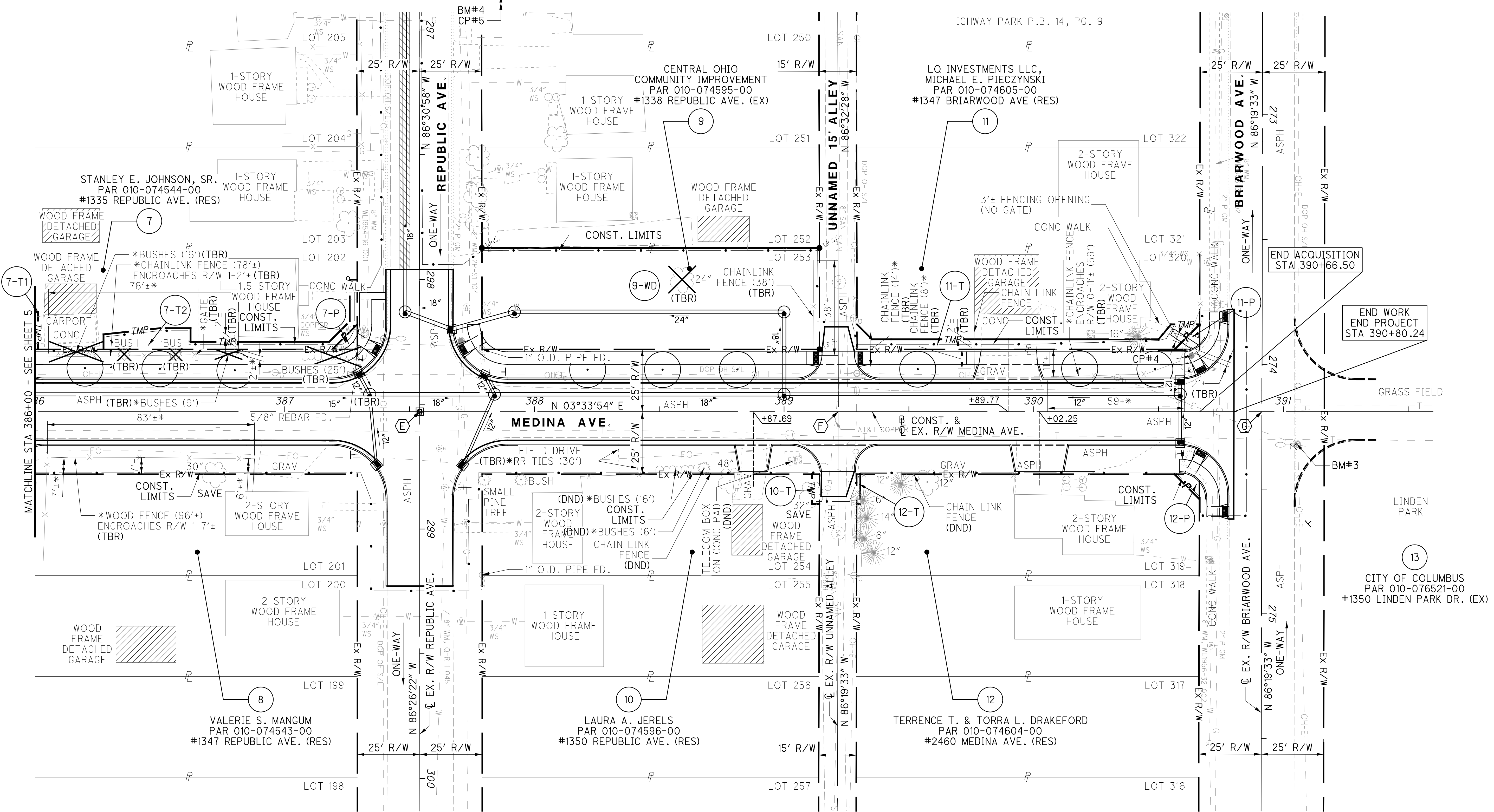
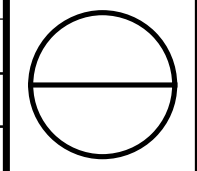
- CENTERLINE EX. R/W INTERSECTIONS:
- Ⓔ STA 387+54.04 @ EX. R/W MEDINA AVE.=
STA 298+53.00 @ EX. R/W REPUBLIC AVE.
 - Ⓕ STA 389+21.68 @ EX. R/W MEDINA AVE.=
@ EX. R/W UNNAMED 15' ALLEY
 - Ⓖ STA 390+91.43 @ EX. R/W MEDINA AVE.=
STA 274+19.00 @ EX. R/W BRIARWOOD AVE.



R/W DESIGNER
WLC
R/W REVIEWER
RMH

RIGHT OF WAY TOPO-MEDINA AVENUE
STA 386+00 TO STA 391+50

MEDINA AVENUE

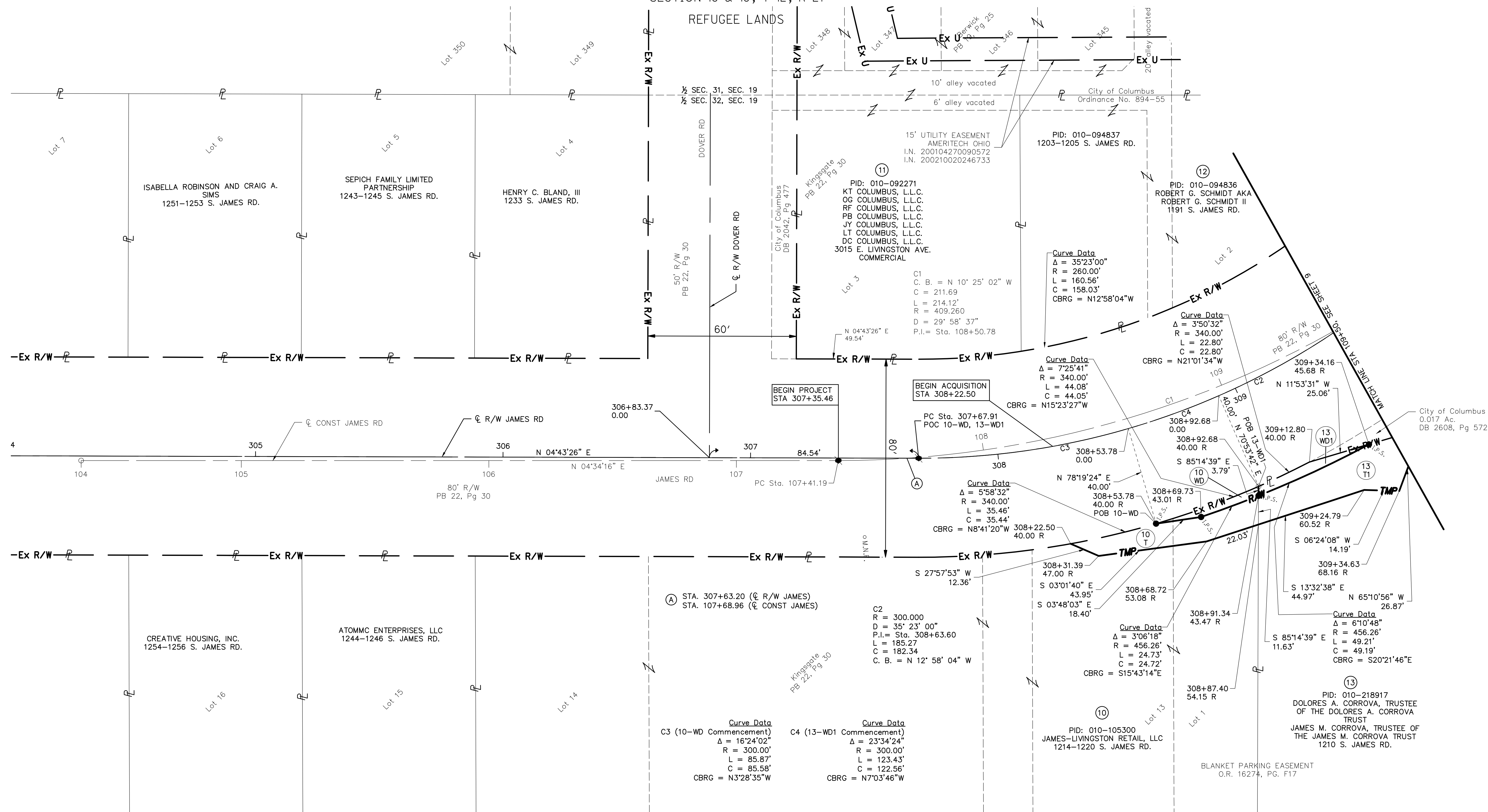


- * DENOTES RIGHT OF WAY ENCROACHMENT
(SEE R/W TOPO SHEETS FOR DISPOSITION)
- X DENOTES REMOVAL ITEMS FOR TREES, SHRUBS, OR STRUCTURES
(SEE R/W TOPO SHEETS FOR LOCATION AND DESCRIPTION)
- DENOTES PROPOSED 2" CALIPER TREE.
(SEE LANDSCAPING PLANS FOR LOCATION AND DESCRIPTION)

SEE SHEET 1 FOR PARCEL LEGEND, DISPOSITION LEGEND, STRUCTURE KEY, MONUMENT LEGEND, UTILITY COMPANIES
SEE SHEET 8 FOR RIGHT OF WAY BOUNDARY STA 381+00 TO STA 386+00

3570-E	
REV. BY	DATE
DESCRIPTION	
DATE COMPLETED - FINAL R/W 5/1/2019	

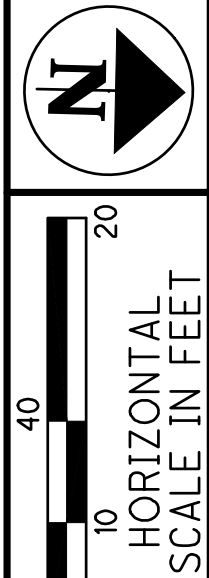
STATE OF OHIO
COUNTY OF FRANKLIN, CITY OF COLUMBUS
SECTION 18 & 19, T 12, R 21



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REV. BY	DATE	DESCRIPTION
DATE COMPLETED	JANUARY 3, 2019	

STATE OF OHIO
COUNTY OF FRANKLIN, CITY OF COLUMBUS
SECTION 18 & 19, T 12, R 21
REFUGEE LANDS

LEGEND
● RAILROAD SPIKE SET
● I.P.S. 3/4"x30" IRON PIN SET
W/ CAP "ASI 8438"

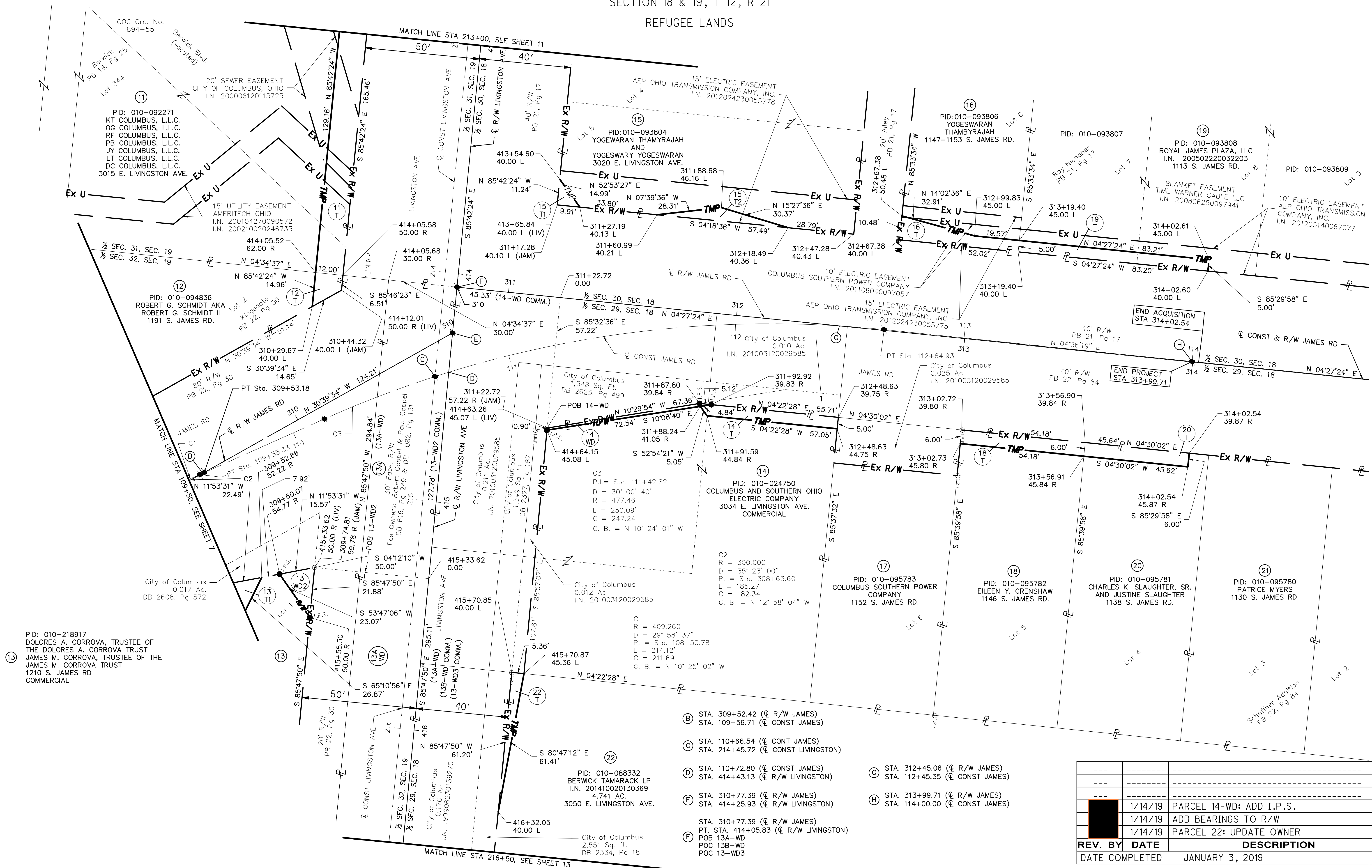


PID NO.
101787

CALCULATED
CHECKED

RIGHT OF WAY BOUNDARY SHEET
STA. 109+50 TO STA. 114+00

JAMES RD AT LIVINGSTON AVE
9/13
128
132

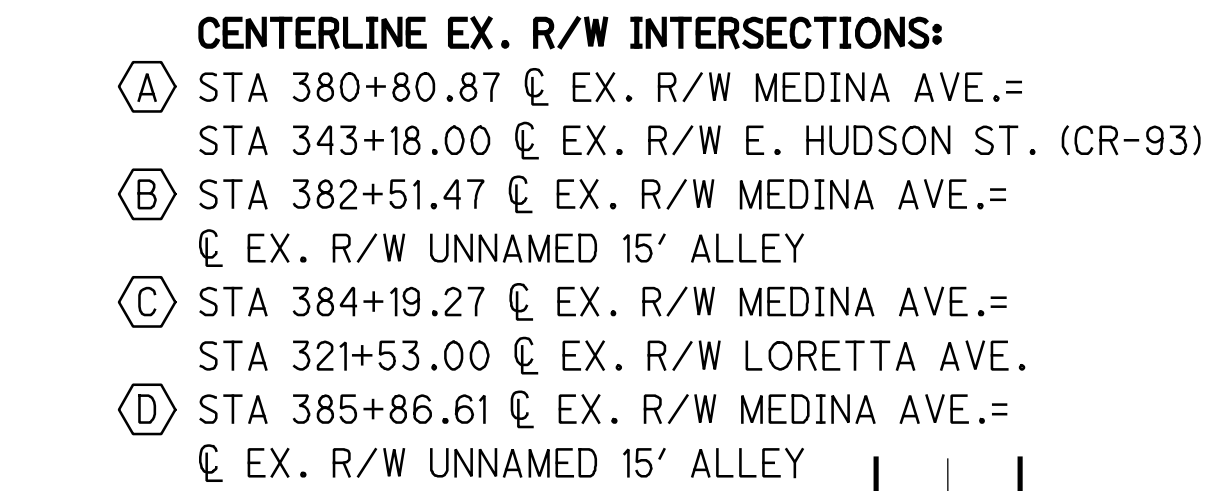


- (B) STA. 309+52.42 (R/W JAMES)
STA. 109+56.71 (CONST JAMES)
- (C) STA. 110+66.54 (CONST JAMES)
STA. 214+45.72 (CONST LIVINGSTON)
- (D) STA. 110+72.80 (CONST JAMES)
STA. 414+43.13 (R/W LIVINGSTON)
- (E) STA. 310+77.39 (R/W JAMES)
STA. 414+25.93 (R/W LIVINGSTON)
- (F) STA. 310+77.39 (R/W JAMES)
PT. STA. 414+05.83 (R/W LIVINGSTON)
POB 13A-WD
POC 13B-WD
POC 13-WD3
- (G) STA. 312+45.06 (R/W JAMES)
STA. 112+45.35 (CONST JAMES)
- (H) STA. 313+99.71 (R/W JAMES)
STA. 114+00.00 (CONST JAMES)

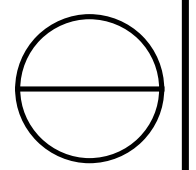
REV. BY	DATE	DESCRIPTION
	1/14/19	PARCEL 14-WD: ADD I.P.S.
	1/14/19	ADD BEARINGS TO R/W
	1/14/19	PARCEL 22: UPDATE OWNER
DATE COMPLETED		JANUARY 3, 2019

3500 - E

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REV. BY	DATE	DESCRIPTION
DATE COMPLETED – FINAL R/W 5/1/2019		

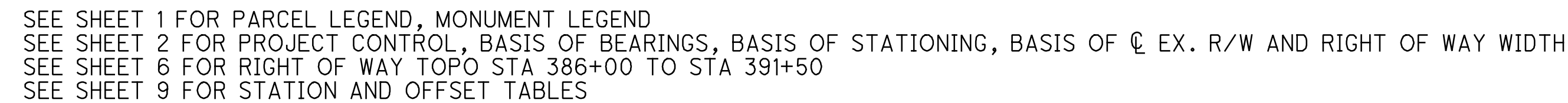


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(E) STA 387+54.04 @ EX. R/W MEDINA AVE.=
STA 298+53.00 @ EX. R/W REPUBLIC AVE.

(F) STA 389+21.68 @ EX. R/W MEDINA AVE.=
@ EX. R/W UNNAMED 15' ALLEY

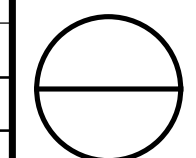
(G) STA 390+91.43 @ EX. R/W MEDINA AVE.=
STA 274+19.00 @ EX. R/W BRIARWOOD AVE.



REV. BY	DATE	DESCRIPTION
DATE COMPLETED - FINAL R/W 5/1/2019		

**RIGHT OF WAY BOUNDARY-MEDINA AVENUE
STA 386+00 TO STA 391+50**

MEDINA AVENUE



J:\19444_Cols 6E 2018\5.0 Design (Work) Phase\Task 1- Medina Avenue\53102\Design\RW\Sheets\53102_RD001.dgn Sheet 2019-06-19 3:27:40 PM william.croxton

PARCEL 1-T		
REF.	STATION	OFFSET
1A	382+00.00	25.00' LT
1B	382+00.00	30.00' LT
1C	382+43.88	30.00' LT
1D	382+43.90	25.00' LT

PARCEL 2-T		
REF.	STATION	OFFSET
2A	382+16.55	25.00' RT
2B	382+44.05	25.00' RT
2C	382+44.10	42.00' RT
2D	382+40.10	42.00' RT
2E	382+40.10	30.00' RT
2F	382+16.55	30.00' RT

PARCEL 3-T		
REF.	STATION	OFFSET
3A	382+58.90	25.00' LT
3B	382+58.86	36.00' LT
3C	382+63.86	36.00' LT
3D	382+63.88	29.00' LT
3E	383+88.18	29.00' LT
3F	383.94.16	35.00' LT
3G	383+94.19	25.00' LT

PARCEL 4-T1		
REF.	STATION	OFFSET
4A	382+59.05	25.00' RT
4B	382+84.05	25.00' RT
4C	382+84.05	29.00' RT
4D	382+62.06	29.00' RT
4E	382+59.08	35.00' RT

PARCEL 4-T2		
REF.	STATION	OFFSET
4F	383+84.35	25.00' RT
4G	383+94.35	25.00' RT
4H	383+94.38	35.00' RT

PARCEL 5-P		
REF.	STATION	OFFSET
5A	384+54.19	25.00' LT
5B	384+44.49	25.00' LT
5C	384+44.16	35.00' LT

PARCEL 5-T		
REF.	STATION	OFFSET
5A	384+54.19	25.00' LT
5D	384+49.18	30.00' LT
5E	385+74.10	30.00' LT
5F	385+79.10	35.00' LT
5G	385+79.11	25.00' LT

PARCEL 6-T1		
REF.	STATION	OFFSET
6A	384+44.35	25.00' RT
6B	384+75.00	25.00' RT
6C	384+75.00	28.50' RT
6D	384+50.86	28.50' RT
6E	384+44.38	35.00' RT

PARCEL 6-T2		
REF.	STATION	OFFSET
6F	385+50.00	25.00' RT
6G	385+79.12	25.00' RT
6H	385+79.12	39.00' RT
6I	385+50.00	39.00' RT

PARCEL 7-P		
REF.	STATION	OFFSET
7E	387+19.03	25.00' LT
7O	387+29.02	35.00' LT
7P	387+29.03	25.00' LT

PARCEL 7-T1		
REF.	STATION	OFFSET
7A	385+94.11	25.00' LT
7B	385+94.09	40.00' LT
7C	386+01.09	40.00' LT
7D	386+01.11	25.00' LT

PARCEL 7-T2		
REF.	STATION	OFFSET
7E	387+19.03	25.00' LT
7F	386+27.38	25.00' LT
7G	386+27.38	31.00' LT
7H	386+50.00	33.46' LT
7I	386+62.25	33.46' LT
7J	386+62.25	28.00' LT
7K	387+17.79	28.00' LT
7L	387+26.02	36.24' LT
7M	387+25.99	52.96' LT
7N	387+28.99	52.96' LT
7O	387+29.03	25.00' LT

PARCEL 8-T		
REF.	STATION	OFFSET
8A	385+94.12	25.00' RT
8B	385+99.12	25.00' RT
8C	385+95.62	28.50' RT
8D	385+95.62	39.00' RT
8E	385+94.12	39.00' RT

PARCEL 9-WD		
REF.	STATION	OFFSET
9A	387+79.03	25.00' LT
9B	387+78.98	65.63' LT
9C	389+14.15	65.63' LT
9D	389+14.23	25.00' LT

PARCEL 10-T		
REF.	STATION	OFFSET
10A	389+11.13	25.00' RT
10B	389+14.13	25.00' RT
10C	389+14.11	37.00' RT
10D	389+11.11	37.00' RT

PARCEL 11-P		
REF.	STATION	OFFSET
11A	390+56.48	25.00' LT
11G	390+66.50	35.00' LT
11H	390+66.48	25.00' LT

PARCEL 11-T		
REF.	STATION	OFFSET
11A	390+56.48	25.00' LT
11B	389+29.23	25.00' LT
11C	389+29.21	35.00' LT
11D	389+35.22	29.00' LT
11E	390+50.00	29.00' LT
11F	390+55.00	35.00' LT
11G	390+66.50	35.00' LT

PARCEL 12-P		
REF.	STATION	OFFSET
12E	390+56.38	25.00' RT
12F	390+66.38	25.00' RT
12G	390+66.37	35.00' RT

PARCEL 12-T		
REF.	STATION	OFFSET
12A	389+29.13	25.00' RT
12B	389+30.38	25.00' RT
12C	389+30.36	37.00' RT
12D	389+29.11	37.00' RT

		3570-E
REV. BY	DATE	DESCRIPTION
DATE COMPLETED - FINAL R/W 5/1/2019		